Municipal Planning Commission Meeting
Thursday, August 21, 2025 at **6:00 PM**

Farragut Town Hall
11408 Municipal Center Drive

AGENDA

I) Roll Call

II) Approval of Agenda

III) Approval of Minutes

A) Minutes from July 17, 2025 Meeting

IV) Action Items

A) Request for approval of the McFee Dog Park Design (Town of Farragut, Applicant)

B) Request for approval of preliminary plans for Virtue Road/Boyd Station Road Improvements south of Needlegrass Lane to Willow Cove Way (Town of Farragut, Applicant)

C) Request for approval to extend fiber optic cable for Charter along a portion of the overhead utility line system from the N. Campbell Station Road entrance to the Campbell Station Inn and then across N. Campbell Station Road to service the property at 160 N. Campbell Station Road (Mastec, Applicant).

D) Request for approval to extend fiber optic cable for Comcast along a portion of the overhead utility line system on the west side of Concord Road south of Kingston Pike and then crossing Concord Road to service 116 Concord Road (Comcast, Applicant)

E) Request for approval for a water line relocation associated with improvements to Boyd Station Road, including the roundabout at the access to the Grove at Boyd Station Subdivision (FUD, Applicant)

F) Request for approval for a sewer line relocation along Union Road just west of Brochardt Boulevard associated with the Union Road improvement project (FUD,

It is the policy of the Town of Farragut not to discriminate on the basis of race, color, natural origin, gender, gender identity, sexual orientation, age, religion, disability or veteran status pursuant to Title VI of the Civil Rights Act of 1964, Public Law 93-112 and 101-336 in its hiring, employment practices and programs. To request accommodations due to disabilities, please call 865-966-7057 in advance of the meeting

Applicant)

G) Discussion and public hearing on approval of a site plan for a children's wing addition at the Concord United Methodist Church, 11020 Roane Drive, Zoned General Single-Family Residential (R-2) (Cannon & Cannon, Applicant)

H) Discussion and public hearing on approval of a site plan for Horizon Plaza Phase 2, 11011 Kingston Pike, Zoned General Commercial (C-1) and Floodplain District (FPD), (Urban Engineering, Applicant)

I) Discussion and public hearing on approval of a site plan for four commercial buildings associated with the Kingston Pike Village - Phase 2 Planned Commercial Development, 13104-13124 Kingston Pike, Zoned Planned Commercial Development (PCD), (Kingston Pike Properties 2, LLC, Applicant)

J) Discussion and public hearing on approval of a site plan for 7 Brew Coffee, 11495 Parkside Drive, Zoned Regional Commercial (C-2), (Black Design Architecture, Applicant)

K) Discussion and public hearing on amendments to the Farragut Code of Ordinances, Appendix A – Zoning, Chapter 2, Definitions; and Chapter 4., Section VI., Customary Home Occupations (Town of Farragut, Applicant)

V) Discussion Items

A) Discussion on updates to the Driveways and Other Access Ways Ordinance concerning how accesses are approved and opportunities to streamline the approval process where possible (Town of Farragut, Applicant)

VI) Approval of Utilities

VII) Citizens Forum

The Farragut Municipal Planning Commission welcomes and invites Farragut residents to participate in public meetings.

Public Participation Guidelines for Farragut Municipal Planning Commission meetings

At the end of each business meeting, there will be time reserved for public comment under the Citizen Forum agenda item. If you are interested in speaking, please fill out a blue comment card and turn it in to a staff member. This time is set aside specifically for comments on items that are not on the Planning Commission's agenda for the meeting. Each speaker will be given three (3) minutes to speak on his/her topic.

The Commission also seeks public comment on regular agenda items during the portion of the meeting devoted to discussion and consideration of the specific agenda item.

The Chairman may recognize individuals for public comment during both the regular agenda and Citizen

Forum portions of the meeting based on the following guidelines.

1. The Chairman shall maintain and control the meeting to provide a professional and objective environment conducive to presentation and discussion of the agenda items;
2. Any Farragut resident interested in speaking should fill out a blue comment card stating which agenda item they would like to comment on and turn it in to a staff member;
3. Speakers shall come to the podium and identify themselves by name and street address;
4. Public comment shall be limited to three (3) minutes per individual. Time for public comment may be amended at the discretion of the Chairman; provided that when additional time is allowed, speakers with differing points of view are allowed the same amount of time if requested. Time is not transferable to other speakers;
5. Speakers should strive to avoid redundancy; different considerations than expressed by previous speakers on a subject are encouraged;
6. Comments that threaten violence or imminent physical harm toward any individual will not be tolerated.
7. Comments may support or oppose issues or measures;
8. Personal attacks on the character of individuals who hold different points of view that have no relationship to the merits of the matter or issue raised for discussion will not be tolerated.
9. An applicant, and/or their representative(s), for an item on the regular agenda shall be afforded the time necessary to present their request and respond to questions. The three (3) minute limitation shall not apply. However, the Chairman may ask an applicant to stay on point in order to facilitate the efficiency of the meeting.

Each speaker will be asked if they can agree to abide by the Comment Protocol. If so, please be prepared to speak when your name is called.

Tennessee Code Annotated 39-17-306. Disrupting meetings or processions.

1. A person commits an offense if, with the intent to prevent or disrupt a lawful meeting, procession, or gathering, the person substantially obstructs or interferes with the meeting, procession, or gathering by physical action or verbal utterance.

2. A violation of this section is a Class A misdemeanor.

Agenda Number: III.A. **Meeting Date: August 21, 2025**

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Minutes from July 17, 2025 Meeting

Introduction & Background: Minutes from July meeting.

Discussion & Recommendations: Staff recommends approval.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: To approve the July 17, 2025 minutes as submitted.

Town of Farragut, Tennessee
Municipal Planning Commission Meeting

Farragut Town Hall
11408 Municipal Center Drive

Thursday, July 17, 2025 at 6:00 PM

MINUTES

I) Election of Officers

Prior to taking action on the first agenda item, Vice Chairman Povlin called the meeting to order for a moment of silence and pledge to the flag.

Members present were:
Louise Povlin, Vice Chairman
Ron Williams, Mayor
Scott Meyer, Vice Mayor
Noah Myers
Jon Greene
Jeff Devlin

Members absent were:
Ron Pinchok, Chairman
Shannon Preston, Secretary
Derek Wright

Staff representatives were:
Mark Shipley, Community Development Director
Bart Hose, Assistant Community Development Director
David Smoak, Town Administrator

For the election of officers, a motion was made by Mayor Williams to nominate Ron Pinchok as Chairman, Jeff Devlin as Vice Chairman, and Shannon Preston as Secretary. The motion was seconded by Commissioner Myers and approved unanimously.

II) Approval of Agenda

A) Postpone agenda item IV) Action Items D)

Vice Chairman Povlin noted Agenda Item IV) Action Items D) was proposed for postponement and Agenda Item IV) Action Items F) was requested to be a discussion rather than an action item. A motion was made by Mayor Williams to approve the agenda with these amendments. The motion was seconded by Commissioner Myers and was approved unanimously.

III) Approval of Minutes

A) June 19, 2025 Minutes

A motion was made by Mayor Williams to approve the minutes as submitted. The motion was seconded by Commissioner Greene and was approved unanimously with the exception of Commissioner Myers who abstained due to being absent.

IV) Action Items

A) Discussion and public hearing on approval of a variance from the requirement in the Subdivision Regulations for the construction of a pedestrian facility associated with a re-subdivision plat to combine Parcels 070, 071, and FA001, Tax Map 151, 2.36 Acres, 3 Lots, Zoned C-1 (Pinnacle Land Surveying, Inc., Applicant)

The staff reviewed this item and noted that there would need to be separate action on a variance request and approval of the plat. The applicant requested a variance from the Subdivision Regulation requirement for a pedestrian facility to be constructed along the property's Kingston Pike frontage with the facility being constructed instead as part of the site plan requirement and site development. The staff recommended to approve the Subdivision Regulation variance with a plat note being added that the pedestrian facility required along the Kingston Pike frontage of Lot 1 will be constructed to the requirements of the Town of Farragut when the property is developed as part of the site plan approval and development process.

A motion was made by Mayor Williams to follow the staff's recommendation. The motion was seconded by Commissioner Myers and approved unanimously.

In terms of the resubdivision plat, the staff recommended approval subject to obtaining signatures and the plat including the note regarding the action taken on the variance request.

A motion was made by Mayor Williams to follow the staff's recommendation. The motion was seconded by Commissioner Myers and approved unanimously.

B) Discussion and public hearing on approval to extend fiber optic cable in a new two-inch conduit within the right of way beginning at the northeast intersection of Kingston Pike and N. Campbell Station Road and extending along the east side of N. Campbell Station Road and then boring under N. Campbell Station Road to the west side of N. Campbell Station Road to Jamestowne Boulevard and then along the south side of Jamestowne Boulevard to service the property at 11507 Kingston Pike (Comcast, Applicant)

The staff reviewed this item and recommended approval subject to obtaining a right of way permit through the Town's engineering department.

A motion was made by Mayor Williams to follow the staff's recommendation. The motion was seconded by Commissioner Myers and was approved unanimously.

C) Discussion and public hearing on approval to extend fiber optic cable from the west end of Boyd Station Road along the east side of McFee Road to the entrance to the Grove at Boyd Station Subdivision (Charter, Applicant)

The staff reviewed this item and recommended approval subject to obtaining a right of way

permit through the Town's engineering department.

A motion was made by Mayor Williams to follow the staff's recommendation. The motion was seconded by Commissioner Myers and was approved unanimously.

D) Discussion and public hearing on approval to extend fiber optic cable under Parkside Drive from 11401 Parkside Drive to 11440 Parkside Drive (AT&T, Applicant)

Postponed due to application being incomplete.

E) Discussion and public hearing on approval to extend four inch gas main along the north side of Allen Kirby Road and extend a two inch gas main across Allen Kirby Road to service 12960 Allen Kirby Road (KUB, Applicant)

The staff reviewed this item and recommended approval subject to obtaining a right of way permit from the Town's engineering department.

A motion was made by Mayor Williams to follow the staff's recommendation. The motion was seconded by Commissioner Myers and was approved unanimously.

F) Discussion and public hearing on a request for approval of a resolution to amend the Major Road Plan to provide for context sensitive street cross sections for selected collector and arterial streets (Town of Farragut, Applicant)

During the approval of the agenda this item was moved from an action item to a discussion item. No action was taken.

G) Discussion and public hearing on an amendment to the Farragut Municipal Code, Chapter 109 – Signs, to clarify when signs may be removed by property owners (Town of Farragut, Applicant)

The staff reviewed this item and recommended approval of Resolution PC-25-03 which recommends approval of Ordinance 25-09 to the Board of Mayor and Aldermen.

A motion was made by Commissioner Myers to follow the staff's recommendation. The motion was seconded by Commissioner Devlin and was approved unanimously.

H) Discussion and public hearing on approval of the Knox County, City of Knoxville, and Town of Farragut Multi-Jurisdictional Local Hazard Mitigation Plan (Town of Farragut, Applicant)

Assistant Community Development Director, Bart Hose, reviewed this item and recommended approval of Resolution PC-25-04.

A motion was made by Commissioner Greene to follow the staff's recommendation. The motion was seconded by Commissioner Devlin and was approved unanimously.

I) Appointment of Tree Board Member

The staff reviewed the Tree Board's general duties.

A motion was made by Mayor Williams to nominate Louise Povlin as the Planning Commission representative for the Tree Board. The motion was seconded by Vice Mayor Meyer and was

approved unanimously.

V) Discussion Items

A) Discussion on amendments to the Farragut Code of Ordinances, Appendix A – Zoning, Chapter 4., Section VI., Customary Home Occupations (Town of Farragut, Applicant)

Assistant Community Development Director, Bart Hose, reviewed this item. This was for discussion purposes only.

VI) Approval of Utilities

There were no additional utility projects for approval.

VII) Citizens Forum

No one had signed up to speak under citizens forum.

The meeting was adjourned at 7:41 p.m.

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Shannon Preston, Secretary

Agenda Number: IV.A. **Meeting Date: August 21, 2025**

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Ronald Oestreich, Parks & Recreation Director

Subject: Request for approval of the McFee Dog Park Design (Town of Farragut, Applicant)

Introduction & Background: The Dog Park at McFee Park is a 2023 LPRF Grant project designed for the west side of the Park.

Discussion & Recommendations: Farragut citizens have been requesting a dog park for a very long time through citizen surveys, public meetings, and verbal feedback. Staff included the Dog Park (and restroom) as part of the 2023 LPRF Grant through TDEC. Similar in design to other parks, the McFee Dog Park will have two separate play areas (large dog and small dog). Each park will have some fun play elements for dogs to play as well as plenty of green space for running. The pathways from the transition area are ADA accessible. This project will be out to bid soon with a projected early spring 2026 completion date.

Recommended By: Ronald Oestreich, Parks & Recreation Director

Proposed Motion: Approve design concept for the Dog Park at McFee Park

Dog Park at **MCFEE** 917 MCFEE ROAD FARRAGUT, TN 37934

PERMIT PACKAGE
July 2, 2025

PROJECT DATA

DESIGNER / LANDSCAPE ARCHITECT:

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:

TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROPERTY INFORMATION:

ADDRESS:	917 MCFEE ROAD FARRAGUT TN, 37934
PARCEL:	162 01402 CTL MAP 162
ZONING:	FAR (OS-P)
ACRES:	52.19
OWNER:	TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DR. FARRAGUT TN, 37934
COUNTY:	KNOX

UTILITY PROVIDERS:

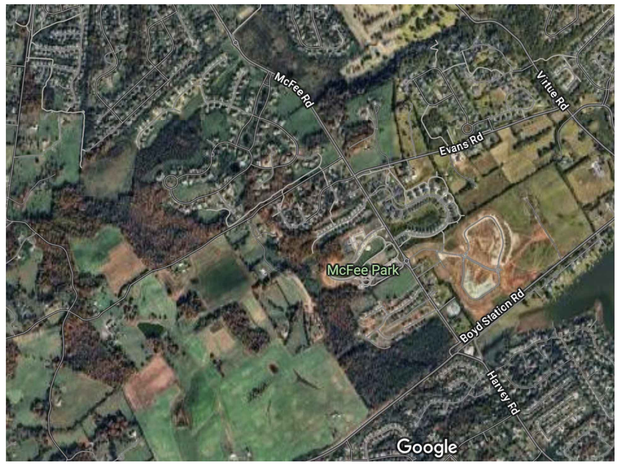
ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD) 865-687-5282
WATER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
SEWER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/: INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

CODES / DESIGN STANDARDS:

2018	INTERNATIONAL BUILDING / MECHANICAL CODE
2017	NFPA 70 NATIONAL ELECTRIC CODE
2018	INTERNATIONAL FIRE / PLUMBING/ ENERGY CONSERVATION CODE
2010	AMERICANS WITH DISABILITY ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN
2018	NFPA 101 LIFE SAFETY CODE
2017	AMERICAN NATIONAL STANDARD (ANSI)

TOWN OF FARRAGUT TN - ZONING ORDINANCE (OS)

SITE LOCATION MAP



DRAWING INDEX

C.00 COVER SHEET INDEX
C.01 GENERAL NOTES
C.02 EXISTING CONDITIONS
C.10 SITE PLAN
C.20 ENLARGED SITE PLAN
C.30 SITE DETAILS
C.31 SITE DETAILS
C.32 SITE DETAILS
G.10 GRADING PLAN
G.20 ENLARGED GRADING PLAN
L.10 LANDSCAPE PLAN (ADD ALTERNATE #2)
L.20 ENLARGED LANDSCAPE PLAN (ADD ALTERNATE #2)
L.30 LANDSCAPE DETAILS (ADD ALTERNATE #2)
L.31 LANDSCAPE DETAILS (ADD ALTERNATE #2)
U.10 UTILITY PLAN

Tennessee Local Parks & Recreation Fund LPRF Local State
A Cooperative Effort

LPRF LOCAL PARKS AND RECREATION FUND GRANT

A PORTION OF THIS PROJECT IS FUNDED BY A GRANT FROM THE LOCAL PARK AND RECREATION FUND (LPRF) WHICH IS ADMINISTERED BY THE OFFICE OF OUTDOOR RECREATION - A DIVISION OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC).

DANIEL BOUTTE REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 1125

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2508

Dog Park at **MCFEE** 917 MCFEE ROAD
FARRAGUT, TN

cover**SHEET INDEX**

BID SET

DATE: 7/2/2025
DRAWN BY: DB CHECKED BY: DB

cover
SHEET INDEX

C.00
SHEET 1 OF 15

CANOPY LAND DESIGN

GENERAL NOTES:

- THE CONTRACTOR IS TO CHECK AND VERIFY ALL MEASUREMENTS, DIMENSIONS, LEVELS, PLAN ELEVATIONS, INVERTS, ETC. BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK, AND IS TO BE RESPONSIBLE FOR THE SAME. REMEDIAL WORK RESULTING FROM LACK OF VERIFICATION WILL BE AT CONTRACTOR'S SOLE EXPENSE.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE DAMAGE OR LOSS OF ANY REFERENCE POINTS AND/OR PHYSICAL DEMARCATION DURING CONSTRUCTION AND SHALL BEAR THE COST OF REPLACEMENT.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT PLANS, SPECIFICATIONS AND REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY. SOILS REPORTS AND RECOMMENDATIONS ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE. THE CONTRACTOR SHALL NOTIFY THE OWNER/PROJECT MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT AND PLANS, ETC.
- CARE SHALL BE TAKEN TO PROTECT ANY UTILITY, TREES, STRUCTURES ETC. NOTED TO REMAIN AND NOT TO BE DISTURBED BY THE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO SUCH PROPERTY.
- THE SITE SURVEY (BY OTHERS) SHALL BE CONSIDERED A PART OF THESE PLANS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR LOCATING IMPROVEMENTS PER THESE PLANS AND SHALL NOTIFY CANOPY LAND DESIGN IF SURVEY FEATURES VARY FROM DESIGN PLANS.
- UPON RECEIPT OF POINT COORDINATE DATA FROM SURVEYOR, THE CONTRACTOR SHALL RUN AN INDEPENDENT VERTICAL CONTROL TRAVERSE TO CHECK BENCHMARKS AND A HORIZONTAL CONTROL TRAVERSE THROUGH GIVEN POINTS TO CONFIRM GEOMETRIC DATA AND NOTIFY OWNER/ENGINEER/SURVEYOR OF ANY DISCREPANCIES PRIOR TO ANY CONSTRUCTION
- THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THE PLAN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY CONSTRUCTION ACTIVITIES
- PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES INCLUDING LOCAL, STATE, FEDERAL OR OTHERWISE REQUIRED FOR CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL PERMITS AND PAY ALL LEGAL FEES. HE/SHE SHALL ALSO COMPLY WITH ALL CITY, COUNTY AND STATE BUILDING LAWS, ORDINANCES OR REGULATIONS RELATING TO SIDEWALKS, STREETS, WATER MAINS, SEWERS, BLASTING, PUBLIC STRUCTURES, ETC.
10. THE CONTRACTOR ACKNOWLEDGES AND AGREES THAT THE WORK IS ENTIRELY AT THE CONTRACTOR'S RISK UNTIL SITE IS ACCEPTED, AND THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR SITE PROTECTION OF THE PROJECT AND CONTROL OF PUBLIC SAFETY. CONTRACTOR WILL INDEMNIFY THE OWNER AND CANOPY LAND DESIGN FROM LIABILITY AT THE SITE THROUGHOUT THE CONSTRUCTION PROCESS.
11. ALL DIMENSIONS, GRADES, FEATURES AND UTILITY LOCATIONS SHOWN ARE BASED ON BASE INFORMATION OR SITE SURVEY PROVIDED BY OTHERS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER/ LANDSCAPE ARCHITECT/PROJECT MANAGER OF DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO INFORMATION SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
12. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY WORKS FOR THE PROTECTION OF THE WORK AND THE PUBLIC, INCLUDING BARRICADES, WARNING SIGNS, LIGHTS OR OTHER DEVICES SOLELY AT THE DETERMINATION OF THE CONTRACTOR
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE PREMISES OR ADJACENT PREMISES, OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION OF THE WORK, WHETHER CAUSED BY THE CONTRACTOR OR SUBCONTRACTORS.
14. ALL PAY ITEMS HAVE BEEN EXPLICITLY SET FORTH IN THE PROPOSAL, ALL OTHER ITEMS OF COST ARE TO BE INCLUDED IN THE PRICE OF THE ITEMS ACTUALLY BID UPON.
15. ALL WORK WITHIN THE RIGHTS OF WAY SHALL BE IN ACCORDANCE WITH THE GOVERNING JURISDICTION AND THEIR SPECIFICATIONS.
16. THE CONTRACTOR SHALL PROVIDE SUCH BRACING, SHEETING AND SHORING, BLASTING PROTECTION, WARNING LIGHTS AND BARRICADES, ETC. AS MAY BE NECESSARY FOR THE PROTECTION OF LIFE AND PROPERTY FOR EMPLOYEES AND THE GENERAL PUBLIC. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY STATUTES AND RULES REQUIRING CERTAIN PROTECTIVE PERSONAL APPAREL SUCH AS HARD HATS, EAR PLUGS, EYE SHIELDS, PROTECTIVE SHOES, ETC. THE OWNER AND ENGINEER ASSUME NO RESPONSIBILITY OR LIABILITY FOR ACTIONS TAKEN BY THE CONTRACTOR WHICH ENDANGER LIFE OR PROPERTY.
17. THE CONTRACTOR WILL, UPON BECOMING AWARE OF SUBSURFACE OR LATENT PHYSICAL CONDITIONS DIFFERING FROM THOSE DISCLOSED BY THE ORIGINAL SOIL EXPLORATION WORK, PROMPTLY NOTIFY THE OWNER VERBALLY TO PERMIT VERIFICATION OF THE CONDITIONS AND IN WRITING, AS TO THE NATURE OF THE DIFFERING CONDITIONS. NO CLAIM BY THE CONTRACTOR FOR ANY CONDITIONS DIFFERING FROM THOSE ANTICIPATED IN THE PLAN AND SPECIFICATIONS AND DISCLOSED BY THE SOIL STUDIES WILL BE ALLOWED UNLESS THE CONTRACTOR HAS SO NOTIFIED THE OWNER, VERBALLY AND IN WRITING AS REQUIRED ABOVE, OF SUCH DIFFERING CONDITIONS.
18. ANY FOREIGN ITEM FOUND DURING CONSTRUCTION IS THE PROPERTY OF THE LAND OWNER. THIS INCLUDES, BUT IS NOT LIMITED TO, PRECIOUS METALS, COINS, PAPER CURRENCY, ARTIFACTS AND ANTIQUITIES.
19. ALL SURPLUS EXCAVATION SHALL BE PLACED ON-SITE IN A LOCATION DESIGNATED BY OWNER. CONTRACTOR CAN RECCOMEND LOCATIONS BUT THE FINAL LOCATION SHALL BE DESIGNATED BY OWNER/LANDSCAPE ARCHITECT/PROJECT MANAGER.
20. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO INSURE THAT THE NEW WORK SHALL FIT INTO THE EXISTING SITE IN THE MANNER INTENDED AND AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND PROJECT REPRESENTATIVE PRIOR TO PERFORMING WORK IN THE AREA INVOLVING DIFFERENCES. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND NOTES RELATING TO THE AREA.
21. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A NEAT AND ORDERLY CONDITION AT ALL TIMES. DAILY, AND MORE OFTEN IF NECESSARY, INSPECT & AND PICK UP ALL SCRAP, DEBRIS, & WASTE MATERIAL.
22. THE CONTRACTOR SHALL PROVIDE PROTECTION TO ALL FINISHED WORK. MAINTAIN SURFACES CLEAN, UNMARRED, AND SUITABLY PROTECTED UNTIL FINAL ACCEPTANCE BY OWNER.
23. UPON COMPLETION OF PROJECT, CONTRACTOR SHALL CLEAN THE PAVED AREAS PRIOR TO REMOVAL OF TEMPORARY SEDIMENT CONTROLS, AS DIRECTED BY THE OWNER AND/OR CONSTRUCTION/PROJECT MANAGER. IF POWER WASHING IS USED, NO SEDIMENT LADEN WATER SHALL BE WASHED INTO THE STORM SYSTEM. ALL SEDIMENT LADEN MATERIAL ON PAVEMENT OR WITHIN THE STORM SYSTEM SHALL BE COLLECTED AND REMOVED FROM THE SITE AT CONTRACTOR'S EXPENSE.
24. CONTRACTOR SHALL AT ALL TIMES ENSURE THAT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES PROTECTING EXISTING DRAINAGE FACILITIES BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY PHASE OF THE SITE CONSTRUCTION OR LAND ALTERATION.
25. THE CONTRACTOR SHALL COORDINATE ALL ROAD CLOSURES, EXCAVATIONS, ETC. WITH LOCAL JURISDICTIONS. ALL TEMPORARY LANE CLOSURES, EXCAVATIONS, BORINGS, TRAFFIC CONTROL, ETC. SHALL BE DONE IN COMPLIANCE WITH LOCAL REQUIREMENTS AT THE COST OF THE CONTRACTOR.
26. THE CONTRACTOR SHALL PERFORM ALL QUANTITY TAKEOFFS REQUIRED FOR BIDDING AND CONSTRUCTION OF THIS PROJECT. CANOPY LAND DESIGN ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR QUANTITY TAKEOFFS SHOWN/PROVIDED/PERFORMED FOR THIS PROJECT.

DEMOLITION

- DEMOLITION INCLUDES THE FOLLOWING WITHIN THE PROPERTY LINES:
1.1. TRANSFER BENCHMARK CONTROL TO NEW LOCATIONS OUTSIDE THE DISTURBED AREA PRIOR TO COMMENCING DEMOLITION OPERATIONS (WHEN APPLICABLE).
1.2. PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER'S PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO DEMOLITION WORK.
1.3. DEMOLITION AND REMOVAL OF SITE IMPROVEMENTS AS SHOWN / REQUIRED FOR PROPOSED SITE PLAN CONSTRUCTION
1.4. DISCONNECTING, CAPPING OR SEALING, AND ABANDONING/REMOVING SITE UTILITIES IN PLACE (WHICHEVER IS APPLICABLE).
- ALL DEMOLISHED MATERIALS (EXCLUDING FOREIGN ITEMS AS LISTED IN 'GENERAL') BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED BY THE OWNER'S REP. DISPOSE OF OFF THE OWNER'S PROPERTY AT NO ADDITIONAL COST.
- ALL PAVEMENT, BASE COURSES, SIDEWALKS, CURBS, ETC., THAT ARE REMOVED SHALL BE REMOVED TO FULL DEPTH. ALL PAVEMENT, SIDEWALK, AND CURB SHALL BE SAW CUT IN ORDER TO OBTAIN NEAT LINES AND SMOOTH TRANSITIONS TO NEW SURFACES.
- ALL ITEMS OF CONSTRUCTION REMAINING AND NOT SPECIFICALLY MENTIONED THAT INTERFERES WITH THE NEW CONSTRUCTION SHALL BE REMOVED AS DIRECTED BY THE OWNERS REPRESENTATIVE AT NO ADDITIONAL COST.
- CONTRACTOR SHALL PROVIDE PROTECTION TO ALL STREETS, TREES, UTILITIES, AND STRUCTURES THAT ARE TO REMAIN. CONTRACTOR-CAUSED DAMAGE WILL BE REPAIRED TO LOCAL/CITY/STATE STANDARDS AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL CONFORM TO ALL LOCAL CODES AND OBTAIN ALL PERMITS PRIOR TO BEGINNING WORK.
- NO TREES ARE TO BE REMOVED AND/OR VEGETATION DISTURBED EXCEPT AS NECESSARY FOR DEMOLITION PURPOSES AND ONLY WITH PRIOR APPROVAL FROM THE OWNER'S REPRESENTATIVE
- OBTAIN APPROVED BORROW SOIL MATERIALS OFF-SITE.
- STORAGE OR SALE OF REMOVED ITEMS OR MATERIALS ON-SITE WILL NOT BE PERMITTED.
10. DO NOT START DEMOLITION WORK UNTIL UTILITY DISCONNECTING AND SEALING HAVE BEEN COMPLETED AND VERIFIED IN WRITING.
11. REMOVE: REMOVE AND LEGALLY DISPOSE OF ITEMS EXCEPT THOSE INDICATED TO BE REINSTALLED, SALVAGED, OR TO REMAIN.
12. REMOVE, REINSTALL, AND RELOCATE: REMOVE ITEMS INDICATED; CLEAN, SERVICE, AND OTHERWISE PREPARE THEM FOR REUSE; STORE AND PROTECT AGAINST DAMAGE. REINSTALL ITEMS IN LOCATIONS INDICATED
13. EXISTING TO REMAIN: PROTECT ITEMS INDICATED TO REMAIN AGAINST DAMAGE AND SOILING THROUGHOUT CONSTRUCTION. WHEN PERMITTED BY THE OWNER/REPRESENTATIVE, ITEMS MAY BE REMOVED TO A SUITABLE, PROTECTED STORAGE LOCATION THROUGHOUT CONSTRUCTION AND THEN CLEANED AND REINSTALLED IN THEIR ORIGINAL LOCATIONS.
14. REGULATORY REQUIREMENTS: COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE STARTING DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
15. CONTRACTOR SHALL SCHEDULE DEMOLITION ACTIVITIES WITH THE CONSTRUCTION/PROJECT MANAGER INCLUDING THE FOLLOWING:
15.1. DETAILED SEQUENCE OF DEMOLITION AND REMOVAL WORK, INCLUSIVE OF STARTING AND ENDING DATES FOR EACH ACTIVITY.
15.2. DATES FOR SHUTOFF, CAPPING, AND CONTINUATION OF UTILITY SERVICES.
15.3. IDENTIFY AND ACCURATELY LOCATE UTILITIES AND OTHER SUBSURFACE STRUCTURAL, ELECTRICAL, OR MECHANICAL CONDITIONS.
16. MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN IN SERVICE AND PROTECT TEM AGAINST DAMAGE THROUGHOUT CONSTRUCTION OPERATIONS.
16.1. DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY ENGINEER AND AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO OWNER AND TO GOVERNING AUTHORITIES.
17. UTILITY REQUIREMENTS: LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF INDICATED UTILITY SERVICES SERVING THE SITE.
17.1. ARRANGE TO SHUT OFF AND CAP UTILITIES WITH UTILITY COMPANIES AND FOLLOW THEIR RESPECTIVE UTILITY KILL AND CAP POLICIES.
17.2. ALL EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE TO BE VERIFIED BY CONTRACTOR. CANOPY LAND DESIGN DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES INDICATED ON THE CONSTRUCTION DOCUMENTS. VERIFY LOCATION OF EXISTING UTILITIES AND EXERCISE EVERY PRECAUTION WHEN WORKING ON OR NEAR THESE AREAS TO AVOID DAMAGE TO THESE EXISTING FACILITIES. UTILITY LINES MAY BE ENCOUNTERED IN EXCAVATION THAT WERE NOT KNOWN OR SHOWN TO EXIST, SO CAUTION SHALL BE TAKEN IN ALL EXCAVATIONS. ACTIVE OR INACTIVE UTILITIES ENCOUNTERED BY THE CONTRACTOR SHALL BE HANDLED IN ACCORDANCE WITH THE REQUIREMENTS OR THE UTILITY COMPANIES
18. CONDUCT DEMOLITION OPERATIONS TO PREVENT INURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND DEMOLITION AREA
19. EXPLOSIVES: USE OF EXPLOSIVES WILL NOT BE PERMITTED.
20. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
21. CLEAN ADJACENT BUILDINGS AND IMPROVEMENT OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF DEMOLITION.
22. DAMAGES: PROMPTLY REPAIR DAMAGES TO ADJACENT FACILITIES CAUSED BY DEMOLITION OPERATIONS AT THE CONTRACTORS COST.
23. GENERAL: PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE.
24. BURNING: DO NOT BURN DEMOLISHED MATERIALS.
25. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH EXISTING FACILITIES.
25.1. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER ADJACENT OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM OWNER AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY GOVERNING REGULATIONS.
25.2. PROVIDE TEMPORARY PROTECTION, FENCES, BARRICADES PER LOCAL/CITY/STATE REGULATIONS AND REQUIREMENTS TO EXISTING SITE IMPROVEMENTS AND APPURTENANCES TO REMAIN. PROVIDE COVERINGS OR OTHER SITE PROTECTIONS TO PRESERVE EXISTING ITEMS INDICATED TO REMAIN AND TO PREVENT INJURY OR DAMAGE TO SITE USERS OR PROPERTY. APPLY SAME PROTECTIONS TO ADJACENT PROPERTIES AS REQUIRED.

UTILITY LINE LEGEND:

- OH — OVERHEAD ELECTRIC
- UE — UNDERGROUND ELECTRIC
- G — GAS
- W — WATER
- SW — STORMWATER
- SS — SANITARY SEWER
- BENCHMARK
- FIRE HYDRANT
- POWER POLE
- GUY WIRE

CLEARING & GRUBBING

- DO NOT EXCEED CLEARING AND GRUBBING LIMITS OF CONSTRUCTION LINES INDICATED ON THE PLANS.
- ALL AREAS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL NOT BE CROSSED BY HEAVY EQUIPMENT OR USED FOR STORING HEAVY EQUIPMENT OR MATERIALS.
- NO EQUIPMENT SHALL BE STORED UNDER THE DRIP LINE OF TREES TO REMAIN.
- DO NOT FALL ANY TREES OR PUSH PILES OF DEBRIS AGAINST TREES TO REMAIN.
- REMOVE ALL STUMPS, ROCKS, ASPHALT & CONCRETE DEBRIS, ETC. WITHIN CLEARING LIMITS AND DISPOSE OFF SITE IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS
- CONTACT ALL UTILITY AUTHORITIES WHO HAVE LINES WITHIN THE CLEARING AND GRUBBING LIMITS BEFORE STARTING WORK.
- ALL EROSION CONTROL SEDIMENT BARRIERS, SILT FENCES, AND TREE PROTECTION DEVICES SHALL BE INSTALLED PRIOR TO STARTING CLEARING AND GRUBBING OPERATIONS
- CONTRACTOR TO STAKE TRAIL CENTERLINES (WHEN APPROPRIATE) & LIMITS OF CLEARING FOR REVIEW BY LOSE DESIGN PRIOR TO BEGINNING CLEARING OPERATIONS; TREES WITHIN GRADING LIMITS TO BE SAVED WILL BE IDENTIFIED BY THE OWNER'S REPRESENTATIVE. FIELD CHANGES TO GRADING PLANS SHALL BE MADE FOR SMOOTH TRANSITION OF GRADES AROUND ALL TREES.
- SEE SPECIFICATIONS FOR TREE CLEARING REQUIREMENTS AND PENALTIES FOR DAMAGES TO TREES DESIGNATED TO REMAIN
10. ALL CLEARING SHALL BE LIMITED TO AREAS TO BE GRADED WITHIN 14 CALENDAR DAYS PER STATE PERMITS

EXISTING UTILITIES

- UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER/CANOPY LAND DESIGN OR THEIR REPRESENTATIVES. BEFORE YOU DIG CALL 811 TO HAVE EXISTING UTILITIES MARKED AND VERIFIED.
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN
- CANOPY LAND DESIGN ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF THE BASE SURVEY INFORMATION PROVIDED BY OTHERS.

DEVELOPMENT

- NOTIFY OWNER AND CANOPY LAND DESIGN AT 50, 90, AND 100 PERCENT COMPLETION OF EVERY PHASE OF CONSTRUCTION.
- ALL BUFFERS AND TREE SAVE AREAS SHALL BE CLEARLY IDENTIFIED BY FLAGGING AND/OR FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.
- ALL CONSTRUCTION TO COMPLY WITH LOCAL/COUNTY ZONING AND CODES STANDARDS AND STATE OF TENNESSEE STORMWATER REGULATIONS.

GRADING

- TOPSOIL SHALL BE STORED ON SITE IN LOCATIONS APPROVED BY THE OWNERS REPRESENTATIVE AND OUTSIDE AREAS PRONE TO FLOODING. DRAINAGE SHALL ROUTE AROUND THESE TOPSOIL STOCKPILES FOR THE DURATION OF THE GRADING OPERATIONS. EROSION CONTROL MEASURES SHALL PREVENT LOSS OF TOPSOIL MATERIAL.
- UNSUITABLE SOILS SHALL BE UNIFORMLY SPREAD ACROSS NON-STRUCTURAL FILL AREAS, COVERED WITH TOPSOIL, AND VEGETATED PER DRAWINGS.
- FILL AREAS SHALL BE PROOF-ROLLED WITH RUBBER-TIRED EQUIPMENT WITH A MINIMUM WEIGHT OF FIFTEEN TONS PRIOR TO BEGINNING FILL OPERATION. AREAS WHICH ARE SOFT OR UNSTABLE SHALL BE UNDERCUT UNTIL STABLE SOILS ARE FOUND. RECOMPACTION OF THESE SOILS TO 98 PERCENT MAXIMUM DRY DENSITY (AS PER ASTM D698 STANDARD PROCTOR) WILL BE ALLOWED, UNDER THE DIRECTION OF A QUALIFIED SOILS ENGINEER
- CUT AREA SHALL BE PROOF-ROLLED AFTER FINAL SUBGRADE IS ACHIEVED IN THE SAME MANNER AS FILLED AREAS. SOFT OR UNSTABLE SOILS SHALL BE SCARIFIED TO A DEPTH OF 12" AND RECOMPACTED TO 98 PERCENT MAXIMUM DRY DENSITY AS PER ASTM D698 (STANDARD PROCTOR).
- CONFIRMATION OF ALL COMPACTION REQUIREMENTS SHALL BE CONFIRMED BY A QUALIFIED SOILS ENGINEER. SEE SPECIFICATION FOR SOIL COMPACTION RATES.
- ALL FILL AREAS SHALL BE RAISED IN LIFTS NOT EXCEEDING 6 INCHES.
- ALL AREAS WILL BE GRADED TO PROVIDE PROPER DRAINAGE AND PREVENT STANDING WATER.
- ELEVATIONS SHOWN ON THE PLANS IS THE FINISH GRADE ELEVATION.
- GRADING SHALL BE SEQUENCED SO THAT BASE STONE IS PLACED WITHIN 14 CALENDAR DAYS OF ACHIEVING OPTIMUM SUBGRADE COMPACTION.
10. ALL GRADING OPERATIONS SHALL BE COMPLETED IN COMPLIANCE OF CITY, COUNTY, AND STATE LAND DISTURBANCE PERMITS AS REQUIRED

LAYOUT

- ALL LAYOUT MEASUREMENTS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
- COORDINATE POINTS SHOWN ARE TAKEN FROM BASE INFORMATION PROVIDED BY OTHERS. CONTRACTOR SHALL CROSS CHECK BETWEEN COORDINATE LAYOUT AND PLAN DIMENSIONS PRIOR TO COMMENCING WORK.
- CANOPY LAND DESIGN, ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF THE BASE INFORMATION AS PROVIDED. CONTRACTOR IS TO VERIFY ALL BASE INFORMATION AS NECESSARY AND TO ADVISE THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO ANY LAYOUT WORK
- ALL WORK SHALL BE COMPLETED TO THE LEVEL INDICATED BY THE SCOPE OF WORK LISTED IN THE BID DOCUMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ALL DAMAGED AND/OR DISTURBED MONUMENTS, STAKES, ETC.
- CONTRACTOR SHALL NOT SCALE DRAWINGS. CONTRACTOR SHALL USE DIMENSION, COORDINATES, AND OTHER INFORMATION PROVIDED ON LAYOUT PLANS.
- CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION STAKING REQUIRED ON THE PROJECT. THE CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST BETWEEN EXISTING FACILITIES AND PROPOSED FACILITIES PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES
- CONTRACTOR SHALL NOTIFY CANOPY LAND DESIGN WITHIN 24 HOURS OF ANY LAYOUT DISCREPANCIES PRIOR TO PROCEEDING WITH WORK. ALL ADDITIONAL COSTS, INCLUDING BUT NOT LIMITED TO REMEDIAL CONSTRUCTION, ADDITIONAL SITE VISITS, OR PROFESSIONAL SERVICES AND FEES, ETC., INCURRED DUE TO THE FAILURE TO FOLLOW THIS PROCEDURE WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE ADEQUATE LAYOUT INFORMATION TO DEMONSTRATE, TO THE MAXIMUM EXTENT PRACTICAL, THAT NO CONFLICTS BETWEEN VARIOUS TRADES EXIST.
10. DRAINAGE STRUCTURES ARE SHOWN TO INDICATE CASTING TYPE AND LOCATION. CONTRACTOR SHALL STAKE PROPOSED PAVING, STRUCTURES, CURBS, ETC. TO ENSURE DRAINAGE STRUCTURES ARE PLACED TO AVOID CONFLICTS. DRAINAGE STRUCTURES ARE NOT DRAWN TO SCALE.

ADA REQUIREMENTS

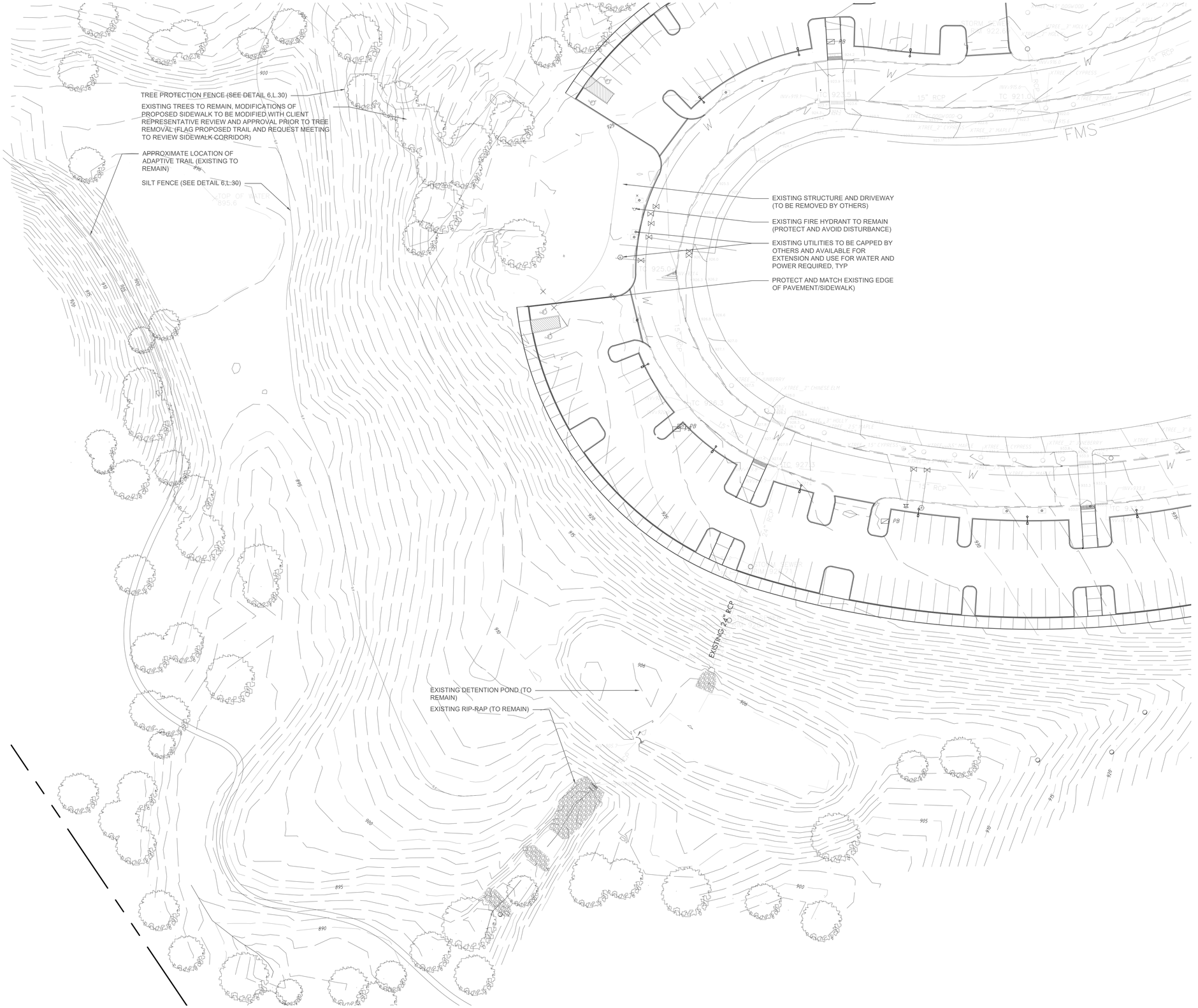
- ALL CONSTRUCTION ACTIVITIES SHALL BE COMPLETED IN FULL COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT ("ADA") AND ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD, FEDERAL REGISTER 36CFR PARTS 1190 AND 1191, ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES; ARCHITECTURAL BARRIERS ACT (ABA) ACCESSIBILITY GUIDELINES
- CONTRACTOR TO COORDINATE ALL INSPECTIONS AS REQUIRED BY TE LOCAL ADA COMPLIANCE OFFICE, STATE/CITY INSPECTOR OR TDEC OUTDOOR RECREATION STAFF (IF REQUIRED BY GRANT OR PROJECT SCOPE OF WORK).
- AT ALL INTERSECTION OF TRAILS, SIDEWALKS, PLAZAS, AND OTHER INSTANCES WHERE 90 DEGREE TURNS CAN TAKE PLACE, THE MAX. SLOPE IN ALL DIRECTIONS IS 2% MAX, RUNNING SLOPES OF ALL LINEAR SIDEWALKS SHALL BE 5% MAX WITH A 2% CROSS-SLOPE MAX. ALL ADA RAMPS SHALL HAVE A 1:12 (8.33% SLOPE) MAX, WITH CROSS SLOPE NOT TO EXCEED 2%. HANDRAILS WITH BOTTOM RAILS ARE REQUIRED AND SHALL BE INSTALLED PER CURRENT ADA CLEARANCE AND DIMENSION GUIDELINES

TREE PROTECTION / REMOVAL

- EXISTING TREES ON-SITE TO BE REMOVED HAVE BEEN MARKED ON THE SITE PLANS WITH AN "X" OR HATCH PATTERN. ONLY THOSE MARKED TREES SHALL BE REMOVED. CONTRACTOR SHALL PROCEED WITH THE FOLLOWING FOR TREES TO BE REMOVED ONLY:
1.1. REMOVE THE TOP OF ALL TREES INCLUDING BRANCHES AND TRUNK IN AN ORGANIZED AND SAFE MATTER BEING CAREFUL NOT TO DAMAGE ANY TREES TO REMAIN OR OTHER SITE FEATURES.
1.2. ALL STUMPS OF TREES BEING REMOVED SHALL BE COMPLETELY EXCAVATED AND REMOVED. ALL EXCAVATED HOLES, FROM REMOVAL OF TREE ROOTS, REMAINING ON-SITE SHALL BE REMEDIATED WITH ENGINEERED FILL AND COMPACTED TO MEET SPECIFICATIONS.
1.3. ALL TREE WASTE, INCLUDING LIMBS, BRANCHES, TRUNKS, ROOTS OR OTHER, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF IN A LEGAL MANNER OR CHIPPED AND USED FOR EROSION CONTROL MEASURES IF APPROVED BY OWNER/PROJECT MANAGER.
- ALL TREES THAT HAVE NOT BEEN MARKED ON THESE PLANS WITH AN "X" SHALL BE PROTECTED ON SITE DURING CONSTRUCTION FROM ANY AND ALL DAMAGE. CONTRACTOR SHALL PROCEED WITH THE FOLLOW FOR TREES TO BE PROTECTED ONLY:
2.1. ALL PROTECTED TREES THAT ARE LOCATED NEAR OR WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED BY TREE PROTECTION FENCING PER DETAILS.
2.2. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY PROTECTED TREES THAT ARE DAMAGED DURING CONSTRUCTION
2.3. IF PROTECTED TREES ARE LOCATED WITHIN THE LIMITS OF CONSTRUCTION, THEY MUST BE PROTECTED DURING SITE CONSTRUCTION
2.4. IF GRADING, EXCAVATION OR PAVING IS SHOWN TO OCCUR NEAR THE PROTECTED TREE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACTING WITH A LOCAL ARBORIST FOR RECOMMENDATIONS ON TREE PROTECTION.
2.5. IF DISCREPANCIES OCCUR AND IT IS ANTICIPATED THAT THE PROTECTED TREES WILL BE DAMAGED DUE TO PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE DESIGNER IMMEDIATELY OF ANY CONFLICT.
2.6. THE CONTRACTOR SHALL ALSO SUBMIT RECOMMENDATIONS TO THE DESIGNER FROM THE ARBORIST FOR TREE PROTECTION MEASURES.
2.7. CONTRACTOR SHALL BE RESPONSIBLE FOR IN-FIELD COORDINATION WITH THE DESIGNER TO RESOLVE ANY CONFLICTS THAT MAY ARISE DUE TO PROTECTED TREES.
2.8. IF THE CONTRACTOR LOCATES TREES IN THE FIELD THAT ARE NOT SHOWN ON THESE PLANS OR THAT ARE MISLOCATED, THE CONTRACTOR SHALL NOTIFY THE DESIGNER FOR REVIEW OF THE TREE AND ITS LOCATION.
2.9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH SUB-CONSULTANTS AND UTILITY PROVIDERS DURING CONSTRUCTION TO ENSURE THE PROTECTION OF THE TREES TO REMAIN.
..... IN THE EVENT OF UTILITY LINE ADJUSTMENTS, ADDITIONS OR RELOCATIONS, THE CONTRACTOR SHALL WORK WITH THE UTILITY PROVIDER AND INSTALLER TO ROUTE THE UTILITY LINES OUTSIDE OF THE TREE PROTECTION ZONE. IF THIS IS NOT POSSIBLE, RECOMMENDATIONS MUST BE OBTAINED FROM A LOCAL ARBORIST FOR REMEDIATION OPTIONS.
2.11. CONTRACTOR MUST SUBMIT ALL REPORTS OR RECOMMENDATIONS FOR TREE PRUNING OR ALTERING TO THE LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO RENDERING SERVICES.

ABBREVIATIONS:
*THESE ABBREVIATIONS ARE GENERAL;
INDIVIDUAL SHEETS MAY VARY

ASPH -	ASPHALT	PD -	PERFORATED DRAIN
@ -	AT	PL -	PROPERTY LINE
BOC -	BOT



TREE PRESERVATION NOTES:

1. CONSTRUCTION FENCING SHALL BE ERECTED WHEN OFF-SITE TREES OR TREE CANOPY EXISTS WITHIN 3' OF A COMMON PROPERTY LINE. FENCING SHALL BE IN PLACE PRIOR TO ANY GRADING OR CONSTRUCTION TO PROTECT THE EXISTING ROOT SYSTEMS FROM COMPACTION. THE FENCING SHALL ENCLOSE THE ENTIRE AREA BENEATH THE TREE CANOPY AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETED. NO PARKING, MATERIAL STORAGE OR CONSTRUCTION ACTIVITIES ARE PERMITTED WITHIN THE PROTECTED AREA.
2. PRIOR TO SITE DISTURBANCE OR CONSTRUCTION ACTIVITIES A SITE INSPECTION BY LANDSCAPE ARCHITECT OR OWNER DESIGNEE SHALL BE SCHEDULED TO CONFIRM AND VERIFY THE TREE PRESERVATION/ PROTECTION FENCING AND SIGNAGE IS INSTALLED AND CORRECTLY PLACED.
3. THE CONTRACTOR SHALL POST SIGNAGE ON THE TREE PRESERVATION/ PROTECTION FENCING AND CONSTRUCTION FENCING IDENTIFYING THE ENCLOSED AREA AS TREE PRESERVATION/ PROTECTION AREA. THE SIGNS SHALL INCLUDE THE FOLLOWING TEXT: NO DISTURBANCE / TREE PRESERVATION / PROTECTION AREA
4. "NO EQUIPMENT, MATERIALS, OR VEHICLES SHALL BE STORED OR PLACED WITHIN THE AREA ENCLOSED BY THIS 'TREE PRESERVATION/PROTECTION' FENCE. THIS FENCE MAY NOT BE REMOVED WITHOUT THE WRITTEN APPROVAL OF A CITY/TOWN/COUNTY STAFF MEMBER. FAILURE TO COMPLY MAY RESULT IN FINES AND LABOR FOR TREE MITIGATION.
5. THE TREE PRESERVATION/ PROTECTION AREA SIGNAGE SHALL BE POSTED EVERY 50 FEET ALONG THE TREE PRESERVATION FENCE. THE SIGNS SHALL BE A MINIMUM SIZE OF 8" X 10" AND MADE OF DURABLE WEATHER RESISTANT MATERIALS (METAL/WOOD/HDPE) . IF THE SIGNS ARE DAMAGED OR FADE THEY SHALL BE REPLACED WITHIN 10 WORKING DAYS OR 2 WEEKS.
6. DURING ALL CONSTRUCTION ACTIVITY (INCLUDES CLEARING, GRADING, BUILDING CONSTRUCTION, AND LANDSCAPING) A COPY OF THE APPROVED TREE PRESERVATION PLAN SHALL BE ON-SITE.
7. AN AUTHORIZED INSPECTOR SHALL HAVE THE RIGHT TO ENTER ONTO ANY PROPERTY TO INSPECT THE HEALTH AND GENERAL CONDITION OF PLANT MATERIAL THAT IS; LOCATED IN THE RIGHT OF WAY; PART OF AN APPROVED DEVELOPMENT/LANDSCAPE PLAN; OR REPORTED AS A PUBLIC HAZARD.
8. TREE PROTECTION FENCING SHALL BE ERECTED ADJACENT TO ALL TPAS PRIOR TO SITE DISTURBANCE APPROVAL (CLEARING & GRADING PERMIT) TO PROTECT THE EXISTING TREE STANDS AND THEIR ROOT SYSTEMS, THE FENCING SHALL BE LOCATED AT LEAST THREE (3) FEET FROM THE OUTSIDE EDGE OF THE TREE CANOPY AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETED. WHEN TREES MUST BE REMOVED IN A TPA, THE FENCE SHALL BE RELOCATED TO PROTECT ALL REMAINING TREES WITHIN THAT TPA. WHEN A TREE MASS IS INCLUDED AS A TREE PROTECTION AREA, FENCING SHALL ONLY BE REQUIRED AT THE OUTER MOST PERIMETER OF THAT TREE MASS, THE FINAL BOUNDARY FOR EACH TPA SHALL BE ESTABLISHED IN THE FIELD TO INCLUDE CANOPY AREA OF ALL TREES PROTECTED. NO PARKING, MATERIAL STORAGE OR CONSTRUCTION ACTIVITIES ARE PERMITTED WITHIN TPAS BEYOND THAT ALLOWED FOR PRELIMINARY SITE INVESTIGATION WORK.
9. CLEARING, NECESSARY TO PROVIDE ACCESS FOR SURVEY WORK, ROCK SOUNDINGS OR OTHER USUAL AND CUSTOMARY SITE INVESTIGATIONS SHALL BE PERMITTED PRIOR TO SITE DISTURBANCE APPROVAL. PRELIMINARY SITE INVESTIGATIONS SHALL BE CAREFULLY PLANNED TO MINIMIZE THE AMOUNT OF CLEARING REQUIRED.

TREE CANOPY PROTECTION AREA (TCPA) :

1. TREE CANOPY PROTECTION AREAS (TCPAS) IDENTIFIED ON THIS PLAN REPRESENT INDIVIDUAL TREES AND/OR PORTIONS OF THE SITE DESIGNATED TO MEET THE CITY/TOWN/COUNTY TREE CANOPY PROTECTION REQUIREMENTS OF THE LAND DEVELOPMENT CODE AND ARE TO BE PERMANENTLY PROTECTED. ALL CLEARING, GRADING, AND FILL ACTIVITY IN THESE AREAS MUST BE IN KEEPING WITH RESTRICTIONS ESTABLISHED AT THE TIME OF PLAN APPROVAL.
2. IF TREES WITHIN THE TCPAS ARE LOST THROUGH ADVERSE CONSTRUCTION ACTIVITIES, NEW TREES SHALL BE PLANTED IN ORDER TO MAINTAIN MINIMUM TREE CANOPY AS SPECIFIED ON THE APPROVED DEVELOPMENT OR PRELIMINARY SUBDIVISION PLAT.
3. IF DIMENSION LINES HAVE BEEN USED ON THIS PLAN TO ESTABLISH THE GENERAL LOCATION OF TCPAS AND REPRESENT MINIMUM DISTANCES, THE FINAL BOUNDARY FOR EACH TCPA SHALL/MAY BE ESTABLISHED IN THE FIELD TO INCLUDE CANOPY AREA OF ALL TREES AT OR WITHIN THE DIMENSION LINE.
4. TREE PROTECTION FENCING SHALL BE ERECTED ADJACENT TO ALL TCPAS PRIOR TO SITE DISTURBANCE APPROVAL TO PROTECT THE EXISTING TREE STANDS AND THEIR ROOT SYSTEMS. THE FENCING SHALL BE LOCATED AT LEAST THREE (3) FEET FROM THE OUTSIDE EDGE OF THE TREE CANOPY AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETED, NO PARKING, MATERIAL STORAGE OR CONSTRUCTION ACTIVITIES ARE PERMITTED WITHIN TCPAS.

PROPERTY INFORMATION:

ADDRESS:	917 MCFEE ROAD FARRAGUT TN, 37934
PARCEL:	162 01402 CTL MAP 162
ZONING:	FAR (OS-P)
ACRES:	52.19
OWNER:	TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DR. FARRAGUT TN, 37934
COUNTY:	KNOX

UTILITY PROVIDERS:

ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD) 865-687-5282
WATER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
SEWER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/: INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

CANOPY LAND DESIGN

0 1.5' 30' 60'

SCALE: 1"=30'-0"

DANIEL BOUTTE REGISTERED TENNESSEE NO. 317 LANDSCAPE ARCHITECT

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2308

Dog Park at **MCFEE** 917 MCFEE ROAD
FARRAGUT, TN

existing **CONDITIONS**

BID SET

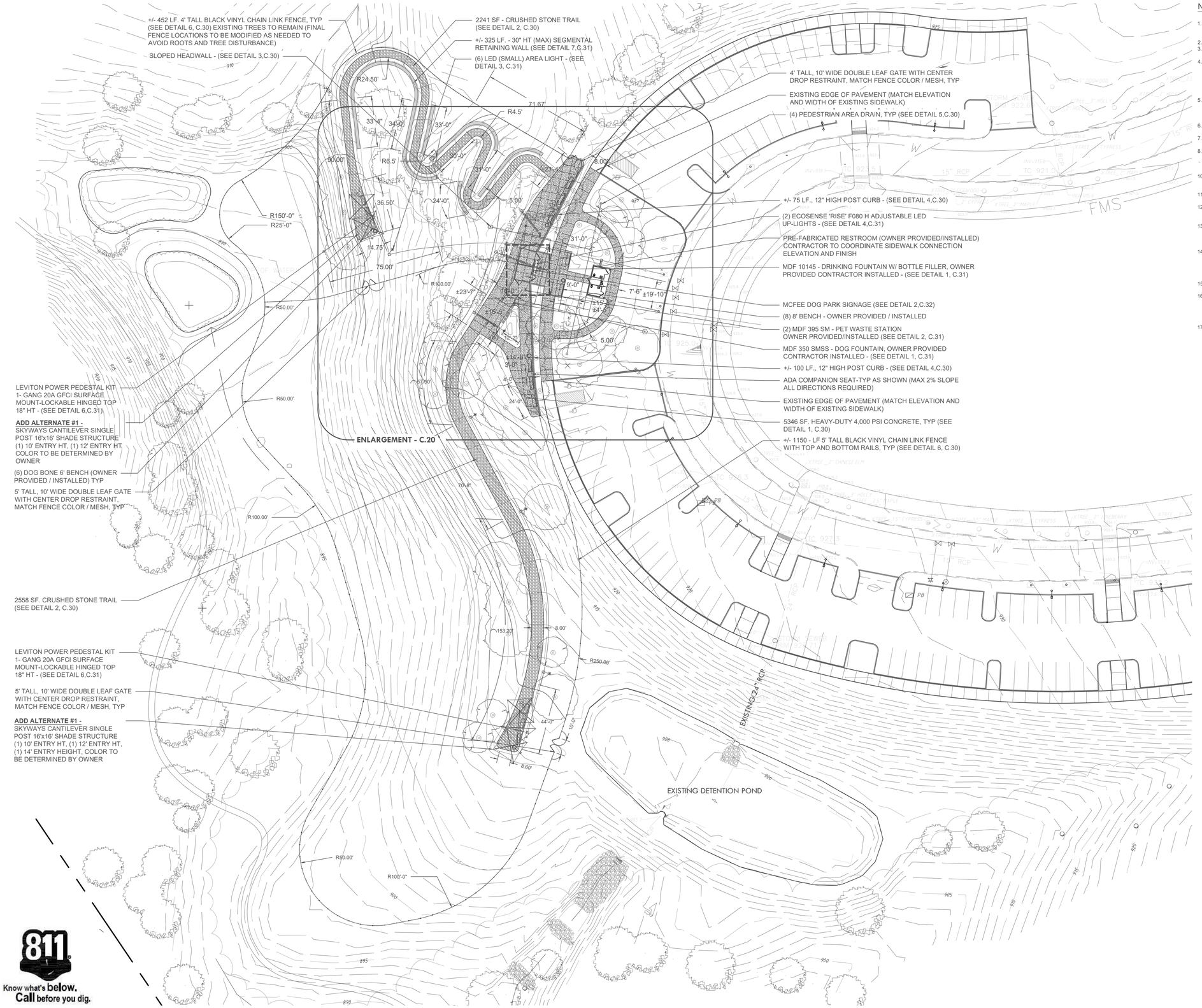
DATE: 7/7/2025

DRAWN BY: DB CHECKED BY: DB

existing **CONDITIONS**

C.02

SHEET 3 OF 15



NOTES:

1. INSTALLATION OF ALL MATERIALS AND IMPROVEMENTS REQUIRED FOR ACCESS, ETC. TO BE COMPLETED IN ACCORDANCE WITH CITY/COUNTY/TOWN REGULATIONS AND CURRENT EDITION OF INTERNATIONAL BUILDING CODES AS REQUIRED.
2. PROPERTY IS ZONED (FAR-OSP)
3. REMOVAL OF TREES OR MODIFICATIONS TO THE STATE/COUNTY ROADWAY OR ROW OR SITE MAY REQUIRE ADDITIONAL APPROVAL AND COORDINATION WITH OTHERS.
4. ALL UTILITY, EXISTING STRUCTURE, TREES, EDGE OF ROADWAYS, ROW OR OTHER SURVEY AND BASE INFORMATION CONTAINED HEREIN WAS PROVIDED BY THE OWNER AND CONSIDERED CURRENT AT THE TIME OF PLAN DEVELOPMENT/DESIGN. CANOPY LAND DESIGN IS NOT RESPONSIBLE FOR INFORMATION PROVIDED BY OTHERS. CANOPY LAND DESIGN ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF INFORMATION PROVIDED¬
5. TOPOGRAPHY AND EXISTING CONDITIONS PROVIDED BY KGIS SHOULD BE FIELD VERIFIED BY CONTRACTOR/DEVELOPER PRIOR TO ANY GRADING OR CONSTRUCTION AS IT MAY VARY. CONTRACTOR SHALL NOTIFY OWNER/ARCHITECT OF ANY DISCREPANCIES PRIOR TO LAYOUT OR CONSTRUCTION¬
6. FINAL LOCATION OF ALL UTILITY CONNECTIONS AND IMPROVEMENTS TO BE COORDINATED AND INSPECTED BY OTHERS.
7. DEMOLITION OR MODIFICATIONS OF ANY IMPROVEMENTS WITHIN CITY/COUNTY/TOWN ROW TO BE COORDINATED AND CONFIRMED BY OTHERS.
8. CONTRACTOR TO PROVIDE AND COORDINATE ALL PERMITTING FEES/DOCUMENTS REQUIRED PRIOR TO CONSTRUCTION.
9. ALL LAYOUT MEASUREMENTS ARE TO CENTERLINE OR EDGES AS SHOWN UNLESS OTHERWISE NOTED¬
10. DIMENSIONS SHOWN ARE TAKEN FROM BASE INFORMATION PROVIDED BY OTHERS. CONTRACTOR SHALL CROSS CHECK BETWEEN COORDINATE LAYOUT AND PLAN DIMENSIONS PRIOR TO COMMENCING WORK.
11. ALL WORK SHALL BE COMPLETED TO THE LEVEL INDICATED BY THE SCOPE OF WORK LISTED IN THE BID DOCUMENTS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ALL DAMAGED OR DISTURBED SURVEY MONUMENT MARKERS STAKES, PAINT, FLAGS ETC REQUIRED FOR LAYOUT OR CONSTRUCTION¬
13. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION STAKING REQUIRED FOR LAYOUT OR CONSTRUCTION AND SHALL NOTIFY OWNER/ARCHITECT IF ANY CONFLICTS EXIST BETWEEN EXISTING SITE FEATURES AND PLANS PRIOR TO CONSTRUCTION¬
14. CONTRACTOR SHALL NOTIFY CANOPY LAND DESIGN WITHIN 24 HOURS OF ANY LAYOUT/PLAN DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION. ALL ADDITIONAL COSTS INCLUDING BUT NOT LIMITED TO REMEDIAL CONSTRUCTION® ADDITIONAL SITE VISITS OR DESIGN SERVICES AND FEES INCURRED DUE TO FAILURE OF THIS PROCEDURE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
15. CONTRACTOR SHALL PROVIDE ADEQUATE LAYOUT INFORMATION TO DEMONSTRATE, TO THE MAXIMUM EXTENT PRACTICAL, THAT NO CONFLICTS BETWEEN VARIOUS TRADES.
16. DRAINAGE, UTILITY, LIGHTING AND OTHER PROPOSED IMPROVEMENTS OR STRUCTURES ARE SHOWN TO INDICATE GENERAL CASTING, FINISH, TYPE AND LOCATION. CONTRACTOR SHALL STAKE PROPOSED PAVING, STRUCTURES, CURBS, ETC. TO ENSURE PROPOSED STRUCTURES ARE PLACED TO AVOID CONFLICTS AS STRUCTURES ARE NOT DRAWN TO SCALE FOR PLAN LEGIBILITY¬
17. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY OR PERMANENT STABILIZATION MEASURES SHOWN OR REQUIRED.

PROPERTY INFORMATION:

ADDRESS:	917 MCFEE ROAD FARRAGUT TN, 37934
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COUNTY:	KNOX

UTILITY PROVIDERS:

ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD) 865-687-5282
WATER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
SEWER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/: INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

Know what's below. Call before you dig.

CANOPY LAND DESIGN

0 15' 30' 60'

SCALE: 1"=30'-0"

DANIEL BOUTTE REGISTERED AGRICULTURE TENNESSEE NO. 5174 LANDSCAPE ARCHITECT

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2508

sitePLAN

Dog Park at MCFEE 917 MCFEE ROAD
FARRAGUT, TN

BID SET

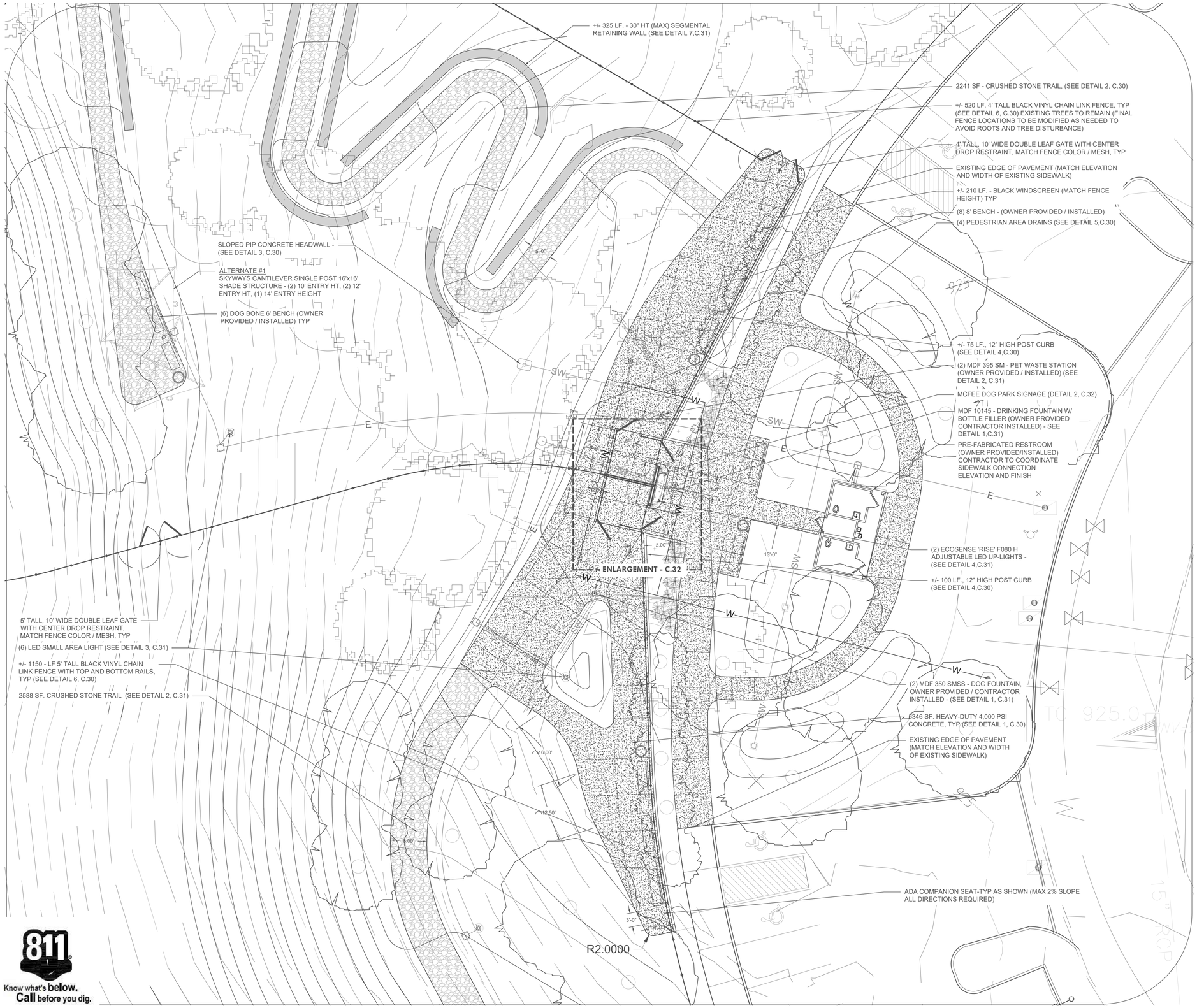
DATE: 7/2/2025

DRAWN BY: DB CHECKED BY: DB

sitePLAN

C.10

SHEET 4 OF 15



NOTES:

1. INSTALLATION OF ALL MATERIALS AND IMPROVEMENTS REQUIRED FOR ACCESS, ETC. TO BE COMPLETED IN ACCORDANCE WITH CITY/COUNTY/TOWN REGULATIONS AND CURRENT EDITION OF INTERNATIONAL BUILDING CODES AS REQUIRED.
2. PROPERTY IS ZONED (FAR-OSP)
3. REMOVAL OF TREES OR MODIFICATIONS TO THE STATE/COUNTY ROADWAY OR ROW OR SITE MAY REQUIRE ADDITIONAL APPROVAL AND COORDINATION WITH OTHERS.
4. ALL UTILITY, EXISTING STRUCTURE, TREES, EDGE OF ROADWAYS, ROW OR OTHER SURVEY AND BASE INFORMATION CONTAINED HEREIN WAS PROVIDED BY THE OWNER AND CONSIDERED CURRENT AT THE TIME OF PLAN DEVELOPMENT/DESIGN. CANOPY LAND DESIGN IS NOT RESPONSIBLE FOR INFORMATION PROVIDED BY OTHERS. CANOPY LAND DESIGN ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF INFORMATION PROVIDED¬
5. TOPOGRAPHY AND EXISTING CONDITIONS PROVIDED BY KGIS SHOULD BE FIELD VERIFIED BY CONTRACTOR/DEVELOPER PRIOR TO ANY GRADING OR CONSTRUCTION AS IT MAY VARY. CONTRACTOR SHALL NOTIFY OWNER/ARCHITECT OF ANY DISCREPANCIES PRIOR TO LAYOUT OR CONSTRUCTION¬
6. FINAL LOCATION OF ALL UTILITY CONNECTIONS AND IMPROVEMENTS TO BE COORDINATED AND INSPECTED BY OTHERS.
7. DEMOLITION OR MODIFICATIONS OF ANY IMPROVEMENTS WITHIN CITY/COUNTY/TOWN ROW TO BE COORDINATED AND CONFIRMED BY OTHERS.
8. CONTRACTOR TO PROVIDE AND COORDINATE ALL PERMITTING FEES/DOCUMENTS REQUIRED PRIOR TO CONSTRUCTION.
9. ALL LAYOUT MEASUREMENTS ARE TO CENTERLINE OR EDGES AS SHOWN UNLESS OTHERWISE NOTED¬
10. DIMENSIONS SHOWN ARE TAKEN FROM BASE INFORMATION PROVIDED BY OTHERS. CONTRACTOR SHALL CROSS CHECK BETWEEN COORDINATE LAYOUT AND PLAN DIMENSIONS PRIOR TO COMMENCING WORK.
11. ALL WORK SHALL BE COMPLETED TO THE LEVEL INDICATED BY THE SCOPE OF WORK LISTED IN THE BID DOCUMENTS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ALL DAMAGED OR DISTURBED SURVEY MONUMENT MARKERS STAKES, PAINT, FLAGS ETC REQUIRED FOR LAYOUT OR CONSTRUCTION¬
13. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION STAKING REQUIRED FOR LAYOUT OR CONSTRUCTION AND SHALL NOTIFY OWNER/ARCHITECT IF ANY CONFLICTS EXIST BETWEEN EXISTING SITE FEATURES AND PLANS PRIOR TO CONSTRUCTION¬
14. CONTRACTOR SHALL NOTIFY CANOPY LAND DESIGN WITHIN 24 HOURS OF ANY LAYOUT/PLAN DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION. ALL ADDITIONAL COSTS INCLUDING BUT NOT LIMITED TO REMEDIAL CONSTRUCTION® ADDITIONAL SITE VISITS OR DESIGN SERVICES AND FEES INCURRED DUE TO FAILURE OF THIS PROCEDURE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
15. CONTRACTOR SHALL PROVIDE ADEQUATE LAYOUT INFORMATION TO DEMONSTRATE, TO THE MAXIMUM EXTENT PRACTICAL, THAT NO CONFLICTS BETWEEN VARIOUS TRADES.
16. DRAINAGE, UTILITY, LIGHTING AND OTHER PROPOSED IMPROVEMENTS OR STRUCTURES ARE SHOWN TO INDICATE GENERAL CASTING, FINISH, TYPE AND LOCATION. CONTRACTOR SHALL STAKE PROPOSED PAVING, STRUCTURES, CURBS, ETC. TO ENSURE PROPOSED STRUCTURES ARE PLACED TO AVOID CONFLICTS AS STRUCTURES ARE NOT DRAWN TO SCALE FOR PLAN LEGIBILITY¬
17. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY OR PERMANENT STABILIZATION MEASURES SHOWN OR REQUIRED.

PROPERTY INFORMATION:

ADDRESS:	917 MCFEE ROAD FARRAGUT TN, 37934
PARCEL:	162 01402 CTL MAP 162
ZONING:	FAR (OS-P)
ACRES:	....
OWNER:	TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DR. FARRAGUT TN, 37934
COUNTY:	KNOX

UTILITY PROVIDERS:

ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD) 865-687-5282
WATER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
SEWER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/ INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

Know what's below. Call before you dig.

CANOPY LAND DESIGN

0 5' 10' 20'

SCALE: 1"=10'-0"

DANIEL BOUTTE REGISTERED AGRICULTURAL TENNESSEE NO. 371 LANDSCAPE ARCHITECT 2025

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2308

sitePLAN

Dog Park at **MCFEE** 917 MCFEE ROAD
FARRAGUT, TN

BID SET

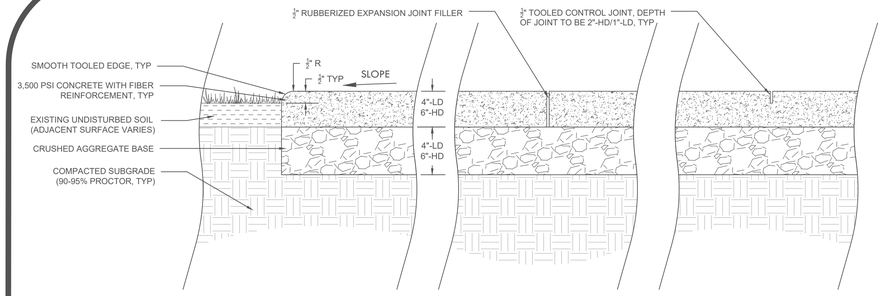
DATE: 7/7/2025

DRAWN BY: DB CHECKED BY: DB

sitePLAN

C.20

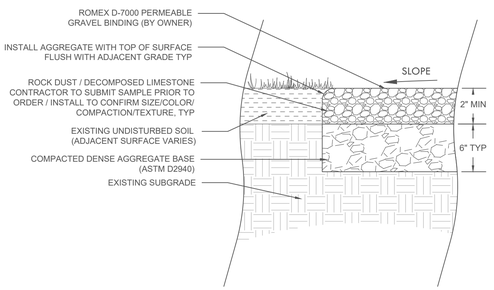
SHEET 5 OF 15



NOTES:

1. JOINTS TO BE STRAIGHT AND ALIGN WITH PLAN ELEMENTS AS SHOWN. CONTRACTOR CAN AND SHOULD SUGGEST ANY ADJUSTMENTS TO JOINT LOCATIONS PRIOR TO POURING AND INSTALLATION OF CONCRETE SURFACES.
2. SAW-CUT JOINTS WILL NOT BE ACCEPTED PRIOR TO INSTALLATION AND CONCRETE POUR.
3. FINISH OF SURFACE TO BE LIGHT-BROOM FINISH PERPENDICULAR TO PATH OF TRAVEL UNLESS SPECIFIED OTHERWISE ON PLANS OR DETAILS.

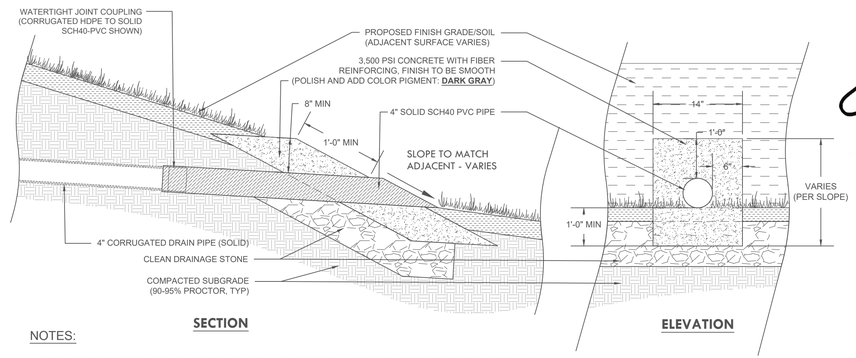
1 CONCRETE PAVEMENT
SCALE: NTS



NOTES:

1. DENSE AGGREGATE BASE TO BE COMPACTED WASHED STONE WITH AGGREGATE SIZE APPROXIMATELY 2-4" IN DIAMETER, TYP
2. ENSURE TOP SURFACE OF ROCK DUST / AGGREGATE IS COMPACTED, STABLE, AND SMOOTH PER ADA RECOMMENDATIONS
3. FINISHED SURFACE TO BE FLUSH WITH ADJACENT GRADE TO AVOID MIGRATION OF STONE, TYP

2 CRUSHED STONE TRAIL
SCALE: NTS

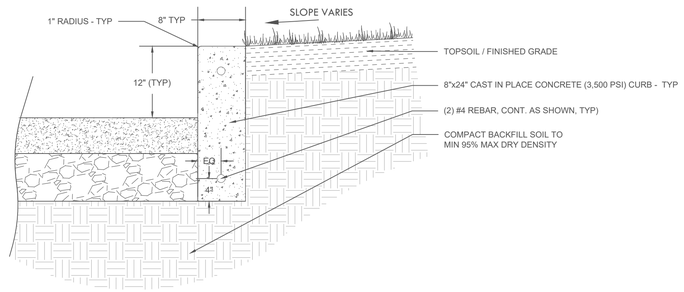


SECTION ELEVATION

NOTES:

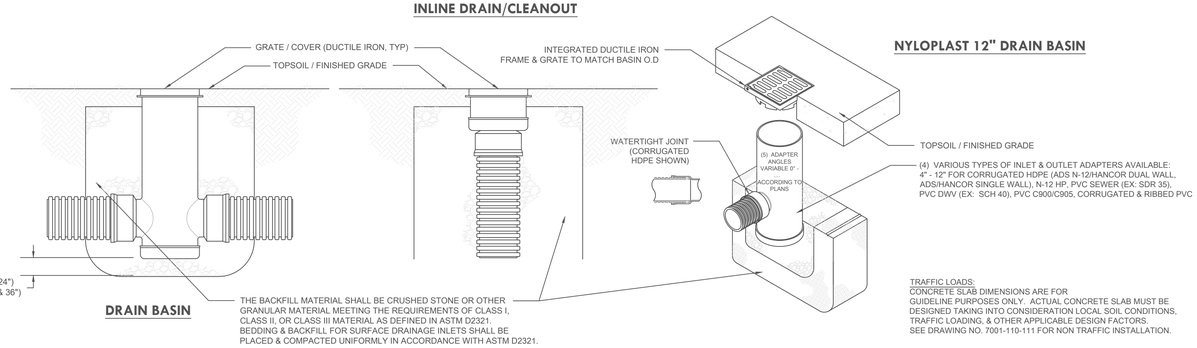
1. CONTRACTOR TO COORDINATE WITH CITY/COUNTY/ TOWN TO VERIFY FINAL LOCATION AND TYPE OF OUTLET HEADWALLS PROVIDED MEETS CODE AND CONSTRUCTION GUIDELINES.
2. CONCRETE FINISH TO BE SMOOTH (POLISH AND COLOR: DARK GRAY)

3 SLOPED HEADWALL
SCALE: NTS



4 POST CURB (TYPICAL)
SCALE: NTS

INLINE DRAIN/CLEANOUT



DRAIN BASIN

NYLOPLAST 12" DRAIN BASIN

TRAFFIC LOADS:
CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

SUPPLIED BY: (OR APPROVED EQUAL)

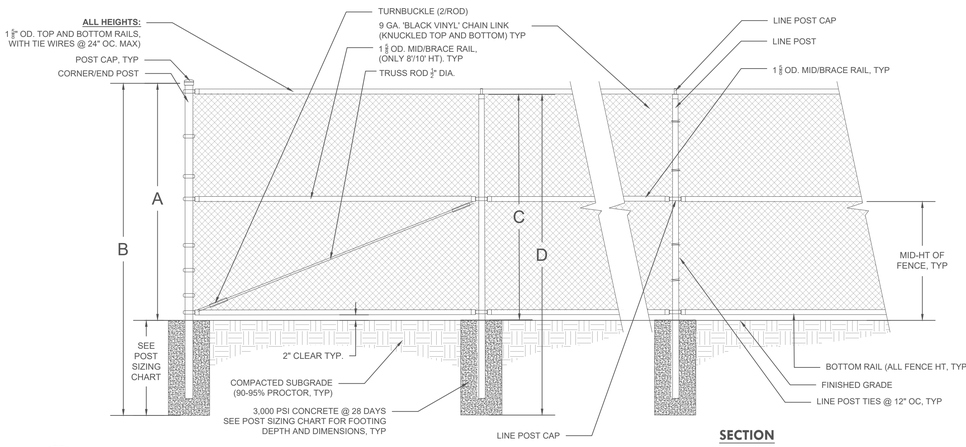
ADS Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1299CGP	7001-110-202
STANDARD	MEETS H-20	1299CGS	7001-110-203
SOLID COVER	MEETS H-20	1299CGC	7001-110-204
PEDESTRIAN BRONZE	N/A	1299CGPB	7001-110-205
DOME	N/A	1299CGD	7001-110-206
DROP IN GRATE	LIGHT DUTY	1201DI	7001-110-021

NOTES:

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS, RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS, SEE DRAWING NO. 7001-110-065
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE（ADS N-12/HANCOR DUAL WALL）, N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

5 AREA DRAIN (PEDESTRIAN)
SCALE: NTS



SECTION

GATE SIZING CHART

SINGLE LEAF GATES							
NOMINAL OPENING	SQ HINGE & LATCH POST	ACTUAL OPENING	HINGE SETTINGS - C	ROUND HINGE & LATCH POST	ACTUAL OPENING	HINGE SETTINGS - C	FRAME - B
3'0"	2½" OR 3"	3'1"	2"	3"OD	3'1 1/8"	2¼"	2'8 3/8"
3'6"		3'7"			3'7 1/8"		3'2 1/8"
4'0"		4'1"			4'1 1/8"		3'8 3/8"
5'0"		5'1"			5'1 1/8"		4'8 3/8"
6'0"		6'1"			6'1 1/8"		5'8 3/8"
7'0"		7'1"		4"OD	7'1 1/8"		6'8 3/8"
8'0"		8'1"			8'1 1/8"		7'8 3/8"
9'0"	3"	9'1"			9'1 1/8"		8'8 3/8"
10'0"		10'1"			10'1 1/8"		9'8 3/8"
				6"	10'2 1/8"	3½"	9'8 3/8"
10'0"				4"	11'1 1/8"	2½"	10'8 3/8"
				6"	11'2 1/8"	3½"	10'8 3/8"
10'0"				4"	12'1 1/8"	2½"	11'8 3/8"
				6"	12'2 1/8"	3½"	11'8 3/8"
10'0"					13'1 1/8"		12'7 3/8"

DOUBLE LEAF GATES							
NOMINAL OPENING	SQ HINGE & LATCH POST	ACTUAL OPENING	HINGE SETTINGS - C	ROUND HINGE & LATCH POST	ACTUAL OPENING	HINGE SETTINGS - C	FRAME - B
6'0"	2½" OR 3"	6'0"	2"	3"OD	6'1 1/8"	2¼"	2'8 3/8"
7'0"		7'0"			7'1 1/8"		3'2 1/8"
8'0"		8'0"			8'1 1/8"		3'8 3/8"
10'0"		10'0"		4"OD	10'1 1/8"		4'8 3/8"
12'0"		12'0"			12'1 1/8"		5'8 3/8"
14'0"		14'0"			14'1 1/8"		6'8 3/8"
16'0"		16'0"			16'1 1/8"		7'8 3/8"
18'0"	3"	18'0"		4"OD	18'1 1/8"		8'8 3/8"
20'0"		20'0"			20'1 1/8"		9'8 3/8"
				6"	20'2 1/8"	3½"	9'8 3/8"
22'0"				4"	22'1 1/8"	3½"	10'8 3/8"
				6"	22'2 1/8"	3½"	10'8 3/8"
24'0"				4"	24'1 1/8"	2½"	11'8 3/8"
				6"	24'2 1/8"	3½"	11'8 3/8"
26'0"					26'1 1/8"		12'7 3/8"

POST SIZING CHART

	CORNER & END POST		LINE POST		DEPTH	DIA.
FENCE HEIGHT	A	B	C	D		
4'0"	4'3"	7'3"	3'11 1/2"	6'11 1/2"	3'0"	12"
5'0"	5'3"	7'8"	4'11 1/2"	7'6"		
6'0"	6 1/2"	9'9 5/8"	5'8 1/2"	9'5 5/8"	3'9"	
8'0"	8 1/2"	12'3 5/8"	7'8 1/2"	11'11 1/2"	4'3"	
10'0"	10 5/8"	13'1"	9'8 1/2"	12'8"	4'6"	
12'0"	12 1/2"	16'6 1/2"	11'8 1/2"	16'2 1/2"		



HEAVY-DUTY BUTTERFLY LATCH
ALL GATES, TYP

CHAINLINK FENCE NOTES:

1. ALL POSTS AND RAILS SHALL BE LOCATED OUTSIDE THE PLAYING FIELDS W/ FABRIC ON INSIDE POST, TYP.
2. FOR POST SIZES LARGER THAN 3", PROVIDE WELDED CONNECTIONS BETWEEN VERTICAL POSTS AND HORIZONTAL RAILING.
3. ALL RAILS SHALL BE 1 5/8" x 1 5/8" ROLL FORMED STEEL OR EQUAL C TYPE RAIL POST.
4. ALL POSTS SHALL BE EQUIPPED WITH EITHER LINE POST CAPS OR STANDARD POST CAPS TO PREVENT MOISTURE FROM ENTERING POST, TYP.
5. ALL FENCING SHALL BE KNUCKLED TOP AND BOTTOM.
6. SEE FENCING AND POST SIZING CHART FOR CORNER AND LINE POST DIMENSIONS AND REQUIREMENTS.
7. CHANGES IN REQUIRED PLANS DUE TO THE SITE CONDITIONS SHALL BE SUBMITTED TO OWNER/ OWNER REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION.
8. ALL FIELD ACCESS GATES TO BE SINGLE PANELS UNLESS NOTED OTHERWISE ON PLANS.
9. SOFT STEEL TIES (9 GA. STEEL TO MATCH COLOR AND FENCE FABRIC COATING TYPE).
10. MID-RAILS SHALL BE PROVIDED ON ALL FENCING OVER 6'.
11. FENCING HT 4' AND UNDER, 1 BAND / FOOT. FENCING HT 5' AND ABOVE 1 BAND LESS THAN FENCE HT.
12. ALL FENCE FABRIC, POSTS, RAILS, HARDWARE, ETC TO BE 'BLACK' FUSE BONDED UNLESS NOTED OTHERWISE, TYP.
13. PEDESTRIAN GATE HINGES: MAMMOTH - 180-B (HEAVY-DUTY HYDRAULIC SELF CLOSING GATE CLOSER / HINGE IN ONE, COLOR BLACK TO MATCH FENCE COLOR AND FINISH, TYP

6 CHAINLINK FENCING
SCALE: NTS

CANOPY LAND DESIGN
LAND DESIGN

DANIEL BOUTTE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE NO. 977

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE TN 37917
225.597.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
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11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2308

Dog Park at MCFEE 917 MCFEE ROAD
FARRAGUT, TN

siteDETAILS

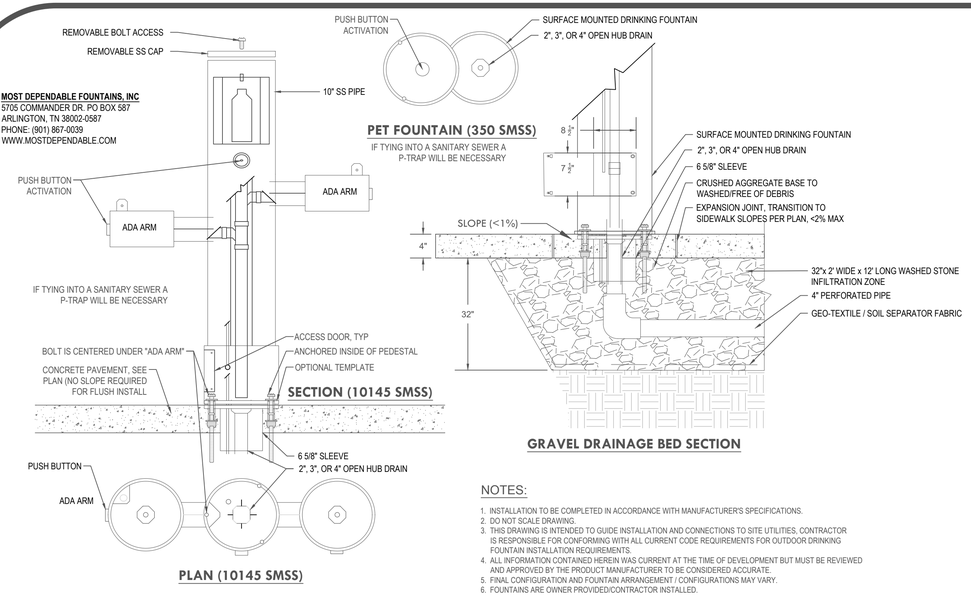
BID SET

DATE: 7/7/2025
DRAWN BY: DB CHECKED BY: DB

site DETAILS

C.30

SHEET 6 OF 15



MOST DEPENDABLE FOUNTAINS, INC
5705 COMMANDER DR. PO BOX 587
ARLINGTON, TN 38002-0587
PHONE: (901) 867-0039
WWW.MOSTDEPENDABLE.COM

SECTION (10145 SMSS)

PLAN (10145 SMSS)

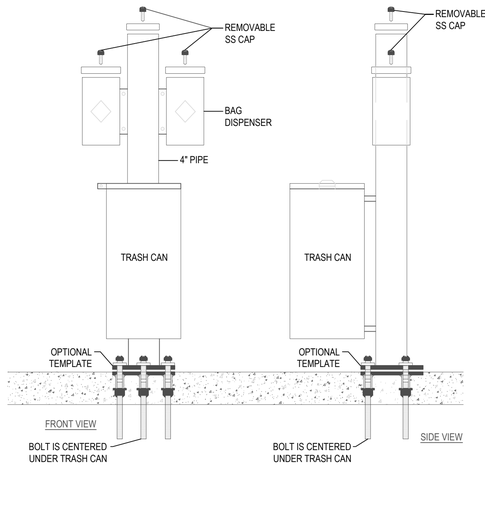
PET FOUNTAIN (350 SMSS)
IF TYING INTO A SANITARY SEWER A P-TRAP WILL BE NECESSARY

GRAVEL DRAINAGE BED SECTION

NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED TO GUIDE INSTALLATION AND CONNECTIONS TO SITE UTILITIES. CONTRACTOR IS RESPONSIBLE FOR CONFORMING WITH ALL CURRENT CODE REQUIREMENTS FOR OUTDOOR DRINKING FOUNTAIN INSTALLATION REQUIREMENTS.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. FINAL CONFIGURATION AND FOUNTAIN ARRANGEMENT / CONFIGURATIONS MAY VARY.
6. FOUNTAINS ARE OWNER PROVIDED/CONTRACTOR INSTALLED.

1 DRINKING FOUNTAIN
SCALE: NTS

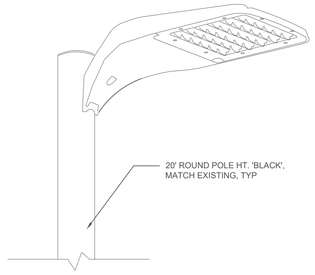


2 PET WASTE STATION - 395 SM
SCALE: NTS

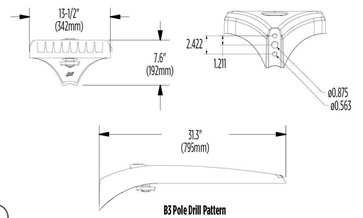
NOTES:

1. CONTRACTOR TO COORDINATE WITH CITY/COUNTY/ TOWN TO VERIFY FINAL DESIGN AND SIZE MEETS LOCAL BUILDING CODES.
2. 20' MOUNTING HEIGHT REQUIRED (ROUND POLE) PER MANUFACTURER RECOMMENDATION.
3. DIE-CAST ALUMINUM HOUSING W/ PRE-WIRED DRIVER AND ONE PIECE SILICONE OPTICAL UNIT WITH INTEGRATED GASKET PER IP66 RATED SEAL.
4. POLYESTER POWDER-COATED FINISH (BLACK) MATCH POLE AND FIXTURE COLOR
5. 3000K COLOR TEMP. PER ANSI C78.377 (DARK SKY COMPLIANT)
6. PROVIDE INTEGRATED HALF LOUVER (IH) OPTION ON ALL FIXTURES, TYP
7. MADE IN USA / 5 YEAR WARRANTY
8. INSTALL FOOTINGS PER MANUFACTURE RECOMMENDATIONS, TYP. CONTRACTOR TO PROVIDE TYPICAL DETAIL SHOWING DEPTH, FINISH AND DIAMETER

*BASIS OF DESIGN TO BE MIRADA SMALL AREA LIGHT BY LSI INDUSTRIES



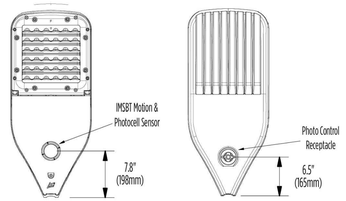
ISOMETRIC



B3 Pole Drill Pattern

SPECIFICATIONS

MODEL: MRS LED 18L SIL FT SIL UNV DIM 30 70CRI ALSCS2 BLK IH	
LUMEN PACKAGE	18L - 18,000 IMS, 135 WATT
DISTRIBUTION	FT - FOWARD THROW
VOLTAGE	UNV - UNIVERSAL VOLTAGE (120-277V)
DRIVER	DIM - 0-10V DIMMING
COLOR TEMP/ RENDERING	30 - 3,000CCT (DARK SKY COMPLIANT)
CONTROLS	ALSCS2 - AIRLINK SYNAPSE - 12'-20' MH W/ MOTION SENSOR
FINISH	BLK - BLACK
OPTIONS	IH - INTEGRAL HALF LOUVER (CUTOFF)

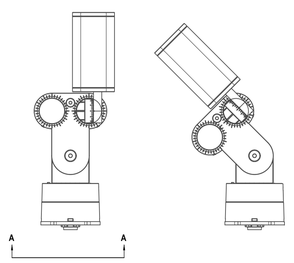


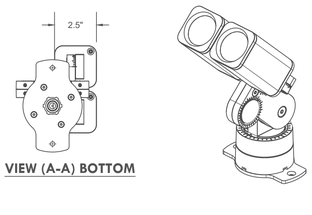
Bottom View **Top View**

3 LED SMALL (AREA) LIGHT
SCALE: NTS

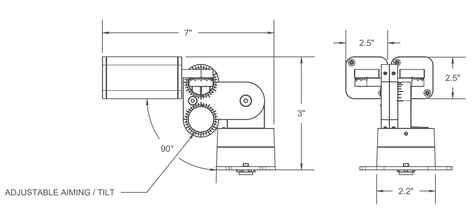
RISE DUO F080 (HORIZONTAL) BY ECOSENSE
LOW OUTPUT (858 LUMENS) COLOR: BRONZE CCT: 3000K EXTERIOR (FLOOD 90°)
110V INPUT / IP66 CERTIFIED
WWW.ECOSENSELIGHTING.COM
DISTRIBUTED BY LIGHTING TRENDS
TRACY@LTGTRENDS.COM / PHONE: (865) 816-2651

*OR APPROVED EQUAL





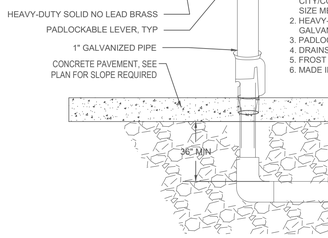
VIEW (A-A) BOTTOM



NOTES:

1. CONTRACTOR TO COORDINATE WITH CITY/COUNTY/ TOWN TO VERIFY FINAL PRODUCT SELECTION MEETS LOCAL BUILDING CODES.
2. CONTRACTOR TO CONFIRM OWNER/MANUFACTURER SUGGESTED LENS (FIELD INTERCHANGEABLE)
3. PROVIDE F080 FULL SNOOT PER LOCAL TOWN/CITY/COUNTY REQUIREMENTS FOR GLARE RESISTANCE.

4 LED UPLIGHT (SIGNAGE)
SCALE: NTS



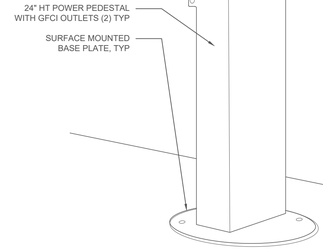
POLLARDWATER PFXAF (BY PROFLO)
ITEM: 4632175
PART#: PFXAF7504
PHONE: 1(800) 437-1146
WWW.POLLARDWATER.COM

*OR APPROVED EQUAL

NOTES:

1. CONTRACTOR TO COORDINATE WITH CITY/COUNTY/ TOWN TO VERIFY FINAL DESIGN AND SIZE MEETS LOCAL BUILDING CODES.
2. HEAVY-DUTY NO LEAD BRASS NOZZLE WITH GALVANIZED PIPE AND ROD.
3. PADLOCKABLE HEAD AND LEVER (VANDAL RESISTANT)
4. DRAINS BELOW FROST DEPTH (4' DEEP) AT SHUT-OFF
5. FROST PROOF
6. MADE IN USA

5 BRASS YARD HYDRANT
SCALE: NTS



LEVITATION POWER PEDESTAL
SKU: 1PH18 - 1E
PHONE: 1(800) 609-5790
WWW.LIGHTINGSUPPLY.COM

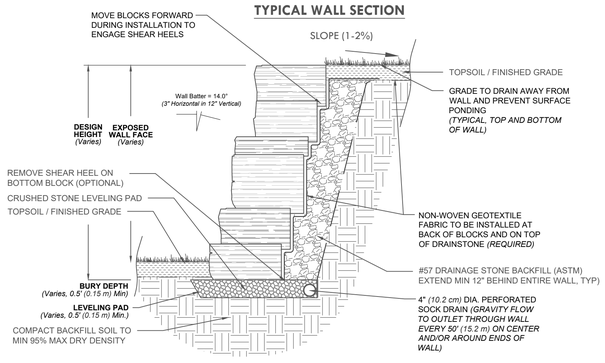
AS AVAILABLE BY LIGHTING SUPPLY
*OR APPROVED EQUAL

NOTES:

1. CONTRACTOR TO COORDINATE WITH CITY/COUNTY/ TOWN TO VERIFY FINAL DESIGN AND SIZE MEETS LOCAL BUILDING CODES.
2. SURFACE MOUNTED, LOCKABLE FLUSH HINGE TOP
3. COLOR TO BE BRONZE / BLACK (OWNER TO PROVIDE FINAL COLOR SELECTION)

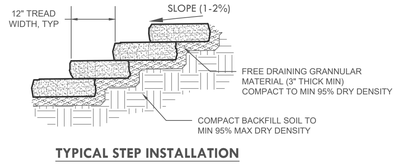
6 POWER PEDESTAL KIT GANG (20A) GFCI OUTLET
SCALE: NTS

TYPICAL WALL SECTION



NOTES:

1. BLOCK SIZES AND PLACEMENT ARE SHOWN FOR REFERENCE ONLY. INDIVIDUAL BLOCKS WILL VARY WITH INSTALLATION PATTERN. (REFERENCE ONLY)
2. FINAL DESIGN FOR CONSTRUCTION OF WALLS OVER 4' REQUIRE SEALED PLANS BY REGISTERED ENGINEER LICENSED IN TN. CANOPY LAND DESIGN DOES NOT ACCEPT RESPONSIBILITY FOR LIABILITY OF INSTALLATION OF WALLS NOT DESIGNED/ REVIEWED BY PROFESSIONAL ENGINEER AS THE ACTUAL CONDITIONS OF THE PROPOSED SITE MAY REQUIRE MODIFICATION OF TYPICAL WALL SECTION AS SHOWN.
3. FINAL WALL DESIGN MUST ADDRESS BOTH INTERNAL AND EXTERNAL DRAINAGE AND SHALL BE EVALUATED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE FINAL WALL DESIGN¬



TYPICAL STEP INSTALLATION

7 SEGMENTAL RETAINING WALL (TYPICAL)
SCALE: NTS

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.597.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2308

siteDETAILS

Dog Park at MCFEE 917 MCFEE ROAD
FARRAGUT, TN

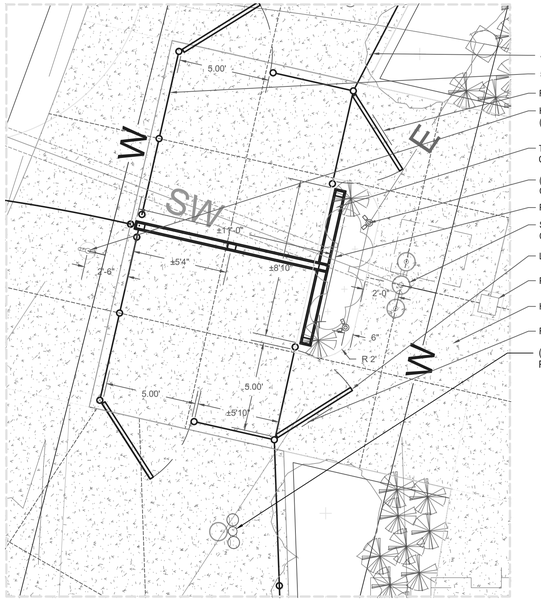
BID SET

DATE: 7/17/2025
DRAWN BY: DB CHECKED BY: DB

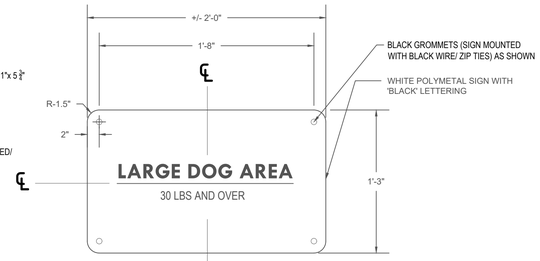
site DETAILS

CANOPY LAND DESIGN

C.31
SHEET 7 OF 15



- 4' 'BLACK' VINYL CHAINLINK FENCE (SEE DETAIL 6,C.30)
- 5' 'BLACK' VINYL CHAINLINK FENCE (SEE DETAIL 6,C.30)
- FENCE MOUNTED 'SMALL DOG AREA' POLY METAL SIGN
- HEAVY-DUTY FROST PROOF YARD HYDRANT- (SEE DETAIL 5,C.31)
- TREATED POPLAR 'STAINED BLACK' FENCE / SCREEN WITH 1"x 5½" CLAD AND TREATED 4"x6" FRAME - (SEE DETAIL 2,C.32)
- (2) ECOSENSE (RISE DUO) HORIZONTAL LED UP-LIGHT ON 12" RISER, TYP - (SEE DETAIL 3,C.31)
- POLYMETAL / LOGO / RULES AND REGULATIONS SIGN
- SURFACE MOUNTED DRINKING FOUNTAIN, OWNER PROVIDED/ CONTRACTOR INSTALLED - (SEE DETAIL 1,C.31)
- LOCKABLE, HEAVY-DUTY ADA COMPLIANT HARDWARE
- PEDESTRIAN AREA DRAIN - (SEE DETAIL 5,C.30)
- HEAVY-DUTY CONCRETE - (SEE DETAIL 1,C.30)
- FENCE MOUNTED 'LARGE DOG AREA' POLY METAL SIGN
- (2) MDF 395 SM - PET WASTE STATION (OWNER PROVIDED / INSTALLED) (SEE DETAIL 2, C.31)

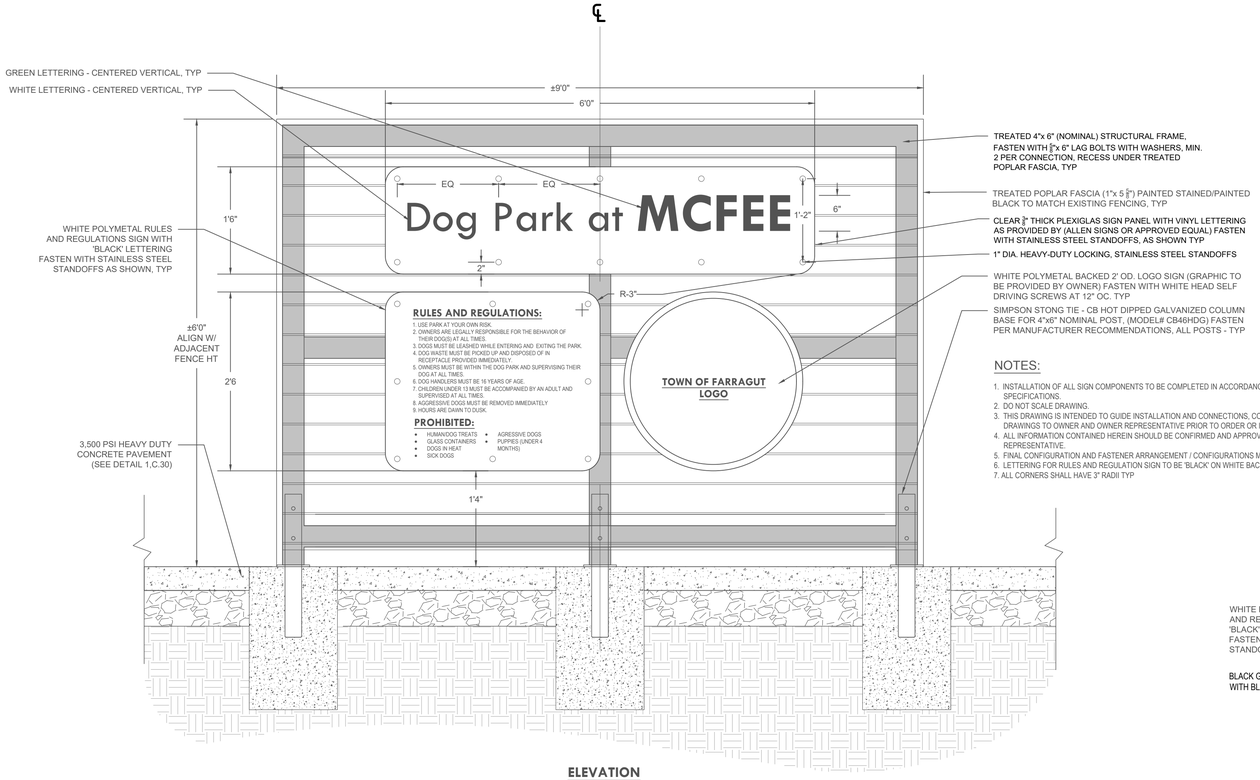


LARGE DOG AREA SIGN



LARGE DOG AREA SIGN

1 ENTRY ENLARGEMENT
SCALE: NTS



NOTES:

1. INSTALLATION OF ALL SIGN COMPONENTS TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED TO GUIDE INSTALLATION AND CONNECTIONS, CONTRACTOR TO SUBMIT SHOP DRAWINGS TO OWNER AND OWNER REPRESENTATIVE PRIOR TO ORDER OR INSTALLATION.
4. ALL INFORMATION CONTAINED HEREIN SHOULD BE CONFIRMED AND APPROVED BY OWNER / OWNER REPRESENTATIVE.
5. FINAL CONFIGURATION AND FASTENER ARRANGEMENT / CONFIGURATIONS MAY VARY PER SHOP DRAWING SUBMITTAL.
6. LETTERING FOR RULES AND REGULATION SIGN TO BE 'BLACK' ON WHITE BACKGROUND.
7. ALL CORNERS SHALL HAVE 3" RADII TYP

ELEVATION



RULES AND REGULATIONS (ENLARGED)

2 ENTRY / RULES AND REGULATION SIGN
SCALE: NTS



CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.597.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2508

siteDETAILS

Dog Park at **MCFEE** 917 MCFEE ROAD
FARRAGUT, TN

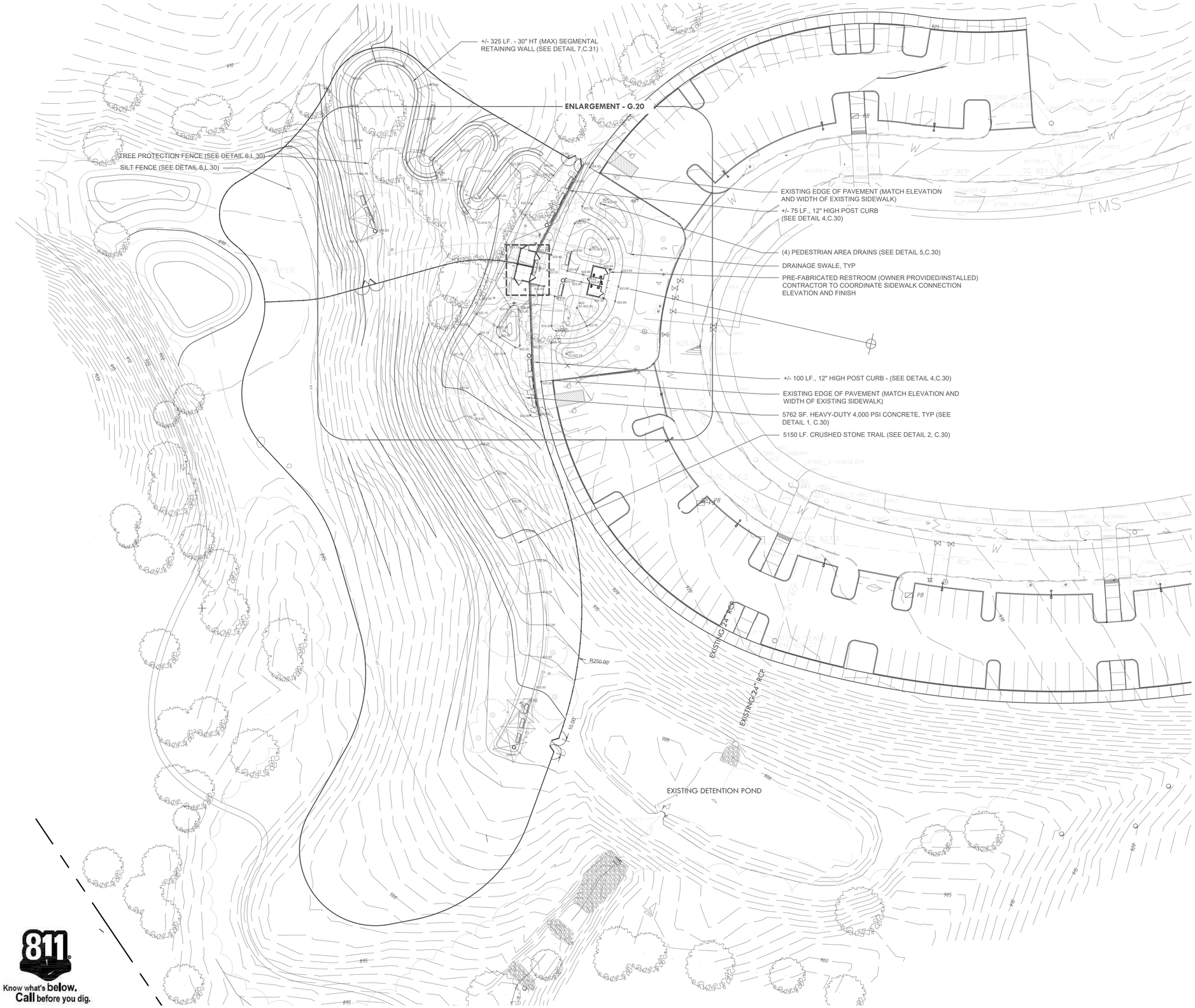
BID SET

DATE: 7/2/2025
DRAWN BY: DB CHECKED BY: DB

site **DETAILS**

C.32

SHEET 8 OF 15



GRADING NOTES:

1. CONTRACTOR RESPONSIBLE FOR VERIFYING EXISTING ELEVATIONS COMPARED TO THOSE SHOWN ON PLAN PRIOR TO GRADING. NOTIFY OWNER'S REPRESENTATIVE IF DISCREPANCIES ARE FOUND.
2. AREAS FOR CONSTRUCTION THAT REQUIRE DE-WATERING FOR EXCAVATION WILL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
3. TEMPORARY VEGETATION SHALL BE ESTABLISHED IN DISTURBED AREAS THAT ARE NOT GRADED TO PROPOSED FINAL GRADE ELEVATIONS AND ARE IDLE FOR GREATER THAN FIVE DAYS. MULCH, TEMPORARY VEGETATION OR PERMANENT VEGETATION SHALL BE COMPLETED ON ALL EXPOSED AREAS WITHIN 14 DAYS AFTER DISTURBANCE. ALL AREAS TO FINAL GRADE WILL BE ESTABLISHED TO PERMANENT VEGETATION UPON COMPLETION.
4. A CITY/TOWN/COUNTY LAND DISTURBANCE PERMIT AND NOTICE OF COVERAGE UNDER THE TENNESSEE GENERAL PERMIT FOR CONSTRUCTION STORMWATER MUST BE DISPLAYED ON SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAIN VIEW FROM A PUBLIC ROAD OR STREET.
5. SEDIMENT AND EROSION CONTROL DEVICES MUST BE INSPECTED ACCORDING TO LOCAL AND STATE REQUIREMENTS. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF ITS CAPACITY. ADDITIONAL DEVICES MAY BE NECESSARY AS THE PROJECT PROGRESSES AND NEW CHANNELS HAVE DEVELOPED.
6. SEDIMENT TRANSPORT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.
7. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
8. THE OWNER SHALL BE RESPONSIBLE FOR LONG TERM MAINTENANCE OF PERMANENT STORMWATER CONTROL MEASURES BUT CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND PERMANENT SITE STABILIZATION MEASURES SHOWN OR REQUIRED.
9. ALL FILL AND CUT SLOPES SHALL BE 3:1 OR FLATTER. UNLESS OTHERWISE NOTED ON THE PLANS.
10. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS (ALL LOCATIONS).
11. REFER TO LANDSCAPE PLANS FOR TOPSOIL AND PERMANENT VEGETATION REQUIREMENTS IN PLANT BEDS AND TREE WELLS.
12. MINOR FIELD ADJUSTMENTS TO AVOID DISTURBANCE OF EXISTING TREES MAY BE REQUIRED.
13. ALL CONSTRUCTION ACTIVITIES SHALL BE COMPLETED IN FULL COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA).
14. ADA ACCESSIBLE CONSTRUCTION SHALL MEET THE FOLLOWING:
- 14.1. RUNNING SLOPES ON ADA ACCESS PATHS NOT TO EXCEED 5% WITHOUT A HANDRAIL.
- 14.2. RUNNING SLOPES ON ADA ACCESS PATHS BETWEEN 5% AND 8% REQUIRE HANDRAILS.
- 14.3. CROSS SLOPES ON ADA ACCESS PATHS NOT TO EXCEED 2%.
- 14.4. PLAZAS SHALL NOT EXCEED A MAX SLOPE OF 2% IN ALL DIRECTIONS.
- 14.5. ADA PARKING SPACES SHALL NOT EXCEED A MAX SLOPE OF 2% IN ALL DIRECTIONS.

PROPERTY INFORMATION:

ADDRESS:	917 MCFEE ROAD FARRAGUT TN, 37934
PARCEL:	162 01402 CTL MAP 162
ZONING:	FAR (OS-P)
ACRES:	52.19
OWNER:	TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DR. FARRAGUT TN, 37934
COUNTY:	KNOX

UTILITY PROVIDERS:

ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD) 865-687-5282
WATER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
SEWER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/: INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

811 Know what's below. Call before you dig.

CANOPY LAND DESIGN

N

0 15' 30' 60'

SCALE: 1"=30'-0"

DANIEL BOUTTE REGISTERED AGRICULTURE TENNESSEE NO. 317 LANDSCAPE ARCHITECT 2025

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2508

Dog Park at MCFEE 917 MCFEE ROAD FARRAGUT, TN

grading PLAN

BID SET

DATE: 7/2/2025

DRAWN BY: DB CHECKED BY: DB

grading PLAN

G.10

SHEET 9 OF 15



GRADING NOTES:

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PROPERTY INFORMATION:

ADDRESS:	917 MCFEE ROAD FARRAGUT TN, 37934
PARCEL:	162 01402 CTL MAP 162
ZONING:	FAR (OS-P)
ACRES:	52.19
OWNER:	TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DR. FARRAGUT TN, 37934
COUNTY:	KNOX

UTILITY PROVIDERS:

ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD) 865-687-5282
WATER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
SEWER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/: INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

Know what's **below.** **Call** before you dig.

CANOPY LAND DESIGN

0 5' 10' 20'

SCALE: 1"=10'-0"

DANIEL BOUTTE REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 577 — 2025

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.937.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2508

Dog Park at **MCFEE** 917 MCFEE ROAD
FARRAGUT, TN

grading**PLAN**

BID SET

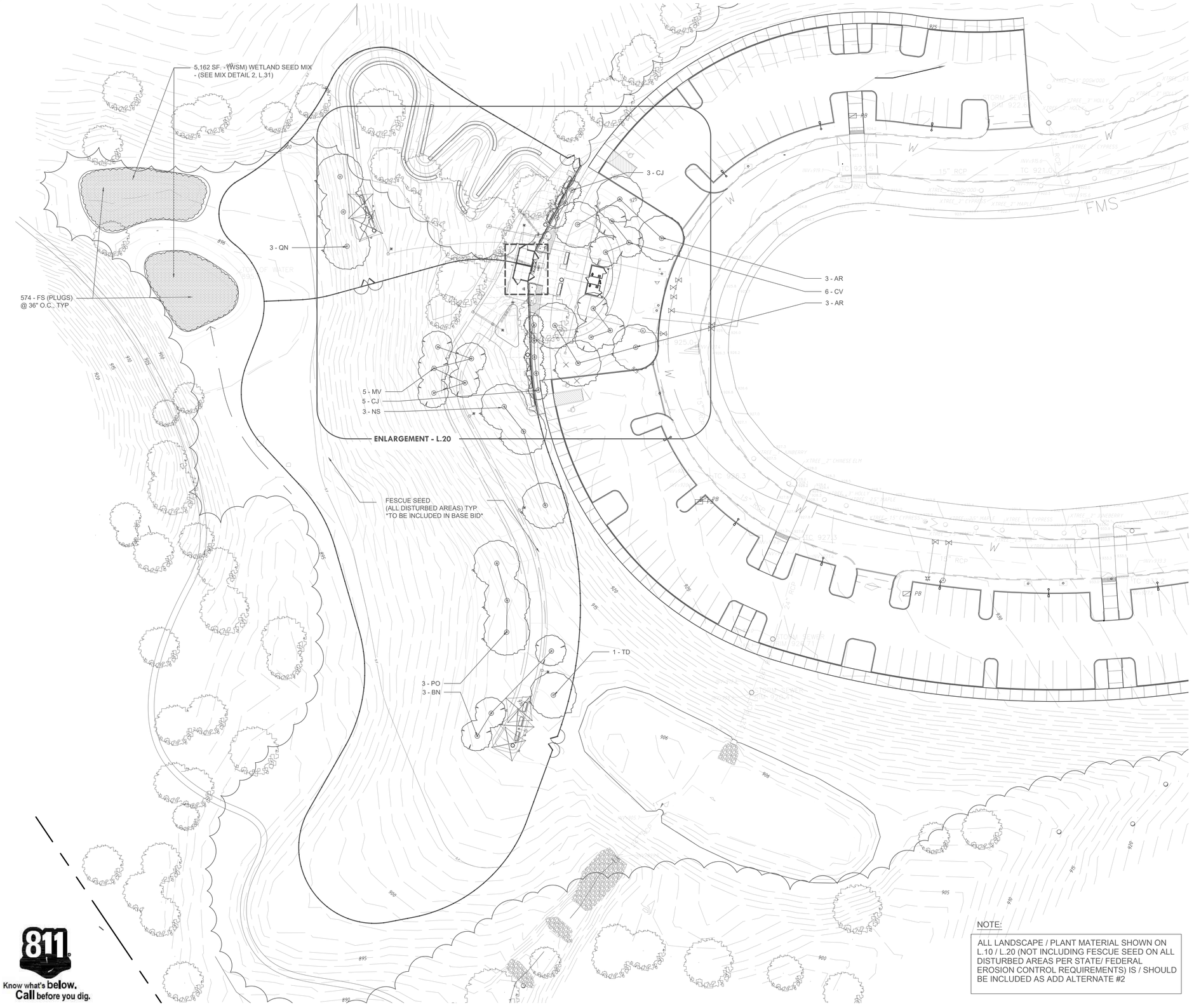
DATE: 7/7/2025

DRAWN BY: DB CHECKED BY: DB

grading **PLAN**

G.20

SHEET **10** OF **15**



sitePLANTS

sitePLANTS

- CANOPY TREE
- ORNAMENTAL TREE
- SMALL TREE/ACCENT/BUFFER
- LARGE SHRUB
- MEDIUM SHRUB
- SMALL SHRUB
- ACCENT SHRUB
- RIVER SLICK (4" MIN)
- GROUNDCOVER
- SEED (FESCUE)
- LED UPLIGHT

siteLEGEND

siteLEGEND

PROPERTY INFORMATION:

ADDRESS:	917 MCFEE ROAD FARRAGUT TN, 37934
PARCEL:	162 01402 CTL MAP 162
ZONING:	FAR (OS-P)
ACRES:	....
OWNER:	TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DR. FARRAGUT TN, 37934
COUNTY:	KNOX

UTILITY PROVIDERS:

ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD) 865-687-5282
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GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/: INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

NOTE:

ALL LANDSCAPE / PLANT MATERIAL SHOWN ON L.10 / L.20 (NOT INCLUDING FESCUE SEED ON ALL DISTURBED AREAS PER STATE/ FEDERAL EROSION CONTROL REQUIREMENTS) IS / SHOULD BE INCLUDED AS ADD ALTERNATE #2

CANOPY LAND DESIGN

0 15' 30' 60'

SCALE: 1"=30'-0"

Know what's below. Call before you dig.

DANIEL BOUTTE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE NO. 371

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2508

Dog Park at MCFEE 917 MCFEE ROAD
FARRAGUT, TN

landscapePLAN

BID SET

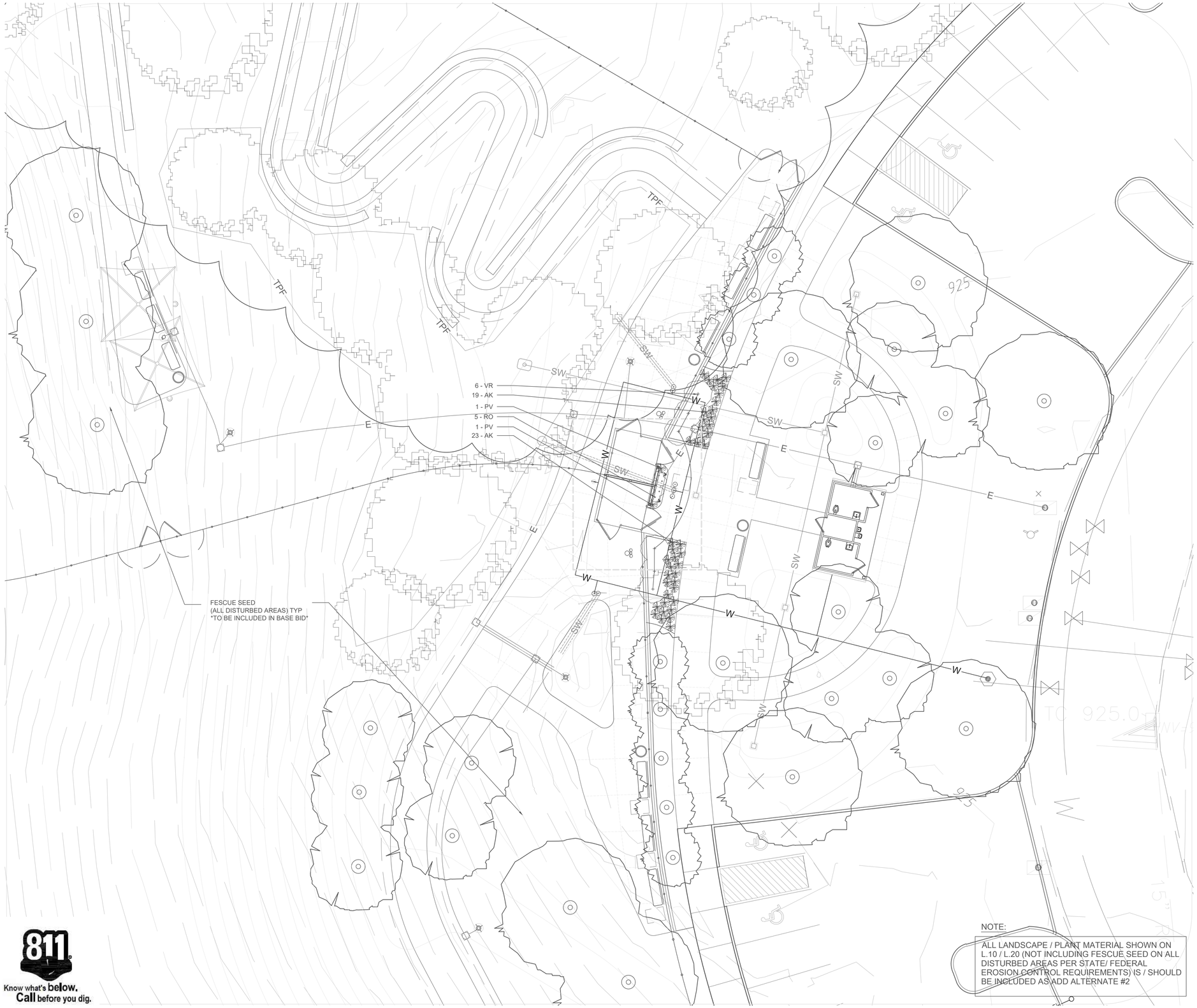
DATE: 7/7/2025

DRAWN BY: DB CHECKED BY: DB

landscape
PLAN

L.10

SHEET 11 OF 15



sitePLANTS

siteLEGEND

- CANOPY TREE
- ORNAMENTAL TREE
- SMALL TREE/ACCENT/BUFFER
- LARGE SHRUB
- MEDIUM SHRUB
- SMALL SHRUB
- ACCENT SHRUB
- RIVER SLICK (4" MIN)
- GROUNDCOVER
- SEED (FESCUE)
- LED UPLIGHT

PROPERTY INFORMATION:

ADDRESS:	917 MCFEE ROAD FARRAGUT TN, 37934
PARCEL:	162 01402 CTL MAP 162
ZONING:	FAR (OS-P)
ACRES:	....
OWNER:	TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DR. FARRAGUT TN, 37934
COUNTY:	KNOX

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NOTE:

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CANOPY LAND DESIGN

0 5' 10' 20'

SCALE: 1"=10'-0"

Know what's below. Call before you dig.

DANIEL BOUTTE
REGISTERED
AGRICULTURE
TENNESSEE NO. 347
LANDSCAPE ARCHITECT

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.937.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2508

Dog Park at MCFEE 917 MCFEE ROAD
FARRAGUT, TN

landscapePLAN

BID SET

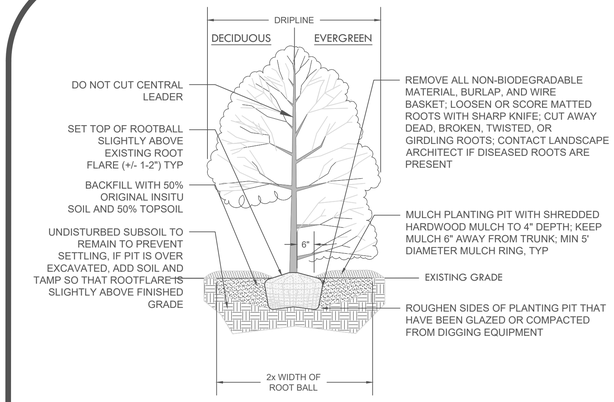
DATE: 7/7/2025

DRAWN BY: DB CHECKED BY: DB

landscape PLAN

L.20

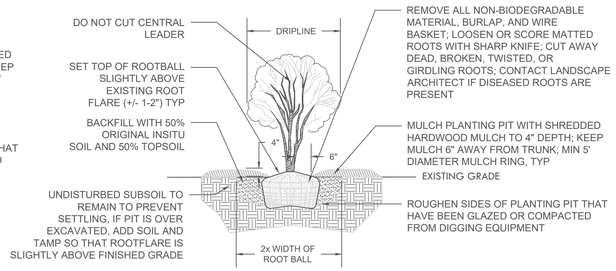
SHEET 12 OF 15



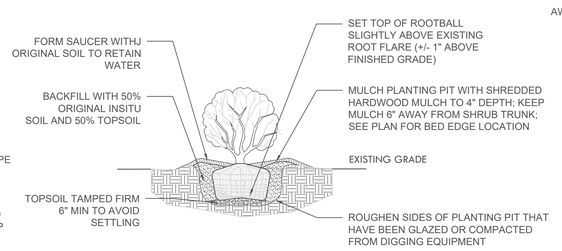
1 TREE PLANTING
SCALE: NTS

NOTES:

1. WATER TREES UNTIL SATURATION AT 12" DEPTH IMMEDIATELY AFTER PLANTINGS.
2. TREES OF SAME SPECIES TO BE MATCHED IN UNIFORMITY AND GROWTH HABITS, TYP.
3. TREES MUST MEET (CURRENT) AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
4. DECIDUOUS AND EVERGREEN TREES TO BOTH BE INSTALLED PER THIS DETAIL UNLESS NOTED OTHERWISE.
5. CANOPY TREES (DECIDUOUS) TO BE PRUNED UP TO 7' WITH 12' MIN. HEIGHT
   EVERGREEN TREES SHALL NOT BE PRUNED (LIMBS TO REMAIN AT GROUND)
   UNDERSTORY TREES TO BE PRUNED UP TO 4' WITH 8' MIN. HEIGHT.
6. MULCH RINGS SHALL BE 4" MIN. SHREDDED HARDWOOD WITH MIN. 5' DIAMETER UNLESS NOTED OTHERWISE.



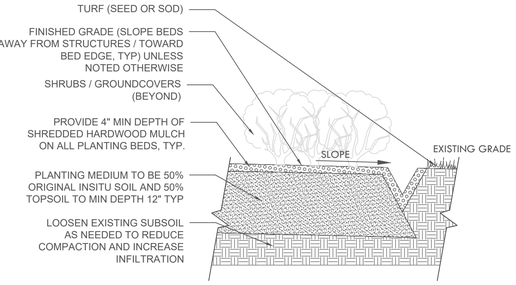
2 MULTI-TRUNK TREE PLANTING
SCALE: NTS



3 SHRUB PLANTING
SCALE: NTS

NOTES:

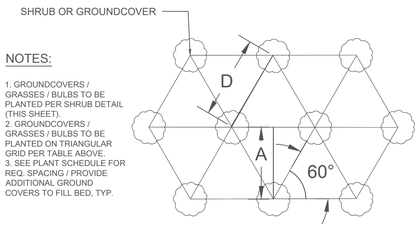
1. WATER SHRUBS UNTIL SATURATION AT 12" DEPTH IMMEDIATELY AFTER PLANTINGS.
2. SHRUBS OF SAME SPECIES TO BE MATCHED IN UNIFORMITY AND GROWTH HABITS, TYP.
3. SHRUBS MUST MEET (CURRENT) AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
4. SHRUBS TO BE 3 GAL. MIN SIZE UNLESS NOTED OTHERWISE
5. SEE PLAN FOR BED EDGE TYPE AND LOCATION.



4 EDGING (V-TRENCH)
SCALE: NTS

NOTES:

1. DIG TRENCH EDGE WITH SHARP SPADE CONTINUOUS BETWEEN BED EDGE AND TURF.
2. MULCH TRENCH AS SHOWN
3. PLACE BED EDGE AS SHOWN ON PLAN AND MIN. 1' FROM GROUNDCOVER / SHRUBS ROOTBALL.

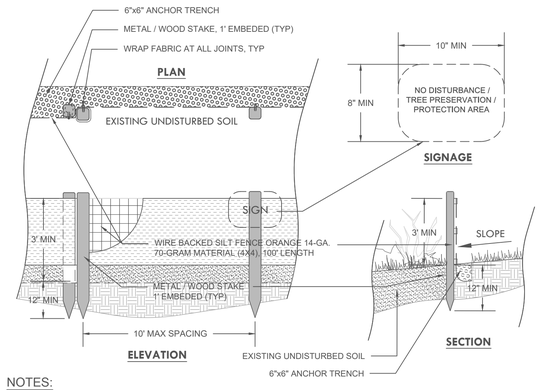


NOTES:

1. GROUNDCOVERS / GRASSES / BULBS TO BE PLANTED PER SHRUB DETAIL (THIS SHEET).
2. GROUNDCOVERS / GRASSES / BULBS TO BE PLANTED ON TRIANGULAR GRID PER TABLE ABOVE.
3. SEE PLANT SCHEDULE FOR REQ. SPACING / PROVIDE ADDITIONAL GROUND COVERS TO FILL BED, TYP.

SPACING (D)	ROW WIDTH (A)	PLANTING (SF)
6" O.C.	5.2"	4.61
8" O.C.	6.9"	2.60
10" O.C.	8.7"	1.66
12" O.C.	10.4"	1.15
15" O.C.	13.0"	0.74
18" O.C.	15.6"	0.51
24" O.C.	20.8"	0.33

5 GROUNDCOVER SPACING
SCALE: NTS



NOTES:

1. TREE PROTECTION SIGNAGE TO BE CONSTRUCTED OF DURABLE MATERIALS (METAL, WOOD, HDPE) AND INSTALLED AT NO MORE THAN 50' OC. (COLOR TO BE 'FOREST GREEN' WITH 'WHITE' FONT.
2. CONTRACTOR TO COORDINATE WITH CIVIL PLANS FOR FINAL LOCATION. CITY/COUNTY/ TOWN TO VERIFY FINAL LOCATION MEETS CODE AND CONSTRUCTION GUIDELINES.
3. TREE PROTECTION FENCING TO REMAIN INTACT FOR ENTIRE DURATION OF CONSTRUCTION ACTIVITIES. NO EQUIPMENT OR MATERIALS CAN BE STORED IN AREAS OF TREE PROTECTION / PRESERVATION. REPLACE FENCING IMMEDIATELY IF REQUIRED FOR ACCESS OR IF DAMAGED BY NATURAL OR CONSTRUCTION ACTIVITIES.

6 TREE PROTECTION / SILT FENCE
SCALE: NTS

GENERAL LANDSCAPE NOTES:

1. GRASS, MULCH OR GROUNDCOVER SHALL BE PLANTED ON ALL PORTIONS OF THE LANDSCAPE BUFFER AREA (LBA) NOT OCCUPIED BY OTHER LANDSCAPE MATERIAL (SEE LANDSCAPE PLANS).
2. IF EXISTING TREES AND PLANT MATERIAL ARE BEING USED TO MEET LANDSCAPE CODE REQUIREMENTS, ANY TREES OR SCREENING VEGETATION THAT DIE OR ARE REMOVED AS A RESULT OF CONSTRUCTION ACTIVITIES WILL BE REPLACED AS PER THE LANDSCAPE CODE REQUIREMENTS.
3. THE PROPERTY OWNER WILL BE REQUIRED TO PERPETUALLY MAINTAIN ALL REQUIRED BUFFER/LANDSCAPE AREAS AND ASSOCIATED PLANT MATERIAL REQUIRED UNDER LAND DEVELOPMENT CODE REGULATIONS (IF APPLICABLE).
4. ALL UNHEALTHY OR DEAD PLANT MATERIAL SHALL BE REPLACED WITHIN ONE YEAR, OR BY THE NEXT PLANTING PERIOD, WHICHEVER COMES FIRST, WHILE OTHER DEFECTIVE PLANT MATERIAL SHALL BE REPLACED OR REPAIRED WITHIN THREE (3) MONTHS.
5. ALL PLANT MATERIAL LOCATED WITHIN A UTILITY EASEMENT THAT IS DAMAGED OR REMOVED DUE TO WORK REQUIRED BY THE UTILITY COMPANY SHALL BE IMMEDIATELY REPLACED BY THE OWNER IN ACCORDANCE WITH LAND DEVELOPMENT REQUIREMENTS.
6. STREET TREES SHALL BE PLANTED IN A MANNER THAT DOES NOT AFFECT PUBLIC SAFETY AND MAINTAINS PROPER SIGHT VISIBILITY TRIANGLE DISTANCES.
7. IRRIGATION WILL BE PROVIDED AS REQUIRED AND SHOWN ON LANDSCAPE PLANS. THIS IRRIGATION SYSTEM SHALL BE DESIGNED TO PROVIDE ADEQUATE WATERING OF THE PROPOSED PLANT MATERIAL AND LAWN AREAS. THE SYSTEM SHALL CONSIST OF SEVERAL WATERING ZONES CONTROLLED BY A CENTRAL TIMER WITH EITHER POP-UP AND ROTATING IRRIGATION HEADS OR A DRIP LINE SYSTEM. THE PROPOSED SYSTEM SHALL BE INSTALLED PRIOR TO PLANTING. (IF APPLICABLE)
8. AN AUTHORIZED CITY/TOWN/COUNTY INSPECTOR SHALL HAVE THE RIGHT TO ENTER ONTO ANY PROPERTY TO INSPECT THE HEALTH AND GENERAL CONDITION OF PLANT MATERIAL THAT IS; LOCATED IN THE RIGHT OF WAY; PART OF AN APPROVED DEVELOPMENT/LANDSCAPE PLAN; OR REPORTED AS A PUBLIC HAZARD.
9. UNDERGROUND UTILITIES:
   9.1. UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, LANDSCAPE ARCHITECT, OR THEIR REPRESENTATIVES. BEFORE YOU DIG, CALL [TENNESSEE] ONE CALL SYSTEM (811).
   9.2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES
   BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.
10. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO ENSURE THAT THE NEW WORK SHALL FIT INTO THE EXISTING SITE IN THE MANNER INTENDED AND AS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK IN THE
    AREAS INVOLVING DIFFERENCES, SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THE PLANS AND DRAWINGS. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND WRITTEN NOTES RELATING TO THE AREA.

PLANT STOCK NOTES:

1. ALL CANOPY TREES SHALL BE LIMBED UP AT LEAST 7' WITH A MINIMUM HEIGHT OF 12' UNLESS SPECIFIED OTHERWISE OR REQUIRED BY LOCAL CODE OR ORDINANCE. (ALL PEDESTRIAN ACCESS WAYS MUST HAVE AT LEAST 7' OF CLEARANCE).
2. ALL UNDERSTORY TREES SHALL BE LIMBED UP AT LEAST 4' WITH A MINIMUM HEIGHT OF 8'.
3. ALL CANOPY AND UNDERSTORY TREES SHALL HAVE ONE STRONG CENTRAL LEADER TRUNK. (NO MULTI-TRUNK UNLESS SPECIFIED).
4. ALL TREES AND SHRUBS SHALL BE MATCHED SPECIMENS WITH A FULL CANOPY AND A UNIFORM BRANCHING HABIT. EVERGREEN TREES SHALL BE FULL TO GROUND WITH A HEAVY CANOPY AND STRONG CENTRAL LEADER. ALL SHRUBS SHALL HAVE A FULL, HEAVY BODY FOR THE COMPLETE HEIGHT OF THE SHRUB AND SHOULD NOT SHOW STRESS AT TIME OF PLANTING AND HAVE A MINIMUM #3 CONTAINER AT TIME OF PLANTING.
5. PLANT SELECTION MUST BE CHOSEN BY PLANT SIZE, NOT CONTAINER SIZE.
6. ALL SHRUBS, EXCEPT AS NOTED, SHALL BE PLANTED AND MAINTAINED IN THEIR NATURAL FORM TO CREATE A PLANT MASSING EFFECT. DO NOT PRUNE TO FORM ANY SHAPE UNLESS SPECIFIED.
7. INSTALL MULCH IN SHAPE AND SIZE AS SHOWN ON LANDSCAPE DETAILS, (MULCH "VOLCANOES" WILL NOT BE ACCEPTED).
8. ALL PLANTS MUST BE SELECTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE LANDSCAPE DETAILS AND SPECIFICATIONS.
9. ALL TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM MAJOR UTILITY LINES UNLESS SPECIFIED OTHERWISE BY LOCAL CODES OR REQUIREMENTS. CONTACT LANDSCAPE ARCHITECT IMMEDIATELY WHERE DISCREPANCIES OCCUR FOR FIELD ADJUSTMENT.

PLANTING NOTES:

1. PLANTING BEDS AND PLANT LOCATIONS SHALL BE STAKED BY THE LANDSCAPE CONTRACTOR FOR REVIEW AND APPROVAL OF THE OWNER OR THE OWNER'S REPRESENTATIVE (LANDSCAPE ARCHITECT) PRIOR TO INSTALLATION OF THE PLANTS.
2. PLANTING BEDS SHALL BE CLEARED OF ALL GRASS AND WEEDS PRIOR TO INSTALLATION OF PLANTS, INCLUDING MANUAL SCRAPING OR CHEMICAL PRODUCT (SUCH AS, ROUND-UP,) TO KILL ACTIVELY GROWING PLANTS. PLANT BEDS SHALL BE PREPARED AS CALLED FOR IN THE SPECIFICATIONS AND DETAILS.
3. ALL OTHER DISTURBED AREAS ARE TO BE SEEDED OR SODDED AS PER THE PLANS. ADDITIONAL SEEDING OR SODDING MAY BE REQUIRED IF DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE TO ADEQUATELY (90%) COVER ALL DISTURBED AREAS THAT REQUIRE STABILIZATION. SEE EROSION CONTROL PLANS FOR TEMPORARY SEEDING IF APPLICABLE.
4. PLANTING BEDS SHALL HAVE A MINIMUM OF THREE (3) INCHES OF SHREDDED HARDWOOD BARK MULCH OVER THE ENTIRE BED, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
5. PRIOR TO PLANTING, ALL PLANTED AREAS SHALL BE TREATED WITH A WATER-SOLUBLE HERBICIDE FOR THE NON-SELECTIVE CONTROL OF ANNUAL AND PERENNIAL WEEDS PRIOR TO PLANTING.
6. ALL TREE AND SHRUB PLANTING PITS SHALL BE BACKFILLED WITH A PLANTING SOIL MIXTURE OF ONE (1) PART ORIGINAL SOIL AND ONE (1) PART TOPSOIL, THOROUGHLY MIXED (UNLESS OTHERWISE NOTED ON THE DETAILS OR LOCAL LANDSCAPE CODE AND REQUIREMENTS. THE CONTRACTORS SHALL PROVIDE A SAMPLE OF MIXTURE TO THE OWNER/OWNER'S REPRESENTATIVE (LANDSCAPE ARCHITECT) PRIOR TO INSTALLATION.
7. PLANT GROUNDCOVER AND ANNUAL BEDS IN SAME MIXTURE AS SHRUBS. THE LANDSCAPE CONTRACTOR SHALL WATER ALL LANDSCAPE AREAS TO POINT OF SATURATION IMMEDIATELY AFTER PLANTING & MULCHING. ALL PLANTED AREAS ARE TO BE FERTILIZED WITH GRANULAR FERTILIZER. LANDSCAPE CONTRACTOR SHALL PROVIDE SOIL TEST RESULTS AND PROPOSED FERTILIZER APPLICATION RATES TO THE OWNER OR OWNER'S REPRESENTATIVE (LANDSCAPE ARCHITECT) FOR WRITTEN APPROVAL PRIOR TO APPLICATION.
8. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND COMPLY WITH CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK. PLANTS NOT IN COMPLIANCE WILL BE REJECTED AND REPLACED WITH PLANTS THAT MEET THE REQUIRED STANDARDS.
9. SPRAY TREES AND SHRUBS WITH AN ANTI-DESICCANT IF FOLIAGE IS PRESENT.
10. EVERGREEN TREES AND SHRUBS SHALL BE PLANTED IN THE SAME MANNER AS DECIDUOUS MATERIAL IS PLANTED.
11. DO NOT PRUNE ANY PLANT MATERIAL UNTIL IT HAS BEEN INSPECTED AND ACCEPTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
12. ALL LANDSCAPE MATERIAL SHALL BE APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE BEFORE INSTALLATION. PLANT MATERIALS MAY BE VIEWED AT LANDSCAPE CONTRACTOR'S HOLDING SITE OR ON-SITE. ALL PLANT MATERIALS INSPECTED ON-SITE FOUND TO BE UNACCEPTABLE SHALL BE REMOVED FROM THE SITE WITHIN 5 DAYS (ONE WORKING WEEK) OF INSPECTION.
13. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE (LA) OF THE AVAILABILITY OF THE MATERIALS TO BE INSPECTED PRIOR TO COORDINATING AN ON-SITE INSPECTION.
14. ALL FIELD LANDSCAPE CHANGES MUST BE APPROVED IN WRITING BY THE OWNER OR OWNER'S REPRESENTATIVE (LA) PRIOR TO INSTALLATION.
15. EXISTING PLANT MATERIAL IS TO BE EVALUATED BY THE LANDSCAPE ARCHITECT FOR POSSIBLE RELOCATION ON SITE.
16. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT FORTY-EIGHT (48) HOURS BEFORE BEGINNING ANY WORK.
17. ALL PLANT MATERIAL SHALL BE SUPPLIED BY APPROPRIATE SOURCES (IF SPECIFIED ON PLANS OR SPECIFICATIONS) TO PREVENT UNDUE STRESS OR PROLONGED ACCLIMATIZATION WHICH WOULD INHIBIT PLANT GROWTH.
18. THE LANDSCAPE CONTRACTOR SHALL VERIFY PLANT QUANTITIES SHOWN ON PLAN AND IN PLANT LIST. IF DISCREPANCIES OCCUR, LANDSCAPE CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT IMMEDIATELY. (QUANTITIES SHOWN ON PLANS TAKE PRECEDENCE.)
19. EVERGREEN TREES TO BE A MINIMUM OF 6' IN HEIGHT AT TIME OF PLANTING / DECIDUOUS TREES TO BE 2" DBH MIN AT TIME OF PLANTING UNLESS NOTED OTHERWISE. (SEE PLANT SCHEDULE/LIST FOR POTENTIAL LARGER PLANT MATERIAL SPECIFIED OR REQUIRED).
20. MULTI-TRUNK PLANT MATERIAL SHALL BE ONE PLANT GROWN FROM SINGLE SEEDLING. (NO CLUMP MULTI-PLANT STOCK WILL BE ACCEPTED).
21. IF NOTED BY THE LANDSCAPE ARCHITECT, CITY/TOWN/COUNTY STAFF INSPECTORS, THAT THE CENTRAL LEADER OF ANY TREE HAS BEEN CUT IN THE HISTORY OF THE PLANT'S GROWTH, THE MATERIAL SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
22. THE DECISION OF THE HEALTH, SIZE, LOCATION OR TYPE OF PLANT MATERIAL BY LANDSCAPE ARCHITECT WILL BE FINAL.

CANOPY LAND DESIGN

DANIEL BOUTTE
REGISTERED
AGRICULTURE
TENNESSEE NO. 371
LANDSCAPE ARCHITECT
25

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE TN 37917
225.597.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2508

Dog Park at MCFEE 917 MCFEE ROAD FARRAGUT, TN

landscape DETAILS

BID SET

DATE: 7/2/2025

DRAWN BY: DB CHECKED BY: DB

landscape **DETAILS**

L.30

SHEET 13 OF 15

CANOPY LAND DESIGN

plant**SCHEDULE**

KEY	NAME	SIZE	SPACING	NOTES	QUANTITY
canopy TREES					
AR	Acer Rubrum 'October Glory'	2" CAL			6
BN	Betula Nigra RIVER BIRCH	2" CAL			3
NS	Nyssa Sylvatica BLACK GUM/ TUPELO	2" CAL			3
PO	Platanus Occidentalis AMERICAN SYCAMORE	2" CAL			3
QN	Quercus Nuttalli NUTTAL OAK	2" CAL			3
TD	Taxodium Distichum BALD CYPRESS	2.5" CAL			1
					19
understory TREES					
CJ	Cryptomeria Japonica 'Radicans' JAPANESE CEDAR	6' HT		MATCH	8
CV	Crataegus Viridis 'Winter King' HAWTHORNE	2" CAL	AS SHOWN	3' CLEAR TYP	6
MV	Magnolia Virginiana SWEETBAY MAGNOLIA	8' HT			5
					19
SHRUBS					
AK	Abelia 'Kaledoscope' DWARF ABELIA	36" HT		FULL/MATCH	42
PV	Cornus Sericea RED OSIER DOGWOOD (RED TWIG)	36" HT	AS SHOWN	FULL/MATCH	2
RO	Rosmanius Officinalis ROSEMARY	36" HT	AS SHOWN	FULL/MATCH	5
VR	Viburnum Rhytidophyllum LEATHERLEAF VIBURNUM	36" HT	AS SHOWN	FULL/MATCH	6
					55
groundcovers GRASSES					
FS	Carex Vulpinoidea FOX SEDGE		PLUGS @ 36" OC. (BIO-RETENTION AREA)		574
F-SEED	Fescue 'Kentucky 31' (SEED)		ALL DISTURBED AREAS		
WSM	Native Wetland Seed Mix		5,165 SF (AS SHOWN)		

1 PLANT SCHEDULE
SCALE: NTS

SEEDING NOTES:
1. UNLESS OTHERWISE NOTED, SEEDING SHALL BE INSTALLED ON ALL CUT AND FILL SLOPES, ROADWAY SHOULDERS, AND DISTURBED AREAS GENERATED BY CONSTRUCTION (REGARDLESS OF PLAN AREAS).
2. SEEDING SHALL BE INSTALLED AS SOON AS CONSTRUCTION IN AN AREA IS COMPLETED. LANDSCAPE CONTRACTOR SHALL REFER TO SEEDING TABLES FOR APPLICATION RATES):
3. SHAPE AND SMOOTH GRADE WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION FOR SEEDING AND MAINTENANCE PURPOSES.
4. SPREAD LIME AND FERTILIZER IN DRY FORM UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. SCARIFY SEEDBED TO A DEPTH OF 1" TO 4" AS DETERMINED ON-SITE. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED, AND FIRMED PRIOR TO SEED INSTALLATION.
5. DISTRIBUTE SEED UNIFORMLY OVER FRESHLY PREPARED SEEDBED WITH CULTIPACKER-SEEDER, DRILL, ROTARY SEEDER, OR OTHER MECHANICAL OR HAND SEEDER. WITHIN 24 HOURS AFTER SEEDING, STRAW OR HAY MULCH SHALL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25% OF THE GROUND SURFACE EXPOSED. MULCH SHALL BE SPREAD WITH BLOWER-TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AS IT IS SPREAD. A DISK HARROW WITH THE DISK SET OR A SPECIAL PACKER DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL.
6. WITHIN 24 HOURS AFTER SEEDING AN PLACEMENT OF MULCH, WATER AREA TO A SATURATION DEPTH OF 12".

MAINTENANCE:
1. WHEN SEED/PLANTS ARE 2" TO 4" TALL, TOP-DRESS AREA WITH SEED AND APPLY FERTILIZER (5-10-15) AT A RATE OF 300 LBS. / ACRE.
2. AT THE BEGINNING OF THE SECOND GROWING SEASON, APPLY FERTILIZER (5-10-15) AT A RATE OF 800 LBS. / ACRE.

SOIL AMENDMENTS	
ITEM	APPLICATION RATE
AGRICULTURAL LIMESTONE	4000 LBS/ACRE
FERTILIZER (5-10-15)	1500 LBS/ACRE
STRAW	4000 LBS/ACRE
HAY	5000 LBS/ACRE

SEEDING SCHEDULE		
DATE	SPECIES	APPLICATION RATE
FEB 1 - APR 15	KENTUCKY 31 (FESCUE)	50 LBS/ACRE
APR 15 - AUG 1	HULL COMMON (BERMUDA)	10 LBS/ACRE
AUG 1 - DEC 1	KY 31 (FESCUE)/ANNUAL RYE	25 LBS/ACRE

Eastern West Virginia OBL Wetland Mix - ERNMX-283

Botanical Name	Common Name
41.00 % Carex vulpinoidea, PA Ecotype	Fox Sedge, PA Ecotype
34.50 % Carex lurida, PA Ecotype	Lurid Sedge, PA Ecotype
12.00 % Carex scoparia, PA Ecotype	Blunt Broom Sedge, PA Ecotype
5.00 % Sparganium americanum	Eastern Bur Reed
3.00 % Juncus effusus	Soft Rush
1.00 % Carex grayi, PA Ecotype	Gray's Sedge, PA Ecotype
1.00 % Scirpus cyperinus, PA Ecotype	Woolgrass, PA Ecotype
0.70 % Carex stricta, PA Ecotype	Tussock Sedge, PA Ecotype
0.50 % Alisma subcordatum	Mud Plantain
0.50 % Mimulus ringens, PA Ecotype	Square Stemmed Monkeyflower, PA Ecotype
0.50 % Scirpus validus, PA Ecotype	Softstem Bulrush, PA Ecotype
0.30 % Lobelia siphilitca	Great Blue Lobelia
0.00 % Carex lupulina, PA Ecotype	Hop Sedge, PA Ecotype

100.00 %
Seeding Rate: 20 lb per acre, or 1.5 lb per 1,000 sq ft

Ernst Conservation Seeds (www.ernstseed.com)
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191

NOTE - COVER CROP
JAPANESE MILLET (10LBS/ACRE) MAY 1 - AUG 31
GRAIN RYE (30LBS/ACRE) SEPT 1 - APRL 30

2 GRASS / SEEDING NOTES AND RATES
SCALE: NTS

CANOPY LAND DESIGN

BID SET

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Dog Park at **MCFEE** 917 MCFEE ROAD
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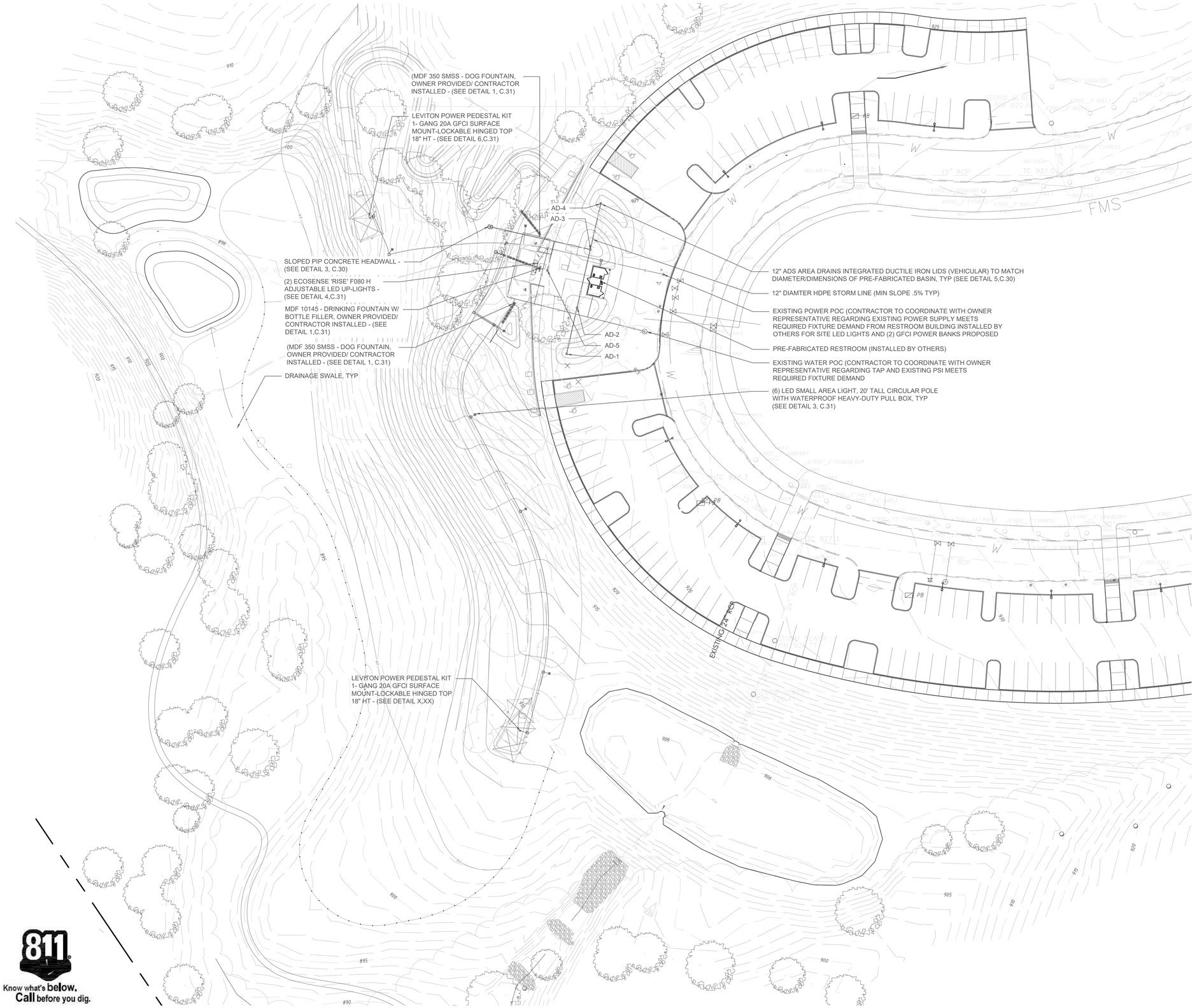
landscape **DETAILS**

DATE: 7/7/2025
DRAWN BY: DB CHECKED BY: DB

landscape **DETAILS**

L.31

SHEET 14 OF 15



SANITARY NOTES:

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1. ALL WASTEWATER PIPE CONSTRUCTION MUST CONFORM TO ALL REGULATED (CITY/COUNTY/TOWN) UTILITIES DEPARTMENT SEWER STANDARDS AND SPECIFICATIONS.
2. CONSTRUCTION PERMITS AND A MANDATORY PRE-CONSTRUCTION CONFERENCE, WITH INSPECTOR BY APPOINTMENT ONLY, ARE REQUIRED PRIOR TO ANY SEWER WORK.
3. COMPACTION OF THE BACKFILL OF ALL UTILITY TRENCHES SHALL BE COMPACTED TO THE DENSITY OF 96% OF THE THEORETICAL MAXIMUM DENSITY.
4. BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED AT OR NEAR OPTIMUM MOISTURE. CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM DATE OF APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT ELEVATIONS OF WASTEWATER PIPE FOR CONNECTION TO EXISTING WASTEWATER SYSTEMS.
6. FOR ALL CONSTRUCTION ALONG AND/OR ACROSS WATERWAYS, BANK STABILIZATION AND PROTECTION SHALL BE REQUIRED AS PER EROSION CONTROL REQUIREMENTS AND THE LAWS OF (LOCAL JURISDICTION).
7. ALL PROPOSED SANITARY SEWER PIPING IS TO BE INSTALLED AT A MINIMUM SLOPE OF 1.0% UNLESS OTHERWISE STATED (SEE SANITARY SEWER PROFILES FOR ADDITIONAL INFORMATION).
8. SEWERS SHOULD BE LAID AT LEAST 10' HORIZONTALLY AND 18" VERTICALLY FROM ANY EXISTING OR PROPOSED WATER MAIN WITH THE WATER MAIN ABOVE THE SEWER PIPE. SEWERS CROSSING WATER MAINS SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUAL DISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
9. WHERE A WATER MAIN CROSSES UNDER A SEWER, EITHER THE WATER MAIN OR THE SEWER SHOULD BE DUCTILE IRON OR SHALL BE ENCASED IN DUCTILE IRON OR CONCRETE FOR A MINIMUM OF ONE FULL JOINT LENGTH ON EACH SIDE OF THE CROSSING.
10. ALL SANITARY SEWER PIPE SHALL BE SDR-35 PVC OR SCHEDULE 40 FOR DEPTHS FROM 6' TO 16' AND DIP FOR DEPTHS LESS THAN 6' OR MORE THAN 16'.

WATER NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIALS USED IN THE WATER SYSTEM MUST COMPLY WITH ALL REGULATED CITY/COUNTY/TOWN AND/OR PUBLIC UTILITY COMPANIES OR DEPARTMENTS STANDARDS, SPECIFICATIONS AND INSPECTION REQUIREMENTS.
2. ALL WATER SERVICE LINES SHALL BE EQUIPPED WITH BACKFLOW PREVENTION DEVICES.
3. THRUST BLOCKS TO BE USED AT ALL BENDS, PLUGS AND TEES ON LINES 4" AND LARGER.
4. FIRE HYDRANTS SHOWN IN THE RADIUS OF A CURVE SHALL BE FIELD ADJUSTED SO THAT THE ACTUAL INSTALLATION OF FIRE HYDRANTS WILL BE A MINIMUM OF 3' OUTSIDE CURVE RADII.
5. ANY CHANGES TO THE WATER DRAWINGS MUST BE APPROVED BY THE REGULATED CITY/COUNTY/TOWN REGULATED UTILITY DEPARTMENT.
6. ALL FIRE HYDRANTS TO CONFORM TO THE SPECIFICATIONS OF CITY/COUNTY/TOWN REQUIREMENTS.
7. WATERLINE ROUTING SHOWN IS DIAGRAMMATIC AND MAY BE MODIFIED IF REQUIRED FOR INSTALLATION OF PROPOSED DRINKING FOUNTAINS SHOWN.

POWER NOTES:

1. ALL POWER LINE ROUTING SHOWN IS SCHEMATIC / DIAGRAMMATIC IN NATURE AND SHOWN FOR SOLE USE TO IDENTIFY PORTIONS OF THE SITE AND / OR COMPONENTS THAT WILL REQUIRE POWER SERVICE.
2. ELECTRICAL ENGINEERING SUB-CONSULTANTS IS NOT IN THE CANOPY LAND DESIGN SCOPE OF WORK OR SERVICES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND PROVIDING SEALED / STAMPED ELECTRICAL PLANS AS NEEDED OR REQUIRED BY LOCAL MUNICIPALITY OR UTILITY DEPARTMENT.
3. CONTRACTOR TO CONFIRM AND COORDINATE ANY IMPROVEMENTS OR UPGRADES TO EXISTING POWER SERVICE AS NEEDED OR REQUIRED FOR PROPOSED LED FIXTURES OR GFCI POWER BANK KITS AS SHOWN.
4. INSTALLATION AND MODIFICATIONS TO EXISTING OR PROPOSED ELECTRICAL SERVICE SHALL MEET ALL CURRENT CODE REQUIREMENTS AS DETERMINED AND USED BY CITY/COUNTY/TOWN ORDINANCE.
5. ANY CHANGES OR MODIFICATIONS TO THE PROPOSED ROUTING AND DESIGN SHALL BE SUBMITTED IN WRITING AND REIVEWED / APPROVED BY LOCAL JURISDICTION OR UTILITY DEPARTMENT PRIOR TO CONSTRUCTION OR DEMOLITION.

PROPERTY INFORMATION:

ADDRESS:	917 MCFEE ROAD FARRAGUT TN, 37934
PARCEL:	162 01402 CTL MAP 162
ZONING:	FAR (OS-P)
ACRES:	52.19
OWNER:	TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DR. FARRAGUT TN, 37934
COUNTY:	KNOX

UTILITY PROVIDERS:

ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD) 865-687-5282
WATER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
SEWER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/: INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

Know what's **below.** **Call** before you dig.

CANOPY LAND DESIGN

0 1.5' 30' 60'

SCALE: 1"=30'-0"

DANIEL BOUTTE REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 325

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
TOWN OF FARRAGUT
11408 MUNICIPAL CENTER DR.
FARRAGUT, TN 37934

PROJECT#: 2508

Dog Park at MCFEE
917 MCFEE ROAD
FARRAGUT, TN

utility PLAN

BID SET

DATE: 7/2/2025

DRAWN BY: DB CHECKED BY: DB

utility **PLAN**

U.10

SHEET 15 OF 15

Agenda Number: IV.B. **Meeting Date: August 21, 2025**

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Darryl Smith, Town Engineer

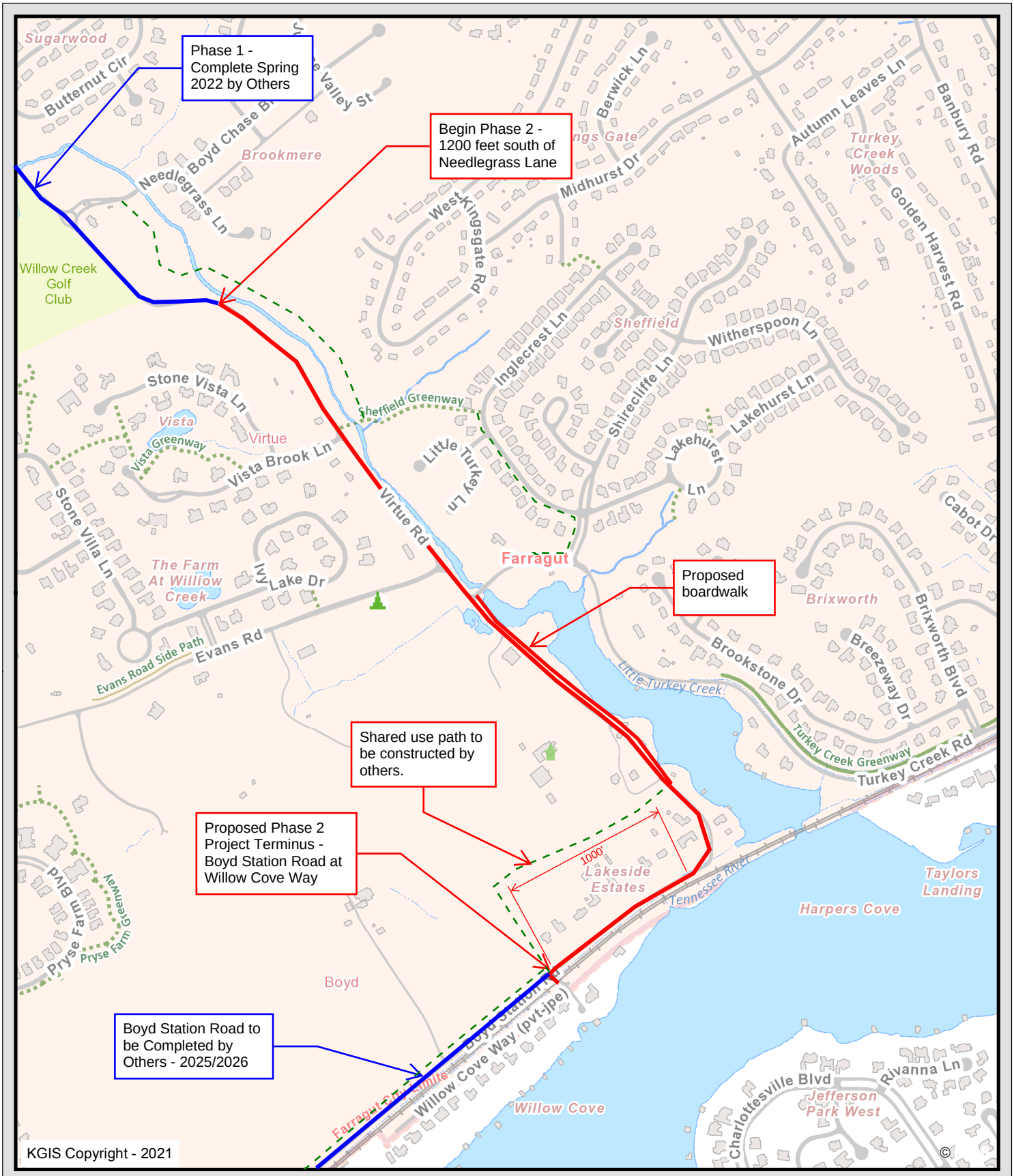
Subject: Request for approval of preliminary plans for Virtue Road/Boyd Station Road Improvements south of Needlegrass Lane to Willow Cove Way (Town of Farragut, Applicant)

Introduction & Background: The purpose of this item is discussion and approval of Preliminary plans for improvements to Virtue Road and Boyd Station Road. Jason Elliott (LDA Engineering) will present plans for improvements extending from south of Needlegrass Lane on Virtue Road to Willow Cove Way on Boyd Station Road.

Discussion & Recommendations: The Town completed improvements to Virtue Road from Kingston Pike to approximately 1200 feet south of Needlegrass Lane (Brookmere Subdivision) in 2022. This project will extend the improvements south to Boyd Station Road, and west along Boyd Station Road to Willow Cove Way. The project will tie to improvements of Boyd Station Road currently being constructed by Saddlebrook Properties as part of development of the Grove at Boyd Station Subdivision. The project will widen the roadway from its current width of approximately 20 feet to two 11' lanes with curb & gutter. A 10' boardwalk will extend along the east side of Virtue Road from Turkey Creek Road to a point approximately 1300 feet south, at which point pedestrians will cross Virtue Road to a 10' wide shared-use path that will tie to a greenway extending into the Grove at Boyd Station subdivision (see map). The project will address both horizontal and vertical deficiencies such as limited sight distance and difficult curvature. The project is being funded through the Knoxville Regional Transportation Planning Organization using Surface Transportation Block Grant and local funds.

Recommended By: Darryl Smith, Town Engineer

Proposed Motion: Staff recommends approval of the Preliminary plans for the Virtue Road/Boyd Station Road improvements as presented.



Virtue Road Phase 2

1200 Feet South of Needlegrass Lane to Willow Cove Way

Knoxville - Knox County - KUB Geographic Information System

Printed: 9/8/2021 at 5:21:04 PM

0 390 780 1,560

ft

KGIS makes no representation or warranty as to the accuracy of his map and its information nor to its fitness for use. Any user of this map product accepts the same AS IS ,WITH ALL FAULTS, and assumes all responsibility for the use thereof, and futher covenants and agrees to hold KGIS harmless from any and all damage, loss, or liability arising from any use of this map product.

INDEX OF SHEETS

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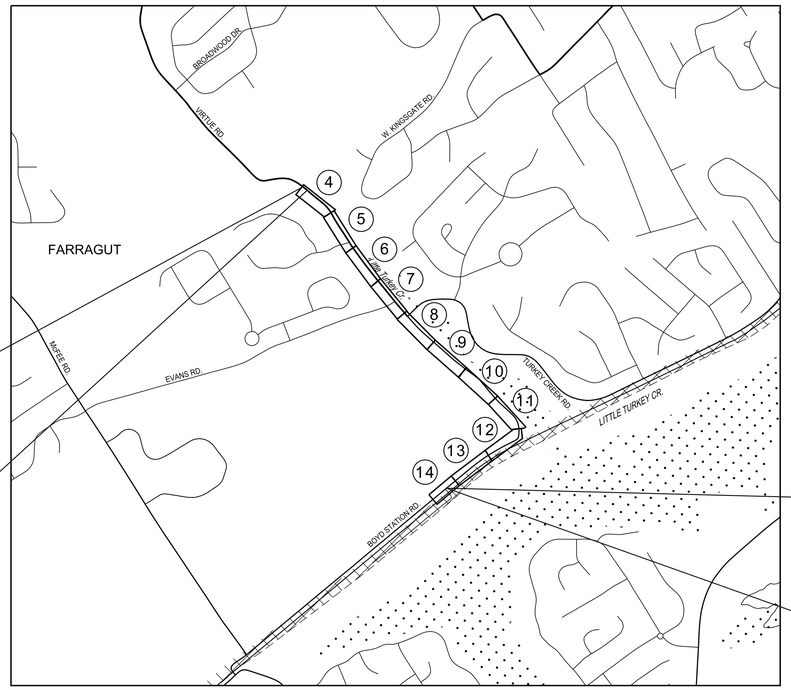
NOTE: THE ALPHABETICAL LETTERS "I", "O" & "Q" ARE NOT USED IN NUMBERING OF SHEETS.

TOWN OF FARRAGUT
KNOX COUNTY, TENNESSEE

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

GRADING, DRAINAGE, BASE, PAVING, BRIDGE, AND SIGNALS



47LPLM-F1-216
BEGIN PROJECT NO. STP-M-9109(195) (PREL.)
STA. 11+25.00
N 560137.6388, E 2507654.4625

47LPLM-F2-216
BEGIN PROJECT NO. STP-M-9109(195) (R.O.W.)
STA. 11+98.98
N 560089.7413 E 2507710.8472

47LPLM-F1-216
END PROJECT NO. STP-M-9109(195) (PREL.)
STA. 66+90.00
N 556168.0001, E 2509545.2506

47LPLM-F2-216
END PROJECT NO. STP-M-9109(195) (R.O.W.)
STA. 66+90.00
N 556168.0001, E 2509545.2506

SCALE: 1"=1000'

PROJECT LENGTH = 5,565 LF (1.054 MI)

LOCALLY MANAGED PROJECT
LOCALLY LET PROJECT
PIN: 132927.00
FED. PROJECT #: STP-M-9109(195)
STATE PROJECT #: 47LPLM-F2-216

NO EXCLUSIONS

DESIGN EXCEPTION
APPROVED 06-25-25

1) DESIGN SPEED
STD.=50 MPH, PROP.=35 MPH
2) LANE WIDTH
STD.=12', PROP.=11'
3) SHOULDER WIDTH
STD.=8', PROP.=2'

ORIGINAL SURVEY
COMPLETED MAY 2023

TRAFFIC DATA	
AADT (2023) - VIRTUE RD	4,912
AADT (2023) - BOYD STATION RD	3,309
POSTED SPEED	30 MPH
DESIGN SPEED	35 MPH

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE TOWN OF FARRAGUT IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2021 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

AUGUST 2025

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

JASON C. ELLIOTT
REGISTERED ENGINEER
No. 0011220
STATE OF TENNESSEE
08-08-25

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

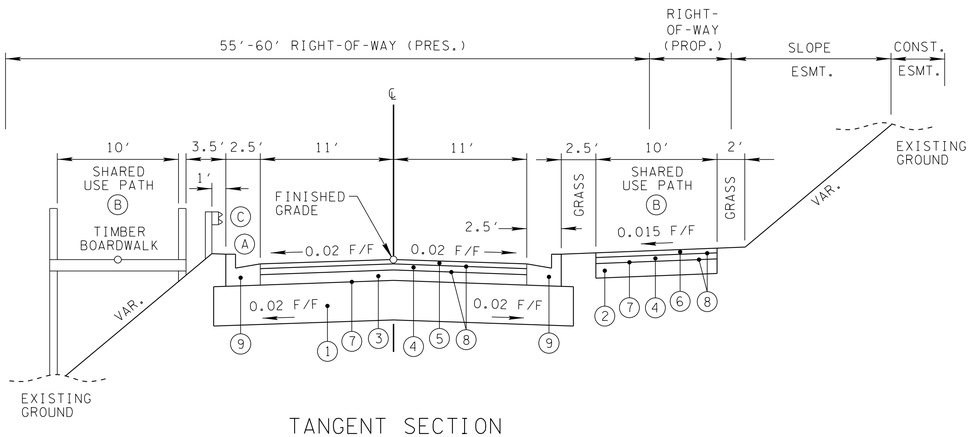
PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

TITLE SHEET

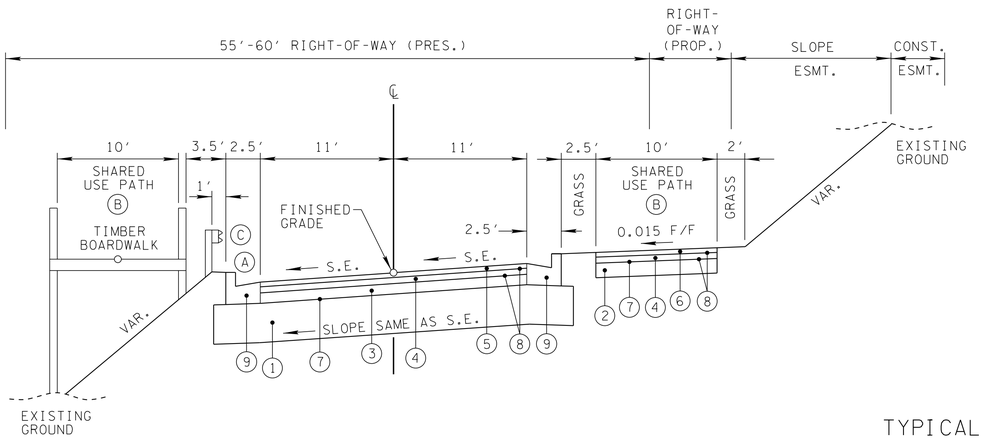
SHEET 1



TANGENT SECTION

(BASED ON STD. DWGS. RD11-TS-2 & MM-TS-2)

STA. 11+50.00 TO STA. 13+83.48
STA. 16+73.30 TO STA. 16+76.40
STA. 19+08.07 TO STA. 21+00.00
STA. 28+25.00 TO STA. 32+53.24
STA. 37+83.33 TO STA. 40+66.14
STA. 44+11.50 TO STA. 44+54.91
STA. 50+73.82 TO STA. 51+75.70
STA. 57+28.93 TO STA. 57+38.87
STA. 63+28.59 TO STA. 66+90.00



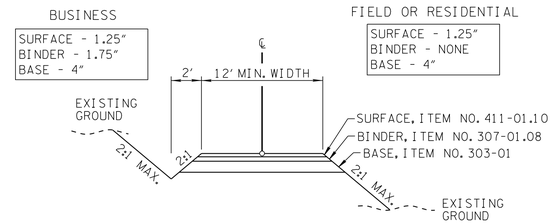
SUPERELEVATED SECTION

(BASED ON STD. DWG. RD11-TS-2 & MM-TS-2)

STA. 11+25.00 TO STA. 11+50.00
STA. 13+83.48 TO STA. 16+73.30
STA. 16+76.40 TO STA. 19+08.07
STA. 21+00.00 TO STA. 28+25.00
STA. 32+53.24 TO STA. 37+83.33
STA. 40+66.14 TO STA. 44+11.50
STA. 44+54.91 TO STA. 50+73.82
STA. 51+75.70 TO STA. 57+28.93
STA. 57+38.87 TO STA. 63+28.59

PROPOSED PAVEMENT SCHEDULE

(1)	MINERAL AGGREGATE @ 10" THICK	
	303-01	MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"
(2)	MINERAL AGGREGATE @ 4" THICK	
	303-01	MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"
(3)	BITUMINOUS PLANT MIX BASE (HOT MIX) PG64-22 GRADING "A" @ 2.75" THICK (APPROX. 316.25 LB/SY)	
	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING "A"
(4)	BITUMINOUS PLANT MIX BASE (HOT MIX) PG64-22 GRADING "B-M2" @ 2.00" THICK (APPROX. 226 LB/SY)	
	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING "B-M2"
(5)	ASPHALTIC CONCRETE SURFACE (HOT MIX) PG64-22 GRADING "D" SURFACE @ 1.25" THICK (APPROX. 132.5 LB/SY)	
	411-01.10	ACS MIX (PG64-22) GRADING "D"
(6)	ASPHALTIC CONCRETE SURFACE (HOT MIX) PG64-22 GRADING "E" SHOULDER @ 1.25" THICK (APPROX. 132.5 LB/SY)	
	411-01.07	ACS MIX (PG64-22) GRADING "E" SHOULDER
(7)	PRIME COAT	
	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC) AT 0.30-0.35 GAL./S.Y.
(8)	TACK COAT	
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC) AT 0.05-0.10 GAL./S.Y. SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD.
(9)	CONCRETE CURB AND GUTTER	
	702-03	CONCRETE COMBINED CURB AND GUTTER (TYPE 6-30) DEPTH OF GUTTER (D) = 6"



DRIVEWAY SECTION

PRIVATE DRIVE TO BUSINESS, FIELD, OR RESIDENTIAL PROPERTY

NOTES:
1. DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER.
2. CONCRETE DRIVEWAYS ARE 6" OF CONCRETE AND 4" OF BASE.

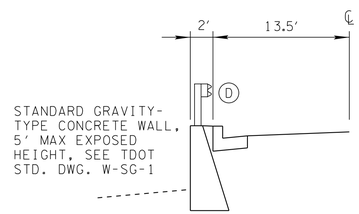
TYPICAL SECTION NOTES:

(A) A FULL-DEPTH 2' PAVED SHOULDER REPLACES THE CURB AND GUTTER ON THE LEFT SIDE FROM STA.58+30.00 TO STA. 66+90.00. A DESIGN EXCEPTION FOR SHOULDER WIDTH WAS APPROVED ON 08/20/2024.

(B) SHARED USE PATH (ASPHALT): RIGHT SIDE FROM STA. 31+34.35 TO STA. 32+93.00, RIGHT SIDE FROM STA. 46+70.00 TO STA. 50+65.00, AND LEFT SIDE FROM STA. 45+50.00 TO STA. 46+80.00.
SHARED USE PATH (BOARDWALK): LEFT SIDE FROM STA. 33+60.00 TO TO STA. 45+50.00.

(C) GUARDRAIL AS REQUIRED. SEE STANDARD DRAWING S-PL-6 FOR TYPICAL GUARDRAIL PLACEMENT.

(D) GUARDRAIL MOUNTED TO TOP OF WALL WITH BASE PLATE, SEE TDOT STD. DWG. S-GRS-3.



RETAINING WALL SECTION

FILL WALL, LEFT SIDE

STA. 11+65.00 TO STA. 13+10.00
STA. 15+40.00 TO STA. 16+10.00
STA. 26+05.00 TO STA. 28+30.00
STA. 41+20.00 TO STA. 42+20.00
STA. 42+70.00 TO STA. 45+00.00

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

TYPICAL SECTIONS AND PAVEMENT SCHEDULE

SHEET 2

RIGHT-OF-WAY

(1) EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.

(2) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY EXCEEDS 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED TO A TOUCHDOWN POINT OR UNTIL THE GRADE IS LESS THAN 7 PERCENT.

(3) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN KIND TO A TOUCHDOWN POINT.

(4) ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.

(5) NEW DRIVEWAYS PROVIDED IN THE PLANS WILL BE PAVED BASED ON THE 7 PERCENT CRITERIA. THOSE 7 PERCENT OR STEEPER IN GRADE WILL BE PAVED AND THOSE FLATTER THAN 7 PERCENT WILL BE COVERED WITH BASE STONE.

(6) ON NON-STATE ROUTES, ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS SHALL REQUIRE A PERMIT ONLY IF THE LOCAL AGENCY SPECIFIES THE NEED FOR THAT PERMIT.

UTILITY

(1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THEREFORE, RELIANCE UPON THE TYPE, SIZE, AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION, AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS, NO LESS THAN THREE (3) OR NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.

(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR ITS REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.

(3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(4) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.

(5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC AT 1-800-351-1111 WILL BE REQUIRED.

UTILITY OWNERS

Company	Type	Address	Phone	Cell	Email	Contact
CHARTER	Cable	1774 HENRY G. LANE ST MARYVILLE, TN 37801	(865) 273-2761	(865) 388-7524	billy.click@charter.com	Billy Click
LENOIR CITY UTILITIES BOARD	Electric	P.O. BOX 449, 200 DEPOT STREET LENOIR CITY, TN 37771	(865) 988-0789 (865) 988-0774		aduncan@lcub.com amcdaniel@lcub.com	Adam Duncan Andrew McDaniel
KNOXVILLE UTILITIES BOARD	Gas	P.O. BOX 59017 (37950-9017) 4505 MIDDLEBROOK PIKE KNOXVILLE, TN 37921	(865) 558-2577	(865) 320-2681 (423) 341-2565	timothy.kelly@kub.org; aaron.bott@kub.org	Tim Kelley Aaron Bott
PLANTATION PIPE LINE CO. / KINDER MORGAN ENERGY PARTNERS	Gas	1000 WINDWARD CONCOURSE STE 450 Alpharetta, Ga 30005	(352) 697-5553		jereme_jaros@kindermorgan.com	Jereme Jaros
AT&T	Telephone	9733 Parkside Dr, Knoxville, TN 37922		(865) 387-2685	jf092g@att.com	Jay Frazier
MCI/VERIZON/BROOKS	Telephone	603 WAREHOUSE PARK LN KNOXVILLE, TN 37932		(615) 428-4943	stanley.m.majka@verizon.com	STANLEY MAJKA
TDS TELECOM	Telephone	10201 Upper Ridge Way Knoxville, TN 37932	(865) 671-3863	(865) 643-6606 (423) 519-7534	jason.walker@tdstelecom.com scott.fray@tdstelecom.com	Jason Walker Scott Fray
WINDSTREAM COMMUNICATIONS	Telephone	102 Hillview Drive Linden, TN 37096	(931) 994-1249	(931) 994-1249	Tommy.Rayfield@windstream.com	TOMMY RAYFIELD
FIRST UTILITY DISTRICT OF KNOX COUNTY, TN	Water, Sewer	122 DURWOOD ROAD Knoxville, TN 37922	(865) 966-9741	(865) 218-3690 (865) 218-3691	edeyton@fudknox.org sfischer@fudknox.org	EDWIN DEYTON Seth Fischer

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

RIGHT-OF-WAY NOTES, UTILITY NOTES, AND UTILITY OWNERS

SHEET 3

R.O.W. ACQUISITION TABLE

TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA (ACRES)			AREA TO BE ACQUIRED (ACRES)			AREA REMAINING (ACRES)		EASEMENT (ACRES)			
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE		LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERMANENT DRAINAGE	SLOPE	CONSTRUCTION Ⓐ	AIR RIGHTS
				BOOK	PAGE												
1	VISTA HOMEOWNERS ASSOCIATION, LLC	152	42.00	20030618	0117062												
2	TOWN OF FARRAGUT	152	40.00	1973	387	4.451	2.457	6.908				4.451	2.457		632 S.F.	0.123	
3	JANICE H WILLIAMS	152	39.00	20100107	0045288		1.200	1.200					1.200		1311 S.F.	2658 S.F.	
4	VISTA HOMEOWNERS ASSOCIATION, LLC	152	39.00	20030618	0117062												
5	VISTA HOMEOWNERS ASSOCIATION, LLC	152	40.00	20030618	0117062												
6	PLD INVESTMENTS, LLC	152	37.00	20230517	0061627		0.601	0.601					0.601			1088 S.F.	
7	JOSEPH TUCKER & JOYCE MONTGOMERY	152	36.00	20140828	0012452		0.555	0.555					0.555			1317 S.F.	
8	WILLIAM E JR & MAUREEN THERESA LOVELL	152	35.01	2023	1110		1.146	1.146					1.146			1570 S.F.	
9	JOHN RANDALL SLATEN	152	35.00	20120803	0007634		1.440	1.440					1.440		915 S.F.	3917 S.F.	
10	STEVE E & VIRGINIA T WILLIAMS	152	33.03	1974	982	0.710	22.000	22.710		1108 S.F.	1108 S.F.	0.710	21.975	160 S.F.	0.182	0.286	
11	VIRTUE CUMBERLAND PRESBYTERIAN CHURCH	152	53.00	1663	1057		7.560	7.560					7.560				
12	JAMES J JR & DEBORAH ANN MATHIS	162	54.00	20200505	0073167	7.440	2.050	9.490	311 S.F.		311 S.F.	7.433	2.050	320 S.F.	1427 S.F.	0.158	
13	VIRTUE CUMBERLAND PRESBYTERIAN CHURCH	152	54.10	1663	1057		8.480	8.480					8.480		1059 S.F.	513 S.F.	
14	HOMESTEAD LAND HOLDINGS, LLC	162	50.00	20210729	007927		94.330	94.330					94.330		498 S.F.	267 S.F.	
15	MICHAEL JOSEPH & TANYA LOUISE WEAVER	162	54.02	20230403	0053352		0.981	0.981					0.981		309 S.F.	1008 S.F.	
16	AARON J & MELISSA L STOUT	162	54.03	20210816	0013109		1.049	1.049		2275 S.F.	2275 S.F.		0.997		844 S.F.	1978 S.F.	
17	CHARLES LEE & ELIZABETH L BUTLER	162	54.11	20111202	0030061		1.000	1.000					1.000			725 S.F.	
18	DONOVAN OLCOTT ATCHLEY	162	54.12	2010	21		1.000	1.000					1.000			639 S.F.	
19	BART E & THERESA A REYNOLDS	162	54.13	19991222	0046927		1.000	1.000					1.000			583 S.F.	
20	JOHNNY F & SHARON W RICE	162	54.04	1916	351		1.000	1.000					1.000			1907 S.F.	
21	CHARLES E & WANDA F HUSKEY	162	54.05	1578	458		1.000	1.000					1.000		916 S.F.	1808 S.F.	
22	JANICE L ASHER	162	54.06	20030930	0038042		1.000	1.000					1.000		151 S.F.	1272 S.F.	
23	CRISTOPHER NICOLL & SARAH MONTGOMERY	162	54.07	20210920	0023120		1.000	1.000					1.000			1236 S.F.	
24	TINA POLLARD & DANNY WAYNE VEST	162	54.08	20181001	0221166		1.000	1.000					1.000			301 S.F.	
25	NORFOLK SOUTHERN RAILWAY																
26	JEFFREY B SR & GAYE G JOLLY	162	55.00	2259	860	3.569		3.569				3.569				730 S.F.	
27	GEORGE M MASSENGILL	162	55.01	20161003	0021488	1.271		1.271				1.271				796 S.F.	
28	DAVID MOORE GALBRAITH	152	33.05	1974	981											702 S.F.	
29	DAVID MOORE GALBRAITH	152	94.00	1569	1040												
30	WILLIAM E JR & MAUREEN THERESA LOVELL	152	35.02	2221	570												
31	SHEPHERD EDITH GERTRUDE	162	54.09	1644	373 & 375												
32	PLD INVESTMENTS, LLC	152	50.00	20230517	0061627												
33	JAMES H & KAY WATERS	152	49	1547	1000												
34	VISTA HOMEOWNERS ASSOCIATION, LLC	152	44.00	20030618	0117062												
ACQUISITION TOTALS (ACRES)									3694 S.F.					480 S.F.	0.367	1.141	

Ⓐ FOR WORKING ROOM

DISTURBED AREA

IN BETWEEN SLOPE LINES	5.629	(AC)
10' WIDE STRIP FOR WORKING AREA (OUTSIDE SLOPE LINES)	2.756	(AC)
TOTAL DISTURBED AREA	8.385	(AC)

PROPERTY MAP LEGEND

- PRESENT R.O.W.
- PRESENT & PROPOSED R.O.W.
- PROPOSED R.O.W.
- SLOPE EASEMENT
- CONSTRUCTION EASEMENT

LDA ENGINEERING

REV | DATE | REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

RIGHT-OF-WAY ACQUISITION TABLE AND LEGEND

SHEET 3A

MATCH LINE THIS SHEET

MATCH LINE THIS SHEET

NOTE: ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM THE SLOPE LINES, UNLESS LABELED OTHERWISE.

N

0 100 200

SCALE: 1" = 100'

15

20

25

30

47LPLM-F2-216
BEGIN PROJECT STP-M-9109(195) (R.O.W.)
STA. 11+98.98
N 560089.7413 E 2507710.8472

47LPLM-F1-216
BEGIN PROJECT NO. STP-M-9109(195) (PREL.)
STA. 11+25.00
N 560137.6388 E 2507654.4625

STA. 20+54.00 VIRTUE ROAD =
STA. 20+00.00 VISTA BROOK LN
N 559432.2292 E 2508242.9148

PRES. & PROP. R.O.W.

S 49° 38' 19" E

S 51° 22' 35" E

S 29° 54' 41" E

S 33° 20' 26" E

S 33° 55' 49" E

S 35° 54' 07" E

S 39° 41' 51" E

S 38° 34' 11" E

SLOPE ESMT. (TYP.)

CONST. ESMT. (TYP.)

VIRTUE ROAD

VISTA BROOK LANE

PRES. & PROP. R.O.W.

PRES. & PROP. R.O.W.

PRES. & PROP. R.O.W.

PRES. & PROP. R.O.W.

PRES. & PROP. R.O.W.

PRES. & PROP. R.O.W.

1 VISTA HOMEOWNERS ASSOC., LLC
MAP 152 PARCEL 42.00
WDB 20030618 PG 0117062
PLAT 200111080037267 LOT 43

2 TOWN OF FARRAGUT
MAP 152 PARCEL 40.00
WDB 1973 PG 387

2 TOWN OF FARRAGUT
MAP 152 PARCEL 40.00
WDB 1973 PG 387

3 WILLIAMS JANICE H
MAP 152 PARCEL 39.00
WDB 20100107 PG 0045288

4 VISTA HOMEOWNERS ASSOC., LLC
MAP 152 PARCEL 39.00
WDB 20030618 PG 0117062
PLAT 200111080037267 LOT 39

5 VISTA HOMEOWNERS ASSOC., LLC
MAP 152 PARCEL 40.00
WDB 20030618 PG 0117062
PLAT 200111080037267 LOT 40

6 PLD INVESTMENTS, LLC
MAP 152 PARCEL 37.00
WDB 20230517 PG 0061627

7 MONTGOMERY, JOSEPH TUCKER & JOYCE
MAP 152 PARCEL 36.00
WDB 20140828 PG 0012452

8 LOVELL, WILLIAM E JR
& MAUREEN THERESA
MAP 152 PARCEL 35.01
WDB 2023 PG 1110
PLAT L347-A LOT 2

9 SLATEN, JOHN R
MAP 152 PARCEL 35.00
WDB 20120803 PG 0007634
PLAT L347-A LOT 1

29 GALBRAITH, DAVID MOORE
MAP 152 PARCEL 94.00
WDB 1569 PG 1040
PLAT 201811080029770 LOT 202R

30 LOVELL, WILLIAM E JR
& MAUREEN THERESA
MAP 152 PARCEL 35.02
WDB 2221 PG 578
PLAT L347 A LOT 3

32 WATERS, JAMES H & KAY
MAP 152 PARCEL 49.00
WDB 1547 PG 1000

33

34 PLD INVESTMENTS, LLC
MAP 152 PARCEL 56.00
WDB 20230517 PG 0061627

VISTA HOMEOWNERS ASSOC., LLC
MAP 152 PARCEL 44.00
WDB 20030618 PG 0117062
PLAT 200111080037267 LOT 44

NOTE: THERE ARE NO CONST. ESMTS. ON TRACT 30 IN ORDER TO AVOID DISTURBING THE DENSELY WOODED BUFFER AREA ALONG THE CREEK.

SEE SHEET NO. 3C

STA. 30+50

MATCH LINE

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

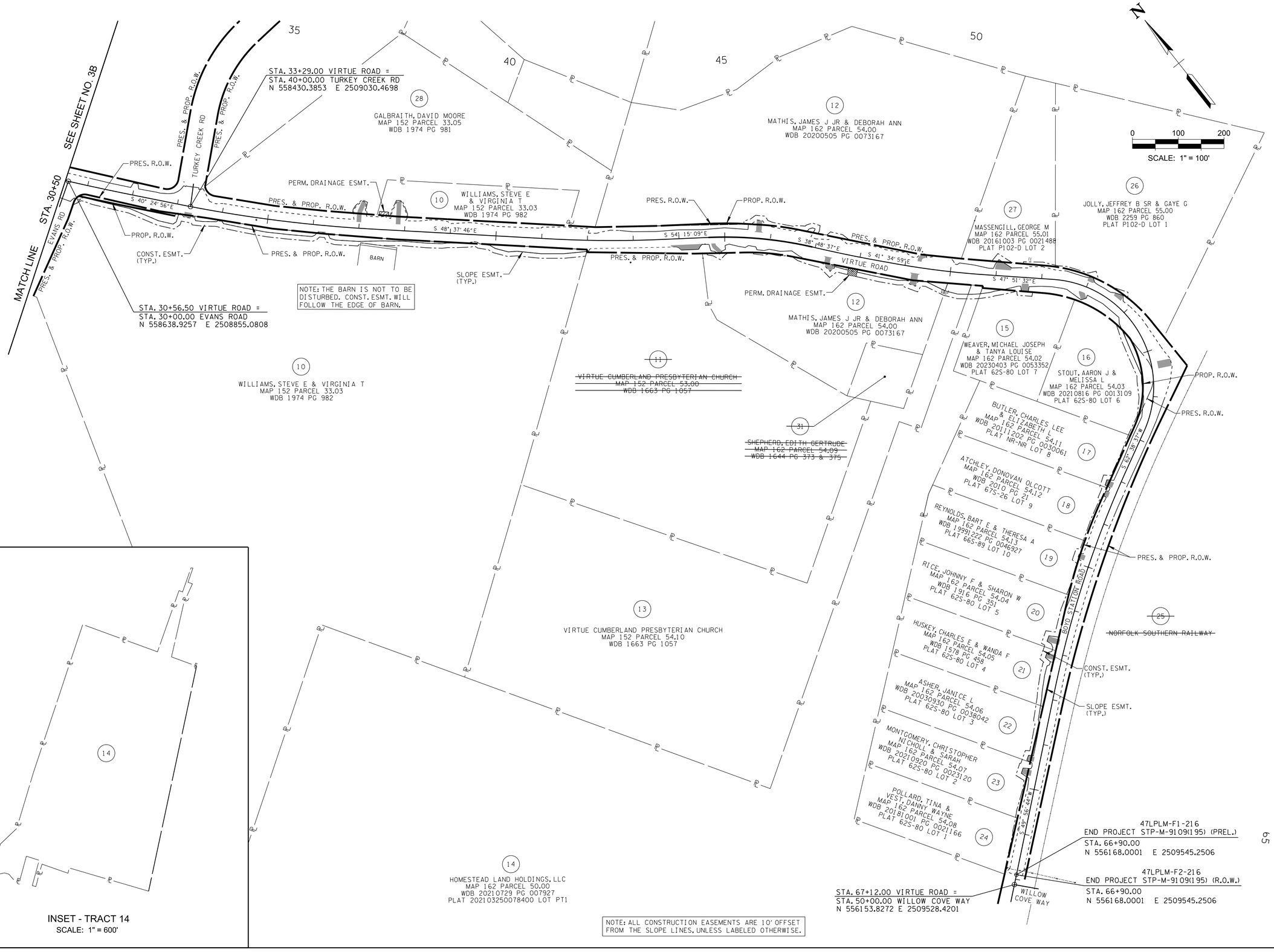
PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

PROPERTY MAP 11+25 TO 30+50

SHEET 3B



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

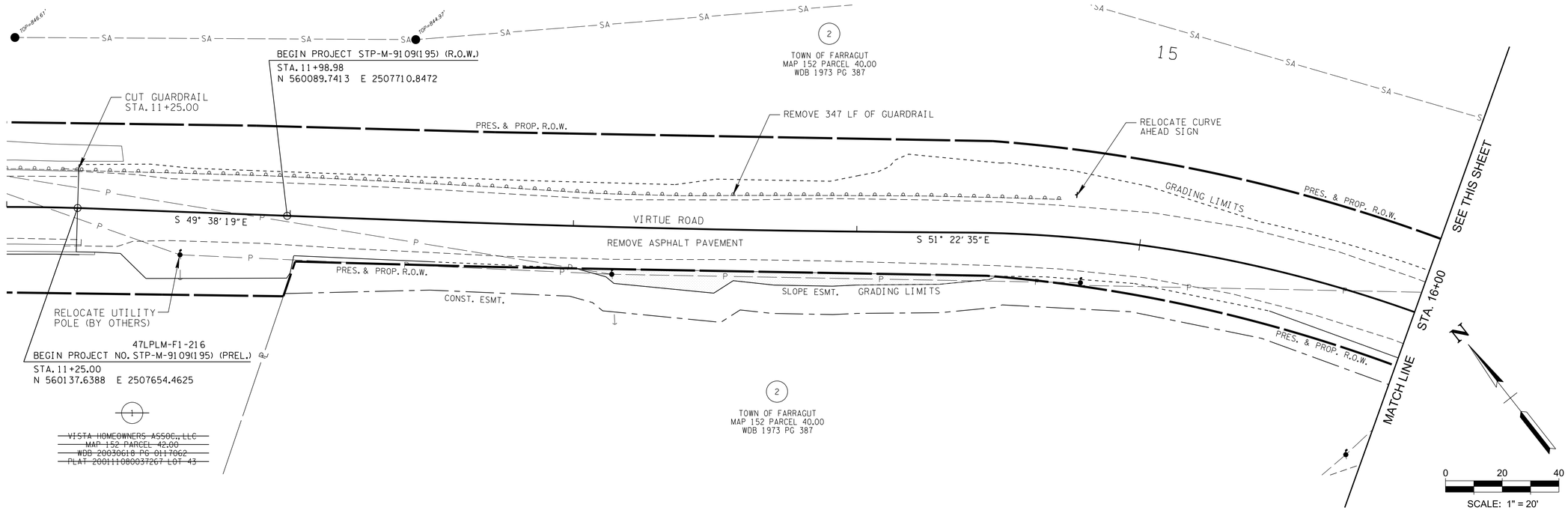
PROJECT NUMBER: FAR302

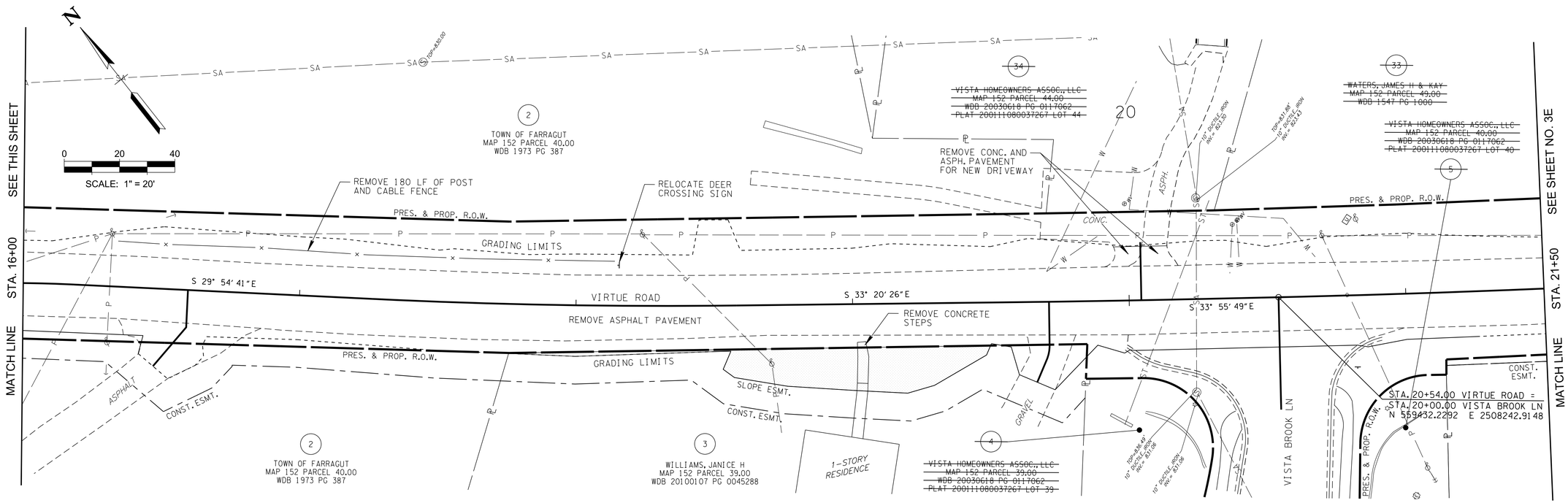
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

PROPERTY MAP 30+50 TO 66+90

SHEET 3C





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

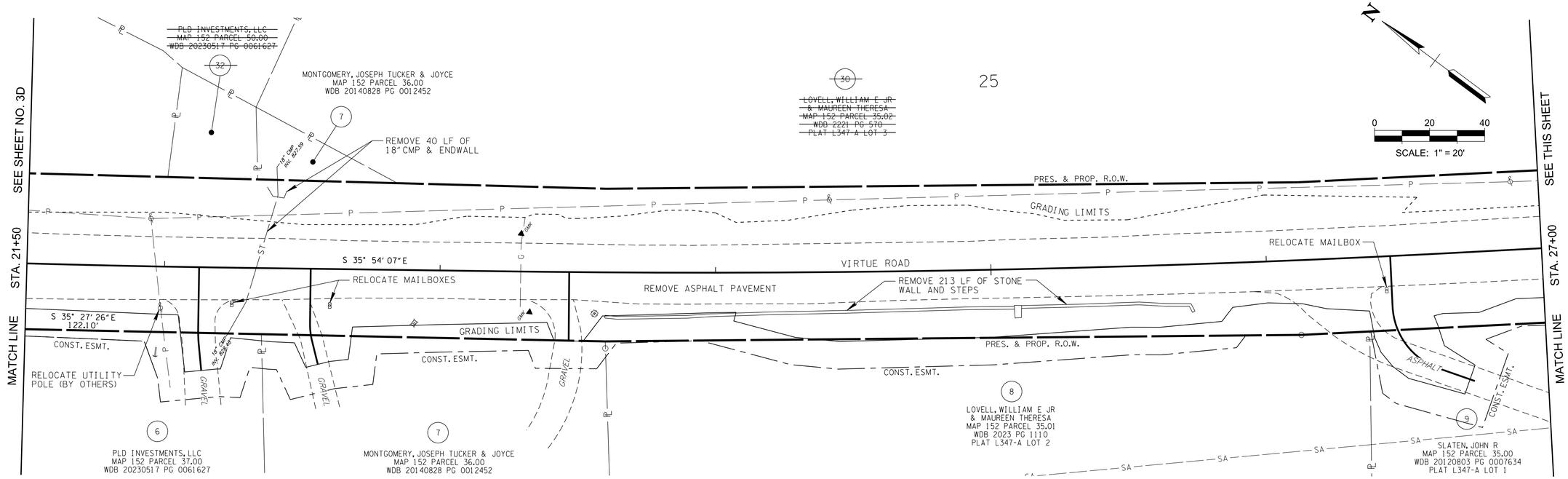
COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

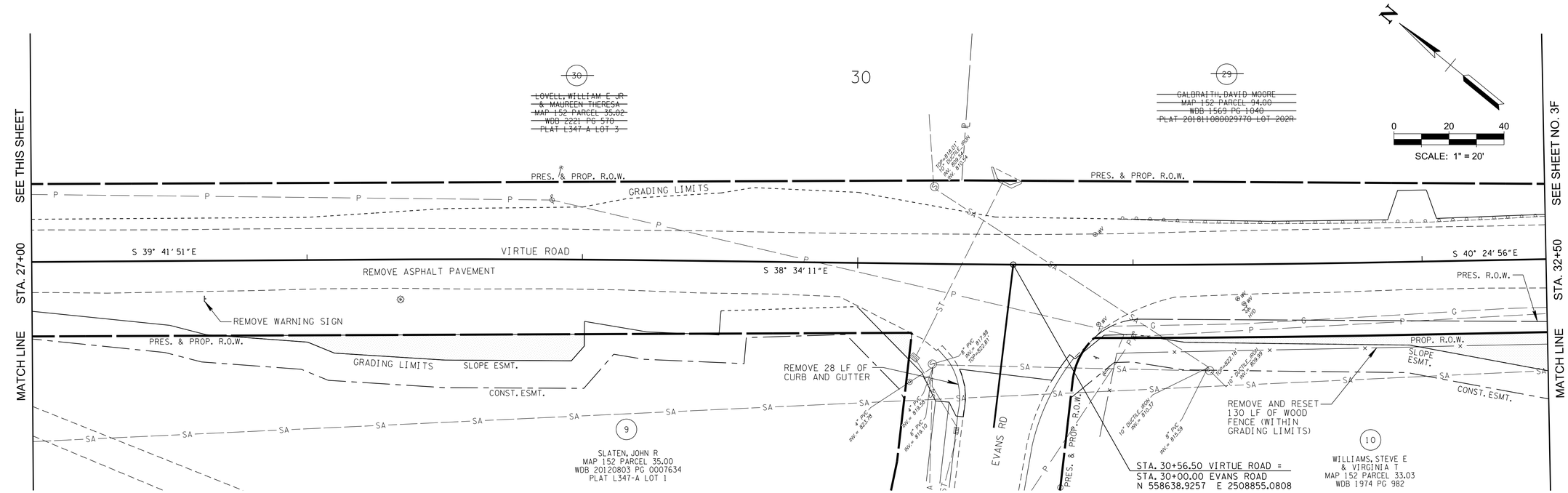
PROJECT NUMBER: FAR302	
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

REMOVAL AND RELOCATION PLAN 11+25 TO 21+50

SHEET 3D





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

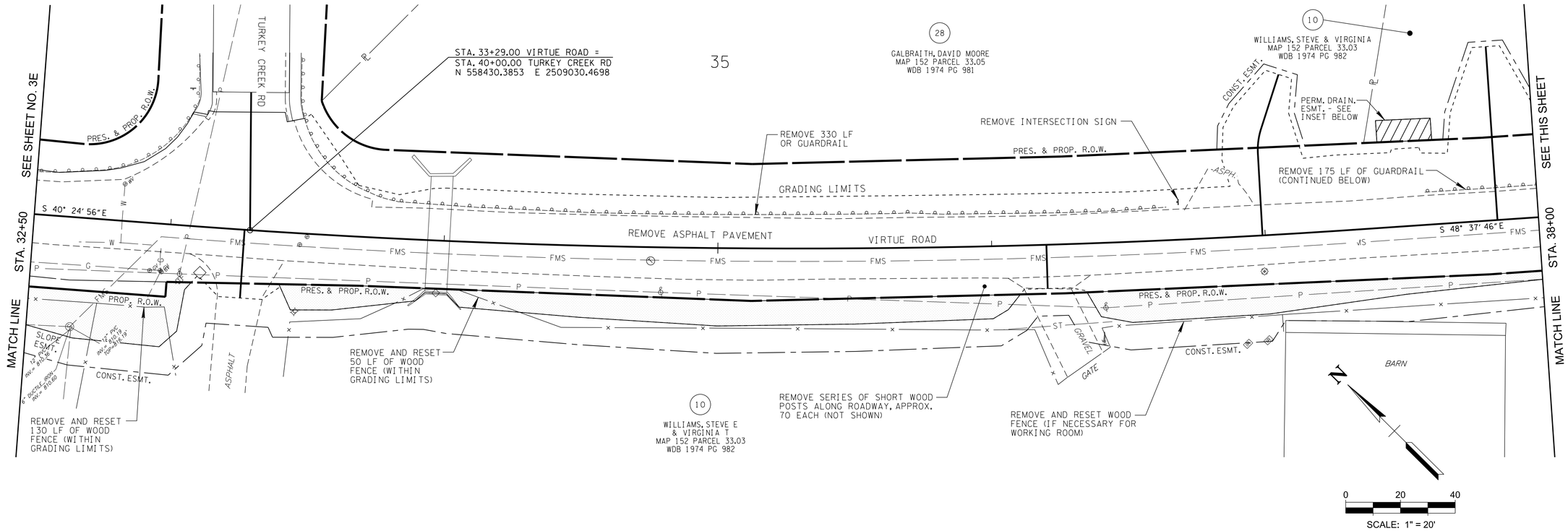
COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

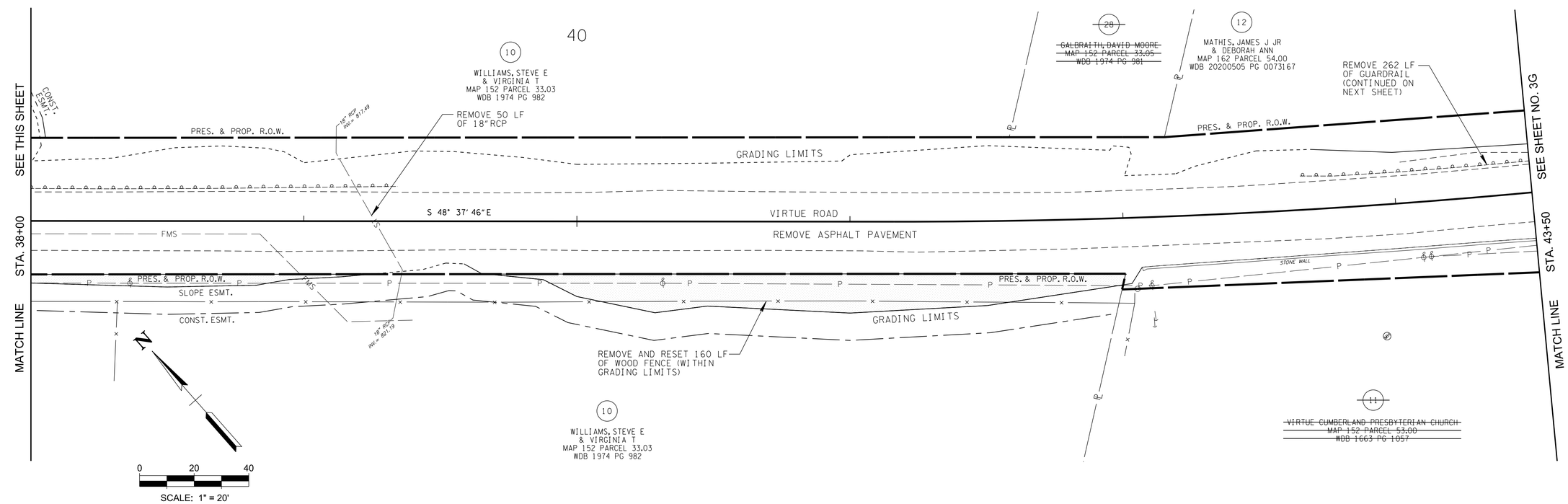
PROJECT NUMBER: FAR302	
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

REMOVAL AND RELOCATION PLAN 21+50 TO 32+50

SHEET 3E





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

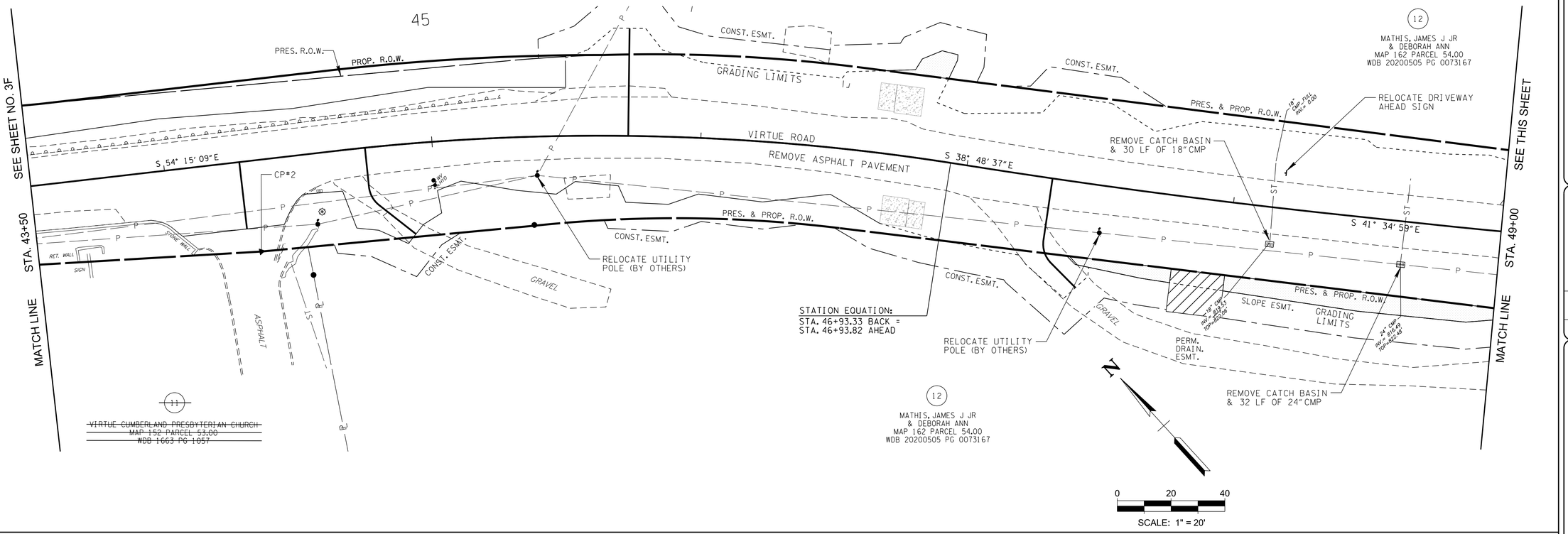
PROJECT NUMBER: FAR302

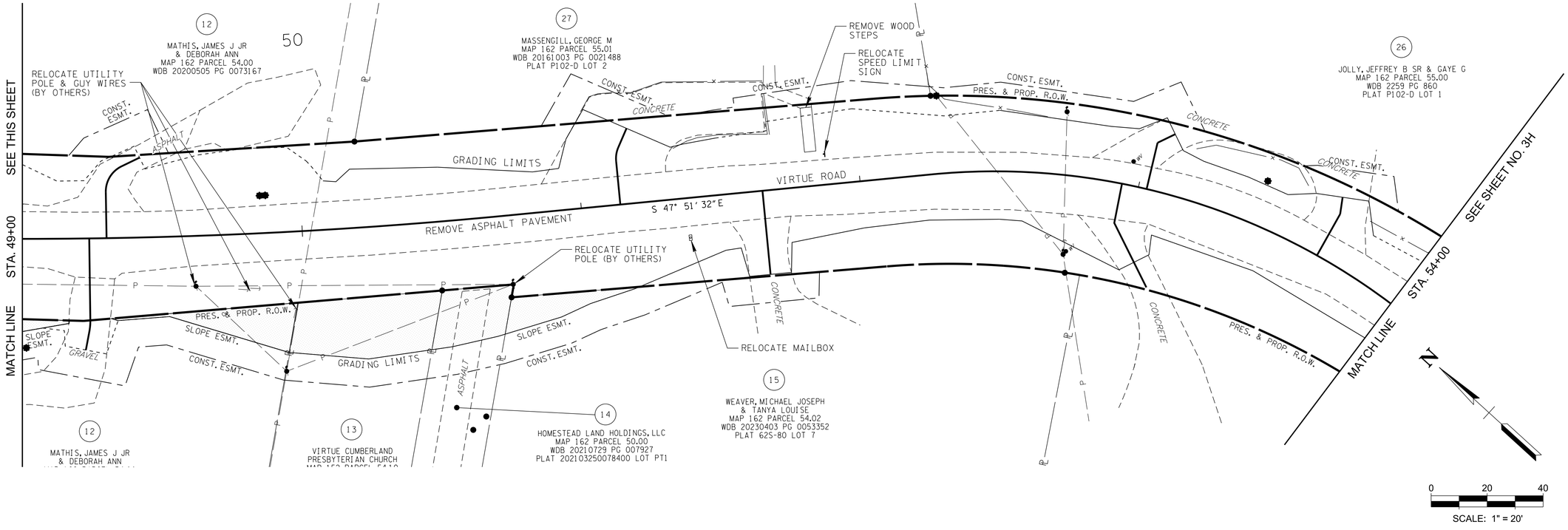
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

REMOVAL AND RELOCATION PLAN 32+50 TO 43+50

SHEET 3F





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

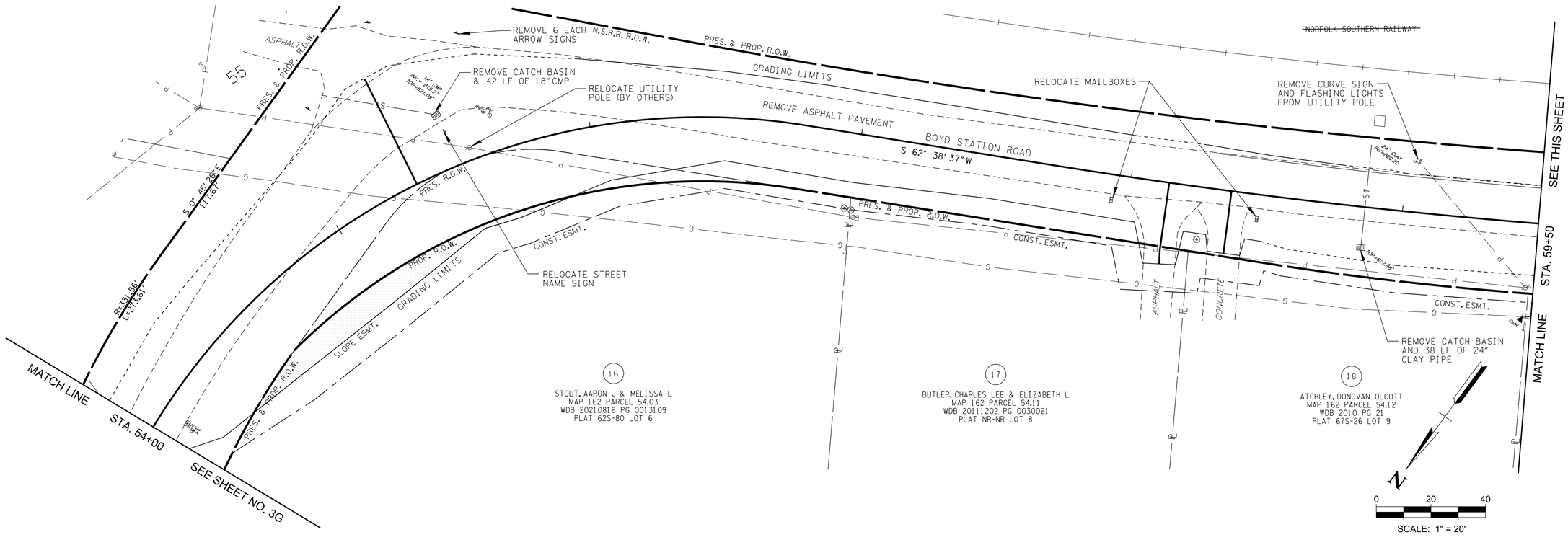
PROJECT NUMBER: FAR302

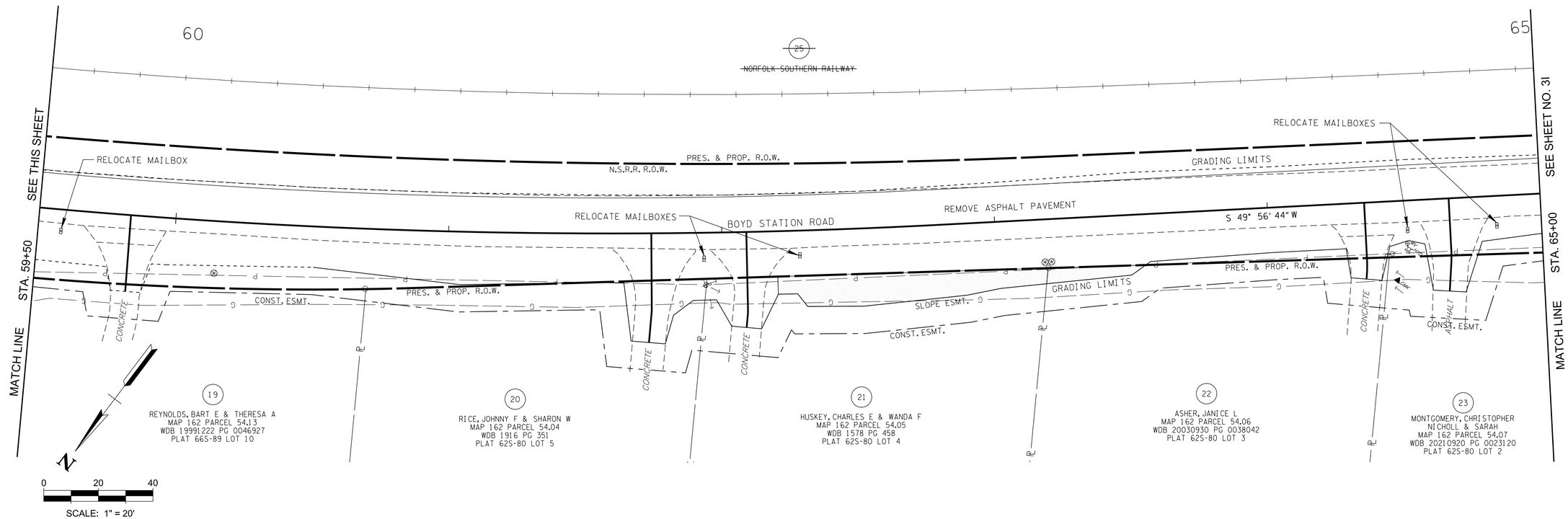
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

REMOVAL AND RELOCATION PLAN 43+50 TO 54+00

SHEET 3G





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

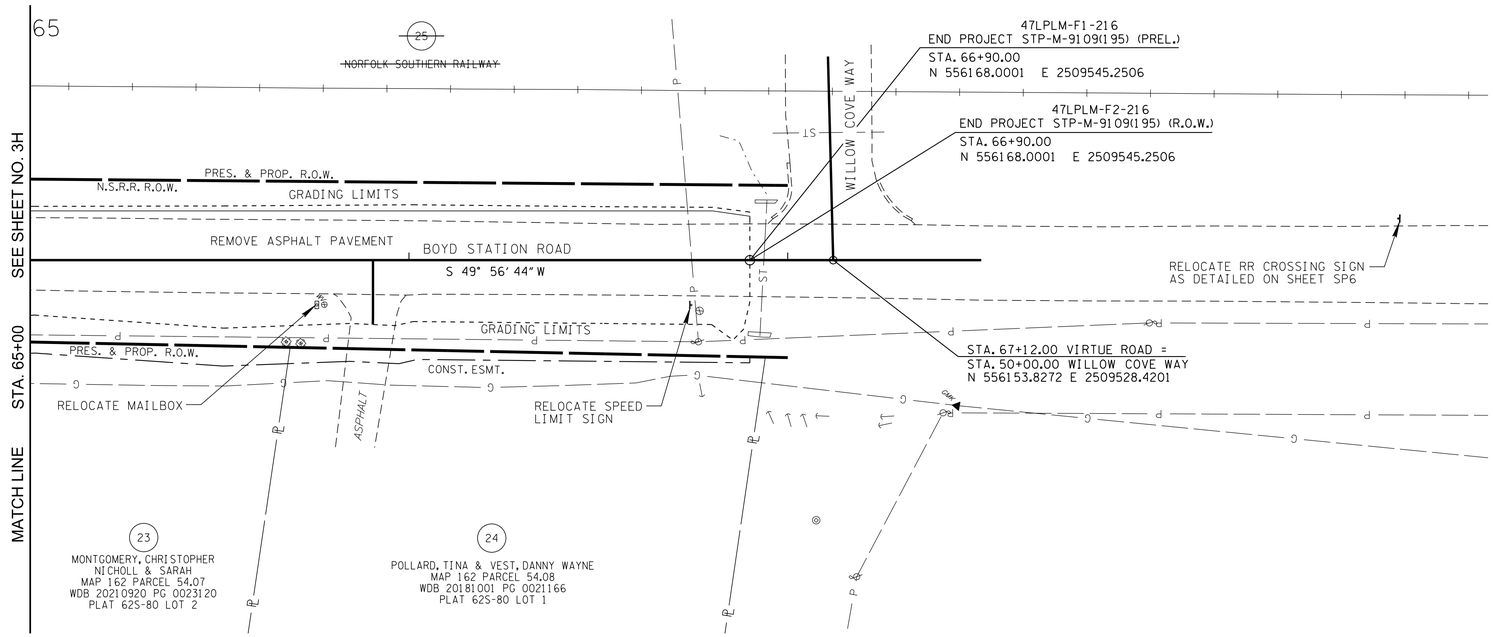
PROJECT NUMBER: FAR302

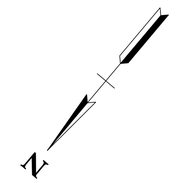
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

REMOVAL AND RELOCATION PLAN 54+00 TO 65+00

SHEET 3H





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

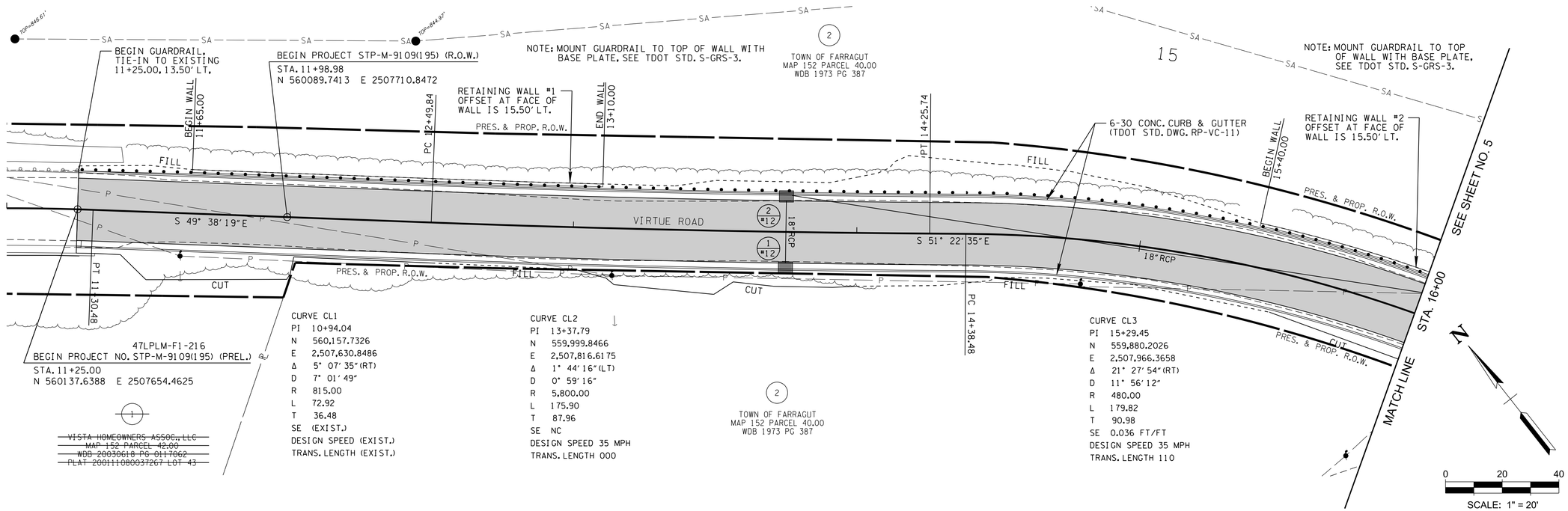
PROJECT NUMBER: FAR302

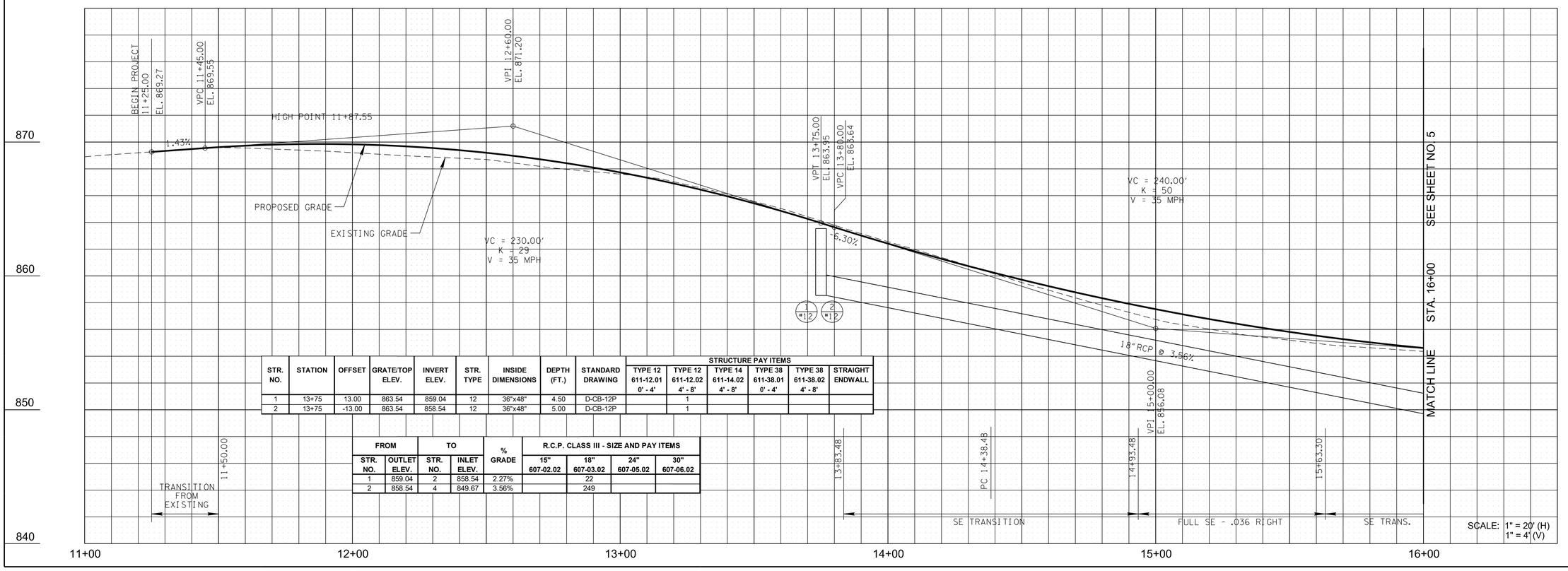
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

REMOVAL AND RELOCATION PLAN 65+00 TO 66+90

SHEET 3J





STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS					
									TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
1	13+75	13.00	863.54	859.04	12	36"x48"	4.50	D-CB-12P		1				
2	13+75	-13.00	863.54	858.54	12	36"x48"	5.00	D-CB-12P		1				

FROM		TO		% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS			
STR. NO.	OUTLET ELEV.	STR. NO.	INLET ELEV.		15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
1	859.04	2	858.54	2.27%		22		
2	858.54	4	849.67	3.56%		249		

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

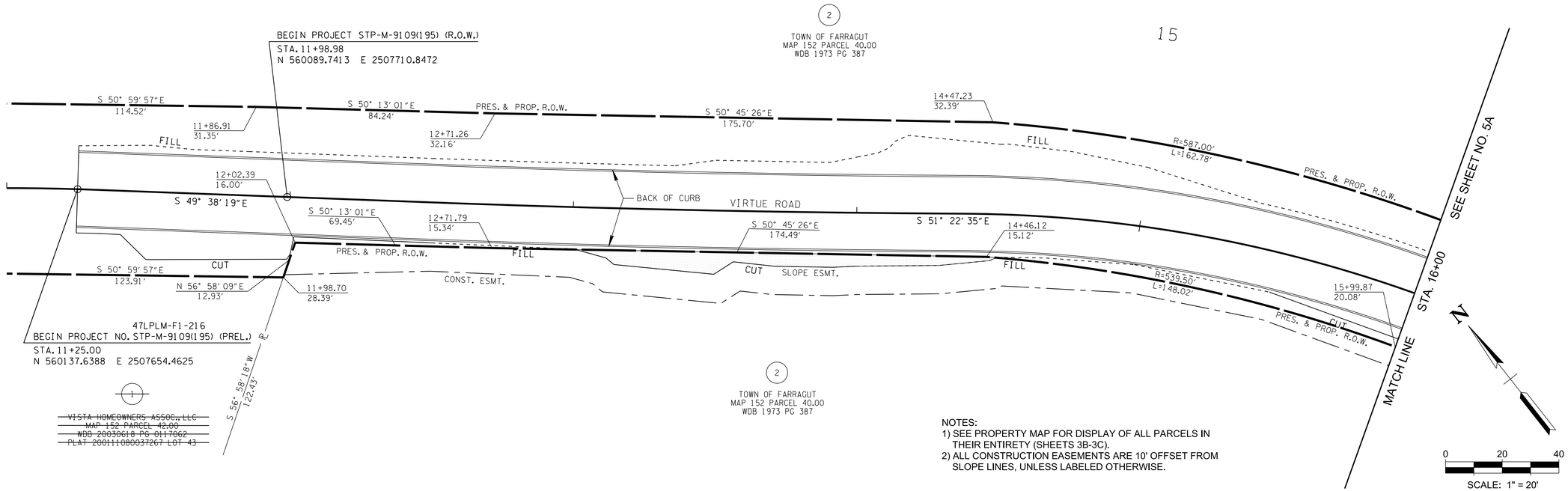
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

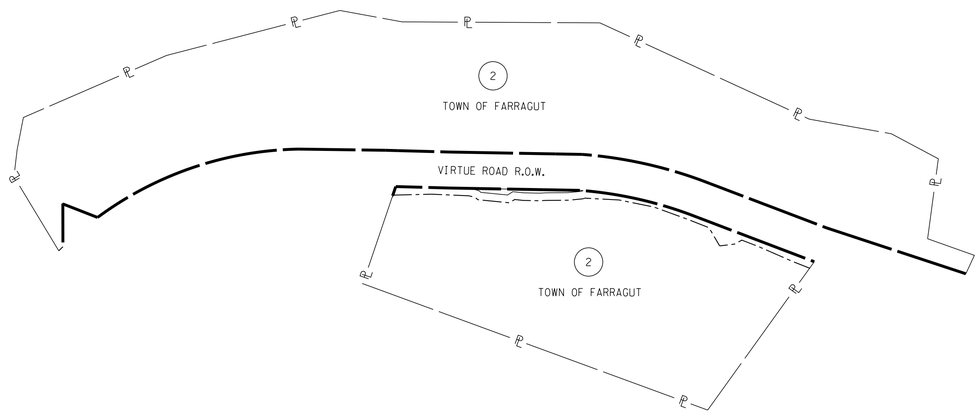
SHEET TITLE:

PLAN AND PROFILE 11+25 TO 16+00

SHEET 4



NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.



