

**Demolition Notes:**

1. CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE-CALL CENTER (NC 811) BY DIALING 811 OR 1-800-632-4949 AT LEAST 72 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY OR DIGGING AND HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATING OR TRENCHING.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL AND STATE PERMITS REQUIRED FOR DEMOLITION WORK.
3. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND/OR ENGINEER FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES IN THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
4. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE AND DO NOT INCLUDE MECHANICAL, ELECTRICAL AND MISCELLANEOUS STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THE DEMOLITION WORK FOR THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
5. ALL DEMOLITION WASTE AND DEBRIS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
6. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS, AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
7. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL, AND OSHA REGULATIONS WHEN OPERATING DEMOLITION EQUIPMENT AROUND UTILITIES.
8. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE NCDOT STANDARDS, AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH THE LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT, AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
9. CONTRACTOR SHALL PROTECT AT ALL TIMES ADJACENT STRUCTURES AND ITEMS FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION ACTIVITIES

**Erosion Control Provisions**

- NO PERSON MAY INITIATE A LAND DISTURBING ACTIVITY BEFORE EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
1. SEED OR OTHERWISE PROVIDE GROUND COVER DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION FOR ALL EXPOSED SLOPES WITHIN 7 DAYS OF COMPLETION OF ANY PHASE OF GRADING ON PERIMETER AREAS AND SLOPES STEEPER THAN 3:1. ALL OTHER AREAS SHALL BE STABILIZED WITHIN 14 DAYS.
  2. CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. FAILURE TO KEEP ALL EROSION CONTROL DEVICES IN PROPER WORKING ORDER MAY RESULT IN A STOP WORK ORDER OR CIVIL PENALTIES UP TO \$5,000.00 PER DAY OF VIOLATION.
  3. THE CITY ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
  4. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND INSPECTED AS PER THE DETAIL SHEETS SHOWN.
  5. PLEASE BE ADVISED OF THE RULES TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE AND TAR/PAMLICO RIVER BASINS. THESE RULES ARE ENFORCED BY THE DIVISION OF WATER QUALITY (DWQ). DIRECT ANY QUESTIONS ABOUT THE APPLICABILITY OF THESE RULES TO YOUR PROJECT TO THE REGIONAL WATER QUALITY SUPERVISOR, WASHINGTON REGIONAL OFFICE AT (252) 946-6481.
  6. ACCEPTANCE AND APPROVAL OF THIS PLAN IS CONDITIONED UPON YOUR COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY LAWS, REGULATION AND RULES. IN ADDITION LOCAL CITY AND COUNTY ORDINANCES OR RULES MAY ALSO APPLY TO THIS LAND DISTURBING ACTIVITY. APPROVAL BY THE CITY DOES NOT SUPERSEDE ANY OTHER PERMIT OR APPROVAL.
  7. LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL APPROPRIATE EROSION CONTROL MAY NOT PROCEED UNTIL EROSION CONTROL MEASURES ARE INSPECTED AND APPROVED BY THE CITY.
  8. SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE WITH THE EROSION CONTROL INSPECTOR IS REQUIRED PRIOR TO INITIATING LAND DISTURBING ACTIVITIES. FOR INSPECTION CALL (252) 329-4467. 24 HOUR NOTICE IS REQUIRED.
  9. INSTALL ROCK INLET SEDIMENT TRAPS AROUND ALL CATCH BASINS, DROP INLETS, AND YARD INLETS.

**DEMOLITION AND EROSION CONTROL PLAN**  
**Eighth St. Drainage Improvements**  
 PITT ST TO INTERSECTION OF EIGHTH AND CLARK ST  
 City of Greenville, Pitt County, North Carolina

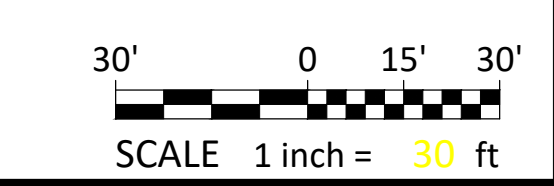
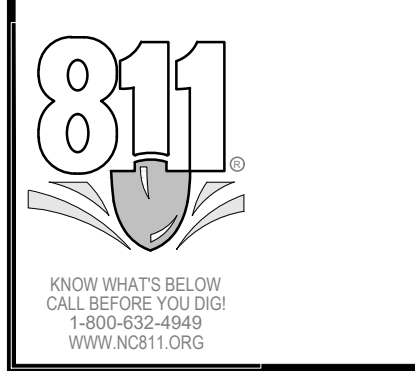
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REV: 06/05/2021

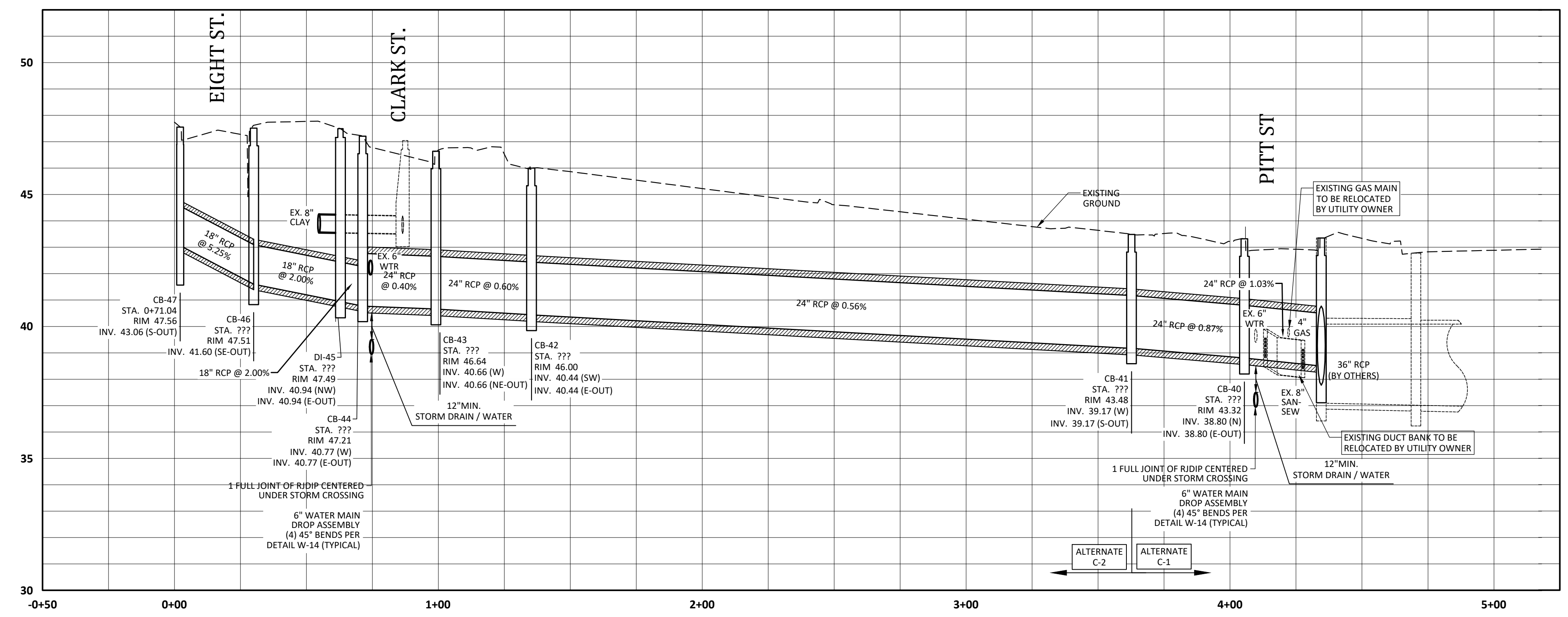
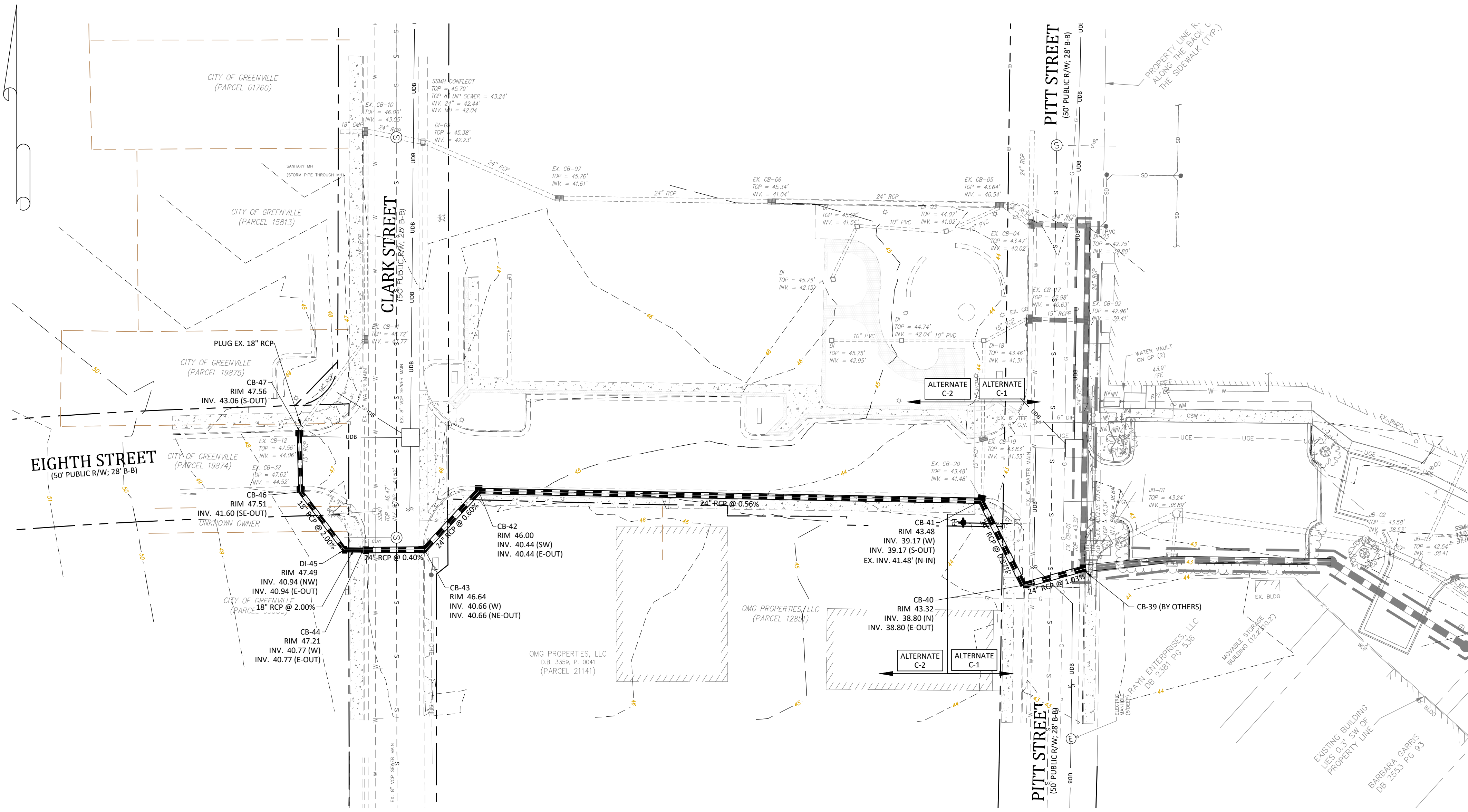
Project Manager:	STA
Drawn By:	RJL
Checked By:	BCF
Project Number:	19046
Drawing Number:	D-1279

C-1

Date: 06/15/2021



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**Grading Notes:**

- TREES OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED.
- CONTRACTOR TO GRADE ALL AREAS WITHIN THE LIMITS OF DISTURBANCE FROM BUILDING TO PROPERTY LINES AND TO EDGE OF PAVEMENT ON STREET SIDES, INCLUDING ROW.
- TILL SOIL TO A DEPTH OF 4" MINIMUM.
- REMOVE ALL ROCKS LARGER THAN 1" MEASURED IN LARGEST DIRECTION.
- GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.
- ALL GRADED AREAS TO RECEIVE SEED OR SOD, TOP SOIL, STRAW AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- INSTALL TEMPORARY TURF REINFORCEMENT MATTING ON ALL SLOPES STEEPER THAN 3:1. MATTING SHALL BE CONTECH LANDLOK C2 OR EQUAL.
- ALL SIDEWALKS SHALL BE CONSTRUCTED OF 4" THICK 3500 PSI CONCRETE REINFORCED WITH 6x6 W1.4W1.4 WELDED WIRE FABRIC. ALL SIDEWALKS SHALL HAVE TOOLED CONTROL JOINTS NOT EXCEEDING 5' SPACING IN ANY DIRECTION.
- ALL SIDEWALK AND PAVEMENT SUB-GRADES SHALL BE COMPACTED TO 100% OF ASTM D698 TO A DEPTH OF 24" AND TO 95% OF ASTM D698 BELOW 24" DEPTHS. ALL OTHER NON-STRUCTURAL AREAS SHALL BE COMPACTED TO 90% OF ASTM D698.
- ALL BUILDING, SIDEWALK, AND PAVEMENT SUB-GRADE COMPACTIONS SHALL BE INTERMEDIATELY TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER. ALL SUB-GRADES SHALL BE THOROUGHLY PROOF-ROLLED TO IDENTIFY SMALL LOCALIZED AREAS OF UNSUITABLE SOILS. ALL UNSUITABLE SOILS SHALL BE UNDERCUT, REPLACED WITH STRUCTURAL FILL, AND COMPACTED AS DESCRIBED ABOVE.

**SEEDING AND MULCHING:**

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

All Roadway Areas	
<b>March 1 - August 31</b>	<b>September 1 - February 28</b>
50# Tall Fescue	50# Tall Fescue
10# Centipede	10# Centipede
25# Bermudagrass (hulled)	5# Bermudagrass (hulled)
500# Fertilizer	500# Fertilizer
4000# Limestone	4000# Limestone

Water and Borrow Locations	
<b>March 1 - August 31</b>	<b>September 1 - February 28</b>
75# Tall Fescue	75# Tall Fescue
25# Bermudagrass (hulled)	35# Bermudagrass (hulled)
500# Fertilizer	500# Fertilizer
4000# Limestone	4000# Limestone

Note: 50# of Bahiagrass may be substituted for either Centipede or Bermudagrass only upon Engineer's request.

**Approved Tall Fescue Cultivars**

2nd Millennium	Chipper	Focus	Masterpiece	Quest	Titan Ltd.
Avenger	Coronado	Grande II	Matador	Rebel Exeda	Titanium
Barlexas	Coyote	Greenkeeper	Matador GT	Rebel Sentry	Tonohawk
Barlexas II	Davinci	Greystone	Millennium	Regiment II	Tacor
Barrera	Dynasty	Inferno	Montauk	Rembrandt	Trooper
Barrington	Dominion	Justice	Mustang 3	Rendition	Turbo
Bilmore	Duster	Jaguar 3	Olympic Gold	Scorpion	Ultimate
Bingo	Endeavor	Kalahari	Padre	Shelby	Watchdog
Bravo	Escalade	Kentucky 31	Paraiso	Signia	Wolfpack
Cayenne	Falcon II, III, IV & V	Kitty Hawk	Picasso	Silverstar	
Chapel Hill	Fidelity	Kitty Hawk 2000	Piedmont	Southern Choice II	
Chesapeake	Finesse II	Lexington	Pure Gold	Stetson	
Constitution	Firebird	Magellan	Prospect	Tarheel	

**EROSION CONTROL GUIDE**

On cut and fill slopes 2:1 or steeper Centipede shall be applied at a rate of 5 pounds per acre and add 20# of Sericea Lespedeza from January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

All areas seeded and mulched shall be tacked with asphalt. Crimping of straw in lieu of asphalt tack shall not be allowed on projects.

**CRIMPING STRAW MULCH:**

Crimping shall be required on projects adjacent to any section of roadway where traffic is to be maintained or allowed during construction. In areas within six feet of the edge of pavement, straw is to be applied and then crimped. After the crimping operation is complete, an additional application of straw shall be applied and immediately tacked with a sufficient amount of undiluted emulsified asphalt.

Straw mulch shall be sufficient length and quality to withstand the crimping operation.

Crimping equipment including power source shall be subject to the approval of the Engineer providing that maximum spacing of crimper blades shall not exceed 6".

