

**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)**Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)**

Site or Project Name: Hickory Valley Townhomes		NPDES Tracking Number: TNR	
Street Address or Location: Hickory Valley Road		Construction Start Date: 06/06/2021	
		Estimated End Date: 02/06/2023	
Site Description: The project will involve the construction of the Townhome Units, parking		Latitude (dd.dddd): 35.0446	
		Longitude (-dd.dddd): -85.1673	
County(ies): Hamilton	MS4 (if applicable): City of Chattanooga	Acres Disturbed: 2.38	
Check box if a SWPPP is attached: ☒	Check box if a site location map is attached: ☒	Total Acres: 2.38	
Check the appropriate box(s) if there are streams and/or wetlands on or adjacent to the construction site: Streams ☐ Wetlands ☐			
Has a jurisdictional determination been made by the USACE or EPA identifying waters of the United States?: Yes ☐ No ☐			
Note: if yes, attach the jurisdictional determination			
If an Aquatic Resource Alteration Permit (ARAP) has been obtained for this site, what is the permit number? NR(S)			
Receiving waters: Friar Branch			
Site Owner/Developer (Primary Permittee): (Provide person, company, or entity that has operational or design control over construction plans and specifications): 3100 Wood Ave LLC			
For corporate entities only, provide correct Tennessee Secretary of State (SOS) Control Number: 571068 (an incorrect SOS control number may delay NOI processing)			
Site Owner or Developer Contact Name: (signs the certification below) Lee Helena, Jr		Title or Position: DEVELOPMENT MANAGER	
Mailing Address: PO Box 5127		City: Chattanooga	State: TN Zip: 37406
Phone: (423) 531-7882	Fax: ()	E-mail: lhelena@riversidedevelopmentllc.com	
Optional Contact:		Title or Position:	
Mailing Address:		City:	State: Zip:
Phone: ()	Fax: ()	E-mail:	
Owner/Developer(s) Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)			
I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.			
Owner/Developer Name (print/type): Lee Helena, Jr.	Signature:	Date: 5-7-21	
Owner/Developer Name (print/type):	Signature:	Date:	
Contractor Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)			
I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.			
Contractor name, address, and SOS control number (if applicable): JOHN LYNCH, JC CURTIS CONSTRUCTION 1507 WILDER ST CHATTANOOGA, TN 37406 SOS# 351383		Signature:	Date: 5-7-21
OFFICIAL STATE USE ONLY			
Received Date:	Reviewer:	Field Office:	Permit Tracking Number: TNR
Fee(s):	T & E Aquatic Flora/Fauna:	SOS Corporate Status:	Waters with Unavailable Parameters:
		Exceptional TN Water:	
		Notice of Coverage Date:	

CONSTRUCTION GENERAL PERMIT - NOTICE OF INTENT (NOI) - INSTRUCTIONS

A completed NOI must be submitted to obtain coverage under the CGP. **Requesting coverage under this permit means that an applicant has obtained and examined a copy of this permit, and thereby acknowledges applicant's claim of ability to be in compliance with permit terms and conditions.** CGP coverage is required for stormwater (SW) discharge(s) from construction activities including clearing, grading, filling and excavating (including borrow pits) of one or more acres of land. This form should be submitted at least 30 days prior to the commencement of land disturbing activities, or no later than 48 hours prior to when a new operator assumes operational control over site specifications or commences work at the site.

The application fee must accompany the NOI and is based on total acreage to be disturbed by an entire project, including any associated construction support activities (e.g., equipment staging yards, material storage areas, excavated material disposal areas, borrow or waste sites, etc.). A separate annual maintenance fee is also required for activities that exceed 1 year under CGP coverage. See TN Rules, Chapter 0400-40-11-.02(b)(12).

Acres Disturbed	= or > 150 acres	= or > 50 < 150 acres	= or > 20 < 50 acres	= or > 5 < 20 acres	= or > 1 < 5 acres	Subsequent coverage
Fee	\$10,000	\$6,000	\$3,000	\$1,000	\$250	\$100

Who must submit the NOI form? All site operators must submit an NOI form. "Operator" for the purpose of this permit and in the context of SW associated with construction activity means any person associated with a construction project who meets either or both of the following two criteria: (1) The person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g., subsequent builder), or the person that is the current land owner of the construction site, and is considered the primary permittee; or (2) The person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

Owners, developers and all contractors that meet the definition of the operator in subsection 2.2 of the permit shall apply for permit coverage on the same NOI, insofar as possible. After permit coverage has been granted to the initial site-wide primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The comprehensive site-specific SWPPP shall be prepared in accordance with the requirements of part 3 of the permit and must be submitted with the NOI unless the NOI being submitted is to add a subsequent permittee to an existing coverage. **Artificial entities (e.g., corporations or partnerships) must submit the correct Tennessee Secretary of State, Division of Business Services, control number. General partnerships. For general partnerships, the NOI must be signed by each general partner in the general partnership.**

The NOI will be considered incomplete without a correct control number, and the division reserves the right to deny coverage to artificial entities that are not properly registered and in good standing with the Tennessee Secretary of State (i.e., listed with an entity status of "active"). The division further reserves the right to issue permit coverage in the correct legal name of the individual or entity seeking coverage and to name each general partner of a general partnership in addition to the general partnership.

Complete the form: Type or print clearly. Answer each item or enter "NA," for not applicable. If you need additional space, attach a separate piece of paper to the NOI form. **The NOI will be considered incomplete without a permit fee and comprehensive site-specific SWPPP (if applicable).**

Describe and locate the project: Use the legal or official name of the construction site. If a construction site lacks street name or route number, give the most accurate information available to describe the location (reference to adjacent highways, roads and structures; eg., intersection of state highways 70 and 100). Latitude and longitude (in decimal degrees) can be found at numerous other web sites. Attach a copy of a map, showing location of site, with boundaries at least one mile outside the site boundaries. Provide estimated starting date of clearing activities and completion date of the project, and an estimate of the number of acres of the site on which soil will be disturbed, including borrow areas, fill areas, stockpiles and the total acres. For linear projects, give location at each end of the construction area.

Name of the receiving waters: Trace the route of stormwater runoff from the site and determine the name of the water course(s) into which the runoff drains. Note that the water course may or may not be located on the construction site. If the first water body receiving construction site runoff is unnamed ("unnamed tributary"), determine the name of the waterbody that the unnamed tributary enters.

An ARAP may be required: **If your work will disturb or cause alterations of a stream or wetland, you must obtain an appropriate Aquatic Resource Alteration Permit (ARAP).** If wetlands are located on-site and may be impacted, attach the wetland delineation report. If you have a question about the ARAP program, contact your local Field Office (EFO).

Submitting the form and obtaining more information: Note that this form must be signed by the company President, Vice-President, or a ranking elected official in the case of a municipality, for details see subpart 2.5. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed NOI form (keep a copy for your records) to the appropriate EFO for the county(ies) where the construction activity is located, addressed to **Attention: Stormwater NOI Processing.**

Notice of Coverage: The division will review NOIs for completeness and accuracy and issue an NOC to site-wide primary operators, authorizing SW discharge from the construction site as of the effective date of the NOC. New subsequent operators will not receive an NOC, but are considered covered under the permit when their permit record is published on TDEC's dataviewer as "active" and with an effective date. TDEC Permit Dataviewer can be found at: http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9034:34001:0

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	1301 Riverfront Pkwy, Suite 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

Stormwater Pollution Prevention Plan (SWPPP)

FOR CONSTRUCTION ACTIVITIES AT:

Parcel No. 148D-D-022
Hickory Valley Townhomes
2200 Block of Hickory Valley Road
Chattanooga, Tennessee 37421

PREPARED FOR:

3100 Wood Ave, LLC
Contact: Lee Helena, Jr
PO Box 5127
Chattanooga, TN 37406
423.531.7882
lhelena@riversidedevelopmentllc.com

PREPARED BY:



ENGINEERING & CONSULTING, INC.

Asa Engineering & Consulting, Inc.
714 Cherry Street
Chattanooga, Tennessee 37402
(423) 805-3700

PREPARATION DATE:

May 7, 2021

Contents

SECTION 1: RESPONSIBLE PARTY CONTACT INFORMATION	3
1.1 Owner and Civil Engineer Contact Information	3
 SECTION 2: SITE EVALUATION, ASSESSMENT AND PLANNING	 3
2.1 Project / Site Information	3
2.2 Physical Characteristics of Project Site	3
2.3 Nature of the Construction Activity	4
2.4 Sequence of Construction Activities	4
2.5 Allowable Non-Stormwater Discharges	4
2.6 Site Maps	5
 SECTION 3: DOCUMENTATION OF COMPLIANCE	 5
3.1 Compliance Certification	5
3.2 SWPPP Location	5
3.3 QA Site Assessment	6
 SECTION 4: EROSION AND SDEIMENT CONTROLS	 6
4.1 Stabilization Techniques	6
4.2 Structural Controls	6
4.3 Stormwater Management	6
4.4 Off-Site Vehicle Tracking	7
4.5 Storm-Drain Inlets	7
4.6 Timing of controls / Measures	7
4.7 Maintenance and Inspection Procedures	7
4.8 Waste Materials	8
 SECTION 5: POLLUTION PREVENTION STANDARDS	 9
5.1 Potential Sources of Pollution	9
5.2 Spill Prevention and Control Practices	9
5.3 Fueling and Maintenance of Equipment or Vehicles	10
5.4 Washing of Equipment or Vehicles	10
5.5 Hazardous Materials and Products	10
 SECTION 6: CONTRACTOR CERTIFICATION	 12
 APPENDICES:	
Location Map, Topo Map & Soils Map	Appendix A
Pre & Post Development Drainage Maps	Appendix B
Site, Grading, & EPSC Plans	Appendix C
Outfall Summaries	Appendix D
FEMA Flood Map	Appendix E
Storm Water Inspection Report	Appendix F
Notice of Termination	Appendix G

SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 RESPONSIBLE PARTY CONTACT INFORMATION

Owner :

3100 Wood Ave, LLC
Lee Helena, Development Manager
PO Box 5127
Chattanooga, TN 37406
423-531-7782
lhelena@riversidedevelopmentllc.com

Civil Engineer:

Asa Engineering & Consulting, Inc.
Contact : Micah Duffey, PE
714 Cherry Street
Chattanooga, Tennessee 37402
(423) 805-3700
mduffey@asaengineeringinc.com

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1 PROJECT/SITE INFORMATION

Project Name and Address

Project/Site Name: **Hickory Valley Townhomes**
Project Street/Location: **2200 Block of Hickory Valley Road**
City: **Chattanooga**
State: **Tennessee**
ZIP Code: **37421**
County or Similar Subdivision: **Hamilton**

Project Latitude/Longitude

Latitude:
35.0446° N

Longitude:
-85.1673° W

USGS Topographic Map:
East Chattanooga Quad

2.2 PHYSICAL CHARACTERISTICS OF THE PROJECT SITE

Description of Existing Site Conditions:

The existing site is approximately 2.38 acres that is vacant, but has an existing roadbed and pond located on the north west end of the site.

Receiving Waters:

All runoff from the site flows over land into an existing pond that outfalls to the adjacent property to the north and eventually into Friar Branch.

Surface Waters on the Site:

There is apparent surface water on-site.

Soil Types:

According to the custom soil report generated from the USDA Web Soil Survey, the soil found in the project area on site is FwD, Fullerton-Urban Land complex, 3 to 40 percent slopes. This soil is hydrologic soil groups B.

2.3 NATURE OF THE CONSTRUCTION ACTIVITY

General Description of Project:

The project located at 2200 block of Hickory Valley will consist of 15 townhome buildings, road, and utility infrastructure. The project will involve the construction of the drives, parking islands, storm drainage, and utilities, and is expected to disturb 2.38 acres. The development will capture, treat, and detain the stormwater through a proposed basin on the north west side of the site.

2.4 SEQUENCE OF CONSTRUCTION ACTIVITIES

Phase I – Erosion & Sediment Control Schedule

1. Conduct Pre-Construction meeting with erosion control inspector.
2. Stake out clearing limits, buffers, etc.
3. Install construction exits and perimeter silt fence.
4. Install sediment basins
5. Demo existing pavements, trees, drives, etc.
6. Provide temporary grassing/mulching @ 14 day intervals.

Phase II – Erosion & Sediment Control Schedule

1. Begin site grading.
2. Install utilities (storm, sanitary, and water) and all appropriate temporary inlet/outlet protection.
3. Maintain silt fence and inlet protection per this plan as the project progresses.
4. Maintain temporary grassing/mulching @ 14 day intervals, silt fence, and construction entrance per this plan as the grading progresses.

Phase III – Erosion & Sediment Control Schedule

1. Maintain silt fence and inlet protection per this plan as the grading progresses.
2. Install paving and curbing.
3. Maintain temporary grassing/mulching @ 14 day intervals, install permanent grassing @ 30 day intervals.
4. Install landscaping, mulch, and permanent seeding.
5. Clean storm structures.
6. Demuck all structural BMP's and safely dispose of material. Remove all temporary BMP's as shown on plans.

2.5 ALLOWABLE NON-STORMWATER DISCHARGES

Type of Allowable Non-Stormwater Discharge

It is expected that the following non-storm water discharges will occur from the site during the construction period:

- | |
|--|
| <ul style="list-style-type: none">• Water line flushing• Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred)• Uncontaminated groundwater• Discharges from emergency fire-fighting activities• Landscape irrigation |
|--|

2.6 SITE MAPS

Project Location

The project is located at 2200 block of Hickory Valley Road. See Appendix A for a location map.

The following maps and summaries can be found in the Appendices:

- | |
|---|
| <ul style="list-style-type: none">• Topographic Map• Soils Map• Pre-Development Drainage Map• Post-Development Drainage Map• Outfall Summaries• FEMA Flood Map |
|---|

SECTION 3: DOCUMENTATION OF COMPLIANCE

3.1 COMPLIANCE CERTIFICATION

This SWPPP is project specific and reflects the stormwater requirements of the City of Chattanooga and the Tennessee Department of Environment and Conservation, Chattanooga Field Office.

3.2 SWPPP LOCATION

This SWPPP, as well as the NOC, shall be kept on site at or near the construction trailer. If a construction trailer is not present, a mailbox will be placed with the information stored inside. All information must be maintained in a legible condition, kept up to date and be protected from the weather.

3.3 QA SITE ASSESSMENT

Quality assurance of erosion prevention and sediment controls shall be done by performing a site assessment at the site. An assessment shall be conducted at each outfall involving drainage totaling 10 or more acres or 5 or more acres if draining to an impaired or exceptional quality waters, within a month of construction commencing at each portion of the site that drains the qualifying acreage of such portion of the site. The site assessment shall be performed by individuals with following qualifications:

- A licensed Professional Engineer or Landscape Architect
- A Certified Professional in Erosion and Sediment Control (CPESC)
- A person that has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course

As a minimum, site assessment should be performed to verify the initial installation. The site assessment should be performed with the inspector, and should include a review and update of the SWPPP as needed. The functionality and performance of the EPSC measures should be inspected by the inspector two times per week 72 hours apart. The findings shall be documented in a report and the documentation kept with the SWPPP at the project site.

SECTION 4: EROSION AND SEDIMENT CONTROLS

4.1 STABILIZATION PRACTICES

In accordance with the current TN Erosion Control Handbook (August 2012), the following stabilization practices will be followed.

Temporary Stabilization: Denuded areas, soil stockpiles, dikes, dams, channels, etc. are to be seeded and mulched. Areas and time of exposure of unprotected soils shall be kept to a maximum of 14 days. Slopes greater than 35% must be stabilized within seven days. Such areas are to immediately receive seed and mulch stabilization following this time period.

Permanent Stabilization: Slopes and ditches constructed to final subgrade or a portion of any slope or ditch that is constructed to subgrade shall immediately receive topsoil and final

stabilization. All slopes are to receive seed and mulch. All ditches shall receive stabilization as indicated on the construction plans. The Contractor shall be responsible for watering seeded areas to prevent the soil from drying out until approved and accepted. The Contractor shall be responsible for reseeding bare spots for a period of one year after installation or acceptance of the project. Permanent stabilization matting shall be placed only if specified in the construction plans.

4.2 STRUCTURAL CONTROLS

In accordance with the current TN Erosion Control Handbook (August 2012), the following structural practices will be followed.

Siltation control barriers, also known as silt fence, and/or wattles will be placed on contours prior to clearing, grubbing, and/or grading activities. These measures will be adjusted and placed along the newly established contours throughout the construction process until the site is stabilized. The construction entrance will consist of a stone-stabilized pad located as specified in the construction plans. This entrance will be constructed prior to clearing, grubbing and/or grading activities.

4.3 STORMWATER MANAGEMENT

In accordance with the current TN Erosion Control Handbook (August 2012), the following storm water management practices will be followed.

Any catch basins and connections have been designed to convey at least the 10-year design-storm event. Any culverts, channels, and cross-drains have been designed to pass at least the 10-year design-storm runoff. All outfall points shall be stabilized with riprap and/or dissipating structures to reduce outflow velocity. Erosion prevention and sediment controls used at the site have been designed to control storm runoff generated by a 2-yr, 24-hr storm event.

4.4 OFF-SITE VEHICLE TRACKING

Vehicles and heavy-duty equipment, including construction vehicles, dump trucks, and equipment, shall access the project site off Fagan Street. This construction entrance is specified in the construction plans as the entrance for this project site. Any paved street adjacent to the site entrance will be swept daily to remove any excess mud, dirt or rock tracked from the site.

4.5 STORM DRAIN INLETS & OUTLETS

Storm drain inlets or outlets proposed on this project will be protected as indicated on the plans as a minimum. Any storm drain inlets, catch basins and connections adjacent shall have protection devices, as needed, to prevent sediment or construction debris from entering the storm system.

4.6 TIMING OF CONTROLS AND MEASURES

As indicated in the Sequence of Major Construction Activities, the initial erosion siltation control measures shall be constructed prior to any clearing or grading activities. Pre-construction vegetation shall not be disturbed more than 14 days prior to any excavating activities. Areas

where the slopes and/or ditches have been constructed to subgrade shall receive final topsoil and stabilization. Unprotected soils shall be stabilized when construction activity temporarily ceases for more than 14 days. Sediment shall be removed from the site following site excavation and at the conclusion of the project after all slopes have been stabilized.

4.7 MAINTENANCE AND INSPECTION PROCEDURES

These are the inspection and maintenance practices that will be used to maintain erosion and sediment controls.

- The General Contractor will select an individual who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance reports.
- The TDEC routine inspection form must be used when performing inspections. A copy of the inspection form is located in Appendix F of this SWPPP.
- Inspections must be performed by a qualified inspector with a minimum of a TNEPSC Level One certification, no exceptions or equivalency.
- All control measures will be inspected twice each calendar week and at least 72 hours apart.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- A rain gauge shall be maintained on-site by the inspector with daily readings recorded.
- The construction entrance/exit will be maintained in a condition that will prevent tracking or flow of material onto public right-of-way, including periodic top dressing with fresh stone, repair and/or cleanout of any structures to trap sediment.
- Built up sediment will be removed from silt fencing when it has reached one-third the height of the fence.
- Silt fencing will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Sediment will be removed from the street inlet protection devices when the sediment depth exceeds one-half the barrier depth.
- Sediment will be removed from the curb inlet protection devices when the sediment depth exceeds one-half the barrier depth.
- Riprap outlet structures will be inspected after heavy rains. If any erosion around or below the riprap has taken place or if stones have been dislodged, repairs will be made immediately to prevent further damage.
- Sediment will be removed from the detention pond(s), sediment basin(s), and sediment trap(s) when the storage zones are one-third full or when re-suspension is apparent.
- Sediment will be removed from stone filter rings before the sediment reaches a depth of one-half the original height.
- Any off-site sediment accumulations shall be removed daily. Off-site accumulations deposited on private property shall be removed by methods agreed upon by the General Contractor and the adjacent land owner(s).
- If sediment enters waters of the State, TDEC, Chattanooga Field Office, Division of Water Pollution Control will be notified immediately and consulted with concerning removal of said sediment if required.
- Removal of standing muddy water from the site shall be accomplished with a pump/filter bag combination or said water will be diverted into an existing sediment control device via a pump.
- Some removed sediment may contain contaminants of which the Tennessee Department of Environment & Conservation (TDEC) requires special disposal procedures.

TDEC, Chattanooga Field Office, Division of Water Pollution Control can be reached at (423) 634-5702.

- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is attached.

4.8 WASTE

Waste Materials: All construction waste and trash generated by the Contractor and his Subcontractors shall be collected and stored in a securely lidded metal dumpster approved by the City of Chattanooga and meeting all local and State Solid Waste Management regulations. Waste material shall be defined as unwanted materials left over from a manufacturing or other man-made process. Such debris shall be cleaned up after each specific job has been completed and at the end of each workweek, whichever comes first. No construction waste materials shall be buried on any property. Any waste material excavated from past construction or demolition shall be disposed of in the same manner, after the Engineer has approved the material for disposal. Such dumpsters shall be emptied a minimum of once each week or more if necessary, and the trash will be hauled to the local landfill. The Contractor and the Owner's representative shall manage and be responsible for seeing that these procedures are followed.

Hazardous Waste: All hazardous waste materials shall be disposed of as per the City of Chattanooga regulations or by the manufacturer's specifications. Any hazardous waste must remain in a sealed container and removed from the site by the end of the workday. The Contractor and the Owner's representative shall manage and be responsible for seeing that these procedures are followed.

Sanitary Waste: All sanitary waste will be collected from portable units a minimum of three times per week by a licensed sanitary waste management contractor.

A copy of the site plans and EPSC plans can be found in Appendix C.

SECTION 5: POLLUTION PREVENTION STANDARDS

5.1 Potential Sources of Pollution

The materials or substances listed below are expected to be present on site during construction:

- Concrete & Bituminous Materials
- Masonry Block
- Paints and Silicones
- Bituminous Materials
- Fertilizers
- Petroleum Based Products
- Cleaning Solvents
- Straw Mulch
- Plastics and Fabrics

5.2 SPILL PREVENTION & CONTROL PRACTICES

The following lists are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff on this project.

Good Housekeeping:

1. An effort will be made to store only enough products that are required to do the job.
2. All materials stored on-site will be stored in a neat, orderly manner in their appropriate containers.
3. Products will be kept in their original containers with the original manufacturer's label.
4. Substances will not be mixed with one another unless recommended by the manufacturer.
5. Whenever possible, all of a product will be used up before disposing of the container.
6. Manufacturers' recommendations for proper use and disposal will be followed.
7. The General Contractor will inspect daily to ensure proper use and disposal of materials on site.
8. Exposed litter, debris, chemicals, etc., shall be properly stored or disposed of prior to an anticipated storm event.

Spill Control Practices: In addition to the good housekeeping and material management practices discussed previously, the following practices will be followed for spill prevention and cleanup:

1. Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
2. Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include but not be limited to absorbent booms, spill pillows, brooms, dustpans, mops, rags, gloves, goggles, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
3. All spills will be cleaned up immediately after discovery.
4. The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
5. Spills of toxic or hazardous material will be reported to the appropriate local and State government agency, regardless of the size.
6. Measures will be implemented to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the clean-up measures will also be included.
7. The site Superintendent responsible for the day-to-day site operations will be the spill prevention and clean-up coordinator. He will designate at least three other site personnel who will receive spill prevention and clean up training. These individuals will each become responsible for a particular phase of prevention and clean up. The names of responsible spill personnel will be posted in the material storage area and in the office trailer on site.

5.3 FUELING AND MAINTENANCE OF EQUIPMENT OR VEHICLES

A location will be designated on the construction plans which shall be used for all fueling of vehicles and construction equipment during the duration of this project. In addition, any

maintenance completed on-site on the construction equipment or vehicles shall also be completed in this designated area.

5.4 WASHING OF EQUIPMENT OR VEHICLES

A washout area will be designated on the construction plans for equipment to be cleaned, such as concrete trucks.

5.5 HAZARDOUS MATERIALS & PRODUCTS

To reduce the risks associated with hazardous materials, products will be kept in original containers unless they are not re-sealable. Original labels and material safety data will also be retained, since they contain important product information. If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

Petroleum Products: All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used on-site will be applied according to the manufacturer's recommendations.

Fertilizers: Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be provided in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills or exposure.

Paints: All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged into the storm sewer system, but will be properly disposed of according to manufacturers' instructions or State and local regulations.

Concrete Trucks and Paving Equipment: Concrete trucks and paving equipment will not be allowed to wash out or discharge surplus material or drum wash water into streams or ditches. A designated location for wash outs will be provided in the construction plans. Also, the site superintendent may designate another such location on-site, if the need arises.

SECTION 6: CERTIFICATION

POLLUTION PREVENTION PLAN CERTIFICATION

OWNER'S CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Name: Riverside Development, LLC
Lee Helena, Jr

Title: DEVELOPMENT MANAGER

Signature: Lee Helena

Date: 5-7-21

CONTRACTOR'S CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with construction activity from the construction site identified as part of this certification.

Name: John Lynch

Title: Director of Construction

Company: J. C. Curtis Construction Co., LLC

Signature: John Lynch

Date: 5-7-21

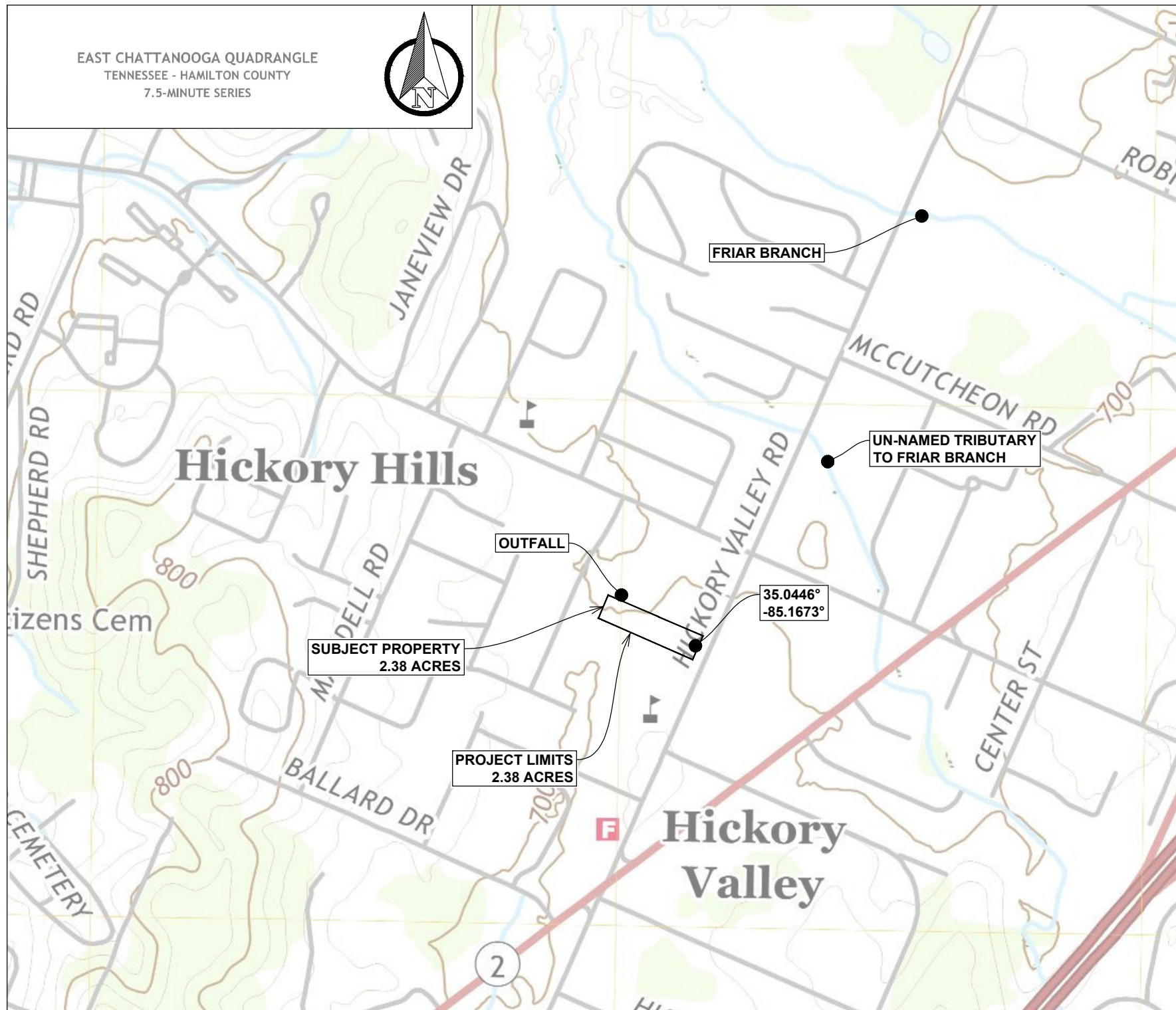
APPENDIX A

Topo Map

Location Map

Soils Report & Map

EAST CHATTANOOGA QUADRANGLE
TENNESSEE - HAMILTON COUNTY
7.5-MINUTE SERIES



ASA
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P.O. BOX 108
CHATTANOOGA, TN 37401
www.AsaEngineeringInc.com
423.805.3700

USGS LOCATION MAP

FOR
HICKORY VALLEY TOWNHOMES
HICKORY VALLEY ROAD, CHATTANOOGA, TN 37421

TITLE	PROJECT NO.	20-0141
	DATE	05/07/2021
	SCALE	1"=800'
	FILE	C3 GRADING PLAN.dwg
	DRAWN BY	MLD
USGS MAP	CHECKED BY	MLD
	SHEET NO.	1



LOCATION MAP
N.T.S.