INSET - PARCEL 2
SCALE: 1"=100'

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

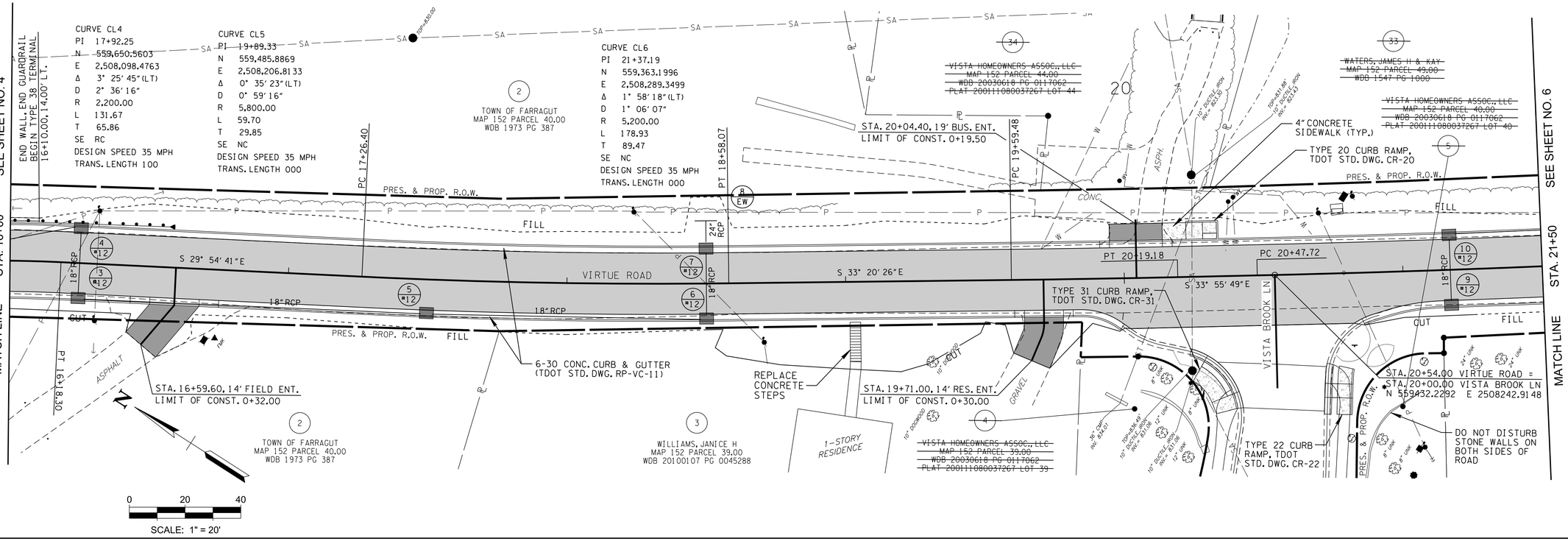
PROJECT NUMBER: FAR302

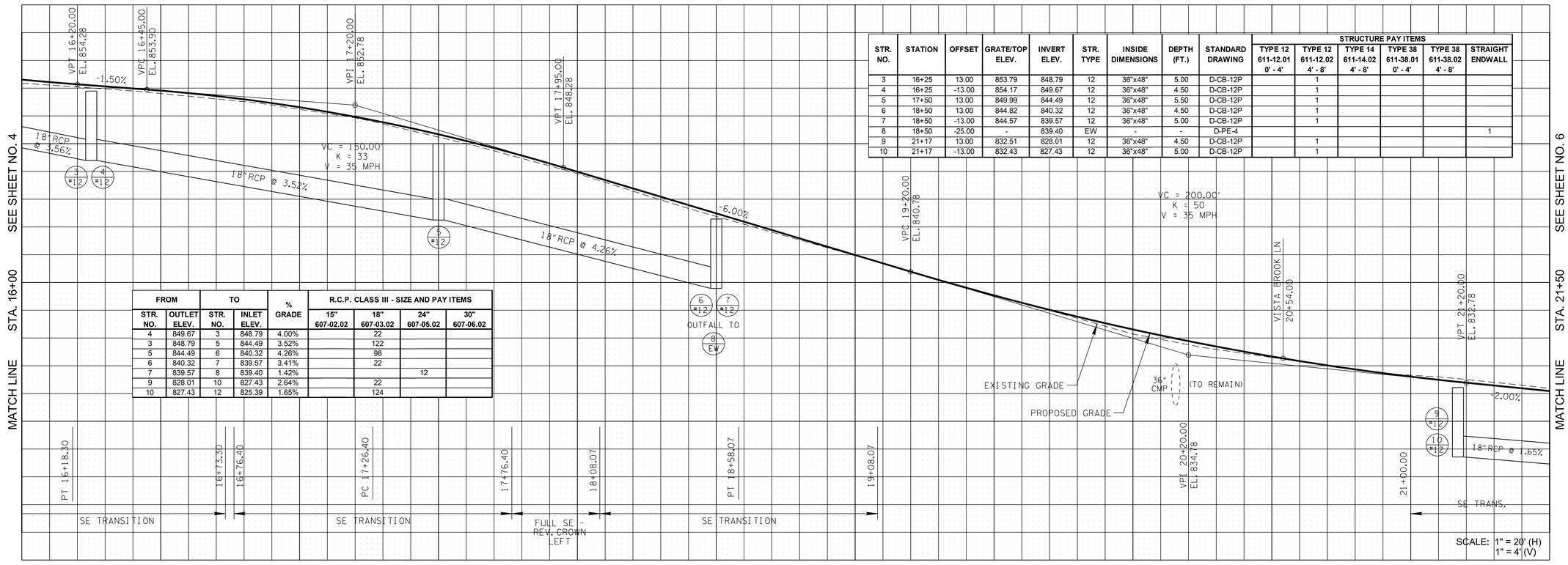
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

R.O.W. DETAILS 11+25 TO 16+00

SHEET 4A





STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS					
									TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
3	16+25	13.00	853.79	848.79	12	36"x48"	5.00	D-CB-12P		1				
4	16+25	-13.00	854.17	849.67	12	36"x48"	4.50	D-CB-12P		1				
5	17+50	13.00	849.99	844.49	12	36"x48"	5.50	D-CB-12P		1				
6	18+50	13.00	844.82	840.32	12	36"x48"	4.50	D-CB-12P		1				
7	18+50	-13.00	844.57	839.57	12	36"x48"	5.00	D-CB-12P		1				
8	18+50	-25.00	-	839.40	EW	-	-	D-PE-4						1
9	21+17	13.00	832.51	828.01	12	36"x48"	4.50	D-CB-12P		1				
10	21+17	-13.00	832.43	827.43	12	36"x48"	5.00	D-CB-12P		1				

FROM		TO		% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS			
STR. NO.	OUTLET ELEV.	STR. NO.	INLET ELEV.		15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
4	849.67	3	848.79	4.00%		22		
3	848.79	5	844.49	3.52%		122		
5	844.49	6	840.32	4.26%		98		
6	840.32	7	839.57	3.41%		22		
7	839.57	8	839.40	1.42%			12	
9	828.01	10	827.43	2.64%		22		
10	827.43	12	825.39	1.65%		124		

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

PROJECT NUMBER: FAR302

DATE: JUNE 2025 | SCALE: AS SHOWN

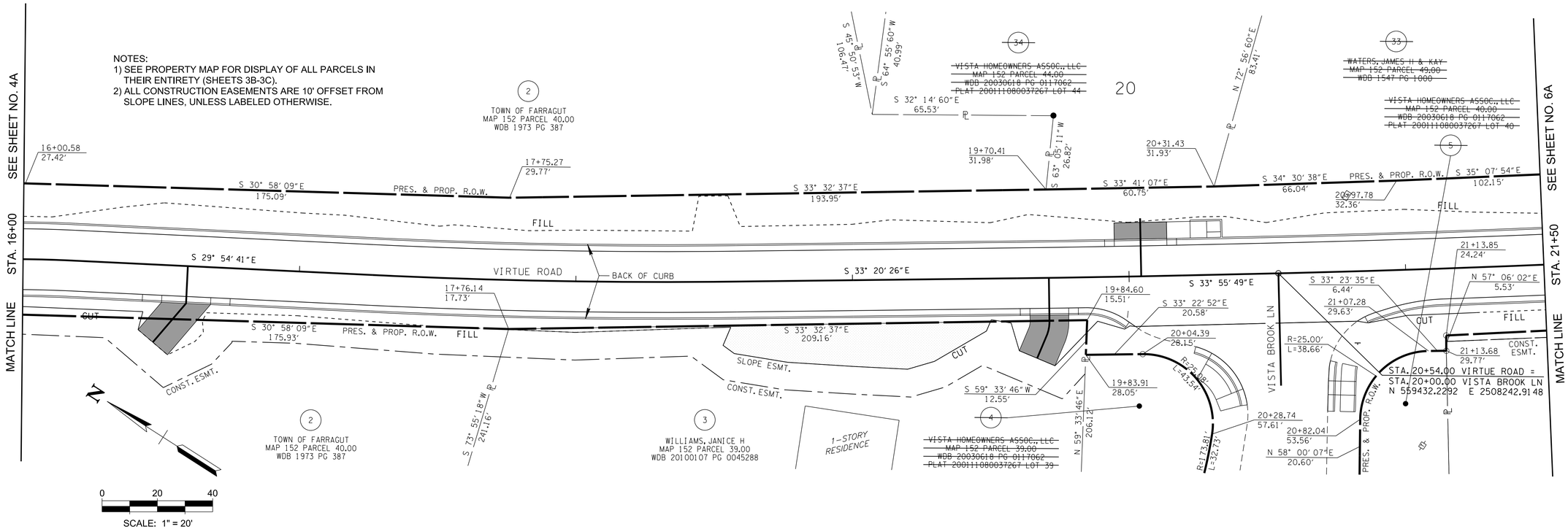
DRAWN BY: | DESIGNED BY: JCE

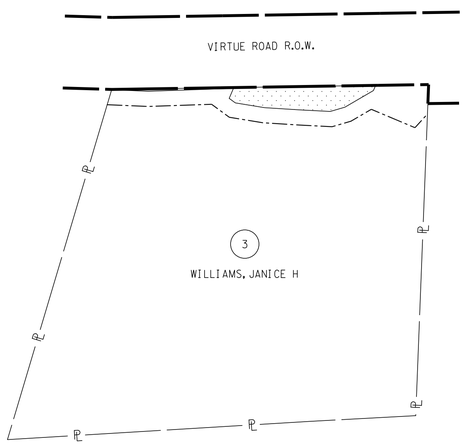
SHEET TITLE:

PLAN AND PROFILE 16+00 TO 21+50

SHEET 5

NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.





INSET - PARCEL 3
SCALE: 1"=50'

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

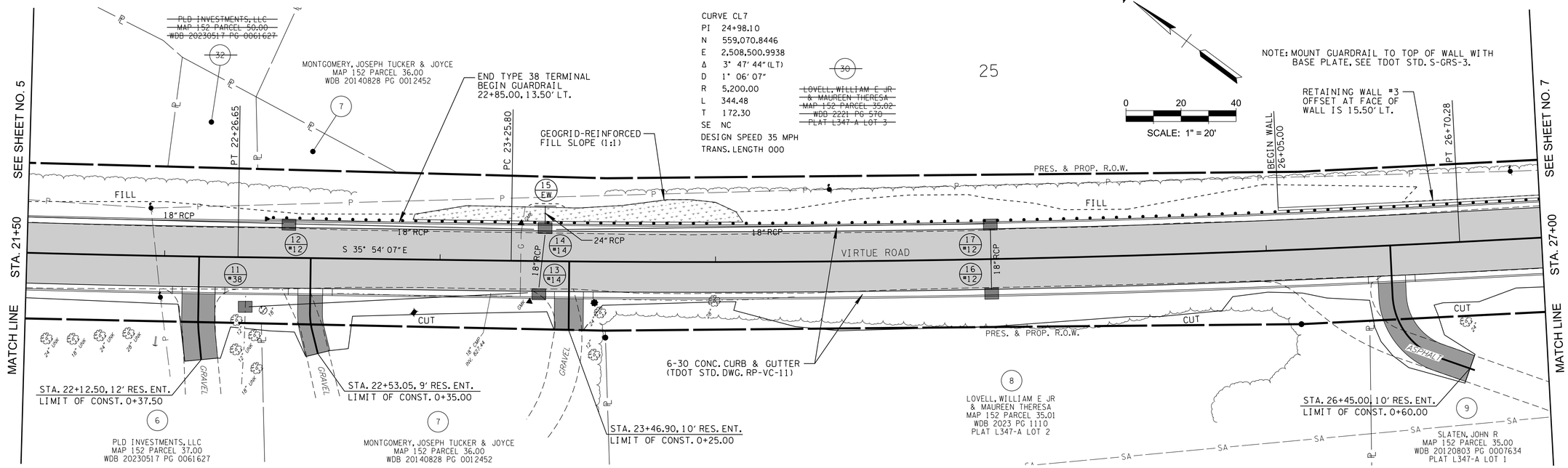
PROJECT NUMBER: FAR302

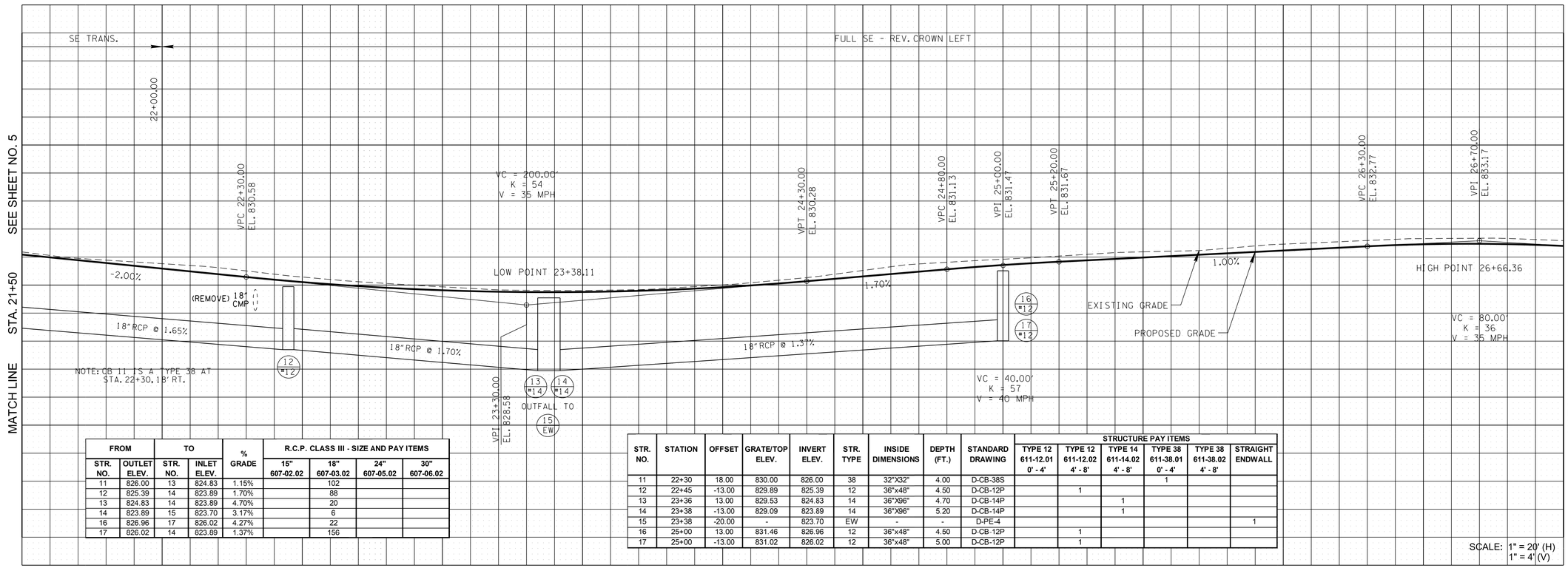
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

R.O.W. DETAILS 16+00 TO 21+50

SHEET 5A





FROM		TO		% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS			
STR. NO.	OUTLET ELEV.	STR. NO.	INLET ELEV.		15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
11	826.00	13	824.83	1.15%		102		
12	825.39	14	823.89	1.70%		88		
13	824.83	14	823.89	4.70%		20		
14	823.89	15	823.70	3.17%		6		
16	826.96	17	826.02	4.27%		22		
17	826.02	14	823.89	1.37%		156		

STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS					
									TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
11	22+30	18.00	830.00	826.00	38	32"X32"	4.00	D-CB-38S				1		
12	22+45	-13.00	829.89	825.39	12	36"x48"	4.50	D-CB-12P		1				
13	23+36	13.00	829.53	824.83	14	36"X96"	4.70	D-CB-14P			1			
14	23+38	-13.00	829.09	823.89	14	36"X96"	5.20	D-CB-14P			1			
15	23+38	-20.00	-	823.70	EW	-	-	D-PE-4						1
16	25+00	13.00	831.46	826.96	12	36"x48"	4.50	D-CB-12P		1				
17	25+00	-13.00	831.02	826.02	12	36"x48"	5.00	D-CB-12P		1				

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

PROJECT NUMBER: FAR302

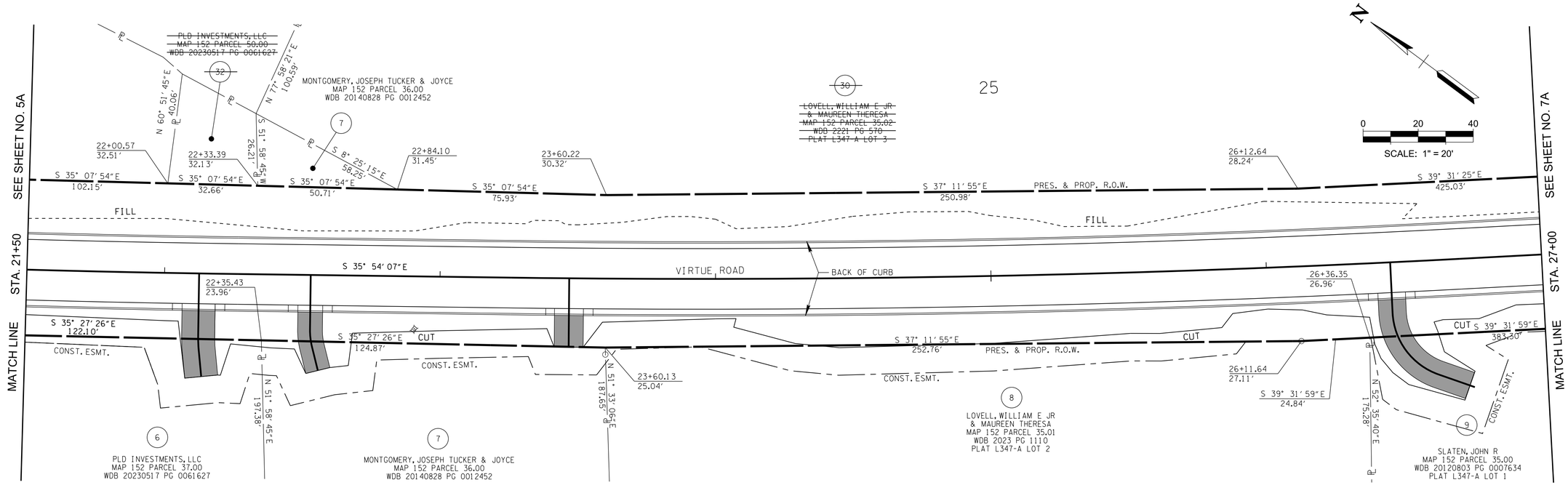
DATE: AUG 2025 | SCALE: AS SHOWN

DRAWN BY: | DESIGNED BY: JCE

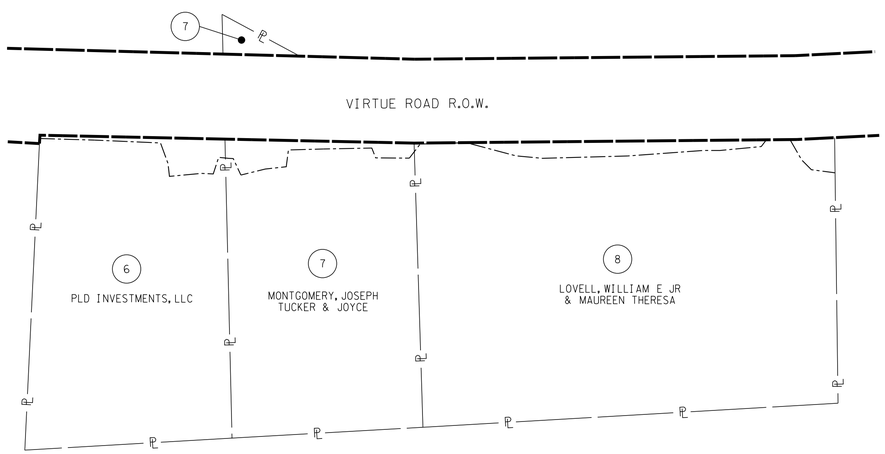
SHEET TITLE:

PLAN AND PROFILE 21+50 TO 27+00

SHEET 6



NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.



INSET - PARCELS 6, 7 & 8
SCALE: 1"=50'

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

R.O.W. DETAILS 21+50 TO 27+00

SHEET 6A

NOTE: MOUNT GUARDRAIL TO TOP OF WALL WITH BASE PLATE. SEE TDOT STD. S-GRS-3.

RETAINING WALL #3 OFFSET AT FACE OF WALL IS 15.50' LT.

CURVE CL8
PI 28+77.04
N 558,779.1793
E 2,508,743.1171
Δ 1° 07' 40"(RT)
D 1° 06' 07"
R 5,200.00
L 102.36
T 51.18
SE NC
DESIGN SPEED 35 MPH
TRANS. LENGTH 000

CURVE CL9
PI 31+08.72
N 558,598.0368
E 2,508,887.5641
Δ 1° 50' 45"(LT)
D 1° 06' 07"
R 5,200.00
L 167.52
T 83.77
SE NC
DESIGN SPEED 35 MPH
TRANS. LENGTH 000

END GUARDRAIL BEGIN TYPE 38 TERMINAL 30+20.00, 13.50' LT.

SEE SHEET NO. 6 — STA. 27+00 — MATCH LINE

SEE SHEET NO. 8 — STA. 32+50 — MATCH LINE

END WALL 28+30.00

PC 28+25.86

PT 29+28.22

PC 30+24.95

PT 31+92.47

PRES. & PROP. R.O.W.

VIRTUE ROAD

S 39° 41' 51"E

S 38° 34' 11"E

S 40° 24' 56"E

FILL

CUT

6-30 CONC. CURB & GUTTER (TDOT STD. DWG. RP-VC-11)

TYPE 20 CURB RAMP, TDOT STD. DWG. CR-20

TYPE 40 CURB RAMP, TDOT STD. DWG. CR-40

4" CONCRETE SIDEWALK (TYP.)

BEGIN SHARED USE PATH 31+34.35, 20.50' RT.

10' SHARED USE PATH (ASPHALT)

DO NOT DISTURB WOODEN SIGN

STA. 30+56.50 VIRTUE ROAD = STA. 30+00.00 EVANS ROAD
N 558638.9257 E 2508855.0808

EVANS RD

18" RCP

42" RCP

24" RCP

SCALE: 1" = 20'

30 — LOVELL, WILLIAM E JR & MAUREEN THERESA, MAP 152 PARCEL 35.02, WDB 2221 PG 570, PLAT L347-A LOT 3

29 — GALBRAITH, DAVID MOORE, MAP 152 PARCEL 94.00, WDB 1569 PG 1040, PLAT 201811080029770 LOT 202R

9 — SLATEN, JOHN R, MAP 152 PARCEL 35.00, WDB 20120803 PG 0007634, PLAT L347-A LOT 1

10 — WILLIAMS, STEVE E & VIRGINIA T, MAP 152 PARCEL 33.03, WDB 1974 PG 982

STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS: TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
18	29+50	13.00	825.81	821.31	12	36"x48"	4.50	D-CB-12P		1				
19	29+50	-13.00	825.81	820.81	12	36"x48"	5.00	D-CB-12P		1				
20	30+31	30.25	823.07	817.07	12	36"x48"	6.00	D-CB-12P		1				
21	32+02	13.00	820.86	816.16	14	36"X96"	4.70	D-CB-14P			1			
22	32+02	-13.00	820.86	815.66	14	36"X96"	5.20	D-CB-14P			1			
23	32+02	-25.50	-	815.40	EW	-	-	D-PE-4						1

FROM STR. NO.	FROM OUTLET ELEV.	TO STR. NO.	TO INLET ELEV.	% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS: 15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
18	821.31	19	820.81	2.27%		22		
19	820.81	22	815.66	2.09%		246		
20	817.07	EXIST	816.90	2.13%		8		
21	816.16	22	815.66	2.50%		20		
22	815.66	23	815.40	2.17%			12	

FULL SE + REV. CROWN LEFT

SE TRANS.

27+25.00

28+25.00

VPT 27+10.00 EL. 832.69

VPC 27+60.00 EL. 832.09

VPI 28+40.00 EL. 831.13

VPT 29+20.00 EL. 827.53

VPC 29+30.00 EL. 827.08

VPI 30+00.00 EL. 823.93

VPT 30+70.00 EL. 822.74

VPC 31+10.00 EL. 822.06

VPI 31+75.00 EL. 820.95

VPT 32+40.00 EL. 821.41

-1.20%

-4.50%

-1.70%

0.70%

VC = 160.00'
K = 48
V = 40 MPH

VC = 140.00'
K = 50
V = 35 MPH

VC = 130.00'
K = 54
V = 35 MPH

EXISTING GRADE

PROPOSED GRADE

18" RCP @ 2.09%

42" RCP (TO REMAIN)

LOW POINT 32+02.08

OUTFALL TO

NOTE: CB 20 IS A TYPE 12 AT STA. 30+31, 30.25' RT. (INTERSECTION OF EVANS RD.)

SCALE: 1" = 20' (H)
1" = 4' (V)

840 / 830 / 820 / 810

27+00 / 28+00 / 29+00 / 30+00 / 31+00 / 32+00

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

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PROJECT NUMBER: FAR302

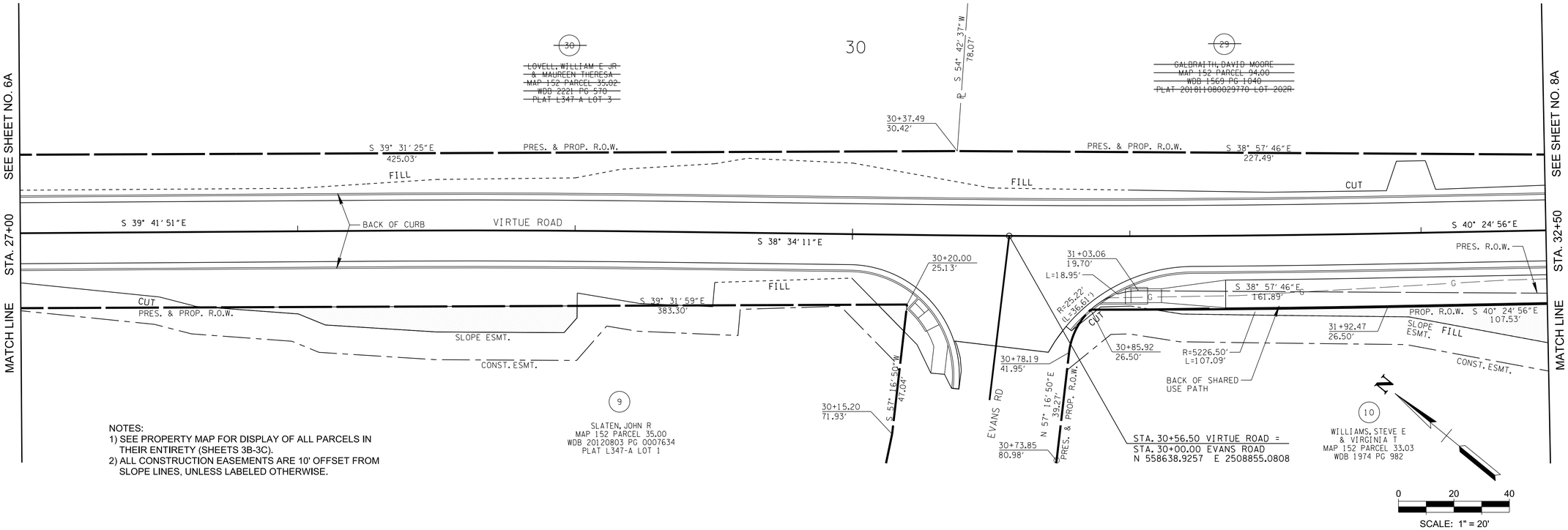
DATE: JUNE 2025 | SCALE: AS SHOWN

DRAWN BY: | DESIGNED BY: JCE

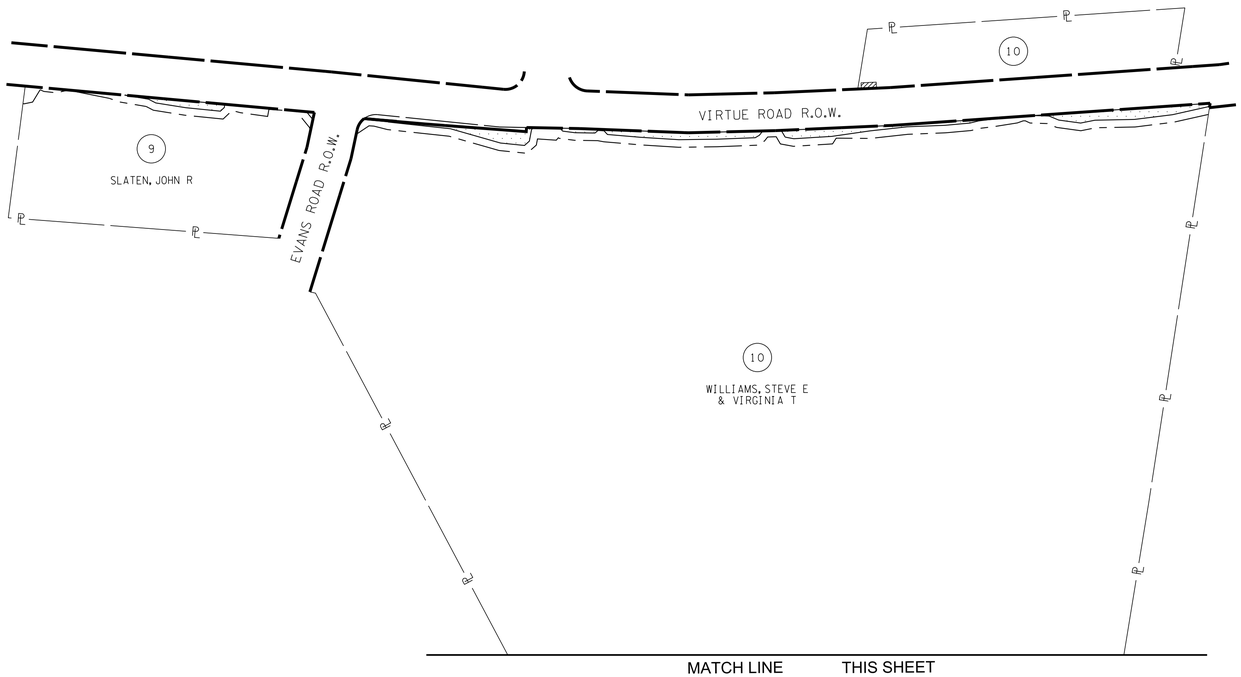
SHEET TITLE:

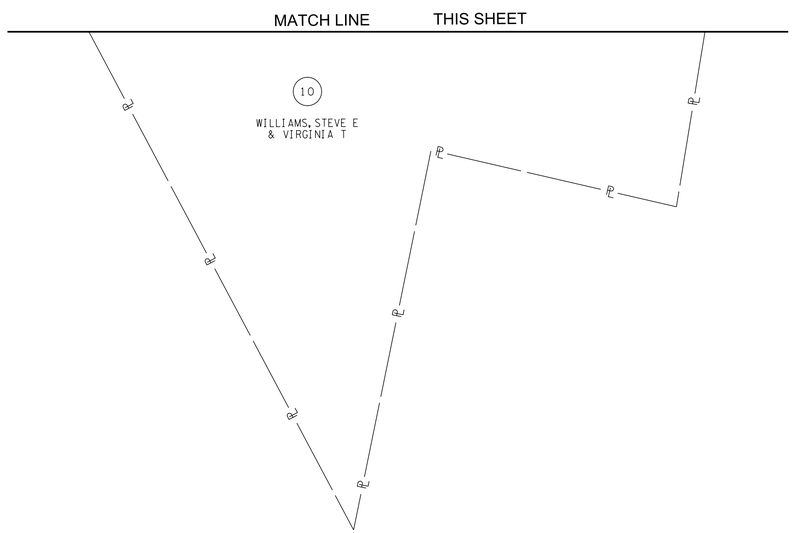
PLAN AND PROFILE 27+00 TO 32+50

SHEET 7



NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.





INSET - PARCELS 9 &10
SCALE: 1"=100'

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

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DATE: AUG 2025	SCALE: AS SHOWN
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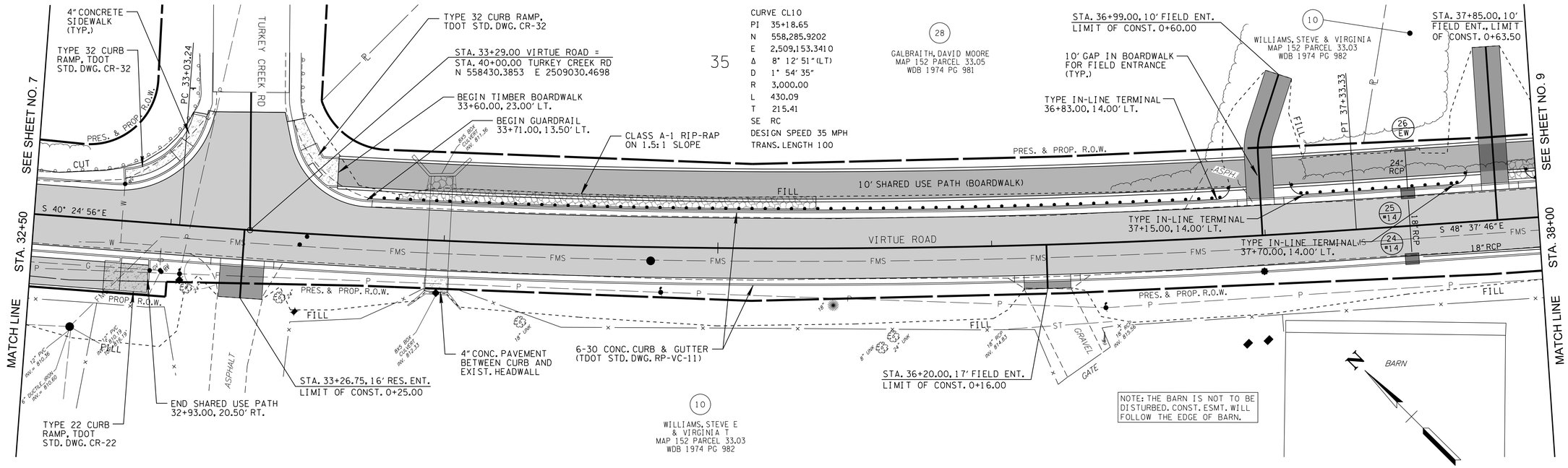
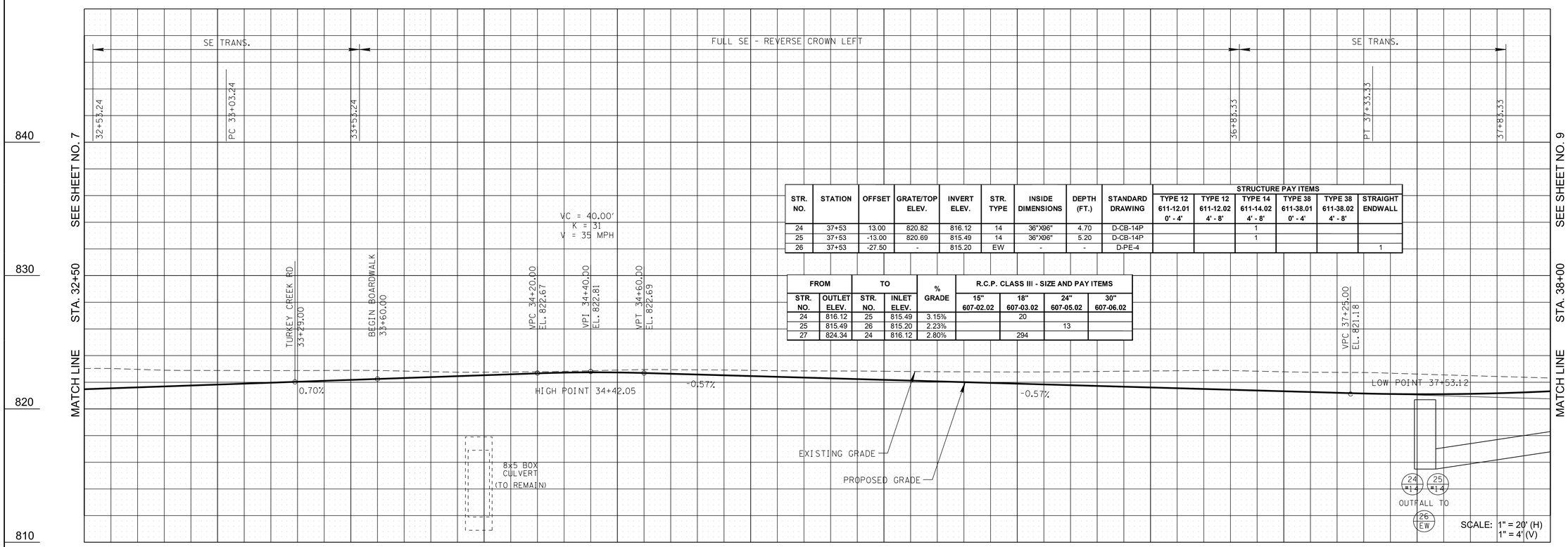
SHEET TITLE:

R.O.W. DETAILS 27+00 TO 32+50

SHEET 7A





STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS					
									TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
24	37+53	13.00	820.82	816.12	14	36"X96"	4.70	D-CB-14P			1			
25	37+53	-13.00	820.69	815.49	14	36"X96"	5.20	D-CB-14P			1			
26	37+53	-27.50	-	815.20	EW	-	-	D-PE-4						1

FROM		TO		% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS			
STR. NO.	OUTLET ELEV.	STR. NO.	INLET ELEV.		15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
24	816.12	25	815.49	3.15%		20		
25	815.49	26	815.20	2.23%			13	
27	824.34	24	816.12	2.80%		294		

LDA ENGINEERING

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VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

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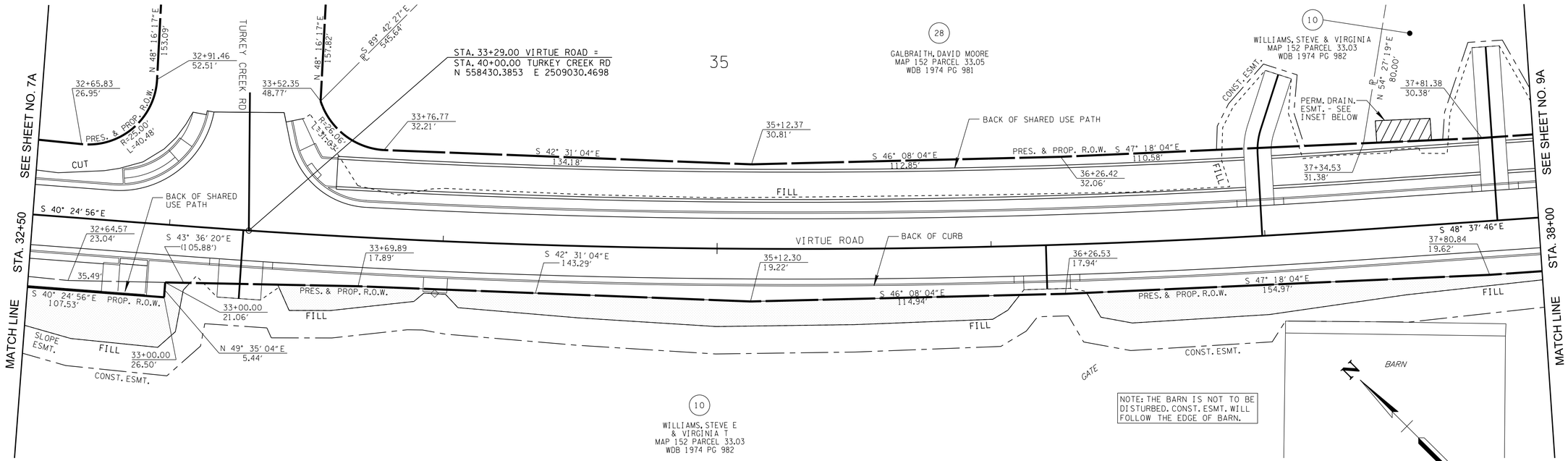
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

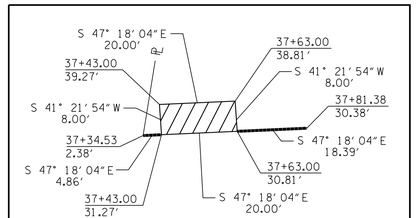
PLAN AND PROFILE 32+50 TO 38+00

SHEET 8



NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.

(SEE SHEET 7A FOR INSET OF PARCEL 10)



INSET - PERMANENT DRAINAGE EASEMENT

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

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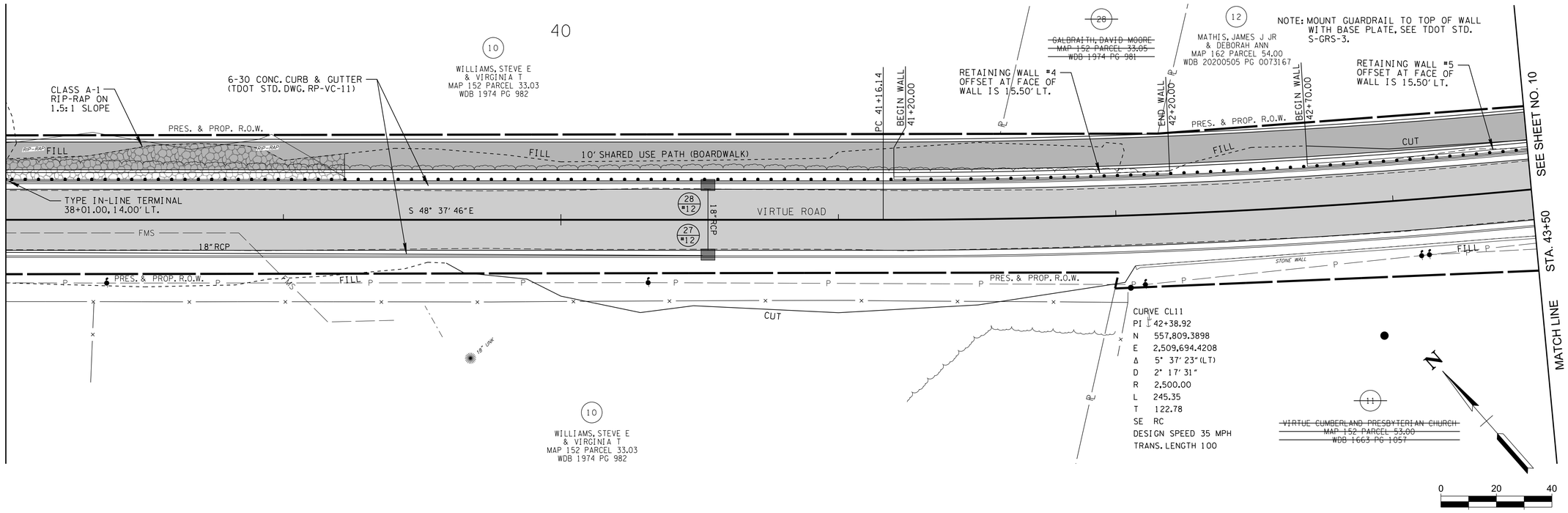
SHEET TITLE:

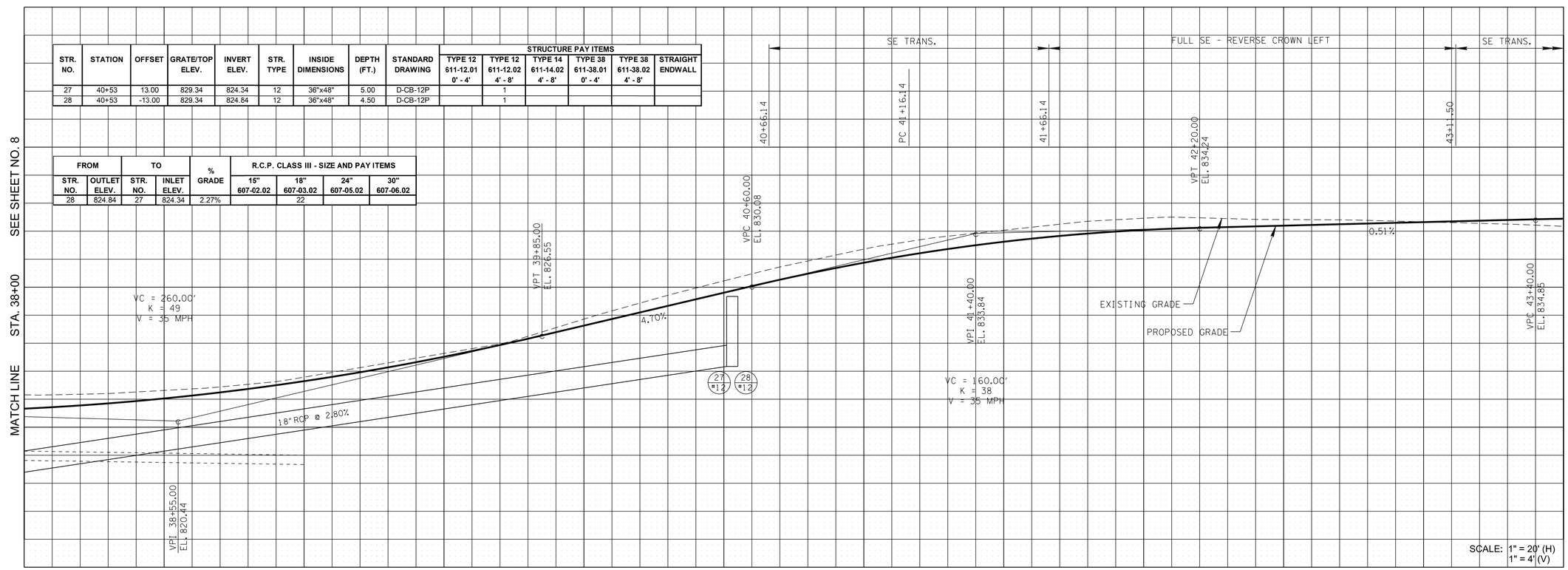
R.O.W. DETAILS 32+50 TO 38+00

SHEET 8A



STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
27	40+53	13.00	829.34	824.34	12	36"x48"	5.00	D-CB-12P		1				
28	40+53	-13.00	829.34	824.84	12	36"x48"	4.50	D-CB-12P		1				

FROM STR. NO.	FROM OUTLET ELEV.	TO STR. NO.	TO INLET ELEV.	% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS 15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
28	824.84	27	824.34	2.27%		22		



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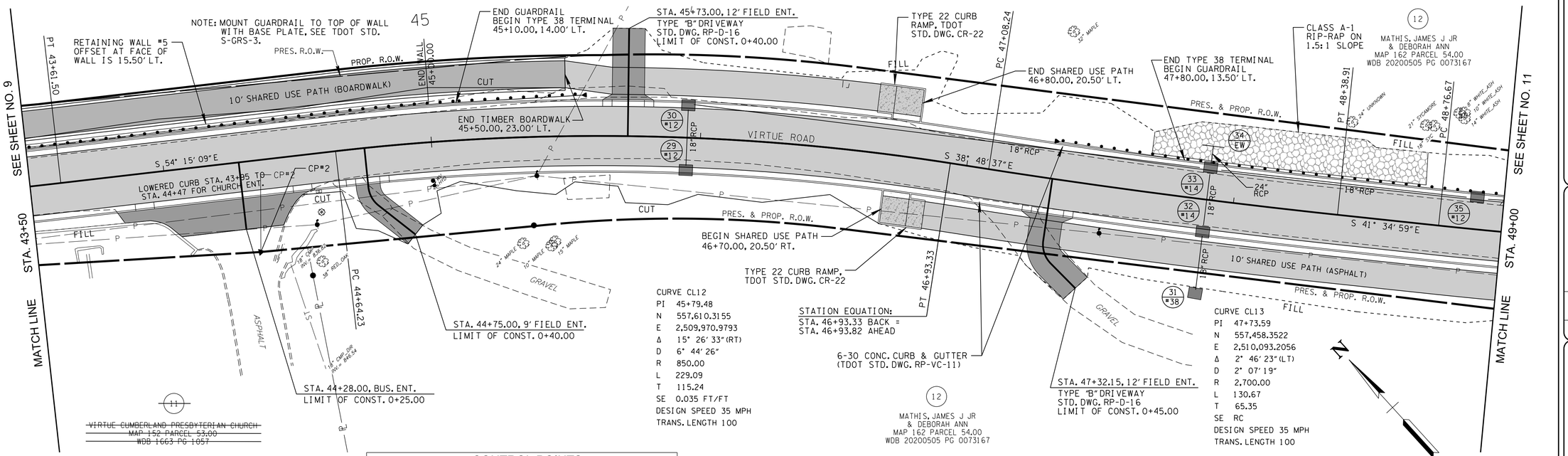
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

PLAN AND PROFILE 38+00 TO 43+50

SHEET 9

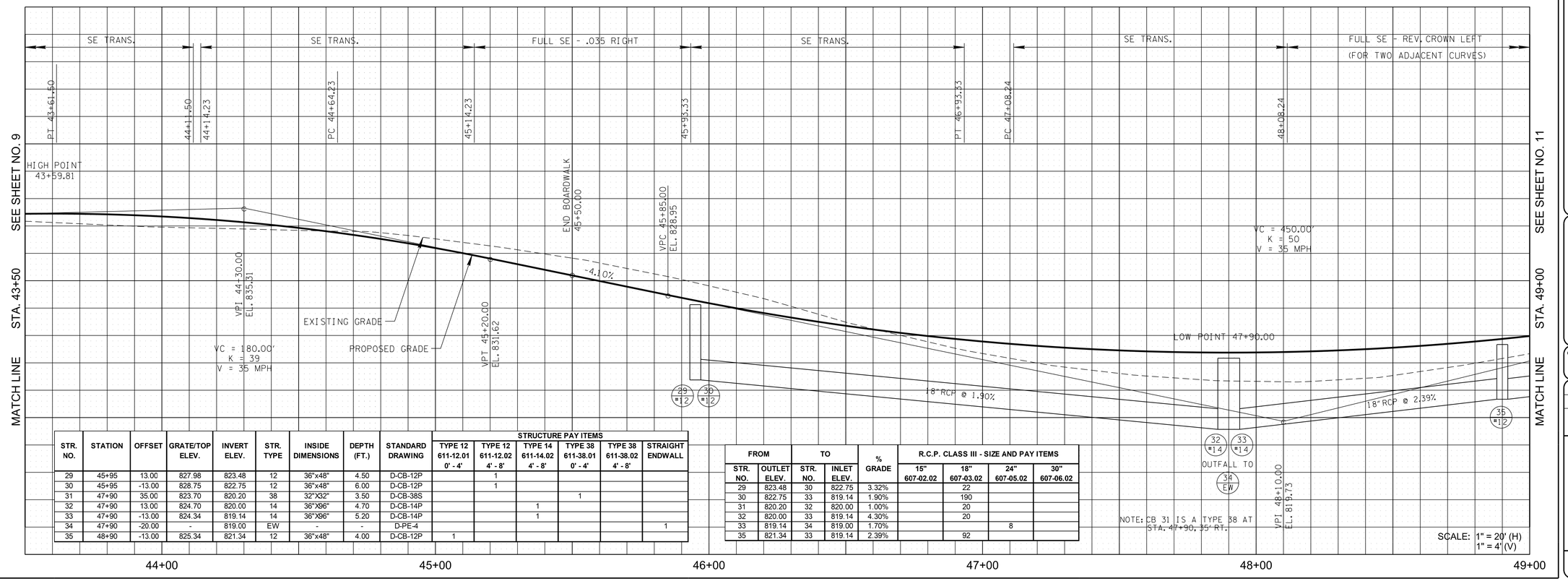


CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET
1	557332.1820	2509708.1830	876.00	45+81.00	377.62' RT.
2	557668.7253	2509831.7671	836.75	44+32.38	33.98' RT.

NOTE: CP#1 IS NEAR THE FRONT EDGE OF THE CHURCH PARKING LOT.

NOTE: FOR DRIVEWAYS THAT CROSS THE SHARED USE PATH, MAKE FACE OF CURB FLUSH WITH GUTTER (LOWERED CURB HEIGHT=0).



STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS: TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
29	45+95	13.00	827.98	823.48	12	36"x48"	4.50	D-CB-12P		1				
30	45+95	-13.00	828.75	822.75	12	36"x48"	6.00	D-CB-12P		1				
31	47+90	35.00	823.70	820.20	38	32"X32"	3.50	D-CB-38S				1		
32	47+90	13.00	824.70	820.00	14	36"X96"	4.70	D-CB-14P			1			
33	47+90	-13.00	824.34	819.14	14	36"X96"	5.20	D-CB-14P			1			
34	47+90	-20.00	-	819.00	EW	-	-	D-PE-4						1
35	48+90	-13.00	825.34	821.34	12	36"x48"	4.00	D-CB-12P	1					

FROM STR. NO.	FROM OUTLET ELEV.	TO STR. NO.	TO INLET ELEV.	% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS: 15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
29	823.48	30	822.75	3.32%		22		
30	822.75	33	819.14	1.90%		190		
31	820.20	32	820.00	1.00%		20		
32	820.00	33	819.14	4.30%		20		
33	819.14	34	819.00	1.70%			8	
35	821.34	33	819.14	2.39%		92		

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

PROJECT NUMBER: FAR302

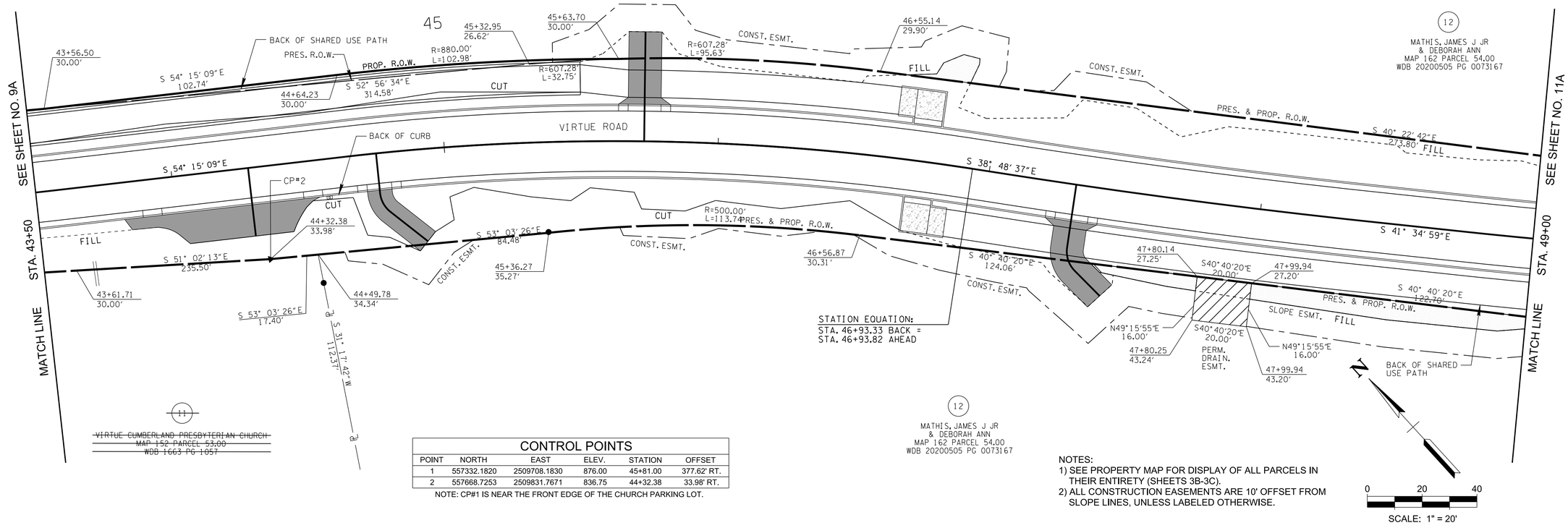
DATE: JUNE 2025 | SCALE: AS SHOWN

DRAWN BY: | DESIGNED BY: JCE

SHEET TITLE:

PLAN AND PROFILE 43+50 TO 49+00

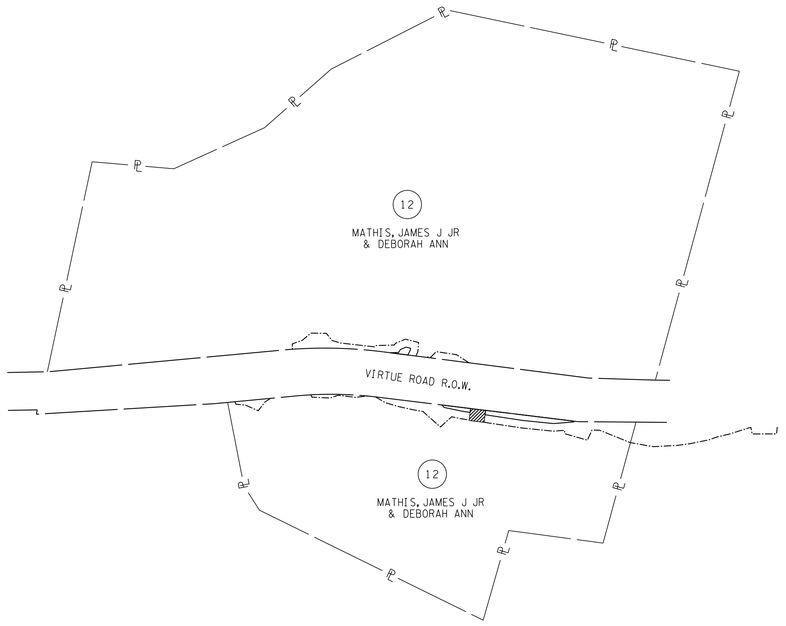
SHEET 10



CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
1	557332.1820	2509708.1830	876.00	45+81.00	377.62' RT.
2	557668.7253	2509831.7671	836.75	44+32.38	33.98' RT.

NOTE: CP#1 IS NEAR THE FRONT EDGE OF THE CHURCH PARKING LOT.

NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.



INSET - PARCEL 12
SCALE: 1"=100'

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

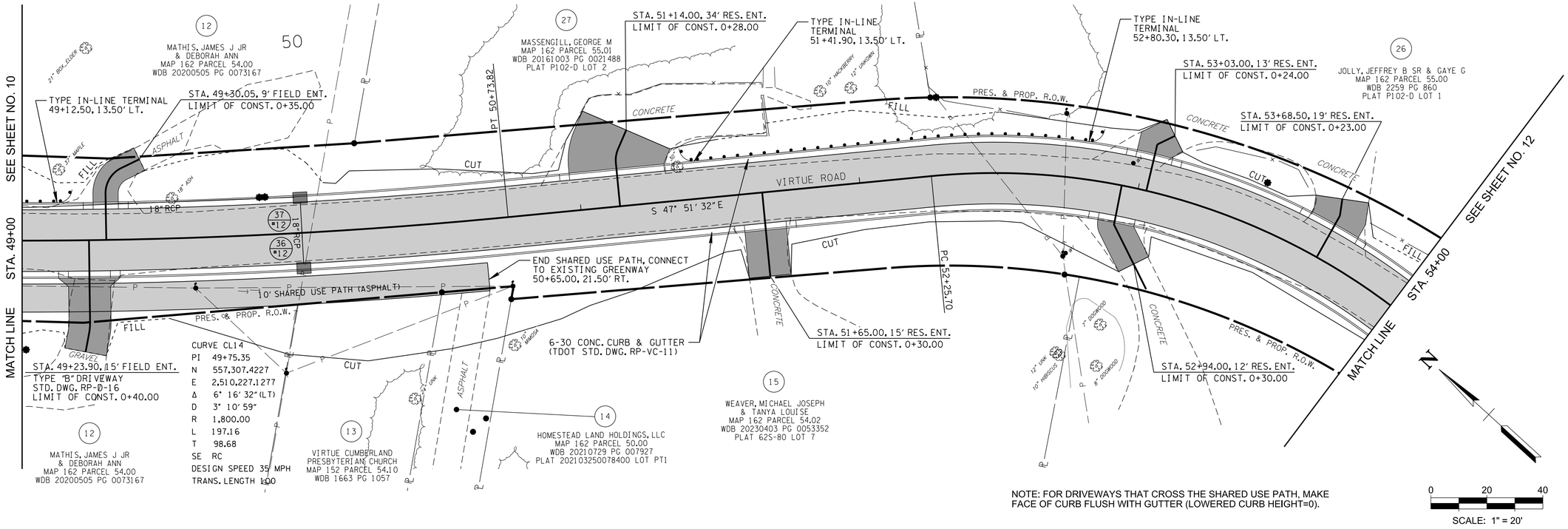
PROJECT NUMBER: FAR302

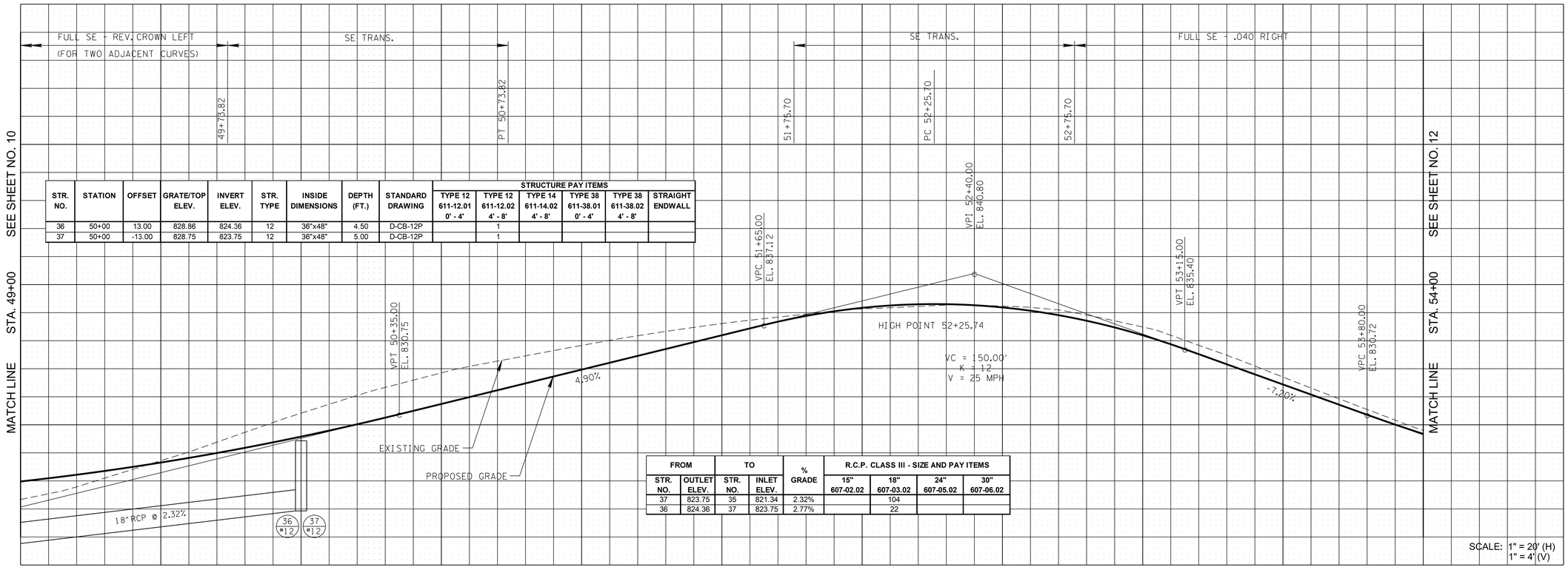
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

R.O.W. DETAILS 43+50 TO 49+00

SHEET 10A





STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS					
									TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
36	50+00	13.00	828.86	824.36	12	36"x48"	4.50	D-CB-12P		1				
37	50+00	-13.00	828.75	823.75	12	36"x48"	5.00	D-CB-12P		1				

FROM		TO		% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS			
STR. NO.	OUTLET ELEV.	STR. NO.	INLET ELEV.		15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
37	823.75	35	821.34	2.32%		104		
36	824.36	37	823.75	2.77%		22		

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

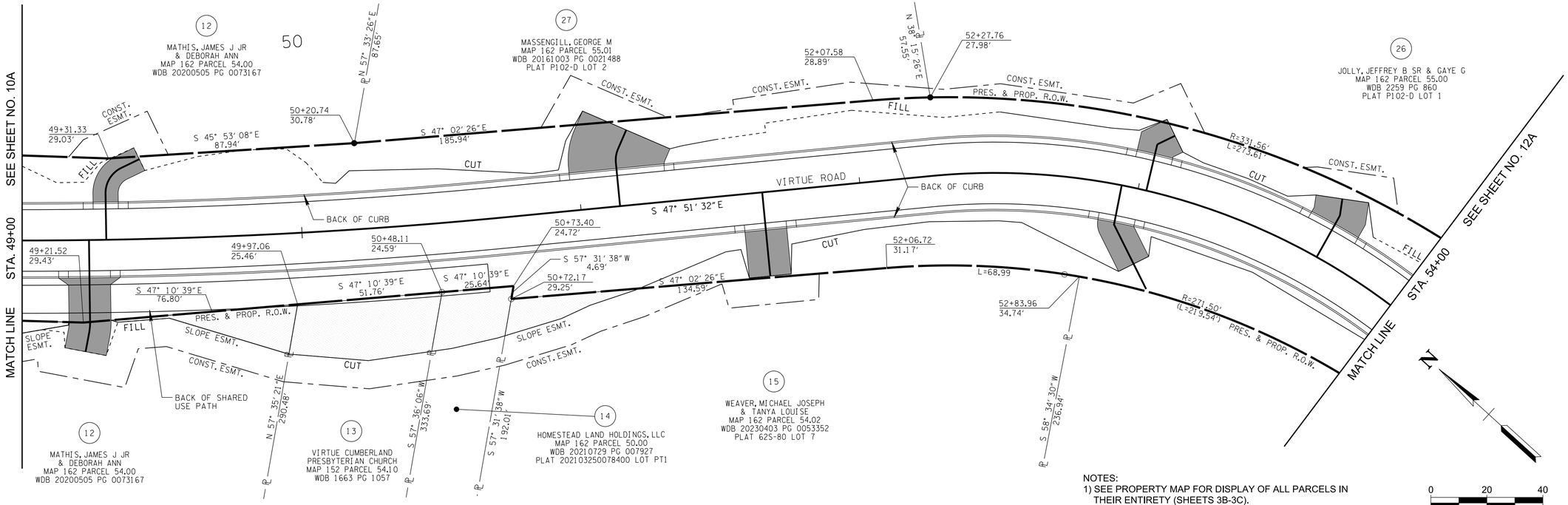
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

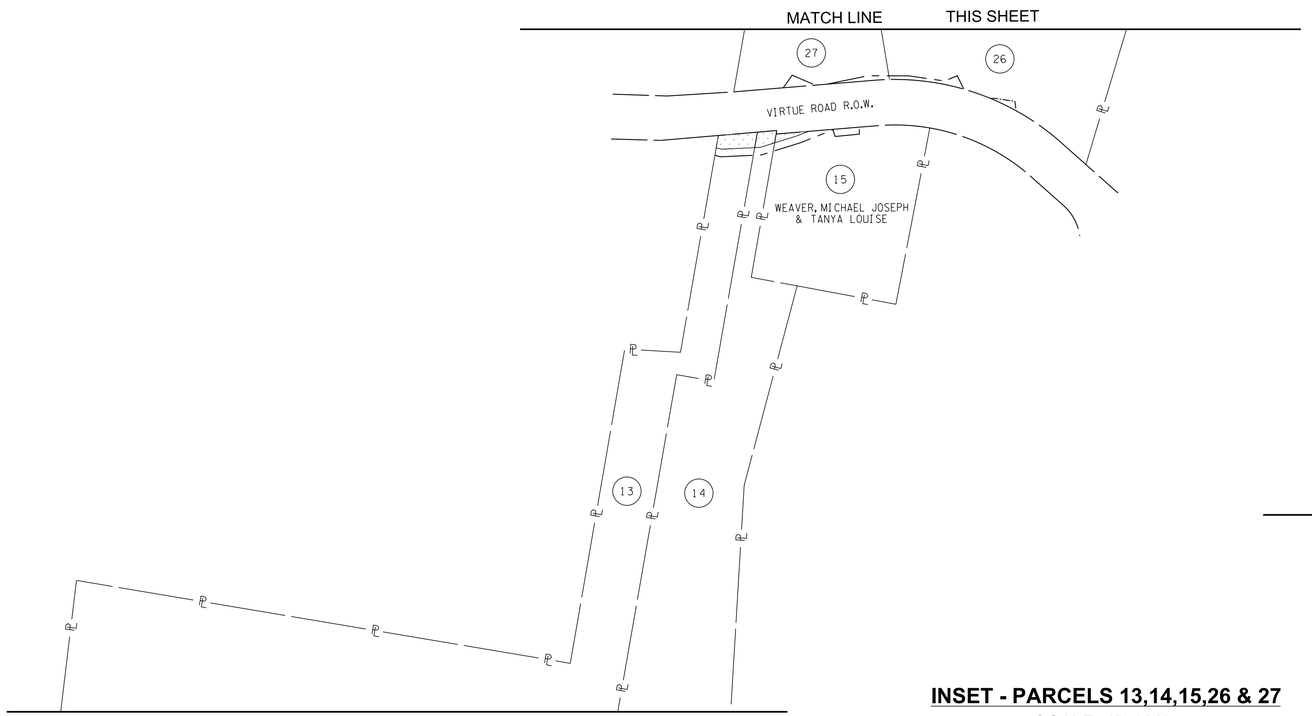
SHEET TITLE:

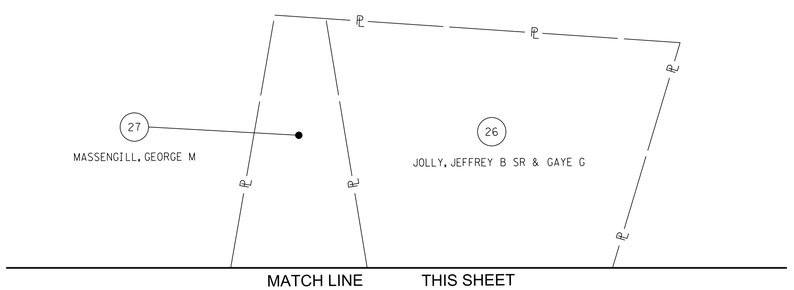
PLAN AND PROFILE 49+00 TO 54+00

SHEET 11



NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.





INSET - PARCELS 13,14,15,26 & 27
SCALE: 1"=100'

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

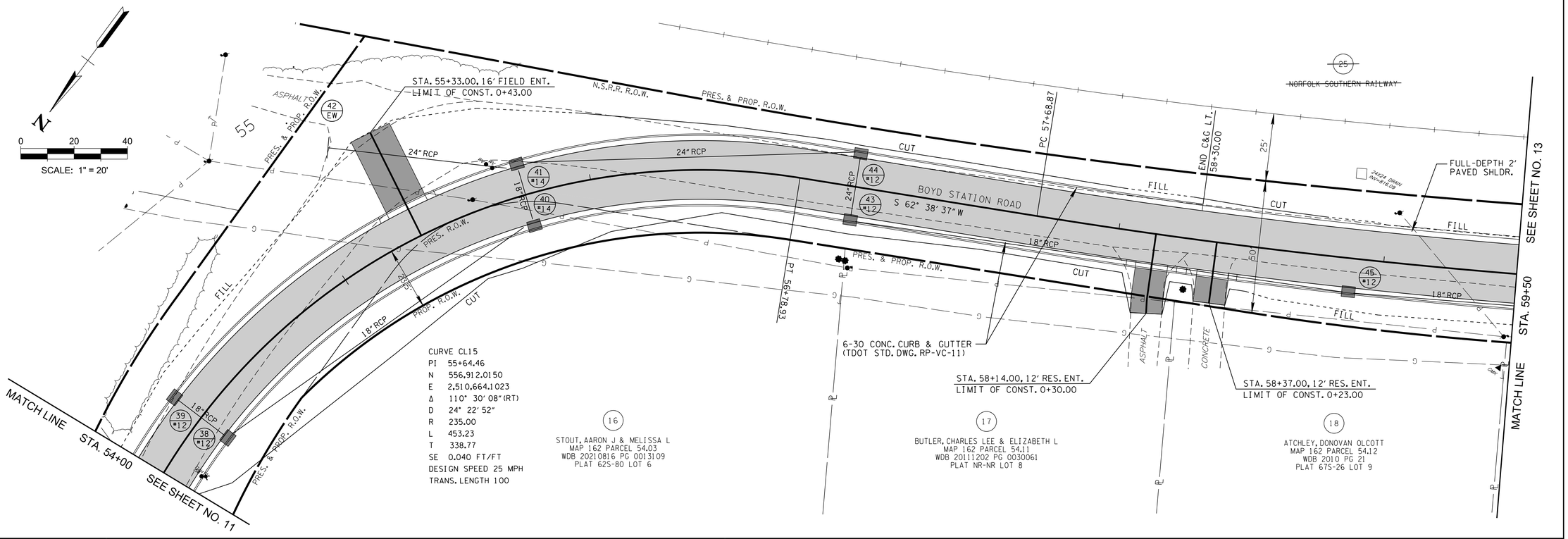
PROJECT NUMBER: FAR302

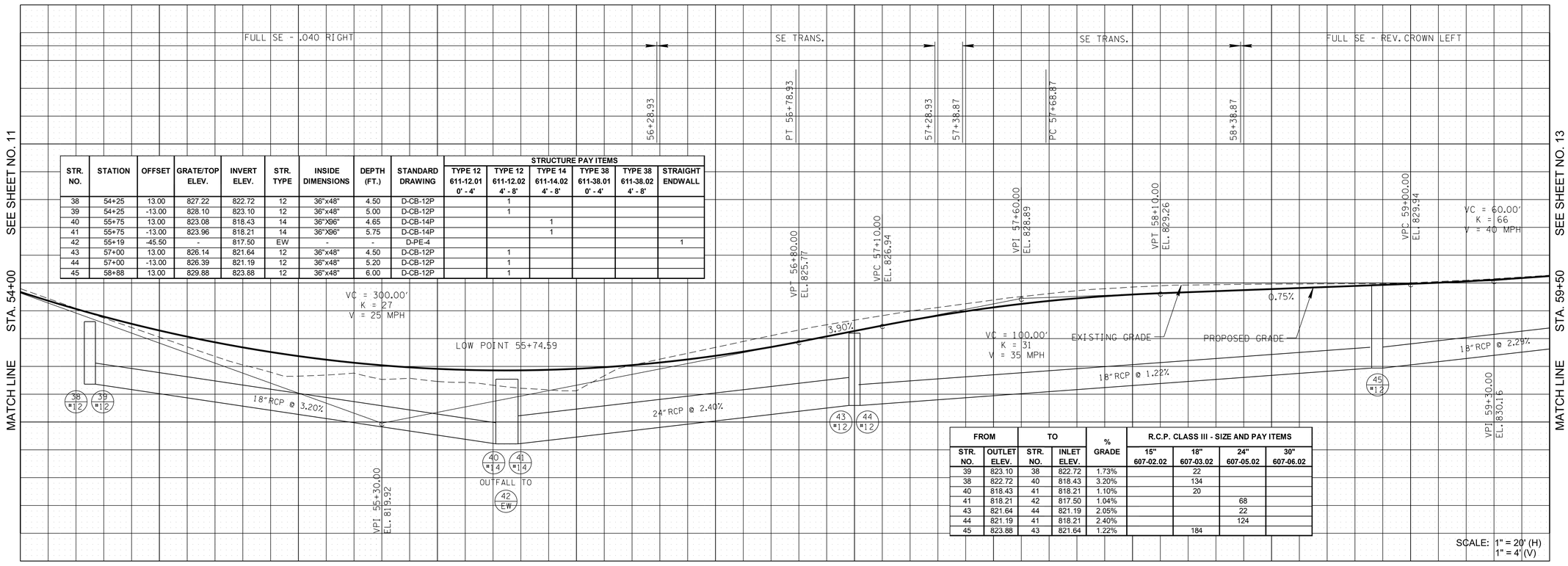
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

R.O.W. DETAILS 49+00 TO 54+00

SHEET 11A





STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS: TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
38	54+25	13.00	827.22	822.72	12	36"x48"	4.50	D-CB-12P		1				
39	54+25	-13.00	828.10	823.10	12	36"x48"	5.00	D-CB-12P		1				
40	55+75	13.00	823.08	818.43	14	36"X96"	4.65	D-CB-14P			1			
41	55+75	-13.00	823.96	818.21	14	36"X96"	5.75	D-CB-14P			1			
42	55+19	-45.50		817.50	EW	-	-	D-PE-4						1
43	57+00	13.00	826.14	821.64	12	36"x48"	4.50	D-CB-12P		1				
44	57+00	-13.00	826.39	821.19	12	36"x48"	5.20	D-CB-12P		1				
45	58+88	13.00	829.88	823.88	12	36"x48"	6.00	D-CB-12P		1				

FROM STR. NO.	FROM OUTLET ELEV.	TO STR. NO.	TO INLET ELEV.	% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS 15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
39	823.10	38	822.72	1.73%		22		
38	822.72	40	818.43	3.20%		134		
40	818.43	41	818.21	1.10%		20		
41	818.21	42	817.50	1.04%			68	
43	821.64	44	821.19	2.05%			22	
44	821.19	41	818.21	2.40%			124	
45	823.88	43	821.64	1.22%		184		

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

PROJECT NUMBER: FAR302

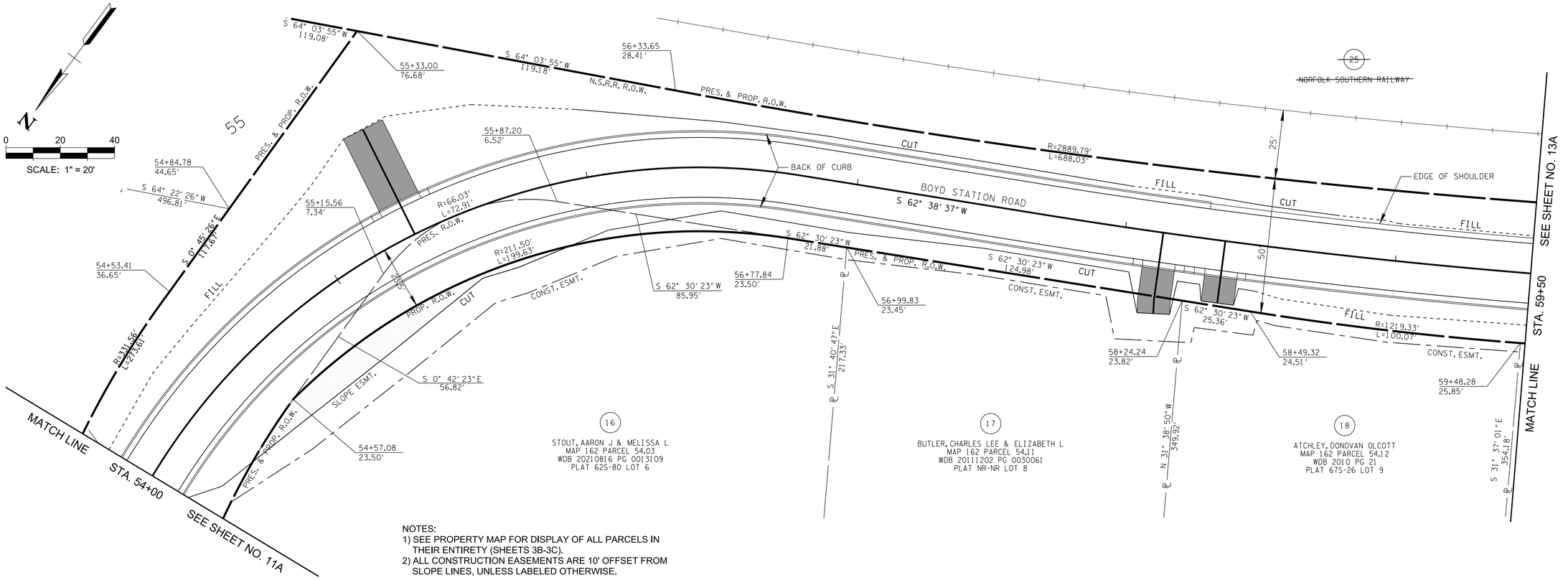
DATE: JUNE 2025 | SCALE: AS SHOWN

DRAWN BY: | DESIGNED BY: JCE

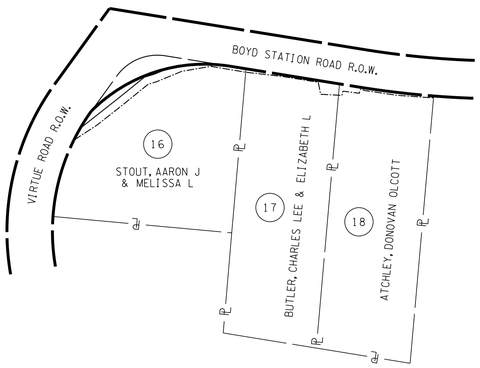
SHEET TITLE:

PLAN AND PROFILE 54+00 TO 59+50

SHEET 12



NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.



INSET - PARCELS 16, 17 & 18
SCALE: 1"=100'

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

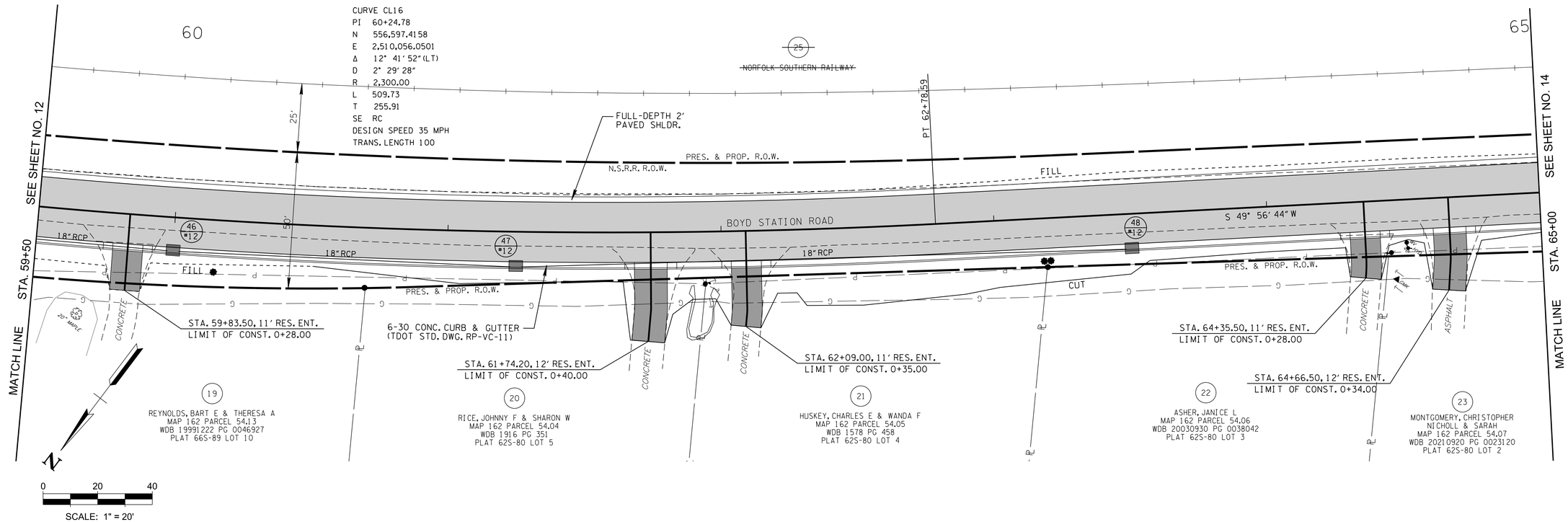
PROJECT NUMBER: FAR302

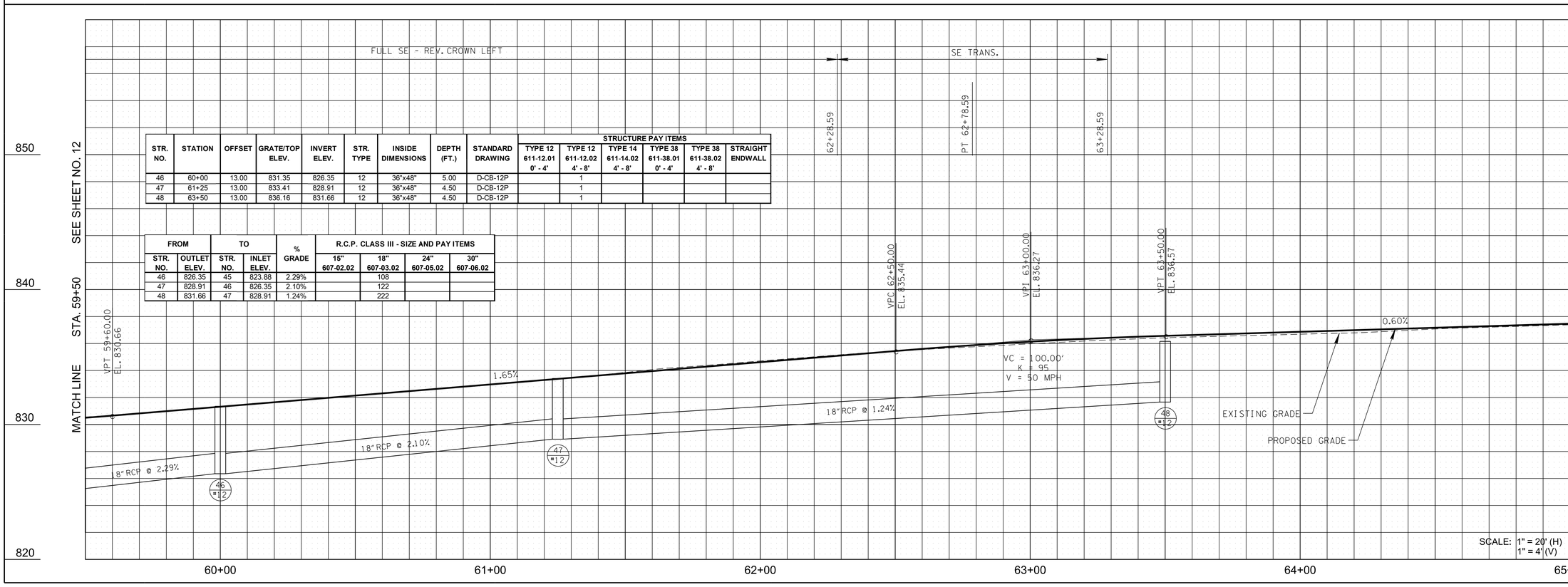
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

R.O.W. DETAILS 54+00 TO 59+50

SHEET 12A





STR. NO.	STATION	OFFSET	GRATE/TOP ELEV.	INVERT ELEV.	STR. TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	STRUCTURE PAY ITEMS					
									TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 14 611-14.02 4' - 8'	TYPE 38 611-38.01 0' - 4'	TYPE 38 611-38.02 4' - 8'	STRAIGHT ENDWALL
46	60+00	13.00	831.35	826.35	12	36"x48"	5.00	D-CB-12P		1				
47	61+25	13.00	833.41	828.91	12	36"x48"	4.50	D-CB-12P		1				
48	63+50	13.00	836.16	831.66	12	36"x48"	4.50	D-CB-12P		1				

FROM		TO		% GRADE	R.C.P. CLASS III - SIZE AND PAY ITEMS			
STR. NO.	OUTLET ELEV.	STR. NO.	INLET ELEV.		15" 607-02.02	18" 607-03.02	24" 607-05.02	30" 607-06.02
46	826.35	45	823.88	2.29%		108		
47	828.91	46	826.35	2.10%		122		
48	831.66	47	828.91	1.24%		222		

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

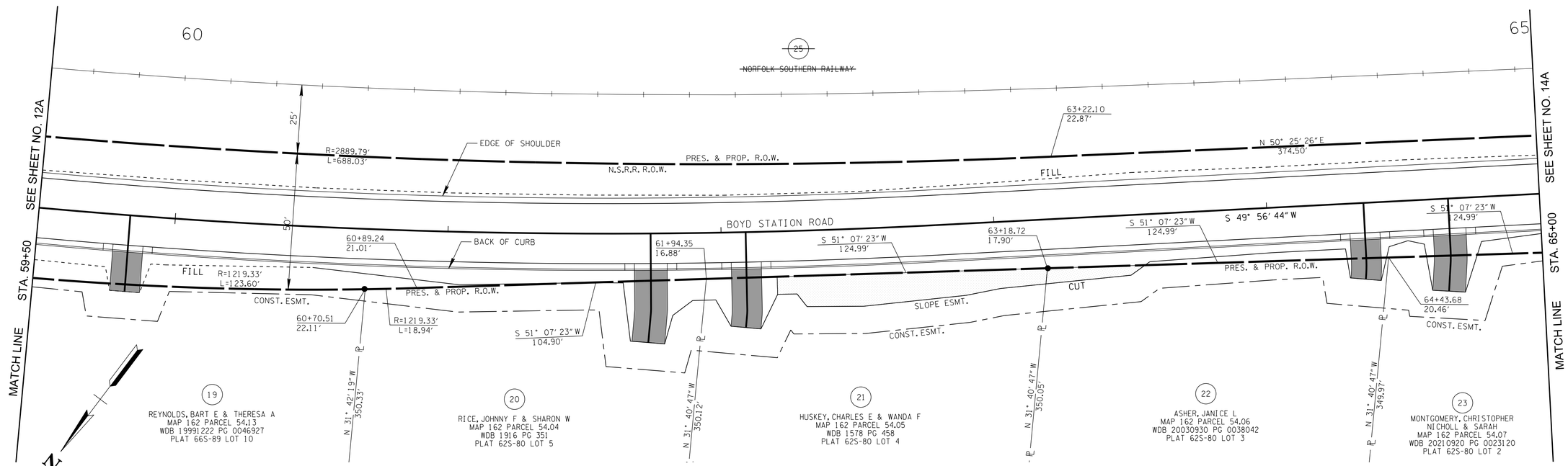
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

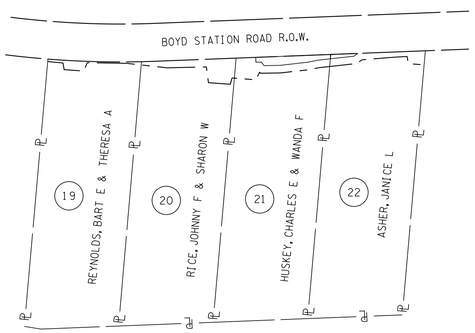
SHEET TITLE:

PLAN AND PROFILE 59+50 TO 65+00

SHEET 13



NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.



INSET - PARCELS 19,20,21 & 22
SCALE: 1"=100'

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

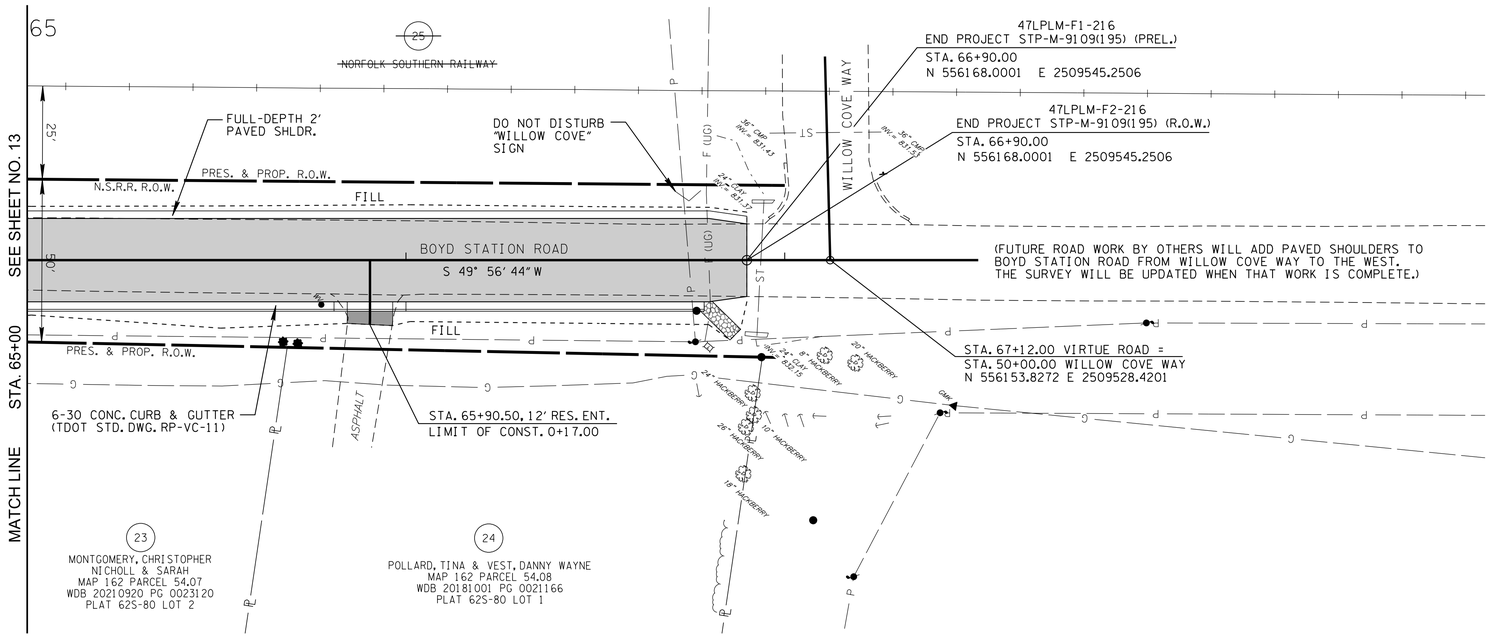
PROJECT NUMBER: FAR302

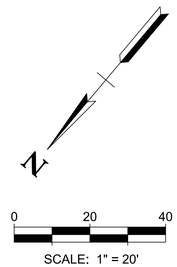
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

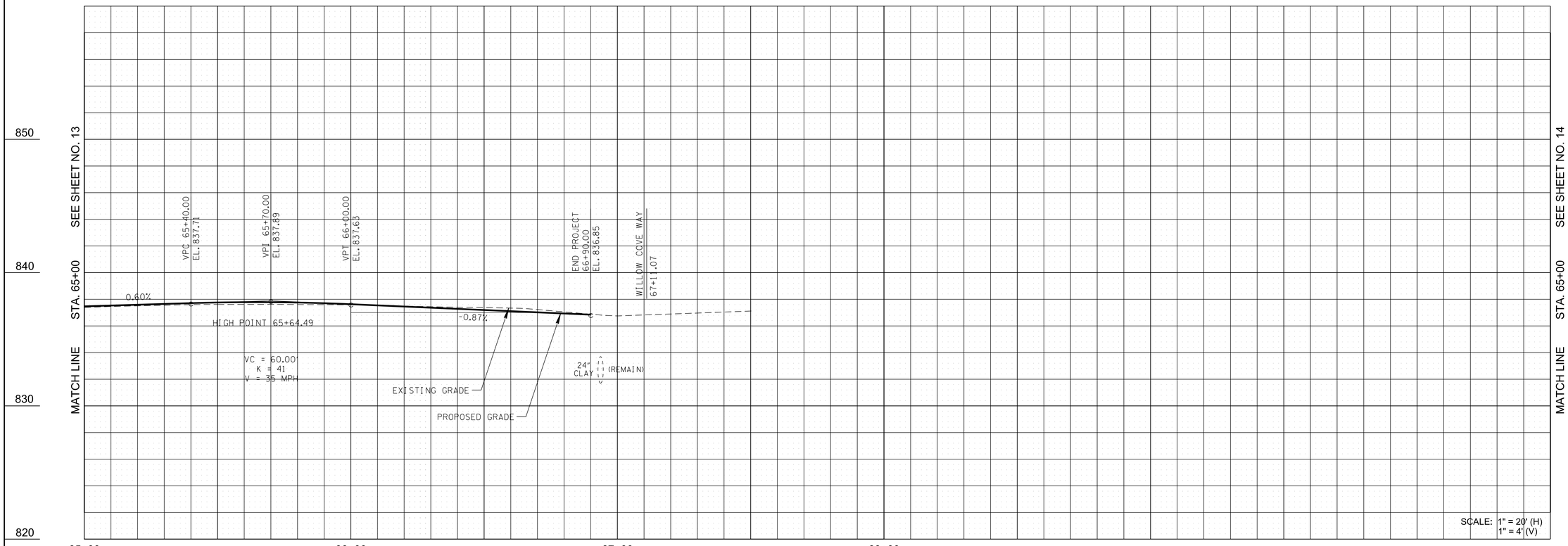
SHEET TITLE:

R.O.W. DETAILS 59+50 TO 65+00

SHEET 13A







LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

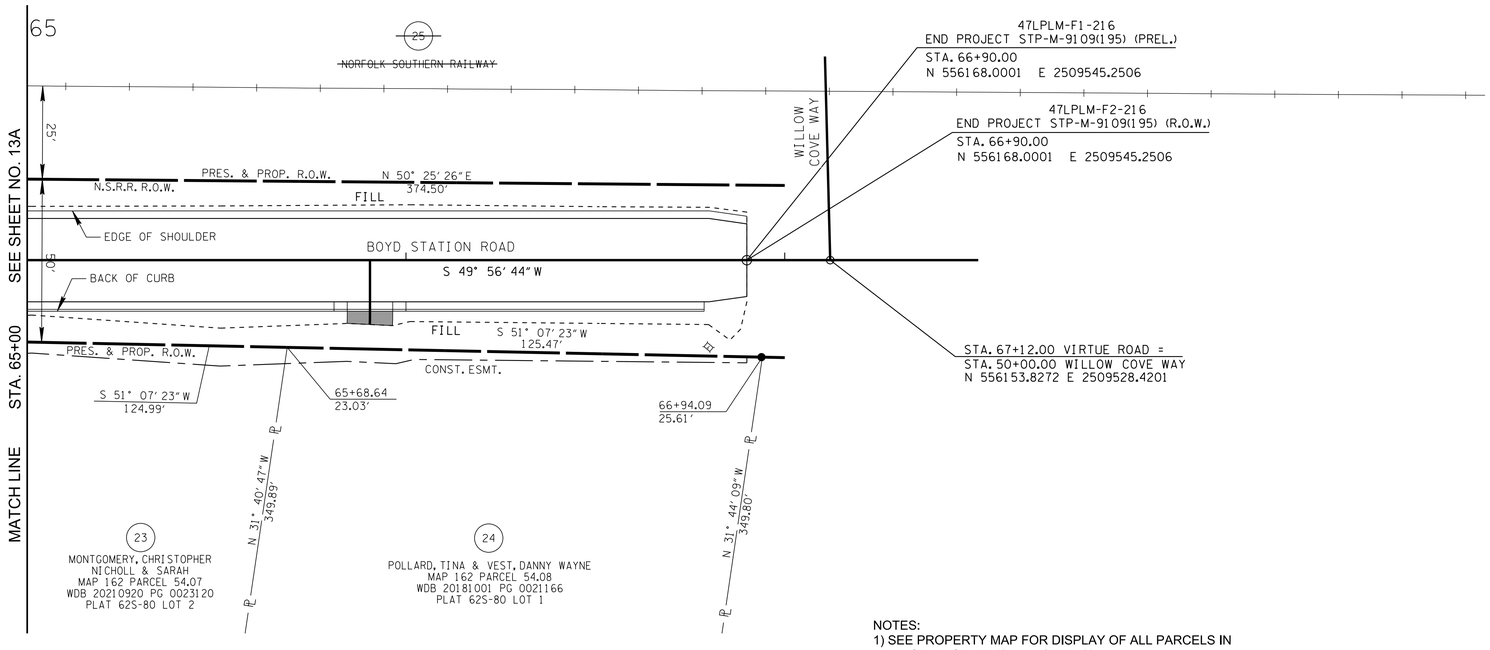
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

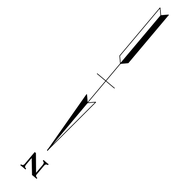
SHEET TITLE:

PLAN AND PROFILE 65+00 TO 66+90

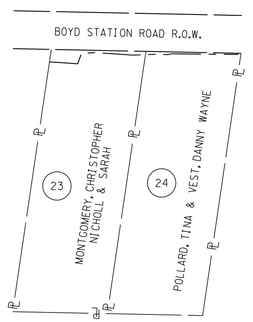
SHEET 14



NOTES:
1) SEE PROPERTY MAP FOR DISPLAY OF ALL PARCELS IN THEIR ENTIRETY (SHEETS 3B-3C).
2) ALL CONSTRUCTION EASEMENTS ARE 10' OFFSET FROM SLOPE LINES, UNLESS LABELED OTHERWISE.



SCALE: 1" = 20'



INSET - PARCELS 23 & 24
SCALE: 1"=100'

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

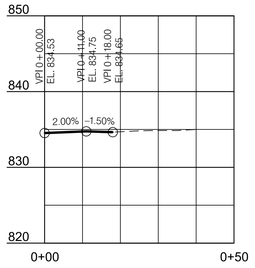
PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

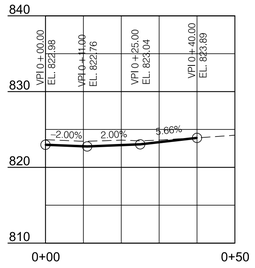
SHEET TITLE:

R.O.W. DETAILS 65+00 TO 66+90

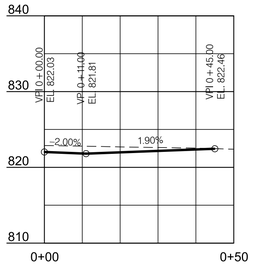
SHEET 14A



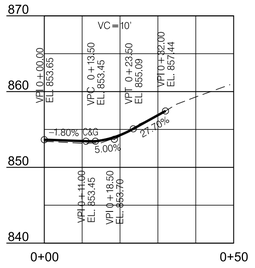
VISTA BROOK LANE
STA. 20+54.00 RT.
ASPHALT



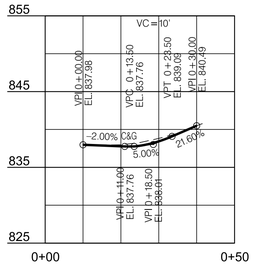
EVANS ROAD
STA. 30+56.50 RT.
ASPHALT



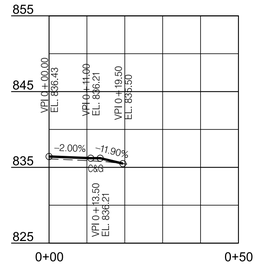
TURKEY CREEK ROAD
STA. 33+29.00 LT.
ASPHALT



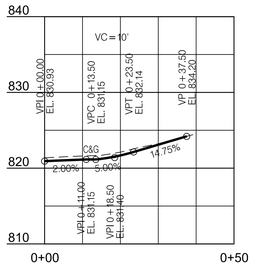
FIELD ENTRANCE
STA. 16+59.60 RT.
TRACT 2, 14' ASPHALT



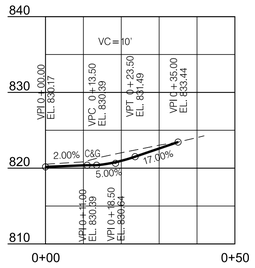
RES. ENTRANCE
STA. 19+71.00 RT.
TRACT 3, 14' ASPHALT



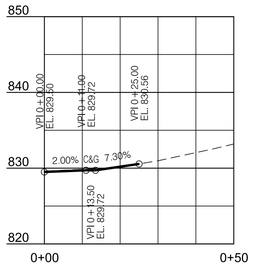
BUS. ENTRANCE
STA. 20+04.40 LT.
TRACT 34, 19' CONCRETE



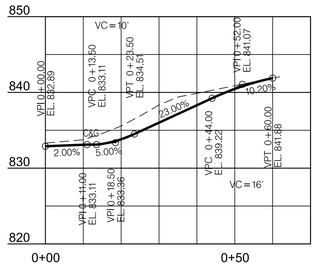
RES. ENTRANCE
STA. 22+12.50 RT.
TRACT 6, 12' ASPHALT



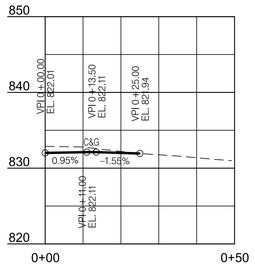
RES. ENTRANCE
STA. 22+53.05 RT.
TRACT 7, 12' ASPHALT



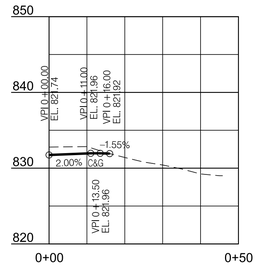
RES. ENTRANCE
STA. 23+46.90 RT.
TRACT 7, 10' ASPHALT



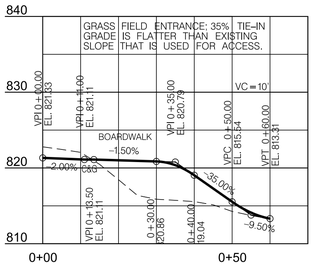
RES. ENTRANCE
STA. 26+45.00 RT.
TRACT 9, 10' ASPHALT



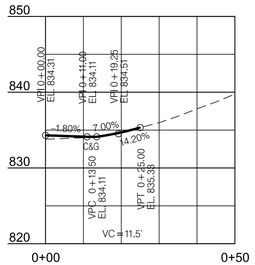
RES. ENTRANCE
STA. 33+26.75 RT.
TRACT 10, 16' ASPHALT



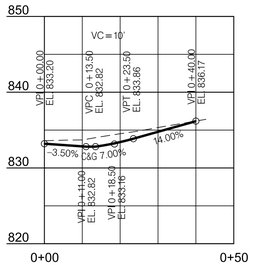
FIELD ENTRANCE
STA. 36+20.00 RT.
TRACT 10, 17' GRAVEL



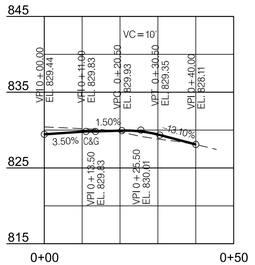
FIELD ENTRANCE
STA. 36+99.00 LT.
TRACT 28, 10' ASPHALT



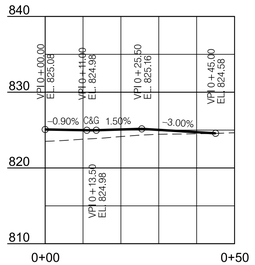
BUS. ENTRANCE
STA. 44+28.00 RT.
TRACT 11, 38' ASPHALT



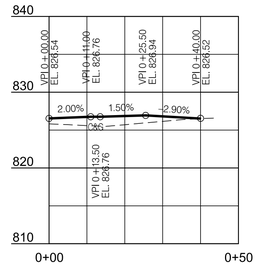
FIELD ENTRANCE
STA. 44+75.00 RT.
TRACT 12, 9' ASPHALT



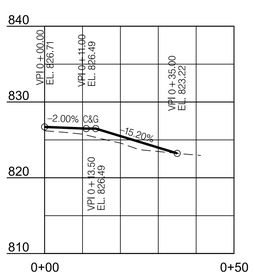
FIELD ENTRANCE
STA. 45+73.00 LT.
TRACT 12, 12' ASPHALT



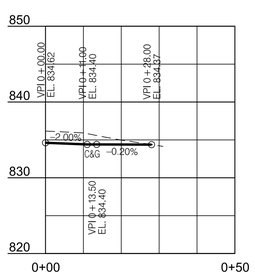
FIELD ENTRANCE
STA. 47+32.15 RT.
TRACT 12, 12' GRAVEL



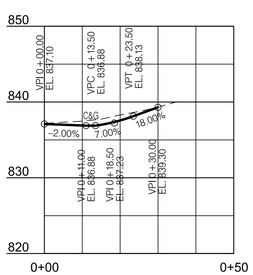
FIELD ENTRANCE
STA. 49+23.90 RT.
TRACT 12, 15' GRAVEL



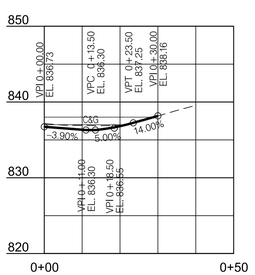
FIELD ENTRANCE
STA. 49+30.05 LT.
TRACT 12, 9' ASPHALT



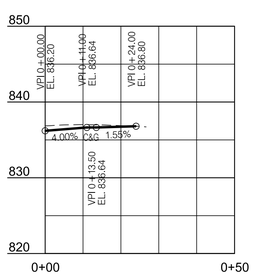
RES. ENTRANCE
STA. 51+14.00 LT.
TRACT 27, 34' CONCRETE



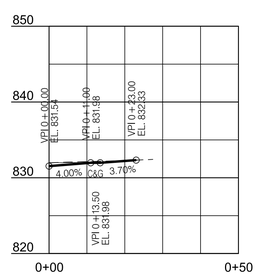
RES. ENTRANCE
STA. 51+65.00 RT.
TRACT 15, 15' CONCRETE



RES. ENTRANCE
STA. 52+94.00 RT.
TRACT 16, 12' CONCRETE



RES. ENTRANCE
STA. 53+03.00 LT.
TRACT 26, 13' CONCRETE



RES. ENTRANCE
STA. 53+68.50 LT.
TRACT 26, 19' CONCRETE

NOTE: EXISTING WIDTHS OF DRIVEWAYS ARE BEING MATCHED, WHICH INCLUDES THOSE THAT ARE LESS THAN THE STANDARD 12' (AS SHOWN ON SHEET 2).

SCALE: 1" = 20' (H)
1" = 10' (V)

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

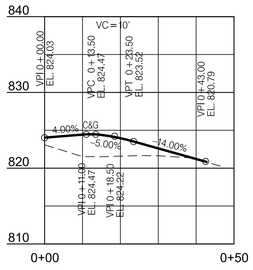
PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

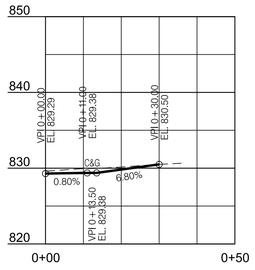
SHEET TITLE:

SIDE STREET AND DRIVEWAY PROFILES

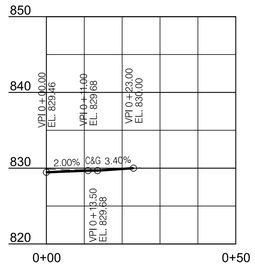
SHEET 15



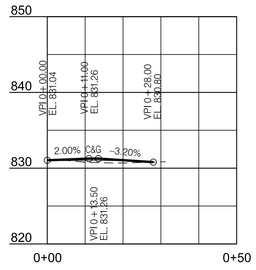
FIELD ENTRANCE
STA. 55+33.00 LT.
TRACT 25, 16' ASPHALT



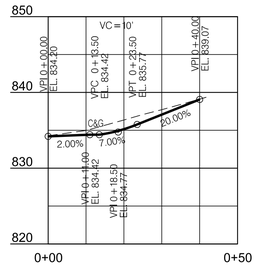
RES. ENTRANCE
STA. 58+14.00 RT.
TRACT 17, 12' ASPHALT



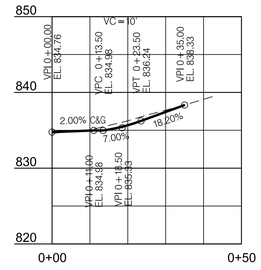
RES. ENTRANCE
STA. 58+37.00 RT.
TRACT 18, 12' CONCRETE



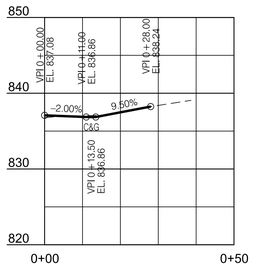
RES. ENTRANCE
STA. 59+83.50 RT.
TRACT 19, 11' CONCRETE



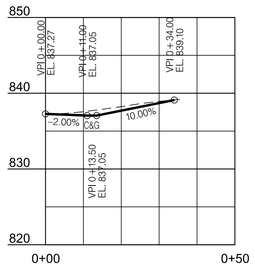
RES. ENTRANCE
STA. 61+74.20 RT.
TRACT 20, 12' CONCRETE



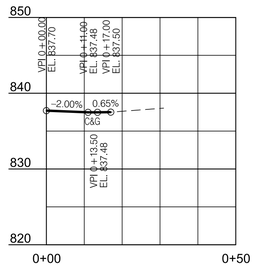
RES. ENTRANCE
STA. 62+09.00 RT.
TRACT 21, 11' CONCRETE



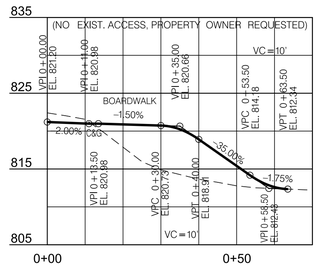
RES. ENTRANCE
STA. 64+35.50 RT.
TRACT 22, 11' CONCRETE



RES. ENTRANCE
STA. 64+66.50 RT.
TRACT 23, 12' ASPHALT



RES. ENTRANCE
STA. 65+90.50 RT.
TRACT 24, 12' ASPHALT



FIELD ENTRANCE
STA. 37+85.00 LT.
TRACT 10, 10' ASPHALT

NOTE: EXISTING WIDTHS OF DRIVEWAYS ARE BEING MATCHED, WHICH INCLUDES THOSE THAT ARE LESS THAN THE STANDARD 12' (AS SHOWN ON SHEET 2).

SCALE: 1" = 20' (H)
1" = 10' (V)

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

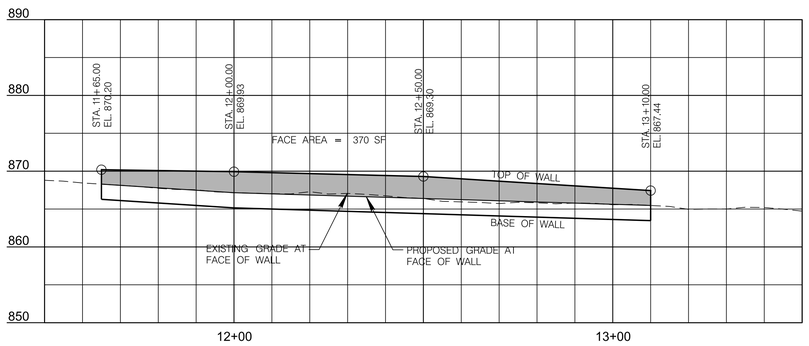
PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

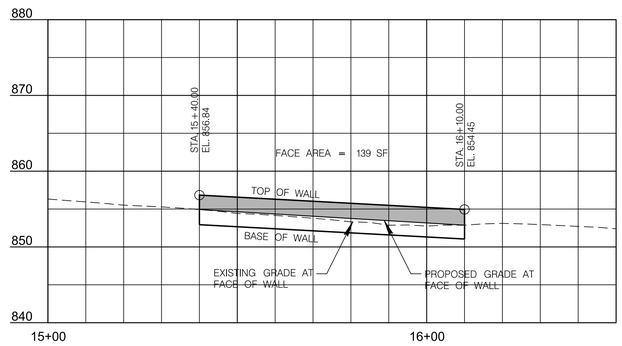
SHEET TITLE:

SIDE STREET AND DRIVEWAY PROFILES

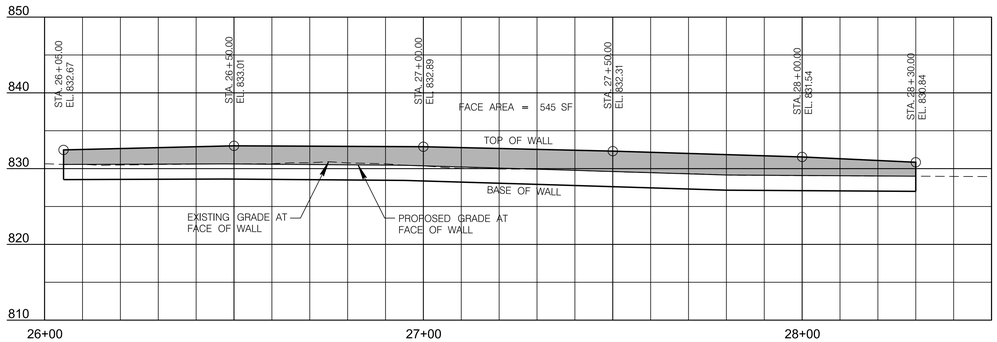
SHEET 16



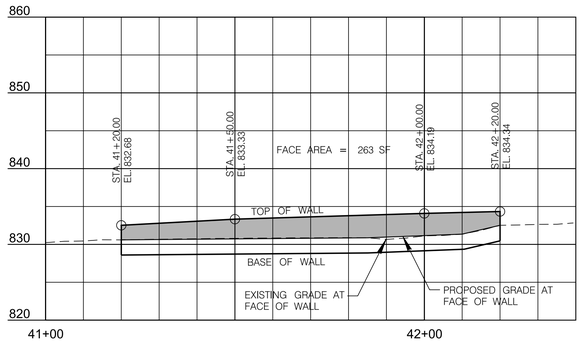
RETAINING WALL #1
STA. 11+65 TO STA. 13+10
FILL WALL, LEFT SIDE



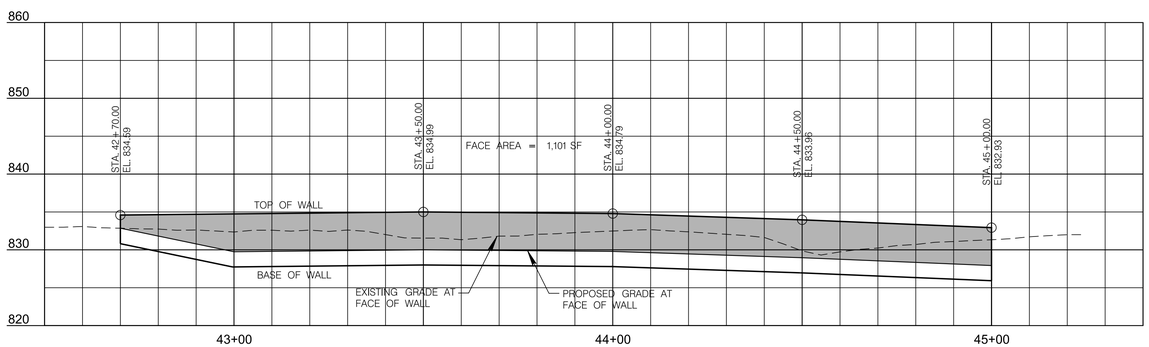
RETAINING WALL #2
STA. 15+40 TO STA. 16+10
FILL WALL, LEFT SIDE



RETAINING WALL #3
STA. 26+05 TO STA. 28+30
FILL WALL, LEFT SIDE



RETAINING WALL #4
STA. 41+20 TO STA. 42+20
FILL WALL, LEFT SIDE



RETAINING WALL #5
STA. 42+70 TO STA. 45+00
FILL WALL, LEFT SIDE

SCALE: 1" = 20' (H)
1" = 10' (V)

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

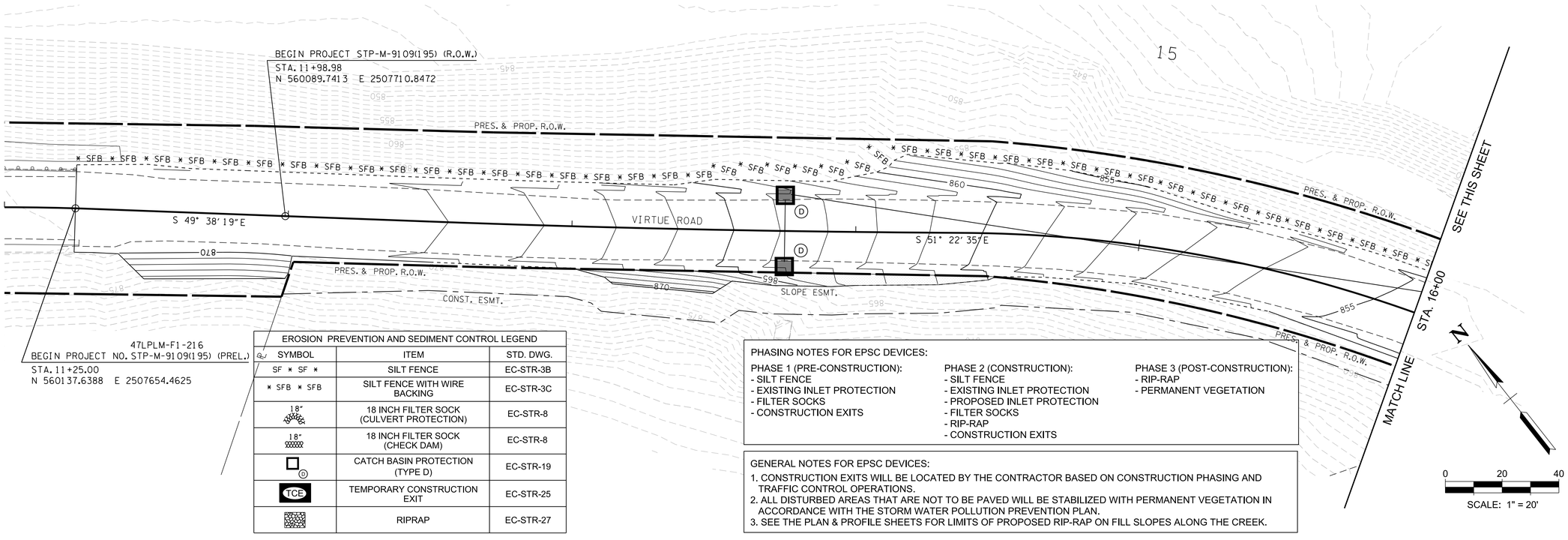
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

RETAINING WALL ELEVATIONS

SHEET 17



EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
SF * SF *	SILT FENCE	EC-STR-3B
* SFB * SFB	SILT FENCE WITH WIRE BACKING	EC-STR-3C
18"	18 INCH FILTER SOCK (CULVERT PROTECTION)	EC-STR-8
18"	18 INCH FILTER SOCK (CHECK DAM)	EC-STR-8
D	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
	RIPRAP	EC-STR-27

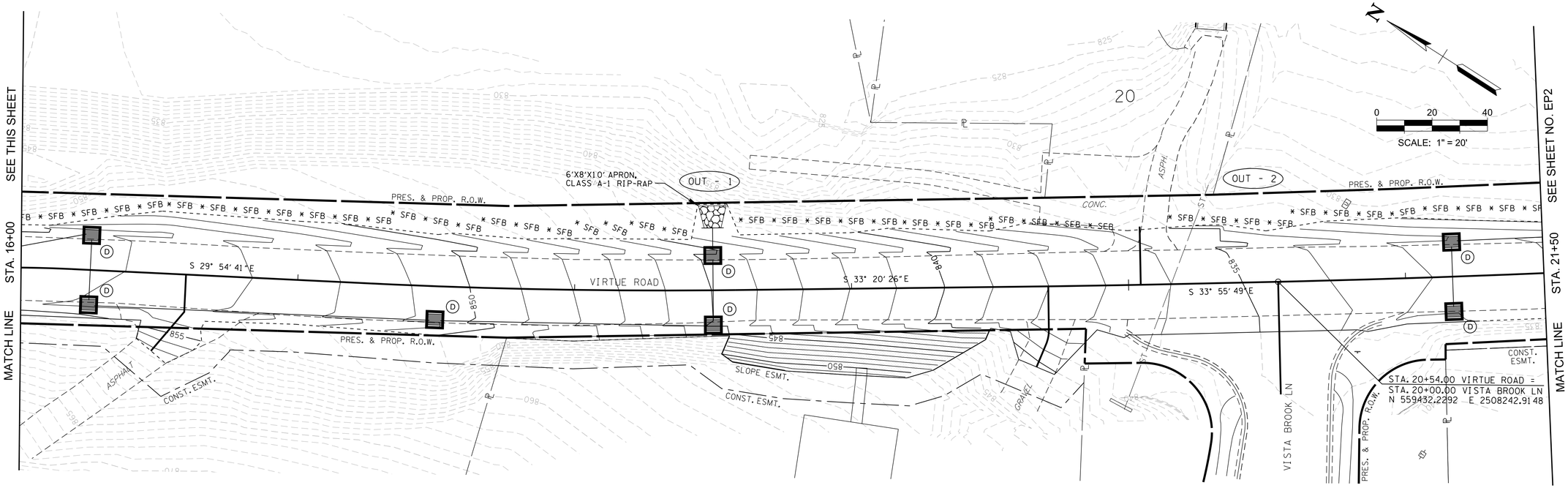
PHASING NOTES FOR EPSC DEVICES:

PHASE 1 (PRE-CONSTRUCTION):
- SILT FENCE
- EXISTING INLET PROTECTION
- FILTER SOCKS
- CONSTRUCTION EXITS

PHASE 2 (CONSTRUCTION):
- SILT FENCE
- EXISTING INLET PROTECTION
- PROPOSED INLET PROTECTION
- FILTER SOCKS
- RIP-RAP
- CONSTRUCTION EXITS

PHASE 3 (POST-CONSTRUCTION):
- RIP-RAP
- PERMANENT VEGETATION

GENERAL NOTES FOR EPSC DEVICES:
1. CONSTRUCTION EXITS WILL BE LOCATED BY THE CONTRACTOR BASED ON CONSTRUCTION PHASING AND TRAFFIC CONTROL OPERATIONS.
2. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED WILL BE STABILIZED WITH PERMANENT VEGETATION IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN.
3. SEE THE PLAN & PROFILE SHEETS FOR LIMITS OF PROPOSED RIP-RAP ON FILL SLOPES ALONG THE CREEK.



REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

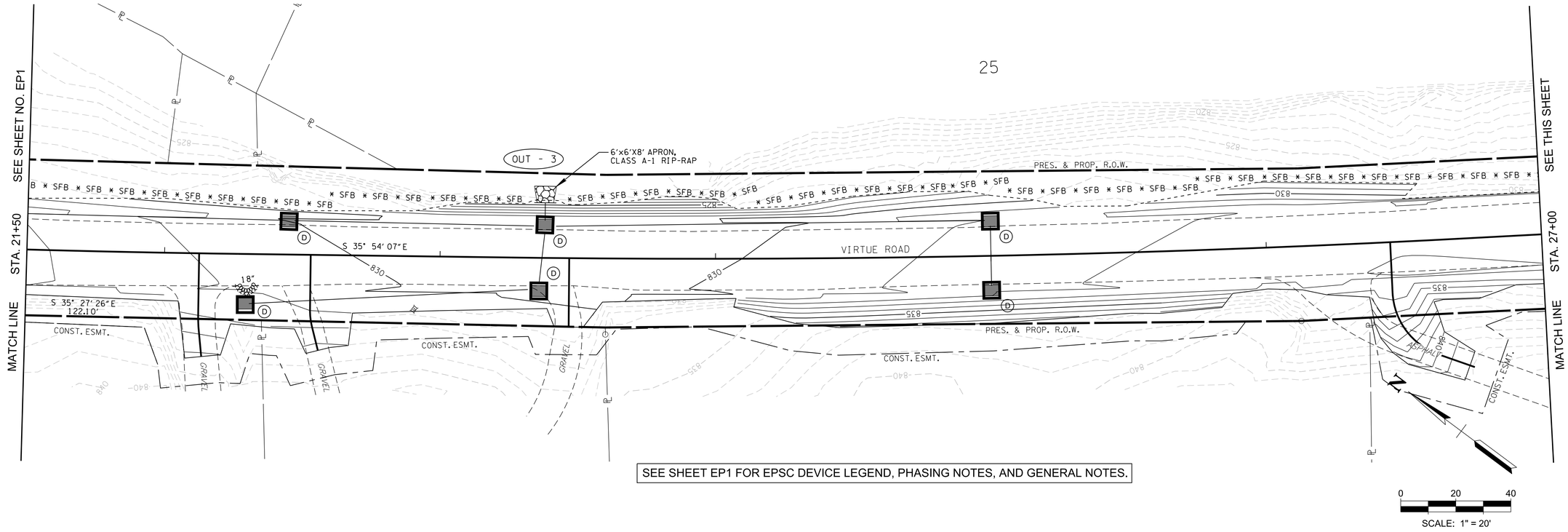
PROJECT NUMBER: FAR302

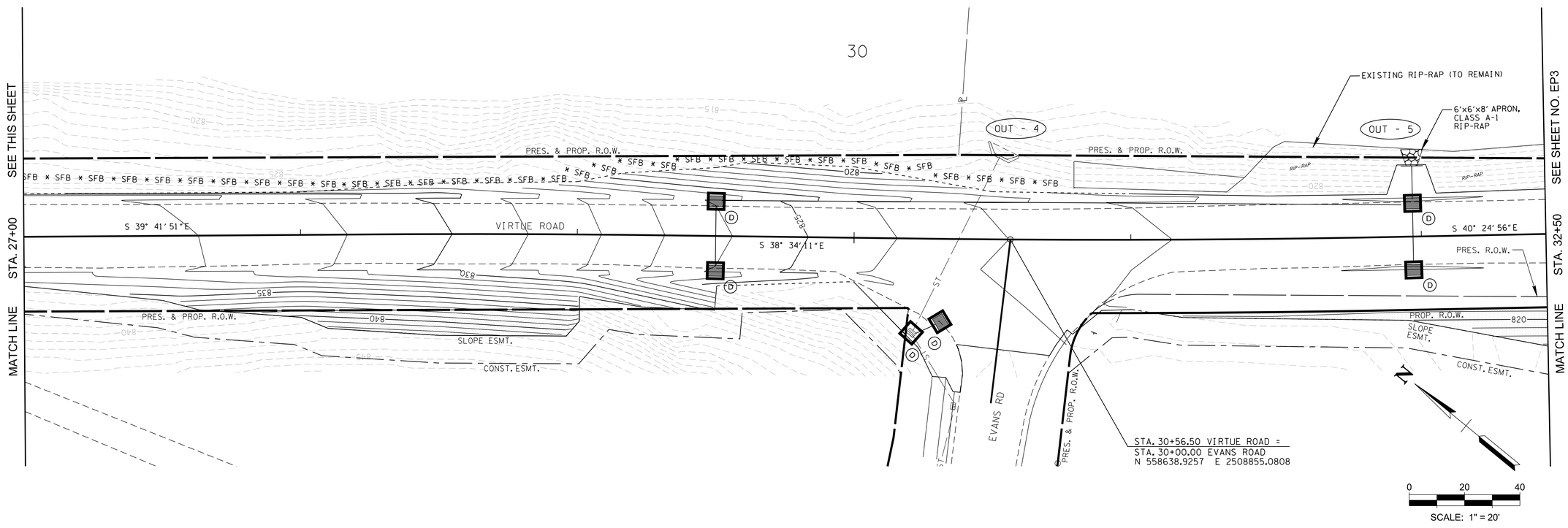
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

EROSION PREVENTION & SEDIMENT CONTROL 11+25 TO 21+50

SHEET EP1





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

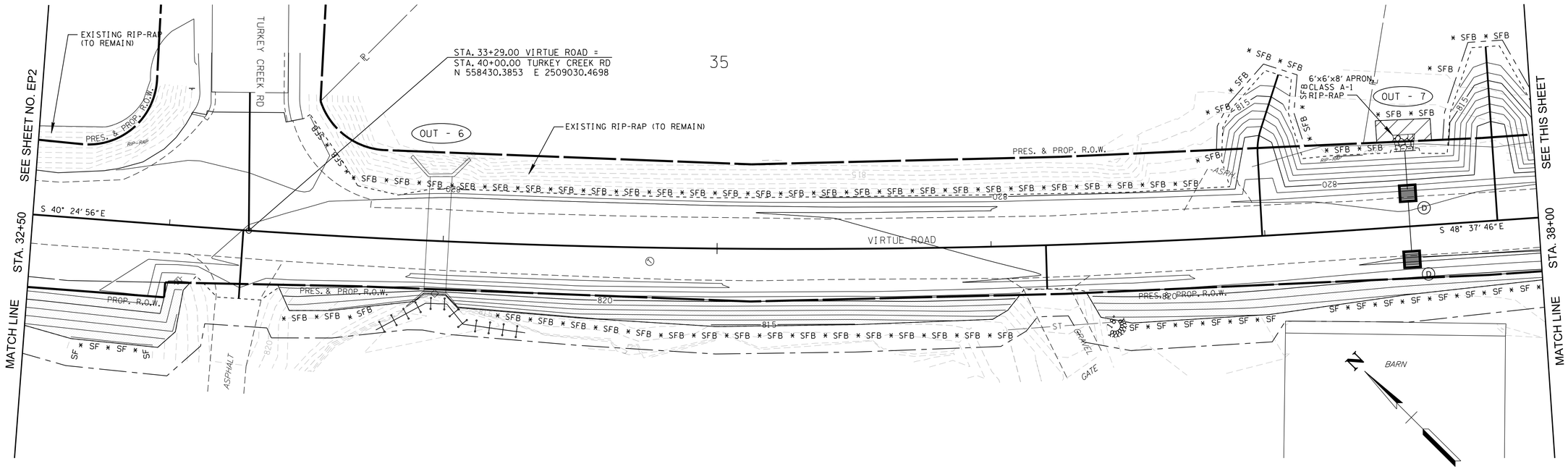
PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

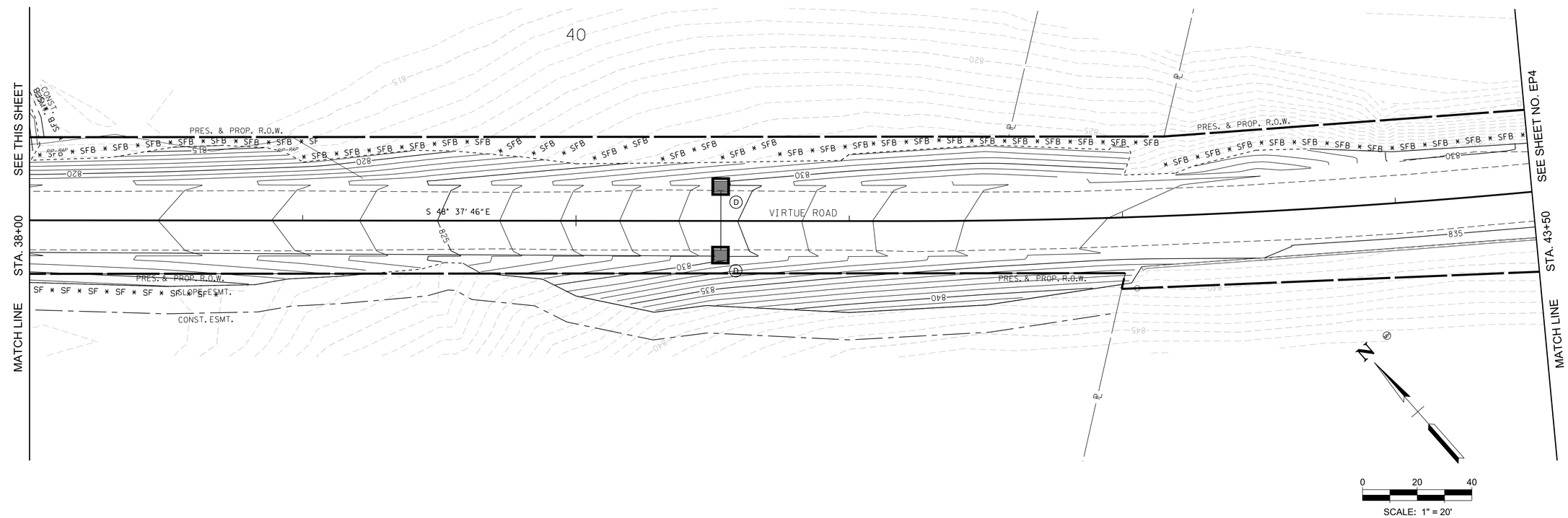
SHEET TITLE:

EROSION PREVENTION & SEDIMENT CONTROL 21+50 TO 32+50

SHEET EP2



SEE SHEET EP1 FOR EPSC DEVICE LEGEND, PHASING NOTES, AND GENERAL NOTES.



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

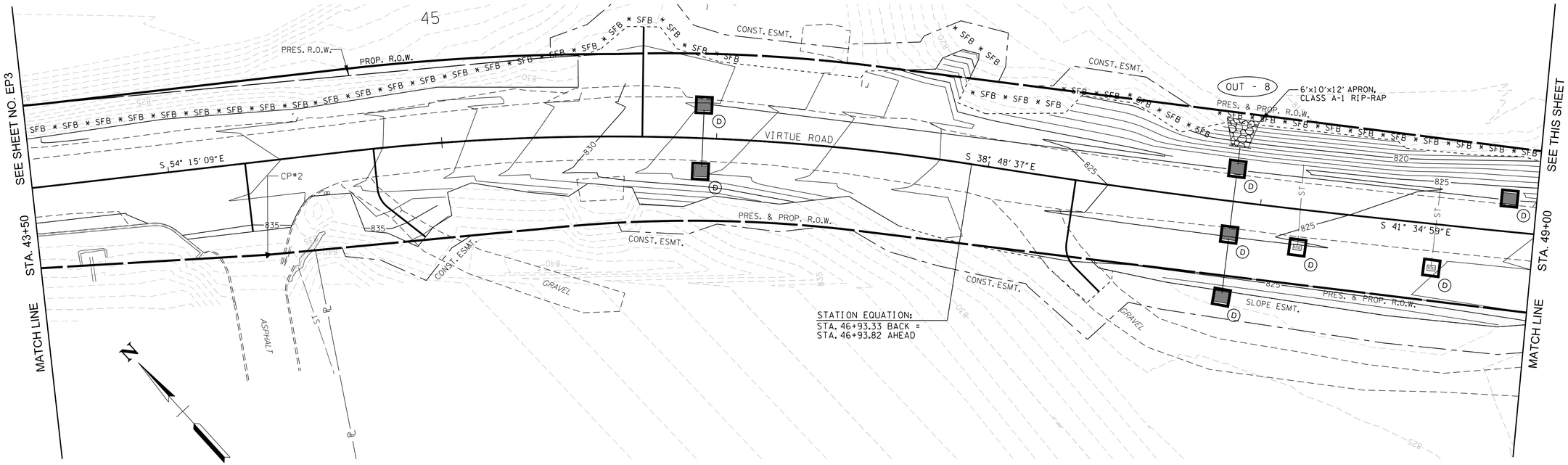
PROJECT NUMBER: FAR302

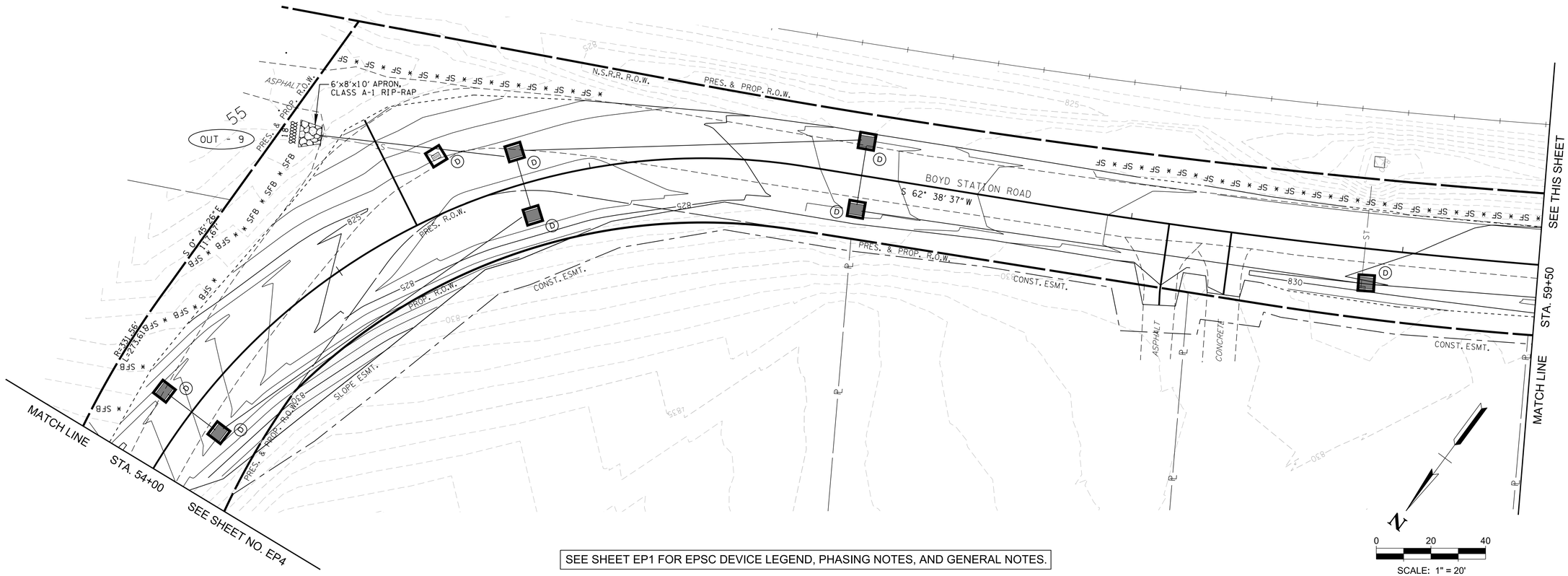
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

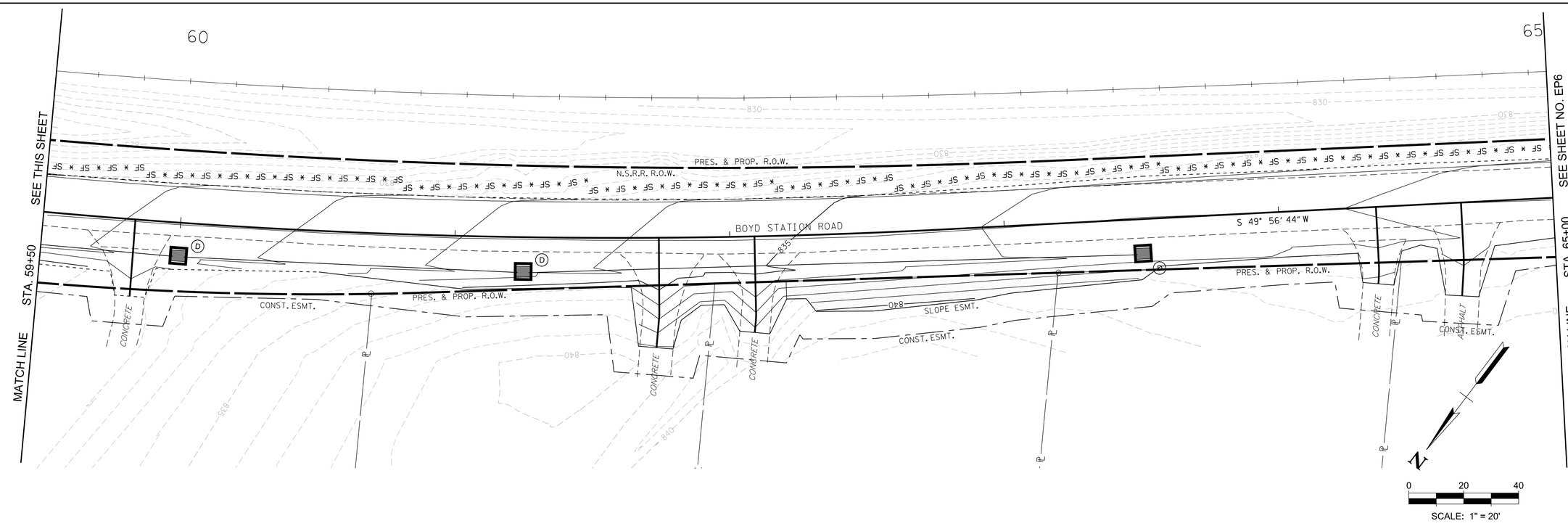
EROSION PREVENTION & SEDIMENT CONTROL 32+50 TO 43+50

SHEET EP3


45
SEE SHEET NO. EP3
STA. 43+50
MATCH LINE
PRES. R.O.W.
PROP. R.O.W.
SFB * SFB * SFB *



SEE SHEET EP1 FOR EPSC DEVICE LEGEND, PHASING NOTES, AND GENERAL NOTES.



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

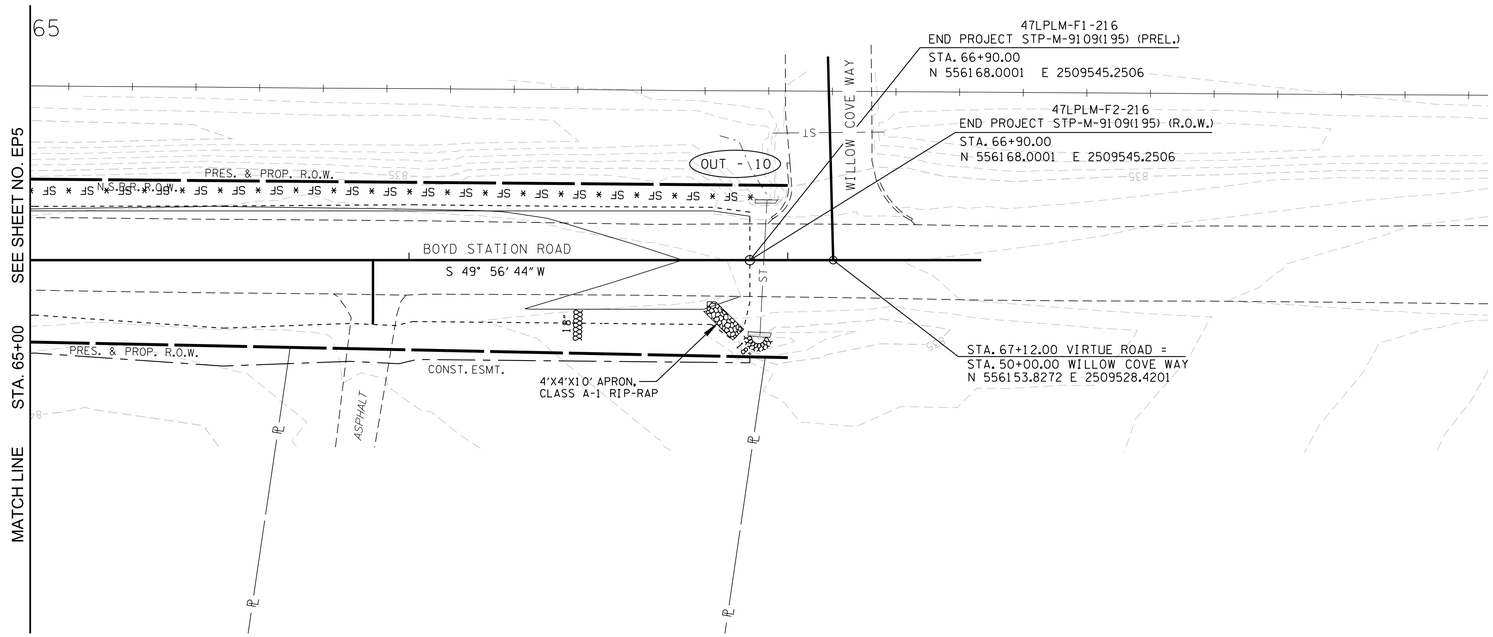
PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

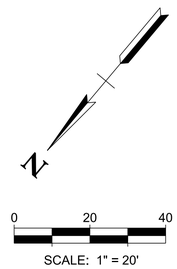
SHEET TITLE:

EROSION PREVENTION & SEDIMENT CONTROL 54+00 TO 65+00

SHEET EP5



SEE SHEET EP1 FOR EPSC DEVICE LEGEND, PHASING NOTES, AND GENERAL NOTES.



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

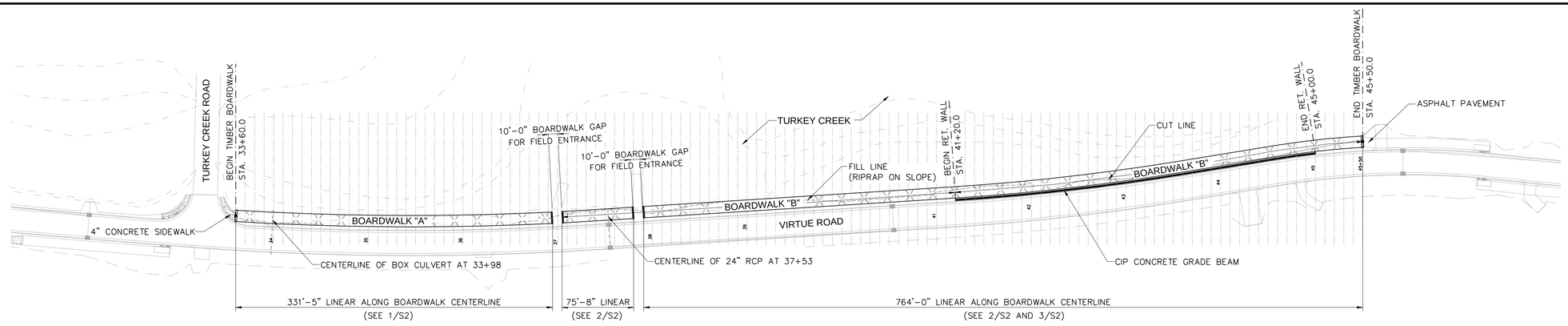
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

EROSION PREVENTION & SEDIMENT CONTROL 65+00 TO 66+90

SHEET EP6



SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN

PROJECT NORTH

1/S1 KEY PLAN - 10'-0" CLEAR TIMBER BOARDWALK

1/64"=1'-0"

NOTES

GENERAL NOTES:

BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE

GRAVITY LOADS:
LIVE LOAD= 85 PSF
DEAD LOAD= 10 PSF
IMPACT PERCENTAGE= 23% OF LIVE LOAD

SNOW LOAD

GROUND SNOW LOAD, Pg= 10 PSF

SEISMIC DESIGN DATA:

1. IMPORTANCE FACTOR Ie= 1.0
2. Ss= .885g
3. S1= .161g
4. SITE CLASS= D
5. Sds= .708g
6. Sd1= .244g
7. SEISMIC DESIGN CATAGORY= D

WIND DESIGN DATA:

BASIC WIND SPEED= 115 MPH

EXPOSURE= C
DESIGN PRESSURE= 28.2 PSF AT ALL EXPOSED SURFACES

* ASSUMED ALLOWABLE SOIL BEARING CAPACITY= 2,500 PSF

CONCRETE NOTES:

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS = 3,000 PSI AIR ENTRAINED (5.5% MAX)
2. REINFORCEMENT:
   *REBAR= ASTM A 615 GRADE 60
   *WELDED WIRE MESH= ASTM A 185
3. CONCRETE SPECIFIED AS AIR ENTRAINED, TO CONFORM TO STANDARD SPECIFICATIONS FOR AIR ENTRAINED ADMIXTURES FOR CONCRETE. ASTM C260.
4. TESTING OF CONCRETE SHALL BE PER ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.

GENERAL WOOD NOTES:

1. MAXIMUM WOOD MOISTURE CONTENT TO BE 19%.
2. THE SPECIES AND GRADE OF STRUCTURAL LUMBER SHALL BE SPECIFIED AS FOLLOWS:

MEMBER	SPECIES	MIN. GRADE	SINGLE Fb	PARALLEL Fc	E
2x8	YELLOW SOUTHERN PINE	NO.1	1500		1,700,000
2x12	YELLOW SOUTHERN PINE	NO. 1	1250		1,700,000
WOLMANIZED PSL	———	E 2.0	2,900	2,900	2,000,000
POLE	SOUTHERN YELLOW PINE	NO. 1	1700		1,700,000

3. ALL WOOD IN CONTACT WITH SOIL, WEATHER, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED
4. STEEL CONNECTORS IN CONTACT WITH PRESSURE TREADED LUMBER MUST BE HOT-DIPPED GALVANIZED
5. WOOD JOISTS SHALL BE SUPPORTED LATERALLY BY SOLID BLOCKING, AT THE FOLLOWING LOCATIONS:
   A. 8'-0" O.C. MAXIMUM
   B. AT ENDS OF THE JOISTS
6. WOOD CONSTRUCTION CONNECTORS BY SIMPSON STRONG TIE.

SPECIAL INSPECTIONS

IBC TABLE 1705.6: REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.		X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUB-GRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.		X

IBC TABLE 1705.3: REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL AND PLACEMENT.		X	ACI 318: 3.5, 7.1-7.1	1910.4
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b.				
3. INSPECTION OF ANCHORS CAST IN CONCRETE.		X		
4. INSPECTION OF ANCHORS POST INSTALLED IN HARDENED CONCRETE MEMBERS (NOTE a).				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X			
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4a.		X		
5. VERIFY USE OF REQUIRED DESIGN MIX.		X		
6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X			
7. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X			
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X		
9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		X		

DRAWING LIST

S1 KEY PLAN, NOTES, AND SPECIAL INSPECTIONS
S2 TIMBER BOARDWALK PLANS
S3 TYPICAL BOARDWALK "A" FRAMING PLAN AND SECTIONS
S4 ENLARGED PARTIAL FRAMING PLAN, SECTION, AND DETAILS
S5 BOARDWALK FRAMING SECTIONS

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
B.F.F.	BELOW FINISHED FLOOR
BLDG	BUILDING
B.O.C.	BOTTOM OF CONCRETE
B.O.S.	BOTTOM OF STEEL
"C"	CONTINUOUS REINFORCEMENT
EL.	ELEVATION
EQ	EQUAL
F.F.	FINISH FLOOR
F.F.E.	FINISH FLOOR ELEVATION
F.V.	FIELD VERIFY
LDH	LONG DIMENSION HORIZONTAL
LDV	LONG DIMENSION VERTICAL
LVL	LAMINATED VENEER LUMBER
MFR	MANUFACTURER
M.O.	MASONRY OPENING
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
PSL	PRE-ENGINEERED LAMINATED BEAM
PL.	PLATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
SIM	SIMILAR
S.S.T.	SIMPSON STRONG-TIE
"T"	TRANSVERSE REINFORCEMENT
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE

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CAD FILE: 25013P DATE: 08/06/2025

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302
DATE: AUGUST 2025 SCALE: AS SHOWN
DRAWN BY: GLD DESIGNED BY: MM

SHEET TITLE:
BRIDGE AND BOARDWALK KEY PLAN, NOTES, AND SPECIAL INSPECTIONS

S1

SHEET 1 OF 5

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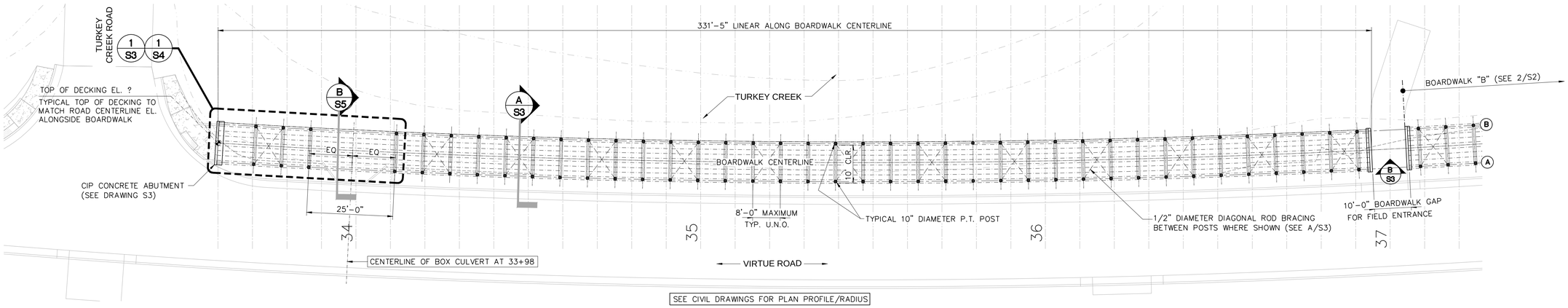
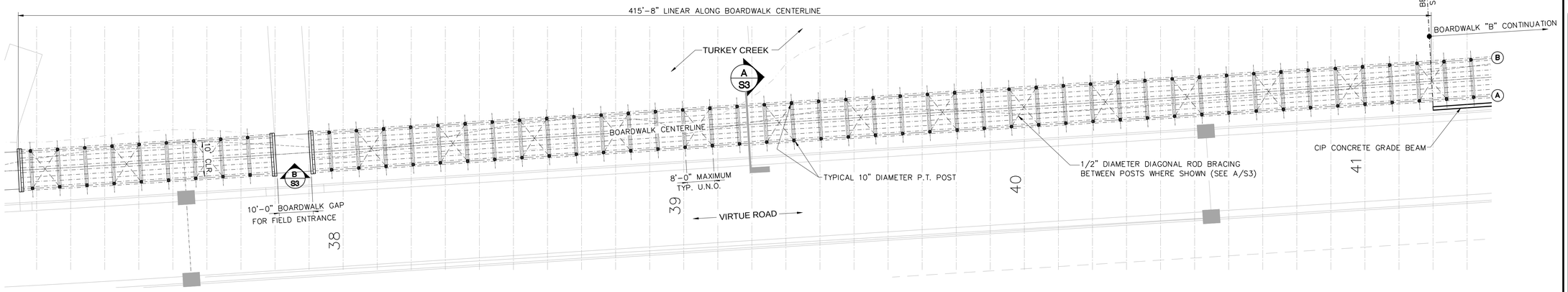


SEE CIVIL DRAWINGS FOR PLAN PROFILE/RADIUS

PROJECT NORTH

1/S2 ENLARGED PLAN - TIMBER BOARDWALK "A"

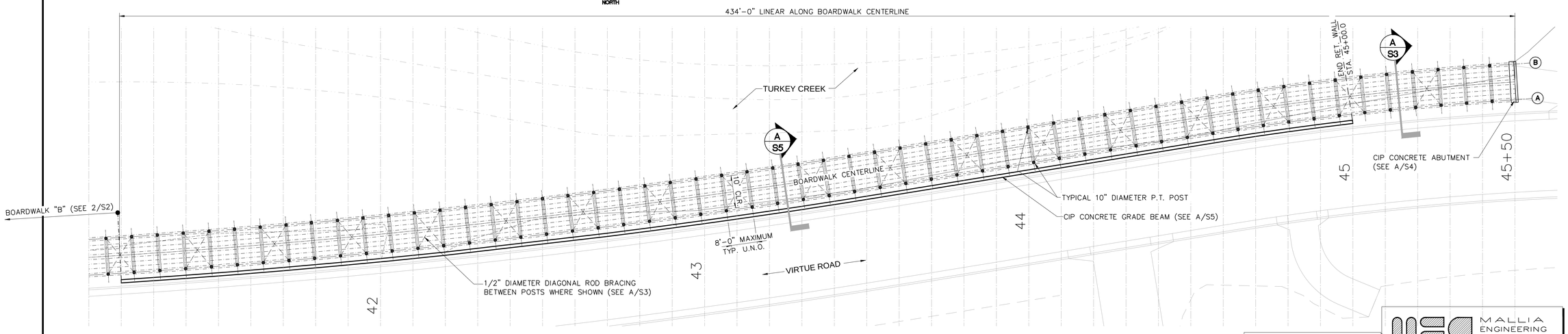
1/16"=1'-0"



PROJECT NORTH

2/S2 ENLARGED PLAN - TIMBER BOARDWALK "B"

1/16"=1'-0"



SEE CIVIL DRAWINGS FOR PLAN PROFILE/RADIUS

PROJECT NORTH

3/S2 ENLARGED PLAN - TIMBER BOARDWALK "B" (CONTINUED)

1/16"=1'-0"

Notes and Abbreviations:

SEE DRAWING S1

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CAD FILE: 25013P | DATE: 08/06/2025

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REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302

DATE: AUGUST 2025 | SCALE: AS SHOWN

DRAWN BY: GLD | DESIGNED BY: MM

SHEET TITLE: TIMBER BOARDWALK PLANS

S2

SHEET 2 OF 5

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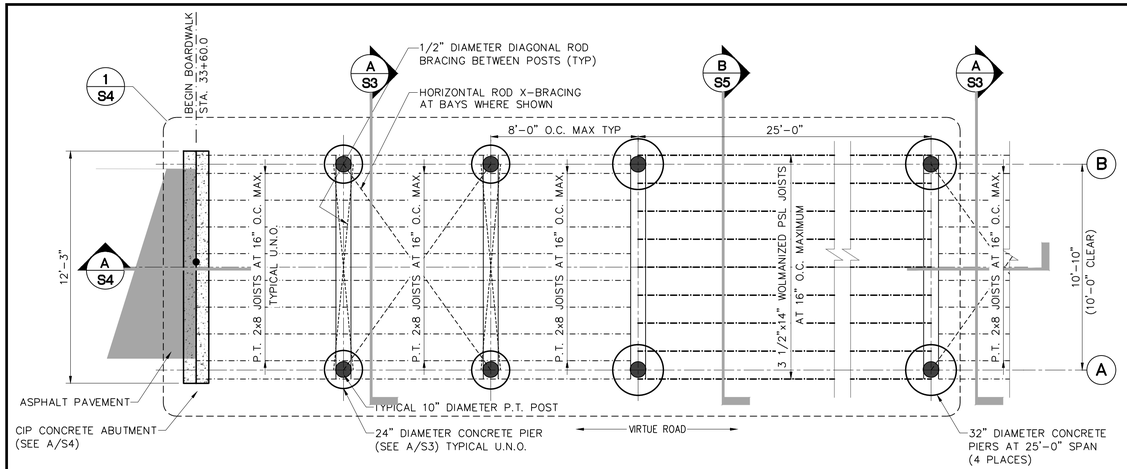
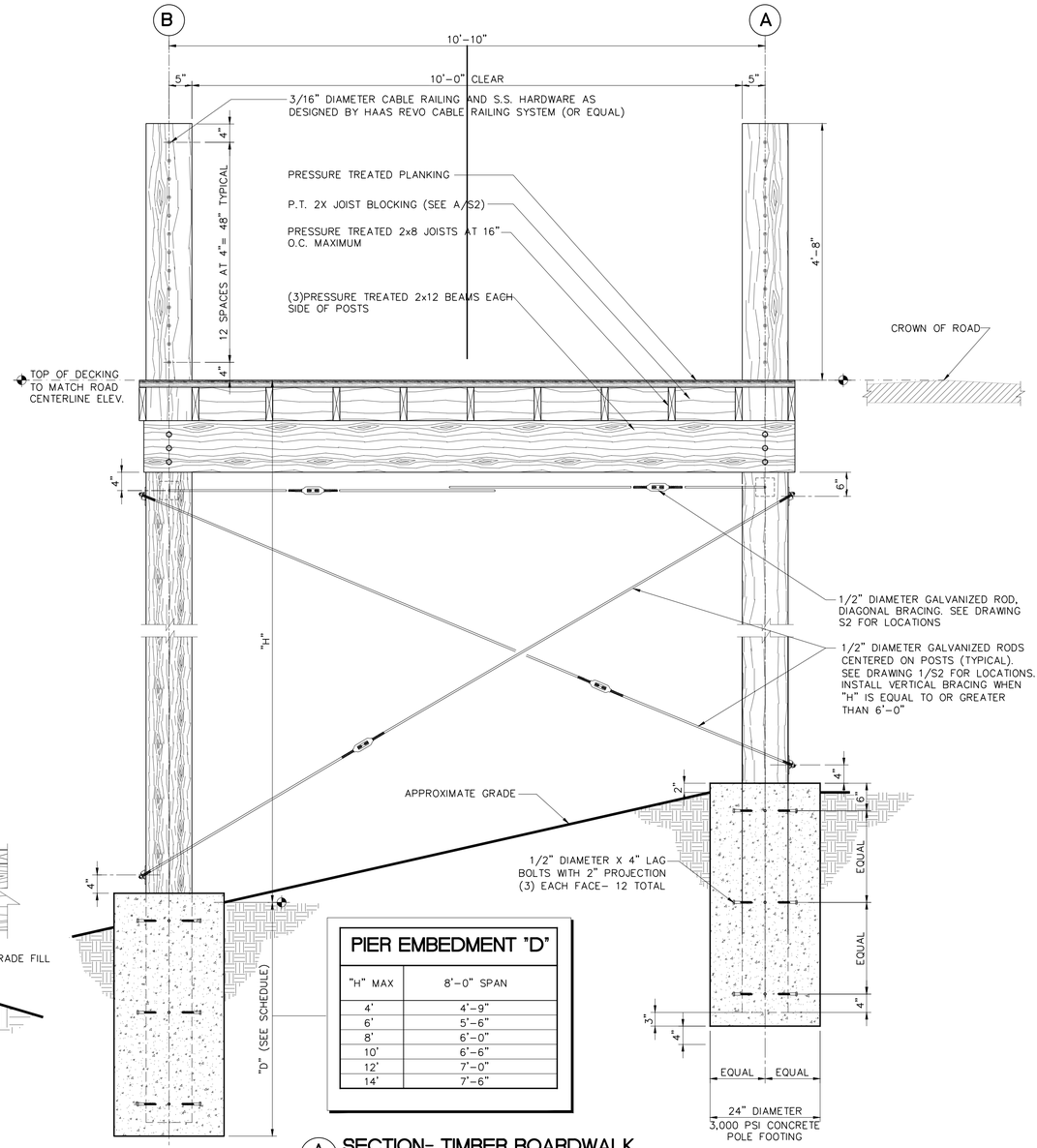


PROJECT NORTH

1/S3 PLAN - TYPICAL BOARDWALK "A" FRAMING
1/8"=1'-0"

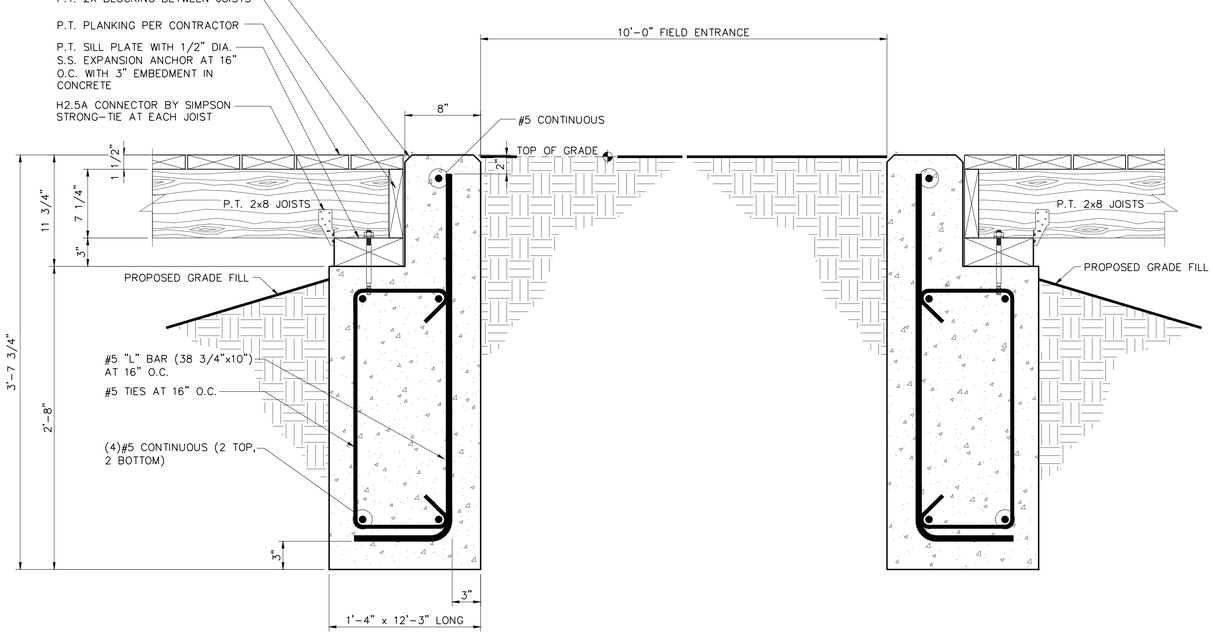


PIER EMBEDMENT "D"	
"H" MAX	8'-0" SPAN
4'	4'-9"
6'	5'-6"
8'	6'-0"
10'	6'-6"
12'	7'-0"
14'	7'-6"

A/S3 SECTION- TIMBER BOARDWALK
3/4"=1'-0"

SOIL DATA ASSUMED FOR DESIGN. THIS DATA MUST BE CONFIRMED BY A GEOTECHNICAL ENGINEER.

SOIL N= 50 BLOWS PER 5" PENETRATION
COHESION= 200 PSF
COEFFICIENT OF FRICTION= 0.45
SIDE FRICTION RESISTANCE= 250 PSF
LATERAL BEARING PRESSURE= 400 PSF
END BEARING PRESSURE= 2500
DRILLED SHAFTS TO BE PERFORMED BY AUGERING.
SHAFT TO BE DEEPEND IF UNSUITABLE MATERIAL IS FOUND.
SHAFT TO BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER.



B/S3 SECTION- TIMBER BOARDWALK AT FIELD ENTRANCE
1 1/2"=1'-0"

Notes and Abbreviations:
SEE DRAWING S1

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2	12/19/2024	STEEL BRIDGE ABUTMENT DESIGN
1	6/8/2023	STEEL BRIDGE ABUTMENT DESIGN

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302
DATE: AUGUST 2025 | SCALE: AS SHOWN
DRAWN BY: GLD | DESIGNED BY: MM

SHEET TITLE:
TYPICAL BOARDWALK "A" FRAMING PLAN AND SECTIONS

S3

SHEET 3 OF 5

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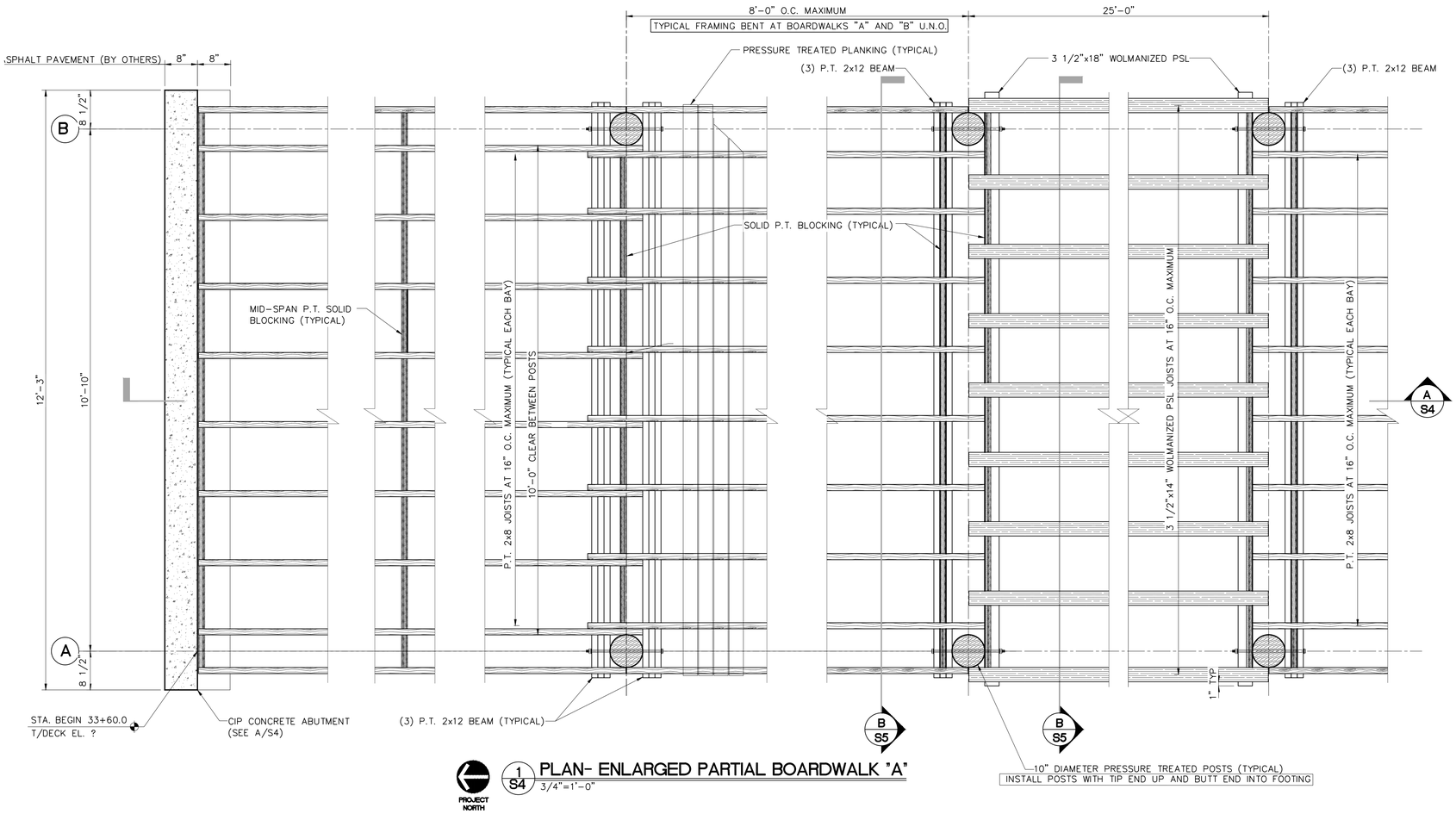
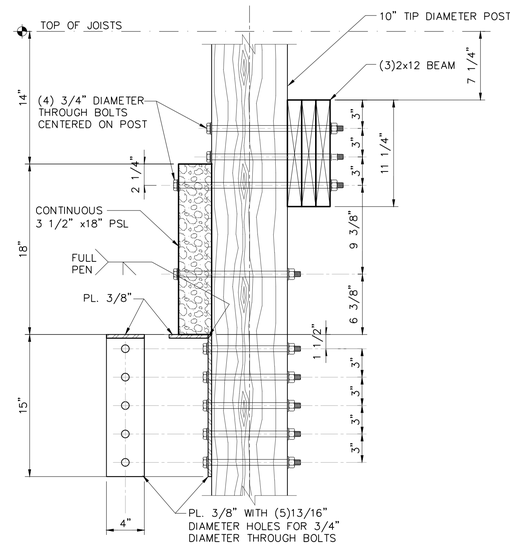
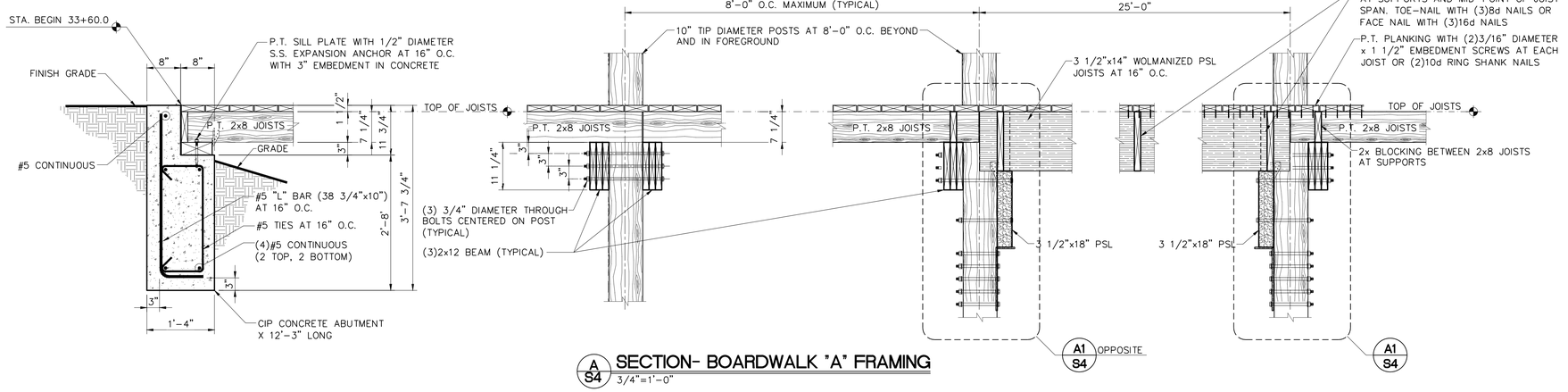


1 S4 PLAN- ENLARGED PARTIAL BOARDWALK "A"
3/4"=1'-0"

PROJECT NORTH



A1 S4 DETAIL- CONNECTION
1 1/2"=1'-0"



A S4 SECTION- BOARDWALK "A" FRAMING
3/4"=1'-0"

Notes and Abbreviations:
SEE DRAWING S1

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2	6/8/2023	STEEL BRIDGE ABUTMENT DESIGN
1	3/30/2023	REVISED WIRE CABLING SPACING

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302
DATE: AUGUST 2025 | SCALE: AS SHOWN
DRAWN BY: GLD | DESIGNED BY: MM

SHEET TITLE:
ENLARGED PARTIAL BOARDWALK "A" PLAN, SECTION, AND DETAILS

S4

SHEET 4 OF 5

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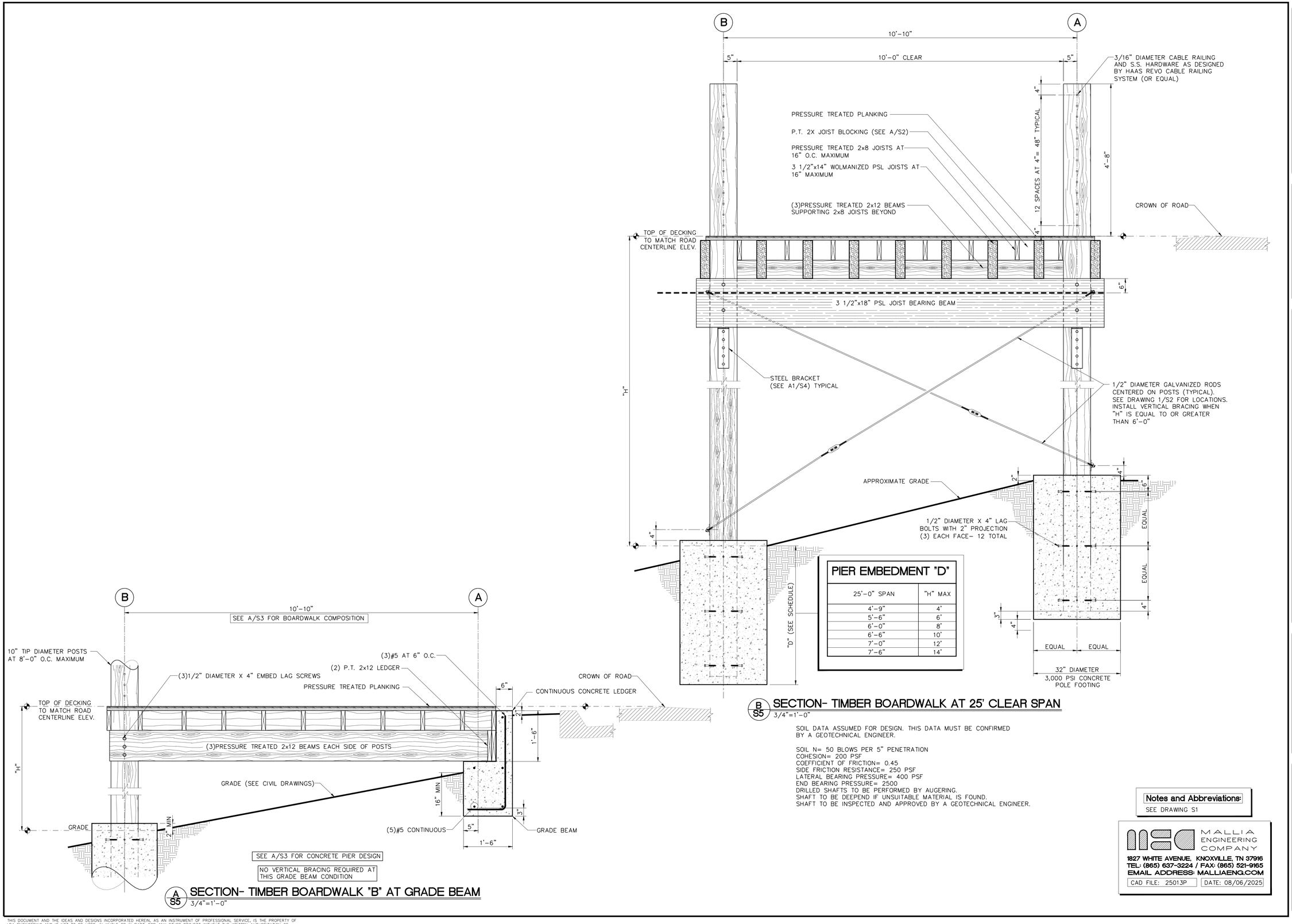

PIER EMBEDMENT "D"	
25'-0" SPAN	"H" MAX
4'-9"	4'
5'-6"	6'
6'-0"	8'
6'-6"	10'
7'-0"	12'
7'-6"	14'

B/S5 SECTION- TIMBER BOARDWALK AT 25' CLEAR SPAN
3/4"=1'-0"

SOIL DATA ASSUMED FOR DESIGN. THIS DATA MUST BE CONFIRMED BY A GEOTECHNICAL ENGINEER.

SOIL N= 50 BLOWS PER 5" PENETRATION
COHESION= 200 PSF
COEFFICIENT OF FRICTION= 0.45
SIDE FRICTION RESISTANCE= 250 PSF
LATERAL BEARING PRESSURE= 400 PSF
END BEARING PRESSURE= 2500
DRILLED SHAFTS TO BE PERFORMED BY AUGERING.
SHAFT TO BE DEEPEND IF UNSUITABLE MATERIAL IS FOUND.
SHAFT TO BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER.

A/S5 SECTION- TIMBER BOARDWALK "B" AT GRADE BEAM
3/4"=1'-0"

Notes and Abbreviations:
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1	3/30/2023	REVISED WIRE CABLING SPACING

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302
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DRAWN BY: GLD | DESIGNED BY: MM
SHEET TITLE: BOARDWALK FRAMING SECTIONS

S5

SHEET 5 OF 5

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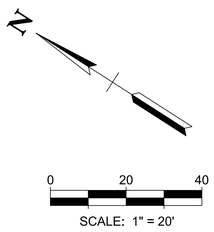
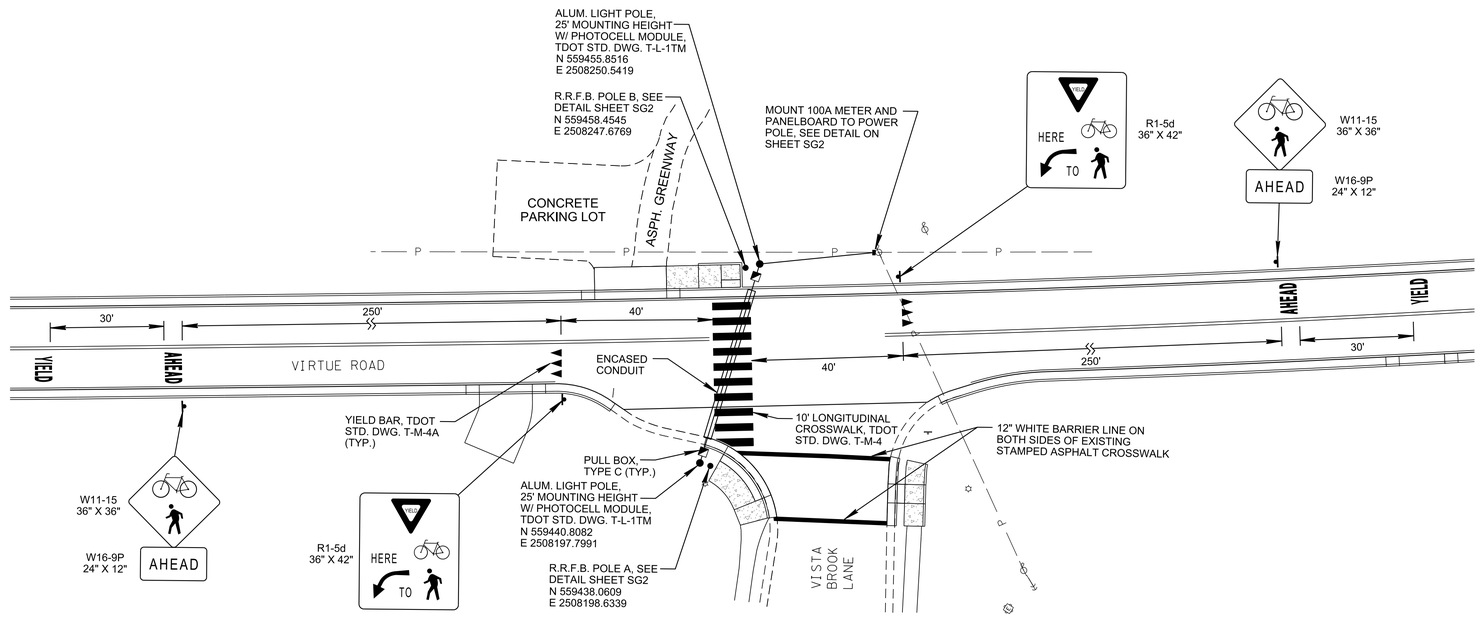
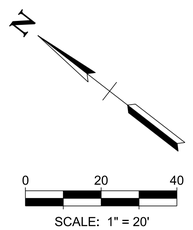
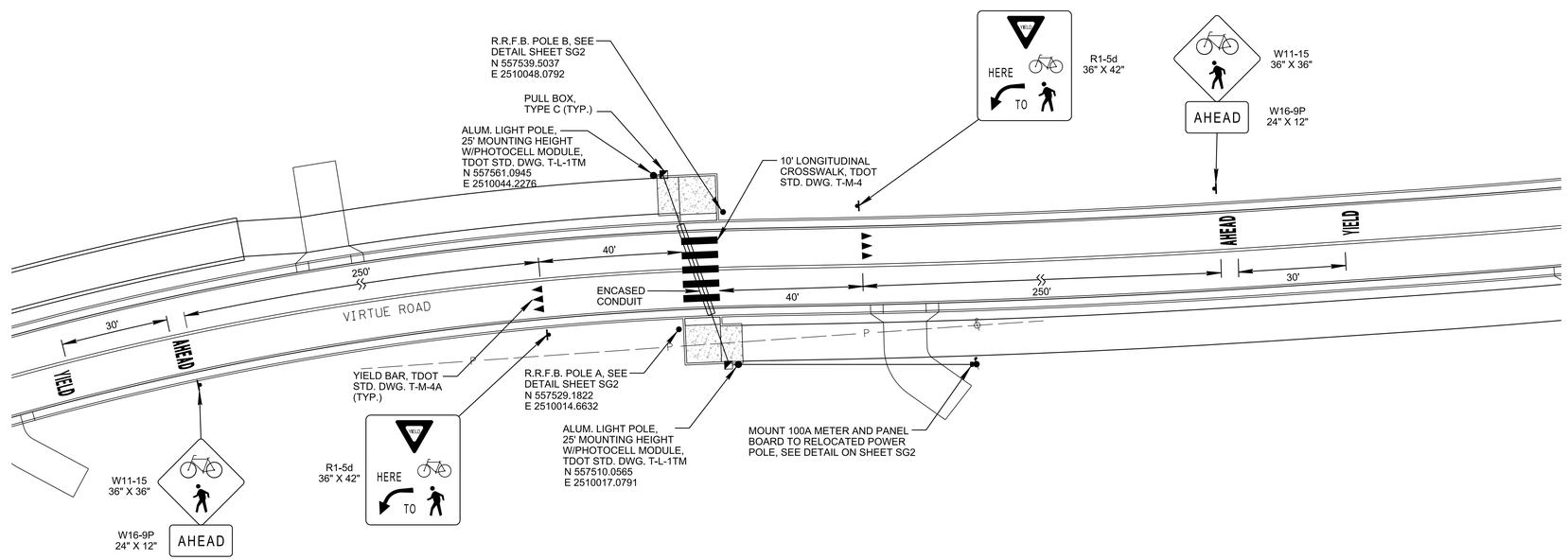








LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

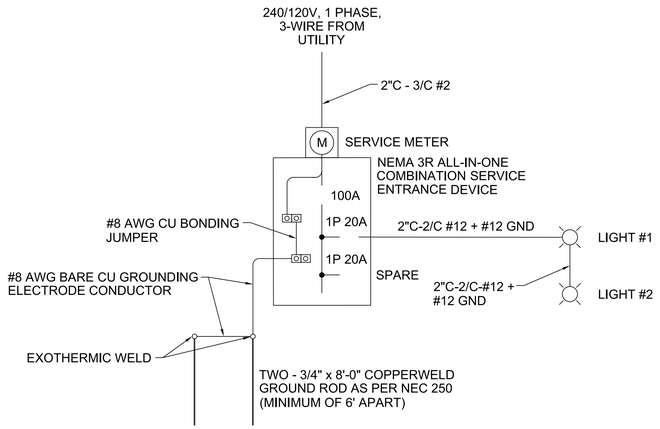
PROJECT NUMBER: FAR302

DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

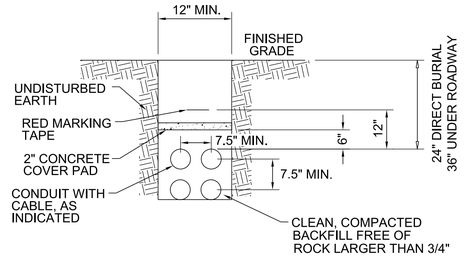
MID-BLOCK TRAIL CROSSINGS AND LIGHTING PLAN

SHEET SG1



POWER DISTRIBUTION SINGLE LINE

N.T.S.



THIS DETAIL IS TYPICAL. THE NUMBER OF CONDUITS REQUIRED IS SHOWN ON THE PLANS. CONDUIT SPACING IS AS SHOWN IN THIS DETAIL.

ELECTRICAL TRENCH DETAIL

N.T.S.

MID-BLOCK CROSSING ILLUMINATION			
STATION	MIN.F.C.	AVG. F.C.	UNIFORMITY
20+30	0.5	1.24	2.48
46+75	0.8	1.29	1.61

LIGHTING PHOTOMETRICS TABLE

POWER POLE DETAIL

N.T.S.

R.R.F.B. DETAIL

N.T.S.

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

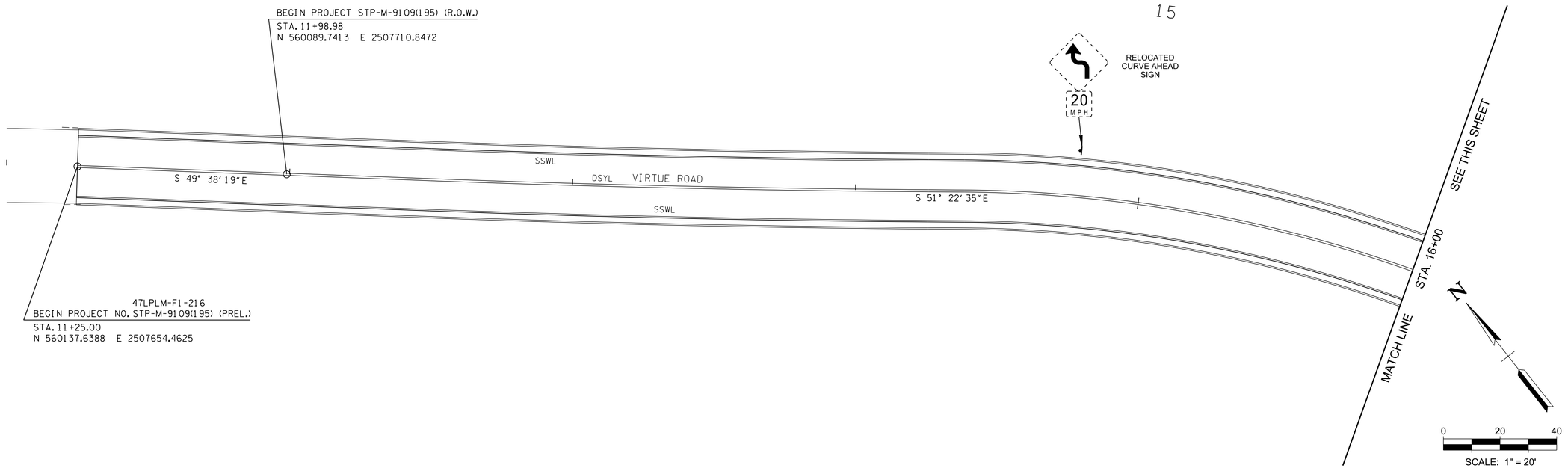
PROJECT NUMBER: FAR302

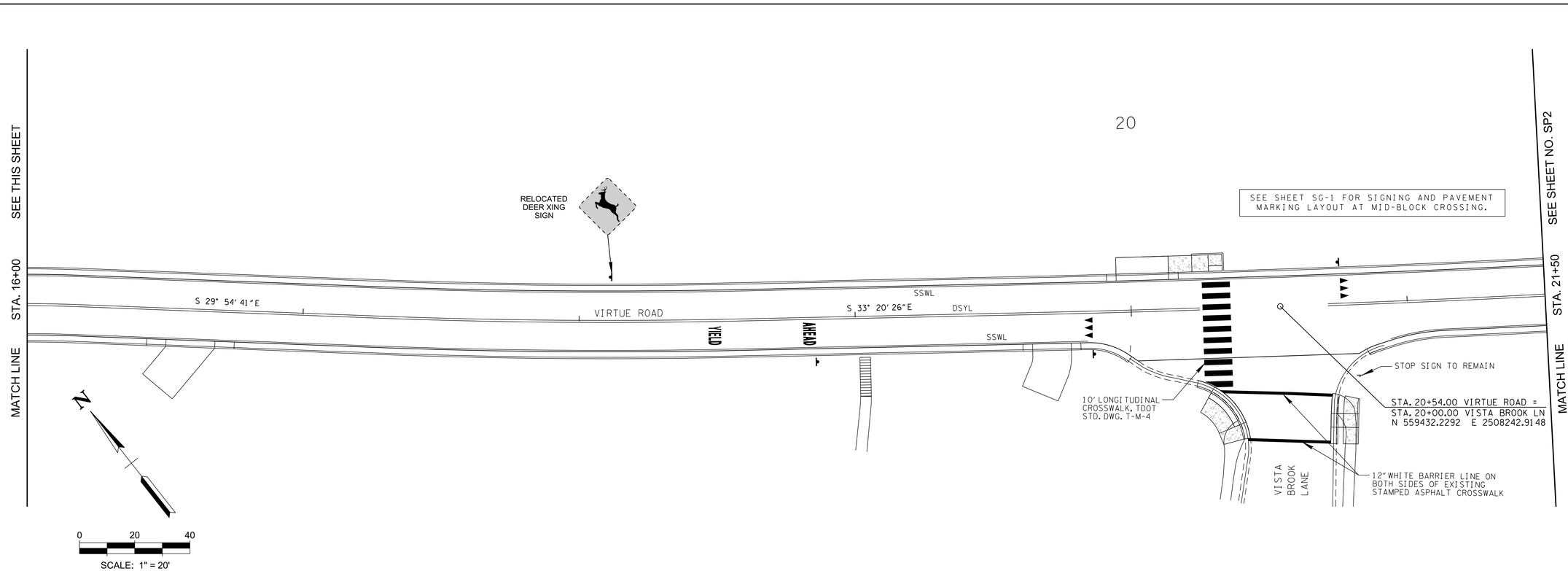
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

MID-BLOCK TRAIL CROSSINGS AND LIGHTING PLAN

SHEET SG2





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

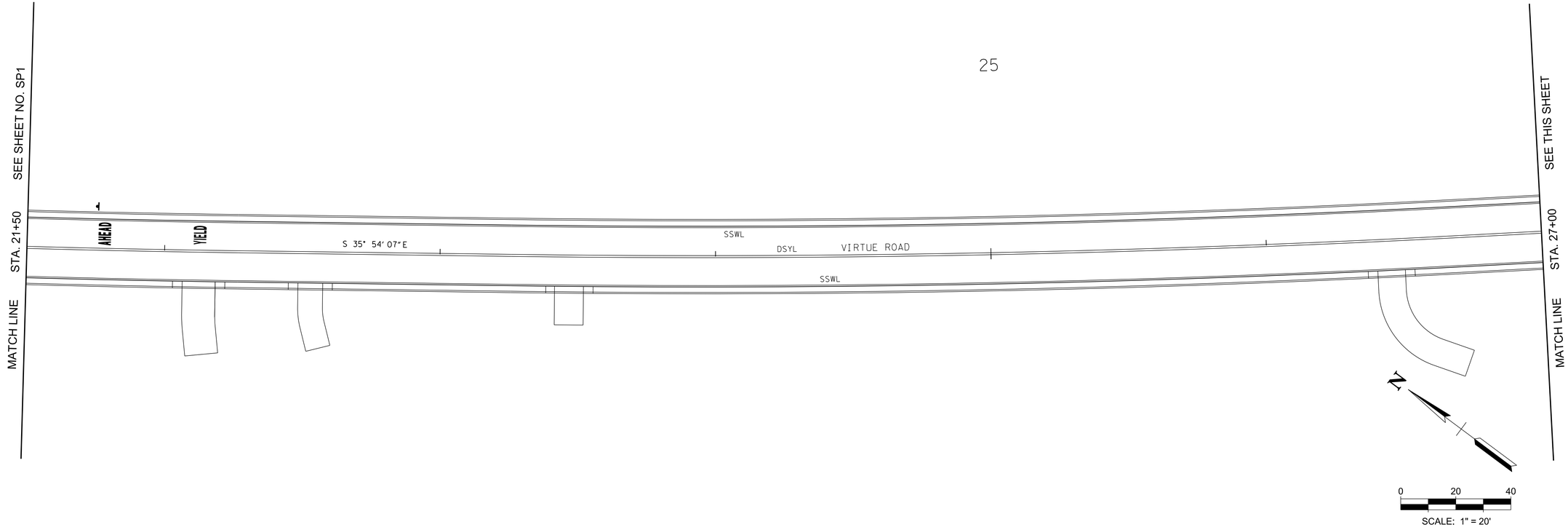
PROJECT NUMBER: FAR302

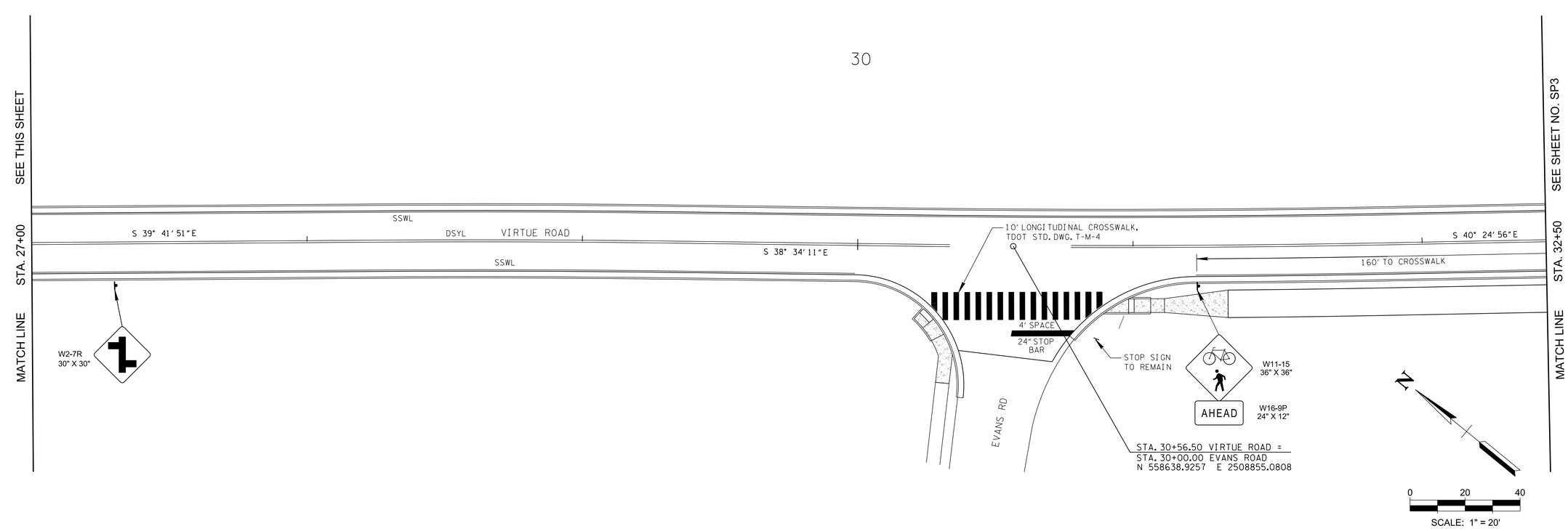
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

SIGNING AND PAVEMENT MARKINGS 11+25 TO 21+50

SHEET SP1





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

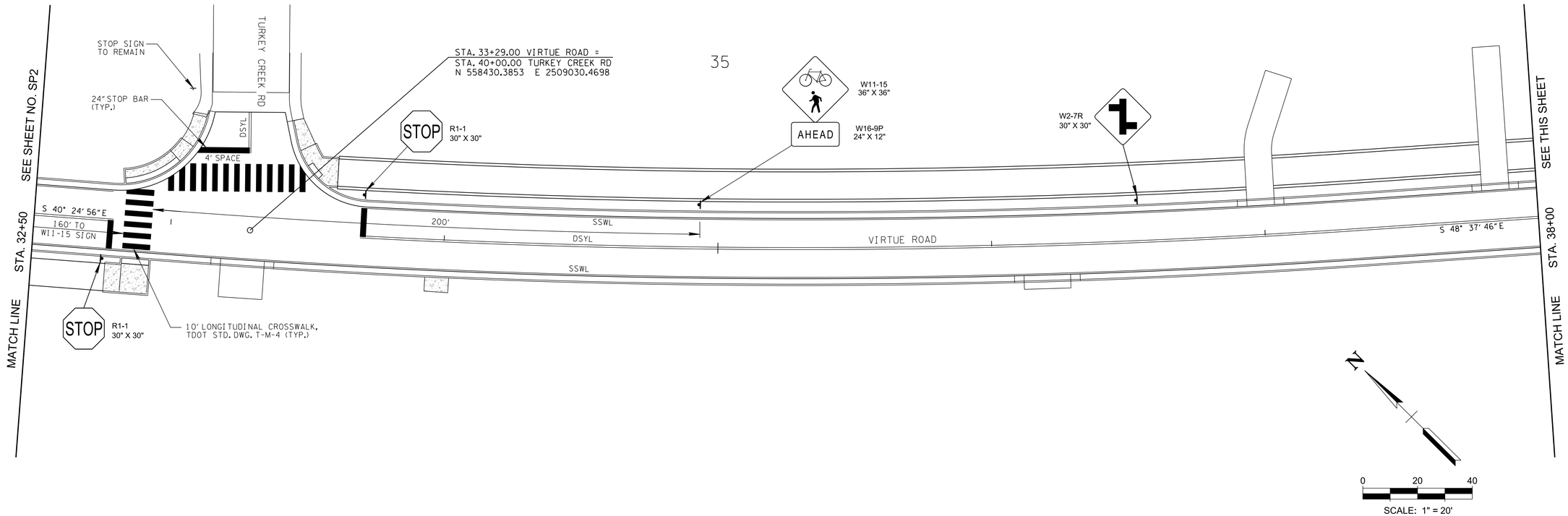
PROJECT NUMBER: FAR302

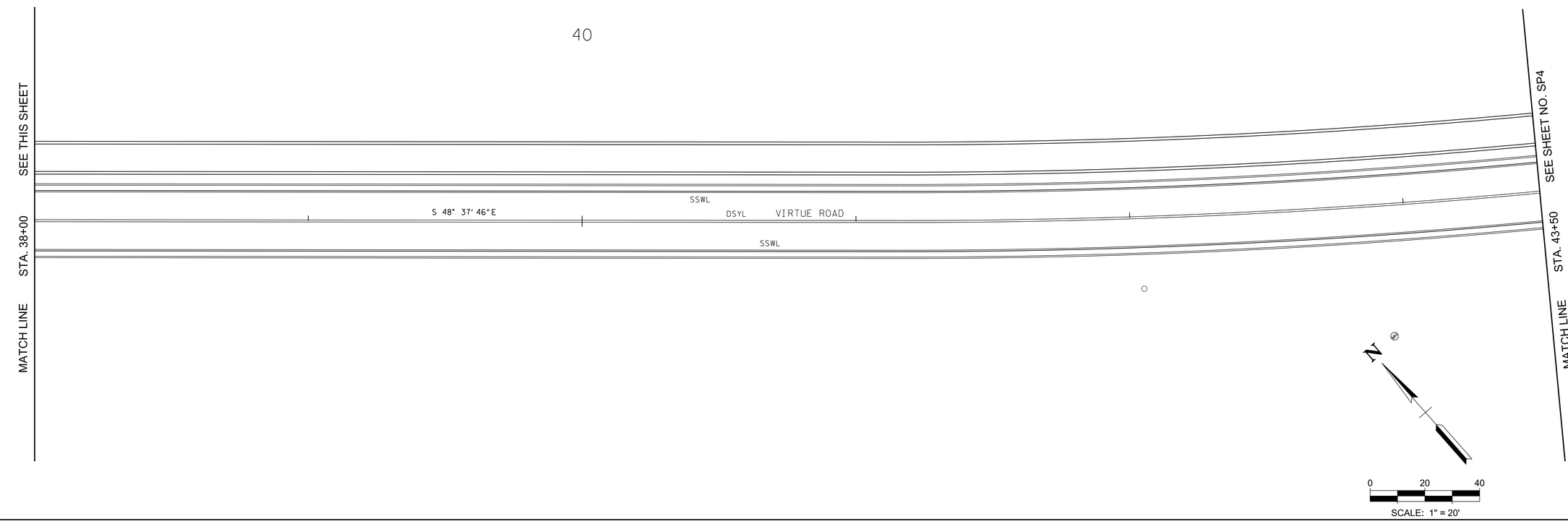
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

SIGNING AND PAVEMENT MARKINGS 21+50 TO 32+50

SHEET SP2





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

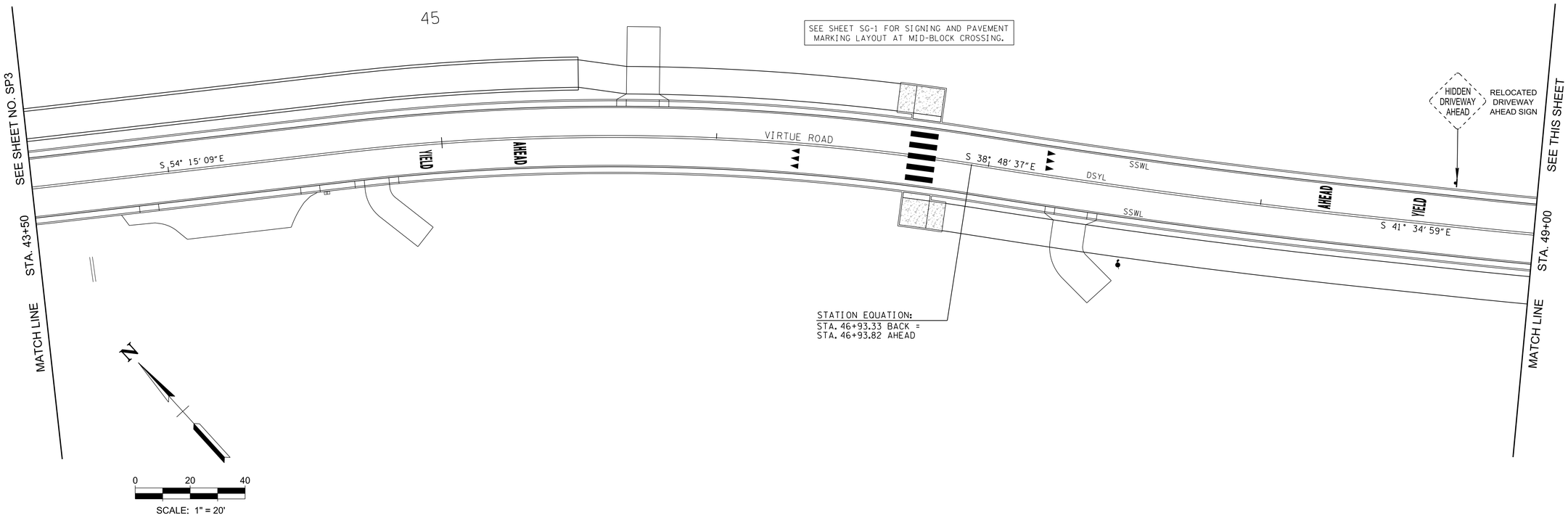
PROJECT NUMBER: FAR302

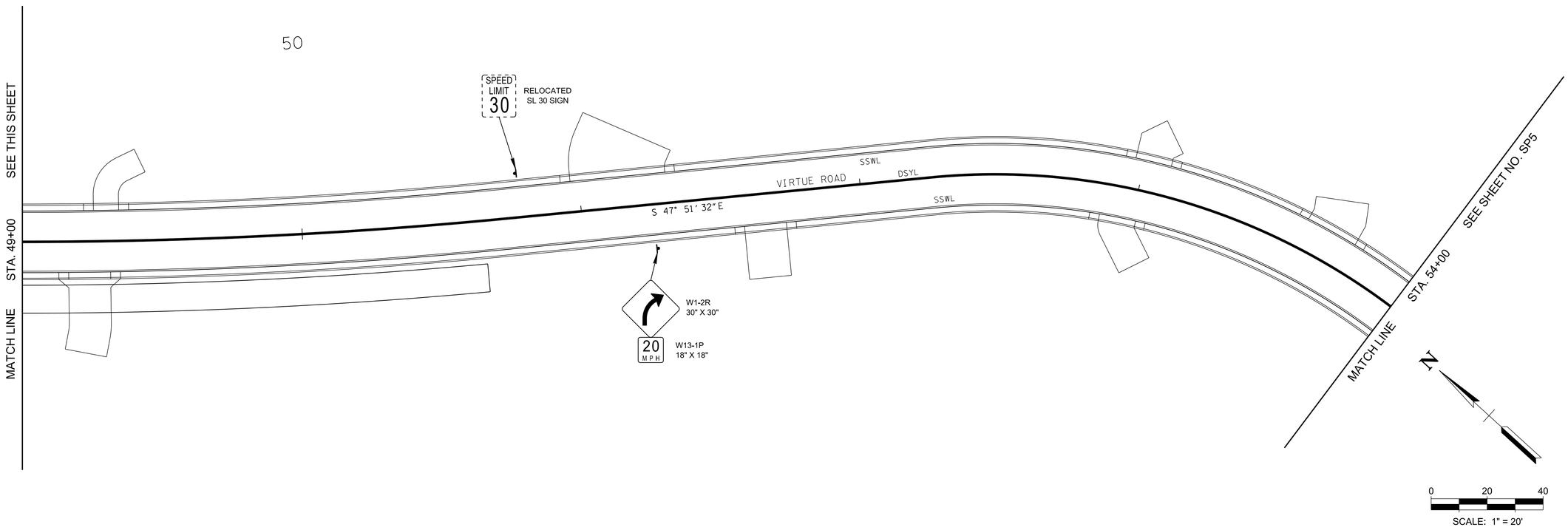
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

SIGNING AND PAVEMENT MARKINGS 32+50 TO 43+50

SHEET SP3





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

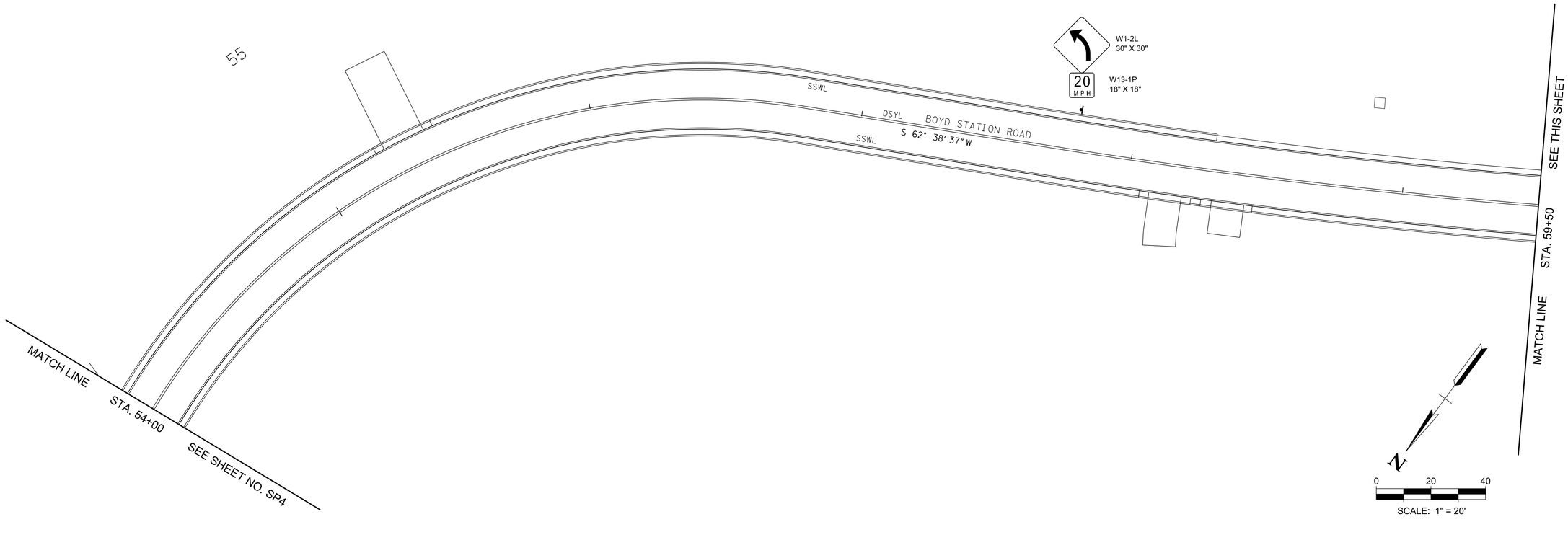
PROJECT NUMBER: FAR302

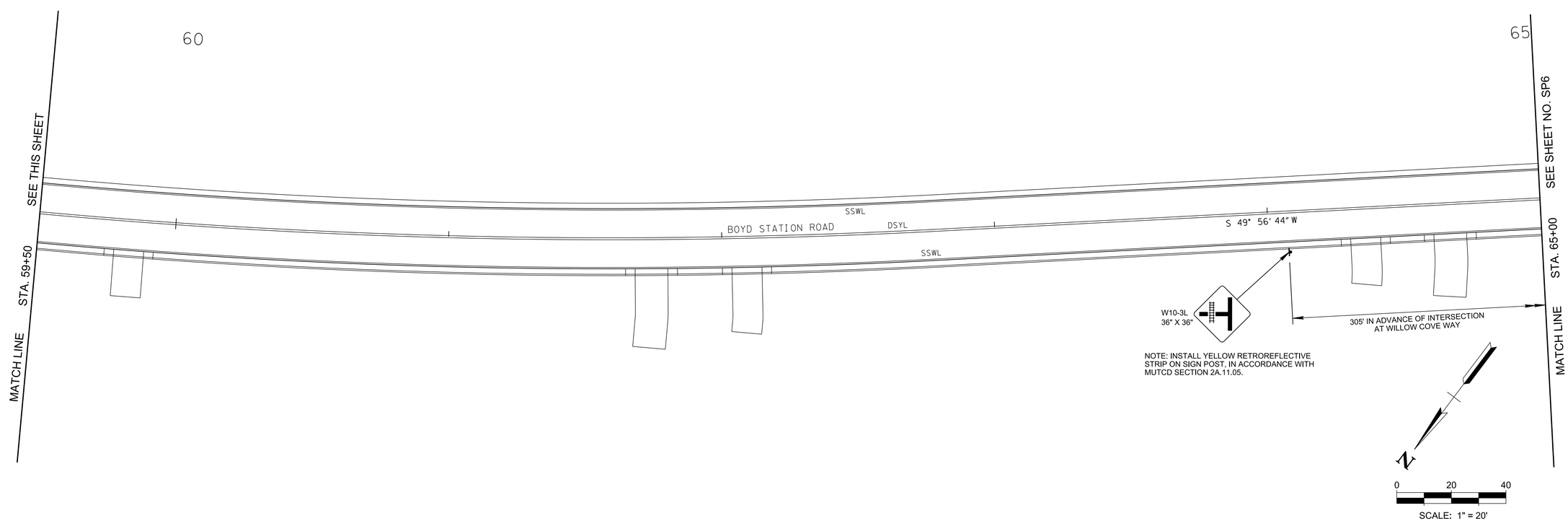
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

SIGNING AND PAVEMENT MARKINGS 43+50 TO 54+00

SHEET SP4





LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

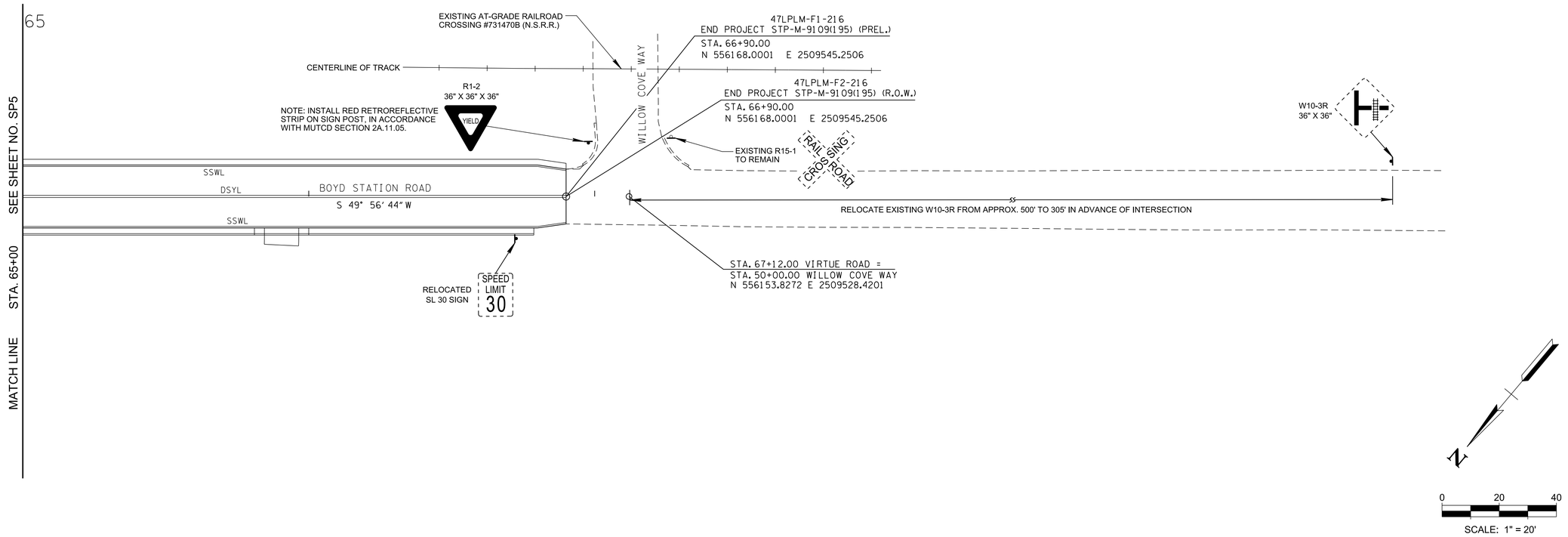
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

SIGNING AND PAVEMENT MARKINGS 54+00 TO 65+00

SHEET SP5



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

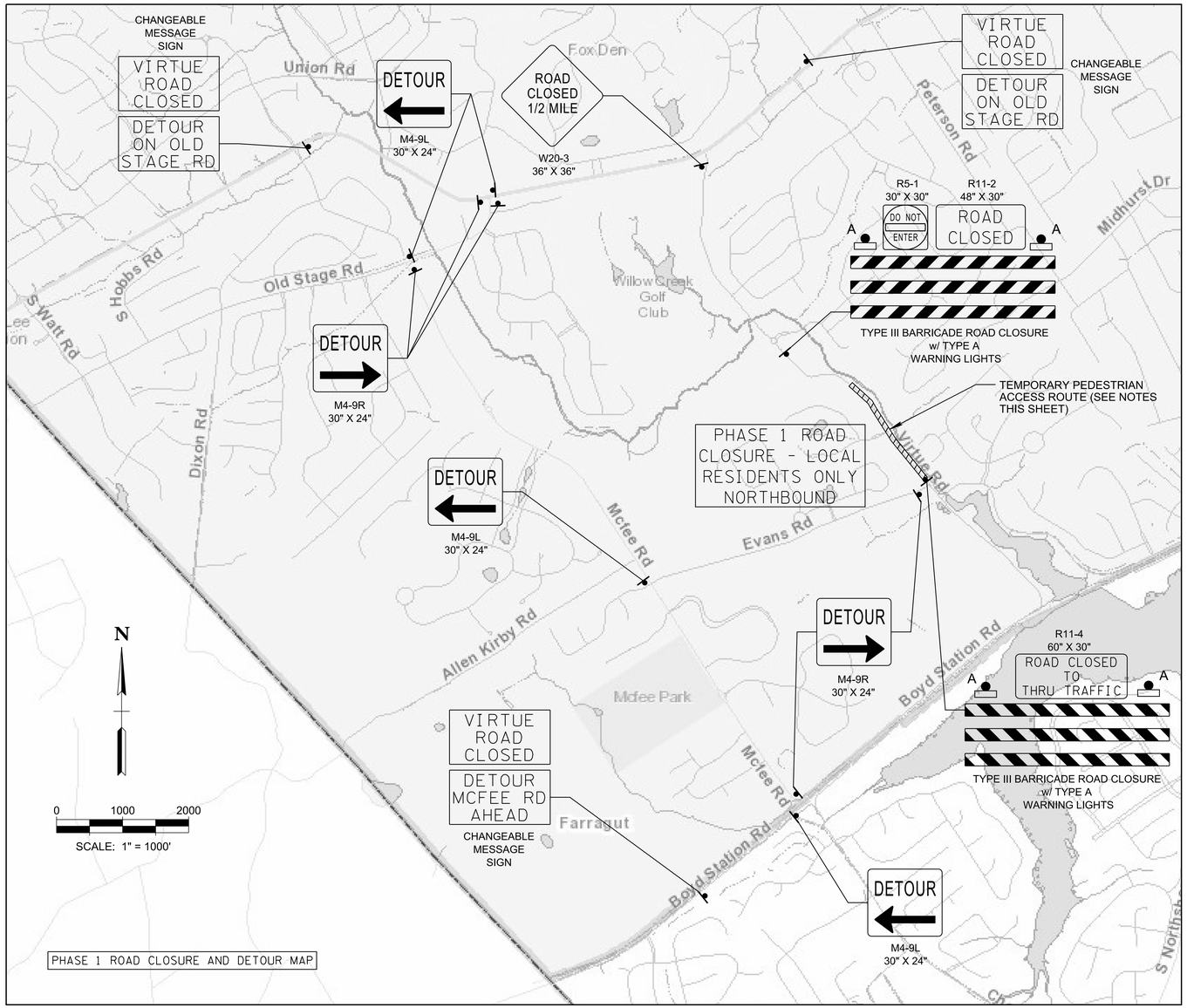
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

SIGNING AND PAVEMENT MARKINGS 65+00 TO 66+90

SHEET SP6



PHASE 1 ROAD CLOSURE AND DETOUR MAP

PEDESTRIAN AND BICYCLE ACCESS NOTES:

1. A TEMPORARY PEDESTRIAN ACCESS ROUTE THAT CROSSES VIRTUE ROAD AND CONNECTS SHEFFIELD GREENWAY TO THE VISTA NEIGHBORHOOD WILL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
2. THE ROUTE MUST COMPLY WITH ADA ACCESSIBILITY GUIDELINES.
3. THE FOLLOWING ITEMS WILL BE UTILIZED FOR THE CROSSING:
   A. PAINTED PAVEMENT MARKINGS FOR THE TEMPORARY CROSSWALK AND YIELD BAR.
   B. R1-5d SIGN AT CROSSWALK.
   C. W3-4 SIGN 200' IN ADVANCE OF CROSSWALK.
   D. TEMPORARY TRANSVERSE RUMBLE STRIPS, SEE TDOT STD. DWG. T-WZ-56.
   E. IF THERE IS A GRADE DIFFERENTIAL BETWEEN WORK ZONE AND TRAVEL LANE, A TEMPORARY RAMP THAT COMPLIES WITH ADA.

R1-5d 36" X 42"

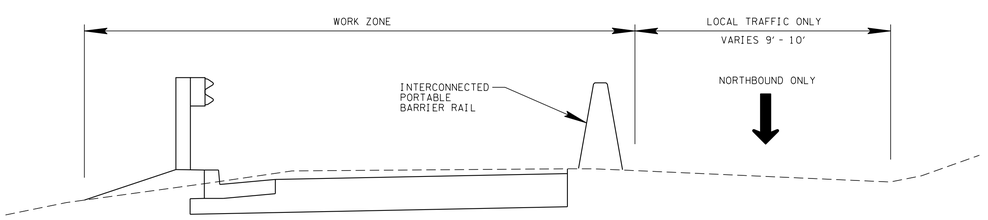




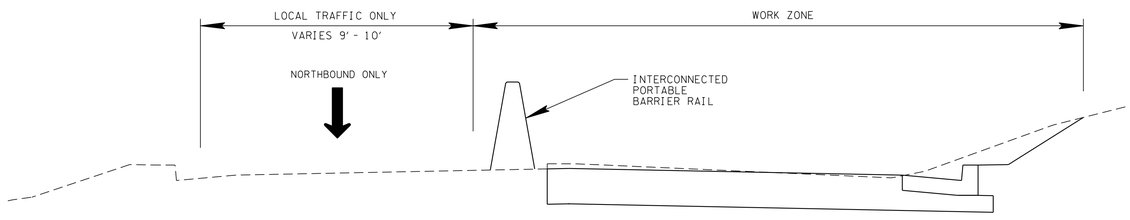
W3-4 36" X 36"

PHASING NOTES:

1. CLOSE VIRTUE RD TO THRU TRAFFIC FROM STA. 11+75 TO 29+75.
2. ALLOW RESIDENTS WITHIN WORK ZONE INGRESS AND EGRESS, NORTHBOUND ONLY. NO SOUTHBOUND TRAFFIC WILL BE PERMITTED IN WORK ZONE.
3. FOR PHASE 1A, WORK ZONE IS THE NORTHBOUND LANE (EAST SIDE OF VIRTUE). FOR PHASE 1B, WORK ZONE IS THE SOUTHBOUND LANE (WEST SIDE OF VIRTUE).
4. NORTHBOUND TRAFFIC ON BOYD STATION RD WILL BE DETOURED TO MCFEE RD/OLD STAGE RD.
5. ALL TRAFFIC ON KINGSTON PIKE WILL BE DETOURED TO OLD STAGE RD/MCFEE RD.



TYPICAL WORK ZONE SECTION - PHASE 1A
STA. 11+25 TO STA. 29+75
NOT TO SCALE



TYPICAL WORK ZONE SECTION - PHASE 1B
STA. 11+25 TO STA. 29+75
NOT TO SCALE

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

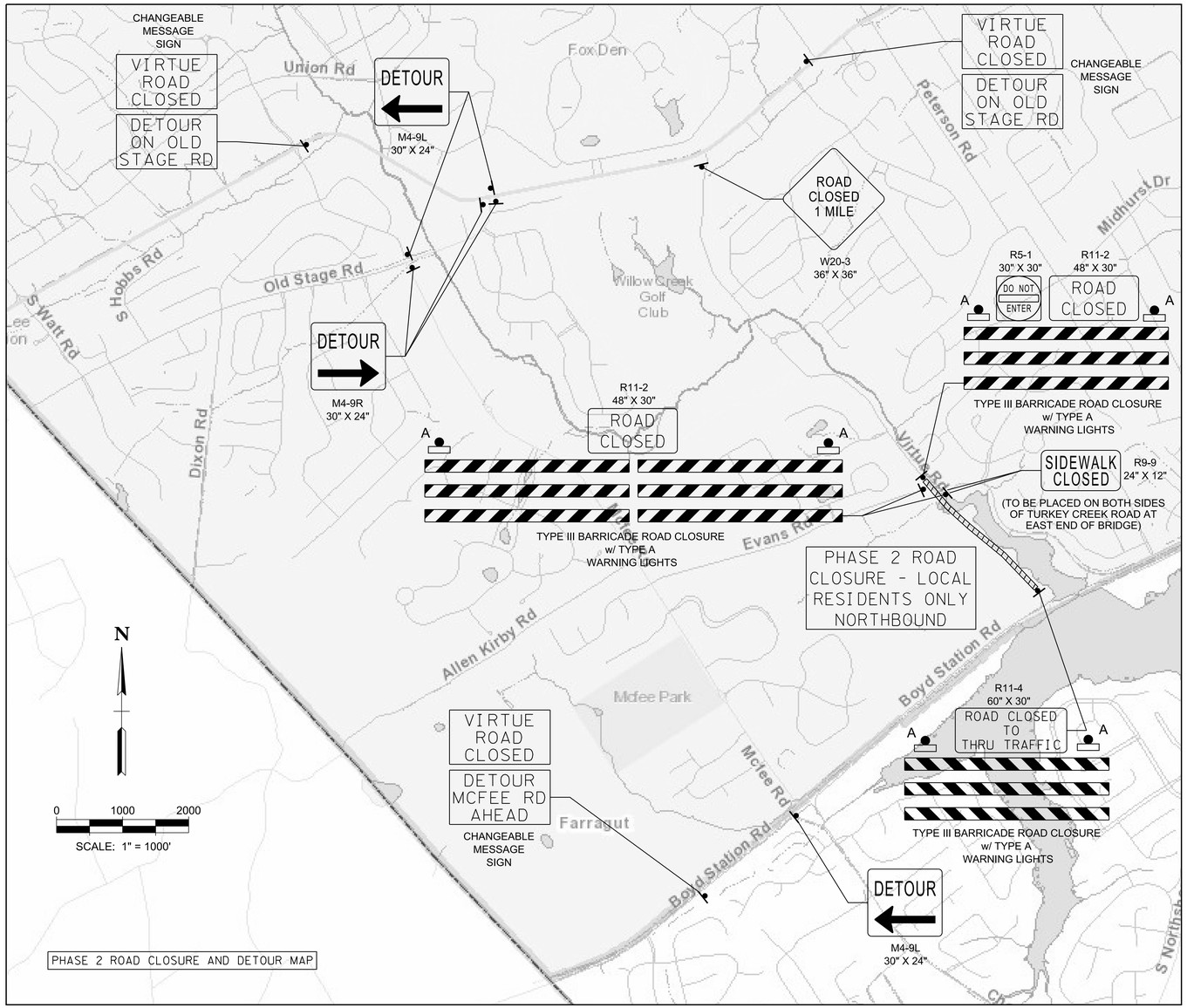
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

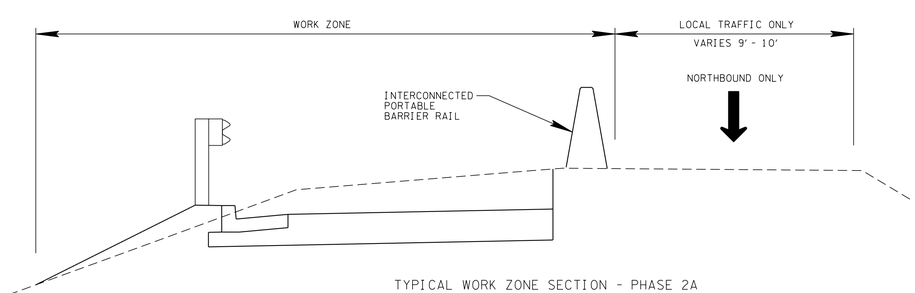
TRAFFIC CONTROL PLAN - PHASE 1 MAP, SECTIONS AND NOTES

SHEET TC1

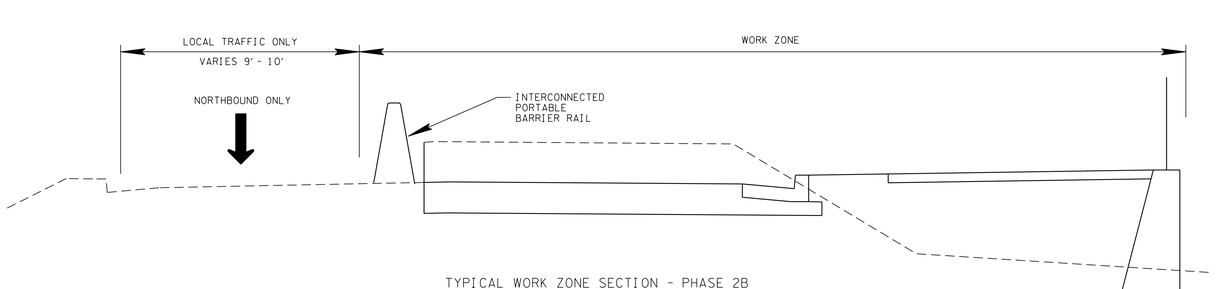


PHASING NOTES:

1. CLOSE VIRTUE RD TO THRU TRAFFIC FROM STA. 29+75 TO 50+75. THE INTERSECTIONS OF EVANS RD AND TURKEY CREEK RD WILL BE CLOSED.
2. ALLOW RESIDENTS WITHIN WORK ZONE INGRESS AND EGRESS, NORTHBOUND ONLY. NO SOUTHBOUND TRAFFIC WILL BE PERMITTED IN WORK ZONE.
3. FOR PHASE 2A, WORK ZONE IS THE NORTHBOUND LANE (EAST SIDE OF VIRTUE). FOR PHASE 2B, WORK ZONE IS THE SOUTHBOUND LANE (WEST SIDE OF VIRTUE).
4. NORTHBOUND TRAFFIC ON BOYD STATION RD WILL BE DETOURED TO MCFEE RD/OLD STAGE RD.
5. WESTBOUND TRAFFIC ON KINGSTON PIKE WILL BE DETOURED TO OLD STAGE RD/MCFEE RD.



TYPICAL WORK ZONE SECTION - PHASE 2A
STA. 29+75 TO STA. 50+75
NOT TO SCALE



TYPICAL WORK ZONE SECTION - PHASE 2B
STA. 29+75 TO STA. 50+75
NOT TO SCALE

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

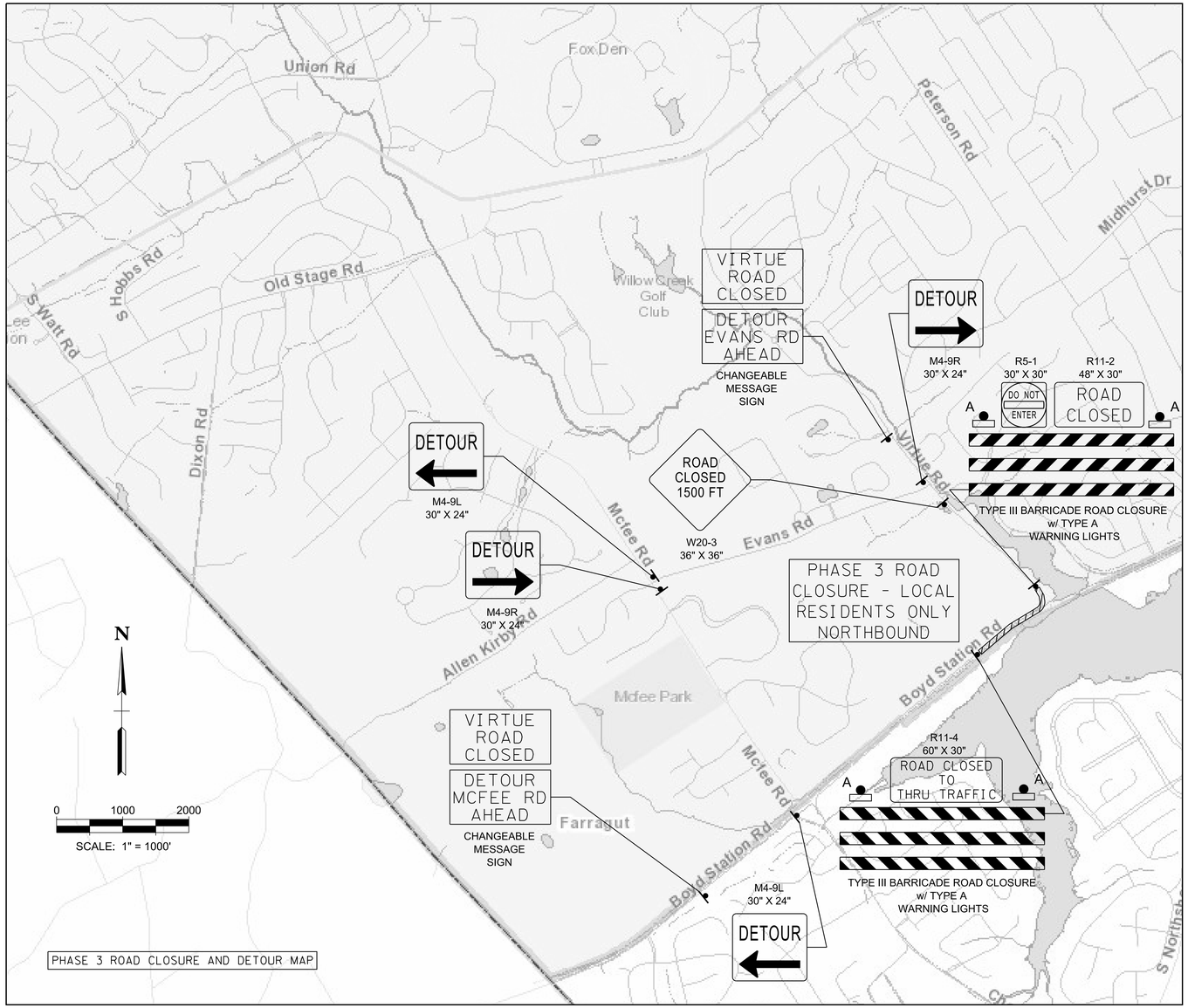
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

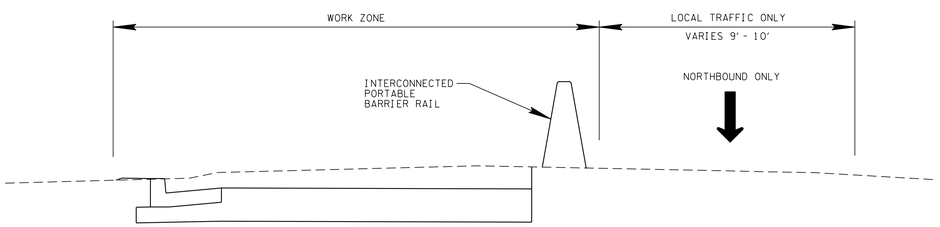
TRAFFIC CONTROL PLAN - PHASE 2 MAP, SECTIONS AND NOTES

SHEET TC2

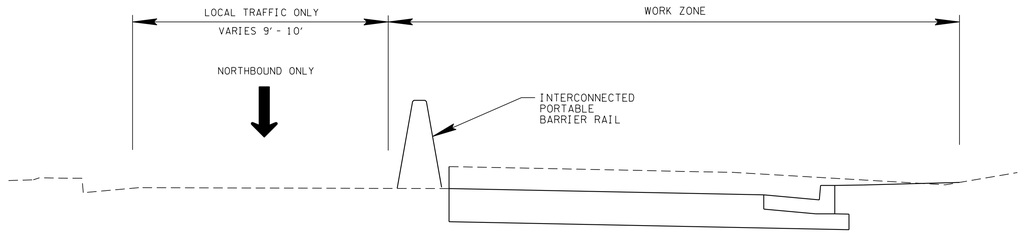


PHASING NOTES:

1. CLOSE BOYD STATION RD TO THRU TRAFFIC FROM STA. 50+75 TO 66+94.
2. ALLOW RESIDENTS WITHIN WORK ZONE INGRESS AND EGRESS, NORTHBOUND ONLY. NO SOUTHBOUND TRAFFIC WILL BE PERMITTED IN WORK ZONE.
3. FOR PHASE 3A, WORK ZONE IS THE NORTHBOUND LANE (EAST SIDE OF BOYD STATION). FOR PHASE 3B, WORK ZONE IS THE SOUTHBOUND LANE (WEST SIDE OF BOYD STATION).
4. SOUTHBOUND TRAFFIC ON VIRTUE RD WILL BE DETOURED TO EVANS RD/MCFEE RD.
5. NORTHBOUND TRAFFIC ON BOYD STATION WILL BE DETOURED TO MCFEE RD/EVANS RD.



