

SITE PLANS
FOR
GASTON CONCRETE
0 BERT WINSTON ROAD
YOUNGSVILLE, NORTH CAROLINA

PREPARED FOR:
GASTON CONCRETE
0 BERT WINSTON ROAD
YOUNGSVILLE, NORTH CAROLINA

PREPARED BY:
CRUMPLER
Consulting Services, PLLC

2308 Ridge Road
Raleigh, North Carolina 27612
Ph. 919-413-1704
P-1533

| SHEET | DESCRIPTION |
|-------|-----------------------------|
| C-1 | COVER |
| C-2 | EXISTING CONDITIONS |
| C-3 | SITE PLAN |
| C-4 | UTILITY PLAN |
| C-5 | GRADING AND STORMWATER PLAN |
| C-6 | NCG101 NOTES |
| C-7 | NCG101 NOTES |
| C-8 | EROSION CONTROL PLAN |
| D-1 | DETAILS |
| D-2 | DETAILS |



CONTACT THE NORTH CAROLINA
ONE-CALL CENTER PRIOR TO DOING ANY DIGGING
1-800-632-4949

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH TOWN OF
YOUNGSVILLE, NCDOT, AND NCDEQ STANDARDS AND
SPECIFICATIONS AS APPLICABLE.

CRUMPLER
Consulting Services, PLLC
2308 Ridge Road
Raleigh, North Carolina 27612
Ph. 919-413-1704
P-1533



ISSUED FOR
CONSTRUCTION

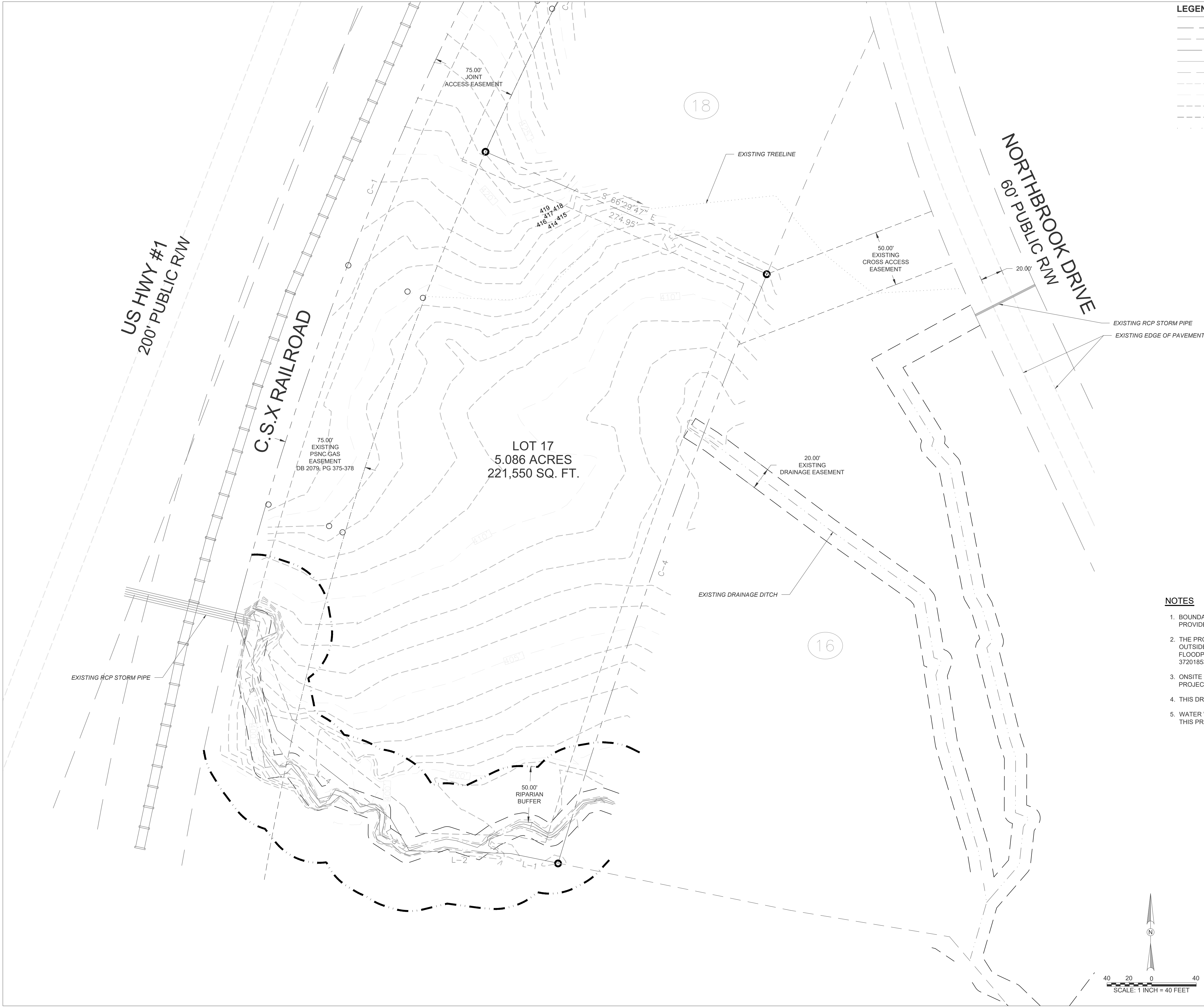
| REV. | DESCRIPTION | DATE |
|------|-------------|------|
| | | |
| | | |
| | | |
| | | |

COVER
GASTON CONCRETE
0 BERT WINSTON ROAD
GARNER, NORTH CAROLINA

| | |
|--------------|--------------|
| PROJECT NO.: | 23037 |
| DRAWN BY: | MDI |
| CHECKED BY: | JAC |
| DATE: | 02/15/24 |
| SCALE: | NOT TO SCALE |

C-1

CAD FILE: D:\C23\Projects\2023\23037 Gaston Concrete1 LAYOUT: Existing



LEGEND

| | |
|--|---------------------------------|
| | EXISTING PROPERTY LINE |
| | EXISTING ABUTTING PROPERTY LINE |
| | EXISTING RIGHT-OF-WAY |
| | EXISTING OVERHEAD POWER LINE |
| | EXISTING ABUTTING PROPERTY LINE |
| | EXISTING EDGE OF PAVEMENT |
| | EXISTING CONTOUR MAJOR |
| | EXISTING CONTOUR MINOR |
| | EXISTING EASEMENT |
| | EXISTING TREELINE |

NOTES

1. BOUNDARY, TOPOGRAPHY, AND EXISTING CONDITIONS SURVEY PROVIDED BY CMP PROFESSIONAL LAND SURVEYORS ON 11/29/22.
2. THE PROPERTY IS LOCATED IN ZONE X (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE AND FUTURE 1% ANNUAL CHANCE FLOODPLAIN) BASED ON THE FEMA MAP NUMBER 3720184400K AND 3720185300K DATED APRIL 16, 2022.
3. ONSITE STREAMS AND WETLANDS HAVE BEEN IDENTIFIED WITHIN THE PROJECT OR PARCEL AS SHOWN.
4. THIS DRAWING IS NOT FOR RECORDATION.
5. WATER WILL BE UTILIZING AN ONSITE WELL AND SEWER SERVICES FOR THIS PROJECT WILL BE PROVIDED VIA AN ONSITE SEPTIC SYSTEM.

