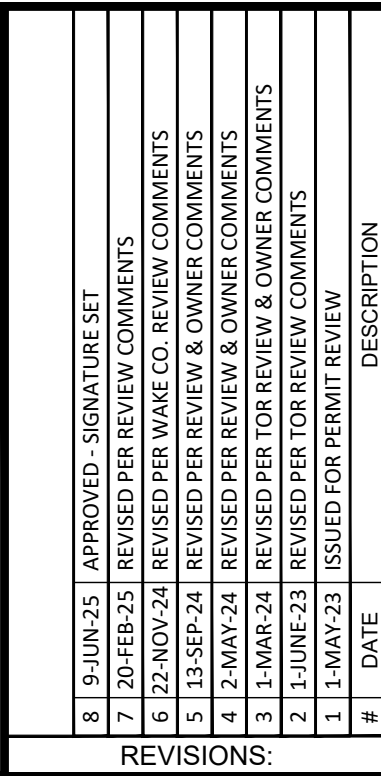
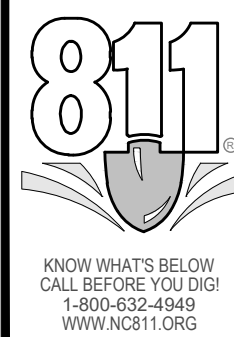
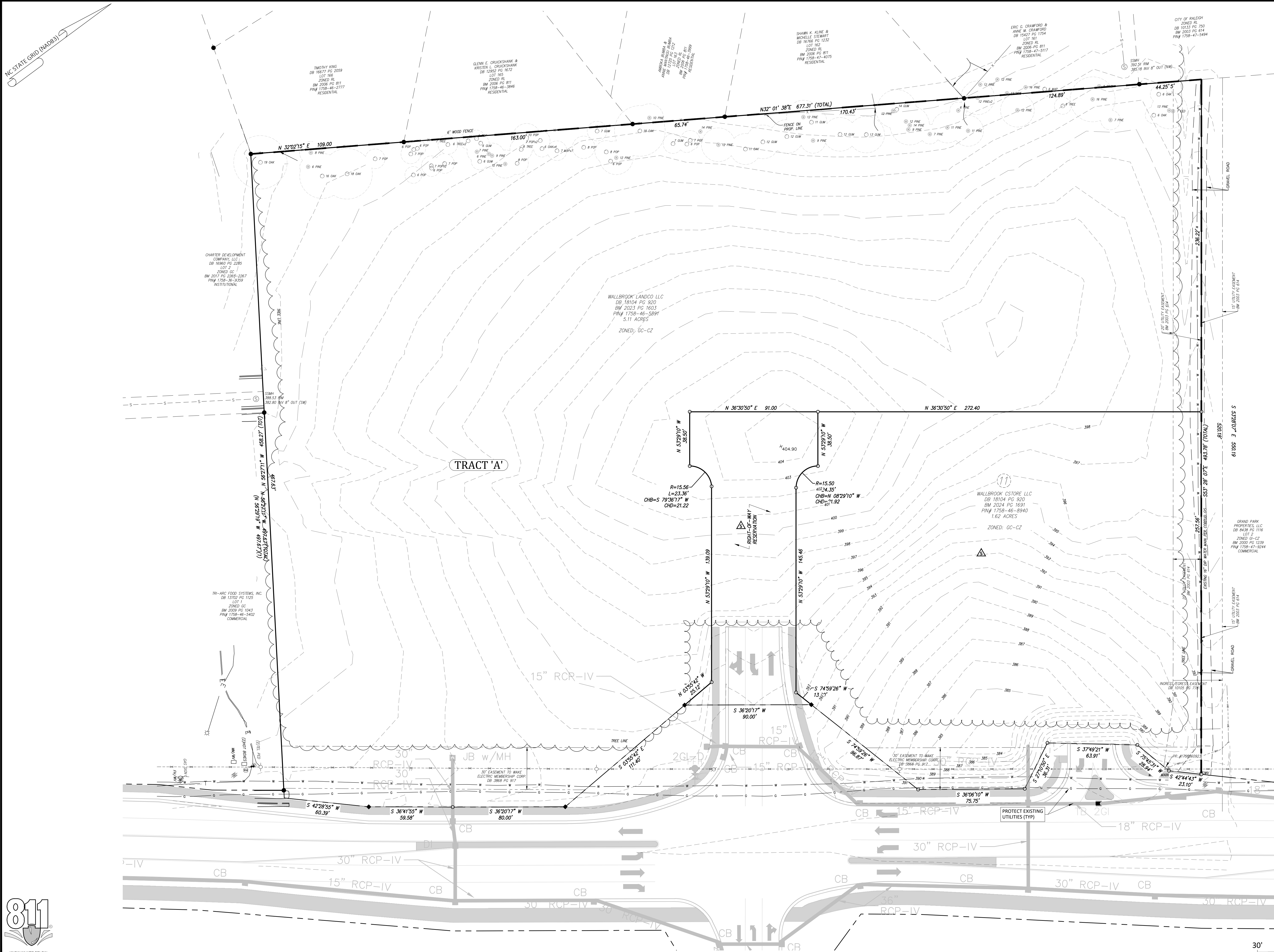


US-401 Business / S. Main Street ~ Town of Rolesville ~ Wake County ~ North Carolina



| | |
|------------------|-------------|
| Project Manager: | BCF |
| Drawn By: | DLC/TGN |
| Checked By: | TGN |
| Project Number: | 22049 |
| Drawing Number: | D-1404-SDP |
| | |
| | |
| C0.1 | |
| Date: | May 1, 2023 |



30' 0 15' 30'
SCALE 1 inch = 30 ft

| REVISIONS: | DATE | DESCRIPTION |
|------------|---------------------------------|-------------|
| 1. JUN-23 | ISSUED FOR PERMIT REVIEW | |
| 2. JUN-23 | REVISED PER TOR REVIEW COMMENTS | |
| 3. JUN-23 | REVISED PER TOR REVIEW COMMENTS | |
| 4. JUN-23 | REVISED PER TOR REVIEW COMMENTS | |
| 5. JUN-23 | REVISED PER TOR REVIEW COMMENTS | |
| 6. JUN-23 | REVISED PER TOR REVIEW COMMENTS | |
| 7. JUN-23 | REVISED PER TOR REVIEW COMMENTS | |
| 8. JUN-23 | APPROVED - SIGNATURE SET | |



EXISTING CONDITIONS

7-ELEVEN AT WALLBROOK (LOT 11)

Town of Rolesville Project No. SDP 23-04

US 401 Business / S. Main Street & Virginia Water Drive
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

NC License: P-1159

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ENGINEERS & SURVEYORS

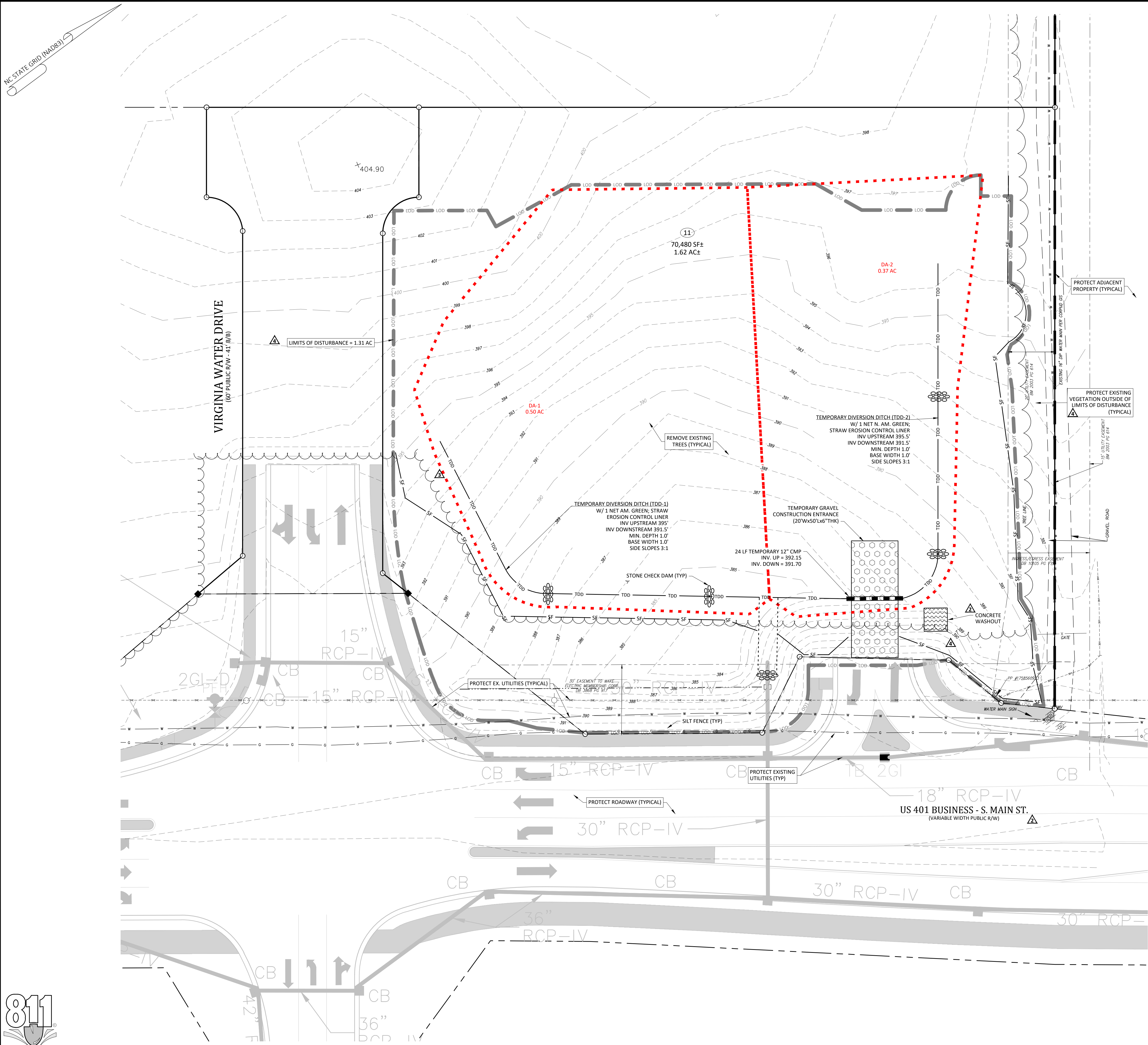
925-A Conference Dr.
Raleigh, NC 27603
(919) 558-0888
www.arkconsultinggroup.com

PROFESSIONAL ENGINEER
BRADY C. FAGUNDY
31970
6/9/2025

| | |
|------------------|------------|
| Project Manager: | BCF |
| Drawn By: | DLC/TGN |
| Checked By: | TGN |
| Project Number: | 22049 |
| Drawing Number: | D-1404-SDP |

C0.2

Date: May 1, 2023



- 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. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR GETS WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
 7. ASBESTOS OR HAZARDOUS MATERIALS, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
 8. 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.
 9. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL, AND OSHA REGULATIONS WHEN OPERATING DEMOLITION EQUIPMENT AROUND UTILITIES.
 10. 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.
 11. CONTRACTOR SHALL PROTECT AT ALL TIMES ADJACENT STRUCTURES AND ITEMS FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION ACTIVITIES.
 12. CONTRACTOR SHALL REMOVE EXISTING VEGETATION AND IMPROVEMENTS WITHIN LIMITS OF DISTURBANCE UNLESS NOTED OTHERWISE.
 13. TREES OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED.

Legend

| EXISTING | PROPOSED |
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20' 0 10' 20'
SCALE 1 inch = 20 ft

| REVISIONS: | DATE | DESCRIPTION |
|-------------|-------------------------------------|-------------|
| 8 9-JUN-25 | APPROVED - SIGNATURE SET | |
| 7 20-SEP-25 | REVISED PER REVIEW COMMENTS | |
| 6 22-NOV-24 | REVISED PER WARE CO REVIEW COMMENTS | |
| 5 17-MAR-24 | REVISED PER REVIEW & OWNER COMMENTS | |
| 4 17-MAR-24 | REVISED PER REVIEW & OWNER COMMENTS | |
| 3 11-MAR-24 | REVISED PER TOR REVIEW COMMENTS | |
| 2 11-JUN-23 | REVISED PER TOR REVIEW COMMENTS | |
| 1 1-MAY-23 | ISSUED FOR PERMIT REVIEW | |

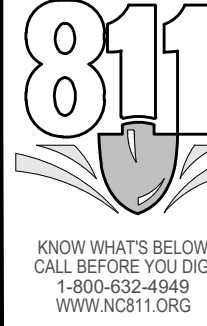


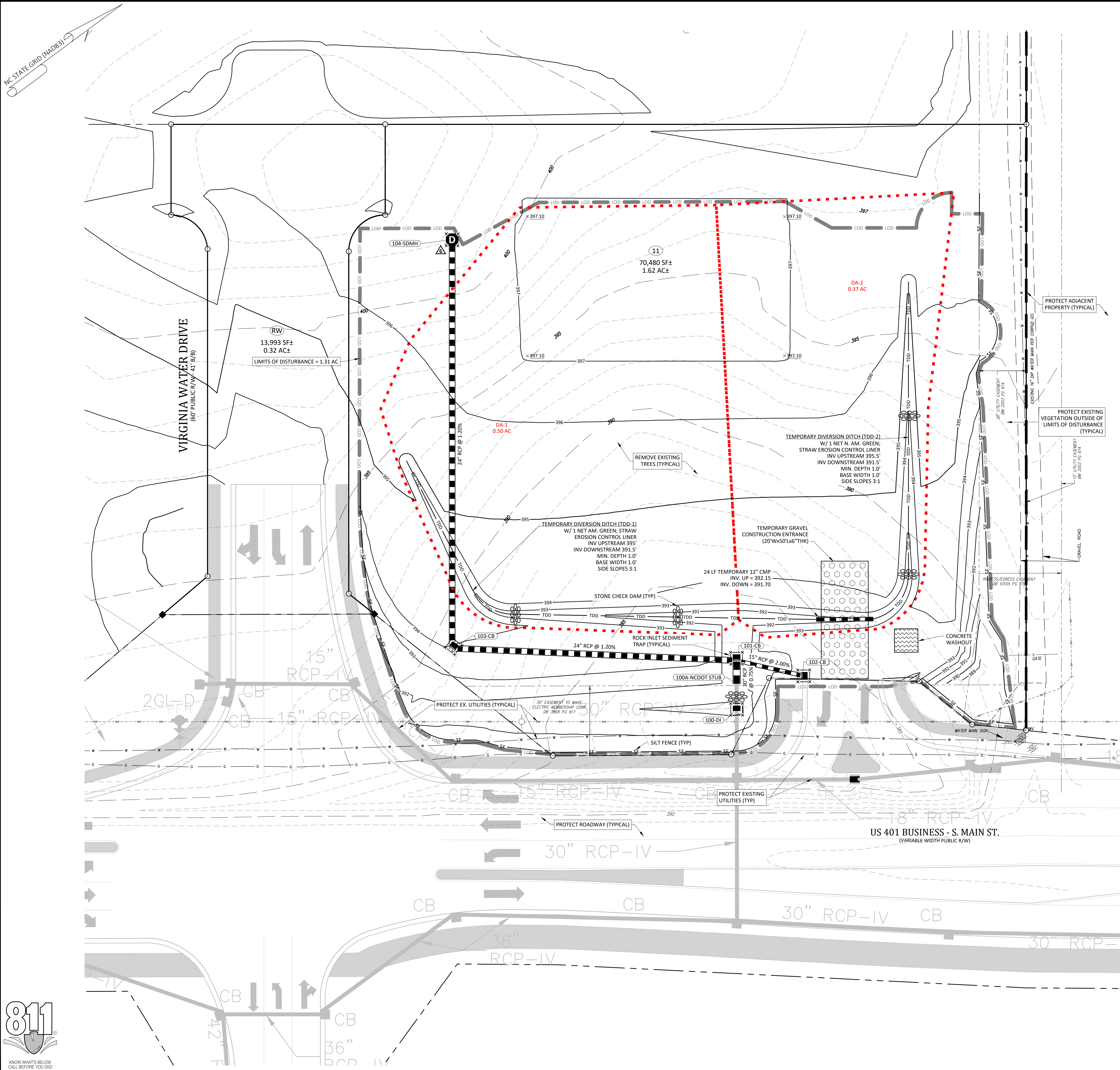
EROSION CONTROL PLAN - PH. 1
7-ELEVEN AT WALLBROOK (LOT 11)
Town of Rolesville Project No. SDP 23-04
US 401 Business / S. Main Street & Virginia Water Drive
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

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(252) 558-0888
www.arkconsultinggroup.com
Professional Engineer
BRYAN C. FAGUNDY
31970
6/9/2025

| | |
|------------------|------------|
| Project Manager: | BCF |
| Drawn By: | DLC/TGN |
| Checked By: | TGN |
| Project Number: | 22049 |
| Drawing Number: | D-1404-SDP |

C1.0
Date: May 1, 2023





| STRUCTURE TABLE | | | | |
|-----------------|--------|--------------------------------------|--------------------------|-----------------------|
| ID | TOP | IN | OUT | DESC |
| 100-DI | 390.70 | | | Drop Inlet |
| 100A-NCDOT STUB | 385.95 | 383.00 (101-CB) | | U-6241 Project Tie-In |
| 101-CB | 394.11 | 383.27 (103-CB) 390.32 (102-CB) | 383.07 (100A-NCDOT STUB) | Catch Basin |
| 102-CB | 393.73 | | 390.90 (101-CB) | Catch Basin |
| 103-CB | 395.26 | 384.93 (104-SDMH) 386.27 (8" PVC) | 384.73 (101-CB) | Catch Basin |
| 104-SDMH | 397.42 | 387.21 (105-CB) 389.57 (104A-CO) | 387.01 (103-CB) | 48 in MH |

Legend

| EXISTING | PROPOSED |
|-------------------------------|-----------------------------------|
| = FOUND MONUMENT AS NOTED | = SET IRON PIN |
| = N.C.S. MONUMENT | = DIMENSION POINT (NOTHING SET) |
| = PROPERTY LINE | = RIGHT OF WAY |
| = CURB AND GUTTER | = CABLE TV PEDESTAL |
| = DROP INLET | = ELECTRIC BOX |
| = ELECTRIC METER | = FIBER OPTIC |
| = FIRE HYDRANT | = GAS VALVE |
| = HAND BOX | = LIGHT POLE |
| = POWER POLE | = GUY WIRE |
| = REINFORCED CONCRETE PIPE | = SQUARE FEET (AREA) |
| = SIGN | = TRAFFIC SIGNAL POLE |
| = SANITARY SEWER MANHOLE | = SANITARY SEWER FORCE MAIN VALVE |
| = STORM DRAIN MANHOLE | = STORM DRAIN CATCH BASIN |
| = TELEPHONE PEDESTAL | = TRAFFIC BOX |
| = WATER BOX | = WATER METER |
| = WATER MANHOLE | = WATER VALVE |
| = WELL | = PEDESTRIAN X-WALK POLE |
| = ELECTRIC LINE | = SANITARY SEWER FORCE MAIN |
| = FIBER OPTIC LINE | = GAS LINE |
| = OVERHEAD ELECTRIC LINE | = SANITARY SEWER LINE |
| = TELEPHONE LINE | = CABLE TV LINE |
| = WATER LINE | = FIRE LINE |
| = 12" WATER LINE | = 8" WATER LINE |
| = SPILL CURB | = FENCE |
| = RIPARIAN BUFFER | = TREELINE |
| = MAJOR CONTOUR (5') | = MINOR CONTOUR (1') |
| = TREE PROTECTION FENCE | = SILT FENCE |
| = CONCRETE SIDEWALK | = ACCESS AND UTILITY EASEMENT |
| = HEAVY DUTY ASPHALT PAVEMENT | = TDD DRAINAGE AREA |
| = SKIMMER BASIN DRAINAGE AREA | |

20' 0 10' 20'
SCALE 1 inch = 20 ft



EROSION CONTROL PLAN - PH. 2

7-ELEVEN AT WALLBROOK (LOT 11)

Town of Rolesville Project No. SDP 23-04

US 401 Business / S. Main Street & Virginia Water Drive
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

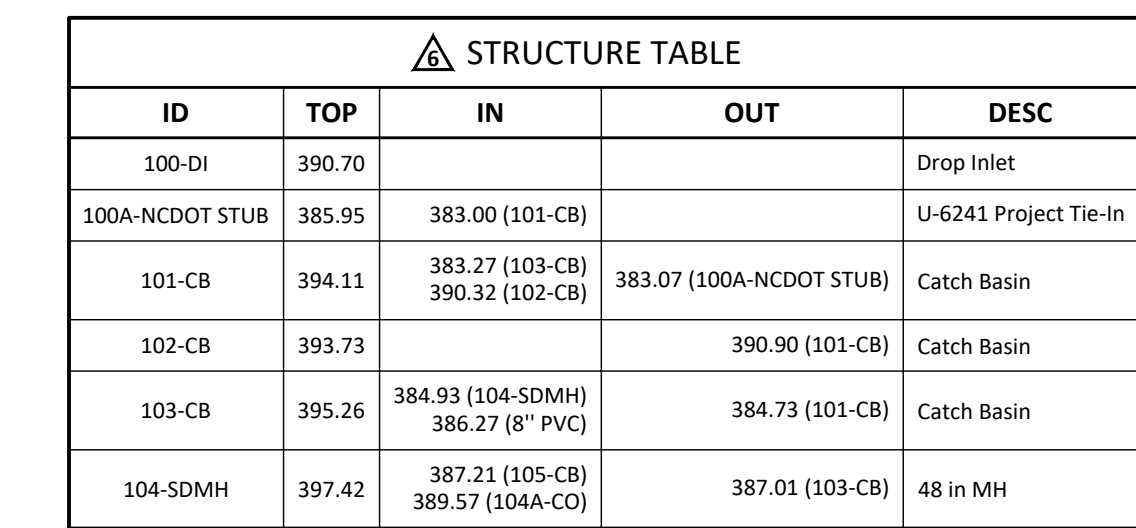
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Durham, NC 27705
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www.arkconsultinggroup.com


PAUL C. FAGUNDY
Professional Engineer
No. 31970
6/9/2025

Project Manager: BCF
Drawn By: DLC/TGN
Checked By: TGN
Project Number: 22049
Drawing Number: D-1404-SDP

C1.1
Date: May 1, 2023





| <div style="text-align: center;">  STRUCTURE TABLE </div> | | | | |
|---|--------|--------------------------------------|--------------------------|-----------------------|
| ID | TOP | IN | OUT | DESC |
| 100-DI | 390.70 | | | Drop Inlet |
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| EXISTING | PROPOSED |
|-------------------------------------|----------|
| ● = FOUND MONUMENT AS NOTED | |
| △ = SET IRON PIN | |
| △ = NCGS MONUMENT | |
| • = DIMENSION POINT (NOTHING SET) | |
| • = PROPERTY LINE | |
| R = RIGHT OF WAY | |
| R/W | |
| C&G = CURB AND GUTTER | |
| CATV | |
| ■ = CABLE TV PEDESTAL | |
| DI = DROP INLET | |
| ■ = ELECTRIC BOX | |
| ELEC | |
| ■ = ELECTRIC METER | |
| EM | |
| FO = FIBER OPTIC | |
| FH | FH |
| ■ = FIRE HYDRANT | |
| GV = GAS VALVE | |
| ■ = HAND BOX | |
| LP = LIGHT POLE | |
| PP = POWER POLE | |
| ← = GUY WIRE | |
| ROP = REINFORCED CONCRETE PIPE | |
| S.F. = SQUARE FEET (AREA) | |
| SIGNAL | |
| ■ = TRAFFIC SIGNAL POLE | |
| ■ = SANITARY SEWER MANHOLE | S |
| ■ = SANITARY SEWER FORCE MAIN VALVE | D |
| ■ = STORM DRAIN MANHOLE | |
| ■ = STORM DRAIN CATCH BASIN | |
| TEL | |
| ■ = TELEPHONE PEDESTAL | |
| TRAF | |
| ■ = TELEPHONE BOX | |
| WATER | |
| WM | ■ |
| WMH | ■ |
| WW | ■ |
| WELL | |
| X-WALK | |
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| ■ = PEDESTRIAN X-WALK POLE | |
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| ■ = GAS LINE | |
| ■ = OVERHEAD ELECTRIC LINE | |
| ■ = SANITARY SEWER LINE | |
| ■ = TELEPHONE LINE | |
| ■ = CABLE TV LINE | |
| ■ = WATER LINE | |
| ■ = FIRE LINE | |
| ■ = 8" WATER LINE | |
| ■ = 12" WATER LINE | |
| ■ = SPILL CURB | |
| ■ = FENCE | |
| ■ = RIPARIAN BUFFER | |
| ■ = TREELINE | |
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| ■ = ACCESS AND UTILITY EASEMENT | |
| △ | |
| ■ = HEAVY DUTY ASPHALT PAVEMENT | |
| △ | |
| ■ = TDD DRAINAGE AREA | |
| ■ = SKIMMER BASIN DRAINAGE AREA | |

7-ELEVEN AT WALLBROOK (LOT 11)

US 401 Business / S. Main Street & Virginia Water Drive
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

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Wake Forest Township, Town of Rolesville, Wake County, North Carolina

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 NORTH CAROLINA
 PROFESSIONAL ENGINEER
 STATE SEAL
 31976
 B. J. FAGNOLI
 LICENSE NO. 10003

6/2/2025

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| Project Manager: | BCF |
| Drawn By: | DLC/TGN |
| Checked By: | TGN |
| Project Number: | 22049 |
| Drawing Number: | D-1404-SDP |

C1.2

Date: May 1, 2023



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WWW.NC811.ORG

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 jurisdiction.

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 | Permanent Stabilization |
|--|---|
| <ul style="list-style-type: none">Temporary grass seed covered with straw or other mulches and tackifiersHydroseeding Rolled erosion control products with or without temporary grass seedAppropriately applied straw or other mulchplastic sheeting | <ul style="list-style-type: none">Permanent grass seed covered with straw or other mulches and tackifiersGeotextile fabrics such as permanent soil reinforcement mattingHydroseedingShrubs or other permanent plantings covered with mulchUniform and evenlyhly distributed ground cover sufficient to restrain erosionStructural methods such as concrete, asphalt, or retaining walls Rolled erosion control products with grass seed |

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- 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

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 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.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

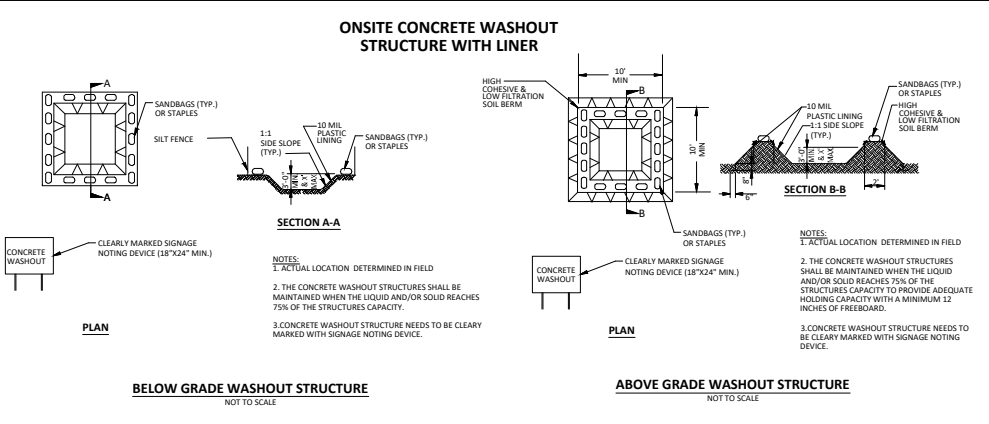
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled,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

PORTABLE TOILETS

- 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.
- 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 commercial 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 available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- 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

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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 restrictions.
- 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.
- 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.
- Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

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

Erosion Control Provisions:

- NO PERSON MAY INITIATE A LAND DISTURBING ACTIVITY BEFORE NOTIFYING WAKE COUNTY WATERSHED MANAGEMENT OF THE DATE THAT THE LAND DISTURBING ACTIVITY WILL BEGIN.
- LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL APPROPRIATE EROSION CONTROL MAY NOT PROCEED UNTIL EROSION CONTROL MEASURES ARE INSPECTED AND APPROVED BY THE ENGINEER.
- SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE WITH THE WAKE COUNTY WATERSHED MANAGER, JEEVAN NEUPANE, PE (919-819-8907) PRIOR TO INITIATING LAND DISTURBING ACTIVITIES IS REQUIRED. FOR INSPECTION CALL 919-819-8907. 48 HOUR NOTICE IS REQUIRED.
- INSTALL TREE PROTECTION FENCING AROUND ALL AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS SHOWN ON PLANS.
- PROVIDE 20' X 50' X 6" STONE CONSTRUCTION ENTRANCES AS SHOWN ON PLAN.
- 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.
- 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 \$5000.00 PER DAY OF VIOLATION.
- THE ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
- 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 COUNTY DOES NOT SUPERSEDE ANY OTHER PERMIT OR APPROVAL.
- PLEASE BE ADVISED OF THE RULES TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE AND RIVER BASIN. THESE RULES ARE ENFORCED BY THE DIVISION OF WATER RESOURCES (DWR). DIRECT ANY QUESTIONS ABOUT THE APPLICABILITY OF THESE RULES TO YOUR PROJECT TO THE REGIONAL WATER QUALITY SUPERVISOR, RALEIGH REGIONAL OFFICE AT (919) 791-4200.
- ALL AREAS DOWNSTREAM OF TEMPORARY BASINS AND DITCHES ARE TO BE STABILIZED IMMEDIATELY UPON CONSTRUCTION.