TYPICAL WORK ZONE SECTION - PHASE 3A
STA. 50.75 TO STA. 66+94
NOT TO SCALE



TYPICAL WORK ZONE SECTION - PHASE 3B
STA. 50+75 TO STA. 66+94
NOT TO SCALE

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

COORDINATES ARE NAD/83 (2011) AND ARE NOT DATUM ADJUSTED. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

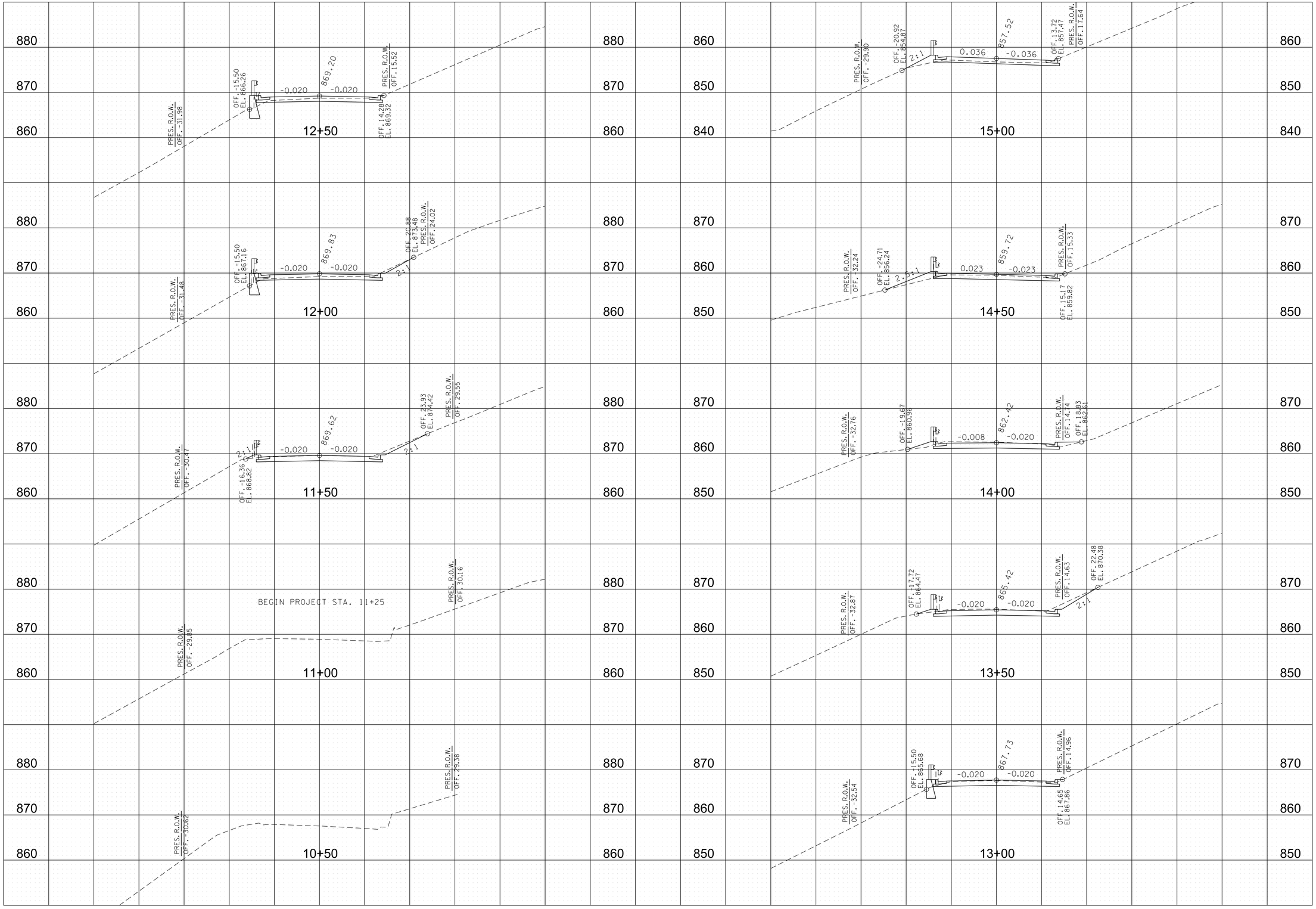
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

TRAFFIC CONTROL PLAN - PHASE 3 MAP, SECTIONS AND NOTES

SHEET TC3



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

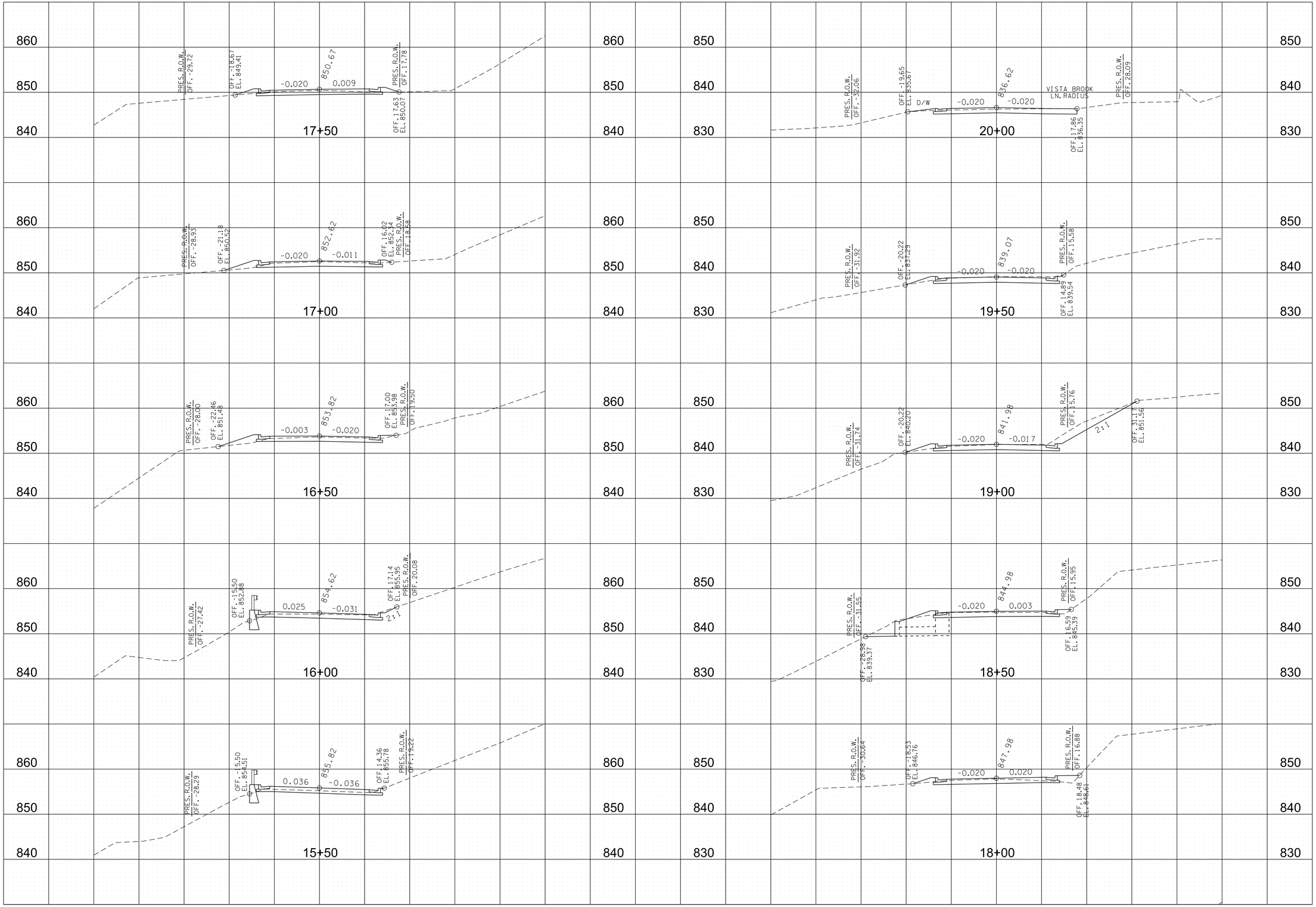
R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 10+50 TO STA. 15+00

SHEET XS1



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

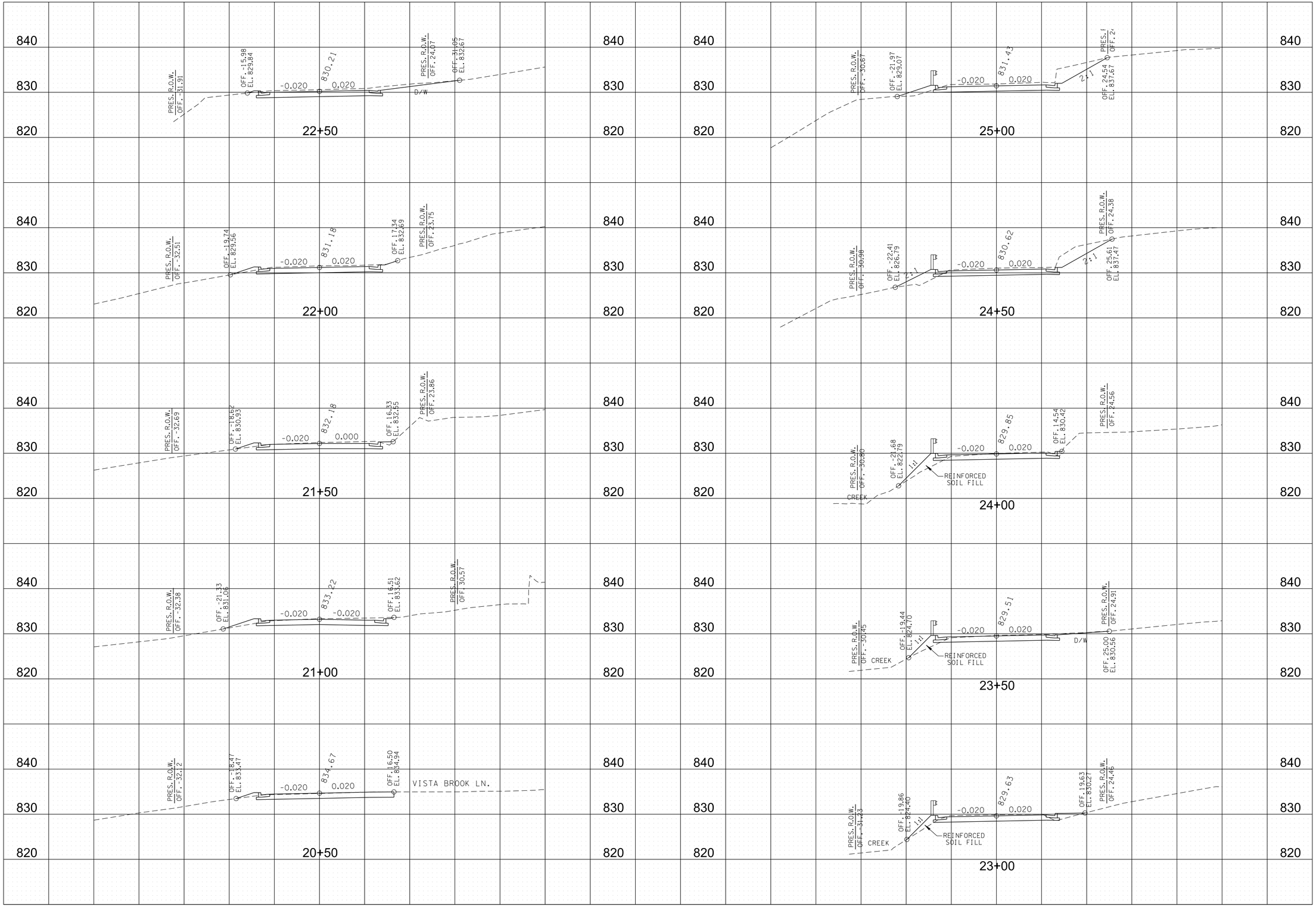
R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 15+50 TO STA. 20+00

SHEET XS2



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

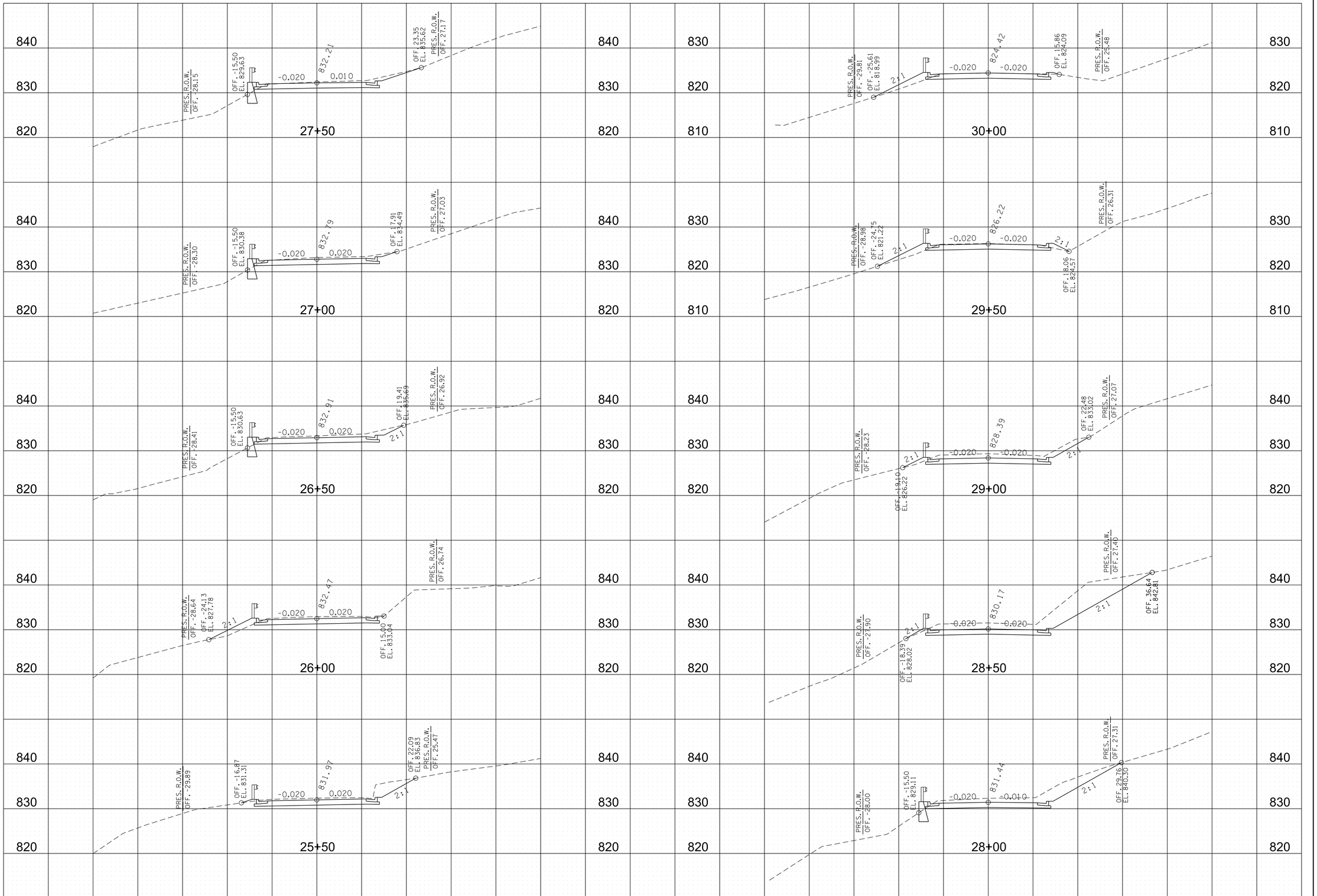
R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 20+50 TO STA. 25+00

SHEET XS3



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

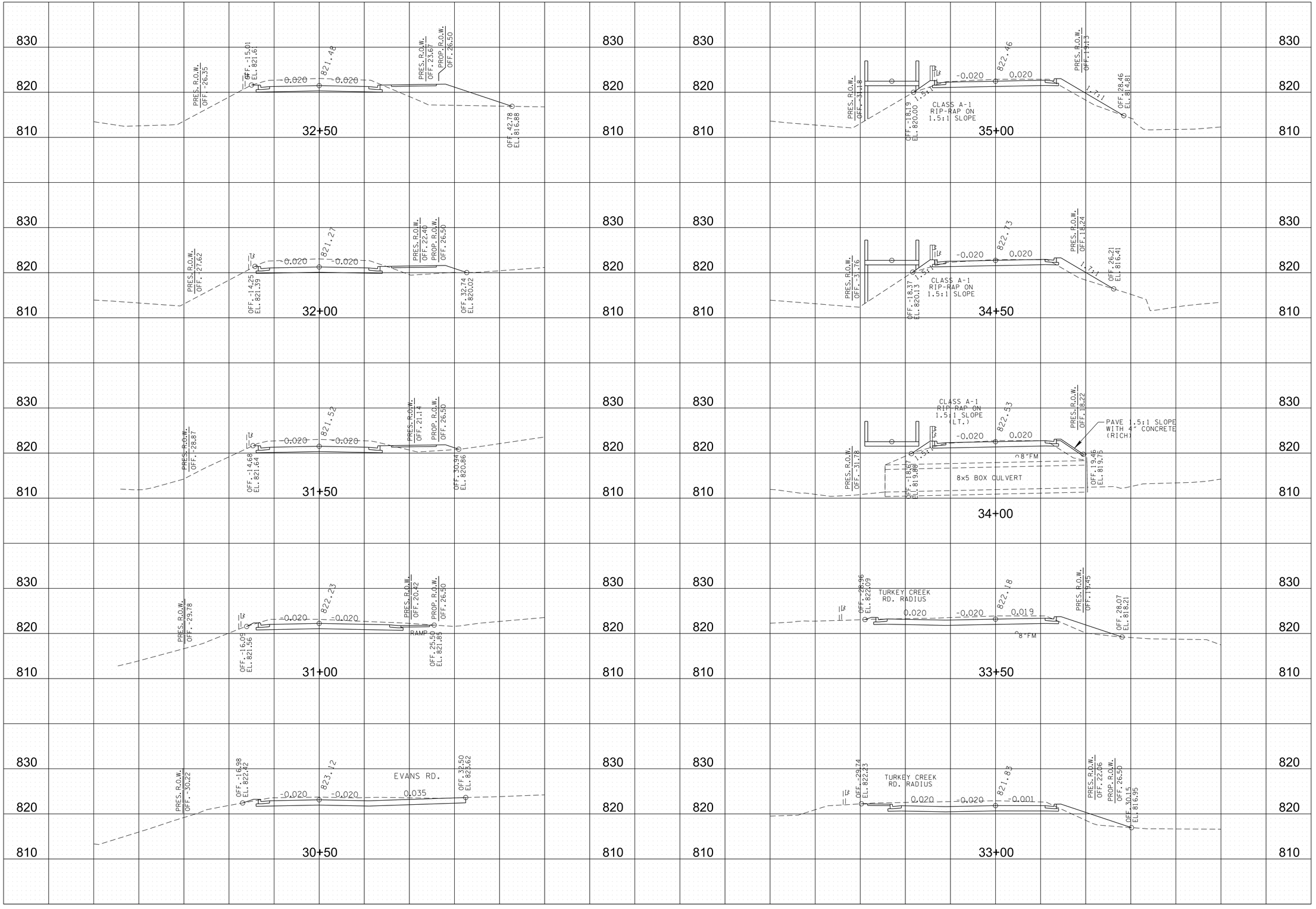
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 25+50 TO STA. 30+00

SHEET XS4



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

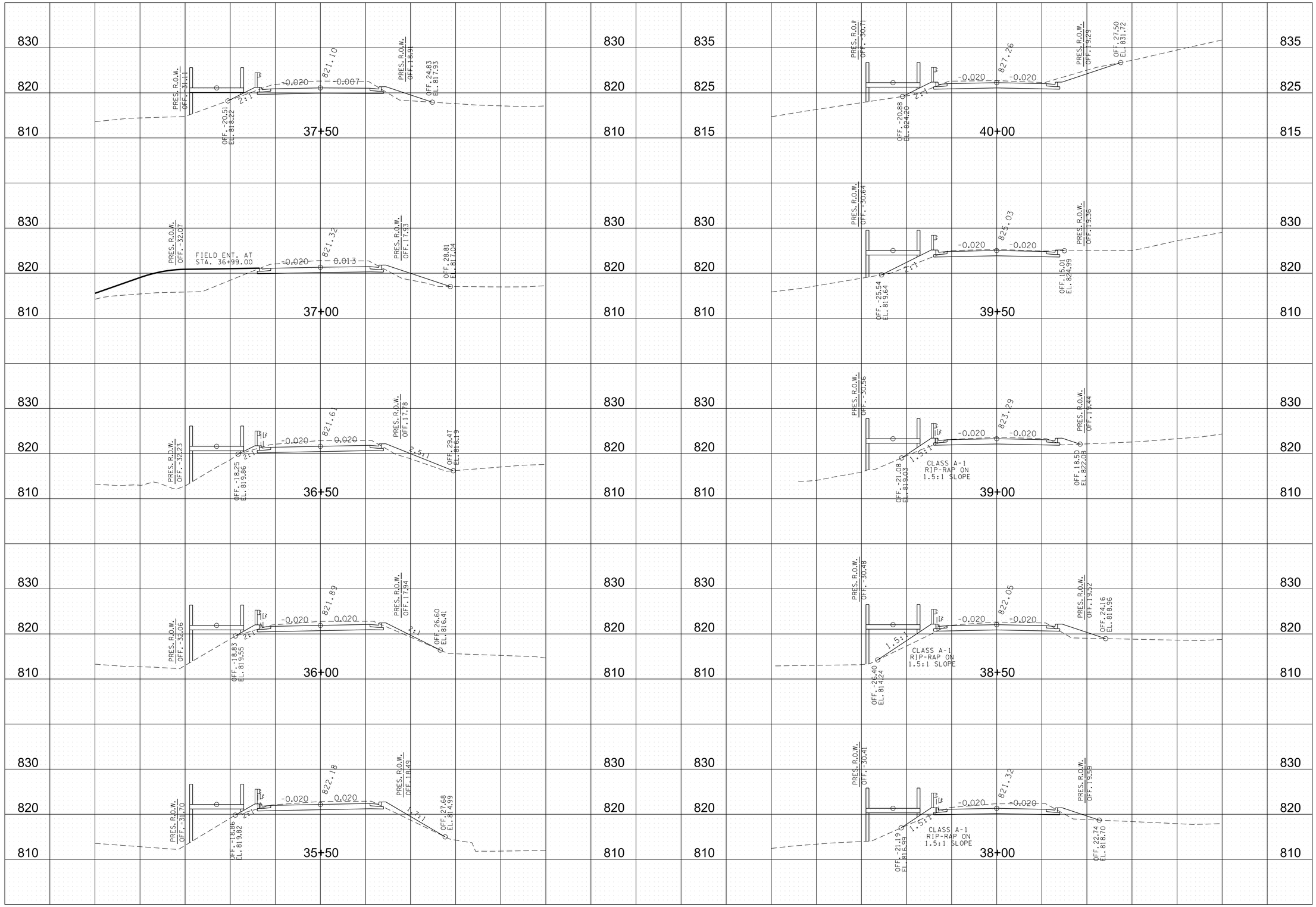
R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 30+50 TO STA. 35+00

SHEET XS5



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

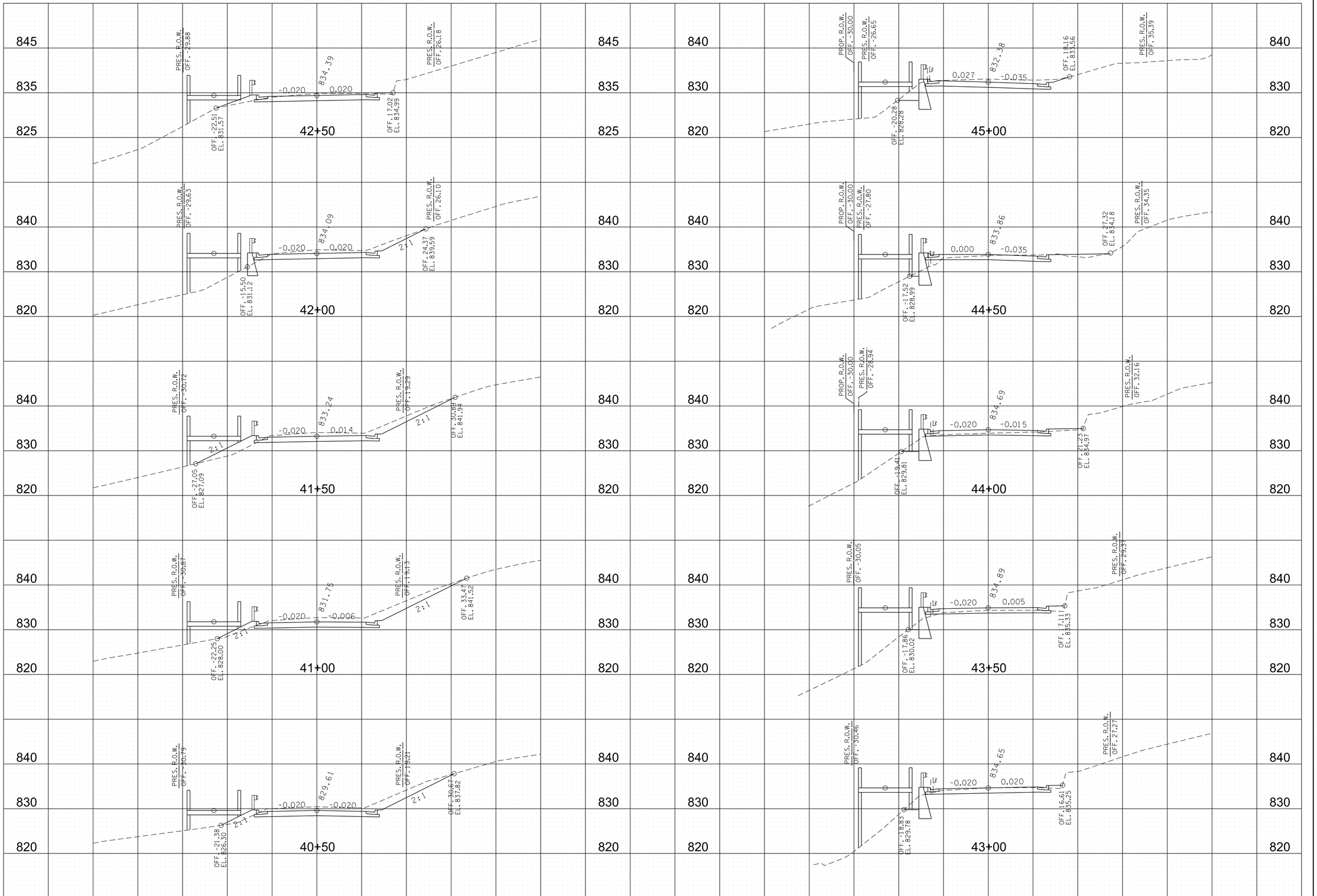
R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 35+50 TO STA. 40+00

SHEET XS6



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

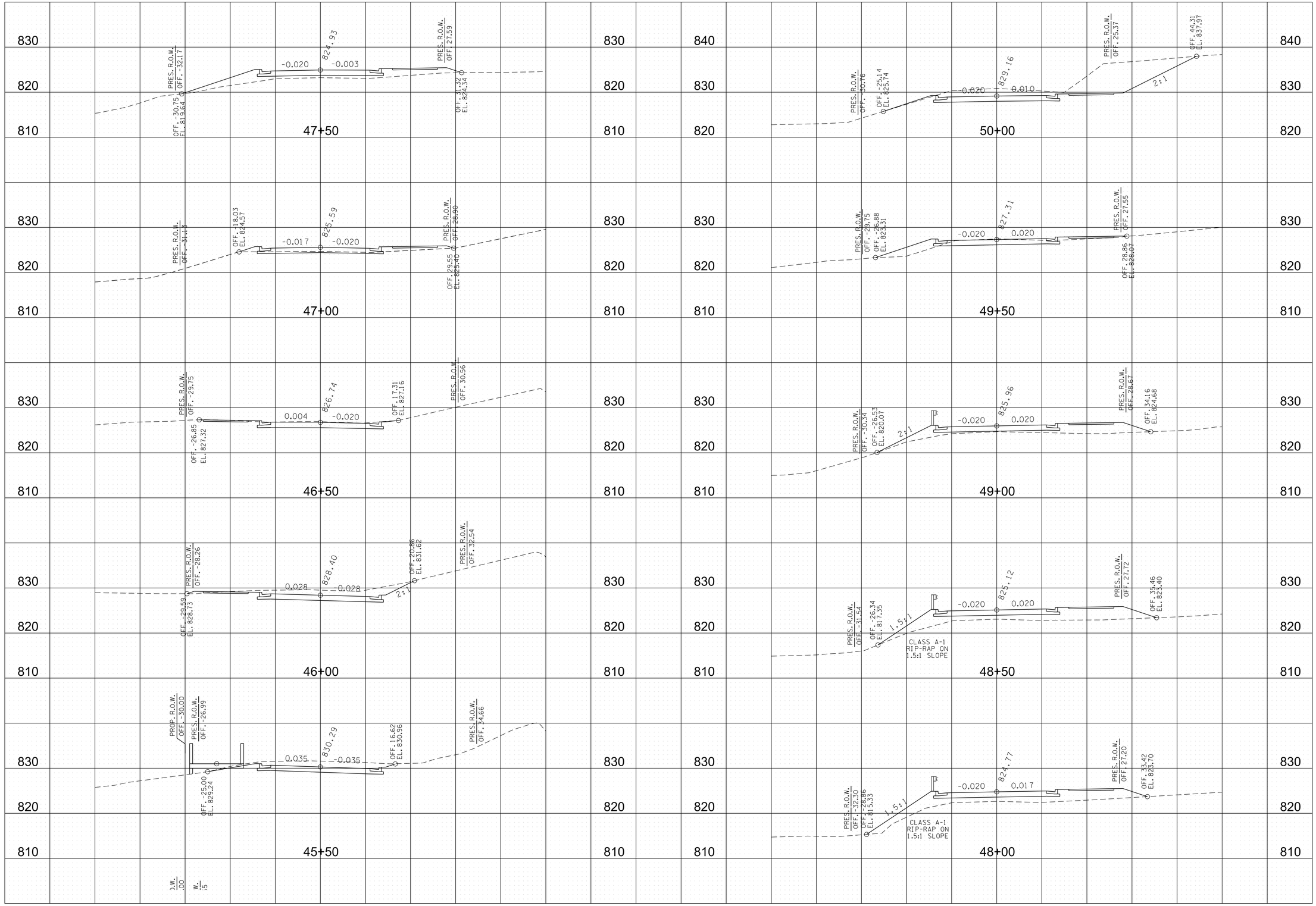
R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 40+50 TO STA. 45+00

SHEET XS7



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

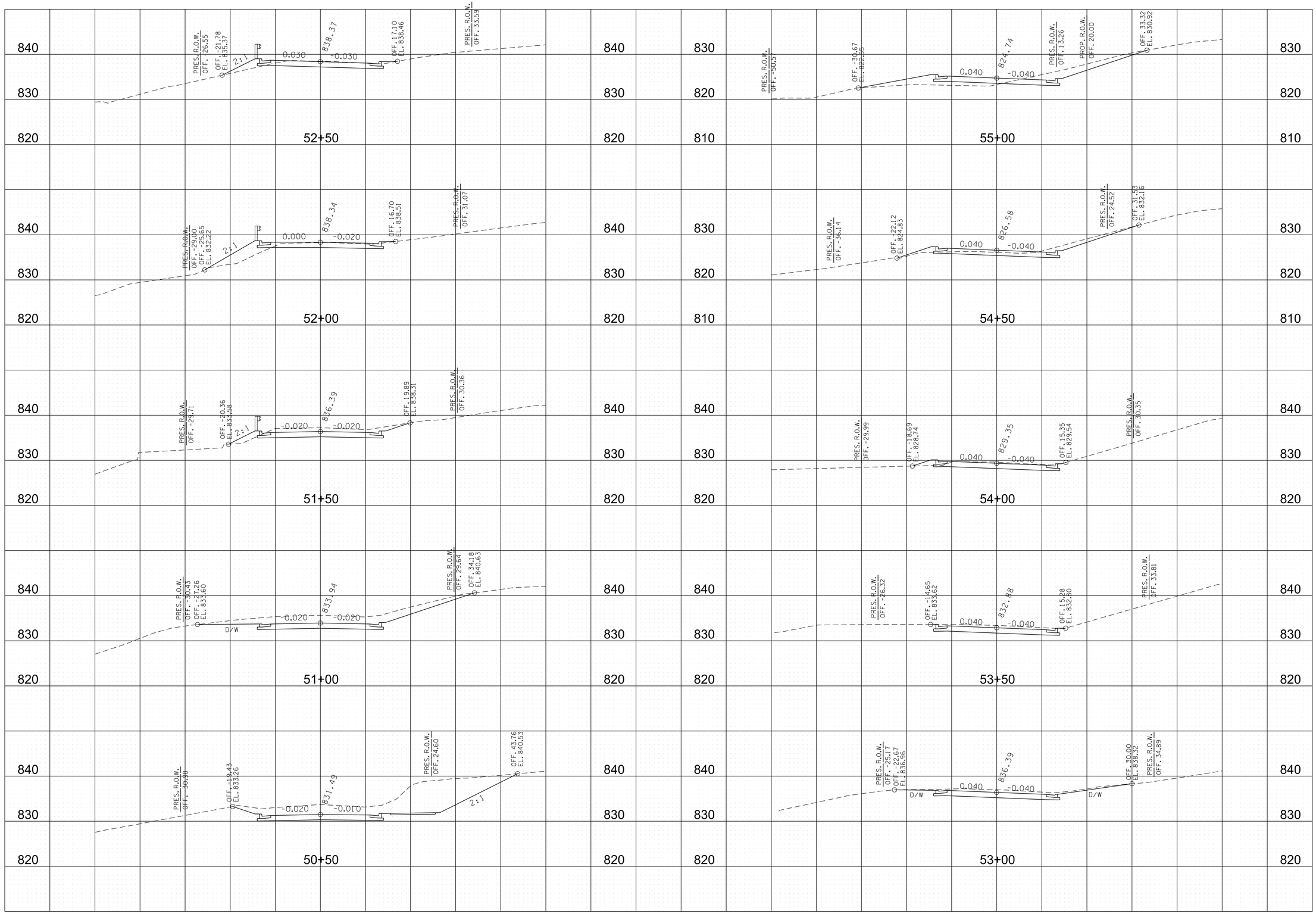
R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 45+50 TO STA. 50+00

SHEET XS8



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

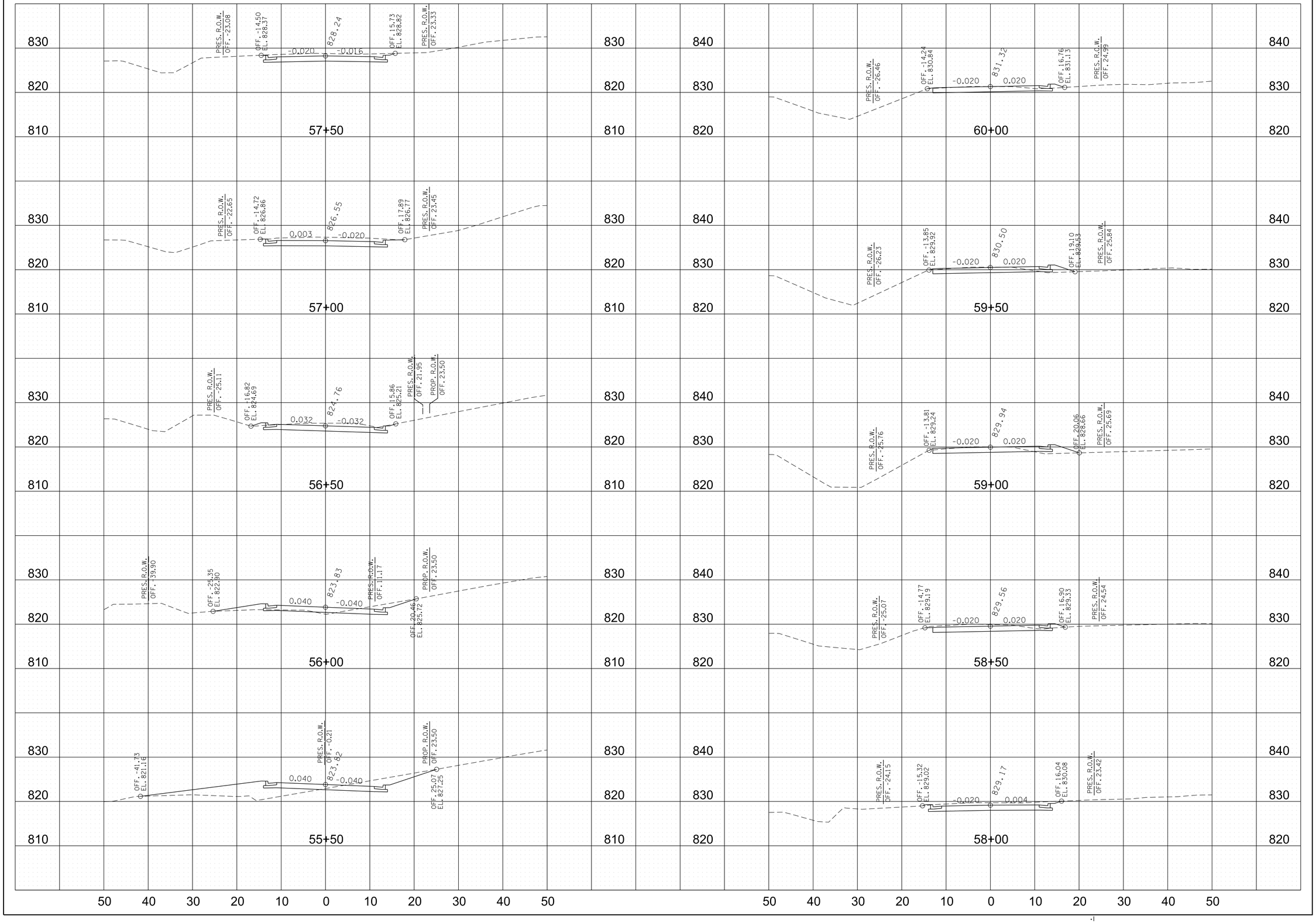
PROJECT NUMBER: FAR302

DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 50+50 TO STA. 55+00

SHEET XS9



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

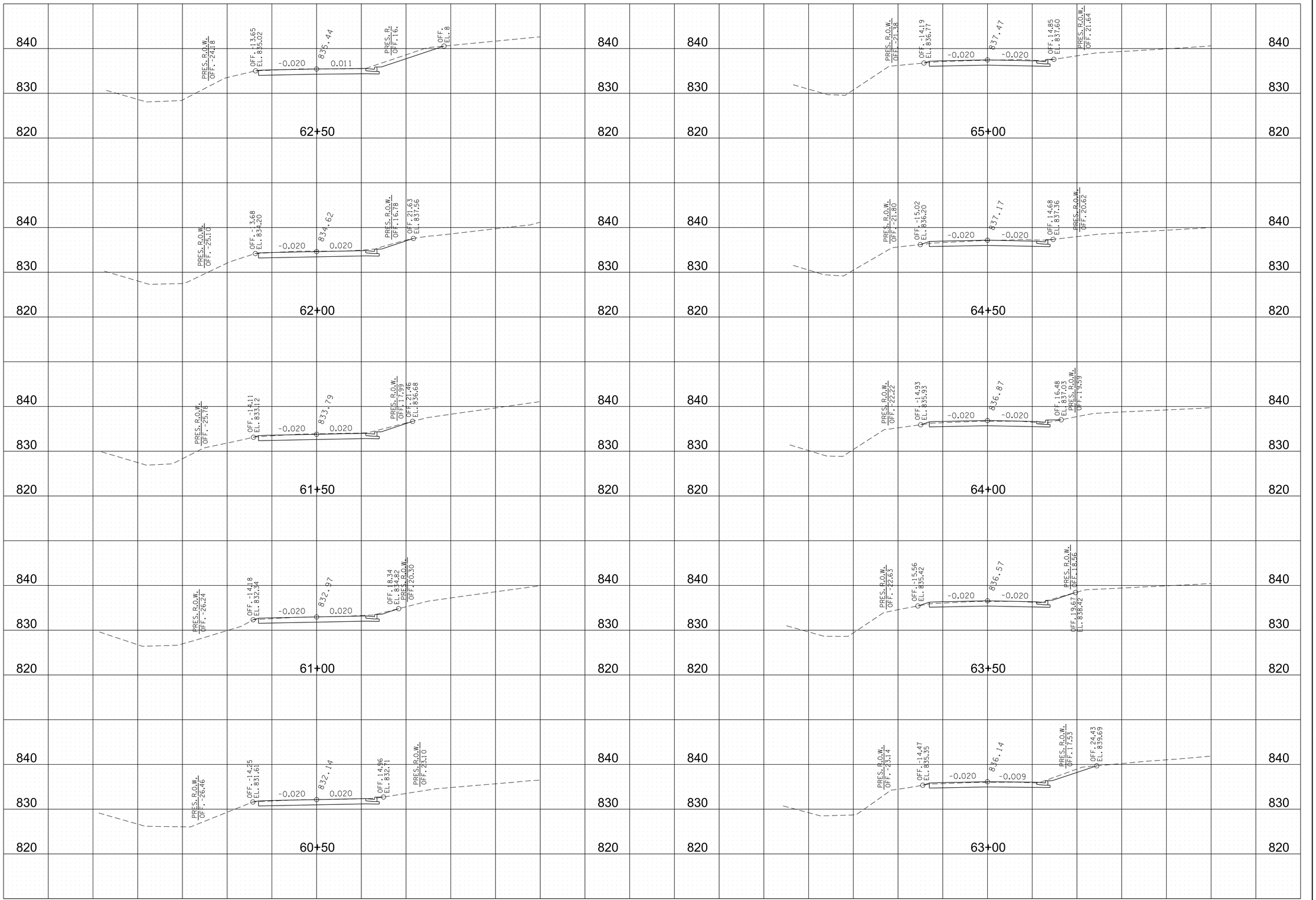
R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: AUG 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 55+50 TO STA. 60+00

SHEET XS10



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY
FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 60+50 TO STA. 65+00

SHEET XS11

840
830
820

67+50

END PROJECT STA. 66+90

840
830
820

67+00

PRES. R.O.W.
OFF. -20.13
OFF. -14.11
EL. 836.54
-0.020
837.21
-0.020
OFF. 16.71
EL. 836.60
PRES. R.O.W.
OFF. 24.73

840
830
820

66+50

PRES. R.O.W.
OFF. -20.55
OFF. -14.62
EL. 836.79
-0.020
837.63
-0.020
OFF. 16.21
EL. 837.19
PRES. R.O.W.
OFF. 23.70

840
830
820

66+00

PRES. R.O.W.
OFF. -20.91
OFF. -14.30
EL. 837.03
-0.020
837.76
-0.020
OFF. 17.95
EL. 837.94
PRES. R.O.W.
OFF. 22.67

840
830
820

65+50

50 40 30 20 10 0 10 20 30 40 50

50 40 30 20 10 0 10 20 30 40 50

LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

VIRTUE ROAD / BOYD STATION ROAD FROM SOUTH OF NEEDLEGRASS LANE TO WILLOW COVE WAY

FARRAGUT, TENNESSEE

R.O.W. PLANS

PROJECT NUMBER: FAR302	
DATE: JUNE 2025	SCALE: AS SHOWN
DRAWN BY:	DESIGNED BY: JCE

SHEET TITLE:

CROSS SECTIONS STA. 65+50 TO STA. 67+50

SHEET XS12

Agenda Number: IV.C. **Meeting Date:** August 21, 2025

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Request for approval to extend fiber optic cable for Charter along a portion of the overhead utility line system from the N. Campbell Station Road entrance to the Campbell Station Inn and then across N. Campbell Station Road to service the property at 160 N. Campbell Station Road (Mastec, Applicant).

Introduction & Background: This project involves extending fiber optic cable for Comcast along the existing overhead utility line system along the western side of N. Campbell Station Road north of Kingston Pike and crossing with aerial to the overhead utility line system on the eastern side of N. Campbell Station Road to service the property at 160 N. Campbell Station Road.

Discussion & Recommendations: The staff recommends approval of this mostly aerial project subject to obtaining a right of way permit through the Town's engineering department and coordinating with the service owner on the extension of fiber to the building.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: To approve the fiber optic extension subject to obtaining a right of way permit through the Town's engineering department and coordinating with the service owner on the extension of fiber to the building.

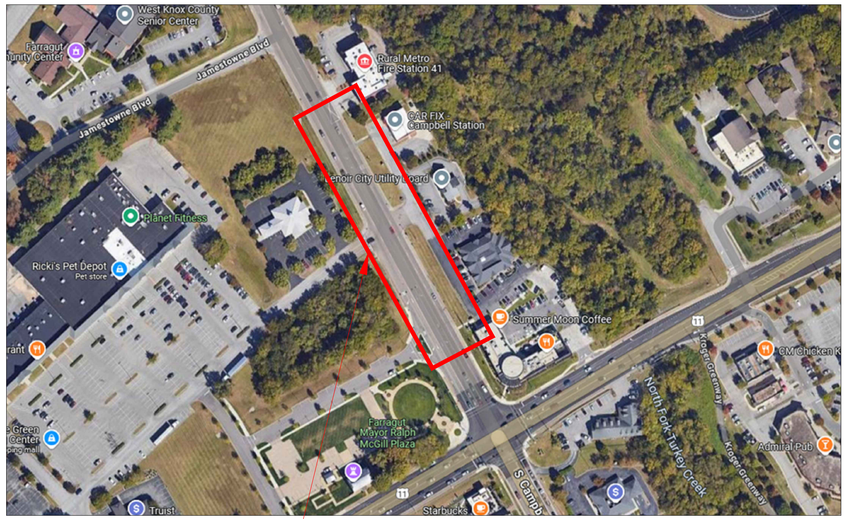
6045183 - 1389798 - PERMIT 01 - 1277 - N CAMPBELL STATION RD, KNOX COUNTY, KNOXVILLE, TN 37934

CHARTER COMMUNICATIONS PROPOSES TO PLACE AERIAL OVERLASH 413 FT, NEW AERIAL ATTACHMENT 140 FT, RISER DOWN 25 FT AND PLOW 130 FT
TO INSTALL FIBER OPTIC CABLE TO PROVIDE SERVICE TO 1277 - N CAMPBELL STATION RD, KNOX COUNTY, KNOXVILLE, TN 37934
INSIDE THE ROW OF THE STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION.

LEGEND

- PROPOSED BORE PIT
- EX. HAND HOLE
- EX. PEDESTAL
- DEMARCATION POINT
- PROPOSED PEDESTAL
- EX. CIRCULAR PEDESTAL
- PROPOSED CIRCULAR PEDESTAL
- EX. CATV VAULT
- PROPOSED CATV VAULT
- ANCHOR
- WATER METER
- PLOW ROUTE
- CATV BORE ROUTE
- STORM DRAINAGE
- WATER
- SEWER
- STORM SEWER
- CATV AERIAL ROUTE
- PRIVATE FENCE
- STORM DRAIN INLET
- CATCH BASIN
- STORM MANHOLE
- JOINT USE POLE
- EX. JOINT USE POLE
- JOINT USE POLE WITH TRANSFORMER

BOC - BACK OF CURB
EOP - EDGE OF PAVEMENT
D/W - DRIVEWAY
ROW - RIGHT OF WAY
- AERIAL RISER



WORK AREA

VICINITY MAP

N

BUILD		
DESCRIPTION	QUANTITY	UNIT
PLOW	130	FT
DIRECTIONAL BORING	0	FT
OVERPULL EXISTING CONDUIT	0	FT
BORE PITS	0	EA
NEW VAULTS	0	EA
EXISTING VAULTS	0	EA
NEW PEDESTALS	0	EA
EXISTING PEDESTALS	0	EA
NEW HANDHOLES	0	EA
DEMARCATION POINT	1	EA
AERIAL RISER	25	FT
OVERLASH	413	FT
NEW STRAND	140	FT
ANCHORS	2	EA
EXISTING ANCHORS	2	EA
NEW POLES	0	EA
EXISTING POLES	4	EA
TOTAL PROJECT FOOTAGE	708	FT

SHEET INDEX

01. COVER PAGE
02. PLAN VIEW

SHEET NO. 01 OF 02

THIS IS A CHARTER DOCUMENT, PROPERTY & CONFIDENTIAL

DESIGN BY: GIBSON TECHNICAL SERVICES	REV	DESCRIPTION	DATE
DRAWN BY:			
APPROVED:			
APPROVED:			
APPROVED:			

GIBSON TECHNICAL SERVICES,230 MOUNTAIN BROOK CT
CANTON, GEORGIA 30115

CHARTER COMMUNICATIONS PROPOSES TO INSTALL FIBER OPTIC CABLE.

PROJECT BEGINS HERE AT EX. POLE 01 APPROX. 264 FT, FROM TN-11, KINGSTON PIKE, PROPOSES TO PLACE AERIAL OVERLASH 413 FT, NEW AERIAL ATTACHMENT 140 FT, RISER DOWN 25 FT AND PLOW 130 FT. PROJECT ENDS HERE AT DEMARCATION POINT APPROX. 278 FT, FROM 0B913, JAMESTOWNE BLVD
INSIDE THE ROW OF THE STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION.

TOTAL PROJECT FOOTAGE = 708'

COVER PAGE

PROJECT ADDRESS

6045183 - 1389798 - PERMIT 01 - 1277 - N CAMPBELL STATION RD, KNOX COUNTY, KNOXVILLE, TN 37934

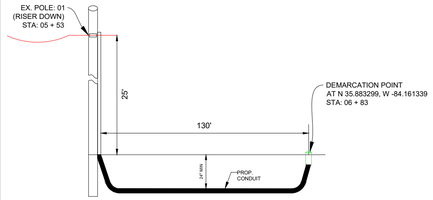
CONSTRUCTION TYPE: AERIAL AND UNDERGROUND (CNB)

SYSTEM: TENNESSEE

NODE: EA1317E | SCALE: NTS

TYPICAL AERIAL RISER DETAIL

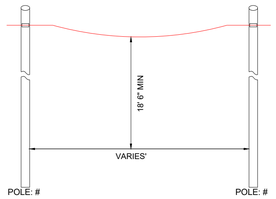
SCALE: NTS



AERIAL RISER DOWN DETAIL
(STA: 05 + 53 TO STA: 06 + 83)
N CAMPBELL STATION RD

TYPICAL AERIAL PARALLEL DETAIL

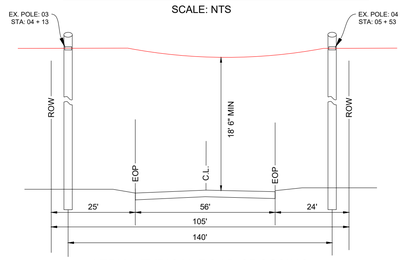
SCALE: NTS



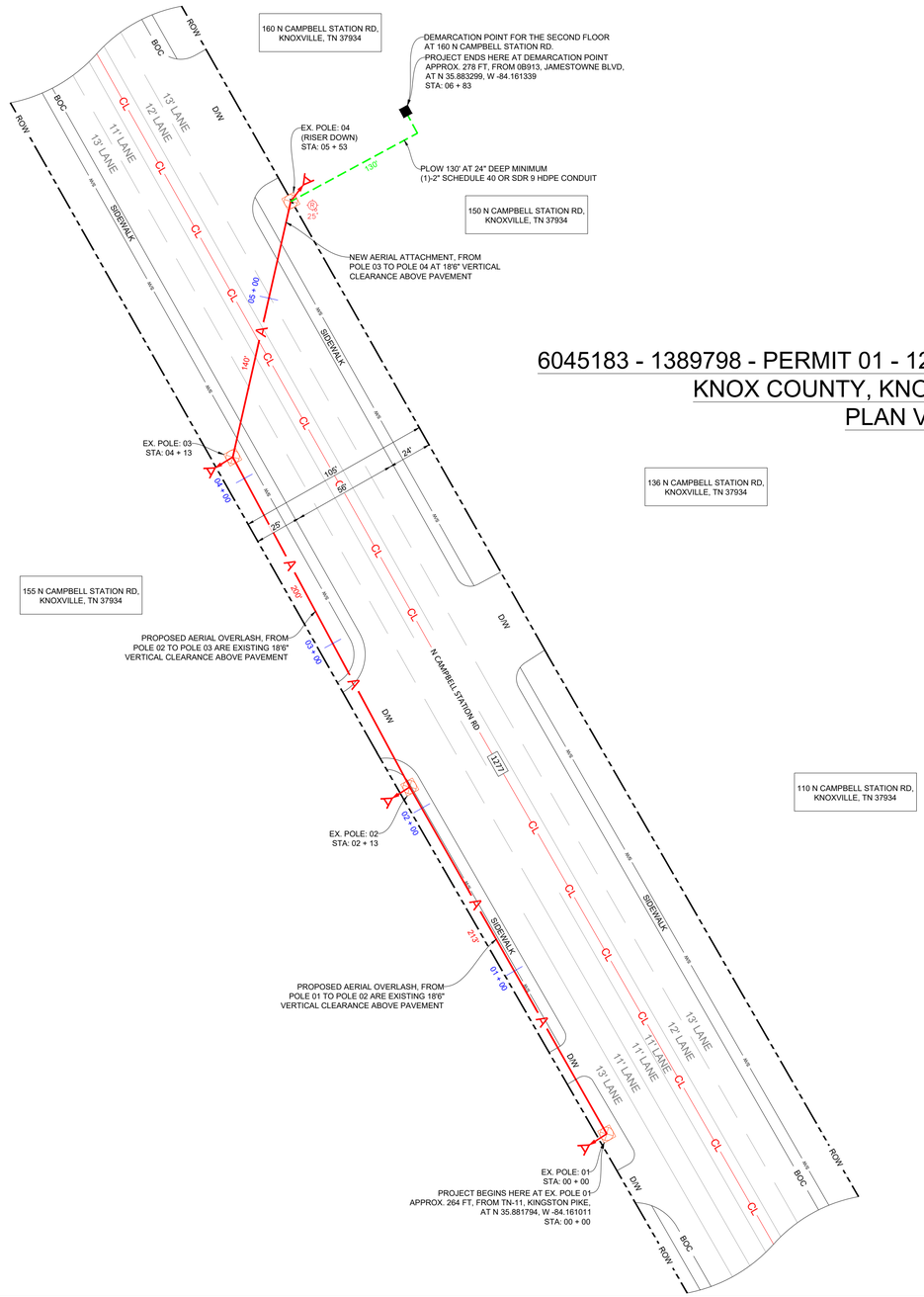
AERIAL TYPICAL PARALLEL DETAIL
N CAMPBELL STATION RD
(FACING SOUTHWEST)

TYPICAL AERIAL ROAD DETAIL

SCALE: NTS



AERIAL TYPICAL ROAD CROSSING
N CAMPBELL STATION RD
(STA: 04 + 13 TO STA: 05 + 53)
(FACING NORTHWEST)



6045183 - 1389798 - PERMIT 01 - 1277 - N CAMPBELL STATION RD, KNOX COUNTY, KNOXVILLE, TN 37934
PLAN VIEW

N

SHEET NO. 02 OF 02

NOTES:

1. CONTRACTOR SHALL CALL TDOT LOCATES AT 1-800-351-1111 AND TENNESSEE ONE SYSTEM AT 811, A MINIMUM OF 72 HOURS PRIOR TO START CONSTRUCTION.

2. ALL RIGHT OF WAY INSTALLATIONS SHALL BE BETWEEN THE BACKSLOPE OF THE DITCH AND THE BACK SIDE OF THE RIGHT OF WAY.

3. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UNDERGROUND FACILITIES.

4. ALL EXCESS EXCAVATION TO BE REMOVED FROM THE ROAD RIGHT-OF-WAY AT THE END OF EACH DAY.

5. DITCHES TO BE OPENED AT THE END OF EACH DAY TO ASSURE ADEQUATE DRAINAGE.

6. ROAD MUST BE KEPT OPEN TO TRAFFIC AND CONTRACTOR MUST PROVIDE ADEQUATE FLAGMEN, SIGNALS, ETC., TO PROVIDE COMPLETE SAFETY TO THE PUBLIC.

7. IF IT BECOMES NECESSARY FOR EQUIPMENT TO OPERATE ON A PORTION OF THE PAVEMENT, PRECAUTIONS MUST BE TAKEN TO PREVENT ANY DAMAGE WHATSOEVER TO THE PAVEMENT.

8. CONDITION OF ROAD UPON COMPLETION OF JOB SHALL BE AS GOOD OR BETTER THAN PRIOR TO STARTING.

9. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE NATIONAL ELECTRICAL SAFETY CODE (NESC) REQUIREMENTS, KNOX COUNTY POLE ATTACHMENT GUIDELINES & PROCEDURES AND ALL APPLICABLE LOCAL REQUIREMENTS AND REGULATIONS FOR PLACEMENT OF AERIAL CABLE FACILITIES. 18'6" MIN. VERTICAL CLEARANCE.

10. ANNULAR VOIDS GREATER THAN ONE INCH BETWEEN THE BORE HOLE AND CARRIER LINE (OR CASING , IF USED) SHALL BE FILLED WITH SLURRY GROUT OR OTHER FLOWABLE FILL ACCEPTABLE TO THE DEPARTMENT TO PREVENT SETTLEMENT OF ANY PART OF THE HIGHWAY FACILITY OVER THE LINE OR CASING.

THIS IS A CHARTER DOCUMENT, PROPERTY & CONFIDENTIAL

DESIGN BY: GIBSON TECHNICAL SERVICES	REV	DESCRIPTION	DATE
DRAWN BY:			
APPROVED:			
APPROVED:			
APPROVED:			

GIBSON TECHNICAL SERVICES,230 MOUNTAIN BROOK CT
CANTON, GEORGIA 30115

CHARTER COMMUNICATIONS PROPOSES TO INSTALL FIBER OPTIC CABLE.

PROJECT BEGINS HERE AT EX. POLE 01 APPROX. 264 FT, FROM TN-11, KINGSTON PIKE, PROPOSES TO PLACE AERIAL OVERLASH 413 FT, NEW AERIAL ATTACHMENT 140 FT, RISER DOWN 25 FT AND PLOW 130 FT. PROJECT ENDS HERE AT DEMARCATION POINT APPROX. 278 FT, FROM 0B913, JAMESTOWNE BLVD
INSIDE THE ROW OF THE STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION.

TOTAL PROJECT FOOTAGE = 708'

PLAN VIEW	
PROJECT ADDRESS	
6045183 - 1389798 - PERMIT 01 - 1277 - N CAMPBELL STATION RD, KNOX COUNTY, KNOXVILLE, TN 37934	
CONSTRUCTION TYPE: AERIAL AND UNDERGROUND (CNB)	
SYSTEM: TENNESSEE	
NODE: EA1317E	SCALE: 1:40

Agenda Number: IV.D. **Meeting Date: August 21, 2025**

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Request for approval to extend fiber optic cable for Comcast along a portion of the overhead utility line system on the west side of Concord Road south of Kingston Pike and then crossing Concord Road to service 116 Concord Road (Comcast, Applicant)

Introduction & Background: This item involves the extension of fiber optic cable mostly along an existing overhead utility line system on the west side of Concord Road just south of Kingston Pike. The work is being conducted by Source Broadband for Comcast and will extend cable to the medical office complex at 116 Concord Road.

Discussion & Recommendations: As shown on the right of way plan included in the packet, a small section of roughly 38 feet is proposed to have open trench installation. Since this section crosses an existing sidewalk on the east side of Concord Road, the staff recommends that the plans be amended to show directional boring instead of open trench installation. As noted in the introduction, all other work will be along an existing overhead utility line system.

The staff recommends approval subject to the open trench section being directional boring and obtaining a right of way permit from the Town's engineering department.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: To approve the cable extension project subject to the open trench section being directional boring and obtaining a right of way permit from the Town's engineering department.

NOTES:
- CONSTRUCTION TYPE: NEW BUILD
- COMCAST WILL FOLLOW ALL TRAFFIC CONTROL PER THE CURRENT EDITION OF THE MUTCD
- COMCAST WILL NOT DISTURB ANY PAVEMENT
- TRENCH AT MINIMUM DEPTH OF 36" AND WITHIN BACK 5' OF ROW
- ALL ROAD BORES WILL BE DIRECTIONAL BORE AT A MINIMUM DEPTH OF 48"
- NO LANES WILL BE BLOCKED BEFORE 9 AM OR AFTER 4 PM

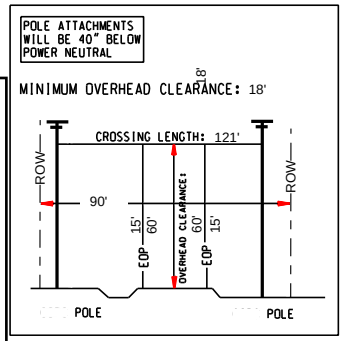
ALL UTILITIES REPRESENTATIONS SHOWN ON THIS PERMIT ARE DIAGRAMMATIC IN NATURE. THE ACTUAL LOCATION WILL BE DETERMINED IN CONSTRUCTION IN ACCORDANCE WITH OGCA 25-9-1

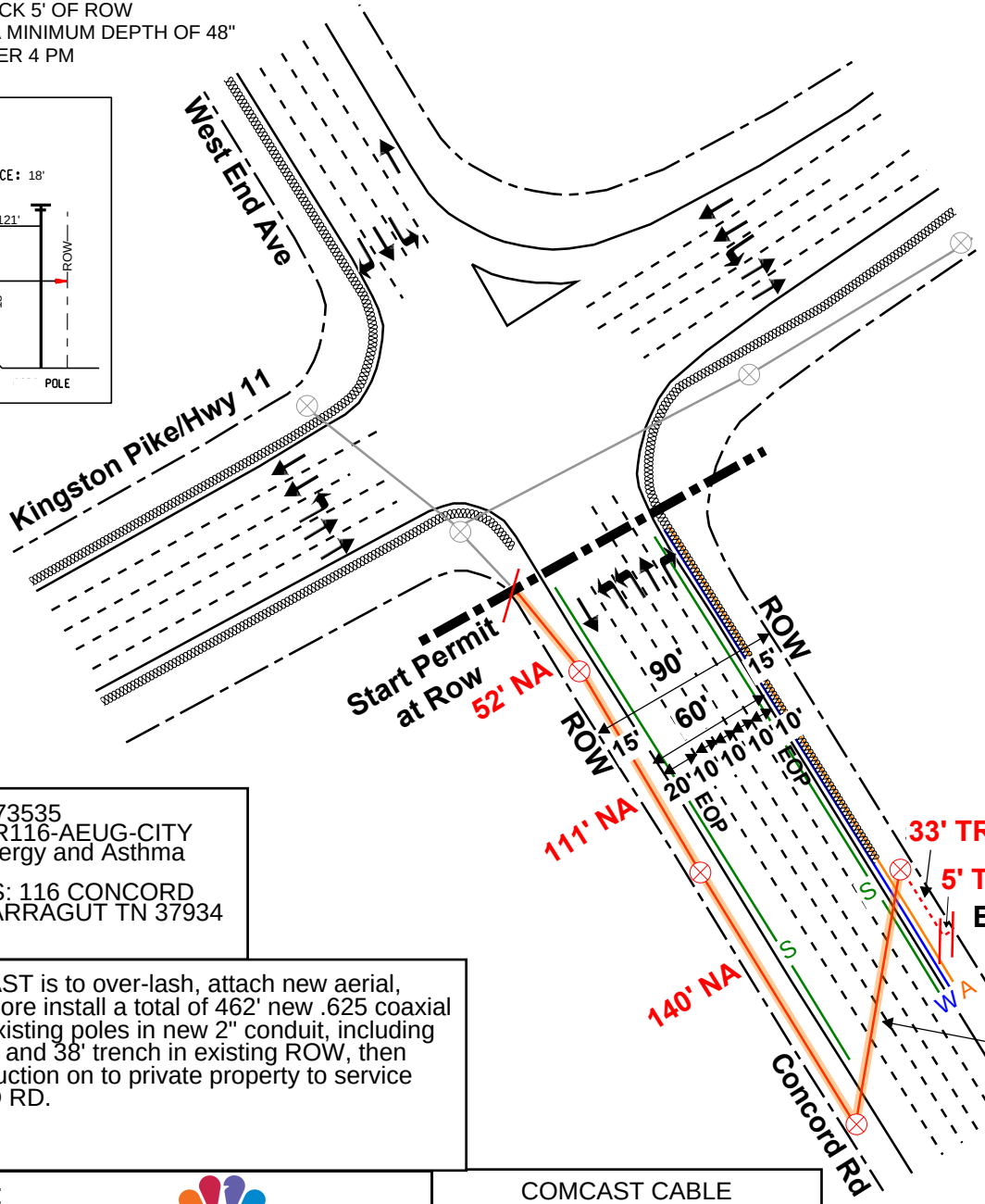
UNDERGROUND LEGEND

- PROPOSED UG
- EXISTING CONDUIT
- NUL (TRANSITION)
- PEDESTAL
- VAULT
- MH - MAN HOLE
- W - WATER
- P - POWER
- G - GAS
- A - ATT
- S - SEMC
- M - MCI
- S - SPECTRUM
- C - COMCAST
- SIDEWALK
- DWB - DRIVEWAY BORE
- RB - ROAD BORE
- SWB - SIDEWALK BORE
- TR - TRENCH
- PT - PULL THROUGH
- BR - BORE

AERIAL LEGEND

- PROPOSED OVERLASH
- PROPOSED NEW AERIAL
- D - DROP POLE
- TELEPHONE POLE
- JOINT USE POLE
- JOINT USE POLE W/ TRANSFORMER
- POWER POLE
- S - STEEL POLE
- C - CONCRETE POLE





SPEED LIMIT 45 MPH

116

JOB# JB0002273535
PERMIT# TNCR116-AEUG-CITY
OPP NAME: Allergy and Asthma Affiliates
OPP ADDRESS: 116 CONCORD RD STE 200 FARRAGUT TN 37934

DESC: COMCAST is to over-lash, attach new aerial, excavate, and bore install a total of 462' new .625 coaxial cable along 4 existing poles in new 2" conduit, including 424' new aerial, and 38' trench in existing ROW, then continue construction on to private property to service 116 CONCORD RD.

JB0002273535

ALL WORK TO BE DONE IN BACK 5' OF ROW

Submitted by:

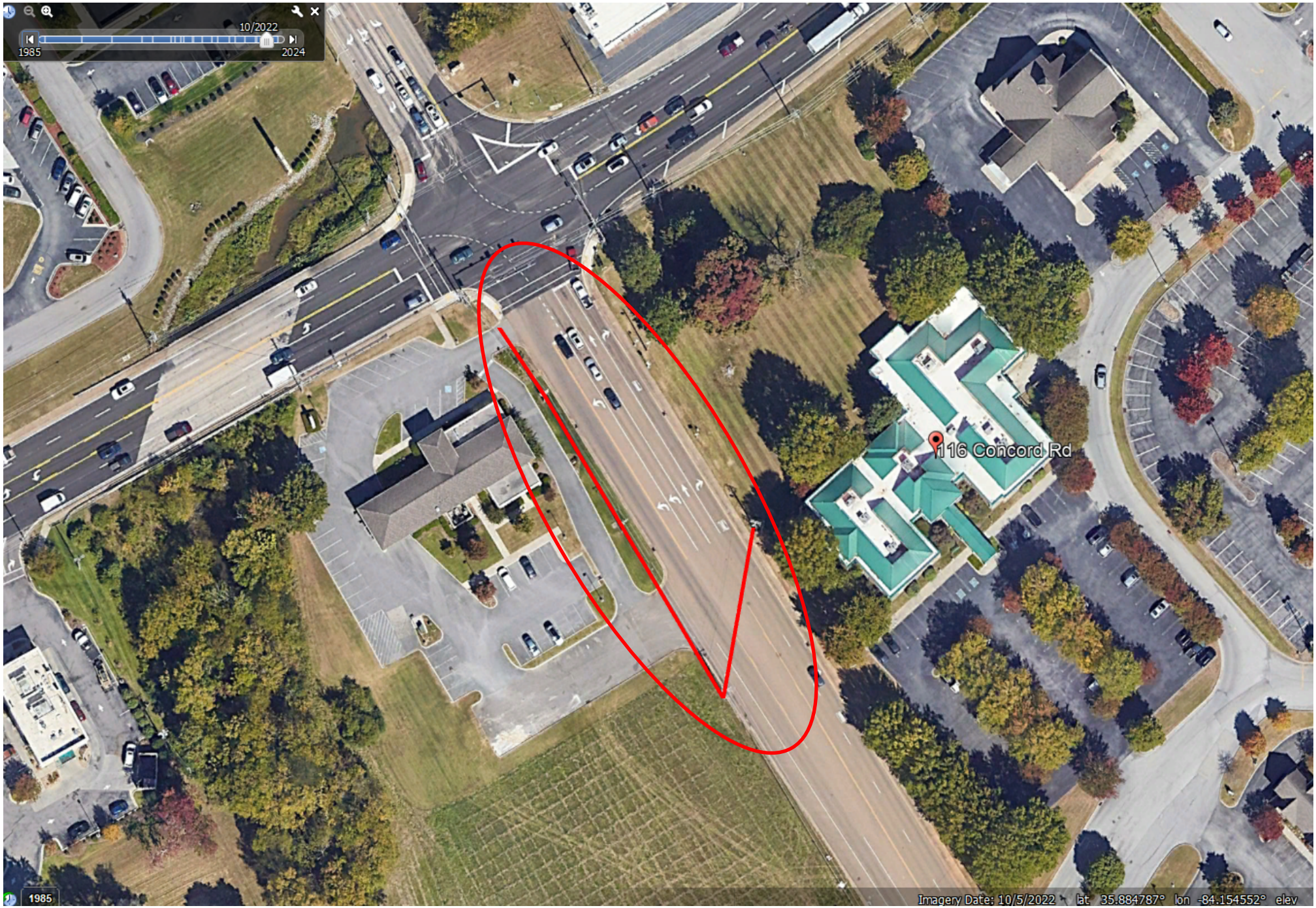
COMCAST

COMCAST CABLE

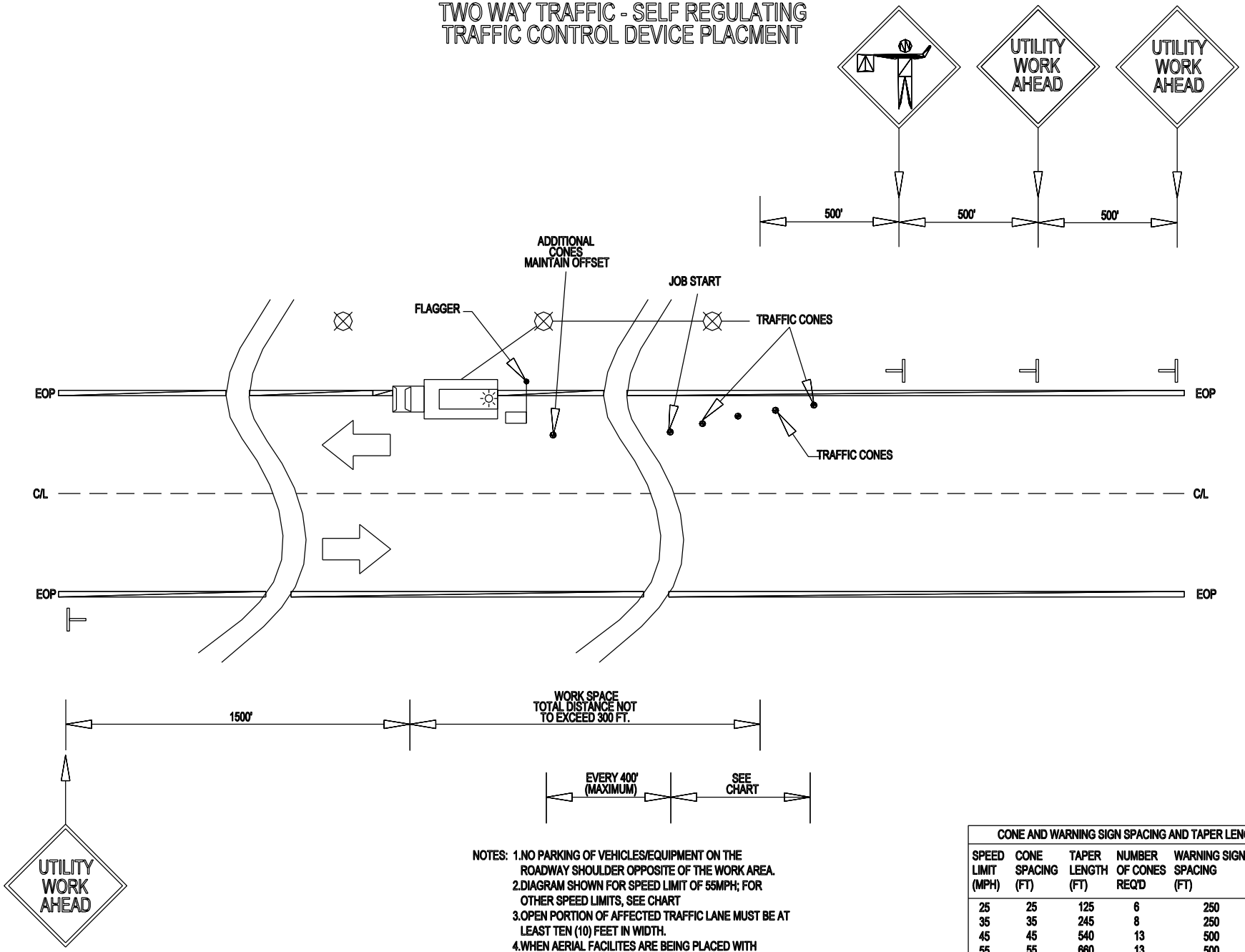
5720 Asheville Hwy
Knoxville, TN 37924

FARRAGUT CITY

PERMIT APPLICATION


10/2022
1985
2024
116 Concord Rd
1985
Imagery Date: 10/5/2022 lat 35.884787° lon -84.154552° elev

MOVING OPERATION
TWO WAY TRAFFIC - SELF REGULATING
TRAFFIC CONTROL DEVICE PLACMENT



NOTES:
1. NO PARKING OF VEHICLES/EQUIPMENT ON THE ROADWAY SHOULDER OPPOSITE OF THE WORK AREA.
2. DIAGRAM SHOWN FOR SPEED LIMIT OF 55MPH; FOR OTHER SPEED LIMITS, SEE CHART
3. OPEN PORTION OF AFFECTED TRAFFIC LANE MUST BE AT LEAST TEN (10) FEET IN WIDTH.
4. WHEN AERIAL FACILITES ARE BEING PLACED WITH EQUIPMENT PARTIALLY ON THE TRAVELED PORTION OF THE HIGHWAY PLACE WARNING DEVICES AS ILLUSTRATED
*MAY USE "LANE NARROWS"

CONE AND WARNING SIGN SPACING AND TAPER LENGHTS					
SPEED LIMIT (MPH)	CONE SPACING (FT)	TAPER LENGTH (FT)	NUMBER OF CONES REQ'D	WARNING SIGN SPACING (FT)	MINIMUM SIGN SIZE
25	25	125	6	250	36"X36"
35	35	245	8	250	36"X36"
45	45	540	13	500	48"X48"
55	55	660	13	500	48"X48"
INTERSTATE, EXPRESSWAY AND LIMITED-ACCESS ROADWAYS				1000 2640 5280	48"X48" 48"X48" 48"X48"

Agenda Number: IV.E. **Meeting Date: August 21, 2025**

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Request for approval for a water line relocation associated with improvements to Boyd Station Road, including the roundabout at the access to the Grove at Boyd Station Subdivision (FUD, Applicant)

Introduction & Background: As shown on the utility plans included in the packet, this project involves retiring an existing 12-inch water main along Boyd Station Road and installing a new 12-inch water main to the north of the retired line to help avoid conflicts with planned road improvements and shared use path construction along Boyd Station Road. The project includes a roughly 50-foot crossing of McFee Road at its southern terminus. This crossing is shown as involving an open-cut installation with a 24-inch steel casing.

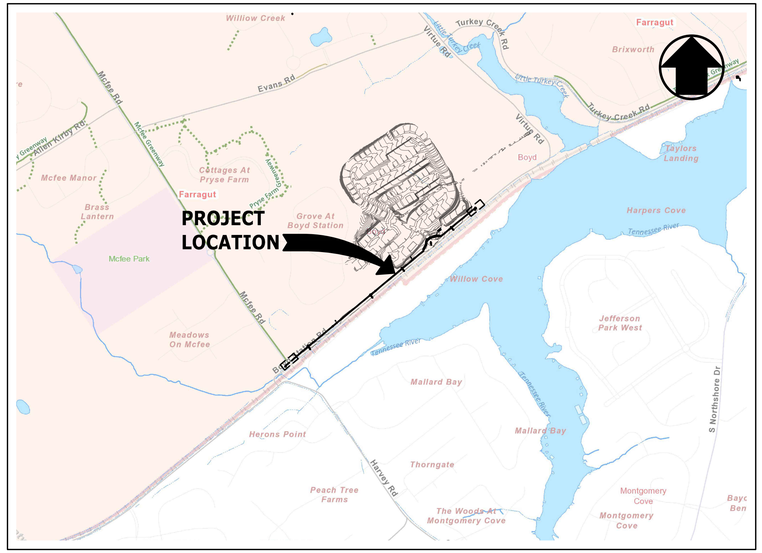
Discussion & Recommendations: As part of obtaining the required right of way permit through the Town's engineering department, erosion and traffic control will be coordinated with Town staff. The project will involve a temporary lane closure along McFee Road. The traffic control plan is included in the packet. The work is to be completed by First Utility District and is within an existing utility easement.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: To approve the proposed utility project subject to obtaining a right of way permit through the Town's engineering department.

CONTRACT DOCUMENTS FOR THE CONSTRUCTION OF:

BOYD STATION ROAD
WATER LINE RELOCATION



VICINITY MAP
SCALE: 1" = 1000'

DRAWING INDEX

SHEET No.	DWG No.	DRAWING TITLE
1	COVER	COVER SHEET
2	G0.01	GENERAL NOTES AND LOCATION MAP
3	W1.01	WATER LINE PLAN AND PROFILE LINE 'A' STA. 0+00 TO STA. 12+00
4	W1.02	WATER LINE PLAN AND PROFILE LINE 'A' STA. 12+00 TO 24+00
5	W1.03	WATER LINE PLAN AND PROFILE LINE 'A' STA. 24+00 TO 35+13 E.O.L.
6	W2.01	WATER LINE PLAN INSETS INSET #1 LINE 'A' STA. 0+00 TO STA. 2+11 INSET #2 LINE 'A' STA. 33+88 TO STA. 35+13 E.O.L.
7	SA1.01	FORCE MAIN PLAN & PROFILE LINE 'B' STA. 0+00 TO STA. 4+48 (E.O.L.)

First UTILITY DISTRICT OF KNOX COUNTY — Where community comes first.

Prepared for

First Utility District of Knox County
122 Durwood Road
Knoxville, Tennessee 37922

811 Know what's below Call before you dig

ENGINEER
CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

DESIGNED: WWL
DRAWN: WBW/BAS
CHECKED: TFT

APPROVED
ENGINEER
WATER

WILLIAM W. LITTLETON — REGISTERED ENGINEER — AGRICULTURE — No. 120410 — STATE OF TENNESSEE — 06/24/2025

NO.	DATE	REVISION	APPR.
0	11/08/2024	ISSUE FOR CONSTRUCTION WWL	WWL
-1	12/04/2024	REVISED PER T.D.E.C. COMMENTS	WWL
-2	06/24/2025	REVISED PER ROADWAY PLAN CHANGES	WWL

SCALE: AS SHOWN
DATE: 11/08/2024

First UTILITY DISTRICT OF KNOX COUNTY — Where community comes first.

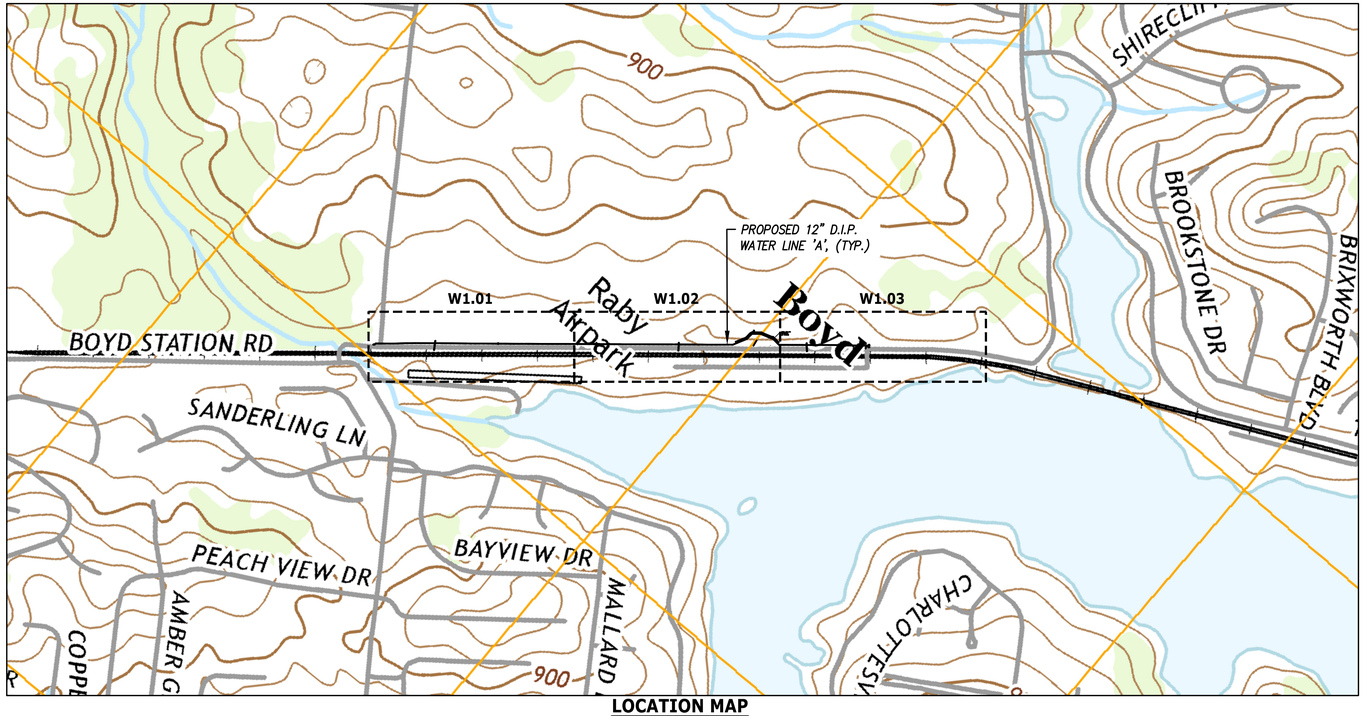
BOYD STATION ROAD
WATER LINE RELOCATION

COVER SHEET

CCI PROJECT NO: 00969-0122

SHEET: COVER
SHEET 1 OF 7

CONSTRUCTION PLANS FOR: BOYD STATION ROAD WATER LINE RELOCATION



LOCATION MAP

SCALE: 1"=500'

0 500 1000

SCALE: 1" = 500'

GENERAL NOTES:

1. ALL SURVEY AND PROPERTY BOUNDARY INFORMATION IS SHOWN PER CANNON & CANNON, INC. FIELD SURVEY DATED OCTOBER 2024. EXISTING GAS INFORMATION HAS BEEN SUPPLEMENTED WITH KUB'S GIS INFORMATION. AS A RESULT, ALL GAS LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE REQUIRED AND SOLELY RESPONSIBLE TO LOCATE AND POTHOLE ALL GAS MAINS AND SERVICES DURING CONSTRUCTION.
2. PROPOSED ROADWAY LINE WORK IS FROM RACKLEY ENGINEERING, AS RECEIVED ON OCTOBER 4, 2024. CCI ASSUMES NO LIABILITY FOR DISCREPANCIES BETWEEN REFERENCED ROADWAY PLANS AND FINAL FIELD CONDITIONS.
3. TRENCH DESIGN AND SAFETY FOR STATION AND PIPELINE CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS.
4. CONSTRUCTION MATERIALS AND INSTALLATION MUST MEET SPECIFICATIONS. MATERIAL SUBMITTALS MUST BE APPROVED BY ENGINEERING PRIOR TO CONSTRUCTION. ALL OPERATING NUTS ON VALVES SHALL FIT STANDARD F.U.D. VALVE KEYS.
5. THE CONTRACTOR SHALL FURNISH ALL PAPERWORK REQUIRED BY FUD PRIOR TO CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, SHOP DRAWINGS, OPERATION & MAINTENANCE MANUALS, AND WARRANTY DOCUMENTS.
6. ALL WORK SHALL BE PERFORMED BY A LICENSED TENNESSEE MUNICIPAL UTILITY CONTRACTOR.
7. ALL WATER COMPONENTS SHALL BE INSTALLED IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE.
8. CONTRACTOR SHALL GUARANTEE ALL WORK TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR ONE YEAR AFTER DATE OF FINAL ACCEPTANCE.
9. FIRST UTILITY DISTRICT (FUD) 24–HOUR EMERGENCY CONTACT: (865) 966–9021.
10. THE CONTRACTOR SHALL NOTIFY FUD PROJECT MANAGER 48–HOURS PRIOR TO BEGINNING CONSTRUCTION.
11. FUD PERSONNEL SHALL BE CONTACTED 24–HOURS BEFORE BACKFILLING IN ORDER TO PHOTOGRAPH THE UNDERGROUND PIPING.
12. FUD INSPECTORS SHALL BE NOTIFIED AT LEAST THREE (3) BUSINESS DAYS PRIOR TO CONSTRUCTION.
13. UTILITIES SHALL BE MARKED BY A TENNESSEE ONE CALL (811) PRIOR TO CONSTRUCTION.
14. THE EXISTING UTILITIES SHOWN AND INDICATED ON DRAWINGS ARE APPROXIMATE AND MAY NOT REPRESENT ALL UTILITIES FOUND IN THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION AND VERIFICATION OF ALL EXISTING UNDERGROUND UTILITIES.
15. ALL COSTS ASSOCIATED WITH POTHOLING OR LOCATING OF EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL COMPENSATION WILL BE MADE BY FUD FOR THESE TASKS.
16. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO PREVENT DISTURBANCE OF EXISTING UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NECESSARY TO WORK AROUND, OVER, AND/OR NEAR EXISTING UTILITIES.
17. THE CONTRACTOR SHALL VERIFY WORK IN THE FIELD AND SHALL BE SATISFIED AS TO THE ACCURACY BETWEEN WORK ON THE DESIGN PLANS AND THE WORK WITHIN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF FUD PROJECT MANGER PRIOR TO THE START OF CONSTRUCTION.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROJECT SITE RESULTING FROM THE CONTRACTOR'S CONSTRUCTION ACTIVITIES. REPAIR ALL DISTURBED AREAS TO AN EQUAL OR BETTER CONDITION THAN ORIGINAL.
19. EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/REPAIRED IN ACCORDANCE WITH THE GOVERNING UTILITIES' REQUESTS.
20. LOCATION OF EXISTING RIGHT–OF–WAY (ROW) AND PROPERTY LINES ARE APPROXIMATE
21. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY ADDITIONAL LAND NECESSARY FOR STAGING, STORAGE OF MATERIALS AND EQUIPMENT, AND OTHER CONSTRUCTION RELATED OPERATIONS.
22. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR WORKING CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
23. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES DURING CONSTRUCTION.
24. THE CONTRACTOR SHALL NOT CLOSE OR BLOCK ANY HIGHWAY, STREET, OR ROADWAY WITHOUT FIRST OBTAINING AN APPROVED TRAFFIC CONTROL PLAN FROM KNOX COUNTY.
25. THE CONTRACTOR SHALL NEATLY SAW CUT ALL ROADWAYS AND DRIVEWAYS PRIOR TO INSTALLING A PERMANENT PAVEMENT REPAIR.
26. UNLESS NOTED OTHERWISE, ELEVATIONS AND GRADES SHOWN ON THE DRAWINGS ARE FINISH GRADE. PROPOSED AND EXISTING CONTOURS ARE AT 2 FT. INTERVALS.
27. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS OR POND ON–SITE. PROVIDE NECESSARY MEASURES TO KEEP THE SITE FREE–DRAINING.
28. ALL CONSTRUCTION SHALL CONFORM TO THE OWNER'S TDEC–APPROVED STANDARD SPECIFICATIONS (DW20211495R1, VALID THROUGH 01/18/2027)

EROSION CONTROL NOTES:

1. ALL EXCAVATION, AND RELATED EROSION CONTROL, SHALL BE IN ACCORDANCE WITH KNOX COUNTY'S STORM WATER MANAGEMENT MANUAL.
2. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED PRIOR TO EXPECTED RAINFALL. WHERE TRENCHES MUST REMAIN OPEN OVERNIGHT, PROPER EROSION CONTROL MEASURES SHALL BE PROVIDED, IN ADDITION TO PROPER SAFETY MEASURES.
3. APPLY TEMPORARY SEEDING WHENEVER GRADING OPERATIONS ARE HALTED FOR OVER 14 DAYS.
4. PLAN REFLECTS MINIMUM EROSION AND SEDIMENT CONTROL MEASURES ANTICIPATED. ACTUAL CONDITIONS MAY WARRANT ADDITIONAL MEASURES AS DEEMED APPROPRIATE BY OWNER AND/OR KNOX COUNTY.
5. THE TOTAL DISTURBED AREA IS CALCULATED TO BE APPROXIMATELY 0.42 ACRES.
6. PROPER SEDIMENT CONTROL PROVIDED IN THE DESIGN SHALL BE IMPLEMENTED FULLY BETWEEN THE NOTICE OF INTENT AND THE NOTICE OF TERMINATION AS REQUIRED BY THE TDEC NPDES STORMWATER CONSTRUCTION PERMIT.
7. ALL SEDIMENT AND EROSION CONTROL STRUCTURES ARE TO BE IN PLACE BEFORE GRADING BEGINS.
8. A MAXIMUM OF 200 LF OF TRENCH SHALL BE OPEN AT ANYTIME FOR EACH FULL TIME CREW. NO ADDITIONAL EXCAVATION WILL BE PERMITTED UNTIL OTHER SECTIONS OF THE TRENCH HAVE BEEN BACKFILLED.
9. WHERE TRENCHES MUST REMAIN OPEN OVERNIGHT, PROPER EROSION CONTROL MEASURES SHALL BE PROVIDED, IN ADDITION TO PROPER SAFETY MEASURES.
10. EROSION CONTROL DEVICES (SEDIMENT "EROSION EEL BY AMERICAN EROSION CONTROL" OR EQUAL) SHALL BE PLACED AND SECURED AT STORM INLETS ADJACENT TO CONSTRUCTION.
11. TYPE III SEDIMENT CONTROL LOGS TO BE USED FOR ENERGY DISSIPATION IN MILD CONCENTRATED FLOW AREAS, SLOPE INTERRUPTION.
12. SEDIMENT CONTROL DEVICES SHALL BE EROSION EEL SEDIMENT LOG, AS MANUFACTURED BY AMERICAN EROSOION CONTROL, OR EQUAL.

LEGEND

- EXISTING SANITARY SEWER MANHOLE
- SA — EXISTING SANITARY SEWER LINE
- FM — EXIST. FORCE MAIN
- OH — EXISTING OVERHEAD UTILITY LINE
- UGT — EXISTING UNDERGROUND TELEPHONE
- G — EXISTING GAS LINE
- W — EXISTING WATER LINE
- PROPOSED WATER MAIN
- S — PROPOSED SILT FENCE
- PROPOSED AIR RELEASE VALVE
- PROPOSED WATER VALVE
- EXISTING TELEPHONE MANHOLE
- EXIST. STORM MANHOLE
- X — X — EXISTING CHAIN LINK FENCE
- EXISTING GAS VALVE
- EXISTING GAS METER
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING GUY WIRE
- EXISTING CATCH BASIN
- EXISTING SANITARY CLEAN OUT
- EXISTING FIRE HYDRANT
- EXISTING WATER MANHOLE
- EXISTING CREEK
- EXISTING TREE LINE
- EXISTING PROPERTY LINE (APPROXIMATE)
- ST — EXISTING STORM DRAIN LINE
- EXISTING CONCRETE SIDEWALK

CONSTRUCTION PLANS FOR: BOYD STATION ROAD WATER LINE RELOCATION

ENGINEER

CANNON & CANNON INC

10025 Investment Drive, Suite 120
Knoxville, TN 37932

865.670.8555
www.cci-corp.com

DESIGNED: WWL
DRAWN: WBW/BAS
CHECKED: TFT

APPROVED
ENGINEER
WATER

WILLIAM W. LITTLEJOHN — REGISTERED ENGINEER — AGRICULTURE — 120419 — STATE OF TENNESSEE
06/24/2025

NO.	DATE	REVISION	APPR.
0	11/08/2024	ISSUE FOR CONSTRUCTION WWL	WWL
1	12/04/2024	REVISED PER T.D.E.C. COMMENTS	WWL
2	06/24/2025	REVISED PER ROADWAY PLAN CHANGES	WWL

SCALE
AS SHOWN

DATE
11/08/2024

First UTILITY DISTRICT OF KNOX COUNTY — Where community comes first.

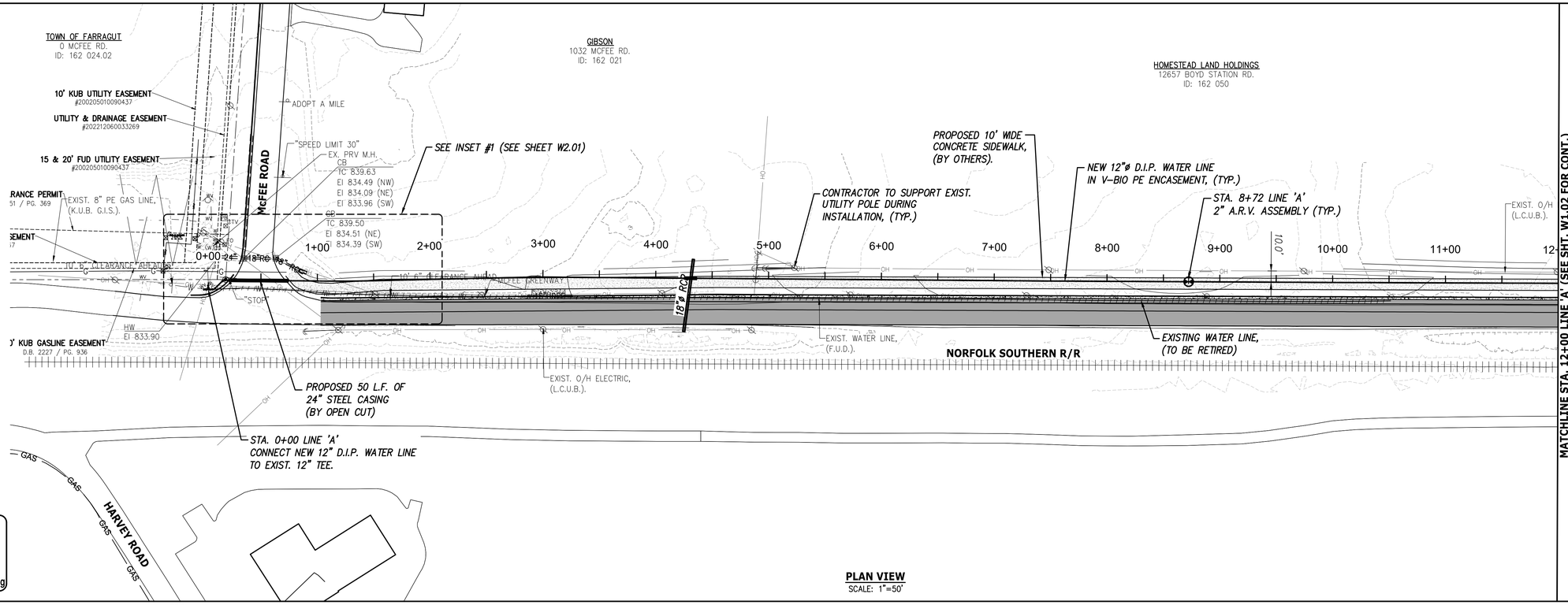
BOYD STATION ROAD
WATER LINE RELOCATION

GENERAL NOTES, LEGEND, LOCATION MAP & ESTIMATED QUANTITIES

CCI PROJECT NO: 00969-0122

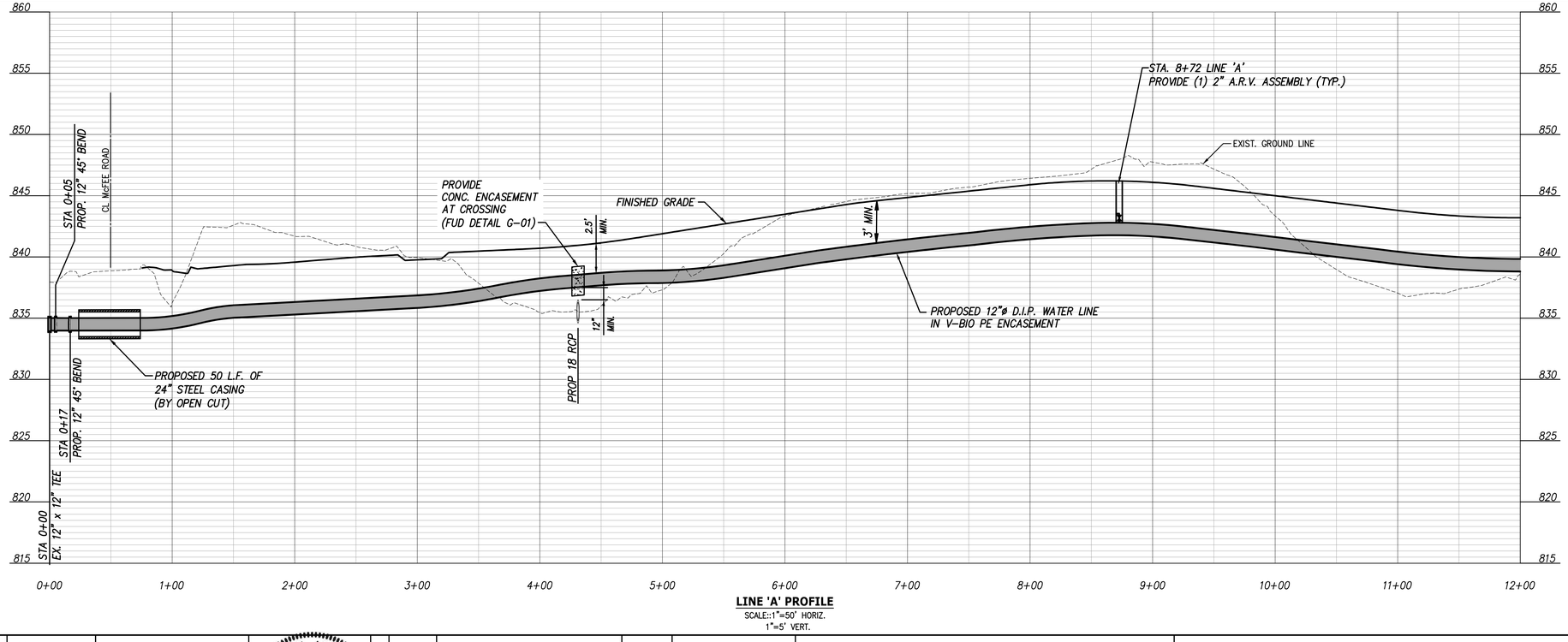
SHEET G0.01

SHEET 2 OF 7



PLAN VIEW
SCALE: 1"=50'

811
Know what's below
Call before you dig



LINE 'A' PROFILE
SCALE::1"=50' HORIZ.
1"=5' VERT.

PROFILE NOTES:

1. EXISTING UTILITIES ARE SHOWN AT AN ASSUMED DEPTH OF 3-FT BELOW EXISTING GRADE. CONTRACTOR TO POTHOLE AND VERIFY VERTICAL LOCATIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION.
2. CROSSINGS OF WATER, SEWER, AND GAS SERVICE LINES ARE NOT SHOWN ON THE PROFILE VIEW FOR CLARITY.
3. CONTRACTOR IS RESPONSIBLE FOR POTHOLING ALL UTILITY MAINS AND SERVICES PRIOR TO WATER MAIN INSTALLATION.

CONSTRUCTION PLANS FOR: BOYD STATION ROAD WATER LINE RELOCATION

ENGINEER

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APPROVED
ENGINEER
WATER

WILLIAM W. LITTLEJOHN — REGISTERED ENGINEER — AGRICULTURE — No. 120419 — STATE OF TENNESSEE
06/24/2025

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First UTILITY DISTRICT OF KNOX COUNTY — Where community comes first.

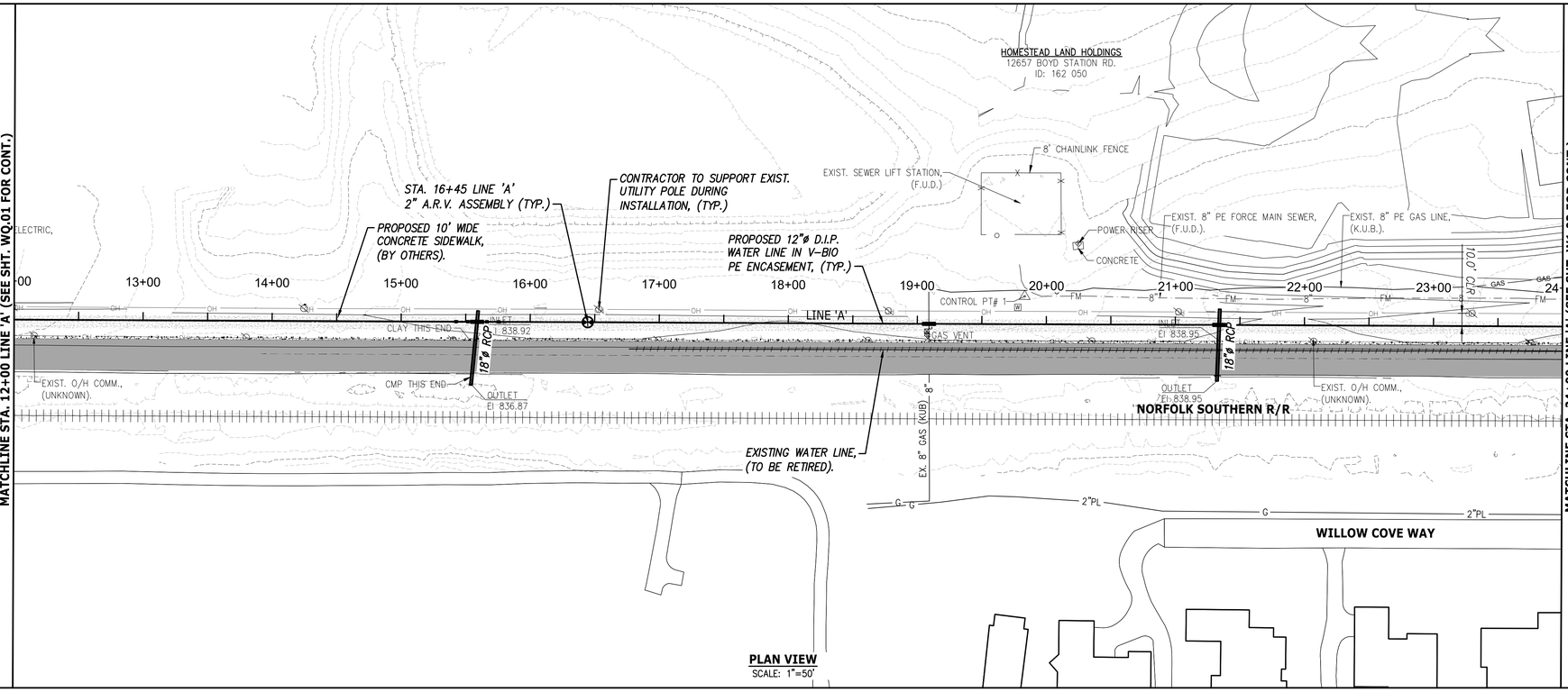
BOYD STATION ROAD
WATER LINE RELOCATION

WATER LINE PLAN & PROFILE
LINE 'A' STA. 0+00 TO STA. 12+00

CCI PROJECT NO: 00969-0122

SHEET W1.01
SHEET 3 OF 7

MATCHLINE STA. 12+00 LINE 'A' (SEE SHT. WQ.01 FOR CONT.)



MATCHLINE STA. 24+00 LINE 'A' (SEE SHT. W1.03 FOR CONT.)

PLAN VIEW
SCALE: 1"=50'

811
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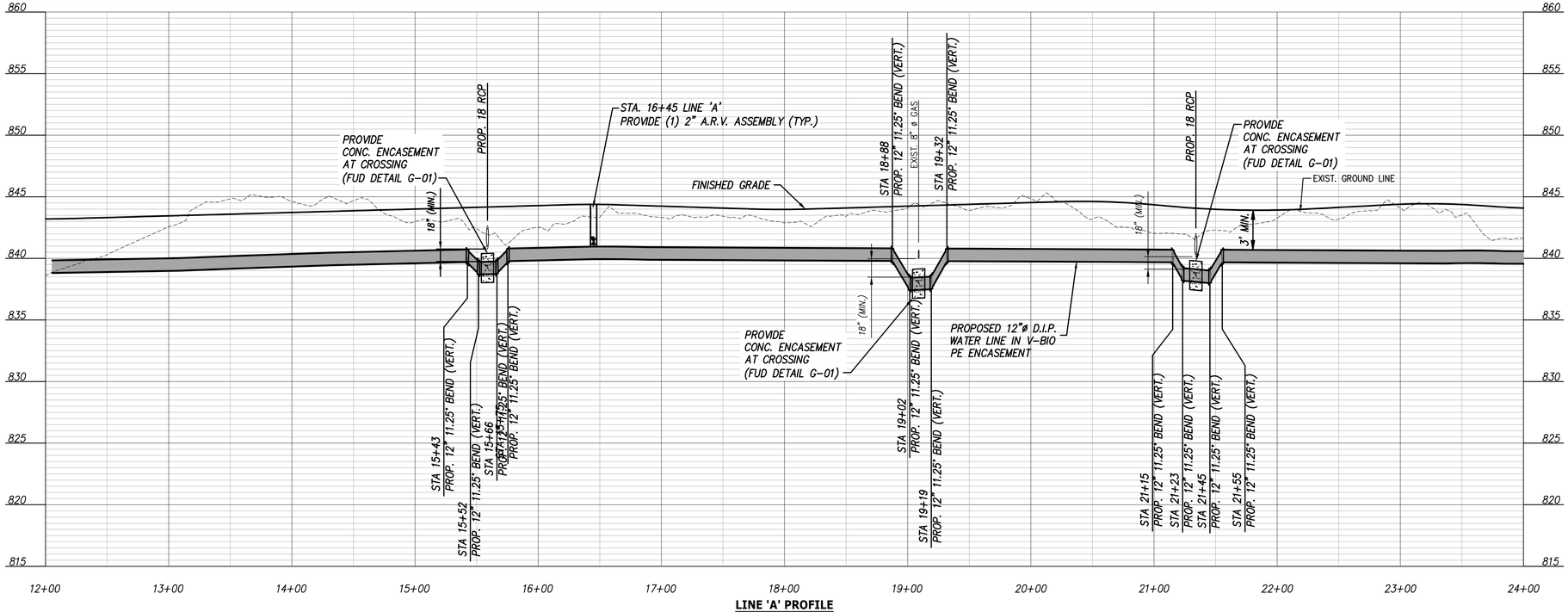

LINE 'A' PROFILE
SCALE::1"=50' HORIZ.
1"=5' VERT.

PROFILE NOTES:

1. EXISTING UTILITIES ARE SHOWN AT AN ASSUMED DEPTH OF 3-FT BELOW EXISTING GRADE. CONTRACTOR TO POTHOLE AND VERIFY VERTICAL LOCATIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION.
2. CROSSINGS OF WATER, SEWER, AND GAS SERVICE LINES ARE NOT SHOWN ON THE PROFILE VIEW FOR CLARITY.
3. CONTRACTOR IS RESPONSIBLE FOR POTHOLING ALL UTILITY MAINS AND SERVICES PRIOR TO WATER MAIN INSTALLATION.

CONSTRUCTION PLANS FOR: BOYD STATION ROAD WATER LINE RELOCATION

ENGINEER

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

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DRAWN: WBW/BAS
CHECKED: TFT

APPROVED
ENGINEER
WATER

WILLIAM W. LITTLEJOHN
REGISTERED ENGINEER
AGRICULTURE
06/24/2025
No. 120419
STATE OF TENNESSEE

NO.	DATE	REVISION	APPR.
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SCALE
AS SHOWN

DATE
11/08/2024

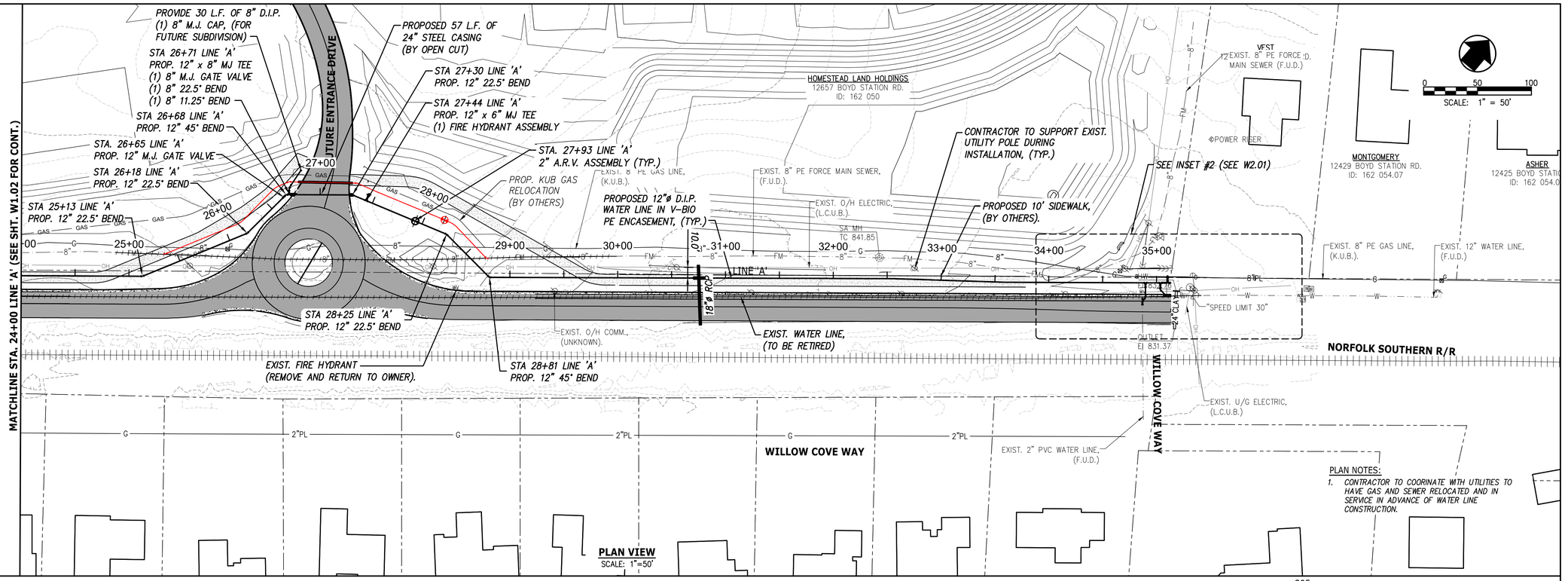
First UTILITY DISTRICT OF KNOX COUNTY
Where community comes first.

BOYD STATION ROAD
WATER LINE RELOCATION

WATER LINE PLAN & PROFILE
LINE 'A' STA. 12+00 TO STA. 24+00

CCI PROJECT NO: 00969-0122

SHEET W1.02
SHEET 4 OF 7



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CONSTRUCTION PLANS FOR: BOYD STATION ROAD WATER LINE RELOCATION

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Knoxville, TN 37932
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www.cci-corp.com

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WILLIAM W. LITTLEJOHN REGISTERED ENGINEER AGRICULTURE ARCHITECT PLANNER No. 120419 STATE OF TENNESSEE
06/24/2025

NO.	DATE	REVISION	APPR.
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2	06/24/2025	REVISED PER ROADWAY PLAN CHANGES	WWL

SCALE
AS SHOWN

DATE
11/08/2024

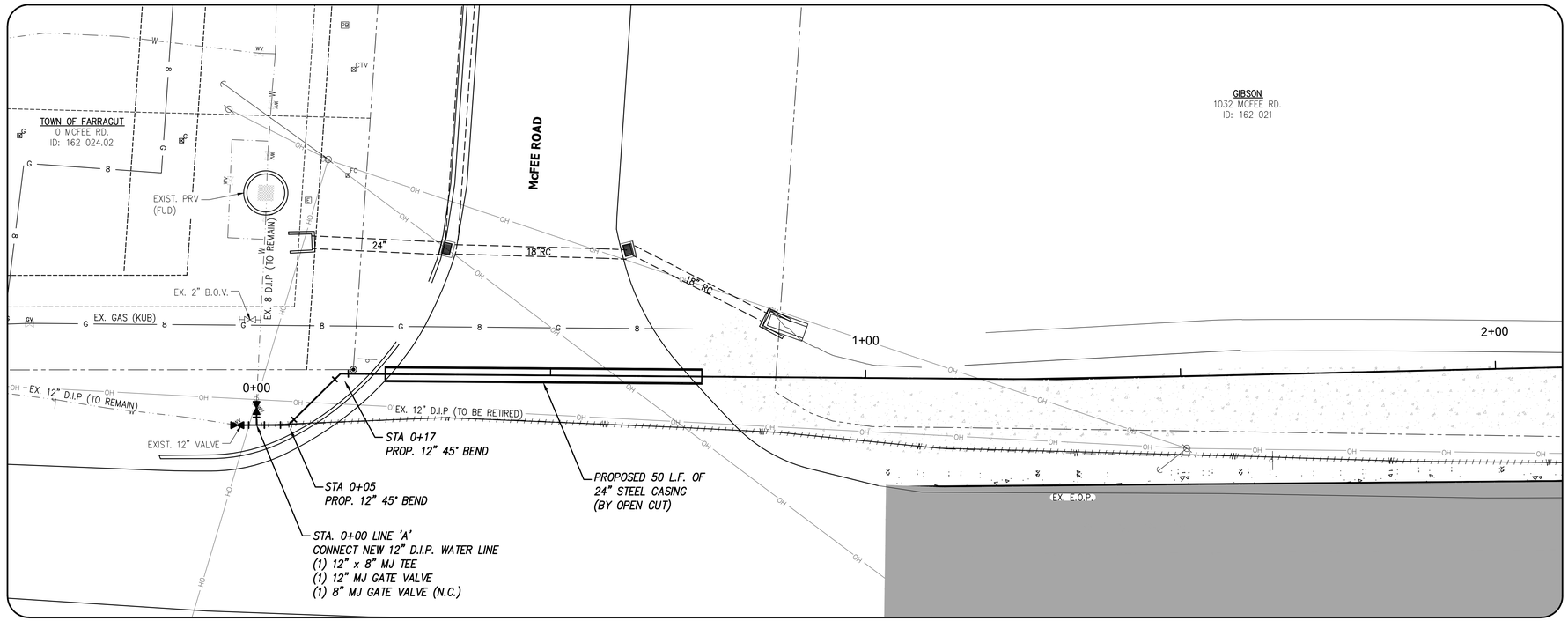
First UTILITY DISTRICT OF KNOX COUNTY
Where community comes first.

BOYD STATION ROAD
WATER LINE RELOCATION

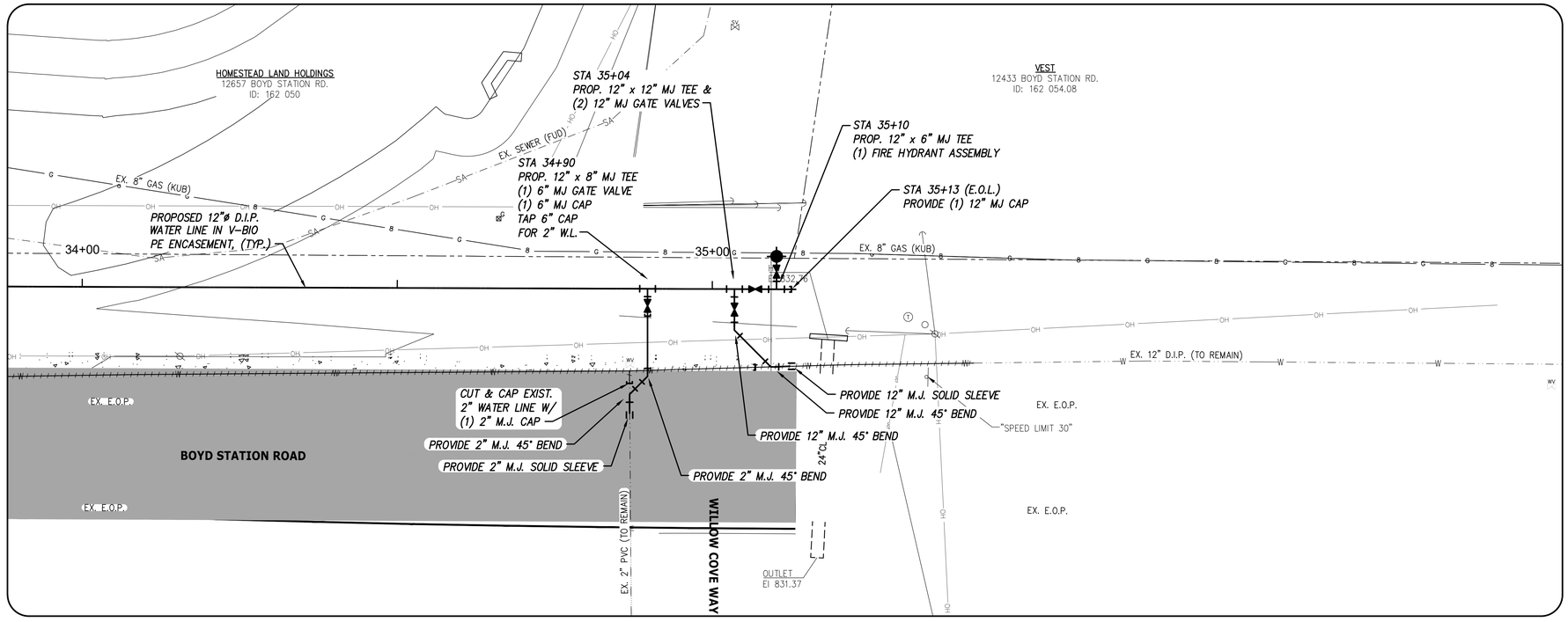
WATER LINE PLAN & PROFILE
LINE 'A' STA. 26+00 TO STA. 35+13 E.O.L.

CCI PROJECT NO: 00969-0122

SHEET W1.03
SHEET 5 OF 7



INSET #1 (SHT. W1.01)
SCALE: 1" = 10'



INSET #2 (SHT. W1.03)
SCALE: 1" = 10'

CONSTRUCTION PLANS FOR: BOYD STATION ROAD WATER LINE RELOCATION

ENGINEER

CANNON & CANNON INC

10025 Investment Drive, Suite 120
Knoxville, TN 37932

865.670.8555
www.cci-corp.com

DESIGNED	APPROVED
WWL	ENGINEER
DRAWN: WBW/BAS	WATER
CHECKED: TFT	

WILLIAM W. LITTLETON — REGISTERED ENGINEER — AGRICULTURE — CIVIL — 06/24/2025 — DESIGNER — No. 120418 — STATE OF TENNESSEE

NO.	DATE	REVISION	APPR.
0	11/08/2024	ISSUE FOR CONSTRUCTION WWL	WWL
1	12/04/2024	REVISED PER T.D.E.C. COMMENTS	WWL
2	06/24/2025	REVISED PER ROADWAY PLAN CHANGES	WWL

SCALE
AS SHOWN

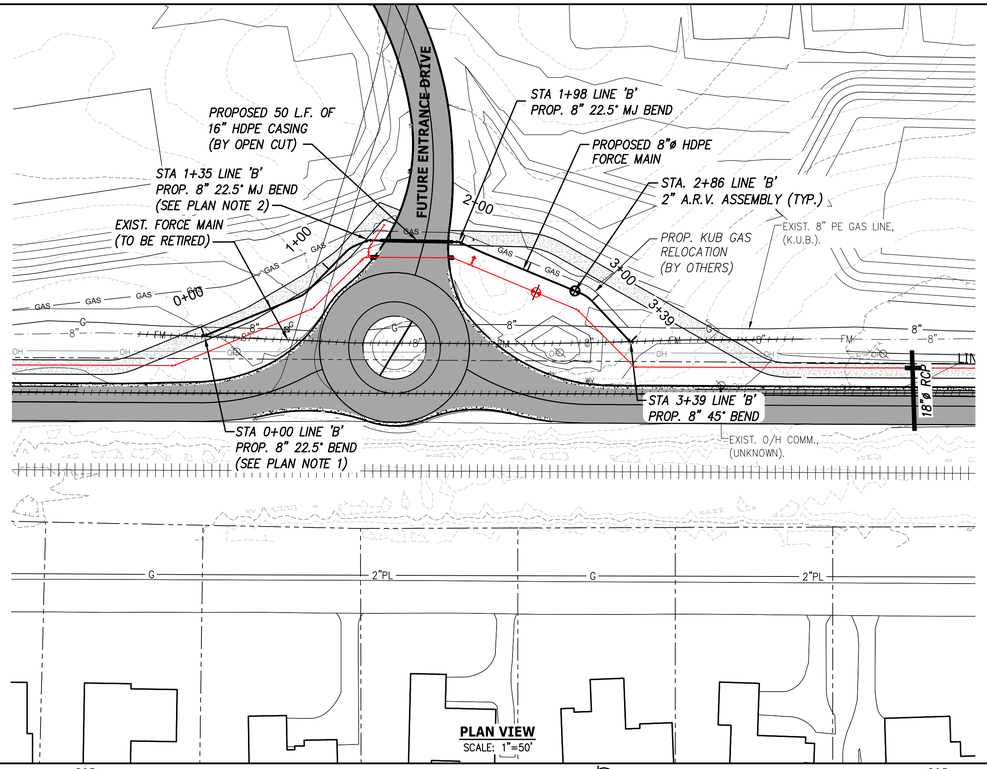
DATE
11/08/2024

First UTILITY DISTRICT OF KNOX COUNTY — Where community comes first.

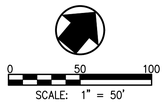
BOYD STATION ROAD
WATER LINE RELOCATION
WATER LINE PLAN INSETS
INSET #1 LINE 'A' STA. 0+00 TO STA. 2+11
INSET #2 LINE 'A' STA. 33 +88 TO STA. 35+13 E.O.L.

CCI PROJECT NO: 00969-0122

SHEET **W2.01**
SHEET 6 OF 7

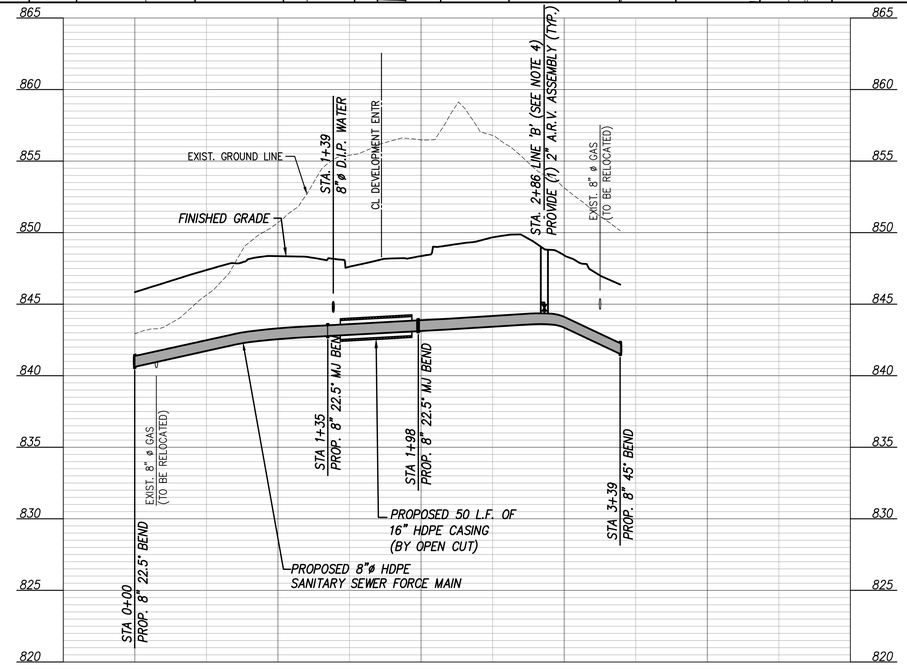


PLAN VIEW
SCALE: 1"=50'



PLAN NOTES:

1. FOLLOWING PRESSURE TESTING, CONNECTION TO EXISTING SHALL BE MADE WITH ROMAC ALPHA COUPLINGS (OR SIMILAR). COORDINATE DOWNTIME FOR TIE-IN WITH FUD OPERATIONS.
2. ALL SEWER FORCE MAIN FITTINGS TO BE MJ P401 LINED. CONNECTIONS TO PIPE WITH FUSE x MJ ADAPTORS.



LINE 'B' PROFILE
SCALE::1"=50' HORIZ.
1"=5' VERT.

PROFILE NOTES:

1. EXISTING UTILITIES ARE SHOWN AT AN ASSUMED DEPTH OF 3-FT BELOW EXISTING GRADE. CONTRACTOR TO POTHOLE AND VERIFY VERTICAL LOCATIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION.
2. CROSSINGS OF WATER, SEWER, AND GAS SERVICE LINES ARE NOT SHOWN ON THE PROFILE VIEW FOR CLARITY.
3. CONTRACTOR IS RESPONSIBLE FOR POTHOLING ALL UTILITY MAINS AND SERVICES PRIOR TO WATER MAIN INSTALLATION.
4. FIELD VERIFY HIGH POINT LOCATION FOR ARV INSTALL BASED ON ELEVATION OF EXISTING PIPE AND FINAL GRADES.

811 Know what's below Call before you dig

CONSTRUCTION PLANS FOR: BOYD STATION ROAD WATER LINE RELOCATION

ENGINEER
CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

DESIGNED: WWL
DRAWN: WBW/BAS
CHECKED: TFT

APPROVED
ENGINEER
WATER

WILLIAM W. LITTLETON REGISTERED ENGINEER AGRICULTURAL CIVIL PROFESSIONAL ENGINEER No. 120419 STATE OF TENNESSEE 06/24/25

NO.	DATE	REVISION	APPR.
0	06/24/2025	ISSUE FOR CONSTRUCTION WWL	WWL

SCALE
AS SHOWN

DATE
11/08/2024

First UTILITY DISTRICT OF KNOX COUNTY
Where community comes first.

BOYD STATION ROAD
FORCE MAIN RELOCATION

FORCE MAIN PLAN & PROFILE
LINE 'B' STA. 0+00 TO STA. 3+59 E.O.L.

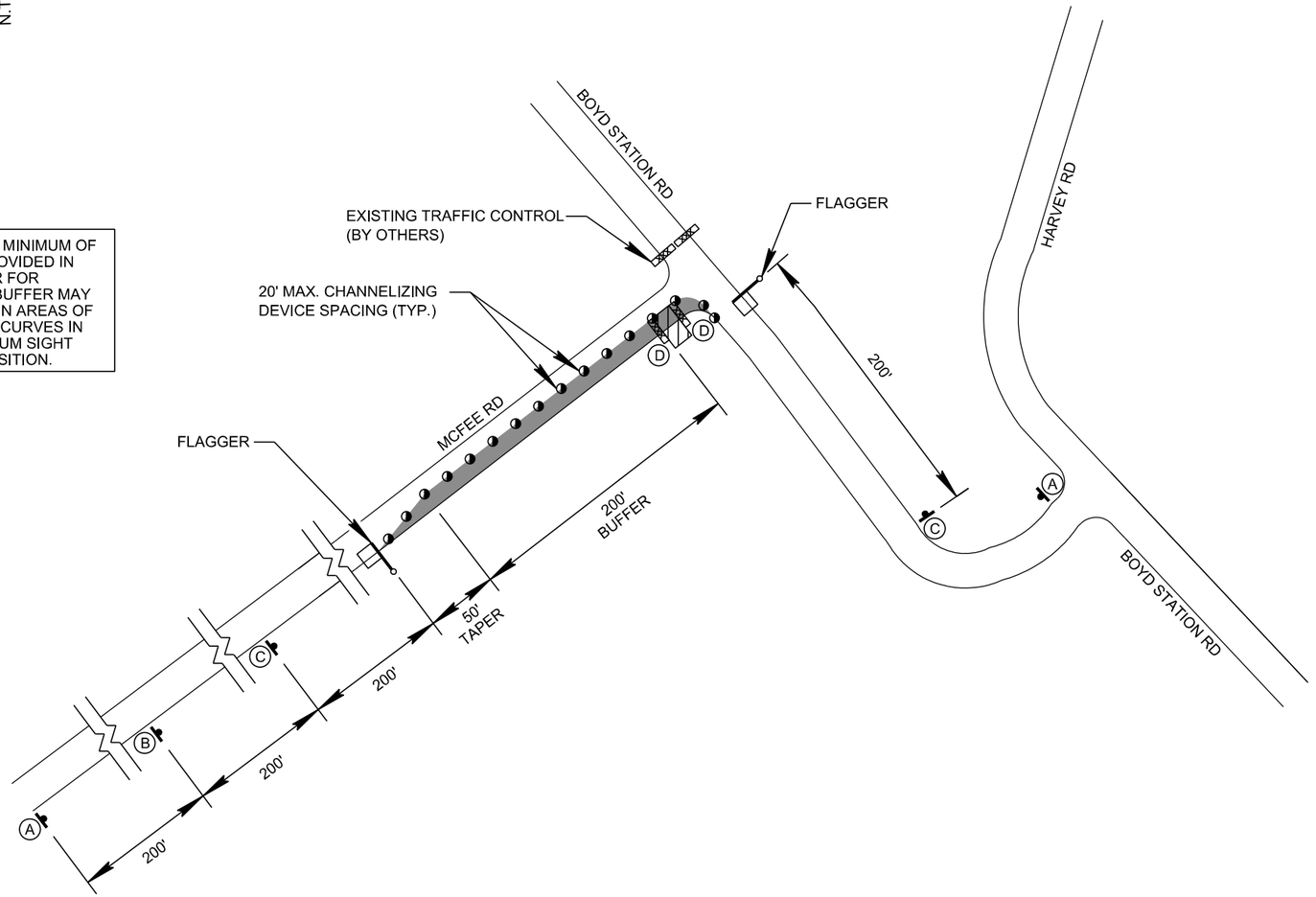
CCI PROJECT NO: 00969-0122

SHEET
SA1.01
SHEET 7 OF 7

N

N.T.S.

CONTRACTOR TO VERIFY A MINIMUM OF 200' SIGHT DISTANCE IS PROVIDED IN ADVANCE OF THE FLAGGER FOR APPROACHING VEHICLES. BUFFER MAY NEED TO BE LENGTHENED IN AREAS OF HORIZONTAL OR VERTICAL CURVES IN ORDER TO MAINTAIN MINIMUM SIGHT DISTANCE OF FLAGGER POSITION.



NOTES :

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR OR AGENCY PERFORMING CONSTRUCTION TO IMPLEMENT THIS TRAFFIC CONTROL PLAN AS INDICATED AND TO MAKE APPROPRIATE ADJUSTMENTS AS FIELD DETERMINED. THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA SHALL BE PARAMOUNT IN THESE AND ALL OTHER RELATED ACTIVITIES.
2. THE PROPOSED CLOSURE IS TO TAKE PLACE AS APPROVED BY THE TOWN OF FARRAGUT. THE DURATION OF THE CLOSURE SHALL BE MINIMIZED TO THE EXTENT POSSIBLE.
3. ALL TRAFFIC CONTROL DEVICES AND ACTIVITIES SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
4. TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING. WHEN DEVICE USAGE IS SPORADIC, THE DEVICES SHALL BE REMOVED OR FULLY COVERED WHEN CONDITIONS NECESSITATING THEIR USE ARE NOT PRESENT.
5. ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES AT ALL TIMES DURING CONSTRUCTION. DURING TIMES WHEN ACCESS IS SEVERELY RESTRICTED DUE TO CONSTRUCTION, CONTRACTOR PERSONNEL SHALL BE AVAILABLE TO ASSIST DRIVERS TO TRAVERSE THE WORK AREA AND ACCESS PROPERTIES. PROVISION SHALL BE MADE AT ALL TIMES TO EXPEDITE THE MOVEMENT OF EMERGENCY VEHICLES THROUGH THE WORK AREA.
6. CHANNELIZING DEVICES SHALL BE STANDARD MUTCD DRUMS OR TRAFFIC CONES. WHERE USED, CONES SHALL BE MINIMUM OF 28" WITH RETROREFLECTIVE BANDS FOR NIGHT USAGE.

DEVICE LEGEND

- TYPE III BARRICADE
- SIGN ON POST OR TEMPORARY MOUNTING
- WORK AREA
- CHANNELIZING DEVICE (SEE NOTE 6)
- FLAGGER

SIGN LEGEND

- (A) ROAD WORK AHEAD — W20-1 48"x 48"
- (B) ONE LANE ROAD AHEAD — W20-4 48"x 48"
- (C) W20-7 48"x 48"
- TYPE III BARRICADE ALONE (D)

BRIAN J. HAAS
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 115481
STATE OF TENNESSEE
08/13/25

TEMPORARY WORK ZONE TRAFFIC CONTROL PLAN

PREPARED FOR FIRST UTILITY DISTRICT OF KNOX COUNTY

LANE CLOSURE ON MCFEE ROAD
(AT BOYD STATION ROAD)

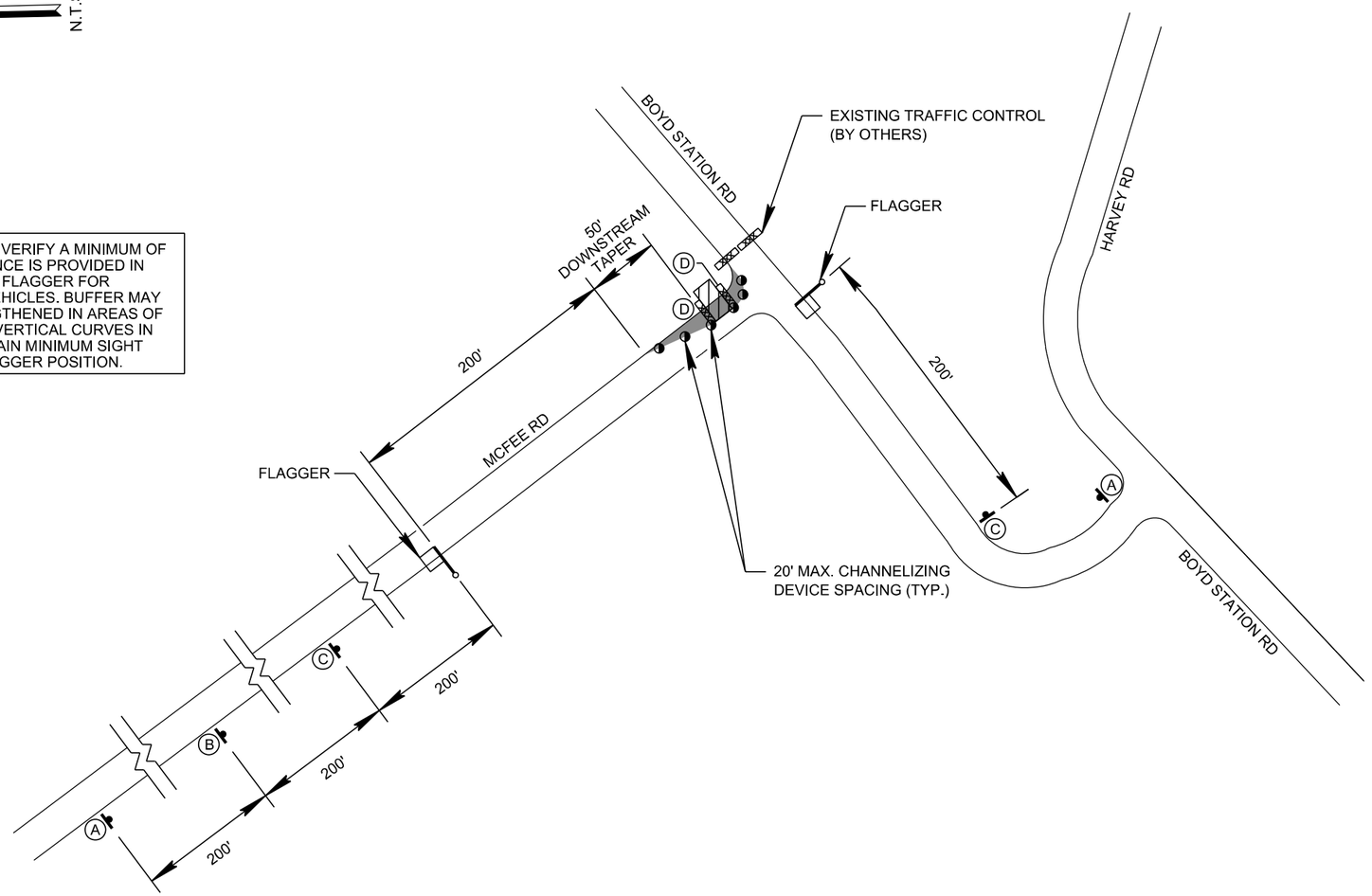
CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

AUGUST 13, 2025	
PROJ. NO. 00969-0122.000	
P.M.: BJH	Q/C: BJH
DRAWN: BJH	SHEET TC - 1

N

N.T.S.

CONTRACTOR TO VERIFY A MINIMUM OF 200' SIGHT DISTANCE IS PROVIDED IN ADVANCE OF THE FLAGGER FOR APPROACHING VEHICLES. BUFFER MAY NEED TO BE LENGTHENED IN AREAS OF HORIZONTAL OR VERTICAL CURVES IN ORDER TO MAINTAIN MINIMUM SIGHT DISTANCE OF FLAGGER POSITION.



NOTES :

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR OR AGENCY PERFORMING CONSTRUCTION TO IMPLEMENT THIS TRAFFIC CONTROL PLAN AS INDICATED AND TO MAKE APPROPRIATE ADJUSTMENTS AS FIELD DETERMINED. THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA SHALL BE PARAMOUNT IN THESE AND ALL OTHER RELATED ACTIVITIES.
2. THE PROPOSED CLOSURE IS TO TAKE PLACE AS APPROVED BY THE TOWN OF FARRAGUT. THE DURATION OF THE CLOSURE SHALL BE MINIMIZED TO THE EXTENT POSSIBLE.
3. ALL TRAFFIC CONTROL DEVICES AND ACTIVITIES SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
4. TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING. WHEN DEVICE USAGE IS SPORADIC, THE DEVICES SHALL BE REMOVED OR FULLY COVERED WHEN CONDITIONS NECESSITATING THEIR USE ARE NOT PRESENT.
5. ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES AT ALL TIMES DURING CONSTRUCTION. DURING TIMES WHEN ACCESS IS SEVERELY RESTRICTED DUE TO CONSTRUCTION, CONTRACTOR PERSONNEL SHALL BE AVAILABLE TO ASSIST DRIVERS TO TRAVERSE THE WORK AREA AND ACCESS PROPERTIES. PROVISION SHALL BE MADE AT ALL TIMES TO EXPEDITE THE MOVEMENT OF EMERGENCY VEHICLES THROUGH THE WORK AREA.
6. CHANNELIZING DEVICES SHALL BE STANDARD MUTCD DRUMS OR TRAFFIC CONES. WHERE USED, CONES SHALL BE MINIMUM OF 28" WITH RETROREFLECTIVE BANDS FOR NIGHT USAGE.

DEVICE LEGEND

- TYPE III BARRICADE
- SIGN ON POST OR TEMPORARY MOUNTING
- WORK AREA
- CHANNELIZING DEVICE (SEE NOTE 6)
- FLAGGER

SIGN LEGEND

- ROAD WORK AHEAD — (A) W20-1 48"x 48"
- ONE LANE ROAD AHEAD — (B) W20-4 48"x 48"
- (C) W20-7 48"x 48"
- TYPE III BARRICADE ALONE (D)

BRIAN J. HAAS
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 115491
STATE OF TENNESSEE
08/13/25

TEMPORARY WORK ZONE TRAFFIC CONTROL PLAN

PREPARED FOR FIRST UTILITY DISTRICT OF KNOX COUNTY

LANE CLOSURE ON MCFEE ROAD
(AT BOYD STATION ROAD)

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

AUGUST 13, 2025	
PROJ. NO. 00969-0122.000	
P.M.: BJH	Q/C: BJH
DRAWN: BJH	SHEET TC - 2

Agenda Number: IV.F. **Meeting Date:** August 21, 2025

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Request for approval for a sewer line relocation along Union Road just west of Brochardt Boulevard associated with the Union Road improvement project (FUD, Applicant)

Introduction & Background: As shown on the utility plans included in the packet, this project involves the relocation of approximately 335 linear feet of sanitary sewer line to help avoid conflicts with a new bridge to be constructed across Little Turkey Creek in association with the Union Road Improvement Project.

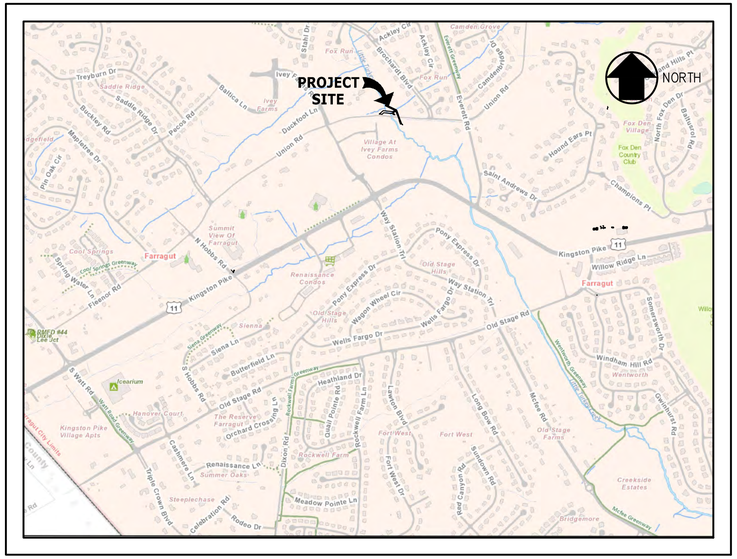
Discussion & Recommendations: The relocated sanitary sewer line will require a new easement and a right of way permit through the Town's engineering department. The traffic control plan is included in the packet. The work is to be completed by First Utility District.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: To approve the project subject to obtaining a right of way permit through the Town's engineering department which will include erosion and traffic control and platting a new sanitary sewer line easement.

CONTRACT DOCUMENTS FOR THE CONSTRUCTION OF:

UNION ROAD
SEWER LINE RELOCATION



LOCATION MAP

SCALE: 1" = 1000'

2000 0 1000 2000

First UTILITY DISTRICT OF KNOX COUNTY

Where community comes first.

Prepared for:

First Utility District of Knox County
122 Durwood Road
Knoxville, Tennessee 37922

DRAWING INDEX

SHEET NO.	TITLE
	COVER SHEET
SA0.01	GENERAL LEGEND & NOTES
SA1.01	SEWER LINE PLAN & PROFILE - LINE 'B' STA. 0+00 TO STA. 3+35 E.O.L.
SA2.01	TYPICAL DETAILS

REVISIONS	DATE
T.D.E.C. SUBMITTAL	08-06-2025

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Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
FIRST UTILITY DISTRICT
122 DURWOOD ROAD
KNOXVILLE, TN 37922

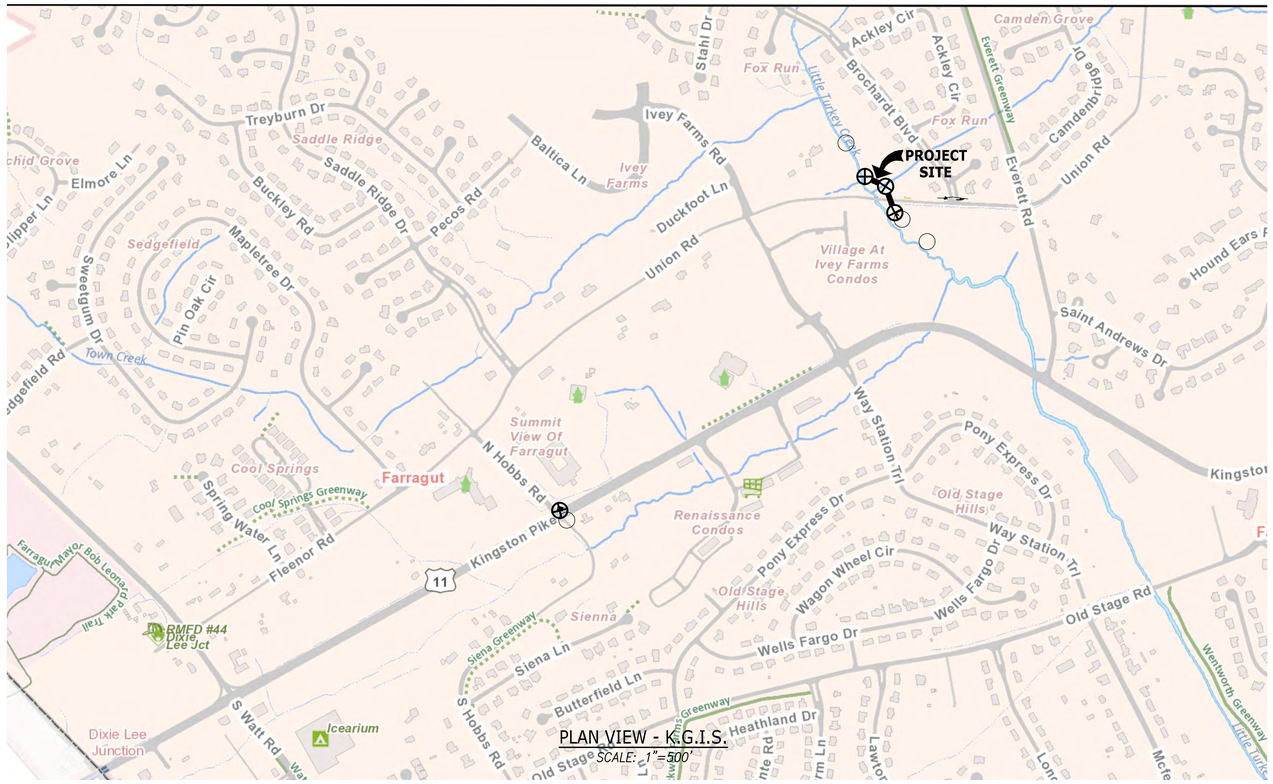
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

COVER SHEET

TIMOTHY F. TUCKER REGISTERED ENGINEER AGRICULTURE & COMMERCE No. 106898 STATE OF TENNESSEE

CCI PROJECT NO.	00969-0094		
DRAWING DATE	JUNE 20, 2022		
PM	WWL	PC	TFT
DRAWN	WBW	FR	EG

COVER



PLAN VIEW - K.G.I.S.
SCALE: 1" = 500'

GENERAL NOTES:

1. ALL SURVEY INFORMATION IS SHOWN PER KNOX COUNTY ROADWAY PLANS, DATED FEBRUARY 15, 2024, AS PROVIDED BY ROBERT G. CAMPBELL AND ASSOCIATES.
2. TRENCH DESIGN AND SAFETY FOR STATION AND PIPELINE CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS.
3. CONSTRUCTION MATERIALS AND INSTALLATION MUST MEET TDEC–APPROVED SPECIFICATIONS FOR F.U.D. (DW202114951R1). MATERIAL SUBMITTALS MUST BE APPROVED BY ENGINEERING PRIOR TO CONSTRUCTION. ALL OPERATING NUTS ON VALVES SHALL FIT STANDARD F.U.D. VALVE KEYS.
4. THE CONTRACTOR SHALL FURNISH ALL PAPERWORK REQUIRED BY FUD PRIOR TO CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, SHOP DRAWINGS, OPERATION & MAINTENANCE MANUALS, AND WARRANTY DOCUMENTS.
5. ALL WORK SHALL BE PERFORMED BY A LICENSED TENNESSEE MUNICIPAL UTILITY CONTRACTOR.
6. ALL WATER COMPONENTS SHALL BE INSTALLED IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE.
7. CONTRACTOR SHALL GUARANTEE ALL WORK TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR ONE YEAR AFTER DATE OF FINAL ACCEPTANCE OF THE PUMP STATION.
8. FIRST UTILITY DISTRICT (FUD) 24–HOUR EMERGENCY CONTACT: (865) 966–9021.
9. THE CONTRACTOR SHALL NOTIFY FUD PROJECT MANAGER 48–HOURS PRIOR TO BEGINNING CONSTRUCTION.
10. FUD PERSONNEL SHALL BE CONTACTED 24–HOURS BEFORE BACKFILLING IN ORDER TO PHOTOGRAPH THE UNDERGROUND PIPING.
11. FUD INSPECTORS SHALL BE NOTIFIED AT LEAST THREE (3) BUSINESS DAYS PRIOR TO CONSTRUCTION.
12. UTILITIES SHALL BE MARKED BY A TENNESSEE ONE CALL (811) PRIOR TO CONSTRUCTION.
13. THE EXISTING UTILITIES SHOWN AND INDICATED ON DRAWINGS ARE APPROXIMATE AND MAY NOT REPRESENT ALL UTILITIES FOUND IN THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION AND VERIFICATION OF ALL EXISTING UNDERGROUND UTILITIES.
14. ALL COSTS ASSOCIATED WITH POTHOLING OR LOCATING OF EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL COMPENSATION WILL BE MADE BY FUD FOR THESE TASKS.
15. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO PREVENT DISTURBANCE OF EXISTING UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NECESSARY TO WORK AROUND, OVER, AND/OR NEAR EXISTING UTILITIES.
16. THE CONTRACTOR SHALL VERIFY WORK IN THE FIELD AND SHALL BE SATISFIED AS TO THE ACCURACY BETWEEN WORK ON THE DESIGN PLANS AND THE WORK WITHIN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF FUD PROJECT MANGER PRIOR TO THE START OF CONSTRUCTION.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROJECT SITE RESULTING FROM THE CONTRACTOR'S CONSTRUCTION ACTIVITIES. REPAIR ALL DISTURBED AREAS TO AN EQUAL OR BETTER CONDITION THAN ORIGINAL.
18. EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/REPAIRED IN ACCORDANCE WITH THE GOVERNING UTILITIES' REQUESTS.
19. LOCATION OF EXISTING RIGHT–OF–WAY (ROW) AND PROPERTY LINES ARE APPROXIMATE
20. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY ADDITIONAL LAND NECESSARY FOR STAGING, STORAGE OF MATERIALS AND EQUIPMENT, AND OTHER CONSTRUCTION RELATED OPERATIONS.
21. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR WORKING CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
22. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES DURING CONSTRUCTION.
23. THE CONTRACTOR SHALL NOT CLOSE OR BLOCK ANY HIGHWAY, STREET, OR ROADWAY WITHOUT FIRST OBTAINING AN APPROVED TRAFFIC CONTROL PLAN FROM KNOX COUNTY.
24. THE CONTRACTOR SHALL NEATLY SAW CUT ALL ROADWAYS AND DRIVEWAYS PRIOR TO INSTALLING A PERMANENT PAVEMENT REPAIR.
25. UNLESS NOTED OTHERWISE, ELEVATIONS AND GRADES SHOWN ON THE DRAWINGS ARE FINISH GRADE. PROPOSED AND EXISTING CONTOURS ARE AT 2 FT. INTERVALS.
26. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS OR POND ON–SITE. PROVIDE NECESSARY MEASURES TO KEEP THE SITE FREE–DRAINING.

EROSION CONTROL NOTES:

1. ALL EXCAVATION, AND RELATED EROSION CONTROL, SHALL BE IN ACCORDANCE WITH KNOX COUNTY'S STORM WATER MANAGEMENT MANUAL.
2. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED PRIOR TO EXPECTED RAINFALL. WHERE TRENCHES MUST REMAIN OPEN OVERNIGHT, PROPER EROSION CONTROL MEASURES SHALL BE PROVIDED, IN ADDITION TO PROPER SAFETY MEASURES.
3. APPLY TEMPORARY SEEDING WHENEVER GRADING OPERATIONS ARE HALTED FOR OVER 14 DAYS.
4. PLAN REFLECTS MINIMUM EROSION AND SEDIMENT CONTROL MEASURES ANTICIPATED. ACTUAL CONDITIONS MAY WARRANT ADDITIONAL MEASURES AS DEEMED APPROPRIATE BY OWNER AND/OR KNOX COUNTY.
5. THE TOTAL DISTURBED AREA IS CALCULATED TO BE APPROXIMATELY 0.42 ACRES.
6. PROPER SEDIMENT CONTROL PROVIDED IN THE DESIGN SHALL BE IMPLEMENTED FULLY BETWEEN THE NOTICE OF INTENT AND THE NOTICE OF TERMINATION AS REQUIRED BY THE TDEC NPDES STORMWATER CONSTRUCTION PERMIT.
7. ALL SEDIMENT AND EROSION CONTROL STRUCTURES ARE TO BE IN PLACE BEFORE GRADING BEGINS.
8. A MAXIMUM OF 200 LF OF TRENCH SHALL BE OPEN AT ANYTIME FOR EACH FULL TIME CREW. NO ADDITIONAL EXCAVATION WILL BE PERMITTED UNTIL OTHER SECTIONS OF THE TRENCH HAVE BEEN BACKFILLED.
9. WHERE TRENCHES MUST REMAIN OPEN OVERNIGHT, PROPER EROSION CONTROL MEASURES SHALL BE PROVIDED, IN ADDITION TO PROPER SAFETY MEASURES.
10. EROSION CONTROL DEVICES (SEDIMENT "EROSION EEL® BY AMERICAN EROSION CONTROL" OR EQUAL) SHALL BE PLACED AND SECURED AT STORM INLETS ADJACENT TO CONSTRUCTION.
11. TYPE III SEDIMENT CONTROL LOGS TO BE USED FOR ENERGY DISSIPATION IN MILD CONCENTRATED FLOW AREAS, SLOPE INTERRUPTION.
12. SEDIMENT CONTROL DEVICES SHALL BE EROSION EEL® SEDIMENT LOG, AS MANUFACTURED BY AMERICAN EROSOION CONTROL, OR EQUAL.

LEGEND

- EXISTING SANITARY SEWER MANHOLE
- SA — EXISTING SANITARY SEWER LINE
- FM — EXIST. FORCE MAIN
- OH — EXISTING OVERHEAD UTILITY LINE
- UGT — EXISTING UNDERGROUND TELEPHONE
- G — EXISTING GAS LINE
- W — EXISTING WATER LINE
- PROPOSED WATER LINE
- S — PROPOSED SILT FENCE
- PROPOSED AIR RELEASE VALVE
- PROPOSED SEWER VALVE
- T — EXISTING TELEPHONE MANHOLE
- D — EXIST. STORM MANHOLE
- EXISTING CHAIN LINK FENCE
- EXISTING GAS VALVE
- EXISTING GAS METER
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING GUY WIRE
- EXISTING CATCH BASIN
- S.D. — EXISTING SANITARY CLEAN OUT
- EXISTING FIRE HYDRANT
- W — EXISTING WATER MANHOLE
- EXISTING CREEK
- EXISTING TREE LINE
- EXISTING PROPERTY LINE (APPROXIMATE)
- STORM — EXISTING STORM DRAIN LINE
- EXISTING CONCRETE SIDEWALK

1 / SA1.01 — DETAIL # / DETAIL LOCATION

REVISIONS	DATE
T.D.E.C. SUBMITTAL	08-06-2025

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www.cci-corp.com

CLIENT:
FIRST UTILITY DISTRICT
122 DURWOOD ROAD
KNOXVILLE, TN 37922

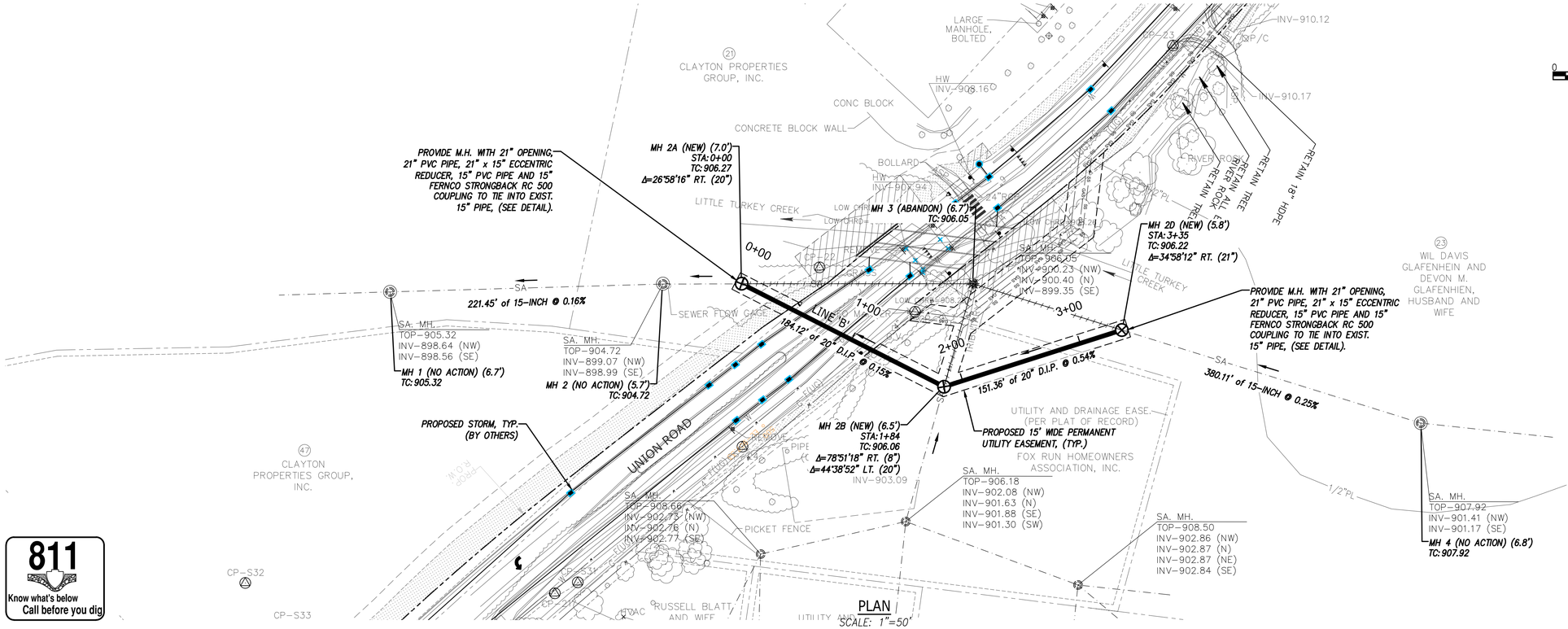
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

GENERAL NOTES, LEGEND & ESTIMATED QUANTITIES

TIMOTHY F. TUCKER REGISTERED ENGINEER XVI AGRICULTURE COMMERCE NO. 106899 STATE OF TENNESSEE 8-6-2025

CCI PROJECT NO.	00969-0094
DRAWING DATE	JUNE 20, 2022
PM WWL	PC TFT
DRAWN WBW	FR EG

SA0.01



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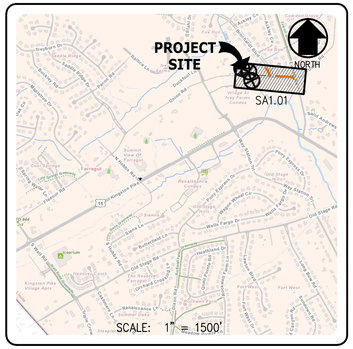
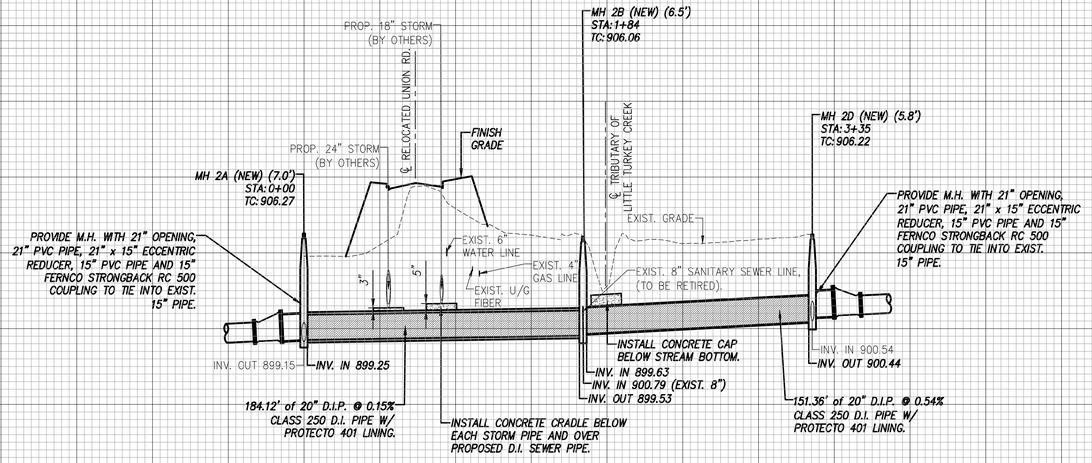
Know what's below
Call before you dig



NOTES:
1. SEE GENERAL NOTES, SHEET G0.02.
2. INSTALL AND MAINTAIN EROSION CONTROL AS REQUIRED BY OWNER, ENGINEER, OR AGENCY HAVING JURISDICTION.

PROFILE NOTE:
EXISTING UTILITIES ARE SHOWN AT AN ASSUMED DEPTH OF 3-FT BELOW EXISTING GRADE. CONTRACTOR TO POTHOLE AND VERIFY VERTICAL LOCATIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION.



SANITARY SEWER LINE 'B'

PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

0	90% REVIEW SET	03-21-2025
1	T.D.O.T. B-DATE SET	05-15-2025
2	T.D.E.C. SUBMITTAL	08-06-2025
REVISIONS		DATE

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CLIENT:
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122 DURWOOD ROAD
KNOXVILLE, TN 37922

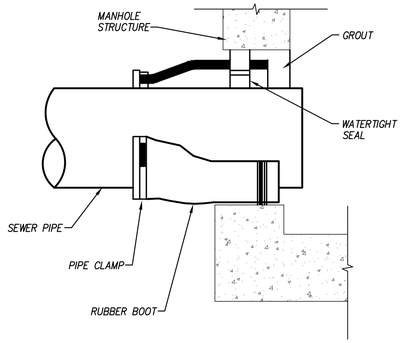
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

SANITARY SEWER LINE 'B' PLAN & PROFILE STA. 0+00 TO STA. 3+35± E.O.L.

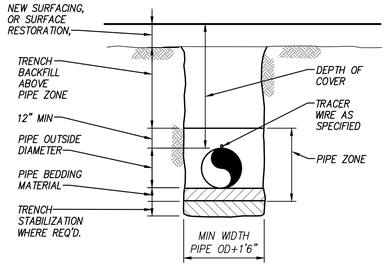
TIMOTHY F. TUCKER REGISTERED ENGINEER AGRICULTURE COMMERCE No. 106895 STATE OF TENNESSEE 8-6-2025

CCI PROJECT NO.	00969-0094		
DRAWING DATE	JUNE 20, 2022		
PM	WWL	PC	TFT
DRAWN	WBW	FR	EG

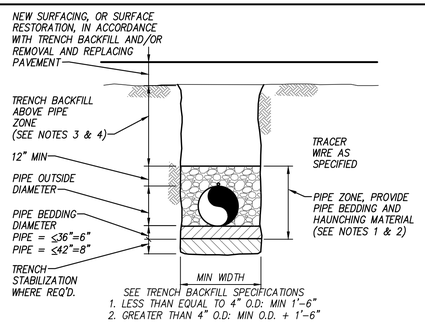
SA1.01



1 – RUBBER BOOT
N.T.S.

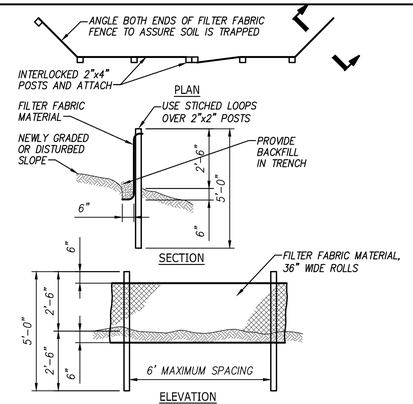


2 – TRENCH TERMINOLOGY
N.T.S.



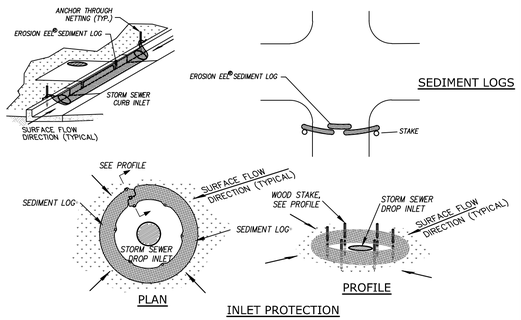
NOTES:
1. PIPE ZONE MATERIAL, WITHIN 3 FEET OF PAVED SURFACES OR UNDER PAVEMENT, SHALL BE NO. 57 STONE PER TRENCH BACKFILL SPECIFICATION.
2. FOR NON-PAVED AREAS, PIPE BEDDING AND HAUNCHING MATERIAL MAY BE SUITABLE EXCAVATED MATERIALS, AS DEFINED IN THE TRENCH BACKFILL SPECIFICATION, OR NO. 57 STONE.
3. TRENCH BACKFILL, UNDER PAVED AREAS, OR WITHIN 3 FEET OF PAVED SURFACES, SHALL BE NO. 57 STONE.
4. TRENCH BACKFILL FOR NON-PAVED AREAS SHALL BE CLASS A EARTH BACKFILL, IN ACCORDANCE WITH TRENCH BACKFILL SPECIFICATIONS.

3 – PIPE BEDDING AND HAUNCHING
N.T.S.



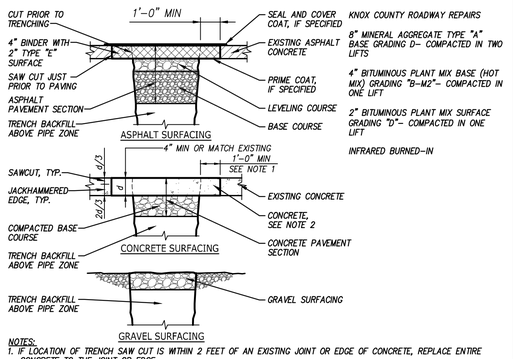
NOTES:
1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
2. 2"x2" DOUGLAS FIR OR STEEL FENCE POSTS.
3. STITCHED LOOPS TO BE INSTALLED DOWNHILL SIDE OF SLOPE.
4. COMPACT ALL AREAS OF FILTER FABRIC TRENCH.

4 – SILT FENCE
N.T.S.



INLET PROTECTION

5 – TEMPORARY SEDIMENT LOGS (TYPE III)
N.T.S.



KNOX COUNTY ROADWAY REPAIRS

8" MINERAL AGGREGATE TYPE "A" BASE GRADING D- COMPACTED IN TWO LIFTS

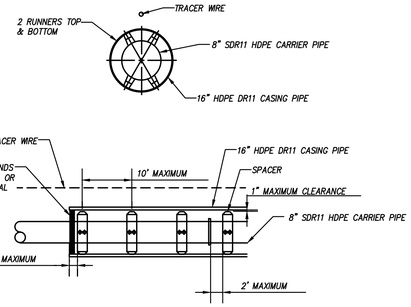
4" BITUMINOUS PLANT MIX BASE (HOT MIX) GRADING "B-M2"- COMPACTED IN ONE LIFT

2" BITUMINOUS PLANT MIX SURFACE GRADING "D"- COMPACTED IN ONE LIFT

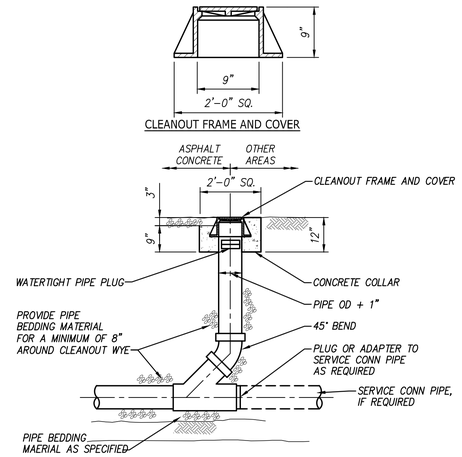
INFRARED BURNED-IN

NOTES:
1. IF LOCATION OF TRENCH SAW CUT IS WITHIN 2 FEET OF AN EXISTING JOINT OR EDGE OF CONCRETE, REPLACE ENTIRE CONCRETE TO THE JOINT OR EDGE.
2. CONSTRUCT JOINTS ACROSS NEW CONCRETE TO MATCH EXISTING JOINT TYPES AND LOCATIONS.
3. DIMENSIONS AND DETAILS ABOVE ARE MINIMUM REQUIREMENTS. PAVEMENT REMOVAL AND REPLACEMENT SHALL BE PERFOMED IN ACCORDANCE WITH DETAILS AND SPECIFICATIONS OF THE AUTHORITY HAVING JURISDICTION, SEE REMOVAL AND REPLACEMENT OF PAVEMENT SPECIFICATIONS.
4. DETAIL IS ONLY FOR STATE AND COUNTY PAVING.
5. MAXIMUM PAVEMENT REPLACEMENT WIDTH IS 1' OF ADDITIONAL TOTAL WIDTH, UNLESS OTHERWISE APPROVED BY THE OWNER.
6. BINDER MIXTURE SHALL BE "B-MODIFIED" IN ACCORDANCE WITH THE SPECIFICATIONS.
7. WHERE BINDER COURSE ONLY IS SPECIFIED ON THE DRAWINGS, BINDER LAYER SHALL HAVE A THICKNESS OF 6 INCHES MINIMUM.

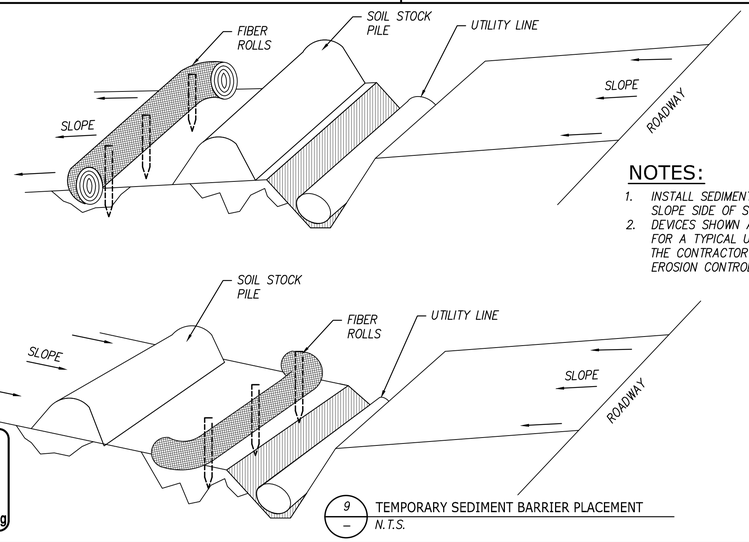
6 – PAVING REPLACEMENT
N.T.S.



7 – TYPICAL CASING CONFIGURATION
N.T.S.



8 – CLEANOUT
N.T.S.



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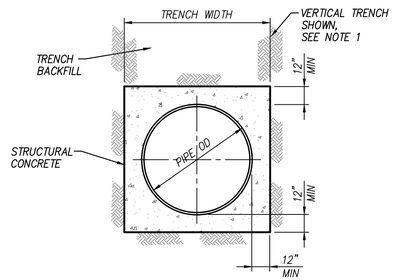
9 – TEMPORARY SEDIMENT BARRIER PLACEMENT
N.T.S.



NOTES:
1. VERTICAL TRENCH WALLS SHOWN. CONTRACTOR SHALL SLOPE TRENCH WALLS OR SHORE EXCAVATIONS FOR CONSTRUCTION AND SAFETY IN ACCORDANCE WITH CURRENT OSHA REQUIREMENTS.
2. PEA GRAVEL BAGS, SANDBAGS, OR PRECAST SHAPED CONCRETE BLOCKS (12" MIN WIDTH) DESIGNED TO HANDLE THE INTENDED LOADS, MAY BE USED TO SUPPORT PIPE WHEN PLACING CONCRETE.

10 – CONCRETE ENCASEMENT
N.T.S.

REVISIONS	DATE
T.D.E.C. SUBMITTAL	08-06-2025

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KNOXVILLE, TN 37922

PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

TYPICAL DETAILS

TIMOTHY F. TUCKER REGISTERED ENGINEER No. 106898 STATE OF TENNESSEE 8-6-2025

CCI PROJECT NO.	00969-0094		
DRAWING DATE	JUNE 20, 2022		
PM	WWL	PC	TFT
DRAWN	WBW	FR	EG

SA2.01

GENERAL NOTES:

1. PLANIMETRIC AND PROFILE INFORMATION PER FIELD SURVEY PROVIDED BY T.D.O.T., CONDUCTED IN OCTOBER OF 2014. COORDINATES ARE NAD 83 (1995) AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN, ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 2012A. SEE TDOT ROADWAY DESIGN PROJECT 47027-2222-94.
2. RIGHT-OF-WAY AND PROPERTY SHOWN IS PER INFORMATION PROVIDED BY T.D.O.T.
3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN STRICT CONFORMANCE WITH CURRENT OWNER CONSTRUCTION SPECIFICATIONS AND DETAILS.
4. WHERE FIGURE NUMBERS ARE REFERENCED ON THE DRAWINGS, REFER TO THE APPLICABLE SECTION IN THE PROJECT MANUAL FOR DETAILS & ADDITIONAL INFORMATION.
5. CANNON & CANNON, INC. WILL PROVIDE MICROSTATION DESIGN FILES (.DGN) TO THE CONTRACTOR FOR USE IN CONSTRUCTION STAKING THE PROPOSED ALIGNMENTS UPON REQUEST POST BID.
6. ALL WORK SHALL BE PERFORMED BY A TENNESSEE LICENSED UTILITY CONTRACTOR.
7. CONTRACTOR SHALL HAVE AN APPROVED SET OF PLANS AND SPECIFICATIONS AND A COPY OF THE GENERAL STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ON THE JOB SITE AT ALL TIMES.
8. UNDERGROUND UTILITIES INCLUDE, BUT ARE NOT LIMITED TO, WATER, SEWER, GAS, PETROLEUM, STEAM PIPING/DUCT WORK, ELECTRIC, COMMUNICATION SERVICES, STREET LIGHTING AND TRAFFIC DETECTOR LOOPS. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL SUCH FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL SUCH FACILITIES THAT ARE DAMAGED DURING CONSTRUCTION. PAYMENT FOR LOCATING, PROTECTING, COORDINATING AND RE-PAIRING EXISTING FACILITIES WILL BE INCLUDED IN OTHER ITEMS OF WORK AND NO ADDITIONAL COMPENSATION WILL BE MADE. ALL REPAIRS SHALL BE DONE IN ACCORDANCE WITH STANDARDS AND REQUIREMENTS OF THE UTILITY'S OWNER. UTILITY SUPPORT METHODS WILL BE SUBMITTED PRIOR TO CONSTRUCTION FOR APPROVAL.
9. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SUITABLE SIGNAGE, BARRICADES, AND LIGHTS FOR PROTECTION OF TRAFFIC PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ANY EXISTING ROAD SIGN REMOVED FOR CONSTRUCTION SHALL BE REPLACED BY THE END OF THE WORKING DAY. TEMPORARY STOP SIGNS SHALL BE ERECTED PRIOR TO REMOVAL OF PERMANENT STOP SIGNS.
10. THE CONTRACTOR SHALL NOT CLOSE OR BLOCK ANY HIGHWAY, STREET, OR ROADWAY WITHOUT FIRST OBTAINING ALL REQUIRED PERMITS FROM THE GOVERNING ENTITY (TDOT, ETC...).
11. THE CONTRACTOR SHALL PROVIDE ACCESS TO UTILITY COMPANIES FOR MAINTENANCE AND WORK ON THEIR UTILITIES DURING THE COURSE OF WORK.
12. SURVEY MONUMENTS DISTURBED BY THE CONTRACTOR SHALL BE RESET BY A TENNESSEE REGISTERED LAND SURVEYOR, AS DIRECTED BY THE PROJECT MANAGER. PRIOR TO DISTURBANCE, CONTACT THE PROJECT MANAGER FOR MONUMENT INFORMATION.
13. CONTRACTOR SHALL VERIFY WORK IN FIELD AND SHALL SATISFY HIMSELF AS TO THE ACCURACY BETWEEN WORK SET FORTH ON THESE PLANS AND THE WORK REQUIRED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO THE START OF CONSTRUCTION.
14. THE CONTRACTOR SHALL NEATLY SAW CUT ALL ROADWAYS AND DRIVEWAYS PRIOR TO INSTALLING A PERMANENT PAVEMENT REPAIR.
15. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES DURING CONSTRUCTION.
16. INDICATED SCALES ARE BASED ON FULL SIZE DRAWINGS OF 24" x 36"; IF DRAWINGS ARE REDUCED, SCALES MUST BE ADJUSTED ACCORDINGLY.
17. CONTRACTOR SHALL NOTIFY THE OWNER'S PROJECT MANAGER 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROJECT SITE RESULTING FROM THE CONTRACTOR'S CONSTRUCTION ACTIVITIES.
19. TREES THAT HAVE BEEN DAMAGED OR REMOVED, ASPHALT AND OTHER CONSTRUCTION DEBRIS SHALL BE REMOVED OFFSITE BY CONTRACTOR.
20. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TO AND THROUGH EXISTING DRAINAGE FACILITIES. ANY CONSTRUCTION AROUND, THROUGH OR IN DRAINAGE PATHS SHALL NOT ALTER THE FLOW PATHS FROM EXISTING AFTER CONSTRUCTION IS COMPLETE.
21. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR POT HOLING EXISTING UTILITIES AND DETERMINING ELEVATION AND LOCATION. POT HOLING SHALL BE CONDUCTED WITH THE LEAST INTRUSIVE MEANS SUCH AS A VACTRON, HAND DIGGING, OR OTHER SIMILAR EQUIPMENT. PAVEMENT RESTORATION AT POTHOLE LOCATIONS SHALL BE INCLUDED IN THE BASE BID.

ESTIMATED QUANTITIES

TDOT ITEM NO.	ITEM DESCRIPTION	FOOTNOTE	QUANTITY	UNITS
797-02.04	2IN HDPE FORCE MAIN	1	1151	FT
797-02.05	3IN HDPE FORCE MAIN	1	1360	FT
797-02.06	4IN HDPE FORCE MAIN	1	1275	FT
797-12.13	8IN HDPE CASING OPEN CUT	N.A	175	LF
797-08.03	HDPE FITTINGS	N.A	18.4	LBS
797-08.12	2IN END OF LINE FLUSHING ASSEMBLY	6	2	EACH
797-09.06	4IN PLUG VALVE ASSEMBLY	6	3	EACH
797-09.20	2IN COMBO AIR RELEASE VALVE ASSEMBLY	6	5	EACH
797-10.14	CONNECT TO 2IN FORCE MAIN	3	1	EACH
797-10.30	CONNECT 4IN SEWER TO EXIST. MANHOLE	3	1	EACH
797-13.06	CREEK CROSSING	N.A	1	LS
797-40.01	CONCRETE ENCASEMENT	N.A	45	FT

FOOTNOTES:

1. *INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT FOR COMPLETE EXCAVATION INCLUDING BUT NOT LIMITED TO BEDDING, BACKFILLING, THRUST BLOCKING, PIPE FUSION, APPURTENANCES, FLOWABLE FILL, MAINTAINING THE TRENCH, TESTING, CHECK DAMS, AND ANY OTHER LABOR OR MATERIAL REQUIRED TO COMPLETE FOR GRAVITY SEWER LINES OR FORCE MAINS AS SPECIFIED ON THE PLANS. DUCTILE IRON PIPE GRAVITY SEWER LINES SHALL BE EPOXY LINED.*
3. *INCLUDES ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY FOR CONNECTING TO AN EXISTING FORCE MAIN, SEWER LINE, PUMP STATION, OR MANHOLE AS SPECIFIED ON PLANS, INCLUDING TRAFFIC CONTROL.*
4. *INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY FOR INSTALLATION OF PRECAST MANHOLE BOTH PREFORMED BASE OR OPEN BOTTOM (DOGHOUSE), INCLUDING BUT NOT LIMITED TO VENT ASSEMBLY (WHERE REQUIRED), CRUSHED STONE, PIPE TO MANHOLE CONNECTORS, EXCAVATION, BACKFILL, BUTYL RESIN GASKET, MANHOLE STEPS, ASPHALTIC WATERPROOFING, FRAME AND COVER, AND TRAFFIC CONTROL.*
6. *INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT, INCLUDING BUT NOT LIMITED TO MACHINERY, TOOLS, OR APPARATUS NECESSARY FOR INSTALLATION OF ASSEMBLIES AS DESCRIBED AND DETAILED IN THE PLANS AND SPECS.*

SEWER LINE NOTES:

1. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH FUD'S STANDARD SPECIFICATIONS. IF CONFLICTS ARISE DURING CONSTRUCTION, CONSULT WITH FUD'S INSPECTOR AS TO NECESSARY FIELD CHANGES. FUD RESERVES THE RIGHT TO MODIFY THE MATERIAL OR CONSTRUCTION REQUIREMENTS IF SUCH CONFLICTS ARISE.
2. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. CONTRACTOR TO REFERENCE PLANS AND COORDINATE WITH THE UTILITY OWNER TO DETERMINE THE ACTUAL FIELD LOCATION. UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, AT 1-800 - 351-1111.
3. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS TO NOTIFY THEM OF WORK IN THE AREA AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY. NOTIFICATION SHALL BE GIVEN AT LEAST THREE BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
4. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD THE EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT. FURNISH ANY SPECIAL EQUIPMENT REQUIRED TO WORK OVER AND AROUND THE UTILITIES.
5. FUD REQUIRES 24" OF HORIZONTAL SEPARATION AND 12" OF VERTICAL SEPARATION FROM OTHER UTILITIES IF THEY ARE INSTALLED ALONGSIDE THE SEWER MAINS, AND THEY SHOULD NOT BE CONSTRUCTED IN THE SAME TRENCH.
6. HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES SHALL BE 10 LF. IF 10 LF OF SEPARATION IS NOT AVAILABLE, THE SEWER SHALL BE INSTALLED UNDERNEATH THE WATER LINE WITH A MINIMUM OF 18" OF SEPARATION BETWEEN THE OUTSIDES OF THE PIPES.
7. NO BUILDINGS, BUILDING FOOTERS, OR OTHER PERMANENT STRUCTURES ARE TO BE CONSTRUCTED WITHIN THE 15 FEET UTILITY EASEMENTS (7.5 FEET EACH SIDE OF INSTALLED LINE).
8. TRENCH DESIGN AND SAFETY FOR PIPELINE CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
9. THE STONE BEDDING AND BACKFILL SHALL BE DONE IN STRICT COMPLIANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS, BUT MUST COMPLY WITH FUD'S SPECIFICATIONS.
10. UTILITIES SHALL BE INSTALLED AFTER GRADING IS COMPLETED AND APPROVED AND BEFORE ANY PAVEMENT IS INSTALLED.
11. CONTRACTOR SHALL TAKE SPECIAL CARE TO BED, BACKFILL, AND COMPACT PIPE CROSSINGS WHERE A SANITARY SEWER MAIN CROSSES WITH STORM SEWERS. CROSSING SHALL BE CONSTRUCTED WITH A WELL COMPACTED FULL STONE (#57) 6" ENVELOPE SUCH THAT STORM SEWER DOES NOT BEAR DIRECTLY ON SANITARY SEWER MAINS.
12. ALL WORK MUST BE INSPECTED BY FUD PRIOR TO BACKFILLING.
13. ALL SANITARY SEWER LINES SHALL BE SDR 26 PVC UNLESS NOTED OTHERWISE.
14. ALL LOW-PRESSURE FORCE MAINS SEWER LINES SHALL BE HDPE SDR 11.
15. ANY SANITARY SEWER MAIN OR SERVICE LATERAL THAT DISCHARGES AT A HEIGHT GREATER THAN 1.99 FEET ABOVE THE MANHOLE INVERT REQUIRES A DROP CONNECTION. DROP CONNECTION SHALL BE "INSIDE DROP SYSTEM" BY RELINER OR EQUAL. INSTALLED PER FUD'S SPECIFICATIONS.
16. ALL SEWER SERVICE LATERALS SHALL BE INSTALLED WITH A MINIMUM 1% SLOPE. CLEANOUTS IN PAVEMENT SHALL HAVE SOLID BRASS, THREADED, TRAFFIC-RATED CAPS. EFFORTS SHOULD BE MADE TO PLACE CLENOUTS IN UNPAVED AREAS WHERE POSSIBLE.
17. ALL 6" CLEANOUT SHALL BE CONNECTED TO THE SERVICE WITH A DOUBLE SWEEP TEE (SDR 26 PVC GPK OR APPROVED EQUAL).
18. ALL SANITARY SEWER LINES SHALL HAVE A MINIMUM OF 36" COVER. UNDER ROADWAYS AND CROSSINGS, SEWER SHALL HAVE A MINIMUM OF 48" COVER AND IF 48" IS NOT AVAILABLE, THEN DUCTILE IRON PIPE MUST BE USED, PROTECTO 401 LINED CLASS 350 (MIN).
19. GRAVITY SEWER PIPE DEFLECTION AND ALIGNMENT SHALL BE CHECKED AFTER BACKFILLING AND COMPACTION ARE COMPLETE AND PRIOR TO PLACING THE MANHOLE BASE. TEST DEFLECTION WITH A MANDREL OR OTHER APPROVED METHOD.
20. PIPE WITH DEFLECTION OF 5% OR GREATER OR WITH UNDUE MISALIGNMENT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
21. PIPE IS MEASURED IN TERMS OF HORIZONTAL LENGTH COMPLETE IN PLACE, REGARDLESS OF TYPE, DEPTH, CLASS, SHAPE, AND SIZE AS MEASURED ALONG THE CENTERLINE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE (NO DEDUCTIONS FOR STRUCTURES). ACTUAL QUANTITY OF PIPE MAY VARY. THE CONTRACTOR SHALL SUPPLY AND INSTALL THE NECESSARY QUANTITY OF PIPE TO CONSTRUCT THE COMPLETE SYSTEM AS SHOWN. INSTALLATION INCLUDES EXCAVATION, SHORING, FURNISHING, AND INSTALLATION OF PIPES, JOINT MATERIALS, COUPLINGS, AND BACKFILL.
22. A RUBBER BOOT CONNECTOR ("A-LOK" OR APPROVED EQUAL. "Z-LOK" OR APPROVED EQUAL REQUIRED IF PIPE SLOPE IS GREATER THAN 10%) SHALL BE FITTED WITHIN EACH PRECAST CONCRETE MANHOLE FOR EACH SANITARY SEWER MAIN OR LATERAL CONNECTING TO A MANHOLE. EACH TAP TO AN EXISTING MANHOLE TO BE MECHANICALLY CORED AND A "KOR-N-SEAL" (OR APPROVED EQUAL) PIPE ENTRANCE SHALL BE PROVIDED.
23. ADJUST TOP OF CASTING (TC) ELEVATIONS (ALL SIDES) FLUSH WITH FINAL GRADES TO MATCH CROSS SLOPES AND LONGITUDINAL SLOPES.
24. INSTALL FITTINGS (FOR SERVICE LATERALS) AS REQUIRED TO AVOID CONFLICTS WITH EXISTING AND PROPOSED UNDERGROUND CONFLICTS AND OBSTRUCTIONS.
25. GROUT INSIDE MANHOLE JOINTS WITH NON-SHRINK GROUT. ALL EXTERIOR JOINTS TO BE WRAPPED WITH BUTYL AND CON-SEAL WRAP, APPLIED WITH PRIMER TO FUD STANDARDS.
26. BOLT ALL MANHOLE FRAMES TO CONES WITH 4, 3/4" STAINLESS STEEL WEDGE ANCHORS.
27. FOR SEWER PIPES WITH SLOPES GREATER THAN 15% USE CONCRETE PIPE ANCHORS AS SPECIFIED BY THE MANUFACTURER.

DRAWING INDEX

SHEET No.	DWG No.	DRAWING TITLE
1	U3-1	*GENERAL NOTES, LEGEND & ESTIMATED QUANTITIES*
2	U3-2	*SEWER LINE RELOCATION - PLAN AND PROFILE*
3	U3-3	*SEWER LINE RELOCATION - PLAN AND PROFILE*
4	U3-4	*SEWER LINE RELOCATION - PLAN AND PROFILE*
5	U3-5	*SEWER LINE RELOCATION - PLAN AND PROFILE*
6	U3-6	*SEWER LINE RELOCATION - PLAN AND PROFILE*
7	U3-7	*TYPICAL DETAILS*
8	U3-8	*TYPICAL DETAILS*

STANDARD T.D.O.T. UTILITY NOTES

1. EXCEPT FOR EROSION SEDIMENT CONTROL ITEMS, NO ROADWAY OR BRIDGE ITEMS SHALL BE UTILIZED TO COMPENSATE FOR WORK METHODS OR MATERIALS ASSOCIATED WITH AND/OR SPECIFI ED FOR THE UTILITY INSTAL-LATION, EVEN THOUGH THE SAME OR SIMILAR ROADWAY OR BRIDGE MATERIALS MAY HAVE BEEN CALLED FOR IN THE UTILITY SPECIFI CATIONS OR DRAWINGS.
2. ALL MATERIALS, METHODS, AND/OR INTEGRAL MATERIALS OUTLINED IN THE UTILITY SPECIFI CATIONS OR DRAWINGS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL INSTALLATION MUST BE INCLUDED IN THE UNIT PRICE FOR THE ASSOCIATED UTILITY WORK ITEM.
3. THE CONTRACTOR MUST MAINTAIN ALL SERVICES DURING THE CONSTRUCTION OF THE RELOCATED FACILITY. ANY COSTS ASSOCIATED WITH INSTALLATION OF REQUIRED TEMPORARY SERVICE LINES DUE TO THE ROADWAY CONSTRUCTION SEQUENCE OF WORK (I.E., CUTS, FI LLS, PHASING, ETC.) SHALL BE INCLUDED IN THE COST OF THE PERMANENT UTILITY ITEMS. (NOTE TO UTILITY: THE UTILITY RELOCATION PLANS SHALL PROVIDE TO THE CONTRACTOR THE UTILITY'S REQUIREMENTS FOR TEMPORARY TIE-INS (INCLUDING NECESSARY TESTING AND STERILIZATION TO ACCOMPLISH THE TIE-IN) AND ALSO ANY RESTRICTIONS FOR TAKING LINES OUT OF SERVICE. IF A TEMPORARY LINE WILL BE A MAJOR ITEM OF WORK, A SPECIFI C TEMPORIZATION PLAN AND ITEM MUST BE INCLUDED IN THE UTILITY'S PLANS.)
4. IT SHALL BE THE RESPONSIBILITY OF THE PRIME CONTRACTOR'S SURVEYOR TO LAY OUT ALL THE FACILITIES BEING RELOCATED WITHIN THE CONTRACT.
5. FOR BURIED UTILITIES, THE PRIME CONTRACTOR OR SUBCONTRACTOR SHALL BE REQUIRED TO PROVIDE TO THE UTILITY UPON COMPLETION OF THE UTILITY'S RELOCATION WORK A SET OF AS-BUILT DRAWINGS FOR THEIR RECORDS. THESE AS-BUILT DRAWINGS SHOULD BE PREPARED AS THE JOB PROGRESSES TO ENSURE THEIR ACCURACY.
6. WHERE EROSION CONTROL MEASURES ARE NEEDED FOR THE UTILITY RELOCATION WORK OCCURRING INSIDE OR OUTSIDE STATE RIGHT-OF-WAY, THE CONTRACTOR SHALL SUBMIT TO THE TDOT PROJECT SUPERVISOR FOR APPROVAL A PROPOSED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO BEGINNING THE WORK. TDOT APPROVAL MUST BE RECEIVED BEFORE THE EROSION CONTROL PAY ITEMS FOR ROADWAY CONSTRUCTION CAN BE USED FOR ANY ADDITIONAL EROSION CONTROL MEASURES REQUIRED FOR THE UTILITY RELOCATION WORK.
7. DRIVEWAY, SIDEWALK AND ROADWAY TEMPORARY RESTORATION SHALL BE PART OF THE IN-PLACE COST OF PLACING THE UTILITY ITEM WITHIN THE ROW.
8. ANY EXCAVATION OF THE STREAM CHANNEL AREA SHALL BE SEPARATED FROM FL OWING WATER AND ACCOM-PLISHED DURING LOW FL OW CONDITIONS. THIS SHALL BE ACCOMPLISHED BY THE USE OF FL UMES, LINED DIVERSION CHANNEL WITH SANDBAG BERM, DIVERSION PIPE WITH SANDBAG DAM AT PIPE INLET, OR IN SOME CASES COFF ERDAMS. ALTERNATIVELY, BASED ON FI ELD CONDITIONS AND CONTRACTOR SELECTION, THE UTILITY RELOCATION MAY BE ACCOMPLISHED USING BORE TECHNOLOGY WITH NO STREAM CHANNEL IMPACTS.

LEGEND

- *EXISTING SANITARY SEWER MANHOLE*
- SA — *EXISTING SANITARY SEWER LINE*
- FM — *EXIST. FORCE MAIN*
- OH — *EXISTING OVERHEAD UTILITY LINE*
- UGT — *EXISTING UNDERGROUND TELEPHONE*
- G — *EXISTING GAS LINE*
- W — *EXISTING WATER LINE*
- *PROPOSED GRAVITY SEWER*
- S — *PROPOSED SILT FENCE*
- *MANHOLE - NEW*
- *MANHOLE - REPLACE*
- *MANHOLE - RETIRE*
- SA — *CAP EXISTING SEWER LINE*
- T — *EXISTING TELEPHONE MANHOLE*
- x — x — *EXISTING CHAIN LINK FENCE*
- GV — *EXISTING GAS VALVE*
- GM — *EXISTING GAS METER*
- WV — *EXISTING WATER VALVE*
- WM — *EXISTING WATER METER*
- *EXISTING UTILITY POLE*
- *EXISTING LIGHT POLE*
- *EXISTING GUY WIRE*
- CB — *EXISTING CATCH BASIN*
- CO — *EXISTING SANITARY CLEAN OUT*
- *EXISTING FIRE HYDRANT*
- W — *EXISTING WATER MANHOLE*
- *EXISTING CREEK*
- *EXISTING TREE LINE*
- *EXISTING PROPERTY LINE (APPROXIMATE)*
- 18" CMP — *EXISTING STORM DRAIN LINE*
- *EXISTING CONCRETE SIDEWALK*
- *UTILITY LINE ABANDONMENT*

1 / D1.01 — *DETAIL # / DETAIL LOCATION*

KNOX COUNTY
PIN 125045.00
CCI NO. 00969-0094

B-DATE RESUBMITTAL
DATE: 03/20/2025
BASED ON TDOT PLANS
REV.02/03/2024

REVISIONS	DATE
1 90% REVIEW SET	03-21-2025
2 T.D.O.T. B-DATE SET	05-15-2025
3 T.D.E.C. SUBMITTAL	05-15-2025

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
FIRST UTILITY DISTRICT
122 DURWOOD ROAD
KNOXVILLE, TN 37922

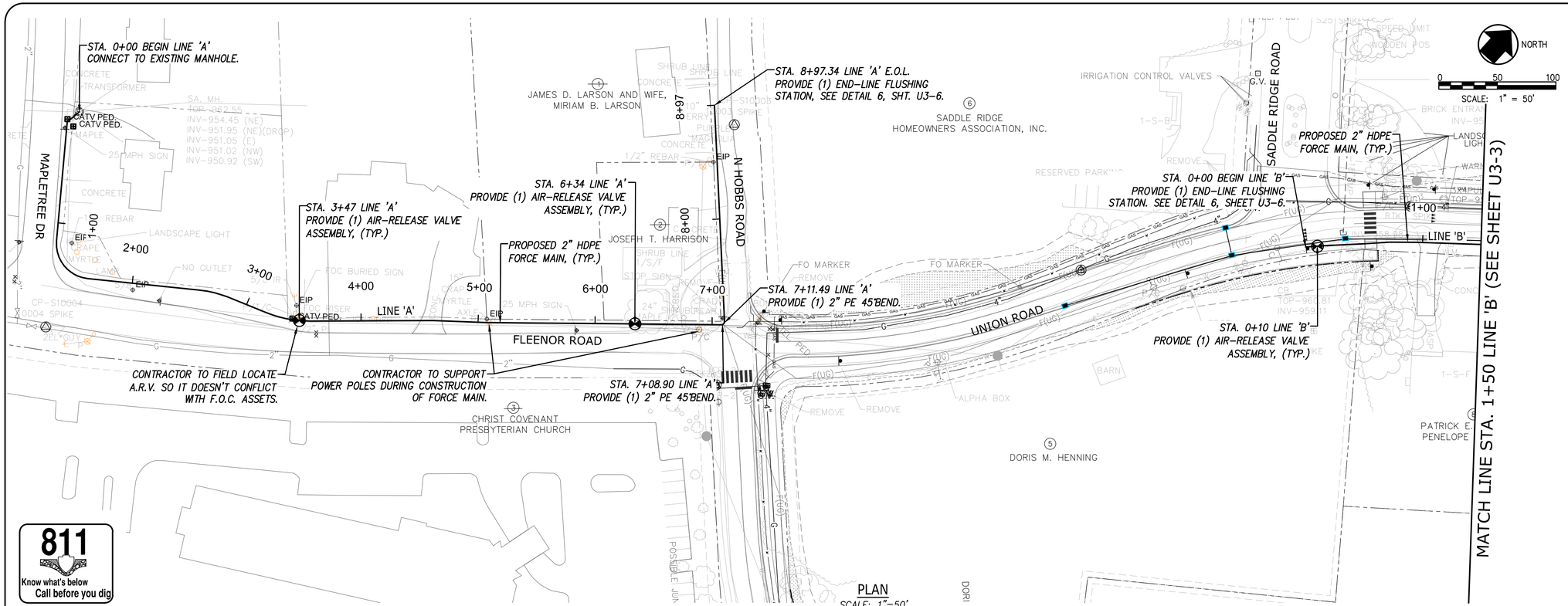
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

GENERAL NOTES, LEGEND & ESTIMATED QUANTITIES

TIMOTHY F. TUCKER REGISTERED ENGINEER AGRICULTURE ENGINEERING COMMERCE No. 106899 STATE OF TENNESSEE 8.6.2025

CCI PROJECT NO.	00969-0094		
DRAWING DATE	APRIL 24, 2025		
PM	WWL	PC	TFT
DRAWN	WBW	FR	EG

U3-1



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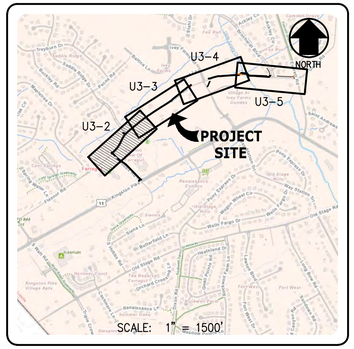

811
Know what's below
Call before you dig



LINE 'A'
PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

LINE 'B'
PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

KNOX COUNTY
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NOTES:
1. SEE GENERAL NOTES, SHEET U3-1.
2. INSTALL AND MAINTAIN EROSION CONTROL AS REQUIRED BY OWNER, ENGINEER, OR AGENCY HAVING JURISDICTION.

REVISIONS	DATE
1 90% REVIEW SET	03-21-2025
1 T.D.O.T. B-DATE SET	05-15-2025
2 T.D.E.C. SUBMITTAL	05-15-2025

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122 DURWOOD ROAD
KNOXVILLE, TN 37922

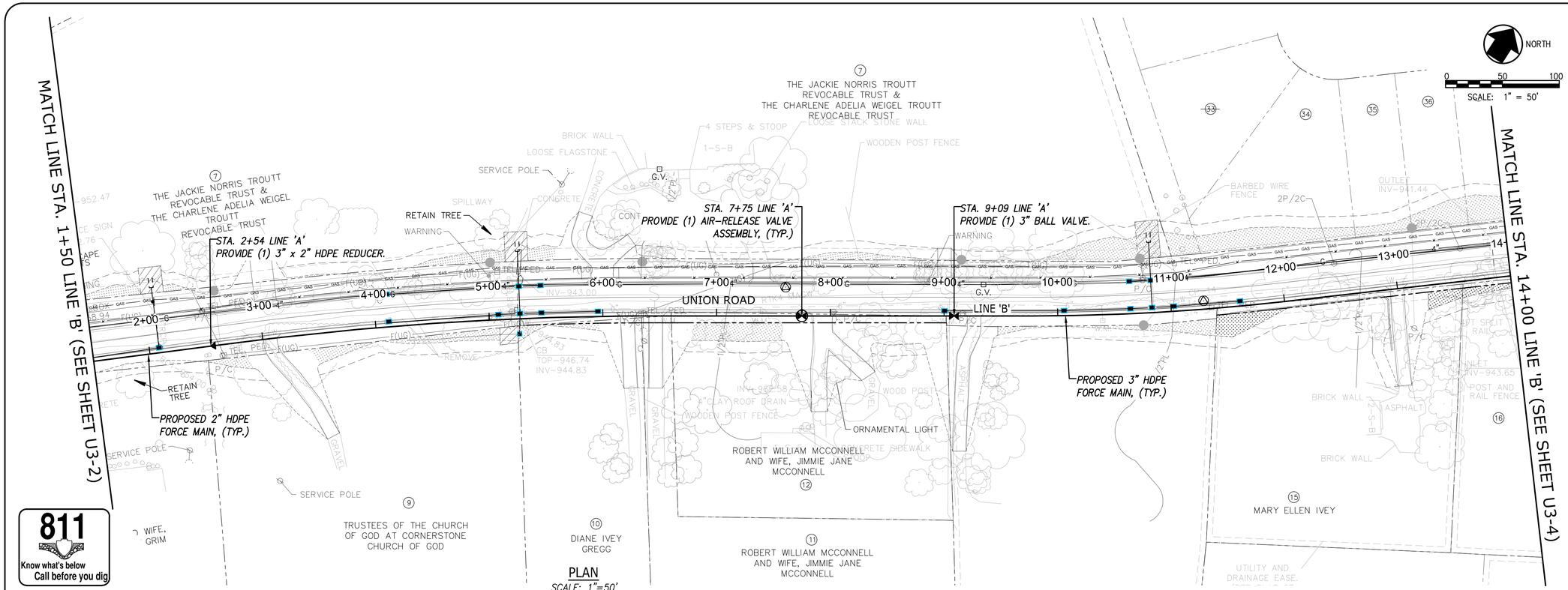
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

FORCE MAIN LINE 'A' PLAN & PROFILE
STA. 0+00 TO STA. 8+97± E.O.L.
FORCE MAIN LINE 'B' PLAN & PROFILE
STA. 0+00 TO STA. 1+50

TIMOTHY F. TUCKER
REGISTERED ENGINEER
AGRICULTURE
VETERINARY
NO. 106895
STATE OF TENNESSEE
8-6-2025

CCI PROJECT NO.	00969-0094
DRAWING DATE	APRIL 24, 2025
PM WWL	PC TFT
DRAWN WBW	FR EG

U3-2



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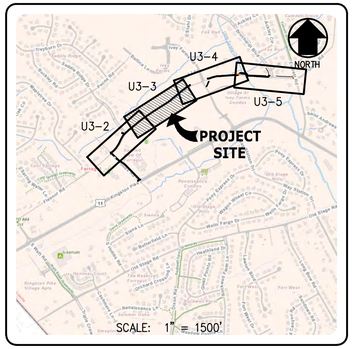
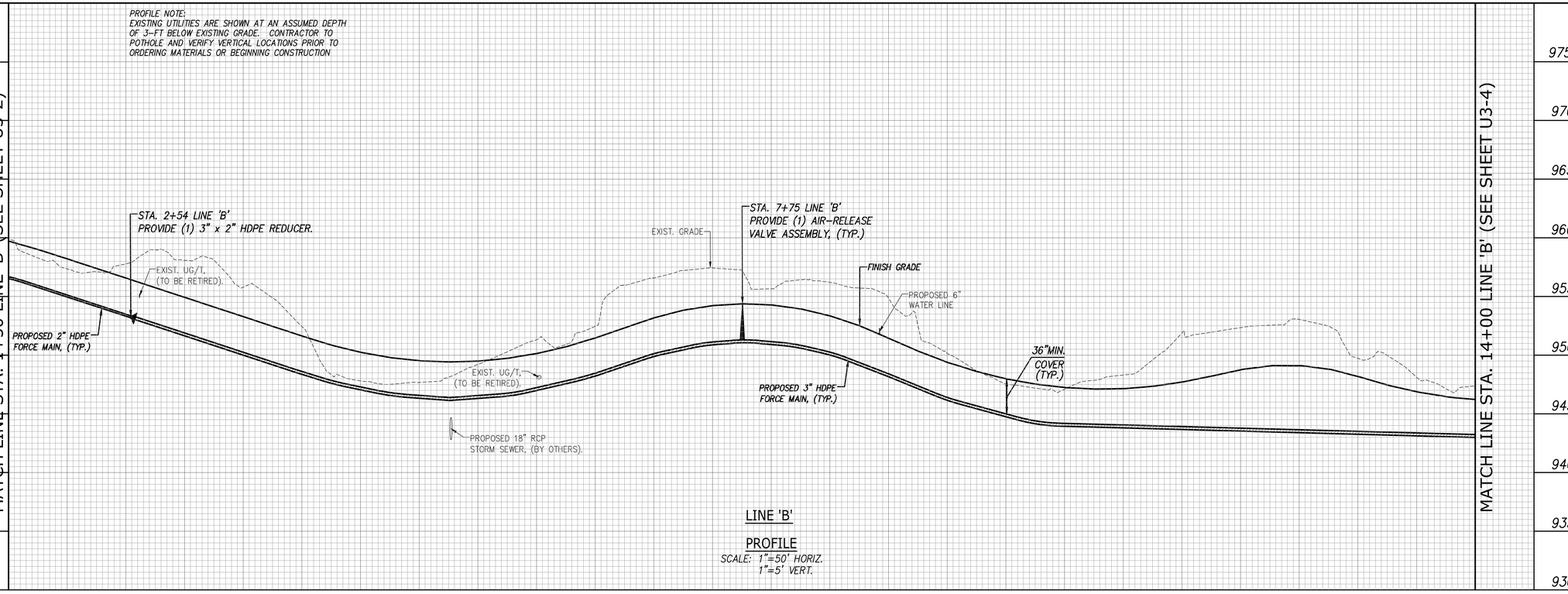


KNOX COUNTY
PIN 125045.00
CCI NO. 00969-0094

B-DATE RESUBMITTAL
DATE: 03/20/2025
BASED ON TDOT PLANS
REV.02/03/2024

PROFILE NOTE:
EXISTING UTILITIES ARE SHOWN AT AN ASSUMED DEPTH OF 3-FT BELOW EXISTING GRADE. CONTRACTOR TO POTHOLE AND VERIFY VERTICAL LOCATIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION



LINE 'B'

PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

NOTES:
1. SEE GENERAL NOTES, SHEET U3-1.
2. INSTALL AND MAINTAIN EROSION CONTROL AS REQUIRED BY OWNER, ENGINEER, OR AGENCY HAVING JURISDICTION.

REVISIONS	DATE
1 90% REVIEW SET	03-21-2025
1 T.D.O.T. B-DATE SET	05-15-2025
2 T.D.E.C. SUBMITTAL	05-15-2025

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CLIENT:
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KNOXVILLE, TN 37922

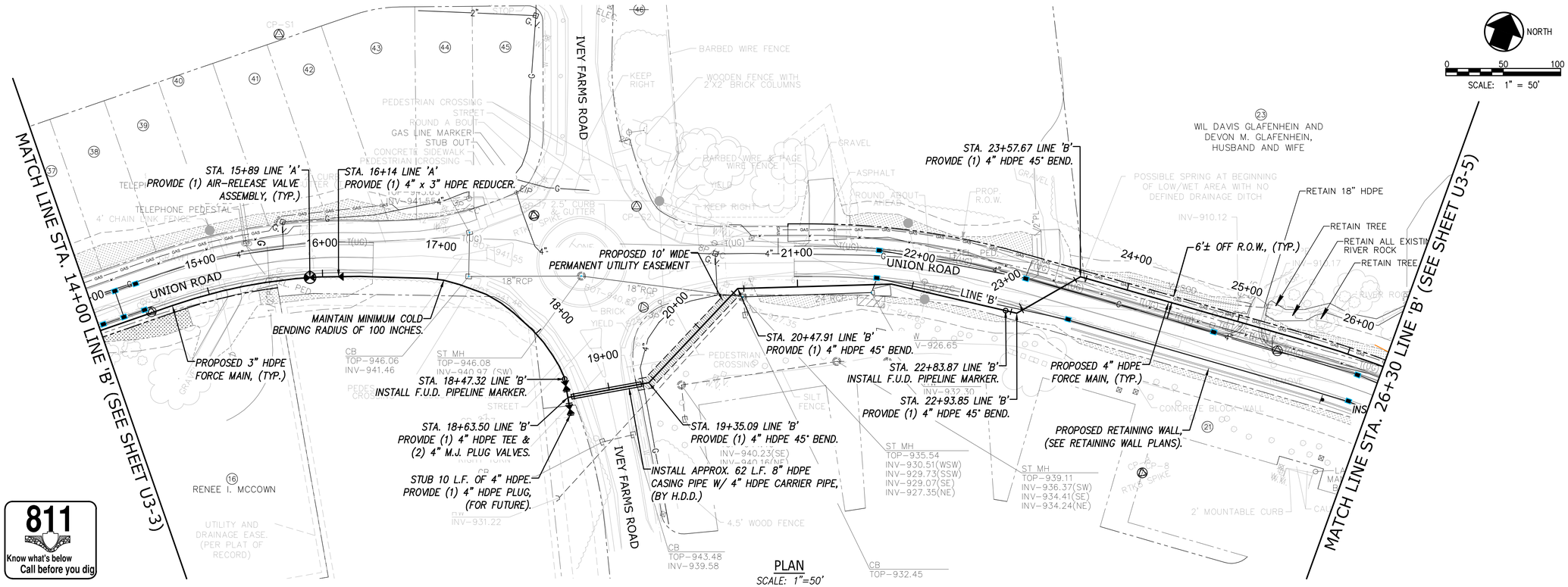
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

FORCE MAIN LINE 'B' PLAN & PROFILE STA. 1+50 TO STA. 14+00

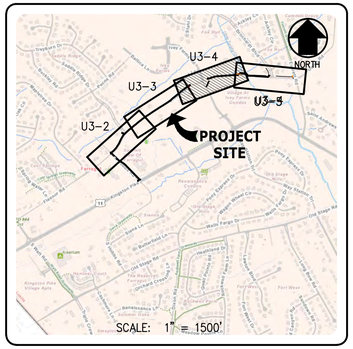
TIMOTHY F. TUCKER REGISTERED ENGINEER AGRICULTURE & ENVIRONMENT No. 106895 STATE OF TENNESSEE 8-6-2025

CCI PROJECT NO.	00969-0094		
DRAWING DATE	APRIL 24, 2025		
PM	WWL	PC	TFT
DRAWN	WBW	FR	EG

U3-3

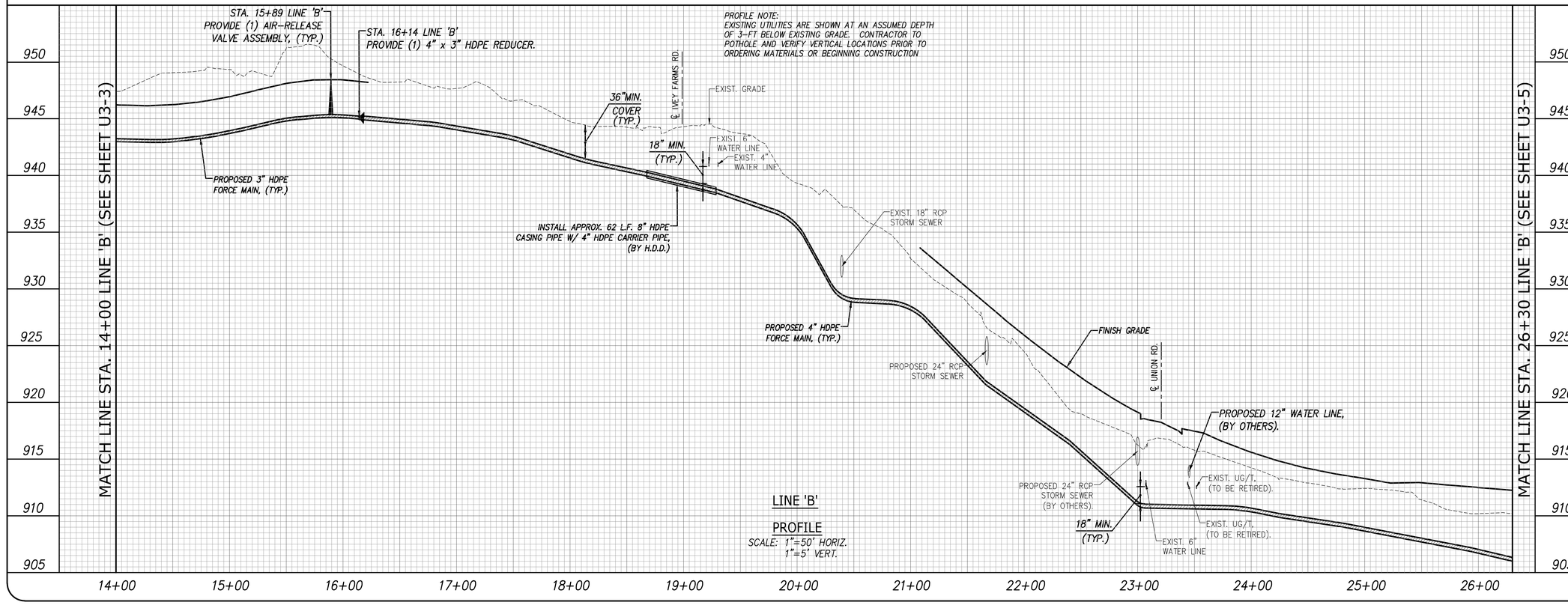


811 Know what's below Call before you dig



KNOX COUNTY
PIN 125045.00
CCI NO. 00969-0094

B-DATE RESUBMITTAL
DATE: 03/20/2025
BASED ON TDOT PLANS
REV.02/03/2024



NOTES:
1. SEE GENERAL NOTES, SHEET U3-1.
2. INSTALL AND MAINTAIN EROSION CONTROL AS REQUIRED BY OWNER, ENGINEER, OR AGENCY HAVING JURISDICTION.

REVISIONS	DATE
1 90% REVIEW SET	03-21-2025
1 T.D.O.T. B-DATE SET	05-15-2025
2 T.D.E.C. SUBMITTAL	05-15-2025

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
FIRST UTILITY DISTRICT
122 DURWOOD ROAD
KNOXVILLE, TN 37922

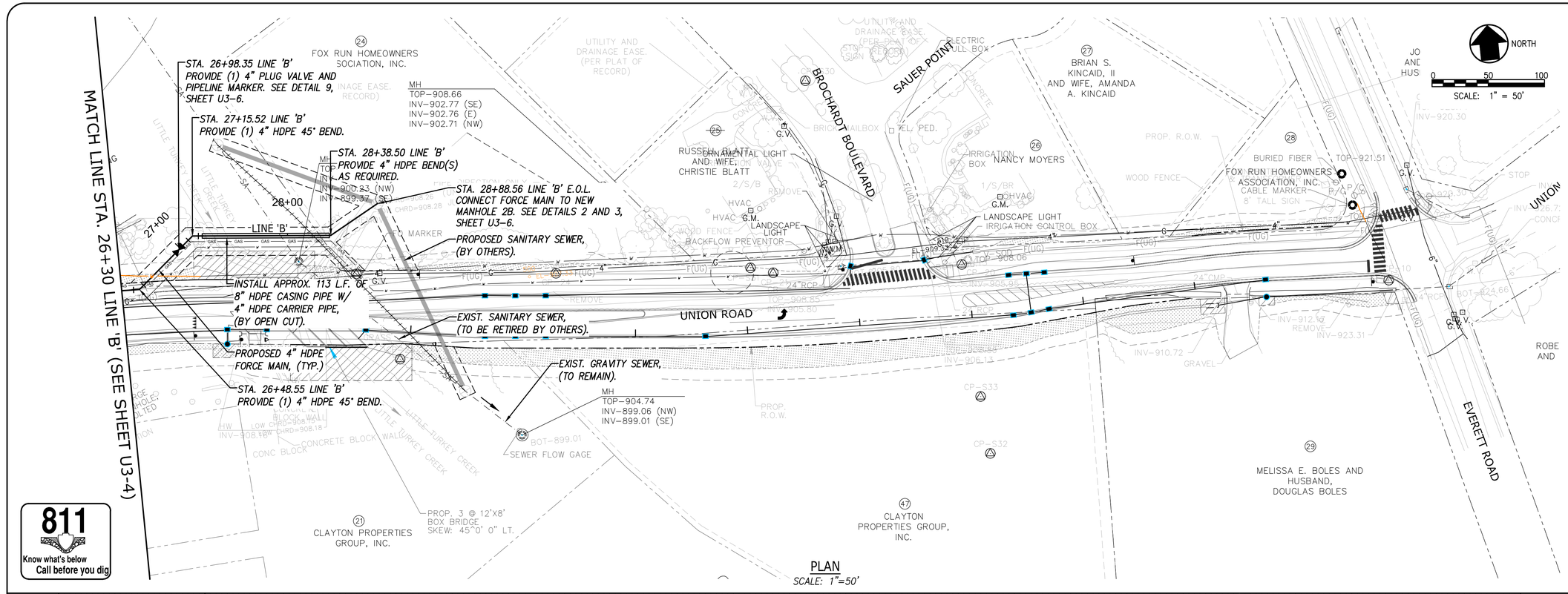
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

FORCE MAIN LINE 'B' PLAN & PROFILE STA. 14+00 TO STA. 26+30

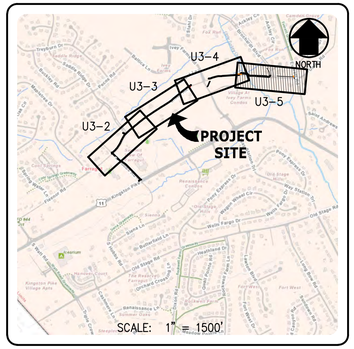
TIMOTHY F. TUCKER REGISTERED ENGINEER AGRICULTURE & ENVIRONMENT No. 106899 STATE OF TENNESSEE 8-6-2025

CCI PROJECT NO.	00969-0094		
DRAWING DATE	APRIL 24, 2025		
PM	WWL	PC	TFT
DRAWN	WBW	FR	EG

U3-4

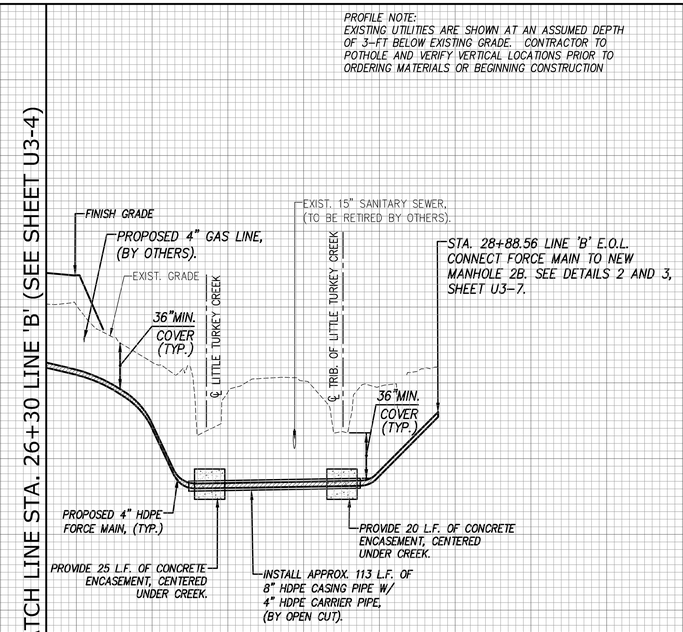


PLAN
SCALE: 1"=50'



811
Know what's below
Call before you dig

PROFILE NOTE:
EXISTING UTILITIES ARE SHOWN AT AN ASSUMED DEPTH OF 3-FT BELOW EXISTING GRADE. CONTRACTOR TO POTHOLE AND VERIFY VERTICAL LOCATIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION



LINE 'B'

PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

KNOX COUNTY
PIN 125045.00
CCI NO. 00969-0094

B-DATE RESUBMITTAL
DATE: 03/20/2025
BASED ON TDOT PLANS
REV.02/03/2024

NOTES:
1. SEE GENERAL NOTES, SHEET U3-1.
2. INSTALL AND MAINTAIN EROSION CONTROL AS REQUIRED BY OWNER, ENGINEER, OR AGENCY HAVING JURISDICTION.

3	90% REVIEW SET	03-21-2025
2	T.D.O.T. B-DATE SET	05-15-2025
1	T.D.E.C. SUBMITTAL	05-15-2025
REVISIONS		DATE

CANNON & CANNON INC
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Knoxville, TN 37932
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CLIENT:
FIRST UTILITY DISTRICT
122 DURWOOD ROAD
KNOXVILLE, TN 37922

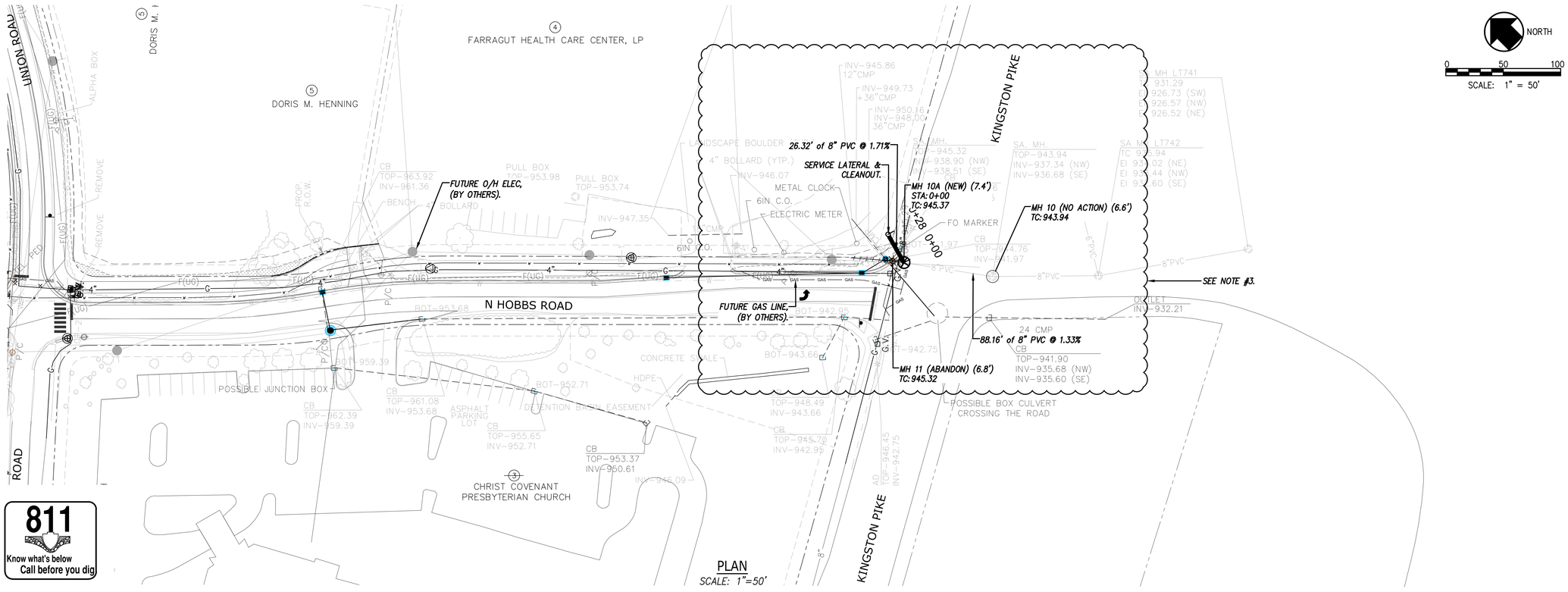
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

FORCE MAIN LINE 'B' PLAN & PROFILE STA. 26+30 TO STA. 28+88± E.O.L.

TIMOTHY F. TUCKER REGISTERED ENGINEER AGRICULTURE ENGINEERING NO. 106895 STATE OF TENNESSEE 8-6-2025

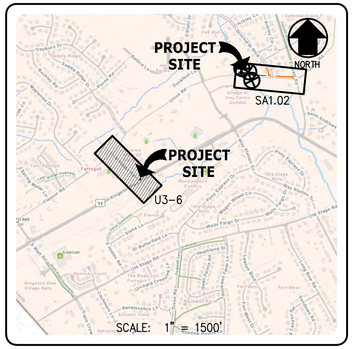
CCI PROJECT NO.	00969-0094		
DRAWING DATE	APRIL 24, 2025		
PM	WWL	PC	TFT
DRAWN	WBW	FR	EG

U3-5



PLAN
SCALE: 1"=50'

SCALE: 1" = 50'

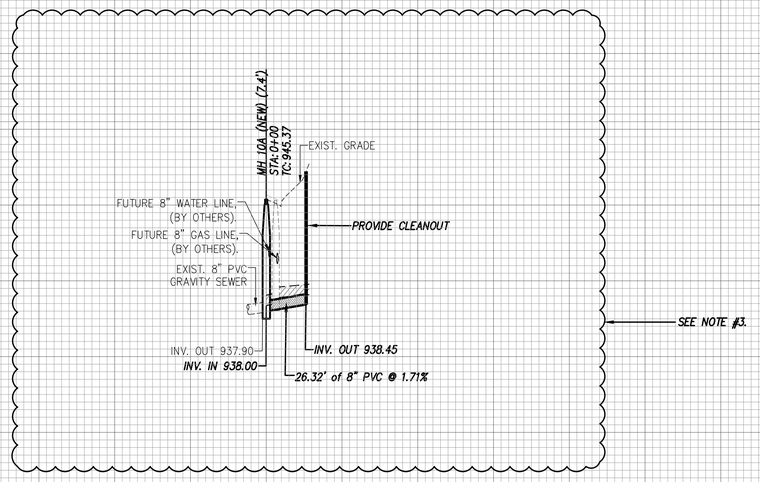


SCALE: 1" = 1500'

811
Know what's below
Call before you dig

NOTES:
1. SEE GENERAL NOTES, SHEET G0.02.
2. INSTALL AND MAINTAIN EROSION CONTROL AS REQUIRED BY OWNER, ENGINEER, OR AGENCY HAVING JURISDICTION.
3. CONTRACTOR SHALL COORDINATE THIS WORK WITH FIRST UTILITY DISTRICT. FIRST UTILITY DISTRICT WILL PERFORM THE GRAVITY SEWER RELOCATION ON THIS PLAN SHEET BASED ON THE CONTRACTOR POTHOLING AND LOCATING THE PROPOSED STORM SEWER IN THIS AREA AND DETERMINING IF THERE IS A CONFLICT BETWEEN THE EXISTING SANITARY SEWER AND THE PROPOSED STORM SEWER.

PROFILE NOTE:
EXISTING UTILITIES ARE SHOWN AT AN ASSUMED DEPTH OF 3-FT BELOW EXISTING GRADE. CONTRACTOR TO POTHOLE AND VERIFY VERTICAL LOCATIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION.



LINE 'A'

PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

960 955 950 945 940 935 930 925 920 915

0+00 1+00

1 90% REVIEW SET	03-21-2025
1 T.D.O.T. B-DATE SET	05-15-2025
2 T.D.E.C. SUBMITTAL	08-06-2025
REVISIONS	DATE

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
FIRST UTILITY DISTRICT
122 DURWOOD ROAD
KNOXVILLE, TN 37922

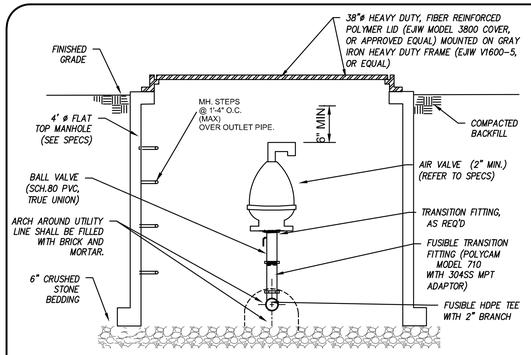
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

SANITARY SEWER LINE 'A' PLAN & PROFILE STA. 0+00 TO STA. 0+52± E.O.L.

TIMOTHY F. TUCKER REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 106895 STATE OF TENNESSEE 8-6-2025

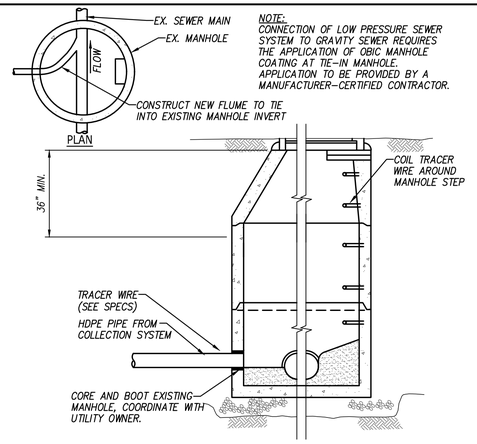
CCI PROJECT NO.	00969-0094		
DRAWING DATE	JUNE 20, 2022		
PM	WWL	PC	TFT
DRAWN	WBW	FR	EG

U3-6



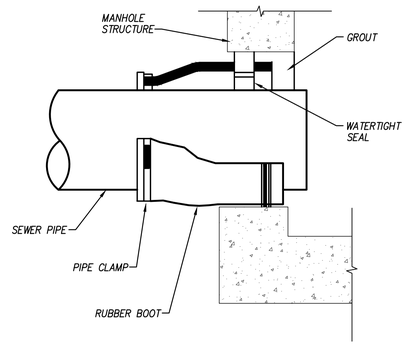
NOTES:
1. TEE, PIPE, ISOLATION VALVE, AND ACCESSORIES TO BE SAME DIAMETER AS COMBINATION AIR RELEASE VALVE.
2. PROVIDE BRACING SUPPORT IF SO REQUIRED BY OWNER.
3. PIPE, VALVES, AND FITTINGS SHALL BE THREADED, NPT.
4. CONTACT OWNER FOR DIRECTION ON INSTALLATIONS REQUIRING AN AIR VALVE LARGER THAN 2-INCHES.
5. INSTALLATION REQUIRES A MIN. DEPTH OF 42-IN. COORDINATE WITH FUD INSPECTOR.

1 / – FORCEMAIN SEWER - COMBINATION AIR VALVE
N.T.S.

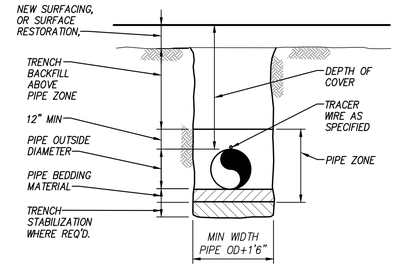


NOTE:
CONNECTION OF LOW PRESSURE SEWER SYSTEM TO GRAVITY SEWER REQUIRES THE APPLICATION OF OBIC MANHOLE COATING AT TIE-IN MANHOLE. APPLICATION TO BE PROVIDED BY A MANUFACTURER-CERTIFIED CONTRACTOR.

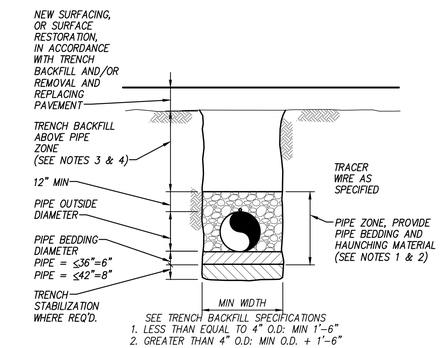
2 / SA1.02 FORCE MAIN SEWER CONNECTION
N.T.S.



3 / SA1.02 RUBBER BOOT
N.T.S.



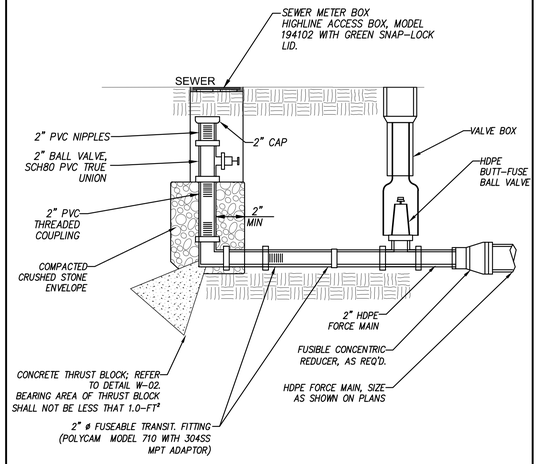
4 / – TRENCH TERMINOLOGY
N.T.S.



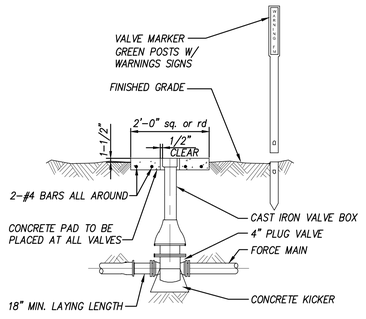
SEE TRENCH BACKFILL SPECIFICATIONS
1. LESS THAN EQUAL TO 4" O.D: MIN 1'-6"
2. GREATER THAN 4" O.D: MIN O.D. + 1'-6"

NOTES:
1. PIPE ZONE MATERIAL, WITHIN 3 FEET OF PAVED SURFACES OR UNDER PAVEMENT, SHALL BE NO. 57 STONE PER TRENCH BACKFILL SPECIFICATION.
2. FOR NON-PAVED AREAS, PIPE BEDDING AND HAUNCHING MATERIAL MAY BE SUITABLE EXCAVATED MATERIALS, AS DEFINED IN THE TRENCH BACKFILL SPECIFICATION, OR NO. 57 STONE.
3. TRENCH BACKFILL UNDER PAVED AREAS, OR WITHIN 3 FEET OF PAVED SURFACES, SHALL BE NO. 57 STONE.
4. TRENCH BACKFILL FOR NON-PAVED AREAS SHALL BE CLASS A EARTH BACKFILL, IN ACCORDANCE WITH TRENCH BACKFILL SPECIFICATIONS.

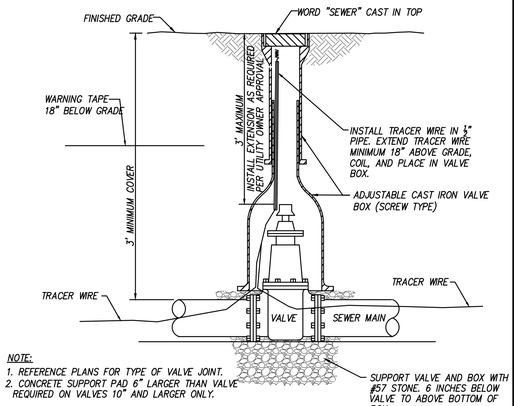
5 / – PIPE BEDDING AND HAUNCHING
N.T.S.



6 / – END-LINE FLUSHING STATION
N.T.S.

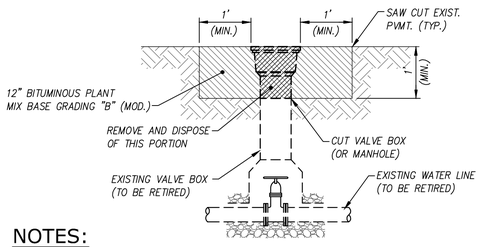


7 / – TYPICAL PLUG VALVE SETTING
N.T.S.



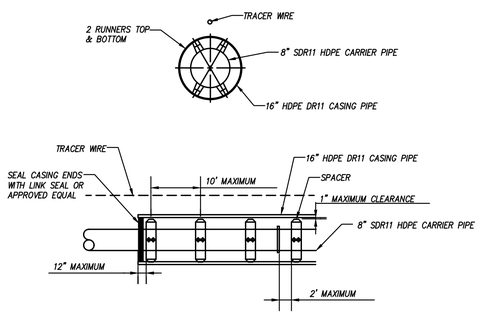
NOTE:
1. REFERENCE PLANS FOR TYPE OF VALVE JOINT.
2. CONCRETE SUPPORT PAD 6" LARGER THAN VALVE REQUIRED ON VALVES 10" AND LARGER ONLY.

8 / – TYPICAL VALVE & VALVE BOX DETAIL
N.T.S.

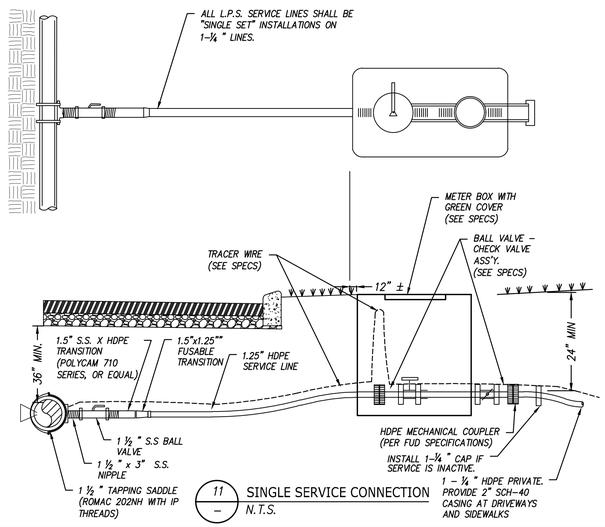


NOTES:
1. AFTER EXISTING WATER LINE(S) HAVE BEEN RETIRED, SAW CUT EXISTING PAVEMENT A MINIMUM OF 1 FOOT BEYOND THE OUTSIDE EDGE OF VALVE (OR STRUCTURE) TO A MINIMUM DEPTH OF 1 FOOT.
2. CUT VALVE BOX (OR MANHOLE) AT 1 FOOT BELOW GRADE, REMOVE TOP PORTION, AND DISPOSE OF REMOVED MATERIAL PROPERLY. CONTRACTOR MAY REMOVE ENTIRE TOP SECTION OF VALVE BOX (OR MANHOLE) WITHOUT CUTTING IF APPROPRIATE, AT NO ADDITIONAL COST TO OWNER.
3. PROVIDE #57 CRUSHED STONE FOR LEVELING COURSE TO 1 FOOT BELOW GRADE.
4. WHEN A TEMPORARY ASPHALT PATCH IS USED, IT SHALL BE PLACED IMMEDIATELY AFTER CRUSHED STONE BACKFILL. ALL TEMPORARY REPAIRS MUST BE REPLACED PERMANENTLY WITHIN 90 DAYS.

9 / – TYPICAL VALVE BOX & MANHOLE RETIREMENT DETAIL
N.T.S.