**STORM DRAINAGE PLAN AND PROFILE**

**Eighth St. Drainage Improvements**

PITT ST TO INTERSECTION OF EIGHTH AND CLARK ST

City of Greenville, Pitt County, North Carolina

NC License # P-1139

**ARK CONSULTING GROUP PLLC**  
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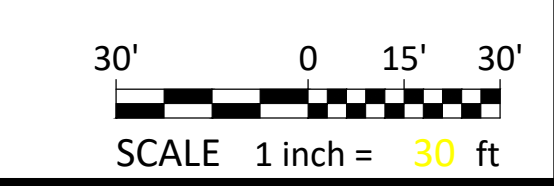
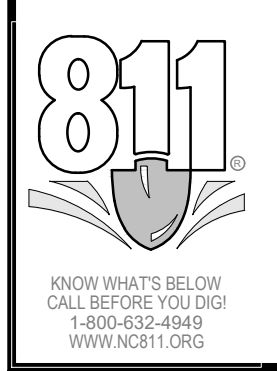
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Professional Engineer Seal: T. ANDERSON, No. 28425, State of North Carolina, Exp. 06/05/2021

Project Manager:	STA
Drawn By:	RJL
Checked By:	BCF
Project Number:	19046
Drawing Number:	D-1279

**C-2**

Date: 06/15/2021



**Erosion Control Measures:**

- All work will be done in accordance with the City of Greenville Erosion Control Ordinance. No land disturbing activity beyond that required to install the appropriate erosion control measures may proceed until measures are inspected and approved by the City of Greenville. Call (252) 329-4467 to schedule an inspection.
  - Prior to clearing & grubbing or topsoil removal, all perimeter silt fence and temporary gravel construction entrances shall be installed. After clearing & grubbing and topsoil removal, storm drainage culverts and structures shall be installed. Rock Inlet Sediment Traps shall be placed around all drainage structures to collect surface runoff and control siltation and release water at a gradual rate. All inlets outside the parking lot where storm pipes are installed will be graded, seeded and mulched.
  - Road beds shall have stone base placed on them for stabilization and shoulders shall be seeded to stabilize the soil. Seed bed preparation shall be conducted according to North Carolina Department of Transportation Standard Specifications for Roads and Structures (D.O.T.). The ground surface shall be cleared of stumps, stones, roots, cables, wire, grade stakes, and other materials that might hinder proper grading, tillage, seeding or subsequent maintenance operations. Grades on the area to be seeded shall be maintained in a true and even condition. Maintenance shall include any necessary repairs to previously graded areas. All graded areas shall be thoroughly tilled to a depth of at least four (4) inches by plowing, disking, harrowing, or other approved methods until the condition of the soil is acceptable. On sites where soil conditions are such that high clay content and excessive compaction cause difficulty in getting clods and lumps effectively pulverized, the Contractor shall use the rotary tillage machinery until the mixing of the soil is acceptable and no clods or clumps remain larger than 1 1/2 inches in diameter. A firm and compact seed bed is required and after being graded, the seed bed shall be lightly compacted with a land roller, such as a cultipacker, before and after seeding. Limestone shall be dolomitic agriculture ground limestone containing not less than 10 percent magnesium oxide. Lime shall be uniformly applied at the rate of 2 tons per acre. Fertilizer shall be uniformly applied at a rate of 500 pounds per acre of 10-20-20 analysis. The fertilizer shall be incorporated into the upper three or four inches of prepared seed bed just prior to the last tillage operation, but in no case shall it be applied more than three days prior to seeding. Fertilizer shall be used immediately after delivery or stored in a manner that will not permit it to harden or destroy its effectiveness.
- When hydroseeding equipment is used for seeding, fertilizer shall be applied simultaneously with seed, using the above rates of application. Seed shall be certified seed or equivalent based on North Carolina Seed Improvement Association requirements for certification. All seed shall be furnished in seeded standard containers. Seed which has become wet, moldy, or otherwise damaged prior to seeding will not be acceptable. Seeding shall be accomplished with hand planters, power-drawn planters, hand packers, or hydroseeding equipment.
- Ground Stabilization (Per NCG010000)
    - soil stabilization shall be achieved on any area of a site where land-disturbing activities have temporarily or permanently ceased according to the following schedule:
      - All perimeter dikes, swales, ditches, perimeter slopes and all slopes steeper than 3 horizontal to 1 vertical (3:1) shall be provided temporary or permanent stabilization with ground cover as soon as practicable but in any event within 7 calendar days from the last land-disturbing activity.
      - All other disturbed areas shall be provided temporary or permanent stabilization with ground cover as soon as practicable but in any event within 14 calendar days from the last land-disturbing activity.
    - Conditions - In meeting the stabilization requirements above, the following conditions or exemptions shall apply:
      - Extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance impracticable.
      - All slopes 5:1 or greater shall apply the ground cover within 7 days except when the slope is flatter than 4:1. Slopes less than 5:1 shall apply ground cover within 14 days except when the slope is flatter than 3:1. The 7-day ground cover requirement.
      - Any sloped area flatter than 4:1 shall be exempt from the 7-day ground cover requirement.
      - Slopes 10' or less in length shall be exempt from the 7-day ground cover requirement except when the slope is steeper than 2:1.
      - Although stabilization is usually specified as ground cover, other methods, such as chemical stabilization, may be allowed on a case-by-case basis.
      - For portions of projects within the Sediment Control Commission-defined "High Quality Water Zone" (15A NCAC 04A. 0105), stabilization with ground cover shall be achieved within 14 days except when the slope is flatter than 3:1. The 7-day ground cover requirement.
      - Portions of a site that are lower in elevation than adjacent discharge locations and are not expected to discharge during construction may be exempt from the temporary ground cover requirements if identified on the approved E&S plan or added by the permitting authority.

**5. Self Inspection and Reporting Requirements (Per NCG010000)**

- Minimum self inspection and reporting requirements are as follows unless otherwise approved in writing by the Division of Water Quality.
- A rain gauge shall be maintained in good working order on the site unless another rain monitoring device has been approved by the permitting authority.
  - A written record of the daily rainfall amounts shall be retained and all records shall be made available to DWQ or authorized agent upon request. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, the cumulative rain measurement for those un-attended days will determine if a site inspection is needed. (Note: If no rainfall occurred, the permittee must record "zero".)
  - Erosion and sedimentation control measures shall be inspected to ensure that they are operating correctly. Inspection records must be maintained for each inspection event and for each measure. At a minimum, inspection of measures must occur at the frequency indicated below:
    - All erosion and sedimentation control measures must be inspected by or under the direction of the permittee at least once every seven calendar days, and
    - All erosion and sediment control measures must be inspected by or under the direction of the permittee within 24 hours after any storm event of greater than 0.50 inches of rain per 24-hour period.
    - Times when a determination that adverse weather conditions prevented inspections should be documented on the Inspection Record.
    - Once land disturbance has begun on the site, stormwater runoff discharge outfalls shall be inspected by observation for erosion, sedimentation and other stormwater discharge characteristics such as clarity, floating solids, and oil sheens. Inspections of the outfalls shall be made at least once every seven calendar days and within 24 hours after any storm event of greater than 0.50 inches of rain per 24-hour period.
    - Inspections are only required to be made during normal business hours. When adverse weather conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection can be delayed until it is deemed safe to perform these duties. If the inspection cannot be done on that day, it must be completed on the following business day.
  - Twenty-four Hour Reporting for visible sediment deposition
    - The permittee shall report to the Division of Water Quality central office or the appropriate regional office any visible sediment being deposited in any stream or wetland or any noncompliance which may endanger health or the environment. Any information shall be provided orally or electronically within 24 hours from the time the permittee became aware of the circumstances. Visible discoloration or suspended solids in the effluent should be recorded on the Inspection Record.
    - A written submission shall be provided to the appropriate regional office of the DWQ within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the sediment deposition and actions taken to address the cause of the deposition. The Division of Water Quality staff may waive the requirement for a written report on a case-by-case basis.
  - Records of inspections made during the previous 30 days shall remain on the site and available for agency inspectors at all times during normal working hours, unless the permitting authority provides a site-specific exemption based on unique site conditions that make this requirement not practical. Older records must be maintained for a period of one year after project completion and made available upon request. The records must provide the details of each inspection including observations, and actions taken in accordance with this permit. The permittee shall record the required rainfall and monitoring observations on the "Inspection Record for Activities Under Stormwater General Permit NCG010000" form provided by the Division or a similar inspection form that is inclusive of all of the elements contained in the Division's form. Electronic storage of records will be allowed if approved by the permitting authority.
    - Control Measure Inspections: Inspection records must include at a minimum:
      - identification of the measures 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 whether the measures were operating properly,
      - actions taken to correct/prevent sedimentation and
      - date of actions taken.
    - Stormwater Discharge Inspections: Inspection records must include at a minimum:
      - identification of the discharge outfall 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 whether the measures were operating properly,
      - actions taken to correct/prevent sedimentation and
      - date of actions taken.
    - Visible Sedimentation Found Outside the Site Limits: Inspection records must include:
      - an explanation as to the actions taken to control future releases,
      - actions taken to clean up or stabilize the sediment that has left the site limits and
      - the date of actions taken.
    - Visible Sedimentation Found in Streams or Wetlands: All inspections should include evaluation of streams or wetlands onsite or offsite (where accessible) to determine if visible sedimentation has occurred.
      - Visible Stream Turbidity - If the discharge from a site results in visible stream turbidity, inspection records must record that evidence and actions taken to reduce sediment contributions. Sites discharging to streams named on the state's 303(d) list as impaired for sediment-related causes may be required to perform additional monitoring, inspections or application of more-stringent management practices if it is determined that the additional requirements are needed to assure compliance with the federal or state impaired-waters conditions. If a discharge covered by this permit enters a stream segment that is listed on the Impaired Stream List for sediment-related causes, and a Total Maximum Daily Load (TMDL) has been prepared for those pollutants, the permittee must implement measures to ensure that the discharge of pollutants from the site is consistent with the assumptions and meets the requirements of the approved TMDL. The DWQ 303(d) list can be found at: [http://h2o.enr.state.nc.us/tmdl/General\\_303d.htm/](http://h2o.enr.state.nc.us/tmdl/General_303d.htm/)
6. All erosion and sedimentation control devices shall remain in place and be maintained by the Contractor until all seeding is established and construction areas have been stabilized.
7. Temporary Seeding - Seed in accordance with Soil Conservation Service recommendations with regard to seed type, rate of application, fertilizer, etc.

TABLE 6.62B SPECIFICATIONS FOR SEDIMENT FENCE FABRIC NCDCEQ EROSION AND SEDIMENTATION MANUAL

**TEMPORARY SILT FENCE MATERIAL PROPERTY REQUIREMENTS**

TEST	UNITS	SUPPORTED SILT FENCE	UNSUPPORTED SILT FENCE	TYPE OF VALVE
GRAN STRENGTH	ASTM D 4632	N (0%)		
MACHINE DIRECTION		400 (90)	550 (90)	MARV
X-MACHINE DIRECTION		400 (90)	450 (90)	MARV
PERMITTIVITY	ASTM D 4493	sec <sup>2</sup>	0	MARV
APPARENT OPENING SIZE <sup>1</sup>	ASTM D 4751	MM	1	MAX. ARV <sup>2</sup>
ULTRAVIOLET STABILITY	ASTM D4355	% Retained Strength	70% after 500h	70% after 500h

1. SILT FENCE SHALL CONSIST OF 14 GAUGE STEEL WIRE A WIRE MESH SPACING OF 6 INCHES, OR PREFABRICATED POLYMER MESH OF EQUIVALENT STRENGTH.  
2. DEFAULT VALUES ARE BASED ON EMPIRICAL EVIDENCE WITH A VARIETY OF SEDIMENT.  
3. AS MEASURED IN ACCORDANCE WITH TEST METHOD D 4632.

**NOTES:**

- SYNTHETIC FILTER FABRIC TO BE INSTALLED AS SHOWN ON PLAN.
- SYNTHETIC FILTER FABRIC TO BE AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER CONFORMING TO ASTM D 6481. SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT TEMPERATURE RANGING OF 0 TO 120° F.
- STEEL POSTS ARE TO BE 1.25 IN. LINEAR FT MINIMUM STEEL WITH A MINIMUM LENGTH OF 5 FEET. STEEL POSTS ARE TO HAVE PROJECTIONS TO FACILITATE FASTENING OF THE FABRIC.
- WIRE FENCE SHALL HAVE A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.
- SILT FENCES SHALL HAVE AN 18" OVERLAP FOR SPLICE OR END OF SECTION.
- SILT FENCES SHALL NOT BE STABLED/NAILED TO TREES.

**MAINTENANCE:**

- INSPECT SILT FENCE AT LEAST ONCE A WEEK AND AFTER EACH MAJOR RAINFALL EVENT (1/2 INCH OR MORE).
- REPLACE FENCE IMMEDIATELY IF THE FABRIC OF THE SILT FENCE COLLAPSES, TEARS, DECOMPOSES OR BECOMES INEFFECTIVE.
- AS NECESSARY DEPOSITS OF SEDIMENT SHALL BE REMOVED TO ENSURE ADEQUATE STORAGE VOLUME FOR THE NEXT RAINFALL AND TO REDUCE PRESSURE ON THE FENCE. FENCE IS NOT TO BE UNDERMINED DURING CLEAN OUT.
- UPON COMPLETION OF WORK AND ADEQUATE VEGETATION GROWTH AS PER THE PLAN SET ALL FENCING MATERIAL SHALL BE REMOVED, INCLUDING SEDIMENT. THE AREA SHALL BE GRADED AND STABILIZED AND VEGETATED ACCORDINGLY.

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**SILT FENCE**

Scale: not to scale | Sheet #: 1 of 1 | Detail #: 310.01

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**TEMPORARY SILT DITCH**

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**TEMPORARY SILT DITCH**

Scale: not to scale | Sheet #: 1 of 1 | Detail #: 310.05

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**SILT OUTLET FENCE**

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**SILT OUTLET FENCE**

Scale: not to scale | Sheet #: 1 of 1 | Detail #: 310.02

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**GRAVEL CONSTRUCTION ENTRANCE / EXIT DRIVEWAY TYPE**

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**GRAVEL CONSTRUCTION ENTRANCE / EXIT DRIVEWAY TYPE**

Scale: not to scale | Sheet #: 1 of 1 | Detail #: 310.11

**CITY OF GREENVILLE, N.C.**  
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**STRAW / HAY BALE SILT BARRIER**

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**STRAW / HAY BALE SILT BARRIER**

Scale: not to scale | Sheet #: 1 of 1 | Detail #: 310.03

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**CATCH BASIN / YARD INLET PROTECTION**

**CITY OF GREENVILLE, N.C.**  
USE WITH THE CITY OF GREENVILLE, N.C. STANDARD SPECIFICATIONS ONLY

**CATCH BASIN / YARD INLET PROTECTION**

Scale: not to scale | Sheet #: 1 of 1 | Detail #: 310.15

**EROSION CONTROL DETAILS**  
**Eighth St. Drainage Improvements**  
 PITT ST TO INTERSECTION OF EIGHTH AND CLARK ST  
 City of Greenville, Pitt County, North Carolina

