

20. PROJECT SHALL COMPLY WITH CAPE FEAR PUBLIC UTILITY AUTHORITY CROSS CONNECTION

CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS

ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.

21. IF THE CONTRACTOR DESIRES CFPUA WATER FOR CONSTRUCTION HE SHALL APPLY IN

BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.

ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ)

22. ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH CFPUA

CROSS CONNECTION CONTROL REGULATIONS. CALL 343-3910 FOR INFORMATION.

23. ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.

24. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON

25. CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES

26. CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL

27. UNDERGROUND FIRE LINES MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE

28. CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO ANY

29. ANY PVC MAINS ARE TO BE MARKED WITH NO.10 INSULATED COPPER WIRE INSTALLED

FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-341-0696.

DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON

THE ENTIRE LENGTH AND ATTACHED TO THE PIPE AND STRIPPED TO BARE WIRE AND

SECURED TO ALL VALVES AND FITTINGS, ACCESSIBLE IN ALL VALVE AND METER BOXES. ALL

AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.

THE LIST OF APPROVED DEVICES BY USCFCCCHR OR ASSE.

WATER MAINS SHALL MAINTAIN A MINIMUM OF 3' OF COVER.

TIMES DURING CONSTRUCTION.

DIGGING, CLEARING OR GRADING.

TO REQUEST INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET

9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL

13. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. IN CERTAIN

14. ANY BROKEN OR MISSING SIDEWALK, DRIVEWAY PANELS OR CURBING SHALL BE

15. PRIOR TO ENTERING ANY AGREEMENT REGARDING THE SALE OF A HOUSE OR LOT IN A

16. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH

17. CONTACT THE CITY AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS. PROPOSED

10. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE

11. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.

MAINTAINED BY THE OWNER IN ACCORDANCE WITH MUTCD STANDARDS.

12. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.

CASES ENTIRE RESURFACING OF THE OPEN CUT AREA MAY BE REQUIRED.

SUBDIVISION, THE BUYER MUST RECEIVE A STREET DISCLOSURE STATEMENT

REPLACED WHETHER DAMAGED DURING CONSTRUCTION OR DAMAGE WAS EXISTING.

6. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS

OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC

7. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL

TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.

8. CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY

CONTROL DEVICES) STANDARDS.

EXCAVATION IN THE RIGHT-OF-WAY.

CLEAR VISUAL SITE LINES FROM 30" TO 10'

APPROXIMATE LOCATIONS SHOWN ON PLANS.

NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.

Fire & Life Safety Notes:

of hydrants and FDC.

1. New Hanover County Parcel Nos.:

2. Project Tract Area: 5.78 ac.±

3. Existing Zoning District: R-20

CAMA Land Classification:

Provided: 0.58 acres

Recreational Space:

Setbacks - 30' Street

Watershed Resource Protection

General Notes:

2. Residences will not have a sprinkler systems.

3. Landscaping or parking can not block or impede the

FDC or fire hydrants. A 3-foot (3') clear space

shall be maintained around the circumference

315606.48.6530 [R06300-001-015-000]

315607 58 7183 [R06300-001-015-001]

20' Corner Side

Required: 8 SF units x .03 acres = 0.24 acres

15' Interior Side

Construction Type - 5B

Tree Preservation Notes:

to clearing & land disturbance.

requirements and methods.

Development Notes:

Code (LDC).

1. All development shall be in accordance with

2. All common area, inclusive of recreation space,

3. Clearing limits will be limited to what is needed

Homeowners' Association.

4. Infiltration basins shall be constructed as individual lots are developed.

Maximum structure height = 35'.

the City of Wilmington Land Development

shall be dedicated to and maintained by a

to install the sidewalk within the existing public

right-of-way and sidewalk easement. Individual lot clearing

will be at the discretion & permitting of the future lot owners.

1. Tree Preservation / Removal Permit is required prior

2. Prior to any clearing, grading or construction activity, tree

protection fencing will be installed around protected trees or

3. Protective fencing is to be maintained throughout the duration

4. Label protective fencing with signs to be placed every 50

& Spanish "Tree Protection Area: Do Not Enter."

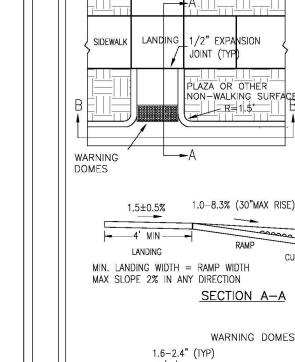
linear feet, or at least two (2) per area, in both English

of the project. Land clearing and construction contractors

shall receive adequate instruction on tree protection

groves of trees and no construction workers, tools, materials,

or vehicles are permitted within the tree protection fencing.



DATE: DECEMBER, 2010

DRAWN: PB/JSR

SCALE NOT TO SCALE

CHECKED: DEC

SECTION B-B CURB AND GUTTER 4' MIN SECTION A-A SECTION C-C CURB WARNING DOMES TRUNCATED DOMES BASE DIAMETER 0.9-1.4'
TOP DIAMETER 50-60% RAMP WIDTH WARNING DOME NOTES: 1. USE CONTRASTING COLORS, RED OR BLACK ON WHITE PAVEMENT. 2. USE CAST IN PLACE PAVERS FOR NEW CONSTRUCTION. . RUBBER MATS ARE PERMITTED FOR RETROFITS. 4. LANDING AND RAMP WIDTH MAY BE REDUCED TO 3' WHERE SPACE

PERPENDICULAR CURB

RAMP

ADJACENT TO PLAZA

WARNING

IS LIMITED AND DESIGN IS APPROVED BY THE CITY ENGINEER. STANDARD DETAIL

WILMINGTON NORTH CAROLINA

SD3-08

CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807

→A ROUNDED CONCRETE

SURFACE

400' MAXIMUM LENGTH TO FURTHEST UNIT FROM PUBLIC STREET. . SERVES A MAXIMUM OF 4 RESIDENTIAL UNITS. 23' WIDTH REQUIRED AT STREET INTERSECTION. 4. RESIDENTIAL USE ONLY. NOT FOR COMMERCIAL USF. 5. INVERTED CROWN OR SUPERELEVATED SECTION MAY BE APPROVED BY CITY ENGINEER.