10 / – TYPICAL CASING CONFIGURATION
N.T.S.



11 / – SINGLE SERVICE CONNECTION
N.T.S.

KNOX COUNTY
PIN 125045.00
CCI NO. 00969-0094

B-DATE RESUBMITTAL
DATE: 03/20/2025
BASED ON TDOT PLANS
REV.02/03/2024

REVISIONS	DATE
1 90% REVIEW SET	03-21-2025
1 T.D.O.T. B-DATE SET	05-15-2025
2 T.D.E.C. SUBMITTAL	05-15-2025

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CLIENT:
FIRST UTILITY DISTRICT
122 DURWOOD ROAD
KNOXVILLE, TN 37922

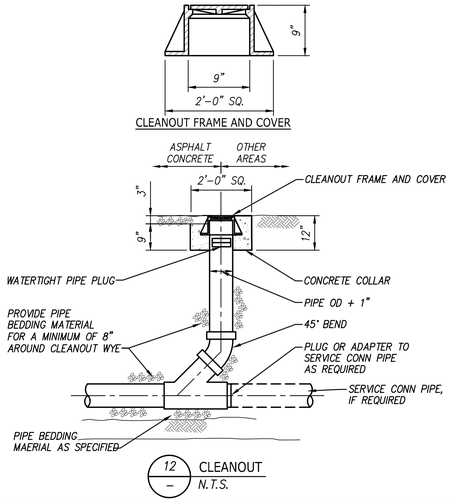
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

TYPICAL DETAILS

TIMOTHY F. TUCKER REGISTERED ENGINEER No. 106898 STATE OF TENNESSEE

CCI PROJECT NO.	00969-0094		
DRAWING DATE	APRIL 24, 2025		
PM	WWL	PC	TFT
DRAWN	WBW	FR	EG

U3-7



12 — CLEANOUT
N.T.S.

THRUST BLOCK NOTES:

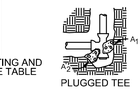
1. KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
2. CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
3. REQUIRED VOLUMES OR BEARING AREAS AT FITTINGS SHALL BE AS INDICATED BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
4. THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE = 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESS./150) x (TABLE VALUE).
5. BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR $(13.33)(P'/S_b')$. WHERE:
   P' = ACTUAL TEST PRESSURE, PSIG
   S_b' = ACTUAL SOIL BEARING PRESSURE, PSF.
6. THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
7. BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD
8. BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ FT.
9. VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE.
10. TEST PRESSURES ARE SHOWN IN THE PIPING SCHEDULE.
11. ALLOWABLE SOIL BEARING STRESS IS 2000 LBS/SQ FT.
12. ALL PIPE AND FITTINGS IN CONTACT WITH CONCRETE SHALL BE WRAPPED IN PLASTIC SHEETING WITH 6-MIL MINIMUM THICKNESS.

BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)								VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)			
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED RUN		BEND ANGLE			FITTING SIZE	BEND ANGLE		
			A_1	A_2	45°	22 1/2°	11 1/4°		45°	22 1/2°	11 1/4°
4	1.0	1.4	1.9	1.4	1.0	-	-	4	1.1	0.4	0.2
6	2.1	3.0	4.3	3.0	1.6	1.0	-	6	2.7	1.0	0.4
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0	8	4.0	1.5	0.6
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2	10	6.0	2.3	0.9
12	8.5	12.0	17.0	12.0	6.6	3.4	1.7	12	8.5	3.2	1.3
14	11.5	16.3	23.0	16.3	8.9	4.6	2.3	14	11.5	4.3	1.8
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0	16	14.8	5.6	2.3
18	19.0	27.0	38.0	27.0	14.6	7.6	3.8				
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7				
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8				

FITTING SIZE	ROD SIZE	EMBEDMENT
12" AND LESS	#6	30"
14"-16"	#8	36"

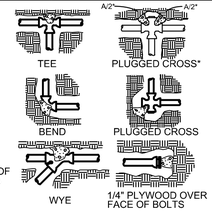
GALVANIZED RODS OVER FITTING AND EMBEDDED IN CONCRETE (SEE TABLE FOR SIZES)

PROFILE

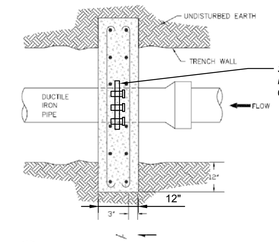


PLUGGED TEE

* EACH AREA (A/2) IS 1/2 OF TABULATED TOTAL AREA

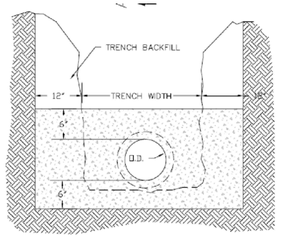


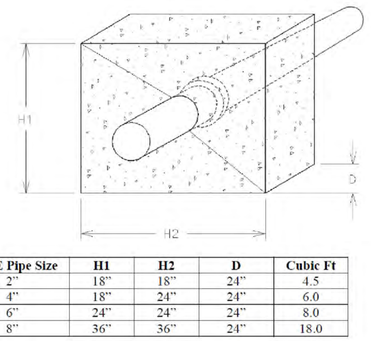
13 — TYPICAL BLOCKING
N.T.S.



NOTES:

1. CONCRETE SHALL BE 3000-PSI
2. REINFORCING BARS SHALL BE No.4 BARS AT 12" E.W.
3. REINFORCING BARS SHALL BE DEFORMED AND TIED TOGETHER.
4. ANCHOR SPACING SHALL BE:
   SLOPESPACING
   18-35% 36-FT
   35-50% 24-FT
   >50% 16-FT
5. DUCTILE IRON PIPE MUST BE USED WHEN SLOPES ARE 18% OR GREATER.
6. KEYING PIPES IS REQUIRED FOR ALL PIPES ON A 18% SLOPE OR GREATER.



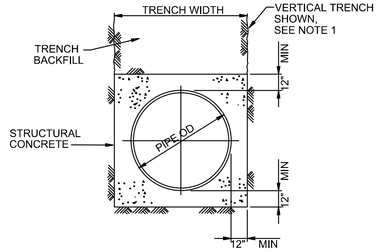


HDPE Pipe Size	H1	H2	D	Cubic Ft
2"	18"	18"	24"	4.5
4"	18"	24"	24"	6.0
6"	24"	24"	24"	8.0
8"	36"	36"	24"	18.0

NOTES:

1. PIPE AND APPURTENANCES IN CONTACT WITH CONCRETE SHALL BE WRAPPED IN 6-MIL PLASTIC SHEETING.
2. THRUST RESTRAINT BLOCKS SHALL BE REQUIRED ON THE HDPE LINE APPROXIMATELY 5-FT AWAY FROM THE TRANSITION FITTING TO CONNECT TO DISSIMILAR PIPE MATERIAL (E.G., DI, CI, PVC, AC, ETC.)

14 — THRUST RESTRAINT FOR HDPE PIPE
N.T.S.



NOTES:

1. VERTICAL TRENCH WALLS SHOWN. CONTRACTOR SHALL SLOPE TRENCH WALLS OR SHORE EXCAVATIONS FOR CONSTRUCTION AND SAFETY IN ACCORDANCE WITH CURRENT OSHA REQUIREMENTS.
2. PEA GRAVEL BAGS, SANDBAGS, OR PRECAST SHAPED CONCRETE BLOCKS (12" MIN WIDTH) DESIGNED TO HANDLE THE INTENDED LOADS, MAY BE USED TO SUPPORT PIPE WHEN PLACING CONCRETE.

15 — CONCRETE ENCASEMENT
N.T.S.

811 Know what's below Call before you dig

KNOX COUNTY
PIN 125045.00
CCI NO. 00969-0094

B-DATE RESUBMITTAL
DATE: 03/20/2025
BASED ON TDOT PLANS
REV.02/03/2024

REVISIONS	DATE
0 90% REVIEW SET	03-21-2025
1 T.D.O.T. B-DATE SET	05-15-2025
2 T.D.E.C. SUBMITTAL	05-15-2025

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
FIRST UTILITY DISTRICT
122 DURWOOD ROAD
KNOXVILLE, TN 37922

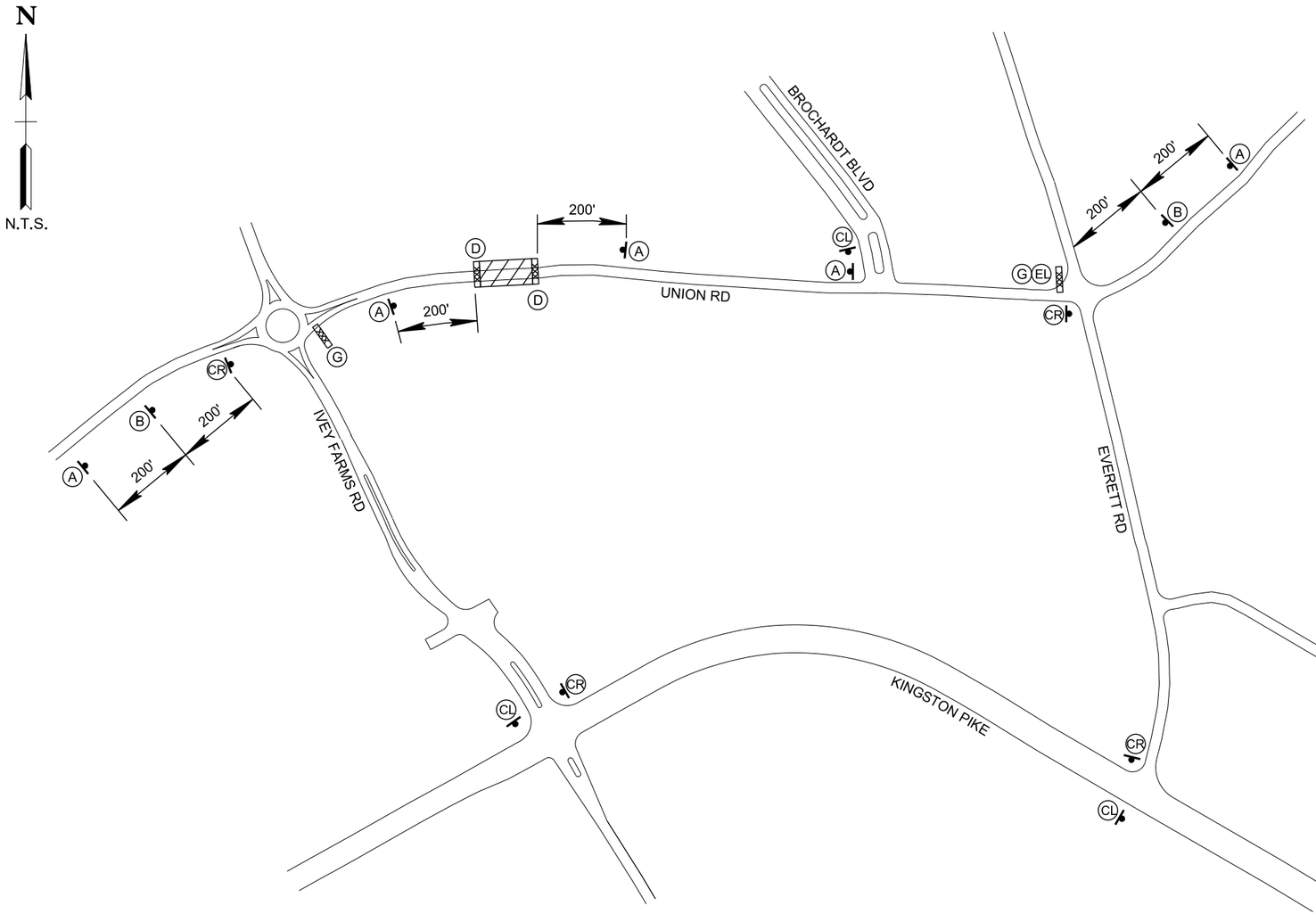
PROJECT:
SEWER RELOCATION FOR UNION ROAD ROADWAY IMPROVEMENTS

TYPICAL DETAILS

TIMOTHY F. TUCKER REGISTERED ENGINEER No. 106898 STATE OF TENNESSEE

CCI PROJECT NO.	00969-0094
DRAWING DATE	APRIL 24, 2025
PM WWL	PC TFT
DRAWN WBW	FR EG

U3-8



NOTES :

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR OR AGENCY PERFORMING CONSTRUCTION TO IMPLEMENT THIS TRAFFIC CONTROL PLAN AS INDICATED AND TO MAKE APPROPRIATE ADJUSTMENTS AS FIELD DETERMINED. THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA SHALL BE PARAMOUNT IN THESE AND ALL OTHER RELATED ACTIVITIES.
2. THE PROPOSED CLOSURE IS TO TAKE PLACE AS APPROVED BY THE TOWN OF FARRAGUT. THE DURATION OF THE CLOSURE SHALL BE MINIMIZED TO THE EXTENT POSSIBLE.
3. ALL TRAFFIC CONTROL DEVICES AND ACTIVITIES SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
4. TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING. WHEN DEVICE USAGE IS SPORADIC, THE DEVICES SHALL BE REMOVED OR FULLY COVERED WHEN CONDITIONS NECESSITATING THEIR USE ARE NOT PRESENT.
5. ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES AT ALL TIMES DURING CONSTRUCTION. DURING TIMES WHEN ACCESS IS SEVERELY RESTRICTED DUE TO CONSTRUCTION, CONTRACTOR PERSONNEL SHALL BE AVAILABLE TO ASSIST DRIVERS TO TRAVERSE THE WORK AREA AND ACCESS PROPERTIES. PROVISION SHALL BE MADE AT ALL TIMES TO EXPEDITE THE MOVEMENT OF EMERGENCY VEHICLES THROUGH THE WORK AREA.
6. CHANNELIZING DEVICES SHALL BE STANDARD MUTCD DRUMS OR TRAFFIC CONES. WHERE USED, CONES SHALL BE MINIMUM OF 28" WITH RETROREFLECTIVE BANDS FOR NIGHT USAGE.

DEVICE LEGEND

- TYPE III BARRICADE
- SIGN ON POST OR TEMPORARY MOUNTING
- WORK AREA

SIGN LEGEND

- ROAD CLOSED AHEAD — (A) W20-3, 48"x 48"
- DETOUR AHEAD — (B) W20-2, 48"x 48"
- DETOUR — (CT) M4-9T, 30"x 24"
- DETOUR — (CL) M4-9L, 30"x 24"
- DETOUR — (CR) M4-9R, 30"x 24"
- ROAD CLOSED — (D) R11-2, 48"x 30" ON TYPE III BARRICADE
- SIGN (EL) OR (ER) SHALL BE MOUNTED DIRECTLY BELOW AS APPROPRIATE
- DETOUR — (EL) M4-10L, 48"x 18"
- DETOUR — (ER) M4-10R, 48"x 18"
- TYPE III BARRICADE ALONE (F)
- ROAD CLOSED TO THRU TRAFFIC — (G) R11-4 OR R11-3, 60" X 30" ON TYPE III BARRICADE
- SIGN (EL) OR (ER) SHALL BE MOUNTED DIRECTLY BELOW AS APPROPRIATE

BRIAN J. HAAS — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — No. 115481 — STATE OF TENNESSEE — 08/05/25

TEMPORARY WORK ZONE TRAFFIC CONTROL PLAN

PREPARED FOR FIRST UTILITY DISTRICT OF KNOX COUNTY

ROAD CLOSURE ON UNION ROAD
(BETWEEN IVEY FARMS ROAD AND BROCHARDT BOULEVARD)

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

AUGUST 5, 2025	
PROJ. NO. 00969-0094.000	
P.M.: BJH	Q/C: BJH
DRAWN: KNT	SHEET TC - 1

Agenda Number: IV.G. **Meeting Date:** August 21, 2025

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Discussion and public hearing on approval of a site plan for a children's wing addition at the Concord United Methodist Church, 11020 Roane Drive, Zoned General Single-Family Residential (R-2) (Cannon & Cannon, Applicant)

Introduction & Background: This agenda item involves a site plan for a roughly 12,000-square-foot (footprint only) two-story building addition at the Concord United Methodist Church to support Sunday school services and daycare.

Discussion & Recommendations: The area where this addition is proposed was pre-planned and is accounted for in their stormwater detention system. No additional parking is needed or provided. The proposed addition matches the existing building and is mostly brick. The staff recommends approval of the site plan subject to the following:

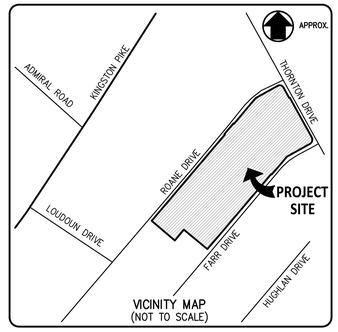
1. Please make sure the date is through the civil engineer's seal on the final plan set.
2. Please provide a drainage fee for $471.
3. A landscape plan will be required for replacement trees.
4. FUD will need to sign off on the utility plan sheets.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: To approve the site plan subject to the following:

1. Please make sure the date is through the civil engineer's seal on the final plan set.
2. Please provide a drainage fee for $471.
3. A landscape plan will be required for replacement trees.
4. FUD will need to sign off on the utility plan sheets.

CONCORD UMC
CHILDREN'S WING ADDITION
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934



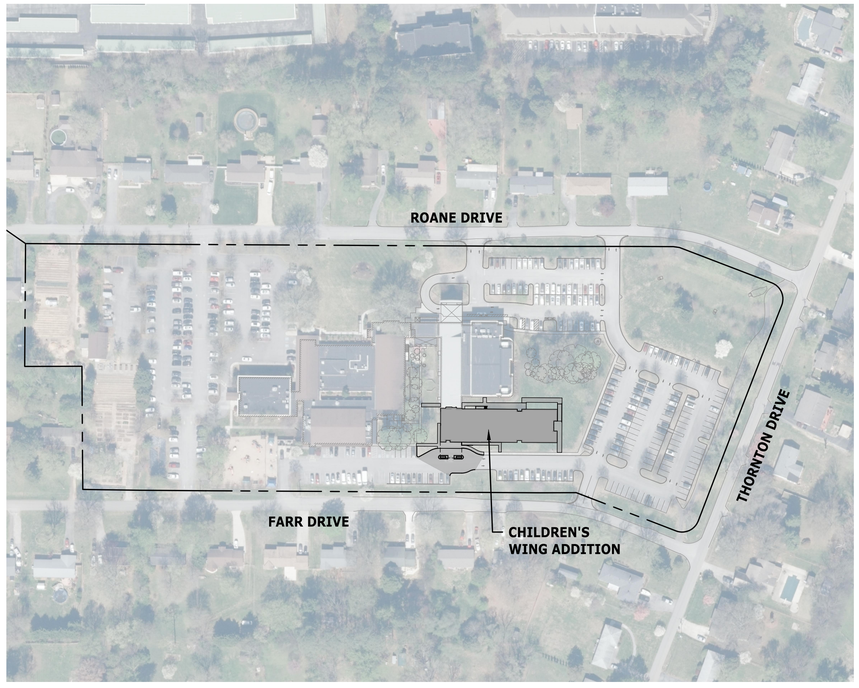
NO.	DATE:	ISSUE DESCRIPTION
1	08/08/2025	REVISED PER TOWN OF FARRAGUT COMMENTS

JASON R. HUNT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 112487
STATE OF TENNESSEE
08/08/2025

IF THIS DOCUMENT IS NOT SIGNED, SEALED, AND DATED, IT MAY NOT BE USED FOR CONSTRUCTION.

DRAWING INDEX

CIVIL	
C001/1	COVER SHEET
C002/2	GENERAL NOTES AND LEGENDS
C003/3	SITE DEMOLITION PLAN
C004/4	LOT COVERAGE AND LANDSCAPE AREAS
C101/5	SITE LAYOUT PLAN (OVERALL)
C102/6	SITE LAYOUT PLAN (ENLARGED)
C201/7	SITE GRADING AND DRAINAGE PLAN (OVERALL)
C202/8	SITE GRADING AND DRAINAGE PLAN (ENLARGED)
C203/9	STORM SYSTEM PROFILES AND TABLES
C301/10	SITE UTILITY PLAN (WATER AND SEWER)
C302/11	SANITARY SEWER PROFILE
C401/12	SITE DETAILS
C402/13	SITE DETAILS
ARCHITECTURAL	
A0.0/14	ARCHITECTURAL COVER SHEET
A0.1/15	3D REFERENCES
A3.1/16	ELEVATIONS
A3.2/17	ELEVATIONS
ELECTRICAL	
E1.1/18	SITE ILLUMINATION PLAN
E1.2/19	SITE DETAILS



LOCATION MAP
N.T.S.

PROPERTY DATA	
PROPERTY OWNER/ DEVELOPER	CONCORD UNITED METHODIST CHURCH 11020 ROANE DRIVE FARRAGUT, TN 37932 TEL. NO. (865) 288-7426 CONTACT: SABINE COLLINS (ADMINISTRATIVE PASTOR)
KNOX. CO. CLT. MAP NO.	143
PARCEL NUMBER	25.01
JURISDICTION	TOWN OF FARRAGUT, 6TH CIVIL DISTRICT
ZONING	R-2 GENERAL SINGLE FAMILY RES. DIST.
TOTAL SITE AREA	12.13 AC (DISTURBED AREA = 0.9 A.C.)

BUILDING INFORMATION	
SIZE OF BLDG ADDITION	11,789 SQ. FEET (FOOTPRINT)
NUMBER OF STORIES	2 (39' TO HIGHEST POINT OF ROOF)
CONSTRUCTION TYPE	IBC TYPE I-IB, SPRINKLERED
OCCUPANCY TYPE	2018/2024 IBC: A-3 AND E
(SEE BUILDING PLANS COVER SHEET FOR ALL APPLICABLE INFORMATION)	

811
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PROJECT:
CONCORD UNITED METHODIST CHURCH
CHILDREN'S WING ADDITION
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
CONCORD UNITED METHODIST CHURCH
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CCI PROJ. NO.	00267-0005
DATE:	JULY 16, 2025
PM:	J. HUNT
DRAWN BY:	J. HUNT

COVER SHEET

C001
SHEET 1 OF 19

GENERAL PROPERTY INFORMATION

1. OWNERSHIP AND REFERENCE:
   PARCEL 25.01
   11020 ROANE DRIVE
   FARRAGUT, TN 37934
   CLT MAP 143, GROUP C
   INST. NO. 20090827-0015385
2. TOTAL SITE AREA: 12.13 AC.
3. TOTAL DISTURBED AREA: 0.9 AC.±
4. THE BOUNDARY AND TOPOGRAPHIC DATA SHOWN WAS PROVIDED BY CANNON & CANNON, INC. DATED SEPTEMBER 29, 2008 AND SUPPLEMENTED WITH RECORD DRAWING SURVEY DATED APRIL 19, 2011. A NEW SURVEY WAS NOT PROVIDED AS PART OF THIS PROJECT. CONTRACTOR TO VERIFY ITEMS WITHIN THE CONSTRUCTION AREA PRIOR TO START OF CONSTRUCTION. COORDINATE ANY DISCREPANCIES WITH ARCHITECT PRIOR TO CONSTRUCTION.
5. ABOVE GROUND AND UNDERGROUND UTILITIES AS SHOWN WERE LOCATED FROM VISIBLE FIELD EVIDENCE, UTILITY MARKINGS AND/OR DRAWINGS BY OTHERS. VERIFICATION AS TO EXISTENCE, LOCATION, SIZE, MATERIAL AND DEPTH SHOULD BE PURSUED PRIOR TO ANY DECISIONS BEING MADE RELATIVE TO UTILITIES. TO AVOID CONFLICTS AND/OR HAZARDS, NOTIFY TENNESSEE ONE CALL PRIOR TO ANY EXCAVATION OR GRADING ACTIVITIES.
6. PROPERTY ZONED: R-2 (GENERAL SINGLE FAMILY RESIDENTIAL). ALL SURROUNDING PROPERTIES ARE ALSO ZONED R-2.
7. ALL SETBACKS SHALL BE IN ACCORDANCE WITH THE TOWN OF FARRAGUT ZONING ORDINANCE. THE MINIMUM SETBACKS FOR MAIN STRUCTURES WILL BE AS FOLLOWS:
   FRONT: THIRTY (30) FEET.
   SIDE: THIRTY (30) FEET TOTAL / TEN (10) FEET MIN.
   REAR: TWENTY-FIVE (25) FEET.
8. SUBJECT PROPERTY LIES OUTSIDE THE 100 YEAR FLOODWAY PER FIRM MAPPING OF KNOX COUNTY, TENNESSEE. COMMUNITY PANEL NO: 47093C0244 DATED 5/02/2007.
9. DEVELOPER/OWNER: CONCORD UNITED METHODIST CHURCH

SITE DEMOLITION NOTES

1. CONTRACTOR SHALL OBTAIN ALL PERMITS AND APPROVALS REQUIRED TO PERFORM DEMOLITION WORK.
2. INSTALL EPSC MEASURES PRIOR TO SITE DEMOLITION.
3. CONTRACTOR TO COORDINATE WITH APPROPRIATE UTILITY PRIOR TO DEMOLITION OF EXISTING SITE UTILITIES. TERMINATION OF UTILITIES SHALL BE IN ACCORDANCE WITH THE UTILITY REQUIREMENTS. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING FIELD CONDITIONS WITH THE APPROPRIATE UTILITY. CONFIRM IF REMOVAL WILL AFFECT ANY OTHER UTILITY SERVICES IN OPERATION. IF IT IS DETERMINED THE UTILITY LINE NEEDS TO REMAIN IN SERVICE, COORDINATE RELOCATION/REPLACEMENT WITH OWNER.
4. ALL ABANDONED UTILITY LINES AND APPURTENANCES SHALL BE REMOVED & DISPOSED OF PROPERLY.
5. CONTRACTOR TO ENSURE ALL EXISTING CUSTOMERS IN PROJECT AREA HAVE RELOCATED AND THAT ALL TERMINATION OF SERVICES HAVE BEEN APPROVED BY THE UTILITY PROVIDERS PRIOR TO DEMOLITION.
6. CONTRACTOR SHALL PROPERLY DISPOSE OF DEMOLITION MATERIAL OFFSITE.
7. CONTRACTOR TO PERFORM DEMOLITION OF RETAINING WALLS, BUILDING WALLS, FOUNDATIONS, PAVEMENT, UNDERGROUND UTILITIES, ETC. AS REQUIRED TO INSTALL THE PROPOSED PLAN AS SHOWN.
8. EXCAVATIONS FROM DEMOLITION ARE TO BE BACKFILLED WITH SOIL OR ENGINEERED FILL IN ACCORDANCE WITH RECOMMENDATIONS BY A GEOTECHNICAL ENGINEER. CONTRACTOR SHALL PROVIDE A PLAN AS NEEDED FOR DEWATERING OF EXCAVATION AREAS.
9. THE UTILITY SERVICES SHOWN ARE BASED ON THE AVAILABLE INFORMATION PROVIDED. ADDITIONAL SERVICE LINES WHICH ARE NOT SHOWN MAY BE ENCOUNTERED DURING DEMOLITION. ALL UTILITY SERVICES CONNECTING TO THE BUILDING WILL BE REMOVED FROM WITHIN THE LIMITS OF DEMOLITION UNLESS OTHERWISE NOTED ON THE DEMOLITION PLANS. ALL SERVICES SHALL BE TERMINATED OR CAPPED IN ACCORDANCE WITH UTILITY PROVIDER GUIDELINES.
10. THE LOCATION OF TREE PROTECTION FENCING AND OTHER MEASURES USED TO DEFINE THE LIMITS OF DISTURBANCE THAT HAVE BEEN APPROVED BY THE TOWN OF FARRAGUT SHALL NOT BE REMOVED OR ALTERED WITHOUT OBTAINING PERMISSION FROM THE TOWN OF FARRAGUT. ANY SUCH REMOVAL OR ALTERATION OF SUCH FENCING WILL RESULT IN A STOP WORK ORDER FOR THE ENTIRE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TREE PROTECTION FENCING FOR THE DURATION OF THE PROJECT.
11. BLASTING AND BURNING ARE NOT PERMITTED ON THIS SITE.
12. THE CONTRACTOR IS RESPONSIBLE FOR HOUSEKEEPING AND MAINTAINING A SAFE, CLUTTER FREE SITE. MATERIALS ARE TO BE STORED AT DESIGNATED AREAS AND LITTER IS TO BE DISPOSED OF PROPERLY ON A DAILY BASIS. DUMPSTER FOR CONSTRUCTION DEBRIS AND TRASH WILL BE MAINTAINED ON SITE BY CONTRACTOR.

GENERAL SITE NOTES

1. PRIOR TO BEGINNING ANY CONSTRUCTION, THE DEVELOPER AND/OR CONTRACTOR, SHALL OBTAIN ALL NECESSARY PERMITS AS REQUIRED BY LAW OR THE GOVERNING JURISDICTIONS. SUCH PERMITS MAY INCLUDE, BUT ARE NOT LIMITED TO, THOSE REQUIRED BY STATE OF TENNESSEE AND THE TOWN OF FARRAGUT.
2. UNLESS NOTED OTHERWISE, DIMENSIONS ARE TAKEN FROM OUTSIDE FACE OF BUILDING AND/OR FACE OF CURB.
3. THE MINERAL AGGREGATE BASE AND ASPHALTIC SURFACE COURSES SHALL MEET THE MATERIALS, EQUIPMENT, CONSTRUCTION, AND TESTING REQUIREMENTS OF THESE DRAWINGS, THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT), AND THE TOWN OF FARRAGUT STANDARD SPECIFICATIONS.
4. TRAFFIC CONTROL DEVICES AND PAVEMENT MARKING SHALL CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
5. ALL OFF-SITE WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE AN APPROVED TRAFFIC CONTROL PLAN WHICH COMPLIES WITH THE MUTCD. THE CONTRACTOR SHALL HAVE AN APPROVED TRAFFIC CONTROL PLAN ONSITE DURING CONSTRUCTION.
6. CONTRACTOR IS RESPONSIBLE FOR REPAIRING RIGHT-OF-WAY ELEMENTS DAMAGED DURING CONSTRUCTION PER TOWN OF FARRAGUT STANDARDS.
7. PROPOSED LANDSCAPE WILL COMPLY WITH TOWN OF FARRAGUT LANDSCAPE ORDINANCE.
8. LOCATING AND COORDINATION FOR THE RELOCATION OF EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. TENNESSEE'S ONE-CALL SHALL BE UTILIZED IN ADDITION TO COORDINATION WITH LOCAL UTILITY OWNERS. THE CONTRACTOR SHALL AT ALL TIMES PROTECT EXISTING UTILITIES AND WILL BE RESPONSIBLE FOR COSTS DUE TO DAMAGE CAUSED TO ANY UTILITY LINES.
9. REFER TO ORIGINAL SURVEY FOR HORIZONTAL CONTROL INFORMATION. CONTRACTOR TO VERIFY ALL SURVEY CONTROL DUE TO TIMEFRAME SINCE PREVIOUS SURVEY.
10. NO ANTENNAE WILL BE LOCATED ON SITE.

STORM PIPE NOTES

1. INSTALL STORM SEWER PIPING AND APPURTENANCES TO MEET THE MATERIALS, EQUIPMENT, AND CONSTRUCTION REQUIREMENTS OF TDOT AND THE TOWN OF FARRAGUT STANDARD SPECIFICATIONS.
2. TRENCH DESIGN AND SAFETY FOR PIPELINE CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
3. STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE IN ACCORDANCE WITH AASHTO M170 OR EQUAL, OR SMOOTH INTERIOR HIGH DENSITY POLYETHYLENE PIPE IN ACCORDANCE WITH AASHTO M294 OR EQUAL. REFER TO THE STORM PIPE TABLES FOR PIPE MATERIAL, SIZE, AND SLOPE.
4. PIPE DEFLECTION AND ALIGNMENT SHALL BE CHECKED AFTER BACKFILLING & COMPACTION ARE COMPLETE & PRIOR TO PLACING THE BASE. TEST DEFLECTION WITH A MANDREL OR OTHER APPROVED METHOD.
5. PIPE WITH DEFLECTION 5% OR GREATER OR WITH UNDUE MISALIGNMENT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. STORM PIPE LENGTHS LOCATED IN STORM PIPE TABLE REPRESENT CENTER OF STRUCTURE TO CENTER OF STRUCTURE (COORDINATE TO COORDINATE). CONTRACTOR TO ADJUST LENGTHS AS NEEDED BASED ON SIZE OF STRUCTURE (REFER TO STORM DATA TABLES).
7. ROOF DRAINS AND DOWNSPOUT LEADERS SHALL BE SDR 35 PVC OR SMOOTH INTERIOR HDPE. SLOPE 4" LEADERS AT A MINIMUM 2% SLOPE AND 6" OR LARGER LEADERS AT A MINIMUM 1% SLOPE. CLEANOUTS LOCATED IN TRAFFIC AREAS TO BE HEAVY DUTY RATED. REFER TO DOWNSPOUT/ROOF DRAIN CONNECTION DETAILS FOR ADDITIONAL INFORMATION. DOWNSPOUT LOCATIONS TO BE COORDINATED WITH ARCHITECTURAL DRAWINGS.

GENERAL GRADING NOTES

1. UNLESS NOTED OTHERWISE, THE PROPOSED GRADES SHOWN ON THESE DRAWINGS ARE FINISHED GRADE. CONTRACTOR TO ADJUST FOR PAVEMENT, TOPSOIL, ETC. THICKNESS AS REQUIRED. EXISTING AND PROPOSED CONTOURS ARE SHOWN AT 1 FT. INTERVALS.
2. EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK. THE DEVICES SHOWN ON THE DRAWINGS ARE THE MINIMUM REQUIRED. THE CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION CONTROL DEVICES AS NEEDED.
3. THE SITE SHALL BE CLEARED AND GRUBBED WITHIN THE LIMITS OF EXCAVATION. COMPLETELY DISPOSE OF ALL MATERIALS RESULTING FROM CLEARING AND GRUBBING OFF-SITE OR ON-SITE AT A LOCATION DETERMINED BY THE OWNER.
4. ALL TREE STUMPS, BOULDERS, AND OTHER OBSTRUCTIONS SHALL BE REMOVED TO A DEPTH OF 2 FT BELOW THE SUBGRADE. ROCK SHALL BE SCARIFIED TO A DEPTH OF 1 FT BELOW SUBGRADE.
5. STRIP TOPSOIL TO A DEPTH AS REQUIRED BY GEOTECHNICAL ENGINEER. STRIP TOPSOIL ONLY FROM AREAS THAT WILL BE DISTURBED BY EXCAVATION, FILLING, PAVING, OR COMPACTION BY EQUIPMENT. TEMPORARILY STOCKPILE EXCAVATED MATERIALS AND INSTALL SILT FENCE OR OTHER APPROPRIATE EROSION CONTROL STRUCTURES ON THE DOWN HILL SIDE OF THE STOCKPILE.
6. PROOF ROLL AREAS TO RECEIVE FILL AND PLACE FILL IN ACCORDANCE WITH THE SITE SPECIFIC REPORT OF GEOTECHNICAL EXPLORATION IF PROVIDED. IF A GEOTECHNICAL REPORT IS NOT AVAILABLE FOR THIS PROJECT, PLACE FILL AS NOTED BELOW.
7. PROOF ROLL ALL AREAS TO RECEIVE FILL. PROOF ROLL WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK USING A CRISS-CROSS PATTERN (4 PASSES MIN.). AREAS FAILING THE PROOF ROLLING SHALL BE UNDERCUT AND BACKFILLED USING AN ENGINEERED FILL OR STABILIZED BY A METHOD APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER.
8. AREAS THAT EXHIBIT WEAK SOIL OR OTHERWISE UNSUITABLE CONDITIONS SHALL BE UNDERCUT TO A FIRM LEVEL OF SOIL FOLLOWED BY BACKFILLING THE UNDERCUT AREAS USING AN ENGINEERED FILL, TDOT NO. 57 STONE, OR TDOT NO. 67 STONE.
9. UNSATISFACTORY SOILS INCLUDE MATERIALS THAT ARE TOO WET OR TOO SOFT, EXPANSIVE SOILS (PLASTICITY INDEX GREATER THAN OR EQUAL TO 30), AND SOILS CLASSIFIED AS PT, OH, AND OL.
10. FILL MATERIAL SHALL BE PLACED IN LOOSE, HORIZONTAL LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS. COMPACT EACH LAYER AT LEAST 98% MAXIMUM DRY DENSITY. COMPACT THE UPPER 24 INCHES OF FILL BENEATH PAVEMENTS AND THE UPPER 12 INCHES BENEATH BUILDING SLABS TO 100% MAXIMUM DRY DENSITY. MAINTAIN THE MOISTURE CONTENT TO WITHIN -1 TO +3 PERCENT OF THE OPTIMUM MOISTURE CONTENT.
11. A 4 IN. MINIMUM UNIFORM LAYER (SETTLED) OF TOPSOIL SHALL BE PLACED OVER THE AREAS TO BE SEEDED AND TO THE FINISHED GRADE ELEVATIONS AS SHOWN ON THE DRAWINGS.
12. ALL NEWLY GRADED EARTHEN AREAS THAT ARE NOT TO BE PAVED, STABILIZED, OR SODDED SHALL BE SEEDED, FERTILIZED, AND MULCHED WITHIN 30 DAYS OF ATTAINMENT OF FINAL GRADE. REFER TO SEEDING MIXTURE CHART ON THIS SHEET FOR ADDITIONAL INFORMATION.
13. MULCH WITH STRAW AT A RATE OF 100 LBS/1000 SF OVER THE SEEDED AREAS.
14. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS OR POND ON-SITE. PROVIDE NECESSARY MEASURES TO KEEP THE SITE FREE-DRAINING.
15. PERIMETER SLOPES SHALL BE LANDSCAPED AND ARE NOT TO EXCEED 2:1 (H:V) UNLESS PROPER STABILIZATION IS PROPOSED BY A GEOTECHNICAL ENGINEER. NO SLOPE SHALL EXCEED 2:1 (H:V). ALL SLOPES STEEPER THAN 3:1 TO RECEIVE EROSION CONTROL BLANKET.
16. TO PREVENT EROSION, ALL SLOPES 2:1 OR GREATER ARE TO BE TRACKED WITH A DOZER TO FORM CLEAT MARKS PARALLEL TO THE CONTOUR.
17. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED.
18. APPLY TEMPORARY SEEDING WHENEVER GRADING OPERATIONS ARE HALTED FOR OVER 14 DAYS. APPLY TEMPORARY SEEDING TO ALL SOIL STOCKPILES. STEEP SLOPES (SLOPES GREATER THAN 35%) SHALL BE STABILIZED WITHIN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.
19. APPLY PERMANENT SEEDING WHENEVER GRADING OPERATIONS ARE COMPLETED AND ALL CONSTRUCTION OPERATIONS WILL NOT IMPACT THE DISTURBED AREA. APPLY PERMANENT SEEDING TO ALL NON-CONSTRUCTION AREAS WHICH SHOW SIGNS OF EXCESSIVE EROSION.

GENERAL EROSION CONTROL NOTES

1. INITIAL EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL SHEETS SHALL BE INSTALLED AS FIRST ITEM OF CONSTRUCTION. THESE ITEMS SHALL BE COMPLETED PRIOR TO COMMENCING WITH SITE CLEARING, GRUBBING, AND GRADING OPERATIONS.
2. PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED, OR DISTURBED MORE THAN 15 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA IS SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED.
3. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE.
4. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS, SILT FENCES, AND OTHER SEDIMENT CONTROLS WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50% SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS WHEN IT REACHES 1/4 TO 1/3 OF THE TOTAL STORAGE VOLUME.
5. ADEQUATE DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES, BEST MANAGEMENT PRACTICES AND/OR OTHER STORMWATER MANAGEMENT FACILITIES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTOR'S OR PROPERTY OWNER'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND/OR PROPERTY OWNER.
6. QUALITY ASSURANCE OF EROSION PREVENTION AND SEDIMENT CONTROLS SHALL BE CONDUCTED BY QUALIFIED PERSONNEL PERFORMING SITE ASSESSMENT AT EACH OUTFALL INVOLVING DRAINAGE TOTALING 10 OR MORE ACRES, OR FIVE OR MORE ACRES IF DRAINING TO IMPAIRED OR EXCEPTIONAL WATERS. THIS ASSESSMENT WILL BE CONDUCTED AT EACH QUALIFYING OUTFALL WITHIN A MONTH OF CONSTRUCTION COMMENCEMENT IN ACCORDANCE WITH THE LATEST CONSTRUCTION GENERAL PERMIT.
7. FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND/OR STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS. ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED BY THE PERMITTEE WITH THE ADJOINING LAND OWNER.
8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PICKED UP PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF THE SITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTION SOURCE FOR STORMWATER DISCHARGES.
9. INSPECTIONS OF OUTFALLS/EPSC MEASURES SHALL BE CONDUCTED AT LEAST TWICE WEEKLY AND AT LEAST 72 HOURS APART OR AS REQUIRED IN THE LATEST CONSTRUCTION GENERAL PERMIT.
10. VEGETATION, EPSCs & OTHER PROTECTIVE MEASURES SHALL BE REPAIRED, REPLACED, OR MODIFIED WITHIN 7 DAYS OF BEING NOTIFIED OF AN ISSUE.
11. CONSTRUCTION SHALL BE PHASED FOR ACTIVITIES THAT WILL DISTURB > 50 ACRES.
12. EPSCs SHALL BE DESIGNED TO CONTROL THE RAINFALL AND RUNOFF FROM A 5-YEAR, 24-HOUR RETURN INTERVAL STORM
13. TEMPORARY SEDIMENT BASIN(S) SHALL BE PROVIDED FOR ON-SITE OUTFALLS THAT RECEIVE DRAINAGE FROM ≥ 10 ACRES; ≥ 5 ACRES FOR SITES THAT DISCHARGE TO WATERS WITH UNAVAILABLE PARAMETERS FOR SILTATION OR EXCEPTIONAL TN WATERS.
14. TEMPORARY SEDIMENT TRAP(S) SHALL BE PROVIDED FOR ON-SITE OUTFALLS THAT RECEIVE DRAINAGE FROM ≥ 3.5 ACRES FOR SITES THAT DISCHARGE TO WATERS WITH UNAVAILABLE PARAMETERS FOR SILTATION OR EXCEPTIONAL TN WATERS.
15. GREEN INFRASTRUCTURE BMPs (INFILTRATION AREAS) SHALL BE PROTECTED DURING SITE WORK, WITH SILT FENCE OR ADDITIONAL EROSION CONTROL MEASURES AS REQUIRED TO PREVENT SEDIMENTATION AND COMPACTION.
16. TEMPORARY SEDIMENT BASINS OR TRAPS SHALL REMAIN IN PLACE UNTIL SITE IS STABILIZED AND ALL FUTURE SECTIONS ARE COMPLETE. SEDIMENT BASINS USED AS PERMANENT DETENTION PONDS SHALL BE CONVERTED TO DETENTION STRUCTURES AFTER FINAL STABILIZATION OF SITE.
17. IF OFF-SITE BORROW MATERIAL IS UTILIZED, A COPY OF PERMIT SHALL BE PROVIDED TO THE TOWN OF FARRAGUT.

GENERAL SITE UTILITY NOTES

1. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE APPROPRIATE UTILITY COMPANIES INVOLVED.
2. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD THE EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT. FURNISH ANY SPECIAL EQUIPMENT REQUIRED TO WORK OVER AND AROUND THE UTILITIES.
3. TRENCHING FOR UTILITIES IN PAVED AREAS SHALL BE REPAIRED TO MEET STANDARDS APPLICABLE TO THE GOVERNING AGENCY.
4. CONTRACTOR TO INSTALL ALL WATER LINES AND APPURTENANCES PER MANUFACTURER'S SPECIFICATIONS.
5. TRENCH DESIGN AND SAFETY FOR PIPELINE CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
6. THE STONE BEDDING AND BACKFILL SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS AND/OR THE APPLICABLE UTILITY PROVIDER.
7. WATER LINE PIPE SHALL BE IN ACCORDANCE WITH THE TOWN OF FARRAGUT BUILDING CODE REQUIREMENTS; FROM THE METER TO THE MAIN SYSTEM SHALL MEET FIRST UTILITY DISTRICT OF KNOX COUNTY REQUIREMENTS.
8. WATER SERVICE PIPE LARGER THAN 2 INCH IN DIAMETER SHALL BE DUCTILE IRON (CLASS 350) OR SHALL BE HDPE 3408 WITH BLUE STRIPES OR BLUESHELL MANUFACTURED IN ACCORDANCE WITH AWWA C906 AND NSF 61. SERVICE PIPE 2 INCH IN DIAMETER AND SMALLER SHALL BE TYPE-K COPPER MEETING ASTM B88 OR SHALL BE HDPE 3408 WITH BLUE STRIPES OR BLUESHELL MANUFACTURED IN ACCORDANCE WITH AWWA C901 AND NSF 61. PIPES LARGER THAN 2 INCH SHALL BE DUCTILE IRON PIPE SIZE (DIPS) IN COMPLIANCE WITH AWWA C906 AND ASTM F 714. PIPES 2 INCH AND LESS SHALL BE IRON PIPE SIZE (IPS) IN COMPLIANCE WITH AWWA C901 AND ASTM D3035. HDPE PIPE 2 INCH AND LARGER SHALL BE SDR 11 AND PIPE SMALLER THAN 2 INCHES SHALL BE SDR 9.
9. ALL WATER LINE MATERIAL SHALL BE LEAD FREE.
10. CONTRACTOR TO INSTALL WATER LINES AT A POSITIVE GRADE BETWEEN DESIGNATED HIGH AND LOW POINTS TO PREVENT TRAPPING OF AIR. AIR RELEASE VALVES SHALL BE INSTALLED AT HIGH POINTS IN THE PROPOSED WATER LINE.
11. CONTRACTOR TO USE FITTINGS WITH REACTION BLOCKING AS REQUIRED FOR PROPER HORIZONTAL AND VERTICAL ALIGNMENT.
12. ALL SANITARY SEWER LINES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH TOWN OF FARRAGUT BUILDING CODE REQUIREMENTS; FROM MAIN TO PRIVATE SEWER CLEANOUT SHALL MEET FIRST UTILITY DISTRICT OF KNOX COUNTY REQUIREMENTS.
13. SANITARY SEWER LATERALS SHALL BE SDR 26 PVC FOR PIPE FROM 4 INCHES TO 15 INCHES IN DIAMETER UNLESS NOTED OTHERWISE. PIPE SHALL MEET THE REQUIREMENTS OF ASTM D3034.
14. REFERENCE BUILDING PLUMBING, ELECTRIC, AND MECHANICAL DRAWINGS FOR LOCATION OF UTILITY CONNECTIONS. INCLUDE FITTINGS AS REQUIRED TO MATCH BUILDING SERVICE SIZES AND MATERIALS.
15. ALL INTERIOR FLOOR DRAINS WILL BE CONNECTED TO THE SANITARY SYSTEM.
16. THE WATER SYSTEMS FOR EACH BUILDING WILL NOT BE TIED TOGETHER.
17. IRRIGATION SERVICES SHALL INCLUDE BACKFLOW PREVENTION AS REQUIRED BY FIRST UTILITY DISTRICT OF KNOX COUNTY.

UTILITY SERVICE PROVIDERS

WATER AND SANITARY SEWER
FIRST UTILITY DISTRICT OF KNOX COUNTY (FUD)

ELECTRICITY
LENOIR CITY UTILITY BOARD (LCUB)

GAS
KNOXVILLE UTILITIES BOARD (KUB)

TELEPHONE
TDS TELECOM

CABLE TELEVISION
CHARTER COMMUNICATIONS

SEEDING MIXTURE CHART:

1. TEMPORARY SEEDING MIXTURES SHALL BE AS FOLLOWS:

SEEDING DATES	GRASS SEED	PERCENTAGES
1/1 TO 5/1	ITALIAN RYE	33%
	KOREAN LESPEDEZA	33%
	SUMMER OATS	34%
5/1 TO 7/15	SUDAN - SORGHUM	100%
5/1 TO 7/15	STAR MILLET	100%
7/15 TO 1/1	BALBOA RYE	67%
	ITALIAN RYE	33%

2. PERMANENT SEEDING MIXTURES SHALL BE AS FOLLOWS:

SEEDING DATES	GRASS SEED	PERCENTAGES
2/1 TO 7/1	KENTUCKY 31 FESCUE	80%
	KOREAN LESPEDEZA	15%
	ENGLISH RYE	5%
6/1 TO 8/15	KENTUCKY 31 FESCUE	55%
	ENGLISH RYE	20%
	KOREAN LESPEDEZA	15%
	GERMAN MILLET	10%
4/15 TO 8/15	BERMUDAGRASS (HULLED)	70%
	ANNUAL LESPEDEZA	30%
8/1 TO 12/1	KENTUCKY 31 FESCUE	70%
	ENGLISH RYE	20%
	WHITE CLOVER	10%
2/1 TO 12/1	KENTUCKY 31 FESCUE	70%
	CROWN VETCH	25%
	ENGLISH RYE	5%

LEGEND

- ASPHALT PVMT (LIGHT DUTY)
- ASPHALT PVMT (HEAVY DUTY)
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- EXIST. R.O.W./PROPERTY LINE
- BUILDING SETBACK LINE
- EASEMENT LINE
- (DETAIL NO.) / (SHEET NO.) — C401
- NUMBER OF PARKING SPACES
- COORDINATE POINT
- ACCESSIBLE PARKING SYMBOL
- ACCESSIBLE CURB RAMP
- EXISTING CONTOUR — 884
- PROPOSED CONTOUR — 890
- PROPOSED SPOT ELEVATIONS: 00.50
  FINISH FLOOR ELEV
  (TC) TOP BACK CURB
  (BC) BOTTOM OF CURB
  (SW) SIDEWALK
  (TOS) TOP OF STEP
  (BOS) BOTTOM OF STEP
  (TOW) TOP OF WALL
  (BOW) BOTTOM OF WALL
- (STORM STRUCTURE NO.) / (STORM STRUCTURE TYPE) — # / CB
- PROPOSED STORM CLEANOUT — CO
- PROPOSED ROOF DRAIN — RD
- PROPOSED UNDERDRAIN — UD
- PROPOSED STORM PIPE — ST
- PROPOSED STORM STRUCTURE
- DRAINAGE FLOW PATH
- PROPOSED DIVERSION BERM
- TEMP. INLET PROTECTION
- STONE FILTER RING — SFR
- TEMP. ROCK CHECK DAM — RCD
- TEMP. ENHANCED CHECK DAM — ECD
- EROSION CONTROL BLANKET
- DRAINAGE AREA
- TEMP. SILT FENCE — SF
- TEMP. SILT FENCE WITH BACKING — SFB
- TEMP. SEDIMENT TUBE — TUBE
- TEMP. EROSION EEL — EEL
- FLOODWAY — FW
- 100-YR FLOODPLAIN — 100YR
- 500-YR FLOODPLAIN — 500YR
- NO-FILL LINE — NNF
- FEMA ZONE A — ZONE A
- RIPARIAN BUFFER ZONE — RBZ
- SINKHOLE BUFFER — 50'BUFFER
- EXISTING STORM SEWER PIPE — ST
- EXISTING WATER LINE — W
- EXISTING SANITARY SEWER LINE — SA
- EXISTING LOW PRESSURE SEWER LINE — LPS
- EXISTING GAS LINE — G
- EXISTING UNDERGROUND POWER LINE — UGP
- EXISTING UNDERGROUND TELEPHONE — UGT
- EXISTING OVERHEAD UTILITIES — OH
- EXISTING FENCE
- EXISTING SIGN
- EXISTING TREE
- SURVEY CONTROL POINT
- EXISTING CATCH BASIN
- EXISTING SMALL ROUND DRAIN
- CMP CORRUGATED METAL PIPE
- RCP REINFORCED CONCRETE PIPE
- EXISTING LIGHT POLE
- EXISTING POWER POLE
- EXISTING GUY ANCHOR
- EXISTING WATER VALVE — WV
- EXISTING FIRE HYDRANT — FH
- EXISTING GAS METER
- EXISTING GAS VALVE — GV
- EXISTING GAS MARKER
- EXISTING WATER METER — WM
- EXISTING SANITARY MANHOLE
- EXISTING WATER MANHOLE — W
- EXISTING POWER MANHOLE — P
- EXISTING TELEPHONE MANHOLE — T
- EXISTING MAILBOX — MB
- EXISTING TELEPHONE MARKER — XX/XX/XXXX
- EXISTING TELEPHONE RISER
- PROPOSED AIR RELEASE VALVE
- PROPOSED FIRE HYDRANT — FH
- PROPOSED WATER BLOW-OFF VALVE
- PROPOSED FIRE DEPART. CONNECTION — FDC
- PROPOSED POST INDICATOR VALVE — P.I.V.
- PROPOSED WATER VALVE
- PROPOSED FLUSH CONNECTION
- E/1
- PROPOSED E/ONE GRINDER PUMP
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEAN OUT — C.O.
- PROPOSED ELECTRIC LINE — E
- EXISTING ELECTRIC LINE — OHE
- PROPOSED SEWER LINE — SA
- PROPOSED WATER LINE — W
- PROPOSED WATER METER — WM
- PROPOSED GAS LINE — G
- PROPOSED LOW PRESSURE SEWER — LPS
- PROPOSED STORM SEWER SYSTEM

NO.	DATE:	ISSUE DESCRIPTION
1	08/08/2025	REVISED PER TOWN OF FARRAGUT COMMENTS

JASON R. HUNT — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — No. 112487 — STATE OF TENNESSEE
08/08/2025

IF THIS DOCUMENT IS NOT SIGNED, SEALED, AND DATED, IT MAY NOT BE USED FOR CONSTRUCTION.

PROJECT:
CONCORD UNITED METHODIST CHURCH CHILDREN'S WING ADDITION
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

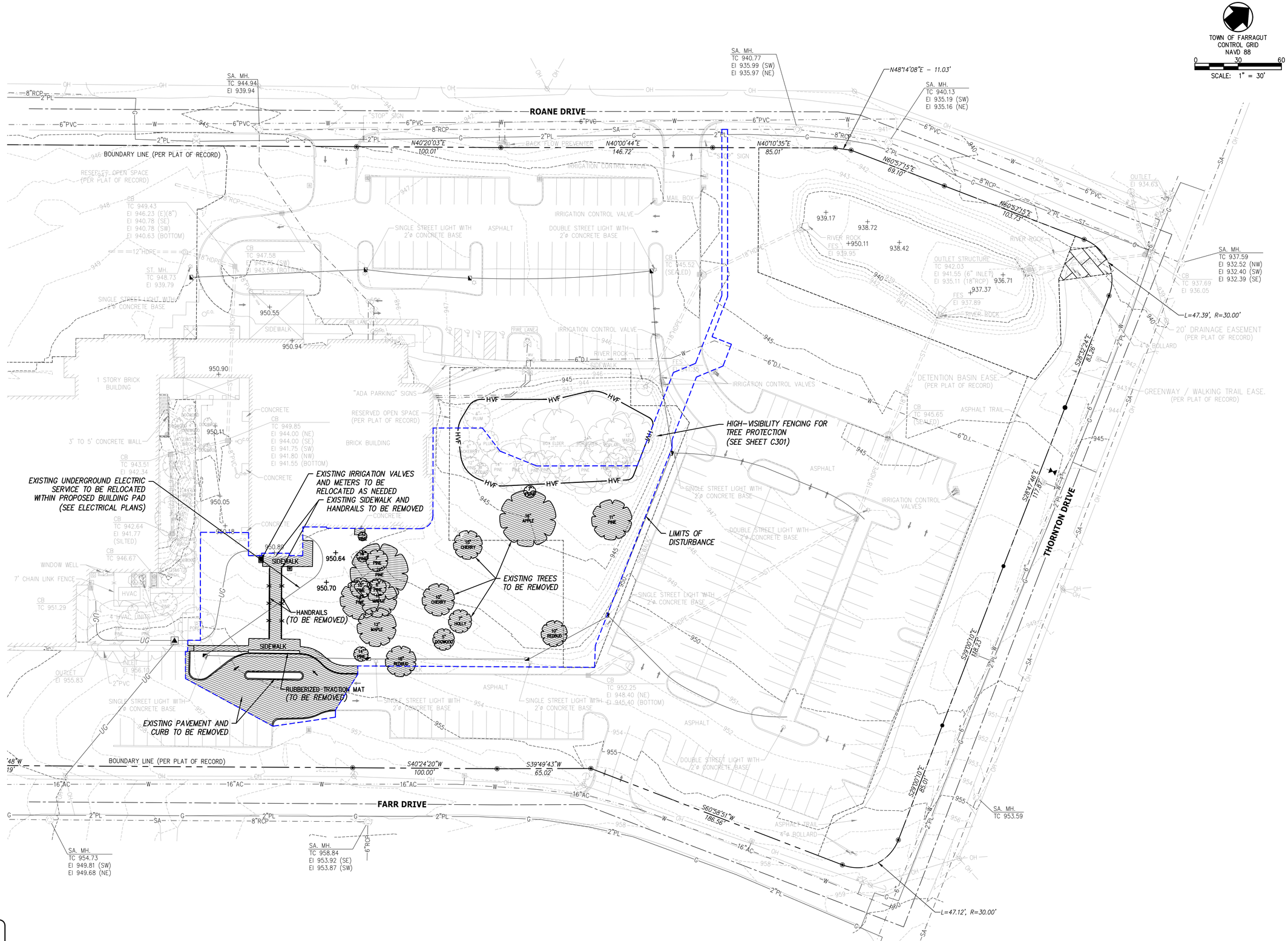
CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
CONCORD UNITED METHODIST CHURCH
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CCI PROJ. NO.	00267-0005
DATE:	JULY 16, 2025
PM:	J. HUNT
DRAWN BY:	J. HUNT

GENERAL NOTES AND LEGENDS

C002
SHEET 2 OF 19



811
Know what's below
Call before you dig

NOTES:

1. SEE SHEET C002 FOR GENERAL NOTES AND LEGENDS.

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JASON R. HUNT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
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STATE OF TENNESSEE
08/08/2025

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PM:	J. HUNT
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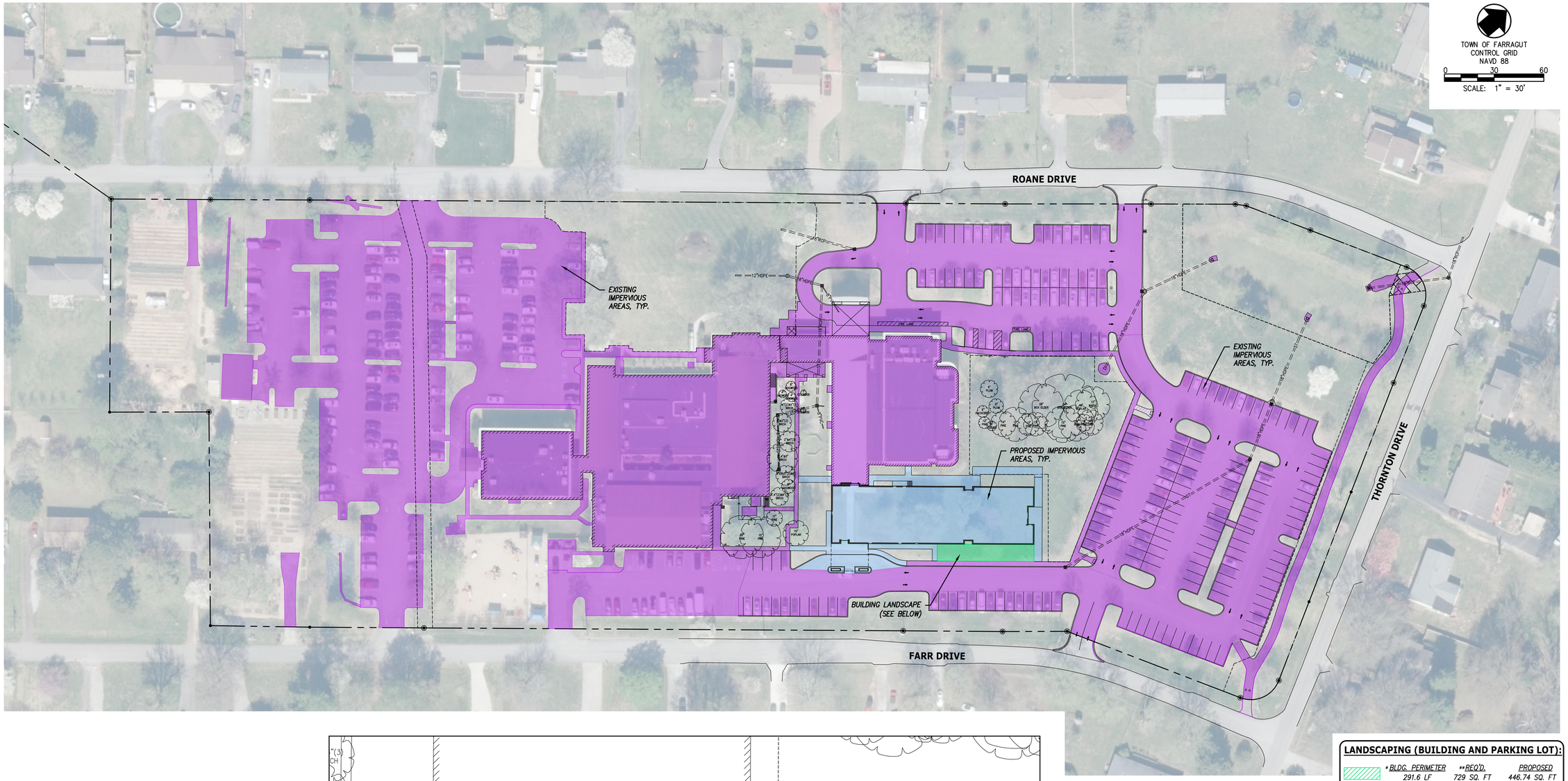
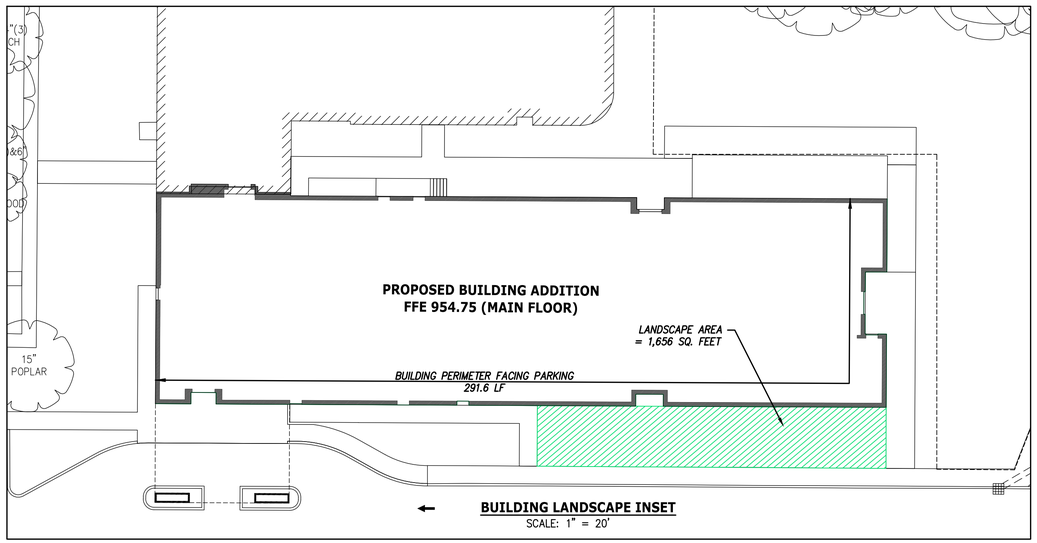
SITE DEMOLITION PLAN

C003
SHEET 3 OF 19



TOWN OF FARRAGUT
CONTROL GRID
NAVD 88

0 30 60
SCALE: 1" = 30'



BUILDING LANDSCAPE INSET
SCALE: 1" = 20'

811
Know what's below
Call before you dig

LEGEND:

- EXISTING IMPERVIOUS AREAS
- PROPOSED IMPERVIOUS AREAS
- BUILDING LANDSCAPE AREAS

LANDSCAPING (BUILDING AND PARKING LOT):

	* BLDG. PERIMETER	**REQ'D.	PROPOSED
	291.6 LF	729 SQ. FT	446.74 SQ. FT

* SOUTH AND EAST PERMITER FACING PARKING LOTS
** 2.5 SQ. FT. PER LINEAR FOOT OF BUILDING PERIMETER REQUIRED

LOT COVERAGE:

TOTAL LOT AREA = 528,390.55 SF (12.13 AC)
EXIST. BUILDING AREA = 58,241 SF
EXIST. ASPHALT AREA = 182,975 SF
EXIST. CONCRETE AREA = 13,752 SF
EXIST. WALKING TRAIL = 4,345 SF
EXIST. RIVER ROCK APRONS & TRANSFORMER PAD = 1,445 SF
PROPOSED BUILDING AREA = 11,790 SF
PROPOSED CONCRETE AREA = 3,915 SF

TOTAL IMPERVIOUS AREA (EXIST. & PROP.) = 276,463 SF
"GRASSED" AREA = 528,390.55 – 276,463 = 251,927.55 SF

IMPERVIOUS LOT COVERAGE = 276,463 / 528,390.55 = 52.3%
PERVIOUS LOT COVERAGE = 251,927.55 / 528,390.55 = 47.7%
BUILDING AREA = (58,241+11,790)/528,390.55 = 13.3% < 30%

NOTES:

1. SEE SHEET C002/2 FOR GENERAL NOTES AND LEGENDS.
2. A LANDSCAPE PLAN WILL BE DEVELOPED AND SUBMITTED TO VRB FOR REVIEW AND APPROVAL. LANDSCAPE PLAN TO INCLUDE ADDITIONAL TREE PLANTINGS ON SITE TO ACCOUNT FOR TREES TO BE REMOVED AS PART OF THIS SITE PLAN OR FUTURE PLAYGROUND SITE PLAN.
3. OWNER TO SUBMIT DRAINAGE FEE AS REQUIRED BY TOWN OF FARRAGUT.

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JASON R. HUNT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 112497
STATE OF TENNESSEE
08/08/2025

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PROJECT:
CONCORD UNITED METHODIST CHURCH
CHILDREN'S WING ADDITION
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
CONCORD UNITED METHODIST CHURCH
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CCI PROJ. NO.	00267-0005
DATE:	JULY 16, 2025
PM:	J. HUNT
DRAWN BY:	J. HUNT

LOT COVERAGE AND LANDSCAPE AREAS

C004
SHEET 4 OF 19

TOWN OF FARRAGUT
CONTROL GRID
NAVD 88

0 30 60
SCALE: 1" = 30'

ROANE DRIVE

FARR DRIVE

THORNTON DRIVE

BOUNDARY LINE (PER PLAT OF RECORD)

BUILDING SETBACK LINE (PER PLAT OF RECORD)

RESERVED OPEN SPACE (PER PLAT OF RECORD)

EXISTING BUILDING (CONTRACTOR TO VERIFY FFE)

1 STORY BRICK BUILDING

PROPOSED BUILDING ADDITION FFE 954.72 (MAIN FLOOR)

EXISTING PLAYGROUND TO BE RELOCATED TO THIS AREA (BY OTHERS)

PROPOSED FENCE (4'-6" PRE-FINISHED ALUMINUM PICKET TYPE)

PROPOSED OUTDOOR MECHANICAL EQUIPMENT WITH SCREENING

PROPOSED DROP OFF AND CANOPY (SEE SHEET C102)

PROPOSED FIRE LANE STRIPING

CONTRACTOR TO REPAIR DAMAGED ASPHALT PAVEMENT (COORDINATE LOCATION WITH OWNER)

EXISTING DETENTION DESIGNED TO ACCOMMODATE BUILDING ADDITION (NO MODIFICATIONS REQUIRED)

REMOTE F.D.C.

FIRE HYDRANT

BACK FLOW PREVENTER

"STOP" SIGN

"ADA PARKING" SIGNS

SIDEWALK

ASPHALT

ASPHALT TRAIL

FIRE LANE

IRRIGATION CONTROL VALVE

IRRIGATION CONTROL VALVES

MAIL BOX

SINGLE STREET LIGHT WITH 2'ø CONCRETE BASE

DOUBLE STREET LIGHT WITH 2'ø CONCRETE BASE

RIVER ROCK

DETENTION BASIN EASE. (PER PLAT OF RECORD)

20' DRAINAGE EASEMENT (PER PLAT OF RECORD)

GREENWAY / WALKING TRAIL EASE. (PER PLAT OF RECORD)

4"ø BOLLARD

WINDOW WELL

7' CHAIN LINK FENCE

HVAC

4 HVAC UNITS

3' TO 5' CONCRETE WALL

SA. MH.
TC 944.94
EI 939.94

SA. MH.
TC 940.77
EI 935.99 (SW)
EI 935.97 (NE)

SA. MH.
TC 940.13
EI 935.19 (SW)
EI 935.16 (NE)

SA. MH.
TC 937.59
EI 932.52 (NW)
EI 932.40 (SW)
EI 932.39 (SE)

SA. MH.
TC 954.73
EI 949.81 (SW)
EI 949.68 (NE)

SA. MH.
TC 958.84
EI 953.92 (SE)
EI 953.87 (SW)

SA. MH.
TC 953.59

CB
TC 949.43
EI 946.23 (E)(8")
EI 940.78 (SE)
EI 940.78 (SW)
EI 940.63 (BOTTOM)

CB
TC 947.58
EI 943.75 (SW)
EI 943.58 (BOTTOM)

CB
TC 949.85
EI 944.00 (NE)
EI 944.00 (SE)
EI 941.75 (SW)
EI 941.80 (NW)
EI 941.55 (BOTTOM)

CB
TC 943.51
EI 942.34

CB
TC 942.64
EI 941.77
(SILTED)

CB
TC 946.67

CB
TC 951.29

CB
TC 945.52
(SEALED)

CB
TC 945.65
(SEALED)

CB
TC 937.69
EI 936.05

ST. MH.
TC 948.73
EI 939.79

FES
EI 939.95

FES
EI 941.35

FES
EI 937.89

OUTLET STRUCTURE
TC 942.03
EI 941.55 (6" INLET)
EI 935.11 (18"RCP)

OUTLET
EI 934.63

OUTLET
EI 955.83

INLET
EI 956.10

TC 952.25
EI 948.40 (NE)
EI 945.40 (BOTTOM)

L=47.39', R=30.00'

L=47.12', R=30.00'

N48°14'08"E - 11.03'

N40°20'03"E 100.01'

N40°00'44"E 146.72'

N40°10'35"E 85.01'

N60°57'15"E 69.10'

N60°57'15"E 103.73'

S28°13'24"E 81.26'

S28°57'46"E 117.87'

S29°00'10"E 118.23'

S29°00'10"E 85.01'

S60°58'51"W 186.56'

S40°24'20"W 100.00'

S39°49'43"W 65.02'

278.9'

81.4'

50'

811
Know what's below
Call before you dig

LOT COVERAGE:

TOTAL LOT AREA = 528,390.55 SF (12.13 AC)
EXISTING BUILDING AREA = 61,905 SF
EXISTING ASPHALT AREA = 183,988 SF
EXISTING CONCRETE AREA = 16,795 SF
EXISTING WALKING TRAIL = 4,132 SF
EXISTING RIVER ROCK APRONS & TRANSFORMER PAD = 288 SF
PROPOSED BUILDING AREA = 12,026 SF
PROPOSED CONCRETE AREA = 1,554 SF

TOTAL IMPERVIOUS AREA (EXIST. & PROP.) = 280,688 SF
"GRASSED" AREA = 528,390.55 – 280,688 = 247,702.55 SF

IMPERVIOUS LOT COVERAGE = 280,688 / 528,390.55 = 53.1%
PERVIOUS LOT COVERAGE = 247,702.55 / 528,390.55 = 46.9%
BUILDING AREA = (61,905+12,026)/528,390.55 = 14% < 30%

PARKING SUMMARY

REQUIRED STANDARD PARKING SPACES
1 SPACE PER 30 S.F. OF AUDITORIUM.
EXISTING AUDITORIUM= 12,231 SQ. FT.
(PROJECT DOES NOT INCLUDE ADDITIONAL AUDITORIUM)
12,231 SQ. FT./30 SQ. FT= 408 TOTAL SPACES

REQUIRED ACCESSIBLE PARKING SPACES
401 TO 500 STANDARD SPACES REQUIRES 7 ACCESSIBLE SPACES AND 2 VAN ACCESSIBLE SPACE

SUMMARY	STANDARD	VAN ACCESSIBLE	ACCESSIBLE	TOTAL
REQUIRED	399	2	7	408
EXISTING	409	2	11	422

SINCE PROJECT DOES NOT INCLUDE ADDITIONAL PARKING, BICYCLE PARKING IS NOT INCLUDED

NOTES:

1. SEE SHEET C002 FOR GENERAL NOTES AND LEGENDS.

NO.	DATE:	ISSUE DESCRIPTION
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JASON R. HUNT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 112487
STATE OF TENNESSEE
08/08/2025

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PROJECT:

CONCORD UNITED METHODIST CHURCH CHILDREN'S WING ADDITION

11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:

CONCORD UNITED METHODIST CHURCH
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CCI PROJ. NO.	00267-0005
DATE:	JULY 16, 2025
PM:	J. HUNT
DRAWN BY:	J. HUNT

SITE LAYOUT PLAN (OVERALL)

C101
SHEET 5 OF 19

TOWN OF FARRAGUT
CONTROL GRID
NAVD 88

0 10 20
SCALE: 1" = 10'

EXISTING BUILDING
(CONTRACTOR TO VERIFY FFE)

PROPOSED BUILDING ADDITION
FFE 954.72 (MAIN FLOOR)

FUTURE PLAYGROUND AREA

30'

OPEN SPACE EASEMENT

PROPOSED FENCE
(4'-6" PRE-FINISHED ALUMINUM PICKET TYPE)
FINAL LOCATION TO BE COORDINATED WITH
FUTURE PLAYGROUND DESIGN

PROPOSED DOUBLE 3' GATE
(FINAL SELECTION BY OWNER)

MECHANICAL EQUIPMENT WITH
SCREEN/FENCE
(SEE MECHANICAL PLANS)

FUTURE PLAYGROUND
DESIGN TO CONNECT
TO ACCESSIBLE RAMP
(BY OTHERS)

PROPOSED ACCESSIBLE
RAMP WITH HANDRAILS
(SEE ARCHITECTURAL
PLANS FOR DETAIL)

STEPS WITH HANDRAILS
(SEE ARCHITECTURAL
PLANS FOR DETAIL)

05 C401 CONCRETE SIDEWALK TYP.

ALIGN WALL WITH
DOOR OPENING

PROPOSED WALL WITH RAIL
(SEE STRUCTURAL PLANS)

ALIGN WITH EXISTING
CURB AND SIDEWALK

ALIGN

ALIGN WITH EXISTING
CURB AND SIDEWALK

05 C401 CONCRETE SIDEWALK TYP.

ALIGN WITH EDGE OF PROPOSED
BUILDING CORNER

PROPOSED DOUBLE 3' GATE
(FINAL SELECTION BY OWNER)

PROPOSED FIRE HYDRANT
(SEE SHEET C301)

REMOTE FIRE DEPARTMENT CONNECTION
(SEE SHEET C301)

FIRE LANE

04 C401 FIRE LANE MARKING TYP.

01 C401 HEAVY DUTY ASPHALT PAVEMENT, TYP.

03 C401 POST CURB TYP.

PROPOSED COLUMN AND
OVERHEAD CANOPY
(SEE ARCHITECTURAL PLANS)

OPENING FOR
BUS/COACH DROP OFF

APPROXIMATE LIMITS OF
FULL DEPTH PAVEMENT
REPLACEMENT

REPLACE EXISTING CURB TO PROVIDE MINIMUM
24' DRIVE AISLE WIDTH FROM NEW ISLAND

02 C401 EXTRUDED CURB TYP.

ALIGN WITH EXISTING CURB

ALIGN WITH EXISTING CURB

BOUNDARY LINE (PER PLAT OF RECORD)

S40°24'20"W
100.00'

S39°49'43"W
65.02'

811
Know what's below
Call before you dig

NO.	DATE:	ISSUE DESCRIPTION
1	08/08/2025	REVISED PER TOWN OF FARRAGUT COMMENTS

JASON R. HUNT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 112487
STATE OF TENNESSEE
08/08/2025

IF THIS DOCUMENT IS NOT SIGNED, SEALED, AND DATED, IT MAY NOT BE USED FOR CONSTRUCTION.

PROJECT:

CONCORD UNITED METHODIST CHURCH
CHILDREN'S WING ADDITION
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

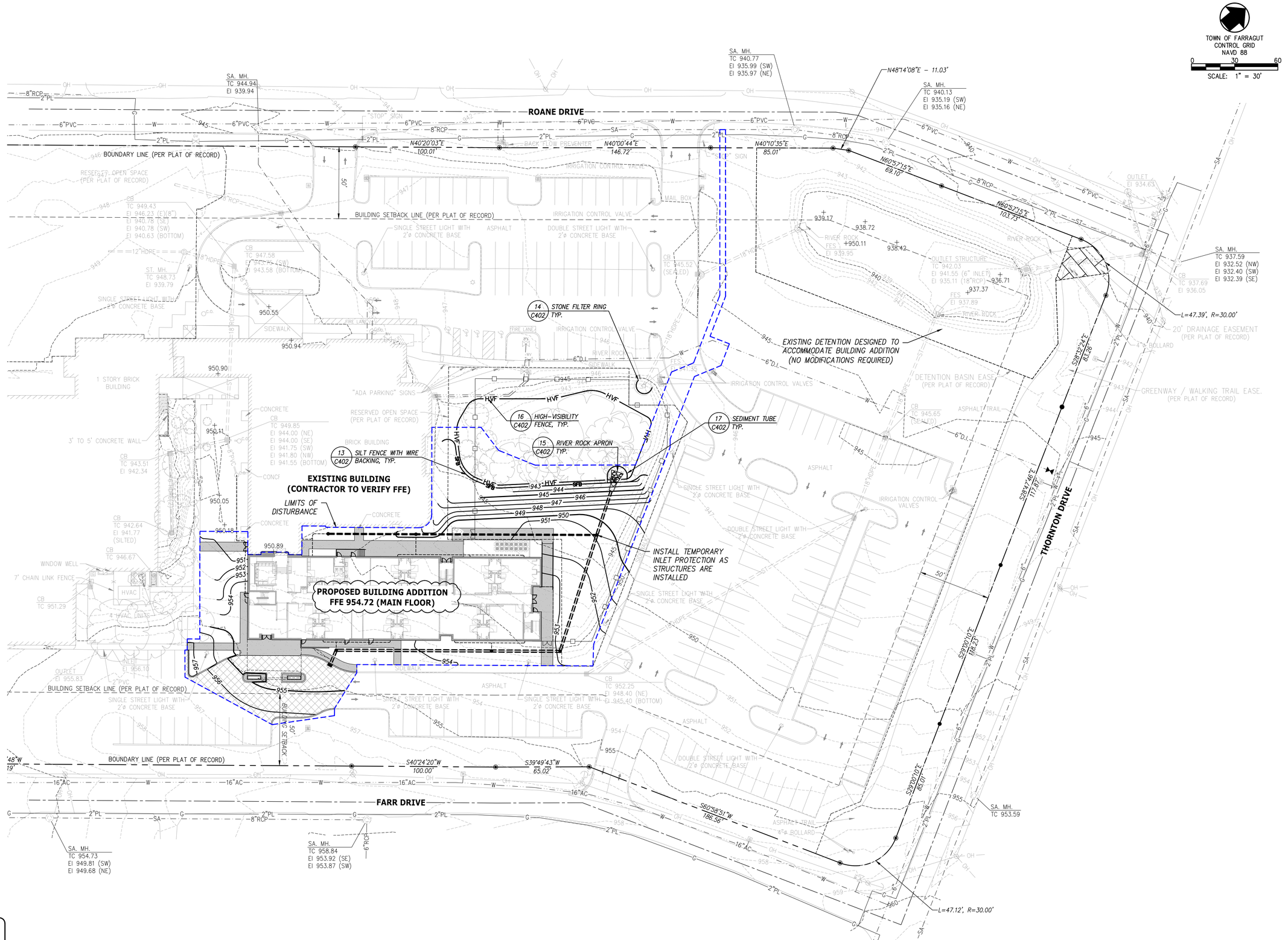
CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
CONCORD UNITED METHODIST CHURCH
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CCI PROJ. NO.	00267-0005
DATE:	JULY 16, 2025
PM:	J. HUNT
DRAWN BY:	J. HUNT

SITE LAYOUT PLAN (ENLARGED)

C102
SHEET 6 OF 19



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NOTES:

1. SEE SHEET C002 FOR GENERAL NOTES AND LEGENDS.

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PM:	J. HUNT
DRAWN BY:	J. HUNT

SITE GRADING AND DRAINAGE PLAN (OVERALL)

C201
SHEET 7 OF 19

TOWN OF FARRAGUT
CONTROL GRID
NAVD 88

0 10 20
SCALE: 1" = 10'

EXISTING BUILDING
(CONTRACTOR TO VERIFY FFE)

PROPOSED PLAYGROUND
(PLANS BY OTHERS)

CONNECT DOWNSPOUTS TO STORM SYSTEM (SEE DETAIL 8, SHEET C401)

PROPOSED BUILDING ADDITION
FFE 954.72 (MAIN FLOOR)

PROPOSED WALL WITH SAFETY RAIL
(SEE STRUCTURAL PLANS)

COORDINATE DOWNSPOUT ROUTING
WITH MECHANICAL EQUIPMENT

CONNECT DOWNSPOUTS TO STORM
SYSTEM (SEE DETAIL 8, SHEET C401)

BOUNDARY LINE (PER PLAT OF RECORD)

S40°24'20"W
100.00'

S39°49'43"W

NOTES:

1. SEE SHEET C002 FOR GENERAL NOTES AND LEGENDS.
2. SEE SHEET C201 FOR STORM STRUCTURE AND PIPE TABLES.

811
Know what's below
Call before you dig

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CONCORD UNITED METHODIST CHURCH
CHILDREN'S WING ADDITION
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FARRAGUT, TENNESSEE 37934

CCI PROJ. NO.	00267-0005
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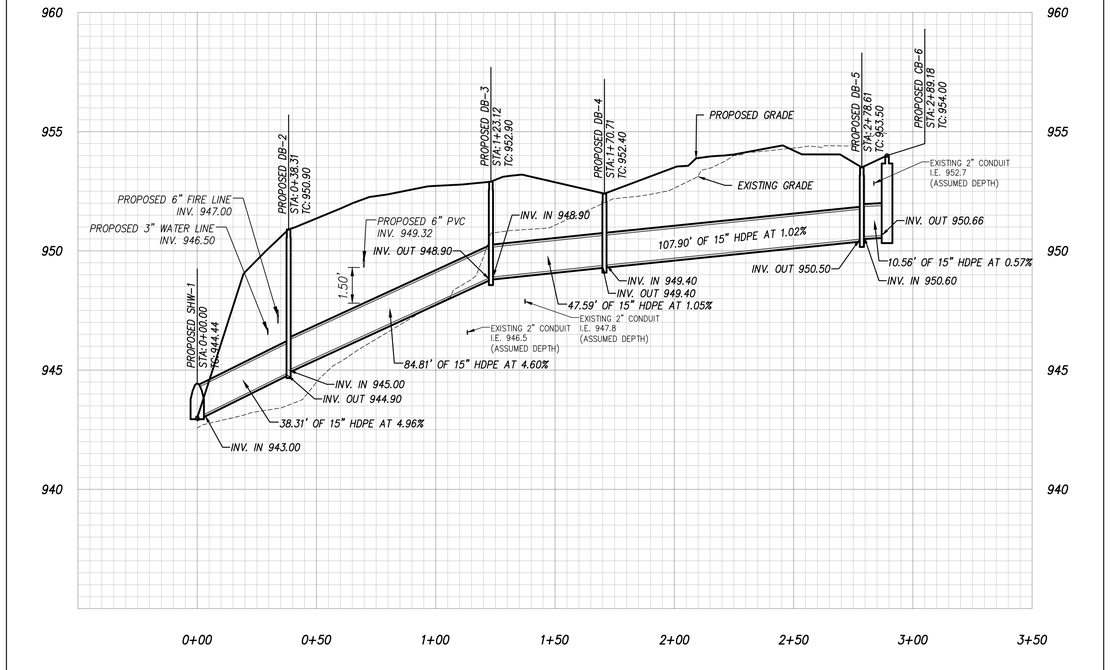
DRAWN BY:	J. HUNT

SITE GRADING AND DRAINAGE PLAN (ENLARGED)

C202
SHEET 8 OF 19

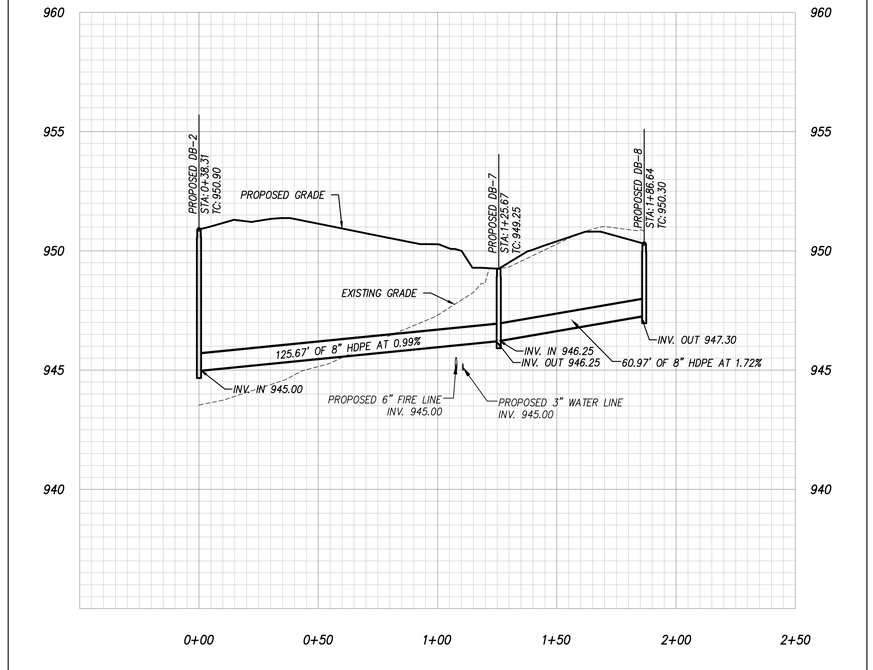
STORM LINE 'A' PROFILE

SCALE: 1" = 30' H.
1" = 5' V.



STORM LINE 'B' PROFILE

SCALE: 1" = 30' H.
1" = 5' V.



STORM DRAINAGE STRUCTURES

NO.	DESCRIPTION	LOCATION	TOP OF CASTING	INVERT EL. (IN)	INVERT EL. (OUT)	DEPTH
1 SHW	PRECAST SMALL HEADWALL SEE DETAIL 06, SHEET C401	N 571335.72 E 2518436.53	944.44	943.00(2)		500.00'
2 DB	DRAIN BASIN (SOLID LID) SEE DETAIL 07, SHEET C401	N 571303.22 E 2518456.81	950.90	945.00(3) 945.00(7)	944.90	5.90'
3 DB	DRAIN BASIN (SOLID LID) SEE DETAIL 07, SHEET C401	N 571231.65 E 2518502.32	952.90	948.90(4)	948.90	4.00'
4 DB	DRAIN BASIN (SLOTTED LID) SEE DETAIL 07, SHEET C401	N 571195.35 E 2518471.55	952.40	949.40(5)	949.40	2.98'
5 DB	DRAIN BASIN (SLOTTED LID) SEE DETAIL 07, SHEET C401	N 571113.05 E 2518401.77	953.50	950.60(6)	950.50	3.00'
6 CB	CATCH BASIN (PRECAST) SEE DETAIL 08, SHEET C401	N 571103.66 E 2518406.62	954.00		950.66	3.34'
7 DB	DRAIN BASIN (SLOTTED LID) SEE DETAIL 07, SHEET C401	N 571207.28 E 2518375.64	949.25	946.25(8)	946.25	3.00'
8 DB	DRAIN BASIN (SLOTTED LID) SEE DETAIL 07, SHEET C401	N 571160.77 E 2518336.22	950.30		947.30	3.00'

STORM PIPE TABLE

FROM	TO	DIAMETER	LENGTH (LF)	SLOPE (%)
2	1	15" HDPE	38	4.96%
3	2	15" HDPE	85	4.60%
4	3	15" HDPE	48	1.05%
5	4	15" HDPE	108	1.02%
6	5	15" HDPE	11	0.57%
7	2	8" HDPE	126	0.99%
8	7	8" HDPE	61	1.72%

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NOTES:

1. SEE SHEET C002 FOR GENERAL NOTES AND LEGENDS.
2. SEE SHEET C202 FOR LOCATION OF STORM STRUCTURES.

NO.	DATE:	ISSUE DESCRIPTION
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JASON R. HUNT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 112487
STATE OF TENNESSEE
08/08/2025

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PROJECT:
CONCORD UNITED METHODIST CHURCH CHILDREN'S WING ADDITION
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
865.670.8555
www.cci-corp.com

CLIENT:
CONCORD UNITED METHODIST CHURCH
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CCI PROJ. NO.	00267-0005
DATE:	JULY 16, 2025
PM:	J. HUNT
DRAWN BY:	J. HUNT

STORM SYSTEM PROFILES AND TABLES

C203
SHEET 9 OF 19

TOWN OF FARRAGUT
CONTROL GRID
NAVD 88

0 30 60
SCALE: 1" = 30'

PROPOSED BUILDING ADDITION
FFE 954.75 (MAIN FLOOR)

EXISTING BUILDING
(CONTRACTOR TO VERIFY FFE)

ROANE DRIVE

FARR DRIVE

THORNTON DRIVE

BOUNDARY LINE (PER PLAT OF RECORD)

RESERVED OPEN SPACE (PER PLAT OF RECORD)

SA. MH.
TC 944.94
EI 939.94

SA. MH.
TC 940.77
EI 935.99 (SW)
EI 935.97 (NE)

SA. MH.
TC 940.13
EI 935.19 (SW)
EI 935.16 (NE)

SA. MH.
TC 937.59
EI 932.52 (NW)
EI 932.40 (SW)
EI 932.39 (SE)

SA. MH.
TC 954.73
EI 949.81 (SW)
EI 949.68 (NE)

SA. MH.
TC 958.84
EI 953.92 (SE)
EI 953.87 (SW)

SA. MH.
TC 953.59

CB
TC 949.43
EI 946.23 (E)(8")
EI 940.78 (SE)
EI 940.78 (SW)
EI 940.63 (BOTTOM)

CB
TC 947.58
EI 943.75 (SW)
EI 943.58 (BOTTOM)

CB
TC 945.52
(SEALED)

CB
TC 949.85
EI 944.00 (NE)
EI 944.00 (SE)
EI 941.75 (SW)
EI 941.80 (NW)
EI 941.55 (BOTTOM)

CB
TC 943.51
EI 942.34

CB
TC 942.64
EI 941.77
(SILTED)

CB
TC 946.67

CB
TC 951.29

CB
TC 952.25
EI 948.40 (NE)
EI 945.40 (BOTTOM)

CB
TC 945.65
(SEALED)

CB
TC 937.69
EI 936.05

ST. MH.
TC 948.73
EI 939.79

INLET
EI 956.10

OUTLET
EI 955.83

OUTLET
EI 934.63

OUTLET STRUCTURE
TC 942.03
EI 941.55 (6" INLET)
EI 935.11 (18"RCP)

FES
EI 939.95

FES
EI 937.89

RIVER ROCK

1 STORY BRICK BUILDING

4 HVAC UNITS

HVAC

WINDOW WELL

7' CHAIN LINK FENCE

3' TO 5' CONCRETE WALL

SIDEWALK

CONCRETE

ASPHALT

ASPHALT TRAIL

4"ø BOLLARD

IRRIGATION CONTROL VALVE

IRRIGATION CONTROL VALVES

SINGLE STREET LIGHT WITH 2'ø CONCRETE BASE

DOUBLE STREET LIGHT WITH 2'ø CONCRETE BASE

"ADA PARKING" SIGNS

"STOP" SIGN

BRICK BUILDING

BACK FLOW PREVENTER

FIRE LANE

DETENTION BASIN EASE. (PER PLAT OF RECORD)

20' DRAINAGE EASEMENT (PER PLAT OF RECORD)

GREENWAY / WALKING TRAIL EASE. (PER PLAT OF RECORD)

CONNECT PROPOSED 6" SANITARY SEWER LATERAL TO EXISTING 6" PVC MAIN (COORDINATE WITH FIRST UTILITY DISTRICT)
STA: 0+00.00
INV: 938.30

EXISTING PUBLIC 6" PVC WATER MAIN

C.O. 1
INSTALL C.O. AT PROPERTY LINE
STA: 0+12.65
INV: 938.43

CONNECT PROPOSED 3" HDPE DOMESTIC WATER SERVICE TO EXISTING 6" PVC MAIN WITH 2" TAPPING TEE AND 2" WATER METER. INSTALL 2"X3" REDUCER AFTER METER. FINAL METER SIZE TO BE COORDINATED WITH FUD.

C.O. 2
STA: 1+15.48
INV: 939.46

CONNECT PROPOSED 6" HDPE FIRE SERVICE LINE TO EXISTING PRIVATE 6" D.I. FIRE LINE WITH 6"X6" TAPPING SLEEVE AND (1) 6" GATE VALVE

EXISTING PRIVATE 6" D.I. FIRE SERVICE LINE

C.O. 3
STA: 1+99.26
INV: 942.46

INSTALL 45° BEND AND THRUST BLOCKING

C.O. 4
STA: 2+60.00
INV: 943.33

C.O. 5
STA: 2+99.50
INV: 946.93

C.O. 6
STA: 3+34.76
INV: 949.22

C.O. 7
STA: 3+63.60
INV: 949.75

CONNECT PROPOSED 6" FIRE PROTECTION LINE TO PROPOSED 6" FIRE SERVICE LINE WITH 6"X6" TEE AND POST INDICATOR VALVE

INSTALL 22.5° BEND AND THRUST BLOCK

INSTALL FIRE HYDRANT AT END OF LINE

EXISTING FIRE HYDRANT

EXISTING F.D.C.

REMOTE F.D.C.
(SEE FIRE PROTECTION PLANS)

EXISTING ELECTRIC TO BE RELOCATED
(SEE ELECTRICAL PLANS)

PROPOSED PLAYGROUND FENCE

PROPOSED 6" HDPE FIRE PROTECTION LINE

PROPOSED 3" HDPE WATER LINE

N48°14'08"E - 11.03'
N40°20'03"E 100.01'
N40°00'44"E 146.72'
N40°10'35"E 85.01'
N60°57'15"E 68.10'
N60°57'15"E 103.73'
S28°13'24"E 81.26'
S28°57'46"E 117.87'
S29°00'10"E 118.23'
S29°00'10"E 85.01'
S60°58'51"W 186.56'
'48"W 19'
S40°24'20"W 100.00'
S39°49'43"W 65.02'

L=47.39', R=30.00'
L=47.12', R=30.00'

NOTES (SEE NUMBERED CALLOUTS):

PROPOSED FIRE PROTECTION SERVICES:

A. *REMOTE FIRE DEPARTMENT CONNECTION. SEE BUILDING PLANS FOR FINAL SIZE AND LOCATION.*
B. *6" FIRE PROTECTION SERVICE CONNECTION. SEE BUILDING PLANS FOR CONTINUATION.*

PROPOSED DOMESTIC WATER SERVICES:

C. *PROPOSED 2.5" DOMESTIC WATER SERVICE CONNECTION. INSTALL 3"X2.5" REDUCER AS REQUIRED TO MAKE CONNECTION. SEE BUILDING PLANS FOR CONTINUATION.*

PROPOSED SANITARY SEWER SERVICES:

D. *PROPOSED 6" SANITARY SEWER SERVICE CONNECTION. SEE BUILDING PLANS FOR CONTINUATION. INVERT ELEVATION = 5'-0" BELOW FFE (SEE BUILDING PLANS FOR FINAL LOCATION AND ELEVATION). INSTALL LATERAL WITH MINIMUM 1% SLOPE AND CONNECT TO PROPOSED SEWER MAIN MANHOLE IN ACCORDANCE WITH FUD STANDARDS AND SPECIFICATIONS.*

NOTES:

1. *SEE SHEET C002 FOR GENERAL NOTES AND LEGENDS.*

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Call before you dig

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1	08/08/2025	REVISED PER FUD COMMENTS

JASON R. HUNT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 112481
STATE OF TENNESSEE
08/08/2025

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CONCORD UNITED METHODIST CHURCH
CHILDREN'S WING ADDITION
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CANNON & CANNON INC
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CLIENT:

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11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CCI PROJ. NO.	00267-0005
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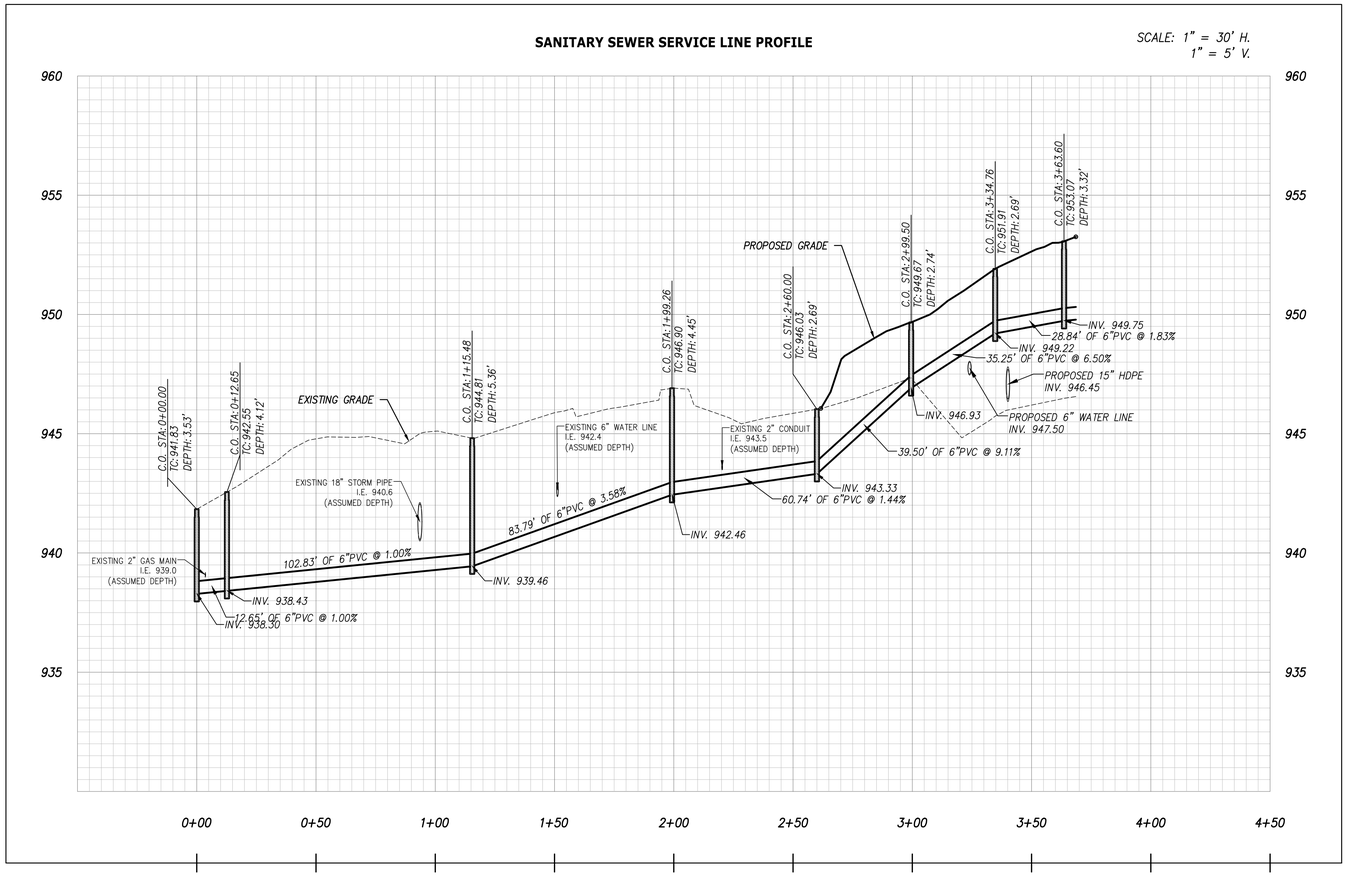
PM:	J. HUNT
DRAWN BY:	J. HUNT

SITE UTILITY PLAN (WATER & SEWER)

C301
SHEET 10 OF 19

SANITARY SEWER SERVICE LINE PROFILE

SCALE: 1" = 30' H.
1" = 5' V.



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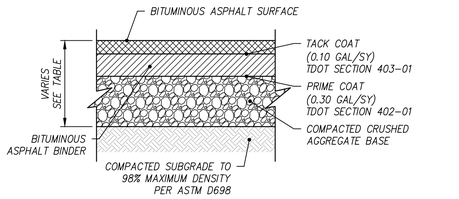
SANITARY SEWER PROFILE

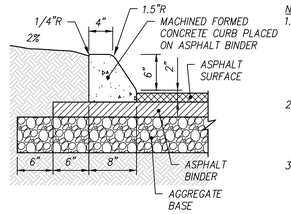
C302
SHEET 11 OF 19



ASPHALT PAVEMENT TABLE		
PAVEMENT MATERIALS	LIGHT DUTY	HEAVY DUTY
BITUMINOUS ASPHALT SURFACE GRADING "E" (TDOT 411-01.07)	1.5"	1.5"
BITUMINOUS ASPHALT BINDER GRADING "B-M" (TDOT 307-1.07)	2.0"	2.0"
MINERAL AGGREGATE BASE TYPE "A", GRADING "D" (TDOT 303-01)	6.0"	8.0"

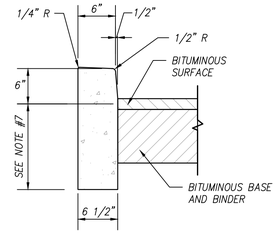
NOTES:
1. PAVEMENT SECTION SHOWN PER GEOTECHNICAL EXPLORATION REPORT BY FOUNDATION SYSTEMS ENGINEERING, P.C. DATED FEBRUARY 28, 2025 (FSE PROJECT NUMBER 725092).
2. ALL MATERIALS AND CONSTRUCTION SPECIFICATIONS SHALL MEET TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) AND/OR TOWN OF FARRAGUT STANDARD SPECIFICATIONS.

01 ASPHALT PAVEMENT SECTION
N.T.S.



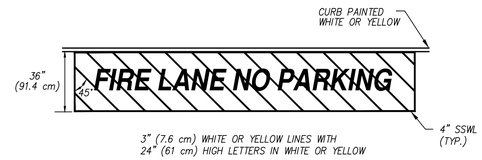
NOTES:
1. EXACT CURB DIMENSIONS MAY BE ALTERED SLIGHTLY TO FIT STANDARD EXTRUDED CURB MACHINES AND AVAILABLE MOLDS. VARIANCES SHALL BE APPROVED BY THE ENGINEER AND SHALL ACCOMMODATE ANY PROPOSED CATCH BASIN FRAME AND GRATES.
2. EXPANSION JOINT MATERIAL IS TO BE 1/2" IN THICKNESS AT ALL LOCATIONS. ALL MATERIAL IS TO BE PRE-MOLDED FIBER IN ACCORDANCE WITH TDOT SECTION 905.
3. EXPANSION JOINTS ARE TO BE PLACED AS FOLLOWS:
   - AT TANGENT POINTS OF CIRCULAR CURBS.
   - BETWEEN CURBS AND ABUTTING RIGID OBJECTS.
   - AT OTHER PLACES WHERE STRESSES MAY DEVELOP.
   - TO LINE UP WITH PAVEMENT JOINTS WHERE THE ADJACENT PAVEMENT IS CONCRETE.
   - THE MAXIMUM SPACING IS TO BE 100 FEET.
   - BETWEEN CONCRETE CURBS OR CURB AND GUTTERS AND PAVEMENT. IT IS NOT REQUIRED WHEN CURBS OR CURB AND GUTTERS ARE ADJACENT TO ASPHALT.
4. CONTRACTION JOINTS ARE TO BE SPACED AT 10 FEET. THE SPACING OF 10 FEET MAY BE REDUCED FOR CLOSURES, BUT NOT LESS THAN 6 FEET.
5. EDGES OF JOINTS SHALL BE FINISHED ON 1/4" RADII.

02 EXTRUDED CURB
N.T.S.

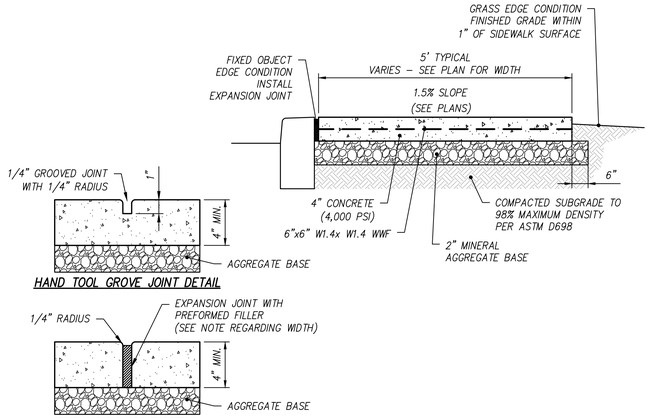


NOTES:
1. THE FRONT FACE OF THE CONCRETE CURBS FOR ALL DEGREES OF CURVATURE SHALL CONFORM TO THE CONTOUR OF THE CURVE AND NO CHORD SECTIONS WILL BE PERMITTED.
2. CONCRETE EXPANSION JOINT MATERIAL IS TO BE 3/4" PREMOLDED FIBER.
3. EXPANSION JOINTS ARE TO BE PLACED AS FOLLOWS:
   a. AT TANGENT POINTS OF CIRCULAR CURBS
   b. BETWEEN CURBS AND ABUTTING RIGID OBJECTS
   c. AT OTHER PLACES WHERE STRESSES MAY DEVELOP
   d. SO AS TO LINE UP WITH PAVEMENT JOINTS WHERE THE ADJACENT PAVEMENT IS CONCRETE
   e. MAXIMUM SPACING IS TO BE 100 FEET
   f. CONTRACTION JOINTS ARE TO BE SPACED AT 10 FEET. THE SPACING OF 10 FEET MAY BE REDUCED FOR CLOSURES, BUT NOT LESS THAN 6 FEET.
   g. EDGES OF JOINTS SHALL BE FINISHED ON ON-QUARTER INCH RADII.
5. REFERENCE TDOT STANDARD DRAWING RP-VC-11 FOR ADDITIONAL INFORMATION.
6. DETACHED CURB DEPTH SHALL BE BASED ON PROPOSED OR EXISTING PAVEMENT SECTIONS.

03 DETACHED/POST CURB
N.T.S.

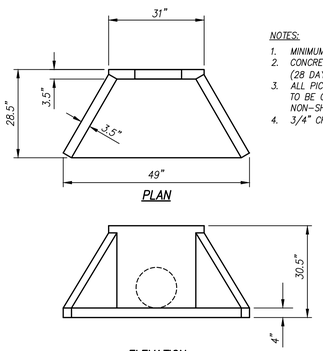


04 FIRE LANE MARKING
N.T.S.



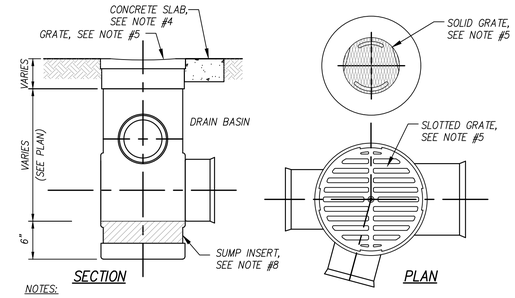
NOTES:
1. SIDEWALK CROSS SLOPE SHALL BE 1.5% MAXIMUM (1% MAXIMUM IN COK R.O.W.) AND SHALL BE SLOPED AWAY FROM BUILDINGS.
2. SIDEWALKS SHALL HAVE A BROOM FINISH IN ACCORDANCE WITH TDOT SPECIFICATIONS.
3. WHERE NECESSARY TO REMOVE PARTS OF EXISTING SIDEWALKS OR RAMPS, THE RESULTING EDGES SHALL BE CUT TO A NEAT LINE, AND ANY OFFSETS IN SUCH LINES SHALL BE MADE AT RIGHT ANGLES.
4. MINERAL AGGREGATE BASE SHALL BE CRUSHED STONE, CLASS "A" AGGREGATE, GRADING "D".
5. PREFORMED EXPANSION JOINTS SHALL BE EQUALLY SPACED AT 25' O.C. AND WHERE THE SIDEWALK IS IN CONTACT WITH STREET RETURNS, ON BUILDING LINES, WHERE WALKS LEAD TO BUILDING ENTRANCES, AT FIXED OBJECTS AND OTHER LOCATIONS WHERE STRESSES MAY DEVELOP. EXPANSION JOINT SHALL BE 1" WIDE IN AREAS IN CONTACT WITH CIRCULAR CURBS, BUILDINGS, RETAINING WALLS AND FIXED OBJECTS. ALL OTHER LOCATIONS SHALL BE 1/2" WIDE JOINTS.
6. EQUALLY SPACE CONTRACTION JOINTS AT 5' O.C. (APPROXIMATE) BETWEEN EXPANSION JOINTS.
7. SIDEWALK SHALL BE SLOPED AWAY FROM BUILDING.
8. SIDEWALKS WHICH DO NOT MEET ADA STANDARDS WITH REGARD TO RUNNING SLOPE AND CROSS SLOPES WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
9. INSTALL SIDEWALK PER TOWN OF FARRAGUT AND TDOT SPECIFICATIONS.

05 CONCRETE SIDEWALK
N.T.S.



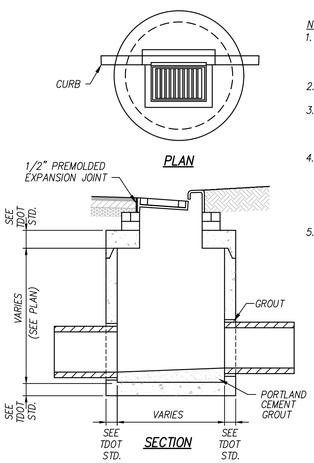
NOTES:
1. MINIMUM 2" CONCRETE COVER ON REBAR.
2. CONCRETE: 5,000 PSI MINIMUM STRENGTH (28 DAY).
3. ALL PICK UP POINTS AND PIPE OPENINGS TO BE GROUTED BY CONTRACTOR WITH NON-SHRINK GROUT.
4. 3/4" CHAMFER ON ALL EXPOSED EDGES.

06 PRECAST SMALL HEADWALL
N.T.S.



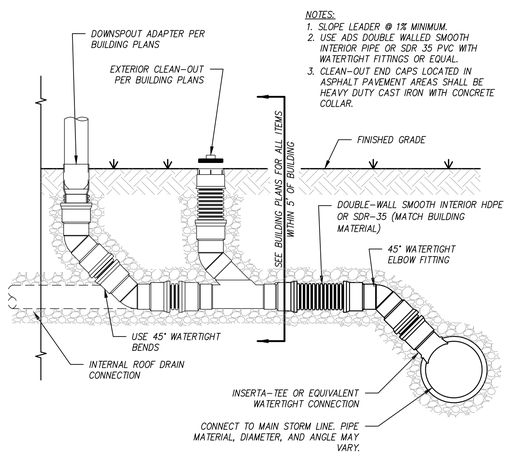
NOTES:
1. DRAIN BASIN BY ADS, NYLOPLAST OR EQUAL. PVC DRAIN BASINS CAN BE SUBSTITUTED WITH PRECAST CONCRETE STRUCTURES OF SUFFICIENT SIZE TO MAKE CONNECTIONS SHOWN.
2. COORDINATE WITH MANUFACTURER REGARDING STRUCTURE DIAMETER OR DIMENSIONS NEEDED TO MAKE STORM PIPE CONNECTIONS.
3. INSTALL PER THE MANUFACTURER'S SPECIFICATIONS.
4. INSTALLATION SHALL INCLUDE A CONCRETE SLAB WITH MINIMUM 8" THICKNESS AND WITH A DIMENSION FROM THE GRATE A MINIMUM OF 18" IF INSTALLED IN PAVEMENT AREAS (FOR NYLOPLAST STRUCTURES).
5. THE DRAINAGE BASIN GRATE SHALL BE A STANDARD SLOTTED, OR SOLID, ROUND HEAVY DUTY GRATE. SEE STORM TABLES ON SHEET C203 FOR TYPES AND LOCATIONS.
6. COORDINATES ARE TAKEN AT THE CENTER OF THE STRUCTURE GRATE.
7. THE GRATE SHALL BE STAMPED WITH "NO DUMPING...DRAINS TO RIVER" OR EQUAL.
8. PVC DRAIN BASIN TO INCLUDE SUMP INSERT PER MANUFACTURER'S SPECIFICATIONS.

07 DRAIN BASIN
N.T.S.



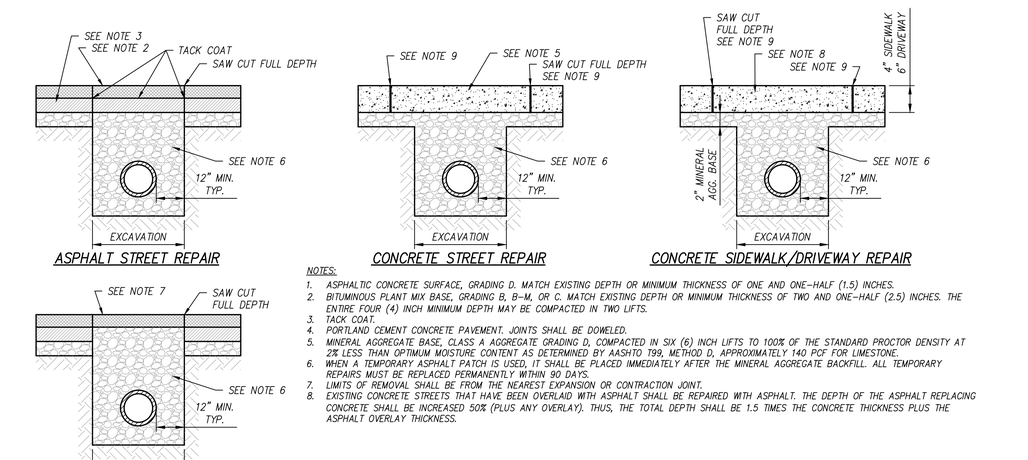
NOTES:
1. CATCH BASINS SHALL BE CIRCULAR PRECAST CONCRETE TDOT NO. 12 PER STANDARD DRAWINGS D-CB-12P/RA/RB/RC.
2. LADDER BARS SHALL BE PROVIDED PER OSHA REGULATIONS.
3. COORDINATES AND TC ELEVATIONS TAKEN ALONG CENTERLINE OF STRUCTURE AT BOTTOM FACE OF CURB.
4. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH TDOT STANDARD DRAWING D-CBB-12A (JOHN BOUCHARD & SONS 3080 CURB INLET OR APPROVED EQUAL).
5. THE HOOD AND GRATE OF ALL CATCH BASINS SHALL BE STAMPED WITH "NO DUMPING...DRAINS TO RIVER" OR EQUAL.

08 CATCH BASIN (PRECAST)
N.T.S.



NOTES:
1. SLOPE LEADER @ 1% MINIMUM.
2. USE ADS DOUBLE WALLED SMOOTH INTERIOR PIPE OR SDR 35 PVC WITH WATERTIGHT FITTINGS OR EQUAL.
3. CLEAN-OUT END CAPS LOCATED IN ASPHALT PAVEMENT AREAS SHALL BE HEAVY DUTY CAST IRON WITH CONCRETE COLLAR.

9 DOWNSPOUT/ROOF DRAIN CONNECTION
N.T.S.



NOTES:
1. ASPHALTIC CONCRETE SURFACE, GRADING D. MATCH EXISTING DEPTH OR MINIMUM THICKNESS OF ONE AND ONE-HALF (1.5) INCHES.
2. BITUMINOUS PLANT MIX BASE, GRADING B, B-M, OR C. MATCH EXISTING DEPTH OR MINIMUM THICKNESS OF TWO AND ONE-HALF (2.5) INCHES. THE ENTIRE FOUR (4) INCH MINIMUM DEPTH MAY BE COMPACTED IN TWO LIFTS.
3. TACK COAT.
4. PORTLAND CEMENT CONCRETE PAVEMENT. JOINTS SHALL BE DOWELED.
5. MINERAL AGGREGATE BASE, CLASS A AGGREGATE GRADING D, COMPACTED IN SIX (6) INCH LIFTS TO 100% OF THE STANDARD PROCTOR DENSITY AT 2% LESS THAN OPTIMUM MOISTURE CONTENT AS DETERMINED BY AASHTO T99, METHOD D, APPROXIMATELY 140 PCF FOR LIMESTONE.
6. WHEN A TEMPORARY ASPHALT PATCH IS USED, IT SHALL BE PLACED IMMEDIATELY AFTER THE MINERAL AGGREGATE BACKFILL. ALL TEMPORARY REPAIRS MUST BE REPLACED PERMANENTLY WITHIN 90 DAYS.
7. LIMITS OF REMOVAL SHALL BE FROM THE NEAREST EXPANSION OR CONTRACTION JOINT.
8. EXISTING CONCRETE STREETS THAT HAVE BEEN OVERLAID WITH ASPHALT SHALL BE REPAIRED WITH ASPHALT. THE DEPTH OF THE ASPHALT REPLACING CONCRETE SHALL BE INCREASED 50% (PLUS ANY OVERLAY). THUS, THE TOTAL DEPTH SHALL BE 1.5 TIMES THE CONCRETE THICKNESS PLUS THE ASPHALT OVERLAY THICKNESS.

10 TRENCH CUT REPAIR
N.T.S.

NO.	DATE:	ISSUE DESCRIPTION
1	08/08/2025	REVISED PER TOWN OF FARRAGUT COMMENTS

JASON R. HUNT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 112487
STATE OF TENNESSEE
08/08/2025

IF THIS DOCUMENT IS NOT SIGNED, SEALED, AND DATED, IT MAY NOT BE USED FOR CONSTRUCTION.

PROJECT:
CONCORD UNITED METHODIST CHURCH
CHILDREN'S WING ADDITION
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CANNON & CANNON INC
10025 Investment Drive, Suite 120
Knoxville, TN 37932
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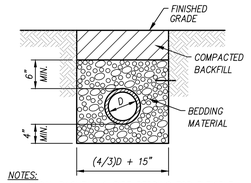
CLIENT:
CONCORD UNITED METHODIST CHURCH
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

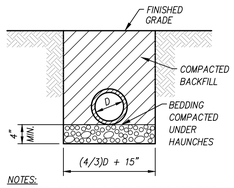
CCI PROJ. NO.	00267-0005
DATE:	JULY 16, 2025
PM:	J. HUNT
DRAWN BY:	J. HUNT

SITE DETAILS

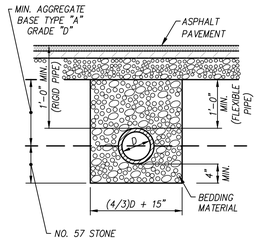
C401
SHEET 12 OF 19



NOTES:
1. TYPICAL BACKFILL & PIPE BEDDING FOR FLEXIBLE PIPE OUTSIDE (5' OR GREATER) OF PAVED AREAS.



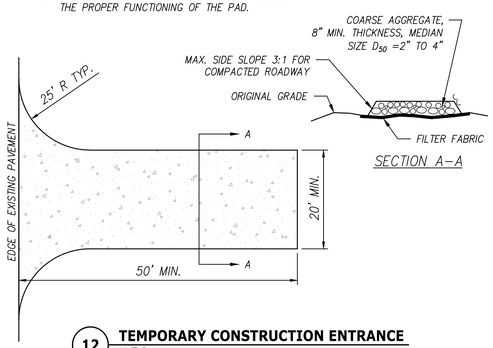
NOTES:
1. TYPICAL BACKFILL & PIPE BEDDING FOR RIGID PIPE OUTSIDE (5' OR GREATER) OF PAVED AREAS.



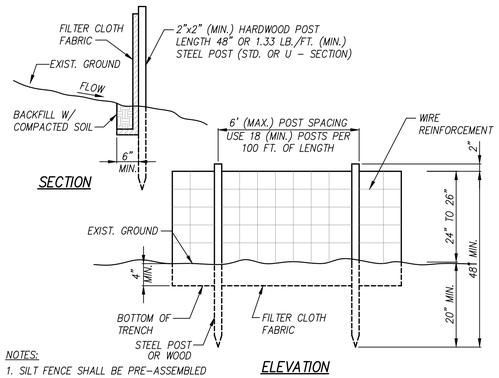
NOTES:
1. BEDDING MATERIAL SHALL HAVE A MINIMUM THICKNESS OF 4 IN. ACTUAL THICKNESS VARIES WITH THE PIPE MATERIAL. INSTALLATION OF BEDDING & BACKFILL SHALL BE IN STRICT COMPLIANCE WITH THE PIPE MANUFACTURER'S SPECIFICATIONS.
2. BEDDING MATERIAL TO BE #57 OR #67 CRUSHED STONE.
3. TRENCH DESIGN AND SAFETY FOR PIPELINE CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.

11 PIPE BEDDING & BACKFILL
N.T.S.

NOTES:
1. THE PURPOSE OF THE STABILIZED CONSTRUCTION ENTRANCE IS TO AID THE CONTRACTOR IN ELIMINATING TRACKING OF MUD ONTO PUBLIC STREETS. THIS DETAIL DOES NOT LIMIT THIS RESPONSIBILITY. OTHER METHODS OF SEDIMENT REMOVAL SHALL BE IMPLEMENTED IF THIS DOES NOT ADEQUATELY REMOVE THE MUD.
2. CONSTRUCT THE PAD WITH AN 8" (MIN.) THICKNESS OF 2" TO 4" CRUSHED STONE PLACED ON TOP OF MEDIUM TO HEAVY GEOTEXTILE SUITABLE FOR MATERIAL SEPARATION APPLICATIONS.
3. ADD CRUSHED STONE TO THE PAD AS NECESSARY TO MAINTAIN THE PROPER FUNCTIONING OF THE PAD.

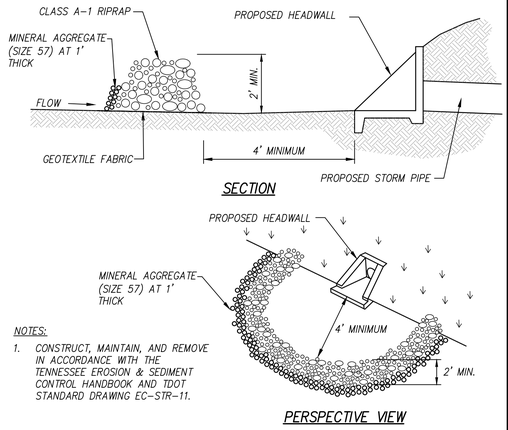


12 TEMPORARY CONSTRUCTION ENTRANCE
N.T.S.



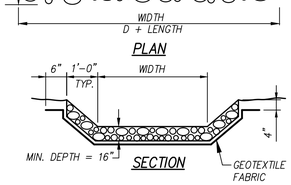
NOTES:
1. SILT FENCE SHALL BE PRE–ASSEMBLED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
2. SILT FENCE SHALL HAVE AN APPROVED BACKING OR A BUILT–IN REINFORCED STRUCTURE AS RECOMMENDED BY THE MANUFACTURER TO SUPPORT THE GEOTEXTILE FABRIC.
3. EXCLUDING PERIMETER FENCING EROSION CONTROL LOG MAY BE USED AS SUBSTITUTE.

13 SILT FENCE WITH WIRE BACKING
N.T.S.



NOTES:
1. CONSTRUCT, MAINTAIN, AND REMOVE IN ACCORDANCE WITH THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK AND TDOT STANDARD DRAWING EC–STR–11.

14 STONE FILTER RING
N.T.S.



RIVER ROCK OUTFALL TABLE			
STORM STRUCTURE NO.	Q_{10} (CFS)	V_{10} (FPS)	D_{50} SIZE
SHW 1	3.53	9.69	15 IN

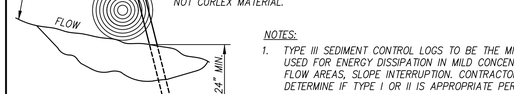
NOTES:
1. GEOTEX 861 AS MANUFACTURED BY SI GEOSOLUTIONS OR APPROVED EQUAL.
2. WELL–ROUNDED RIVER ROCK SHALL BE USED TO LINE THE DRAINAGE SWALE. SURFACE DIMENSIONS = 12"–18"; 4"–6" THICKNESS. ROCK SELECTION TO BE APPROVED BY ENGINEER AND OWNER.
3. ALL ROCK SHALL BE HANDPLACED AND IN A MANNER TO MINIMIZE VOIDS.

15 RIVER ROCK APRON
N.T.S.



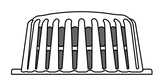
NOTE:
1. HIGH VISIBILITY FENCE FABRIC SHALL BE MACHINED PRODUCED ORANGE COLORED MESH MANUFACTURED FROM POLYPROPYLENE OR POLYETHYLENE. IT SHALL BE FULL STABILIZED ULTRAVIOLET RESISTANT.

16 HIGH–VISIBILITY FENCING
N.T.S.



NOTES:
1. TYPE III SEDIMENT CONTROL LOGS TO BE THE MINIMUM USED FOR ENERGY DISSIPATION IN MILD CONCENTRATED FLOW AREAS, SLOPE INTERRUPTION. CONTRACTOR TO DETERMINE IF TYPE I OR II IS APPROPRIATE PER MANUFACTURER'S RECOMMENDATION.
2. SEDIMENT CONTROL DEVICES SHALL BE ,CURLEX SEDIMENT LOG, AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, OR EQUAL.
3. WHERE EROSION CONTROL IS NEEDED BUT STAKING IS NOT PRACTICAL, SECURE ROLL USING SANDBAGS AT 2' C–C SPACING.

17 SEDIMENT TUBE
N.T.S.

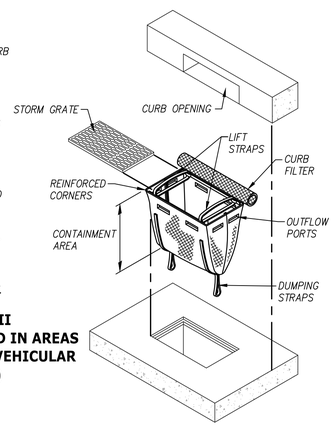




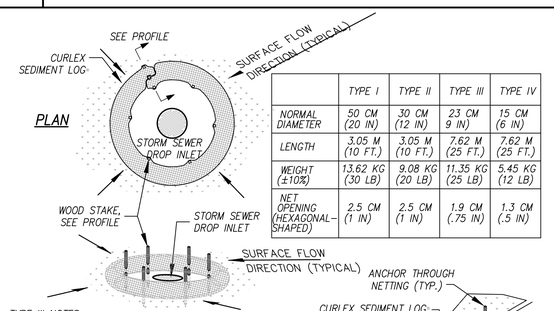
TYPE I NOTES:
1. INLET PROTECTION SHALL BE SILT SAVER, INC. FRAME AND FILTER ASSEMBLY WITH FILTER OR APPROVED EQUAL.
2. FILTER SHALL INCLUDE HIGH–FLOW MATERIAL ON TOP HALF AND HIGH–EFFICIENCY MATERIAL ON BOTTOM HALF.
3. CONTRACTOR TO DETERMINE THE APPROPRIATE SIZE AND SHAPE OF FRAME AND FILTER FOR EACH STORM INLET STRUCTURE.
4. INSTALL PER MANUFACTURER REQUIREMENTS. CONTRACTOR TO INCLUDE STONE FOR POCKETS AS SHOWN.
5. CONTRACTOR TO MAINTAIN INLET PROTECTION AS NEEDED UNTIL ALL AREAS ARE STABILIZED AND PROTECTION CAN BE REMOVED.

TYPE I
(SHALL BE USED UNTIL STRUCTURE IS TO GRADE)

TYPE II NOTES:
1. INLET PROTECTION SHALL BE DANDY PRODUCTS DANDY CURB SACK OR APPROVED EQUAL.
2. FILTER SHALL INCLUDE OPTIONAL OUTFLOW PORTS.
3. CONTRACTOR TO DETERMINE THE APPROPRIATE SIZE AND SHAPE OF FRAME AND FILTER FOR EACH STORM INLET STRUCTURE.
4. INSTALL PER MANUFACTURER REQUIREMENTS.
5. CONTRACTOR TO MAINTAIN INLET PROTECTION AS NEEDED UNTIL ALL AREAS ARE STABILIZED AND PROTECTION CAN BE REMOVED.
6. ONCE PAVEMENT IMMEDIATELY AROUND STRUCTURE IS REMOVED, CONTRACTOR TO INSTALL TYPE I INLET PROTECTION AS APPROPRIATE.

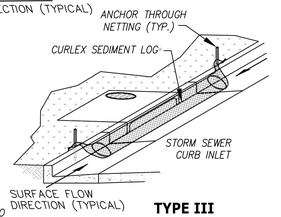


TYPE II
(SHALL BE USED IN AREAS WITH PUBLIC VEHICULAR USE)



	TYPE I	TYPE II	TYPE III	TYPE IV
NORMAL DIAMETER	50 CM (20 IN)	30 CM (12 IN)	23 CM 9 IN)	15 CM (6 IN)
LENGTH	3.05 M (10 FT.)	3.05 M (10 FT.)	7.62 M (25 FT.)	7.62 M (25 FT.)
WEIGHT (±10%)	13.62 KG (30 LB)	9.08 KG (20 LB)	11.35 KG (25 LB)	5.45 KG (12 LB)
NET OPENING (HEXAGONAL–SHAPED)	2.5 CM (1 IN)	2.5 CM (1 IN)	1.9 CM (.75 IN)	1.3 CM (.5 IN)

TYPE III NOTES:
1. TYPE III SEDIMENT CONTROL LOGS TO BE THE MINIMUM USED FOR ENERGY DISSIPATION IN MILD CONCENTRATED FLOW AREAS, SLOPE INTERRUPTION. CONTRACTOR TO DETERMINE IF TYPE I OR II IS APPROPRIATE PER MANUFACTURER'S RECOMMENDATION.
2. SEDIMENT CONTROL DEVICES SHALL BE CURLEX SEDIMENT LOG, AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL.
3. WHERE EROSION CONTROL IS NEEDED BUT STAKING IS NOT PRACTICAL, SECURE ROLL USING SANDBAGS AT 2' C–C SPACING.
4. EROSION EEL CAN BE USED AS AN ALTERNATE TO SEDIMENT TUBES.



TYPE III
(SHALL BE USED ONCE STRUCTURE IS TO GRADE AND PRIOR TO TRAFFIC)

18 TEMPORARY INLET PROTECTION
N.T.S.

NO.	DATE:	ISSUE DESCRIPTION
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JASON R. HUNT
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 112487
STATE OF TENNESSEE
08/08/2025

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PROJECT:
CONCORD UNITED METHODIST CHURCH CHILDREN'S WING ADDITION
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

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CLIENT:
CONCORD UNITED METHODIST CHURCH
11020 ROANE DRIVE
FARRAGUT, TENNESSEE 37934

CCI PROJ. NO.	00267-0005
DATE:	JULY 16, 2025
PM:	J. HUNT
DRAWN BY:	J. HUNT

SITE DETAILS

C402
SHEET 13 OF 19

CHILDREN'S WING ADDITION

Concord United Methodist Church

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COVER SHEET

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A2.3 COLUMN DIMENSIONAL PLAN
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S1.3 ROOF FRAMING PLAN
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Project Data

Owner Information

CONCORD UNITED METHODIST CHURCH
11020 ROANE DRIVE
FARRAGUT, TN 37934
(865) 966-6728

PARCEL INDENTIFICATION: 143HC02501

Codes and Standards

THE FOLLOWING CODES AND STANDARDS WERE USED IN THE PREPARATION OF THESE DRAWINGS BASED ON THE FOLLOWING CODE AUTHORITIES HAVING JURISDICTION:

- **TOWN OF FARRAGUT**
  - 2018 INTERNATIONAL BUILDING CODE
  - 2018 INTERNATIONAL PLUMBING CODE
  - 2018 INTERNATIONAL MECHANICAL CODE
  - 2018 INTERNATIONAL FUEL GAS CODE
  - 2018 INTERNATIONAL ENERGY CONSERVATION CODE
  - 2018 INTERNATIONAL FIRE CODE
  - 2018 NFPA 101 LIFE SAFETY CODE
  - 2017 ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
  - 2017 NFPA 70 NATIONAL ELECTRIC CODE
- **STATE OF TENNESSEE (FOR DAYCARE/ EDUCATIONAL OCCUPANCY)**
  - 2021 INTERNATIONAL BUILDING CODE (EXCLUDING CHAPTER 11)
  - 2021 INTERNATIONAL PLUMBING CODE
  - 2021 INTERNATIONAL MECHANICAL CODE
  - 2021 INTERNATIONAL FUEL GAS CODE
  - 2021 INTERNATIONAL ENERGY CONSERVATION CODE
  - 2021 INTERNATIONAL FIRE CODE
  - 2010 TENNESSEE PUBLIC BUILDING ACCESSIBILITY ACT, ADA STANDARDS FOR ACCESSIBLE DESIGN
  - 2017 NFPA 70 NATIONAL ELECTRIC CODE

Building Data - Construction & Occupancy

OCCUPANCY GROUP

PER 2018/2021 IBC

- UNSEPARATED MIXED OCCUPANCIES (A-3 AND E), USING GROUP A-3 FOR MOST STRINGENT ALLOWABLE HEIGHT AND AREA.
- ADDITION MAIN LEVEL IS LICENSED CHILD DAYCARE, IBC OCCUPANCY GROUP E USING 2018/2021 IBC 308.5.1 EXCEPTION. DAYCARE CLASSROOMS ARE ON LEVEL OF EXIT DISCHARGE, DAYCARE CLASSROOMS FOR ≤ 2.5-YEAR-OLD CLIENTS HAVE DOORS DIRECTLY TO EXTERIOR. (DAYCARE CLIENTS HAVE SUPERVISED EXCURSIONS TO OTHER AREAS OF CHURCH CAMPUS, INCLUDING TO NEW CHILDREN'S ASSEMBLY.) AT OTHER TIMES, ADDITION MAIN LEVEL ALSO SERVES AS SUNDAY SCHOOL, OCCUPANCY GROUP A-3 PER 2018/2021 IBC 305.1.1.
- ADDITION UPPER LEVEL IS SUNDAY SCHOOL & CHILDREN'S ASSEMBLY, OCCUPANCY GROUP A-3 PER 2018/2021 IBC 305.1.1. ADDITION UPPER LEVEL IS ALSO DESIGNED FOR USAGE AT OTHER TIMES AS LICENSED NON-PUBLIC SCHOOL FOR KINDERGARTEN AND FIRST GRADE, IBC OCCUPANCY GROUP E.
- EXISTING WORSHIP CENTER IS IBC OCCUPANCY GROUP A-3.

PER NFPA 101

- ADDITION MAIN LEVEL IS NFPA 101 GROUP NEW DAY-CARE. AT OTHER TIMES, ADDITION MAIN LEVEL ALSO SERVES AS SUNDAY SCHOOL, PART OF MAIN NFPA 101 GROUP NEW ASSEMBLY.
- ADDITION UPPER LEVEL IS NFPA 101 GROUP NEW ASSEMBLY. ADDITION UPPER LEVEL IS ALSO DESIGNED FOR USAGE AT OTHER TIMES AS LICENSED NON-PUBLIC SCHOOL FOR KINDERGARTEN AND FIRST GRADE, NFPA 101 GROUP NEW EDUCATIONAL.
- EXISTING WORSHIP CENTER IS NFPA 101 GROUP EXISTING ASSEMBLY.

OCCUPANT LOAD OF ADDITION PER 2018/2021 IBC TABLE 1004.5 – SEE SHEET LS1.1

TYPE OF CONSTRUCTION

THIS PROJECT IS AN ADDITION TO EXISTING WORSHIP CENTER BUILDING.

- EXISTING WORSHIP CENTER AND CHILDREN'S WING ADDITION ARE IBC TYPE II-B SPRINKLERED.
- EXISTING WORSHIP CENTER AND CHILDREN'S WING ADDITION ARE DIVIDED INTO FIRE AREAS BY 2-HOUR CONSTRUCTION.
- EXISTING WORSHIP CENTER IS SEPARATED FROM OTHER EXISTING BUILDINGS BY 3-HOUR FIREWALL.
- SMOKE PARTITIONS AT CORRIDORS OF ADDITION, AND WHERE THERE IS A COMMON ATMOSPHERE TO DAYCARE CORRIDOR ON UPPER LEVEL (DUE TO 2-STORY LOBBY), PER 2018 NFPA 101 16.3.6.
- SMOKE PARTITION AT CHILDREN'S ASSEMBLY TO DIVIDE UPPER LEVEL INTO NOT LESS THAN TWO COMPARTMENTS, PER 2018 NFPA 101 16.1.6.2.

ALLOWABLE AREA

CALCULATIONS BASED ON COMBINED EXISTING WORSHIP CENTER AND NEW CHILDREN 'S WING ADDITION.

- **2018 IBC**
  - 506.3 FRONTAGE INCREASE
  - 506.3.2 MINIMUM FRONTAGE DISTANCE
    - W = (L1 X w1 + L2 X w2)/F
    - W = (338' X 30' + 595' X 30')/933' = 30
  - 506.3.3 AMOUNT OF INCREASE
    - If = [F/P – 0.25]W/30
    - If = [933'/1,290' – 0.25]30/30 = 0.47
  - 506.2 ALLOWABLE AREA DETERMINATION
  - 506.2.3 SINGLE-OCCUPANCY, MULTISTORY BUILDINGS
    - At = 28,500 (SM) MOST STRINGENT OCCUPANCY (A-3)
    - Aa = [At + (NS X If)] X Sa
    - Aa = [28,500 + (9,500 x 0.47)] X 2 = 65,930 SF (BOTH LEVELS)
    - **ALLOWABLE AREA INDIVIDUAL STORY = Aa/2 = 32,965 SF**
- **TOTAL MAIN LEVEL BUILDING AREA = 32,003 SF**
  - 19,626 SF EXISTING WORSHIP CENTER & OUTDOOR COVERED AREAS
  - 11,189 SF NEW CHILDREN'S WING ADDITION
  - 1,188 SF NEW OUTDOOR COVERED AREAS
- **TOTAL UPPER LEVEL BUILDING AREA = 21,617**
  - 10,428 SF EXISTING WORSHIP CENTER
  - 11,189 SF NEW CHILDREN'S WING ADDITION
- **2021 IBC**
  - 506.3 FRONTAGE INCREASE
  - 506.3.2 MINIMUM FRONTAGE DISTANCE
    - SMALLEST OPEN SPACE 20 FT. OR GREATER = 30
  - 506.3.3 AMOUNT OF INCREASE
    - PERCENTAGE OF BUILDING PERIMETER = 72%
    - If = 0.50 PER TABLE 506.3.3
  - 506.2 ALLOWABLE AREA DETERMINATION
  - 506.2.1 SINGLE-OCCUPANCY BUILDINGS
    - At = 28,500 (SM) MOST STRINGENT OCCUPANCY (A-3)
    - Aa = At + (NS X If)
    - Aa = 28,500 + (9,500 x 0.50) = 33,250 SF
    - **ALLOWABLE AREA PER STORY = 33,250 SF**

ALLOWABLE HEIGHT

- 2018/2021 IBC TABLE 504.3 FOR GROUP A, TYPE II-B-S: 75 FT ALLOWABLE ABOVE GRADE PLANE
- 2018/2021 IBC TABLE 504.4 FOR GROUP A-3, TYPE II-B-S: 3 STORIES ALLOWABLE ABOVE GRADE PLANE
- ZONING ORDINANCE R-2 ZONE (CHURCH): 35 FT + 2 FT PER FT OF ADDITIONAL SETBACK = 53 FT
- ZONING ORDINANCE R-2 ZONE: 2.5 STORIES
- HEIGHT OF EXISTING WORSHIP CENTER: 40 FT TO HIGHEST POINT OF ROOF, 2 STORIES
- HEIGHT OF ADDITION: 39 FT TO HIGHEST POINT OF ROOF, 2 STORIES

DAYCARE LICENSING INFORMATION

- NUMBER OF CLIENTS FOR WHICH DAYCARE WILL BE LICENSED: 135 MAX. ENROLLMENT PER DAY
- STATE LICENSING AGENCY: TENNESSEE DEPARTMENT OF HUMAN SERVICES
- NUMBER OF CLIENTS AGE 2-1/2 YEARS OR LESS: 25
- NUMBER OF CLIENTS OLDER THAN 2-1/2 YEARS: 110
- ARE CLIENTS CAPABLE OF RESPONDING TO EMERGENCY WITHOUT PHYSICAL ASSISTANCE FROM STAFF: NO
- ARE THERE CLIENTS OR STAFF WITH MOBILITY IMPAIRMENTS: NO
- WILL THIS PROJECT MEET STATE ADOPTED ACCESSIBILITY CODES: YES

References

Abbreviations

A.C.T.	ACOUSTICAL CEILING TILE
A.F.F.	ABOVE FINISH FLOOR
ACOUST.	ACOUSTICAL
ALUM.	ALUMINIUM
ARCH.	ARCHITECT
BD.	BOARD
BLDG.	BUILDING
B.O.	BOTTOM OF
BRG.	BEARING
C.J.	CONTROL JOINT
CLG.	CEILING
CLR.	CLEARANCE
CMU.	CONCRETE MASONRY UNIT
DIA.	DIAMETER
D.S.	DOWNSPOUT
DTL.	DETAIL
DWGS.	DRAWINGS
E.J.	EXPANSION JOINT
ELEC.	ELECTRICAL
EXT.	EXTERIOR
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.F.E.	FINISH FLOOR ELEVATION
GA.	GAUGE
GALV.	GALVANIZED
G.B.	GYPSUM BOARD
GYP.	GYPSUM
H.C.	HANDICAPPED (ACCESSIBLE)
HD. BD.	HARDBOARD
HGT.	HEIGHT
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
H.D.	HOT DIPPED
INSUL.	INSULATION
INT.	INTERIOR
KDAT.	KILN DRIED AFTER TREATMENT
LAM.	LAMINATE
L.V.T.	LUXURY VINYL TILE
L.W.R.G.	LOW WALL RETURN GRILLE
MFR.	MANUFACTURER
MAX.	MAXIMUM
MECH.	MECHANICAL
MIN.	MINIMUM
MIR.	MIRROR
M.R.	MOISTURE RESISTANT
MTL.	METAL
N.I.C.	NOT IN CONTRACT
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OVERFLOW DRAIN
O.H.	OPPOSITE HAND
OPP.	OPPOSITE
P.L.	PLASTIC LAMINATE
PLA.	PLASTIC
PREFIN.	PREFINISHED
P.T.	PRESSURE TREATED
R.D.	ROOF DRAIN
REF.	(WITH DIM.) FOR REFERENCE ONLY, VERIFY
REF.	REFRIGERATOR
REINF.	REINFORCING
R&S.	ROD AND SHELF
S.B.	SPLASH BLOCK
S.C.W.	SOLID CORE WOOD
SIM.	SIMILAR
SPEC.	SPECIFICATION
STL.	STEEL
STRUCT.	STRUCTURAL
TEL.	TELEPHONE
TLT.	TOILET
T.O.	TOP OF
T.O.M.	TOP OF MASONRY
TYP.	TYPICAL
U.L.	UNDERWRITERS LABORATORIES INC.
V.C.T.	VINYL COMPOSITION TILE
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W.H.	WATER HEATER (SEE PLUMBING)

PRELIMINARY
NOT FOR CONSTRUCTION

BREWER INGRAM FULLER Architects Inc.

Cherokee Mills
111 N. Concord St.
Knoxville, TN 37919
865-525-2707

Consultants

Civil
Cannon & Cannon, Inc.
10025 Investment Dr.
Knoxville, TN 37932
(865) 670-8555)

Structural
Bender and Associates
Structural Engineers, LLC
110 Forest Ct
Knoxville, TN 37919
(865) 584-6532

Mechanical/Plumbing/Fire Protection
Facilities Systems Consultants, LLC
713 South Central Street
Suite 101
Knoxville, TN 37902
(865) 246-0164

Electrical
Vreeland Engineers, Inc.
3107 Sutherland Ave.
Knoxville, TN 37919
(865) 637-4451

Construction Progress Set **07/14/2025**
Project Number **2403**



PERSPECTIVE RENDERING LOOKING NORTH



PERSPECTIVE RENDERING LOOKING NORTHEAST



PERSPECTIVE RENDERING LOOKING SOUTHWEST



AERIAL LOOKING WEST

BREWER INGRAM FULLER Architects Inc.

Concord United Methodist Church

CHILDREN'S WING

LEE J. INGRAM REGISTERED ARCHITECT 7-14-25 STATE OF TENNESSEE

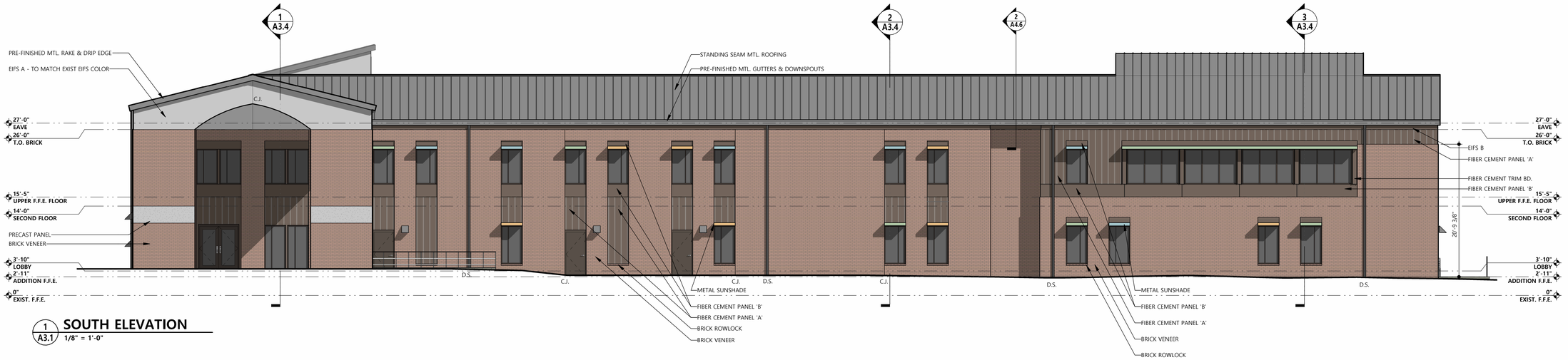
3D REFERENCES

PRELIMINARY
NOT FOR CONSTRUCTION

07/14/2025 FOR MPC REVIEW
2403 PROJECT NUMBER

A0.1

SHEET 15 OF 19



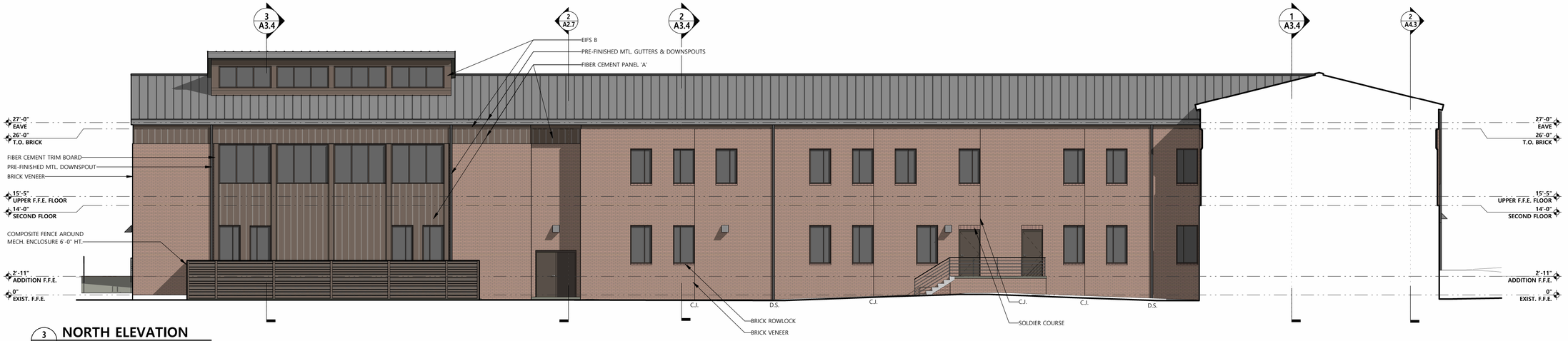
1 A3.1 **SOUTH ELEVATION**
1/8" = 1'-0"



EXISTING BUILDING REFERENCE

ELEVATION MATERIAL NOTES

- BRICK VENEER - LIGHT PINK/BROWN TO MATCH EXISTING
- FIBER CEMENT A - DARK BRONZE/GRAY TO MATCH EXISTING
- FIBER CEMENT B - DARK BRONZE/GRAY TO MATCH EXISTING
- EIFS A - OFF-WHITE TO MATCH EXISTING
- EIFS B - DARK BRONZE/GRAY TO MATCH FIBER CEMENT
- PRECAST PANELS - LIGHT TAN-GRAY TO MATCH EXISTING
- ROOF - LIGHT GRAY TO MATCH EXISTING
- METAL SUNSHADES - COLORS SIMILAR TO PANTONE 159U, PANTONE 536U, AND PANTONE 578C



3 A3.1 **NORTH ELEVATION**
1/8" = 1'-0"

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Concord
United Methodist Church

CHILDREN'S WING

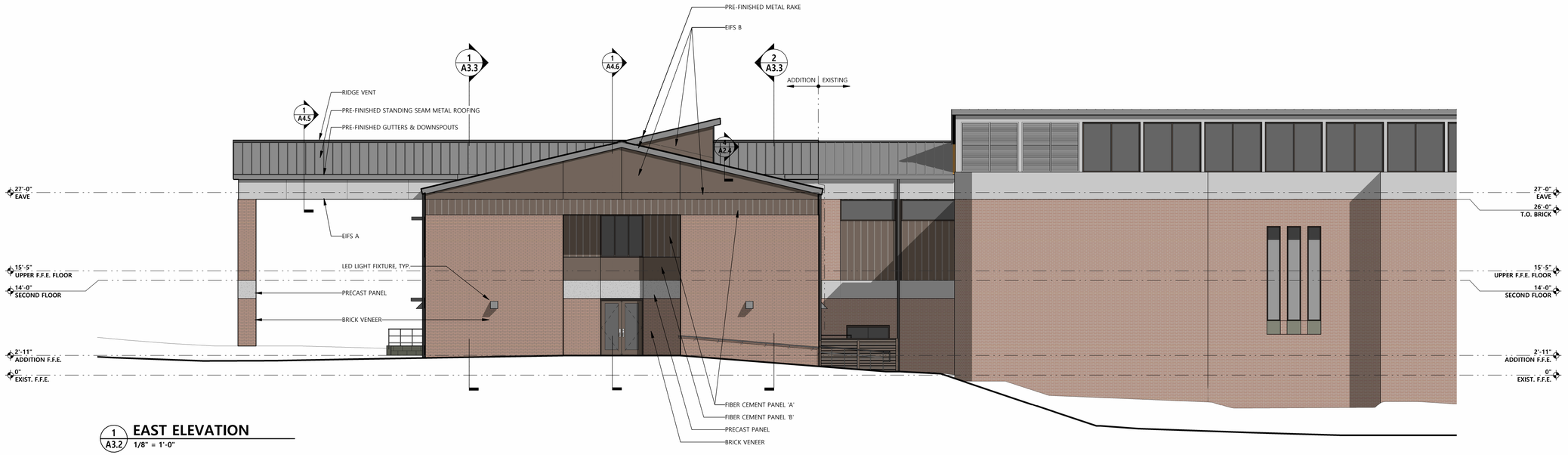
LEE J. INGRAM REGISTERED ARCHITECT 7-14-25 State of Tennessee

ELEVATIONS

PRELIMINARY
NOT FOR CONSTRUCTION

07/14/2025 FOR MPC REVIEW
2403 PROJECT NUMBER

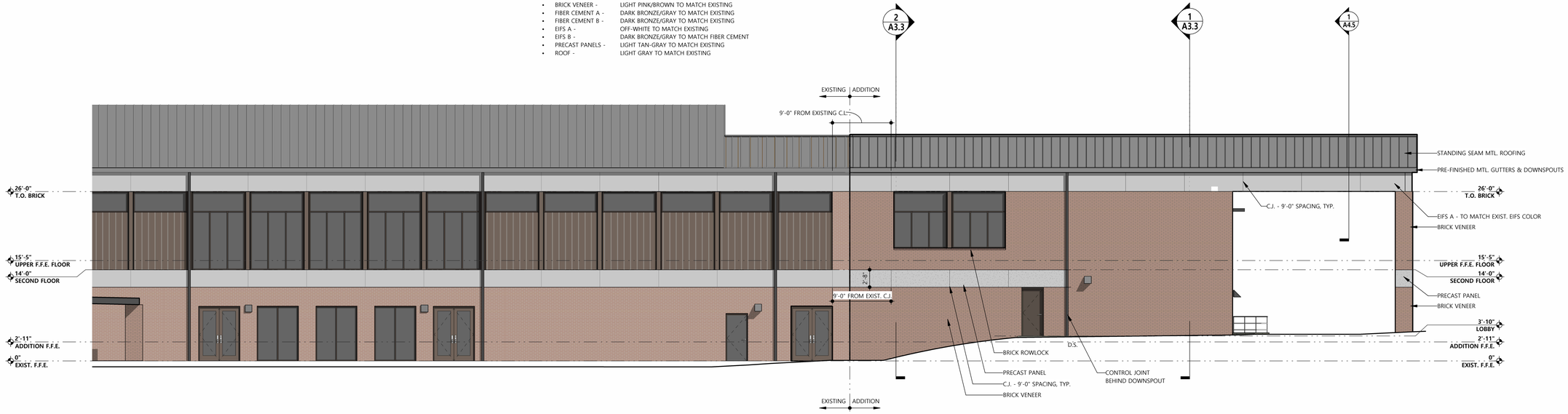
A3.1



1 A3.2 **EAST ELEVATION**
1/8" = 1'-0"

ELEVATION MATERIAL NOTES

- BRICK VENEER - LIGHT PINK/BROWN TO MATCH EXISTING
- FIBER CEMENT A - DARK BRONZE/GRAY TO MATCH EXISTING
- FIBER CEMENT B - DARK BRONZE/GRAY TO MATCH EXISTING
- EIFS A - OFF-WHITE TO MATCH EXISTING
- EIFS B - DARK BRONZE/GRAY TO MATCH FIBER CEMENT
- PRECAST PANELS - LIGHT TAN-GRAY TO MATCH EXISTING
- ROOF - LIGHT GRAY TO MATCH EXISTING



2 A3.2 **WEST ELEVATION**
1/8" = 1'-0"

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Concord
United Methodist Church

CHILDREN'S WING



ELEVATIONS

PRELIMINARY
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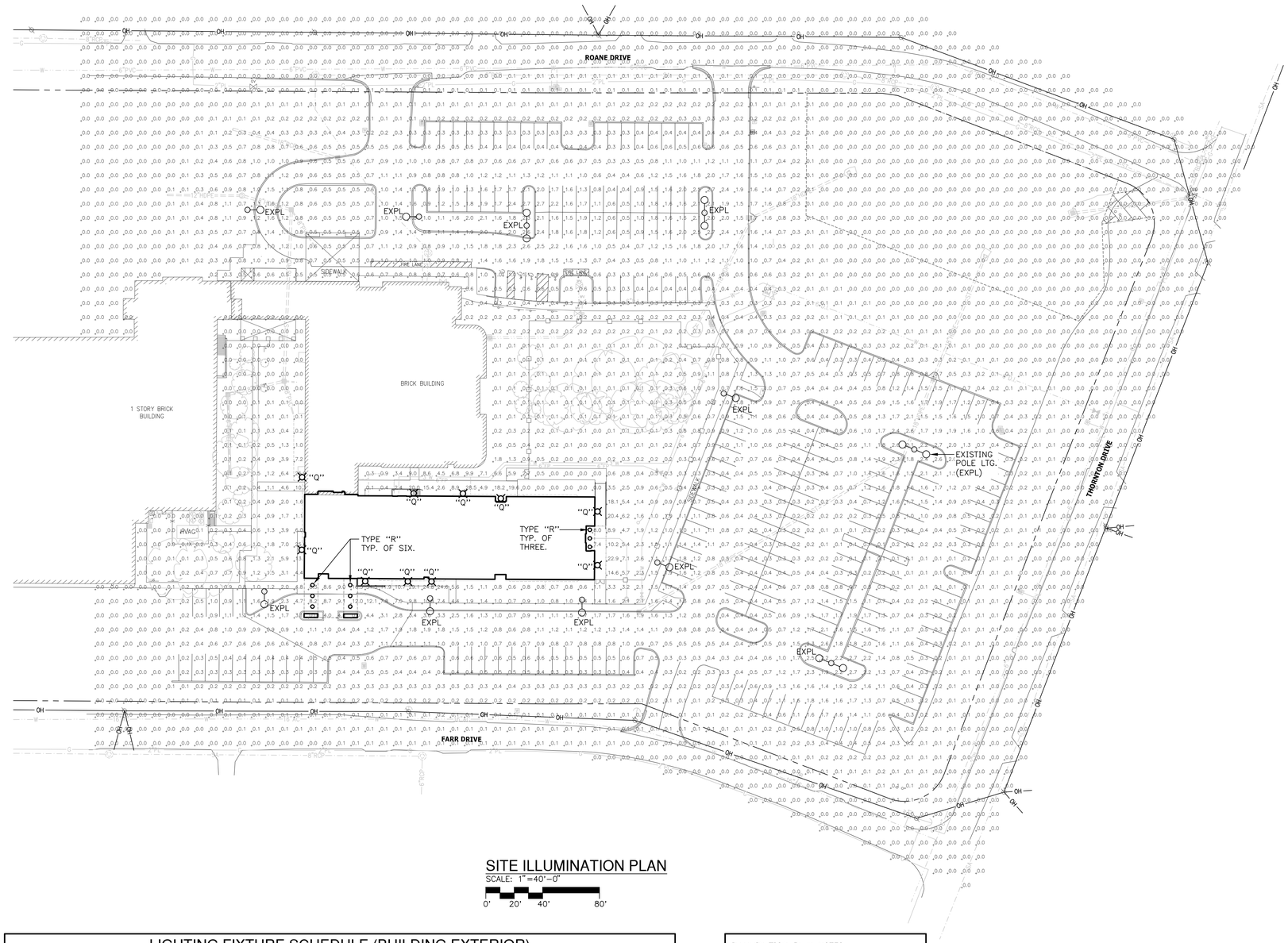
07/14/2025 FOR MPC REVIEW
2403 PROJECT NUMBER

A3.2

SHEET 17 OF 19



SITE ILLUMINATION PLAN

SCALE: 1"=40'-0"

0' 20' 40' 80'

LIGHTING FIXTURE SCHEDULE (BUILDING EXTERIOR)

DESIGNATION	ILLUMINATION: WATTS	ILLUMINATION: DELIVERED LUMENS	ILLUMINATION: COLOR TEMPERATURE (°K)	ILLUMINATION: MINIMUM CRI	MOUNTING: CEILING: PENDANT STEM LENGTH	MOUNTING: CEILING: SURFACE	MOUNTING: CEILING: RECESSED	MOUNTING: WALL: HEIGHT ABOVE FINISHED FLOOR OR GRADE	DESCRIPTION: SHIELDING, TYPE MATERIALS, FINISH, MOUNTING	MANUFACTURER'S PRODUCT ITEM: COMPANY	MANUFACTURER'S PRODUCT ITEM: CATALOG NO.	*EQUAL PRODUCT PERMITTED: YES	*EQUAL PRODUCT PERMITTED: NO	REMARKS
Q	28	5211	4000	70	–	•		10 FT. A.F.F.	LED WALL PACK, WEDGE SHAPE, FULL CUT-OFF	ECLIPSE LIGHTING	LV3 SLED 4000 T4 UNV BK		•	MOUNTED ON WALL
R	31.6	3398	4000	80	–		•	26 FT. A.F.F.	LED 8" DOWNLIGHT, LENSED	GOTHAM LIGHTING	EV08 40/30 AR WD LD 120 GZ10	•		MOUNTED IN SOFFIT

* UNLESS NOTED, EQUAL PRODUCT TO THAT SPECIFIED WILL BE ACCEPTED. THE DESIGN PROFESSIONAL SHALL HAVE SOLE JUDGEMENT CONCERNING EQUIVALENCY OF SUBSTITUTION.

ILLUMINATION PLAN NOTES:

1. VALUES INDICATE COMPUTER CALCULATED MAINTAINED ILLUMINATION LEVELS IN FOOTCANDLES; USING A TOTAL MAINTENANCE FACTOR UTILIZED OF 0.82
2. FOOTCANDLE LEVELS SHOWN INDICATE CONTRIBUTIONS FROM NEW AND EXISTING LUMINAIRES ILLUSTRATED ON THIS DRAWING.

BREWER INGRAM FULLER Architects Inc.

Concord United Methodist Church

CHILDREN'S WING

PRICING DOCUMENTS
NOT FOR CONSTRUCTION

THESE DRAWINGS ARE INTENDED TO GENERALLY ILLUSTRATE THE PROPOSED SCOPE AND QUALITY OF THE PROJECT AND TO ASSIST IN OBTAINING A PRELIMINARY ESTIMATE OF CONSTRUCTION COST. THESE DOCUMENTS ARE NOT INTENDED FOR CONSTRUCTION, NOR ARE THEY INTENDED TO BE COMPLETE OR FULLY DETAILED. THEY CONTAIN A LEVEL OF INCONSISTENCY COMMON TO PROGRESS DRAWINGS AT THE DESIGN DEVELOPMENT STAGE. THE FINAL CONSTRUCTION DOCUMENTS WILL MODIFY SOME OF THE INFORMATION CONTAINED HEREIN BASED ON ARCHITECTURAL REQUIREMENTS, DEVELOPMENT OF BUILDING SYSTEMS, OWNER CHANGES, AND COORDINATION OF INFORMATION.

SITE ILLUMINATION PLAN

Vreeland Engineers Inc.
3107 Sutherland Ave.
P.O. Box 10648
Knoxville, TN 37939
865-637-4451
1-800-362-9789
vreelandengineers.com

AARON ANDREW LOPEZ REGISTERED ENGINEER AGRICULTURE No. 113547 STATE OF TENNESSEE 7-16-25

07/16/2025 TOF REVIEW
2403 PROJECT NUMBER

E1.1

E1.1 Concord UMC Children's Wing – Site Illumination Plan.dwg
A.L.S. 07/17/25 10:58 AM AL24236(AL)

Liverpool 3

Full Cutoff Wall Pack Luminaire
Selectable Wattage / CCT - Standard Photocell
RoHS Compliant / Wet Location

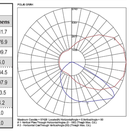
We reserve the right to revise the design or components of any product without notice.

CATALOG #		TYPE
PROJECT/LOCATION		
APPROVED BY		

PHOTOMETRIC DATA

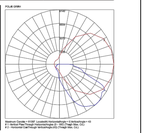
Summary of Results | LV3-SLED70-4K-T3-UNV					
Lumen Output	Efficacy	Input Power	CCT	Distribution	BUG Rating
11,124.4 Lumens	160.6 Lm/W	69.27W	4000K	Type III	B3-U0-Q1

LCS Summary	
Zone	Lumens
Forward Low (0-30)	1711.7
Forward Medium (30-60)	4476.9
Forward High (60-80)	1399.7
Forward Very High (80-90)	86.0
Back Low (0-30)	1284.5
Back Medium (30-60)	1797.5
Back High (60-80)	343.5
Back Very High (80-90)	24.2
Up Low (90-100)	0.0
Up High (100-180)	0.0



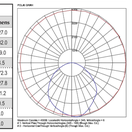
Summary of Results | LV3-SLED70-4K-T4-UNV					
Lumen Output	Efficacy	Input Power	CCT	Distribution	BUG Rating
10,751.0 Lumens	155 Lm/W	69.34W	4000K	Type IV	B1-U0-Q4

LCS Summary	
Zone	Lumens
Forward Low (0-30)	1254.4
Forward Medium (30-60)	4735.5
Forward High (60-80)	2859.1
Forward Very High (80-90)	533.5
Back Low (0-30)	388.7
Back Medium (30-60)	652.8
Back High (60-80)	288.3
Back Very High (80-90)	38.7
Up Low (90-100)	0.0
Up High (100-180)	0.0



Summary of Results | LV3-SLED70-4K-T5-UNV					
Lumen Output	Efficacy	Input Power	CCT	Distribution	BUG Rating
10,764.3 Lumens	155.4 Lm/W	69.25W	4000K	Type VS	B3-U0-Q1

LCS Summary	
Zone	Lumens
Forward Low (0-30)	1627.0
Forward Medium (30-60)	2882.0
Forward High (60-80)	839.0
Forward Very High (80-90)	74.5
Back Low (0-30)	1572.3
Back Medium (30-60)	2827.8
Back High (60-80)	861.2
Back Very High (80-90)	80.5
Up Low (90-100)	0.0
Up High (100-180)	0.0



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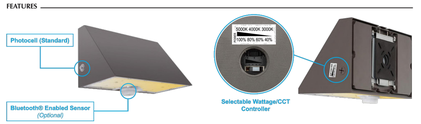
Liverpool 3

Full Cutoff Wall Pack Luminaire
Selectable Wattage / CCT - Standard Photocell
RoHS Compliant / Wet Location

We reserve the right to revise the design or components of any product without notice.

CATALOG #		TYPE
PROJECT/LOCATION		
APPROVED BY		

FEATURES



BLUETOOTH® ENABLED SENSOR (OPTIONAL)



Bluetooth

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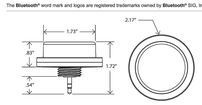
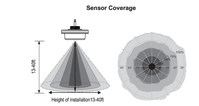


Sensor Coverage



SENSOR SPECIFICATIONS	
Sensor Model No.	Sharkward Model ANTS-4T-BLE-SR (Silvar)
Network Bluetooth® Mesh	Yes
Daylight Harvesting	Yes
Microwave Motion Sensor	Yes
Detection Mode	Occupancy / Vacancy / Bi-level in 1 Unit
Operating Voltage	12-24V DC
Operating Current	>50mA
Sinking Current	max. 20mA
Control Output	0-10V
Radio Frequency	2.4GHz ± 75MHz
Wireless Standard	**Bluetooth®** Low Energy 4.2 MESH IEEE 802.15.1
Programming	Tuya/Sharkward App mobile app(iOS and android) or Saas
Cybersecurity	UL 1376
Encryption	AES 128-bit
Mesh Range	60ft node-to-node and 500ft node-to-device (Commissioning)
Safety	cULus Listed
FCC	FCC ID:2AUMOANT-5-X
Operating Temp	-40°F- +158°F (-40°C - +70°C)
IP Rating	IP65
Warranty	5 year limited
SENSOR FEATURES	
Daylight Harvesting	ON / OFF
Motion Sensing	ON / OFF
First Time Delay	1-59 mins / Infinite
Second Time Delay	0-59 mins / Infinite
Dim Level	0-100%
Mounting Height	13-40ft
Detection Range	Up to 52ft Diameter
Detection: Horizontal	360°
Detection: Vertical	90°

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Liverpool 3

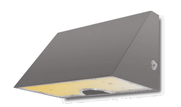
Full Cutoff Wall Pack Luminaire
Selectable Wattage / CCT - Standard Photocell
RoHS Compliant / Wet Location

We reserve the right to revise the design or components of any product without notice.

CATALOG #		TYPE
PROJECT/LOCATION		
APPROVED BY		

SPECIFICATIONS

- DRIVER — Universal Voltage (120-277v) electronic driver with 0-10V dimming.
- HOUSING — Die-cast aluminum.
- FINISH — Polyester powder coated finish.
- LENS — Frosted polycarbonate for non-glare uniform illumination.
- LIGHT ENGINE — Energy efficient LED featuring Selectable Wattage/CCT. Power Factor >0.90. THD <20%. CRI >70.
- LIFETIME — 50,000+ Hour LED Life Expectancy (L70).
- MOUNTING — Mounts to standard 4"J-BOX.
- OPERATIONAL TEMP — -30°C to +45°C / -22°F to +113°F.
- PHOTOCELL — Standard Integrated Photocell.
- COMPLIANCE — Built to comply with U.S. and Canadian Safety Standards. UL listed for Wet Location Rated. DLC Premium approved. RoHS Compliant.
- WARRANTY — 5-Year Limited Warranty.



ORDERING INFO.

ORDERING GUIDE:

Series	Wattage	CCT	Distribution	Voltage	Finish	Options

SERIES
LV3 = Liverpool 3 Series

WATTAGE
Note: Refer to Below Chart for Wattage / Lumen Output
SLED = *Selectable Wattage: 28W | 42W | 56W | 70W

COLOR TEMPERATURE (CCT)
SCCT = *Selectable CCT: 3000K | 4000K | 5000K

**Note: Fixtures will ship from factory at lowest wattage and warmest CCT. It is the installer's responsibility to set the fixture at the desired wattage and CCT for their project.*

DISTRIBUTION
T3 = Type III: 94.3° x 82°.4°
T4 = Type IV: 94.3° x 76.8°.(Standard)
T5 = Type V: 107.3° x 104.9°

VOLTAGE
UNV = Universal Volt (120-277v) Driver

STANDARD FINISH
BK = Black Finish
BZ = Bronze Finish

PREMIUM UPCHARGE FINISH
SCR = Silver Gray
WH = White Finish

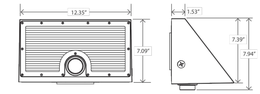
SENSOR OPTIONS
BLD = Bluetooth® Enabled | Motion Sensor Integral
— Plug & Play Unit
— Bi-Level Programming
— Occupancy / Vacancy / Manual / Daylight Harvesting
— Remote Controller (REMT00909) Required for Programming
OCB = Occupancy Motion - **Bluetooth®** Enabled Sensor
— Plug & Play Unit
— Bluetooth® Network Mesh Compatible
— Time & Zonal Control
— Occupancy / Vacancy / Manual / Daylight Harvesting
— Controlled via Tuya/Sharkward App (iOS or Android)

EMERGENCY BATTERY OPTIONS
ELBW = 8 Watt Integral Emergency Battery Backup
— 2-Hr Charge Time
— 90min Backup Time

ACCESSORY OPTIONS (order as a separate line)
REMT00909 = Remote Controller for BLD Sensor Option

	SLED			
WATTAGE	**28W**	**42W**	**56W**	**70W**
LUMEN	5211 lm	7048 lm	8901 lm	11,156 lm
EFFICACY	170 lm/W	165 lm/W	160 lm/W	170 lm/W

DIMENSIONS



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TYPE "Q" LIGHT FIXTURE CUT SHEET - CATALOG NO. LV3 SLED 4000 T4 UNV BK

gotham | E V O

8" General Illumination Round Downlight

SPECIFICATIONS

Optical Assembly
Fully serviceable and upgradeable lensed LED light engine suitable for field maintenance or service from below the ceiling.
Optical design is a Bounding Ray™ design with 45° cutoff to source and source image. Top-down flash characteristic for superior glare control.
Unitized optics shall have mechanical attachment of the light engine to the lower reflector for complete optical alignment.

Electrical
The luminaire shall operate from a 50 or 60 Hz ±3 Hz AC line over a voltage ranging from 120 VAC to 277 VAC. The fluctuations of line voltage shall have no visible effect on the luminous output.
The luminaire shall have a power factor of 90% or greater at all standard operating voltages and full luminaire output.
Sound Rated A+. Driver shall be <80% efficient at full load across all input voltages.
Input wires shall be 18AWG, 300V minimum, solid copper.

Controls
Luminaire shall be equipped with interface for nLight wired or wireless network with integral power supply as per specification.

Dimming
The luminaire shall be capable of continuous dimming without perceivable stroboscopic flicker as measured by flicker index (ANSI/IES RP-16-10) over a range of 100 – 10%, 100 – 1.0% or 100 – 0.1% of rated lumen output with a smooth shut off function to step to 0%.
eldoLED LED drivers shall conform to IEEE P1789 standards. Alternatively, manufacturers must demonstrate conformance with product literature and testing which demonstrates this performance. Systems that do not meet IEEE P1789 will not be considered.
Driver is inausible in 24dB environment, and stable when input voltage conditions fluctuate over what is typically experienced in a commercial environment.

Construction
Luminaire housing shall be constructed of 16-gauge galvanized steel and have preinstalled telescopic mounting bars with maximum 32° and minimum 15° extension and 4° vertical adjustment.
Luminaires shall be suitable for installation in ceilings up to 1½" thick. (specify ceiling thickness adapter to extend frame to accommodate ceiling thickness up to 5").
Tool-less adjustments shall be possible after installation.
The assembly and manufacturing process for the luminaire shall be designed to assure all internal components are adequately supported to withstand mechanical shock and vibration.
25°C ambient temperature standard (1/2" clearance on all sides from non-combustible materials in non-IC applications, unless marked spacing noted otherwise). For use in insulated ceilings, a 3" clearance on all sides from insulation is required (unless marked spacing noted otherwise).

Listings
Fixtures are CSA certified to meet US and Canadian standards. All fixtures manufactured in strict accordance with the appropriate and current requirements of the "Standards for Safety" for UL, wet location covered ceiling.

Photometrics
LEDs tested to LM-80 standards. Measured by IESNA Standard LM-79-08 in an accredited lab. Lumen output shall not decrease by more than 30% over the minimum operational life of 60,000 hours.
Color appearance from luminaire to luminaire of the same type and in all configurations, shall be consistent both initially and at 6,000 hours and operate within a tolerance of <2.5 MacAdam ellipse as defined by a point at the intersection of the CCT line and the black body locus line in CIE chromaticity space.

Buy American Act
This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.
Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note:
Actual performance may differ as a result of end user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.

A+ Capable Luminaire
This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.
- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight® control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.
*See ordering tree for details

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gotham | E V O
Multiple Layers of Light

Luminaire Type:
Catalog Number:

General Illumination Round Downlight **8"**

FEATURES

Feature Set
- Bounding Ray™ optical design
- Unitized optics mechanically attach the light engine to the lower reflector for complete optical alignment.
- 45° cutoff to source and source image
- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM, 85 CRI typical, 90+ CRI optional
- Fixtures are wet location, covered ceiling
- Available with 10% dimming, 1% dimming, or dim to dark
- Batwing distribution with feathered edges provides even illumination on horizontal and vertical surfaces

Distribution



Superior Performance

Nominal Lumens	2000	2500	3000
Delivered Lumens	2,287	2,964	3,398
Wattage	31.6	41.1	47.1
Efficacy	72.5	72	72.2

Coordinated Apertures I Multiple Layers of Light



General Illumination Layer I EVO | High Center Beam Layer I Incito | EVO + Incito — Multiple Layers of Light

COMPLIMENTARY PRODUCTS



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gotham | E V O

8" General Illumination Round Downlight

A+ Capable options indicated by this color background.

Luminaire Type:
Catalog Number:

EXAMPLE: EV08 35/30 AR WWD LSS 277 EZ1

ORDERING INFORMATION

Series	Color Temperature	Nominal Lumen Values	Reflector & Flange Color	Trim Style	Distribution	Finish	Voltage
EV08	27/ 2700 K 30/ 3000 K 35/ 3500 K 40/ 4000 K	20 2000 lumens 25 2500 lumens 30 3000 lumens	AR Clear PR Pewter WTR Wheat GR Gold WH/ White BR/ Black WRAM[1] White Anti-microbial	(blank) Self-flanged	YWD Very Narrow (0.5 s/mtr) ND Narrow (0.7 s/mtr) MD Medium (0.9 s/mtr) WMD Medium wide (1.0 s/mtr) WD Wide (1.2 s/mtr)	LSS Semi-specular LD Matte-diffuse LS Specular	120 277 347[2]

Driver*	Control Interface	Options
GZ10 0-10V driver dims to 10% GZ1 0-10V driver dims to 1% EZ10 eldoLED 0-10V ECOdrive, Linear dimming to 10% min. EZ1 eldoLED 0-10V ECOdrive, Linear dimming to 1% min. EZD eldoLED 0-10V SOLOdrive, Logarithmic dimming to <1%. EBAB[2] eldoLED SOLOdrive DALI, Logarithmic dimming to <1%. EBXB[2] eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Includes termination ECOD[2] Lutron Ecosystem digital 1k-unit 1% soft-on, fade to black. Maximum 2500 lumens.	NLT[3] nLight® dimming pack controls NLTEB[3,4] nLight® dimming pack controls emergency circuit nLight® Air enabled NLTAIR2[3,4] nLight® AIR Dimming Pack Wireless Controls fixtures on emergency circuit EXA1 XPoint Wireless, eldoLED 0-10V ECOdrive. Linear dimming to 1%. Refer to XPoint tech sheet EXAB XPoint Wireless, eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%. Refer to XPoint tech sheet.	SF Single fuse. Specify 120V or 277V. TRW[1] White painted flange TRBL[1] Black painted flange EL Emergency battery pack, 10W, with integral test switch ELR Emergency battery pack, 10W, with remote test switch ELSD Emergency battery pack, 10W, with self-diagnostics, integral test switch ELRSD Emergency battery pack, 10W, with self-diagnostics, remote test switch E10WCP Emergency battery pack, 10W Constant Power, CA Title 20 compliant with integral test switch E10WCPR Emergency battery pack, 10W Constant Power, CA Title 20 compliant with remote test switch NBC[1] nLight® Lumen Compensation BETD Bodine generator transfer device. Specify 120V or 277V. HGCRI High CRI (90+) CP[1] Chicago Plenum. Specify 120V or 277V. RRL_____ RELOC®-ready Luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Available only with RRLA, RRLB, RRLAE, and RRLC12S. Refer to RRL spec sheet on www.acuitybrands.com for RELOC product specifications. Above ceiling access required.

ACCESSORIES — order as separate catalog numbers (shipped separately)

SGA4	Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SGA8 10D. Refer to TECH-190.
CTA6-8 TK	Ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5"). Adds ~4" to fixture height.
GVRT	Vandal-resistant trim accessory. Refer to TECH-200.
ISD BC	0-10V wireless dimmer. Refer to ISD-BC.

ORDERING NOTES

1. Not available with finishes.
2. Not available with GZ10, GZ1, EL or ELR options.
3. Supplied with factory installed step-down transformer.
4. Refer to TECH-240 for compatible dimmers.
5. Not available with nLight® and XPoint options.
6. Must specify voltage 120V or 277V.
7. For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not available with WR (white reflector).
8. For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not available with BR (black reflector).
9. For dimensional changes, refer to TECH-140. Not available with 347V.
10. For use with generator supply 0.8 power. Will require an emergency hot feed and normal hot feed.
11. Fixture begins at 80% light level. Must be specified with eldoLED drivers and NLT or NLTER.
12. Not available with ELR, EXA1 or EXAB.
13. Not available DALI or DMX drivers. Not available with CP or NBO options. Not recommended for metal ceiling installations.

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TYPE "R" LIGHT FIXTURE CUT SHEET - CATALOG NO. EV08 40/30 AR WD LD 120 GZ10

BREWER INGRAM FULLER *Architects Inc.*

Concord *United Methodist Church*

CHILDREN'S WING

PRICING DOCUMENTS
NOT FOR CONSTRUCTION

THESE DRAWINGS ARE INTENDED TO GENERALLY ILLUSTRATE THE PROPOSED SCOPE AND QUALITY OF THE PROJECT AND TO ASSIST IN OBTAINING A PRELIMINARY ESTIMATE OF CONSTRUCTION COST. THESE DOCUMENTS ARE NOT INTENDED FOR CONSTRUCTION, NOR ARE THEY INTENDED TO BE COMPLETE OR FULLY DETAILED. THEY CONTAIN A LEVEL OF INCONSISTENCY COMMON TO PROGRESS DRAWINGS AT THE DESIGN DEVELOPMENT STAGE. THE FINAL CONSTRUCTION DOCUMENTS WILL MODIFY SOME OF THE INFORMATION CONTAINED HEREIN BASED ON ARCHITECTURAL REQUIREMENTS, DEVELOPMENT OF BUILDING SYSTEMS, OWNER CHANGES, AND COORDINATION OF INFORMATION.

SITE DETAILS

Vreeland Engineers Inc.
3107 Sutherland Ave.
P.O. Box 10648
Knoxville, TN 37939
865-637-4451
1-800-382-9780
vreelandengineers.com

AARON ANDREW LOVE — REGISTERED ENGINEER — AGRICULTURE — 7-16-25 — No. 113344 — STATE OF TENNESSEE

07/16/2025 TOF REVIEW
2403 PROJECT NUMBER

E1.2

SHEET 19 OF 19

E1.2 Concord UMC Children's Wing – Site Details.dwg
A.L.S. 07/17/25 10:59 AM AL24236(AL)

Agenda Number: IV.H. **Meeting Date: August 21, 2025**

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Discussion and public hearing on approval of a site plan for Horizon Plaza Phase 2, 11011 Kingston Pike, Zoned General Commercial (C-1) and Floodplain District (FPD), (Urban Engineering, Applicant)

Introduction & Background: This item involves a site plan approval request for the Phase 2 portion of Horizon Plaza at the northeast intersection of Kingston Pike and Admiral Road. The first phase of this project was approved in June 2021 and included the majority of the site development with a 12,000-square-foot building.

Discussion & Recommendations: As shown on the site plan set included in the packet, the Phase 2 portion of Horizon Plaza includes a roughly 5,400-square-foot building to match the larger building to the west and some additional parking on the eastern portion of the development. Also included with this phase is a potential future connection to the Stonecrest Shopping Center property to the east. Cross access is an important element of site design and having this connection would provide patrons at both developments with more options for entering and exiting this busy section of Kingston Pike. The staff has reached out to the owner of the Stonecrest Shopping Center, and he is open to the connection and working with the applicant's engineer on final alignment.

The staff recommends approval of the site plan subject to the following conditions:

1. FUD will need to approve the water and sewer sheets.
2. On Sheet A3.1, the required masonry percentage is at least 75% of the net facade area. Please adjust the materials and plans to reflect this.
3. Please double check to make sure the roof mounted HVAC units will be screened by the building parapet so they are not visible from adjacent properties or rights of ways.
4. Please update the cross access location per discussions with

the owner of the Stonecrest Shopping Center.
5. Please ensure that the architect's signature and date break the seal on Sheets A1.1 and A3.1.
6. Please include a parking summary to show that the number of compact car spaces is not more than 20% of the total required parking spaces.
7. Please complete a stormwater maintenance agreement for this development.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: To approve the site plan subject to the following conditions:

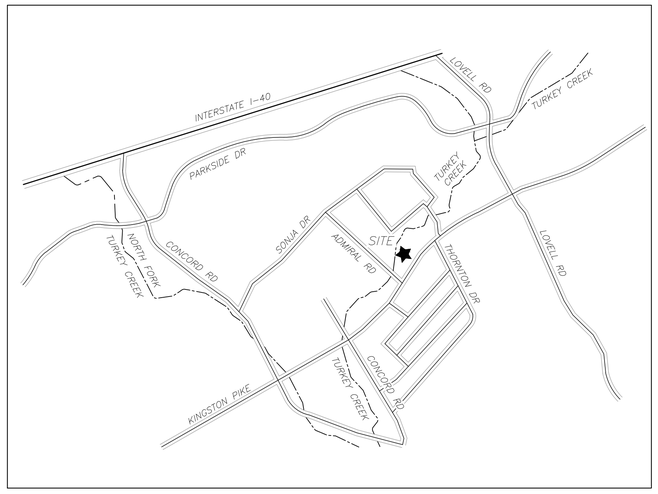
1. FUD will need to approve the water and sewer sheets.
2. On Sheet A3.1, the required masonry percentage is at least 75% of the net facade area. Please adjust the materials and plans to reflect this.
3. Please double check to make sure the roof mounted HVAC units will be screened by the building parapet so they are not visible from adjacent properties or rights of ways.
4. Please update the cross access location per discussions with the owner of the Stonecrest Shopping Center.
5. Please ensure that the architect's signature and date break the seal on Sheets A1.1 and A3.1.
6. Please include a parking summary to show that the number of compact car spaces is not more than 20% of the total required parking spaces.
7. Please complete a stormwater maintenance agreement for this development.

SITE DEVELOPMENT PLANS

U.E.I. PROJECT NO. 2006016

HORIZON PLAZA – PHASE 2

SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT, TENNESSEE 37934
CLT MAP 143A, GROUP B, PARCEL 1



LOCATION MAP

OWNER/DEVELOPER:
FOX RD, LLC.
ISSAM ALMASHHARAWI
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934
(865) 777-1950
issam20000@gmail.com

SITE ENGINEER:
URBAN ENGINEERING, INC.
CHRIS SHARP
10330 HARDIN VALLEY ROAD, SUITE #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

SPECIFICATIONS

EXCEPT WHERE DIRECTED OTHERWISE BY THE PLANS, WORKMANSHIP AND MATERIAL (BUT NOT MEASUREMENT AND PAYMENT) FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS AND STANDARDS.

ELECTRICAL – AS DIRECTED BY LCUB
GAS – AS DIRECTED BY KUB
WATER – AS DIRECTED BY FIRST UTILITY DISTRICT
CABLE TV – AS DIRECTED BY CHARTER
TELEPHONE – AS DIRECTED BY TDS
TOWN OF FARRAGUT – ALL APPLICABLE TOWN REGULATIONS AND ORDINANCES

SHEET INDEX

TITLE	SHEET
TITLE SHEET	C-0
SITE PLAN	C-1
GRADING & DRAINAGE PLAN	C-2
EROSION AND SEDIMENT CONTROL PLANS	C-3 & C-4
SITE CONSTRUCTION DETAILS	C-5 THRU C-9
SANITARY SEWER PLAN	SA-1
SANITARY SEWER PROFILE	SA-2
SITE WATER PLAN	WA-1
PRELIMINARY FLOOR PLAN	A1.1
ARCHITECTURAL ELEVATIONS	A3.1
ELECTRICAL CUTSHEETS	ES0.1
ELECTRICAL SITE PLAN	ES1.1
ELECTRICAL PHOTOMETRIC PLAN	ES1.2
TREE PRESERVATION PLAN	L.00
LANDSCAPE PLAN	L.10
LANDSCAPE DETAILS	L.30
LANDSCAPE NOTES / SCHEDULE	L.31

BUILDING #1 SUMMARY:

BUILDING AREA (S.F.):	11,985
NUMBER OF STORIES:	1
CONSTRUCTION TYPE:	II-B
OCCUPANCY TYPE:	BUSINESS
ONE-HOUR PROTECTED:	NO
BUILDING SPRINKLED:	YES

BUILDING #2 SUMMARY:

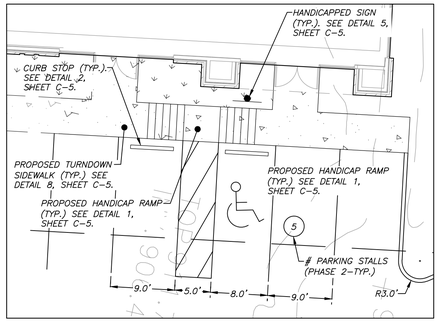
BUILDING AREA (S.F.):	5,416
NUMBER OF STORIES:	1
CONSTRUCTION TYPE:	V-B**
OCCUPANCY TYPE:	MERCANTILE / BUSINESS
ONE-HOUR PROTECTED:	YES
BUILDING SPRINKLED:	NO
BUILDING HEIGHT:	22'
BUILDING AREA:	5,022 S.F.

**TYPE V – UNSPRINKLED (UNDER 7,000 S.F. NOT REQUIRED PER FARRAGUT ORDINANCE CHAPTER 105, SEC. 105-20-F).

TABLE 602FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE[a, d, g]

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H[e]	OCCUPANCY GROUP F-1, M, S-1[f]	OCCUPANCY GROUP A, B, E, F-2, I, R[2], S-2, U[h]
X < 5[b]	All	3	2	1
5 ≤ X < 10	IA Others	3 2	2 1	1 1
10 ≤ X < 30	IA, IB IIB, VB Others	2 1 1	1 0 1	1[c] 0 1[c]
X ≥ 30	All	0	0	0

ISSUE NO.	DATE	DESCRIPTION
2	8/11/25	SUBMITTAL 2
1	7/21/25	SUBMITTAL 1



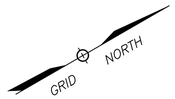
INSET A
SCALE: 1"=10'

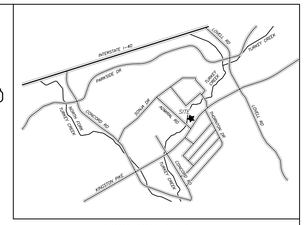
SYMBOL	DESCRIPTION	DETAIL
	TRAFFIC ARROW	SEE DETAIL 6, SHEET C-5
	STOP SIGN / HANDICAP SIGN	STOP SIGN, SEE DETAIL 7, SHEET C-5 HANDICAP SIGN, SEE DETAIL 5, SHEET C-5
	12" PAINTED STOP BAR	
	PAINTED HANDICAP SYMBOL	SEE DETAIL 4, SHEET C-5
	3-STALL BIKE RACK	SEE DETAIL 9, SHEET C-5
14	NO. OF PARKING STALLS (PROP.)	
	CONCRETE SIDEWALK / PAD	
	FOUNDATION PLANTING	
	HANDICAP RAMP	SEE DETAIL 1, SHEET C-5
	4' PAINTED CROSSWALK	
C	'COMPACT CAR PARKING ONLY' SIGN	SEE DETAIL, THIS SHEET



COMPACT CAR PARKING SIGN
N.T.S.

Tennessee 811





LOCATION MAP

SITE PLAN NOTES:

1. PROPERTY CORNERS MARKED AS NOTED.
2. THIS PROPERTY IS ZONED C-1, GENERAL COMMERCIAL. REQUIRED BUILDING SETBACKS AS FOLLOWS:

   FRONT: 20'/60'/80'

   SIDE: MINIMUM 20'/TOTAL 60'

   REAR: 30'
3. VEHICLE PARKING: 1 SPACE PER 200 SQUARE FEET OF GROSS FLOOR AREA + 1 SPACE PER 200 SQUARE FEET OF OUTDOOR SEATING AREA.

   PROPOSED BUILDING GROSS FLOOR AREA = 17,291 S.F.
   OUTDOOR SEATING AREA = 570
   REQUIRED PARKING = 90
   PROPOSED PARKING = 91

   BICYCLE PARKING: 2 BICYCLE SPACES PER 25 VEHICLE SPACES FOR THE FIRST 100 VEHICLE SPACES, PLUS 2 BIKE SPACES PER 50 VEHICLE SPACES FOR THE NEXT 400 VEHICLE SPACES.

   REQUIRED BICYCLE SPACES = 6
   PROVIDED BICYCLE SPACES = 6
4. TOTAL SITE AREA = 262,294 S.F. (6.02 ACRES)

   PHASE 1:

   BUILDING & ACCESSORIES = 11,911 S.F.
   PARKING & FLATWORK AREA = 27,895 S.F.
   OUTDOOR SEATING AREA = 570 S.F.

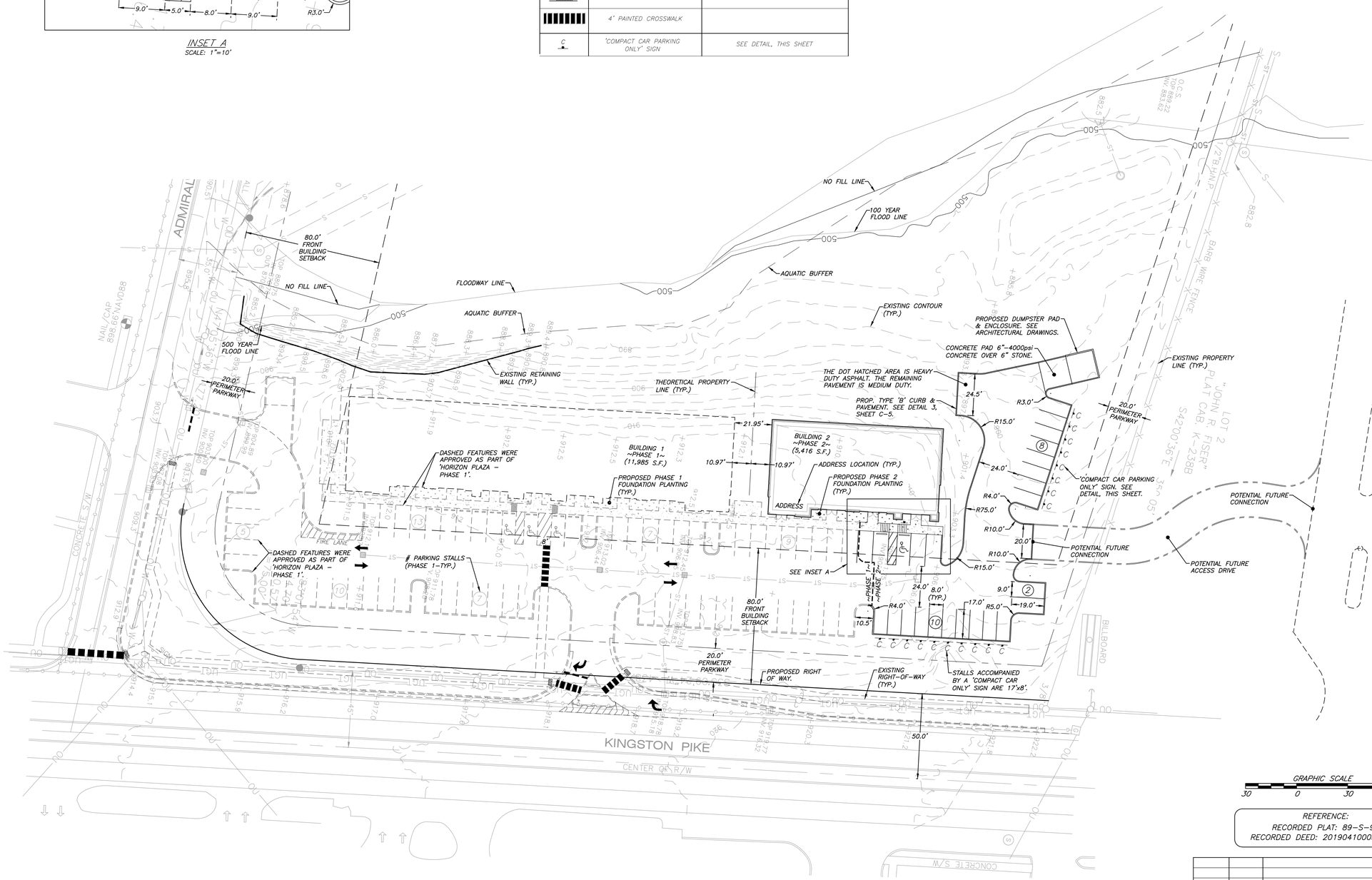
   PHASE 2:

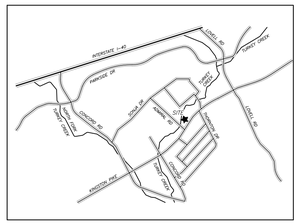
   BUILDING & ACCESSORIES = 5,321 S.F.
   PARKING & FLATWORK AREA = 11,096 S.F.

   TOTAL IMPERVIOUS AREA = 56,793 S.F. (22%)

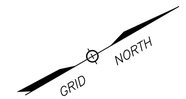
   *SEE DETAIL 17, SHEET C-6 FOR LOT COVERAGE DIAGRAM.
5. BUILDING 1
   REQUIRED FOUNDATION PLANTING = 2.5 x 226' = 565 S.F.
   PROPOSED FOUNDATION PLANTING = 777 S.F.

   BUILDING 2
   REQUIRED FOUNDATION PLANTING = 2.5 X 100' = 250 S.F.
   PROPOSED FOUNDATION PLANTING = 259 S.F
6. THERE ARE NO PROPOSED ANTENNAS AS PART OF THIS DEVELOPMENT.
7. TREES THAT ARE DAMAGED OR REMOVED ARE TO BE REPLACED PER THE TOWN OF FARRAGUT TREE PROTECTION/REPLACEMENT ORDINANCE.
8. FIRE LANES SHALL BE 3' WIDE WITH 1'-9" LETTERING AS SHOWN ON THE PLAN.
9. SIGNAGE AND STRIPING TO CONFORM TO THE MUTCD, LATEST EDITION.
10. TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR.
11. PROVIDE 1/2" PRE-MOLDED EXPANSION JOINTS WHERE SIDEWALK ABUTS BUILDING. PROVIDE SAWED CONSTRUCTION JOINTS AT 5' INTERVALS.
12. SETBACKS SHOWN ON THIS PLAN ARE PER THE CURRENT TOWN OF FARRAGUT ZONING ORDINANCE.
13. THE CENTERLINES OF PROPOSED SIDEWALKS LOCATED OUT OF PUBLIC RIGHT OF WAY = THE CENTERLINE OF A PROPOSED 20' EASEMENT.
14. ALL WALKING FACILITIES (WALKING TRAILS/SIDEWALKS) MUST BE COORDINATED WITH TOWN STAFF PRIOR TO CONSTRUCTION.
15. ALL PROPOSED HVAC IS ROOF-MOUNTED. ALL HVAC UNITS SHALL BE SCREENED BY THE BUILDING THEY ARE SERVING SO THAT THEY ARE NOT VISIBLE FROM ADJACENT PROPERTIES OR RIGHTS OF WAYS.
16. ALL TRAFFIC MARKINGS WITHIN T.D.O.T. RIGHT OF WAY SHALL BE THERMOPLASTIC PER T.D.O.T. SPECIFICATIONS.


ADMIRAL
NAIL/CAP 808.66'NAVD88
80.0' FRONT BUILDING SETBACK
NO FILL LINE
FLOODWAY LINE
AQUATIC BUFFER
500 YEAR FLOOD LINE
EXISTING RETAINING WALL (TYP.)
20.0' PERIMETER PARKWAY
THEORETICAL PROPERTY LINE (TYP.)
DASHED FEATURES WERE APPROVED AS PART OF 'HORIZON PLAZA - PHASE 1'.
PARKING STALLS (PHASE 1-TYP.)
FIRE LANE
8'
BUILDING 1 ~PHASE 1~ (11,985 S.F.)
PROPOSED PHASE 1 FOUNDATION PLANTING (TYP.)
BUILDING 2 ~PHASE 2~ (5,416 S.F.)
ADDRESS LOCATION (TYP.)
PROPOSED PHASE 2 FOUNDATION PLANTING (TYP.)
ADDRESS
SEE INSET A
21.95'
10.97'
10.97'
NO FILL LINE
100 YEAR FLOOD LINE
AQUATIC BUFFER
EXISTING CONTOUR (TYP.)
PROPOSED DUMPSTER PAD & ENCLOSURE. SEE ARCHITECTURAL DRAWINGS.
CONCRETE PAD 6"-4000psi CONCRETE OVER 6" STONE.
THE DOT HATCHED AREA IS HEAVY DUTY ASPHALT. THE REMAINING PAVEMENT IS MEDIUM DUTY.
PROP. TYPE 'B' CURB & PAVEMENT. SEE DETAIL 3, SHEET C-5.
24.5'
R3.0'
R15.0'
24.0'
R4.0'
R75.0'
R10.0'
20.0'
R10.0'
R15.0'
20.0' PERIMETER PARKWAY
'COMPACT CAR PARKING ONLY' SIGN. SEE DETAIL, THIS SHEET.
EXISTING PROPERTY LINE (TYP.)
POTENTIAL FUTURE CONNECTION
POTENTIAL FUTURE CONNECTION
POTENTIAL FUTURE ACCESS DRIVE
"JOHN R. FISER" PLAT CAB. K-238B
S42°05'43"E
24.0'
8.0' (TYP.)
9.0'
19.0'
17.0'
R5.0'
10.5'
R4.0'
~PHASE 1~
~PHASE 2~
80.0' FRONT BUILDING SETBACK
20.0' PERIMETER PARKWAY
PROPOSED RIGHT OF WAY.
EXISTING RIGHT-OF-WAY (TYP.)
STALLS ACCOMPANIED BY A 'COMPACT CAR ONLY' SIGN ARE 17'x8'.
50.0'
KINGSTON PIKE
CENTER OF R/W
CONCRETE S/W
BILLBOARD
BARB WIRE FENCE
CONCRETE S/W
C.O.S. MH 882.22
882.8
882.8
882.8



LOCATION MAP



GRADING PLAN NOTES:

1. THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER VALVES, ETC., AND COMPILING INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES AND ALSO CALL TENN ONE-CALL PRIOR TO ANY EXCAVATION WORK, TO VERIFY INFORMATION SHOWN AND DETERMINE THE LAYOUT OF THE IRRIGATION SYSTEM AND IF ADDITIONAL IMPROVEMENTS MAY EXIST.

2. ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWN OF FARRAGUT SPECIFICATIONS FOR SITE DEVELOPMENT.

3. ALL WORK SHALL BE SEQUENCED AND COMPLETED IN ACCORDANCE WITH THE SWPPP AND RELATED PERMITS ISSUED BY TDEC.

4. CLEAR AND GRUB PER SPECS. REMOVE TREES, BRUSH, DEBRIS, AND STUMPS FROM THE WORK AREA. REMOVE ALL BUILDINGS, DRIVES, CROSS FENCES, AND MISCELLANEOUS EQUIPMENT.

5. STRIP AND STOCKPILE TOPSOIL NEEDED FOR RESPREADING AND SEEDING. SURROUND TOPSOIL PILE WITH SILT FENCE, STRAW BALES, TEMPORARY SEEDING OR ADDITIONAL MEASURES AS NEEDED TO PREVENT EROSION/SEDIMENTATION.

6. AFTER STRIPPING AND REMOVAL, PROOF ROLL ENTIRE DISTURBED AREA WITH TANDEM TRUCK FULLY LOADED WITH EARTH. REMOVE ANY AREAS WHICH ARE SOFT OR YIELDING UNDER LOAD AND REPLACE WITH NEW MATERIAL MEETING PROJECT SPECIFICATIONS.

7. IF UNSUITABLE SUBGRADE MATERIALS ARE ENCOUNTERED, THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT WITH APPROVED MATERIAL FROM ONSITE OR APPROVED OFFSITE BORROW AREA. UNSUITABLE MATERIALS ARE THOSE CLASSIFIED AS MH, CH, OH, OL, AND PEAT IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM.

8. COMPACTION REQUIREMENTS ARE SUMMARIZED AS FOLLOWS: (PLACE IN 8" LIFTS)

   a. TOP 24 INCHES OF SUBGRADE UNDER PAVED AREAS 100 PERCENT STANDARD PROCTOR – LOWER THAN 24 INCHES BELOW PAVED AREA 95 PERCENT STANDARD PROCTOR.

   b. AREAS WITHIN THE BUILDING ENVELOPE TO BE PREPARED IN ACCORDANCE WITH RECOMMENDATIONS IN REPORT OF GEOTECHNICAL INVESTIGATION AND/OR AS DIRECTED BY THE SOILS ENGINEER.

9. ALL FINISHED YARD AREAS SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL. YARD FINISHED GRADES SHOWN ARE AFTER PLACEMENT OF 4 INCHES OF TOPSOIL. ALL FINISHED YARD SURFACES SHALL BE SMOOTHLY AND UNIFORMLY GRADED, FREE FROM IRREGULARITIES AND SHALL BE FULLY FUNCTIONAL TO PROVIDE POSITIVE DRAINAGE AT ALL LOCATIONS.

10. THE TOTAL AREA DISTURBED AS PART OF THIS PROJECT 3.0± ACRES.

11. PROPOSED SPOT ELEVATIONS AND PROPOSED CONTOURS ARE AFTER THE INSTALLATION OF TOPSOIL IN GRASSED AREAS, PAVING WITHIN DRIVES AND FLATWORK.

12. A FINAL PLAT SHALL BE RECORDED TO CREATE STORMWATER EASEMENTS.

13. IT IS THE RESPONSIBILITY OF THE OWNER TO ATTAIN PERMISSION FROM THE NEIGHBOR TO WORK ON HIS OR HER PROPERTY.

14. THE VERTICAL DATUM IS NAVD88.

15. TURF REINFORCEMENT MAT SHALL BE INSTALLED ON ALL SLOPES STEEPER THAN 3:1. TURF REINFORCEMENT MAT SHALL BE WESTERN EXCELSIOR EXCEL PP5–10M OR EQUIVALENT.

16. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, OR DISTURBANCE OF SOIL AND/OR NATIVE VEGETATION WITHIN THE AQUATIC BUFFER EXCEPT AS PERMITTED BY THE TOWN OF FARRAGUT.

DRAINAGE NOTES:

1. CORRUGATED POLYETHYLENE PIPE (HDPE) SHALL BE AASHTO M-252/M-294 TYPE S WITH SOIL-TIGHT JOINTS WITH RUBBER GASKET CONFORMING TO ASTM F477 (HANCOR HI-Q OR ADS N-12 ARE ACCEPTABLE PRODUCTS). REFER TO TDOT STANDARD DWG D-PB-2 FOR ADDITIONAL INSTALLATION REQUIREMENTS.

2. ALL CONCRETE PIPE IS CLASS III.

3. ALL WORK SHALL BE SEQUENCED AND COMPLETED IN ACCORDANCE WITH THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION EROSION CONTROL HANDBOOK AND THE RULES AND REGULATIONS OF THE TOWN OF FARRAGUT.

4. ALL PIPING UNDER OR WITHIN 3' OF ASPHALT DRIVES SHALL BE BACKFILLED WITH STONE.

5. ALL CATCH BASINS, AREA DRAIN GRATES AND MANHOLE COVERS REQUIRE PERMANENTLY CAST ENVIRONMENTAL MESSAGE, I.E. "NO DUMPING, DRAINS TO RIVER".

6. CASTINGS FOR THE STRUCTURES ARE AS FOLLOWS:

MANHOLES: V-1045 FRAME, 1040 COVER
OUTLET STRUCTURE: WELDED BAR GRATE
CATCH BASINS: V-4074-2
AREA DRAINS: V-4822

7. ALL MATERIALS AND INSTALLATION METHODS SHALL BE PER TDOT'S SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

8. EASEMENTS SHALL BE PLATTED FOR STORMWATER QUALITY, DETENTION, POND ACCESS AND ALONG POST-DEVELOPED CONVEYANCES FOR OFFSITE WATER PRIOR TO BOND / LETTER OF CREDIT RELEASE.

9. ALL DRAINAGE STRUCTURES ARE PRECAST CONCRETE.

10. VERIFY IN THE FIELD THAT CONCRETE INVERTS WERE POURED IN ALL CATCH BASINS AND AREA DRAINS.

11. POND VOLUME TO BE VERIFIED PRIOR TO LETTER OF CREDIT RELEASE.



SHEET C-2

GRADING & DRAINAGE PLAN

HORIZON PLAZA – PHASE 2

SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

DIST. FW		KNOX COUNTY
TOWN OF FARRAGUT		TENNESSEE
CLT MAP 143A	GROUP B	PARCEL 1
SCALE: 1"=30'		JULY 21, 2025

OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934
(865) 777-1950

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

DWN: BS | CHK: CAS | DWG. NO. 2006016

REFERENCE:
RECORDED PLAT: 89-S-9
RECORDED DEED: 201904100059402

GRAPHIC SCALE
30 0 30 60

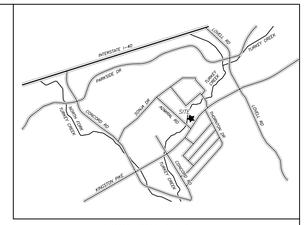
REVISION	DATE	DESCRIPTION	BY
1	8/11/25	GENERAL REVISIONS	BS

Tennessee 811

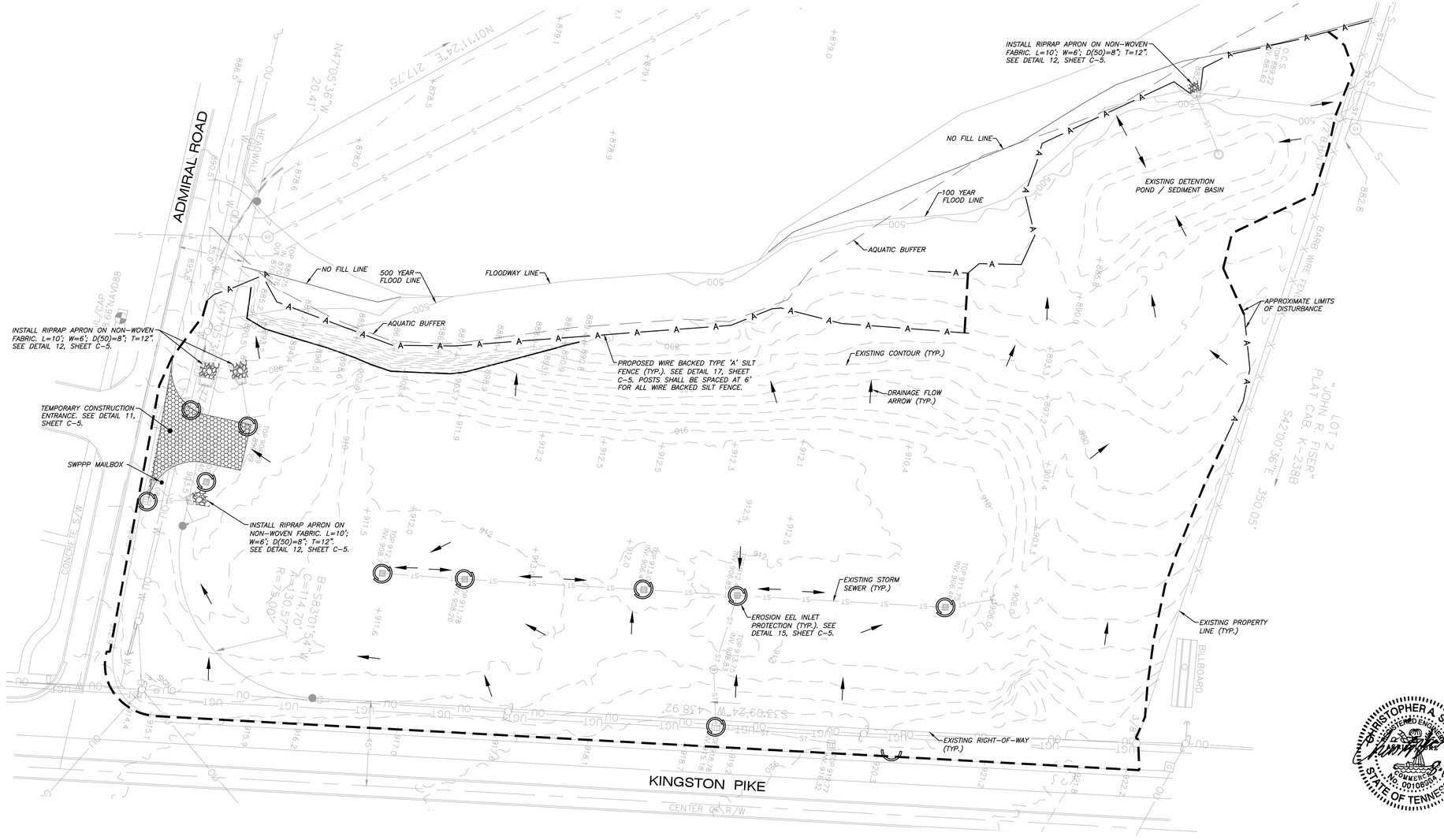
REFERENCE:
RECORDED PLAT: 89-S-9
RECORDED DEED: 201904100059402

GRID NORTH

GRAPHIC SCALE
30 0 30 60



LOCATION MAP



EROSION & SEDIMENT CONTROL NOTES

1. THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER VALVES, ETC., AND COMPILING INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES AND ALSO CALL TENN ONE-CALL PRIOR TO ANY EXCAVATION WORK, TO VERIFY INFORMATION SHOWN AND DETERMINE THE LAYOUT OF THE IRRIGATION SYSTEM AND IF ADDITIONAL IMPROVEMENTS MAY EXIST.
2. THE CONTRACTOR SHALL MEET ONSITE WITH THE ENGINEER TO APPROVE THE LOCATION OF THE SILT FENCES AND OTHER EROSION CONTROL FEATURES PRIOR TO BREAKING GROUND.
3. THE CONTRACTOR SHALL AVOID TRACKING MUD AND SILT ONTO EXISTING ROADS AND SHALL BE RESPONSIBLE FOR CLEANUP OF ANY VIOLATION.
4. ALL CONSTRUCTION SHALL COMPLY WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPP) SUBMITTED TO THE TOWN OF FARRAGUT AND THE TDEC EROSION CONTROL HANDBOOK.
5. ALL UNIMPROVED AREAS SHALL BE LANDSCAPED OR GRASSED. GRASS SPECIFICATIONS AS FOLLOWS:
   TOPSOIL TO UNIFORM DEPTH OF 4" (MIN.)
   AGRICULTURAL LIME - 3 TONS/ACRE
   3.0 LBS. KY 31 FESCUE PER 1,000 SQ. FT.
   0.5 LBS. ENGLISH RYE PER 1,000 SQ. FT.
   10 LBS. DRY FERTILIZER (12-24-24 OR EQUAL) PER 1,000 SQ. FT.

   100 LBS DRY STRAW PER 1,000 SQ. FT. (EXCEPT WHERE EROSION CONTROL FABRIC REQUIRED)

   IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH A FULL, EVEN STAND OF VEGETATION ON THE AREAS TO BE SEEDED. SPARSE AREAS SHALL BE SCARIFIED AND RESEEDED UNTIL A FULL STAND IS ESTABLISHED.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF CONSTRUCTION OF SITE POLLUTION PREVENTION CONTROLS THROUGHOUT THE LIFE OF THE PROJECT.
7. ADEQUATE DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES, BEST MANAGEMENT PRACTICES, AND/OR OTHER STORMWATER MANAGEMENT FACILITIES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTOR'S OR PROPERTY OWNER'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE GRADING PERMITTEE.
8. THE TOTAL AREA DISTURBED AS PART OF THIS PROJECT (3.0± ACRE).

SEQUENCE OF WORK ACTIVITIES:

PHASE 1:

1. INSTALL SILT FENCES, TEMPORARY CONSTRUCTION ENTRANCE AND MAILBOX TO POST SWPPP. INSTALL INLET PROTECTION ON EXISTING STRUCTURES WHERE SHOWN. IF EROSION CONTROL MEASURES ARE STILL IN PLACE, VERIFY THAT THEY ARE INSTALLED PER THE ATTACHED PLANS AND FUNCTIONING PROPERLY.
2. ATTEND PRE-CONSTRUCTION MEETING WITH THE ENGINEER & THE TOWN OF FARRAGUT TO REVIEW BMP INSTALLATION.

PHASE 2:

3. VERIFY THAT THE SEDIMENT BASIN OUTLET STRUCTURE IS INSTALLED CORRECTLY AND FUNCTIONING PROPERLY. SEE DETAIL 14 ON SHEET C-5 FOR TEMPORARY OUTLET STRUCTURE CONFIGURATION.
4. STRIP AND STOCKPILE TOPSOIL.
5. STABILIZE TOPSOIL BY SILT FENCES AND/OR TEMPORARY SEEDING.
6. CLEAR/GRUB AND DISPOSE OF TIMBER AND TRASH.
7. CUT/FILL FOR THE OVERALL SITE. OUTSLOPES SHALL BE MATTED AND SEEDED IMMEDIATELY UPON REACHING FINISHED GRADE.
8. INSTALL UTILITIES.
9. FINALIZE SUB-GRADE, STONE, INSTALL PAVING & FLATWORK AND RESPREAD TOPSOIL.
10. ESTABLISH VEGETATION ON ALL DISTURBED AREAS PER SEEDING SPECS.
11. FOLLOWING STABILIZATION, MODIFY OUTLET STRUCTURE TO MAKE PERMANENT AND REMOVE ACCUMULATED SEDIMENT TO RESTORE POND TO ITS DESIGN VOLUME. THE SITE'S TEMPORARY EROSION CONTROL BMP'S SHALL BE REMOVED AND A NOTICE OF TERMINATION SHALL BE FILED WITH TDEC.

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE TDEC EROSION CONTROL HANDBOOK AND THE REGULATIONS OF THE TOWN OF FARRAGUT.

*ADDITIONAL SEDIMENT CONTROL BMP'S MAY BE REQUIRED AS DICTATED BY SEQUENCE OF CONSTRUCTION.

CHRISTOPHER A. STANLEY
REGISTERED ENGINEER
STATE OF TENNESSEE
No. 0010895

OUTLET STRUCTURE NOTE:

THE PERMANENT LOW FLOW ORIFICE IS 1"ø. WHILE CONVERTING THE SEDIMENT BASIN OUTLET STRUCTURE TO THE PERMANENT STRUCTURE, REMOVE THE 2" PVC, INSERT 1" PVC AND GROUT TO CREATE WATERTIGHT SEAL.

REVISION	DATE	DESCRIPTION	BY
1	8/11/25	GENERAL REVISIONS	BS

SHEET C-3

EROSION & SEDIMENT CONTROL PLAN (PHASE 1)

HORIZON PLAZA - PHASE 2

SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

DIST. FW | KNOX COUNTY
TOWN OF FARRAGUT | TENNESSEE
CLT MAP 143A | GROUP B | PARCEL 1
SCALE: 1"=30' | JULY 21, 2025

OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934
(865) 777-1950

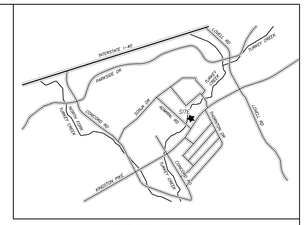
URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

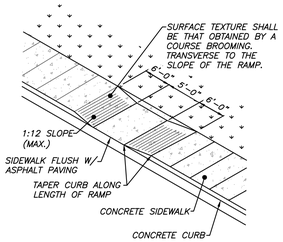
DWN: BS | CHK: CAS | DWG. NO. 2006016

REFERENCE:
RECORDED PLAT: 89-S-9
RECORDED DEED: 201904100059402

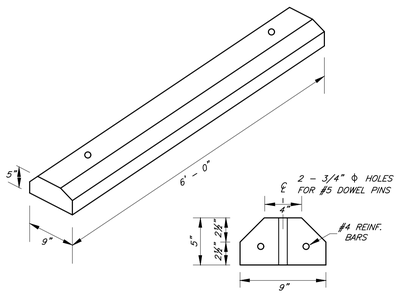
GRID NORTH

GRAPHIC SCALE
30 0 30 60

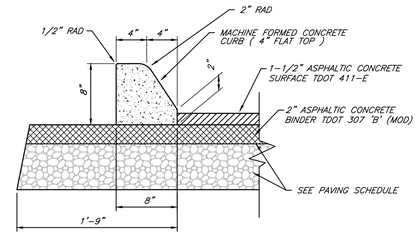

INTERSTATE I-40
LOCAL RD
FOREST GREEN
PARKVIEW DR
LOCAL RD
CHEROKEE RD
LOCAL RD
LOCAL RD
LOCAL



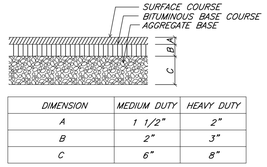
1 C-5 HANDICAPPED RAMP
N.T.S.



2 C-5 CONCRETE TIRE STOP
N.T.S.

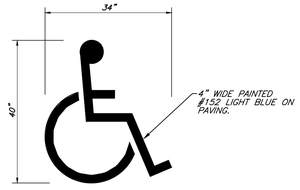


3 C-5 TYPE 'B' CURB AND PAVEMENT DETAIL
N.T.S.

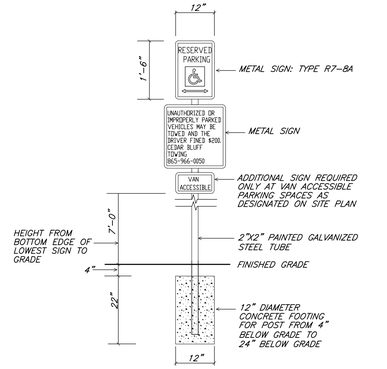


DIMENSION	MEDIUM DUTY	HEAVY DUTY
A	1 1/2"	2"
B	2"	3"
C	6"	8"

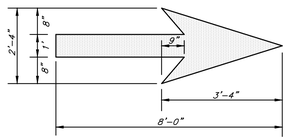
3-A C-5 PAVING SCHEDULE
N.T.S.



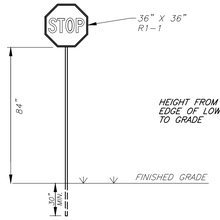
4 C-5 PAINTED HANDICAPPED SYMBOL
N.T.S.

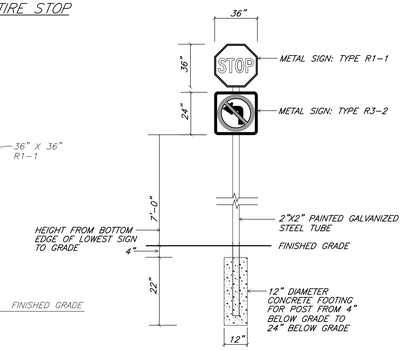


5 C-5 HANDICAPPED SIGN DETAIL
N.T.S.



6 C-5 TRAFFIC ARROW DETAIL
N.T.S.





7 C-5 STOP SIGN DETAIL
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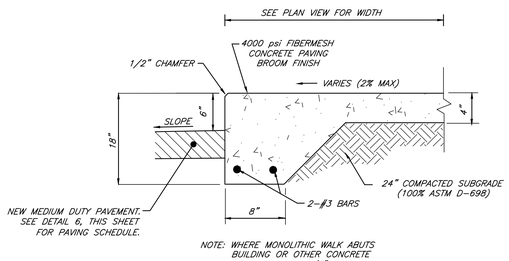
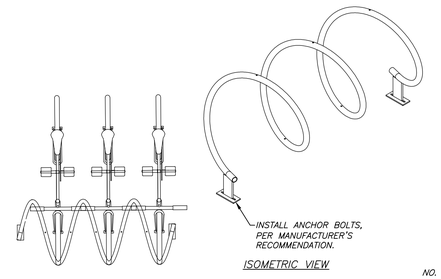


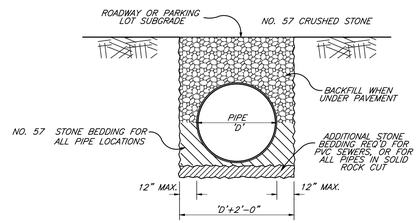
NOTE: WHERE MONOLITHIC WALK ABUTS BUILDING OR OTHER CONCRETE PAVING, INSTALL 1/2" PREMOLDED EXPANSION JOINT.

8 C-5 TURNDOWN SIDEWALK DETAIL
N.T.S.



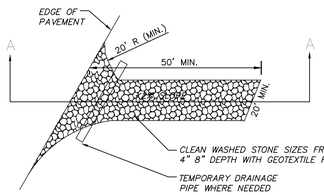
9 C-5 3-BIKE RACK DETAIL
N.T.S.

NOTE:
3-BIKE 'EXCALIBUR SPHERE RACK', AS MANUFACTURED BY DERO, OR APPROVED EQUAL.

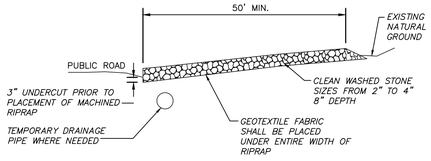


FOR ALL WATER, SEWER OR DRAINAGE PIPING

10 C-5 PIPE BEDDING & BACKFILL DETAIL
N.T.S.



PLAN VIEW OF TEMPORARY CONSTRUCTION ROAD



SECTION A-A

11 C-5 TEMPORARY CONSTRUCTION ENTRANCE
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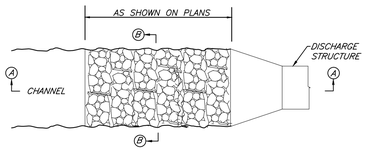
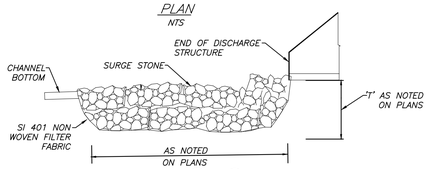
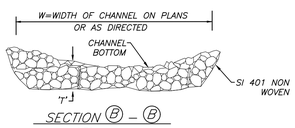


PLAN
NTS



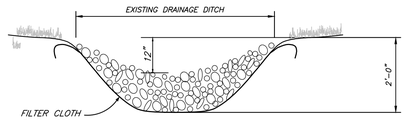
SECTION (A) - (A)
NTS



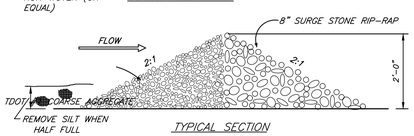
SECTION (B) - (B)
NTS

RIPRAP NOTE:
IF RIPRAP IS ALREADY INSTALLED PER SHEET C-3 & SHEET C-4, VERIFY RIPRAP IS INSTALLED CORRECTLY AND FUNCTIONING PROPERLY.

12 C-5 RIP RAP DETAIL

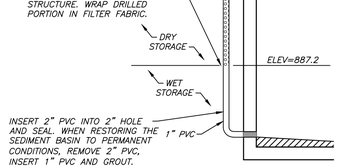


DOWNSTREAM VIEW



TYPICAL SECTION

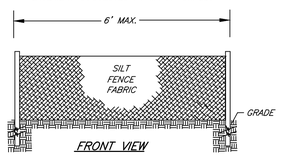
13 C-5 TYPICAL ROCK CHECK DAM
SILT TRAP
N.T.S.



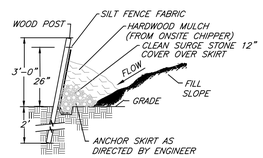
14 C-5 SEDIMENT BASIN OUTLET STRUCTURE
N.T.S.

SILT FENCE NOTES:
-USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE PER 100 FEET OF FENCE AND NEVER IN AREAS OF CONCENTRATED FLOW GREATER THAN ONE CUBIC FEET PER SECOND

-SILT FENCE/STRAW BALE CHECK DAM PLACEMENT SUGGESTED AT MINOR SWALES



FRONT VIEW



SIDE VIEW

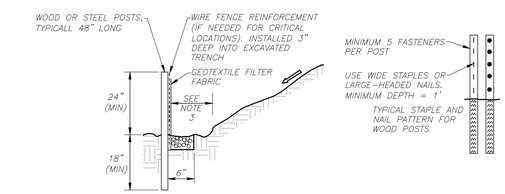
16 C-5 STANDARD TEMPORARY SILT FENCE
N.T.S.

NOTES:

1. POST SPACING SHALL BE 8' MAXIMUM FOR TYPICAL APPLICATIONS AT THE BOTTOM OF SLOPES OR ALONG SITE PERIMETER.

2. POST SPACING SHALL BE 6' MAXIMUM AT THE BOTTOM OF STEEP SLOPES. POST SPACING SHALL BE 4' MAXIMUM WITHIN A DRAINAGE CHANNEL.

3. PLACE SILT FENCE AT LEAST 5 TO 7 FEET AWAY FROM STEEP OR LONG SLOPES TO IMPOUND STORMWATER RUNOFF. SEE FIGURE ES-14-3.

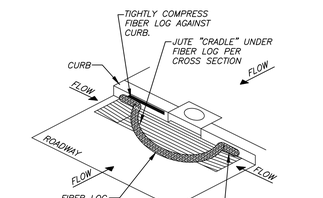


17 C-5 TYPE 'A' SILT FENCE
N.T.S.

SILT FENCE NOTE:
IF SILT FENCE IS ALREADY INSTALLED PER SHEET C-3 & SHEET C-4, VERIFY SILT FENCE IS INSTALLED CORRECTLY AND FUNCTIONING PROPERLY.

NOTE:
PERIODIC MAINTENANCE SHALL INCLUDE CLEANING FIBER'S SURFACE WITH HIGH PRESSURE WASH OR BRUSHING SURFACE WITH BROOM.

PLAN VIEW



NOTE:
PERIODIC MAINTINENCE SHALL INCLUDE CLEANING FIBER'S SURFACE WITH HIGH PRESSURE WASH OR BRUSHING SURFACE WITH BROOM.

ISOMETRIC DETAIL

FIBER LOG NOTE:
IF FIBER LOG IS ALREADY INSTALLED PER SHEET C-3 & SHEET C-4, VERIFY FIBER LOG IS INSTALLED CORRECTLY AND FUNCTIONING PROPERLY.

15 C-5 FIBER LOG INLET SEDIMENT TRAP
N.T.S.

SEDIMENT BASIN COMPUTATIONS:

CONTRIBUTING AREA = 3.0 ACRES
5-YEAR RUNOFF VOLUME = 0.453 AC-FT
REQUIRED STORAGE = 19,733 C.F.
AVAILABLE STORAGE = 19,750 C.F.



Tennessee 811

1	8/11/25	GENERAL REVISIONS	BS
REVISION	DATE	DESCRIPTION	BY

SHEET C-5

CONSTRUCTION DETAILS

HORIZON PLAZA - PHASE 2

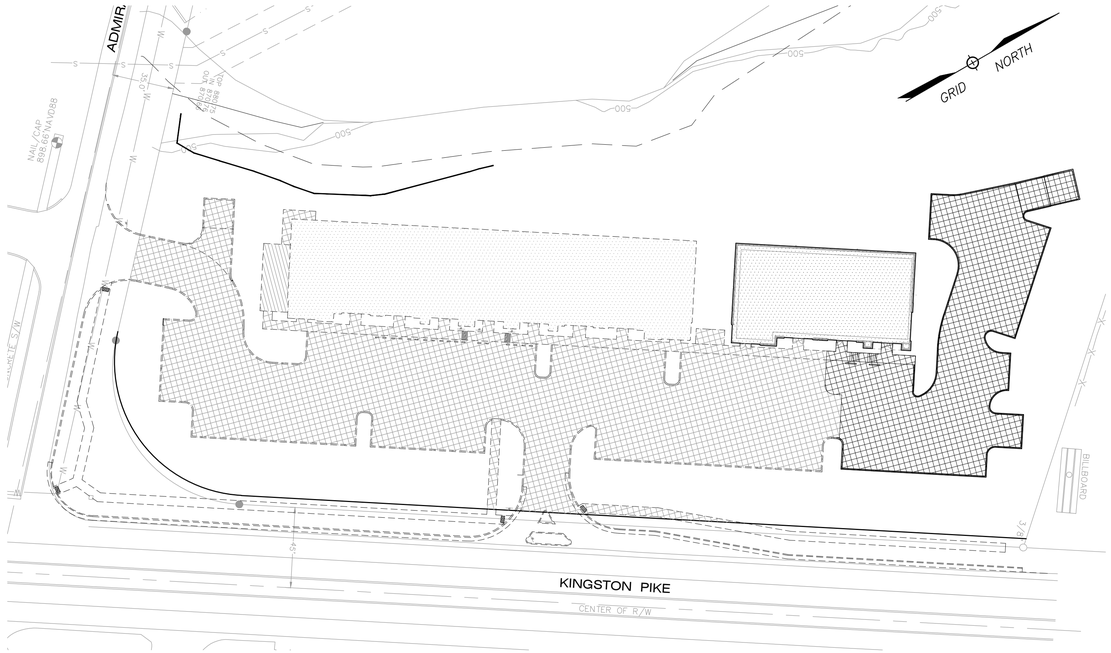
SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

DIST. FW — KNOX COUNTY
TOWN OF FARRAGUT — TENNESSEE
CLT MAP 143A — GROUP B — PARCEL 1
SCALE: N.T.S. — JULY 21, 2025

OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934
(865) 777-1950

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

DWN: BS | CHK: CAS | DWG. NO. 2006016



17 / C-6 LOT COVERAGE DIAGRAM
SCALE: 1"=40'

PHASE 1:

BUILDING & ACCESSORIES (11,911 S.F.)

PARKING & FLATWORK (27,895 S.F.)

OUTDOOR SEATING/DINING (570 S.F.)

PHASE 2:

BUILDING & ACCESSORIES (5,321 S.F.)

PARKING & FLATWORK (11,096 S.F.)

TOTAL SITE AREA = 262,294 S.F. (6.02 ACRES)

PHASE 1:

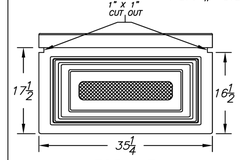
BUILDING & ACCESSORIES = 11,911 S.F.
PARKING & FLATWORK AREA = 27,895 S.F.
OUTDOOR SEATING AREA = 570 S.F.

PHASE 2:

BUILDING & ACCESSORIES = 5,321 S.F.
PARKING & FLATWORK AREA = 11,096 S.F.

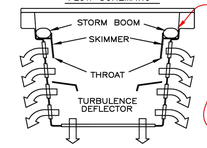
TOTAL IMPERVIOUS AREA = 56,793 S.F. (22%)

Part # GISB-17-35-24-JB3080

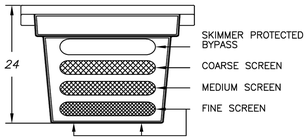


TOP VIEW

FLOW SCHEMATIC



STORM BOOM 1 EA 73" LONG



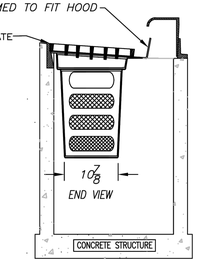
SIDE VIEW

Flow Specifications

Description of filter opening	Percent Open (Based on Screen Dimensions)	Total Square Inches per Unit	Square Inches of Total Unobstructed Openings	Flow Rate (Cubic Feet per Second)
Skimmer protected By-Pass	100%	184.4	184.4	4.9 cfs
Coarse Screen 3/4" x 1-3/4" stainless steel flattened expanded	75%	158.1	118.5	4.3 cfs
Medium Screen 10x10 mesh stainless steel	56%	158.1	88.5	3.8 cfs
Fine screen 50 mesh stainless steel	30%	229.3	68.7	3.4 cfs
THROAT FLOW RATE Total: 7.9 cfs			TREATED FLOW RATE Total: 11 cfs	
FLOW RATES BASED ON UNOBSTRUCTED OPENINGS				

BACK DEFLECTOR MAY BE FIELD TRIMMED TO FIT HOOD OPENING

TAPERED GRATE



END VIEW

BOX MANUFACTURED FROM MARINE GRADE FIBERGLASS & GEL COATED FOR UV PROTECTION

5 YEAR MANUFACTURERS WARRANTY

PATENTED

ALL FILTER SCREENS ARE STAINLESS STEEL

REMOVE GRATE
INSERT GISB
REINSTALL GRATE

Distributed by:
Jen-Hill
800-452-4435

SUNTREE QUALITY PRODUCTS ARE BUILT FOR EASY CLEANING AND ARE DESIGNED TO BE PERMANENT INFRASTRUCTURE AND SHOULD LAST FOR DECADES.

SUNTREE TECHNOLOGIES
798 CLEARLAKE RD. SUITE #2
COCOA FL. 32922
TEL: 321-637-7552 FAX 321-637-7554

GRATE INLET SKIMMER BOX FOR
JBS 3080 CATCH BASIN CURB INLET

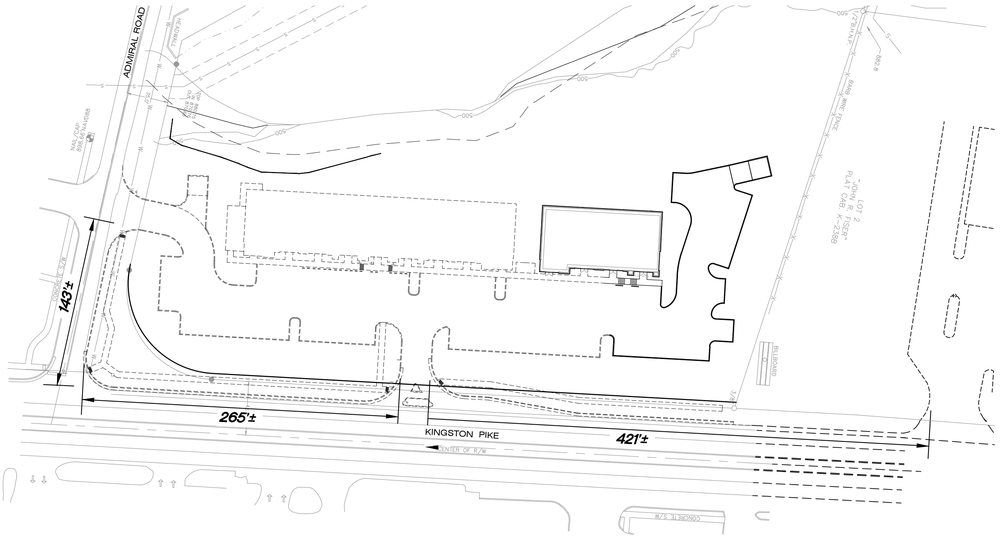
DATE: 11/09/12 SCALE:SF = 15

DRAFTER: T.H.2. UNITS =INCHES

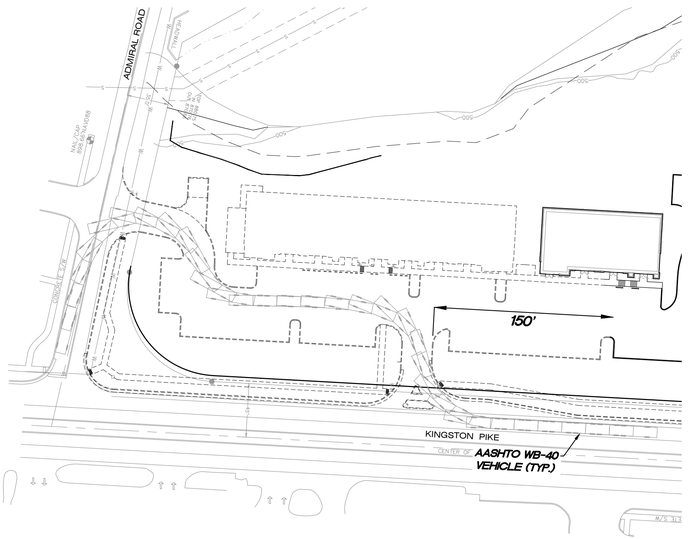
PROJECT: FLOW RATES 08/01/14

REVISIONS: DATE:

19 / C-6 BIO CLEAN WATER QUALITY INSERT
N.T.S.