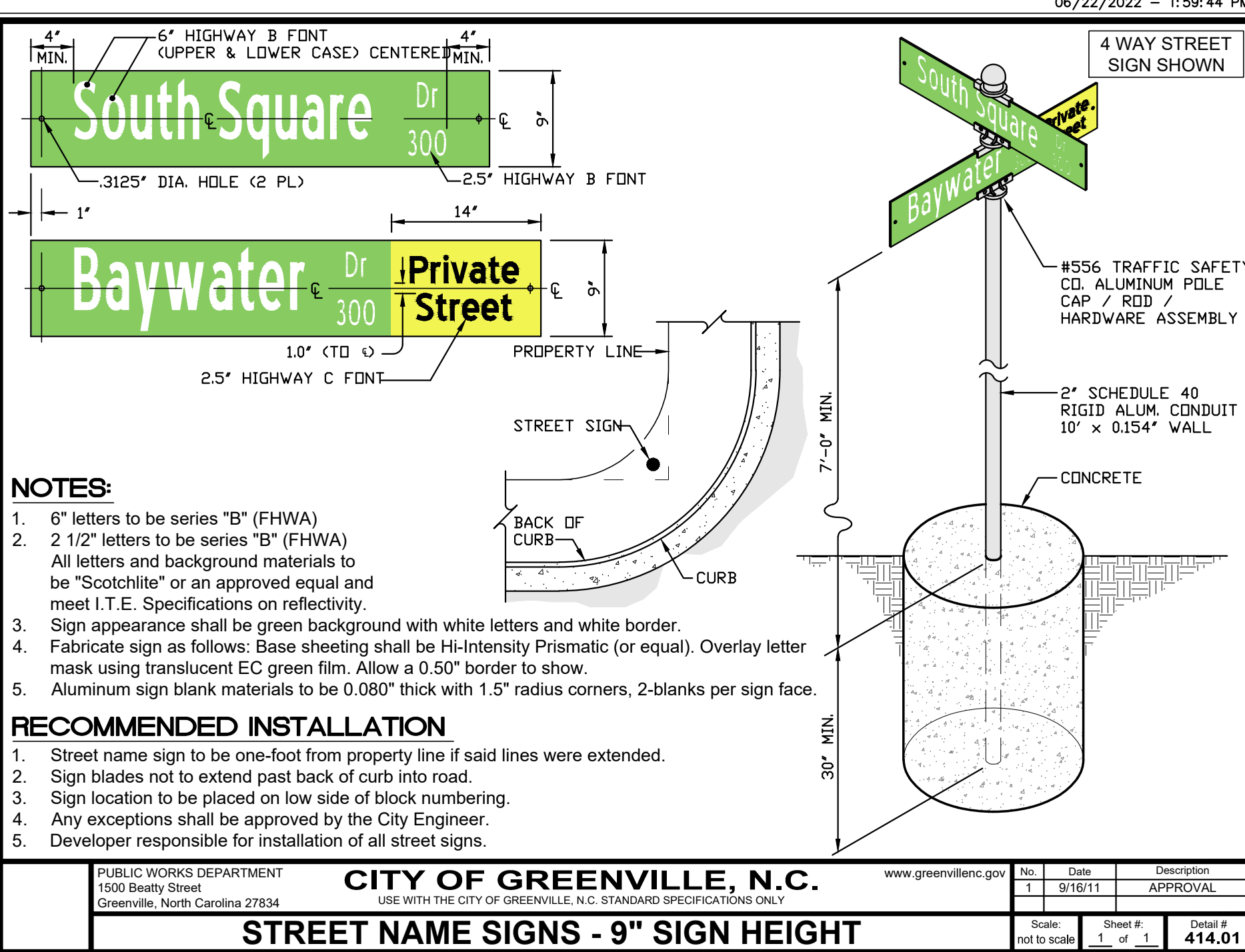
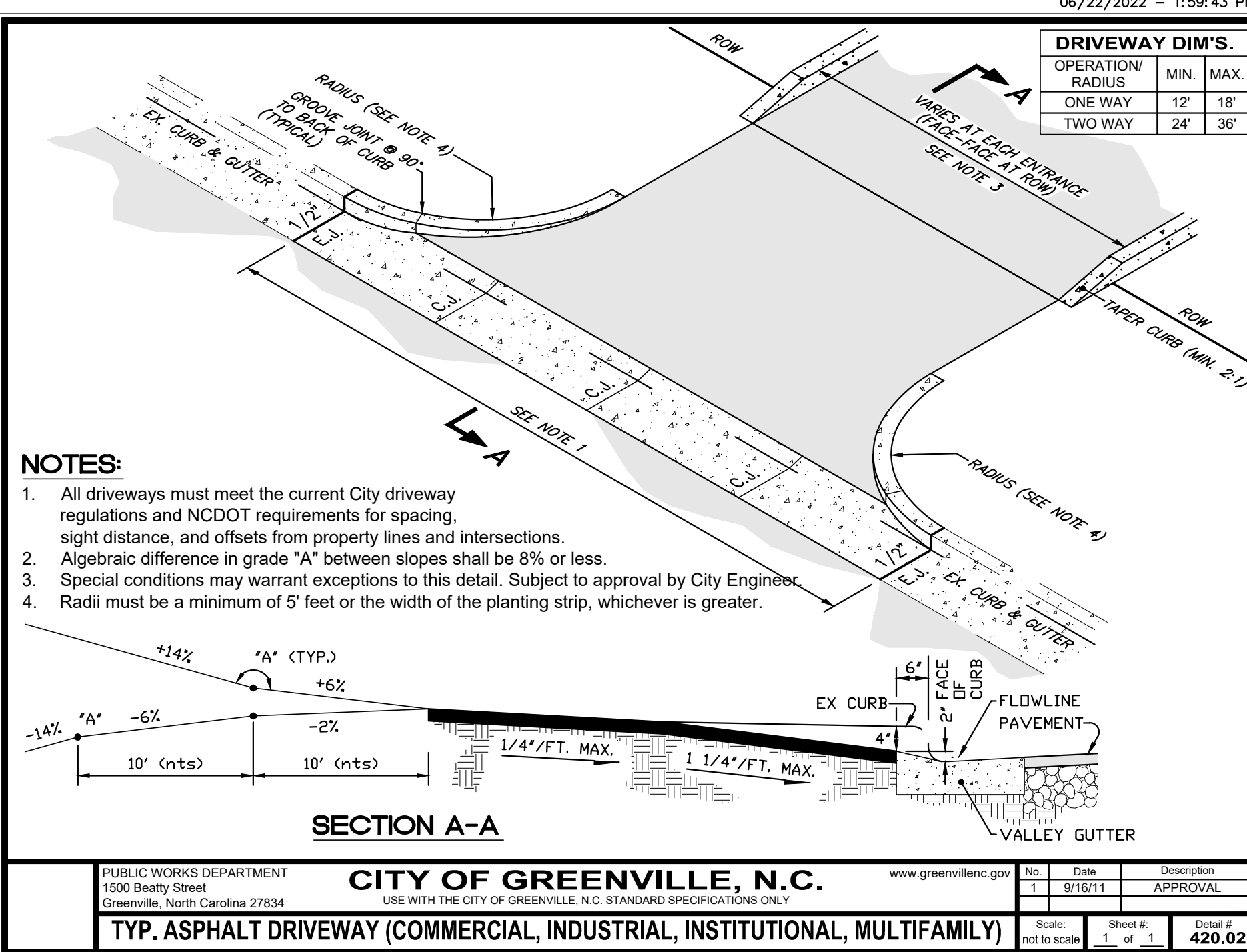
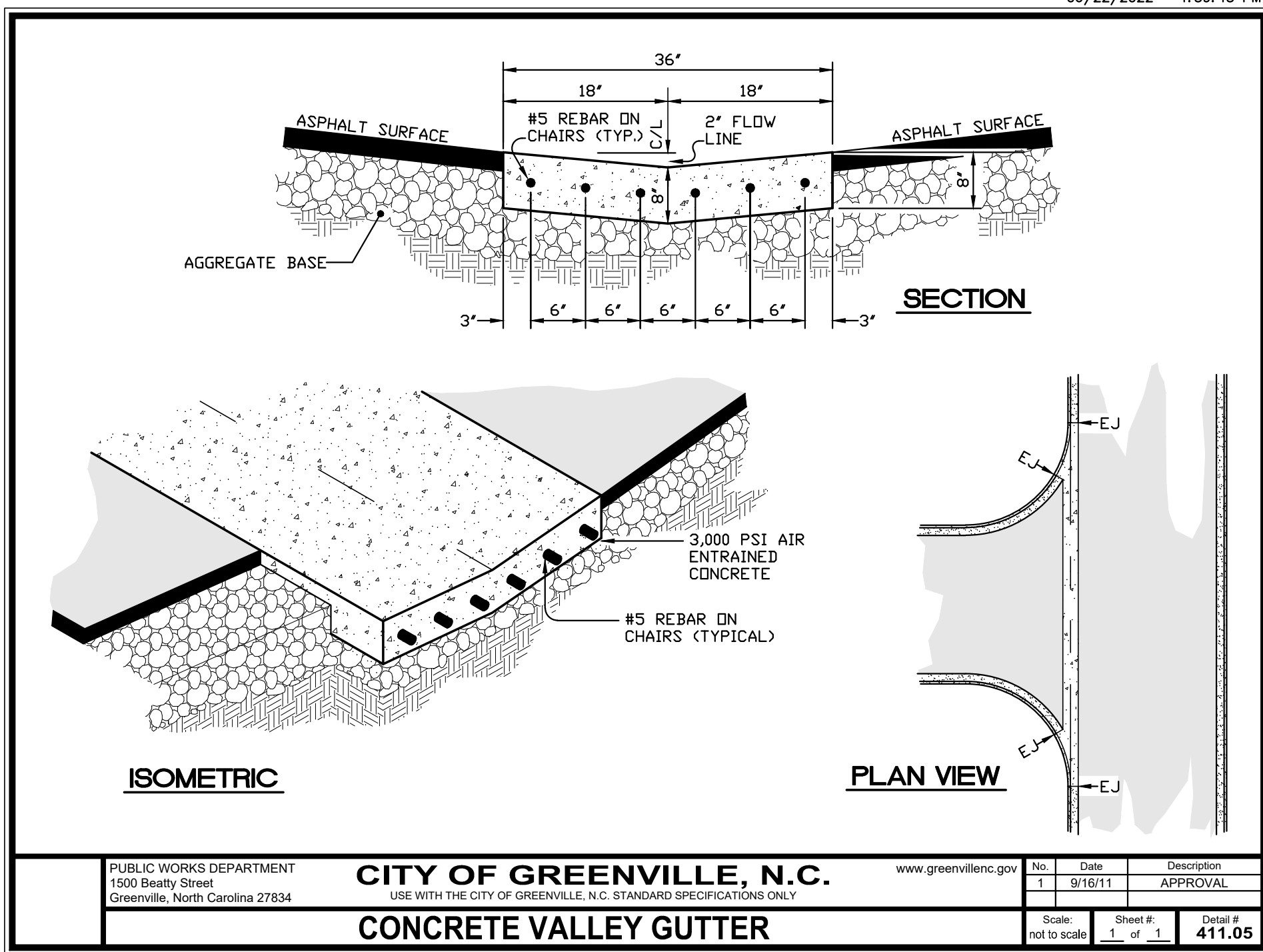
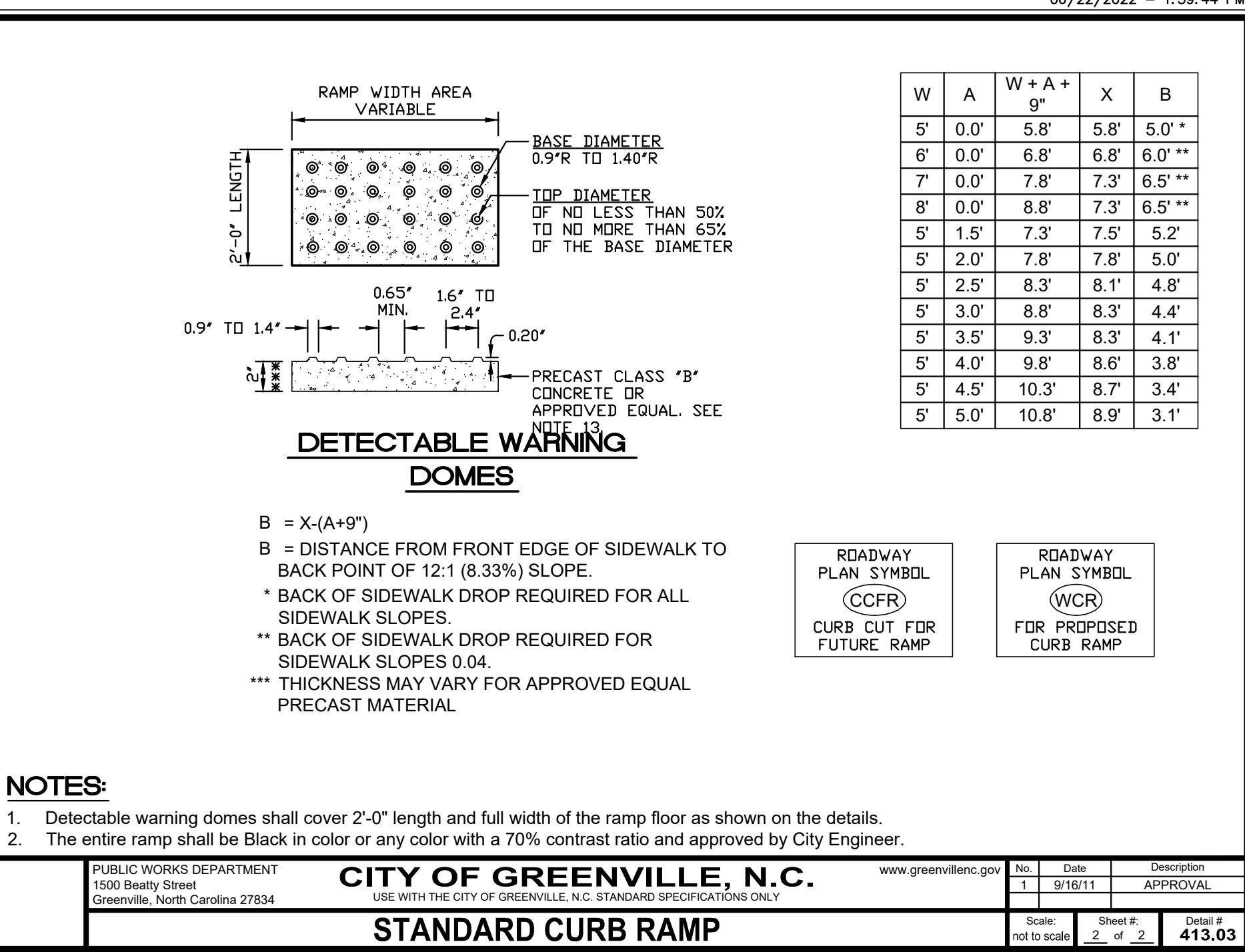
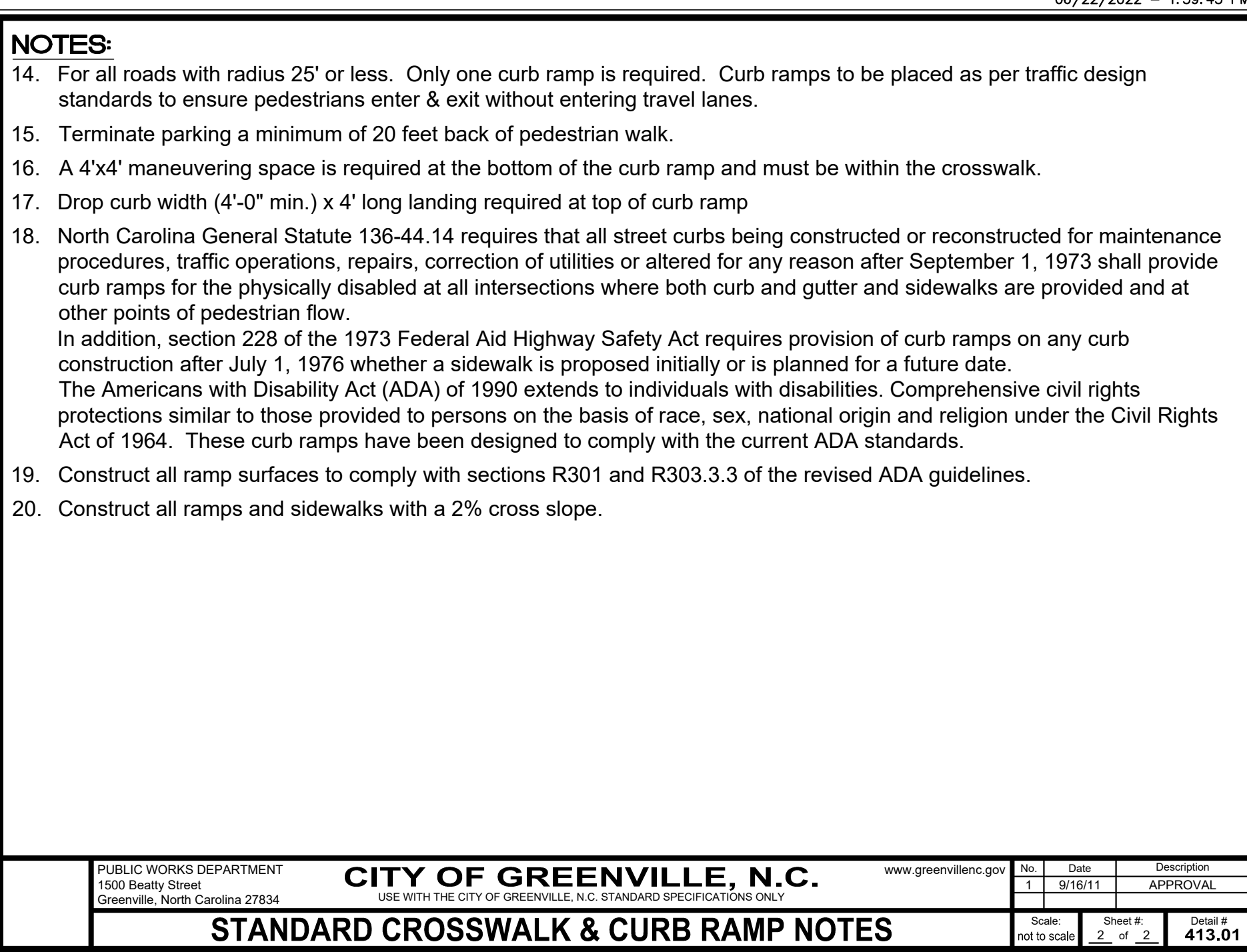
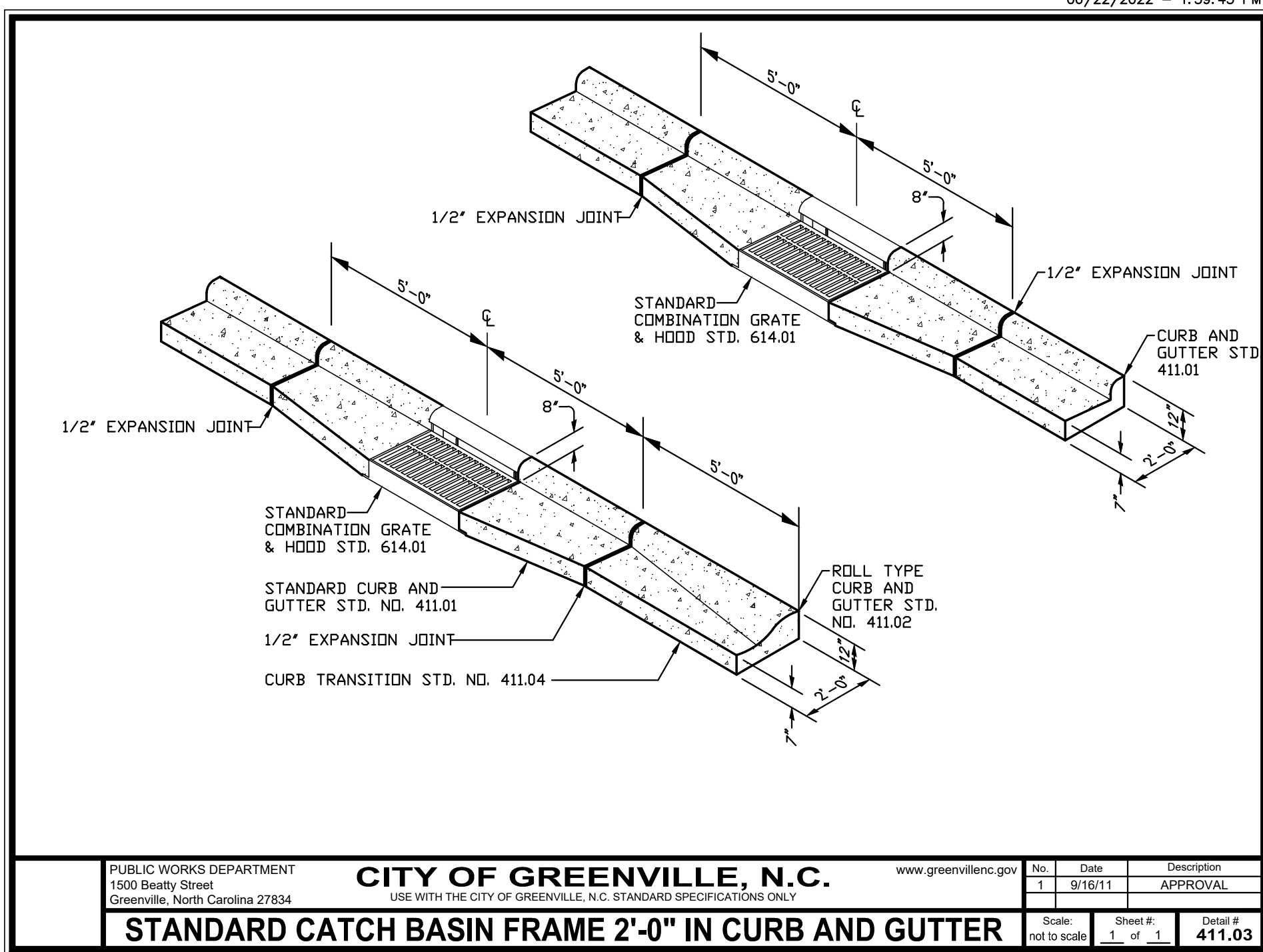
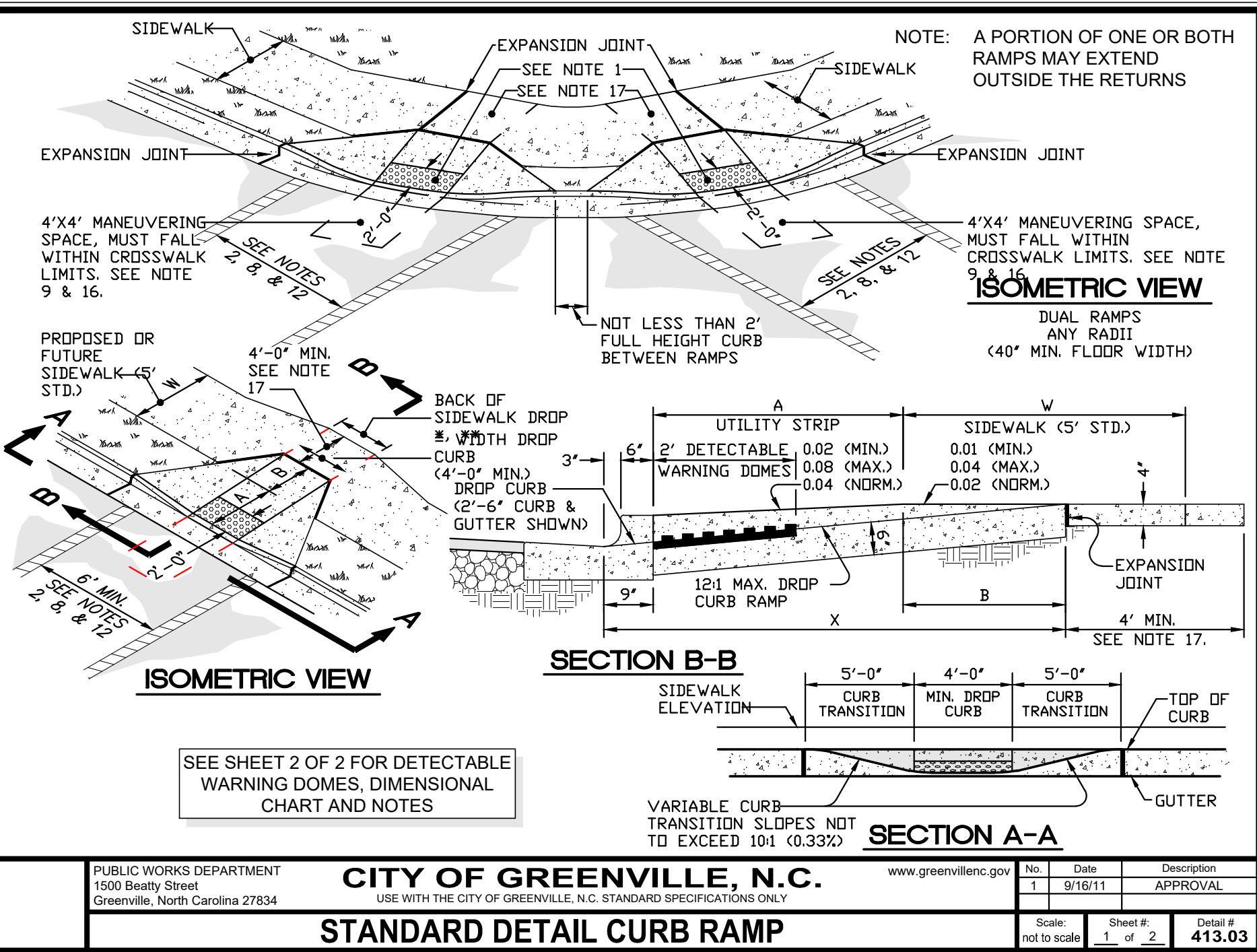