Hydrologic Soil Group—Hamilton County, Tennessee (Hickory Valley Townhomes)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

5/5/2021
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hamilton County, Tennessee
 Survey Area Data: Version 17, May 29, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 29, 2018—Nov 16, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
FwD	Fullerton-Urban land complex, 3 to 40 percent slopes	B	3.5	100.0%
Totals for Area of Interest			3.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B

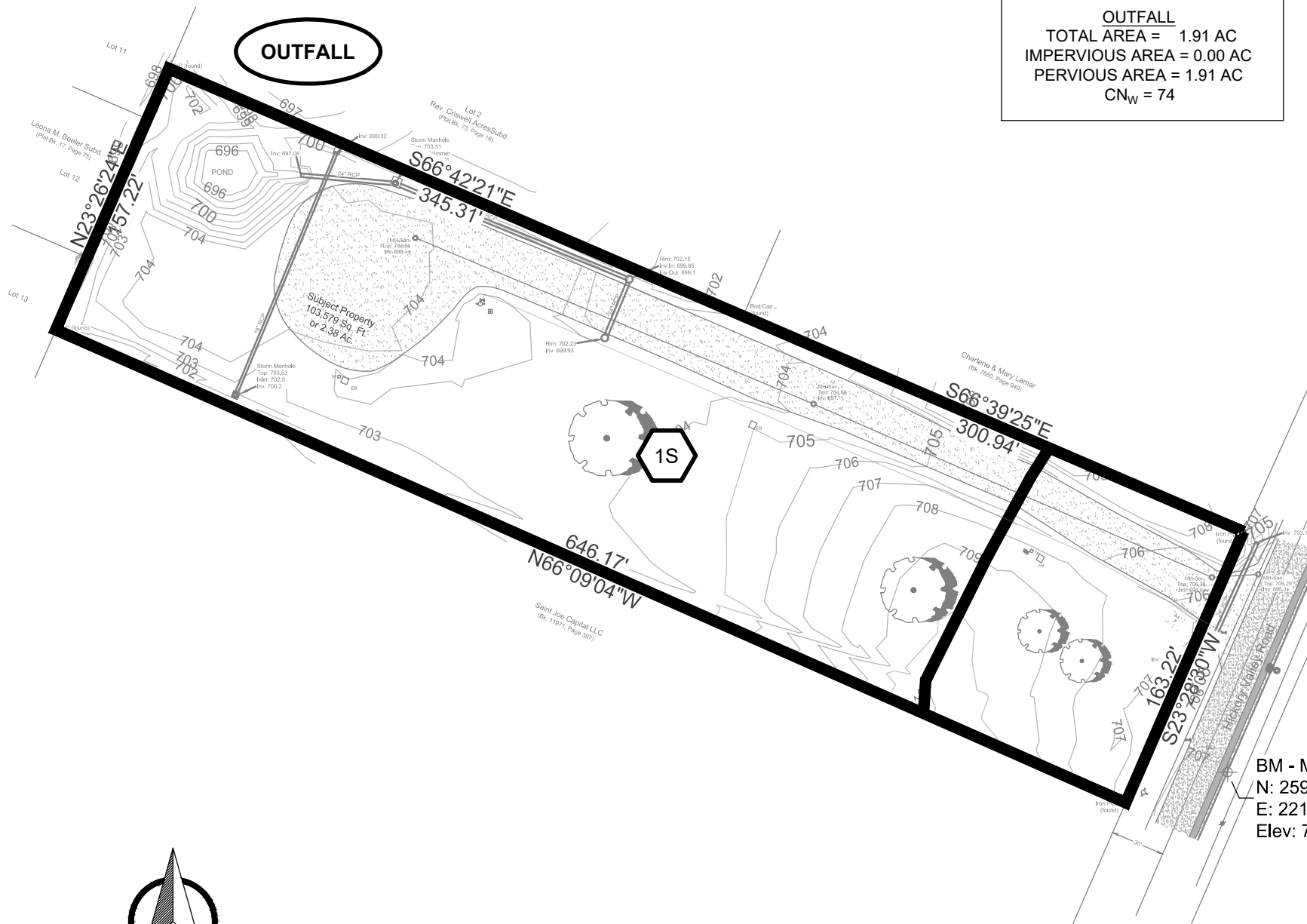
Pre-Development Drainage Map

Post-Development Drainage Map

OUTFALL

PRE-DEVELOPMENT

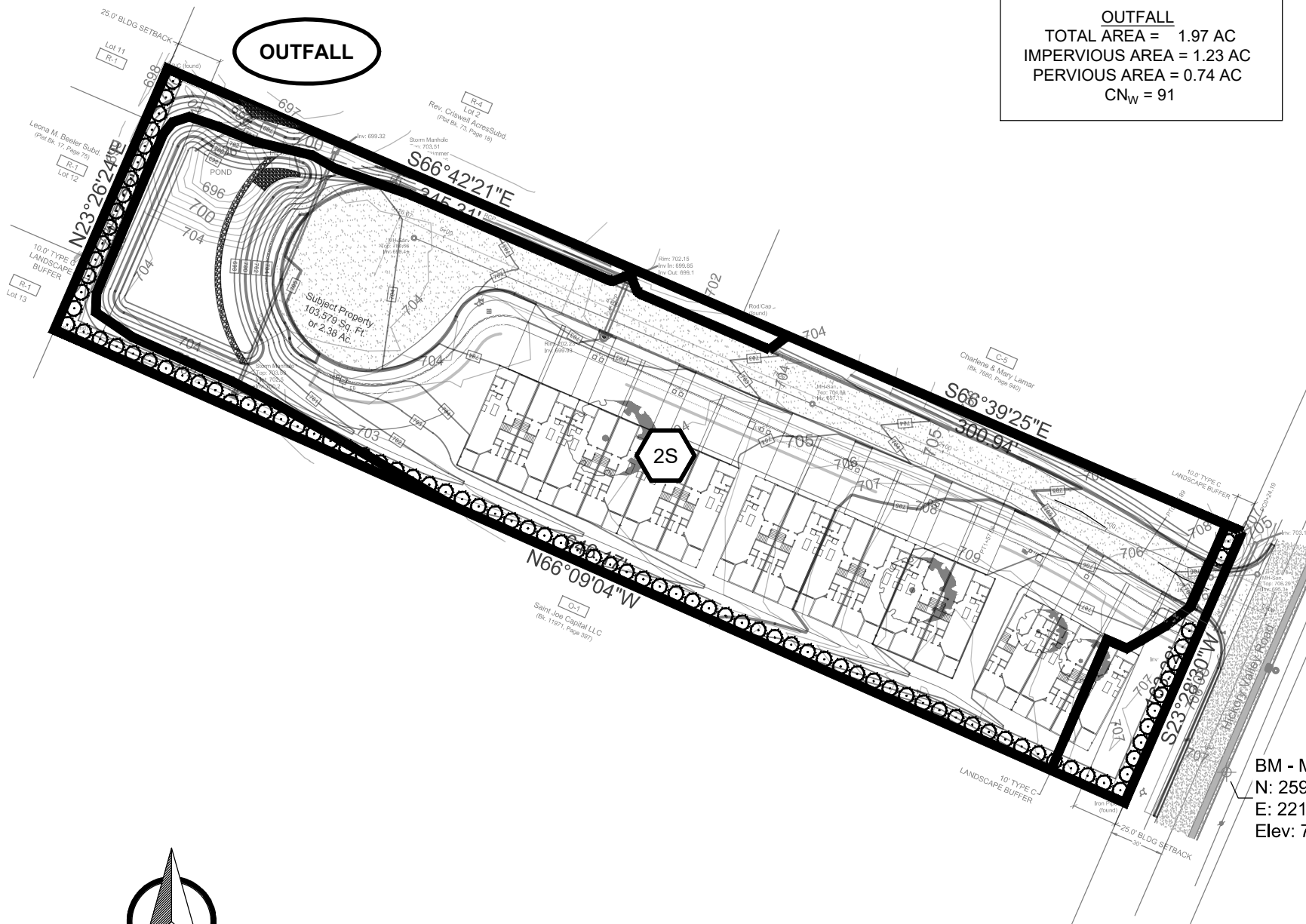
OUTFALL
TOTAL AREA = 1.91 AC
IMPERVIOUS AREA = 0.00 AC
PERVIOUS AREA = 1.91 AC
CN_W = 74



PRE-DEVELOPMENT MAP

FOR
HICKORY VALLEY TOWN HOMES
HICKORY VALLEY ROAD, CHATTANOOGA, TN 37421

TITLE EXHIBIT A - PRE-DEVELOPMENT AREA	PROJECT NO.	20-0141
	DATE	05/07/2021
	SCALE	AS SHOWN
	FILE	C3 GRADING PLAN.dwg
	DRAWN BY	MLD
SHEET NO. 1	CHECKED BY	MLD



POST DEVELOPMENT

OUTFALL
TOTAL AREA = 1.97 AC
IMPERVIOUS AREA = 1.23 AC
PERVIOUS AREA = 0.74 AC
CN_W = 91

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www.AsaEngineeringInc.com
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POST-DEVELOPMENT MAP

FOR
HICKORY VALLEY TOWN HOMES
HICKORY VALLEY ROAD, CHATTANOOGA, TN 37421

TITLE EXHIBIT B - POST-DEVELOPMENT AREA	PROJECT NO.	20-0141
	DATE	05/07/2021
	SCALE	AS SHOWN
	FILE	C3 GRADING PLAN.dwg
	DRAWN BY	MLD
SHEET NO. 1	CHECKED BY	MLD

APPENDIX C

Site & Grading Plans

EPSC Plans

SITE CONSTRUCTION PLANS

FOR

HICKORY VALLEY TOWNHOMES

INDEX OF SHEETS	
SHEET	DESCRIPTION
C0.0	COVER SHEET
C0.1	GENERAL NOTES
C1.0	EXISTING CONDITIONS & DEMO PLAN
C2.0	SITE & LANDSCAPE PLAN
C3.0	GRADING PLAN
C4.0	SWPPP PHASE I
C4.1	SWPPP PHASE II
C4.2	SWPPP PHASE III
C4.3	SWPPP DETAILS
C5.0	UTILITY PLAN
C6.0	CONSTRUCTION DETAILS



LOCATION MAP
N.T.S.

TOTAL PROJECT AREA = 103,579 SQ. FT. (2.38 AC.)

DISTURBED AREA = 106,755.32 SQ. FT.
PRE-DEVELOPMENT IMPERVIOUS = 20,933.07 SQ. FT.
POST-DEVELOPMENT IMPERVIOUS = 54,892.66 SQ. FT.

HICKORY VALLEY RD.
148D-D-022
JURISDICTIONAL DISTRICT 06

CONTACTS:

DEVELOPER:

RIVERSIDE DEVELOPMENT, LLC
LEE HELENA, JR.
1507 WILDER ST.
CHATTANOOGA, TN 37406
423.693.2167
lhelena@riversidedevelopmentllc.com

CIVIL ENGINEER:

ASA ENGINEERING & CONSULTING, INC.
MICAH L. DUFFEY, P.E.
714 CHERRY STREET
CHATTANOOGA, TN 37402
423.805.3700
mduffey@asaengineeringinc.com

LANDSCAPE ARCHITECT:

ASA ENGINEERING & CONSULTING, INC.
ALLEN W. JONES, R.L.A.
714 CHERRY STREET
CHATTANOOGA, TN 37402
423.805.3700
ajones@asaengineeringinc.com

SURVEYOR:

ASA ENGINEERING & CONSULTING, INC
ROGER B. RIEMER P.L.S.
714 CHERRY ST.
CHATTANOOGA, TN 37402
423.805.3700
rriemer@asaengineeringinc.com

No.	Revision/Issue	Date

PROJECT NO.	20-0141
DATE	12/2020
SCALE	AS SHOWN
DESIGNED BY	ASA
DRAWN BY	ASA
CHECKED BY	ASA
TITLE	

COVER SHEET

SHEET NO.

C0.0

SITE GENERAL NOTES

1. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE DRAWING OR IN THE FIELD BEFORE BEGINNING WORK OR DURING CONSTRUCTION.
2. DEVIATION FROM THESE PLANS & NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER'S REPRESENTATIVE MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES IN THE PROXIMITY OF THE CONSTRUCTION AREA AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
4. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL CODES AND OBTAIN ALL PERMITS PRIOR TO BEGINNING WORK.
5. THE CONTRACTOR SHALL CHECK ALL FINISHED GRADES AND DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
6. DIMENSIONS ARE TO THE FACE OF CURB, EDGE OF CONCRETE AND FACE OF BUILDING UNLESS NOTED OTHERWISE. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION.
7. ALL TRAFFIC MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICE (MUTCD). ALL PAVEMENT MARKING SHALL BE THERMOPLASTIC UNLESS DIRECTED OTHERWISE BY THE OWNER'S REPRESENTATIVE.
8. ALL HANDCAP RAMPS, PARKING SPACES AND ACCESSIBLE ROUTES SHALL COMPLY WITH THE CURRENT ADA REQUIREMENTS.
9. EXTERIOR DOOR LANDINGS SHALL BE PROVIDED PER THE LOCAL BUILDING CODE. CONTRACTOR SHALL COORDINATE DOOR LOCATIONS AND ADJACENT SIDEWALK/LANDING GRADES WITH THESE PLANS AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE.

SITE CONSTRUCTION NOTES

1. THE NECESSARY PERMITS FOR THE WORK SHOWN ON THESE SITE DEVELOPMENT PLANS WILL BE OBTAINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORK ON THIS PROJECT. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL PERMITS, PAY ALL FEES INVOLVED IN SECURING SAID PERMITS, AND POST NECESSARY BONDS AS REQUIRED BY THE CITY AND/OR STATE. HE SHALL ALSO COMPLY WITH ALL CITY, COUNTY AND STATE BUILDING LAWS, ORDINANCES OR REGULATIONS RELATING TO THE CONSTRUCTION OF THE PROJECT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL BEAR ALL EXPENSES OF FIELD STAKING NECESSARY FOR SITE LAYOUT. ALL LAYOUT SHALL BE PERFORMED IN ACCORDANCE WITH THE SITE LAYOUT PLAN.
3. THE LOCATION OF EXISTING PIPING AND UNDERGROUND UTILITIES, SUCH AS WATER AND GAS LINES, ELECTRICAL AND TELEPHONE CONDUITS, ETC., AS SHOWN ON THIS PORTION OF THE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION BY ACTUAL SURVEYS, OR TAKEN FROM THE RECORDS AND DRAWINGS OF THE EXISTING UTILITIES. HOWEVER, THE CIVIL ENGINEER DOES NOT ASSUME RESPONSIBILITY THAT, DURING CONSTRUCTION, THE POSIBILITY OF UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED OR THAT ACTUAL LOCATION OF THOSE SHOWN MAY VARY SOMEWHAT FROM THE LOCATION DESIGNATED ON THIS PORTION OF THE PLANS. IN AREAS WHERE IT IS NECESSARY THAT THE EXACT LOCATIONS OF UNDERGROUND LINES BE KNOWN, THE CONTRACTOR SHALL, AT THIS OWN EXPENSE, FURNISH ALL LABOR AND TOOLS TO EITHER VERIFY AND SUBSTANTIATE OR DEFINITELY ESTABLISH THE LOCATION OF THE LINES.
4. THE CONTRACTOR MUST UNDERSTAND THAT THE WORK IS ENTIRELY AT HIS RISK UNTIL SAME IS ACCEPTED AND HE WILL BE HELD RESPONSIBLE FOR ITS SAFETY BY THE OWNER. THEREFORE, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY TEMPORARY WORKS FOR THE PROTECTION OF THE WORK.
5. THE SITE DEVELOPMENT PORTION OF THIS PROJECT WILL BE SUBJECT TO THE INSPECTION AND FINAL APPROVAL OF THE LOCAL PLANNING, CODES, WATER AND SEWER DEPARTMENTS (AND/OR UTILITY DISTRICTS), ENGINEERING/PUBLIC WORKS DEPARTMENTS AND FIRE MARSHAL'S OFFICE.
6. IF, DURING THE CONSTRUCTION OF THE SITE DEVELOPMENT PORTION OF THIS PROJECT, A QUESTION OF INTENT OR CLARITY ARISES FROM EITHER THE PLANS OR SPECIFICATIONS, THE CONTRACTOR WILL IMMEDIATELY BRING THE MATTER TO THE ATTENTION OF THE CIVIL ENGINEER OR OTHERWISE REQUEST FOR RESOLUTION BEFORE THE AFFECTED WORK ITEMS ARE INITIATED OR PURSUED FURTHER.
7. THE CONTRACTOR WILL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD AND/OR UNDERGROUND POWER LINES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK THE CONTRACTOR MUST WORK IN CLOSE PROXIMITY OF THE ABOVE-NOTED LINES, THE ELECTRIC AND/OR TELEPHONE COMPANIES SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES TAKEN. THE CONTRACTOR SHOULD MAKE A THOROUGH EXAMINATION OF THE OVERHEAD LINES IN THE PROJECT AREA PRIOR TO THE INITIATION OF CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE PREMISES OR ADJACENT PREMISES, OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION OF THE WORK, CAUSED BY HIMSELF, HIS SUBCONTRACTORS, OR THE CARELESSNESS OF ANY OF HIS EMPLOYEES.
9. ALL PRODUCT MATERIALS SPECIFIED IN THESE PLANS TO BE INSTALLED PER NOTES AND DETAILS OR MANUFACTURE'S RECOMMENDATION. IF CONFLICT ARISES BETWEEN PLANS AND MANUFACTURE'S RECOMMENDATION, CONTACT ENGINEER PRIOR TO PURCHASE AND/OR INSTALLATION.

DEMOLITION NOTES

1. THE CONTRACTOR WILL BE REQUIRED TO REMOVE ALL EXCAVATED MATERIALS AND SUCH ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ALL ITEMS SHALL BE PROPERLY DISPOSED OF AT AN OFF-SITE LOCATION. THE CONTRACTOR SHALL OUTLINE ANY AND ALL POSSIBLE HAUL ROUTES AND SHALL BE PREPARED TO SUBMIT SUCH TO THE LOCAL JURISDICTION PUBLIC WORKS DEPARTMENT, THE CIVIL ENGINEER AND OTHER AUTHORITIES FOR APPROVAL.
2. IF, AT ANY TIME, PRIOR TO OR DURING THE DEMOLITION WORK, HAZARDOUS MATERIAL IS ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND APPROPRIATE GOVERNMENTAL AGENCY.
3. THE CONTRACTOR SHALL NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE OR DISRUPTION. SUCH OPERATIONS SHALL BE CONDUCTED BY THE CONTRACTOR WITH MINIMUM INTERFERENCE TO ADJACENT OWNERS. ADJACENT EGRESS AND ACCESS SHALL BE PROPERLY MAINTAINED AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ANY ROADWAYS, PARKING OR SIDEWALKS WITHOUT PERMISSION FROM THE ADJACENT OWNERS OR THE LOCAL JURISDICTION PUBLIC WORKS DEPARTMENT.
4. PRIOR TO THE COMMENCEMENT OF DEMOLITION/GRADING OPERATIONS, ALL OVERHEAD AND UNDERGROUND UTILITIES SHALL BE LOCATED. ALL REMOVAL AND/OR RELOCATION OF UTILITIES SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY COMPANIES.
5. THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER OR AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER.
6. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING ALL AFFECTED UTILITIES PRIOR TO SUBMITTING HIS BID TO DETERMINE THE EXTENT TO WHICH UTILITY DISCONNECTIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF THE WORK FOR THE PROJECT. SOME UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS, WHILE SOME WORK MAY BE REQUIRED AROUND UTILITY FACILITIES THAT WILL REMAIN IN PLACE. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR WILL RECEIVE NO ADDITIONAL COMPENSATION FOR DELAYS OR INCONVENIENCE CAUSED BY THE UTILITY ADJUSTMENT.
7. MINIMIZE PRODUCTION OF DUST DUE TO DEMOLITION OPERATIONS; DO NOT USE WATER IF THAT WILL RESULT IN ICE, FLOODING, SEDIMENTATION OF PUBLIC WATERWAYS OR STORM SEWERS, OR OTHER POLLUTION.
8. REMOVE ALL EXISTING ABOVE-GRADE IMPROVEMENTS. REMOVE ANY EXISTING SLABS, PAVING, CURBS, FOUNDATIONS, WALLS, FLOOR SLABS, CONCRETE SLAB-ON-GRADES, PAVEMENTS, ETC.
9. REMOVE DEMOLITION MATERIALS, OBSTRUCTIONS, AND WASTE MATERIAL, INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF THE SITE.
10. SMASH DISTURBED AREAS TO ACCOMMODATE TRUCKS, AND COVER WITH MINIMUM ONE INCH OF SHREDDED WOOD MULCH FOR TEMPORARY EROSION CONTROL.
11. PROVIDE ADDITIONAL EROSION CONTROL PER TDEC AND LOCAL REGULATIONS AS NECESSARY. COMPLY WITH APPLICABLE CODES AND REGULATIONS FOR DEMOLITION OPERATIONS AND SAFETY OF ADJACENT STRUCTURES AND THE PUBLIC.
13. OBTAIN REQUIRED PERMITS.
14. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES AS NECESSARY.
15. USE PHYSICAL BARRIERS TO PREVENT ACCESS TO AREAS THAT COULD BE HAZARDOUS TO WORKERS OR THE PUBLIC.
16. CONDUCT OPERATIONS TO MINIMIZE EFFECTS ON AND INTERFERENCE WITH ADJACENT STRUCTURES AND OCCUPANTS.
17. DO NOT CLOSE OR OBSTRUCT ROADWAYS OR SIDEWALKS WITHOUT PERMIT.
18. CONDUCT OPERATIONS TO MINIMIZE OBSTRUCTION OF PUBLIC AND PRIVATE ENTRANCES AND EXITS; DO NOT OBSTRUCT REQUIRED EXITS AT ANY TIME; PROTECT PERSONS USING ENTRANCES AND EXITS FROM REMOVAL OPERATIONS.
19. OBTAIN WRITTEN PERMISSION FROM OWNERS OF ADJACENT PROPERTIES WHEN DEMOLITION EQUIPMENT WILL TRAVERSE, INFRINGE UPON OR LIMIT ACCESS TO THEIR PROPERTY.
20. DO NOT BEGIN REMOVAL UNTIL RECEIPT OF NOTIFICATION TO PROCEED FROM OWNER.
21. PARTIAL REMOVAL OF PAVING AND CURBS: NEATLY SAW CUT AT RIGHT ANGLE TO SURFACE.
22. COORDINATE WORK WITH UTILITY COMPANIES; NOTIFY BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS; OBTAIN REQUIRED PERMITS.
23. PROTECT EXISTING UTILITIES TO REMAIN FROM DAMAGE.
24. DO NOT DISRUPT PUBLIC UTILITIES WITHOUT PERMIT FROM AUTHORITY HAVING JURISDICTION.

25. DO NOT CLOSE, SHUT OFF, OR DISRUPT EXISTING LIFE SAFETY SYSTEMS THAT ARE IN USE WITHOUT AT LEAST 7 DAYS PRIOR WRITTEN NOTIFICATION TO OWNER.
26. DO NOT CLOSE, SHUT OFF, OR DISRUPT EXISTING UTILITY BRANCHES OR TAKE-OFFS THAT ARE IN USE WITHOUT PRIOR WRITTEN NOTIFICATION TO OWNER.
27. LOCATE AND MARK UTILITIES TO REMAIN; MARK USING HIGHLY VISIBLE TAGS OR FLAGS, WITH IDENTIFICATION OF UTILITY TYPE; PROTECT FROM DAMAGE DUE TO SUBSEQUENT CONSTRUCTION, USING SUBSTANTIAL BARRICADES IF NECESSARY.
28. REMOVE EXPOSED PIPING, VALVES, METERS, EQUIPMENT, SUPPORTS, AND FOUNDATIONS OF DISCONNECTED AND ABANDONED UTILITIES.
29. PREPARE BUILDING DEMOLITION AREAS BY DISCONNECTING AND CAPPING UTILITIES OUTSIDE THE DEMOLITION ZONE; IDENTIFY AND MARK UTILITIES TO BE SUBSEQUENTLY RECONNECTED, IN SAME MANNER AS OTHER UTILITIES TO REMAIN.
30. REMOVE DEMOLITION MATERIALS, DEBRIS, JUNK, AND TRASH FROM SITE.
31. LEAVE SITE IN RELATIVELY SMOOTH AND CLEAN CONDITION, READY FOR SUBSEQUENT WORK.
32. COVER DISTURBED AREAS WITH MINIMUM ONE INCH OF SHREDDED WOOD MULCH.
33. CLEAN UP SPILLAGE AND WIND-BLOWN DEBRIS FROM PUBLIC AND PRIVATE LANDS.

EROSION PREVENTION AND SEDIMENT CONTROLS

DESIGN, INSPECTION, AND MAINTENANCE OF BMPs DESCRIBED AND SHOWN ON THESE PLANS SHALL BE CONSISTENT OR EXCEED RECOMMENDATIONS CONTAINED IN THE CURRENT EDITION OF TDEC'S TENNESSEE EROSION CONTROL HANDBOOK.

