FARRAGUT MUNICIPAL PLANNING COMMISSION
AGENDA

April 15, 2021 – 7:00 p.m.

This meeting can be viewed live on the Farragut YouTube Channel, www.townoffarragut.org/livestream, Charter Channel 193, and TDS Channel 3." The meeting will be held virtually, authorized by Governor Lee's executive orders regarding the COVID19 pandemic.

Meeting comments may be emailed to comments@townoffarragut.org and must be received by **12:00 p.m. on April 14** to be included in the record of the meeting. Anyone that wishes to provide comments must include their name and address. For questions, please e-mail Mark Shipley at mshipley@townoffarragut.org or Bart Hose at bhose@townoffarragut.org.

1. **Approval of agenda**

2. **Approval of minutes – March 18, 2021**

3. **Discussion and public hearing on the FY2022 CIP**

4. **Discussion and public hearing on a re-subdivision plat for Lot 1 of the Edward Johnson subdivision, 354 Boring Road, 2.61 Acres, 2 Lots, Zoned R-2 (Roane Land Surveying, Applicant)**

5. **Discussion and public hearing on a zoning map amendment request for the property referenced as Parcel 069, Tax Map 142 (north of old Ingles building), 20 Acres, to change the zoning from R-1 (Rural Single-Family Residential) and R-2 (General Single-Family Residential) to R-6 (Multi-Family Residential) (Horne Properties, Inc., Applicant)**

6. **Discussion and public hearing on a zoning map amendment request for the property referenced as 11500 Kingston Pike (west of Farragut Town Hall), Parcel 148, Tax Map 142, 68.31 Acres, to rezone the area currently zoned O-1 (Office) to C-1 (General Commercial), to rezone a portion of the area currently zoned B-1 (Buffer), R-1 (Rural Single-Family Residential), and R-2 (General Single-Family Residential) to R-4 (Attached Single-Family Residential) and R-6/OSMFR (Open Space Multi-Family Residential), and to rezone a portion of the property currently zoned R-2 to B-1 (Buffer) (Horne Properties, Inc., Applicant)**

7. **Discussion and public hearing on a request to amend the Farragut Municipal Code, Appendix A- Zoning, Chapter 4, Section XXIII., Site Plan Regulations, Paragraph C (6)(r), to address the screening requirements for below grade refuse collection and recycling systems (Binova, LLC, Applicant)**

It is the policy of the Town of Farragut not to discriminate on the basis of race, color, national origin, age, sex, or disability 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.

8. **Discussion and public hearing on a concept plan for the Grove at Boyd Station Subdivision, Parcels 50, 50.01, 9.01, and 54.01, Tax Map 162, 12611 Boyd Station Road, 132 Acres, 285 Lots, Zoned R-1/OSMR (Rackley Engineering, Applicant)**

9. **Discussion and public hearing on a site plan for the Farragut Town Center at Biddle Farms, Parcels 3.02, 3.03, 3.10, and a portion of 3.19, Tax Map 143, 11230 Kingston Pike, 11240 Kingston Pike, 133 Concord Road, 37.08 Acres, Zoned PCD and FPD (CHM, LLC, Applicant)**

10. **Discussion and public hearing on a request to amend the Farragut Municipal Code, Appendix A – Zoning, Chapter 3, Section IV., Open Space Mixed Residential (OSMR), to require a concept plan in association with a rezoning request to establish the distribution of attached vs. detached dwelling units (Town of Farragut, Applicant)**

11. **Discussion on updates to the Major Road Plan and potential cross sections for local and major collector streets (Town of Farragut, Applicant)**

12. **Approval of utilities**

13. **Citizen Forum**

Planning Commission Meeting
Public Comment Protocol

The Planning Commission welcomes and invites Farragut residents to participate in public 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 the Planning Director or other designated staff member. For virtual meetings, comments may be emailed to comments@townoffarragut.org and must be received by 12:00 p.m. on the day before the meeting to be included in the record of the meeting. Anyone that wishes to provide comments must include their name and address. This time is set aside specifically for comments on items that are not on the Planning Commission regular agenda for the meeting. Each speaker will be given five (5) minutes to speak on his/her topic.

During the regular agenda portion of the meeting there may be an allowance for public comment for each agenda item. The Chairman may recognize individuals for public comment based on the following guidelines.

1. The Chairman shall maintain and control the meeting to provide a professional and objective environment;
2. Any Farragut resident, property owner, or business owner interested in speaking should fill out a blue comment card stating which agenda item they would like to comment on and turn in to the Planning Director or other designated staff member;
3. Speakers shall come to the podium and identify themselves by name and street address;

4. Public comment shall be limited to five (5) minutes per individual. Time for public comment may be amended at the discretion of the Chairman. Time is not transferable to other speakers;
5. Speakers should strive to avoid redundancy; each speaker should have their own original viewpoint;
6. Comments shall address issues, not individuals or personalities;
7. Comments may support or oppose issues or measures, but the motives of those with differing views shall not be questioned or attacked;
8. Personal attacks and malicious comments shall 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 five (5) 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.

MINUTES
FARRAGUT MUNICIPAL PLANNING COMMISSION

March 18, 2021

MEMBERS PRESENT
Rita Holladay, Chairman
Ed St. Clair, Vice-Chairman
Ron Williams, Mayor
Scott Russ
Jon Greene
Noah Myers
Austin Strobel, Youth Representative

MEMBERS ABSENT
Louise Povlin
Betty Dick
Michael Bellamy

Staff Representatives: Mark Shipley, Community Development Director
Trevor Hobbs, Assistant to the Town Administrator

This meeting was conducted through a remote Webex session due to Governor Lee's orders and the Knox County Health Department's orders regarding the COVID-19 pandemic. Chairman Holladay called the meeting to order at 7 p.m. and provided background on why the meeting was being conducted through Webex and where it may be viewed.

1. **Approval of agenda**
   Staff recommended that Agenda Item 5 be removed. Staff has not received direction from the applicant regarding how they wish to proceed with the plat.

   A motion was made by Mayor Williams to follow staffs' recommendation. Motion was seconded by Commissioner Russ and motion passed 5-0 through a roll call vote (Commissioner Myers had not yet joined the meeting).

2. **Approval of minutes – February 18, 2021**
   Staff recommended approval of the minutes as submitted.

   A motion was made by Mayor Williams to follow staffs' recommendation. Motion was seconded by Commissioner St. Clair and motion passed 5-0 through a roll call vote (Commissioner Myers had not yet joined the meeting).

3. **Discussion and public hearing on a request to install +/- 1,500 linear feet of 4 inch medium-density polyethylene (MDPE) gas main and 600 linear feet of 2 inch MDPE gas main along a portion of Everett Road, a portion of Long Ridge Road in the Saddle Ridge Subdivision, and a portion of Brochardt Boulevard and Comblain Road in the Fox Run Subdivision (KUB, Applicant)**
   Staff reviewed this item and recommended approval subject to the following:

It is the policy of the Town of Farragut not to discriminate on the basis of race, color, national origin, age, sex, or disability 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.

1) Please obtain a grading and right of way permit from the Town and use directional boring to the greatest extent possible. Silt and tree fencing (where needed) must be installed and then inspected and approved by the Town staff.
2) Trail, sidewalk, and roadway crossings must be directionally bored. Any damage to existing infrastructure shall be repaired by the contractor. Any affected areas must be restored to their pre-construction condition and completely stabilized.
3) Please alert residents via doorhangers or other means prior to starting work.
4) Please ensure that proper traffic control measures are in place.
5) Please provide an as-built of the gas line placement and easements to the Town once the project is complete. New easements must be platted and recorded.

Robert Callori was present on behalf of KUB and expressed no issues with the subject to's. A motion was made by Mayor Williams to follow staffs' recommendation. Motion was seconded by Commissioner Greene and motion passed 6-0 through a roll call vote (Commissioner Myers had joined the meeting).

4. **Discussion and public hearing on a re-subdivision plat for Lot 1 of the Edward Johnson subdivision, 354 Boring Road, 2.61 Acres, 2 Lots, Zoned R-2 (Roane Land Surveying, Applicant)**

Staff reviewed this item and noted that the applicant has requested a variance to the Subdivision Regulations to not construct a pedestrian facility along Boring Road. Staff noted the variance would need to be acted on prior to the plat.

Staff recommended that a pedestrian facility (likely a walking trail) not be required to be constructed *at this time* since there are no pedestrian facilities that currently abut the property and the western frontage of the property has topographic challenges that would best be approached as part of a larger pedestrian facility construction project along this portion of Boring Road. To provide for pedestrian facilities in the future, staff recommended that a pedestrian completion covenant approved by the Town Attorney be prepared and recorded and referenced on this re-subdivision plat. This covenant would require the property owner(s) of Lots 1R-1 and 1R-2 to construct a pedestrian facility with a compliant grass strip along their Boring Road frontages should the 15.02-acre property to the east be re-subdivided to the extent that a pedestrian facility would be required to be constructed along that portion of Boring Road. The plat being considered at this time would also need to provide a pedestrian facility easement along the frontage of Lots 1R-1 and 1R-2 that would establish the space for a walking trail and grass strip to be provided as stipulated in the completion covenant. This may include an easement along the top of the bank on the frontage west of the existing driveway so that re-grading of the bank would not be required.

A motion was made by Mayor Williams to follow staffs' recommendation. Motion was seconded by Commissioner Myers. The property owners then spoke regarding their variance request and that they would not be able or willing to construct a pedestrian facility along their frontages. Some discussion with commissioners ensued. Staff noted the plat would need to accommodate a pedestrian easement that would provide for the space needed for a walking trail and grass strip since this type of facility has already been constructed further east along Boring Road in association with the Country Way Subdivision. Staff noted that this would need to be coordinated with First Utility District (FUD) since there is a 20-foot water line easement already in existence along the Boring Road frontage of both properties.

Commissioners asked the applicant if action on this matter could be postponed until next month so that the staff could get with FUD and the property owner to establish more direction on a pedestrian easement. The applicant was fine with postponement and Mayor Williams amended the original motion to reflect postponement. The amended motion was seconded by Commissioner Myers and motion passed 6-0 through a roll call vote.

5. **Discussion and public hearing on a re-subdivision plat for the Gary Shelby property at the west intersection of S. Hobbs Road and Old Stage Road, .96 Acres, 2 Lots, Zoned R-1 (SITE Incorporated, Applicant)**
   Removed from the agenda under Item 1.

6. **Discussion and public hearing on a preliminary plat for the Meadows on McFee, 933 and 1013 McFee Road, Parcels 019 and 01404, Tax Map 162, 32 Acres, 68 Lots, Zoned R-1/OSR (Rackley Engineering, Applicant)**
   Staff reviewed this item and noted that the applicant has requested two variances related to the preliminary plat that will need to be voted on separately before the plat. The variances were as follows:

   1) A variance from the Driveways and Other Accessways Ordinance from the requirement that driveways be at least 400 feet apart along an arterial street.
   2) A variance from the Subdivision Regulations to permit a design speed of 30 mph rather than 35 mph in association with vertical curves for Red Poppy Drive and Scarlet Sage Drive which are considered residential streets.

   In terms of the first variance, staff recommended approval. The nearest existing accesses onto McFee Road serve single-family dwelling units with limited trip generation. Consistent with the Town's connectivity objectives and compliance with the Fire Code, having more than one access onto McFee Road for this subdivision is encouraged. The applicant's proposed access points for this subdivision are more than 400 feet apart. With two access points there is no access along McFee Road that would comply with the 400-foot spacing between driveways. The applicant's access points appear to be reasonable based on the locations shown.

   A motion was made by Mayor Williams to approve the variance from the Driveways and Other Accessways Ordinance for the reasons noted by staff. Motion was seconded by Commissioner St. Clair and motion passed 6-0 through a roll call vote.

   In terms of the second variance, staff recommended approval since the Town encourages slower design speeds with less land disturbance.

   A motion was made by Commissioner St. Clair to follow staffs' recommendation. Motion was seconded by Mayor Williams and motion passed 6-0 through a roll call vote.

   In terms of the preliminary plat, staff recommended that the following comments be satisfactorily addressed as a condition of plat approval:

   1) Please coordinate street name signs with the Public Works Director and ensure that the preliminary plat reflects the Town's requirements.
   2) The plan appears to show drainage to a sinkhole. Please ensure that this complies with the Town's Sinkhole Ordinance.

3) Please extend the trail to stub out to the property to the west and, along the stormwater detention basin, to the property to the south. This would also correct an existing severe angle at which the proposed walking trail intersects a proposed sidewalk.
4) Please ensure that the road sections that stub to adjacent properties terminate in a manner that will make connecting to them in the future easy.
5) Some of the landscaped islands have utilities running through them. Please coordinate with the landscape architect to ensure that this will not create a conflict or re-locate the proposed utility lines so that they do not bisect the islands.
6) The walking trail easements should be shown on Sheet 2.
7) The entrance sign and landscaping will need to be reviewed and approved by the VRRB.
8) Please provide an irrevocable letter of credit for $156,000 for erosion control and site stabilization.
9) Please pay a drainage permit fee for $2,720.
10) Radius returns at entrances should be 6-30 curb and gutter to tie to 6-30 curb along McFee Road. Existing gutter at McFee Road should be removed.
11) The portion of walking trail within the transmission line easement should include at least two inches of binder in addition to the standard trail composition.

A motion was made by Commissioner St. Clair to follow staffs' recommendations. Motion was seconded by Mayor Williams. Russ Rackley spoke on behalf of the applicant and a general discussion ensued. Commissioner St. Clair moved to amend the original motion and recommend that on staff comment #3 the applicant work with staff to establish a trail stub to the west but not to the south due to topographical conditions. Also, as part of the motion, Commissioner St. Clair asked that staff comments #10 and 11 be worked out with the Town Engineer. The amended motion was seconded by Mayor Williams and the motion passed 6-0 through a roll call vote.

7. **Discussion on a zoning map amendment request for the property referenced as Parcel 069, Tax Map 142 (north of old Ingles building), 20 Acres, to change the zoning from R-1 (Rural Single-Family Residential) to R-6 (Multi-Family Residential) (Horne Properties, Inc., Applicant)**
   For discussion purposes only.

8. **Discussion on a zoning map amendment request for the property referenced as 11500 Kingston Pike (west of Farragut Town Hall), Parcel 148, Tax Map 142, 68.31 Acres, to rezone a portion of the area currently zoned O-1 (Office) to C-1 (General Commercial), to rezone a portion of the area currently zoned O-1, B-1 (Buffer), R-1 (Rural Single-Family Residential), and R-2 (General Single-Family Residential) to R-6 (Multi-Family Residential), and to rezone a portion of the property currently zoned R-2 to R-4 (Attached Single-Family Residential) (Horne Properties, Inc., Applicant)**
   For discussion purposes only.

9. **Discussion on a request to amend the Farragut Municipal Code, Appendix A- Zoning, Chapter 4, Section XXIII., Site Plan Regulations, Paragraph C (6)(r), to address the screening requirements for below grade refuse collection and recycling systems (Binova, LLC, Applicant)**
   For discussion purposes only.

10. Discussion on a request to amend the Farragut Municipal Code, Appendix A – Zoning, Chapter 3, Section IV., Open Space Mixed Residential (OSMR), to require a concept plan in association with a rezoning request to establish the distribution of attached vs. detached dwelling units (Town of Farragut, Applicant)
For discussion purposes only.

11. Approval of utilities

12. Citizen Forum

The meeting adjourned at 10:49 p.m.

_____
Scott Russ, Secretary

MEETING DATE: April 15, 2021 **AGENDA ITEM #3**

REPORT TO THE FARRAGUT MUNICIPAL PLANNING COMMISSION

PREPARED BY: David Smoak, Town Administrator

SUBJECT: Review of the FY2022-FY2027 Capital Investment Program (CIP)

INTRODUCTION: The purpose of this agenda item is for the Planning Commission to review the proposed Capital Investment Program and potential projects for FY2022-FY2027.

DISCUSSION: The annual budget planning process is underway and as part of that process the Planning Commission annually reviews the list of potential capital investment projects that are being considered by the Board of Mayor and Aldermen. A capital project is any improvement that is made with a value of over $25,000 and could involve multiple years of funding to complete.

The Town of Farragut breaks down the CIP into three main categories: General Government, Parks and Engineering. The projects being reviewed by the Planning Commission have been reviewed at two different workshops with the Board of Mayor and Aldermen. The attached Capital Investment Plan lists each project and prioritizes them based on the funding year they are planned.

The Planning Commissions role in the review of the CIP is to make recommendations on the priority of each project to the Board of Mayor and Aldermen, who will ultimately make the final determination for funding during the adoption of the FY22 budget.

PROPOSED MOTION: To recommend approval of the FY2022-FY2027 Capital Investment Program to the Town of Farragut Board of Mayor and Aldermen

COMMISSION ACTION:

MOTION BY:_____ **SECONDED BY:**_____

CIP Program Summary

Projects	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Total
General Government Projects Total	1,033,000	1,895,000	1,465,000	300,000	670,000	360,000	5,723,000
Parks Total	880,000	1,697,000	1,837,000	0	400,000	625,000	5,439,000
Engineering Total	4,980,000	1,125,000	2,145,000	5,850,000	200,000	200,000	14,500,000
CIP Total	**6,893,000**	**4,717,000**	**5,447,000**	**6,150,000**	**1,270,000**	**1,185,000**	**25,662,000**
Funding Total	**9,735,302**	**4,717,000**	**5,642,000**	**6,150,000**	**2,020,000**	**2,120,000**	**30,384,302**
Available Fund Balance	**11,292,168**	**8,539,168**	**5,552,168**	**4,722,168**	**5,172,168**	**5,707,168**	

MEETING DATE: April 15, 2021 **AGENDA ITEM #4**

REPORT TO THE FARRAGUT MUNICIPAL PLANNING COMMISSION

PREPARED BY: Mark Shipley, Community Development Director

SUBJECT: Discussion and public hearing on a re-subdivision plat for Lot 1 of the Edward Johnson subdivision, 354 Boring Road, 2.61 Acres, 2 Lots, Zoned R-2 (Roane Land Surveying, Applicant)

INTRODUCTION AND BACKGROUND: This item was reviewed at last month's meeting. The applicant has requested a variance from the requirement in the Subdivision Regulations for a pedestrian facility to be constructed along the frontage of a collector street (Boring Road is classified as a collector street) as part of the subdivision platting process.

During the review of this item last month, staff noted that an easement that would provide for an eight-foot walking trail with a six-foot grass strip between the trail and the back of curb along Boring Road would be needed to facilitate construction. Staff pointed out that this pedestrian facility easement would need to be coordinated with an existing 20-foot First Utility District (FUD) water line easement that abuts the right of way of Boring Road. Commissioners recommended to postpone action on the variance request and plat so that staff could work with the applicant and FUD on the establishment of a pedestrian easement.

DISCUSSION: Staff has verified with FUD that they have no issues with a pedestrian easement being within the FUD easement. Typically, the standard drainage and utility easement abutting a right of way is ten feet. Since the frontage in this case has an existing 20-foot water line easement, staff would recommend that the plat establish an easement for a pedestrian facility within the existing FUD easement. In this manner, no new areas would be encumbered by an easement and ample space would be provided for a walking trail and grass strip.

In terms of who would construct the pedestrian facility and when this would occur, staff would refer to recent comparable re-subdivisions that triggered the requirement for a pedestrian facility. The most recent involved the Smith property to the east. This re-subdivision created three lots. Two house lots on the easternmost portion of the tract that are each 1.4 acres and the remainder of the parent tract that would now be 15.02 acres. As part of this re-subdivision, a variance was granted from the requirement to construct a pedestrian facility along the 965 feet of frontage associated with the 15.02-acre tract. Should this tract be re-subdivided in the future, the requirement for a pedestrian facility would be re-visited by the Planning Commission. The two house lots, however, did not include variance requests from the requirement for a pedestrian facility. Prior to the issuance of a Certificate of Occupancy for each of these homes a pedestrian facility will be required along the corresponding Boring Road frontage. In the case of these lots, the pedestrian facility would connect to and extend an existing walking trail that stubs into the Smith property from the east and that was constructed as part of the Country Way Subdivision.

In terms of the re-subdivision plat associated with this agenda item, no existing pedestrian facilities stub into the property. Providing a facility along either Lot 1R-1 or 1R-2 would be more appropriate when the adjoining 15.02- acre tract is re-subdivided. In addition, the tract to the west of Lot 1R-1 and that extends

to Smith Road is currently a vacant lot of record with no pedestrian facility. Given this context, the Planning Commission will need to assess whether and how they would recommend a pedestrian facility to be provided along the frontages of Lots 1-R-1 and 1R-2. At a minimum, staff would recommend that the pedestrian easement described above be provided in association with this plat. In this manner, when the time is appropriate for the facility to be provided, the easement will be in place to facilitate the construction.

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (we) hereby certify that I am (we are) the owner(s) of the property shown and described hereon as evidenced in Deed Instrument 199509060037924, Knox County Registers Office, and that I (we) hereby adopt this plan of subdivision with my (our) free consent, establish the minimum building restriction lines, and dedicate all streets, alleys, walks, parks, and other open space to public or private use as noted.

Date Owner

Date Owner

CERTIFICATE OF APPROVAL FOR RECORDING

I hereby certify that the subdivision plat shown here has been found to comply with the Subdivision Regulations for Farragut, Tennessee, with exception of such variances, if any, as are noted in the minutes of the Planning Commission and that it has been approved for recording in the Office of the County Register of Deeds.

Date Secretary, Planning Commission

CERTIFICATE FOR STREET APPROVAL

I certify that streets, sidewalks, and other required improvements have been installed in an acceptable manner and according to Town specifications, or that a security bond in the amount of $ has been posted with the Planning Commission to assure completion of all required improvements in case of default. Streets are public streets maintained at public expense.

Date Town Engineer
License No.

CERTIFICATE OF WATER AND SEWER AVAILABILITY

I hereby certify that every lot within this resubdivision has available to it water and sewer service that is adequate to accomodate the reasonable needs of such lots.

Date Name, Title, and Agency of Authorized Approving Agent

CERTIFICATE OF ELECTRIC, GAS, AND TELEPHONE AVAILABILITY

This is to certify that every lot within this subdivision has available to it a source for the service identified by signature(s) below which service source is adequate to accommodate the reasonable needs of such lot as to such service within such subdivision.

Date GAS – Name, Title, and Agency of Authorized Approving Agent

Date ELECTRIC – Name, Title, and Agency of Authorized Approving Agent

Date TELEPHONE – Name, Title, and Agency of Authorized Approving Agent

CERTIFICATE OF APPROVAL OF STREET NAMES

This is to certify that the subdivision shown hereon has been reviewed for compliance with the Knox County Uniform Street Naming & Addressing System Ordinance, and the road names are hereby approved for recording.

Date Knox County Addressing Division

CERTIFICATE OF SURVEY ACCURACY

I hereby certify that the plan shown and described hereon is a true and correct survey to the accuracy required by the Farragut Municipal Planning Commission and that the monuments have been placed as shown hereon, to the specification of the Subdivision Regulations. This is a Category I Land Survey and the ratio of precision of the unadjusted survey is equal to or greater than 1:10,000.

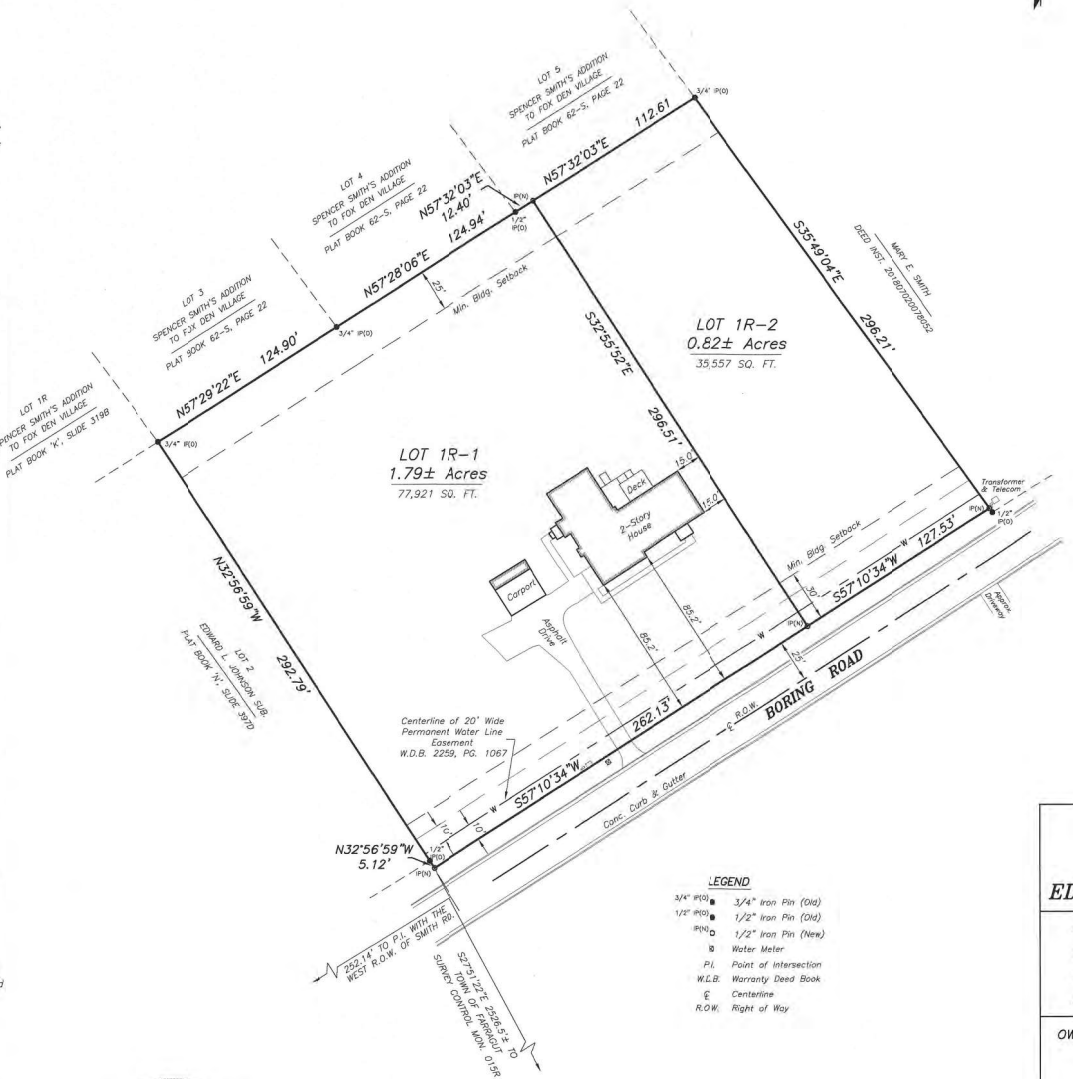
1-4-2021 James L. Hill, Jr.
Date Registered Surveyor

CERTIFICATE OF APPROVAL
PRIVATE SUBSURFACE SEWAGE DISPOSAL

General approval is hereby granted for lots proposed hereon as being suitable for subsurface sewage disposal with the listed and/or restrictions. Before the initiation of construction, the location of the house or other structures and plans for the subsurface sewage disposal system shall be approved by the local health authority.

Date Local Authority

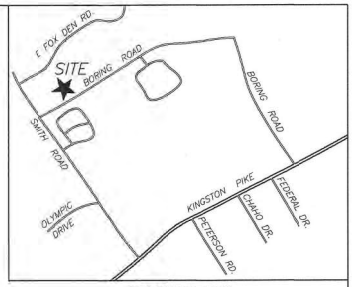
Grid North is based on an azimuth of 55°44'07.7" from Town of Farragut control point 015R to 016R. Distances have not been reduced to grid.



LEGEND

3/4" IP(O) ●	3/4" Iron Pin (Old)
1/2" IP(O) ●	1/2" Iron Pin (Old)
IP(N) ○	1/2" Iron Pin (New)
⊠	Water Meter
P.I.	Point of Intersection
W.D.B.	Warranty Deed Book
℄	Centerline
R.O.W.	Right of Way

GRAPHIC SCALE
50 0 50 100



LOCATION MAP

NOTES:

1. PROPERTY CORNERS MARKED AS NOTED.
2. A FIVE (5) FOOT UTILITY, DRAINAGE, AND CONSTRUCTION EASEMENT IS RESERVED ON EACH SIDE OF INTERIOR LOT LINES. A TEN (10) FOOT UTILITY, CONSTRUCTION, AND DRAINAGE EASEMENT IS RESERVED ON THE INSIDE OF ROAD RIGHTS-OF-WAY AND EXTERIOR LOT LINES.
3. THIS PROPERTY IS ZONED R-2 (RESIDENTIAL). MINIMUM BUILDING SETBACKS AS FOLLOWS: FRONT – 30 FEET, REAR – 25 FEET, AND SIDE – 10 FEET, TOTAL OF 30 – FEET.
4. SOURCE OF TITLE IS WARRANTY DEED INSTRUMENT 199509060037924, REGISTERS OFFICE, KNOX COUNTY, TENNESSEE.
5. PLAT OF RECORD IS TITLED "EDWARD L. JOHNSON SUBDIVISION", RECORDED IN PLAT CABINET 'N', SLIDE 3970, REGISTERS OFFICE, KNOX COUNTY, TENNESSEE.
6. THE PURPOSE OF THIS SURVEY AND MAP IS TO DIVIDE LOT 1, EDWARD L. JOHNSON SUBDIVISION INTO 2 LOTS CREATING ONE NEW BUILDABLE LOT.
7. ALIGN FUTURE DRIVEWAY ENTRANCE OF LOT 1R-2 WITH EXISTING DRIVEWAY ON THE SOUTH SIDE OF BORING ROAD.

2021-136-FP

~ FINAL PLAT ~
RESUBDIVISION OF
LOT 1
EDWARD L. JOHNSON SUBDIVISION

DIST. NO. 6 KNOX COUNTY
TOWN OF FARRAGUT TENNESSEE
CLT MAP 142 GROUP 'D' PARCEL 08C.01
SCALE: 1"=50' JANUARY 25, 2021

OWNER:
STEPHEN A. COTTRELL
MARTHA L. J. COTTRELL
354 BORING ROAD
FARRAGUT, TENNESSEE 37934
(865) 335-9517

SURVEY BY:
ROANE LAND SURVEYING
P.O. BOX 663
ROACKWOOD, TENNESSEE 37854
(865) 466-0764

REVISION	DATE	DESCRIPTION	BY
2	3/4/2021	SSDS CERTIFICATION, TOF PROJECT NO.	JLH
1	3/2/2021	PER T.O.F. COMMENTS	JLH

PROJECT NO. 31-004 DWN: JLH ICC:

MEETING DATE: April 15, 2021 **AGENDA ITEM #5**

REPORT TO THE FARRAGUT MUNICIPAL PLANNING COMMISSION

PREPARED BY: Mark Shipley, Community Development Director

SUBJECT: Discussion and public hearing on a zoning map amendment request for the property referenced as Parcel 069, Tax Map 142 (north of old Ingles building), 20 Acres, to change the zoning from R-1 (Rural Single-Family Residential) and R-2 (General Single-Family Residential) to R-6 (Multi-Family Residential) (Horne Properties, Inc., Applicant)

INTRODUCTION AND BACKGROUND: This item has previously been discussed at the January and March Planning Commission meetings. The parcel in question is a total of 41 acres and is mostly zoned R-1 (Rural Single-Family Residential). The applicant is requesting to rezone the southernmost 20 acres to R-6 (Multi-Family Residential). The property is bounded to the east by Boring Road, to the west by the Village Commons senior living development, to the south by the old Ingles building, and is vacant to the north.

The current R-1 Zoning District, which constitutes a vast majority of the property proposed for rezoning, requires a minimum lot size of 20,000 square feet, which would equate to a density of roughly two units per acre, though a lower development density would be realized given the requirements for open space, stormwater detention, and required infrastructure. The requested R-6 Zoning District on roughly half of the tract would permit a density of up to 12 units per acre.

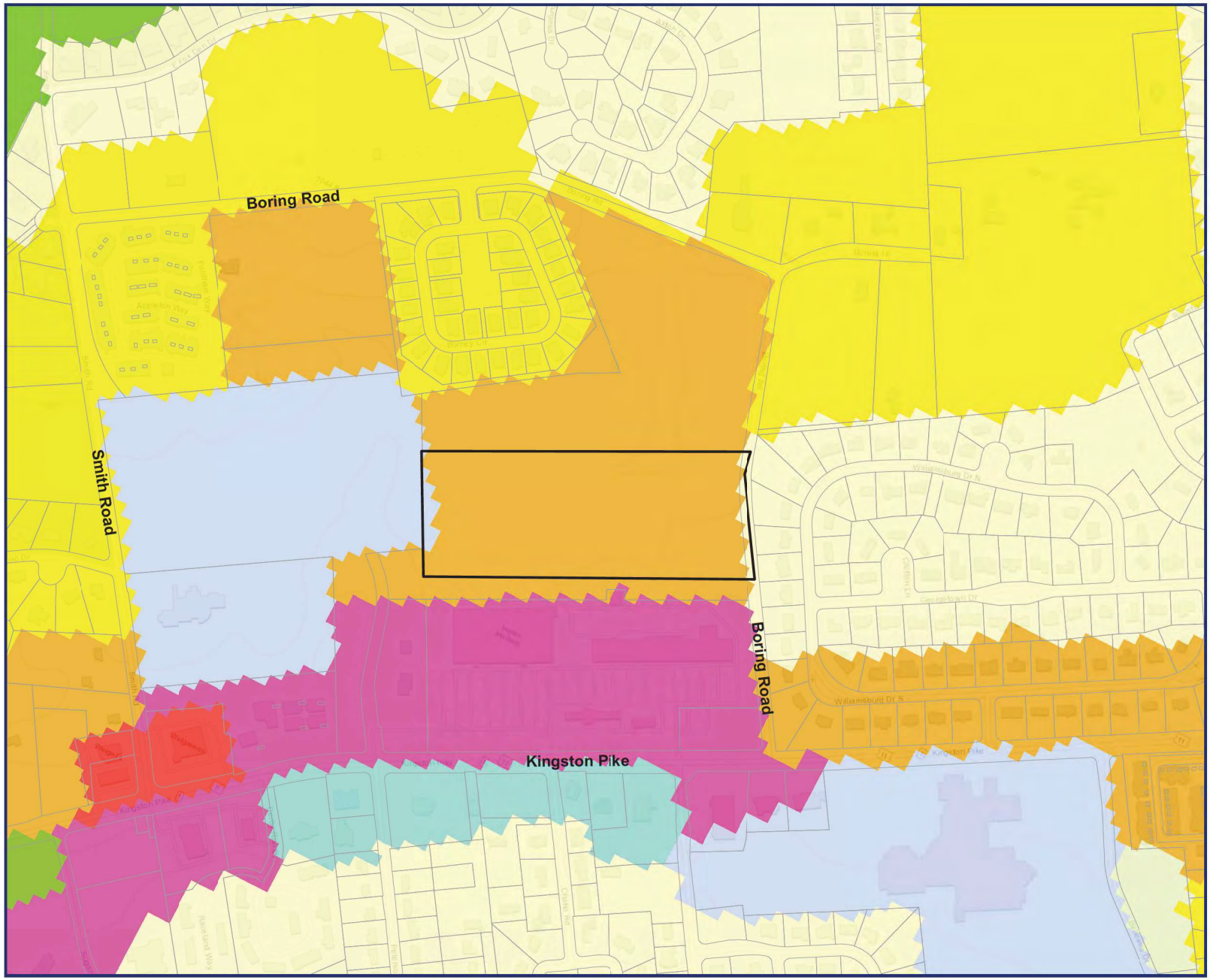
DISCUSSION: During the previous discussions, staff noted that the entire tract has a designation of Medium Density Residential on the future land use map that is part of the Comprehensive Land Use Plan (CLUP) and that this land use specifies a development density of no more than eight dwelling units per acre. The applicant's request would provide for a zoning district with a development density of 12 dwelling units per acre and, without modification, would not be compatible with the property's Medium Density Residential designation. Also noted last month, was that a traffic impact study would be required to help the Planning Commission understand the traffic related effect of the rezoning (based on the applicant's envisioned project) before making a recommendation to the Board of Mayor and Aldermen.

RECOMMENDATION: Included in the packet is a copy of Resolution PC-21-04 which recommends approval of Ordinance 21-06 which would rezone 20 acres of the southernmost portion of Parcel 069, Tax Map 142 from R-1 and R-2 to R-6. As presented at this time, staff would note that the rezoning is incompatible with the future land use map. The applicant could request an amendment to the future land use map or modify the rezoning request and have these evaluated. The rezoning is also incomplete due to the lack of a traffic impact study as is required in Section 22-147(a)(1) of the Driveways and Other Access Ways Ordinance as found in Chapter 22, Article 5 of the *Farragut Municipal Code*. The traffic impact study is necessary to help the Planning Commission understand the traffic related effect of the rezoning (based on the applicant's envisioned project) before making a recommendation to the Board of Mayor and Aldermen.

For these reasons, staff does not support Resolution PC-21-04.

farragut

Future Land Use
Village Commons



Legend

- Parcels
- Civic/Insitutional
- Office/Light industrial
- Commercial
- Open Space
- Parks and Rec
- Rural Residential (> 1 Acre lots)
- Very Low Density Residential (2-4 DUs / Acre)
- Low Density Residential (3-6 DUs / Acre)
- Med Density Residential (6-8 DUs / Acre)
- Mixed Use Neighborhood (6-8 DUs / Acre)

N W E S

0 200 400 800

SCALE IN FEET

CONTACTS:

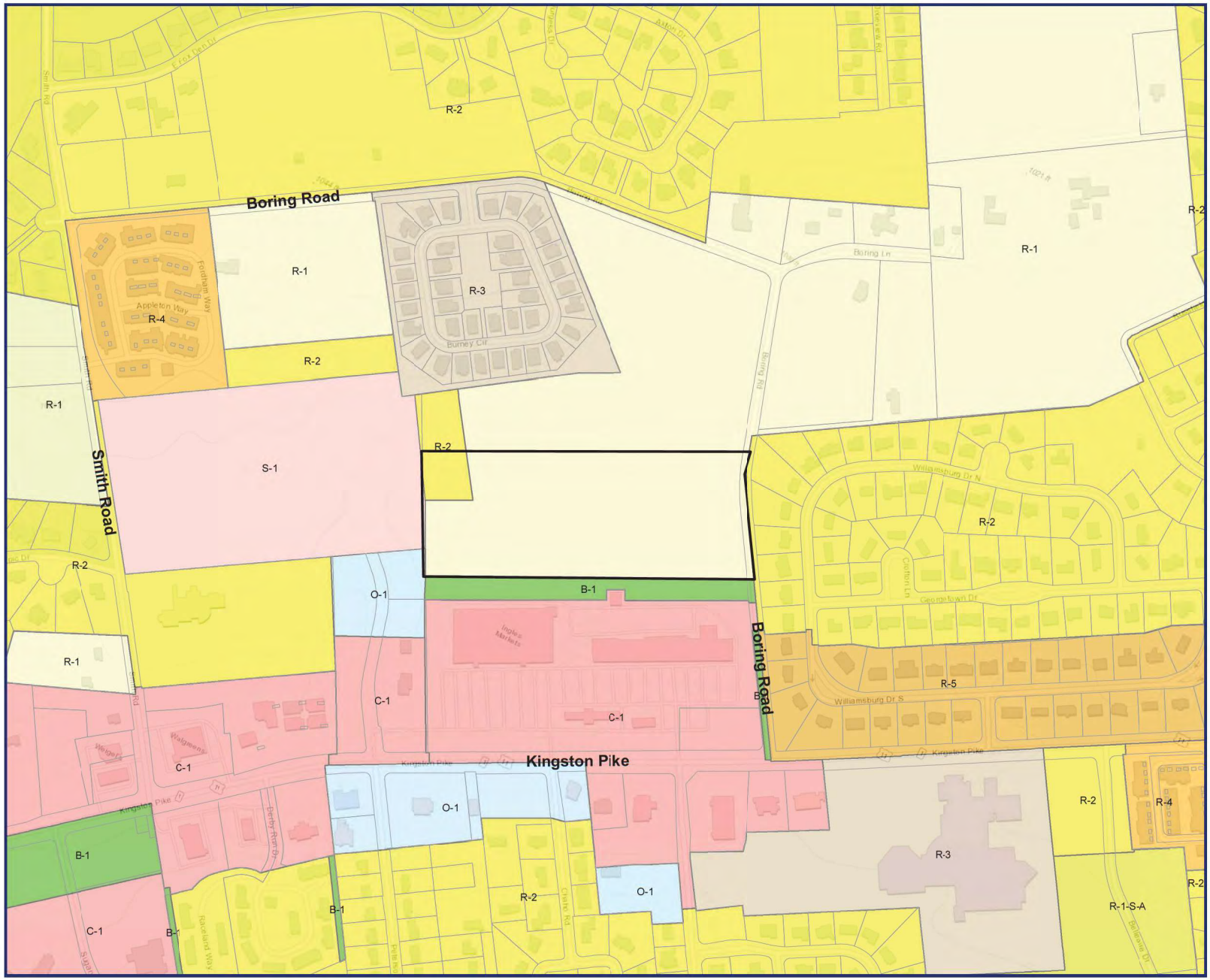
GIS:
Carrie Smith
carrie.smith@aecom.com

1 inch = 400 feet
Map Prepared: 1/14/2021

Document Path: G:\Farragut\Map Documents\2021\Village Commons-FLU.mxd

farragut

Zoning
Village Commons



Legend

- Proposed Rezoning Area
- B-1, Buffer
- S-1, Community Service
- R-1, Rural Single-Family Residential
- R-1-S-A, Rural Single-Family Acre Residential
- R-2, General Single-Family Residential
- R-3, Small Lot Single-Family Residential
- R-4, Attached Single-Family Residential
- R-5, Two-Family Residential
- O-1, Office
- C-1, General Commercial
- Parcels

N W E S

0 200 400 800

SCALE IN FEET

CONTACTS:

GIS:
Carrie Smith
carrie.smith@aecom.com

1 inch = 400 feet
Map Prepared: 1/14/2021

Document Path: G:\Farragut\Map Documents\2021\Village Commons-Zoningv2.mxd

RESOLUTION PC-21-04

FARRAGUT MUNICIPAL PLANNING COMMISSION

A RESOLUTION TO APPROVE AN AMENDMENT TO THE FARRAGUT ZONING MAP, ORDINANCE 86-16, TO RECOMMEND THE APPROVAL OF THE REZONING OF THE SOUTHERN PORTION OF PARCEL 069, TAX MAP 142, SAID PROPERTY BEING LOCATED OFF VILLAGE COMMONS BOULEVARD AND ALONG BORING ROAD, AND INCLUDING APPROXIMATELY 20 ACRES, FROM RURAL SINGLE-FAMILY RESIDENTIAL (R-1) AND GENERAL SINGLE-FAMILY RESIDENTIAL (R-2) TO MULTI-FAMILY RESIDENTIAL (R-6)

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 April 15, 2021;

NOW, THEREFORE, BE IT RESOLVED that the Farragut Municipal Planning Commission hereby recommends approval of Ordinance 21-06 to the Farragut Board of Mayor and Aldermen, an ordinance amending the Farragut Zoning Ordinance and Map, Ordinance 86-16, by rezoning the above noted property.

ADOPTED this 15th day of April 2021.

_____
Rita Holladay, Chairman

_____
Scott Russ, Secretary

ORDINANCE:	**21-06**
PREPARED BY:	**Hose/Shipley**
REQUESTED BY:	**Town of Farragut**
CERTIFIED BY FMPC:	**April 15, 2021**
PUBLIC HEARING:	_____
PUBLISHED IN:	_____
DATE:	_____
1ST READING:	_____
2ND READING:	_____
PUBLISHED IN:	_____
DATE:	_____

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE TOWN OF FARRAGUT, TENNESSEE, ORDINANCE 86-16, AS AMENDED, PURSUANT TO SECTION 13-4-201, TENNESSEE CODE ANNOTATED.

BE IT ORDAINED by the Board of Mayor and Aldermen of the Town of Farragut, Tennessee, that the Farragut Zoning Ordinance, Ordinance 86-16, as amended, is hereby amended as follows:

SECTION 1.

The Farragut Zoning Ordinance, Ordinance 86-16, as amended, is hereby amended by rezoning the southern portion of Parcel 069, Tax Map 142, said property being located off Village Commons Boulevard and along Boring Road, and including approximately 20 acres, from Rural Single-Family Residential (R-1) and General Single-Family Residential (R-2) to Multi-Family Residential (R-6) (See Exhibit A).

SECTION 2.

This ordinance shall take effect 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 this _____ day of _____, 2021, with approval recommended by the Farragut Municipal Planning Commission (FMPC).

_____
Rita Holladay, Chairman

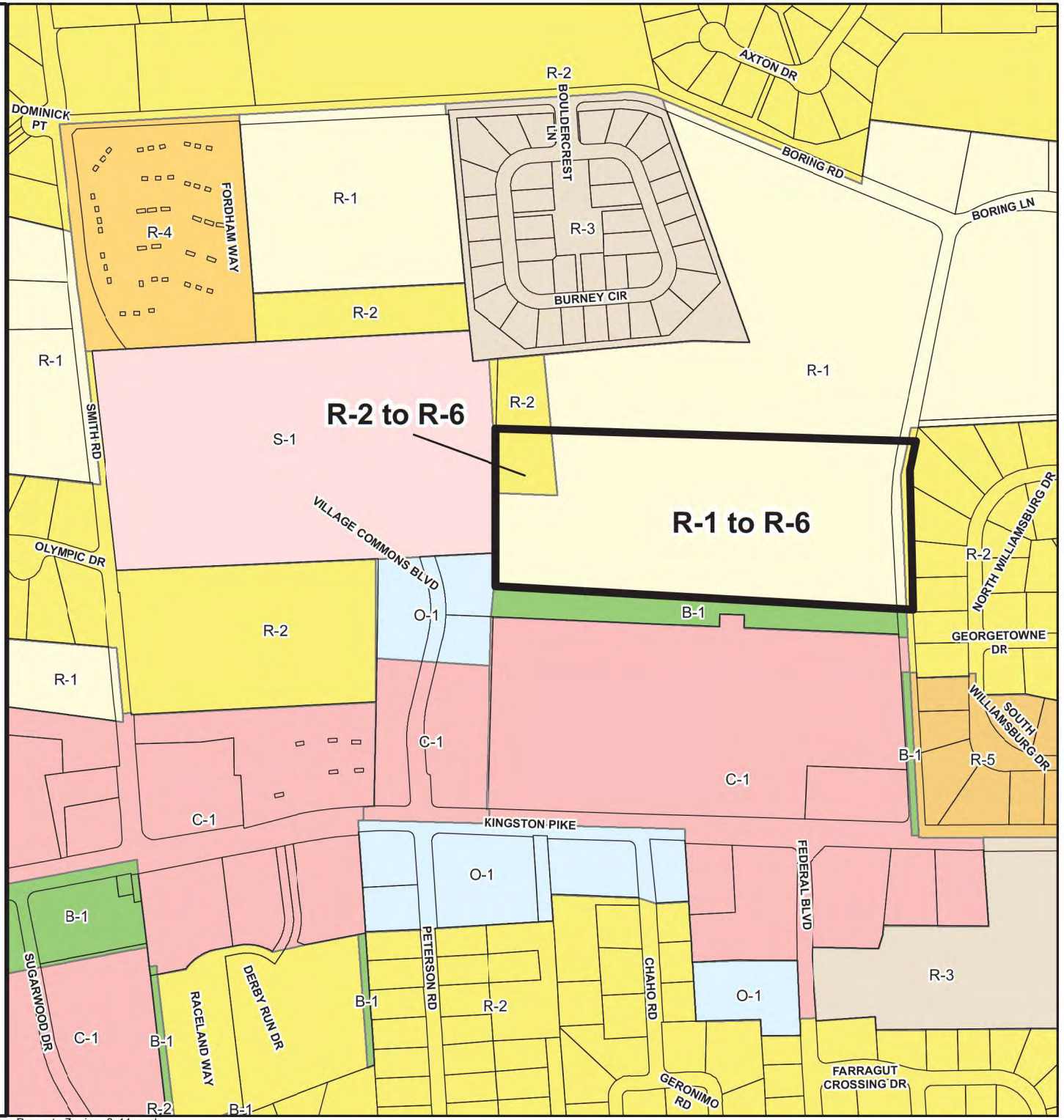
_____
Scott Russ, Secretary

farragut

Exhibit A
Ordinance 21-06

Rezone
Parcel 069
Tax Map 142
Off Village Commons Boulevard and along Boring Road

From
R-1 (Rural Single-Family Residential)
and R-2 (General Single-Family Residential)
to
R-6 (Multi-Family Residential)



Legend

- Subject Property
- Parcels
- B-1, Buffer
- S-1, Community Service
- R-1, Rural Single-Family Residential
- R-2, General Single-Family Residential
- R-3, Small Lot Single-Family Residential
- R-4, Attached Single-Family Residential
- R-5, Two-Family Residential
- O-1, Office
- C-1, General Commercial

1 in = 480 ft

Document Path: G:\Farragut\Map Documents\2021\Ord 21-06 Village Commons Property-Zoning_8x11.mxd

MEETING DATE: April 15, 2021 **AGENDA ITEM #6**

REPORT TO THE FARRAGUT MUNICIPAL PLANNING COMMISSION

PREPARED BY: Mark Shipley, Community Development Director

SUBJECT: Discussion and public hearing on a zoning map amendment request for the property referenced as 11500 Kingston Pike (west of Farragut Town Hall), Parcel 148, Tax Map 142, 68.31 Acres, to rezone the area currently zoned O-1 (Office) to C-1 (General Commercial), to rezone a portion of the area currently zoned B-1 (Buffer), R-1 (Rural Single-Family Residential), and R-2 (General Single-Family Residential) to R-4 (Attached Single-Family Residential) and R-6/OSMFR (Open Space Multi-Family Residential), and to rezone a portion of the property currently zoned R-2 to B-1 (Buffer) (Horne Properties, Inc., Applicant)

INTRODUCTION AND BACKGROUND: This item has previously been discussed at the January and March Planning Commission meetings and involves a request to rezone the property that is west of the Farragut Town Hall. The portion of the property that is currently zoned O-1 (Office) is proposed to be rezoned to C-1 (General Commercial). To the south of this property an area of roughly 34 acres that is currently zoned B-1 (Buffer), R-1 (Rural Residential) and R-2 (General Single-Family Residential) is proposed to be rezoned to R-4 (Attached Single-Family Residential) and R-6/OSMFR (Open Space Multi-Family Residential). On the southernmost end of the property roughly 2.31 acres is proposed to be rezoned from R-2 to B-1.

DISCUSSION: During both workshop discussions of this item, staff noted that the request is not consistent with the CLUP and specific language that provides for densities that are compatible with adjacent densities with the intent of protecting existing residential developments from incompatible adjacent development. Staff also noted that the proposed high density residential development reflected in the R-6/OSMFR District is inconsistent with language in the CLUP. The CLUP limits this development type to the area bounded by S. Campbell Station Road, Concord Road, and Kingston Pike because this area does not adjoin any existing residential developments.

RECOMMENDATION: Included in the packet is a copy of Resolution PC-21-05 which recommends approval of Ordinance 21-07 which would rezone the property referenced as 11500 Kingston Pike as described in the caption above. As presented at this time, staff would note that the rezoning is incompatible with the CLUP. The rezoning is also incomplete due to the lack of a traffic impact study as is required in Section 22-147(a)(1) of the Driveways and Other Access Ways Ordinance as found in Chapter 22, Article 5 of the *Farragut Municipal Code*. The traffic impact study is necessary to help the Planning Commission understand the traffic related effect of the rezoning (based on the applicant's envisioned project) before making a recommendation to the Board of Mayor and Aldermen.

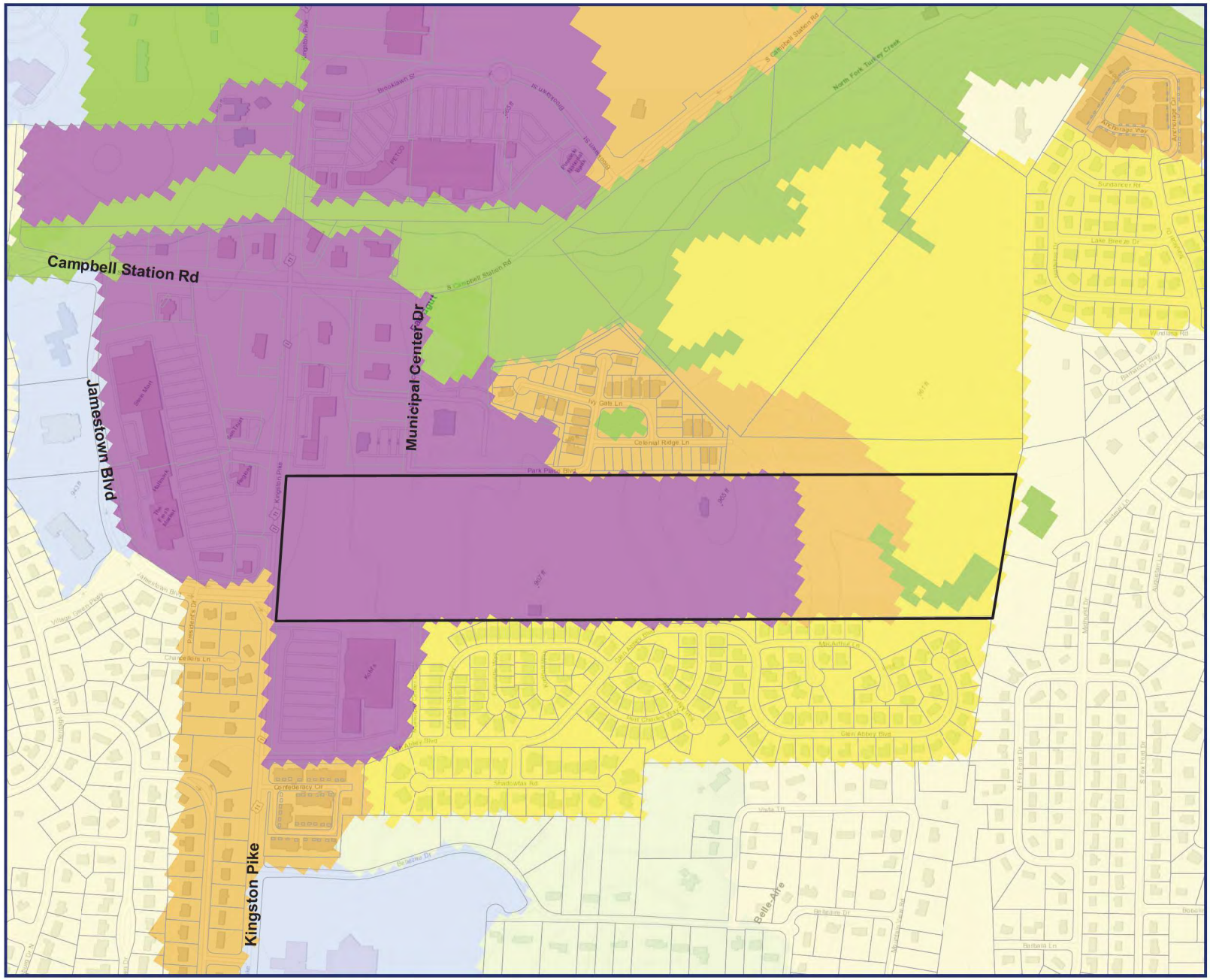
For these reasons, staff does not support approval of Resolution PC-21-05.

farragut

Exhibit 1

Future Land Use

11500 Kingston Pike



Legend

- Subject Property
- Civic/Insitutional
- Open Space
- Parks and Rec
- Open Space Cluster Residential
- Rural Residential (> 1 Acre lots)
- Very Low Density Residential (2-4 DUs / Acre)
- Low Density Residential (3-6 DUs / Acre)
- Med Density Residential (6-8 DUs / Acre)
- Mixed Use Town Center (8-15 DUs / Acre)
- Parcels

N W E S

0 200 400 800

SCALE IN FEET

CONTACTS:

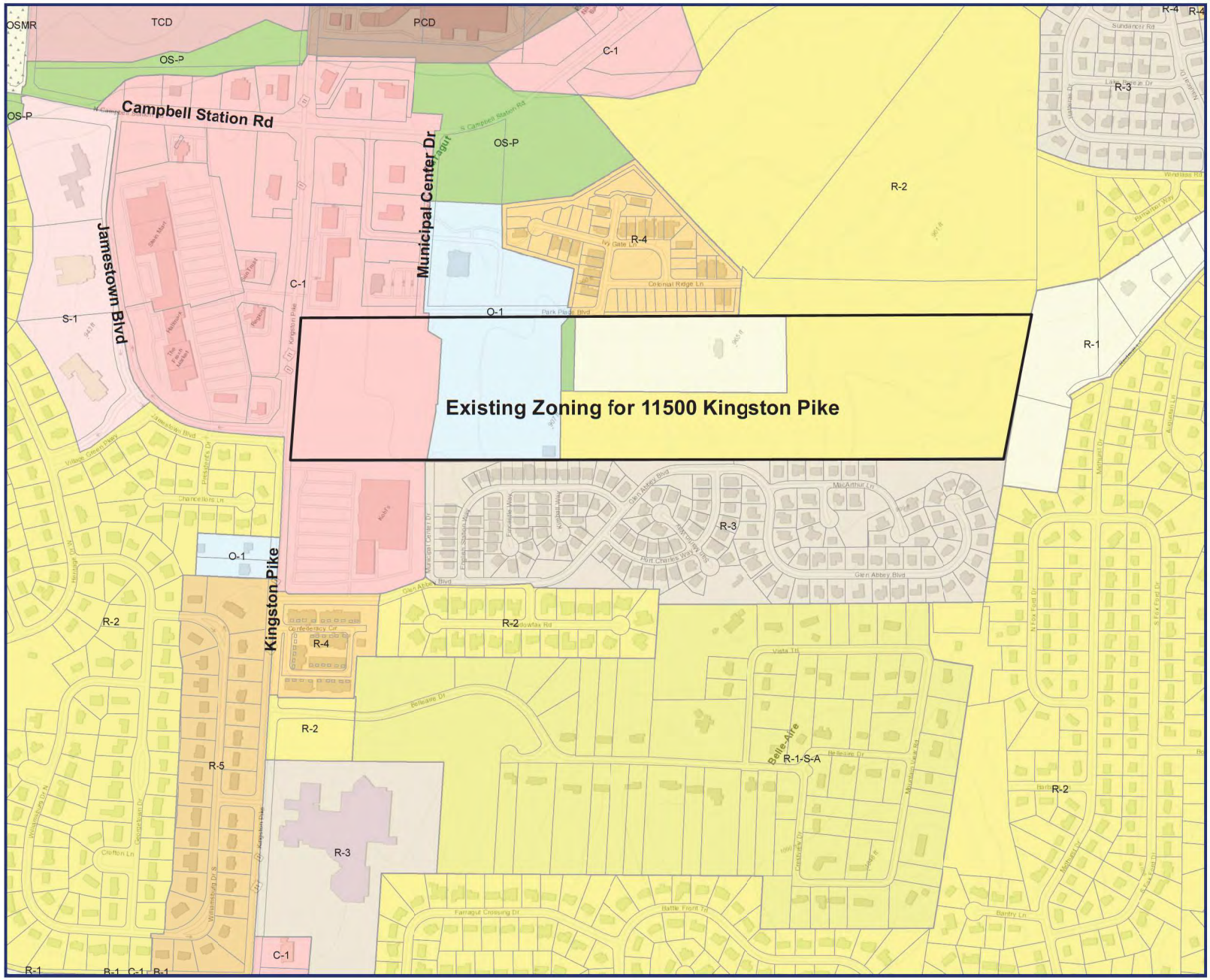
GIS:
Carrie Smith
carrie.smith@aecom.com

1 inch = 500 feet
Map Prepared: 1/14/2021

Document Path: G:\Farragut\Map Documents\2021\Ford Property-FLU.mxd

farragut

Existing Zoning
11500 Kingston Pike



Legend

- B-1, Buffer
- OS-P, Open Space/Park
- S-1, Community Service
- R-1, Rural Single-Family Residential
- R-1-S-A, Rural Single-Family Acre Residential
- R-2, General Single-Family Residential
- R-3, Small Lot Single-Family Residential
- R-4, Attached Single-Family Residential
- R-5, Two-Family Residential
- R-1/OSMR, Open Space Mixed Residential Overlay
- O-1, Office
- Town Center District
- C-1, General Commercial
- PCD, Planned Commercial Development
- Parcels

0 200 400 800

SCALE IN FEET

CONTACTS:

GIS:
Carrie Smith
carrie.smith@aecom.com

1 inch = 500 feet
Map Prepared: 1/14/2021

Document Path: G:\Farragut\Map Documents\2021\Ford Property-Zoning Existing.mxd

RESOLUTION PC-21-05

FARRAGUT MUNICIPAL PLANNING COMMISSION

A RESOLUTION TO APPROVE AN AMENDMENT TO THE FARRAGUT ZONING MAP, ORDINANCE 86-16, TO RECOMMEND THE APPROVAL OF THE REZONING OF VARIOUS PORTIONS OF PARCEL 069, TAX MAP 142, SAID PROPERTY BEING LOCATED AT 11500 KINGSTON PIKE, AND INCLUDING APPROXIMATELY 68.31 ACRES, AS FOLLOWS: REZONING THE AREA CURRENTLY ZONED OFFICE (O-1) TO GENERAL COMMERCIAL (C-1); REZONING PORTIONS OF THE AREAS CURRENTLY ZONED BUFFER (B-1), RURAL SINGLE-FAMILY RESIDENTIAL (R-1), AND GENERAL SINGLE-FAMILY RESIDENTIAL (R-2) TO ATTACHED SINGLE-FAMILY RESIDENTIAL (R-4) AND OPEN SPACE MULTI-FAMILY RESIDENTIAL (R-6/OSMFR); AND REZONING A PORTION OF THE AREA CURRENTLY ZONED GENERAL SINGLE-FAMILY RESIDENTIAL (R-2) TO BUFFER (B-1)

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 April 15, 2021;

NOW, THEREFORE, BE IT RESOLVED that the Farragut Municipal Planning Commission hereby recommends approval of Ordinance 21-07 to the Farragut Board of Mayor and Aldermen, an ordinance amending the Farragut Zoning Ordinance and Map, Ordinance 86-16, by rezoning the above noted property.

ADOPTED this 15th day of April 2021.

_____

Rita Holladay, Chairman

_____

Scott Russ, Secretary

ORDINANCE:	**21-07**
PREPARED BY:	**Hose/Shipley**
REQUESTED BY:	**Town of Farragut**
CERTIFIED BY FMPC:	**April 15, 2021**
PUBLIC HEARING:	_____
PUBLISHED IN:	_____
DATE:	_____
1ST READING:	_____
2ND READING:	_____
PUBLISHED IN:	_____
DATE:	_____

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE TOWN OF FARRAGUT, TENNESSEE, ORDINANCE 86-16, AS AMENDED, PURSUANT TO SECTION 13-4-201, TENNESSEE CODE ANNOTATED.

BE IT ORDAINED by the Board of Mayor and Aldermen of the Town of Farragut, Tennessee, that the Farragut Zoning Ordinance, Ordinance 86-16, as amended, is hereby amended as follows:

SECTION 1.

The Farragut Zoning Ordinance, Ordinance 86-16, as amended, is hereby amended by rezoning various portions of Parcel 148, Tax Map 142, said property being located at 11500 Kingston Pike, and including approximately 68.31 acres, as follows: rezone the area currently zoned Office (O-1) to General Commercial (C-1); rezone portions of the areas currently zoned Buffer (B-1), Rural Single-Family Residential (R-1), and General Single-Family Residential (R-2) to Attached Single-Family Residential (R-4) and Open Space Multi-Family Residential (R-6/OSMFR); and to rezone a portion of the area currently zoned General Single-Family Residential (R-2) to Buffer (B-1); said rezoning areas being more clearly identified on the attached map which is a part of this ordinance (see Exhibit A).

SECTION 2.

This ordinance shall take effect 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 this _____ day of _____, 2021, with approval recommended by the Farragut Municipal Planning Commission (FMPC).

_____
Rita Holladay, Chairman

_____
Scott Russ, Secretary

farragut

Exhibit A
Ordinance 21-07

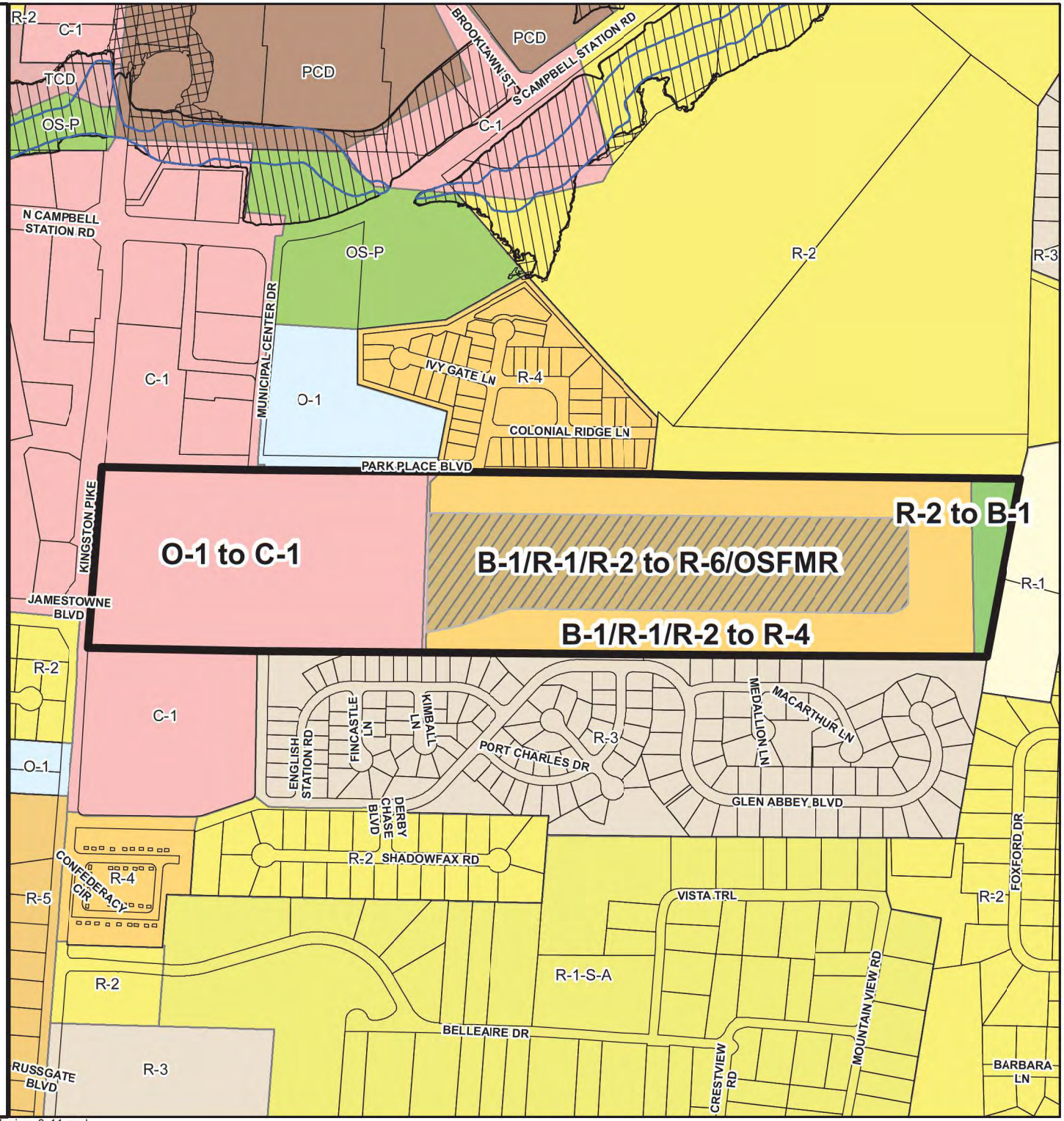
Rezone
Parcel 148
Tax Map 142
11500 Kingston Pike

From
O-1 (Office) to C-1 (General Commercial)
and
B-1 (Buffer), R-1 (Rural Single-Family Residential)
and R-2 (General Single-Family Residential) to
R-4 (Attached Single-Family Residential) and
R-6/OSMFR (Open Space Multi-Family Residential)
and
R-2 (General Single-Family Residential) to B-1 (Buffer)

Legend

- Subject Property
- Floodway
- 100 year Flood Zone
- 500 year Flood Zone
- Parcels
- B-1, Buffer
- OS-P, Open Space/Park
- R-1, Rural Single-Family Residential
- R-1-S-A, Rural Single-Family Acre Residential
- R-2, General Single-Family Residential
- R-3, Small Lot Single-Family Residential
- R-4, Attached Single-Family Residential
- R-5, Two-Family Residential
- R-6/OSMFR, Open Space Multi-Family Residential Overlay
- O-1, Office
- Town Center District
- C-1, General Commercial
- PCD, Planned Commercial Development

1 in = 600 ft



Document Path: G:\Farragut\Map Documents\2021\Ord 21-07 Ford Property-Zoning_8x11.mxd

MEETING DATE: April 15, 2021 **AGENDA ITEM #7**

REPORT TO THE FARRAGUT MUNICIPAL PLANNING COMMISSION

PREPARED BY: Mark Shipley, Community Development Director

SUBJECT: Discussion and public hearing on a request to amend the Farragut Municipal Code, Appendix A- Zoning, Chapter 4, Section XXIII., Site Plan Regulations, Paragraph C (6)(r), to address the screening requirements for below grade refuse collection and recycling systems (Binova, LLC, Applicant)

INTRODUCTION AND BACKGROUND: This item was discussed at last month's Planning Commission meeting. The applicant has requested to amend the screening requirements for dumpsters and recyclable containers where a partially below grade system is being used.

Though the applicant's initial request was to allow landscaping to be used as an option to fulfill the screening requirement for such partially below grade systems, staff and planning commissioners were concerned about the maintenance issues that could occur where only landscaping was being used for the screening. Staff noted that since these partially below grade systems were shorter than traditional dumpster containers, a lesser amount of screening would be needed which would result in a cost savings. One commissioner also raised a concern about maintenance related issues they have experienced with gates or doors that are part of a traditional dumpster screening enclosure and that this may be something that could be omitted for partially below grade systems.

DISCUSSION: Based on feedback provided by commissioners, staff has prepared Ordinance 21-08. In looking at the provisions in the Zoning Ordinance that address screening requirements for dumpsters, staff is proposing to amend Chapter 4, Section I., B., a., to provide for the new screening requirements that would apply to partially below grade containers. This is the section of the Zoning Ordinance that governs garbage dumpsters, compactors, and recycling containers. Consequently, staff is also proposing in Ordinance 21-08 to amend the site plan requirements, Chapter 4., Section XXIII., C., (6)(r) to remove the reference to screening requirements since these are addressed in Section I.

RECOMMENDATION: Staff recommends approval of Resolution PC-21-06 which recommends approval of Ordinance 21-08.

Sec. I. - Accessory structures and uses.

It is the intent of this section to establish the development requirements specific to accessory structures and uses.

A. *General provisions.* No accessory structure, excluding fences, detention basin structures, and retaining walls, shall be placed within any utility, drainage, or construction easement.

B. *Requirements on specified accessory structures for non-single-family and non-two-family residential uses.*

1. *Garbage dumpsters, compactors, and recycling containers.*

a. Garbage dumpsters and recycling containers shall be screened with opaque walls and gates. Such gates and walls shall be architecturally compatible with the principal building located on the same lot;

b. When used as an alternative to traditional garbage dumpsters and recycling containers, below grade (subsurface/in-ground) refuse collection and recycling systems shall be screened to conceal the above ground portion on at least three sides. Such screening shall be achieved with opaque walls that are architecturally compatible with the principal building located on the same lot. Screening shall not be required on the front access provided it is internally facing to the development/lot;; and

~~b~~.c. Garbage dumpsters and recycling containers shall be set back a minimum of 40 feet from the nearest point of any right-of-way and a minimum of ten feet from all side and rear property lines.

2. *Heating, ventilation, air conditioning, and mechanical units.* Such units shall be screened with opaque materials and shall not be visible from adjacent properties or rights-of-way. Such screening shall be architecturally compatible with the building the units are serving.

3. *Retaining walls.*

a. Retaining walls shall be designed and constructed per the adopted building code. Plans must be submitted to and approved by the Town Engineer;

b. Retaining walls shall not be constructed within any required buffer strip; and

c. Retaining walls shall be set back a minimum of ten feet from the nearest point of any right-of-way and all side and rear property lines.

C. *Requirements for retaining walls for single-family and two-family residential uses.*

1. Retaining walls shall be designed and constructed per the adopted building code. Plans must be submitted to and approved by the Town Engineer;

2. Retaining walls shall not be constructed within any required buffer strip; and

3. Retaining walls shall be set back a minimum of ten feet from the nearest point of any right-of-way and a minimum of five feet from all side and rear property lines. A retaining wall, including the footer, may be constructed at the side or rear property line if a signed agreement from the adjoining property owner is submitted to the town stating the retaining wall may be constructed at their property line. If a retaining wall is removed or damaged as a result of work conducted within the utility, drainage, or construction easement, the property owner shall be responsible for repairs to the retaining wall. When a retaining wall is constructed at a property line, if appropriate a swale shall be constructed behind the retaining wall to ensure stormwater runoff is properly directed.