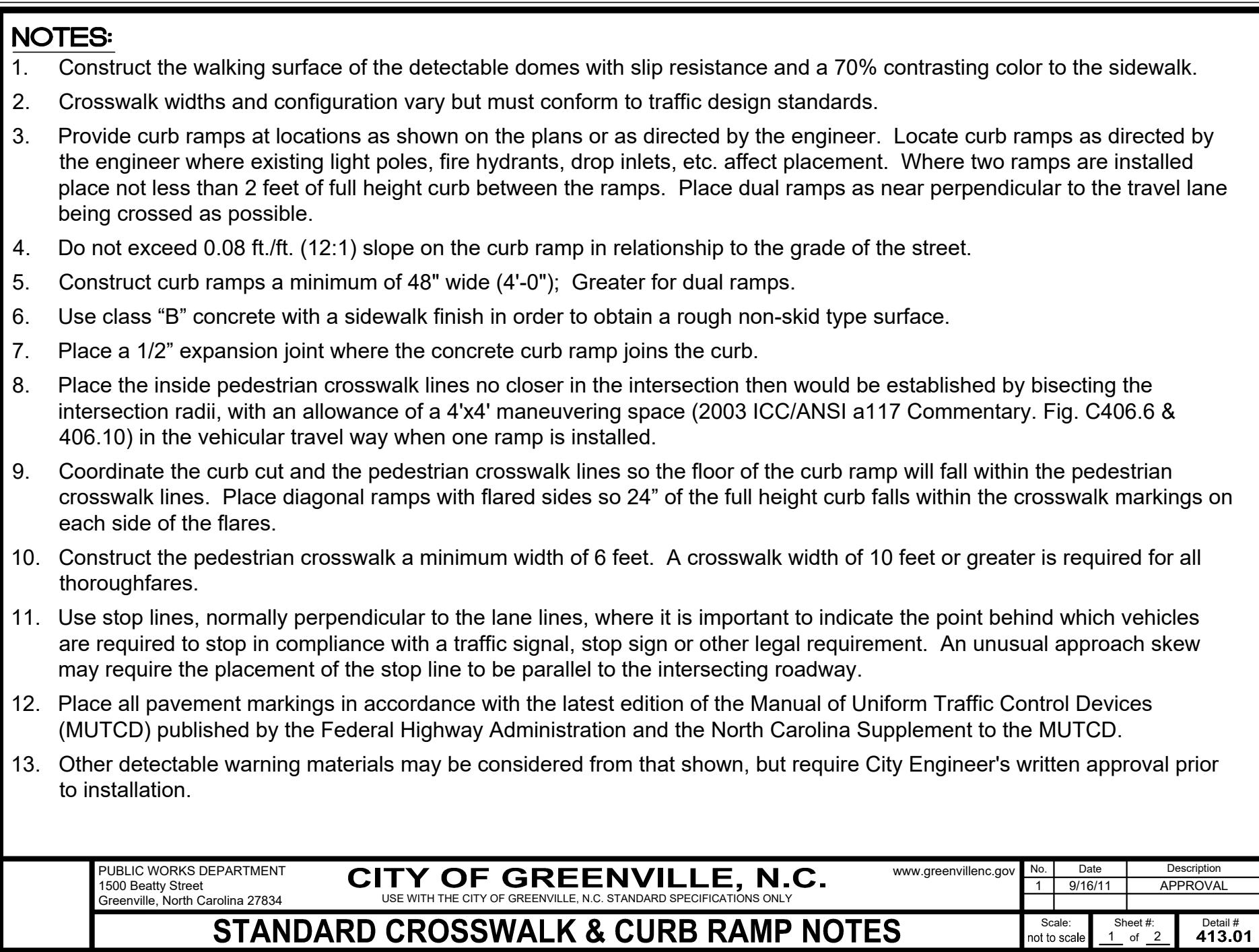
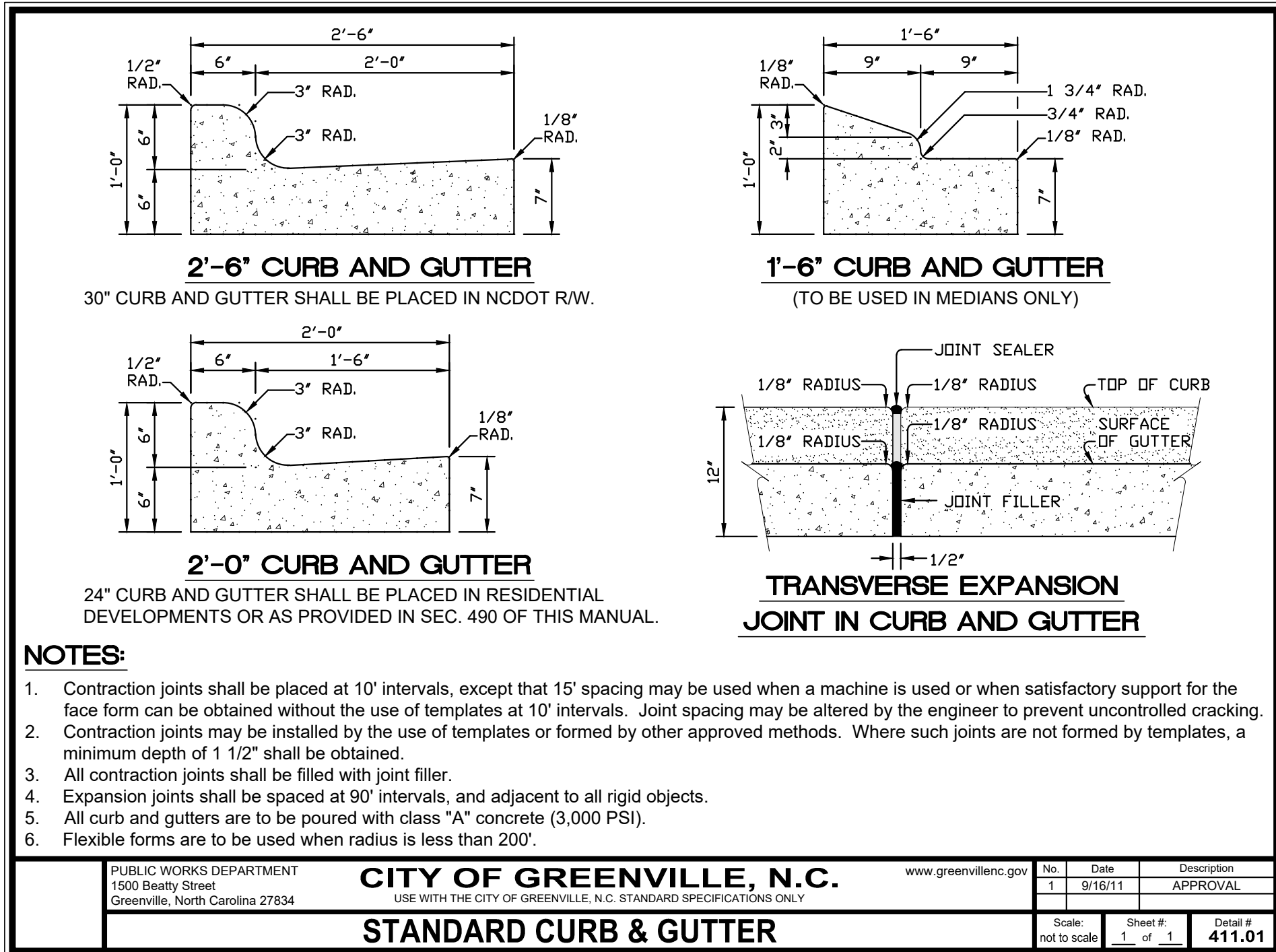
NC License: PI-1391  
**ARK CONSULTING GROUP PLLC**  
 ENGINEERS & PLANNERS  
 2755-B Chimney Bluff  
 Greenville, NC 27836  
 (252) 558-0888  
 www.arkconsultinggroup.com