CRUMPLER
Consulting Services, PLLC

2300 Ridge Road
Raleigh, North Carolina 27612
Ph: 919-313-1704
Fax: 919-313-1704



ISSUED FOR
CONSTRUCTION

| REV. | DESCRIPTION | DATE |
|------|-------------|------|
| | | |
| | | |
| | | |
| | | |
| | | |

EXISTING CONDITIONS PLAN

GASTON CONCRETE

0 BERT WINSTON ROAD
GARNER, NORTH CAROLINA

PROJECT NO.: 23037

DRAWN BY: MDI

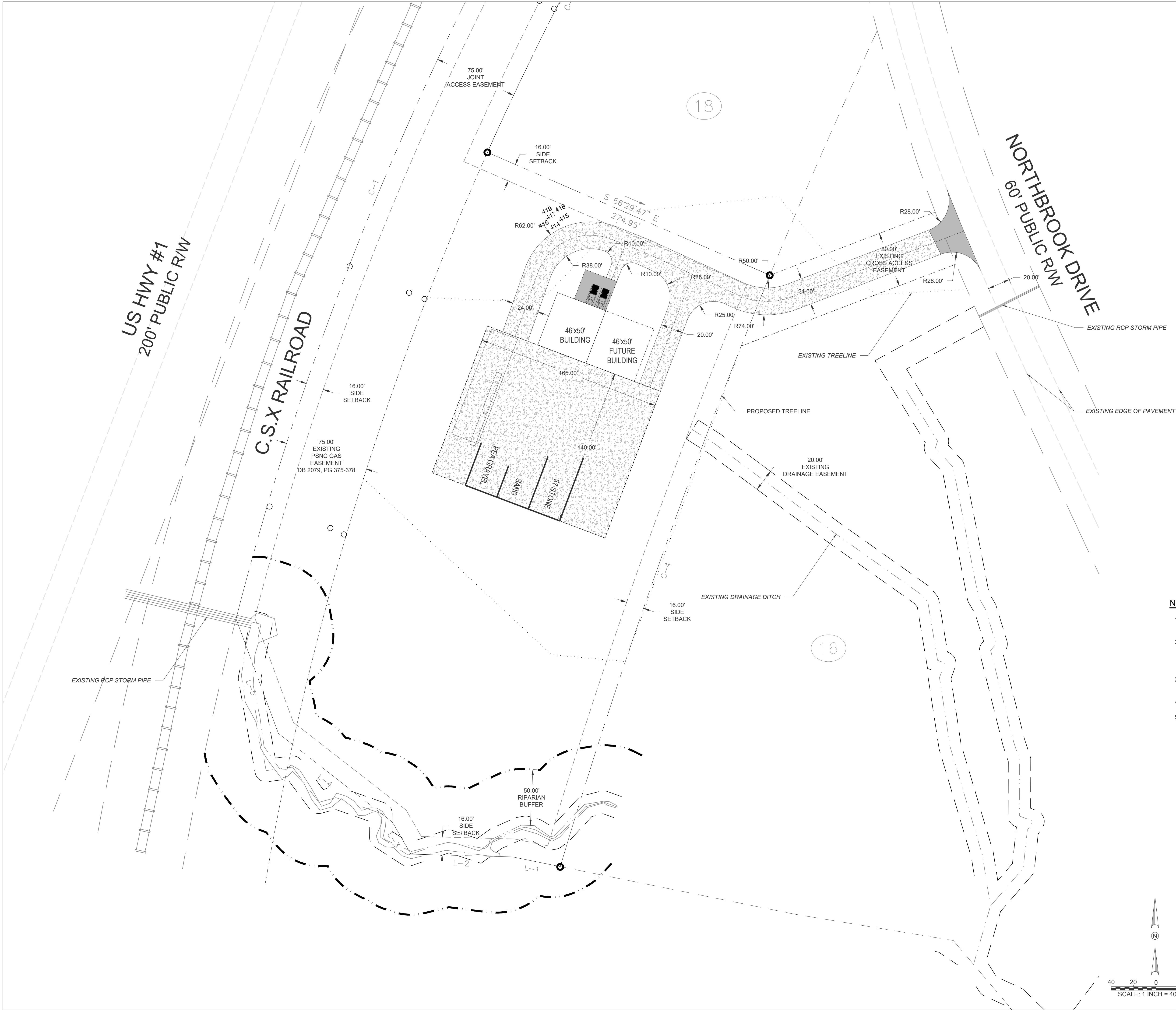
CHECKED BY: JAC

DATE: 02/15/24

SCALE: 1" = 40'

C-2

CAD FILE: D:\CDS\Projects\2023\23037 Gaston Concrete.dwg LAYOUT: Site Plan



| LEGEND | |
|--------|---------------------------------|
| | EXISTING PROPERTY LINE |
| | EXISTING ABUTTING PROPERTY LINE |
| | EXISTING RIGHT-OF-WAY |
| | EXISTING OVERHEAD POWER LINE |
| | EXISTING ABUTTING PROPERTY LINE |
| | EXISTING BUILDING SETBACK LINE |
| | EXISTING PARKING SETBACK LINE |
| | EXISTING EDGE OF PAVEMENT |
| | PROPOSED EDGE OF GRAVEL |
| | PROPOSED GRAVEL PARKING |
| | PROPOSED CONCRETE PARKING |

| SUMMARY INFORMATION | |
|---|--|
| DEVELOPMENT NAME: GASTON CONCRETE | |
| SITE ADDRESS: 0 BERT WINSTON ROAD YOUNGSVILLE, NORTH CAROLINA | |
| PIN NUMBER: 1854-20-1170 | |
| JURISDICTION: TOWN OF YOUNGSVILLE EXISTING USE: VACANT | |
| PROPOSED USE: CONCRETE PLAN CURRENT ZONING DISTRICT: HEAVY INDUSTRIAL (HI) TOTAL ACREAGE: 5.086 ACRES (221,550 SF) | |
| EXISTING IMPERVIOUS SURFACE: 0SF PROPOSED IMPERVIOUS SURFACE: 44,000 SF (19.9%) | |
| BUILDING SETBACKS: FRONT STREET - 80' SIDE BOUNDARY - 16' REAR BOUNDARY - 16' | |
| OWNER/DEVELOPER: GASTON CONCRETE GARNER, LLC 3410 ROLLER MILL COURT RALEIGH, NC 27607 | |
| ENGINEER: CRUMPLER CONSULTING SERVICES, PLLC CONTACT: JOSH CRUMPLER, PE 2308 RIDGE ROAD RALEIGH, NC 27612 (919) 413-1704 | |

- NOTES**
- BOUNDARY, TOPOGRAPHY, AND EXISTING CONDITIONS SURVEY PROVIDED BY CMP PROFESSIONAL LAND SURVEYORS ON 11/29/22.
 - THE PROPERTY IS LOCATED IN ZONE X (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE AND FUTURE 1% ANNUAL CHANCE FLOODPLAIN) BASED ON THE FEMA MAP NUMBER 3720184400K AND 3720185300K DATED APRIL 16, 2022.
 - ONSITE STREAMS AND WETLANDS HAVE BEEN IDENTIFIED WITHIN THE PROJECT OR PARCEL AS SHOWN.
 - THIS DRAWING IS NOT FOR RECORDATION.
 - WATER WILL BE UTILIZING AN ONSITE WELL AND SEWER SERVICES FOR THIS PROJECT WILL BE PROVIDED VIA AN ONSITE SEPTIC SYSTEM.

CRUMPLER
Consulting Services, PLLC

2308 Ridge Road
Raleigh, North Carolina 27612
Ph: 919-413-1704
P-1535

ISSUED FOR
CONSTRUCTION

| DATE | | | | | |
|-------------|--|--|--|--|--|
| DESCRIPTION | | | | | |
| REV. | | | | | |

SITE PLAN

GASTON CONCRETE

0 BERT WINSTON ROAD
GARNER, NORTH CAROLINA

PROJECT NO.: 23037

DRAWN BY: MDI

CHECKED BY: JAC

DATE: 02/15/24

SCALE: 1" = 40'

C-3

3 of 11



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&SC Measures | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | <ol style="list-style-type: none"> 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 (SDOs) | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | <ol style="list-style-type: none"> 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 | <p>If visible sedimentation is found outside site limits, then a record of the following shall be made:</p> <ol style="list-style-type: none"> 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 | <p>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:</p> <ol style="list-style-type: none"> 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit. |
| (6) Ground stabilization measures | After each phase of grading | <ol style="list-style-type: none"> 1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 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 II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

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

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

PART III

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

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

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

2. Additional Documentation to be Kept on Site

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

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

3. Documentation to be Retained for Three Years

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

PART III

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

- (a) Visible sediment deposition in a stream or wetland.
- (b) Oil spills if:
 - They are 25 gallons or more,
 - They are less than 25 gallons but cannot be cleaned up within 24 hours,
 - They cause sheen on surface waters (regardless of volume), or
 - They are within 100 feet of surface waters (regardless of volume).
- (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the 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 Department's Environmental Emergency Center personnel at (800) 858-0368.

| Occurrence | Reporting Timeframes (After Discovery) and Other Requirements |
|---|--|
| (a) Visible sediment deposition in a stream or wetland | <ul style="list-style-type: none"> • <i>Within 24 hours</i>, an oral or electronic notification. • <i>Within 7 calendar days</i>, 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, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions. |
| (b) Oil spills and release of hazardous substances per Item 1(b)-(c) above | <ul style="list-style-type: none"> • <i>Within 24 hours</i>, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release. |
| (c) Anticipated bypasses [40 CFR 122.41(m)(3)] | <ul style="list-style-type: none"> • <i>A report at least ten days before the date of the bypass, if possible.</i> The report shall include an evaluation of the anticipated quality and effect of the bypass. |
| (d) Unanticipated bypasses [40 CFR 122.41(m)(3)] | <ul style="list-style-type: none"> • <i>Within 24 hours</i>, an oral or electronic notification. • <i>Within 7 calendar days</i>, a report that includes an evaluation of the quality and effect of the bypass. |
| (e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)] | <ul style="list-style-type: none"> • <i>Within 24 hours</i>, an oral or electronic notification. • <i>Within 7 calendar days</i>, 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 reoccurrence of the noncompliance. [40 CFR 122.41(l)(6)]. • Division staff may waive the requirement for a written report on a case-by-case basis. |



ISSUED FOR
CONSTRUCTION

NCG01 SELF-INSPECTION,
 RECORDKEEPING AND REPORTING
 GASTON CONCRETE

5744 OLD US HIGHWAY 52
WELCOME, NORTH CAROLINA

PROJECT NO.: 23037

DRAWN BY: MDI

CHECKED BY: JAC

| | |
|--------|--------------|
| DATE: | 02/15/24 |
| SCALE: | NOT TO SCALE |

C-7

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 tackifiersHydroseedingRolled 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 evenly distributed ground cover sufficient to restrain erosionStructural methods such as concrete, asphalt or retaining wallsRolled 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