SECTION

EXTEND ABC

AVEMENT EDGE -

DATE: NOV. 4, 2019

DRAWN BY JSR

CHECKED BY D.E.C., P.E.

SCALE ____NOT TO SCALE

1' BEYOND

EAAABBBBBBBBBBB

6"AGGREGATE

BASE COURSE

WILMINGTON NORTH CAROLINA

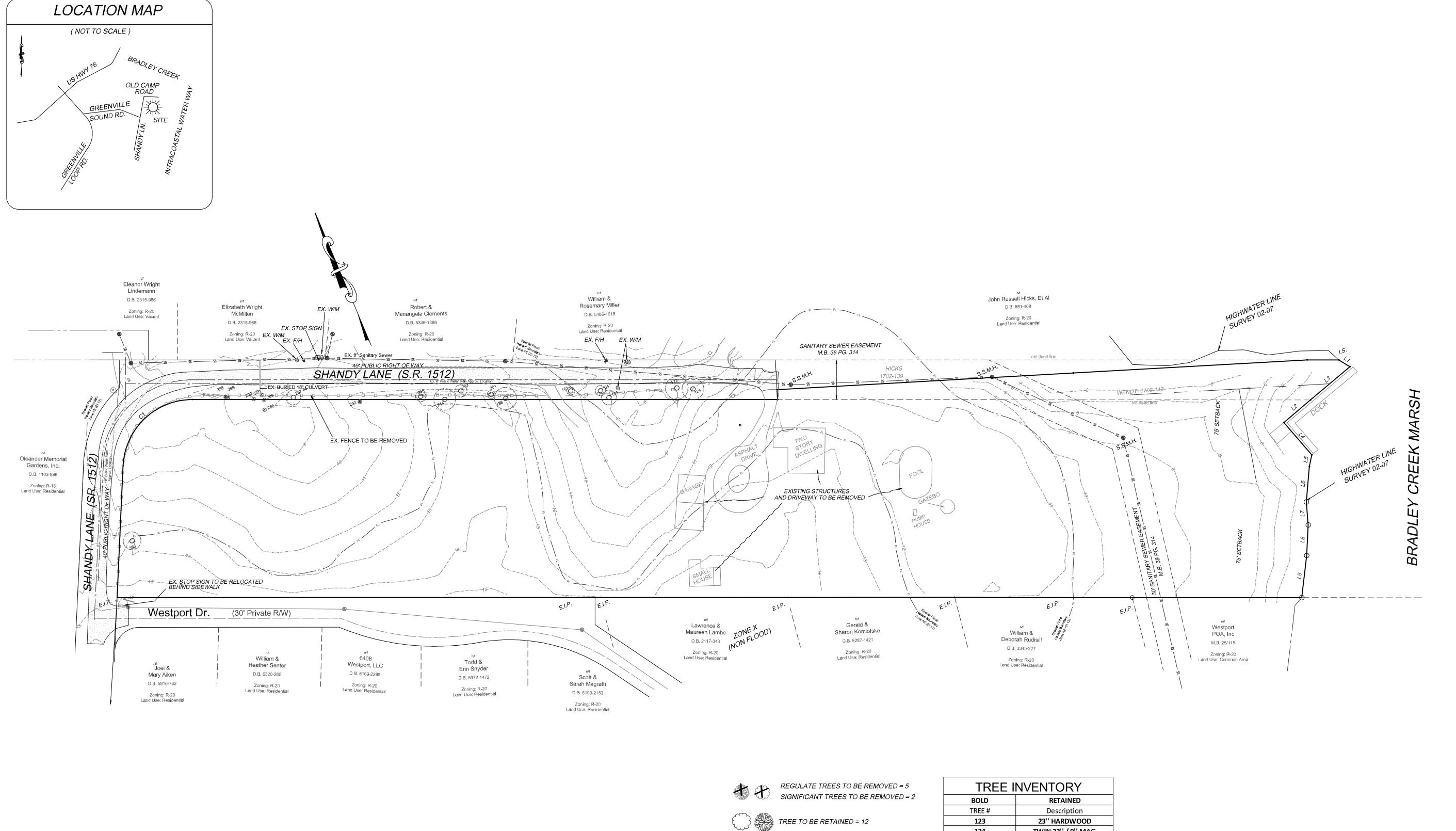
SD 1-14

STANDARD DETAIL

PRIVATE ACCESS

EASEMENT

SITE PLAN



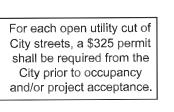


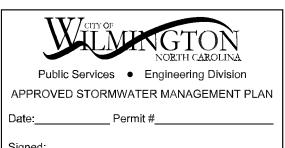
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- 1. AREA COMPUTED BY COORDINATE METHOD
- 2. ALL DISTANCES ARE HORIZONTAL
- 3. FOR REFERENCE SEE DEED BOOK 2869 PAGE 830, DEED BOOK 2544 PAGE 397, MAP BOOK 38 PAGE 314 CURRENT DEED BOOK 5263 PAGE 987
- 4. SURVEYED : DECEMBER 2006 AND AUGUST 29, 2007
- 5. 5.78 ACRES TOTAL AREA
- 6. THIS PROPERTY IS NOT LOCATED WITHIN 2000' OF AN
- EXISTING N.C. GRID MONUMENT
- 7. A.E.C. (AREA OF ENVIRONMENTAL CONCERN) SETBACK MUST BE REVIEWED AND APPROVED BY THE CITY OF WILMINGTON