SEAL 28425  
 ENGINEER  
 T. ANDERSON  
 REV: 08/05/2021

Project Name: STA  
 Drawn By: RUL  
 Checked By: BCF  
 Project Number: 19046  
 Drawing Number: D-1279

**C-3**

Date: 06/15/2021



REVISIONS:

#	DATE	DESCRIPTION

**ROADWAY DETAILS**

**Eighth St. Drainage Improvements**

**PITT ST TO INTERSECTION OF EIGHTH AND CLARK ST**

City of Greenville, Pitt County, North Carolina

NC License: PA-1399

**ARK CONSULTING GROUP PLLC**  
ENGINEERS & PLANNERS

2755-B Chimney Bluff  
Greenville, NC 27838  
(252) 558-0888  
www.arkconsultinggroup.com

SEAL 28425  
ENGINEER  
T. ANDERSON  
REV. 08/05/2021

Project Manager: STA  
Drawn By: RUL  
Checked By: BCF  
Project Number: 19046  
Drawing Number: D-1279

**C-4**

Date: 06/15/2021

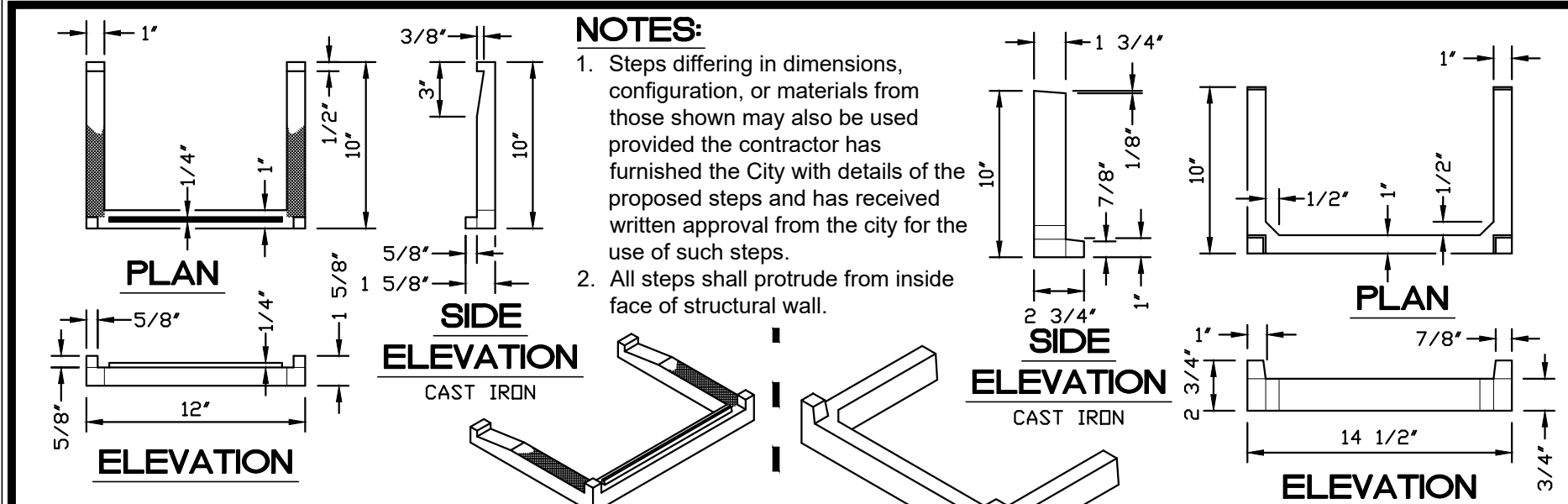
CATCH BASIN & JUNCTION BOX STANDARD NOTES

- 1. Mortar Joints 1/2" ± 1/8" thick. Concave tool all exposed mortar joints.
2. Class "A" concrete to be used. Chamfer all exposed corners 1".
3. The pouring of floor slab to be accomplished by forming.
4. All catch basins over 3'-6" in depth shall be provided with steps 1' on centers. Steps shall be in accordance with std. detail No. 615.01.
5. Concrete brick may be used in lieu of clay brick. Jumbo brick will be permitted.
6. Engineered pre-cast boxes are permitted with the City Engineer's approval.
7. For 8'-0" in height or less use 8" wall. Over 8'-0" in height use 12" wall to 6'-0" from top of wall, and 8" wall for the remaining 6'-0". Adjust quantities accordingly.
8. Leave weep holes as directed by the engineer.
9. Construct with pipe crowns matching.
10. All drawings not to scale.

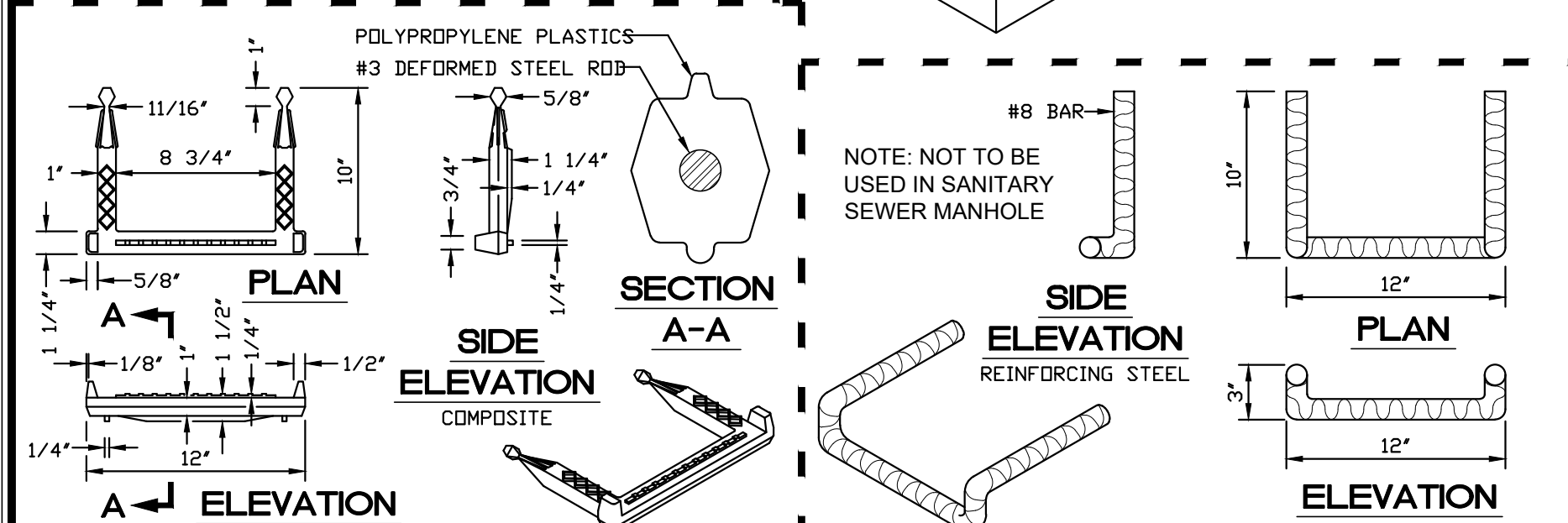
MANHOLE STANDARD NOTES

- 1. Mortar Joints 1/2" ± 1/8" thick. Concave tool all exposed mortar joints.
2. Class "A" concrete to be used. Chamfer all exposed corners 1".
3. Forms to be used for the construction of the base.
4. Where the manhole top is exposed to road traffic, the top of the manhole is to be flush with the ground. At other locations it should be a minimum of 9" above the ground.
4. Manholes over 3'-6" in depth shall be provided with steps 1' on centers. Steps shall be in accordance with Std. detail No. 615.01.
5. Over 36" pipe design requires City Engineer's approval.
6. For manholes over 12 ft. vertical wall depth, brick masonry wall thickness shall be 12"
7. For manholes with a vertical wall depth less than 12 ft., brick masonry wall thickness shall be 8".
8. All drawings not to scale.

CITY OF GREENVILLE, N.C. PUBLIC WORKS DEPARTMENT. STANDARD CATCH BASIN AND MANHOLE NOTES. No. 1, Date 9/16/11, Description APPROVAL.

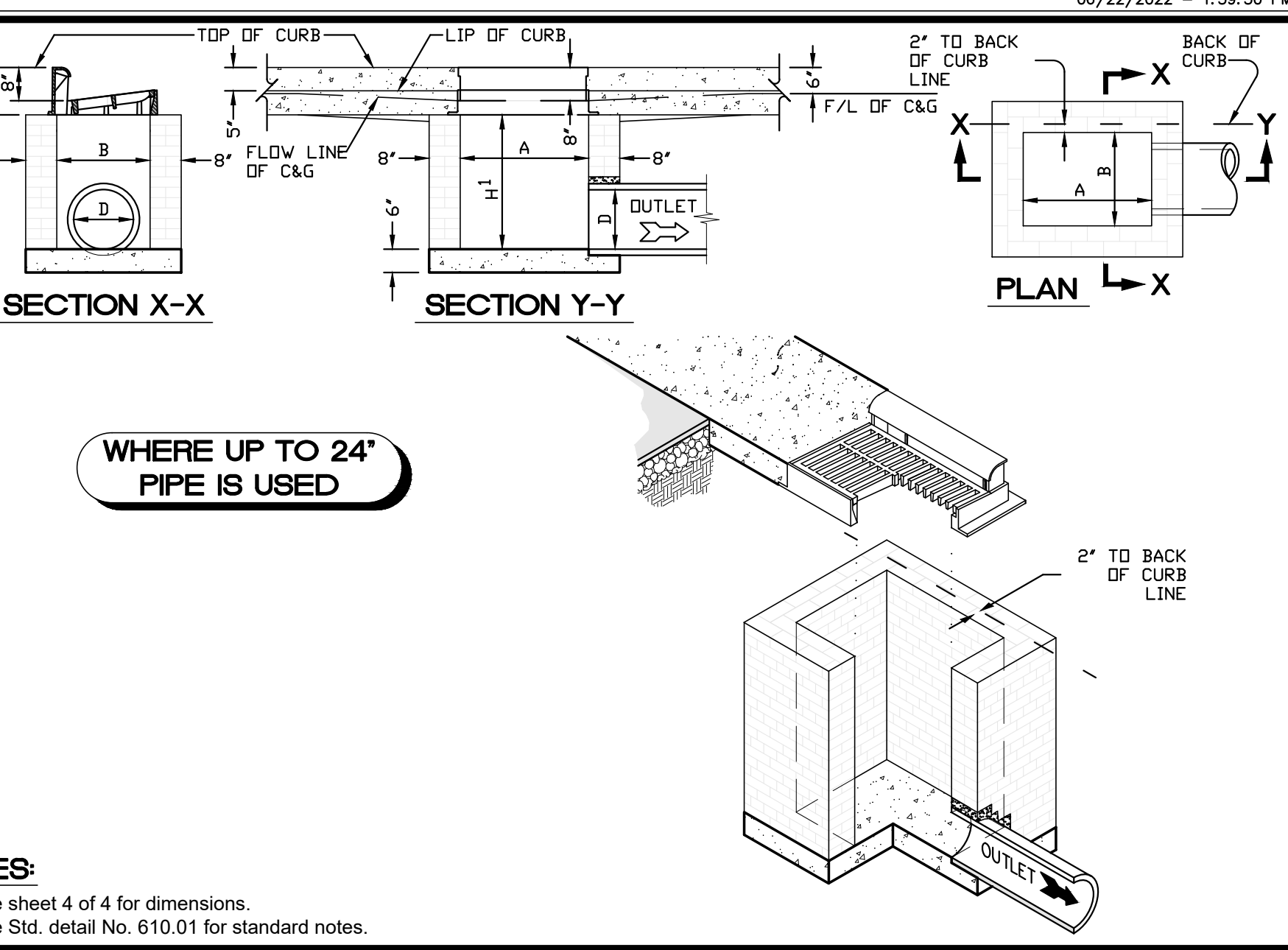


NOTES:
1. Steps differing in dimensions, configuration, or materials from those shown may also be used provided the contractor has furnished the City with details of the proposed steps and has received written approval from the city for the use of such steps.
2. All steps shall protrude from inside face of structural wall.



NOTE: NOT TO BE USED IN SANITARY SEWER MANHOLE

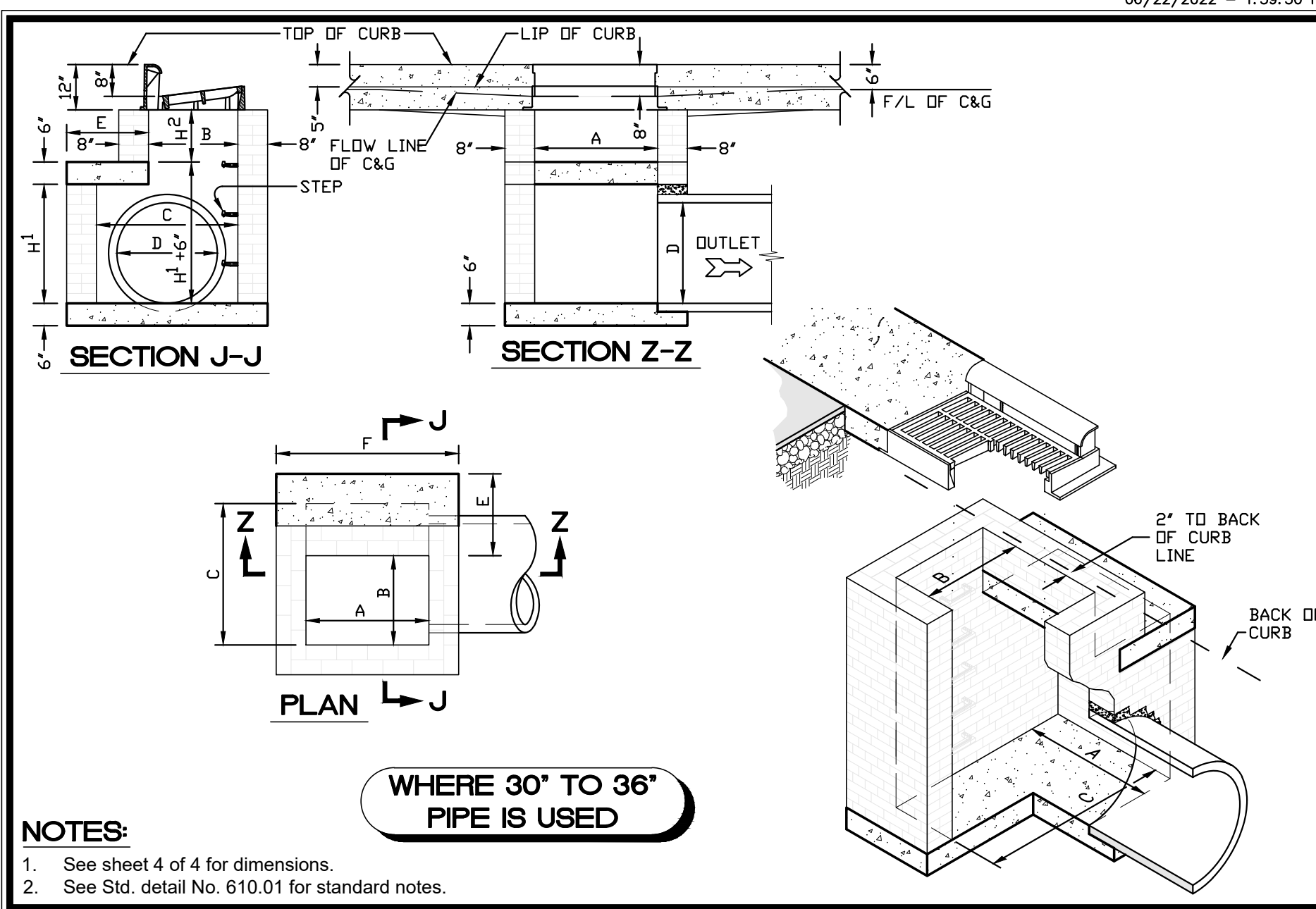
CITY OF GREENVILLE, N.C. PUBLIC WORKS DEPARTMENT. STANDARD STEPS. No. 1, Date 9/16/11, Description APPROVAL.



WHERE UP TO 24\"/>

- NOTES:
1. See sheet 4 of 4 for dimensions.
2. See Std. detail No. 610.01 for standard notes.