D. *Requirements for retaining walls for attached single-family developments.*

1. Retaining walls shall be designed and constructed per the adopted building code. Plans must be submitted to and approved by the Town Engineer;

2. Retaining walls shall not be constructed within any required buffer strip;

3. Retaining walls shall be constructed per the original design of the development and approved as part of the preliminary plat. The retaining walls shall be owned and maintained by the homeowners association. Retaining walls may be placed within utility, drainage, or construction easements, but it shall be the responsibility of the homeowners association to reconstruct such walls if they are damaged or removed as a result of work within the easement(s). No portion of a retaining wall, including footer, may be placed within the right-of-way. When a retaining wall is constructed at a property line, if appropriate, a swale shall be constructed behind the retaining wall to ensure stormwater runoff is properly directed; and

4. If an individual property owner within an attached single-family development chooses to construct a retaining wall after the development is complete and the dwelling unit is constructed, the retaining wall shall comply with all requirements of subsection C. of this section.

(Ord. No. 86-16, 4-1986; Ord. of 2-2006; Ord. No. 12-21, §§ 1—4, 1-24-2013)

Sec. XXIII. - Site plan regulations.

It is the intent of this section to foster the town's attractiveness as a place in which to live and work by facilitating orderly and cost effective development.

A. *Applicability*. To ensure compliance with all Town regulations, site plans shall be required for all new developments, modifications to existing developments, and/or redevelopments of all non single-family and two-family residential uses. Such plans shall be approved by the Planning Commission prior to any land disturbance or the issuance of a grading or building permit.

In order to prevent unnecessary and costly revisions, the applicant shall consult early and informally with the planning commission staff for advice and assistance. This will enable the applicant to become thoroughly familiar with all applicable regulations and other official plans or public improvements which might affect the area.

Pursuant to authority granted by Tennessee Code Annotated, § 13-4-104 [T.C.A. § 13-4-104], site plans for any public use, including, but not limited to, schools, parks, streets, public buildings, and utilities shall be prepared in accordance with the provisions of this ordinance.

B. *Site Plan Approval.* The development standards in existence at the time of and applicable to the specific site plan approved shall be vested in accordance with Title 14, Chapter 7, of the Farragut Municipal Code, as amended.

C. *Site plan requirements.*

1. All site plans shall be prepared and certified by a licensed engineer, landscape architect, architect, and/or surveyor, as may be appropriate, and in accordance with state law regarding the practice of these professions.
2. The site plan preparer shall certify that the submitted site plan includes and addresses all items identified in the application checklist.
3. Upon completion of improvements of the approved site plan, the applicant shall submit finalized, stamped approved site plans and all associated revisions as a pdf and approved as-builts as a pdf prior to the issuance of any Certificate of Occupancy.
4. All site plans shall be drawn at a scale of not less than 1" = 20' for small tracts and 1" = 50' for large tracts on sheets 24 inches by 36 inches. A minimum of four complete sets of site plans must be submitted at time of application. One reduced copy of any 8½ inches by 11 inches sheet shall also be submitted.
5. All site plans shall comply with the town adopted fire codes and shall show adequate accessibility of buildings for emergency apparatus.
6. All site plans shall set forth the proposed development of the total land tract and shall show the following information:
    a. Dimensions and calls of all property lines.
    b. North point, verbal and graphic scale, acreage of site, and location map.
    c. A tree preservation/removal plan as provided for in the Farragut Municipal Code.
    d. Required buffer strips.
    e. Contour lines showing existing and proposed grades.
    f. Stabilization details for all slopes greater than 3:1 (run/rise). Per the Town Engineer, certification from a geo-technical engineer may be required.
    g. A stormwater management plan (which can be incorporated into the grading and drainage plan), including drainage calculations and applicable details, as provided for in the Farragut Municipal Code.
    h. An erosion and sediment control plan as provided for in the Farragut Municipal Code.

i. Calculations verifying maximum lot coverage.

j. Calculations verifying landscaping requirements between buildings and parking lots.

k. Locations of all existing and proposed buildings, including all building entrances.

l. Elevations/schematics of proposed buildings. The building materials, colors, architectural style, and building height shall be indicated. The location on the building where the address will be posted shall also be indicated.

m. Parking lots, including islands, interior parkways, parking lot design, interior traffic circulation, and associated dimensions.

n. Loading areas for truck delivery.

o. Driveway(s) to adjacent rights-of-way and/or joint access easements.

p. Distances from the proposed driveway to existing driveways and intersections on the same street and which are located within the immediate vicinity of the proposed new driveway.

q. Pedestrian access ways and pedestrian circulation patterns, showing the connections between building entrances, parking areas, sidewalks, walking trails, adjacent rights-of-way, etc.

r. Garbage dumpsters and recyclable containers including location, screening, and access. ~~All dumpsters and recyclable containers shall be screened with a permanent structure that is architecturally compatible with the principal structure.~~

s. HVAC systems including screening.

t. Location of all existing and proposed on-site utilities, including, but not limited to, poles, pad mounted transformers, and buried lines.

u. Fire hydrant locations and water line sizes.

v. A lighting plan.

w. Antennas, including location, size, height, type, and screening.

(Ord. No. 08-02, § 1, 3-28-2008; Ord. No. 12-14, §§ 1, 2, 9-27-2012; Ord. No. 15-18, § 1, 11-12-2015)

RESOLUTION PC-21-06

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 4., SECTION I., ACCESSORY STRUCTURES AND USES, AND SECTION XXIII., SITE PLAN REGULATIONS

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 April 15, 2021;

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, of the Farragut Zoning Ordinance, by adding Ordinance 21-08.

ADOPTED this 15th day of April 2021.

_____
Rita Holladay, Chairman

_____
Scott Russ, Secretary

ORDINANCE: 21-08
PREPARED BY: Shipley/Hose
REQUESTED BY: Town of Farragut
CERTIFIED BY FMPC: April 15, 2021
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 4., SECTION I., ACCESSORY STRUCTURES AND USES, AND SECTION XXIII., SITE PLAN REGULATIONS

WHEREAS, the Board of Mayor and Aldermen of the Town of Farragut, Tennessee, wishes to amend Chapter 4., Section I., Accessory Structures and Uses, and Section XXIII., Site Plan Regulations, of the Farragut Zoning Ordinance, Ordinance 86-16.

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Aldermen of the Town of Farragut, Tennessee, that the Farragut Zoning Ordinance is hereby amended as follows:

SECTION 1.

Zoning, Chapter 4., Section I., "Accessory structures and uses", Subsection B., "*Requirements on specified accessory structures for non-single-family and non-two-family residential uses",* is amended by replacing Part 1., "*Garbage dumpsters, compactors, and recycling containers."* in its entirety as follows:

1. *Garbage dumpsters, compactors, and recycling containers.*
    a. Garbage dumpsters and recycling containers shall be screened with opaque walls and gates. Such gates and walls shall be architecturally compatible with the principal building located on the same lot;
    b. When used as an alternative to traditional garbage dumpsters and recycling containers, below grade (subsurface/in-ground) refuse collection and recycling systems shall be screened to conceal the above ground portion on at least three sides. Such screening shall be achieved with opaque walls that are architecturally compatible with the principal building located on the same lot. Screening shall not be required on the front access provided it is internally facing to the development/lot; and

c. Garbage dumpsters and recycling containers shall be set back a minimum of 40 feet from the nearest point of any right-of-way and a minimum of ten feet from all side and rear property lines.

SECTION 2.

Zoning, Chapter 4., Section XXIII., "Site plan regulations", Subsection C., "*Site plan requirements",* is amended by replacing Part 6., "All site plans shall set forth the proposed development of the total land tract and shall show the following information:", Subpart r., in its entirety as follows:

r. Garbage dumpsters and recyclable containers including location, screening, and access.

SECTION 3.

This ordinance shall take effect 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 this _____ day of _____, 2021, with approval recommended.

_____
Rita Holladay, Chairman

_____
Scott Russ, Secretary

FARRAGUT MUNICIPAL PLANNING COMMISSION

MEETING DATE: April 15, 2021 **AGENDA ITEM #8**

REPORT TO THE FARRAGUT MUNICIPAL PLANNING COMMISSION

PREPARED BY: Mark Shipley, Community Development Director

SUBJECT: Discussion and public hearing on a concept plan for the Grove at Boyd Station Subdivision, Parcels 50, 50.01, 9.01, and 54.01, Tax Map 162, 12611 Boyd Station Road, 132 Acres, 285 Lots, Zoned R-1/OSMR (Rackley Engineering, Applicant)

INTRODUCTION AND BACKGROUND: This item involves a review of the concept plan for property that was recently rezoned in the McFee Road and Boyd Station Road portion of the Town. The property stretches from McFee Road to Virtue Road and includes approximately 3000 linear feet of frontage along Boyd Station Road. The property also has access to McFee Road located at the southernmost traffic circle and via a small strip of land south of the circle, and to Virtue Road via the easternmost lot in question and a narrow strip of land.

Consistent with the CLUP and the future land use map in the CLUP, the property was rezoned from R-2 to R-1/OSMR. As part of the rezoning process, the applicant presented a concept plan for their desired distribution of attached vs. detached dwelling units since the OSMR overlay permits both. The rezoning was conditioned on the development providing no more than 100 attached units.

DISCUSSION: The concept plan proposed at this time is very similar to the plan that was included during the rezoning discussions. As proposed, there will be 46.91 acres of open space (35.49% of the entire development) which includes three stormwater detention basins along Boyd Station Road. The development will include 285 lots on 132 acres for a development density of 2.16 units per acre. There are 90 attached units shown on the concept plan. The development includes a vehicular access point at the McFee Road roundabout and along Boyd Station Road. There are three internal roundabouts proposed and a clubhouse and pool in a portion of the development surrounded by single-family attached units. As part of this project, improvements will be made to the north side of Boyd Station Road that will include four feet of widening and a 10-foot walking trail with a minimum of six feet of grass strip. This trail will be connected internally and follow an existing transmission line easement to Virtue Road. Trail sections will also be stubbed into McFee Road, the Cottages at Pryse Farms, and property to the north that could be subdivided in the future.

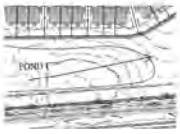
During the initial staff review, staff recommended a street be stubbed to the north to provide for additional vehicular connectivity consistent with the CLUP. The revised concept plan does not include a vehicular street section stubbed to the north and may need additional discussion.

RECOMMENDATION: Included in the packet is the revised concept plan and the applicant's response to initial staff comments. Staff will make a recommendation at the meeting based on whether the initial comments have been satisfactorily addressed.

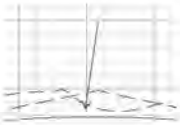
The Grove at Boyd Station Concept Plan.pdf Markup Summary

Arrow (3)

Subject: Arrow
Page Label: [3] 3 C101
Author: Dsmith
Date: 3/19/2021 3:50:52 PM
Status:
Color:
Layer:
Space:

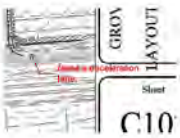


Subject: Arrow
Page Label: [4] 4 C102
Author: Dsmith
Date: 3/19/2021 4:05:53 PM
Status:
Color:
Layer:
Space:



Subject: Arrow
Page Label: [11] 11 C130
Author: Dsmith
Date: 3/19/2021 5:32:58 PM
Status:
Color:
Layer:
Space:

Callout (10)



Subject: Callout
Page Label: [4] 4 C102
Author: mshipley
Date: 3/19/2021 1:25:13 PM
Status:
Color:
Layer:
Space:

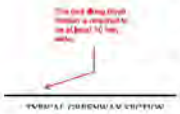
Need a deceleration lane.

Is this based on the subdivision regulations? None shown at this time.

Subject: Callout
Page Label: [3] 3 C101
Author: mshipley
Date: 3/19/2021 1:28:00 PM
Status:
Color:
Layer:
Space:

A 10 foot walking trail with at least a 6 foot grass strip will be required along Boyd Station Road

Added to the plan graphically and with a call out on C101. Final improvements and trail alignment will be determined during detailed design.



Subject: Callout
Page Label: [18] 18 C170
Author: mshipley
Date: 3/19/2021 1:41:10 PM
Status:
Color:
Layer:
Space:

The trail along Boyd Station is required to be at least 10 feet wide.

The detail is for the internal trails. The Boyd Station project will require a separate plan set, as it will be bid separately than the subdivision project.

Subject: Callout
Page Label: [3] 3 C101
Author: mshipley
Date: 3/19/2021 1:56:13 PM
Status:
Color:
Layer:
Space:

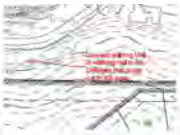
Please extend a stub street to an adjoining property to the north for the potential for future connectivity.

We do not believe, given the nature of the adjoining properties, that a road connection is logical. If there was a future connection, the road through the development would become an artery due to the poor geometry of Virtue Rd.

Subject: Callout
Page Label: [3] 3 C101
Author: mshipley
Date: 3/19/2021 1:58:13 PM
Status:
Color:
Layer:
Space:

Please stub a walking trail to the common property line of properties to the north to provide for a future connection.

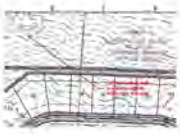
Walking trail stub added to the Williams property. The other two estate parcels will never have a trail system..



Subject: Callout
Page Label: [4] 4 C102
Author: mshipley
Date: 3/19/2021 10:06:02 AM
Status:
Color:
Layer:
Space:

Connect walking trail to walking trail in the Cottages that stubs out in this area.

Trail connected to the accessible trail stub. The duplicate stub a couple of hundred feet away is not being connected to.



Subject: Callout
Page Label: [4] 4 C102
Author: mshipley
Date: 3/19/2021 10:07:10 AM
Status:
Color:
Layer:
Space:

Connect walking trail to walking trail that stubs out in this area.

Duplicate comment.

Subject: Callout
Page Label: [3] 3 C101
Author: Dsmith
Date: 3/19/2021 3:52:42 PM
Status:
Color:
Layer:
Space:

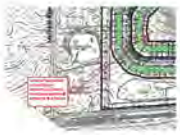
Greenway stub-outs from Cottages at Pryse Farm are here.

Duplicate comment.

Subject: Callout
Page Label: [4] 4 C102
Author: Dsmith
Date: 3/19/2021 4:05:44 PM
Status:
Color:
Layer:
Space:

Possible greenway connection to greenway at Boyd Station?

Added a trail connection.



Subject: Callout
Page Label: [3] 3 C101
Author: bhose
Date: 3/22/2021 3:04:58 PM
Status:
Color:
Layer:
Space:

Consider pedestrian connection so residents on Branch Hook have additional access to club house
.

taken under consideration. This isn't a comment regarding the concept plan and its conformance with the zoning ordinance or subdivision regulations.

Length Measurement (2)

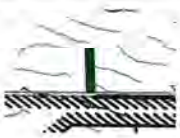
Subject: Length Measurement
Page Label: [3] 3 C101
Author: Dsmith
Date: 3/19/2021 3:38:47 PM
Status:
Color:
Layer:
Space:

930.71 ft

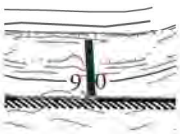
Subject: Length Measurement
Page Label: [3] 3 C101
Author: Dsmith
Date: 3/19/2021 3:39:51 PM
Status:
Color:
Layer:
Space:

1,274.24 ft

Line (2)



Subject: Line
Page Label: [3] 3 C101
Author: Dsmith
Date: 3/19/2021 3:48:28 PM
Status:
Color:
Layer:
Space:



Subject: Line
Page Label: [3] 3 C101
Author: Dsmith
Date: 3/19/2021 3:48:42 PM
Status:
Color:
Layer:
Space:

PolyLine (3)

Subject: PolyLine
Page Label: [3] 3 C101
Author: Dsmith
Date: 3/19/2021 3:46:18 PM
Status:
Color:
Layer:
Space:

Subject: PolyLine
Page Label: [4] 4 C102
Author: Dsmith
Date: 3/19/2021 4:04:09 PM
Status:
Color:
Layer:
Space:

Subject: PolyLine
Page Label: [4] 4 C102
Author: Dsmith
Date: 3/19/2021 4:04:46 PM
Status:
Color:
Layer:
Space:

Text Box (16)

Subject: Text Box
Page Label: [1] 1 C001
Author: mshipley
Date: 3/19/2021 2:03:50 PM
Status:
Color:
Layer:
Space:

Improvements to Boyd Station Road discussed with staff will need to be addressed on the resubmittal.

Conceptual improvements based on the referenced meeting has been added to the Concept layout plan.

Subject: Text Box
Page Label: [1] 1 C001
Author: mshipley
Date: 3/19/2021 2:05:15 PM
Status:
Color:
Layer:
Space:

The plat combining the four lots into one must be approved and recorded prior to concept plan approval.

Recorded combination plat has been provided.

Subject: Text Box
Page Label: [2] 2 C100
Author: mshipley
Date: 3/19/2021 2:07:48 PM
Status:
Color:
Layer:
Space:

Please address the tree related inventory required for a concept plan.

Information added to C100

Subject: Text Box
Page Label: [1] 1 C001
Author: mshipley
Date: 3/19/2021 2:12:18 PM
Status:
Color:
Layer:
Space:

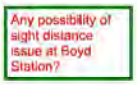
Please include a sheet which highlights the pedestrian facilities and how they are connected internally and externally. This sheet should not include contour lines so that information can be more easily evaluated.

Changed sidewalk and trails to color for clarity on C101-C103. No new sheet added.

Subject: Text Box
Page Label: [1] 1 C001
Author: Dsmith
Date: 3/19/2021 3:27:51 PM
Status:
Color:
Layer:
Space:

Include note on all title blocks: "This plan contains conceptual information which is not intended for construction purposes."

Added, reluctantly. This is a concept package, approval does not make one eligiable for a development permit. This seems redundantly redundant.



Subject: Text Box
Page Label: [8] 8 C112
Author: Dsmith
Date: 3/19/2021 4:30:00 PM
Status:
Color:
Layer:
Space:

Any possibility of sight distance issue at Boyd Station?

Sight distance will be provided as required. There will be grading performed outside the proposed roadway.

Subject: Text Box
Page Label: [9] 9 C120
Author: Dsmith
Date: 3/19/2021 4:32:31 PM
Status:
Color:
Layer:
Space:

35 mph sag requires minimum K=49.

A loop street only requires 30mph design speed

Subject: Text Box
Page Label: [9] 9 C120
Author: Dsmith
Date: 3/19/2021 4:35:19 PM
Status:
Color:
Layer:
Space:

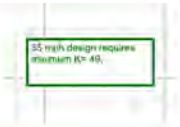
35 mph crest requires minimum K=29.

A loop street only requires 30mph design speed

Subject: Text Box
Page Label: [11] 11 C130
Author: Dsmith
Date: 3/19/2021 4:58:53 PM
Status:
Color:
Layer:
Space:

Consider a shorter vertical curve, as this leaves a little over 60 feet at less than 0.3% grade.

curve reduced.



Subject: Text Box
Page Label: [12] 12 C131
Author: Dsmith
Date: 3/19/2021 5:31:49 PM
Status:
Color:
Layer:
Space:

35 mph design requires minimum K= 49.

A loop street only requires 30mph design speed

Subject: Text Box
Page Label: [16] 16 C150
Author: Dsmith
Date: 3/19/2021 5:33:51 PM
Status:
Color:
Layer:
Space:

35 mph crest requires minimum K=29.

revised

Subject: Text Box
Page Label: [17] 17 C160
Author: Dsmith
Date: 3/19/2021 5:34:19 PM
Status:
Color:
Layer:
Space:

35 mph crest requires minimum K=29.

revised

Subject: Text Box
Page Label: [18] 18 C170
Author: Dsmith
Date: 3/19/2021 5:57:15 PM
Status:
Color:
Layer:
Space:

Show Boyd Station Road improvements.

See response to previous comment

Subject: Text Box
Page Label: [2] 2 C100
Author: Dsmith
Date: 3/19/2021 5:59:20 PM
Status:
Color:
Layer:
Space:

Where will utilities enter the development?

utility locations added by annotation on C100

Subject: Text Box
Page Label: [1] 1 C001
Author: bhose
Date: 3/22/2021 2:54:45 PM
Status:
Color:
Layer:
Space:

As you know, all required landscaping and signage will also have to be reviewed and approved by the VRRB

Understood

Subject: Text Box
Page Label: [3] 3 C101
Author: bhose
Date: 3/22/2021 3:13:36 PM
Status:
Color:
Layer:
Space:

The commission should evaluate whether sidewalks/pedestrian facilities should be located along both sides of Iron Plow Dr., and the function of the entire pedestrian network within the area.

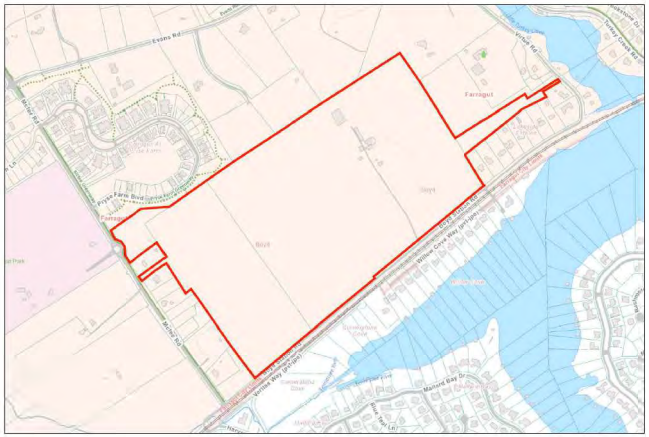
Do the subdivision regulations require sidewalks on both sides of a local street?

CONCEPTUAL NOT FOR CONSTRUCTION

CONCEPT PLAN OF

THE GROVE AT BOYD STATION

FARRAGUT, TN



12611 BOYD STATION RD, FARRAGUT,TN 37934
CLT MAP 162 PARCELS 50, 50.01, 9.01, 54.01
132.16 ACRES

MARCH 15, 2021

⚠1 REVISED PER TOWN REVIEW COMMENTS APRIL 5, 2021

Sheet List Table

	Sheet Number	Sheet Title	Sheet Description
⚠	1	C001	Title Page
⚠	2	C100	Existing Conditions
⚠	3	C101	Overall Layout Plan
⚠	4	C102	Layout Plan - Enlargement
⚠	5	C103	Layout Plan - Englargement
	6	C110	Iron Plow Dr Plan & Profile
	7	C111	Iron Plow Dr Plan & Profile
	8	C112	Iron Plow Dr Plan & Profile
	9	C120	Branch Hook Rd Plan&Profile
	10	C121	Branch Hook Rd Plan & Profile
⚠	11	C130	Wagon Hitch Rd Plan & Profile
	12	C131	Wagon Hitch Rd Plan & Profile
	13	C140	Field Roller St Plan & Profile
	14	C141	Field Roller St Plan & Profile
	15	C142	Field Roller St Plan & Profile
⚠	16	C150	Bearing Rein Dr Plan & Profile
⚠	17	C160	Tulip Trawell Dr Plan & Profile
	18	C170	Hay Fork Ln & Sweatleaf Ln
⚠	19	L1.00	Overall Landscape/Streetscape Plan
⚠	20	L1.01	Landscape Plan
⚠	21	L1.02	Landscape Plan
⚠	22	L1.03	Landscape Plan - Enlargement
⚠	23	L1.04	Landscape Plan - Enlargement
⚠	24	L1.10	Landscape Notes and Schedules

LANDSCAPE ARCHITECTURE:
LOSE DESIGN
LANDSCAPE ARCHITECTURE/ARCHITECTURE/CIVIL ENGINEERING/PLANNING

9724 KINGSTON PIKE, SUITE 1404
KNOXVILLE, TENNESSEE 37922
PHONE: 865-409-1424
CONTACT: DANIEL BOUTTE
EMAIL: dboutte@lose.design

ENGINEERING BY:
Rackley Engineering
P.O. BOX 30456, KNOXVILLE, TN, 37930
WWW.RACKLEYENGINEERING.COM 865-622-6560
rnrackley@rackleyengineering.com

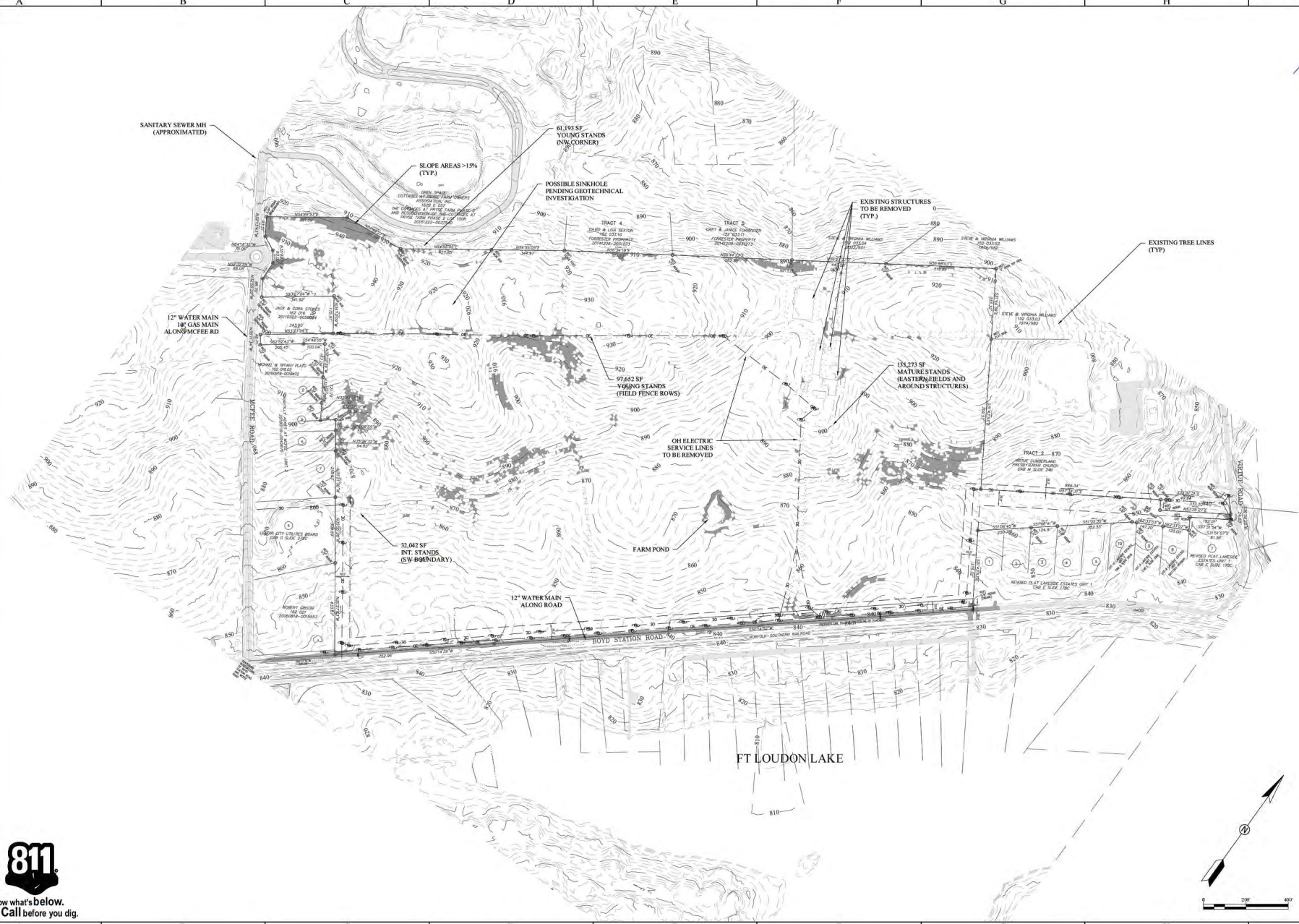
RUSSELL N. RACKLEY — REGISTERED ENGINEER — 109555 — STATE OF TENNESSEE — 4/6/21

DEVELOPER:
HOMESTEAD LAND HOLDINGS, LLC
BOB MOHNEY
122 PERIMETER PARK DR
KNOXVILLE, TN 37922
865-392-5630
bmohney@saddlebrookproperties.com

TOTAL BUILDING AREA
0.75 X 132.16 = 99.12AC
99.12 AC X 0.25 = 24.78 AC
24.78AC / 285 = 0.087 AC
=3787.4 SF/DU

TOTAL LOT COVERAGE
0.75 X 132.16 = 99.12 AC
99.12 AC X 0.35 = 34.69 AC
34.68 AC / 285 = 0.1217 AC
=5302.4 SF/DU

CONCEPTUAL NOT FOR CONSTRUCTION



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

RUSSELL N. RACKLEY REGISTERED ENGINEER 109503 STATE OF TENNESSEE 04/07/21

Symbol	No.	Description	Date	Approved
	1	REVISED PER TOWN REVIEW COMMENTS	04/05/21	RNR

Revisions

Designed By: RNR
Checked By: RNR
Date: 3/15/21
File Name:

DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
1122 N. CEDAR BLUFF
KNOXVILLE TN 37923

Rackley Engineering
P.O. BOX 19018, KNOXVILLE TN 37939
WWW.RACKLEYENGINEERING.COM 865-622-4040

THE GROVE AT BOYD STATION
FARRAGUT, TN
EXISTING CONDITIONS

Sheet
C100
SHEET 2 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION

NOTES:
1. EXISTING PROPERTY BOUNDARY PROVIDED BY LYNCH SURVEYING.
2. TOPOGRAPHIC INFORMATION OBTAINED FROM KGIS. CONTOURS ARE 2' INTERVAL WITH 10' INDEX.
3. A 10' DRAINAGE AND UTILITY EASEMENT EXISTS ALONG A STEET RIGHT OF WAY, 10' ALONG EXTERIOR BOUNDARY AND 5' ALONG ALL INTERIOR LOT LINES.
4. ALL DIMENSIONS ARE SUBJECT TO CHANGE ON FINAL PLAT.
5. ALL LOTS SHALL HAVE INTERNAL STREET ACCESS ONLY.
6. ALL ROADS TO BE IN 50' PUBLIC RIGHT OF WAY.
7. CONSTRUCTION PLANS MUST BE APPROVED BY APPROPRIATE AGENCIES AND PERMITS OBTAINED PRIOR TO ANY CONSTRUCTION ACTIVITY.
8. DETENTION PONDS WILL REQUIRE 20' TRAVERSABLE ACCESS EASEMENTS ON FINAL PLAT.
9. ROAD CENTERLINE HORIZONTAL GEOMETRY DATA PROVIDED ON PLAN AND PROFILE SHEETS INCLUDED WITH THE CONCEPT PLAN.

PROPERTY DATA:
12611 BOYD STATION RD
MAP 162 PARCELS 50, 50.01, 9.01, 54.01
AREA: 132.16 ACRES +/-
ZONE: R/OSMR
TOTAL LOTS: 285
DENSITY: 2.16 DU/AC
COMMON AREA: 46.91 AC (35.49%)
SETBACKS:
FRONT= 30/20 FT
SIDE= SUM 20 FT
REAR= 25 FT
PERIPHERAL= 50 FT
UTILITIES:
FIRST UTILITY DISTRICT (WATER AND SEWER)
LCUB ELECTRIC
TDS COMMUNICATION
KUB GAS

1. BOYD STATION ROAD IMPROVEMENTS REQUESTED BY TOWN. 4' OF WIDENING PLUS 10' ASPHALT TRAIL 6' OFF OF NEW EDGE OF PAVEMENT.

CERTIFICATION OF CONCEPT PLAN

I HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER, LICENSED TO PRACTICE ENGINEERING UNDER THE LAWS OF THE STATE OF TENNESSEE. I FURTHER CERTIFY THAT THE PLAN AND ACCOMPANYING DRAWINGS, DOCUMENTS AND STATEMENTS CONFORM TO ALL APPLICABLE PROVISIONS OF THE TOWN OF FARRAGUT SUBDIVISION REGULATIONS EXCEPT AS HAS BEEN ITEMIZED AND DESCRIBED IN A REPORT FILED WITH THE PLANNING COMMISSION.

REGISTERED ENGINEER:_____

TENNESSEE CERTIFICATE NO:___109503___

RUSSELL N. RACKLEY — REGISTERED ENGINEER — No. 109503 — STATE OF TENNESSEE — 04/05/21

Symbol	No.	Description	Date	Approved
	1	REVISED PER TOWN REVIEW COMMENTS	04/05/21	RNR

Revisions

Designed By: RNR
Checked By: RNR
Date: 3/15/21
File Name:

DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
11121 KINGSTON PIKE
KNOXVILLE TN 37922

Rackley Engineering
P.O. BOX 30818, KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-455-6500

GROVE AT BOYD STATION
FARRAGUT, TN
OVERALL LAYOUT PLAN

Sheet
C101
SHEET 3 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION

RUSSELL N. RACKLEY
REGISTERED ENGINEER
No. 109803
STATE OF TENNESSEE
04/05/21

Symbol	No.	Revisions	Date	Approved
	1	REVISED PER TOWN REVIEW COMMENTS	04/05/21	RNR

Designed By: RNR
Checked By: RNR
Date: 3/15/21
File Name:

DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
1111 NORTHSHORE DR
KNOXVILLE TN 37922

Rackley Engineering
P.O. BOX 10924, KNOXVILLE TN 37939
WWW.RACKLEYENGINEERING.COM 865-622-4646

GROVE AT BOYD STATION
FARRAGUT, TN
LAYOUT PLAN - ENLARGEMENT

Sheet
C102
SHEET 4 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION

RUSSELL N. RACKLEY
REGISTERED ENGINEER
No. 109803
STATE OF TENNESSEE
04/05/21

Symbol	No.	Revisions	Date	Approved
	1	REVISED PER TOWN REVIEW COMMENTS	04/05/21	RNR

DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
1122 KENESAW AVENUE
KNOXVILLE TN 37921

Designed By: RNR
Checked By: RNR
Date: 3/15/21
File Name:

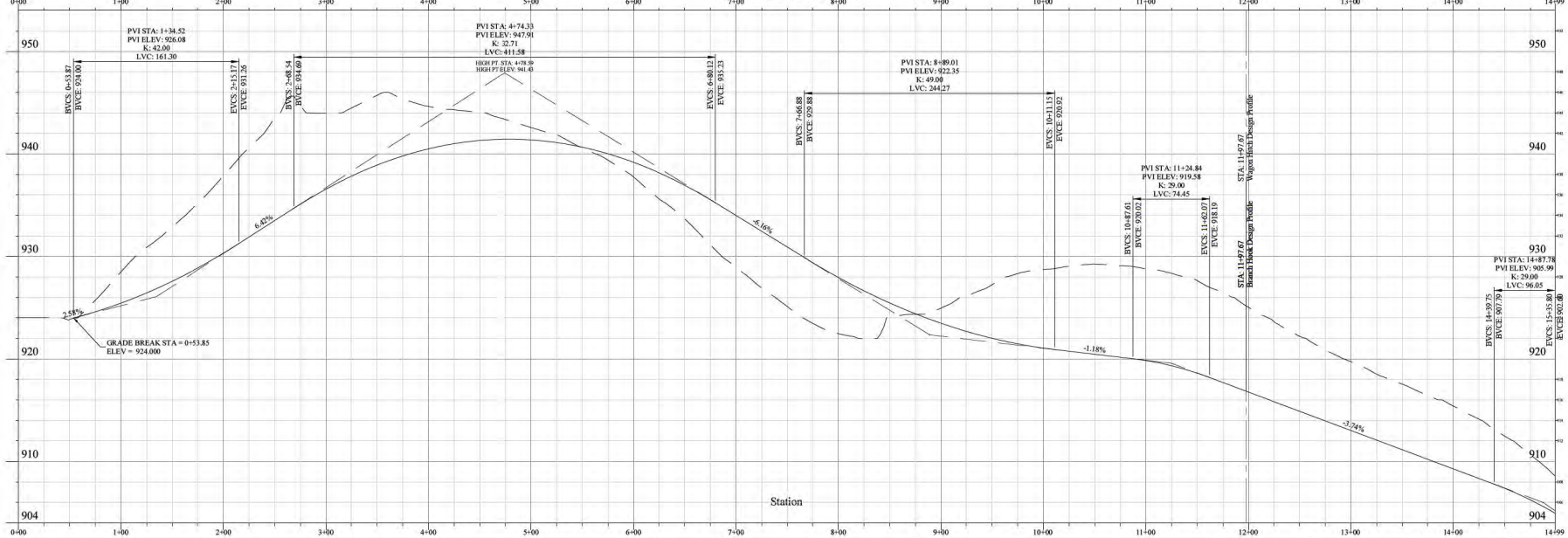
Rackley Engineering
P.O. BOX 30818, KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-622-4646

GROVE AT BOYD STATION
FARRAGUT, TN
LAYOUT PLAN - ENGLARGEMENT

Sheet
C103
SHEET 5 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION

Iron Plow Dr PROFILE



No.	Description	Date	Approved
	Revisions		

Designed By: KNR
Checked By: RNR
Date: 3/15/21
File Name:

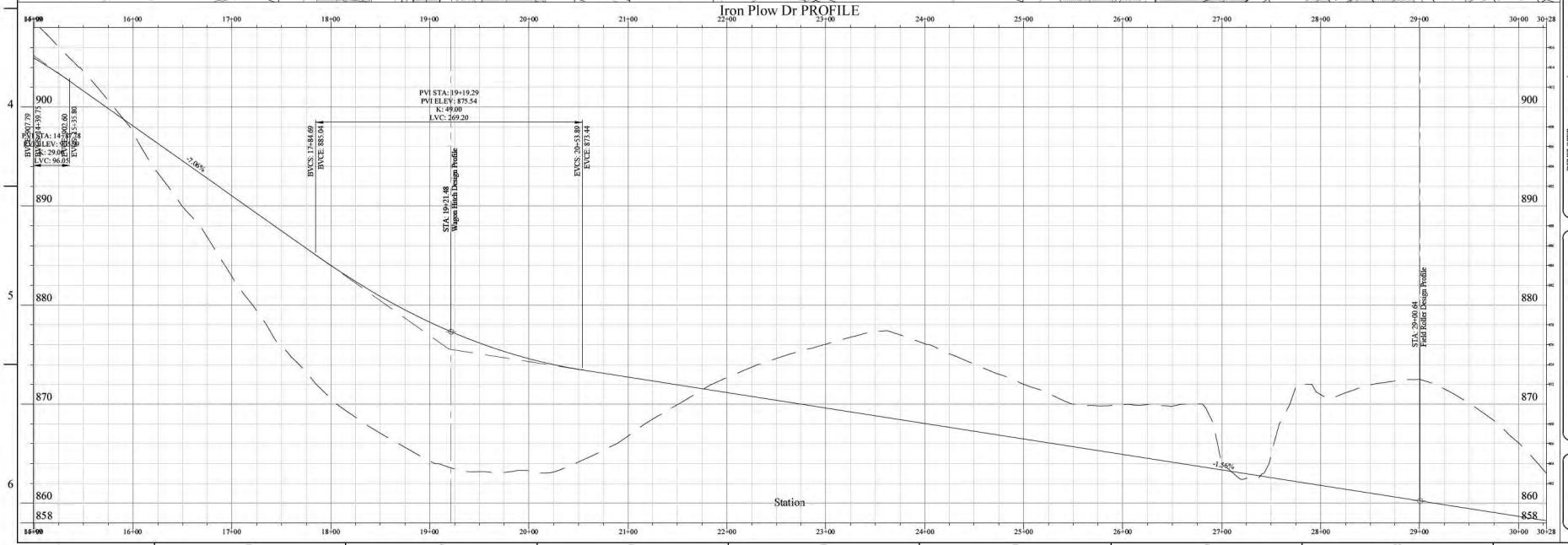
DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
11121 KINGSTON PIKE, SUITE 1
KNOXVILLE, TN 37922

Rackley Engineering
P.O. BOX 30458 KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-454-6646

THE GROVE AT BOYD STATION
FARRAGUT, TN
IRON PLOW DR PLAN & PROFILE

Sheet
C110
SHEET 6 OF 34

CONCEPTUAL NOT FOR CONSTRUCTION



RUSSELL N. RACKLEY
REGISTERED ENGINEER
No. 109803
STATE OF TENNESSEE

No.	Description	Date	Approved
	Revisions		

Designed By: RNR
Checked By: RNR
Date: 3/15/21
File Name:

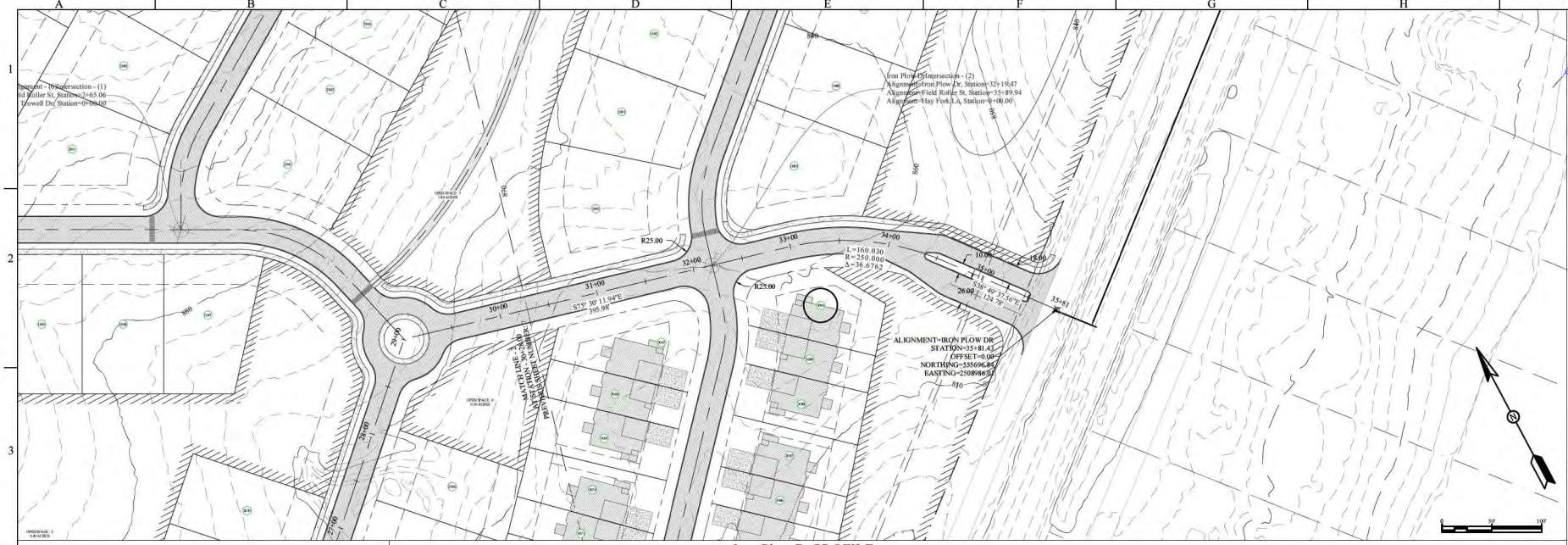
DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
1122 VOLUNTEER BLVD
KNOXVILLE TN 37923

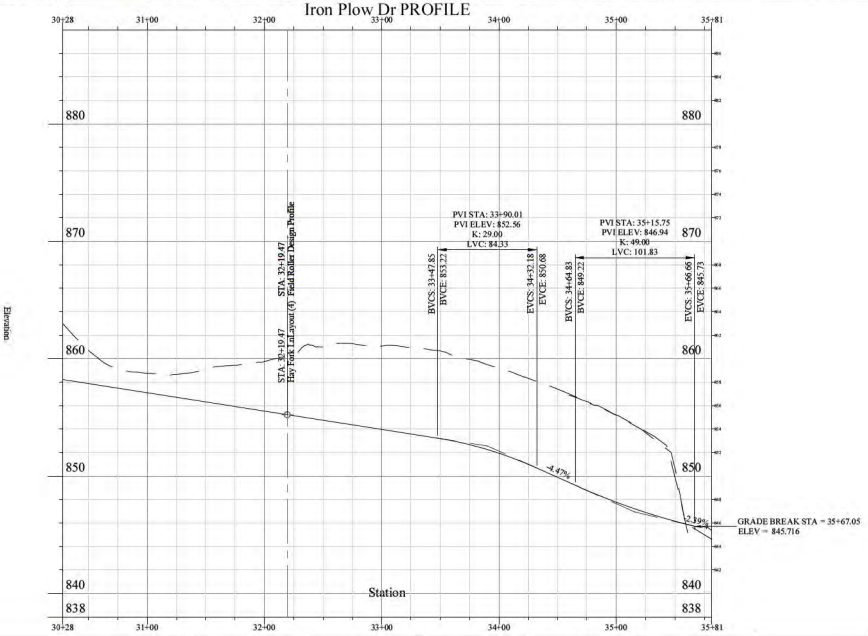
Rackley Engineering
P.O. BOX 30458 KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-454-4646

THE GROVE AT BOYD STATION
FARRAGUT, TN
IRON PLOW DR PLAN & PROFILE

Sheet
C111
SHEET 7 OF 34

CONCEPTUAL NOT FOR CONSTRUCTION





RUSSELL N. RACKLEY
REGISTERED ENGINEER
No. 109803
STATE OF TENNESSEE
5/21/21

No.	Description	Date	Approved
	Revisions		

Designed By: RNR
Checked By: RNR
Date: 5/5/21
File Name:

DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
11121 KINGSTON PIKE, SUITE 201
KNOXVILLE TN 37922

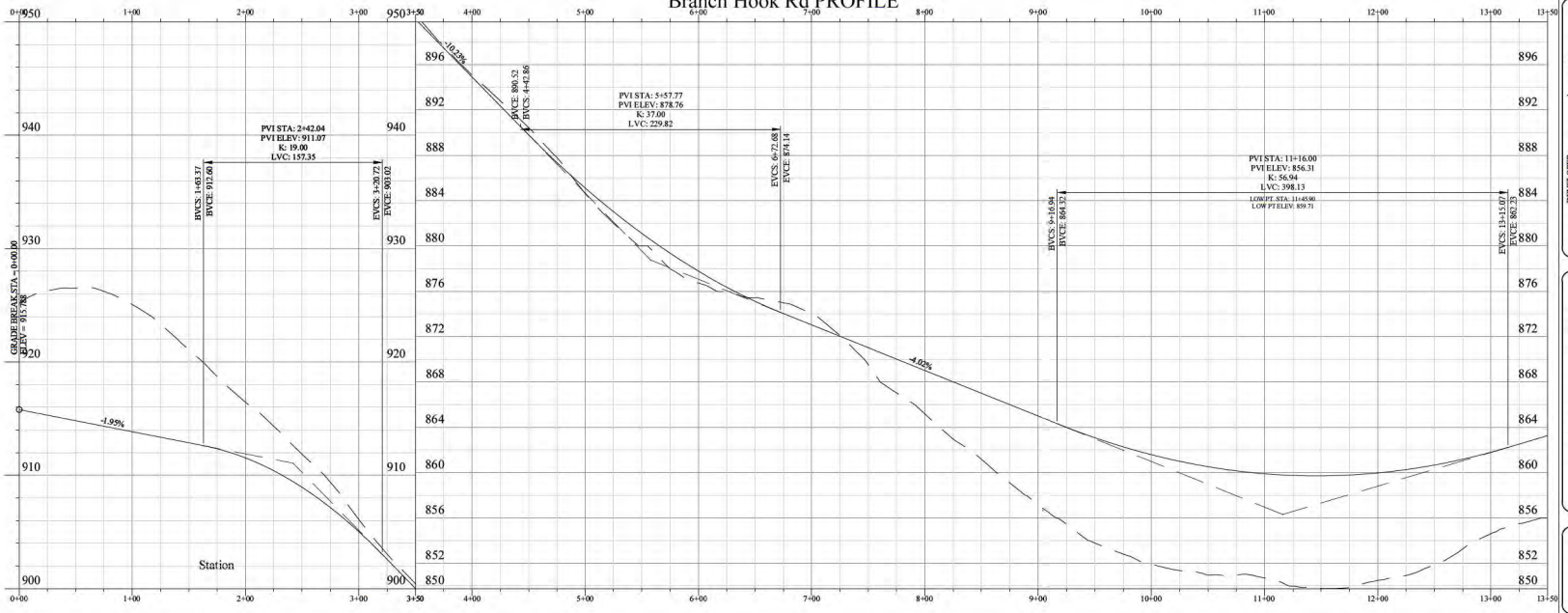
Rackley Engineering
P.O. BOX 30458 KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-455-6646

THE GROVE AT BOYD STATION
FARRAGUT, TN
IRON PLOW DR PLAN & PROFILE

Sheet
C112
SHEET 8 OF 34

CONCEPTUAL NOT FOR CONSTRUCTION

Branch Hook Rd PROFILE



RUSSELL N. RACKLEY
REGISTERED ENGINEER
No. 109803
STATE OF TENNESSEE
5/13/21

No.	Description	Date	Approved
	Revisions		

Designed By: RNR
Checked By: RNR
Date: 5/13/21
File Name:

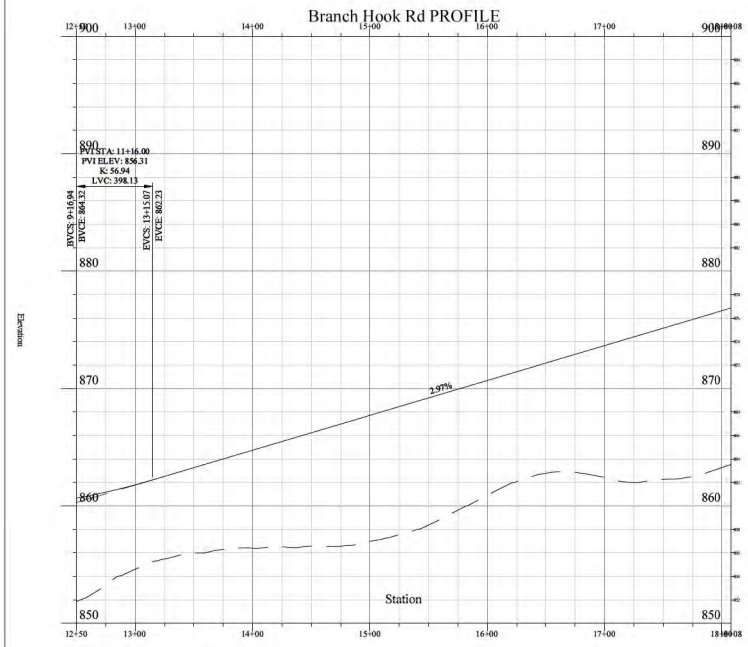
DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
11121 KINGSTON PIKE
KNOXVILLE TN 37922

Rackley Engineering
P.O. BOX 30458 KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-455-6646

THE GROVE AT BOYD STATION
FARRAGUT, TN
BRANCH HOOK RD PLAN&PROFILE

Sheet
C120
SHEET 9 OF 34

CONCEPTUAL NOT FOR CONSTRUCTION



RUSSELL N. RACKLEY
REGISTERED ENGINEER
No. 109803
STATE OF TENNESSEE
03/12/21

No.	Description	Date	Approved
	Revisions		

Designed By: RNR
Checked By: RNR
Date: 3/15/21
File Name: Branch Hook Prof.dwg

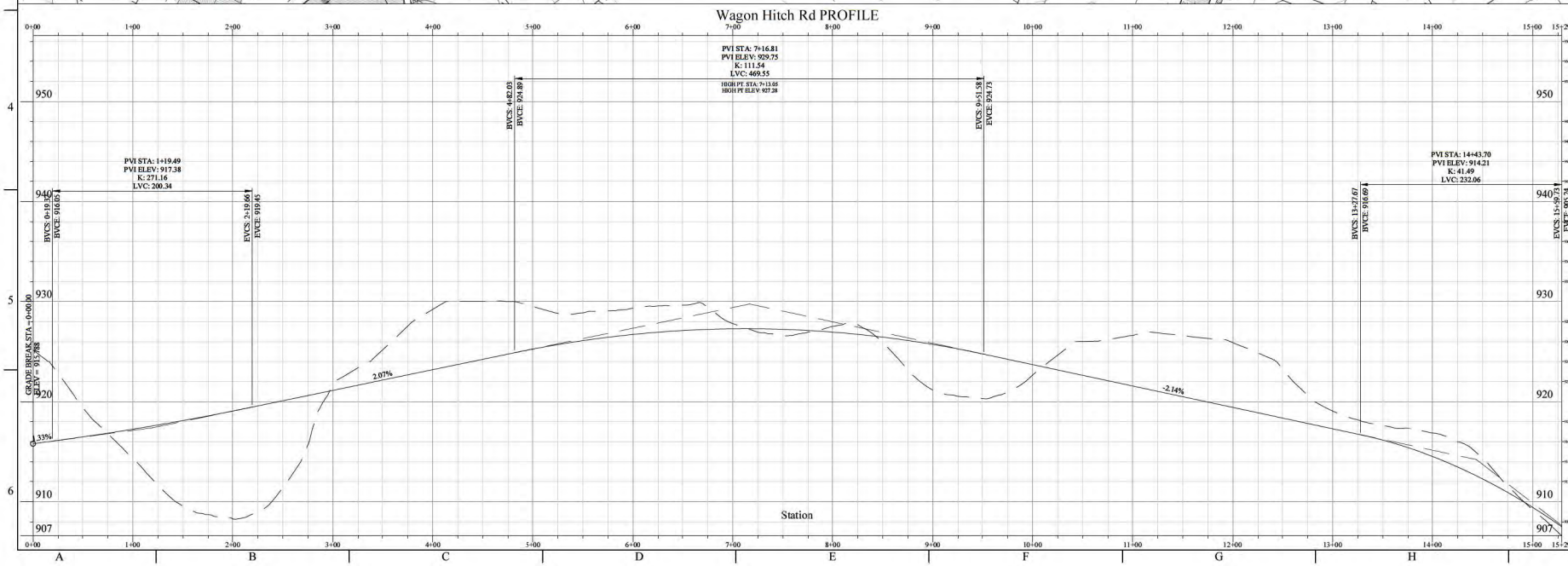
DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
11121 KINGSTON PIKE, SUITE 201
KNOXVILLE, TN 37922

Rackley Engineering
P.O. BOX 22024 KNOXVILLE, TN 37933
WWW.RACKLEYENGINEERING.COM 865-455-6646

THE GROVE AT BOYD STATION
FARRAGUT, TN
BRANCH HOOK RD PLAN & PROFILE

Sheet
C121
SHEET 10 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION



No.	Description	Date	Approved
1	REVISED PER TOWN REVIEW COMMENTS	04/05/21	RNR

Revisions

Designed By: RNR
Checked By: RNR
Date: 3/15/21
File Name:

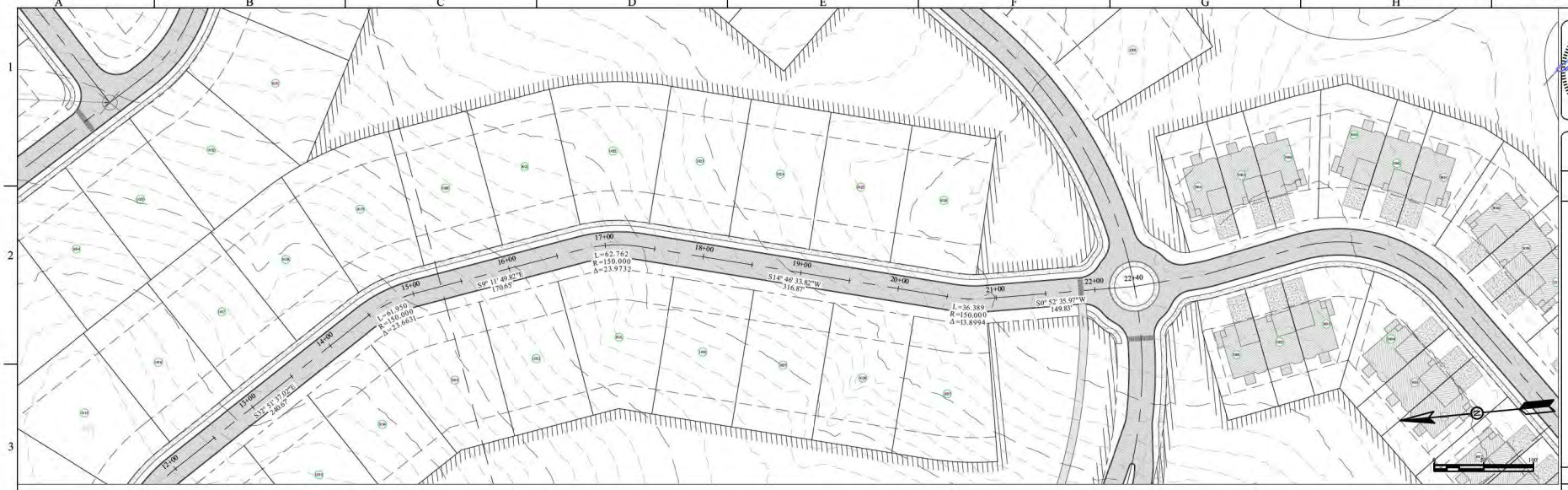
DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
11121 KINGSTON PIKE, SUITE 1
KNOXVILLE TN 37922

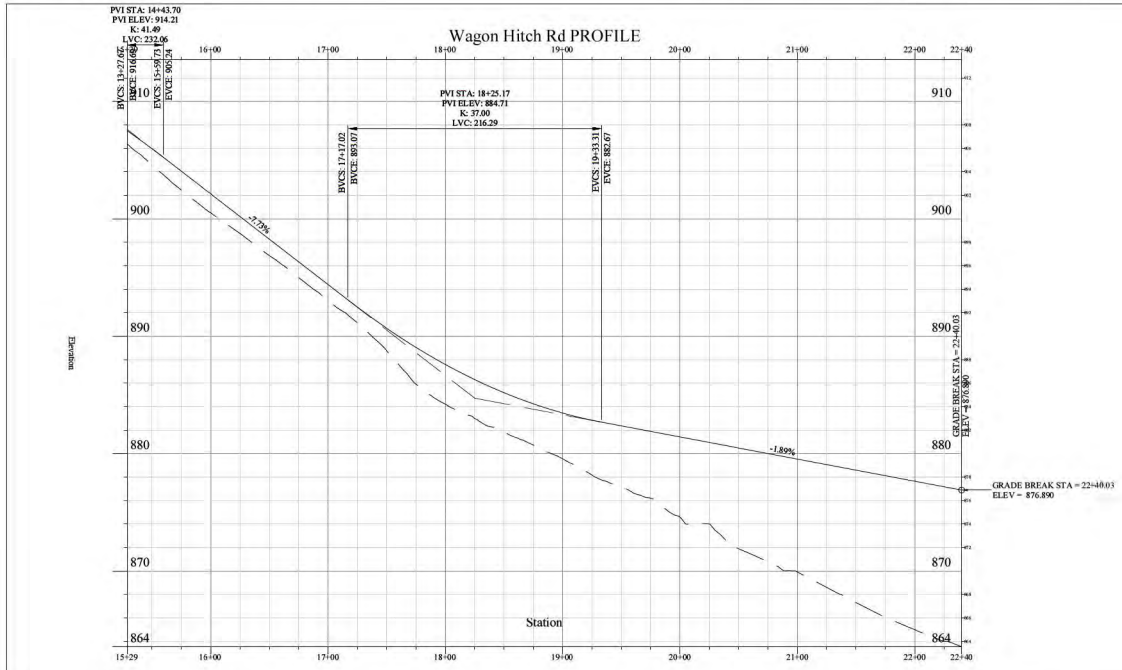
Rackley Engineering
P.O. BOX 30458 KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-622-4646

THE GROVE AT BOYD STATION
FARRAGUT, TN
WAGON HITCH RD PLAN & PROFILE

Sheet
C130
SHEET 11 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION





DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
11924 FOREST HILL BLVD
KNOXVILLE TN 37922

Designed By: RNR
Checked By: RNR
Date: —
File Name:

Rackley Engineering
P.O. BOX 22024 KNOXVILLE TN 37933
WWW.RACKLEYENGINEERING.COM 865-455-6646

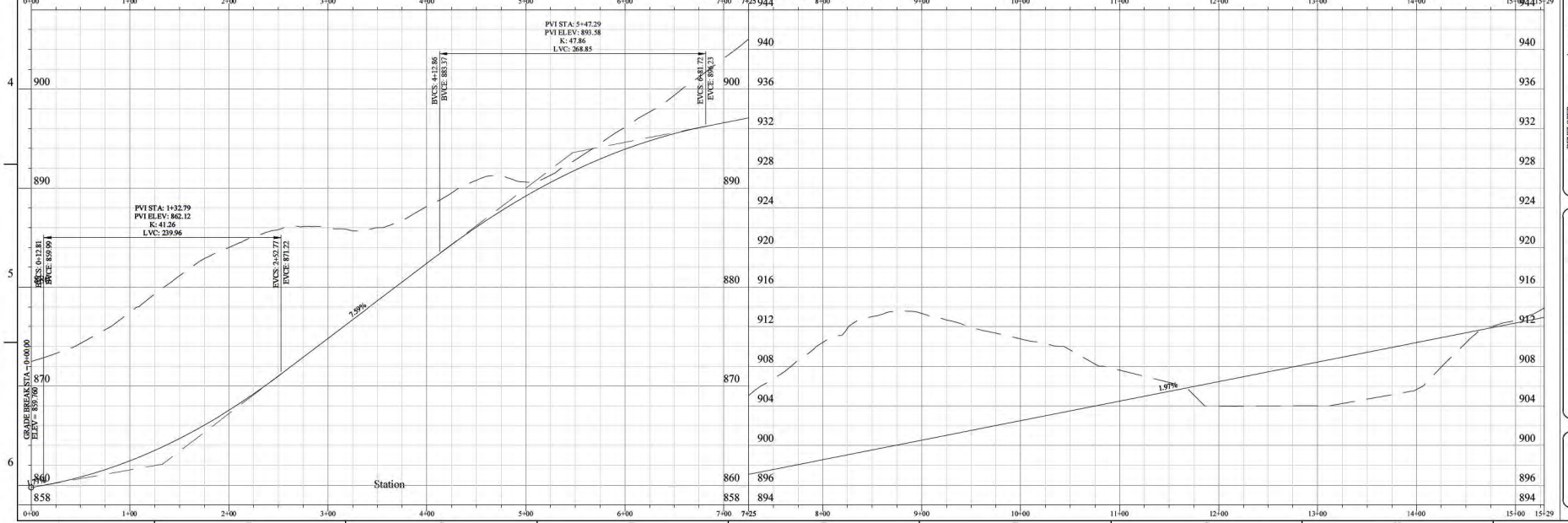
THE GROVE AT BOYD STATION
FARRAGUT, TN
WAGON HITCH RD PLAN & PROFILE

Sheet
C131
SHEET 12 OF 24

Symbol	No.	Description	Date	Approved
		Revisions		

CONCEPTUAL NOT FOR CONSTRUCTION

Field Roller St PROFILE



RUSSELL N. RACKLEY
REGISTERED ENGINEER
STATE OF TENNESSEE

Revisions			
Description	Date	Approved
Symbol	No.	

Designed By: RNR
Checked By: RNR
Date: 03/15/21
File Name:

DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
TED TRENTHAM, MEMBER
KNOXVILLE TN 37922

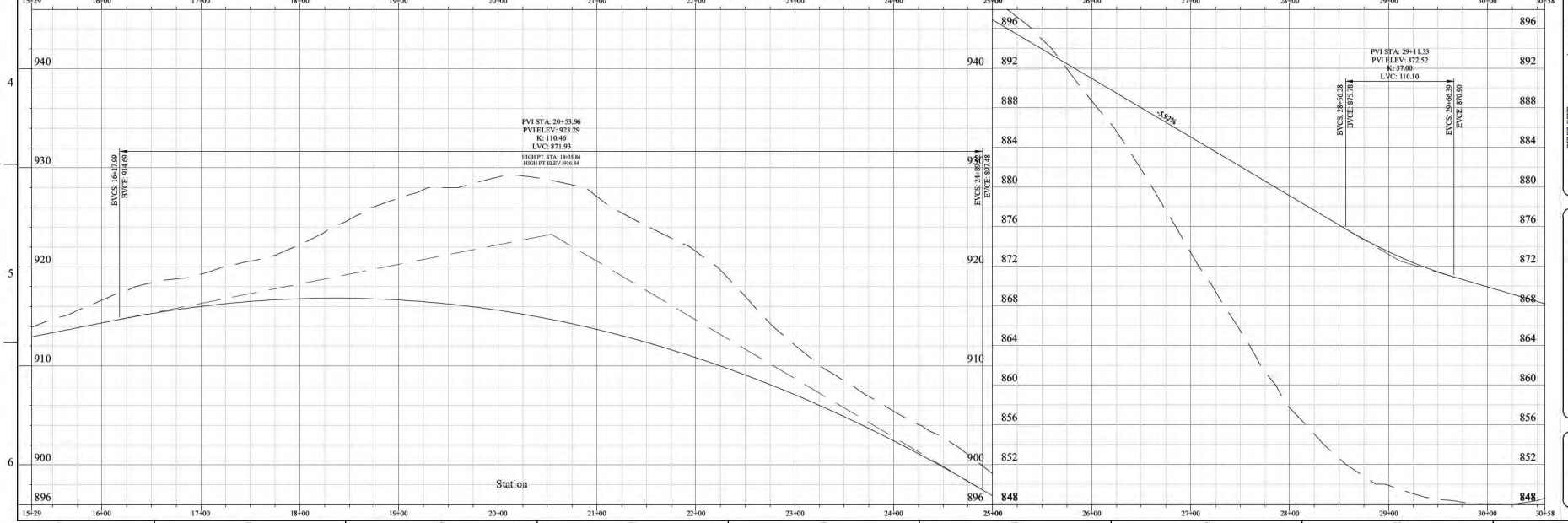
Rackley Engineering
P.O. BOX 30458 KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-455-6646

THE GROVE AT BOYD STATION
FARRAGUT, TN
FIELD ROLLER ST PLAN & PROFILE

Sheet
C140
SHEET 13 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION

Field Roller St PROFILE



RUSSELL N. RACKLEY
REGISTERED ENGINEER
No. 109803
STATE OF TENNESSEE
03/15/21

Revisions				
Description	Date	Approved		
Symbol	No.			