LEGEND

E.I.P. = EXISTING IRON PIPE E.C.M. = EXISTING CONCRETE MONUMENT S.S.M.H. = SANITARY SEWER MAN HOLE I.S. = IRON SET





	Approved Constr	uction Plan
	Name	Date
Planning		
Traffic _		
Fire		

BOLD	RETAINED
TREE #	Description
123	23" HARDWOOD
124	TWIN 22'' / 9'' MAG
153	15" HARDWOOD
154	10.5" HARDWOOD
161	8" HARDWOOD
186	TWIN 22.5" / 9" OAK
201	TWIN 8" / 6.5" MAG
202	12.5'' MAG
214	22'' OAK
214 215	22" OAK 10.5" MAG
215	10.5'' MAG
215 232	10.5" MAG 19" PINE
215 232 267	10.5" MAG 19" PINE TWIN 14" / 15" MAG
215 232 267 271	10.5" MAG 19" PINE TWIN 14" / 15" MAG 10" HARDWOOD
215 232 267 271 288	10.5" MAG 19" PINE TWIN 14" / 15" MAG 10" HARDWOOD 12.5" MAG
215 232 267 271 288 289	10.5" MAG 19" PINE TWIN 14" / 15" MAG 10" HARDWOOD 12.5" MAG 8" HARDWOOD

TWIN 16"/ 18" OAK

LINE	BEARING	DISTANC
L1	S 35°38'37" E	13.1
L2	S 72°42'21" W	35.3
L3	S 72°42'21" W	51.9
L4	S 18°02'03" E	43.1
L5	S 34°54'01" W	12.2
L6	S 27°45'55" W	35.7
L7	S 18°18'21" W	23.3
L8	S 25°51'07" W	30.9
L9	S 29°31'47" W	42.6

CURVE	RADIUS	ARC L.	CHORD L.	CHORD BEARING	TANGENT
C1	70.00'	106.80'	96.74'	N 69°12'30" E	66.91'

2 of 4

POINTE

3-2-21

HORZ.: 1"= 50"

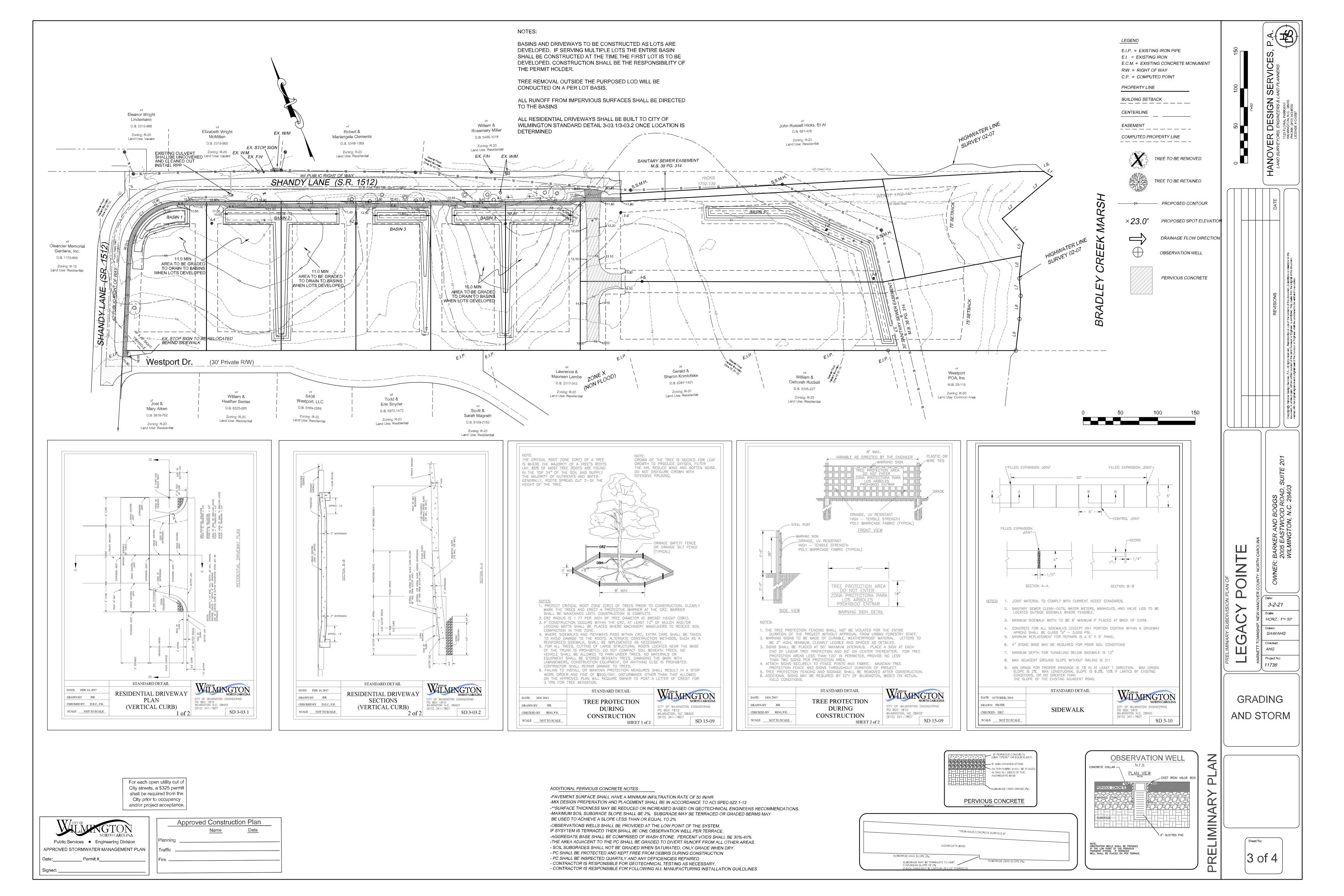
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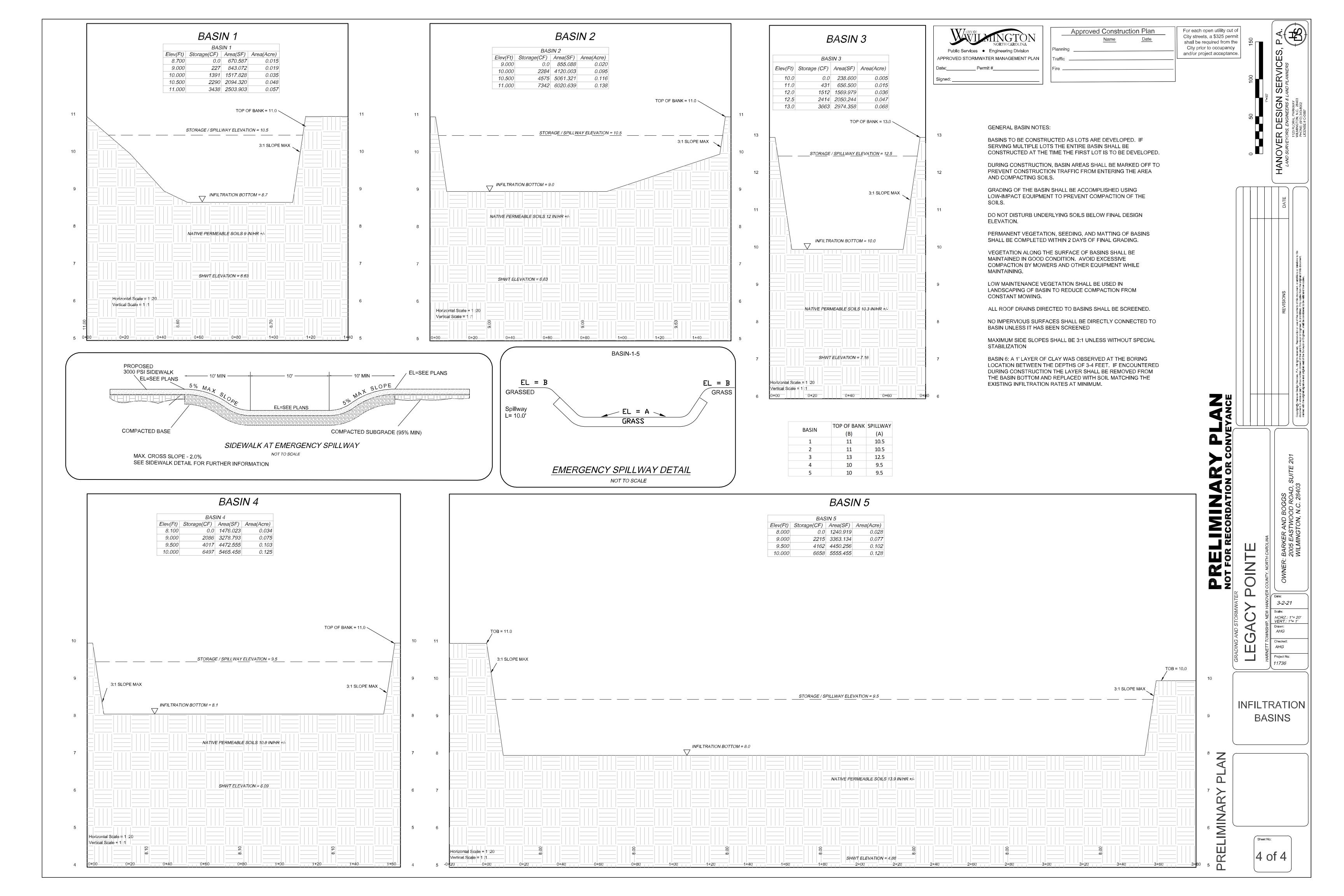
AHG