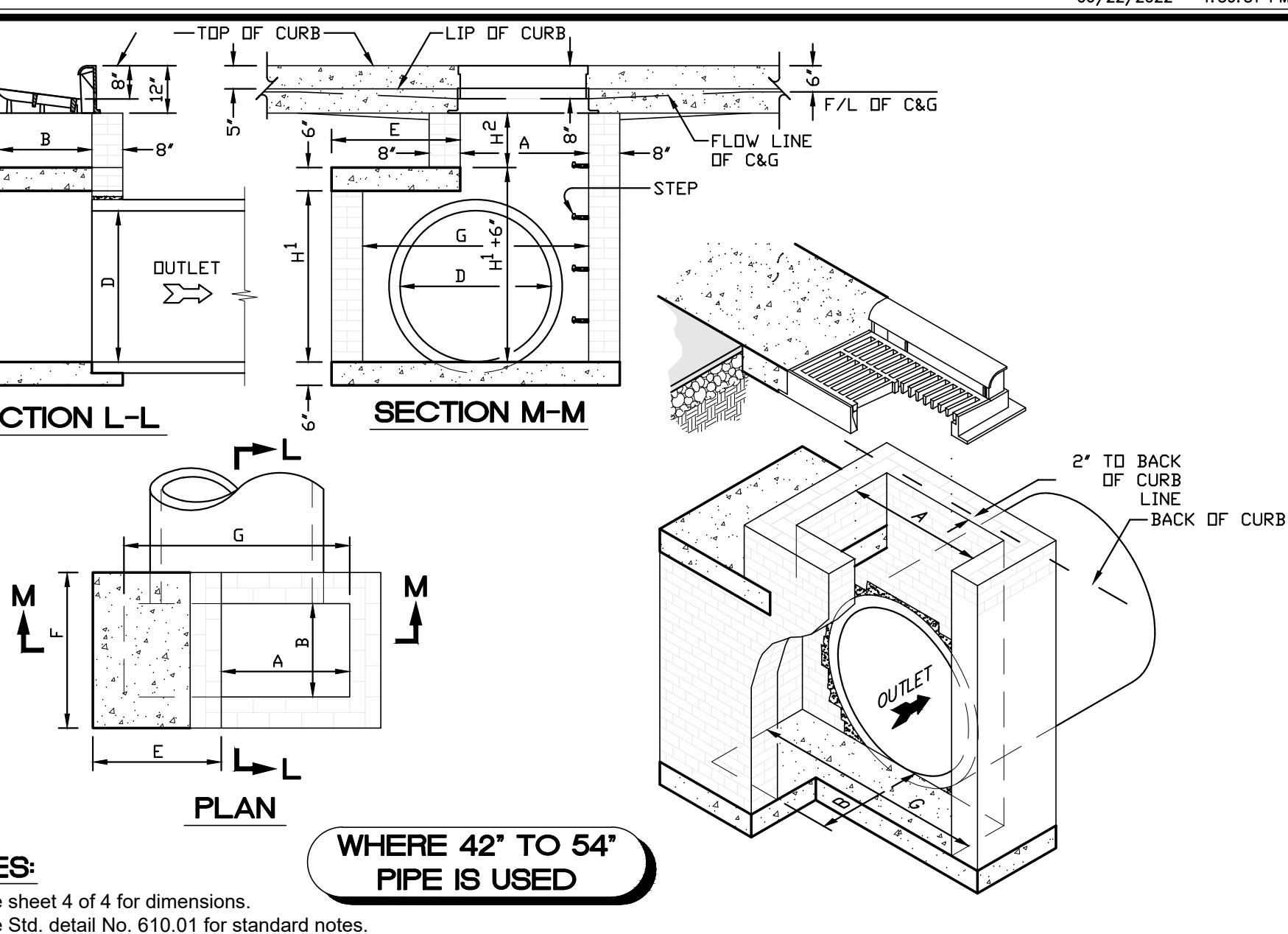
CITY OF GREENVILLE, N.C. PUBLIC WORKS DEPARTMENT. STANDARD BRICK CATCH BASIN (15\"/>



WHERE 30\"/>

- NOTES:
1. See sheet 4 of 4 for dimensions.
2. See Std. detail No. 610.01 for standard notes.

CITY OF GREENVILLE, N.C. PUBLIC WORKS DEPARTMENT. STANDARD BRICK CATCH BASIN (15\"/>



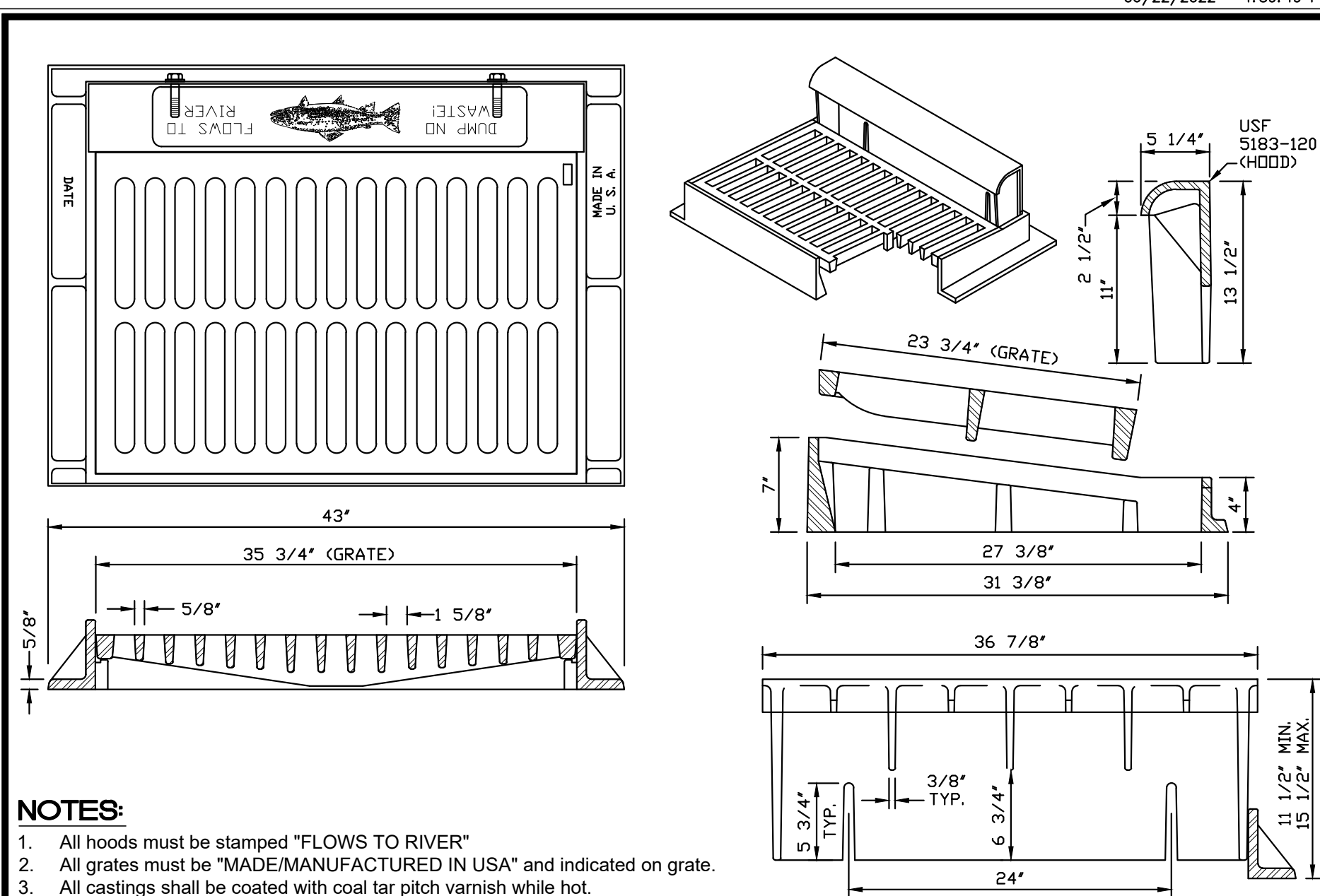
WHERE 42\"/>

- NOTES:
1. See sheet 4 of 4 for dimensions.
2. See Std. detail No. 610.01 for standard notes.

CITY OF GREENVILLE, N.C. PUBLIC WORKS DEPARTMENT. STANDARD BRICK CATCH BASIN (15\"/>

Table with 10 columns: DIMENSIONS OF BOX & PIPE, COVER, REINFORCEMENT, CUBIC YARDS OF CONCRETE IN BOX, BRICK MASONRY. Includes various pipe sizes and reinforcement details.

CITY OF GREENVILLE, N.C. PUBLIC WORKS DEPARTMENT. STANDARD BRICK CATCH BASIN (15\"/>

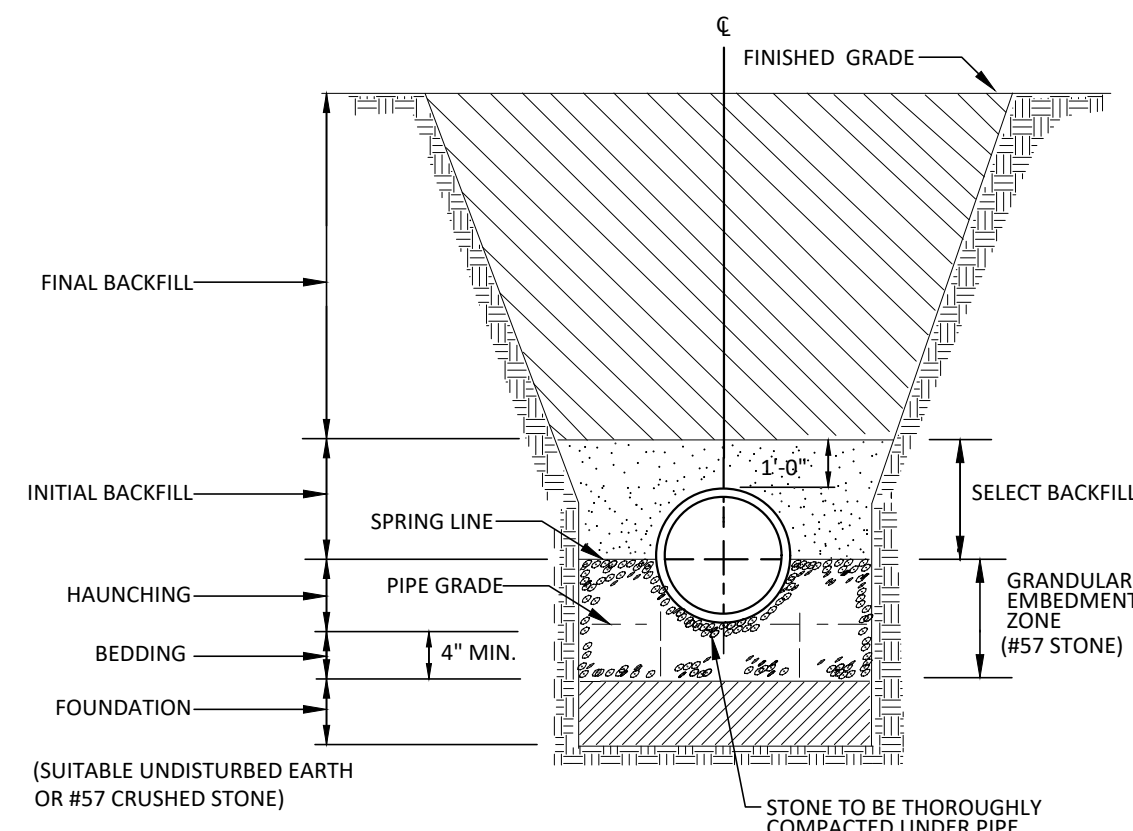


- NOTES:
1. All hoods must be stamped "FLOWS TO RIVER"
2. All grates must be "MADE/MANUFACTURED IN USA" and indicated on grate.
3. All castings shall be coated with coal tar pitch varnish while hot.

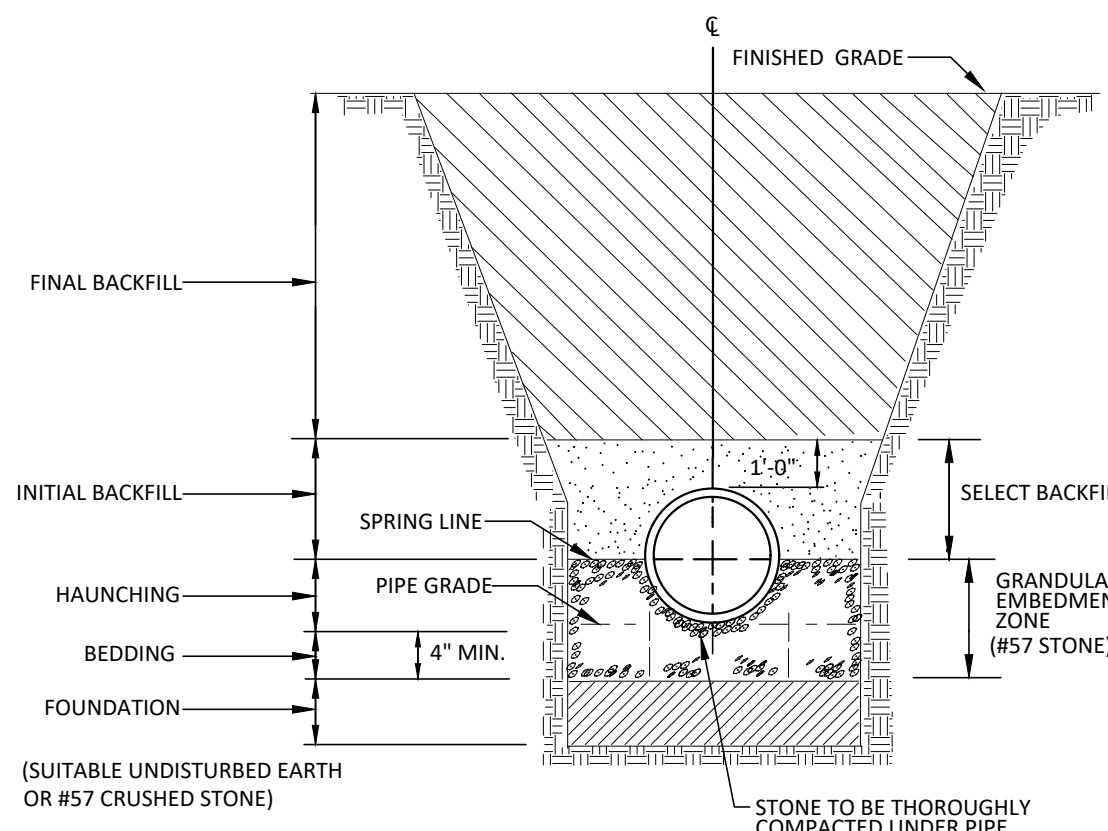
CITY OF GREENVILLE, N.C. PUBLIC WORKS DEPARTMENT. STANDARD CATCH BASIN ASSEMBLY FRAME, HOOD & GRATE. No. 1, Date 9/16/11, Description APPROVAL.

DETAILS
Eighth St. Drainage Improvements
PITT ST TO INTERSECTION OF EIGHTH AND CLARK ST
City of Greenville, Pitt County, North Carolina

ARK CONSULTING GROUP PLLC. ENGINEERS & PLANNERS. PROJECT: EIGHTH STREET IMPROVEMENTS. DRAWING NUMBER: D-1279. DATE: 06/15/2021.



