





REINFORCED CONCRETE PIPE TRENCH

**LEGEND**

-  PIPE BEDDING
-  UNCOMPACTED PIPE BEDDING DIRECTLY UNDER THE PIPE (SEE DETAIL)
-  STRUCTURAL BACKFILL
-  OVERFILL OR STRUCTURAL BACKFILL

**SEQUENCE OF INSPECTIONS:**  
 PIPE MUST BE INSPECTED BY THE TOWN UPON DELIVERY, BEFORE INSTALLATION. THE INSPECTING PROFESSIONAL SHALL INSPECT THE WORK AFTER INSTALLATION PRIOR TO REQUESTING THE NEXT INSPECTION WITH THE TOWN. PIPE WILL BE LEFT EXPOSED UNTIL INSPECTED BY THE TOWN. GEOTECHNICAL COMPACTION REPORTS AND VIDEO INSPECTIONS OF THE DRAINAGE SYSTEM SHALL BE REVIEWED BY THE TOWN - SEE STORM PIPE INSTALLATION NOTES 8 and 9.

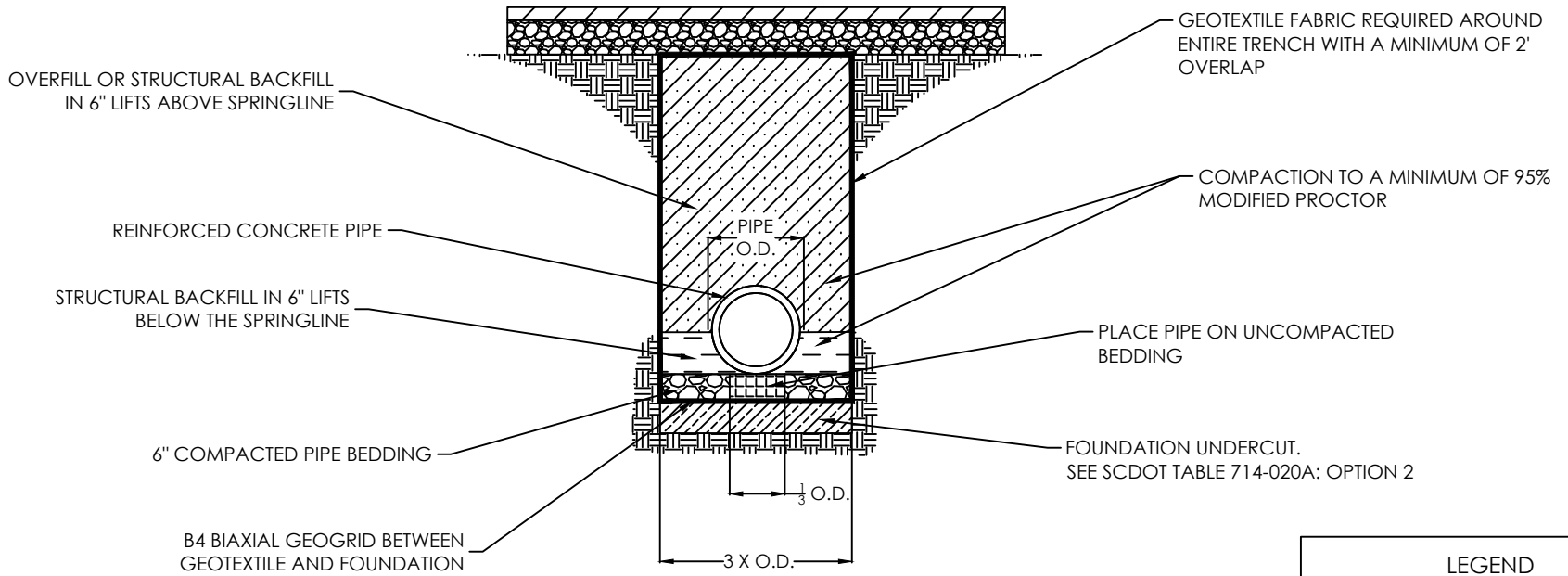
TOWN OF MOUNT PLEASANT  
 Department of Engineering & Development Services  
 100 Ann Edwards Lane  
 Mount Pleasant, SC 29464