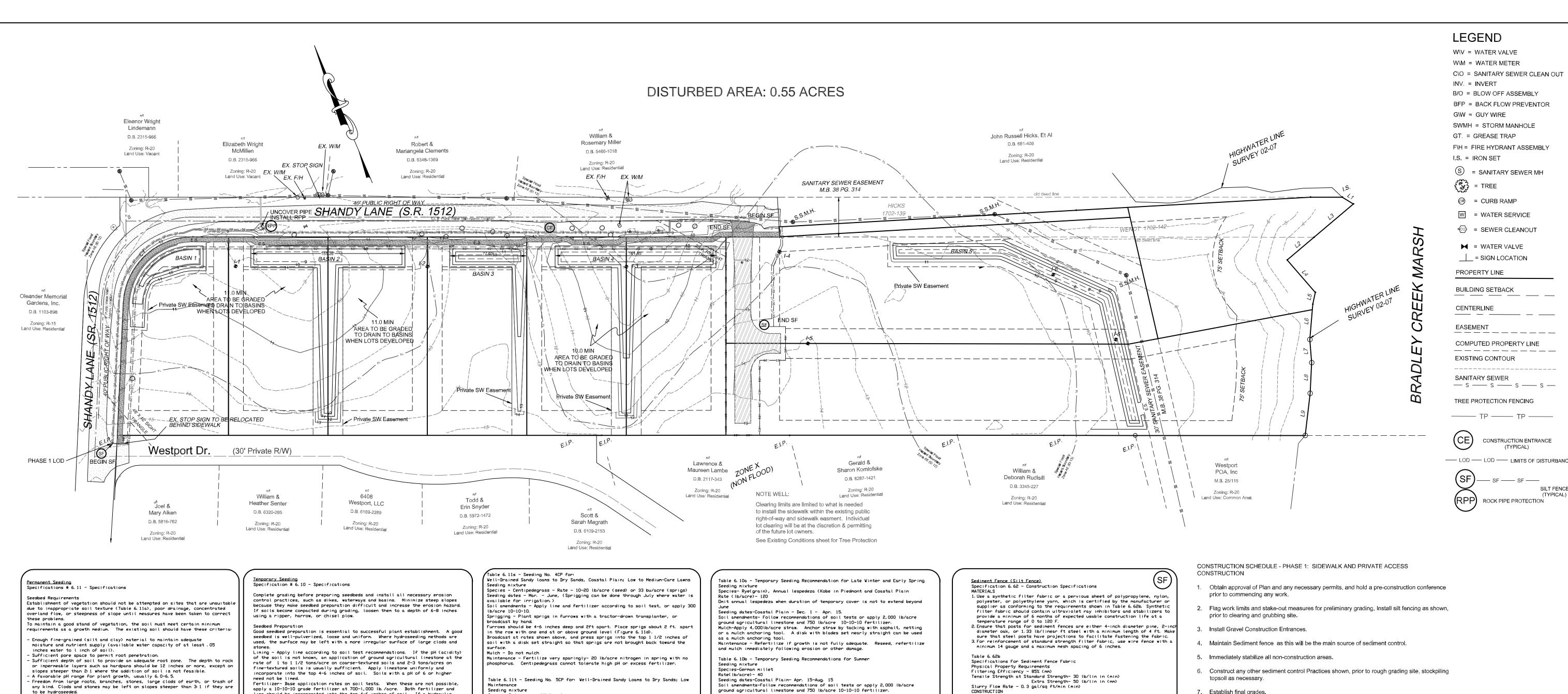
EXISTING

CONDITIONS

Project No. 11736







Seeding mixture

be used as a mulch anchoring tool.

If any of the above criteria are not met-i.e., if the existing soil is too coarse, dense, shallow or acidic to foster vegetation-special amendments are required. The soil conditioners described below may be beneficial or, preferably, topsoil may be applied in accordance with Practice 6.04, Topsoiling Soil Conditioners

In order to improve the structure or drainage characteristics of a soil, the following material may be added. These amendments should only be necessary where soils have limitations that make them poor for plant growth or for fine turf establishment (see Chapter 3, Vegetative Considerations

Peat-Appropriate types are sphagnum moss peat, hypnum moss peat, reedsedge peat or peat humus, all from fresh-water sources. Peat should be shredded and conditioned in storage piles for at least 6 months after excavation. Sand-clean and free of toxic materials

Vermiculite-horticultural grade and free of toxic substances. Rotted manure-stable or cattle manure not containing undue amounts of straw of Thoroughly rotted sawdust- free of stones and debris. Add 6 lb. Of nitrogen to

Sludge-Treated sewage and industrial sludges are available in various forms these should be used only in accordance with local, State and Federal

Species Selection Use the key to Permanent Seeding Mixtures (Table 6.11b) to select the most appropriate seeding mixture based on the general site and maintenance factors. A listing of species, including scientific names and characteristics, is given

Install necessary mechanical erosion and sedimentation control practices before seeding, and complete grading according to the approved plan. Lime and fertilizer needs should be determined by soil tests. Soil testing is performed free of charge by the North Carolina Department of Agriculture soil testing laboratory. Directions, sample cartons, and information sheets are available through county agricultural extension offices or from NCDA. Because the NCDA soil testing lab requires 1-6 weeks for sample turn-around, sampling must be planned well in advance of final grading. Testing is also done by commercial laboratories.

When soil test are not available, follow rates suggested on the individual specification sheet for the seeding mix chosen (Tables 6.11c through 6.11v). Applications rates usually fall into the following ranges:

- Ground agricultural limestone
Light-textured, sandy soils; 1-1 1/2 tons/acre
Heavy textured, clayey soils 2-3 tons/acre

Seedbed Preparation

Grasses 800-1200 lb/acre of 10-10-10 (or the equivalent) Grass-legume mixtures: 800-1200 lb/acre of 5-10-10 (or the equivalent)
Apply lime and fertilizer evenly and incorporate into the top 4-6 inches of soil by disking or other suitable means. Operate machinery on the contour. When using a hydroseeder, apply lime and fertilizer to a rough, loose surface

Roughen surfaces according to Practice 6.03, Surface Roughening. Complete seedbed preparation by breaking up large clods and raking into a smooth, uniform surface (slope less than 3:1) Fill in or level depressions than can collect water. Broadcast seed into a freshly loosened seedbed that has not been sealed by rainfall.

For each open utility cut of

City streets, a \$325 permit shall be required from the

City prior to occupancy

lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before Surface roughening- If recent tillage operations have resulted in a loose

surface, additional roughening may not be required except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it Just prior to seeding by disking, raking, harrowing, or other suitable methods, Groove or furrow slopes steeper than 3:1 on the contour before seeding (Practice 6:03, Surface Roughening).

Select an appropriate species or species mixture from Table 6.10a, for seeding in late winter and early spring, Table 6.10b for summer, and Table 6.10c for

Evenly apply seed using a cyclone seeder (broadcast), drill, cultipacker seeder, or hydroseeder. Use seeding rates given in Table 6.10a-6.10c. Broadcast seeding and hyroseeding are appropriate for steep slopes where equipment cannot be driven. Hand broadcasting is not recommended because of the difficulty in achieving a uniform distribution. Small grains should be planted no more than 1 inch deep, and grasses and legumes no more than 1/2 inch. Broadcast seed must be covered by raking or chain dragging, and then lightly firmed with a roller or cultipacker. Hydroseeded mixtures should include a wood fiber (cellulose) mulch.

The use of appropriate mulch will help ensure establishment under normal conditions and is essential to seeding success under harsh site condition (Practice 6.14, Mulching). Harsh site conditions include: -seeding in fall for winter cover (wood fiber mulches are not considered adequate for this use), -slopes steeper than 3:1 -excessively hot or dry weather

-adverse soils(shallow, rocky, or high in clay or sand), and -areas receiving concentrated flow. If the area to be mulched is subject to concentrated waterflow, as in channels, anchor mulch with netting (Practice 6.14, Mulching).