1. ALL CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, TDEC, AND LOCAL STANDARDS.
2. BMP CAPACITY (SEDIMENT TRAPS, SILT FENCES, SEDIMENTATION PONDS, AND OTHER SEDIMENT CONTROLS) SHALL NOT BE REDUCED BY MORE THAN 50% AT ANY GIVEN TIME. IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL HAS BEEN USED INAPPROPRIATELY OR INCORRECTLY, THE CONTRACTOR MUST REPLACE OR MODIFY THE CONTROL TO PREVENT FURTHER SITE EROSION.
3. WHERE PERMANENT OR TEMPORARY VEGETATION COVER IS USED AS A CONTROL MEASURE, THE TIMING OF THE PLANTING IS CRITICAL. PLANNING FOR PLANTING OF VEGETATION COVER DURING WINTER OR DRY MONTHS SHOULD BE AVOIDED.
4. IF SEDIMENT ESCAPES THE PERMITTED AREA, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS. THE CONTRACTOR SHALL NOT INITIATE REMEDIATION/RESTORATION OF A STREAM WITHOUT CONSULTING THE DIVISION FIRST. THE NO! GENERAL PERMIT DOES NOT AUTHORIZE ACCESS TO PRIVATE PROPERTY. ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED BY THE CONTRACTOR AND ADJOINING LANDOWNER.
5. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORM WATER SHALL BE PICKED UP PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF OF THE SITE BY WIND OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPCS SHALL BE REMOVED OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGE.
6. ERODIBLE MATERIAL STORAGE AREAS (INCLUDING OVERBURDEN AND STOCKPILES OF SOIL) AND BORROW PITS ARE CONSIDERED PART OF THE SITE AND SHOULD BE ADDRESSED WITH APPROPRIATE BMPs ACCORDINGLY.
7. PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED, OR DISTURBED MORE THAN 15 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA IS STABILIZED. CONTRACTOR SHALL SEQUENCE EVENTS TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED AREAS. CLEARING AND GRUBBING SHALL BE HELD TO THE MINIMUM NECESSARY FOR GRADING AND EQUIPMENT OPERATION. EXISTING VEGETATION AT THE SITE SHOULD BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE.
8. EPCS MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE MOVING OPERATIONS BEGIN AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.
9. IF APPLICABLE, THE FOLLOWING RECORDS SHALL BE MAINTAINED ON OR NEAR SITE: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE OR A PORTION OF THE SITE; THE DATES WHEN STABILIZATION MEASURES ARE INITIATED; INSPECTION RECORDS AND RAINFALL RECORDS. CONTRACTOR SHALL MAINTAIN A RAIN GAUGE AND DAILY RAINFALL RECORDS AT THE SITE, OR USE A REFERENCE SITE FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION.
10. IF APPLICABLE, A COPY OF THE SWPPP SHALL BE RETAINED ON-SITE AND SHOULD BE ACCESSIBLE TO THE DIRECTOR AND THE PUBLIC. IF THE SITE IS INACTIVE OR DOES NOT HAVE AN ONSITE LOCATION ADEQUATE TO STORE THE SWPPP, THE LOCATION OF THE SWPPP, ALONG WITH A CONTACT PHONE NUMBER, SHALL BE POSTED ON-SITE. IF THE SWPPP IS LOCATED OFF-SITE, REASONABLE LOCAL ACCESS TO THE PLAN, DURING NORMAL WORKING HOURS, MUST BE PROVIDED.
11. OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO A CONSTRUCTION SITE) SHALL BE CONSTRUCTED AS NEEDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
12. IF APPLICABLE, INSPECTIONS MUST BE PERFORMED AT LEAST TWICE EVERY CALENDAR WEEK. INSPECTIONS SHALL BE PERFORMED AT LEAST 72 HOURS APART. WHERE SITES OR PORTIONS OF CONSTRUCTION SITES HAVE BEEN TEMPORARILY STABILIZED, OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS OR DUE TO EXTREME DROUGHT, SUCH INSPECTION HAS TO BE CONDUCTED ONCE PER MONTH UNTIL THAWING OR PRECIPITATION RESULTS IN RUNOFF OR CONSTRUCTION ACTIVITIES RESUMES. INSPECTION REQUIREMENT DOES NOT APPLY TO DEFINABLE AREAS THAT HAVE BEEN FINALLY STABILIZED, AS DESIGNED BY THE ENGINEER. WRITTEN NOTIFICATION OF THE INTENT TO CHANGE THE INSPECTION FREQUENCY AND THE JUSTIFICATION FOR SUCH REQUEST MUST BE SUBMITTED TO THE LOCAL ENVIRONMENTAL FIELD OFFICE, OR THE DIVISION'S NASHVILLE CENTRAL OFFICE FOR PROJECTS OF TDOOT OR TVA. SHOULD THE DIVISION DISCOVER THAT MONTHLY INSPECTION OF THE DIVISION DISCOVER THAT MONTHLY INSPECTIONS ARE NOT APPROPRIATE DUE TO INSUFFICIENT STABILIZATION MEASURES OR OTHERWISE, TWICE WEEKLY INSPECTIONS SHALL RESUME. THE DIVISION MAY INSPECT THE SITE TO CONFIRM OR DENY THE NOTIFICATION TO CONDUCT MONTHLY INSPECTIONS.
13. IF APPLICABLE, INSPECTORS PERFORMING THE REQUIRED TWICE WEEKLY INSPECTIONS MUST HAVE AN ACTIVE CERTIFICATION AND A RECORD OF CERTIFICATION MUST BE KEPT ON SITE. BASED ON THE RESULTS OF THE INSPECTION, ANY INADEQUATE CONTROL MEASURES OR CONTROL MEASURES IN DESPAIR SHALL BE REPLACED OR MODIFIED, OR REPAIRED AS NECESSARY, BEFORE THE NEXT RAIN EVENT, BUT IN ANY CASE, WITHIN 7 DAYS AFTER THE NEED IDENTIFIED.
14. OUTFALL POINTS SHALL BE INSPECTED TO DETERMINE WHETHER EPCS MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.

NON-STORM WATER DISCHARGES

ANY SPILLAGE FROM REFUELING EQUIPMENT AND VEHICLES SHALL BE CONTAINED AND REMOVED IMMEDIATELY THROUGH THE USE OF FILTER SOCKS OR OTHER APPROVED MEANS. CONTAMINATED SOILS WILL BE PLACED ON HEAVY PLASTIC AND COVERED OR PLACED INTO APPROVED CONTAINERS TO PREVENT CONTACT WITH DRINKING WATER. ALL FUEL TANKS WILL BE IN THE FUELING/CONTAINMENT AREA. OILS, OTHER VEHICLE FLUIDS, PAINTS, AND SOLVENTS WILL BE STORED IN THE CONSTRUCTION TRAILER OR OTHER TEMPORARY STORAGE STRUCTURE. ANY SPILL IN EXCESS OF TWO GALLONS WILL BE REPORTED TO THE PROJECT SUPERINTENDENT AND THE ENGINEER.

- IF A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTING QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24-HOUR PERIOD, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE PERMITTEE WHO SHALL THEN DO THE FOLLOWING:
- a. NOTIFY THE NATIONAL RESPONSE CENTER (NRC) AT 800-424-8802.
 - b. NOTIFY THE TENNESSEE EMERGENCY MANAGEMENT AGENCY (TEMA) AT 800-262-3300; FOR NON-EMERGENCIES AT 800-262-3400.
 - c. NOTIFY THE LOCAL ENVIRONMENTAL ASSISTANCE CENTER AT 423-634-5745.

ALSO, A REVISION OF THIS DOCUMENT SHALL BE PREPARED TO IDENTIFY MEASURES TO PREVENT THE REOCCURRENCE OF SUCH RELEASES.

CONCRETE TRUCKS WILL WASH OUT AT A DESIGNATED AREA DETERMINED AT THE PRE-CONSTRUCTION MEETING. EACH CONTRACTOR IS RESPONSIBLE TO PROVIDE LITTER CONTROL FOR TRASH GENERATED BY HIS CREW. A CONTAINER SHALL BE PROVIDED, AND IS LIMITED TO GARBAGE AND PAPER TRASH ONLY. PAINT CANS, OIL CANS, USED OIL, AND FILTERS WILL BE CONTAINED AND DISPOSED OF BY THE CONTRACTOR TAKING THEM TO THE CITY OF CHATTANOOGA RECYCLE CENTER.

SITE PREPARATION

1. ALL VEGETATION, TOPSOIL, ROOTS, STOCKPILED SOIL, AND ANY DEBRIS SHALL BE STRIPPED AND REMOVED FROM AREAS TO RECEIVE FILL AND FINISHED GRADE WORK.
2. THE SUBGRADE OF DRIVEWAYS, PARKING, AND BUILDINGS SHALL BE PROOF-ROLLED WITH A LOADED RUBBER-TIRED VEHICLE OR EQUIPMENT. THE EQUIPMENT SHOULD MAKE AT LEAST TWO PASSES OVER EACH SECTION, WITH THE SECOND PASS PERPENDICULAR TO THE FIRST.
3. DURING PROOF-ROLLING OF THE SUBGRADES, PRIOR TO RECEIVING FILL, THE GEOTECHNICAL ENGINEER, OR HIS REPRESENTATIVE, SHALL IDENTIFY ANY AREAS OF INSTABILITY. PROOF-ROLLING SHOULD NOT BE DONE AFTER A PERIOD OF WET WEATHER TO AVOID DEGRADING AN OTHERWISE ACCEPTABLE SUB-GRADE.
4. SUBGRADE STABILIZATION REQUIREMENTS MAY BE REFINED BY THE GEOTECHNICAL ENGINEER, SUBJECT TO APPROVAL OF THE PROJECT ENGINEER, DURING THE GRADING PROCESS BASED ON THE PERFORMANCE OF THE SUBGRADES DURING PROOF-ROLLING.

SITE GRADING NOTES

1. EROSION CONTROL SEDIMENT BARRIERS AND TREE PROTECTION BARRIER SHALL BE INSTALLED PRIOR BEGINNING SITE WORK.
2. NO HEAVY EQUIPMENT SHALL CROSS OR BE STORED OUTSIDE THE LIMITS OF CONSTRUCTION, WITHIN TREE PROTECTIONS ZONES, OR UNDER THE DRIP LINE OF EXISTING TREES TO REMAIN.
3. TOPSOIL, STRIPPED FROM AREAS TO BE GRADED SHALL BE STOCKPILED ON SITE IN A LOCATION APPROVED BY THE OWNER'S REPRESENTATIVE. DRAINAGE SHALL BE ROUTED AROUND STOCKPILE LOCATIONS FOR THE DURATION OF GRADING OPERATIONS. EROSION CONTROL MEASURES SHALL BE INSTALLED TO PREVENT LOSS OF TOPSOIL MATERIAL.
4. ALL CUT AND FILL SHALL BE PERFORMED UNDER THE DIRECTION/OBSERVATION OF THE GEOTECHNICAL ENGINEER.
5. THE SUITABILITY OF SOILS FOR FILL MATERIAL SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER.
6. UNLESS DIRECTED OTHERWISE BY GEOTECHNICAL ENGINEER, ALL FILL AREAS SHALL BE RAISED IN LIFTS NOT EXCEEDING 8" IN THICKNESS. THE RELATIVE COMPACTION OF EACH LAYER SHALL NOT BE LESS THAN 96% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-598) IN ALL AREAS OF FILL WITHIN OPEN AREAS AND 98% OF SAME SPECIFICATION FOR AREAS UNDER ROADS, PARKING, SIDEWALKS, BUILDING SLABS, AND FOUNDATIONS.
7. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER FOR ANY FIELD GRADE ADJUSTMENTS NEEDED DUE TO ACTUAL TOPOGRAPHY VARYING FROM THE TOPOGRAPHIC SURVEY, OR DUE TO ANY OTHER CIRCUMSTANCES.
8. NEW FINISHED CONTOURS SHOWN ARE TO TOP OF NEW PAVING IN AREAS TO RECEIVE PAVEMENT, AND TO TOP OF TOPSOIL IN AREAS TO BE SEEDED OR LANDSCAPED. **PROPOSED CONTOUR INTERVALS ARE AS LABELED. ALL PROPOSED CONTOURS ARE FINISHED GRADE.**
9. UNLESS OTHERWISE SPECIFIED, ALL NON-PAVED OR SURFACED SLOPES SHALL BE COVERED WITH MINIMUM OF 6" TOPSOIL. SEE EPCS PLAN FOR TOPSOIL AND PERMANENT SEEDING AREAS. ALL AREAS TO BE STABILIZED PER THE EPCS PLAN AND LANDSCAPE PLAN.
10. UNUSABLE EXCAVATED MATERIALS AND ALL WASTE RESULTING FROM CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR.
11. BEFORE ANY MACHINE WORK IS DONE, CONTRACTOR SHALL STAKE OUT AND MARK THE ITEMS ESTABLISHED BY THE SITE PLAN. CONTROL POINTS SHALL BE PRESERVED AT ALL TIMES DURING THE COURSE OF THE PROJECT. LACK OF PROPER WORKING POINTS AND GRADE STAKES MAY REQUIRE CESSATION OF OPERATIONS UNTIL SUCH POINTS AND GRADES HAVE BEEN PLACED TO THE OWNER'S SATISFACTION.
12. THE CONTRACTOR SHALL INSURE THAT POSITIVE AND ADEQUATE DRAINAGE IS MAINTAINED AT ALL TIMES WITHIN THE PROJECT LIMITS. THIS MAY INCLUDE, BUT NOT BE LIMITED TO, REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN DAMAGED OR REMOVED OR RECONSTRUCTED AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS IN AND HAVING SPECIFIC PAY ITEMS IN THE DETAILED ESTIMATE. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO COMPLY WITH THIS REQUIREMENT.
13. CONTRACTOR SHALL SMOOTH/BLEND ALL SLOPES WITH THE SURROUNDING ENVIRONMENT.
14. MAXIMUM EMBANKMENT SLOPES TO BE AS FOLLOWS, UNLESS NOTED OTHERWISE: CUT AREAS - 3:1; FILL AREAS - 3:1. ANY SLOPES STEEPER THAN 3:1 (18.4 DEGREES) SHALL BE ANALYZED BY A GEOTECHNICAL ENGINEER FOR STABILITY.
15. ALL EXCAVATING IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED.
16. CONTRACTOR SHALL REPAIR OR REPLACE IN KIND ANY DAMAGE THAT OCCURS AS A RESULT OF HIS WORK OR THE WORK OF HIS SUBS.
17. CONTRACTOR TO COORDINATE ALL WORK WITH OTHER UTILITY INSTALLATIONS NOT COVERED IN THESE PLANS (ELECTRIC, TELEPHONE, GAS, CABLE, ETC.) AND ALLOW FOR THEIR OPERATIONS AND CONSTRUCTION TO BE PERFORMED.

SEWER AND DRAINAGE

1. EXISTING DRAINAGE STRUCTURES ARE TO BE INSPECTED, REPAIRED AS NEEDED AND CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
2. ALL SIDE DITCHES ARE TO BE CLEANED AND/OR RE-GRADED TO PROVIDE PROPER DRAINAGE.
3. ALL PIPE LENGTHS & DISTANCES BETWEEN STRUCTURES ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE ALONG A HORIZONTAL PLANE.
4. THE CONTRACTOR SHALL PROVIDE ALL THE MATERIALS & APPURTENANCES NECESSARY FOR THE COMPLETE INSTALLATION OF THE STORM DRAINAGE, SEWER, WATER AND UTILITY SYSTEMS. ALL PIPE & FITTINGS SHALL BE INSPECTED BY THE UTILITY DEPARTMENT INSPECTOR PRIOR TO BEING COVERED.
5. ALL CONCRETE FOR SEWER AND DRAINAGE SYSTEMS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE NOTED.

CONCRETE WORK

1. EXPANSION/CONTRACTION AND CONSTRUCTION JOINTS SHALL BE USED TO ISOLATE CONCRETE PAVEMENTS AND FLOOR SLABS FROM LOAD BEARING WALLS AND ISOLATED COLUMNS, AND SHALL CONFORM TO ACI GUIDELINES.
2. CONCRETE JOINTS OR SCORE MARKS ARE TO BE SHARP AND CLEAN WITHOUT SHOWING EDGES OF JOINT TOOL.
3. MAXIMUM JOINT SPACING SHALL BE APPROXIMATELY 30 TIMES SLAB THICKNESS. MAXIMUM EXPANSION JOINT SPACING SHALL BE APPROXIMATELY 50 FEET.

TESTING

1. A QUALIFIED SOILS TESTING LABORATORY SHALL DETERMINE THE SUITABILITY OF THE EXISTING SUB-GRADE AND EXISTING ON SITE MATERIAL PRIOR TO BEGINNING ANY FILLING OPERATION.
2. THE CONTRACTOR SHALL PROVIDE ANY EXCAVATION AND MATERIAL SAMPLES NECESSARY TO CONDUCT REQUIRED SOIL AND CONCRETE TESTS. ALL ARRANGEMENTS AND SCHEDULING FOR THE TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

SITE UTILITY NOTES

1. ALL MATERIALS AND WORKMANSHIP FOR UTILITY LINES AND APPURTENANCES SHALL BE IN STRICT COMPLIANCE WITH THE GOVERNING UTILITY COMPANY AND LOCAL CODES. PRIOR TO CONSTRUCTION CONTRACTOR SHALL NOTIFY UTILITY COMPANY. (SEE UTILITY CONTACT INFORMATION)
2. CONTRACTOR SHALL COORDINATE SITE ELECTRICAL, GAS, TELEPHONE, AND CABLE WITH THE RESPECTIVE UTILITY COMPANY FOR SERVICE LAYOUT AND DESIGN INFORMATION, ANY PROPOSED LAYOUT OF THESE UTILITIES DEPICTED ON THESE DRAWINGS IS GRAPHICAL ONLY AND NOT INTENDED TO REPRESENT DESIGN OF THESE UTILITIES.
3. PRIOR TO COMMENCEMENT OF CONSTRUCTION, CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ANY REQUIRED TAP AND CONNECTION FEES.
4. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES TO AVOID CONFLICTS.

TREE PROTECTION NOTES

1. ANY REQUIRED EXCAVATION IN OR AROUND THE PROTECTION ZONE TO ACCOMMODATE UNDERGROUND SERVICES, FOOTINGS, ETC., SHALL BE INDICATED ON THE PLAN, AND SHALL BE EXCAVATED BY HAND. IN ADDITION, RELATED ROOT PRUNING SHALL BE ACCOMPLISHED BY A CERTIFIED ARBORIST VIA ANSI A-300-95 STANDARD SO AS TO MINIMIZE IMPACT OF THE GENERAL ROOT SYSTEM.
2. THE STORAGE OF BUILDING MATERIALS OR STOCKPIILING SHALL NOT BE PERMITTED WITHIN THE LIMITS OF OR AGAINST THE PROTECTION BARRIERS.
3. TREES WITHIN THE PROTECTION BARRIERS MUST BE ADEQUATELY CARED FOR THROUGHOUT THE CONSTRUCTION PROCESS (I.E., THEY MUST BE WATERED SUFFICIENTLY, PARTICULARLY IF THE TREE'S ROOT SYSTEM HAS BEEN DISTURBED BY EXCAVATION). FILL SHALL NOT BE PLACED UPON THE ROOT SYSTEM IN SUCH A MANNER AS TO ENDANGER THE HEALTH OR LIFE OF THE AFFECTED TREE.
4. TREE PROTECTION BARRIER SHALL REMAIN INTACT THROUGHOUT THE ENTIRE PERIOD OF CONSTRUCTION.

PLANTING NOTES

1. ANY SERIES OF TREES TO BE PLACED IN A PARTICULAR ARRANGEMENT WILL BE FIELD CHECKED FOR ACCURACY. ANY PLANTS MISARRANGED WILL BE RELOCATED.
2. SOIL USED IN BACKFILLING PLANTING PITS SHALL BE TOPSOIL AND MIXED WITH 25% PEAT BY VOLUME. EXCEPT FOR ERICACEOUS PLANTS, VERY ACID OR SOUR SOIL (SOIL HAVING A pH LESS THAN 6) SHALL BE MIXED WITH SUFFICIENT LIME TO PRODUCE A SLIGHTLY ACID REACTION (A pH OF 6.0 TO 6.5). 10-10-10 COMMERCIAL FERTILIZER AT THE RATE OF 2 POUNDS PER CUBIC YARD SHALL BE ADDED. BOTH FERTILIZER AND PEAT SHALL BE THOROUGHLY MIXED BY HAND OR ROTARY TILLER.
3. SOIL USED IN BACKFILLING ERICACEOUS PLANTS SHALL BE TOPSOIL MIXED WITH 50% PEAT BY VOLUME. 5-10-5 COMMERCIAL FERTILIZER AT THE RATE OF 5 POUNDS PER CUBIC YARD SHALL BE ADDED. BOTH FERTILIZER AND PEAT SHALL BE THOROUGHLY MIXED BY HAND OR ROTARY TILLER.
4. UPON SECURING PLANT MATERIAL, AND BEFORE INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT FOR A PRE-INSTALLATION INSPECTION IN ORDER TO VERIFY ALL PLANT MATERIAL MEETS SPECIFICATIONS. TREES OF SAME SPECIES TO BE MATCHED IN GROWTH CHARACTER AND UNIFORMITY.
6. CONTRACTOR SHALL SUBMIT A 10 OUNCE SAMPLE OF THE TOPSOIL PROPOSED TO A TESTING LABORATORY FOR ANALYSIS. TEST RESULTS, WITH RECOMMENDATIONS FOR SUITABILITY, SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.
7. PLANTS SHALL BE ORIENTED FOR BEST APPEARANCE AND VERTICAL. ALL NON-BIODEGRADABLE ROOT CONTAINERS SHALL BE REMOVED.
8. TREE BRANCHES SHALL BE SELECTIVELY TRIMMED BY 25%, MAINTAINING NATURAL SHAPE. ALL DEAD AND BROKEN BRANCHES IN TREES AND SHRUBS SHALL ALSO BE PRUNED. REMOVE TAGS, TWINE OR OTHER NON-BIODEGRADABLE MATERIAL.
9. SCARIFY SUBSOIL IN PLANTING BEDS TO A DEPTH OF 3 INCHES. ALL PLANTING BEDS SHALL RECEIVE A MINIMUM OF 6 INCHES OF TOPSOIL.
10. CONTRACTOR SHALL SUBMIT TWO INCHES DEEP TRENCHES (3 INCH DEEP) BED EDGES.
11. ALL PLANTING BEDS TO HAVE A MINIMUM 3 INCH DEEP HARDWOOD MULCH.
12. DIMENSIONS FOR TRUNK CALIPER, HEIGHTS, AND SPREAD SPECIFIED ON THE MATERIAL SCHEDULE ARE A GENERAL GUIDE FOR THE MINIMUM REQUIRED SIZE OF EACH PLANT. QUALITY & SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH A.N.S.I. Z80 "AMERICAN STANDARD FOR NURSERY STOCK" (CURRENT EDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
13. THE QUANTITIES INDICATED ON THE MATERIAL SCHEDULE ARE PROVIDED FOR THE BENEFIT OF THE CONTRACTOR, BUT SHOULD NOT BE ASSUMED TO ALWAYS BE CORRECT. IN THE EVENT OF A DISCREPANCY, THE PLANTING PLAN WILL TAKE PRECEDENCE OVER THE MATERIAL SCHEDULE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS/HER OWN QUANTITY CALCULATIONS AND THE LIABILITY PERTAINING TO THOSE QUANTITIES AND ANY RELATED CONTRACT DOCUMENTS AND/OR PRICE QUOTATIONS.
14. CONTRACTOR TO WARRANTY ALL MATERIAL FOR ONE YEAR AFTER DATE OF FINAL ACCEPTANCE.

SEEDING NOTES

1. ALL DISTURBED AREAS TO BE SEEDED WITH KY-31 FESCUE AT THE RATE OF 5 LBS PER 1,000 S.F. ALL SEED TO BE 98% PURE WITH 85% GERMINATION AND CONFORM TO ALL STATE REQUIREMENTS FOR GRASS SEED. THE FERTILIZER SHALL BE 6-12-12 COMMERCIAL TYPE WITH 50% OF ITS ELEMENTS DERIVED FROM ORGANIC SOURCES.
2. STRAW MULCH SHALL BE PLACED UPON SEEDED AREAS. STRAW SHALL BE OATS OR WHEAT STRAW, FREE FROM WEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE, AND DRY. HAY OR CHOPPED CORNSTALKS ARE NOT ACCEPTABLE.
3. THE CONTRACTOR SHALL VERIFY THAT THE PREPARED SOIL BASE IS READY TO RECEIVE WATER. THE TOPSOIL SHALL BE CULTIVATED TO A DEPTH OF 4 INCHES WITH A MECHANICAL TILLER AND SUBSEQUENTLY RAKED UNTIL SMOOTH. FOREIGN MATERIALS COLLECTED DURING CULTIVATION AND RAKING OPERATIONS SHALL BE REMOVED FROM PROJECT SITE.
4. FERTILIZER SHALL BE APPLIED PER THE MANUFACTURER'S RECOMMENDATIONS. LIMESTONE MAY BE APPLIED WITH THE FERTILIZER. FERTILIZER SHALL BE APPLIED AFTER SMOOTH RAKING AND PRIOR TO ROLLER COMPACTION AND IT SHALL BE MIXED THOROUGHLY IN THE UPPER 2 INCHES OF TOPSOIL.
5. SEED SHALL BE APPLIED EVENLY IN TWO INTERSECTING DIRECTIONS AND RAKED IN LIGHTLY. THE TOPSOIL SHALL BE LIGHTLY WATERED PRIOR TO APPLYING SEED. DO NOT SEED AREA IN EXCESS OF THAT WHICH CAN BE MULCHED ON THE SAME DAY.
6. ROLL SEEDED AREA WITH ROLLER NOT EXCEEDING 12 POUNDS.
7. IMMEDIATELY FOLLOWING SEEDING AND COMPACTING, APPLY STRAW MULCH AT THE RATE OF ONE AND ONE HALF BALE PER 1,000 SQUARE FEET. IMMEDIATELY AFTER MULCHING, APPLY WATER WITH A FINE SPRAY AND SATURATE THE GROUND TO A DEPTH OF 4 INCHES.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING SEEDED AREAS TO PREVENT GRASS AND SOIL FROM DRYING OUT UNTIL THE INSTALLATION IS INSPECTED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR RESEEDING BARE SPOTS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF INSTALLATION.

SODDING NOTES

1. AREAS INDICATED FOR SOD SHALL BE KENTUCKY 31. MINIMUM AGE SHALL BE 18 MONTHS, WITH ROOT DEVELOPMENT THAT WILL SUPPORT ITS OWN WEIGHT WITHOUT TEARING WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS.
2. SUBMIT SOD CERTIFICATION FOR GRASS SPECIES AND LOCATION OF SOD SOURCE. INCLUDE CERTIFICATION THAT SOD IS FREE OF DISEASE, NEMATODES, UNDESIRABLE INSECTS, AND QUARANTINE RESTRICTIONS.
3. SOD SHALL BE DELIVERED ON PALLETS. SOD SHALL BE STORED AT A LOCATION THAT IS PROTECTED FROM DAMAGING WINDS.
4. 6-12-12 COMMERCIAL TYPE FERTILIZER, WITH 50% OF THE ELEMENTS DERIVED FROM ORGANIC SOURCES, SHALL BE APPLIED AT RATE RECOMMENDED BY THE MANUFACTURER, AFTER SMOOTH RAKING OF TOPSOIL AND NO MORE THAN 48 HOURS BEFORE LAYING SOD. MIX THOROUGHLY IN THE UPPER 2 INCHES OF TOPSOIL AND LIGHTLY WATER TO AID BREAKDOWN.
5. AREA TO RECEIVE SOD SHALL BE LIGHTLY MOISTENED IMMEDIATELY PRIOR TO LAYING SOD.
6. LAY SOD TIGHTLY WITH NO OPEN JOINTS VISIBLE AND NOT OVERLAPPING. STAGGER END JOINTS A MINIMUM OF 12 INCHES AND DO NOT STRETCH SOD PIECES.
7. ON SLOPES 6 INCHES PER FOOT AND STEEPER, LAY SOD PERPENDICULAR TO SLOPE AND SECURE EVERY ROW WITH WOODEN PEGS AT A MAXIMUM 2 FEET O.C.
8. DRIVE PEGS FULLY INTO SOD PORTION OF SOD.
9. PRIOR TO PLACING SOD ON SLOPES OF 8 INCHES PER FOOT AND STEEPER, PLACE JUTE EROSION CONTROL MESH OVER TOPSOIL. SECURELY ANCHOR IN PLACE WITH PEGS SUNK FIRMLY INTO THE GROUND. CONTRACTOR SHALL SUBMIT 12"x12" SAMPLES OF JUTE MESH FOR REVIEW TO LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
9. IMMEDIATELY AFTER INSTALLATION, WATER SODDED AREAS TO A DEPTH OF 4 INCHES.
10. AFTER SOD AND SOIL HAVE DRIED, ROLL SODDED AREAS TO ENSURE A GOOD BOND BETWEEN SOIL AND SOD. ROLLER SHALL NOT EXCEED 150 POUNDS.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING (MOWING, TRIMMING, WATERING) THE SOD UNTIL THE INSTALLATION IS INSPECTED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE.
12. THE CONTRACTOR SHALL REPLACE SOD AREAS THAT SHOW DETERIORATION FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE INSTALLATION. DETERIORATED MATERIAL SHALL BE REPLACED WITH SOD OF EQUAL QUALITY ORIGINALLY SPECIFIED.