Construction Sequence:

PHASE 1

- EROSION AND SEDIMENT CONTROL (E&S) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR.
- CALL WAKE COUNTY WATERSHED MANAGER JEEVAN NEUPANE AT (919) 819-8907 A MINIMUM OF 48-HOURS IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING AND FOR NOTIFICATION OF PROJECT START UP.
- ANY DEWATERING ON THE SITE SHALL BE DONE THROUGH A SILT BAG THAT IS CONSTANTLY MONITORED.
- INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
- INSTALL TEMPORARY PIPE AS SHOWN ON C1.0.
- CALL WATERSHED MANAGER, JEEVAN NEUPANE FOR AN ONSITE INSPECTION TO OBTAIN A CERTIFICATE OF COMPLIANCE.

PHASE 2

- BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED. ROUGH GRADE SITE. INSTALL TEMPORARY SKIMMER SEDIMENT BASINS, ALONG WITH TEMPORARY DIVERSION DITCHES THAT SHALL BE INSTALLED TO ENSURE AS MUCH FLOW AS POSSIBLE IS DIRECTED TO THE BASINS.
- AS ROUGH GRADING CONTINUES, DEVICES SHALL BE MAINTAINED AND CLEANED OF SEDIMENT. SKIMMER SEDIMENT BASINS TO BE ABANDONED SHALL BE REMOVED AS FOLLOWS: DEWATER THROUGH SILT BAG, CLEAN SEDIMENT, REMOVE BAFFLES, BACKFILL BASIN AND STABILIZE IMMEDIATELY. DEWATERING OPERATIONS THROUGH SILT BAGS SHALL BE MONITORED CONTINUOUSLY.
- STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAME.
- INSTALL PERMANENT STORM PIPE NETWORK AS SHOWN ON C1.1.
- WHEN ROUGH GRADING IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL WATERSHED MANAGER JEEVAN NEUPANE FOR INSPECTION.

PHASE 3

- IF SITE IS APPROVED, MAINTAIN TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OR STABILIZED ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
- WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR FINAL SITE INSPECTION BY THE WATERSHED MANAGER, JEEVAN NEUPANE. OBTAIN CERTIFICATE OF COMPLETION.

**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 or holiday periods, and no individual day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division. |
| (2) E&S Measures | At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours | 1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken. |
| (3) Stormwater discharge outfalls (SDO) | At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours | 1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. 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: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. 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 (3)(a) of this permit of this permit. |
| (6) Ground stabilization measures | After each phase of grading | 1. The phase of grading (installation of perimeter E&S measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. 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.

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION B: RECORDKEEPING

- E&S Plan Documentation**
The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be documented in the manner described:

| Item to Document | Documentation Requirements |
|---|---|
| (a) Each E&S Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S Plan. | Initial and date each E&S Measure on a copy of the approved E&S Plan or complete, date and sign an inspection report that lists each E&S Measure shown on the approved E&S Plan. This documentation is required upon the initial installation of the E&S Measures or if the E&S Measures are modified after installation or the inspection. |
| (b) A phase of grading has been completed. | Initial and date a copy of the approved E&S 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&S Plan. | Initial and date a copy of the approved E&S 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&S Measures have been performed. | Complete, date and sign an inspection report. |
| (e) Corrective actions have been taken to E&S Measures. | Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate the completion of the corrective action. |

2. Additional Documentation

In addition to the E&S Plan documents above, the following items shall be kept on the site and available for agency 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:

- This general permit as well as the certificate of coverage, after it is received.
- Records of inspections made during the previous 30 days. 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.
- All data used to complete the Notice of Intent and other inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41.4]

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.

- Oil spills if:

- 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).

- 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.

- Anticipated bypasses and unanticipated bypasses.

- Noncompliance with the conditions of this permit that may endanger health or the environment.

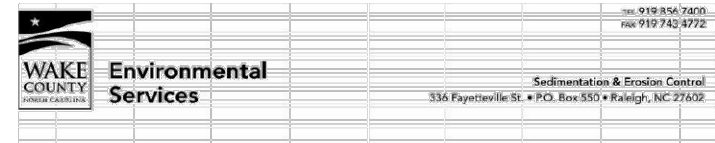
2. Reporting Timeframes and Other Requirements

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 Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

| Occurrence | Reporting Timeframes (After Discovery) and Other Requirements |
|--|---|
| (a) Visible sediment deposition in a stream or wetland | <ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that contains a description of the 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. Inspectors 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 release of hazardous substances per Item 1(b) (c) above | <ul style="list-style-type: none">Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass. |
| (c) Anticipated bypasses [40 CFR 122.41(i)(3)] | <ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass. |
| (d) Unanticipated bypasses [40 CFR 122.41(i)(3)] | <ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence 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. |
| (e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(i)(7)] | <ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence 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



Effective September 1, 2008
Soil stockpiles shall be located on the approved plan and shall adhere to the following requirements:

Design Criteria

- A 25-foot temporary maintenance and access easement shall be shown around all proposed stockpiles (erosion control measures surrounding the stockpile shall be shown at the outer limit of this easement).
- Stockpile footprints shall be setback a minimum of 25' from adjacent property lines.
- A note shall be provided on the approved plan that stockpile height shall not exceed 35 feet.
- Stockpile slopes shall be 2:1 or flatter.
- Approved BMPs shall be shown on a plan to control any potential sediment loss from a stockpile.
- Stockpiling materials adjacent to a ditch, drainage, watercourse, wetland, stream buffer, or other body of water shall be avoided unless an alternative location is demonstrated to be maintainable.
- Any concentrated flow likely to affect the stockpile shall be diverted to an approved BMP.
- Off-site spoil or borrow areas must be in compliance with Wake County UDO and State Regulations. All spoil areas over an acre are required to have an approved sediment control plan. Developer/Contractor shall notify Wake County of any off-site disposal of soil, prior to disposal. Fill of FEMA Floodways and Non-encroachment Areas are prohibited except as otherwise provided by subsection 14-19-2 of the Wake County Unified Development Ordinance (certifications and permits required).

Maintenance Requirements to be Noted on the Plan

- Seeding or covering stockpiles with turps or mulch is required and will reduce erosion problems. Turps should be keyed in at the top of the slope to keep water from running underneath the plastic.
- If a stockpile is to remain for future use after the project is complete (builders, etc.), the financial responsible party must notify Wake County of a new responsible party for that stockpile.
- The approved plan shall provide for the use of graded seeding and mulching on a continual basis while the stockpile is in use.
- Establish and maintain a vegetative buffer at the toe of the slope (where practical).

Seeding Specifications

NPDES Stormwater Discharge Permit for Construction Activities (NCG01 - 4/1/19)
NCDEQ/Division of Energy, Mineral and Land Resources

| Site Area Description | Seeding rate (lbs/acre) | Seeding method |
|-----------------------------|-------------------------|----------------|
| (a) Slopes 3:1 or steeper | 7 | None |
| (b) Slopes 3:1 to 4:1 | 14 | None |
| (c) Slopes flatter than 4:1 | 14 | None |

Seedbed Preparation:

- Chisel compacted areas and spread topsoil three inches deep over adverse soil conditions, if available.
- Rip the entire area to six inches deep.
- Remove all loose rock, roots and other obstructions, leaving surface reasonably smooth and uniform.
- Apply agricultural lime, fertilizer and superphosphate uniformly and mix with soil (see mixture below).
- Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared four to six inches deep.
- Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cutlapp after seeding.
- Mulch immediately after seeding and anchor mulch.

- Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be more than 65% damaged, re-establish following the original lime, fertilizer and seeding rates.
- Consult Wake County Soil & Water or NC State Cooperative Extension on maintenance treatment and fertilization after permanent cover is established.

| | |
|------------------------|---|
| Mixture | |
| Agricultural Limestone | 2 tons/acre (3 tons/acre in clay soils) |
| Fertilizer | 1,000 lbs/acre – 10-10-10 |
| Superphosphate | 500 lbs/acre – 20% analysis |
| Mulch | 2 tons/acre – small grain straw |
| Anchor | Asphalt emulsion at 400 gals/acre |

Seeding Schedule

For Shoulders, Side Ditches, Slopes (Max 3:1):

| Date | Type | Planting Rate |
|-------------------|---|--|
| Aug 15- Nov 1 | Tall Fescue | 300 lbs/acre |
| Nov 1- Mar 1 | Tall Fescue & Abruzzi Rye | 300 lbs/acre |
| Mar 1- Apr 15 | Tall Fescue | 300 lbs/acre |
| Apr 15- Jun 30 | Hulled Common Bermudagrass | 25 lbs/acre |
| Jul 1- Aug 15 | Tall Fescue AND Browntop Millet or Sorghum-Sudan Hybrids*** | 125 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Millet); 30 lbs/acre (Sorghum-Sudan Hybrids) |

For Shoulders, Side Ditches, Slopes (3:1 to 2:1):

| Date | Type | Planting Rate |
|------------------|---|--|
| Mar 1- Jun 1 | Sericea Lespedeza (scarified) and use the following combinations: | 50 lbs/acre (Sericea Lespedeza); |
| Mar 1- Apr 15 | Add Tall Fescue | 120 lbs/acre |
| Mar 1- Jun 30 | Or add Weeping Love grass | 10 lbs/acre |
| Mar 1- Jun 30 | Or add Hulled Common Bermudagrass | 25 lbs/acre |
| Jun 1- Sept 1 | Tall Fescue AND Browntop Millet or Sorghum-Sudan Hybrids*** | 120 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Millet); 30 lbs/acre (Sorghum-Sudan Hybrids) |
| Sept 1- Mar 1 | Sericea Lespedeza (unhulled) – unscarified) AND Tall Fescue | 70 lbs/acre (Sericea Lespedeza); 120 lbs/acre (Tall Fescue) |
| Nov 1- Mar 1 | AND Abruzzi Rye | 25 lbs/acre |

Consult Wake County Soil & Water Conservation District or NC State Cooperative Extension for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those that do well under local conditions; other seeding rate combinations are possible.

*** TEMPORARY: Reseed according to optimum season for desired permanent vegetation. Do not allow temporary cover to grow more than 12" in height before mowing; otherwise, fescue may be shaded out.

| REVISIONS: | DATE | DESCRIPTION |
|--|------|-------------|
| 8 - JUN-25 - APPROVED - SIGNATURE SET | | |
| 7 - 10-18-25 - REVISED PER REVIEW COMMENTS | | |
| 6 - 12-02-24 - REVISED PER REVIEW COMMENTS | | |
| 5 - 12-04-24 - REVISED PER REVIEW COMMENTS | | |
| 4 - 12-04-24 - REVISED PER REVIEW COMMENTS | | |
| 3 - 1-04-24 - REVISED PER REVIEW COMMENTS | | |
| 2 - 1-04-24 - REVISED PER REVIEW COMMENTS | | |
| 1 - 1-04-24 - ISSUED FOR PERMIT REVIEW | | |



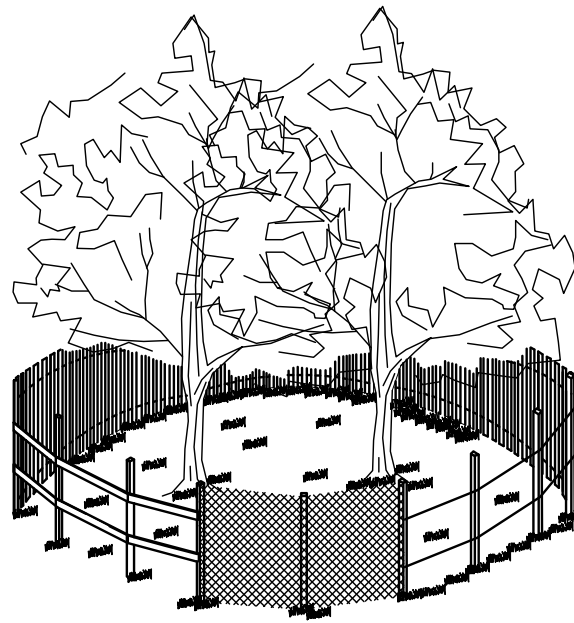
EROSION CONTROL NOTES
7-ELEVEN AT WALLBROOK (LOT 11)



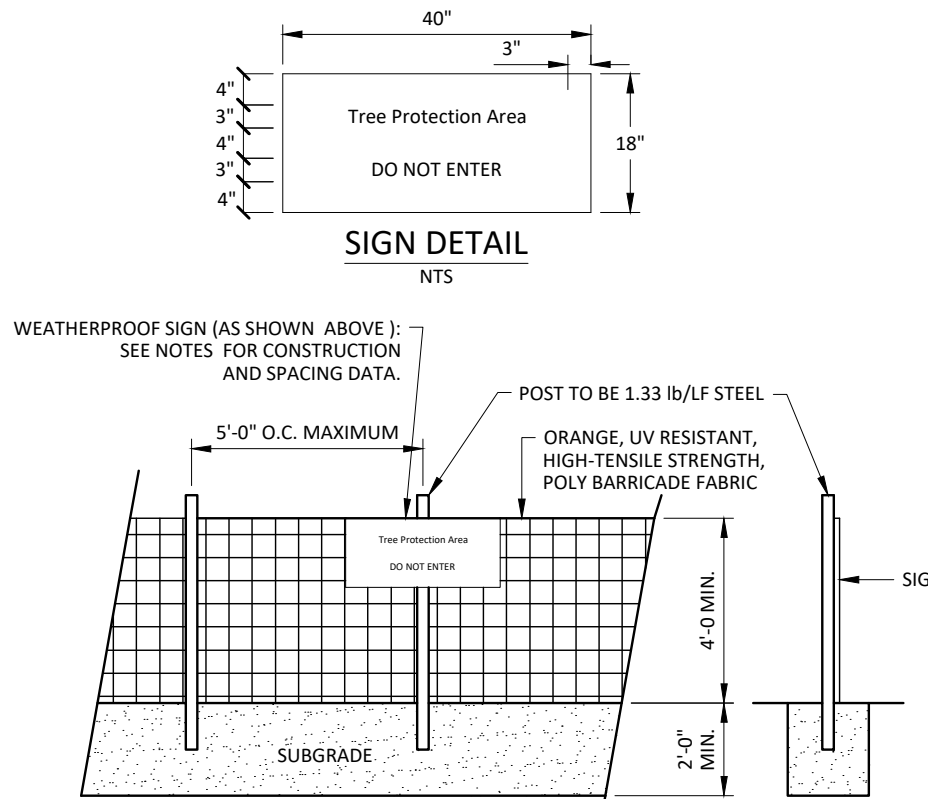
| | |
|------------------|------------|
| Project Manager: | BCF |
| Drawn By: | DLG/TGN |
| Checked By: | TGN |
| Project Number: | 22049 |
| Drawing Number: | D-1404-SDP |

C1.3

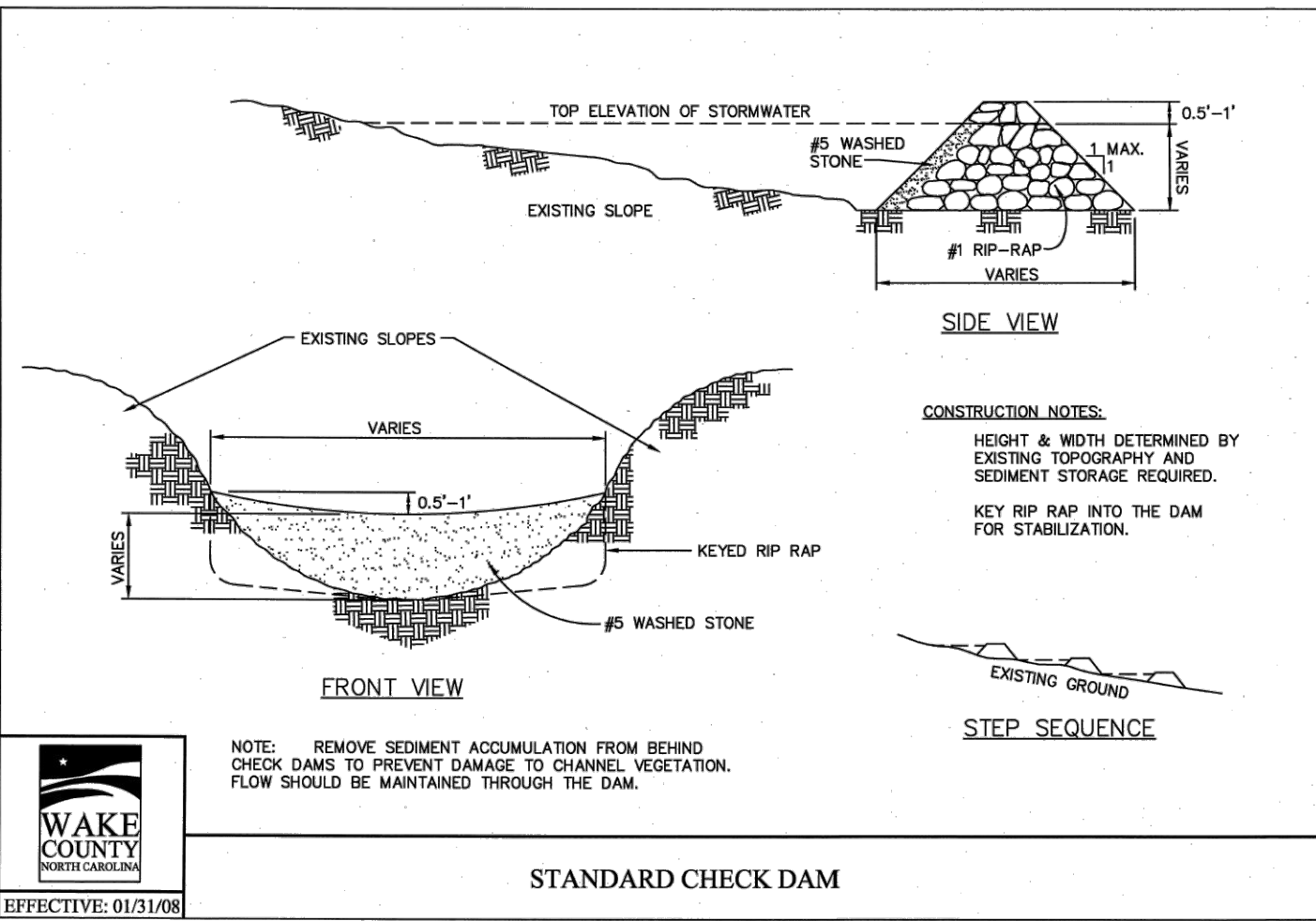
Date: May 1, 2023



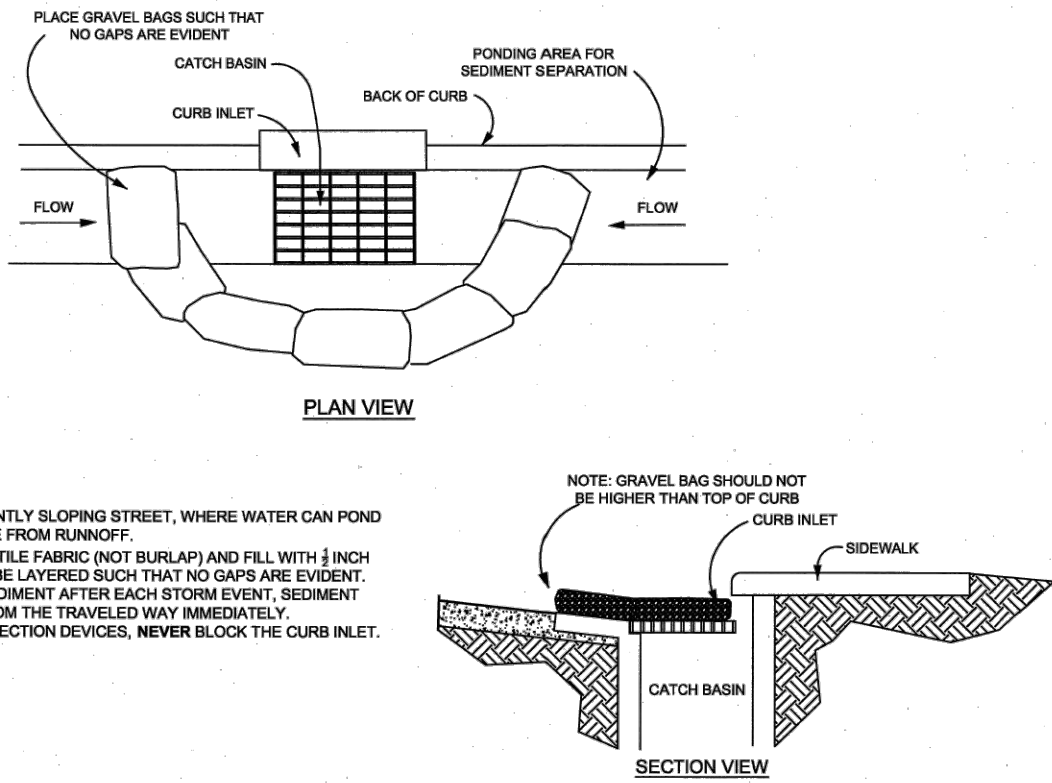
- NOTES:
1. SIGNS ARE TO BE PLACED NO GREATER THAN 200' ON CENTER. PLACE SIGN AT EACH END OF LINEAR TREE PROTECTION AREA AND 200' ON CENTER THEREAFTER.
 2. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
 3. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
 4. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
 5. LETTERS ARE TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE, AND SPACED AS DETAILED.
 6. INSTALL TREE PROTECTION FENCE & SIGNAGE PRIOR TO CALLING FOR THE INITIAL ON-SITE INSPECTION BY A NC DENR INSPECTOR. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT. ADDITIONAL SIGNS MAY BE REQUIRED BY NC DENR BASED ON ACTUAL FIELD CONDITIONS.