Species Rate Pensacola Bahiagrass Sericea lespedeza Common Bermudagrass German millet

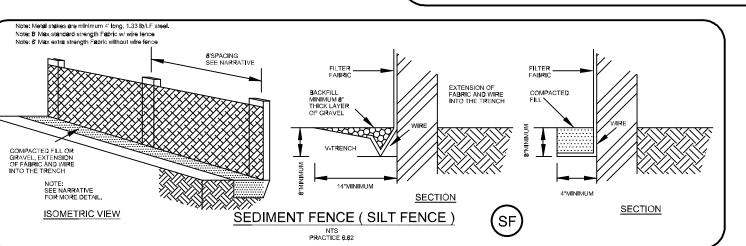
> Where a neat appearance is desired, omit sericea Use common Bermudagrass only on isolated sites where it cannot become a pest Bermudagrass may be replaced with 5 lb/acre centipedgrass.

Soil amendments - Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agricultural limestone and 500 lb/acre 10-10-10 fertilize Apply 4,000 lb/acre grain straw or equivalent cover of another suitable mulch. Anchor by tacking with asphalt, roving and netting or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch Maintenance - Refertilize the following Apr. with 50 lb/acre nitrogen. Repeat as growth requires. May be moved only once a year. Where a neat appearance i esired, omit sericea and now as often as needed.

Table 6.11v - Seeding No. 7CP for: Grass-lined Channels; Coastal Plain Species - Common Bermudagrass - Rate - 40-80 (1/2 lb/l,000 ft) Seeding dates - Coastal Plain; Apr - July Soil amendments - Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agricultural limestone and 500 lb/acre 10-10-10 fertilizer Mulch - Use jute, excelsior matting, or other effective channel lining material to cover the bottom of channels and ditches. The lining should extend above the highest calculated depth of flow. $\ \Box$ n channel side slopes above this height, and in drainages not requiring temporary linings, apply 4,000 lb/acre grain straw and anchor straw by stapling netting over the top. Mulch and anchoring materials must be allowed to wash down slopes where they car clog drainage devices. Maintenance -A minimum of 3 weeks is required for establishment. Inspect and

repair mulch frequently. Refertilize the following Apr. with 50 lb/acre

Refer to Appendix 8.02 for botanical names



ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch -Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting 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. Table 6.10c - Temporary Seeding Recommendation for Fall

Species-Rye(grain) Rate(lb/acre) - 120 Seeding dates - Coastal Plain and Piedmont-Aug 15 - Dec. 30 Soil amendments - Follow soil tests or apply 2,000 lb./acre ground agriculturel limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch- Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can

lb/acre of nitrogen in March, if it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain)

Maintenance- Repair and refertilize damaged areas immediately. Topdress with 50

Specification # 6.02 - Construction Specifications 1. Construct and maintain all erosion and sedimentation control practices and measures in accordance with the approved sedimentation control plan and 2. Remove good topsoil from areas to be graded and filled, and preserve it for use in finishing the grading of all critical areas. 3. Scarify areas to be topsoiled to a minimum depth of 2 inches before placing topsoil (Practice 6.04, Topsoiling).

4. Clear and grub areas to be filled to remove trees, vegetation, roots, or other

building debris, and other materials inappropriate for constructing stable 6. Place all fill in layers not to exceed 9 inches in thickness, and compact the layers as required to reduce erosion, slippage, settlement, or other related 7. Do not incorporate frozen material or soft, mucky, or highly compressible materials into fill slopes. 8. Do not place fill on a frozen foundation, due to possible subsidence and

objectionable material that would affect the planned stability of the fill.

5. Ensure that fill material is free of brush, rubbish, rocks, logs, stumps,

slippage. 9. Keep diversions and other water conveyance measures free of sediment during all phases of development. Handle seeps or springs encountered during construction in accordance with approved methods (Practice 6.81, Subsurface Drain). 11. Permanently stabilize all graded areas immediately after final grading is completed on each area in the grading plan. Apply temporary stabilization measures on all graded areas when work is to be interrupted or delayed for 30 working days or longer.
12. Ensure that topsoil stockpiles, borrow areas, and spoil areas are adequately

protected from erosion with temporary and final stabilization measures, including sediment fencing and temporary seeding as necessary.

Periodically check all graded areas and the supporting erosion and sedimentation control practices, especially after heavy rainfalls. Promptly remove all sediment from diversions and other water-disposal practices. If washouts or breaks occur, repair them immediately. Prompt maintenance of small eroded areas before they become significant gullies is an essential part of an effective erosion and sedimentation control plan.

1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.

2. Ensure that the height of the sediment fence does not exceed 18 inches above the ground surface. (Higher fences may impound volumes of water sufficient to cause failure of the structure.) 3. Construct the filter fabric from a continuous roll cut to the length of the barrier to avoid joints. When joints are necessary, securely fasten the filter cloth only at a support post with overlap to the next post.

4. Support standard strength filter fabric by wire mesh fastened securely to the up slope side of the posts using heavy duty wire staples at least 1 inch r tie wires. Extend the wire mesh support to the bottom of the trench. 5. When a wire mesh support fence is used, space posts a maximum of 8 ft apart Support posts should be driven securely into the ground to a minimum of 18 6. Extra strength filter fabric with 6ft post spacing does not require wire me support fence. Staple or wire the filter fabric directly to posts.

7. Excavate a trench approximately 4 inches wide and 8 inches deep along the

proposed line of posts and upslope from the barrier (figure 6.62a).

8. Backfill the trench with compacted soil or gravel placed over the filter 9. Do not attach filter fabric to existing trees. required repairs immediately. Should the fabric of a sediment fence collapse, tear, decompose or become ineffective, replace it promptly. Replace burlap every 60 days.