20 / C-6 ACCESS DIAGRAM
SCALE: 1"=60'



21 / C-6 AASHTO WB-40 ACCESS DIAGRAM
SCALE: 1"=60'

Tennessee 811

CHRISTOPHER A. SMITH
REGISTERED ENGINEER
STATE OF TENNESSEE
No. 0010899
COMMERCIAL

SHEET C-6

CONSTRUCTION DETAILS

HORIZON PLAZA - PHASE 2

SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

DIST. FW — KNOX COUNTY
TOWN OF FARRAGUT — TENNESSEE
CLT MAP 143A — GROUP B — PARCEL 1
SCALE: AS NOTED — JULY 21, 2025

OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934
(865) 777-1950

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

REVISION	DATE	DESCRIPTION	BY
1	8/11/25	GENERAL REVISIONS	BS

DWN: BS | CHK: CAS | DWG. NO. 2006016

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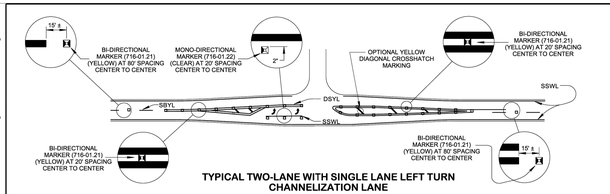
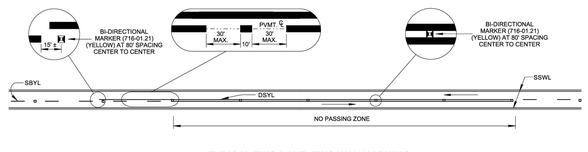
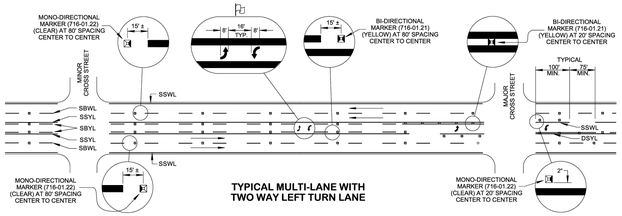


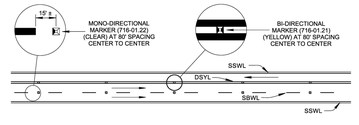
TYPICAL TWO-LANE WITH SINGLE LANE LEFT TURN CHANNELIZATION LANE



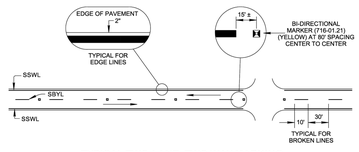
TYPICAL TWO-LANE, TWO WAY MARKING WITH NO PASSING ZONES



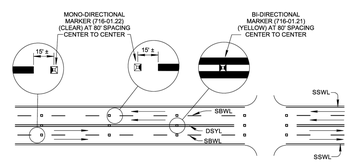
TYPICAL MULTI-LANE WITH TWO WAY LEFT TURN LANE



TYPICAL 3 LANE TWO-WAY MARKING WITH PASSING PROHIBIT IN SINGLE LANE DIRECTION



TYPICAL TWO-LANE, TWO WAY MARKING WITH PASSING PERMITTED IN BOTH DIRECTIONS



TYPICAL MULTI-LANE, TWO-WAY MARKING

- REV. 2-22-88: ADDED EDGELINES, NOTES AND VARIOUS STRIPING AND MARKING DETAILS. CHANGED DWG. NO. FROM T-M-7 TO T-M-1. CHANGED SPACING & LOCATION OF VARIOUS RAISED PAVEMENT MARKERS. ADDED MARKING ABBREVIATIONS.
- REV. 3-20-91: CHANGED TYPE 2 PAVEMENT MARKERS (CLEAR) TO MONO-DIRECTIONAL PAVEMENT MARKERS (CLEAR) AND CHANGED TYPE 1 PAVEMENT MARKERS (YELLOW) TO BI-DIRECTIONAL MARKERS (YELLOW). REDREW SHEET.
- REV. 10-26-92: ADDED GENERAL NOTE Ⓒ
- REV. 7-29-98: REVISED DISTANCE BETWEEN EDGELINE PAVEMENT MARKING AND EDGELINE FROM 4" TO 2".
- REV. 4-15-04: CHANGED SPACING BETWEEN DOUBLE LEFT TURN ARROWS TO COMPLY WITH 2003 MUTCD.
- REV. 11-1-11: UPDATED TYPICAL DETAILS TO CONFORM WITH 2009 MUTCD STANDARD DETAILS.

  REV. 7-24-14: ADDED PAVEMENT MARKING TABLE.

  REV. 7-5-17: CORRECTED SSWL AND DSYL BLOW-UP DETAILS. ADDED ITEM NOTE TO BLOW-UP DETAIL DESCRIPTIONS.

  REV. 06-28-19: REVISED DETAIL INSETS. REMOVED PAVEMENT MARKING TABLE AND REDREW SHEET.

■ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

SPECIAL NOTE

MAXIMUM SPACING BETWEEN DOUBLE ARROWS TO BE 1/2 MILE.
DOUBLE ARROWS SHALL NOT BE LOCATED WITHIN 100' OF AN INTERSECTION.

MARKING ABBREVIATIONS

SSWL- SINGLE SOLID WHITE LINE	DBYL- DOUBLE BROKEN YELLOW LINE
SSYL- SINGLE SOLID YELLOW LINE	DWL- DOTTED WHITE LINE
SBWL- SINGLE BROKEN WHITE LINE	DYL- DOTTED YELLOW LINE
SBYL- SINGLE BROKEN YELLOW LINE	HWL- HASHED WHITE LINE
DSYL- DOUBLE SOLID YELLOW LINE	HYL- HASHED YELLOW LINE

GENERAL NOTES

Ⓐ EDGE LINES ARE NOT REQUIRED FOR PAVEMENT WIDTH LESS THAN 16 FEET NOR ON CURB AND GUTTER SECTIONS UNLESS SPECIFIED IN PLANS.

Ⓑ SEE STANDARD DRAWING NOS. T-M-3 AND T-M-4 FOR CHANNELIZATION MARKING AND INTERSECTION MARKING DETAILS.

Ⓒ PAVEMENT MARKERS ARE REQUIRED ONLY WHEN SPECIFIED IN THE PLANS.

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS

T-M-1

NOT TO SCALE

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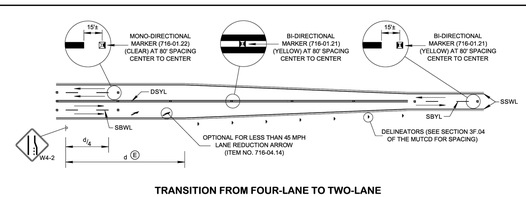
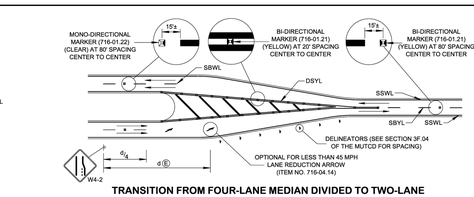
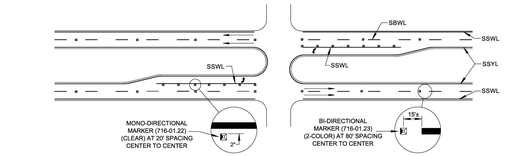


TRANSITION FROM FOUR-LANE TO TWO-LANE

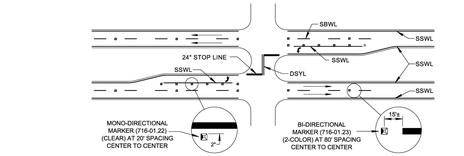


TRANSITION FROM FOUR-LANE MEDIAN DIVIDED TO TWO-LANE SYMMETRICAL ABOUT CENTERLINE

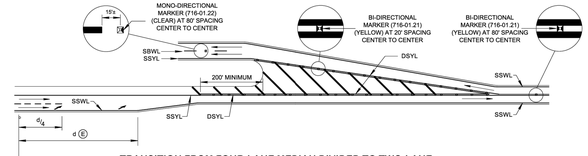
SIMILAR FOR MULTI-LANE WITH TWO WAY LEFT TURN LANE TO TWO-LANE



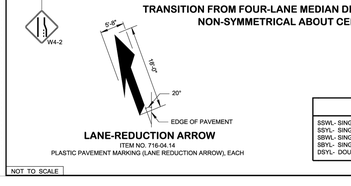
TYPICAL MULTI-LANE WITH TURN LANE MEDIAN WIDTH LESS THAN 30 FEET



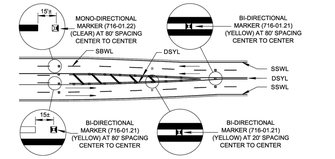
TYPICAL MULTI-LANE WITH TURN LANE MEDIAN WIDTH EQUAL TO OR GREATER THAN 30 FEET



TRANSITION FROM FOUR-LANE MEDIAN DIVIDED TO TWO-LANE NON-SYMMETRICAL ABOUT CENTERLINE



LANE-REDUCTION ARROW
ITEM NO. 716-04.14
PLASTIC PAVEMENT MARKING (LANE REDUCTION ARROW), EACH



TRANSITION FROM MULTI-LANE WITH TWO WAY LEFT TURN LANE TO FOUR-LANE

MARKING ABBREVIATIONS

SSWL- SINGLE SOLID WHITE LINE	DBYL- DOUBLE BROKEN YELLOW LINE
SSYL- SINGLE SOLID YELLOW LINE	DWL- DOTTED WHITE LINE
SBWL- SINGLE BROKEN WHITE LINE	DYL- DOTTED YELLOW LINE
SBYL- SINGLE BROKEN YELLOW LINE	HWL- HASHED WHITE LINE
DSYL- DOUBLE SOLID YELLOW LINE	HYL- HASHED YELLOW LINE

- REV. 2-22-88: ADDED EDGE LINES, NOTES, AND DETAILS FOR TRANSITION MARKING, CHANGED SHEET TITLE AND DRAWING NO. FROM T-M-8 TO T-M-2. ADDED DETAILS ON RIGHT OF SHEET.
- REV. 3-20-91: REDREW SHEET. CHANGED TYPE 2 PAVEMENT MARKERS (CLEAR) TO MONO-DIRECTIONAL PAVEMENT MARKERS (CLEAR) AND TYPE 1 PAVEMENT MARKERS (YELLOW) TO BI-DIRECTIONAL MARKERS (YELLOW).
- REV. 10-26-92: ADDED GENERAL NOTE Ⓔ
- REV. 12-18-93: ADDED EDGE LINES INSIDE MEDIAN NOSES AND CHANGES FOR MEDIAN WIDTHS LESS THAN 44 FEET.
- REV. 1-19-94: CHANGED MEDIAN CRITERION FOR MEDIAN WIDTH FROM 44 FEET TO 84 FEET.
- REV. 1-19-96: CHANGED DETAIL ON LEFT BOTTOM OF SHEET.
- REV. 4-15-04: CHANGED W4-2 SIGNS AND FOOTNOTE (1) TO COMPLY WITH 2003 MUTCD.
- REV. 9-5-04: CHANGED FOOTNOTE (1) TO COMPLY WITH 2003 MUTCD.
- REV. 11-1-11: ADDED DELINEATORS WITH NOTE AND LANE REDUCTION ARROWS WITH NOTE. ADDED PAY ITEM 716-04.14 AND GENERAL NOTE Ⓔ
- REV. 1-12-12: CHANGED SNOW PLOWABLE MARKER TO BI-DIRECTIONAL FROM MONO-DIRECTIONAL 2-COLOR.
- REV. 1-15-13: UPDATED MEDIAN DETAILS.
- REV. 7-24-14: ADDED PAVEMENT MARKING TABLE.
- REV. 7-5-17: ADDED ITEM NOTS TO BLOW-UP DETAIL DESCRIPTIONS. CORRECTED STD. DWG. NO. IN GENERAL NOTE Ⓒ
- REV. 06-02-18: REVISED BI-DIRECTIONAL 2-COLOR SNOW PLOWABLE MARKER TO 20' SPACING ON DETAIL FOR TYPICAL MULTI-LANE WITH TURN LANE MEDIAN WIDTH LESS THAN 30 FEET AND TYPICAL MULTI-LANE WITH TURN LANE MEDIAN WIDTH EQUAL TO OR GREATER THAN 30 FEET. REDREW SHEET.

  REV. 06-28-19: REMOVED PAVEMENT MARKING TABLE AND REDREW SHEET.

  REV. 01-09-24: REVISED DIRECTIONAL SNOW PLOWABLE MARKERS ON TYPICAL MULTI-LANE WITH TURN LANE DRAWINGS.

■ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

GENERAL NOTES

Ⓐ EDGE LINES ARE NOT REQUIRED FOR PAVEMENT WIDTH LESS THAN 16 FEET OR ON CURB AND GUTTER SECTIONS UNLESS SPECIFIED IN PLANS.

Ⓑ SEE STANDARD DRAWING NOS. T-M-3 AND T-M-4 FOR CHANNELIZATION MARKING AND INTERSECTION MARKING DETAILS.

Ⓒ PAVEMENT MARKERS ARE REQUIRED ONLY WHEN SPECIFIED IN THE PLANS.

Ⓓ SEE STD. DWG. T-S-11 FOR DETAILS OF DELINEATORS.

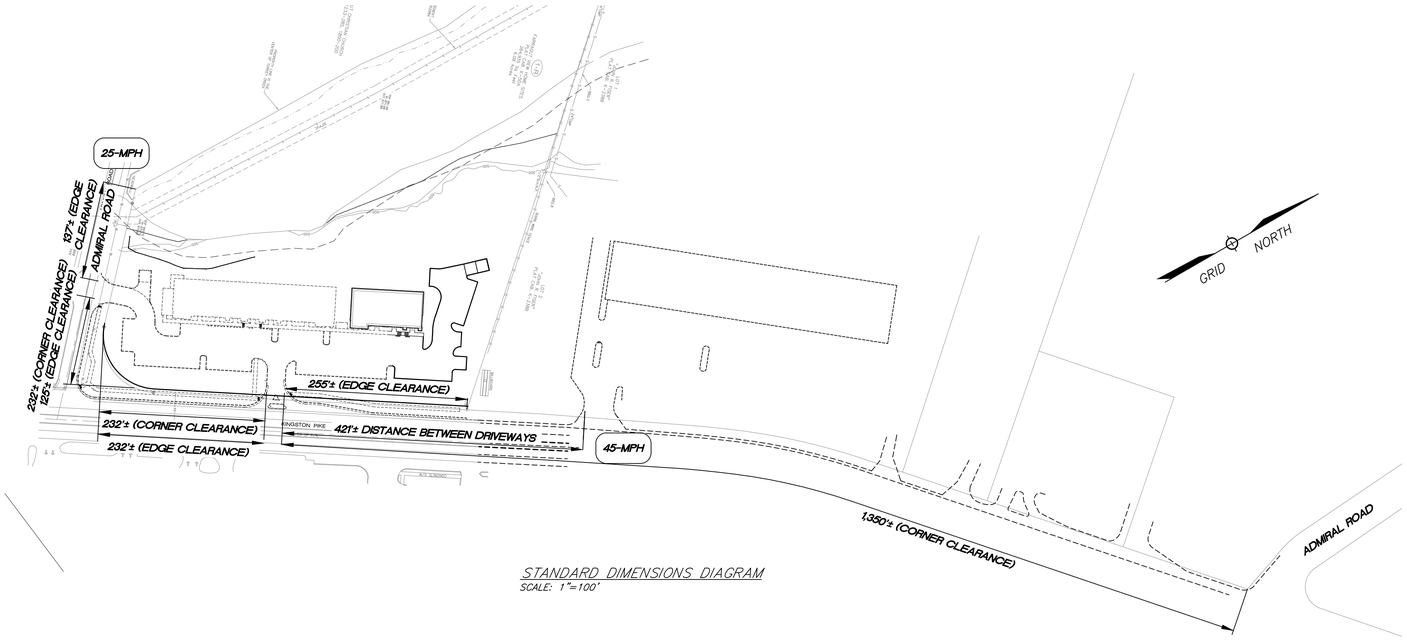
Ⓔ SEE TABLE 2C-4 OF PART 2 OF THE MANUAL ON UNIFORM TRAFFIC DEVICES (MUTCD) FOR GUIDELINES FOR ADVANCE PLACEMENT OF WARNING SIGNS DISTANCE *d*.

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS

T-M-2

NOT TO SCALE



STANDARD DIMENSIONS DIAGRAM
SCALE: 1"=100'

CHRISTOPHER A. SHAW
REGISTERED ENGINEER
NO. 0010858
COMMERCIAL
STATE OF TENNESSEE

SHEET C-7

CONSTRUCTION DETAILS

HORIZON PLAZA - PHASE 2

SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

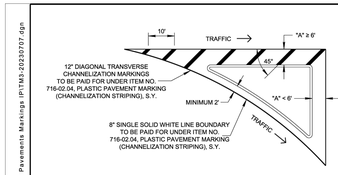
DIST. FW — KNOX COUNTY
TOWN OF FARRAGUT — TENNESSEE
CLT MAP 143A — GROUP B — PARCEL 1
SCALE: AS NOTED — JULY 21, 2025

OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934
(865) 777-1950

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

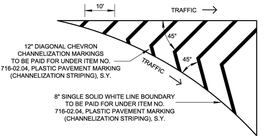
REVISION	DATE	DESCRIPTION	BY
1	8/11/25	GENERAL REVISIONS	BS

DWN: BS | CHK: CAS | DWG. NO. 2006016

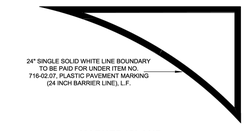


WHEN DISTANCE "A" IS LESS THAN 6', NO DIAGONAL MARKING WILL BE REQUIRED (MEASURED FACE OF CURB TO OUTSIDE OF BOUNDARY LINE).

RAISED ISLAND
(SAME FOR DEPRESSED ISLAND)



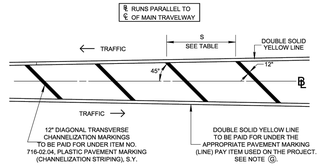
MARKED ISLAND
AREA GREATER THAN 400 SQUARE FEET



MARKED ISLAND
AREA EQUAL TO OR LESS THAN 400 SQUARE FEET
(SEE NOTE (E))

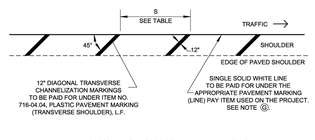
TRAFFIC ISLANDS

℄ RUNS PARALLEL TO ℄ OF MAIN TRAVELWAY

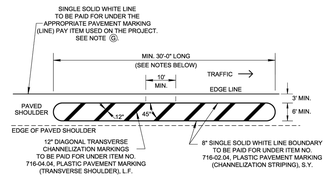


FOR MEDIAN WIDTH LESS THAN 6' NO DIAGONAL MARKING WILL BE REQUIRED (MEASURED OUTSIDE OF BOUNDARY LINES).

MARKED MEDIAN ISLAND
AND OBSTRUCTION APPROACH



TRANSVERSE SHOULDER MARKING

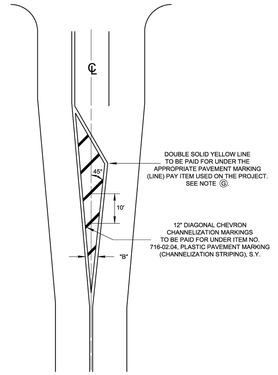


PAVEMENT MARKING DELINEATING
ACCESS CONTROLLED ISLAND PLACED ON SHOULDER
FOR COMMERCIAL BUSINESS ENTRANCE ALONG THE HIGHWAY

NOTES: COMMERCIAL ENTRANCES WILL RECEIVE THE TREATMENT. EACH APPLICATION SHOULD BE MINIMUM 30' LONG (EACH APPLICATION WILL RECEIVE A MINIMUM OF THREE DIAGONAL MARKINGS) AND SPACING SHOULD BE LIMITED TO 300' BETWEEN TWO COMMERCIAL ENTRANCES.

MINIMUM 10' PAVED SHOULDER IS REQUIRED TO APPLY CHANNELIZTION PAVEMENT MARKING FOR COMMERCIAL DRIVEWAY ACCESS CONTROL.

FOR ADDITIONAL INFORMATION SEE TDOT MANUAL FOR CONSTRUCTING DRIVEWAY ENTRANCES.



LEFT TURN CHANNELIZATION ISLAND
WHEN WIDTH "B" IS LESS THAN 6'
(MEASURED PERPENDICULAR TO THE ℄)
NO DIAGONAL MARKING WILL BE REQUIRED.

TABLE FOR SPACING OF DIAGONAL LINES 'S'		
POSTED SPEED	SHOULDERS AND MARKED MEDIANS	OBSTRUCTION APPROACH
40 MPH OR LESS	50'	10'
45 MPH OR GREATER	100'	20'

GENERAL NOTES

(A) TO SEPARATE TRAFFIC MOVEMENT IN THE SAME DIRECTION, DIAGONAL MARKING SHALL BE WHITE (WHL) WITH AN 8 INCH SSWL BOUNDARY.

(B) TO SEPARATE OPPOSING LANES OF TRAFFIC, DIAGONAL MARKING SHALL BE YELLOW (YFL) WITH DSYL BOUNDARY.

(C) ALL DIAGONAL MARKINGS SHALL BE 12 INCHES IN WIDTH MARKED AT 45 DEGREES TO MARKINGS OUTLINING RESTRICTED AREA OR TO CENTERLINE TO ROADWAY.

(D) THERE SHALL BE A MINIMUM OF THREE DIAGONAL MARKINGS AT THE REQUIRED SPACING. OTHERWISE, NO DIAGONAL MARKING SHALL BE USED.

(E) MARKED TRAFFIC ISLANDS SHOULD BE A MINIMUM OF 75 SQUARE FEET.

(F) THE RECOMMENDED SPACING IS MEASURED PARALLEL TO THE CENTERLINE OF THE MAIN TRAVELWAY.

(G) 6" PAVEMENT MARKING WILL BE USED FOR ALL CENTER LINE, LANE LINES AND EDGE LINES ON ALL ROADS EXCEPT WHERE AS SHOWN ON STANDARD DRAWINGS.

REV. 06-20-83: GENERAL REVISIONS.

REV. 03-22-85: ADDED NOTE 'SAME FOR DEPRESSED ISLAND' TO MARKING FOR RAISED ISLAND.

REV. 2-22-88: CHANGED MINIMUM "B" DIMENSION TO 6". CHANGED DWG. NO. FROM T-M-10 TO T-M-3. REVISED GENERAL NOTE (B). CHANGED MINIMUM "A" DIMENSION TO 6'.

REV. 03-23-91: REDREW AND REORGANIZED SHEET.

REV. 09-19-91: GENERAL REVISION.

■ REV. 07-24-14: ADDED GENERAL NOTE (E).

REV. 06-28-19: REMOVED FOOTNOTE (D), REVISED GENERAL NOTE (D) AND REDREW SHEET.

REV. 07-07-23: ADDED PAVEMENT MARKING DELINEATING DRAWING AND NOTES FOR COMMERCIAL BUSINESS ENTRANCE.

■ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

MARKING STANDARDS FOR TRAFFIC ISLANDS, PAVED SHOULDERS AND MEDIANS FOR CONVENTIONAL ROADS

T-M-3

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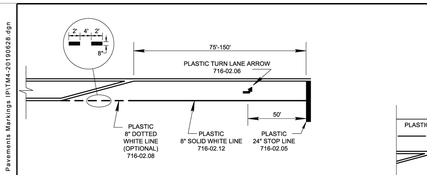
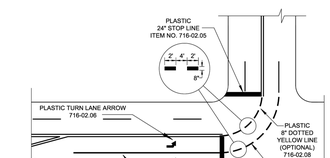
LP

NOT TO SCALE



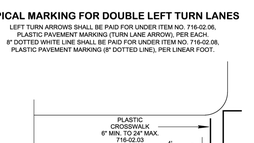
TYPICAL MARKING FOR LEFT TURN LANES
APPLICABLE FOR RIGHT TURN LANES

IF A THROUGH LANE BECOMES AN EXCLUSIVE LEFT TURN LANE, AN "ONLY" MESSAGE IS REQUIRED FOR EACH ARROW. THE "ONLY" MESSAGE SHALL BE PAID FOR UNDER ITEM NO. 716-03.01, PLASTIC WORD PAVEMENT MARKING (ONLY), PER EACH.

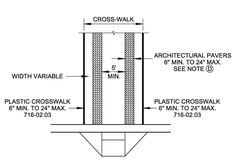


TYPICAL MARKING FOR DOUBLE LEFT TURN LANES

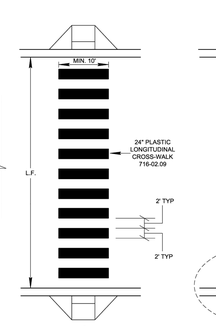
LEFT TURN ARROWS SHALL BE PAID FOR UNDER ITEM NO. 716-02.06, PLASTIC PAVEMENT MARKING (TURN LANE ARROW), PER EACH. 8" DOTTED WHITE LINE SHALL BE PAID FOR UNDER ITEM NO. 716-02.08, PLASTIC PAVEMENT MARKING (8" DOTTED LINE), PER LINEAR FOOT.



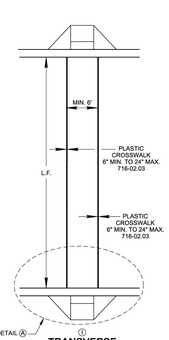
TYPICAL MARKING FOR STOP LANE



DETAIL A
SMOOTH SURFACE (I.E. CONCRETE SURFACE)



LONGITUDINAL CROSS-WALK MARKING
PREFERRED PAVEMENT CROSSWALK TYPE SHALL BE USED WHERE V>40 MPH



TRANSVERSE CROSS-WALK MARKING
TYPICALLY USED AT LOCAL ROADS AND STREETS WHERE ADT<2000

GENERAL NOTES

(A) 6" PAVEMENT MARKING WILL BE USED FOR ALL CENTER LINE, LANE LINES AND EDGE LINES ON ALL ROADS EXCEPT WHERE AS SHOWN ON STANDARD DRAWINGS.

CROSS-WALK

(B) SPECIAL PAVERS AND PAVEMENT TEXTURES ARE NOT ACCEPTABLE CROSS-WALK MARKINGS. THEREFORE, SPECIAL PAVERS AND PAVEMENT TEXTURES SHALL ONLY BE USED IN CONJUNCTION WITH TRANSVERSE CROSS-WALK MARKINGS. SPECIAL PAVERS ARE TO BE DESIGNED TO MEET PAVEMENT DESIGN SCHEDULE AND DESIGN LOADING, ON STATE ROUTES, DETAILS SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT.

(C) IF SPECIAL PAVERS, PAVEMENT TEXTURES, OR ANY OTHER ARCHITECTURAL PAVEMENT MATERIALS ARE USED, THE ARCHITECTURAL PAVEMENT MATERIALS SHALL PROVIDE A SMOOTH, WITHOUT JOINT, WALKABLE/RIDEABLE, STABLE, FIRM AND SLIP-RESISTANT SURFACE PER ADA STANDARDS.

(D) ARCHITECTURAL PAVERS SHALL BE PAID FOR UNDER ITEM NO. 701-01.08, CONCRETE PAVERS CROSS-WALK) PER. SF.

STOP LINE PLACEMENT

(E) LOCATION SHALL BE DETERMINED BY VEHICLE TURNING PATHS FROM INTERSECTION ROADWAY, AND IF SIGNALIZED, ITS POSITION RELATIVE TO SIGNAL HEADS, PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(F) STOP LINES SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER: 716-02.05, PLASTIC PAVEMENT MARKING (STOP LINE), PER L.F.

(G) STOP LINES REQUIRED ONLY ON APPROACHES CONTROLLED BY STOP SIGNS OR TRAFFIC SIGNALS.

PAYMENT

(H) PAVEMENT MARKINGS SHALL BE PAID FOR UNDER ITEM NO. 716-02.09, PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK) PER LF. ON LOCAL ROADS WITH ADT<1000, PAVEMENT MARKINGS COULD ALTERNATIVELY BE PAID FOR UNDER ITEM NO. 716-05.22, PAINTED PAVEMENT MARKING (LONGITUDINAL CROSS-WALK) PER LF.' MEASUREMENT IS CALCULATED AS THE FULL WIDTH OF PAVEMENT.

(I) PAVEMENT MARKINGS SHALL BE PAID FOR UNDER ITEM NO. 716-02.03, PLASTIC PAVEMENT MARKING (CROSSWALK) PER LF. ON LOCAL ROADS WITH ADT<1000, PAVEMENT MARKINGS COULD ALTERNATIVELY BE PAID FOR UNDER ITEM NO. 716-05.03, PAINTED PAVEMENT MARKING (CROSS-WALK) PER LF. MEASUREMENT IS CALCULATED AS THE FULL WIDTH OF PAVEMENT.

REV. 2-22-88: REVISED DETAIL LEFT TURN LANE MARKING. ADDED NOTE FOR STOP LINE TO BE PARALLEL TO CROSS-WALK. NOTED LONGITUDINAL CROSS-WALK LINES TO BE WHITE. CHANGED DWG. NO. FROM T-M-11 TO T-M-4. ADDED DETAIL FOR DOUBLE LEFT TURN LANE.

REV. 3-20-91: REDREW AND REORGANIZED SHEET. ADDED PAY ITEMS AND THEIR DESCRIPTIONS.

■ REV. 5-27-01: CHANGED DESCRIPTION IN ITEM NO. 716-02.09.

■ REV. 9-5-01: CHANGED DESCRIPTION IN ITEM NO. 716-02.03.

■ REV. 1-19-05: CHANGED HANDICAP RAMP DETAIL SHOWN ON CROSS-WALK MARKING DETAILS.

■ REV.3-15-07: REVISED TO REFER THE HANDICAP RAMP STANDARDS TO DETERMINE THE MINIMUM WIDTH OF CROSS-WALK MARKINGS.

■ REV.6-1-09: TYPICAL STOP LINE PLACEMENT NOTE REVISED.

■ REV. 11-1-11: REVISED PAVEMENT MARKINGS FOR LEFT TURN DETAILS.

■ REV. 7-24-14: REVISED CROSS-WALK TO SHOW LONGITUDINAL LINES AS PREFERRED OPTION. ADDED PAVEMENT MARKING TABLE.

REV. 10-10-16: ADDED DETAIL FOR TRANSVERSE CROSS-WALK, UPDATED ITEM NUMBERS FOR CROSS-WALK MARKING, UPDATED NOTES FOR STOP LINE PLACEMENT AND CROSS-WALK MARKING.

■ REV. 08-02-18: MODIFIED NOTE (I). ADDED ALTERNATIVE PAY ITEMS FOR PAINTED CROSS-WALK MARKINGS. ADDED NOTE (J) TO THE CROSS-WALK NOTES. REDREW SHEET.

REV. 06-28-19: REMOVED PAVEMENT MARKING TABLE. PUT CROSS-WALK NOTES AND STOP LINE PLACEMENT NOTES IN GENERAL NOTES. REDREW SHEET.

REV. 07-17-20: ADDED NOTE UNDER TRANSVERSE CROSS-WALK MARKING AND REVISED V FOR LONGITUDINAL CROSS-WALK MARKING TO >40 MPH.

■ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

STANDARD INTERSECTION PAVEMENT MARKINGS

T-M-4

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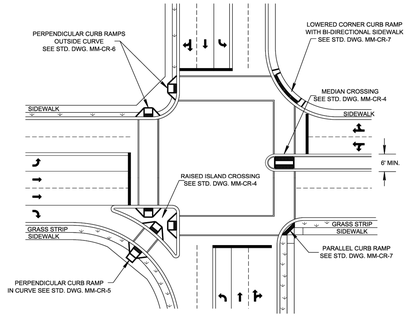
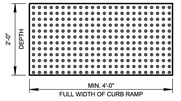
LP

NOT TO SCALE

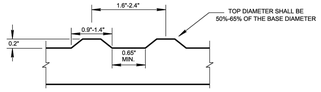
REV: 06-28-19: REVISED GENERAL NOTES BY: ADDING NEW NOTES NO. (K), (L) & (M). RELETTERING NOTE NOS. (K) THRU (L).



PLAN VIEW
(EXAMPLE LAYOUT SHOWING EACH RAMP TYPE; SEE REFERENCED STANDARD DRAWINGS FOR SPECIFIC ALIGNMENT INFORMATION)



DETECTABLE WARNING SURFACE DETAIL



DETECTABLE WARNING SURFACE ELEVATION VIEW (TYP.)

GENERAL NOTES

(A) DETAILS SHOWN ON THIS STANDARD DRAWING APPLY TO THE CONSTRUCTION OR RECONSTRUCTION OF STREETS, CURBS, OR SIDEWALKS.

(B) NEW CURB RAMPS INSTALLATION SHALL HAVE COMPOSITE DETECTABLE WARNING SURFACE. ONLY PRODUCTS LISTED ON THE DEPARTMENT'S QPL SHALL BE USED.

(C) THE DETECTABLE WARNING SURFACES SHALL BE YELLOW. THE COLOR YELLOW IS USED BECAUSE YELLOW IS THE LAST COLOR A VISUALLY IMPAIRED PERSON CAN DETECT PRIOR TO TOTAL LOSS OF VISION. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED USING PRODUCTS APPROVED ON THE TDOT QPL NO. 37.

(D) THE DEPTH OF DETECTABLE WARNING SURFACES SHALL BE 2 FEET IN THE DIRECTION OF PEDESTRIAN TRAVEL. AT CURB RAMPS AND BLENDED TRANSITIONS, DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITION, OR TURNING SPACE.

(E) THE DETECTABLE WARNING SURFACE SHALL NOT BE EXTENDED BEYOND CROSSWALK BOUNDARIES AT LOCATIONS LACKING PROPER CURB HEIGHT.

(F) CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS.

(G) CURB RAMPS SHALL BE PROVIDED AT ALL CORNERS OF STREET INTERSECTIONS WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. CURB RAMPS SHALL ALSO BE PROVIDED AT MIDBLOCK CROSSWALK LOCATIONS AND ACROSS FROM CORNER RAMPS AT T-INTERSECTIONS.

(H) CARE SHALL BE TAKEN TO ENSURE A UNIFORM GRADE ON THE RAMP. THE GRADE SHALL BE FREE OF SAGS AND SHORT GRADE CHANGES.

(I) DRAINAGE STRUCTURES SHALL NOT BE PLACED IN LINE WITH RAMPS. INSTALL CATCH BASINS ON UPSTREAM SIDE OF RAMP FOR ROADS WITH GRADES LESS THAN 2%.

(J) CROSSWALK MARKINGS, IF USED, SHALL BE LOCATED AS SHOWN ON THE APPLICABLE CURB RAMP STANDARD DRAWING. FOR CROSSWALK MARKING DETAILS, SEE STD. DWG. T-M-4.

(K) FOR PERPENDICULAR CURB RAMP DESIGN DETAILS, SEE STD. DWG. MM-CR-2. FOR PARALLEL CURB RAMP DESIGN DETAILS, SEE STD. DWG. MM-CR-3.

(L) PAYMENT:

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN NEWLY CONSTRUCTED SIDEWALK AREAS, SHALL BE PAID BY ITEM NO. 701-02.03, CONCRETE CURB RAMP, PER S.F.

(M) FOR SIGNALIZED INTERSECTIONS THAT REQUIRE PEDESTRIAN SIGNAL PUSHBUTTONS, SEE TDOT TRAFFIC DESIGN MANUAL FOR PLACEMENT DETAILS.

PROJECTS ON EXISTING ROADWAYS

(N) LOCATIONS WHERE THE EXISTING CURB RAMP IS COMPLIANT WITH TDOT STANDARDS BUT THE DETECTABLE WARNING SURFACE IS NOT, ITEM NO. 701-02.06, DETECTABLE WARNING SURFACE (REHABILITATION), S.F., SHALL BE USED FOR THE INSTALLATION OF THE DETECTABLE WARNING SURFACE.

(O) ONLY PRODUCTS FROM TDOT QPL SHALL BE USED (MAX. 1/4" THICK) AND INSTALLED USING APPROPRIATE MECHANICAL ATTACHMENT (MIN. 4 EACH) IN ADDITION TO BOUNDING CHEMICAL AS INSTRUCTED BY THE MANUFACTURE INSTALLATION MANUAL.

(Replaced Std Dwg RP-H-3)

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS

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SHEET C-8

CONSTRUCTION DETAILS

HORIZON PLAZA - PHASE 2

SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

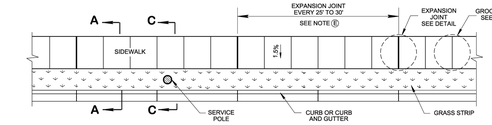
DIST. FW | KNOX COUNTY
TOWN OF FARRAGUT | TENNESSEE
CLT MAP 143A | GROUP B | PARCEL 1
SCALE: N.T.S. | JULY 21, 2025

OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934
(865) 777-1950

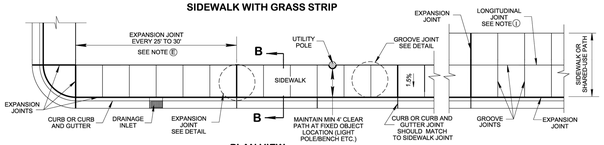
URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

REVISION	DATE	DESCRIPTION	BY
1	8/11/25	GENERAL REVISIONS	BS

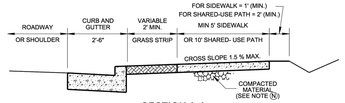
DWN: BS | CHK: CAS | DWG. NO. 2006016



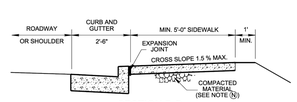
PLAN VIEW
SIDEWALK WITH GRASS STRIP



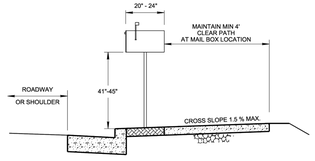
PLAN VIEW
SIDEWALK WITHOUT GRASS STRIP
(NOTE: WHEN NEEDED DUE TO EXTREME SITE CONDITIONS THE PLACEMENT OF SERVICE APPURTENANCES SHALL PROVIDE MINIMUM 4' CLEAR PATH.)



SECTION A-A
TYPICAL SIDEWALK CROSS SECTION
WITH GRASS STRIP



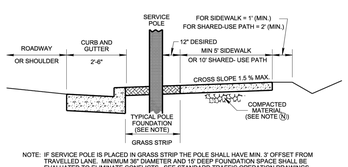
SECTION B-B
TYPICAL SIDEWALK CROSS SECTION
WITHOUT GRASS STRIP



MAILBOX DETAIL

NOTE: EDGE OF MAILBOX SHALL NOT OVERHANG BEYOND THE BACK OF THE CURB. NOR SHALL THE MAILBOX OVERHANG THE SIDEWALK SUCH THAT THE USABLE WIDTH IS LESS THAN 4 FEET.

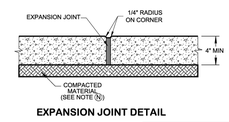
IF NEEDED, REMOVAL AND RESETTING MAILBOXES TO BE INCLUDED IN THE COST OF SIDEWALK.



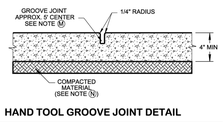
NOTE: IF SERVICE POLE IS PLACED IN GRASS STRIP THE POLE SHALL HAVE MIN. 3' OFFSET FROM TRAVELLED LANE. MINIMUM 36" DIAMETER AND 15' DEEP FOUNDATION SPACE SHALL BE EVALUATED TO ELIMINATE CONFLICTS. SEE STANDARD TRAFFIC OPERATION DRAWINGS T-SG-9 AND T-SG-10 FOR MORE INFORMATION.

SERVICE APPURTENANCES (LARGE SIGNS, STRUCTURES, SIGNAL, LUMINARY AND UTILITY POLES 2' DIAMETER OR LARGER) SHALL BE PLACED OUTSIDE THE PEDESTRIAN ACCESSIBLE SPACE, PREFERABLY OUTSIDE THE SIDEWALK AREA AND INSIDE THE RIGHT-OF-WAY.

SECTION C-C
TYPICAL SIDEWALK CROSS SECTION
WITH GRASS STRIP AND SERVICE APPURTENANCES



EXPANSION JOINT DETAIL



HAND TOOL GROOVE JOINT DETAIL

REV. 06-28-19: REVISED GENERAL NOTES (B), (E), (I), (L), (M) & (N) AND DETAILS NOTES FOR (TYP.) AND "CROSS SECTION WITH GRASS STRIP AND SERVICE APPURTENANCES" AND "SIDEWALK CONSTRUCTION DETAILS WITHOUT GRASS STRIP". ADDED NOTE TO MAILBOX DETAIL.

REV. 03-01-2023: SIDEWALK PLAN VIEWS AND GROOVE JOINT DETAIL WERE ADDED, REMOVED GENERAL NOTE (I), AND ADDED GENERAL NOTES (B) AND (N). SIDEWALK CONSTRUCTION DETAIL WAS REMOVED. SECTION C-C NOTE WAS REVISED.

REV. 07-07-2023: REVISED MAILBOX DETAIL AND NOTE.

REFERENCED STANDARD DRAWINGS

SEE T-M-4, FOR CROSS WALK MARKING

SEE MM-CR SERIES FOR CURB RAMP DETAILS

SEE MM-BPR-1, FOR PEDESTRIAN RAIL REQUIREMENTS & S-PL-6, FOR GUARDRAIL PLACEMENT

SEE MM-SW-2, FOR ALTERNATE DETAILS FOR CONCRETE SIDEWALK (REHABILITATION)

SEE RP-SC-1, FOR 6" SLOPING CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS

SEE RP-VC-10 OR 11, FOR VERTICAL CONCRETE CURB AND CONCRETE CURBS AND GUTTER DETAILS

SEE MM-PM-1 THRU MM-PM-5, FOR BIKE LANE/ROUTE PAVEMENT MARKINGS

SEE RP-D-15 & 16 FOR CONCRETE DRIVEWAYS

SEE MM-TS-2 FOR PEDESTRIAN FACILITY LATERAL OFFSETS/ BUFFER GUIDANCE.

SEE MM-TS-3 FOR SHARED USE TYPICAL SECTIONS

GENERAL NOTES

(A) ALWAYS PLACE SIDEWALK AS FAR AS AWAY FROM THE TRAVELLED WAY WHEN POSSIBLE. FOR SPECIFICATIONS SEE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION.

(B) WHERE IT BECOMES NECESSARY TO REMOVE PARTS OF EXISTING CONCRETE SIDEWALKS OR RAMPS, THE RESULTING SURFACES SHALL BE CUT TO A NEAT LINE, AND ANY OFFSETS IN SUCH LINES SHALL BE MADE AT RIGHT ANGLES.

(C) SIDEWALK WIDTHS DO NOT INCLUDE THE SIX INCH CURB WIDTH OF PROPOSED TOP OF CURB.

(D) MAXIMUM SIDEWALK CROSS SLOPE IS 1.5 %. ALL SIDEWALKS SHALL HAVE A BROOM FINISH AND SHALL BE 4" THICK UNLESS THE PLANS CALL FOR 6" THICKNESS. THE CONCRETE SHALL BE CLASS "A" AT 3000 PSI. ALL COST TO BE INCLUDED IN ITEM NO. 701-01.01,CONCRETE SIDEWALK (4"), S.F. OR 701-01.02,CONCRETE SIDEWALK (6"), S.F.

(E) EXPANSION JOINTS ARE TO BE PLACED 25 TO 30 FEET APART DEPENDING ON TRANSIVERSE JOINT MARKINGS AND NEED TO MATCH CURB EXPANSION JOINT WHERE SIDEWALK IS BUILT DIRECTLY AGAINST CURB, OR AS DIRECTED BY THE ENGINEER WHERE THE PROPOSED SIDEWALK IS IN CONTACT WITH THE STREET RETURNS, ON BUILDING LINES PRODUCED AT STREET INTERSECTIONS, WHERE WALKS LEAD TO HOUSE OR OTHER ENTRANCES AND AN OTHER LOCATIONS WHERE STRESSES MAY DEVELOP. THE COST OF ALL EXPANSION JOINTS IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PROPOSED SIDEWALK.

(F) CONCRETE JOINT MATERIAL TO BE FLUSH WITH THE SIDEWALK SURFACE, ONE INCH PREFORMED FILLER IN ACCORDANCE WITH SECTION 701.04 OF THE STANDARD SPECIFICATIONS.

(G) ONE INCH EXPANSION JOINTS ARE TO BE PLACED WHERE THE PROPOSED SIDEWALK IS IN CONTACT WITH CIRCULAR CURBS, BUILDINGS AND/OR RETAINING WALLS.

(H) HALF INCH EXPANSION JOINTS ARE TO BE USED AT ALL OTHER LOCATIONS.

(I) LONGITUDINAL JOINT MARKINGS WILL NOT BE REQUIRED ON SIDEWALKS THAT ARE 5 FEET OR LESS IN WIDTH.
ONE LONGITUDINAL JOINT MARKING WILL BE REQUIRED ON SIDEWALKS OVER 5 FEET BUT LESS THAN 9 FEET IN WIDTH.
TWO LONGITUDINAL JOINT MARKINGS WILL BE REQUIRED ON SIDEWALKS OVER 9 FEET BUT LESS THAN 12 FEET IN WIDTH.

(J) TRANSVERSE JOINT MARKERS ARE TO BE MADE TO FORM BLOCKS AS NEARLY TO SQUARE AS PRACTICAL.

(K) WHEN LEAVING A SQUARE OPENING IN THE SIDEWALK, THE LENGTH OF THE SIDE OF THE SQUARE OPENING SHOULD BE EQUAL TO THE DIAMETER OF THE FIXED OBJECT PLUS SIXTEEN INCHES. IT WILL BE BORDERED BY HALF INCH EXPANSION JOINT.

(L) WHEN NEW SIDEWALK IS PLACED ADJACENT TO EXISTING SIDEWALK THE CONTRACTOR SHALL CORRECT ALL ABRUPT CHANGES AND SLOPES TO PROVIDE A SMOOTH TRANSITION FROM THE LIMIT OF CONSTRUCTION TO EXISTING PEDESTRIAN FACILITY.

(M) DIVIDE THE SURFACE OF SIDEWALKS INTO BLOCKS USING A GROOVING TOOL. SPACE THE GROOVES APPROXIMATELY 5 FEET APART TO PRODUCE SQUARE BLOCKS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

(N) SHAPE AND COMPACT THE SUBGRADE TO A FIRM, EVEN SURFACE IN REASONABLY CLOSE CONFORMITY WITH THE GRADE AND CROSS-SECTION SHOWN ON THE PLANS. REMOVE ALL SOFT AND YIELDING MATERIAL, REPLACE IT WITH ACCEPTABLE MATERIAL, AND COMPACT IT AS DIRECTED BY THE ENGINEER.

(Replaced Std Dwg RP-S-7)

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

DETAILS FOR CONCRETE SIDEWALK

01-07-2019 | MM-SW-1

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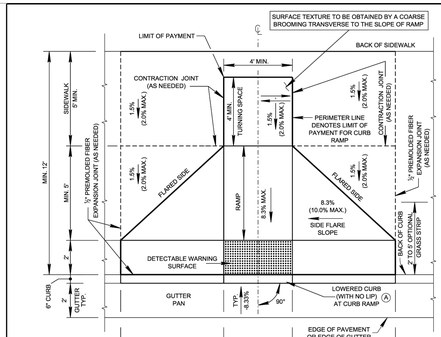
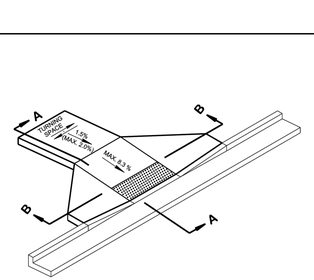
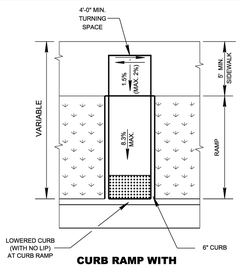


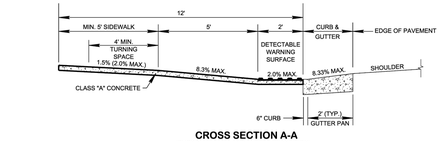
PERPENDICULAR CURB RAMP
PLAN VIEW



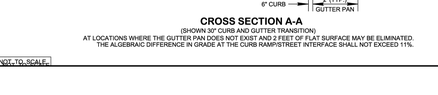
ISOMETRIC VIEW
CURB RAMP WITH GUTTER DETAIL



CURB RAMP WITH
RETURNED CURB



CROSS-SECTION B-B



CROSS SECTION A-A
(SHOWN 30" CURB AND GUTTER TRANSITION)
AT LOCATIONS WHERE THE GUTTER PAN DOES NOT EXIST AND 2 FEET OF FLAT SURFACE MAY BE ELIMINATED. THE ALGEBRAIC DIFFERENCE IN GRADE AT THE CURB RAMP/STREET INTERFACE SHALL NOT EXCEED 11%.

GENERAL NOTES

(A) PERPENDICULAR CURB RAMPS TO BE USED WHEN TOTAL SIDEWALK OR SIDEWALK AND GRASS STRIP WIDTH IS 12' OR GREATER, SEE STD. DWG. MM-CR-5 FOR PERPENDICULAR CURB RAMP IN CURVE, AND SEE STD. DWG. MM-CR-6 FOR PERPENDICULAR CURB RAMP PLACED OUTSIDE CURVE. PERPENDICULAR CURB RAMP MINIMUM DIMENSION SHOWN FOR 8' VERTICAL CURB.

(B) CURB SHALL BE FLUSH ACROSS ENTIRE WIDTH OF CURB RAMP. DETECTABLE WARNING SURFACES SHALL EXTEND 2' IN THE DIRECTION OF PEDESTRIAN TRAVEL. AT CURB RAMPS AND BLENDED TRANSITIONS, DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITION, OR TURNING SPACE. SEE STD. DWG. MM-CR-1 FOR DETECTABLE WARNING SURFACE DETAILS.

(C) DESIGN / CONSTRUCTION MODIFICATIONS MAY BE REQUIRED FOR CURB RAMPS TO BE INSTALLED ALONG A ROADWAY WITH LONGITUDINAL GRADES EXCEEDING 5%. ENGINEER SHOULD BE NOTIFIED FOR ASSESSMENT IF THE CURB RAMP SIDE FLARES EXCEED 10' IN LENGTH DUE TO THE LONGITUDINAL GRADE.

(D) PAYMENT:

NEW:
ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN NEWLY CONSTRUCTED SIDEWALK AREAS, SHALL BE PAID BY ITEM NO. 701-02.03, CONCRETE CURB RAMP, PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR CONSTRUCTION OF THE CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).

RETROFIT:
ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN EXISTING SIDEWALK AREAS, REMOVAL OF THE EXISTING SIDEWALK, AND ADJUSTMENT OF GUTTER PAN SLOPE, SHALL BE PAID BY ITEM NO. 701-02.01, CONCRETE CURB RAMP (RETROFIT), PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR INSTALLATION OF CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).

COST OF CURB AND GUTTER TO BE INCLUDED IN THE PRICE OF ITEM NO. 702-01, CONCRETE CURB, PER C. Y. OR ITEM NO. 702-03, CONCRETE COMBINED CURB & GUTTER, PER C. Y.

(E) WHERE NEW CURB RAMP CONDITIONS DO NOT MEET EXISTING SIDEWALK, THE DESIGNER SHALL ADD ADDITIONAL QUANTITY FOR 15 FEET OF SIDEWALK MODIFICATION TO TIE TO THE EXISTING GRADE.

(F) SIGNALIZED INTERSECTIONS WITH SIDEWALK SHALL HAVE PEDESTRIAN SIGNAL HEADS AND PUSHBUTTONS. ALL ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSHBUTTONS SHALL BE ALIGNED WITH THE DIRECTION OF THE RAMP. SEE TDOT TRAFFIC DESIGN MANUAL FOR DETAILS.

(G) FOR ADDITIONAL SIDEWALK DETAILS AND IF MAILBOXES ARE REMOVED DURING INSTALLATION OF THE CURB RAMP, PROVIDE A 12" X 12" OPENING BEHIND THE CURB. SEE STD. DWG. MM-SW-1.

(H) IF GRASS STRIP IS INSTALLED, THE SIDE FLARES MAY BE OMITTED AND A RETURNED CURB OPTION MAY BE USED.

(I) DESIRABLE SIDEWALK CROSS SLOPE IS 1.5 %, ABSOLUTE MAXIMUM IS 2.0 %.

(J) SURFACE TEXTURE TO BE OBTAINED BY A COARSE BROOMING TRANSVERSE TO THE SLOPE OF CURB RAMP.

(K) SEE STD. DWG. T-M-4 FOR CROSSWALK MARKING DETAILS.

(Replaced Std Dwg RP-H-4)

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

PERPENDICULAR CURB RAMP

01-07-2019 | MM-CR-2

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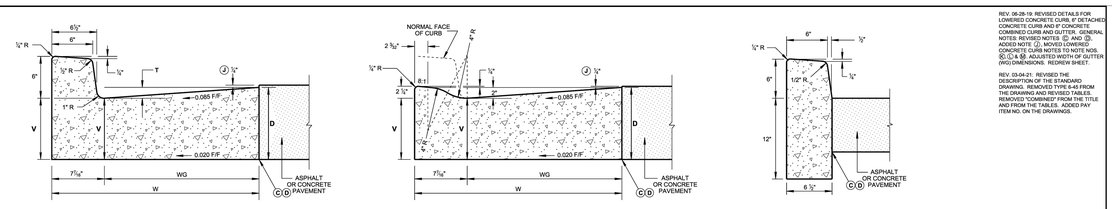

6" CONCRETE CURB AND GUTTER
(PAY ITEM NO. 702-03)

LOWERED CONCRETE CURB AND GUTTER
(PAY ITEM NO. 702-03)

6" DETACHED CONCRETE CURB
(PAY ITEM NO. 702-01)

REV. 06-28-19: REVISED DETAILS FOR LOWERED CONCRETE CURB, 6" DETACHED CONCRETE CURB AND 8" CONCRETE COMBINED CURB AND GUTTER. GENERAL NOTES: REVISED NOTES (E) AND (N). ADDED NOTE (M). REVISED NOTES (G) AND (K) TO NOTE NOS. (E) & (M). ADJUSTED WIDTH OF GUTTER (WG) DIMENSIONS. REDREW SHEET.

REV. 03-04-21: REVISED THE DESCRIPTION OF THE STANDARD DRAWING. REMOVED TYPE B AREA. REMOVED "CONCRETE" FROM TABLES. REMOVED "COMBINED" FROM THE TITLE AND FROM THE TABLES. ADDED PAY ITEM NO. ON THE DRAWINGS.

CONCRETE CURB AND GUTTER TABLE

TYPE	TOTAL WIDTH (W) IN INCHES	WIDTH OF GUTTER (WG) IN INCHES	VERTICAL DROP (T) IN INCHES	VERTICAL DEPTH (V) OF GUTTER ※ AT FLOW LINE
6-30	30	22 ⅞"	2	D - 1 11/16"
6-36	36	28 ⅞"	2½	D - 1 ⅝"

※ VERTICAL DEPTH (V) MUST ALWAYS EXCEED SIX (6) INCHES.

QUANTITIES FOR DETACHED CURB

HEIGHT OF CURB	CUBIC YARD PER LINEAR FOOT
6"	0.02950
LOWERED CURB	0.02534

QUANTITIES FOR CURB AND GUTTER

DEPTH (D) OF GUTTER IN INCHES	TOTAL WIDTH (W) IN INCHES	6" CONCRETE CURB AND GUTTER (CY/LF)	LOWERED CONCRETE CURB AND GUTTER (CY/LF)
8	30	0.06409	0.05711
	36	0.07780	0.07085
9	30	0.07181	0.06483
	36	0.08706	0.08011
10	30	0.07953	0.07254
	36	0.09632	0.08934
11	30	0.08724	0.08026
	36	0.10558	0.09860
12	30	0.09496	0.08799
	36	0.11484	0.10786

LEGEND

D = VERTICAL DEPTH OF GUTTER (IS BASED ON PAVEMENT DESIGN)
T = VERTICAL DROP IN GUTTER FROM FRONT EDGE TO FACE OF CURB
V = VERTICAL DEPTH OF GUTTER AT FLOW LINE
W = TOTAL WIDTH OF COMBINED CURB AND GUTTER
WG = WIDTH OF GUTTER

GENERAL NOTES

(A) FOR SPECIFICATIONS SEE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION, SECTION 702 - CEMENT CONCRETE CURB, GUTTER AND COMBINED CURB AND GUTTER.

(B) THE FRONT FACE OF THE CONCRETE CURBS FOR ALL DEGREES OF CURVATURE SHALL CONFORM TO THE CONTOUR OF THE CURVE AND NO CHORD SECTIONS WILL BE PERMITTED.

(C) CONCRETE EXPANSION JOINT MATERIAL IS TO BE 1/2" IN THICKNESS AT ALL LOCATIONS. ALL MATERIAL IS TO BE PRE-MOLDED FIBER IN ACCORDANCE WITH SECTION 905 - JOINT MATERIALS OF THE STANDARD SPECIFICATIONS.

(D) EXPANSION JOINTS ARE TO BE PLACED AS FOLLOWS:
1. AT TANGENT POINTS OF CIRCULAR CURBS.
2. BETWEEN CURBS AND ABUTTING RIGID OBJECTS.
3. AT OTHER PLACES WHERE STRESSES MAY DEVELOP.
4. TO LINE UP WITH PAVEMENT JOINTS WHERE SIE ADJACENT PAVEMENT IS CONCRETE.
5. THE MAXIMUM SPACING IS TO BE 100 FEET.
6. BETWEEN CONCRETE CURBS OR CURB AND GUTTERS AND CONCRETE PAVEMENT. IT IS NOT REQUIRED WHEN CURBS OR CURB AND GUTTERS ARE ADJACENT TO ASPHALT.

(E) CONTRACTION JOINTS ARE TO BE SPACED AT 10 FEET. THE SPACING OF 10 FEET MAY BE REDUCED FOR CLOSURES, BUT NOT LESS THAN 6 FEET.

(F) EDGES OF JOINTS SHALL BE FINISHED ON 1/4" RADII.

(G) ALL COST OF JOINTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS.

(H) THE UNIT PRICE BID FOR CONCRETE CURB, CONCRETE CURB AND GUTTER AND CONCRETE PAVEMENT WILL INCLUDE ANY CIRCULAR SECTION REQUIRED TO BE BUILT CONFORMING TO SECTIONS SHOWN ON THIS SHEET.

(I) PAYMENT WILL BE AS FOLLOWS:
ITEM NO. 702-01, CONCRETE CURB, PER C.Y.
ITEM NO. 702-03, CONCRETE COMBINED CURB AND GUTTER, PER C.Y.

(J) THE 1/4" HEIGHT IS FOR WHEN ASPHALT PAVEMENT IS ADJACENT TO CONCRETE CURB AND GUTTER ONLY. CONCRETE PAVEMENT WILL BE FLUSH WITH THE TOP OF THE GUTTER.

LOWERED CONCRETE CURB NOTES

(K) TO BE BUILT AS COMBINED CURB AND GUTTER, DETACHED CURB OR INTEGRAL CURB AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

(L) FOR DETACHED CURB, OMIT RADIUS AT FLOW LINE.

(M) TO BE USED FOR PROPOSED RAMP OPENINGS.

(Replaced Std Dwg RP-NMC-10)

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

VERTICAL CONCRETE CURB AND CURB AND GUTTER
(FOR 8" TO 12" GUTTER DEPTH)

05-15-2018 | RP-VC-10

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SHEET C-9

CONSTRUCTION DETAILS

HORIZON PLAZA - PHASE 2

SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

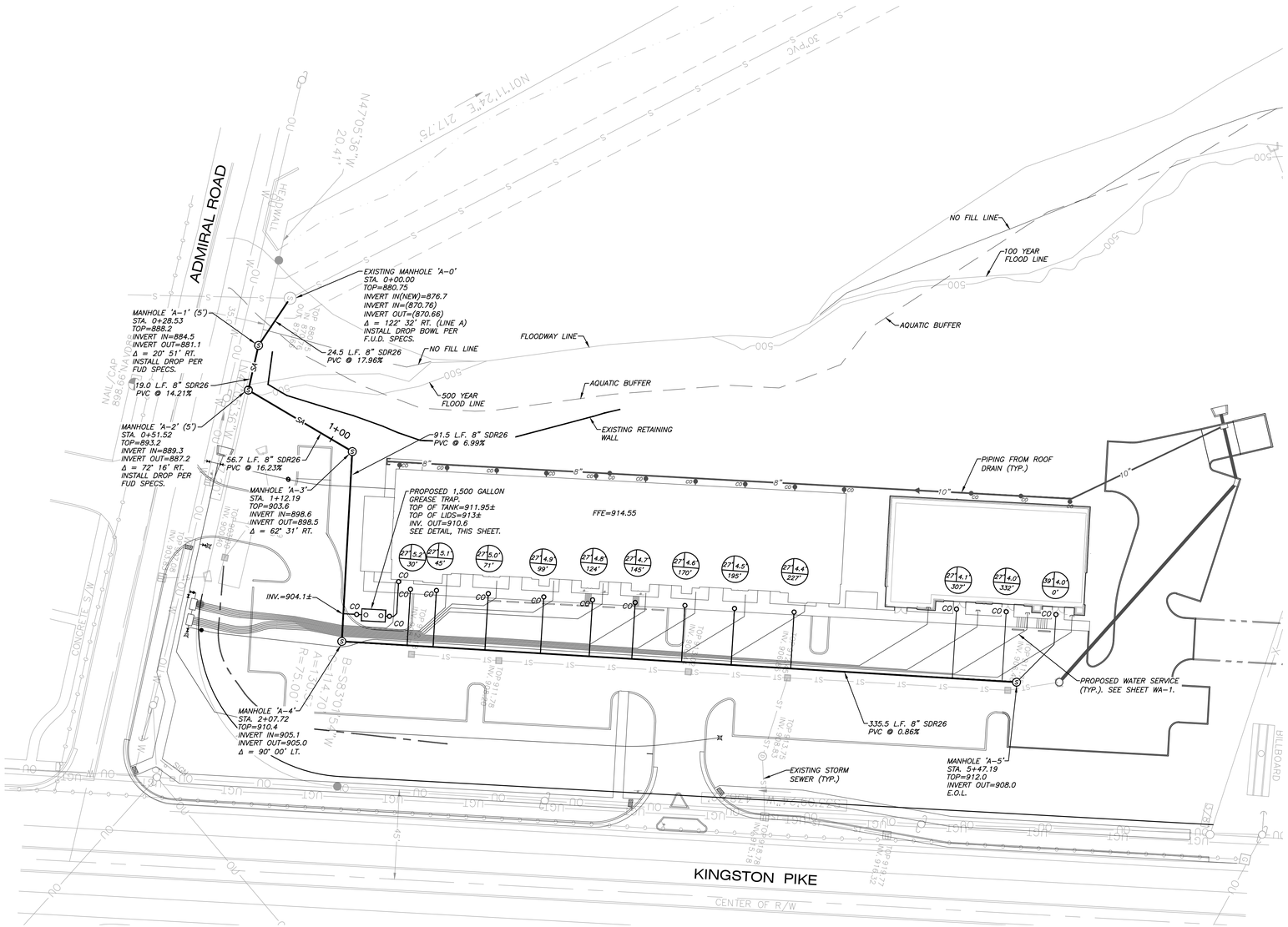
DIST. FW | KNOX COUNTY
TOWN OF FARRAGUT | TENNESSEE
CLT MAP 143A | GROUP B | PARCEL 1
SCALE: N.T.S. | JULY 21, 2025

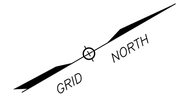
OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934
(865) 777-1950

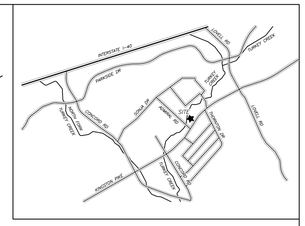
URBAN ENGINEERING, INC.
10330 HARDIN VALLEY RD, #201
KNOXVILLE, TENNESSEE 37932
(865) 966-1924

REVISION	DATE	DESCRIPTION	BY
1	8/11/25	GENERAL REVISIONS	BS

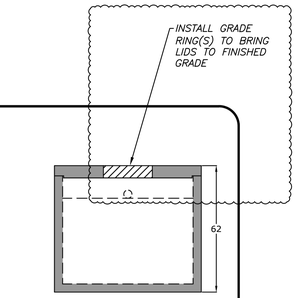
DWN: BS | CHK: CAS | DWG. NO. 2006016







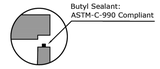
LOCATION MAP

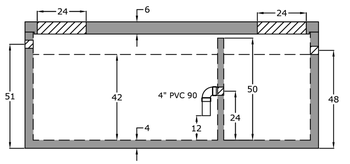


Top View

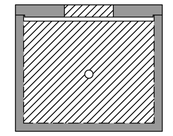
End View

Notes:
ASTM C 1613 Compliant
4" Inlet/Outlet (Standard)
4" PVC 90 in Baffle Wall
2/3 - 1/3 Compartment Capacity





Side View



Baffle View

Specifications

Concrete: 5,000 psi minimum strength (28 day)
Reinforcing: Primary reinforcement will be rebar.
Risers: Grade rings and manhole frames and covers sold separately.
Sealant: Sealant used in the seam of the tank will meet or exceed ASTM C990.
Pipe Penetrations: Inlet and outlets are fitted with seals that meet or exceed all ASTM C923 specifications.
Partition Wall: The partition wall, if present, is poured monolithically.
Drawing: All measurements are accurate within ± 1 inch.

Tank Warranty: See Terms and Conditions.

Centroid(s): Lid (72, 36), Base (74, 36)

Weights
Top - 4,721 lb
Bottom - 12,073 lb

Anti-Float Protection
21" of water

Installation: The tank hole is not to be more than 18 in. longer and wider than the tank. There shall be a minimum of 6" of 3/4" stone bedding. Do not install across path of vehicles or heavy equipment. This tank is designed for one hundred fifty pounds per square foot (150 lb/ft2) uniform loading on the top of the tank with a max backfill cover of 36" and a minimum of 6".

BARGER PRECAST

P.O. Box 370 - Kingston TN 37763
Phone 888.882.5860 - BargerPrecast.com

1,500 Gallon Grease Trap

Date: 3.262021 | Drawn By: Eric Barger | Updated: 7.182024

FUD SEWER NOTES

1. UNLESS EXPLICITLY AUTHORIZED BY FUD, GRAVITY SEWER DEEPER THAN EIGHT (8) FEET WILL NOT BE ACCEPTED, AND LOW PRESSURE SEWER WILL BE REQUIRED.
2. ALL WORK TO BE PERFORMED WILL BE IN ACCORDANCE WITH THE FIRST UTILITY DISTRICT WATER AND WASTEWATER DEPARTMENT (CURRENT EDITION) SPECIFICATIONS AND DETAILS.
3. SEWER LINE MATERIALS, INSTALLATION AND TESTING PER FIRST UTILITY DISTRICT WATER AND WASTEWATER DEPARTMENT STANDARDS (CURRENT EDITION).
4. ALL CLEANOUTS SHALL BE UNIDIRECTION CLEANOUTS AS MANUFACTURED BY PLASTIC TRENDS (G 1006) AND EXTEND 3' ABOVE FINISHED GRADE TO MARK SEWER SERVICE CONNECTIONS UNTIL BUILIDNG CONNECTION IS MADE.
5. SEE DETAIL 10, SHEET C-5 FOR PIPE BEDDING SPECIFICATIONS.
6. CLEANOUT TOPS TO MATCH PLAN FINISHED GRADES AFTER CONNECTION IS MADE.
7. ALL PIPING UNDER OR WITHIN 3' OF PAVEMENT SHALL BE BACKFILLED WITH STONE.
8. REFER TO INSTRUMENT NO. 200908100011369 FOR FUD EASEMENT REQUIREMENTS.
9. SEWER MAINS SHALL BE CONSTRUCTED TO WITHIN 0.1% OF PROPOSED VALUES. THE CONTRACTOR SHALL CONTACT THE ENGINEER OR PROJECT SURVEYOR TO CHECK STRUCTURE INVERTS PRIOR TO PROCEEDING WITH EACH SUCCESSIVE LENGTH OF PIPE.

GENERAL NOTES:

1. THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER VALVES, ETC., AND COMPILING INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES AND ALSO CALL TENN ONE-CALL PRIOR TO ANY EXCAVATION WORK, TO VERIFY INFORMATION SHOWN AND DETERMINE THE LAYOUT OF THE IRRIGATION SYSTEM AND IF ADDITIONAL IMPROVEMENTS MAY EXIST.
2. ALL MAINS INSTALLED OUTSIDE OF PUBLIC RIGHTS OF WAY SHALL BE CENTERED IN A 15' EASEMENT.

LEGEND:

—SA— 8" SDR 26 SEWER MAIN
Ⓢ PROPOSED MANHOLE
PROPOSED SEWER SERVICE
LENGTH OF SERVICE — 5' | 4.7° — DEPTH AT TAP
225.9' — DISTANCE TO DOWNSTREAM MANHOLE

GRAPHIC SCALE
30 0 30 60

CHRISTOPHER A. SAMPLES — REGISTERED ENGINEER — No. 2010803 — COMMISSIONED — STATE OF TENNESSEE

REFERENCE:
RECORDED PLAT: 89-S-9
RECORDED DEED: 201904100059402

REVISION	DATE	DESCRIPTION	BY
9	8/11/25	GENERAL REVISIONS	BS
8	7/11/25	GENERAL REVISIONS	CAS
7	5/16/25	GENERAL REVISIONS	BS
6	5/9/25	GENERAL REVISIONS	CAS
5	4/1/25	GENERAL REVISIONS	CAS
4	1/7/25	GENERAL REVISIONS	CAS
3	12/9/24	GENERAL REVISIONS	BS
2	2/5/21	GENERAL REVISIONS	CAS
1	1/18/21	REVISED PER T.O.F. COMMENTS	BS

Tennessee 811

SHEET SA-1

PUBLIC SANITARY SEWER PLAN

HORIZON PLAZA

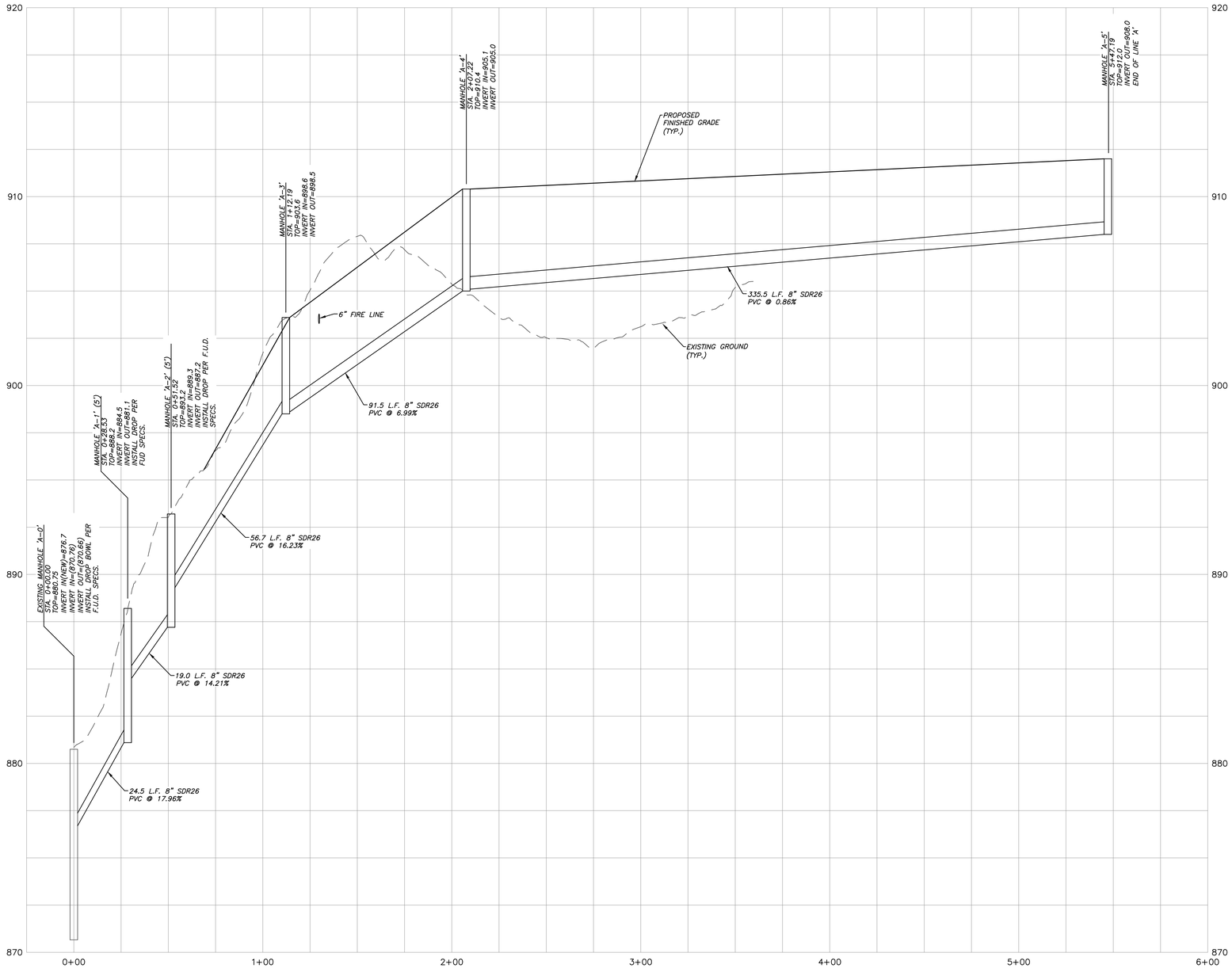
SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

DIST. FW — KNOX COUNTY
TOWN OF FARRAGUT — TENNESSEE
CLT MAP 143A — GROUP B — PARCEL 1
SCALE: 1"=30' — DECEMBER 21, 2020

OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934
(865) 777-1590

URBAN ENGINEERING, INC.
11852 KINGSTON PIKE
FARRAGUT, TENNESSEE 37934
(865) 966-1924

DWN: CLM | CHK: CAS | DWG. NO. 2006016



PROFILE – SANITARY SEWER LINE 'A'

SCALE = 1"=30' HORIZONTAL
1"=3' VERTICAL



SHEET SA-2

PUBLIC SANITARY SEWER PROFILE

HORIZON PLAZA

SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

DIST. FW — KNOX COUNTY
TOWN OF FARRAGUT — TENNESSEE
CLT MAP 143A — GROUP B — PARCEL 1
SCALE: AS NOTED — DECEMBER 21, 2020

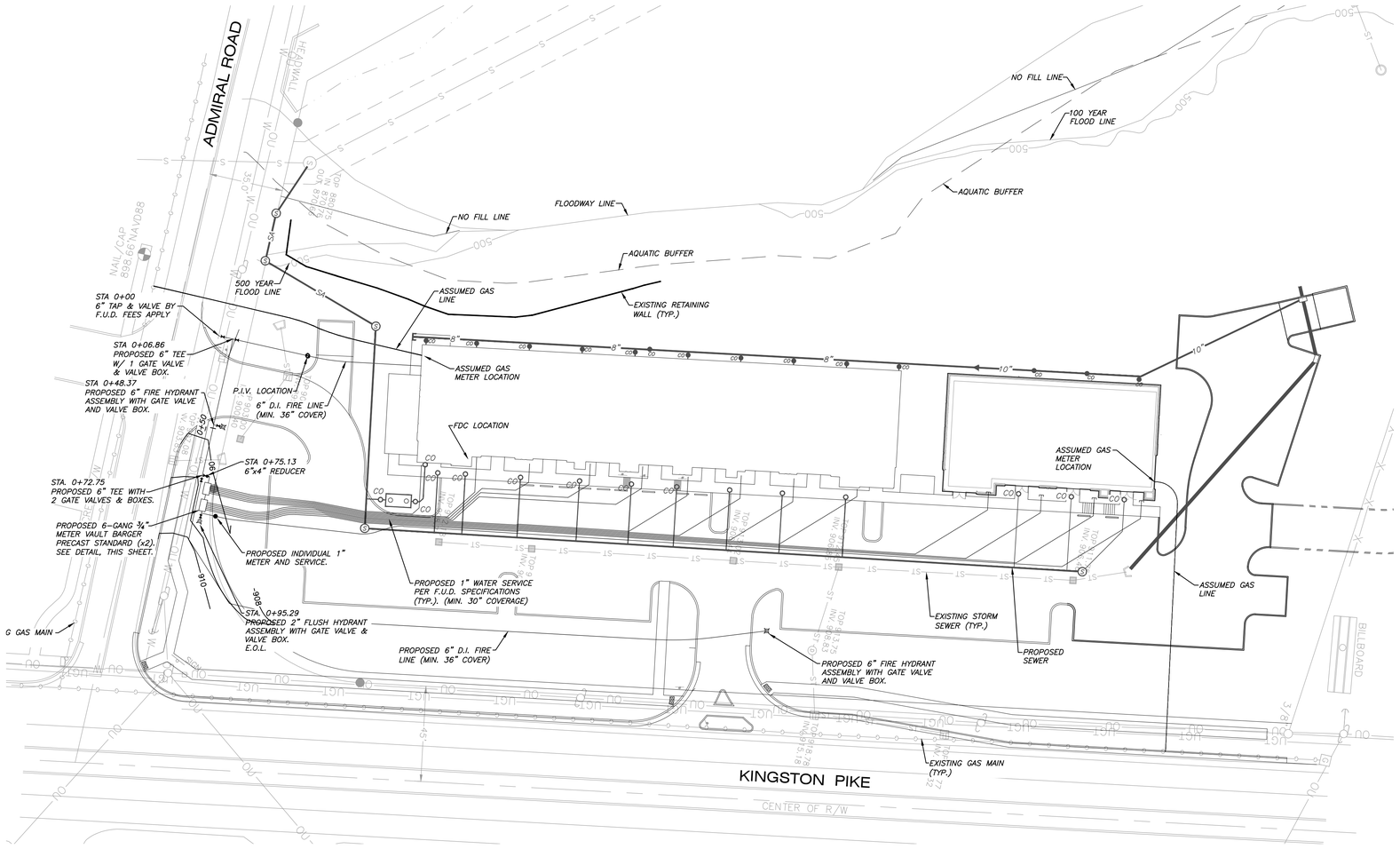
OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934

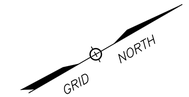
URBAN ENGINEERING, INC.
11852 KINGSTON PIKE
FARRAGUT, TENNESSEE 37934
(865) 966-1924

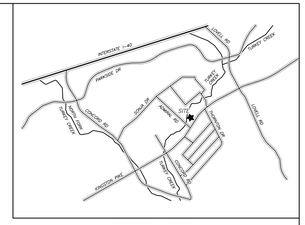
REVISION	DATE	DESCRIPTION	BY
7	5/16/25	GENERAL REVISIONS	BS
6	5/9/25	GENERAL REVISIONS	CAS
5	4/1/25	GENERAL REVISIONS	CAS
4	1/7/25	GENERAL REVISIONS	CAS
3	12/9/24	GENERAL REVISIONS	BS
2	2/5/21	GENERAL REVISIONS	CAS
1	1/18/21	REVISED PER T.O.F. COMMENTS	BS

DWN: CLM | CHK: CAS | DWG. NO. 2006016

Tennessee 811

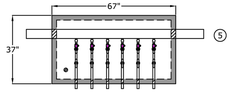




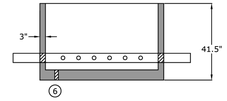


LOCATION MAP

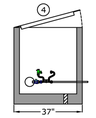
Top View



Side View

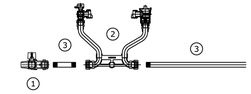


End View

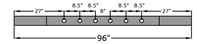


1. Corporation Stop
   AY ¾" 74101BCAPP 3/4 (300 PSI)
2. Meter Setter
   AY ¾" 720-207WDDD 33
3. Brass Nipples
   AY ¾" x 6"
   AY ¾" x 18"
   (poly wrap through wall)
4. 29" x 59" opening single leaf aluminum door, pedestrian rated (300 lb/ft^2)
5. 4" or 6" D.I.P. Class 52 / PR 350
6. 2" drain hole

Component Detail



Pipe detail for taps



Approved for Production

Project: _____ **Date:** _____

Quantity: _____ **By:** _____

BARGER PRECAST

P.O. Box 370 - Kingston TN 37763
Phone 888.882.5860 - BargerPrecast.com

Specifications

Concrete: 5,000 psi minimum strength (28 day)
Pipe Penetrations: All pipe penetrations are placed according to job requirements.

6-Gang ¾" Meter Vault
Barger Precast Standard

Date:	Drawn By:	Approx. Empty Vault Weight:
10.022024	Eric Barger	3,100 lbs.

FUD WATER NOTES

1. ALL WORK TO BE PERFORMED WILL BE IN ACCORDANCE WITH THE FIRST UTILITY DISTRICT WATER AND WASTEWATER DEPARTMENT (CURRENT EDITION) SPECIFICATIONS AND DETAILS.
2. WATER LINE MATERIALS, INSTALLATION AND TESTING PER FIRST UTILITY DISTRICT WATER AND WASTEWATER DEPARTMENT STANDARDS (CURRENT EDITION).
3. FUD SHALL PERFORM ALL WATER LINE TAPS REQUIRED FOR THIS PROJECT. THE CONTRACTOR SHALL INSTALL SERVICE BRASS, COPPER SERVICE, METER YOKES AND METER BOXES.
4. SERVICE LINE (FROM MAIN TO METER) SHALL BE TYPE 'K' COPPER, PER F.U.D. SPECIFICATIONS.
5. ALL SERVICES SHALL HAVE 30" MINIMUM COVER.
6. SEE DETAIL, THIS SHEET FOR PIPE BEDDING SPECIFICATIONS.
7. ALL PIPING UNDER OR WITHIN 3' OF PAVEMENT SHALL BE BACKFILLED WITH STONE.
8. REFER TO INSTRUMENT NO. 20090810011369 FOR FUD EASEMENT REQUIREMENTS.
9. FIRE HYDRANTS WILL PROVIDE A MINIMUM OF 1,750 GPM AT 20 PSI.

GENERAL NOTES:

1. THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER VALVES, ETC., AND COMPILING INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES AND ALSO CALL TENN ONE—CALL PRIOR TO ANY EXCAVATION WORK, TO VERIFY INFORMATION SHOWN AND DETERMINE THE LAYOUT OF THE IRRIGATION SYSTEM AND IF ADDITIONAL IMPROVEMENTS MAY EXIST.
2. ALL MAINS INSTALLED OUTSIDE OF PUBLIC RIGHTS OF WAY SHALL BE CENTERED IN A 15' EASEMENT.

Tennessee 811

FIRE PROTECTION NOTE:

1. ALL POINTS OF THE PROPOSED BUILDING ARE WITHIN 400 FEET OF THE PROPOSED HYDRANT.

FIRE FLOW DATA:

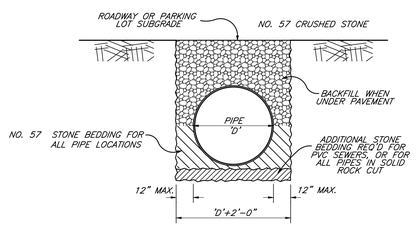
FIRE HYDRANT IN FRONT OF FARRAGUT CHRISTIAN CHURCH WAS FLOWED BY FIRST UTILITY DISTRICT ON DECEMBER 15, 2020.

FLOW RATE=1,600 GPM
STATIC PRESSURE=138 PSI
RESIDUAL PRESSURE=95 PSI

FIRE FLOW SUMMARY:

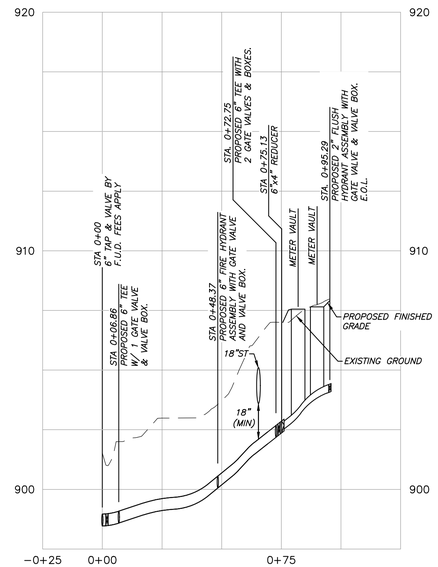
BASED ON THE 2018 IFC, TABLE B105.1 FOR TYPE II—B CONSTRUCTION (UNSPRINKLED), THE PROPOSED 11,985 S.F. BUILDING REQUIRES 625 GPM AND 1—HYDRANT.

THE PUBLIC WATER SUPPLY SYSTEM WILL SUPPORT 2,500 GPM AT 40 psi.



FOR ALL WATER, SEWER OR DRAINAGE PIPING

PIPE BEDDING & BACKFILL DETAIL
N.T.S.



PROFILE — WATER LINE 'A'
SCALE = 1"=30' HORIZONTAL
1"=3' VERTICAL



GRAPHIC SCALE
30 0 30 60

REFERENCE:
RECORDED PLAT: 89-S-9
RECORDED DEED: 201904100059402

SHEET WA—1

WATER PLAN & PROFILE

HORIZON PLAZA

SITE ADDRESS: 11011 KINGSTON PIKE, FARRAGUT (37934)

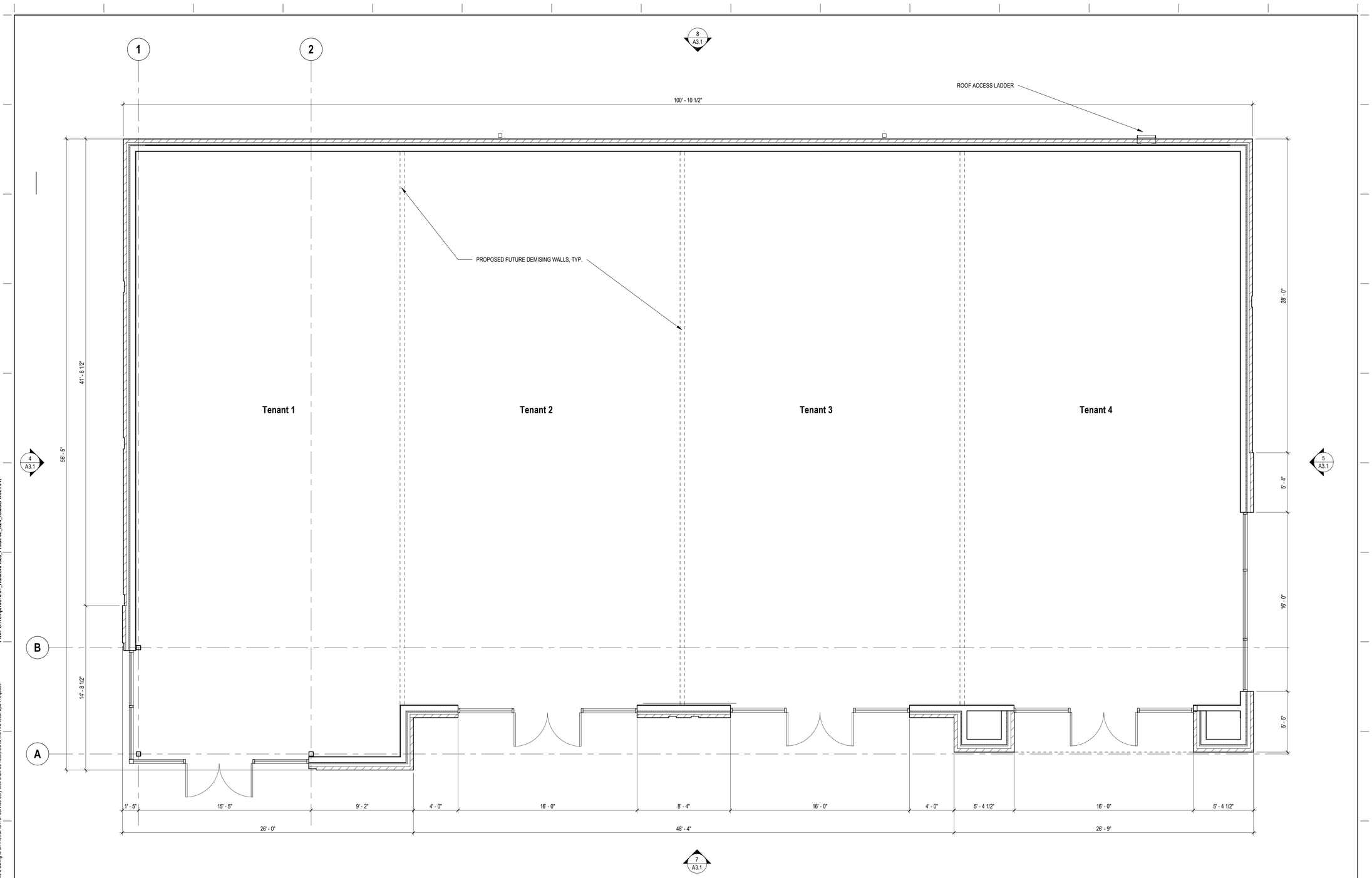
DIST. FW — KNOX COUNTY
TOWN OF FARRAGUT — TENNESSEE
CLT MAP 143A — GROUP B — PARCEL 1
SCALE: 1"=30' — DECEMBER 21, 2020

OWNER/DEVELOPER:
FOX RD, LLC.
827 BELLE GROVE ROAD
KNOXVILLE, TN 37934

URBAN ENGINEERING, INC.
11852 KINGSTON PIKE
FARRAGUT, TENNESSEE 37934
(865) 966—1924

REVISION	DATE	DESCRIPTION	BY
10	8/11/25	GENERAL REVISIONS	BS
9	7/11/25	ADDED INDIVIDUAL 1" METER	CAS
8	5/19/25	GENERAL REVISIONS	BS
7	5/16/25	GENERAL REVISIONS	BS
6	5/9/25	GENERAL REVISIONS	CAS
5	4/1/25	GENERAL REVISIONS	CAS
4	1/7/25	GENERAL REVISIONS	CAS
3	12/9/24	GENERAL REVISIONS	BS
2	2/5/21	GENERAL REVISIONS	CAS
1	1/18/21	REVISED PER T.O.F. COMMENTS	BS

DWN: CLM | CHK: CAS | DWG. NO. 2006016



1 FLOOR PLAN
1/4" = 1'-0"

studio four design

MICHAEL GRAVES

STUDIO FOUR DESIGN
A MICHAEL GRAVES COMPANY
18 EMORY PLACE #100 | KNOXVILLE, TN 37917
865.523.5001 | STUDIOFOURDESIGN.COM

PHASE 02 SHELL BUILDING FOR:
HORIZON PLAZA
11011 KINGSTON PIKE
KNOXVILLE, TN 37934

STACY LEE COX
REGISTERED ARCHITECT
07/21/2025
COMMERCE
No. 00101360
STATE OF TENNESSEE

PROJECT PHASE:

ISSUE DATE: 07.21.2025
REVISIONS

#	DESCRIPTION	DATE

JOB NUMBER: 19075.01
FLOOR PLAN

A1.1

Date: 7/18/2025 11:04:56 AM
Drawn By: Author
Checked By:
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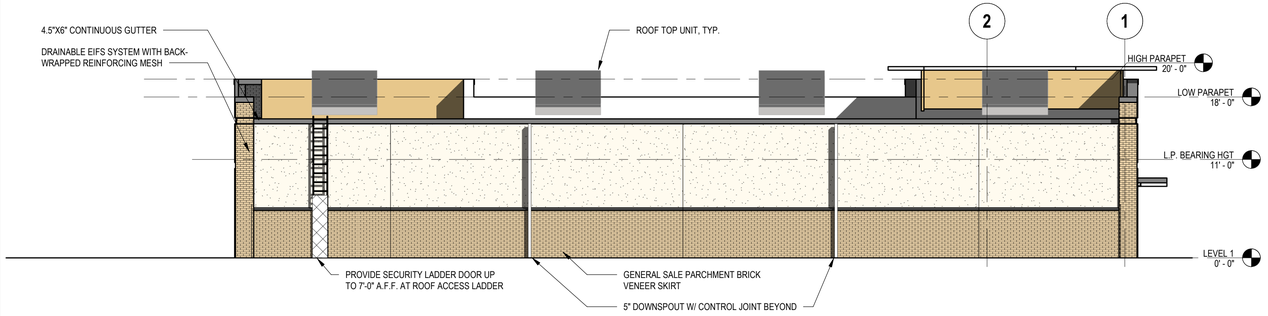
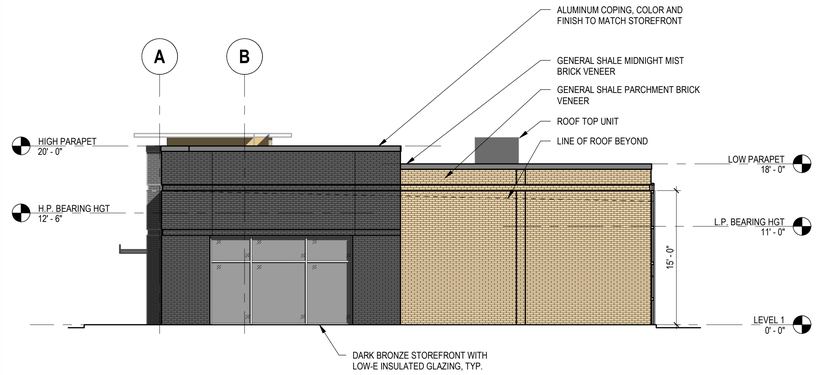
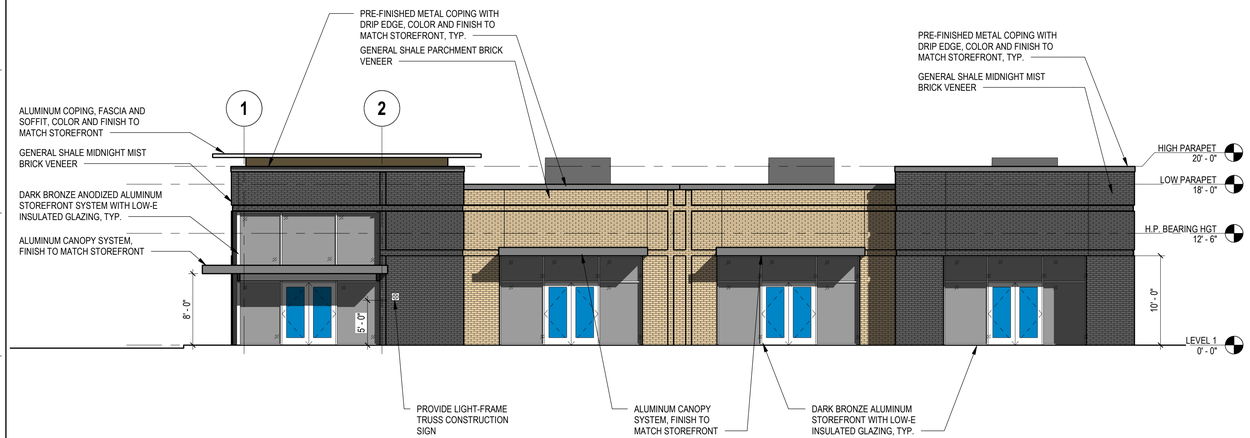


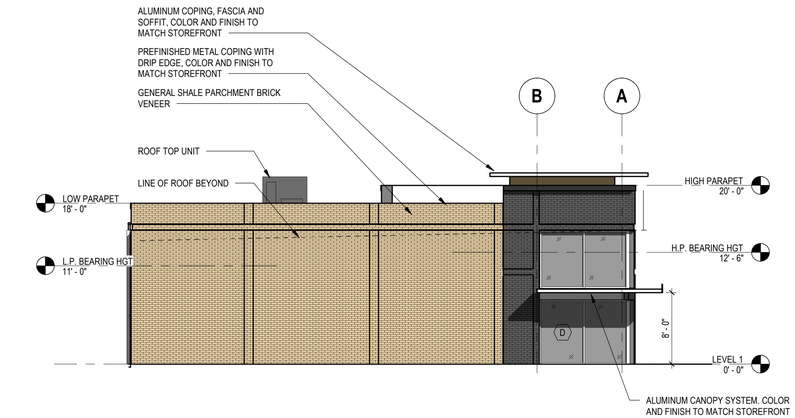
8 NORTHWEST ELEVATION
1/8" = 1'-0"



5 NORTHEAST ELEVATION
1/8" = 1'-0"



7 SOUTHEAST ELEVATION
1/8" = 1'-0"



4 SOUTHWEST ELEVATION
1/8" = 1'-0"



BRICK:
GENERAL SHALE: PARCHMENT

GROUT:
ARGOS: LITE BUFF



BRICK:
GENERAL SHALE: MIDNIGHT MIST

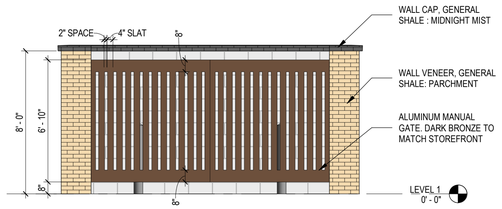
GROUT:
ARGOS: ULTRA BLACK

EIFS COLOR

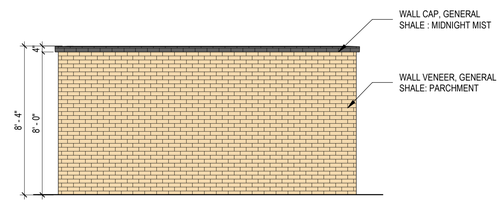
DARK BRONZE COPING, CANOPY & STOREFRONT COLOR

FACADE MATERIALS		
MASONRY:	3,621 SF	(65%)
OTHER:	1,966 SF	(35%)
TOTAL:	5,587 SF	

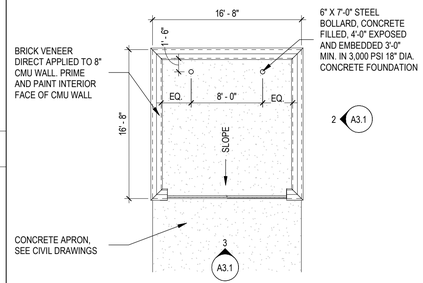
6 EXTERIOR FINISHES
NTS



3 DUMPSTER ENCLOSURE GATE
1/4" = 1'-0"



2 DUMPSTER ENCLOSURE WALLS
1/4" = 1'-0"



1 DUMPSTER ENCLOSURE PLAN
1/8" = 1'-0"

Date: 7/16/2025 11:04:58 AM
Drawn By: Author
Checked By:
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MICHAEL GRAVES
STUDIO FOUR DESIGN
A MICHAEL GRAVES COMPANY
18 EMORY PLACE #100 | KNOXVILLE, TN 37917
865.523.5001 | STUDIOFOURDESIGN.COM

PHASE 02 SHELL BUILDING FOR:
HORIZON PLAZA
11011 KINGSTON PIKE
KNOXVILLE, TN 37934

STACY LEE COLLIER
REGISTERED ARCHITECT
07/21/2025
No. 00101385
STATE OF TENNESSEE

PROJECT PHASE:

ISSUE DATE: 07.21.2025

REVISIONS

#	DESCRIPTION	DATE

JOB NUMBER: 19075.01

ELEVATIONS

A3.1



EHL16
Hanover Pendant
Eurotique Family

FIXTURE TYPE "SA"

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

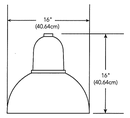
Introduction

The Hanover is a European-styled pendant luminaire suitable for use with a variety of Eurotique decorative arms and poles.

Intended for use in pedestrian areas such as retail environments, public parks, city centers and commercial areas or other spaces with decorative requirements and a contemporary theme.

Specifications

EPA: 1.86 ft²
Height: 16"
Diameter: 16"
Weight: 60 lbs



Ordering Information

EXAMPLE: EHL16 ST 63LED 350MA 4K GCF 120 R3 DDBXD

EHL16

Series	Base	Performance Package	Color Temperature	Lens Option	Voltage	Distribution	Finish
EHL16	ST Smooth RT Ringed FLT Fluted	49LED 350MA 5,000 lumens 49LED 525MA 6,700 lumens 63LED 350MA 6,000 lumens 63LED 525MA 8,200 lumens	3K 3000K 4K 4000K 5K 5000K	GCF Glass clear flat GCSG Glass clear sag	MVOLT 120 208 240 277 347 480	R2 Type 2 R3 Type 3 R4 Type 4 R5 Type 5	DDBXD Super durable dark bronze DBLXD Super durable black DNAXD Super durable natural aluminum DWHXD Super durable white ANBK Antique black ANDB Antique dark bronze ANDG Antique dark green ANVG Antique verde green

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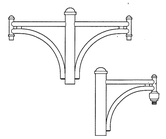

EAD Series
Eurotique Family
Pendant Arm and Wall Bracket

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

This European styled simple EAD mounting arms is available in single, twin or wall bracket configurations and supports the Eurotique Munich or Hanover luminaires.

Specifications

EAD4: Fits on 3.375" dia. X 11" tall tenon
EAD5: Fits on 4.375" dia. X 11" tall tenon

EAD4: Luminaire mounts via plumbizer housing
EAD5: Luminaire mounts via 1.5" NPT swivel nipple

Ordering Information

EXAMPLE: EAD4/1 ANBK PER PE1

Series	Finish	Options
EAD4/1 4" Single Pendant EAD5/1 5" Single Pendant EAD4/2 4" Double Pendant EAD5/2 5" Double Pendant EAD4WB 4" Wall Bracket EAD5WB 5" Wall Bracket	DDBXD Super durable dark bronze DBLXD Super durable black DNAXD Super durable natural aluminum DWHXD Super durable white ANBK Antique black ANDB Antique dark bronze ANDG Antique dark green ANVG Antique verde green Notes: Consult Factory for RAL colors or custom match	PER Standard 3-pin NEMA Receptacle PERS 5-pin NEMA Receptacle PER7 7-pin NEMA Receptacle Notes: PER, PERS and PER7 replace the center finial PER, PERS and PER7 not available with EAD4WB and EAD5WB Wall Bracket Photocontrols must be ordered separately

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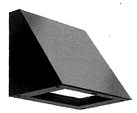


WDGE2 LED
Architectural Wall Sconce

FIXTURE TYPE "SB"

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

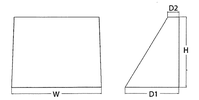
Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE2 delivers up to 6,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

Specifications

Depth (D1): 7"
Depth (D2): 1.5"
Height: 9"
Width: 11.5"
Weight: (without options) 13.5 lbs



WDGE LED Family Overview

Luminaire	Standard EM, 0°C	Cold EM, -20°C	Sensor	Lumens (4000K)					
				P1	P2	P3	P4	P5	P6
WDGE1 LED	4W	--	--	1,200	2,000	--	--	--	--
WDGE2 LED	10W	18W	Standalone / nLight	1,200	2,000	3,000	4,500	6,000	--
WDGE3 LED	15W	18W	Standalone / nLight	7,500	8,500	10,000	12,000	--	--
WDGE4 LED	--	--	Standalone / nLight	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE2 LED P3 40K 80CRI VF MVOLT SRM DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE2 LED	P1[1] P1W P2[1] P2W P3[1] P3W P4[1] Door with small window P5[1] Door with medium window Not available in certain versions. See page 2 for more details.	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K[1] 5000K	80CRI 90CRI	VF Visual comfort forward throw VW Visual comfort wide	MVOLT 347[1] 480[1]	**Shipped included** SRM Surface mounting bracket ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)[2]

Shipped separately
AWS 3/8inch Architectural wall spacer
PBBW Surface-mounted back box (top, left, right conduit entry)

Options		Finish
E4WH Emergency battery backup, Certified in CA Title 20 MAEDBS (4W, 0°C min)	**Standalone Sensors/Controls** (only available with P1SW, P2SW & P3SW)	DDBXD Dark bronze
E10WH Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 0°C min)	PIR Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.	DBLXD Black
E20WC Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min)	PIRH Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.	DNAXD Natural aluminum
PE[4] Photocell, Button Type	PIRHTFCSV Bi-level (100/35%) motion sensor for 8-15' mounting heights with photocell pre-programmed for dusk to dawn operation.	DWHXD White
DS[5] Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)	PIRHTFCSV Bi-level (100/35%) motion sensor for 15-30' mounting heights with photocell pre-programmed for dusk to dawn operation.	DSSTD Sandstone
DMG[4] 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)	**Networked Sensors/Controls** (only available with P1SW, P2SW & P3SW)	DDBTXD Textured dark bronze
BCE Bottom conduit entry for back box (PBBW). Total of 4 entry points.	NLTAIR2 PIR nLight AIR Wireless enabled bi-level motion/ambient sensor for 8-15' mounting heights.	DBLBXD Textured black
	NLTAIR2 PIRH nLight AIR Wireless enabled bi-level motion/ambient sensor for 15-30' mounting heights.	DNATXD Textured natural aluminum
	See page 4 for out of box functionality	DWHGXD Textured white
		DSSTXD Textured sandstone

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FIXTURE TYPE "SC"

HLSERIES

CALIBER PLUS
ARCHITECTURAL

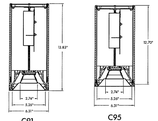
SERIES C91/C95WL

Wet Location LED Cylinders
534-6017 Lumens



C91 Wet Location
(534-6017 lumen)

C95 Wet Location
(534-5102 lumens)



C91
weight: 6.65lbs

C95
weight: 6.65lbs

APPLICATION

A decorative cylinder lighting fixture is ideal for wet location applications that require the long lamp life and energy savings benefits of LED technology.

FEATURES AND BENEFITS

- Architectural aluminum cylinder housing with powder coat finish.
- Model with exposed heat sink features enhanced cooling and higher lumen output.
- Standard in wet location with lens.
- Mounting options include: Pendant Stem, Wall, and Surface.
- Wall wash option available for wall grazing or forward-throw (Type 2) applications.
- Primary reflectors provide a variety of beam distributions and can be interchanged in the field if necessary.
- Custom colors available.
- Separate models available for our remote driver platforms of IRD and CentralDrive™ (see below).

TECHNICAL DATA

- Input: 120 to 277 VAC, 50-60Hz
- Standard 0-10V 1% dimming.
- CRI = 80. Available in 90 CRI.
- Expected lamp life to be 50,000 hours with 70% lumen maintenance when ambient temperatures do not exceed 35°C. Lower ambient temperatures yield longer lamp life.

REMOTE DRIVER OPTIONS (PUBLISHED SEPARATELY)

IRD (In-ceiling Remote Driver) features a housing with driver that is recessed in the ceiling and operates a single lighting fixture. Benefits include small 0.25" thick ceiling canopies, emergency (EM) options, and longer driver life due to reduced exposure to the heat of the LED engine. Both new construction and remodel style housings are available.

CentralDrive™ system features a remote panel that operates multiple lighting fixtures. This remote panel can be installed in an easy-to-access area such as a utility closet. Benefits are the same as our IRD system as well as easy driver replacement.

Lighting fixtures for these remote driver systems are published separately and can be found on our website. Please contact our sales team for more information on these options.

Intertek
Wet Location

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Horizon Plaza Phase II
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LARRY T. HEADLEY
REGISTERED ENGINEER
AGRICULTURE
No. 107875
STATE OF TENNESSEE
7/21/25

PROJECT PHASE: CONSTRUCTION DOCUMENTS

ISSUE DATE: 07/21/25

REVISIONS

#	DESCRIPTION	DATE

JOB NUMBER: #####

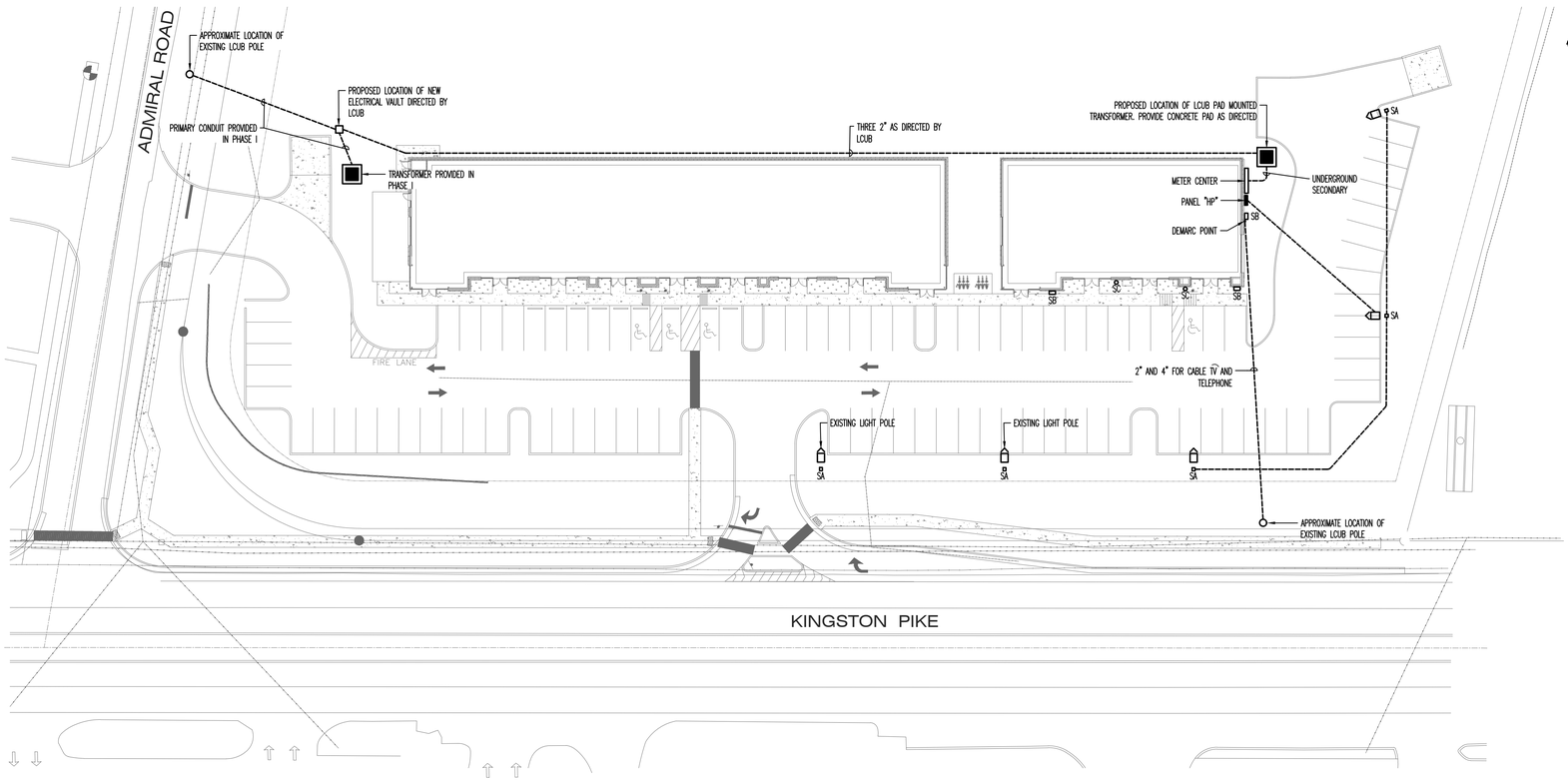
ELECTRICAL CUTSHEETS

ES0.1

SITE LIGHTING FIXTURE SCHEDULE							
SYM	CATALOG NUMBER		PERFORMANCE			MOUNTING	DESCRIPTION
	COMPANY	MODEL NUMBER	WATTS	TEMP IN K	DELIVERED LUMENS		
SA	LITHONIA	FIXTURE - (1) EHL16-RT-63LED-525MA-4K-GCF-R4-1DS-QSME-ANDB POLE - HAPCO - AOC24D6-TFO ARM - EAD4/1-QSME-ANDB	71.6	4000K	6,000	24' POLE W/BASE SEE DETAIL THIS SHEET	ONE POLE MOUNTED EURO STYLE AREA LIGHT WITH FULL CUTOFF, TYPE 4 DISTRIBUTION.
SB	LITHONIA	FIXTURE - TWR1-LED-ALO-SWW2-UVOLT-PE-DDBTXD	28.2	4000K	3,500	15'-0" A.F.F.	LED WALL MOUNTED LUMINAIRE
SC	GOTHAM	EVO6WC-40/10-WD-MVOLT-GZ10 -JBX-DN-IP66-AR-LSS-DDB	374	4000K	1,073	6'-0" A.F.F.	LED WALL MOUNTED WALL SCONCE, WET LOCATION

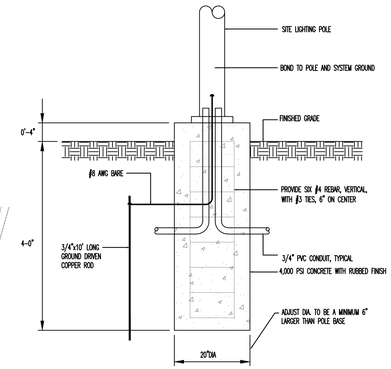
NOTES:

1. FINISH SHALL BE SELECTED BY ARCHITECT, NOTED BY ?? IN MODEL NO.
2. PROVIDE CONCRETE BASE PER DETAIL.
3. ALL FIXTURES HAVE MIN CRI OF 70.
4. ALL FIXTURES SHALL BE FURNISHED COMPLETE WITH ELECTRICAL DRIVERS WITH MAXIMUM 10% THD.



ELECTRICAL SITE PLAN

SCALE: 1"=30'-0"



POLE BASE DETAIL

NO SCALE USE FOR SA

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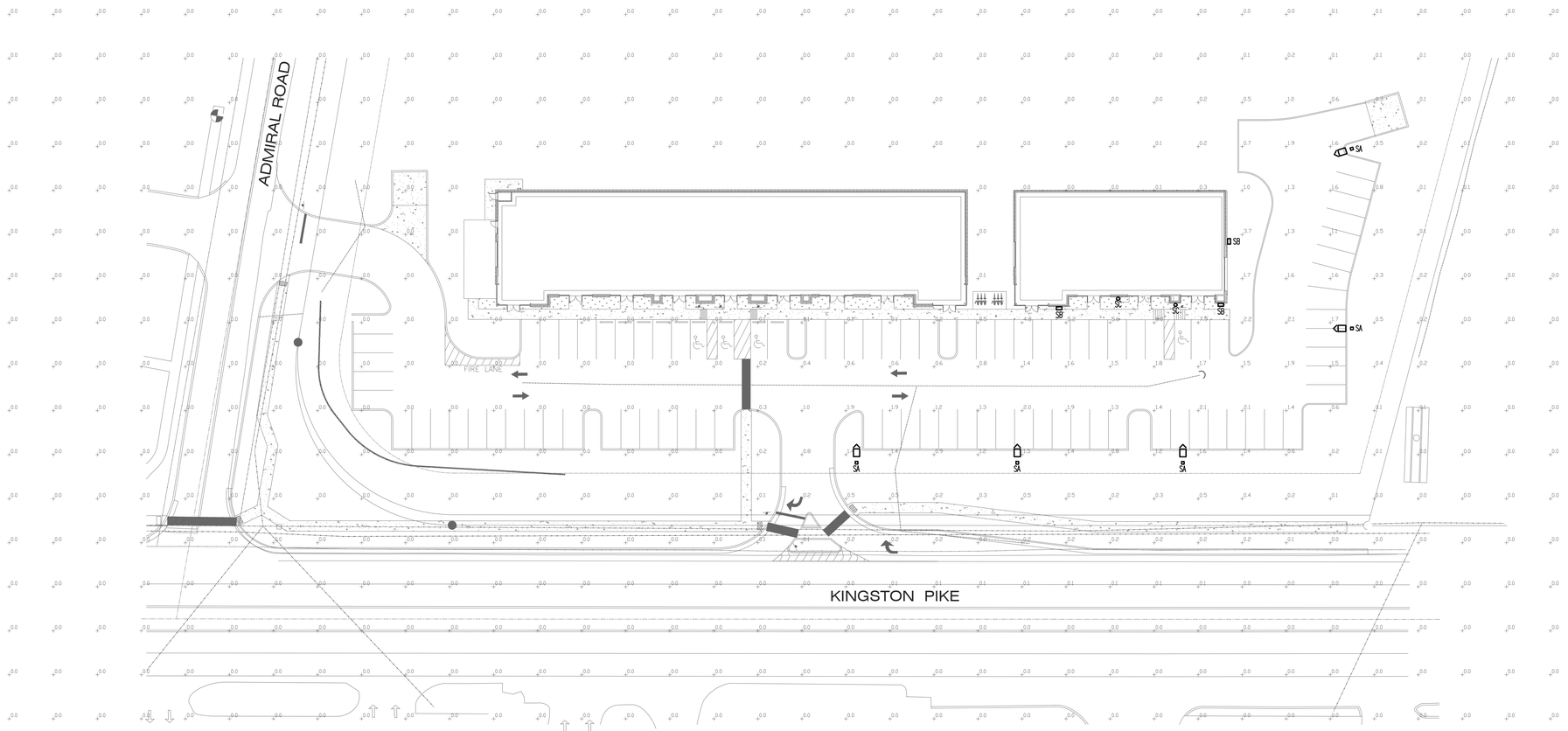
REVISIONS		
#	DESCRIPTION	DATE

JOB NUMBER: #####

ELECTRICAL SITE PLAN

ES1.1



ELECTRICAL PHOTOMETRIC PLAN

SCALE: 1"=30'-0"

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ELECTRICAL PHOTOMETRIC PLAN

ES1.2

treeREMOVAL TABLE

KEY	SPECIES	SIZE	REQ. REPLACEMENTS
T1	SILVER MAPLE	12"	2
T2	SWEET GUM (DOUBLE TRUNK)	16"	3
T3	DOGWOOD	10"	1
T4	CHERRY	12"	2
T5	CEDAR (MULTI-TRUNK)	20"	2
T6	WALNUT	10"	2
T7	RED MAPLE	17	3
T8	SILVER MAPLE	12"	2
T9	CHERRY	18"	3
T10	CHERRY	11"	2
T11	CHERRY	14"	2
T12	CHERRY	13"	2
T13	ELM	10"	2
T14	CEDAR	18"	1.5
T15	SILVER MAPLE	15"	2
T16	CHERRY	14"	2
	TREES REMOVED		34

KEY	SPECIES	SIZE	CREDITS (SAVED)
S1	SASSAFRAS	12"	4
S2	ELM	16"	4
S3	RED MAPLE	10"	4
	TOTAL TREE CREDITS		12
	TOTAL TREE REPLACMENTS REQUIRED		22

TREE SPECIES CODES

AS-ASH
BE-BOX ELDER
CE-CEDAR
CH-CHERRY
DG-DOGWOOD
EL-ELM
HB-HACKBERRY
HK-HICKORY
NS-NORWAY SPRUCE
PC-PECAN
PP-POPLAR
PN-PINE
PS-PERSIMMON
RM-RED MAPLE
SA-SASSAFRAS
SG-SWEETGUM
SM-SILVER MAPLE
SY-SYCAMORE
TH-TREE OF HEAVEN
WL-WALNUT

"D" DENOTES DOUBLE TRUNK
"M" DENOTES MULTI-TRUNK

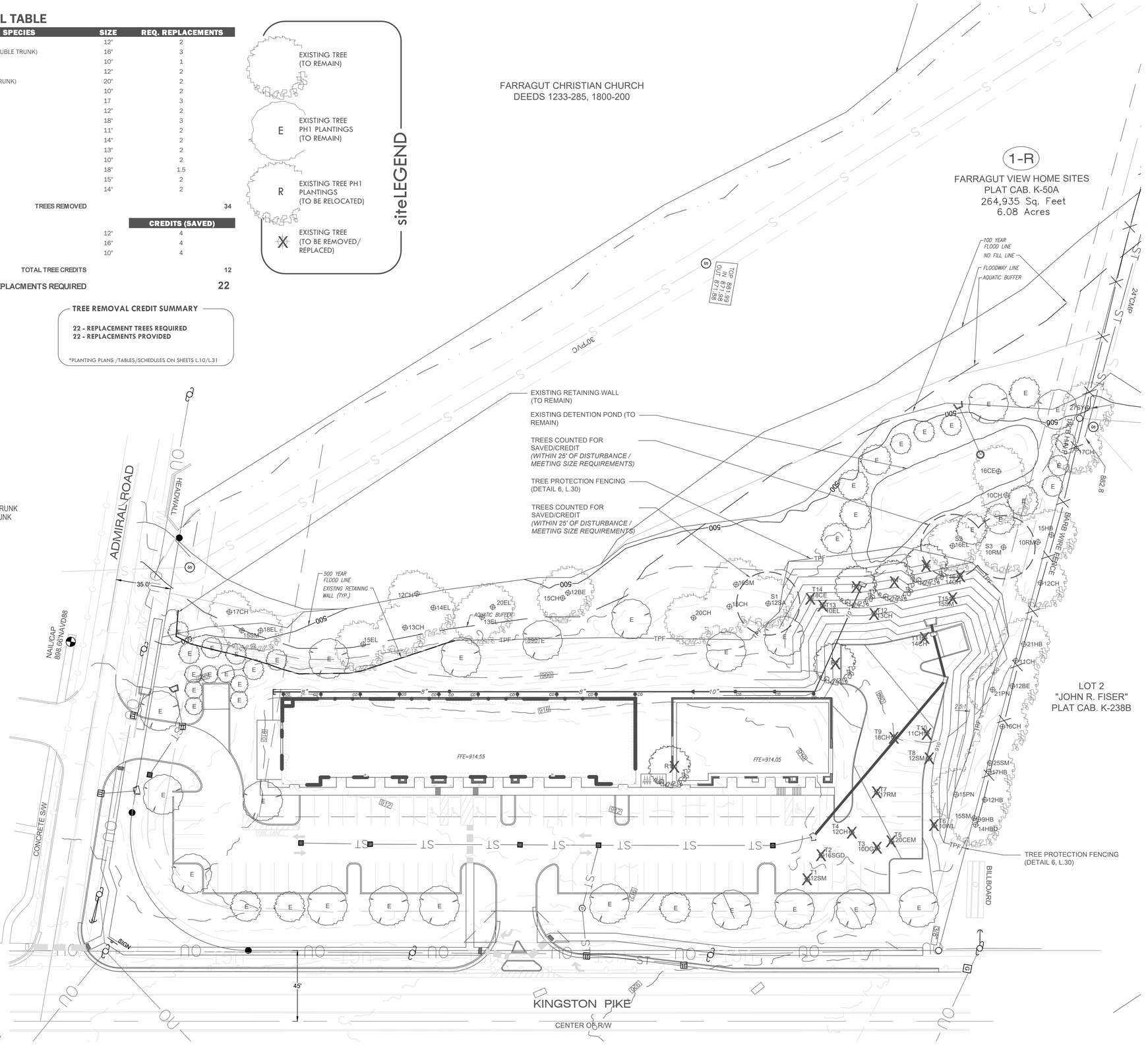
TREE REMOVAL CREDIT SUMMARY

22 - REPLACEMENT TREES REQUIRED
22 - REPLACEMENTS PROVIDED

*PLANTING PLANS /TABLES/SCHEDULES ON SHEETS L.10/L.31

siteLEGEND

- EXISTING TREE (TO REMAIN)
- E — EXISTING TREE PH1 PLANTINGS (TO REMAIN)
- R — EXISTING TREE PH1 PLANTINGS (TO BE RELOCATED)
- X — EXISTING TREE (TO BE REMOVED/ REPLACED)



TREE PRESERVATION NOTES:

1. CONSTRUCTION FENCING SHALL BE ERECTED WHEN OFF-SITE TREES OR TREE CANOPY EXISTS WITHIN 3' OF A COMMON PROPERTY LINE. FENCING SHALL BE IN PLACE PRIOR TO ANY GRADING OR CONSTRUCTION TO PROTECT THE EXISTING ROOT SYSTEMS FROM COMPACTION. THE FENCING SHALL ENCLOSE THE ENTIRE AREA BENEATH THE TREE CANOPY AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETED. NO PARKING, MATERIAL STORAGE OR CONSTRUCTION ACTIVITIES ARE PERMITTED WITHIN THE PROTECTED AREA.
2. PRIOR TO SITE DISTURBANCE OR CONSTRUCTION ACTIVITIES A SITE INSPECTION BY LANDSCAPE ARCHITECT OR OWNER DESIGNEE SHALL BE SCHEDULED TO CONFIRM AND VERIFY THE TREE PRESERVATION/ PROTECTION FENCING AND SIGNAGE IS INSTALLED AND CORRECTLY PLACED.
3. THE CONTRACTOR SHALL POST SIGNAGE ON THE TREE PRESERVATION/ PROTECTION FENCING AND CONSTRUCTION FENCING IDENTIFYING THE ENCLOSED AREA AS TREE PRESERVATION/ PROTECTION AREA. THE SIGNS SHALL INCLUDE THE FOLLOWING TEXT: NO DISTURBANCE / TREE PRESERVATION / PROTECTION AREA
4. "NO EQUIPMENT, MATERIALS, OR VEHICLES SHALL BE STORED OR PLACED WITHIN THE AREA ENCLOSED BY THIS 'TREE PRESERVATION/PROTECTION' FENCE. THIS FENCE MAY NOT BE REMOVED WITHOUT THE WRITTEN APPROVAL OF A CITY/TOWN/COUNTY STAFF MEMBER. FAILURE TO COMPLY MAY RESULT IN FINES AND LABOR FOR TREE MITIGATION.
5. THE TREE PRESERVATION/ PROTECTION AREA SIGNAGE SHALL BE POSTED EVERY 50 FEET ALONG THE TREE PRESERVATION FENCE. THE SIGNS SHALL BE A MINIMUM SIZE OF 8" X 10" AND MADE OF DURABLE WEATHER RESISTANT MATERIALS (METAL/WOOD/HDPE) . IF THE SIGNS ARE DAMAGED OR FADE THEY SHALL BE REPLACED WITHIN 10 WORKING DAYS OR 2 WEEKS.
6. DURING ALL CONSTRUCTION ACTIVITY (INCLUDES CLEARING, GRADING, BUILDING CONSTRUCTION, AND LANDSCAPING) A COPY OF THE APPROVED TREE PRESERVATION PLAN SHALL BE ON-SITE.
7. AN AUTHORIZED INSPECTOR SHALL HAVE THE RIGHT TO ENTER ONTO ANY PROPERTY TO INSPECT THE HEALTH AND GENERAL CONDITION OF PLANT MATERIAL THAT IS; LOCATED IN THE RIGHT OF WAY; PART OF AN APPROVED DEVELOPMENT/LANDSCAPE PLAN; OR REPORTED AS A PUBLIC HAZARD.
8. TREE PROTECTION FENCING SHALL BE ERECTED ADJACENT TO ALL TPAS PRIOR TO SITE DISTURBANCE APPROVAL (CLEARING & GRADING PERMIT) TO PROTECT THE EXISTING TREE STANDS AND THEIR ROOT SYSTEMS, THE FENCING SHALL BE LOCATED AT LEAST THREE (3) FEET FROM THE OUTSIDE EDGE OF THE TREE CANOPY AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETED. WHEN TREES MUST BE REMOVED IN A TPA, THE FENCE SHALL BE RELOCATED TO PROTECT ALL REMAINING TREES WITHIN THAT TPA. WHEN A TREE MASS IS INCLUDED AS A TREE PROTECTION AREA, FENCING SHALL ONLY BE REQUIRED AT THE OUTER MOST PERIMETER OF THAT TREE MASS, THE FINAL BOUNDARY FOR EACH TPA SHALL BE ESTABLISHED IN THE FIELD TO INCLUDE CANOPY AREA OF ALL TREES PROTECTED. NO PARKING, MATERIAL STORAGE OR CONSTRUCTION ACTIVITIES ARE PERMITTED WITHIN TPAS BEYOND THAT ALLOWED FOR PRELIMINARY SITE INVESTIGATION WORK.
9. CLEARING, NECESSARY TO PROVIDE ACCESS FOR SURVEY WORK, ROCK SOUNDINGS OR OTHER USUAL AND CUSTOMARY SITE INVESTIGATIONS SHALL BE PERMITTED PRIOR TO SITE DISTURBANCE APPROVAL. PRELIMINARY SITE INVESTIGATIONS SHALL BE CAREFULLY PLANNED TO MINIMIZE THE AMOUNT OF CLEARING REQUIRED.

TREE CANOPY PROTECTION AREA (TCPA) :

1. TREE CANOPY PROTECTION AREAS (TCPAS) IDENTIFIED ON THIS PLAN REPRESENT INDIVIDUAL TREES AND/OR PORTIONS OF THE SITE DESIGNATED TO MEET THE CITY/TOWN/COUNTY TREE CANOPY PROTECTION REQUIREMENTS OF THE LAND DEVELOPMENT CODE AND ARE TO BE PERMANENTLY PROTECTED. ALL CLEARING, GRADING, AND FILL ACTIVITY IN THESE AREAS MUST BE IN KEEPING WITH RESTRICTIONS ESTABLISHED AT THE TIME OF PLAN APPROVAL.
2. IF TREES WITHIN THE TCPAS ARE LOST THROUGH ADVERSE CONSTRUCTION ACTIVITIES, NEW TREES SHALL BE PLANTED IN ORDER TO MAINTAIN MINIMUM TREE CANOPY AS SPECIFIED ON THE APPROVED DEVELOPMENT OR PRELIMINARY SUBDIVISION PLAT.
3. IF DIMENSION LINES HAVE BEEN USED ON THIS PLAN TO ESTABLISH THE GENERAL LOCATION OF TCPAS AND REPRESENT MINIMUM DISTANCES, THE FINAL BOUNDARY FOR EACH TCPA SHALL/MAY BE ESTABLISHED IN THE FIELD TO INCLUDE CANOPY AREA OF ALL TREES AT OR WITHIN THE DIMENSION LINE.
4. TREE PROTECTION FENCING SHALL BE ERECTED ADJACENT TO ALL TCPAS PRIOR TO SITE DISTURBANCE APPROVAL TO PROTECT THE EXISTING TREE STANDS AND THEIR ROOT SYSTEMS. THE FENCING SHALL BE LOCATED AT LEAST THREE (3) FEET FROM THE OUTSIDE EDGE OF THE TREE CANOPY AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETED, NO PARKING, MATERIAL STORAGE OR CONSTRUCTION ACTIVITIES ARE PERMITTED WITHIN TCPAS.

PROPERTY INFORMATION:

ADDRESS:	11011 KINGSTON PIKE KNOXVILLE TN, 37934
PARCEL:	143AB001 FARRAGUT VW HOME SITES
ZONING:	FAR (C-1)
ACRES:	6.08
OWNER:	FOX RD LLC 827 BELLE GROVE RD KNOXVILLE TN, 37934
COUNTY:	KNOX

UTILITY PROVIDERS:

ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD) 865-687-5282
WATER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
SEWER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/: INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

CANOPY LAND DESIGN

0 1.5' 30' 60'
SCALE: 1"=30'-0"

811 Know what's below. Call before you dig.

DANIEL BOUTTE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE NO. 371
2025

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
FOX ROAD LLC
827 BELLE GROVE RD
KNOXVILLE, TN 37934

PROJECT#: 2512-1

treePRESERVATION

Horizon PLAZA - phase2

11011 Kingston Pike
37934
KNOXVILLE, TN

DATE: 7/21/2025
DRAWN BY: DB CHECKED BY: DB

tree PRESERVATION PLAN

L.00
SHEET __ OF __

LANDSCAPE / PLANTING SUMMARY

PRESERVATION SUMMARY

A TREE REPLACEMENTS / PRESERVATION
REQUIREMENTS:
10"-15" - (2 - HARDWOOD ONLY)
16"-20" - (3 - HARDWOOD / 1.5 - EVERGREEN)
>20" - (4 - HARDWOOD / 2 - EVERGREEN)
REDBUD / DOGWOOD (1 / 10" DIA. CUMULATIVE)

22 - REPLACEMENT TREES REQUIRED
22 - REPLACEMENTS PROVIDED

LANDSCAPE SUMMARY

B1 SHADE TREE REQUIREMENTS
REQUIREMENTS: 1 / 2,500 SF.

11,275 SF - PARKING / 2,500 SF. = 4.51
5,375 SF - BUILDING / 2,500 SF. = 2.15

TOTAL REQUIRED = 7
TOTAL PROVIDED = 7

B2 BUILDINGS / PARKING LOTS
REQUIREMENTS: 2.5' x BUILDINGS LENGTH (ABUTTING PARKING/ACCESS)

2.5' x 156 TOTAL LF. ABUTTING PARKING/ACCESS = 390 SF.

TOTAL REQUIRED = 390 SF.
TOTAL PROVIDED = 390 SF.

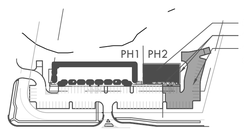
B3 PARKING LOTS
REQUIREMENTS: PERIMETER PARKWAYS, INTERIOR PARKWAYS, TERMINAL ISLANDS, AND INTERIOR ISLANDS SHALL BE PLANTED WITH GRASS AND/OR TREES, SHRUBS OR GROUNDCOVER IN COMBINATION WITH MULCH. **PROVIDED**

B4 STORMWATER BASINS
REQUIREMENTS: 1 TREE / 20 LF. **PROVIDED IN PHASE 1**

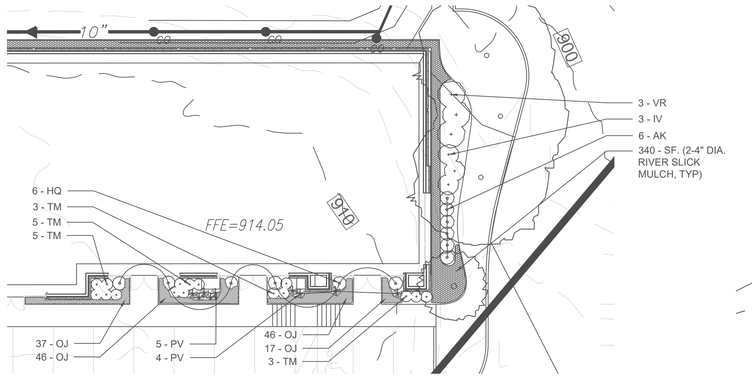
B5 BUFFERS
NONE REQUIRED OR PROVIDED

B6 SIGNAGE
NON PROVIDED (NOT REQUIRED)

*PLANTING PLANS /TABLES/SCHEDULES ON SHEETS L.10/L.31



LOT COVERAGE DIAGRAM



ENLARGEMENT
SCALE: 1"-10'

sitePLANTS

- CANOPY TREE
- ORNAMENTAL TREE
- SMALL TREE/ACCENT/BUFFER
- LARGE SHRUB
- MEDIUM SHRUB
- SMALL SHRUB
- ACCENT SHRUB/GRASS
- RIVER SLICK (2" MIN)
- GROUNDCOVER
- SEED (FESCUE)

siteLEGEND

PROPERTY INFORMATION:

ADDRESS:	11011 KINGSTON PIKE KNOXVILLE TN, 37934
PARCEL:	143AB001 FARRAGUT VW HOME SITES
ZONING:	FAR (C-1)
ACRES:	6.08
OWNER:	FOX RD LLC 827 BELLE GROVE RD KNOXVILLE TN, 37934
COUNTY:	KNOX

UTILITY PROVIDERS:

ELECTRIC:	LCUB (LENOIR CITY UTILITY BOARD)
WATER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
SEWER:	FUD (FIRST UTILITY DISTRICT) 865-956-9711
GAS:	KUB (KNOXVILLE UTILITY BOARD) 865-524-2911
CABLE/: INTERNET	TDS TELECOM 865-571-6662 CHARTER COMMUNICATIONS 865-406-7063

NOTE:
ALL LANDSCAPE / PLANT MATERIAL INSTALLED AS PART OF HORIZON PLAZA PHASE 1 - TO REMAIN UNLESS SHOWN OTHERWISE AND REQUIRED TO BE REMOVED PER CIVIL (GRADING AND DRAINAGE) PLANS, TYP

CANOPY LAND DESIGN

0 1.5' 30' 60'
SCALE: 1"=30'-0"

Know what's below. Call before you dig.

DANIEL BOUTTE REGISTERED LANDSCAPE ARCHITECT TENNESSEE NO. 325

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE, TN 37917
225.939.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
FOX ROAD LLC
827 BELLE GROVE RD
KNOXVILLE, TN 37934

PROJECT#: 2512-1

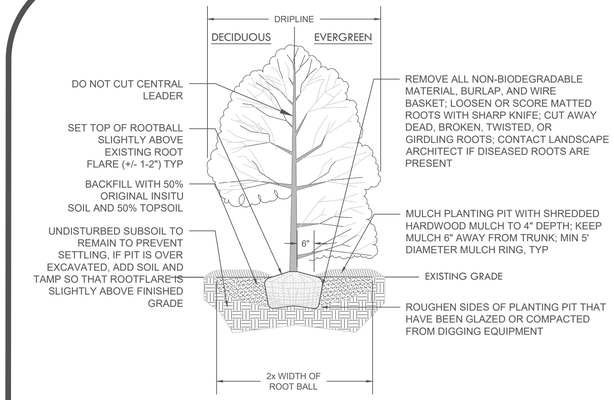
Horizon PLAZA - phase2
11011 Kingston Pike
37934

landscapePLAN

DATE: 7/31/2025
DRAWN BY: DB CHECKED BY: DB

landscape PLAN

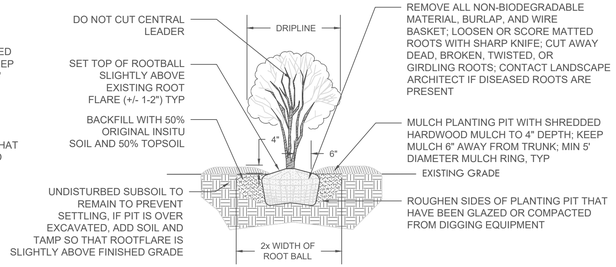
L.10
SHEET __ OF __



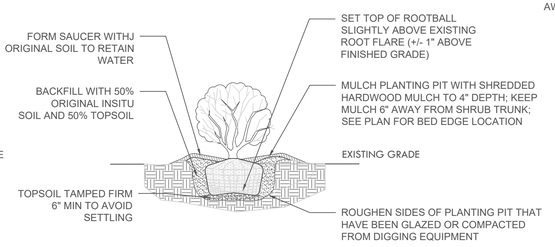
1 TREE PLANTING
SCALE: NTS

NOTES:

1. WATER TREES UNTIL SATURATION AT 12" DEPTH IMMEDIATELY AFTER PLANTINGS.
2. TREES OF SAME SPECIES TO BE MATCHED IN UNIFORMITY AND GROWTH HABITS, TYP.
3. TREES MUST MEET (CURRENT) AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
4. DECIDUOUS AND EVERGREEN TREES TO BOTH BE INSTALLED PER THIS DETAIL UNLESS NOTED OTHERWISE.
5. CANOPY TREES (DECIDUOUS) TO BE PRUNED UP TO 7' WITH 12' MIN. HEIGHT
   EVERGREEN TREES SHALL NOT BE PRUNED (LIMBS TO REMAIN AT GROUND)
   UNDERSTORY TREES TO BE PRUNED UP TO 4' WITH 8' MIN. HEIGHT.
6. MULCH RINGS SHALL BE 4" MIN. SHREDDED HARDWOOD WITH MIN. 5' DIAMETER UNLESS NOTED OTHERWISE.



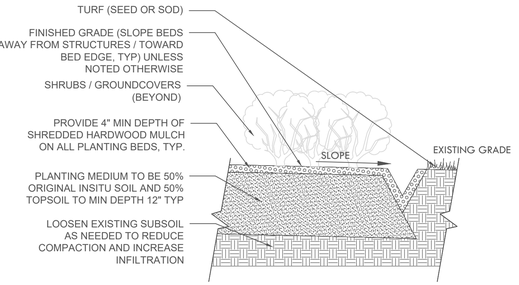
2 MULTI-TRUNK TREE PLANTING
SCALE: NTS



3 SHRUB PLANTING
SCALE: NTS

NOTES:

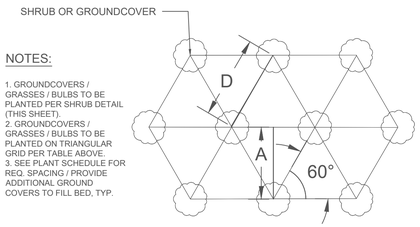
1. WATER SHRUBS UNTIL SATURATION AT 12" DEPTH IMMEDIATELY AFTER PLANTINGS.
2. SHRUBS OF SAME SPECIES TO BE MATCHED IN UNIFORMITY AND GROWTH HABITS, TYP.
3. SHRUBS MUST MEET (CURRENT) AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
4. SHRUBS TO BE 3 GAL. MIN SIZE UNLESS NOTED OTHERWISE
5. SEE PLAN FOR BED EDGE TYPE AND LOCATION.



4 EDGING (V-TRENCH)
SCALE: NTS

NOTES:

1. DIG TRENCH EDGE WITH SHARP SPADE CONTINUOUS BETWEEN BED EDGE AND TURF.
2. MULCH TRENCH AS SHOWN
3. PLACE BED EDGE AS SHOWN ON PLAN AND MIN. 1' FROM GROUNDCOVER / SHRUBS ROOTBALL.

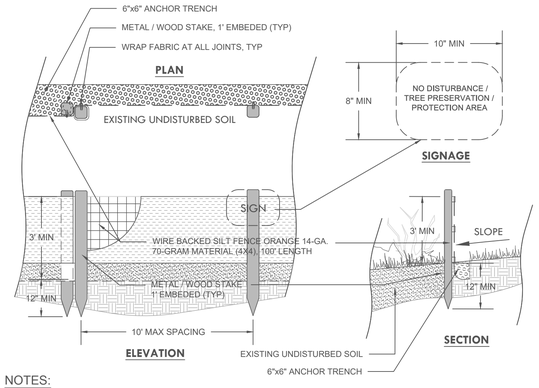


NOTES:

1. GROUNDCOVERS / GRASSES / BULBS TO BE PLANTED PER SHRUB DETAIL (THIS SHEET).
2. GROUNDCOVERS / GRASSES / BULBS TO BE PLANTED ON TRIANGULAR GRID PER TABLE ABOVE.
3. SEE PLANT SCHEDULE FOR REQ. SPACING / PROVIDE ADDITIONAL GROUND COVERS TO FILL BED, TYP.

SPACING (D)	ROW WIDTH (A)	PLANTING (SF)
6" O.C.	5.2"	4.61
8" O.C.	6.9"	2.60
10" O.C.	8.7"	1.66
12" O.C.	10.4"	1.15
15" O.C.	13.0"	0.74
18" O.C.	15.6"	0.51
24" O.C.	20.8"	0.33

5 GROUNDCOVER SPACING
SCALE: NTS



NOTES:

1. TREE PROTECTION SIGNAGE TO BE CONSTRUCTED OF DURABLE MATERIALS (METAL, WOOD, HDPE) AND INSTALLED AT NO MORE THAN 50' OC. (COLOR TO BE 'FOREST GREEN' WITH 'WHITE' FONT.
2. CONTRACTOR TO COORDINATE WITH CIVIL PLANS FOR FINAL LOCATION. CITY/COUNTY/ TOWN TO VERIFY FINAL LOCATION MEETS CODE AND CONSTRUCTION GUIDELINES.
3. TREE PROTECTION FENCING TO REMAIN INTACT FOR ENTIRE DURATION OF CONSTRUCTION ACTIVITIES. NO EQUIPMENT OR MATERIALS CAN BE STORED IN AREAS OF TREE PROTECTION / PRESERVATION. REPLACE FENCING IMMEDIATELY IF REQUIRED FOR ACCESS OR IF DAMAGED BY NATURAL OR CONSTRUCTION ACTIVITIES.

6 TREE PROTECTION / SILT FENCE
SCALE: NTS

GENERAL LANDSCAPE NOTES:

1. GRASS, MULCH OR GROUNDCOVER SHALL BE PLANTED ON ALL PORTIONS OF THE LANDSCAPE BUFFER AREA (LBA) NOT OCCUPIED BY OTHER LANDSCAPE MATERIAL (SEE LANDSCAPE PLANS).
2. IF EXISTING TREES AND PLANT MATERIAL ARE BEING USED TO MEET LANDSCAPE CODE REQUIREMENTS, ANY TREES OR SCREENING VEGETATION THAT DIE OR ARE REMOVED AS A RESULT OF CONSTRUCTION ACTIVITIES WILL BE REPLACED AS PER THE LANDSCAPE CODE REQUIREMENTS.
3. THE PROPERTY OWNER WILL BE REQUIRED TO PERPETUALLY MAINTAIN ALL REQUIRED BUFFER/LANDSCAPE AREAS AND ASSOCIATED PLANT MATERIAL REQUIRED UNDER LAND DEVELOPMENT CODE REGULATIONS (IF APPLICABLE).
4. ALL UNHEALTHY OR DEAD PLANT MATERIAL SHALL BE REPLACED WITHIN ONE YEAR, OR BY THE NEXT PLANTING PERIOD, WHICHEVER COMES FIRST, WHILE OTHER DEFECTIVE PLANT MATERIAL SHALL BE REPLACED OR REPAIRED WITHIN THREE (3) MONTHS.
5. ALL PLANT MATERIAL LOCATED WITHIN A UTILITY EASEMENT THAT IS DAMAGED OR REMOVED DUE TO WORK REQUIRED BY THE UTILITY COMPANY SHALL BE IMMEDIATELY REPLACED BY THE OWNER IN ACCORDANCE WITH LAND DEVELOPMENT REQUIREMENTS.
6. STREET TREES SHALL BE PLANTED IN A MANNER THAT DOES NOT AFFECT PUBLIC SAFETY AND MAINTAINS PROPER SIGHT VISIBILITY TRIANGLE DISTANCES.
7. IRRIGATION WILL BE PROVIDED AS REQUIRED AND SHOWN ON LANDSCAPE PLANS. THIS IRRIGATION SYSTEM SHALL BE DESIGNED TO PROVIDE ADEQUATE WATERING OF THE PROPOSED PLANT MATERIAL AND LAWN AREAS. THE SYSTEM SHALL CONSIST OF SEVERAL WATERING ZONES CONTROLLED BY A CENTRAL TIMER WITH EITHER POP-UP AND ROTATING IRRIGATION HEADS OR A DRIP LINE SYSTEM. THE PROPOSED SYSTEM SHALL BE INSTALLED PRIOR TO PLANTING. (IF APPLICABLE)
8. AN AUTHORIZED CITY/TOWN/COUNTY INSPECTOR SHALL HAVE THE RIGHT TO ENTER ONTO ANY PROPERTY TO INSPECT THE HEALTH AND GENERAL CONDITION OF PLANT MATERIAL THAT IS; LOCATED IN THE RIGHT OF WAY; PART OF AN APPROVED DEVELOPMENT/LANDSCAPE PLAN; OR REPORTED AS A PUBLIC HAZARD.
9. UNDERGROUND UTILITIES:
   9.1. UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, LANDSCAPE ARCHITECT, OR THEIR REPRESENTATIVES. BEFORE YOU DIG, CALL [TENNESSEE] ONE CALL SYSTEM (811).
   9.2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.
10. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO ENSURE THAT THE NEW WORK SHALL FIT INTO THE EXISTING SITE IN THE MANNER INTENDED AND AS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK IN THE AREAS INVOLVING DIFFERENCES, SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THE PLANS AND DRAWINGS. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND WRITTEN NOTES RELATING TO THE AREA.

PLANT STOCK NOTES:

1. ALL CANOPY TREES SHALL BE LIMBED UP AT LEAST 7' WITH A MINIMUM HEIGHT OF 12' UNLESS SPECIFIED OTHERWISE OR REQUIRED BY LOCAL CODE OR ORDINANCE. (ALL PEDESTRIAN ACCESS WAYS MUST HAVE AT LEAST 7' OF CLEARANCE).
2. ALL UNDERSTORY TREES SHALL BE LIMBED UP AT LEAST 4' WITH A MINIMUM HEIGHT OF 8'.
3. ALL CANOPY AND UNDERSTORY TREES SHALL HAVE ONE STRONG CENTRAL LEADER TRUNK. (NO MULTI-TRUNK UNLESS SPECIFIED).
4. ALL TREES AND SHRUBS SHALL BE MATCHED SPECIMENS WITH A FULL CANOPY AND A UNIFORM BRANCHING HABIT. EVERGREEN TREES SHALL BE FULL TO GROUND WITH A HEAVY CANOPY AND STRONG CENTRAL LEADER. ALL SHRUBS SHALL HAVE A FULL, HEAVY BODY FOR THE COMPLETE HEIGHT OF THE SHRUB AND SHOULD NOT SHOW STRESS AT TIME OF PLANTING AND HAVE A MINIMUM #3 CONTAINER AT TIME OF PLANTING.
5. PLANT SELECTION MUST BE CHOSEN BY PLANT SIZE, NOT CONTAINER SIZE.
6. ALL SHRUBS, EXCEPT AS NOTED, SHALL BE PLANTED AND MAINTAINED IN THEIR NATURAL FORM TO CREATE A PLANT MASSING EFFECT. DO NOT PRUNE TO FORM ANY SHAPE UNLESS SPECIFIED.
7. INSTALL MULCH IN SHAPE AND SIZE AS SHOWN ON LANDSCAPE DETAILS, (MULCH "VOLCANOES" WILL NOT BE ACCEPTED).
8. ALL PLANTS MUST BE SELECTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE LANDSCAPE DETAILS AND SPECIFICATIONS.
9. ALL TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM MAJOR UTILITY LINES UNLESS SPECIFIED OTHERWISE BY LOCAL CODES OR REQUIREMENTS. CONTACT LANDSCAPE ARCHITECT IMMEDIATELY WHERE DISCREPANCIES OCCUR FOR FIELD ADJUSTMENT.

PLANTING NOTES:

1. PLANTING BEDS AND PLANT LOCATIONS SHALL BE STAKED BY THE LANDSCAPE CONTRACTOR FOR REVIEW AND APPROVAL OF THE OWNER OR THE OWNER'S REPRESENTATIVE (LANDSCAPE ARCHITECT) PRIOR TO INSTALLATION OF THE PLANTS.
2. PLANTING BEDS SHALL BE CLEARED OF ALL GRASS AND WEEDS PRIOR TO INSTALLATION OF PLANTS, INCLUDING MANUAL SCRAPING OR CHEMICAL PRODUCT (SUCH AS, ROUND-UP,) TO KILL ACTIVELY GROWING PLANTS. PLANT BEDS SHALL BE PREPARED AS CALLED FOR IN THE SPECIFICATIONS AND DETAILS.
3. ALL OTHER DISTURBED AREAS ARE TO BE SEEDED OR SODDED AS PER THE PLANS. ADDITIONAL SEEDING OR SODDING MAY BE REQUIRED IF DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE TO ADEQUATELY (90%) COVER ALL DISTURBED AREAS THAT REQUIRE STABILIZATION. SEE EROSION CONTROL PLANS FOR TEMPORARY SEEDING IF APPLICABLE.
4. PLANTING BEDS SHALL HAVE A MINIMUM OF THREE (3) INCHES OF SHREDDED HARDWOOD BARK MULCH OVER THE ENTIRE BED, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
5. PRIOR TO PLANTING, ALL PLANTED AREAS SHALL BE TREATED WITH A WATER-SOLUBLE HERBICIDE FOR THE NON-SELECTIVE CONTROL OF ANNUAL AND PERENNIAL WEEDS PRIOR TO PLANTING.
6. ALL TREE AND SHRUB PLANTING PITS SHALL BE BACKFILLED WITH A PLANTING SOIL MIXTURE OF ONE (1) PART ORIGINAL SOIL AND ONE (1) PART TOPSOIL, THOROUGHLY MIXED (UNLESS OTHERWISE NOTED ON THE DETAILS OR LOCAL LANDSCAPE CODE AND REQUIREMENTS. THE CONTRACTORS SHALL PROVIDE A SAMPLE OF MIXTURE TO THE OWNER/OWNER'S REPRESENTATIVE (LANDSCAPE ARCHITECT) PRIOR TO INSTALLATION.
7. PLANT GROUNDCOVER AND ANNUAL BEDS IN SAME MIXTURE AS SHRUBS. THE LANDSCAPE CONTRACTOR SHALL WATER ALL LANDSCAPE AREAS TO POINT OF SATURATION IMMEDIATELY AFTER PLANTING & MULCHING. ALL PLANTED AREAS ARE TO BE FERTILIZED WITH GRANULAR FERTILIZER. LANDSCAPE CONTRACTOR SHALL PROVIDE SOIL TEST RESULTS AND PROPOSED FERTILIZER APPLICATION RATES TO THE OWNER OR OWNER'S REPRESENTATIVE (LANDSCAPE ARCHITECT) FOR WRITTEN APPROVAL PRIOR TO APPLICATION.
8. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND COMPLY WITH CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK. PLANTS NOT IN COMPLIANCE WILL BE REJECTED AND REPLACED WITH PLANTS THAT MEET THE REQUIRED STANDARDS.
9. SPRAY TREES AND SHRUBS WITH AN ANTI-DESICCANT IF FOLIAGE IS PRESENT.
10. EVERGREEN TREES AND SHRUBS SHALL BE PLANTED IN THE SAME MANNER AS DECIDUOUS MATERIAL IS PLANTED.
11. DO NOT PRUNE ANY PLANT MATERIAL UNTIL IT HAS BEEN INSPECTED AND ACCEPTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
12. ALL LANDSCAPE MATERIAL SHALL BE APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE BEFORE INSTALLATION. PLANT MATERIALS MAY BE VIEWED AT LANDSCAPE CONTRACTOR'S HOLDING SITE OR ON-SITE. ALL PLANT MATERIALS INSPECTED ON-SITE FOUND TO BE UNACCEPTABLE SHALL BE REMOVED FROM THE SITE WITHIN 5 DAYS (ONE WORKING WEEK) OF INSPECTION.
13. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE (LA) OF THE AVAILABILITY OF THE MATERIALS TO BE INSPECTED PRIOR TO COORDINATING AN ON-SITE INSPECTION.
14. ALL FIELD LANDSCAPE CHANGES MUST BE APPROVED IN WRITING BY THE OWNER OR OWNER'S REPRESENTATIVE (LA) PRIOR TO INSTALLATION.
15. EXISTING PLANT MATERIAL IS TO BE EVALUATED BY THE LANDSCAPE ARCHITECT FOR POSSIBLE RELOCATION ON SITE.
16. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT FORTY-EIGHT (48) HOURS BEFORE BEGINNING ANY WORK.
17. ALL PLANT MATERIAL SHALL BE SUPPLIED BY APPROPRIATE SOURCES (IF SPECIFIED ON PLANS OR SPECIFICATIONS) TO PREVENT UNDUE STRESS OR PROLONGED ACCLIMATIZATION WHICH WOULD INHIBIT PLANT GROWTH.
18. THE LANDSCAPE CONTRACTOR SHALL VERIFY PLANT QUANTITIES SHOWN ON PLAN AND IN PLANT LIST. IF DISCREPANCIES OCCUR, LANDSCAPE CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT IMMEDIATELY. (QUANTITIES SHOWN ON PLANS TAKE PRECEDENCE.)
19. EVERGREEN TREES TO BE A MINIMUM OF 6' IN HEIGHT AT TIME OF PLANTING / DECIDUOUS TREES TO BE 2" DBH MIN AT TIME OF PLANTING UNLESS NOTED OTHERWISE. (SEE PLANT SCHEDULE/LIST FOR POTENTIAL LARGER PLANT MATERIAL SPECIFIED OR REQUIRED).
20. MULTI-TRUNK PLANT MATERIAL SHALL BE ONE PLANT GROWN FROM SINGLE SEEDLING. (NO CLUMP MULTI-PLANT STOCK WILL BE ACCEPTED).
21. IF NOTED BY THE LANDSCAPE ARCHITECT, CITY/TOWN/COUNTY STAFF INSPECTORS, THAT THE CENTRAL LEADER OF ANY TREE HAS BEEN CUT IN THE HISTORY OF THE PLANT'S GROWTH, THE MATERIAL SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
22. THE DECISION OF THE HEALTH, SIZE, LOCATION OR TYPE OF PLANT MATERIAL BY LANDSCAPE ARCHITECT WILL BE FINAL.

CANOPY LAND DESIGN

DANIEL BOUTTE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE NO. 371
LANDSCAPE ARCHITECT

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE TN 37917
225.597.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
FOX ROAD LLC
827 BELLE GROVE RD
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PROJECT#: 2512-1

Horizon PLAZA - phase2 11011 Kingston Pike 37934

landscape DETAILS

DATE: 7/31/2025

DRAWN BY: DB CHECKED BY: DB

landscape DETAILS

L.30

SHEET __ OF __

CANOPY LAND DESIGN

plant**SCHEDULE**

KEY	NAME	SIZE	SPACING	NOTES	QUANTITY
canopy TREES					
AR (R)	Acer Rubrum 'October Glory' RED MAPLE	2" CAL			7
BN (R)	Betula Nigra RIVER BIRCH	2" CAL			3
CJ (R)	Cryptomeria Japonica JAPANEESE CEDAR	2" CAL			1
HA (B)	Hesperocayparis Arizonica ARIZONA CYPRESS	2" CAL			2
LT (R)	Liriodendron Tulipefera TULIP POPLAR	2" CAL			3
NS (R)	Nyssa Sylvatica BLACK GUM/ TUPELO	2" CAL			4
QP (R)	Quercus Phellos WILLOW OAK	2" CAL			3
TD (R)	Taxodium Distichum BALD CYPRESS	2.5" CAL			6
					29
understory/buffer TREES					
AA	Amelanchier Arborea. 'Autumn Brillinance' SERVICEBERRY	2" CAL			3
CV	Crataegus Viridis 'Winter King' HAWTHORNE	2" CAL	AS SHOWN	3' CLEAR TYP	6
IN	Illex 'Nellie R. Stevens' NELLIE STEVENS Holly	8'HT	AS SHOWN	3' CLEAR TYP	8
					17
SHRUBS					
AK	Abelia x 'Kalidescope DWARF ABELIA	36" HT		FULL/MATCH	6
HQ	Hydrangea Quercifolia 'Pee Wee' DWARF HYDRANGEA	36" HT	AS SHOWN	FULL/MATCH	6
IV	Itea Virginiana 'Henry's Garnet' SWEETSPIRE	36" HT	AS SHOWN	FULL/MATCH	3
TM	Taxus x Media 'Densiformis' DWARF YEW	#5	36" OC./PLAN		18
VR	Viburnum Rhytidophyllum LEATHERLEAF VIBURNUM	36" HT	AS SHOWN	FULL/MATCH	3
PV	Panicum Varigatum 'Heavy Metal' SWITCH GRASS	#3			9
					45
ground COVERS					
F-SEED	Fescue 'Kentucky 31' (SEED)		ALL DISTURBED AREAS		
MULCH	Shredded Hardwood Mulch		ALL PLANTING AREAS AS SHOWN		
OJ	Ophiopogon Japonicus DWARF MONDO GRASS	3.25" POT	12" OC.		146
			TREE TOTALS	**REQ**	**29**
				PROVIDED	**29**

1 PLANT SCHEDULE
SCALE: NTS

SEEDING NOTES:
1. UNLESS OTHERWISE NOTED, SEEDING SHALL BE INSTALLED ON ALL CUT AND FILL SLOPES, ROADWAY SHOULDERS, AND DISTURBED AREAS GENERATED BY CONSTRUCTION (REGARDLESS OF PLAN AREAS).
2. SEEDING SHALL BE INSTALLED AS SOON AS CONSTRUCTION IN AN AREA IS COMPLETED. LANDSCAPE CONTRACTOR SHALL REFER TO SEEDING TABLES FOR APPLICATION RATES):
3. SHAPE AND SMOOTH GRADE WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION FOR SEEDING AND MAINTENANCE PURPOSES.
4. SPREAD LIME AND FERTILIZER IN DRY FORM UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. SCARIFY SEEDBED TO A DEPTH OF 1" TO 4" AS DETERMINED ON-SITE. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED, AND FIRMED PRIOR TO SEED INSTALLATION.
5. DISTRIBUTE SEED UNIFORMLY OVER FRESHLY PREPARED SEEDBED WITH CULTIPACKER-SEEDER, DRILL, ROTARY SEEDER, OR OTHER MECHANICAL OR HAND SEEDER. WITHIN 24 HOURS AFTER SEEDING, STRAW OR HAY MULCH SHALL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25% OF THE GROUND SURFACE EXPOSED. MULCH SHALL BE SPREAD WITH BLOWER-TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AS IT IS SPREAD. A DISK HARROW WITH THE DISK SET OR A SPECIAL PACKER DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL.
6. WITHIN 24 HOURS AFTER SEEDING AN PLACEMENT OF MULCH, WATER AREA TO A SATURATION DEPTH OF 12".

MAINTENANCE:
1. WHEN SEED/PLANTS ARE 2" TO 4" TALL, TOP-DRESS AREA WITH SEED AND APPLY FERTILIZER (5-10-15) AT A RATE OF 300 LBS. / ACRE.
2. AT THE BEGINNING OF THE SECOND GROWING SEASON, APPLY FERTILIZER (5-10-15) AT A RATE OF 800 LBS. / ACRE.

SOIL AMENDMENTS	
ITEM	APPLICATION RATE
AGRICULTURAL LIMESTONE	4000 LBS/ACRE
FERTILIZER (5-10-15)	1500 LBS/ACRE
STRAW	4000 LBS/ACRE
HAY	5000 LBS/ACRE

SEEDING SCHEDULE		
DATE	SPECIES	APPLICATION RATE
FEB 1 - APR 15	KENTUCKY 31 (FESCUE)	50 LBS/ACRE
APR 15 - AUG 1	HULL COMMON (BERMUDA)	10 LBS/ACRE
AUG 1 - DEC 1	KY 31 (FESCUE)/ANNUAL RYE	25 LBS/ACRE

2 GRASS / SEEDING NOTES AND RATES
SCALE: NTS

GENERAL LANDSCAPE NOTES:
1. GRASS, MULCH OR GROUNDCOVER SHALL BE PLANTED ON ALL PORTIONS OF THE LANDSCAPE BUFFER AREA (LBA) NOT OCCUPIED BY OTHER LANDSCAPE MATERIAL (SEE LANDSCAPE PLANS).
2. IF EXISTING TREES AND PLANT MATERIAL ARE BEING USED TO MEET LANDSCAPE CODE REQUIREMENTS, ANY TREES OR SCREENING VEGETATION THAT DIE OR ARE REMOVED AS A RESULT OF CONSTRUCTION ACTIVITIES WILL BE REPLACED AS PER THE LANDSCAPE CODE REQUIREMENTS.
3. THE PROPERTY OWNER WILL BE REQUIRED TO PERPETUALLY MAINTAIN ALL REQUIRED BUFFER/LANDSCAPE AREAS AND ASSOCIATED PLANT MATERIAL REQUIRED UNDER LAND DEVELOPMENT CODE REGULATIONS (IF APPLICABLE).
4. ALL UNHEALTHY OR DEAD PLANT MATERIAL SHALL BE REPLACED WITHIN ONE YEAR, OR BY THE NEXT PLANTING PERIOD, WHICHEVER COMES FIRST, WHILE OTHER DEFECTIVE PLANT MATERIAL SHALL BE REPLACED OR REPAIRED WITHIN THREE (3) MONTHS.
5. ALL PLANT MATERIAL LOCATED WITHIN A UTILITY EASEMENT THAT IS DAMAGED OR REMOVED DUE TO WORK REQUIRED BY THE UTILITY COMPANY SHALL BE IMMEDIATELY REPLACED BY THE OWNER IN ACCORDANCE WITH LAND DEVELOPMENT REQUIREMENTS.
6. STREET TREES SHALL BE PLANTED IN A MANNER THAT DOES NOT AFFECT PUBLIC SAFETY AND MAINTAINS PROPER SIGHT VISIBILITY TRIANGLE DISTANCES.
7. IRRIGATION WILL BE PROVIDED AS REQUIRED AND SHOWN ON LANDSCAPE PLANS. THIS IRRIGATION SYSTEM SHALL BE DESIGNED TO PROVIDE ADEQUATE WATERING OF THE PROPOSED PLANT MATERIAL AND LAWN AREAS. THE SYSTEM SHALL CONSIST OF SEVERAL WATERING ZONES CONTROLLED BY A CENTRAL TIMER WITH EITHER POP-UP AND ROTATING IRRIGATION HEADS OR A DRIP LINE SYSTEM. THE PROPOSED SYSTEM SHALL BE INSTALLED PRIOR TO PLANTING. (IF APPLICABLE)
8. AN AUTHORIZED CITY/TOWN/COUNTY INSPECTOR SHALL HAVE THE RIGHT TO ENTER ONTO ANY PROPERTY TO INSPECT THE HEALTH AND GENERAL CONDITION OF PLANT MATERIAL THAT IS; LOCATED IN THE RIGHT OF WAY; PART OF AN APPROVED DEVELOPMENT/LANDSCAPE PLAN; OR REPORTED AS A PUBLIC HAZARD.
9. UNDERGROUND UTILITIES:
   - 9.1. UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, LANDSCAPE ARCHITECT, OR THEIR REPRESENTATIVES. BEFORE YOU DIG, CALL [TENNESSEE] ONE CALL SYSTEM (811).
   - 9.2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.
10. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO ENSURE THAT THE NEW WORK SHALL FIT INTO THE EXISTING SITE IN THE MANNER INTENDED AND AS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK IN THE AREAS INVOLVING DIFFERENCES, SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THE PLANS AND DRAWINGS, NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND WRITTEN NOTES RELATING TO THE AREA.

PLANT STOCK NOTES:
1. ALL CANOPY TREES SHALL BE LIMBED UP AT LEAST 7' WITH A MINIMUM HEIGHT OF 12' UNLESS SPECIFIED OTHERWISE OR REQUIRED BY LOCAL CODE OR ORDINANCE. (ALL PEDESTRIAN ACCESS WAYS MUST HAVE AT LEAST 7' OF CLEARANCE).
2. ALL UNDERSTORY TREES SHALL BE LIMBED UP AT LEAST 4' WITH A MINIMUM HEIGHT OF 8'.
3. ALL CANOPY AND UNDERSTORY TREES SHALL HAVE ONE STRONG CENTRAL LEADER TRUNK. (NO MULTI-TRUNK UNLESS SPECIFIED).
4. ALL TREES AND SHRUBS SHALL BE MATCHED SPECIMENS WITH A FULL CANOPY AND A UNIFORM BRANCHING HABIT. EVERGREEN TREES SHALL BE FULL TO GROUND WITH A HEAVY CANOPY AND STRONG CENTRAL LEADER. ALL SHRUBS SHALL HAVE A FULL, HEAVY BODY FOR THE COMPLETE HEIGHT OF THE SHRUB AND SHOULD NOT SHOW STRESS AT TIME OF PLANTING AND HAVE A MINIMUM #3 CONTAINER AT TIME OF PLANTING.
5. PLANT SELECTION MUST BE CHOSEN BY PLANT SIZE, NOT CONTAINER SIZE.
6. ALL SHRUBS, EXCEPT AS NOTED, SHALL BE PLANTED AND MAINTAINED IN THEIR NATURAL FORM TO CREATE A PLANT MASSING EFFECT. DO NOT PRUNE TO FORM ANY SHAPE UNLESS SPECIFIED.
7. INSTALL MULCH IN SHAPE AND SIZE AS SHOWN ON LANDSCAPE DETAILS, (MULCH "VOLCANOES" WILL NOT BE ACCEPTED).
8. ALL PLANTS MUST BE SELECTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE LANDSCAPE DETAILS AND SPECIFICATIONS.
9. ALL TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM MAJOR UTILITY LINES UNLESS SPECIFIED OTHERWISE BY LOCAL CODES OR REQUIREMENTS. CONTACT LANDSCAPE ARCHITECT IMMEDIATELY WHERE DISCREPANCIES OCCUR FOR FIELD ADJUSTMENT.

PLANTING NOTES:
1. PLANTING BEDS AND PLANT LOCATIONS SHALL BE STAKED BY THE LANDSCAPE CONTRACTOR FOR REVIEW AND APPROVAL OF THE OWNER OR THE OWNER'S REPRESENTATIVE (LANDSCAPE ARCHITECT) PRIOR TO INSTALLATION OF THE PLANTS.
2. PLANTING BEDS SHALL BE CLEARED OF ALL GRASS AND WEEDS PRIOR TO INSTALLATION OF PLANTS, INCLUDING MANUAL SCRAPING OR CHEMICAL PRODUCT (SUCH AS, ROUND-UP,) TO KILL ACTIVELY GROWING PLANTS. PLANT BEDS SHALL BE PREPARED AS CALLED FOR IN THE SPECIFICATIONS AND DETAILS.
3. ALL OTHER DISTURBED AREAS ARE TO BE SEEDED OR SODDED AS PER THE PLANS. ADDITIONAL SEEDING OR SODDING MAY BE REQUIRED IF DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE TO ADEQUATELY (90%) COVER ALL DISTURBED AREAS THAT REQUIRE STABILIZATION. SEE EROSION CONTROL PLANS FOR TEMPORARY SEEDING IF APPLICABLE.
4. PLANTING BEDS SHALL HAVE A MINIMUM OF THREE (3) INCHES OF SHREDDED HARDWOOD BARK MULCH OVER THE ENTIRE BED, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
5. PRIOR TO PLANTING, ALL PLANTED AREAS SHALL BE TREATED WITH A WATER-SOLUBLE HERBICIDE FOR THE NON-SELECTIVE CONTROL OF ANNUAL AND PERENNIAL WEEDS PRIOR TO PLANTING.
6. ALL TREE AND SHRUB PLANTING PITS SHALL BE BACKFILLED WITH A PLANTING SOIL MIXTURE OF ONE (1) PART ORIGINAL SOIL AND ONE (1) PART TOPSOIL, THOROUGHLY MIXED (UNLESS OTHERWISE NOTED ON THE DETAILS OR LOCAL LANDSCAPE CODE AND REQUIREMENTS. THE CONTRACTORS SHALL PROVIDE A SAMPLE OF MIXTURE TO THE OWNER/OWNER'S REPRESENTATIVE (LANDSCAPE ARCHITECT) PRIOR TO INSTALLATION.
7. PLANT GROUNDCOVER AND ANNUAL BEDS IN SAME MIXTURE AS SHRUBS. THE LANDSCAPE CONTRACTOR SHALL WATER ALL LANDSCAPE AREAS TO POINT OF SATURATION IMMEDIATELY AFTER PLANTING & MULCHING. ALL PLANTED AREAS ARE TO BE FERTILIZED WITH GRANULAR FERTILIZER. LANDSCAPE CONTRACTOR SHALL PROVIDE SOIL TEST RESULTS AND PROPOSED FERTILIZER APPLICATION RATES TO THE OWNER OR OWNER'S REPRESENTATIVE (LANDSCAPE ARCHITECT) FOR WRITTEN APPROVAL PRIOR TO APPLICATION.
8. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND COMPLY WITH CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK. PLANTS NOT IN COMPLIANCE WILL BE REJECTED AND REPLACED WITH PLANTS THAT MEET THE REQUIRED STANDARDS.
9. SPRAY TREES AND SHRUBS WITH AN ANTI-DESICCANT IF FOLIAGE IS PRESENT.
10. EVERGREEN TREES AND SHRUBS SHALL BE PLANTED IN THE SAME MANNER AS DECIDUOUS MATERIAL IS PLANTED.
11. DO NOT PRUNE ANY PLANT MATERIAL UNTIL IT HAS BEEN INSPECTED AND ACCEPTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
12. ALL LANDSCAPE MATERIAL SHALL BE APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE BEFORE INSTALLATION. PLANT MATERIALS MAY BE VIEWED AT LANDSCAPE CONTRACTOR'S HOLDING SITE OR ON-SITE. ALL PLANT MATERIALS INSPECTED ON-SITE FOUND TO BE UNACCEPTABLE SHALL BE REMOVED FROM THE SITE WITHIN 5 DAYS (ONE WORKING WEEK) OF INSPECTION.
13. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE (LA) OF THE AVAILABILITY OF THE MATERIALS TO BE INSPECTED PRIOR TO COORDINATING AN ON-SITE INSPECTION.
14. ALL FIELD LANDSCAPE CHANGES MUST BE APPROVED IN WRITING BY THE OWNER OR OWNER'S REPRESENTATIVE (LA) PRIOR TO INSTALLATION.
15. EXISTING PLANT MATERIAL IS TO BE EVALUATED BY THE LANDSCAPE ARCHITECT FOR POSSIBLE RELOCATION ON SITE.
16. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT FORTY-EIGHT (48) HOURS BEFORE BEGINNING ANY WORK.
17. ALL PLANT MATERIAL SHALL BE SUPPLIED BY APPROPRIATE SOURCES (IF SPECIFIED ON PLANS OR SPECIFICATIONS) TO PREVENT UNDUE STRESS OR PROLONGED ACCLIMATIZATION WHICH WOULD INHIBIT PLANT GROWTH.
18. THE LANDSCAPE CONTRACTOR SHALL VERIFY PLANT QUANTITIES SHOWN ON PLAN AND IN PLANT LIST. IF DISCREPANCIES OCCUR, LANDSCAPE CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT IMMEDIATELY. (QUANTITIES SHOWN ON PLANS TAKE PRECEDENCE.)
19. EVERGREEN TREES TO BE A MINIMUM OF 6' IN HEIGHT AT TIME OF PLANTING / DECIDUOUS TREES TO BE 2" DBH MIN AT TIME OF PLANTING UNLESS NOTED OTHERWISE. (SEE PLANT SCHEDULE/LIST FOR POTENTIAL LARGER PLANT MATERIAL SPECIFIED OR REQUIRED).
20. MULTI-TRUNK PLANT MATERIAL SHALL BE ONE PLANT GROWN FROM SINGLE SEEDLING. (NO CLUMP MULTI-PLANT STOCK WILL BE ACCEPTED).
21. IF NOTED BY THE LANDSCAPE ARCHITECT, CITY/TOWN/COUNTY STAFF INSPECTORS, THAT THE CENTRAL LEADER OF ANY TREE HAS BEEN CUT IN THE HISTORY OF THE PLANT'S GROWTH, THE MATERIAL SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
22. THE DECISION OF THE HEALTH, SIZE, LOCATION OR TYPE OF PLANT MATERIAL BY LANDSCAPE ARCHITECT WILL BE FINAL.

DANIEL BOUTTE REGISTERED LANDSCAPE ARCHITECT STATE OF TENNESSEE NO. 371 LANDSCAPE ARCHITECT 25

CANOPY LAND DESIGN, LLC
1522 BRANSON AVE KNOXVILLE TN 37917
225.597.7403 CANOPYLANDDESIGN@GMAIL.COM

OWNER:
FOX ROAD LLC
827 BELLE GROVE RD
KNOXVILLE, TN 37934

PROJECT#: 2512-1

Horizon **PLAZA - phase2** 11011 Kingston Pike 37934

landscape **NOTES/SCHEDULE**

DATE: 7/21/2025
DRAWN BY: DB CHECKED BY: DB

landscape **NOTES / SCHEDULE**

CANOPY LAND DESIGN

L.31
SHEET __ OF __

Agenda Number: IV.I. **Meeting Date: August 21, 2025**

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Discussion and public hearing on approval of a site plan for four commercial buildings associated with the Kingston Pike Village - Phase 2 Planned Commercial Development, 13104-13124 Kingston Pike, Zoned Planned Commercial Development (PCD), (Kingston Pike Properties 2, LLC, Applicant)

Introduction & Background: This agenda item involves a request for approval for the site plan for Phase 2 of the Kingston Pike Village Planned Commercial Development project at the southwest intersection of Kingston Pike and S. Watt Road. The site plan is a more detailed version of the concept plan that was approved by both the Planning Commission and Board of Mayor and Alderman.

Discussion & Recommendations: As shown on the site plan set included in the packet, the plan for Phase 2 includes four new commercial buildings with portions of the parking lot containing permeable pavers to satisfy the Town's requirement for at least 25% of the project's stormwater runoff to be accommodated in a low impact development system. As recommended by staff, a raised crosswalk is being provided to tie into the land to the west that is not being proposed for development at this time. This will help to slow traffic through this section of the project. This phase also includes modifications to the Little Joe's Pizza location that will tie both developments together and remove the existing access to Little Joe's Pizza along Kingston Pike. These modifications are shown as a separate file in the packet.

One of the items that was discussed at the August 5 staff/developer meeting was the need for a traffic impact study to evaluate the traffic that could be generated by this development along with the Publix grocery store project on the north side of Kingston Pike. A question would be whether the two combined developments would warrant a traffic signal at the access point just east of the Y-12 Federal Credit Union. It was noted that the applicant for Phase 2 of Kingston Pike Village would initiate the

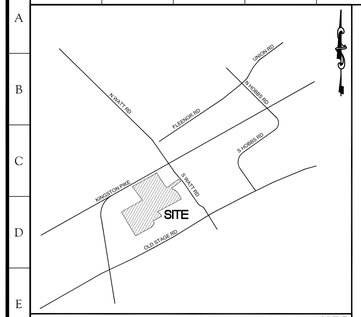
traffic impact study and the results would be presented to the Town staff and TDOT for further evaluation. If a signal is warranted, plans would be brought to the Planning Commission for consideration. The only area that could be affected by a signal installation would be at the entrance. This would not affect the layout of the remainder of the development and thus the staff would recommend that the Planning Commission approve the site plan at this time subject to the following conditions:

1. A traffic impact study being completed and the results reviewed initially with Town staff and TDOT. Should a traffic signal be warranted, plans would be presented to the Planning Commission.
2. The water and sewer plans will need to be approved by First Utility District.
3. Please make sure the dates on the lighting engineer and architect's seals break the seal.
4. A landscape plan will need to be approved by the VRRB.
5. Obtaining a grading permit for the work included on this site plan and the site plan related to the Little Joe's property.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: To approve the site plan subject to the following conditions:

1. A traffic impact study being completed and the results reviewed initially with Town staff and TDOT. Should a traffic signal be warranted, plans would be presented to the Planning Commission.
2. The water and sewer plans will need to be approved by First Utility District.
3. Please make sure the dates on the lighting engineer and architect's seals break the seal.
4. A landscape plan will need to be approved by the VRRB.
5. Obtaining a grading permit for the work included on this site plan and the site plan related to the Little Joe's property.



VICINITY MAP N.T.S.

Site Development Plans for Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee 37934

Developed by:

Kingston Properties 2, LLC
PO Box 5024
Knoxville, Tennessee 37950
(865) 406-0938
Attn: Mr. Daniel Smith

Kingston Pike @ South Watt Road

Farragut, Tennessee 37934

SHEET INDEX			
#	Sheet Title	Date	Revision #
C0.0	Cover Sheet	08/11/2025	1
	Topographical Survey of Lot 1R-1	04/03/2025	
C2.0	Storm Water Pollution Prevention Plan - Notes	07/21/2025	
C2.1	Storm Water Pollution Prevention Plan - Stage III	08/11/2025	1
C2.2	Storm Water Pollution Prevention Plan - Details	07/21/2025	
C2.3	Storm Water Pollution Prevention Plan - Details	07/21/2025	
C3.0	Site Grading and Drainage Plan - Overall	08/11/2025	1
C3.1	Site Grading and Drainage Plan - Spot Shot Elevations - South	08/11/2025	1
C3.2	Site Grading and Drainage Plan - Spot Shot Elevations - North	08/11/2025	1
C4.0	Site Area and Layout Plan - Overall	08/11/2025	1
C4.1	Site Layout Plan - South	08/11/2025	1
C4.2	Site Layout Plan - North	08/11/2025	1
C5.0	Site Utility Plan - Overall	08/11/2025	1
C5.1	Site Utility Plan - South	08/11/2025	1
C5.2	Site Utility Plan - North	08/11/2025	1
C5.3	Proposed Sanitary Sewer Main Plan and Profile	08/11/2025	1
C8.0	Site Details	07/21/2025	
C8.1	Site Details	08/11/2025	1
C8.2	Site Details	08/11/2025	1
C8.3	Site Details	07/21/2025	
C9.0	Sitework Specifications	07/21/2025	
C9.1	Sitework Specifications	07/21/2025	
C9.2	Sitework Specifications	07/21/2025	
C9.3	Sitework Specifications	07/21/2025	
LP-1	Photometric Plan	08/12/2025	1
LP-2	Fixture Cut Sheet	06/26/2025	
A1.01	Architectural Site Plan	08/11/2025	1
A5.12	Line of Site - Building A	08/11/2025	1
A5.12	Line of Site - Building B	08/11/2025	1
A5.12	Line of Site - Building C	08/11/2025	1
A5.12	Line of Site - Building D	08/11/2025	1
A5.13	Colored Elevations - Building A	08/11/2025	1
A5.13	Colored Elevations - Building B	08/11/2025	1
A5.13	Colored Elevations - Building C	08/11/2025	1
A5.13	Colored Elevations - Building D	08/11/2025	1
A7.01	Dumpster Enclosure Plan & Details	06/26/2025	
A5.14	Dumpster Enclosure Colored Elevations	08/11/2025	1

CONTACTS

TDOT	CITY	WATER & SEWER	ELECTRIC	GAS	TELEPHONE
TDOT REGION 1 TRAFFIC OFFICE TRANSP. MGMT. CENTER, 2ND FLOOR 7238 REGION LANE KNOXVILLE, TENNESSEE 37914 (865) 594-2456	DARRYL SMITH TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DRIVE FARRAGUT, TENNESSEE 37934 (865) 966-7057	JONATHAN HOLT FIRST UTILITY DISTRICT 122 DURWOOD ROAD KNOXVILLE, TENNESSEE 37922 (865) 966-9741	NEW SERVICE DEPARTMENT LENOIR CITY UTILITIES BOARD 7698 CREEKWOOD PARK BOULEVARD LENOIR CITY, TENNESSEE 37771 (865) 986-6591	NEW SERVICE DEPARTMENT KNOXVILLE UTILITIES BOARD 4505 MIDDLEBROOK PIKE KNOXVILLE, TN 37919 (865) 558-2555	TOM NITZ TDS TELECOM 701 CONCORD ROAD KNOXVILLE, TN 37933 (865) 671-4546

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CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
00109[illegible]
STATE OF TENNESSEE
08/11/2025

Cover Sheet

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee 37934
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: Cover
SHEET: 1 OF: 37

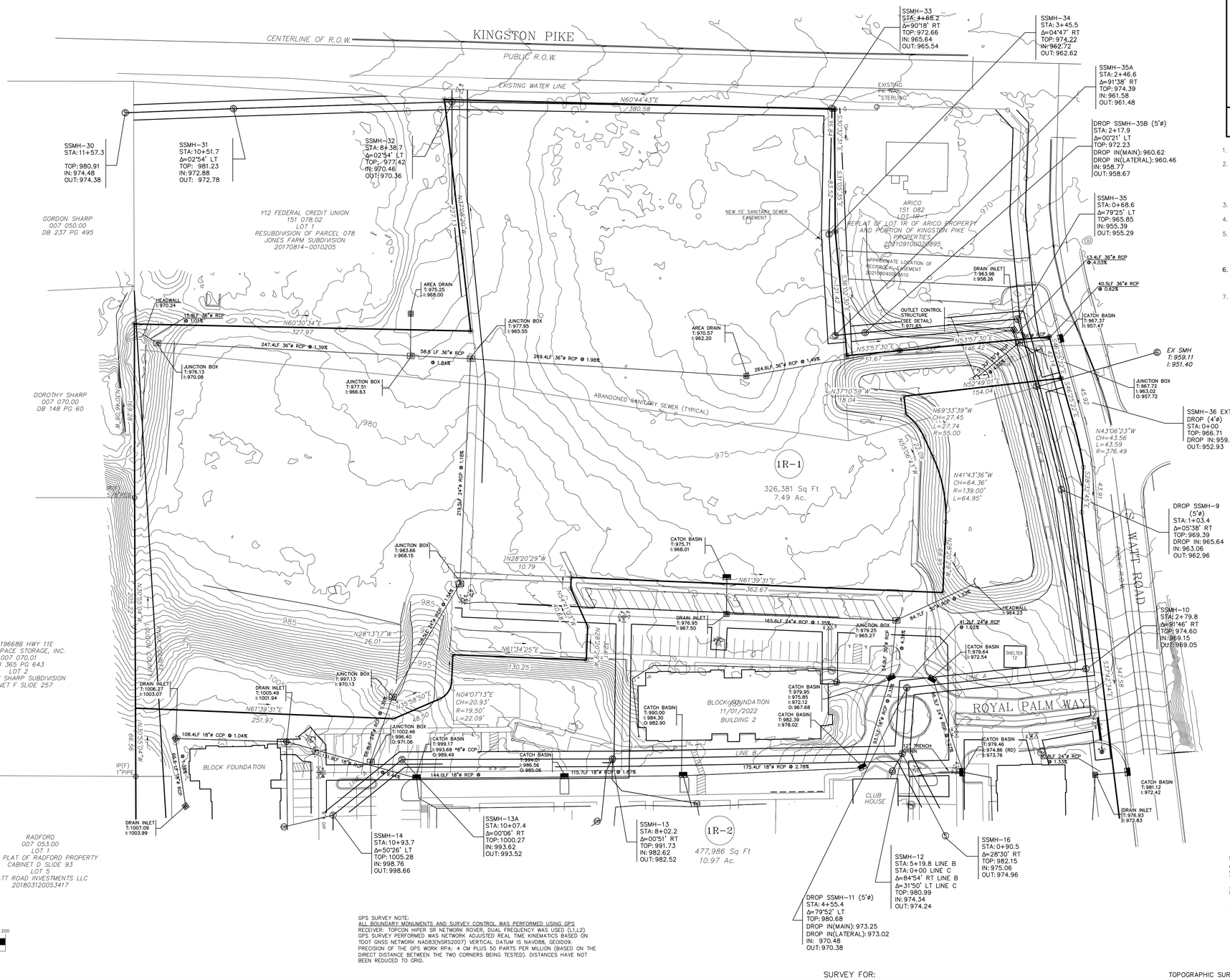
C0.0

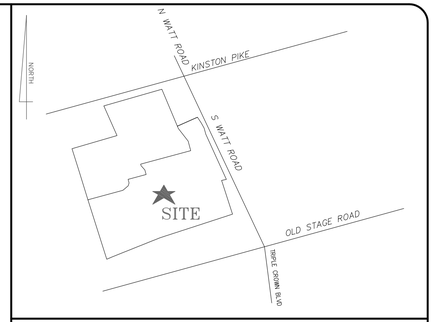
TOTAL AREA = 18.46 ACRES
TOTAL LOTS=2

TN GRID

- FOUND MONUMENTATION WITH SIZE & TYPE
- IRON ROD SET (SEE NOTE 1)

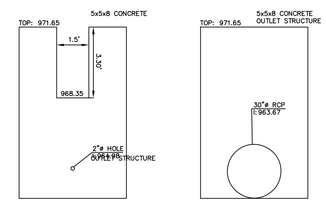
IP(F) PIPE FOUND
IR(F) ROD/REBAR FOUND





LOCATION MAP NO SCALE

1. CLT TAX MAP 151 PARCELS 081 AND 097.
2. DEED REFERENCES – PARCEL 081: 20230117-0040146
   PARCEL 097: 20201118-0041445
   PLAT REFERENCE – *RESUBDIVISION OF LOT 1 WATT ROAD INVESTMENTS, LLC 201910180027009*
3. THIS PROPERTY IS ZONED PCD
4. NORTH ROTATION: NAD83(NSRS2007) VERTICAL DATUM: NAVD 88
5. A FIVE (5) FOOT UTILITY, DRAINAGE AND CONSTRUCTION EASEMENT ON EACH SIDE OF INTERIOR LOT LINES, A TEN (10) FOOT UTILITY, DRAINAGE AND CONSTRUCTION EASEMENT ON INSIDE OF ROAD RIGHTS OF WAY AND EXTERIOR LOT LINES.
6. **15' PERMANENT UTILITY EASEMENT 7.5' ON EACH SIDE OF ALL WATER AND SANITARY SEWER LINES AS INSTALLED PER INSTRUMENT NO. 200908100011396 IN KNOX COUNTY REGISTER OF DEEDS OFFICE.**
7. NO EASEMENT IS TO RUN UNDER A BUILDING. WHERE AN EASEMENT TOUCHES A BUILDING IT STOPS AT THE FACE OF THE BUILDING.



OUTLET STRUCTURE DETAIL

NOTE:
NO TITLE REPORT WAS FURNISHED TO THIS SURVEYOR AND OTHER EASEMENTS AND/OR EXCEPTIONS NOT APPARENT IN THE FIELD MAY OR MAY NOT EXIST AND MAY BE REVEALED BY A TITLE SEARCH BY A TITLE ATTORNEY.

BEFORE YOU DIG
STOP
CALL
1-800-351-1111
TENNESSEE ONE CALL
IT'S THE LAW

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

GPS SURVEY NOTE:
ALL BOUNDARY MONUMENTS AND SURVEY CONTROL WAS PERFORMED USING GPS RECEIVER: TOPCON HIPER SR NETWORK ROVER, DUAL FREQUENCY WAS USED (L1/L2) GPS SURVEY PERFORMED WAS NETWORK ADJUSTED REAL TIME KINEMATICS BASED ON TDOT GNSS NETWORK NAD83(NSRS2007) VERTICAL DATUM IS NAVD88, GEOID09. PRECISION OF THE GPS WORK RPA: 4 CM PLUS 50 PARTS PER MILLION (BASED ON THE DIRECT DISTANCE BETWEEN THE TWO CORNERS BEING TESTED). DISTANCES HAVE NOT BEEN REDUCED TO GRID.

I certify that this plat qualifies under the provisions of Section 13-3-401 of the Tennessee Code, Annotated and is exempt from the requirements of the Knoxville/Knox County & Town of Farragut Minimum Subdivision Regulations, because (a) no new street or utility construction is required, and (b) all resultant tracts are five (5) acres or greater in size.

Surveyor: _____ Date: _____
Reg. No. 2447

Certification of Class and Accuracy of Survey

I HEREBY CERTIFY THAT THIS IS A CATEGORY "V" SURVEY IN ACCORDANCE WITH THE TENNESSEE STANDARDS OF PRACTICE.

LYNCH SURVEYS, LLC

RYAN S. LYNCH *DATE*
TENNESSEE CERTIFICATE NO. 2447

RYAN S. LYNCH REGISTERED LAND SURVEYOR STATE OF TENNESSEE AGRICULTURE ENGINEERING COMMERCE TENNESSEE No. 2447

LYNCH SURVEYS LLC
SUBDIVISIONS | AS-BUILTS | SITE DESIGN
4405 COSTER RD. KNOXVILLE, TENN. 37912
865-584-2630 FAX: 865-584-2801 WWW.LYNCHSURVEY.COM

DRAWN BY: M.STRANGE
CHECKED BY: R. LYNCH
APPROVED BY: R.S.L.
SCALE: 1"=50'
DATE: 04/03/2025

REVISIONS
1
2
3
4
5
6

SURVEY FOR:
WATT ROAD INVESTMENTS LLC @
1051 JOHNNIE DODDS BLVD H
MOUNT PLEASANT, SC 29464
PHONE: 865-523-0508 x147

TOPOGRAPHIC SURVEY OF:
LOT 1R-1
WATT ROAD INVESTMENTS LLC
District 2, Loudon County, Tennessee
District 6, Knox County, Tennessee

PROJECT NO.
4379-07
SHEET: 2 OF 37

Tennessee 811
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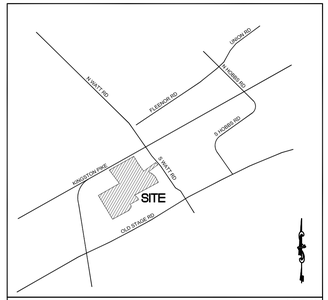
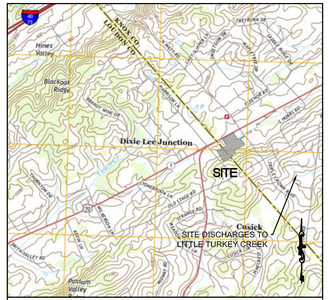


VICINITY MAP N.T.S.



USGS QUADRANGLE MAP N.T.S.

REFER TO KINGSTON PIKE VILLAGE - PHASE I (TNR135979) FOR INITIAL PHASES SWPPP PLANS

ACREAGE SUMMARY
(IN ACRES)

1	PROPERTY AREA	7,5
2	PERMITTED AREA WITHIN PROPERTY	4,8
3	PERMITTED AREA OUTSIDE OF PROPERTY	1.2
4	TOTAL PERMITTED PROJECT AREA	6,0
5	TOTAL IMPERVIOUS AREA AT COMPLETION	3,7
6	TOTAL PERVIOUS AREA AT COMPLETION	3,8

PERMANENT GRASSING SCHEDULE:

GRASS SEED SHALL BE AS FOLLOWS;
FEB-NOV. . . . . TALL FESCUE BLEND 6 LB/1000 SF
ANNUAL RYE 1 LB/1000 SF

SOD:. . . . . TALL FESCUE BLEND

LIME:. . . . . 150 LB/1000 SF
FERTILIZER:. . . .10/10/10 20 LB/1000 SF
PHOSPHORUS:. . .20% SUPERPHOSPHATE 15 LB/1000 SF

MULCH:. . . . . ,STRAW 75 LB/1000 SF
(CRIMPED) EROSION CONTROL NET OR MULCH BINDER ON SLOPES.

	MIN.SEED PURITY	MIN. GERM.	MAX. WEED
TALL FESCUE . . .	95%	85%	0,1%
ANNUAL RYE. . . .	95%	90%	0,1%

- PLANTING SHALL BE COMPLETE ON ALL AREAS NOT RECEIVE PAVING OR BE BUILT UPON WITHIN 14 WORKING DAYS OF COMPLETION OF GRADING. AREAS STEEPER THAN 3H:1V SHALL BE PLANTED NOT LATER THAN 7 DAYS AFTER COMPLETION OF GRADING.
- ALL LIME, PHOSPHORUS, & FERTILIZER AMOUNTS SHOWN ABOVE ARE MINIMUM AND SHALL BE VERIFIED AFTER SOIL ANALYSIS IS PERFORMED.

TEMPORARY COVER SEEDING MIXTURES:

DISTURBED PORTIONS OF THE SITE THAT ARE NOT PAVED OR BUILT UPON WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY STOPPED SHALL BE SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. AREAS STEEPER THAN 3H:1V SHALL BE SEEDED NOT LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

JANUARY 1 TO MAY 1;	ITALIAN RYE KOREAN LESPEDEZA SUMMER OATS	33% 33% 34%
MAY 1 TO JULY 15;	SUDAN - SORGHUM	100%
MAY 1 TO JULY 15;	STARR MILLET	100%
JULY 15 TO JANUARY 1	BALBOA RYE ITALIA RYE	67% 33%

SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
TEMPORARY CONSTRUCTION EXITS																								
TEMPORARY CONTROL MEASURES																								
SEDIMENT CONTROL BASINS																								
STRIP & STOCKPILE TOPSOIL																								
ROUGH GRADE																								
STORM FACILITIES																								
SITE CONSTRUCTION																								
PERMANENT CONTROL STRUCTURES																								
FOUNDATION / BUILDING CONSTRUCTION																								
FINISH GRADING																								
LANDSCAPING/SEED/FINAL STABILIZATION																								

1) CONTRACTOR SHALL UPDATE THE TABLE BY DATING THE APPLICABLE ACTIVITIES AS PROJECT PROGRESSES.
2) TIME SCHEDULE MUST COINCIDE WITH SEQUENCE OF CONSTRUCTION.

ALL CUT OR FILL SLOPES SHALL BE 2:1 OR GREATER.

CONTRACTOR SHALL INSTALL TOPSOIL, PERMANENT GRASS COVER AND MULCH TO ALL DISTURBED AREAS NOT TO BE PAVED OR BUILT UPON WITHIN 14 DAYS OF COMPLETION OF GRADING. SLOPES STEEPER THAN 3H:1V SHALL BE STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

A PROTECTIVE BLANKET OR SOIL STABILIZATION MAT SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER

CURRENT VERSIONS OF THIS STORM WATER POLLUTION PREVENTION PLAN, THE NOTICE OF INTENT, AND THE NOTICE OF COVERAGE SHALL BE KEPT ON THE SITE FOR THE DURATION OF THE PROJECT.

THE OWNER IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF CONSTRUCTION SITE POLLUTION PREVENTION CONTROLS THROUGHOUT THE LIFE OF THE PROJECT.

A SITE ASSESSMENT SHALL BE CONDUCTED AT EACH OUTFALL INVOLVING DRAINAGE TOTALING 5 OR MORE ACRES WITHIN A MONTH OF CONSTRUCTION COMMENCING. THE SITE ASSESSMENT SHALL BE PERFORMED BY; A LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT, A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), OR A PERSON THAT HAS COMPLETED THE "LEVEL II DESIGN PRINCIPLES FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE.

CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE CONCRETE WASHOUT AREA ON THE SITE MAPS. CONTRACTOR SHALL PROVIDE ADEQUATE SIGNAGE ON THE PROJECT SITE TO INDICATE THE AREA DESIGNATED FOR CONCRETE WASHOUT

ALL CHEMICALS AND SOLUBLE MATERIALS STORED ONSITE MUST EITHER BE STORED IN AN ENCLOSED, WATERPROOF STORAGE FACILITY OR PROVIDED WITH SECONDARY CONTAINMENT CAPABLE OF STORING THE CONTENTS OF THE TOTAL AMOUNT OF CHEMICALS STORED. SPILL CLEANUP MATERIALS MUST BE LOCATED WITHIN THE IMMEDIATE PROXIMITY OF THE STORED MATERIALS.

PLACEMENT OF PORT-A-POTTIES ON THE PROJECT SITE SHALL NOT BE LOCATED CLOSE TO STREAMS, WETLANDS, OR STORM DRAINS

CONTRACTOR SHALL PROVIDE AN AREA FOR THE STORAGE OF CONSTRUCTION RELATED MATERIALS AND DEBRIS. FOR TRASH ON THE PROJECT, A TRASH RECEPTACLE WITH A LID IS REQUIRED. CONTRACTOR SHALL INDENTIFY THE LOCATION OF THESE AREAS ON THE SITE MAPS

SWPPP IMPLEMENTATION SEQUENCE:

NOTE: UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIALS STORAGE AREAS/CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ALL AREAS WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.

STAGE I:

1. **INSTALL THE SWPPP INFORMATION SIGN AND POST REQUIRED DOCUMENTS NEAR THE PLANNED CONSTRUCTION EXIT, AND WITHIN EASY ACCESS TO THE GENERAL PUBLIC WITHOUT ENTERING THE SITE.**
2. **STAKE/FLAG THE LOD (WHERE STAKING IS NOT POSSIBLE/PRACTICAL, THE LOD MUST BE CONSPICUOUSLY, AND PROMINENTLY, MARKED TO DENOTE THE BOUNDARY). LOD MUST REMAIN CONSPICUOUSLY MARKED THROUGHOUT THE ENTIRE CONSTRUCTION PROJECT.**
3. **INSTALL PERIMETER SEDIMENT CONTROL BMPS IN THE VICINITY OF, AND DOWN GRADIENT FROM, THE LOCATION OF THE PLANNED CONSTRUCTION EXIT, CONSTRUCTION OFFICE TRAILER, AND TEMPORARY PARKING AND STORAGE AREAS. CLEAR ONLY THE MINIMUM AREA ABSOLUTELY NECESSARY TO INSTALL THESE PERIMETER CONTROL BMPS.**
4. **INSTALL STABILIZED CONSTRUCTION EXIT AND SET THE PROJECT OFFICE TRAILER.**
5. **INSTALL REMAINING PERIMETER SEDIMENT CONTROL BMPS, AS SHOWN ON THE SITE MAPS. CLEAR ONLY THE MINIMUM AREA NECESSARY TO INSTALL PERIMETER CONTROL BMPS.**
6. **PREPARE TEMPORARY PARKING AND STORAGE AREA.**
7. **HALT ALL ACTIVITIES.**

IMPORTANT: GC TO COMPLETE ALL STEPS IDENTIFIED IN STAGE I PRIOR TO BEGINNING WORK IN STAGE II.

STAGE II:

1. **CLEAR ONLY THE MINIMUM AREA ABSOLUTELY NECESSARY TO INSTALL SEDIMENT BASIN AND TRAPS INCLUDING STOCKPILE AREAS NECESSARY FOR SPOIL FROM THESE REQUIRED STRUCTURAL SEDIMENT CONTROL BMPS.**
2. **CONSTRUCT SEDIMENTS BASIN AND TRAPS WITH APPROPRIATE OUTFALL STRUCTURES, AS SPECIFIED ON THE SITE MAPS.**
3. **STABILIZE SIDE SLOPS, BOTTOM, AND ALL SIDES OF EMBANKMENTS OR SLOPES OF SEDIMENTS BASINS IMMEDIATELY UPON COMPLETION OF EACH, AS SPECIFIED IN THE SWPPP.**
4. BEGIN CLEARING AND GRUBBING THE SITE. (PHASE CLEARING AND GRUBBING TO THE EXTENT PRACTICAL TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ANY POINT IN TIME).
5. BEGIN GRADING THE SITE.
6. **TEMPORARILY STABILIZE, THROUGHOUT CONSTRUCTION, IMMEDIATELY FOLLOWING THE COMPLETION OF THE MOST RECENT LAND DISTURBING/GRADING ACTIVITY, ANY DISTURBED AREAS, INCLUDING MATERIAL STOCKPILES THAT ARE SCHEDULED OR LIKELY TO REMAIN INACTIVE FOR 14 DAYS OR MORE (7 DAYS IF SLOPES ARE 35% OR GREATER).**
7. **IMMEDIATELY PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.**
8. INSTALL UTILITIES AND STORM SEWERS.
9. **INSTALL INLET PROTECTION ON ALL STORM SEWER STRUCTURES AS EACH INLET STRUCTURE IS INSTALLED.**
10. COMPLETE GRADING AND **INSTALLATION OF PERMANENT STABILIZATION** OVER ALL AREAS, INCLUDING PONDS.

STAGE III:

1. INSTALL CURBS AND GUTTERS.
2. PREPARE SITE FOR PAVING.
3. PAVE SITE.
4. **INSTALL APPROPRIATE INLET PROTECTION DEVICES FOR PAVED AREAS AS WORK PROGRESSES, PER BMP DETAILS.**
5. COMPLETE GRADING AND **INSTALLATION OF PERMANENT STABILIZATION** OVER ALL AREAS.
6. **CONVERT SEDIMENT BASINS TO PERMANENT DETENTION BASINS BY REMOVING ACCUMULATED SEDIMENT. BASINS SHALL BE REGRADED TO GRADES AS SHOWN ON THE SITE GRADING PLAN. INSTALL PERMANENT STABILIZATION OVER ALL AREAS OF THE PONDS. CONSTRUCT BIO-RETENTION BASINS MAINTAIN SKIMMER AND BASIN RISER RETROFITTING** UNTIL THE SITE HAS BEEN FULLY STABILIZED AND ALL CONSTRUCTION HAS BEEN COMPLETED, THEN:

6.1. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL BMPS, AND
6.2. STABILIZE ANY AREAS DISTURBED BY THE REMOVAL **CONSTRUCT BIO-RETENTION BASINS PER DETAILS**

7. CONTINUE DAILY INSPECTIONS AND REPORTS UNTIL THE N.O.T. IS SUBMITTED AND APPROVED BY TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.

NOTE: THE GENERAL CONTRACTOR MAY COMPLETE CONSTRUCTION-RELATED ACTIVITIES CONCURRENTLY, ONLY IF ALL PRECEDING BMPS AND STABILIZATION ACTIVITIES HAVE BEEN COMPLETELY INSTALLED. BMP-RELATED STEPS IN THE ABOVE SEQUENCE ARE BOLDED FOR CLARITY.

THE ESTIMATED DATES OF IMPLEMENTATION OF POLLUTION CONTROL MEASURES SHALL BE DOCUMENTED BY THE CONTRACTOR ON THE SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE ON THIS SHEET.

DEVELOPER/OWNER:

DANIEL SMITH
KINGSTON PROPERTIES 2, LLC
PO BOX 5024
KNOXVILLE, TN 37950
(865) 406-0938

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

EROSION CONTROL NARRATIVE FOR PROPOSED GROCERY & SHOPS, FARRAGUT, KNOX COUNTY, TN:

THE SITE IS LOCATED IN THE SOUTHWESTERN QUADRANT OF THE INTERSECTION OF KINGSTON PIKE AND WATT ROAD IN KNOX COUNTY, FARRAGUT, TN. THE SITE IS LOCATED AT 35.8611° LATITUDE AND -84.2216° LONGITUDE. THE SITE IS BOUNDED TO THE NORTH BY KINGSTON PIKE, TO THE SOUTH BY EXISTING RESIDENTIAL, TO THE EAST BY WATT ROAD AND TO THE WEST BY EXISTING AND VACANT COMMERCIAL. THE GOAL OF THE CONSTRUCTION ACTIVITIES IS TO CONSTRUCT A NEW SHOPPING CENTER INCLUDING A TOTAL OF 33,405SF OF RETAIL, RESTAURANT, AND OFFICE SPACE WITH ASSOCIATED PARKING, DRIVEWAYS, GRADING, AND INSTALLATION OF UTILITY/STORMWATER SYSTEMS. THE PROJECT SITE IS 7.49 ACRES WITH APPROXIMATELY 6.0 ACRES TO BE DISTURBED. THE SITE IS HAS A CURRENT ACTIVE NOTICE OF COVERAGE FROM THE FIRST PHASE OF CONSTRUCTION (TNR135979). THE EXISTING PROPERTY WAS PREVIOUSLY ROUGH GRADED DURING PHASE I, WITH AN ACCESS DRIVEWAY PARTIALLY CONSTRUCTED TO KINGSTON PIKE AND A SEDIMENT BASIN ON THE EASTERN PORTION OF THE PROPERTY THAT WILL BE CONVERTED TO A PERMANENT DETENTION POND FOLLOWING FINAL STABILIZATION. THE ELEVATIONS WITHIN THE PROJECT AREA RANGE FROM 965 FEET TO 985 FEET. THE SLOPES ON THE SITE RANGE FROM 2% TO 12%. WITH STEEPER SLOPES NEAR THE PERIMETERS AND EXISTING SEDIMENT BASIN. THE MAJORITY OF THE SITE DRAINS TO THE EXISTING SEDIMENT BASIN, WITH THE BYPASS PORTIONS DRAINING TO ROAD AND BYPASS PIPE INFRASTRUCTURE. THE SEDIMENT BASIN DISCHARGES TO THE BYPASS PIPE NETWORK THAT FLOWS SOUTH AND EAST TO LITTLE TURKEY CREEK APPROXIMATELY 4,000 FEET SOUTHEAST OF THE PROJECT AREA.

LITTLE TURKEY CREEK IS LISTED ON THE TENNESSEE 2022 303(d) LIST FOR SEDIMENTATION/SILTATION AND ALTERATION IN STREAM-SIDE OR LITTORAL VEGETATIVE COVER. CONSTRUCTION IS SUBJECT TO THE ADDITIONAL REQUIREMENTS OF THE TN GENERAL PERMIT SECTION 6.4 FOR DISCHARGES INTO WATERS WITH UNAVAILABLE PARAMETERS.

GENERAL EROSION AND SEDIMENTATION CONTROL NOTES:
A. THE STORM WATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING, THE STANDARD DETAILS, THE PLAN NARRATIVE, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS,
B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF TENNESSEE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS,
C. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
E. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
F. CONTRACTOR SHALL HOLD CLEARING AND GRUBBING TO THE MINIMUM NECESSARY FOR GRADING AND EQUIPMENT OPERATION OR AS REQUIRED BY THE GENERAL PERMIT. CONSTRUCTION SHALL BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED AREAS. SEE SEQUENCE OF CONSTRUCTION NOTES.
G. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
H. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) AND MUDDY WATER PUMPED FROM EXCAVATION AND WORK AREAS SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED,
I. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
J. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPRESSION OPERATIONS IS PROHIBITED,
K. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
L. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
M. PRE-CONSTRUCTION GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 7 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA IS SEEDED AND/OR MULCHED OR OTHER TEMPORARY GROUND COVER IS INSTALLED.
N. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMENANT SOIL STABILIZATION AT THE CONSTRUCTION SITE (OR PHASE OF THE PROJECT) MUST BE COMPLETED NO LATER THAN 14 DAYS (7 DAYS FOR SLOPES 35% OR GREATER) AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, REFER TO THE GRADING PLAN AND/OR LANDSCAPING PLAN.
O. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
P. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
Q. OFF-SITE ACCUMULATIONS OF SEDIMENT SHALL BE REMOVED UNLESS IN STREAMS IN WHICH CASE WATER POLLUTION CONTROL SHALL BE CONTACTED.
R. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
S. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
T. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
U. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, STRAW BALES, ETC.) TO PREVENT EROSION.
V. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.
W. ALL CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
X. EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED PRIOR TO DISTURBANCE OF EXISTING GROUND COVER. THEY MUST REMAIN IN PLACE AND FUNCTIONAL THROUGHOUT THE CONSTRUCTION PERIOD.
Y. DISCHARGE WATER MUST NOT HAVE AN OBJECTIONABLE COLOR CONTRAST.
Z. SEDIMENT SHALL BE REMOVED FROM SEDIMENT TRAPS, SILT FENCES, SEDIMENTATION PONDS, AND OTHER SEDIMENT CONTROLS AS NECESSARY, AND MUST BE REMOVED WHEN DESIGN CAPACITY IS REDUCED BY 50%.
AA. STORM SEWER SYSTEM SHALL BE INSTALLED AS SOON AS POSSIBLE DURING THE CONSTRUCTION PROCESS, AND ALL RUNOFF SHALL BE DIRECTED TO THE DRAINAGE SYSTEM. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SILT BARRIERS AROUND ALL DRAINAGE STRUCTURES UNTIL ALL CONSTRUCTION HAS BEEN COMPLETED.
BB. A PROTECTIVE BLANKET OR SOIL STABILIZATION MAT SHALL BE INSTALLED ON ALL SLOPES 3H:1V AND STEEPER.
CC. UPON COMPLETE STABILIZATION OF THE SITE, SILT FENCES AND OTHER TEMPORARY SILT BARRIERS SHALL BE REMOVED OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES.

INSPECTIONS AND SYSTEM MAINTENANCE:

INSPECTIONS SHALL BE PERFORMED AT LEAST TWICE EVERY CALENDAR WEEK, AT LEAST 72 HOURS APART. THE PURPOSE OF THE SITE INSPECTION PROCESS IS TO ASSESS PERFORMANCE OF POLLUTANT CONTROLS. THE INSPECTIONS WILL BE CONDUCTED BY THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT. BASED ON THESE INSPECTIONS, THE GENERAL CONTRACTOR WILL DECIDE WHETHER IT IS NECESSARY TO MODIFY THIS SWPPP, ADD OR RELOCATE CONTROLS, OR REVISE OR IMPLEMENT ADDITIONAL BEST MANAGEMENT PRACTICES IN ORDER TO PREVENT POLLUTANTS FROM LEAVING THE SITE VIA STORM WATER RUNOFF. THE GENERAL CONTRACTOR HAS THE DUTY TO CAUSE POLLUTANT CONTROL MEASURES TO BE REPAIRED, MODIFIED, MAINTAINED, SUPPLEMENTED, OR TAKE ADDITIONAL STEPS AS NECESSARY IN ORDER TO ACHIEVE EFFECTIVE POLLUTANT CONTROL.

INSPECTORS MUST HAVE SUCCESSFULLY COMPLETED THE "FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL" COURSE, OR AN EQUIVALENT COURSE, FOR INDIVIDUALS INVOLVED IN LAND-DISTURBING ACTIVITIES WHICH PROVIDES A WORKING KNOWLEDGE OF EROSION PREVENTION AND SEDIMENT CONTROLS. THE INSPECTION REPORT FORM (APPENDIX C OF THE GENERAL PERMIT) MUST IDENTIFY ALL DEFICIENCIES, ANY CORRECTIONS, WHETHER THEY ARE IDENTIFIED DURING THE CURRENT INSPECTION OR HAVE OCCURRED SINCE THE PREVIOUS INSPECTION, AND ANY ADDITIONAL COMMENTS. FOR INSPECTIONS FOLLOWING A 0.5" OR HIGHER RAIN EVENT, REPORT SHALL CLEARLY NOTE THE RAINFALL TOTAL AS MEASURED IN THE ON-SITE RAIN GAUGE. BASED ON INSPECTION RESULTS, ANY MODIFICATION NECESSARY TO INCREASE EFFECTIVENESS OF THIS SWPPP TO AN ACCEPTABLE LEVEL MUST BE MADE WITHIN 48 HOURS OF THE INSPECTION. THE INSPECTION REPORTS MUST BE COMPLETE AND ADDITIONAL REMARKS SHOULD BE INCLUDED IF NEEDED TO FULLY DESCRIBE A SITUATION. AN IMPORTANT ASPECT OF THE INSPECTION REPORT IS THE DESCRIPTION OF ADDITIONAL MEASURES THAT NEED TO BE TAKEN TO ENHANCE PLAN EFFECTIVENESS. THE INSPECTION REPORT MUST IDENTIFY WHETHER THE SITE WAS IN COMPLIANCE WITH THE SWPPP AT THE TIME OF INSPECTION AND SPECIFICALLY IDENTIFY ALL INCIDENTS OF NON-COMPLIANCE.

EXAMPLES OF SPECIFIC ITEMS TO EVALUATE DURING SITE INSPECTIONS ARE LISTED BELOW. THIS LIST IS NOT INTENDED TO BE COMPREHENSIVE. DURING EACH INSPECTION, THE INSPECTOR MUST EVALUATE OVERALL POLLUTANT CONTROL SYSTEM PERFORMANCE AS WELL AS PARTICULAR DETAILS OF INDIVIDUAL SYSTEM COMPONENTS. ADDITIONAL FACTORS SHOULD BE CONSIDERED AS APPROPRIATE TO THE CIRCUMSTANCES.
A. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. A STABILIZED CONSTRUCTION EXIT SHALL BE CONSTRUCTED WHERE VEHICLES ENTER AND EXIT. EXITS SHALL BE MAINTAINED OR SUPPLEMENTED AS NECESSARY TO PREVENT THE RELEASE OF SEDIMENT FROM VEHICLES LEAVING THE SITE. ANY SEDIMENT DEPOSITED ON THE ROADWAY SHALL BE SWEPT AS NECESSARY THROUGHOUT THE DAY OR AT THE END OF EVERY DAY AND DISPOSED OF IN AN APPROPRIATE MANNER. SEDIMENT SHALL NOT BE WASHED INTO STORM SEWER SYSTEMS.
B. SEDIMENT BARRIERS, TRAPS AND BASINS MUST BE INSPECTED AND THEY MUST BE CLEANED OUT AT SUCH TIME AS THEIR ORIGINAL CAPACITY HAS BEEN REDUCED BY 50 PERCENT. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS OR IN TRAPS AND BASINS SHALL BE INCORPORATED INTO ON-SITE SOILS OR SPREAD OUT ON AN UPLAND PORTION OF THE SITE AND STABILIZED. ADDITIONAL SEDIMENT BARRIERS MUST BE CONSTRUCTED AS NEEDED.
C. INSPECTIONS SHALL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM OR DISCHARGING FROM THE SITE. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED. IF NEEDED, IN ORDER TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS. ALL STATE AND LOCAL REGULATIONS PERTAINING TO MATERIAL STORAGE AREAS WILL BE ADHERED TO.
D. GRASSED AREAS SHALL BE INSPECTED TO CONFIRM THAT A HEALTHY STAND OF GRASS IS MAINTAINED. THE SITE HAS ACHIEVED FINAL STABILIZATION ONCE ALL AREAS ARE COVERED WITH BUILDING FOUNDATION OR PAVEMENT, OR HAVE A STAND OF GRASS WITH AT LEAST 70 PERCENT DENSITY OR GREATER IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS. THE VEGETATIVE DENSITY MUST BE MAINTAINED TO BE CONSIDERED STABILIZED. AREAS MUST BE WATERED, FERTILIZED, AND RESEEDED AS NEEDED TO ACHIEVE THIS REQUIREMENT.
E. ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING DISCHARGE OF SEDIMENT FROM THE SITE OR IMPACTS TO RECEIVING WATERS.

BY THE REGISTERED PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE ON THIS STORM WATER POLLUTION PREVENTION PLAN, THE ENGINEER CERTIFIES THAT THE STRUCTURAL BEST MANAGEMENT PRACTICES DESIGNED FOR THIS CONSTRUCTION SITE WERE DESIGNED TO CONTROL STORM RUNOFF GENERATED BY A 5-YEAR, 24-HOUR STORM EVENT.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
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ANNETTE C. HOMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
07/21/2025
STATE OF TENNESSEE

Site Storm Water Pollution Prevention Plan - Notes

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

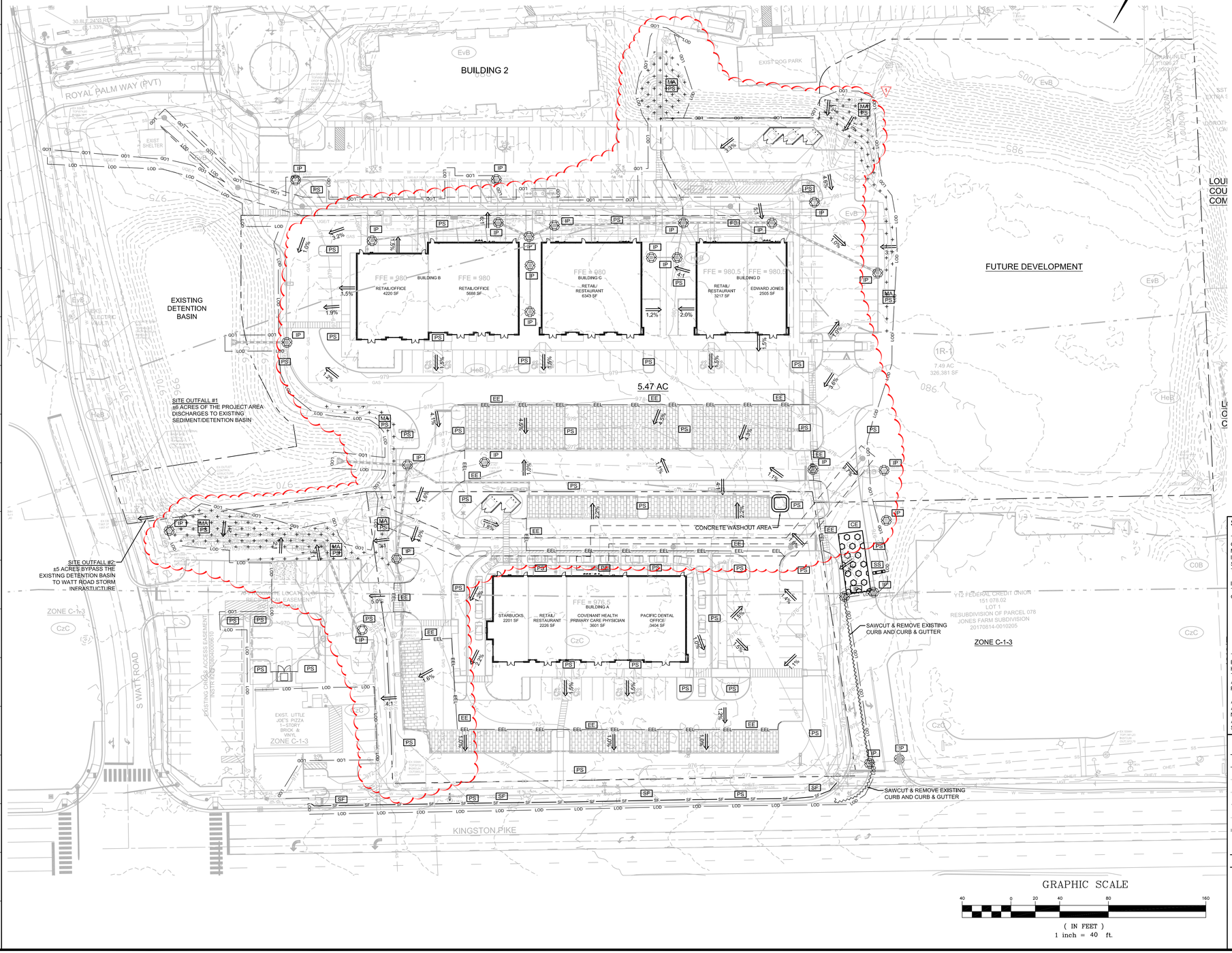
NO.	DATE	COMMENTS

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: SWPPP
SHEET: 3 OF: 37

C2.0

Tennessee811
Know what's below. Call before you dig.

REFER TO KINGSTON PIKE VILLAGE - PHASE I (TNR135979) FOR INITIAL PHASES SWPPP PLANS



GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

DEVELOPER/OWNER: DANIEL SMITH KINGSTON PROPERTIES 2, LLC PO BOX 5024 KNOXVILLE, TN 37950 (865) 406-0938
SITE OPERATOR/GENERAL CONTRACTOR:
SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

LEGEND OF SOIL TYPES

CzC	CORRYTON-UDORTHENTS-URBAN LAND COMPLEX 2-12% SLOPES
CoB	CORRYTON LOAM 2-5% SLOPES
HeB	HEISKELL SILT LOAM 2-5% SLOPES
EvB	ETOWAH-MINVALE COMPLEX 2-5% SLOPES
DeE2	DEWEY LOAM 25-40% SLOPES

CURRENT VERSIONS OF THIS STORM WATER POLLUTION PREVENTION PLAN, THE NOTICE OF INTENT, AND THE NOTICE OF COVERAGE SHALL BE KEPT ON THE SITE FOR THE DURATION OF THE PROJECT.

THE OWNER IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF CONSTRUCTION SITE POLLUTION PREVENTION CONTROLS THROUGHOUT THE LIFE OF THE PROJECT.

BY THE REGISTERED PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE ON THIS STORM WATER POLLUTION PREVENTION PLAN, THE ENGINEER CERTIFIES THAT THE STRUCTURAL BEST MANAGEMENT PRACTICES DESIGNED FOR THIS CONSTRUCTION SITE WERE DESIGNED TO CONTROL STORM RUNOFF GENERATED BY A 5-YEAR, 24-HOUR STORM EVENT FOR SITE DISCHARGES TO BODIES OF WATER LISTED ON THE 303(d) LIST FOR SEDIMENTATION/SILTATION.

REFER TO SHEET C2.0 FOR STORM WATER POLLUTION PREVENTION NOTES

REFER TO SHEETS C2.2 & C2.3 FOR STORM WATER POLLUTION PREVENTION DETAILS

SWPPP UPDATES AND AMENDMENTS

THE GC MUST UPDATE THE SWPPP, INCLUDING THE SITE MAPS, TO REFLECT THE PROGRESS OF CONSTRUCTION ACTIVITIES AND GENERAL CHANGES TO THE PROJECT SITE. UPDATES SHOULD BE MADE DAILY TO TRACK PROGRESS WHEN ANY OF THE FOLLOWING ACTIVITIES OCCUR: BMP INSTALLATION, MODIFICATION OR REMOVAL, CONSTRUCTION ACTIVITIES (E.G., PAVING, STORM SEWER INSTALLATION, UTILITY INSTALLATION, ETC.), CLEARING, GRUBBING OR GRADING, OR TEMPORARY OR PERMANENT STABILIZATION.

IMPORTANT:
THE GENERAL CONTRACTOR MUST SUBMIT A REQUEST FOR INFORMATION (RFI) TO THE CEC AND OBTAIN WRITTEN CEC APPROVAL BEFORE DOING ANY OF THE FOLLOWING;

1. MODIFYING EROSION OR SEDIMENT CONTROL BMPS (SUBSTITUTIONS ARE TYPICALLY ONLY APPROVED IF SPECIFIED MATERIALS ARE NOT AVAILABLE OR THERE IS A VALID REASON THE SPECIFIED BMP WILL NOT WORK)
2. ADDING/DELETING EROSION OR SEDIMENT CONTROL BMPS;
3. MODIFYING THE SWPPP IMPLEMENTATION SEQUENCE; OR
4. PERFORMING ANY ACTIONS OR IN ANY MANNER THAT IS CONTRARY TO THE SWPPP.

THE CONTRACTOR MAY MODIFY OR ADD ADDITIONAL BMPS, WITHOUT CEC APPROVAL, IN AN EMERGENCY SITUATION TO PREVENT SEDIMENT DISCHARGE OR PROTECT WATER QUALITY; HOWEVER, GC MUST NOTIFY THE CEC AS SOON AS PRACTICAL AS TO THEIR ACTIONS TO DISCUSS THE NEED FOR ADDITIONAL OR SUPPLEMENTAL MEASURES AND TO OBTAIN THE REQUIRED APPROVALS. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO ENSURE COMPLIANCE WITH THE PERMIT AND PROTECTION OF DOWNSTREAM WATER QUALITY.

AMENDING THE SWPPP DOES NOT MEAN THAT IT HAS TO BE REPRINTED. IT IS ACCEPTABLE TO ADD ADDENDA, SKETCHES, NEW SECTIONS, DETAILS, AND/OR REVISED DRAWINGS THAT HAVE THE CEC NAME IN PRINT, ARE STAMPED, SIGNED, DATED, AND ARE ACCOMPANIED BY WRITTEN COPY OF THE ASSOCIATED RFI AND ITS RESPONSE FROM CEC. ENGINEERED ITEMS MUST BE SIGNED AND STAMPED BY THE CEC OF RECORD FOR THE PROJECT.

LEGEND OF SYMBOLS

	PROPERTY LINE
LOD	LIMITS OF DISTURBANCE
970	EXISTING CONTOURS
970	PROPOSED CONTOURS
ST	LIMITS OF PROPOSED DRAINAGE AREAS
ST	EXISTING STORM PIPE
	PROPOSED STORM PIPE
	DIRECTION OF OVERLAND FLOW
SF	SILT FENCE
EEL	EROSION EEL PERIMETER CONTROL
CE	CONSTRUCTION EXIT
MA	EROSION CONTROL MATTING
SS	SWPPP INFORMATION SIGN
PS	PERMANENT SEEDING
IP	INLET PROTECTION

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

ANNETTE C. HOMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00109418
STATE OF TENNESSEE
08/11/2025

Site Storm Water Pollution Prevention Plan - Stage III

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

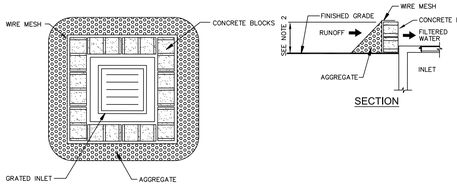
ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: SWPPP
SHEET: 4 OF: 37

C2.1

Tennessee811
Know what's below. Call before you dig.

REFER TO KINGSTON PIKE VILLAGE - PHASE I (TNR135979) FOR INITIAL PHASES SWPPP PLANS

REFER TO TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) EROSION & SEDIMENT CONTROL (ESPC) HANDBOOK, FOURTH EDITION, AUGUST 2012, FOR MORE INFORMATION REGARDING BEST MANAGEMENT PRACTICES.



PLAN

SECTION

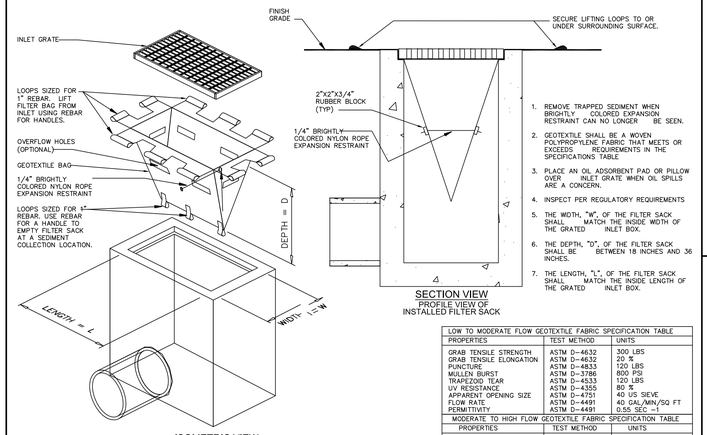
NOTES:

1. PLACE CONCRETE BLOCKS IN A SINGLE ROW AROUND PERIMETER OF INLET ON THEIR SIDES, WITH ENDS OF ADJACENT BLOCKS ABUTTING.
2. HEIGHT OF BARRIER VARIES, USE STACKS OF 4", 8", OR 12" BLOCKS, TOP OF BARRIER MUST BE LOWER THAN TOP OF CURB ELEVATIONS ADJACENT TO THE INLET. MAX. HEIGHT SHALL BE 24".
3. PLACE HARDWARE CLOTH/WIRE MESH W/ MAX. 1/2" OPENINGS OVER VERTICAL FACE OF CONCRETE BLOCKS.
4. THE AGGREGATE SHALL BE 3/4" - 2" ANGULAR CLEAN STONE WHICH WILL SLOW THE FLOW OF WATER AND ALLOW IT TO FILTER THROUGH AND OVER THE MATERIAL BEFORE ENTERING THE INLET.

MAINTENANCE NOTES:

1. INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN (IF USING INSERT-TYPE DEVICE) OR UPGRADIENT OF THE INLET.
2. REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
3. INLET PROTECTION DEVICES SHALL BE INSPECTED FOR UNINTENDED BYPASS OR IMPROPER FLOW-RATES THAT MAY CAUSE DOWNSTREAM FLOODING.
4. CONTACT THE CEC FOR ALTERNATE INLET PROTECTION IF THE DESIGNED PROTECTION MAY IMPACT DOWNSTREAM BMPS, ADJACENT SLOPES, ETC., DUE TO PONDING ISSUES. ENSURE THAT NO UNDERMINING OF INLET PROTECTION DEVICES HAS OCCURRED.
5. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

BLOCK AND AGGREGATE INLET SEDIMENT DEVICE [IP]
N.T.S.



ISOMETRIC VIEW

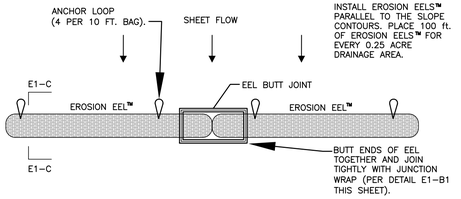
SECTION VIEW
PROFILE VIEW OF INSTALLED FILTER SACK

1. REMOVE TRAPPED SEDIMENT WHEN BRIGHTLY COLORED EXPANSION RESTRAINT CAN NO LONGER BE SEEN.
2. GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE
3. PLACE AN OIL ADSORBENT PAD OR PILLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN.
4. INSPECT PER REGULATORY REQUIREMENTS
5. THE WIDTH, "W", OF THE FILTER SACK SHALL MATCH THE INSIDE WIDTH OF THE GRATED INLET BOX.
6. THE DEPTH, "D", OF THE FILTER SACK SHALL BE BETWEEN 18 INCHES AND 36 INCHES.
7. THE LENGTH, "L", OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.

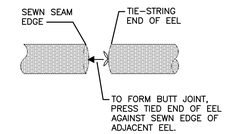
DO NOT USE IN PAVED AREAS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1
MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

FILTER SACKS (GRATED INLETS) [IP]
N.T.S.

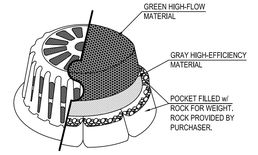


DETAIL E1-B: INTERCEPTING SHEET FLOW PERPENDICULAR TO FLOW PATH - PLAN VIEW



DETAIL E1-B1

EROSION EEL PERIMETER CONTROL [EE]
N.T.S.



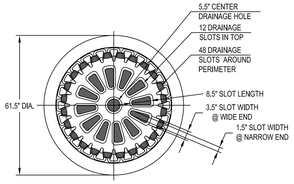
ISOMETRIC VIEW

FILTER HAT SHALL BE HIGH-FLOW MATERIAL ON TOP HALF OF HAT, HIGH-EFFICIENCY MATERIAL ON BOTTOM HALF

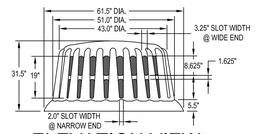
IT IS THE PURCHASERS RESPONSIBILITY TO PURCHASE APPROPRIATE FILTER HAT. PURCHASER SHALL PROVIDE ROCK FOR FILTER POCKETS.

FILTER HAT INSTALLATION
FILTER HAT SLIDES DIRECTLY OVER FILTER FRAME. TO KEEP FILTER FRAME IN PLACE OVER STORM STRUCTURE, ROCK POCKETS ARE SEWN DIRECTLY INTO FILTER HAT MATERIAL. EVERY FILTER HAT COMES IN ONE PIECE FOR EASY INSTALLATION.

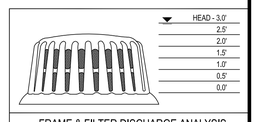
MAINTENANCE
ALL TEMPORARY EROSION, SEDIMENTATION, & POLLUTION CONTROL PRACTICES SHOULD BE INSPECTED DAILY. CONTRACTOR SHALL REMOVE SEDIMENT AND DISPOSE OF IN A PROPER MANNER. INSPECT R-100A DAILY FOR CUTS, ABRASIONS, AND PROPER INSTALLATION. REPLACE OR REPOSITION AS NECESSARY.



PLAN VIEW



ELEVATION VIEW



FRAME & FILTER DISCHARGE ANALYSIS

HEAD (FT)	EQUATION USED	OPENING AREA (SF)	FRAME FLOW (CFS)	FILTER AREA (SF)	FILTERED FLOW (CFS)
0.5	O	2.1	7	6	2
1.0	O	3.9	19	12	3
1.5	O	7.0	41	18	5
2.0	O	8.0	54	24	7
2.5	O	9.2	70	30	9
3.0	O	9.2	77	—	77

DUE TO NARROW SLOT, A TRANSITION WILL OCCUR BETWEEN WEIR AND ORIFICE CONDITIONS. ORIFICE FLOW WILL PROVIDE A MORE CONSERVATIVE ESTIMATE OF FLOW. THEREFORE THE LESSER OF THE ORIFICE AND WEIR FLOWS WILL BE USED FOR EACH STAGE CALCULATION.

FILTER MATERIAL ALLOWS 129 gpm/SF OR 0.29cfs/SF
ORIFICE EQUATION (O) = Q=0.6A(2gh)^0.5
P = FEET PERIMETER
h = HEAD IN FEET
Q = CAPACITY IN cfs
A = FREE OPEN AREA OF FRAME
g = 32.2 FEET-PER-SECOND/SECOND

REPLACEMENT FILTERS: MODEL # R-140

SILT-SAVER
Sediment Control Products

ROUND FRAME & FILTER ASSEMBLY
Model # R-100A

FRAME MATERIAL: BLACK 0.25" HMWPE
FILTER FABRIC MATERIAL: REFER TO SPEC
SCALE: NOT TO SCALE
LAST UPDATED: APRIL 2010

SILT-SAVER, INC. 1094 CULPEPPER DRIVE, CONYERS, GA 30094 PHONE: (770) 388-7818 FAX: (770) 388-7640 TOLL FREE: 1-888-382-SILT (7458) www.siltsaver.com

NOTES:

1. EXCAVATE APPROXIMATELY 4" TO 6" BELOW THE TOP OF THE INLET STRUCTURE.
2. PLACE THE FRAME ONTO THE INLET STRUCTURE ENSURING PROPER SEATING OF FRAME TO STRUCTURE.
3. SLIDE THE COVER OVER THE FRAME.
4. FILL THE COVER POCKETS WITH SOIL, #57 GRAVEL OR EQUIVALENT. THE COVER POCKETS SHOULD BE COMPLETELY FILLED TO ENSURE A GOOD SEAL BETWEEN THE GROUND AND INLET STRUCTURE.
5. BACK FILL AROUND THE FRAME AND COVER ASSEMBLY IS NOT REQUIRED TO COMPLETE INSTALLATION; HOWEVER, BACKFILLING MAY BE NECESSARY TO COMPLETE EXCAVATION REQUIREMENTS FOR THE SITE.

MAINTENANCE NOTES:

1. INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN (IF USING INSERT-TYPE DEVICE) OR UPGRADIENT OF THE INLET.
2. REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
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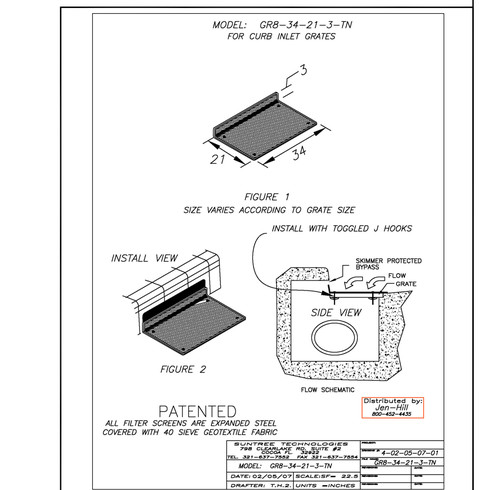
4. CONTACT THE CEC FOR ALTERNATE INLET PROTECTION IF THE DESIGNED PROTECTION MAY IMPACT DOWNSTREAM BMPS, ADJACENT SLOPES, ETC., DUE TO PONDING ISSUES. ENSURE THAT NO UNDERMINING OF INLET PROTECTION DEVICES HAS OCCURRED.
5. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.

DOMED INLET PROTECTION (PREFABRICATED) [IP]
N.T.S.



NOTES:

1. FASTEN TO GRATE PER MANUFACTURERS INSTALLATION INSTRUCTIONS.

MAINTENANCE NOTES:

1. INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN (IF USING INSERT-TYPE DEVICE) OR UPGRADIENT OF THE INLET.
2. REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
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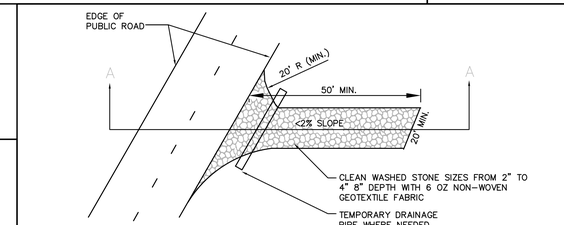
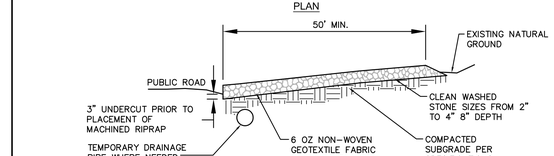
CURB INLET PROTECTION [IP]
N.T.S.



PLAN

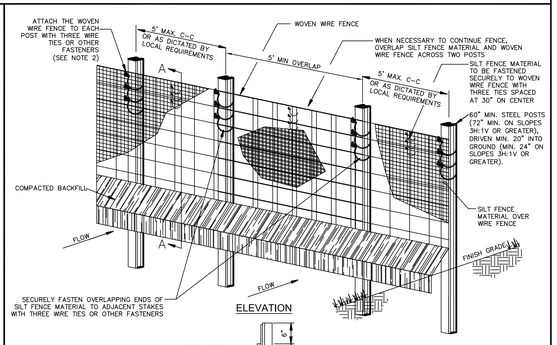


SECTION A-A

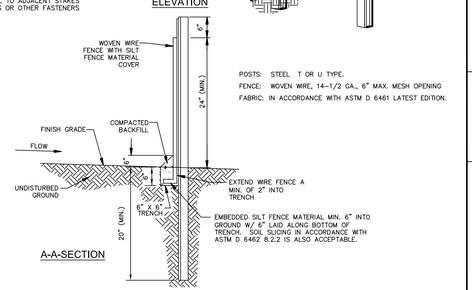
1. ALL SITE ACCESS MUST BE CONFINED TO THE CONSTRUCTION EXIT(S). BARRICADE TO PREVENT USE OF ANY LOCATIONS OTHER THAN THE CONSTRUCTION EXIT(S) WHERE VEHICLES OR EQUIPMENT MAY ACCESS THE SITE.
2. CONTRACTOR TO LOCATE TEMPORARY CONSTRUCTION FENCING, JERSEY BARRIERS, OR BOTH ALONG THE SIDES OF THE CONSTRUCTION EXIT TO PREVENT CONSTRUCTION TRAFFIC FROM SHORT CIRCUITING/BYPASSING THE EXIT.
3. PROVIDE SEDIMENT TRAP ON DOWN GRADIENT SIDE (OR BOTH SIDES) AS REQUIRED. SEDIMENT TRAP SHALL BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AND AT A MINIMUM SETBACK DISTANCE AS REQUIRED PER LOCAL JURISDICTION.
4. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT(S) IS NOT SUFFICIENT TO PREVENT TRACKING OF DIRT, DUST OR MUD, THEN TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. ALL WASH WATER MUST BE ROUTED TO A SEDIMENT TRAP OR OTHER TREATMENT AREA AND SHALL NOT BE DIRECTLY DISCHARGED OFF-SITE.
5. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT TRACKING BEYOND THE PERMITTED PROJECT AREA. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
6. ANY SEDIMENT DEPOSITED ON THE ROADWAY SHALL BE SWEPT AS NECESSARY (AND WITHIN THE SAME DAY AS DISCOVERY) AND DISPOSED OF IN AN APPROPRIATE MANNER. SEDIMENT SHALL NOT BE WASHED INTO STORM SEWER SYSTEMS.
7. EXIT(S) SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD BEYOND THE EXIT(S). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXIT(S) AS CONDITIONS DEMAND.
8. CONTRACTOR SHALL BE PERMITTED TO TURN THE STONE WHEN THE SURFACE BECOMES SMOOTH AND SURFACE VOIDS ARE FILLED TO MAINTAIN EFFECTIVENESS OF CONSTRUCTION EXIT UNTIL SUCH TIME THAT VOIDS BELOW THE SURFACE BECOME FILLED AND THE CONSTRUCTION EXIT IS NO LONGER EFFECTIVE, AT SUCH A TIME THE CONTRACTOR SHALL REMOVE THE INEFFECTIVE STONE AND REPLACE PER DETAIL.
9. IF EXIT BMP IS STILL INEFFECTIVE, GC MUST CONTACT THE ENGINEER AND SUBMIT AN RFI AS NECESSARY.