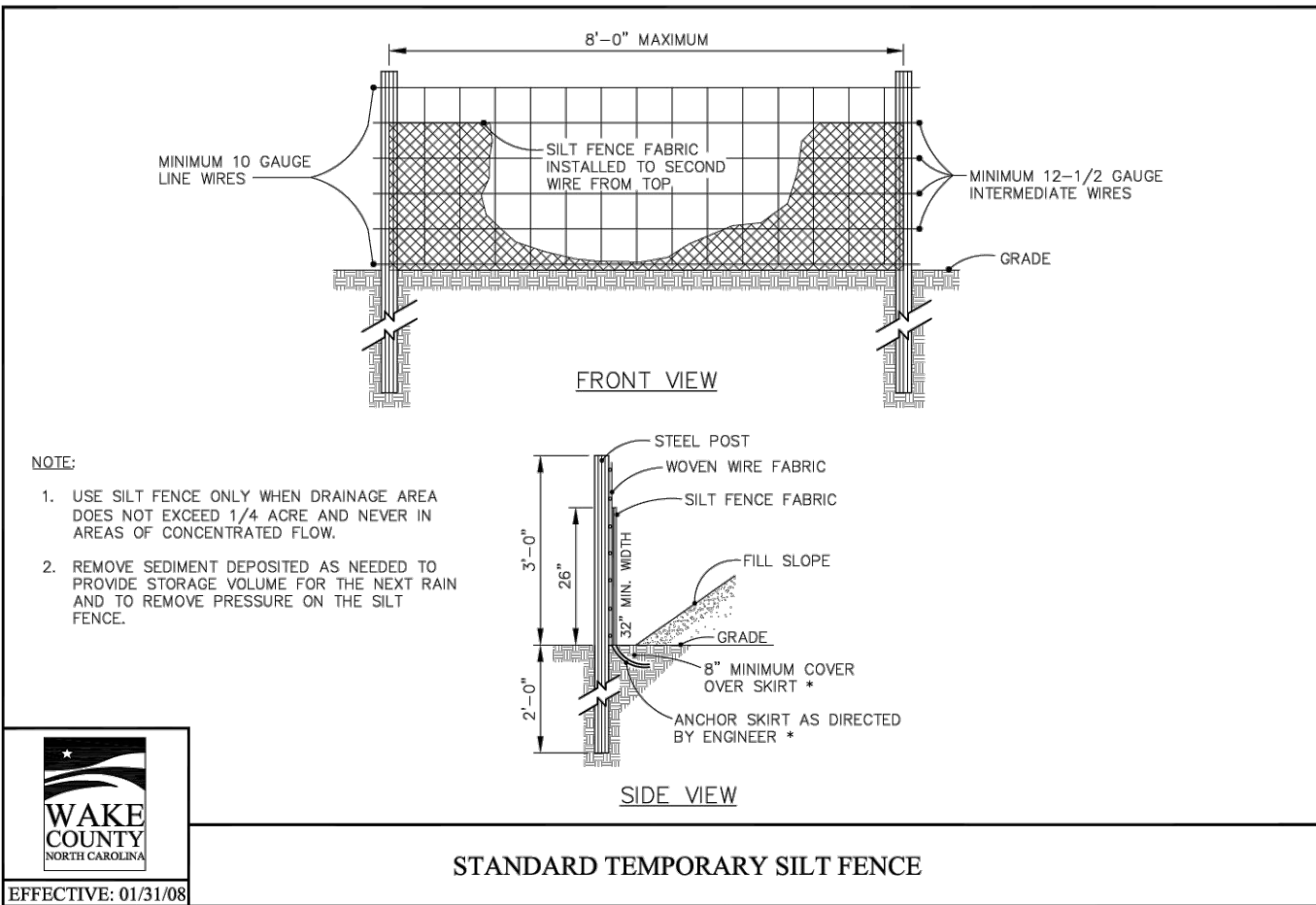
TREE PROTECTION FENCE
NOT TO SCALE



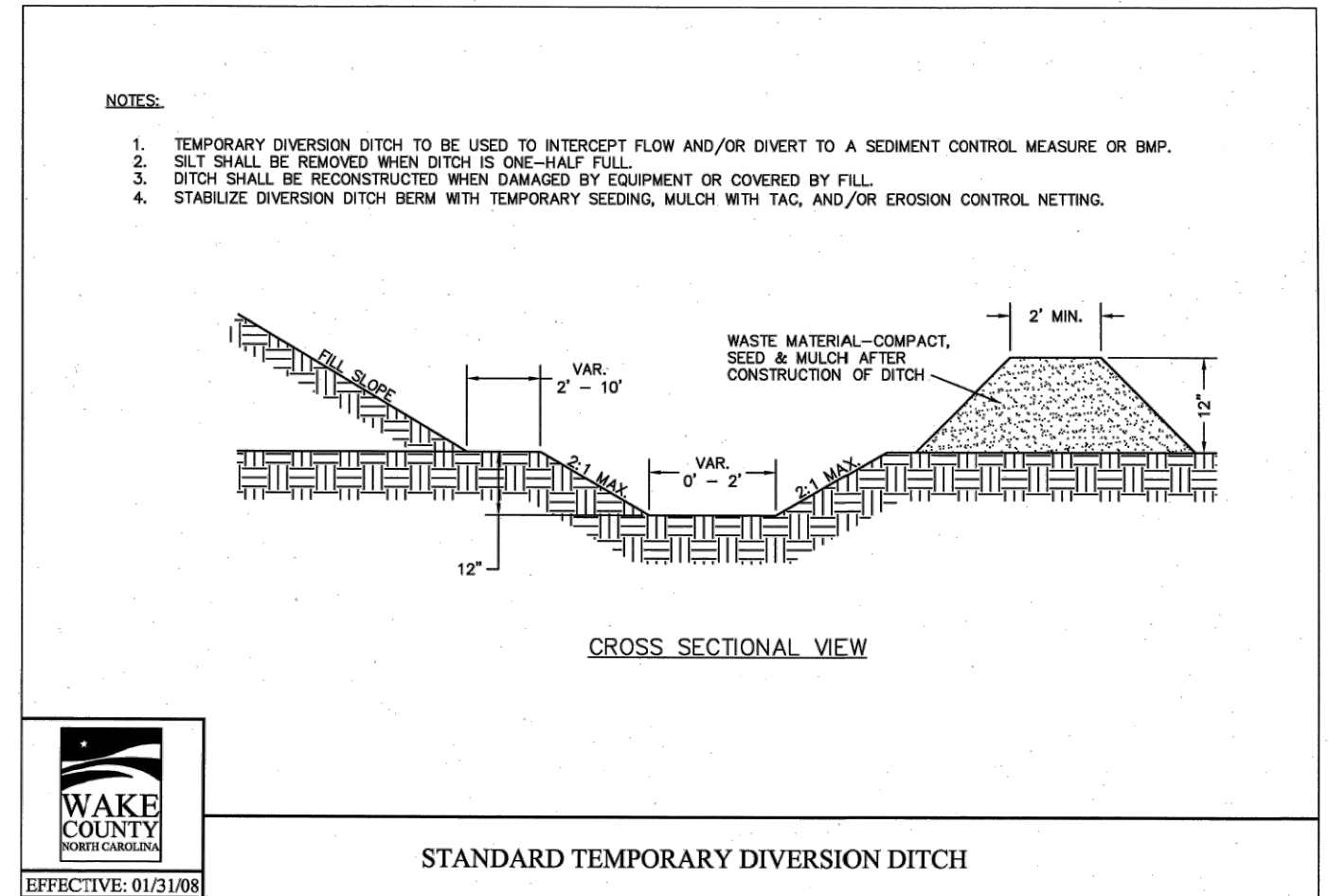
STANDARD CHECK DAM



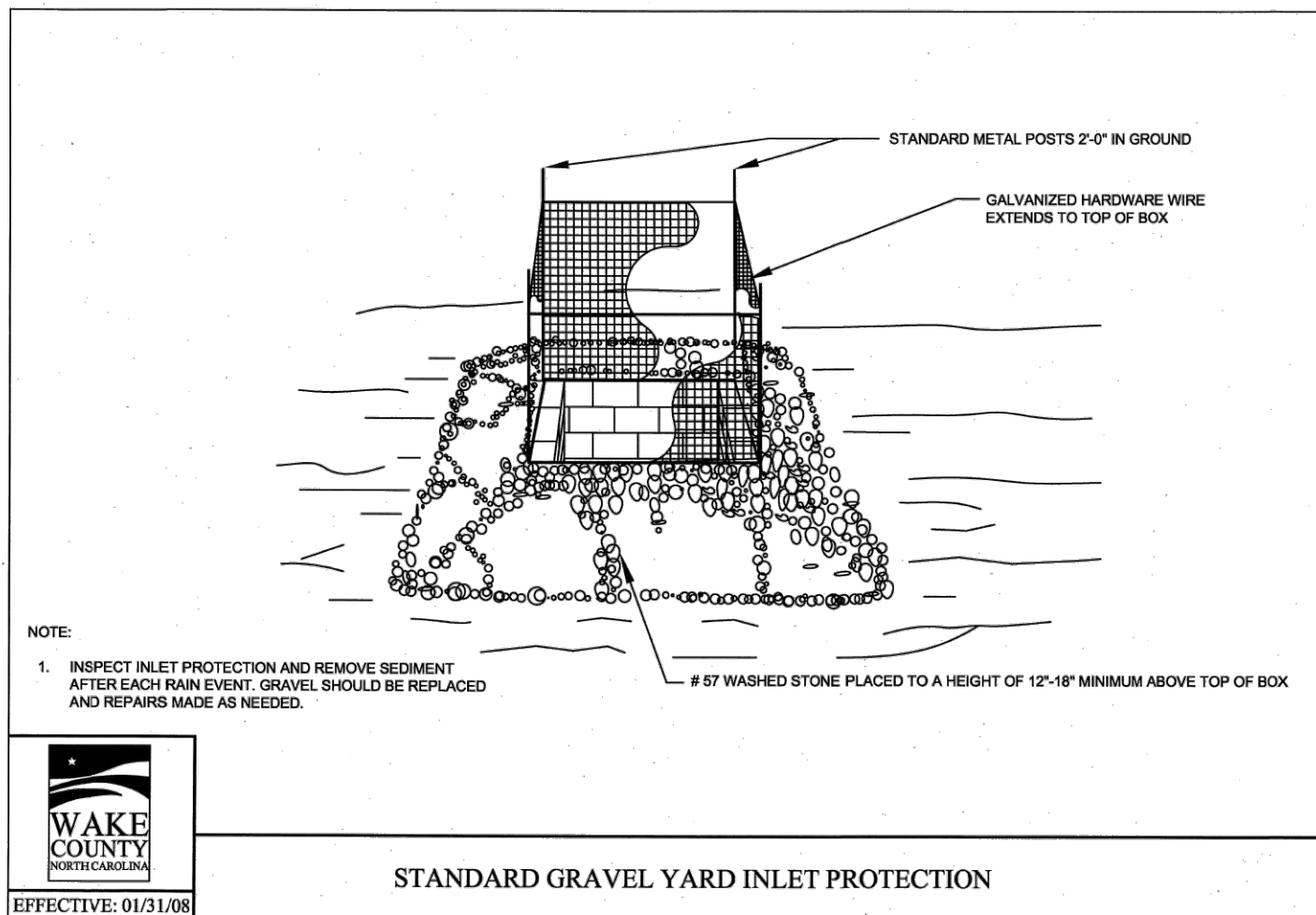
STANDARD GRAVEL BAG CURB INLET PROTECTION



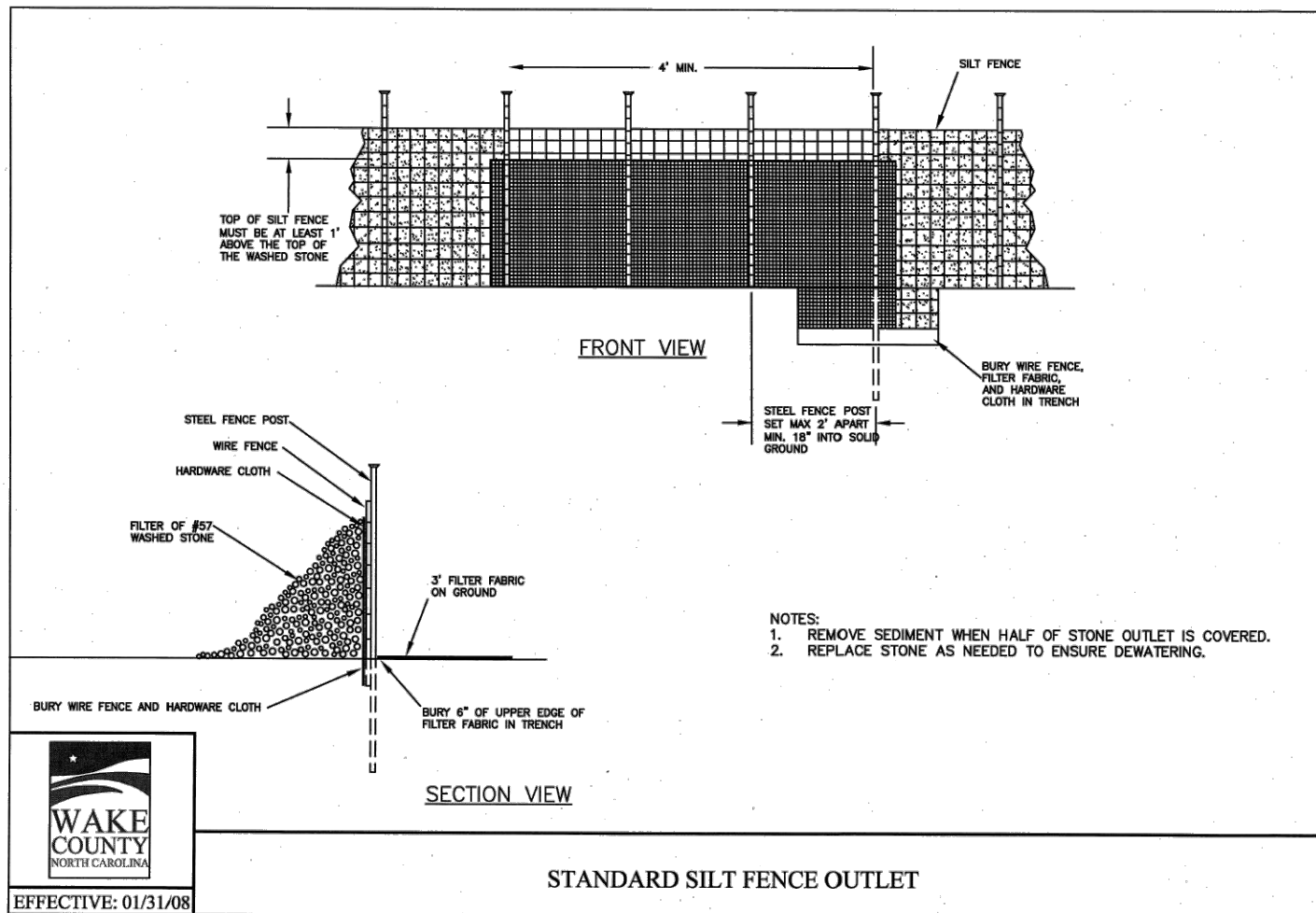
STANDARD TEMPORARY SILT FENCE



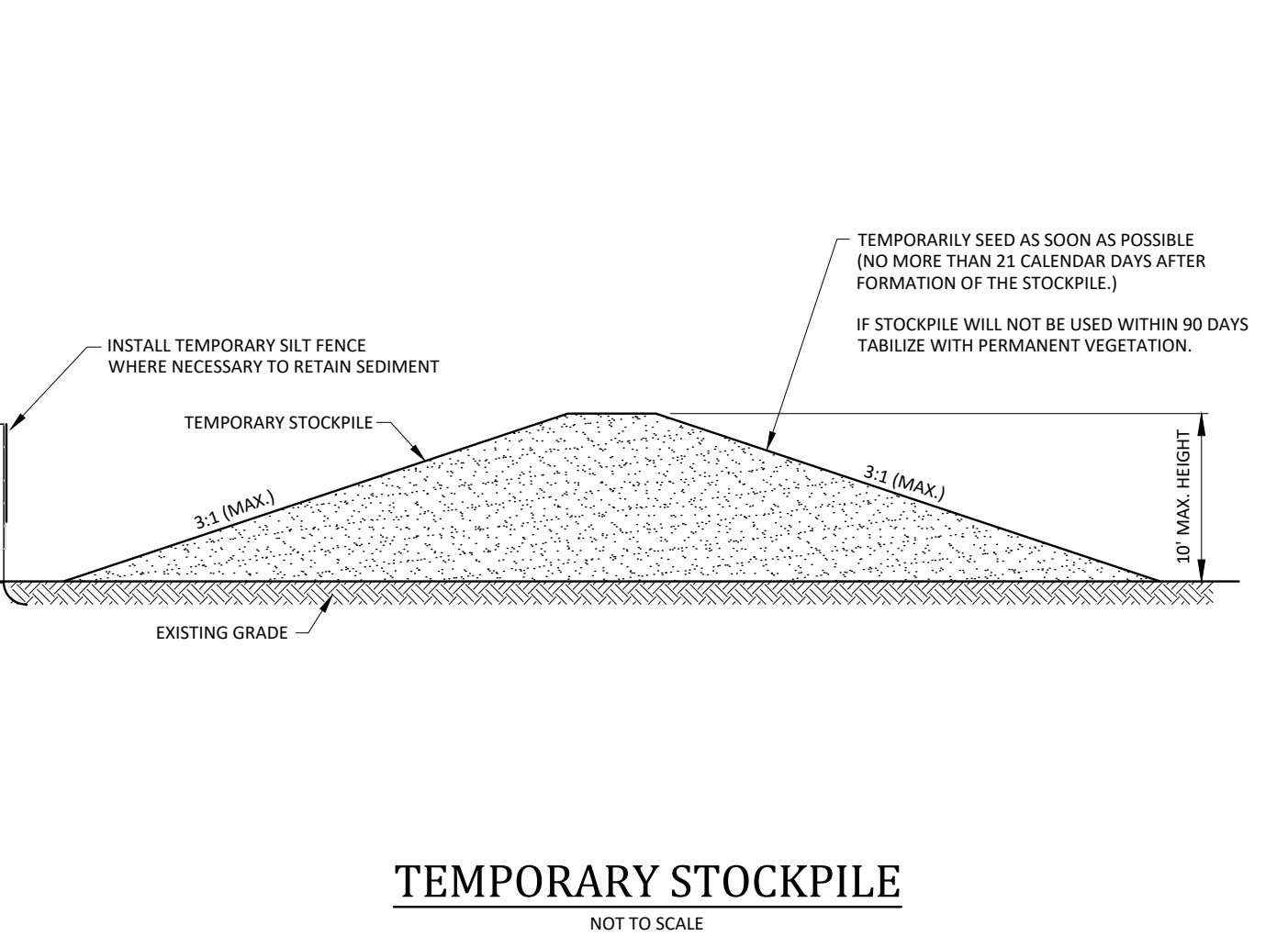
STANDARD TEMPORARY DIVERSION DITCH



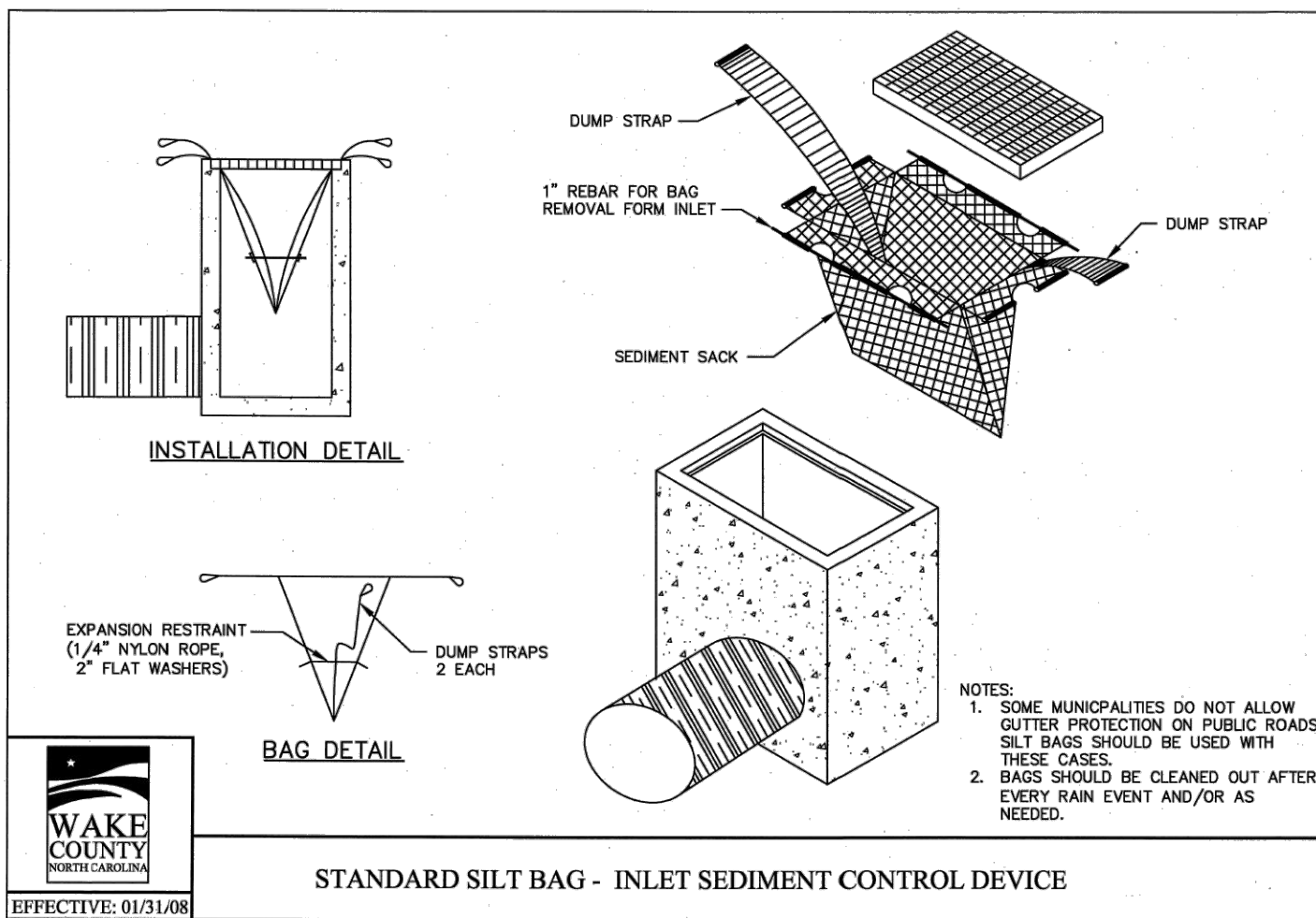
STANDARD GRAVEL YARD INLET PROTECTION



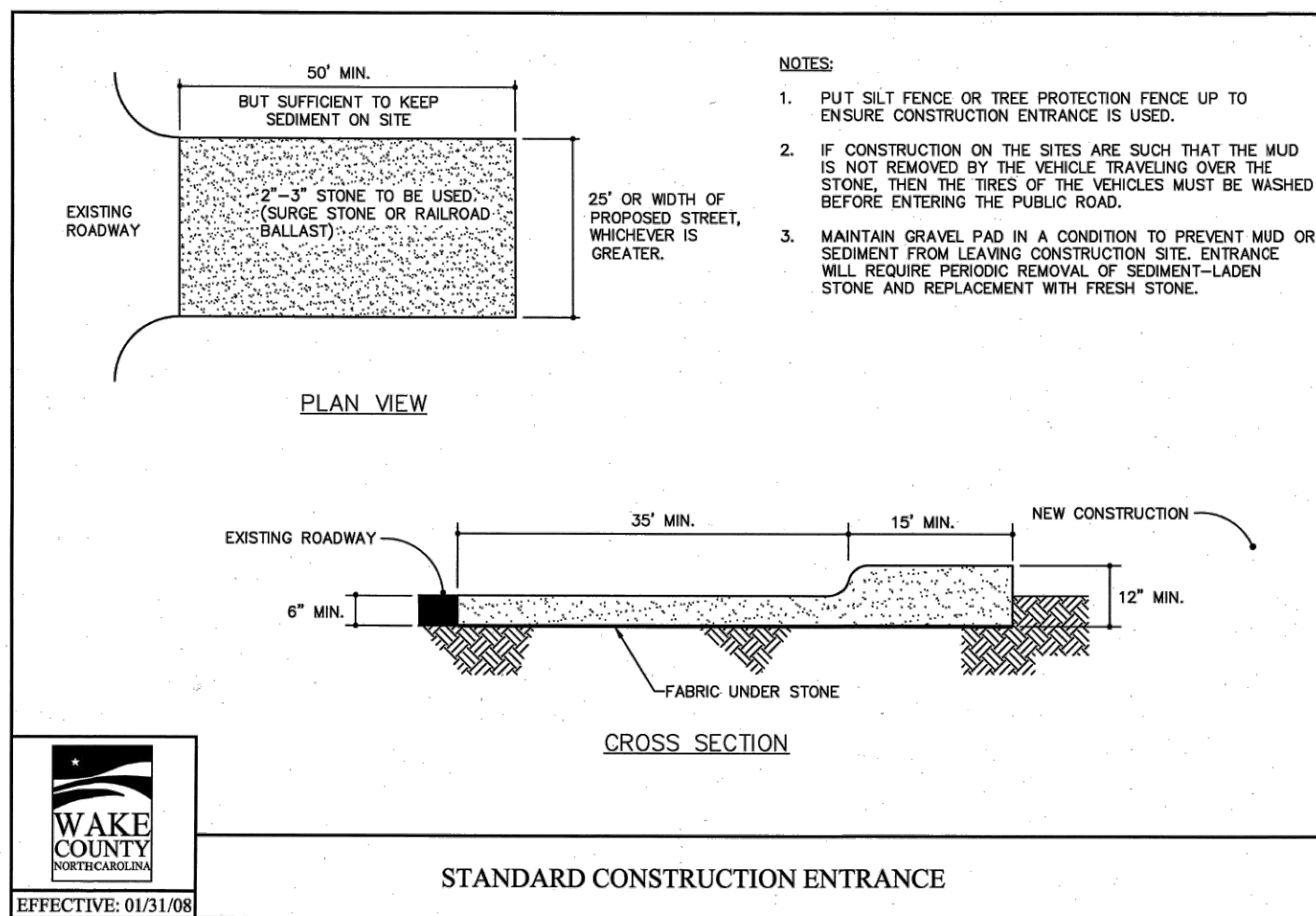
STANDARD SILT FENCE OUTLET



TEMPORARY STOCKPILE
NOT TO SCALE



STANDARD SILT BAG - INLET SEDIMENT CONTROL DEVICE



STANDARD CONSTRUCTION ENTRANCE

Vegetated Swale Design

Project: Wallbrook
Location: Rolesville, Wake County, NC

| Device ID | Device Type | Add'l Flow (cfs) | Disturbed Area (AC) | Tc (min) | Intensity (in/hr)* | C | Qreq (cfs) | Up Invert | Down Invert | Length (ft) | Base Width (ft) | Left Slope (x:1) | Right Slope (x:1) | Flow Depth (ft) | Manning's n | Slope (ft/ft) | Wetted Area (sf) | Wetted Perimeter (ft) | Hydraulic Radius (ft) | Velocity (ft/s) | Qa (cfs) | Qa>Qreq? | τ (lbs/ft ²) | Liner Type | Allowable Shear Stress, τ (lbs/ft ²) |
|-----------|---------------------|------------------|---------------------|----------|--------------------|-----|------------|-----------|-------------|-------------|-----------------|------------------|-------------------|-----------------|-------------|---------------|------------------|-----------------------|-----------------------|-----------------|----------|----------|-------------------------------|-----------------------------|---|
| TDD-1 | Temporary Diversion | 0 | 0.50 | 5 | 7.18 | 0.5 | 1.80 | 395 | 391.5 | 176 | 1 | 3 | 3 | 0.97 | 0.020 | 0.01989 | 3.77 | 7.30 | 0.52 | 0.48 | 1.80 | Yes | 1.199097027 | N. Am. Green; Straw; 1 nets | 1.55 |
| TDD-2 | Temporary Diversion | 0 | 0.37 | 5 | 7.18 | 0.5 | 1.33 | 395.5 | 391.5 | 205 | 1 | 3 | 3 | 0.87 | 0.020 | 0.01951 | 3.17 | 7.25 | 0.44 | 0.42 | 1.33 | Yes | 1.065303643 | N. Am. Green; Straw; 1 nets | 1.55 |

*NOAA Atlas 14, NEUSE 2 NE Station, 10-yr 5-min duration intensity

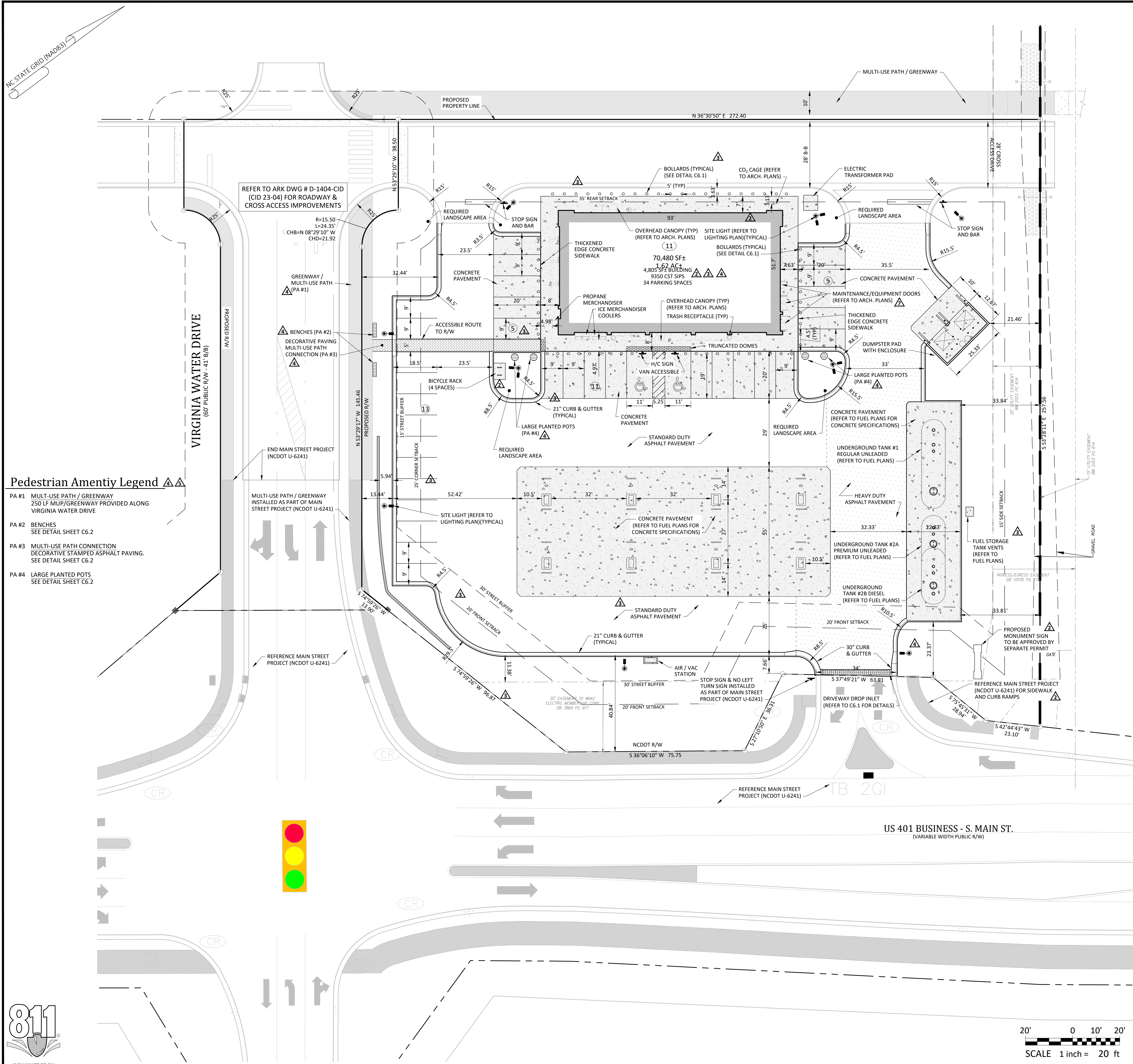


EROSION CONTROL DETAILS
7-ELEVEN AT WALLBROOK (LOT 11)
Town of Rolesville Project No. SDP 23-04
US 401 Business / S. Main Street & Virginia Water Drive
Wake Forest Township, Town of Rolesville, Wake County, North Carolina



Project Manager: BCF
Drawn By: DLC/TGN
Checked By: TGN
Project Number: 22049
Drawing Number: D-1404-SDP

C1.4
Date: May 1, 2023



Pedestrian Amentiy Legend

- PA #1 MULT-USE PATH / GREENWAY
250 LF MUP/GREENWAY PROVIDED ALONG VIRGINIA WATER DRIVE
- PA #2 BENCHES
SEE DETAIL SHEET C6.2
- PA #3 MULTI-USE PATH CONNECTION
DECORATIVE STAMPED ASPHALT PAVING.
SEE DETAIL SHEET C6.2
- PA #4 LARGE PLANTED POTS
SEE DETAIL SHEET C6.2

General Notes:

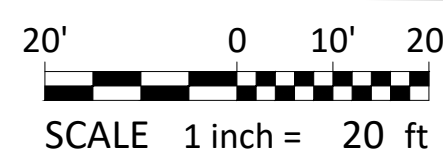
- THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:
 - ALTA/NSPS LAND TITLE SURVEY, PREPARED BY JOHNSON, MIRMIRAN & THOMPSON FOR WALLBROOK LANDCO, LLC, DATED REVISED MARCH 28, 2020
 - "REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION - 7 ELEVEN AT WALLBROOK" PREPARED BY NV5 ENGINEERS AND CONSULTANTS, INC., DATED JULY 11, 2022
 - "REVISED WALLBROOK DEVELOPMENT TRAFFIC IMPACT ANALYSIS" PREPARED BY STANTEC CONSULTING SERVICES, INC., DATED AUGUST 11, 2020
- ALL ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE OR THE REQUIREMENTS OF THE JURISDICTION WHERE THIS PROJECT IS TO BE CONSTRUCTED.
- THIS PROPERTY IS LOCATED IN FLOOD ZONE "X", AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON NATIONAL FLOOD INSURANCE RATE MAP (FIRM) 3720175800K, EFFECTIVE DATE: JULY 19, 2022.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES. CONTRACTOR SHALL HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
- THE OWNER / CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE REQUIREMENTS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES HAVING JURISDICTION OVER THIS PROJECT.
- THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE PART OF THE REQUIRED CONSTRUCTION DOCUMENTS, AND, IN CASE OF CONFLICT, SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY SUCH DISCREPANCY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
- THESE PLANS ARE BASED ON INFORMATION PROVIDED TO ARK CONSULTING GROUP, PLLC BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ARK CONSULTING GROUP, PLLC IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER ON-SITE FEATURES.
- ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS AND GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO THE GIVING OF SUCH NOTIFICATION AND THE ENGINEER'S WRITTEN AUTHORIZATION OF SUCH ADDITIONAL WORK.
- CONTRACTOR SHALL REFER TO THE ARCHITECTURAL / BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY / EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE SITE PLAN AND LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER OF ANY DISCREPANCIES.
- THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR STRIPING DURING THE COURSE OF CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB & GUTTER. CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY SHALL RESTORE SUCH CONNECTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE EXISTING CONDITIONS, AND IN CONFORMANCE WITH APPLICABLE CODES. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION.
- THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, NOR IS THE ENGINEER RESPONSIBLE FOR ANY CONFLICTS OR SCOPE REVISIONS WHICH RESULT FROM THE SAME. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

Impervious Area Calculations

| | |
|--|----------|
| SITE LIMITED TO 85% IMPERVIOUS AREA AS ACCOUNTED FOR IN THE WALLBROOK STORMWATER MASTER PLAN | |
| PROPOSED BUILDING IMPERVIOUS AREA: | 4805 SF |
| PROPOSED TRANSPORTATION IMPERVIOUS AREA: | 47542 SF |
| PROPOSED TOTAL IMPERVIOUS AREA: | 52347 SF |
| TOTAL SITE AREA: | |
| ALLOWABLE IMPERVIOUS AREA (85%): | 70567 SF |
| PROPOSED IMPERVIOUS PERCENTAGE: | 59982 SF |
| | 74.0 % |

Legend

| EXISTING | PROPOSED |
|--------------------------------------|----------|
| ● = FOUND MONUMENT AS NOTED | |
| ○ = SET IRON PIN | |
| △ = NCOS MONUMENT | |
| △ = DIMENSION POINT (NOTHING SET) | |
| P = PROPERTY LINE | |
| R/W = RIGHT OF WAY | |
| C&G = CURB AND GUTTER | |
| DI = CABLE TV PEDESTAL | |
| EM = DROP INLET | |
| EM = ELECTRIC BOX | |
| EM = ELECTRIC METER | |
| F/O = FIBER OPTIC | |
| FH = FIRE HYDRANT | |
| GV = GAS VALVE | |
| HB = HAND BOX | |
| LP = LIGHT POLE | |
| PP = POWER POLE | |
| W = GUY WIRE | |
| RCP = REINFORCED CONCRETE PIPE | |
| S.F. = SQUARE FEET (AREA) | |
| SIGN = SIGN | |
| TS = TRAFFIC SIGNAL POLE | |
| SS = SANITARY SEWER MANHOLE | |
| SS = SANITARY SEWER FORCE MAIN VALVE | |
| SD = STORM DRAIN MANHOLE | |
| SD = STORM DRAIN CATCH BASIN | |
| TP = TELEPHONE PEDESTAL | |
| TB = TRAFFIC BOX | |
| WB = WATER BOX | |
| WM = WATER METER | |
| WMH = WATER MANHOLE | |
| WV = WATER VALVE | |
| WELL = WELL | |
| X-WALK = PEDESTRIAN X-WALK POLE | |
| E = ELECTRIC LINE | |
| SS = SANITARY SEWER FORCE MAIN | |
| G = GAS LINE | |
| OE = OVERHEAD ELECTRIC LINE | |
| SS = SANITARY SEWER LINE | |
| T = TELEPHONE LINE | |
| W = CABLE TV LINE | |
| W = WATER LINE | |
| P = FIRE LINE | |
| 8" = 8" WATER LINE | |
| 12" = 12" WATER LINE | |
| SP = SPILL CURB | |
| F = FENCE | |
| RIP = RIPARIAN BUFFER | |
| TR = TREELINE | |
| 50' = MAJOR CONTOUR (5') | |
| 10' = MINOR CONTOUR (1') | |
| TPF = TREE PROTECTION FENCE | |
| SILT = SILT FENCE | |
| CS = CONCRETE SIDEWALK | |
| = ACCESS AND UTILITY EASEMENT | |
| HA = HEAVY DUTY ASPHALT PAVEMENT | |
| TD = TDD DRAINAGE AREA | |
| SK = SKIMMER BASIN DRAINAGE AREA | |