Inspect sediment fences at least once a week and after each rainfall. Make an Remove sediment deposits as necessary to provide adequate storage volume for the next rain and to reduce pressure on the fence. Take care to avoid undermining the fence during cleanout Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been proper

Establish final grades.

8. All erosion and sediment control Practices are to be inspected weekly and after any rainfall, and repaired as necessary.

Upon completion of grading and concrete installation, all disturbed areas are to be permanently vegetative stabilized. After site stabilization, temporary measures are to be

10. Every SCM impacted by sedimentation and erosion control during the construction phase shall be cleaned out and converted to its approved design state CONSTRUCTION SCHEDULE - PHASE 2: FUTURE LOT DEVELOPMENT.

1. Lot owner/developer shall be responsible for obtaining/modifiing erosion control permits prior to commencing any work on lots outside of the phase 1 limits of disturbance.

2. Every SCM impacted by sedimentation and erosion control during the construction phase shall be cleaned out and converted to its approved design state

MAINTENANCE PLAN -

1. All measures to be inspected weekly and after any rainfall event and needed repairs made

2. Sediment to be removed from behind the Silt Fence when it becomes 0.5' deep. Fencing to be repaired as needed to maintain a barrier.

3. All seeded areas shall be fertilized, mulched, and re-seeded as necessary, according to specifications provided, to maintain a suitable vegetative cover.

4. Construction entrances are to be maintained in a condition to prevent mud or sediment from leaving the construction site. Periodic topdressing with 2" stone may be required. Remove all objectionable material spilled, washed, or tracked onto public roadways immediately.

NOTE: SEE NARRATIVE FOR MORE DETAIL. ENTRANCE/EXIT DETAIL

STABILIZATION TIME FRAMES ANY AREAS ON-SITE WITHOUT ACTIVITY SHALL BE STABILIZED WITHIN 15 WORKING DAYS OR 21 CALENDAR DAYS AND AS ABOVE. ALL SLOPES MUST BE STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY

CITY, COUNTY AND STATE CODES AND CONSTRUCTION STANDARDS. No geotechnical testing has been performed on site. No warranty is made for suitability of subgrade, and undercut and any required replacement with suitable material shall be the responsibility

and/or project acceptance APPROVED STORMWATER MANAGEMENT PLAN

Approved Construction Plan

Temporary Gravel Construction Entrance/Exit Specification # 6.06 - Construction Specifications

Clear the entrance and exit area of all vegetation, roots and other objectionable material and properly grade it.

Place the gravel to the specific grade and dimensions shown on the plans and), Provide drainage to carry water to a sediment trap or other suitable outlet. . Use geotextile fabrics because they improve stability of the foundation in locations subject to seepage or high water table.

Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2-inch stone. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.

STABILIZATION TIME FRAMES: STABILIZATION SITE AREA DESCRIPTION Perimeter dikes, swales, ditches and slopes 7 DAYS 7 DAYS High Quality Water (HQW) Zones 7 DAYS Slopes steeper than 3:1 14 DAYS Slopes 3:1 or flatter All other areas with slopes flatter than 4:1 14 DAYS

DETAILS SHOWN ARE TYPICAL OF INSTALLATIONS REQUIRED BY THE TOWN AND COUNTY. THIS SHEET DOES NOT PURPORT TO SHOW ALL REQUIRED CONSTRUCTION DETAILS. BUT

of the contractor. NOTE WELL:

CONSTRUCTION ENTRANCE (TYPICAL)

ROCK PIPE PROTECTION

SILT FENCE

0

3-2-21

HORZ.: 1"= 50

Scale:

AHG

Checked:

AHG

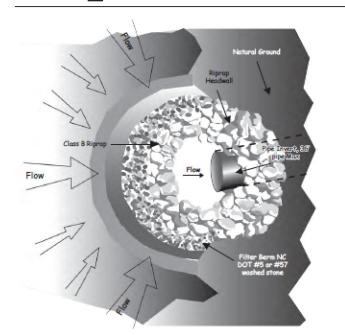
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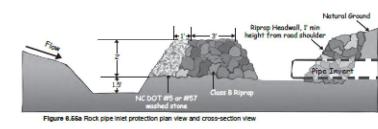
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EROSION

CONTROL

PLAN





ROCK INLET PROTECTION SPECIFICATION 6.55

CONSTRUCTION SPECIFICATIONS . Clear the area of all debris that might hinder excavation and disposal of spoi

stone should be built up higher on each end where it ties into the emb**a**nkment. The minimum crest width of the ripr**a**p should be 3 feet, with **a** minimum bottom width of 11 feet. The minimum height should be 2 feet, but

2. Install the Class B or Class I riprap in a semi-circle around the pipe inlet.

4. The sediment storage area should be excavated around the outside of the stone horseshoe 18 inches below natural grade. 5. When the contributing drainage area has been stabilized, fill depression and

establish final grading elevations, compact area properly, and stabilize with MAINTENANCE

Inspect rock pipe inlet protection at least weekly and after each significant (% inch

Check the structure for damage. Any riprap displaced from the stone

greater) rainfall event and repair immediately. Remove sediment and restore the sediment storage area to its original dimensions when the sediment has accumulated to one-half the design depth of the trap. Place the sediment that is

remove the structure and all the unstable sediment. Smooth the area to blend with the adjoining areas and provide permanent ground cover (Surface

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes				
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations		
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None		
(b) High Quality Water (HQW) Zones	7	None		
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed		
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed		
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope		

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the

techniques in the table below:
Temporary Stabilization
 Temporary grass seed covered with

- other mulches and tackifiers Hydroseeding Rolled erosion control products with or
- without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting
- **Permanent Stabilization** straw or Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil
 - reinforcement matting Hydroseeding Shrubs or other permanent plantings covered
 - Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or
 - retaining walls Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- 1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- 2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- 3. Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- 4. Provide ponding area for containment of treated Stormwater before discharging

or surrounded by secondary containment structures.