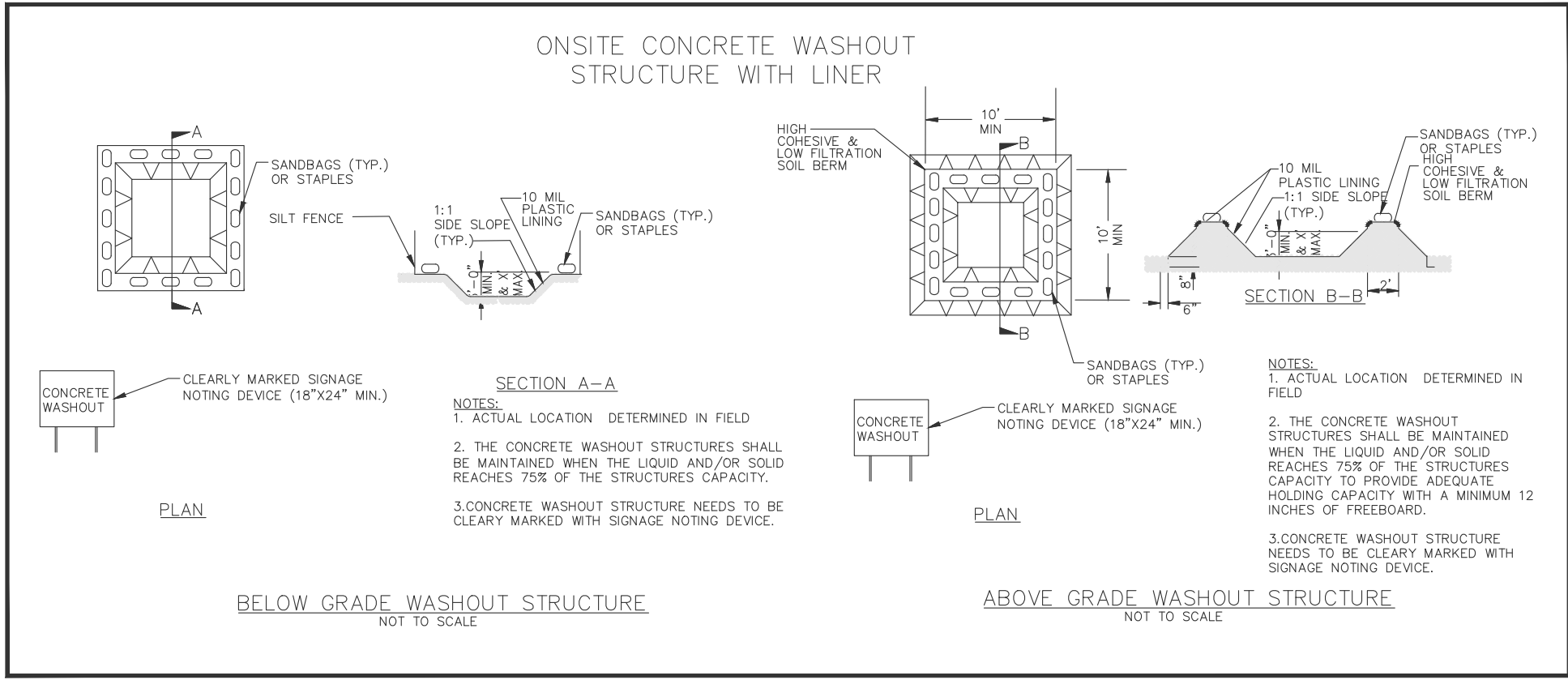
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- 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 sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably 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.

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.



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.



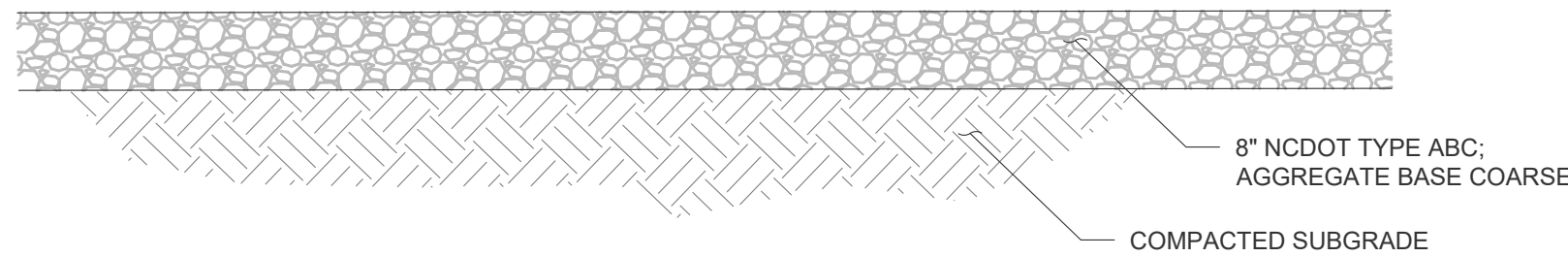
ISSUED FOR
CONSTRUCTION

| REV. | DESCRIPTION | DATE |
|------|-------------|------|
| | | |
| | | |
| | | |
| | | |

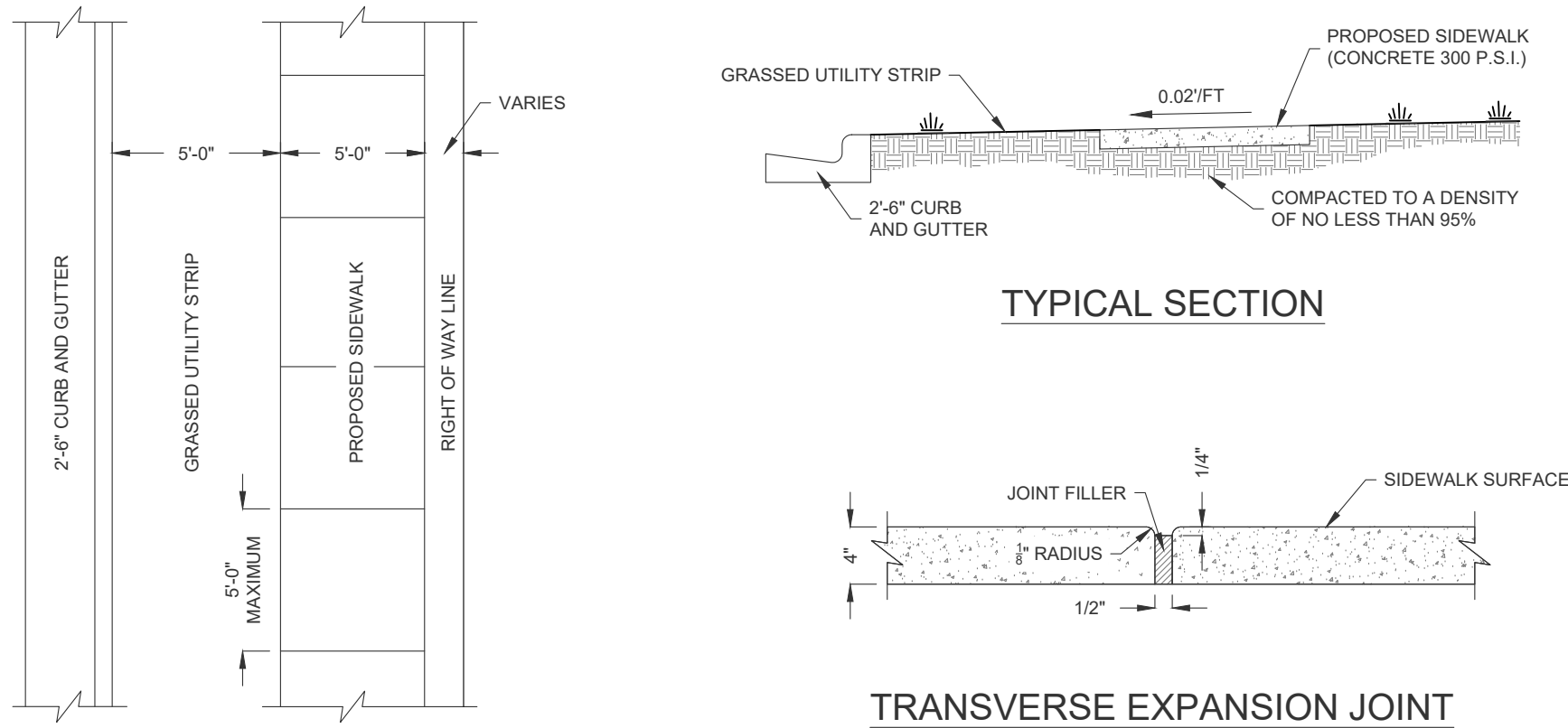
| | |
|--------------|--------------|
| PROJECT NO.: | 23037 |
| DRAWN BY: | MDI |
| CHECKED BY: | JAC |
| DATE: | 02/15/24 |
| SCALE: | NOT TO SCALE |