7-ELEVEN AT WALLBROOK (LOT 11)
Town of Rolesville Project No. SDP 23-04
US 401 Business / S. Main Street & Virginia Water Drive
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

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Durham, NC 27706
(919) 558-8888
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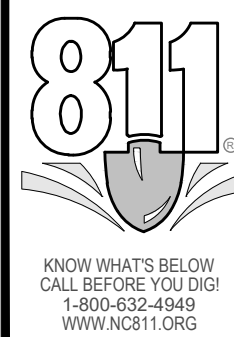
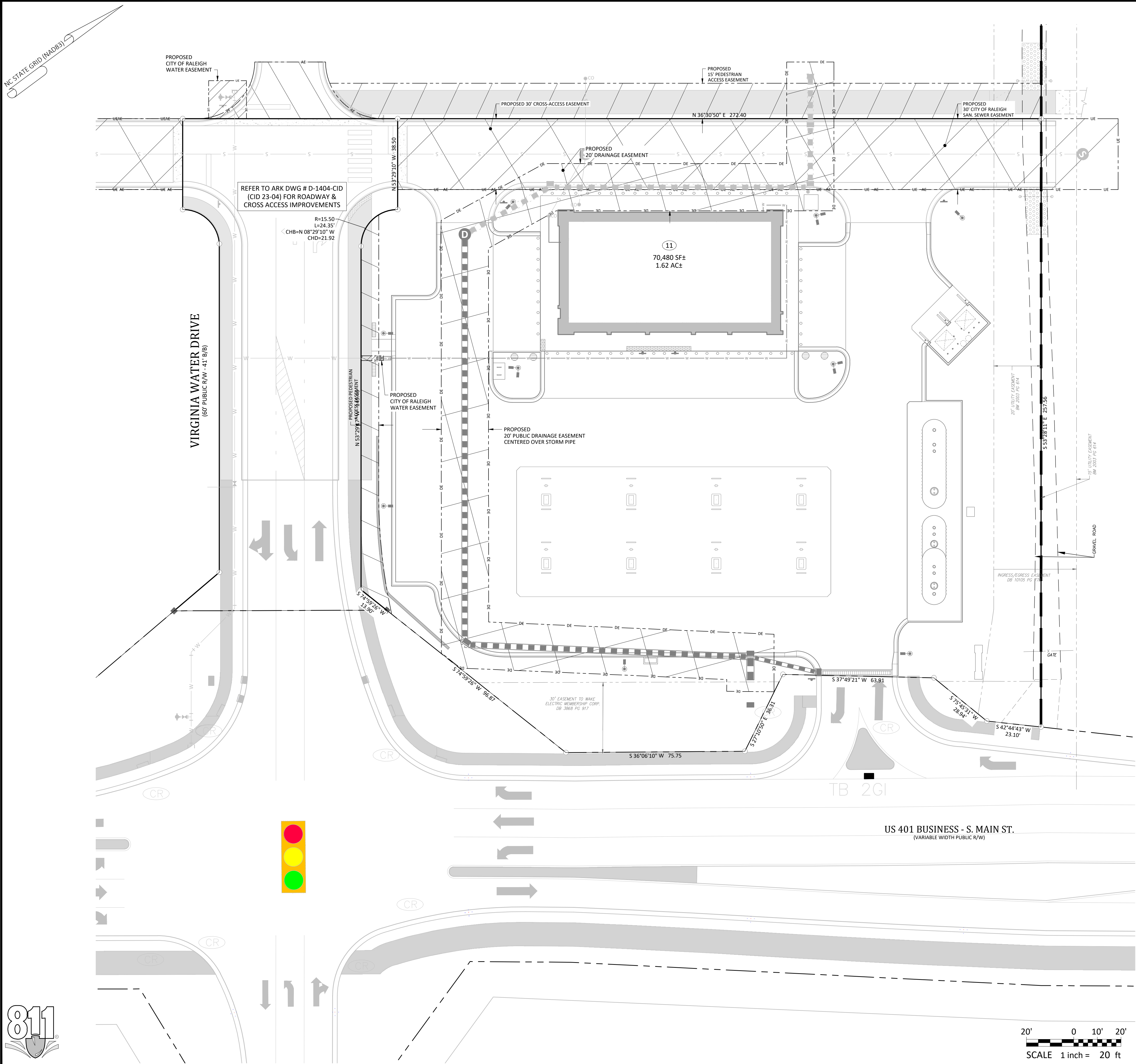
Professional Engineer
NORTH CAROLINA
6/9/2025
31970
BRADYIN C. FAGUNDY

Project Manager: BCF
Drawn By: DLC/TGN
Checked By: TGN
Project Number: 22049
Drawing Number: D-1404-SDP

C2.0
Date: May 1, 2023

REVISIONS:

| # | DATE | DESCRIPTION |
|---|--------|-------------------------------------|
| 1 | JUN-23 | ISSUED FOR PERMIT REVIEW |
| 2 | MAY-23 | REVISED PER TOR REVIEW COMMENTS |
| 3 | MAR-24 | REVISED PER REVIEW & OWNER COMMENTS |
| 4 | MAY-24 | REVISED PER REVIEW & OWNER COMMENTS |
| 5 | MAY-24 | REVISED PER REVIEW & OWNER COMMENTS |
| 6 | MAY-24 | REVISED PER REVIEW & OWNER COMMENTS |
| 7 | MAY-24 | REVISED PER REVIEW & OWNER COMMENTS |
| 8 | JUN-25 | APPROVED - SIGNATURE SET |



EASEMENT PLAN

7-ELEVEN AT WALLBROOK (LOT 11)

Town of Rolesville Project No. SDP 23-04
US 401 Business / S. Main Street & Virginia Water Drive
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6/9/2025

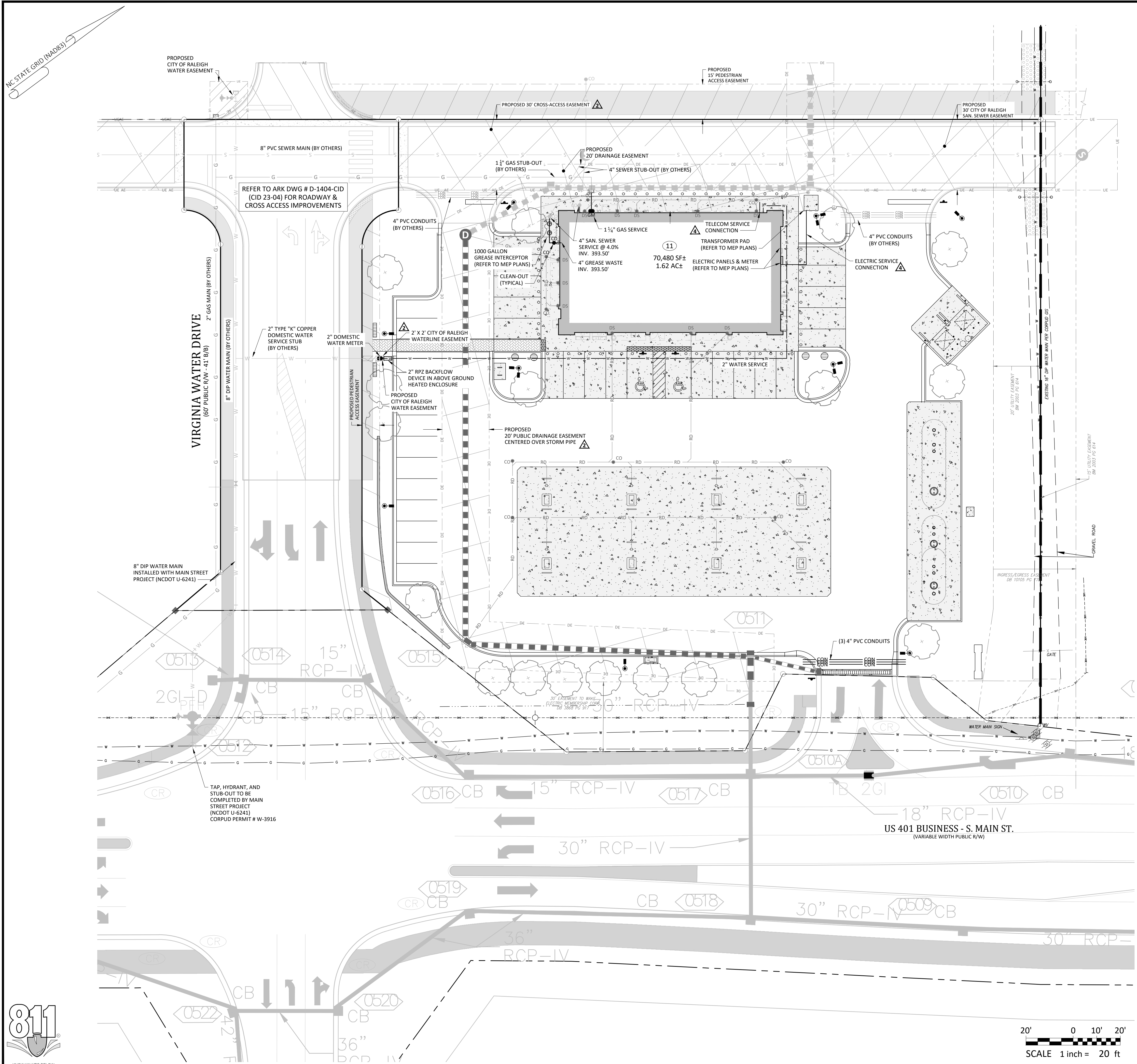
Professional Engineer
NORTH CAROLINA
31976
BRYAN C. FAGUNDY

Project Manager: BCF
Drawn By: DLC/TGN
Checked By: TGN
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Drawing Number: D-1404-SDP

C2.1

Date: May 1, 2023

| # | DATE | DESCRIPTION |
|---|-----------|-------------------------------------|
| 8 | 9-JUN-23 | APPROVED - SIGNATURE SET |
| 7 | 7-NOV-23 | REVISED PER REVIEW COMMENTS |
| 6 | 22-NOV-23 | REVISED PER WAKE CO REVIEW COMMENTS |
| 5 | 12-MAY-24 | REVISED PER REVIEW & OWNER COMMENTS |
| 4 | 12-MAY-24 | REVISED PER REVIEW & OWNER COMMENTS |
| 3 | 1-MAR-24 | REVISED PER TOR REVIEW COMMENTS |
| 2 | 1-JUNE-23 | REVISED PER TOR REVIEW COMMENTS |
| 1 | 1-MAY-23 | ISSUED FOR PERMIT REVIEW |



CORPUD Standard Utility Notes:

- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK)
- UTILITY SEPARATION REQUIREMENTS:
 - DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATER SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
 - WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR.
 - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATER MAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATER MAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
 - ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY CORPUD PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO CORPUD.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- IT IS THE DEVELOPERS RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY CORPUD. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVIC FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
- INSTALL PVC WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2' X 2' WATERLINE EASEMENT IMMEDIATELY ADJACENT.
- INSTALL PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75' LINEAR FEET MAXIMUM.
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS PRIOR TO CONSTRUCTION.
- NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NC. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- THE PROPOSED 2" RPZ SHALL BE APPROVED BY CROSS.CONNECTION@RALEIGHNC.GOV PRIOR TO ISSUANCE OF THE UTILITY CONNECTION PERMIT.
- THE PROPOSED GREASE INTERCEPTOR SHALL BE APPROVED BY FOG@RALEIGHNC.GOV PRIOR TO ISSUANCE OF THE UTILITY CONNECTION PERMIT.

ATTENTION CONTRACTORS

The **Construction Contractor** responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the **Public Utilities Department** at (919) 996-4540 at least **twenty four hours** prior to beginning any of their construction.

Failure to notify both **City Departments** in advance of beginning construction, will result in the issuance of **monetary fines**, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for **Inspection, Install a Downstream Plug**, have **Permitted Plans** on the **Jobsite**, or any other **Violation of City of Raleigh Standards** will result in a **Fine and Possible Exclusion** from future work in the **City of Raleigh**.

CROSLAND
SOUTHEAST



7-ELEVEN AT WALLBROOK (LOT 11)

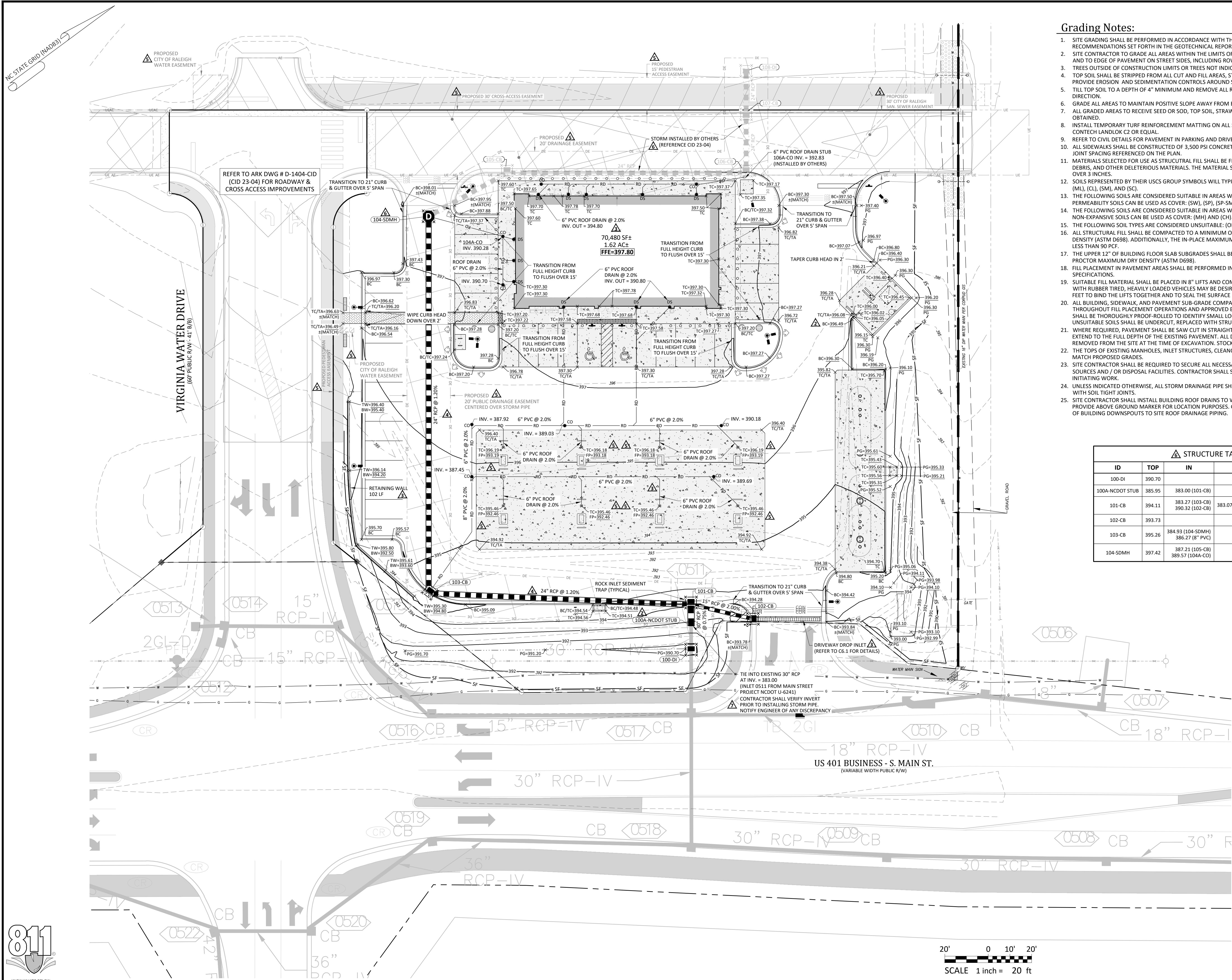
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Professional Engineer
BRYAN C. FAGUNDY
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Project Manager: BCF
Drawn By: DLC/TGN
Checked By: TGN
Project Number: 22049
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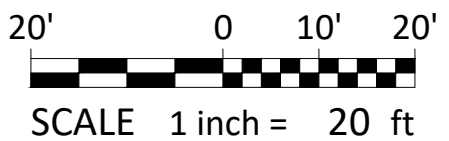
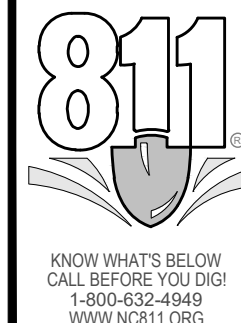
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Date: May 1, 2023



- Grading Notes:**
1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET.
 2. SITE 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.
 3. TREES OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED.
 4. TOP SOIL SHALL BE STRIPPED FROM ALL CUT AND FILL AREAS, STOCKPILED AND REDISTRIBUTED OVER GRADED AREAS, PROVIDE EROSION AND SEDIMENTATION CONTROLS AROUND STOCKPILES DURING CONSTRUCTION.
 5. TILL TOP SOIL TO A DEPTH OF 4" MINIMUM AND REMOVE ALL ROCKS LARGER THAN 1" MEASURED IN LARGEST DIRECTION.
 6. GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.
 7. ALL GRADED AREAS TO RECEIVE SEED OR SOD, TOP SOIL, STRAW AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
 8. INSTALL TEMPORARY TURF REINFORCEMENT MATTING ON ALL SLOPES STEEPER THAN 3:1. MATTING SHALL BE CONTECH LANDLOK C2 OR EQUAL.
 9. REFER TO CIVIL DETAILS FOR PAVEMENT IN PARKING AND DRIVE AREAS.
 10. ALL SIDEWALKS SHALL BE CONSTRUCTED OF 3,500 PSI CONCRETE AND SHALL HAVE TOOLED CONTROL JOINTS PER THE JOINT SPACING REFERENCED ON THE PLAN.
 11. MATERIALS SELECTED FOR USE AS STRUCTURAL FILL SHALL BE FREE OF VEGETABLE MATTER, WASTE CONSTRUCTION DEBRIS, AND OTHER DELETERIOUS MATERIALS. THE MATERIAL SHALL NOT CONTAIN ROCKS HAVING A DIAMETER OVER 3 INCHES.
 12. SOILS REPRESENTED BY THEIR USCS GROUP SYMBOLS WILL TYPICALLY BE SUITABLE FOR USE AS STRUCTURAL FILL: (ML), (CL), (SM), AND (SC).
 13. THE FOLLOWING SOILS ARE CONSIDERED SUITABLE IN AREAS WHERE A MINIMUM THICKNESS OF 3' OF LOW PERMEABILITY SOILS CAN BE USED AS COVER: (SW), (SP), (SP-SM), AND (SP-SC).
 14. THE FOLLOWING SOILS ARE CONSIDERED SUITABLE IN AREAS WHERE A MINIMUM THICKNESS OF 3' OF NON-EXPANSIVE SOILS CAN BE USED AS COVER: (MH) AND (CH).
 15. THE FOLLOWING SOIL TYPES ARE CONSIDERED UNSUITABLE: (OL), (OH), AND (PI).
 16. ALL STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698). ADDITIONALLY, THE IN-PLACE MAXIMUM DRY DENSITY OF STRUCTURAL FILL SHOULD BE NO LESS THAN 90 PCF.
 17. THE UPPER 12" OF BUILDING FLOOR SLAB SUBGRADES SHALL BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698).
 18. FILL PLACEMENT IN PAVEMENT AREAS SHALL BE PERFORMED IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS.
 19. SUITABLE FILL MATERIAL SHALL BE PLACED IN 8" LIFTS AND COMPACTED BY MECHANICAL MEANS. PROOFROLLING WITH RUBBER TIRE, HEAVILY LOADED VEHICLES MAY BE DESIRABLE AT INTERVALS OF APPROXIMATELY 2 VERTICAL FEET TO BIND THE LIFTS TOGETHER AND TO SEAL THE SURFACE OF THE COMPACTED AREAS.
 20. ALL BUILDING, SIDEWALK, AND PAVEMENT SUB-GRADE COMPACTIONS SHALL BE INTERMEDIATELY TESTED THROUGHOUT FILL PLACEMENT OPERATIONS 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.
 21. WHERE REQUIRED, PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, SHALL EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
 22. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, CLEANOUTS, ETC. SHALL BE ADJUSTED, AS REQUIRED, TO MATCH PROPOSED GRADES.
 23. SITE CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR OFF SITE MATERIAL SOURCES AND / OR DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO OWNER PRIOR TO INITIATING WORK.
 24. UNLESS INDICATED OTHERWISE, ALL STORM DRAINAGE PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SOIL TIGHT JOINTS.
 25. SITE CONTRACTOR SHALL INSTALL BUILDING ROOF DRAINS TO WITHIN 2' OF THE BUILDING EXTERIOR WALL, CAP AND PROVIDE ABOVE GROUND MARKER FOR LOCATION PURPOSES. GENERAL CONTRACTOR IS RESPONSIBLE FOR TIE-INS OF BUILDING DOWNSPOUTS TO SITE ROOF DRAINAGE PIPING.

| STRUCTURE TABLE | | | | |
|-----------------|--------|--------------------------------------|--------------------------|-----------------------|
| ID | TOP | IN | OUT | DESC |
| 100-DI | 390.70 | | | Drop Inlet |
| 100A-NCDOT STUB | 385.95 | 383.00 (101-CB) | | U-6241 Project Tie-In |
| 101-CB | 394.11 | 383.27 (103-CB) 390.32 (102-CB) | 383.07 (100A-NCDOT STUB) | Catch Basin |
| 102-CB | 393.73 | | 390.90 (101-CB) | Catch Basin |
| 103-CB | 395.26 | 384.93 (104-SDMH) 386.27 (8" PVC) | 384.73 (101-CB) | Catch Basin |
| 104-SDMH | 397.42 | 387.21 (105-CB) 389.57 (104A-CO) | 387.01 (103-CB) | 48 in MH |



| REVISIONS: | |
|------------|---|
| # | DESCRIPTION |
| 1 | 1-MAY-23 ISSUED FOR PERMIT REVIEW |
| 2 | 1-JUNE-23 REVISED PER TOR REVIEW COMMENTS |
| 3 | 1-MAY-24 REVISED PER TOR REVIEW & OWNER COMMENTS |
| 4 | 17-MAY-24 REVISED PER TOR REVIEW & OWNER COMMENTS |
| 5 | 17-MAY-24 REVISED PER WARE CO REVIEW COMMENTS |
| 6 | 22-MAY-24 REVISED PER WARE CO REVIEW COMMENTS |
| 7 | 20-SEP-23 REVISED PER REVIEW COMMENTS |
| 8 | 9-JUN-23 APPROVED - SIGNATURE SET |



GRADING PLAN

7-ELEVEN AT WALLBROOK (LOT 11)

Town of Rolesville Project No. SDP 23-04

US 401 Business / S. Main Street & Virginia Water Drive
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

NC License: PA 1199

ARK CONSULTING GROUP PLLC
ENGINEERS & SURVEYORS

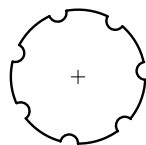
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31970
6/9/2025

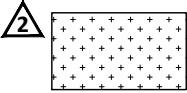
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|------------------|------------|
| Project Manager: | BCF |
| Drawn By: | DLC/TGN |
| Checked By: | TGN |
| Project Number: | 22049 |
| Drawing Number: | D-1404-SDP |



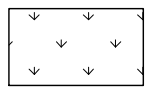
Vegetation Legend:



PROPOSED LARGE TREE (CANOPY)
TOTAL QUANTITY = 17
CALIPER = 3"
HEIGHT = 12'
MATURE HEIGHT = 50' - 80'
COMMON NAME: RED MAPLE
BOTANICAL NAME: ACER RUBRUM



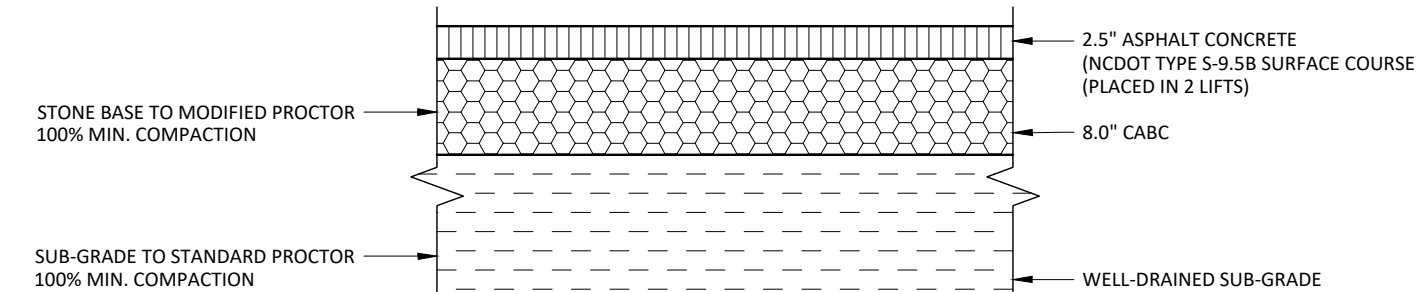
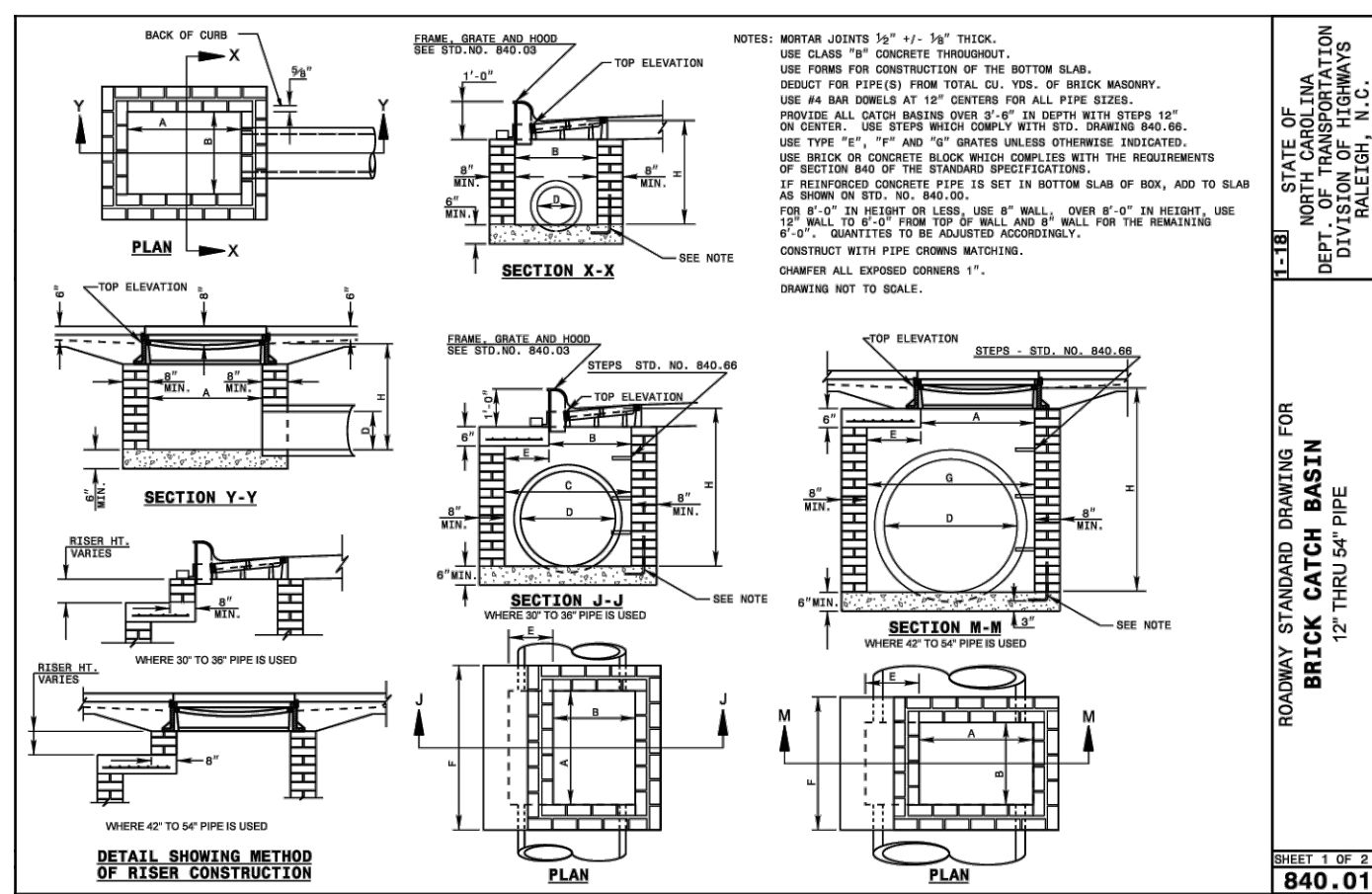
PROPOSED SHRUB(S)
TOTAL QUANTITY = 117
HEIGHT = 24"
MATURE HEIGHT = 24" - 36"
COMMON NAME = GREY OWL EASTERN RED CEDAR
BOTANICAL NAME = JUNIPERUS VIRGINIANA 'GREY OWL'