TRANSPORTATION NOTES

1. ALL CONSTRUCTION WITHIN THE CITY'S RIGHT-OF-WAY SHALL CONFORM TO FEDERAL PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG). THE CONTRACTOR AND REGISTERED DESIGN PROFESSIONAL OF RECORD (PE, PLA, OR RA) ARE EXPECTED TO BE FAMILIAR WITH THESE STANDARDS AND PROMPTLY NOTIFY THE CHATTANOOGA DEPARTMENT OF TRANSPORTATION (CDOT) OF ANY ANTICIPATED DEVIATION.
2. CONTRACTOR SHALL REFER TO THE CITY OF CHATTANOOGA STANDARD DETAILS FOR ALL APPLICABLE CONSTRUCTION STANDARDS. THE SD-200 SERIES SHALL BE USED FOR ALL ROADWAY AND DRIVEWAY RELATED DETAILS. THE SD-500 SERIES SHALL BE USED FOR ALL STREETScape STANDARDS. THE SD-700 SERIES SHALL BE USED FOR ALL REPAIR DETAILS. THE CONTRACTOR SHALL NOTIFY THE CITY WHEN ANY DEVIATIONS FROM THESE STANDARDS ARE ANTICIPATED, AND SHALL COORDINATE WITH THE PROJECT'S REGISTERED DESIGN PROFESSIONAL OF RECORD (PE, PLA, OR RA) FOR CHANGES TO BE INCORPORATED ON THE CITY'S PERMIT SET.
3. WHERE APPLICABLE TO THE PROJECT AND NOTED ON PLANS, THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHATTANOOGA AND ALL LOCAL UTILITY COMPANIES FOR THE UNDERGROUND RELOCATION OF UTILITY LINES.
4. CONTRACTOR SHALL MATCH EXISTING SIDEWALK AND GUTTER GRADES WHEREVER PROPOSED CONSTRUCTION MEETS EXISTING. CONSTRUCTION ALONG THE FRONTAGE SHALL STILL COMPLY WITH PROWAG WITH THE EXCEPTION OF THESE BLENDED TRANSITIONS.
5. STREETScape:
 - a. ALL STREET LIGHTING PROPOSED ON THE PLANS SHALL BE ORDERED DIRECTLY BY THE CONTRACTOR AND SEQUENCED WITH THE PROJECT PHASING. ANY UNRESOLVED LIGHTING WILL DELAY CERTIFICATE OF OCCUPANCY (C/O) UNLESS PROVIDED WITH A WRITTEN AVOIDANCE FROM CDOT. CONTRACTOR SHALL COORDINATE WITH THE CITY FOR MANUFACTURER, LIGHT STYLE AND POLE COLOR IF NOT NOTED ON PLANS IN ORDER TO CONFIRM SPECIFICATIONS PRIOR TO ORDERING. CONTACT CDOT DESIGN MANAGER (423.643.5919) FOR COORDINATION AND TO SCHEDULE INSPECTION OF STREETScape COMPONENTS PRIOR TO C/O.
 - b. CONTRACTOR SHALL HAVE ALL EXISTING PEDESTRIAN LIGHTS WITHIN THE PROJECT'S LIMITS OF WORK REMOVED PRIOR TO CONSTRUCTION AND SALVAGED UNTIL HARDScape IS SUBSTANTIALLY COMPLETE. COORDINATE WITH THE CHATTANOOGA ELECTRIC POWER BOARD (EPB) AT 423.648.1372 PRIOR TO BEGINNING CONSTRUCTION AND TO SCHEDULE REPLACEMENT. ANY COSTS ASSOCIATED WITH PROTECTION AND RELOCATION OF POLES SHALL BE INCURRED BY THE CONTRACTOR.
 - c. CONTRACTOR SHALL INSTALL THE STREETScape, INCLUDING ALL CONDUIT AND FOUNDATIONS PER CITY OF CHATTANOOGA STANDARD SD-507.01. CONTRACTOR SHALL ALSO INSTALL PULL BOXES WHICH ARE PROVIDED BY EPB. AFTER THE CONTRACTOR HAS INSTALLED PULL BOXES, CONDUIT, AND FOUNDATIONS, EPB WILL THEN INSTALL THE POLES, FIXTURES, AND PULL THE WIRE.
6. PUBLIC-PRIVATE PARTNERSHIP AGREEMENTS:
 - a. FEE-IN-LIEU OF SIDEWALK AGREEMENTS SHALL BE INITIATED WITH CDOT BETWEEN THE OWNER OR OWNER'S REPRESENTATIVE DURING PERMITTING. CONTRACTOR IS RESPONSIBLE FOR INITIATING THE FINAL DOCUMENT REVIEW WITH THE CITY NO LATER THAN EIGHT (8) WEEKS IN ADVANCE OF THE PROJECT'S ANTICIPATED C/O.
 - b. PARTNERSHIP AGREEMENTS PERTAINING TO COST-SHARING IN PUBLIC INFRASTRUCTURE SHALL BE INITIATED WITH CDOT DURING PERMITTING. CONTRACTOR IS RESPONSIBLE FOR INITIATING THE FINAL DOCUMENT REVIEW WITH THE CITY NO LATER THAN TWELVE (12) WEEKS IN ADVANCE OF THE PROJECT'S ANTICIPATED C/O.
 - c. NOTE THAT ALL PROJECTS REQUIRING THESE AGREEMENTS SHALL HAVE THEM FINALIZED (SIGNED BY ALL PARTIES AND FEES PAID) BEFORE ARRANGING FOR FINAL INSPECTIONS. NOT DOING SO COULD JEOPARDIZE A TIMELY C/O.
7. CDOT CONTACTS:
 - a. MAIN OFFICE (423.643.5950) FOR GENERAL INQUIRIES, OR ALTERNATIVELY AS A 311 CALL (423.643.6311).
 - b. PUBLIC SPACE COORDINATOR (423.643.5962) FOR WORK ZONE TRAFFIC CONTROL.
 - c. TRAFFIC ENGINEERING TECHNICIAN (423.643.5943) FOR COORDINATION OF SIGNAGE AND PARKING METER INSTALLATION.
 - d. TRAFFIC SIGNAL DESIGNER (423.643.5958) WHEREVER PROJECT FRONTAGE ABUTS AN EXISTING TRAFFIC SIGNAL, SIGNAL INFRASTRUCTURE SUCH AS TRAFFIC LOOPS OR CABINETS, OR WHERE NEW SIGNAL INFRASTRUCTURE IS PROPOSED.



Know what's below.
Call before you dig.

ANY LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVEGROUND



LOCATION MAP
1" = 500'

SITE DATA:

PROPERTY INFORMATION:
TAX MAP #: 148D-D-022
STREET ADDRESS: HICKORY VALLEY RD.
CHATTANOOGA, TN 37421
LOT SIZE: 103,579 SQ. FT. (2.38 AC.)

DEVELOPER:
RIVERSIDE DEVELOPMENT, LLC
LEE HELENA, JR.
1507 WILDER ST.
CHATTANOOGA, TN 37406
423.693.2167
lhelena@riversidedevelopmentllc.com

PROJECT ENGINEER:
ASA ENGINEERING & CONSULTING, INC.
714 CHERRY ST.
CHATTANOOGA, TN 37402
423.805.3700

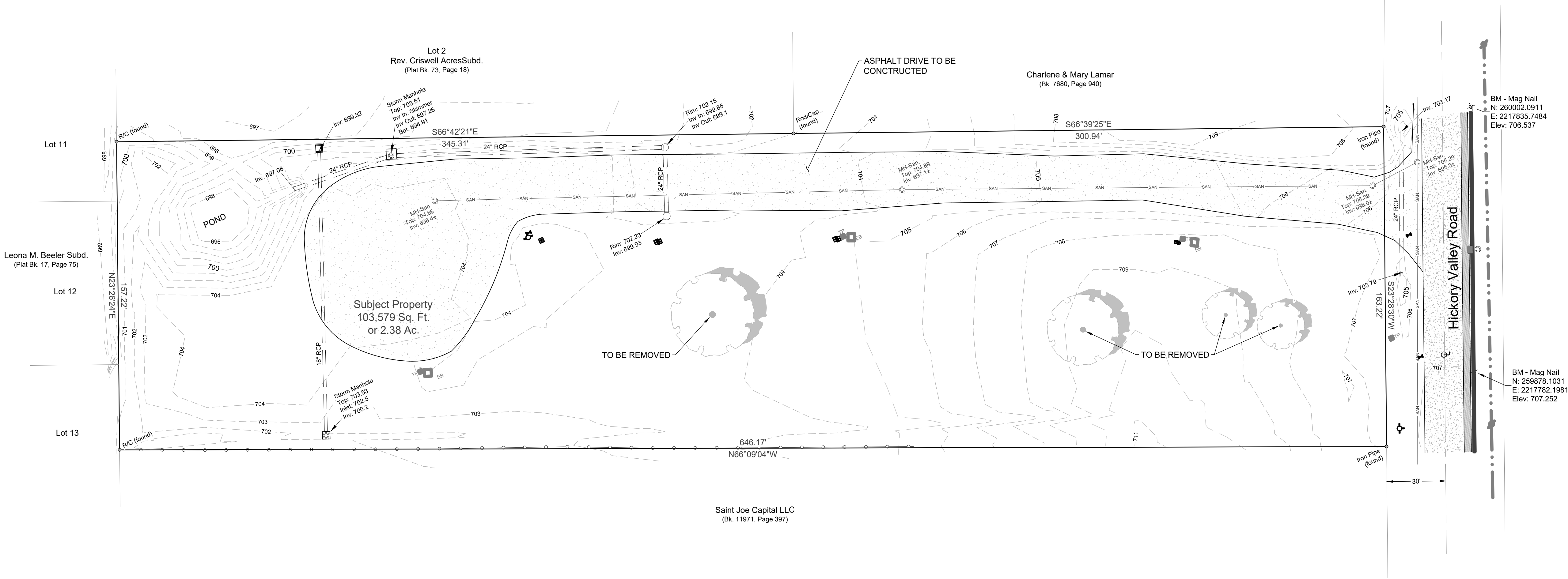
ZONING INFORMATION:
ZONING CLASSIFICATION: RT-1

FLOOD ELEVATION (100YR):
BASED ON GRAPHIC SCALING AND DETERMINATION, THIS PROPERTY
DOES NOT LIE WITHIN A 100-YEAR FLOOD HAZARD AREA PER FEMA/FIRM
COMMUNITY PANEL NO. 47065C0366G; DATED: 02/03/2016. ZONE "X".

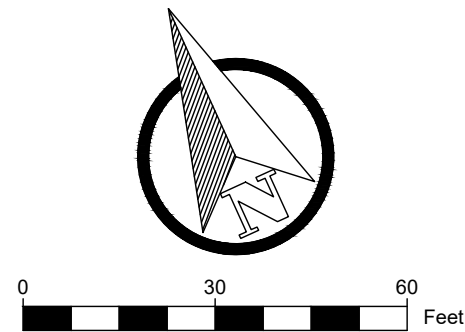
SURVEY INFORMATION:
BOUNDARY AND TOPOGRAPHIC INFO TAKEN
FROM A SURVEY BY ROGER B. RIEMER; ASA ENGINEERING &
CONSULTING, INC.

LEGEND			
	Gas Meter		Sewer Manhole
	Gas Valve		Clean Out
	Telephone Pedestal		Concrete
	Water Meter		Centerline
	Water Valve		Edge of Pavement
	Fire Hydrant		Mag(N) Mag Nail (New)
	Irrigation Control Valve		R/C(N) Rod/Cap (New)
	Electrical Box		R/C(O) Rod/Cap (Old)
	Light Pole		PK(N) PK Nail (New)
	Power Pole		RR(O) Railroad Spike (Old)
	Guy Wire		RCP Reinforced Concrete Pipe
	Electric Box		CMP Corrugated Metal Pipe
			P.O.B. Point of Beginning
			FFE Finish Floor Elevation
			Bk./Pg. Book/Page
			Tree
			Property Line
			Building Line
			Sewer Line (Storm)
			Sewer Line (Sanitary)
			Overhead Power/Telephone
			UGT
			Underground Telephone Line
			Underground Electric Line
			Water Line
			Gas Line
			Fence Line
			Utility service lines shown at approximate locations only.
			Some symbols may not be applicable to this drawing.

- GENERAL NOTES:
1. ADDRESS: HICKORY VALLEY RD., CHATTANOOGA, TN 37421
 2. CURRENT ZONING: RT-1
 3. CONTOUR INTERVAL: 1 FOOT
 4. NORTH BASED ON: TN STATE PLANE GRID (NAD83)
 5. ELEVATIONS BASED ON: NAVD88
 6. TAX PARCEL: 148D-D-022.
 7. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO ANY STATE OF FACTS THAT A CURRENT TITLE REPORT MIGHT REVEAL.
 8. BOUNDARY LINES SHOWN HEREON ARE BASED ON DESCRIPTION IN DEED BOOK 10082, PAGE 619 (R.O.H.C.).
 9. FOR HORIZONTAL POSITIONING, RTK GPS DATA WAS OBSERVED 10/7/2020 USING A LEICA GPS RECEIVER. COORDINATES WERE DERIVED FROM THE TDOT GNSS NETWORK USING GEOID MODEL 2012A.



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714 CHERRY STREET
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www.AsaEngineeringInc.com
423.805.3700

SEAL

PRELIMINARY
FOR
REVIEW

HICKORY VALLEY TOWNHOMES
FOR
RIVERSIDE DEVELOPMENT, LLC

CHATTANOOGA, TN 37406

No.	Revision/Issue	Date

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PROJECT NO. 20-0141

DATE 12/2020

SCALE AS SHOWN

DESIGNED BY ASA

DRAWN BY ASA

CHECKED BY ASA

TITLE

EXISTING
CONDITIONS &
DEMO PLAN

SHEET NO.

C1.0

SITE DATA:

PROPERTY INFORMATION:
TAX MAP #: 148D-D-022
STREET ADDRESS: HICKORY VALLEY RD.
CHATTANOOGA, TN 37421
LOT SIZE: 103,579 SQ. FT. (2.38 AC.)

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423.693.2167
lhelena@riversidedevelopmentllc.com

PROJECT ENGINEER:
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714 CHERRY ST.
CHATTANOOGA, TN 37402
423.805.3700

ZONING INFORMATION:
ZONING CLASSIFICATION: RT-1

FLOOD ELEVATION (100YR):
BASED ON GRAPHIC SCALING AND DETERMINATION. THIS PROPERTY DOES NOT LIE WITHIN A 100-YEAR FLOOD HAZARD AREA PER FEMA/FIRM COMMUNITY PANEL NO. 47065C0366G; DATED: 02/03/2016. ZONE "X".

SURVEY INFORMATION:
BOUNDARY AND TOPOGRAPHIC INFO TAKEN
FROM A SURVEY BY ROGER B. RIEMER & ASA ENGINEERING & CONSULTING, INC.

LANDSCAPE NOTES:

- PLANTS SHALL MEET THE STANDARDS FOR SIZE, FORM AND QUALITY SET OUT IN THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1, LATEST EDITION)
- ALL LANDSCAPE BEDS TO HAVE 3" HARDWOOD MULCH
- ALL DISTURBED AREAS NOT DESIGNATED AS PLANTING BED TO BE SEEDED, REF SOD NOTES SHEET L1.1

CITY LANDSCAPE NOTES:

- COMPLY WITH ALL BUFFER & TREE PROTECTION REQUIREMENTS AND SCHEDULE A PRE-CONSTRUCTION INSPECTION WITH THE CITY OF CHATTANOOGA'S STORMWATER INSPECTOR. PRIOR TO THE ONSET OF CONSTRUCTION OR LAND DISTURBANCE, AN APPOINTMENT MAY BE SCHEDULED BY CALLING THE STORMWATER INSPECTOR A MINIMUM OF TWO BUSINESS DAYS BEFORE THE DESIRED INSPECTION APPOINTMENT
- COMPLY WITH ALL PERMANENT LANDSCAPE REQUIREMENTS AND SCHEDULE A LANDSCAPE INSPECTION WITH THE CITY OF CHATTANOOGA'S STORMWATER INSPECTOR. AN APPOINTMENT MAY BE MADE BY CALLING THE STORMWATER INSPECTOR A MINIMUM OF TWO BUSINESS DAYS BEFORE THE DESIRED INSPECTION APPOINTMENT.

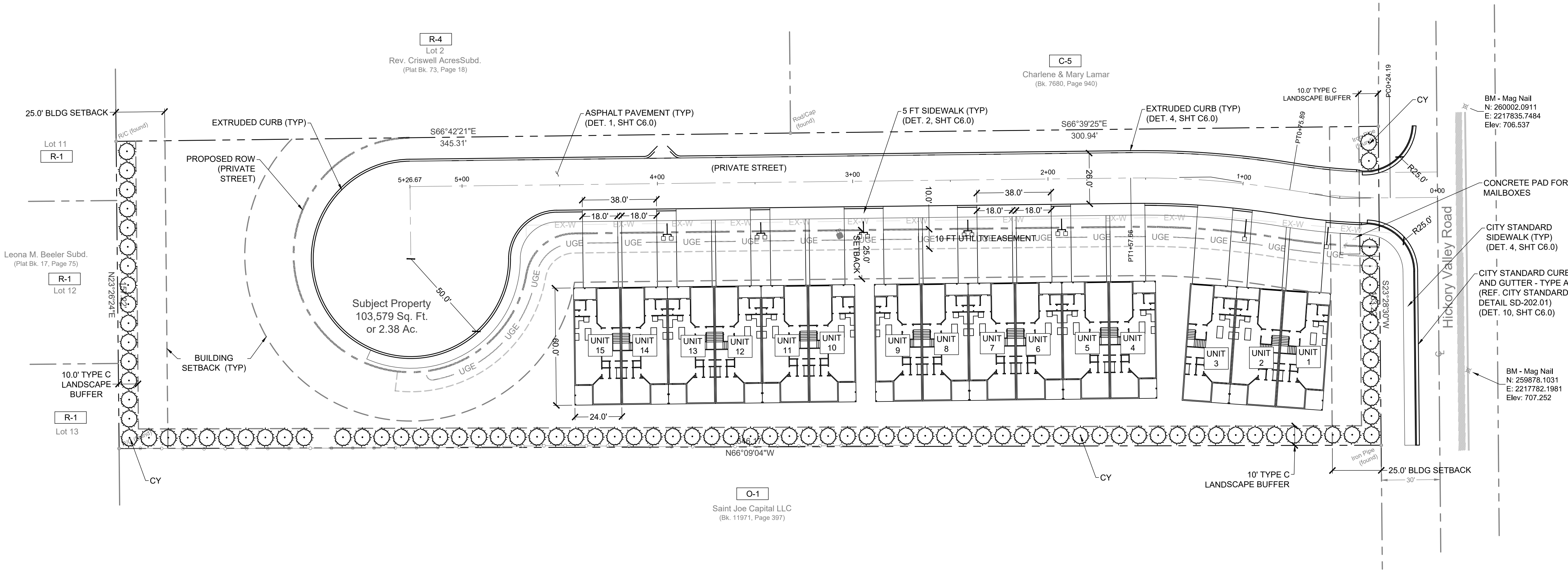
URBAN FORESTRY NOTE:

NO TREES TO BE REMOVED DURING DEMOLITION ARE LOCATED IN THE CITY R.O.W.

PLANT_SCHEDULE_LANDSCAPE

TREES	QTY	BOTANICAL / COMMON NAME	TYPE	SIZE	HEIGHT
CY	91	Cryptomeria japonica "Yoshino" / Yoshino Cryptomeria	Evergreen		5-6' FT HT

NOTE: SCREEN TREES MAY BE SUBSTITUTED BASED ON THE RECOMMENDED SCREENING TREES LISTED IN THE CITY ORDINANCE SEC. 38-597 (4) PLANT INSTALLATION SPECIFICATIONS. ALL SCREENING TREES SHALL BE INSTALLED AT A MINIMUM HEIGHT OF 5 FT TO 6 FT AND HAVE A MINIMUM EXPECTED MATURE SPREAD OF 8 FT.



No.	Revision/Issue	Date

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PROJECT NO. 20-0141

DATE 12/2020

SCALE AS SHOWN

DESIGNED BY ASA

DRAWN BY ASA

CHECKED BY ASA

TITLE

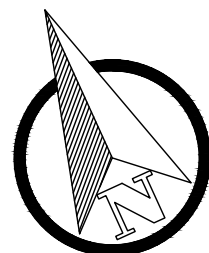
SITE & LANDSCAPE
PLAN

SHEET NO.

C2.0



Know what's below.
Call before you dig.



0 30 60
Feet

ANY LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVEGROUND STRUCTURES AND RECORD DRAWINGS PROVIDED THE SURVEYOR AND MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. FOR INFORMATION REGARDING THESE UTILITIES, CONTACT THE APPROPRIATE AGENCIES.

PROPERTY INFORMATION:
TAX MAP #: 148D-D-022
STREET ADDRESS: HICKORY VALLEY RD.
CHATTANOOGA, TN 3742-
LOT SIZE: 103,579 SQ. FT. (2.38 AC.)

DEVELOPER:
RIVERSIDE DEVELOPMENT, LLC
LEE HELENA, JR.
1507 WILDER ST.
CHATTANOOGA, TN 37406
423.693.2167
lhelena@riversidedevelopmentllc.com

PROJECT ENGINEER:
ASA ENGINEERING & CONSULTING, INC.
714 CHERRY ST.
CHATTANOOGA, TN 37402
423.805.3700

ZONING INFORMATION:
ZONING CLASSIFICATION: RT-1

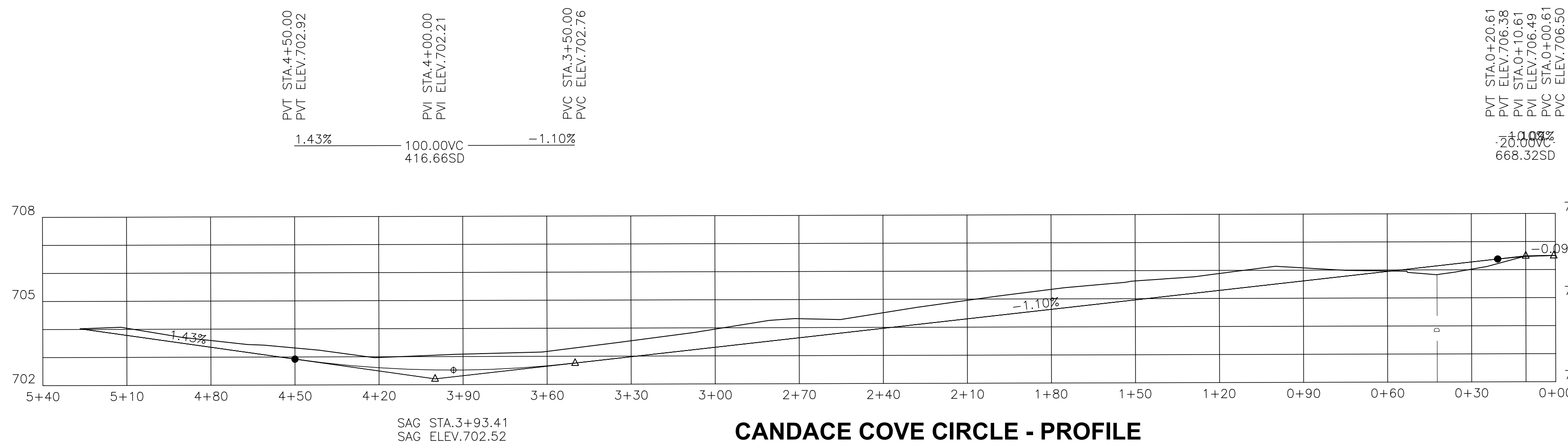
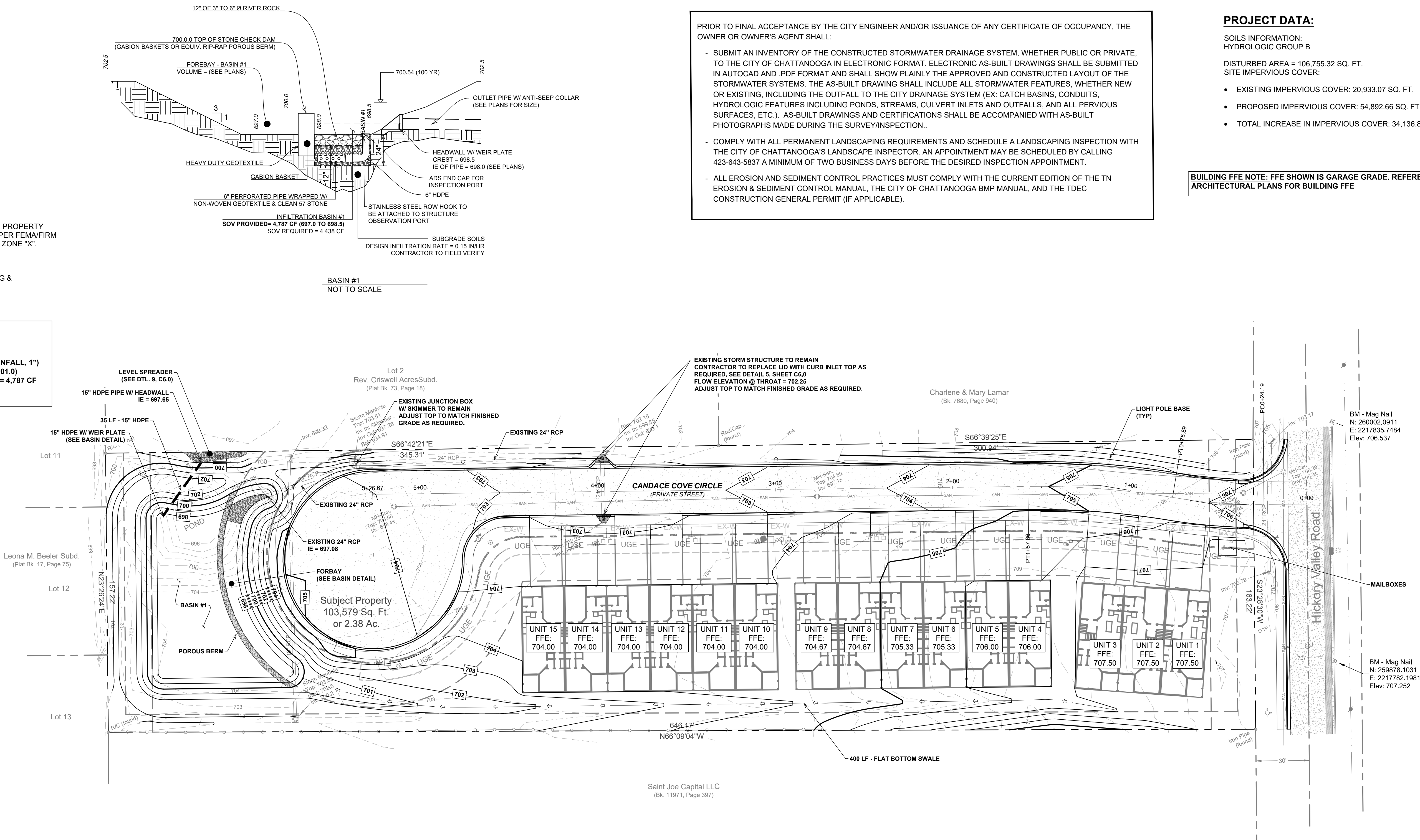
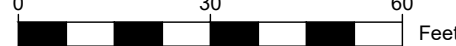
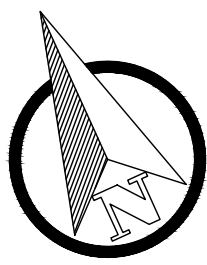
FLOOD ELEVATION (100YR):
 BASED ON GRAPHIC SCALING AND DETERMINATION, THIS PROPERTY
 DOES NOT LIE WITHIN A 100-YEAR FLOOD HAZARD AREA PER FEMA/FIRM
 COMMUNITY PANEL NO. 47065C0366G; DATED: 02/03/2016. ZONE "X".