NOTE TO GC: THE GOAL OF A CONSTRUCTION EXIT AND ASSOCIATED WHEEL WASH AREAS IS TO ELIMINATE TRACK OUT. SIMPLY MANAGING TRACK OUT THROUGH DESIGNATED OR CONTINUAL STREET SWEEPING IS NOT AN ACCEPTABLE PRACTICE. WHILE STREET SWEEPING IS AN ACCEPTABLE PRACTICE FOR REMOVING DUST AND MINIMAL AMOUNTS OF FINE SEDIMENT, OBSERVABLE TRACK OUT FROM THE PROJECT SHOULD TRIGGER THE USE OF ADDITIONAL MEASURES (WHEEL WASH). CONSIDERATION OF ALTERNATE EXITS, OR DISCONTINUING VEHICLE TRAFFIC UNTIL CONDITIONS ON-SITE HAVE IMPROVED. TRACK OUT IS A SEDIMENT RELEASE. ALL SEDIMENT RELEASES MUST BE REPORTED TO THE SWCT VIA THE ONLINE CRITICAL INCIDENT REPORT.

CONSTRUCTION EXIT [CE]
N.T.S.



ELEVATION



A-A-SECTION

POSTS: STEEL T OR U TYPE.
FENCE: WOVEN WIRE, 14-1/2 GA., 6" MAX. MESH OPENING
FABRIC: IN ACCORDANCE WITH ASTM D 6461 LATEST EDITION.

1. INSTALLATION SHALL COMPLY WITH ASTM D 6462 LATEST EDITION.
2. ATTACH THE WOVEN WIRE FENCE TO EACH POST AND THE GEOTEXTILE TO THE WOVEN WIRE FENCE (SPACED EVERY 30") WITH THREE WIRE TIES OR OTHER FASTENERS, ALL SPACED WITHIN THE TOP 8" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1" VERTICALLY APART. ALSO, EACH TIE PLACED ON A POST SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
3. WHEN TWO SECTIONS OF SILT FENCE MATERIAL ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED A MINIMUM OF 60" ACROSS TWO POSTS, AS SHOWN.
4. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE SWPPP. DEPTH OF ACCUMULATED SEDIMENTS MAY NOT EXCEED ONE-HALF THE HEIGHT OF THE FENCE. MAINTENANCE CLEANOUT MUST BE CONDUCTED REGULARLY TO PREVENT ACCUMULATED SEDIMENTS FROM REACHING ONE-HALF THE HEIGHT OF THE SILT FENCE MATERIAL ABOVE GRADE.
5. ALL SILT FENCE SHALL INCLUDE WIRE SUPPORT UNLESS THE STATIC SLICING EQUIPMENT IS UTILIZED TO INSTALL THE FENCE PER DETAIL- "SILT FENCE INSTALLATION (SLICING METHOD)".
6. WRAP APPROXIMATELY 6" OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
7. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQ. INCH. COMPACT THE UPSTREAM SIDE FIRST. COMPACT EACH SIDE TWICE FOR A TOTAL OF FOUR TRIPS.
8. ADD POST CAPS AS NEEDED BASED ON SITE CONDITIONS AND APPLICABLE AGENCY REQUIREMENTS.

SEDIMENTATION / SILT FENCE WITH WIRE SUPPORT [SF]
N.T.S.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
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Knoxville, TN 37932
(865) 777-4160
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ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00109418
STATE OF TENNESSEE
07/21/2025

REVISIONS

NO.	DATE	COMMENTS

Site Storm Water Pollution Prevention Plan - Details

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee

Owner: Kingston Pike Properties 2, LLC

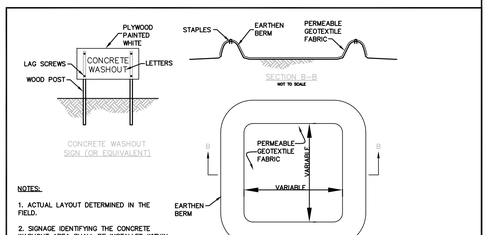
ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: SWPPP
SHEET: 5 OF: 37

C2.2

Tennessee811
Know what's below.
Call before you dig.

REFER TO KINGSTON PIKE VILLAGE - PHASE I (TNR135979) FOR INITIAL PHASES SWPPP PLANS

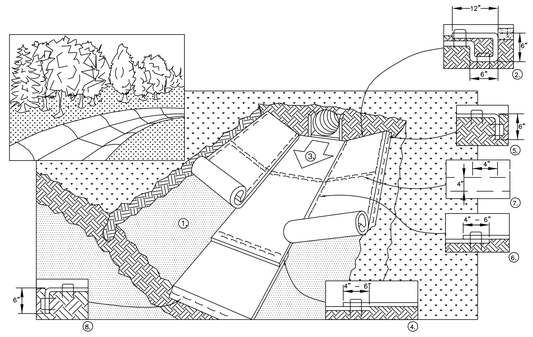
REFER TO TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) EROSION & SEDIMENT CONTROL (ESPC) HANDBOOK, FOURTH EDITION, AUGUST 2012, FOR MORE INFORMATION REGARDING BEST MANAGEMENT PRACTICES.



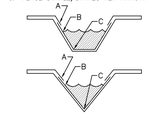
CONCRETE WASHOUT
N.T.S.

NOTES:
1. THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
2. ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
3. CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
4. SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
5. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

SWPPP INFORMATION SIGN SS
N.T.S.



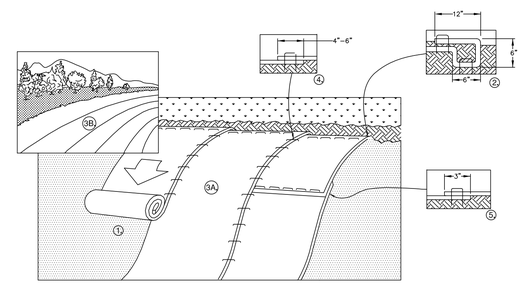
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12"APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12"PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURER'S RECOMMENDATIONS.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 4"-6" (DEPENDING ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
9. PLACE STAPLE/STAKES PER MANUFACTURER'S RECOMMENDATION FOR THE APPROPRIATE CHANNEL FLOW OR SHORELINE APPLICATION.



CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
1. HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
2. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.
3. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION.

EROSION PROTECTION BLANKET (CHANNEL INSTALLATION) MA
N.T.S.



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH AS SHOWN IN DETAIL.
2. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.

NOTES:
1. PLACE STAPLES/STAKES PER MANUFACTURER'S RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.
2. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
3. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION.

EROSION CONTROL BLANKET (SLOPE INSTALLATION) MA
N.T.S.

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ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
00 10041 EA
07/21/2025
STATE OF TENNESSEE

Site Storm Water Pollution Prevention Plan - Details

Kingston Pike Village - Phase II

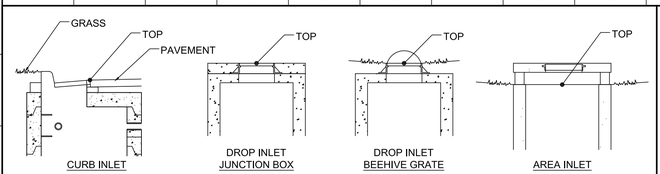
13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	COMMENTS	DATE

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: SWPPP
SHEET: 6 OF: 37

C2.3



STRUCTURE ELEVATION DETAIL

N.T.S.

STORM WATER PIPES AND STRUCTURES

STORM STRUCTURE TABLE:

ID	Type	Top Elev, (ft)**
A0	HW-ED	
A1	JB	977,10
A2	CI	974,64
B0	HW-ED	
B1	CI	977,97
C0	EX, DI	976,95
C1	JB	979,25
C2	JB	978,00
C3	YI	979,00
C4	YI	979,00
C5	YI	979,00
C6	CI	979,00
C1A	JB	979,85
C2A	DB	979,70
C2B	DB	979,70
C4A	YI	978,50
C4B	YI	979,15

STORM PIPE TABLE:

Line ID	Line Length (ft)	Line Size (in)	Line Slope (%)	Invert Down (ft)	Invert Up (ft)	Pipe Material
A0-A1	54,3	18	1,31	966,15	966,86	HDPE-WT
A1-A2	77,1	18	0,51	966,96	967,35	HDPE-WT
B0-B1	45,0	18	16,60	966,00	973,47	HDPE-WT
EX, C0-C1	35,1	18	1,46	967,50	968,01	
C1-C2	28,0	18	0,50	971,76	971,90	HDPE-WT
C2-C3	22,6	18	0,67	972,00	972,15	HDPE-WT
C3-C4	106,1	18	0,52	972,25	972,80	HDPE-WT
C4-C5	72,5	18	0,55	972,90	973,30	HDPE-WT
C5-C6	96,0	18	2,19	973,40	975,50	HDPE-WT
C1-C1A	104,2	10	0,58	976,42	977,02	HDPE-WT
C2-C2A	23,6	6	16,10	972,90	976,70	HDPE-WT
C2A-C2B	38,3	6	1,04	976,80	977,20	HDPE-WT
C4-C4A	29,1	6	7,22	973,80	975,90	HDPE-WT
C4A-C4B	21,2	6	3,07	976,00	976,65	HDPE-WT

STORM PIPE MATERIAL:

- ALL STORM PIPE LOCATED WITHIN RIGHT-OF-WAY SHALL BE RCP.
- ALL OTHER STORM PIPE SHALL BE HDPE-WT OR RCP UNLESS OTHERWISE NOTED ON THE PLAN.
- REFER TO PROJECT SPECIFICATIONS FOR APPROVED PIPE TYPES.

REINFORCED CONCRETE PIPE (RCP)

ASTM C76, CLASS III UNLESS NOTED OTHERWISE ON DRAWINGS, INSTALLED WITH FLEXIBLE PLASTIC BITUMEN GASKETS AT JOINTS.

1. GASKETS: AASHTO M198, TYPE B OR ASTM C443, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. FLARED END SECTIONS: ASTM C76 OR, FOR SECTIONS WITH TOE WALL, AASHTO H170.

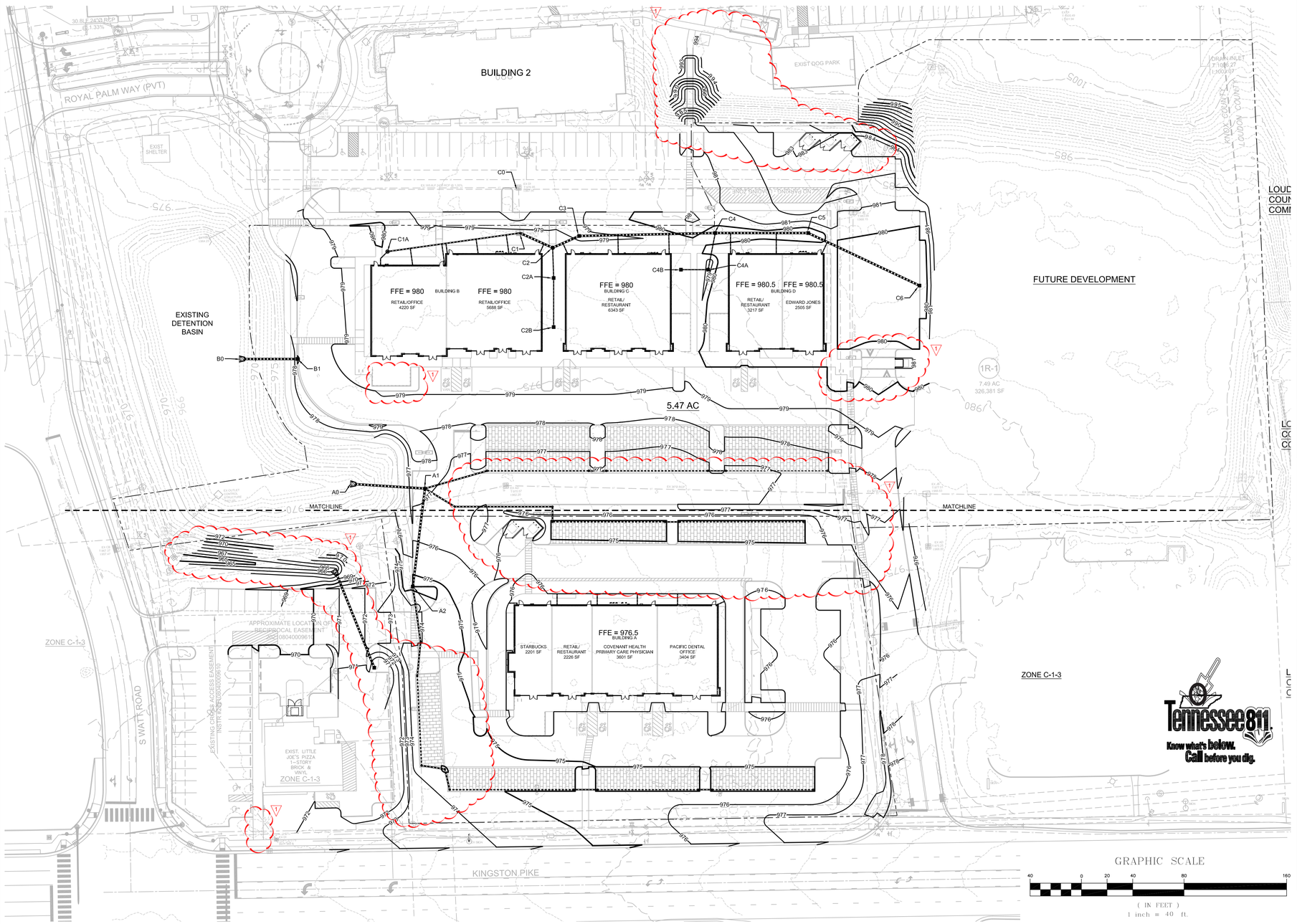
HIGH DENSITY POLYETHYLENE PIPE - WATER TIGHT (HDPE-WT)

AASHTO M 252 TYPE S OR SP, M 294 TYPE S OR SP, OR ASTM F 2306 SMOOTH INTERIOR/ANNULAR EXTERIOR.

1. RUBBER GASKET: ASTM F477
2. RUBBER GASKET JOINTS: ASTM 3212
3. CORRUGATED COUPLING BANDS; AS RECOMMENDED BY MANUFACTURER

STORM DRAIN GRATE SCHEDULE:

TYPE	MODEL	USE
JB	JBS 1152	JUNCTION BOX
CI	JBS 2064	SINGLE CURB INLET
YI	JBS 2280	YARD INLET
DB	JBS 2214	DRAIN BASIN



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 ft.

SITE GRADING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY AND PAY ALL FEES.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR SHALL RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES AND PAY ALL FEES.
3. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY EXISTING STRUCTURES THAT ARE DAMAGED DURING, AND AS A RESULT OF, CONSTRUCTION. REPAIRS AND/OR REPLACEMENTS SHALL BE MADE AS NECESSARY TO RETURN THE DAMAGED STRUCTURE(S) TO ORIGINAL OR BETTER CONDITION. REPAIRS AND/OR REPLACEMENTS SHALL BE AT THE CONTRACTORS EXPENSE.
4. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
5. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
6. ALL CUT OR FILL SLOPES SHALL BE 2.5:1 OR FLATTER UNLESS OTHERWISE NOTED.
7. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PLANS AND SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
8. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
9. CONTRACTOR SHALL ADJUST AND/OR SAW CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
10. TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY BY LYNCH SURVEYS LLC. DATED 04/03/2025. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
11. CONTRACTOR SHALL INSPECT, REPAIR, AND CLEAN ALL EXISTING DRAINAGE STRUCTURES AND PIPING. ALL SEDIMENT AND DEBRIS SHALL BE REMOVED.
12. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
13. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6 INCHES ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
14. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
15. PRECAST STRUCTURES MAY BE USED AT THE CONTRACTORS OPTION.
16. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
17. MINIMUM COVER FROM TOP OF STORM PIPE TO FINISH GRADE SHALL BE 2 FEET.
18. HEADWALLS SHALL BE CONSTRUCTED AND/OR INSTALLED IMMEDIATELY FOLLOWING INSTALLATION OF PIPE TO MINIMIZE POSSIBLE PIPE DAMAGE AND FACILITATE FINAL GRADING.
19. RIP-RAP STONE FOR EROSION PROTECTION SHALL BE PROVIDED AT ALL STORMWATER DISCHARGE LOCATIONS.
20. WATER, SEWER, AND STORM LINES SHALL BE KEPT 10 FEET APART HORIZONTALLY AND 18 INCHES APART VERTICALLY WHEN CROSSING (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE), UNLESS NOTED OTHERWISE.
21. WHEN CROSSING, WATER LINES SHALL BE CONSTRUCTED ABOVE SEWER LINES AND STORM LINES, UNLESS A LACK OF DEPTH ABOVE THE SEWER OR STORM LINE NECESSITATES CONSTRUCTION OF WATER LINES BENEATH SEWER LINES OR STORM LINES. IN THE EVENT OF A VERTICAL CONFLICT, THE FOLLOWING MODIFICATIONS MUST OCCUR:
    - SEWER LINES SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF THE CROSSING.
    - STORM LINES SHALL HAVE "O-RING" GASKETS WITH HUGGER BAND COUPLING AT LEAST 10 FEET ON BOTH SIDES OF THE CROSSING.
    - WATER LINES SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND APPROPRIATE THRUST BLOCKING MEETING THE REQUIREMENTS OF ANSI 21.10 OR 21.11 (AWWA C-151)(CLASS 50).
22. ALL WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EARTHWORK REQUIRED TO PREPARE THE UNCLASSIFIED SITE TO THE LINES AND GRADES AS SHOWN ON PLANS. THIS INCLUDES, BUT IS NOT LIMITED TO, ANY QUANTITY OF IMPORT OR EXPORT OF STRUCTURAL FILL AND/OR DISPOSAL OF UNSUITABLE MATERIAL, AS REQUIRED. ALL COSTS SHALL BE INCLUDED IN OVERALL BASE BID. ALL EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED.

DEWATERING NOTE:

WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS. REFER TO MASTER SITE SPECIFICATIONS.

PER SURVEY BY LYNCH SURVEYS LLC, THE VERTICAL DATUM USED IS NAVD88

REFER TO SHEET C8.0 FOR DRAINAGE DETAILS.

STRIPPING AND COMPACTION SCHEDULE:

TOPSOIL STRIPPING DEPTH 6"-8" AVERAGE, DEEPER IF REQUIRED LOCALLY.

REQUIRED COMPACTION PERCENTAGES (% MAX DRY DENSITY)

STANDARD PROCTOR TEST METHOD ASTM TEST # D-698

PAVEMENT, BUILDING AREA, AND DETENTION BASIN EMBANKMENT 98% (INCLUDING FUTURE PAVING AND BUILDING AREAS)

TESTING:

ALLOW 1 COMPACTION TEST PER EA. 2500 S.F. (MAX 50' X 50' AREA) PER LIFT AT BUILDING AREAS.

ALLOW 1 COMPACTION TEST PER EACH 10,000 S.F. OF CUT OR NATURAL GRADE AT BUILDING AREA.

ALLOW 1 COMPACTION TEST PER EA. 5500 S.F. (MAX 75' X 75' AREA) PER LIFT AT PARKING AREA.

ALLOW 1 COMPACTION TEST PER EACH 40,000 S.F. OF CUT OR NATURAL GRADE AT PARKING AREA.

MAXIMUM LOOSE LIFT THICKNESS SHALL BE 8", UNLESS NOTED OTHERWISE.

ALL JUNCTION BOXES, YARD INLETS, CURB INLETS, GRATE INLETS AND AREA INLETS SHALL HAVE "NO DUMPING - DRAINS TO RIVER" OR OTHER SIMILAR ENVIRONMENTAL MESSAGE PERMANENTLY CAST INTO THE GRATE/COVER.

ALL ELEVATIONS (RIM, THROAT, GRATE, TOP) AT STORM STRUCTURES ARE INTENDED TO INDICATE FLOW LINE ELEVATIONS

THERE WILL BE NO INCREASE IN THE Q50 RUNOFF FROM THE DEVELOPMENT ONTO TDOT RIGHT-OF-WAY

LEGEND:

980	EXISTING CONTOUR LINE
980	PROPOSED CONTOUR LINE
	EXISTING STORM SEWER PIPE
	PROPOSED STORM SEWER PIPE
AD / CI	EXISTING AREA DRAIN / CURB INLET
CI	PROPOSED CURB INLET
STCO	PROPOSED STORMWATER CLEANOUT
TC	TOP OF CURB ELEVATION
BC	BOTTOM OF CURB ELEVATION

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(865) 777-4160
www.site-incorporated.com

ANNETTE C. HOMELA REGISTERED ENGINEER AGRICULTURE COMMERCE 00 104 16 STATE OF TENNESSEE 09/11/2025

Site Grading and Drainage Plan - Overall

Kingston Pike Village - Phase II

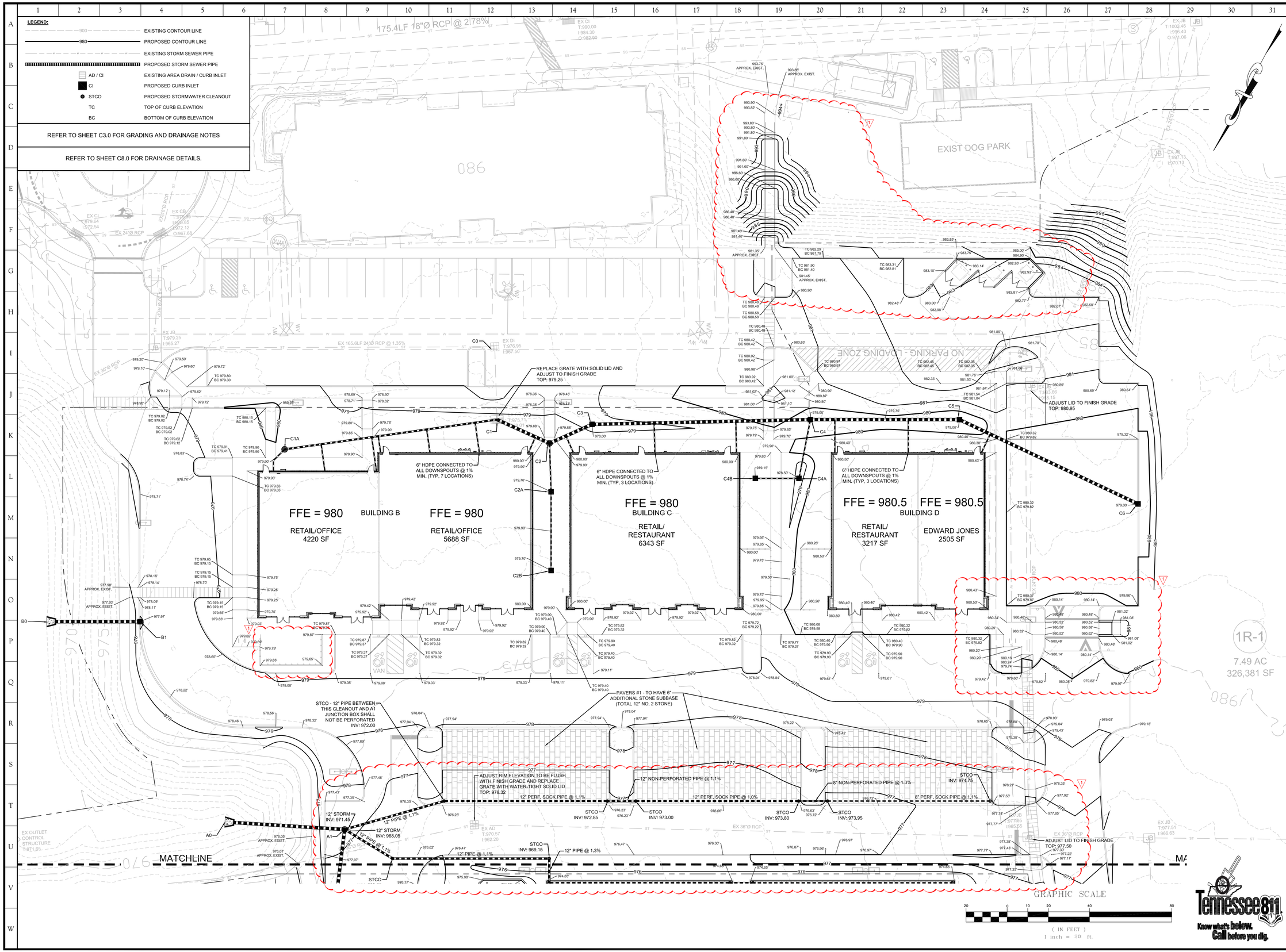
13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: Grading
SHEET: 7 OF: 37

C3.0



SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997

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ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00109154
STATE OF TENNESSEE
08/11/2025

Site Grading and Drainage Plan - Spot Elevations - South

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: Grading
SHEET: 8 OF: 37

C3.1

LEGEND:

- EXISTING CONTOUR LINE
- PROPOSED CONTOUR LINE
- EXISTING STORM SEWER PIPE
- PROPOSED STORM SEWER PIPE
- AD / CI — EXISTING AREA DRAIN / CURB INLET
- CI — PROPOSED CURB INLET
- STCO — PROPOSED STORMWATER CLEANOUT
- TC — TOP OF CURB ELEVATION
- BC — BOTTOM OF CURB ELEVATION

REFER TO SHEET C3.0 FOR GRADING AND DRAINAGE NOTES

REFER TO SHEET C8.0 FOR DRAINAGE DETAILS.

MATCHLINE

MATCHLINE

STCO - 12" PIPE BETWEEN THIS CLEANOUT AND A1 JUNCTION BOX SHALL NOT BE PERFORATED INV: 972.00

PAVERS #1 - TO HAVE 6" ADDITIONAL STONE SUBBASE (TOTAL 12" NO. 2 STONE)

ADJUST RIM ELEVATION TO BE FLUSH WITH FINISH GRADE AND REPLACE GRATE WITH WATER-TIGHT SOLID LID TOP: 976.32

12" PERF. SOCK PIPE @ 1.1%

12" NON-PERFORATED PIPE @ 1.1%

12" PERF. SOCK PIPE @ 1.0%

8" NON-PERFORATED PIPE @ 1.3%

8" PERF. SOCK PIPE @ 1.1%

STCO INV: 974.75

STCO INV: 972.85

STCO INV: 973.00

STCO INV: 973.80

STCO INV: 973.95

12" STORM INV: 971.45

12" PIPE @ 1.1%

12" STORM INV: 968.05

12" PIPE @ 1.1%

STCO INV: 968.35

12" PIPE @ 1.1%

STCO INV: 969.15

12" PIPE @ 1.3%

12" PERF. SOCK PIPE @ 1.1%

STCO INV: 970.30

STCO INV: 970.50

10" PERF. SOCK PIPE @ 1.0%

STCO INV: 971.50

ADJUST LID TO FINISH GRADE TOP: 977.50

STCO - 12" PIPE BETWEEN THIS CLEANOUT AND A1 JUNCTION BOX SHALL NOT BE PERFORATED INV: 969.30

10" PIPE @ 1.8% - THIS SEGMENT OF PIPE BETWEEN CLEANOUTS SHALL NOT BE PERFORATED

PAVERS #2 - TO HAVE 8" ADDITIONAL STONE SUBBASE (TOTAL 14" NO. 2 STONE)

12" STORM INV: 967.45

12" PIPE @ 1.0%

STCO INV: 967.90

12" PIPE @ 1.1%

STCO INV: 968.20

STCO - 12" PIPE BETWEEN THIS CLEANOUT AND A2 CURB INLET SHALL NOT BE PERFORATED INV: 968.20

PAVERS WITHIN EASTERN PARKING SPACES TO HAVE 8" ADDITIONAL STONE SUBBASE (TOTAL 14" NO. 2 STONE)

12" PERF. SOCK PIPE @ 1.0%

PAVERS #3

STCO INV: 968.90

STCO INV: 969.10

12" NON-PERFORATED PIPE @ 1.1%

12" NON-PERFORATED PIPE @ 1.2%

STCO INV: 969.30

12" PERF. SOCK PIPE @ 1.0%

10" PIPE @ 1.1% - THIS SEGMENT OF PIPE BETWEEN CLEANOUTS SHALL NOT BE PERFORATED

10" PERF. SOCK PIPE @ 1.0%

10" PIPE @ 1.3% - THIS SEGMENT OF PIPE BETWEEN CLEANOUTS SHALL NOT BE PERFORATED

STCO INV: 972.25

STCO INV: 970.30

STCO INV: 970.50

STCO INV: 971.30

STCO INV: 971.45

FFE = 976.5
BUILDING A

STARBUCKS 2201 SF	RETAIL/ RESTAURANT 2226 SF	COVENANT HEALTH PRIMARY CARE PHYSICIAN 3601 SF	PACIFIC DENTAL OFFICE 3404 SF

6" HDPE CONNECTED TO ALL DOWNSPOUTS @ 1% MIN. AND DAYLIGHT TO ADJACENT CURB (TYP. 7 LOCATIONS)

REMOVE HOOD ON CURB INLET AND ENSURE GRATE IS FLUSH WITH EXISTING AND PROPOSED ASPHALT

ADJUST RIM ELEVATION TO BE FLUSH WITH FINISH GRADE AND REPLACE GRATE WITH WATER-TIGHT SOLID LID

APPROXIMATE LOCATION OF RECIPROCAL EASEMENT 20210804000961

EXISTING 50' PERMANENT ACCESS EASEMENT

EXIST. LITTLE JOE'S PIZZA 1-STORY BRICK & VINYL

EX OUTLET CONTROL STRUCTURE T:971.65

EX 36"Ø RCP

EX 18"CMP

EX DI TC:970.70 INV:966.9

KINGSTON PIKE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Tennessee 811 Know what's below. Call before you dig.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

ANNETTE C. HOMMEL — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — 00 109174 — 07/21/2025 — STATE OF TENNESSEE

Site Grading and Drainage Plan - Spot Elevations

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: Grading
SHEET: 9 OF: 37

C3.2

PAVING MATERIALS SCHEDULE:

LIGHT DUTY ASPHALT PAVING		
AGGREGATE BASE COURSE - LIFT 1*	3"	TDOT TYPE A, CLASS A & GRADING D
AGGREGATE BASE COURSE - LIFT 2*	3"	TDOT TYPE A, CLASS A & GRADING D
BITUMINOUS ASPHALT BASE MIX**	2"	TDOT GRADING BM
BITUMINOUS ASPHALT SURFACE MIX***	1-1/2"	TDOT GRADING E
HEAVY DUTY ASPHALT PAVING		
AGGREGATE BASE COURSE - LIFT 1*	4"	TDOT TYPE A, CLASS A & GRADING D
AGGREGATE BASE COURSE - LIFT 2*	4"	TDOT TYPE A, CLASS A & GRADING D
BITUMINOUS ASPHALT BASE MIX**	3"	TDOT GRADING BM
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HEAVY DUTY CONCRETE PAVING		
AGGREGATE BASE COURSE	6"	TDOT TYPE A, CLASS A & GRADING D
PORTLAND CEMENT CONCRETE	8"	PCC 4000 PSI TYPE I W/ BASF MASTERFIBER M35 REINFORCEMENT AT A DOSAGE RATE OF 0.5 LB/CY SAWED OR FORMED CONTROL JOINTS AT 12 FOOT BY 12 FOOT SPACING MAX.
INTEGRAL BLACK CONCRETE PAVING		
AGGREGATE BASE COURSE	6"	TDOT TYPE A, CLASS A & GRADING D
PORTLAND CEMENT CONCRETE	8"	PCC 4000 PSI TYPE I W/ BASF MASTERFIBER M35 REINFORCEMENT AT A DOSAGE RATE OF 0.5 LB/CY SAWED OR FORMED CONTROL JOINTS AT 12 FOOT BY 12 FOOT SPACING MAX.

*REFER TO TDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", SECITON 303 & 903.05
**REFER TO TDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", SECTION 307 & 407
***REFER TO TDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", SECTION 407 & 411

PARKING DATA:

RETAIL/OFFICE BUILDING AREA:	25,311 SF
RESTAURANT BUILDING AREA:	8,094 SF
OUTDOOR DINING AREA:	1,850 SF
MINIMUM PARKING REQUIRED:	
1/250SF GROSS FLOOR SPACE (RETAIL/OFFICE)	101.2
1/100SF GROSS FLOOR SPACE (RESTAURANT)	80.9
1/200SF OUTDOOR DINING	9.3
TOTAL PARKING REQUIRED	191.4 = 192 SPACES
MAXIMUM PARKING ALLOWED:	
10% ABOVE MINIMUM REQUIRED	212 SPACES
PARKING PROVIDED:	
STANDARD SPACES	197 SPACES
ACCESSIBLE SPACES	10 SPACES
TOTAL PARKING PROVIDED	207 SPACES
BICYCLE PARKING REQUIRED:	
2 PER 25 PARKING SPACES	9 SPACES
BICYCLE PARKING PROVIDED:	14 SPACES

PROPERTY DATA:

DISTRICT:	FW
CLT MAP:	151
PARCEL:	81
LOT AREA:	7.49 ACRES
BUILDING TYPE:	
ZONING:	PCD
BUILDING SETBACKS:	
FRONT	20'
REAR	35'
SIDE	35'

BUILDING DATA:

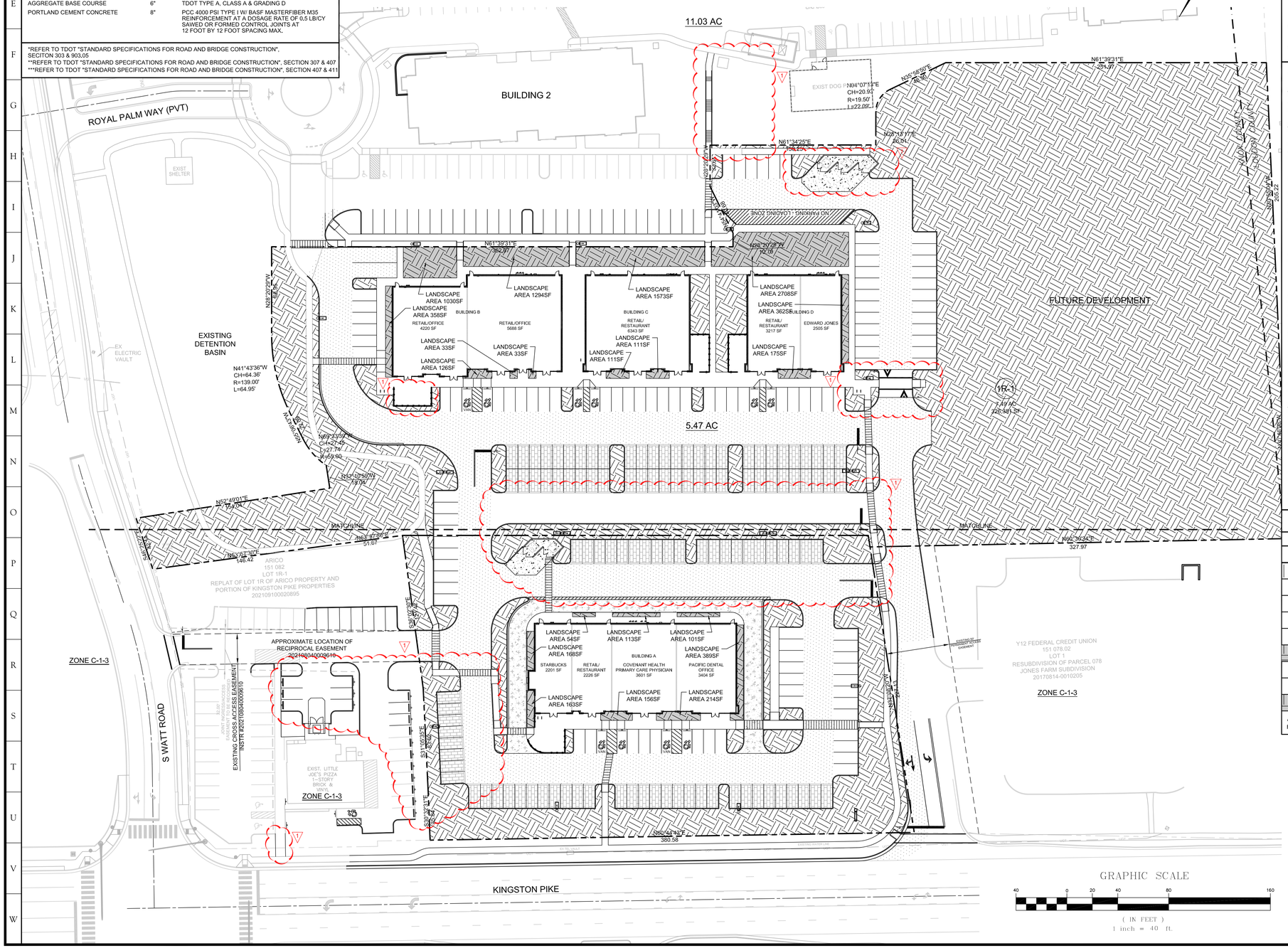
BUILDING A -
BUILDING TYPE: II-B
BUILDING MAX HEIGHT: 27'-7"

BUILDING B -
BUILDING TYPE: II-B
BUILDING MAX HEIGHT: 24'-3"

BUILDING C -
BUILDING TYPE: II-B
BUILDING MAX HEIGHT: 27'-7"

BUILDING D -
BUILDING TYPE: II-B
BUILDING MAX HEIGHT: 24'-3"

Tennessee811 Know what's below. Call before you dig.



SITE PLAN NOTES:

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. ALL DISTURBED AREAS NOT BUILT NOR PAVED UPON ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
3. ALL CURBED AND STRIPED RADII ARE TO BE 3' UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS AND RADII ARE TO FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED.
5. BUILDING DIMENSIONS SHOWN ON SITE LAYOUT PLAN ARE NOMINAL DIMENSION ONLY INTENDED FOR USE IN DETERMINING APPROXIMATE SQUARE FOOTAGES. SEE ARCHITECTURAL PLANS FOR ACTUAL DIMENSIONS OF BUILDING CONSTRUCTION.
6. EXISTING STRUCTURES WITHIN THE CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED, OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO ALL UTILITIES, STORM DRAINAGE, SIGNS, FENCING, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
8. SITE BOUNDARY , TOPOGRAPHY, UTILITY AND BOUNDARY INFORMATION WAS TAKEN FROM SURVEY BY LYNCH SURVEYS LLC, DATED 04/03/2025.
9. THE SITEWORK FOR THIS PROJECT SHALL MEET OR EXCEED "THE PROJECT SITE WORK SPECIFICATIONS". ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
10. IN ORDER TO PREVENT PONDING THE CONTRACTOR SHALL INSTALL REVERSE-PITCH GUTTER AT ALL LOCATIONS WHERE ASPHALT SLOPES AWAY FROM GUTTER.
11. REFER TO ARCHITECTURAL PLANS FOR SITE LIGHTING AND ELECTRICAL PLAN.

SITE PAVING NOTES:

PAVING ELEVATION TOLERANCE
FINAL SUBGRADE SHALL BE INSPECTED BY PAVING CONTRACTOR FOR REQUIRED ELEVATION AND ADEQUATE COMPACTION BEFORE COMMENCING ANY PAVING ACTIVITY. PAVING ELEVATION SHALL NOT HAVE MORE THAN ½" DEVIATION IN ANY 10' INCREMENT.

PAVING THICKNESS TOLERANCE
PAVING THICKNESS AT ANY ONE CORE SHALL NOT BE LESS THAN 90% OF SPECIFIED THICKNESS. THE AVERAGE OF ALL APPROVED TESTS MUST BE AT LEAST EQUAL TO THE SPECIFIED THICKNESS FOR EACH MATERIAL. NOT MORE THAN 20% OF ALL APPROVED TEST MAY FALL BELOW SPECIFIED MINIMUMS. ANY AREA FOUND TO BE LESS THAN 90% SPECIFIED THICKNESS SHALL BE OVERLAIN WITH ASPHALT AS DIRECTED BY SITE, INC.

TESTING DURING PLACEMENT
GENERAL CONTRACTOR SHALL PERFORM SEVERAL SPOT CHECKS OF PAVING BASE THICKNESS PRIOR TO INSTALLATION OF ANY ASPHALTIC OR CONCRETE PAVING. DENSITY TESTS SHALL BE PERFORMED ON EACH LIFT AT THE RATE OF ONE TEST PER 10,000 SQUARE FEET.

CONTRACTOR SHALL PROVIDE FOR TESTING OF COMPLETED PAVING INSTALLATION FOR COMPLIANCE WITH DESIGN CRITERIA AND REQUIRED THICKNESS. CONTRACTOR SHALL REPLACE ALL NON-CONFORMING MATERIAL AT HIS OWN EXPENSE.

TESTING SHALL BE PERFORMED ONLY BY AN INDEPENDENT TESTING AGENT APPROVED BY SITE, INC. TEST HOLES NOT SPOTTED BY SITE, INC. MAY NOT BE CONSIDERED ACCEPTABLE.

ALLOW A MINIMUM OF SIXTEEN CORE TESTS TO BE LOCATED ONLY BY WRITTEN INSTRUCTION BY SITE, INC.

THE PAVING CONTRACTOR SHALL REPAIR ALL CORING HOLES BY FILLING HOLES WITH CONCRETE FLUSH TO TOP OF PAVEMENT.

ASPHALTIC PAVING MATERIALS
MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE SPECIFICATION OF THE HIGHWAY DEPARTMENT OF THE STATE IN WHICH THE PROJECT IS LOCATED. REFER TO PAVING MATERIALS LEGEND.

CONCRETE
CONCRETE CURBING SHALL BE 4000 PSI 28 DAY STRENGTH 2" - 3" SLUMP, (NO CURB DEFORMATION) 3% - 5% AIR ENTRAINED. INSTALL WITH RC-70 TACK COAT EMULSION OVER ASPHALT.

PROVIDE CYLINDER BREAK TEST - 3/500 L.F. OF CURBING OR 1-DAY POUR WITH BREAKS - 1 @ 7-DAYS, 2 @ 28-DAYS. COMPLY WITH ASTM C-31 AND ASTM C-39. ALSO PROVIDE ONE SLUMP TEST PER 500 L.F. OF CURBING OR 1-DAY POUR.

PROVIDE EXPANSION JOINT @ 50' O.C. (MAX) AND CONTROL JOINTS @ 20' O.C. (MAX) AT ALL CONCRETE PAVING AREAS. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

PAVEMENT MARKING
PROVIDE PAVEMENT MARKING AS SHOWN ON THE DRAWINGS. STRIPING SHALL BE 4" WIDE OR AS NOTED OTHERWISE ON THE PLANS. ALL MARKINGS SHALL BE THERMOPLASTIC AND SHALL MEET THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, MARCH 1, 2006 (SECTION 918.23).

CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT MARKINGS THAT DO NOT CONFORM TO TDOT STANDARDS FOR MODIFIED INTERSECTION.

TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS BEFORE DARK HOURS. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED.

ALL MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE MUTCD AND TDOT STANDARD DRAWINGS T-M-1 THROUGH T-M-4.

REFER TO SHEET C8.1 & C8.2 FOR SITE DETAILS

SITE AREA DATA

TOTAL SITE AREA	326,381 SF (7,49 ACRES)
PERVIOUS AREA	162,656 SF
IMPERVIOUS AREA	163,725 SF
LOT COVERAGE	50.16%
TOTAL LENGTH OF NORTH BUILDING FACING PARKING OR VEHICULAR DRIVE	462 LF
NORTH BUILDING LANDSCAPE AREA REQUIRED (2.5 x 613)	1,155 SF
NORTH BUILDING LANDSCAPE AREA PROVIDED	1,356 SF
TOTAL LENGTH OF SOUTH BUILDINGS FACING PARKING OR VEHICULAR DRIVE	750 LF
SOUTH BUILDINGS LANDSCAPE AREA REQUIRED (2.5 x 613)	1,875 SF
SOUTH BUILDINS LANDSCAPE AREA PROVIDED	7,913 SF

AREAS NOT PROPOSED TO BE DEVELOPED DURING THIS CONSTRUCTION PHASE WILL BE RESPONSIBLE FOR ADHERING TO TOWN OF FARRAGUT COVERAGE / LANDSCAPING REQUIREMENTS UPON DEVELOPMENT

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ANNETTE C. HOMMEL REGISTERED ENGINEER AGRICULTURE COMMERCE 00 100 154 STATE OF TENNESSEE 07/21/2025

Site Area and Layout Plan - Overall

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

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C4.0

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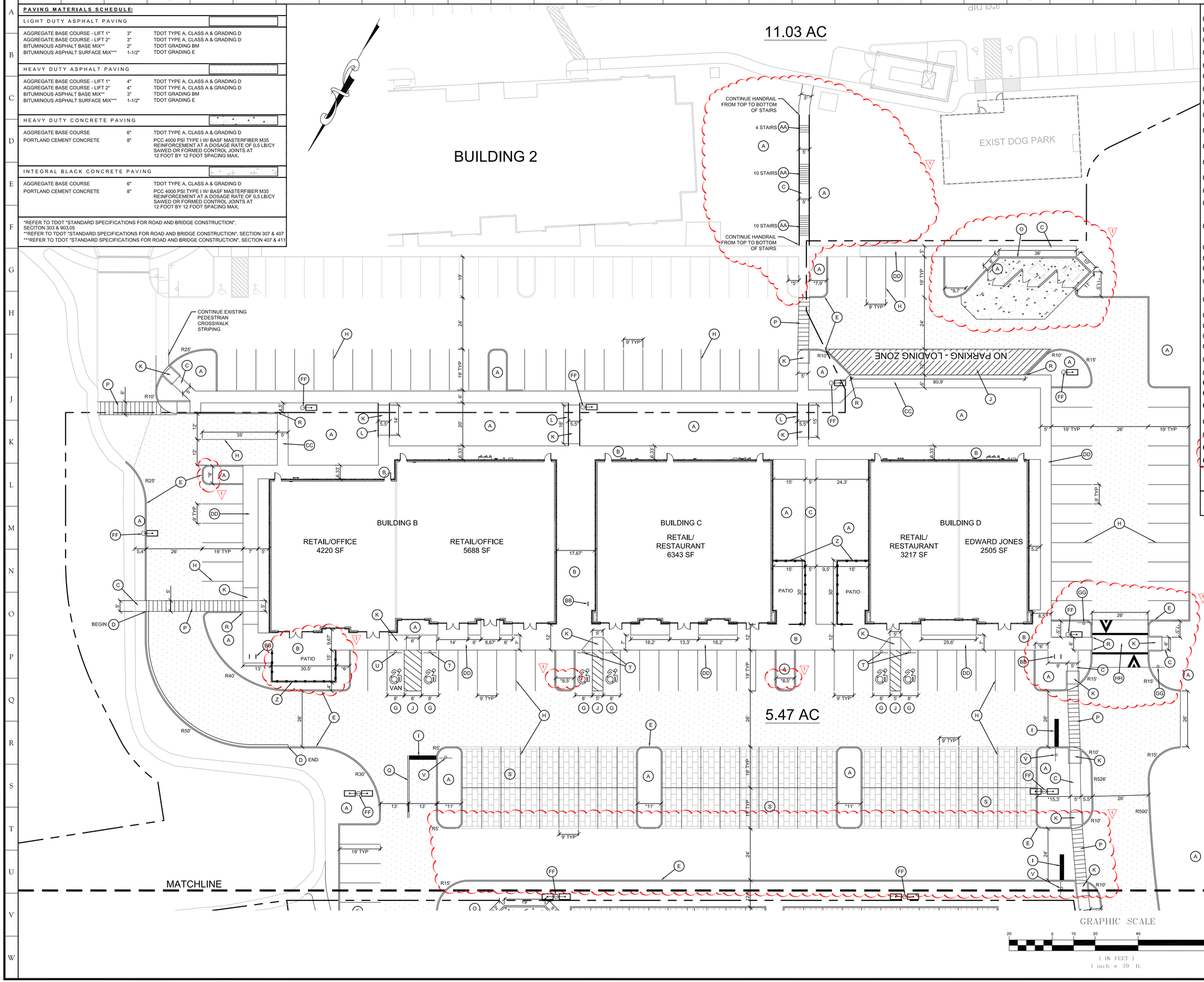

LEGEND:

- (A) LANDSCAPE AREA/ISLAND
- (B) CONCRETE SIDEWALK (SEE ARCHITECTURAL PLANS)
- (C) CONCRETE SIDEWALK (SEE DETAIL SHEET)
- (D) 18" CONCRETE CURB & GUTTER (SEE DETAIL SHEET) (TYP)
- (E) 6" EXTRUDED CURB (SEE DETAIL SHEET) (TYP)
- (F) TDOT 6-30 CURB & GUTTER (SEE DETAIL SHEET)
- (G) HANDICAP SPACE WITH PAINTED ACCESSIBLE SYMBOL (SEE DETAIL SHEET) (TYP)
- (H) 4" WIDE PAINTED WHITE PARKING STRIPES (TYP)
- (I) 2' WIDE WHITE PAINTED STOP BAR (SEE DETAIL SHEET) (TYP)
- (J) 4" WIDE PAINTED YELLOW STRIPES AT 2'-0" O.C. AT 45° ANGLE (TYP)
- (K) ADA RAMP (SEE DETAIL SHEET, MATCH TYPE SHOWN IN PLANS)
- (L) HANDRAIL AT ADA RAMP IN EXCESS OF 6" DROP (SEE DETAIL SHEET)
- (M) THERMOPLASTIC WHITE DIRECTIONAL ARROW (SEE DETAIL SHEET) (TYP)
- (N) MONUMENT SIGN (SEE ARCHITECTURAL PLANS)
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- (P) PEDESTRIAN CROSSWALK W/ 6" WIDE PAINTED WHITE STRIPES PERPENDICULAR TO DIRECTION OF TRAVEL AND (1) 8" WIDE WHITE STRIPE BORDER ON BOTH SIDES OF CROSSWALK, SEE PLAN FOR WIDTH, (SEE DETAIL SHEET)
- (Q) 4" WIDE PAINTED DOUBLE SOLID YELLOW LINE
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- (T) "RESERVED PARKING" SIGN (R7-8) (SEE DETAIL SHEET)
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- (FF) LIGHT POLE ASSEMBLY (SEE PHOTOMETRIC PLANS)
- (GG) W11-2 & W16-7P "PEDESTRIAN CROSSING" SIGN (SEE DETAIL SHEET)
- (HH) RAISED PEDESTRIAN CROSSWALK (SEE DETAIL SHEET)

REFER TO SHEET C4.0 FOR LAYOUT AND PAVING NOTES

REFER TO SHEET C8.1 & C8.2 FOR SITE LAYOUT DETAILS

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ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE
09/11/2025

Site Layout Plan - South

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	DATE	COMMENTS
1	09/11/2025	Town Comments

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SHEET: 11 OF: 37

C4.1

Tennessee 811
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5.47 AC

MATCHLINE

MATCHLINE

REFER TO SUPPLEMENTAL PLAN SET FOR IMPROVEMENTS/MODIFICATIONS TO LITTLE JOE'S PIZZA

ARICO
151 082
LOT 1R-1
LOT 1R OF ARICO PROPERTY AND
OF KINGSTON PIKE PROPERTIES
202109100020895

APPROXIMATE LOCATION OF RECIPROCAL EASEMENT
202108040009610

REFER TO SHEET C8.1 & C8.2 FOR SITE LAYOUT DETAILS

REFER TO SHEET C4.0 FOR LAYOUT AND PAVING NOTES

LEGEND:

- (A) LANDSCAPE AREA/ISLAND
- (B) CONCRETE SIDEWALK (SEE ARCHITECTURAL PLANS)
- (C) CONCRETE SIDEWALK (SEE DETAIL SHEET)
- (D) 18" CONCRETE CURB & GUTTER (SEE DETAIL SHEET) (TYP)
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Site Layout Plan - North

Kingston Pike Village - Phase II

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C4.2

CONTACTS

TDOT	CITY	WATER & SEWER	ELECTRIC	GAS	TELEPHONE
TDOT REGION 1 TRAFFIC OFFICE TRANSP. MGMT. CENTER, 2ND FLOOR 7238 REGION LANE KNOXVILLE, TENNESSEE 37914 (865) 594-2456	DARRYL SMITH TOWN OF FARRAGUT 11408 MUNICIPAL CENTER DRIVE FARRAGUT, TENNESSEE 37934 (865) 966-7057	FIRST UTILITY DISTRICT 122 DURWOOD ROAD KNOXVILLE, TENNESSEE 37922 (865) 966-9741	NEW SERVICE DEPARTMENT LENOIR CITY UTILITIES BOARD 7698 CREEKWOOD PARK BOULEVARD LENOIR CITY, TENNESSEE 37771 (865) 986-6591	NEW SERVICE DEPARTMENT KNOXVILLE UTILITIES BOARD 4505 MIDDLEBROOK PIKE KNOXVILLE, TENNESSEE 37919 (865) 558-2555	TOM NITZ TDS TELECOM 701 CONCORD ROAD KNOXVILLE, TN 37933 (865) 671-4546

KNOXVILLE UTILITIES BOARD GAS NOTES:

A. GAS LINES MUST BE INSTALLED BY A KUB APPROVED CONTRACTOR OR BY KUB.
B. CONTRACTOR TO INSTALL GAS MAIN WITHIN EITHER OF 2 CONSTRUCTION WINDOWS ONLY.
   1. AFTER SEWER, WATER & UNDERGROUND ELECTRIC HAS BEEN INSTALLED BUT PRIOR TO CURB & ASPHALT.
   2. BEGIN CONSTRUCTION OF GAS MAIN NO SOONER THAN 2 WEEKS AND NO LATER THAN 3 WEEKS AFTER CURB & ASPHALT (EXCEPTION OF ROAD CROSSINGS INSIDE SUBDIVISION).
C. ALL ROAD CROSSING SHALL BE BORED UNLESS STATED OTHERWISE. CONTRACTOR SHALL NOT CUT CURB OR ASPHALT DURING CONSTRUCTION.
D. ALL ROAD CROSSINGS SHALL BE BORED OR BACKFILLED WITH STONE PER THE GOVERNING BODY AND PRIOR TO ASPHALT & CURB.
E. CONTRACTOR TO STUB GAS MAIN ENDS AS DESCRIBED BY KUB FIELD INSPECTOR AND LEAVE THE AIR TEST PRESSURE ON THE MAIN IF NEW INSTALLATION IS NOT TIED-UP TO EXISTING MAIN.
F. DEVIATION FROM KUB LAYOUT MUST HAVE KUB INSPECTORS PRIOR APPROVAL AND BE APPROPRIATELY NOTED.
G. ALL MAIN SHALL BE INSTALLED AT NORMAL COVER OF 30" IN DEPTH AS PER KUB STANDARDS (PROVIDED).
H. INSTALL MAIN 7' TO 9' FROM PROPERTY LINE, NO CLOSER THAN 3' TO THE CURB WITHOUT APPROVAL FROM KUB.
I. CONTRACTOR TO CONTACT KUB ENGINEERING FIELD SERVICES (PH=865-558-2786) TO LAYOUT MAIN ONE OCCURRENCE AS REQUESTED BY CONTRACTOR 3 DAYS PRIOR TO CONSTRUCTION.
J. IF PIPE TRENCH IS WITHIN 3' OF CURB OR EDGE OF PAVEMENT, THE CONTRACTOR MUST INSTALL FULL STONE BACKFILL IN ACCORDANCE WITH CITY, COUNTY OR STATE REQUIREMENTS.
K. GAS MAIN TO BE INSTALLED TO KUB SPECIFICATIONS.

REFER TO SHEET C8.2 & C8.3 FOR SITE UTILITY DETAILS

WATER, SEWER, GAS, ELECTRIC, TELEPHONE LINES, AND THEIR APPURTENANCES SHALL BE INSTALLED PER THE STANDARDS AND SPECIFICATIONS OF THE UTILITY PROVIDERS. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE UTILITY PROVIDERS AND PAY ALL FEES.

SITE UTILITY NOTES:

1. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES. ALL FILL MATERIALS SHALL BE STRUCTURAL FILL AS DESCRIBED IN THE SPECIFICATIONS FOR "EARTHWORK".

2. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.

3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

4. ALL UTILITIES TAKEN OUT OF SERVICE SHALL BE DEMOLISHED AND REMOVED.

5. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS A MINIMUM OF 72 HOURS BEFORE COMMENCEMENT OF UTILITY INSTALLATION AND FOR COORDINATION OF CONNECTIONS TO EXISTING LINES.

6. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING. CONTRACTOR SHALL PAY ALL FEES.

7. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE. AS BUILT DRAWINGS SHALL BE PREPARED AND SUBMITTED TO UTILITY PROVIDERS AS REQUIRED AFTER CONSTRUCTION AND COPIED TO ENGINEER OF RECORD.

8. CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 3 FEET ON WATER LINES AND 4 FEET ON SEWER LINES.

9. WATER, SEWER, AND STORM LINES SHALL BE KEPT 10 FEET APART HORIZONTALLY AND 18 INCHES APART VERTICALLY WHEN CROSSING (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE), UNLESS NOTED OTHERWISE.

10. WHEN CROSSING, WATER LINES SHALL BE CONSTRUCTED ABOVE SEWER LINES AND STORM LINES, UNLESS A LACK OF DEPTH ABOVE THE SEWER OR STORM LINE NECESSITATES CONSTRUCTION OF WATER LINES BENEATH SEWER LINES OR STORM LINES. IN THE EVENT OF A VERTICAL CONFLICT, THE FOLLOWING MODIFICATIONS MUST OCCUR:
   -SEWER LINES SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF THE CROSSING.
   -STORM LINES SHALL HAVE "O-RING" GASKETS WITH HUGGER BAND COUPLING AT LEAST 10 FEET ON BOTH SIDES OF THE CROSSING.
   -WATER LINES SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND APPROPRIATE THRUST BLOCKING MEETING THE REQUIREMENTS OF ANSI 21.10 OR 21.11 (AWWA C-151)(CLASS 50).

11. WATER LINES SHALL BE AS FOLLOWS:
   -PIPE SIZES LESS THAN 3 INCHES: SEAMLESS COPPER TUBING (TYPE "K" SOFT COPPER PER ASTM B88) OR PVC WATER PIPE (ASTM D2241, CONTINUALLY MARKED AS REQUIRED).
   -PIPE SIZES 3 INCHES AND LARGER: DUCTILE IRON WATER PIPE (AWWA C151, PRESSURE CLASS 350 (3 INCHES - 21 INCHES) .

12. COPPER WATER PIPE SHALL BE SLEEVED WITH 4" SCHEDULE 40 PVC PIPE.

13. ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING AS DESCRIBED IN SPECIFICATIONS.

14. SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
   -PVC (ASTM D3034, RATED SDR 26, CONTINUALLY MARKED AS REQUIRED), FOR PIPES LESS THAN 12 FEET DEEP.
   -DUCTILE IRON PIPE (AWWA C151), FOR PIPES MORE THAN 12 FEET DEEP.

15. TOPS OF EXISTING MANHOLES SHALL BE RAISED OR LOWERED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS AND 6 INCHES ABOVE FINISHED GROUND ELEVATIONS IN UNPAVED AREAS.

16. GAS LINES SHALL BE SIZED, LOCATED, AND INSTALLED BY UTILITY PROVIDER. CONTRACTOR SHALL COORDINATE AND PAY ALL FEES.

17. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.

18. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.

19. REFER TO ARCHITECTRUAL/MEP PLANS FOR TIE-IN OF ALL UTILITIES. LOCATIONS SHOWN ARE APPROXIMATE.

SITE UTILITY LEGEND:

	EXISTING SANITARY SEWER
	EXISTING WATER LINE
	EXISTING OVERHEAD ELECTRIC & TELEPHONE
	EXISTING UNDERGROUND TELEPHONE
	EXISTING GAS
	EXISTING STORM PIPE - FOR REFERENCE ONLY
GAS	PROPOSED GAS LINE
SS	PROPOSED SANITARY SEWER LINE
W	PROPOSED WATER LINE
UGT	PROPOSED UNDERGROUND ELEC & TELEPHONE
UE	PROPOSED UNDERGROUND ELEC
UT	PROPOSED UNDERGROUND TELEPHONE
	PROPOSED STORM PIPE - FOR REFERENCE ONLY
SSCO	SANITARY SEWER CLEANOUT
DI	DUCTILE IRON
EX	EXISTING
IGV	ISOLATION GATE VALVE
SSMH	MANHOLE
SS	SANITARY SEWER
FH	FIRE HYDRANT ASSEMBLY
ARV	AIR RELEASE VALVE

BACKFLOW PREVENTERS FOR DOMESTIC WATER LINES TO BE LOCATED INSIDE OF BUILDINGS

FUTURE DEVELOPMENT

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
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Knoxville, TN 37932
(865) 747-4160
www.site-incorporated.com

ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00 109 14
STATE OF TENNESSEE
07/21/2025

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

Kingston Pike Village - Phase II

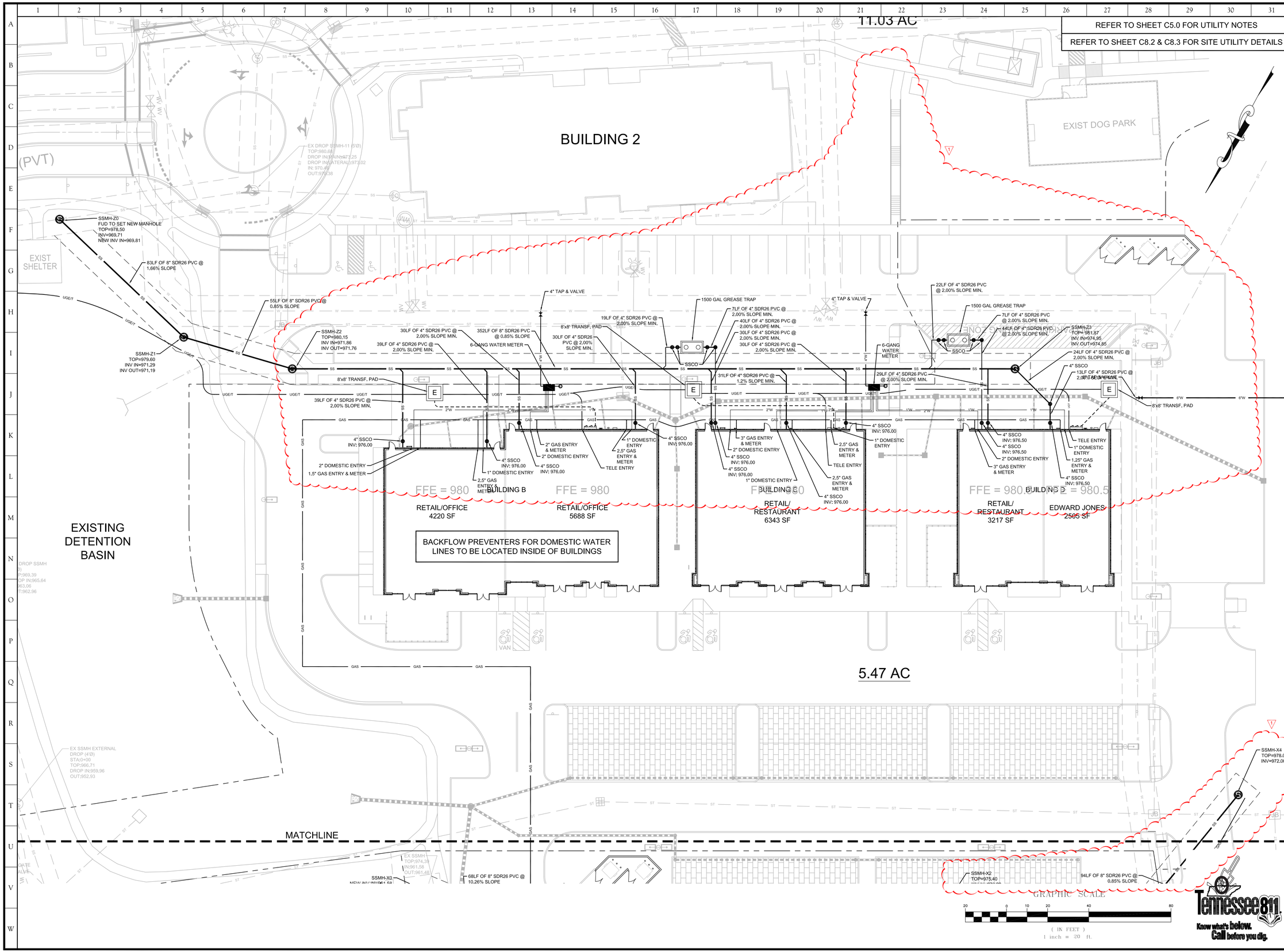
13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

Site Utility Plan - Overall

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: Utility
SHEET: 13 OF: 37

C5.0

Tennessee 811
Know what's below. Call before you dig.



REFER TO SHEET C5.0 FOR UTILITY NOTES

REFER TO SHEET C8.2 & C8.3 FOR SITE UTILITY DETAILS

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ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00109134
STATE OF TENNESSEE
08/11/2025

Site Utility Plan - South

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: Utility
SHEET: 14 OF: 37

C5.1

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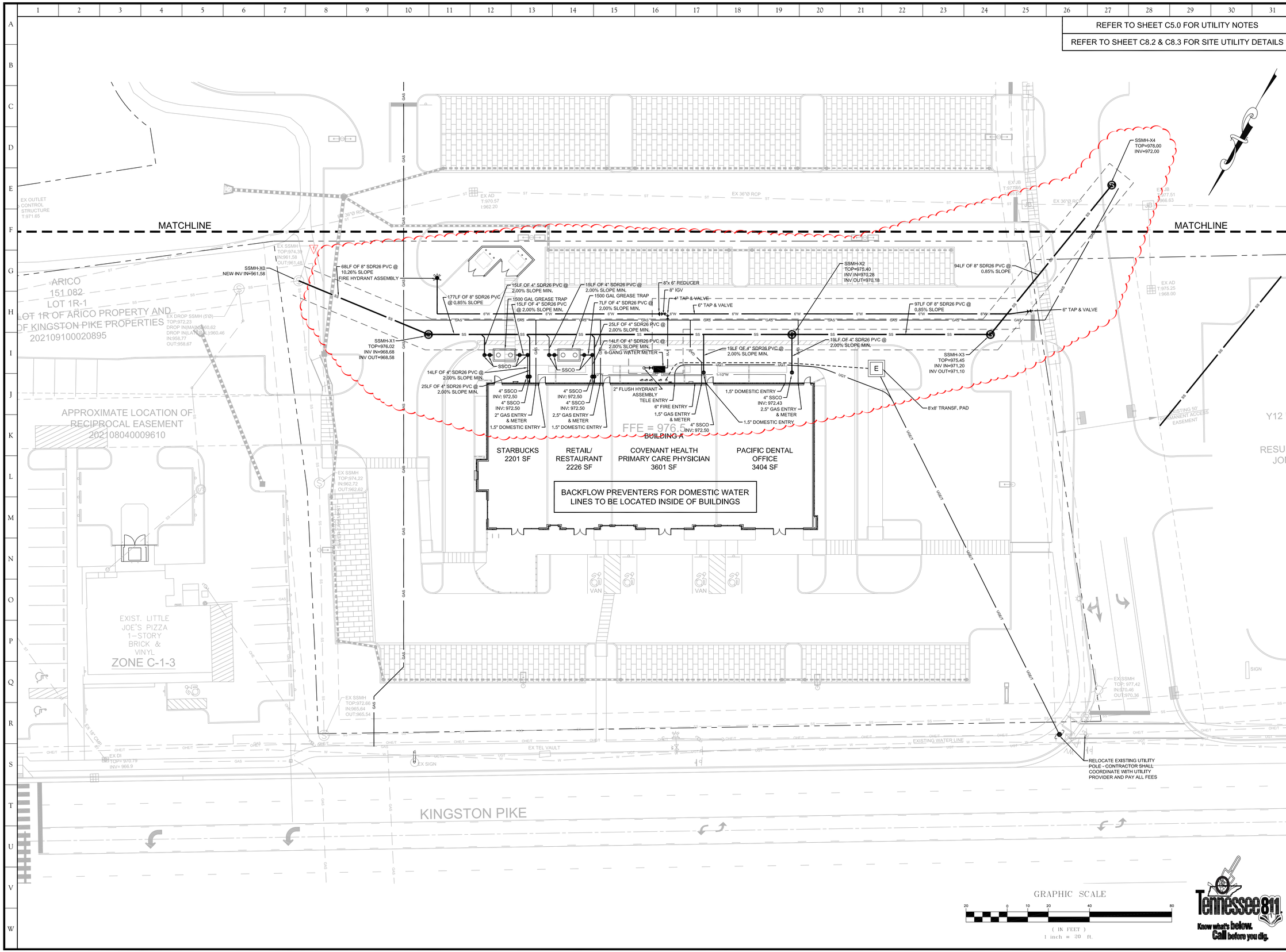
REFER TO SHEET C8.2 & C8.3 FOR SITE UTILITY DETAILS



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STATE OF TENNESSEE
08/11/2025

Site Utility Plan - North

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

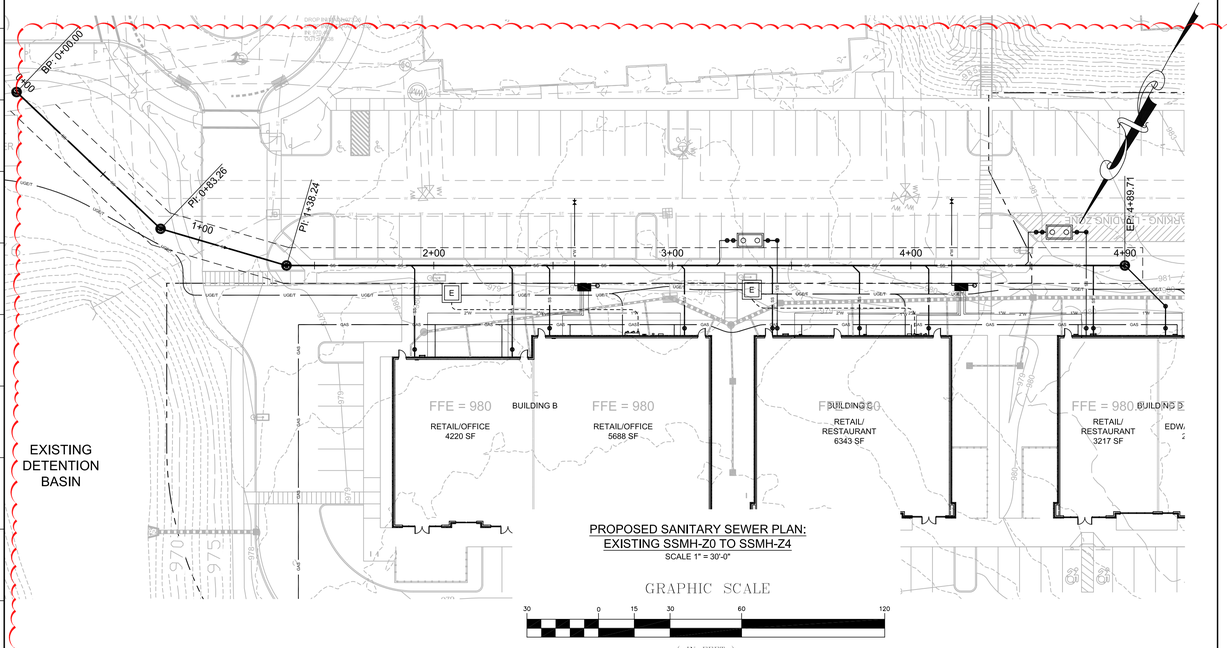
NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: Utility
SHEET: 15 OF: 37

C5.2

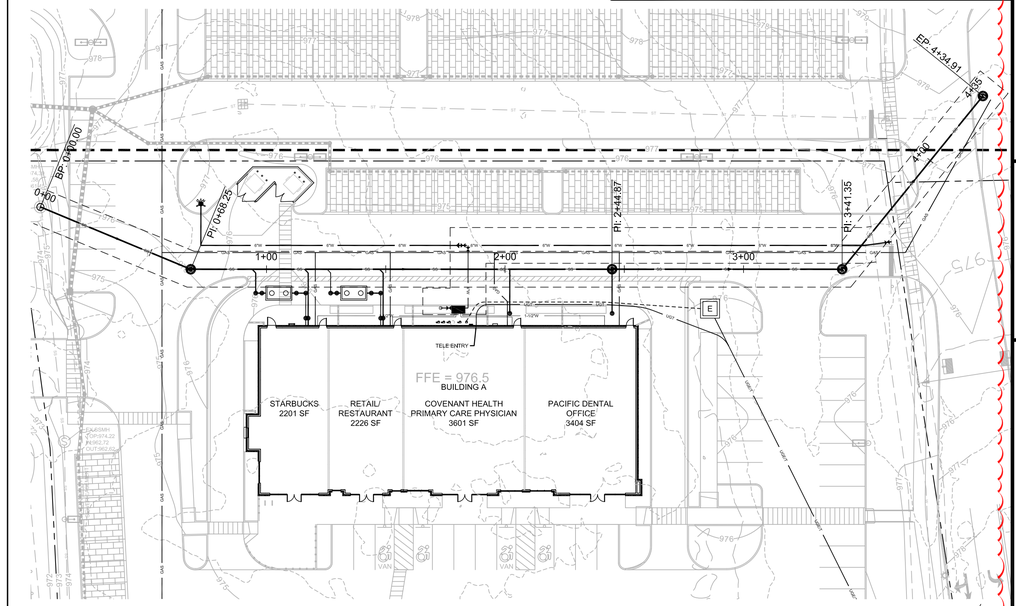
REFER TO SHEET C5.0 FOR UTILITY NOTES

REFER TO SHEET C8.2 & C8.3 FOR SITE UTILITY DETAILS



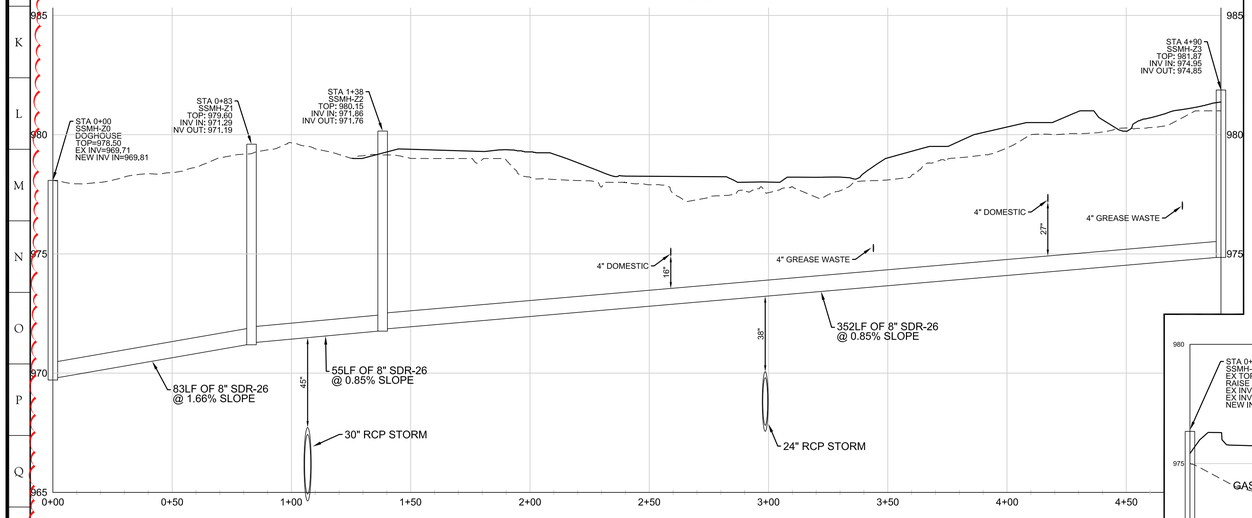
PROPOSED SANITARY SEWER PLAN:
EXISTING SSMH-Z0 TO SSMH-Z4
SCALE 1" = 30'-0"

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

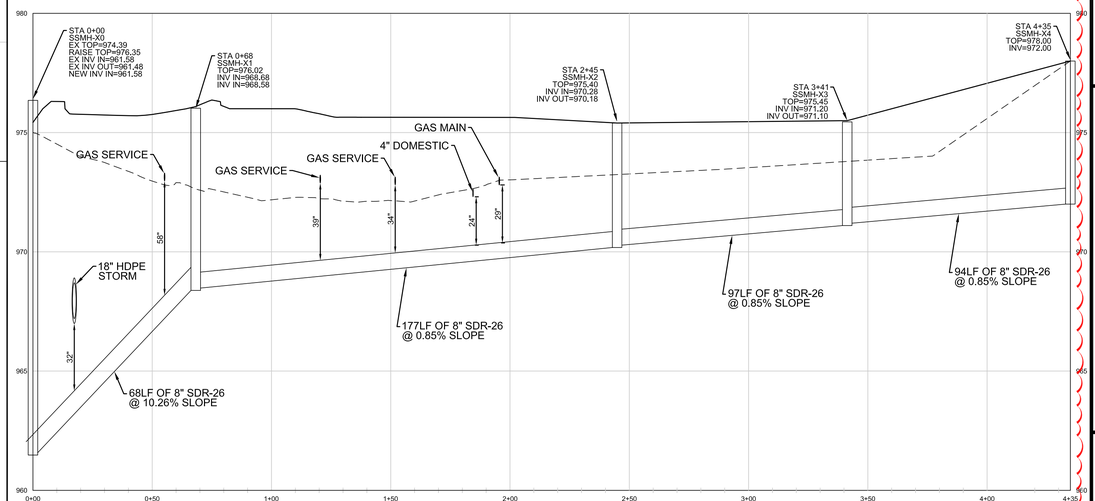


PROOSED SANITARY SEWER PLAN:
EXISTING SSMH-X0 TO SSMH-X2
SCALE 1" = 30'-0"

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.



PROPOSED SANITARY SEWER MAIN PROFILE : EXISTING SSMH-Z0 TO SSMH-Z4
HORIZONTAL SCALE: 1" = 30'-0"
VERTICAL SCALE: 1" = 3'-0'



PROPOSED SANITARY SEWER MAIN PROFILE:
EXISTING SSMH-X0 TO SSMH-X4
HORIZONTAL SCALE: 1" = 30'-0"
VERTICAL SCALE: 1" = 3'-0'

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COMMERCE
No. 00109134
STATE OF TENNESSEE
08/11/2025

Proposed Sanitary Sewer Mains Plan and Profile

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: Utility
SHEET: 16 OF: 37

C5.3

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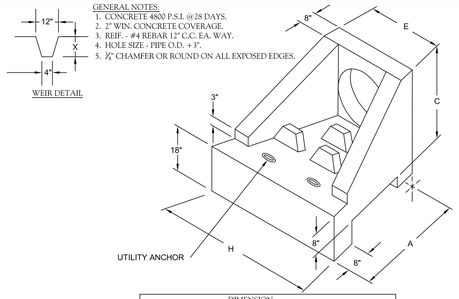
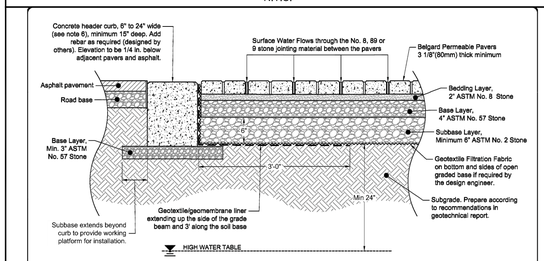


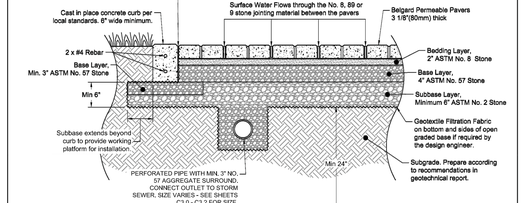
DIMENSION						
PIPE DIA.	A	C	E	H	X	WEIGHT
12"	4'-0"	2'-8"	2'-9"	4'-9"	12"	3,037#
15"	4'-0"	2'-8"	2'-9"	4'-9"	15"	3,037#
18"	4'-0"	2'-11"	3'-0"	5'-3"	15"	3,760#
24"	5'-6"	3'-5"	3'-6"	6'-6"	18"	5,467#

PRE-CAST ENERGY DISSIPATOR HEADWALL 12" - 24"
N.T.S.



Design Notes:
1. Depth of subbase subject to site specific hydraulic and structural requirements. Contact Belgard Commercial for design assistance.
2. Paver dimensions subject to aspect and plan ratio requirements based on traffic loading, including any maintenance and/or emergency vehicles.
3. Geotechnical engineer needs to balance structural stability and soil infiltration when recommending subgrade conditions.
4. Elevation of horizontal discharge pipe(s) subject to storage reservoir requirements. Ensure proper cover over the horizontal pipes.
5. Where the filtration geotextile is used, verify with the manufacturer that the material is not subject to clogging and meets requirements of AASHTO M-288.
6. When traffic flow is perpendicular to the direction of the header, the width of the header curb should be sufficient to ensure that a bounding tire caused by differential settlement will land on the header and not skip over it.
7. Strictly pedestrian applications may substitute base/subbase layers with one 6" base layer of ASTM No. 57 stone.

BELGARD	belgardcommercial.com 877-235-4273 details@belgard.com	This drawing is for illustrative purposes only and should not be used for construction without the signature of a registered professional engineer.	Belgard Permeable Paving Detail PICP Pavement Transition to Asphalt	Scale: N.T.S. Drawn by: MAH Date: 5/7/18 Drawing number: PICP_7



Design Notes:
1. Depth of subbase subject to site specific hydraulic and structural requirements. Contact Belgard Commercial for design assistance.
2. Paver dimensions subject to aspect and plan ratio requirements based on traffic loading.
3. Geotechnical engineer needs to balance structural stability and soil infiltration when recommending subgrade conditions.
4. Elevation of horizontal discharge pipe(s) subject to storage reservoir requirements. Ensure proper cover over the horizontal pipes.
5. Where the filtration geotextile is used, verify with the manufacturer that the material is not subject to clogging and meets requirements of AASHTO M-288.
6. ASTM No. 2 stone may be substituted with No. 3 or No. 4 stone.
7. Strictly pedestrian applications may substitute base/subbase layers with one 6" base layer of ASTM No. 57 stone.

BELGARD	belgardcommercial.com 877-235-4273 details@belgard.com	This drawing is for illustrative purposes only and should not be used for construction without the signature of a registered professional engineer.	Belgard Permeable Paving Detail PICP Pavement w/ Underdrain	Scale: N.T.S. Drawn by: MAH Date: 5/7/18 Drawing number: PICP_2

MATERIALS

A. CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED REQUIREMENTS OF THIS SECTION AND APPLICABLE STATE HIGHWAY DEPARTMENT SPECIFICATIONS SECTION(S) REFERRED TO OR NOTED ON THE CONSTRUCTION DRAWINGS WHICH PERTAIN TO PAVING BASE COURSE DESIGN, MATERIALS, PREPARATION, AND EXECUTION. MATERIALS SHALL BE AS INDICATED IN THE CONSTRUCTION DOCUMENTS AND SHALL COMPLY WITH STATE HIGHWAY DEPARTMENT SPECIFICATIONS REGARDING SOURCE, QUALITY, GRADATION, SOUNDNESS, ABSORPTION, LIQUID LIMIT, PLASTICITY INDEX, AND MIX PROPORTIONING.

B. SOIL MATERIALS
1. CLASS IA: COARSE-GRAINED SOILS; CONFORMING TO ASTM D2487 GROUP SYMBOL, GW, GP, SW AND SP.
2. CLASS IB: COARSE-GRAINED SOILS WITH FINES; CONFORMING TO ASTM D2487 SYMBOL, GM, GC, SM AND SC.
3. CLASS IVA: FINE-GRAINED SOILS (INORGANIC); CONFORMING TO ASTM D2487 GROUP SYMBOL ML AND CL.
4. CLASS IVB: FINE GRAINED SOILS (INORGANIC); CONFORMING TO ASTM D2487 GROUP SYMBOL MH AND CH.
5. CLASS V: ORGANIC SOILS; CONFORMING TO ASTM D2487 GROUP SYMBOL OL, OH, AND PT.

C. AGGREGATE MATERIAL
1. COARSE AGGREGATE TYPE A1: MATERIAL SHALL BE SOUND CRUSHED LIMESTONE, CRUSHED SLAG, GRANULATED SLAG, CRUSHED GRAVEL, OR OTHER TYPES OF SUITABLE MATERIAL MEETING THE REQUIREMENTS OF THIS SECTION. CRUSHED LIMESTONE, CRUSHED SLAG AND CRUSHED GRAVEL SHALL MEET THE FOLLOWING GRADING REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
1 1/2 INCHES	100
1 INCH	75-100
3/4 INCH	65-100
3/8 INCH	35-75
NO. 4	30-60
NO. 30	7-30
NO. 200	0-5

2. COARSE AGGREGATE TYPE A2: MATERIAL SHALL BE CRUSHED CARBONATE, CRUSHED GRAVEL, CRUSHED AIR-COOLED SLAG, GRANULATED SLAG, A MIXTURE OF CRUSHED AND GRANULATED SLAG, OR OTHER TYPES OF SUITABLE MATERIAL MEETING THE REQUIREMENTS OF THIS ITEM. CRUSHED CARBONATE STONE OR MIXTURES OF CRUSHED AND GRANULATED SLAGS SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
2 INCHES	100
1 INCH	70-100
3/4 INCH	50-90
NO. 4	30-60
NO. 30	7-30
NO. 200	0-5

3. AGGREGATE TYPE A3: PEA GRAVEL + NATURAL STONE; WASHED, FREE OF CLAY, SHALE, ORGANIC MATTER; GRADED IN ACCORDANCE WITH ASTM C136 AND D2487; TO THE FOLLOWING LIMITS:
A. MINIMUM SIZE: 1/4 INCH
B. MAXIMUM SIZE: 5/8 INCH

4. FINE AGGREGATE TYPE A4: SAND - NATURAL RIVER OR BANK SAND; WASHED; FREE OF SILT, CLAY, LOAM, FRIABLE OR SOLUBLE MATERIALS, AND ORGANIC MATTER; GRADED IN ACCORDANCE WITH ASTM C136 AND D2487; WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	PERCENT PASSING
NO. 4	90-100
NO. 50	7-40
NO. 200	0-5

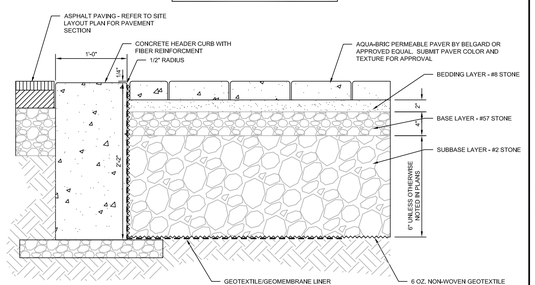
5. CLASS 1A1: MATERIAL SHALL BE SOUND CRUSHED LIMESTONE, CRUSHED SLAG, GRANULATED SLAG, CRUSHED GRAVEL, OR OTHER TYPES OF SUITABLE MATERIAL MEETING THE REQUIREMENTS OF THIS ITEM. CRUSHED LIMESTONE, CRUSHED SLAG AND CRUSHED GRAVEL SHALL MEET THE FOLLOWING GRADING REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
1-1/2 INCHES	100
NO.4	< 10
NO. 200	< 5

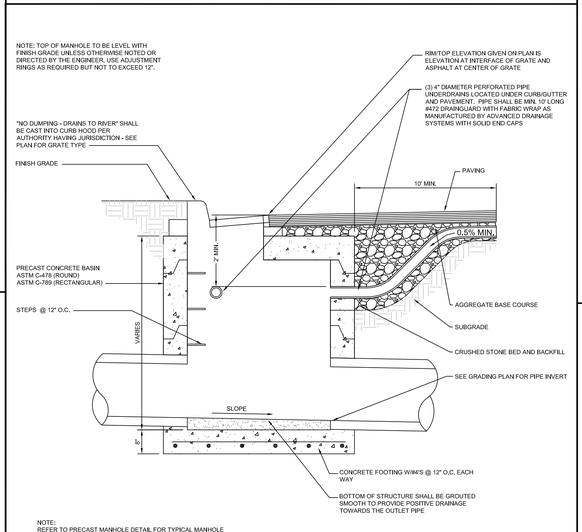
6. CLASS 1B: MATERIAL SHALL BE CRUSHED CARBONATE, CRUSHED GRAVEL, CRUSHED AIR-COOLED SLAG, GRANULATED SLAG, A MIXTURE OF CRUSHED AND GRANULATED SLAG, OR OTHER TYPES OF SUITABLE MATERIAL MEETING THE REQUIREMENTS OF THIS ITEM. CRUSHED CARBONATE STONE OR MIXTURES OF CRUSHED AND GRANULATED SLAGS SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
1-1/2 INCHES	100
NO.4	< 50
NO. 200	< 5

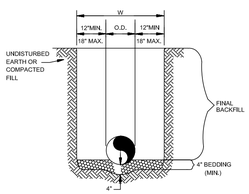
NOTE:
PERMEABLE PAVERS SHALL BE INSTALLED PER BELGARD PERMEABLE PAVER DETAILS, SPECIFICATIONS, AND INSTALLATION INSTRUCTIONS



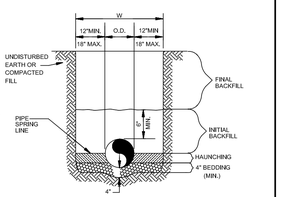
PERMEABLE PAVEMENT SECTION
N.T.S.



CURB INLET
N.T.S.



REINFORCED CONCRETE PIPE (RCP)
N.T.S.



ALL OTHER PIPES INCLUDING HDPE
N.T.S.

GENERAL NOTES

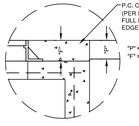
1. BEDDING SHALL BE CLASS IVA WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS IVB COMPACTED TO 85% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS IVA OR CLASS IVB OR CLASS II COMPACTED TO 85% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS IVA WORKED BY HAND, OR CLASS IVB OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. AND 4.
6. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IVA COMPACTED TO 95% STANDARD PROCTOR.
7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-LATEST EDITION.
8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)

STORM SEWER TRENCH & BEDDING
N.T.S.

GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER
2. ALL REINFORCING BARS TO HAVE 2" COVER.
3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF BOX.
5. ALL REINFORCING BARS TO BE GRADE 60.
6. PRECAST MANHOLE MAY BE USED UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER.

PRECAST MANHOLE SPECIFICATIONS

ASTM C478
CONCRETE: 4000 PSI AE (MIN.)
JOINT: WATERTIGHT RUBBER GASKET



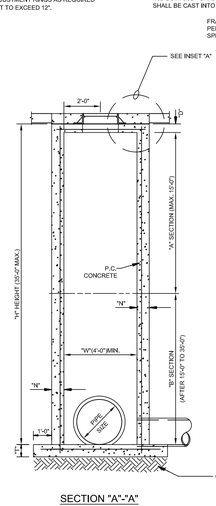
INSET "A"

NOTE: TOP OF MANHOLE TO BE LEVEL WITH FINISH GRADE UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER, USE ADJUSTMENT RINGS AS REQUIRED BUT NOT TO EXCEED 12".

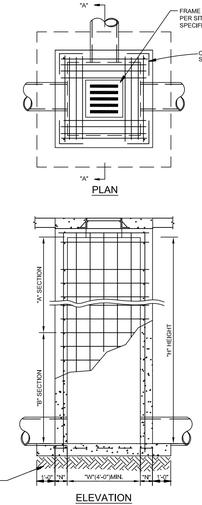
"NO DUMPING - DRAINS TO RIVER" SHALL BE CAST INTO COVER

FRAME & COVER PER SITEWORK SPECIFICATIONS

SEE INSET "A"



SECTION "A"-"A"



ELEVATION

GRATE INLET
N.T.S.

PLAN



CORNER BAR

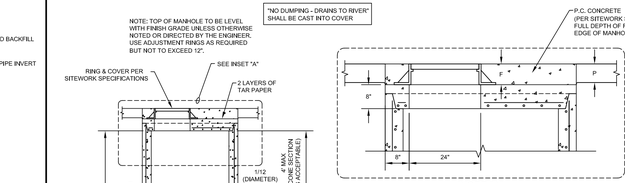
REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4's @ 6" E.W.
"B"	#4's @ 6" E.W.

TABLE OF 'W' DIMENSIONS			
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIGHT	30°	45°
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-8"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-8"
DOUBLE	FOR "A" SECTION ONLY.		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4's @ 9"	#4's @ 10"
	BETWEEN 4' & 7'	#5's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"
"B"	4'	#4's @ 6"	#4's @ 10"
	BETWEEN 4' & 7'	#5's @ 6"	#4's @ 10"

TABLE OF "F" & "N" DIMENSIONS				
SECTION	WIDTH ("W")	"F"	"N"	"O"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"
"B"	4'	6" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	6" + PIPE THICKNESS	10"	8"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
W1 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER

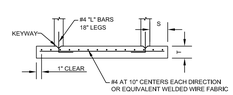


INSET "A"

PRECAST BASE SECTION SET ON CONCRETE BLOCKS FOUNDATION SLAB AND INVERT POURED MONOLITHIC.

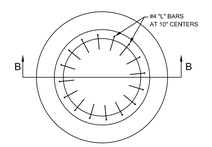
SECTION "A"-"A"

FOUNDATION SLAB AND BASE SECTION MAY BE POURED MONOLITHIC OR SEPARATELY WITH A KEYWAY. INVERT SHALL BE POURED AFTER PLACEMENT OF MANHOLE.

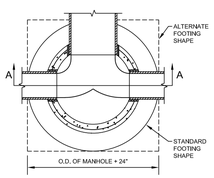


S = 0 FOR DEPTHS LESS THAN OR EQUAL TO 6'; S = 9" FOR DEPTHS GREATER THAN 6'.
T = 6" FOR DEPTHS LESS THAN OR EQUAL TO 6'; T = 9" FOR DEPTHS GREATER THAN 6'.

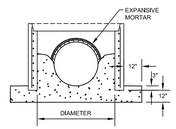
SECTION "B"-"B"



PRECAST FOUNDATION SLAB



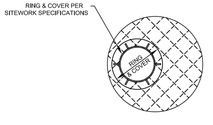
PLAN OF FOOTING



PRECAST BASE SECTION SET ON CONCRETE BLOCKS FOUNDATION SLAB AND INVERT POURED MONOLITHIC.

ALTERNATE FOOTING

PRECAST MANHOLE
N.T.S.



PLAN OF MANHOLE TOP

BASE SECTION DIMENSIONS	
SIZE OF PIPE	MIN. DIA.
24" OR SMALLER	48"
30" - 36"	60"
42" - 48"	72"

GENERAL NOTES:

1. PRECAST MANHOLE SHALL BE MANUFACTURED PER LATEST ASTM C478 SPECIFICATIONS.
2. THE CONFIGURATION DETAILS SHOWN ARE DESCRIPTIVE ONLY AND MAY BE VARIED TO CONFORM WITH AN ESTABLISHED MANUFACTURING PROCEDURE.
3. FORMED OR CUT OUT OPENINGS SHALL BE PROVIDED WHERE PIPE INLETS AND OUTLETS ARE SHOWN ON THE PLANS.
4. THE TOP OF THE INLET SHALL NOT BE SET BELOW THE TOP OF THE OUTLET PIPE.
5. REINFORCEMENT SHALL BE CUT AT PIPE OPENINGS.
6. WHERE PIPES DO NOT ENTER OR EXIT RADIALLY, USE NEXT LARGER SIZE MANHOLE.
7. CIRCUMFERENTIAL REINFORCEMENT SIZE AND PLACEMENT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS TO A MAXIMUM DEPTH OF 20 FEET, OVER 20 FOOT DEPTH CIRCUMFERENTIAL REINFORCEMENT IS INCREASED TO 0.24 SQUARE INCHES STEEL REQUIRED PER LINEAR FOOT, TO A MAXIMUM DEPTH OF 30 FEET.
8. FOR PIPE CONNECTIONS, A RUBBER GASKET IN ACCORDANCE WITH ASTM RUBBER GASKET SPECIFICATIONS C443 OR C923 AND CAST INTEGRALLY IN MANHOLE MAY BE USED AS AN ALTERNATE TO EXPANSIVE MORTAR.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

ANNETTE C. HOMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
00 10174
07/21/2025
STATE OF TENNESSEE

Site Details

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

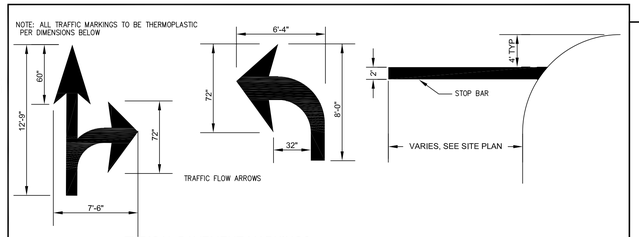
NO.	DATE	COMMENTS

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT #: 2040
FILE: Details
SHEET: 17 OF: 37

C8.0

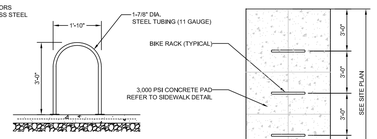
Tennessee 811
Know what's below. Call before you dig.

NOTE: ALL TRAFFIC MARKINGS TO BE THERMOPLASTIC PER DIMENSIONS BELOW

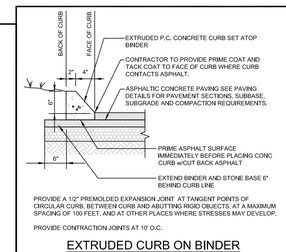


TYPICAL PAVEMENT MARKINGS
N.T.S.

NOTE:
BIKE RACK BY BELSON OUTDOORS
2 BIKE "U" BIKE RACK, STAINLESS STEEL
SURFACE MOUNT
MODEL # CBBR-2UR-SS



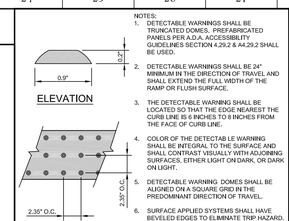
BIKE RACK
N.T.S.



PROVIDE A 1/2" PREMOLDED EXPANSION JOINT AT TANGENT POINTS OF CIRCULAR CURB, BETWEEN CURB AND ABUTTING RIGID OBJECTS, AT A MAXIMUM SPACING OF 100 FEET, AND AT OTHER PLACES WHERE STRESSES MAY DEVELOP.

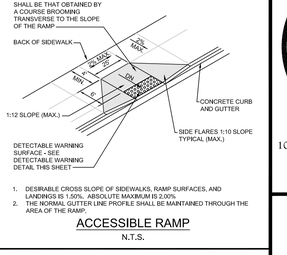
PROVIDE CONTRACTION JOINTS AT 10' O.C.

EXTRUDED CURB ON BINDER
N.T.S.



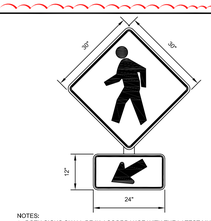
NOTES:
1. DETECTABLE WARNINGS SHALL BE TRUNCATED DOMES. PREFABRICATED PANELS PER A.D.A. ACCESSIBILITY GUIDELINES SECTION 4.29.2 & 4.29.2 SHALL BE USED.
2. DETECTABLE WARNINGS SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE RAMP OR FLUSH SURFACE.
3. THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES TO 8 INCHES FROM THE FACE OF CURB LINE.
4. COLOR OF THE DETECTAB LE WARNING SHALL BE INTEGRAL TO THE SURFACE AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK, OR DARK ON LIGHT.
5. DETECTABLE WARNING DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.
6. SURFACE APPLIED SYSTEMS SHALL HAVE BEVELED EDGES TO ELIMINATE TRIP HAZARD.
7. SLOPE OF DETECTABLE WARNING SHALL BE AT THE SAME SLOPE AS THE ADJACENT LANDING

DETECTABLE WARNING DETAIL
N.T.S.



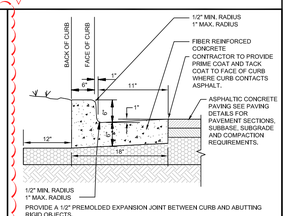
1. DESIRABLE CROSS SLOPE OF SIDEWALKS, RAMP SURFACES, AND LANDINGS IS 1.50%. ABSOLUTE MAXIMUM IS 2.00%
2. THE NORMAL GUTTER LINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.

ACCESSIBLE RAMP
N.T.S.



NOTES:
1. BOTH SIGNS SHALL BE IN ACCORDANCE WITH THE LATEST MUTCD EDITION. WARNING SIGNS W11-2 (TOP) & W16-7P (BOTTOM) WITH A BLACK LEGEND ON A FLUORESCENT YELLOW-GREEN BACKGROUND

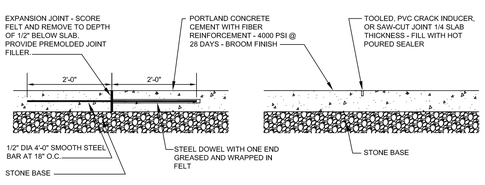
"PEDESTRIAN CROSSING" SIGN
N.T.S.



PROVIDE A 1/2" PREMOLDED EXPANSION JOINT BETWEEN CURB AND ABUTTING RIGID OBJECTS.

PROVIDE CONTRACTION JOINTS AT 10' O.C.

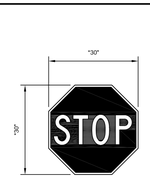
18" CURB & GUTTER
N.T.S.



- PROVIDE CONTRACTION JOINTS IN HEAVY DUTY CONCRETE PAVEMENT EVENLY SPACED AT 15' x 15' MAX.

- JOINT MUST BE SAW-CUT WITHIN 24 HOURS OF POURING IF CONTRACTOR ELECTS TO SAW-CUT JOINT.

HEAVY DUTY CONCRETE JOINT DETAILS
N.T.S.



WHITE LEGEND RED BACKGROUND

*NOTE: STOP SIGNS AT RIGHTS-OF-WAY TO BE 36"x36"

R1-1

"STOP" SIGN
N.T.S.



SIGNS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MUTCD, TENNESSEE CODE ANNOTATED, AND THE CITY OF KNOXVILLE, TN

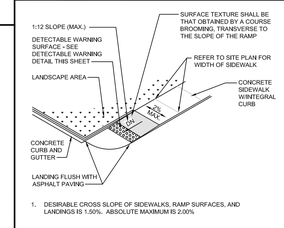
R7-8
GREEN LEGEND WHITE SYMBOL ON BLUE ON WHITE BACKGROUND TYPICAL AT ALL ACCESSIBLE PARKING SPACES

PENALTY INFORMATION

CONTRACTOR SHALL COORDINATE TOWING INFORMATION WITH PROPERTY OWNER PRIOR TO ORDERING SIGNS

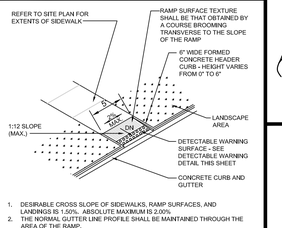
R7-8P
GREEN LEGEND ON WHITE BACKGROUND TYPICAL AT ALL VAN ACCESSIBLE PARKING SPACES

ACCESSIBLE PARKING SIGN
N.T.S.



1. DESIRABLE CROSS SLOPE OF SIDEWALKS, RAMP SURFACES, AND LANDINGS IS 1.50%. ABSOLUTE MAXIMUM IS 2.00%

ACCESSIBLE RAMP
N.T.S.



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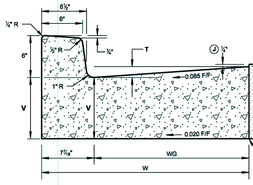
2. THE NORMAL GUTTER LINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.

ACCESSIBLE RAMP
N.T.S.



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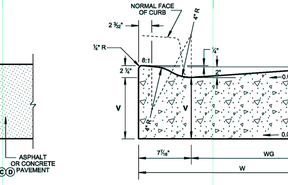
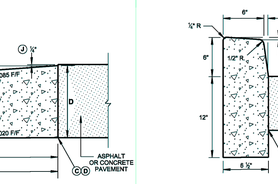
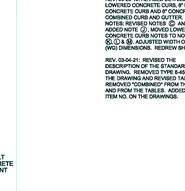
ACCESSIBLE RAMP
N.T.S.



CURB END TREATMENT
N.T.S.



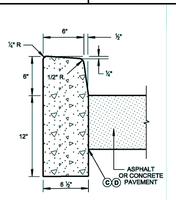
HEAVY DUTY CONCRETE PAD AT ASPHALT
N.T.S.



PAINTED ACCESSIBLE PARKING SYMBOL
N.T.S.

6" CONCRETE CURB AND GUTTER
(PAY ITEM NO. 702-03)

LOWERED CONCRETE CURB AND GUTTER
(PAY ITEM NO. 702-03)



6" DETACHED CONCRETE CURB
(PAY ITEM NO. 702-01)

CONCRETE CURB AND GUTTER TABLE				
TYPE	TOTAL WIDTH (W) IN INCHES	WIDTH OF GUTTER (WG) IN INCHES	VERTICAL DROP (T) IN INCHES	VERTICAL DEPTH (V) OF GUTTER ✻ AT FLOW LINE
6-30	30	22 9/16"	2	D - 1 11/16"
6-36	36	28 9/16"	2½	D - 1 15/16"

✻ VERTICAL DEPTH (V) MUST ALWAYS EXCEED SIX (6) INCHES.

QUANTITIES FOR DETACHED CURB	
HEIGHT OF CURB	CUBIC YARD PER LINEAR FOOT
6"	0.02950
LOWERED CURB	0.02534

QUANTITIES FOR CURB AND GUTTER			
DEPTH (D) OF GUTTER IN INCHES	TOTAL WIDTH (W) IN INCHES	6" CONCRETE CURB AND GUTTER (CY/LF)	LOWERED CONCRETE CURB AND GUTTER (CY/LF)
8	30	0.06409	0.05711
	36	0.07780	0.07085
9	30	0.07181	0.06483
	36	0.08708	0.08011
10	30	0.07953	0.07254
	36	0.09632	0.08934
11	30	0.08724	0.08026
	36	0.10558	0.09860
12	30	0.09496	0.08799
	36	0.11484	0.10786

LEGEND	
D	= VERTICAL DEPTH OF GUTTER (IS BASED ON PAVEMENT DESIGN)
T	= VERTICAL DROP IN GUTTER FROM FRONT EDGE TO FACE OF CURB
V	= VERTICAL DEPTH OF GUTTER AT FLOW LINE
W	= TOTAL WIDTH OF COMBINED CURB AND GUTTER
WG	= WIDTH OF GUTTER

GENERAL NOTES

(A) FOR SPECIFICATIONS SEE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION, SECTION 702 - CEMENT CONCRETE CURB, GUTTER AND COMBINED CURB AND GUTTER.

(B) THE FRONT FACE OF THE CONCRETE CURBS FOR ALL DEGREES OF CURVATURE SHALL CONFORM TO THE CONFIGURATION OF THE CURVE AND NO CHORD SECTIONS WILL BE PERMITTED.

(C) CONCRETE EXPANSION JOINT MATERIAL IS TO BE 1/2" IN THICKNESS AT ALL LOCATIONS. ALL MATERIAL IS TO BE PRE-MOLDED FIBER IN ACCORDANCE WITH SECTION 906 - JOINT MATERIALS OF THE STANDARD SPECIFICATIONS.

(D) EXPANSION JOINTS ARE TO BE PLACED AS FOLLOWS:
1. AT TANGENT POINTS OF CIRCULAR CURBS.
2. BETWEEN CURBS AND ABUTTING RIGID OBJECTS.
3. AT OTHER PLACES WHERE STRESSES MAY DEVELOP.
4. TO LINE UP WITH PAVEMENT JOINTS WHERE THE ADJACENT PAVEMENT IS CONCRETE.
5. THE MAXIMUM SPACING IS BE 100 FEET.
6. BETWEEN CONCRETE CURBS OR CURB AND GUTTERS AND CONCRETE PAVEMENT. IT IS NOT REQUIRED WHEN CURBS OR CURB AND GUTTERS ARE ADJACENT TO ASPHALT.

(E) CONTRACTION JOINTS ARE TO BE SPACED AT 10 FEET. THE SPACING OF 10 FEET MAY BE REDUCED FOR CLOSURES, BUT NOT LESS THAN 6 FEET.

(F) EDGES OF JOINTS SHALL BE FINISHED ON 1/4" RADII.

(G) ALL COST OF JOINTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS.

(H) THE UNIT PRICE BID FOR CONCRETE CURB, CONCRETE CURB AND GUTTER AND CONCRETE PAVEMENT WILL INCLUDE ANY CIRCULAR SECTION REQUIRED TO BE BUILT CONFORMING TO SECTIONS SHOWN ON THIS SHEET.

(I) PAYMENT WILL BE AS FOLLOWS:
ITEM NO. 702-01, CONCRETE CURB, PER C.Y.
ITEM NO. 702-03, CONCRETE COMBINED CURB AND GUTTER, PER C.Y.

(J) THE 1/4" HEIGHT IS FOR WHEN ASPHALT PAVEMENT IS ADJACENT TO CONCRETE CURB AND GUTTER ONLY. CONCRETE PAVEMENT WILL BE FLUSH WITH THE TOP OF THE GUTTER.

LOWERED CONCRETE CURB NOTES

(K) TO BE BUILT AS COMBINED CURB AND GUTTER, DETACHED CURB OR INTEGRAL CURB AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

(L) FOR DETACHED CURB, OMIT RADIUS AT FLOW LINE.

(M) TO BE USED FOR PROPOSED RAMP OPENINGS.

REV. 06-28-18: REVISED DETAILS FOR LOWERED CONCRETE CURB, IF DETACHED CURB IS REQUIRED INSTEAD OF COMBINED CURB AND GUTTER. GENERAL NOTES: REVISED NOTES (E) AND (J). ADDED NOTE (J). MOVED LOWERED CONCRETE CURB NOTES TO NOTE NOS. (K), (L) & (M). ADJUSTED WIDTH OF GUTTER (WG) DIMENSIONS. REDREW SHEET.

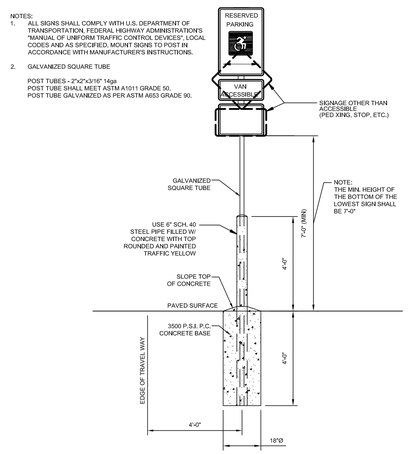
REV. 03-04-21: REVISED THE DESCRIPTION OF THE STANDARD DRAWING. REMOVED TYPE 6-48 FROM THE DRAWING AND REVISED TABLES. REMOVED "COMBINED" FROM THE TITLE AND FROM THE TABLES. ADDED PAY ITEM NO. ON THE DRAWINGS.

(Replaced Std Dwg RP-NMC-10)

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

VERTICAL CONCRETE CURB AND CURB AND GUTTER
(FOR 8" TO 12" GUTTER DEPTH)

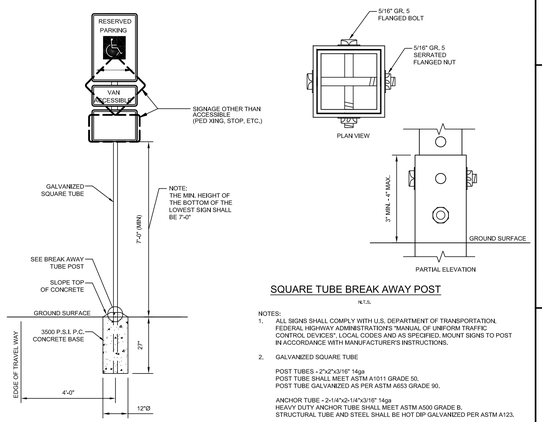
05-15-2018 | RP-VC-10



NOTES:
1. ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. GALVANIZED SQUARE TUBE

POST TUBES - 2"x2"x3/16" 14ga
POST TUBE SHALL MEET ASTM A1011 GRADE 50.
POST TUBE GALVANIZED AS PER ASTM A653 GRADE 90.

SIGN MOUNTING AND BASE WITH BOLLARD
(USE WHERE SIGN IS NOT WITHIN CURBED ISLAND)
N.T.S.



SQUARE TUBE BREAK AWAY POST
N.T.S.

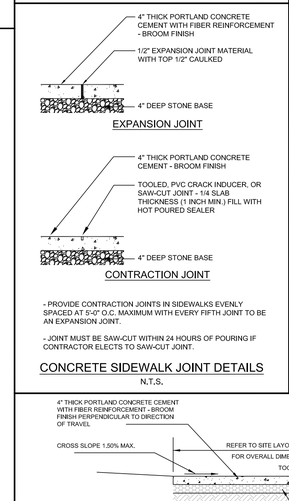
NOTES:
1. ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. GALVANIZED SQUARE TUBE

POST TUBES - 2"x2"x3/16" 14ga
POST TUBE SHALL MEET ASTM A1011 GRADE 50.
POST TUBE GALVANIZED AS PER ASTM A653 GRADE 90.

ANCHOR TUBE - 2-1/4"x2-1/4"x3/16" 14ga
HEAVY DUTY ANCHOR TUBE SHALL MEET ASTM A500 GRADE B.
STRUCTURAL TUBE AND STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123.

THE UPPER SIGN POST SHALL TELESCOPE INSIDE THE ANCHOR TUBE A MINIMUM OF 12". THE ANCHOR TUBE SHALL BE A MINIMUM 27" DEEP WITH 3" MIN. 4" MAX. EXPOSED ABOVE FINISH GRADE.

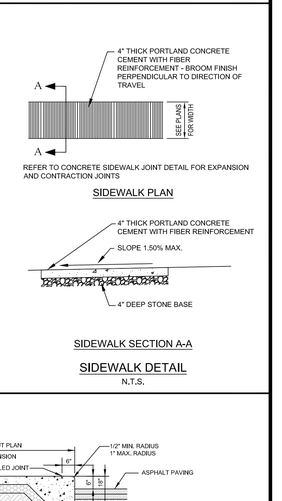
SIGN MOUNTING AND BASE WITHOUT BOLLARD
(USE WHERE SIGN IS WITHIN CURBED ISLAND OR LANDSCAPE AREA)
N.T.S.



- PROVIDE CONTRACTION JOINTS IN SIDEWALKS EVENLY SPACED AT 5'-0" O.C. MAXIMUM WITH EVERY FIFTH JOINT TO BE AN EXPANSION JOINT.

- JOINT MUST BE SAW-CUT WITHIN 24 HOURS OF POURING IF CONTRACTOR ELECTS TO SAW-CUT JOINT.

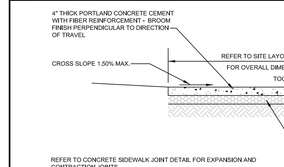
CONCRETE SIDEWALK JOINT DETAILS
N.T.S.



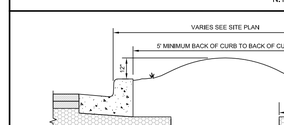
N.T.S.



CONCRETE SIDEWALK WITH INTEGRAL CURB DETAIL
N.T.S.



FLUSH CONCRETE SIDEWALK DETAIL AT ASPHALT PAVING
N.T.S.



LANDSCAPE ISLAND
N.T.S.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

ANNETTE C. HOMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
00100161
07/11/2025
STATE OF TENNESSEE

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

Site Details

Pike Village - Phase II

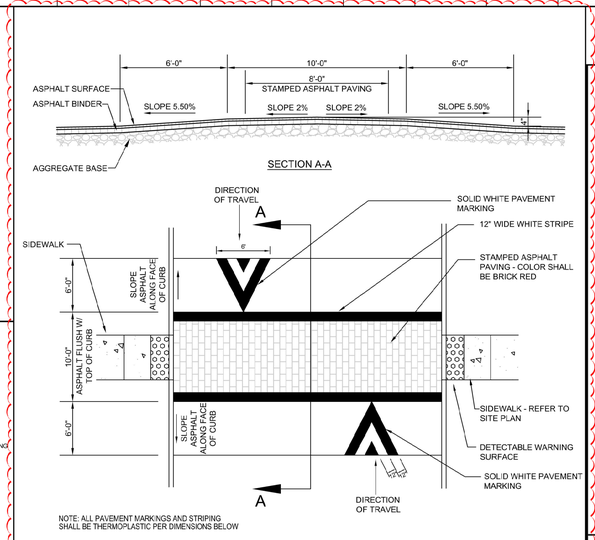
13140 Kingston Pike
Farragut, Tennessee

Owner: Kingston Pike Properties 2, LLC

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT#: 2040
FILE: Details
SHEET: 18 OF: 37

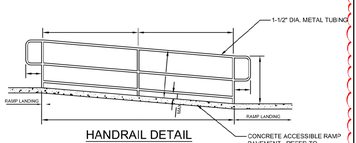
C8.1

Tennessee 811
Know what's below. Call before you dig.

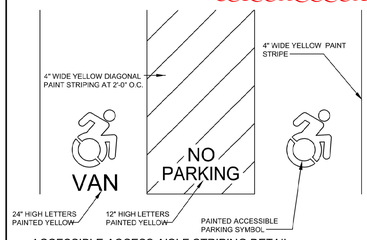


RAISED PEDESTRIAN CROSSWALK
N.T.S.

NOTES:
1. HANDRAILS FOR RAMPS SHALL BE ADEQUATE IN STRENGTH AND ATTACHMENT IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE (2012 IBC).
2. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF RAMP.
3. REFER TO SITE LAYOUT AND SITE GRADING PLANS FOR LOCATIONS, WIDTHS, AND ELEVATIONS OF RAMPS AND LANDINGS.

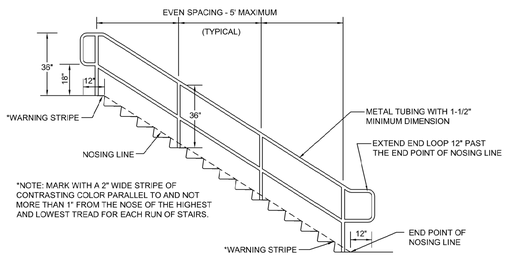


HANDRAIL DETAIL
N.T.S.

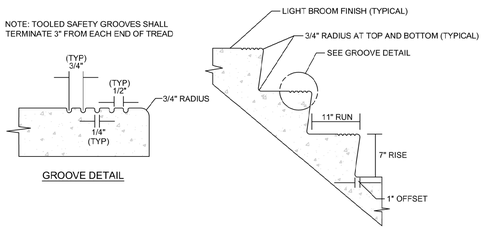


ACCESSIBLE ACCESS AISLE STRIPING DETAIL
N.T.S.

NOTES:
1. HANDRAILS FOR STAIRWAYS AND RAMPS SHALL BE ADEQUATE IN STRENGTH AND ATTACHMENT IN ACCORDANCE WITH SECTION 1607.7 OF THE 2006 INTERNATIONAL BUILDING CODE (2006 IBC).
2. REFER TO SITE LAYOUT AND SITE GRADING PLANS FOR LOCATIONS, WIDTHS, AND ELEVATIONS OF STAIRS AND LANDINGS.

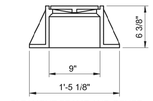


HANDRAIL DETAIL

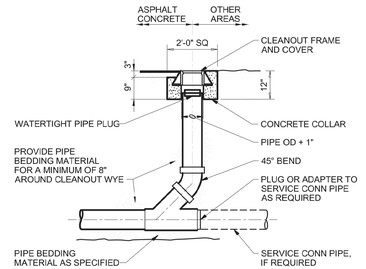


GROOVE DETAIL

EXTERIOR CONCRETE STAIR AND HANDRAIL
N.T.S.



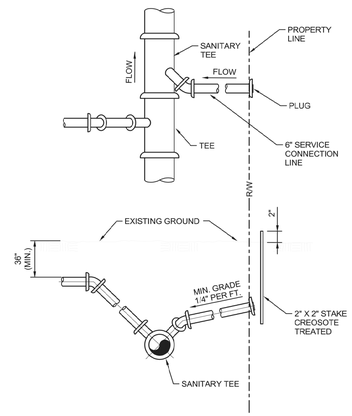
CLEANOUT FRAME AND COVER



CLEANOUT

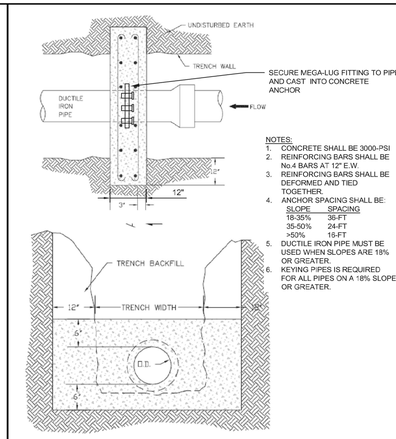
NTS

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: AUG. 1, 2018
	CLEANOUT	WW-04



NTS

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: AUG. 1, 2018
	SERVICE CONNECTION	WW-05



NOTES:
1. CONCRETE SHALL BE 3000-PSI
2. REINFORCING BARS SHALL BE No.4 BARS AT 12" E.W.
3. REINFORCING BARS SHALL BE DEFORMED AND TIED TOGETHER.
4. ANCHOR SPACING SHALL BE:

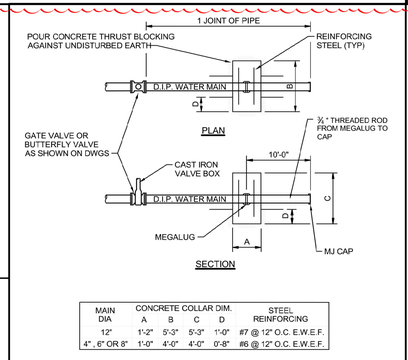
SLOPE	SPACING
18-35%	36-FT
35-50%	24-FT
>50%	16-FT

5. DUCTILE IRON PIPE MUST BE USED WHEN SLOPES ARE 18% OR GREATER.
6. KEYING PIPES IS REQUIRED FOR ALL PIPES ON A 18% SLOPE OR GREATER.

NTS

SOURCE: METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY, N.C.

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: AUG. 1, 2018
	CONCRETE ANCHORS FOR GRAVITY SEWER	WW-07



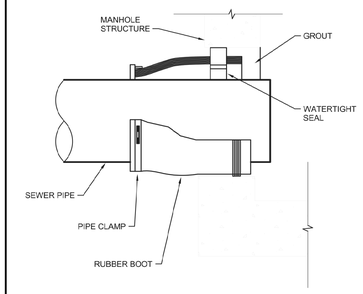
MAIN DIA	CONCRETE COLLAR DIM. A	B	C	D	STEEL REINFORCING
12"	1'-2"	5'-3"	5'-3"	1'-0"	#7 @ 12" O.C. E.W.E.F.
4", 6" OR 8"	1'-0"	4'-0"	4'-0"	0'-8"	#6 @ 12" O.C. E.W.E.F.

NOTES:

TEST PRESSURE: 250 PSI
SOIL BEARING PRESSURE: 3000 PSF.
*D = MINIMUM DISTANCE INTO UNDISTURBED EARTH, BOTTOM AND SIDES.
KEY CONCRETE COLLAR INTO UNDISTURBED SOIL.
PROVIDE 1" MINIMUM CONCRETE COVER OVER REBAR.

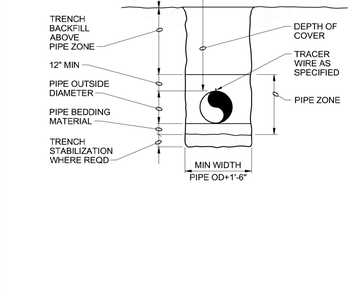
NTS

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: DEC. 15, 2021
	WATER LINE TERMINATION	W-03



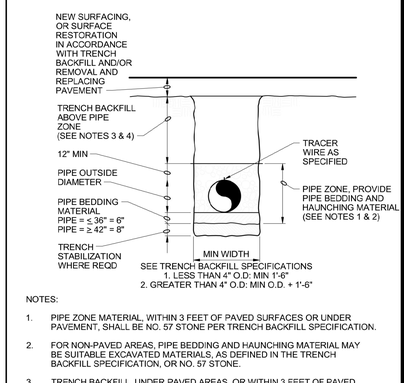
NTS

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: AUG. 1, 2018
	RUBBER BOOT	WW-03



NTS

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: DEC. 15, 2021
	TRENCH TERMINOLOGY	G-02

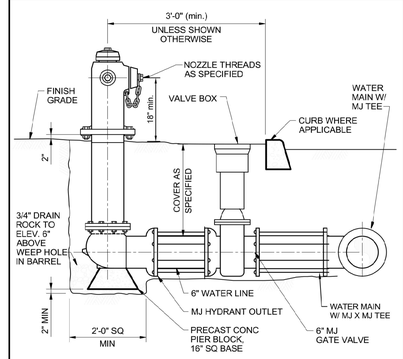


NOTES:

1. PIPE ZONE MATERIAL, WITHIN 3 FEET OF PAVED SURFACES OR UNDER PAVEMENT, SHALL BE NO. 57 STONE PER TRENCH BACKFILL SPECIFICATION.
2. FOR NON-PAVED AREAS, PIPE BEDDING AND HAUNCHING MATERIAL MAY BE SUITABLE EXCAVATED MATERIALS, AS DEFINED IN THE TRENCH BACKFILL SPECIFICATION, OR NO. 57 STONE.
3. TRENCH BACKFILL, UNDER PAVED AREAS, OR WITHIN 3 FEET OF PAVED SURFACES, SHALL BE NO. 57 STONE.
4. TRENCH BACKFILL FOR NON-PAVED AREAS SHALL BE CLASS A EARTH BACKFILL, IN ACCORDANCE WITH TRENCH BACKFILL SPECIFICATIONS.

NTS

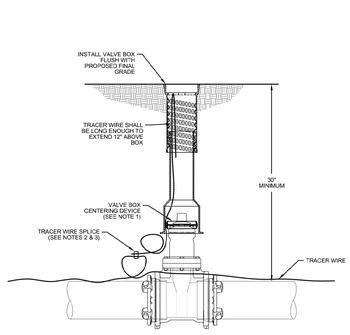
First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: DEC. 15, 2021
	PIPE BEDDING AND HAUNCHING	G-04



NOTE:
1. HYDRANT, TEE, AND GATE VALVE TO BE RESTRAINED WITH MEGA-LUG FITTINGS AND SHALL BE FULLY RODDED WITH 1" ALL-THREAD.
2. HYDRANT SHALL BE MEUELLER (SUPER CENTURION 250, MODEL A421), M&H (MODEL 129), OR FUD APPROVED EQUAL WITH 4.5" MAIN VALVE, 2 HOSE NOZZLES, 1 PUMPER NOZZLE, AND PRODUCT MEETING OR EXCEEDING ALL AWWA C502 STANDARDS.
3. HYDRANT SHALL BE PAINTED WITH A YELLOW ALCOR.
4. HYDRANT SHALL BE SET WITH A 6" MJ "MEGALUG RESTRAINED ELBOW (NOT SHOWN FOR CLARITY) IN ACCORDANCE WITH DETAIL W-02. DO NOT OBSTRUCT WEEP HOLE(S) WITH CONCRETE.
5. HYDRANT EXTENSION, IF USED, SHALL BE MANUFACTURED BY HYDRANT MANUFACTURER. E.G., USE M&H EXTENSION WITH M&H HYDRANT

NTS

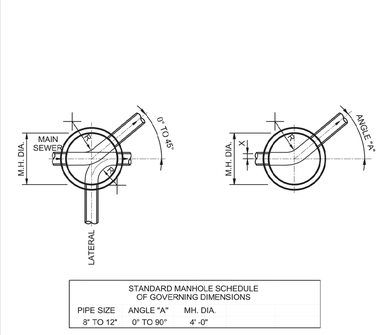
First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: DEC. 15, 2021
	TYPICAL FIRE HYDRANT ASSEMBLY	W-04



NOTES:
1. CENTERING DEVICE SHALL BE SIZED APPROPRIATELY FOR THE SPECIFIC VALVE AND BOX COMBINATION AND MANUFACTURED BY BOXLOX OR APPROVED EQUAL.
2. SPLICE SHALL RATED FOR DIRECT BURIAL AND INCLUDE MANUFACTURER INTEGRATED HOUSING AND SEALANT
3. PROVIDE 12" (MINIMUM) OF SLACK ON ALL WIRES AT ALL SPLICES

NTS

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: JAN 5, 2023
	ISOLATION VALVE	W-07



STANDARD MANHOLE SCHEDULE OF GOVERNING DIMENSIONS

PIPE SIZE	ANGLE "A"	MH. DIA.
8" TO 12"	0° TO 90°	4'-0"

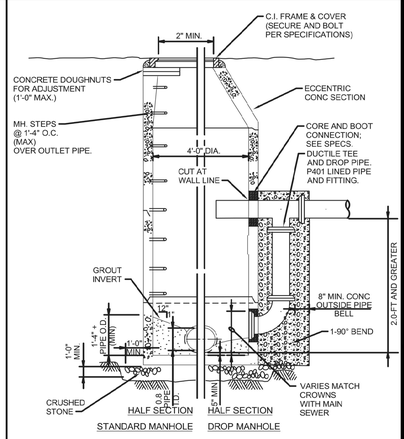
NOTE

X = MINIMUM CENTERLINE OF RADIUS (R) OF M.H. INVERT = 1.5 X PIPE DIAMETER

TYPICAL PLANS

NTS

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: AUG. 1, 2018
	STANDARD MANHOLE	WW-02



NTS

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	DATE: AUG. 1, 2018
	PRECAST CONCRETE MANHOLE	WW-01

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

ANNETTE C. HOMELA
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
00 10141
STATE OF TENNESSEE
07/11/2025

Site Details

Kingston Pike Village - Phase II

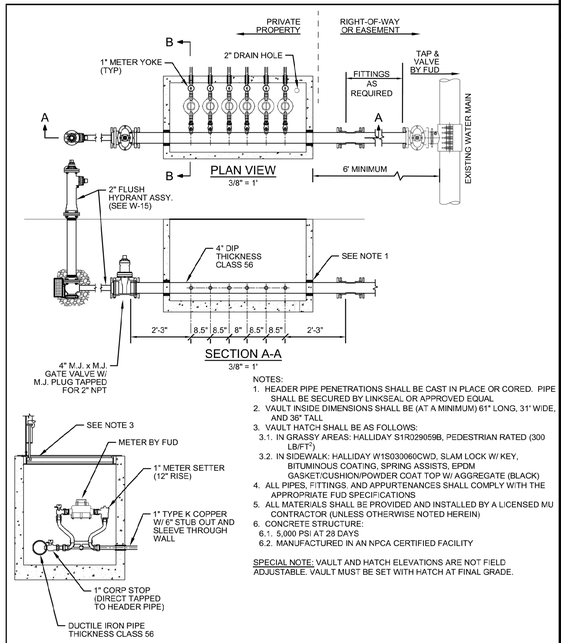
13140 Kingston Pike
Farragut, Tennessee
Owner: Kingston Pike Properties 2, LLC

REVISIONS

NO.	DATE	COMMENTS
1	08/11/2025	Town Comments

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT #: 2040
FILE: Details
SHEET: 19 OF: 37

C8.2



NOTES:
1. HEADER PIPE PENETRATIONS SHALL BE CAST IN PLACE OR CORED. PIPE SHALL BE SECURED BY LINKSEAL OR APPROVED EQUAL
2. VAULT INSIDE DIMENSIONS SHALL BE (AT A MINIMUM) 61" LONG, 31" WIDE, AND 36" TALL
3. VAULT HATCH SHALL BE AS FOLLOWS:
   3.1. IN GRASSY AREAS: HALLIDAY S1R029059B, PEDESTRIAN RATED (300 LB/FT^2)
   3.2. IN SIDEWALK: HALLIDAY W1S030060CWD, SLAM LOCK W/ KEY, BITUMINOUS COATING, SPRING ASSISTS, EPDM GASKET/CUSHION/POWDER COAT TOP W/ AGGREGATE (BLACK)
4. ALL PIPES, FITTINGS, AND APPURTENANCES SHALL COMPLY WITH THE APPROPRIATE FUD SPECIFICATIONS
5. ALL MATERIALS SHALL BE PROVIDED AND INSTALLED BY A LICENSED M/U CONTRACTOR (UNLESS OTHERWISE NOTED HEREIN)
6. CONCRETE STRUCTURE:
   6.1. 5,000 PSI AT 28 DAYS
   6.2. MANUFACTURED IN AN NPCA CERTIFIED FACILITY

SPECIAL NOTE: VAULT AND HATCH ELEVATIONS ARE NOT FIELD ADJUSTABLE. VAULT MUST BE SET WITH HATCH AT FINAL GRADE.

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE GANG METER VAULT (6) 1" METERS	DATE: JUNE 30, 2022 W-17

THRUST BLOCK NOTES:
1. KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
2. CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
3. REQUIRED VOLUMES OR BEARING AREAS AT FITTINGS SHALL BE AS INDICATED BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
4. THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE = 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESS./150) x (TABLE VALUE).
5. BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ.FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR $(T3.33)/(P'S_B')$, WHERE:
   P' = ACTUAL TEST PRESSURE, PSIG
   S_B' = ACTUAL SOIL BEARING PRESSURE, PSF.
6. THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
7. BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD
8. BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ FT.
9. VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE.
10. TEST PRESSURES ARE SHOWN IN THE PIPING SCHEDULE.
11. ALLOWABLE SOIL BEARING STRESS IS 2000 LBS/SQ FT.
12. ALL PIPE AND FITTINGS IN CONTACT WITH CONCRETE SHALL BE WRAPPED IN PLASTIC SHEETING WITH 6-MIL MINIMUM THICKNESS.

BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)

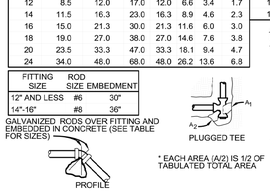
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED RUN A_1	A_2	BEND ANGLE 45°	22 1/2°	11 1/4°
4	1.0	1.4	1.9	1.4	1.0	-	-
6	2.1	3.0	4.3	3.0	1.6	1.0	-
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2
12	8.5	12.0	17.0	12.0	6.6	3.4	1.7
14	11.5	16.3	23.0	16.3	8.9	4.6	2.3
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0
18	19.0	27.0	38.0	27.0	14.6	7.6	3.8
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8

VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)

FITTING SIZE	BEND ANGLE 45°	22 1/2°	11 1/4°
4	1.1	0.4	0.2
6	2.7	1.0	0.4
8	4.0	1.5	0.6
10	6.0	2.3	0.9
12	8.5	3.2	1.3
14	11.5	4.3	1.8
16	14.8	5.6	2.3

FITTING SIZE	ROD SIZE	EMBEDMENT
12" AND LESS	#6	30"
14"-16"	#8	36"

GALVANIZED RODS OVER FITTING AND EMBEDDED IN CONCRETE (SEE TABLE FOR SIZES)



* EACH AREA (A/2) IS 1/2 OF TABULATED TOTAL AREA

NTS

First UTILITY DISTRICT OF KNOX COUNTY	FIRST UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE TYPICAL BLOCKING	DATE: DEC. 15, 2021 W-02

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Site Details

Kingston Pike Village - Phase II

13140 Kingston Pike
Farragut, Tennessee

Owner: Kingston Pike Properties 2, LLC

NO.	DATE	COMMENTS

REVISIONS

ORIGINAL ISSUE: 07/21/2025
SITE PROJECT #: 2040
FILE: Details
SHEET: 20 OF: 37

C8.3

SECTION 02220 - SITE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition of structures, paving, and utilities.
2. Filling voids created as a result of removals or demolition.
3. REGULATORY REQUIREMENTS

B. Conform to applicable State and local codes for demolition of structures, safety of adjacent structures, dust control, runoff control, and pollution prevention.

C. Obtain required permits and licenses from appropriate authorities. Pay associated fees including disposal charges.

D. Notify affected utility companies before starting work and comply with their requirements.

E. Do not close or obstruct public or private roadways, sidewalks, or fire hydrants without appropriate permits or written authorization.

F. If hazardous, contaminated materials or other environmental related conditions are discovered, stop work immediately and notify the Owner for action to be taken. Do not resume work until specifically authorized by the Owner.

1.2 SUBMITTALS

A. Project Record Documents: Accurately record actual locations of capped utilities and subsurface obstructions that will remain after demolition. Submit record as part of closeout submittals.

1.3 PROJECT CONDITIONS

A. Unless otherwise indicated in Contract Documents or specified by the Owner, items of salvageable value to Contractor shall be removed from site and structures. Storage or sale of removed items on site will not be permitted and shall not interfere with other work specified.

PART 2 - PRODUCTS

2.1 FILL MATERIALS

A. Fill material shall be aggregate fill materials as specified in Section 02300.

PART 3 - EXECUTION

3.1 PREPARATION

A. Notify adjacent property owners of work that may affect their property, potential noise, utility outages, or other disruptions. Obtain written permission from adjacent property owners when demolition equipment will traverse, infringe upon, or limit access to their property. Coordinate notice with Owner.

3.2 GENERAL DEMOLITION REQUIREMENTS

A. Conduct demolition to minimize interference with adjacent structures or pavements to remain.

B. Cease operations immediately if adjacent structures appear to be in danger. Notify authority having jurisdiction. Do not resume operations until directed by authority.

C. Conduct operations with minimum of interference to public or private access. Maintain ingress and egress at all times. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing prior to start of work.

3.3 DEMOLITION

A. Fill or remove underground tanks, piping, and appurtenances as shown.

B. Demolish buildings completely and remove from site using methods as required to complete work within limitations of governing regulations. Small structures may be removed intact when acceptable to Owner and authorities having jurisdiction.

3.4 FILLING BASEMENTS AND VOIDS

A. Completely fill below grade areas and voids resulting from demolition or removal of structures, underground fuel storage tanks, wells, cisterns, etc., using aggregate fill materials consisting of stone, gravel, or sand free from debris, trash, frozen materials, roots, and other organic matter.

B. Areas to be filled shall be free of standing water, frost, frozen or unsuitable material, trash, and debris prior to fill placement.

C. Grade surface to match adjacent grades and to provide flow of surface drainage after fill placement and compaction.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove from site debris, rubbish, and other materials resulting from demolition operations. Leave areas of work in clean condition.

B. No burning of any material, debris, or trash on-site or off-site will be allowed except when allowed by appropriate governing authority and Owner. If allowed as stated above, burning shall be performed in manner prescribed by governing authority. Attend burning when permitted by governing authority. Extinguish fires have burned out and have been completely extinguished.

C. Transport materials removed from demolished structures with appropriate vehicles and dispose off-site to areas that are approved for disposal by governing authorities and appropriate property owners.

END OF SECTION 02220

SECTION 02230 - SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cleaning site of debris, grass, trees, and other plant life in preparation for site or building earthwork.
2. Protection of existing structures, trees, or vegetation indicated on the Construction Drawings to remain.

B. Related Requirements:

1. Section 02220 - Site Demolition: Demolition and removal of structures, paving, utilities and other improvements.
2. Section 02300 - Earthwork: Stripping and removal of topsoil.
3. Section 02370 - Erosion And Sedimentation Control (Including SWPPP)

1.2 ENVIRONMENTAL REQUIREMENTS

A. Construct temporary erosion and `sediment control systems as shown on Construction Drawings and as directed by the "Storm Water Pollution Prevention Plan" (SWPPP) to protect adjacent properties and water resources from erosion and sedimentation.

B. In event that sitework on this project will disturb one or more acres, starting work shall be strictly governed by the sequence of construction as specified in Section 02370 and SWPPP site maps. Contractor shall not begin construction without "National Pollution Discharge Elimination System" (NPDES) permit governing discharge of storm water from site for entire construction period. NPDES permit requires SWPPP to be in place during construction.

C. Clearing and grubbing shall commence in the proper sequence as stated in the Phase I of the Best Management Practice Sequence specified in Section 02370 and on the SWPPP site map and subsequent to the halt in construction for performance of the inspection and certification of BMPs as stated.

D. Contractor shall conduct storm water management practices in accordance with the project SWPPP and applicable NPDES permit and shall enforce action taken or imposed by Federal or State agencies, including cost of fines, construction delays, and remedial actions resulting from Contractor's failure to comply with provisions of NPDES permit.

1.3 PROJECT CONDITIONS

A. Conditions existing at time of inspection for bidding purposes will be maintained by Owner as reasonably practical.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 PREPARATION

A. Identify existing plant life that is to remain and verify clearing limits are clearly tagged, identified, and marked in such manner as to ensure their protection throughout construction operations.

3.2 PROTECTION

A. Locate, identify, and protect existing utilities that are to remain.

B. Protect trees, plant growth, and features designated to remain as part of final landscaping.

C. Conduct operations with minimum interference to public or private accesses and facilities. Maintain ingress and egress at all times and clean or sweep roadways daily as required by SWPPP or governing authority. Dust control shall be provided with sprinkling systems or equipment provided by Contractor.

D. Protect benchmarks, property corners, and other survey monuments from damage or displacement. If marker needs to be removed it shall be referenced by a licensed land surveyor and replaced, as necessary, in kind.

E. Provide traffic control as required, in accordance with the US Department of Transportation's "Manual on Uniform Traffic Control Devices" and applicable state highway department requirements.

3.3 EQUIPMENT

A. Material shall be transported to and from the project site using well-maintained and operating vehicles. Transporting vehicles operating on site shall stay on designated haul roads and shall not endanger improvements by rutting, overloading, or pumping.

3.4 CLEARING

A. Clear areas required for access to site and execution of work.

B. Unless otherwise indicated on Construction Drawings, remove trees, shrubs, grass, other vegetation, improvements, or obstructions interfering with installation of new construction. Removal includes digging out stumps and roots. Depressions caused by clearing and grubbing operations shall be filled to subgrade elevation to avoid ponding of water. Satisfactory fill material shall be placed in accordance with Section 02300.

C. Remove grass, trees, plant life, stumps, and other construction debris from site to dump site that is suitable for handling such material according to state laws and regulations.

D. Cut heavy growths of grass from areas before stripping and topsoil removal and remove cuttings with remainder of cleared vegetative material.

END OF SECTION 02230

SECTION 02300 - EARTHWORK

PART 1 - GENERAL

A. Related Requirements:

1. Section 02318 - Rock Excavation.
2. Section 02340 - Soil Stabilization.
3. Section 02370 - Erosion Control and Sedimentation. Temporary and permanent erosion control.
4. Section 02375 - Stone Protection. Rip-rap stone for slope protection.

1.2 DEFINITIONS

A. Satisfactory Materials: ASTM D2487 soil classification groups GW, GP, GM, SW, SP, SM, ML, CL, CH, SC, or a combination of these group symbols.

1. Fill material shall further conform to the plasticity index and liquid limits (PI and LL) specified in Paragraph FILLING hereinafter.
2. Satisfactory materials shall be free of rock or gravel larger than allowed for fill or backfill material as specified hereinafter or as shown on the drawings.
3. Satisfactory materials shall contain no debris, waste, frozen materials, vegetation, and other deleterious matter.
4. Unless specifically stated otherwise on the Drawings, the following table stipulates maximum allowable values for plasticity index (PI) and liquid limit (LL) of satisfactory materials to be used as fill in specified areas:

Location	PI	LL
Building area (below upper four feet)	PI-45	LL-65
Building area (upper four feet)	PI-35	LL-55
Areas outside the building pad (Below upper two feet)	PI-45	LL-65
(Upper two feet, except for depth to receive topsoil)	PI-35	LL-55

(References to depth are to proposed subgrade elevations)

B. Unsatisfactory Materials: Materials which do not comply with the requirements for satisfactory materials are unsatisfactory.

1. Unsatisfactory materials also include man-made fills; trash; refuse; backfills from previous construction; and material classified as satisfactory materials which contains root and other organic matter or frozen material. The Construction Testing Lab (CTL) shall be notified of any contaminated materials.
2. Unsatisfactory materials also include satisfactory materials not maintained within 2 percent of optimum moisture content at time of compaction.

1.3 SUBMITTALS

A. Submit 30-pound sample of each type of off-site fill material that is to be used at the site in airtight containers to the independent testing laboratory or submit gradation and certification of aggregate material that is to be used at the site to the independent testing laboratory for review.

B. Submit name of each material supplier and specific type and source of each material. Change in source throughout project requires approval of Owner.

C. Shop drawings or details pertaining to excavating and filling are not required unless otherwise shown on the Drawings or if contrary procedures to Construction Documents are proposed.

D. Shop drawings or details pertaining to site utilities are not required unless required by regulatory authorities or unless uses of materials, methods, equipment, or procedures that are contrary to The Drawings or Specifications are proposed. Do not perform work until Owner has accepted required shop drawings.

PART 2 - PRODUCTS

2.1 SOIL AND ROCK MATERIALS

A. Fill and Backfill. Satisfactory materials excavated from the site.

B. Imported Fill Material: Satisfactory material provided from offsite borrow areas when sufficient satisfactory materials are not available from required excavations.

C. Trench Backfill: ASTM D2321 unless otherwise specified or shown on the drawings.

D. Bedding: Aggregate Type as indicated on the plans or naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No.200 sieve.

E. Drainage Fill: Washed, narrowly graded mixture of crushed stone, or crushed or uncrushed gravel; ASTM D448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2- inch sieve and 0 to 5 percent passing a No.8 sieve.

F. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and 0 to 5 percent passing a No.4 sieve.

G. Topsoil: Topsoil shall consist of stripping material excavated from the site. Topsoil shall consist of organic surficial soil found in depth of not more than 6-inches. Topsoil shall be as further defined in Section 02900 - Planting.

H. Trench Utility Locator Tape: Heavy duty 6" wide underground warning tape. Tape shall be made from polyethylene material, 3.5 mils thick, with a minimum tensile strength of 1,750 psi. Place the tape at one-half the minimum depth of cover for the utility line or a maximum of 3 feet, whichever is the less, but never above the top of subgrade. Color of tape shall be determined by as follows:

1. Natural Gas or Propane - Yellow.
2. Electric - Red.
3. Telephone - Orange.
4. Water - Blue.
5. Sanitary Sewer - Green.

2.2 SOURCE QUALITY CONTROL

A. Laboratory testing of materials proposed for use in the project will be performed by the Owner.

PART 3 - EXECUTION

3.1 PREPARATION

A. Identify required lines, levels, contours, datum, elevations, and grades necessary for construction as shown on the drawings.

B. Notify utility companies to remove or relocate public utilities that are in conflict with proposed improvements.

C. Protect plant life, lawns, fences, existing structures, sidewalks, paving, and curbs, unless otherwise noted on the drawings from excavating equipment and vehicular traffic.

D. Protect benchmarks, property corners, and other survey monuments from damage or displacement. If marker needs to be removed it shall be referenced by licensed land surveyor and replaced, as necessary, by same.

E. Remove from site, material encountered in grading operations that is unsatisfactory material or undesirable for backfilling, subgrade, or foundation purposes. Dispose of in manner satisfactory to Owner and local governing agencies. Backfill areas with layers of satisfactory material and compact as specified herein.

F. Prior to placing fill in low areas, such as previously existing creeks, ponds, or lakes, perform following procedures:

1. Drain water out by gravity with ditch having flow line lower than lowest elevation in low area. If drainage cannot be performed by gravity ditch, use adequate pump to obtain the same results.
2. After drainage of low area is complete, remove muck, mud, debris, and other unsatisfactory material by using acceptable equipment and methods that will keep natural soils underlying low area dry and undisturbed.
3. All muck, mud, and other materials removed from low areas shall be dried on site by spreading in thin layers for observation. Material shall be inspected and, if found to be satisfactory for use as fill material, shall be incorporated into lowest elevation of site filling operation, but not under building subgrade or within 5'-0" of perimeter of building subgrade, or paving subgrade. If, after observation, material is found to be unsatisfactory, it shall be removed from site.

G. Locate and identify utilities that have previously been installed and protect from damage.

H. Locate and identify existing utilities that are to remain and protect from damage.

I. Maintain in operating condition existing utilities, previously installed utilities, and drainage systems encountered in utility installation. Repair surface or subsurface improvements shown on the Drawings.

J. Verify location, size, elevation, and other pertinent data required making connections to existing utilities and drainage systems as indicated on the Drawings.

K. Over excavate and properly prepare areas of subgrade that are not capable of supporting proposed systems. Stabilize these areas by using acceptable geotextile fabrics or aggregate material placed and compacted as specified in Section 02340.

3.2 DEWATERING

A. General:

1. Dewatering activities shall conform to applicable provisions in 02370.

3.3 TOPSOIL EXCAVATION

A. Cut heavy growths of grass from areas before stripping and remove cuttings with remainder of cleared vegetative material.

B. Strip topsoil to a depth of not less than 6 inches from areas that are to be filled, excavated, landscaped, or re-graded to such depth that it prevents intermingling with underlying subsoil or questionable material.

C. Stockpile topsoil in storage piles in areas shown on The Drawings or where directed by Owner. Construct storage piles to freely drain surface water. Cover storage piles as required to prevent windblown dust. Dispose of unsuitable topsoil as specified for waste material, unless otherwise specified by Owner. Remove excess topsoil from site unless specifically noted otherwise on the Drawings.

3.4 GENERAL EXCAVATION

A. Classification of Excavation: The Contractor shall assure himself by site investigation or other necessary means that he is familiar with the type, quantity, and character of excavation work to be performed. Excavation shall be considered unclassified excavation, except as indicated in the Contract Documents.

B. When performing grading operations during periods of wet weather, provide adequate dewatering, drainage and ground water management to control moisture of soils.

C. Shore, brace, and drain excavations as necessary to maintain excavation as safe, secure, and free of water at all times.

D. Excavate building areas to line and grade as shown on the Drawings being careful not to over excavate beyond elevations needed for building subgrades.

E. Place satisfactory excavated material into project fill areas.

F. Unsatisfactory excavated material shall be disposed of in manner and location that is acceptable to Owner and local governing agencies.

G. Perform excavation using capable, well-maintained equipment and methods acceptable to Owner and local governing agencies.

3.5 SUBGRADE PREPARATION

A. Scarification and Compaction: Areas exposed by excavation or stripping and on which subgrade preparations are to be performed shall be scarified to minimum depth of 8 inches and compacted as specified hereinafter.

B. Proofrolling: Subgrades shall be proofrolled to detect areas of insufficient compaction and soft pocket, or areas of excess yielding. Proofrolling shall be accomplished by making minimum of two complete passes with fully-loaded tandem-axle dump truck with a minimum weight of 20 tons, or approved equal, in each of two perpendicular directions. Limit vehicle speed to three mph. Areas of failure such as soft spots,unsatisfactory soils, and areas of excessive pumping or rutting shall be excavated and re-compacted as specified herein. Continual failure areas shall be stabilized in accordance with Section 02340 at no additional cost to Owner. Subgrade exposed longer than 48 hours or on which Precipitation has occurred shall be re-proofrolled. Document proofrolling procedure, specific locations, deficiencies, and corrective measures for review by Owner or Owner's CTL upon request.

3.6 FILLING

A. Fill areas to contours and elevations shown on the Drawings with materials deemed satisfactory.

B. Place fills in continuous lifts specified herein.

C. Fill within proposed building subgrade, paving subgrade, and outparcel subgrades shall not contain rock or stone greater than 6 inches in any dimension.

D. Unless otherwise specified for rock fill, rock or stone less than 6-inches in largest dimension may be used in fill below structures, paving, outparcels, and graded areas, up to 24 inches below surface of proposed subgrade or finish grade of graded areas when mixed with satisfactory material. Rock or stone less than 2 inches in largest dimension may be used in fill within the upper 24 inches of proposed subgrade or finish grade of graded areas when mixed with satisfactory material.

E. Fill materials used in preparation of subgrade shall be placed in lifts or layers not to exceed 8 inches loose measure and compacted as specified hereinafter.

F. Material imported from off_site shall have CBR or LBR value equal to or above pavement design subgrade CBR or LBR value indicated on The Drawings.

G. Building area subgrade pad shall be that portion of site directly beneath and 5 feet beyond building and appurtenances, including limits of future building expansion areas as shown on the Drawings.

H. Prepare building area subgrade pad in strict accordance with "Foundation Subsurface Preparation" as shown on the Drawings. The Foundation Subsurface Preparation provisions shall take precedence over the provisions of this section whenever duplication or conflict occurs.

3.7 COMPACTION

A. Compact as follows:

Location	ASTM D698	ASTM D1557
Subgrade & Fill Below Structures and Pavements	98	95
Subgrade & Fill in all other Areas	95	92

B. Maintain moisture content of not less than 2 percent below and not more than 3 percent above optimum moisture content of fill materials to attain required compaction density.

C. Exercise proper caution when compacting immediately over top of pipes or conduits. Water jetting or flooding is not permitted as method of compaction.

D. Corrective Measures for Non-Complying Compaction: Remove and recompact deficient areas until proper compaction is obtained. Continual failure areas shall be stabilized in accordance with Section 02340 at no additional cost to Owner.

3.8 MAINTENANCE OF SUBGRADE

A. Verify finished subgrades to ensure proper elevation and conditions for construction above subgrade.

B. Protect subgrade from excessive wheel loading during construction, including concrete trucks, dump trucks, and other construction equipment.

C. Remove areas of finished subgrade found to have insufficient compaction density to depth necessary and replace in manner that will comply with compaction requirements by use of material with CBR or LBR equal to or better than that specified on the drawings. Surface of subgrade after compaction shall be firm, uniform, smooth, stable, and true to grade and cross-section.

D. Construct temporary ditches and perform such grading as necessary to maintain positive drainage away from subgrade at all times.

3.9 BORROW AND SPOIL SITES

A. Comply with NPDES and local erosion control permitting requirements for any and all on-site and off-site, disturbed spoil and borrow areas. Upon completion of spoil or borrow operations, clean up spoil or borrow areas in a neat and reasonable manner to the satisfaction of Owner or off-site property owner, if applicable.

3.10 FINISH GRADING

A. Check grading of building subgrades by string line from grade stakes (blue tops) set at not more than 50-foot centers. Allowable tolerance shall be plus or minus 0.10 feet from plan grade. Provide engineering and field staking as necessary for verification of lines, grades, and elevations.

B. Grade areas where finish grade elevations or contours are indicated on the Drawings, other than paved areas and buildings, including excavated areas, filled and transition areas, and landscaped areas. Graded areas shall be uniform and smooth, free from rock, debris, or irregular surface changes. Ground surfaces shall vary uniformly between indicated elevations. Grade finished ditches to allow for proper drainage without ponding and in manner that will minimize erosion potential. For topsoil, sodding, and seeding requirements refer to Section 02900.

C. Correct settled and eroded areas within 1 year after date of completion at no additional expense to Owner. Bring grades to proper elevation.

3.11 FIELD QUALITY CONTROL

A. Field quality control shall be the responsibility of the Contractor. Except for specified mandatory testing, field quality control testing and inspection shall be at the discretion of the Contractor as necessary to assure compliance with Contract requirements. Owner T&I shall not be considered a substitute for the Contractor's responsibility to perform similar routine, necessary, and customary testing and inspection of the methods and frequency suitable for the type of work involved.

3.12 OWNER TESTING AND INSPECTION (T&I)

A. The Owner will perform testing and inspection (T & I) but only as a means of verification to the Owner of Contractor quality control performance.

B. Owner T&I will be performed by the Owner's Construction Testing Laboratory (CTL).

END OF SECTION 02300

SECTION 02318 - ROCK EXCAVATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Removal including, drilling, blasting, and protection of rock excavation.

B. Related Requirements:

1. Section 02230 - Site Clearing. Clearing of trees, brush, and vegetation prior to excavation.
2. Section 02300 - Earthwork: Excavation, filling, and compaction of earth materials and rock fill.

1.2 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.

B. National Fire Protection Association (NFPA)

1. NFPA495 - Code for Manufacturing, Transportation, Storage, And Use of Explosive Material

C. United States Department of Interior, Bureau of Mines

1. Seismic Effects of Blasting

D. Occupational Safety & Health Administration (OSHA)

1. 29CFR1910.109 - Explosives and Blasting Agents

1.3 DEFINITIONS

Rock Excavation: Removal of igneous, metamorphic, or sedimentary rock or stone, boulders over two cubic yards in volume in open areas and one cubic yard in volume in trenches; and masonry, concrete, or solid frozen soil that cannot be removed by rippers or other mechanical methods and, therefore, requires drilling and blasting. The excavation and disposal of all "Rock Excavation" shall be considered unclassified excavation and shall be included with site work grading as part of the lump sum base bid.

A. Trenches: Excavations having vertical sides whose depths exceed its width, made for storm water drainage, sanitary sewer, water, and gas pipes, electric, communications, and steam conduits, and related uses.

1.4 SUBMITTALS

A. Submit Blasting Plan prior to any blasting and Monitoring Reports to the Owner and Governing Agencies for review.

1.5 REGULATORY REQUIREMENTS

A. Conform to requirements of NFPA495, Bureau of Mines Seismic Effects of Blasting, and OSHA 29CFR1910.109 as applicable.

B. Comply with all applicable laws, rules, ordinances and regulations of the Federal, State and local regulatory authorities and insurers that govern the licensing, transportation, storage, handling, use, and disposition of explosives.

C. Prior to rock excavation, obtain and pay for all powder and blasting permits and licenses from regulatory agencies.

D. If blasting is required or undertaken, the responsible Subcontractor shall be licensed in the State and shall possess a current blasting license issued by the appropriate regulatory authority and be permitted for the transportation of explosives if required.

E. In case of conflict between regulations or between regulations and Specifications, the Contractor shall comply with the strictest applicable codes, regulations or Specifications.

1.6 SITE CONDITIONS

A. Environmental Requirements: Determine environmental effects associated with proposed work and safeguard those concerns as regulated by law and local governing agencies by reasonable and practical methods.

B. Existing Conditions: The Contractor shall be responsible for any and all damage and/or injury from the use of explosives. The Contractor shall save and hold harmless the Owner, Architect and Engineer from any and all claims from the use of explosives. Removal of materials of any nature by blasting shall be done in such a manner and at such times as to avoid damage affecting integrity of existing construction and damage to new or existing dwellings, structures and water wells in or adjacent to the area of the work. It shall be the Contractor's responsibility to determine the method of operation to ensure desired results and integrity of completed work. All damage caused by the Contractor's blasting operations shall be repaired to the full satisfaction of the Owner at no additional cost to the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

Explosives, detonator/delay device, and blast mat materials shall be type recommended by explosive supplier and shall comply with requirements specified herein.

PART 3 - EXECUTION

3.1 PREPARATION

A. Verify site conditions and note subsurface conditions affecting work of this section.

B. Identify required lines, levels, and elevations that will determine extent of proposed removals.

3.2 ROCK EXCAVATION

A. Cut rock to form level bearing at bottom of footing and trench excavations. Remove shaled layers to provide sound and unshattered base for footings or foundations. Contractor shall consider reuse of excavated materials on site in accordance with Section 02300. If material cannot be utilized on site, dispose of material offsite.

B. If placed in embankments, perform rock excavation in manner that will produce material of such size as in accordance with Section 02300. Remove rock to allow for construction and/or installation of the site and building improvements as indicated on Construction Drawings. Remove loose or shattered rock, overhanging ledges and boulders which might dislodge.

C. Use lean concrete or suitable materials as directed by registered geotechnical engineer to replace rock overblast or over excavation in building and expansion areas to facilitate placement of utilities and foundations systems.

3.3 ROCK BLASTING

A. General

1. The drilling and blasting methods and programs shall be those necessary to accomplish any and all rock excavation required for completion of the improvements shown on the Construction Drawings in accordance with the procedures specified herein. Do not use explosives as a primary means of transporting material outside the excavated prism.
2. Blasting work shall be performed only with necessary permits from all regulatory authorities and after completion of the preblast survey. Blasting work shall take place only after persons in the vicinity have been notified and have reached positions of safety. Take appropriate precautions to prevent all persons from entering the blasting area. Use methods and programs that will prevent damage to, but not limited to, adjacent dwellings, structures, public domain, natural resources, habitat, existing wells and landscape features and that will minimize the scattering of rock, stumps or other debris. All affected roadways shall be inspected, cleared, and repaired to traffic within 1 hour of completed blasting or as required by governing authorities.
3. Complete all blasting with experienced powdermen licensed to use explosives in the State.
4. Conduct blasting at such hours so as not to disrupt surrounding residences and businesses, and in accordance with Federal, state and local regulations and/or ordinances with regard to noise.
5. Take all precautions necessary to warn and/or protect any individuals exposed to his operations prior to any blasting. Blasting mats or other approved flyrock protection shall be employed as necessary to protect areas adjacent to blasting.
6. Develop and maintain records covering pertinent data on the location, depth and area of the blast, the diameter, spacing, depth, overdepth, pattern, amount, distribution and powder factor for the explosives used per hole and per blast; the sequence and pattern delays, and description and purpose of special methods. Provide a copy of the records to the Owner upon the Owner's request. Receipt and acceptance by the Owner of blasting data will not relieve the Contractor of responsibility to produce satisfactory results as set forth in these specifications. Drilling and blasting shall be done only to the depth, amount and at such locations, with explosives of such quantity, distribution, and density that will not produce unsafe or damage rock surfaces or damage rock beyond the prescribed excavation limits. The Contractor shall be responsible for the cost of removal of overblast and also for the cost of placement and compaction of suitable replacement fill where overblast removal is required or occurs.
7. When a drilling and blasting program results in damage to the excavation or unacceptable peak particle velocity or frequency values as specified herein, the Contractor will be required to devise and employ revised methods that will prevent such damage or unacceptable ground motions at no cost to the Owner. The revisions may include special methods such as presplit and zone blasting, shallow lifts, reduction in size of individual blasts, small diameter blast holes, closely spaced blast holes, reduction of explosives, greater distribution of explosives by use of decking and primacord or variation in density of explosives and chemical or mechanical splitting of the rock.

B. Explosives

1. Take special precautions for proper use of explosives to prevent harm to human life and damage to surface structures, utility lines, or other subsurface structures.
2. Store, handle, and employ explosives in accordance with Federal, state and local regulations, or, in the absence of such, in accordance with the provisions of the NFPA and OSHA.

C. Blasting Vibration and Limit Criteria

1. The amount of vibration, frequency and overpressure generated by blasting shall not exceed regulatory statutes or directives established by State, local or other authorities. In no case shall the maximum Peak Particle Velocity (PPV) exceed the limits indicated on Figure B-1, Appendix B, of the United States Bureau of Mines Report of Investigations, RI 8507, 1980 or latest edition.
2. The peak airblast overpressure measured at the location of the nearest occupied, aboveground structure (considering wind direction) shall not exceed 0.014 psi.

D. Preblast Survey

1. General:
   a. Conduct a preblast survey prior to initiating blasting work. Preblast survey shall be performed by a registered Professional Engineer or specialized consultant licensed in the State of the work covered under this contract and specialized in conducting preblast surveys.
   b. The preconstruction/preblast survey shall consist of documenting conditions of all existing dwellings and structures located within a minimum of 500 feet of the limits of all work requiring rock blasting prior to commencement of blasting or further if required by Federal, state or local regulations.
   c. The purpose of the preblast survey is to determine the conditions of existing dwellings, structures and water supply wells and document any pre-existing defects and other physical factors that could reasonably be affected by the blasting. Structures such as dams, ponds, pipelines, cables and transmission lines, cisterns, structures of historical significance, and/or structures with unusually costly or vulnerable contents shall be included. The preblast survey shall also note the nature and sensitivity of livestock that may be affected by the blasting.
2. Examination of and Preparation for Survey:
   a. The Contractor shall contact the property owners (or their legal representative) of properties within a minimum of 500 feet of the limits of all blasting work in order to obtain permission to conduct a survey of their property. If the property owner does not grant the Contractor permission to conduct the survey, the Contractor shall contact the property owner a second time by registered mail/return receipt requested. The second request for permission to conduct the survey shall include a description of the survey to be performed and the purpose of the survey. At least 72 hours prior to start of blasting work, notify the appropriate local regulatory authority of any property owners who refuse access for the preconstruction survey.
   b. Notify the property owners at least 48 hours prior to conducting the preblast survey. After completion of the survey, two copies of the preblast report shall be submitted to the appropriate local regulatory authority for their reference if required. Additionally, one copy shall be kept on file at the location of the project and one copy provided to the Owner upon request.
3. Method:
   a. The preblast survey shall include a detailed examination of the interior and exterior of structures located within a minimum of 500 feet of the limits of blasting work. Color photographs, videotapes, and written descriptions shall be taken as required to document the condition of areas within the limits of the survey area. Particular note shall be made of evident structural faults or deficiencies, or recent repairs.
   b. The preblast survey shall also include an assessment of water supply wells located within a minimum 500 feet of the limits of all blasting work. This assessment shall include the following items:
      1) Information regarding the date of construction of the well, depth, method of construction, yield, water quality and any other existing available data will be requested from each well owner and/or the installer, provided the installer is known.
      2) A short duration pump test shall be performed on each well utilizing the existing pump that services each well. The pump shall be activated, the volume of water measured and the drawdown in the well measured for a 1-hour or less period until approximate steady state conditions are achieved. The data obtained from these measurements shall be used to estimate the approximate yield of each well.
      3) Upon completion of the above-described short duration pump test, obtain a groundwater sample from the well and submit to a State certified water quality laboratory. Laboratory shall analyze sample for iron, manganese, total dissolved solids, turbidity and total coliform.
4. Survey Report:
   a. The Contractor shall prepare a written report summarizing the results of the preblast survey. The final written report shall be signed and sealed by the Contractor's qualified inspector. The report shall contain the following:
      1) Location and description of each property
      2) Descriptions of the conditions of the on-site elements
      3) Summary of the visual inspection
      4) Color photographs, sketches, and videotape with vocal summary
      5) All data developed from the water supply well assessment
   b. Provide videotapes to include supplemental information, as required. Pictorial documentation shall be of professional quality and shall be provided with a scale, where practicable. Clearly label pictorial documentation with an identification number, name of the project and the Engineer or qualified person conducting the survey, name of the property owner, date the picture or video tape was taken, and sufficient information to determine the location of the area in question.
   c. The Contractor's inspector shall immediately report in writing to the Contractor any findings that, in his opinion, indicate that any structure or well will be adversely affected by the required construction and blasting.
   d. If, during the course of construction and blasting, the Contractor is requested by an adjacent property owner to view alleged damage to property, the Contractor shall give written notice to the Owner prior to the Contractor's visit to the adjacent owner's property.

E. Blast Monitoring:

1. Contractor shall perform seismic blast monitoring in accordance with State and local regulations.
2. Contractor shall provide monitoring of blasting vibrations and over-pressures to allow evaluation of compliance with the specified vibration/over-pressures to criteria. As a minimum, the Contractor will monitor each blast as follows:
   a. Monitor vibrations at the exterior walls of all structures within 500 feet of each blast location.
   b. If no structures are located within 500 feet of the blast location, monitor vibrations at three equally spaced radial points located a minimum of 500 feet from the blast locations.
   c. Monitor over-pressures for all structures within a minimum 500 feet of the blast.
3. If required by the Owner, report vibration/overpressure-monitoring results to the Owner within two hours of blasting. Monitoring performed by the Contractor does not relieve the Contractor of responsibility for control of vibration and overpressure during blasting operations.

3.4 ROCK CUT FACE EXCAVATION

A. The slope of the soil above the top of any permanently exposed rock cut face shall be no steeper than 3(H):1(V) unless otherwise noted on the Construction Drawings.

B. Benches of at least ten feet in width at a maximum of twenty feet in elevation intervals or as noted on the Construction Drawings. The benches shall serve to provide rock traps and divert water from the rock face.

3.5 ROCK TRAP

A. Locate rock traps at the base of permanently exposed rock slopes and construct as indicated in the Construction Documents or Blasting Plan.

3.6 OVEREXCAVATION AND BACKFILL

A. Over excavation which is required to remove unsuitable natural undisturbed bedrock weakened by weathering or other cause not inflicted by the Contractor shall be immediately reported to the Owner and performed as directed by the Owner, and the theoretical lines and grades will be adjusted accordingly. Material outside the excavation limits which are disturbed due to the fault or negligence of the Contractor or due to his failure to exercise sound construction practices, shall be either replaced by the Contractor with suitable materials (earth or concrete), or bolted, or both as directed, at no cost to the Owner.

END OF SECTION 02318

SECTION 02340 - SOIL STABILIZATION

PART 1 - GENERAL

1.1 SUMMARY

Section Includes:

1. Excavation, treatment, and backfilling of subgrade for lime, cement, fly ash, or bridge lift stabilization.
2. Geotextile fabric and geogrid for stabilization of subgrade.

1.2 SUBMITTALS

A. Submit approved mix designs, materials mix ratio, and laboratory test data to the CTL prior to commencing stabilization activities.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Soil Treatment Materials:

A.1. Hydrated Lime
A.2. Portland Cement
A.3. Fly Ash

B. Aggregate:

1. Coarse Aggregate: Crushed carbonate, crushed gravel, crushed air-cooled slag, granulated slag, a mixture of crushed and granulated slag, or other types of suitable material meeting the following gradation requirements:

Sieve Size	Percent Passing
2 inches	100
1 inch	70-100
3/4 inch	50-90
No. 4	30-60
No. 30	7-30
No. 200	0-5

2. Fine Aggregate: Sand - Natural river or bank sand; washed; free of silt, clay, loam, friable or soluble materials, and organic matter meeting the following gradation requirements:

Sieve Size	Percent Passing
No. 4	90-100
No. 50	7-40
No. 200	0-5

3. Subsoil: Existing to be reused.
4. Bridge Lift Material: Surge stone, granular fill, or shot rock fill.

2.2 ACCESSORIES

A. Curing Seal: Asphalt Emulsion Primer.

B. Geotextile Fabric for Stabilization:

Provide one of the following:

1. Mirafi HP 370 or HP 570, by TenCate.
2. SF40 or SF65, by DuPont.
3. GTF-200 or 300, by Thrace-LINQ.
4. TerraTex HD, by Hanes.

C. Geogrid for Stabilization:

Provide one of the following:

1. Biaxial Geogrid Type 1 (formerly BX 1100), by Tensar.
2. Biaxial Geogrid Type 2 (formerly BX 1200), by Tensar.
3. Mirafi BXG 11, by TenCate.
4. Mirafi BXG 12, by TenCate.
5. SF 11, by Synteen.
6. SF 12, by Synteen

PART 3 - EXECUTION

3.1 PREPARATION

A. Obtain approval of mix design before proceeding with placement.

B. Start stabilization only when weather and soil conditions are favorable for successful application of proposed material.

C. Proofroll subgrade to identify areas in need of stabilization.

3.2 EXCAVATION

A. Excavate subsoil to depth sufficient to accommodate soil stabilization.

B. Correct areas over-excavated in accordance with Section 02300.

3.3 GEOTEXTILE FABRIC AND/OR GEOGRID

A. Place geotextile fabric and/or geogrid over subsoil surface, lap edges and ends in accordance with manufacturer's recommendations in those areas that are shown on Construction Drawings or in those areas that need additional stabilization prior to placement of base course. Bridge lift sections may require the use of geotextile fabric and/or geogrid for stabilization prior to placement of fill.

B. Place geotextile fabric and/or geogrid in accordance with manufacturer's recommendations.

3.4 SOIL TREATMENT AND BACKFILLING

A. Lime Stabilized Subgrade: Where indicated on Construction Drawings or as required after continual failure, treat prepared subgrade with hydrated lime in accordance with state highway department specifications.

B. Fly Ash Stabilized Subgrade: Where indicated on Construction Drawings or as required after continual failure, treat prepared subgrade with fly ash in accordance with state highway department specifications

C. Bridge Lifts: Where indicated on Construction Drawings or as required after continual failure, treat prepared subgrade by application of a bridge lift. Bridging over existing soils shall be acceptable only when approved in writing by the Owner. Place geotextile fabric or geogrid over existing soils to be bridged. The geotextile fabric or geogrid selected shall be appropriate for the bridge lift material being placed. Place bridge lift over geotextile fabric or geogrid. Surge stone and shot rock will be approved by the Owner's representative as a submittal basis. The Owner and the Owner's representative shall have sole discretion as to the acceptability of all submittals.

D. Backfill and compaction of treated subsoil shall be in accordance with Sections 02300.

E. Maintain optimum moisture of mixed materials to attain required stabilization and compaction.

F. Finish subgrade surface in accordance with Section 02300.

G. Remove surplus mix materials from site.

3.5 CURING

A. Immediately following compaction of mix, seal top surface with curing seal.

B. Do not

SECTION 02370 - EROSION & SEDIMENTATION CONTROL (CONT'D)

PART 3 - EXECUTION

3.1 PREPARATION

A. Review the drawings and Storm Water Pollution Prevention Plan.

B. Revise SWPPP as necessary to address potential pollution from site identified after issuance of the SWPPP at no additional cost to the owner.

C. Conduct storm water pre-construction meeting with Site Contractor, all ground-disturbing Sub-contractors, site engineer of record, and state or local agency personnel.

3.2 ERCION AND SEDIMENTATION CONTROL AND SLOPE PROTECTION IMPLEMENTATION

A. Place erosion and sediment control systems in accordance with the drawings and Storm Water Pollution Prevention Plan or as may be dictated by site conditions in order to maintain the intent of the specifications and permits.

B. Deficiencies or changes on the drawings or Storm Water Pollution Prevention Plan shall be corrected or implemented as site conditions change. Changes during construction shall be noted in the Storm Water Pollution Prevention Plan and posted on the drawings.

C. Owner has authority to limit surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and embankment operations and to direct Contractor to provide immediate permanent or temporary pollution control measures.

D. Maintain temporary erosion and sedimentation control systems as dictated by site conditions, indicated in the construction documents, or as directed by governing authorities or Owner to control sediment until final stabilization. Contractor shall respond to maintenance or additional work ordered by Owner or governing authorities immediately, but in no case, within not more than 48 hours if required at no additional cost to the Owner.

E. Contractor shall incorporate permanent erosion control features, paving, permanent slope stabilization, and vegetation into project at earliest practical time to minimize need for temporary controls.

F. Permanently seed and mulch cut slopes as excavation proceeds to extent considered desirable and practical.

G. Unless required within a shorter timeframe by the applicable General Permit for Storm Water Discharges Associated with Construction Activity, slopes that erode easily or that will not be graded for a period of 14 days or more shall be temporarily stabilized as work progresses with vegetation or other acceptable means in accordance with Section 02900 unless otherwise specified in the Contract Documents. In the event it is not practical to seed areas, slopes must be stabilized with mulch and tackifier, bonded fiber matrix, netting, blankets or other means to reduce the erosive potential of the area.

END OF SECTION 02370

SECTION 02375 - STONE PROTECTION

PART 1 - GENERAL

A. Section Includes: Rip-rap, bedding, and filter fabric for stone slope protection.

B. Related Sections: Section 02300 - Earthwork: Geotextile fabric

PART 2 - PRODUCTS

2.1 MATERIALS

A. Rip-Rap: Stone for rip-rap shall consist of field stone or rough unhewn quarry stone as nearly uniform in section as is practical. Stones shall be dense, resistant to action of air and water, and suitable for purpose intended. Unless otherwise specified, stones shall weigh between 50 and 150 pounds each, and at least 60 percent of stones shall weigh more than 100 pounds each.

B. Place rip-rap in areas where indicated on Construction Drawings.

C. Install filter fabric and bedding stone prior to placement of rip-rap if so indicated on Construction Drawings.

D. Place stones so that greater portion of weight is carried by earth and not by adjacent stones. Place stones in single layer with close joints. Upright areas of stone shall make angle of approximately 90 degrees with embankment slope. Place stones from bottom of embankment upward, with larger stones being placed in lower courses. Fill open joints with spalls. Embed stones in embankment as necessary to present uniform top surface such that variation between tops of adjacent stones shall not exceed 3 inches.

2.2 GEOTEXTILE FABRIC AND/OR GEOGRID

A. Place geotextile fabric over subsoil surface, lap edges and ends in accordance with manufacturer's recommendations and as shown on the Drawings.

END OF SECTION 02375

SECTION 02510 - WATER DISTRIBUTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Site water piping and fittings including domestic potable waterline and fire protection system supply waterline, valves, and fire hydrants.

1.2 SUBMITTALS

A. Furnish 1 copy of results of meter test and hydrostatic pressure test to Owner, Owners Civil Engineering Consultant (CEC), and utility company upon completion of water distribution backfilling operations.

B. Project Record Documents:

1. Disinfection report: Record the following:
   a. Type and form of disinfectant used.
   b. Date and time disinfectant injection start and time of completion.
   c. Test locations.
   d. Initial and 24 hour disinfectant residuals (quantity in treated water) in ppm for each outlet tested.
   e. Date and time of flushing start and completion.
   f. Disinfectant residual after flushing in ppm for each outlet tested.

2. Bacteriological report: Record the following:
   a. Date issued, project name, testing laboratory name, address, and telephone number.
   b. Time and date of water sample collection.
   c. Name of person collecting samples.
   d. Test locations.
   e. Initial and 24 hour disinfectant residuals in ppm for each outlet tested.
   f. Coliform bacteria test results for each outlet tested.
   g. Certification that water conforms, or fails to conform, to bacterial standards.
   h. Bacteriologist's signature and authority.

PART 2 - PRODUCTS

2.1 PIPE

A. Pipe sizes 3-inches and smaller for installation below grade and outside building shall comply with one or combination of following:

1. Seamless Copper Tubing: Type "K" soft copper, ASTM B88.
   a. Fittings: Wrought copper (95-5 Tin Antimony solder joint), ASME B 16.22.

2. Polyvinyl Chloride (PVC) Water Pipe: Pipe, ASTM D 2241, with SDR 21 rating, continually marked with manufacturer's name, pipe size, cell classification, SDR rating, and ASTM D1784 material classification.
   a. Pipe joints: Integrally molded bell ends, ASTM D2672.
   b. Cement primer: ASTM F656.
   c. Solvent cement: ASTM D2564.

B. Pipe sizes 4 to 16 inches for installation below grade and outside building shall comply with one or combination of following:

1. Ductile Iron Water Pipe: AWWA C151, Pressure class 350 (4-12") Pressure Class 250 (14-16").
   a. Fittings: Either mechanical joint or push_on joint, AWWA C153, and shall be coated with a 6-8 mil nominal thickness fusion bonded epoxy conforming to the requirements of AWWA C550 and C116, or cement mortar lined in accordance with AWWA C104.
   b. Elastomeric gaskets and lubricant: ASTM F477.

2. Polyvinyl Chloride (PVC) Water Pipe: Pipe, AWWA C900, rated DR 18 (Class 150), continually marked as required.
   a. Elastomeric gaskets and lubricant: ASTM F477 for smaller pipes.
   b. Pipe joints: Integrally molded bell ends, ASTM D3139.

2.2 VALVES

A. Ball Valves, 2-Inches and Smaller:

1. Manufacturer and Model: Mueller Oriseal or approved equal.
2. Brass body, teflon coated brass ball, rubber seats and stem seals, Tee stem pre, drilled for control rod, AWWA compression inlet end, compression outlet with electrical ground connector, with control rod, extension box and valve key.

2.3 FIRE HYDRANTS

A. Fire Hydrants: Type as required by utility company/Local Fire Department and as shown on Construction Drawings.

B. Hydrant Extensions: Fabricate in multiples of 6-inches with rod and coupling to increase barrel length.

C. Hose and Steamer Connections: Match sizes with utility company, with two hose nozzles, one pumper nozzle.

D. Finish: Apply primer and 2 coats of enamel or special coating to color as required by utility company.

2.4 ACCESSORIES

A. Thrust Blocking: Place 2500 psi concrete to provide sufficient bearing area to transmit unbalanced thrust from bends, tees, caps, or plugs to undisturbed soil without loading undisturbed soil in excess of 2,500 pounds per square foot when water main pressure is 100 psi.

MINIMUM THRUST BLOCKING BEARING AREAS (in square feet)

Pipe Diameter	Tee's	90 Bend	45 Bend	22.5 Bend	Cap or Plug
3"	1	1	1	1	1.5
4"	1	1	1	1	2
6"	1.5	2	1	1	3
8"	2.5	3.5	1.8	1	4
10"	4	5.5	2.8	1.5	6
12"	6	8	4	2	8.5
14"	8	11	5.5	3	12
16"	10	14.2	7	4	15
18"	21	21	12	6	24

B. Locked mechanical joint fittings shall be installed where vertical changes in direction are required and, if approved by Owner and governing authority, can be installed in lieu of above thrust blocking requirements.

C. Polyethylene Encasement: Single layer of two ply cross-laminated high density polyethylene encasement per AWWA C105, Section 4.1.2. Type III, Class C (Black), Grade 33, tensile strength 5,000 psi minimum, elongation 100 percent, thickness nominal 0.004 inch (4 mil).

D. Trace Wire: Magnetic detectable conductor, (#12 Copper) brightly colored plastic covering imprinted with "Water Service" in large letters.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that building service connection and municipal utility water main size, location, and depth are as indicated on Construction Drawings.

3.2 INSTALLATION - GENERAL

A. Perform installation in accordance with utility company or municipality requirements which shall take precedence over requirements stated herein when difference exists.

3.3 INSTALLATION - PIPE AND FITTINGS

A. Connections with Existing Pipelines: Where connections are made between new work and existing piping, make connection using suitable fittings for conditions encountered. Make each connection with existing pipe at time and under conditions with least interference with operation of existing pipeline and in compliance with local utility company.

B. Form and place concrete for thrust blocks or other specified methods of retainage at each change of direction or end of pipe main.

C. Install trace wire continuous over top of non-metal pipe. Bury a minimum of 6 inches below finish grade, and above pipeline.

3.4 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

A. Perform disinfection of potable lines in accordance with AWWA C651.

B. Disinfect distribution system with chlorine before acceptance for domestic operation. Chlorine dosage shall be not less than 50 parts per million. Flush lines before introduction of chlorinating materials and after contact period of not less than 24 hours. Flush with clean water after contact period until residual chlorine content is not greater than 1.0 part per million. Flush water discharged from water supply lines or hydrants shall not be allowed to discharge directly onto exposed soil or turf which could result in erosion of soil. If potential for erosion exists at discharge point, measures shall be taken to prevent erosion. Open and close valves in lines being disinfected several times during contact period. After disinfection, take water sample and bacteriological test in accordance with AWWA C651. Do not place distribution system in service until approval is obtained from local governing authorities.

C. Provide a means of neutralizing the super-chlorinated water before releasing into the environment. This may be accomplished by either a method of dechlorination, direct release into a detention area approved by Owner, or any method acceptable to federal, state, and local codes. Direct release to open ground shall not be allowed, unless contained within an onsite detention facility with 6" permanent storage. In this case, the Contractor shall time the release to assure that no rainstorms are imminent. The intent of this condition is to allow the majority of the chlorine to evaporate into the atmosphere before a rainstorm has the opportunity to wash the residual downstream. Contractor shall not release super-chlorinated water directly into the sanitary sewer system, private or public, nor any storm drain system not directly discharging into the detention facility.

3.5 SERVICE CONNECTIONS

A. Provide water service connection in compliance with utility company requirements including reduced pressure backflow preventer (if required) and water meter with by-pass valves and sand strainer.

3.6 FIELD QUALITY CONTROL

A. Test water distribution system pipe installed below grade and outside building in accordance with the following procedures:

1. Perform testing of pipe materials, joints, and other materials incorporated into construction of water mains and force mains to determine leakage and water tightness. In the event state or local code requires more stringent test, more stringent test shall take precedence.

2. Conduct piping tests before joints are covered and after concrete thrust blocks have hardened sufficiently. Fill pipeline 24 hours before testing and apply test pressure to stabilize system. Use only potable water. Test at not less than one-and-one-half times working pressure for two hours. Increase pressure in 50-psig increments and inspect each joint between increments. Hold at test pressure for 1 hour; decrease to 0 psig. Slowly increase again to test pressure and hold for 1 more hour. Maximum allowable leakage shall be 2 quarts per hour per 100 joints. Remake leaking joints with new materials and repeat test until leakage is within allowed limits.

B. Prepare reports of testing activities.

C. END SECTION

SECTION 02535 - SANITARY SEWAGE SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Sanitary sewer drainage piping, fittings, accessories, cleanouts, and bedding.
2. Connection of site sanitary sewer system to municipal sanitary sewer systems.

B. Related Requirements:

1. Section 02300 - Earthwork: Trenching, backfill, and compaction for utilities
2. Section 02536 - Sewer Manholes, Frames, and Covers

1.2 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.

B. ASTM International (ASTM):

1. ASTM A74 - Cast Iron Soil Pipe and Fittings
2. ASTM A746 - Ductile Iron Gravity Sewer Pipe
3. ASTM C425 - Compression Joints for Vitrified Clay Pipe and Fittings
4. ASTM C564 - Rubber Gaskets for Cast Iron Soil Pipe and Fittings
5. ASTM C700 - Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated
6. ASTM D2241 - Poly (vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)
7. ASTM D2657 - Heat-Joining Polyolefin pipe and Fittings
8. ASTM D3034 - Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
9. ASTM D3035 - Polyethylene (PE) Plastic Pipe Using Flexible Elastomeric Seals
10. ASTM D3139 - Joints for Plastic Pressure Pipe Using Flexible Elastomeric Seals
11. ASTM D3261 - Butt Heat Fussion Polyethylene (PE) Plastic Fittings For Polyolefin Pipe And Tubing
12. ASTM F477 - Elastomeric Seals (Gaskets) for Joining Plastic Pipe
13. ASTM F1417 - Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air.

C. American Water Works Association (AWWA):

1. AWWA C111 - Rubber_Gasket Joints for Ductile Iron Pressure Pipe and Fittings
2. AWWA C600 - Ductile-Iron Water Mains And Their Appurtenances
3. AWWA C900 - Polyvinyl Chlorides (PVC) Pressure Pipe, 4 In. Through 12 In, For Water Distribution
4. AWWA C901 - Polyethylene (PE) Pressure Pipe, Tubing And Fittings 1/2 Inch Through 3 Inches, For Water Distribution
5. AWWA C906 - Polyethylene (PE) Pressure Pipe And Fittings, 4 Inch Through 63 Inch, For Water Distribution

1.3 SUBMITTALS

A. Project Record Documents:

1. Accurately record actual locations of pipe runs, connections, cleanouts, and invert elevations.
2. Identify and describe unexpected variations to subsoil conditions and location of uncharted utilities.

1.4 PROJECT CONDITIONS

A. Coordinate work with termination of sanitary sewer connection outside building and connection to municipal sewer utility service.

PART 2 - PRODUCTS

2.1 SEWER PIPE, FITTINGS, AND JOINTS

A. Polyvinyl Chloride Pipe (PVC): ASTM D 3034, rated SDR 35 unless otherwise specified by the utility company. Pipe shall be continually marked with manufacturer's name, pipe size, cell classification, SDR rating, and ASTM D 3034 classification.
   1. Pipe joints: Integrally molded bell ends, ASTM D 3034, Table 2, with factory supplied elastomeric gaskets and lubricant.

2.2 PIPE ACCESSORIES

A. Pipe Joints: Mechanical clamp ring type, stainless steel expanding and contracting sleeve, neoprene-ribbed gasket for positive seal.

B. Fittings: Same material as pipe molded or formed to suit pipe size and end design, in required tee, bends, elbows, cleanouts, reducers, traps, etc.

2.3 CLEANOUTS AND MANHOLES

A. Manholes shall conform to Section 02536.

B. Lid and Frame: Provide in accordance with Section 02536. Provide traffic grade and rated covers and frames where cleanouts and manholes are within pavement, with the letters "SSCO" or "SANITARY SEWER" respectively cast into the cover.

C. Shaft Construction: Cast iron shaft of internal diameter as specified on Construction Drawings with 2500 psi concrete collar for cleanouts.

2.4 APPURTENANCES

A. Trace Wire: Magnetic detectable conductor (#12 copper), brightly colored plastic covering, imprinted with "Sanitary Sewer Service" in large letters.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that trench cut and excavation is ready to receive work and excavations, dimensions, and elevations are as indicated on Construction Drawings.

3.2 PREPARATION

A. Hand trim excavations to required elevations. Correct over excavation with bedding material.

B. Remove large stones or other hard matter that could damage pipe or impede consistent backfilling or compaction.

3.3 BEDDING

A. Excavate trench and place bedding material in accordance with Section 02300.

3.4 INSTALLATION _ PIPE

A. Install type and class of pipe as shown on the drawings. Pipes shall be laid and maintained to the required line and grade with necessary fittings, bends, manhole risers, cleanouts and other appurtenances placed at the required locations. The pipe shall be installed with uniform bearing under the full length of the barrel of the pipe. The pipe shall be inspected for defects and cracks before being lowered into the trench. Defective, damaged or unsound pipe, or pipe that has had its grade disturbed after laying shall be taken up and replaced. Commence installation at lowest point with the bell end upgrade.

B. No pipe shall be laid in water or when trench conditions are unsuitable for work.

C. Pipe connecting to manholes or other structures shall terminate flush with the structure wall.

D. Joints for PVC and CISP shall be thoroughly lubricated with an approved lubricant before Pipe sections are slipped together. Open ends shall be fully protected with a stopper to prevent earth or other material from entering the pipe during construction. Carefully free interior of the pipe from dirt, cement and other deleterious material as the work progresses.

E. Maintain separation of potable water main from sewer piping at crossings a minimum of 10 feet horizontal and 18 inches vertical.

F. Install HDPE piping and fittings to AWWA C901 and C906. Butt fusion welded per ASTM D3261.

G. Route pipe in straight line parallel to roads, buildings and adjacent utilities and as shown on the drawings.

H. Establish elevations of buried piping with sufficient cover as recommended by pipe manufacturer to ensure not less than 3 feet of cover, except as noted on drawings.

I. Form and place concrete for thrust blocks at each elbow of pipe force main. See construction drawing for details of construction.

J. Backfill trench in accordance with Section 02300.

K. Install trace wire continuous over top of non-metal pipe. Bury 6 inches minimum below finish grade, above pipeline.

L. Make connections to existing piping and underground manholes.
   1. Use commercially manufactured wye fittings for piping branch connections. Remove section of existing pipe; install wye fitting into existing piping; and encase entire wye fitting, plus 6-inch (150-mm) overlap, with not less than 6 inches (150 mm) of concrete with 28-day compressive strength of 3000 psi (20.7 MPa).
   2. Make branch connections from side into existing piping, NPS 4 to NPS 20 (DN 100 to DN 500). Remove section of existing pipe, install wye fitting into existing piping, and encase entire wye with not less than 6 inches (150 mm) of concrete with 28-day compressive strength of 3000 psi (20.7 MPa).
   3. Make branch connections from side into existing piping, NPS 21 (DN 525) or larger, or to underground manholes and structures by cutting into existing unit and creating an opening large enough to allow 3 inches (76 mm) of concrete to be packed around entering connection. Cut end of connection pipe passing through pipe or structure wall to conform to shape of and be flush with inside wall unless otherwise indicated. On outside of pipe, manhole, or structure wall, encase entering connection in 6 inches (150 mm) of concrete for minimum length of 12 inches (300 mm) to provide additional support of collar from connection to undisturbed ground.
      a. Use concrete that will attain a minimum 28-day compressive strength of 3000 psi (20.7 MPa) unless otherwise indicated.
      b. Use epoxy-bonding compound as interface between new and existing concrete and piping materials.
   4. Protect existing piping, manholes, and structures to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

3.5 INSTALLATION - CLEANOUTS AND MANHOLES

A. Form bottom of excavation clean and smooth to correct elevation.

B. For cleanouts, form and place cast_in_place concrete base pad with provision for sanitary sewer pipe to be installed to proper elevations.

C. For manholes, construct inverts according to the following guidelines:
   1. Invert channel shall be smooth and accurately shaped to a semicircular bottom to match with the inside of the adjacent sewer section.
   2. Invert channels and structure bottoms shall be shaped with mortar and lean concrete.
   3. Changes in size and grade of invert shall be made gradually and evenly.
   4. Changes in the direction of the sewer entering branch or branches shall have a true curve of as large a radius as the manhole will permit.

D. For manholes, provide manhole rings, frame, and cover as shown on the construction drawings.

3.6 FIELD QUALITY CONTROL

A. Field quality control shall be conducted by the Contractor.

B. Pipes and joints shall not be completely backfilled until after inspection, testing, and approval by the Owner and local jurisdiction.

C. Prior to testing for leakage, the pipe trench shall be backfilled to at least the spring line of the pipe. If required to prevent pipe movement during testing, additional backfill shall be added leaving the pipe joints uncovered to permit inspection.

D. Exfiltration Test
   1. Each section of sewer line between successive manholes shall be tested by closing the lower end of the sewer to be tested and the inlet sewer of the upper manhole, using stoppers.
   2. Fill the manhole and pipe with water to a point which produces a maximum of 3 feet of head above the invert of the sewer at the center of the upper manhole; or if groundwater is present, 3 feet of head above the average adjacent groundwater level.
   3. The allowable leakage shall be 200 gal/inch of pipe diameter/mile/day

E. Infiltration Test
   1. If excessive ground water is encountered in the construction of a section of the sewer, the exfiltration test shall not be used.
   2. The upper and lower ends of the sewer to be tested shall be closed sufficiently to prevent the entrance of water.
   3. Pumping of ground water shall be discontinued for at least 3 days; then infiltration shall be tested.
   4. Infiltration into each section of sewer between adjoining manholes shall not exceed that allowed for the exfiltration test, except that head conditions shall be a maximum of 6 feet.

F. The Exfiltration Test may be limited to the manholes only when the authority having jurisdiction does not require the test and the construction manager waives the test. The Infiltration Test will always be required when excessive ground water is encountered in addition to the air test.

G. Air Test: Gravity systems shall be air tested between manholes at 3.5 psi for 5 minutes per ASTM F1417 for plastic pipes.

H. Deflection Test:
   1. Deflection tests shall be conducted on all plastic pipe using a mandrel with a diameter equal to 95 percent of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices.
   2. Allowable Deflection: Maximum allowable pipe deflection shall not exceed 5 percent of nominal inside diameter.
   3. Mandrel: Mandrel, go/no-go, device shall be cylindrical in shape and constructed with either 9 or 16 evenly spaced arms or prongs. Mandrels with fewer arms will be rejected as not sufficiently accurate. Contact length of mandrel's arms shall equal or exceed nominal inside diameter of sewer to be inspected. Critical mandrel dimensions shall carry tolerance of 0.01-inch maximum. Contractor shall provide mandrel and necessary equipment for mandrel test.
   4. Procedure: Mandrel shall be hand-pulled through flexible pipe sewer lines no earlier than 30 days after trench has been completely backfilled. Sections of sewer not passing mandrel shall be uncovered and rebedded, rerounded, or replaced to satisfaction of Owner or governing agency. Repaired section shall be retested.

I. Hydrostatic Test: Force main piping shall be hydrostatically tested at 150 psi in accordance with AWWA C 600.

J. Provide measuring devices, meters, water, materials, and labor for making the required tests.

K. Tests shall be conducted in the presence of the Construction Manager or their designee. Test data shall be submitted to the Engineer for review and approval.

END OF SECTION

SECTION 02536 - SEWER MANHOLES, FRAMES, AND COVERS

PART 1 - GENERAL

1.1 Section Includes: Monolithic concrete, modular precast concrete and precast polyethylene manhole assemblies.

PART 2 - PRODUCTS

2.1 MANHOLES

A. Cast-In-Place Concrete: Nonreinforced cast in place concrete barrel.

1. Concrete: 3500 psi concrete conforming to ASTM C94.
2. Forms: Steel sheet accurately shaped and fabricated of sufficient strength to form dense watertight walls to true dimensions.

B. Precast Concrete: Reinforced precast concrete barrel.

1. Manhole Sections: ASTM C478.
2. Joints and Joint Sealant: Joint between manhole barrel sections shall conform to ASTM C990 using preformed flexible joint sealant.
3. Pipe Connection Sealant: Joint material between manhole barrel and adjoining pipe shall be as shown on the drawings.
4. Construct manholes of precast concrete sections as required by Construction Drawings to size, shape, and depth indicated.

C. Concrete Brick: ASTM C55, Grade N Type I_moisture controlled, normal weight, of same grade, type and weight as block units, nominal modular size of 3 5/8-inches x 7 5/8-inches x 2 1/4-inches.

D. Precast Polyethylene:

1. Manufacturer: Advanced Drainage Systems (ADS) or approved equal.

2. Precast polyethylene in accordance with ASTM D1248. Nominal cylinder internal diameter shall be 48-inches and shall be designed to accept concrete filled polyethylene manhole lids and standard cast iron frames with lid or grate.

3. Manholes shall have compressive strength that meets ASTM D2412 standards.

E. Mortar and Grout: Mortar for finishing and sealing shall be Class "C", Honeycombing less than 2-inches deep shall be repaired using Class "D" mortar.

F. Brick Transition Reinforcement: Formed steel 8-gauge wire with galvanized finish.

G. Configuration:

1. Barrel Construction: Concentric with eccentric cone top section.
2. Shape: Cylindrical.
3. Clear Inside Dimensions: 48-inches diameter minimum or as indicated on Construction Drawings.
4. Design Depth: As indicated on Construction Drawings.
5. Clear Lid Opening: 22-inches minimum.
6. Pipe Entry: Provide openings as indicated on Construction Drawings.
7. Main and Lateral Pipes: Neatly cut off main and lateral pipes flush with inside of manhole or inlet where they enter structure walls. Point up irregularities and rough edges with nonshrinking grout.

H. Inverts: Shape inverts for smooth flow across structure floor as indicated on Construction Drawings. Use concrete and mortar to obtain proper grade and contour. Finish surface with fine textured wood float.

2.2 COMPONENTS

A. Lid and Frame:

1. Manufacturer: One of the following or approved equal:

   a. Bass & Hays Foundry.
   b. Deeter Foundry, Inc.
   c. East Jordan Iron Works.
   d. Neenah Foundry.
   e. U.S. Foundry & Manufacturing

2. ASTM A48, Class 30B minimum, heavy duty cast iron construction, machined flat bearing surface.

3. Removable lid, closed or open as indicated on Construction Drawings, with sealing gasket.

PART 3 - EXECUTION

3.1 PRECAST MANHOLE CONSTRUCTION

A. Place base pad to proper elevation and location and trowel top surface level for placement of manhole barrel.

B. Place manhole barrel plumb and level to correct elevations and anchor to base pad.

1. After completion of slab foundation, lower first joint of manhole barrel into position, grooved end first, and set level and plumb on concrete base. Align and adjust to proper grade prior to placing and forming invert. Pour invert immediately after setting of first section of manhole barrel.

2. Prior to setting subsequent manhole barrel sections, apply primer to tongue and groove ends and allow to set in accordance with manufacturer's recommendations. Place joint sealant on tongue end. Lower next section into position, and remove excess material from interior of structure. Add additional material on exterior of joint, if necessary, for completely watertight joint.

3. Set cover frames and lids level without tipping, to correct elevations. Utilize pre-cast rings or brick and mortar to achieve final rim elevation. Maximum limit, 4 courses.

3.2 CAST-IN-PLACE MANHOLE CONSTRUCTION

A. Cast-in-place concrete shall conform to the applicable requirements of concrete. Utilize steel forms.

B. Place base pad to proper elevation and location and pour monolithically with invert. Base shall support pipe to first joint.

C. Deposit concrete in evenly distributed layers of about 18 inches, with each layer vibrated to bond to preceding layer.

D. Place gasket between all joints and paint exterior of manhole within 5 inches of the joint with mastic waterproofing.

E. Place precast concrete cone.

F. Set section cover frames and lids level without tipping, to correct elevations. Utilize pre-cast rings or brick and mortar to achieve final rim elevation. Maximum limit, 4 courses.

END OF SECTION 02536

SECTION 02555 - NATURAL AND PROPANE GAS DISTRIBUTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Pipe and fittings for site utility natural or propane gas distribution.
2. Propane storage tanks and appurtenances.
3. Connection of site natural gas system and private utility company system.

1.2 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.

1.3 SUBMITTALS

A. Project Record Documents:

1. Accurately record actual locations of pipe mains, valves, connections, and top of pipe elevations.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, protect, and handle products to be included.

B. Deliver and store valves in shipping containers with labeling in place.

PART 2 - PRODUCTS

2.1 PIPE

A. Steel Pipe:

1. Below Ground: ASTM A53, Schedule 40, type E or S, grade B, black:
   a. Fittings: ASME B16.11, forged steel, or ASTM A234 forged steel welding type.
   b. Joints: Welded and seamless.
   c. Jackets: AWWA C105 polyethylene jacket, double layer, half lapped, 10-mil polyethylene tape.
2. Above Ground: ASTM A53, Schedule 40, type E or S, grade B, black:
   a. Fittings: ASME B16.3, malleable iron, ASME B16.11, forged steel, or ASTM A234, forged steel welding type.
   b. Joints: Threaded.

B. Copper Tubing (Propane Piping):

1. Below ground: ASTM B88, Type K, internally tinned:
   a. Fittings: ASME B16.18, cast copper, or ASME B16.22, wrought copper; internally tinned.
   b. Joint: AWS A5.8 BCuP silver brazed.
2. Above ground: ASTM B88, Type K, L or ASTM B75, Type GP; internally tinned:
   a. Fittings: ASME B16.18 cast copper, ASME B 16.22, wrought copper, or ANSI B16.26, cast copper, internally tinned.
   b. Joint: ASTM B32, Solder, Grade 95TA or AWS A5.8, Bcup silver brazed.

C. Polyethylene Pipe (below ground only):

1. ASTM D-2513, SDR 11.5.
2. PE Fittings: ASTM D 2683, socket type or ASTM D 3261, butt type with dimensions matching ASTM D 2513, SDR 11, PE pipe.
3. Joints: Mechanical or Compression fit.

D. Reinforced Epoxy Resin Piping: ASTM D2517.

1. Fittings: ASTM D2517.
2. Joints: Bell and spigot with epoxy resin.

2.2 GAS COCKS

A. 2 Inches and Smaller: 150 psig WOG, bronze body, bronze tapered plug, non_lubricated, Teflon packing, threaded ends with cast iron curb box, cover, and key.

B. Larger than 2 inches: 125 psig WOG, Steel or Cast iron body and tapered plug, non_lubricated, Teflon packing, threaded ends, with cast iron curb box, cover, and key.

C. For Applications with Line Pressure Greater than 60 psig: Over 2 Inches: Cast iron body and plug, pressure lubricated, Teflon packing, flanged ends, with cast iron curb box, cover, and key.

2.3 Mark manufacturer's name and pressure rating on valve body

2.4 PRESSURE REGULATING VALVES

A. Single stage, malleable iron body, corrosion_resistant, pressure regulator with atmospheric vent, elevation compensator; with threaded ends for 2 inches and smaller or flanged ends for larger than 2 inches. Install earthquake actuated automatic shutoff valve, if required by local code or utility.

B. Capacity: For inlet and outlet gas pressures, specific gravity, and flow rate indicated.

2.5 PROPANE STORAGE TANKS

A. Construction: Closed, welded steel, tested and stamped in accordance with ASME S00081, Sec VIII; minimum 250 psig rating; cleaned, prime coated, and painted with 2 coats of silver anti_rust paint, and supplied with steel support saddles, pressure gage, tapping for installation of piping and accessories.

B. Vaporizer: 1,000 watts, heating cable bedded in 1-inch of glass fiber insulation and covered by flexible stainless steel plate. with thermostat in weatherproof box set to turn on at _13 degrees Fahrenheit with manual off_on switch.

C. Capacity: Diameter and length as shown on Construction Drawings.

2.6 TRACE WIRE

A. Magnetic detectable conductor, brightly colored plastic covering, imprinted with "Natural Gas Service" in large letters.

PART 3 - EXECUTION

3.1 PREPARATION

A. Ream pipe ends and remove burrs. Bevel plain end ferrous pipe over 2-inches diameter or thread ferrous pipe 2-inches diameter and under.

B. Remove scale and dirt, on inside and outside, before assembly.

C. Prepare piping connections with flanges or threading and unions.

D. Comply with NFPA 54 on installation of gas lines.

3.2 BEDDING

A. Excavate pipe trench and place bedding material in accordance with Section 02300.

3.3 INSTALLATION - GENERAL

A. Perform installation in accordance with local utility company requirements in conjunction with requirements herein. Utility requirements shall take precedence when differences occur.

3.4 INSTALLATION PIPING

A. Maintain a minimum of 12 inches separation of gas line from sewer, water, or storm water piping in accordance with state or local code.

B. Install piping to conserve space and not interfere with use of site space.

C. Install piping to allow for expansion and contraction without stressing pipe or joints.

D. Install cocks and other fittings as required.

E. Establish elevations of buried piping in accordance with Section 02300.

F. Wrap couplings and fittings of steel pipe with polyethylene tape and heat shrink over pipe in accordance with AWWA C105.

G. Install trace wire continuous over top of pipe for nonmetallic pipe.

H. Backfill trench in accordance with Section 02300.

I. Center and plumb valve box over valve. Set box cover flush with finished ground surface. Prevent shock or stress from being transmitted through valve box to valve.

J. Wrap valve and valve box with polyethylene tape and heat shrink or paint valves and valve boxes with red anti_rust primer and 1 coat of epoxy paint.

3.5 SERVICE CONNECTIONS

A. Provide sleeve in foundation wall for gas service main. Caulk enlarged sleeve watertight.

B. Anchor service main to interior surface of foundation wall.

C. Install service regulator adjacent to building wall in specified location.

D. Install service regulator and riser pipe to prevent undue stress on service pipe. For plastic service pipe, use steel pipe riser from below ground to regulator.

E. Provide regulator vent with rain and insect proof opening, terminating not less than 5 feet away from building openings.

3.6 PROPANE TANK INSTALLATION

A. Place tank legs on concrete pad, level within tolerance of 2 inches maximum.

B. Prepare and grade an area outside the tank perimeter, for distance of 6 feet. Grade, place, and compact gravel fill to compacted depth of 3 inches minimum. Compact in accordance with Section 02300.

C. Provide tank with relief valve, shutoff valve, pressure regulator, pressure gauge, and removable protection cover. Install piping, shutoff valve, and pressure gauge to underground piping.

D. Set tank regulator to outlet pressure as indicated on Construction Drawings.

E. Install vaporizer to underside of tank and secure to tank with aluminum tray and two stainless steel straps.

F. Install weatherproof control box for vaporizer 40-inches above ground surface. Install on 4-inch x 4-inch cedar post, driven into ground 40 inches.

G. Install control wire from vaporizer to control box 20 inches below ground surface. Install service wiring 24 inches below ground from control box to building.

END OF SECTION

SECTION 02630 - STORM DRAINAGE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Storm sewer drainage piping, fittings, and accessories.
2. Storm drainage structures.

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

A. Pipe and joint materials specified below for storm drainage shall be strictly limited to the extent shown or allowed on the drawings or as specified in Part 3 hereinafter.

B. Reinforced Concrete Pipe (RCP): ASTM C 76, Class III unless noted otherwise on Drawings.

1. Joint Material: Provide joints to the extent allowable in Part 3 Joints.
   a. Rubber O-ring Gasket: AASHTO M 198, Type B or ASTM C 443.
2. Flared End Sections: ASTM C 76 or, for sections with toe wall, AASHTO M 170.

C. High Density Polyethylene Pipe - Water Tight (HDPE-WT): AASHTO M330 or ASTM F 2736 smooth interior/annular exterior. Use only where specifically indicated on Drawings.

1. Joint Material:
   a. Rubber Gasket.
      1) ADS HP WT by Advanced Drainage Systems, Inc..

D. Polyvinyl Chloride (PVC) Pipe: ASTM D 3034, rated SDR 35, or ASTM F 949 for Profile Pipe, continually marked with manufacturer's name, pipe size, cell classification, SDR rating, and ASTM D3034 classification. Only permitted when specifically indicated on Drawings.

1. Pipe joints conforming to ASTM D 3212.
2. Joint Material: Restrained Gasket, ASTM F 477.

E. Subdrains: Perforated, PVC or flexible corrugated plastic pipe as specified herein of the size indicated on the drawings.

2.2 DRAINAGE STRUCTURES

A. Manholes: Conform to Section 02536.

B. Grates and Frames: Provide in accordance with details shown on Drawings or equivalent by one of the acceptable manufacturers.
   1. Acceptable Manufacturers:

      a. East Jordan Iron Works.
      b. Neenah Foundry.
      c. U.S. Foundry & Manufacturing.

   2. Standard Grates and Frames: Heavy duty grates, with maximum slot width of 1-1/8".

C. Cast-In-Place concrete for drainage structures including manholes, inlets, catch basins, collars, support blocks, headwalls and paved ditches shall conform to ACI 301.

1. Compressive Strength: 3500 psi at 28 days.
2. Reinforcement: ASTM A 615, grade 60 deformed reinforcing bars, and ASTM A 185 for wire fabric.

PART 3 - EXECUTION

3.1 INSTALLATION - PIPE

A. Install pipe in accordance with manufacturer's written recommendations.

B. HDPE-WT Pipe: Install pipe in accordance with pipe manufacturer's installation Guidelines for Culvert Storm Drainage Applications and as indicated on the drawings.

C. Commence installation at the lowest point for each segment of the route.

SECTION 02740 - ASPHALT CONCRETE PAVING

1.2 PROJECT CONDITIONS

A. Weather Limitations:
1. Apply tack coat when ambient or base surface temperature is above 40 F, and when temperature has been above 35 F for 12 hours immediately prior to application. Do not apply when base is wet, contains excess moisture, during rain, or when frozen.
2. Construct asphalt concrete paving when ambient temperature is above 40 F.

B. Maintain access for vehicular and pedestrian traffic as required for other construction activities. Utilize temporary striping, flagmen, barricades, warning signs, and warning lights as required.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Aggregate: Use locally available materials and gradations that meet local State Highway Department Specifications and exhibit satisfactory records of previous installations. All aggregate requirements, including those for quality, shall meet those in AASHTO M323 for the specified traffic level.

B. Asphalt Binder: Asphalt binder shall be a performance-graded (PG) binder, meeting the requirements of M 320, which is appropriate for the climate and traffic-loading conditions at the site of the paving project and in compliance with the local State Highway Department Specifications for that location, or as specified by the contract documents.
1. Design reliability shall be 85% for the high- and low-temperature performance.
2. The minimum required PG binder shall be that which satisfies the required design reliability using the pavement temperature data determined.
3. The high-temperature grade shall be increased by one grade equivalent to accommodate low traffic speeds.

C. Tack Coat: Emulsified asphalt; AASHTO M140 or AASHTO M208, SS-1h, CSS-1, or CSS-1h, may be diluted with up to 1 part water to 1 part asphalt.

D. Mineral Filler: Rock or slag dust, hydraulic cement, or other inert material complying with AASHTO M17, if recommended by local State Highway Department Specifications.

E. Reclaimed Asphalt Pavement (RAP): RAP may be used in amounts not to exceed 20% by wt. The mix design shall contain the percentage of RAP that is to be used in the production. Production procedures using RAP material shall conform to NAPA IS 123. Additional RAP provisions shall be as follows:
1. Material-handling machinery shall not drive on the RAP stockpiles.
2. RAP maximum top size aggregate introduced into the mix shall be 1-1/2 inches.
3. Dust (fines) in the RAP, when added to the virgin aggregate, shall not exceed the requirements of the virgin mix design.
4. Moisture content shall be monitored to assure that the material can be thoroughly dried as it is processed.
5. Stockpiles shall be left uncovered or stored under the roof of an open-sided building.
6. Material handling front-end loader operators shall be experienced in handing RAP materials.
7. RAP shall be loaded in the cold feed bins in small consistent quantities without causing the material to compact in the bin.
8. RAP shall not be held in the bin for extended periods of time, especially on hot, humid days.
9. During production, RAP material shall not be allowed to contact open flame.

2.2 AGGREGATE SIZE REQUIREMENTS - SUPERPAVE MIX

A. Nominal Maximum Size - The combined aggregate shall have a nominal maximum aggregate size of 4.75 to 19.0 mm for surface courses and no larger than 25 mm for subsurface courses in accordance with Table 3 of AASHTO M323. Selection of the appropriate nominal maximum aggregate size mixture shall be in accordance with NAPA IS 128.

B. Gradation Classification - The combined aggregate gradation shall be classified as coarse-graded when it passes below the Primary Control Sieve (PCS) control point as defined in Table 4 of AASHTO M323. All other gradations shall be classified as fine-graded.

2.3 ASPHALT-AGGREGATE MIXTURE

A. Superpave Mix:

1. The initial, design, and maximum number of gyrations shall conform to the following:

Superpave Gyratory Compaction Effort

Design ESALs (Million)	Compaction Parameters		
	Ninitial	Ndesign	Nmax
< 0.3	6	50	75
0.3 < 3	7	75	115

2. The design, when compacted in accordance with T 312, shall meet the relative density, VMA, VFA, and dust-to-binder ratio requirements specified in the following table. Air voids at N (design) shall be 4.0 percent.

Superpave HMA Design Requirements

Design ESALs[a] (Million)			<0.3	0.3 to <3
Required Relative Density, Percent of Theoretical Maximum Specific Gravity		Ninitial	≤91.5	≤90.5
		Ndesign	96	96
		Nmax	≤98.0	≤98.0
Voids in the Mineral Aggregate (VMA) Percent Minimum	Nominal Maximum Aggregate Size, mm	25	12	12
		12.5	14	14
		9.5	15	15
		4.75	16	16
VFA Range, Percent			70-80[c]	65-78
Dust-to-Binder Ratio[b]			0.6-1.2	0.6-1.2

a Design ESALs are the anticipated project traffic level expected on the design project over a 20-year period. Regardless of the actual design life of the project, determine the design ESALs for 20 years.
b For the 4.75-mm nominal maximum size mixtures, the dust-to-binder ratio shall be 0.9 to 2.0.
c For the 25.0-mm nominal maximum size mixtures, the specified lower limit of the VFA range shall be 67 percent for design traffic levels < 0.3 million ESALs.

1. Aggregate gradation and asphalt content tolerances for acceptance of plant produced mix shall be as follows:

Property	Maximum tolerance for any one sample	Average of samples for given mix for four or more samples
3/4" (19mm)	±7.0	±4.0
1/2" (12.5 mm)	±7.0	±4.0
#4 (4.75mm)	±6.0	±3.5
#8 (2.36mm)	±6.0	±3.5
#50 (0.3mm)	±4.0	±2.3
#200 (0.075mm)	±2.0	±1.2
Asphalt Content	±0.4	±0.3
Air Voids	±2.0	±1.2
VMA	> Min.	> Min.

A. Marshall Mix:
1. The design shall meet the requirements specified in the following table.

Marshall HMA Design Requirements			
Design ESALs[a] (Million)		< 0.3	0.3 < 3
Compaction Effort[b] (Blows)		50	75
Design Air Voids, Percent		3-Mar	3-Mar
Voids in Mineral Aggregate (VMA), Percent Minimum	1 in	12	12
	3/4 in	13	13
	1/2 in	14	14
	3/8 in	15	15
VFA Range, Percent		70-82	20-82
Minimum Stability, pounds		1000	1500
Flow, inches		0.08 - 0.16	0.08 - 0.16

a Design ESALs are the anticipated project traffic level expected on the design project over a 20-year period. Regardless of the actual design life of the project, determine the design ESALs for 20 years.
b Flat-foot, static base hammer.

2. Aggregate gradation and asphalt content tolerances for acceptance of plant produced mix shall be as follows:

Property	Maximum tolerance for any one sample	Average of samples for given mix for four or more samples
3/4" (19mm)	±7.0	±4.0
1/2" (12.5 mm)	±7.0	±4.0
#4 (4.75mm)	±6.0	±3.5
#8 (2.36mm)	±6.0	±3.5
#50 (0.3mm)	±4.0	±2.3
#200 (0.075mm)	±2.0	±1.2
Asphalt Content	±0.4	±0.3
Air Voids	±2.0	±1.2
VMA	> Min.	> Min.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that the prepared base material has been inspected, tested, and graded and elevations are correct, dry, and properly prepared in accordance with Section 02715.

3.2 PREPARATION

A. Proof roll prepared base material surface to check for unstable areas in accordance with Section 02300 including documentation and re-proof rolling as required. Paving work shall begin only after unsuitable areas have been corrected and are ready to receive paving.

B. Cover the surfaces of curbs, gutters, manholes and other structures on which the asphalt concrete mixture will be placed, with a thin, uniform coat of liquid asphalt. Where the asphalt concrete mixture will be placed against the vertical face of an existing pavement, clean the vertical face to remove foreign substances and apply a coating of liquid asphalt at a rate of approximately 0.25 gallons per square yard.

3.3 APPLICATION

A. Tack Coat:
1. Apply tack coat to asphalt concrete base course or sand asphalt base course. Apply emulsified asphalt tack coat between each lift or layer of full depth asphalt concrete and sand asphalt bases and on surface of bases where asphalt concrete paving will be constructed.
2. Apply at rate which produces a residual of asphalt cement between 0.04 and 0.06 gal per sq. yd of surface.
3. Allow drying until at proper condition to receive paving.

3.4 ASPHALT CONCRETE PLACEMENT

A. Place asphalt concrete mixture on completed, compacted underlying surface, spread, and strike off. Spread mixture at the minimum ambient temperature that will allow the required density to be achieved.

B. Whenever possible, spread pavement by finishing machine; however, inaccessible or irregular areas may be placed by hand methods. Spread hot mixture uniformly to required depth with hot shovels and rakes. After spreading, carefully smooth hot mixture to remove segregated course aggregate and rake marks. Rakes and lutes used for hand spreading shall be type designed for use on asphalt mixtures. Do not dump loads faster that they can be properly spread. Workers shall not stand on loose mixture while spreading.

C. Placement and routing of hauling and placing equipment shall be conducted in a manner to avoid tire tracking of bituminous material onto existing paved surfaces.

D. Paving Machine Placement: Apply successive lifts of asphalt concrete in transverse directions except when placing within small areas, parallel lifts may be placed when considered more practical. Joints of successive parallel lifts shall be offset a minimum of 2 feet. Place surface course parallel to flow of traffic. Place asphalt paving in typical strips not less than 10'-0" wide. Asphalt concrete pavement, including base and surface course, shall be placed in two or more lifts as indicated on drawings. Pavement thicknesses shall be thickness shown on the drawings for each course but not less than 1-1/2 inch nor more than 3 inches for each lift.

3.5 ROLLING AND COMPACTION

A. After being spread, mixture shall be compacted by rolling as soon as it will bear the weight of rollers without undue displacement. Number, weight, types of rollers, and sequences of rolling operations shall be such that the required density and surface are consistently attained while the mixture is in workable condition.

B. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.

C. Breakdown Rolling: Perform breakdown or initial rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling and repair displaced areas by loosening and filling with hot material.

D. Intermediate Rolling: Follow breakdown rolling as soon as possible while mixture is hot. Continue second rolling until mixture has been thoroughly compacted as follows:
1. Minimum Average Density: 93 percent of theoretical maximum density according to AASHTO T209 or ASTM D2041, with no individual test less than 91 percent nor greater than 97 percent.

E. Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until roller marks are eliminated and course has attained maximum density.

F. Patching: Remove and replace paving areas mixed with foreign materials and defective areas. Cut out such areas and fill with fresh, hot asphalt concrete. Compact by rolling to maximum surface density and smoothness.

G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked. Any masked or marred finish surfaces shall be repaired or smoothed.

H. Compaction at Unsupported Edges of Pavements: Start the first roller pass 12-15 inches from the unsupported edge. Allow the uncompacted asphalt to act as a dike to hold the mat in place. The final pass over the uncompacted dike should not slough off if the roller is supported on the compacted mat.

3.6 JOINTS

A. General: Place each asphalt paving layer as continuous as possible to keep the number of joints to a minimum. Create joints between old and new pavement, between successive days work, and where the mixture has become cold (less than 140 degrees F). Make these joints in such a manner as to create a continuous bond between the old and new pavement construction courses.

B. Construction joints shall have same texture, density, and smoothness as other sections of asphalt concrete course.

C. Transverse Joints: If placing of material is discontinued or if material in place becomes cold, make a joint running perpendicular to the direction traveled by the paver. Before placement continues, trim the edge of the previously placed pavement to a straight line perpendicular to the paver and cut back to expose an even vertical surface for the full thickness of the course. When placement continues, position the paver on the transverse joint so that sufficient hot mixture will be spread in order to create a joint after rolling that conforms to the required smoothness. If the temperature of the previously placed pavement material drops below 140 degrees F before paving is resumed, give the exposed vertical face a thin coat of liquid asphalt just before paving is continued.

D. Longitudinal Joints: Coat longitudinal joints that are not completed before the previously laid mixture has cooled to a temperature below 140 degrees F, with liquid asphalt just before paving is continued.

3.7 FIELD QUALITY CONTROL

A. Field quality control shall be the responsibility of the Contractor in accordance with Section 01452. Except for specified mandatory testing, field quality control testing and inspection shall be at the discretion of the Contractor as necessary to assure compliance with Contract requirements. Owner T&I shall not be considered a substitute for the Contractor's responsibility to perform similar routine, necessary, and customary testing and inspection of the methods and frequency suitable for the type of work involved.

B. Mandatory Testing:
1. Pavement Thickness: Measure pavement thickness behind the paver at the beginning of and during pavement placing operations to assure proper thickness.
2. Field Density Test For In-Place Materials: In-place density tests by nuclear method in accordance with ASTM D2950. Nuclear density shall be correlated with ASTM D1188 or D2726 or AASHTO T166, T275, T331 as applicable.
a. Density tests on subgrades and aggregate base courses to be overlaid by pavements shall be performed within 48 hours prior to placement of the pavement lift. If inclement weather occurs after testing, retest prior to placement of next lift. Testing frequencies shall be as specified for Sections 02300 and 02715 respectively.

C. Coring holes remaining from cores taken by the CTL shall be immediately filled by the Contractor with full depth, hot-mix asphalt concrete or non-shrink grout tinted to match the surrounding pavement.

D. Obtain test samples for volumetric testing from the truck at the asphalt plant. Mixture samples shall be taken at least 2 times for every 8 hour day. Deliver samples to the CTL for testing by the CTL.

E. Areas of deficient paving, including compaction, smoothness, thickness, and asphalt mixture, shall be delineated, removed, and replaced in compliance with specifications requirements. Alternative remedial or corrective measures for repair of deficient paving may be allowed provided a plan of corrective action is submitted in the form of a Request For Information (RFI) and the plan is approved by the CEC.

F. Provide certification in writing that asphalt placement is in accordance with specification requirements.

G. Provide documentation to the CTL of proof rolling and of subgrade and aggregate base compaction testing prior to pavement placement each day in the areas to be paved including the density control strip

3.8 OWNER TESTING AND INSPECTION (T&I)

A. The Owner will perform testing and inspection (T & I) but only as a means of verification to the Owner of Contractor quality control performance.

Owner T&I will be performed by the Owner's Construction Testing Laboratory (CTL).

END OF SECTION

SECTION 02751 - CONCRETE PAVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Preparation and placement of Portland cement concrete parking areas.
2. Preparation and placement of Portland cement concrete roads and entrances.

1.2 SUBMITTALS

A. Obtain CEC approval for Mix Design and Pavement Joint and Placement Plan prior to commencement of work.

B. Mix Design:
1. Provide Professionally Sealed Concrete Mix Design Information including: Suppliers Mix Design #, design strength, water/cement ratio, total air content, total estimated volume of concrete, wet and dry densities, slump without admixtures, slump with admixtures (if any), mix design proportions (cement, fly ash, course and fine aggregates, water), course and fine aggregate gradations including coarseness factor.

C. Pavement Joint and Placement Plan: For projects with all-concrete parking lots, provide a placement plan identifying the items listed below.
1. Concrete truck access location.
2. Extent of placements including width, length, slab placement area and volume.
3. Locations of construction joints.
4. Location of sawn contraction joints if different from those shown on the civil drawings.

D. Installation Certification: Submit certification in writing that final placement is in accordance with specification requirements.

1.4 ENVIRONMENTAL REQUIREMENTS

A. Concreting in Hot, Dry, or Windy Weather:
1. Employ precautions to avoid cracking when the concrete rate of evaporation exceeds 0.1 pounds per square foot per hour or when any combination of concrete materials and weather conditions are favorable for the formation of plastic shrinkage cracks.
2. Maintain an accurate reading thermometer at the job site to check temperature of concrete.
3. Reject concrete if more than one slump adjustment, as defined in ASTM C 94, is required.
4. Do not place concrete when forms, subgrade, aggregate base, or reinforcing bars are more than 120 F or the temperature differential between the forms, aggregate base, or reinforcing bars and concrete will create conditions favorable for settlement cracks or thermal cracking.

B. Concreting in Cold Weather:
1. Conform to ACI 306.1 when temperature and other environmental conditions are as noted herein.
2. Subgrade shall be thawed to depth of 12 inches immediately before placing concrete.
3. Measure and record concrete temperature during protection period in each placement at regular time intervals, but not less than 3 times per 24 hour period.
4. Do not place slabs on subgrade or base that is more than 20F cooler than concrete. Warm subgrade or base to decrease temperature differential to 20 F or less

1.5 PROJECT CONDITIONS

A. Maintain access for vehicular and pedestrian traffic as required for other construction activities. Utilize temporary striping, flagmen, barricades, warning signs, and warning lights as required.

PART 2 - PRODUCTS

2.1 MATERIALS

1. Aggregate Choker Material: Clean granular fill with less than 3% clay and/or friable particles. Use one of the following gradations:
a. ASTM 448 No. 10 with 6% to 12% passing No. 200 sieve.
b. Material meeting the following gradation:

Std. Sieve Size	% Passing
No. 4	85-100
No. 8	75-95
No. 16	55-75
No. 50	22-45
No. 100	10-30
No. 200	6-12

B. Reinforcement:
1. Fiber Reinforcement: BASF MasterFiber M35 Reinforcement at dosage rate of 0.5 lb/cy.
2. Reinforcing Bars: Deformed steel bars, ASTM A615, Grade 60.
3. Joint Dowel Bars: ASTM A615, grade 40 minimum, smooth round plain steel bars, or ASTM A36, smooth round or square plain steel bars, cut bars true to length with ends square and free of burrs. Epoxy coat per State Highway Department Standard Specifications.

C. Cementitious Materials:
1. Portland Cement: ASTM C150, Type I, Use only one brand throughout project.
2. Fly Ash: ASTM C 618, Class C or F. Use only one type and source throughout project.
3. Slag: ASTM C989, Grade 100 or 120. Use only one type and source throughout project.

D. Pavement Joint Materials:
1. Joint Back-up Material: Polyethylene foam, 100% closed cell
2. Soft Preformed Joint Filler: Flexible closed-cell non-extruding synthetic foam expansion joint strips.
a. Ceramar Flexibe Foam Expansion Joint, by W.R. Meadows.
b. Deck-O-Foam Expansion Joint Filler, by W.R. Meadows
c. Expansion Joint Filler, by BASF Building Systems (Degussa) (Formerly Sonneborn Sonolastic).
3. Sealant:
a. Dow 888, by Dow Corning.
b. 301 NS by Pecora.
c. Spectrum 800 or 900 by Tremco.

E. Concrete Aggregate: Conform to ASTM C33
1. Fine Aggregate:
a. Conform to fine aggregate grading requirements as defined in section 6.1 of ASTM C 33 unless approved by the Civil Engineer.
b. If manufactured sand is used, blend with minimum 25% natural sand unless otherwise approved by Civil Engineer.
2. Coarse Aggregate:
a. Nominal maximum coarse aggregate size shall be 1 inch for slabs ≤ 5-1/2 inch thick.
b. The nominal maximum size of an aggregate is the smallest sieve size through which the major portion of the aggregate must pass, with a minimal amount retained on the maximum sieve size. Maximum 4% shall be retained on the nominal maximum size sieve.
3. Adjust proportions of combined coarse, intermediate, and fine aggregates to provide the following particle size distribution characteristics, unless otherwise approved:
a. Coarseness Factor of 60 to 75%.
1) The Coarseness Factor (CF) is the percent of combined aggregate retained on the #8 sieve that is also retained on the 3/8" sieve.
2) The Coarseness Factor is calculated as follows:
3) CF = Aggregate retained on 3/8" sieve / Aggregate retained on #8 sieve.
4) Combined percent retained on any given sieve size shall not exceed 24%.
4. Gradation requirement of ASTM C33 may be waived in order to meet ranges specified.

F. Water: ASTM C 1602Air Entrainment: ASTM C260.

G. Evaporation Retardant: Water-based polymer, sprayable.

H. Liquid Membrane Curing and Sealing Compound: ASTM C 1315, Type I, Class A or B, 25% minimum solids content, clear non-yellowing with no styrene-butadiene.
1. Water Based, VOC less than 350 g/l:

2.2 CONCRETE MIX

A. Design mix shall produce normal weight concrete consisting of Portland cement, supplementary cementitious materials, aggregates, admixtures, and water to produce specified requirements.

B. Compressive Strength at 28 days, unless otherwise indicated on the Drawings:
1. Negligible exposure classification: 3,500 psi with a maximum water-cementitious ratio of 0.53.
2. Moderate exposure classification: 4,000 psi with a maximum water-cementitious ratio of 0.48.
3. Severe exposure classification: 4,500 psi with a maximum water-cementitious ratio of 0.45.

C. Slump Range: 2"-4" for hand placed concrete, 1-1/4" to 3" for machine placed (slipform) concrete.

D. Air Entrainment as shown below:

Nominal Maximum Size Aggregate (Inch)	Average Air Content (%)		
	Negligible	Moderate	Severe
3/8	4.5	6	7.5
1/2	4	5.5	7
3/4	3.5	5	6
1	3	4.5	6
1-1/2	2.5	4.5	5.5

E. Supplementary Cementitious Materials (SCM):
1. Concrete mix shall contain SCM at the amounts specified unless other amounts are approved by the Civil Engineer. Either fly ash or ground granulated blast furnace slag (GGBFS) may be used for the SCM but shall not be used together to form a ternary mix. Use of fly ash or GGBFS in the concrete mix is mandatory.
2. Fly Ash: Substitute fly ash for Portland cement at 15% of the total cementitious content.
a. If used to mitigate potential aggregate reactivity, only Type F fly ash may be used and shall have the following maximum properties: 1.5% available alkali and 8.0% CaO. When a maximum of 25% replacement is used, up to 10.0% CaO is permitted.
3. Ground Granulated Blast Furnace Slag (GGBFS): Substitute GGBFS for Portland cement at 20% of the total cementitious content.
a. If required to mitigate potential sulfate exposure or aggregate reactivity, up to 50% substitution of Portland cement is allowed.
4. Maintain air-entrainment at specified levels.

F. Calcium Chloride:
1. Calcium chloride (Type L) may be used in solution form as part of the mixing water to accelerate concrete setting and early-strength development.
2. Amount of calcium chloride added shall not be more than necessary to produce the desired results and shall not exceed 2% by weight of cement.
3. The dosage range for the calcium chloride for the entire project shall not vary by more than 1%. Range is defined as the difference between the maximum and minimum dosages of calcium chloride for the entire project.
4. Calcium chloride shall not be used in the following applications unless approved by the Civil Engineer:
a. concrete containing embedded dissimilar metals or aluminum
b. slabs supported on permanent galvanized steel forms
c. concrete exposed to deicing chemicals
d. prestressed or post-tension concrete
e. concrete containing aggregates with potentially deleterious reactivity and concrete exposed to soil
f. concrete exposed to soil or water containing sulfates.
5. Use calcium chloride in accordance with manufacturer's recommendation.
6. Chloride-ion Concentration: Maximum water-soluble chloride-ion concentrations in hardened concrete at ages from 28 to 42 days contributed from the ingredients including water, aggregates, cementitious materials, and admixtures shall not exceed the following limits unless approved by the Civil Engineer:

Type of Member	Maximum water-soluble chloride ion (Cl-) content in concrete (percent by weight of cement)
Prestressed concrete	0.06
Reinforced concrete exposed to chloride in service	0.15
Reinforced concrete that will be dry or protected from moisture in service	1.00
Other reinforced concrete construction	0.30

7. When using calcium chloride or other admixtures containing chlorides, measure water-soluble chloride-ion content (percent by weight of cement) per ASTM C 1218. Sample shall be from concrete representing the submitted mix design and maximum chloride dosage anticipated for the project.

2.3 MIXING

A. Mix concrete and deliver in accordance with ASTM C 94.

PART 3 - EXECUTION

3.1 PREPARATION

A. Proofroll prepared base material surface to check for unstable areas in accordance with Section 02300 including documentation and re-proof rolling as required. Paving work shall begin only after unsuitable areas have been corrected and are ready to receive paving.

B. Remove loose material from compacted base material surface to produce firm, smooth surface immediately before placing concrete.

C. Aggregate Base Fine Grading:
1. Compact to final thickness shown with 2 passes minimum vibratory compactor to produce smooth, flat, dense surface.
2. Do not allow excess moisture in or on base at time of placing concrete.
3. Level off aggregate base top surface with a maximum 3/4" thick aggregate choker material to achieve the following:
a. To reduce surface friction and to meet specified fine grade tolerances specified below.
b. To level areas exposed to rain, traffic, or excavations for buried utilities.
c. At areas where aggregate base material does not have sufficient fine particles to produce a surface that is free of exposed aggregate or surface voids greater than 3/8" in size at time of slab installation.
4. Construction Testing Laboratory shall verify adequate fines at surface immediately prior to concrete slab placement.
5. Provide dry, smooth, flat, dense surface
6. Proof-roll 48 hrs. maximum prior to concrete placement. Depression under a fully loaded ready mix truck shall not exceed 1/2 inch.

D. Pavement Aggregate Base Fine Grade Tolerance: +0 inch, -3/4 inch with transition no greater than 3/4 inch vertically to 8 inches horizontally.

3.2 INSTALLATION

A. Reinforcement: Fasten reinforcing bars or welded wire fabric (if required) accurately and securely in place with suitable supports and ties. Remove from reinforcement all dirt, oil, loose mill scale, rust, and other substances that will prevent proper bonding of the concrete to the reinforcement.

B. Concrete Placement
1. Mix and place concrete when the air temperature in the shade and away from artificial heat is a minimum of 35 degrees F and rising. Hot and cold weather concreting shall be in accordance with ACI 305.1 (hot weather) and 306.1 (cold weather).
2. Do not place concrete until base material and forms have been checked for alignment and grade. Concrete shall not be placed around manholes or other structures until they are at required finish elevation and alignment.
3. Place concrete using methods that prevent segregation of mix. Consolidate concrete along face of forms and adjacent to transverse joints with internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Consolidate with care to prevent dislocation of reinforcing, dowels, and joint devices.
4. Deposit and spread concrete in continuous operation between transverse joints, as far as possible. If interrupted for more than 1/2 hour, place construction joint.

C. Contraction and Construction Joints: Construct contraction and construction joints straight with face perpendicular to concrete surface. Construct transverse joints perpendicular to centerline, unless otherwise detailed.
1. Contraction Joints: Provide joints at spacing of 12'-0" on centers, maximum each way. Construct control joints for depth equal to at least 1/4 of the concrete thickness, as follows:
a. Form tooled joints in fresh concrete by grooving top with recommended tool and finishing edge with jointer.
b. Sawed Contraction Joints:
1) Use saws, blades, skid plates, and accessories by Soff-Cut International, Inc. or approved equal.
2) Start cutting sawed joints as soon as concrete has hardened sufficiently to prevent raveling or dislodging of aggregates. This will typically be from 1 hour in hot weather to 4 hours in cold weather after completing finishing of slab in that joint location.
3) Provide at least two 'Soff-Cut' saws on site with blades capable of achieving the required depth of saw cut.
4) Extend sawed joint to the slab boundaries and abutments, including columns, drains, and other penetrations in the path of a defined joint. Implement methods and timing of the saw cut beyond the limits of the Soff-Cut saw reach to provide a consistent depth of cut with minimal raveling of joint edges.
2. Construction Joints: Place construction joints at end of placements and at locations where placement operations are stopped for period of more than 1/2 hour. Construct joints in accordance with details shown.

D. Isolation and Fixed Object Joints: Construct joint at locations and in accordance with details shown.

E. Pavement Joint Materials: Place joint fillers, back-up material, and sealants at locations shown and in accordance with manufacturer's instructions.
1. Soft Preformed Joint Fillers: Extend preformed joint fillers full width and depth of joint, and not less than 1/2-inch or more than 1-inch below finished surface. Furnish preformed joint fillers in 1 piece lengths for full width being placed, wherever possible. Where more than 1 length is required, lace or clip preformed joint filler sections together in a single plane.

3.3 CONCRETE FINISHING

A. After initial striking off and consolidating of concrete paving, smooth surface using either magnesium straight edge, wood, or magnesium channel float.

B. Round edges of slabs and formed joints to 1/2-inch radius with edging tool. Eliminate tool marks on concrete surface.

C. After completion of straightedge / floating and when excess moisture or surface sheen has disappeared, uniformly finish surface to provide a coarse, nonslip finish by scoring surface with stiff_bristled broom perpendicular to flow of traffic so as to produce regular corrugations not over 1/16 of an inch deep. Initial nonslip finishing shall be approved by the Owner.

D. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point up minor honeycombed areas. Remove and replace areas or sections with major defects, as directed by Owner.

3.4 CURING AND PROTECTION

A. Protect and cure finished concrete paving using curing compound. Cure for a period not less than 7 days.

B. Use solvent based curing compound when compound is applied below 40 F.

3.5 CLEANING AND ADJUSTING

A. Sweep concrete pavement and wash free of stains, discolorations, dirt, and other foreign material just prior to final inspection.

B. Protect concrete from damage until acceptance of work. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials.

3.6 FIELD QUALITY CONTROL

A. Field quality control shall be the responsibility of the Contractor. Except for specified mandatory testing, field quality control testing and inspection shall be at the discretion of the Contractor as necessary to assure compliance with Contract requirements. Owner T&I shall not be considered a substitute for the Contractor's responsibility to perform similar routine, necessary, and customary testing and inspection of the methods and frequency suitable for the type of work involved.

B. Correction of Deficient Work:
1. When directed by the Owner, remove and replace or repair concrete and related Work which does not conform to specified requirements including strength, tolerances, and finishes.
2. Bear cost of corrections or delays to other work affected by, or resulting from, corrections to concrete Work.
3. If results of compressive strength tests reveal deficiencies in concrete, meet requirements of ACI 318 and ACI 301.

3.7 OWNER TESTING AND INSPECTION (T&I)

A. The Owner will perform testing and inspection (T & I) but only as a means of verification to the Owner of Contractor quality control performance.

B. Owner T&I will be performed by the Owner's Construction Testing Laboratory (CTL).

END OF SECTION

SECTION 02765 - PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Painting and marking of pavements.

1.2 PROJECT CONDITIONS

A. Maintain access for vehicular and pedestrian traffic as required for other construction activities. Utilize flagmen, barricades, warning signs, and warning lights as required.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Paint shall be waterborne or solvent borne, colors as shown or specified herein. Pavement marking paints shall comply with applicable state and local laws enacted to ensure compliance with Federal Clean Air Standards. Paint materials shall conform to the restrictions of the local Air Pollution Control District.

B. Waterborne Paint: Paints shall conform to FS TT-P-1952.

C. Solvent Borne Paint: Paint shall conform to FS A-A-2886 or AASHTO M248. Paint shall be non_bleeding, quick_drying, and alkyd petroleum base paint suitable for traffic_bearing surface and be mixed in accordance with manufacturer's instructions before application for colors White, Yellow, Blue, and Red.

D. Glass Beads: AASHTO M 247, Type 1 or FS TT-B-1325, Type 1, Gradation A.

PART 3 - EXECUTION

3.1 PREPARATION

A. Sweep and clean surface to eliminate loose material and dust.

3.2 APPLICATION

A. Apply one coat of same color of paint as specified below, at manufacturer's recommended rate, without addition of thinner, with maximum of 100 square feet per gallon or as required to provide a minimum dry film thickness of 7.5 mils. Paint shall be applied for a total dry film thickness of 7.5 mils. Install pavement markings according to manufacturer's recommended procedures for the specified material.

B. Following items shall be painted with colors noted below:
1. Pedestrian Crosswalks: White
2. Exterior Sidewalk Curbs and Guard posts: Yellow
3. Fire Lanes: Red or per local code
4. Lane Striping where separating traffic moving in opposite directions: Yellow
5. Lane Striping where separating traffic moving in the same direction: White
6. ADA Symbols: Blue or per local code
7. ADA parking space markings as shown on the drawings.
8. Parking Stall Striping: Yellow, unless otherwise noted on Construction Drawings
9. Associate Parking Area: White, unless otherwise noted on Construction Drawings

3.3 FIELD QUALITY CONTROL

A. Field quality control shall be the responsibility of the Contractor. Field quality control testing and inspection shall be at the discretion of the Contractor as necessary to assure compliance with Contract requirements.

3.4 CLEANING

A. Waste materials shall be removed at the end of each workday. Upon completion of the work, all containers and debris shall be removed from the site. Paint spots upon adjacent surfaces shall be carefully removed by approved procedures that will not damage the surfaces and the entire job left clean and acceptable.

