SITE DEVELOPMENT PLANS FOR:

BROOK RUN DOG PARK CONSTRUCTION DOCUMENTS

4770 N. PEACHTREE RD.
DUNWOODY, DEKALB COUNTY, GEORGIA 30338
L.L. 354, 18TH DISTRICT, ZONED: R-85

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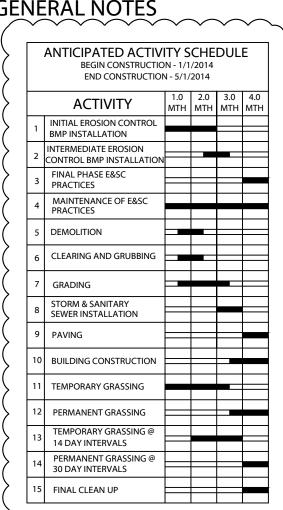
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PREPARED BY:



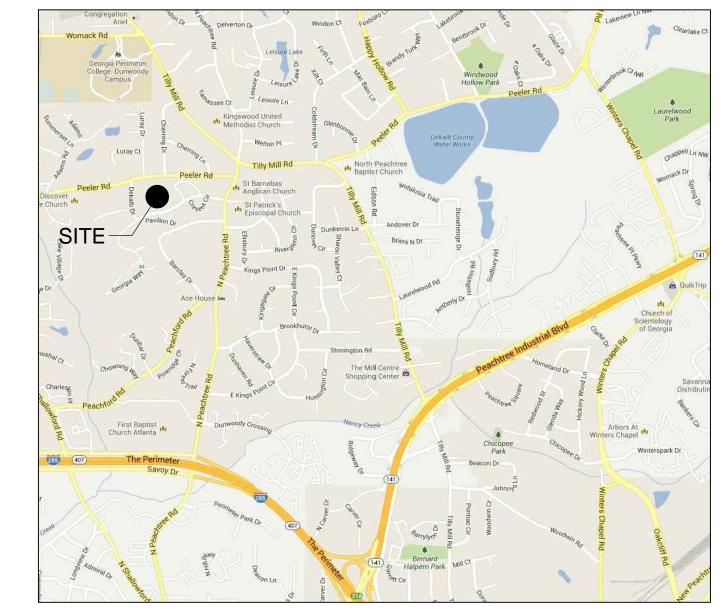
Foresite Group, Inc.
5185 Peachtree Pkwy.
Suite 240
Norcross, GA 30092

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24 HR CONTACT: BRENT WALKER (678) 382-6700

ISSUED: AUGUST 10, 2013 487.001

CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY UPON START OF CONSTRUCTION IN ORDER FOR ENGINEER TO SCHEDULE THE INITIAL 7 DAY EROSION CONTROL INSPECTION. THE CONTRACTOR SHALL VERIFY THAT ALL EXISTING INITIAL BMP'S ARE INSTALLED PROPERLY. ALL COMPENSATION FOR DESIGN ENGINEER'S REINSPECTION TO VERIFY THAT THE INITIAL BMP'S ARE PROPERLY INSTALLED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.



VICINITY MAP NOT TO SCALE

SITE DISTURBED AREA = 1.6 AC.



THIS SITE IS NOT LOCATED WITHIN A ZONE A, AE, OR SHADED ZONE X AS DEFINED BY FIRM COMMUNITY PANEL NUMBER 13121C FOR UNINCORPORATED DEKALB COUNTY, GEORGIA.

PROJECT DIRECTORY

OWNER/DEVELOPER
CITY OF DUNWOODY PARKS & RECREATION
41 PERIMETER CENTER EAST, SUITE 250
DUNWOODY, GA 30346
(678) 382-6700
CONTACT: MR. BRENT WALKER
LANDSCAPE ARCHITECT/CIVIL ENGINEER
FORESITE GROUP, INC.
5185 PEACHTREE PKWY., SUITE 240
NORCROSS, GA 30092
(770) 368-1399