CAD FILE: D:\C23\Projects\23037\Gaston Concrete\ LAYOUT: Details-1



DRIVEWAY PAVEMENT DETAIL
NO SCALE

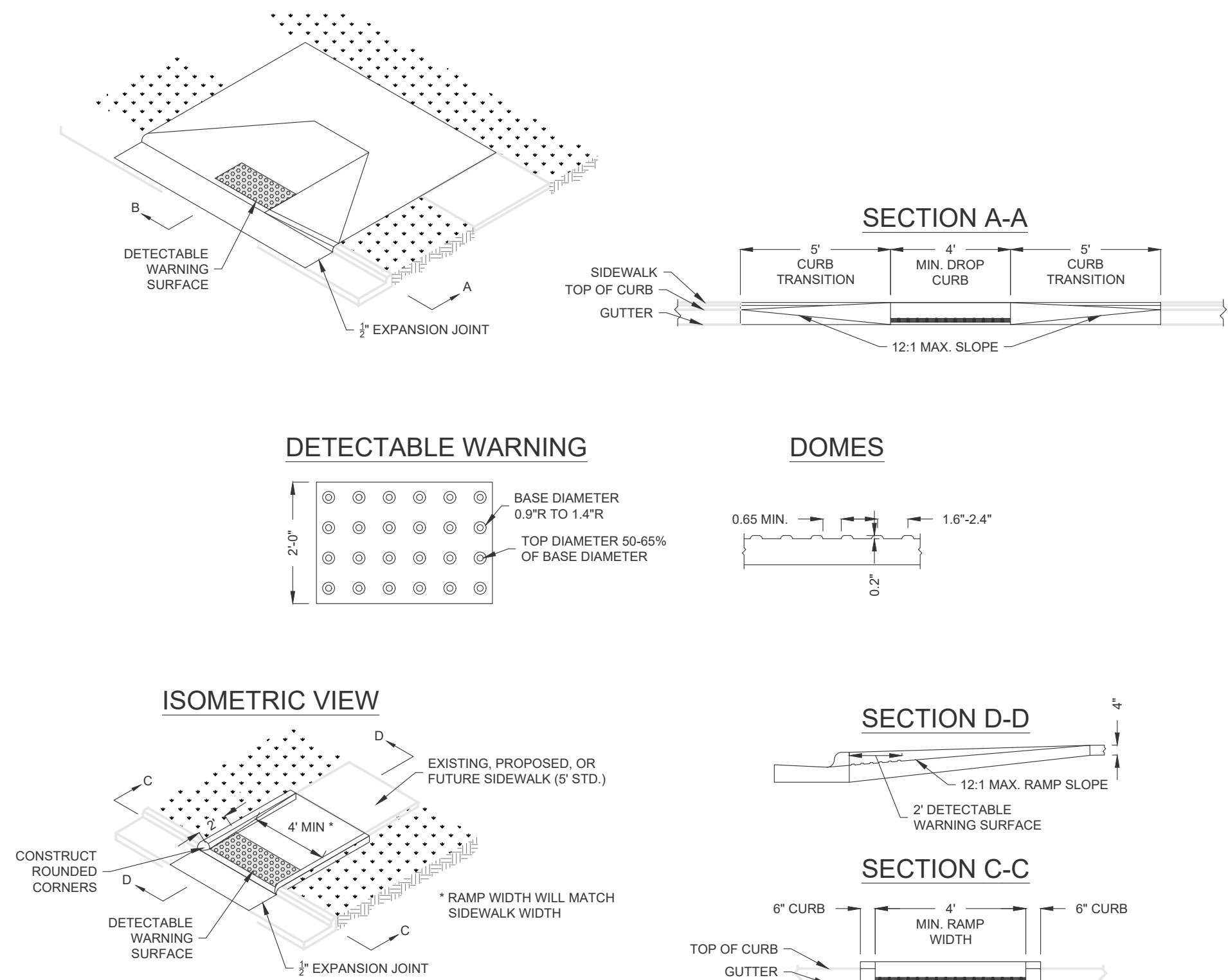


PLAN VIEW

NOTES:

1. TRANSVERSE EXPANSION JOINTS TO BE A MAXIMUM OF 50 FEET.
2. ALL CONCRETE TO BE FINISHED WITH CURING COMPOUND.
3. A 6 INCH DEPTH IS REQUIRED AT LOCATIONS OF DRIVEWAY CROSSINGS, AT STREET INTERSECTIONS (ALONG THE LENGTH OF RADIUS CURB RETURNS), AND IN THE HANDICAP RAMPS.

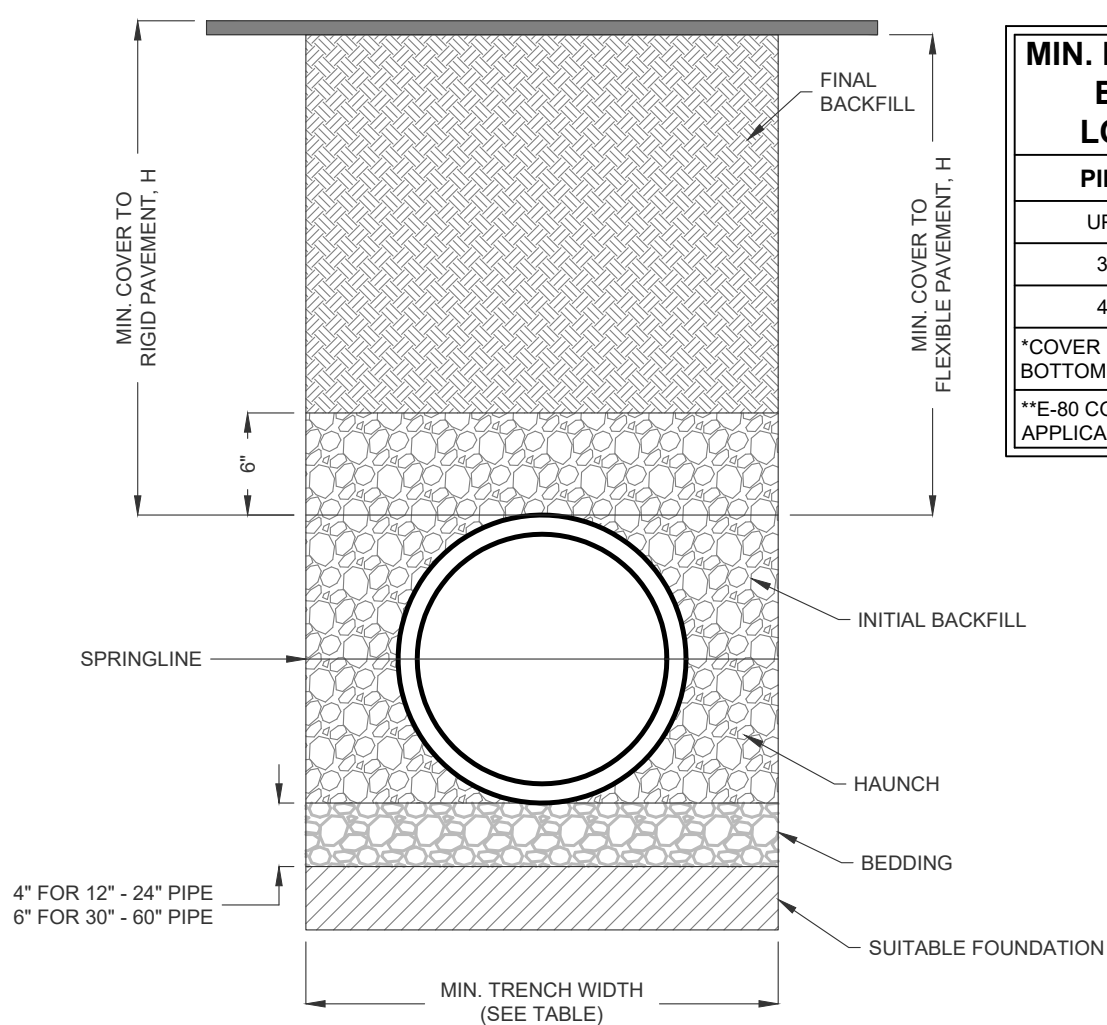
CONCRETE SIDEWALK
NO SCALE



NOTES:

1. RAMPS WITH FLARED SIDES WILL BE USED WHEN NEEDED FOR PEDESTRIAN CIRCULATION (SEE DETAIL ABOVE).
2. RAMPS WITH RETURNED CURB WILL BE USED WHEN FLARED SIDES ARE NOT NEEDED FOR PEDESTRIAN CIRCULATION (SEE DETAIL BELOW).
3. DETECTABLE WARNING DOMES WILL COVER 2'-0\"/>
4. DETECTABLE WARNING DOMES WILL CONTRAST VISIBILITY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT SEQUENCE.

CURB RAMP
NO SCALE



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II, OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm - 600mm); 6" (150mm) FOR 30" - 60" (750mm - 900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II, OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321 LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

TYPICAL PIPE TRENCH
NO SCALE

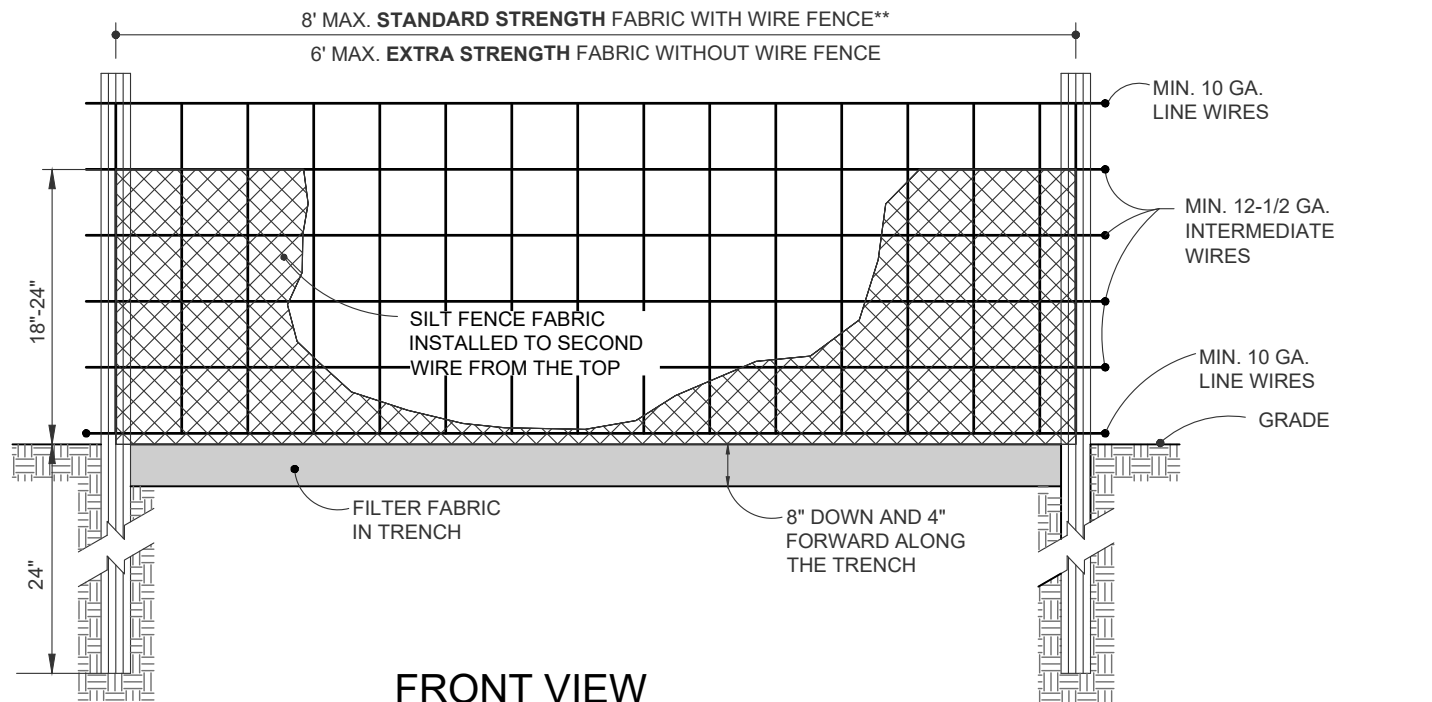
| RECOMMENDED MIN. TRENCH WIDTHS | |
|--------------------------------|-------------------|
| PIPE DIA. | MIN. TRENCH WIDTH |
| 4" | 21" |
| 6" | 23" |
| 8" | 26" |
| 10" | 28" |
| 12" | 30" |
| 15" | 34" |
| 18" | 39" |
| 24" | 48" |
| 30" | 56" |
| 36" | 64" |
| 42" | 72" |
| 48" | 80" |
| 54" | 88" |
| 60" | 96" |

| MIN. RECOMMENDED COVER* BASED ON RAILWAY LOADING CONDITIONS | |
|---|---------------|
| PIPE DIA. | COOPER E-80** |
| UP TO 24" | 24" |
| 30" - 36" | 36" |
| 42" - 60" | 48" |

*COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE.
**E-80 COVER REQUIREMENTS ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.

| MIN. RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS | | |
|--|------|-------------------------------------|
| SURFACE LIVE LOADING CONDITION | | |
| PIPE DIA. | H-25 | HEAVY CONSTRUCTION (75T AXLE LOAD)* |
| 12" - 48" | 12" | 48" |
| 54" - 60" | 24" | 60" |

*VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER



FRONT VIEW

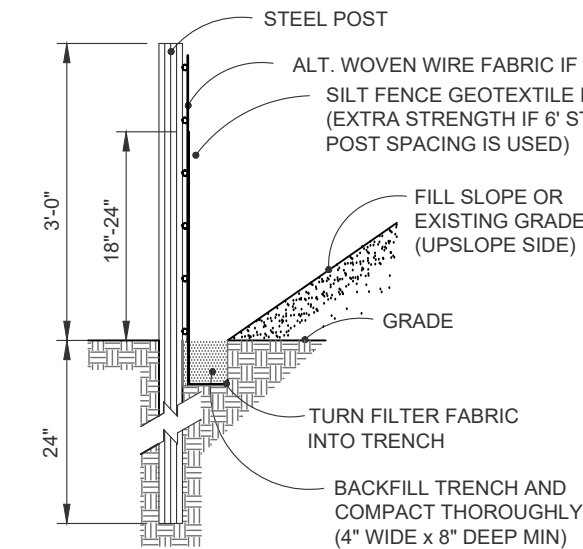
NOTES:

1. USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.
2. END OF SILT FENCE NEEDS TO BE TURNED UPHILL.
3. INSPECT SILT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
4. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
5. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

MAINTENANCE:

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT, MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE THE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

TEMPORARY SILT FENCE
NO SCALE



SIDE VIEW

CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE. *NURSE CROP/TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED OUT.

SEEDBED PREPARATION:

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO SIX INCHES DEEP.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER AN SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL. (SEE BELOW.)
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDBED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.

*APPLY:

- a. AGRICULTURAL LIMESTONE
a.a. LIGHT TEXTURED, SANDY SOILS: 1 - 1.5 TONS/ACRE, OR PER SOIL TEST
a.b. HEAVY TEXTURED, CLAYEY SOILS: 2 - 3 TONS/ACRE, OR PER SOIL TEST
b. FERTILIZER - 10-10-10 ANALYSIS @ 900 LBS/ACRE
c. SUPERPHOSPHATE - 500 LBS/ACRE OF 20% ANALYSIS
d. MULCH - 2 TONS (+/- 80 BALES) STRAW/ACRE
e. ANCHOR - USE LIQUID ASPHALT @ 400 GALS/ACRE OR EMULSIFIED ASPHALT @ 300 GALS/ACRE OR WOOD & PAPER FIBER HYDROMULCHES @ 125-175 LBS/ACRE OR GUAR & STARCH BASED TACKIFIERS @ 100-200 LBS/ACRE OR CRIMPING/PUNCHING W/ BLADES SPACES @ MAXIMUM 8"

PERMANENT SEEDING - SHOULDERS, SIDE DITCHES, SLOPES (MAX. 3:1)

| DATE | TYPE | PLANTING RATE |
|-------------------|---|--------------------|
| AUG. 15 - NOV. 1 | TALL FESCUE | 200 LBS./ACRE |
| NOV. 1 - MAR. 1 | TALL FESCUE AND SERICEA LESPEDEZA (UNHULLED, UNSCARIFIED) | 60 TO 70 LBS./ACRE |
| MAR. 1 - APR. 15 | TALL FESCUE AND ABRUZZI RYE * (NURSE CROP) | 25 LBS./ACRE |
| APR. 15 - JUN. 30 | HULLED COMMON BERMUDAGRASS | 200 LBS./ACRE |
| | | 15 LBS./ACRE |

PERMANENT SEEDING - SLOPES (3:1 TO 2:1)

| | | |
|-----------------|--|--------------------|
| AUG. 15-NOV.1 | TALL FESCUE | 200 LBS./ACRE |
| NOV. 1-MAR.1 | TALL FESCUE AND SERICEA LESPEDEZA (UNHULLED, UNSCARIFIED) | 60 TO 70 LBS./ACRE |
| MAR. 1-JUNE 1 | TALL FESCUE AND SERICEA LESPEDEZA (SCARIFIED) | 200 LBS./ACRE |
| MAR. 15-JUNE 30 | WEeping LOVEGRASS AND SERICEA LESPEDEZA (SCARIFIED) | 10 LBS./ACRE |
| MAR. 15-JUNE 30 | HULLED COMMON BERMUDAGRASS AND SERICEA LESPEDEZA (SCARIFIED) | 40 TO 50 LBS./ACRE |
| | | 15 LBS./ACRE |
| | | 40 TO 50 LBS./ACRE |

TEMPORARY SEEDING

| | | |
|----------------|---|---------------|
| JUNE 1-SEPT. 1 | TALL FESCUE AND BROWN TOP MILLET * (NURSE CROP) OR SORGHUM-SUDAN HYBRIDS * (NURSE CROP) | 200 LBS./ACRE |
| | | 35 LBS./ACRE |
| | | 30 LBS./ACRE |

CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE. *NURSE CROP/TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED OUT.

SEEDING SCHEDULE
NO SCALE

CRUMPLER
Consulting Services, PLLC

2306 Ridge Road
Raleigh, North Carolina 27612
Ph. 919-313-1704
F-1535



ISSUED FOR
CONSTRUCTION

| DATE | DESCRIPTION | REV. | | | |
|------|-------------|------|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

DETAILS

GASTON CONCRETE

5744 OLD US HIGHWAY 52
WELCOME, NORTH CAROLINA

| | |
|--------------|--------------|
| PROJECT NO.: | 23037 |
| DRAWN BY: | MDI |
| CHECKED BY: | JAC |
| DATE: | 02/15/24 |
| SCALE: | NOT TO SCALE |

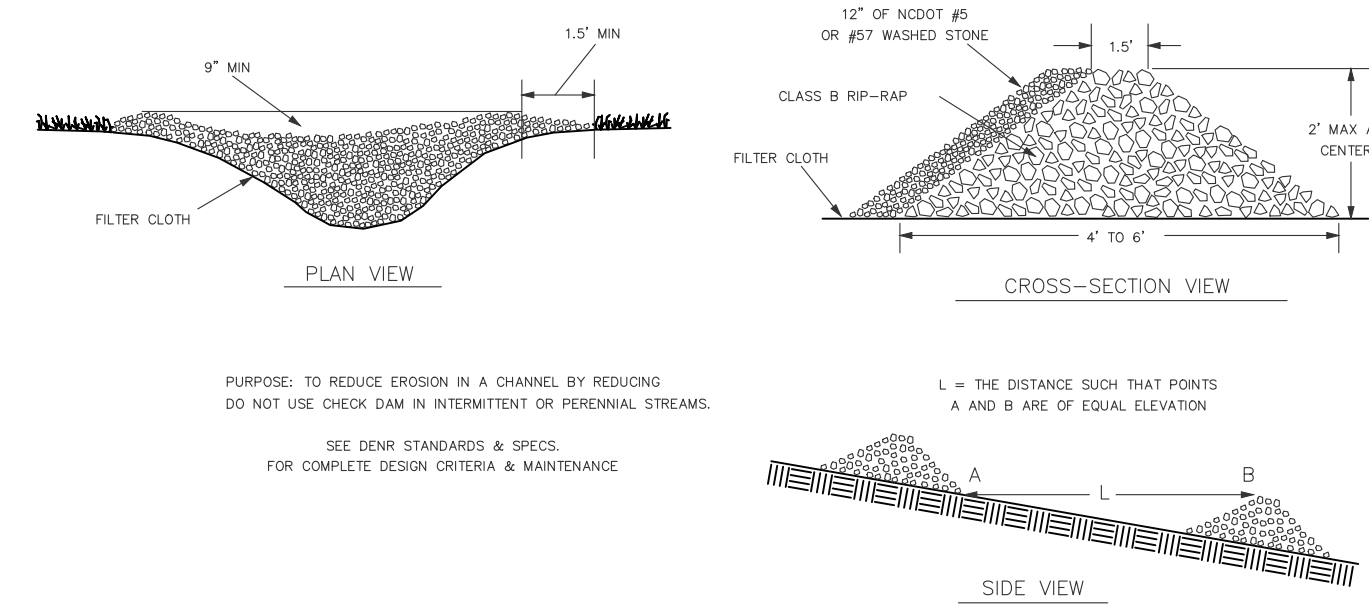
D-1

DESIGN CRITERIA

THE DRAINAGE AREA IS LIMITED TO ONE HALF ACRE.
KEEP A MAXIMUM HEIGHT OF 2 FEET AT THE CENTER OF THE DAM.
KEEP THE CENTER OF THE CHECK DAM AT LEAST 8 INCHES LOWER THAN THE OUTER EDGES AT NATURAL GROUND ELEVATION.
KEEP THE SLOPE SIDES OF THE DAM AT 2:1 OR FLATTER.
ENSURE THAT THE MAXIMUM SPACING BETWEEN DAMS PLACES THE TOP OF THE UPSTREAM DAM AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
STABILIZE OUTFLOW AREAS ALONG THE CHANNEL TO RESIST EROSION.
USE NODOT #5 OR #57 STONE AND LINE THE UPSTREAM SIDE OF THE DAM WITH NODOT #5 OR #57 STONE.
KEY THE STONE INTO THE DITCH BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 1.5 FEET TO AVOID WASHOUT FROM OVERFLOW AROUND THE DAM.