Store flocculants in leak-proof containers that are kept under storm-resistant cover

EQUIPMENT AND VEHICLE MAINTENANCE

2. Provide drip pans under any stored equipment.

- 1. Maintain vehicles and equipment to prevent discharge of fluids.
- 3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the
- 4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- 5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- 6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.

1. Never bury or burn waste. Place litter and debris in approved waste containers.

- 3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- 5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- 6. Anchor all lightweight items in waste containers during times of high winds. 7. Empty waste containers as needed to prevent overflow. Clean up immediately if
- containers overflow. 8. Dispose waste off-site at an approved disposal facility.
- 9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

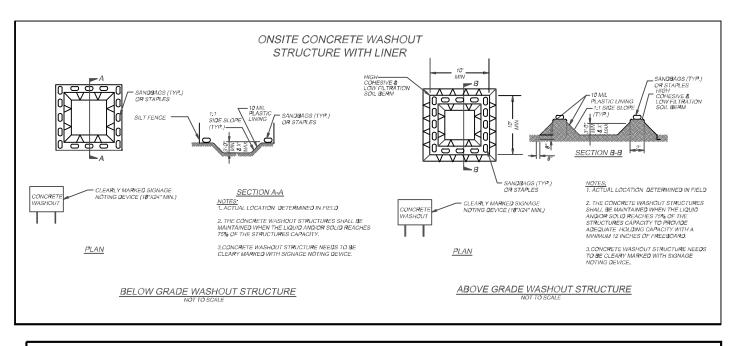
- 1. Do not dump paint and other liquid waste into storm drains, streams or wetlands. 2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 3. Contain liquid wastes in a controlled area.
- 4. Containment must be labeled, sized and placed appropriately for the needs of site.
- 5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- 1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- 2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- 3. Provide stable stone access point when feasible.
- 4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

- 1. Do not discharge concrete or cement slurry from the site.
- 2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- 3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- 4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- 5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- 6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- 7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- 8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- 9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label
- 2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- 3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- 4. Do not stockpile these materials onsite.

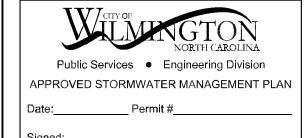
HAZARDOUS AND TOXIC WASTE

- 1. Create designated hazardous waste collection areas on-site.
- 2. Place hazardous waste containers under cover or in secondary containment.
- 3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



	Approved Constru	ction Plan
	Name	Date
Planning		
Traffic _		
Fire		

OINTE

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EROSION CONTROL PLAN

3-2-21

HORZ.: 1"= 50

EC-2 EC-3

PART III

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend of holiday periods, and no individual-day rainfall information if available, record the cumulative rain measurement for those un attended days (and this will determine if a site inspection if needed). Days on which no rainfall occurred shall be recorded a "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	 Identification of the measures inspected, Date and time of the inspection, Name of the person performing the inspection, Indication of whether the measures were operating properly, Description of maintenance needs for the measure, Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event \geq 1.0 inch in 24 hours	 Identification of the discharge outfalls inspected, Date and time of the inspection, Name of the person performing the inspection, Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, Indication of visible sediment leaving the site, Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	 If visible sedimentation is found outside site limits, then a record of the following shall be made: Actions taken to clean up or stabilize the sediment that has left the site limits, Description, evidence, and date of corrective actions taken, and An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit
(6) Ground stabilization measures	After each phase of grading	 The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- (a) This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART II, SECTION G, ITEM (4)

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather).

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal

DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

- shall not commence until the E&SC plan authority has approved these items, (b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
- (c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
- (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
- (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- (f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:

Occurrence

- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).
- (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800)

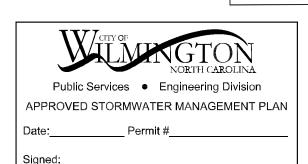
Reporting Timeframes (After Discovery) and Other Requirements

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(a) Visible sediment • Within 24 hours, an oral or electronic notification.		
deposition in a	Within 7 calendar days, a report that contains a description of the	
stream or wetland	sediment and actions taken to address the cause of the deposition.	
	Division staff may waive the requirement for a written report on a	
	case-by-case basis.	
	• If the stream is named on the NC 303(d) list as impaired for sediment-	
	related causes, the permittee may be required to perform additional	
	monitoring, inspections or apply more stringent practices if staff	
	determine that additional requirements are needed to assure compliance	
	with the federal or state impaired-waters conditions.	
(b) Oil spills and	Within 24 hours, an oral or electronic notification. The notification	
release of	shall include information about the date, time, nature, volume and	
hazardous	location of the spill or release.	
substances per Item		
1(b)-(c) above		
(c) Anticipated	A report at least ten days before the date of the bypass, if possible.	
bypasses [40 CFR	The report shall include an evaluation of the anticipated quality and	
122.41(m)(3)]	effect of the bypass.	
(d) Unanticipated	Within 24 hours, an oral or electronic notification.	
bypasses [40 CFR	Within 7 calendar days, a report that includes an evaluation of the	
122.41(m)(3)]	quality and effect of the bypass.	
(e) Noncompliance	Within 24 hours, an oral or electronic notification.	
with the conditions	Within 7 calendar days, a report that contains a description of the	
of this permit that	noncompliance, and its causes; the period of noncompliance,	
may endanger	including exact dates and times, and if the noncompliance has not	
health or the	been corrected, the anticipated time noncompliance is expected to	
environment[40	continue; and steps taken or planned to reduce, eliminate, and	
CFR 122.41(I)(7)]	prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).	
	Division staff may waive the requirement for a written report on a	
	case-by-case basis.	

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



	Approved Constru	uction Plan	
	<u>Name</u>	<u>Date</u>	
Planning			-
Traffic			-
Fire			_

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EROSION

CONTROL PLAN

3-2-21

HORZ.: 1"= 50