PROPOSED SOD
TOTAL QUANTITY = 11,050 SF
(CONTRACTOR RESPONSIBLE FOR VERIFYING AREA)

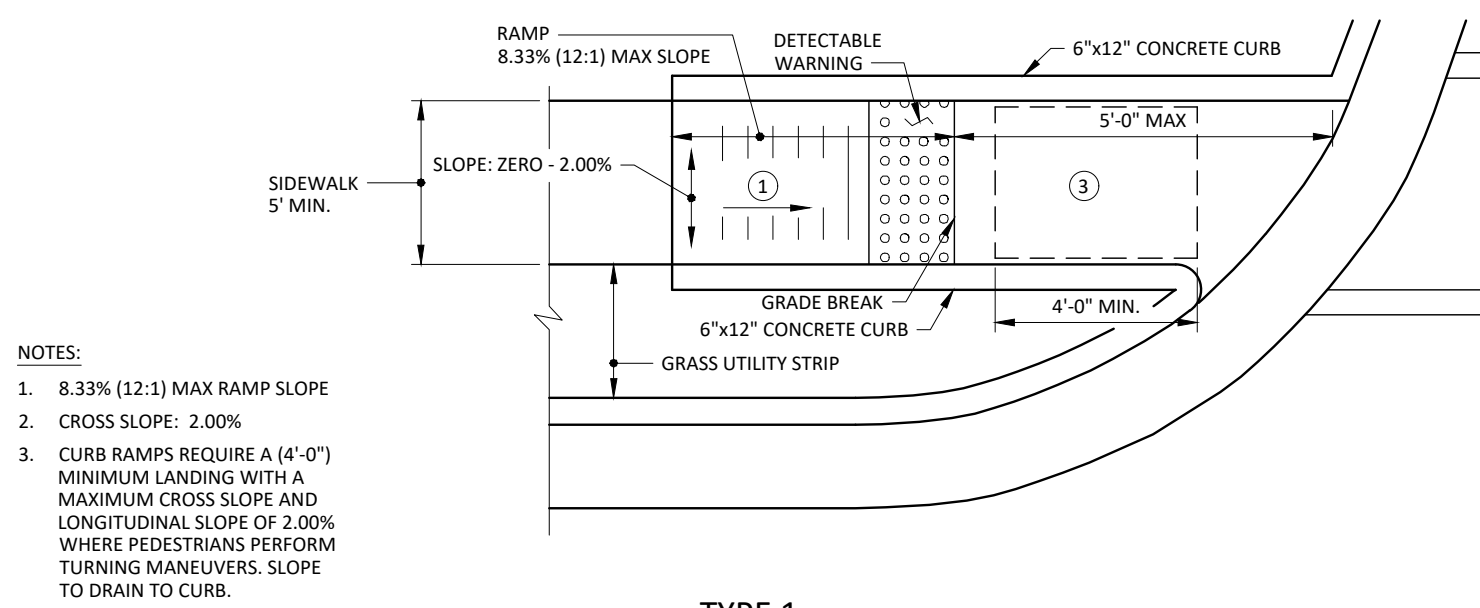
C5.0
Date: May 1, 2023

\\ARK-DR0PBOX\01 - PROJECTS\ACTIVE\GROBLAND SE\22049 - WALLBROOK - TELEVEN\0 - DWG\03 - FINAL\01404_SDP - TELEVEN AT WALLBROOK.DWG, C5.0, Lee Christine, Wed, Jan 03, 2006 @ 12:20 PM



STANDARD ASPHALT PAVEMENT SECTION

NOT TO SCALE

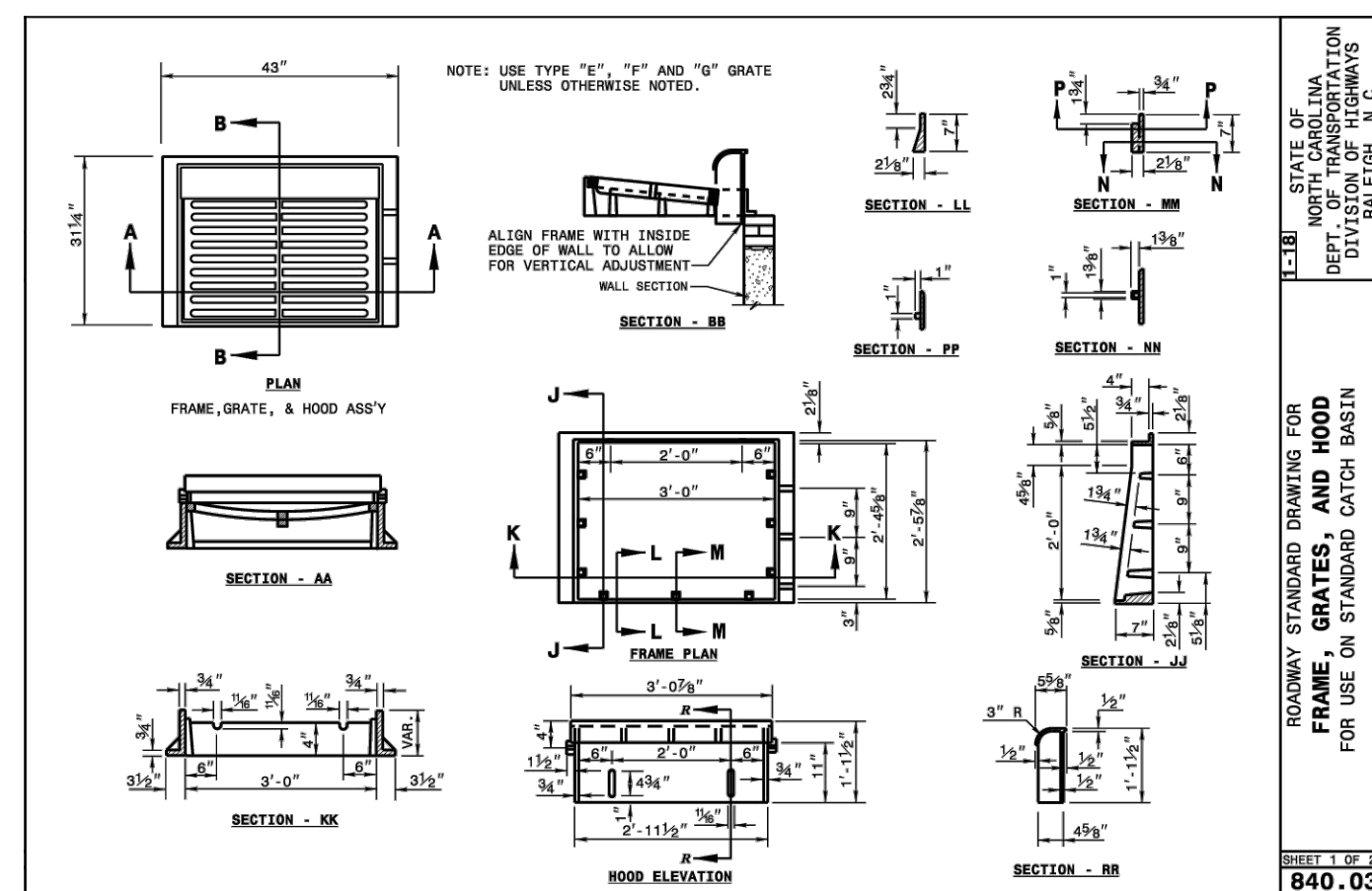


TYPE 1

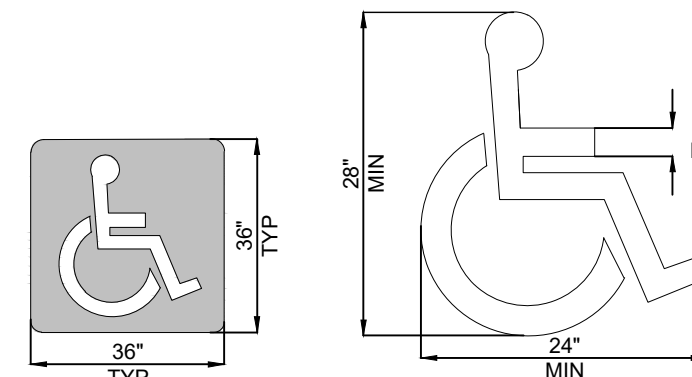
REFER TO NCDOT ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CURB RAMPS - DIRECTIONAL RAMPS

NOT TO SCALE

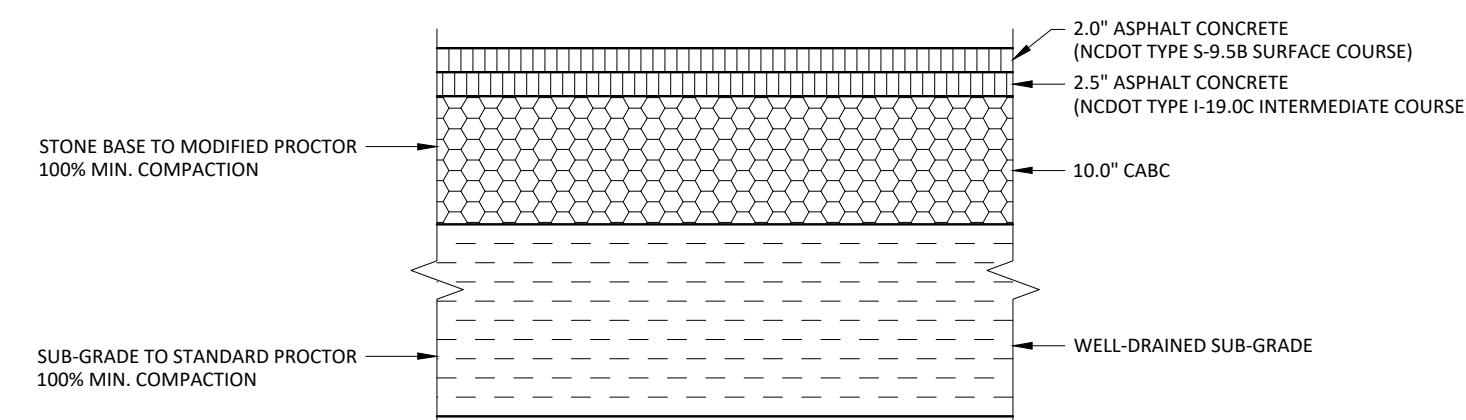
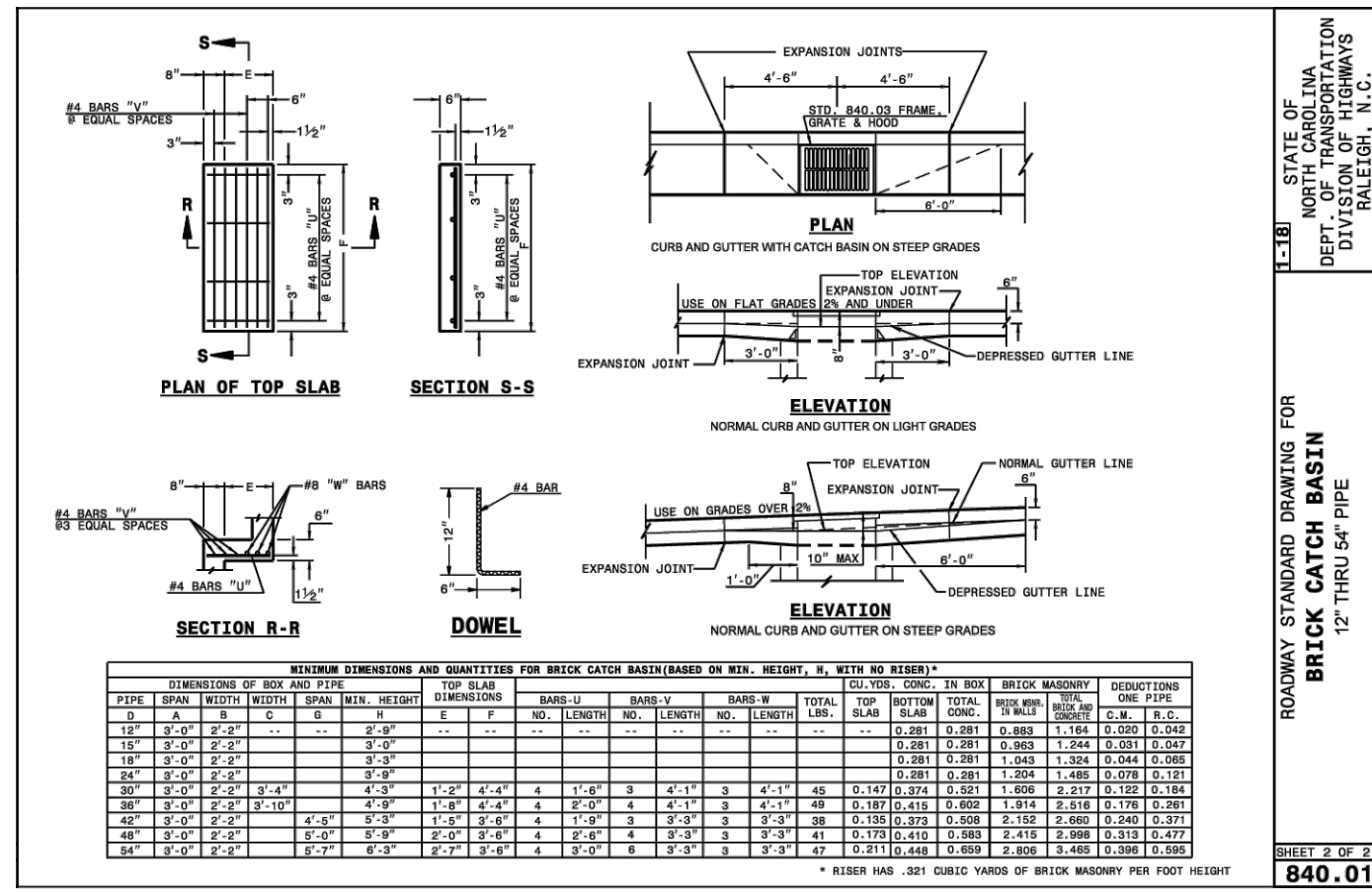


PARKING LOT STRIPING



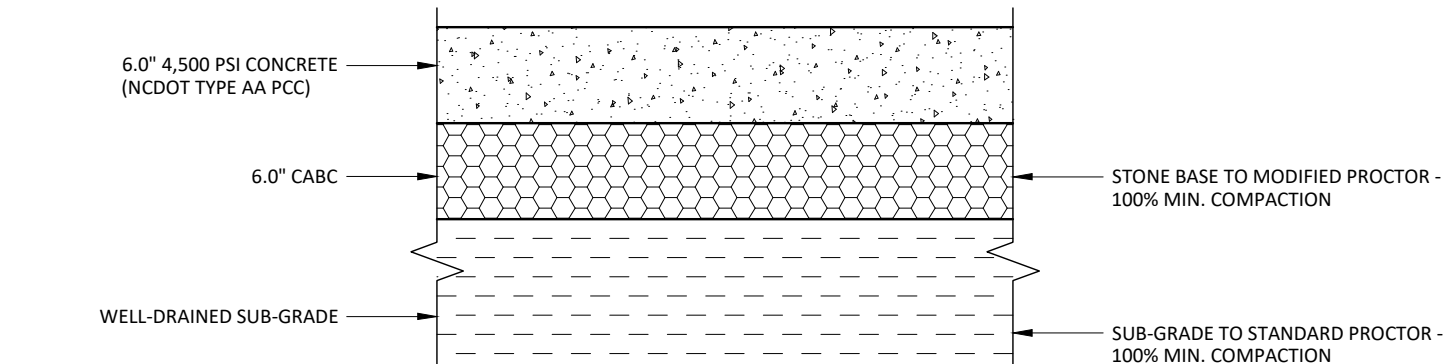
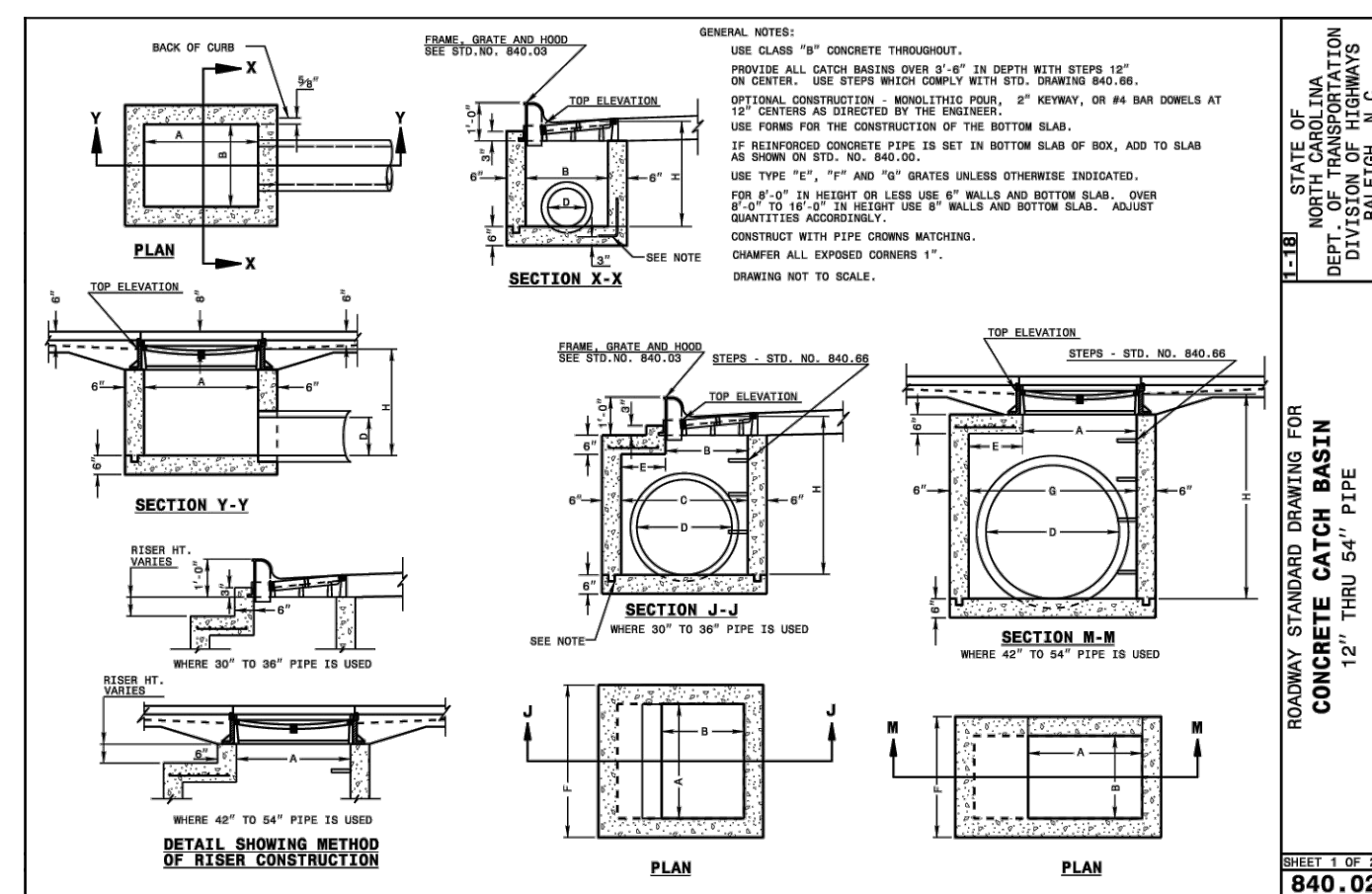
ACCESSIBLE PARKING SIGN

NOT TO SCALE



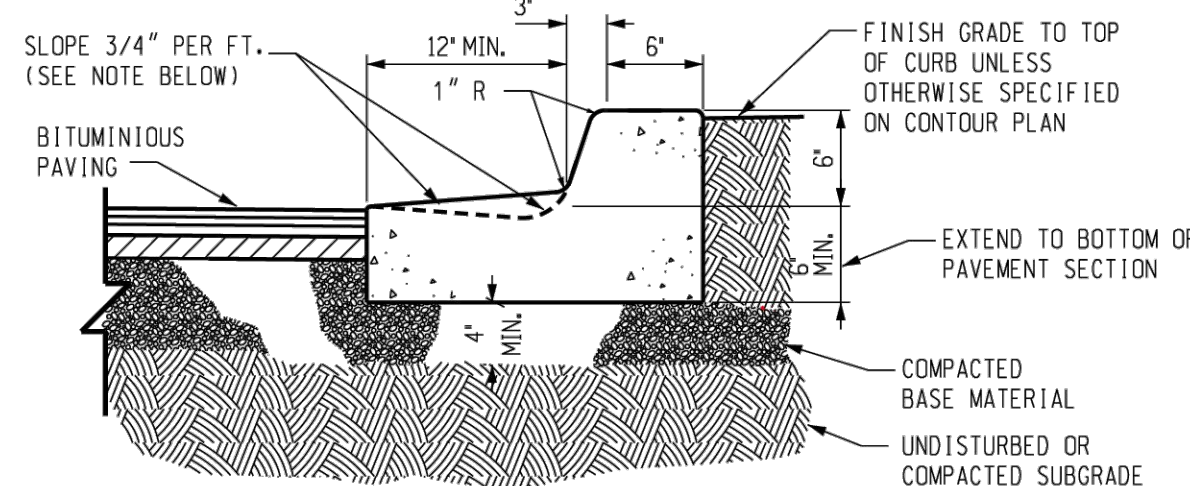
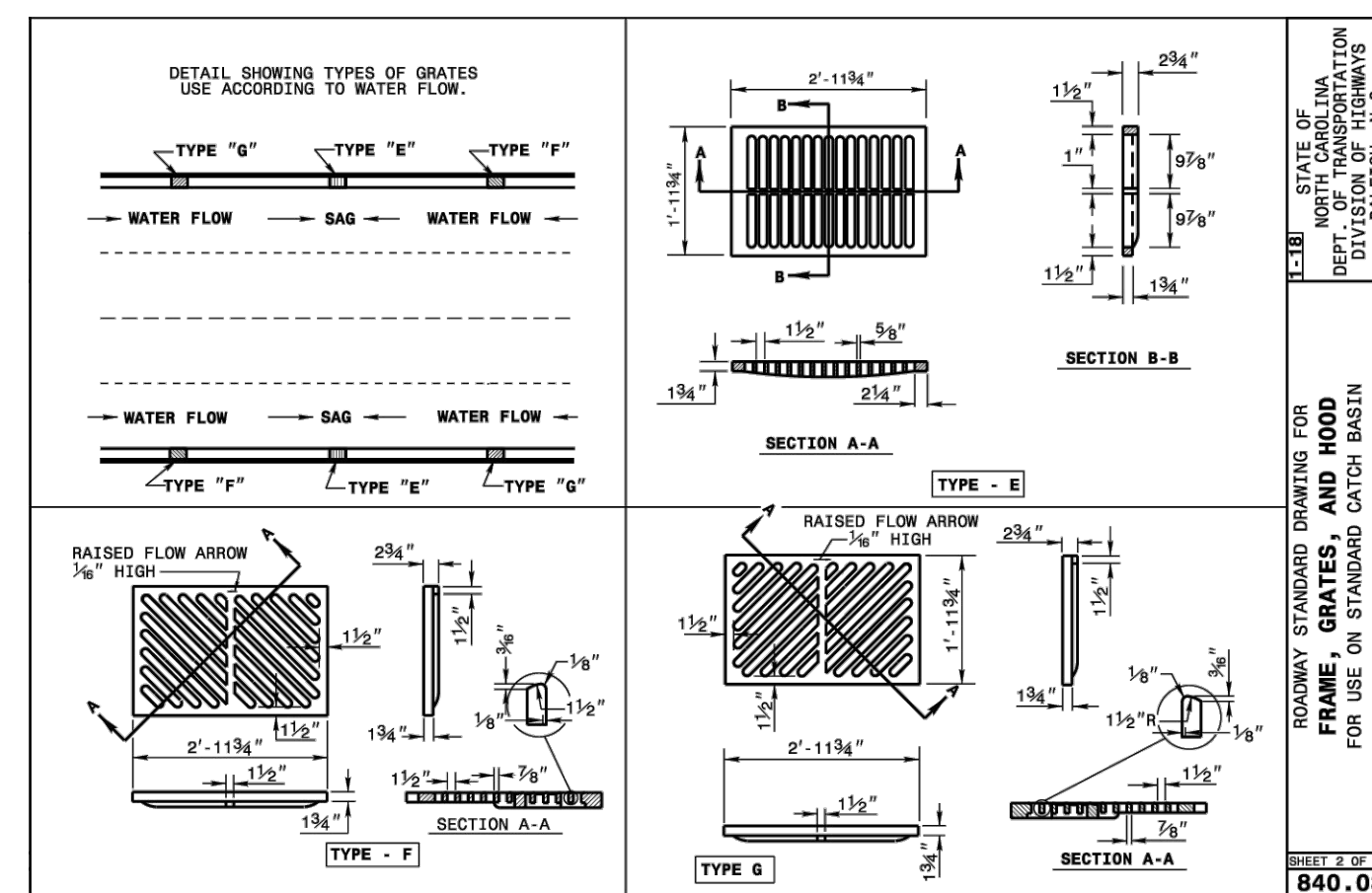
HEAVY DUTY ASPHALT PAVEMENT SECTION