SURVEY INFORMATION:
BOUNDARY AND TOPOGRAPHIC INFO TAKEN
FROM A SURVEY BY ROGER B. RIEMER; ASA ENGINEERING &
CONSULTING, INC.

INFILTRATION BASIN - BASIN #1
DRAINAGE SUBBASIN TO DETENTION BASIN: 85,914 SF ±
IMPERVIOUS AREA: 53,627 SF ±
PERVIOUS AREA: 32,287 SF ±
STAY-ON-VOLUME REQUIRED = 4,438 CF (SOV DESIGN RAINFALL, 1")
TOTAL AVAILABLE STORAGE: 22,219 CF (ELEV. 697.0 → 701.0)
STORAGE BELOW OVERFLOW OUTFALL (SOV - 698.50) = 4,787 CF
STORAGE ABOVE OVERFLOW OUTFALL = 17,432 CF
100 YR ELEV.-700.54; 25YR ELEV.-700.16

1. CONTRACTOR SHALL BE RESPONSIBLE DURING CONSTRUCTION FOR THE CONTINUOUS MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES AS CALLED FOR ON THE DRAWINGS AND PER THE TN EROSION AND SEDIMENT CONTROL HANDBOOK. CONTRACTOR SHALL COMPLY WITH ALL LOCAL EROSION, CONSERVATION AND SILTATION ORDINANCES. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL SEDIMENT CONTROL AND AIR POLLUTION ORDINANCES OR RULES.

1. CONTRACTOR SHALL NOTIFY SURVEYOR & CITY STORMWATER INSPECTOR AT LEAST 48 HRS PRIOR TO ANY COVER PLACED ON UNDERGROUND SYSTEMS. FAILURE TO DO SO MAY RESULT IN RE-EXCAVATION.
2. AS-BUILT DRAWINGS AND CERTIFICATIONS SHALL BE ACCOMPANIED WITH AS-BUILT PHOTOGRAPHS MADE DURING THE SURVEY/INSPECTION.
3. ALL STORMWATER CONTROL MEASURES AND DETENTION STRUCTURES SHALL BE MAINTAINED BY THE PROPERTY OWNER(S) / HOMEOWNERS' ASSOCIATION.
4. STORMWATER CONTROL MEASURES SHALL NOT BE INSTALLED UNTIL THE SITE IS SUBSTANTIALLY STABILIZED OR UNLESS OTHER MEASURES ARE TAKEN.



PROFILE VIEW
1" = 30' (HORIZONTAL)
1" = 3' (VERTICAL)

811
BASIN SUMMARIES:
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PRIOR TO FINAL ACCEPTANCE BY THE CITY ENGINEER AND/OR ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE OWNER OR OWNER'S AGENT SHALL:

- SUBMIT AN INVENTORY OF THE CONSTRUCTED STORMWATER DRAINAGE SYSTEM, WHETHER PUBLIC OR PRIVATE, TO THE CITY OF CHATTANOOGA IN ELECTRONIC FORMAT. ELECTRONIC AS-BUILT DRAWINGS SHALL BE SUBMITTED IN AUTOCAD AND .PDF FORMAT AND SHALL SHOW PLAINLY THE APPROVED AND CONSTRUCTED LAYOUT OF THE STORMWATER SYSTEMS. THE AS-BUILT DRAWING SHALL INCLUDE ALL STORMWATER FEATURES, WHETHER NEW OR EXISTING, INCLUDING THE OUTFALL TO THE CITY DRAINAGE SYSTEM (EX: CATCH BASINS, CONDUITS, HYDROLOGIC FEATURES INCLUDING PONDS, STREAMS, CULVERT INLETS AND OUTFALLS, AND ALL PVIOUS SURFACES, ETC.). AS-BUILT DRAWINGS AND CERTIFICATIONS SHALL BE ACCOMPANIED WITH AS-BUILT PHOTOGRAPHS MADE DURING THE SURVEY/INSPECTION..
- COMPLY WITH ALL PERMANENT LANDSCAPING REQUIREMENTS AND SCHEDULE A LANDSCAPING INSPECTION WITH THE CITY OF CHATTANOOGA'S LANDSCAPE INSPECTOR. AN APPOINTMENT MAY BE SCHEDULED BY CALLING 423-643-5837 A MINIMUM OF TWO BUSINESS DAYS BEFORE THE DESIRED INSPECTION APPOINTMENT.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST COMPLY WITH THE CURRENT EDITION OF THE TN EROSION & SEDIMENT CONTROL MANUAL, THE CITY OF CHATTANOOGA BMP MANUAL, AND THE TDEC CONSTRUCTION GENERAL PERMIT (IF APPLICABLE).

SOILS INFORMATION:
HYDROLOGIC GROUP B

DISTURBED AREA = 106,755.32 SQ. FT.
SITE IMPERVIOUS COVER:

- EXISTING IMPERVIOUS COVER: 20,933.07 SQ. FT.
- PROPOSED IMPERVIOUS COVER: 54,892.66 SQ. FT.
- TOTAL INCREASE IN IMPERVIOUS COVER: 34,136.87 SQ. FT.

BUILDING FFE NOTE: FFE SHOWN IS GARAGE GRADE. REFERENCE ARCHITECTURAL PLANS FOR BUILDING FFE

ASA
ENGINEERING & CONSULTING, INC.
714 CHERRY STREET
CHATTANOOGA, TN 37402
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423.805.3700

SEAL

PRELIMINARY
FOR
REVIEW

HICKORY VALLEY TOWNHOMES
FOR
RIVERSIDE DEVELOPMENT, LLC

[illegible]

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PROJECT NO. 20-014

DATE 12/202

SCALE AS SHOWN

DESIGNED BY AS

DRAWN BY AS

CHECKED BY _____ AS _____

TITLE _____

GRADING PLAN

SHEET NO.

C3.0

SITE DATA:

PROPERTY INFORMATION:
TAX MAP #: 148D-D-022
STREET ADDRESS: HICKORY VALLEY RD.
CHATTANOOGA, TN 37402
LOT SIZE: 103,579 SQ. FT. (2.38 AC.)

OWNER:
3100 WOOD AVE LLC
OWNER CONTACT NAME
P.O. BOX 5127
CHATTANOOGA, TN 37406
XXX.XXX.XXXX
OWNER'S EMAIL

PROJECT ENGINEER:
ASA ENGINEERING & CONSULTING, INC.
714 CHERRY ST.
CHATTANOOGA, TN 37402
423.805.3700

ZONING INFORMATION:
ZONING CLASSIFICATION: RT-1

FLOOD ELEVATION (100YR):
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DATED: 02/03/2016. ZONE "X".

SURVEY INFORMATION:
BOUNDARY AND TOPOGRAPHIC INFO TAKEN FROM A SURVEY BY ROGER B. RIEMER, ASA ENGINEERING & CONSULTING, INC.

PHASE I E&SC

PHASE I - EROSION AND SEDIMENT CONTROL SCHEDULE:

1. CONDUCT PRE CONSTRUCTION MEETING WITH EROSION CONTROL INSPECTOR.
2. STAKE OUT CLEARING LIMITS, BUFFERS, ETC.
3. INSTALL CONSTRUCTION EXITS AND PERIMETER SILT FENCE.
4. DEMO EXISTING PAVEMENTS, TREES, DRIVES, STRIP TOP SOIL, ETC.
5. PROVIDE TEMPORARY GRASSING / MULCHING @ 14 DAY INTERVALS.

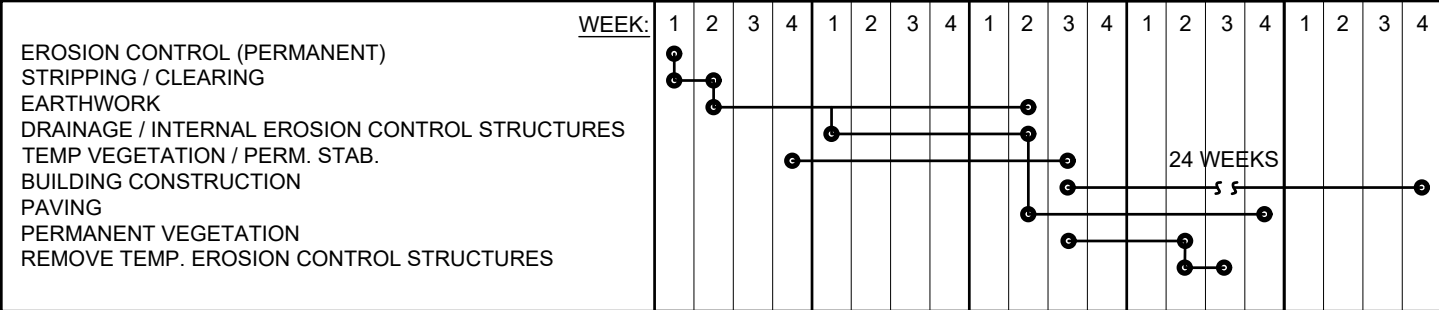
PROJECT DATA:

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PROJECT SCHEDULE



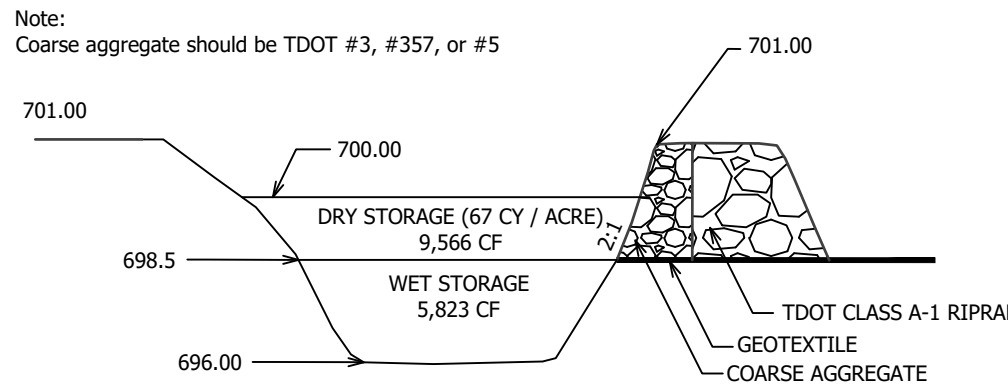
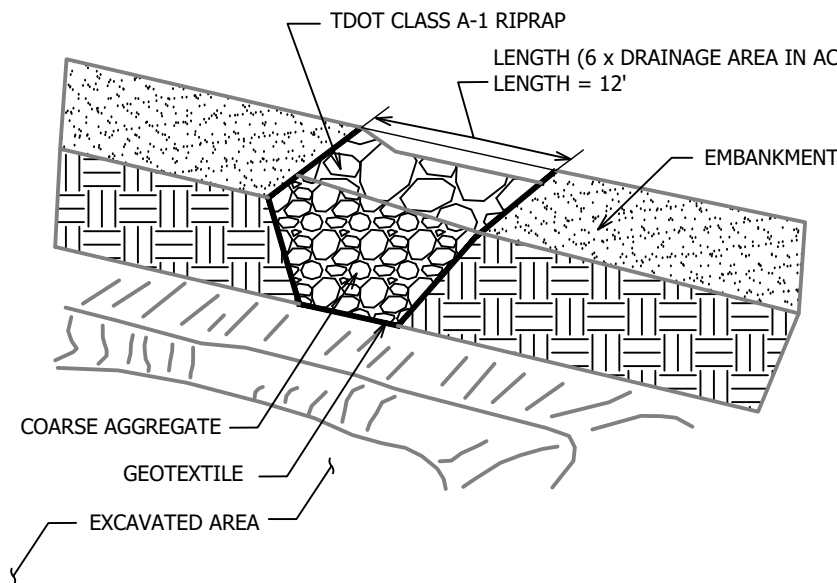
NOTE:

A CONSTRUCTION SITE ASSESSMENT OF THE SWPPP SHALL BE PERFORMED IN ACCORDANCE WITH PART 3.1.2 OF THE TENNESSEE CONSTRUCTION GENERAL PERMIT WITHIN ONE MONTH OF CONSTRUCTION COMMENCEMENT.

EROSION CONTROL LEGEND

- LIMITS OF DISTURBANCE
- CE CONSTRUCTION ENTRANCE
- IP-SS INLET PROTECTION - SILT SOXX
- PS PERMANENT SEEDING
- TS TEMPORARY SEEDING
- TO TOP SOIL
- SF-SS SILT FENCE - SILT SOXX

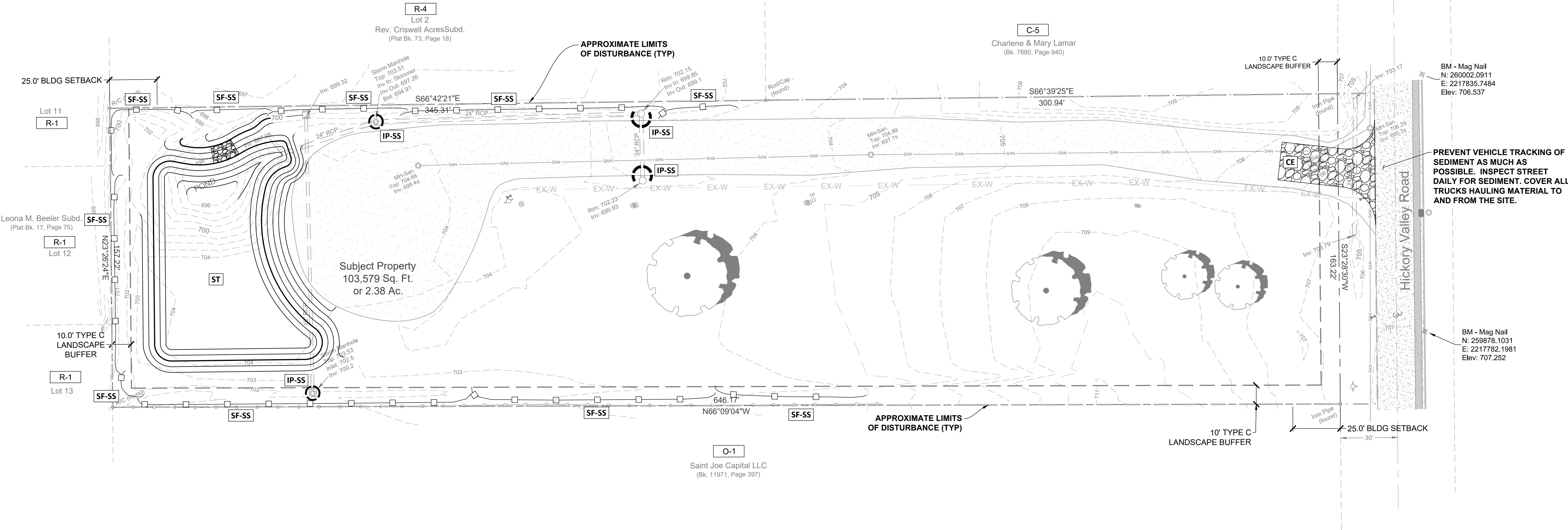
SEE SHEET C4.3 FOR DETAILS



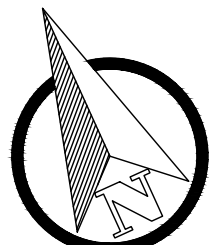
CROSS SECTION OF OUTLET

TEMPORARY SEDIMENT TRAP - SEDIMENT TRAP
Drainage Subbasin = (1.87 ac)
Total Required Trap Capacity (3,618 cf per acre) = 7,128 cf
Wet Storage = 3,564 cf
Dry Storage = 3,564 cf
Available Storage: 15,389 cf
Wet Storage = 5,823 cf (Elev. 696.0 -> 698.5)
Dry Storage = 9,566 cf (Elev. 698.5 -> 700.0)

ST SEDIMENT TRAP
NOT TO SCALE



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SEAL

PRELIMINARY
FOR
REVIEW

HICKORY VALLEY TOWNHOMES
FOR
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PROJECT NO. 20-0141

DATE 12/2020

SCALE AS SHOWN

DESIGNED BY ASA

DRAWN BY ASA

CHECKED BY ASA

TITLE

SWPPP PHASE I

SHEET NO.

C4.0

SITE DATA:

PROPERTY INFORMATION:
TAX MAP #: 148D-D-022
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423.805.3700

ZONING INFORMATION:
ZONING CLASSIFICATION: RT-1

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DATED: 02/03/2016. ZONE "X".

SURVEY INFORMATION:
BOUNDARY AND TOPOGRAPHIC INFO TAKEN FROM A SURVEY BY ROGER B. RIEMER, ASA ENGINEERING & CONSULTING, INC.

PROJECT DATA:

SOILS INFORMATION:
HYDROLOGIC GROUP B

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EROSION CONTROL LEGEND

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- IP-SS INLET PROTECTION - SILT SOXX
- PS PERMANENT SEEDING
- TS TEMPORARY SEEDING
- TO TOP SOIL
- SF-SS SILT FENCE - SILT SOXX

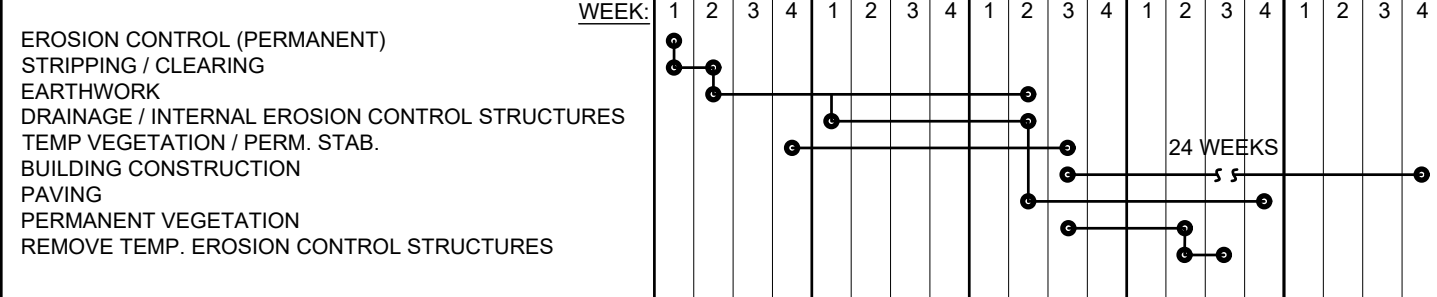
SEE SHEET C4.3 FOR DETAILS

PHASE II E&SC

PHASE II - EROSION AND SEDIMENT CONTROL SCHEDULE:

- BEGIN SITE GRADING.
- INSTALL UTILITIES (STORM, SANITARY, AND WATER) AND INSTALL APPROPRIATE TEMPORARY INLET/OUTLET PROTECTION.
- MAINTAIN SILT FENCE & INLET PROTECTION PER THIS PLAN AS THE PROJECT PROGRESSES.
- BUILDING CONSTRUCTION
- MAINTAIN TEMPORARY GRASSING @14 DAY INTERVALS. SILT FENCE, AND CONSTRUCTION ENTRANCE PER THIS PLAN AS THE GRADING PROGRESSES.

PROJECT SCHEDULE



NOTES:

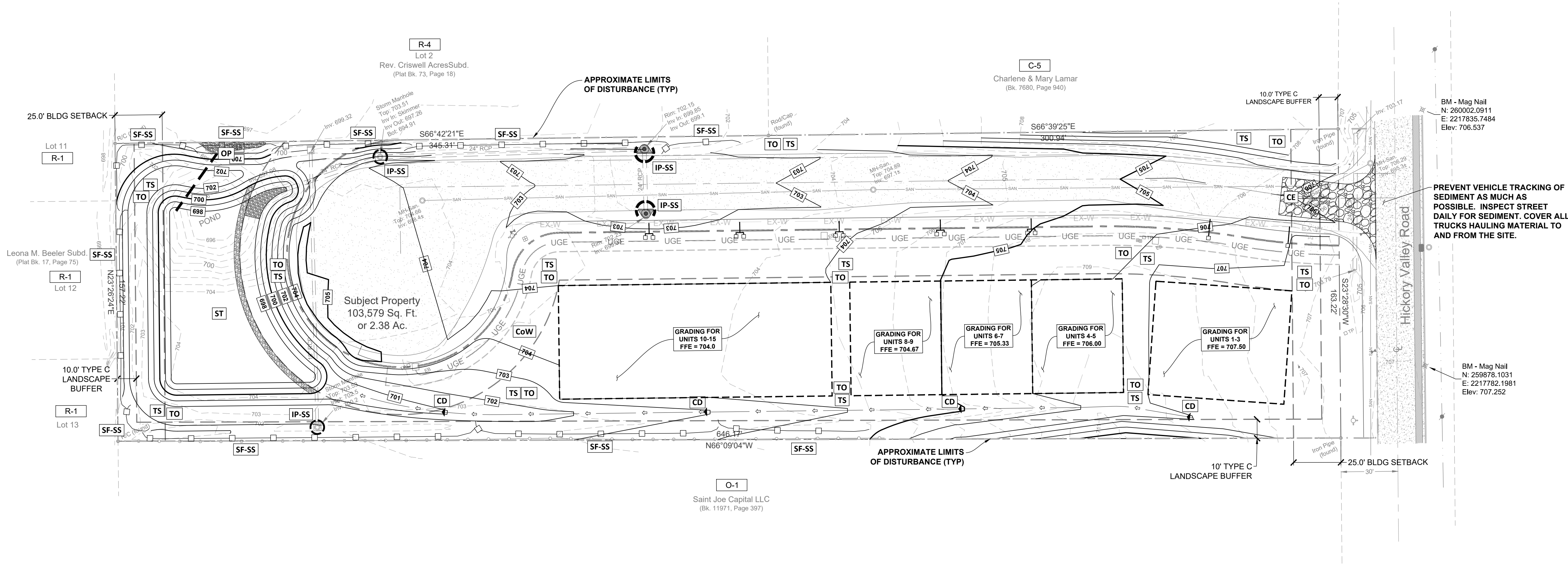
NON-STORM WATER DISCHARGES:
1. ALL FUELING OF EQUIPMENT AND VEHICLES ON SITE WILL BE CONDUCTED AT A SITE PREVIOUSLY APPROVED. ANY SPILLAGE SHALL BE CONTAINED AND REMOVED IMMEDIATELY THROUGH THE USE OF FILTER SOCKS OR OTHER APPROVED MEANS. CONTAMINATED SOILS WILL BE PLACED ON HEAVY PLASTIC AND COVERED OR PLACED INTO APPROVED CONTAINERS TO PREVENT CONTACT WITH STORM WATER. ALL FUEL TANKS WILL BE IN THE FUELING/CONTAINMENT AREA. OILS, OTHER VEHICLE FLUIDS, PAINTS, AND SOLVENTS WILL BE STORED IN THE CONSTRUCTION TRAILER OR OTHER TEMPORARY STORAGE STRUCTURE. ANY SPILL IN EXCESS OF TWO GALLONS WILL BE REPORTED TO THE PROJECT SUPERINTENDENT AND THE ENGINEER.

IF A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTING QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24-HOUR PERIOD, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE PERMITTEE WHO SHALL THEN DO THE FOLLOWING:

- NOTIFY THE NATIONAL RESPONSE CENTER (NRC) AT 800-424-8802.
- NOTIFY THE TENNESSEE EMERGENCY MANAGEMENT AGENCY (TEMA) AT 800-262-3300; FOR NON-EMERGENCIES AT 800-262-3400.
- NOTIFY THE LOCAL ENVIRONMENTAL ASSISTANCE CENTER AT 423-634-5745.

ALSO, A REVISION OF THIS DOCUMENT SHALL BE PREPARED TO IDENTIFY MEASURES TO PREVENT THE REOCCURRENCE OF SUCH RELEASES.

EACH CONTRACTOR IS RESPONSIBLE TO PROVIDE LITTER CONTROL FOR TRASH GENERATED BY HIS CREW. A CONTAINER SHALL BE PROVIDED, AND IS LIMITED TO GARBAGE AND PAPER TRASH ONLY. PAINT CANS, OIL CANS, USED OIL, AND FILTERS WILL BE CONTAINED AND DISPOSED OF BY THE CONTRACTOR TAKING THEM TO AN APPROVED DISPOSAL CENTER.



PREVENT VEHICLE TRACKING OF SEDIMENT AS MUCH AS POSSIBLE. INSPECT STREET DAILY FOR SEDIMENT. COVER ALL TRUCKS HAULING MATERIAL TO AND FROM THE SITE.

SEAL

PRELIMINARY
FOR
REVIEW

HICKORY VALLEY TOWNHOMES
FOR
RIVERSIDE DEVELOPMENT, LLC
CHATTANOOGA, TN 37406

No.	Revision/Issue	Date

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PROJECT NO. 20-0141

DATE 12/2020

SCALE AS SHOWN

DESIGNED BY ASA

DRAWN BY ASA

CHECKED BY ASA

TITLE

SWPPP PHASE II

SHEET NO.

C4.1



Know what's below.
Call before you dig.

0 30 60 Feet

ANY LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVEGROUND STRUCTURES AND RECORD DRAWINGS PROVIDED THE SURVEYOR AND MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. FOR INFORMATION REGARDING THESE UTILITIES, CONTACT THE APPROPRIATE AGENCIES.

SITE DATA:

PROPERTY INFORMATION:
TAX MAP #: 148D-D-022
STREET ADDRESS: HICKORY VALLEY RD.
CHATTANOOGA, TN 37421
LOT SIZE: 103,579 SQ. FT. (2.38 AC.)

OWNER:
3100 WOOD AVE LLC
OWNER CONTACT NAME
P.O. BOX 5127
CHATTANOOGA, TN 37406
XXX.XXX.XXXX
OWNER'S EMAIL

PROJECT ENGINEER:
ASA ENGINEERING & CONSULTING, INC.
714 CHERRY ST.
CHATTANOOGA, TN 37402
423.805.3700

ZONING INFORMATION:
ZONING CLASSIFICATION: RT-1

FLOOD ELEVATION (100YR):
BASED ON GRAPHIC SCALING AND DETERMINATION. THIS PROPERTY DOES NOT LIE WITHIN A 100-YEAR FLOOD HAZARD AREA PER FEMA/FIRM COMMUNITY PANEL NO. 47065C0366G;
DATED: 02/03/2016. ZONE "X".