CONTACT: JASON WECKERLY

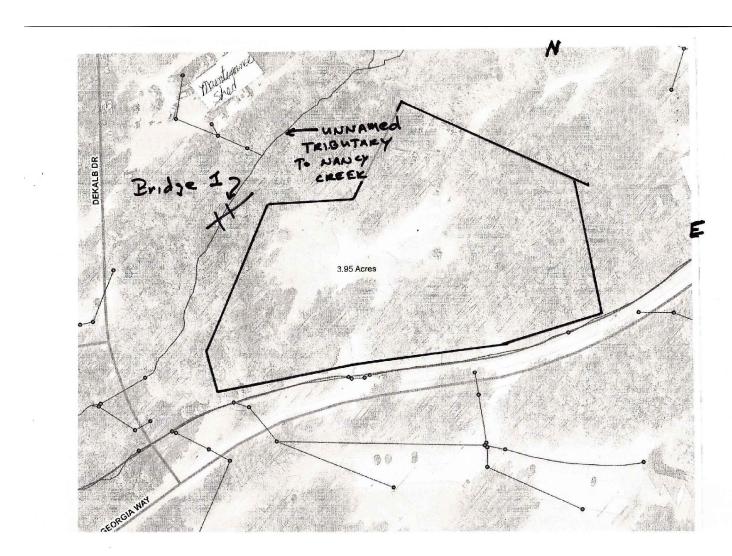
ARCHITECT
KACENA DESIGN, LLC
2944 RIDGELOCK CT.
ATLANTA, GA 30360
(404) 803-3869
CONTACT: MR. CHRIS KACENA

SURVEYOR
GEOSURVEY, LTD.
1660 BARNES MILL RD.
MARIETTA, GA 30062
(77) 795-9900
CONTACT: MR. DAVID HESTER

UTILITY PROVIDERS

WATER & SEWER SERVICE PROVIDER
DEKALB DEPT. OF WATERSHED
MANAGMENT
1580 ROADHAVEN DRIVE
STONE MOUNTAIN, GA 30083
(770) 621-7200
CONTACT: MR. RUDOLPH A. CHEN

ELECTRICAL SERVICE PROVIDER
GEORGIA POWER
1841 CHAMBLEE TUCKER RD. SUITE 1-1A
CHAMBLEE, GA 30341
(770) 216-1313
CONTACT: MR. J.C. PORCH



PROPERTY LOCATION AND ADJACENT UNNAMED TRIBUTARY NORTH OF THE SITE.

CERTIFICATION STATEMENT

"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF THE BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001. ADDITIONALLY, I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED



"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT CERTIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE EROSION SEDIMENTATION AND POLLUTION CONTROL PLAN (PLAN) WAS PREPARED BY A DESIGN PROFESSIONAL, AS DEFINED BY THE PERMIT, THAT HAS COMPLETED THE APPROPRIATE CERTIFICATION COURSE APPROVED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-19 AND THAT I WILL ADHERE TO THE PLAN AND COMPLY WITH ALL REQUIREMENTS OF THIS PERMIT."



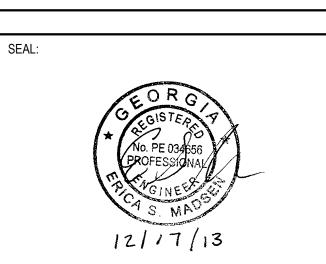


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DEVELOPER:		
00017407		
CONTACT:		

OOK RUN DOG PARK DNSTRUCTION DOCUMENTS



REVISIONS	DATE
ADDENDUM #1	11/20/2013

PROJECT MANAGER:	JV\
DRAWING BY:	NJ
JURISDICTION:	DUNWOODY, G
DATE:	10 AUGUST 201
SCALE:	AS SHOW
TITI E:	

COVER

SHEET NUMBER:

G-1

JOB/FILE NUMBER:

COMMENTS:

487.001

GENERAL NOTES

- A. DESIGN DATA PROVIDED IN ELECTRONIC FORMAT IS FOR INFORMATION PURPOSES ONLY AND SHOULD BE USED AT YOUR OWN RISK, AND IS PROVIDED WITHOUT REPRESENTATIONS AND WARRANTIES. ANY CONFLICT BETWEEN THE INFORMATION REFLECTED ON THE LATEST REVISION OF THE SEALED PLAN SHEETS AND THAT PROVIDED VIA ELECTRONIC FORMAT SHALL BE RESOLVED IN FAVOR OF THE SEALED PLAN SHEETS.
- B. UTILITIES: THERE MAY BE ADDITIONAL EXISTING UTILITIES NOT SHOWN ON THESE PLANS. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR LOCATIONS SHOWN. FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. NOTIFY THE OWNER AND ENGINEER IF DISCREPANCIES ARE FOUND THAT WILL AFFECT THE CONSTRUCTION PROJECT, PROTECT ALL
- C. TEMPORARY PROVISIONS: SEQUENCE THE WORK AND PROVIDE TEMPORARY MEASURES AS NEEDED TO MAINTAIN ACCESS PER OWNER'S REQUIREMENTS (IF ANY) TO THE SITE THROUGH ALL ENTRANCES AT ALL TIMES DURING CONSTRUCTION. TEMPORARY PROVISIONS MAY INCLUDE, BUT ARE NOT LIMITED TO: BARRICADES, FLASHING LIGHTS, FLAGMAN, TEMPORARY PAVEMENT, AND
- D. EQUIPMENT STORAGE: DO NOT PARK EQUIPMENT OR STORE MATERIALS IN STATE, COUNTY, OR CITY RIGHT-OF-WAY
- NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS IN THE FIELD AND THE SURVEY SHOWN ON THE PLANS BEFORE PROCEEDING WITH ANY NEW
- F. OBTAIN ALL REQUIRED CONSTRUCTION RELATED PERMITS, INCLUDING DEMOLITION PERMIT, BEFORE STARTING WORK. RETAIN COPIES OF ALL PERMITS AT THE PROJECT SITE AT ALL TIMES.
- G. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. CONTACT THE APPROPRIATE REGULATORY AGENCY FOR
- APPROVAL OF ANY WETLAND AREA DISTURBANCE. H. SIGNS (LOCATION, NUMBER, AND SIZE) ARE NOT APPROVED UNDER THE GENERAL DEVELOPMENT
- PERMIT. A SEPARATE PERMIT IS REQUIRED FOR ONSITE SIGNAGE. NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL SITE IMPROVEMENTS HAVE BEEN
- COMPLETED ON THE SITE. J. COMPLY WITH ALL APPLICABLE STATE, FEDERAL, AND LOCAL BUILDING AND UTILITY INSTALLATION CODES. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS UNLESS DEPARTMENT OF TRANSPORTATION STANDARDS OR LOCAL MUNICIPAL STANDARDS ARE MORE STRINGENT.
- K. DO NOT DEVIATE FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD. WORK WITHIN D.O.T. RIGHT-OF-WAY
- 1. ALL PAVEMENT MARKINGS WITHIN D.O.T. RIGHT-OF-WAY SHALL BE THERMOPLASTIC AND IN ACCORDANCE WITH D.O.T. SPECIFICATIONS 2. RE-ESTABLISH ALL RIGHT-OF-WAY AREA, WHICH IS DAMAGED OR DISTURBED, TO ORIGINAL
- 3. ALL WORK IN D.O.T. RIGHT-OF-WAY SHALL COMPLY WITH D.O.T. SPECIFICATIONS. M. ARRANGE HIGH INTENSITY LIGHTING TO CONCEAL THE SOURCE OF LIGHT FROM PUBLIC VIEW AND
- PREVENT INTERFERENCE WITH TRAFFIC N. ENSURE CORRECT HORIZONTAL AND VERTICAL ALIGNMENT OF ALL TIES BETWEEN PROPOSED AND EXISTING PAVEMENTS, CURB AND GUTTER, SIDEWALKS, WALLS, AND UTILITIES BEFORE BEGINNING WORK. NOTIFY ENGINEER IF DISCREPANCIES EXIST.

- A. IF DRAWINGS DO NOT INDICATE SITE SPECIFIC TRAFFIC CONTROL MEASURES, CONTRACTOR
- SHALL BE RESPONSIBLE FOR PROVIDING A TEMPORARY TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. B. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE AND MARKINGS SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION IN ACCORDANCE WITH THE MUTCD,
- . CONTACT PROPERTY OWNERS TO BE AFFECTED BY CONSTRUCTION AND COORDINATE TEMPORARY DRIVEWAY CLOSURES AND SEQUENCING. MAINTAIN ACCESS FOR ALL PROPERTY
- . CONTROL DUST AS NECESSARY TO PREVENT INTERFERENCE WITH TRAFFIC.
- . INSPECT TRAFFIC CONTROL DEVICES ON A DAILY BASIS TO ENSURE PLACEMENT OF BARRICADES AND FUNCTION OF LIGHTS IS MAINTAINED THROUGHOUT CONSTRUCTION.
- COORDINATE ALL LANE CLOSURES WITH THE LOCAL JURISDICTION HAVING AUTHORITY.