NOTES

1. PLACE STONE TO THE LINE AND DIMENSION SHOWN IN THE PLAN ON A FILTER FABRIC FOUNDATION.
2. KEEP THE CENTER STONE SECTION AT LEAST 8 INCHES BELOW NATURAL GROUND LEVEL WHERE THE DAM ABUTS THE CHANNEL BANKS.
3. EXTEND STONE AT LEAST 1.5 FEET BEYOND THE DITCH BANK TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
4. SET SPACING BETWEEN DAMS TO ASSURE THAT THE ELEVATION AT THE TOP OF THE LOWER DAM IS THE SAME AS THE TOE ELEVATION OF THE UPPER DAM.
5. PRETECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
6. MAKE SURE THAT THE CHANNEL REACH ABOVE THE MOST UPSTREAM IS STABLE.
7. ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS CULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

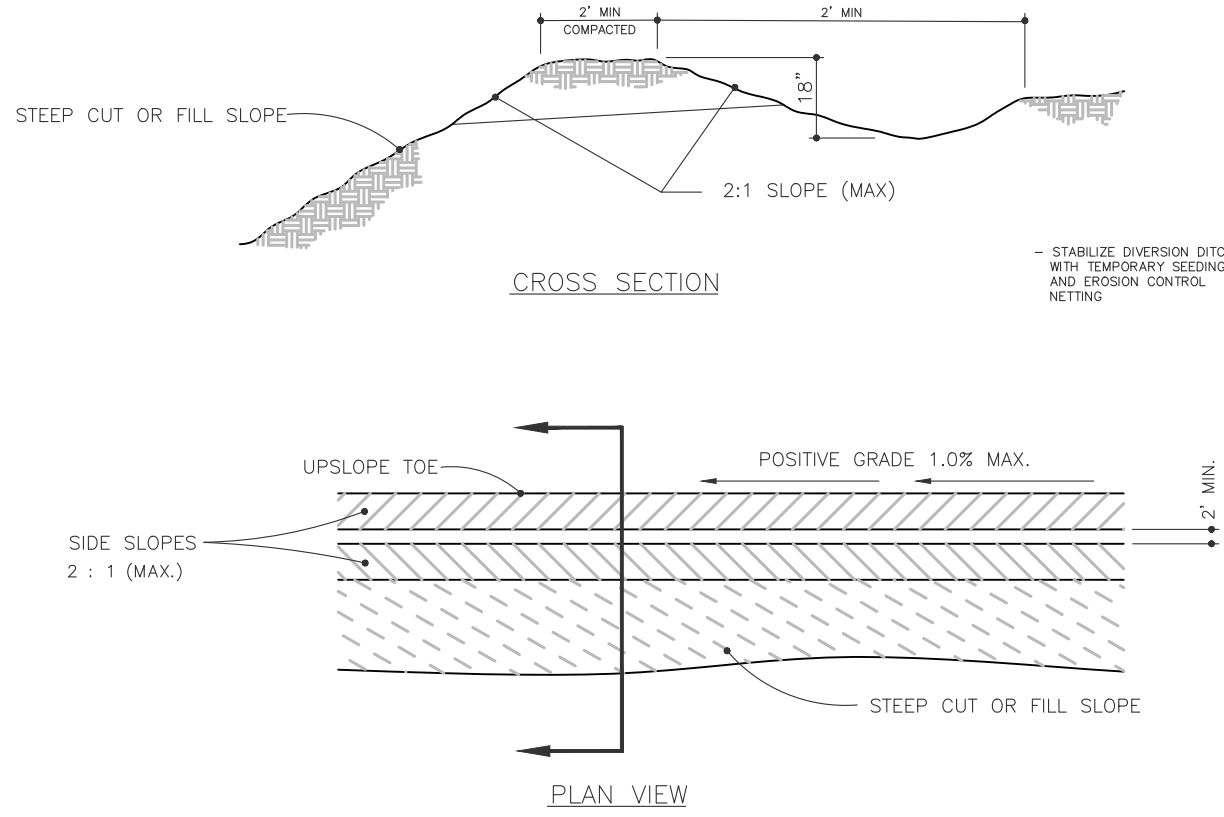


PURPOSE: TO REDUCE EROSION IN A CHANNEL BY REDUCING DO NOT USE CHECK DAM IN INTERMITTENT OR PERENNIAL STREAMS.

SEE DNR STANDARDS & SPECS. FOR COMPLETE DESIGN CRITERIA & MAINTENANCE.