NOT TO SCALE

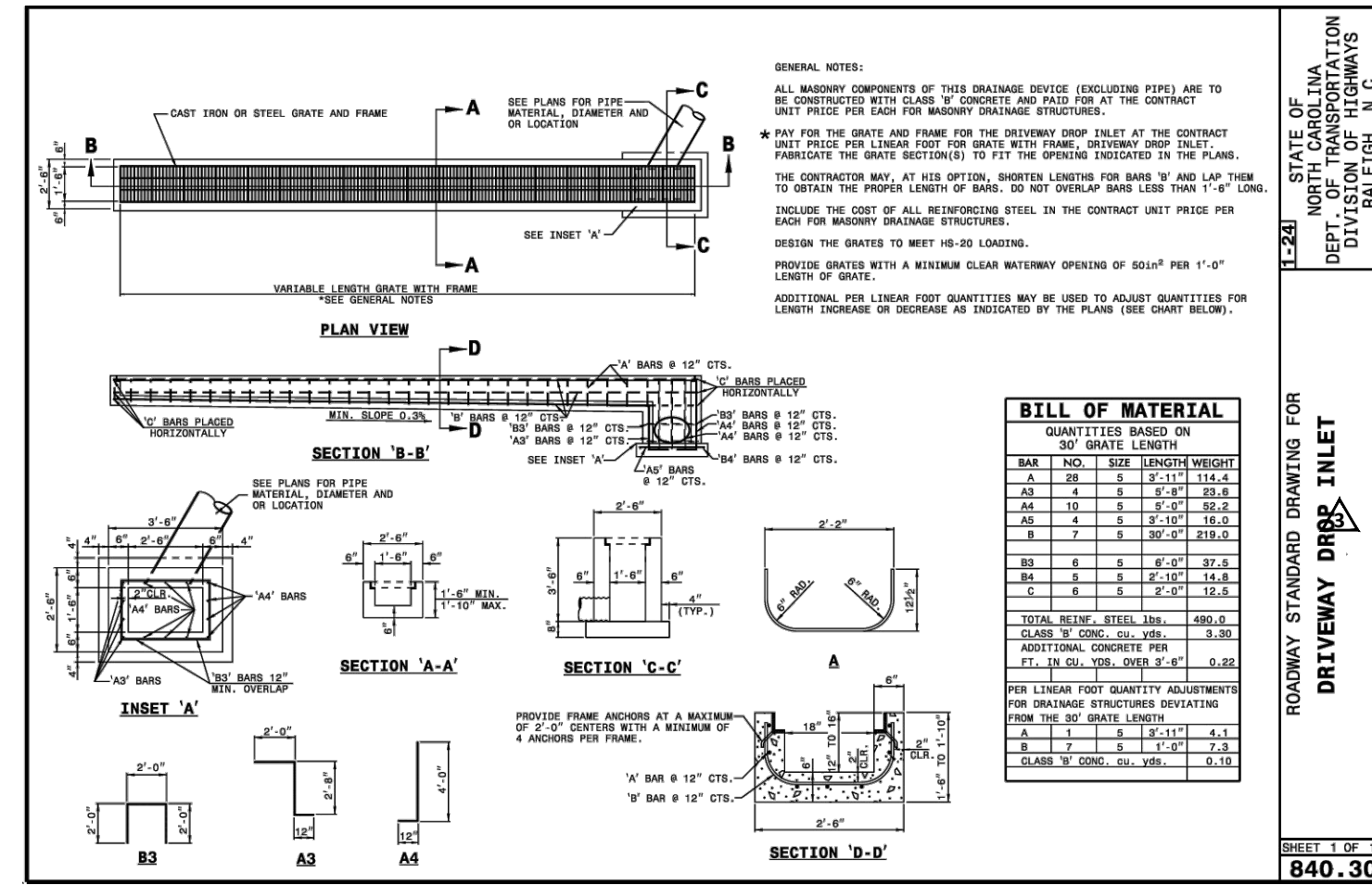
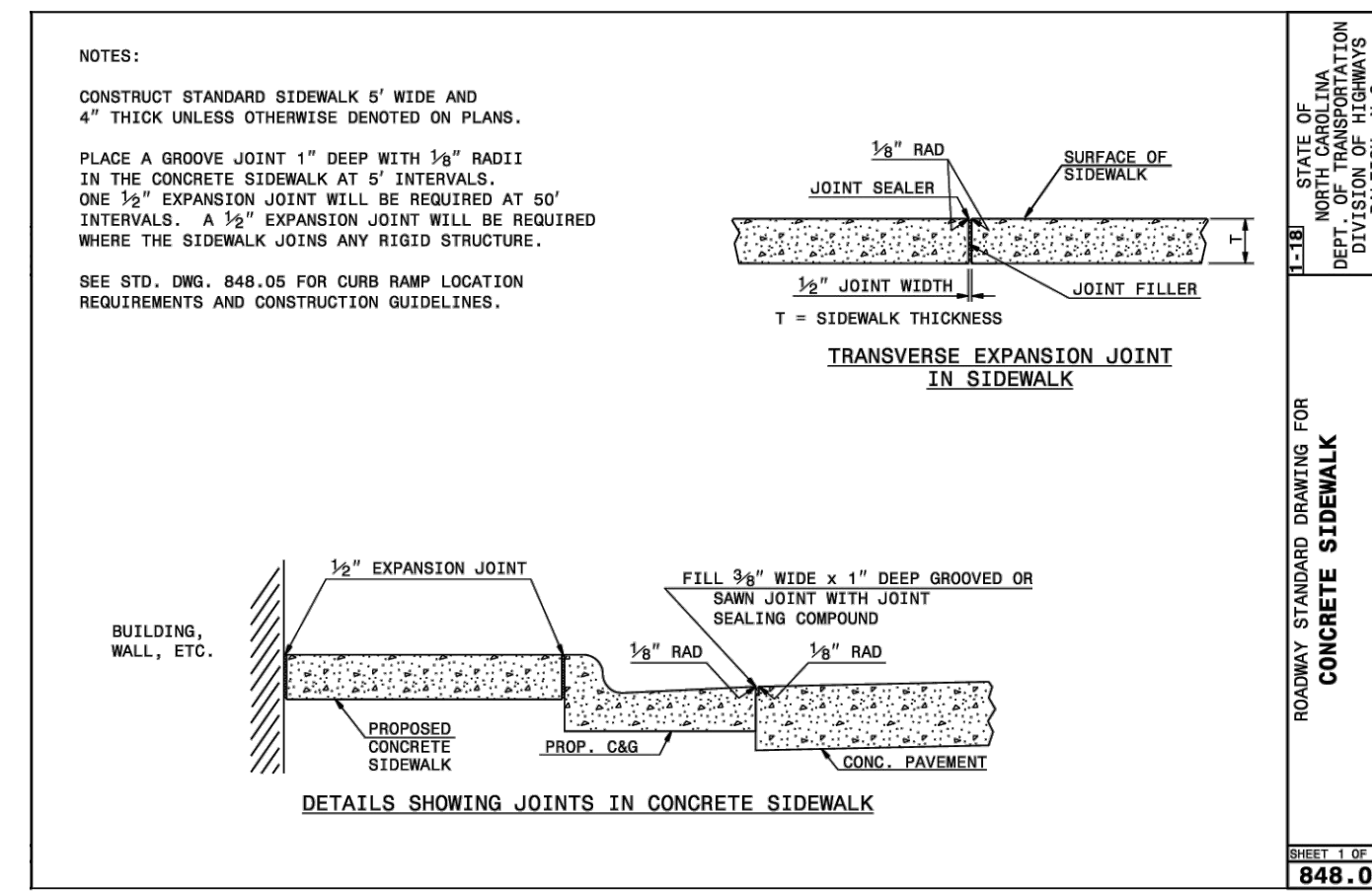
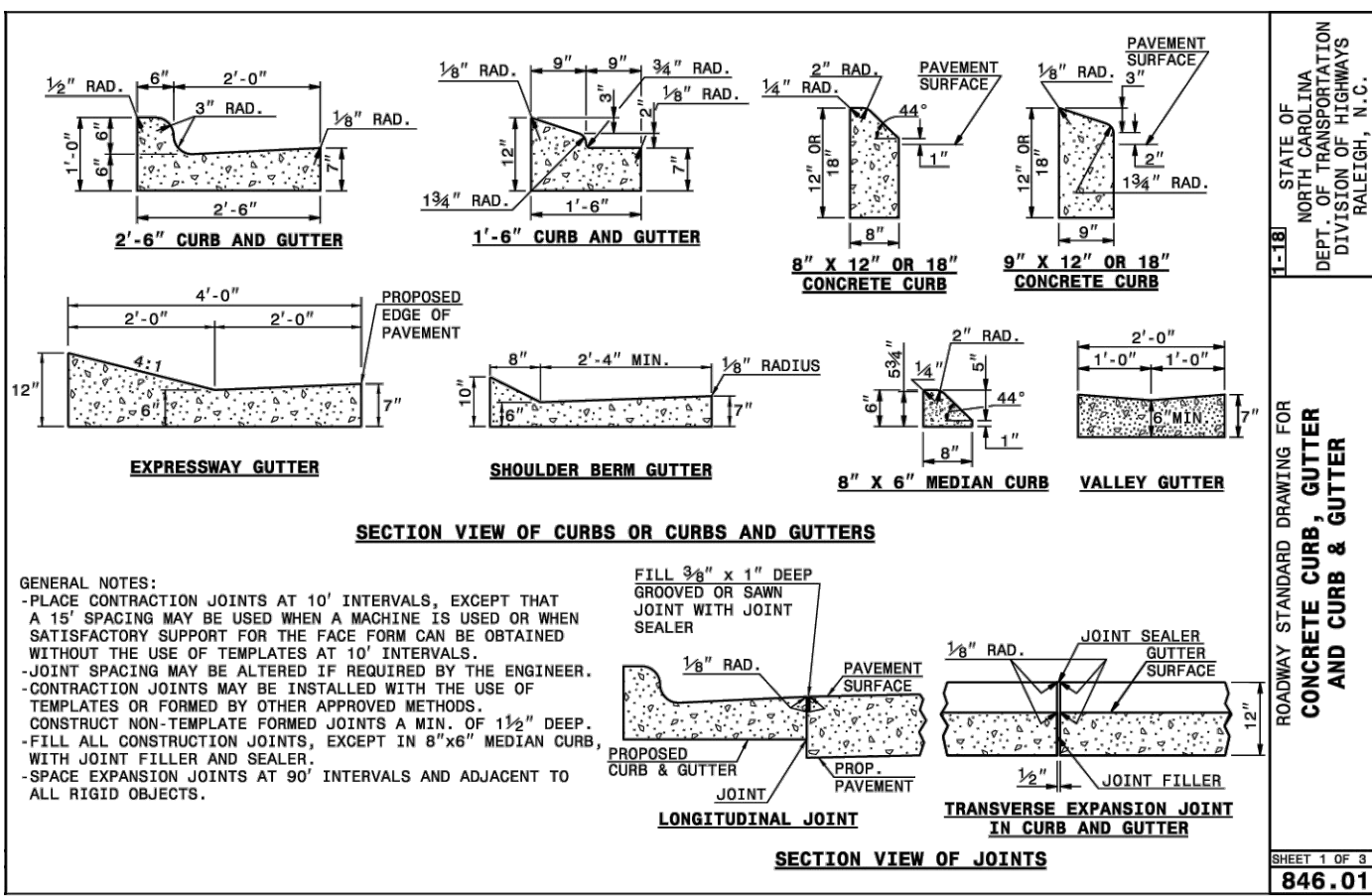
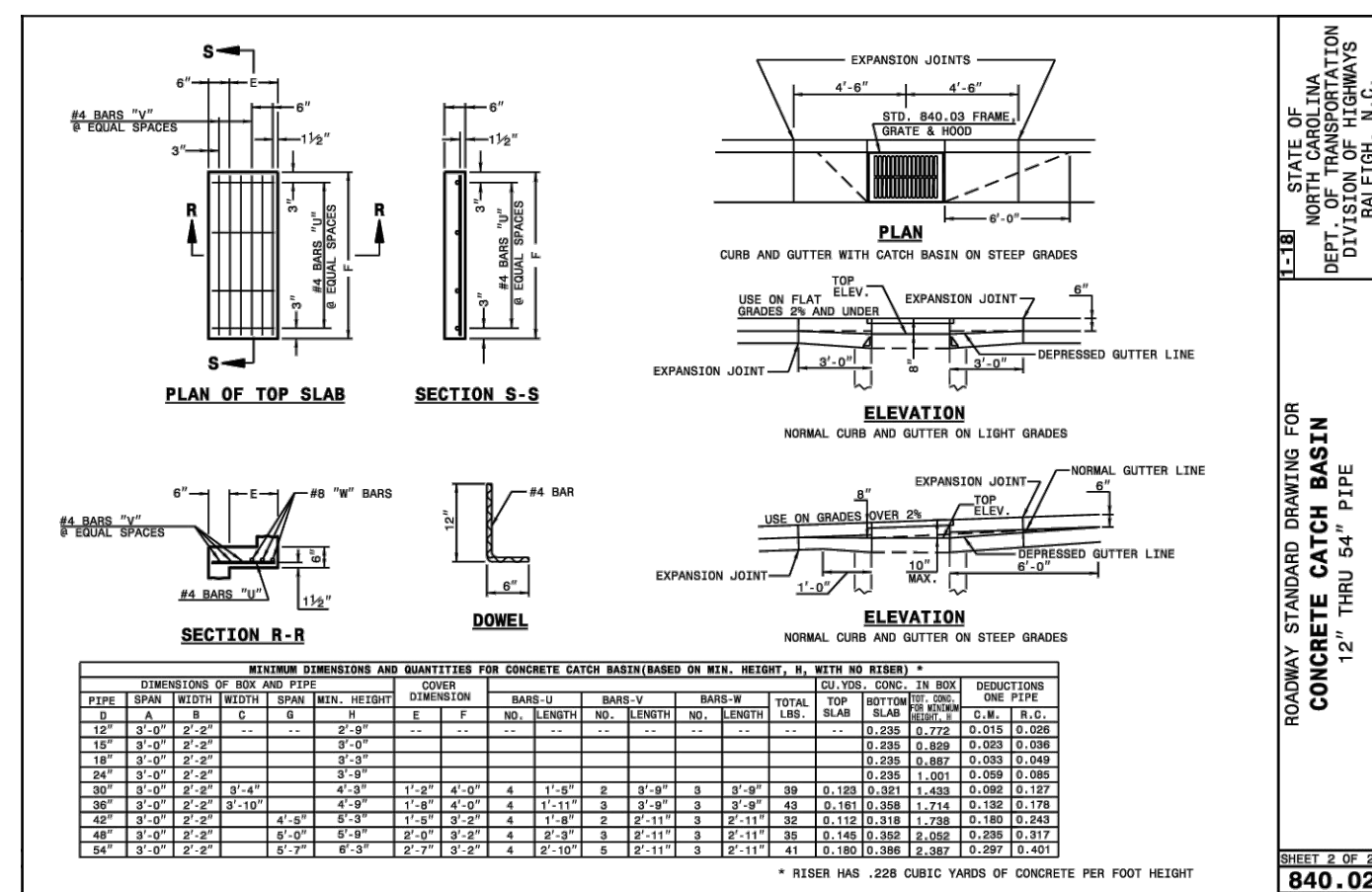


CONCRETE PAVEMENT SECTION

NOT TO SCALE



STRAIGHT CONCRETE CURB & GUTTER

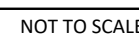




1. CONNECTION JOINTS SHALL BE SPACED AT 10' INTERVALS, EXCEPT THAT 15" SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS. JOINT SPACING SHALL BE DETERMINED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.
2. CONNECTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS, WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2" SHALL BE MAINTAINED.
3. ALL CONNECTION JOINTS SHALL BE FILLED WITH JOINT FILLER.
4. EXPANSION JOINTS SHALL BE SPACED AT 90' INTERVALS, AND ADJUST TO ALL RIGID OBSTACLES.
5. ALL CURB AND GUTTERS ARE TO BE POURED WITH CLASS "A" CONCRETE, (3000 PSI)
6. FLEXIBLE FORMS ARE TO BE USED WHEN RADII IS LESS THAN 200.

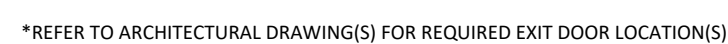


NOT TO SCALE

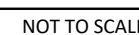
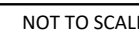


1. Container pad must be flush with parking lot pavement

NOT TO SCALE



NOT TO SCALE



NOT TO SCALE

1. CALIFORNIA SITES REQUIRE AIR/WATER AND THAT THERE BE A FREE OPTION THROUGH THE REMOTE SYSTEM.
2. DESIGNER TO SEPARATE THE VACUUM SERVICE AT CAR WASH LOCATIONS IF TWO PLACEMENTS ARE AVAILABLE. OPTION TO PROVIDE AIR/WATER/VACUUM THROUGH THE SAME MACHINE IF NECESSARY.

NOTE:
MAXIMUM 2 PERCENT GRADE SLOPE EACH WAY
REQUIRED FOR AMERICANS WITH DISABILITIES
ACT.

GC TO PROVIDE CONCRETE SLAB AND UTILITIES.
AIR SERV TO PROVIDE EQUIPMENT AND MAKE
FINAL CONNECTIONS.



BIKE RACK INSTALLATION:
SURFACE MOUNT - WHEN INSTALLED ON
CONCRETE SURFACE, USE 3/8" ANCHORS
TO PLATE MOUNT. SHIM AS NECESSARY TO
ENSURE VERTICAL PLACEMENT.

IN-GROUND MOUNT - WHEN INSTALLED ON
PAVERS OR OTHER NON-STABLE SURFACES:
EMBED INTO BASE. CORE HOLES NO LESS
THAN 3" IN DIAMETER AND 10" DEEP.



SEE NOTE

SEE NOTE



NOT TO SCALE



EXTERIOR SLAB EXPANSION
JOINT (E.J.)

FOR 5' OR 8' WALKS, INSTALL A CONTROL JOINT EVERY 5' AND ONE IN THE CENTER (5' FROM THE BACK OF THE BUILDING FOR EXAMPLE)

DETAILS ONLY APPLY TO BUILDING SIDEWALK.
THEY DO NOT APPLY TO INTERIOR SLAB OR SITE
CONCRETE.

NOT TO SCALE



FRONT DUMPSTER ENCLOSURE ELEVATION
3/8" = 1'-0"



SIDE DUMPSTER ENCLOSURE ELEVATION
3/8" = 1'-0"

| | | | | |
|---|---|---|---|---|
| 7 | 6 | 5 | 4 | 3 |
|---|---|---|---|---|

REVISIONS:

7-ELEVEN AT WALLBROOK (LOT 11)