Designed By: RNR
Checked By: RNR
Date: 03/15/21
File Name:

DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
1111 NORTHSHORE DR.
KNOXVILLE, TN 37922

Rackley Engineering
P.O. BOX 30458, KNOXVILLE, TN 37930
WWW.RACKLEYENGINEERING.COM 865-455-6606

THE GROVE AT BOYD STATION

FARRAGUT, TN

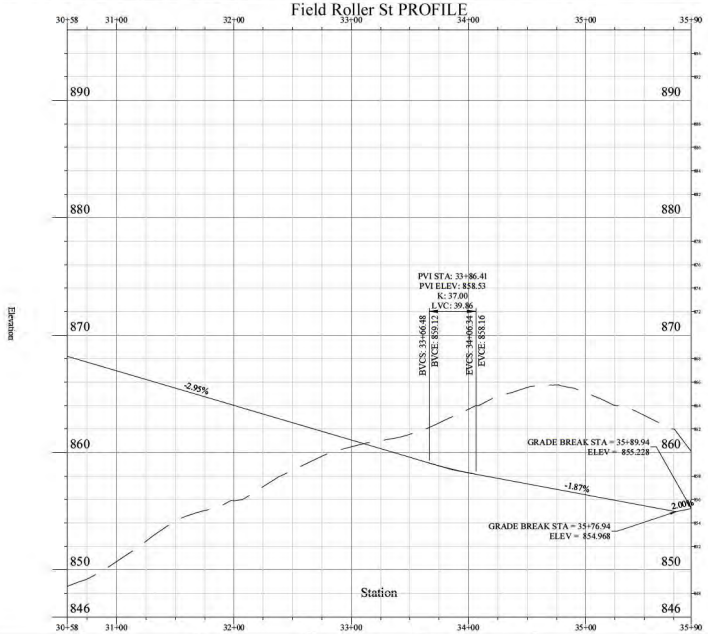
FIELD ROLLER ST PLAN & PROFILE

Sheet

C141

SHEET 14 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION



RUSSELL N. RACKLEY
REGISTERED ENGINEER
No. 109803
STATE OF TENNESSEE
5/13/21

No.	Description	Date	Approved
	Revisions		

Designed By: RNR
Checked By: RNR
Date: 5/13/21
File Name:

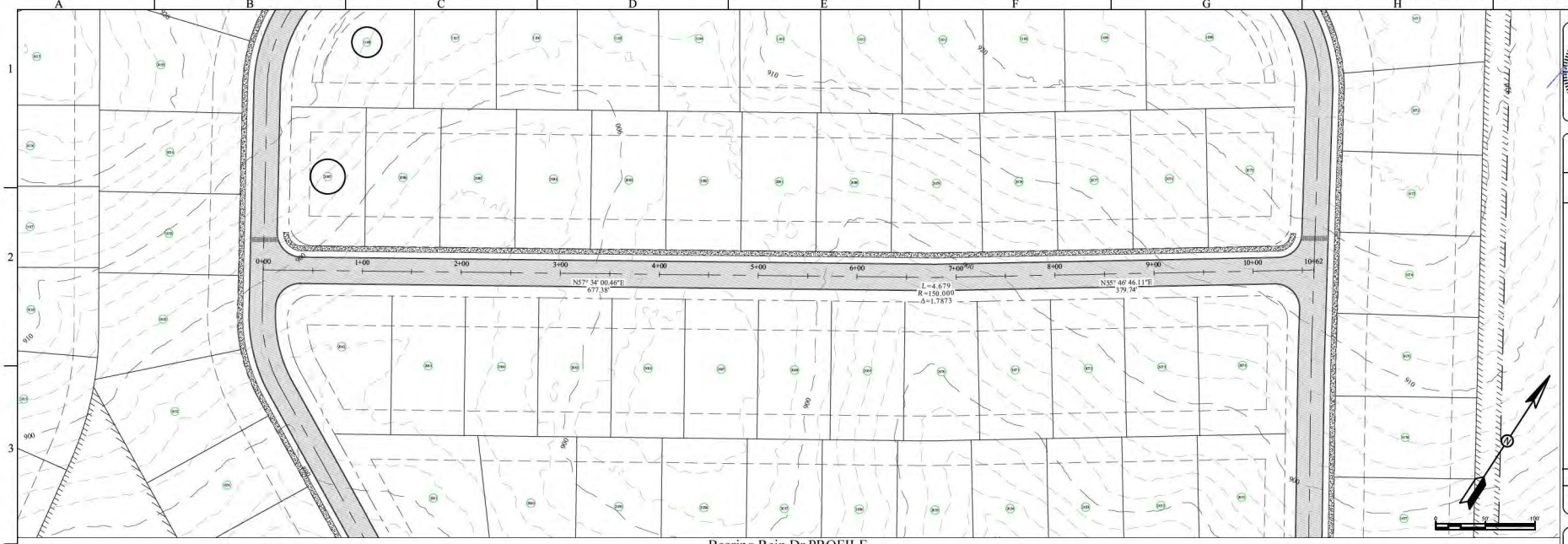
DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
11 PEDIGO PARK DRIVE
KNOXVILLE TN 37922

Rackley Engineering
P.O. BOX 22858 KNOXVILLE TN 37933
WWW.RACKLEYENGINEERING.COM 865-455-6500

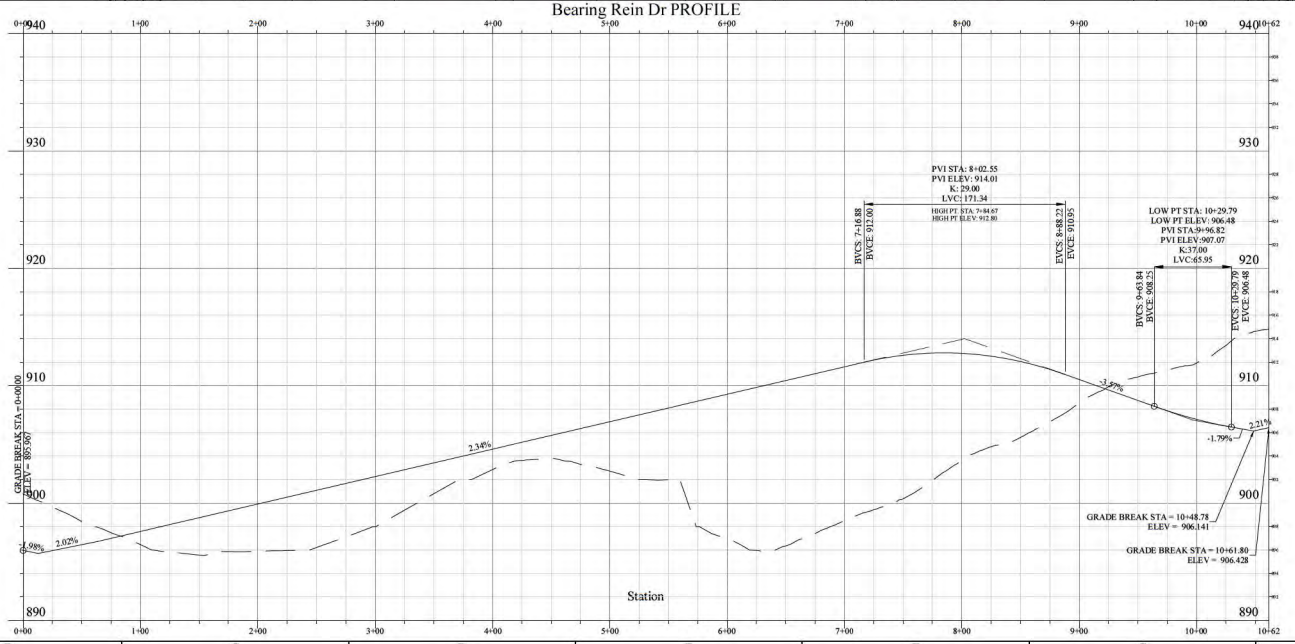
THE GROVE AT BOYD STATION
FARRAGUT, TN
FIELD ROLLER ST PLAN & PROFILE

Sheet
C142
SHEET 15 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION



Bearing Rein Dr PROFILE



No.	Description	Date	Approved
1	REVISED PER TOWN REVIEW COMMENTS	04/05/21	RNR

Revisions

Designed By: RNR
Checked By: RNR
Date: 3/12/21
File Name:

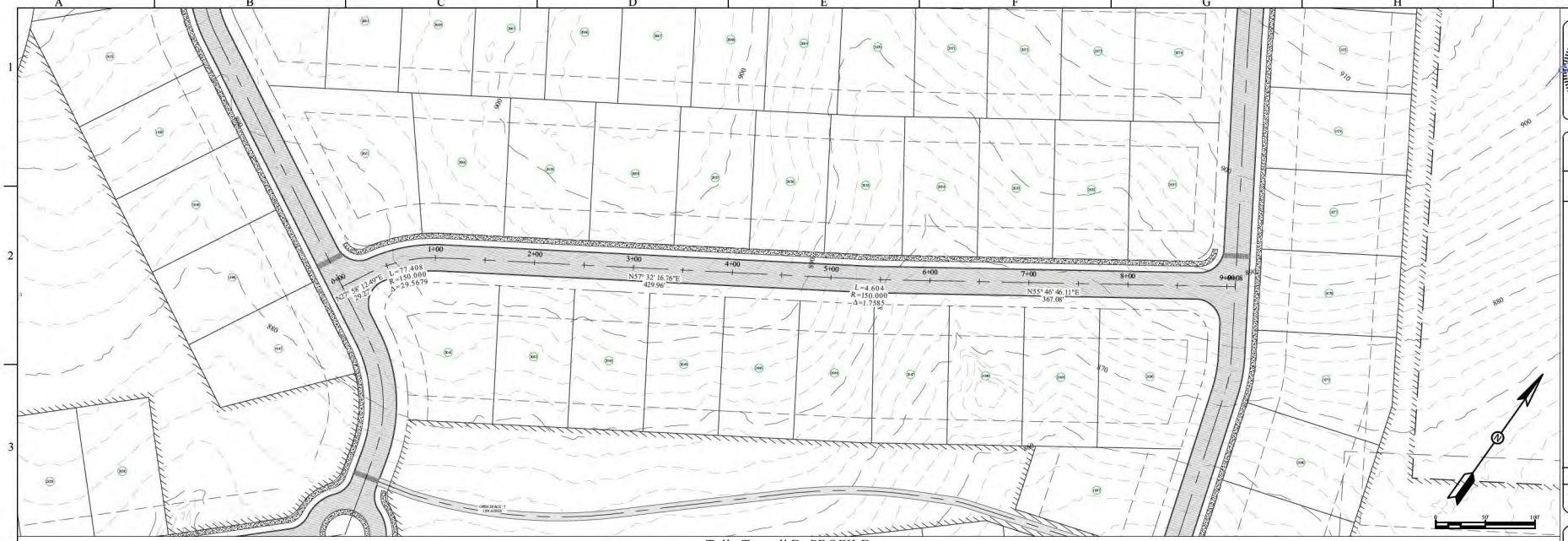
DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
1122 HOMESTEAD TRAIL
KNOXVILLE TN 37922

Rackley Engineering
P.O. BOX 30458 KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-414-4646

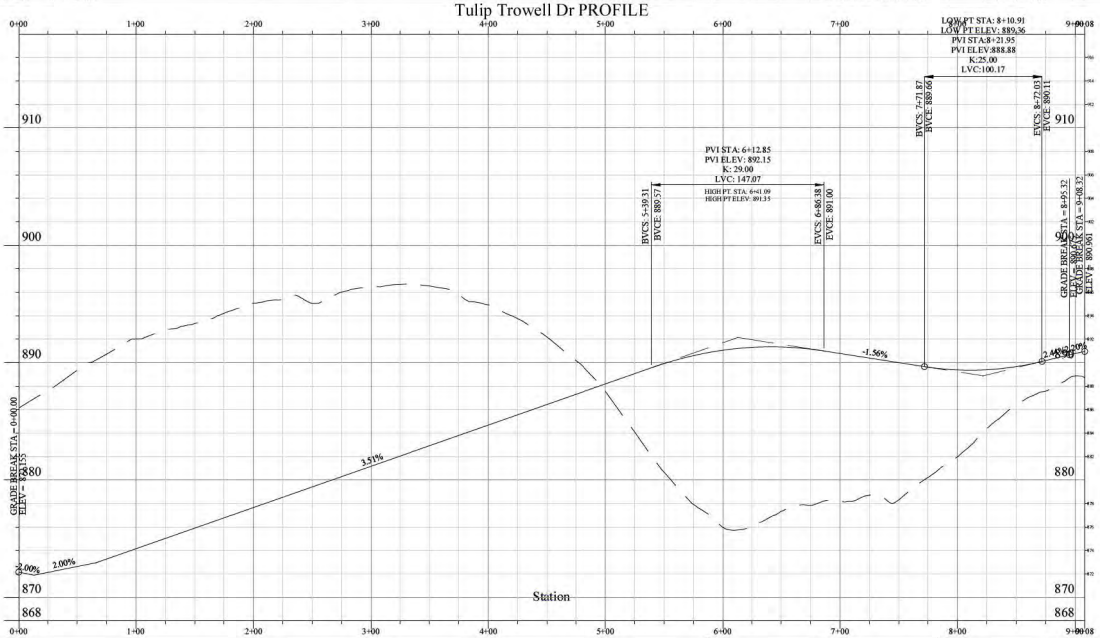
THE GROVE AT BOYD STATION
FARRAGUT, TN
BEARING REIN DR PLAN & PROFILE

Sheet
C150
SHEET 16 OF 24

CONCEPTUAL NOT FOR CONSTRUCTION



Tulip Trowell Dr PROFILE



No.	Description	Date	Approved
1	REVISED PER TOWN REVIEW COMMENTS	04/05/21	RNR

Revisions

DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
1122 VOLUNTEER LANDING
KNOXVILLE, TN 37902

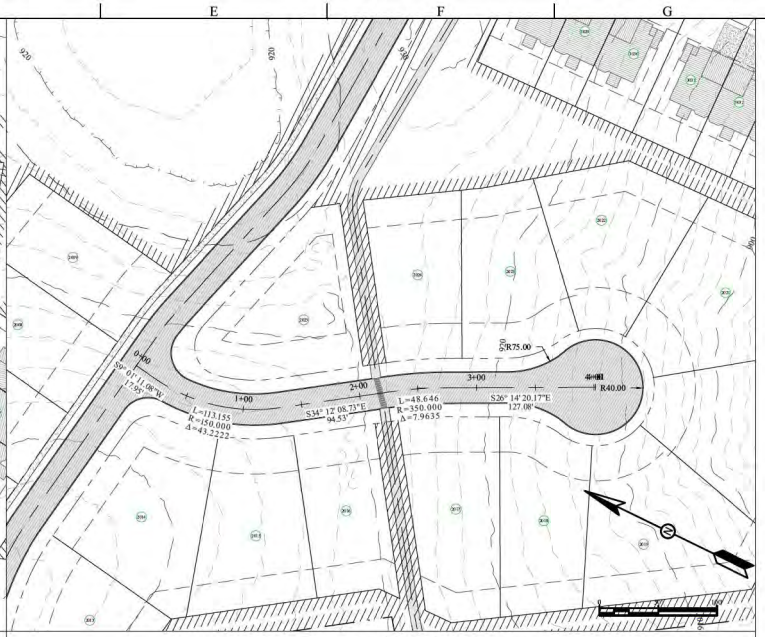
Rackley Engineering
P.O. BOX 30458 KNOXVILLE, TN 37930
WWW.RACKLEYENGINEERING.COM 865-454-6646

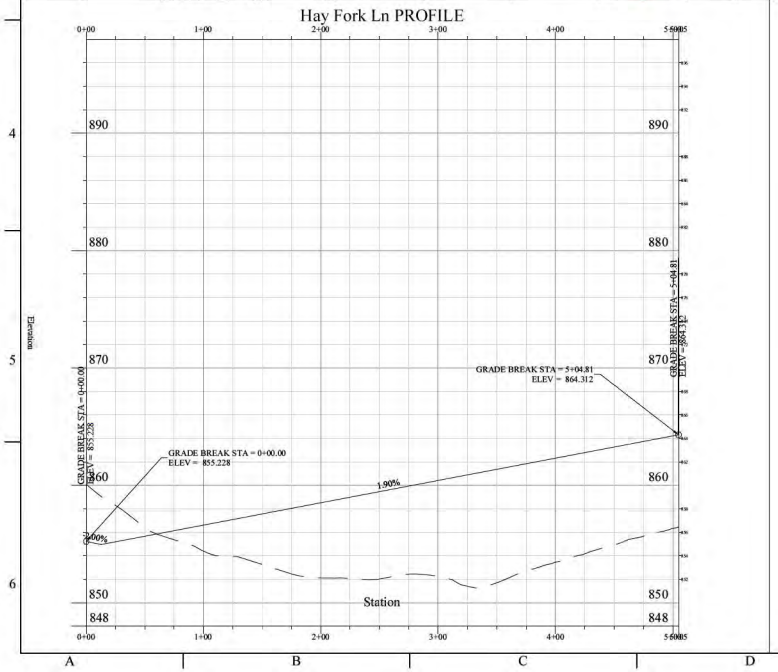
Designed By: RNR
Checked By: RNR
Date: 3/15/21
File Name:

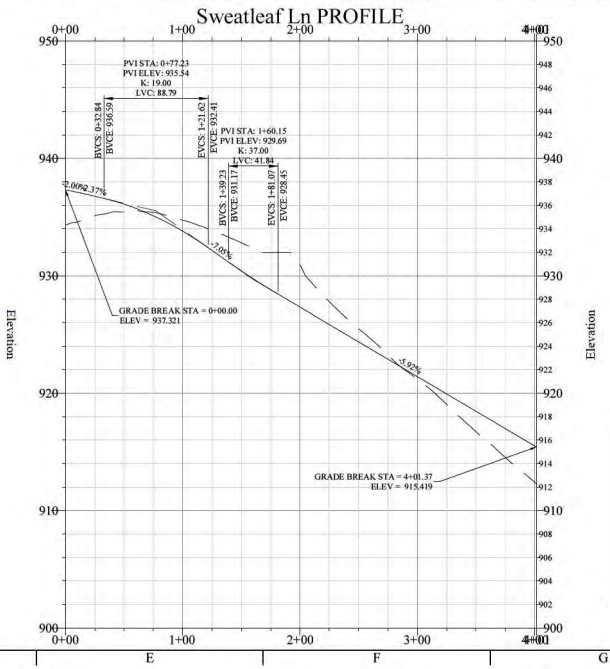
THE GROVE AT BOYD STATION
FARRAGUT, TN
TULIP TRAWELL DR PLAN & PROFILE

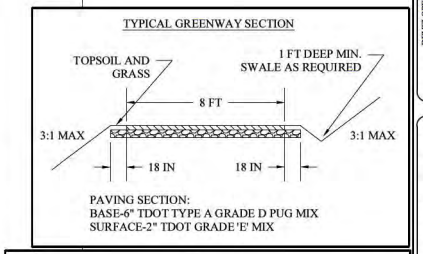
Sheet
C160
SHEET 17 OF 24

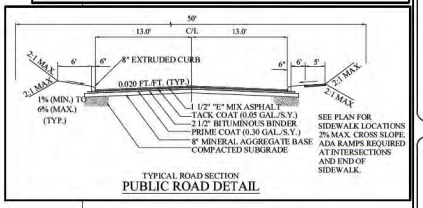
CONCEPTUAL NOT FOR CONSTRUCTION











RUSSELL N. RACKLEY
REGISTERED ENGINEER
No. 109853
STATE OF TENNESSEE
5/12/21

No.	Description	Date	Approved
	Revisions		

Designed By: RNR
Checked By: RNR
Date: 3/15/21
File Name: Hay Fork Ln.dwg

DEVELOPER
HOMESTEAD LAND HOLDINGS, LLC
11121 KINGSTON PIKE, SUITE 201
KNOXVILLE TN 37922

Rackley Engineering
P.O. BOX 30458 KNOXVILLE TN 37930
WWW.RACKLEYENGINEERING.COM 865-455-6686

THE GROVE AT BOYD STATION
FARRAGUT, TN
HAY FORK LN & SWEATLEAF LN

Sheet
C170
SHEET 18 OF 24

LAYOUT NOTES

1. CONTRACTOR TO CONTACT LOSE DESIGN FOR .DWG FILE FOR LAYOUT AND STAKING PURPOSES.
2. SEE CIVIL SHEETS FOR GENERAL PROJECT INFORMATION AND NOTES.
3. INSTALL JOINTS WHERE SHOWN TO ALIGN TO WALLS, BUILDINGS, RADII, ETC. EVENLY SPACE BETWEEN ELEMENTS AS SHOWN. PROVIDE EXPANSION JOINTS BETWEEN CONCRETE PAVEMENT AND VERTICAL ELEMENTS (WALL, CURBS, ETC.). ALL JOINTS TO BE STRAIGHT AND TRUE
4. LAYOUT ALL CURVES SMOOTHLY WITH NO ABRUPT CHANGES AT TANGENT POINTS.
5. CONTRACTOR TO TAKE PRECAUTIONS TO FIND AND AVOID SITE UTILITIES.
6. ALL PAVEMENT MARKING AND TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
7. ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH TDOT'S STANDARDS FOR ROADWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.
8. CONTRACTOR TO NOTIFY LOSE DESIGN IMMEDIATELY OF ANY DISCREPANCIES BETWEEN DRAWING AND FIELD CONDITIONS.
9. FINAL LANDSCAPE PLAN AND ENTRY SIGNAGE SUBJECT TO CHANGE PER TOWN OF FARRAGUT STAFF COMMENTS AND CIVIL SITE PLAN ADJUSTMENTS TO LAYOUT AND GRADING.
10. FINAL ENTRY SIGN AND LANDSCAPE PLAN TO BE REVIEWED AND APPROVED BY TOWN OF FARRAGUT VRRB.

0 200 400 600

SCALE: 1" = 200 '

LOSE DESIGN
SPACES FOR LIFE.

THIS DRAWING AND THE DESIGN SHOWN IS THE PROPERTY OF LOSE DESIGN. NEITHER THE DRAWING NOR THE DESIGN SHOWN HEREON MAY BE USED IN ANY FORM OR MANNER WITHOUT THEIR WRITTEN CONSENT IS PROHIBITED AND ANY INFRINGEMENT IS SUBJECT TO LEGAL ACTION.

DANIEL BOUTTE REGISTERED LANDSCAPE ARCHITECT AGRICULTURE TENNESSEE REGISTERED LANDSCAPE ARCHITECT 2021

THE GROVE AT BOYD STATION
-
HOMESTEAD LAND HOLDINGS, LLC
FARRAGUT TENNESSEE

SUBMITTALS / REVISIONS

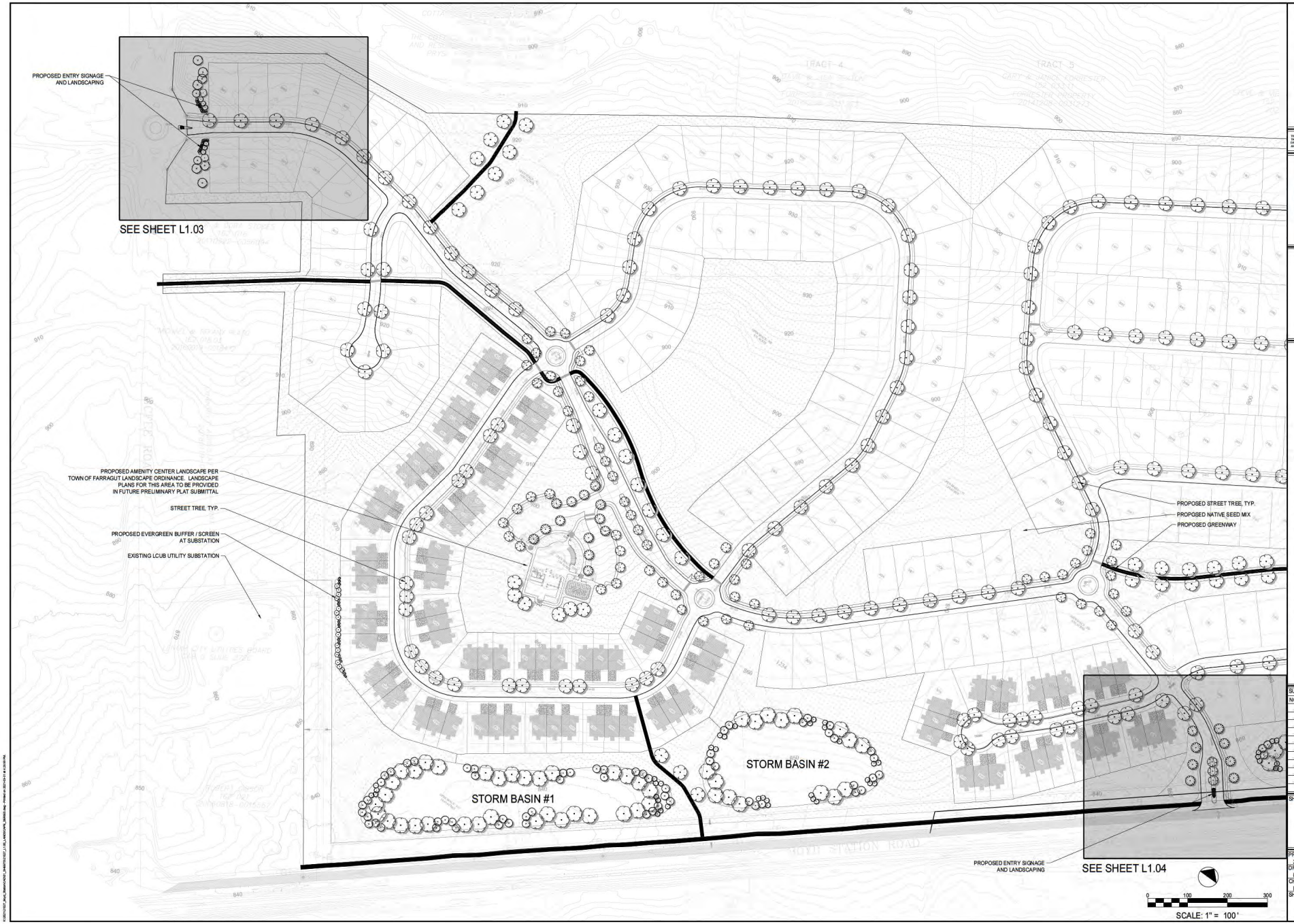
NO.	DATE	DESCRIPTION

SHEET TITLE

OVERALL LANDSCAPE - STREETSCAPE PLAN

PROJECT NO. 21027	DATE 04/05/2021
DRAWN BY HK	SCALE 1"=200'
CHECKED BY DB	
SHEET NO.	SHEET 18 OF 24

L1.00



LOSE DESIGN
SPACES FOR LIFE.

THIS DRAWING AND THE DESIGN SHOWN IS THE PROPERTY OF LOSE DESIGN AND MAY NOT BE USED IN ANY WAY WITHOUT THE EXPRESS WRITTEN CONSENT OF LOSE DESIGN. ANY UNAUTHORIZED USE WITHOUT THEIR WRITTEN CONSENT IS PROHIBITED AND ANY INFRINGEMENT IS SUBJECT TO LEGAL ACTION.

DANIEL ROUTTE REGISTERED LANDSCAPE ARCHITECT AGRICULTURE TENNESSEE REGISTERED LANDSCAPE ARCHITECT 2021

THE GROVE AT BOYD STATION

HOMESTEAD LAND HOLDINGS, LLC

FARRAGUT TENNESSEE

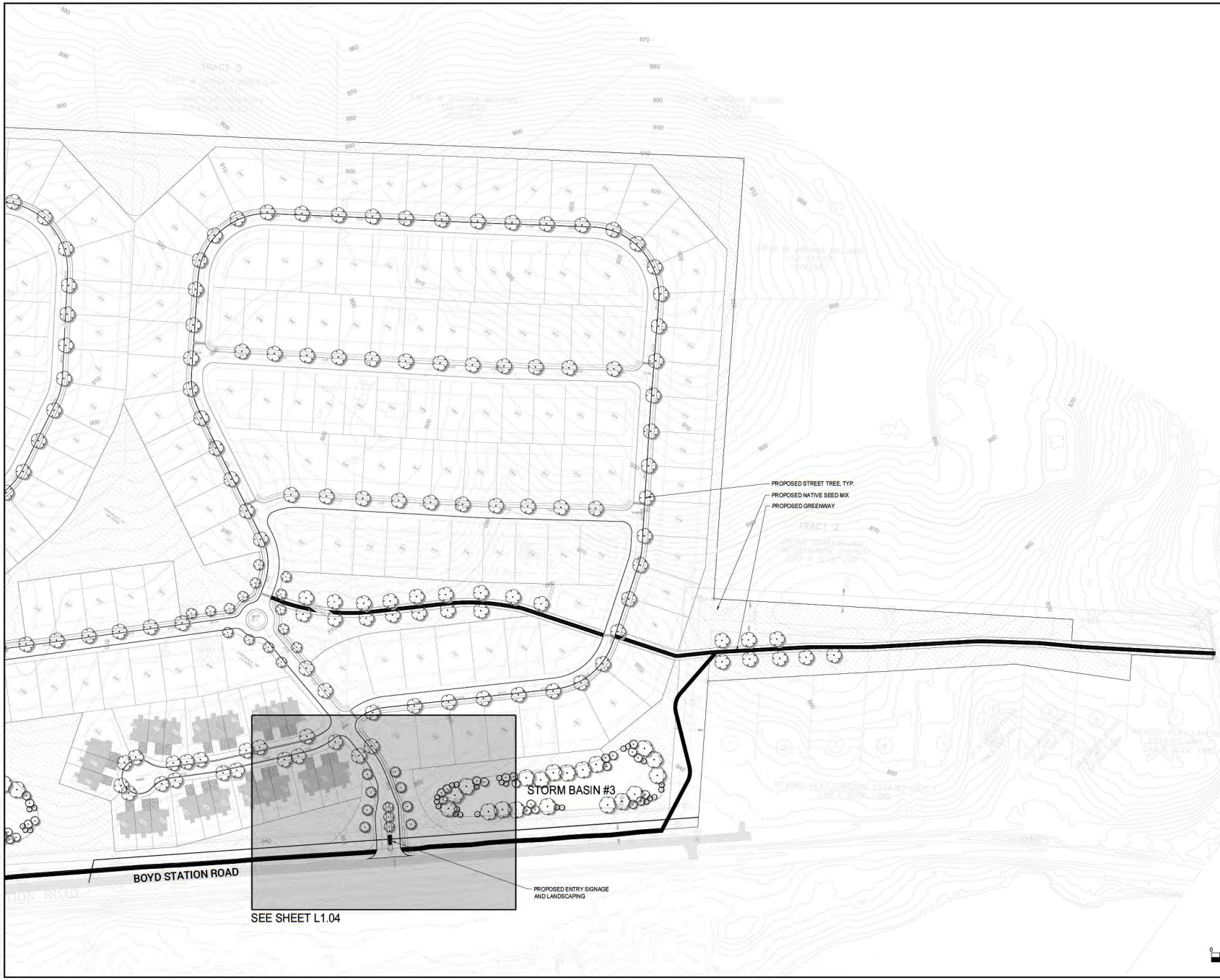
SUBMITTALS / REVISIONS		
NO.	DATE	DESCRIPTION

SHEET TITLE

LANDSCAPE PLAN

PROJECT NO. 21027	DATE 04/05/2021
DRAWN BY HK	SCALE 1"=100'
CHECKED BY DB	
SHEET NO.	SHEET 20 OF 24

L1.01



LOSE DESIGN
SPACES FOR LIFE.

THIS DRAWING AND THE DESIGN SHOWN IS THE PROPERTY OF LOSE DESIGN AND MAY NOT BE USED IN WHOLE OR IN PART FOR ANY PROJECT WITHOUT THE WRITTEN CONSENT OF LOSE DESIGN. ANY INFRINGEMENT IS SUBJECT TO LEGAL ACTION.

DANIEL ROUTTE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE REGISTRATION
LANDSCAPE ARCHITECT 262

THE GROVE AT BOYD STATION

-

HOMESTEAD LAND HOLDINGS, LLC

TENNESSEE

FARRAGUT

SUBMITTALS / REVISIONS

NO.	DATE	DESCRIPTION

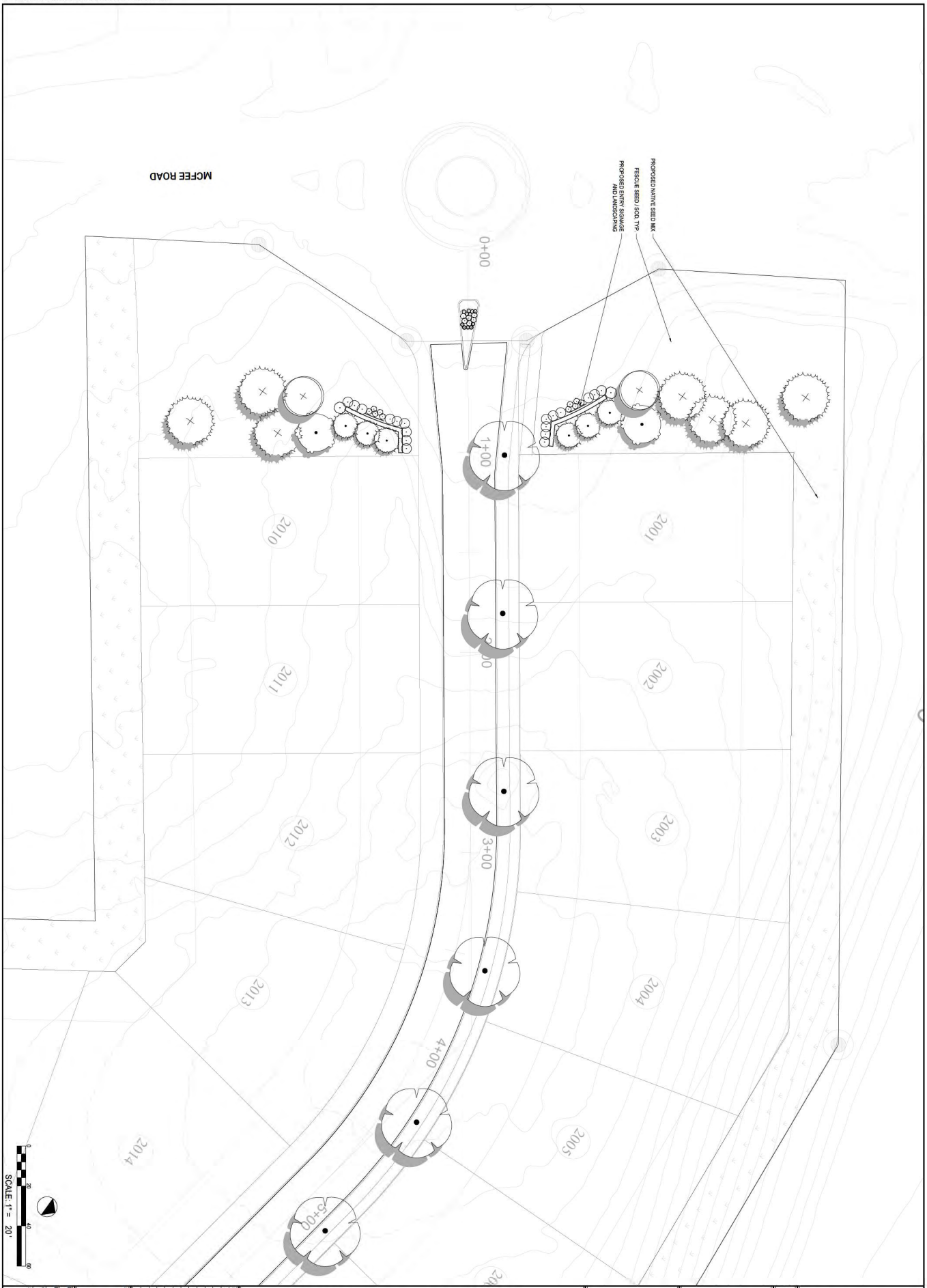
SHEET TITLE

LANDSCAPE PLAN

PROJECT NO. 21027	DATE 04/05/2021
DRAWN BY HK	SCALE 1"=100'
CHECKED BY DB	
SHEET NO.	SHEET 21 OF 24

L1.02

K:\2021\21027_Boyd_Station\CAD\01_SHEETS\21027_L1.02_LANDSCAPE_SHEET.dwg - Printed on 2021-03-31 at 4:34:09 PM



THE GROVE AT BOYD STATION

-

HOMESTEAD LAND HOLDINGS, LLC

FARRAGUT TENNESSEE

SHEET TITLE

LANDSCAPE PLAN
ENLARGEMENT
(NORTHWEST ENTRY)

PROJECT NO.	DATE
21027	04/02/2021
DRAWN BY	SCALE
DB	1"=20'
CHECKED BY	SHEET 22 OF 24
DB	
SHEET NO.	
L1.03	

NO.	DATE	SUBMITTALS / REVISIONS DESCRIPTION

DANIEL BOUDREAUX
REGISTERED LANDSCAPE ARCHITECT
STATE OF TENNESSEE

THE DESIGNS, IDEAS AND PLANS CONTAINED IN THIS DRAWING ARE THE PROPERTY OF LOSE DESIGN AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF LOSE DESIGN.

LOSE DESIGN
SPACES FOR LIFE.

LOSE DESIGN
SPACES FOR LIFE.

THIS DRAWING AND THE DESIGN SHOWN IS THE PROPERTY OF LOSE DESIGN AND MAY NOT BE USED IN WHOLE OR PART FOR ANY PURPOSE WITHOUT THEIR WRITTEN CONSENT IS PROHIBITED AND ANY INFRINGEMENT IS SUBJECT TO LEGAL ACTION.

DANIEL ROUTTE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE
2021

THE GROVE AT BOYD STATION
-
HOMESTEAD LAND HOLDINGS, LLC
FARRAGUT TENNESSEE

SUBMITTALS / REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
LANDSCAPE PLAN ENLARGEMENT (SOUTH ENTRY)

PROJECT NO. 21027	DATE 04/05/2021
DRAWN BY HK	SCALE 1"=20'
CHECKED BY DB	
SHEET NO.	SHEET 23 OF 24

L1.04

GENERAL NOTES:

1. UNDERGROUND UTILITIES:
   - 1.1. UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, LANDSCAPE ARCHITECT, OR THEIR REPRESENTATIVES. BEFORE YOU DIG, CALL TENNESSEE ONE CALL SYSTEM.
   - 1.2. 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.
2. 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. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK IN THE AREA INVOLVING DIFFERENCES. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATIING FIELD MEASUREMENTS AND NOTES RELATING TO THE AREA.

LANDSCAPE NOTES:

1. PLANTING BEDS AND PLANT LOCATIONS SHALL BE STAKED BY THE LANDSCAPE CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER OR THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION OF THE PLANTS.
2. PLANTING BEDS SHALL BE CLEARED OF ALL GRASS AND WEEDS PRIOR TO INSTALLATION OF PLANTS, INCLUDING SPRAYING "ROUND-UP" OR APPROVED SUBSTITUTE 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, IF REQUIRED, WILL BE AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE. SEE EROSION CONTROL SHEET FOR SEEDING.
4. PLANTING BEDS SHALL HAVE A THREE (3) INCH 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. SAMPLE OF MIXTURE TO BE APPROVED IN WRITING BY OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
7. PLANT GROUNDCOVER AND ANNUAL BEDS IN SAME MIXTURE AS SHRUBS. AFTER PLANTING & MULCHING, WATER AREAS TO POINT OF SATURATION.
8. ALL PLANTED AREAS ARE TO BE FERTILIZED WITH GRANULAR FERTILIZER. LANDSCAPE CONTRACTOR IS TO PROVIDE SOIL TEST RESULTS AND PROPOSED FERTILIZER APPLICATION RATES TO THE OWNER OR OWNER'S REPRESENTATIVE FOR APPROVAL.
9. ALL PLANT MATERIAL IS TO BE NURSERY GROWN AND TO COMPLY WITH AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60. 1-2004) OR LATEST EDITION. PLANTS NOT IN COMPLIANCE WILL BE REJECTED AND REPLACED WITH PLANTS THAT MEET THE STANDARDS.
10. SPRAY TREES AND SHRUBS WITH AN ANTI-DESICCANT IF FOLIAGE IS PRESENT.
11. EVERGREEN TREES AND SHRUBS SHALL BE PLANTED IN THE SAME MANNER AS DECIDUOUS MATERIAL IS PLANTED.
12. DO NOT PRUNE ANY PLANT MATERIAL UNTIL IT HAS BEEN INSPECTED AND ACCEPTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
13. ALL LANDSCAPE MATERIAL SHALL BE APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE BEFORE INSTALLATION. MATERIALS MAY BE VIEWED AT LANDSCAPE CONTRACTOR'S HOLDING SITE OR AT THIS SITE. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE OF THE AVAILABILITY OF THE MATERIALS TO BE INSPECTED.
14. ALL MATERIALS INSPECTED ON THE SITE AND FOUND TO BE UNACCEPTABLE SHALL BE REMOVED FROM THE SITE ON THE DAY OF INSPECTION.
15. FIELD CHANGES MUST BE APPROVED IN WRITING BY THE OWNER OR OWNER'S REPRESENTATIVE.
16. EXISTING PLANT MATERIAL IS TO BE EVALUATED BY THE LANDSCAPE ARCHITECT FOR POSSIBLE RELOCATION ON SITE. THE LANDSCAPE CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT FORTY-EIGHT (48) HOURS BEFORE BEGINNING WORK.
17. ALL PLANT MATERIAL SHALL BE SUPPLIED BY APPROPRIATE SOURCES TO PREVENT UNDUE STRESS OR PROLONGED ACCLIMATIZATION WHICH WOULD INHIBIT PLANT GROWTH.
18. LANDSCAPE CONTRACTOR IS TO VERIFY PLANT QUANTITIES SHOWN ON PLAN AND IN PLANT LIST. IF DISCREPANCIES OCCUR, LANDSCAPE CONTRACTOR IS TO CONTACT LANDSCAPE ARCHITECT IMMEDIATELY. QUANTITIES SHOWN ON PLAN 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. SEE PLANT LIST FOR LARGER MATERIAL REQUIRED.
20. MULTI-TRUNK PLANT MATERIAL SHALL BE ONE PLANT GROWN FROM SINGLE SEEDLING. NO CLUMP MULTI-PLANT STOCK WILL BE ACCEPTED.
21. IF IN THE OPINION OF THE LANDSCAPE ARCHITECT, THE CENTRAL LEADER OF ANY TREE HAS BEEN CUT IN THE HISTORY OF THE PLANT'S GROWTH, THE MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER. THE DECISION OF THE LANDSCAPE ARCHITECT WILL BE FINAL.

PLANT STOCK NOTES:

1. ALL CANOPY TREES SHALL BE LIMBED UP AT LEAST 7' WITH A MINIMUM HEIGHT OF 12'.
2. ALL PEDESTRIAN ACCESS WAYS MUST HAVE AT LEAST 7' OF CLEARANCE.
3. ALL UNDERSTORY TREES SHALL BE LIMBED UP AT LEAST 4' WITH A MINIMUM HEIGHT OF 8'.
4. ALL CANOPY AND UNDERSTORY TREES SHALL HAVE ONE STRONG CENTRAL LEADER TRUNK. NO MULTI-TRUNK UNLESS SPECIFIED.
5. THE SOUTH SIDE OF ALL TREES SHALL BE MARKED BEFORE TRANSPLANT FOR DIRECTIONAL PLACEMENT AT THE TIME OF PLANTING. CONTRACTOR SHALL BE RESPONSIBLE FOR DIRECTIONAL PLACEMENT.
6. ALL TREES SHALL BE MATCHED SPECIMENS WITH A FULL CANOPY AND A UNIFORM BRANCHING HABIT.
7. EVERGREEN TREES SHALL BE FULL TO GROUND WITH A HEAVY CANOPY AND STRONG CENTRAL LEADER.
8. ALL SHRUBS SHALL HAVE A FULL, HEAVY BODY FOR THE COMPLETE HEIGHT OF THE SHRUB AND SHOULD NOT SHOW STRESS AT TIME OF PLANTING.
9. ALL SHRUBS SHALL HAVE A MINIMUM #3 CONTAINER AT TIME OF PLANTING. PLANT SELECTION MUST BE CHOSEN BY PLANT SIZE, NOT CONTAINER SIZE.
10. ALL SHRUBS, EXCEPT AS NOTED, SHALL BE PLANTED AND MAINTAINED IN THEIR NATURAL FORM TO CREATE A PLANT MASSING EFFECT. NO "GUMDROP" PRUNING IS ALLOWED.
11. MULCH "VOLCANOES" ARE UNACCEPTABLE. MULCH MUST BE INSTALLED PER DETAILS.
12. INSTALL ALL PLANTS IN ACCORDANCE WITH ALL APPLICABLE DETAILS AND SPECIFICATIONS INCLUDED WITHIN THE CONSTRUCTION PACKAGE.
13. ALL PLANTS MUST BE SELECTED, INSTALLED, AND MAINTAINED ACCORDING TO THE SPECIFICATIONS.
14. ALL TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM MAJOR UTILITY LINES. CONTACT LANDSCAPE ARCHITECT WHERE DISCREPANCIES OCCUR FOR FIELD ADJUSTMENT.

ANNUAL LIST:

JANUARY / FEBRUARY:	ORNAMENTAL CABBAGE AND KALE, PANSY
MARCH / APRIL:	CALIFORNIA POPPY, CANDYTUFT, LUPIN, PANSY
MAY / JUNE:	BEGONIA, DIANTHUS, IMPATIENS, MARIGOLD, SALVIA, VERBENA
JULY / AUGUST:	BEGONIA, DIANTHUS, IMPATIENS, MARIGOLD, SALVIA, VERBENA
SEPTEMBER / OCTOBER:	CHRYSANTHEMUM, CALIFORNIA POPPY, CANDYTUFT, LUPIN, PANSY
NOVEMBER / DECEMBER:	ORNAMENTAL CABBAGE AND KALE, PANSY
4" O.C.	PANSY, CALIFORNIA POPPY, BEGONIA, IMPATIENS,
8" O.C.	MARIGOLD, SALVIA, LUPIN, DIANTHUS
12" O.C.	ORNAMENTAL CABBAGE, KALE, VERBENA, CHRYSANTHEMUM, CANDYTUFT

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE	REMARKS
	ACE AUT	216	ACER RUBRUM 'AUTUMN FLAME'	AUTUMN FLAME RED MAPLE	B & B	2" CAL MIN		MATCHED TREES, STRONG CENTRAL LEADER
	BET NIG	68	BETULA NIGRA	RIVER BIRCH MULTI-TRUNK	B & B		8' MIN. HT.	MATCHED TREES, MULTI-TRUNK
	CER CAN	21	CERCIS CANADENSIS	EASTERN REDBUD	B & B	2" CAL MIN		MATCHED TREES, STRONG CENTRAL LEADER, SINGLE TRUNK
	CER FOR	83	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY EASTERN REDBUD	B & B	2" CAL MIN		MATCHED TREES, STRONG CENTRAL LEADER, SINGLE TRUNK
	CRY RAD	63	CRYPTOMERIA JAPONICA 'RADICANS'	RADICANS JAPANESE CEDAR	B & B		6' MIN HT	MATCHED TREES, STRONG CENTRAL LEADER, FULL TO GROUND
	MAG BRK	2	MAGNOLIA GRANDIFLORA 'BRACKENS BROWN BEAUTY'	BRACKEN'S BEAUTY SOUTHERN MAGNOLIA	2" CALIPER	1.5" CALIPER	8' MIN. HT.	
	NYS SYL	63	NYSSA SYLVATICA	TUPELO	B & B	2" CAL MIN		MATCHED TREES, STRONG CENTRAL LEADER
	PIN WH3	7	PINUS ALBA	WHITE PINE	2" CALIPER			
	THU SMA	30	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	B & B		6' MIN HT	MATCHED TREES, STRONG CENTRAL LEADER, FULL TO GROUND
	THU IBI	15	THUJA X 'GREEN GIANT'	GREEN GIANT ARBORVITAE	B & B		6' MIN HT	MATCHED TREES, STRONG CENTRAL LEADER, FULL TO GROUND

SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	HEIGHT	SPREAD	REMARKS
	ABE KAL	28	ABELIA X GRANDIFLORA 'KALEIDOSCOPE'	KALEIDOSCOPE GLOSSY ABELIA	T.B.D.	15"–18"	15"–18"	FULL PLANT, MATCHING
	ILE GLA	18	ILEX GLABRA	INKBERRY HOLLY	T.B.D.	18"–24"	18"–24"	FULL PLANT, MATCHING
	PAN HEA	14	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	T.B.D.	12" MIN	12" MIN	FULL PLANT, MATCHING
	PEN RE4	10	PENNISETUM SETACEUM 'RED RIDING HOOD'	RED RIDING HOOD FOUNTAIN GRASS	T.B.D.	12" MIN	12" MIN	
	PRU SCH	2	PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	SCHIPKA ENGLISH LAUREL	T.B.D.	36" MIN	30" MIN	FULL PLANT, MATCHING

GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	REMARKS
	FES CRO	82,302 SF	FESTUCA X 'CROSSFIRE'	HEAT-TOLERANT TALL FESCUE	SOD		

CONCEPT PLANT SCHEDULE

	NATIVE MIX	1,539,821 SF

LANDSCAPE REQUIREMENTS

PLANTING LOCATION	LOCATION SIZE	REQUIREMENT	PROVIDED
STORM BASINS			
STORM BASIN #1	1711 LF	1TREE PER 20 LF: 86 TREES	86 TREES
STORM BASIN #2	1136 LF	1TREE PER 20 LF: 57 TREES	58 TREES
STORM BASIN #3	1236 LF	1TREE PER 20 LF: 62 TREES	62 TREES

LOSE DESIGN
SPACES FOR LIFE.

THIS DRAWING AND THE DESIGN SHOWN IS THE PROPERTY OF LOSE DESIGN AND MAY NOT BE USED IN WHOLE OR PART WITHOUT THEIR WRITTEN CONSENT IS PROHIBITED AND ANY INFRINGEMENT IS SUBJECT TO LEGAL ACTION.

DANIEL BOUTTE
REGISTERED
LANDSCAPE ARCHITECT
TENNESSEE
AGRICULTURE
LANDSCAPE ARCHITECT 362

THE GROVE AT BOYD STATION
-
HOMESTEAD LAND HOLDINGS, LLC
FARRAGUT TENNESSEE

SUBMITTALS / REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

LANDSCAPE NOTES & SCHEDULES

PROJECT NO. 21027	DATE 04/05/2021
DRAWN BY HK	SCALE N/A
CHECKED BY DB	
SHEET NO.	SHEET 24 OF 24

L1.10

MEETING DATE: April 15, 2021 **AGENDA ITEM #9**

REPORT TO THE FARRAGUT MUNICIPAL PLANNING COMMISSION

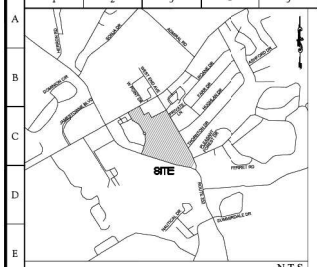
PREPARED BY: Mark Shipley, Community Development Director

SUBJECT: Discussion and public hearing on a site plan for the Farragut Town Center at Biddle Farms, Parcels 3.02, 3.03, 3.10, and a portion of 3.19, Tax Map 143, 11230 Kingston Pike, 11240 Kingston Pike, 133 Concord Road, 37.08 Acres, Zoned PCD and FPD (CHM, LLC, Applicant)

INTRODUCTION AND BACKGROUND: During the past several months the applicant for this agenda item has requested and received map and text amendments that would provide for a mixed-use town center project in the area that includes the old Kroger and land to the south. As part of the rezoning request to Planned Commercial Development (PCD), the applicant was required to provide a master concept plan. The plan that was provided and ultimately approved, includes a Town Center commercial area on the north portion of the property which includes numerous smaller shops and a 20,000 square foot grocery store. This area transitions to a multi-family residential development on the southern portion of the property with a large lawn gathering space between the two and a linear park area with a greenway loop on the eastern portion of the development along the floodplain.

DISCUSSION: The site plan presented at this time includes the initial work needed to complete the overall project. The plan generally follows the layout of the concept plan and includes a plan for the demolition of existing improvements, grading, drainage, utilities, tree protection, lighting, and landscaping. The only building elevation included with this site plan approval set is the 20,000 square foot grocery store since it is the first building to be constructed as part of this project. Subsequent site plan sets that will be presented to the Planning Commission will specifically address other building elevations and site related components associated with those buildings. The plan presented at this time is intended to allow the project to be initiated while some of the details associated with the shops and multi-family portion of the project are finalized. The applicant is also in the process of updating the Flood Insurance Rate Maps for the affected area. Approval of the site plan will need to be subject to FEMA's approval of these updates since the plan ultimately follows the updated maps. The work proposed at this time will be governed by the maps that are currently adopted.

RECOMMENDATION: Included in the packet is the revised site plan and the applicant's response to initial staff comments. Staff will make a recommendation at the meeting based on whether the initial comments have been satisfactorily addressed.



VICINITY MAP N.T.S.

Site Development Plans for Farragut Town Center at Biddle Farms

Owner: Town of Farragut
Kingston Pike, Brooklawn Street, & Concord Road
Civil District No. 6 of Knox County, Tennessee 37934
(865) 966-7057

Kingston Pike, Brooklawn Street, & Concord Road — Knox County, Tennessee

SHEET INDEX				
	#	Sheet Title	Date	Revision #
1	C0.0	Cover Sheet	04/05/2021	▽
2	C2.0	Storm Water Pollution Prevention Plan - Overall	04/05/2021	▽
3	C2.1	Site Demolition Plan - North	04/05/2021	▽
4	C2.2	Site Demolition Plan- South	04/05/2021	▽
5	C2.3	Storm Water Pollution Prevention Plan - Notes	04/05/2021	▽
6	C2.4	Storm Water Pollution Prevention Plan - Stage I- North	04/05/2021	▽
7	C2.5	Storm Water Pollution Prevention Plan - Stage I- South	04/05/2021	▽
8	C2.6	Storm Water Pollution Prevention Plan - Stage II- North	04/05/2021	▽
9	C2.7	Storm Water Pollution Prevention Plan - Stage II- South	04/05/2021	▽
10	C2.8	Storm Water Pollution Prevention Plan - Stage III- North	04/05/2021	▽
11	C2.9	Storm Water Pollution Prevention Plan - Stage III- South	04/05/2021	▽
12	C2.10	Storm Water Pollution Prevention Plan -Details	03/15/2021	
13	C2.11	Storm Water Pollution Prevention Plan -Details	04/05/2021	▽
14	C2.12	Tree Preservation Plan- Overall	04/05/2021	▽
15	C2.13	Tree Preservation Plan- North	04/05/2021	▽
16	C2.14	Tree Preservation Plan- South	04/05/2021	▽
17	C3.0	Site Grading & Drainage Plan- Overall	04/05/2021	▽
18	C3.1	Site Grading & Drainage Plan- North	04/05/2021	▽
19	C3.2	Site Grading & Drainage Plan- South	04/05/2021	▽
20	C4.0	Site Layout Plan- Overall	04/05/2021	▽
21	C4.1	Site Layout Plan- North	04/05/2021	▽
22	C4.2	Site Layout Plan- South	04/05/2021	▽
23	C4.3	Site Signage Plan	04/05/2021	▽
24	C4.4	Site Area Plan	04/05/2021	▽
25	C4.5	Public Areas Plan	04/05/2021	▽
26	C4.6	Proposed Town Center Street Cross Sections	03/15/2021	
27	C5.0	Site Utility Plan- Overall	04/05/2021	▽
28	C5.1	Sanitary Sewer Plan- North	04/05/2021	▽
29	C5.2	Sanitary Sewer Plan- South	04/05/2021	▽
30	C5.3	Water Line Plan- North	04/05/2021	▽
31	C5.4	Water Line Plan- South	04/05/2021	▽
32	C8.0	Site Grading and Drainage Details	03/15/2021	
33	C8.1	Site Grading and Drainage Details	04/05/2021	▽
34	C8.2	Site Bioretention Basin Details	04/05/2021	▽
35	C8.3	Site Layout Details	04/05/2021	▽
36	C8.4	Site Layout Details	03/15/2021	
37	C8.5	Site Layout Details	04/05/2021	▽
38	C8.6	Site Utility Details	04/05/2021	▽
39	C8.7	Site Bridge Details	04/05/2021	▽
40		Site Lighting and Photometric Plan- North	03/15/2021	
41		Site Lighting and Photometric Plan- South	03/15/2021	
42	L1.0	Landscape Plan- Overall	04/05/2021	▽
43	L1.1	Landscape Plan- North	04/05/2021	▽
44	L1.2	Landscape Plan- South	04/05/2021	▽
	CEE-1	Aldi Concept Exterior Elevations	08/04/2021	

Contacts

Water	Sanitary Sewer	Gas	Electric	Telephone	Transportation	Stormwater
Edwin Deyton First Utility District of Knox County 122 Durwood Rd Knoxville, Tennessee 37922 Phone: (865) 966-9741 Email: newdevelopment@fudknox.org	Edwin Deyton First Utility District of Knox County 122 Durwood Rd Knoxville, Tennessee 37922 Phone: (865) 966-9741 Email: newdevelopment@fudknox.org	New Service Department Knoxville Utility Board 445 S. Gay Street Knoxville, Tennessee 37902 Phone: (865) 524-2911	Jay Hines Lenoir City Utilities Board 136 N. Campbel Station Rd. Farragut, Tenressee 37934 Phone: (865) 986-6591 Fax: (865) 986-0605	Tom Nitz TDS Telecom 11505 Kingston Pike Farragut, Tennessee 37934 Phone: (865) 671-2100 Fax: (865) 671-4595	Duane Rainbolt TDOT Region 1 Traffic Office Transportation Mgmt. Center, 2nd Floor 7238 Region Lane Knoxville, TN 37914 Phone: (865) 594-2456	Contact: Darryl Smith Town of Farragut 11408 Municpal Town Center Dr. Farragut, Tennessee 37934 Phone: (865)966-7057 Fax: (865) 966-2096

SITE, INCORPORATED CIVIL ENGINEERS & SURVEYORS EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON REGISTERED ENGINEER AGRICULTURE No. 0010408E STATE OF TENNESSEE

Site Cover Sheet

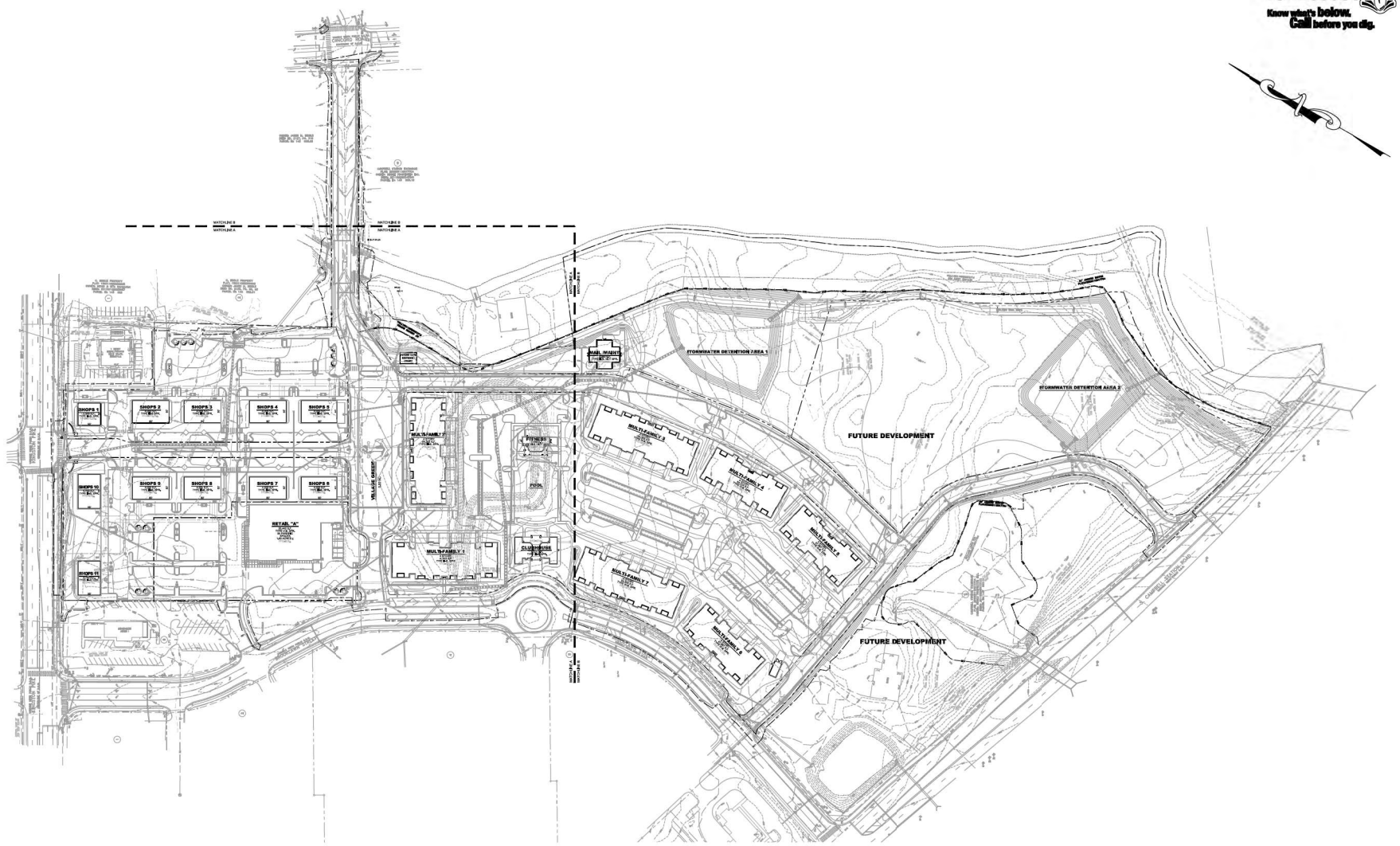
Farragut Town Center at Biddle Farms
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Cover
SHEET: 1 OF: 44

C0.0



Tennessee811
Know what's below.
Call before you dig.

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
& LANDSCAPE ARCHITECT
No. 0010409
STATE OF TENNESSEE
(04/07/2021)

Storm Water Pollution Prevention Plan - Site Map - Overall

Farragut Town Center at Biddle Farms

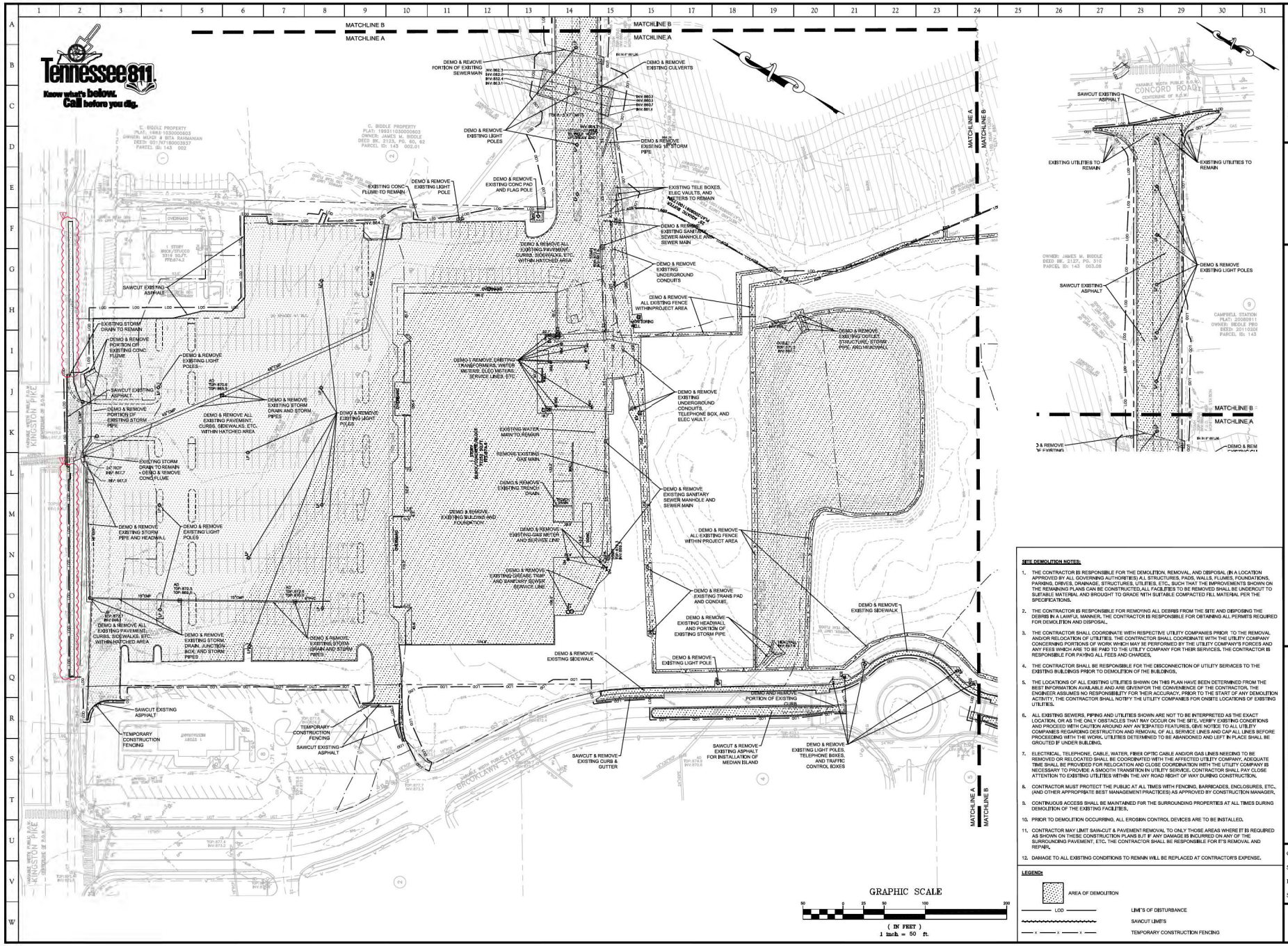
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: SWPPP
SHEET: 2 OF: 44

C2.0



GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

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, PLUMES, 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 CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISCONNECTION OF UTILITY SERVICES TO THE EXISTING BUILDINGS PRIOR TO DEMOLITION OF THE BUILDINGS.
5. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVENFOR 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.
6. 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.
7. 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.
8. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC., (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY CONSTRUCTION MANAGER,
9. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.
10. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
11. CONTRACTOR MAY LIMIT SAWCUT & 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.
12. DAMAGE TO ALL EXISTING CONDITIONS TO REMIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.

LEGEND:

- AREA OF DEMOLITION
- LOD — LIMI'S OF DISTURBANCE
- SAWCUT LIMITS
- x — x — x — TEMPORARY CONSTRUCTION FENCING

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
No. 0010469
STATE OF TENNESSEE
(EXPIRATION)

Site Demolition Plan - North

Farragut Town Center at Biddle Farms

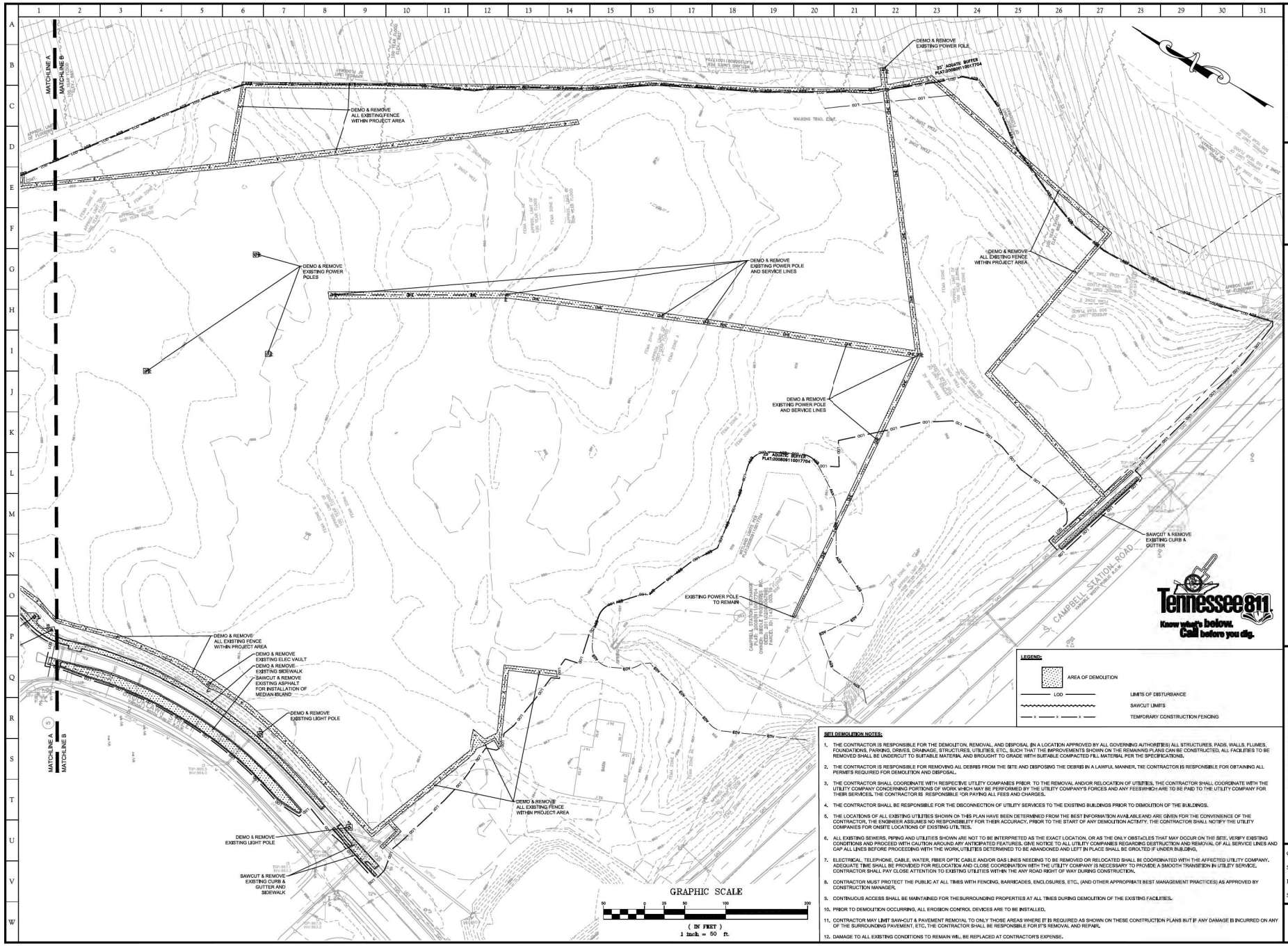
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: SWPPP
SHEET: 3 OF: 44

C2.1



SITE DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITON, 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 CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISCONNECTION OF UTILITY SERVICES TO THE EXISTING BUILDINGS PRIOR TO DEMOLITION OF THE BUILDINGS.
5. 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.
6. 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.
7. 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.
8. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC., (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY CONSTRUCTION MANAGER.
9. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.
10. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
11. 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.
12. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
CIVIL
(SEAL)
STATE OF TENNESSEE

Site Demolition Plan - South

Farragut Town Center at Biddle Farms

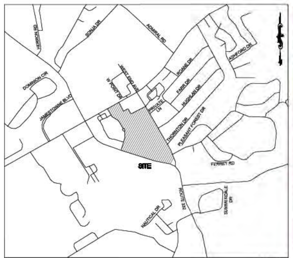
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

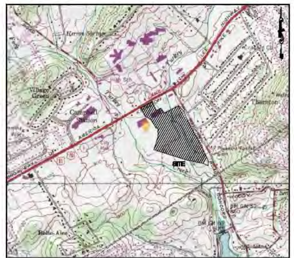
NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: SWPPP
SHEET: 4 OF: 44

C2.2



VICINITY MAP N.T.S.



USGS QUADRANGLE MAP N.T.S.

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

ACREAGE SUMMARY (IN ACRES)		
1	PROPERTY AREA	37.08
2	PERMITTED AREA WITHIN PROPERTY	32.41
3	PERMITTED AREA OUTSIDE OF PROPERTY	2.50
4	TOTAL PERMITTED PROJECT AREA (MUST MATCH NOI)	35.50
5	IMPERVIOUS AREA AT COMPLETION	17.27
6	PERVIOUS AREA AT COMPLETION	19.81

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	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
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 3:1 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 BASINS INCLUDING STOCKPILE AREAS NECESSARY FOR SPOIL FROM THESE REQUIRED STRUCTURAL SEDIMENT CONTROL BMPS.**
2. **CONSTRUCT SEDIMENTS BASINS 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 AT 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. 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 OF TEMPORARY BMPS.
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.

EROSION CONTROL NARRATIVE FOR FARRAGUT TOWN CENTER AT BIDDLE FARMS:

THE SITE IS LOCATED AT THE SOUTHEAST QUADRANT OF THE INTERSECTION OF KINGSTON PIKE AND BROOKLAWN STREET AT 11238 KINGSTON PIKE IN KNOX COUNTY, FARRAGUT, TN. THE SITE IS LOCATED AT 35.8789° NORTH LATITUDE AND 84.1552° WEST LONGITUDE. THE SITE IS BOUNDED TO THE NORTH BY KINGSTON PIKE, TO THE EAST BY CONCORD ROAD, TO THE SOUTH BY SOUTH CAMPBELL STATION ROAD, AND TO THE WEST BY BROOKLAWN STREET. THERE IS EXISTING RESIDENTIAL ON THE OPPOSITE SIDE OF CONCORD ROAD TO THE EAST AND SOUTH CAMPBELL STATION ROAD TO THE SOUTH, AND EXISTING COMMERCIAL ON THE OPPOSITE SIDE OF BROOKLAWN STREET TO THE WEST AND KINGSTON PIKE TO THE NORTH. THE GOAL OF THE CONSTRUCTION ACTIVITIES IS TO DEMOLISH AN EXISTING SHOPPING CENTER AND ALL IMPERVIOUS SURFACES AND TO CONSTRUCT A TOTAL OF 62,442 SF OF RETAIL WITH 7 MULTI-FAMILY RESIDENTIAL BUILDINGS. THIS WILL INCLUDE THE REDESIGN AND IMPROVEMENT OF EXISTING STORMWATER INFRASTRUCTURE, INSTALLATION OF UTILITY/STORMWATER SYSTEMS, ASSOCIATED DRIVEWAYS, PARKING, GRADING, AND RECONSTRUCTION OF THE ROAD THAT CONNECTS THE DEVELOPMENT TO CONCORD ROAD TO THE EAST. THE PROJECT SITE IS A TOTAL OF 37.08 ACRES WITH A TOTAL OF 35.5 ACRES ARE TO BE DISTURBED. THE EXISTING PROPERTY IS GENERALLY GENTLY SLOPING AND GRASSY WITH CLUSTERS OF TREES THROUGHOUT THE PERVIOUS PORTION OF THE SITE. THERE IS AN EXISTING RETENTION POND IN THE CENTER OF THE SITE THAT WILL BE RELOCATED AN EXPANDED AS A PART OF THE CONSTRUCTION. THE SLOPES WITHIN THE PAVED SHOPPING CENTER ARE GENTLE AND THE SITE GENERALLY FLOWS TO THE EAST AND SOUTH TO TURKEY CREEK. THE ELEVATIONS ON SITE RANGE FROM 860 - 875 FEET. THE SITE DISCHARGES TO TURKEY CREEK THAT RUNS THROUGH THE SITE TO THE EAST OF THE AREA TO BE DISTURBED.

TURKEY CREEK IS ON THE 2018 303D LIST FOR E. COLI AND SEDIMENTATION/SILTATION. CONSTRUCTION IS SUBJECT TO THE ADDITIONAL REQUIREMENTS OF THE TN GENERAL PERMIT SECTION 5.4 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.

DEVELOPER/OWNER:

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

SITE, INCORPORATED — CIVIL ENGINEERS & SURVEYORS — EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON — REGISTERED ENGINEER — STATE OF TENNESSEE — No. 00104080 — 04/05/2021

Storm Water Pollution Prevention Plan - Notes

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT#: 1994
FILE: SWPPP
SHEET: 5 OF: 44

C2.3

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 S 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.

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.

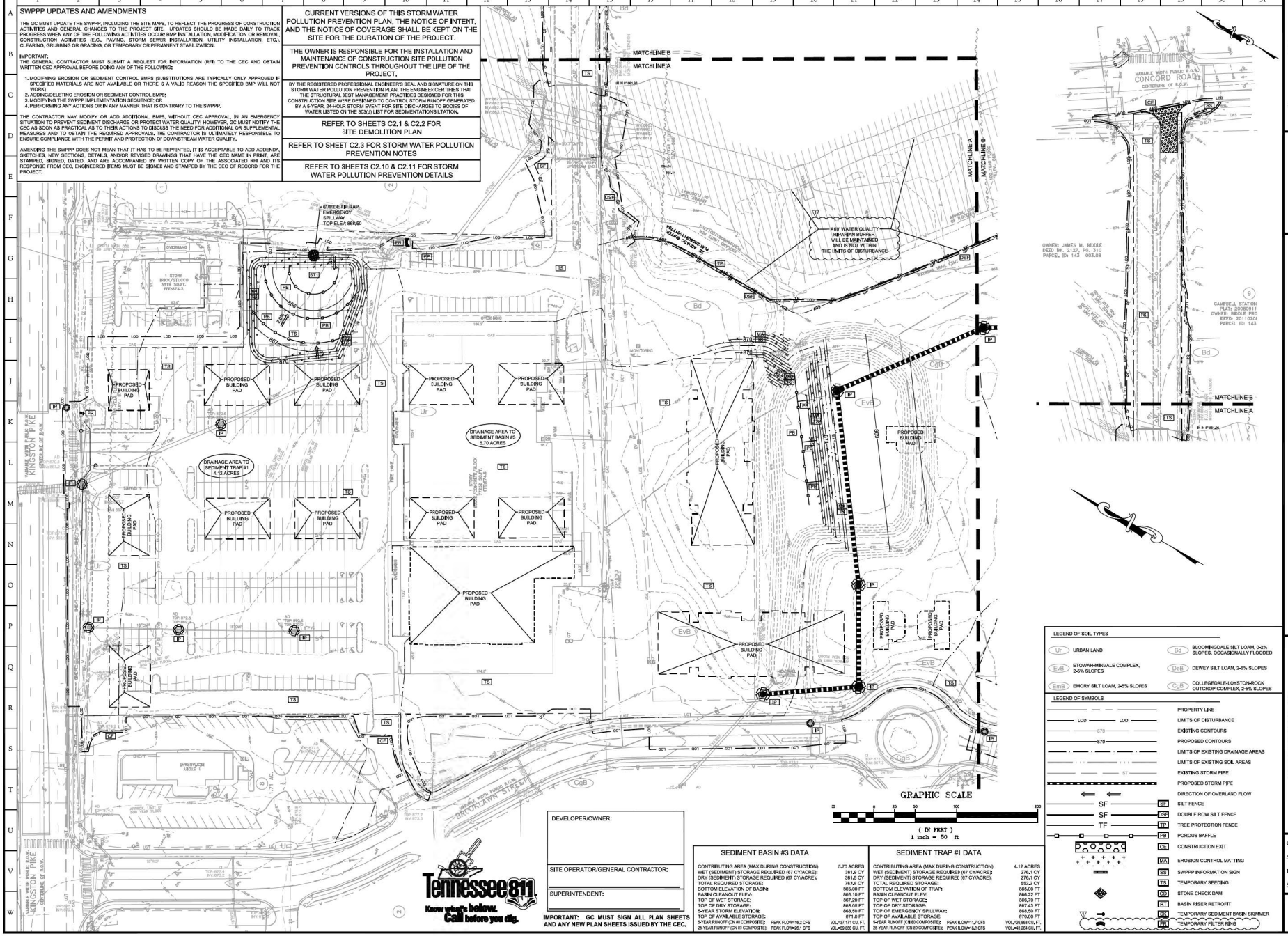
THE OWNER IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF CONSTRUCTION SITE POLLUTION PREVENTION CONTROLS THROUGHOUT THE LIFE OF THE PROJECT.

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 SEDIMENT/SILTATION.