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


**STORM PIPE INSTALLATION STANDARD DETAIL**  
 Pipe Laying  
 Conditions





**REINFORCED CONCRETE PIPE ENHANCED TRENCH**

**LEGEND**

-  PIPE BEDDING
-  UNCOMPACTED PIPE BEDDING DIRECTLY UNDER THE PIPE (SEE DETAIL)
-  STRUCTURAL BACKFILL
-  OVERFILL OR STRUCTURAL BACKFILL
-  FOUNDATION

**SEQUENCE OF INSPECTIONS:**  
 PIPE MUST BE INSPECTED BY THE TOWN UPON DELIVERY, BEFORE INSTALLATION. THE INSPECTING PROFESSIONAL SHALL INSPECT THE WORK AFTER INSTALLATION PRIOR TO REQUESTING THE NEXT INSPECTION WITH THE TOWN. PIPE WILL BE LEFT EXPOSED UNTIL INSPECTED BY THE TOWN. GEOTECHNICAL COMPACTION REPORTS AND VIDEO INSPECTIONS OF THE DRAINAGE SYSTEM SHALL BE REVIEWED BY THE TOWN - SEE STORM PIPE INSTALLATION NOTES 8 and 9.

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**STORM PIPE INSTALLATION IN ENHANCED TRENCH DETAIL**  
 Wet Pipe Laying Conditions