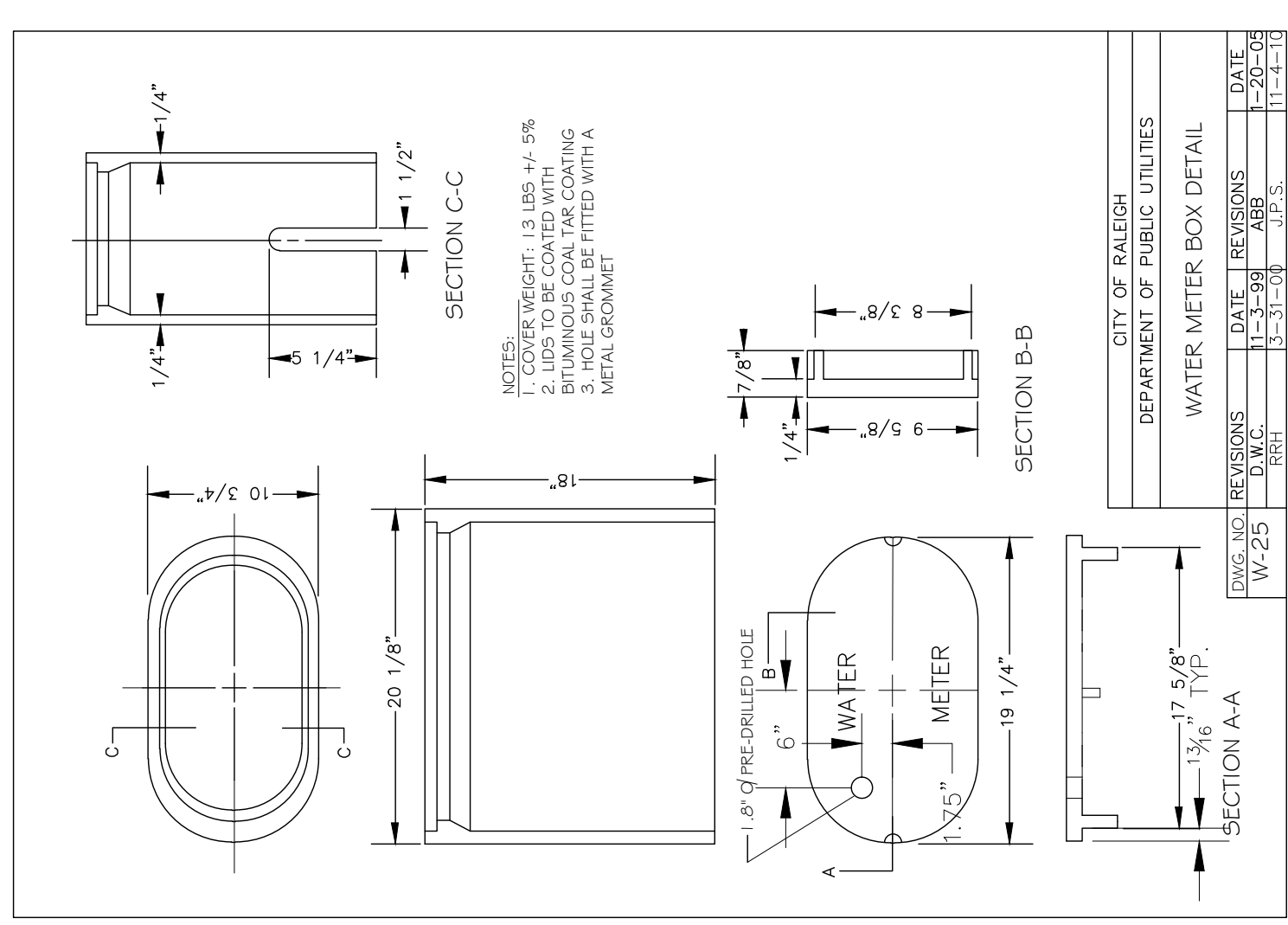
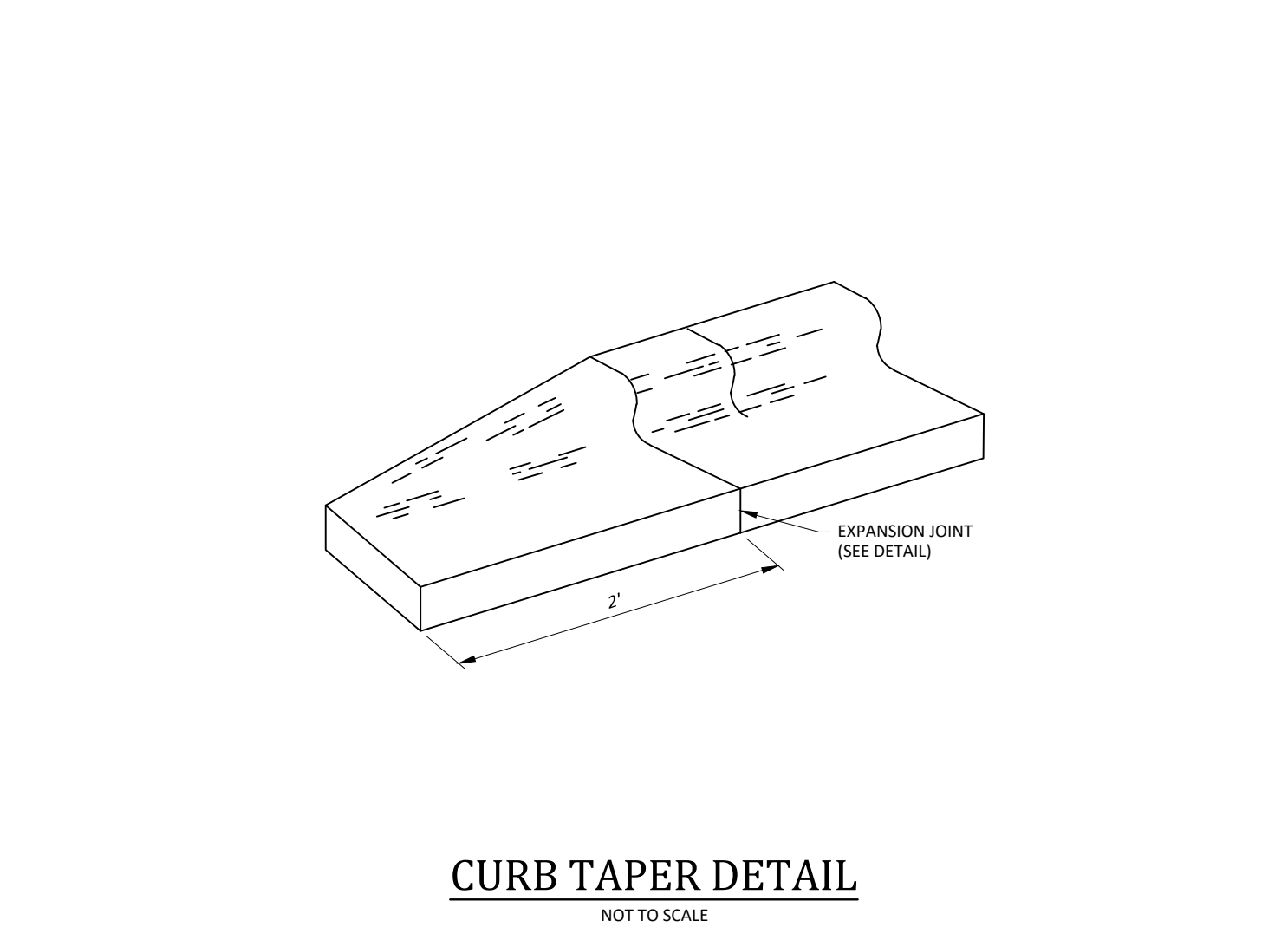
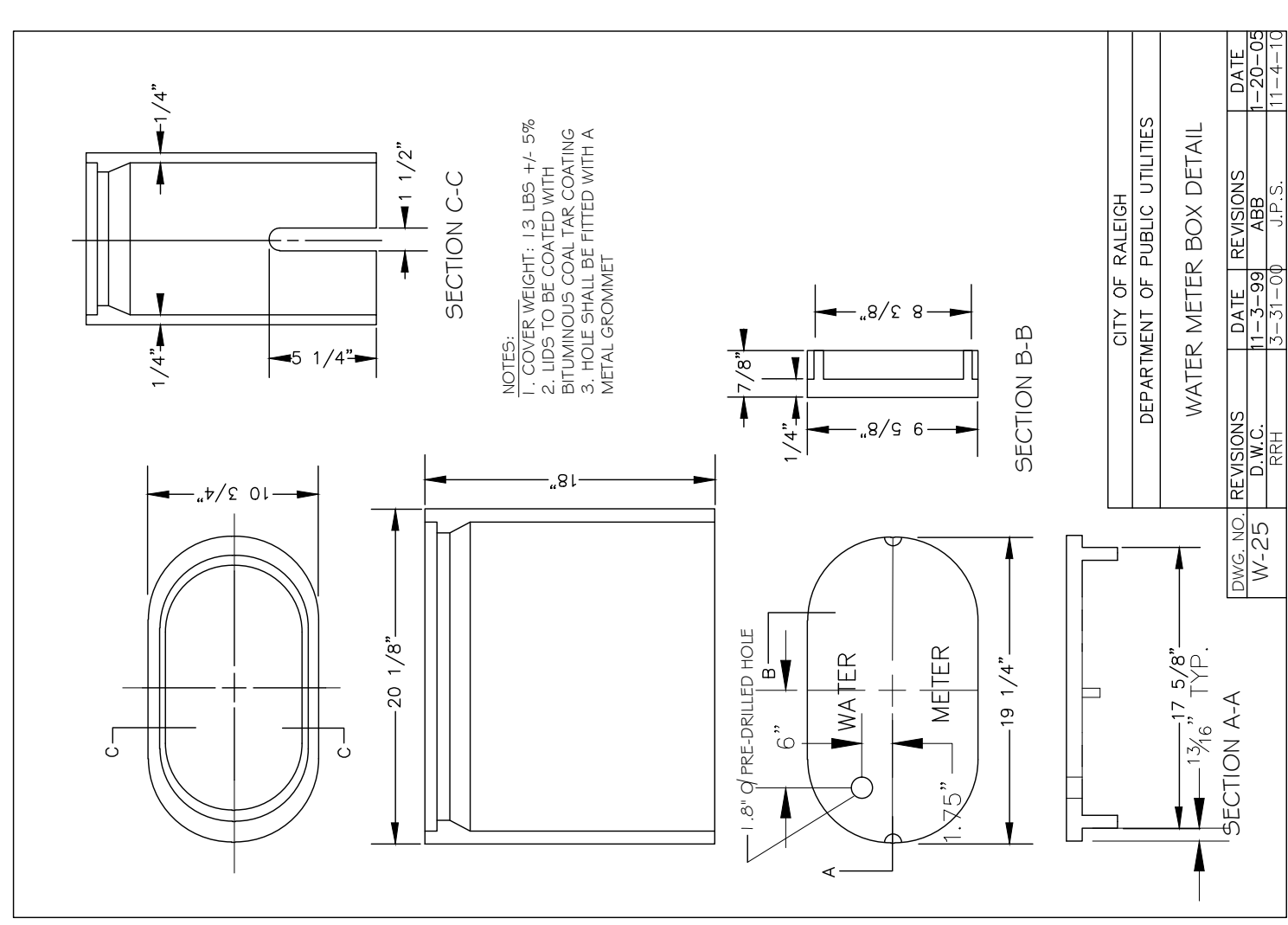
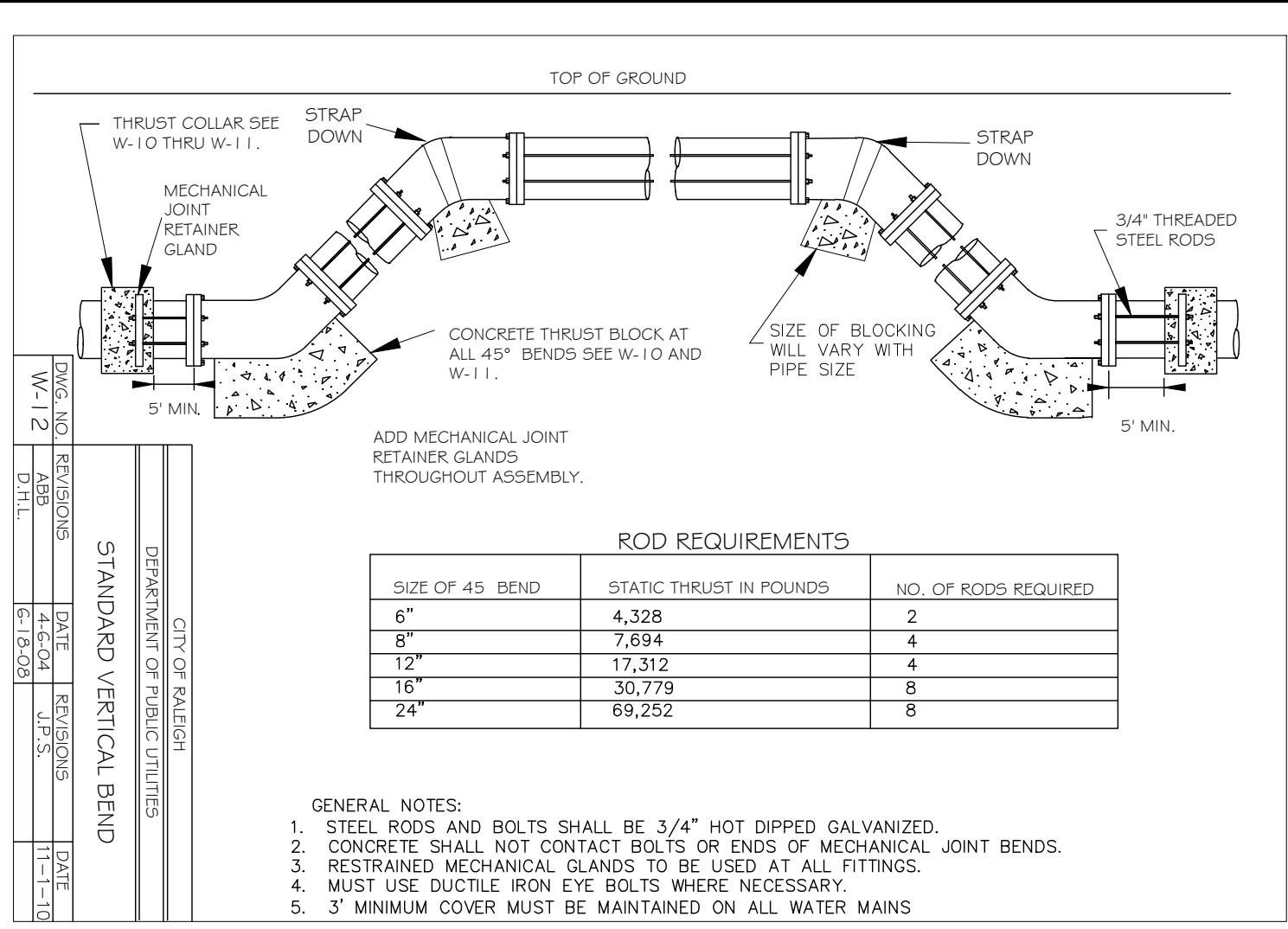
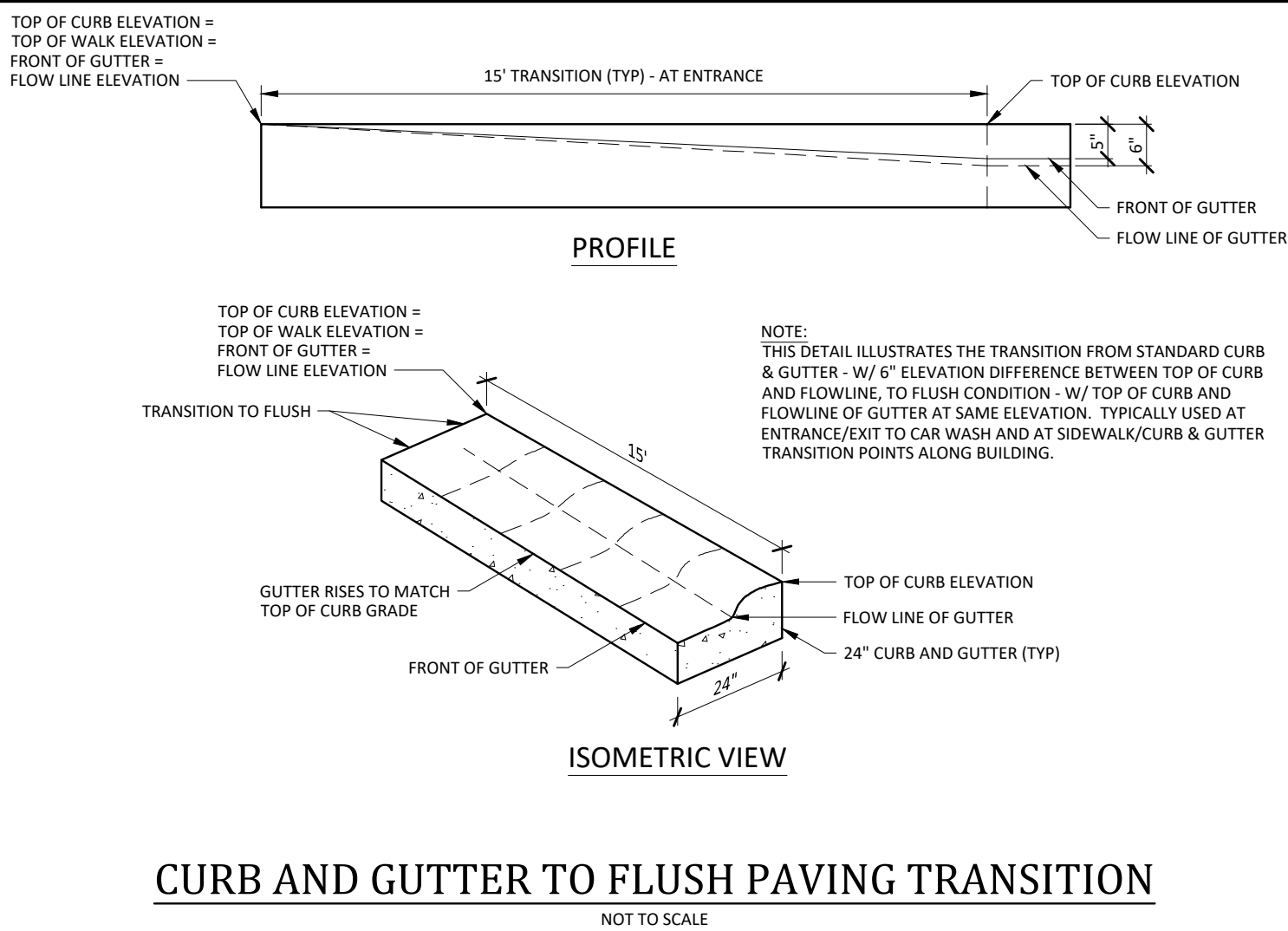
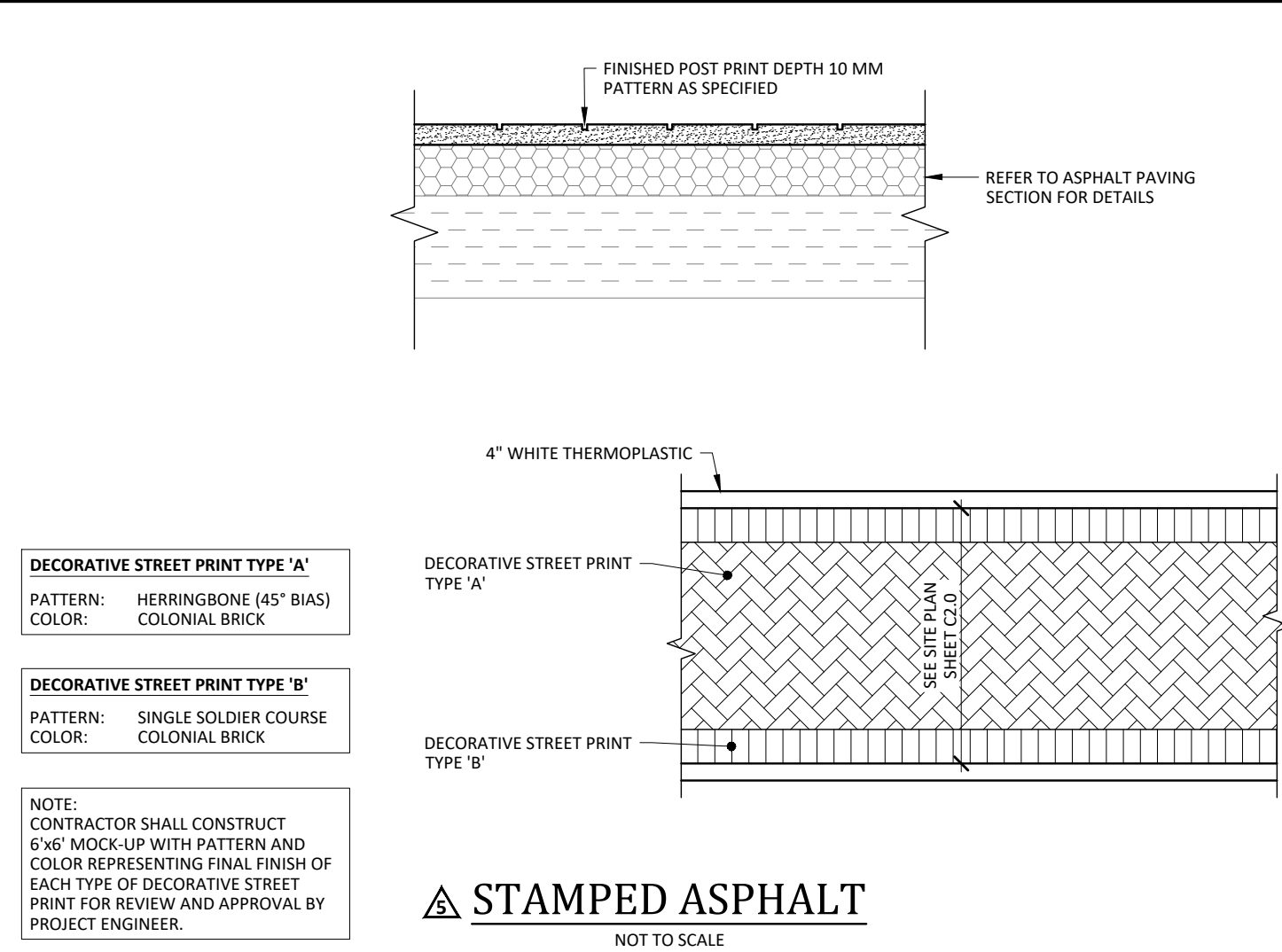
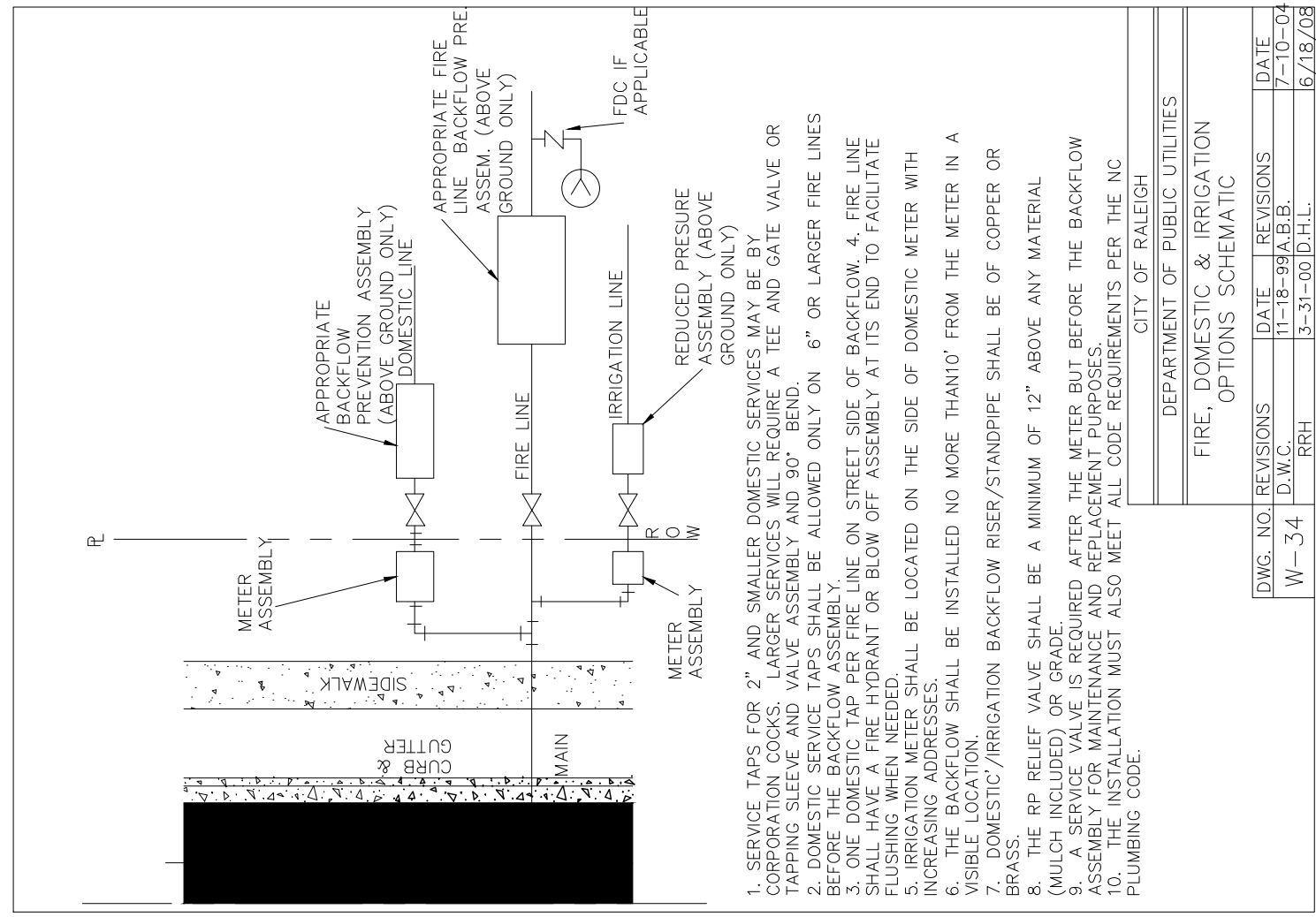
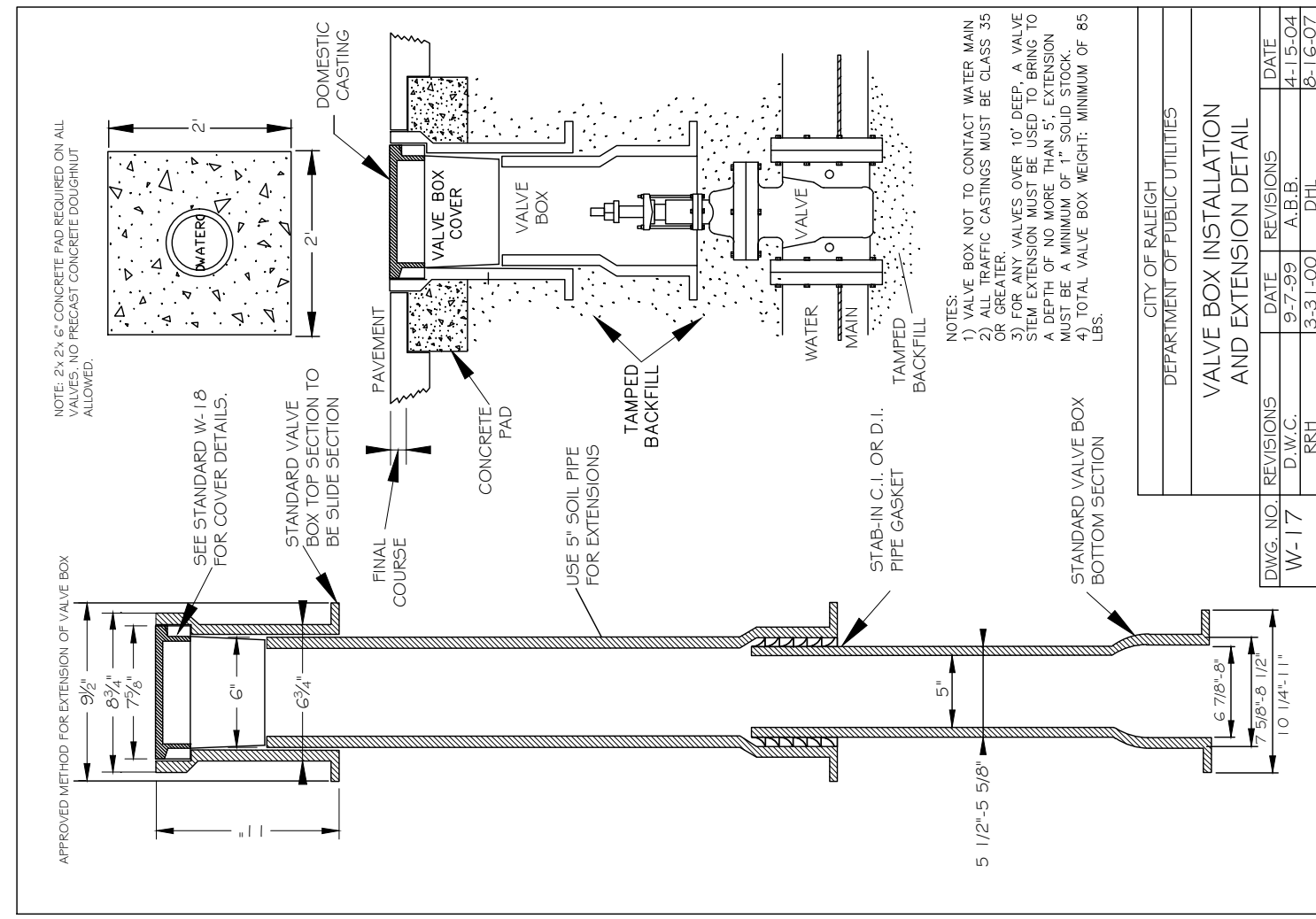
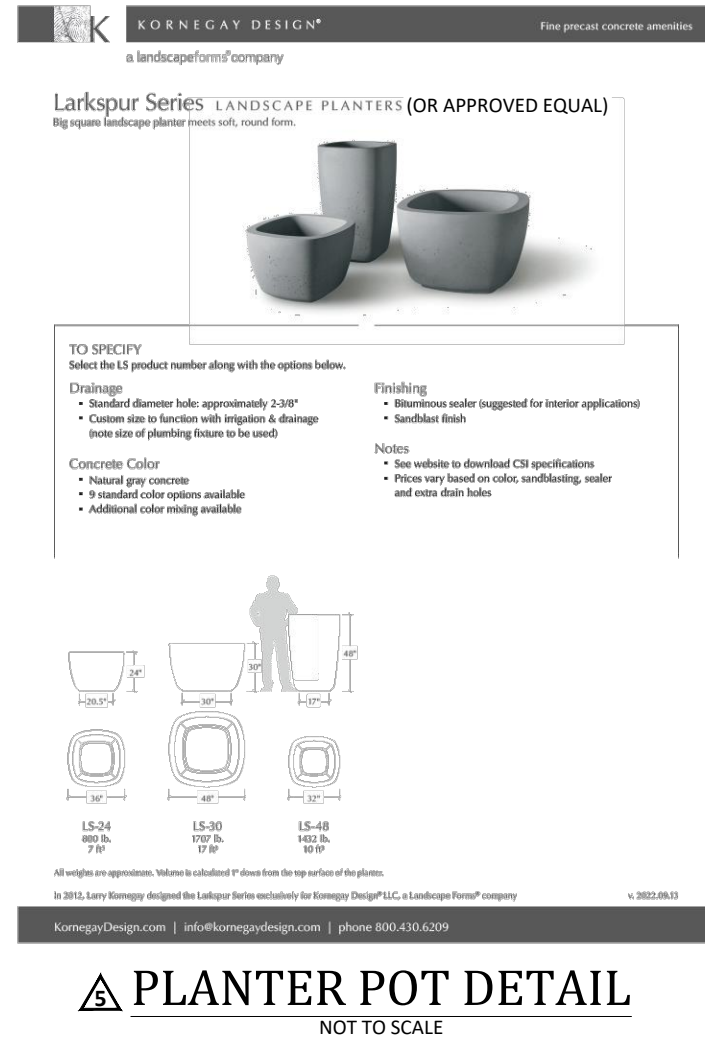
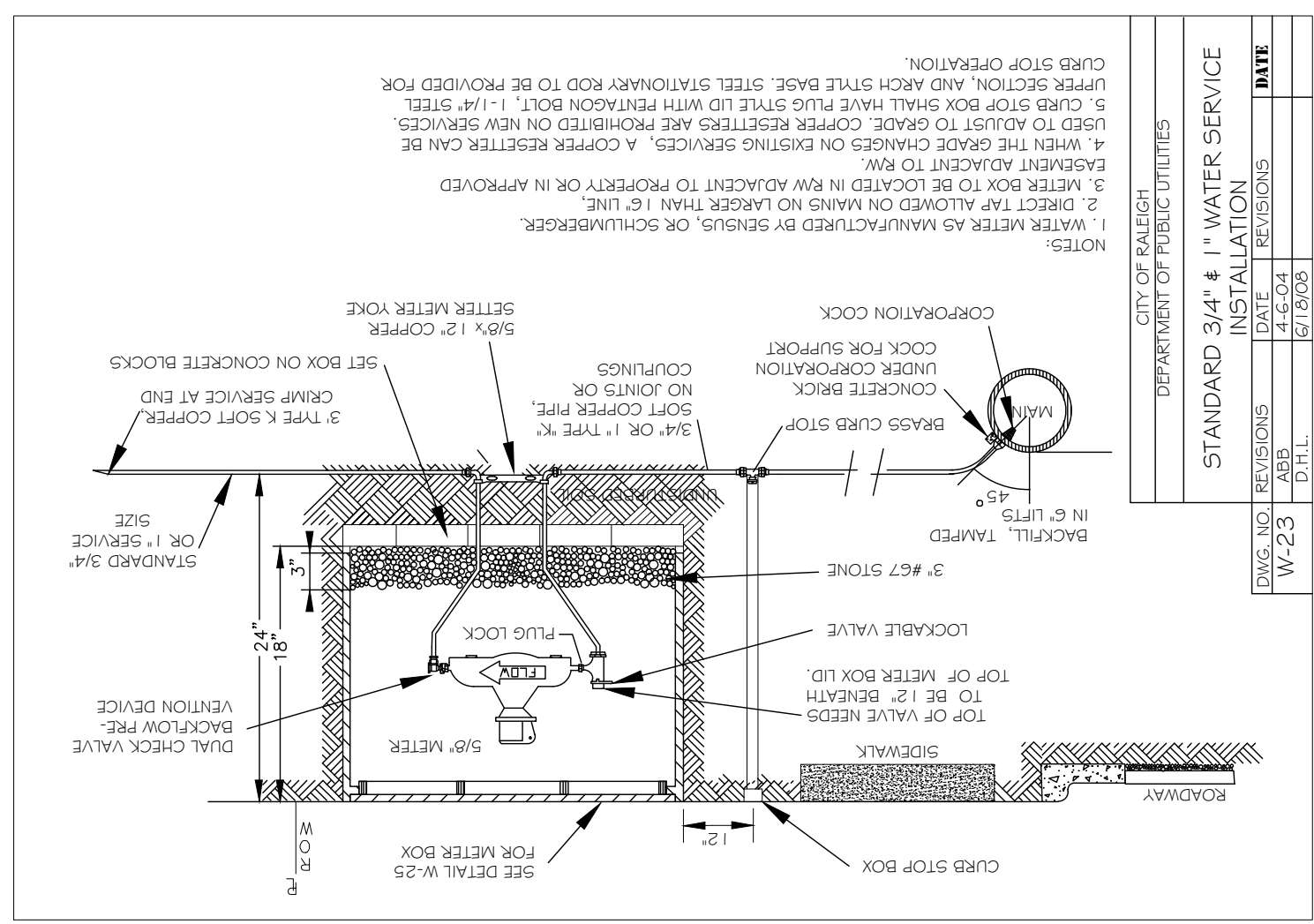
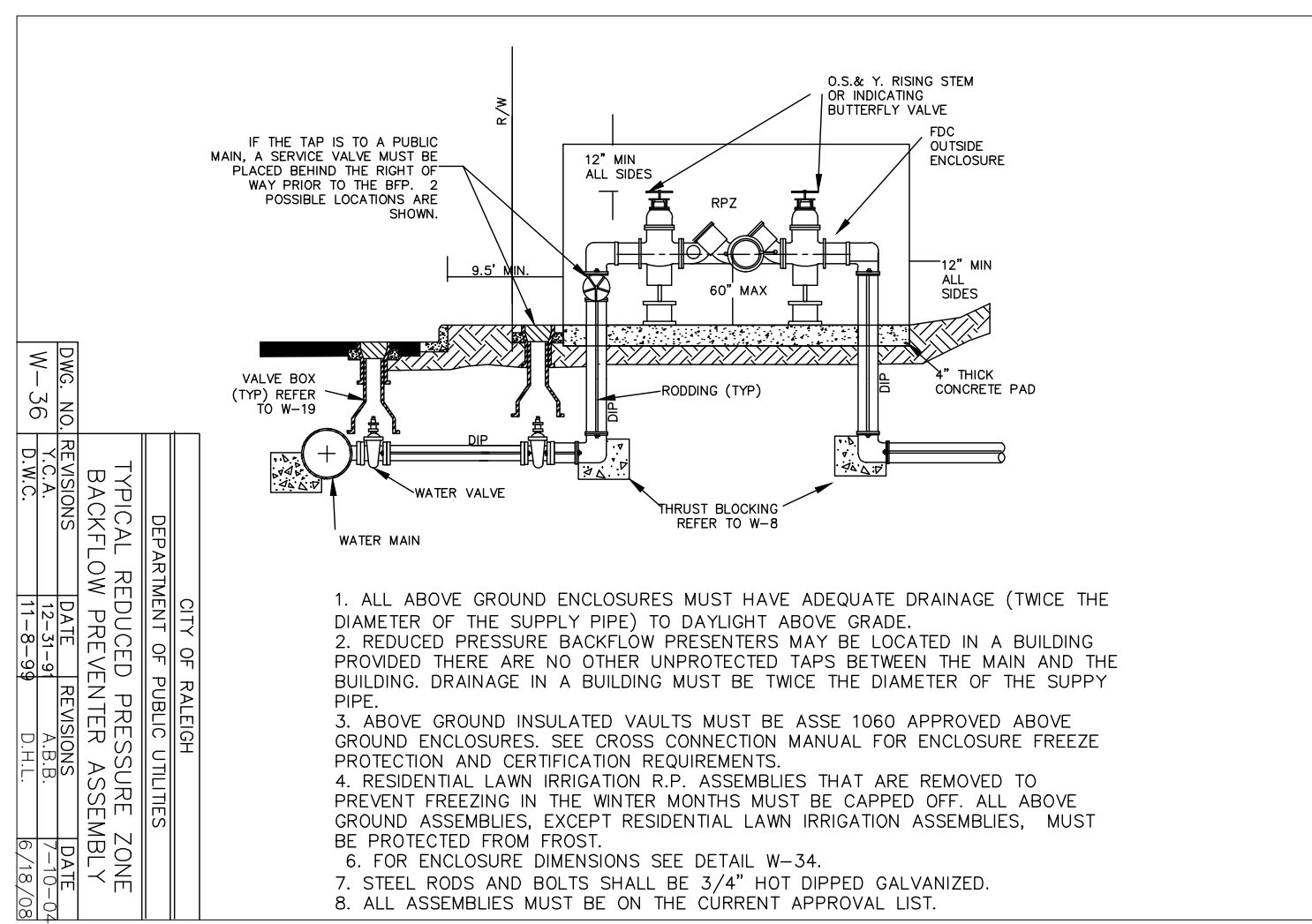
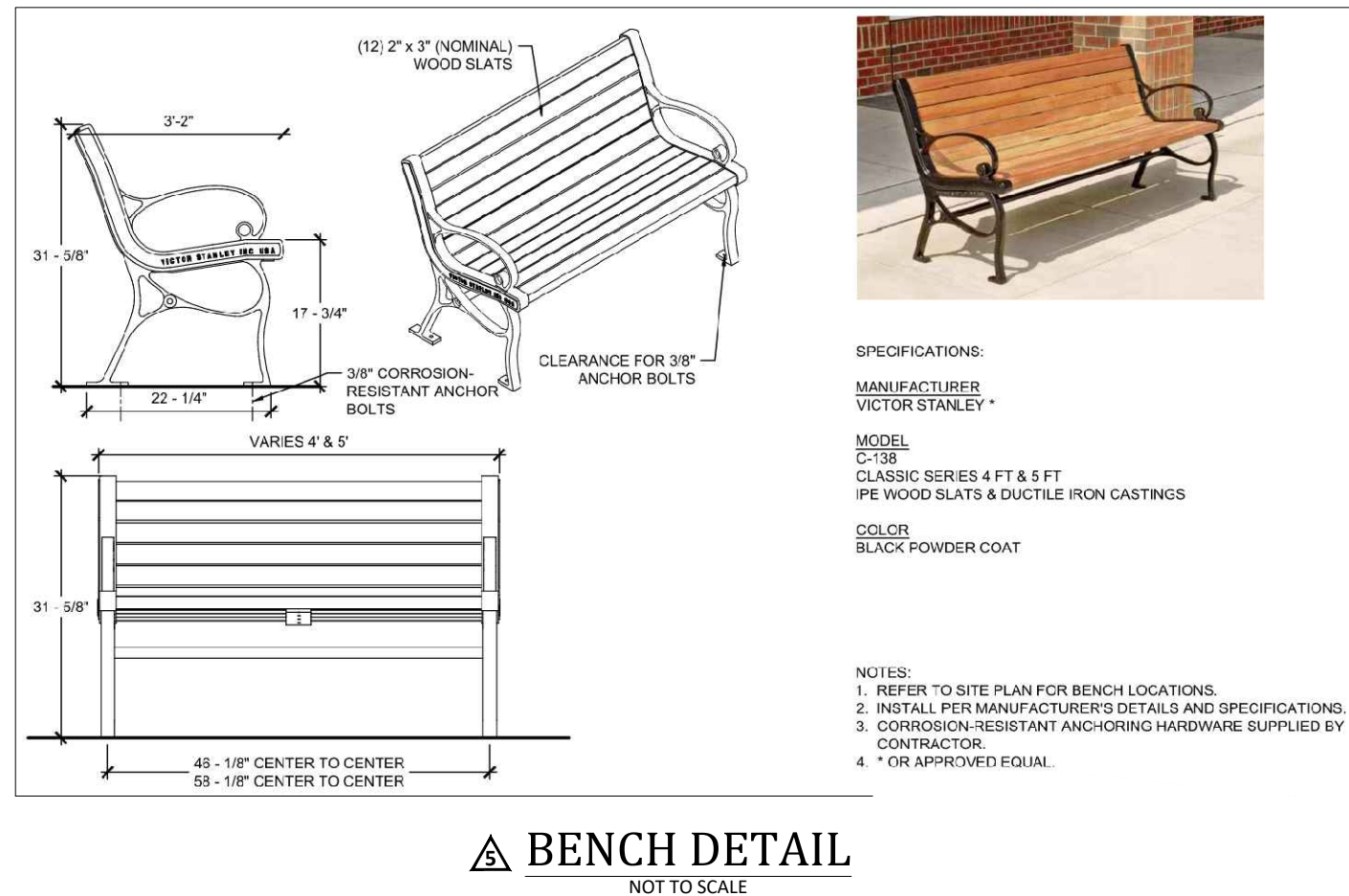
Town of Rolesville Project No. SDP 23-04

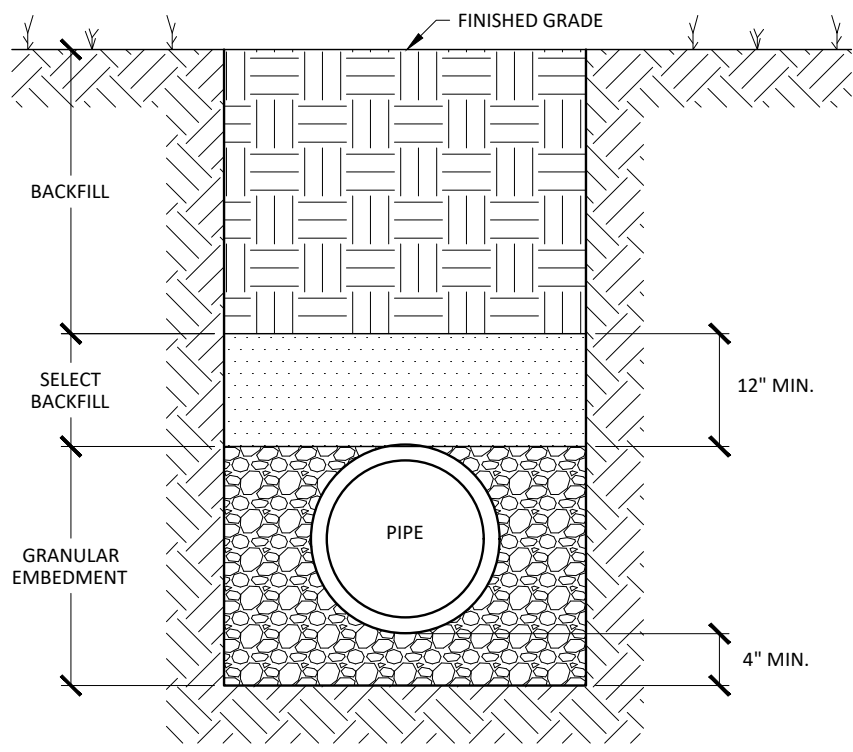


| | |
|------------------|------------|
| Project Manager: | BCF |
| Drawn By: | DLC/TGN |
| Checked By: | TGN |
| Project Number: | 22049 |
| Drawing Number: | D-1404-SDP |