REFER TO SHEETS C2.1 & C2.2 FOR SITE DEMOLITION PLAN

REFER TO SHEET C2.3 FOR STORM WATER POLLUTION PREVENTION NOTES

REFER TO SHEETS C2.10 & C2.11 FOR STORM WATER POLLUTION PREVENTION DETAILS



DEVELOPER/OWNER:

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

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

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

SEDIMENT BASIN #3 DATA

CONTRIBUTING AREA (MAX DURING CONSTRUCTION)		5.70 ACRES
WET (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		381.9 CY
DRY (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		381.9 CY
TOTAL REQUIRED STORAGE:		763.8 CY
BOTTOM ELEVATION OF BASIN:		865.00 FT
BASIN CLEANOUT ELEV:		866.10 FT
TOP OF WET STORAGE:		867.20 FT
TOP OF DRY STORAGE:		868.05 FT
5-YEAR STORM ELEVATION:		868.50 FT
TOP OF AVAILABLE STORAGE:		871.0 FT
5-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=16.2 CFS	VOL=57,171 CU. FT.
25-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=28.1 CFS	VOL=69,856 CU. FT.

SEDIMENT TRAP #1 DATA

CONTRIBUTING AREA (MAX DURING CONSTRUCTION)		4.12 ACRES
WET (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		276.1 CY
DRY (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		276.1 CY
TOTAL REQUIRED STORAGE:		552.2 CY
BOTTOM ELEVATION OF TRAP:		865.00 FT
BASIN CLEANOUT ELEV:		866.22 FT
TOP OF WET STORAGE:		866.70 FT
TOP OF DRY STORAGE:		867.43 FT
TOP OF EMERGENCY SPILLWAY:		868.50 FT
TOP OF AVAILABLE STORAGE:		870.00 FT
5-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=11.7 CFS	VOL=40,668 CU. FT.
25-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=18.8 CFS	VOL=43,264 CU. FT.

LEGEND OF SOIL TYPES

Ur	URBAN LAND	Bd	BLOOMINGDALE SILT LOAM, 0-2% SLOPES, OCCASIONALLY FLOODED
EvB	ETOWAH-MINVALE COMPLEX, 2-6% SLOPES	DeB	DEWEY SILT LOAM, 2-6% SLOPES
EmB	EMORY SILT LOAM, 2-5% SLOPES	CgB	COLLEGEDALE-LOYSTON-ROCK OUTCROP COMPLEX, 2-5% SLOPES

LEGEND OF SYMBOLS

	PROPERTY LINE
LOD LOD	LIMITS OF DISTURBANCE
870	EXISTING CONTOURS
870	PROPOSED CONTOURS
	LIMITS OF EXISTING DRAINAGE AREAS
	LIMITS OF EXISTING SOIL AREAS
ST	EXISTING STORM PIPE
	PROPOSED STORM PIPE
	DIRECTION OF OVERLAND FLOW
SF	SILT FENCE
SF	DOUBLE ROW SILT FENCE
TF	TREE PROTECTION FENCE
	POROUS BAFFLE
	CONSTRUCTION EXIT
	EROSION CONTROL MATTING
	SWPPP INFORMATION SIGN
	TEMPORARY SEEDING
	STONE CHECK DAM
	BASIN RISER RETROFIT
	TEMPORARY SEDIMENT BASIN SKIMMER
	TEMPORARY FILTER RING

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
STATE OF TENNESSEE
No. 0010480
(Expires 6/30/2021)

Storm Water Pollution Prevention Plan - Stage I - North

Farragut Town Center at Biddle Farms

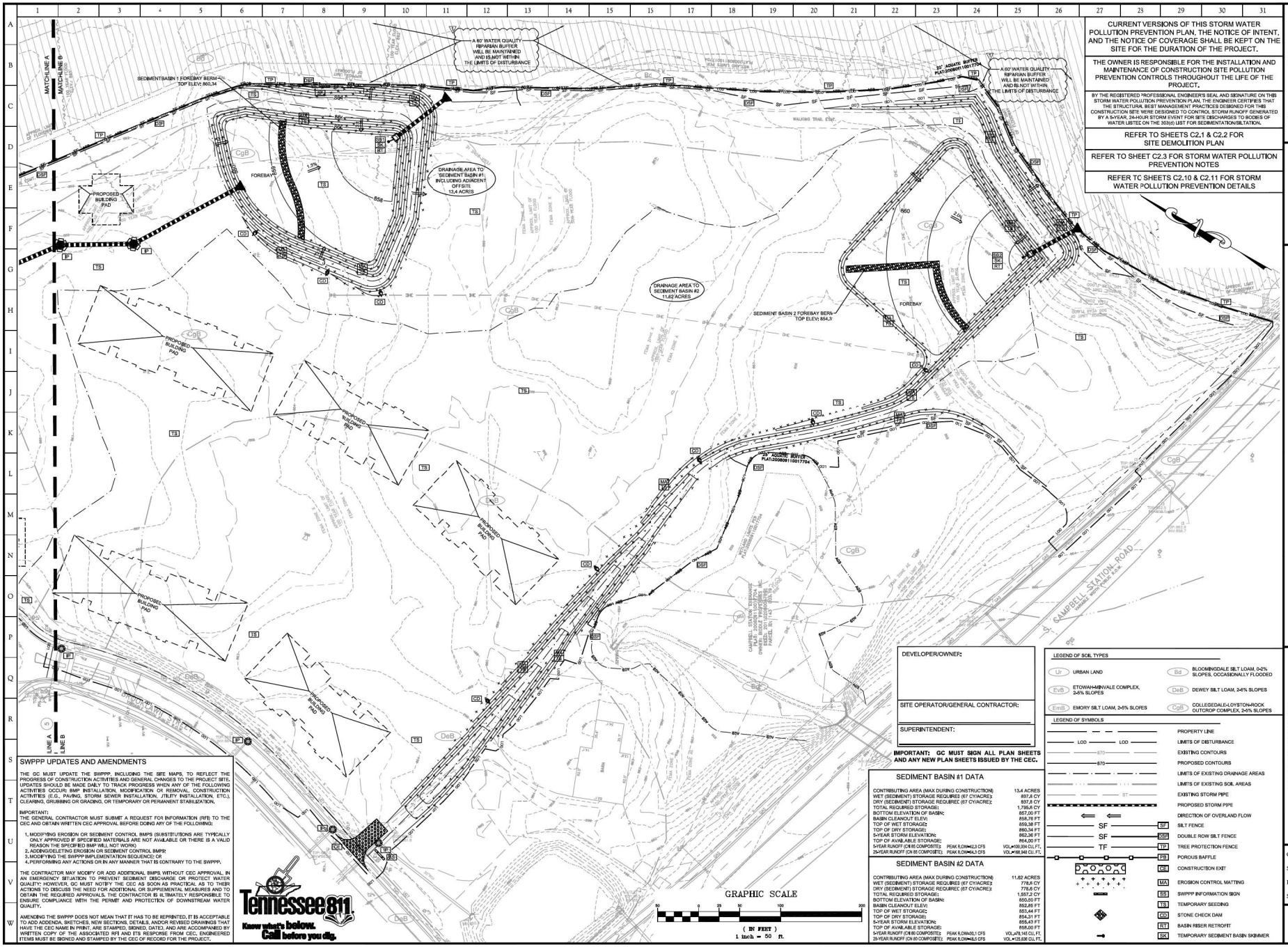
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: SWPPP
SHEET: 6 OF: 44

C2.4



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 SHEETS C2.1 & C2.2 FOR SITE DEMOLITION PLAN

REFER TO SHEET C2.3 FOR STORM WATER POLLUTION PREVENTION NOTES

REFER TC SHEETS C2.10 & C2.11 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.

Tennessee811
Know what's below.
Call before you dig.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

DEVELOPER/OWNER:

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

SEDIMENT BASIN #1 DATA

CONTRIBUTING AREA (MAX DURING CONSTRUCTION):		13.4 ACRES
WET (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		897.8 CY
DRY (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		897.8 CY
TOTAL REQUIRED STORAGE:		1,795.6 CY
BOTTOM ELEVATION OF BASIN:		857.00 FT
BASIN CLEANOUT ELEV:		858.76 FT
TOP OF WET STORAGE:		859.38 FT
TOP OF DRY STORAGE:		860.34 FT
5-YEAR STORM ELEVATION:		862.36 FT
TOP OF AVAILABLE STORAGE:		864.00 FT
5-YEAR RUNOFF (CN 85 COMPOSITE):	PEAK FLOW=22.3 CFS	VOL.=109,394 CU. FT.
25-YEAR RUNOFF (CN 85 COMPOSITE):	PEAK FLOW=43.3 CFS	VOL.=168,946 CU. FT.

SEDIMENT BASIN #2 DATA

CONTRIBUTING AREA (MAX DURING CONSTRUCTION):		11.62 ACRES
WET (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		778.8 CY
DRY (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		778.8 CY
TOTAL REQUIRED STORAGE:		1,557.2 CY
BOTTOM ELEVATION OF BASIN:		850.50 FT
BASIN CLEANOUT ELEV:		852.85 FT
TOP OF WET STORAGE:		853.44 FT
TOP OF DRY STORAGE:		854.31 FT
5-YEAR STORM ELEVATION:		855.43 FT
TOP OF AVAILABLE STORAGE:		856.00 FT
5-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=30.1 CFS	VOL.=79,145 CU. FT.
25-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=58.5 CFS	VOL.=125,826 CU. FT.

LEGEND OF SOIL TYPES

Ur URBAN LAND	Bd BLOOMINGDALE SILT LOAM, 0-2% SLOPES, OCCASIONALLY FLOODED
EvB ETOWAH-MINVALE COMPLEX, 2-6% SLOPES	DeB DEWEY SILT LOAM, 2-6% SLOPES
EmB EMORY SILT LOAM, 2-5% SLOPES	CgB COLLEGEDALE-LOYSTON-ROCK OUTCROP COMPLEX, 2-5% SLOPES

LEGEND OF SYMBOLS

	PROPERTY LINE
LOD LOD	LIMITS OF DISTURBANCE
870	EXISTING CONTOURS
870	PROPOSED CONTOURS
	LIMITS OF EXISTING DRAINAGE AREAS
	LIMITS OF EXISTING SOIL AREAS
ST	EXISTING STORM PIPE
	PROPOSED STORM PIPE
	DIRECTION OF OVERLAND FLOW
SF	SILT FENCE
SF DSF	DOUBLE ROW SILT FENCE
TF TP	TREE PROTECTION FENCE
PB	POROUS BAFFLE
CE	CONSTRUCTION EXIT
MA	EROSION CONTROL MATTING
SS	SWPPP INFORMATION SIGN
TS	TEMPORARY SEEDING
CD	STONE CHECK DAM
RT	BASIN RISER RETROFIT
SK	TEMPORARY SEDIMENT BASIN SKIMMER

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
CERTIFICATE NO. 0010460
STATE OF TENNESSEE
(CA 07/2021)

Farragut Town Center at Biddle Farms

Storm Water Pollution Prevention Plan - Stage I - South

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT#: 1994
FILE: SWPPP
SHEET: 7 OF: 44

C2.5

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 S 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.

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 SHEETS C2.1 & C2.2 FOR SITE DEMOLITION PLAN

REFER TO SHEET C2.3 FOR STORM WATER POLLUTION PREVENTION NOTES

REFER TO SHEETS C2.10 & C2.11 FOR STORM WATER POLLUTION PREVENTION DETAILS

MATCHLINE B
MATCHLINE A

60' WATER QUALITY RIPARIAN BUFFER WILL BE MAINTAINED AND IS NOT WITHIN THE LIMITS OF DISTURBANCE

PROPOSED BUILDING PAD

KINGSTON PIKE
BROOKLAWN STREET
CONCORD ROAD

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

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

DEVELOPER/OWNER:

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

LEGEND OF SYMBOLS

- PROPERTY LINE
- LOD — LIMITS OF DISTURBANCE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- LIMITS OF DRAINAGE AREAS
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- DIRECTION OF OVERLAND FLOW
- SF — SILT FENCE
- SF — DSF — DOUBLE ROW SILT FENCE
- TF — TP — TREE PROTECTION FENCE
- PB — POROUS BAFFLE
- CE — CONSTRUCTION EXIT
- MA — EROSION CONTROL MATTING
- SS — SWPPP INFORMATION SIGN
- TS — TEMPORARY SEEDING
- CD — STONE CHECK DAM
- RT — BASIN RISER RETROFIT
- SK — TEMPORARY SEDIMENT BASIN SKIMMER
- FR — TEMPORARY FILTER RING

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
STATE OF TENNESSEE
No. 0010480
(CA 07/01/21)

Storm Water Pollution Prevention Plan - Stage II - North

Farragut Town Center at Biddle Farms

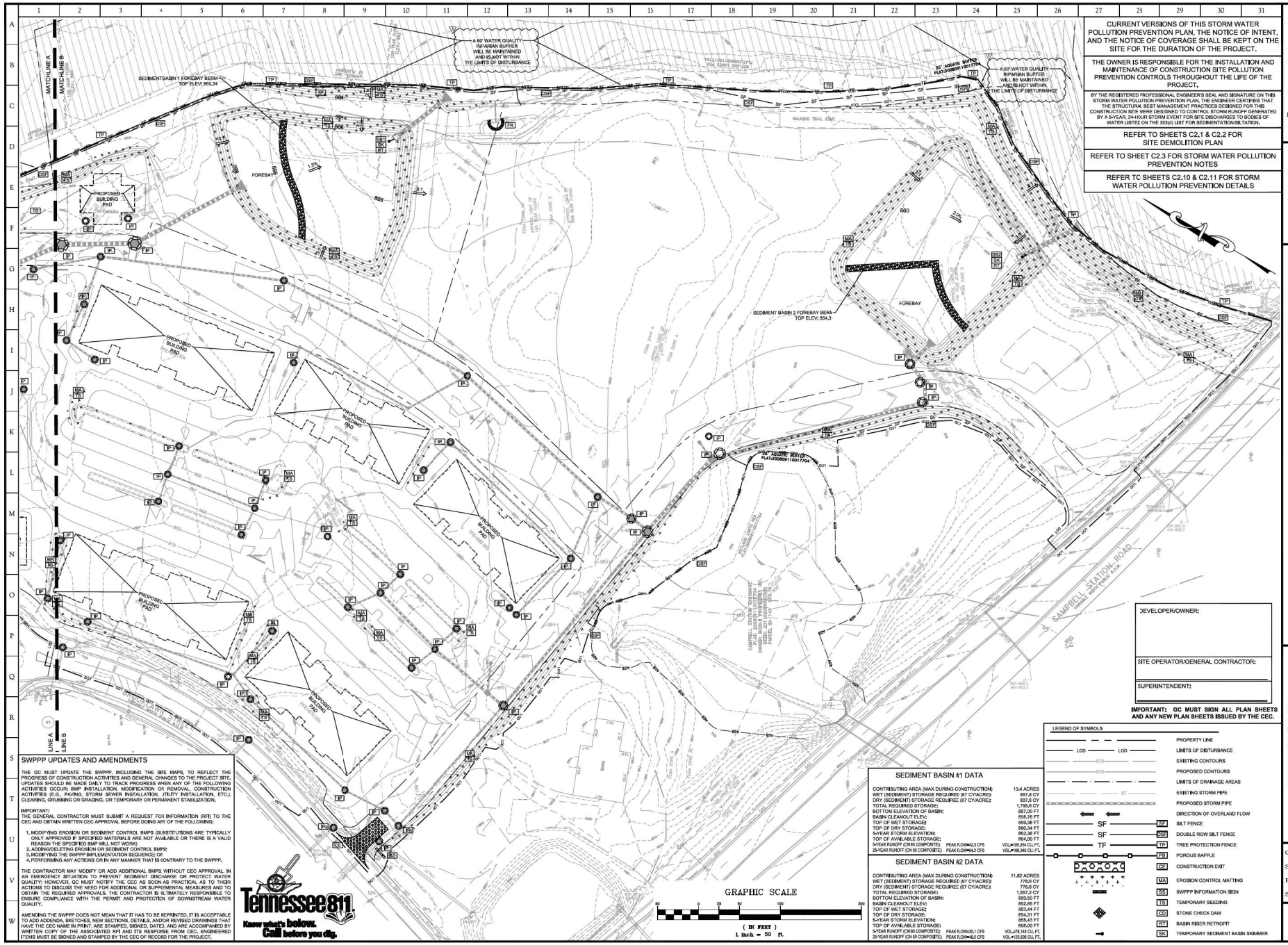
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: SWPPP
SHEET: 8 OF: 44

C2.6



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 SHEETS C2.1 & C2.2 FOR SITE DEMOLITION PLAN

REFER TO SHEET C2.3 FOR STORM WATER POLLUTION PREVENTION NOTES

REFER TC SHEETS C2.10 & C2.11 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.

Tennessee811
Know what's below.
Call before you dig.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

SEDIMENT BASIN #1 DATA

CONTRIBUTING AREA (MAX DURING CONSTRUCTION):		13.4 ACRES
WET (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		897.8 CY
DRY (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		897.8 CY
TOTAL REQUIRED STORAGE:		1,795.6 CY
BOTTOM ELEVATION OF BASIN:		857.00 FT
BASIN CLEANOUT ELEV:		858.76 FT
TOP OF WET STORAGE:		859.38 FT
TOP OF DRY STORAGE:		860.34 FT
5-YEAR STORM ELEVATION:		862.36 FT
TOP OF AVAILABLE STORAGE:		864.00 FT
5-YEAR RUNOFF (CN 85 COMPOSITE):	PEAK FLOW=22.3 CFS	VOL.=109,394 CU.FT.
25-YEAR RUNOFF (CN 85 COMPOSITE):	PEAK FLOW=43.3 CFS	VOL.=168,946 CU. FT.

SEDIMENT BASIN #2 DATA

CONTRIBUTING AREA (MAX DURING CONSTRUCTION)		11.62 ACRES
WET (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		778.8 CY
DRY (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		778.8 CY
TOTAL REQUIRED STORAGE:		1,557.2 CY
BOTTOM ELEVATION OF BASIN:		850.50 FT
BASIN CLEANOUT ELEV:		852.85 FT
TOP OF WET STORAGE:		853.44 FT
TOP OF DRY STORAGE:		854.31 FT
5-YEAR STORM ELEVATION:		855.43 FT
TOP OF AVAILABLE STORAGE:		856.00 FT
5-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=30.1 CFS	VOL.=79,145 CU. FT.
25-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=58.5 CFS	VOL.=125,836 CU. FT.

LEGEND OF SYMBOLS

	PROPERTY LINE
LOD LOD	LIMITS OF DISTURBANCE
870	EXISTING CONTOURS
870	PROPOSED CONTOURS
	LIMITS OF DRAINAGE AREAS
ST	EXISTING STORM PIPE
	PROPOSED STORM PIPE
	DIRECTION OF OVERLAND FLOW
SF	SILT FENCE
SF DSF	DOUBLE ROW SILT FENCE
TF	TREE PROTECTION FENCE
PB	POROUS BAFFLE
CE	CONSTRUCTION EXIT
MA	EROSION CONTROL MATTING
SS	SWPPP INFORMATION SIGN
TS	TEMPORARY SEEDING
CD	STONE CHECK DAM
RT	BASIN RISER RETROFIT
SK	TEMPORARY SEDIMENT BASIN SKIMMER

DEVELOPER/OWNER:

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
CERTIFICATE NO. 120701
STATE OF TENNESSEE

Storm Water Pollution Prevention Plan - Stage II - South

Farragut Town Center at Biddle Farms

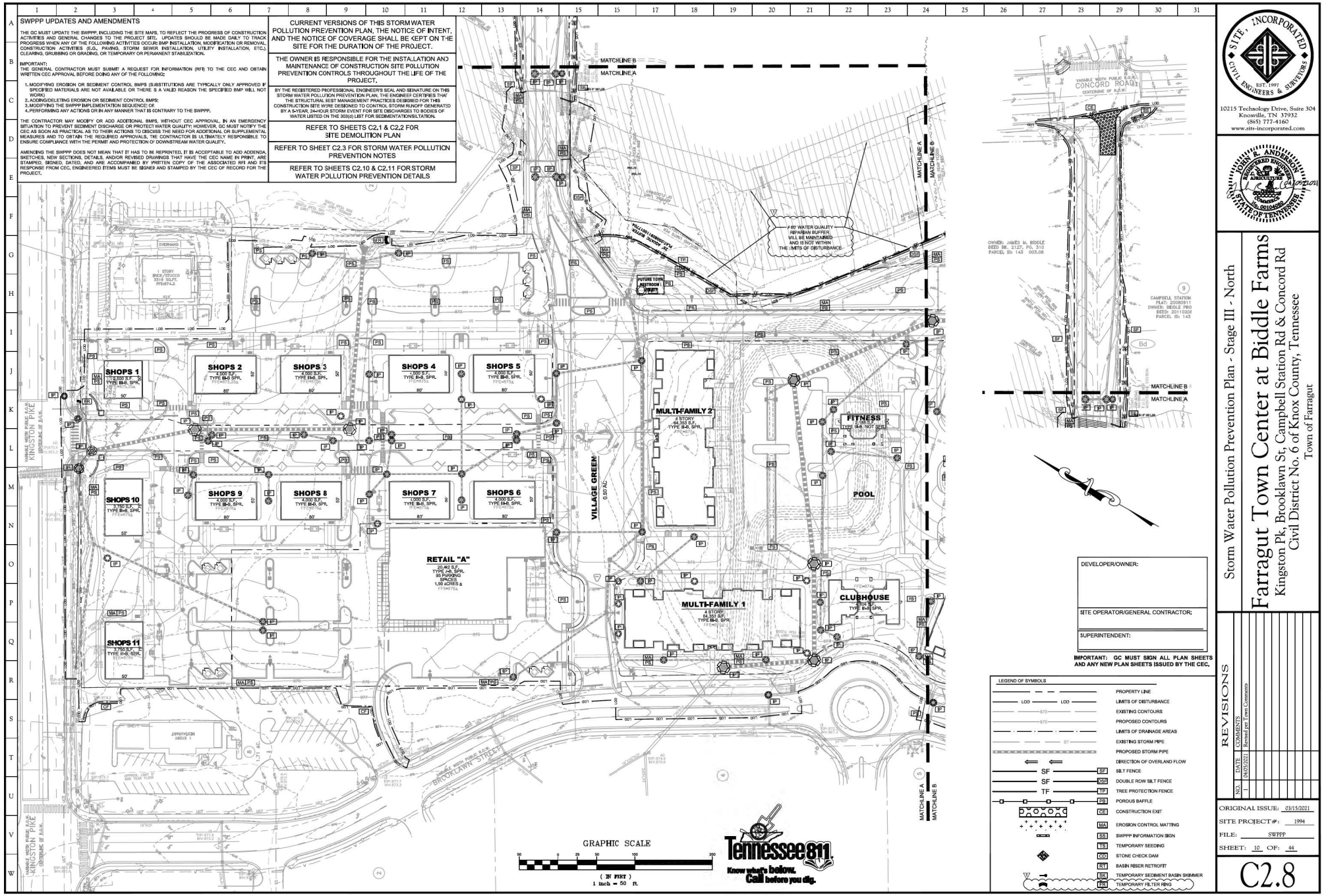
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: SWPPP
SHEET: 9 OF: 44

C2.7



SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
PE 120101
AGENCY
No. 0010480
STATE OF TENNESSEE

Storm Water Pollution Prevention Plan - Stage III - North

Farragut Town Center at Biddle Farms

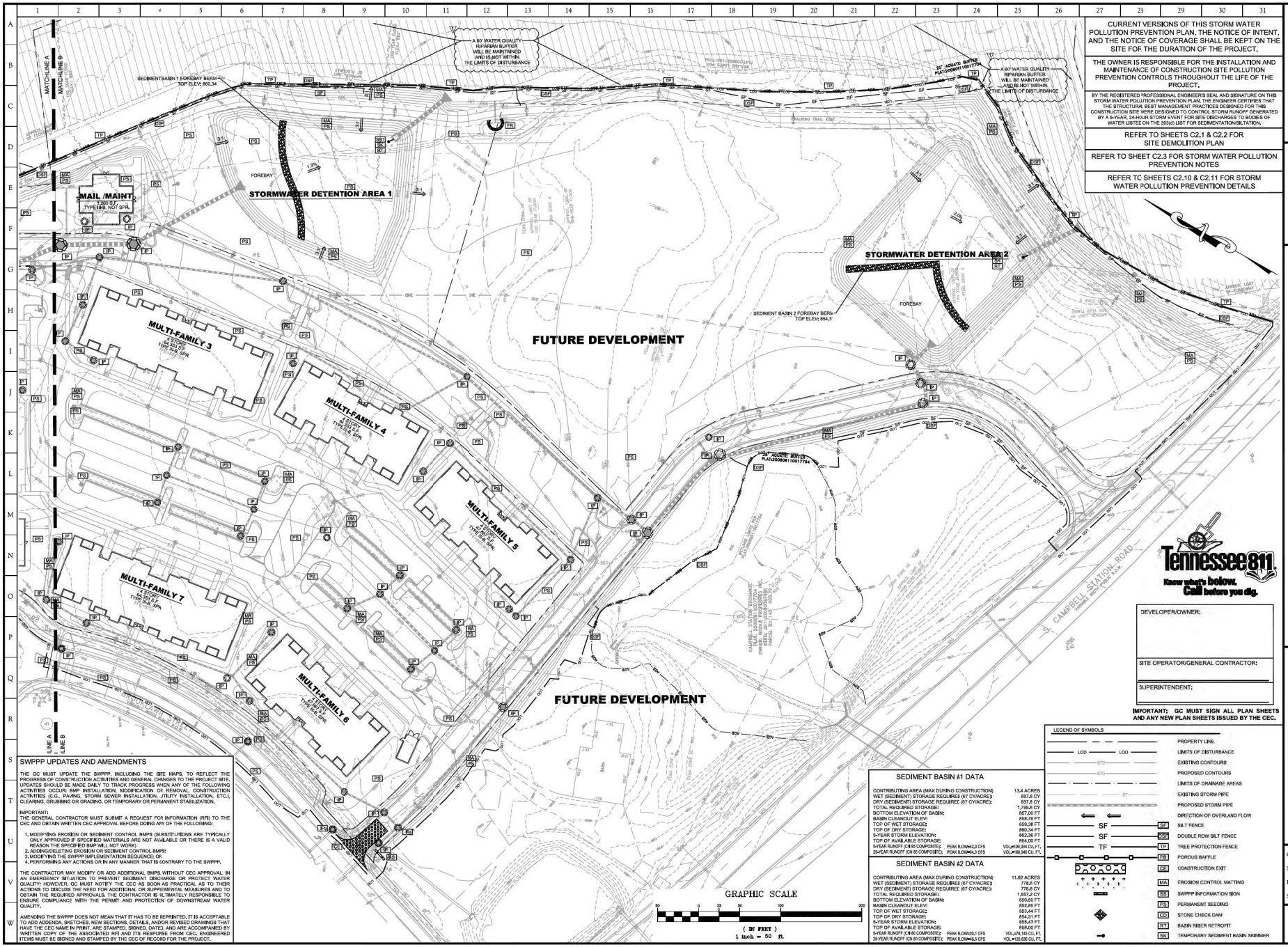
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: SWPPP
SHEET: 10 OF: 44

C2.8



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 SHEETS C2.1 & C2.2 FOR SITE DEMOLITION PLAN

REFER TO SHEET C2.3 FOR STORM WATER POLLUTION PREVENTION NOTES

REFER TC SHEETS C2.10 & C2.11 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 THESE 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.

SEDIMENT BASIN #1 DATA

CONTRIBUTING AREA (MAX DURING CONSTRUCTION):		13.4 ACRES
WET (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		897.8 CY
DRY (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		897.8 CY
TOTAL REQUIRED STORAGE:		1,795.6 CY
BOTTOM ELEVATION OF BASIN:		857.00 FT
BASIN CLEANOUT ELEV:		858.76 FT
TOP OF WET STORAGE:		859.38 FT
TOP OF DRY STORAGE:		860.34 FT
5-YEAR STORM ELEVATION:		862.36 FT
TOP OF AVAILABLE STORAGE:		864.00 FT
5-YEAR RUNOFF (CN 85 COMPOSITE):	PEAK FLOW=42.3 CFS	VOL.=109,394 CU. FT.
25-YEAR RUNOFF (CN 85 COMPOSITE):	PEAK FLOW=64.3 CFS	VOL.=168,946 CU. FT.

SEDIMENT BASIN #2 DATA

CONTRIBUTING AREA (MAX DURING CONSTRUCTION):		11.62 ACRES
WET (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		778.8 CY
DRY (SEDIMENT) STORAGE REQUIRED (67 CY/ACRE):		778.8 CY
TOTAL REQUIRED STORAGE:		1,557.2 CY
BOTTOM ELEVATION OF BASIN:		850.50 FT
BASIN CLEANOUT ELEV:		852.85 FT
TOP OF WET STORAGE:		853.44 FT
TOP OF DRY STORAGE:		854.31 FT
5-YEAR STORM ELEVATION:		855.43 FT
TOP OF AVAILABLE STORAGE:		856.00 FT
5-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=30.1 CFS	VOL.=79,145 CU. FT.
25-YEAR RUNOFF (CN 80 COMPOSITE):	PEAK FLOW=46.5 CFS	VOL.=125,826 CU. FT.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

LEGEND OF SYMBOLS

	PROPERTY LINE
LOD LOD	LIMITS OF DISTURBANCE
870	EXISTING CONTOURS
870	PROPOSED CONTOURS
	LIMITS OF DRAINAGE AREAS
ST	EXISTING STORM PIPE
	PROPOSED STORM PIPE
	DIRECTION OF OVERLAND FLOW
SF	SILT FENCE
SF	DOUBLE ROW SILT FENCE
TF	TREE PROTECTION FENCE
PB	POROUS BAFFLE
CE	CONSTRUCTION EXIT
MA	EROSION CONTROL MATTING
SS	SWPPP INFORMATION SIGN
PS	PERMANENT SEEDING
CD	STONE CHECK DAM
RT	BASIN RISER RETROFIT
SK	TEMPORARY SEDIMENT BASIN SKIMMER

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

DEVELOPER/OWNER:

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
STATE OF TENNESSEE
No. 0010469
(CA 07/01/2021)

Storm Water Pollution Prevention Plan - Stage III - South

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

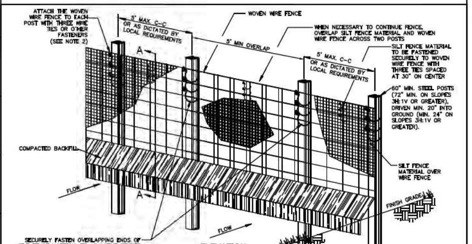
REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

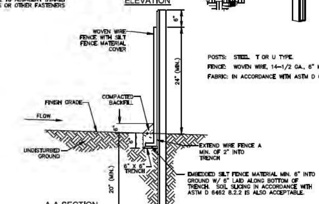
ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: SWPPP
SHEET: 11 OF: 44

C2.9

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



ELEVATION

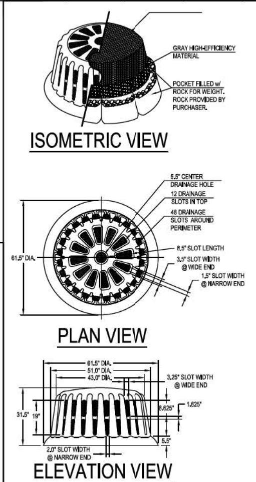


POSTS: STEEL T OR U TYPE.
FENCE: WOVEN WIRE, 14-1/2 GA., 6" MAX. MESH OPENING
FABRIC: IN ACCORDANCE WITH ASTM D 6461 LATEST EDITION.

A-A-SECTION

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.

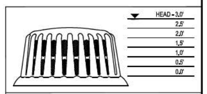


FILTER HAT SHALL BE HIGH-FLOW MATERIAL ON TOP HALF OF HAT, HIGH-EFFICIENCY MATERIAL ON BOTTOM HALF

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.



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

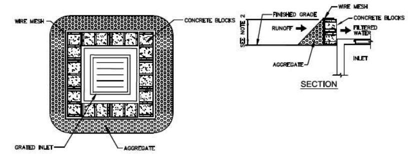
NOTES:

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.
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.

DOMED INLET PROTECTION (PREFABRICATED) [IP]
N.T.S.



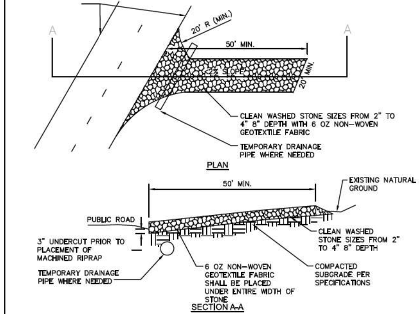
NOTES:

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.



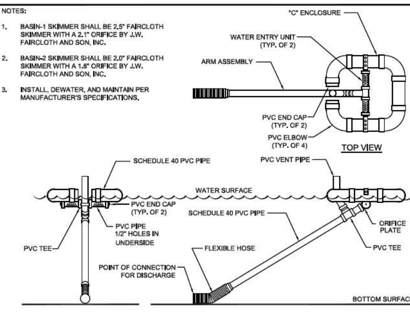
1. ALL SITE ACCESS MUST BE CONFINED TO THE CONSTRUCTION EXIT(S). BARRICADE TO PREVENT USE OF ANY LOCATIONS OTHER THAN THE CONSTRUCTION EXIT(S) WHERE VEHICLES OR EQUIPMENT MAY ACCESS THE SITE.
2. CONTRACTOR TO LOCATE TEMPORARY CONSTRUCTION FENCING, JERSEY BARRIERS, OR BOTH ALONG THE SIDES OF THE CONSTRUCTION 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.

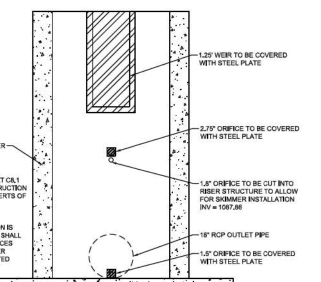
CONSTRUCTION EXIT [CE]
N.T.S.

NOTES:

1. BASIN-1 SKIMMER SHALL BE 2.5" FAIRCLOTH SKIMMER WITH A 2.1" ORIFICE BY J.W. FAIRCLOTH AND SON, INC.
2. BASIN-2 SKIMMER SHALL BE 2.0" FAIRCLOTH SKIMMER WITH A 1.8" ORIFICE BY J.W. FAIRCLOTH AND SON, INC.
3. INSTALL, DEWATER, AND MAINTAIN PER MANUFACTURER'S SPECIFICATIONS.



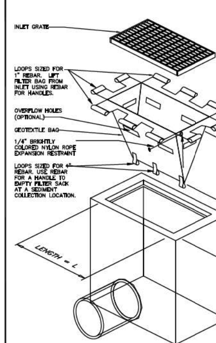
SKIMMER (SEDIMENT BASIN) [SK]
N.T.S.



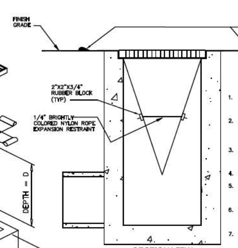
REFERENCE DETAIL SHEET C8.1 FOR BASIN RISER CONSTRUCTION DETAILS AND SIZES & INVERTS OF DETENTION BASIN ORIFICES/WEIRS

ONCE FINAL STABILIZATION IS ACHIEVED STEEL PLATES SHALL BE REMOVED FROM ORIFICES AND TEMPORARY SKIMMER ORIFICE SHALL BE GROUTED SHUT

SEDIMENT BASIN 2 RISER STRUCTURE TEMPORARY RETROFITTING [RT]
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.

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE

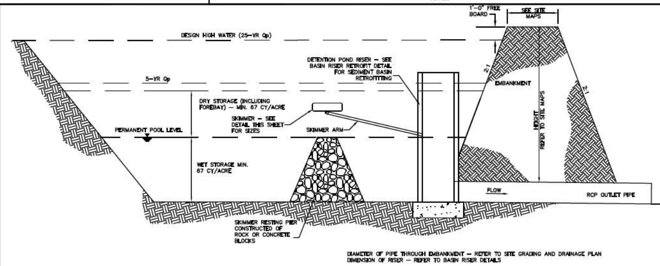
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM 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

DO NOT USE IN PAVED AREAS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

FILTER SACKS (GRATED INLETS) [IP]
N.T.S.



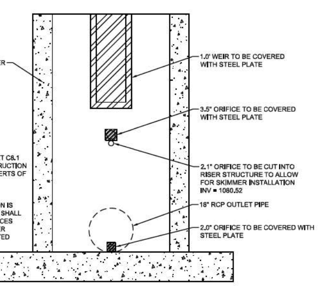
NOTES:

1. DIMENSIONS - REFER TO SITE MAPS FOR LIMITS OF EXCAVATION AND BERMS.
2. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.
3. FILL MATERIAL AROUND PIPE SHALL BE COMPACTED IN 4 INCH LIFTS. A MINIMUM OF 2 FEET OF COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE BEFORE CROSSING IT WITH CONSTRUCTION TRAFFIC.
4. SIDE SLOPES SHALL BE 2:1 OR FLATTER AND MUST BE STABILIZED IMMEDIATELY AS SURFACES ARE BROUGHT TO FINAL GRADE OR PER TEMPORARY STABILIZATION STANDARDS.
5. WATER MUST ONLY BE REMOVED FROM THE SURFACE OF THE CONTAINED WATER. A SKIMMER OR SIMILAR FLOATING DEVICE MUST BE USED, TO ONLY REMOVE WATER FROM THE SURFACE.

MAINTENANCE NOTES:

1. SEDIMENT BASINS MUST BE INSPECTED AND MUST BE CLEANED WHEN THE ORIGINAL CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR LESS, AS REQUIRED BY GOVERNING AGENCY.
2. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS OR FROM BASINS SHALL BE INCORPORATED INTO ON-SITE SOILS OR SPREAD OUT ON AN UPLAND PORTION OF THE SITE AND STABILIZED.
3. VERIFY THAT NO EROSION IS OCCURRING AT DISCHARGE POINTS TO AND FROM IMPOUNDMENTS AND VERIFY THAT BASIN SIDE SLOPES ARE STABILIZED AND SHOW NO SIGNS OF EROSION.
4. OUTLET STRUCTURES IN SEDIMENT BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES.

TEMPORARY SEDIMENT BASIN [SB]
N.T.S.



REFERENCE DETAIL SHEET C8.1 FOR BASIN RISER CONSTRUCTION DETAILS AND SIZES & INVERTS OF DETENTION BASIN ORIFICES/WEIRS

ONCE FINAL STABILIZATION IS ACHIEVED STEEL PLATES SHALL BE REMOVED FROM ORIFICES AND TEMPORARY SKIMMER ORIFICE SHALL BE GROUTED SHUT

SEDIMENT BASIN 1 RISER STRUCTURE TEMPORARY RETROFITTING [RT]
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

JOHN R. ANDERSON
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 00104080
STATE OF TENNESSEE
03/15/2021

Storm Water Pollution Prevention Plan - Details

Farragut Town Center at Biddle Farms

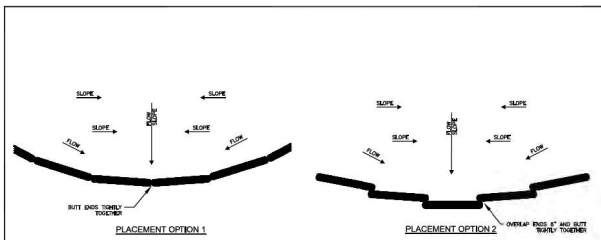
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS

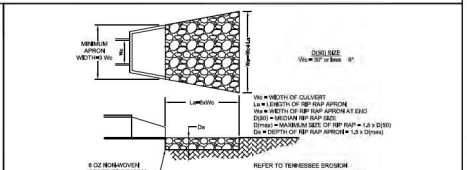
ORIGINAL ISSUE: 03/15/2021
SITE PROJECT#: 1994
FILE: SWPPP
SHEET: 12 OF: 44

C2.10

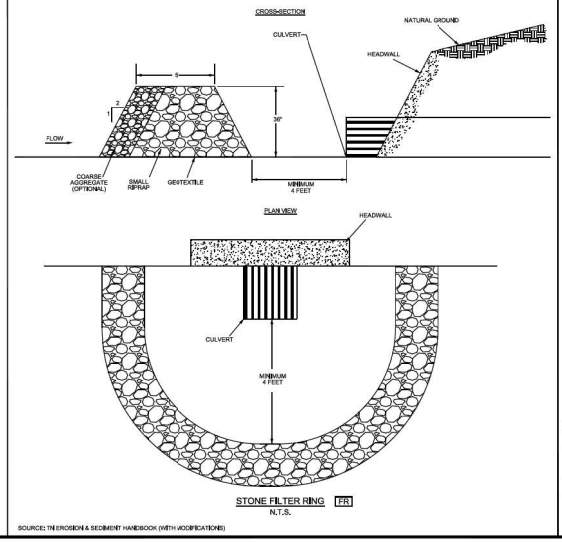


EROSION EEL PERIMETER CONTROL EE
N.T.S.

SOURCE: FRIENDLY ENVIRONMENT

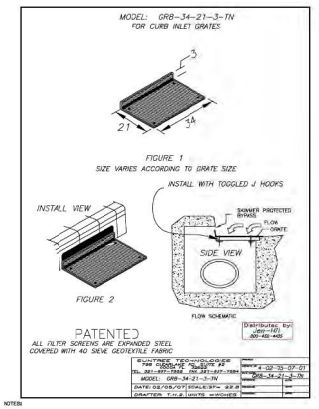


RIP RAP OUTLET PROTECTION DETAIL OP
N.T.S.



STONE FILTER RING FR
N.T.S.

SOURCE: TN EROSION & SEDIMENT HANDBOOK (WITH MODIFICATIONS)



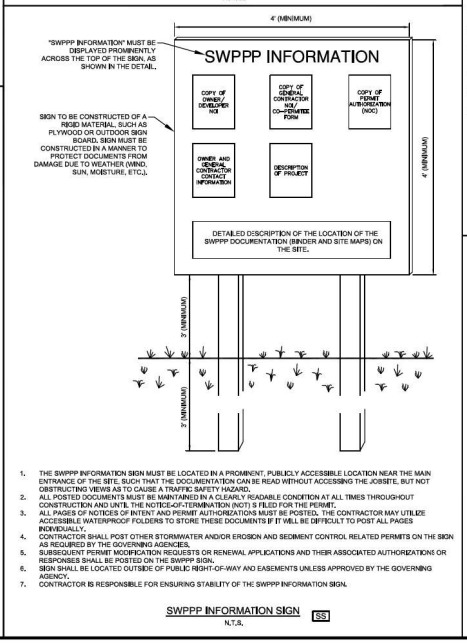
NOTES:

1. FASTEN TO GRATE PER MANUFACTURERS INSTALLATION INSTRUCTIONS.

MAINTENANCE NOTES:

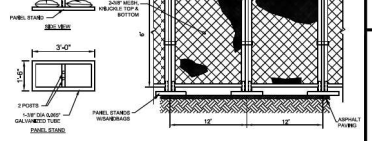
1. INLET PROTECTION DEVICES MUST BE INSPECTED FOR SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN BY USING INSERT-TYPE DEVICES OR UPWARDS OF THE INLET.
2. REMOVAL OF SEDIMENT ACCUMULATED IN OR ADJACENT TO A STORM DRAIN INLET MUST BEGIN IMMEDIATELY UPON DISCOVERY, WITH COMPLETION OF THE ACTIVITY OCCURRING NO LATER THAN THE END OF THE FOLLOWING BUSINESS DAY.
3. INLET PROTECTION DEVICES SHALL BE INSPECTED FOR UNINTENDED BYPASS OR WASHOVER FLOW-RATES THAT MAY CAUSE DOWNSTREAM FLOODING.
4. CONTACT THE CEC FOR ALTERNATE INLET PROTECTIONIF 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.

CURB INLET PROTECTION IP
N.T.S.

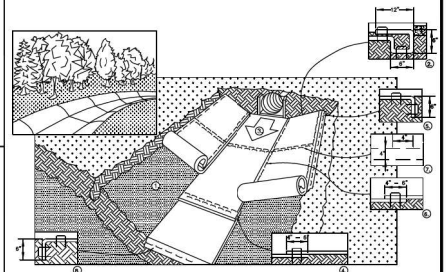


1. THE SWPPP INFORMATION SIGN MUST BE LOCATED IN A PROMINENT, PUBLICLY ACCESSIBLE LOCATION NEAR THE MAIN ENTRANCE OF THE SITE, SUCH THAT THE DOCUMENTATION CAN BE READ WITHOUT ACCESSING THE JOBSITE, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A TRAFFIC SAFETY HAZARD.
2. ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
3. ALL PAGES OF NOTICES OF INTENT AND PERMIT AUTHORIZATIONS MUST BE POSTED. THE CONTRACTOR MAY UTILIZE ACCESSIBLE WATERPROOF FOLDERS TO STORE THESE DOCUMENTS IF IT WILL BE DIFFICULT TO POST ALL PAGES INDIVIDUALLY.
4. CONTRACTOR SHALL POST OTHER STORMWATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCIES.
5. SUBSEQUENT PERMIT MODIFICATION REQUESTS OR RENEWAL APPLICATIONS AND THEIR ASSOCIATED AUTHORIZATIONS OR RESPONSES SHALL BE POSTED ON THE SWPPP SIGN.
6. SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
7. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

SWPPP INFORMATION SIGN SS
N.T.S.



TEMPORARY FENCE DETAIL CF
N.T.S.

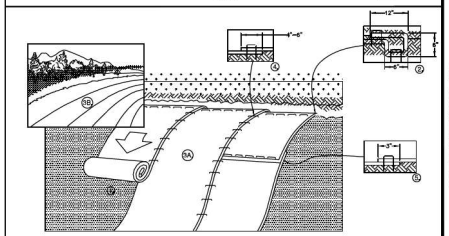


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET 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 OR ALONG THE LENGTH 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 HINGE POINTS

NOTE:
1. IN 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 MANUFACTURERS 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 SPREAD DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROPRIATE 3" OVERLAP. NOTE: STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
6. a. BLANKETS SHALL BE INSTALLED AT THE TOP OF SLOPES AND TERMINATED IN A TRENCH. STAPLES ARE NECESSARY TO PROPERLY SECURE THE BLANKETS.
b. BLANKETS SHALL BE EXTENDED A MINIMUM OF 4" OVER THE WIDTH OF THE SLOPE TERMINATION.
7. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION.

EROSION CONTROL BLANKET (SLOPE INSTALLATION) MA
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

JOHN R. ANDERSON
REGISTERED ENGINEER
PE 109010
(CA EXPIRATION)
STATE OF TENNESSEE

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

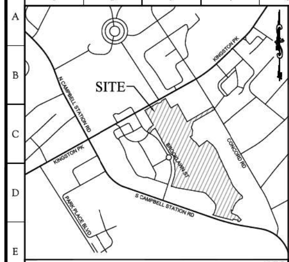
Storm Water Pollution Prevention Plan - Details

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: SWPPP
SHEET: 13 OF: 44

C2.11

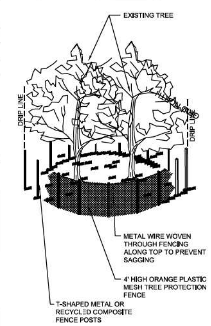


VICINITY MAP

N.T.S.

LEGEND:

LOD —— LOD	LIMITS OF DISTURBANCE
- - - - - - -	TREE PROTECTION FENCE
—— — — ——	PROPERTY LINE
(shaded circle)	EXISTING TREES TO BE REMOVED
(open circle)	EXISTING TREES TO REMAIN



TREE PROTECTION DETAIL

N.T.S.

TREE PRESERVATION NOTES:

1. TURKEY CREEK IS IDENTIFIED AS AN ENVIRONMENTALLY-SENSITIVE AREA.
2. TREE PROTECTION FENCING WILL BE REQUIRED AS SHOWN ON THE PLAN. PRIOR TO THE ISSUANCE OF A GRADING PERMIT, THE PROPOSED LIMITS OF DISTURBANCE MUST BE IDENTIFIED IN THE FIELD WITH THE CONTRACTOR, THE TOWN STAFF, AND THE APPLICANT'S CIVIL ENGINEER TO ASSESS THE EXACT LOCATION AND EXTENT OF TREE PROTECTIVE FENCING.
3. CONTRACTOR SHALL CONSTRUCT TREE PROTECTION FENCING TO THE DRIP LINE OF PROTECTED TREES.
4. THE LOCATION OF TREE PROTECTIVE FENCING THAT HAS BEEN APPROVED BY THE TOWN OF FARRAGUT SHALL NOT BE REMOVED OR ALTERED. ANY REMOVAL OR ALTERATION OF PROTECTIVE FENCING WILL RESULT IN A STOP WORK ORDER FOR THE ENTIRE PROJECT.
5. ALL TEMPORARY CONSTRUCTION ACTIVITIES INCLUDING, BUT NOT LIMITED TO, STORAGE OF EQUIPMENT, WORKER PARKING, AND BURN HOLES, SHALL BE CONTAINED WITHIN THE PROPOSED LIMITS OF DISTURBANCE.
6. NO ACTIVITY OR STORAGE OF ANY MATERIALS OR VEHICLES SHALL BE PERMITTED WITHIN THE AREA BOUNDED BY TREE PROTECTION FENCING.
7. ANY SPECIAL MEASURES, INCLUDING BUT NOT LIMITED TO, ROOT PRUNING OR MULCHED AISLE WAYS, NEEDED TO SAVE ANY OF THE TREES THAT ABUT THE PROPOSED AREA OF DISTURBANCE, MUST BE APPROVED BY THE TOWN OF FARRAGUT PRIOR TO ANY SPECIAL MEASURE REQUIRED. MINOR FIELD CORRECTIONS SHALL BE TAKEN AFTER INSPECTION BY THE TOWN OF FARRAGUT STAFF.
8. ARBORIST REVIEW MAY BE REQUIRED BY THE TOWN OF FARRAGUT IF IT IS DETERMINED THAT SPECIAL MEASURES ARE NEEDED TO SAVE A TREE(S) ABUTTING AN AREA TO BE DISTURBED. ARBORIST RECOMMENDATIONS, IF REQUIRED, WILL BE ADDED AS REVISIONS TO THIS PLAN.
9. WHERE TREES ARE TO BE REMOVED, SUCH TREES SHALL BE FLAGGED AND SHALL BE FELLED AWAY FROM, RATHER THAN INTO AREAS WITH EXISTING TREES AND VEGETATION TO BE PRESERVED.
10. ALL TREE DIAMETERS SHOWN ON THIS PLAN MEASURED AT 4'-6" ABOVE GROUND AS REQUIRED BY THE TOWN OF FARRAGUT TREE PROTECTION ORDINANCE.
11. PROPERTY OWNERS:
    11230 KINGSTON PIKE - JAMES A BIDDLE
    11240 KINGSTON PIKE - VENA MAE BIDDLE
    133 CONCORD ROAD - BIDDLE PROPERTIES, INC.
    0 CONCORD ROAD - MOSERBIDDLE CORP.

TREE REPLACEMENT SCHEDULE - TOTAL

	SIZE OF TREE TO BE REMOVED	TOTAL	NUMBER OF REPLACEMENT TREES REQUIRED
HARDWOOD	10" - 15" DBH	22	44
	16" - 20" DBH	12	36
	> 20" DBH	5	20
TOTAL HARDWOOD TREES TO BE REPLACED			100

	SIZE OF TREE TO BE REMOVED	TOTAL	NUMBER OF REPLACEMENT TREES REQUIRED
EVERGREEN	15" - 20" DBH	1	2
	> 20" DBH	1	2
TOTAL EVERGREEN TREES TO BE REPLACED			4

	SIZE OF TREE TO BE REMOVED	TOTAL	CALIPER INCHES	NUMBER OF REPLACEMENT TREES REQUIRED
ORNAMENTAL	5" DBH	2	10	1.0
	6" DBH	4	24	2.4
	7" DBH	1	7	0.7
	8" DBH	2	16	1.6
TOTAL ORNAMENTAL TREES TO BE REPLACED				6

TOTAL TREES TO BE REPLACED	110

TREE CREDIT SCHEDULE TREES WITHIN 50' OF PAVEMENT

	SIZE OF TREE TO BE PRESERVED	TOTAL	NUMBER OF CREDIT TREES ALLOWED
HARDWOOD	10" - 15" DBH	10	40
	16" - 20" DBH	3	18
	> 20" DBH	5	40
TOTAL HARDWOOD TREES TO BE CREDITED			98

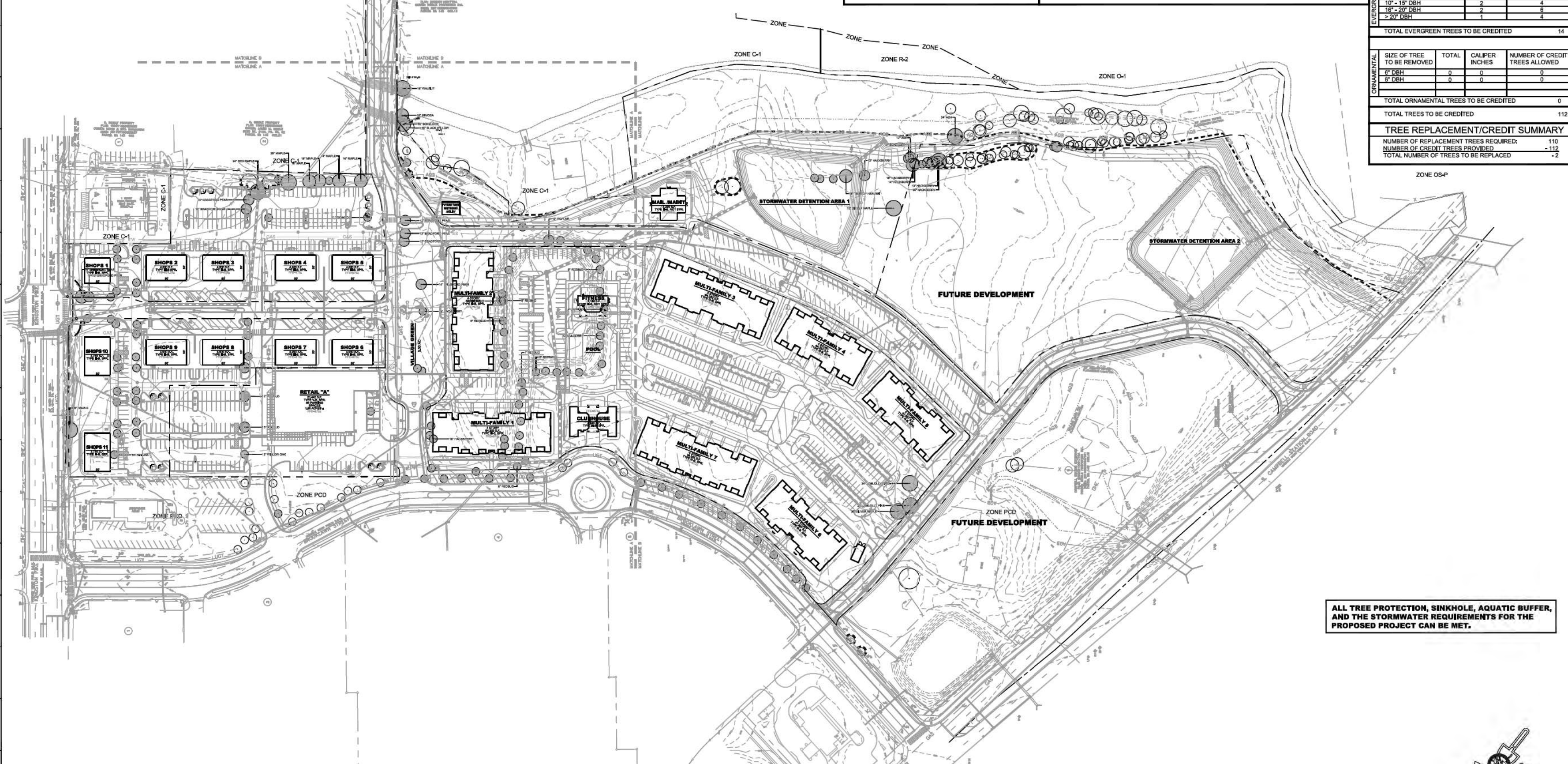
	SIZE OF TREE TO BE PRESERVED	TOTAL	NUMBER OF CREDIT TREES ALLOWED
EVERGREEN	10" - 15" DBH	2	4
	16" - 20" DBH	2	6
	> 20" DBH	1	4
TOTAL EVERGREEN TREES TO BE CREDITED			14

	SIZE OF TREE TO BE REMOVED	TOTAL	CALIPER INCHES	NUMBER OF CREDIT TREES ALLOWED
ORNAMENTAL	6" DBH	0	0	0
	8" DBH	0	0	0
TOTAL ORNAMENTAL TREES TO BE CREDITED				0

TOTAL TREES TO BE CREDITED	112

TREE REPLACEMENT/CREDIT SUMMARY

NUMBER OF REPLACEMENT TREES REQUIRED:	110
NUMBER OF CREDIT TREES PROVIDED	- 112
TOTAL NUMBER OF TREES TO BE REPLACED	- 2



ALL TREE PROTECTION, SINKHOLE, AQUATIC BUFFER, AND THE STORMWATER REQUIREMENTS FOR THE PROPOSED PROJECT CAN BE MET.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 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 No. 00109134 STATE OF TENNESSEE 04/05/2021

Tree Preservation Plan - Overall

Farragut Town Center at Biddle Farms

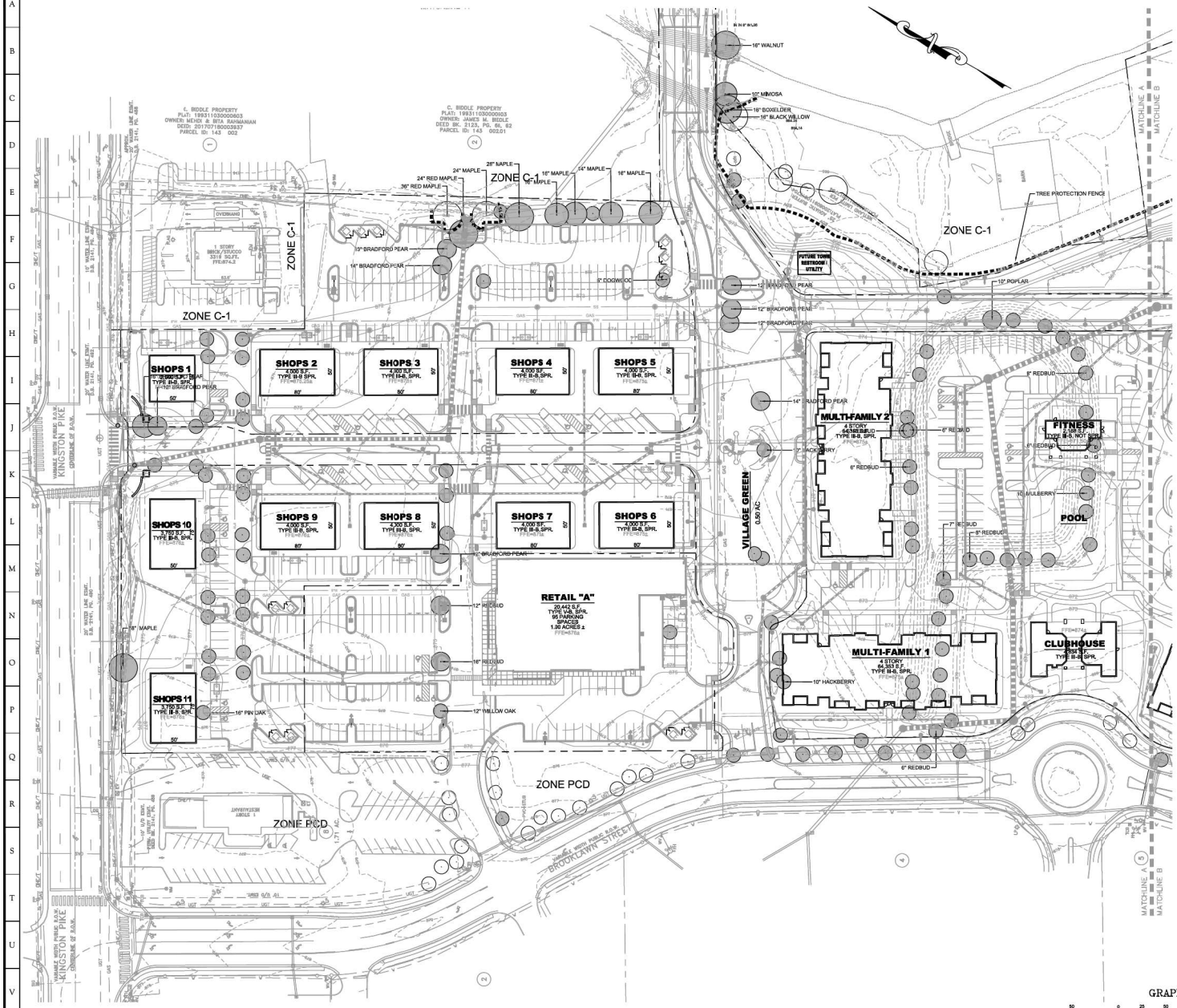
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT#: 1994
FILE: 1994-Landscape
SHEET: 14 OF: 44

C2.12



LEGEND

LOD LOD	LIMITS OF DISTURBANCE
	TREE PROTECTION FENCE
	PROPERTY LINE
	EXISTING TREES TO BE REMOVED
	EXISTING TREES TO REMAIN

NOTE:
TREES THAT ARE NOT LABELED ARE NOT QUALIFIED FOR CREDIT OR REPLACEMENT DUE TO SIZE, SPECIES, OR LOCATION WITHIN THE AQUATIC BUFFER, OR LOCATION MORE THAN 25' FROM THE LIMITS OF PROJECT DEVELOPMENT

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
STATE OF TENNESSEE

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

Tree Preservation Plan - North

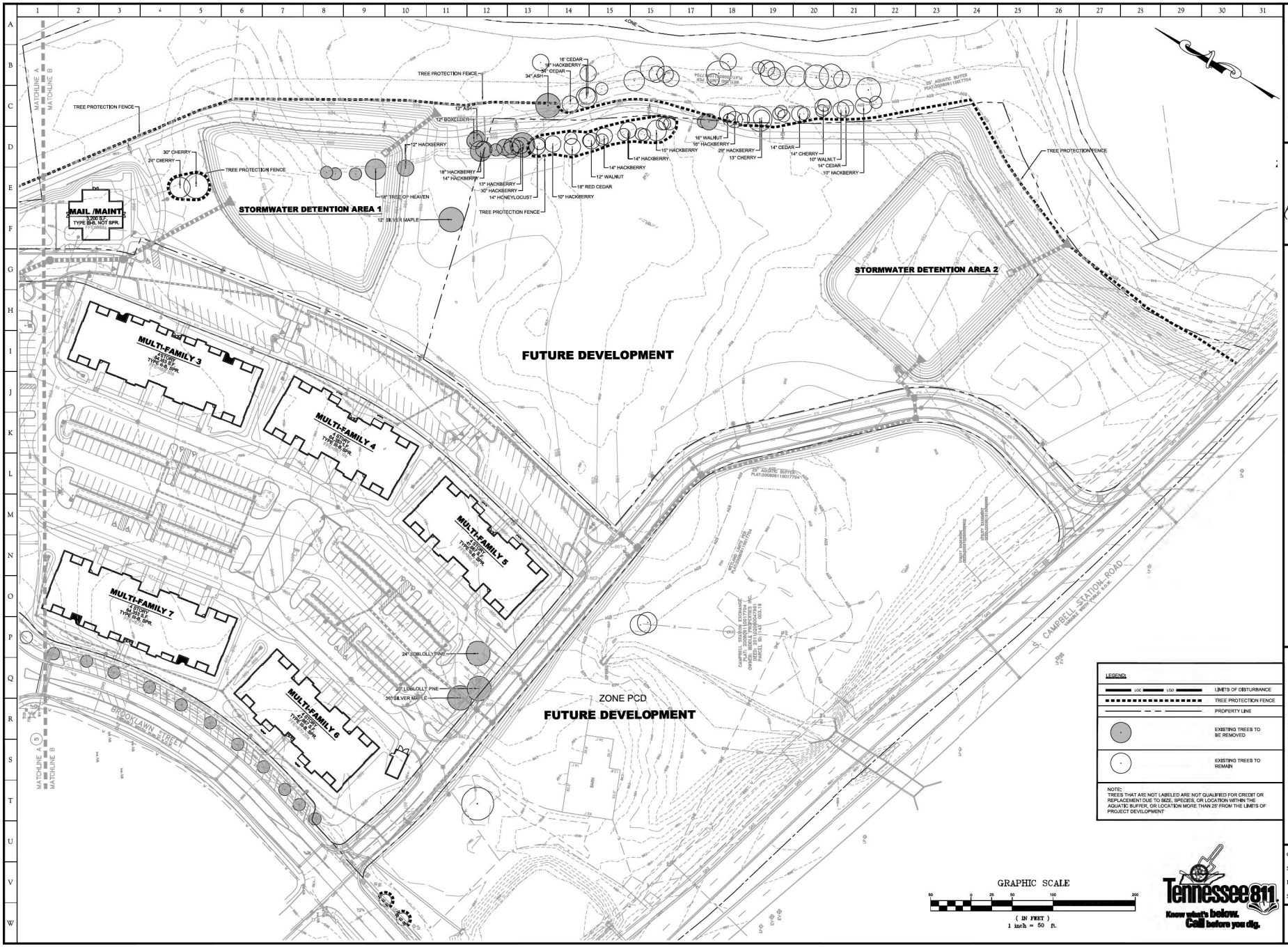
REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Landscape
SHEET: 15 OF: 44

C2.13

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

Tree Preservation Plan- South

Farragut Town Center at Biddle Farms

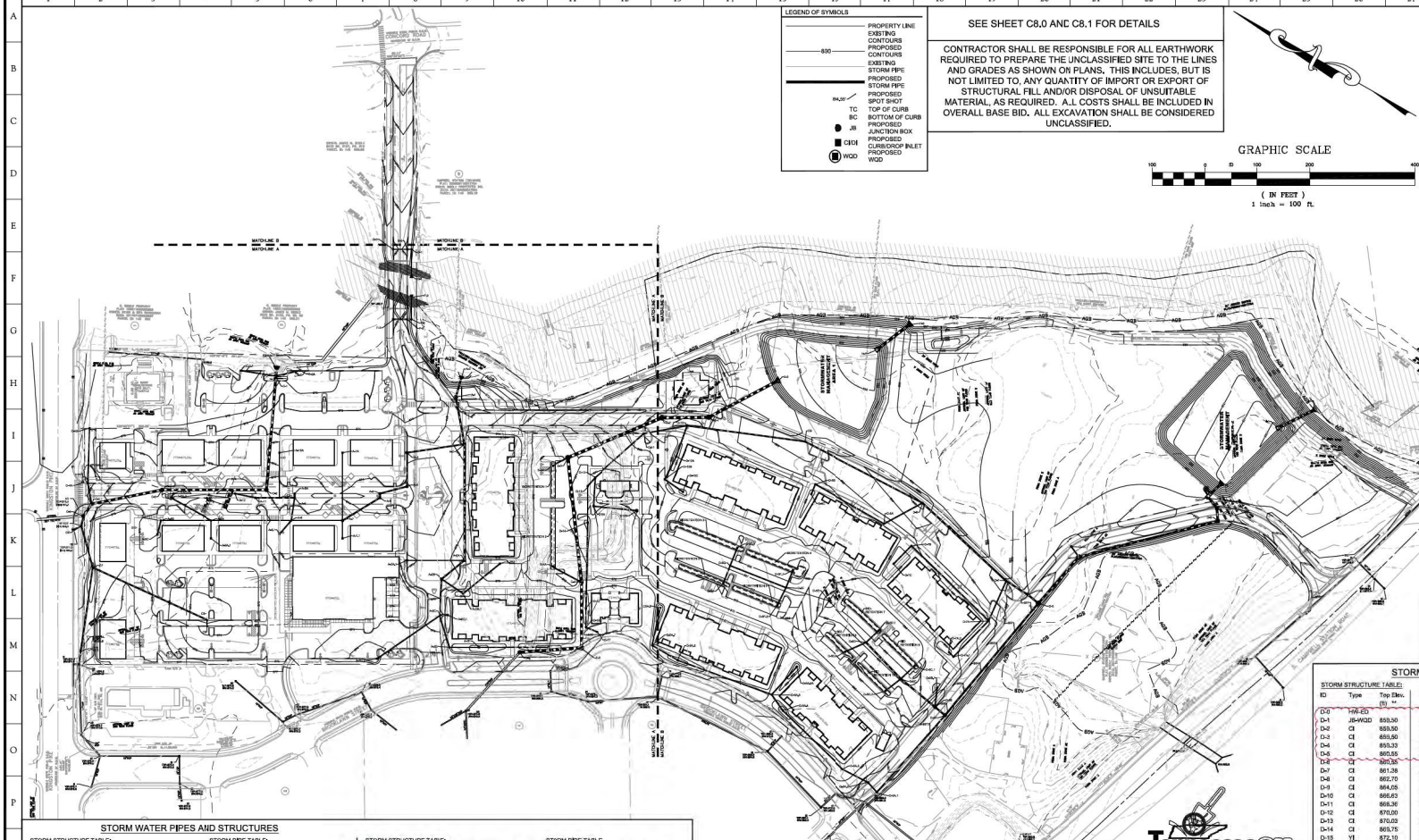
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Landscape
SHEET: 16 OF: 44

C2.14



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 UPON 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. ALL 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 NPDES 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 2:1 OR FLATTER UNLESS OTHERWISE NOTED.
7. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 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 LAND SURVEYORS, INC., DATED 01/31/19. 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 RINGS & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6 INCHES ABOVE FINISH GRADE, UNLESS 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. RIPRAP 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. WHERE THERE IS NO OTHER OPTION OF A VERTICAL CONFLICT:
    - 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 Z .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.