STRUCTURE & SITE DEMOLITION

- A. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED BEFORE STARTING DEMOLITION
- B. VERIFY THAT HAZARDOUS MATERIALS HAVE BEEN REMEDIATED BEFORE PROCEEDING WITH BUILDING DEMOLITION OPERATIONS.
- C. ENVIRONMENTAL & GEOTECHNICAL: REVIEW ALL PROJECT ENVIRONMENTAL AND GEOTECHNICAL REPORTS AN BECOME FAMILIAR WITH ALL ISSUES BEFORE DEMOLITION.
- D. EXISTING UTILITIES: LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF INDICATED UTILITIES SERVING BUILDINGS AND STRUCTURES TO BE DEMOLISHED
- ARRANGE TO SHUT OFF INDICATED UTILITIES WITH UTILITY COMPANIES. DO NOT COMMENCE DEMOLITION OPERATIONS UNTIL TEMPORARY EROSION AND SEDIMENT CONTROL AND PLANT-PROTECTION MEASURES ARE IN PLACE.
- 3. OBTAIN THE DEMOLITION PERMIT FROM THE LOCAL AUTHORITY PRIOR TO STARTING 4. EXISTING FACILITIES: PROTECT ADJACENT WALKWAYS AND OTHER FACILITIES DURING
- DEMOLITION OPERATIONS. MAINTAIN EXITS FROM EXISTING BUILDINGS. PROMPTLY REPAIR ANY FACILITIES DAMAGED BY CONSTRUCTION OPERATIONS TO OWNER'S SATISFACTION AT NO ADDITIONAL COST TO THE OWNER. 5. EXISTING UTILITIES: MAINTAIN UTILITY SERVICES TO REMAIN AND PROTECT FROM DAMAGE
- DURING DEMOLITION OPERATIONS. 6. TEMPORARY PROTECTION: ERECT TEMPORARY PROTECTION, SUCH AS WALKS, FENCES, RAILINGS, CANOPIES, AND COVERED PASSAGEWAYS, WHERE REQUIRED BY AUTHORITIES
- HAVING JURISDICTION AND AS INDICATED. REMOVE TEMPORARY BARRIERS AND PROTECTIONS WHERE HAZARDS NO LONGER EXIST
- WHERE OPEN EXCAVATIONS OR OTHER HAZARDOUS CONDITIONS REMAIN, LEAVE TEMPORARY BARRIERS AND PROTECTIONS IN PLACE.
- 8. REMOVE DEMOLITION WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF
- THEM IN AN EPA-APPROVED LANDFILL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION DO NOT BURN DEMOLISHED MATERIALS UNLESS SPECIAL WRITTEN PERMISSION IS OBTAINED
- FROM OWNER AND ENGINEER. 10. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY
- BUILDING DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE BUILDING DEMOLITION OPERATIONS BEGAN

- TRAFFIC: MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING SITE-CLEARING OPERATIONS
- B. ENVIRONMENTAL & GEOTECHNICAL: REVIEW ALL PROJECT ENVIRONMENTAL AND GEOTECHNICAL REPORTS AND BECOME FAMILIAR WITH ALL ISSUES BEFORE SITE CLEARING.
- C. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE SITE CLEARING. D. DO NOT COMMENCE SITE CLEARING OPERATIONS UNTIL TEMPORARY EROSION- AND
- SEDIMENTATION-CONTROL AND PLANT-PROTECTION MEASURES ARE IN PLACE. TEMPORARY EROSION AND SEDIMENTATION CONTROL PROVIDE TEMPORARY EROSION- AND SEDIMENTATION-CONTROL MEASURES TO PREVENT SOIL

CONSTRUCTION ACTIVITY DO NOT ENTER OR CROSS PROTECTION ZONES.

- EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS, ACCORDING TO EROSION- AND SEDIMENTATION-CONTROL DRAWINGS AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. VERIFY THAT FLOWS OF WATER REDIRECTED FROM CONSTRUCTION AREAS OR GENERATED BY
- INSPECT, MAINTAIN, AND REPAIR EROSION- AND SEDIMENTATION-CONTROL MEASURES DURING CONSTRUCTION UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. REMOVE EROSION AND SEDIMENTATION CONTROLS WHEN SITE IS STABILIZED AND RESTORE AND
- STABILIZE AREAS DISTURBED DURING REMOVAL. REPAIR OR REPLACE TREES, SHRUBS, AND OTHER VEGETATION INDICATED TO REMAIN OR BE
- RELOCATED THAT ARE DAMAGED BY CONSTRUCTION OPERATIONS, IN A MANNER APPROVED BY 4.) EXISTING UTILITIES
- LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP UTILITIES INDICATED TO BE REMOVED OR ABANDONED IN PLACE, ARRANGE WITH UTILITY COMPANIES TO SHUT OFF INDICATED UTILITIES. B. INTERRUPTING EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED
- BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY UTILITY SERVICES ACCORDING TO REQUIREMENTS
- 1. NOTIFY UTILITY OWNER NOT LESS THAN TWO DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS DO NOT PROCEED WITH UTILITY INTERRUPTIONS WITHOUT UTILITY OWNER'S WRITTEN PERMISSION.
- C. POTHOLE EXISTING WATER LINES, UNDERGROUND ELECTRICAL LINES, GAS LINES, UNDERGROUND TELEPHONE LINES, FIBER OPTIC, AND ANY OTHER EXISTING UTILITY LINES WITHIN THE PROJECT LIMITS DURING SITE CLEARING AND DEMOLITION ACTIVITIES. SURVEY THE EXISTING UTILITY ELEVATIONS AND PROVIDE THE SURVEYED FIELD LOCATIONS AND DEPTHS TO THE ENGINEER FOR REVIEW. THESE EXISTING UTILITIES MAY REQUIRE RELOCATION.
- CLEARING AND GRUBBING . REMOVE OBSTRUCTIONS, CONCRETE, ASPHALT, TREES, SHRUBS, AND OTHER VEGETATION TO PERMIT INSTALLATION OF NEW CONSTRUCTION.
- 1. DO NOT REMOVE TREES, SHRUBS, AND OTHER VEGETATION INDICATED TO REMAIN OR TO BE
- 2. GRIND DOWN STUMPS AND REMOVE ROOTS, OBSTRUCTIONS, AND DEBRIS TO A DEPTH OF 12 INCHES BELOW EXPOSED SUBGRADE.
- 3. USE ONLY HAND METHODS FOR GRUBBING WITHIN PROTECTION ZONES. 4. THE SUBGRADE TO REMAIN SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY FOLLOWING CLEARING AND GRUBBING ACTIVITIES.
- REMOVE SOD AND GRASS BEFORE STRIPPING TOPSOIL.
- B. STRIP TOPSOIL IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS.
- STOCKPILE TOPSOIL AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL. GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN
- DUST AND FROSION BY WATER. . DISPOSE OF SURPLUS TOPSOIL. SURPLUS TOPSOIL IS THAT WHICH EXCEEDS QUANTITY
- INDICATED TO BE STOCKPILED OR REUSED.