C6.1

ate: May 1, 2023

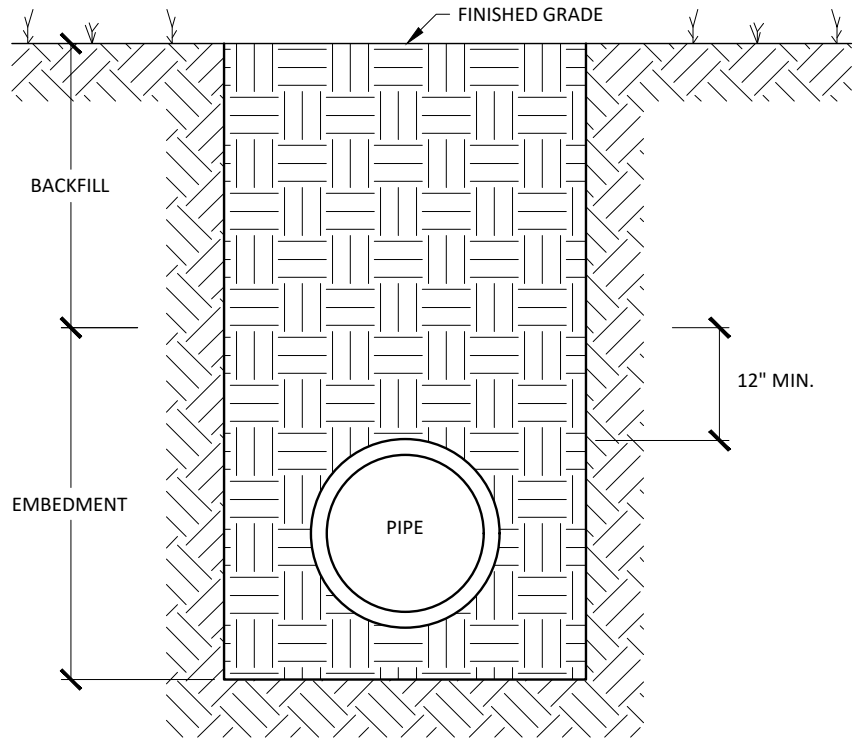




CLASS 'D'

TRENCH SECTION DETAIL FOR THE INSTALLATION OF PVC GRAVITY STORM DRAIN & SANITARY SEWER PIPING

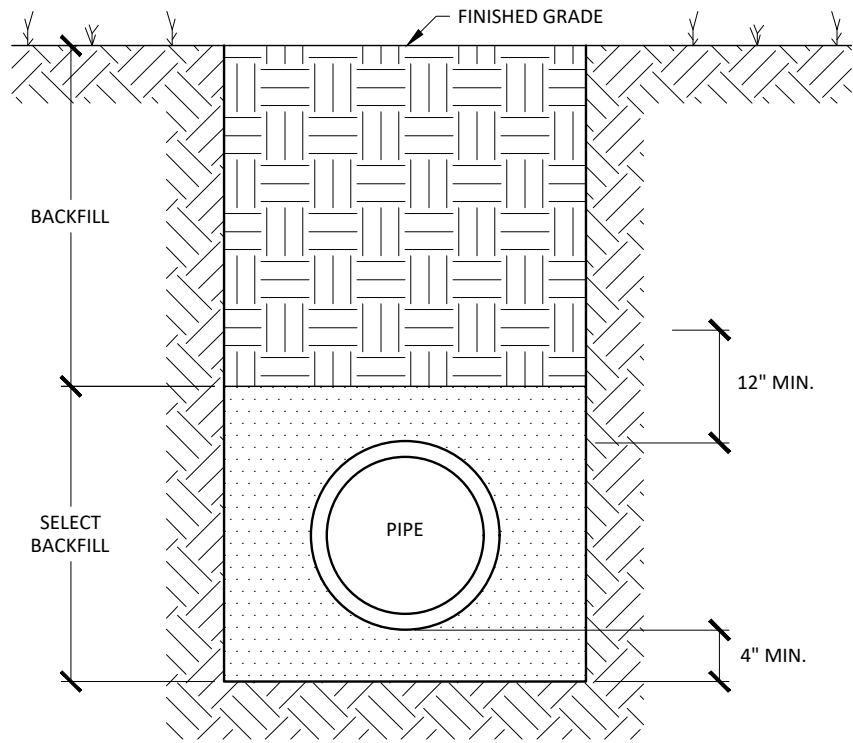
NOT TO SCALE



CLASS 'F'

TRENCH SECTION FOR THE INSTALLATION OF REINFORCED CONCRETE PIPE

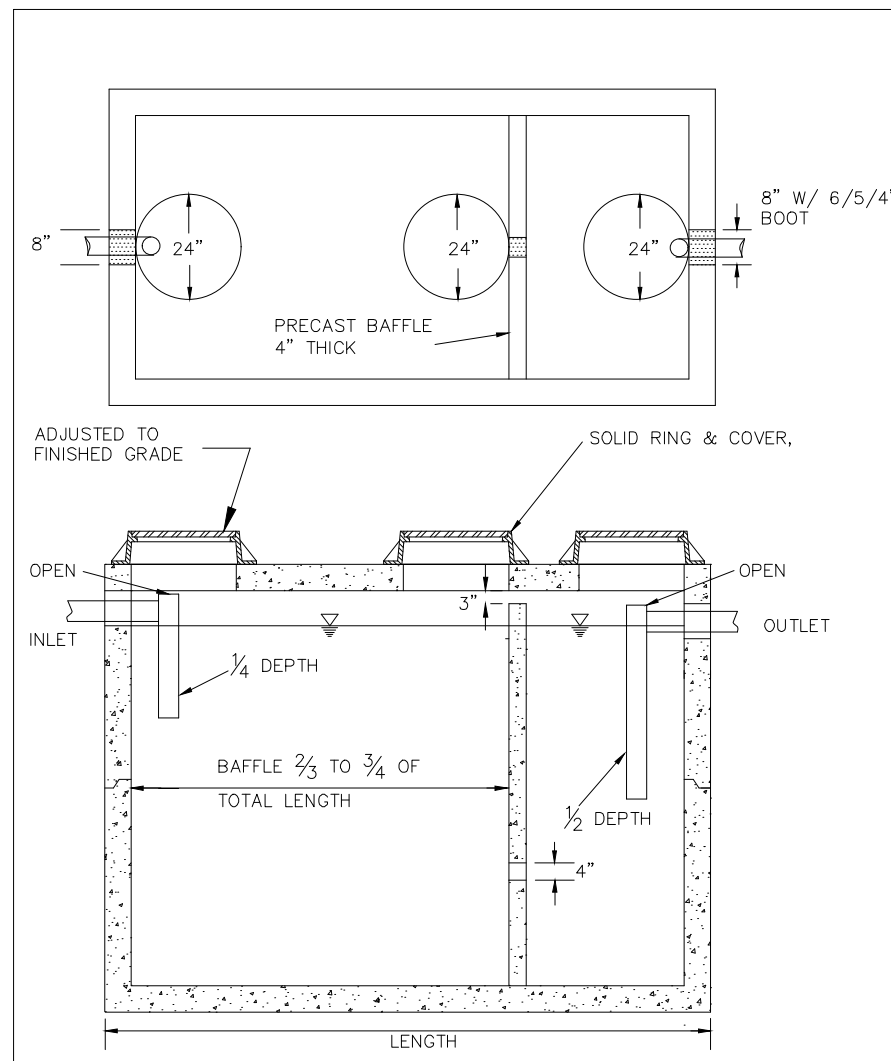
NOT TO SCALE



CLASS 'E'

TRENCH SECTION DETAIL FOR THE INSTALLATION OF PVC PRESSURE PIPE

NOT TO SCALE



NOTES:

1. REINFORCEMENT: H-20 BRIDGE LOADING (TRAFFIC RATED)
2. CONCRETE: 4000 PSI @28 DAYS
3. EARTH COVER: 0' TO 5' MAX.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
1000 GALLON GREASE INTERCEPTOR

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|---------|-----------|---------|
| S-40 | RRH | 12/2/00 | D.H.L. | 6/18/08 |
| | ABB | 3/19/04 | | |

LOCALLY AVAILABLE SIZES

| INTERCEPTORS CAPACITY (GAL.) | SEPARATORS CAPACITY (GAL.) |
|------------------------------|----------------------------|
| 300 | 1000 |
| 500 | 1200 |
| 750 | 1600 |
| 1000 | |
| 1200 | |
| 1500 | |
| 2000 | |
| 2500 | |
| 3000 | |
| 4000 | |
| 5000 | |
| 6000 | |
| 8000 | |

- NOTES:
1. BAFFLE WALL LOCATED AT A DISTANCE FROM INLET WALL $\frac{2}{3}$ TO $\frac{3}{4}$ OF THE TOTAL LENGTH OF THE INTERCEPTOR OR SEPARATOR AS SHOWN ON DETAIL S-40.
 2. BAFFLE WALLS LOCATED AT A DISTANCE APPROXIMATELY OF $\frac{1}{3}$ OF THE TOTAL LENGTH OF THE SEPARATOR AS SHOWN ON DETAIL S-40.
 3. EACH INTERCEPTOR OR SEPARATOR SHALL HAVE INLET AND OUTLET TEES. THE OUTLET TEE SHALL EXTEND 200 INTO THE LIQUID DEPTH. THE INLET TEE SHALL EXTEND 200 INTO THE LIQUID DEPTH. INLET AND OUTLET TEES MUST BE OPEN TO ALLOW THE COLLECTION OF F.O.G. SAMPLE.
 4. ACCESS OPENINGS OVER EACH COMPARTMENT WITHIN THE INTERCEPTOR OR SEPARATOR SHALL BE 24 INCHES IN DIAMETER AND CONTAIN NO. 10 WELLS. ALL COVERS SHALL BE CONSTRUCTED OF CAST IRON OR EQUIVALENT TRAFFIC BEARING MATERIAL. MANHOLE COVERS MUST EXTEND TO FINISH GRADE AND BE INSTALLED TO EXCLUDE THE ENTRANCE OF STORMWATER INTO THE INTERCEPTOR OR SEPARATOR.
 5. INTERCEPTORS AND SEPARATORS MUST BE VENTED IN ACCORDANCE WITH THE NC STATE PLUMBING CODE.
 6. CONCRETE: 4000 PSI @ 28 DAYS.
 7. DESIGN: 401.718 BUILDING CODE.
 8. INTERCEPTORS OR SEPARATORS SHALL BE DESIGNED TO WITHSTAND AN H-20 WHEEL LOAD.
 9. INTERCEPTORS OR SEPARATORS SHALL BE DESIGNED TO WITHSTAND AN H-20 WHEEL LOAD.
 10. INTERCEPTORS OR SEPARATORS MADE OF POLYETHYLENE OR FIBERGLASS SHALL INCLUDE A MINIMUM 12,000 PSI TENSILE STRENGTH, 15,000 PSI FLEXURAL STRENGTH, AND 800,000 PSI TENSILE MODULUS.
 11. ALL INTERCEPTORS AND SEPARATORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
DIMENSIONS: GREASE INTERCEPTORS
OIL-WATER-SAND SEPARATORS

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|---------|-----------|---------|
| S-41 | RRH | 12/2/00 | D.H.L. | 6/18/08 |
| | ABB | 3/19/04 | | |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD PRECAST SANITARY SEWER MANHOLE

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|----------|-----------|---------|
| S-20 | Y.C.A. | 12-31-92 | ABB | 2-21-09 |
| | RRH | 3-30-00 | D.H.L. | 6-16-08 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL SANITARY SEWER LATERAL CONNECTION

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|---------|-----------|---------|
| S-30 | Y.C.A. | 6-92 | A.B.B. | 4-8-04 |
| | RRH | 3-30-00 | D.H.L. | 6-16-08 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
MANHOLE FRAME AND WATERTIGHT COVER

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|---------|-----------|---------|
| S-26 | 3-1-87 | 3-1-87 | ABB | 8-29-05 |
| | RRH | 3-30-00 | D.H.L. | 6/18/08 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD ASPHALT PAVEMENT PATCH DETAIL

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|---------|-----------|---------|
| S-3 | Y.C.A. | 11-1-99 | A.B.B. | 4-19-04 |
| | RRH | 3-30-00 | J.F.S. | 10-2-10 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD 4" CLEANOUT PLUG

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|---------|-----------|------|
| S-34 | D.W.C. | 5-27-98 | | |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD MANHOLE COVER

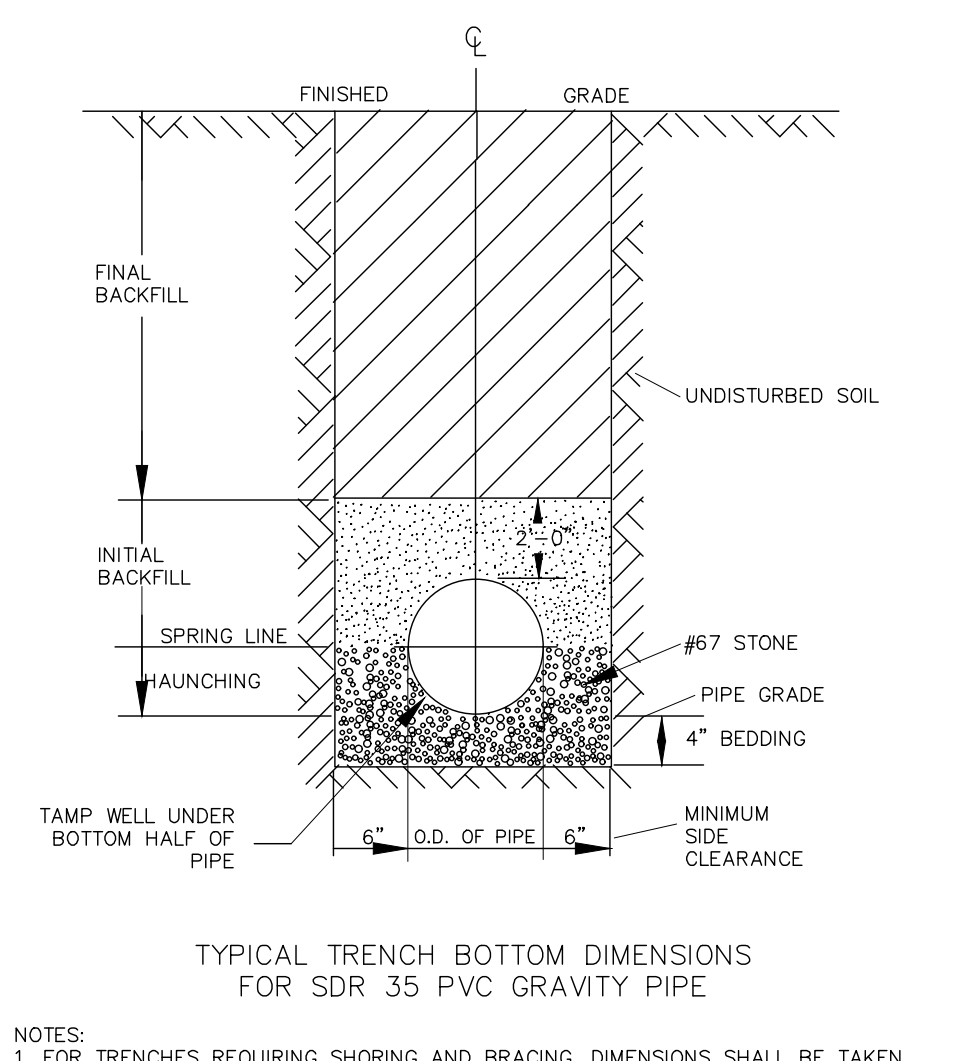
| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|---------|-----------|---------|
| S-25 | 3-1-87 | 3-1-87 | A.B.B. | 2-2-05 |
| | RRH | 3-30-00 | D.H.L. | 6-16-08 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |



NOTES:

1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
4. BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

| DWG. NO. | REVISIONS | DATE | REVISIONS | DATE |
|----------|-----------|--------|-----------|---------|
| S-5 | Y.C.A. | 7-2-82 | RRH | 9-3-99 |
| | | | | 3-30-00 |

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

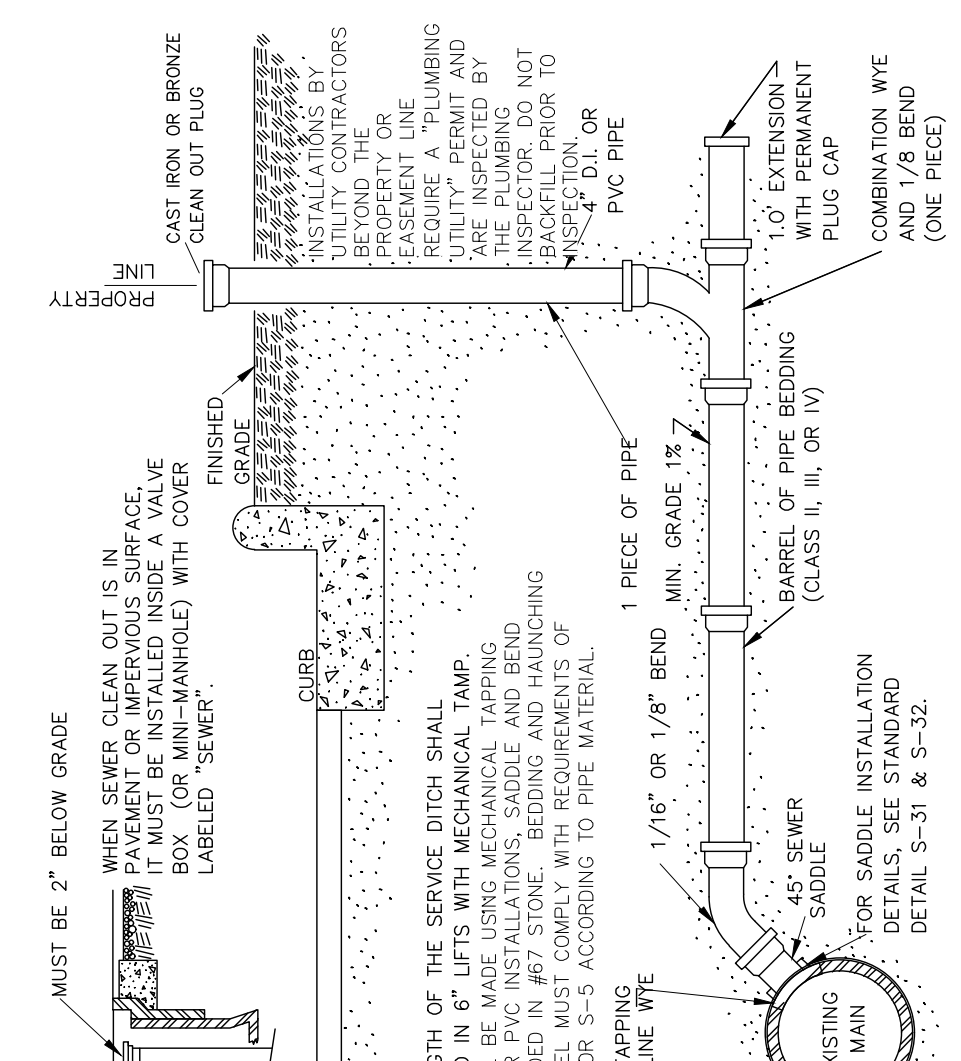
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NOTES:

1. THE FULL LENGTH OF THE SERVICE DITCH SHALL BE COMPACTED IN 6" LIFTS WITH MECHANICAL TAMPING MACHINE. FOR PVC INSTALLATIONS, SADDLE AND BEND MUST BE BEDDED IN #67 STONE, BEDDING AND HAUNCHING DETAILS S-41 OR S-42 OR S-43 OR S-44 OR S-45 OR S-46 OR S-47 OR S-48 OR S-49 OR S-50 OR S-51 OR S-52 OR S-53 OR S-54 OR S-55 OR S-56 OR S-57 OR S-58 OR S-59 OR S-60 OR S-61 OR S-62 OR S-63 OR S-64 OR S-65 OR S-66 OR S-67 OR S-68 OR S-69 OR S-70 OR S-71 OR S-72 OR S-73 OR S-74 OR S-75 OR S-76 OR S-77 OR S-78 OR S-79 OR S-80 OR S-81 OR S-82 OR S-83 OR S-84 OR S-85 OR S-86 OR S-87 OR S-88 OR S-89 OR S-90 OR S-91 OR S-92 OR S-93 OR S-94 OR S-95 OR S-96 OR S-97 OR S-98 OR S-99 OR S-100 OR S-101 OR S-102 OR S-103 OR S-104 OR S-105 OR S-106 OR S-107 OR S-108 OR S-109 OR S-110 OR S-111 OR S-112 OR S-113 OR S-114 OR S-115 OR S-116 OR S-117 OR S-118 OR S-119 OR S-120 OR S-121 OR S-122 OR S-123 OR S-124 OR S-125 OR S-126 OR S-127 OR S-128 OR S-129 OR S-130 OR S-131 OR S-132 OR S-133 OR S-134 OR S-135 OR S-136 OR S-137 OR S-138 OR S-139 OR S-140 OR S-141 OR S-142 OR S-143 OR S-144 OR S-145 OR S-146 OR S-147 OR S-148 OR S-149 OR S-150 OR S-151 OR S-152 OR S-153 OR S-154 OR S-155 OR S-156 OR S-157 OR S-158 OR S-159 OR S-160 OR S-161 OR S-162 OR S-163 OR S-164 OR S-165 OR S-166 OR S-167 OR S-168 OR S-169 OR S-170 OR S-171 OR S-172 OR S-173 OR S-174 OR S-175 OR S-176 OR S-177 OR S-178 OR S-179 OR S-180 OR S-181 OR S-182 OR S-183 OR S-184 OR S-185 OR S-186 OR S-187 OR S-188 OR S-189 OR S-190 OR S-191 OR S-192 OR S-193 OR S-194 OR S-195 OR S-196 OR S-197 OR S-198 OR S-199 OR S-200 OR S-201 OR S-202 OR S-203 OR S-204 OR S-205 OR S-206 OR S-207 OR S-208 OR S-209 OR S-210 OR S-211 OR S-212 OR S-213 OR S-214 OR S-215 OR S-216 OR S-217 OR S-218 OR S-219 OR S-220 OR S-221 OR S-222 OR S-223 OR S-224 OR S-225 OR S-226 OR S-227 OR S-228 OR S-229 OR S-230 OR S-231 OR S-232 OR S-233 OR S-234 OR S-235 OR S-236 OR S-237 OR S-238 OR S-239 OR S-240 OR S-241 OR S-242 OR S-243 OR S-244 OR S-245 OR S-246 OR S-247 OR S-248 OR S-249 OR S-250 OR S-251 OR S-252 OR S-253 OR S-254 OR S-255 OR S-256 OR S-257 OR S-258 OR S-259 OR S-260 OR S-261 OR S-262 OR S-263 OR S-264 OR S-265 OR S-266 OR S-267 OR S-268 OR S-269 OR S-270 OR S-271 OR S-272 OR S-273 OR S-274 OR S-275 OR S-276 OR S-277 OR S-278 OR S-279 OR S-280 OR S-281 OR S-282 OR S-283 OR S-284 OR S-285 OR S-286 OR S-287 OR S-288 OR S-289 OR S-290 OR S-291 OR S-292 OR S-293 OR S-294 OR S-295 OR S-296 OR S-297 OR S-298 OR S-299 OR S-300 OR S-301 OR S-302 OR S-303 OR S-304 OR S-305 OR S-306 OR S-307 OR S-308 OR S-309 OR S-310 OR S-311 OR S-312 OR S-313 OR S-314 OR S-315 OR S-316 OR S-317 OR S-318 OR S-319 OR S-320 OR S-321 OR S-322 OR S-323 OR S-324 OR S-325 OR S-326 OR S-327 OR S-328 OR S-329 OR S-330 OR S-331 OR S-332 OR S-333 OR S-334 OR S-335 OR S-336 OR S-337 OR S-338 OR S-339 OR S-340 OR S-341 OR S-342 OR S-343 OR S-344 OR S-345 OR S-346 OR S-347 OR S-348 OR S-349 OR S-350 OR S-351 OR S-352 OR S-353 OR S-354 OR S-355 OR S-356 OR S-357 OR S-358 OR S-359 OR S-360 OR S-361 OR S-362 OR S-363 OR S-364 OR S-365 OR S-366 OR S-367 OR S-368 OR S-369 OR S-370 OR S-371 OR S-372 OR S-373 OR S-374 OR S-375 OR S-376 OR S-377 OR S-378 OR S-379 OR S-380 OR S-381 OR S-382 OR S-383 OR S-384 OR S-385 OR S-386 OR S-387 OR S-388 OR S-389 OR S-390 OR S-391 OR S-392 OR S-393 OR S-394 OR S-395 OR S-396 OR S-397 OR S-398 OR S-399 OR S-400 OR S-401 OR S-402 OR S-403 OR S-404 OR S-405 OR S-406 OR S-407 OR S-408 OR S-409 OR S-410 OR S-411 OR S-412 OR S-413 OR S-414 OR S-415 OR S-416 OR S-417 OR S-418 OR S-419 OR S-420 OR S-421 OR S-422 OR S-423 OR S-424 OR S-425 OR S-426 OR S-427 OR S-428 OR S-429 OR S-430 OR S-431 OR S-432 OR S-433 OR S-434 OR S-435 OR S-436 OR S-437 OR S-438 OR S-439 OR S-440 OR S-441 OR S-442 OR S-443 OR S-444 OR S-445 OR S-446 OR S-447 OR S-448 OR S-449 OR S-450 OR S-451 OR S-452 OR S-453 OR S-454 OR S-455 OR S-456 OR S-457 OR S-458 OR S-459 OR S-460 OR S-461 OR S-462 OR S-463 OR S-464 OR S-465 OR S-466 OR S-467 OR S-468 OR S-469 OR S-470 OR S-471 OR S-472 OR S-473 OR S-474 OR S-475 OR S-476 OR S-477 OR S-478 OR S-479 OR S-480 OR S-481 OR S-482 OR S-483 OR S-484 OR S-485 OR S-486 OR S-487 OR S-488 OR S-489 OR S-490 OR S-491 OR S-492 OR S-493 OR S-494 OR S-495 OR S-496 OR S-497 OR S-498 OR S-499 OR S-500 OR S-501 OR S-502 OR S-503 OR S-504 OR S-505 OR S-506 OR S-507 OR S-508 OR S-509 OR S-510 OR S-511 OR S-512 OR S-513 OR S-514 OR S-515 OR S-516 OR S-517 OR S-518 OR S-519 OR S-520 OR S-521 OR S-522 OR S-523 OR S-524 OR S-525 OR S-526 OR S-527 OR S-528 OR S-529 OR S-530 OR S-531 OR S-532 OR S-533 OR S-534 OR S-535 OR S-536 OR S-537 OR S-538 OR S-539 OR S-540 OR S-541 OR S-542 OR S-543 OR S-544 OR S-545 OR S-546 OR S-547 OR S-548 OR S-549 OR S-550 OR S-551 OR S-552 OR S-553 OR S-554 OR S-555 OR S-556 OR S-557 OR S-558 OR S-559 OR S-560 OR S-561 OR S-562 OR S-563 OR S-564 OR S-565 OR S-566 OR S-567 OR S-568 OR S-569 OR S-570 OR S-571 OR S-572 OR S-573 OR S-574 OR S-575 OR S-576 OR S-577 OR S-578 OR S-579 OR S-580 OR S-581 OR S-582 OR S-583 OR S-584 OR S-585 OR S-586 OR S-587 OR S-588 OR S-589 OR S-590 OR S-591 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OR S-703 OR S-704 OR S-705 OR S-706 OR S-707 OR S-708 OR S-709 OR S-710 OR S-711 OR S-712 OR S-713 OR S-714 OR S-715 OR S-716 OR S-717 OR S-718 OR S-719 OR S-720 OR S-721 OR S-722 OR S-723 OR S-724 OR S-725 OR S-726 OR S-727 OR S-728 OR S-729 OR S-730 OR S-731 OR S-732 OR S-733 OR S-734 OR S-735 OR S-736 OR S-737 OR S-738 OR S-739 OR S-740 OR S-741 OR S-742 OR S-743 OR S-744 OR S-745 OR S-746 OR S-747 OR S-748 OR S-749 OR S-750 OR S-751 OR S-752 OR S-753 OR S-754 OR S-755 OR S-756 OR S-757 OR S-758 OR S-759 OR S-760 OR S-761 OR S-762 OR S-763 OR S-764 OR S-765 OR S-766 OR S-767 OR S-768 OR S-769 OR S-770 OR S-771 OR S-772 OR S-773 OR S-774 OR S-775 OR S-776 OR S-777 OR S-778 OR S-779 OR S-780 OR S-781 OR S-782 OR S-783 OR S-784 OR S-785 OR S-786 OR S-787 OR S-788 OR S-789 OR S-790 OR S-791 OR S-792 OR S-793 OR S-794 OR S-795 OR S-796 OR S-797 OR S-798 OR S-799 OR S-800 OR S-801 OR S-802 OR S-803 OR S-804 OR S-805 OR S-806 OR S-807 OR S-808 OR S-809 OR S-810 OR S-811 OR S-812 OR S-813 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