STORM WATER PIPES AND STRUCTURES

STORM STRUCTURE TABLE:				STORM PIPE TABLE:						
ID	Type	Top Elev. (ft) **	Pipe	Length (ft)	Size (in)	Slope (%)	Inv. Down (ft)	Inv. Up (ft)	Material
A-0	HW-ED	--							
A-1	WQD	872.90	A0-A1	34	30	0.50	865.73	865.90	RCP
A-2	CI	872.53	A1-A2	91	30	0.50	865.30	866.36	RCP
A-3	CI	873.46	A2-A3	112	24	0.50	866.57	867.13	RCP
A-4	JB	873.20	A3-A4	64	24	0.51	867.18	867.51	RCP
A-5	CI	873.00	A4-A5	53	24	0.49	867.31	867.77	RCP
A-6	CI	873.00	A5-A6	8	24	0.64	867.87	867.92	RCP
A-7	JB	874.80	A6-A7	83	24	0.50	868.02	868.44	RCP
A-8	CI	874.80	A7-A8	98	24	0.51	868.54	869.04	RCP
A-9	CI	873.00	A8-A9	44	18	0.50	869.04	869.26	RCP
A-10	JB	873.57	A9-A10	29	18	0.49	869.26	869.40	RCP
A-11	CI	874.00	A10-A11	46	18	0.52	869.40	869.64	RCP
A-12	CI	873.44	A11-A12	39	18	0.51	869.64	869.84	RCP
A-2A	CI	872.30	A2-A2A	222	30	0.52	866.41	867.56	RCP
A-2B	JB	873.60	A2A-A2B	56	24	0.50	867.56	867.84	RCP
A-2C	CI	873.24	A2B-A2C	69	24	0.51	867.84	868.19	RCP
A-2D	JB	878.00	A2C-A2D	64	18	0.50	868.19	868.51	RCP
A-2E	YI	872.30	A2D-A2E	55	18	0.51	868.51	868.79	ST
A-2F	YI	872.35	A2E-A2F	132	18	0.50	868.79	869.45	ST
A-2A,1	CI	872.67	A2A-A2A1	111	18	0.51	867.85	868.41	RCP
A-2B,1	AI	872.50	A2A-A2B1	43	18	0.51	867.85	868.10	ST
A-2B,1	YI	872.10	A2B1-A2B2	90	18	0.50	868.10	868.55	ST
A-2C,1	YI	873.30	A2C-A2C1	16	18	2.13	868.69	869.03	ST
A-2C,2	CI	873.23	A2C-A2C2	146	18	0.65	868.49	869.68	RCP
A-7A	YI	874.65	A7-A7A	129	18	0.50	870.00	870.64	ST
A-7,1	YI	874.50	A7-A7,1	34	18	0.50	870.00	870.17	ST
A-8A	JB	875.82	A8-A8A	152	18	0.51	869.14	869.92	RCP
A-8B	JB	875.56	A8A-A8B	97	18	0.50	870.04	870.53	RCP
A-8C	CI	874.82	A8B-A8C	28	18	0.51	870.57	870.71	RCP
A-8,1	CI	874.00	A8-A8,1	34	18	0.50	870.33	870.50	ST
A-8A,1	YI	875.65	A8A-A8A,1	34	18	0.50	869.79	869.96	ST
A-8A,2	CI	873.88	A8A-A8A,2	89	18	0.50	869.49	869.94	RCP
A-8A,3	CI	873.50	A8A-2-A8A,3	9	18	0.65	869.94	870.00	RCP
A-9A	CI	873.00	A9-A9A	8	18	0.62	869.44	869.49	ST
A-10A	CI	873.50	A10-A10A	86	18	0.50	869.56	869.99	ST
H1	OS	SEE DETAIL	H0-H1	72	54	0.50	856.64	857.00	RCP
I1	OS	SEE DETAIL	I0-I1	72	54	0.50	849.14	849.50	RCP

STORM STRUCTURE TABLE:				STORM PIPE TABLE						
ID	Type	Top Elev. (ft) **	Pipe	Length (ft)	Size (in)	Slope (%)	Inv. Down (ft)	Inv. Up (ft)	Material
C-0	HW-ED								
C-1	JB	872.00	C0-C1	14	48	0.52	863.80	863.87	RCP
C-2	JB	874.00	C1-C2	218	48	0.50	863.67	864.96	RCP
C-3	JB	873.35	C2-C3	200	48	0.50	864.96	865.96	RCP
C-4	CI	871.73	C3-C4	136	48	0.50	865.96	866.64	RCP
C-5	AI	872.00	C4-C5	27	48	0.51	866.64	866.78	RCP
C-6	JB	872.00	C5-C6	20	24	1.25	866.80	867.05	RCP
C-7	AI	873.00	C6-C7	82	24	1.28	867.05	868.16	RCP
C-8	CI	873.35	C7-C8	241	24	0.50	868.16	869.36	ST
C-9	CI	873.41	C8-C9	11	18	0.55	869.86	869.94	ST
C-1A	CI	870.77	C1-C1A	46	18	0.69	866.37	866.69	ST
C-1,1	CI	869.31	C1-C1,1	67	18	0.67	865.37	865.82	ST
C-4A	CI	871.50	C4-C4A	45	24	0.51	867.47	867.70	RCP
C-4B	CI	871.75	C4A-C4B	105	18	0.50	867.73	868.25	RCP
C-7A	JB	874.50	C7-C7A	162	24	1.88	868.25	871.30	RCP
E-0	HW-ED								
E-1	JB	867.50	E0-E1	152	60	0.52	859.90	860.29	RCP
E-2	JB	867.30	E1-E2	69	54	0.75	860.29	860.96	RCP
E-3	JB	871.40	E2-E3	135	54	0.75	860.96	862.42	RCP
E-4	JB	872.10	E3-E4	239	54	0.75	862.42	864.22	RCP
E-5	JB	873.20	E4-E5	125	54	0.75	864.22	865.16	RCP
E-6	JB	874.75	E5-E6	116	54	1.12	865.16	866.49	RCP
E-1A	YI	866.30	E1-E1A	34	18	1.00	867.18	867.50	ST
E-2A	YI	866.30	E4-E4A	53	18	1.00	865.87	867.50	ST
F-0	HW-ED								
F-1	JB	870.00	F0-F1	42	18	1.19	862.00	862.50	ST
F-2	CI	871.70	F1-F2	6	18	0.83	865.80	866.85	ST
F-3	CI	871.70	F2-F3	27	18	0.56	866.35	867.10	ST
G-0	HW-ED								
G-1	JB	869.39	G0-G1	50	18	1.00	862.00	862.50	ST
G-2	CI	870.70	G1-G2	8	18	0.63	865.80	865.85	ST
G-3	CI	870.70	G2-G3	27	18	0.56	865.35	866.10	ST

** SEE DETAIL SHEET FOR CLARIFICATION OF "TOP" FOR EACH STRUCTURE TYPE

STORM DRAIN GRATE SCHEDULE:

TYPE	MODEL	USE
JB	NEENAH R-1648	JUNCTION BOX
CI	NEENAH R-3076, WITH R-3076-B HOOD	SINGLE CURB INLET
AI	NEENAH R-1648	AREA INLET
HW-ED	PRECAST HEADWALL WITH ENERGY DISSIPATION	HEADWALL
DI	NEENAH R1979-BSQ	DROP INLET
YI	NEENAH R4531-C	YARD INLET

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.

SITE STORM SYSTEM NOTES

- ALL STORM PIPE LOCATED WITHIN RIGHT-OF-WAY SHALL BE RCP.
- ALL OTHER STORM PIPE SHALL BE HDPE-WT OR RCP UNLESS OTHERWISE NOTEDON THE PLAN.
- PIPES 36" OR SMALLER MAY BE HDPE-WT.
- REFER TO PROJECT SPECIFICATIONS FOR APPROVED PIPE TYPES.

REINFORCED CONCRETE PIPE (RCP)
ASTM C76, CLASS III UNLESSNOTED 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 RECOMENDATIONS.
2. FLARED END SECTIONS: ASTM C76 OR, FOR SECTIONS WITH TOE WALL, AASHTO H70.

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 F-477
2. RUBBER GASKET JOINTS: ASTM 3212
3. CORRUGATED COUPLING SANDS AS RECOMMENDED BY MANUFACTURER

STORM WATER PIPES AND STRUCTURES

STORM STRUCTURE TABLE:				STORM PIPE TABLE:						
ID	Type	Top Elev. (ft) **	Pipe	Length (ft)	Size (in)	Slope (%)	Inv. Down (ft)	Inv. Up (ft)	Material
D-0	HW-ED								
D-1	JB-WQD	853.50	D0-D1	24	42	0.51	851.34	851.46	RCP
D-2	CI	853.50	D1-D2	28	42	0.50	851.46	851.60	RCP
D-3	CI	853.50	D2-D3	28	42	0.52	851.60	851.73	RCP
D-4	CI	853.33	D3-D4	272	42	0.50	851.73	853.10	RCP
D-5	CI	860.55	D4-D5	130	42	0.50	853.10	853.70	RCP
D-6	CI	861.30	D5-D6	25	30	1.52	853.42	853.80	RCP
D-7	CI	861.38	D6-D7	50	30	1.68	856.05	856.88	RCP
D-8	CI	862.70	D7-D8	218	30	0.61	856.88	858.20	RCP
D-9	CI	864.05	D8-D9	293	24	0.53	858.70	860.25	RCP
D-10	CI	866.63	D9-D10	227	24	1.06	860.05	862.44	RCP
D-11	CI	868.36	D10-D11	63	18	2.07	863.13	864.66	RCP
D-12	CI	870.00	D11-D12	126	18	0.67	864.86	865.70	ST
D-13	CI	870.03	D12-D13	21	18	0.52	865.73	865.90	ST
D-14	CI	869.75	D13-D14	70	18	0.50	865.90	866.25	ST
D-15	YI	872.10	D14-D15	164	18	1.17	866.25	868.16	ST
D-16	JB	873.30	D15-D16	36	18	0.53	868.16	868.35	ST
D-17	YI	872.80	D16-D17	23	18	0.52	868.35	868.47	ST
D-4A	CI	860.33	D4-D4A	25	18	0.52	854.66	854.79	ST
D-2A	CI	860.00	D2-D2A	276	30	0.50	853.70	855.08	RCP
D-5B	CI	866.00	D5A-D5B	25	30	0.52	855.09	855.22	RCP
D-5C	JB	864.50	D5B-D5C	84	30	0.50	855.22	855.64	ST
D-5D	JB	864.70	D5C-D5D	96	30	0.50	855.64	856.12	ST
D-5E	CI	863.75	D5D-D5E	107	24	0.50	856.12	856.66	ST
D-5F	JB	866.70	D5E-D5F	88	24	0.50	856.66	857.09	ST
D-5G	JB	866.70	D5F-D5G	114	18	0.50	857.59	858.16	ST
D-5H	AI	867.35	D5G-D5H	36	18	7.59	860.90	863.70	ST
D-5A,1	CI	866.24	D5A-D5A1	195	18	0.50	860.79	861.73	RCP
D-5A,2	CI	866.24	D5A1-D5A2	25	18	0.52	861.73	861.86	RCP
D-5A,3	JB	866.60	D5A2-D5A3	55	18	0.51	861.86	862.14	ST
D-5A,4	YI	867.35	D5A3-D5A4	161	18	0.50	862.14	862.94	ST
D-5A,5	JB	863.80	D5A4-D5A5	37	18	0.51	862.94	863.13	ST
D-5A,6	YI	863.40	D5A5-D5A6	190	18	0.49	863.33	864.27	ST
D-5A,7	CI	871.40	D5A6-D5A7	57	18	0.51	864.27	864.56	ST
D-5A,8	YI	863.00	D5A7-D5A8	73	18	0.49	864.56	864.92	ST
D-5A,8A	YI	867.00	D5A8-D5A8A	71	18	0.49	863.15	863.50	ST
D-5B,1	AI	863.82	D5B-D5B1	37	18	1.00	857.83	858.20	ST
D-5C,1	AI	863.13	D5C-D5C1	37	18	1.01	857.23	857.60	ST
D-5C,2	AI	865.15	D5C-D5C2	37	18	3.66	859.36	861.30	ST
D-5D,1	AI	863.13	D5D-D5D1	33	18	1.01	857.87	858.20	ST
D-5D,2	AI	865.15	D5D-D5D2	44	18	5.90	859.33	861.90	ST
D-5F,1	AI	864.73	D5F-D5F1	37	18	1.01	859.28	859.65	ST
D-5F,2	AI	867.25	D5F-D5F2	37	18	6.26	860.86	863.70	ST
D-5G,1	AI	864.30	D5G-D5G1	37	18	0.52	858.21	858.40	ST
D-7A	JB	864.50	D7-D7A	82	18	1.92	857.38	858.07	RCP
D-7B	JB	865.50	D7A-D7B	205	18	0.51	858.07	860.02	ST
D-7C	YI	864.25	D7B-D7C	48	18	0.50	860.02	860.25	ST
D-7A,1	JB	865.50	D7A-D7A1	96	18	0.60	859.47	860.05	ST
D-7A,2	YI	864.15	D7A-D7A2	12	18	0.74	860.09	860.14	ST
D-8A	JB	865.80	D8-D8A	53	18	1.73	863.20	863.83	ST
D-8B	JB	866.25	D8A-D8B	153	18	0.50	860.63	861.40	ST
D-8C	YI	865.50	D8B-D8C	20	18	0.54	861.40	861.51	ST
D-10A	YI	866.00	D10-D10A	52	18	0.50	862.44	862.70	ST
D-10B	CI	867.30	D10A-D10B	49	18	0.51	862.75	863.00	ST
D-10C	YI	866.75	D10B-D10C	42	18	0.52	863.00	863.22	ST
D-12A	YI	870.45	D12-D12A	54	18	0.51	865.70	865.98	ST
D-12B	YI	869.30	D12A-D12B	85	18	0.49	865.98	866.40	ST

** SEE DETAIL SHEET FOR CLARIFICATION OF "TOP" FOR EACH STRUCTURE TYPE

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

JOHN E. ANDERSON
REGISTERED ENGINEER
AGRICULTURE
No. 0120463
STATE OF TENNESSEE

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

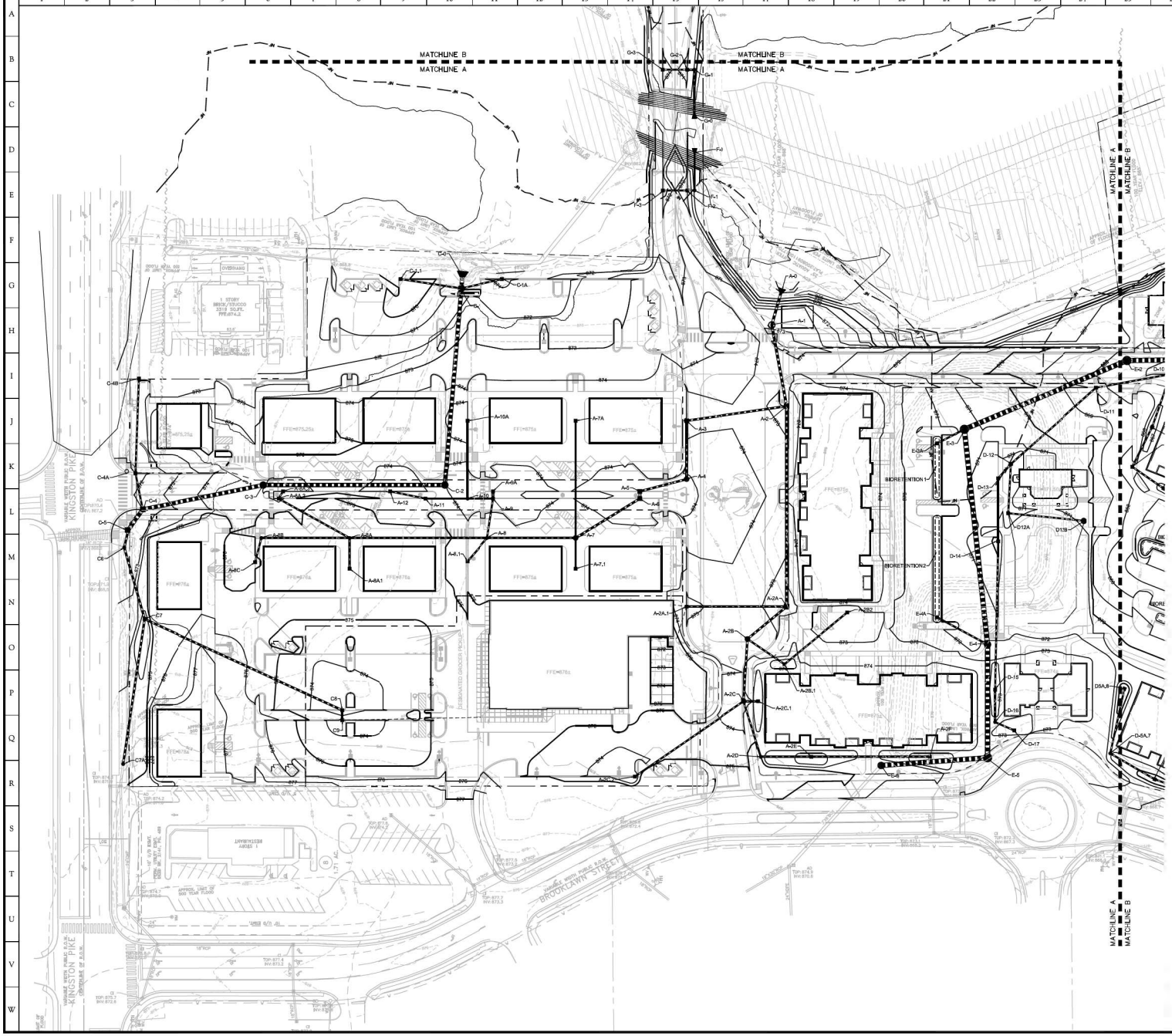
Site Grading and Drainage Plan - Overall

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

REVISIONS

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994 Grading
SHEET: 17 OF: 44

C3.0



SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN K. ANDERSON
REGISTERED ENGINEER
No. 0120438
STATE OF TENNESSEE

Site Grading and Drainage Plan - North

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

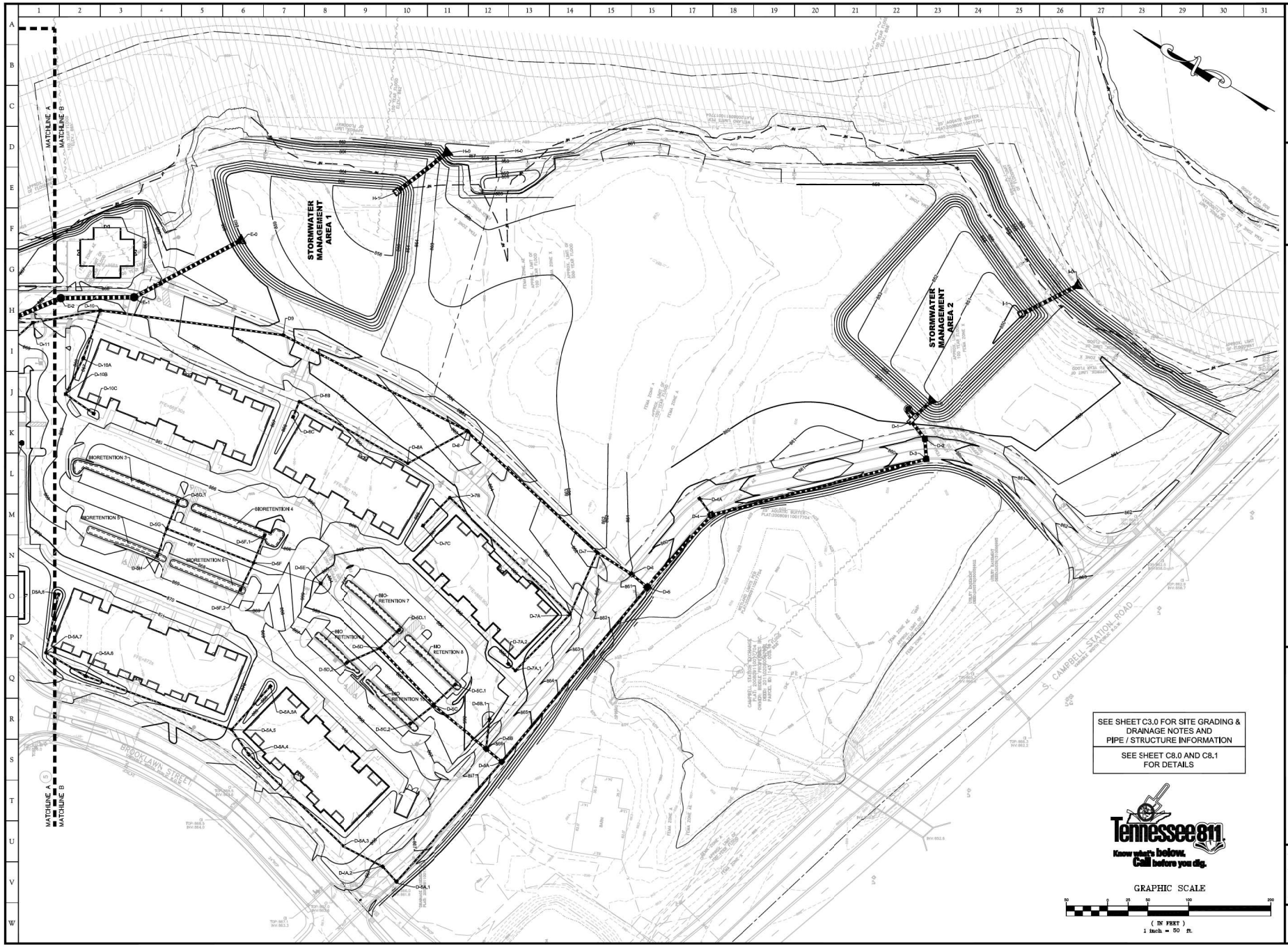
REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

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

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994Grading
SHEET: 18 OF: 44

C3.1



SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN K. ANDERSON
REGISTERED ENGINEER
No. 0010436
STATE OF TENNESSEE

Site Grading and Drainage Plan - South

Farragut Town Center at Biddle Farms

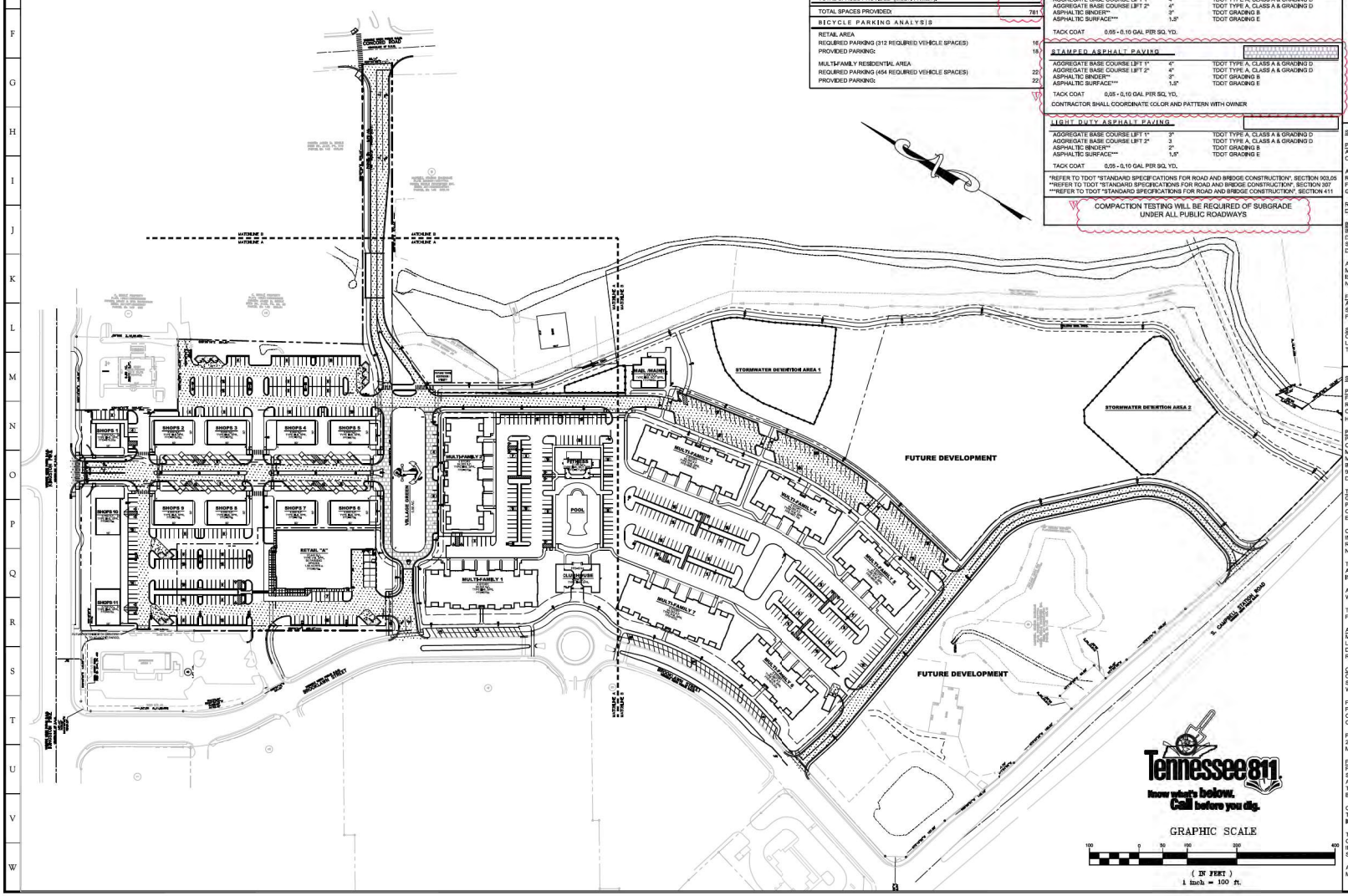
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994Grading
SHEET: 19 OF: 44

C3.2



PROPERTY DATA:	
LOT AREA:	37.08 ACRES
ZONING:	PCD

VEHICULAR PARKING ANALYSIS (SHOPS)	
GROSS FLOOR AREA	62,442 SF
REQUIRED PARKING (5 PER 1000 GROSS SQ FT)	312 SPACES
REQUIRED ACCESSIBLE PARKING:	8
STANDARD (9' X 19') SPACES PROVIDED:	310
PARALLEL PARKING (10' X 22.5):	0
ACCESSIBLE (8' X 19') SPACES PROVIDED:	17
TOTAL SPACES PROVIDED (SHOPS)	327

VEHICULAR PARKING ANALYSIS (MULTI-FAMILY)	
TOTAL DWELLING UNITS	284 DU
REQUIRED PARKING (1.6 PER DWELLING UNIT):	454 SPACES
REQUIRED ACCESSIBLE PARKING:	9 SPACES
STANDARD (9' X 19') SPACES PROVIDED:	324
PARALLEL PARKING (10' X 22.5):	0
GARAGE PARKING:	56
DRIVEWAY PARKING	56
ACCESSIBLE (8' X 19') SPACES PROVIDED:	14
TOTAL SPACES PROVIDED (MULTI-FAMILY):	454
TOTAL SPACES PROVIDED:	781

BICYCLE PARKING ANALYSIS	
RETAIL AREA	
REQUIRED PARKING (312 REQUIRED VEHICLE SPACES)	16
PROVIDED PARKING:	18
MULTI-FAMILY RESIDENTIAL AREA	
REQUIRED PARKING (454 REQUIRED VEHICLE SPACES)	22
PROVIDED PARKING:	22

HVAC SYSTEMS, ANTENNAS, AND SATELLITE DISHES WILL BE SCREENED SO THAT THEY ARE NOT VISIBLE FROM ADJACENT PROPERTIES AND RIGHT-OF-WAYS PER TOWN OF FARRAGUT REQUIREMENTS.

ALL WALKING FACILITIES (WALKING TRAILS/SIDEWALKS) MUST BE COORDINATED WITH TOWN STAFF PRIOR TO CONSTRUCTION.

ALL DIMENSIONS ARE FACE OF CURB TO FACE OF CURB UNLESS NOTED WITH AN *. ALL DIMENSIONS NOTED WITH AN * ARE BACK OF CURB TO BACK OF CURB.

CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULE, SLOPED PAVING, EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY LOCATIONS FOR ALL BUILDINGS.

PAVING MATERIALS SCHEDULE

MATERIAL	THICKNESS	TYPE
HEAVY DUTY CONCRETE PAVING		
AGGREGATE BASE COURSE	8"	TDOT TYPE A, CLASS A & GRADING D
CONCRETE	8"	PCC 4000 PSI TYPE I WITH FIBER REINFORCEMENT
TOWN CENTER STREET & 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
TACK COAT	0.05 - 0.10 GAL PER SQ. YD.	
STAMPED 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
TACK COAT	0.05 - 0.10 GAL PER SQ. YD.	
CONTRACTOR SHALL COORDINATE COLOR AND PATTERN WITH OWNER		
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
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

COMPACTION TESTING WILL BE REQUIRED OF SUBGRADE UNDER ALL PUBLIC ROADWAYS

SITE PLAN NOTES:

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND C.S.U.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. 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.

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 A SURVEY BY SITE, INCORPORATED DATED 3/10/2020. 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 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.

9. IN ORDER TO PREVENT PONDING THE CONTRACTOR SHALL INSTALL REVERSE-PITCH GUTTER AT ALL LOCATIONS WHERE ASPHALT SLOPES AWAY FROM GUTTER. REVERSE-PITCH GUTTER LOCATIONS ARE DENOTED AS SHOWN IN LEGEND.

SITE LAYOUT NOTES

PROPERTY LINE STAKEOUT
ALL PROPERTY LINES SHALL BE MARKED FOR ROUGH LOCATION WITH CONTINUOUS SURVEYOR FLAGGING TAPE.

ALL PROPERTY CORNERS AND ALL OUTLOT CORNERS SHALL BE ROUGH PINNED WITH 2' HIGH METAL ROD OR EQUIVALENT AND FLAGGED WITH SURVEYOR TAPE AT COMPLETION OF ROUGH GRADING AND MAINTAINED THROUGHOUT COURSE OF WORK.

ROUGH LOCATION SHALL MEAN ACCURATE WITHIN 2' HORIZONTALLY. DO NOT ERR OUTSIDE PROPERTY LINE IN ANY CASE.

BUILDING STAKEOUT
BUILDING DIMENSIONS SHOWN ON-SITE PLAN ARE NOMINAL DIMENSIONS ONLY INTENDED FOR USE IN DETERMINE APPROXIMATE SQUARE FOOTAGES. SEE FOUNDATION PLAN FOR ACTUAL DIMENSIONS OF CONSTRUCTION.

A SURVEYOR LICENSED IN THE STATE OF THE PROJECT LOCATION MUST BE USED IN LOCATING ALL BUILDINGS ON-SITE BEFORE WORK IS BEGUN ON FOOTINGS OF ANY BUILDINGS. SITE, INC. SHALL BE NOTIFIED BY THE SURVEYOR UPON COMPLETION OF THIS WORK.

FOUNDATION AS-BUILT
A "FOUNDATION LOCATION PLAN" MUST BE PREPARED BY THAT SURVEYOR AND SUBMITTED FOR SITE, INC'S REVIEW AS SOON AS ALL FOUNDATION WORK IS UP TO FLOOR LEVEL.

SITE WORK STAKEOUT
CONSULT SITE, INC. FOR ALL DIMENSIONS AND OTHER ITEMS LABELED "VERIFY" OR "FIELD VERIFY" PRIOR TO INSTALLATION OF THAT WORK OR ANY RELATED WORK.

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 3" - 5" 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 916.23).

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.

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

JOHN R. ANDERSON
REGISTERED ENGINEER
AGRICULTURE
No. 0010408E
STATE OF TENNESSEE

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

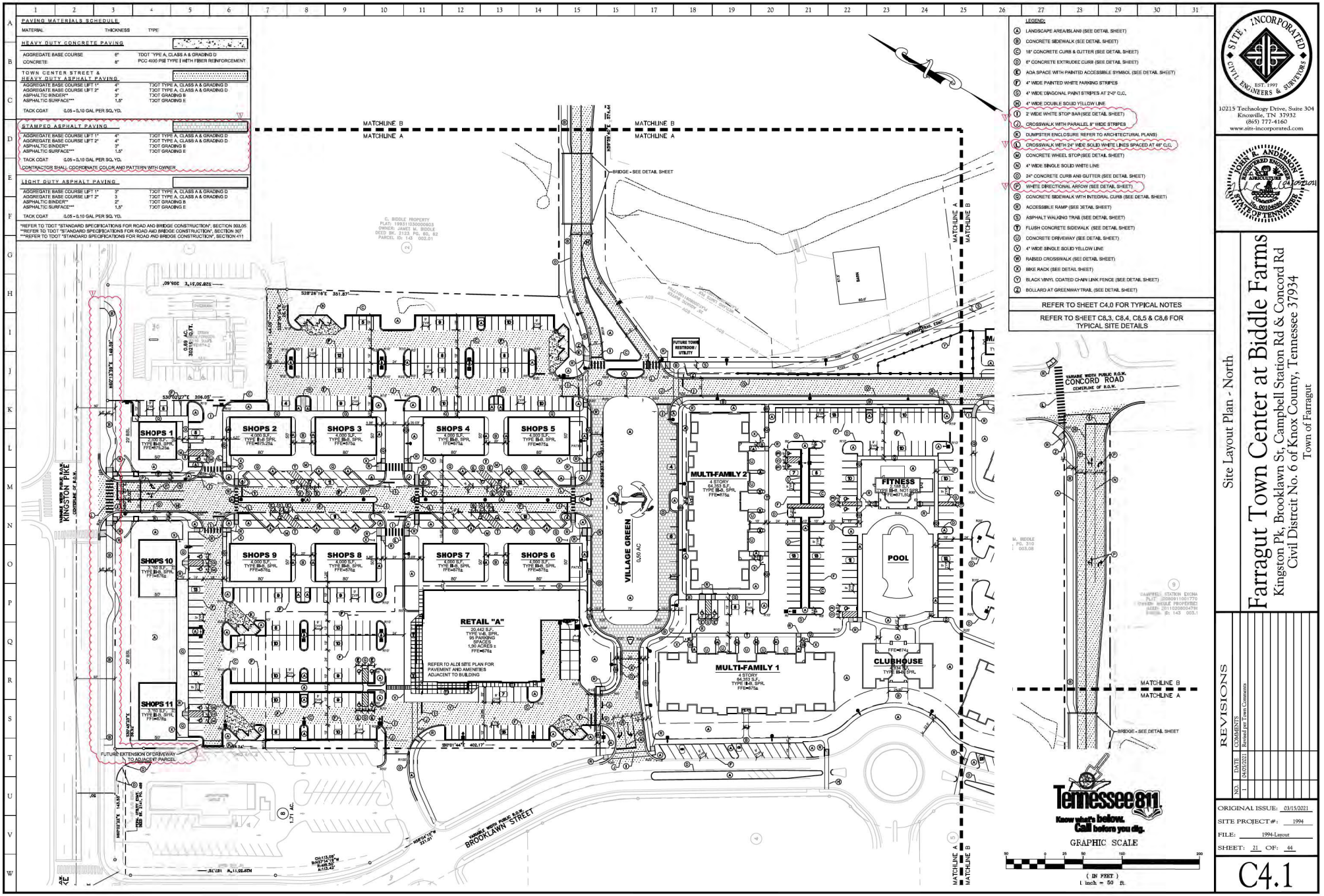
Site Layout Plan - Overall

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Layout
SHEET: 20 OF: 44

C4.0



SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
CERTIFICATE NO. 120160
STATE OF TENNESSEE

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

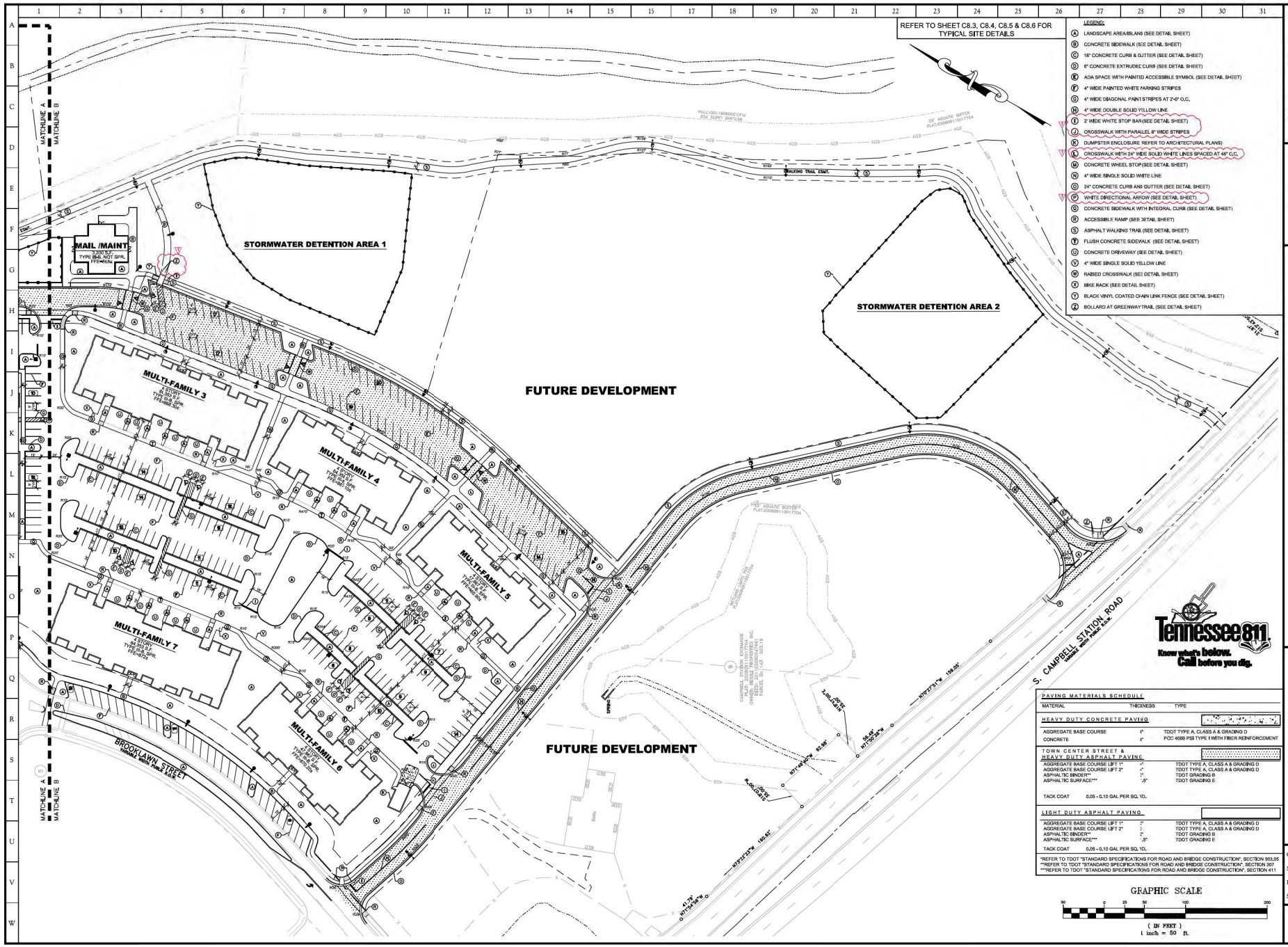
Site Layout Plan - North

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Layout
SHEET: 21 OF: 44

C4.1



SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
CERTIFICATE NO. 120702
STATE OF TENNESSEE

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

Site Layout Plan - South

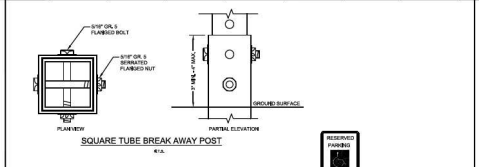
REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Layout
SHEET: 22 OF: 44

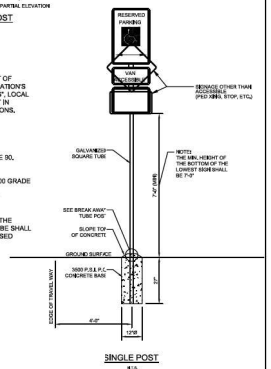
C4.2

Tennessee811
Know what's below.
Call before you dig.



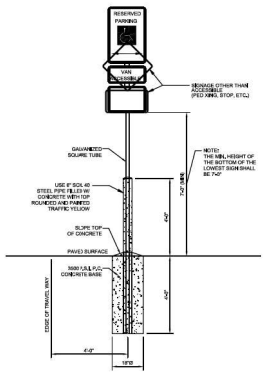
SQUARE TUBE BREAK AWAY POST
N.T.S.

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.



SINGLE POST
N.T.S.

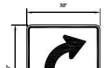
SIGN MOUNTING AND BASE WITHOUT BOLLARD
(USE WHERE SIGN IS WITHIN CURBED ISLAND OR LANDSCAPE AREA)
N.T.S.



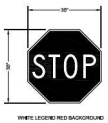
SINGLE POST
N.T.S.

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.

SIGN MOUNTING AND BASE WITH BOLLARD
(USE WHERE SIGN IS NOT WITHIN CURBED ISLAND)
N.T.S.



BLACK LEGEND ON WHITE BACKGROUND
R3-5R
"RIGHT TURN ONLY" SIGN
N.T.S.



WHITE LEGEND RED BACKGROUND
R1-1
"STOP" SIGN
N.T.S.

BLACK LEGEND ON WHITE BACKGROUND
R4-7
KEEP RIGHT SIGN
N.T.S.

BLACK LEGEND ON WHITE BACKGROUND
ARROW LEFT
R6-2
"ONE WAY" SIGN
N.T.S.

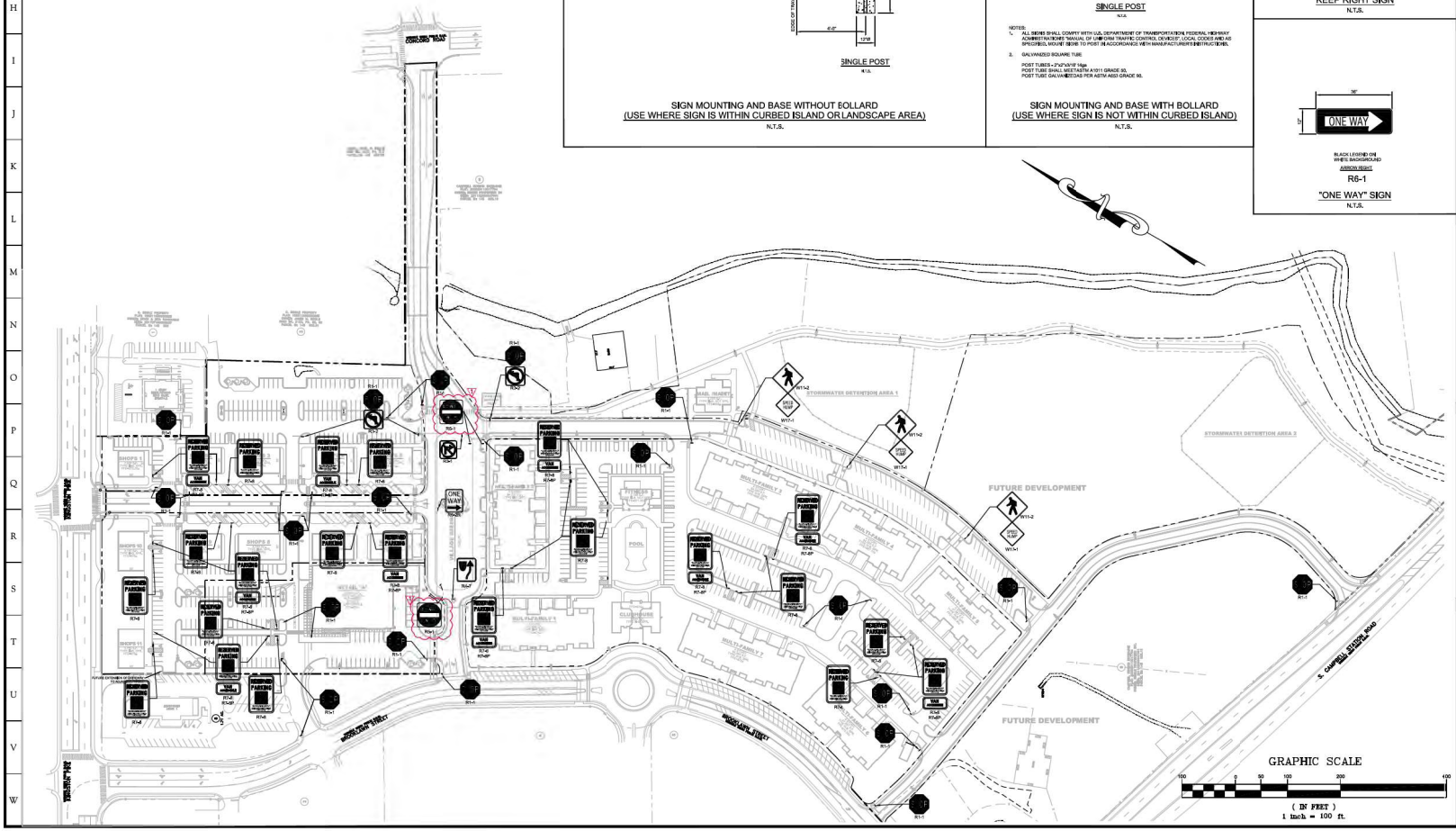
BLACK LEGEND ON WHITE BACKGROUND
ARROW RIGHT
R6-1
"ONE WAY" SIGN
N.T.S.

BLACK SYMBOL AND BORDER RED CIRCLE AND DIAGONAL ON WHITE BACKGROUND
R3-2
"NO LEFT TURN" SIGN (W / ARROW)
N.T.S.

STANDARD RED AND WHITE SIGN
R5-1
"DO NOT ENTER" SIGN
N.T.S.

ACCESSIBLE PARKING SIGN
N.T.S.

RETROREFLECTIVE WITH BLACK LEGEND AND YELLOW BACKGROUND
"PEDESTRIAN CROSSWALK" SIGN WITH "SPEED HUMP" SIGN
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

JOHN R. ANDERSON
REGISTERED ENGINEER
PRINCIPAL
No. 0010400
STATE OF TENNESSEE

Site Signage Plan - Overall

Farragut Town Center at Biddle Farms

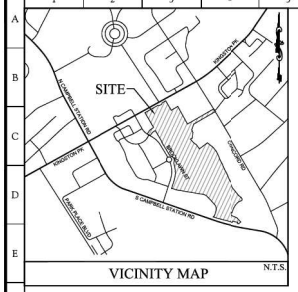
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

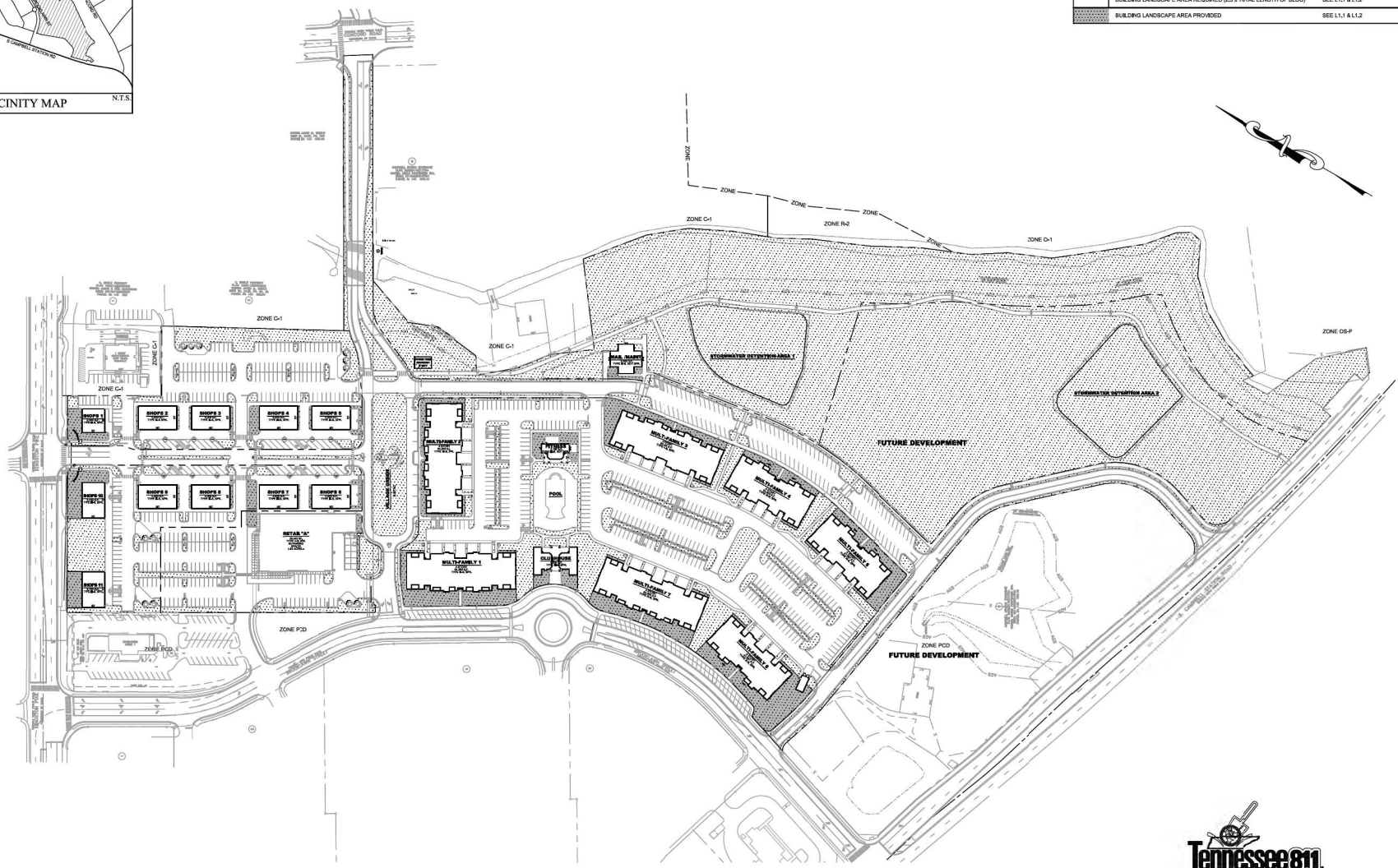
ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Layout
SHEET: 23 OF: 44

C4.3



VICINITY MAP N.T.S.

SITE AREA DATA	
TOTAL SITE AREA	1,615,106 SF (37.08 ACRES)
PERVIOUS AREA	862,618 SF
IMPERVIOUS AREA	752,488 SF
LOT COVERAGE	46.59%
COMMON OPEN SPACE (10% GROSS LAND AREA)	161,511 SF (3.71 ACRES)
TOTAL LENGTH OF BUILDING FACING PARKING OR VEHICULAR DRIVE	SEE L1.1 & L1.2
BUILDING LANDSCAPE AREA REQUIRED (2.5 x TOTAL LENGTH OF BLDG)	SEE L1.1 & L1.2
BUILDING LANDSCAPE AREA PROVIDED	SEE L1.1 & L1.2



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

100 0 50 100 200 400
GRAPHIC SCALE - 1"=100'

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

REGISTERED LANDSCAPE ARCHITECT
JAMES C. HOMEWOOD
STATE OF TENNESSEE

Site Area Plan

Farragut Town Center at Biddle Farms

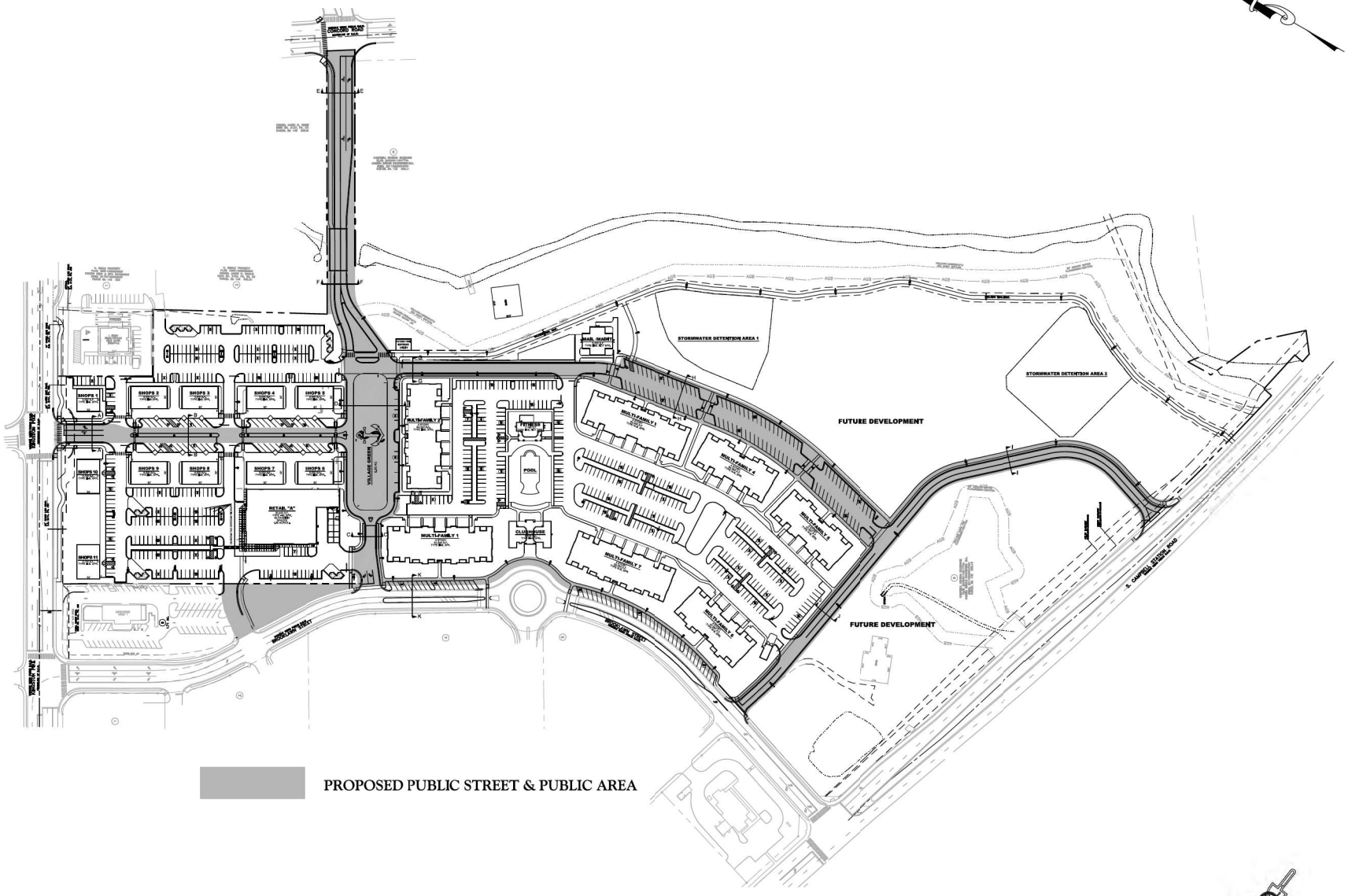
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Landscape
SHEET: 24 OF: 44

C4.4



PROPOSED PUBLIC STREET & PUBLIC AREA

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 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

JOHN K. ANDERSON
REGISTERED ENGINEER
No. 0102436
STATE OF TENNESSEE

Public Area Plan

Farragut Town Center at Biddle Farms

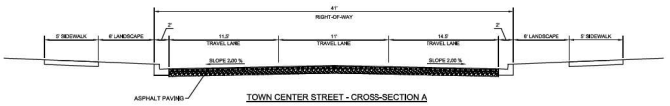
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

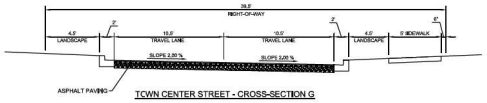
NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Public Area Plan
SHEET: 25 OF: 44

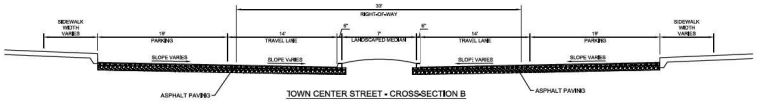
C4.5



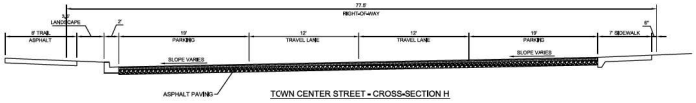
TOWN CENTER STREET - CROSS-SECTION A



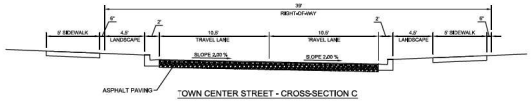
TCWN CENTER STREET - CROSS-SECTION G



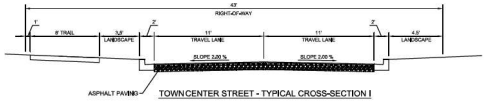
TOWN CENTER STREET - CROSS-SECTION B



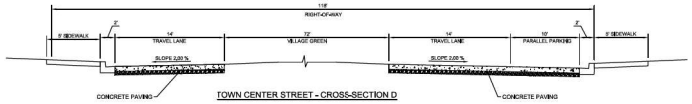
TCWN CENTER STREET - CROSS-SECTION H



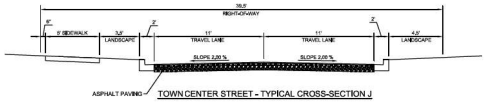
TOWN CENTER STREET - CROSS-SECTION C



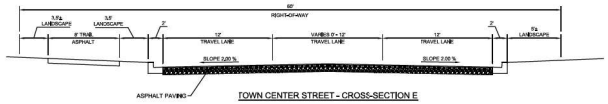
TOWN CENTER STREET - TYPICAL CROSS-SECTION I



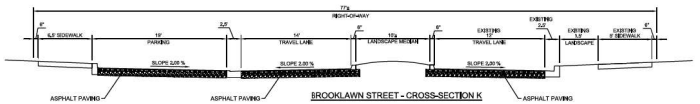
TOWN CENTER STREET - CROSS-SECTION D



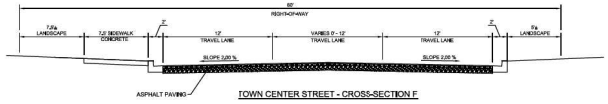
TOWN CENTER STREET - TYPICAL CROSS-SECTION J



TOWN CENTER STREET - CROSS-SECTION E



BROOKLAWN STREET - CROSS-SECTION K



TOWN CENTER STREET - CROSS-SECTION F

PAVING MATERIALS SCHEDULE

MATERIAL	THICKNESS	TYPE
TOWN CENTER STREET CONCRETE PAVING		
AGGREGATE BASE COURSE	6"	TDOT TYPE A, CLASS A & GRADING D
CONCRETE	8"	PCC 4000 PSI TYPE I WITH FIBER REINFORCEMENT
TOWN CENTER STREET 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**	2"	TDOT GRADING B
ASPHALTIC SURFACE***	.5"	TDOT GRADING E/M
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

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN K. ANDERSON
REGISTERED ENGINEER
AGRICULTURE
No. 0210458
STATE OF TENNESSEE

Proposed Town Center Street Cross Sections

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Cross Sections
SHEET: 26 OF: 44

C4.6

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 SCONER 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.

WATER, SEWER, GAS, ELECTRIC, TELEPHONE LINES, AND THEIR APPURTANENCES SHALL BE INSTALLED PER THE STANDARDS AND SPECIFICATIONS OF THE UTILITY PROVIDERS. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE UTILITY PROVICERS AND PAY ALL FEES.

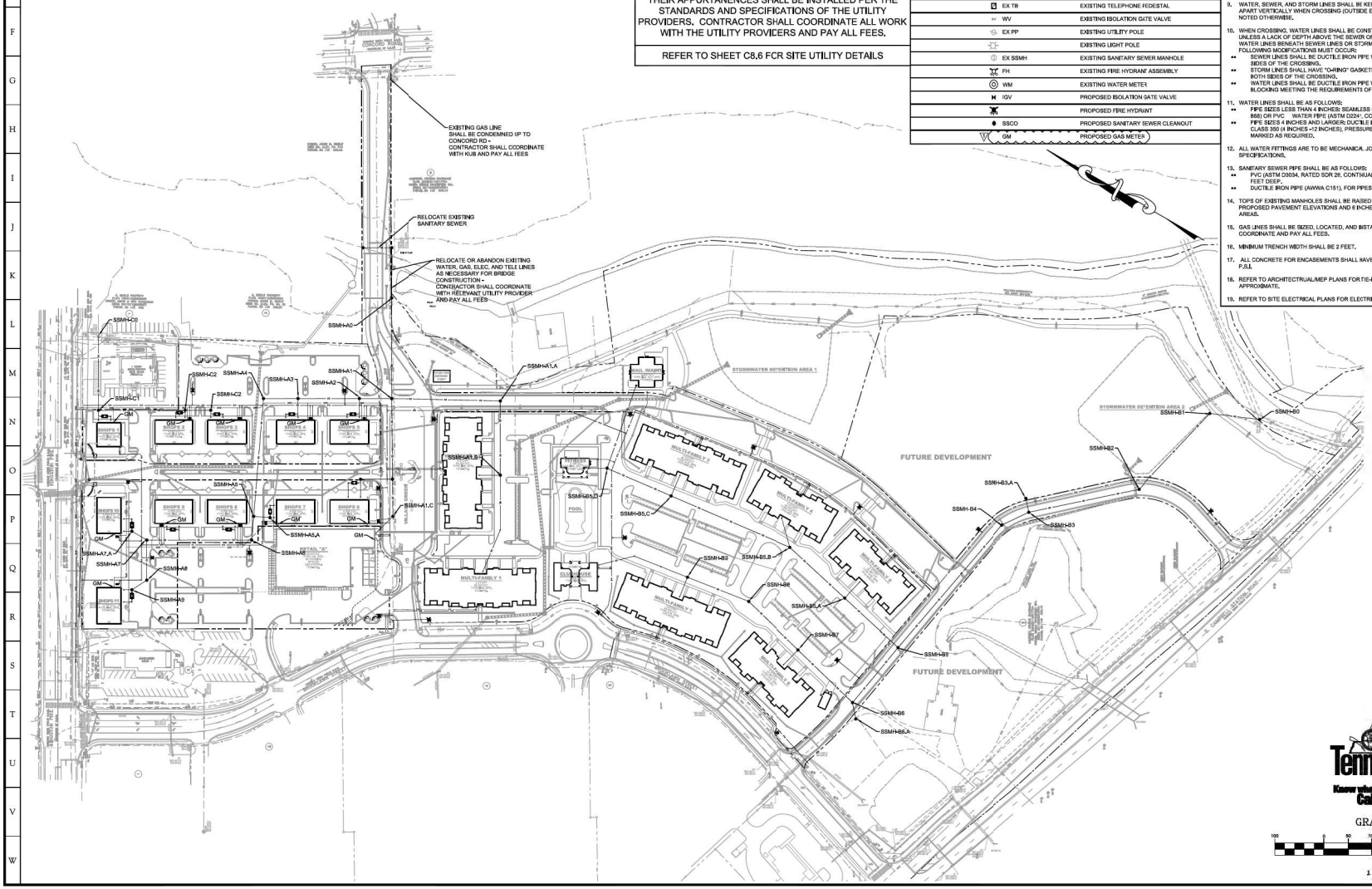
REFER TO SHEET C8.6 FCR SITE UTILITY DETAILS

SITE UTILITY LEGEND

SS	EXISTING SANITARY SEWER LINE
W	EXISTING WATER LINE
GAS	EXISTING GAS LINE
UGE	EXISTING UNDERGROUND ELECTRIC
UGT	EXISTING UNDERGROUND TELEPHINE
OHE	EXISTING OVERHEAD ELECTRIC
ST	EXISTING STORM PIPE
SS	PROPOSED SANITARY SEWER LINE
FM	PROPOSED SANITARY SEWER FORCE MAIN LINE
6"W	PROPOSED WATER LINE
GAS	PROPOSED GAS LINE
	PROPOSED UNDERGROUND ELECTRIC
UGT	PROPOSED UNDERGROUND TELEPHONE
	PROPOSED STORM PIPE - FOR REFERENCE ONLY
EX	EXISTING
EX TB	EXISTING TELEPHONE FEDESTAL
WV	EXISTING ISOLATION GATE VALVE
EX PP	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
EX SSMH	EXISTING SANITARY SEWER MANHOLE
FH	EXISTING FIRE HYDRANT ASSEMBLY
WM	EXISTING WATER METER
IGV	PROPOSED ISOLATION GATE VALVE
	PROPOSED FIRE HYDRANT
SSCO	PROPOSED SANITARY SEWER CLEANOUT
GM	PROPOSED GAS METER

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 4 INCHES SEAMLESS COPPER TUBING (TYPE "K" SOFT COPPER PER ASTM B88) OR PVC WATER PIPE (ASTM D2241, CONTINUALLY MARKED AS REQUIRED).
    - PIPE SIZES 4 INCHES AND LARGER; DUCTILE IRON WATER PIPE (AWWA C150/A150, PRESSURE CLASS 350 (4 INCHES -12 INCHES), PRESSURE CLASS 250 (14 INCHES -16 INCHES). CONTINUALLY MARKED AS REQUIRED.
12. ALL WATER FITTINGS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING AS DESCRIBED IN SPECIFICATIONS.
13. 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.
14. 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.
15. GAS LINES SHALL BE SIZED, LOCATED, AND INSTALLED BY UTILITY PROVIDER. CONTRACTOR SHALL COORDINATE AND PAY ALL FEES.
16. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
17. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
18. REFER TO ARCHITECTRUAL/MEP PLANS FOR TIE-IN OF ALL UTILITIES. LOCATIONS SHOWN ARE APPROXIMATE.
19. REFER TO SITE ELECTRICAL PLANS FOR ELECTRIC, COMMUNICATIONS, AND LIGHTING.



UTILITY CONTACTS

WATER & SANITARY SEWER
FIRST UTILITY DISTRICT
122 DURWOOD RD,
KNOXVILLE, TN 37922
CONTACT: EDWIN DEYTON
PHONE: (865) 966-9741
EMAIL: new.development@fudknox.org

GAS
KNOXVILLE UTILITIES BOARD
4505 MIDDLEBROOK PK,
KNOXVILLE, TN 37919
CONTACT: NEW SERVICE DEPARTMENT
PHONE: (865) 558-2555

TELEPHONE
TDS TELECOM
701 CONCORD RD,
KNOXVILLE, TN 37933
CONTACT: TOM NITZ
PHONE: (865) 671-4546
FAX: (865) 671-4505

STORMWATER
TOWN OF FARRAGUT
11408 MUNICIPAL TOWN CENTER DR,
FARRAGUT, TN 37934
CONTACT: DARRYL SMITH
PHONE: (865) 966-7057
FAX: (865) 966-2036

ELECTRIC
LENOIR CITY UTILITIES BOARD
7698 CREEKWOOD PARK BLVD,
LENOIR CITY, TN 37771
CONTACT: JAY HINES
PHONE: (865) 986-4591
FAX: (865) 986-0605

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

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
CERTIFICATE NO. 120201
STATE OF TENNESSEE

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

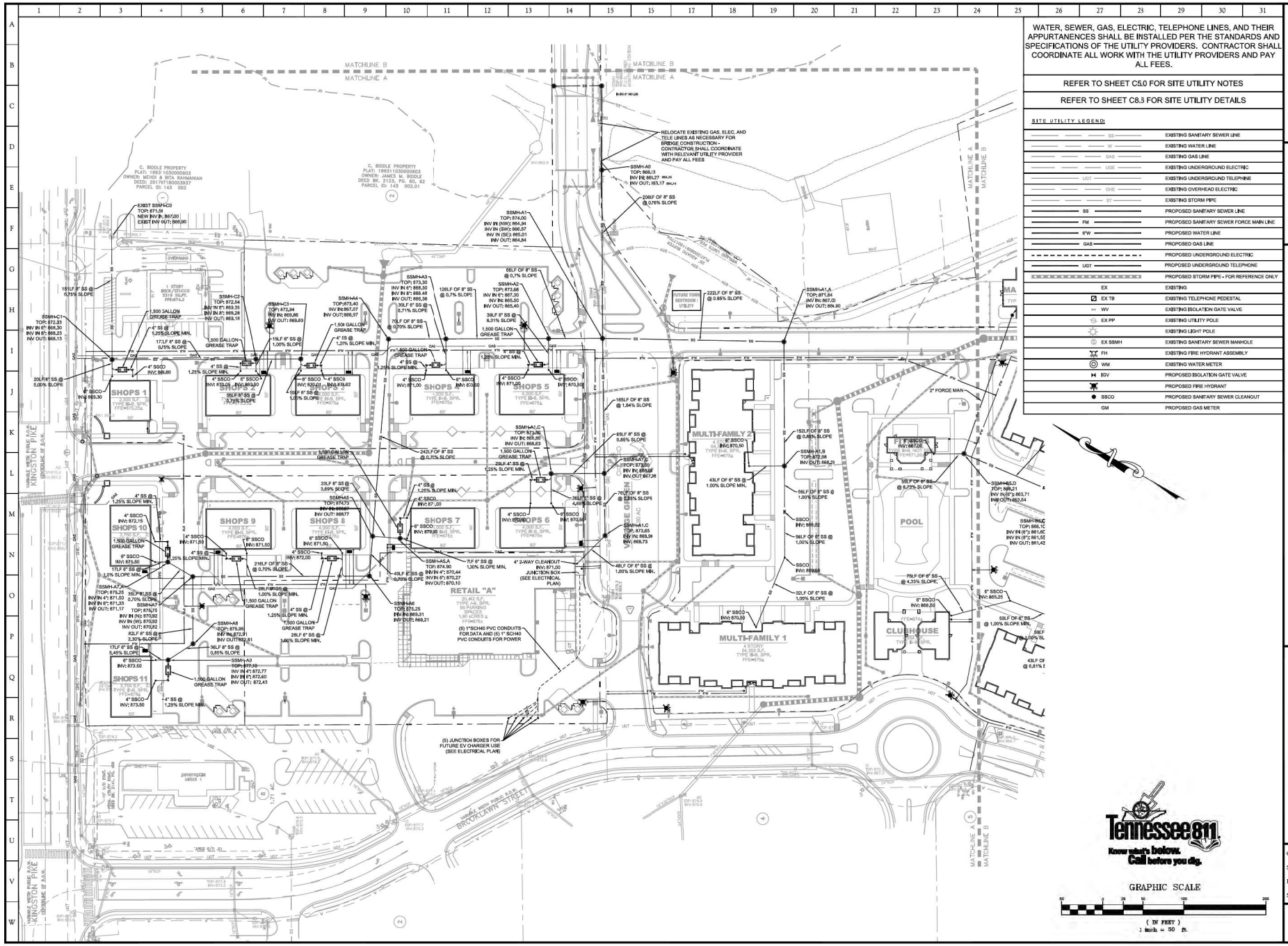
Site Utility Plan - Overall

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT#: 1994
FILE: Utility
SHEET: 27 OF: 44

C5.0



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.

REFER TO SHEET C5.0 FOR SITE UTILITY NOTES

REFER TO SHEET C8.3 FOR SITE UTILITY DETAILS

SITE UTILITY LEGEND:

SS	EXISTING SANITARY SEWER LINE
W	EXISTING WATER LINE
GAS	EXISTING GAS LINE
UGE	EXISTING UNDERGROUND ELECTRIC
UGT	EXISTING UNDERGROUND TELEPHNE
OHE	EXISTING OVERHEAD ELECTRIC
ST	EXISTING STORM PIPE
SS	PROPOSED SANITARY SEWER LINE
FM	PROPOSED SANITARY SEWER FORCE MAIN LINE
8"W	PROPOSED WATER LINE
GAS	PROPOSED GAS LINE
	PROPOSED UNDERGROUND ELECTRIC
UGT	PROPOSED UNDERGROUND TELEPHONE
	PROPOSED STORM PIPE - FOR REFERENCE ONLY
EX	EXISTING
EX TB	EXISTING TELEPHONE PEDESTAL
WV	EXISTING ISOLATION GATE VALVE
EX PP	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
EX SSMH	EXISTING SANITARY SEWER MANHOLE
FH	EXISTING FIRE HYDRANT ASSEMBLY
WM	EXISTING WATER METER
IGV	PROPOSED ISOLATION GATE VALVE
	PROPOSED FIRE HYDRANT
SSCO	PROPOSED SANITARY SEWER CLEANOUT
GM	PROPOSED GAS METER

Tennessee811
Know what's below.
Call before you dig.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
CERTIFICATE NO. 0010480
STATE OF TENNESSEE
(SEAL 03/15/2021)

Sanitary Sewer Plan - North

Farragut Town Center at Biddle Farms

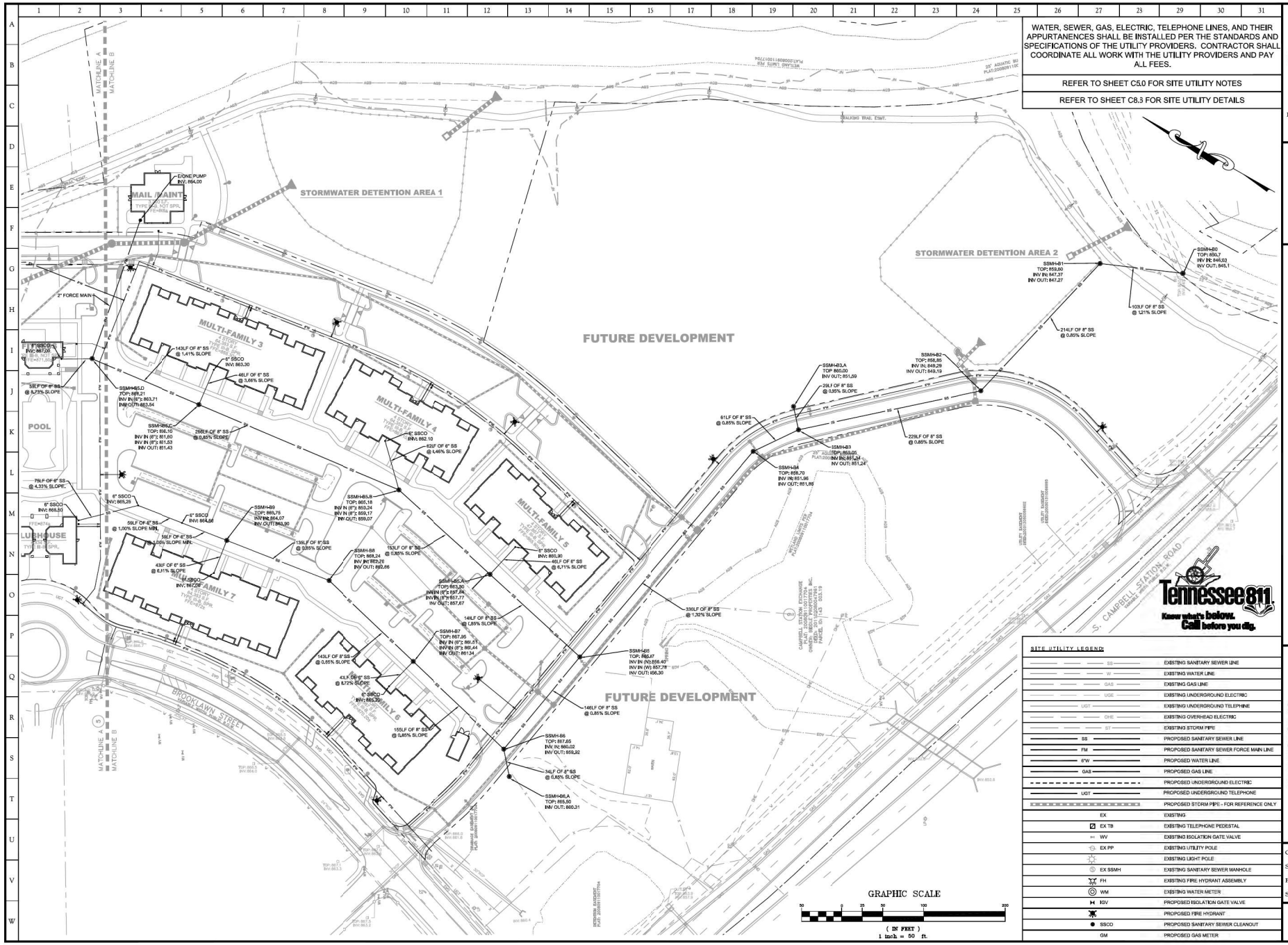
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: Utility
SHEET: 28 OF: 44

C5.1



SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
No. 0010469
STATE OF TENNESSEE

Sanitary Sewer Plan - South

Farragut Town Center at Biddle Farms

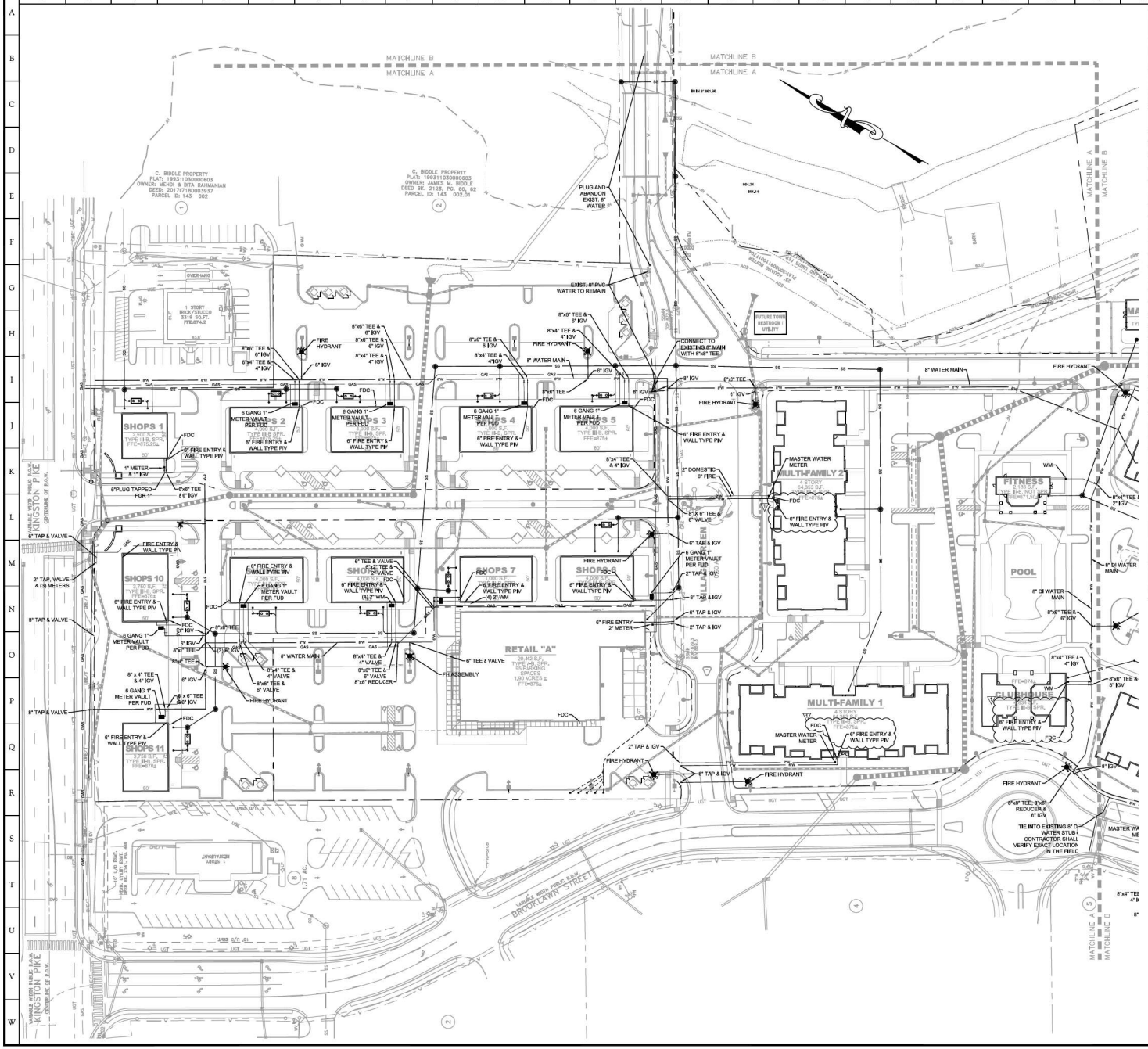
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: Utility
SHEET: 29 OF: 44

C5.2



WATER, SEWER, GAS, ELECTRIC, TELEPHONE LINES, AND THEIR APPURTANENCES 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.