END OF SECTION

SECTION 02770 - CURBS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Portland cement concrete curbs and gutters.

B. Related Requirements:
1. Section 02300 - Earthwork: Preparation of subgrades.

1.2 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.

B. American Concrete Institute (ACI):
1. ACI 305R - Hot Weather Concreting
2. ACI 306R - Cold Weather Concreting
3. ACI 306.1 - Cold Weather Concreting.
4. ACI 308 - Curing Concrete

C. ASTM International (ASTM):
1. ASTM C31 - Making and Curing Concrete Test Specimens in the Field.
2. ASTM C39 - Comprehensive Strength of Cylindrical Concrete Specimens.
3. ASTM C94 - Ready-Mixed Concrete.
4. ASTM C138 - Test Method for Unit Weight, Yield, and Air Content (Gravemetric) of Concrete.
5. ASTM C143 - Slump of Hydraulic Cement Concrete.
6. ASTM C231 - Air-Content of Freshly Mixed Concrete by the Pressure Method.
7. ASTM C172 - Sampling Freshly Mixed Concrete.
8. ASTM C173 - Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
9. ASTM C260 - Air Entraining Admixtures for Concrete.
10. ASTM C309 - Liquid Membrane Forming Compounds for Curing Concrete.
11. ASTM C618 - Fly Ash and Raw or Calcined Natural Pozzolan for use as a Mineral Admixture in Portland Cement Concrete.
12. ASTM C989 - Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars.
13. ASTM C1064 - Temperature of Freshly Mixed Portland Concrete Cement.
14. ASTM C1218 - Water-Soluble Chloride in Mortar and Concrete.
15. ASTM D98 - Calcium Chloride.
16. ASTM D994 - Preformed Expansion Joint Filler for Concrete (Bituminous).
17. ASTM D1190 - Concrete Joint Sealer, Hot Poured, Elastic Type.
18. ASTM D1751 - Performed Expansion Joint Fillers for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
19. ASTM D2628 - Preformed Polychloroprene Elastomeric Joint Seals for Concrete Pavements.

D. Federal Specifications (FS):
1. FS HH F 341 - Fillers, Expansion Joint: Bituminous (Asphalt & Tar)

E. State Highway Department Standard Specifications

B. Correction of Deficient Work:
1. When directed by the Owner, remove and replace or repair concrete and related Work which does not conform to specified requirements including strength, tolerances, and finishes.
2. Bear cost of corrections or delays to other work affected by, or resulting from, corrections to concrete Work.
3. If results of compressive strength tests reveal deficiencies in concrete, meet requirements of ACI 318 and ACI 301.

3.7 OWNER TESTING AND INSPECTION (T&I)

A. The Owner will perform testing and inspection (T & I) but only as a means of verification to the Owner of Contractor quality control performance.

B. Owner T&I will be performed by the Owner's Construction Testing Laboratory (CTL).

END OF SECTION

SECTION 02765 - PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Painting and marking of pavements.

1.2 PROJECT CONDITIONS

A. Maintain access for vehicular and pedestrian traffic as required for other construction activities. Utilize flagmen, barricades, warning signs, and warning lights as required.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Paint shall be waterborne or solvent borne, colors as shown or specified herein. Pavement marking paints shall comply with applicable state and local laws enacted to ensure compliance with Federal Clean Air Standards. Paint materials shall conform to the restrictions of the local Air Pollution Control District.

B. Waterborne Paint: Paints shall conform to FS TT-P-1952.

C. Solvent Borne Paint: Paint shall conform to FS A-A-2886 or AASHTO M248. Paint shall be non_bleeding, quick_drying, and alkyd petroleum base paint suitable for traffic_bearing surface and be mixed in accordance with manufacturer's instructions before application for colors White, Yellow, Blue, and Red.

D. Glass Beads: AASHTO M 247, Type 1 or FS TT-B-1325, Type 1, Gradation A.

PART 3 - EXECUTION

3.1

SECTION 02770 - CURBS (CONT'D)

PART 3 - EXECUTION

3.1 PREPARATION

A. Begin curbing work only after unsuitable areas have been corrected and are ready to receive curbing.
B. Remove loose material from compacted base material surface to produce firm, smooth surface immediately before placing concrete.

3.2 INSTALLATION

A. Form Construction
1. Set forms to required grades and lines, rigidly braced and secured.
2. Install sufficient quantity of forms to allow continuance of work and so that forms remain in place minimum of 24 hours after concrete placement.
3. Check completed formwork for grade and alignment to following tolerances:
a. Top of forms not more than 1/8-inch in 10'-0".
b. Vertical face on longitudinal axis, not more than 1/4-inch in 10'_0".
4. Clean forms after each use and coat with form release agent as often as required to ensure separation from concrete without damage.

B. Reinforcement: Fasten reinforcing bars (if required) accurately and securely in place with suitable supports and ties. Remove from reinforcement all dirt, oil, loose mill scale, rust, and other substances that will prevent proper bonding of the concrete to the reinforcement.

C. Concrete Placement
1. Concrete shall be mixed and placed when the air temperature in the shade and away from artificial heat is a minimum of 35 degrees F and rising. Hot and cold weather concreting shall be in accordance with ACI 305R (hot weather) and 306.1 and 306R (cold weather).Do not place concrete until base material and forms have been checked for line and grade. Moisten base material if required to provide uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until set at required finish elevation and alignment.
2. Place concrete using methods that prevent segregation of mix. Consolidate concrete along face of forms and adjacent to transverse joints with internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Consolidate with care to prevent dislocation of reinforcing, dowels and joint devices.
3. Deposit and spread concrete in continuous operation between transverse joints, as far as possible. If interrupted for more than 1/2 hour, place construction joint. Automatic machine may be used for curb and gutter placement. Machine placement shall be at required cross section, line, grade, finish, and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete as specified herein.

D. Joint Construction
1. Contraction Joints: Construct concrete curb or combination concrete curb and gutter, where specified on Construction Drawings, in uniform sections of length specified on Construction Drawings. Form joints between sections either by steel templates, 1/8-inch in thickness, of length equal to width of curb and gutter, and with depth which will penetrate at least 2-inches below surface of curb and gutter; or with 3/4_inch thick performed expansion joint filler cut to exact cross section of curb and gutter; or by sawing to depth of at least 2-inches while concrete is between 4 and 24 hours old. If steel templates are used, they shall be left in place until concrete has set enough to hold its shape, but shall be removed while forms are still in place.
2. Longitudinal Construction Joints: Tie concrete curb or combination concrete curb and gutter, where specified on Construction Drawings, to concrete pavement with 1/2-inch round deformed reinforcement bars of length and spacing shown on Construction Drawings.
3. Transverse Expansion Joints: Concrete curb or combination concrete curb and gutter, shall have filler cut to exact cross section of curb or gutter. Joints shall be similar to type of expansion joint used in adjacent pavement.

E. Joint Fillers: Extend joint fillers full_width and depth of joint, and not less than 1/2-inch or more than 1-inch below finished surface where joint sealer is indicated. Furnish joint fillers in 1_piece lengths for full width being placed, wherever possible. Where more than 1 length is required, lace or clip joint filler sections together.
F. Joint Sealants: Install in accordance with manufacturer's recommendations.

3.3 CONCRETE FINISHING

A. After striking off and consolidating concrete, smooth surface by screeding and floating. Adjust floating to compact surface and produce uniform texture. After floating, test surface for trueness with 10'_0" straightedge. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide continuous smooth finish.
B. Work edges of gutters, back top edge of curb, and formed joints with edging tool, rounding edge to 1/2-inch radius. Eliminate tool marks on concrete surface. After completion of floating and trowelling, when excess moisture or surface sheen has disappeared, complete surface finishing, as follows:
1. Curbs and gutters,: Broom finish by drawing fine_hair broom across surface perpendicular to flow of traffic. Repeat operation as necessary to produce fine line texture.
C. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point up minor honeycombed areas. Remove and replace areas or sections with major defects as directed Owner.
D. Check surface areas at intervals necessary to eliminate ponding areas. Remove and replace unacceptable work as directed by Owner.

3.4 CURING AND PROTECTION

A. Protect and cure finished concrete paving using with curing compound or with acceptable moist_curing methods in accordance with "water_curing" section of ACI 308. Cure for a period not less than 7 days.
B. Use solvent based curing compound when compound is applied below 40 F.

3.5 BACKFILL

A. After concrete has set sufficiently, spaces on either side of concrete curb or combination concrete curb and gutter, shall be refilled to required elevation with suitable material compacted in accordance with Section 02300.

3.6 CLEANING AND PROTECTION

A. Sweep concrete and wash free of stains, discolorations, dirt, and other foreign material just prior to final inspection.
B. Protect concrete from damage until acceptance of work. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials.

3.7 FIELD QUALITY CONTROL

A. Field quality control shall be the responsibility of the Contractor. Field quality control testing and inspection shall be at the discretion of the Contractor as necessary to assure compliance with Contract requirements.

END OF SECTION

SECTION 02822 - CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Chain link fences and gates associated with sitework.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM)
1. ASTM A 392 - Zinc_Coated Steel Chain_Link Fence Fabric
2. ASTM C 94 - Ready_Mixed Concrete
B. Chain Link Fence Manufacturers Institute (CLFMI) latest edition Product Manual

1.3 SUBMITTALS

A. Project Record Documents: Accurately record actual locations of property perimeter posts relative to property lines and easements.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this Section with minimum 3 years documented experience.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Steel Posts: Type I or II or roll formed "C" Section steel conforming to CLFMI and as specified hereinafter.
B. Fabric: No. 9 gage (0.148 nominal) galvanized steel wire in 2 inch mesh; ASTM A 392, top and bottom selvages twisted and barbed, height as shown. Furnish 1_piece fabric widths.
C. End, Corner, and Pull Posts: Minimum sizes and weights as follows:
1. Up to 13 Foot Fabric Height: Type I or II in accordance with CLFMI Product Manual.
2. 13 foot and over Fabric Height (If required):
a. Type I Posts: Round; 4.0 inch outside diameter pipe, 9.10 lbs/lin ft.
b. Type II Posts: 4.0 inch outside diameter pipe, 6.56 lbs/lin ft.
D. Line (Intermediate) Posts: Minimum sizes and weights as follows:
1. Up to 8 Foot Fabric Height: Type I, II, or "C" Section in accordance with CLFMI Product Manual.
2. Over 8 Foot Fabric Height:
a. Type I Posts:
1) Round: 2.875 inch outside diameter pipe, 5.79 lbs/lin ft.
2) Square: 2.5" x 2.5" outside dimension, 5.10 lbs/lin ft.
b. Type II Posts: 2.875 inch outside diameter pipe, 4.64 lbs/lin ft.
E. Gate Posts: Type I or II in accordance with CLFMI Product Manual.
F. Top, Bottom, and Intermediate Rails: Type I or II in accordance with CLFMI Product Manual.
1. Manufacturer's longest lengths.
2. Couplings: Expansion type, approximately 6 inches long.
3. Attaching Devices: Means of attaching top rail securely to each gate, corner, pull, and end post.
G. Sleeves: Galvanized steel pipe not less than 6-inches long with inside diameter not less than ½ inch greater than outside diameter of pipe. Provide steel plate closure welded to bottom of sleeve of width and length not less than 1 inch greater than outside diameter of sleeve.
H. Tension Wire: 7 gage galvanized steel conforming to CLFMI, Marcelled, located at bottom of fabric.
I. Wire Ties: Class 1 galvanized steel, no less than 9 gage.
J. Post Brace Assembly: Manufacturer's standard adjustable brace at end of gate posts and at both sides of corner and pull posts, with horizontal brace located at mid_height of fabric. Use same material as top rail for brace, and truss to line posts with 0.375-inch diameter rod and adjustable tightener.
K. Post Tops: Galvanized steel, weather tight closure cap for each tubular post. Furnish caps with openings to permit passage of top rail.
L. Stretcher Bars: Galvanized steel, 1 piece lengths equal to full height of fabric, with minimum cross_section of 3/16-inch x 3/4-inch. Provide one stretch bar for each gate and end post, and two for each corner and pull post.
M. Stretch Bar Bands: Manufacturer's standard
N. Gate Cross_bracing: 3/8-inch diameter galvanized steel adjustable length truss rods.
O. Ready Mix Concrete: ASTM C94, mix design as follows:
1. Design mix to produce normal weight concrete consisting of Portland cement, aggregate, water_reducing admixture, air_entraining admixture, and water to produce following:
a. Compressive Strength: 3,500 psi, minimum at 28 days, unless otherwise indicated on Construction Drawings.
b. Slump Range: 1 to 3 inches at time of placement
c. Air Entrainment: 5 to 8 percent
P. Swinging Gate Hardware:
1. Hinges: Size and material to suit gate size, non_lift_off type, offset to permit full 180-degree gate opening. Provide a pair of 1 1/2-inch hinges for each leaf over 6'-0" nominal height.
2. Latch: Forked type or plunger_bar type to permit operation from either side of gate, with padlock eye as integral part of latch.
Q. Double Gates Hardware: Provide gate stops for double gates, consisting of mushroom type of flush plate with anchors set in concrete, to engage center drop rod or plunger bar. Include locking device and padlock eye as integral part of latch, using 1 padlock for locking both gate leaves.
R. Sliding Gate Hardware: Provide manufacturer's standard heavy_duty track, bull_bearing hanger sheaves, overhead framing and supports, guides, stays, bracing, and accessories as required.

2.2 GATE FABRICATION

A. Fabricate swing gate perimeter frames of 1.90-inch OD pipe, galvanized steel. Provide horizontal and vertical members to ensure proper gate operation and attachment of fabric, hardware, and accessories. Space frame members maximum of 8'_0" apart.
B. Assemble gate frames by welding or special fittings and rivets, for rigid connections. Install same fabric as for fence with stretcher bars at vertical edges. Install diagonal cross_bracing on gates as required ensuring rigid frame without sag or twist. Bars may be used at top and bottom edges. Attach stretchers to gate frame at 15 inches o.c. maximum.
C. Attach hardware to provide security against removal or breakage.

2.3 FINISH

A. Fabric, Framing, and Other Iron Parts: Hot dip zinc coated in accordance with CLFMI Product Manual.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install chain link fence in accordance with CLFMI Product Manual unless otherwise specified herein.
B. Comply with recommended procedures and instructions of fencing manufacturer. Provide secure, aligned installation with line posts spaced at 10'_0" o.c. maximum.
C. Methods for Setting Posts:
1. Grade_Set Posts:
a. Drill or hand excavate to a depth approximately 3 inches lower than post bottom. Set post bottom not less than 36 inches below finish grade.
b. Excavate each post hole to 12 inch diameter, or not less than four times diameter of post.
c. Place concrete around posts and vibrate or tamp for consolidation. Check each post for vertical and top alignment, and hold in position during placement and finishing operations. Extend concrete footing 2-inches above grade and trowel crown to shed water.
d. Post shall be set plumb within 1/4" in 10 feet.
2. Sleeve Set Posts: Anchor posts by means of pipe sleeves preset and anchored into concrete. After posts have been inserted into sleeves, fill annular space between post and sleeve solid with nonshrink, non_metallic grout, mixed and placed to comply with grout manufacturer's directions.
D. Top Rails: Run rail continuously, bending to form radius for curved runs. Provide expansion couplings as recommended by manufacturer.
E. Center Rails: Provide center rails where indicated. Install in 1 piece between posts and flush with post on fabric side, using special offset fittings where necessary.
F. Brace Assemblies: Install braces so posts are plumb when diagonal rod are under proper tension.
G. Tension Wire: Install tension wires through post cap loops before stretching fabric and tie to each post cap with not less than 6 gauge galvanized wire. Fasten fabric to tension wire using 11 gauge galvanized steel hog rings spaced 24-inches o.c.
H. Fabric: Leave approximately 2 inches between finish grade and bottom selvage. Pull fabric taut and tie to posts, rails, and tension wires. Install fabric on security side of fence, and anchor to framework so that fabric remains in tension after pulling force is released.
I. Stretcher Bars: Secure at end, corner, pull, and gate posts by threading through or clamping to fabric at 4 inches o.c. and secure to posts with metal bands spaced at 15 inches o.c.
J. Tie Wires:
1. Use U_shaped wire, conforming to diameter of pipe to which attached, clasping pipe and fabric firmly when ends twisted at least 2 full turns. Bend ends of wire to minimize hazard to persons or clothing.
2. Tie fabric to line posts with wire ties spaced 12 inches o.c. Tie fabric to rails and braces with wire ties spaced 24 inches o.c. Tie fabric to tension wires with hog rings spaced 24-inches o.c.
3. Manufacturer's standard procedure will be accepted if of equal strength and durability.
K. Fasteners: Install nuts for tension bands and hardware bolts on side of fence opposite fabric side. Peen ends of bolts or score threads to prevent removal of nuts.
L. Gates: Install gates plumb, level, and secure for full opening without interference. Install ground_set items in concrete for anchorage. Adjust hardware for smooth operation and lubrication.

3.2 ADDITIONAL INSTALLATION PROVISIONS

A. Use U-shape tie wires, conforming to the diameters of pipe, that clasp the pipe and fabric firmly with ends twisted at least 2 full turns.
B. Bend ends of exposed wires to minimize hazards to persons or clothing.
C. Install nuts for fasteners on tension bands and hardware bolts on the side of the fence opposite the fabric. The ends of bolts, once secure and checked for smooth operation, shall be peened to prevent removal of nuts.
D. Repair coatings damaged in the field with methods and techniques as recommended by the manufacturer.

END OF SECTION

SECTION 02890 - TRAFFIC SIGNS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Traffic control signs.

1.2 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.
B. ASTM International (ASTM):
1. ASTM A53 - Pipe, Steel, Black and Hot_Dipped, Zinc_Coated Welded and Seamless.
2. ASTM C94 - Ready Mix Concrete
3. ASTM D4956 - Retroreflective Sheeting for Traffic Control.
C. US Department of Transportation, Federal Highway Administration:
1. Manual on Uniform Traffic Control Devices (MUTCD).

PART 2 - PRODUCTS

2.1 SIGNS

A. Conform to US Department of Transportation MUTCD. Sign classification, type, size, and color shall be as shown on the drawings
B. Retroreflectivity: Microprismatic type sheeting conforming to ASTM D 4956, Type VIII, IX, or XI.

2.2 POSTS

A. Square Post: Square tubular steel sign post, galvanized, 12 ga, perforated full-length with 7/16 inch holes on four sides. Post size shall be as shown on the Drawings.
B. Steel Pipe: ASTM A 53, Type E (electric-resistance welded) or Type S (seamless), Grade B, Schedule 40, size as shown on the Drawings.

2.3 CONCRETE

A. Mix concrete and deliver in accordance with ASTM C 94.
B. Design mix to produce normal weight concrete consisting of Portland cement, aggregate, water_reducing admixture, air_entraining admixture, and water to produce following:
1. Compressive Strength: 3,500 psi, minimum at 28 days, unless otherwise indicated on the Drawings.
2. Slump Range: 1 to 3-inches at time of placement
3. Air Entrainment: 5 to 8 percent

PART 3 - EXECUTION

3.1 PREPARATION

A. Field verify underground utilities prior to sign installation. Primary utilities of concern of shallow depths are lawn sprinkler systems, electric, telephone, fiber optic, cable and gas.

3.2 INSTALLATION

A. Install signs as shown on the Drawings and in accordance with MUTCD and manufacturer's instructions.
B. Install signs of the type and at locations shown on the Drawings.
C. Install posts of the type as shown on the drawing.
D. Where shown as painted, field paint steel pipe posts in accordance with Construction Documents.

END OF SECTION

SECTION 02900 - PLANTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Planting of sod and seed.

B. Related Requirements:
1. Section 02300 - Earthwork.
2. Section 02370 - Erosion and Sedimentation Control.

1.2 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.
B. American National Standards Institute (ANSI):
1. ANSI Z60.1 - American Standard for Nursery Stock.
C. ASTM International (ASTM):
1. ASTM D5268 - Topsoil used for Landscaping Purposes.
2. ASTM C602 - Agricultural Liming Materials.
D. Erosion Control Technology Council (ECTC):
1. Standard Specification for Rolled Erosion Control Products.

1.3 SUBMITTALS

A. Submittal Process: Submit to Owner and Civil Engineering Consultant.
B. Submittals shall be available at all times to the Construction Manager.
C. Product Data:
1. Submit certification tags from sod and seed verifying type and purity to Owner's Civil Engineering Consultant.
D. Closeout Submittals:
1. Submit Meetings and Inspections Log prior to Final Completion of the Project.

1.4 QUALITY ASSURANCE

A. Pre-Work Meeting: Convene a pre-work meeting minimum 30 days prior to commencing work on this Section. Review conditions of operations, procedures and coordination with related work. The pre-work meeting shall be set up as a conference call with the Civil Engineering Consultant.
1. Review planting schedule and maintenance.

1.5 PROJECT CONDITIONS

A. Perform work only during weather conditions favorable to landscape construction and to health and welfare of sod and/or seed. Owner shall determine suitability of such weather conditions.

PART 2 - PRODUCT

2.1 LAWN SEED

A. Provide fresh, clean, new crop lawn seed mixture. Furnish to Owner dealers guaranteed statement of composition of mixture and percentage of purity and germination of each variety.

B. Seed Mixture: Provide seed of grass species and varieties, proportions by weight and minimum percentages of purity, germination, and maximum percentage of weed seed. Seed mixtures vary by region and season and shall comply with State DOT and Local Soil Conservation Service Standards for lawn turf.

2.2 SOD

A. Provide sod species suitable as lawn turf for the region. Sod shall be strongly rooted, weed, disease, pest free and uniform in thickness.

2.3 TOPSOIL

A. ASTM D5268, natural, friable, fertile, fine loamy soil possessing characteristics of representative topsoil in the vicinity that produces heavy growth. Topsoil shall have a pH range of 5.5 to 7.4 percent, free from subsoil, objectionable weeds, litter, sods, stiff clay, stones larger than 1-inch in diameter, stumps, roots, trash, herbicides, toxic substances, or any other material which may be harmful to plant growth or hinder planting operations. Top soil shall contain a minimum of three percent organic material.

B. Topsoil shall be tested in accordance with part 3 below.

C. Salvaged or Existing Topsoil: Reuse suitable topsoil stockpiled on-site or existing topsoil undisturbed by grading or excavation operations. Clean topsoil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to grass growth.

D. Verify amount of suitable topsoil stockpiled if any, and supply additional imported topsoil as needed.

E. Imported Topsoil: Supplement salvaged topsoil with imported topsoil from off-site sources when existing quantities are insufficient.
1. Obtain topsoil displaced from naturally well-drained sites where topsoil occurs at least 6 inches deep; do not obtain from agricultural land, bogs, or marshes.
2. Verify borrow and disposal sites are permitted as required by state and local regulations. Obtain written confirmation that permits are current and active.
3. Obtain permits required by state and local regulations for transporting topsoil. Permits shall be current and active.

F. Amend existing and imported topsoil as indicated in part 3 below.

2.4 ORGANIC SOIL AMENDMENTS

A. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth.

B. Back to Nature Cotton Burr Compost or approved equivalent.

C. Compost: Decomposed organic material including leaf litter, manure, sawdust, plant trimmings and/or hay, mixed with soil.

D. Pecan Hulls: Composted pecan hulls for local source.

E. Biosolids: Use Grade 1 containing lower pathogen levels.

F. Worm Castings: Earthworms.

2.5 INORGANIC SOIL AMENDMENTS

A. Lime: ASTM C602, Class O agricultural limestone containing a minimum of 80 percent calcium carbonate equivalent with a minimum of 95 percent passing No. 8 sieve and minimum of 55 percent passing No. 60 sieve.

B. Sulfur: Granular, biodegradable, containing a minimum of 90 percent sulfur, with a minimum of 99 percent passing No. 6 sieve and a maximum of 10 percent passing No. 40 sieve.

C. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.

D. Agricultural Gypsum: Finely ground, containing a minimum of 90 percent calcium sulfate.

E. Sand: Clean, washed, natural or manufactured, free of toxic materials.

2.6 PLANTING ACCESSORIES

A. Non Selective Herbicide: Roundup-Pro, Finale or equivalent.

B. Selective Post Emergent Herbicide: EPA registered and approved, of type recommended by manufacturer for application.

C. Selective Pre-Emergent Herbicide: EPA registered and approved, of type recommended by manufacturer for application.

2.7 PLANTING SOIL MIX

A. Planting medium containing 75 percent specified topsoil mixed with 15 percent organic soil amendments and 10 percent sharp washed sand.

2.8 FERTILIZER

A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium.
1. Composition: Nitrogen, phosphorous, and potassium in amount required to remedy deficiencies identified in the results of the existing topsoil and in-place topsoil test performed by the geotechnical engineering company and the Construction Testing Lab.

B. Slow-Release Fertilizer: Use one of the following:
1. Osmocote Standard Granular fertilizer by Scotts Company composed of 13 percent nitrogen, 13 percent phosphorous, and 13 percent potassium, by weight.
2. Multi-Cote All Purpose by Schultz composed of 17 percent nitrogen, 17 percent phosphorous, and 17 percent potassium, by weight.

C. Deliver fertilizer, mixed as specified, in original unopened standard size bags showing weight, analysis and name of manufacturer. Containers shall bear manufacturer's guaranteed statement of analysis, or manufacturer's certificate of compliance covering analysis shall be furnished to Owner. Store fertilizer in such manner that it shall be kept dry.

2.9 MULCH

A. Straw Mulch: Straw mulch shall used for seeding purposes only and shall be air-dry, clean, mildew and seed free, salt hay or threshed straw of wheat, rye, oats, or barley.

2.10 WATER

A. Potable water, hose, and other watering equipment.

2.11 EROSION CONTROL BLANKET

A. Rolled Erosion Control Products shall have current QDOR™ (Quality Data Oversight and Review) status issued by the Erosion Control Technology Council and shall meet state or agency specific requirements. Evidence of QDOR™ approval shall accompany the product shipped to the job site for ready identification by the contractor or an agency inspector.

PART 3 - EXECUTION

3.1 PREPARATION

A. If project completion date prohibits in_season planting, prepare for out-of-season seeding or sodding so that lawns shall be completed and ready for acceptance at time of project completion.

B. Unsuitable Subsoils: Locations containing unsuitable subsoil shall be treated by one or more of the following:
1. Where unsuitability is deemed by Owner to be due to excessive compaction caused by heavy equipment and where natural subsoil is other than AASHTO classification of A6 or A7, loosen such areas with spikes, discing, or other means to loosen soil to condition acceptable to Owner. Loosen soil to minimum depth of 12 inches with additional loosening as required to obtain adequate drainage. Contractor may introduce peat moss, sand, or organic matter into the subsoil to obtain adequate drainage. Such remedial measures shall be considered as incidental, without additional cost to Owner.
2. Where unsuitability is deemed by Owner to be due to presence of boards, mortar, concrete, or other construction materials in sub_grade and where natural subsoil is other than AASHTO classification of A6 or A7, remove debris and objectionable material. Such remedial measures shall be considered as incidental, without additional cost to Owner.
3. Where unsuitability is deemed by Owner to be because natural subsoil falls into AASHTO classification of A6 or A7 and contains moisture in excess of 30 percent, then installation of sub_drainage system or other means described elsewhere in Specifications shall be used. Where such conditions have not been known or revealed prior to planting time and they have not been recognized in preparation of The Drawings and Specifications, then Owner shall issue pricing order to install proper remedial measures.

C. Unsuitable Topsoil: Locations containing unsuitable topsoil shall be treated by one or more of the following:
1. Where unsuitability is deemed by Owner to be because of presence of objectionable weeds; litter; sods; stiff clay; toxic substances; herbicides or other material which may be harmful to plant growth, then topsoil shall be removed from the site and disposed of in a legal manner.
2. Where unsuitability is deemed by Owner to be because of presence of the stumps, roots; stones larger than 1 inch in diameter; less than 3 percent organic material; low or high pH range, remove objectionable material and amend topsoil to meet the requirements specified in part 2 above. Such remedial measures shall be considered as incidental, without additional cost to Owner.

D. Perform planting operations at steady rate of work unless weather conditions make it impossible to work. No plant material shall be planted in frozen ground.

E. Sod and Seed Bed Preparation
1. Newly Graded Subgrades:
a. Do not place topsoil until subgrade has been approved in accordance with Section 02300.
b. Before placing topsoil, rake subsoil surface clear of stones, debris, and roots. Disk, drag, harrow, or hand rake subgrade to depth of 4 inches and remove stones larger than 1-1/2 inches to provide bond for topsoil.
c. Spread topsoil to a depth of 4 inches but not less than required to meet finish grades after light rolling and natural settlement. Adjust depth of topsoil in areas adjacent to paved surfaces or curbs to allow for the placement of sod or seed.
2. Unchanged Subgrades: If lawns are to be planted in areas unaltered or undisturbed by excavating, grading, or surface-soil stripping operations, prepare surface as follows:
a. Remove existing grass, vegetation, and turf. Do not mix into surface soil.
b. Disk, drag, or harrow surface soil to a depth of at least 6 inches.
c. Remove stones larger that 1-1/2 inch in any dimension and sticks, roots, trash, and other extraneous matter.
d. Legally dispose of waste material, including grass, vegetation, and turf.
e. Adjust depth of topsoil in areas adjacent to paved surfaces or curbs to allow for the placement of sod or seed.
3. Incorporate soil amendments and commercial fertilizer into the top 4 inches of topsoil to achieve the specified topsoil requirements. Till soil to a homogenous mixture of fine texture.
4. Grade areas to finish grades, filling as needed or removing surplus topsoil. Float areas to smooth, uniform grade as indicated on the Drawings. Lawn areas shall slope to drain.
5. Where no grades are shown, areas shall have a smooth and continual grade between existing or fixed controls, such as walks, curbs, catch basin, steps, or buildings. Roll, scarify, rake, and level as necessary to obtain true, even lawn surfaces. Finish grades shall meet approval of Owner.
6. Sod and seed beds shall be firmed by rolling before seeding begins.

3.2 PROTECTION

A. Topsoil which must be transported across finished curbs and gutters shall be delivered in such manner that no damage will be done to curbs and gutters.

B. Before commencing work, trees and shrubs that are to be saved shall be protected from damage by placement of fencing flagged for visibility or some other suitable protective procedure approved by Owner.

C. Trucks or other equipment shall not be driven or parked within drip line of any tree unless tree overspreads paved area.

D. Use precautionary measures when performing work around trees, sidewalks, pavements, utilities, and other features either existing or previously installed.

E. Adjust depth of earthwork and topsoil when working immediately adjacent to aforementioned features in order to prevent disturbing tree roots, undermining sidewalks and pavements, and damage in general to other features either existing or previously installed.

F. Where excavation, fill, or grading is required within drip line of trees that are to remain, work shall be performed as follows:
1. Trenching: When trenching occurs around trees to remain, tree roots shall not be cut but trench shall be tunneled under or around roots by careful hand digging without injury to roots.
2. Raising Grades:
a. Where fill not exceeding 16 inches is required, clean, washed gravel graded from 1 inch to 2 inches in size shall be placed directly around tree trunk. Extend gravel out from trunk on all sides minimum of 18 inches and finish approximately 2 inches above finished grade at tree. Install gravel before any earth fill is placed. New earth fill shall not be left in contact with trunks of trees requiring fill.
b. Where fill exceeding 16 inches is required, construct dry-laid tree well around trunk of tree. Tree well shall extend out from trunk on all sides minimum of 3 feet and to 3 inches above finish grade. Place coarse-graded rock directly around tree well extending out to drip line of tree. Place clean, washed gravel graded from 1 inch to 2 inches in size directly over coarse rock to depth of 3 inches. Place approved backfill material directly over washed gravel to desired finish grade.
3. Lowering Grades: Existing trees in areas where new finish grade is to be lowered shall have regrading work done by hand to elevation indicated on The Drawings. Roots as required shall be cut cleanly 3 inches below finished grade and scars covered with tree paint.
4. Trees marked for preservation that are more than 6 inches above proposed grades shall stand on broad rounded mounds and graded smoothly into lower level. Trees located more than 16 inches above proposed grades shall have dry-laid stone wall or other retaining structure as detailed on The Drawings constructed minimum of 5 feet from trunk. Exposed or broken roots shall be cut clean and covered with topsoil.

3.3 MISCELLANEOUS INSTALLATIONS

A. Peg sodded slopes greater than 3:1 to hold in place.

B. Areas to be covered with erosion control blankets shall be properly prepared, fertilized, and seeded before blanket is applied. When blanket is unrolled, netting shall be on top and fibers in contact with soil. In ditches, apply blanket in direction of flow of water. On slopes, apply blankets vertically on slope. Overlap ends and sides 6 inches and staple per manufacturer's written instructions.

3.4 AREAS TO BE TURFED

A. Unless otherwise shown on the plans, disturbed areas shall be permanently sodded and seeded.

B. Place 16-24 inch wide strip of solid slab sod adjacent to paved surfaces including sidewalks, curbs, walls, drainage structures, and vehicular pavement as shown on the drawings.

C. Continually seed remaining disturbed areas until fully turfed with no bare spots.

3.5 SOIL STABILIZATION

A. Provide one or more of the following techniques to prevent soil eroding from denuded areas and leaving the site. Refer to stabilization requirements in Section 02370.
1. Temporary Seeding or Stabilization.
2. Permanent Seeding, Sodding, or Mulching.

3.6 SEEDING

A. Do not perform seeding in windy conditions.

B. Seeding shall be dispersed in 2 directions at right angles to each other.

C. Permanently seed and mulch cut and fill slopes as construction proceeds to extent considered desirable and practical. In the event it is not practical to seed areas, slopes shall be stabilized with straw mulch and tackifier, bonded fiber matrix, netting, blankets or other means to reduce the erosive potential of the area.

D. Seed lawn areas by sowing evenly with approved mechanical seeder at rate of minimum of 3 pounds per 1,000 square feet. Cultipacker or approved similar equipment may be used to cover seed and to form seedbed in one operation. In areas inaccessible to cultipacker, lightly rake seeded ground with flexible rakes and roll with water ballast roller. After rolling mulch with straw mulch at the rate of 2 tons per acre.

E. Surface layer of soil for seeded areas shall be kept moist during germination period. Water seeded areas twice first week to minimum depth of 6 inches with fine spray and once per week thereafter as necessary to supplement natural rain to equivalent of 6 inches depth.

3.7 SODDING

A. Cut and lay sod on same day. Only healthy vigorous growing sod shall be laid.

B. Lay sod across slope and tightly together to result in solid coverage free of gaps.

C. Roll or firmly but lightly tamp new sod with suitable wooden or metal tamper sufficiently to set or press sod into underlying soil.

D. All finished sodding shall be smooth and free of lumps and depressions.

E. After sodding has been completed, clean up and thoroughly water newly-sodded areas.

3.8 MAINTENANCE DURING CONSTRUCTION

A. Supplement rainfall as required to provide an equivalent of 1 inch of water per week until the seed and/or sod have rooted and are established.

B. Maintain all plant material in a healthy, vigorous growing condition.

C. Make weekly inspections to determine moisture content of soil and adjust watering schedule to fit conditions.

D. After grass growth has started, reseed or sod areas that fail to show uniform stand of grass in accordance with The Drawings and as specified herein. Continue Reseeding and sodding such areas repeatedly until areas are covered with satisfactory growth of grass. Perform removal and replacement or topsoil conditioning if required to facilitate establishment of grass.

E. Water in such manner and as frequently as is deemed necessary by Owner to assure continued growth of healthy grass. Water areas of site in such a manner as to prevent erosion due to excessive quantities applied over small areas and to avoid damage to finished surface due to watering equipment.

F. Provide water for execution and maintenance at no expense to Owner. Furnish portable tanks, pumps, hose, pipe, connections, nozzles, and any other equipment required to transport water from available outlets and apply it to seeded areas in approved manner.

G. Mowing:
1. Initiate mowing of turf grass areas when grass has attained height of 3 inches and roots are firmly established. Maintain turf grass height at 2 1/2 to 3 inches at subsequent cuttings depending on time of year. Remove no more than 1/3 of grass leaf at any cutting and cutting shall not occur more than 10 days apart.
2. Mow native grass areas no more than 3 times per year to a height of no less than 4 inches.

H. Remove heavy cuttings to prevent destruction of underlying turf. If weeds or other undesirable vegetation threaten to smother planted species, such vegetation shall be mowed or, in case of rank growths, shall be uprooted, raked and removed from area by methods approved by Owner.

I. Remove weeds and other undesirable vegetation by applying herbicides as recommended by the manufacturer or by uprooting. Rake and remove uprooted vegetation from area by methods approved by Owner.

J. Protect seeded area from pedestrian or vehicular trespassing while grass is germinating. Provide fences, signs, barriers, or other necessary temporary protective devices. Repair damage resulting from trespass, erosion, washout, settlement, or other causes.

K. Remove fences, signs, barriers, or other temporary protective devices after final acceptance.

L. Grassed areas damaged during process of work shall be restored or repaired to condition satisfactory to the Owner. Fill, grade, re-fertilize, replant, or mulch as required to restore to contract requirements.

3.9 FIELD QUALITY CONTROL

A. Field quality control shall be the responsibility of the Owner. Except for specified mandatory testing, field quality control testing and inspection shall be at the discretion of the Contractor as necessary to assure compliance with Contract requirements. Owner Testing & Inspection specified below shall not be considered a substitute for the Contractor's responsibility to perform similar routine, necessary, and customary testing and inspection of the methods and frequency suitable for the type of work involved.

B. Retain an independent soil testing laboratory to sample and test imported topsoil. The testing lab for the Multiresidue Herbicide/Pesticide Screen shall be NELAC certified.
1. Topsoil Analysis: Collect 5 random samples from the topsoil borrow area or areas. Combine samples and test as a composite for percentages of organic matter; presence of herbicides; percentage of sand, silt, and clay content; deleterious material; pH; and mineral and plant-nutrient content of topsoil.
2. Multiresidue Herbicide/Pesticide Screen: Perform a multiresidue herbicide/pesticide screen that includes the following herbicides and pesticides: Acetochlor, Alachlor, Atrazine, Butylate, Carbofuran, Clomazone, Cyanazine, Diazinon, Ethyl Chlorpyrifos, Ethyl Parathion, EPTC, Ethalfluralin, Fluchloralin, Fonofos, Isofenphos, Malathion, Methyl Parathion, Metolachlor, Metribuzin, Pebulate, Propachlor, Prometon, Propazine, Pendimethalin, Simazine, Trifluralin, and Vernolate.
3. Submit topsoil borrow area test reports to Owner's Civil Engineering Consultant minimum 6 weeks prior to delivery to site.

6.1 EXTENDED MAINTENANCE

A. Provide landscape maintenance for the site including stormwater conveyance systems as specified below.

B. Comply with Federal, State, Local or other governmental requirements relating to the general upkeep and maintenance of Stormwater Conveyance Systems, Natural Areas, Natural and Created Wetlands. Failure to follow these standards will fail to the liability of the Contractor

C. General Landscaping: Landscape maintenance shall include necessary watering, cultivation, weeding, mowing, and reseeding or replanting of those areas affected. Remove rubbish, waste, tools, and equipment used at end of each workday.

D. Watering: Apply water in quantities sufficient to penetrate soil to minimum depth of 6-inches in turf areas at rate that will prevent saturation of soil.

E. Supplement rainfall as required to provide adequate water for vigorous and healthy growth of seed and/or sod.

F. Turf Maintenance: Maintain an establish lawn by watering, fertilizing, weeding, mowing, trimming, edging, replanting and operations required to maintain full turf coverage. Roll, re-grade, re-mulch, and replant bare or eroded areas greater 1 square foot to produce a uniformly smooth lawn. Provide materials and installation techniques the same as those used in the original installation.
1. Mowing:
a. Mow turf grass areas at regular intervals to keep turf height from exceeding 3-inches. Maintain turf grass height at 2-1/2 to 3-1/2 inches at subsequent cuttings depending on time of year. Remove no more than 1/3 of grass leaf at any cutting. Mow turf grass at intervals of not more than 10 days during growing season. Mow in such manner as to prevent clippings from blowing onto paved areas and sidewalks. Cleanup after mowing shall include sweeping or blowing to clear mowing debris.
b. Mow native grass areas no more than 3 times per year to a height of no less than 4 inches.
2. Edging: Mechanically edge turf areas adjacent to sidewalks, curbs and other paved surfaces with a blade type edger. Perform edging with each mowing interval.
3. Trimming: Trim grass around valve boxes, poles and other structures with string type trimmers. Do not trim grass around tree trunks with mechanical trimmer. Remove grass adjacent to tree trunk

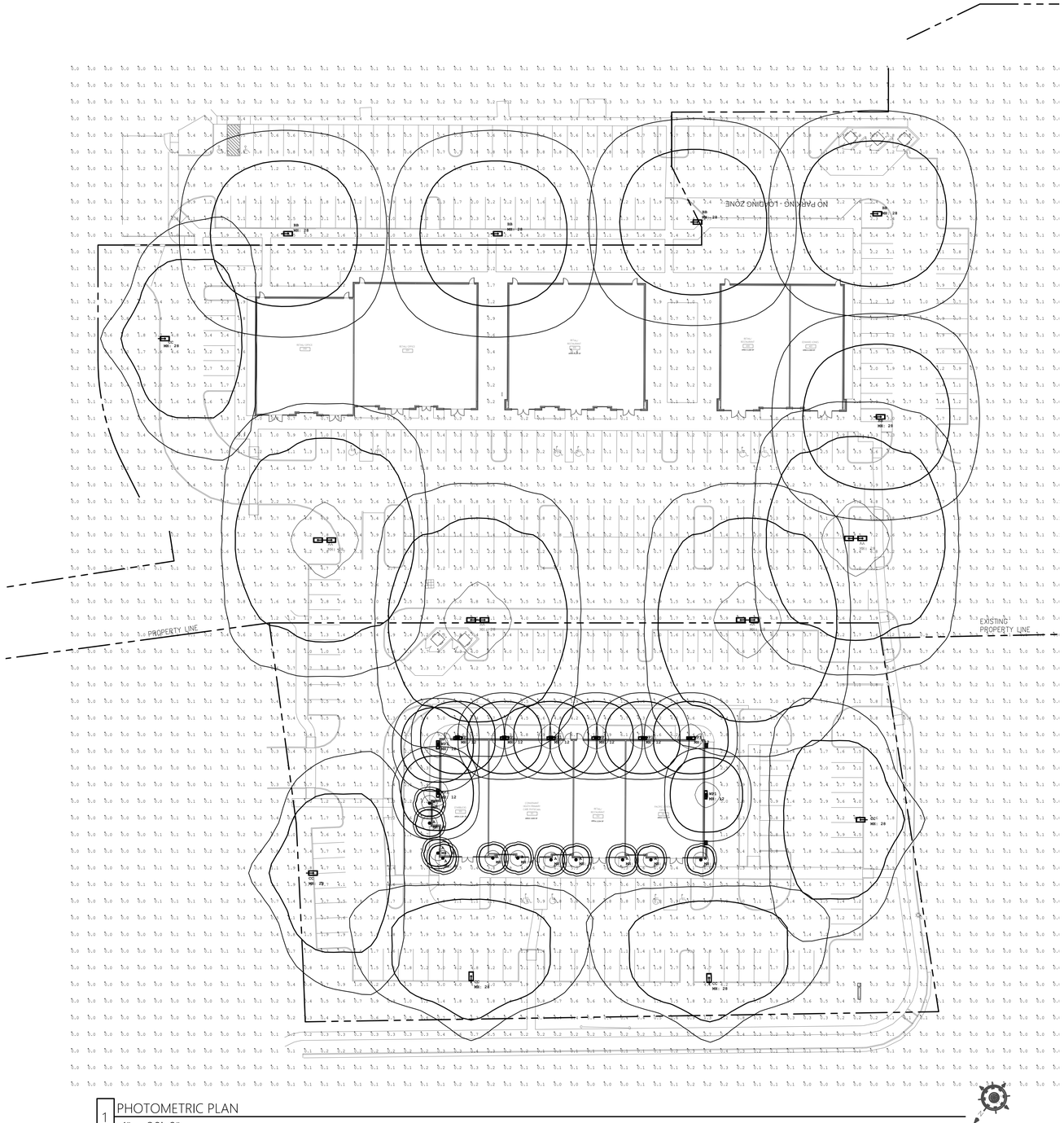
LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	LAMP	MANUFACTURER PART #	KELVIN	VOLTAGE	WATTAGE	MOUNTING
A	EXTERIOR WALL SCONCE (1,400 LUMENS)	LED	METEOR LIGHTING CATALOG #LA4-SS-D-20-359-UNV-NOD-60-FINISH-OUT	3500K	120	20	WALL MOUNTED AT 8' A.F.G
AA	2 HEAD EXTERIOR POLE MOUNTED FIXTURE (TYPE III DISTRIBUTION) (20,000 LUMENS)	LED	GARDCO LIGHTING CATALOG #OPF-S-A07-740-T3M	3500K	120	272	POLE MOUNTED AT 28' A.F.G
BB	SINGLE HEAD EXTERIOR POLE MOUNTED FIXTURE (TYPE V DISTRIBUTION) (20,000 LUMENS)	LED	GARDCO LIGHTING CATALOG #OPF-S-A07-740-T5M	3500K	120	136	POLE MOUNTED AT 28' A.F.G
CC	SINGLE HEAD EXTERIOR POLE MOUNTED FIXTURE (TYPE III DISTRIBUTION) (20,000 LUMENS)	LED	GARDCO LIGHTING CATALOG #OPF-S-A07-740-T3M	3500K	120	136	POLE MOUNTED AT 28' A.F.G
WP11	EXTERIOR WALL PACK (6,000 LUMENS)	LED	HE WILLIAMS LIGHTING CATALOG #WP11H-L60-7-40-TFT-FINISH-SDGL-DIM-UNV	3500K	120	49	WALL MOUNTED AT 12' A.F.G

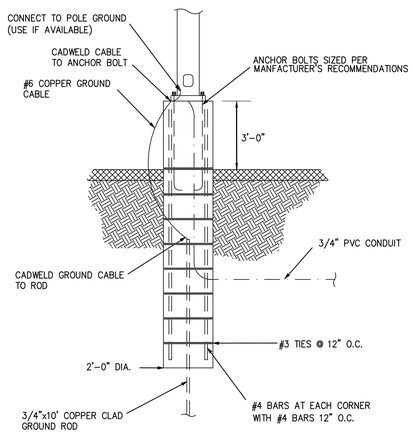
PHOTOMETRIC CALCULATIONS

DESCRIPTION	AVG	MAX	MIN	MAX/MIN	AVG/MIN
SITE AREA	1.83 fc	9.8 fc	0.1 fc	98.00 fc	18.30 fc
PARKING/DRIVEWAY	0.07 fc	0.3 fc	0.0 fc	N/A	N/A

1. ALL FIXTURES SHALL BE HORIZONTAL IN ORIENTATION.
2. WALL MOUNTED FIXTURES SHALL NOT EXCEED 15' A.F.G.



1 PHOTOMETRIC PLAN
1" = 30'-0"



TYPICAL LIGHT POLE DETAIL
SCALE: NONE

1. GROUT BETWEEN CONCRETE POLE BASE AND LIGHT FIXTURE POLE BASE WITH NON SHRINKING GROUT TO FILL AIR SPACE BETWEEN THEM.
2. STRUCTURAL ENGINEER TO SPECIFY DEPTH AND DIAMETER OF POLE BASE.
3. COORDINATE EXACT LOCATION OF LIGHT FIXTURES WITH LANDSCAPE PLANS BEFORE INSTALLING CONDUIT/POLE BASES.
4. BURY ALL LIGHTING CIRCUIT CONDUITS A MINIMUM OF 24 INCHES DEEP.

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Project Title:

KINGSTON PIKE VILLAGE FARRAGUT,TN

Client Logo:

Seals:

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REGISTERED ENGINEER
AGENT
LICENSED
STATE OF TENNESSEE
08.12.2025

Revisions:

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Project Number: 25033

Phase: Issue For Permit

Date: 08.12.2025

Drawn By: LB, JS

Checked By: HPB

Sheet Number:

LP-1

Sheet Title:

PHOTOMETRIC PLAN

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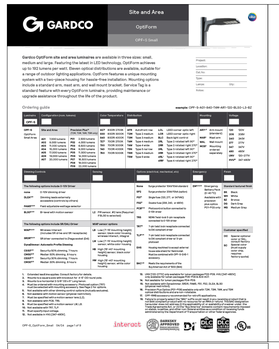
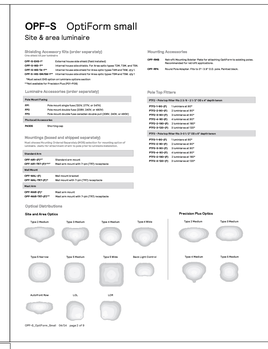
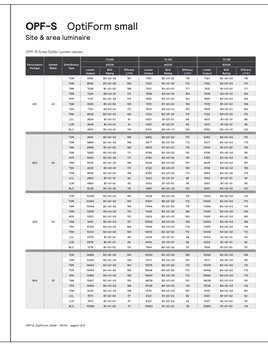
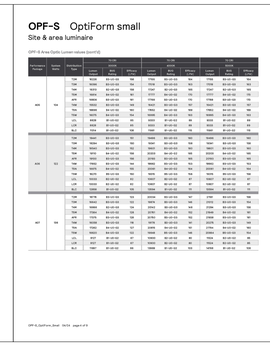
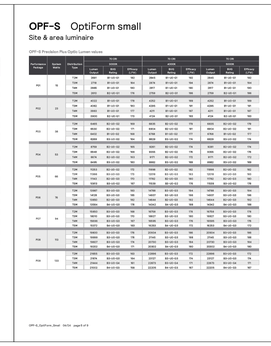
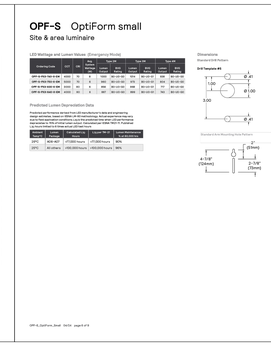


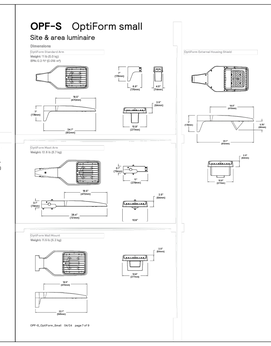


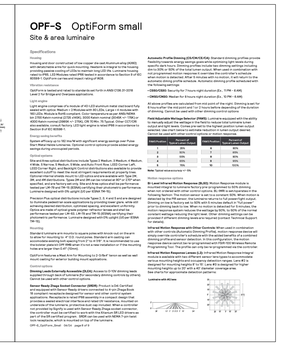






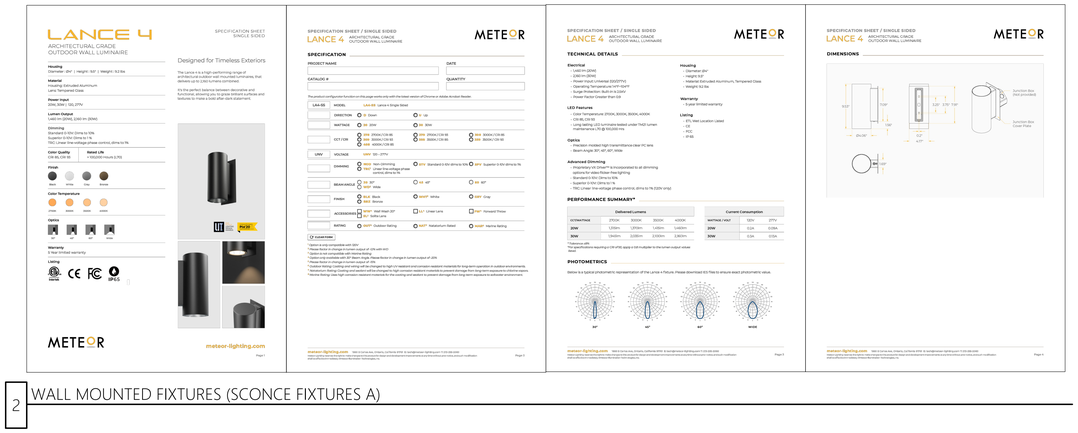




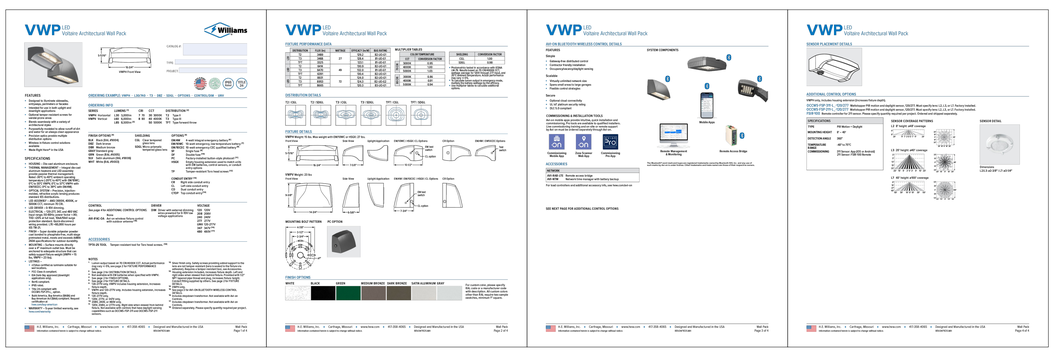




1 POLE MOUNTED FIXTURES (FIXTURES AA, BB, CC)



2 WALL MOUNTED FIXTURES (SCONCE FIXTURES A)



3 WALL MOUNTED FIXTURES (WALL PACK FIXTURES WP1)

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Project Title:

KINGSTON PIKE VILLAGE FARRAGUT,TN

Client Logo:

Seals:

HUGH P. BUNN REGISTERED ENGINEER STATE OF TENNESSEE 06.26.2025

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Checked By: HPB

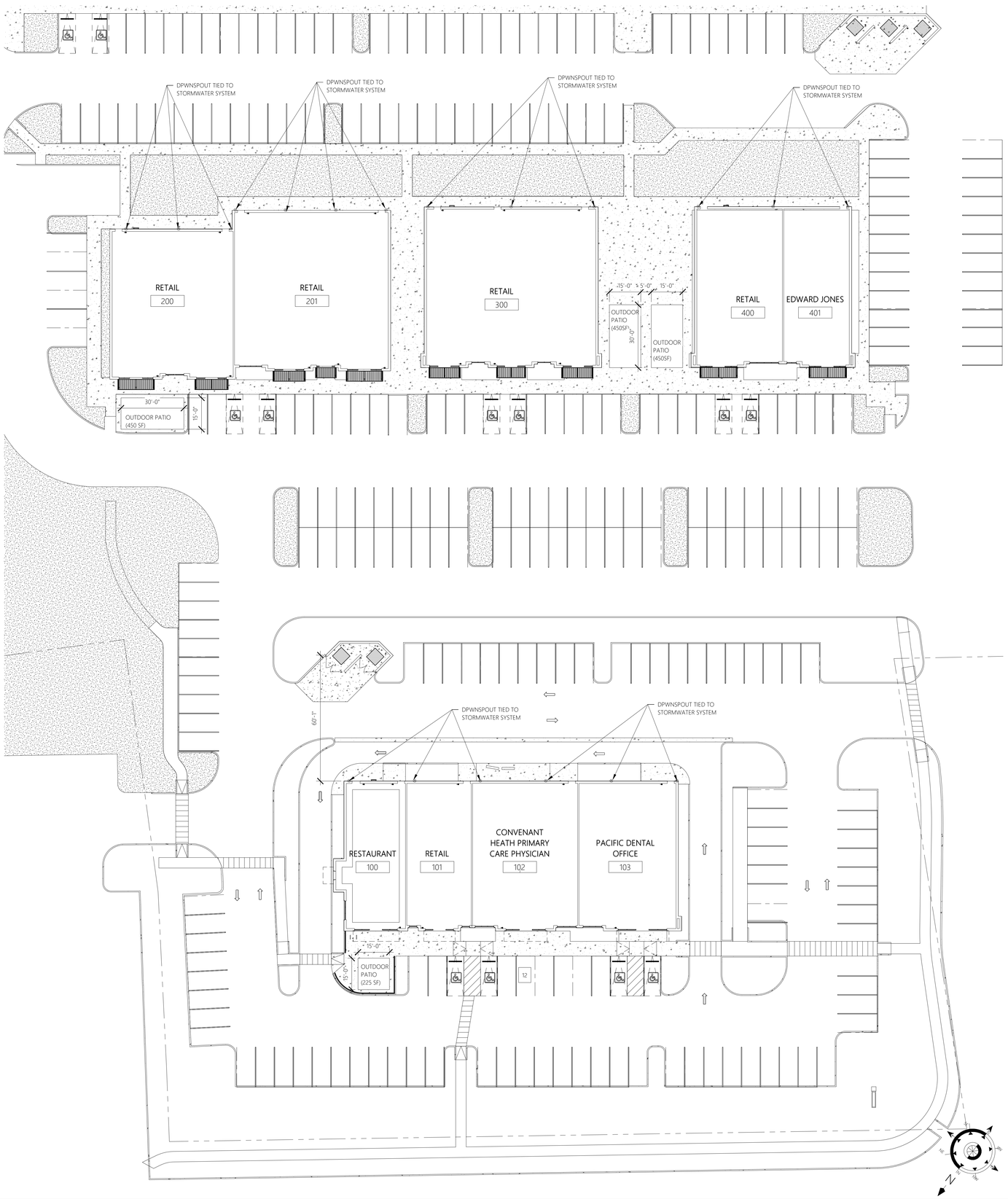
Sheet Number:

LP-2

Sheet Title:

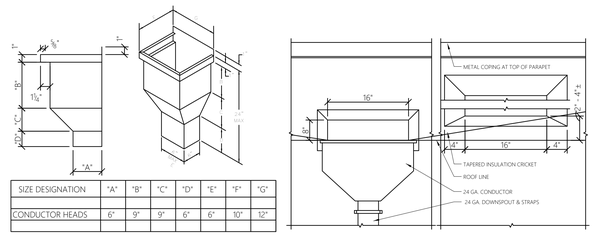
FIXTURE CUT SHEET

SHEET 26 OF 37



1 Site Plan
3/64" = 1'-0"

NOTE:
ARCHITECTURAL SITE PLAN SHOWN FOR INFORMATIONAL PURPOSES AS IT RELATES TO BUILDING- REFER TO CIVIL FOR SITE INFORMATION.



SIZE DESIGNATION	"A"	"B"	"C"	"D"	"E"	"F"	"G"
CONDUCTOR HEADS	6"	9"	9"	6"	6"	10"	12"

2 Scuppeer Size Details
1 1/2" = 1'-0"

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KINGSTON PIKE VILLAGE BUILDING A
FARRAGUT,TN

Client Logo:

Seals:



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Sheet Title:
Architectural Site Plan

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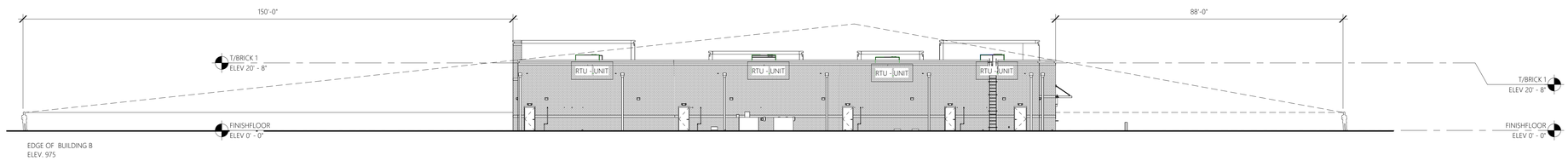
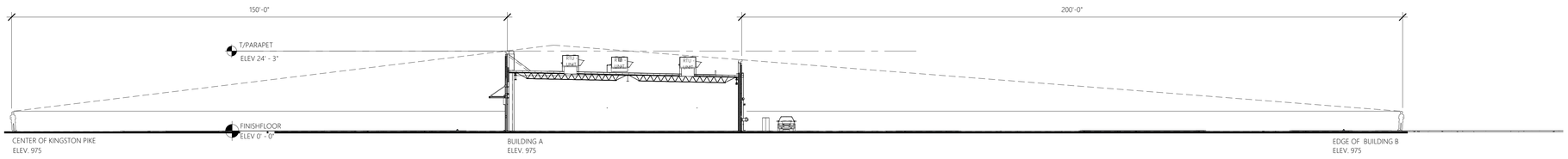


3 Rear Elevation
1/16" = 1'-0"



1 Front Elevation
1/16" = 1'-0"



2 Building A Section
1/16" = 1'-0"

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Project Title:
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VILLAGE
BUILDING A
FARRAGUT,TN

Client Logo:

Seals:
STEPHEN KLIMAS REGISTERED ARCHITECT ARCHITECTURE NUMBER PA 104.001.1851 STATE OF TENNESSEE
06.26.2025

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Checked By: M.A.S

Sheet Number:
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Sheet Title:
SIGHT LINE STUDY

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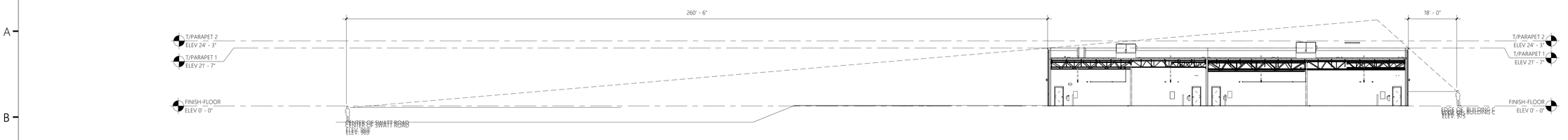
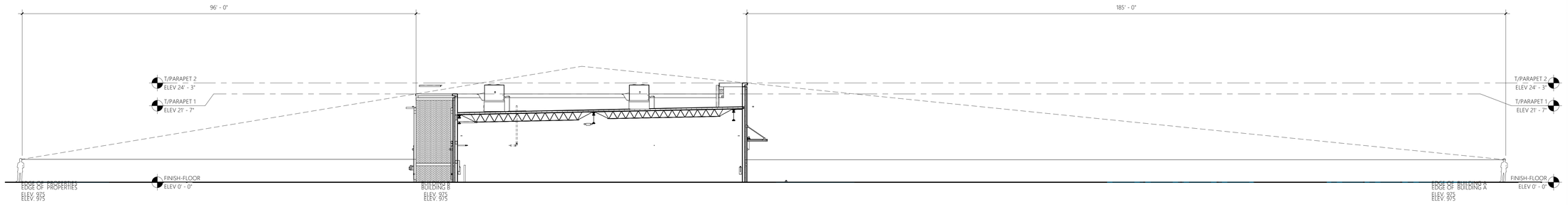
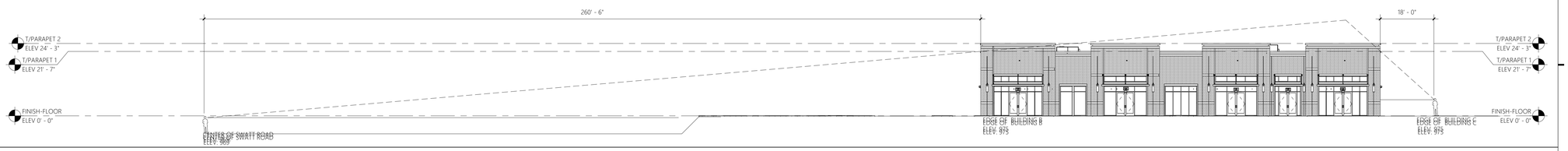


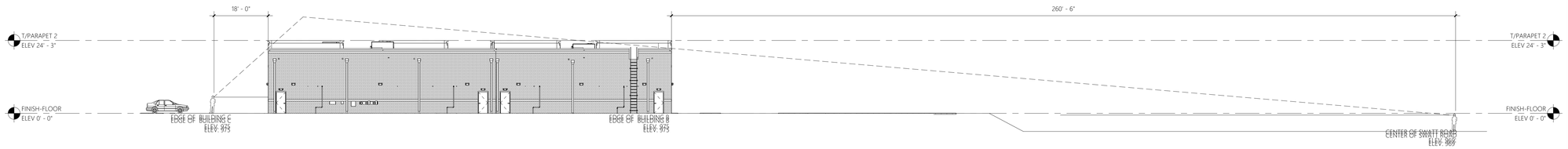
4 Building B Section
1/16" = 1'-0"



3 Building B Section
3/32" = 1'-0"



2 Rear Elevation Building B
1/16" = 1'-0"



1 Front Elevation Building B
1/16" = 1'-0"

ARCHITECT OF RECORD:
STEPHEN KLIMAS
STATE REGISTERED ARCHITECT
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PHONE: 864.451.5288

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ARCHITECTURE

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3150 Holcomb Bridge
Rd Norcross, GA 30071

MECHANICAL
Jennifer Duchac
3150 Holcomb Bridge
Rd Norcross, GA 30071

ELECTRICAL
Hugh P. Bunn
912 South Pine St
Spartanburg, 29302

Project Title:
KINGSTON PIKE
VILLAGE
BUILDING B
FARRAGUT,TN

Client Logo:

Seals:

STEPHEN KLIMAS
REGISTERED ARCHITECT
ARCHITECTURE
LICENSED TO PRACTICE
STATE OF TENNESSEE
07.14.2025

Revisions:

Project Number: 25033
Phase: CD'S
Date: 07.14.2025
Drawn By: Author
Checked By: Checker

Sheet Number:
A5.12

Sheet Title:
SIGHT LINE STUDY

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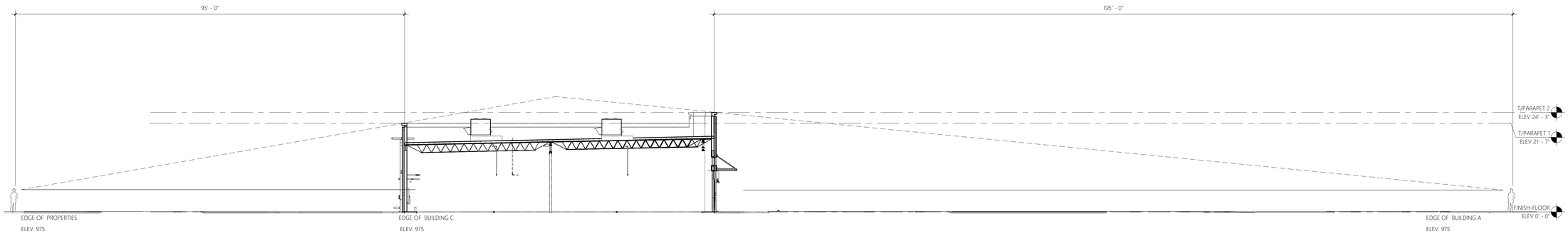
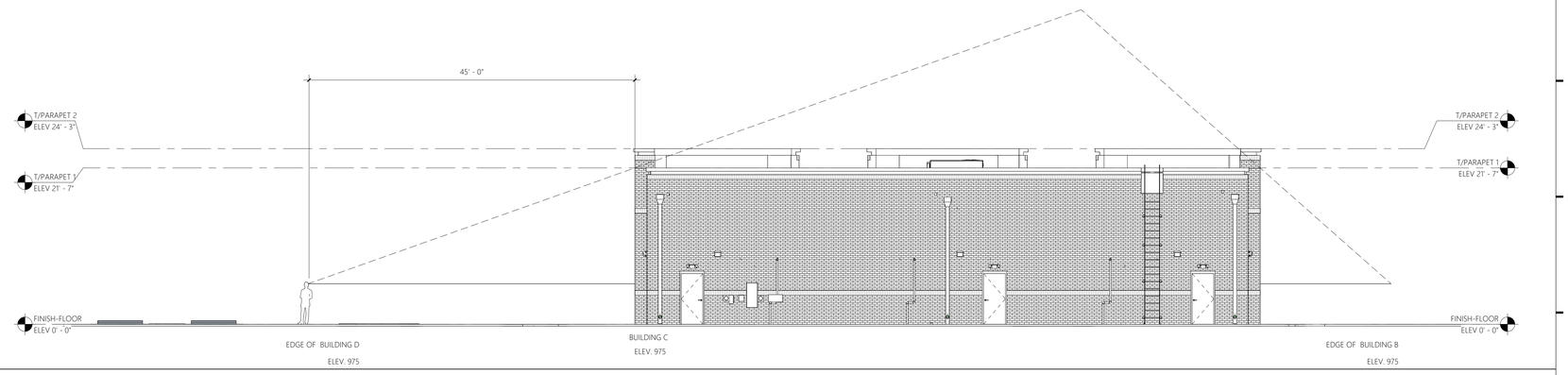


3 Building C Section
3/32" = 1'-0"



2 Rear Elevation Building C
1/8" = 1'-0"



1 Front Elevation Building - C
1/8" = 1'-0"

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ELECTRICAL
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912 South Pine St
Spartanburg, 29302

Project Title:
KINGSTON PIKE VILLAGE
BUILDING C
FARRAGUT,TN

Client Logo:

Seals:

STEPHEN KLIMAS REGISTERED ARCHITECT AGRICULTURE COMMERCE NO. 108734 STATE OF TENNESSEE
2025

Revisions:

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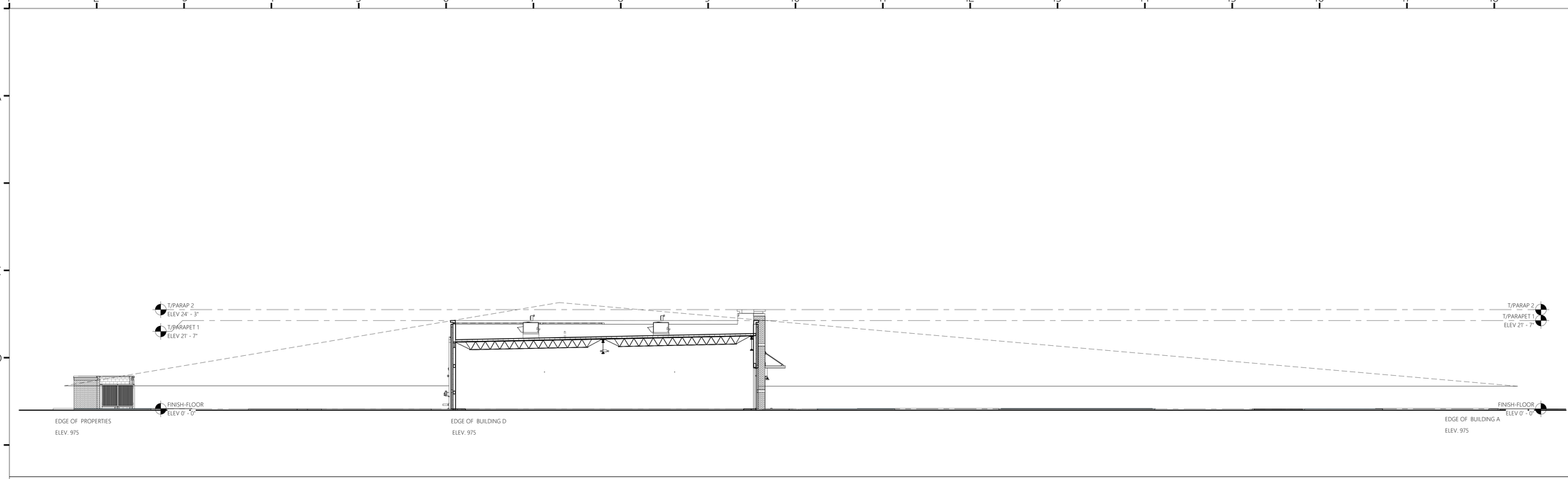
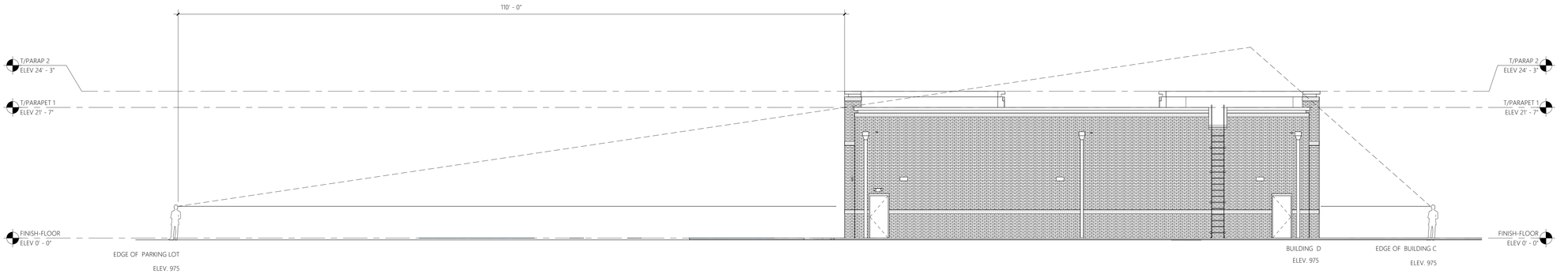
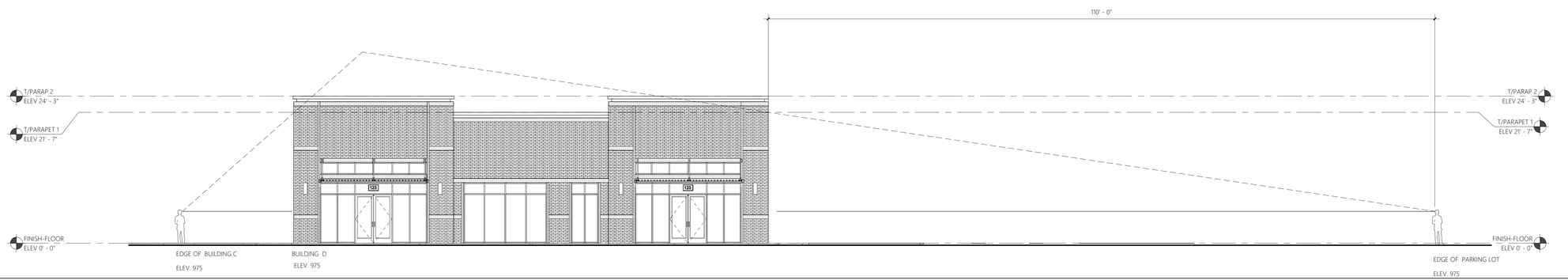


3 Building D Section
3/32" = 1'-0"



2 Rear Elevation
1/8" = 1'-0"



1 Front Elevation Building - D
1/8" = 1'-0"

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Spartanburg, 29302

Project Title:
KINGSTON PIKE
VILLAGE
BUILDING D
FARRAGUT,TN

Client Logo:

Seals:



Revisions:

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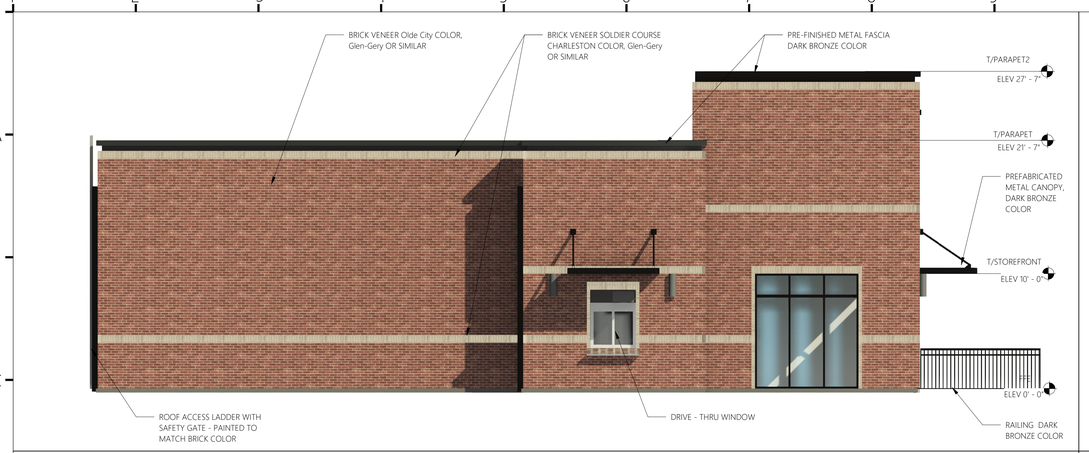
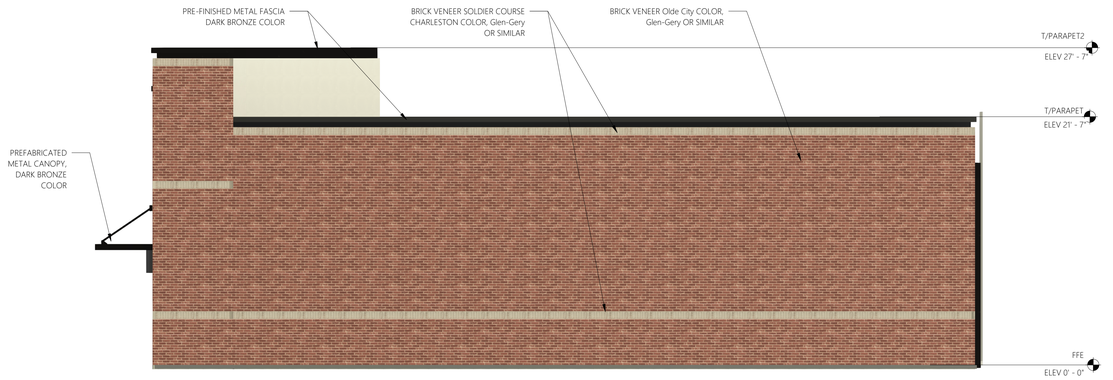
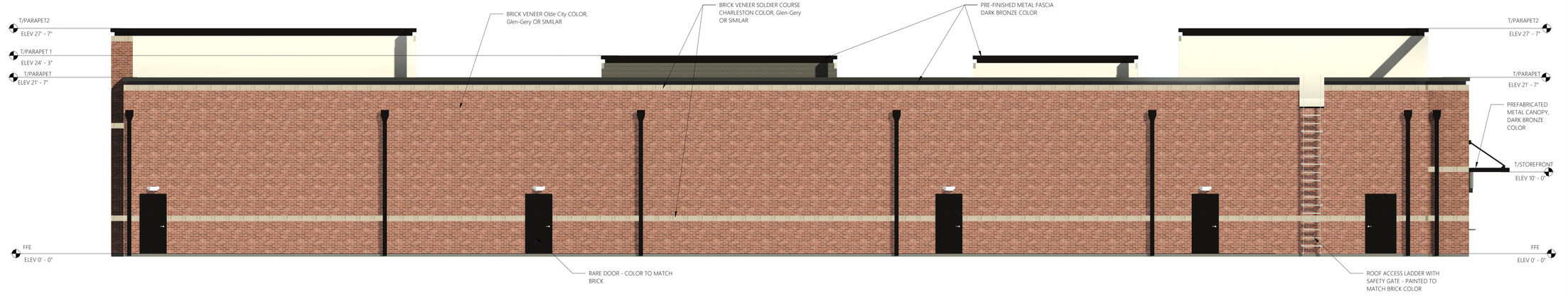


3 Side East Elevation - Building A
3/16" = 1'-0"



4 Side West Elevation Building - A
3/16" = 1'-0"



2 Rear Elevation - Building A
3/16" = 1'-0"



PER FARRAGUT ARCHITECTURAL DESIGN STANDARDS

2.17 Use masonry materials to promote a cohesive community image.

a. For new construction, use masonry as the primary material on at least 60% of the net façade area. See Guideline 3.15 on page 58 for additional masonry requirements in the Town Center District.
b. For new construction that is taller than one-story, use masonry as the primary material on at least 75% of the net façade area of a ground floor façade. See Guideline 3.15 on page 58 for additional masonry requirements in the Town Center District.
c. Ensure that synthetic masonry materials convey an authenticity identical to that of genuine masonry.

3.15 Use compatible, high-quality façade materials in the Town Center.

a. Use of face brick on at least 75% of the net façade area.
b. Use complementary materials on adjoining building façades.
c. See "Building Materials & Colors" on page 46 for more information.

TOTAL ELEVATION AREA	= 4,105 SF	100%
STOREFRONT TOTAL AREA.	= 1,259 SF	30.6%
METAL PARAPET TOTAL AREA	= 166 SF	4.2%
BRICK TOTAL AREA	= 2,680 SF	65.2%



ACCENT BRICK USED
CHARLESTON - WHITE GLEN- GREY OR EQUIL



BRICK USED
SPALDING TUDOR GENERAL SHALE OR EQUAL

EXTERIOR FINISH SCHEDULE

Key #	PRODUCT	MANUFACTURER	DESCRIPTION	COLOR	NOTES
BR1	BRICK VENEER	GENERAL SHALE	BRICK VENEER	SPALDING TUDOR GENERAL SHALE	MODULAR CORED 3 5/8" x 2 1/4" x 7 5/8", MORTAR SPEC MIX SM330-BURLYWOOD
BR2	BRICK VENEER	Glen-Gery	BRICK VENEER	Charleston - Glen-Gery	MODULAR SOLDIER CORED 3 5/8" x 7 5/8", MORTAR SPEC MIX SM330-BURLYWOOD
CP1	PRE-FINISHED METAL FASCIA	LOCALLY SOURCED	PRE-FINISHED METAL FASCIA	DARK BRONZE	
PT1	PAINTED STEEL	SHERWIN WILLAMS	PAINTED COLOR	PAINT	
PT2	PAINTED	SHERWIN WILLAMS	PAINTED COLOR	PAINT	
MTL1	ALUMINUM STOREFRONT SYSTEM	LOCALLY SOURCED	STOREFRONT	DARK BRONZE	

1 Front Elevation - Building A
3/16" = 1'-0"

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ELECTRICAL
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29302

Project Title:
KINGSTON PIKE VILLAGE
BUILDING A
FARRAGUT,TN

Client Logo:

Seals:



Revisions:

06.26.2025 Issue For Permit

Project Number: 25033
Phase: CD
Date: 06.26.2025
Drawn By: G.K.M
Checked By: M.A.S

Sheet Number:
A5.13

Sheet Title:
Colored Elevations

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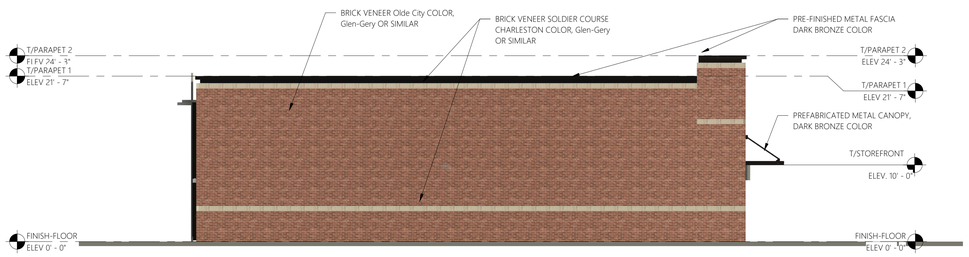
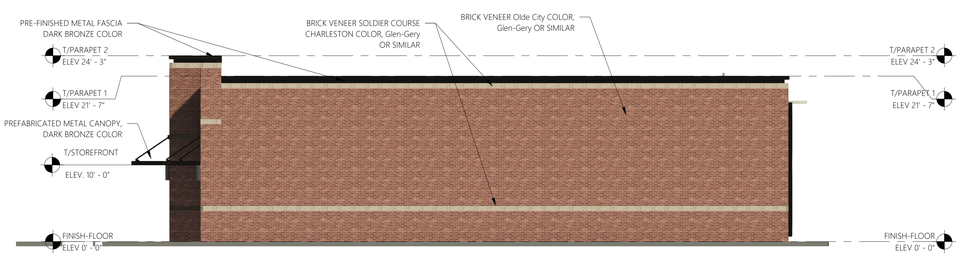
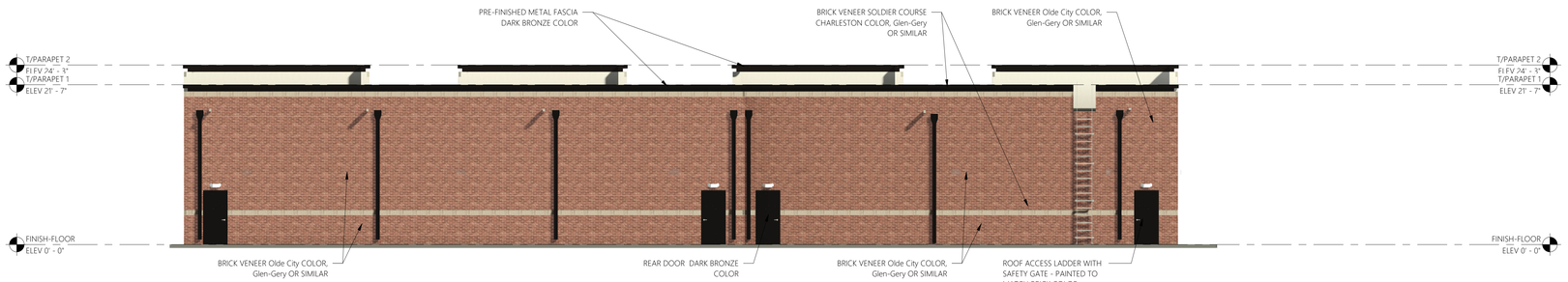


3 Left Elevation - Building B
1/8" = 1'-0"



4 Right Elevation - Building B
1/8" = 1'-0"



2 Rear Elevation - Building B
1/8" = 1'-0"



PER FARRAGUT ARCHITECTURAL DESIGN STANDARDS

2.17 Use masonry materials to promote a cohesive community image.

a. For new construction, use masonry as the primary material on at least 60% of the net façade area. See Guideline 3.15 on page 58 for additional masonry requirements in the Town Center District.
b. For new construction that is taller than one-story, use masonry as the primary material on at least 75% of the net façade area of a ground floor façade. See Guideline 3.15 on page 58 for additional masonry requirements in the Town Center District.
c. Ensure that synthetic masonry materials convey an authenticity identical to that of genuine masonry.

3.15 Use compatible, high-quality façade materials in the Town Center.

a. Use of face brick on at least 75% of the net façade area.
b. Use complementary materials on adjoining building façades.
c. See "Building Materials & Colors" on page 46 for more information.

TOTAL ELEVATION AREA	= 3,149 SF	100%
STOREFRONT TOTAL AREA.	= 1,033 SF	32.9%
METAL PARAPET TOTAL AREA	= 134 SF	4.2%
BRICK TOTAL AREA	= 1,982 SF	62.9%



ACCENT BRICK USED
CHARLESTON - WHITE GLEN- GREY OR EQUIL



BRICK USED
SPALDING TUDOR GENERAL SHALE OR EQUAL

EXTERIOR FINISH SCHEDULE

Key #	PRODUCT	MANUFACTURER	DESCRIPTION	COLOR	NOTES
BR1	BRICK VENEER	General Shale	BRICK VENEER	SPALDING TUDORGENERAL SHALE OR EQUAL	MODULAR CORED 3 5/8" x 2 1/4" x 7 5/8", MORTAR SPEC MIX SM330-BURLYWOOD
BR2	BRICK VENEER	Glen-Gery	BRICK VENEER	Charleston - Glen-Gery	MODULAR SOLDIER CORED 3 5/8" x 7 5/8", MORTAR SPEC MIX SM330-BURLYWOOD
CP1	PRE-FINISHED METAL FASCIA	LOCALLY SOURCED	PRE-FINISHED METAL FASCIA	DARK BRONZE	
PT1	PAINTED STEEL	SHERWIN WILLAMS	PAINTED COLOR	PAINT	
PT2	PAINTED	SHERWIN WILLAMS	PAINTED COLOR	PAINT	
MTL1	ALUMINUM STOREFRONT SYSTEM	LOCALLY SOURCED	STOREFRONT	DARK BRONZE	

1 Front Elevation - Building B
1/8" = 1'-0"

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ELECTRICAL
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Project Title:
KINGSTON PIKE VILLAGE BUILDING B FARRAGUT,TN

Client Logo:

Seals:



Revisions:

Project Number: 25033
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Colored Elevations

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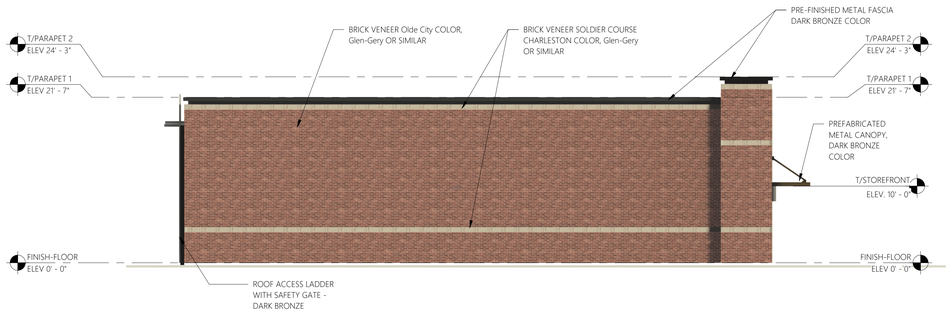
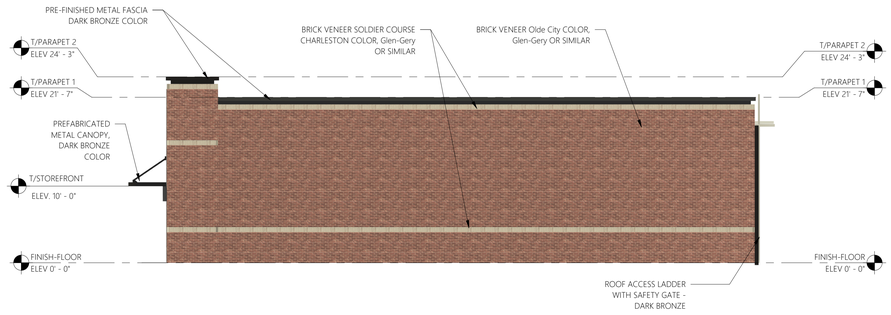
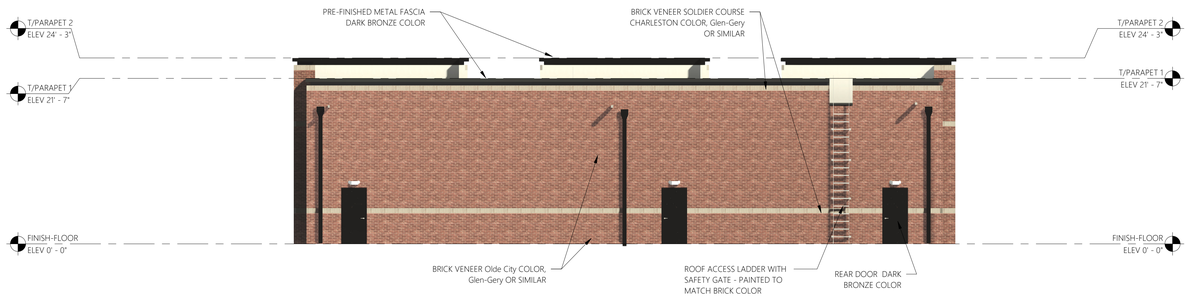


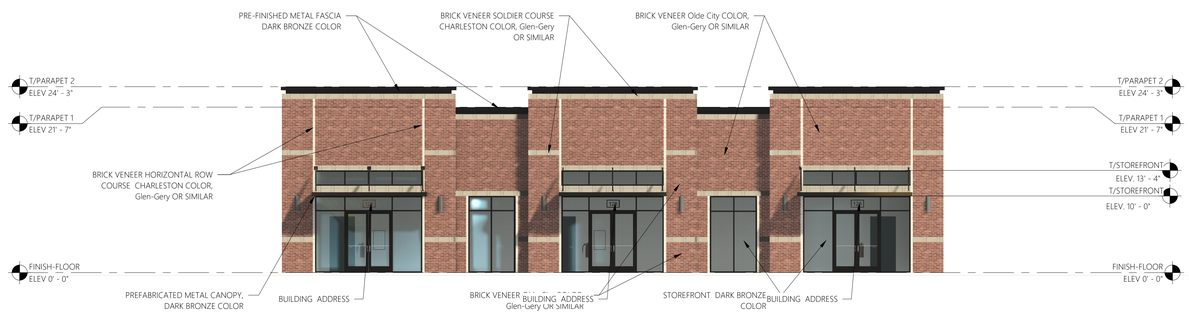
3 Left Elevation - Building C
1/8" = 1'-0"



4 Right Elevation - Building C
1/8" = 1'-0"



2 Rear Elevation - Building C
1/8" = 1'-0"



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c. See "Building Materials & Colors" on page 46 for more information.

TOTAL ELEVATION AREA	= 2,045 SF	100%
STOREFRONT TOTAL AREA.	= 499 SF	24.4%
METAL PARAPET TOTAL AREA	= 87 SF	4.2%
BRICK TOTAL AREA	= 1,459 SF	71.4%



ACCENT BRICK USED
CHARLESTON - WHITE GLEN- GREY OR EQUIL



BRICK USED
SPALDING TUDOR GENERAL SHALE OR EQUAL

EXTERIOR FINISH SCHEDULE

Key #	PRODUCT	MANUFACTURER	DESCRIPTION	COLOR	NOTES
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CP1	PRE-FINISHED METAL FASCIA	LOCALLY SOURCED	PRE-FINISHED METAL FASCIA	DARK BRONZE	
PT1	PAINTED STEEL	SHERWIN WILLAMS	PAINTED COLOR	PAINT	
PT2	PAINTED	SHERWIN WILLAMS	PAINTED COLOR	PAINT	
MTL1	ALUMINUM STOREFRONT SYSTEM	LOCALLY SOURCED	STOREFRONT	DARK BRONZE	

1 Front Elevation - Building C
1/8" = 1'-0"

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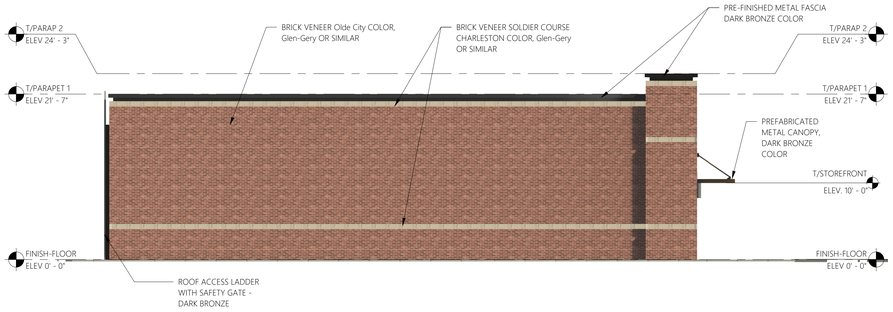
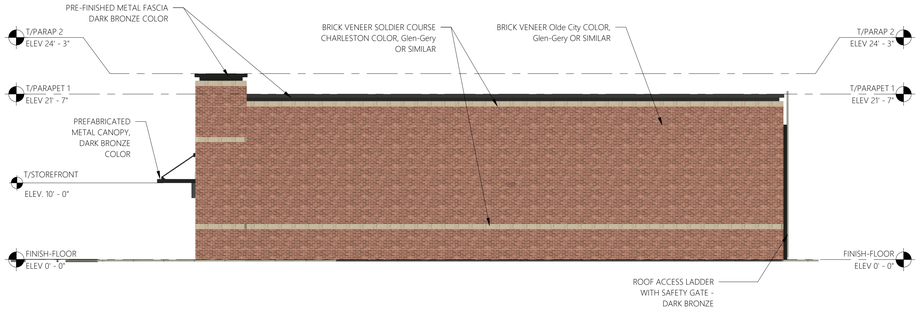
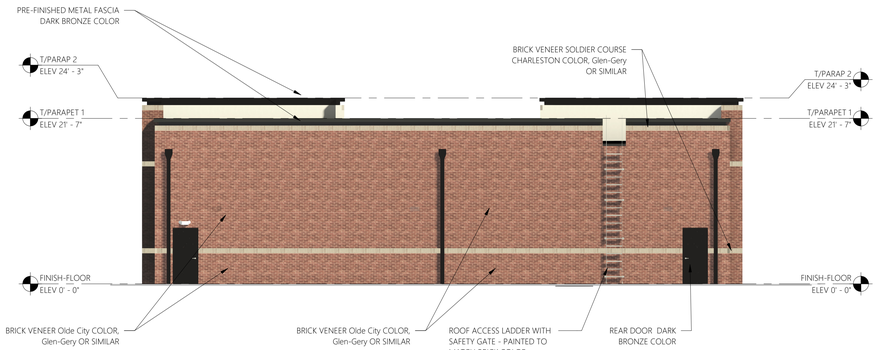


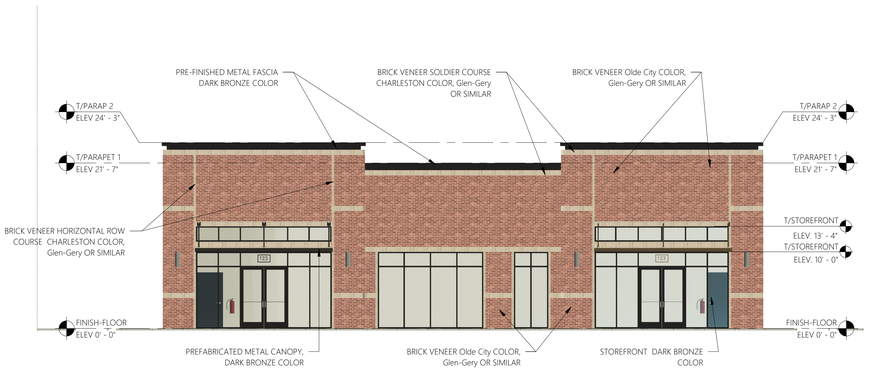
3 Left Elevation - Building D
1/8" = 1'-0"



4 Right Elevation - Building D
1/8" = 1'-0"



2 Rear Elevation - Building D
1/8" = 1'-0"



PER FARRAGUT ARCHITECTURAL DESIGN STANDARDS

2.17 Use masonry materials to promote a cohesive community image.

a. For new construction, use masonry as the primary material on at least 60% of the net façade area. See Guideline 3.15 on page 58 for additional masonry requirements in the Town Center District.
b. For new construction that is taller than one-story, use masonry as the primary material on at least 75% of the net façade area of a ground floor façade. See Guideline 3.15 on page 58 for additional masonry requirements in the Town Center District.
c. Ensure that synthetic masonry materials convey an authenticity identical to that of genuine masonry.

3.15 Use compatible, high-quality façade materials in the Town Center.

a. Use of face brick on at least 75% of the net façade area.
b. Use complementary materials on adjoining building façades.
c. See "Building Materials & Colors" on page 46 for more information.

TOTAL ELEVATION AREA	= 1,837 SF	100%
STOREFRONT TOTAL AREA.	= 605 SF	32.9%
METAL PARAPET TOTAL AREA	= 78 SF	4.2%
BRICK TOTAL AREA	= 1,155 SF	62.9%



ACCENT BRICK USED
CHARLESTON - WHITE GLEN- GREY OR EQUIL



BRICK USED
SPALDING TUDOR GENERAL SHALE OR EQUAL

EXTERIOR FINISH SCHEDULE

Key #	PRODUCT	MANUFACTURER	DESCRIPTION	COLOR	NOTES
BR1	BRICK VENEER	GENERAL SHALE	BRICK VENNER	SPALDING TUDORGENERAL SHALE OR EQUAL	MODULAR CORED 3 5/8" x 2 1/4" x 7 5/8", MORTAR SPEC MIX SM330-BURLYWOOD
BR2	BRICK VENEER	Glen-Gery	BRICK VENNER	Charleston - Glen-Gery	MODULAR SOLDIER CORED 3 5/8" x 7 5/8", MORTAR SPEC MIX SM330-BURLYWOOD
CP1	PRE-FINISHED METAL FASCIA	LOCALLY SOURCED	PRE-FINISHED METAL FASCIA	DARK BRONZE	
PT1	PAINTED STEEL	SHERWIN WILLAMS	PAINTED COLOR	PAINT	
PT2	PAINTED	SHERWIN WILLAMS	PAINTED COLOR	PAINT	
MTL1	ALUMINUM STOREFRONT SYSTEM	LOCALLY SOURCED	STOREFRONT	DARK BRONZE	

1 Front Elevation - Building D
1/8" = 1'-0"

ARCHITECT OF RECORD:
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STATE REGISTERED ARCHITECT
125 RHETT ST. , SUITE 101
GREENVILLE, SC 29601
PHONE: 864.451.5288

OWNERS REPRESENTATIVE:

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Commercial, Office, Retail, Restaurant, Real Estate Development
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Greenville, SC 29601
Phone: 864.451.5288
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Consultants:

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PLUMBING
Jennifer Duchac
3150 Holcomb Bridge
Rd Norcross, GA 30071

MECHANICAL
Jennifer Duchac
3150 Holcomb Bridge
Rd Norcross, GA 30071

ELECTRICAL
Hugh P. Bunn
912 South Pine St
Spartanburg, 29302

Project Title:
KINGSTON PIKE VILLAGE BUILDING D FARRAGUT,TN

Client Logo:

Seals:

STEPHEN KLIMAS REGISTERED ARCHITECT NORTH CAROLINA SOUTH CAROLINA GEORGIA TENNESSEE STATE OF TENNESSEE
07.14.2025

Revisions:

Project Number: 25033
Phase: CD'S
Date: 07.14.2025
Drawn By: Author
Checked By: Checker
Sheet Number:
A5.13
Sheet Title:
Colored Elevations

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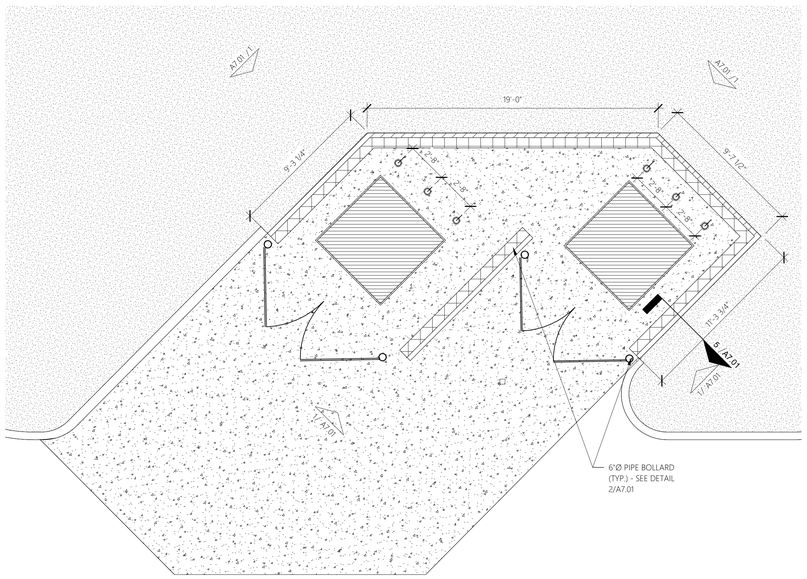
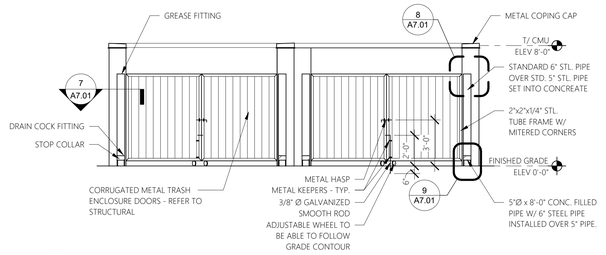
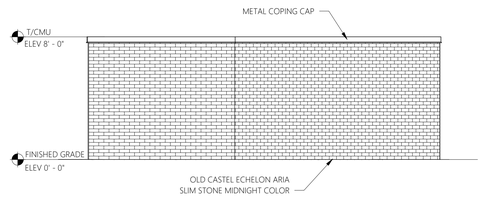


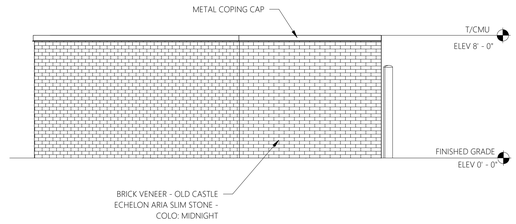
1 Dumpster Enclosure Plan
1/4" = 1'-0"



2 Dumpster Enclosure Front Elevation
1/4" = 1'-0"

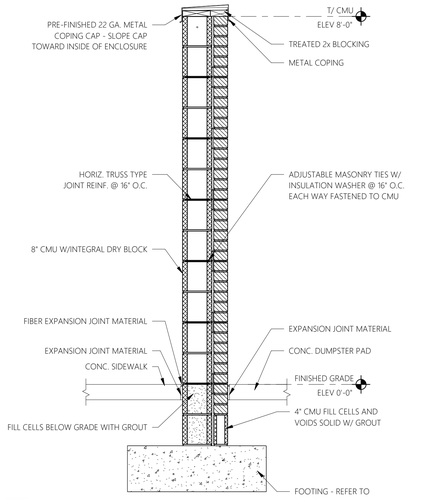


3 Dumpster Enclosure Side Elevation
1/4" = 1'-0"

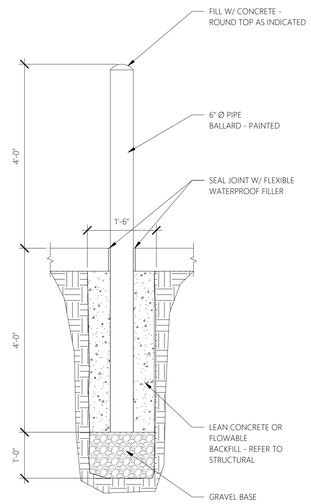


10 Dumpster Enclosure Side Elevation
1/4" = 1'-0"

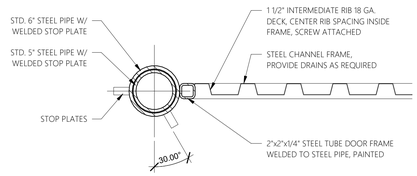
4 Dumpster Enclosure Side Elevation
1/4" = 1'-0"



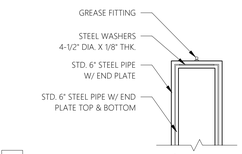
5 Dumpster Enclosure Wall Section
3/4" = 1'-0"



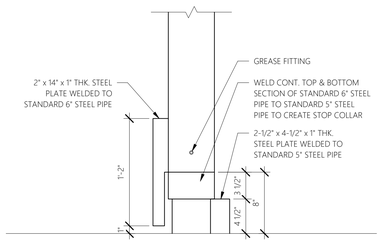
6 Pipe Bollard Detail
3/4" = 1'-0"



7 Dumpster Gate Detail
1 1/2" = 1'-0"



8 Dumpster Gate Detail
1 1/2" = 1'-0"



9 Dumpster Gate Detail
1 1/2" = 1'-0"

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Spartanburg, SC
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Project Title:
KINGSTON PIKE
VILLAGE
BUILDING A
FARRAGUT,TN

Client Logo:

Seals:
STEPHEN KLIMAS
REGISTERED ARCHITECT
AGRICULTURE
STATE OF TENNESSEE

Revisions:

06.26.2025	Issue For Permit

Project Number: 25033
Phase: CD
Date: 06.26.2025
Drawn By: Author
Checked By: Checker

Sheet Number:
A7.01

Sheet Title:
Dumpster Enclosure Plan & Details

SHEET 36 OF 37

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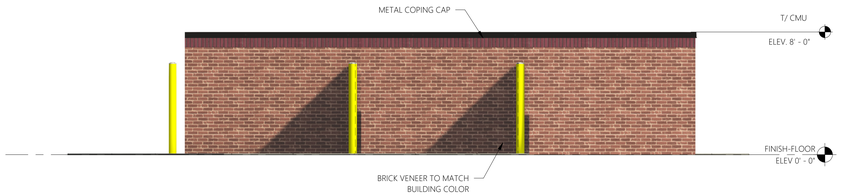
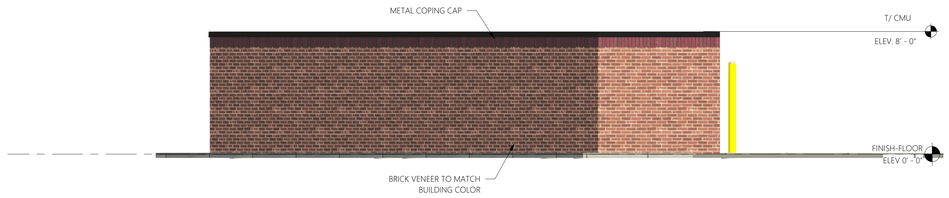
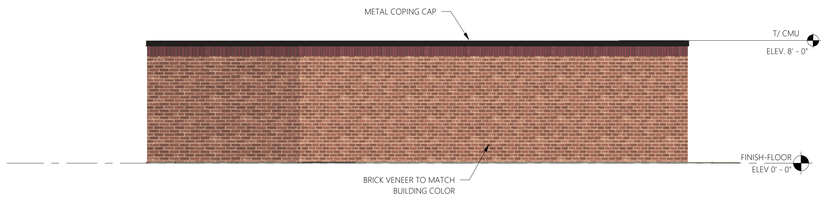


3 Dumpster Enclosure Side Elevation
1/4" = 1'-0"



4 Dumpster Enclosure Side Elevation
1/4" = 1'-0"



2 Dumpster Enclosure Rear Elevation
1/4" = 1'-0"





BRICK USED
SPALDING TUDOR GENERAL SHALE OR EQUAL

1 Dumpster Enclosure Front Elevation
1/4" = 1'-0"

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912 South Pine St
Spartanburg, 29302

Project Title:
KINGSTON PIKE
VILLAGE
BUILDING D
FARRAGUT,TN

Client Logo:

Seals:



Revisions:

Project Number: 25033
Phase: CD'S
Date: 07.14.2025
Drawn By: Author
Checked By: Checker

Sheet Number:
A5.14

Sheet Title:
Dumpster Enclosure Colored
Elevations

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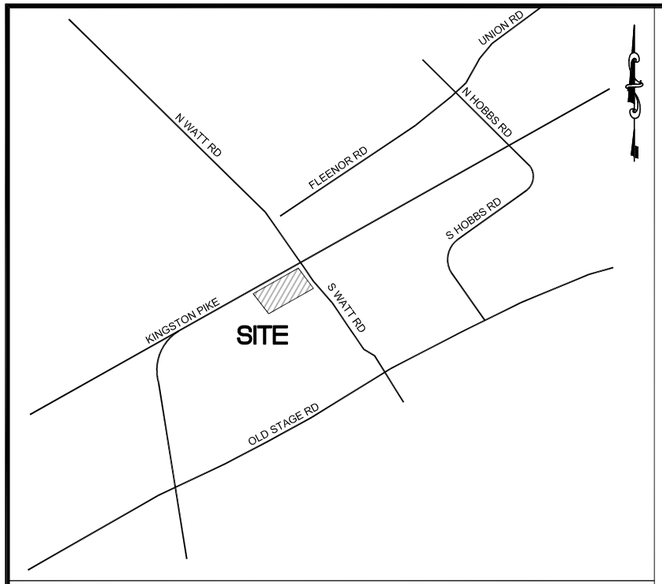


VICINITY MAP N.T.S.

Supplemental Site Development Plans for Little Joe's Pizza

ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 00109134
STATE OF TENNESSEE
08/11/2025

Developed by:

Kingston Properties 2, LLC
1051 Johnnie Dobbs Blvd, Suite HI
Mt Pleasant, South Carolina 29464
(843) 817-2220
Attn: Mr. Tyler Lindsey

13106, 13110, 13120, 13140 Kingston Pike
CLT Map 151, Parcel 081
Farragut, Tennessee 37934

SHEET INDEX

#	Sheet Title	Date	Revision #
SD-1	Cover Sheet	08/11/2025	1
SD-2	Site Demolition Plan	07/17/2025	
SD-3	Site Grading and Drainage Plan	08/11/2025	1
SD-4	Site Grading and Drainage Notes	07/17/2025	
SD-5	Site Layout Plan	08/11/2025	1
SD-6	Site Layout Notes	07/17/2025	
SD-7	Site Details	07/17/2025	
SD-8	Site Details	07/17/2025	
SD-9	Site Details	07/17/2025	
SD-10	Site Details	08/11/2025	1
SD-11	Landscape Plan	07/17/2025	
SD-12	Landscape Details	07/17/2025	

Tennessee811 Know what's below. Call before you dig.

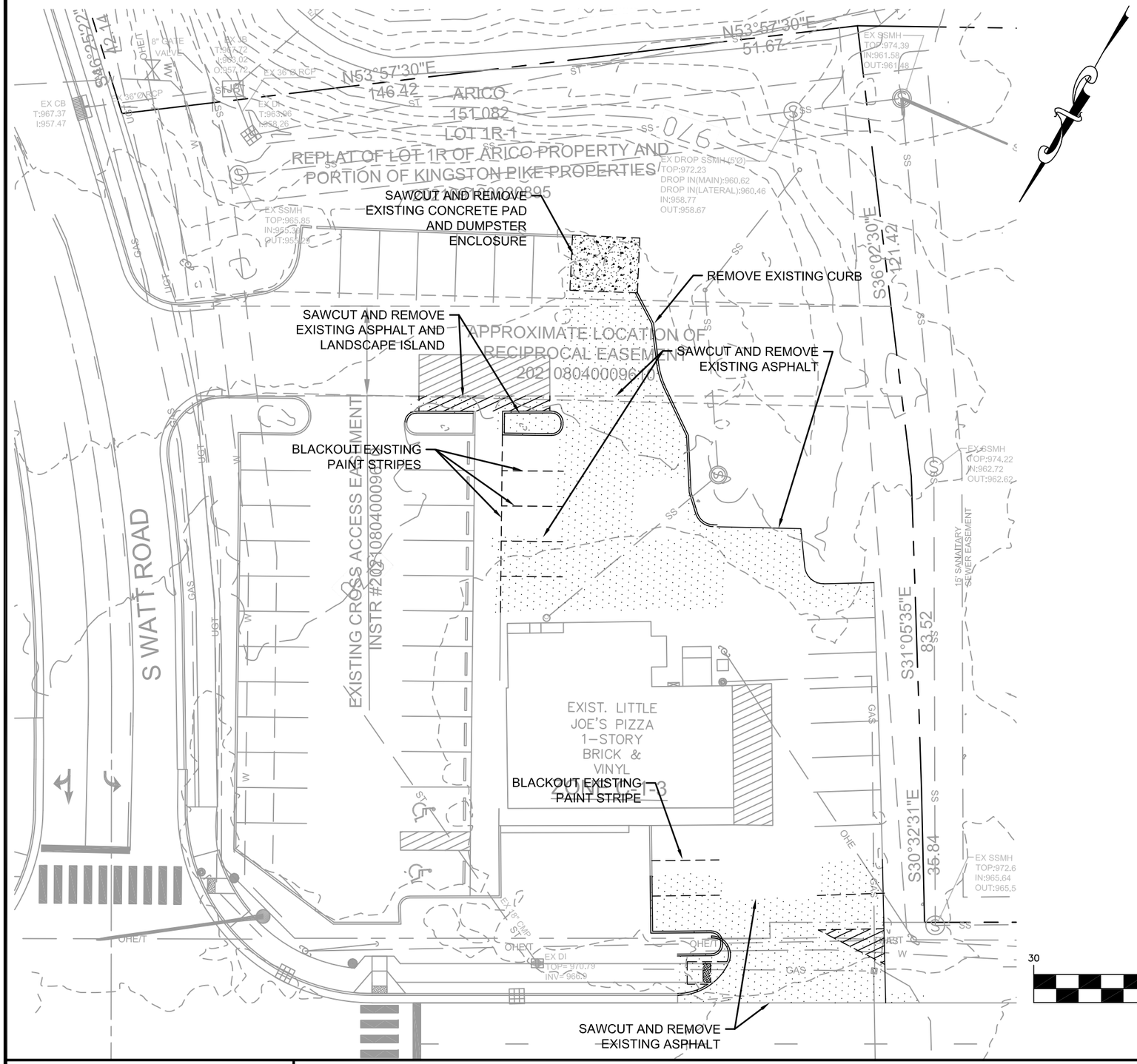
SITE, INCORPORATED CIVIL ENGINEERS & SURVEYORS EST. 1997
10215 Technology Drive
Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

Supplemental Drawing - Cover Sheet

Kingston Pike Village
13106, 13110, 13120, 13140 Kingston Pike
Farragut, Tennessee 37934
CLT Map 151, Parcel No. 081

ISSUE DATE: 07/17/2025
SITE PROJECT#: 2040
FILE: Cover

SD-1



SITE DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE, STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
3. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
4. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.
5. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK. UTILITIES DETERMINED TO BE ABANDONED AND LEFT IN PLACE SHALL BE GROUTED IF UNDER BUILDING.
6. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE ANY ROAD RIGHT OF WAY DURING CONSTRUCTION.
7. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC., (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY CONSTRUCTION MANAGER.
8. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.
9. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
10. CONTRACTOR MAY LIMIT SAW-CUT & PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IT'S REMOVAL AND REPAIR.
11. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.

LEGEND: AREA OF DEMOLITION

Tennessee 811 Know what's below. Call before you dig.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00109134
07/17/2025
STATE OF TENNESSEE

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(865) 777-4160
www.site-incorporated.com

Supplemental Drawing - Site Demolition Plan

Kingston Pike Villages

13106, 13110, 13120, 13140 Kingston Pike
Farragut, Tennessee 37934
CLT Map 151, Parcel Nos. 081

ISSUE DATE: 07/17/2025
SITE PROJECT#: 2040
FILE: Demo

SD-2

ENERGY-DISSIPATING HEADWALL
INV: 966.00

79LF OF 18" HDPE STORM PIPE @ 0.64% SLOPE

APPROXIMATE LOCATION OF RECIPROCAL EASEMENT 202108040009610

ZONE C-1-3

S WATT ROAD

EXISTING CROSS ACCESS EASEMENT INSTR #202108040009610

EXIST. LITTLE JOE'S PIZZA 1-STORY BRICK & VINYL ZONE C-1-3

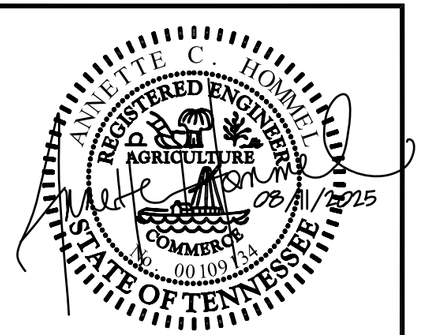
DROP INLET W/ NEENAH R-2560-EB BEEHIVE GRATE
TOP: 970.00
INV: 966.50

SIDEWALK CONNECTION TO KINGSTON PIKE R.O.W. SIDEWALK TO BE CONSTRUCTED AT ABSOLUTE MAX. 2.0% CROSS SLOPE AND 5.0% RUNNING SLOPE

EX DI
TOP= 970.79
INV= 966.9

SEWER EASEMENT

A2



THE PURPOSE OF THIS SUPPLEMENTAL DRAWING IS TO SHOW GRADING AND DRAINAGE MODIFICATIONS TO THE JOSEPH ARICO PROPERTY

SEE SHEET SD-7 & SD-8 FOR DRAINAGE DETAILS
SEE SHEET SD-4 FOR GRADING AND DRAINAGE NOTES

ACCESSIBLE PARKING SPACES AND STRIPED ACCESS AISLES SHALL NOT SLOPE MORE THAN 2.00 PERCENT IN ANY DIRECTION.

REFER TO PHASE II PLAN SET BY FOR STRIPPING AND COMPACTION SCHEDULE

LEGEND OF SYMBOLS

	PROPERTY LINE
970	EXISTING CONTOURS
970	PROPOSED CONTOURS
	EXISTING STORM PIPE
	PROPOSED STORM PIPE
BC 894.55'	PROPOSED SPOT SHOT AT BOTTOM OF CURB
JB	EXISTING JUNCTION BOX
DI	PROPOSED DROP INLET

Tennessee 811
Know what's below. Call before you dig.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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Supplemental Drawing - Site Grading & Drainage Plan

Kingston Pike Villages

13106, 13110, 13120, 13140 Kingston Pike
Farragut, Tennessee 37934
CLT Map 151, Parcel Nos. 081

ISSUE DATE: 08/11/2025
SITE PROJECT#: 2040
FILE: Grading

SD-3

Tennessee811
Know what's below.
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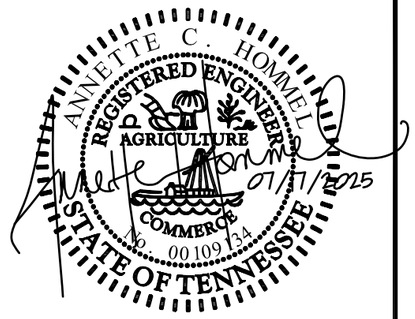

SITE GRADING NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR SHALL RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES AND PAY ALL FEES.
2. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY EXISTING STRUCTURES THAT ARE DAMAGED DURING, AND AS A RESULT OF, CONSTRUCTION. REPAIRS AND/OR REPLACEMENTS SHALL BE MADE AS NECESSARY TO RETURN THE DAMAGED STRUCTURE(S) TO ORIGINAL OR BETTER CONDITION. REPAIRS AND/OR REPLACEMENTS SHALL BE AT THE CONTRACTORS EXPENSE.
3. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
4. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
5. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
6. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PLANS AND SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
7. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
8. CONTRACTOR SHALL ADJUST AND/OR SAW CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
9. TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY GBS ENGINEERING DATED 05/17/2021. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
10. CONTRACTOR SHALL INSPECT, REPAIR, AND CLEAN ALL EXISTING DRAINAGE STRUCTURES AND PIPING. ALL SEDIMENT AND DEBRIS SHALL BE REMOVED.
11. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
12. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6 INCHES ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
13. PRECAST STRUCTURES MAY BE USED AT THE CONTRACTORS OPTION.
14. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
15. MINIMUM COVER FROM TOP OF STORM PIPE TO FINISH GRADE SHALL BE 2 FEET.
16. WATER, SEWER, AND STORM LINES SHALL BE KEPT 10 FEET APART HORIZONTALLY AND 18 INCHES APART VERTICALLY WHEN CROSSING (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE), UNLESS NOTED OTHERWISE.
17. ALL WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EARTHWORK REQUIRED TO PREPARE THE UNCLASSIFIED SITE TO THE LINES AND GRADES AS SHOWN ON PLANS. THIS INCLUDES, BUT IS NOT LIMITED TO, ANY QUANTITY OF IMPORT OR EXPORT OF STRUCTURAL FILL AND/OR DISPOSAL OF UNSUITABLE MATERIAL, AS REQUIRED. ALL COSTS SHALL BE INCLUDED IN OVERALL BASE BID. ALL EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED.

SITE STORM SYSTEM NOTES

HIGH DENSITY POLYETHYLENE PIPE - WATER TIGHT (HDPE-WT)
AASHTO M 252 TYPE S OR SP, M 294 TYPE S OR SP, OR ASTM F 2306 SMOOTH INTERIOR/ANNULAR EXTERIOR.
1. RUBBER GASKET: ASTM F477
2. RUBBER GASKET JOINTS: ASTM 3212
3. CORRUGATED COUPLING BANDS: AS RECOMMENDED BY MANUFACTURER

DEWATERING NOTE:

WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.
REFER TO MASTER SITE SPECIFICATIONS.

ACCESSIBLE PARKING SPACES AND STRIPED ACCESS AISLES SHALL NOT SLOPE MORE THAN 2.00 PERCENT IN ANY DIRECTION.

REFER TO PHASE II PLAN SET BY GBS ENGINEERING FOR STRIPPING AND COMPACTION SCHEDULE

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Supplemental Drawing - Site Grading & Drainage Notes

Kingston Pike Villages

13106, 13110, 13120, 13140 Kingston Pike
Farragut, Tennessee 37934
CLT Map 151, Parcel Nos. 081

ISSUE DATE: 07/17/2025
SITE PROJECT#: 2040
FILE: Grading

SD-4

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GRAPHIC SCALE

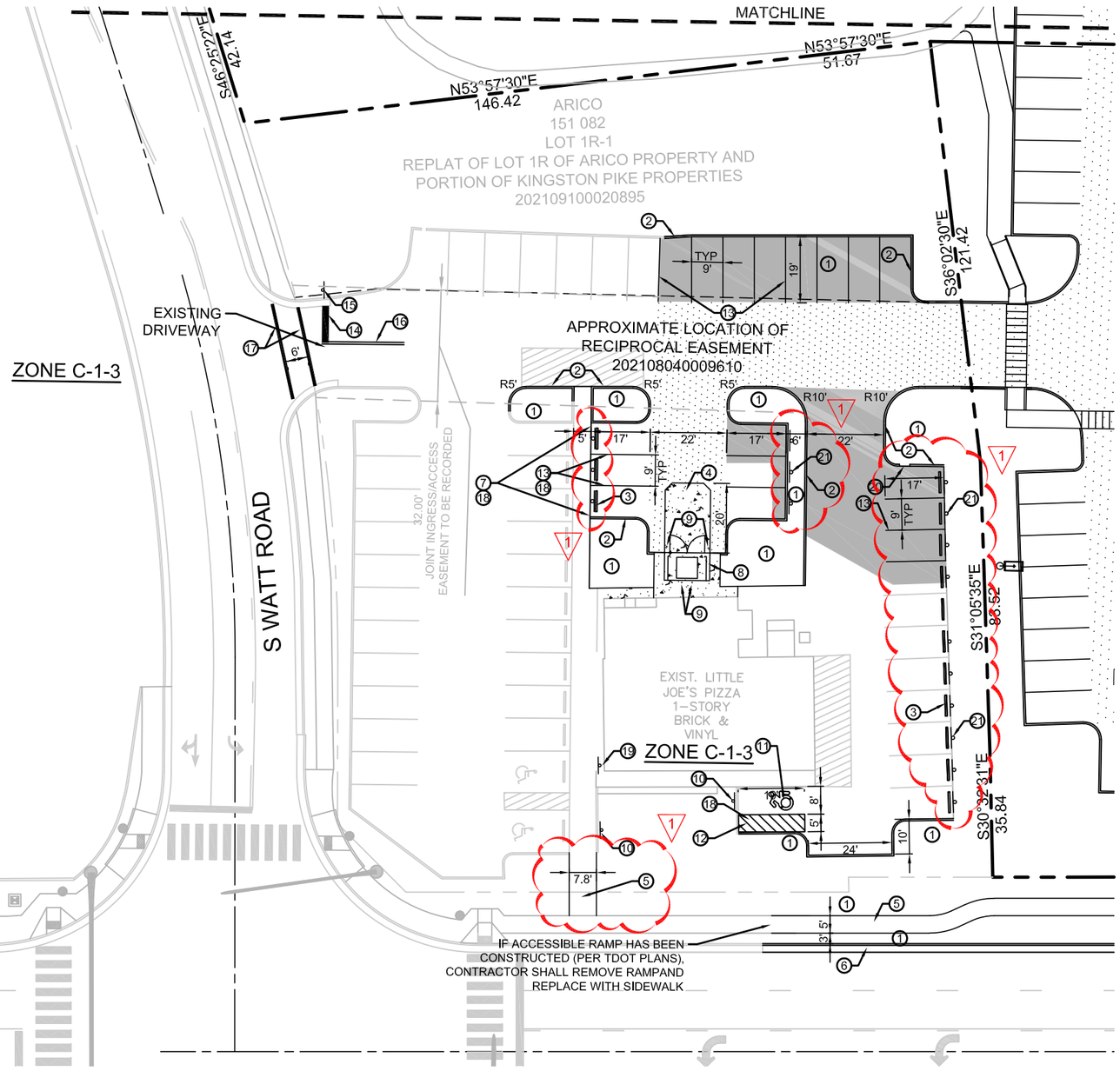
30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

THE PURPOSE OF THIS SUPPLEMENTAL DRAWING IS TO SHOW PARKING LOT MODIFICATIONS TO THE JOSEPH ARICO PROPERTY

SEE SHEET SD-9 & SD-10 FOR DRAINAGE DETAILS
SEE SHEET SD-6 FOR GRADING AND DRAINAGE NOTES

ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00109134
STATE OF TENNESSEE
08/11/2025



LEGEND:

1. LANDSCAPE AREA/ISLAND
2. EXTRUDED CONCRETE CURB (SEE DETAIL SHEET)
3. CONCRETE WHEEL STOP (SEE DETAIL SHEET)
4. HEAVY DUTY CONCRETE PAD AT ASPHALT (SEE DETAIL SHEET)
5. CONCRETE SIDEWALK PER TDOT STANDARD DETAIL MM-SW-1 (SEE DETAIL SHEET)
6. 6-30 VERTICAL CONCRETE CURB AND GUTTER PER TDOT STANDARD DETAIL RP-VC-10 (SEE DETAIL SHEET)
7. 4" WIDE PAINT STRIPE
8. DUMPSTER ENCLOSURE (SEE ARCHITECTURAL PLANS)
9. PIPE BOLLARD (SEE DETAIL SHEET)
10. ACCESSIBLE PARKING SIGN (SEE DETAIL SHEET)
11. HANDICAP SPACE WITH PAINTED ACCESSIBLE SYMBOL (SEE DETAIL SHEET)
12. 4" WIDE DIAGONAL PAINT STRIPES AT 2'-0" O.C.
13. 4" WIDE WHITE PAINTED PARKING STRIPES
14. THERMOPLASTIC STOP BAR (SEE DETAIL SHEET)
15. STOP SIGN (SEE DETAIL SHEET)
16. DOUBLE SOLID YELLOW LINE
17. THERMOPLASTIC TRANSVERSE CROSSWALK WITH 12" WIDE STRIPES WITH 6' CLEARANCE BETWEEN STRIPES
18. BLACK-OUT EXISTING STRIP(S)
19. ACCESSIBLE PARKING SIGN WITH VAN ACCESSIBLE PLAQUE (SEE DETAIL SHEET)
20. 3' WIDE CURB BREAK FOR STORMWATER FLOW
21. "COMPACT PARKING ONLY" SIGN (TYP @ SPACES LESS THAN 19' IN LENGTH)

PAVING MATERIALS LEGEND - REFER TO SUPPLEMENTAL DRAWING SD-6 FOR PAVING SECTIONS

LIGHT DUTY ASPHALT
HEAVY DUTY ASPHALT
HEAVY DUTY CONCRETE

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Supplemental Drawing - Site Layout Plan

Kingston Pike Village

13106, 13110, 13120, 13140 Kingston Pike
Farragut, Tennessee 37934
CLT Map 151, Parcel No. 081

ISSUE DATE: 08/11/2025
SITE PROJECT#: 2040
FILE: Layout

SD-5

SITE PAVING NOTES

PAVING ELEVATION TOLERANCE
FINAL SUBGRADE SHALL BE INSPECTED BY PAVING CONTRACTOR FOR REQUIRED ELEVATION AND ADEQUATE COMPACTION BEFORE COMMENCING ANY PAVING ACTIVITY. PAVING ELEVATION SHALL NOT HAVE MORE THAN $\frac{1}{4}$"DEVIATION IN ANY 10' INCREMENT.

PAVING THICKNESS TOLERANCE
PAVING THICKNESS AT ANY ONE CORE SHALL NOT BE LESS THAN 90% OF SPECIFIED THICKNESS. THE AVERAGE OF ALL APPROVED TESTS MUST BE AT LEAST EQUAL TO THE SPECIFIED THICKNESS FOR EACH MATERIAL. NOT MORE THAN 20% OF ALL APPROVED TEST MAY FALL BELOW SPECIFIED MINIMUMS. ANY AREA FOUND TO BE LESS THAN 90% SPECIFIED THICKNESS SHALL BE OVERLAIN WITH ASPHALT AS DIRECTED BY SITE, INC.

TESTING DURING PLACEMENT
GENERAL CONTRACTOR SHALL PERFORM SEVERAL SPOT CHECKS OF PAVING BASE THICKNESS PRIOR TO INSTALLATION OF ANY ASPHALTIC OR CONCRETE PAVING. DENSITY TESTS SHALL BE PERFORMED ON EACH LIFT AT THE RATE OF ONE TEST PER 10,000 SQUARE FEET.

CONTRACTOR SHALL PROVIDE FOR TESTING OF COMPLETED PAVING INSTALLATION FOR COMPLIANCE WITH DESIGN CRITERIA AND REQUIRED THICKNESS. CONTRACTOR SHALL REPLACE ALL NON-CONFORMING MATERIAL AT HIS OWN EXPENSE.

TESTING SHALL BE PERFORMED ONLY BY AN INDEPENDENT TESTING AGENT APPROVED BY SITE, INC. TEST HOLES NOT SPOTTED BY SITE, INC. MAY NOT BE CONSIDERED ACCEPTABLE.

ALLOW A MINIMUM OF SIXTEEN CORE TESTS TO BE LOCATED ONLY BY WRITTEN INSTRUCTION BY SITE, INC.

THE PAVING CONTRACTOR SHALL REPAIR ALL CORING HOLES BY FILLING HOLES WITH CONCRETE FLUSH TO TOP OF PAVEMENT.

ASPHALTIC PAVING MATERIALS
MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE SPECIFICATION OF THE HIGHWAY DEPARTMENT OF THE STATE IN WHICH THE PROJECT IS LOCATED. REFER TO PAVING MATERIALS LEGEND.

CONCRETE
CONCRETE CURBING SHALL BE 4000 PSI 28 DAY STRENGTH 2" - 3" SLUMP, (NO CURB DEFORMATION) 3% - 5% AIR ENTRAINED. INSTALL WITH RC-70 TACK COAT EMULSION OVER ASPHALT.

PROVIDE CYLINDER BREAK TEST - 3/500 L.F. OF CURBING OR 1-DAY POUR WITH BREAKS - 1 @ 7-DAYS, 2 @ 28-DAYS. COMPLY WITH ASTM C-31 AND ASTM C-39. ALSO PROVIDE ONE SLUMP TEST PER 500 L.F. OF CURBING OR 1-DAY POUR.

PROVIDE EXPANSION JOINT @ 50' O.C. (MAX) AND CONTROL JOINTS @ 20' O.C. (MAX) AT ALL CONCRETE PAVING AREAS. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

PAVEMENT MARKING
PROVIDE PAVEMENT MARKING AS SHOWN ON THE DRAWINGS. STRIPING SHALL BE 4" WIDE OR AS NOTED OTHERWISE ON THE PLANS. ALL MARKINGS SHALL MEET THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, MARCH 1, 2006 (SECTION 918.23).

CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT MARKINGS THAT DO NOT CONFORM TO TDOT STANDARDS FOR MODIFIED INTERSECTION.

TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS BEFORE DARK HOURS. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED.

ALL MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE MUTCD AND TDOT STANDARD DRAWINGS T-M-1 THROUGH T-M-4.

PAVING MATERIALS SCHEDULE

MATERIAL	THICKNESS	TYPE
HEAVY DUTY CONCRETE PAVING		
AGGREGATE BASE COURSE	6"	TDOT TYPE A, CLASS A & GRADING D
CONCRETE	8"	PCC 4000 PSI TYPE I WITH BASF MASTERFIBER M35 REINFORCEMENT AT DOSAGE RATE OF 0.5 LB/CY
LIGHT DUTY ASPHALT PAVING		
AGGREGATE BASE COURSE LIFT 1*	3"	TDOT TYPE A, CLASS A & GRADING D
AGGREGATE BASE COURSE LIFT 2*	3"	TDOT TYPE A, CLASS A & GRADING D
ASPHALTIC BINDER**	2"	TDOT GRADING B
ASPHALTIC SURFACE***	1.5"	TDOT GRADING E
TRACKLESS TACK COAT	0.05 - 0.10 GAL PER SQ. YD.	
HEAVY DUTY ASPHALT PAVING		
AGGREGATE BASE COURSE LIFT 1*	4"	TDOT TYPE A, CLASS A & GRADING D
AGGREGATE BASE COURSE LIFT 2*	4"	TDOT TYPE A, CLASS A & GRADING D
ASPHALTIC BINDER**	3"	TDOT GRADING B
ASPHALTIC SURFACE***	1.5"	TDOT GRADING E
TRACKLESS TACK COAT	0.05 - 0.10 GAL PER SQ. YD.	

*REFER TO TDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", SECTION 903.05
**REFER TO TDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", SECTION 307
***REFER TO TDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", SECTION 411

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ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00109134
STATE OF TENNESSEE
07/17/2025

PROPERTY DATA:

LOT AREA:	1 ACRE
ZONING:	C-1

VEHICULAR PARKING ANALYSIS

GROSS FLOOR AREA (LITTLE JOE'S PIZZA)	2,620± SF
REQUIRED PARKING (10 PER 1000 GROSS SQ FT)	26 SPACES
TOTAL STANDARD SPACES PROVIDED:	51 SPACES
TOTAL ACCESSIBLE SPACES PROVIDED:	3 SPACES
TOTAL SPACES PROVIDED:	54 SPACES

SITE PLAN NOTES:

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL TOWN/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. ALL DISTURBED AREAS NOT BUILT NOR PAVED UPON ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
3. ALL DIMENSIONS AND RADII ARE TO FACE OF CURB UNLESS OTHERWISE NOTED WITH AN *. ALL DIMENSIONS NOTED WITH AN * ARE BACK OF CURB TO BACK OF CURB.
4. ALL CURBED RADII ARE TO BE 4' UNLESS NOTED OTHERWISE.
5. EXISTING STRUCTURES WITHIN THE CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED, OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO ALL UTILITIES, STORM DRAINAGE, SIGNS, FENCING, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
7. SITE BOUNDARY , TOPOGRAPHY, UTILITY AND ROAD INFORMATION WAS TAKEN FROM PLANS BY GBS ENGINEERING DATED 5/17/2021. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT THE OWNER FOR REVIEW.
8. THE SITEWORK FOR THIS PROJECT SHALL MEET OR EXCEED THE SITE WORK SPECIFICATIONS. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.

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Supplemental Drawing - Site Layout Notes

Kingston Pike Village
13106, 13110, 13120, 13140 Kingston Pike
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CLT Map 151, Parcel No. 081

ISSUE DATE: 07/17/2025
SITE PROJECT#: 2040
FILE: Layout

SD-6

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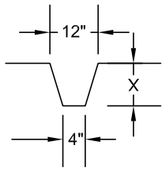
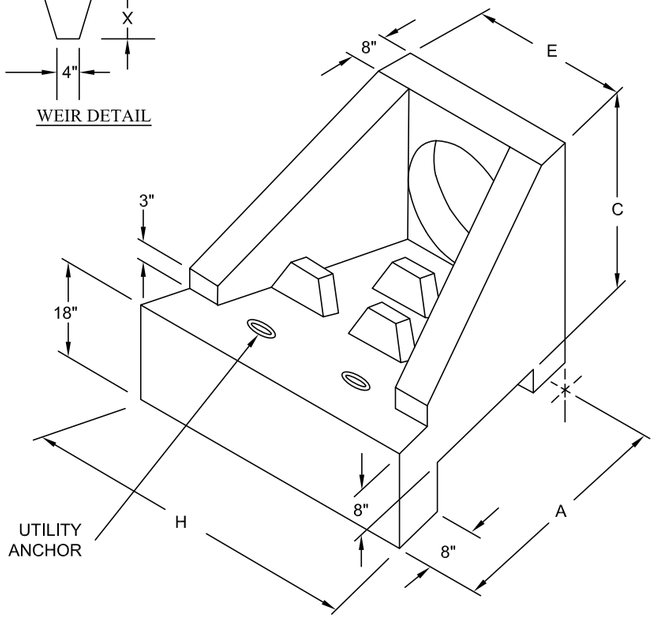
GENERAL NOTES:

1. CONCRETE 4800 P.S.I. @28 DAYS.
2. 2" WIN. CONCRETE COVERAGE.
3. REIF. - #4 REBAR 12" C.C. EA. WAY.
4. HOLE SIZE - PIPE O.D. +3".
5. ¾" CHAMFER OR ROUND ON ALL EXPOSED EDGES.



WEIR DETAIL



DIMENSION						
PIPE DIA.	A	C	E	H	X	WEIGHT
12"	4'-0"	2'-8"	2'-9"	4'-9"	12"	3.037#
15"	4'-0"	2'-8"	2'-9"	4'-9"	13½"	3.037#
18"	4'-0"	2'-11"	3'-0"	5'-3"	15"	3.766#
24"	5'-6"	3'-5"	3'-6"	6'-6"	18"	5.467#

PRE-CAST ENERGY DISSIPATOR HEADWALL

N.T.S.

MATERIALS

A. CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED REQUIREMENTS OF THIS SECTION AND APPLICABLE STATE HIGHWAY DEPARTMENT SPECIFICATIONS SECTION(S) REFERRED TO OR NOTED ON THE CONSTRUCTION DRAWINGS WHICH PERTAIN TO PAVING BASE COURSE DESIGN, MATERIALS, PREPARATION, AND EXECUTION. MATERIALS SHALL BE AS INDICATED IN THE CONSTRUCTION DOCUMENTS AND SHALL COMPLY WITH STATE HIGHWAY DEPARTMENT SPECIFICATIONS REGARDING SOURCE, QUALITY, GRADATION, SOUNDNESS, ABSORPTION, LIQUID LIMIT, PLASTICITY INDEX, AND MIX PROPORTIONING.

B. SOIL MATERIALS
1. CLASS II: COARSE-GRAINED SOILS; CONFORMING TO ASTM D2487 GROUP SYMBOL, GW, GP, SW AND SP.
2. CLASS III: COARSE-GRAINED SOILS WITH FINES; CONFORMING TO ASTM D2487 SYMBOL GM, GC, SM AND SC.
3. CLASS IV-A: FINE-GRAINED SOILS (INORGANIC); CONFORMING TO ASTM D2487 GROUP SYMBOL ML AND CL.
4. CLASS IV-B: FINE GRAINED SOILS (INORGANIC); CONFORMING TO ASTM D2487 GROUP SYMBOL MH AND CH.
5. CLASS V: ORGANIC SOILS; CONFORMING TO ASTM D2487 GROUP SYMBOL OL, OH, AND PT.

C. AGGREGATE MATERIAL
1. COARSE AGGREGATE TYPE A1: MATERIAL SHALL BE SOUND CRUSHED LIMESTONE, CRUSHED SLAG, GRANULATED SLAG, CRUSHED GRAVEL, OR OTHER TYPES OF SUITABLE MATERIAL MEETING THE REQUIREMENTS OF THIS SECTION. CRUSHED LIMESTONE, CRUSHED SLAG AND CRUSHED GRAVEL SHALL MEET THE FOLLOWING GRADING REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
1 1/2 INCHES	100
1 INCH	75-100
3/4 INCH	60-100
3/8 INCH	35-75
NO. 4	30-60
NO. 30	7-30
NO. 200	0-5

2. COARSE AGGREGATE TYPE A2: MATERIAL SHALL BE CRUSHED CARBONATE, CRUSHED GRAVEL, CRUSHED AIR-COOLED SLAG, GRANULATED SLAG, A MIXTURE OF CRUSHED AND GRANULATED SLAG, OR OTHER TYPES OF SUITABLE MATERIAL MEETING THE REQUIREMENTS OF THIS ITEM. CRUSHED CARBONATE STONE OR MIXTURES OF CRUSHED AND GRANULATED SLAGS SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
2 INCHES	100
1 INCH	70-100
3/4 INCH	50-90
NO. 4	30-60
NO. 30	7-30
NO. 200	0-5

3. AGGREGATE TYPE A3: PEA GRAVEL - NATURAL STONE; WASHED, FREE OF CLAY, SHALE, ORGANIC MATTER; GRADED IN ACCORDANCE WITH ASTM C136 AND D2487; TO THE FOLLOWING LIMITS:
A. MINIMUM SIZE: 1/4 INCH
B. MAXIMUM SIZE: 5/8 INCH

4. FINE AGGREGATE TYPE A4: SAND - NATURAL RIVER OR BANK SAND; WASHED; FREE OF SILT, CLAY, LOAM, FRIABLE OR SOLUBLE MATERIALS, AND ORGANIC MATTER; GRADED IN ACCORDANCE WITH ASTM C136 AND D2487; WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	PERCENT PASSING
NO. 4	90-100
NO. 50	7-40
NO. 200	0-5

5. CLASS I-A: MATERIAL SHALL BE SOUND CRUSHED LIMESTONE, CRUSHED SLAG, GRANULATED SLAG, CRUSHED GRAVEL, OR OTHER TYPES OF SUITABLE MATERIAL MEETING THE REQUIREMENTS OF THIS ITEM. CRUSHED LIMESTONE, CRUSHED SLAG AND CRUSHED GRAVEL SHALL MEET THE FOLLOWING GRADING REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
1-1/2 INCHES	100
NO. 4	< 10
NO. 200	< 5

6. CLASS I-B: MATERIAL SHALL BE CRUSHED CARBONATE, CRUSHED GRAVEL, CRUSHED AIR-COOLED SLAG, GRANULATED SLAG, A MIXTURE OF CRUSHED AND GRANULATED SLAG, OR OTHER TYPES OF SUITABLE MATERIAL MEETING THE REQUIREMENTS OF THIS ITEM. CRUSHED CARBONATE STONE OR MIXTURES OF CRUSHED AND GRANULATED SLAGS SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
1-1/2 INCHES	100
NO. 4	< 50
NO. 200	< 5

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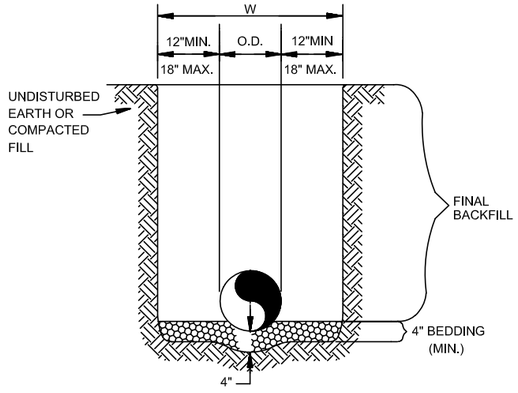
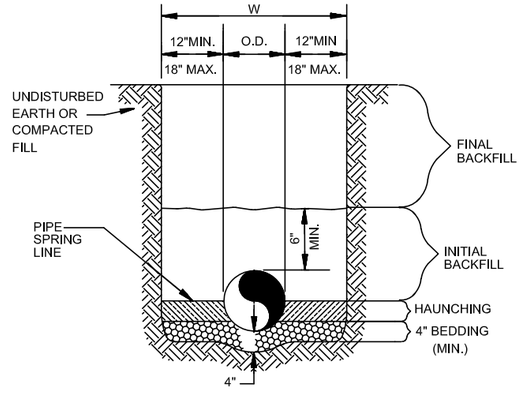


REINFORCED CONCRETE PIPE (RCP)

N.T.S.



ALL OTHER PIPES INCLUDING SPIRAL RIB

N.T.S.

GENERAL NOTES

1. BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. AND 4.
6. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-LATEST EDITION.
8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)

STORM SEWER TRENCH & BEDDING

N.T.S.

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FILE: Details

SD-7

GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER
2. ALL REINFORCING BARS TO HAVE 2" COVER.
3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF BOX.
5. ALL REINFORCING BARS TO BE GRADE 60.
6. PRECAST MANHOLE MAY BE USED UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER.

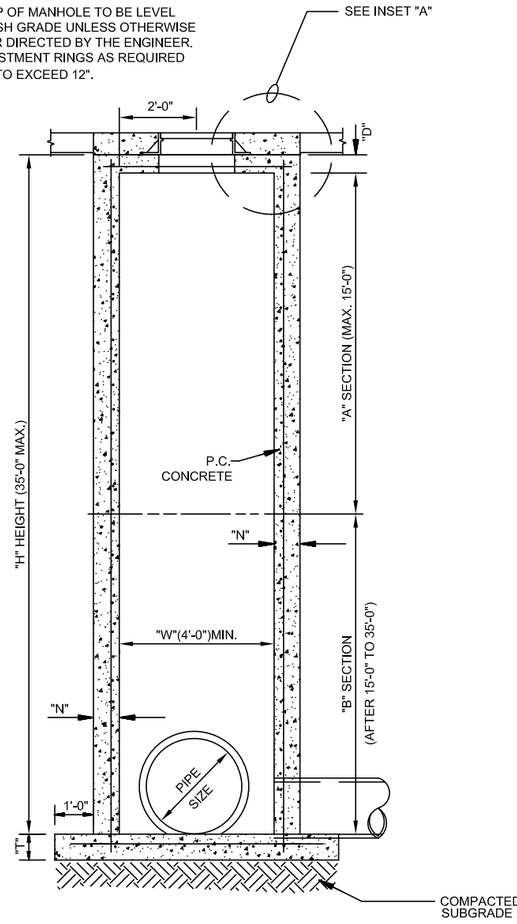
PRECAST MANHOLE SPECIFICATIONS

ASTM C478
CONCRETE: 4000 PSI AE (MIN.)
JOINT: WATERTIGHT RUBBER GASKET

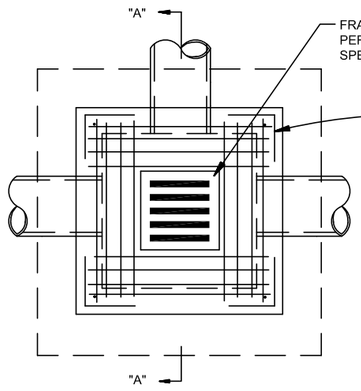
"NO DUMPING - DRAINS TO RIVER" SHALL BE CAST INTO COVER

FRAME & COVER PER SITEWORK SPECIFICATIONS

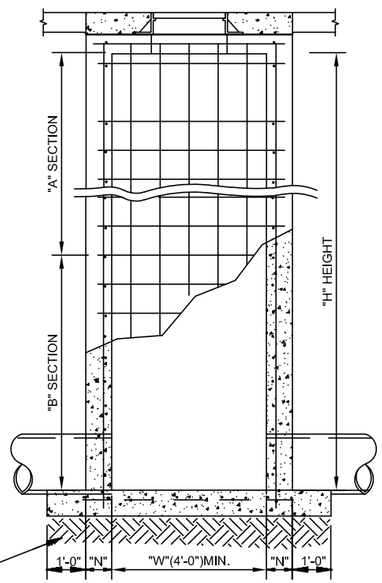
NOTE: TOP OF MANHOLE TO BE LEVEL WITH FINISH GRADE UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER. USE ADJUSTMENT RINGS AS REQUIRED BUT NOT TO EXCEED 12".



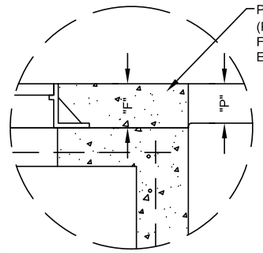
SECTION "A"-"A"



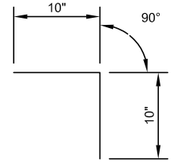
PLAN



ELEVATION



INSET "A"



CORNER BAR

REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4's @ 6" E.W.
"B"	#6's @ 6" E.W.

TABLE OF 'W' DIMENSIONS			
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIGHT	30°	45°
_24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-8"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-8"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4's @ 9"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"
"B"	4'	#4's @ 6"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 6"	#4's @ 10"

TABLE OF "T" & "N" DIMENSIONS				
SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"
"B"	4'	6" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	6" + PIPE THICKNESS	10"	8"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4'S @ 6" E.W.	DIAGONAL @ COVER
W1 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER

GRATE INLET
N.T.S.

ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00109134
STATE OF TENNESSEE
07/17/2025

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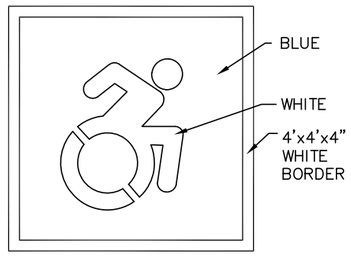
Supplemental Drawing - Site Details

Kingston Pike Village

13106, 13110, 13120, 13140 Kingston Pike
Farragut, Tennessee 37934
CLT Map 151, Parcel No. 081

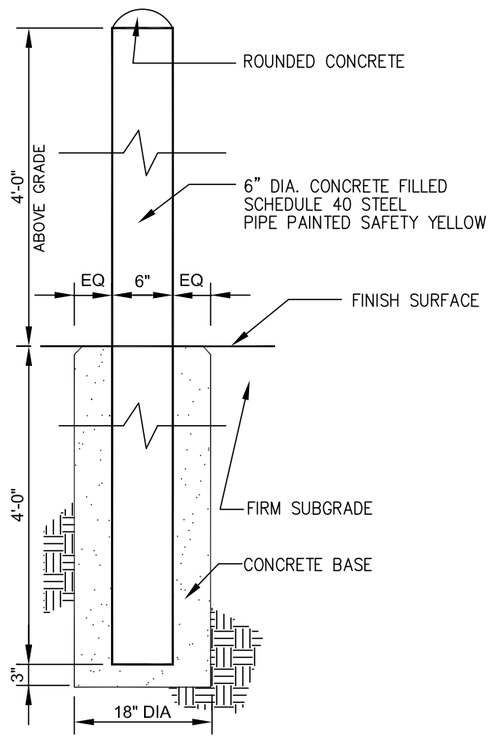
ISSUE DATE: 07/17/2025
SITE PROJECT#: 2040
FILE: Details

SD-8



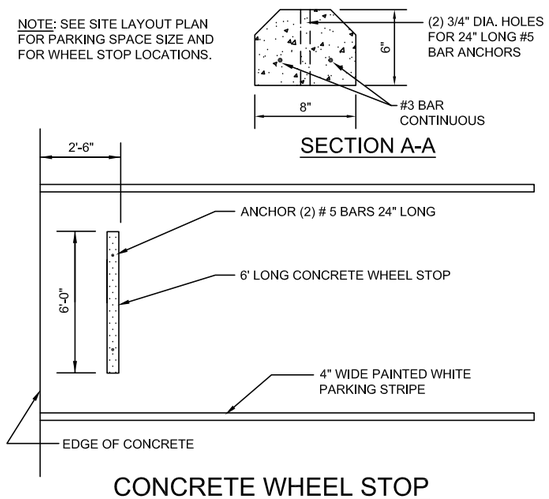
PAINTED ACCESSIBLE PARKING SYMBOL

N.T.S.



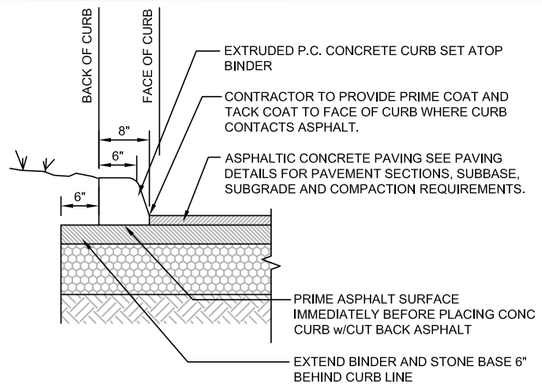
BOLLARD

N.T.S.



CONCRETE WHEEL STOP

N.T.S.

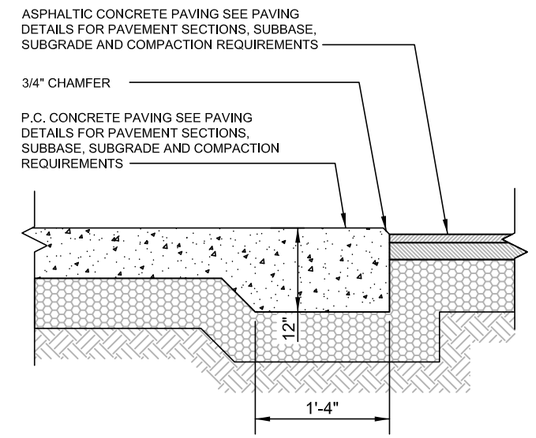


PROVIDE A 1/2" PREMOLDED EXPANSION JOINT AT TANGENT POINTS OF CIRCULAR CURB, BETWEEN CURB AND ABUTTING RIGID OBJECTS, AT A MAXIMUM SPACING OF 100 FEET, AND AT OTHER PLACES WHERE STRESSES MAY DEVELOP.

PROVIDE CONTRACTION JOINTS AT 10' O.C.

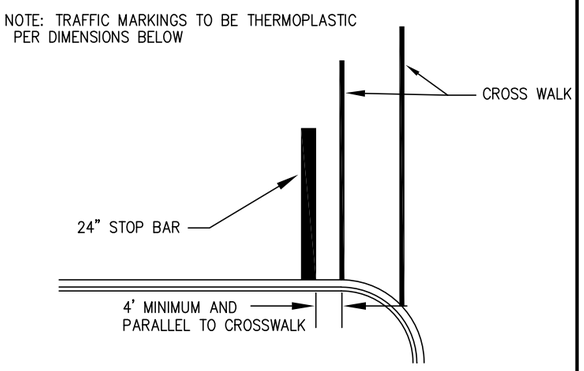
8" EXTRUDED CURB ON BINDER

N.T.S.



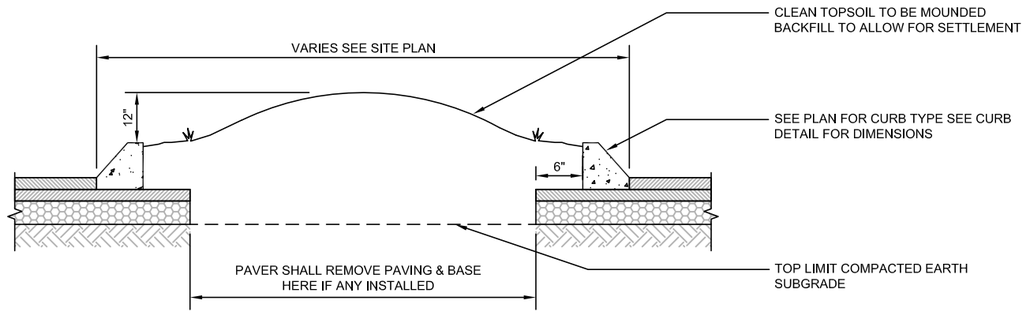
HEAVY DUTY CONCRETE PAD AT ASPHALT

N.T.S.



STOP BAR & CROSSWALK MARKINGS

N.T.S.



LANDSCAPE ISLAND WITH EXTRUDED CURB

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Supplemental Drawing - Site Details

Kingston Pike Village

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CLT Map 151, Parcel No. 081

ISSUE DATE: 07/17/2025
SITE PROJECT#: 2040
FILE: Details

SD-9



SIGNS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MUTCD, TENNESSEE CODE ANNOTATED, AND THE CITY OF KNOXVILLE, TN

R7-8
GREEN LEGEND
WHITE SYMBOL ON BLUE
ON WHITE BACKGROUND
TYPICAL AT ALL ACCESSIBLE
PARKING SPACES

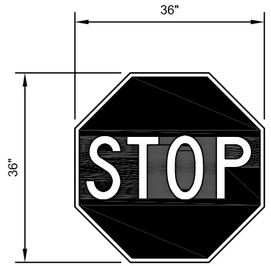
PENALTY INFORMATION

CONTRACTOR SHALL COORDINATE TOWING INFORMATION WITH PROPERTY OWNER PRIOR TO ORDERING SIGNS

R7-8P
GREEN LEGEND
ON WHITE BACKGROUND
TYPICAL AT ALL VAN
ACCESSIBLE PARKING
SPACES

ACCESSIBLE PARKING SIGN

N.T.S.



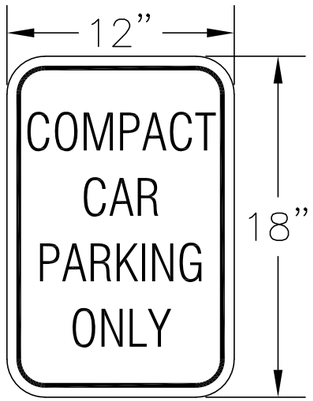
RETROREFLECTIVE WITH WHITE LEGEND AND RED BACKGROUND

R1-1

"STOP" SIGN

N.T.S.

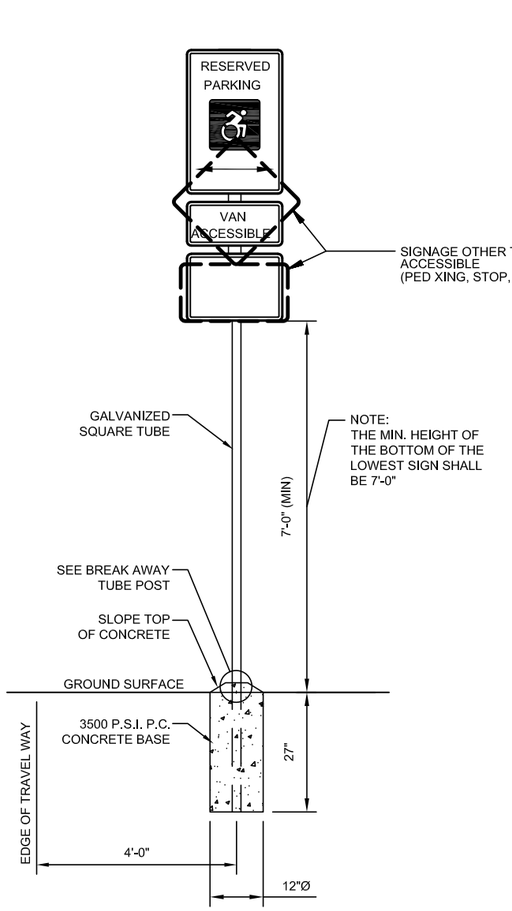
1

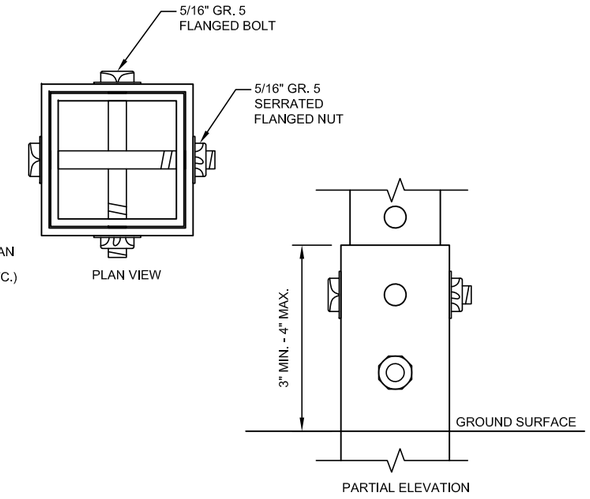


GREEN LEGEND WHITE BACKGROUND

"COMPACT CAR PARKING" SIGN

N.T.S.





SQUARE TUBE BREAK AWAY POST

N.T.S.

NOTES:
1. ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. GALVANIZED SQUARE TUBE

   POST TUBES - 2"x2"x3/16" 14ga
   POST TUBE SHALL MEET ASTM A1011 GRADE 50.
   POST TUBE GALVANIZED AS PER ASTM A653 GRADE 90.

   ANCHOR TUBE - 2-1/4"x2-1/4"x3/16" 14ga
   HEAVY DUTY ANCHOR TUBE SHALL MEET ASTM A500 GRADE B.
   STRUCTURAL TUBE AND STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123.

   THE UPPER SIGN POST SHALL TELESCOPE INSIDE THE ANCHOR TUBE A MINIMUM OF 12". THE ANCHOR TUBE SHALL BE A MINIMUM 27" DEEP WITH 3" MIN. 4" MAX. EXPOSED ABOVE FINISH GRADE.

SIGN MOUNTING AND BASE WITHOUT BOLLARD
(USE WHERE SIGN IS WITHIN CURBED ISLAND OR LANDSCAPE AREA)

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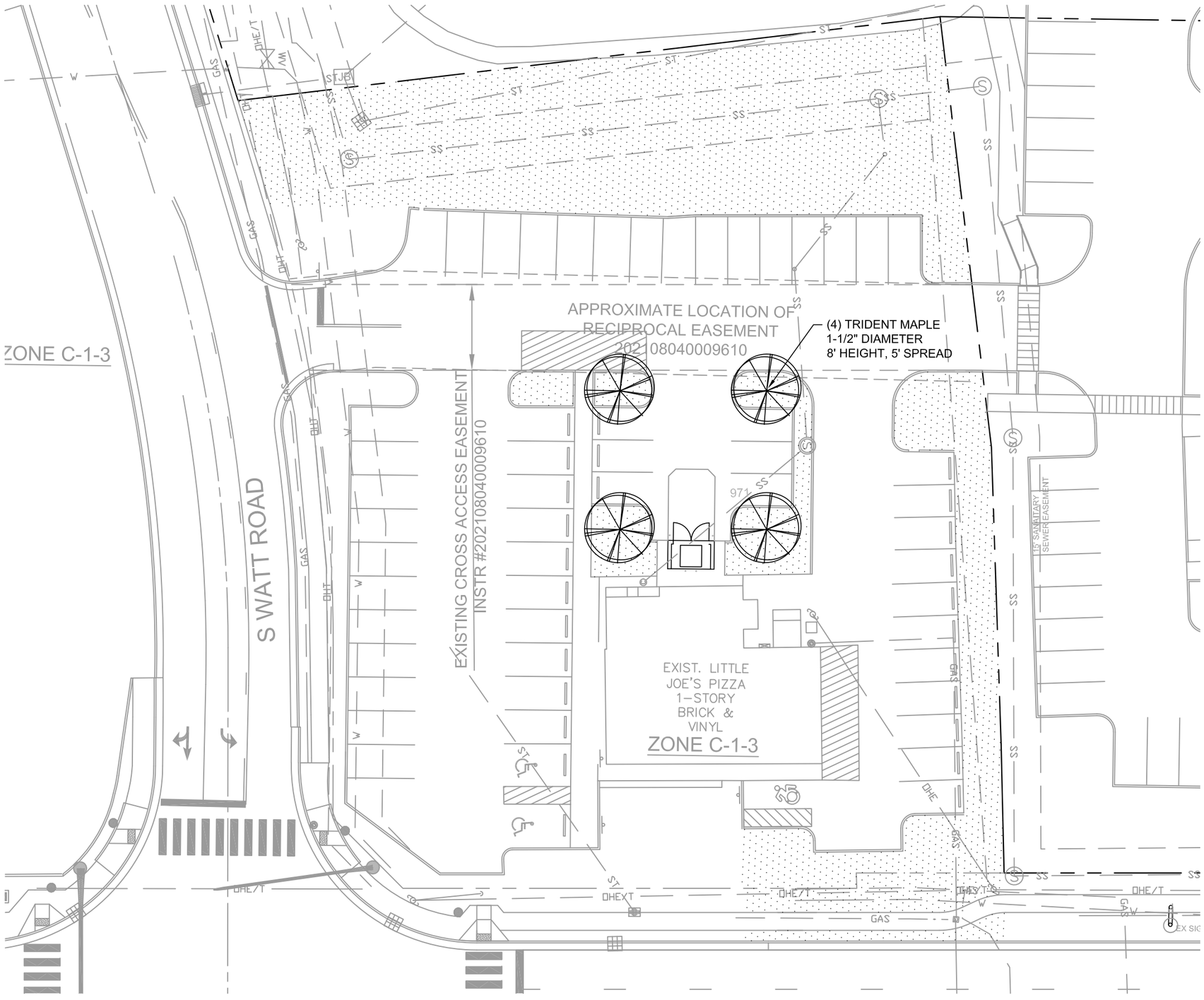
Supplemental Drawing - Site Details

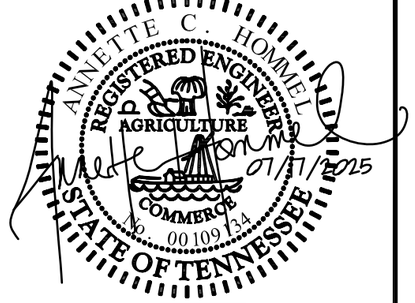
Kingston Pike Village

13106, 13110, 13120, 13140 Kingston Pike
Farragut, Tennessee 37934
CLT Map 151, Parcel No. 081

ISSUE DATE: 08/11/2025
SITE PROJECT#: 2040
FILE: Details

SD-10





THE PURPOSE OF THIS SUPPLEMENTAL DRAWING IS TO SHOW LANDSCAPE MODIFICATIONS TO THE JOSEPH ARICO PROPERTY

THERE IS NO NET INCREASE IN IMPERVIOUS AREA FOR THE JOSEPH ARICO PROPERTY

SEE SHEET SD-12 FOR PLANTING DETAILS AND NOTES

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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Supplemental Drawing - Landscape Plan

Kingston Pike Villages

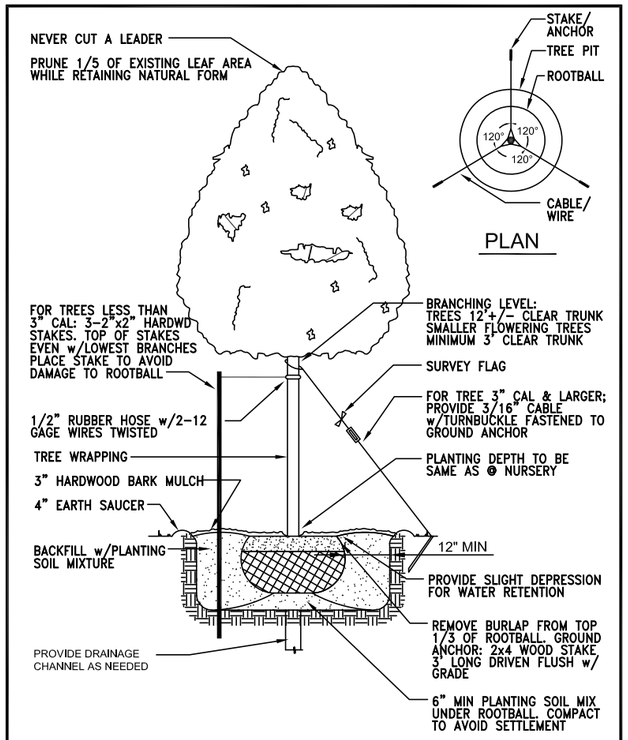
13106, 13110, 13120, 13140 Kingston Pike
Farragut, Tennessee 37934
CLT Map 151, Parcel Nos. 081

ISSUE DATE: 07/17/2025
SITE PROJECT#: 2040
FILE: Landscape

SD-11

LANDSCAPE NOTES:

1. ALL DISTURBED AREAS NOT TO BE PAVED OR BUILT UPON ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL.
2. ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE.
3. ALL PLANT MATERIAL SHALL BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
4. ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD AND MEET ALL REQUIREMENTS SPECIFIED.
5. ALL MATERIALS ARE SUBJECT TO THE APPROVAL OF THE OWNER BEFORE, DURING, AND AFTER INSTALLATION.
6. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
7. ALL PLANTING AREAS SHALL BE COMPLETELY MULCHED AS SPECIFIED.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1.) TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA 2.) TO PROTECT OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD 3.) TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY MAINTAINING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, ETC.) ALL OF THE PLANT MATERIALS AND LAWN UNTIL FINAL ACCEPTANCE OF WORK.
12. ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, DEAD, OR REJECTED (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.
13. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF 12 MONTHS AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE OF WORK. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS DURING THE NORMAL PLANTING SEASON.
14. AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF SHALL BE ACCLIMATED FOR TWO (2) WEEKS UNDER A MIST SYSTEM PRIOR TO INSTALLATION.
15. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
16. WHERE SHOWN ON THE PLANS AND DETAILS, PLANTING BEDS ARE TO BE COMPLETELY COVERED WITH A HARDWOOD BARK MULCH FROM A LOCAL SOURCE HARVESTED IN A SUSTAINABLE MANNER TO A MINIMUM DEPTH OF THREE INCHES.
17. REFER TO PROJECT SPECIFICATIONS FOR INFORMATION NEEDED FOR IMPLEMENTATION OF PLANTING PLANS.
18. WEED MAT IS REQUIRED IN MULCHED LANDSCAPED BEDS AS SPECIFIED.
19. ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
20. THIS PLAN IS TO BE IMPLEMENTED COOPERATIVELY WITH SWPPP PLAN, AS NEEDED, TO MAXIMIZE THE EFFECTIVENESS OF THE SWPPP PLAN FOR THIS SITE.
21. THE CONTRACTOR IS ENCOURAGED TO COMPLETE TEMPORARY OR PERMANENT SEEDING OR SODDING IN STAGES FOR SOIL STABILIZATION AS AREAS ARE COMPLETED AFTER GRADING.
22. THIS PLAN DOES NOT PRESENT ANY TEMPORARY STABILIZATION REQUIRED AS PART OF SWPPP PLAN.
23. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ANY AND ALL REQUIRED SUBMITTALS TO THE TOWN OF FARRAGUT.
24. THIS LANDSCAPE PLAN REFLECTS AND IS CONSISTENT WITH THE REMAINING PLAN SHEETS ASSOCIATED WITH THIS PROJECT.
25. BASED ON AVAILABLE INFORMATION, PROPOSED PLANT MATERIALS WILL NOT INTERFERE WITH ANY EXISTING OR PROPOSED UTILITIES.
26. THE SUBJECT PROPERTY IS ZONED C-1.
27. THERE ARE NO SLOPES STEEPER THAN 3:1 ON THIS SITE.



TREE PLANTING DETAIL

N.T.S.

ANNETTE C. HOMMEL
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 00109734
STATE OF TENNESSEE
07/17/2025

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CLT MAP: 151
PARCEL: 082
ZONE: C-1

PERMANENT GRASSING SCHEDULE:

GRASS SEED SHALL BE AS FOLLOWS:

FEB-NOV.	TALL FESCUE BLEND	6 LB/1000 SF
	ANNUAL RYE	1 LB/1000 SF
SOD:.	TALL FESCUE BLEND	
LIME:.		150 LB/1000 SF
FERTILIZER:.	10/10/10	20 LB/1000 SF
PHOSPHORUS:. .	20% SUPERPHOSPHATE	500-800 LB/ACRE
MULCH:	STRAW	75 LB/1000 SF
	(CRIMPED) EROSION CONTROL NET OR MULCH BINDER ON SLOPES.	

	MIN.SEED PURITY	MIN. GERM.	MAX. WEED
TALL FESCUE. . . .	95%	85%	0.1%
ANNUAL RYE.	95%	90%	0.1%

- PLANTING SHALL BE COMPLETE ON ALL AREAS NOT RECEIVE PAVING OR BE BUILT UPON WITHIN 14 WORKING DAYS OF COMPLETION OF GRADING. AREAS STEEPER THAN 3H:1V SHALL BE PLANTED NOT LATER THAN 7 DAYS AFTER COMPLETION OF GRADING.
- ALL LIME & FERTILIZER AMOUNTS SHOWN IN THE PHOSPHORUS SECTION ABOVE ARE MINIMUM AND SHALL BE VERIFIED AFTER SOIL ANALYSIS IS ACCOMPLISHED.

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Supplemental Drawing - Landscape Details

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CLT Map 151, Parcel Nos. 081

ISSUE DATE: 07/17/2025
SITE PROJECT#: 2040
FILE: Landscape

SD-12

Agenda Number: IV.J. **Meeting Date: August 21, 2025**

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Discussion and public hearing on approval of a site plan for 7 Brew Coffee, 11495 Parkside Drive, Zoned Regional Commercial (C-2), (Black Design Architecture, Applicant)

Introduction & Background: This item involves a request for approval of a site plan for a proposed 7Brew Coffee building and parking lot modifications within an existing portion of the parking lot just west of the PGA Superstore along Parkside Drive.

Discussion & Recommendations: As shown on the site plan set included in the packet, the project will involve demolition of a portion of the parking lot west of the PGA Superstore. The new layout will include three drive-thru lanes along the west side of the 7Brew building, which is 522 square feet. The two lanes closest to the building will be the primary service lanes. The outer lane will be for pass through traffic and additional service during busy times. The project will decrease the overall amount of lot coverage and provide more landscaped areas than is currently on site.

Along with the site plan set, there are images of what the general building form, drive-thru lanes, and lighting typically look like. The building that is associated with this project is mostly brick. A completed design review checklist is included in the packet. A question that was discussed at the staff/developer meeting on August 5 was the color of the building roof and drive-thru canopy. The applicant was asked to provide a color consistent with one of the colors in the Town's adopted color palette. The applicant will be bringing a color and materials board to the meeting. Color elevations and other images of existing buildings are included in the packet. These show both the building's colors and the LED lighting band along the roofline as seen at night. The lights under the drive-thru canopy will be recessed into the canopy and the light source will not protrude below the bottom of the canopy. The pictures in the packet were taken at angles that make the lighting appear to be protruding below the bottom of the canopy. This will

not be the case.

The staff recommends approval of the site plan subject to the following conditions:

1. In the final site plan set, please include the building elevation sheets and all exterior lighting cut sheets and information is included with the remainder of the site plan so that all site-related information is in one set.
2. Please more clearly show each lighting fixture cut sheet and how it will meet the Town's Outdoor Site Lighting requirements.
3. The Planning Commission's approval of the appropriate accent trim color consistent with the Town's adopted color palette.
4. Please ensure that the signature and date break the seal on the engineer's stamp.
5. A landscape plan is going to the VRRB on August 26.
6. A grading permit is required which will also cover the demolition.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: To approve the site plan subject to the following conditions:

1. In the final site plan set, please include the building elevation sheets and all exterior lighting cut sheets and information is included with the remainder of the site plan so that all site-related information is in one set.
2. Please more clearly show each lighting fixture cut sheet and how it will meet the Town's Outdoor Site Lighting requirements.
3. The Planning Commission's approval of the appropriate accent trim color consistent with the Town's adopted color palette.
4. Please ensure that the signature and date break the seal on the engineer's stamp.
5. A landscape plan is going to the VRRB on August 26.
6. A grading permit is required which will also cover the demolition.

PROPOSED 7BREW COFFEE STAND

11495 PARKSIDE DR
FARRAGUT, TN 37934
SITE #7B1355

CONTACT LIST:

BUILDING DEPARTMENT
CITY OF FARRAGUT
ELLIOTT SIEVERS
11408 MUNICIPAL CENTER DRIVE
FARRAGUT, TN 37934
865.675.2096

POLICE DEPARTMENT
KNOX COUNTY SHERIFF
11429 PARKSIDE DRIVE
FARRAGUT, TN 37934
865.392.1670

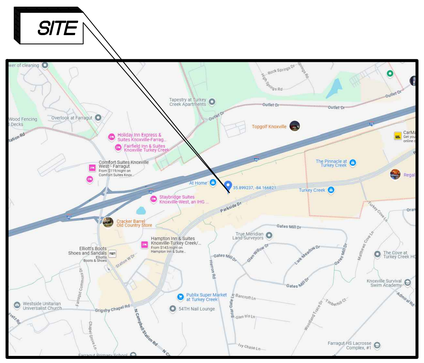
FIRE DEPARTMENT
RURAL METRO
160 N CAMPBELL STATION RD
FARRAGUT, TN 37934
865.560.0239

POWER
LENOIR CITY UTILITIES BOARD
136 N CAMPBELL STATION RD
FARRAGUT, TN 37934
844.687.5282

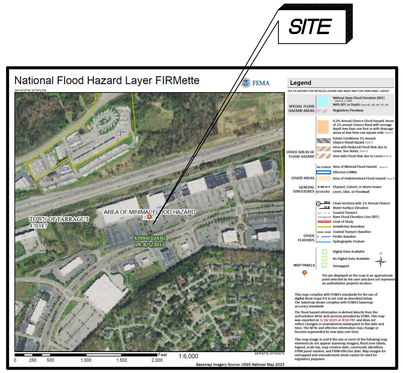
GAS
KNOXVILLE UTILITIES BOARD
445 S GAY STREET
KNOXVILLE, TN 37902
865.524.2911

WATER & SEWER
FIRST UTILITY DISTRICT
122 DURWOOD ROAD
KNOXVILLE, TN 37922
865.966.9741

PROPERTY OWNER
HART TC IV LLC
2700 2ND AVE S, SUITE 200
BIRMINGHAM, AL 35233
205.453.8620



VICINITY MAP
N.T.S.



FEMA MAP
N.T.S.

NOTE: BASED ON GRAPHIC DETERMINATION, THIS PROPERTY DOES NOT LIE IN A F.E.M.A./F.I.R.M. SPECIAL FLOOD HAZARD AREA (ZONE "X") PER MAP NUMBER 47093C0243G, DATED AUGUST 5, 2013.

SUBMITTAL DATE:
CITY OF FARRAGUT, TN - 07/08/2025

SHEET INDEX:

C0	TITLE SHEET
C0.1	SPACE PLAN
C1	SURVEY/DEMO/CLEARING PLAN
C2	SITE PLAN
C3	GRADING PLAN
C3.1	DRAINAGE PLAN
C3.2	STORM PROFILES
C4	UTILITY PLAN
C5	EROSION CONTROL PLAN
C6	LANDSCAPING PLAN
C6.1	IRRIGATION PLAN
C7	SITE LIGHTING PLAN
C7.1	SITE STAKING PLAN
C8–11	SITE DETAILS
C12–12.1	EROSION CONTROL DETAILS
C13	DUMPSTER ENCLOSURE DETAILS
C14	UTILITY DETAILS
C15	IRRIGATION DETAILS
C16	LANDSCAPING DETAILS

ZONING INFORMATION

CURRENT ZONING: C2
PROPOSED ZONING: NO CHANGE

EXISTING USE: PGA PARKING LOT
PROPOSED USE: 7BREW COFFEE STAND

ADJACENT LOTS ZONING:
EAST: C2 NORTH: C2 SOUTH: O1 WEST C2

PARCEL INFORMATION

LEASE OF A SECTION OF PARCEL: 130 19107
PLAT: 20090113–0043120

SETBACK REQUIREMENTS:
FRONT: 70' FROM ROW
SIDE: 40'
REAR: 35'

PARCEL AREA: 19.78 ACRES
SITE AREA: 0.28 ACRES
DISTURBED AREA: 0.44 ACRES

BUILDING INFORMATION

HEIGHT: 19FT
LENGTH: 34.5FT
WIDTH: 15.5FT
AREA: 522SF

GENERAL NOTES:

A. TOPOGRAPHIC BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS WAS PROVIDED BY THE FOLLOWING COMPANY, AS A CONTRACTOR TO THE SELLER/OWNER:

TTL, INC
3516 GREENSBORO AVE.
TUSCALOOSA, AL 35401
205.345.0816

B. ALL PHASES OF SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE OWNER / DEVELOPER SITE WORK SPECIFICATIONS.

C. CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED. SEE SITE WORK SPECIFICATIONS.

D. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.

E. THE GENERAL CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

F. SAFETY NOTICE TO CONTRACTOR:
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

G. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CURRENT EDITION. TRAFFIC CONTROL REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE PRICE FOR CONSTRUCTION.

MINIMUM GEOTECHNICAL TESTING REQUIREMENTS

EARTHWORK
- BULK SAMPLES OF PROPOSED FILL AND BACKFILL SHOULD BE COLLECTED BY TESTING COMPANY AND LABORATORY TESTED IN ACCORDANCE WITH STANDARD PROCTOR TEST METHODS (ALLOW THREE DAYS PRIOR TO FILL PLACEMENT).
- PRIOR TO GRADING OPERATIONS, PROOFROLLING OF PREPARED SUBGRADES IN INITIAL FILL AREAS SHOULD BE OBSERVED BY TESTING COMPANY REPRESENTATIVE.
- ONCE GRADING OPERATIONS ARE UNDERWAY, TESTING COMPANY SHOULD OBSERVE FILL PLACEMENT FOR CONFORMANCE WITH PROJECT REQUIREMENTS AND PERFORM MOISTURE/DENSITY TESTING DURING EARTHWORK OPERATIONS AS WELL AS BACKFILLING OF UTILITIES AND OTHER EXCAVATIONS IN STRUCTURAL FILL AREAS.
- TESTING COMPANY SHOULD BE CONTACTED TO ADDRESS SOIL-RELATED PROBLEMS THAT MAY ARISE AND WILL BE AVAILABLE TO PROVIDE RECOMMENDATIONS TO ADDRESS SOILS IDENTIFIED TO BE SOFT OR UNSTABLE.

FOUNDATIONS
- AFTER FOUNDATIONS ARE EXCAVATED AND PRIOR TO REINFORCING STEEL AND CONCRETE PLACEMENT, TESTING COMPANY SHOULD VERIFY THE FOUNDATION DESIGN SOIL BEARING CAPACITY.

CONCRETE
- TESTING COMPANY SHOULD VERIFY REINFORCING STEEL INSTALLATION PRIOR TO CONCRETE PLACEMENT FOR FOUNDATIONS AND SLABS-ON-GRADE.
- TESTING COMPANY SHOULD PROVIDE CONTINUOUS OBSERVATION, SAMPLING AND TESTING OF FRESH CONCRETE DURING PLACEMENT IN THE FIELD FOR FOUNDATIONS AND SLABS-ON-GRADE.
- CONTRACTOR SHOULD SAMPLE FRESH CONCRETE IN CYLINDERS PROVIDED BY TESTING COMPANY FOR ALL OTHER CONCRETE AND SHOULD DELIVER CYLINDERS TO THE NEAREST TESTING COMPANY LABORATORY FOR COMPRESSIVE STRENGTH TESTING.
- CONTRACTOR SHOULD PROVIDE ON-SITE STORAGE CONTAINER(S) FOR INITIAL CURING OF CYLINDER SAMPLES CAPABLE OF CONTROLLING TEMPERATURES WITHIN THE RANGE SPECIFIED BY ASTM C31.

BITUMINOUS PAVING AND PAVEMENT SUBGRADE
- BULK SAMPLES OF PROPOSED AGGREGATE BASE SHOULD BE COLLECTED BY TESTING COMPANY AND LABORATORY TESTED IN ACCORDANCE WITH MODIFIED PROCTOR TEST METHODS (ALLOW THREE DAYS PRIOR TO AGGREGATE BASE PLACEMENT).
- PRIOR TO AGGREGATE BASE PLACEMENT OR PAVING OPERATIONS, TESTING COMPANY SHOULD OBSERVE PROOFROLLING OF PREPARED SUBGRADES IN PARKING AND DRIVE AREAS.
- ONCE AGGREGATE BASE PLACEMENT AND COMPACTION OPERATIONS ARE UNDERWAY, TESTING COMPANY SHOULD PERFORM MOISTURE/DENSITY TESTING FOR CONFORMANCE WITH PROJECT REQUIREMENTS.
- TESTING COMPANY SHOULD BE CONTACTED AT THE COMPLETION OF ASPHALT PAVING OPERATIONS TO OBTAIN THREE CORE SAMPLES ON COMPACTED COMBINED ASPHALT (WEARING SURFACE AND BINDER) FOR DENSITY AND THICKNESS TESTING.
- TESTING COMPANY SHOULD BE CONTACTED PRIOR TO ASPHALT PAVING OPERATIONS TO SCHEDULE AN ON-SITE ASPHALT TECHNICIAN TO OBSERVE, TEST AND DOCUMENT ASPHALT PLACEMENT FOR DELIVERY OF CORRECT MIX, TEMPERATURE, AND DENSITY AND THICKNESS OF THE BINDER AND WEARING SURFACE.
- TESTING COMPANY SHOULD BE CONTACTED AT THE COMPLETION OF ASPHALT PAVING BINDER COURSE TO OBTAIN THREE CORE SAMPLES ON COMPACTED BINDER FOR DENSITY AND THICKNESS TESTING. TESTING COMPANY HAS BEEN REQUESTED BY OWNER NOT TO CORE THROUGH THE WEARING SURFACE.

24-HR EMERGENCY CONTACT: MIKE GRAY, P.E. 205.283.7413
MIKE.GRAY@TACALA.COM

REVISIONS
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- 8/1/2025 RELEASE FOR REVIEW
- 8/5/2025 RELEASE FOR REVIEW

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
205.443.9600

MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111928
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

TITLE SHEET

SHEET: C0

DATE: 8/7/2025

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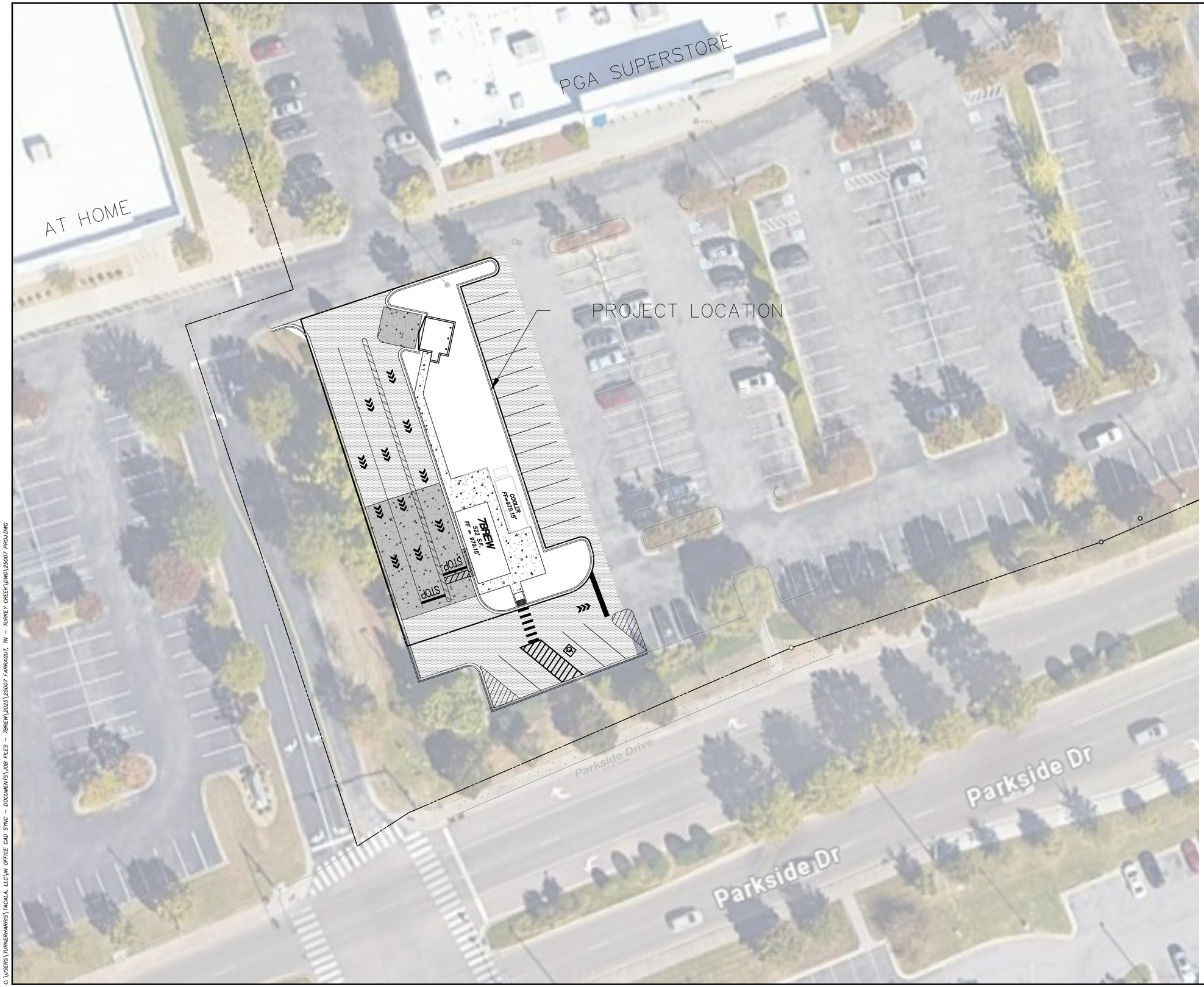

0 20' 30' 40'
SCALE: 1"=20'

DEMOLITION LEGEND

- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- CHAIN LINK FENCE
- GAS — GAS SERVICE
- SANITARY SEWER
- OHE — OVERHEAD ELECTRIC
- CATV — UNDERGROUND CABLE
- WATER SERVICE
- STORM SEWER PIPE
- EXISTING CONCRETE
- EXISTING CURB AND GUTTER
- STOP — STOP BAR (PAVEMENT MARKING)
- "HANDICAP PARKING" SIGN
- "STOP" SIGN (R1-1)
- HANDICAP STALL
- WHEEL STOP
- A.D.A. STD HANDICAP RAMP
- STORM SEWER GRATE
- ELECTRICAL TRANSFORMER
- SANITARY SEWER CLEAN OUT
- SANITARY SEWER MANHOLE
- FIRE HYDRANT
- GATE VALVE
- FDC — FIRE DEPARTMENT CONNECTION

DEMOLITION NOTES

1. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES AND PIPING WHICH MIGHT INTERFERE WITH DEMOLITION. ANY DAMAGES TO UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL DEBRIS NOT ACCEPTABLE TO THE OWNER AND ENGINEER.
3. AT LOCATIONS TO RECEIVE NEW SIDEWALK, ASPHALT OR CURB & GUTTER, CONTRACTOR WILL SAW-CUT AND REMOVE EXISTING MATERIAL FROM SITE. CONTRACTOR WILL PREPARE SUBGRADE FOR INSTALLATION OF NEW MATERIAL.
4. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL UTILITIES BEFORE CONSTRUCTION AND VERIFYING LOCATION OF ALL UTILITIES ON OR IN THE VICINITY OF THE WORK, WHETHER SHOWN ON THE PLANS OR NOT.
5. TREE(S) TO BE DEMOLISHED SHALL BE CLEARED AND GRUBBED. NO BURNING SHALL BE ALLOWED ON OWNER'S PROPERTY.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND COST OF THE RELOCATION OF ALL UTILITIES ALONG THE RIGHT OF WAY AND ON THE SITE ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT, SUCH AS, BUT NOT LIMITED TO, SIGNAL POLES, SIGNAL CONTROLS, DRAINAGE STRUCTURES, TRAFFIC SIGNS, UTILITY POLES, GUY WIRES, ETC. UNLESS OTHERWISE SPECIFIED BY THE PLANS OR DIRECTED BY OWNER.
7. CONTRACTOR SHALL ERECT A 4' ORANGE CONSTRUCTION FENCE AROUND THE CONSTRUCTION AREA IF SHOWN ON THIS PLAN. ALL WORK, INCLUDING MATERIAL STORAGE, SHALL BE KEPT WITHIN THIS AREA. CONTRACTOR SHALL RESTORE THE CONSTRUCTION AREA TO A CONDITION ACCEPTABLE TO OWNER.
8. FENCING, GATE, EROSION CONTROL, AND "NO TRESPASSING" SIGNS TO BE PLACED AT ENTRANCES OF CONSTRUCTION BOUNDARIES IF SHOWN ON THIS PLAN.
9. CAP ALL UTILITIES EXCEPT THOSE SERVING FUTURE BUILDING.
10. WATER AND SEWER LINES TO BE REMOVED TO BOUNDARY OF CONSTRUCTION AND CAPPED/STUBBED.
11. DEMOLITION CONTRACTOR TO PROTECT ANY EXISTING TRANSFORMER UNTIL POWER COMPANY REMOVES FROM SITE.
12. OWNER SHALL BE RESPONSIBLE FOR INVESTIGATION OF ASBESTOS IN ANY EXISTING STRUCTURES. GENERAL CONTRACTOR TO EVALUATE ASBESTOS REPORT PROVIDED AND INCLUDE PRICING IN HIS BID. DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL IF ANY EXISTS.
13. CONTRACTOR SHALL VERIFY LOCATIONS OF ANY EXISTING METERS AND COORDINATE WITH UTILITY COMPANY AS TO WHETHER METERS CAN REMAIN IN PLACE UNDER NEW SITE LAYOUT.
14. CONTRACTOR SHALL INSTALL ALL APPLICABLE ADVANCE WARNING TRAFFIC CONTROL DEVICES AS REQUIRED WHEN WORKING IN R.O.W. AND SHALL FOLLOW ALL GUIDELINES AS SPECIFIED IN THE M.U.T.C.D.
15. CONTRACTOR SHALL ASSUME VARIATIONS IN CONCRETE AND ASPHALT THICKNESS TO BE REMOVED AND SHALL BID ACCORDINGLY. NO INCREASE IN PAYMENT SHALL BE ALLOWED BASED ON ACTUAL VERSUS ASSUMED NORMAL THICKNESS OF MATERIAL.

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- 8/1/2025 RELEASE FOR REVIEW
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7BREW COFFEE STAND

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SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
205.443.9600

MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111924
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

SPACE PLAN

SHEET: C0.1

DATE: 8/7/2025

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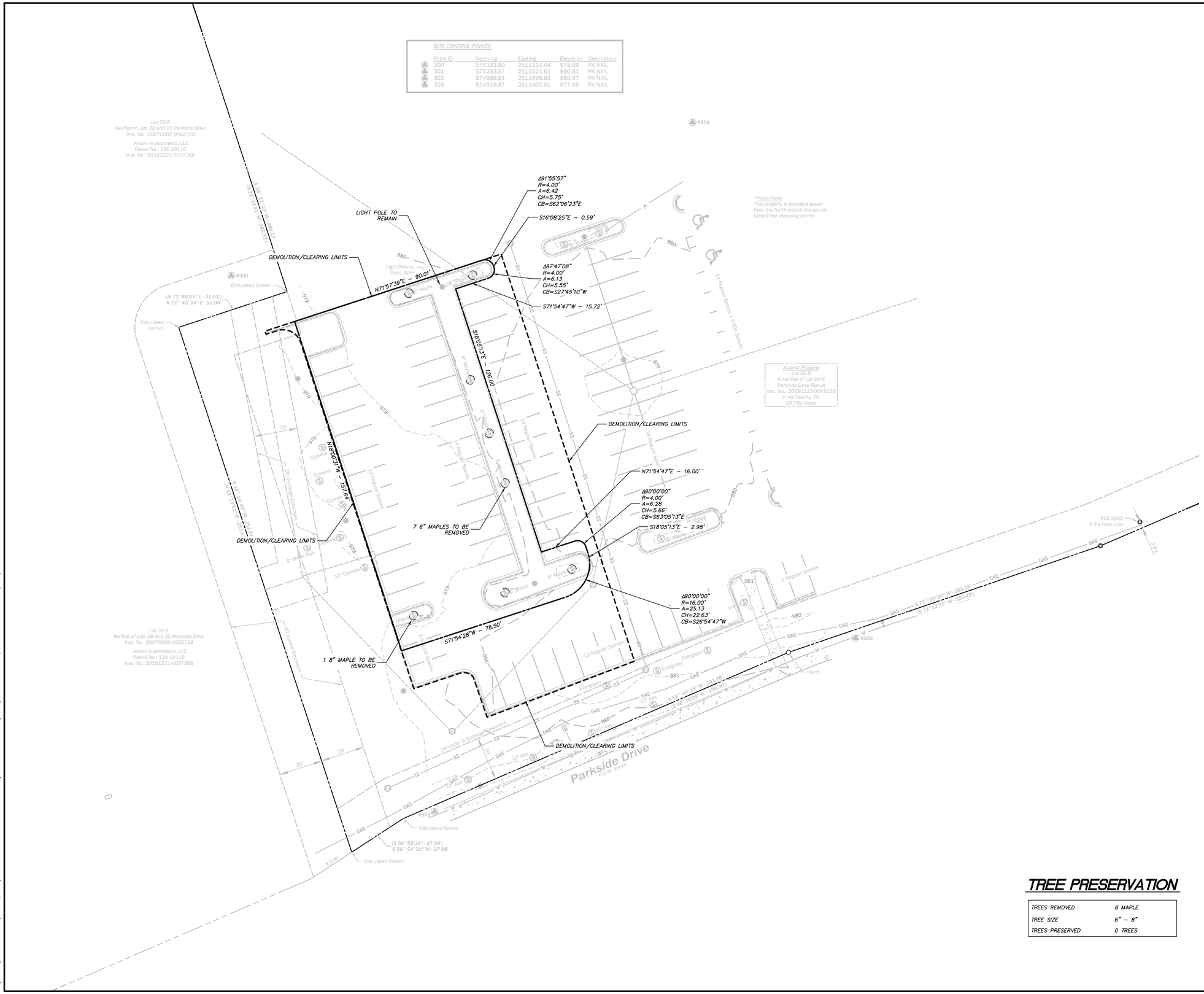

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TREE PRESERVATION

TREES REMOVED	8 MAPLE
TREE SIZE	6" – 8"
TREES PRESERVED	0 TREES

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MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111928
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

SURVEY/DEMO/ CLEARING PLAN

SHEET: C1

DATE: 8/7/2025

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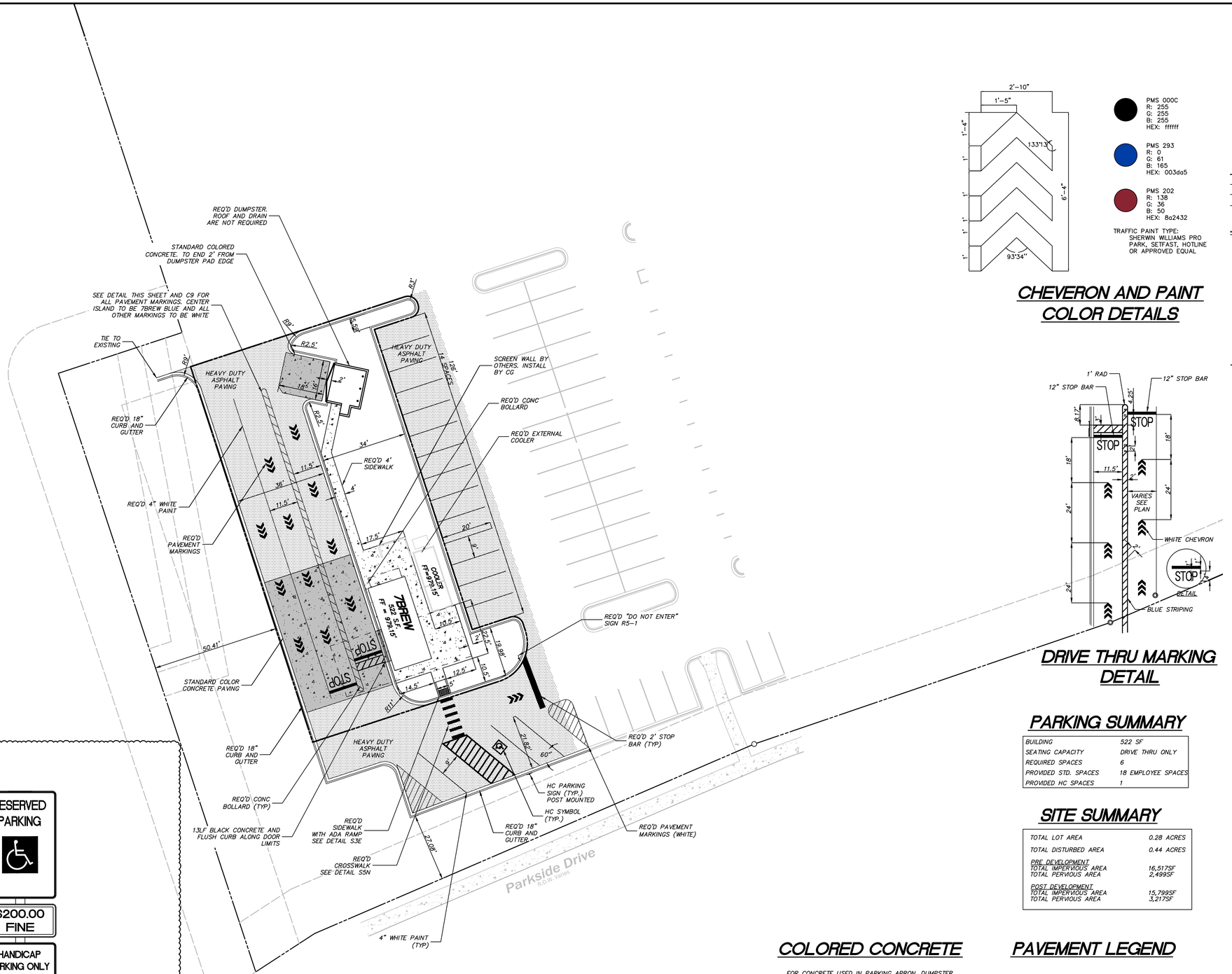


CHEVERON AND PAINT COLOR DETAILS

PMS 000C
R: 255
G: 255
B: 255
HEX: ffffff

PMS 293
R: 0
G: 61
B: 165
HEX: 003da5

PMS 202
R: 138
G: 36
B: 50
HEX: 8a2432

TRAFFIC PAINT TYPE:
SHERWIN WILLIAMS PRO PARK, SETFAST, HOTLINE OR APPROVED EQUAL

0 20' 30' 40'
SCALE: 1"=20'

SITE LEGEND

- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- CONCRETE SIDEWALK (SEE DETAIL)
- CONCRETE CURB AND GUTTER (SEE DETAIL)
- STOP BAR (PAVEMENT MARKING)
- TRAFFIC FLOW ARROW (PAVEMENT MARKING)
- "STOP" SIGN (R1-1)
- VAN ACCESSIBLE STALL AND DESIGNATED VAN STALL
- A.D.A. STD ACCESSIBLE RAMP
- STORM SEWER GRATE

DRIVE THRU MARKING DETAIL

PARKING SUMMARY

BUILDING	522 SF
SEATING CAPACITY	DRIVE THRU ONLY
REQUIRED SPACES	6
PROVIDED STD. SPACES	18 EMPLOYEE SPACES
PROVIDED HC SPACES	1

SITE SUMMARY

TOTAL LOT AREA	0.28 ACRES
TOTAL DISTURBED AREA	0.44 ACRES
PRE DEVELOPMENT	
TOTAL IMPERVIOUS AREA	16,517SF
TOTAL PERVIOUS AREA	2,499SF
POST DEVELOPMENT	
TOTAL IMPERVIOUS AREA	15,799SF
TOTAL PERVIOUS AREA	3,217SF

SITE NOTES

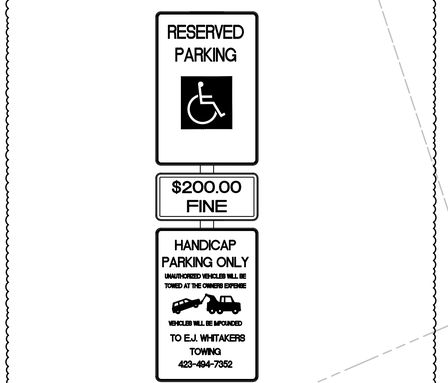
1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS AND SITE WORK SPECIFICATIONS AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
2. REFERENCE ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS AND ITEMS NOT SHOWN ON THESE PLANS.
3. TOPOGRAPHIC BOUNDARY SURVEY, PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS WAS PROVIDED BY THE FOLLOWING COMPANY:

   TTL, INC
   3516 GREENSBORO AVE.
   TUSCALOOSA, AL 35401
   205.345.0816

4. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED. ALL DIMENSIONS SHOWN TO BUILDINGS ARE TO OUTSIDE FACE OF BUILDING.
5. ALL ACCESSIBLE PARKING SIGNS AND STRIPING SHALL BE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS AND APPLICABLE STATE CODES OR REQUIREMENTS.
6. ALL TRAFFIC SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND APPLICABLE STATE DOT REQUIREMENTS, AND IS RESPONSIBILITY OF SITE CONTRACTOR.
7. ALL STRIPED OR CURBED RADII SHALL BE 2.5' AT THE FACE OF CURB UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO ANY EXISTING IMPROVEMENTS, ONSITE OR OFF SITE, SUCH AS PAVEMENT, UTILITIES, STORM DRAINAGE, ETC. THE REPAIR MUST BE APPROVED BY THE ENGINEER AND BE EQUAL OR BETTER THAN EXISTING CONDITIONS.
9. ALL PARKING LOT LIGHTING POLES, BASES, FIXTURES WITH LAMPS AND REQUIRED PAINT WILL BE INSTALLED BY THE GENERAL CONTRACTOR'S ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE OWNER A ONE-YEAR WARRANTY CERTIFICATE. ALL INCURRED COSTS FOR RECEIVING, UNWRAPPING OF FACTORY PAINTED POLES, STORAGE, LIABILITY AND WARRANTY LABOR SHALL BE INCLUDED IN THE INSTALLATION CONTRACT PRICE.
10. CONTRACTOR SHALL OBTAIN ALL PERMITS BEFORE CONSTRUCTION BEGINS.
11. SITE CONTRACTOR SHALL SUPPLY AS-BUILT PLANS INDICATING ALL CHANGES AND DEVIATIONS FROM THE DESIGN DOCUMENTS. SITE CONTRACTOR SHALL ALSO PROVIDE AS-BUILTS AS PART OF THE CONTRACT FOR STORM, SANITARY AND WATER LINES, IF REQUIRED BY THE GOVERNING AUTHORITY.
12. ANY DEVIATION FROM THESE PLANS MAY CAUSE THE WORK TO BE UNACCEPTABLE.
13. ANY UNANTICIPATED CONDITIONS ENCOUNTERED DURING THE CONSTRUCTION PROCESS SHALL BE IDENTIFIED TO THE OWNER/ENGINEER IMMEDIATELY.
14. ALL SITE CONCRETE SHALL BE 3,500 PSI 28 DAY COMPRESSIVE STRENGTH.
15. CURB AND GUTTER, WHEN SHOWN IN PARKING LOTS, SHALL BE 18" UNLESS OTHERWISE SPECIFIED.
16. PARKING LOT STRIPING SHALL BE INCLUDED IN PAVING CONTRACTOR'S SCOPE OF WORK. STRIPING WILL BE ACCORDING TO OWNER'S SPECIFICATIONS. ALL STRIPING IS TO HAVE TWO (2) COATS OF PAINT (MIN).
17. THE SITE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL WORK AND APPURTENANCES TO WITHIN 5' OF THE BUILDING.
18. CONTRACTOR TO INCLUDE CONCRETE BOLLARDS FOR PROTECTION OF BUILDING CORNERS, TRANSFORMERS, VAULTS, LIGHTING POLES, AND OTHER FIXTURES NEAR DRIVE ISLES AS SHOWN ON THIS PLAN.
19. BUILDING CONTRACTOR SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT.
20. ALL GUTTER SECTIONS OF CURB AND GUTTER AND ALL CONCRETE APRONS IN PARKING STALLS SHALL HAVE THE SAME SLOPE AS THE PAVEMENT WITHIN THE PARKING LOT AS SHOWN ON THE GRADING PLAN. CONTRACTOR MUST EVALUATE GRADING PLAN PRIOR TO POURING THESE ITEMS.

SPECIAL SITE NOTES

1. CONTRACTOR TO LEAVE OUT 17" CURB AND GUTTER AT LOCATION OF ADA RAMP. 7" AT OTHER RAMPS, AND ANY OTHER AREAS AS DIRECTED BY THE ENGINEER. BUILDING CONTRACTOR RESPONSIBLE FOR POURING THESE AREAS DURING SIDEWALK CONSTRUCTION.
2. SITE CONTRACTOR RESPONSIBLE FOR APPLICATION OF CLEAR SEALER, PROVIDED BY OWNER, TO ALL COLORED CONCRETE PAVING. BUILDING CONTRACTOR RESPONSIBLE FOR APPLICATION OF FINAL BLACK SEALER TO COLORED CONCRETE PAVEMENT.
3. BUILDING CONTRACTOR RESPONSIBLE FOR ALL GRADING WITHIN AREAS INSIDE INTERIOR CURB AND GUTTER TO WITHIN 4" OF TOP OF CURB.
4. DYE FOR COLORED CONCRETE AS WELL AS CLEAR AND PIGMENTED SEALER PROVIDED BY OWNER.
5. ALL SIGNAGE SHALL BE PROVIDED BY THE SITE WORK CONTRACTOR EXCEPT FOR ADA SIGNAGE TO BE PROVIDED BY BUILDING CONTRACTOR.
6. FINAL DUMPSTER ENCLOSURE DIMENSIONS ARE SHOWN ON THIS SHEET. DETAILS ON C12 TO BE ADJUSTED TO MEET SITE PLAN DIMENSIONS.



VAN ACCESSIBLE PARKING SIGN

N.T.S.

COLORED CONCRETE

FOR CONCRETE USED IN PARKING APRON, DUMPSTER ENCLOSURE APRON AND DRIVE THRU LANE:

CONCRETE STRENGTH – 4000 PSI
STRAIGHT CEMENT MIX
SLUMP – 3"–5"
COLOR – MIDNIGHT
PLANT MIXED ONLY
42LBS/CY

APPLY APC CURE AND SEAL CLEAR AFTER CONCRETE CURES AND WITHIN 24 HOURS. ALLOW SEALER TO DRY 72 HOURS BEFORE FOOT TRAFFIC. APPLY TINTED SEAL 48 HRS PRIOR TO TURNOVER DATE

PAVEMENT LEGEND

- STD. DUTY CONCRETE PAVING
- COLORED CONCRETE PAVING
- STD. DUTY ASPHALT PAVING
- HEAVY DUTY ASPHALT PAVING

REVISIONS
- 7/8/2025 RELEASE FOR REVIEW
- 8/1/2025 RELEASE FOR REVIEW
- 8/5/2025 RELEASE FOR REVIEW

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
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SOUTHERN BREW CORP
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MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111925
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

SITE PLAN

SHEET: C2

DATE: 8/7/2025

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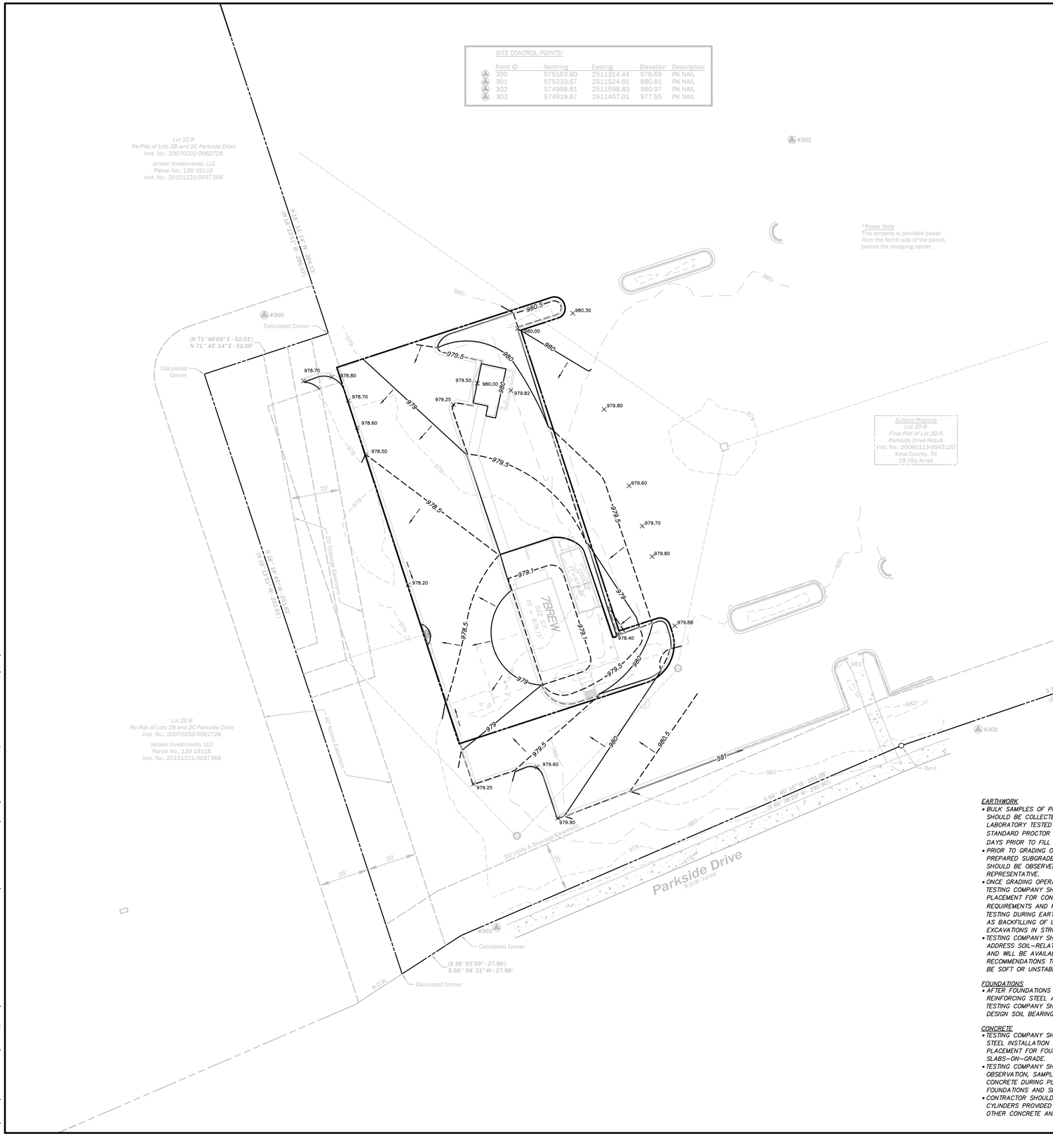

SPECIAL GRADING NOTES

1. SPOT ELEVATIONS ARE PAVEMENT GRADES UNLESS OTHERWISE NOTED. CONTRACTOR TO MAKE SLIGHT ADJUSTMENTS AS NEEDED.
2. THE GUTTER SECTION OF CURB AND GUTTER AND THE CONCRETE APRONS IN PARKING STALLS SHALL HAVE THE SAME SLOPE AS THE PAVEMENT.
3. TOPSOIL OUTSIDE PERIMETER CURBS IS RESPONSIBILITY OF THE SITE CONTRACTOR. TOPSOIL WITHIN INTERIOR CURBS WILL BE PROVIDED BY LANDSCAPE CONTRACTOR. BUILDING CONTRACTOR RESPONSIBLE FOR SUBGRADE TO BE WITHIN 4" OF TOP OF CURB WITHIN INTERIOR CURB AREAS.
4. ALL DISTURBED AREAS OUTSIDE OF PERIMETER CURB SHALL RECEIVE 4" SIFTED TOPSOIL AFTER COMPACTION AND SHALL BE MULCHED WITH STRAW OR HYDROSEEDED.
5. ALL GRATE INLETS SHALL HAVE GEOTEXTILE FABRIC PLACED BENEATH THE GRATE SECURED BY THE GRATE ITSELF UNTIL LANDSCAPING AND PRESSURE WASHING HAVE BEEN COMPLETED. HOODED GRATE INLETS SHALL RECEIVE WATTLES IN FRONT OF THE HOOD PLUS THE FABRIC BENEATH THE GRATE. BUILDING CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF THE FABRIC BEFORE FINAL WALK THROUGH.

0 20' 30' 40'
SCALE: 1"=20'

GRADING LEGEND

- EXISTING 1' CONTOUR
- 35 EXISTING 5' CONTOUR
- 36 FUTURE 1' CONTOUR
- 35 FUTURE 5' CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING SETBACK LINE
- FUTURE RIGHT-OF-WAY
- FUTURE SETBACK LINE
- FUTURE PROPERTY LINE
- + 100.00 GRADE ELEVATION
- STORM SEWER LINE
- RETAINING WALL
- JD OR JT JUNCTION BOX
- GRATE INLET
- C SANITARY SEWER CLEAN-OUT
- 1 SLOPE ARROW
- HP HP GRADE BREAK LINE

MINIMUM GEOTECHNICAL TESTING REQUIREMENTS

EARTHWORK
- BULK SAMPLES OF PROPOSED FILL AND BACKFILL SHOULD BE COLLECTED BY TESTING COMPANY AND LABORATORY TESTED IN ACCORDANCE WITH STANDARD PROCTOR TEST METHODS (ALLOW THREE DAYS PRIOR TO FILL PLACEMENT).
- PRIOR TO GRADING OPERATIONS, PROOFROLLING OF PREPARED SUBGRADES IN INITIAL FILL AREAS SHOULD BE OBSERVED BY TESTING COMPANY REPRESENTATIVE.
- ONCE GRADING OPERATIONS ARE UNDERWAY, TESTING COMPANY SHOULD OBSERVE FILL PLACEMENT FOR CONFORMANCE WITH PROJECT REQUIREMENTS AND PERFORM MOISTURE/DENSITY TESTING DURING EARTHWORK OPERATIONS AS WELL AS BACKFILLING OF UTILITIES AND OTHER EXCAVATIONS IN STRUCTURAL FILL AREAS.
- TESTING COMPANY SHOULD BE CONTACTED TO ADDRESS SOIL-RELATED PROBLEMS THAT MAY ARISE AND WILL BE AVAILABLE TO PROVIDE RECOMMENDATIONS TO ADDRESS SOILS IDENTIFIED TO BE SOFT OR UNSTABLE.

FOUNDATIONS
- AFTER FOUNDATIONS ARE EXCAVATED AND PRIOR TO REINFORCING STEEL AND CONCRETE PLACEMENT, TESTING COMPANY SHOULD VERIFY THE FOUNDATION DESIGN SOIL BEARING CAPACITY.

CONCRETE
- TESTING COMPANY SHOULD VERIFY REINFORCING STEEL INSTALLATION PRIOR TO CONCRETE PLACEMENT FOR FOUNDATIONS AND SLABS-ON-GRADE.
- TESTING COMPANY SHOULD PROVIDE CONTINUOUS OBSERVATION, SAMPLING AND TESTING OF FRESH CONCRETE DURING PLACEMENT IN THE FIELD FOR FOUNDATIONS AND SLABS-ON-GRADE.
- CONTRACTOR SHOULD SAMPLE FRESH CONCRETE IN CYLINDERS PROVIDED BY TESTING COMPANY FOR ALL OTHER CONCRETE AND SHOULD DELIVER CYLINDERS TO THE NEAREST TESTING COMPANY LABORATORY FOR COMPRESSIVE STRENGTH TESTING.
- CONTRACTOR SHOULD PROVIDE ON-SITE STORAGE CONTAINER(S) FOR INITIAL CURING OF CYLINDER SAMPLES CAPABLE OF CONTROLLING TEMPERATURES WITHIN THE RANGE SPECIFIED BY ASTM C31.

BITUMINOUS PAVING AND PAVEMENT SUBGRADE
- BULK SAMPLES OF PROPOSED AGGREGATE BASE SHOULD BE COLLECTED BY TESTING COMPANY AND LABORATORY TESTED IN ACCORDANCE WITH MODIFIED PROCTOR TEST METHODS (ALLOW THREE DAYS PRIOR TO AGGREGATE BASE PLACEMENT).
- PRIOR TO AGGREGATE BASE PLACEMENT OR PAVING OPERATIONS, TESTING COMPANY SHOULD OBSERVE PROOFROLLING OF PREPARED SUBGRADES IN PARKING AND DRIVE AREAS.
- ONCE AGGREGATE BASE PLACEMENT AND COMPACTION OPERATIONS ARE UNDERWAY, TESTING COMPANY SHOULD PERFORM MOISTURE/DENSITY TESTING FOR CONFORMANCE WITH PROJECT REQUIREMENTS.
- TESTING COMPANY SHOULD BE CONTACTED AT THE COMPLETION OF ASPHALT PAVING OPERATIONS TO OBTAIN THREE CORE SAMPLES ON COMPACTED COMBINED ASPHALT (WEARING SURFACE AND BINDER) FOR DENSITY AND THICKNESS TESTING.
- TESTING COMPANY SHOULD BE CONTACTED PRIOR TO ASPHALT PAVING OPERATIONS TO SCHEDULE AN ON-SITE ASPHALT TECHNICIAN TO OBSERVE, TEST AND DOCUMENT ASPHALT PLACEMENT FOR DELIVERY OF CORRECT MIX, TEMPERATURE, AND DENSITY AND THICKNESS OF THE BINDER AND WEARING SURFACE.
- TESTING COMPANY SHOULD BE CONTACTED AT THE COMPLETION OF ASPHALT PAVING BINDER COURSE TO OBTAIN THREE CORE SAMPLES ON COMPACTED BINDER FOR DENSITY AND THICKNESS TESTING. TESTING COMPANY HAS BEEN REQUESTED BY OWNER NOT TO CORE THROUGH THE WEARING SURFACE.

GRADING NOTES

1. INFORMATION CONCERNING SITE SOIL CONDITIONS WILL BE PROVIDED BY THE PROJECT GEOTECHNICAL ENGINEER AND WILL BE REFERENCED IN THE SITE WORK SPECIFICATIONS.
2. SUB-GRADE SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY OR AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, WHICHEVER IS GREATER, AND TEST RESULTS SHALL BE PROVIDED BEFORE INSTALLATION OF NEW STRUCTURES.
3. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS OWN EXPENSE, A TOPOGRAPHIC SURVEY AND SUBMIT IT TO THE OWNER FOR REVIEW. HOWEVER, THIS SHALL IN NO WAY EXTEND THE CONTRACT TIME FRAME AND DEADLINES.
4. CONTRACTOR SHALL PROVIDE DRAINAGE AWAY FROM THE BUILDINGS.
5. PRECAST STRUCTURES MAY BE USED AS AN ALTERNATIVE TO CAST-IN-PLACE STRUCTURES. SUBMIT ALL BOX DESIGN TO THE ENGINEER FOR APPROVAL.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE RELOCATION OF ALL UTILITIES ALONG THE RIGHT-OF-WAY AND ON THE SITE ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT, SUCH AS, BUT NOT LIMITED TO: SIGNAL POLES, SIGNAL CONTROLS, DRAINAGE STRUCTURES, TRAFFIC SIGNS, LIVE WIRES, STREET LIGHTING UTILITY POLES, AND GUY WIRES, WATER, GAS AND UNDERGROUND ELECTRICAL LINES.
7. IN ALL AREAS WHERE NEW CURB AND GUTTER ARE INSTALLED, REMOVE ALL OLD CURB AND GUTTER AND SAW CUT A STRAIGHT EDGE ALONG ASPHALT.
8. THE EARTHWORK FOR ALL BUILDING PADS, FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL PLANS AND SPECIFICATIONS, AND SITEWORK SPECIFICATIONS.
9. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURBS, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
10. ALL SLOPES AND DISTURBED AREAS NOT COVERED BY BUILDING OR PAVEMENT SHALL BE GRADED SMOOTH AND RECEIVE 4 INCHES OF TOPSOIL AFTER COMPACTION. CONTRACTOR TO PROVIDE TOPSOIL IF NOT AVAILABLE ON SITE. THE AREAS SHALL BE SEEDED, MULCHED, FERTILIZED AND WATERED TO PROVIDE A HEARTY MOWABLE STAND OF GRASS. SMALL ROCKS MUST BE REMOVED. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. EXCEPTIONS FOR SEEDING ARE ANY AREAS DESIGNATED TO BE LANDSCAPED AS SHOWN ON THE LANDSCAPING PLAN SHEETS.
11. SPOIL FROM FOOTINGS IS THE BUILDING CONTRACTOR'S RESPONSIBILITY. CONTRACTOR IS TO USE THE SOIL ON SITE OR REMOVE IT FROM THE SITE AT NO ADDITIONAL COST TO THE OWNER.
12. EARTHWORK SHALL BE ON AN UNCLASSIFIED BASIS.
13. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
14. CONTRACTOR SHALL PROVIDE IN HIS BID A UNIT PRICE FOR UNDERCUT AND REPLACEMENT SHOULD UNSUITABLE MATERIAL BE ENCOUNTERED.
15. ALL LANDSCAPED ISLANDS SHALL BE GRADED TO WHERE DRAINAGE IS AWAY FROM BUILDING AND CROWNED SO THAT RUNOFF SPILLS OVER CURB.
16. CONTRACTOR TO INSURE THAT GRADES IN ACCESSIBLE PARKING DO NOT EXCEED 2% IN ANY DIRECTION, THAT ACCESSIBLE ROUTES DO NOT EXCEED 5% RUNNING SLOPE OR 2% CROSS SLOPE. ALL RAMPS MUST MEET THE MORE STRINGENT OF ADA (LATEST STANDARD) OR STATE/LOCAL STANDARD.

REVISIONS
7/8/2025 RELEASE FOR REVIEW
8/1/2025 RELEASE FOR REVIEW
8/5/2025 RELEASE FOR REVIEW

7BREW COFFEE STAND
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SITE #7B1355

SOUTHERN BREW CORP
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205.443.9600

MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111925
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

GRADING PLAN

SHEET: C3

DATE: 8/7/2025

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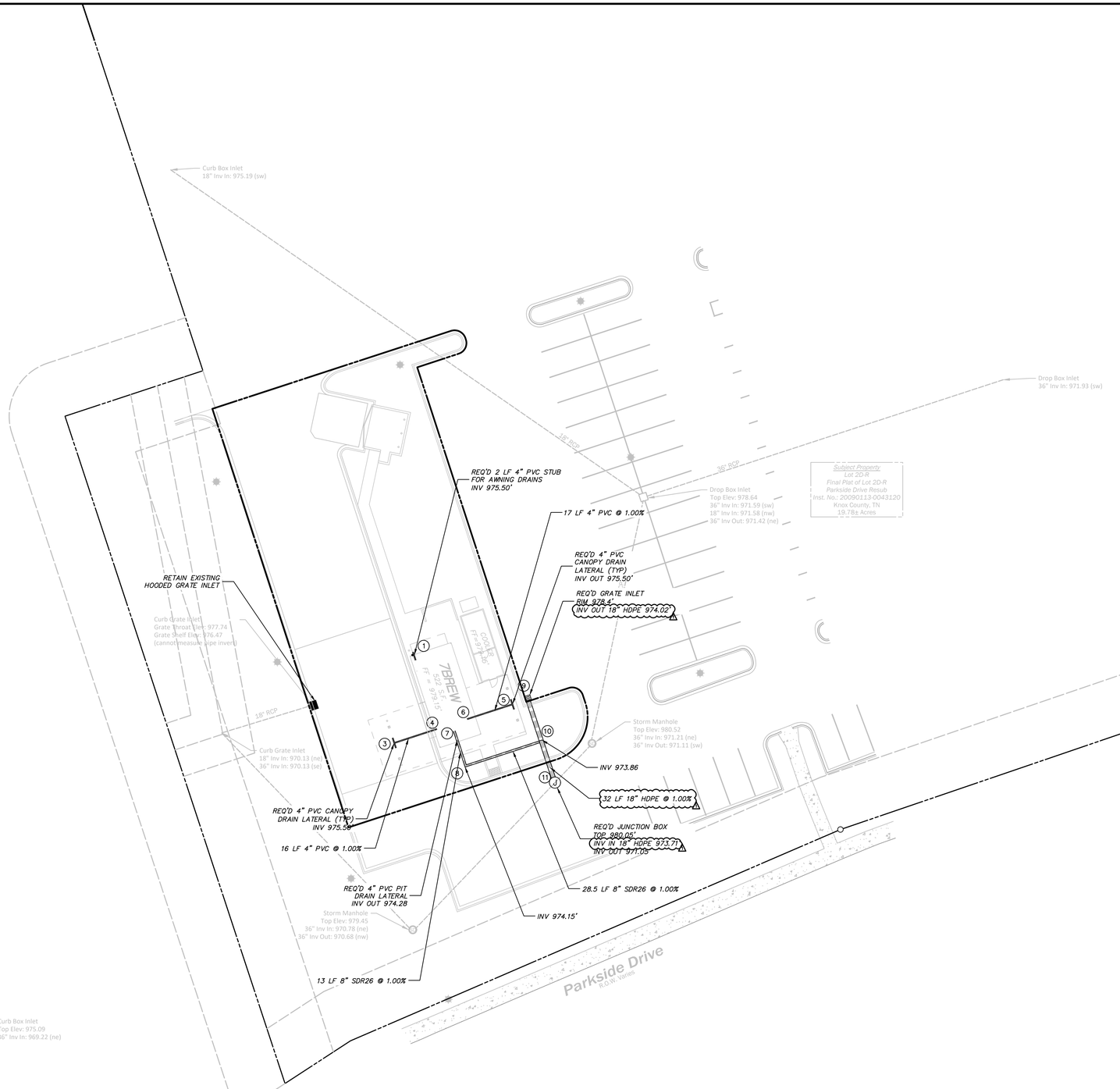

0 20' 30' 40'

SCALE: 1"=20'

LEGEND

- EXISTING 1' CONTOUR
- 35 EXISTING 5' CONTOUR
- 36 FUTURE 1' CONTOUR
- 35 FUTURE 5' CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
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- + 100.00 GRADE ELEVATION
- STORM SEWER LINE
- RETAINING WALL
- (J) OR (I) JUNCTION BOX
- GRATE INLET
- SANITARY SEWER CLEAN-OUT
- SLOPE ARROW
- HP/LP GRADE BREAK LINE

DRAINAGE NOTES

1. STORM SEWER PIPE 15" AND LARGER SHALL BE CLASS III RCP PER ASTM C-76. STORM SEWER PIPE 8" AND SMALLER SHALL BE SCH 40 PVC OR SDR26. ALL PIPE CONNECTIONS AT MANHOLES SHALL BE WATERTIGHT.
2. PRECAST STRUCTURES MAY BE USED AS AN ALTERNATIVE TO CAST-IN-PLACE STRUCTURES. SUBMIT ALL BOX DESIGN TO THE ENGINEER FOR APPROVAL.
3. ALL STORM SEWER MANHOLES AND PIPES TO BE FLUSHED CLEAN PRIOR TO TURNING OVER TO THE OWNER.
4. ALL PIPE LENGTHS LISTED ARE BASED ON THE HORIZONTAL DISTANCE FROM CENTER OF STRUCTURE AND USED FOR DESIGN.
5. THE CONTRACTOR IS RESPONSIBLE FOR COMPARING THE STORM SEWER AND SANITARY SEWER CHARTS WITH THE PROFILES FOR THE STORM SEWER AND SANITARY SEWER LINES, IF PROVIDED IN PLANS, AND INFORMING THE ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. ALL ROOF LATERALS SHALL BE SDR26 OR PVC PIPE AT 1% MINIMUM GRADE.
7. ALL PLASTIC PIPE SHALL HAVE LOCATOR WIRE INSTALLED AND TAPED TO PIPE.

CITY OF FARRAGUT NOTES

1. DOUBLE-WALLED HDPE PIPE AND CMP MAY BE USED TO CONVEY STORMWATER GENERATED ON THE PARTICULAR PROPERTY (ON-SITE DRAINAGE), SUCH AS PARKING LOTS, BUILDINGS, ETC. BOTH PIPE MATERIALS (HDPE AND CMP) MAY BE USED TO CONVEY WATER UNDER DRIVEWAYS IN LOCATIONS WHERE A PIPE IS OUTSIDE THE ROADWAY PRISM, HAS ADEQUATE COVER, AND WOULD NOT CAUSE FLOODING OF ADJACENT PROPERTIES OR RIGHTS-OF-WAY IN THE EVENT OF PIPE FAILURE.
2. INSTALLATION OF ALL PIPE MUST BE DONE WITH ADEQUATE PIPE BEDDING, BACKFILL MATERIAL, AND COUPLING BANDS AS RECOMMENDED BY THE PIPE MANUFACTURER.
3. ALL PIPES, REGARDLESS OF THEIR MATERIAL, SHALL BE A MINIMUM OF 18 INCHES IN DIAMETER.