SURVEY INFORMATION:
BOUNDARY AND TOPOGRAPHIC INFO TAKEN FROM A SURVEY BY ROGER B. RIEMER, ASA ENGINEERING & CONSULTING, INC.

PROJECT DATA:

SOILS INFORMATION:
HYDROLOGIC GROUP B

DISTURBED AREA = 106,755.32 SQ. FT.
SITE IMPERVIOUS COVER:

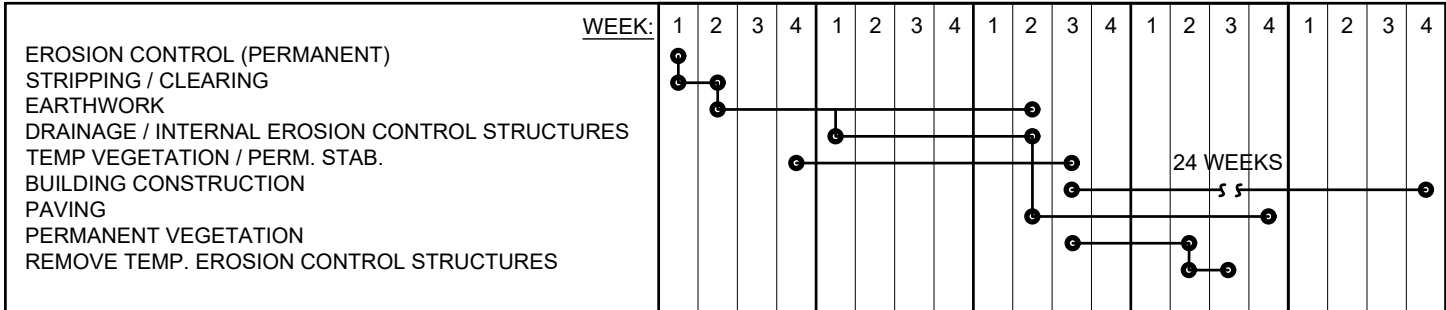
- EXISTING IMPERVIOUS COVER: 20,933.07 SQ. FT.
- PROPOSED IMPERVIOUS COVER: 54,892.66 SQ. FT.
- TOTAL INCREASE IN IMPERVIOUS COVER: 34,136.87 SQ. FT.

PHASE III E&SC

PHASE III - EROSION AND SEDIMENT CONTROL SCHEDULE:

- MAINTAIN SILT FENCE AND INLET PROTECTION PER THIS PLAN AS THE GRADING PROGRESSES.
- INSTALL PAVING AND CURBING.
- MAINTAIN TEMPORARY GRASSING @ 14 DAY INTERVALS, INSTALL PERMANENT GRASSING @ 30 DAY INTERVALS.
- INSTALL LANDSCAPING, MULCH, AND PERMANENT SEEDING.
- CLEAN STORM STRUCTURES.
- DEMUCK ALL STRUCTURAL BMP'S AND SAFELY DISPOSE OF MATERIAL. REMOVE ALL TEMPORARY BMP'S AS SHOWN ON PLANS.

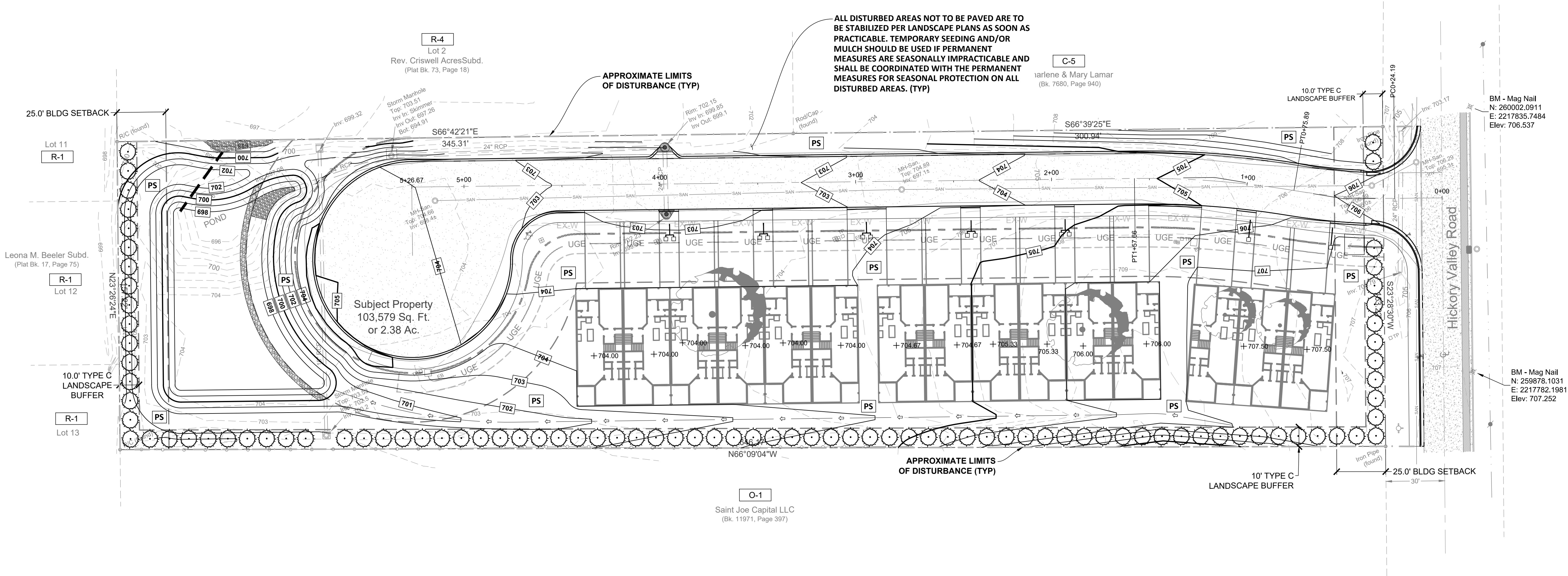
PROJECT SCHEDULE



EROSION CONTROL LEGEND

---	LIMITS OF DISTURBANCE
CE	CONSTRUCTION ENTRANCE
IP-SS	INLET PROTECTION - SILT SOXX
PS	PERMANENT SEEDING
TS	TEMPORARY SEEDING
TO	TOP SOIL
SF-SS	SILT FENCE - SILT SOXX

SEE SHEET C4.3 FOR DETAILS



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

A north arrow pointing towards the top right and a scale bar showing 0, 30, and 60 feet.

ANY LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVEGROUND STRUCTURES AND RECORD DRAWINGS PROVIDED THE SURVEYOR AND MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. FOR INFORMATION REGARDING THESE UTILITIES, CONTACT THE APPROPRIATE AGENCIES.

SEAL

PRELIMINARY
FOR
REVIEW

HICKORY VALLEY TOWNHOMES
FOR
RIVERSIDE DEVELOPMENT, LLC
CHATTANOOGA, TN 37406

No.	Revision/Issue	Date

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PROJECT NO.	20-0141
DATE	12/2020
SCALE	AS SHOWN
DESIGNED BY	ASA
DRAWN BY	ASA
CHECKED BY	ASA
TITLE	

SWPPP PHASE III

SHEET NO.

C4.2

EROSION & SEDIMENT CONTROL (E&SC) PERMITTEE SPECIAL NOTES:

The permittee shall post a notice near the main entrance of the construction site with the following information:

- A copy of the notice of coverage (NOC) with the NPDES Permit Number for this project.
- B. The name and telephone number of a local contact person.
- C. A brief description of the project.
- D. The location of the E&SC Plan if the site is inactive or does not have an on-site location to store the plan.
- E. Permittee shall perform inspections in accordance with the process described in Section 3.5.8 of the Tennessee General NPDES Permit No. TNR100000 issued on September 30, 2016 inspections shall be performed at least twice every calendar week and at least 72 hours apart.
- ENSC GENERAL CRITERIA AND REQUIREMENTS:**
1. All permits must be obtained prior to commencing land disturbance activities on this project.
 2. Active permits, as well as a copy of the SWPPP, must be retained on-site and should be accessible to the general public. A contact list with names and phone numbers must be posted on-site if the SWPPP is kept off-site for reasonable public access during normal working hours. Additionally, records pertaining to major grading activities, dates when activities temporarily or permanently cease, and dates when stabilization activities are initiated must be kept on-site.
 3. All control measures must be properly designed, selected, installed, and maintained in accordance with the manufacturer's specifications and shall meet or exceed the recommendations contained in the current edition of the TDEC Erosion & Sediment Control Handbook 4th Edition, dated August 2012. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the permittee must replace or modify the control for site situations.
 4. If sediment escapes the construction site, off-site accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts (eg., fugitive sediment that has escaped the construction site and has collected in the street must be removed so that it is not subsequently washed into storm sewer and streams by the next rain and/or so that it does not pose a safety hazard to users of public streets). This permit does not authorize access to private property.
 5. Sediment should be removed from sediment traps, silt fences, sedimentation ponds, and other sediment controls as necessary, and must be removed when design capacity has been reduced by 50%. If during the inspections it is determined to be at or near the 50% maximum, the inspection should indicate if on the inspection report so the sediment can be cleaned out and the E&SC measure repaired and/or replaced as needed. If a particular problem area persists, modification or an increase in measures might be warranted.
 6. Litter, construction debris, and construction chemicals exposed to storm water shall be picked up prior to anticipated storm events (eg., forecasted by local weather reports), or otherwise prevented from becoming a pollutant source for storm water discharges (eg., screening, outfalls, daily pickup, etc.). After stabilization, silt fences should be removed or otherwise prevented from becoming a pollutant source for storm water discharges.
 7. Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than 15 calendar days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed.
 8. Clearing and grubbing must be held to the minimum necessary for grading and equipment operation.
 9. Construction must be sequenced to minimize the exposure time of graded or denuded areas.
 10. Erosive material storage areas, including stockpiling and overburden, and borrow pits are considered part of the construction site and should be treated accordingly with appropriated E&SC measures.
 11. Erosion and sediment control measures must be in place and functional before earth moving operations begin, and must be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the work day, but must be replaced at the end of the work day, on site.
 12. Erosion control measures shall be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source.
 13. Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding.
 14. Site erosion controls shall be checked twice weekly (at least 72 hours apart) and if necessary, repaired before the next rain event, but in no case more than 7 days after the need is identified.
 15. Permittees shall maintain a rain gauge and daily rainfall records at the site, or use a reference site for a record of daily amount of precipitation.
 16. If sediment enters waters of the State, TDEC-WPC will be notified immediately and consulted with concerning removal of said sediment if required.
 17. Removal of standing muddy water from the site shall be accomplished with a pump/filter bag combination or said water will be diverted into existing sediment control devices via a pump.

SEDIMENT & EROSION CONTROL NOTES:

1. Contractor shall be responsible during construction for the continuous maintenance of sediment & erosion control measures as called for in the drawings & per the TN Erosion & Sediment Control Handbook. Contractor shall comply with all local erosion, conservation & siltation ordinances. The Contractor shall comply with all state & local sediment control & air pollution ordinances or rules.
2. Sediment & erosion control facilities, & storm drainage facilities shall be constructed prior to any other construction.
3. Sediment & erosion control measures shall not be removed until all construction is complete & until a permanent ground cover has been established.
4. All graded areas shall be stabilized with a temporary fast growing cover and/or mulch, no later than 2 weeks after earth disturbing activity ends and in those areas where grading activity has ceased & fine grading will not take place for at least 14 days.
5. Existing drainage structures are to be inspected, repaired as needed & cleaned out to remove all silt & debris.
6. If any fines or penalties are levied against the property or property owner because of lack of erosion and/or sediment control, the contractor shall be responsible for payment of such fines or penalties or the cost of any fines or penalties shall be deducted from the contract amount.
7. Off-site vehicle tracking of sediments and the generation of dust during entrance and exit shall be kept to a minimum. A stabilized construction entrance to the construction site shall be provided to reduce the tracking of mud and /or debris. TDEC specifications should be followed to ensure the entrance works as desired. Regular inspections of the construction entrance should be done to ensure it is in proper working order.
8. The contractor shall use whatever measures are required to prevent silt & construction debris from flowing onto adjacent properties. This can be accomplished by small temporary sediment pits, silt fences of steel wire & burlap or barriers of cedar trees and/or bales of straw. Contractor shall remove all temporary erosion control structures upon completion of permanent drainage facilities & the establishment of a stand of grass sufficient to prevent erosion.
9. Contractor shall take all available precautions to control dust. Contractor shall control dust by sprinkling, by applying calcium chloride, or by other methods as directed by engineer and/or owner's representative, at no additional cost to the owner.
10. All site ditches to be cleaned and/or graded to provide proper drainage.
11. All areas not otherwise surfaced are to be seeded, landscaped, mulched & maintained until adequate stand of grass obtained.
12. Seeding & fertilizing rates for temporary & permanent stands of grass shall be per these plans and specs in the TDEC EPSC Handbook 4th Edition, dated August 2012.
13. A site assessment to verify the quality assurance of the erosion prevention and sediment controls installed must be performed by the Engineer or an individual that meets the requirements stated in part 3.1.2 of the Tennessee Construction General Permit, **within one month of construction commencement**. As a minimum, site assessment shall be performed to verify the installation, functionality and performance of the erosion prevention and sediment control measures described in the SWPPP (see part 3.1.2 of the Tennessee Construction General Permit additional requirements)
14. Inspectors performing the required twice weekly inspections must have an active Fundamentals of Erosion Prevention and Sediment Control Level I Certification. A copy of the inspector's certification should be kept on site.
15. Outfall points for stormwater shall be inspected to determine whether the EPSC measures are effective in preventing significant impacts to any receiving waters.
16. Based on the results of the inspection, any inadequate or damaged control measures shall be replaced and /or repaired as needed. Deficiencies must be corrected per these plans and specs in the TDEC EPSC Handbook 4th Edition, dated August 2012.
17. When construction activity has ceased on the project and final stabilization has been achieved, the Notice of Termination (NOT) must be submitted to TDEC to close the General Permit.
18. All records and files noted in the TNCGP must be retained by the permittee for a period of at least three (3) years from the date of the Notice of Termination (NOT) is filed.

NOTE:

A CONSTRUCTION SITE ASSESSMENT OF THE SWPPP SHALL BE PERFORMED IN ACCORDANCE WITH PART 3.1.2 OF THE TENNESSEE CONSTRUCTION GENERAL PERMIT WITHIN ONE MONTH OF CONSTRUCTION COMMENCEMENT.

NOTES

TEMPORARY SEEDING

TEMPORARY SEEDING FOR LATE WINTER & EARLY SPRING		TEMPORARY SEEDING FOR SUMMER		TEMPORARY SEEDING FOR FALL	
SPECIES	RATE (lb/acre)	SPECIES	RATE (lb/acre)	SPECIES	RATE (lb/acre)
RYE	120	RYE	60	RYE	30
		BROWN TOP MILLET	30	WINTER WHEAT	30
SEEDING DATES FEB. 1-MAY 1		SEEDING DATES MAY 15-AUG. 15		SEEDING DATES AUG. 15-DEC. 15	
SOIL AMENDMENTS FOLLOW RECOMMENDATIONS OF SOIL TEST OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER.		SOIL AMENDMENTS FOLLOW RECOMMENDATIONS OF SOIL TEST OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER.		SOIL AMENDMENTS FOLLOW RECOMMENDATIONS OF SOIL TEST OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER.	
MULCH APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NEETING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.		MULCH APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NEETING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.		MULCH APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NEETING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.	
MAINTENANCE REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.		MAINTENANCE REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.		MAINTENANCE REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE. IF NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 lb/ac CRIMSON CLOVER IN LATE FEBRUARY OR EARLY MARCH.	

TS	TEMPORARY SEEDING
	NOT TO SCALE

PERMANENT SEEDING - PREFERRED SEED MIXES			
GENERAL SEEDING AREAS	PLANTING DATES		PREGREGER RATE / MIX (lb/ac PLS)
	BEST	MARGINAL	
Steep Slopes	Aug 15 - Sept 1 Mar 1 - Apr 1	Sept 1 - Sept 15 Apr 1 - June 10	15 browntop millet* (nurse crop) 5 purpletop 10 little bluestem 10 indian grass 2 black-eyed susan 0.5 manard (bergamot) 4 Maryland senna
Shallow Soils	Aug 15 - Sept 1 Mar 1 - Apr 1	Sept 1 - Sept 15 Apr 1 - June 10	15 browntop millet* (nurse crop) 5 purpletop 10 little bluestem 10 broomsedge 2 partridge pea 2 black-eyed susan 0.5 manard (bergamot)
Moderate Slopes	Aug 15 - Sept 1 Mar 1 - Apr 1	Sept 1 - Sept 15 Apr 1 - June 10	15 browntop millet* (nurse crop) 5 purpletop 10 little bluestem 10 indian grass 2 black-eyed susan 0.5 manard (bergamot) 4 Maryland senna
Lawn Areas	Sept 15 - Oct 31 Feb 15 - Apr 15	Oct 31 - Nov 30 Apr 15 - May 15	Annual Ryegrass (nurse crop) 5 Star Fescue Grass Seed Blend Falcon I Tall Fescue Crossfire III Tall Fescue Rebel Tall Fescue Mix

**non-native but do not spread*

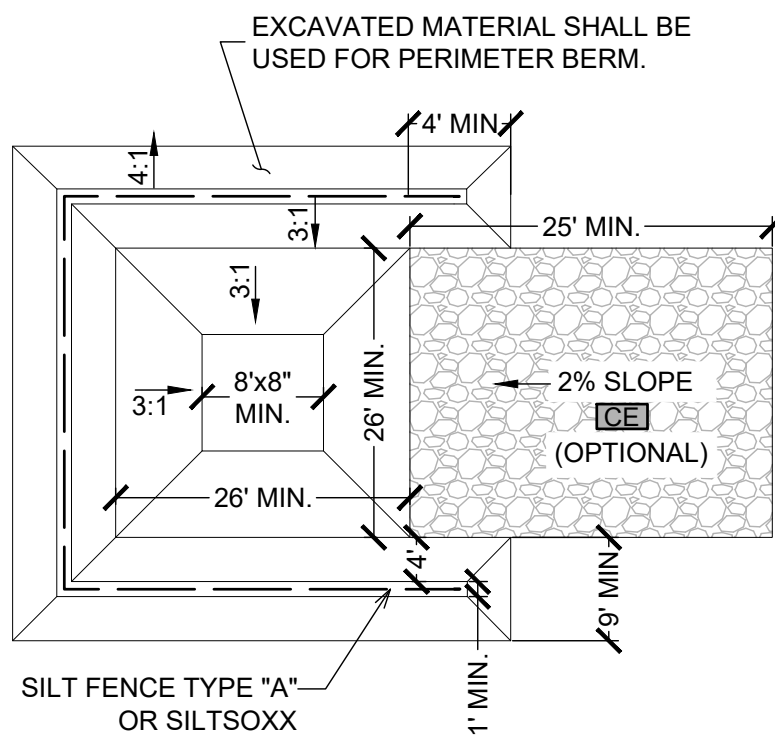
Note:

The bold dates are the preferred dates for seeding.

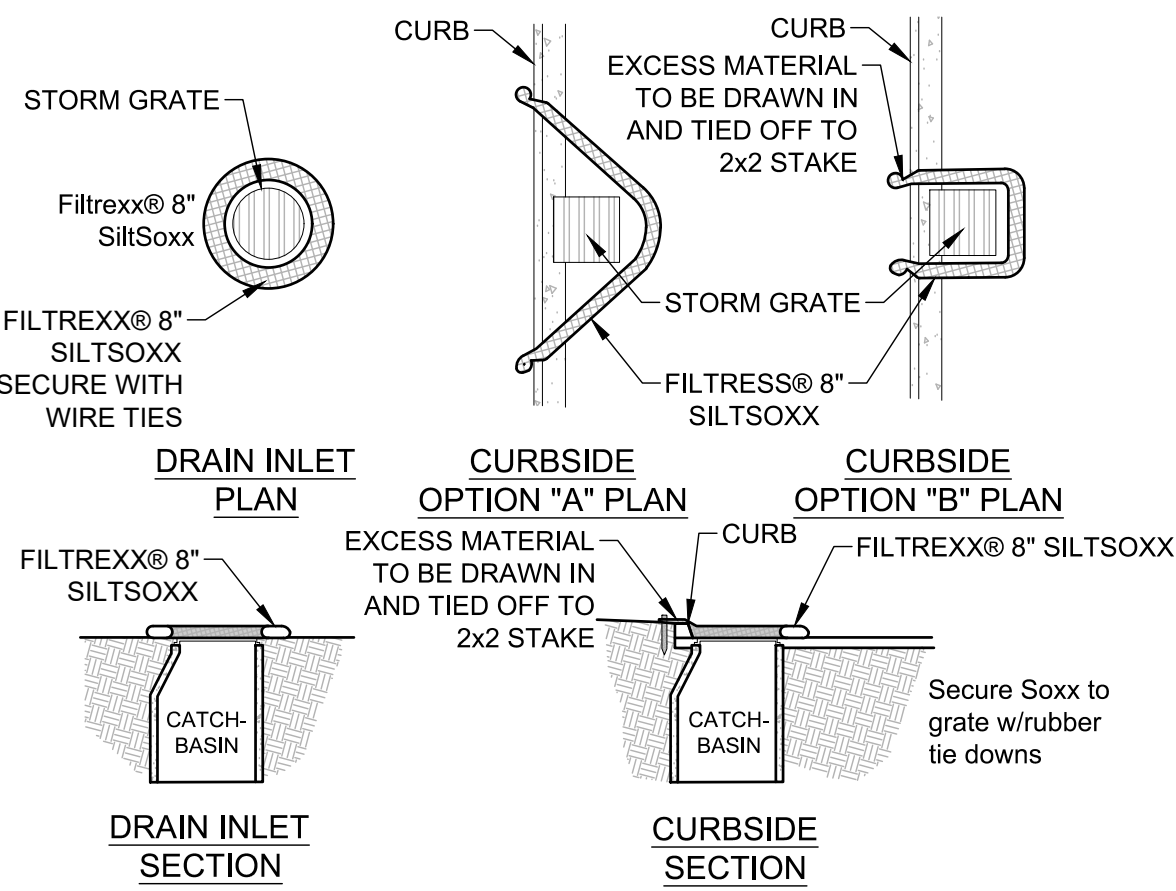
Temporary Seeding may be required when seeding outside of the preferred seeding dates

High maintenance areas include lawns & other grassed areas that will be maintained for aesthetics.

PS PERMANENT SEEDING
NOT TO SCALE



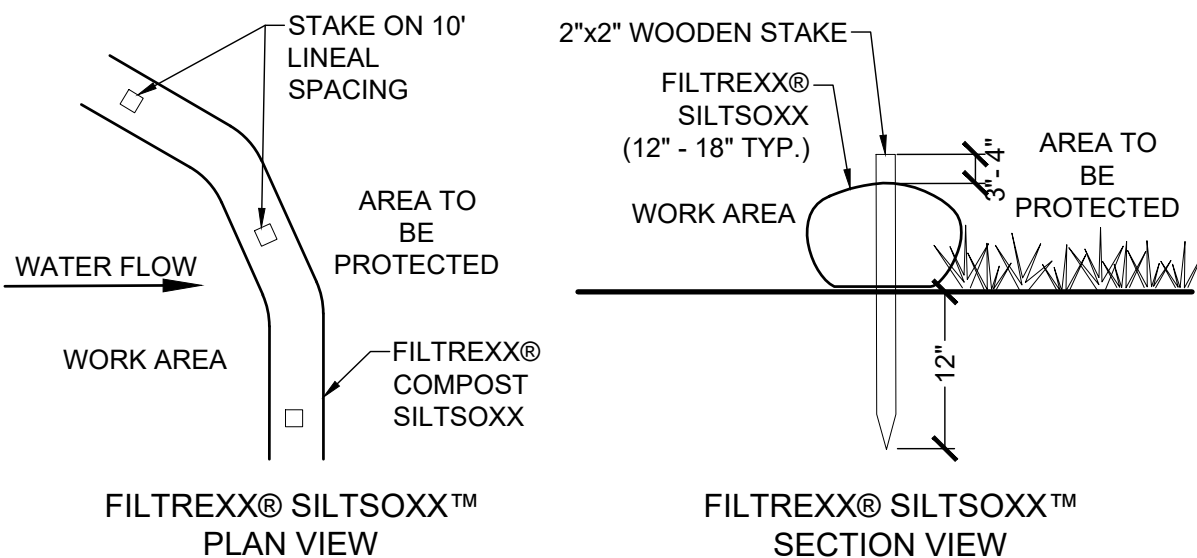
CoW CONCRETE WASH-OUT AREA (1)
NOT TO SCALE



Notes:

1. All material to meet Filtrexx® specifications.
2. SiltSoxx™ compost/soil/rock/seed fill to meet application requirements.
3. Compost material to be dispersed on site after final stabilization of the site.

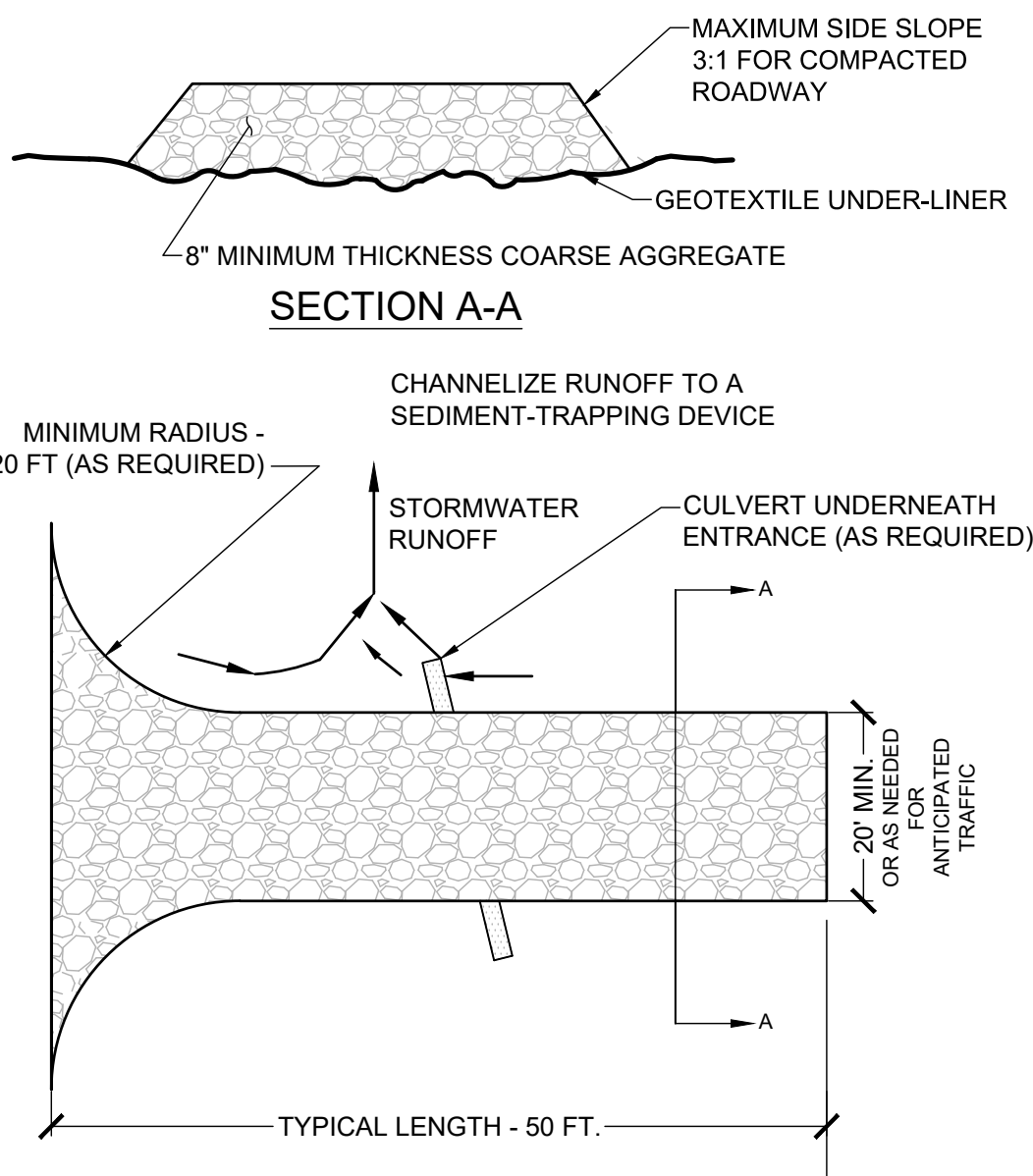
IP-SS	INLET PROTECTION - SILT SOXX NOT TO SCALE
-------	--



Notes:

1. All material to meet Filtrexx® specifications.
2. SiltSoxx™ compost/soil/rock/seed fill to meet application requirements.
3. SiltSoxx™ depicted is for minimum slopes. Greater slopes may require larger socks per the Engineer.
4. Compost material to be dispersed on site after final stabilization of the site.