REFER TO SHEET C5.0 FOR SITE UTILITY NOTES

REFER TO SHEET C8.3 FOR SITE UTILITY DETAILS

SITE UTILITY LEGEND:

SS	EXISTING SANITARY SEWER LINE
W	EXISTING WATER LINE
GAS	EXISTING GAS LINE
UGE	EXISTING UNDERGROUND ELECTRIC
UGT	EXISTING UNDERGROUND TELEPHINE
OHE	EXISTING OVERHEAD ELECTRIC
ST	EXISTING STORM PIPE
SS	PROPOSED SANITARY SEWER LINE
FM	PROPOSED SANITARY SEWER FORCE MAIN LINE
8"W	PROPOSED WATER LINE
GAS	PROPOSED GAS LINE
	PROPOSED UNDERGROUND ELECTRIC
UGT	PROPOSED UNDERGROUND TELEPHONE
	PROPOSED STORM PIPE - FOR REFERENCE ONLY
EX	EXISTING
EX TB	EXISTING TELEPHONE PEDESTAL
WV	EXISTING ISOLATION GATE VALVE
EX PP	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
EX SSMH	EXISTING SANITARY SEWER MANHOLE
FH	EXISTING FIRE HYDRANT ASSEMBLY
WM	EXISTING WATER METER
IGV	PROPOSED ISOLATION GATE VALVE
	PROPOSED FIRE HYDRANT
SSCO	PROPOSED SANITARY SEWER CLEANOUT
GM	PROPOSED GAS METER

FIRE FLOW FOR ALL BUILDINGS
REQUIRED: 1500 GPM AT 20 PSI
PROVIDED: ____ GPM AT 20 PSI

NUMBER OF HYDRANTS FOR FIRE FLOW OF 1500 GPM
REQUIRED: 1
PROVIDED: 1

AVERAGE SPACING BETWEEN HYDRANTS:
REQUIRED: 500 FT MAX
PROVIDED: 500 FT MAX

DISTANCE FROM ANY POINT ON A STREET OR ROAD FRONTAGE TO A HYDRANT:
REQUIRED: 250 FT MAX
PROVIDED: 250 FT MAX

ALL FIRE HYDRANTS SHALL PROVIDE A MINIMUM FLOW OF 1000 GPM AT 20 PSI AND BE INSTALLED IN ACCORDANCE WITH TOWN OF FARRAGUT AND FIRST UTILITY DISTRICT REQUIREMENTS

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

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON
REGISTERED ENGINEER
No. 0010460
STATE OF TENNESSEE
(CA 07/01/21)

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

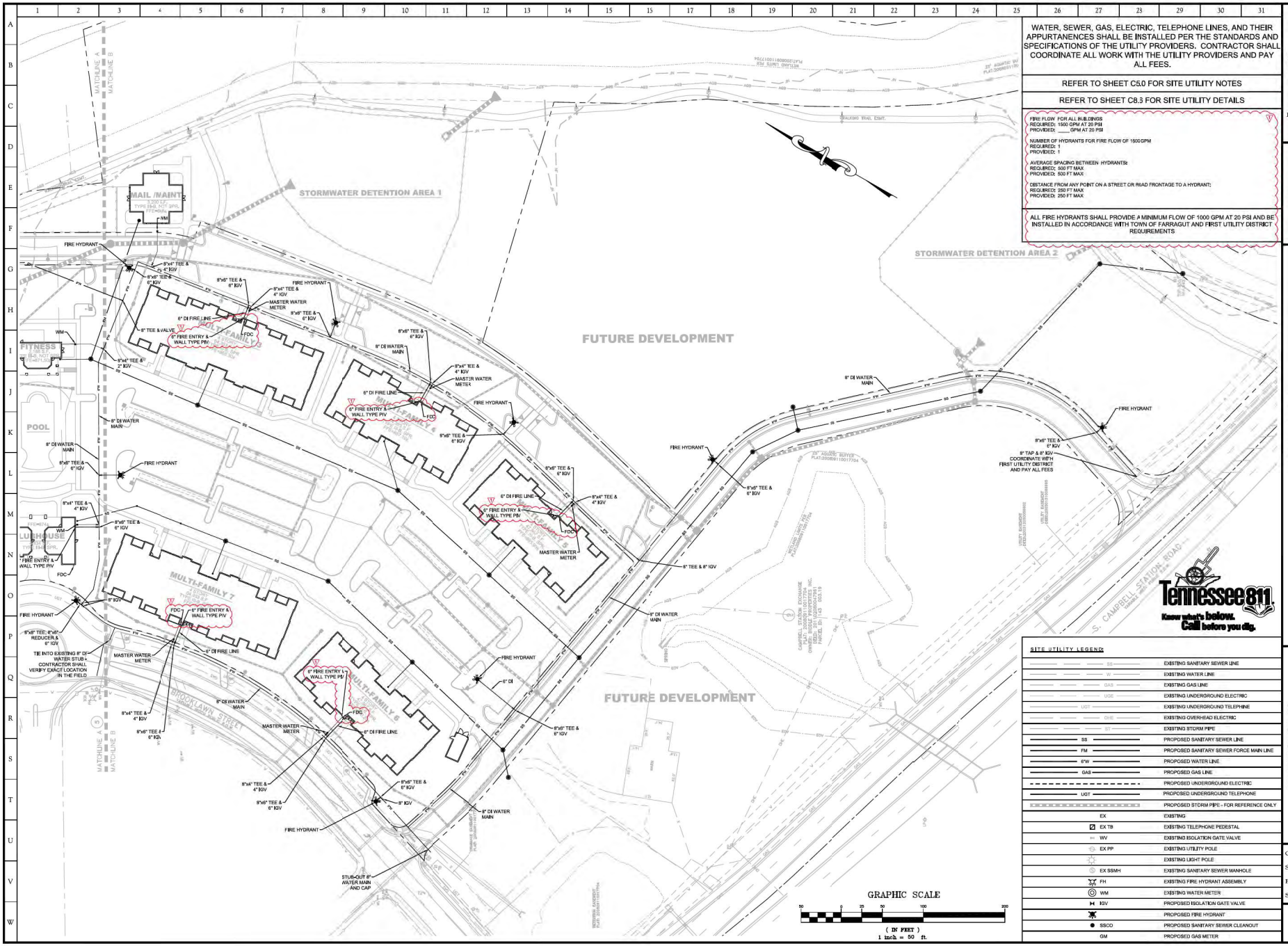
Water Line Plan - North

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: Utility
SHEET: 30 OF: 44

C5.3



WATER, SEWER, GAS, ELECTRIC, TELEPHONE LINES, AND THEIR APPURTANENCES 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.

REFER TO SHEET C5.0 FOR SITE UTILITY NOTES

REFER TO SHEET C8.3 FOR SITE UTILITY DETAILS

FIRE FLOW FOR ALL BUILDINGS
REQUIRED: 1500 GPM AT 20 PSI
PROVIDED: ____ GPM AT 20 PSI

NUMBER OF HYDRANTS FOR FIRE FLOW OF 1500 GPM
REQUIRED: 1
PROVIDED: 1

AVERAGE SPACING BETWEEN HYDRANTS:
REQUIRED: 500 FT MAX
PROVIDED: 500 FT MAX

DISTANCE FROM ANY POINT ON A STREET OR ROAD FRONTAGE TO A HYDRANT:
REQUIRED: 250 FT MAX
PROVIDED: 250 FT MAX

ALL FIRE HYDRANTS SHALL PROVIDE A MINIMUM FLOW OF 1000 GPM AT 20 PSI AND BE INSTALLED IN ACCORDANCE WITH TOWN OF FARRAGUT AND FIRST UTILITY DISTRICT REQUIREMENTS

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

SITE UTILITY LEGEND:

SS	EXISTING SANITARY SEWER LINE
W	EXISTING WATER LINE
GAS	EXISTING GAS LINE
UGE	EXISTING UNDERGROUND ELECTRIC
UGT	EXISTING UNDERGROUND TELEPHONE
OHE	EXISTING OVERHEAD ELECTRIC
ST	EXISTING STORM PIPE
SS	PROPOSED SANITARY SEWER LINE
FM	PROPOSED SANITARY SEWER FORCE MAIN LINE
6"W	PROPOSED WATER LINE
GAS	PROPOSED GAS LINE
	PROPOSED UNDERGROUND ELECTRIC
UGT	PROPOSED UNDERGROUND TELEPHONE
	PROPOSED STORM PIPE - FOR REFERENCE ONLY
EX	EXISTING
EX TB	EXISTING TELEPHONE PEDESTAL
WV	EXISTING ISOLATION GATE VALVE
EX PP	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
EX SSMH	EXISTING SANITARY SEWER MANHOLE
FH	EXISTING FIRE HYDRANT ASSEMBLY
WM	EXISTING WATER METER
IGV	PROPOSED ISOLATION GATE VALVE
	PROPOSED FIRE HYDRANT
SSCO	PROPOSED SANITARY SEWER CLEANOUT
GM	PROPOSED GAS METER

SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

CHAD R. ANDERSON
REGISTERED ENGINEER
CERTIFICATE NO. 0010400
STATE OF TENNESSEE

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee
Town of Farragut

Water Plan - South

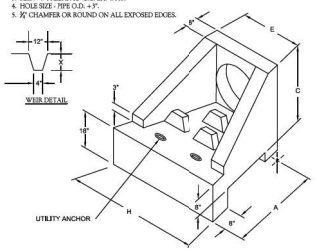
NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

REVISIONS

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: Utility
SHEET: 31 OF: 44

C5.4

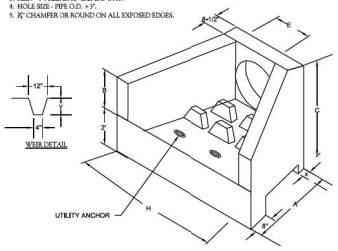
GENERAL NOTES:
1. CONCRETE 4500 P.S.I. @28 DAYS.
2. 2" MIN. CONCRETE COVERAGE.
3. REIF. - #4 REBAR 12" C.C. EA. WAY.
4. HOLE SIZE - PIPE O.D. +3".
5. ¾" CHAMFER OR ROUND ON ALL EXPOSED EDGES.



DIMENSION							
PIPE DIA.	A	C	E	H	X	WEIGHT
12"	4'-0"	2'-8"	2'-8"	4'-0"	12"	3,037#
15"	4'-0"	2'-8"	2'-8"	4'-0"	13½"	3,037#
18"	4'-0"	2'-11"	3'-0"	5'-3"	15"	3,166#
24"	5'-6"	3'-5"	3'-6"	6'-6"	18"	5,467#

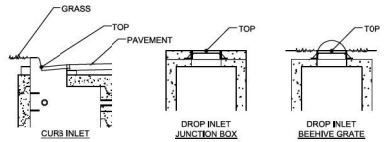
PRE-CAST ENERGY DISSIPATOR HEADWALL
N.T.S.

GENERAL NOTES:
1. CONCRETE 4500 P.S.I. @28 DAYS.
2. 2" MIN. 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.

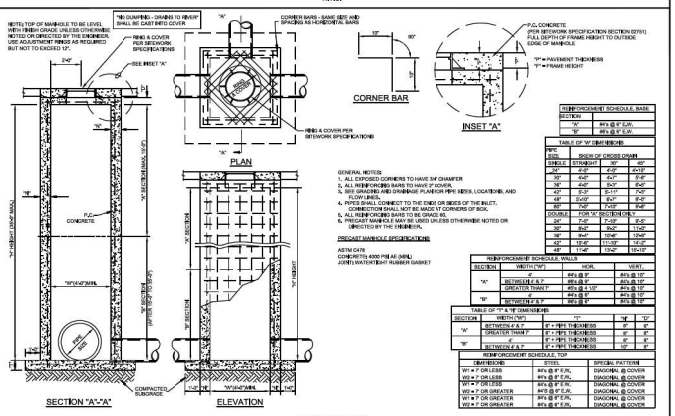


DIMENSION							
PIPE DIA.	A	B	C	E	H	X	WEIGHT
30"	5'-9"	1'-3"	4'-5 1/2"	3'-1"	7'-6"	11 1/2"	21"	6,800#
36"	6'-4"	1'-6"	5'-0"	3'-4"	8'-0"	12"	24"	8,200#
42"	6'-11"	1'-9"	5'-1 1/2"	4'-3"	10'-0"	12 1/2"	27"	10,800#
48	5'-6"	2'-0"	5'-2"	4'-10"	11'-2"	13"	30"	13,200#

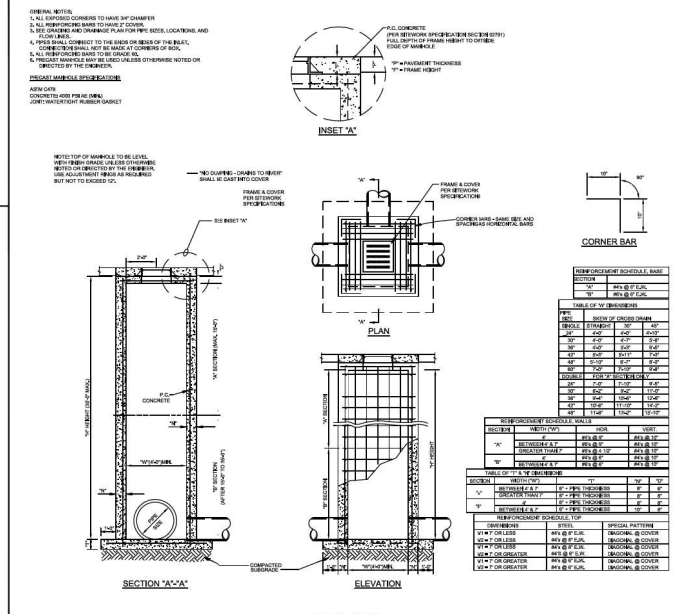
PRE-CAST ENERGY DISSIPATOR HEADWALL
N.T.S.



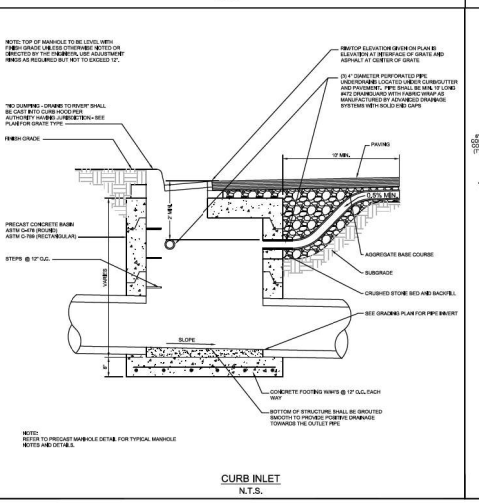
STRUCTURE ELEVATION DETAIL
N.T.S.


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
RING & COVER PER SITEWORK SPECIFICATIONS
CORNER BARS - SAME SIZE AND SPACING AS HORIZONTAL BARS
CORNER BAR
INSET "A"
P.C.C. CONCRETE (PER SITEWORK SPECIFICATION SECTION 03701) FULL DEPTH OF FRAME HEIGHT TO OUTSIDE EDGE OF MANHOLE
"D" = PAVEMENT THICKNESS
"F" = FRAME HEIGHT
SEE INSET "A"
PLAN
P.C.C. CONCRETE
COMPACTED SUBGRADE
SECTION "A"-"A"
ELEVATION
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 AT (MIN.)
JOINT=WATERTIGHT RUBBER GASKET
REINFORCEMENT SCHEDULE, BASE SECTION
"A" #4's @ 8" E.W.
"B" #4's @ 8" E.W.
TABLE OF "A" DIMENSIONS
PIPE SIZE | BEVEL | DEPTH OF CROSS DRAIN: STRAIGHT | 30° | 45°
12" | 4'-0" | 4'-0" | 4'-0" | 4'-0"
15" | 4'-0" | 4'-0" | 4'-7" | 5'-4"
18" | 4'-0" | 4'-0" | 5'-1" | 6'-0"
24" | 5'-3" | 5'-3" | 6'-11" | 8'-2"
30" | 6'-6" | 6'-6" | 8'-10" | 10'-5"
36" | 7'-9" | 7'-9" | 10'-6" | 12'-4"
DOUBLE | FOR "C" SECTION ONLY
24" | 7'-3" | 7'-3" | 9'-10" | 11'-6"
30" | 8'-6" | 8'-6" | 11'-6" | 13'-6"
36" | 9'-11" | 9'-11" | 13'-5" | 15'-9"
42" | 11'-6" | 11'-10" | 15'-3" | 17'-10"
48" | 11'-6" | 13'-2" | 17'-0" | 19'-10"
TABLE OF "B" DIMENSIONS
SECTION | WIDTH ("W") | "T" | "M" | "O"
"A" | BETWEEN 6" & 7' | 6" + PIPE THICKNESS | 6" | 8"
"A" | GREATER THAN 7' | 8" + PIPE THICKNESS | 6" | 8"
"B" | 4' | 6" + PIPE THICKNESS | 8" | 8"
"B" | BETWEEN 4' & 7' | 8" + PIPE THICKNESS | 10" | 8"
REINFORCEMENT SCHEDULE, WALLS
SECTION | WIDTH ("W") | HOR. | VERT.
"A" | 4' | #4's @ 8" | #4's @ 10"
"A" | BETWEEN 4' & 7' | #4's @ 8" | #4's @ 10"
"A" | GREATER THAN 7' | #4's @ 6 1/2" | #4's @ 10"
"B" | 4' | #4's @ 8" | #4's @ 10"
"B" | BETWEEN 4' & 7' | #4's @ 8" | #4's @ 10"
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 1/2" E.W. | DIAGONAL @ COVER
W2 = 7' OR GREATER | #4'S @ 6" E.W. | DIAGONAL @ COVER
W3 = 7' OR GREATER | #4's @ 8" E.W. | DIAGONAL @ COVER

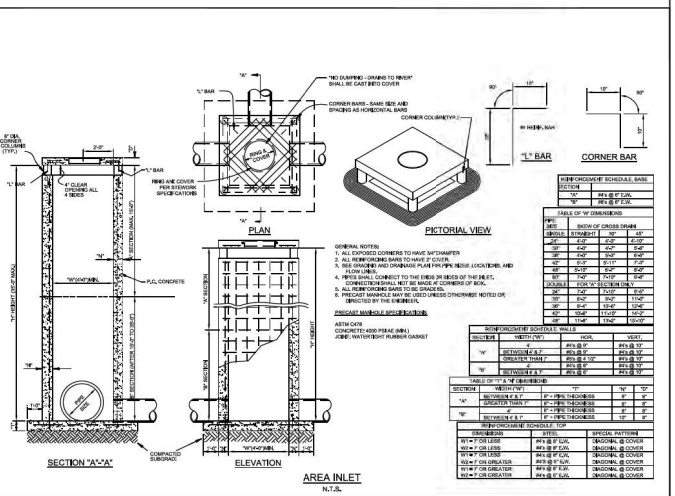
JUNCTION BOX
N.T.S.


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 AT (MIN.)
JOINT=WATERTIGHT RUBBER GASKET
INSET "A"
P.C.C. CONCRETE (PER SITEWORK SPECIFICATION SECTION 03701) FULL DEPTH OF FRAME HEIGHT TO OUTSIDE EDGE OF MANHOLE
"D" = PAVEMENT THICKNESS
"F" = FRAME HEIGHT
"NO DUMPING - DRAINS TO RIVER" SHALL BE CAST INTO COVER
FRAME & COVER PER SITEWORK SPECIFICATIONS
CORNER BARS - SAME SIZE AND SPACING AS HORIZONTAL BARS
CORNER BAR
PLAN
SECTION "A"-"A"
ELEVATION
COMPACTED SUBGRADE
REINFORCEMENT SCHEDULE, BASE SECTION
"A" #4's @ 8" E.W.
"B" #4's @ 8" E.W.
TABLE OF "A" DIMENSIONS
PIPE SIZE | BEVEL | DEPTH OF CROSS DRAIN: STRAIGHT | 30° | 45°
12" | 4'-0" | 4'-0" | 4'-0" | 4'-0"
15" | 4'-0" | 4'-0" | 4'-7" | 5'-4"
18" | 4'-0" | 4'-0" | 5'-1" | 6'-0"
24" | 5'-3" | 5'-3" | 6'-11" | 8'-2"
30" | 6'-6" | 6'-6" | 8'-10" | 10'-5"
36" | 7'-9" | 7'-9" | 10'-6" | 12'-4"
DOUBLE | FOR "C" SECTION ONLY
24" | 7'-3" | 7'-3" | 9'-10" | 11'-6"
30" | 8'-6" | 8'-6" | 11'-6" | 13'-6"
36" | 9'-11" | 9'-11" | 13'-5" | 15'-9"
42" | 11'-6" | 11'-10" | 15'-3" | 17'-10"
48" | 11'-6" | 13'-2" | 17'-0" | 19'-10"
REINFORCEMENT SCHEDULE, WALLS
SECTION | WIDTH ("W") | HOR. | VERT.
"A" | 4' | #4's @ 8" | #4's @ 10"
"A" | BETWEEN 4' & 7' | #4's @ 8" | #4's @ 10"
"A" | GREATER THAN 7' | #4's @ 6 1/2" | #4's @ 10"
"B" | 4' | #4's @ 8" | #4's @ 10"
"B" | BETWEEN 4' & 7' | #4's @ 8" | #4's @ 10"
TABLE OF "B" DIMENSIONS
SECTION | WIDTH ("W") | "T" | "M" | "O"
"A" | BETWEEN 6' & 7' | 6" + PIPE THICKNESS | 6" | 8"
"A" | GREATER THAN 7' | 8" + PIPE THICKNESS | 6" | 8"
"B" | 4' | 6" + PIPE THICKNESS | 8" | 8"
"B" | BETWEEN 4' & 7' | 8" + 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 1/2" E.W. | DIAGONAL @ COVER
W2 = 7' OR GREATER | #4'S @ 6" E.W. | DIAGONAL @ COVER
W3 = 7' OR GREATER | #4's @ 8" E.W. | DIAGONAL @ COVER

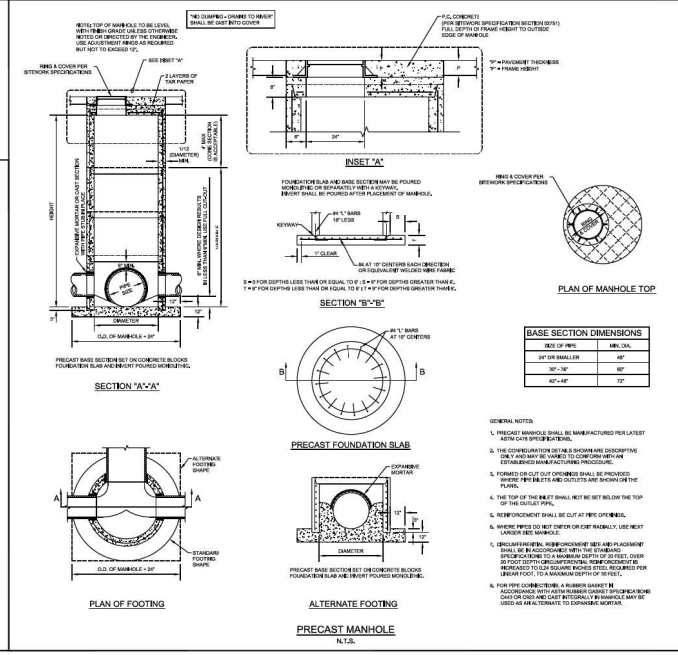
GRATE INLET
N.T.S.



CURB INLET
N.T.S.


8" DIA. CORNER COLUMNS (TYP.)
"L" BAR
4" CLEAR EXPOSING ALL 4 SIDES
RINGS & COVER
RING AND COVER PER SITEWORK SPECIFICATIONS
"A" BAR
"NO DUMPING - DRAINS TO RIVER" SHALL BE CAST INTO COVER
CORNER BARS - SAME SIZE AND SPACING AS HORIZONTAL BARS
CORNER COLUMN (TYP.)
#4 REINF. BAR
"L" BAR
CORNER BAR
PLAN
PICTORIAL VIEW
P.C.C. CONCRETE
SECTION "A"-"A"
ELEVATION
COMPACTED SUBGRADE
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 AT (MIN.)
JOINT=WATERTIGHT RUBBER GASKET
REINFORCEMENT SCHEDULE, BASE SECTION
"A" #4's @ 8" E.W.
"B" #4's @ 8" E.W.
TABLE OF "A" DIMENSIONS
PIPE SIZE | BEVEL | DEPTH OF CROSS DRAIN: STRAIGHT | 30° | 45°
12" | 4'-0" | 4'-0" | 4'-0" | 4'-0"
15" | 4'-0" | 4'-0" | 4'-7" | 5'-4"
18" | 4'-0" | 4'-0" | 5'-1" | 6'-0"
24" | 5'-3" | 5'-3" | 6'-11" | 8'-2"
30" | 6'-6" | 6'-6" | 8'-10" | 10'-5"
36" | 7'-9" | 7'-9" | 10'-6" | 12'-4"
DOUBLE | FOR "C" SECTION ONLY
24" | 7'-3" | 7'-3" | 9'-10" | 11'-6"
30" | 8'-6" | 8'-6" | 11'-6" | 13'-6"
36" | 9'-11" | 9'-11" | 13'-5" | 15'-9"
42" | 11'-6" | 11'-10" | 15'-3" | 16'-10"
48" | 11'-6" | 13'-2" | 17'-0" | 19'-10"
REINFORCEMENT SCHEDULE, WALLS
SECTION | WIDTH ("W") | HOR. | VERT.
"A" | 4' | #4's @ 8" | #4's @ 10"
"A" | BETWEEN 4' & 7' | #4's @ 8" | #4's @ 10"
"A" | GREATER THAN 7' | #4's @ 6 1/2" | #4's @ 10"
"B" | 4' | #4's @ 8" | #4's @ 10"
"B" | BETWEEN 4' & 7' | #4's @ 8" | #4's @ 10"
TABLE OF "B" DIMENSIONS
SECTION | WIDTH ("W") | "T" | "M" | "O"
"A" | BETWEEN 6' & 7' | 6" + PIPE THICKNESS | 6" | 8"
"A" | GREATER THAN 7' | 8" + PIPE THICKNESS | 6" | 8"
"B" | 4' | 6" + PIPE THICKNESS | 8" | 8"
"B" | BETWEEN 4' & 7' | 8" + 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 1/2" E.W. | DIAGONAL @ COVER
W2 = 7' OR GREATER | #4'S @ 6" E.W. | DIAGONAL @ COVER
W3 = 7' OR GREATER | #4's @ 8" E.W. | DIAGONAL @ COVER

AREA INLET
N.T.S.


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
P.C.C. CONCRETE (PER SITEWORK SPECIFICATION SECTION 03701) FULL DEPTH OF FRAME HEIGHT TO OUTSIDE EDGE OF MANHOLE
"D" = PAVEMENT THICKNESS
"F" = FRAME HEIGHT
RING & COVER PER SITEWORK SPECIFICATIONS
2 LAYERS OF TAR PAPER
SEE INSET "A"
INSET "A"
1/12 DIAMETER, MIN.
KNOCK-OUTS AS REQUIRED
FOUNDATION SLAB AND BASE SECTION MAY BE POURED MONOLITHIC OR SEPARATELY WITH A KEYWAY. INVERT SHALL BE POURED AFTER PLACEMENT OF MANHOLE.
#4 "L" BARS @ 10" LESS
KEYWAY
1" CLEAR
#4 AT 10" CENTERS EACH DIRECTION OR EQUIVALENT WELDED WIRE FABRIC
B = 6" FOR DEPTHS LESS THAN OR EQUAL TO 6'; B = 8" FOR DEPTHS GREATER THAN 6', B = 8" FOR DEPTHS LESS THAN OR EQUAL TO 8'; B = 10" FOR DEPTHS GREATER THAN 8'.
SECTION "B"-"B"
PRECAST BASE SECTION SET ON CONCRETE BLOCKS FOUNDATION SLAB AND INVERT POURED MONOLITHIC.
SECTION "A"-"A"
RING & COVER PER SITEWORK SPECIFICATIONS
PLAN OF MANHOLE TOP
BASE SECTION DIMENSIONS
SIZE OF PIPE | MIN. DIA.
24" OR SMALLER | 48"
30" - 36" | 60"
42" - 48" | 72"
#4 "L" BARS AT 10" CENTERS
PRECAST FOUNDATION SLAB
ALTERNATE FOOTING SHAPE
STANDARD FOOTING SHAPE
PLAN OF FOOTING
EXPANSIVE MORTAR
DIAMETER
PRECAST BASE SECTION SET ON CONCRETE BLOCKS FOUNDATION SLAB AND INVERT POURED MONOLITHIC.
ALTERNATE FOOTING
PRECAST MANHOLE
N.T.S.
GENERAL NOTES:
1. PRECAST MANHOLE SHALL BE MANUFACTURED PER LATEST ASTM C478 SPECIFICATIONS.
2. THE CONFIGURATION DETAILS SHOWN ARE DESCRIPTIVE ONLY. ACTUAL DESIGN SHALL BE IN ACCORDANCE WITH 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 ON 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 30 FEET. OVER 30 FOOT DEPTH CIRCUMFERENTIAL REINFORCEMENT IS TO BE DESIGNED BY A REGISTERED ENGINEER. USE 0.12 SQ. INCHES PER LINEAR FOOT, TO A MAXIMUM DEPTH OF 30 FEET.
8. FOR PIPE CONNECTIONS, A RUBBER GASKET IN ACCORDANCE WITH ASTM RUBBER GASKET SPECIFICATIONS CAST OR CORED AND CAST INTEGRALLY IN MANHOLE MAY BE USED AS AN ALTERNATE TO EXPANSIVE MORTAR.

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

JOHN K. ANDERSON
REGISTERED ENGINEER
No. 0104365
STATE OF TENNESSEE
4/15/2021

Site Grading & Drainage Details

Farragut Town Center at Biddle Farms

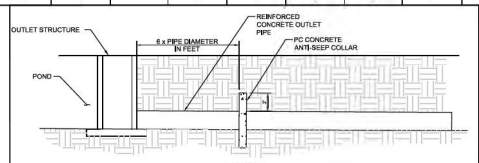
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Details
SHEET: 32 OF: 44

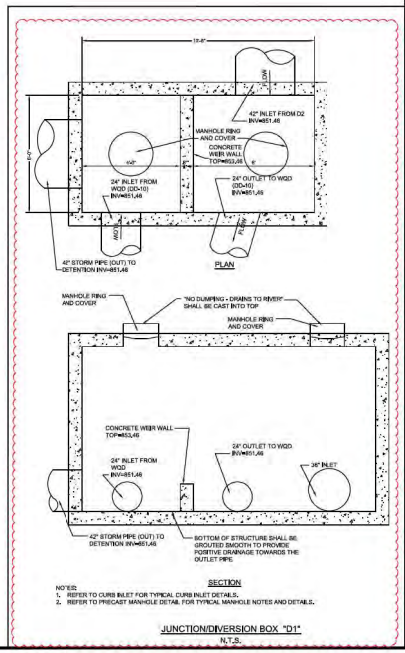
C8.0



NOTES:
1. CONNECTIONS BETWEEN THE ANTI-SEEP COLLAR AND THE BARREL MUST BE WATERTIGHT.
2. ANTI-SEEP COLLAR MUST BE PLACED A MINIMUM OF 2' FROM PIPE JOINTS.
3. MINIMUM CLEARANCE BETWEEN WWF AND OUTSIDE FACE OF ANTI-SEEP COLLAR SHALL BE 3".
4. CONCRETE SHALL BE 3,500 PSI PC CONCRETE.

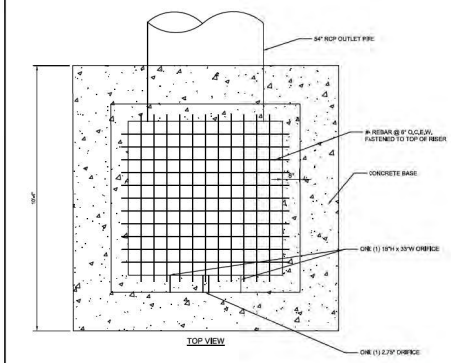
CONCRETE ANTI-SEEP COLLAR
N.T.S.

Tennessee811
Know what's below. Call before you dig.

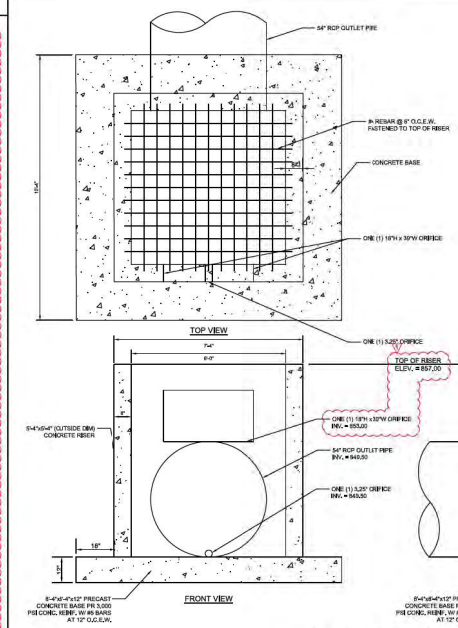


NOTES:
1. REFER TO CURB INLET FOR TYPICAL CURB INLET DETAILS.
2. REFER TO PRECAST MANHOLE DETAIL FOR TYPICAL MANHOLE NOTES AND DETAILS.

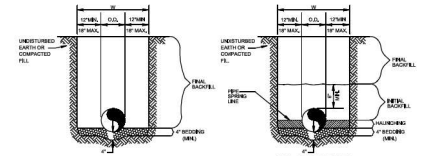
JUNCTION/DIVERSION BOX "D1"
N.T.S.



H-1 - DETENTION BASIN OUTLET STRUCTURE
N.T.S.



I-1 - DETENTION BASIN OUTLET STRUCTURE
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 5A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS 5B COMPACTED TO 95% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS 5A OR CLASS 5B OR CLASS B COMPACTED TO 95% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS 5A WORKED BY HAND, OR CLASS 5A1 OR CLASS I COMPACTED TO 95% 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 5-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 MATERIALS 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, BENCHED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)

STORM SEWER TRENCH & BEDDING
N.T.S.

MATERIALS

A. CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED REQUIREMENTS OF THIS SECTION AND APPLICABLE STATE HIGHWAY DEPARTMENT SPECIFICATIONS SUBMITTED REFERRED TO ON MATERIALS ON THE CONSTRUCTION DRAWINGS WHEN PERTAINING TO BASE COURSE DESIGN MATERIALS, PREPARATION, AND EXECUTION. MATERIALS SHALL BE AS INDICATED ON THE CONSTRUCTION DOCUMENTS AND SHALL CONFORM WITH STATE HIGHWAY DEPARTMENT SPECIFICATIONS REGARDING SOURCE, QUALITY, GRADATION, SOUNDNESS, ABSORPTION, LIQUID LIMIT, PLASTICITY INDEX, AND MIX PROPORTIONING.

B. SOIL MATERIALS
1. CLASS 1: COARSE-GRAINED SOILS CONFORMING TO ASTM D2487 GROUP SYMBOL: GW, SP, SW AND SP,
2. CLASS 2: COARSE-GRAINED SOILS WITH FINES CONFORMING TO ASTM D2487 GROUP SYMBOL: GM, GC, SM AND SC.
3. CLASS 3: FINE-GRAINED SOILS (INORGANIC) CONFORMING TO ASTM D2487 GROUP SYMBOL: ML AND CL.
4. CLASS 3+4S: FINE GRAINED SOILS (INORGANIC) CONFORMING TO ASTM D2487 GROUP SYMBOL: MH AND CH.
5. CLASS 15: 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
1/2 INCH	55-90
NO. 4	35-65
NO. 10	7-50
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	0-40
NO. 10	0-20
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: 3/8 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:

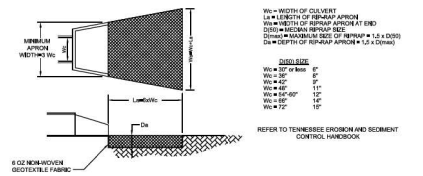
SIEVE SIZE:	PERCENT PASSING
NO.4	95-100
NO.50	5-30
NO. 200	0-5

5. CLASS 5-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 5B: 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:

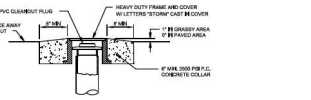
SIEVE SIZE	PERCENT PASSING
1-1/2 INCHES	100
NO.4	< 50
NO.200	< 5



D(50) SIZE	
Wc = 30" or less	6"
Wc = 36"	8"
Wc = 42"	9"
Wc = 48"	11"
Wc = 54"-60"	12"
Wc = 66"	14"
Wc = 72"	15"

REFER TO TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK

RIP RAP OUTLET PROTECTION
N.T.S.



STORM SEWER CLEANOUT
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

JOHN R. ANDERSON — REGISTERED LANDSCAPE ARCHITECT — COMMISSION NO. 101-0000478 — STATE OF TENNESSEE

Site Grading & Drainage Details

Farragut Town Center at Biddle Farms

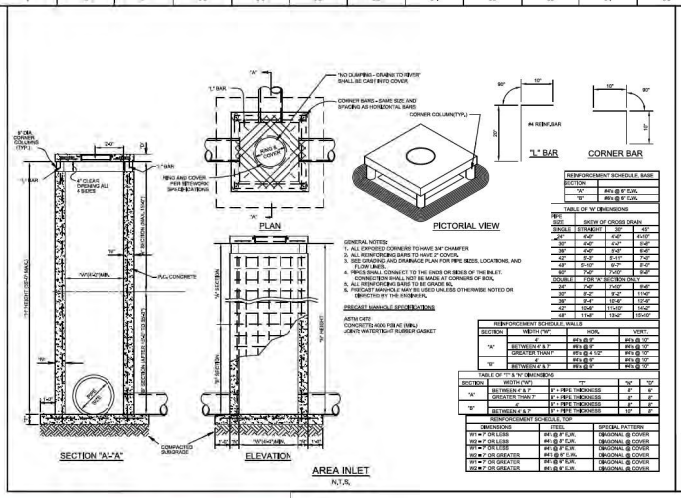
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

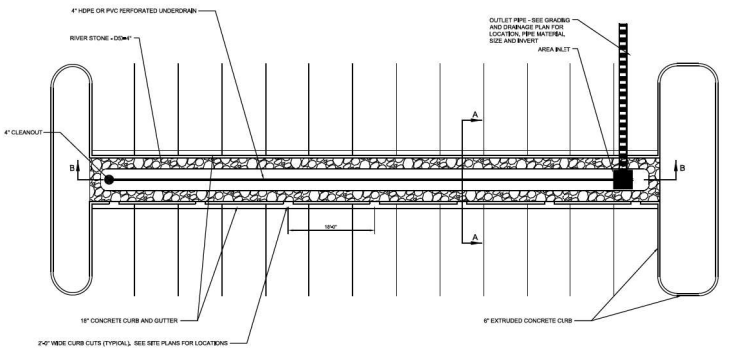
REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

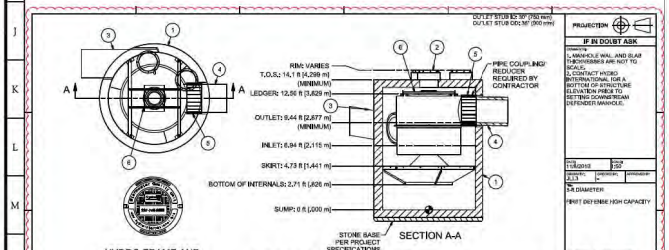
ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Details
SHEET: 33 OF: 44

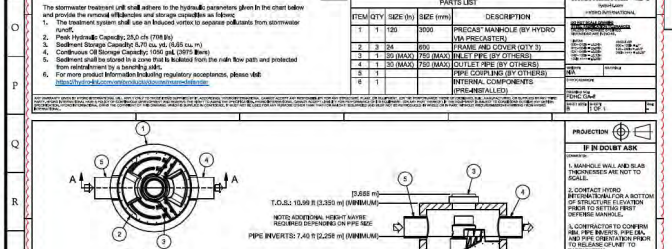
C8.1





TYPICAL BIORETENTION BASIN PLAN
N.T.S.





NOTES:

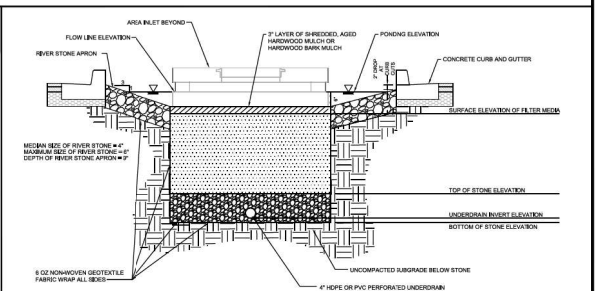
1. TEXTURE OF PLANTING SOIL SHOULD CONFORM TO THE CLASSIFICATION WITHIN THE USDA TRIANGLE FOR SANDY LOAM OR LOAMY SAND. PLANTING SOIL SHOULD BE A MIXTURE OF SAND, SILT, AND CLAY PARTICLES AS REQUIRED TO MEET THE CLASSIFICATION. RANGES OF PARTICLE SIZE DISTRIBUTION, AS DETERMINED BY PIPETTE METHOD IN COMPLIANCE WITH ASTM F-1632:

SAND	(0.05-2.0 mm)	50 - 85%
SILT	(0.002 TO 0.05 mm)	40% MAXIMUM
CLAY	(LESS THAN 0.002 mm)	10% MAXIMUM
GRAVEL	(2.0 TO 12.7 mm)	15% MAXIMUM

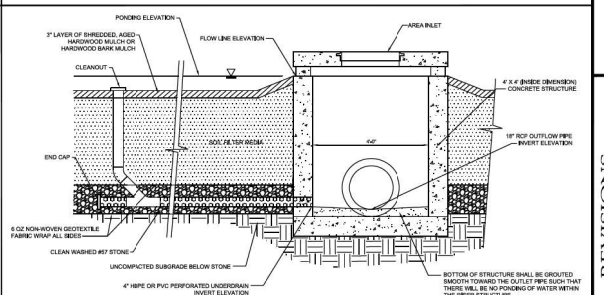
2. PLANTING SOIL SHOULD BE SCREENED AND FREE OF STONES LARGER THAN A HALF-INCH (½"; 12.7 mm) IN ANY DIMENSION. NO MORE THAN TEN PERCENT (10%) OF THE SOIL VOLUME SHOULD BE COMPOSED OF SOIL PEDS GREATER THAN ONE INCH (1").
3. CLODS, OR NATURAL CLUMPS OF SOILS, GREATER THAN THREE INCHES (3") IN ANY DIMENSION SHOULD BE ABSENT FROM THE PLANTING SOIL. SMALL CLODS RANGING FROM ONE TO THREE INCHES (1-3") AND PEDS, NATURAL SOIL CLUMPS UNDER ONE INCH (1") IN ANY DIMENSION, MAY BE PRESENT BUT SHOULD NOT MAKE UP MORE THAN TEN PERCENT (10%) OF THE SOIL BY VOLUME.
4. THE pH OF THE PLANTING SOIL SHOULD HAVE A RANGE OF 5.8-7.1.
5. SOLUBLE SALTS SHOULD BE LESS THAN 2.0 mmhos/cm (dS/m), TYPICALLY AS MEASURED BY 1:2 SOIL-WATER RATIO BASIC SOIL SALINITY TESTING. SODIC SOILS (EXCHANGEABLE SODIUM PERCENTAGE (ESP) GREATER THAN 15 AND/OR SODIUM ADSORPTION RATIO (SAR) GREATER THAN 13) SHALL NOT BE ACCEPTABLE FOR USE REGARDLESS OF AMENDMENT.
6. ORGANIC CONTENT OF PLANTING SOIL SHOULD HAVE A RANGE OF THREE TO FIFTEEN PERCENT (3-15%) BY WEIGHT AS DETERMINED BY LOSS ON IGNITION (ASTM D2974), TO ADJUST ORGANIC CONTENT, PLANTING SOIL MAY BE AMENDED, PRIOR TO PLACING AND FINAL GRADING, WITH THE ADDITION OF ORGANIC COMPOST.
7. ALL AGGREGATE WITHIN THE STONE STORAGE BED SHALL BE CLEAN-WASHED, DEFINED AS HAVING LESS THAN 0.5% WASH LOSS, BY MASS, WHEN TESTED PER THE AASHTO T-11 WASH LOST TEST.
8. GEOTEXTILE SHALL CONSIST OF POLYPROPYLENE FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

   GRAB TENSILE STRENGTH (ASTM-D4632) > OR = 120 LBS.
   MULLEN BURST STRENGTH (ASTM-D3786) > OR = 225 LBS.
   FLOW RATE (ASTM-D4491) > OR = 95 GAL./MIN./FT²
   UV RESISTANCE AFTER 500 HRS. (ASTM-D-4355) > OR = 70%
   HEAT-SET OR HEAT CALENDARED FABRICS ARE NOT PERMITTED

9. SEE LANDSCAPE PLAN THIS SHEET FOR PLANTINGS WITHIN BIO-RETENTION BASIN



TYPICAL BIORETENTION BASIN SECTION A-A
N.T.S.



SECTION "B-B" AND TYPICAL OVERFLOW STRUCTURE DETAIL
N.T.S.

BIORETENTION BASIN NUMBER	1	2	3	4	5	6	7	8	9	10
CURB CUT ELEVATION	872.01'	872.01'	865.10'	865.10'	868.20'	868.20'	863.30'	863.30'	866.40'	866.40'
TOP OF PONDING ELEV.	871.26'	871.26'	864.35'	864.35'	867.95'	867.95'	863.13'	863.13'	866.15'	866.15'
AREA INLET FLOW LINE ELEV.	871.26'	871.26'	864.35'	864.35'	867.95'	867.95'	863.13'	863.13'	866.15'	866.15'
TOP OF MULCH ELEV.	870.76'	870.76'	864.43'	864.43'	867.45'	867.45'	862.63'	862.63'	866.65'	866.65'
TOP OF FILTER MEDIA ELEV.	870.51'	870.51'	864.18'	864.18'	867.20'	867.20'	862.38'	862.38'	866.40'	866.40'
TOP OF CLEAN #57 STONE ELEV.	867.76'	867.76'	861.18'	861.43'	864.45'	864.45'	859.63'	859.63'	862.65'	862.65'
4" UNDERDRAIN INVERT ELEV.	867.03'	867.03'	858.51'	859.76'	863.78'	863.78'	857.36'	857.71'	861.98'	861.98'
BOTTOM OF STONE ELEV.	866.76'	866.76'	858.18'	859.43'	863.45'	863.45'	857.63'	857.38'	861.65'	861.65'

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

JOHN B. ANDERSON
REGISTERED ENGINEER
No. 120160
STATE OF TENNESSEE

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

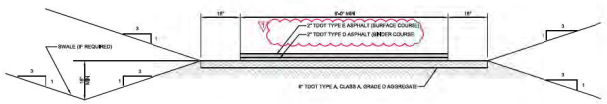
Site Bioretention Basin Details

REVISIONS

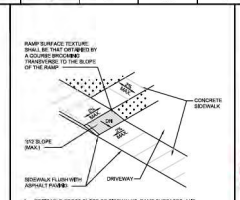
NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Details
SHEET: 34 OF: 44

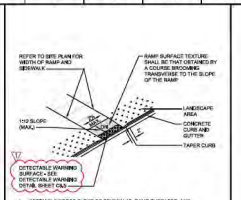
C8.2



TYPICAL GREENWAY TRAIL SECTION
N.T.S.

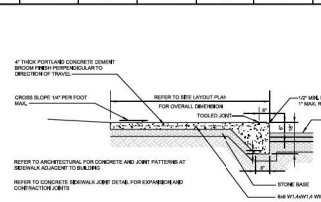


ACCESSIBLE RAMP
N.T.S.

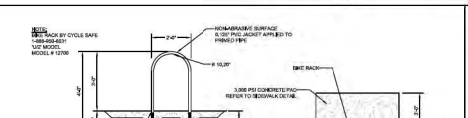


ACCESSIBLE RAMP
N.T.S.

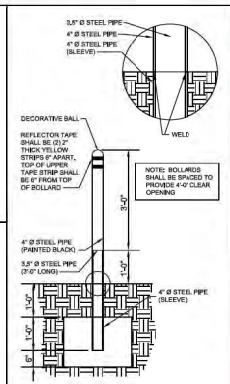
PAINTED ACCESSIBLE PARKING SYMBOL
N.T.S.



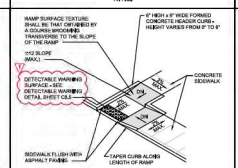
CONCRETE SIDEWALK WITH INTEGRAL CURB DETAIL
N.T.S.



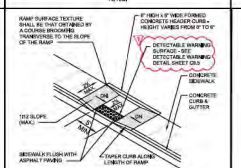
ELEVATION PLAN
BIKE RACK
N.T.S.



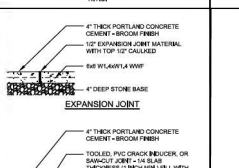
BOLLARD AT GREENWAY TRAIL
N.T.S.



ACCESSIBLE RAMP
N.T.S.

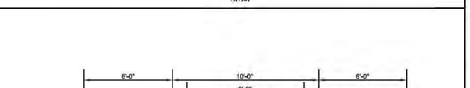


ACCESSIBLE RAMP
N.T.S.



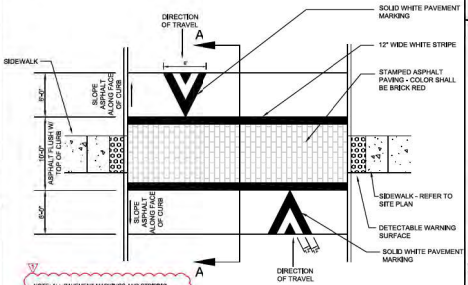
CONCRETE SIDEWALK JOINT DETAILS
N.T.S.

FLUSH CONCRETE SIDEWALK DETAIL
N.T.S.

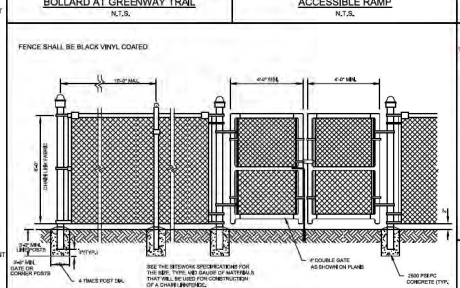


SECTION A-A

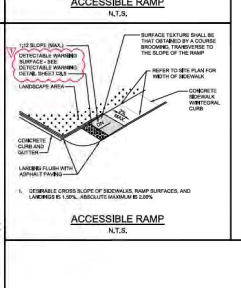
LANDSCAPE ISLAND WITH EXTRUDED CURB
N.T.S.



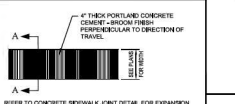
RAISED PEDESTRIAN CROSSWALK
N.T.S.



CHAIN LINK FENCE & GATE
N.T.S.



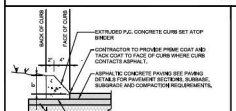
ACCESSIBLE RAMP
N.T.S.



SIDEWALK PLAN

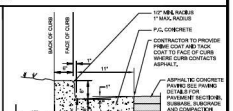
SIDEWALK SECTION A-A

SIDEWALK DETAIL
N.T.S.



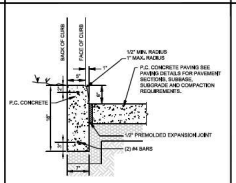
PROVIDE A 1/2" PREMOLDED EXPANSION JOINT AT TANGENT POINTS OF CIRCULAR CURB, BETWEEN CURB AND ABUTTING RIGID OBJECTS, AT A MAXIMUM SPACING OF 100 FEET, AND AT OTHER PLACES WHERE STRESSES MAY DEVELOP.
PROVIDE CONTRACTION JOINTS AT 10' O.C.

EXTRUDED CURB ON BINDER
N.T.S.

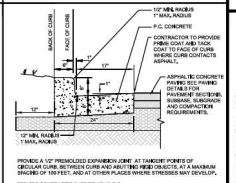


PROVIDE A 1/2" PREMOLDED EXPANSION JOINT AT TANGENT POINTS OF CIRCULAR CURB, BETWEEN CURB AND ABUTTING RIGID OBJECTS, AT A MAXIMUM SPACING OF 100 FEET, AND AT OTHER PLACES WHERE STRESSES MAY DEVELOP.
PROVIDE CONTRACTION JOINTS AT 10' O.C.

18" CURB & GUTTER
N.T.S.

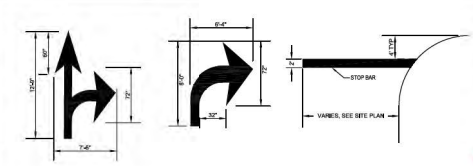


CAST-IN-PLACE HEADER CURB
N.T.S.

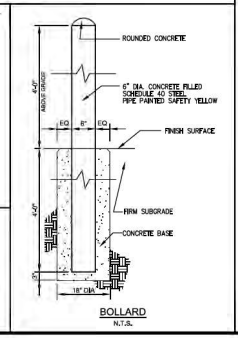


PROVIDE A 1/2" PREMOLDED EXPANSION JOINT AT TANGENT POINTS OF CIRCULAR CURB, BETWEEN CURB AND ABUTTING RIGID OBJECTS, AT A MAXIMUM SPACING OF 100 FEET, AND AT OTHER PLACES WHERE STRESSES MAY DEVELOP.
PROVIDE CONTRACTION JOINTS AT 10' O.C.

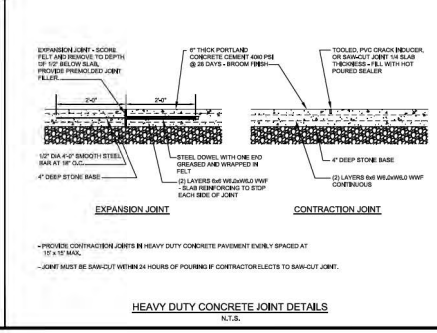
24" CURB & GUTTER
N.T.S.



TYPICAL PAVEMENT MARKINGS



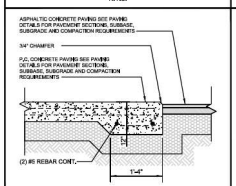
BOLLARD
N.T.S.



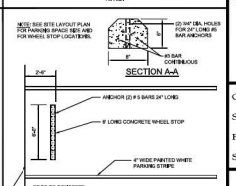
EXPANSION JOINT
CONTRACTION JOINT

- 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.



HEAVY DUTY CONCRETE PAD AT ASPHALT
N.T.S.



CONCRETE WHEEL STOP
N.T.S.

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

REGISTERED ENGINEER
JOHN R. ANDERSON
STATE OF TENNESSEE
(24) 03/15/2021

Site Layout Details

Farragut Town Center at Biddle Farms

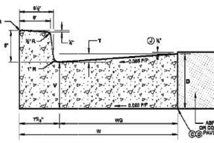
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

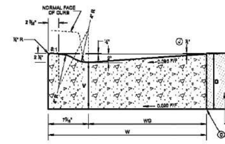
NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Details
SHEET: 35 OF: 44

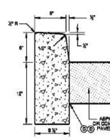
C8.3



6" CONCRETE COMBINED CURB AND GUTTER



LOWERED CONCRETE CURB AND GUTTER



6" DETACHED CONCRETE CURB

6" CONCRETE COMBINED 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 5/8"	2	D - 1.53"
6-36	36	28 5/8"	2½	D - 1.91"
6-42	42	34 5/8"	3	D - 2.29"

VERTICAL DEPTH (V) MUST ALWAYS EXCEED SIX (6) INCHES.

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

QUANTITIES FOR DETACHED CURB	
HEIGHT OF CURB	CUBIC YARD PER LINEAR FOOT
6"	0.02950
LOWERED CURB	0.02534

QUANTITIES FOR COMBINED CURB AND GUTTER

HEIGHT OF CURB	TOTAL WIDTH (W) IN INCHES	DEPTH (D) OF GUTTER IN INCHES	CUBIC YARDS PER LINEAR FOOT	DEPTH (D) OF GUTTER IN INCHES	CUBIC YARDS PER LINEAR FOOT	DEPTH (D) OF GUTTER IN INCHES	CUBIC YARDS PER LINEAR FOOT	DEPTH (D) OF GUTTER IN INCHES	CUBIC YARDS PER LINEAR FOOT	DEPTH (D) OF GUTTER IN INCHES	CUBIC YARDS PER LINEAR FOOT
LOWERED CURB	30	8	0.05711	9	0.06483	10	0.07254	11	0.08026	12	0.08796
	36	8	0.07058	9	0.08011	10	0.08934	11	0.09880	12	0.10785
	42			9	0.09831	10	0.10711	11	0.11791	12	0.12872
6"	30	8	0.06409	9	0.07181	10	0.07953	11	0.08724	12	0.09496
	36	8	0.07780	9	0.08708	10	0.09632	11	0.10556	12	0.11484
	42			9	0.10029	10	0.11409	11	0.12459	12	0.13570

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

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 THE 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.

REV. 06-26-18: REVISED DETAILS FOR LOWERED CONCRETE CURB, 6" DETACHED CONCRETE CURB AND 6" CONCRETE COMBINED CURB AND GUTTER. GENERAL NOTES: REVISED NOTES (C) AND (I). ADDED NOTE (J). MOVED LOWERED CONCRETE CURB NOTES TO NOTE NOS. (K), (L) & (M). ADJUSTED WIDTH OF GUTTER (WG) DIMENSIONS. REDREW SHEET.

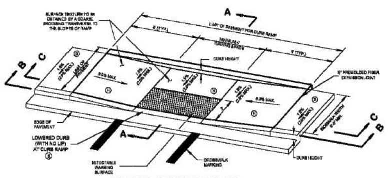
(Replaced Std Dwg RP-NMC-10)

STATE OF TENNESSEE — STANDARD DRAWING — DEPARTMENT OF TRANSPORTATION

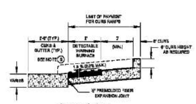
VERTICAL CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS

05-16-2018 RP-VC-10

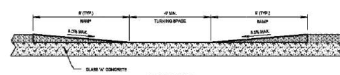
NOT TO SCALE



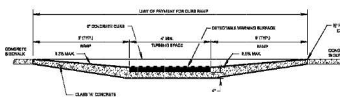
PARALLEL CURB RAMP DETAIL
DIMENSIONS SHOWN ABOVE FOR 0% LONGITUDINAL ROADWAY GRADE



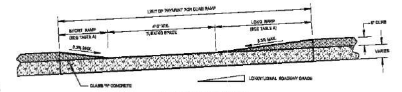
SECTION A-A



SECTION B-B
DIMENSIONS SHOWN ABOVE FOR 0% LONGITUDINAL ROADWAY GRADE



SECTION C-C
DIMENSIONS SHOWN ABOVE FOR 0% LONGITUDINAL ROADWAY GRADE



ALTERNATE SECTION B-B
PARALLEL CURB RAMP DETAIL SHOWN WITH LONGITUDINAL ROADWAY GRADE
NOTE: MODIFICATIONS MAY BE REQUIRED FOR LONGITUDINAL ROADWAY GRADES STEEPER THAN 5%. ENGINEER SHOULD BE NOTIFIED FOR ASSESSMENT IF THE CURB RAMP RUN EXCEEDS 15' IN LENGTH DUE TO THE LONGITUDINAL ROADWAY GRADE.

TABLE A

LONGITUDINAL ROADWAY GRADE	LONG RAMP	SHORT RAMP	PAY AREA S.F.
5 %	15'-0"	3'-9"	114
4 %	11'-5"	4'-1"	98
3 %	9'-8"	4'-5"	90
2 %	7'-11"	4'-10"	84
1 %	6'-10"	5'-5"	82
0 %	5'-6"	5'-0"	80

BASED ON 5' SIDEWALK WIDTH (EXCLUDING BACK CURB)

GENERAL NOTES

- (A) PARALLEL CURB RAMPS MAY BE USE WHEN SIDEWALK WIDTH IS LESS THAN 12' AND CURB RAMP IS LOCATED ALONG TANGENT SIDEWALK SECTION OF ROADWAY. FOR PARALLEL CURB RAMPS INSTALLED IN CURVE SEE STD. DWG. MM-CR-7.
- (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 15' 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) FOR SIGNALIZED INTERSECTIONS THAT REQUIRE PEDESTRIAN SIGNAL PUSHBUTTONS, SEE TDOT TRAFFIC DESIGN MANUAL FOR PLACEMENT DETAILS.
- (F) 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.
- (G) WHERE NEW CURB RAMP CONDITIONS DO NOT MEET EXISTING SIDEWALK, THE DESIGNER SHALL ADD ADDITIONAL QUANTITY FOR UP TO 15 FEET IN EACH DIRECTION OF SIDEWALK MODIFICATION TO TIE TO THE EXISTING GRADE.
- (H) SURFACE TEXTURE TO BE OBTAINED BY A COARSE BROOMING TRANSVERSE TO THE SLOPE OF CURB RAMP.
- (I) SEE STD. DWG. T-M-4 FOR CROSSWALK MARKING DETAILS.

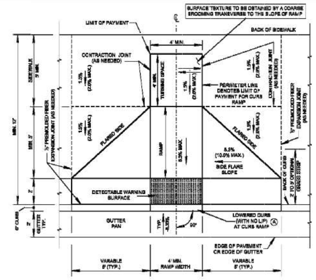
(Replaced Std Dwg RP-H-8)

STATE OF TENNESSEE — STANDARD DRAWING — DEPARTMENT OF TRANSPORTATION

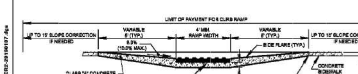
PARALLEL CURB RAMP

01-07-2019 MM-CR-3

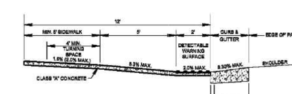
NOT TO SCALE



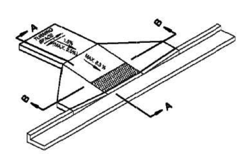
PERPENDICULAR CURB RAMP
PLAN VIEW



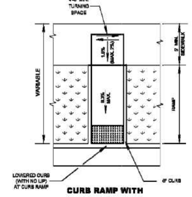
CROSS-SECTION B-B



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%.



ISOMETRIC VIEW
CURB RAMP WITH GUTTER DETAIL



CURB RAMP WITH RETURNED CURB

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-5 FOR PERPENDICULAR CURB RAMP PLACED OUTSIDE CURVE. PERPENDICULAR CURB RAMP MINIMUM DIMENSION SHOWN FOR 6" 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.

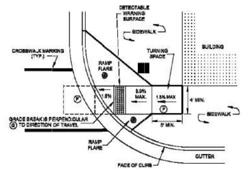
(Replaced Std Dwg RP-H-4)

STATE OF TENNESSEE — STANDARD DRAWING — DEPARTMENT OF TRANSPORTATION

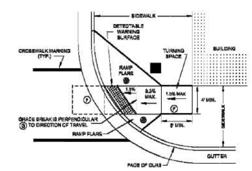
PERPENDICULAR CURB RAMP

01-07-2019 MM-CR-2

NOT TO SCALE

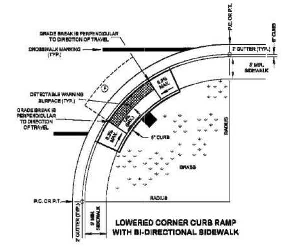


BI-DIRECTIONAL SIDEWALK PREFERED

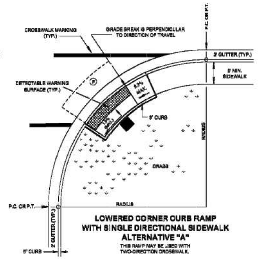


BI-DIRECTIONAL SIDEWALK ALTERNATIVE PLACEMENT

PERPENDICULAR CURB RAMPS FOR SINGLE CROSSING



LOWERED CORNER CURB RAMP WITH BI-DIRECTIONAL SIDEWALK



LOWERED CORNER CURB RAMP WITH SINGLE DIRECTIONAL SIDEWALK ALTERNATIVE "A"
THIS RAMP MAY BE USED WITH TWO-DIRECTION CROSSWALK.

PARALLEL CURB RAMPS FOR SINGLE CROSSING

REV. 05-21-19: REVISED CROSS SLOPE FOR DETAIL FOR "LOWERED CORNER CURB RAMP WITH BI-DIRECTIONAL SIDEWALK". REVISED RAMP SLOPE FOR ALL DETAILS. REVISED GENERAL NOTES (D), (F), (G) AND (I).

LEGEND

- DIMENSION VARIES RELATIVE TO LONGITUDINAL ROADWAY GRADE. 8.3% DESIRABLE (10.0% MAX.)
- DENOTES: APPROXIMATE PEDESTRIAN POLE/PUSHBUTTON LOCATION FOR SIGNALIZED INTERSECTIONS

GENERAL NOTES

- (A) FOR DETECTABLE WARNING SURFACE DETAILS SEE STD. DWG. MM-CR-1. FOR ADDITIONAL DETAILS AND OTHER INFORMATION FOR PERPENDICULAR CURB RAMPS NOT SHOWN ON THIS DRAWING SEE STD. DWG. MM-CR-2 AND FOR PARALLEL CURB RAMPS SEE STD. DWG. MM-CR-3. FOR CROSSWALK MARKING DETAILS SEE STD. DWG. T-M-4.
- (B) IF PERPENDICULAR CURB RAMPS AND TURNING SPACE CANNOT BE CONSTRUCTED DUE TO LIMITED RIGHT-OF-WAY, USE PARALLEL CURB RAMP INSTEAD.
- (C) CARE SHALL BE TAKEN ON ALL ROADWAY CURB RAMPS AT INTERSECTIONS WITH SIDEWALK AND CURB RAMPS TO ENSURE A UNIFORM GRADE AROUND THEM. THE ROADWAY CURB RAMP GRADE SHALL BE FREE OF SAGS AND SHORT GRADE CHANGES.
- (D) SIDEWALK WIDTH SHALL NOT INCLUDE 6" CONCRETE CURB. THE MAXIMUM SIDEWALK CROSS SLOPE IS 1.5 %.
- (E) DRAINAGE STRUCTURES SHALL NOT BE PLACED IN THE CROSSWALK OR IN FRONT OF THE CURB RAMP.
- (F) TURNING SPACE \ CLEAR SPACE:
  - CLEAR SPACE BEYOND THE BOTTOM GRADE BREAK IS REQUIRED. A CLEAR SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE.
  - TURNING SPACE MUST BE PROVIDED AT THE TOP OF PERPENDICULAR CURB RAMPS. THE TURNING SPACE MUST BE 4' (MIN.) BY 4' (MIN.), AND IS PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF THE SIDEWALK, THE TURNING SPACE MUST BE 4' (MIN.) BY 5' (MIN.), WITH THE 5' DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.
  - FOR PARALLEL CURB RAMPS, A TURNING SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED AT THE BOTTOM OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. IF THE TURNING SPACE IS CONSTRAINED ON 2 OR MORE SIDES, THE TURNING SPACE SHALL 4' (MIN.) BY 5' (MIN.). THE 5' DIMENSION SHALL BE PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
- (G) GRADE BREAKS:
  - GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE CURB RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMP RUNS AND TURNING SPACES. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
  - WHERE THE END OF BOTTOM GRADE BREAK IS BEHIND THE BACK OF CURB AND THE DISTANCE FROM EITHER END OF THE BOTTOM GRADE BREAK TO THE BACK OF CURB IS 5' OR LESS, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE CURB RAMP RUN WITHIN ONE DOME SPACING OF THE BOTTOM GRADE BREAK.
- (H) PEDESTRIAN SIGNAL PUSHBUTTON:
  - WHERE PEDESTRIAN SIGNALS ARE PROVIDED AT PEDESTRIAN STREET CROSSINGS, THEY SHALL INCLUDE ACCESSIBLE PEDESTRIAN SIGNALS AND POLE/PEDESTRIAN PUSHBUTTONS COMPLYING WITH SECTIONS 4E.08 THROUGH 4E.13 OF THE MUTCD.
  - WHEN TWO PEDESTRIAN PUSHBUTTONS ARE ON ONE CORNER THEY WILL BE SEPARATED BY 10 FEET.
- (I) PAYMENT:
  - 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.
  - NEW CURB RAMPS: 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.
  - PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR CONSTRUCTION OF THE CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).
  - CURB RAMPS (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 S.F.
  - PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR CONSTRUCTION OF THE CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).

(Replaced Std Dwg RP-H-7)

STATE OF TENNESSEE — STANDARD DRAWING — DEPARTMENT OF TRANSPORTATION

SINGLE CROSSING CURB RAMP IN CURVE

01-07-2019 MM-CR-5

NOT TO SCALE

SITE, INCORPORATED — CIVIL ENGINEERS & SURVEYORS — EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN R. ANDERSON — REGISTERED ENGINEER — STATE OF TENNESSEE — No. 00104080 — 3/15/2021

Site Layout Details

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil District No. 6 of Knox County, Tennessee 37934
Town of Farragut

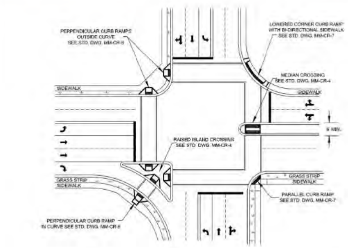
REVISIONS

NO.	DATE	COMMENTS

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT#: 1994
FILE: 1994-Details
SHEET: 36 OF: 43

C8.4

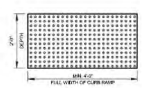
REV. 10-28-19: REVISED GENERAL NOTES BY ADDING NEW NOTES NO. (B), (N) & (O). RELETTERING NOTE NOS. (B) THRU (L).