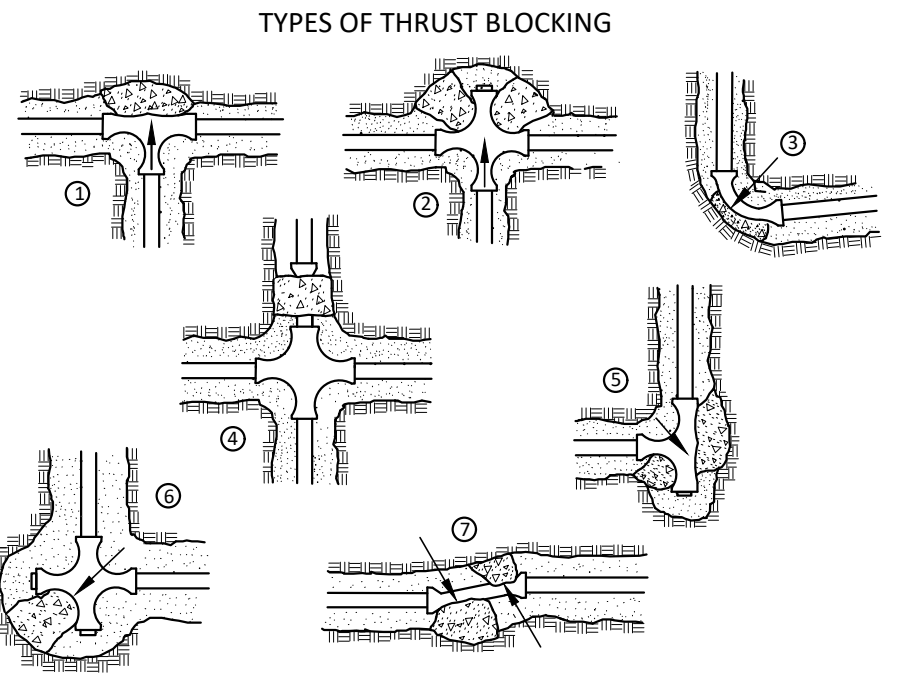
**TRENCH SECTION DETAIL FOR THE INSTALLATION OF VITRIFIED CLAY, ABS, AND PVC TRUSS SANITARY SEWER PIPE**  
(S-8) NOT TO SCALE



**TRENCH SECTION DETAIL FOR THE INSTALLATION OF VITRIFIED CLAY, ABS, AND PVC TRUSS SANITARY SEWER PIPE**  
(S-8) NOT TO SCALE

RESULTANT THRUST AT FITTING AT 150 PSI WATER PRESSURE

NOM. PIPE DIA.	DEAD END	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
4"	2,700	3,800	2,100	1,100	530
6"	5,600	8,000	4,300	2,200	1,100
8"	9,700	13,600	7,400	3,800	1,900
10"	14,500	20,500	11,100	5,700	2,900
12"	20,500	29,000	15,700	8,000	4,000
14"	27,600	39,000	21,100	11,000	5,400
16"	35,700	50,400	27,300	14,000	7,000
18"	44,800	63,400	34,400	17,500	8,800
20"	55,000	77,000	42,100	21,500	10,800
24"	78,500	110,000	60,000	31,600	15,400
30"	120,600	170,600	92,300	47,100	23,600
36"	172,800	244,400	132,300	67,500	33,900
42"	233,300	330,000	178,600	91,000	45,700
48"	304,000	430,000	232,700	118,600	59,600
54"	384,100	543,200	294,000	149,000	75,300



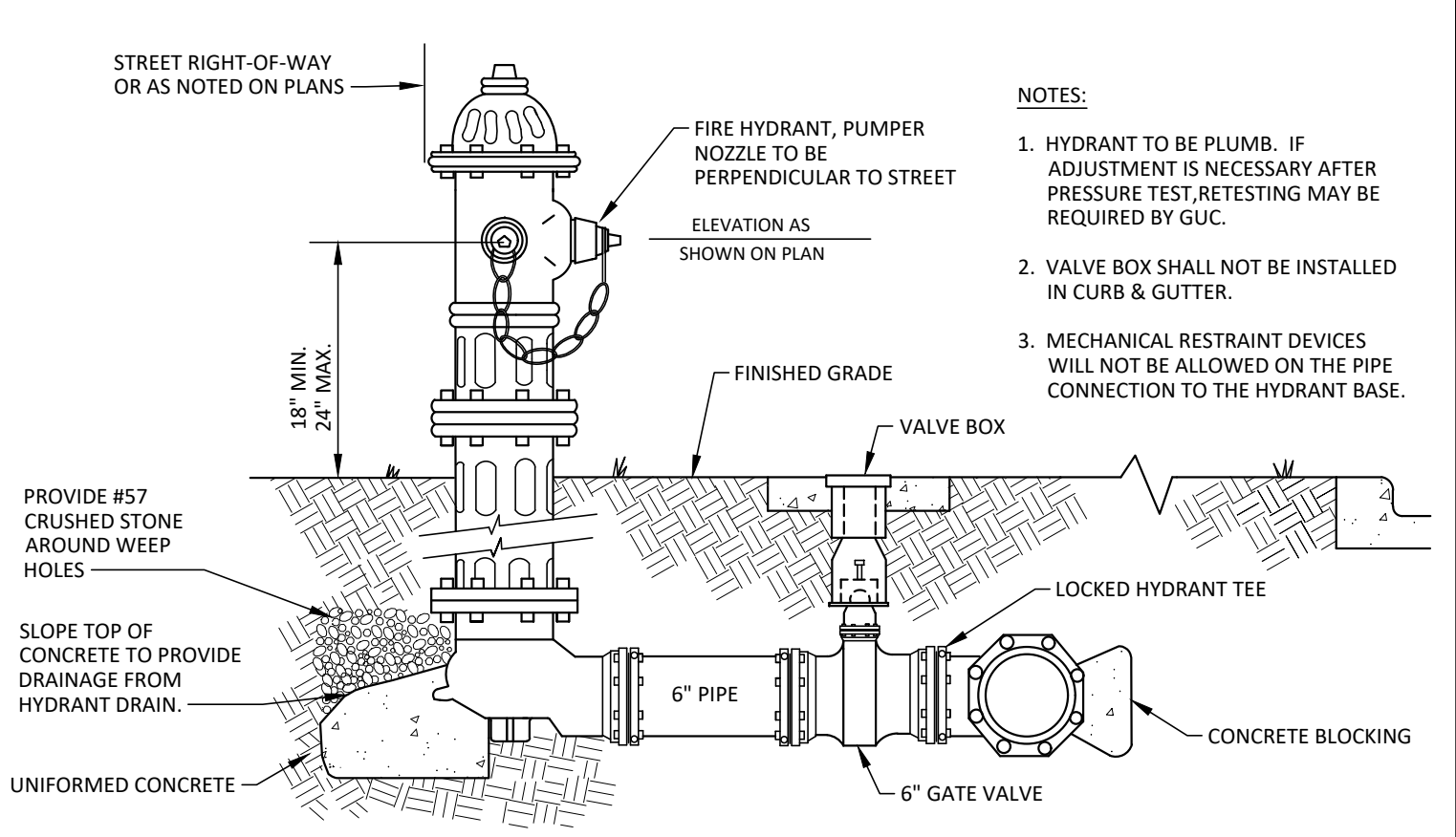
SOIL BEARING LOAD (LB./SQ. FT.)

MUCK	0
SOFT CLAY	1,000
SILT	1,500
SANDY SILT	3,000
SAND	4,000
SANDY SAND	6,000
HARD CLAY	9,000

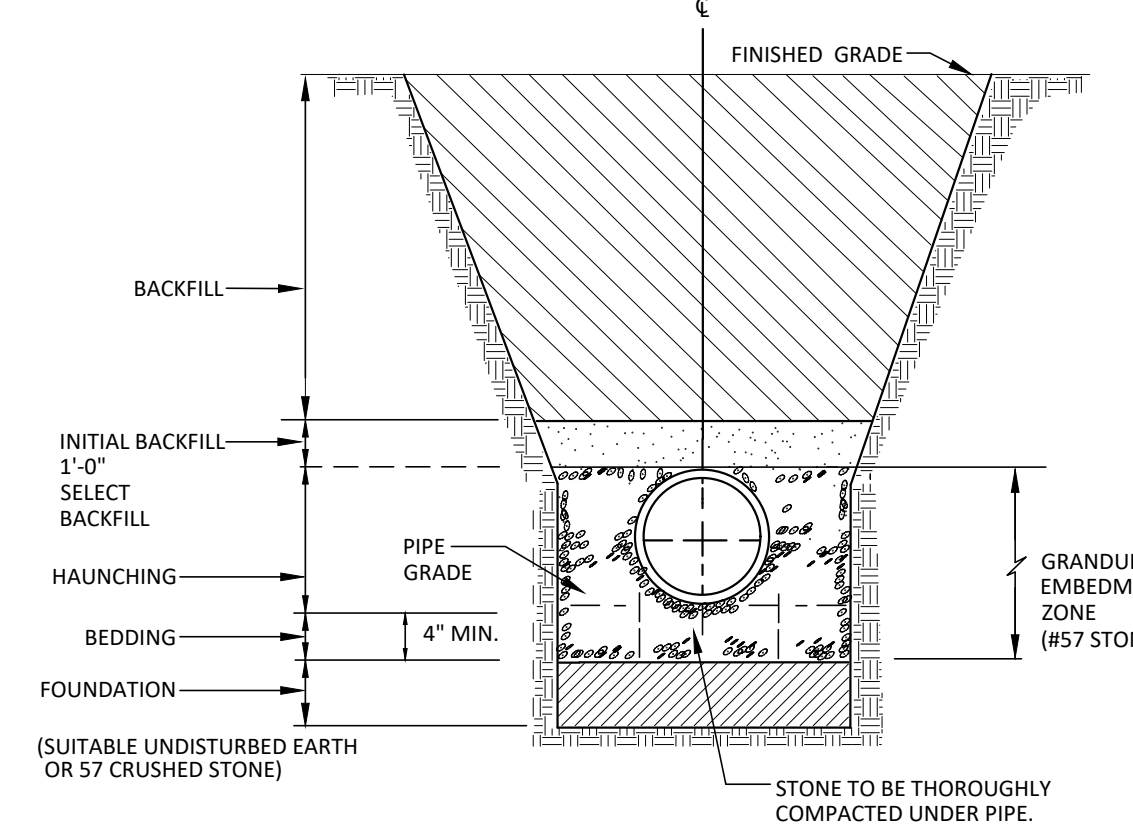
POLYWRAP SHALL BE USED TO COVER FITTINGS AND BOLTS.

TO DETERMINE THE SIZE OF A CONCRETE THRUST BLOCK, DIVIDE THE TOTAL FORCE BY THE BEARING VALUES OF THE SOIL. THE QUOTIENT WILL BE THE SIZE OF THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET. APPROXIMATE VALUES FOR VARIOUS TYPES OF SOIL ARE LISTED IN TABLE.

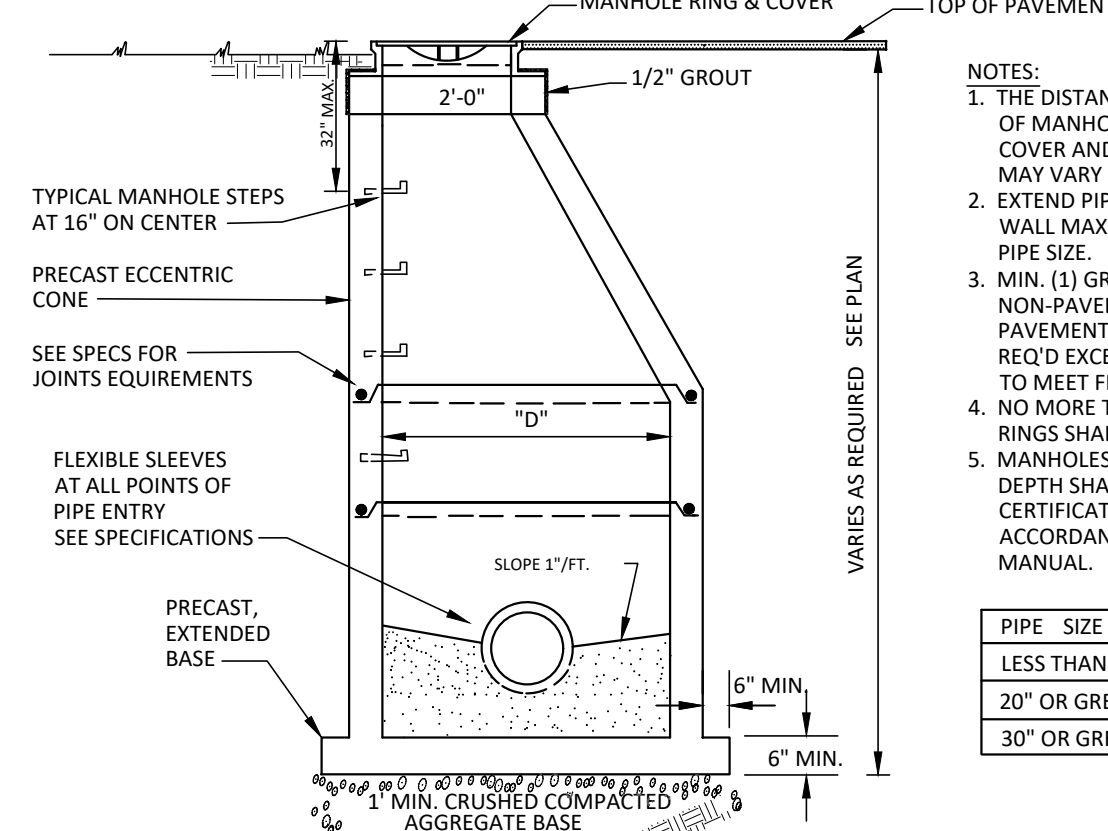
NO RESPONSIBILITY CAN BE ASSUMED FOR THE ACCURACY OF THE DATA IN THIS TABLE DUE TO THE WIDE VARIATION OF BEARING LOAD CAPABILITIES FOR EACH SOIL TYPE.



**FIRE HYDRANT INSTALLATION (FOR AREAS WITH CURB AND GUTTER)**  
(W-4) NOT TO SCALE



**TRENCH SECTION DETAIL FOR THE INSTALLATION OF PVC SANITARY SEWER PIPE (NOT INCLUDING TRUSS)**  
(S-9) NOT TO SCALE



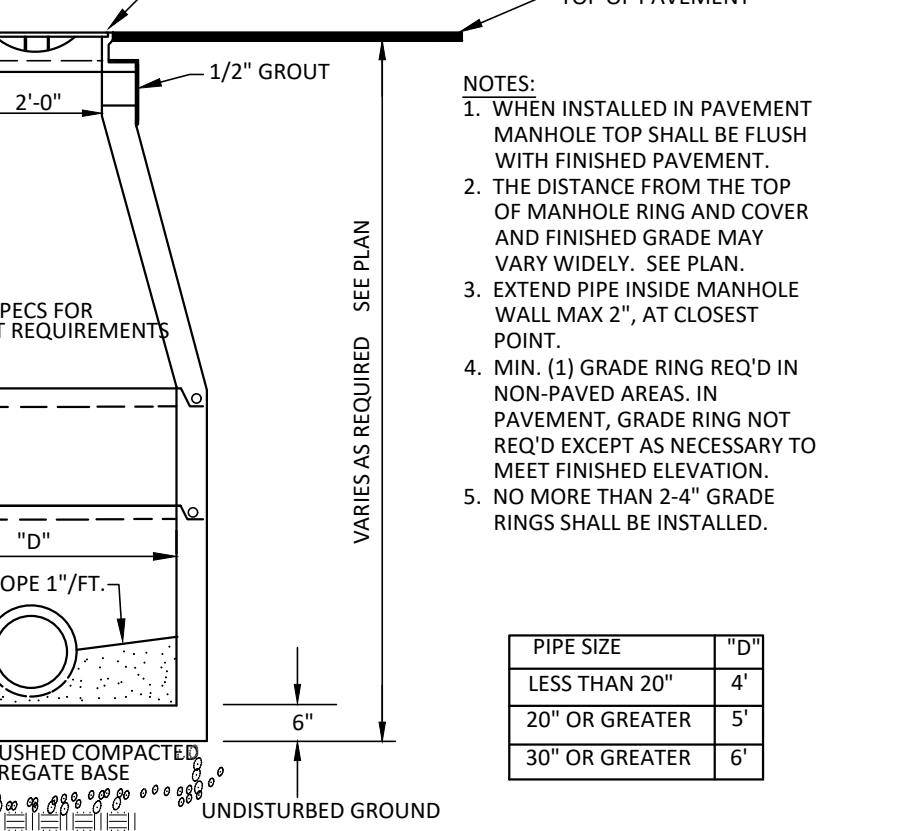
**TYPICAL PRECAST MANHOLE FOR MANHOLES OVER 12' IN DEPTH**  
(S-5) NOT TO SCALE

DEPTH GREATER THAN 6' CONE ECCENTRIC

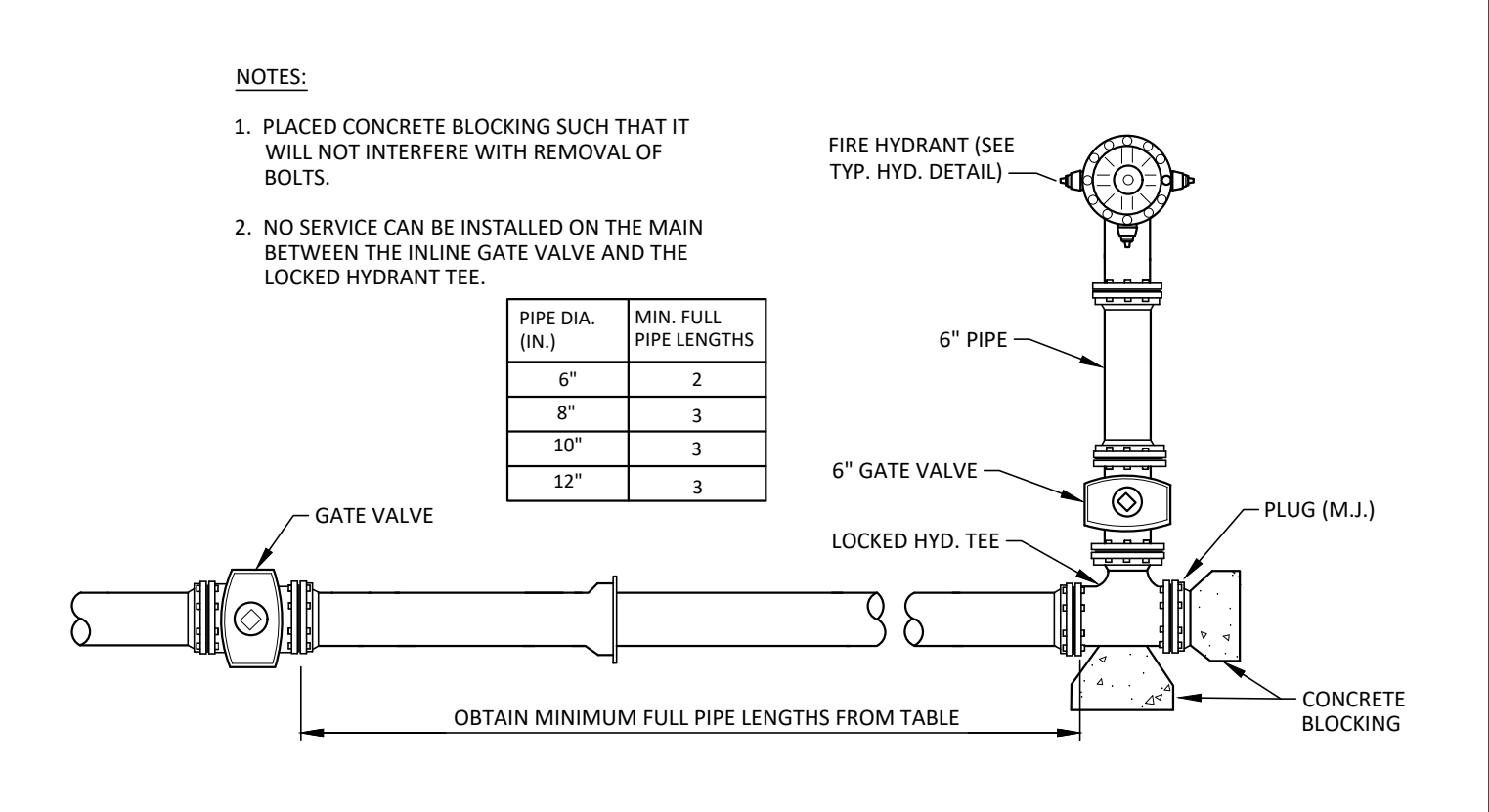
DEPTH 6' OR LESS CONCENTRIC

PIPE SIZE LESS THAN 20\"/>

PIPE SIZE	"D"
LESS THAN 20"	4"
20" OR GREATER	5"
30" OR GREATER	6"