**NOTES:**

1. ALL PIPES AND PIPE INSTALLATION SHALL CONFORM TO THE SCDOT TECHNICAL SPECIFICATIONS FOR PERMANENT PIPE CULVERTS DESIGNATION: SC-M-714 UNLESS NOTED HEREIN.
  - 1.1. EXCEPTIONS:
    - 1.1.1. COMPACTION TESTING FREQUENCY (SEE NOTE 10 BELOW FOR FREQUENCY)
    - 1.1.2. #57 STONE CAN BE USED AS BEDDING AND BACKFILL TO THE HEIGHT OF THE SPRINGLINE IF THIS AREA OF THE TRENCH IS WRAPPED WITH FILTER FABRIC
    - 1.1.3. IMPROVED FOUNDATIONS FOR ENHANCED TRENCHES (WET CONDITIONS) SHALL COMPLY WITH OPTION 2 PER 714-020-00
    - 1.1.4. A TYPE II EXTERNAL SEALING BAND MEETING ASTM C877 IS REQUIRED IN CONDITIONS WHERE THE PIPELINE IS SUBMERGED
2. THE CROWN OF THE PIPE SHALL BE AT LEAST 1 FT BELOW THE BOTTOM OF THE BASE COURSE IN THE LOWEST POINT OF THE ROAD (I.E. FOR CROWNED ROADS THE LOWEST POINT WOULD BE THE GUTTER EDGE)
3. ALL PIPE JOINTS WILL BE SEALED WITH A RUBBER GASKET MEETING ASTM C443 AND MUST BE WRAPPED ON THE EXTERIOR WITH 5 OZ 60 MIL NON-WOVEN FILTER FABRIC. FABRIC SHOULD BE AT LEAST 36" WIDE AND OVERLAP ENDS BY AT LEAST 2 FT.
4. PIPE TO BOX CONNECTION MUST BE PARGED WITH NONSHRINK GROUT INSIDE AND OUT ON PRECAST BOXES. PIPE MUST BE INSTALLED PROJECTING INTO THE BOX AND CUT TO A MAXIMUM 2" PROJECTION. EXTERIOR OF THE PIPE TO STRUCTURE CONNECTION SHALL HAVE A FILTER FABRIC SKIRT AT THE CONNECTION.
5. PIPE MUST BE INSPECTED BY THE TOWN UPON DELIVERY, BEFORE INSTALLATION. THE INSPECTING PROFESSIONAL SHALL INSPECT THE WORK AFTER INSTALLATION PRIOR TO REQUESTING THE NEXT INSPECTION WITH THE TOWN. PIPE WILL BE LEFT EXPOSED UNTIL INSPECTED BY THE TOWN. AASHTO R73 EVALUATION CRITERIA SHALL BE UTILIZED TO DETERMINE IF PIPE IS ACCEPTABLE BEFORE INSTALLATION.
6. THE ENTIRE WIDTH OF THE TRENCH IS TO BE COMPACTED, WITH THE EXCEPTION OF THE BEDDING MATERIAL LOCATED BENEATH THE PIPE FOR A WIDTH OF 1/3 THE PIPE OUTSIDE DIAMETER.
7. COMPACTION TESTING MUST BE PERFORMED USING A NUCLEAR DENSITY GAUGE. A PIPE RUN IS A SEGMENT OF PIPE BETWEEN STRUCTURES.
  - 7.1. RUNS 50 FT OR SHORTER - 1 TEST ON EACH SIDE OF THE PIPE PER LIFT
  - 7.2. RUNS 50 FT - 100 FT - 2 TESTS ON EACH SIDE OF THE PIPE PER LIFT
  - 7.3. RUNS GREATER THAN 100 FT - 3 TESTS ON EACH SIDE OF THE PIPE PER LIFT
8. THE INSPECTING PROFESSIONAL SHALL BE RESPONSIBLE FOR ENSURING GEOTECHNICAL TESTING AND REPORTS ARE COMPLETED AND ACCEPTABLE PRIOR TO SUBMITTING TO THE TOWN FOR REVIEW. TESTING SCHEDULE, ADVANCED NOTICE, AND COORDINATION WITH TOWN FIELD INSPECTOR IS REQUIRED THROUGHOUT THE PROCESS. COMPACTION REPORTS MUST BE PROVIDED TO TOWN INSPECTORS PRIOR TO OR IN CONJUNCTION WITH CCTV INSPECTION VIDEOS.
9. A VIDEO INSPECTION OF ALL STORM DRAINAGE SYSTEMS SHALL BE PERFORMED BY THE DEVELOPER PRIOR TO ISSUANCE OF FINAL PLAT AND AGAIN BEFORE THE END OF THE WARRANTY PERIOD. VIDEO INSPECTIONS SHALL OCCUR NO EARLIER THAN 30 DAYS AFTER FULL INSTALLATION OF PIPE. ALL VIDEO MUST PROVIDE A 360° VIEW OF THE JOINT, PAN FULLY AROUND ALL STRUCTURES, AND STOP AT ALL DEFECTS. LIGHTING IN THE PIPE SHOULD BE SUCH THAT THE PIPE IS ILLUMINATED AND THERE IS A MINIMUM AMOUNT OF GLARE. THE INSPECTION VIDEO AND REPORT SHALL BE CLEARLY LABELED WITH THE NAME OF THE DEVELOPER, NAME OF THE CONSTRUCTION PROJECT, PHASE OF DEVELOPMENT, DATE OF INSPECTION(S), AND THE NAME OF THE INSPECTING COMPANY. THE REPORT SHALL INCLUDE THE SEQUENCE OF INSPECTION THROUGH THE DRAINAGE SYSTEM CORRESPONDING TO THE DRAINAGE SUMMARY ON THE DEVELOPMENT'S CONSTRUCTION DRAWINGS. STORM DRAINAGE VIDEO SHALL BE SUBMITTED TO THE TOWN BY THE INSPECTING PROFESSIONAL. ALL VIDEOS SHOULD UTILIZE AND EMPLOY LASER MEASUREMENTS. EQUIPMENT SHOULD BE CAPABLE OF ACCURATE MEASUREMENTS AS SMALL AS 0.05". ALL ITEMS OF CONCERN (I.E. CRACKS AND JOINT SEPARATIONS) SHOULD BE MEASURED. ASTM C1840 EVALUATION CRITERIA WILL BE UTILIZED BY THE TOWN TO MAKE ACCEPTANCE OR REMEDIATION DETERMINATIONS.
10. SPECIAL CONDITIONS - ENHANCED TRENCHES (WET CONDITIONS)
  - 10.1. ALL TRENCHES MUST BE DEWATERED
    - 10.1.1. WELL POINT DEWATERING SHALL BE USED IF A SINGLE PUMP CANNOT CONTROL THE WATER
  - 10.2. GEOTEXTILE FABRIC SHALL ENCASE THE ENTIRE TRENCH.
  - 10.3. FOUNDATION MUST BE UNDERCUT TO AN AMOUNT SPECIFIED IN SCDOT DRAWING 714-020-00 TABLE 714-020A: OPTION 2. CONTACT THE GEOTECHNICAL ENGINEER OR INSPECTING PROFESSIONAL FOR FURTHER GUIDANCE.

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STORM PIPE INSTALLATION NOTES