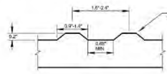
PLAN VIEW

(EXAMPLE LAYOUT SHOWING EACH RAMP TYPE; SEE REFERENCED STANDARD DRAWINGS FOR SPECIFIC ALIGNMENT INFORMATION)

TRUNCATED DOME PANELS ARE TO BE CAST INTO THE CONCRETE AND NOT FASTENED TO THE SURFACE OF THE LANDING WITH EPOXY



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)

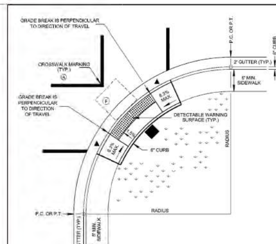
STATE OF TENNESSEE STANDARD DRAWING DEPARTMENT OF TRANSPORTATION

DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS

01-07-2019 | MM-CR-1

11/1/2019 11:22:17 AM C:\Users\jj00547\Desktop\MMCR1-20190628.dgn

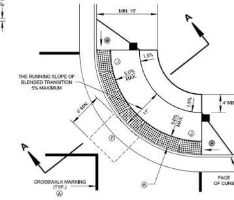
NOT TO SCALE



LOWERED CORNER CURB RAMP WITH BI-DIRECTIONAL SIDEWALK

LOWERED CORNER CURB RAMP TO BE USED AS AN ALTERNATE TO BLENDED TRANSITION WHEN REQUIRED DUE TO GEOMETRIC LIMITATIONS.

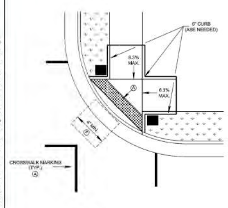
THIS DETAIL MAY BE USED WHERE SIDEWALK WIDTHS ARE LESS THAN 10' WIDE AND CURB RAMP IS LOCATED ANYWHERE WITHIN A CURVED SECTION OF SIDEWALK.



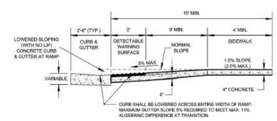
BLENDED TRANSITION

BLENDED TRANSITIONS ARE ALTERNATIVE ONLY WHEN PARALLEL, PERPENDICULAR AND COMBINATION CURB RAMPS WILL NOT WORK DUE TO GEOMETRIC CONSTRAINTS.

BLENDED TRANSITIONS ARE RAISED PEDESTRIAN STREET CROSSINGS, DEPRESSED CORNERS, OR SIMILAR CONNECTIONS BETWEEN PEDESTRIAN ACCESS ROUTES AT THE LEVEL OF THE SIDEWALK AND THE LEVEL OF THE PEDESTRIAN STREET CROSSING THAT HAVE A GRADE OF 5% OR LESS. BLENDED TRANSITIONS ARE SUITABLE FOR A RANGE OF SIDEWALK CONDITIONS.



PARALLEL CURB RAMP



SECTION A-A

LEGEND

(◉) DIMENSION VARIES RELATIVE TO LONGITUDINAL ROADWAY GRADE, 8.3% DESIRABLE (10.0% MAX.)

■ DENOTES: APPROXIMATE PEDESTRIAN POLE/PUSHBUTTON LOCATION FOR SIGNALIZED INTERSECTIONS

▲ CLEARLY MAINTAIN THE DEFINED PERIMETER OF THE RAMP AT LOCATIONS WHERE THE GRADE OF THE ROADWAY MAY MATCH THE SLOPE OF THE RAMP.

GENERAL NOTES

(A) FOR DETECTABLE WARNING SURFACE DETAILS SEE STD. DWG. MM-CR-1. FOR ADDITIONAL DETAILS AND OTHER INFORMATION FOR PERPENDICULAR CURB RAMPS NOT SHOWN ON THIS DRAWING SEE STD. DWG. MM-CR-2 AND FOR PARALLEL CURB RAMPS SEE STD. DWG. MM-CR-3. FOR CROSSWALK MARKING DETAILS SEE STD. DWG. T-M-4.

(B) IF PERPENDICULAR CURB RAMPS AND TURNING SPACE CANNOT BE CONSTRUCTED DUE TO LIMITED RIGHT-OF-WAY, USE PARALLEL CURB RAMP INSTEAD.

(C) CARE SHALL BE TAKEN ON ALL ROADWAY CURB RAMPS AT INTERSECTIONS WITH SIDEWALK AND CURB RAMPS TO ENSURE A UNIFORM GRADE AROUND THEM. THE ROADWAY CURB RAMP GRADE SHALL BE FREE OF SAGS AND SHORT GRADE CHANGES.

(D) SIDEWALK WIDTH SHALL NOT INCLUDE 6" CONCRETE CURB. THE DESIRABLE SIDEWALK CROSS SLOPE IS 1.5 %, ABSOLUTE MAXIMUM IS 2.0%.

(E) DRAINAGE STRUCTURES SHALL NOT BE PLACED IN THE CROSSWALK OR IN FRONT OF THE CURB RAMP.

(F) TURNING SPACE \ CLEAR SPACE:

CLEAR SPACE BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE.

TURNING SPACE MUST BE PROVIDED AT THE TOP OF PERPENDICULAR CURB RAMPS. THE TURNING SPACE MUST BE 4' (MIN.) BY 4' (MIN.), AND IS PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF THE SIDEWALK, THE TURNING SPACE MUST BE 4' (MIN.) BY 5' (MIN.), WITH THE 5' DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.

FOR PARALLEL CURB RAMPS, A TURNING SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED AT THE BOTTOM OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. IF THE TURNING SPACE IS CONSTRAINED ON 2 OR MORE SIDES, THE TURNING SPACE SHALL 4' (MIN.) BY 5' (MIN.). THE 5' DIMENSION SHALL BE PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

(G) GRADE BREAKS:

GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE CURB RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMP RUNS AND TURNING SPACES. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.

WHERE THE END OF BOTTOM GRADE BREAK ARE BEHIND THE BACK OF CURB AND THE DISTANCE FROM EITHER END OF THE BOTTOM GRADE BREAK TO THE BACK OF CURB IS 5' OR LESS, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE CURB RAMP RUN WITHIN ONE DOME SPACING OF THE BOTTOM GRADE BREAK.

(H) PEDESTRIAN SIGNAL PUSHBUTTON:

WHERE PEDESTRIAN SIGNALS ARE PROVIDED AT PEDESTRIAN STREET CROSSINGS, THEY SHALL INCLUDE ACCESSIBLE PEDESTRIAN SIGNALS AND POLE\PEDESTRIAN PUSHBUTTONS COMPLYING WITH SECTIONS 4E.08 THROUGH 4E.13 OF THE MUTCD. FOR DETAILS OF THE PLACING OF PEDESTRIAN SIGNAL PUSHBUTTONS SEE TDOT TRAFFIC DESIGN MANUAL.

WHEN TWO PEDESTRIAN PUSHBUTTONS ARE ON ONE CORNER THEY WILL BE SEPARATED BY 10 FEET.

(I) PAYMENT:

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.

NEW CURB RAMPS:
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).

CURB RAMPS (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).

(J) DETECTABLE WARNING SURFACE(S) SHALL COVER ENTIRE RADIUS WITHIN RAMP AND SHALL EXTEND TO THE CROSSWALK PAVEMENT MARKINGS ON EITHER SIDE.

(Replaced Std Dwg RP-H-9)

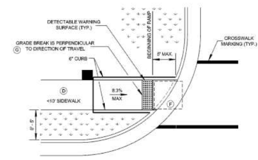
STATE OF TENNESSEE STANDARD DRAWING DEPARTMENT OF TRANSPORTATION

CURB RAMPS IN CURVE BI-DIRECTIONAL DUAL CROSSING

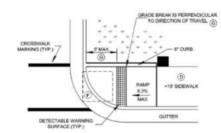
01-07-2019 | MM-CR-7

2/28/2019 10:06:34 AM C:\Users\jj00547\Desktop\TDOT Multimodal Drawing Update\MMCR7-20190107.dgn

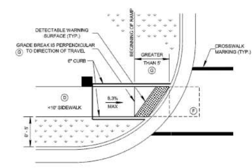
NOT TO SCALE



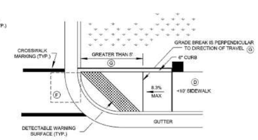
DETAIL A
MONO-DIRECTIONAL PERPENDICULAR CURB RAMP WITH GRASS STRIP



DETAIL B
MONO-DIRECTIONAL PERPENDICULAR CURB RAMP WITHOUT GRASS STRIP



DETAIL C
MONO-DIRECTIONAL PERPENDICULAR CURB RAMP WITH GRASS STRIP AND GRADE BREAK > 5'



DETAIL D
MONO-DIRECTIONAL PERPENDICULAR CURB RAMP WITH GRASS STRIP AND GRADE BREAK > 5'

LEGEND

■ DENOTES: APPROXIMATE PEDESTRIAN POLE/PUSHBUTTON LOCATION FOR SIGNALIZED INTERSECTIONS

GENERAL NOTES

(A) FOR DETECTABLE WARNING SURFACE DETAILS SEE STD. DWG. MM-CR-1. FOR ADDITIONAL DETAILS AND OTHER INFORMATION FOR PERPENDICULAR CURB RAMPS NOT SHOWN ON THIS DRAWING SEE STD. DWG. MM-CR-2 AND FOR PARALLEL CURB RAMPS SEE STD. DWG. MM-CR-3. FOR CROSSWALK MARKING DETAILS SEE STD. DWG. T-M-4.

(B) IF PERPENDICULAR CURB RAMPS AND TURNING SPACE CANNOT BE CONSTRUCTED DUE TO LIMITED RIGHT-OF-WAY, USE PARALLEL CURB RAMP INSTEAD.

(C) CARE SHALL BE TAKEN ON ALL ROADWAY CURB RAMPS AT INTERSECTIONS WITH SIDEWALK AND CURB RAMPS TO ENSURE A UNIFORM GRADE AROUND THEM. THE ROADWAY CURB RAMP GRADE SHALL BE FREE OF SAGS AND SHORT GRADE CHANGES.

(D) SIDEWALK WIDTH SHALL NOT INCLUDE 6" CONCRETE CURB. THE DESIRABLE SIDEWALK CROSS SLOPE IS 1.5 %, ABSOLUTE MAXIMUM IS 2.0%.

(E) DRAINAGE STRUCTURES SHALL NOT BE PLACED IN THE CROSSWALK OR IN FRONT OF THE CURB RAMP.

(F) TURNING SPACE \ CLEAR SPACE:

CLEAR SPACE BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE.

TURNING SPACE MUST BE PROVIDED AT THE TOP OF PERPENDICULAR CURB RAMPS. THE TURNING SPACE MUST BE 4' (MIN.) BY 4' (MIN.), AND IS PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF THE SIDEWALK, THE TURNING SPACE MUST BE 4' (MIN.) BY 5' (MIN.), WITH THE 5' DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.

FOR PARALLEL CURB RAMPS, A TURNING SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED AT THE BOTTOM OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. IF THE TURNING SPACE IS CONSTRAINED ON 2 OR MORE SIDES, THE TURNING SPACE SHALL 4' (MIN.) BY 5' (MIN.). THE 5' DIMENSION SHALL BE PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

(G) GRADE BREAKS:

GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE CURB RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMP RUNS AND TURNING SPACES. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.

WHERE THE END OF BOTTOM GRADE BREAK ARE BEHIND THE BACK OF CURB AND THE DISTANCE FROM EITHER END OF THE BOTTOM GRADE BREAK TO THE BACK OF CURB IS 5' OR LESS, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE CURB RAMP RUN WITHIN ONE DOME SPACING OF THE BOTTOM GRADE BREAK.

(H) PEDESTRIAN SIGNAL PUSHBUTTON:

WHERE PEDESTRIAN SIGNALS ARE PROVIDED AT PEDESTRIAN STREET CROSSINGS, THEY SHALL INCLUDE ACCESSIBLE PEDESTRIAN SIGNALS AND POLE\PEDESTRIAN PUSHBUTTONS COMPLYING WITH SECTIONS 4E.08 THROUGH 4E.13 OF THE MUTCD. FOR DETAILS OF THE PLACING OF PEDESTRIAN SIGNAL PUSHBUTTONS SEE TDOT TRAFFIC DESIGN MANUAL.

WHEN TWO PEDESTRIAN PUSHBUTTONS ARE ON ONE CORNER THEY WILL BE SEPARATED BY 10 FEET.

(I) PAYMENT:

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.

NEW CURB RAMPS:
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).

CURB RAMPS (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).

(J) THIS DRAWING CAN BE USED WHERE SIDEWALK WIDTHS ARE LESS THAN 10' WIDE AND RAMP IS LOCATED ANYWHERE WITHIN A CURVED SECTION OF SIDEWALK.

(Replaced Std Dwg RP-H-10)

STATE OF TENNESSEE STANDARD DRAWING DEPARTMENT OF TRANSPORTATION

MONO-DIRECTIONAL SINGLE CROSSWALK CURB RAMP DETAILS

01-07-2019 | MM-CR-8

2/14/2019 9:51:27 AM C:\Users\jj00547\Desktop\TDOT Multimodal Drawing Update\MMCR8-20190107.dgn

NOT TO SCALE

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

JOHN R. ANDERSON REGISTERED ENGINEER No. 00104080 STATE OF TENNESSEE AGRICULTURE COMMERCE 04/05/2021

Site Layout Details

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

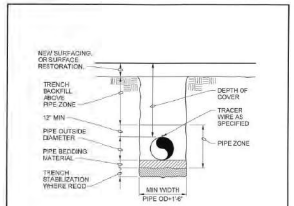
ORIGINAL ISSUE: 03/15/2021

SITE PROJECT#: 1994

FILE: 1994-Details

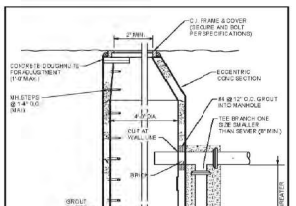
SHEET: 37 OF: 44

C8.5



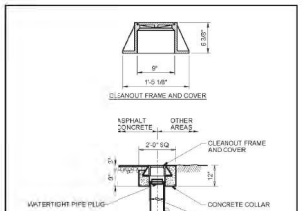
NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	TRENCH TERMINOLOGY	DATE: JUNE 1, 2015
	G-02	



NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	PRECAST CONCRETE MANHOLE	DATE: JUNE 1, 2015
	WW-01	



NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	CLEANOUT	DATE: JUNE 1, 2015
	WW-04	

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 (1333)(P)/S, WHERE:
   P = ACTUAL TEST PRESSURE, PSIG
   S = 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)

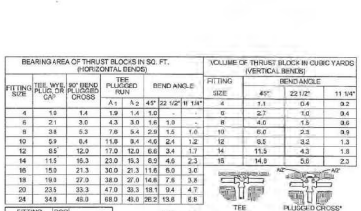
FITTING SIZE	TEE, WYE OR PLUG OR CAP	90° BEND OR PLUGGED CROSS	TEE PLUGGED RUN	BEND ANGLE			
			A-1	A-2	45°	22 1/2°	11 1/4°
4	1.0	1.4	1.9	1.4	1.0	-	-
6	2.1	3.0	4.3	3.0	1.6	1.0	-
8	3.8	5.3	7.8	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2
12	8.5	12.0	17.0	12.0	6.6	3.4	1.7
14	11.5	16.3	23.0	16.3	8.9	4.5	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	7.5	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	RODS SIZE	EMBEDMENT
12" AND LESS	#6	30"
14"-16"	#8	36"

GALVANIZED RODS OVER FITTING AND EMBEDDED IN CONCRETE (SEE TABLE FOR SIZES)

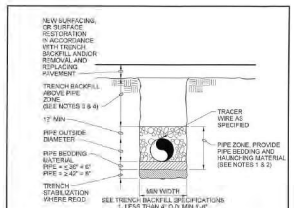
VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)

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	9.5	3.2	1.3
14	11.3	4.3	1.8
16	14.9	5.6	2.3



NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	TYPICAL BLOCKING	DATE: JUNE 1, 2015
	W-02	

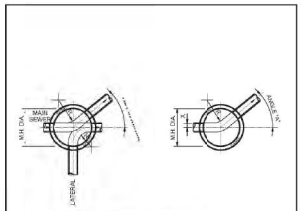


NOTES:

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 IN 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.

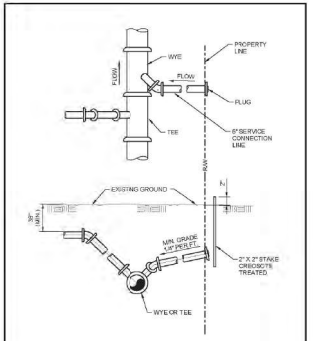
NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	PIPE BEDDING AND HAUNCHING	DATE: JUNE 1, 2015
	G-04	



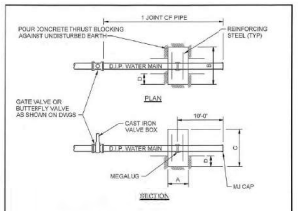
NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	STANDARD MANHOLE	DATE: JUNE 1, 2015
	WW-02	



NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	SERVICE CONNECTION	DATE: JUNE 1, 2015
	WW-05	



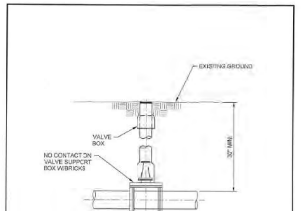
MAIN DIA	CONCRETE COLLAR DIM.			STEEL REINFORCING
	A	B	C	
12"	1'-2"	5'-3"	5'-3"	1'-0" #7 @ 12" O.C. E.W.E.F.
4", 8" OR 8"	1'-0"	4'-0"	4'-0"	0'-9" #5 @ 12" O.C. E.W.E.F.

NOTES:

TEST PRESSURE: 250 PSI
SOIL BEARING PRESSURE: 2000 PSF
"D" = MINIMUM DISTANCE INTO UNDISTURBED EARTH, BOTTOM AND SIDES.
KEY CONCRETE COLLAR INTO UNDISTURBED SOIL.

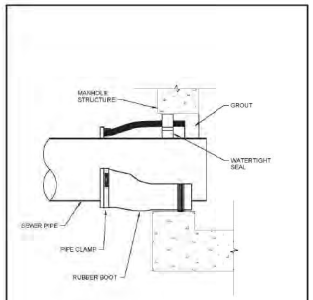
NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	WATER LINE TERMINATION	DATE: JUNE 1, 2015
	W-03	



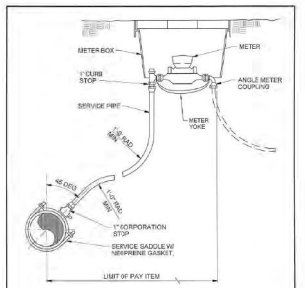
NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	GATE VALVE	DATE: JUNE 1, 2015
	W-07	



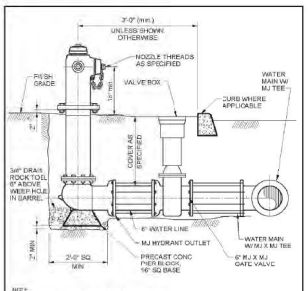
NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	RUBBER BOOT	DATE: JUNE 1, 2015
	WW-03	



NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	TYPICAL WATER SERVICE & METER CONNECTION	DATE: JUNE 1, 2015
	W-01	

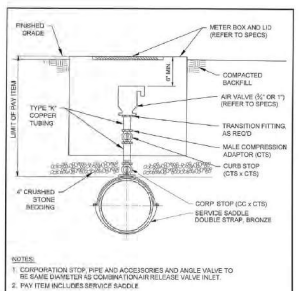


NOTES:

1. HYDRANT, TEE, AND GATE VALVE TO BE RESTRAINED WITH MEGA-LUG FITTINGS AND SHALL BE FULLY KNOCKED WITH 1" ALL-THREAD.
2. HYDRANT SHALL BE MUELLER (SUPER CENTURION 250, MODEL A423), M&H (MODEL 129), OR FLO 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 EPOXY COATED AND YELLOW IN COLOR.
4. PROVIDE CONCRETE THRUST BLOCKING AT HYDRANT ELBOW (NOT SHOWN FOR CLARITY) IN ACCORDANCE WITH DETAIL W-02. DO NOT OBSTRUCT WEEP HOLES WITH CONCRETE.

NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	TYPICAL FIRE HYDRANT ASSEMBLY	DATE: JUNE 1, 2015
	W-04	



NOTES:

1. CORPORATION STOP, PIPE AND ACCESSORIES AND ANGLE VALVE TO BE SAME DIAMETER AS COMBINATION AIR RELEASE VALVE INLET.
2. PAY ITEM INCLUDES SERVICE SADDLE

NTS

First UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE	3/4" & 1" (WATER) COMBO AIR RELEASE VALVE ASSEMBLY	DATE: JUNE 1, 2015
	W-10	

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

JOHN K. ANDERSON
REGISTERED ENGINEER
No. 0102463
STATE OF TENNESSEE
6/15/2021

Site Utility Details

Farragut Town Center at Biddle Farms

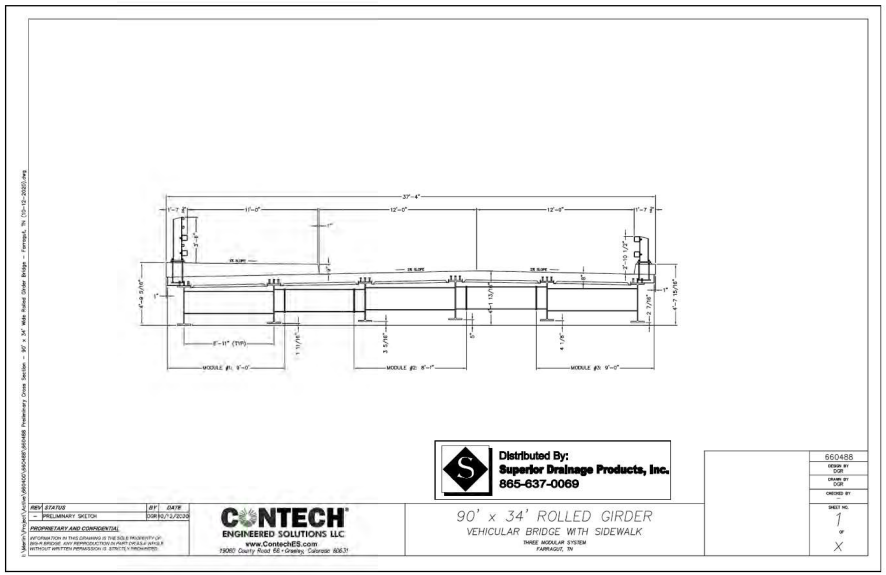
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

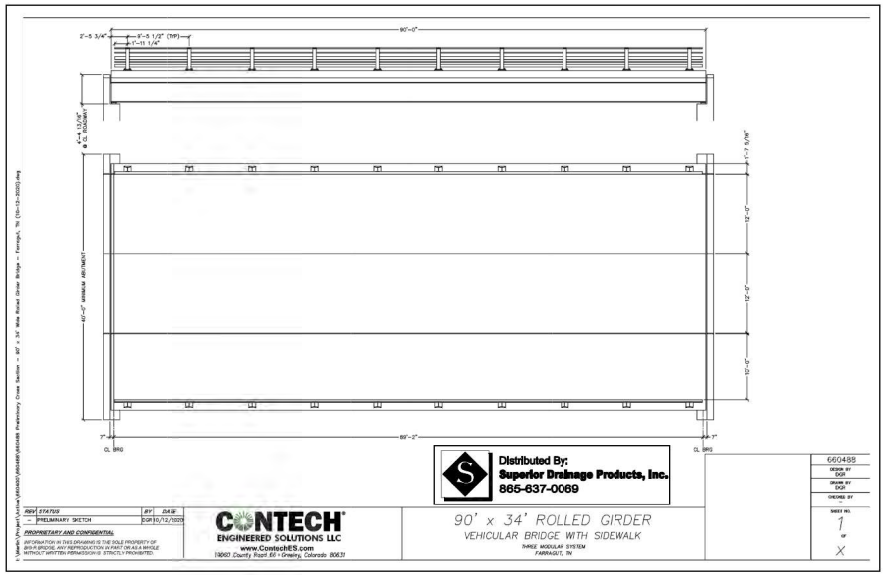
REVISIONS

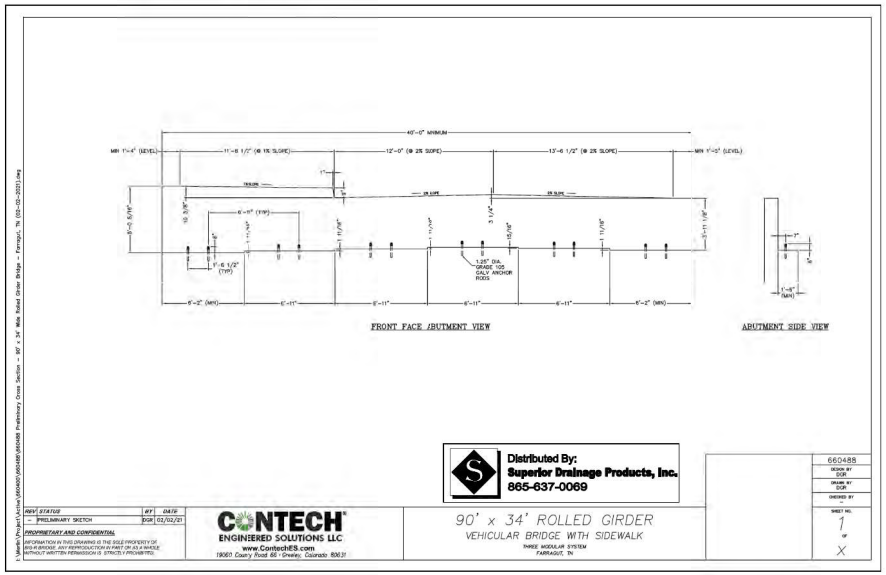
NO.	DATE	COMMENTS

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Details
SHEET: 38 OF: 44

C8.6







SITE, INCORPORATED
CIVIL ENGINEERS & SURVEYORS
EST. 1997
10215 Technology Drive, Suite 304
Knoxville, TN 37932
(865) 777-4160
www.site-incorporated.com

JOHN K. ANDERSON
REGISTERED ENGINEER
AGRICULTURE
No. 0120438
STATE OF TENNESSEE
10/7/2021

Site Bridge Details

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

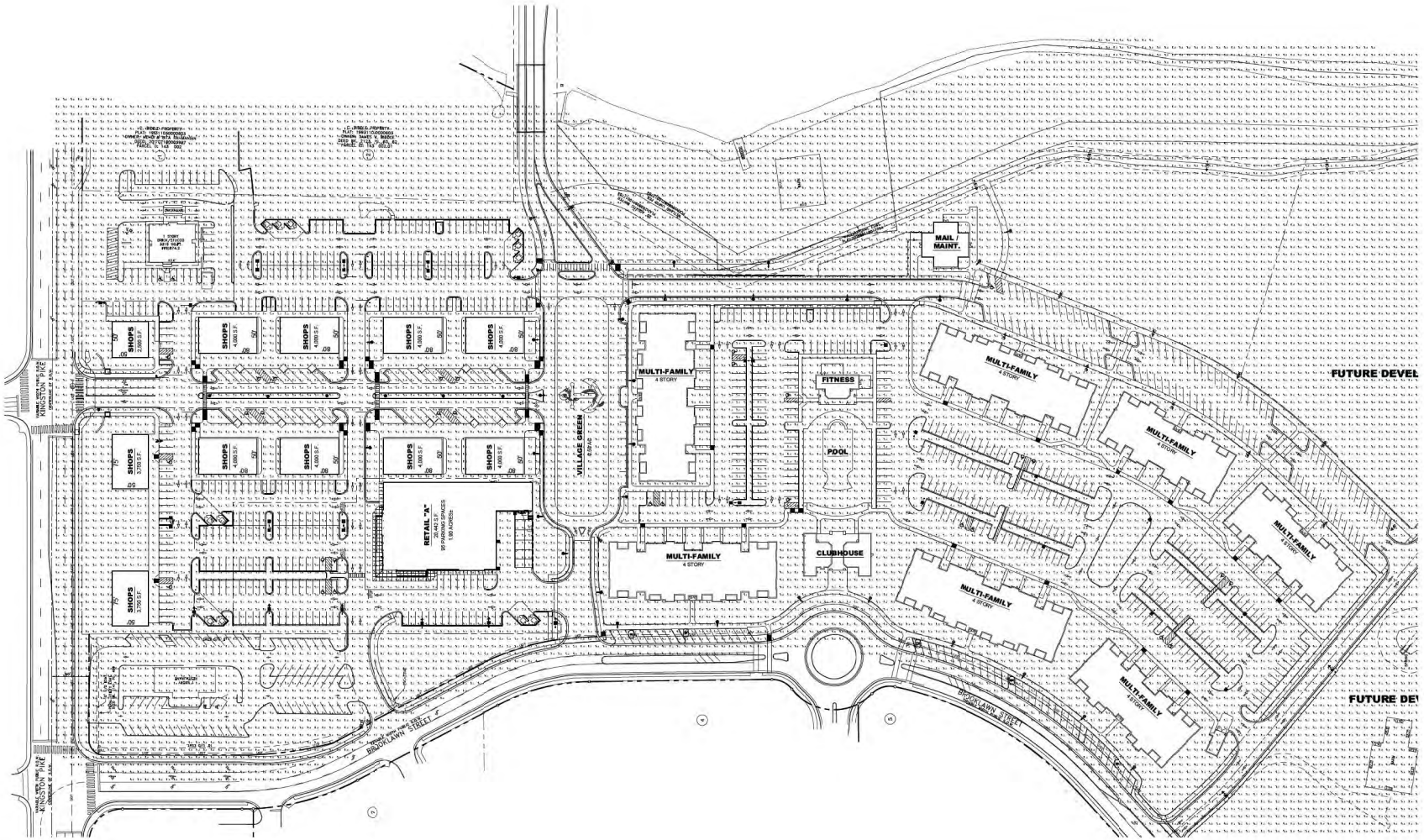
NO.	DATE	COMMENTS

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Details
SHEET: 39 OF: 44

C8.7

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

REVISIONS		
Rev #	Date	BY:
1	2/19/21	J.P.



Calculation Summary								
Label	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb
MAIN ENTRANCE DRIVE	Fc	1.88	4.3	0.1	18.80	43.00	10	10
RESIDENTIAL ENTRANCE	Fc	1.85	5.2	0.1	18.50	52.00		
RESIDENTIAL PARKING	Fc	1.29	4.2	0.1	12.90	42.00		
RETAIL PARKING	Fc	2.40	4.7	0.4	6.00	11.75		
SHOPS PARKING	Fc	1.94	3.2	0.7	2.77	4.57		
WALKING TRAIL	Fc	1.59	3.4	0.4	3.98	8.50		

Luminaire Schedule						
WLS13526 FARRAGUT TOWNE CENTER @ BIDDLE FARMS FARRAGUT, TN PM: HOLLY PLEASE EMAIL US FOR PRICING AT HOLLY@WLSLIGHTING.COM						
Symbol	Qty	Label	Lum. Lumens	LLF	Description	Lum. Watts
	8	A	22900	0.980	WLS-A-A-SSH-T-40K 28' MOUNTING HEIGHT	132
	10	B	22900	0.980	WLS-A-A-SSH-T-40K-SLW 28' MOUNTING HEIGHT	132
	8	C	22100	0.980	WLS-A-A-4ME-T-40K-SLW 28' MOUNTING HEIGHT	132
	6	D	22100	0.980	WLS-A-A-2ME-T-40K-SLW 28' MOUNTING HEIGHT	132
	11	E	16959	0.980	WLS-A-A-2ME-E-40K-SLW 28' MOUNTING HEIGHT	130
	3	G	4270	0.980	WLS-WF-B-WM-4ME-41-40K-SLW 14' MOUNTING HEIGHT	31
	8	X	12305	0.980	WLS-R-SB-06-E-525-40K-SLW 20' POLE	101
	33	Y	7418	0.980	WLS-R-2M-06-E-350-40K-SLW 20' POLE	66
	11	Z	9377	0.980	WLS-R-3M-06-E-350-40K-SLW 20' POLE	90

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage tolerance in lamps and other variable field conditions.

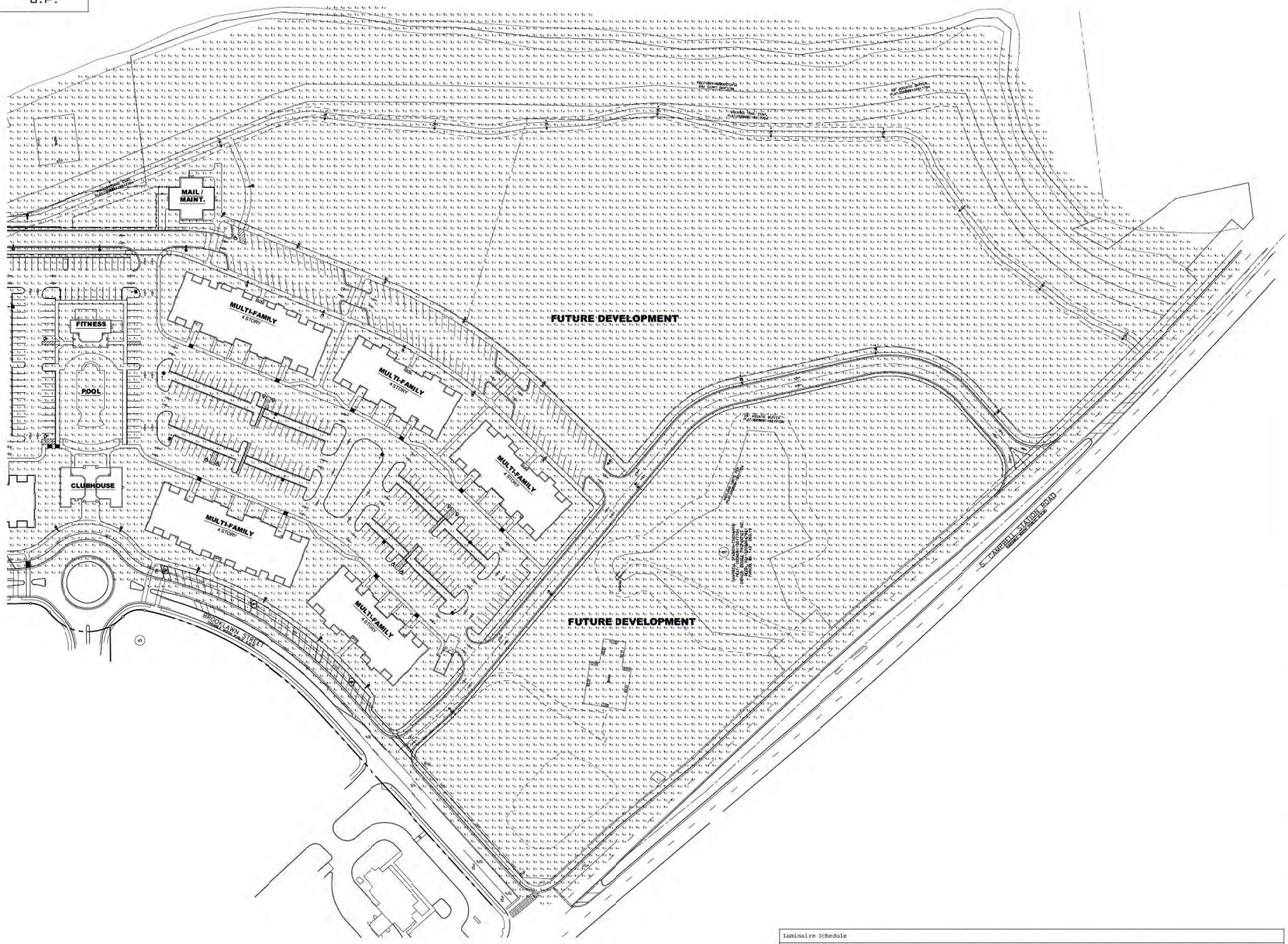
FARRAGUT TOWNE CENTER @
BIDDLE FARMS
FARRAGUT, TN

WLS LIGHTING
a WLS company

1919 WINDSOR PLACE
FORT WORTH, TX 76110
WWW.WLSLIGHTING.COM
800-633-8711

WLS-13526 | DATE -10/13/20 | SCALE: 1"=50' | PM:HOLLY | BY: J.P. | SHEET 1 OF 2

REVISIONS		
Rev #	Date	BY:
1	2/19/21	J.P.



Calculation Summary								
Label	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb
MAIN ENTRANCE DRIVE	Fc	1.88	4.3	0.1	18.80	43.00	10	10
RESIDENTIAL ENTRANCE	Fc	1.65	5.2	0.1	16.50	52.00		
RESIDENTIAL PARKING	Fc	1.29	4.2	0.1	12.90	42.00		
RETAIL PARKING	Fc	2.40	4.7	0.4	6.00	11.75		
SHOPS PARKING	Fc	1.94	3.2	0.7	2.77	4.57		
WALKING TRAIL	Fc	1.59	3.4	0.4	3.98	8.50		

Luminaire Schedule

WLS13526 FARRAGUT TOWNE CENTER @ BIDDLE FARMS FARRAGUT, TN PM: HOLLY PLEASE EMAIL US FOR PRICING AT HOLLY@WLSLIGHTING.COM

Symbol	Qty	Label	Lum. Lumens	LLF	Description	Lum. Watts
	8	A	22900	0.980	WLS-A-A-5SH-T-40K 28' MOUNTING HEIGHT	132
	10	B	22900	0.980	WLS-A-A-5SH-T-40K-SLW 28' MOUNTING HEIGHT	132
	8	C	22100	0.980	WLS-A-A-4ME-T-40K-SLW 28' MOUNTING HEIGHT	132
	6	D	22100	0.980	WLS-A-A-2ME-T-40K-SLW 28' MOUNTING HEIGHT	132
	11	E	16959	0.980	WLS-A-A-2ME-K-40K-SLW 28' MOUNTING HEIGHT	130
	3	G	4270	0.980	WLS-WP-B-WM-4ME-4L-40K-SLW 14' MOUNTING HEIGHT	31
	8	X	12305	0.980	WLS-R-5S-06-E-525-40K-SLW 20' POLE	101
	33	Y	7418	0.980	WLS-R-2M-06-E-350-40K-SLW 20' POLE	66
	11	S	9377	0.980	WLS-R-3M-06-E-350-40K-SLW 20' POLE	90

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage tolerance in lamps and other variable field conditions.

FARRAGUT TOWNE CENTER @
BIDDLE FARMS
FARRAGUT, TN

WLS-13526 | DATE -10/13/20 | SCALE: 1"=50'

WLS LIGHTING
a WLS company
1919 WINDSOR PLACE
FORT WORTH, TX 76110
WWW.WLSLIGHTING.COM
800-633-8711

PM:HOLLY | BY: J.P. | SHEET 2 OF 2

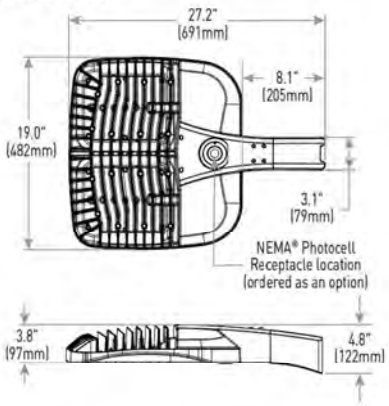
WLS LIGHTING SYSTEMS

Type: _____

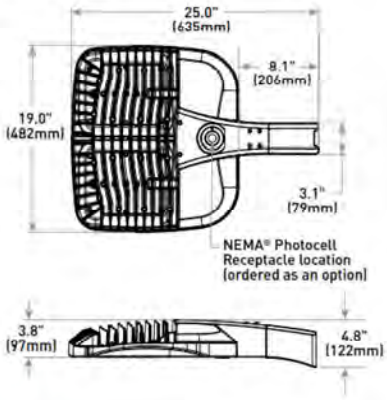
A SERIES LED AREA

DIMENSIONS

86/130 Watts



166/215 Watts



Made in the U.S.A. of the U.S. and imported parts.
Meets Buy American requirements for ARRA.

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wslighting.com

SPECIFICATIONS

CONSTRUCTION & MATERIALS

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high performance heat sink
- Convenient interlocking mounting method on direct arm mount. Mounting adaptor is rugged die cast aluminum and mounts to 3-6" (76-152mm) square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Mounting for the adjustable arm mount adaptor is rugged die cast aluminum and mounts to 2" (51mm) IP, 2.375" (60mm) O.D. tenon
- Adjustable arm mount can be adjusted 180° in 2.5° increments
- Transportation mount is constructed of 316 stainless steel and mounts to surface with (4) 3/8" fasteners by others
- Trunnion mount is constructed of A500 and A1011 steel and is adjustable from 0-180° in 2.5° increments. Trunnion mount secures to surface with (1) 3/4" bolt or (2) 1/2" or 3/8" bolts
- Includes 18" (340mm) 18/5 or 16/5 cord exiting the luminaire. When ordered with R option, 18" (340mm) 18/7 or 16/7 cord is provided.
- Designed for uplight and downlight applications
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available. Custom colors are available. Please contact your sales professional for details.
- Weight: B, K & Z - 26.5 lbs. (12kg); T & U - 28.5 lbs. (13kg)

ELECTRICAL SYSTEM

- Input Voltage: 120-277V or 347-480V. 50/60Hz. Class 1 drivers
- Power Factor: > 0.9 at full load
- Total Harmonic Distortion: < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- 10V Source Current: 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without R option
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- DLC and DLC Premium qualified versions available. Some exceptions apply.
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT. Please refer to http://darksky.org/fsa/fsa-products/ for most current

WARRANTY

- The A series offers a limited 10 year warranty on the luminaire and the Colorfast DeltaGuard™ finish

Wattage	Weight
B/K/Z	26.5 lbs. (12kg)
T/U	28.5 lbs. (13kg)

Powered by CREE

Project Name: _____

Date: _____

Location: _____

Notes: _____

29 REV. 07/20

Specifications subject to change without notice.

A SERIES LED AREA

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE.

Refer to example below.

PRODUCT	VERSION	MOUNTING	OPTIC	WATTAGE	COLOR TEMPERATURE	VOLTAGE	COLOR OPTIONS	OPTIONS
A	**A**	**DM** Direct Mount **AA** Adjustable Arm Mount	**Asymmetric** **2ME**[1] Type II Medium **3ME**[1] Type III Medium **4ME**[1] Type IV Medium **Symmetric** **5ME** Type V Medium **5SH** Type V Short	**Z** 53 Watts **B** 86 Watts **K** 130 Watts **T** 166 Watts **U** 202 Watts	**30K** 3000K **40K** 4000K **57K** 5700K	**UL** Universal 120-277V **UH** Universal 347-480V	**BK** Black **BZ** Bronze **SV** Silver **WH** White **CC**[2] Custom Color	**BLS** Backlight Shielding **F** Fuse **ML** Multi-Level **PCR** NEMA Photocell Receptacle **Q9** Field Adjustable Output **RL** Rotate Optic Left **RR** Rotate Optic Right **NO** No Options
AF			**WSN** Wide Sign **15D** 15° Flood **25D** 25° Flood **40D** 40° Flood **60D** 60° Flood					
ORDER:								
WLS-A	**A**	**NM**						

Example: WLS-A-A-DM-4ME-Z-40K-UH-BZ-NO

FOOTNOTES:

1 Available with Backlight Shield when ordered with field-installed accessory (see table above)
2 Contact your sales professional for details

ELECTRICAL DATA

System Watts 120-480V	Total Current (A)					
	120V	208V	240V	277V	347V	480V
Z	0.46	0.26	0.22	0.19	N/A	N/A
B	0.73	0.43	0.37	0.32	0.25	0.19
K	1.09	0.65	0.56	0.49	0.38	0.28
T	1.41	0.83	0.72	0.62	0.49	0.35
U	1.72	0.96	0.84	0.72	0.60	0.43

WLS LIGHTING SYSTEMS

1919 Windsor Place
Fort Worth, TX 76110
800.633.8711

www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

29 REV. 07/20

Specifications subject to change without notice.

A SERIES LED AREA

Type II Medium Distribution								
System Watts	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11
Z	6,481	B2 U0 G1	6,896	B2 U0 G1	5,750	B1 U0 G1	7,031	B2 U0 G1
B	10,738	B2 U0 G2	11,424	B2 U0 G2	9,350	B2 U0 G2	11,648	B2 U0 G2
K	16,022	B3 U0 G3	16,959	B3 U0 G3	14,000	B3 U0 G2	17,291	B3 U0 G3
T	20,688	B3 U0 G3	21,902	B3 U0 G3	18,600	B3 U0 G3	22,330	B3 U0 G3
U	27,800	B3 U0 G3	29,101	B3 U0 G3	22,300	B3 U0 G3	29,100	B3 U0 G3

Type II Medium Distribution w/BLS Distribution								
System Watts	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11
Z	4,980	B1 U0 G1	5,299	B1 U0 G1	4,420	B1 U0 G1	5,402	B1U0 G1
B	8,251	B2 U0 G2	8,779	B2 U0 G2	7,200	B1 U0 G1	8,950	B2 U0 G2
K	12,312	B2 U0 G2	13,032	B2 U0 G2	10,750	B2 U0 G2	13,286	B2 U0 G2
T	15,897	B2 U0 G2	16,830	B3 U0 G2	14,250	B2 U0 G2	17,159	B3 U0 G2
U	21,400	B3 U0 G3	22,300	B3 U0 G3	17,100	B3 U0 G2	22,300	B3 U0 G3

Type III Medium Distribution								
System Watts	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11
Z	6,481	B2 U0 G2	6,896	B2 U0 G2	5,750	B2 U0 G2	7,031	B2 U0 G2
B	10,738	B3 U0 G3	11,424	B3 U0 G3	9,350	B2 U0 G2	11,648	B3 U0 G3
K	16,022	B3 U0 G3	16,959	B3 U0 G3	14,000	B3 U0 G3	17,291	B3 U0 G3
T	20,688	B3 U0 G3	21,902	B3 U0 G3	18,600	B3 U0 G3	22,330	B3 U0 G3
U	27,8100	B3 U0 G4	29,100	B3 U0 G4	22,300	B3 U0 G3	29,100	B3 U0 G4

* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
** For more information on the IES BUG (Backlight - Uplight - Glare) rating visit: https://www.ies.org/wp-content/uploads/ 2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

WLS LIGHTING SYSTEMS

1919 Windsor Place
Fort Worth, TX 76110
800.633.8711

www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

29 REV. 07/20
Specifications subject to change without notice.

A SERIES LED AREA

Type III Medium Distribution w/BLS Distribution								
System Watts	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11
Z	5,117	B1 U0 G1	5,444	B1 U0 G2	4,540	B1 U0 G1	5,551	B1 U0 G1
B	8,477	B1 U0 G2	9,019	B1 U0 G2	7,400	B1 U0 G2	9,196	B1 U0 G2
K	12,649	B2 U0 G2	13,389	B2 U0 G2	11,050	B2 U0 G2	13,650	B2 U0 G2
T	16,333	B2 U0 G2	17,291	B2 U0 G2	14,650	B2 U0 G2	17,629	B2 U0 G3
U	21,900	B3 U0 G3	23,000	B3 U0 G3	17,600	B2 U0 G3	23,000	B3 U0 G3

Type IV Medium Distribution								
System Watts	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11
Z	6,481	B2 U0 G2	6,896	B2 U0 G2	5,750	B2 U0 G1	7,031	B2 U0 G2
B	10,738	B2 U0 G2	11,424	B2 U0 G2	9,350	B2 U0 G2	11,648	B2 U0 G2
K	16,022	B3 U0 G3	16,959	B3 U0 G3	14,000	B3 U0 G3	17,291	B3 U0 G3
T	20,688	B3 U0 G3	21,902	B3 U0 G3	18,600	B3 U0 G3	22,330	B3 U0 G3
U	27,800	B4 U0 G3	29,100	B4 U0 G3	22,300	B3 U0 G3	29,100	B4 U0 G4

Type IV Medium Distribution w/BLS Distribution								
System Watts	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11
Z	4,980	B1 U0 G1	5,299	B1 U0 G1	4,420	B1 U0 G1	5,402	B1 U0 G1
B	8,251	B1 U0 G2	8,779	B1 U0 G2	7,200	B1 U0 G2	8,950	B1 U0 G2
K	12,312	B2 U0 G2	13,032	B2 U0 G2	10,750	B2 U0 G2	13,286	B2 U0 G2
T	15.897	B2 U0 G3	16,830	B2 U0 G3	14,250	B2 U0 G3	17,159	B2 U0 G3
U	21.400	B3 U0 G3	22.300	B3 U0 G3	17,100	B2 U0 G3	22,300	B3 U0 G3

* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
** For more information on the IES BUG (Backlight - Uplight - Glare) rating visit: https://www.ies.org/wp-content/uploads/ 2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

WLS LIGHTING SYSTEMS

1919 Windsor Place
Fort Worth, TX 76110
800.633.8711

www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

29 REV. 07/20
Specifications subject to change without notice.

A SERIES LED AREA

Type V Medium Distribution								
System Watts	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11
Z	5,257	B3 U0 G3	6,086	B3 U0 G3	6,175	B3 U0 G3	6,192	B3 U0 G3
B	10,232	B4 U0 G3	10,867	B4 U0 G3	10,000	B4 U0 G3	11,056	B4 U0 G3
K	15,063	B4 U0 G4	15,999	B4 U0 G4	14,925	B4 U0 G4	16,277	B4 U0 G4
T	20,213	B5 U0 G5	21,469	B5 U0 G5	19,800	B5 U0 G5	21,842	B5 U0 G5
U	26,600	B5 U0 G5	27,800	B5 U0 G5	23,600	B5 U0 G5	27,800	B5 U0 G5

Type V Short Distribution								
System Watts	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11	Initial Delivered Lumens*	Bug Ratings ** Per TM-15-11
Z	5,552	B3 U0 G1	6,428	B3 U0 G2	6,525	B3 U0 G2	6,539	B3 U0 G2
B	10,806	B4 U0 G2	11,478	B4 U0 G2	10,575	B4 U0 G2	11,678	B4 U0 G2
K	15,909	B4 U0 G3	16,897	B4 U0 G3	15,800	B4 U0 G3	17,191	B4 U0 G3
T	21,349	B5 U0 G3	22,675	B5 U0 G3	20,900	B5 U0 G3	23,069	B5 U0 G3
U	28,100	B5 U0 G4	29,400	B5 U0 G4	24,900	B5 U0 G3	29,400	B5 U0 G4

Type 15° Flood Distribution				
System Watts	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
Z	5,552	6,428	6,525	6,539
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
T	21,349	22,675	20,900	23,069
U	28,100	29,400	24,900	29,400

Type 25° Flood Distribution				
System Watts	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
Z	5,552	6,428	6,525	6,539
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
T	21,349	22,675	20,900	23,069
U	28,100	29,400	24,900	29,400

* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
** For more information on the IES BUG (Backlight - Uplight - Glare) rating visit: https://www.ies.org/wp-content/uploads/ 2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

WLS LIGHTING SYSTEMS

1919 Windsor Place
Fort Worth, TX 76110
800.633.8711

www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

29 REV. 07/20
Specifications subject to change without notice.

A SERIES LED AREA

Type 40° Flood Distribution				
System Watts	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
Z	5,552	6,428	6,525	6,539
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
T	21,349	22,675	20,900	23,069
U	28,100	29,400	24,900	29,400

Type 60° Flood Distribution				
System Watts	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
Z	5,552	6,428	6,525	6,539
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
T	21,349	22,675	20,900	23,069
U	28,100	29,400	24,900	29,400

Wide Sign Distribution				
System Watts	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
Z	5,552	6,428	6,525	6,539
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
T	21,349	22,675	20,900	23,069
U	28,100	29,400	24,900	29,400

* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
** For more information on the IES BUG (Backlight - Uplight - Glare) rating visit: https://www.ies.org/wp-content/uploads/ 2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

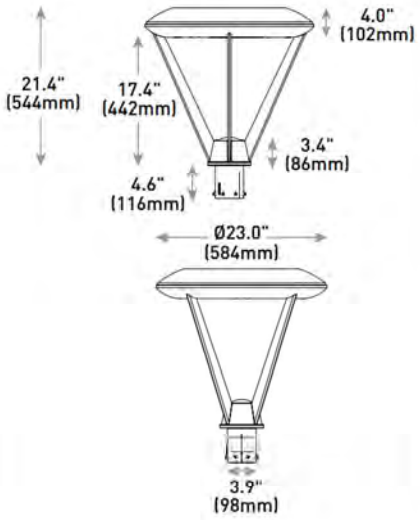
Specifications subject to change without notice.

WLS LIGHTING SYSTEMS

Type: _____

R SERIES LED AREA

DIMENSIONS



SPECIFICATIONS

CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment, spun vented cover, and high performance aluminum heat sinks
- R3 spider mount hub slip-fits over a 2.375" (60mm) to 3" (76mm) O.D. steel or aluminum tenon or pole and secures with eight set screws
- R4 spider mount fits directly inside 4" (102mm) square pole and secures to pole with four set screws
- R5 spider mount fits directly inside of a 5" (127mm) round pole to provide a clean hardware-less outer appearance
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available. Custom colors are available. Please contact your sales professional for details.
- Weight: See Dimensions and Weight below

ELECTRICAL SYSTEM

- Input Voltage: 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- Power Factor: > 0.9 at full load
- Total Harmonic Distortion : < 20% at full load
- 10V Source Current: 40-80 LEDs: 0.15mA; 100-120 LEDs: 0.30mA
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Enclosure rated IP66 per IEC 60529 when ordered without P option
- Certified to ANSI C136.31-2001, 1.5G normal vibration standards when ordered with R3, R4 and R5 mounts
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified. Exceptions apply when ordered with full backlight control or 3MP optic.
- Meets Buy American requirements within ARRA

Wattage	Weight
46/70/93	33.8 lbs. (15.3kg)
66/101/134	35.2 lbs. (15.9kg)
90/133	37.0 lbs. (16.8kg)
110/171	40.7 lbs. (18.5kg)
130/202	42.4 lbs. (19.3kg)

CREE AUTHORIZED DISTRIBUTOR

Made in the U.S.A. of the U.S. and imported parts.
Meets Buy American requirements for ARRA.

Project Name: _____

Date: _____

Location: _____

Notes: _____

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wlslighting.com

29 REV. 01/20

Specifications subject to change without notice.

R SERIES LED AREA

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE.

Refer to example below.

PRODUCT	WATTAGE	OPTIC			MOUNTING[1]	SERIES	VOLTAGE	COLOR OPTIONS	DRIVE CURRENT	OPTIONS
R	**46** 46 Watts **66** 66 Watts **70** 70 Watts **90** 90 Watts **93** 93 Watts **101** 101 Watts **133** 133 Watts **134** 134 Watts	**2M** Type II Medium **2MB** Type II Medium w/BLS **2MP** Type II Medium w/Partial BLS **3M** Type III Medium	**3MB** Type III Medium w/BLS **3MP** Type III Medium w/Partial BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS	**4MP** Type IV Medium w/Partial BLS **5M** Type V Medium **5S** Type V Short	**R3** Spider, Center Tenon, 2-3/8" to 3" OD **R4** Spider, Center Direct, 4" Square **R5** Spider, Center Direct, 5" Round	**E**	**UL** Universal 120-277V **UH** Universal 347-480V	**BK** Black **BZ** Bronze **SV** Silver **WH** White **CC**[3] Custom Color	**350** 350mA **525** 525mA **700**[2] 700mA	**DIMS** 0-10V Dimming (525mA maximum) **F**[4,5] Fuse **HL** Hi/Low (175/350/525, dual circuit input) **PC** Photocell **PCR** NEMA Photocell Receptacle **TL**[6] Two-Level (175/525 w/ integrated sensor control) **TL2**[6] Two-Level (0/350 w/ integrated sensor control) **TL3**[6] Two-Level (0/525 w/ integrated sensor control) **40K** 4000K **NO** - No Options
ORDER:										
WLS-R										

Example: WLS-R-90-2M-R3-E-UL-BK-350-NO

FOOTNOTES:

1 Reference EPA data below
2 Available with 40- 60 LEDs
3 Contact your sales professional for details
4 When code dictates fusing use time delay fuse.
5 Not available when UH voltage is selected.
6 Available on fixtures with 20-60 LEDs.

Electrical Data

System Watts 120-480V	Total Current (A)																	
	350mA						525mA						700mA					
	120V	208V	240V	277V	347V	480V	120V	208V	240V	277V	347V	480V	120V	208V	240V	277V	347V	480V
46	0.36	0.23	0.21	0.20	0.15	0.12												
66	0.52	0.31	0.28	0.26	0.20	0.15												
70							0.58	0.34	0.31	0.28	0.21	0.16						
90	0.75	0.44	0.38	0.34	0.26	0.20												
93													0.78	0.46	0.40	0.36	0.27	0.20
101							0.84	0.49	0.43	0.38	0.30	0.22						
110	0.93	0.53	0.47	0.41	0.32	0.24												
130	1.10	0.63	0.55	0.48	0.38	0.28												
133							1.13	0.66	0.58	0.51	0.39	0.28						
134													1.14	0.65	0.57	0.50	0.39	0.29
171							1.43	0.83	0.74	0.66	0.50	0.38						
202							1.69	0.98	0.86	0.77	0.58	0.44						

LUMINAIRE EPA - Post Top Mount - R-R3/R4/R5		
Wattage	Single R3	Single R4/R5
46/70/93	1.81	1.67
66/101/134	1.81	1.67
90/133	1.81	1.67
110/171	1.81	1.67
130/202	1.81	1.67

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

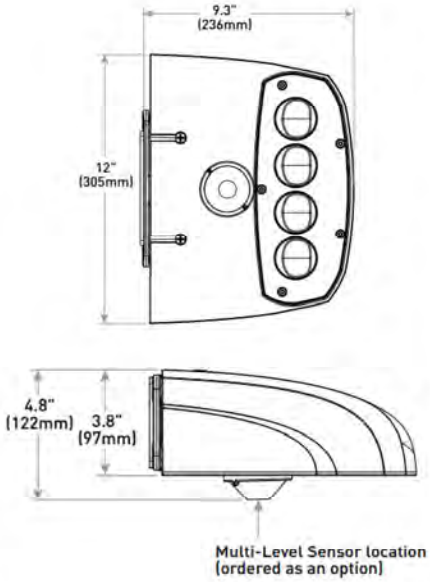
29 REV. 01/20
Specifications subject to change without notice.

WLS LIGHTING SYSTEMS

Type: _____

WP SERIES LED SECURITY WALL PACK

DIMENSIONS



Lumen Package	Weight
2L, 3L, 6L	11.0 lbs. (5.0kg)
8L	11.8 lbs. (5.4kg)

Made in the U.S.A. of the U.S. and imported parts.
Meets Buy American requirements for ARRA.

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wlslighting.com

SPECIFICATIONS

DESCRIPTION

A revolutionary way to generate high-quality white light, WLS TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire housing specifically designed for LED applications with advanced LED thermal management and driver
- Luminaire mounting box designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Exclusive Colorfast DeltaGuard® finish features an E-coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, black, white and bronze are available
- Weight: 2L, 4L, 6L - 11.0 lbs. (5.0kg); 8L - 11.8 lbs. (5.4kg)

ELECTRICAL SYSTEM

- Input Voltage: 120-277V or 347-480V, 50/60Hz
- Power Factor: > 0.9 at full load
- Total Harmonic Distortion: < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- 10V Source Current: 0.15 mA
- Operating Temperature Range: -40˚C - +50˚C (-40˚F - +122˚F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Designed for downlight applications only
- Enclosure rated IP66 per IEC 60598
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT
- "WARNING: Cancer and Reproductive Harm - www.p65warnings.ca.gov"

Powered by CREE

Project Name: _____

Date: _____

Location: _____

Notes: _____

29 REV. 07/20

Specifications subject to change without notice.

WP SERIES LED SECURITY WALL PACK

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE.

Refer to example below.

PRODUCT	VERSION	MOUNTING	OPTIC	LUMEN PACKAGE[1]	COLOR TEMPERATURE	VOLTAGE	COLOR OPTIONS	OPTIONS
WP	**B**	**WM** Wall	**2ME** Type II Medium **3ME** Type III Medium **4ME** Type IV Medium	**2L** 2,490 lumens **4L** 4,270 lumens **6L** 6,100 lumens **8L** 8,475 lumens	**30K** 3000K - 70 CRI **40K** 4000K - 70 CRI **50K** 5000K - 90 CRI **57K** 5700K - 70 CRI	**UL** Universal 120-277V **UH** Universal 347-480V **34** 347V [2,3]	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**ML** Multi Level [4] **PC** Photocell **PML** Programmable Multi Level [4] **NO** No Options
ORDER:								

Example: WLS-WP-B-WM-3ME-2L-40K-UH-BK-NO

FOOTNOTES:

1 Lumen Package selection codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values
2 For use with PC option only
3 Consult factory for availability
4 Available with UL voltage only

Electrical Data

Lumen Package	CCT/CRI	System Watts	Efficacy	Total Current (A)					
		120-480V		120V	208V	240V	277V	347V	480V
2L	30K/70 CRI	20	125	0.17	0.10	0.08	0.07	0.06	0.05
	40K/70 CRI	19	131	0.16	0.09	0.08	0.07	0.06	0.04
	50K/90 CRI	24	104	0.20	0.11	0.10	0.08	0.07	0.05
	57K/70 CRI	19	131	0.16	0.09	0.08	0.07	0.06	0.04
4L	30K/70 CRI	33	129	0.28	0.16	0.14	0.13	0.10	0.07
	40K/70 CRI	31	138	0.27	0.15	0.13	0.12	0.09	0.07
	50K/90 CRI	40	107	0.34	0.20	0.17	0.16	0.12	0.09
	57K/70 CRI	31	138	0.26	0.15	0.13	0.12	0.09	0.07
6L	30K/70 CRI	51	120	0.43	0.25	0.22	0.19	0.14	0.11
	40K/70 CRI	47	130	0.40	0.23	0.20	0.18	0.14	0.10
	50K/90 CRI	60	102	0.51	0.29	0.25	0.23	0.17	0.13
	57K/70 CRI	47	130	0.40	0.23	0.20	0.17	0.14	0.10
8L	30K/70 CRI	77	110	0.65	0.38	0.32	0.28	0.22	0.16
	40K/70 CRI	72	118	0.61	0.35	0.31	0.27	0.21	0.15
	50K/90 CRI	78	89	0.66	037	0.33	0.29	0.22	0.16
	57K/70 CRI	71	119	0.60	035	0.30	0.26	0.20	0.15

Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%

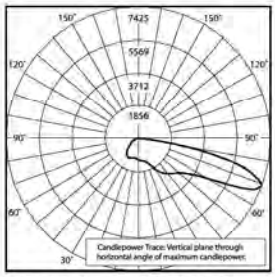
WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

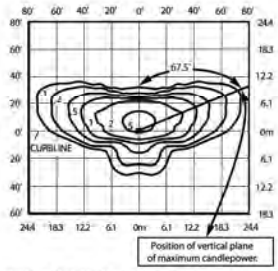
29 REV. 07/20
Specifications subject to change without notice.

XSPW SERIES LED SECURITY WALL PACK

2ME



CESTL Test Report #: PL12798-001A
WLS-WP-B-**-2ME-8L-40K-UL
Initial Delivered Lumens: 8,622

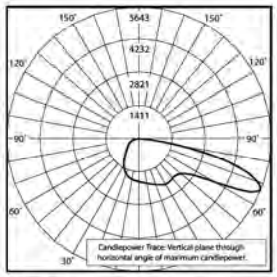


WLS-WP-B-**-2ME-8L-40K-UL
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 8,475
Initial FC at grade

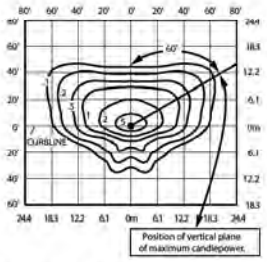
Type II Medium Distribution								
Lumen Package	3000K		4000K		5000K		57000K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B2 U0 G2	8,475	B2 U0 G2	6,925	B1 U0 G2	8,475	B2 U0 G2

* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
** For more information on the IES BUG (Backlight - Uplight - Glare) Rating visit https://www.ies.org/wp-content/uploads/2017/03/TM-15-11bugratingsAddendum.pdf

3ME



CESTL Test Report #: PL12366-007A
WLS-WP-B-**-3ME-8L-40K-UL
Initial Delivered Lumens: 8,543



WLS-WP-B-**-3ME-8L-40K-UL
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 8,475
Initial FC at grade

Type III Medium Distribution								
Lumen Package	3000K		4000K		5000K		57000K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B2 U0 G2	8,475	B2 U0 G2	6,925	B1 U0 G2	8,475	B2 U0 G2

* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
** For more information on the IES BUG (Backlight - Uplight - Glare) Rating visit https://www.ies.org/wp-content/uploads/2017/03/TM-15-11bugratingsAddendum.pdf

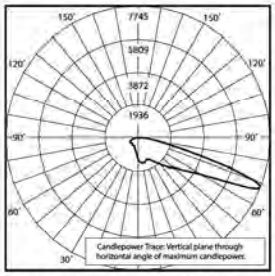
WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

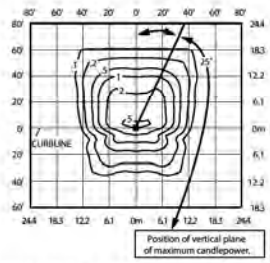
29 REV. 07/20
Specifications subject to change without notice.

WP SERIES LED SECURITY WALL PACK

4ME



RESTL Test Report #: PL14415-001A
WLS-WP-B-**-4ME-8L-40K-UL
Initial Delivered Lumens: 8,763



WLS-WP-B-**-4ME-8L-40K-UL
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 8,475
Initial FC at grade

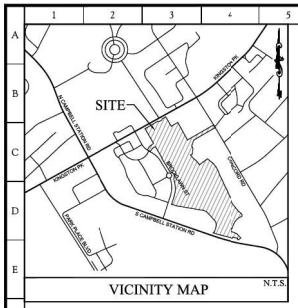
Type IV Medium Distribution								
Lumen Package	3000K		4000K		5000K		57000K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B1 U0 G2	8,475	B1 U0 G2	6,925	B1 U0 G2	8,475	B1 U0 G2

* Initial delivered lumens at 25° C (77° F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
** For more information on the IES BUG (Backlight - Uplight - Glare) Rating visit https://www.ies.org/wp-content/uploads/2017/03/TM-15-11bugratingsAddendum.pdf

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

Specifications subject to change without notice.



VICINITY MAP N.T.S.

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 ARESUBJECT TO THE APPROVAL OF THE OWNER BEFORE, DURING, AND AFTER INSTALLATION.
6. ALL TREES MUST BEGUYED 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 ANDSHALL 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 TOBE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1.) TO VERIFY THE LOCATIONS OF UTILITY LINES ANDADJACENT 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. THECONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THEWORK.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PERSPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
11. THECONTRACTOR 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. ANYPLANT 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. THECONTRACTOR 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 OFTHREE 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 SODDINGIN STAGES FOR SOIL STABILIZATION AS AREAS ARE COMPLETEDAFTER GRADING.
22. THIS PLAN DOES NOT PRESENT ANY TEMPORARY STABILIZATION REQUIRED AS PART OF SWPPP PLAN.
23. THE CONTRACTOR SHALL MEET ALL OF THE REQUIREMENTS OF THE TOWN OF FARRAGUT LANDSCAPING ORDINANCE REGARDING THIS PROJECT.
24. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ANY AND ALL REQUIRED SUBMITTALS TO THE TOWN OF FARRAGUT.
25. THIS LANDSCAPE PLAN REFLECTS AND IS CONSISTENT WITH THE REMAINING PLAN SHEETS ASSOCIATED WITH THIS PROJECT.
26. HVAC UNITS WILL BE LOCATED ON TOP OF BUILDING AND WILL BE SCREENED PER TOWN OF FARRAGUT REQUIREMENTS.
27. BASED ON AVAILABLE INFORMATION, PROPOSED PLANT MATERIALS WILL NOT INTERFERE WITH ANY EXISTING OR PROPOSED UTILITIES.
28. THE SUBJECT PROPERTY IS ZONED PCD.
29. THERE ARE NO SLOPES STEEPER THAN 3:1 ON THIS SITE.

SITE AND LANDSCAPE DATA

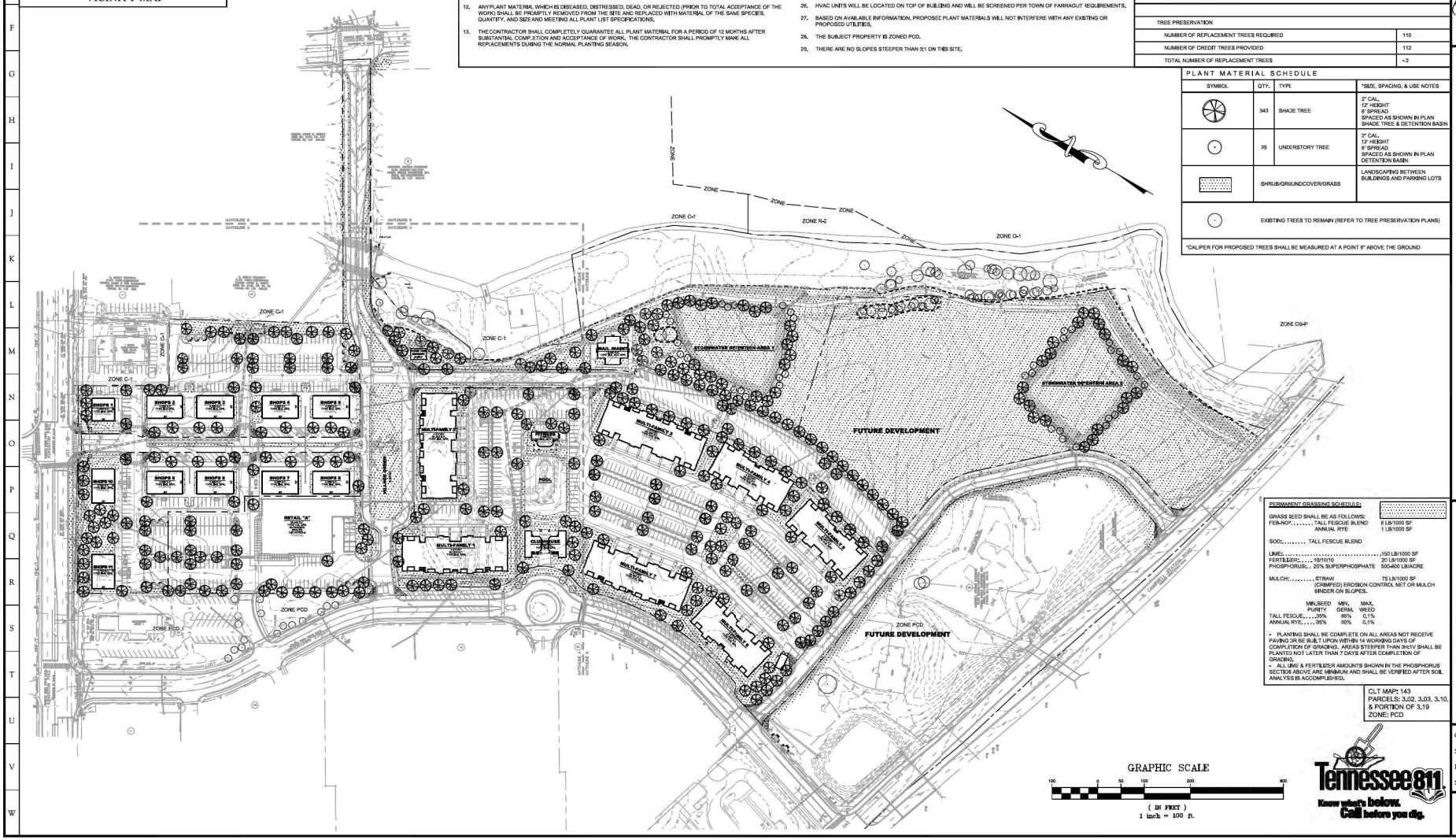
TOTAL SITE AREA	1,615,106 SF (37.08 ACRES)
TOTAL IMPERVIOUS AREA	743,066 SF
TOTAL LOT COVERAGE	46.01%

LANDSCAPING REQUIREMENTS	REQUIRED	PROVIDED
SHADE TREE PLANTING REQUIREMENTS		
1 SHADE TREE/2500 SF IMPERVIOUS AREA (743,066 SF)	297	297
25% SHADE TREES PLANTED IN FRONT YARD	74	74
LANDSCAPING BETWEEN BUILDING AND PARKING LOT		
2.5 X LINEAR FEET OF BUILDING 2.5 x (SEE PLAN FOR EACH BUILDING)	SEE L1.1 & L1.2	SEE L1.1 & L1.2
25% OF AREA TO CONTAIN LIVE MATERIAL OTHER THAN GRASS	SEE L1.1 & L1.2	SEE L1.1 & L1.2
LANDSCAPING FOR STORMWATER DETENTION BASINS		
1 TREE PER 20 LF AROUND TOP OF PROPOSED BASIN 1 (742 LF)	37	37 TREES
1 TREE PER 20 LF AROUND TOP OF PROPOSED BASIN 2 (774 LF)	39	39 TREES
LANDSCAPING FOR BUFFER STRIP		
NO BUFFER STRIPS REQUIRED		
TREE PRESERVATION		
NUMBER OF REPLACEMENT TREES REQUIRED		110
NUMBER OF CREDIT TREES PROVIDED		112
TOTAL NUMBER OF REPLACEMENT TREES		-2

PLANT MATERIAL SCHEDULE

SYMBOL	QTY.	TYPE	*SIZE, SPACING, & USE NOTES
	343	SHADE TREE	2" CAL. 12' HEIGHT 6' SPREAD SPACED AS SHOWN IN PLAN SHADE TREE & DETENTION BASIN
	35	UNDERSTORY TREE	2" CAL. 12' HEIGHT 6' SPREAD SPACED AS SHOWN IN PLAN DETENTION BASIN
		SHRUB/GROUNDCOVER/GRASS	LANDSCAPING BETWEEN BUILDINGS AND PARKING LOTS
		EXISTING TREES TO REMAIN (REFER TO TREE PRESERVATION PLANS)	

*CALIPER FOR PROPOSED TREES SHALL BE MEASURED AT A POINT 6" ABOVE THE GROUND



PERMANENT GRASSING SCHEDULE:

GRASS SEED SHALL BE AS FOLLOWS:

FEB-NOV	TALL FESCUE BLEND	8 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 (CRIMPED) EROSION CONTROL NET OR MULCH BINDER ON SLOPES.	75 LB/1000 SF

	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.