**TYPICAL PRECAST MANHOLE FOR MANHOLES 12' OR LESS IN DEPTH**  
(S-4) NOT TO SCALE



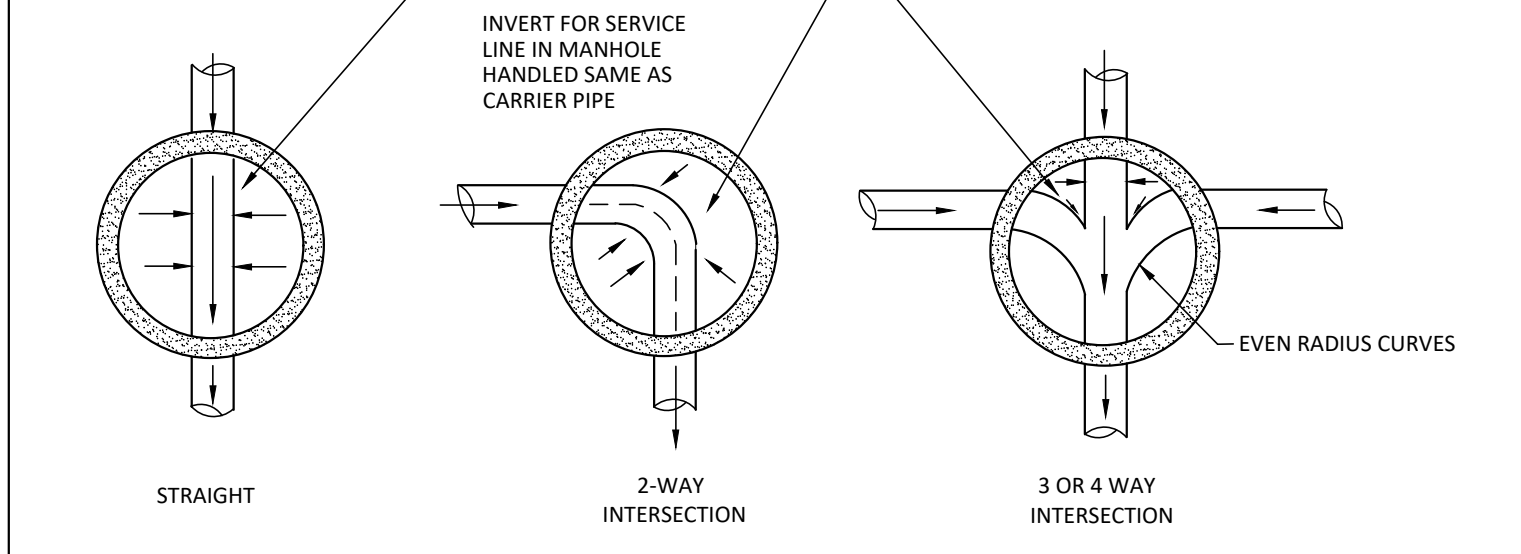
**TERMINATION OF 6\"/>**



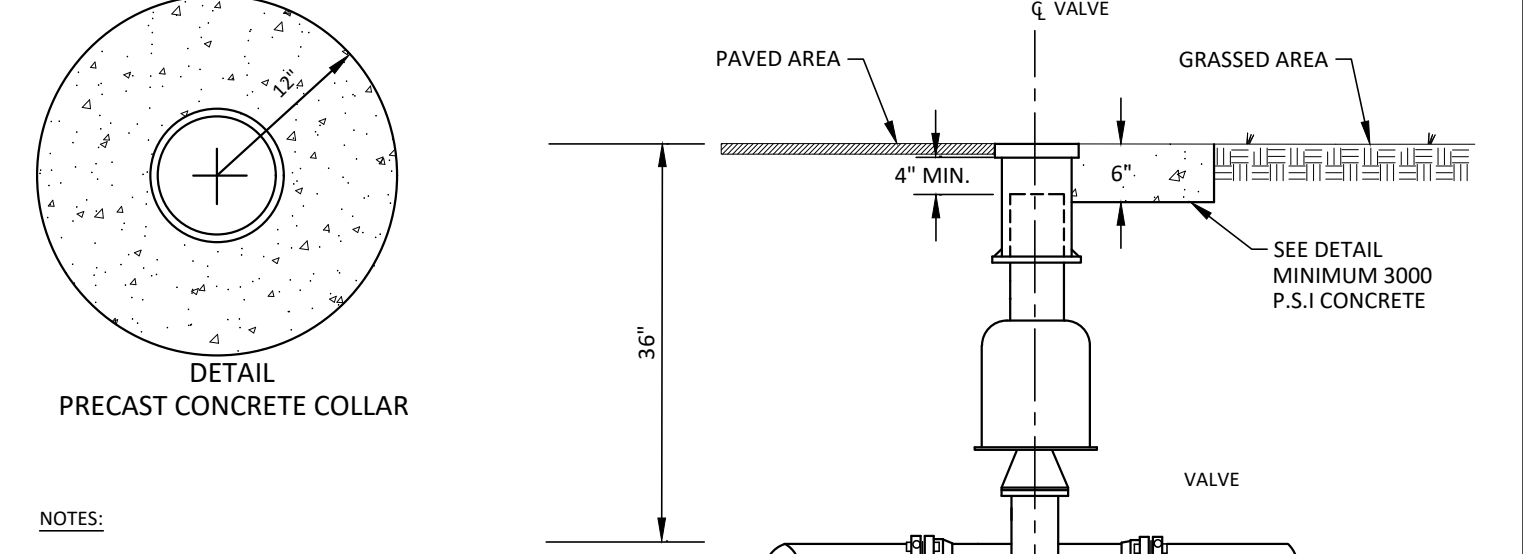
**TRENCH SECTION DETAIL FOR THE INSTALLATION OF VITRIFIED CLAY, ABS, AND PVC TRUSS SANITARY SEWER PIPE**  
(S-8) NOT TO SCALE



**TRENCH SECTION DETAIL FOR THE INSTALLATION OF VITRIFIED CLAY, ABS, AND PVC TRUSS SANITARY SEWER PIPE**  
(S-8) NOT TO SCALE



**MANHOLE INVERTS**  
(S-17) NOT TO SCALE



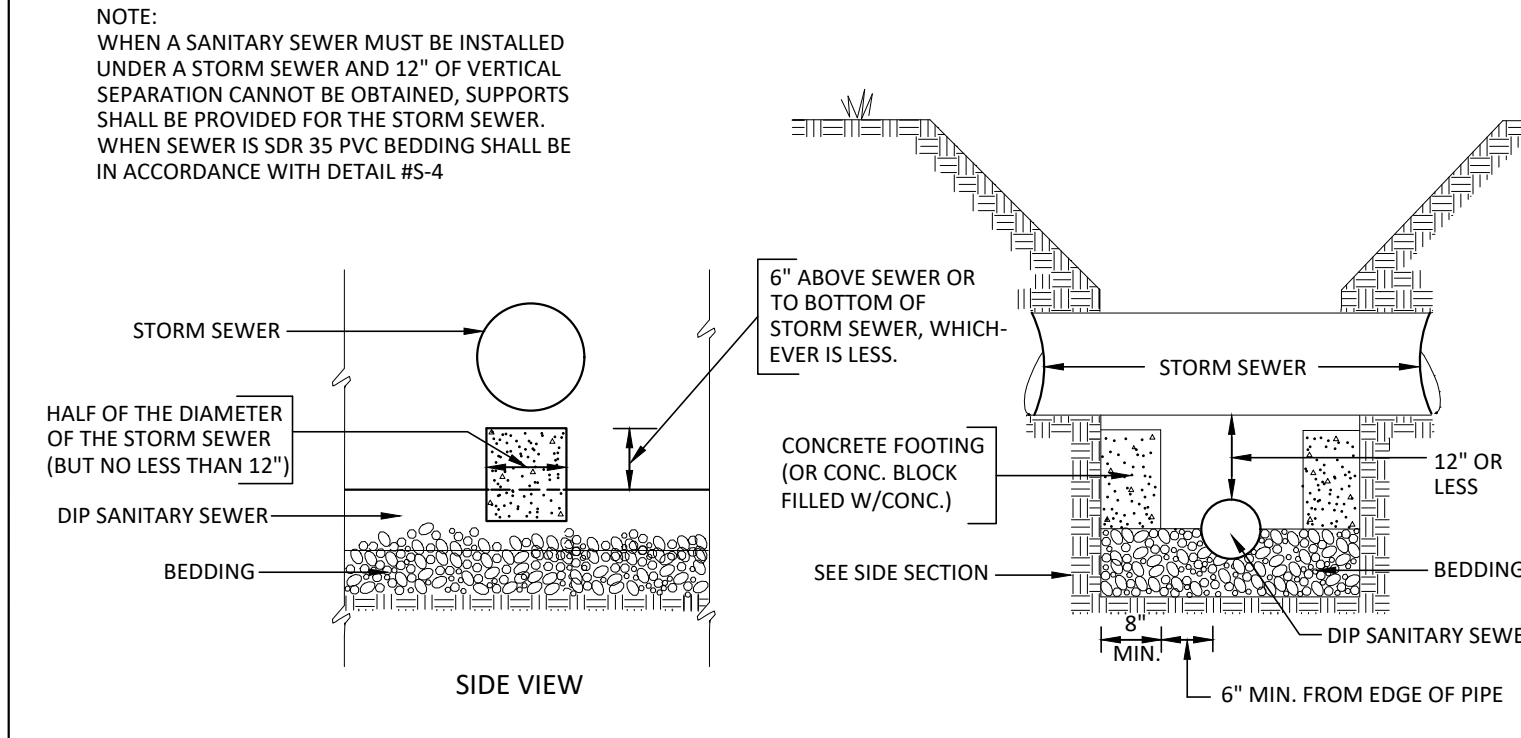
**VALVE BOX DETAIL FOR VALVES SMALLER THAN 12\"/>**



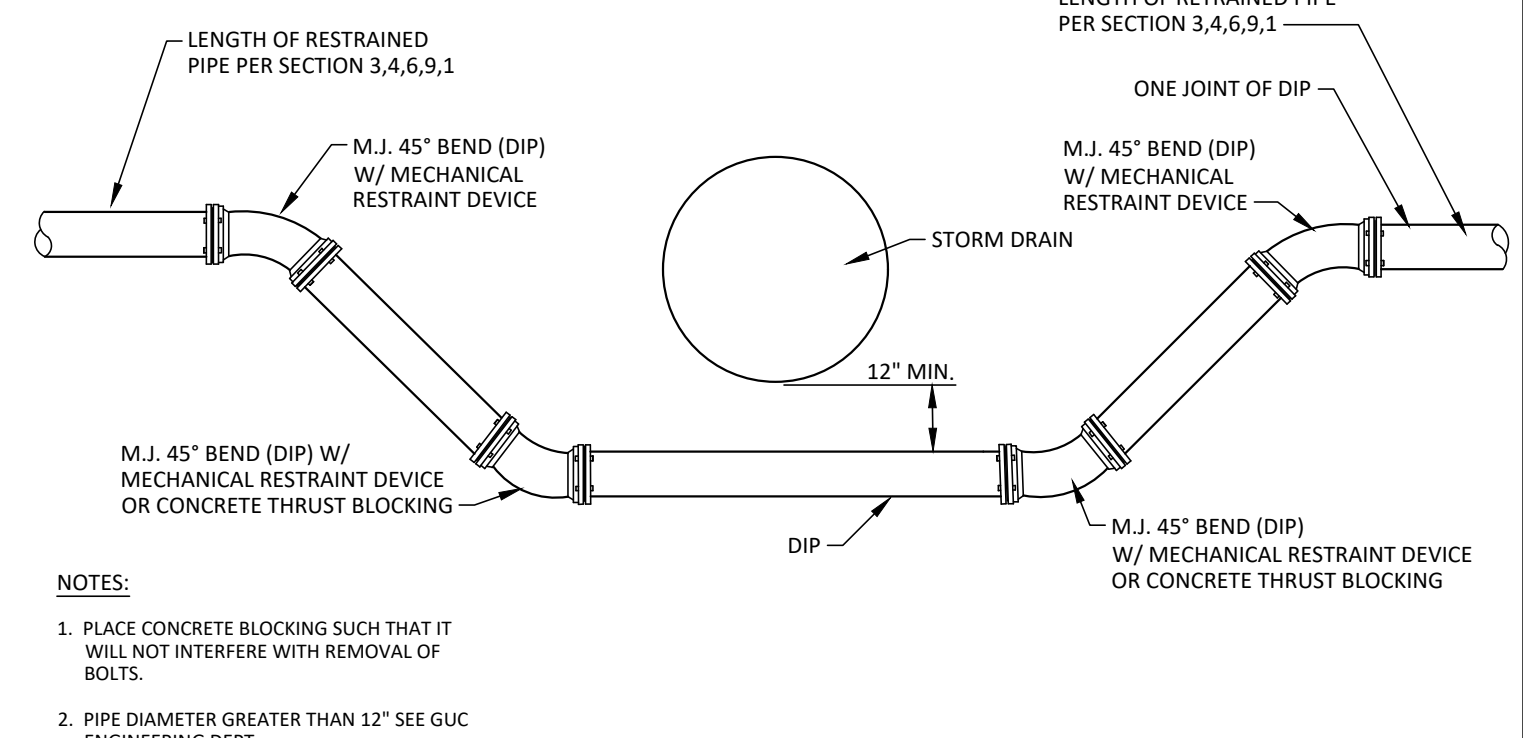
**SEWER CROSSING BELOW STORM SEWER**  
(S-11) NOT TO SCALE



**SEWER CROSSING BELOW STORM SEWER**  
(S-11) NOT TO SCALE



**WATER MAIN AND STORM DRAIN CROSSING**  
(W-14) NOT TO SCALE



**WATER MAIN AND STORM DRAIN CROSSING**  
(W-14) NOT TO SCALE

REVISIONS:

#	DATE	DESCRIPTION

**UTILITY DETAILS**

**Eighth St. Drainage Improvements**

PITT ST TO INTERSECTION OF EIGHTH AND CLARK ST

City of Greenville, Pitt County, North Carolina

NC License #1-1191

**ARK CONSULTING GROUP PLLC**

ENGINEERS & PLANNERS

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Greenville, NC 27638  
(252) 558-0888  
www.arkconsultinggroup.com

REV. 08/05/2021

Project Manager: STA

Drawn By: RJL

Checked By: BCF

Project Number: 19046

Drawing Number: D-1279

**C-6**

Date: 06/15/2021