SITE WATER DISTRIBUTION

- A. REGULATORY REQUIREMENTS 1. COMPLY WITH REQUIREMENTS OF UTILITY COMPANY SUPPLYING WATER. INCLUDE TAPPING
- OF WATER MAINS AND BACKFLOW PREVENTION. 2. COMPLY WITH STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR
- POTABLE-WATER-SERVICE PIPING, INCLUDING MATERIALS, INSTALLATION, TESTING, AND
- B. PIPING MATERIALS SHALL BEAR LABEL, STAMP, OR OTHER MARKINGS OF SPECIFIED TESTING
- C. INTERRUPTION OF EXISTING WATER-DISTRIBUTION SERVICE: NOTIFY OWNER AT LEAST 2 DAYS PRIOR TO INTERRUPTION OF EXISTING WATER SERVICES. D. COORDINATE WITH UTILITY COMPANY FOR REQUIRED INSPECTIONS AND FOR CONNECTION OF
- WATER MAIN AND SERVICES BEFORE STARTING CONSTRUCTION. PROVIDE SUBMITTALS TO ENGINEER FOR ALL MATERIALS PROPOSED FOR INSTALLATION. ALLOW 2 WEEKS FOR REVIEW AND APPROVAL.
- COPPER TUBE AND FITTINGS . SOFT COPPER TUBE: ASTM B 88, TYPE K , WATER TUBE, ANNEALED TEMPER.
- B COPPER PRESSURE-SEAL FITTINGS: 1. NPS 2 AND SMALLER: WROUGHT-COPPER FITTING WITH EPDM O-RING SEAL IN EACH END. 2. NPS 2-1/2 TO NPS 4: BRONZE FITTING WITH STAINLESS-STEEL GRIP RING AND EPDM O-RING SEAL IN EACH END.
- C. BRONZE FLANGES: ASME B16.24, CLASS 150, WITH SOLDER-JOINT END. FURNISH CLASS 300 FLANGES IF REQUIRED TO MATCH PIPING D. COPPER UNIONS: MSS SP-123, CAST-COPPER-ALLOY, HEXAGONAL-STOCK BODY WITH
- BALL-AND-SOCKET, METAL-TO-METAL SEATING SURFACES, AND SOLDER-JOINT OR THREADED
- 3.) DUCTILE-IRON PIPE AND FITTINGS MECHANICAL-JOINT, DUCTILE-IRON PIPE: AWWA C151, WITH MECHANICAL-JOINT BELL AND PLAIN SPIGOT END UNLESS GROOVED OR FLANGED ENDS ARE INDICATED
- 1. MECHANICAL-JOINT, DUCTILE-IRON FITTINGS: AWWA C110, DUCTILE- OR GRAY-IRON STANDARD PATTERN OR AWWA C153, DUCTILE-IRON COMPACT PATTERN. 2. GLANDS, GASKETS, AND BOLTS: AWWA C111, DUCTILE- OR GRAY-IRON GLANDS, RUBBER
- GASKETS, AND STEEL BOLTS. B. PUSH-ON-JOINT, DUCTILE-IRON PIPE: AWWA C151, WITH PUSH-ON-JOINT BELL AND PLAIN SPIGOT END UNLESS GROOVED OR FLANGED ENDS ARE INDICATED.
- FLANGES: ASME 16.1, CLASS 125, CAST IRON. I.) PVC PIPE AND FITTINGS PVC, SCHEDULE 40 PIPE: ASTM D 1785. PVC, SCHEDULE 40 SOCKET FITTINGS: ASTM D 2466. PVC. AWWA PIPE: AWWA C900. CLASS 200. WITH BELL END WITH GASKET, AND WITH SPIGOT END.
- MECHANICAL-JOINT, DUCTILE-IRON FITTINGS: AWWA C110, DUCTILE- OR GRAY-IRON STANDARD PATTERN OR AWWA C153, DUCTILE-IRON COMPACT PATTERN. AWWA, CAST-IRON GATE VALVES: NONRISING-STEM, RESILIENT-SEATED GATE VALVES: GRAY- OR DUCTILE-IRON BODY AND BONNET; WITH BRONZE OR GRAY- OR DUCTILE-IRON GATE, RESILIENT
- SEATS, BRONZE STEM, AND STEM NUT. STANDARD: AWWA C509
- MINIMUM PRESSURE RATING: 250 PSIG. END CONNECTIONS: MECHANICAL JOINT.
- INTERIOR COATING: COMPLYING WITH AWWA C550.
- GATE VALVE ACCESSORIES AND SPECIALTIES TAPPING-SLEEVE ASSEMBLIES: SLEEVE AND VALVE COMPATIBLE WITH DRILLING MACHINE. STANDARD: MSS SP-60.
- 2. TAPPING SLEEVE: CAST- OR DUCTILE-IRON OR STAINLESS-STEEL, TWO-PIECE BOLTED SLEEVE WITH FLANGED OUTLET FOR NEW BRANCH CONNECTION. INCLUDE SLEEVE
- MATCHING SIZE AND TYPE OF PIPE MATERIAL BEING TAPPED AND WITH RECESSED FLANGE FOR BRANCH VALVE. 3. VALVE: AWWA, CAST-IRON, NONRISING-STEM, RESILIENT-SEATED GATE VALVE WITH ONE RAISED FACE FLANGE MATING TAPPING-SLEEVE FLANGE
- B. VALVE BOXES: COMPLY WITH AWWA M44 FOR CAST-IRON VALVE BOXES. INCLUDE TOP SECTION, ADJUSTABLE EXTENSION OF LENGTH REQUIRED FOR DEPTH OF BURIAL OF VALVE, PLUG WITH LETTERING "WATER," AND BOTTOM SECTION WITH BASE THAT FITS OVER VALVE AND WITH A BARREL APPROXIMATELY 5 INCHES IN DIAMETER.
- '.) FIELD QUALITY CONTROL PIPING TESTS: CONDUCT PIPING TESTS BEFORE JOINTS ARE COVERED AND AFTER CONCRETE THRUST BLOCKS HAVE HARDENED SUFFICIENTLY. FILL PIPELINE 24 HOURS BEFORE TESTING AND APPLY TEST PRESSURE TO STABILIZE SYSTEM. USE ONLY POTABLE WATER. B. HYDROSTATIC TESTS: TEST AT NOT LESS THAN ONE-AND-ONE-HALF TIMES WORKING PRESSURE FOR TWO HOURS. INCREASE PRESSURE IN 50-PSIG INCREMENTS AND INSPECT EACH JOINT