SF-SS SILT FENCE - SILT SOXX
NOT TO SCALE



CE CONSTRUCTION EXIT
NOT TO SCALE

SITE DATA:

PROPERTY INFORMATION:
TAX MAP #: 148D-D-022
STREET ADDRESS: HICKORY VALLEY RD.
CHATTANOOGA, TN 37421
LOT SIZE: 103,579 SQ. FT. (2.38 AC.)

OWNER:
RIVERSIDE DEVELOPMENT, LLC
LEE HELENA, JR.
1507 WILDER ST.
CHATTANOOGA, TN 37406
423.693.2167
lhelena@riversidedevelopmentllc.com

PROJECT ENGINEER:
ASA ENGINEERING & CONSULTING, INC.
714 CHERRY ST.
CHATTANOOGA, TN 37402
423.805.3700

ZONING INFORMATION:
ZONING CLASSIFICATION: RT-1

FLOOD ELEVATION (100YR):
BASED ON GRAPHIC SCALING AND DETERMINATION. THIS PROPERTY
DOES NOT LIE WITHIN A 100-YEAR FLOOD HAZARD AREA PER FEMA/FIRM
COMMUNITY PANEL NO. 47065C0366G; DATED: 02/03/2016. ZONE "X".

SURVEY INFORMATION:
BOUNDARY AND TOPOGRAPHIC INFO TAKEN
FROM A SURVEY BY ROGER B. RIEMER; ASA ENGINEERING &
CONSULTING, INC.

UTILITIES:

WATER: TENNESSEE AMERICAN WATER COMPANY
1500 RIVERSIDE DRIVE
CHATTANOOGA, TN 37406

ELECTRIC: EPB
PO BOX 182255
CHATTANOOGA, TN 37422

GAS: CHATTANOOGA GAS COMPANY
2207 OLAN MILLS DRIVE
CHATTANOOGA, TN 37421

PHONE: AT&T
300 EAST M.L. KING BLVD
CHATTANOOGA, TN 37403

CABLE: COMCAST CABLE COMMUNICATIONS, INC.
2030 EAST POLYMER DR. (PO BOX 182249)
CHATTANOOGA, TN 37422
CONTACT: MIKE SCHLOTE (855-3900 X2192)

SEWERS: CITY OF CHATTANOOGA - WASTEWATER
455 MOCCASIN BEND RD
CHATTANOOGA, TN 37405

WATER DISTRIBUTION KEY LEGEND

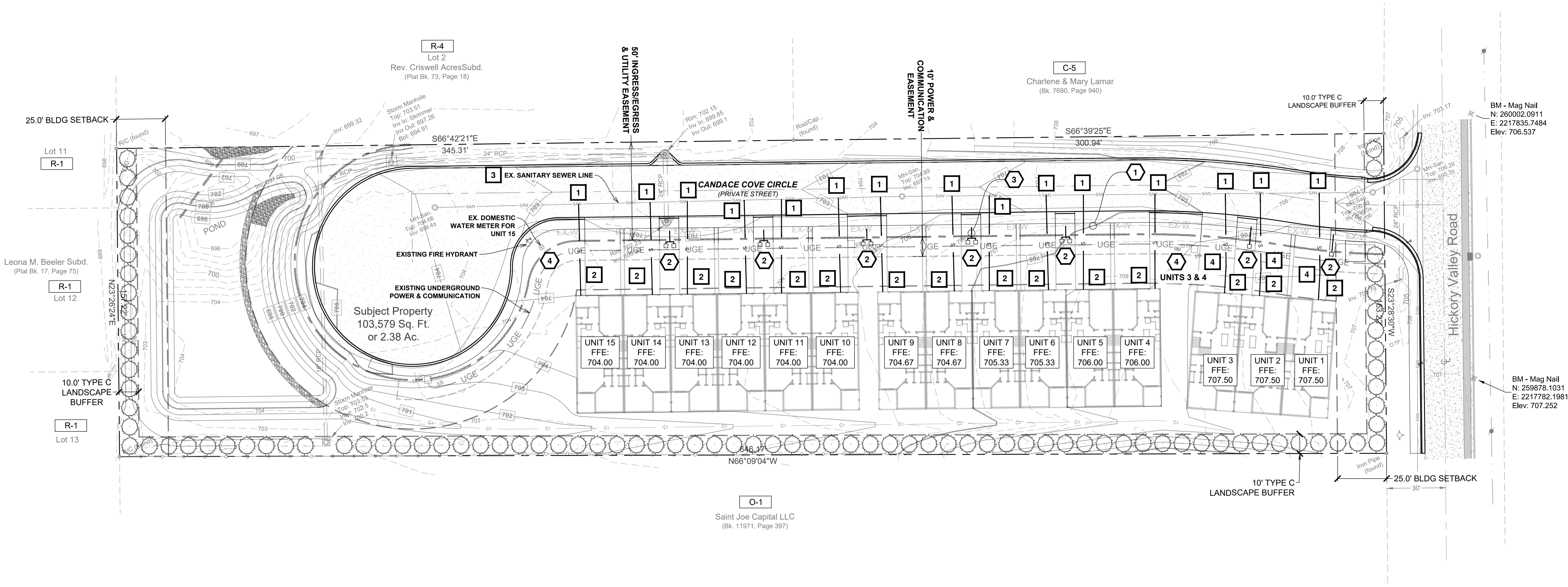
- EXISTING 6" DIP WATER MAIN
- NEW DOMESTIC WATER METERS. COORDINATE
W/ TAWC & MEP PLANS FOR SIZE.
- NEW DOMESTIC WATER SERVICE LINE.
COORDINATE SIZE & MATERIAL W/ MEP PLANS.
- EXISTING DOMESTIC WATER METER. COORDINATE
W/ TAWC & MEP PLANS FOR SIZE TO ENSURE METER
IS IN GOOD WORKING ORDER AND ADEQUATE SIZE.

SANITARY SEWER SERVICE KEY LEGEND

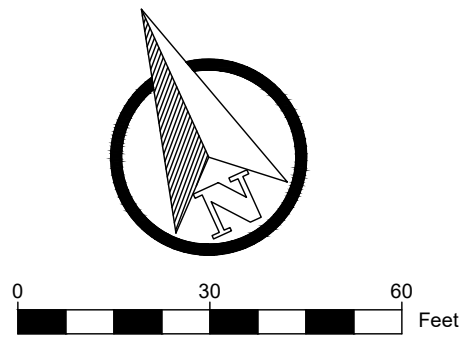
- TIE TO EXISTING SEWER LINE PER CITY STANDARD
DRAWINGS SD-303.01. CONTRACTOR TO VERIFY
CONDITIONS AT TIE-IN AND REPORT ANY
- 4" PVC SANITARY SEWER SERVICE
LINE & CLEANOUT @ S=2% MIN.
- EXISTING 8" PVC SANITARY SEWER LINE
- SANITARY SEWER CLEAN-OUT

UTILITY PLAN KEY TERMS

DIP DUCTILE IRON PIPE
TAWC TENNESSEE AMERICAN WATER
COMPANY
(TYP) TYPICAL
EXIST EXISTING
LF LINEAR FEET



Know what's below.
Call before you dig.



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PROJECT NO. 20-0141

DATE 12/2020

SCALE AS SHOWN

DESIGNED BY ASA

DRAWN BY ASA

CHECKED BY ASA

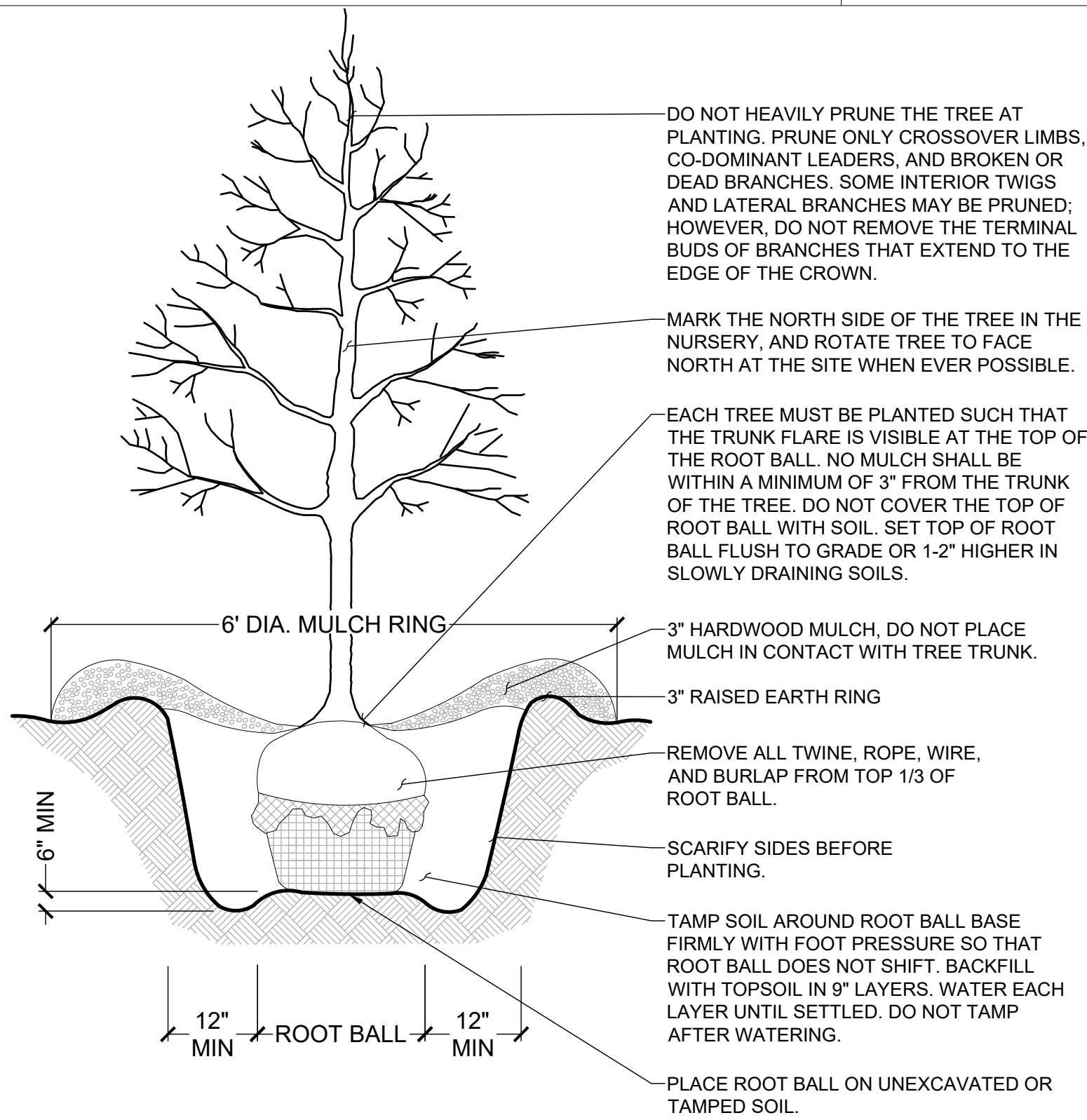
TITLE

UTILITY PLAN

SHEET NO.

C5.0

4/23/2019 1:44:04 PM | J:\01_projects\2020-01-14 hickory valley road townhomes\3_engineering\Civil\Sheet\SD-610.03 CONSTRUCTION DETAILS.dwg |

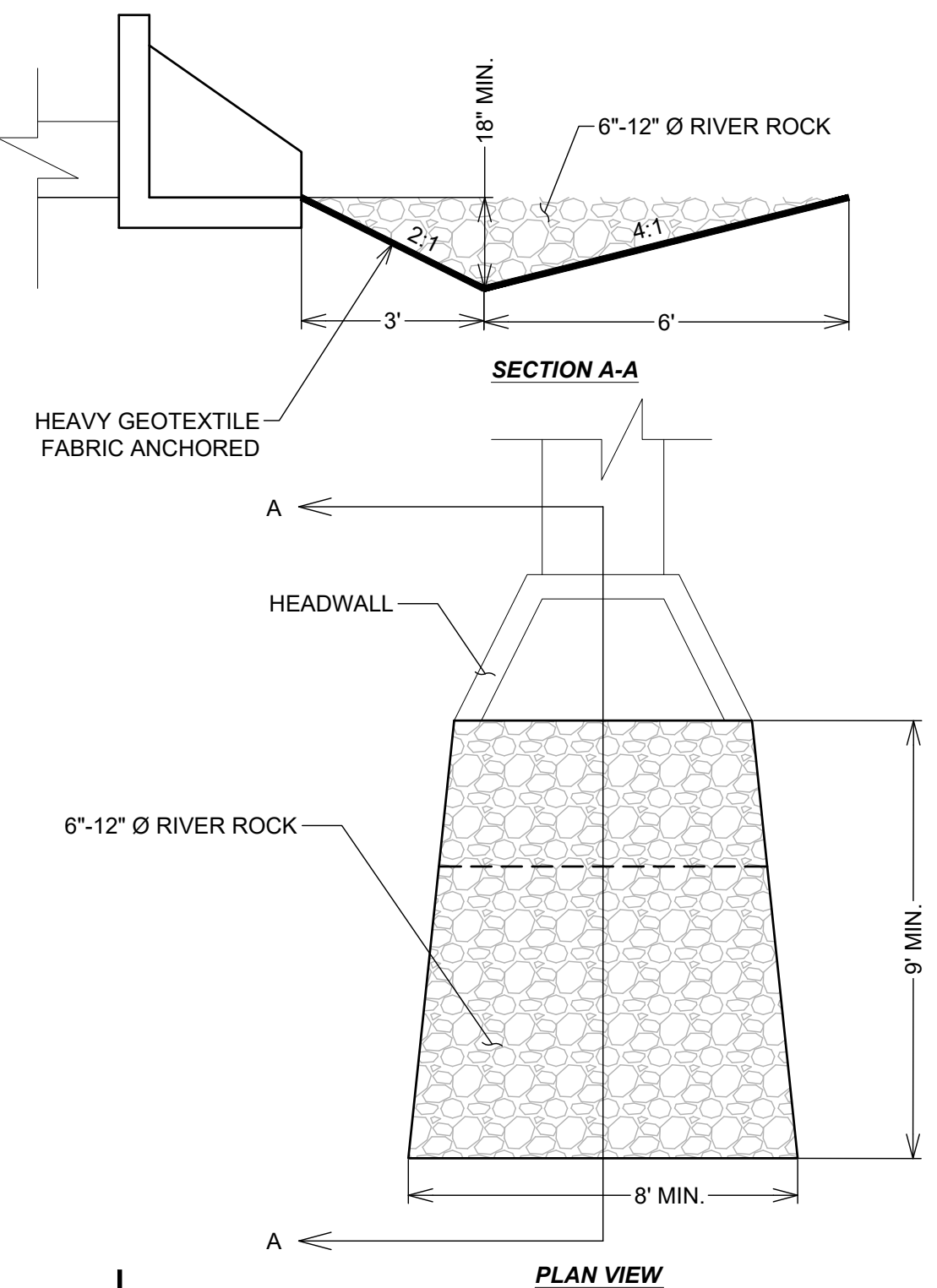


7 TREE PLANTING DETAIL
NOT TO SCALE

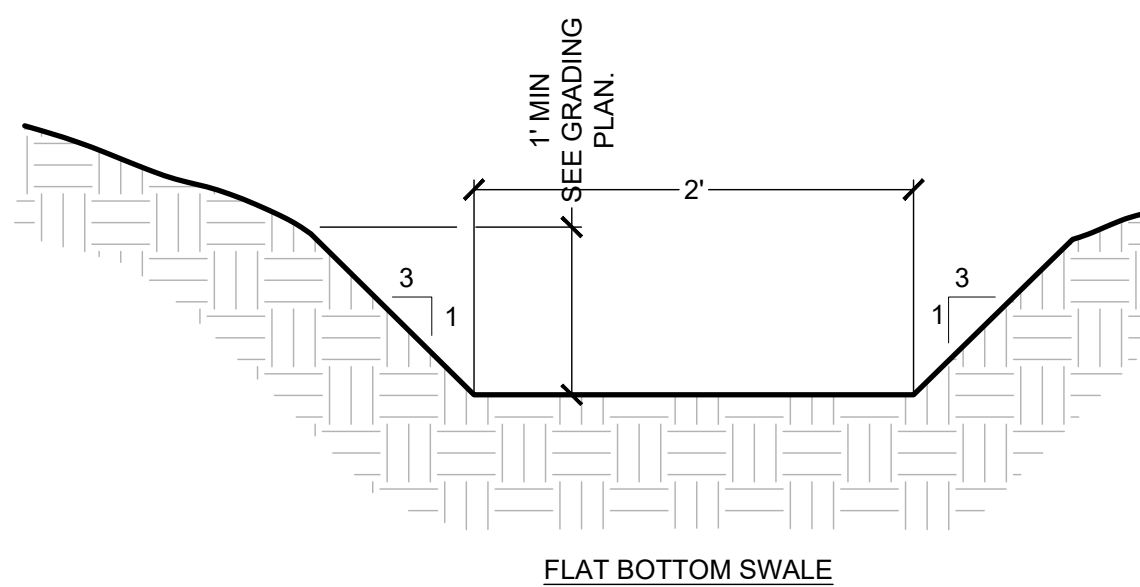
PLANTING NOTES:

- ANY SERIES OF TREES TO BE PLACED IN A PARTICULAR ARRANGEMENT WILL BE FIELD CHECKED FOR ACCURACY. ANY PLANTS MISARRANGED WILL BE RELOCATED.
- SOIL USED IN BACKFILLING PLANTING PITS SHALL BE TOPSOIL AND MIXED WITH 25% PEAT BY VOLUME. EXCEPT FOR ERICACEOUS PLANTS, VERY ACID OR SOUR SOIL (SOIL HAVING A pH LESS THAN 6) SHALL BE MIXED WITH SUFFICIENT LIME TO PRODUCE A SLIGHTLY ACID REACTION (A pH OF 6.0 TO 6.5). 10-10-10 COMMERCIAL FERTILIZER AT THE RATE OF 2 POUNDS PER CUBIC YARD SHALL BE ADDED. BOTH FERTILIZER AND PEAT SHALL BE THOROUGHLY MIXED BY HAND OR ROTARY TILLER.
- SOIL USED IN BACKFILLING ERICACEOUS PLANTS SHALL BE TOPSOIL MIXED WITH 50% PEAT BY VOLUME. 5-10-5 COMMERCIAL FERTILIZER AT THE RATE OF 5 POUNDS PER CUBIC YARD SHALL BE ADDED. BOTH FERTILIZER AND PEAT SHALL BE THOROUGHLY MIXED BY HAND OR ROTARY TILLER.
- UPON SECURING PLANT MATERIAL, AND BEFORE INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT FOR A PRE-INSTALLATION INSPECTION IN ORDER TO VERIFY ALL PLANT MATERIAL MEETS SPECIFICATIONS. TREES OF SAME SPECIES TO BE MATCHED IN GROWTH CHARACTER AND UNIFORMITY.
- PRE-EMERGENT HERBICIDE (TRIFLORAL OR EQUIVALENT) SHALL BE APPLIED TO ALL PLANT BEDS PRIOR TO PLANTING FOR NOXIOUS WEED CONTROL PER MANUFACTURER'S SPECIFICATIONS.
- CONTRACTOR SHALL SUBMIT A 10 OUNCE SAMPLE OF THE TOPSOIL PROPOSED TO A TESTING LABORATORY FOR ANALYSIS. TEST RESULTS, WITH RECOMMENDATIONS FOR SUITABILITY, SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.
- PLANTS SHALL BE ORIENTED FOR BEST APPEARANCE AND VERTICAL. ALL NON-BIODEGRADABLE ROOT CONTAINERS SHALL BE REMOVED.
- TREE BRANCHES SHALL BE SELECTIVELY TRIMMED BY 25%, MAINTAINING NATURAL SHAPE. ALL DEAD AND BROKEN BRANCHES IN TREES AND SHRUBS SHALL ALSO BE PRUNED. REMOVE TAGS, TWINE OR OTHER NON-BIODEGRADABLE MATERIAL.
- SCARIFY SUBSOIL IN PLANTING BEDS TO A DEPTH OF 3 INCHES. ALL PLANTING BEDS SHALL RECEIVE A MINIMUM OF 6 INCHES OF TOPSOIL.
- CONTRACTOR SHALL PROVIDE SMOOTH, NEATLY TRENCHED (3 INCH DEEP) BED EDGES.
- ALL PLANTING BEDS TO HAVE A MINIMUM 3 INCH DEEP HARDWOOD MULCH
- DIMENSIONS FOR TRUNK CALIPER, HEIGHTS, AND SPREAD SPECIFIED ON THE MATERIAL SCHEDULE ARE A GENERAL GUIDE FOR THE MINIMUM REQUIRED SIZE OF EACH PLANT. QUALITY & SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH A.N.S.I. Z80 "AMERICAN STANDARD FOR NURSERY STOCK" (CURRENT EDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- THE QUANTITIES INDICATED ON THE MATERIAL SCHEDULE ARE PROVIDED FOR THE BENEFIT OF THE CONTRACTOR, BUT SHOULD NOT BE ASSUMED TO ALWAYS BE CORRECT. IN THE EVENT OF A DISCREPANCY, THE PLANTING PLAN WILL TAKE PRECEDENCE OVER THE MATERIAL SCHEDULE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS/HER OWN QUANTITY CALCULATIONS AND THE LIABILITY PERTAINING TO THOSE QUANTITIES AND ANY RELATED CONTRACT DOCUMENTS AND/OR PRICE QUOTATIONS.
- CONTRACTOR TO WARRANTY ALL MATERIAL FOR ONE YEAR AFTER DATE OF FINAL ACCEPTANCE.