CHECK DAM

NO SCALE

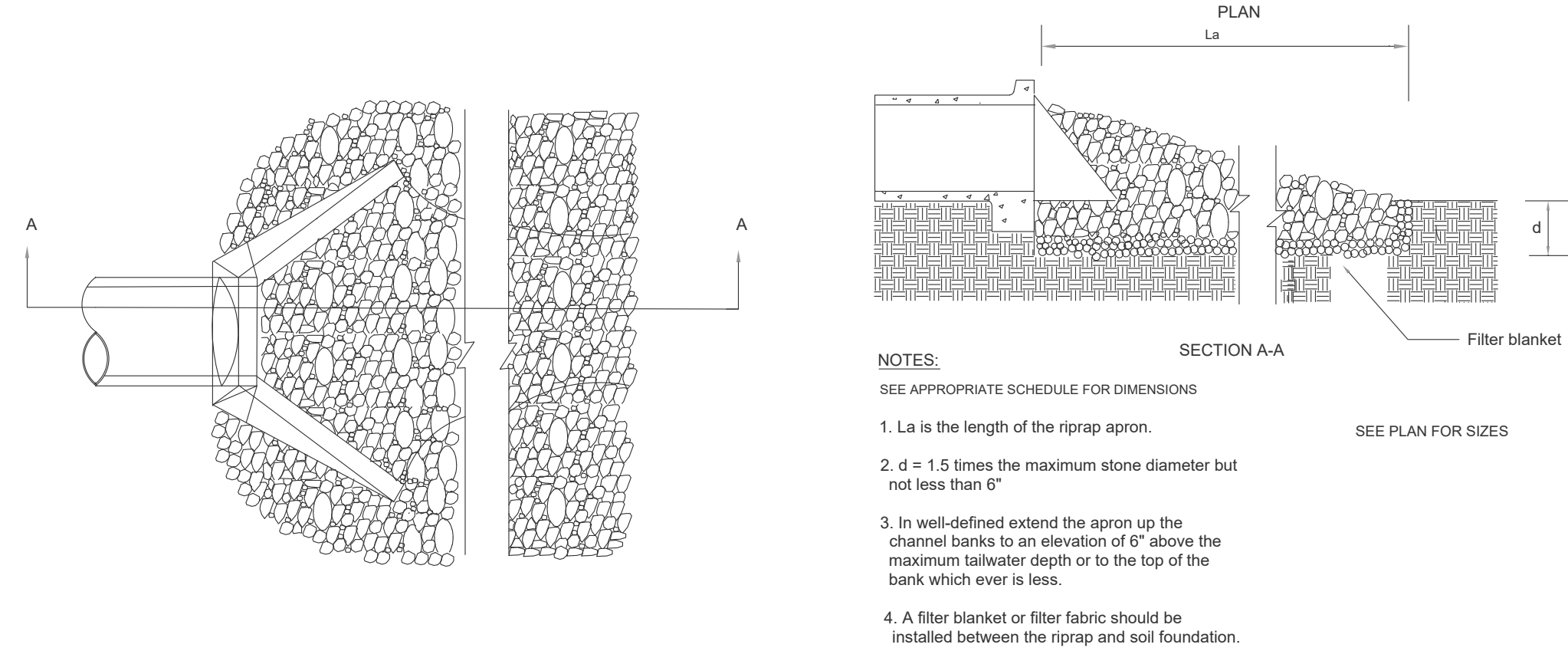


CROSS SECTION

PLAN VIEW

DIVERSION DITCH

NO SCALE



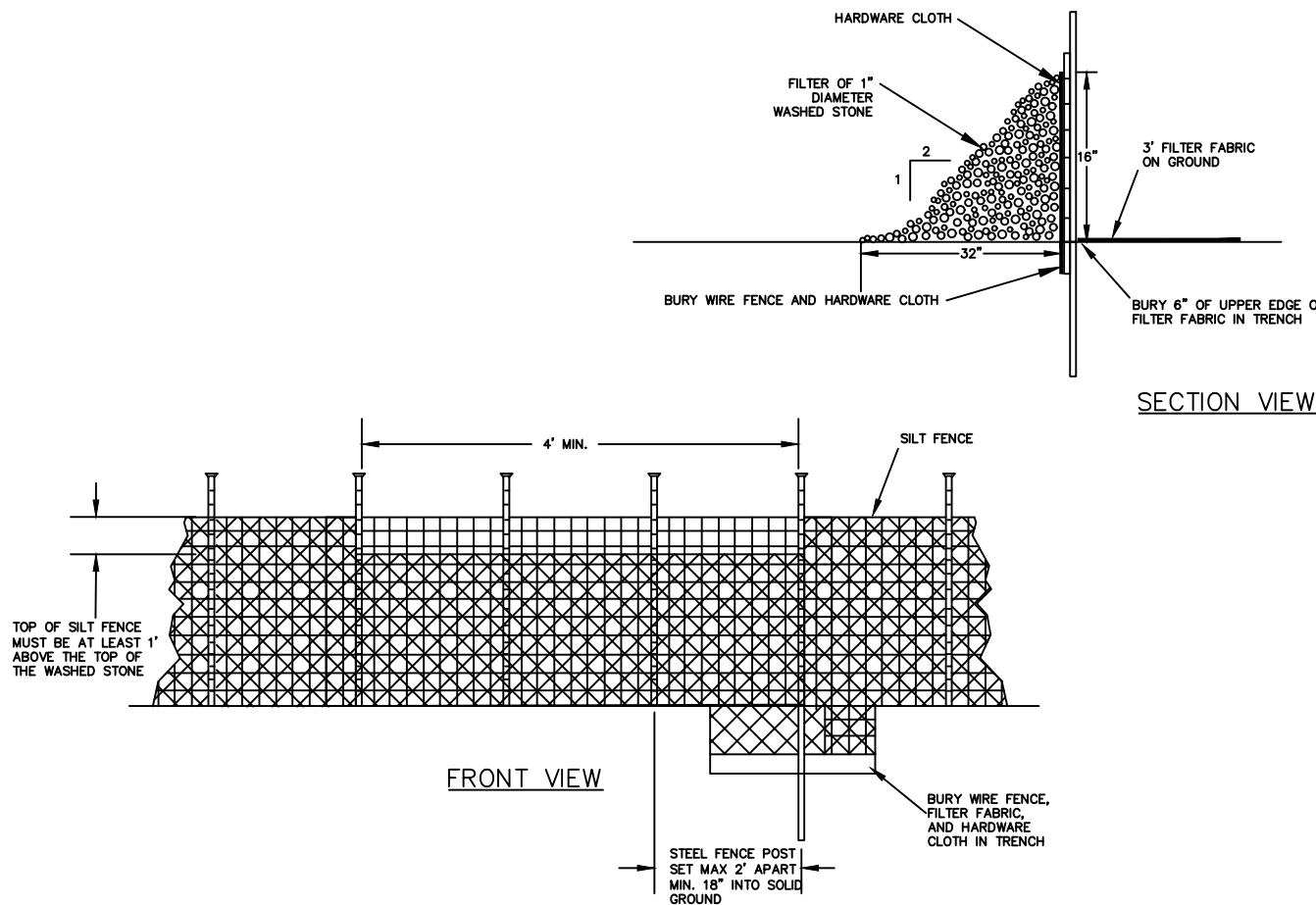
NOTES:

SEE APPROPRIATE SCHEDULE FOR DIMENSIONS

1. La is the length of the riprap apron.
2. d = 1.5 times the maximum stone diameter but not less than 6"
3. In well-defined extend the apron up the channel banks to an elevation of 6" above the maximum tailwater depth or to the top of the bank which ever is less.
4. A filter blanket or filter fabric should be installed between the riprap and soil foundation.

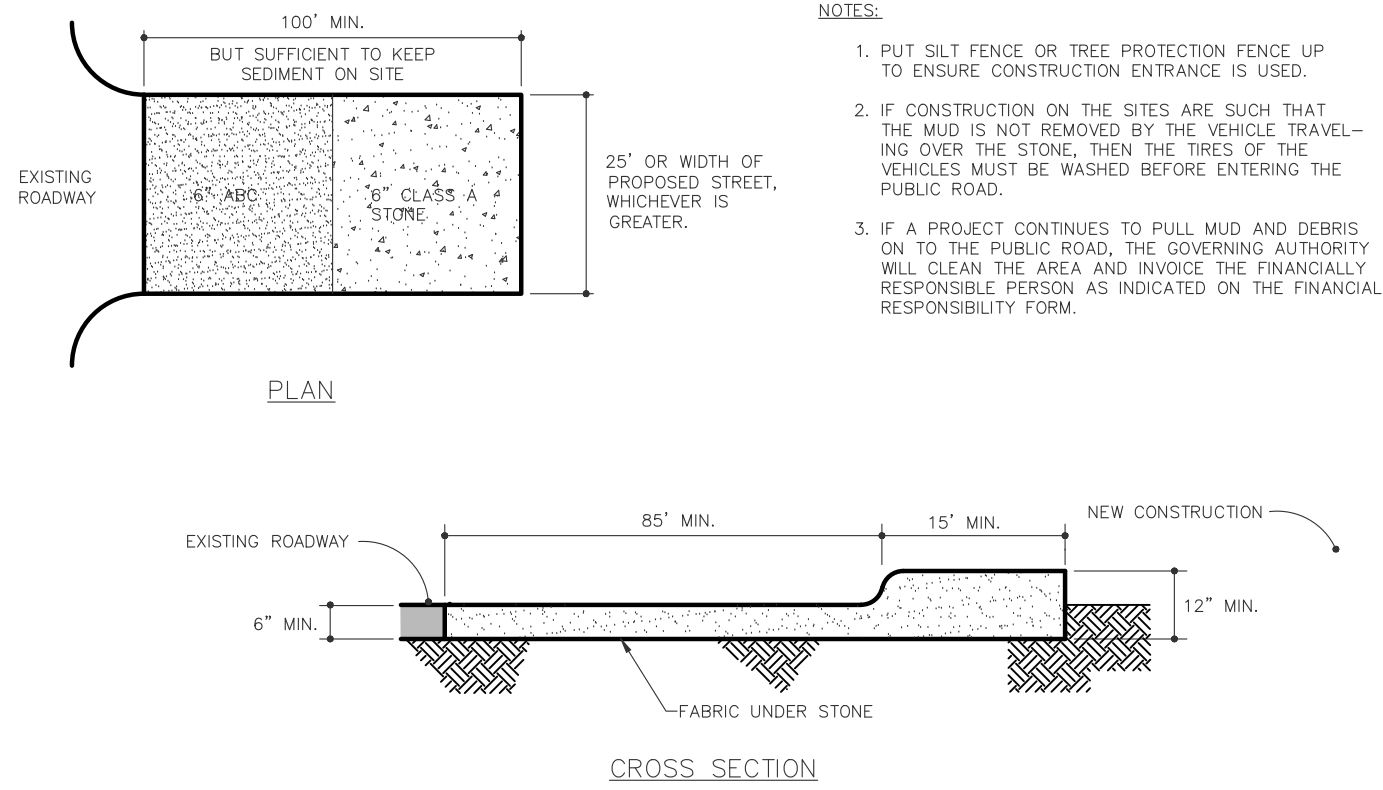
OUTLET PROTECTION FOR DEFINED CHANNEL

NOT TO SCALE



SILT FENCE OUTLET

NO SCALE

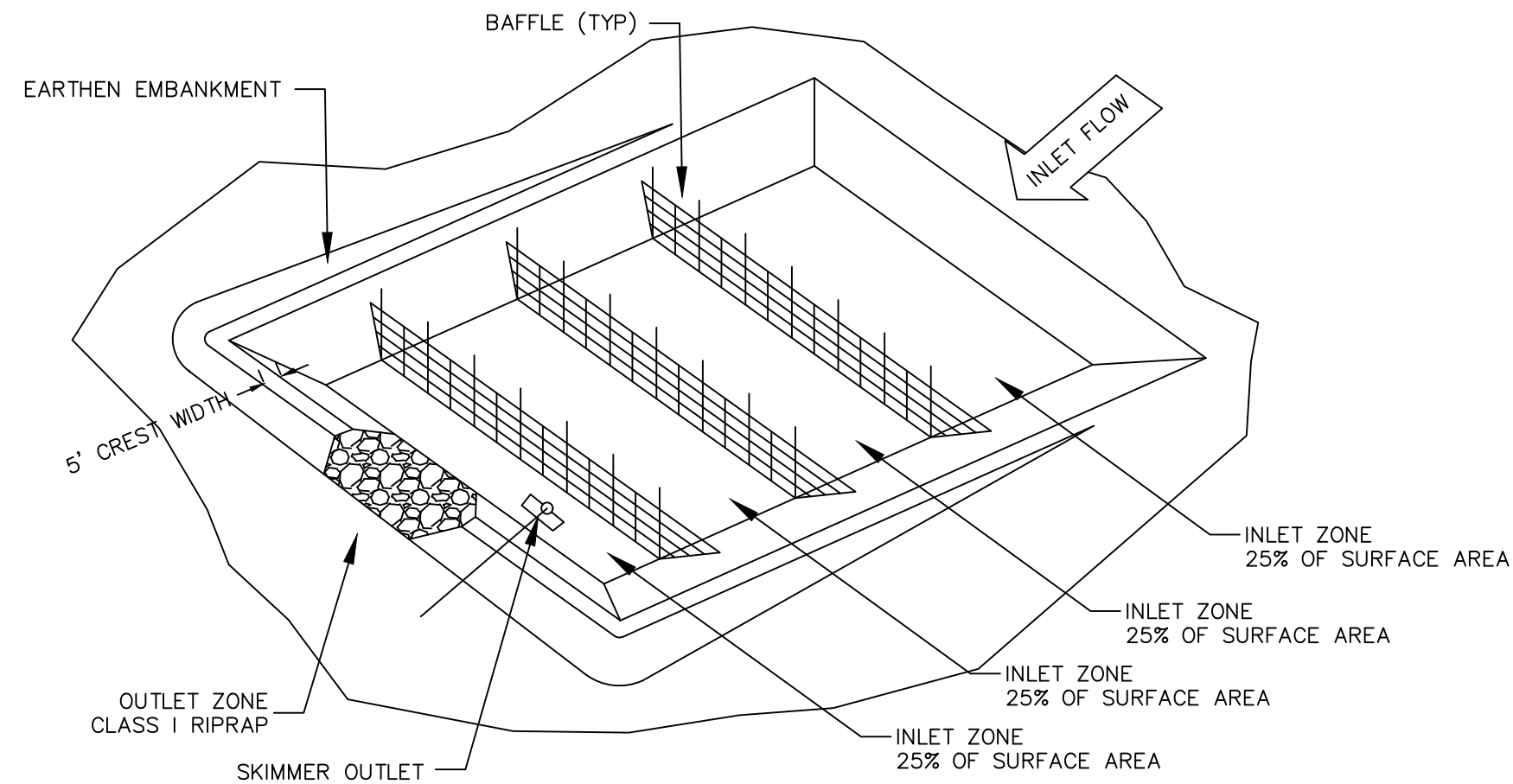


NOTES:

1. PUT SILT FENCE OR TREE PROTECTION FENCE UP TO ENSURE CONSTRUCTION ENTRANCE IS USED.
2. IF CONSTRUCTION ON THE SITE ARE SUCH THAT THE MUD IS NOT REMOVED BY THE VEHICLE TRAVELING OVER THE STONE, THEN THE TIRES OF THE VEHICLES MUST BE WASHED BEFORE ENTERING THE PUBLIC ROAD.
3. IF A PROJECT CONTINUES TO PULL MUD AND DEBRIS ON TO THE PUBLIC ROAD, THE GOVERNING AUTHORITY WILL CLEAN THE AREA AND INVOICE THE FINANCIALLY RESPONSIBLE PERSON AS INDICATED ON THE FINANCIAL RESPONSIBILITY FORM.