CLT MAP: 143
PARCELS: 3.02, 3.03, 3.10, & PORTION OF 3.19
ZONE: PCD

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

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

ANNETTE C. HOMBSHER
REGISTERED ENGINEER
No. 120191
STATE OF TENNESSEE

Landscape Plan - Overall

Farragut Town Center at Biddle Farms

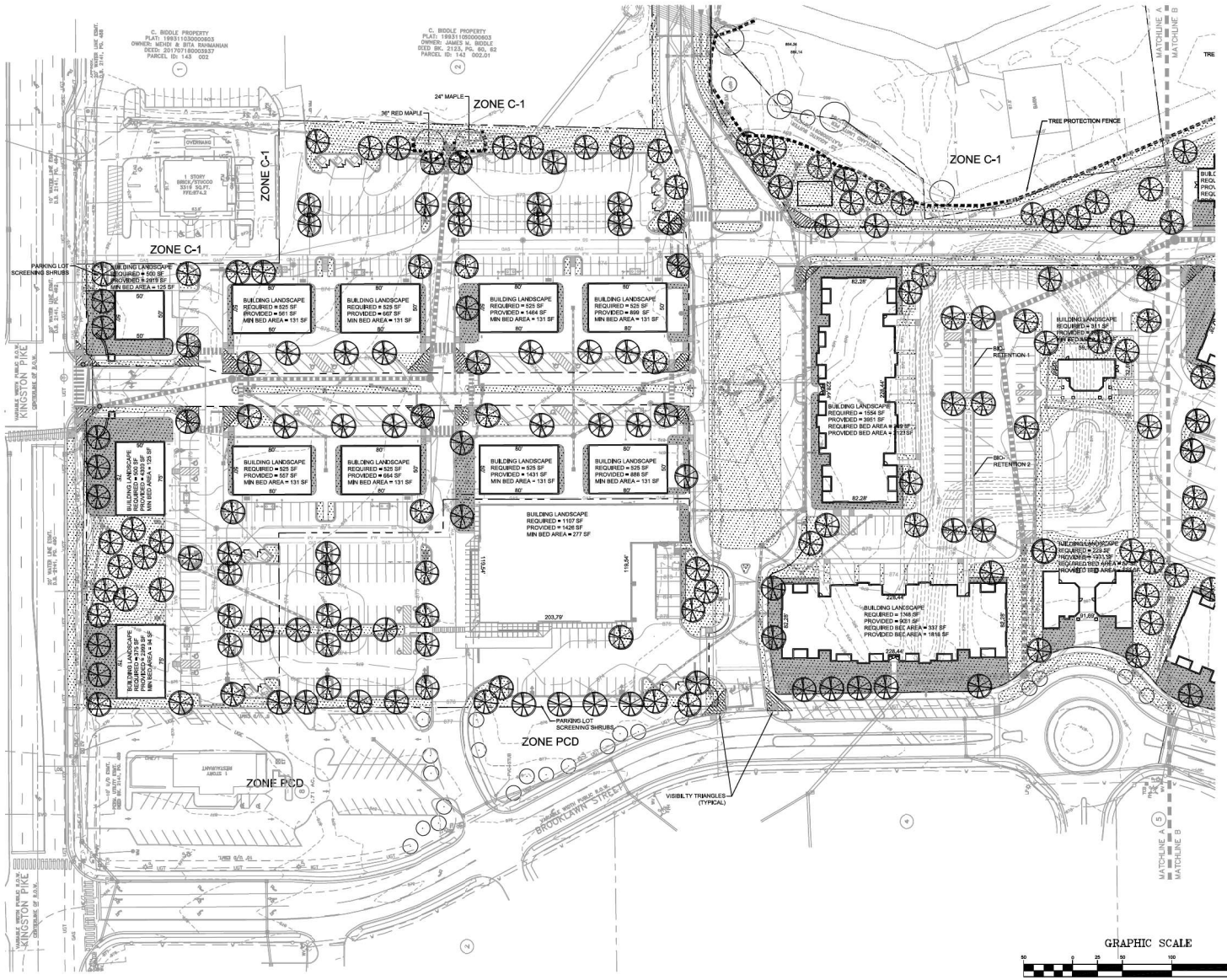
Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

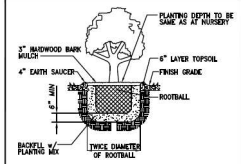
ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Landscape
SHEET: 42 OF: 44

L1.0

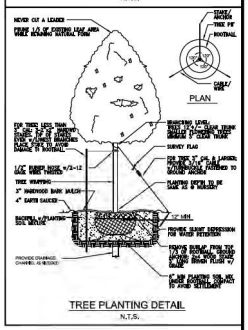


PLANT LEGEND

SYMBOL	TYPE
	SHADE TREE
	UNDERSTORY TREE
	LARGE SHRUB
	LANDSCAPE AREA BETWEEN BUILDING AND PARKING/VEHICULAR ACCESS WAYS 25% OF THIS AREA WILL BE LANDSCAPED WITH PLANT MATERIAL OTHER THAN GRASS
	GRASS
	EXISTING TREES TO REMAIN (REFER TO TREE PRESERVATION PLANS)



SHRUB PLANTING DETAIL
N.T.S.



TREE PLANTING DETAIL
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. HOMMEL
REGISTERED ENGINEER
STATE OF TENNESSEE
04/15/2021

Landscape Plan - North

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

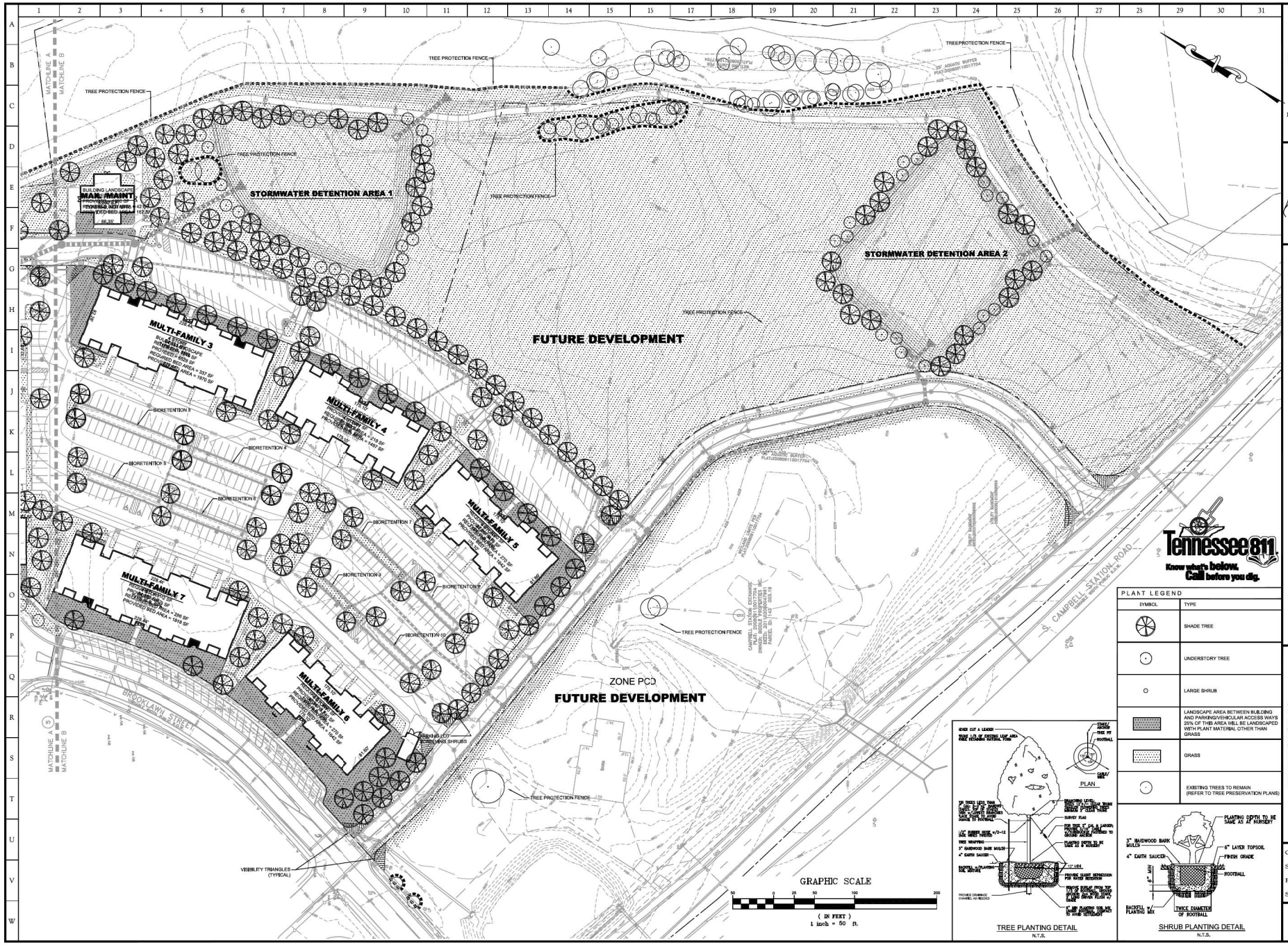
REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comments

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Landscape
SHEET: 43 OF: 44

L1.1

Tennessee811
Know what's below. Call before you dig.



PLANT LEGEND

SYMBOL	TYPE
	SHADE TREE
	UNDERSTORY TREE
	LARGE SHRUB
	LANDSCAPE AREA BETWEEN BUILDING AND PARKING/VEHICULAR ACCESS WAYS 25% OF THIS AREA WILL BE LANDSCAPED WITH PLANT MATERIAL OTHER THAN GRASS
	GRASS
	EXISTING TREES TO REMAIN (REFER TO TREE PRESERVATION PLANS)

TREE PLANTING DETAIL
N.T.S.

SHRUB PLANTING DETAIL
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. HOSMER
REGISTERED ENGINEER
STATE OF TENNESSEE

Landscape Plan - South

Farragut Town Center at Biddle Farms

Kingston Pk, Brooklawn St, Campbell Station Rd & Concord Rd
Civil Distrcit No. 6 of Knox County, Tennessee 37934
Town of Farragut

REVISIONS

NO.	DATE	COMMENTS
1	04/05/2021	Revised per Town Comment

ORIGINAL ISSUE: 03/15/2021
SITE PROJECT #: 1994
FILE: 1994-Landscape
SHEET: 44 OF: 44

L1.2

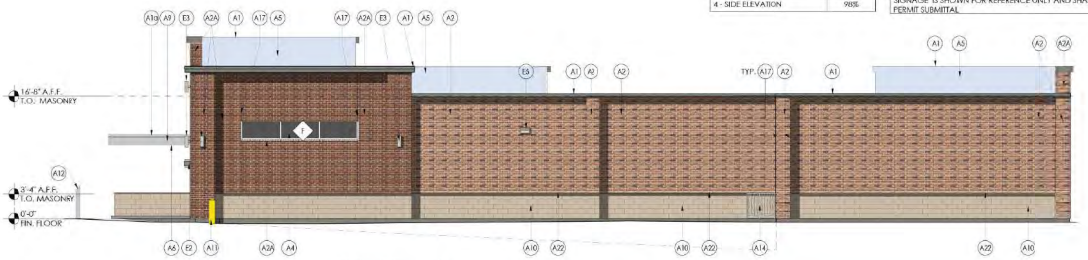
EXTERIOR FINISH SCHEDULE

KEY	MATERIAL / MFG.	COLOR / NO.	NOTES
A1	PREFINISHED METAL COPING	A1 - SLATE GRAY A10 - SILVER METALLIC	SEE SPECIFICATIONS APPENDIX 'B'
A2	BELDEN BRICK	MODULAR HERITAGE BLEND W/ HOLCIM "DANDELION" MORTAR MORTAR ALT: SOLOMON 18X LIGHT BUFF	CONTACT THE BELDEN BRICK COMPANY AT 330-451-2031 FOR ORDERING SEE SPEC FOR ADDITIONAL INFO
A2A	BELDEN BRICK	MODULAR BELCREST BLEND W/ HOLCIM "ATLANTA RED" MORTAR MORTAR ALT: SOLOMON 48A RED	CONTACT THE BELDEN BRICK COMPANY AT 330-451-2031 FOR ORDERING SEE SPEC FOR ADDITIONAL INFO
A3	CONCRETE MASONRY 4TH ACCENT BAND	SMOOTH FACE 4" BAND TO MATCH COLOR A-22	
A4	STOREFRONT	ANODIZED ALUM.	RE: DWG. A602. SHADED WINDOWS ARE SPANDREL.
A5	MEMBRANE ROOFING	GRAY	AT BACK OF ALDI LOGO SIGN TOWER, FOOD MARKET SIGN TOWER AND CANOPY ROOF - SEE SPECIFICATIONS APPENDIX 'B'
A6	METAL SOFFIT PANELS	SOLID PANELS - SEE SPEC: SILVER METALLIC	RE: DWG. A201-A204
A7	EXTERIOR PAINT	PT-19 / CL-5	RE: DWG. A603
A8	DUMPSTER ENCLOSURE		RE. DWG A505
A9	ALUMINUM COMPOSITE PANEL	A9 - BRIGHT SILVER	PROVIDE PANEL JOINTS AS SHOWN - PROVIDE ONE PIECE TIGHT FIT EXTRUDED MOLDING INSTALLATION SYSTEM WITH CENTER REVEAL TRIM BETWEEN PANELS AND J TRIM AT PANEL EDGES.
A9G	FIBER CEMENT WALL PANELS	VINTAGEWOOD "CEDAR" PANELS	PROVIDE PANEL JOINTS AS SHOWN
A10	OLDCASTLE/ECHELON MASONRY CONCRETE MASONRY VENEER	"DARK BUFF" (JARED TAN) "DANDELION" MORTAR MORTAR ALT: SOLOMON 18X LIGHT BUFF	CONTACT ECHELON MASONRY AT 800-899-8455 FOR ORDERING SEE SPEC FOR ADDITIONAL INFO
A11	BLRD-2	PT-19 / CL-4	RE: DWG A603
A12	BLRD-4		RE: DWG A603
A13	GUARD RAIL TYPE "A"	GALVANIZED	RE: DWG A2/A503
A14	GUARD RAIL TYPE "B"	GALVANIZED	RE: DWG A2/A503
A15	BLRD-3	15 - BLRD 3 STARTER POST GALVANIZED	RE: DWG A603
A16	DOCK LEVELER / SEAL AND BUMPERS	LEVELER - FACTORY FINISH , SEAL AND BUMPERS - FACTORY FINISH - BLACK	PROVIDE BRICK BEHIND DOCK SEAL IN LIEU OF CAST STONE SILL
A17	CONTROL JOINT		MAX 20' OC
A18	SCUPPER, OVERFLOW SCUPPER & DOWN SPOUT	PT-19 / CL-5	RE: DWG C3/A503
A19	CONDUIT	EXTEND CONDUIT 1" BEYOND FACE OF F.C.P. & PAINT TO MATCH PANEL. FIL OPEN END WITH SEALANT AND SEAL AROUND PENETRATION	CONTRACTOR TO COORDINATE FINAL LOCATION PRIOR TO INSTALLATION
A20	ALDI TOWER SIGN	BY SIGN VENDOR	7'-11 1/8" w. x 9'-5 1/2" h. SEE DETAIL D1/A504; VERIFY SIGN SIZE PRIOR TO FRAMING OPENING
A21	CRTB	NATURAL	RE: DWG A603 - SEE STRUCTURAL DWGS
A22	CAST STONE SILL	STANDARD WHITE FOR BASE OF DESIGN SPEC	WATER TABLE TRIM - MORTAR COLOR TO MATCH WATER TABLE TRIM
A23	NOT USED		
A24	KNOX BOX	FACTORY FINISH	CONFIRM TYPE AND LOCATION WITH LOCAL FIRE MARSHAL
A25	AUTO DOOR & TRANSOM	ANODIZED ALUMINUM	RE. DWG A601 & A602
E1	EXIT DISCHARGE LIGHT	FACTORY FINISH	MOUNT @ 8'-0" A.F.F.
E2	WALL SCONCE	FACTORY FINISH	MOUNT @ 7'-6" A.F.F.
E3	CYLINDER WALL SCONCE	FACTORY FINISH	MOUNT HEIGHT SEE DIMENSION
E4	UTILITY METERING & C.T.	FACTORY FINISH	SEE ELECTRICAL DWGS
E5	EXTERIOR WALL PACK	FACTORY FINISH	MOUNT @ 12'-0" A.F.F.
E6	EXTERIOR DUPLEX RECEPTACLE	FACTORY FINISH	MOUNT @ 1'-6" A.F.F. IN 4" SQUARE J-BOX
E7	JUNCTION BOX WITH COVER FOR FUTURE CARD READER		MOUNT CENTERED @ 46 1/2" A.F.F. - RE. SEE ELEC DWGS
E8	GENERATOR QUICK CONNECT	FACTORY FINISH	SEE ELECTRICAL DWGS
F1	FIRE DEPT. CONNECTION	FACTORY FINISH	SEE FIRE PROTECTION DWGS
F2	MOTOR GONG	FACTORY FINISH	SEE FIRE PROTECTION DWGS
P1	HOSE BIB	FACTORY FINISH	SEE PLUMBING DWGS
P2	RPZ DISCHARGE	FACTORY FINISH	SEE PLUMBING DWGS
P3	GAS METER	FACTORY FINISH	SEE PLUMBING DWGS
XX	STOREFRONT KEY	ANODIZED ALUMINUM	SHADED WINDOWS ARE SPANDREL - RE: DWG A602

BRICK	
ELEVATION	% SHOWN
1 - SIDE ELEVATION	84%
2 - REAR ELEVATION	98%
3 - FRONT ELEVATION	70%
4 - SIDE ELEVATION	98%

SIGNAGE			
DESCRIPTION	QUANTITY	SQ. FT. PER SIGN	TOTALS
TOWER SIGN	2	74.9	149.8
TOTAL SIGNAGE			149.8

SIGNAGE IS SHOWN FOR REFERENCE ONLY AND SHALL BE UNDER SEPARATE PERMIT SUBMITTAL



4 Side Elevation
SCALE: 1/8" = 1'-0"

3 Front Elevation
SCALE: 1/8" = 1'-0"

2 Rear Elevation
SCALE: 1/8" = 1'-0"

1 Side Elevation
SCALE: 1/8" = 1'-0"

Issued:		Date:
A	Owner Review Set	10/01/20
B	Permit Set	02/15/21
C	Bid Set	02/15/21
D		
E		

Revisions:	Date:
1	
2	
3	
4	
5	
6	
7	
8	
9	

DO NOT SCALE PLANS

Copying, Printing, Software and other processes required to produce these prints can stretch or shrink the actual paper or layout, therefore, scaling of this drawing may be inaccurate. Contact SGA Design Group, P.C. with any need for additional dimensions or clarifications.

STIPULATION FOR REUSE
THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE AT FARRAGUT, TN CONTEMPORANEOUSLY WITH ITS ISSUE DATE ON 02/15/21 AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THE DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND IS CONTRARY TO THE LAW.
© SGA DESIGN GROUP, P.C.

SGA Design Group, P.C.
1437 South Boulder, Suite 550
Tulsa, Oklahoma 74119-3609
p: 918.587.8600
f: 918.587.8601
www.sgadesigngroup.com

DRAWN BY: ED

REVIEWED BY: GT

Seal

PRELIMINARY - NOT FOR CONSTRUCTION

RECORD DRAWINGS NOTICE
THE RECORD COPY OF THIS DRAWING IS ON FILE AT THE OFFICES OF SGA DESIGN GROUP. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT. THE DRAWINGS SHALL NOT BE CONSIDERED FINAL OR COMPLETE UNLESS IT IS SIGNED AND SEALED BY THE ARCHITECT.

ALDI Inc.
2080 ALDI Blvd
Mt. Juliet, TN 37122
615) 645-6888
615) 645-6895 fax

ALDI Inc. Store #:06
Farragut, TN
11238 Kingston Pike
Knoxville, TN 37922
Knox County

Project Name & Location:

Exterior Elevations
Drawing Name:

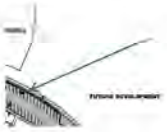
Date: 02/15/21
Type: V7.0DT
Drawn By: EKD
Scale: As Noted

Project No. 1913353
Drawing No. A-201

PLOTTED: 4/5/2021 10:12 AM

Town Center at Biddle Farms Site Plan Review Set Initial Comments.pdf Markup Summary

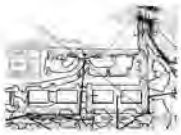
Arrow (14)



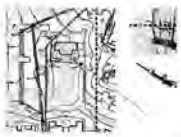
Subject: Arrow
Page Label: 25
Author: Dsmith
Date: 3/22/2021 11:44:31 AM
Status:
Color:
Layer:
Space:

Subject: Arrow
Page Label: 25
Author: Dsmith
Date: 3/22/2021 11:44:41 AM
Status:
Color:
Layer:
Space:

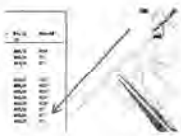
Subject: Arrow
Page Label: 18
Author: Dsmith
Date: 3/22/2021 9:28:12 AM
Status:
Color:
Layer:
Space:



Subject: Arrow
Page Label: 18
Author: Dsmith
Date: 3/22/2021 9:28:21 AM
Status:
Color:
Layer:
Space:

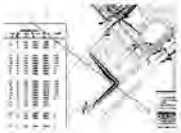


Subject: Arrow
Page Label: 18
Author: Dsmith
Date: 3/22/2021 9:30:23 AM
Status:
Color:
Layer:
Space:



Subject: Arrow
Page Label: 17
Author: Dsmith
Date: 3/22/2021 9:36:49 AM
Status:
Color:
Layer:
Space:

Subject: Arrow
Page Label: 17
Author: Dsmith
Date: 3/22/2021 9:38:22 AM
Status:
Color:
Layer:
Space:

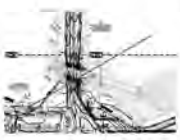


Subject: Arrow
Page Label: 17
Author: Dsmith
Date: 3/22/2021 9:38:39 AM
Status:
Color:
Layer:
Space:

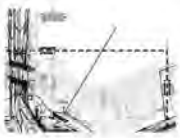
Subject: Arrow
Page Label: 19
Author: Dsmith
Date: 3/22/2021 9:44:33 AM
Status:
Color:
Layer:
Space:

Subject: Arrow
Page Label: 23
Author: Dsmith
Date: 3/25/2021 11:36:35 AM
Status:
Color:
Layer:
Space:

Subject: Arrow
Page Label: 23
Author: Dsmith
Date: 3/25/2021 11:36:48 AM
Status:
Color:
Layer:
Space:



Subject: Arrow
Page Label: 17
Author: Dsmith
Date: 3/25/2021 11:42:58 AM
Status:
Color:
Layer:
Space:



Subject: Arrow
Page Label: 17
Author: Dsmith
Date: 3/25/2021 11:43:52 AM
Status:
Color:
Layer:
Space:

Subject: Arrow
Page Label: 35
Author: Dsmith
Date: 3/25/2021 9:48:25 AM
Status:
Color:
Layer:
Space:

Callout (21)

Subject: Callout
Page Label: 45
Author: mshipley
Date: 3/19/2021 2:37:16 PM
Status:
Color:
Layer:
Space:

Decorative fixtures, such as the bell shaped fixture, are required in all of the MUTC.

We acknowledge your comments and will work with staff and developer to resolve

Subject: Callout
Page Label: 57
Author: mshipley
Date: 3/19/2021 2:39:27 PM
Status:
Color:
Layer:
Space:

Please break this up into smaller modules. It is a large blank wall currently which is not permitted in the ADS.

This face of the building backs up to the Shops and will not be highly visible

Subject: Callout
Page Label: 57
Author: mshipley
Date: 3/19/2021 2:40:46 PM
Status:
Color:
Layer:
Space:

Is there an opportunity for the building to include much more transparency? it is uninviting as proposed.

We acknowledge your comments

Subject: Callout
Page Label: 20
Author: mshipley
Date: 3/22/2021 12:08:13 PM
Status:
Color:
Layer:
Space:

This must be set back 10 feet from the property line.

Our intent is to connect this driveway to the adjacent parcel to the west in the future

Subject: Callout
Page Label: 53
Author: mshipley
Date: 3/22/2021 3:41:40 PM
Status:
Color:
Layer:
Space:

Should explore a more decorative style for this fixture.

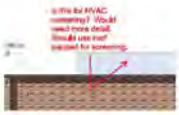
We acknowledge your comments and will work with the Town and architect to address

---

Subject: Callout
Page Label: 57
Author: mshipley
Date: 3/22/2021 3:42:32 PM
Status:
Color:
Layer:
Space:

Signage is a separate review and approval.

Acknowledged



Subject: Callout
Page Label: 57
Author: mshipley
Date: 3/22/2021 3:44:49 PM
Status:
Color:
Layer:
Space:

is this for HVAC screening? Would need more detail. Should use roof parapet for screening.

Refer to ALDI Building Elevations at the end of the Civil Set

---

Subject: Callout
Page Label: 18
Author: Dsmith
Date: 3/22/2021 9:27:59 AM
Status:
Color:
Layer:
Space:

Can junction boxes (manholes) be moved out of roadway?

Junction boxes/manholes are shown within the roadway in order to allow the landscape areas to be used for the required tree planting

---

Subject: Callout
Page Label: 18
Author: Dsmith
Date: 3/22/2021 9:30:14 AM
Status:
Color:
Layer:
Space:

Can junction boxes (manholes) be moved out of roadway?

Junction boxes/manholes are shown within the roadway in order to allow the landscape areas to be used for the required tree planting

---

Subject: Callout
Page Label: 19
Author: Dsmith
Date: 3/22/2021 9:44:23 AM
Status:
Color:
Layer:
Space:

Can junction boxes (manholes) be moved out of roadway?

Junction boxes/manholes are shown within the roadway in order to allow the landscape areas to be used for the required tree planting

Subject: Callout
Page Label: 6
Author: Lori Saal
Date: 3/24/2021 1:01:52 PM
Status:
Color:
Layer:
Space:

Add FR to legend

FR has been added to the legends on Sheets 6 thru 11

Subject: Callout
Page Label: 7
Author: Lori Saal
Date: 3/24/2021 1:07:40 PM
Status:
Color:
Layer:
Space:

Aquatic buffer cannot be inside of floodway. Aquatic buffer must be 25' from top of stream bank OR the distance of the floodway, whichever is greater. Here the distance of the floodway is greater, so the AQB is at the limit of the floodway.

The aquatic buffer has been adjusted to be at the floodway where the floodway exceeds 25' from the top of bank

---

Subject: Callout
Page Label: 3
Author: bhose
Date: 3/24/2021 1:55:17 PM
Status:
Color:
Layer:
Space:

I don't believe we can permit any work, including demo., in the Floodway until the CLOMR has been approved by FEMA.

We acknowledge your comments and will work with the Town and FEMA to address

---

Subject: Callout
Page Label: 13
Author: Lori Saal
Date: 3/24/2021 3:22:12 PM
Status:
Color:
Layer:
Space:

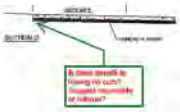
Add

Subject: Callout
Page Label: 21
Author: Dan Johnson
Date: 3/24/2021 4:51:58 PM
Status:
Color:
Layer:
Space:

Fire apparatus access roads shall be a min. 20' wide, 26' if a fire hydrant is provided.

We acknowledge your comments and will work with the Town to address

---



Subject: Callout
Page Label: 26
Author: Dsmith
Date: 3/24/2021 6:11:18 PM
Status:
Color:
Layer:
Space:

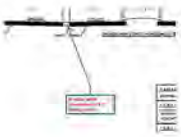
Is there benefit to having no curb? Suggest mountable or rollover?

It is the vision of the developer to have the green area flush with the adjacent stamped asphalt paving. This will omit the tripping hazard of a curb during special events

Subject: Callout
Page Label: 26
Author: Dsmith
Date: 3/24/2021 6:12:16 PM
Status:
Color:
Layer:
Space:

Can trail be moved off the back of curb between bridge and Concord Road?

The section of trail between the bridge and Concord Road has a 3.5' grass strip as shown in cross section E. We were not requested to provide a grass strip between the bridge and the development (cross section F)
Refer to Sheets 25 and 26



Subject: Callout
Page Label: 26
Author: Dsmith
Date: 3/24/2021 6:12:40 PM
Status:
Color:
Layer:
Space:

Is gutter width considered part of driving aisle?

As dimensioned on the cross sections sheet (Sheet 26), the width of the gutter is not included in the width of the travel lane

---

Subject: Callout
Page Label: 33
Author: Dsmith
Date: 3/25/2021 10:29:05 AM
Status:
Color:
Layer:
Space:

Drainage calculations show crest at 863.00

Riser structure has been revised (Sheet 33)

Subject: Callout
Page Label: 33
Author: Dsmith
Date: 3/25/2021 10:44:08 AM
Status:
Color:
Layer:
Space:

Drainage calculations show elevation 859.95

Riser structure has been revised (Sheet 33)

Subject: Callout
Page Label: 35
Author: Dsmith
Date: 3/25/2021 9:48:18 AM
Status:
Color:
Layer:
Space:

Notes on sheet C8.4 reference TDOT standard drawing MM-CR-1. Also, please specify truncated dome panels are to be cast into the concrete (not just epoxy).

We have added truncated dome detail to Sheet 37 and have noted it to be cast into the concrete

---

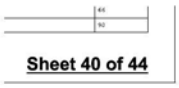
Cloud+ (1)

Subject: Cloud+
Page Label: 17
Author: Lori Saal
Date: 3/24/2021 4:29:32 PM
Status:
Color:
Layer:
Space:

Please define and provide detail/specs on WQD to be used.

WQD details have been added to Sheet 34

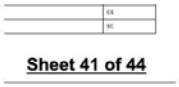
Text Box (42)



Subject: Text Box
Page Label: 43
Author: Charlie
Date: 3/15/2021 8:00:03 PM
Status:
Color:
Layer:
Space:

Sheet 40 of 44

Sheet is correctly identified as 40 of 44



Subject: Text Box
Page Label: 44
Author: Charlie
Date: 3/15/2021 8:00:28 PM
Status:
Color:
Layer:
Space:

Sheet 41 of 44

Sheet is correctly identified as 41 of 44

Subject: Text Box
Page Label: 45
Author: mshipley
Date: 3/19/2021 2:42:43 PM
Status:
Color:
Layer:
Space:

Please include details on proposed street lighting. This will be required to have decorative fixtures and provide for the opportunity for small cell support structures should they be desired in the future.

We acknowledge your comments and will work with the Town and architect to address

---

Subject: Text Box
Page Label: 1
Author: mshipley
Date: 3/19/2021 2:47:16 PM
Status:
Color:
Layer:
Space:

Will building elevations be provided in another phase for the retail and apartment buildings?

We acknowledge your comments and will work with the Town and architect to address

---

Subject: Text Box
Page Label: 1
Author: mshipley
Date: 3/19/2021 2:49:48 PM
Status:
Color:
Layer:
Space:

FEMA status?

This is in process as discussed in the staff meeting on 4/5/21

Subject: Text Box
Page Label: 1
Author: Dsmith
Date: 3/22/2021 10:32:12 AM
Status:
Color:
Layer:
Space:

Submit irrevocable letter of credit for erosion control in the amount of $300,000.

Acknowledged

Subject: Text Box
Page Label: 1
Author: Dsmith
Date: 3/22/2021 10:32:37 AM
Status:
Color:
Layer:
Space:

Please submit copy of NOC.

We will submit copy of NOC as soon as we receive it from TDEC

Subject: Text Box
Page Label: 1
Author: esievers
Date: 3/22/2021 10:37:03 AM
Status:
Color:
Layer:
Space:

Still do not see construction types, height and area calculations and square footages of the apartment buildings or clubhouse. How do they know the buildings can be where they have placed them?

Building construction types and square footages have been added and appear on the bldg footprints on Sheet 20

Subject: Text Box
Page Label: 1
Author: Dsmith
Date: 3/22/2021 10:41:59 AM
Status:
Color:
Layer:
Space:

Please contact Lori Saal at 865-966-7057 for guidance regarding stormwater maintenance agreement(s).

Acknowledged

Subject: Text Box
Page Label: 25
Author: Dsmith
Date: 3/22/2021 11:44:19 AM
Status:
Color:
Layer:
Space:

Consider making this sidewalk into an offset asphalt trail?

At the east side of Multi-family bldgs 3, 4, & 5, there is an asphalt trail offset by a 3.5' grass strip

---

Subject: Text Box
Page Label: 20
Author: Dsmith
Date: 3/22/2021 11:55:53 AM
Status:
Color:
Layer:
Space:

Bollards will be needed where trail ties to streets/parking lot.

We added additional bollards near the mail / maintenance bldg. Please advise if there are other locations required

---

Subject: Text Box
Page Label: 35
Author: Dsmith
Date: 3/22/2021 12:06:55 PM
Status:
Color:
Layer:
Space:

Public Works will likely maintain grass with ROW tractor. Please add 2" binder.

We will add a 2" binder

Subject: Text Box
Page Label: 43
Author: mshipley
Date: 3/22/2021 3:27:14 PM
Status:
Color:
Layer:
Space:

Please include a note on the lighting plan sheets that the footcandles at the property lines do not exceed 3.0.

We will have a note added

Subject: Text Box
Page Label: 57
Author: mshipley
Date: 3/22/2021 3:48:44 PM
Status:
Color:
Layer:
Space:

Please provide verification that each building elevation includes a minimum of 75% face brick.

Percentage of face brick is shown on the revised ALDI building elevation included at the end of the Civil Set

---

Subject: Text Box
Page Label: 1
Author: mshipley
Date: 3/22/2021 3:53:30 PM
Status:
Color:
Layer:
Space:

This site development submittal appears to be limited to certain aspects of the project. Please title this submittal to reflect the specific elements being presented at this time for approval.

We will coordinate with staff and developer to properly address this comment

---

Subject: Text Box
Page Label: 17
Author: mshipley
Date: 3/22/2021 3:55:32 PM
Status:
Color:
Layer:
Space:

Please specifically address how the requirement to direct at least 25% of the stormwater to a qualifying low impact development system is being addressed.

A paragraph has been added to page 9 of the Drainage Report

Subject: Text Box
Page Label: 17
Author: Dsmith
Date: 3/22/2021 9:34:47 AM
Status:
Color:
Layer:
Space:

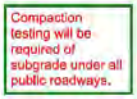
All pipes on public ROW must be RCP (I think that's the case here). However, if complete failure of any other pipe (upstream or downstream of public ROW) would cause flooding issues on public property, the pipe must be RCP as well.

We feel this has been properly addressed

Subject: Text Box
Page Label: 17
Author: Dsmith
Date: 3/22/2021 9:37:54 AM
Status:
Color:
Layer:
Space:

Rather than rely on notes and specifications, show intended pipe material where currently labeled "ST."

This is covered within the Site Storm System Notes



Subject: Text Box
Page Label: 20
Author: Dsmith
Date: 3/22/2021 9:53:46 AM
Status:
Color:
Layer:
Space:

Compaction testing will be required of subgrade under all public roadways.

Note has been added to Sheet C4.0

Subject: Text Box
Page Label: 27
Author: Dsmith
Date: 3/23/2021 12:03:17 PM
Status:
Color:
Layer:
Space:

Can manholes be kept out of travel lanes, at least with public street locations?

Manholes are shown within the roadway in order to allow the landscape areas to be used for the required tree planting

---

Subject: Text Box
Page Label: 27
Author: Dsmith
Date: 3/23/2021 12:24:59 PM
Status:
Color:
Layer:
Space:

Gas, electric, telephone and cable plans?

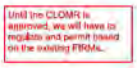
Gas has been added to Sheet 27. Please note there is no gas service required for the Multi-Family.
We are coordinating with LCUB for the Site Electric Plans since they prepare them. Cable and Phone will follow Electric

---

Subject: Text Box
Page Label: 13
Author: Lori Saal
Date: 3/24/2021 3:21:44 PM
Status:
Color:
Layer:
Space:

FR

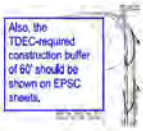
FR has been added to the Filter Ring Detail on Sheet 13



Subject: Text Box
Page Label: 17
Author: bhose
Date: 3/24/2021 3:34:57 PM
Status:
Color:
Layer:
Space:

Until the CLOMR is approved, we will have to regulate and permit based on the existing FIRMs.

We will coordinate this with staff



Subject: Text Box
Page Label: 17
Author: Lori Saal
Date: 3/24/2021 4:31:50 PM
Status:
Color:
Layer:
Space:

Also, the TDEC-required construction buffer of 60' should be shown on EPSC sheets.

An average of 60' buffer is provided and lies outside of the limits of disturbance. Notes have been added to Sheets 6 thru 11

Subject: Text Box
Page Label: 17
Author: bhose
Date: 3/24/2021 4:37:52 PM
Status:
Color:
Layer:
Space:

These are very complicated and busy plan sheets.

1) We need a grading/improvements sheet(s) that clearly shows the existing (pre-CLOMR) floodway, 100-year flood boundary, 500-year flood boundary, the Town's regulatory no-fill line relative to the existing boundaries, and the erosion control aquatic buffer line.

2) We also need a grading/improvements sheet(s) that clearly shows the proposed (post-CLOMR) floodway, 100-year flood boundary, 500-year flood boundary, the Town's regulatory no-fill line relative to the existing boundaries, and the erosion control aquatic buffer line.

3) Please clarify whether the FFE on the proposed buildings are pre or post CLOMR.

We need to have a separate meeting to review the CLOMR findings and what factors were considered, and the above noted plan sheets so that we can apply our regulations correctly.

We will coordinate this with Town staff

Subject: Text Box
Page Label: 27
Author: Dan Johnson
Date: 3/24/2021 4:47:50 PM
Status:
Color:
Layer:
Space:

Water main sizing appears inadequate for usage and fire flows. Provide calculations supporting sizing.

Calculations will be provided

Subject: Text Box
Page Label: 26
Author: Dan Johnson
Date: 3/24/2021 4:52:58 PM
Status:
Color:
Layer:
Space:

Fire apparatus access roads shall be a minimum of 20' wide and 26' wide if provided with a fire hydrant or serving a building over 30' in height.

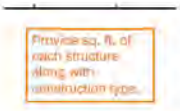
Acknowledged. We will work with staff to resolve

Subject: Text Box
Page Label: 57
Author: mshipley
Date: 3/24/2021 4:54:35 PM
Status:
Color:
Layer:
Space:

In general, this building does not comply with the required amount of landscaping between the building and parking lot.

The total required area is provided around the buildings which exceeds the area required. In order to preserve the 20' sidewalk corridor along "Main St", we would like to provide the alternative shown

---



Subject: Text Box
Page Label: 30
Author: Dan Johnson
Date: 3/24/2021 4:55:42 PM
Status:
Color:
Layer:
Space:

Provide sq. ft. of each structure along with construction type.

Building construction types and square footages have been added and appear on the bldg footprints on Sheet 20

Subject: Text Box
Page Label: 30
Author: Dan Johnson
Date: 3/24/2021 4:55:54 PM
Status:
Color:
Layer:
Space:

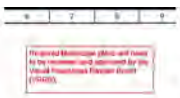
Fire flow calculations, per IFC appendix B, will be required for each structure.

Added to Sheets 30 and 31

Subject: Text Box
Page Label: 30
Author: Dan Johnson
Date: 3/24/2021 4:57:43 PM
Status:
Color:
Layer:
Space:

Provide note stating that all fire hydrants shall provide a minimum flow of 1000 GPM at 20 PSI and be installed in accordance with Town of Farragut and First Utility District requirements.

Added to Sheets 30 and 31



Subject: Text Box
Page Label: 40
Author: bhose
Date: 3/24/2021 4:59:22 PM
Status:
Color:
Layer:
Space:

Required landscape plans will need to be reviewed and approved by the Visual Resources Review Board (VRRB).

Acknowledged

Subject: Text Box
Page Label: 30
Author: Dan Johnson
Date: 3/24/2021 5:02:52 PM
Status:
Color:
Layer:
Space:

Provide FDC locations for all buildings. Not shown on several.

FDC locations have been added to Sheets 30 and 31

Subject: Text Box
Page Label: 1
Author: Dan Johnson
Date: 3/24/2021 5:04:40 PM
Status:
Color:
Layer:
Space:

Fire apparatus access to residential structures remains under review by the responding fire department. Additional comments may arise.

Acknowledged

Subject: Text Box
Page Label: 57
Author: bhose
Date: 3/24/2021 5:06:31 PM
Status:
Color:
Layer:
Space:

Wall signs can be permitted with staff review. Non-regulatory ground signs must be reviewed and approved by the VRRB.

Note has been added to ALDI Building Elevation stating separate sign submittal and approval is required

Subject: Text Box
Page Label: 41
Author: bhose
Date: 3/24/2021 5:08:08 PM
Status:
Color:
Layer:
Space:

Note: The required minimum landscaping for buildings must be located between the buildings and parking/access ways.

The total required area is provided around the buildings which exceeds the area required. In order to preserve the 20' sidewalk corridor along "Main St", we would like to provide the alternative shown

---

Subject: Text Box
Page Label: 35
Author: Dsmith
Date: 3/25/2021 10:06:56 AM
Status:
Color:
Layer:
Space:

On publicly-maintained areas, only parking space striping may be paint. All other pavement markings shall be thermoplastic.

Key notes on Sheets 21 and 22 and notes in the details on Sheet 34 should cover this

---

Subject: Text Box
Page Label: 35
Author: Dsmith
Date: 3/25/2021 10:07:13 AM
Status:
Color:
Layer:
Space:

On publicly-maintained areas, only parking space striping may be paint. All other pavement markings shall be thermoplastic.

Key notes on Sheets 21 and 22 should cover this

Subject: Text Box
Page Label: 33
Author: Dsmith
Date: 3/25/2021 11:17:14 AM
Status:
Color:
Layer:
Space:

Check 2-yr post developed discharge at apartment pond, page 4 of drainage calculations.

Drainage calculations have been revised

Subject: Text Box
Page Label: 33
Author: Dsmith
Date: 3/25/2021 11:25:36 AM
Status:
Color:
Layer:
Space:

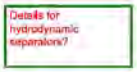
Drainage calculations have been revised

Drainage calculations indicate improvements in pre- vs. post-developed rates of runoff from the areas contributing to the two basins. It does appear the area draining directly to creek (bypass + direct to creek) has increased somewhat. Can you include table in drainage calculations showing difference in pre- and post-developed rates for entire area (pond discharges plus direct to creek)?

Subject: Text Box
Page Label: 23
Author: Dsmith
Date: 3/25/2021 11:36:20 AM
Status:
Color:
Layer:
Space:

one-way pairs should probably include "Do Not Enter" signs posted at points where motorists could enter wrong way.

Added to Sheet 23



Subject: Text Box
Page Label: 17
Author: Dsmith
Date: 3/25/2021 11:42:44 AM
Status:
Color:
Layer:
Space:

Details for hydrodynamic separators?

Details added to Sheet 34

MEETING DATE: April 15, 2021 **AGENDA ITEM #10**

REPORT TO THE FARRAGUT MUNICIPAL PLANNING COMMISSION

PREPARED BY: Mark Shipley, Community Development Director
Bart Hose, Assistant Community Development Director

SUBJECT: Discussion and public hearing on a request to amend the Farragut Municipal Code, Appendix A – Zoning, Chapter 3, Section IV., Open Space Mixed Residential (OSMR), to require a concept plan in association with a rezoning request to establish the distribution of attached vs. detached dwelling units (Town of Farragut, Applicant)

INTRODUCTION AND BACKGROUND: This item was discussed last month. Staff provided an overview of the issue and noted that during discussions involving two properties recently requested for a rezoning to OSMR, concerns were expressed by both the Planning Commission and the Board of Mayor and Aldermen regarding the distribution of attached vs. detached dwelling units. A specific concern was that if a property is rezoned to OSMR, a development with entirely attached dwelling units could be proposed and result in a built form incompatible with its surroundings.

DISCUSSION: As explained last month, to help address this concern, staff proposed that a concept plan be submitted in association with a rezoning request to OSMR. A concept plan is currently required for developments in both the OSR and OSMR districts in the Subdivision Regulations, but this would be submitted after the property has been rezoned.

The main objective of the concept plan in this application would be to establish a distribution of attached vs. detached dwellings and where these two different residential forms would be envisioned on the property. Currently, the Zoning Ordinance requires a concept plan for rezoning requests to both the Planned Commercial Development (PCD) and the Town Center District (TCD) Zoning Districts. These districts, however, are generally more complicated than the OSMR and since concept plan requirements are already provided for in the Subdivision Regulations for the subdivision of property, basic components of a rezoning based concept plan may be more appropriately taken from the Subdivision Regulations.

The following questions were presented to the Planning Commission:

1) Should a concept plan be required for a rezoning request to OSMR; and
2) If so, what level of detail should be required to address the objective of the concept plan?

Commissioners strongly supported a concept plan for a rezoning to OSMR and recommended that the plan not be overly burdensome but provide enough detail from readily available information to determine that the envisioned layout shown on the concept plan is achievable. From this feedback, staff has included in the packet Ordinance 21-09 which provides for a concept plan and associated parameters as part of a rezoning to OSMR.

RECOMMENDATION: Staff recommends approval of Resolution PC-21-07 which recommends approval of Ordinance 21-09.

RESOLUTION PC-21-07

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 3., SPECIFIC DISTRICT REGULATIONS, SECTION IV., OPEN SPACE MIXED RESIDENTIAL (OSMR)

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 April 15, 2021;

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, of the Farragut Zoning Ordinance, by adding Ordinance 21-09.

ADOPTED this 15th day of April 2021.

_____
Rita Holladay, Chairman

_____
Scott Russ, Secretary

ORDINANCE: **21-09**
PREPARED BY: **Shipley/Hose**
REQUESTED BY: **Town of Farragut**
CERTIFIED BY FMPC: **April 15, 2021**
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 3., SECTION IV., OPEN SPACE MIXED RESIDENTIAL (OSMR)

WHEREAS, the Board of Mayor and Aldermen of the Town of Farragut, Tennessee, wishes to amend Chapter 3., Section IV., Open Space Mixed Residential (OSMR) of the Farragut Zoning Ordinance, Ordinance 86-16.

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Aldermen of the Town of Farragut, Tennessee, that the Farragut Zoning Ordinance is hereby amended by replacing Subsection B., "Application of the district" in its entirety as follows:

SECTION 1.

B *Application of the district.*

1. The OSMR overlay district may be applied over the Rural Residential District (R-1).
2. Any application for rezoning to OSMR shall include a Concept Layout Plan that clearly addresses the overall plan of development for the proposed rezoning area, including but not limited to; the location of all proposed permitted uses and structures, transportation networks, public and private open-space areas, and environmentally sensitive areas. The plan shall be prepared by a Tennessee licensed engineer or landscape architect, and/or a physical planner with comparable education, background, and experience. At a minimum, the concept plan shall be prepared at a scale of not less than 1" = 100', laid-out for printing on sheets of 24 inches by 36 inches, and shall include the following information:
    a. A title block which specifically indicates that this plan is for rezoning application purposes and contains "conceptual information" which is "not intended for construction purposes."
    b. Location map, property address(s), tax map and parcel number(s), graphic scale, approximate north arrow, map legend, and preparation and revision date information.

c. The names, addresses, and contact information for the property owners, representatives, and professionals involved in the plan. The professional seal of the individual principally responsible for preparing the plan shall also be affixed.

d. Property boundaries, acreage of the property in question, existing zoning, the approximate location of existing utilities expected to service the property and an indication of their availability and capacity to do so, and the locations and widths of any rights-of-way providing access to the property.

e. Sufficient information on the existing development within 150 feet from the boundaries of the subject property to indicate their relationships with the proposed development related to land uses, lot lines, open space corridors, vehicular and pedestrian circulation systems, environmentally sensitive areas, and other unique natural features of the landscape.

f. Site topography (KGIS), the general locations and acreage of tree covered areas, and the approximate location and extent of all other environmentally sensitive areas on the site including but not limited to springs, streams, and water courses, identified floodplains and flood hazard areas, wetlands, slopes in excess of fifteen (15) percent, surface depressions, sinkholes and caves, and known endangered species habitat.

g. The general location of all proposed buildings and property lines, along with the proposed density of the overall development.

h. The general location and acreage of all proposed open-space areas.

i. The proposed location and approximate grade of streets, sidewalks, and shared-use paths (also referred to in the Subdivision Regulations as bike paths) and how these proposed transportation elements will be connected to both the existing transportation systems and adjacent properties. The location and distances between any existing intersecting roadways and driveways and those being proposed shall also be shown.

j. A signed statement by the owner/applicant that they are aware of the Town's development requirements and standards and that they will be required to meet all applicable standards during development.

SECTION 2.

This ordinance shall take effect 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 this _____ day of _____, 2021, with approval recommended.

_____
Rita Holladay, Chairman

_____
Scott Russ, Secretary

FARRAGUT MUNICIPAL PLANNING COMMISSION

MEETING DATE: April 15, 2021 **AGENDA ITEM #11**

REPORT TO THE FARRAGUT MUNICIPAL PLANNING COMMISSION

PREPARED BY: Mark Shipley, Community Development Director
Bart Hose, Assistant Community Development Director

SUBJECT: Discussion on updates to the Major Road Plan and potential cross sections for local and major collector streets (Town of Farragut, Applicant)

INTRODUCTION AND BACKGROUND: The Major Road Plan is a legal document that is required as an element of the general plan provided for in the Tennessee Code Annotated. Periodically, communities should re-visit their adopted Major Road Plan to include new or modified streets and ensure that existing streets are classified properly based on how they function or will (should) function in the future. In April and May of 2017 staff presented some amendments to the Planning Commission for the Major Road Plan. Also presented were some hypothetical cross sections for local and major collector streets. Though an update of the Major Road Plan may not initially include desired cross sections for different collector streets, the goal is to create a digital Major Road Plan that is interactive. When someone goes to the map on the Town's web site, and they click on a street it will bring up the typical desired cross section for that segment of street. This will help clarify the expectations of the Town and visually demonstrate what the street may look like in the future. This would be of value to citizens, prospective citizens, developers, and real estate agents. Collector streets are the primary focus because they are more likely to be improved, are Town controlled streets, and carry or will carry a sufficient volume of traffic to generate a need for the development of a desired cross section that accommodates a variety of users. Arterial streets will also have desired cross sections but will frequently require coordination with TDOT.

DISCUSSION: This item was discussed at the March 30 staff/developer meeting. Staff reviewed the proposed changes to the Major Road Plan which included the following:

1) *Add Ivey Farms Road to the Major Road Plan and classify it as a Major Collector.* This is a new street that connects Kingston Pike to Union Road. At some point, a traffic signal will be warranted at the intersection of Kingston Pike and Ivey Farms Road. Ivey Farms Road will collect traffic from both Kingston Pike and Union Road as well as traffic created internally.
2) *Reclassify the connecting roads from Turkey Creek Road to Midhurst Drive from Local Streets to Local Collectors*. With the connection to Audubon Hills from Briarstone via Dunlin Lane, one can now access Kingsgate using a portion of Briarstone Lane, Dunlin Lane, Finch Road, and Harrow Road. Consequently, these Local Streets would now function as collectors since they will move people from local streets to other collector streets. Midhurst Drive is classified as a local collector street. This re-classification would have no impact on the existing affected streets and would simply classify the streets to a more appropriate designation.
3) *Add a missing section of Kingston Pike from the Town limit to Lovell Road as a Major Arterial*. This modification would correct an existing error on the Major Road Plan where this section of Kingston Pike is not currently classified. The proposed classification would be consistent with the remainder of Kingston Pike.

4) *Reclassify Jamestowne Boulevard from a Local Collector to a Major Collector.* This would reflect how the road will potentially function in the future should it be signalized at each end.
5) *Reclassify Grigsby Chapel Road and Smith Road from Kingston Pike to Fretz Road from Major Collector to Minor Arterial.* This route currently functions more as a minor arterial than a major collector since it collects traffic from collector streets (Boring Road and Smith Road west) and transports traffic from one major arterial (Kingston Pike) to another major arterial (N. Campbell Station Road). This classification would also be consistent with TDOT's classification of this street.
6) *Removing the west side of Campbell Lakes Drive as a future road.* Given the placement of dwelling units in Farragut Commons and Chapel Point and the presence of sizable jurisdictional wetlands and floodplain, this connection is very unlikely and should be removed.
7) *Removing the connector that is shown east of the N. Campbell Station Road interchange.* This connector is no longer necessary given the improvement of Snyder Road and Outlet Drive.

In terms of the development of cross sections and potential amendments to the Subdivision Regulations related to streets and people movement systems, the following questions were identified and discussed in general terms at the staff/developer meeting on March 30:

1. What problems or issues in the "people movement" system are we trying to address?
    a. Safety?
    b. Improved level of service?
    c. Less automobile dependence?
    d. Overall enhanced connectivity?
    e. All of the above?
    f. Others?
2. From this, what context appropriate solutions would provide the most "bang for the buck" and best address identified problems or issues?
3. Is this something that a subcommittee with members representing a variety of perspectives should focus on and report back to the Planning Commission with recommendations?

When the Planning Commission was asked to review and rank eight different hypothetical complete street cross sections for collector streets during the April 2017 meeting, the most desired cross section included a 12-foot multi-use path on one side with a 10-foot planting strip, two 12 (or possibly 11) foot travel lanes, a 6-foot planting strip on the other side of the street, and an 8-foot sidewalk or walking path. This cross section was selected as the unanimous choice for Allen Kirby Road, Dixon Road, Boring Road, and Union Road (west). This cross section also received the majority of votes for Boyd Station Road and Herron Road. In this month's packet, this cross section is titled "Collector (b) No Median."

A second cross section that received some votes is titled "Collector (h)" in the packet and includes a 12-foot multi-use path on one side with a 10-foot planting strip, a 12 (or possibly 11) foot travel lane, a 6-foot landscaped median, a 12 (or possibly 11) foot travel lane, a 2-foot protected barrier, and a 6-foot bike lane. "Collector (h)" was selected as the most desirable cross section for Smith Road (west), Evans Road, and Sonja Drive.

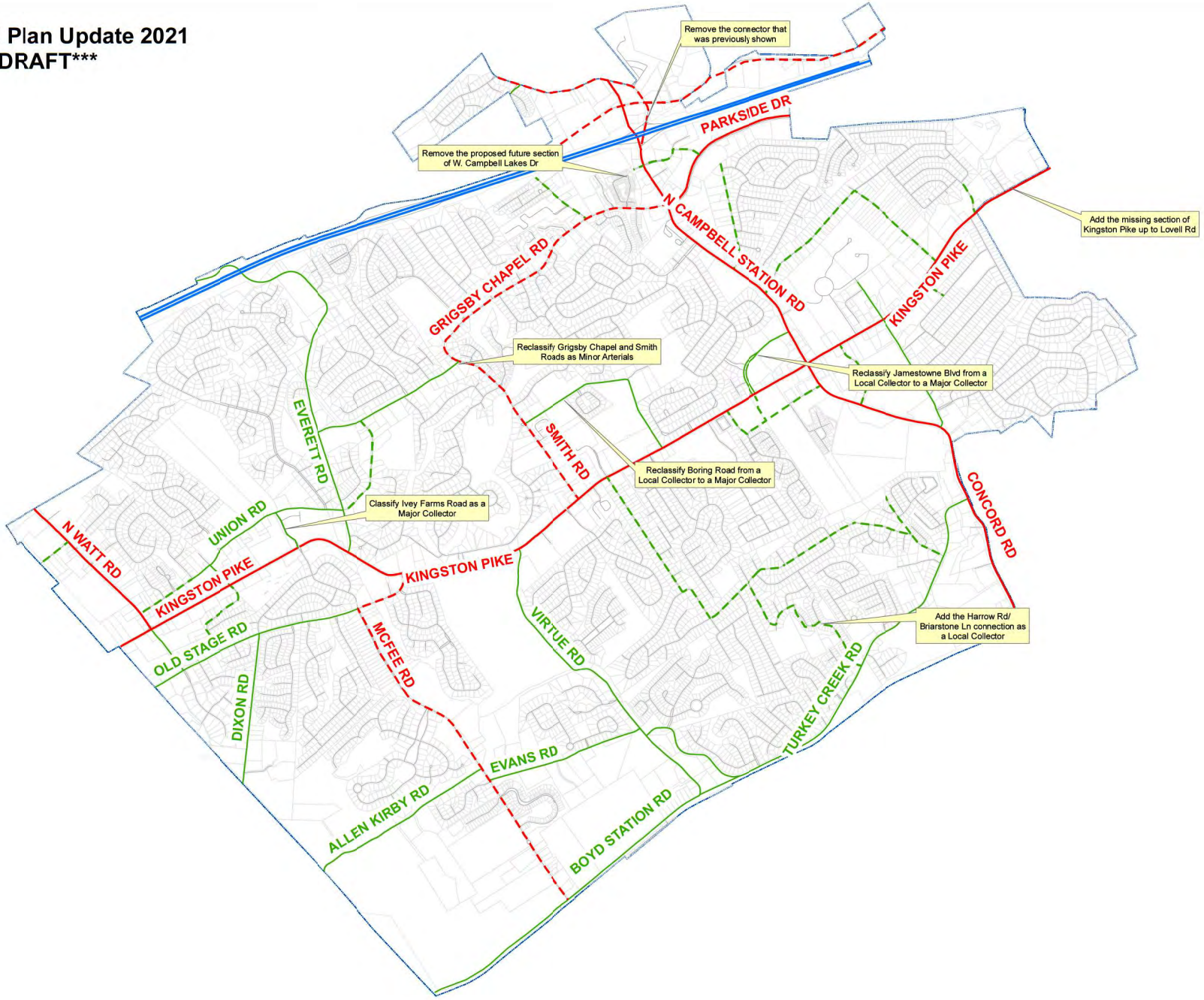
During the April 2017 Planning Commission meeting, Commissioners were asked to rank in importance seven different key elements of design (as these elements would relate to public rights of ways). Those elements included bike lanes, decorative street lighting, lane widths, medians, pedestrian facilities, planting strips, and street trees. The top 3 elements that were identified were lane widths, pedestrian facilities, and street trees.

In response to this feedback, amendments were made to the Subdivision Regulations in 2018. These amendments were intended to address how to make pedestrian facilities more inviting by slowing traffic speed through design and streetscaping and considering the context when reviewing street widths and pedestrian systems. Another change was to require vehicular connectivity for new developments so that traffic could be dispersed over a larger street network which, in turn, would help to enhance the experience of other users of the people movement system.

The amendments approved in 2018 primarily affected new local streets. The cross sections for collector streets that are now being re-visited would help re-establish community values for these streets which would then be addressed, if needed, in updates to the Subdivision Regulations. In addition to the two cross sections that were most desired in 2017, staff has included some new cross sections in the packet for discussion purposes. There are two cross sections for local collector streets and two for major collector streets.

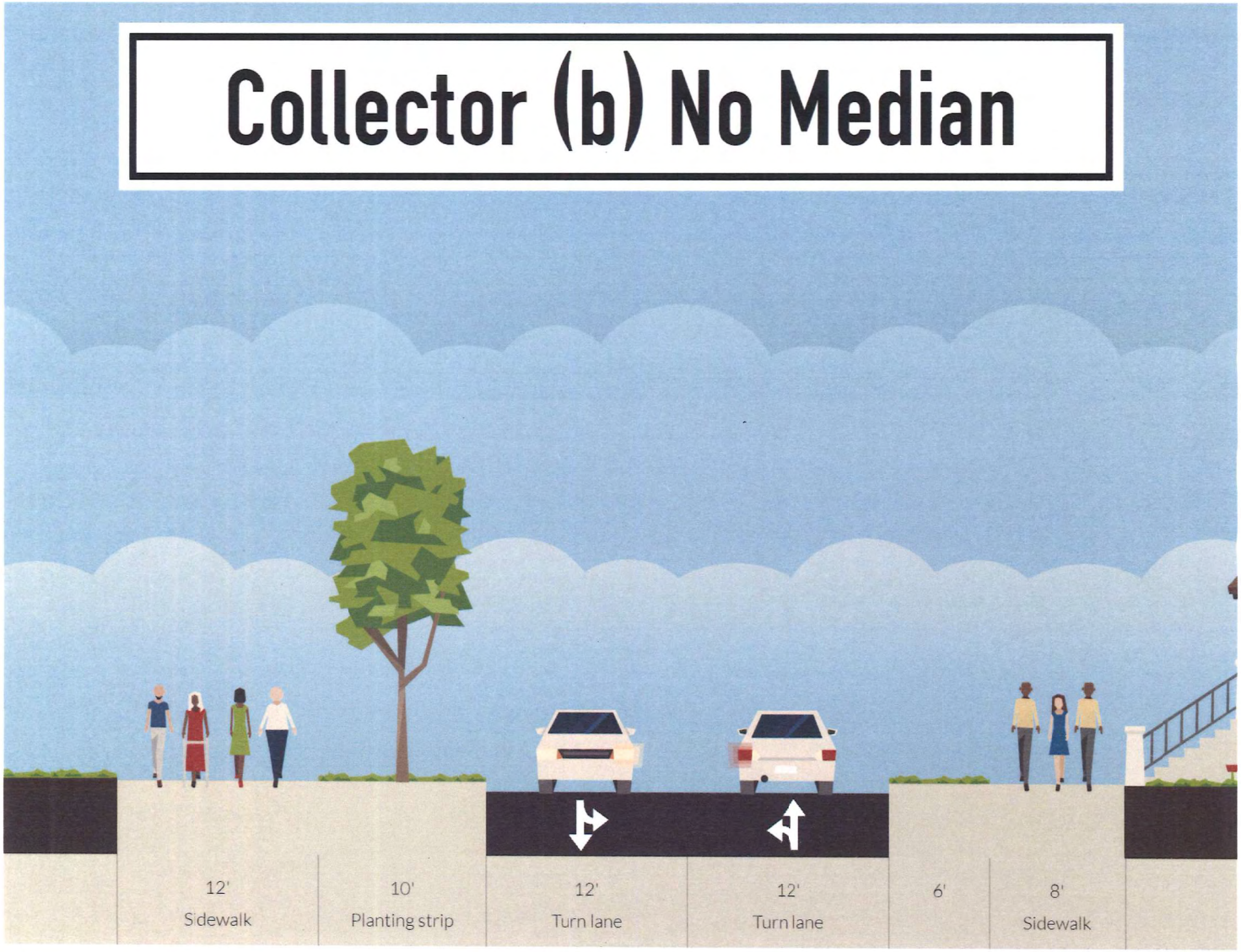
One change envisioned by staff is to increase the width of walking trails (multi-use paths) that parallel major collector streets from 8 to 10 feet. The 6-foot grass strip established in the 2018 amendments would remain (though a question may be whether this is wide enough) as a space to add street trees to break up the appearance of an overly wide area of asphalt. Some other discussion items include whether to use medians in desired cross sections and where these may be appropriate, whether bicycle lanes should be used and, if so, where, and should collector streets provide for a sidewalk on one side of the street and a multi-use path on the other or a multi-use path on both sides of the street?

Major Road Plan Update 2021
DRAFT

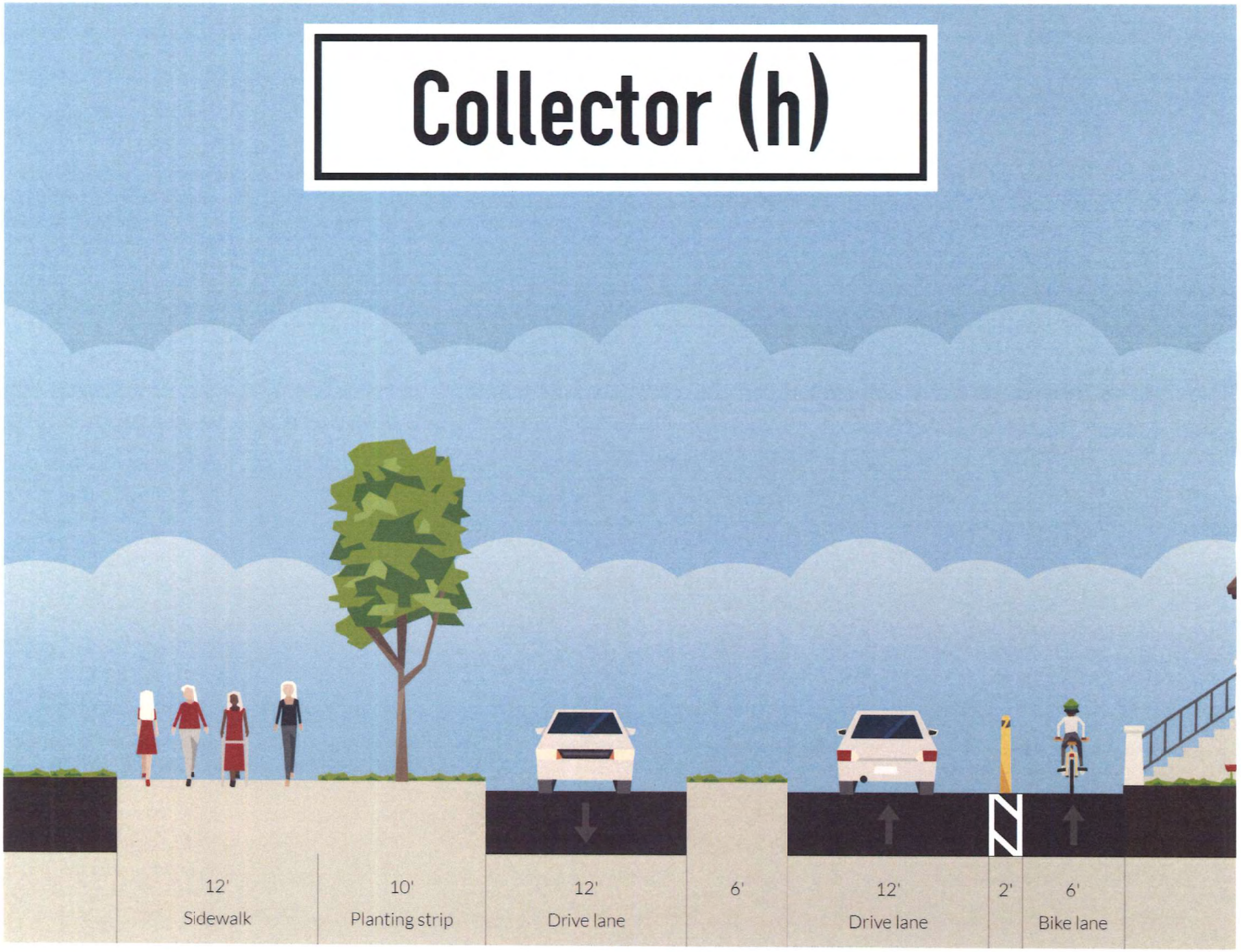


Document Path: G:\Planning\Map Documents\2021\Major Road Plan Update 2021.mxd

Collector (b) No Median

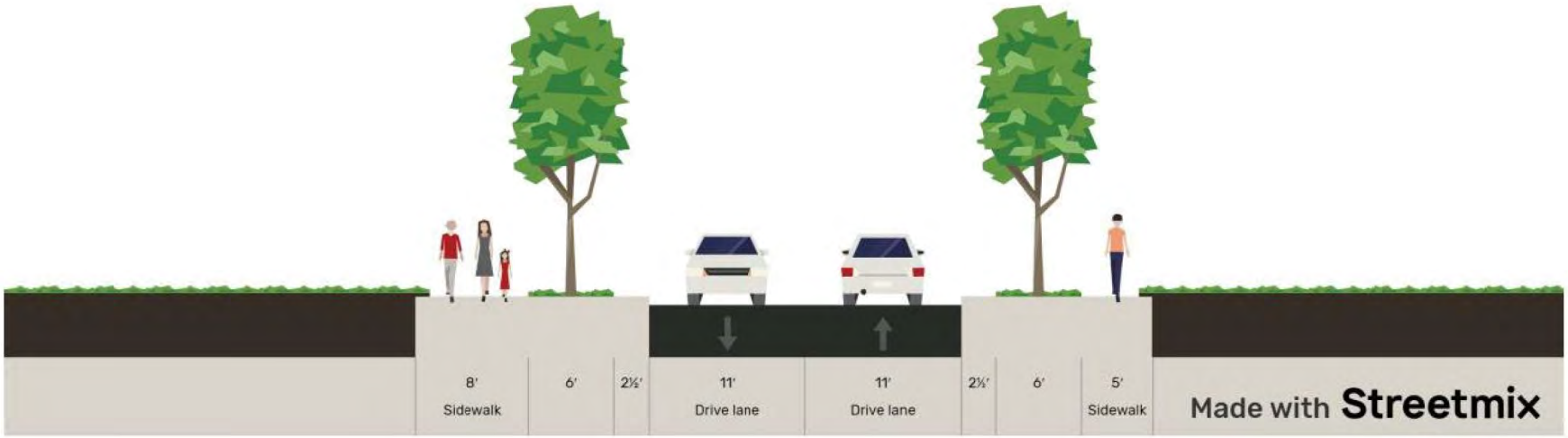


Collector (h)

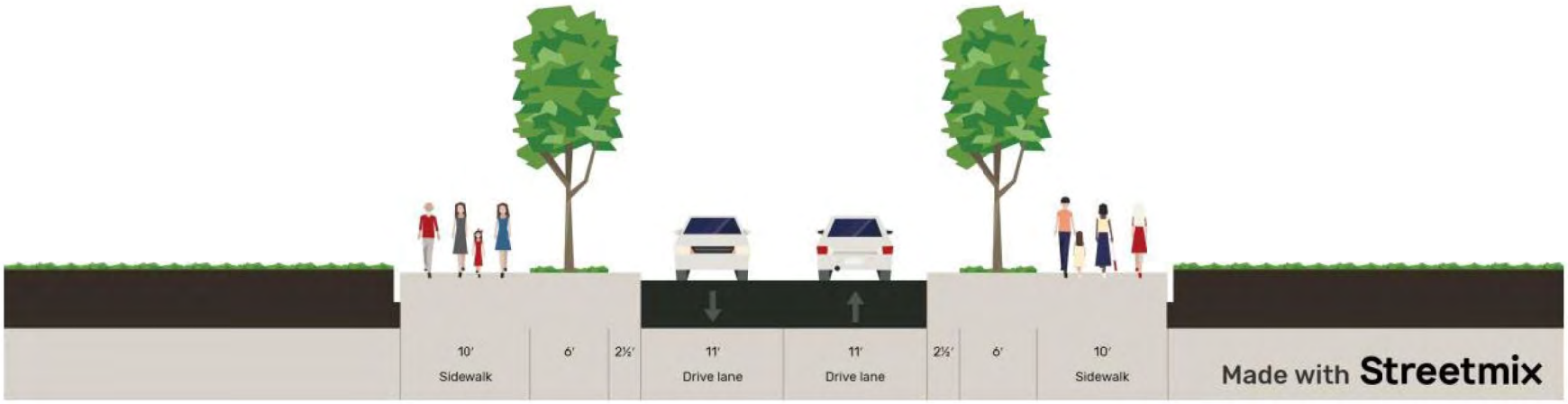

12'
Sidewalk
10'
Planting strip
12'
Drive lane
6'
12'
Drive lane
2'
6'
Bike lane

Local Collector (Option 1) – Streetmix

This cross section does not fit within a standard 50-foot ROW (+2 feet)



8'
Sidewalk
10'
Planting strip
11'
Drive lane
11'
Drive lane
10'
Planting strip
Made with Streetmix


10′
Sidewalk
6′
2½′
11′
Drive lane
11′
Drive lane
2½′
6′
10′
Sidewalk
Made with Streetmix

Major Collector (Option 2) – Streetmix

This cross section does not fit within a standard 60-foot ROW (+2 feet)