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MICHAEL J. GRAY
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STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

DRAINAGE PLAN

SHEET: C3.1

DATE: 8/7/2025

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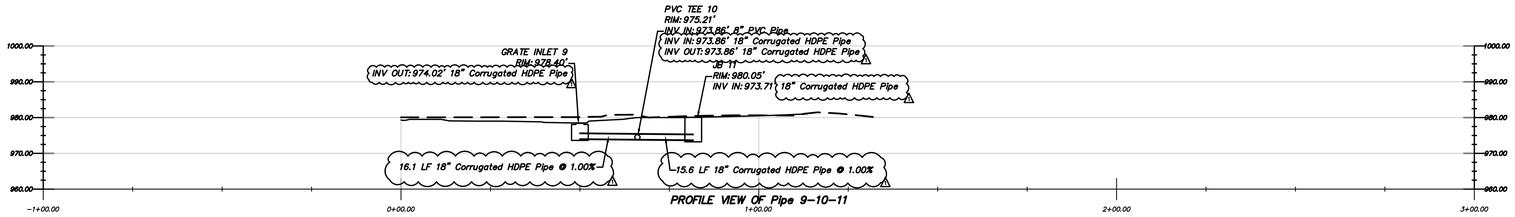
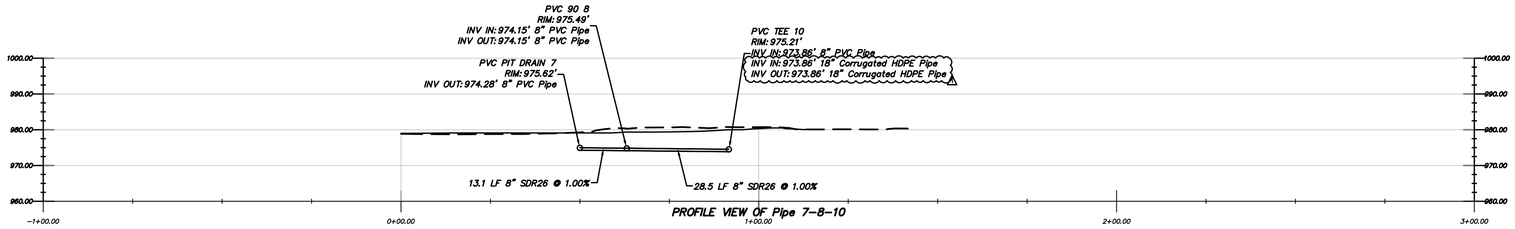
SCALE: 1"=20'



PROFILE VIEW OF Pipe 9-10-11



PROFILE VIEW OF Pipe 7-8-10

REVISIONS
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MICHAEL J. GRAY
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JOB NO.: 25007
DWG NAME: 25007 PROJ

STORM PROFILES

SHEET: C3.2

DATE: 8/7/2025

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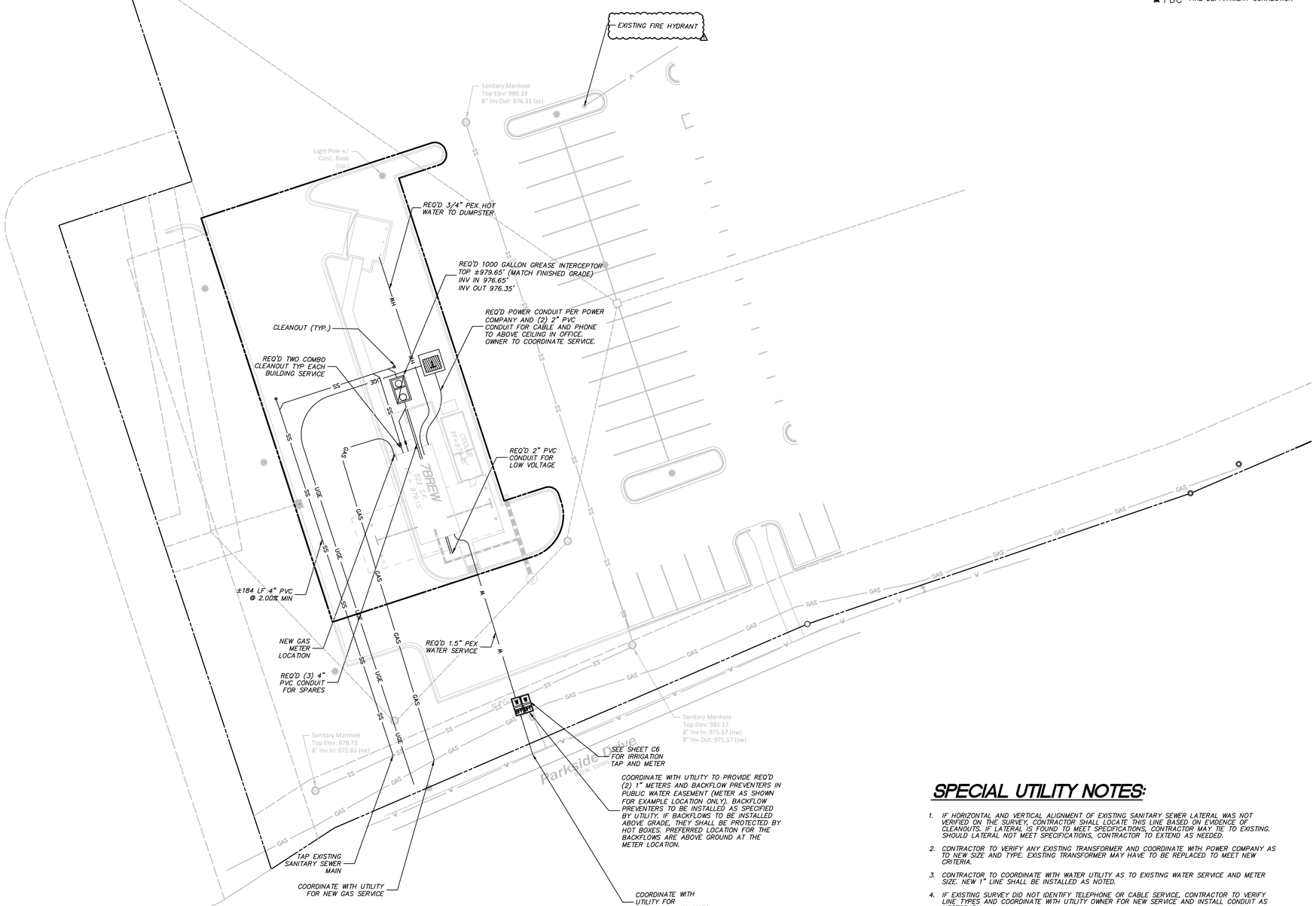


UTILITY LEGEND

GAS	GAS SERVICE
SS	SANITARY SEWER
OHE	OVERHEAD ELECTRIC
UGE	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE
CATV	UNDERGROUND CABLE TV
W	WATER SERVICE
HW	HOT WATER SERVICE

GREASE TRAP
ELECTRICAL TRANSFORMER
SANITARY SEWER CLEAN OUT
SEWER MANHOLE
FIRE HYDRANT
WATER METER W/BACKFLOW PREVENTER
SEWER DRAIN
GATE VALVE
FDC FIRE DEPARTMENT CONNECTION

0 20' 30' 40'
SCALE: 1"=20'

UTILITY NOTES:

1. STANDARD SPECIFICATIONS AND DETAILS SHALL GOVERN ALL WATER AND SANITARY SEWER MAIN CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND VERIFYING LOCATION, SIZE AND SPECIFICATIONS OF ALL ELECTRICAL TRANSFORMER PADS FROM THE LOCAL POWER COMPANY AND PROVIDING SERVICE FROM THE TRANSFORMER TO THE BUILDING.
3. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS AND IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION AT NO EXTRA COST TO THE OWNER.
4. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OR OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDEURES. THE CONTRACTOR SHALL SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS TO INCLUDE BUT NOT LIMITED TO ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.
5. SANITARY SEWER PIPE SHALL BE PVC SCH 40 FOR PIPES LESS THAN 12" DEEP. PVC PIPE SHALL BE BELL & SPIGOT TYPE WITH INTEGRAL BELL AND RUBBER GASKETS. DEEPER PIPE AND PIPE UNDER PAVED AREAS WITH LESS THAN 4' MINIMUM COVER SHALL BE DUCTILE IRON CLASS 52 AWA C150, ANSI: A21.51 WITH PUSH ON OR MECHANICAL JOINTS. DUCTILE PIPE MAY BE SUBSTITUTED FOR PVC PIPE IN OTHER AREAS.
6. SANITARY SEWER PIPE SHALL HAVE A MINIMUM DEPTH OF 3 FEET WITH 4-6 FOOT DEPTH PREFERRED. PERCENTAGE OF GRADES LISTED FOR SANITARY SEWER LINES WERE CALCULATED FROM THE CENTERLINE OF ONE MANHOLE TO THE CENTERLINE OF THE NEXT MANHOLE.
7. SEWER SERVICE LATERALS SHALL BE COORDINATED WITH BUILDING PLANS. ANY DISCREPANCIES SHOULD BE CLARIFIED BEFORE INSTALLATION. SEWER LATERALS ARE TO BE PERMANENTLY MARKED ON THE CURB WITH AN 'X'.
8. ALL MANHOLES REQUIRE KOR-N-SEAL OR EQUAL RUBBER BOOTS.
9. THE TOP ELEVATION OF MANHOLES CONSTRUCTED IN PAVED AREAS SHALL MATCH FINISH GRADE, AND SHALL HAVE TRAFFIC BEARING LIDS. THE TOP ELEVATION OF MANHOLES CONSTRUCTED IN GRASSED AREAS SHALL BE 2" ABOVE FINISHED GRADE (UNLESS OTHERWISE NOTED). ALL EXISTING MANHOLES & UTILITY BOXES SHALL BE ADJUSTED AS NECESSARY TO MATCH PROPOSED GRADING.
10. ALL WATER PIPE 4" DIAMETER AND LARGER SHALL MEET THE MORE STRINGENT OF THE LOCAL WATER UTILITY REQUIREMENTS OR THE FOLLOWING: C900, CLASS 150 PVC WATER PIPE WITH 150 PSI PRESSURE RATING CONFORMING TO AWWA, AND UNIBELL PLASTIC PIPE STANDARD SPECIFICATIONS. FITTINGS 4" AND LARGER SHALL BE CAST IRON OR DUCTILE IRON CONFORMING WITH AWWA STANDARD SPECIFICATIONS.
11. ALL WATER PIPE 3" AND SMALLER SHALL MEET THE MORE STRINGENT OF THE LOCAL WATER UTILITY REQUIREMENTS OR THE FOLLOWING: GASKET JOINTED PVC, SDR 21 OR TYPE K COPPER TUBE PER ANSI 16.22. WATER SERVICE TO THE BUILDING SHALL BE 1" COPPER TYPE K OR 1" PEX-A (UPONOR). WATER TO HOSE BIB AT DUMPSTER, IF APPLICABLE, SHALL BE 3/4" PEX-A (UPONOR).
12. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 36 INCHES OVER ALL WATER LINES.
13. CONTRACTOR SHALL COORDINATE INSTALLATION OF WATER SERVICE WITH WATER DEPARTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ALL APPARATUS INCLUDING: WATER METERS, BACK FLOW PREVENTERS, POST INDICATOR VALVES, AND ENCLOSURES.
14. THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF WATER AND SEWER LINE IS (5') FIVE FEET. THE MINIMUM VERTICAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINES IS (18") EIGHTEEN INCHES.
15. ALL FIRE HYDRANTS SHALL CONFORM TO LOCAL REQUIREMENTS.
16. ALL DOMESTIC WATER SERVICES SHALL HAVE REDUCED PRESSURE VALVES AS DIRECTED BY THE OWNER'S ARCHITECT.
17. EXISTING UTILITIES LOCATIONS ARE APPROXIMATE AND SHOULD BE VERIFIED FOR LOCATION, SIZE AND NUMBER BY THE CONTRACTOR.
18. ALL ELECTRIC, TELEPHONE AND GAS LINES, INCLUDING SERVICE LINES, ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE UTILITY COMPANIES SPECIFICATIONS.
19. CONTRACTOR TO COORDINATE INSTALLATION OF ALL UTILITIES BY OTHERS WITH HIS/HER WORK.
20. PRIMARY ELECTRIC SERVICE IS PROVIDED BY THE POWER COMPANY. THE CONTRACTOR IS RESPONSIBLE COORDINATION WITH THE POWER COMPANY AND FOR THE TRANSFORMER PAD, TRENCHING, CONDUITS, AND BACKFILL AND COMPACTION TO THE TRANSFORMER. CONTRACTOR RESPONSIBLE FOR ALL POWER FROM TRANSFORMER TO BUILDING.
21. GAS LINES OUTSIDE OF BUILDING ARE INDICATED FOR COORDINATION ONLY. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH GAS UTILITY.
22. UNDERGROUND ELECTRIC LINES ARE SHOWN FOR COORDINATION ONLY. EXACT LOCATION WILL BE DETERMINED BY THE APPROPRIATE UTILITY COMPANY AND MUST BE COORDINATED WITH OTHER UTILITIES IN THE FIELD. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ELECTRICAL SERVICE.
23. ALL SANITARY MANHOLES AND PIPE TO BE FLUSHED CLEAN OF DEBRIS PRIOR TO TURN OVER OF SYSTEM TO OWNER.
24. ALL EASEMENTS TO BE COORDINATED BY THE OWNER.
25. ANY UTILITIES NOT SHOWN THAT REQUIRE RELOCATION OR REMOVAL IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS TO REPORT ALL DISCREPANCIES TO THE ENGINEER IMMEDIATELY UPON DISCOVERY.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE RELOCATION OF ALL UTILITIES ON SITE SUCH AS DRAINAGE STRUCTURES, TRAFFIC SIGNS, UTILITY POLES AND GUY WIRES, WATER, GAS AND UNDERGROUND ELECTRIC LINES.
27. SITE CONTRACTOR IS RESPONSIBLE FOR PROVIDING CAPPED UTILITY STUB OUTS AND MARK WITH SIGNS TO LOCATE EACH UTILITY.
28. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING OR HAVING PERFORMED, AND COST ASSOCIATED WITH, A FIRE FLOW TEST.
29. CONTRACTOR TO COORDINATE WITH TELEPHONE AND CABLE PROVIDERS FOR INSTALLATION TO BUILDING AND PROVIDE CONDUIT AS SHOWN.
30. SANITARY SEWER CLEANOUTS SHALL BE TRAFFIC BEARING HEAVY DUTY WHEN PLACED IN ROADWAY.
31. ALL UTILITY PERMITS, TAP FEES, AND METER COSTS TO BE PAID BY OWNER DIRECTLY TO UTILITY. CONTRACTOR SHALL ASSIST OWNER BY PROVIDING CONTACT INFORMATION FOR PAYMENT.
32. UNLESS SPECIFICALLY STATED OTHERWISE, ALL SITE UTILITIES MUST BE BACKFILLED WITH 6" STONE WITHIN PARKING LOT AREAS TO WITHIN 1' OF TOP OF SUBGRADE: TRENCHES REQUIRE #8910 STONE. 2' OR WIDER TRENCHES REQUIRE #57 STONE.

SPECIAL UTILITY NOTES:

1. IF HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING SANITARY SEWER LATERAL WAS NOT VERIFIED ON THE SURVEY, CONTRACTOR SHALL LOCATE THIS LINE BASED ON EVIDENCE OF CLEANOUTS. IF LATERAL IS FOUND TO MEET SPECIFICATIONS, CONTRACTOR MAY TIE TO EXISTING. SHOULD LATERAL NOT MEET SPECIFICATIONS, CONTRACTOR TO EXTEND AS NEEDED.
2. CONTRACTOR TO VERIFY ANY EXISTING TRANSFORMER AND COORDINATE WITH POWER COMPANY AS TO NEW SIZE AND TYPE. EXISTING TRANSFORMER MAY HAVE TO BE REPLACED TO MEET NEW CRITERIA.
3. CONTRACTOR TO COORDINATE WITH WATER UTILITY AS TO EXISTING WATER SERVICE AND METER SIZE. NEW 1" LINE SHALL BE INSTALLED AS NOTED.
4. IF EXISTING SURVEY DID NOT IDENTIFY TELEPHONE OR CABLE SERVICE, CONTRACTOR TO VERIFY LINE TYPES AND COORDINATE WITH UTILITY OWNER FOR NEW SERVICE AND INSTALL CONDUIT AS NECESSARY.
5. IF LOCAL CODE/AUTHORITY REQUIRES BACKFLOW PREVENTER BE INSTALLED ABOVE GROUND IT WILL BE CONTAINED IN A "HOT BOX". CONTRACTOR SHOULD CHECK LOCAL REQUIREMENTS FOR VENTILATION, HEATING AND INSULATION AND BID ACCORDINGLY. INSULATION IS REQUIRED FOR ALL HOT BOX INSTALLATIONS BY OWNER.
6. CONTRACTOR TO PROVIDE LOCK FOR HOSE BIB. MASTERLOCK LETTER COMBINATION LOCK IS REQUIRED.
7. UNLESS OTHERWISE NOTED AND IF INCLUDED ON THIS SHEET, ONLY ONE WATER SUPPLY BIB IS NEEDED AT THE DUMPSTER AND IT SHALL BE HOT. SEE NOTE 6 ABOVE.
8. TWO COMBO CLEANOUTS REQUIRED BEHIND BUILDING FOR GREASE LINE AND SANITARY SEWER.
9. CLEANOUTS REQUIRED EVERY 75' FOR SANITARY SEWER.

REVISIONS
- 7/8/2025 RELEASE FOR REVIEW
- 8/1/2025 RELEASE FOR REVIEW
- 8/5/2025 RELEASE FOR REVIEW

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
205.443.9600

MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111928
STATE OF TENNESSEE
8/7/2025

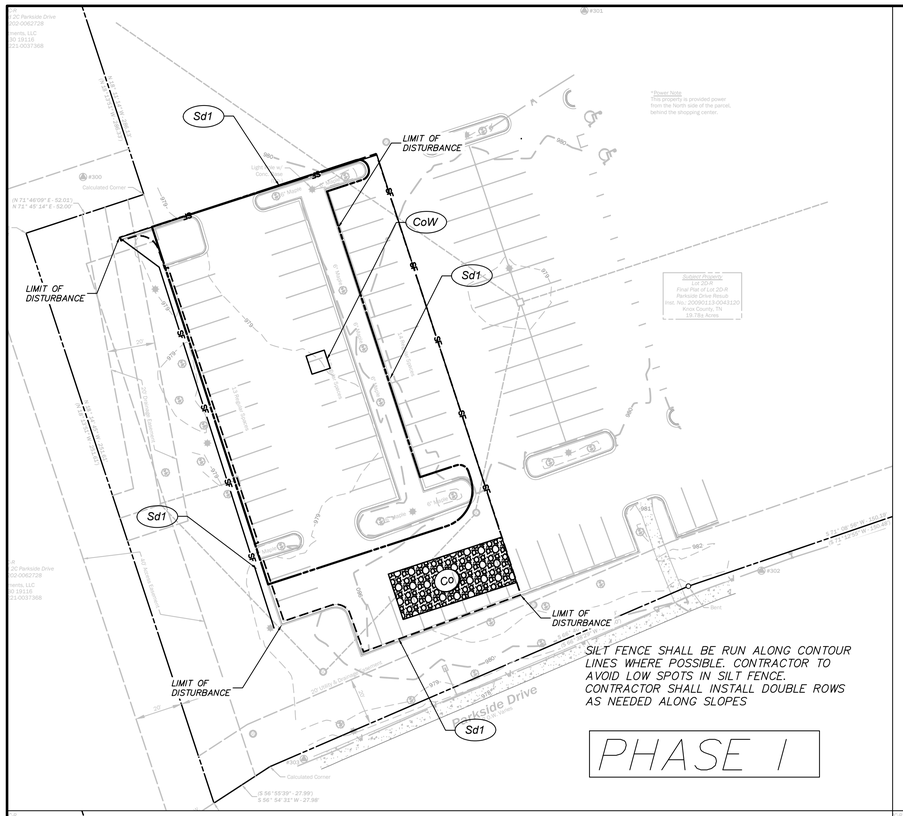
JOB NO.: 25007
DWG NAME: 25007 PROJ

UTILITY PLAN

SHEET: C4

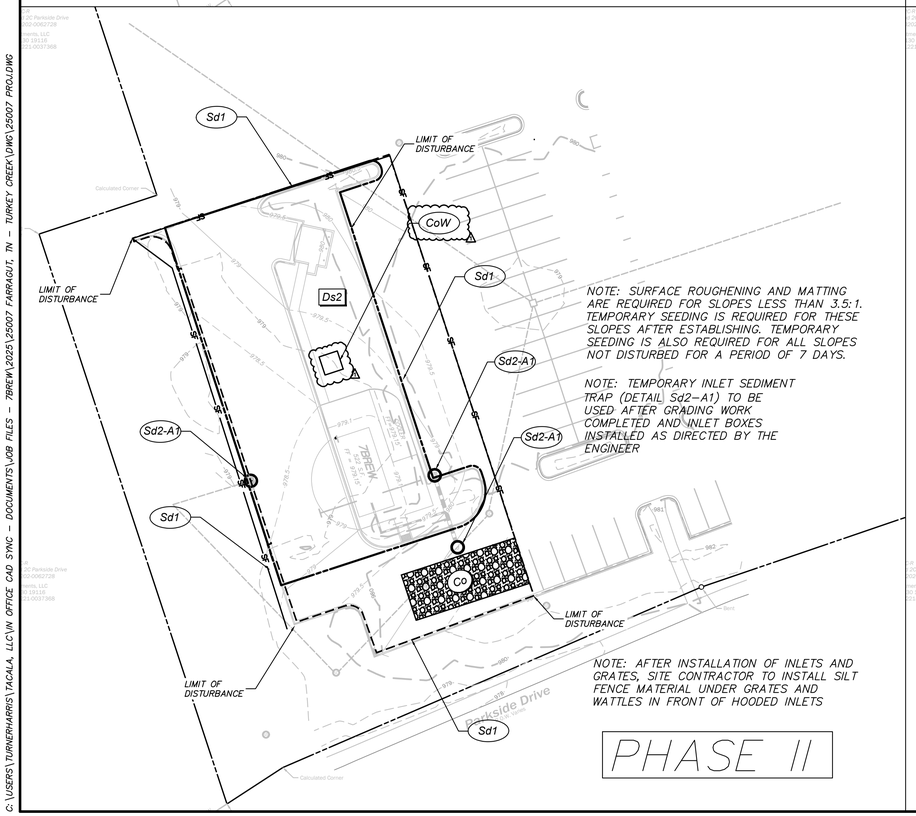
DATE: 8/7/2025

C:\USERS\TURNERHARRIS\TACALA, LLC\W OFFICE CAD SYNC - DOCUMENTS\JOB FILES - 7BREW\2025\25007 FARRAGUT, TN - TURKEY CREEK\DWG\25007 PROJDWG



SILT FENCE SHALL BE RUN ALONG CONTOUR LINES WHERE POSSIBLE. CONTRACTOR TO AVOID LOW SPOTS IN SILT FENCE. CONTRACTOR SHALL INSTALL DOUBLE ROWS AS NEEDED ALONG SLOPES

PHASE I

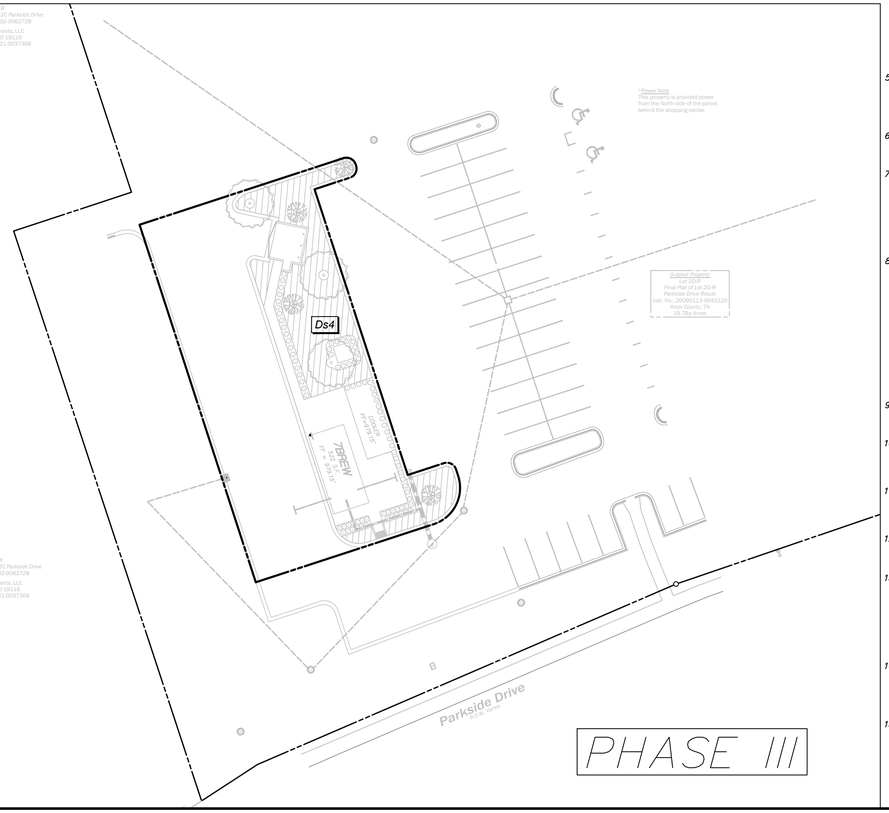


NOTE: SURFACE ROUGHENING AND MATTING ARE REQUIRED FOR SLOPES LESS THAN 3.5:1. TEMPORARY SEEDING IS REQUIRED FOR THESE SLOPES AFTER ESTABLISHING. TEMPORARY SEEDING IS ALSO REQUIRED FOR ALL SLOPES NOT DISTURBED FOR A PERIOD OF 7 DAYS.

NOTE: TEMPORARY INLET SEDIMENT TRAP (DETAIL Sd2-A1) TO BE USED AFTER GRADING WORK COMPLETED AND INLET BOXES INSTALLED AS DIRECTED BY THE ENGINEER

NOTE: AFTER INSTALLATION OF INLETS AND GRATES, SITE CONTRACTOR TO INSTALL SILT FENCE MATERIAL UNDER GRATES AND WATTLES IN FRONT OF HOODED INLETS

PHASE II



PHASE III

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Co	CONSTRUCTION EXIT			A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary, and inexpensive.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd4	TEMPORARY SEDIMENT TRAP			A temporary pond that drains a disturbed area so that sediment can settle out. the principle feature distinguishing this a temp sediment trap from basin is lack of pipe/riser

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
St	STORMDRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Tp	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP. SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM. SEEDING)		Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.

0 40' 60' 80'

SCALE: 1"=40'

EROSION CONTROL NARRATIVE

EROSION CONTROL AND BMP INSTALLATION NARRATIVE:

1. CONTRACTOR SHALL INSTALL CONSTRUCTION ENTRANCE AND THEN INSTALL SILT FENCE AS PER DETAILS PRIOR TO MOBILIZING ANY GRADING EQUIPMENT OR PERFORMING ANY GRADING OPERATIONS.
2. AFTER INSTALLATION OF ALL SILT FENCE, CONTRACTOR SHALL CONSTRUCT ANY DETENTION BASIN TO AID IN SILT COLLECTION DURING ANY RAINFALL EVENTS, IF SHOWN ON PLANS.
3. UPON COMPLETION OF TEMPORARY BMPS, CONTRACTOR MAY PROCEED WITH GRADING WORK AND OTHER CONSTRUCTION. DETENTION AREA SHALL HAVE SILT REMOVED AS NEEDED.
4. AFTER COMPLETION OF STORM DRAIN CONSTRUCTION, CONTRACTOR TO INSURE ALL INLET BOXES ARE PROTECTED USING DETAILS PROVIDED.
5. DETENTION POND, IF INCLUDED IN DESIGN, SHALL THEN BE STABILIZED UNTIL ALL GRADING IS COMPLETE AND LANDSCAPED AS SHOWN ON C6 WHEN ALL PAVEMENT IS IN PLACE.

EROSION CONTROL NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL CONFORM TO THE LATEST EROSION AND SEDIMENT CONTROL REGULATIONS FOR THE STATE, COUNTY, AND/OR CITY.
2. WHEN ANY CONSTRUCTION BORDERS A DRAINAGE COURSE, THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING OR OTHER EXCAVATION SPOILED DIRT, CONSTRUCTION TRASH OR DEBRIS, ETC. FROM THE DRAINAGE AREAS SHOWN HEREON IN AN EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES.
3. PRIOR TO ANY OTHER CONSTRUCTION A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE BUILT. THE CONSTRUCTION ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH STONE. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLE OR SITE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
4. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
5. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXITS, ALL PERIMETER EROSION DEVICES AND STORMWATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
6. OWNER AGREES TO PROVIDE AND MAINTAIN OFF-STREET PARKING ON THE SUBJECT PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD.
7. THE CONSTRUCTION OF THE SITE WILL COMMENCE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN PAVED.
8. EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO GROUND DISTURBANCE, AND ARE TO BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL PERMANENT VEGETATION IS ESTABLISHED. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FORM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
9. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL ALL CONSTRUCTION HAS BEEN COMPLETED.
10. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED.
11. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE WHENEVER LAND DISTURBANCE ACTIVITY IS IN PROGRESS.
12. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY THE ENGINEER AND/OR LOCAL INSPECTOR.
13. EROSION AND SEDIMENT CONTROL SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR COMPLIANCE, INSTALLATION, MAINTENANCE AND REMOVAL AS REQUIRED BY THE REGULATIONS OF THE STATE AND/OR GOVERNING AGENCY. THE INSTALLATION OF THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS A FIRST STEP IN CONSTRUCTION.
14. THE CONTRACTOR IS RESPONSIBLE FOR UPHOLDING THE EROSION CONTROL STANDARDS FOR THE APPLICABLE STATE AND/OR CITY CODES REGARDLESS OF WHAT SEDIMENT CONTROL MEASURES WERE INDICATED WITHIN THE PLAN SET.
15. THE CONTRACTOR IS TO MAINTAIN AN ON-SITE DAILY LOG OF ALL MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES. THE LOG SHALL BE MADE AVAILABLE FOR INSPECTION AT ALL TIMES.
16. THE CONTRACTOR SHALL FURNISH AND MAINTAIN NECESSARY BARRICADES IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES WHILE ROADWAY FRONTAGE IMPROVEMENT ARE MADE.
17. WHEN ANY CONSTRUCTION BORDERS A DRAINAGE COURSE, THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING, OR OTHER EXCAVATION, SPOIL DIRT, CONSTRUCTION TRASH DEBRIS, ETC. FROM THE DRAINAGE AREA IN AN EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES.
18. CONTRACTOR IS RESPONSIBLE FOR MONITORING DOWNSTREAM CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD AND FOR CLEARING AND DEBRIS AND SEDIMENT CAUSED BY CONSTRUCTION.
19. CONTRACTOR IS RESPONSIBLE FOR CLEANING OUT ALL STORM DRAIN STRUCTURES AND PIPE PRIOR TO FINAL COMPLETION.
20. SOIL STABILIZATION
    - ** PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.
    - ** TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DISTURBED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS, BUT LESS THAN ONE YEAR.
    - ** PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
    - ** TEMPORARY STABILIZATION SHALL BE SEED PER LOCAL STANDARDS. PERMANENT STABILIZATION SHALL BE SOD PER LOCAL STANDARDS.
21. DURING CONSTRUCTION, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. TEMPORARY PROTECTION AND PERMANENT STABILIZATION SHALL BE APPLIED TO ALL SOIL STOCKPILES ON SITE AND BORROW AREAS OR SOIL INTENTIONALLY TRANSFERRED OFF SITE. DUE TO THE SIZE OF THIS PROJECT, SEDIMENT TRAPPING MEASURES SHALL BE SILT FENCE.
22. PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DISTURBED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE, AND WILL INHIBIT EROSION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMANENT STABILIZATION UNTIL PROJECT IS GIVEN OVER TO OWNER.
23. CUT AND FILL SLOPES FOR THIS PROJECT SHALL BE AS FLAT AS POSSIBLE AND SHOULD NOT EXCEED 3:1 IN ANY AREA. SHOULD SLOPES BE REQUIRED TO GO BEYOND SILT FENCE BARRIER, SILT FENCE SHALL BE RELOCATED PRIOR TO ACTIVITY AND PROVIDE A MINIMUM OF 3' SEPARATION FROM FENCE TO TIE POINT. ANY EXCESSIVE EROSION IN SLOPES DURING CONSTRUCTION SHALL REQUIRE ADDITIONAL SLOPE STABILIZING MEASURES UNTIL CORRECTED.
24. CONCENTRATED RUNOFF SHALL NOT BE PERMITTED TO FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
25. CONSTRUCTION ENTRANCE/EXIT PAD SHALL BE CONSTRUCTED PER PLAN DETAIL. SHOULD SEDIMENT BE TRACKED ONTO PAVED STREET, REMOVAL SHOULD BE COMPLETED AT THE END OF EACH DAY. STREET WASHING SHALL ONLY BE PERMITTED AFTER SEDIMENT IS REMOVED BY SHOVELING OR SWEEPING.
26. REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL OCCUR WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND DISTURBED SOIL AREAS RESULTING FROM DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
27. ALL CHEMICALS AND SOLUBLE MATERIALS STORED ONSITE MUST EITHER BE STORED IN AN ENCLOSED, WATERPROOF STORAGE FACILITY OR PROVIDED WITH SECONDARY CONTAINMENT CAPABLE OF STORING THE CONTENTS OF THE TOTAL AMOUNT OF CHEMICALS STORED. SPILL CLEANUP MATERIALS MUST BE LOCATED WITHIN THE PROXIMITY OF THE MATERIALS AS WELL.
28. PORT-A-POTTIES ON THE PROJECT WILL NOT BE LOCATED CLOSE TO STREAMS, WETLANDS, OR STORM DRAINS.
29. A PROJECT BMP INSPECTION SHALL BE PERFORMED ON A WEEKLY BASIS, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT, BY A LICENSED QCI WITH A COPY OF THE INSPECTION REPORT FORWARDED TO THE DISTRICT OFFICE EVERY WEEK.

REVISIONS
- 7/9/2025 RELEASE FOR REVIEW
- 8/1/2025 RELEASE FOR REVIEW
- 8/5/2025 RELEASE FOR REVIEW

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
2054431900

MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111924
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007

DWG NAME: 25007 PROJ

EROSION CONTROL PLAN

SHEET: C5

DATE: 8/7/2025

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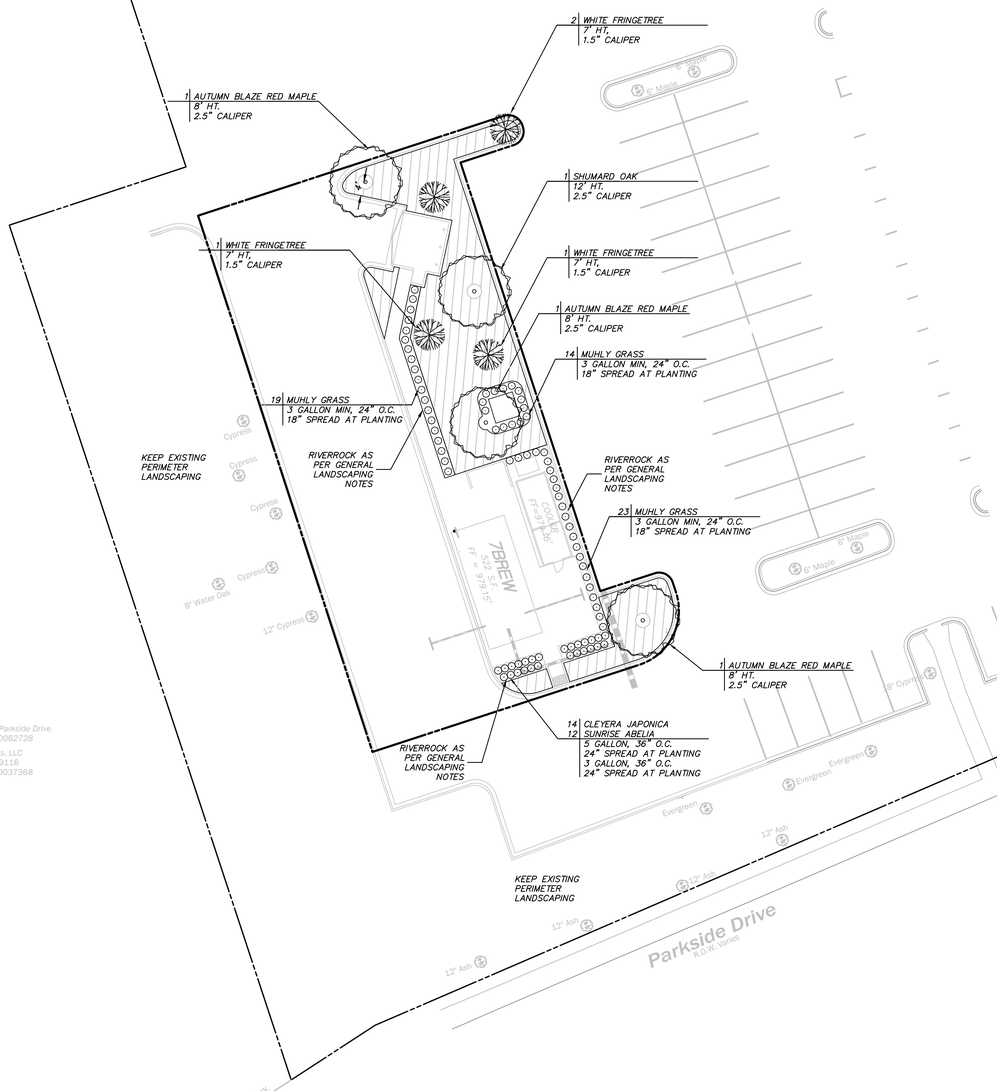

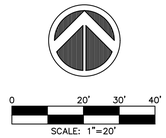

LANDSCAPING DETAILS

SEED (BERMUDA – OWNER MUST APPROVE VARIATION)

SOLID SOD (BERMUDA–OWNER MUST APPROVE VARIATION)

GENERAL LANDSCAPING NOTES

1. LANDSCAPING/IRRIGATION CONTRACTOR SHALL COORDINATE ALL MATERIALS AND/OR ANY DEVIATIONS FROM THIS PLAN WITH OWNER BEFORE INSTALLATION.
2. CONTRACTOR SHALL USE DETAILS AS PROVIDED IN THIS PLAN SET UNLESS ADDITIONAL DETAILS ARE PROVIDED BY A LANDSCAPE ARCHITECT IF USED ON THE PROJECT.
3. CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES AND LANDSCAPING REQUIREMENTS.
4. CONTRACTOR SHALL PLANT SOD WITHIN 8'–10' OF ALL OUTSIDE CURBS AND ALL INTERIOR SPACES, OR AS NOTED ON THIS PLAN. SEED AND MULCH TO BE USED FOR ALL OTHER DISTURBED AREAS
5. CONTRACTOR SHALL ENSURE ALL PLANTINGS WILL BE ADEQUATELY IRRIGATED.
6. ALL PLANTS HAVE TO BE APPROVED BY THE OWNER/GOVERNING AUTHORITY.
7. SEE GENERAL NOTES ON LANDSCAPING DETAIL SHEET.
8. ALL AREAS TO BE SEEDED OR SODDED, SHALL RECEIVE 4" OF TOPSOIL AFTER COMPACTION. SOD AND SEED SHALL BE BERMUDA UNLESS LOCAL CONDITIONS REQUIRE OTHER. VARIATIONS FROM BERMUDA MUST BE APPROVED BY OWNER.
9. CONTRACTOR SHALL HAVE LANDSCAPING CONTRACTOR GROUP SHRUBS LISTED AS CHOICES ABOVE IN A MANNER TO PROVIDE AESTHETICALLY PLEASING RESULTS.
10. ALL RIVERROCK MUST BE FULLY WASHED PRIOR TO PLACEMENT IN BEDS.
11. ALL LANDSCAPING BEDS SHALL HAVE BROWN METAL EDGING AROUND THE ENTIRE BED EXCEPT FOR AGAINST CONCRETE CURB OR SIDEWALK. GREEN METAL EDGING WILL NOT BE ACCEPTED. EDGING SHALL EXTEND 1" ABOVE GRASS AND ALL STAKES SHALL BE TOWARDS RIVER ROCK. RIVER ROCK SHALL BE AT LEAST 1" BELOW HEIGHT OF EDGING. ABSOLUTELY NO ORGANIC MULCH OF ANY KIND IS ALLOWED. ALL BEDS TO HAVE A MINIMUM OF 3" SETTLED RIVER ROCK PLACED OVER A MINIMUM 4 OZ WEED FABRIC. FABRIC SHALL BE SECURED WITH 6" LANDSCAPING PINS. FABRIC SHALL BE PLACED OVER SHRUBS AND CUT TO FIT. FABRIC SHALL BE INSPECTED BY PHOTOGRAPH SUBMITTAL PRIOR TO RIVER ROCK PLACEMENT. CANOPY TREES SHALL HAVE A 6' LANDSCAPE DIAMETER RING AND CRAPE MYRTLES TO HAVE A 4' DIAMETER RING. RIVERROCK SHALL ALWAYS BE FULLY ENCOMPASSED IN METAL EDGING WHERE SURROUNDED BY SOD.
12. AS–BUILT IRRIGATION PLANS TO BE SUBMITTED TO OWNER AT TURNOVER OF PROJECT.

LANDSCAPE SUMMARY

INTERIOR REQUIREMENTS	
PARKING SPACES	19
REQUIRED LANDSCAPE AREA	250SF
LANDSCAPE AREA PROVIDED	3260SF
REQUIRED PLANTED AREA	63SF
PLANTED AREA PROVIDED	525SF

THE PROPOSED LOCATION OF ALL PLANTS ASSURES NO INTERFERANCE WITH UTILITIES, LIGHTS, AND STORM WATER FACILITIES

INTERIOR PLANTING LIST

SYMBOL	QUANTITY	SPECIES	SIZE
	4	WHITE FRINGETREE	7' HT 1.5" CAL
	56	MUHLY GRASS	3GAL 18" SPREAD
	14	CLEYERA JAPONICA	5GAL 24" SPREAD
	12	SUNRISE ABELIA	3GAL 24" SPREAD
	3	AUTUMN BLAZE RED MAPLE	8' HT 2.5" CAL
	1	SHUMARD OAK	12' HT 2.5" CAL

REVISIONS

7BREW COFFEE STAND

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SITE #7B1355

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WILLIAM REED JOHNSON JR. REGISTERED AGRICULTURAL LANDSCAPE ARCHITECT TENNESSEE

JOB NO.: 25007

DWG NAME: 25007 PROJ

LANDSCAPING PLAN

SHEET: C6

DATE: 8/7/2025

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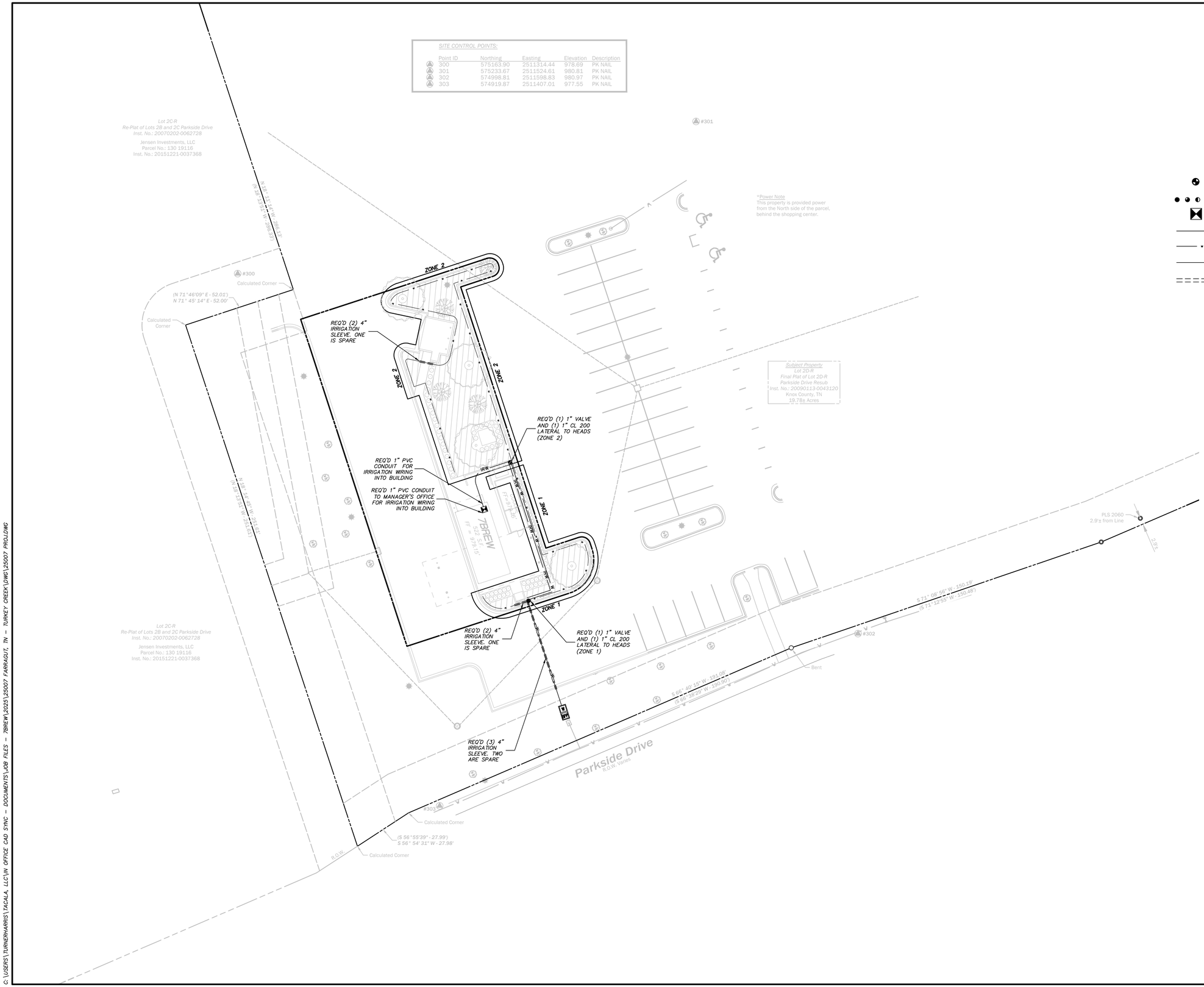

0 20' 30' 40'
SCALE: 1"=20'

IRRIGATION DETAILS

- IRRIGATION VALVE
- SPRAY HEAD (RADIUS AND DIRECTION PER IRRIGATION CONTRACTOR
- RAINBIRD ESP-Me CONTROLLER (INSTALLED IN MANAGER'S OFFICE)
- W — IRRIGATION MAIN – SCH 40 PVC
- IRRIGATION LATERAL – CL 200 PVC
- IRW — IRRIGATION CONTROL WIRE
- IRRIGATION SLEEVE – 4" PER DETAIL

GENERAL IRRIGATION NOTES

1. IF IRRIGATION CONTRACTOR DESIRES TO DEVELOP HIS OWN IRRIGATION PLAN, INCLUDING LOCATION OF HEADS, VALVES, CONTROLLER, ZONES, PIPE SIZES, ACTUAL SLEEVE LOCATIONS, BACKFLOW PREVENTER, AND WIRING SCHEMATIC, THIS PLAN MUST BE SUBMITTED TO THE ENGINEER AND OWNER FOR APPROVAL.
2. POWER TO CONTROLLER BY ELECTRICAL CONTRACTOR.
3. IRRIGATION CONTROLLER SHALL BE PLACED WITHIN THE BUILDING WITH EXACT PLACEMENT AS PER ARCH. DRAWINGS.
4. COORDINATE CONDUIT INTO BUILDING BEFORE SLAB IS POURED FOR CONTROLLER WIRING.
5. DRAWING IS DIAGRAMMATIC IF SHOWN. ALL LINES TO BE PLACED BACK OF CURB.
6. ALL HEADS PLACED IN SHRUB BEDS WILL HAVE 12" POP-UPS UNLESS OTHERWISE NOTED.
7. USE VARIABLE ARC SPRAY HEADS WHEN NECESSARY.
8. THERE ARE TO BE (2) 4" PVC SLEEVES EACH TIME MAINLINE CROSSES HARDSCAPE.
9. THERE IS TO BE (1) 4" PVC SLEEVE WHEN THE LATERAL LINE CROSSES HARDSCAPE.
10. ALL SLEEVES TO BE INSTALLED AS PART OF GENERAL CONTRACTOR'S CONTRACT. VERIFY LOCATION WITH LANDSCAPE CONTRACTOR. ALL EQUIPMENT REQUIRED BUT NOT SPECIFIED ON THE DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR.
11. VERIFY TAP: IRRIGATION CONTRACTOR TO TEST WATER CONDITIONS AS THEY EXIST IMMEDIATELY DOWN STREAM FROM TAP: IF THEY DO NOT MEET DESIGN DEMANDS, NOTIFY LANDSCAPE ARCHITECT OR ENGINEER IMMEDIATELY OF EXISTING CONDITIONS.
12. MATCH PRECIPITATION RATES ON ALL CIRCUITS.
13. ALL WORK MUST COMPLY WITH LOCAL CODES.
14. NO ELECTRICAL CONNECTIONS SHALL BE MADE IN THE FIELD EXCEPT AT A VALVE CONTROL BOX OR ANOTHER VALVE BOX SPECIFICALLY FOR CONNECTIONS.
15. ANY DISCREPANCY BETWEEN THIS SHEET AND OTHERS IN THIS SET MUST BE REFERRED TO THE IRRIGATION CONSULTANT BY THE CONTRACTOR FOR CLARIFICATION BEFORE PRECEDING WITH THE WORK.
16. ALL 24 VOLT WIRE SHALL BE #12 UF/UL FOR COMMON WIRE, AND #14 UF/UL FOR CONTROL WIRES. DIRECT BURIAL, SOLID COPPER.CONTRACTOR TO BE RESPONSIBLE FOR PROPER COVERAGE OF AREAS TO BE WATERED. I.E. ADJUST HEADS WITH INSUFFICIENT COVERAGE DUE TO BLOCKAGE BY EXISTING OR PROPOSED SITE FEATURES.
17. CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER PLANTING, I.E. VERIFY ROOT BALL SIZE FOR PLANTING. CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE. CONTRACTOR TO UTILIZE APPROPRIATE AUTOMATIC DRAIN DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.
18. ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER:
    A. TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF SPRINKLER HEADS AND VALVE SUPPLIED.
    B. TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS.
    C. TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS. 24 VOLT WIRE SHALL BE COLOR CODED: COMMON- WHITE, CONTROL -RED.
19. CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR PROPER COVERAGE.
20. ELECTRIC VALVE CONTROL WIRE TO BE 14 GAUGE MINIMUM. IRRIGATION CONTRACTOR MUST PLACE ONE EXTRA "HOT" WIRE AND ONE EXTRA "COMMON" AT FURTHEST VALVE IN EACH DIRECTION FROM CLOCK.
21. ALL MAIN LINES SHALL BE INSTALLED A MAXIMUM OF 2' FROM THE BACK OF CURBS WHERE POSSIBLE. LATERAL LINES SHALL BE INSTALLED LIKEWISE WHERE POSSIBLE.
22. ACTUAL HEAD PLACEMENT IN PARKING LOT ISLANDS IS TO BE 18" FROM BACK OF CURB FOR SHRUB PLANTINGS AND 6" FROM BACK OF CURB FOR LAWNS.
23. THE CONTRACTOR SHALL ADJUST THE RADIUS AND ARC OF EACH HEAD TO MINIMIZE "OVERTHROW" AND TO ELIMINATE "DRY SPOTS".
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLY AND INSTALLATION OF ADDITIONAL HEADS NEEDED TO COVER "DRY SPOTS" OR SLIGHT VARIATIONS FROM THE PLAN TO THE SITE UP TO FIVE % OF SPECIFIED HEAD TYPE.
25. THE LOCATION AND ARRANGEMENT OF THESE HEADS SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT OR ENGINEER.
26. DO NOT MAKE SUBSTITUTIONS: IF CONTRACTOR DESIRES TO MAKE SUBSTITUTIONS OF MATERIALS, SUFFICIENT DESCRIPTIVE LITERATURE AND MATERIAL SAMPLES MUST BE FURNISHED TO ESTABLISH THE MATERIAL AS AN EQUAL SUBSTITUTE. IN ADDITION, THE CONTRACTOR MUST STATE HIS REASONS FOR DESIRING SUBSTITUTE MATERIALS. SUBMIT THIS REQUEST AND INFORMATION TO LANDSCAPE ARCHITECT OR ENGINEER.

REVISIONS

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
205.443.9600

WILLIAM REED JOHNSON JR. REGISTERED LANDSCAPE ARCHITECT TENNESSEE 2534

JOB NO.: 25007
DWG NAME: 25007 PROJ

IRRIGATION PLAN

SHEET: C6.1

DATE: 8/7/2025

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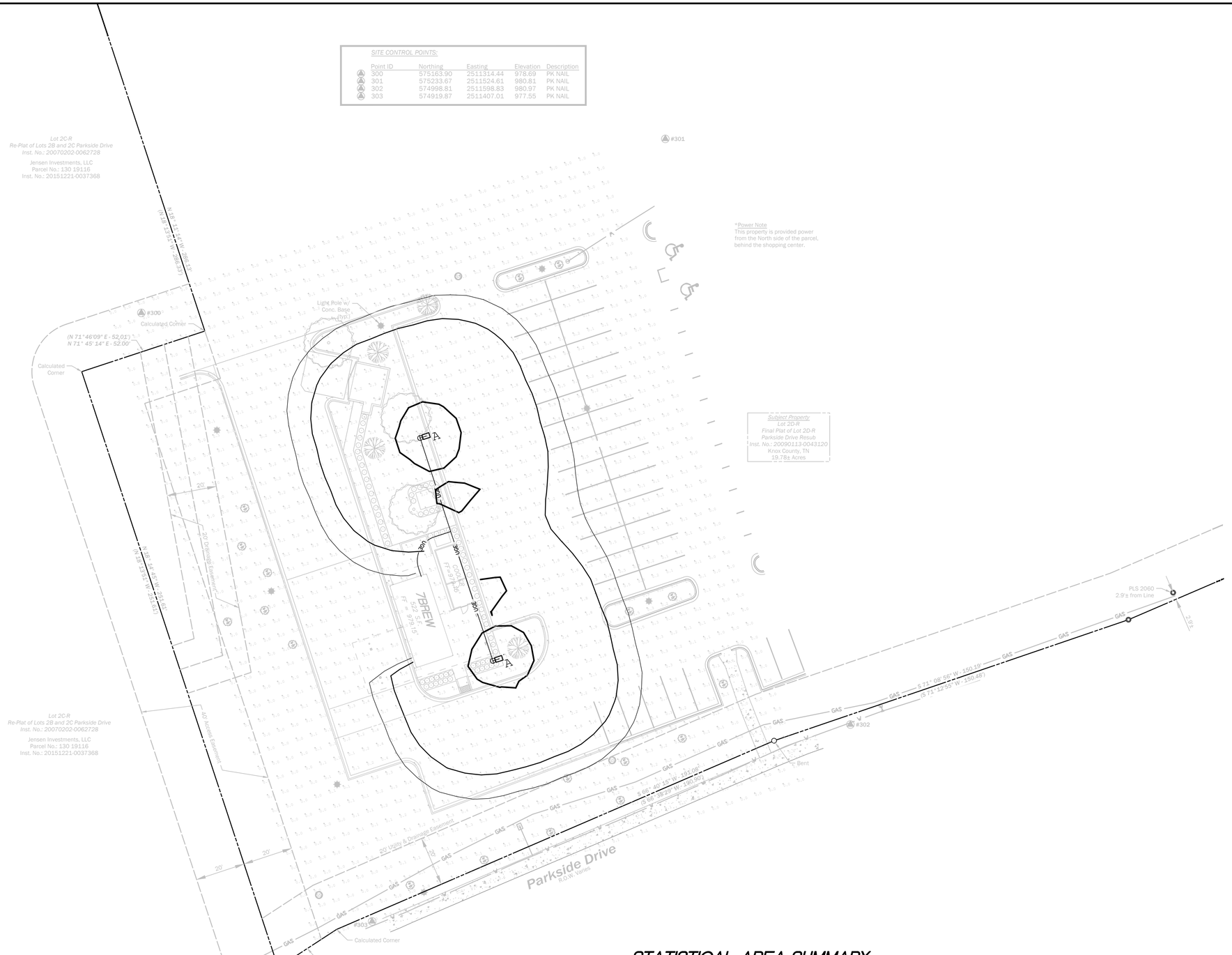
SITE CONTROL POINTS:

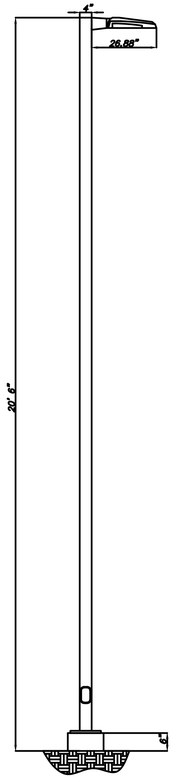
Point ID	Northing	Easting	Elevation	Description
300	575163.90	2511314.44	978.69	PK NAIL
301	575233.67	2511524.61	980.81	PK NAIL
302	574998.81	2511598.83	980.97	PK NAIL
303	574919.87	2511407.01	977.55	PK NAIL



0 20' 30' 40'
SCALE: 1"=20'

GENERAL LIGHTING NOTES

1. LIGHTING DESIGN BY ACCUSERV. FOR NEW DESIGNS, SKIP TO NOTE 6.
2. IF EXISTING POLES ARE TO BE USED, CONTRACTOR TO REPAIR ALL EXISTING LIGHTING ON PROPERTY AS NEEDED AND PAINT AS APPLICABLE.
3. IF APPLICABLE, ANY CHANGES IN LOCATION OF EXISTING LIGHTING THAT REQUIRES ELECTRICAL LINE RELOCATION OR EXTENSION SHALL BE COMPLETED BY THE ELECTRICIAN.
4. WHEN ELECTRICAL LINES MUST BE EXTENDED, ELECTRICIAN SHALL FOLLOW ALL LOCAL ELECTRICAL CODES FOR SPLICES, JUNCTION BOXES, ETC.
5. IF PAVEMENT MUST BE CUT FOR ELECTRICAL LINE CHANGES, ASPHALT SHALL BE REPAIRED BY THE CONTRACTOR AND COMPLETED PRIOR TO ANY FINAL SEAL COATS OR FINAL PAVEMENT LAYERS.
6. REFER TO ELECTRICAL DRAWING E6 DETAIL 8 FOR EXTERIOR LIGHTING CONTROL RELAY DETAIL
7. LIGHT POLE BASES SHALL HAVE AN EIFS APPLICATION THAT MATCHES COLORS ON THE BUILDING.
8. EDGES OF POLE BASES SHALL BE MINIMUM 2' AWAY FROM BACK OF CURB UNLESS OTHERWISE SHOWN.



STATISTICAL AREA SUMMARY

CALCULATION SUMMARY					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
EXTENDED	.66	3.4	0.0	N.A.	N.A.
PARKING LOT & DRIVE THRU SURFACE	1.22	3.4	0.0	N.A.	N.A.

LIGHT LEVELS ARE MAINTAINED FOOT-CANDLES, INITIAL LEVELS ARE SLIGHTLY HIGHER

PREPARED BY: JOHN BUJAKE
ACCUSERV LIGHTING & EQUIPMENT
877-707-7378
JBUJAKE@ACCU-SERV.COM
JULY 02, 2025

LUMINAIRE SCHEDULE

PROJECT: ALL PROJECTS								
SYMBOL	QTY	LABEL	ARRANGEMENT	TOTAL LAMP LUMENS	LLF LUM	CCT	WATTS	DESCRIPTION
	2	A	SINGLE	23172	0.900	4000K	172	VP-1-160L-160-4K7-5QW-UNV-A-DBT / SES-20-40-01-A-B3-DBT

POLES ARE 20'-0" ON 6" BASES

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VESTAVIA HILLS, AL 35242
205.443.9600

MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111928
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

SITE LIGHTING PLAN

SHEET: C7

DATE: 8/7/2025

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SITE CONTROL POINTS:

Point ID	Northing	Easting	Elevation	Description
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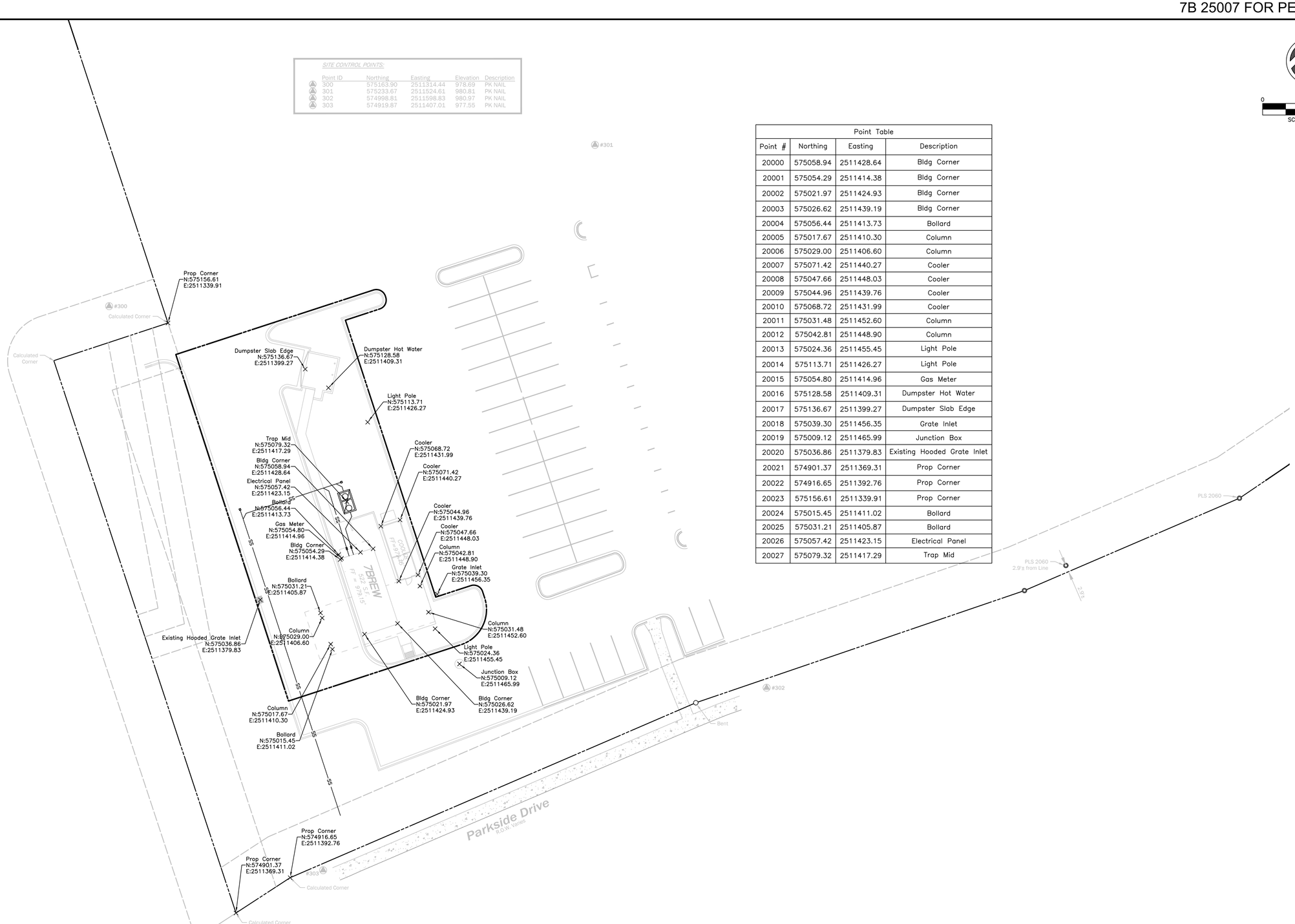

Point Table			
Point #	Northing	Easting	Description
20000	575058.94	2511428.64	Bldg Corner
20001	575054.29	2511414.38	Bldg Corner
20002	575021.97	2511424.93	Bldg Corner
20003	575026.62	2511439.19	Bldg Corner
20004	575056.44	2511413.73	Bollard
20005	575017.67	2511410.30	Column
20006	575029.00	2511406.60	Column
20007	575071.42	2511440.27	Cooler
20008	575047.66	2511448.03	Cooler
20009	575044.96	2511439.76	Cooler
20010	575068.72	2511431.99	Cooler
20011	575031.48	2511452.60	Column
20012	575042.81	2511448.90	Column
20013	575024.36	2511455.45	Light Pole
20014	575113.71	2511426.27	Light Pole
20015	575054.80	2511414.96	Gas Meter
20016	575128.58	2511409.31	Dumpster Hot Water
20017	575136.67	2511399.27	Dumpster Slab Edge
20018	575039.30	2511456.35	Grate Inlet
20019	575009.12	2511465.99	Junction Box
20020	575036.86	2511379.83	Existing Hooded Grate Inlet
20021	574901.37	2511369.31	Prop Corner
20022	574916.65	2511392.76	Prop Corner
20023	575156.61	2511339.91	Prop Corner
20024	575015.45	2511411.02	Bollard
20025	575031.21	2511405.87	Bollard
20026	575057.42	2511423.15	Electrical Panel
20027	575079.32	2511417.29	Trap Mid

0 20' 30' 40'
SCALE: 1"=20'

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MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111928
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

STAKING PLAN

SHEET: C7.1

DATE: 8/7/2025

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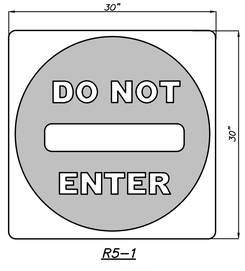
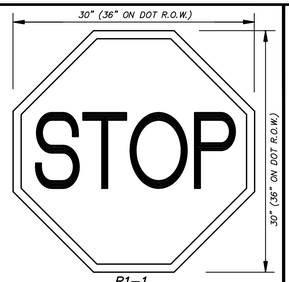


R5-1

SIGN CRITERIA
BACKGROUND: WHITE
LETTERING: WHITE
SYMBOL: RED
REFERENCE: MUTCD

"DO NOT ENTER" SIGN

S4I N.T.S.

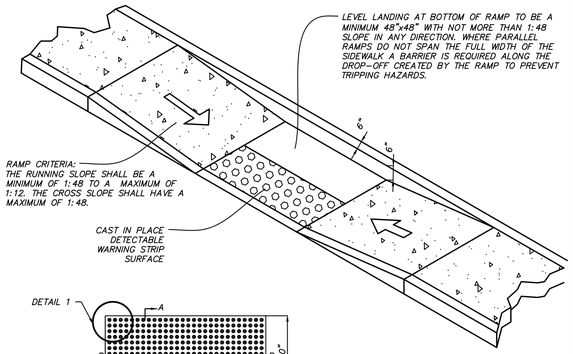


R1-1

SIGN CRITERIA
BACKGROUND: RED
LETTERING: WHITE
BORDER: WHITE
REFERENCE: MUTCD

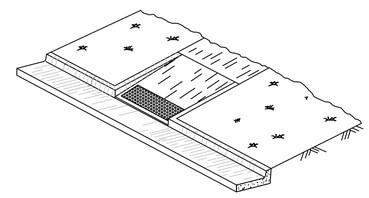
"STOP" SIGN

S4H N.T.S.

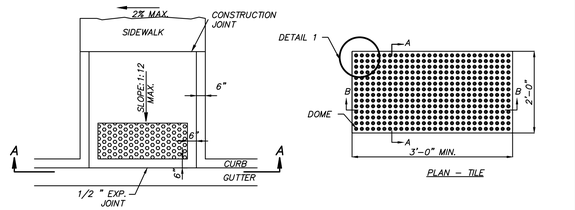


PARALLEL CURB RAMP IN SIDEWALK

S3G N.T.S.



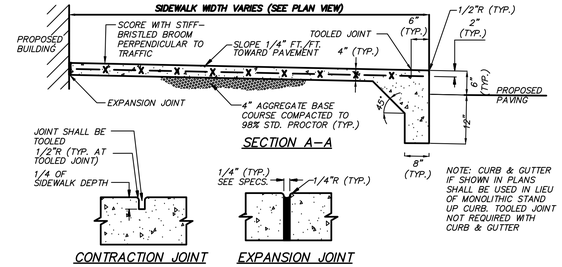
IN AREAS WHERE THE GUTTER HAS A LONGITUDINAL SLOPE OF 1% OR GREATER, END NORMAL GUTTER SLOPE AT A DISTANCE OF 6 FEET FROM THE RAMP AND BEGIN TRANSITION TO A FLAT GUTTER SLOPE. NORMAL GUTTER SLOPE SHALL BE RESUMED AT A SIMILAR DISTANCE BEYOND THE RAMP.



ARMOR-TILE 2'X3'(MIN.) CAST-IN-PLACE - BRICK RED AND INSTALLED PER MANUFACTURER DETAILS SET IN FRESH CONCRETE

ACCESSIBLE RAMP AT END OF SIDEWALK

S3E N.T.S.

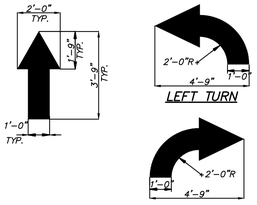


NOTES:

1. WHERE REQUIRED, REINFORCEMENT WILL BE No. 3 BARS 24" O.C. EACH WAY (MAX. SPACING), OR 6 X 6 (10 GAUGE) - W1.4 X W1.4 WWF. CONCRETE TO BE 4", 3500 P.S.I. P.C. CONCRETE.
2. TOOLED CONTRACTION JOINT IN FRESH CONCRETE TO BE GROOVED JOINT 1/4 OF CONCRETE DEPTH MIN. WITH 1/2" MIN. RADIUS ON EXPOSED EDGES.

CONCRETE SIDEWALK AT BUILDING

S3C N.T.S.

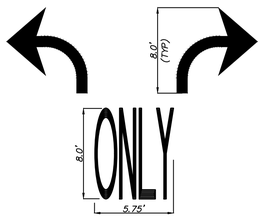


NOTE

1. WORDS AND ARROWS FOR DRIVEWAYS SHALL BE APPLIED ACCORDING TO REQUIREMENTS AS OUTLINED IN SECTION 3B-20 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. ALL TRAFFIC FLOW ARROWS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT OR MEET LOCAL REQUIREMENTS.

PARKING LOT FLOW ARROW

S5I N.T.S.

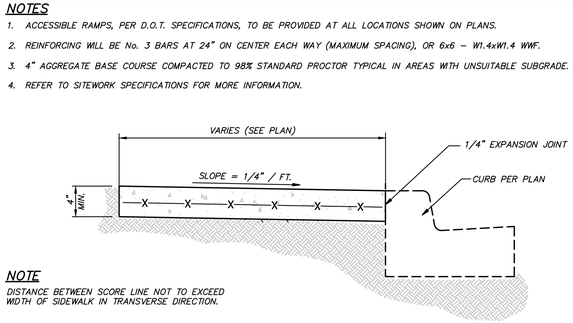


NOTES:

1. WORDS AND ARROWS FOR DRIVEWAYS SHALL BE APPLIED ACCORDING TO REQUIREMENTS AS OUTLINED IN SECTION 3B-20 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. THESE WORDS AND ARROWS ARE TO BE PAINTED REFLECTIVE WHITE.

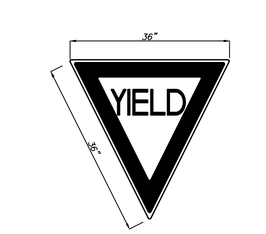
RIGHT/LEFT TURN ONLY PAVEMENT MARKINGS

S5H N.T.S.



CROSSWALK MARKINGS

S5N N.T.S.

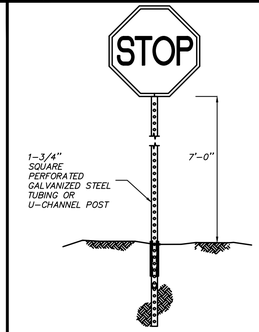


R1-2

SIGN CRITERIA
BACKGROUND: WHITE
LETTERING: RED
BORDER: RED
REFERENCE: MUTCD

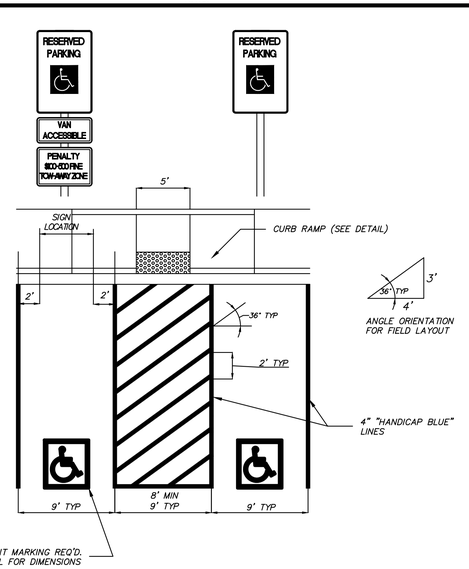
"YIELD" SIGN

S4V N.T.S.



SIGN MOUNTING DETAIL

S5AA N.T.S.

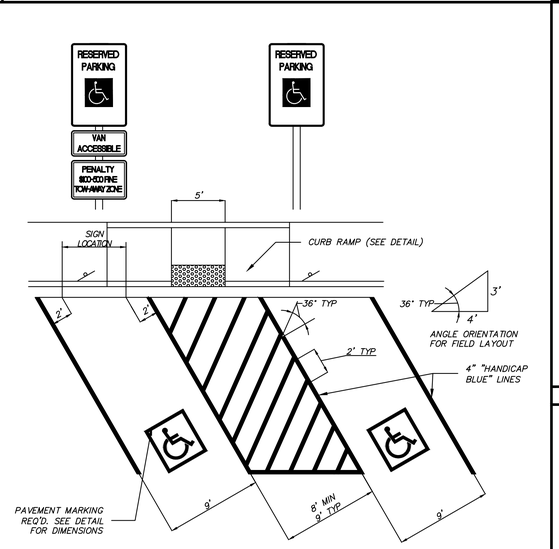


NOTES:

1. SEE SITE PLAN FOR LAYOUT AND LOCATION.
2. THESE DETAILS ARE FOR REFERENCE AND DIMENSION CONTROL ONLY.
3. ALL DIMENSIONS ARE TO CENTERLINE OF STRIPE UNLESS OTHERWISE INDICATED.
4. 2% MAXIMUM SLOPE IN ALL DIRECTIONS WITHIN THE ACCESSIBLE SPACE

90° ACCESSIBLE PARKING SPACE STRIPING

S5K N.T.S.

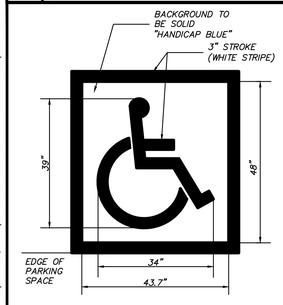


NOTES:

1. SEE SITE PLAN FOR LAYOUT AND LOCATION.
2. THESE DETAILS ARE FOR REFERENCE AND DIMENSION CONTROL ONLY.
3. ALL DIMENSIONS ARE TO CENTERLINE OF STRIPE UNLESS OTHERWISE INDICATED.
4. 2% MAXIMUM SLOPE IN ALL DIRECTIONS WITHIN THE ACCESSIBLE SPACE

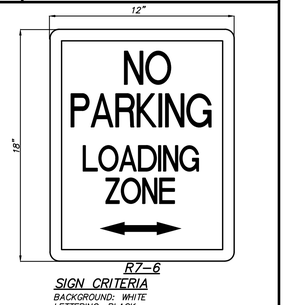
60° ACCESSIBLE PARKING SPACE STRIPING

S5L N.T.S.



ADA PAVEMENT MARKING

N.T.S.

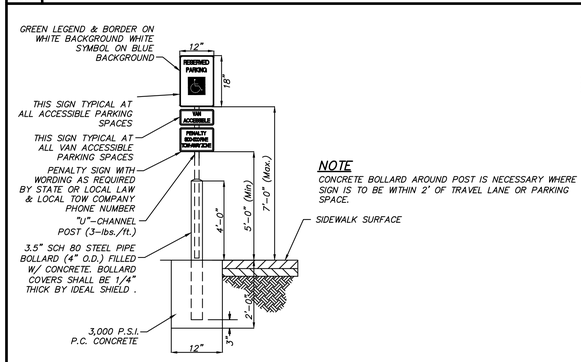


R7-6

SIGN CRITERIA
BACKGROUND: WHITE
LETTERING: BLACK
SYMBOLS: BLACK
BORDER: BLACK
REFERENCE: MUTCD

"NO PARKING - LOADING ZONE" SIGN

S4AA N.T.S.



NOTE
CONCRETE BOLLARD AROUND POST IS NECESSARY WHERE SIGN IS TO BE WITHIN 2' OF TRAVEL LANE OR PARKING SPACE.

VAN ACCESSIBLE PARKING SIGN

S4D N.T.S.

NOTE
DISTANCE BETWEEN SCORE LINE NOT TO EXCEED WIDTH OF SIDEWALK IN TRANSVERSE DIRECTION.

CONCRETE SIDEWALK

S3A N.T.S.

NOTES

1. ACCESSIBLE RAMPS, PER D.O.T. SPECIFICATIONS, TO BE PROVIDED AT ALL LOCATIONS SHOWN ON PLANS.
2. REINFORCING WILL BE No. 3 BARS AT 24" ON CENTER EACH WAY (MAXIMUM SPACING), OR 6x6 - W1.4xW1.4 WWF.
3. 4" AGGREGATE BASE COURSE COMPACTED TO 98% STANDARD PROCTOR TYPICAL IN AREAS WITH UNSUITABLE SUBGRADE.
4. REFER TO SITEWORK SPECIFICATIONS FOR MORE INFORMATION.

REVISIONS
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- 8/1/2025 RELEASE FOR REVIEW
- 8/5/2025 RELEASE FOR REVIEW

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MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111928
STATE OF TENNESSEE
8/7/2025

JOB NO: 25007
DWG NAME: 25007 PROJ

SITE DETAILS

SHEET: C8

DATE: 8/7/2025

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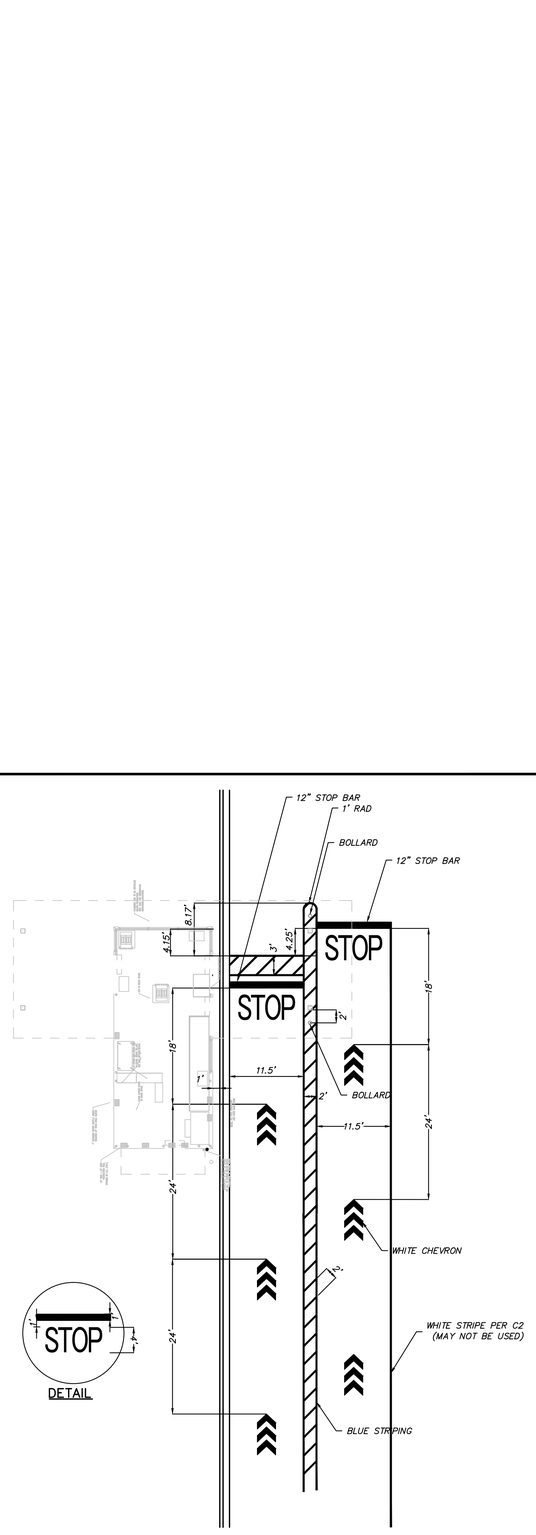
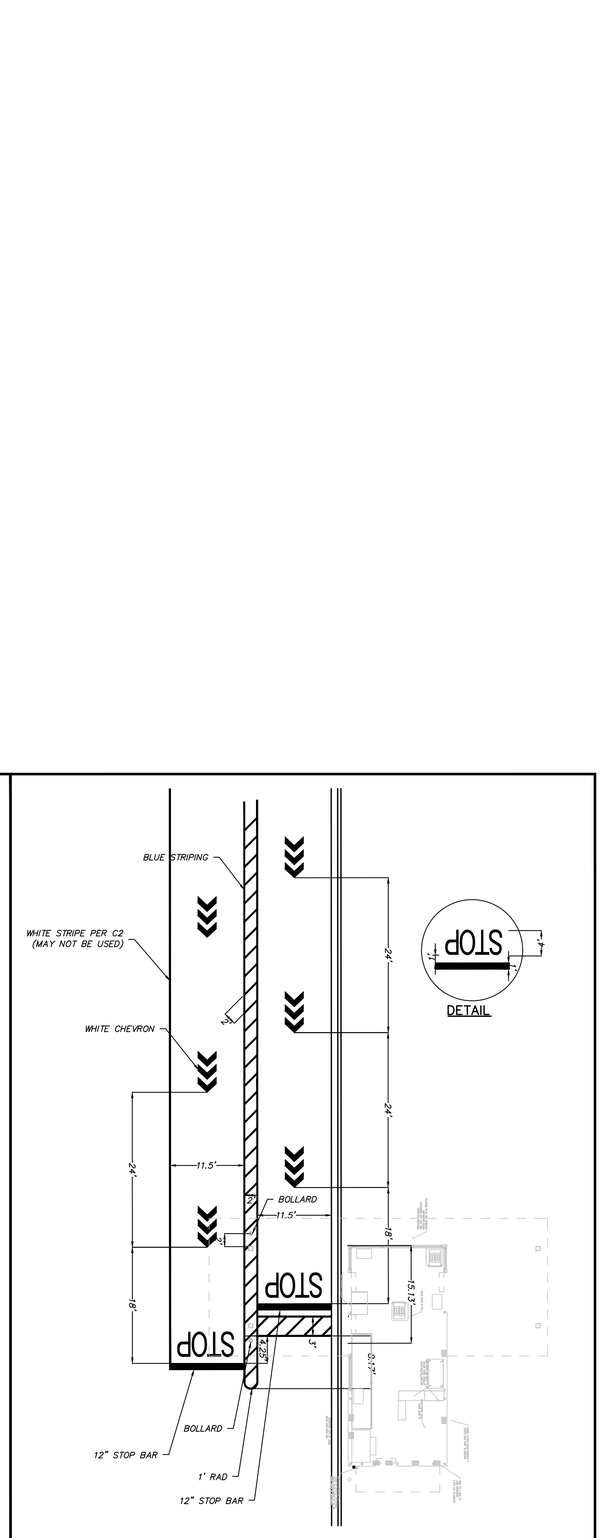


STANDARD DRIVE-THRU STRIPING DETAIL

N.T.S.



REVERSE DRIVE-THRU STRIPING DETAIL

N.T.S.

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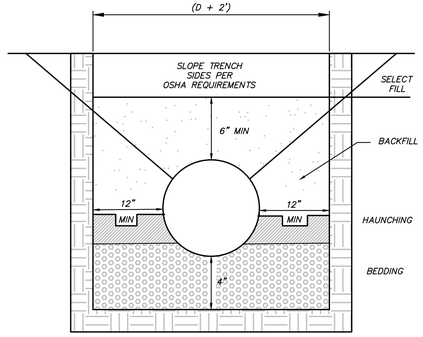
MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111924
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

SITE DETAILS

SHEET:
C9

DATE: 8/7/2025



ELEVATION

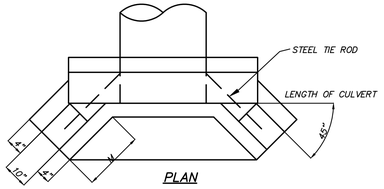
STORM SEWER INSTALLATION DETAIL

1. THE PIPE BEDDING IS A RELATIVELY THIN LAYER OF LOOSELY PLACED MATERIAL TO CUSHION THE PIPE INVERT AND ALLOW THE PIPE TO REST OR SEAT INTO IT, THUS SUPPORTING THE PIPE. WHEN, IN THE OPINION OF THE ENGINEER, THE NATURAL SOIL DOES NOT PROVIDE A SUITABLE BED, A BEDDING BLANKET WITH A MINIMUM THICKNESS OF 4" DEPTH SHALL BE PROVIDED.
2. HAUNCHING AND PIPE BACKFILL SHALL BE GRANULAR MATERIAL AS SPECIFIED BY AASHTO M-145 FOR A-1,A-2, OR A-3 (SILTY, CLAYEY MATERIALS, SANDY MATERIAL OR GRAVEL MATERIALS). PLACE MATERIAL IN 8 INCH LOOSE LIFTS AND COMPACT TO 95% STANDARD PROCTOR (AASHTO 199).
3. MINIMUM COVER IS MEASURED FROM OUTSIDE OF THE PIPE WALL TO THE BOTTOM OF ASPHALT LAYER OR THE TOP OF CONCRETE PAVEMENT. CHECK EACH SIZE FOR ACTUAL MINIMUM COVER FOR H20 LOADING.

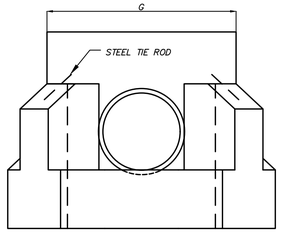
BEDDING AND BACKFILL DETAIL

N.T.S.

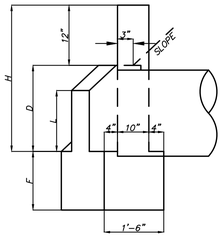
G7H



PLAN



FRONT ELEVATION



SIDE ELEVATION

DIMENSIONS						
OPENING		WALL			FOOTING	
D	AREA SQ FT	H	G	L	M	F
2:1 SLOPE						
18"	1.8	2'-6"	3'-10"	1'-2"	1'-7"	1'-3"
24"	3.1	3'-0"	4'-4"	1'-5"	2'-1"	1'-4"
30"	4.9	3'-6"	4'-10"	1'-9"	2'-5"	1'-6"
36"	7.1	4'-0"	5'-4"	2'-0"	2'-11"	1'-8"
42"	9.6	4'-6"	5'-10"	2'-3"	3'-6"	2'-0"
48"	12.6	5'-0"	6'-4"	2'-6"	4'-0"	2'-0"
54"	16.0	5'-6"	6'-10"	2'-9"	4'-6 1/4"	2'-0"
60"	19.6	6'-0"	7'-4"	3'-0"	5'-0 1/2"	2'-0"
3:1 SLOPE						
18"	1.8	2'-6"	3'-10"	1'-2"	1'-9"	1'-3"
24"	3.1	3'-0"	4'-4"	1'-5"	2'-10"	1'-4"
30"	4.9	3'-6"	4'-10"	1'-9"	3'-6"	1'-6"
36"	7.1	4'-0"	5'-4"	2'-1"	4'-3"	1'-8"
42"	9.6	4'-6"	5'-10"	2'-5"	4'-11"	2'-0"
48"	12.6	5'-0"	6'-4"	2'-8"	5'-6"	2'-0"
54"	16.0	5'-6"	6'-10"	3'-2"	6'-1"	2'-0"
60"	19.6	6'-0"	7'-4"	3'-6"	6'-9"	2'-0"

NOTES:
1) ALL CONCRETE SHALL BE 4,000 PSI.
2) ALL REINFORCING STEEL SHALL BE #4 DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
3) CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 3/4" x 45 DEGREE CHAMFER UNLESS OTHERWISE NOTED.
4) ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE ACI STANDARD "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315).

SINGLE PIPE HEADWALL DETAIL

N.T.S.

G3B

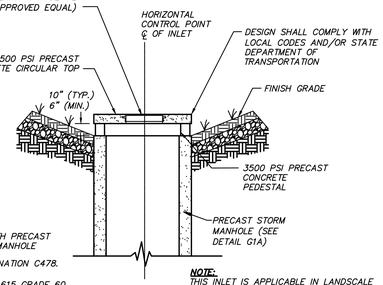
23 1/2" DIA. GRATE COVER NEENAH R-1792-FG (OR APPROVED EQUAL)
23 1/2" DIA. SOLID COVER NEENAH R-1792-FL (OR APPROVED EQUAL)

INLET CAPACITY:

(Weir Flow)
Q = 3.3*P*(h)^1.5
Where: P=10.57 ft.
h=head in feet

INLET CAPACITY TABLE:

HEAD (FT)	CAPACITY (CFS)	FLOW CONDITION
0.10	1.10	WEIR
0.20	3.12	WEIR
0.30	5.73	WEIR
0.40	8.82	WEIR
0.50	12.33	WEIR
0.60	------	---
0.70	------	---
0.80	------	---



SPECIFICATIONS:

STRUCTURE: DESIGN TO CONFORM WITH PRECAST REINFORCED CONCRETE MANHOLE

GRADE: SECTIONS A.S.T.M. DESIGNATION C478.

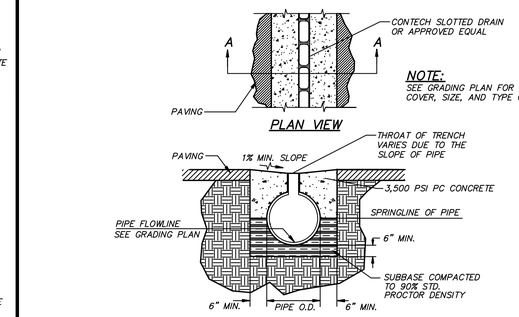
REINFORCEMENT: COMPLIES WITH ASTM A-615 GRADE 60, AND/OR A.S.T.M A185 BAR BENDING AND PLACEMENT SHALL COMPLY WITH THE LATEST ACI STANDARDS.

NOTE:
THIS INLET IS APPLICABLE IN LANDSCALE AREAS OR IN NON TRAFFIC RATED AREAS.

CIRCULAR AREA INLET

N.T.S.

G2C



NOTE:
SEE GRADING PLAN FOR DEPTH OF COVER, SIZE, AND TYPE OF PIPE.

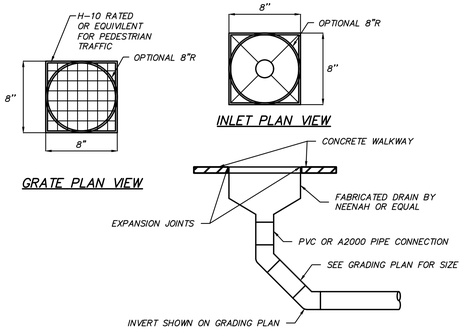
PLAN VIEW

SECTION A-A

SLOTTED DRAIN

N.T.S.

G7A



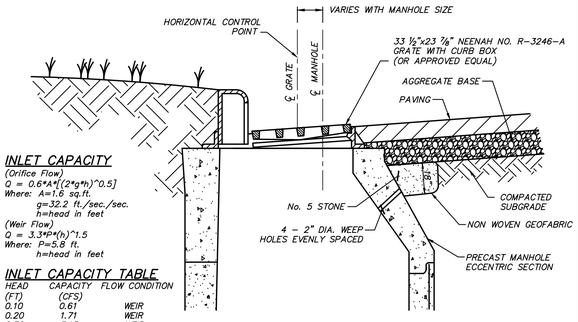
INLET PLAN VIEW

GRATE PLAN VIEW

PATIO/WALKWAY/LANDSCAPE DRAIN

N.T.S.

G7B



INLET CAPACITY

(Orifice Flow)
Q = 0.6*A*[(2*g*h)^0.5]
Where: A=1.6 sq.ft.
g=32.2 ft./sec./sec.
h=head in feet
(Weir Flow)
Q = 3.3*P*(h)^1.5
Where: P=5.8 ft.
h=head in feet

INLET CAPACITY TABLE

HEAD (FT)	CAPACITY (CFS)	FLOW CONDITION
0.10	0.61	WEIR
0.20	1.71	WEIR
0.30	3.15	WEIR
0.40	4.84	TRANSITION*
0.50	5.45	TRANSITION*

*Compared Weir and Orifice Capacity and used lower value.

HOODED CURB INLET WITH WEEP HOLES

N.T.S.

G2M

HORIZONTAL CONTROL POINT ℄ OF OPENING

SPECIFICATIONS:

COMPRESSIVE: 4000 PSI @ 28 DAYS

LOADING: AASHTO HS-20 TRAFFIC LOADING

STRUCTURE: DESIGN TO CONFORM WITH PRECAST REINFORCED CONCRETE MANHOLE SECTIONS A.S.T.M. DESIGNATION C478.

GRADE:

REINFORCEMENT: COMPLIES WITH ASTM A-615 GRADE 60, AND/OR A.S.T.M A185 BAR BENDING AND PLACEMENT SHALL COMPLY WITH THE LATEST ACI STANDARDS.

SITE PREPARATION: THE STRUCTURE SHALL BE PLACED ON A COMPACTED GRANULAR BASE TO INSURE UNIFORM DISTRIBUTION OF SOIL PRESSURES.

WATER TABLE: BASE DESIGN ON 2'0" BELOW GRADE SEE GEOTECHNICAL REPORT PROVIDED BY OWNER PRIOR TO MANUFACTURE DESIGN

SQUARE MANHOLE FOOTER CHART (ANTI-FLOTATION)

	HT.	WIDTH	HEIGHT		WIDTH	HEIGHT		WIDTH	HEIGHT
6' SQUARE	20'	9'	1.42'	5' SQUARE	7.5'	1.69'	4' SQUARE	6'	2.08'
	18'	9'	1.28'		7.5'	1.52'		6'	1.88'
	16'	9'	1.14'		7.5'	1.35'		6'	1.67'
	14'	9'	.99'		7.5'	1.18'		6'	1.46'
	12'	9'	.85'		7.5'	1.01'		6'	1.25'
	10'	9'	.71'		7.5'	.84'		6'	1.04'
	8'	9'	.57'		7.5'	.68'		6'	.83'
	6'	9'	.43'		7.5'	.34'		6'	.63'
	4'	9'	.28'		7.5'	.28'		6'	.42'
	2'	9'	.14'		7.5'	.17'		6'	.21'

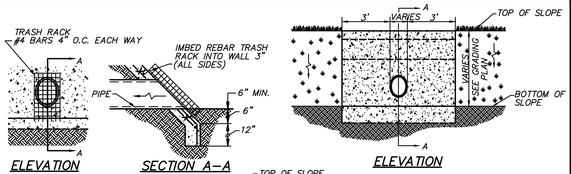
CIRCULAR MANHOLE FOOTER CHART (ANTI-FLOTATION)

	HT.	WIDTH	HEIGHT		WIDTH	HEIGHT		WIDTH	HEIGHT
6' RADIUS	20'	9'	2.72'	5' RADIUS	7.5'	3.20'	4' RADIUS	6'	3.89'
	18'	9'	2.44'		7.5'	2.88'		6'	3.50'
	16'	9'	2.17'		7.5'	2.56'		6'	3.11'
	14'	9'	1.90'		7.5'	2.24'		6'	2.72'
	12'	9'	1.63'		7.5'	1.92'		6'	2.33'
	10'	9'	1.36'		7.5'	1.60'		6'	1.94'
	8'	9'	1.09'		7.5'	1.28'		6'	1.56'
	6'	9'	.81'		7.5'	.96'		6'	1.17'
	4'	9'	.54'		7.5'	.64'		6'	.78'
	2'	9'	.27'		7.5'	.32'		6'	.39'

TYPICAL PRECAST STORM SEWER MANHOLE/JUNCTION BOX

N.T.S.

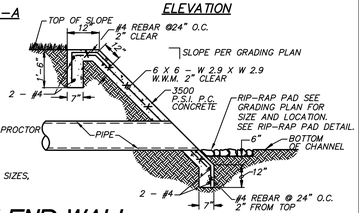
G1A



ELEVATION SECTION A-A ELEVATION

TRASH RACK DETAIL

USE ONLY WHEN SPECIFIED ON PLANS. SHOULD BE USED ONLY WHEN WATER IS FLOWING INTO THE END WALL.



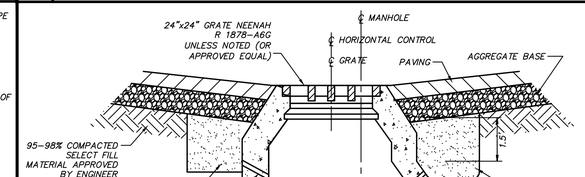
NOTE:
1. COMPACT SUBGRADE TO 95-98% STANDARD PROCTOR IN HORIZONTAL LIFTS/BENCHES.
2. PROVIDE CONTROL JOINTS AT 10' O.C.
3. ALL REINFORCING BARS TO BE GRADE 60.
4. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS AND FLOW LINES.

SECTION A-A

CONCRETE END WALL

N.T.S.

G3F



INLET CAPACITY

(Orifice Flow)
Q = 0.6*A*[(2*g*h)^0.5]
Where: A=2.7 sq.ft.
g=32.2 ft./sec./sec.
h=head in feet
(Weir Flow)
Q = 3.3*P*(h)^1.5
Where: P=8.6 ft.
h=head in feet

INLET CAPACITY TABLE

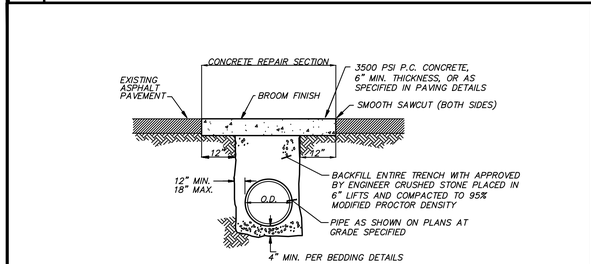
HEAD (FT)	CAPACITY (CFS)	FLOW CONDITION
0.10	0.90	WEIR
0.20	2.54	WEIR
0.30	4.66	WEIR
0.40	7.18	TRANSITION*
0.50	9.19	TRANSITION*

*Compared Weir and Orifice Capacity and used lower value.

24"x24" GRATE INLET WITH WEEP HOLES

N.T.S.

G2D



NOTE:
SEE LOCAL JURISDICTION OR STATE DOT FOR FINAL SPECIFICATION

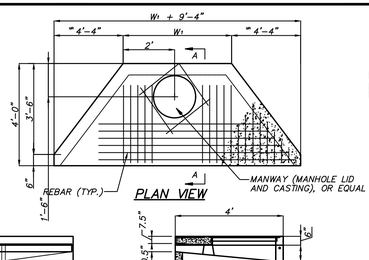
ASPHALT STREET OR DRIVE CUT/REPAIR

N.T.S.

G7O

MINIMUM DIMENSIONS FOR CATCH BASINS		
PIPE SIZE	NORMAL W OR W1	MIN H
12"	3'-0"	4'-4"
15"	3'-0"	4'-7"
18"	3'-0"	4'-10"
24"	3'-0"	5'-6"
30"	3'-6"	6'-2"
36"	4'-0"	6'-10"
42"	5'-0"	7'-4"
48"	5'-0"	8'-0"
54"	6'-0"	8'-6"
60"	6'-0"	9'-2"

INLET CAPACITY:
(Weir Flow)
Q = 3.3*P*(h)^1.5
Where: P=W1 + 9'-4"
h=head in feet



PLAN VIEW



FRONT VIEW



SECTION A-A

SPECIFICATIONS:

1. THE CONCRETE IS DESIGNED TO OBTAIN A STRENGTH OF 4,000 PSI. IN 28 DAYS UNLESS OTHERWISE NOTED.
2. THE REINFORCING STEEL HAS A YIELD STRENGTH OF 60,000 PSI. (1-1/2" CLR. TYP.) UNLESS OTHERWISE NOTED.
3. THE REINFORCED CONCRETE STRUCTURE IS DESIGNED TO MEET _____ DOT SPECS. (REFER TO SPECS FOR SIZING AND SPACING REQUIREMENTS)

DOUBLE WING CATCH BASIN

N.T.S.

G2AA

REVISIONS
7/8/2025 RELEASE FOR REVIEW
8/1/2025 RELEASE FOR REVIEW
8/5/2025 RELEASE FOR REVIEW

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
2054439600

MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111924
STATE OF TENNESSEE
8/7/2025

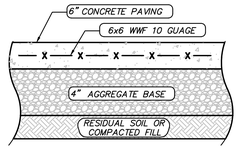
JOB NO: 25007
DWG NAME: 25007 PROJ

SITE DETAILS

SHEET: C10

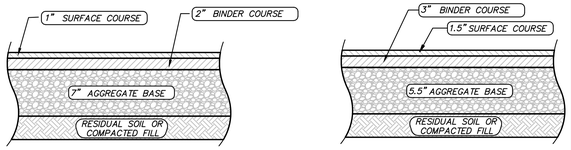
DATE: 8/7/2025

C:\USERS\TURNERHARRIS\TACHA, LLC\W OFFICE CAD SYNC - DOCUMENTS\JOB FILES - 7BREW\2025\25007 FARRAGUT, TN - TURKEY CREEK\DWG\25007 PROJDWG



STANDARD DUTY CONCRETE PAVING

N.T.S.



STANDARD DUTY ASPHALT PAVING

N.T.S.

HEAVY DUTY ASPHALT PAVING

N.T.S.

CRUSHED STONE BASE SHOULD BE COMPACTED TO 100 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR COMPACTION TEST (ASTM 1557, METHOD D).

CRUSHED STONE AGGREGATE SHOULD MEET OR EXCEED REQUIREMENTS OF THE STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN WHICH THIS PROJECT IS LOCATED.

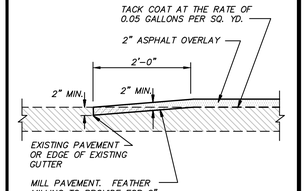
ASPHALT BINDER COURSE SHALL MEET OR EXCEED THE REQUIREMENTS FOR MODIFIED ASPHALTIC BINDER OF STATE DEPARTMENT OF TRANSPORTATION IN WHICH THIS PROJECT IS LOCATED. ASPHALT MATERIAL SHALL BE FROM A STATE APPROVED ASPHALT PLANT.

ASPHALT SURFACE COURSE SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASPHALTIC CONCRETE SURFACE MIX OF STATE DEPARTMENT OF TRANSPORTATION IN WHICH THIS PROJECT IS LOCATED. ASPHALT MATERIAL SHALL BE FROM A STATE APPROVED ASPHALT PLANT.

PAVING SPECIFICATION

N.T.S.

S2CC



ASPHALT OVERLAY

N.T.S.

S2E



R8-3

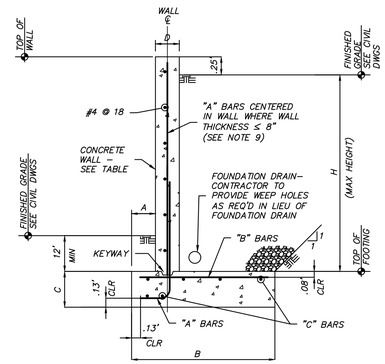
SIGN CRITERIA

BACKGROUND: WHITE
LETTERING: RED
BORDER: RED
REFERENCE: MUTCD

"NO PARKING" SIGN

N.T.S.

S4M



TYPICAL SECTION

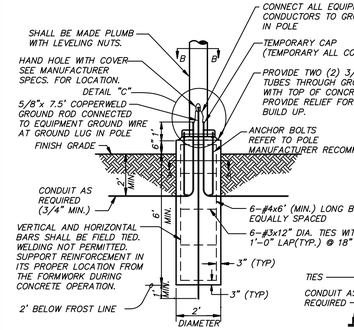
SCALE = 1:20

CANTILEVER CONCRETE RETAINING WALL							
DIMENSIONS					REINFORCEMENT		
H	A	B	C	D	"A" BARS	"B" BARS	"C" BARS
4'–0"	8"	3'–0"	1'–0"	8"	#4 @ 12	#4 @ 18	#5 @ 12
6'–0"	8"	4'–0"	1'–0"	8"	#4 @ 12	#4 @ 18	#5 @ 12
8'–0"	8"	5'–6"	1'–0"	8"	#5 @ 10	#5 @ 18	#5 @ 12
10'–0"	8"	7'–0"	1'–0"	12"	#5 @ 12	#5 @ 12	#5 @ 12

NOTES:

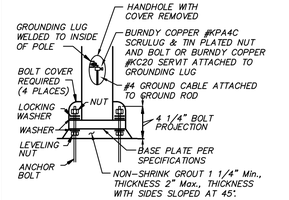
1. WALL CONCRETE COMPRESSIVE STRENGTH (f'c)=4000 PSI
2. FOOTING COMPRESSIVE STRENGTH (f'c) = 3000 PSI
3. PROVIDE CLASS "B" TENSION LAP SPLICE BETWEEN DOWEL AND VERTICAL REINFORCING. VERTICAL REINFORCING CAN BE FABRICATED WITH A STANDARD 90° HOOK PLUS EXTENSION (SEE NOTE 4) IN LIEU OF PROVIDING DOWEL.
4. VERTICAL DOWELS PROVIDE REINFORCING IN BOTTOM OF FOOTING ON TOE SIDE. ORIENT DOWEL AS SHOWN AND EXTEND TO WITHIN 3" OF FACE OF CONCRETE.
   CONTRACTOR OPTION:
   PROVIDE BOTTOM MAT OF REINFORCING "B" BARS IN FOOTING TO ALLOW FOR A STANDARD 90° HOOK ON THE DOWEL (ORIENTATION OF HOOK IN FOOTING IS NOT CRITICAL IF BOTTOM MAT OF REINFORCING IS PRESENT).
5. PROVIDE "C BARS" IN BOTTOM OF FOOTING BETWEEN BACK FACE OF WALL AND EDGE OF FOOTING ON TOE SIDE.
6. RETAINING WALL SHALL BE BACKFILLED WITH #57 STONE PLACED IN A 45–DEGREE WEDGE EXTENDING FROM THE BACK OF THE FOOTING HEEL. STONE SHALL BE COMPACTED IN 1'–0" MAX. LIFTS.
7. WALL DESIGN BASED ON 40 PSF SURCHARGE BEHIND WALL.
8. DESIGN BASED ON THE FOLLOWING GEOTECHNICAL PARAMETERS (GEOTECHNICAL ENGINEER SHALL CONFIRM):
   a. ALLOWABLE SOIL BEARING = 2000 PSF
   b. SOIL PRESSURE = 35 PCF
   c. PASSIVE SOIL PRESSURE = 250 PSF/FT (MIN)
   d. DENSITY OF BACKFILL = 110 PCF
   e. COEFFICIENT OF FRICTION BETWEEN BOTTOM OF FOOTING AND SUBGRADE = 0.35
9. FOR 10'–0" MAX HEIGHT (D=12"), "A" BARS SHALL BE LOCATED NEAR THE SOIL FACE OF WALL WITH 1½" CLEAR COVER. PROVIDE ADDITIONAL LAYER OF VERTICAL REINFORCEMENT (#4@12") NEAR FRONT FACE OF WALL (1½" CLEAR COVER) WITH #4@18" HORIZONTAL REINFORCEMENT. DOWEL VERTICALS INTO FOOTING.

CONCRETE RETAINING WALL

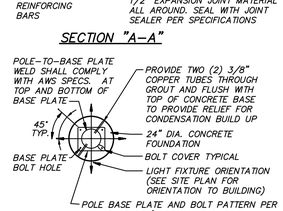


TYPICAL ANCHOR BOLT SPACING

SECTION "A–A"



DETAIL "C"



SECTION "B–B"

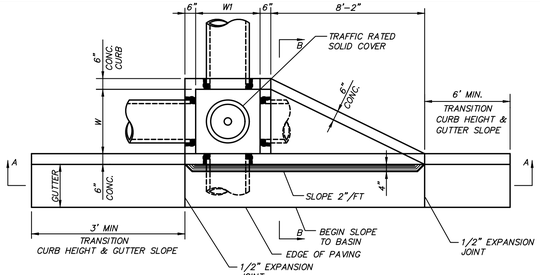
NOTES:

1. 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL 3.
2. IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE. FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL PER SPECIFICATIONS.
4. FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 PSF.
5. FOUNDATION HAS BEEN DESIGNED FOR A COHESIVE SOIL BASED ON A MINIMUM COHESIVE VALUE OF 1000 PSF.
6. FOUNDATION HAS BEEN DESIGNED FOR A GRANULAR SOIL BASED ON A MINIMUM LATERAL SOIL PRESSURE OF 1000 PSF, UTILIZING AASHTO FIGURE 1.8.2C(4) OF "EMBEDMENT OF POSTS WITH OVERTURNING LOADS".
7. DETAIL FOR 39' POLE WITH MAX. FIXTURE EPA 4.6 SQ.FT.
8. FOR CONDITIONS OTHER THAN SPECIFIED NOTIFY ENGINEER.

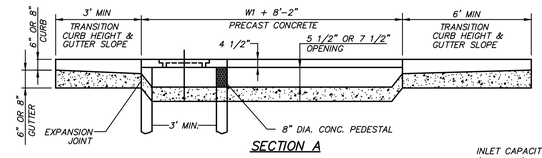
TYPICAL LIGHTING POLE BASE DETAIL

N.T.S.

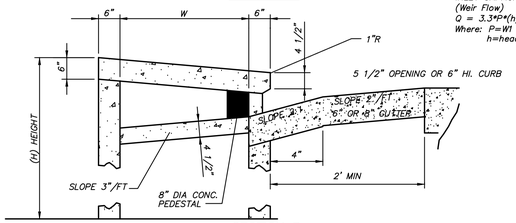
U4C



PLAN



SECTION A



SECTION B

INLET CAPACITY:
(Weir Flow)
Q = 3.3*P*(h)^1.5
Where: P=W1 + 9'–2"
h=head in feet

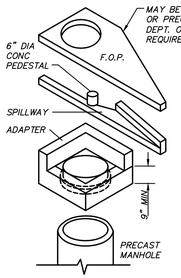
SPECIFICATIONS:

1. THE CONCRETE IS DESIGNED TO OBTAIN A STRENGTH OF 4,000 PSI. IN 28 DAYS.
2. THE REINFORCING STEEL HAS A YIELD STRENGTH OF 60,000 PSI. (1–1/2" CLR. TYP.)
3. THE REINFORCED CONCRETE STRUCTURE IS DESIGNED TO MEET GEORGIA DOT SPECS. (REFER TO SPECS FOR SIZING AND SPACING REQUIREMENTS)

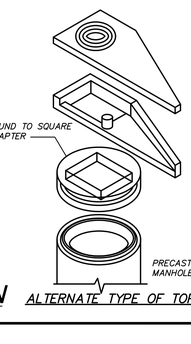
SINGLE WING CATCH BASIN

N.T.S.

G2B

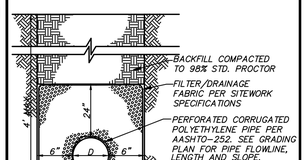


DIMENSIONS FOR CATCH BASINS		
PIPE SIZE	NORMAL W OR W1	MIN H
12"	3'–0"	4'–4"
15"	3'–0"	4'–7"
18"	3'–0"	4'–10"
24"	3'–0"	5'–6"
30"	3'–6"	6'–2"
36"	4'–0"	6'–10"
42"	5'–0"	7'–4"
48"	5'–0"	8'–0"
54"	6'–0"	8'–6"
60"	6'–0"	9'–2"



ALTERNATE TYPE OF TOP

G7D



NOTE:
SEE OWNER PROVIDED GEOTECHNICAL REPORT FOR FINAL DESIGN.

FRENCH DRAIN

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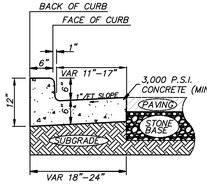


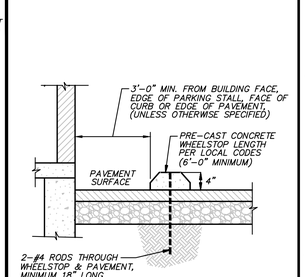
NOTES

1. EXPANSION JOINTS REQUIRED AT ALL STRUCTURES AND CURB RETURNS.
2. 3,000 P.S.I. CONCRETE WITH SMOOTH FINISH.
3. COMPACT SUBGRADE TO 98% STANDARD PROCTOR.
4. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
5. IF 18" CURB IS DESIGNATED, ALL DIMENSIONS TO BE THE SAME EXCEPT 17" GUTTER REDUCED TO 11".

STANDARD CONCRETE CURB AND GUTTER

N.T.S.

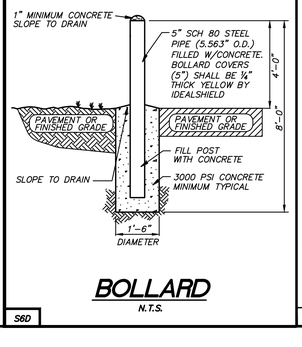
S1D



PRE-CAST CONCRETE WHEELSTOP

N.T.S.

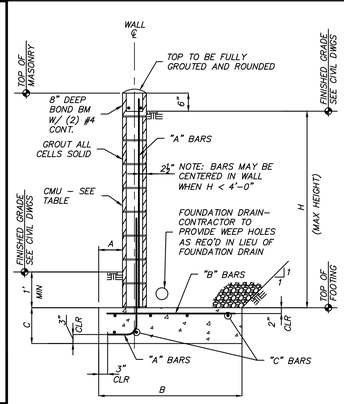
S1C



BOLLARD

N.T.S.

S8D



TYPICAL SECTION

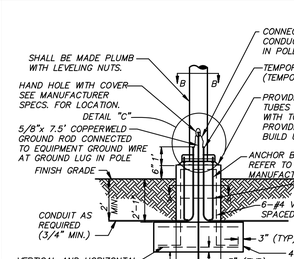
SCALE = 1:20

CANTILEVER MASONRY RETAINING WALL				
DIMENSIONS				
H	A	B	C	CMU
3'–6"	8"	3'–0"	1'–0"	8"
5'–6"	8"	4'–0"	1'–0"	8"
7'–6"	8"	5'–6"	1'–0"	12"
9'–6"	8"	7'–0"	1'–0"	12"
REINFORCEMENT				
"A" BARS	"B" BARS	"C" BARS		
#4 @ 48	#4 @ 18	#4 @ 12		
#4 @ 24	#4 @ 18	#4 @ 12		
#5 @ 24	#4 @ 18	#4 @ 12		
#6 @ 16	#5 @ 16	#5 @ 12		

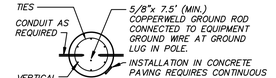
NOTES:

1. MASONRY COMPRESSIVE STRENGTH (f'm)=1500 PSI
2. FOOTING COMPRESSIVE STRENGTH (f'c) = 3000 PSI
3. PROVIDE 30" LAP SPLICE BETWEEN DOWEL AND VERTICAL REINFORCING. VERTICAL REINFORCING CAN BE FABRICATED WITH A STANDARD 90° HOOK PLUS EXTENSION (SEE NOTE 4) IN LIEU OF PROVIDING DOWEL.
4. VERTICAL DOWELS PROVIDE REINFORCING IN BOTTOM OF FOOTING ON TOE SIDE. ORIENT DOWEL AS SHOWN AND EXTEND TO WITHIN 3" OF FACE OF CONCRETE.
   CONTRACTOR OPTION:
   PROVIDE BOTTOM MAT OF REINFORCING "B" BARS IN FOOTING TO ALLOW FOR A STANDARD 90° HOOK ON THE DOWEL (ORIENTATION OF HOOK IN FOOTING IS NOT CRITICAL IF BOTTOM MAT OF REINFORCING IS PRESENT).
5. PROVIDE "C BARS" IN BOTTOM OF FOOTING BETWEEN BACK FACE OF CMU AND EDGE OF FOOTING ON TOE SIDE.
6. PROVIDE SPECIAL INSPECTIONS FOR MASONRY WALL PER THE INTERNATIONAL BUILDING CODE (IBC).
7. RETAINING WALL SHALL BE BACKFILLED WITH #57 STONE PLACED IN A 45–DEGREE WEDGE EXTENDING FROM THE BACK OF THE FOOTING HEEL. STONE SHALL BE COMPACTED IN 1'–0" MAX. LIFTS.
8. WALL DESIGN BASED ON 40 PSF SURCHARGE BEHIND WALL.
9. DESIGN BASED ON THE FOLLOWING GEOTECHNICAL PARAMETERS (GEOTECHNICAL ENGINEER SHALL CONFIRM):
   a. ALLOWABLE SOIL BEARING = 2000 PSF
   b. SOIL PRESSURE = 35 PCF
   c. PASSIVE SOIL PRESSURE = 250 PSF/FT (MIN)
   d. DENSITY OF BACKFILL = 110 PCF
   e. COEFFICIENT OF FRICTION BETWEEN BOTTOM OF FOOTING AND SUBGRADE = 0.35

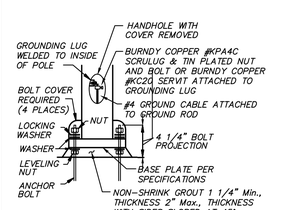
MASONRY RETAINING WALL



TYPICAL ANCHOR BOLT SPACING



SECTION "A–A"



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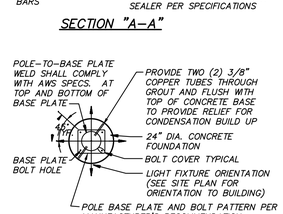


SECTION "B–B"

NOTES:

1. 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL
2. IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE.
3. FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL PER SPECIFICATIONS.
4. FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE SOIL BEARING OF 2000 PSF.
5. DETAIL FOR 25' POLE WITH MAX. FIXTURE EPA 3.4 SQ.FT.
6. FOR CONDITIONS OTHER THAN SPECIFIED NOTIFY ENGINEER.

TYPICAL LIGHTING POLE BASE DETAIL

N.T.S.

U4C

C:\USERS\TURNERHARRIS\TACALA, LLC\W OFFICE CAD SYNC – DOCUMENTS\JOB FILES – 7BREW\25025\25007 FARRAGUT, TN – TURKEY CREEK\DWG\25007 PROJ.DWG

REVISIONS

7/8/2025 RELEASE FOR REVIEW
8/1/2025 RELEASE FOR REVIEW
8/5/2025 RELEASE FOR REVIEW

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
205.443.9600

MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111923
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

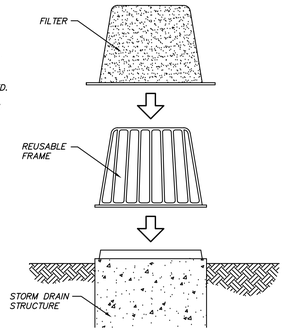
SITE DETAILS

SHEET:
C11

DATE: 8/7/2025

INSTALLATION

- INSTALL ACCORDING TO APPROVED PLAN, IF SHOWN.
- INSTALL WHERE HEAVY FLOWS ARE EXPECTED.
- DO NOT INSTALL WHERE VEHICULAR TRAFFIC WILL BE AFFECTED.



MAINTENANCE

- INSPECT, CLEAR , AND/OR REPAIR AT THE END OF EACH WORKING DAY.
- DO NOT ALLOW SEDIMENT INTO THE STORM DRAIN.
- REMOVE SEDIMENT WHEN IT HAS ACCUMULATED UP TO THE HALF-WAY POINT OF THE SILT FENCE FABRIC.
- APPROPRIATELY STABILIZE ALL AREAS AROUND THE INLET UPON REMOVAL FOR FINAL STABILIZATION.

SPECIFICATIONS

MECHANICAL	PER ASTM	REQUIRED VALUE
TENSILE STRENGTH AT YIELD	D638-89	3600 psi
ELONGATION AT BREAK	D638-89	> 600%
TENSILE IMPACT	D1822-89	170 ft. lb. / $in.^2$
IMPACT BRITTLENESS TEMPERATURE	D746-79	< -105° F
ENVIRONMENTAL STRESS CRACK RESISTANCE	D1693-70	> 800 hrs.
HARDNESS, SHORE D	D2240-86	68

THERMAL	PER ASTM	REQUIRED VALUE
VICAT SOFTENING TEMPERATURE	D1525-87	254° F
HEAT DEFLECTION TEMPERATURE, 66 psi LOAD	D648-82	157° F
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696-86	7 X 10^5 in/in/°F

PROCESSING	PER ASTM	REQUIRED VALUE
BULK DENSITY	D1895-89	37 lb. / $ft.^3$

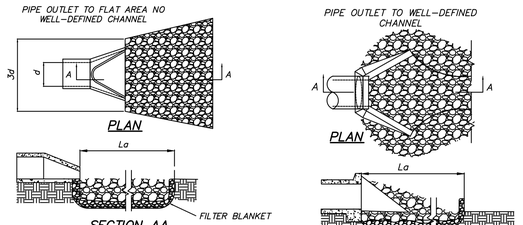
FILTER, MAIN BODY	PER ASTM	REQUIRED VALUE
WEIGHT	D-3776	3.0 oz y^2
TENSILE STRENGTH	D-4632	80 lb.
ELONGATION AT BREAK	D-4632	50%
MULLEN BURST	D-3786	150
PUNCTURE STRENGTH	D-4833	50
TRAPEZOIDAL TEAR	D-4533	30
AOS-US STD SLEEVE	D-4751	70
PERMITTIVITY	D-4491	2.0
U.V. RESISTANCE, %	D-4355 (500 HOURS)	70

TEMPORARY INLET SEDIMENT TRAP (ALTERNATE CAP)

N.T.S.

Sd2-A1

GA-Sd2A1



NOTES

1. La IS THE LENGTH OF THE RIPRAP APRON.
2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OF TO THE TOP OF THE BANK, WHICHEVER IS LESS.
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

INSTALLATION

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
3. GEOTEXTILE MUST MEET DESIGN REQUIREMENTS AND BE PROPERTY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER FABRIC OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER FABRIC.
4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT
7. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
8. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREA WITH VEGETATION.
9. STONE QUALITY-SELECT STONE FOR RIPRAP FROM FIELD STONE OR QUARRY STONE. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER-RESISTANT. THE SPECIFIC GRAVITY OF THE INDIVIDUAL STONES SHOULD BE AT LEAST 2.5
10. FILTER - INSTALL A FILTER TO PREVENT SOIL MOVEMENT THROUGH THE OPENINGS IN THE RIPRAP. THE FILTER SHOULD CONSIST OF A GRADED GRAVEL LAYER OF A SYNTHETIC FILTER CLOTH.

MAINTENANCE

- INSPECT RIPRAP OUTLET STRUCTURE AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED.
- IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

STORM DRAIN OUTLET PROTECTION

N.T.S.

St

GA-St

METHOD AND MATERIALS

TEMPORARY METHODS

- MULCHES - COVER DISTURBED AREA WITH MULCHING ONLY.
- SYNTHETIC RESINS - USED TO BIND MULCH MATERIAL, SUCH AS ASPHALT EMULSIONS.
- TACKIFIERS AND BINDERS - RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- VEGETATIVE COVER - COVER DISTURBED AREA WITH TEMPORARY SEEDING.
- SPRAY-ON ADHESIVES - USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS. APPLY PER RATE REQUIREMENTS.
- TILLAGE - THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.
- BARRIERS - SOLID BOARD FENCES, SNOWFENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.
- CALCIUM CHLORIDE - APPLY AT RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS

- PERMANENT VEGETATION - COVER DISTURBED AREA WITH PERMANENT VEGETATION. EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
- TOPSOILING - THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL.
- STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL, SUCH AS A CONSTRUCTION ROAD.

INSTALLATION

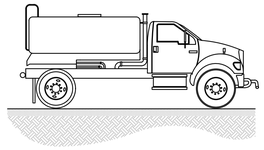
- APPLY AS NEEDED ON ALL SITES.
- PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES.
- REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE, OR SAFETY, OR TO ANIMALS OR PLANT LIFE.
- APPLY TEMPORARY OR PERMANENT CONTROL MEASURES AS NEEDED.

SPRAY-ON ADHESIVE APPLICATION

ADHESIVE	WATER DILUTION	NOZZLE TYPE	APPLICATION (GAL./ACRE)
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1,200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN-IN-WATER EMULSION	4:1	FINE SPRAY	300

MAINTENANCE

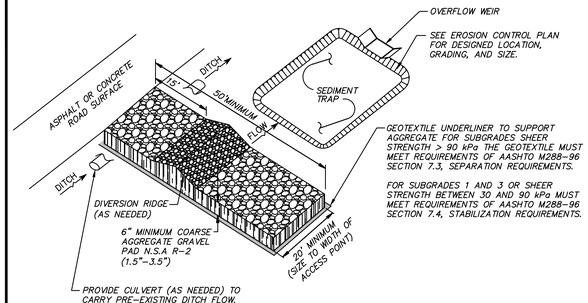
- PROHIBIT TRAFFIC ON SURFACE AFTER SPRAYING.
- SUPPLEMENT SURFACE COVERING AS NEEDED.
- RE-APPLY AS NEEDED.



DUST CONTROL ON DISTURBED AREA

Du

GA-Du



INSTALLATION

- A STONE STABILIZED PAD MUST BE LOCATED AT ANY POINT WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AT THE TRANSITION FROM BARE SOIL TO A PAVED AREA.
- EXCAVATE FOOTPRINT 3 INCHES TO INSTALL PAD.
- ROUTE RUNOFF FROM WASHING (IF REQUIRED) TO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- WASHING IS REQUIRED IF VEHICLES ARE TRACKING MUD ONTO PUBLIC RIGHTS-OF-WAY.
- GEOTEXTILE UNDERLINER MUST MEET REQUIREMENTS BASED ON SUBGRADE CBR VALUES.
- PROVIDE SEDIMENT TRAP ON DOWN GRADIENT SIDE (OR BOTH SIDES) AS REQUIRED.
- SEDIMENT TRAP SHALL BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AND AT A MINIMUM SETBACK DISTANCE AS REQUIRED PER LOCAL JURISDICTION. SEE EROSION CONTROL PLAN FOR LOCATION OF SEDIMENT TRAP(S).
- CONTRACTOR TO LOCATE TEMPORARY CONSTRUCTION FENCING, JERSEY BARRIERS, OR BOTH ALONG THE SIDES OF THE CONSTRUCTION EXIT TO PREVENT CONSTRUCTION TRAFFIC FROM SHORT CIRCUITING/BYPASSING THE EXIT.

MAINTENANCE

- INSPECT DAILY AND PERIODICALLY DRESS WITH STONE AS NEEDED FOR REPAIR.
- IMMEDIATELY REMOVE ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES.
- MAINTAIN IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY.
- FLUSH SURFACE STONE TOWARD SEDIMENT TRAP WITH HIGH VOLUME WATER FLOW AS NEEDED TO MAINTAIN CLEAN SURFACE STONE.

DIVERSION RIDGE

- INSTALL 6" TO 8" HIGH DIVERSION RIDGE WHERE PAD SLOPES GREATER THAN 2% TOWARD PAVED AREA
- CONSTRUCT BOTH SIDES OF RIDGE WITH 3:1 SIDE SLOPES

CONSTRUCTION ENTRANCE

N.T.S.

Co

GA-Co

INSTALLATION

- MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE.
- MULCH IS NOT SUITABLE FOR USE ON AREAS THAT WILL BE EXPOSED FOR SIX MONTHS OR LONGER. IF AN AREA IS EXPECTED TO BE UNDISTURBED FOR LONGER THAN SIX MONTHS, PERMANENT PERENNIAL VEGETATION IS REQUIRED.
- MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS IF OPTIMUM PLANTING CONDITIONS FOR TEMPORARY GRASSING IS LACKING.
- MULCH MUST BE APPLIED AT THE APPROPRIATE DEPTH, ANCHORED AS NEEDED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE.
- IN CONCENTRATED FLOW AREAS, ENSURE MULCH IS PROPERLY ANCHORED OR AVOID UTILIZING MULCH ALL TOGETHER.
- GRADE SITE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
- INSTALL OTHER NEEDED/REQUIRED EROSION CONTROL MEASURE BMPS PRIOR TO PLACING MULCH ON AREA.
- LOOSEN COMPACTED SOIL TO A MINIMUM DEPTH OF THREE (3) INCHES.
- APPLY MULCH UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.
- CUTBACK ASPHALT SHALL BE APPLIED UNIFORMLY. CARE SHOULD BE TAKEN IN AREAS OF PEDESTRIAN TRAFFIC DUE TO PROBLEMS OF "TRACKING IN" OR DAMAGE TO SHOES, CLOTHING, ETC.

MULCHING MATERIALS

- DRY STRAW OR HAY - DRIED STRAW OR HAY WITH THE ADVANTAGE OF EASY APPLICATION.
- WOOD WASTE - ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
- CUTBACK ASPHALT - SLOW CURING SHALL BE USED FOR EROSION CONTROL APPLICATIONS.
- POLYETHYLENE FILM - SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIALS FOR TEMPORARY PROTECTION. THIS COVER MATERIAL CAN BE SALVAGED AND RE-USED.

MAINTENANCE

- ADD MULCH AS NEEDED TO MAINTAIN THE SUGGESTED DEPTH.
- ENSURE MINIMUM OF 90% COVERAGE OF ALL EXPOSED EARTH.
- IF ORGANIC MULCH IS TO BE LEFT AND INCORPORATED INTO THE SOIL, APPLY 20-30 POUNDS OF NITROGEN IN ADDITION TO THE FERTILIZER REQUIRED FOR VEGETATION.

ANCHORING MULCH

- STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION.
- MULCH ON SLOPES GREATER THAN 3% SHOULD BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-SOR 55-1) OR OTHER SUITABLE TACKIFIER.
- WOOD WASTE ON SLOPES FLATTER THAN 3:1 (33%) DO NOT NEED ANCHORING.
- STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK". DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION.
- STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1). THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE OR SPRAYED ON THE MULCH IMMEDIATELY FOLLOWING MULCH APPLICATION WHEN STRAW OR HAY IS SPREAD BY METHODS OTHER THAN SPECIAL BLOWER EQUIPMENT
- EMULSIFIED ASPHALT SHALL BE APPLIED AS A MIXTURE OF 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH.
- TACKIFERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. SYNTHETIC TACKIFIERS OR BINDERS APPROVED BY GDOT SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE FOR THE WOOD WASTE CHIPS.
- POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

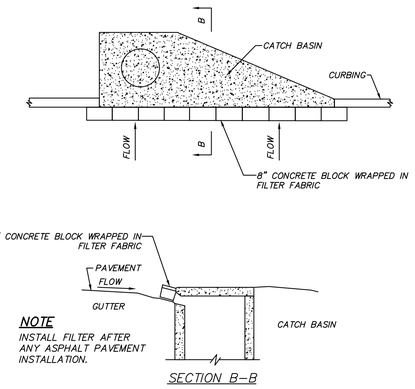
MULCHING APPLICATION REQUIREMENTS

MATERIAL	RATE	DEPTH
STRAW OR HAY	2 1/2 TON/ACRE	2" TO 4"
WOOD WASTE, CHIPS, SAWDUST, BARK	6 TO 9 TON/ACRE	2" TO 3"
CUTBACK ASPHALT	1200 GAL./ACRE OR 1/4 GAL./SQ. YD. OR SEE MANUFACTURER'S RECOMMENDATIONS	---
POLYETHYLENE FILM	SECURE WITH SOIL, ANCHORS, WEIGHTS	---
GEOTEXTILES, JUTE MATTING, NETTING, ETC.	SEE MANUFACTURER'S RECOMMENDATIONS	---

DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

Ds1

GA-Ds1



NOTE

INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.

INSTALLATION

CURB INLET FILTER (PIGS-IN-A-BLANKET)

1. INSTALL FILTER AFTER ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENING IN BLOCKS OUTWARD.
4. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.
5. LEAVE A GAP OF 4 INCHES BETWEEN THE INLET FILTER AND THE INLET TO ALLOW FOR OVERFLOW AND PREVENT HAZARDOUS PONDING IN THE ROADWAY

MAINTENANCE:

- INSPECT, CLEAR , AND/OR REPAIR TRAP AT THE END OF EACH WORKING DAY
- DO NOT REMOVE INLET PROTECTION AND WASH SEDIMENT INTO THE STORM DRAIN
- REMOVE SEDIMENT FROM THE TRAP AND STABILIZE IT WITH VEGETATION
- REMOVE ALL MATERIALS AND ANY INSATIABLE SOIL ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED
- APPROPRIATELY STABILIZED ALL BARE AREAS AROUND THE INLET

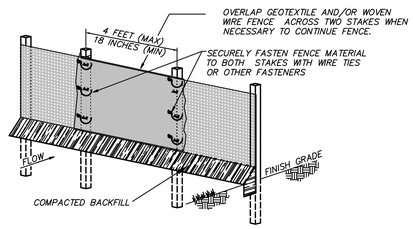
CURB INLET FILTER "PIGS IN A BLANKET"

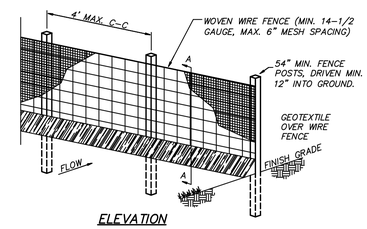
N.T.S.

Sd2-P

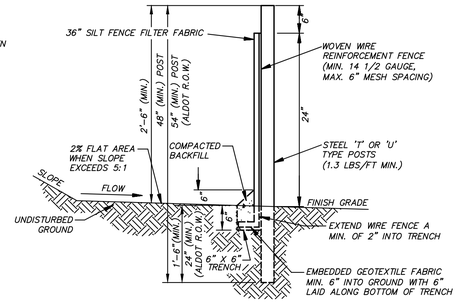
GA-Sd2-P

1/4 ACRE PER 100-LF MAX DRAINAGE AREA





ELEVATION



A-A-SECTION

MAINTENANCE

- SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER.
- FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROX. 6 MONTHS), OR ANY TEARS OR HOLES ARE IN THE FABRIC.
- TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.

MAXIMUM SLOPE LENGTH

- WHERE ALL RUNOFF IS TO BE STORED BEHIND THE SILT FENCE, MAXIMUM SLOPE LENGTH SHALL NOT EXCEED:

LAND SLOPE	= MAX. SLOPE LENGTH
< 2%	= 100 FT.
2% - 5%	= 75 FT.
5% - 10%	= 50 FT.
10% - 20%	= 25 FT.
> 20%	= 15 FT.

- IN AREAS WHERE THE SLOPE IS GREATER THAN 20% OR 5:1, A FLAT AREA LENGTH OF 10 FT BETWEEN THE TOE OF THE SLOPE AND THE SILT FENCE MUST BE PROVIDED.

SILT FENCE FILTER FABRIC

- UTILIZE DOT APPROVED FABRICS. COMMON EXAMPLES INCLUDE: MIRAFI 130X, AMOCO 1198, BELTECH 810, SI 915 SC, LING GTF 190
- UTILIZE FENCE FABRIC THAT MEETS THE FOLLOWING CRITERIA:
  - TENSILE STRENGTH PER ASTM D-4632 WITH WARP-260 AND FILL-180 (LBS. MIN.)
  - ELONGATION PER ASTM D-4632 OF 40% MAX
  - APPARENT OPENING SIZE (MAX. SIEVE SIZE) PER ASTM D-4751 OF #30.
  - FLOW RATE OF 70 GAL/MIN/SQ.FT.
  - ULTRAVIOLET STABILITY OF 80 PER ASTM D-4632 AFTER 300 HOURS WEATHERING IN ACCORDANCE WITH ASTM D-4355
  - BURSTING STRENGTH OF 175 PSI MIN. PER ASTM D-3786

SEDIMENT BARRIER - TYPE 'C' SILT FENCE

N.T.S.

Sd1-C

GA-Sd1C

C:\USERS\TURNERHARRIS\TACALA, LLC\VW OFFICE CAD SYNC - DOCUMENTS\JOB FILES - 7BREW\2025\25007 FARRAGUT, TN - TURKEY CREEK\DWG\25007 PROJ.DWG

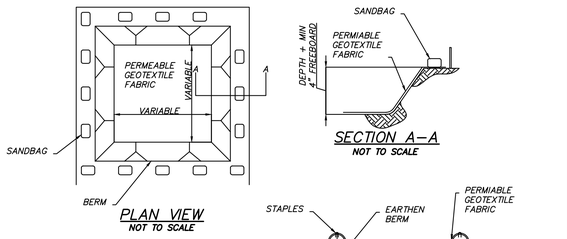
REVISIONS
- 7/8/2025 RELEASE FOR REVIEW
- 8/1/2025 RELEASE FOR REVIEW
- 8/5/2025 RELEASE FOR REVIEW

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
205.443.9600

MICHAEL J. GRAY — REGISTERED ENGINEER — 201 — COMMERCE — STATE OF TENNESSEE — 8/7/2025

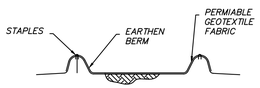
JOB NO.: 25007
DWG NAME: 25007 PROJ
EROSION CONTROL DETAILS
SHEET: C12
DATE: 8/7/2025



PLAN VIEW
NOT TO SCALE

SECTION A–A
NOT TO SCALE

TYPE "BELOW GRADE"



SECTION B–B
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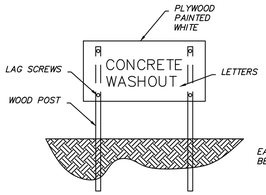
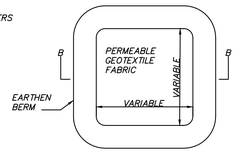


CONCRETE WASHOUT
SIGN (OR EQUIVALENT)



PLAN VIEW
NOT TO SCALE

TYPE "ABOVE GRADE"
WITH EARTHEN BERMS

NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FEILD
2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5FT OF THE WASHOUT FACILITY
3. WASHOUT OF VEHICLE MIXING DRUMS/BARRELS PROHIBITED ON SITE

CONSTRUCTION WASHOUT
NOT TO SCALE

COW

REVISIONS

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MICHAEL J. GRAY
REGISTERED ENGINEER
XVI
AGRICULTURE
COMMERCE
No. 111924
STATE OF TENNESSEE
8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

EROSION CONTROL DETAILS

SHEET:
C12.1

DATE: 8/7/2025

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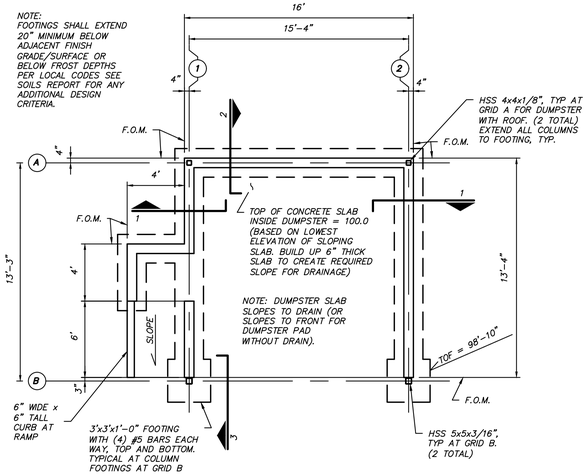
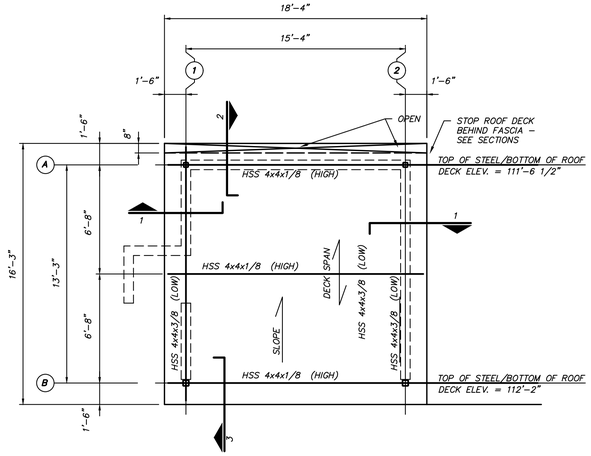


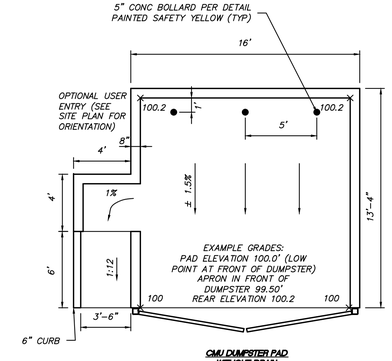
DUMPSTER FOUNDATION PLAN

SCALE = 1:50

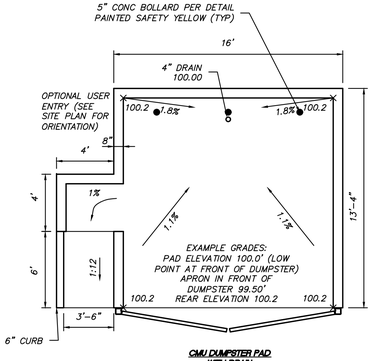


DUMPSTER ROOF FRAMING PLAN FOR DUMPSTER WITH ROOF (SEE DRAWINGS)

SCALE = 1:50

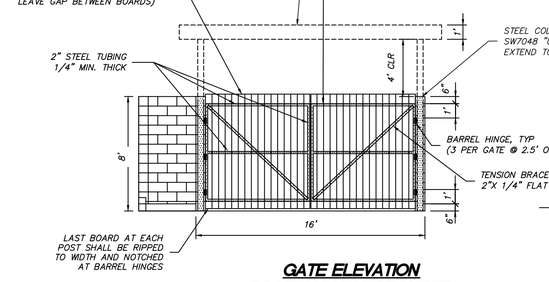


CMU DUMPSTER PAD WITHOUT DRAIN



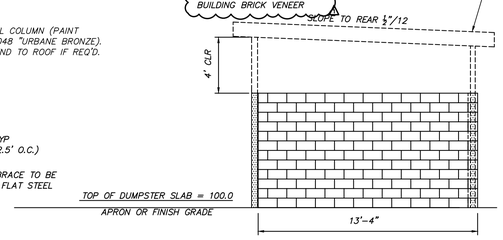
CMU DUMPSTER PAD WITH DRAIN

DUMPSTER PAD DRAINAGE PLAN (SEE SITE PLAN FOR OPTIONAL USER ENTRY, ROOF, AND INTERIOR DRAIN REQUIREMENTS)



GATE ELEVATION (ROOF ONLY AS REQUIRED)

SCALE = 1:50



SIDE ELEVATION (ROOF ONLY AS REQUIRED)

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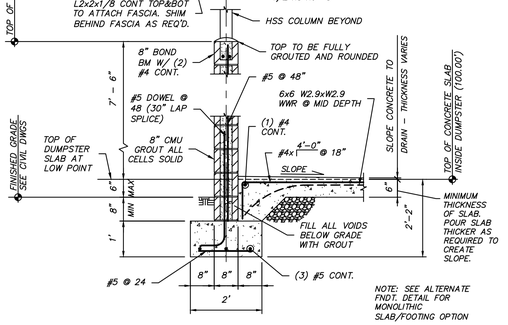
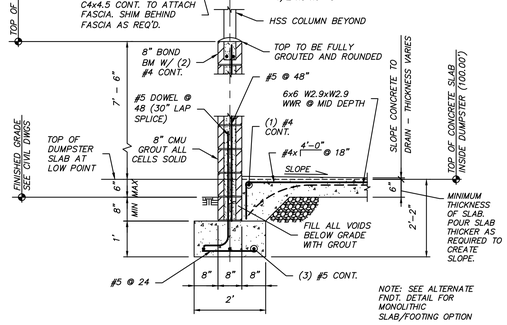


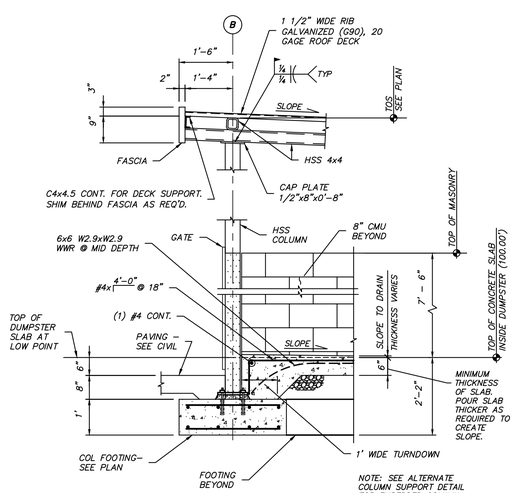
SECTION 1

SCALE = 1:20



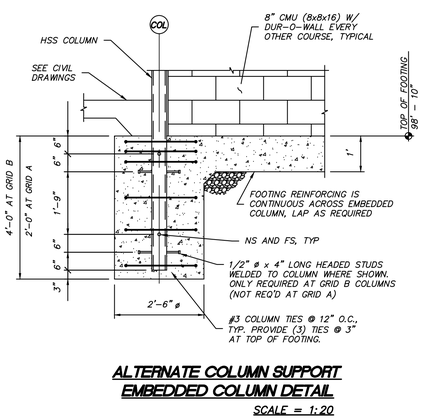
SECTION 2

SCALE = 1:20



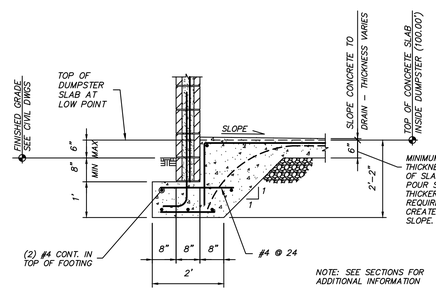
SECTION 3

SCALE = 1:20



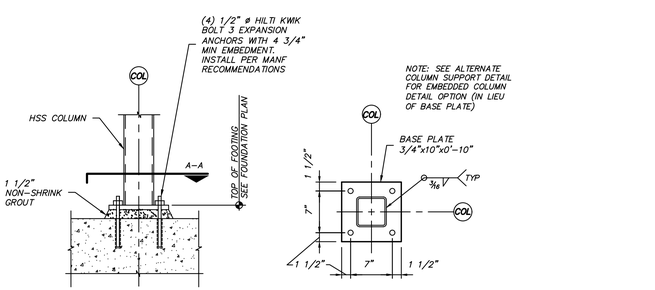
ALTERNATE COLUMN SUPPORT EMBEDDED COLUMN DETAIL

SCALE = 1:20



ALTERNATE FOUNDATION DETAIL WITH MONOLITHIC SLAB/FOOTING

SCALE = 1:20



TYPICAL COLUMN BASE

SECTION A-A

TYPICAL COLUMN BASE PLATE DETAIL

SCALE = 1:10

NOTES:
1. UNLESS SPECIFICALLY STATED ON SITE PLAN, ALL DUMPSTER SLABS SHALL BE ELEVATED 6" ABOVE PAVEMENT GRADE AT GATE.
2. CONTRACTOR TO PROVIDE METAL HOSE HANGER ALONG DUMPSTER WALL CLOSEST TO HOSE BIBB. HANGER TO BE MOUNTED TO THE WALL APPROXIMATELY 3' ABOVE SLAB.
3. DIMENSIONS SHOWN FOR OVERALL DIMENSIONS ON THIS SHEET ARE FOR REFERENCE ONLY. PLEASE SEE SHEET C2 FOR FINAL ENCLOSURE DIMENSIONS AS SITE CONDITIONS MAY REQUIRE FINAL DIMENSION VARIATIONS.

CMU DUMPSTER

REVISIONS
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7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
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SOUTHERN BREW CORP
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205.443.9000

MICHAEL J. GRAY REGISTERED ENGINEER 29 STATE OF TENNESSEE 8/7/2025

JOB NO.: 25007
DWG NAME: 25007 PROJ

DUMPSTER ENCLOSURE DETAILS

SHEET: C13

DATE: 8/7/2025

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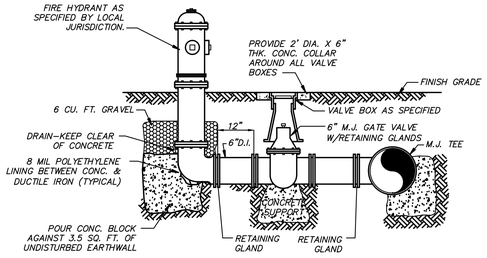
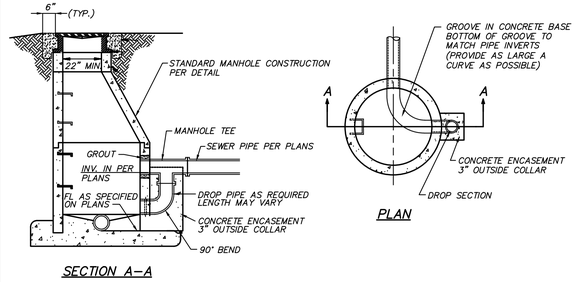


NOTES

1. ALL HYDRANTS TO BE SET PLUMB W/ NOZZLE FACING STREET UNLESS OTHERWISE SPECIFIED BY FIRE DEPARTMENT.
2. ALL CONCRETE TO BE 2500 PSI CONCRETE.
3. FIRE HYDRANT ASSEMBLY INCLUDES GATE VALVE AND APPURTENANCES.

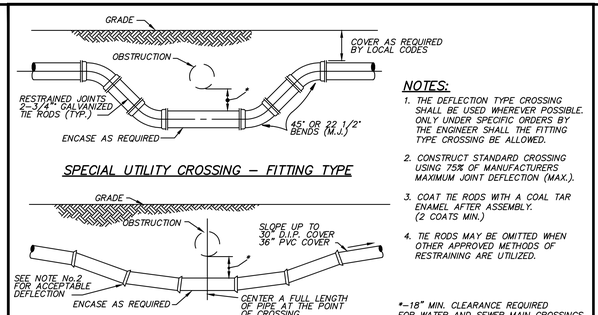
FIRE HYDRANT ASSEMBLY

U1K N.T.S.



SANITARY SEWER W/ EXTERIOR DROP MANHOLE

U2C N.T.S.



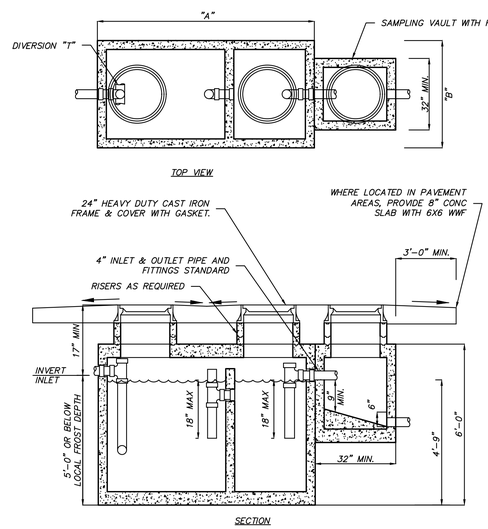
NOTES:

1. THE DEFLECTION TYPE CROSSING SHALL BE USED WHEREVER POSSIBLE. ONLY UNDER SPECIFIC ORDERS BY THE ENGINEER SHALL THE FITTING TYPE CROSSING BE ALLOWED.
2. CONSTRUCT STANDARD CROSSING USING 75% OF MANUFACTURERS MAXIMUM JOINT DEFLECTION (MAX.).
3. COAT TIE RODS WITH A COAL TAR ENAMEL AFTER ASSEMBLY. (2 COATS MIN.)
4. TIE RODS MAY BE OMITTED WHEN OTHER APPROVED METHODS OF RESTRAINING ARE UTILIZED.

*-18" MIN. CLEARANCE REQUIRED FOR WATER AND SEWER MAIN CROSSINGS. 12" MIN. CLEARANCE REQUIRED FOR OTHER TYPES OF UTILITY CROSSINGS. SEE ENCASEMENT DETAIL IF MIN. CLEARANCE CAN NOT BE OBTAINED.

UTILITY CROSSING

U2I N.T.S.



G.T. SIZE	DIM. "A"	DIM. "B"
1000 GALLON	9'-6"	5'-6"
1500 GALLON	11'-6"	6'-0"
2000 GALLON	13'-4"	8'-0"

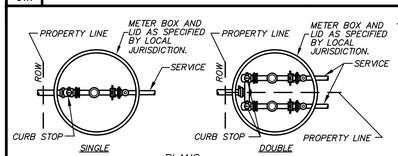
NOTES

1000 GALLON IS STANDARD. REFER TO UTILITY PLAN

SAMPLING VAULT ONLY IF REQUIRED BY LOCAL CODE

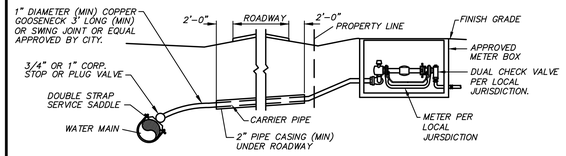
EXTERIOR GREASE INTERCEPTOR

N.T.S.



NOTES

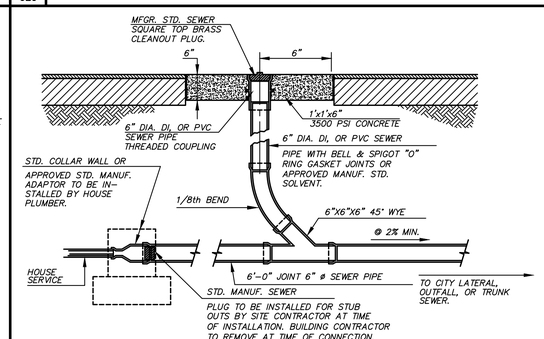
1. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE ON 18" CENTERS (MIN).
2. IF METERS AND BOXS ARE NOT SET AT THE TIME OF WATER MAIN CONSTRUCTION, A 'GREEN LOCATER' AS MFR'D BY AUTOMATION PRODUCTS IS TO BE LOCATED OVER EACH SERVICE AS REQUIRED BY THE CITY.



SECTION

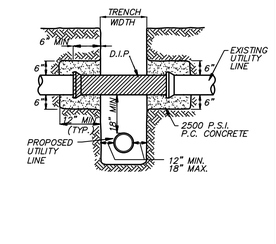
WATER METER INSTALLATION

U1L N.T.S.



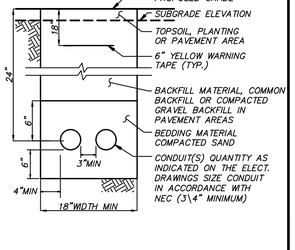
HEAVY DUTY SANITARY CLEAN-OUT IN ROADWAY SECTION

U2D N.T.S.



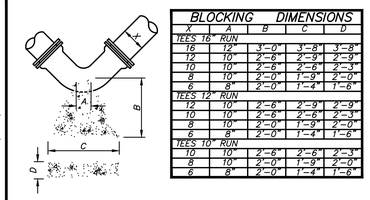
UTILITY CROSSING

U2J N.T.S.



SITE LIGHTING TRENCH

U4B N.T.S.



BLOCKING DIMENSIONS				
X	A	B	C	D
TEES 16" RUN				
16	12"	3'-0"	3'-8"	3'-8"
12	10"	2'-6"	2'-9"	2'-9"
10	10"	2'-6"	2'-6"	2'-3"
8	10"	2'-0"	1'-9"	2'-0"
6	8"	2'-0"	1'-4"	1'-6"
TEES 12" RUN				
12	10"	2'-6"	2'-9"	2'-9"
10	10"	2'-6"	2'-6"	2'-3"
8	10"	2'-0"	1'-9"	2'-0"
6	8"	2'-0"	1'-4"	1'-6"
TEES 10" RUN				
10	10"	2'-6"	2'-6"	2'-3"
8	10"	2'-0"	1'-9"	2'-0"
6	8"	2'-0"	1'-4"	1'-6"

BLOCKING DIMENSIONS				
X	A	B	C	D
90° BENDS				
16	14"	3'-0"	4'-6"	4'-3"
12	12"	2'-6"	3'-4"	3'-4"
10	8"	2'-6"	3'-0"	2'-6"
8	8"	2'-0"	2'-6"	2'-0"
6	6"	2'-0"	1'-10"	1'-6"
45° BENDS				
16	14"	3'-0"	3'-6"	4'-3"
12	12"	2'-6"	2'-6"	3'-4"
10	8"	2'-6"	2'-3"	2'-6"
8	8"	2'-0"	1'-8"	2'-0"
6	6"	2'-0"	1'-3"	1'-6"
22.5° BENDS				
16	12"	2'-6"	2'-4"	2'-4"
12	8"	2'-0"	1'-9"	1'-9"
10	8"	2'-0"	1'-6"	1'-6"
8	6"	2'-0"	1'-3"	1'-3"
6	6"	1'-6"	1'-0"	1'-0"
11.25° BENDS				
16	8"	2'-0"	1'-8"	1'-8"
12	6"	2'-0"	1'-3"	1'-3"
10	6"	1'-6"	1'-0"	1'-0"
8	6"	1'-6"	1'-0"	1'-0"
6	6"	1'-6"	1'-0"	1'-0"
TEES 8" RUN				
8	10"	2'-0"	1'-9"	2'-0"
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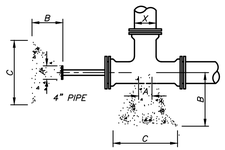
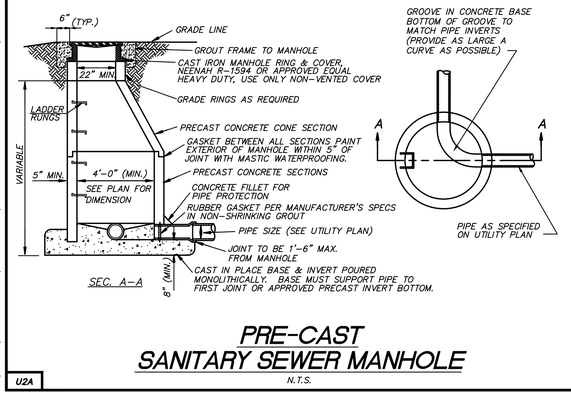
TEES 6" RUN				
6	8"	2'-0"	1'-4"	1'-6"



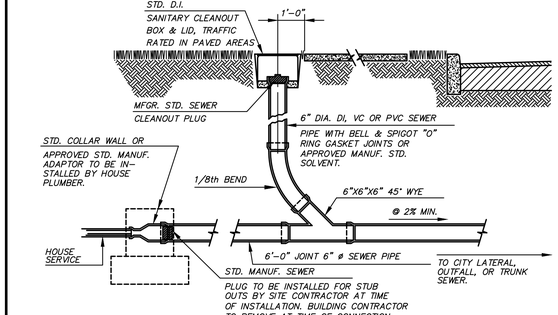
WATER MAIN BLOCKING

U1P N.T.S.



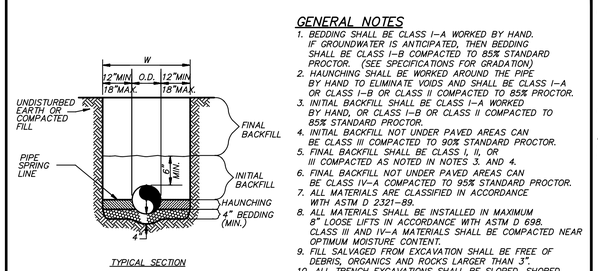
PRE-CAST SANITARY SEWER MANHOLE

U2A N.T.S.



STANDARD SANITARY CLEAN-OUT

U2DD N.T.S.

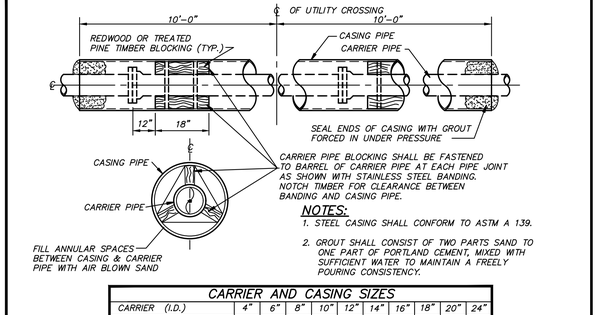


GENERAL NOTES

1. BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR. (SEE SPECIFICATIONS FOR GRADATION)
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. AND 4.
6. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-89.
8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)

SANITARY SEWER + WATER LINE TRENCH AND BEDDING

U2E N.T.S.



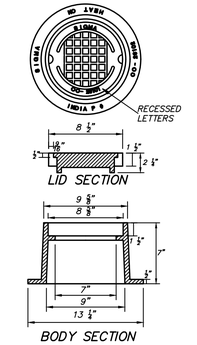
NOTES:

1. STEEL CASING SHALL CONFORM TO ASTM A 139.
2. GROUT SHALL CONSIST OF TWO PARTS SAND TO ONE PART OF PORTLAND CEMENT, MIXED WITH SUFFICIENT WATER TO MAINTAIN A FREELY POURING CONSISTENCY.

CARRIER AND CASING SIZES										
CARRIER (I.D.)	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
CASING (O.D.)	16"	16"	16"	18"	20"	24"	30"	30"	36"	36"
CASING/WALL THICKNESS	.219	.219	.219	.250	.281	.344	.406	.406	.500	.500

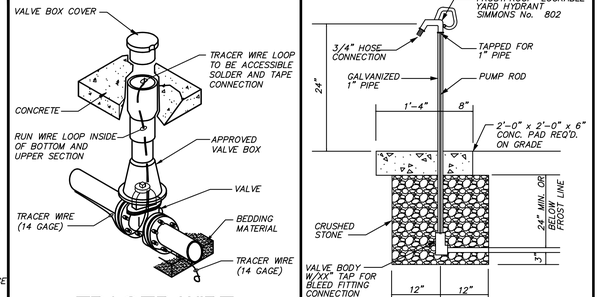
STEEL CASING FOR UTILITY CROSSINGS

U5D N.T.S.



CLEAN OUT TOP HAT

U2N N.T.S.



TRACER WIRE INSTALLATION FOR NON-FERROUS PIPE

U1J N.T.S.

GROUND-MOUNTED YARD HOSE BIB

N.T.S.

REVISIONS

1	7/8/2025 RELEASE FOR REVIEW
1	8/1/2025 RELEASE FOR REVIEW
1	8/5/2025 RELEASE FOR REVIEW

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
205.443.9600

MICHAEL J. GRAY
REGISTERED ENGINEER
No. 111934
STATE OF TENNESSEE
8/7/2025

JOB NO: 25007

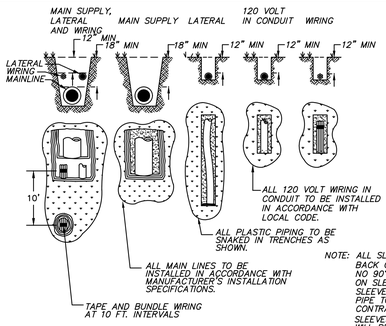
DWG NAME: 25007 PROJ

UTILITY DETAILS

SHEET: C14

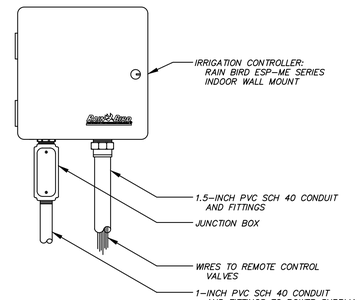
DATE: 8/7/2025

C:\USERS\TURNERHARRIS\TACALA, LLC\W OFFICE CAD SYNC - DOCUMENTS\JOB FILES - 7BREW\2025\25007 FARRAGUT, TN - TURKEY CREEK\DWG\25007 PROJ.DWG



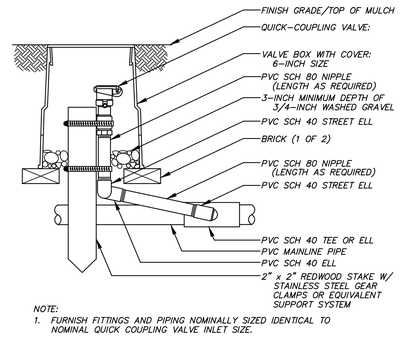
TYPICAL TRENCHING DETAIL
N.T.S.

I1A



IRRIGATION CONTROLLER
N.T.S.

I1B



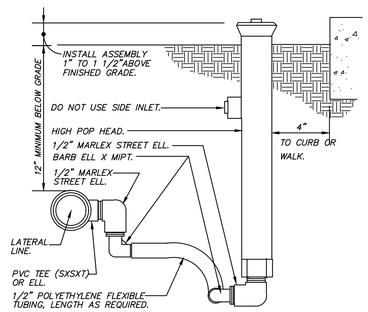
NOTE:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

QUICK COUPLING VALVE
N.T.S.

I1C

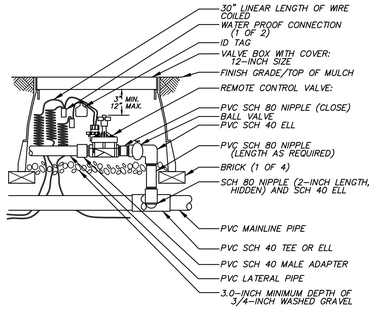
GENERAL IRRIGATION NOTES

1. EXCEPT FOR OBVIOUS CROSSINGS, PIPE IS IN PAVING OR OUTSIDE OF PROPERTY LINE FOR GRAPHIC CLARITY ONLY.
2. ALL WORK SHALL BE DONE WITHIN PROPERTY LINES.
3. CONTRACTOR SHALL INSTALL AUTOMATIC DRAIN VALVES AT ALL LOW POINTS IN SYSTEM.
4. ALL HEADS IN SHRUB BEDS SHALL BE INSTALLED ON 12" RISERS.
5. SEE ADDITIONAL IRRIGATION NOTES SHEET C6.1.
6. THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THERE ARE OTHER ACTIVE UTILITIES AND SERVICES IN AND AROUND THE SITE. CONTRACTOR IS RESPONSIBLE FOR LOCATING THESE TO AVOID DAMAGE TO THEM.
7. THE CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS IN THE PROPOSED IRRIGATION SYSTEM TO AVOID DAMAGE TO EXISTING STRUCTURES, PAVING AND UTILITIES.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ON-SITE UTILITIES, STRUCTURES, OR PAVING RESULTING FROM IRRIGATION CONSTRUCTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMING TO ALL CODES AND ORDINANCES RELEVANT TO THE WORK UNDER THIS CONTRACT.
10. ALL WORK, ADJUSTMENTS, AND INSPECTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT, ENGINEER, AND/OR OWNER.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND LABOR TO FULLY EXECUTE AND GUARANTEE, AS REQUIRED, THE TOTAL LANDSCAPING/IRRIGATION WORK IN THE PLANS, AND ALSO PER INSTRUCTIONS OF THE LANDSCAPE ARCHITECT, ENGINEER AND/OR OWNER.
12. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES TO ASSURE ADEQUATE INSTALLATION OF THE SYSTEM.
13. THE LOCATION OF THE AUTOMATIC CONTROL CLOCK IS GENERALLY INSIDE THE MANAGER'S OFFICE OF THE BUILDING AND WILL BE SPECIFICALLY LOCATED BY THE ARCHITECT.
14. IF LINE LOCATIONS ARE INDICATED ON THE PLAN, THEY ARE SCHEMATIC. THE CONTRACTOR SHALL LOCATE ALL LINES IN SUCH A WAY AS TO CAUSE THE LEAST CONFLICT WITH THE LOCATION OF PROPOSED PLANT MATERIALS (AS SHOWN ON THE LANDSCAPE PLANTING PLAN) AND OTHER SITE AMENITIES.
15. ALL MAIN LINES SHALL BE INSTALLED A MAXIMUM OF 2' FROM THE BACK OF CURBS WHERE POSSIBLE. LATERAL LINES SHALL BE INSTALLED LIKEWISE WHERE POSSIBLE.
16. ALL MAINLINES SHALL BE INSTALLED AT A MINIMUM OF 18" DEEP AND ALL LATERAL LINES SHALL BE INSTALLED AT A MINIMUM OF 12" DEEP.
17. ACTUAL HEAD PLACEMENT IN PARKING LOT ISLANDS IS TO BE 18" FROM BACK OF CURB FOR SHRUB PLANTINGS AND 6" FROM BACK OF CURB FOR LAWNS.
18. THE CONTRACTOR SHALL ADJUST THE RADIUS AND ARC OF EACH HEAD TO MINIMIZE 'OVERTHROW' AND TO ELIMINATE 'DRY SPOTS'.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLY AND INSTALLATION OF ADDITIONAL HEADS NEEDED TO COVER 'DRY SPOTS' OR SLIGHT VARIATIONS FROM THE PLAN TO THE SITE. THE LOCATION AND ARRANGEMENT OF THESE HEADS SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT, ENGINEER, AND/OR OWNER.
20. THE ELECTRIC SUPPLY WILL BE STUBBED OUT AT THE CONTROL CLOCK LOCATION BY OTHERS. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL CONNECTIONS FROM CONTROL VALVES TO THE CONTROL CLOCK.
21. THE ENTIRE SYSTEM SHALL BE UNCONDITIONALLY GUARANTEED BY THE IRRIGATION CONTRACTOR AGAINST ALL DEFECTIVE WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FOLLOWING THE DATE OF FINAL ACCEPTANCE.
22. THE LOCATIONS OF SLEEVES, IF SHOWN ON THIS PLAN, ARE SCHEMATIC. THE CONTRACTOR SHALL MAKE ANY ADJUSTMENT NECESSARY TO ACCOMMODATE. EXISTING VEGETATION, UTILITIES, NATURAL BARRIERS OR OTHER MAJOR CONSTRUCTION.
23. ANY DAMAGE TO EXISTING UTILITIES, STRUCTURES, OR OTHER CONSTRUCTION RESULTING FROM INSTALLATION OF SLEEVES IS THE RESPONSIBILITY OF THE CONTRACTOR.
24. WHERE A JOINT BETWEEN PIPE SECTIONS IS NECESSARY, THE INSIDE DIAMETER OF THE PIPE SHALL NOT BE SIGNIFICANTLY REDUCED.
25. P.V.C. SLEEVES SHALL BE INSTALLED AT A DEPTH OF AT LEAST 18" BELOW PAVEMENT SURFACE, AND NO DEEPER THAN 24". END OF SLEEVE SHALL EXTEND 12" BEYOND CURB OR PAVEMENT EDGE.
26. BACKFILL MATERIAL PLACED AROUND THE SLEEVES SHALL BE FREE OF ROCKS OR OTHER FOREIGN MATTER THAT MAY CAUSE DAMAGE TO THE PIPE.
27. THE CONTRACTOR SHALL INSTALL A P.V.C. STUB THAT IS AT LEAST 18" ABOVE GRADE AT EACH END OF THE SLEEVE TO MARK ITS EXACT LOCATION. IRRIGATION SLEEVES SHALL BE INDICATED WITH BLUE RIBBON. ELECTRICAL SLEEVES SHALL BE INDICATED WITH ORANGE RIBBON. SEE SLEEVING DETAIL.
28. ONCE THE SLEEVE IS INSTALLED, THE CONTRACTOR SHALL INSTALL A TEMPORARY CAP ON EACH END OF THE PIPE ACCORDING TO THE DETAIL TO PREVENT SOIL OR OTHER DEBRIS FROM ENTERING THE PIPE.
29. ALL MODIFICATIONS OF THIS PLAN ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT, ENGINEER AND/OR OWNER.
30. THE CONTRACTOR SHALL SUPPLY THE OWNER WITH AN 'AS-BUILT' PLAN OF THE LOCATION OF ALL SLEEVES PRIOR TO ACCEPTANCE OF WORK.
31. ALL SLEEVES SHALL BE CLASS 200 P.V.C. PIPE.
32. SLEEVES ARE 4" UNLESS OTHERWISE NOTED ON THE PLAN.



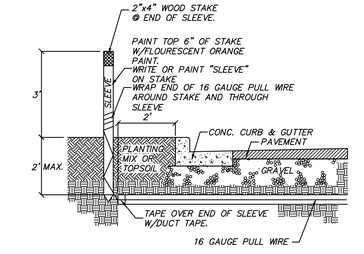
SHRUB SPRAY HIGHPOP W/ FLEX ASSEMBLY
N.T.S.

I1E



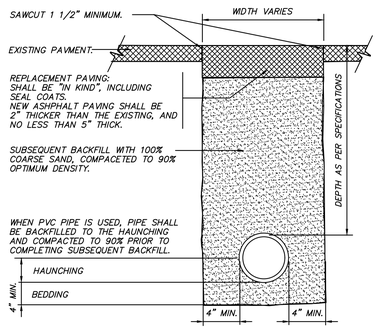
REMOTE CONTROL VALVE
N.T.S.

I1F



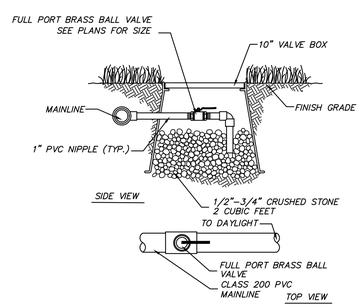
IRRIGATION SLEEVING DETAIL
N.T.S.

I1G



TRENCH DETAIL AT ASPHALT PAVING
N.T.S.

I1D



MANUAL DRAIN VALVE
N.T.S.

I1H

REVISIONS

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
205.443.9600

WILLIAM REED JOHNSON JR. REGISTERED AGRICULTURE LANDSCAPE ARCHITECT

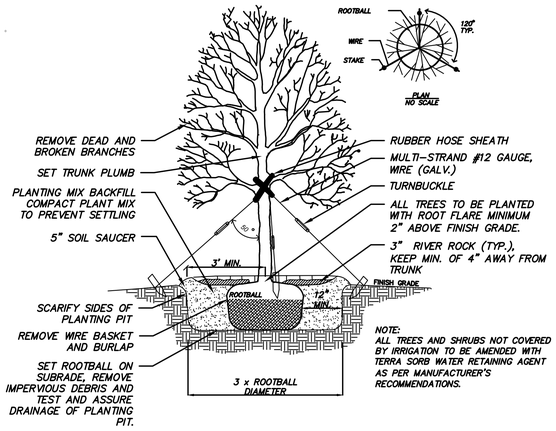
JOB NO.: 25007
DWG NAME: 25007 PROJ

IRRIGATION DETAILS

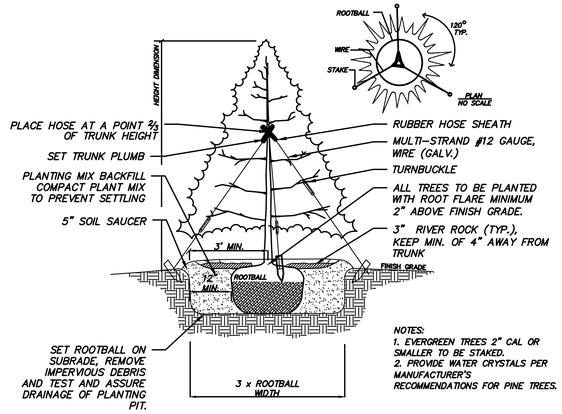
SHEET:
C15

DATE: 8/7/2025

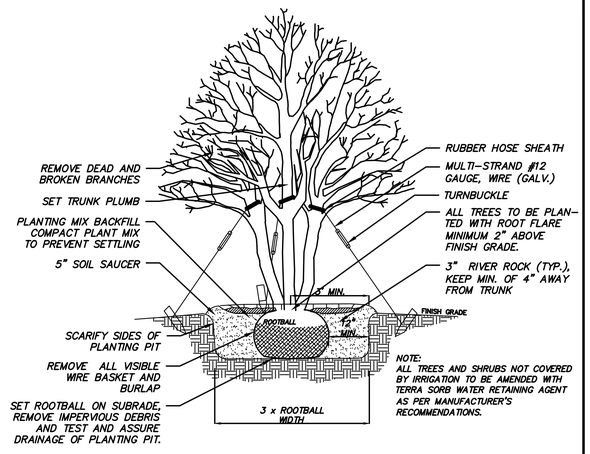
C:\USERS\TURNERHARRIS\YACALA, LLC\VN OFFICE CAD SYNC - DOCUMENTS\JOB FILES - 7BREW\2025\25007 FARRAGUT, TN - TURKEY CREEK\DWG\25007 PROJ.DWG



TREE PLANTING AND GUYING
N.T.S.



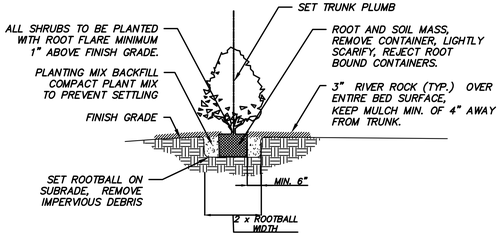
EVERGREEN TREE PLANTING
N.T.S.



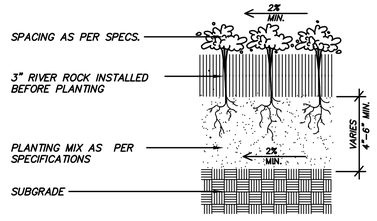
MULTI-TRUNKED TREE PLANTING
N.T.S.

GENERAL LANDSCAPING NOTES

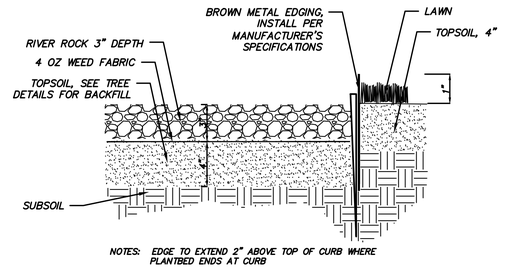
1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITE INSPECTION PRIOR TO LANDSCAPE CONSTRUCTION AND INSTALLATION IN ORDER TO ACQUAINT HIMSELF WITH EXISTING CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITIES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL VERIFY PLANT COUNT FROM PLAN AND REPORT DIFFERENCES.
3. ALL PLANT MATERIALS ARE SUBJECT TO APPROVAL OR REFUSAL BY THE LANDSCAPE ARCHITECT, ENGINEER AND/OR OWNER AT THE JOB SITE.
4. CONTRACTOR SHALL LAYOUT TREES AND BED LINES FOR REVIEW BY LANDSCAPE ARCHITECT, ENGINEER AND/OR OWNER PRIOR TO PLANTING. A MINIMUM 24 HOUR NOTICE SHOULD BE GIVEN AND ANTICIPATED BY THE CONTRACTOR FOR THIS REVIEW.
5. CONTRACTOR SHALL SUPPLY AND SPREAD 4" TOPSOIL IN SHRUB BEDS AND ALL AREAS TO BE SEEDED OR SODDED UNLESS OTHERWISE NOTED IN SPECIFICATIONS. 4" THICKNESS IS AFTER COMPACTION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AT LEAST 2% POSITIVE DRAINAGE IN ALL PLANT AREAS.
7. PLANTS SHALL BE WELL FORMED, VIGOROUS, GROWING SPECIMENS WITH GROWTH TYPICAL VARIETIES SPECIFIED AND SHALL BE FREE FROM INJURY, INSECTS AND DISEASES. PLANTS SHALL EQUAL OR SURPASS QUALITY AS DEFINED IN THE CURRENT ISSUE OF NURSERY "AMERICAN STANDARDS FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN NURSERYMEN, INC.
8. ALL PLANT MATERIAL SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN.
9. ALL SHRUBS, TREES AND GROUND COVERS SHALL BE PLANTED WITH A SOIL MIXTURE CONSISTING OF 50% TOPSOIL AND 50% ORGANIC MATERIAL AND PER SPECIFICATIONS.
10. FRONT ROW OF SHRUBS SHALL BE PLANTED MINIMUM 24" BEHIND BED LINE AT LAWNS OR WALKS AND MINIMUM 36" BEHIND BACK OF CURB AT PARKING SPACES.
11. BACK ROW OF SHRUBS SHALL BE PLANTED 36" OFF FACE OF BUILDING WALL. GROUND COVERS SHALL BE 12" OUT FROM BUILDING AS REQUIRED BY PLANT SPECIFICATIONS.
12. EXCAVATE EDGE OF ALL PLANTING BEDS TO 4" DEPTH TO FORM A NEAT AND CRISP DEFINITION.
13. ALL PLANTING BEDS AND TREE PITS SHALL BE COVERED WITH A 3" SETTLED LAYER OF RIVERROCK OVER A 4 OZ. WEED FABRIC.
14. GRASS: ALL AREAS TO BE GRASSED SHALL BE TILLED AND GRADED TO A DEPTH OF 6". SLAG OR LIME SHALL BE APPLIED AT A RATE OF 100 POUNDS PER 1000 SQ FT. ADD TURF GREEN OR EQUAL (12-5-8 SLOW RATE) AT A RATE OF 50 POUNDS PER 1000 SQ FT. SEEDED AREAS SHALL BE COVERED WITH A THIN LAYER OF WHEAT STRAW.
15. GRADE ALL AREAS FOR APPROVAL BY LANDSCAPE ARCHITECT, ENGINEER AND/OR OWNER BEFORE SODDING.
16. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL, INCLUDING GRASS, FOR ONE FULL YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
17. REMOVE ALL GUY WIRES AND STAKES AT THE END OF THE GUARANTEE PERIOD.
18. WHEN TREES ARE PLANTED DURING THE MONTHS OF MARCH THROUGH OCTOBER, THE LANDSCAPE CONTRACTOR SHALL AMEND THE SOIL MIX WITH A MOISTURE RETENTION AGENT SUCH AS "TERRA-SORB" OR EQUAL FOR EACH TREE INSTALLATION.
19. SEE ADDITIONAL LANDSCAPING NOTES ON SHEET C6.



CONTAINERIZED SHRUB PLANTING
N.T.S.

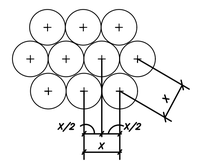


GROUND COVER
N.T.S.



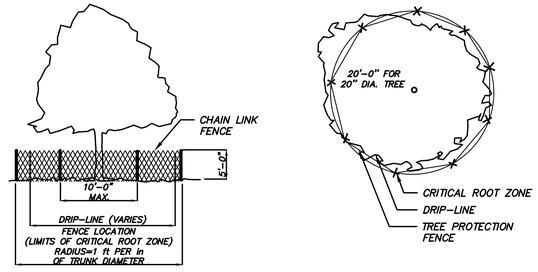
NOTES: EDGE TO EXTEND 2" ABOVE TOP OF CURB WHERE PLANTBED ENDS AT CURB

METAL EDGE FOR ALL PLANT BEDS AND TREE PITS
N.T.S.



NOTES:
1. SEE PLANTING PLANS FOR SHRUB & GROUNDCOVER BED AREAS.
2. ROWS SHALL BE STRAIGHT & PARALLEL.
3. SPACING SHOWN ON PLANT SCHEDULE (X).

STAGGERED ROW SPACING
N.T.S.



TREE PROTECTION - EXISTING TREES
N.T.S.

REVISIONS

SEVEN BREW DRIVE THRU COFFEE

7BREW COFFEE STAND
11495 PARKSIDE DR, FARRAGUT, TN 37934
SITE #7B1355

SOUTHERN BREW CORP
3750 CORPORATE WOODS DRIVE
VESTAVIA HILLS, AL 35242
205.443.9600

WILLIAM REED JOHNSON VIII
REGISTERED
AGRICULTURE
LANDSCAPE ARCHITECT
TENNESSEE
STATE OF TENNESSEE

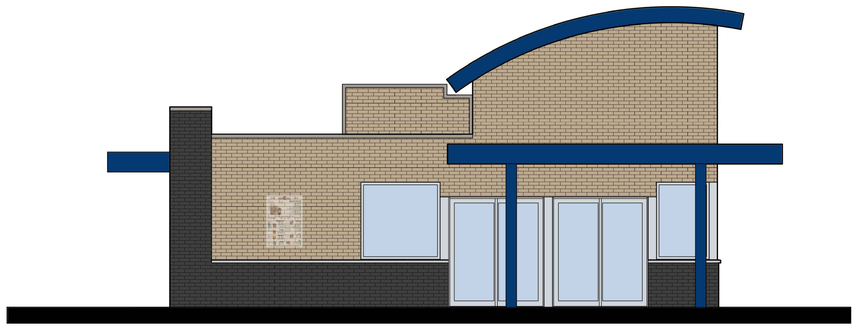
JOB NO.: 25007
DWG NAME: 25007 PROJ

LANDSCAPING DETAILS

SHEET:
C16

DATE: 8/7/2025

C:\USERS\TURNERHARRIS\YACALA, LLC\IN OFFICE CAD SYNC - DOCUMENTS\JOB FILES - 7BREW\2025\25007 FARRAGUT, TN - TURKEY CREEK\DWG\25007 PROJ.DWG



4 AR1.3 DRIVE-THRU SIDE ELEVATION
1/4" = 1'-0"



3 AR1.3 PATIO SIDE ELEVATION
1/4" = 1'-0"

2 AR1.3 FRONT ELEVATION
1/4" = 1'-0"

1 AR1.3 REAR ELEVATION
1/4" = 1'-0"

ISSUE FOR REVIEW
08.11.25

REVISIONS:

No.	Description	Date

A NEW LOCATION FOR

7 Brew Coffee Stand

11495 PARKSIDE DR FARRAGUT, TN 37934

black design architecture

2121 1st Avenue North, Suite 202
Birmingham, AL 35203

Phone: 205.868.6921
Email: LB@blackdesignarch.com

SHEET TITLE
Color Elevations

PROJECT NUMBER: 25-1328
ISSUE DATE: 08.11.2025
DRAWN BY: DW
CHECKED BY: LB

SHEET NUMBER
AR 1.3

Project Information

Provide the following information regarding the development project under review. The grey boxes below indicate the area in which you are able to type information into.

CASE NUMBER

PROJECT NAME 7 Brew Farragut

PROJECT ADDRESS

Name: 7 Brew Coffee Stand

Address: 11495 Parkside Drive Farragut, TN

Zip Code: 37934

CONTACT INFORMATION FOR LEAD PROJECT PROFESSIONAL

Name: Daniel Witteck

Address: 2121 1st Avenue North

Zip Code: 35203

Phone #: 205-224-4955

Email Address: dw@blackdesignarch.com

CONTACT INFORMATION FOR PROPERTY OWNER

Name: Southern Brew Corp

Address: 3750 Corporate Woods Drive

Zip Code: Vestavia Hills, AL 35242

Phone #: 205-283-7413

Email Address: Mike.Gray@tacala.com

Chapter 1: Site Design Guidelines

STREETSCAPE

Intent Statement: Streetscape features should be functional and durable while helping to affirm or establish the identity of a neighborhood, district, or development.

Note: Page numbers refer to the "Farragut Architectural Design Standards" document.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 14	1.1	Integrate functional pedestrian improvements into the streetscape.	☐	☐	☒	Comment:
pg. 14	1.2	Coordinate streetscape elements along public frontages surrounding a development.	☐	☐	☒	Comment:
pg. 14	1.3	Coordinate streetscape elements on internal streets and lanes within a development.	☐	☐	☒	Comment:
pg. 14	1.4	Use streetscape elements that invite a high level of activity along a commercial street frontage.	☐	☐	☒	Comment:
pg. 14	1.5	Use streetscape elements that invite passive pedestrian and recreational activity along a residential street frontage.	☐	☐	☒	Comment:

BUILDING SETBACKS & FRONTAGE:

Intent Statement: Whenever possible, buildings should be aligned along the street to hide parking and promote active sidewalks. A uniform alignment of buildings helps to define a "street wall," which provides a sense of enclosure and a comfortable scale for pedestrians.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 16	1.6	Design the street frontage to promote pedestrian activity.	☐	☐	☒	Comment:

pg. 16	1.7	Design the street frontage to be compatible with the surrounding context.	☐	☐	☒	Comment:

CONNECTIVITY:

Intent Statement: Future development should help create a more active, and inter-connected environment throughout Farragut.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 18	1.8	Provide pedestrian and bicycle connections into and between properties.	☐	☐	☒	Comment:
pg. 18	1.9	Provide vehicular connections into and between adjoining properties.	☒	☐	☐	Comment: Site is within a large development with access throughout

OUTDOOR OPEN SPACE:

Intent Statement: New development should incorporate outdoor open space that projects a vibrant image and invites pedestrian activity with durable furnishings and visual elements such as public art to add interest.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 20	1.10	Locate outdoor open space to provide a focal point.	☐	☐	☒	Comment: drive thru only concept
pg. 20	1.11	Locate and orient outdoor open space to be actively used.	☐	☐	☒	Comment: drive thru only concept
pg. 21	1.12	Furnish outdoor open spaces to encourage active use.	☐	☐	☒	Comment: drive thru only concept
pg. 21	1.13	Design outdoor open space to incorporate Low Impact Development (LID) principles for stormwater management.	☒	☐	☐	Comment: Project removes asphalt and adds open green space

PUBLIC ART:

Intent Statement: Public art is encouraged as a way of bringing visual interest and special identity to individual sites and neighborhoods. The guideline provided below is voluntary and is not meant to imply a requirement for inclusion of public art.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 22	1.14	Use public art to add interest to an outdoor open space.	☐	☐	☒	Comment:

LANDSCAPING:

Intent Statement: Sites should be landscaped to enhance community image, invite pedestrian activity, preserve mature trees and highlight distinctive topographic or other site features. In general, indigenous or well-acclimated and noninvasive species should be used. Landscape design within a site should also help to establish a sense of visual continuity. The guidelines below are intended to complement landscaping requirements in the Farragut Zoning Ordinance.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 23	1.15	Design sites to highlight landscape areas.	☒	☐	☐	Comment: Green space added and additional trees to be planted
pg. 23	1.16	Use a coordinated landscape palette to establish a sense of visual continuity.	☒	☐	☐	Comment: trees and shrubs compliment existing landscaping
pg. 23	1.17	Preserve and maintain mature trees and significant vegetation.	☒	☐	☐	Comment: Perimeter landscaping to be unaffected
pg. 23	1.18	Use hardy plant and tree species.	☒	☐	☐	Comment: Condition met
pg. 23	1.19	Use landscaping to enhance pedestrian improvements.	☐	☐	☒	Comment: drive thru only concept
pg. 23	1.20	Integrate landscaping and stormwater management systems.	☒	☐	☐	Comment: adding green space to existing parking will reduce runoff

SURFACE PARKING:

Intent Statement: Surface parking lots should not be a visually prominent feature of sites in Farragut, especially those along high-traffic corridors, such as Kingston Pike, or in locations intended for strong pedestrian orientation such as the Town Center District.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 24	1.21	Minimize the visual impact of surface parking.	☒	☐	☐	Comment: Perimeter landscaping not affected
pg. 24	1.22	Locate and design parking lots to allow for pedestrian access.	☐	☐	☒	Comment: Boundaries of existing lot unaffected
pg. 24	1.23	Design parking access to minimize potential negative impacts on pedestrians.	☐	☐	☒	Comment: Boundaries of existing lot unaffected

SITE LIGHTING:

Intent Statement: The character and level of site lighting should help establish a sense of identity and cohesion. Site lighting should help create a sense of place, highlight distinctive architectural details, and reinforce the overall form, massing, and spatial characteristics of the building or site. Note that streetlights are an important feature of the overall streetscape as addressed on page 14 of the design guidelines.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 25	1.24	Scale site lighting to its purpose.	☒	☐	☐	Comment:
pg. 25	1.25	Shield site lighting to minimize off-site glare.	☒	☐	☐	Comment:

WORKING WITH TOPOGRAPHY:

Intent Statement: Where possible, site design should preserve and work within existing topography. Any re-grading should maintain pedestrian and vehicular connectivity while minimizing potential negative visual impacts of large retaining walls.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 26	1.26	Design a site to take advantage of existing topography.	☒	☐	☐	Comment:
pg. 26	1.27	Design a retaining wall to minimize impacts on the natural character of the site.	☐	☐	☒	Comment:
pg. 26	1.28	Design a building foundation to conform to the existing topography.	☒	☐	☐	Comment:
pg. 26	1.29	Design a site to minimize vulnerability to sinkholes.	☐	☐	☒	Comment:

SERVICE AREAS & UTILITIES:

Intent Statement: Service areas and utilities should be located and designed to be visually unobtrusive and integrated with the design of the site and the building. Service areas are typically most appropriate when located to the rear of a building and not visible from the public right-of-way.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 27	1.30	Locate a utility or service area to minimize visual impacts from the street and sidewalk.	☒	☐	☐	Comment: Transformer to be screened
pg. 27	1.31	Locate and design a utility building or shed to minimize the visual impacts from the street and sidewalk.	☐	☐	☒	Comment:
pg. 27	1.32	Locate buildings and other site improvements to allow for potential future undergrounding of utility lines.	☒	☐	☐	Comment: all utilities are underground
pg. 27	1.33	Enclose a free-standing utility or service area.	☐	☐	☒	Comment:

STORMWATER MANAGEMENT & LOW-IMPACT DEVELOPMENT:

Intent Statement: The guidelines for stormwater management and low-impact development are intended to complement landscaping requirements in the Farragut Zoning Ordinance by promoting the use of low-impact development principles to meet those requirements while also providing site amenities that help enhance community image.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 28	1.34	Maintain pre-development hydrologic features to minimize stormwater impacts.	☒	☐	☐	Comment: project will reduce runoff
pg. 28	1.35	Incorporate Low Impact Development (LID) principles to address stormwater as close to the source as possible.	☐	☐	☒	Comment:
pg. 28	1.36	Incorporate stormwater management systems to maximize water quality.	☐	☐	☒	Comment:
pg. 28	1.37	Use stormwater management systems as site amenities.	☐	☐	☒	Comment:

INCREMENTAL SITE DESIGN IMPROVEMENTS:

Intent Statement: While improvements should consider long term objectives for the area and site, flexibility in the application of the design guidelines is appropriate for such projects to ensure that development is able to respond to current market conditions.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 29	1.38	Locate incremental improvements to anticipate future development.	☐	☐	☒	Comment:
pg. 29	1.39	Locate and design incremental improvements to enhance the pedestrian environment of an existing development.	☐	☐	☒	Comment: drive thru only concept

NEIGHBORHOOD SITE DESIGN TRANSITIONS:

Intent Statement: Site design adjacent to an existing or future residential neighborhood should provide a compatible transition that minimizes potential negative impacts while promoting positive connections. Designs that incorporate compatible uses and designs, and which link commercial and mixed-use areas with the adjacent residential neighborhoods are generally preferred as illustrated in “Strategies to Promote a Compatible Transition to Adjacent Neighborhood/Agricultural Land” on page 32 of the design guidelines.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 31	1.40	Design a commercial or mixed-use site to be compatible with adjacent neighborhoods.	☐	☐	☒	Comment:
pg. 31	1.41	Design landscape buffer areas to provide shared amenities.	☐	☐	☒	Comment:
pg. 31	1.42	Provide pedestrian, bike and vehicular connections to adjacent neighborhoods.	☐	☐	☒	Comment:

Chapter 2: Building Design Guidelines

BUILDING HEIGHT:

Intent Statement: New development and redevelopment should meet zoning requirements while recognizing traditional height variations in Farragut and stepping down towards adjacent lower-scale buildings.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 37	2.1	Provide variation in building heights.	☒	☐	☐	Comment: The parapet and building roof create an interesting and varied building height.
pg. 37	2.2	Position taller building elements to minimize visual impacts.	☒	☐	☐	Comment: The building roof cap creates visual interest at the front of the building.
pg. 37	2.3	Design floor-to-floor heights to establish a sense of scale and reflect Farragut traditions.	☒	☐	☐	Comment: This building is only one story.

BUILDING ARTICULATION:

Intent Statement: New development and redevelopment in Farragut should incorporate articulation techniques that promote a sense of human scale and divide the mass and scale of a larger building into smaller parts that relate to traditionally-scaled buildings.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 38	2.4	Use vertical articulation techniques to add visual interest and express traditional façade widths.	☐	☐	☒	Comment: This is a single store building in an outparcel
pg. 38	2.5	Use horizontal articulation techniques to establish a sense of human scale in the design of a larger building.	☐	☐	☒	Comment: This is a single store building in an outparcel

ICONIC DESIGN FEATURES:

Intent Statement: New development and redevelopment in a highly-visible location, such as the intersection of arterial roads, should incorporate iconic design features to foster a unique sense of place, add visual interest and help differentiate Farragut from surrounding areas. In most cases, large-scale new development projects in any location should also incorporate iconic design features.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 40	2.6	Use iconic design features to foster a unique sense of place.	☒	☐	☐	Comment: Large canopies create shadow/depth and a sense of place.
pg. 40	2.7	Locate iconic design features to maximize their visibility and impact.	☒	☐	☐	Comment: The large canopies and curved roof create visual play with the site.

ROOF FORM:

Intent Statement: New development and redevelopment should incorporate roof forms that convey compatible mass and scale, add visual interest and are appropriate to a building's use.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 40	2.8	Create a sense of visual interest by using a variety of roof forms along the street.	☒	☐	☐	Comment: The combination of curbed and flat roofs create a variety of complimenting forms
pg. 40	2.9	Consider incorporating a roof form that provides a "cap."	☒	☐	☐	Comment: There is a main curved roof cap.

OVERALL FAÇADE CHARACTER:

Intent Statement: Visible building façades that incorporate high-quality design features enhance Farragut's community image and convey an active and vibrant appearance to passing vehicles and pedestrians. The design guidelines for overall façade character below apply to visible façade areas that face public streets, sidewalks, pedestrian areas or parking lots.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 42	2.10	Design a building façade to enhance community image.	☒	☐	☐	Comment: The dark brick and blue canopy create an interesting contrast that entices people to the area.
pg. 42	2.11	Design a building façade to be compatible with its context.	☒	☐	☐	Comment: The brick façade anchors the building within the surrounding context.

pg. 42	2.12	Design a building façade to convey visual interest.	☐	☐	☐	Comment: The complementing colors, materials, and forms work together to create visual interest.
pg. 42	2.13	Design a building façade to promote an active appearance.	☐	☐	☐	Comment: The main roof curve is dynamic and active.

GROUND FLOOR DESIGN:

Intent Statement: Ground floor building design should incorporate features that help create a pedestrian-friendly street level. In a commercial area, it is especially important to incorporate active features such as ground floor storefront windows. In a multi-family residential area, the ground floor may incorporate other design features, such as porches and stoops, to engage the sidewalk and street.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 44	2.14	Design the ground floor of a building façade to engage the public realm and promote pedestrian activity.	☒	☐	☐	Comment: Single story building that provides a canopy for passing pedestrians.
pg. 44	2.15	Use high quality, durable materials to define the ground floor and add visual interest.	☒	☐	☐	Comment: Brick is the anchor material defining the ground floor and complementing other materials.

BUILDING MATERIALS & COLORS:

Intent Statement: Exterior building materials and colors provide a sense of scale and texture and are used to convey design quality and visual interest. Building façades should use high-quality, durable, materials that contribute to the visual continuity of the context and convey high quality in design and detail. Masonry should be used as a significant façade element on new construction.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 46	2.16	Use compatible materials to enhance community image.	☒	☐	☐	Comment: Brick is the main material and enhances the existing community image.
pg. 47	2.17	Use masonry materials to promote a cohesive community image.	☒	☐	☐	Comment: Brick is a masonry material that creates cohesiveness in the area.

pg. 48	2.18	Use accent materials to enhance visual interest.	☒	☐	☐	Comment: The blue canopy and roof create a contrast with the brick.
pg. 48	2.19	Use materials to convey a sense of human scale and visual interest to pedestrians.	☒	☐	☐	Comment: The small scale of the building and its materials enhance the human experience.
pg. 48	2.20	Use exterior material, paint and roof colors that are compatible with the surrounding context.	☒	☐	☐	Comment: This is a single building on an outparcel.

FAÇADE RENOVATION:

Intent Statement: Façade renovations are encouraged to enhance community image and help attract tenants to aging commercial or office buildings. Renovations may include ground floor improvements to attract pedestrian activity, the addition of iconic design features or complete replacement of an existing façade. When possible, such incremental improvements should anticipate future phases of development that may include new buildings, parking areas and pedestrian paths.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 50	2.21	When possible, renovate an aging commercial or office façade to enhance community image.	☐	☐	☒	Comment:
pg. 50	2.22	Anticipate future phases of development when renovating a façade.	☐	☐	☒	Comment:

APAPTIVE REUSE:

Intent Statement: Preserving and adapting a structure to a new use has environmental benefits and may help preserve the existing character of an area. Re-using a building preserves the energy and resources invested in its construction, and removes the need for producing new construction materials. Adaptive reuse projects are encouraged.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 51	2.23	Adapt an existing structure to a new use as an alternative to demolition whenever possible.	☐	☐	☒	Comment:

pg. 51	2.24	Consider future objectives for the site when adapting an existing structure to a new use.	☐	☐	☒	Comment:

NEIGHBORHOOD BUILDING DESIGN TRANSITIONS:

Intent Statement: The design of buildings adjacent to an existing or future residential neighborhood should provide a compatible transition that minimizes potential negative impacts while promoting visual connections. Where possible, buildings located near an adjacent neighborhood should have a lower-scale residential character to provide a compatible transition.

Page #	Guideline #	Guideline Description	Met	Not Met	NA	Brief description of how the guideline is achieved:
pg. 52	2.25	Provide a compatible scale transition adjacent to a residential neighborhood.	☐	☐	☒	Comment:
pg. 52	2.26	Incorporate residential design features adjacent to a residential neighborhood.	☐	☐	☒	Comment:


SEVEN BREW
DRIVE THRU COFFEE
STOP
STOP
SEVEN 7B BREW


101
101




7 BREW
BUDDY'S

Agenda Number: IV.K. **Meeting Date: August 21, 2025**

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Bart Hose, Assistant Director

Subject: Discussion and public hearing on amendments to the Farragut Code of Ordinances, Appendix A – Zoning, Chapter 2, Definitions; and Chapter 4., Section VI., Customary Home Occupations (Town of Farragut, Applicant)

Introduction & Background: This agenda item has been discussed at several previous Commission meetings, including most recently last month. It involves amendments to the Town's Zoning Ordinance to address Customary Home Occupations. At the request of the Commission, the staff has been working, with the assistance of a small citizen input group, to research and develop an updated approach to the regulation of home occupations. This includes a wider range of potentially permittable occupation types, a two-tiered regulatory system, and updated conditional performance standards that such home occupations will have to meet in order to operate.

Discussion & Recommendations: The draft regulations discussed last month have now been put into ordinance form for review and recommendation to the Board of Mayor and Aldermen. Several minor editorial changes have been made for clarity since last month's meeting. In addition, the "application and permit process" section of the proposed regulations has been modified to add a "non-transferability" statement, and to eliminate the two-year permit expiration/renewal period, following last month's review. These modifications were made by staff following internal discussions to better address application, permitting and administrative issues. Finally, the proposed effective date of the ordinance has been set at 60 days following its final passage to allow time to adjust the Town's existing application and permitting process.

Recommended By: Bart Hose, Assistant Director

Proposed Motion: Approve Resolution PC-25-06, which recommends approval of Ordinance 25-13 to the Board of Mayor and Aldermen.

RESOLUTION PC-25-06

FARRAGUT MUNICIPAL PLANNING COMMISSION

A RESOLUTION TO AMEND THE TEXT OF THE FARRAGUT ZONING ORDINANCE, ORDINANCE 86-16, AS AMENDED, PURSUANT TO AUTHORITY GRANTED BY SECTION 13-4-201, TENNESSEE CODE ANNOTATED, BY AMENDING THE FARRAGUT MUNICIPAL CODE, APPENDIX A., ZONING, CHAPTER 2., DEFINITIONS, BY THE ADDITION OF DEFINITIONS FOR "HOME-BASED WORKER" AND "HOME OCCUPATION / HOME-BASED BUSINESS"; AND BY REPLACING IN ITS ENTIRETY CHAPTER 4., SECTION VI CUSTOMARY HOME OCCUPATIONS, WITH A REVISED SECTION.

WHEREAS, the Tennessee Code Annotated, Section 13-4-201et seq, provides that the Municipal Planning Commission shall make and adopt a general plan for the physical development of the municipality; and

WHEREAS, the Farragut Municipal Planning Commission has adopted various elements of a zoning plan as an element of the general plan for physical development; and

WHEREAS, a public hearing was held on this request on August 21, 2025;

NOW, THEREFORE, BE IT RESOLVED that the Farragut Municipal Planning Commission hereby recommends approval to the Farragut Board of Mayor and Aldermen of an ordinance, amending Ordinance 86-16, the Farragut Zoning Ordinance, by adding Ordinance 25-13.

ADOPTED this 21th day of August 2025.

_____
Ron Pinchok, Chairman

_____
Shannon Preston, Secretary

ORDINANCE: **25-13**
PREPARED BY: **Hose**
REQUESTED BY: **Town of Farragut**
CERTIFIED BY FMPC: **August 21, 2025**
PUBLIC HEARING: _____
PUBLISHED IN: _____
DATE: _____
1ST READING: _____
2ND READING: _____
PUBLISHED IN: _____
DATE: _____

AN ORDINANCE TO AMEND THE TEXT OF THE FARRAGUT ZONING ORDINANCE, ORDINANCE 86-16, AS AMENDED, PURSUANT TO AUTHORITY GRANTED BY SECTION 13-4-201, TENNESSEE CODE ANNOTATED, BY AMENDING THE FARRAGUT MUNICIPAL CODE, APPENDIX A., ZONING, CHAPTER 2., DEFINITIONS, BY THE ADDITION OF DEFINITIONS FOR "HOME-BASED WORKER" AND "HOME OCCUPATION / HOME-BASED BUSINESS"; AND BY REPLACING IN ITS ENTIRETY CHAPTER 4., SECTION VI CUSTOMARY HOME OCCUPATIONS, WITH A REVISED SECTION.

WHEREAS, the Board of Mayor and Aldermen of the Town of Farragut, Tennessee, wishes to amend the Farragut Municipal Code, Appendix A. – Zoning, Chapter 2., Definitions by the addition of definitions for "Home-Based Worker" and "Home Occupation / Home-Based Business"; and by replacing in its entirety Chapter 4., Section VI Customary Home Occupations.

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Aldermen of the Town of Farragut, Tennessee, that the Farragut Municipal Code, Appendix A. – Zoning, is hereby amended as follows:

SECTION 1.

The Farragut Municipal Code, Appendix A., Zoning, Chapter 2., Definitions, is amended by the addition of the following definitions:

Home-based worker – is an employee, generally a professional, who does his or her job from home instead of commuting to their employer's business site or office on a full or part-time basis. Also known as remote workers or teleworkers, they perform their work and stay in contact with their employers, co-workers, and clients/customers primarily via phone, the internet, or off-site meetings.

Home Occupation / Home-Based Business – a gainful business, profession, occupation, or trade conducted by a resident as an accessory to and within their residential dwelling unit, provided all applicable regulations and requirements of the Town of Farragut are met. For the purposes of these regulations the terms home occupation and home-based business may be used

interchangeably.

SECTION 2.

The Farragut Municipal Code, Appendix A., Zoning, Chapter 2., Definitions, is amended by the deletion of the existing language in Chapter 4., Section VI., Customary Home Occupations in its entirety, and replacing said section language with the following:

Section VI. - Customary home occupations / home-based businesses
It is the intent of this section to establish the permitting process, regulatory framework, and development criteria for small scale customary home occupations/home-based businesses in order to limit and manage their potential impacts on surrounding residential properties.

Applicability. This section and its requirements are applicable to all home occupations / home-based businesses operating within the Town of Farragut. Type One (1) home occupations, as listed below, are considered an allowable use by right within applicable zoning districts and do not require a permit provided all applicable provisions of this section are met on a continuing basis. All other home occupations and home-based businesses require permitting under this section. This section is not intended to apply to home-based workers, as defined in this zoning ordinance.

A. General Requirements
The following requirements and development criteria shall apply to all home occupations/home-based businesses. Additional requirements for specific home occupation types and/or activities may apply and are listed in subsequent subsections/parts below.

1. Home occupations shall be undertaken by the residents/occupants of the dwelling unit. Only one employee other than a resident of the dwelling may be working on site at any time.
2. The physical location/address of the home occupation shall not be used as a meeting or staging location for offsite employees or work crews.
3. Home occupations must be conducted entirely within the dwelling unit (including attached garage). With the exception of the parking a permitted business vehicle or trailer, accessory buildings shall not be used in connection with a home occupation, including for the storage of equipment, materials, supplies, goods, customer goods, or articles associated with the business.
4. The use of a dwelling unit for a home occupation shall be clearly incidental and subordinate to its use for residential purposes and not more than 25% of the gross floor area of the dwelling unit shall be used to conduct the occupation.
5. If the residents of the dwelling wish to engage in more than one home occupation, each home occupation must be permitted separately, and the total floor area of all occupations must not exceed 25% of the dwelling's gross-floor area.
6. There shall be no change or alteration to the exterior appearance of any building that would indicate the presence of the home occupation. The residential character of the lot and dwelling must be maintained.
7. With the exception of business-related vehicles or trailers, as permitted by these home occupation regulations, there shall be no outdoor storage of equipment, materials, supplies, goods, customer goods, or articles associated with the home occupation. In addition, only

such equipment, materials, supplies, goods, customer goods, or articles used or produced in connection with the home occupation may be stored on-site and within the dwelling unit (including attached garage).

8. Except as provided for in the specific requirements/standards below, no additional traffic or parking congestion shall be generated in connection with the home occupation other than what would be expected of a typical residence.

9. No equipment or process shall be used in connection with a home occupation that creates noise, vibration, glare, fumes, odors, or electrical interference, including voltage fluctuations detectable to the normal senses off of the lot.

10. Solid waste containers shall be limited to the sizes and types typically found in residential areas. The use of dumpsters and other larger types of solid waste containers for a home occupation shall be prohibited.

11. The home occupation shall not adversely affect public safety through the storage or generation of explosive, flammable, or hazardous materials in quantities which could constitute a neighborhood danger based on the determination of the Town Fire Marshal. In addition, all such materials must be disposed of properly and offsite.

12. Signs shall be limited to one non-illuminated wall mounted sign not to exceed two square feet in area.

B. Additional Specific Requirements by Home Occupation Type

1. Type 1 – Limited Home Office/Studio Based Activities

Type 1 home occupations are limited to home office/studio-based activities where client contact and services are principally conducted via phone, internet, or off-site. For the purposes of these regulations, Type 1 home occupations are intended to be "use by right" activities with no permit required, provided all applicable provisions of these regulations are met on an ongoing basis.

Uses. For the purposes of this ordinance, Type 1 home occupations may include:

i. office based businesses/professions providing remote management, administrative, or professional services including, but not limited to, accountants, architects, attorneys, engineers, planners, Information technology consultants, data entry services/clerks, management or financial consultants, real estate or insurance agents, contractor or trades persons (office only), or like professions as determined by the designated administrator;

ii. sales agents and sales representatives, online sales; and

iii. artistic and creative professions including, but not limited to, artists, authors, graphic designers, photographers, interior designers, event planners, caterers, or like professions, as determined by the designated administrator.

In addition to the general requirements listed above, all Type 1 home occupations must also meet the following standards.

a. Visits. On-site client meetings/visits shall be limited to no more than one client at a time between the hours of 8:00 a.m. and 6:00 p.m. and no more than a total of 2 meetings per day. All other client and business contacts shall be via phone, internet, or off-site. Off-street parking shall be provided for any on-site client contact/meetings.

b. Vehicles. Business vehicles associated with the home occupation shall be limited to passenger type vehicles typically found in a residential area including standard size cars, minivans, SUVs, and pickup trucks (light duty). No more than one dedicated (non-personal use) business vehicle is permitted per home occupation. All such vehicles shall be parked on-site overnight. No additional/other business vehicles shall be parked on premises or on-street overnight.

c. Deliveries. Parcel services (deliveries/pickups) associated with the home-based business shall be limited to a maximum of two per week, above and beyond normal household parcel services. Such parcel services shall be limited to public or private parcel service carriers (e.g. USPS, FedEx, UPS), no other truck deliveries are permitted.

d. Sales. There shall be no on-site sales of merchandise directly to customers; however, telephone and internet sales are permitted.

2. Type 2 – Home Occupations and Home-Based Businesses

Type 2 home occupations and home-based businesses may involve activities and impacts beyond the limited office and studio-based activities permitted as a Type 1 home occupation. Permits are required for all such home occupations.

Uses. For the purposes of this ordinance, Type 2 home occupations may include:

i. any listed Type 1 occupation or use which may wish to operate under the applicable Type 2 standards listed below;

ii. bakers, sewists, and tailors or like professions as determined by the designated administrator;

iii. counseling services;

iv. tutoring and instruction services including, but not limited to, academics, arts, crafts, fitness, swim lessons and similar subjects;

v. personal beauty and well-being services, including spa services and beauty and barber care;

vi. recording artists;

vii. small scale childcare and pet sitting;

viii. artisan and craftsperson production, and related minor assembly, fabrication, and repairs including woodworking, pottery, jewelry making and repair, watch and clock repair, gunsmithing, gift basket assembly, and similar activities conducted at

a scale typical of home arts and craft activities as determined by the designated administrator;

ix. other minor small scale assembly and repair activities including small engine repair, small appliance repair, simple auto repair, and similar activities as determined by the designated administrator; and

x. offices for mobile service providers, such as dog grooming, auto detailing, maintenance service, courier service, or mobile food vendor.

In addition to the general requirements listed above, all Type 2 home occupations must also meet the following standards.

a. Visits. Except as otherwise provided for in this part below, all on-site client/customer visits shall be limited to no more than two clients/customers or a single family at a time (per hour) between the hours of 8:00 a.m. and 8:00 p.m.

Small-scale childcare services shall provide care for no more than four children at a time that are not related to the residents operating the home occupation.

Pet sitting services shall provide care for no more than two pets at a time, in addition to the pets of the residents operating the home occupation. All Such pets shall be kept mostly indoors.

Off-street parking shall be provided for all on-site client/customer visits. All other client/customer services and business contacts shall be via phone, internet, or off-site.

b. Sales. On-site retail sales shall be incidental to the home occupation use and limited to merchandise produced on-site, or in the case of personal beauty and well-being services, may include hair care, beauty, and similar personal care products used on site and provided to clients. All other sales activities shall be conducted off-site or by telephone or internet.

c. Vehicles. Permitted business vehicles or trailers associated with the home occupation shall be limited to the following types and by the following conditions.

(1) Passenger type vehicles typically found in a residential area including standard size cars, minivans, SUVs, and pickup trucks (light duty), provided no more than one dedicated (non-personal use) business vehicle is permitted per home occupation. All such vehicles shall be parked on-site overnight.

(2) Limited types of larger vehicles, including specifically utility/cargo van, step van/walk-in van/multi-stop truck/delivery van, medium duty pickup, and minibus, or a trailer (enclosed or open) may be permitted provided the following conditions are met.

a) No more than one dedicated (non-personal use) larger business vehicle is permitted per home occupation. One dedicated (non-personal use) business trailer may be permitted, provided the tow-vehicle for said trailer shall be limited to a light or medium duty pickup truck or a utility/cargo van, which shall not exceed an overall length (bumper to bumper) of 22 feet.

b) Such permitted larger vehicles are limited to no more than two (2) axles and an overall length (bumper to bumper) of 27 feet. Trailers are limited to 16-foot enclosed box or open deck lengths.

c) Such vehicles or trailers shall be parked/stored behind the front plane of the principle building in the side or rear yard. No such vehicle or trailer shall be parked/stored in any front yard except for loading or unloading purposes on an approved surface for a period not to exceed one hour.

d) Such vehicles or trailers must be parked/stored only on approved surfaces, including but not limited to, concrete, asphalt, or paver stones. The approved surface must exceed the length and width of the vehicle or trailer parked/stored on it.

e) No such vehicle or trailer shall be parked on a public street overnight.

f) When permitted, open trailers cannot contain or be used to store or park equipment, materials, supplies, goods, customer goods, or articles onsite overnight.

(3) In all cases, no additional/other business vehicles shall be parked on premises or on-street overnight.

d. Deliveries. Parcel services (deliveries/pickups) associated with the home-based business shall be limited to a maximum of 10 per week, above and beyond normal household parcel services. Such parcel services shall be limited to public or private parcel service carriers (e.g. USPS, FedEx, UPS). No other truck deliveries are permitted.

C. Prohibited Home Occupations

Any home occupation not specifically provided for, or not meeting the requirements and standards of this section shall be prohibited.

D. Application/permit process

1. Applicants shall submit a completed Home Occupation Application and the required fee to the Town Hall.
2. Town staff shall review the application for completeness and conformance with all applicable requirements. Where applicable, the applicant shall also be required to have, or be in the process of acquiring, a Town of Farragut Business Privilege License and shall provide documentation of such with any home occupation permit request. A complete home occupation permit application will be reviewed and approved or denied within 15 working days of its submittal. If denied, the applicant may appeal the staff's decision to the Farragut Board of Zoning Appeals for an administrative review of such a decision.
3. An approved application shall represent the permit and shall constitute a conditional agreement to operate the home occupation in accordance with all applicable requirements. Said approved application/permit shall be revocable at any time and become void in the event the home occupation no longer complies with the Town's applicable requirements.
4. Approved home occupation permits are conditional and limited to the specific applicant, occupation type, and subject property. They are non-transferable to other occupation types, persons, or properties.

SECTION 3.

This ordinance shall take effect sixty (60) days from and after its final passage and publication, the public welfare requiring it.

_____
Ron Williams, Mayor

_____
Allison Myers, Town Recorder

Certified to the Farragut Board of Mayor and Aldermen by the Farragut Municipal Planning Commission this _____ day of _____, 2025, with approval recommended.

_____
Ron Pinchok, FMPC Chairman

_____
Shannon Preston, FMPC Secretary

Agenda Number: V.A. **Meeting Date:** August 21, 2025

REPORT TO THE MUNICIPAL PLANNING COMMISSION

Prepared By: Mark Shipley, Community Development Director

Subject: Discussion on updates to the Driveways and Other Access Ways Ordinance concerning how accesses are approved and opportunities to streamline the approval process where possible (Town of Farragut, Applicant)

Introduction & Background: This item was discussed at the June 19, 2025 Planning Commission meeting.

Discussion & Recommendations: Though the input received during the June workshop discussion was positive, the staff felt that, given the extent of the changes being proposed to the Driveways and Other Access Ways Ordinance, a second workshop session may be helpful. Included in the packet is the existing ordinance with the changes shown and how those would fit in with what is left unchanged in the ordinance. The specific changes were reviewed in June. The staff will summarize those again for this workshop session. The intent is to gather any remaining comments and have an ordinance ready for the September Planning Commission meeting.

Recommended By: Mark Shipley, Community Development Director

Proposed Motion: This is a workshop item. No action is to be taken.

ARTICLE 5. DRIVEWAYS AND OTHER ACCESS WAYS

EXISTING ORDINANCE WITH PROPOSED CHANGES SHOWN (New provisions are in red)

~~Sec. 22-145. Policy.~~

~~The efficiency and safety of a street, road, or highway is greatly affected by vehicles entering, leaving, or crossing the roadway. Commercial, office, and residential developments are major contributors to increased volume of traffic upon municipal streets, roads, and highways. Such developments also give rise to increased traffic volume of a type and pattern characterized by frequent ingress and egress to the same. Therefore, such development significantly affects the efficiency and safety of streets, roads, or highways within the municipality. In the interests of safety, the town must regulate access to the streets, roads, and highways within its town limits in a uniform manner that is fair to the general public, land-owners, and developers.~~

~~(Code 2007, § 16-401; Ord. No. 96-30, 1-1997)~~

~~Sec. 22-146. General provisions.~~

~~(a) All access ways shall meet the minimum access requirements of this article or as determined by a traffic impact study.~~

~~(b) The town municipal planning commission shall review access requests through the site plan review process and forward its recommendation to the board of mayor and aldermen.~~

~~(c) The town municipal planning commission shall review new proposed roadway accesses to an existing public road through the subdivision platting process. These roadway accesses shall meet the minimum access requirements of this article or as determined by a traffic impact study.~~

~~(d) The board of mayor and aldermen shall review access applications as provided in this article, except new roadway accesses to an existing public road created through the subdivision platting process.~~

~~(e) Developments requiring the submittal of a site plan or a preliminary subdivision plat may require a traffic impact study.~~

~~(f) The town municipal planning commission may require a traffic impact study as part of the rezoning submittal process when the requested zoning change increases the overall density from the base zone.~~

~~(g) State department of transportation access permits shall be the responsibility of the applicant.~~

~~(Code 2007, § 16-402; Ord. No. 96-30, 1-1997; Ord. No. 14-18, § 2, 12-11-2014)~~

Sec. 22-145. Purpose, intent, and general scope.

(a) The purpose and intent of this chapter is the following:

(1) Promote safety by ensuring that access requests take into consideration sight distance, topography, nearby access points, nearby intersections, street classifications and design speeds.

(2) Evaluate the trip generation and trip distribution associated with a project and its access points in terms of impacts to all users of the transportation system (motorists, pedestrians, bicyclists).

(3) Coordinate access to provide for connectivity options and account for future development and/or road improvement projects.

(4) Promote aesthetic considerations in relation to access, particularly in residential developments.

Sec. 22-146. Provisions declared to be minimum requirements.

The provisions of this chapter are considered to be minimum requirements. Wherever there is a discrepancy between the minimum standards noted in this chapter and those contained in any other lawfully adopted regulation or ordinance of the town, the strictest standard shall apply.

Sec. 22-147. Severability.

If any section, subsection, sentence, clause, or phrase of this chapter is for any reason held to be invalid by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this chapter.

Sec. 22-147~~7~~8. Traffic impact study requirements.

(a) ***Generally***.

(1) The submission of a traffic impact study shall be required with rezoning, site plan and preliminary plat requests in accordance with the following table:

24-Hour Trip Generation	Traffic Study Scope
0—750 ADT	Level I
750—6,000 ADT	Level II
> 6,000 ADT	Level III

(2) Trip generation rates for proposed uses shall be calculated using the ITE trip generation manual, latest edition.

(3) Upon being provided proof by the developer's traffic engineer that a lower level traffic impact study would be adequate for a proposed development, or that a traffic study is not warranted, the town engineering staff may reduce the level of study required or waive the requirement.

(b) ***Traffic impact study guidelines and procedures.***

(1) These traffic impact study guidelines and procedures define when proposed rezoning, site plans and preliminary plat requests warrant a detailed traffic study and what information should be included in it. All applicants will be required to follow the town guidelines.

(2) The purpose of performing a traffic impact study, as defined by the institute of traffic engineers (ITE), is to:

a. Provide guidance for short term and long term planning of site access;

b. Provide guidance for on-site circulation and the interface between on-site circulation and off-site traffic;

c. Provide guidance for off-site improvements needed to permit the roadway system to function satisfactorily so as to accommodate site and non-site traffic;

d. Provide guidance on measures to improve the safety and efficiency of pedestrian and bicycle facilities impacted by the proposed action for which the traffic impact study is being prepared.

e. Assist developers and land owners in making land use site planning decisions regarding traffic;

f. Identify the contribution a particular development makes to roadway system traffic volumes;

g. Provide a basis for estimating roadway improvement requirements attributable to a particular project;

h. Assess the compatibility with local transportation plans;

i. Enable staff to better evaluate zoning changes and development plans; and

j. Allow appointed and elected officials to know implications of their voting decisions.

(c) ***Scope of required traffic impact studies.*** Three levels of study have been identified based on the number of trips that a development is projected to generate in a 24-hour period:

(1) Level I studies require analysis of each access, per engineering staff, that the development has to an existing roadway. Access points to be analyzed include public and private roads, joint permanent easements, and private drives.

(2) Level II studies require analysis of each access that the development has to an existing roadway, and to the first control point beyond those access points. A control point is an intersection controlled by a traffic signal or stop sign on the existing roadway onto which the development has access. For cases where a traffic control device does not exist, engineering staff will determine the extent of the study. If a freeway interchange is near the property to be developed and is not signalized, engineering staff will determine if the ramps need to be included in the study. This level of study is commonly required for larger residential subdivisions, commercial developments, and office complexes.

(3) Level III studies require a complete traffic impact study. This study must address each access point, the first control point beyond each access point, and the nearest collector intersection or street of higher classification or as determined by the engineering staff. The exact area to be studied will be determined by the engineering staff with input from the study preparer. Level III studies are uncommon, as they are usually warranted only with very large mixed-use and commercial developments.

(d) ***Submission and review procedures for traffic impact studies***.

(1) Applicants should conduct a preliminary trip generation assessment of any proposed rezoning, site plan or preliminary plat request to determine if a traffic impact study will be required. This preliminary assessment should be conducted well in advance of the actual submission of plans.

(2) If the preliminary assessment indicates that a traffic impact study will be required, the applicant should consult as early as possible in the plan-development process with the town's engineering staff to verify a development's projected trip generation, and to confirm whether or not a study will be required. If a study is required, the required level can be determined at that time.

(3) The applicant shall then select a licensed traffic or transportation engineer to prepare the study, who may need to consult with the engineering staff periodically to review the collected data and any assumptions made in the draft report.

(4) An electronic copy of the completed draft traffic impact study shall be submitted along with the development application and all other materials required for submission.

(5) The engineering staff shall review the draft traffic impact study in conjunction with the other elements of the development application. If the draft traffic impact study is not of the proper scope or is executed improperly, the applicant shall be notified of the deficiencies and be required to submit corrections on the same schedule that applies to the other elements of the development application. Failure to submit

corrections in a timely manner may lead to a postponement of the application until the next regularly scheduled planning commission meeting.

Since a completed traffic impact study must be submitted at the same time as the application for a development, it is critical that the applicant conduct steps one through three early in their planning of a proposed development. Failure to submit a traffic impact study, or submission of an inadequate study, is likely to slow the review process and may lead to postponements.

(e) ***Required qualifications for preparers of traffic impact studies.*** Traffic impact studies shall be prepared under the supervision of a qualified engineer who has specific training in traffic and transportation engineering and experience related to preparing traffic studies for existing or proposed developments. The study shall be signed and sealed by the supervising engineer. The ability to forecast and analyze traffic needs for both developments and roadway systems is essential. All design work implementing the recommendations of the traffic impact study shall be completed under the supervision of a registered professional engineer.

(f) ***Required specifications for traffic impact studies.***

(1) *Report requirements: Level I studies.*

a. *Intersection.*

1. Description of site including a location map.
2. Type of project.
    (i) If residential, number and type of units.
    (ii) If commercial or office, include square footage and occupancy.
3. Site plan with access points shown to scale.

b. *Existing conditions.*

1. Distance from nearest intersection in both directions.
2. Distance to nearest drive or access points in both directions.
3. Location shown relative to opposing street, driveways, or access points.
4. Existing pedestrian and bicycle facilities in the study area.

c. *Proposed conditions.*

1. Width, radius, and markings of proposed street, driveway, or access point.
2. Proposed improvements adjacent to access point, including, but not limited to, acceleration, deceleration lanes, and pavement marking adjustments.
3. Additional pedestrian and bicycle facilities or modifications to existing facilities to improve safety and/or user experience.

4. Improvements to pedestrian crossings to lessen potential conflicts with motorists.

(2) *Report requirements: Level II studies.*

a. *Introduction.*

1. Description of site including a location map.
2. Type of project.
    (i) If residential, number and type of dwelling units.
    (ii) If commercial or office, square footage and type of occupancy.
3. Map of project with proposed access points shown.

b. *Existing conditions.*

1. Directional traffic counts on roads adjacent to property with access to development: Traffic counts should be no more than one year old.
2. Level of service of intersections (if applicable):
    (i) Highway capacity software is recommended.
    (ii) Other nationally recognized software can be used.
3. Existing pedestrian and bicycle facilities in the study area.

c. *Trip generation rates.*

1. Listing of trip generation rates.
2. Listing of sources for rates used.
    (i) ITE trip generation manual, latest edition.
    (ii) If the type of proposed development is not addressed in the ITE manual, then other rates may be used as long as they are documented and have been approved by engineering staff.
3. Calculation of trip ends by type of generator.
    (i) Traffic generated by phase.
    (ii) One hundred percent occupancy and development.
4. An assessment of whether site-generated traffic will have any adverse impacts to pedestrians and/or bicyclists.

d. *Trip distribution.*

1. Assumptions as to the directional distribution of traffic to and from the development.
2. Assumptions as to the peak hour percentages.

3. Assumptions as to the peak hour directional splits.
4. Assumptions as to the pass-by trips, if applicable, must be approved by engineering staff.
5. An assessment of whether modifications to site generated trip distribution will have any adverse impacts to pedestrians and/or bicyclists.

e. *Analysis.*

1. Level of service (LOS) and capacity analysis for peak periods.
    (i) Compute the projected LOS and capacity analysis for each access point and control point to the adjacent road system based on the development by phase.
        A. Highway capacity software is recommended.
        B. Other nationally recognized software can be used.
    (ii) Compare LOS before development to LOS after development if applicable.
    (iii) Link analysis if applicable.
2. Intersection and roadway geometry; existing and proposed.
    (i) Distances from existing streets, driveways, and/or median cuts.
    (ii) Alignment with existing streets, driveways, and/or median cuts.
    (iii) Intersection layouts.
    (iv) Sight distance.
    (v) Right-of-way width.
    (vi) Lane width.
3. Site circulation.
4. Pedestrian facilities.
    (i) Sidewalks, walking trails.
    (ii) Crosswalks, crossing distance, pedestrian signals and associated timing.
    (iii) Transit stops.
    (iv) School bus stops.
5. Bicycle facilities.

f. *Recommendations.*

1. Site access.

2. Intersection improvements.

    (i) Traffic control devices: modify existing or need for new.

    (ii) Left and/or right turn lanes.

    (iii) Acceleration and/or deceleration lanes.

    (iv) Length of storage bays.

    (v) Additional pedestrian and bicycle facilities or modifications to existing facilities to improve safety and/or user experience.

    (vi) Improvements to pedestrian crossings to lessen potential conflicts with motorists.

3. Off-site improvements.

    (i) Modification to existing traffic control devices.

    (ii) Additional traffic control devices.

    (iii) Additional lanes at major intersections.

    (iv) Additional roads.

    (v) Additional pedestrian and bicycle facilities or modifications to existing facilities to improve safety and/or user experience.

    (vi) Improvements to pedestrian crossings to lessen potential conflicts with motorists.

4. Improvements by phasing (if applicable).

g. *Appendix.*

1. Raw traffic count data.

2. Documentation of analysis.

(3) *Report requirements: Level III studies.* In addition to the preceding information for Level I and II, the following information on trip assignment shall be provided in the report prior to the analysis and recommendation section:

Trip assignment.

1. Show existing ADTs, proposed development traffic, and total traffic for all affected links on map which identifies the project and surrounding roads.

2. Show a.m. and p.m. peak hour turning movements for the existing traffic, the proposed development traffic, and the combined traffic at all project entrance intersections, and effected intersections within the study area.

3. Discuss the effects of phasing of the proposed project.

(g) ***Additional information.*** Additional information on traffic impact studies can be obtained from the institute of transportation engineers (ITE), among other reputable sources.

(Code 2007, § 16-403; Ord. No. 96-30, 1-1997; Ord. No. 14-18, § 3, 12-11-2014; Ord. No. 24-11, § 1, 7-25-2024)

~~**Sec. 22-148. Permit required.**~~

~~(a) No driveway or other means of access to any right-of-way of any road, street, or highway within the limits of the town shall be constructed nor shall any existing driveway or other means of access be altered except pursuant to a permit issued by the town. The submission of an access permit application shall be required.~~

~~(b) For minor revisions to existing drives and residential drives onto non-local streets, an application for an access permit shall be accompanied by four copies of a plan of access which shall as a minimum, consist of clear drawings or a sketch showing the general layout and dimensions necessary to prove compliance with this article, and a brief description of the proposed use of the property.~~

~~(c) For residential drives onto local streets, an application for an access permit shall be accompanied with the building permit and shown on the required site plan.~~

~~(Code 2007, § 16-404; Ord. No. 96-30, 1-1997)~~

~~**Sec. 22-149. Permit approval.**~~

~~(a) The planning commission and the board of mayor and aldermen shall review, as provided for in this article, applications for access requiring the submittal of a site plan. Site plans involving residential drives onto non-local streets that serve only one dwelling unit may be reviewed and approved by the town's engineering staff. Minor revisions to existing drives may also be reviewed and approved by the town's engineering staff. Where a concern is raised by the town's engineering staff regarding an access request that they could otherwise approve, such request shall be presented to the planning commission and board of mayor and aldermen for approval.~~

~~(b) The planning commission, the board of mayor and alderman, and town staff shall review applications for access for compliance with the requirements of this article. The planning commission, the board of mayor and alderman, or the town staff may require such revisions, corrections, and additions to the plans of access and such additional supporting documentation of the plan of access as may be reasonable considering the locations of proposed and existing access, the traffic impact study if required, and considerations of public safety and welfare. All revisions, corrections, and additions required shall be recorded on a final copy of a subdivision plat, site plan, or "drawing or sketch" of the access requested for approval before issuance of a permit.~~

~~(c) An access permit shall be secured before issuance of a building permit.~~

~~(d) No final certificate of occupancy or certificate of completion shall be issued until all applicable access control requirements as outlined in this article and other requirements of the individual access permit have been completed.~~

~~(Code 2007, § 16-405; Ord. No. 96-30, 1-1997; Ord. No. 23-02, § 1, 2-23-2023)~~

Sec. 22-149. Access Approval Process.

(a) In addition to the applicable traffic impact study requirements in Section 22-148, the provisions in this section outline the access approval process. The process varies depending on the nature of the access, the street classification on which the access is requested, what the access is associated with, and whether the access can comply with the provisions of this chapter without a request for a variance.

(1) **Local Street Access Approval**. On streets that are classified as local on the adopted Major Road Plan, new access associated with a residential lot shall be shown on the residential site plan required for a building permit and approved through the building permit process. New access or modifications to existing access associated with a residential lot that is not part of a building permit, shall be submitted to the Town's engineering and planning staff for review and approval. Depending on the scope of work, such modifications may require a right-of-way permit submitted through the Town's electronic permitting system. A variance request from any provision of this chapter involving a street classified as local on the adopted Major Road Plan shall be reviewed and approved by the planning commission.

(2) **Town Engineer Approval**. Site plans involving residential drives onto non-local streets that serve only one dwelling unit may be reviewed and approved by the Town engineer. Minor revisions to existing drives involving non-local streets may also be reviewed and approved by the Town engineer. Where a concern is raised by the Town engineer regarding an access request that the Town engineer could otherwise approve, such request shall be presented to the planning commission for approval.

(3) **Planning Commission Approval**. For streets that are classified as collector or arterial on the adopted Major Road Plan, new or modified access associated with a site plan or subdivision plat that requires a review from the Town's planning commission shall be approved as part of the site plan or subdivision plat process. An access that serves more than one dwelling unit or a non-residential use but is not part of a larger site plan or subdivision plat shall also be reviewed and approved by the planning commission.

(4) **Board of Mayor and Aldermen Approval**. Except as provided for in this part, board of mayor and aldermen approval of access shall only be required where a variance from any provision of this chapter is requested in association with a property's access to a non-local street. In such case, the planning commission shall make a recommendation to the board of mayor and aldermen.

On streets that are classified as "collector" on the adopted Major Road Plan, the planning commission may approve a variance from the distance between driveways as part of a site plan or subdivision plat approval where the nearest driveway that is within the minimum distance required serves only one dwelling unit. In this case, such variance does not need approval from the board of mayor and aldermen.

(5) **Tennessee Department of Transportation (TDOT) Approval**. New or modified access involving a State of Tennessee highway shall be approved by TDOT in addition to any required town approval.

(6) **Temporary Access Approval**. Temporary construction access ways may be granted by the town engineer or his designee to facilitate construction. The length of time shall be determined by the town engineer based on the specifics of the project. Where a concern is raised by the Town engineer regarding a temporary access request that the Town engineer could otherwise approve, such request shall be presented to the planning commission for approval.

Sec. 22-150. Access Submittal Requirements.

(a) The provisions in this section address the general submittal requirements for different types of access requests. Additional information may be required, as applicable, depending on the nature of the requested access.

(1) **Local Street Access**. Where associated with a building permit, the residential site plan shall include the driveway and turn around location (where proposed), and dimensions and square footage of the driveway, turning radii, and turn around. For corner lots, the distance of the driveway edge, exclusive of turning radius, from the nearest intersecting curb or pavement edge (where curbing does not exist) shall be provided.

(2) **Local Street Access (non-building permit).** A new or modified residential access to a local street that is not associated with a building permit shall include the same information that would apply to a residential site plan along with an update on the total lot coverage that would result from the access addition or modification. This may be approved by the engineering or planning staff and uploaded into the project address. If the scope of the project requires a right-of-way permit the site plan will be submitted through the Town's electronic permitting system.

(3) **Non-Local Street Access – Town Engineer Approval.** Where the Town engineer may approve an access or a modified access to a non-local street, a site plan shall be submitted that shows the location and dimensions of the proposed access and the distance from the proposed access to the nearest access on both sides of the street. This dimension shall be measured from the nearest edges of driveway pavement, excluding the turning radius of each access. The site plan shall also include an update on the total lot coverage that would result from the access addition or modification.

(4) **Non-Local Street Access – Planning Commission Approval.** Where an access to a non-local street requires planning commission approval or is part of a site plan or subdivision plat that requires a review from the Town' s planning commission, the access shall reflect and be consistent with the requirements associated with site plan and subdivision plat submittals. This would include the location and dimensions of the proposed access and the distance from the proposed access to the nearest access on both sides of the street. This dimension shall be measured from the nearest edges of driveway pavement, excluding the turning radius of each access.

Sec. 22-150~~0~~1. Specifications; permanent access.

(a) The following constitutes minimum specifications for access to streets, roads, and highways within the town and additional reasonable specifications may be imposed as required for public safety through the corresponding approval process. ~~Such additional specifications shall be required upon recommendation of the town engineer, his designee, or the planning commission and approval by the board of mayor and aldermen.~~

(1) ***Distance requirements.***

a. *Distance from intersections.*

1. The minimum distance of an access point from an intersection, measured from intersecting right-of-way to the edge of the driveway pavement, shall be as follows:

Street Classification	Minimum Distance
Arterial streets	400 feet
Collector streets	200 feet
Local streets[1]	100 feet
Local Streets[2]	50 feet

Note:

[1] Denotes commercial and office zoned properties.

[2] Denotes residential and agricultural zoned properties.

2. Access shall be located and constructed so as to provide adequate stopping sight distance for drivers entering and exiting the property using a design speed of ten miles above the legal speed limit as determined by the town engineer or his designee in accordance with current AASHTO (A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials) and adopted ITE (Institute of Traffic Engineers) standards.

b. *Distance between driveways.* For the following street classifications, the following requirements specify the minimum allowed distances between driveways[1]:

Street classification	Distance between driveways
Arterial streets	400 feet
Collector streets	200 feet
Local streets[2]	100 feet

Note:

[1] Town may require joint permanent access easements to minimize the number of curb cuts.

[2] Residential properties are exempt from local street requirement for the distance between driveways.

c. *Joint permanent access easements.* Controlled access to a joint permanent access easement shall be maintained for a minimum length of 40 feet perpendicular from the right-of-way or as determined by the traffic impact study.

(2) ***Access to and from property being developed.***

a. *Number of access points.* The number of access points of a property shall be determined by its road frontage. Lots which front on more than one street shall add total street frontage lengths together to determine total road frontage to calculate the number of driveways permitted.

Street classification	Length of road frontage	Number of access points
Arterial streets	0—400 feet	1
Arterial streets	401—800 feet	2
Collector streets	0—200 feet	1
Collector streets	201—800 feet	2
Local streets	0—200 feet	1 or a circular drive subject to the circular

		drive criteria provided for herein
Local streets	201—800 feet	2 with a circular drive counting as two access points but not subject to the circular drive criteria provided for herein
Local streets corner lot	350 feet and above	2 with 1 of the accesses permitted as a circular drive subject to the circular drive criteria provided for herein
All streets	801 feet and above	2 + 1/each 800 feet of additional road frontage

b. *Circular drive provisions for lots with less than 200 feet of frontage.* In lieu of one single access point, a lot which fronts a local street for less than 200 feet may be permitted a circular drive provided the following criteria are met:

(i) The property is zoned residential and the street on which the property fronts is located within a residential subdivision;

(ii) The maximum lot coverage in the front yard (area in front of the house): 35 percent;

(iii) The maximum driveway width: 15 feet;

(iv) The minimum distance between the driveways: 60 feet; and

(v) The setback from the side property lines: A total on two sides of at least 40 feet, but not less than ten feet on any one side.

c. *Circular drive provisions for qualifying corner lots.* A lot with more than 350 feet of frontage and that fronts on more than one local street may be permitted a circular drive on one of the street frontages in lieu of one single access point provided the criteria noted above for circular drives are met.

(3) Deceleration Lanes and Requirements for Access Between Properties. Access to a collector or arterial street shall generally require a deceleration lane and reviewed as part of the site plan or subdivision plat approval process. Also, to help lessen the number of access points to a collector or arterial street and provide more route options, cross access to abutting properties shall be required (unless topographically prohibitive or impossible due to the layout of an existing development on an adjacent property) and shall be reviewed as part of the site plan or subdivision plat approval process.

Appropriate access easements shall be platted once the access is complete. All accesses approved through the site plan or subdivision platting process shall comply with applicable provisions in the Subdivision Regulations and Zoning Ordinance.

(4) **Single Family Residential Driveway Dimension and Composition Requirements**. In addition to other requirements in this chapter, new or modified accesses associated with a single-family residential lot shall comply with the following requirements associated with their dimensions and composition:

a. **Width.** The maximum width of a driveway for a single-family dwelling shall be 24 feet throughout its length, excluding a turn around that is not within the public right of way. The maximum flare or radius shall be between three feet and five feet.

b. **Composition.** Within the public right of way, a single-family residential driveway shall be paved with concrete or bituminous material. For purposes of this chapter, the right of way shall be a distance of at least 12 feet from the curb or street pavement edge (where curbing does not exist).

~~(3) *Paved acceleration and deceleration lane requirement.* Paved acceleration and deceleration lanes may be required along any arterial or collector street or highway at the determination of the board of mayor and alderman upon the recommendation of the town engineer or his designee.~~

~~(4) *Circulation drives and frontage roads.* Circulation drives (drives which interconnect all lot access points with all vehicle parking, loading, servicing, and like areas and structures) and frontage roads (roads which parallel the public streets giving access and which extend along the entire frontage of a particular property) shall be constructed in order to provide safe and efficient vehicular movement between specified access points as specified in subsection (2) of this section. The location, width, and design of all circulation drives and frontage roads shall be approved by the board of mayor and aldermen upon recommendation of the town engineer or his designee. All frontage roads shall be dedicated as public streets and shall be maintained by the public.~~

~~(5) *Subdivision standards for circulation drives and frontage roads.* Frontage roads and circulation drives shall be constructed in conformance with the subdivision regulations standards. Dedicated right-of-way for frontage roads shall be ten feet greater than the width of the newly constructed frontage road. All circulation drives shall be clearly defined and marked appropriately to assist public circulation into, on, and out of the property and through parking lot areas.~~

~~(Code 2007, § 16-406; Ord. No. 96-30, 1-1997; Ord. No. 09-14, § 1, 8-27-2009; Ord. No. 20-14, § 1, 9-24-2020)~~

~~Sec. 22-151. Access to two or more roads, streets, or highways.~~

~~In the event a parcel of land abuts and lies adjacent to two or more separate roads, streets, or highways, the board of mayor and alderman may limit or prohibit access to one or more such roads (provided that access to at least one such road shall always be permitted) if the safety and welfare of the public will be promoted by so doing. In so limiting or prohibiting access, consideration shall be first given to limiting or prohibiting access to the more heavily traveled abutting or adjacent road, street, or highway. Any party aggrieved by any action taken under the provisions of this section shall have the burden of establishing that such action taken does not promote the safety and welfare of the public.~~

~~(Code 2007, § 16-407; Ord. No. 96-30, 1-1997)~~

Sec. 22-152. Variance.

A variance request from any provision of this chapter shall be in accordance with the Access Approval Process outlined in Section 22-149.

~~Notwithstanding anything contained herein to the contrary, the board of mayor and aldermen may grant approval for access and/or frontage roads other than as specifically herein permitted, provided such an access is reviewed with a recommendation by the town engineer or his designee and the planning commission.~~

~~(Code 2007, § 16-408; Ord. No. 96-30, 1-1997)~~

~~Sec. 22-153. Temporary access.~~

~~(a) Temporary access ways may be granted by the board of mayor and alderman upon review with a recommendation by the town engineer or his designee and the planning commission at locations other than specified for permanent access where it is expedient for the purpose of staged development. Temporary access ways shall cease to exist at such time that any other means of access to a property occurs which more nearly conforms to the requirements of this article.~~

~~(b) Temporary construction access ways may be granted by the town engineer or his designee to facilitate construction. The length of time shall be based on the duration of the grading permit.~~

~~(Code 2007, § 16-410; Ord. No. 96-30, 1-1997)~~

Sec. 22-1543. Appeals.

(a) An appeal from ~~adverse determinations on any application for an access permit shall be to the board of mayor and aldermen. Any party aggrieved or refused issuance of an access permit shall~~ notify ~~in writing the town recorder of applicant's desire to appeal the action taken. Such notice shall be given within 30 days of denial of the permit.~~ an access related denial from the town engineer or planning commission shall be to the board of mayor and aldermen. The appeal request shall be in writing to the town recorder within 30 days of the denial. The applicant shall include specific justification for the appeal. The request will then be placed on a board of mayor and alderman agenda for their consideration.

~~(b) Upon receipt of notice of appeal the town recorder shall place the appeal for consideration before the board of mayor and aldermen within 30 days of receipt of notice of appeal. The town engineer or his designee shall appear at such scheduled meeting, and the applicant may appear, to present the matter to the board of mayor and aldermen.~~ The determination by the board of mayor and aldermen is administratively final.

~~(Code 2007, § 16-411; Ord. No. 96-30, 1-1997)~~

Secs. 22-155—22-176. Reserved.