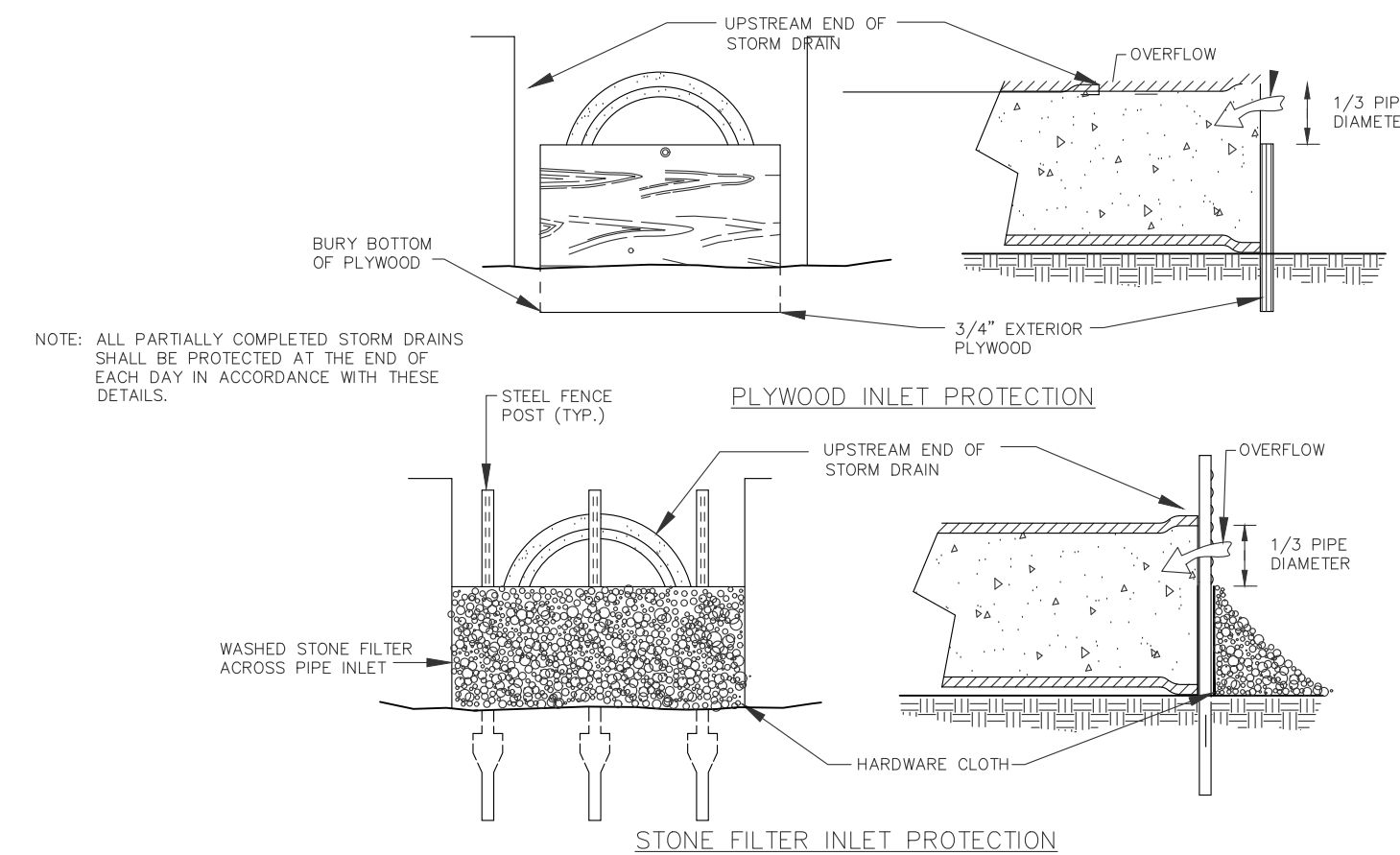
CONSTRUCTION ENTRANCE

NO SCALE



TEMPORARY SEDIMENT BASIN WITH BAFFLES

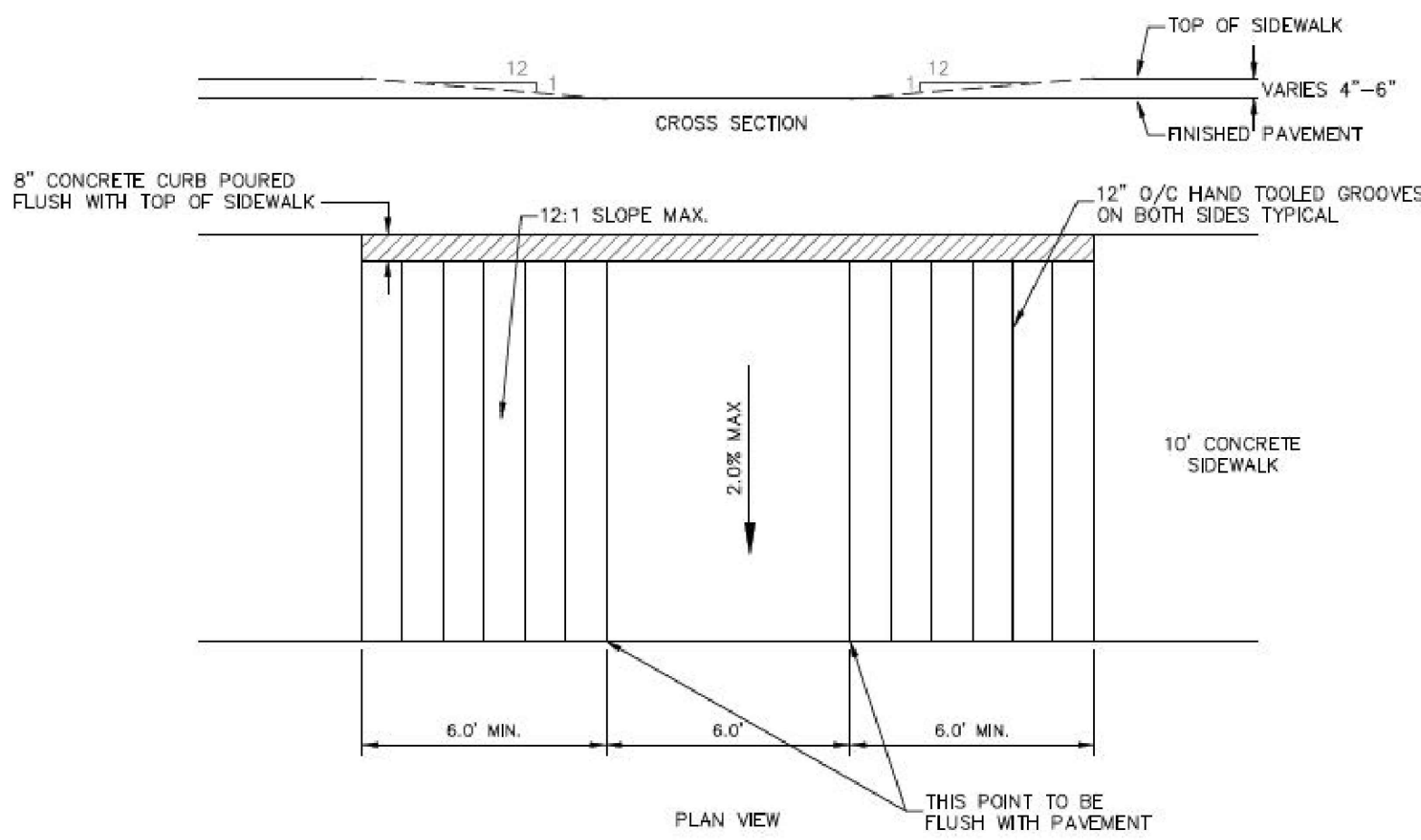
NO SCALE



NOTE: ALL PARTIALLY COMPLETED STORM DRAINS SHALL BE PROTECTED AT THE END OF EACH DAY IN ACCORDANCE WITH THESE DETAILS.

PIPE INLET PROTECTION (PLYWOOD AND STONE)

NO SCALE



HANDICAP RAMP DETAIL

NO SCALE

ISSUED FOR CONSTRUCTION

DATE

DESCRIPTION

REV.

DETAILS

GASTON CONCRETE
5744 OLD US HIGHWAY 52
WELCOM, NORTH CAROLINA

PROJECT NO.: 23037
DRAWN BY: MDI
CHECKED BY: JAC
DATE: 02/15/24
SCALE: NOT TO SCALE

D-2

CRUMPLER
Consulting Services, PLLC

2303 Ridge Road
Raleigh, North Carolina 27612
Ph: 919-313-1704
P-1535