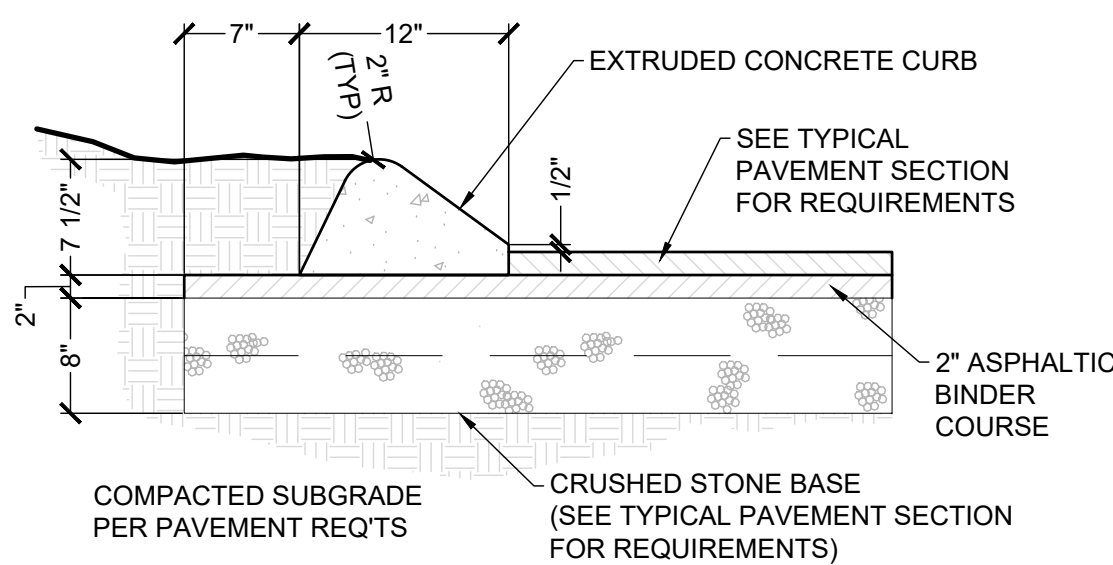
6 LANDSCAPE NOTES



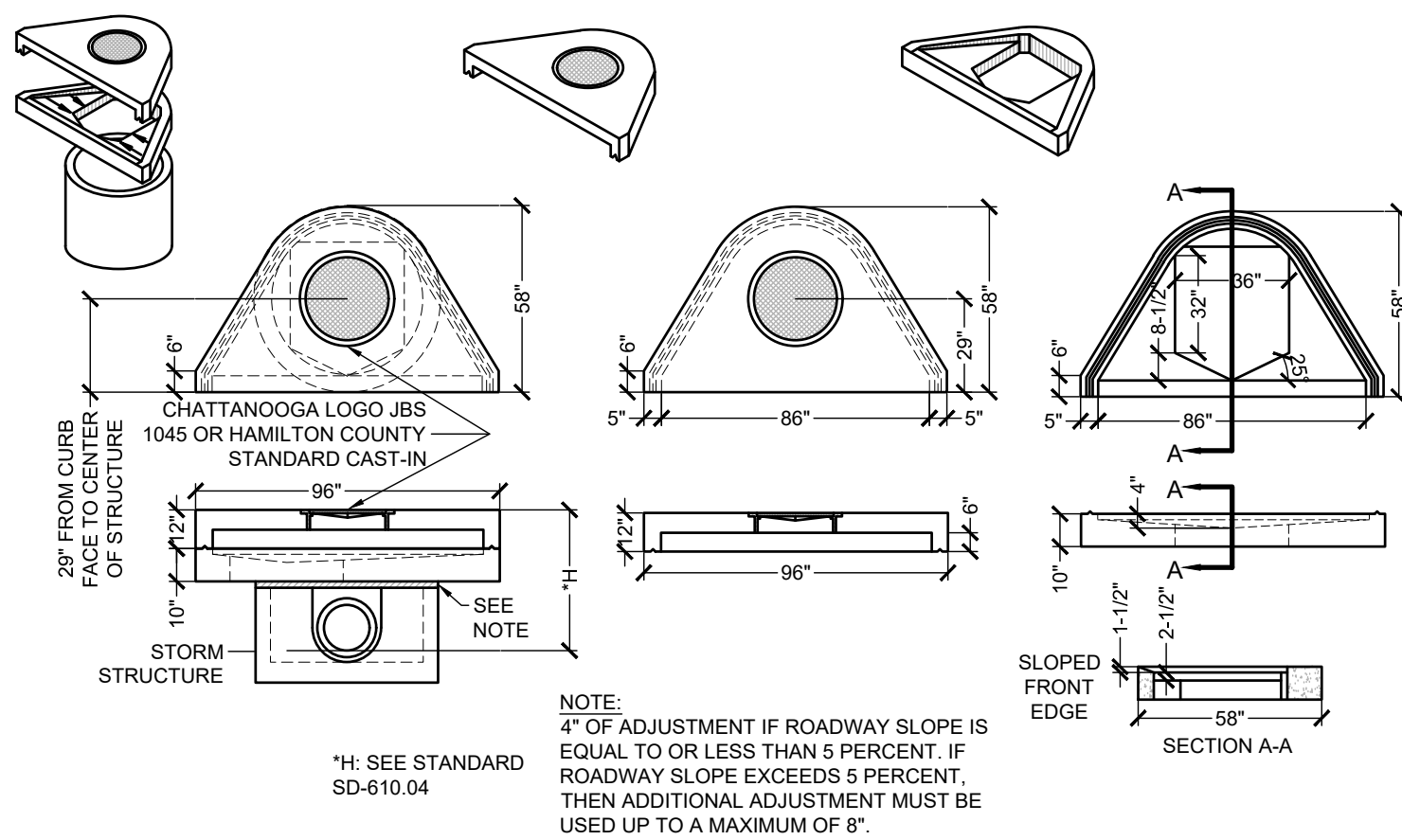
9 LEVEL SPREADER
NOT TO SCALE



8 FLAT BOTTOM SWALE
NOT TO SCALE



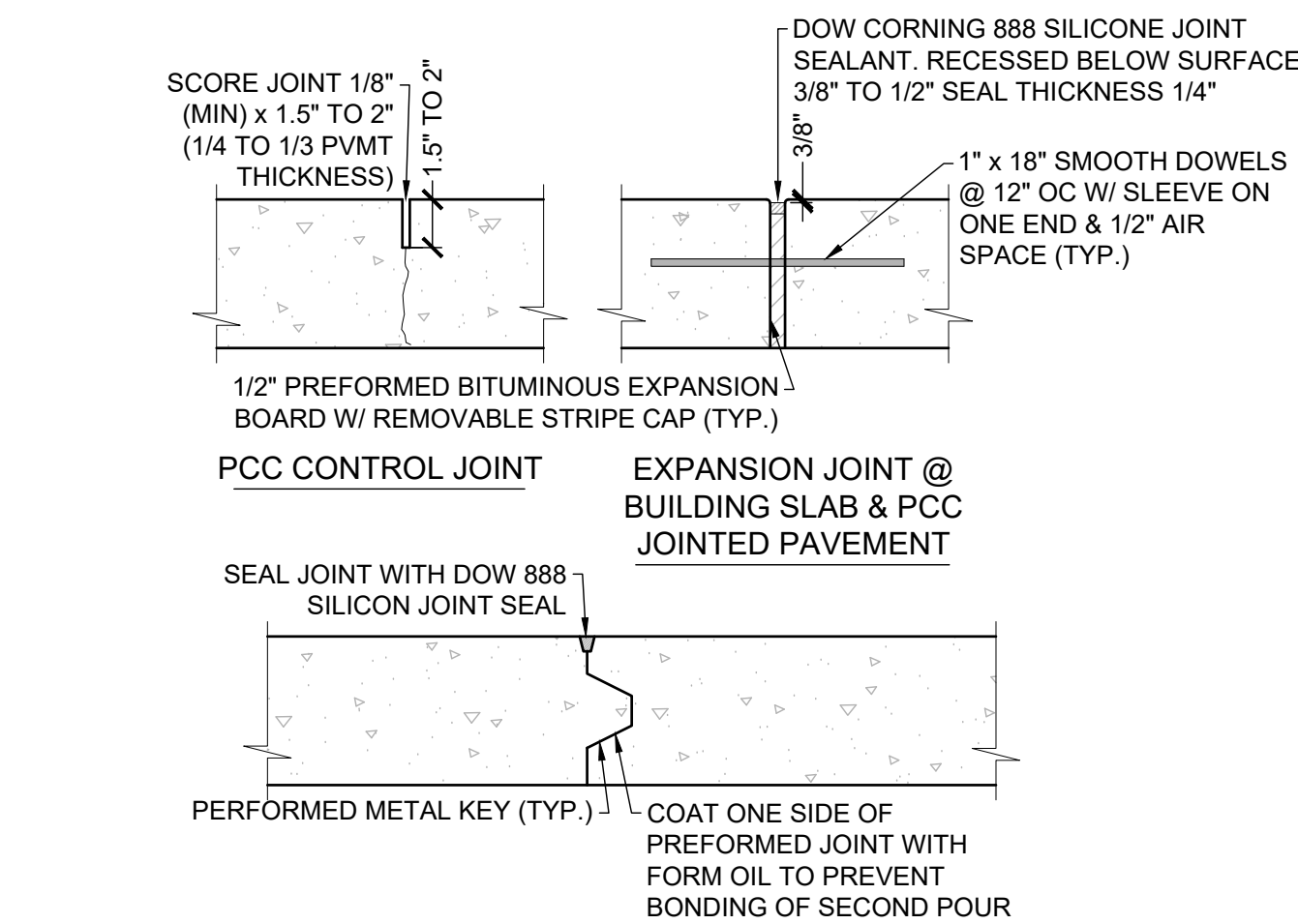
4 EXTRUDED CURB DETAIL
NOT TO SCALE



5 CURB INLET-CENTER (PRECAST CONCRETE) SD-610.03
NOT TO SCALE

SEEDING NOTES:

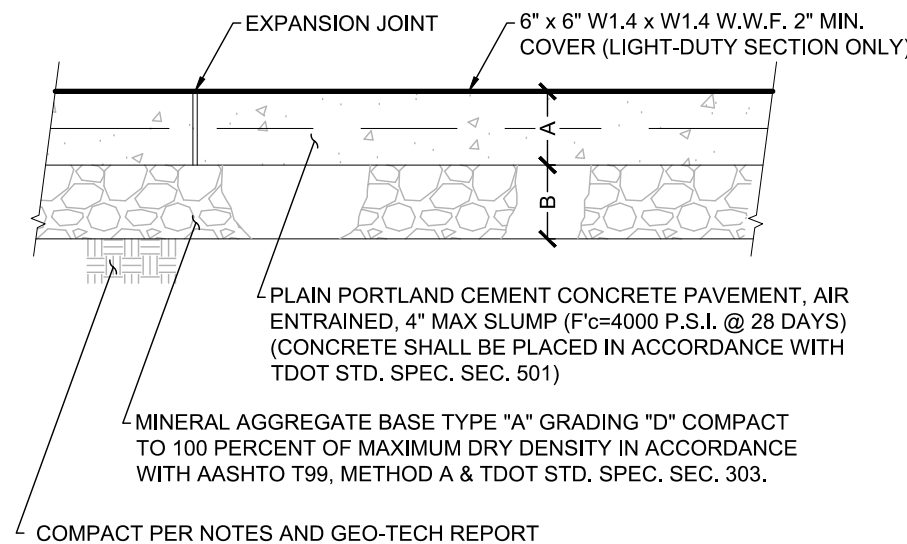
- ALL DISTURBED AREAS TO BE SEEDDED WITH KY-31 FESCUE AT THE RATE OF 5 LBS PER 1,000 S.F. ALL SEED TO BE 98% PURE WITH 85% GERMINATION AND CONFORM TO ALL STATE REQUIREMENTS FOR GRASS SEED. THE FERTILIZER SHALL BE 6-12-12 COMMERCIAL TYPE WITH 50% OF ITS ELEMENTS DERIVED FROM ORGANIC SOURCES.
- STRAW MULCH SHALL BE PLACED UPON SEEDDED AREAS. STRAW SHALL BE OATS OR WHEAT STRAW, FREE FROM WEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE, AND DRY. HAY OR CHOPPED CORNSTALKS ARE NOT ACCEPTABLE.
- THE CONTRACTOR SHALL VERIFY THAT THE PREPARED SOIL BASE IS READY TO RECEIVE WORK. THE TOPSOIL SHALL BE CULTIVATED TO A DEPTH OF 4 INCHES WITH A MECHANICAL TILLER AND SUBSEQUENTLY RAKED UNTIL SMOOTH. FOREIGN MATERIALS COLLECTED DURING CULTIVATION AND RAKING OPERATIONS SHALL BE REMOVED FROM PROJECT SITE.
- FERTILIZER SHALL BE APPLIED PER THE MANUFACTURER'S RECOMMENDATIONS. LIMESTONE MAY BE APPLIED WITH THE FERTILIZER. FERTILIZER SHALL BE APPLIED AFTER SMOOTH RAKING AND PRIOR TO ROLLER COMPACTION AND IT SHALL BE MIXED THOROUGHLY IN THE UPPER 2 INCHES OF TOPSOIL.
- SEED SHALL BE APPLIED EVENLY IN TWO INTERSECTING DIRECTIONS AND RAKED IN LIGHTLY. THE TOPSOIL SHALL BE LIGHTLY WATERED PRIOR TO APPLYING SEED. DO NOT SEED AREA IN EXCESS OF THAT WHICH CAN BE MULCHED ON THE SAME DAY.
- ROLL SEEDDED AREA WITH ROLLER NOT EXCEEDING 112 POUNDS.
- IMMEDIATELY FOLLOWING SEEDING AND COMPACTION, APPLY STRAW MULCH AT THE RATE OF ONE AND ONE HALF BALE PER 1,000 SQUARE FEET. IMMEDIATELY AFTER MULCHING, APPLY WATER WITH A FINE SPRAY AND SATURATE THE GROUND TO A DEPTH OF 4 INCHES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING SEEDDED AREAS TO PREVENT GRASS AND SOIL FROM DRYING OUT UNTIL THE INSTALLATION IS INSPECTED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESEEDING BARE SPOTS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF INSTALLATION.



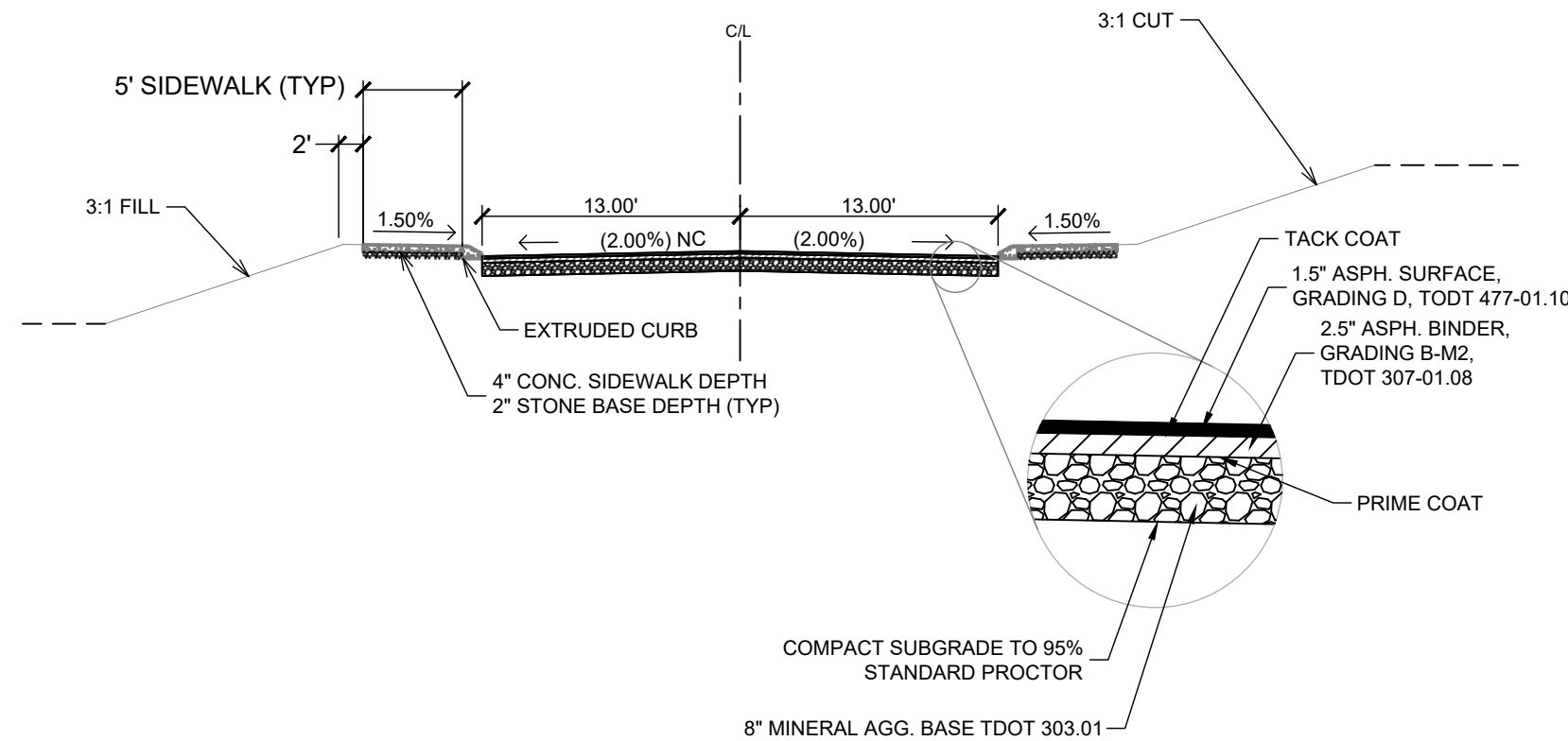
3 JOINTS: CONSTRUCTION, CONTROL & EXPANSION
NOT TO SCALE

NOTES:
REFERENCE STANDARD FOR CITY OF CHATTANOOGA SIDEWALK
SD-202.01, MAX CROSS SLOPE OF 2%

PAVEMENT MATERIALS	SIDEWALK SECTION	HEAVY-DUTY SECTION
CONCRETE PAVEMENT THICKNESS "A"	4.0"	5.0"
AGGREGATE BASE THICKNESS "B"	4.0"	6.0"



2 PAVEMENT - CONCRETE
NOT TO SCALE



TYPICAL SECTION
NTS (TYPICAL ROAD SECTION)

1 PAVEMENT SECTIONS
NOT TO SCALE

SEAL

PRELIMINARY
FOR
REVIEW

HICKORY VALLEY TOWNHOMES
FOR
RIVERSIDE DEVELOPMENT, LLC
CHATTANOOGA, TN 37406

No.	Revision/Issue	Date

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written consent of Asa Engineering & Consulting, Inc.

PROJECT NO. 20-0141

DATE 12/2020

SCALE AS SHOWN

DESIGNED BY ASA

DRAWN BY ASA

CHECKED BY ASA

TITLE

CONSTRUCTION
DETAILS

SHEET NO.

C6.0

APPENDIX D

Outfall Summaries

					
				FRIAR BRANCH OUTFALL	
PROJECT NAME	Hickory Valley Townhomes		DATE	5/6/2021	
ADDRESS	2200 Block Hickory Valley Road Chattanooga, TN 37421				
HYDROLOGIC METHOD USED :	☐ Rational ☐ Modified Rational ☒ SCS				
	w/SCE 24hr storm durations (Check One)				
TOTAL AREA (Acreage)	1.91 (Pre) & 1.97 (Post)				
PRE-CONSTRUCTION CONDITIONS					
Pervious Area, Ac	1.91	C or CN Factor	74	$C_w = 74$	
Impervious Area, Ac	0	C or CN Factor	-		
Time of Concentration	8.9	Method for Tc	Lag/CN		
POST-CONSTRUCTION CONDITIONS					
Pervious Area, Ac	0.74	C or CN Factor	98	$C_w = 91$	
Impervious Area, Ac	1.23	C or CN Factor	80		
Time of Concentration	5.6	Method for Tc	Lag/CN		
RUNOFF RESULTS -					
Storm Event	Pre-Development Peak Flowrate, cfs	Post-Development Peak Flowrate, cfs	Routed/Combined Flowrate, cfs		
2 year	4.14	8.96	2.42		
5 year	5.97	11.31	3.81		
10 year	7.41	13.06	4.82		
25 year	9.63	15.67	6.06		
100 year	13.18	19.70	7.56		
DETENTION VOLUME REQUIRED, cubic feet		13,361 cf			
MULTI-STAGE OUTLET REQUIRED		☒ Yes ☐ No			
WATER QUALITY TREATMENT VOLUME, cf		4,438 cf			
WATER QUALITY TREATMENT METHOD		Infiltration			
PROFESSIONAL ENGINEER CERTIFICATION					
NAME		Micah Duffey, PE			
SIGNATURE					
TN PE LICENSE		112893			



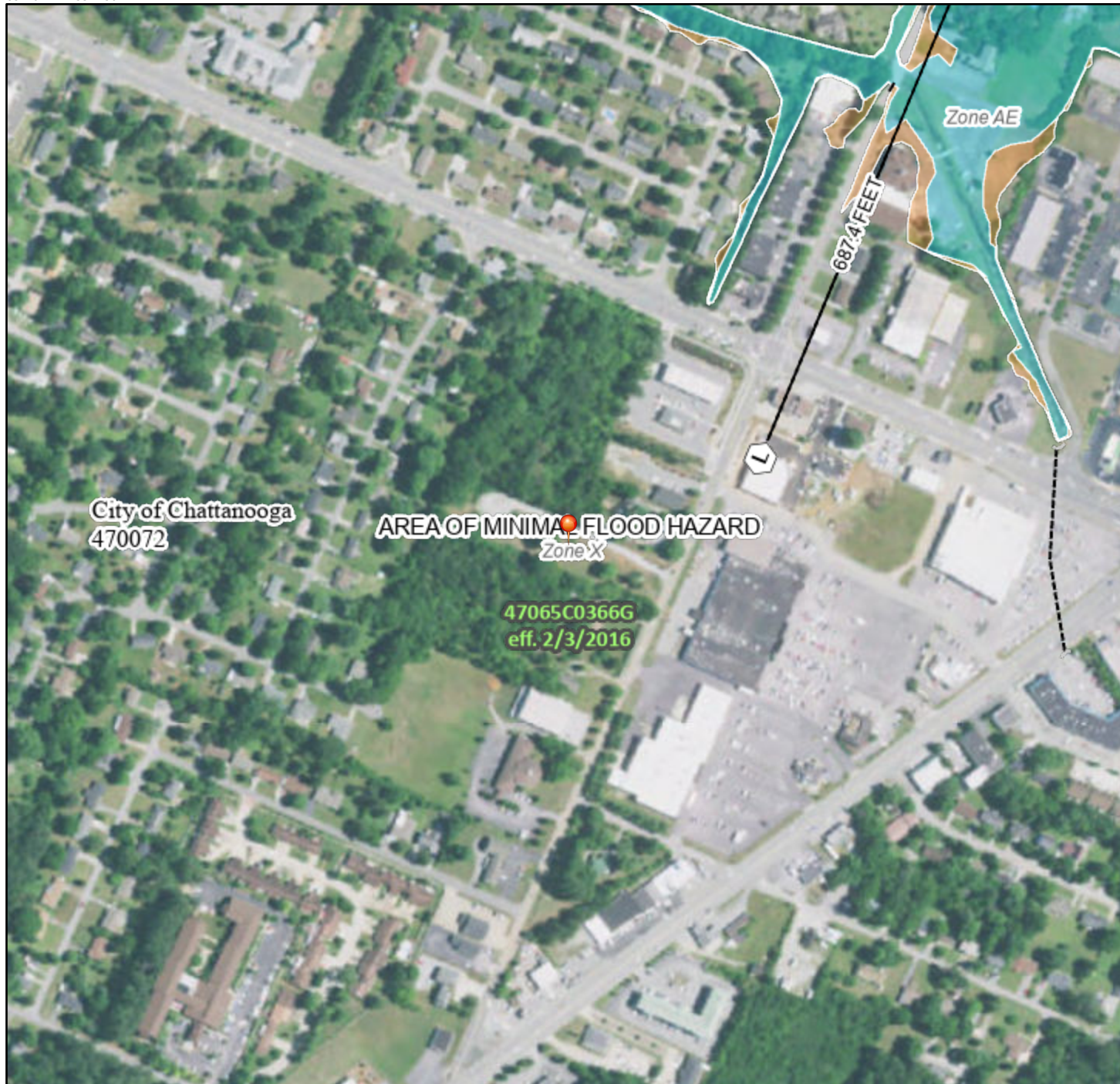
APPENDIX E

FEMA Flood Map

National Flood Hazard Layer FIRMette



85°10'24"W 35°2'56"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **5/7/2021 at 8:37 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX F

Storm Water Inspection Report



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

1-888-891-8332 (TDEC)

General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

Construction Stormwater Inspection Certification (Twice-Weekly Inspections)

Site or Project Name:		NPDES Tracking Number: TNR
Primary Permittee Name:		Date of Inspection:
Current approximate disturbed acreage:	Has rainfall been checked/documentd daily? Yes No	Name of Inspector:
Current weather conditions:		Inspector's Training Certification Number:

Please check the box if the following items are on-site:

Notice of Coverage (NOC)	Stormwater Pollution Prevention Plan (SWPPP)	Twice-weekly inspection documentation
Site contact information	Rain Gage	Off-site Reference Rain Gage Location: _____

Best Management Practices (BMPs):

Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly: If "No," describe below in Comment Section

1. Are all applicable EPSCs installed and maintained per the SWPPP?	Yes	No
2. Are EPSCs functioning correctly at all disturbed areas/material storage areas per section 4.1.5?	Yes	No
3. Are EPSCs functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream, and no other water quality impacts per section 5.3.2?	Yes	No
4. Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track out?	Yes	No
5. If applicable, have discharges from dewatering activities been managed by appropriate controls per section 4.1.4? If "No," describe below the measures to be implemented to address deficiencies.	Yes	No
6. If construction activity at any location has temporarily/permanently ceased, was the area stabilized within 14 days per section 3.5.3.2? If "No," describe below each location and measures taken to stabilize the area(s)	Yes	No
7. Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters per section 4.1.5? If "No," describe below the measures to be implemented to address deficiencies.	Yes	No
8. If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No," describe below the measures to be implemented to address deficiencies.	N/A	Yes No
9. Have all previous deficiencies been addressed? If "No," describe remaining deficiencies in Comment section. Check if deficiencies/corrective measures have been reported on a previous form.	Yes	No

Comment Section. If the answer is "No" for any of the above, please describe the problem and corrective actions to be taken. Otherwise, describe any pertinent observations:

Certification and Signature (must be signed by the certified inspector and the permittee per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Inspector Name and Title:	Signature:	Date:
Primary Permittee Name and Title:	Signature:	Date:

Construction Stormwater Inspection Certification Form (Twice-Weekly Inspections)

Purpose of this form/ Instructions

An inspection, as described in section 3.5.8.2. of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at least twice every calendar week and documented on this form. Inspections shall be performed at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice), such inspection only has to be conducted once per month until thawing results in runoff or construction activity resumes.

As described in section 3.5.8.1 of the Permit, inspectors performing the required twice weekly inspections must have an active certification by completing the "Fundamentals of Erosion Prevention and Sediment Control Level I" course (<http://www.tnepsc.org/>). Twice weekly inspections can also be performed by: a licensed professional engineer or landscape architect; a Certified Professional in Erosion and Sediment Control (CPESC) or a person who has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course. A copy of the certification or training record for inspector certification should be kept on site.

Qualified personnel, (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.

Outfall points (where discharges leave the site and/or enter waters of the state) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event if possible, but in no case more than 7 days after the need is identified.

Based on the results of the inspection, the site description identified in the SWPPP in accordance with section 3.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 3.5.2 of the Permit, shall be revised as appropriate, but in no case later than 7 days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.

All inspections shall be documented on this Construction Stormwater Inspection Certification form. Alternative inspection forms may be used as long as the form contents and the inspection certification language are, at a minimum, equivalent to the division's form and the permittee has obtained a written approval from the division to use the alternative form. Inspection documentation will be maintained on site and made available to the division upon request. Inspection reports must be submitted to the division within 10 days of the request.

Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.

APPENDIX G

Notice of Termination

**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)**

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-TDEC (8332)**Notice of Termination (NOT) for General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)**

This form is required to be submitted when requesting termination of coverage from the CGP. The purpose of this form is to notify the TDEC that either all stormwater discharges associated with construction activity from the portion of the identified facility where you, as an operator, have ceased or have been eliminated; or you are no longer an operator at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the local DWR Environmental Field Office (EFO) address (see table below). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Type or print clearly, using ink.

Site or Project Name:	NPDES Tracking Number: TNR
Street Address or Location:	County(ies):

Name of Permittee Requesting Termination of Coverage:

Permittee Contact Name:	Title or Position:		
Mailing Address:	City:	State:	Zip:
Phone:	E-mail:		

Check the reason(s) for termination of permit coverage:

☐	Stormwater discharge associated with construction activity is no longer occurring and the permitted area has a uniform 70% permanent vegetative cover OR has equivalent measures such as rip rap or geotextiles, in areas not covered with impervious surfaces.
☐	You are no longer the operator at the construction site (i.e., termination of site-wide, primary or secondary permittee coverage).

Certification and Signature: (must be signed by president, vice-president or equivalent ranking elected official)

I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

For the purposes of this certification, elimination of stormwater discharges associated with construction activity means that all stormwater discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have been eliminated from the portion of the construction site where the operator had control. Specifically, this means that all disturbed soils at the portion of the construction site where the operator had control have been finally stabilized, the temporary erosion and sediment control measures have been removed, and/or subsequent operators have obtained permit coverage for the site or portions of the site where the operator had control.

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Permittee name (print or type):	Signature:	Date:
---------------------------------	------------	-------

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett, TN	38133	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	1301 Riverfront Parkway, Ste. 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

FW: Hickory Valley Townhomes CGP Application

Jason Dees <Jason.Dees@tn.gov>

Fri 5/14/2021 2:58 PM

To: Barbara Russell <Barbara.Russell@tn.gov>; Cali Dobbins <Cali.Dobbins@tn.gov>

 1 attachments (11 MB)

SWPPP Report Hickory Valley TownhomesRev1.pdf;

Upload please.

From: Micah Duffey <mduffey@asaengineeringinc.com>

Sent: Friday, May 14, 2021 11:29 AM

To: Jason Dees <Jason.Dees@tn.gov>; lhelena@riversidedevelopmentllc.com

Cc: Allen Jones <ajones@asaengineeringinc.com>

Subject: [EXTERNAL] RE: Hickory Valley Townhomes CGP Application

Entire report updated with correct coordinates. Thanks again, have a great weekend!
Micah

Micah Duffey, P.E.

Project Manager

Asa Engineering & Consulting, Inc.

www.asaengineeringinc.com

From: Micah Duffey

Sent: Friday, May 14, 2021 11:18 AM

To: Jason Dees <Jason.Dees@tn.gov>; lhelena@riversidedevelopmentllc.com

Cc: Allen Jones <ajones@asaengineeringinc.com>

Subject: RE: Hickory Valley Townhomes CGP Application

Jason,

My apologies. Attached is the correct map with the correct coordinates [LAT:35.0446; LON:85.1673](#). You are correct a map from another project did get accidentally placed in this one. Again my apologies on this mix up, I'll get this printed and to your office today. Thanks!

Micah

Micah Duffey, P.E.

Project Manager

Asa Engineering & Consulting, Inc.

www.asaengineeringinc.com

From: Jason Dees <Jason.Dees@tn.gov>

Sent: Friday, May 14, 2021 11:03 AM

To: Micah Duffey <mduffey@asaengineeringinc.com>; lhelena@riversidedevelopmentllc.com

Subject: Hickory Valley Townhomes CGP Application

Micah – Take a look at your coordinates and maps. I think another project got shuffled into this one.



Jason Dees | Environmental Consultant
Division of Water Resources/Chattanooga Environmental Field Office
1301 Riverfront Parkway, Suite 206
Chattanooga, TN 37402
p. 423-497-6125
Jason.Dees@tn.gov
tn.gov/environment

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