BETWEEN INCREMENTS. HOLD AT TEST PRESSURE FOR 1 HOUR; DECREASE TO 0 PSIG. SLOWLY

- INCREASE AGAIN TO TEST PRESSURE AND HOLD FOR 1 MORE HOUR. MAXIMUM ALLOWABLE LEAKAGE IS 2 QUARTS PER HOUR PER 100 JOINTS. REMAKE LEAKING JOINTS WITH NEW MATERIALS AND REPEAT TEST UNTIL LEAKAGE IS WITHIN ALLOWED LIMITS. DISINFECTION: CLEAN AND DISINFECT POTABLE WATER MAINS AS DIRECTED BY THE LOCAL
- AUTHORITY, OR, IF METHOD IS NOT PRESCRIBED BY THE LOCAL AUTHORITY, USE PROCEDURE **DESCRIBED IN AWWA C651** PREPARE REPORTS OF TESTING ACTIVITIES AND SUBMIT TO THE ENGINEER FOR APPROVAL.
- . INSTALL CONTINUOUS UNDERGROUND DETECTABLE WARNING TAPE DURING BACKFILLING OF

SITE SANITARY SEWERS

DIRECTLY OVER PIPING.

- INTERRUPTION OF EXISTING SANITARY SEWERAGE SERVICE: COORDINATE AS REQUIRED WITH
- THE LOCAL SANITARY SEWER AUTHORITY BEFORE STARTING CONSTRUCTION. B. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE BEGINNING SANITARY SEWER INSTALLATION OPERATIONS, FIELD VERIFY ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS BY POT-HOLING THE LINES. SURVEY EXISTING UTILITIES AND PROVIDE HORIZONTAL AND VERTICAL LOCATION INFORMATION TO THE ENGINEER
- TO DETERMINE OF ANY UTILITIES WILL CONFLICT WITH THE PROPOSED DESIGN. PROVIDE SUBMITTALS TO ENGINEER FOR ALL MATERIALS PROPOSED FOR INSTALLATION. ALLOW 2 WEEKS FOR REVIEW AND APPROVAL.
- DUCTILE-IRON, GRAVITY SEWER PIPE AND FITTINGS PIPE: ASTM A 746 FOR PUSH-ON JOINTS
- COMPACT FITTINGS: AWWA C153, DUCTILE IRON, FOR PUSH-ON JOINTS. G. GASKETS: AWWA C111, RUBBER.
- PVC PIPE AND FITTINGS

. CAST-IRON CLEANOUTS:

- PVC GRAVITY SEWER PIPING: ASTM F 679, T-1 WALL THICKNESS, PVC GRAVITY SEWER PIPE WITH BELL-AND-SPIGOT ENDS AND WITH INTEGRAL ASTM F 477, ELASTOMERIC SEALS FOR GASKETED 4.) CLEANOUTS
- DESCRIPTION: ASME A112.36.2M, ROUND, GRAY-IRON HOUSING WITH CLAMPING DEVICE AND ROUND, SECURED, SCORIATED, GRAY-IRON COVER. INCLUDE GRAY-IRON FERRULE WITH INSIDE CALK OR SPIGOT CONNECTION AND COUNTERSUNK, TAPERED-THREAD, BRASS
- 2. TOP-LOADING CLASSIFICATION: TRAFFIC RATED, HEAVY DUTY, IN ALL PAVED AREAS AND AREAS SUBJECT TO VEHICULAR TRAFFIC.
- 3. SEWER PIPE FITTING AND RISER TO CLEANOUT: ASTM A 74, SERVICE CLASS, CAST-IRON SOIL PVC CLEANOUTS: PVC BODY WITH PVC THREADED PLUG. INCLUDE PVC SEWER PIPE FITTING AND RISER TO CLEANOUT OF SAME MATERIAL AS SEWER PIPING. USE IN LIGHT DUTY APPLICATIONS
- WHERE THERE IS PEDESTRIAN TRAFFIC ONLY OR IN LANDSCAPED AREAS. STANDARD PRECAST CONCRETE MANHOLES:
- 1. DESCRIPTION: ASTM C 478, PRECAST, REINFORCED CONCRETE, OF DEPTH INDICATED, WITH PROVISION FOR SEALANT JOINTS.
- 2. DIAMETER: 48 INCHES MINIMUM UNLESS OTHERWISE INDICATED. BALLAST: INCREASE THICKNESS OF PRECAST CONCRETE SECTIONS OR ADD CONCRETE TO
- BASE SECTION, AS REQUIRED TO PREVENT FLOTATION. 4. BASE SECTION: 6-INCH MINIMUM THICKNESS FOR FLOOR SLAB AND 4-INCH MINIMUM
- THICKNESS FOR WALLS AND BASE RISER SECTION; WITH SEPARATE BASE SLAB OR BASE 5. RISER SECTIONS: 4-INCH MINIMUM THICKNESS, OF LENGTH TO PROVIDE DEPTH INDICATED

- 6. TOP SECTION: ECCENTRIC-CONE TYPE UNLESS CONCENTRIC-CONE OR FLAT-SLAB-TOP TYPE IS INDICATED; WITH TOP OF CONE OF SIZE THAT MATCHES GRADE RINGS.
- . JOINT SEALANT: ASTM C 990 , BITUMEN OR BUTYL RUBBER. 8. RESILIENT PIPE CONNECTORS: ASTM C 923, CAST OR FITTED INTO MANHOLE WALLS, FOR
- 9. STEPS: INDIVIDUAL FRP STEPS OR FRP LADDER; WIDE ENOUGH TO ALLOW WORKER TO PLACE BOTH FEET ON ONE STEP AND DESIGNED TO PREVENT LATERAL SLIPPAGE OFF STEP. CAST OR ANCHOR STEPS INTO SIDEWALLS AT 12- TO 16-INCH INTERVALS. OMIT STEPS IF TOTAL DEPTH FROM FLOOR OF MANHOLE TO FINISHED GRADE IS LESS THAN 48 INCHES
- 10. ADJUSTING RINGS: INTERLOCKING HDPE RINGS, WITH LEVEL OR SLOPED EDGE IN THICKNESS AND DIAMETER MATCHING MANHOLE FRAME AND COVER, AND WITH HEIGHT AS REQUIRED TO ADJUST MANHOLE FRAME AND COVER TO INDICATED ELEVATION AND SLOPE. INCLUDE
- SEALANT RECOMMENDED BY RING MANUFACTURER 11. GRADE RINGS: REINFORCED-CONCRETE RINGS, 6- TO 9-INCH TOTAL THICKNESS, WITH DIAMETER MATCHING MANHOLE FRAME AND COVER, AND WITH HEIGHT AS REQUIRED TO ADJUST MANHOLE FRAME AND COVER TO INDICATED ELEVATION AND SLOPE.
- B. MANHOLE FRAMES AND COVERS: 1. DESCRIPTION: FERROUS; 24-INCH ID BY 7- TO 9-INCH RISER, WITH 4-INCH- MINIMUM-WIDTH FLANGE AND 26-INCH- DIAMETER COVER. INCLUDE INDENTED TOP DESIGN WITH LETTERING CAST INTO COVER. USING WORDING EQUIVALENT TO "SANITARY SEWER."
- MATERIAL: ASTM A 536, GRADE 60-40-18 DUCTILE IRON UNLESS OTHERWISE INDICATED. ARRANGE FOR INSTALLATION OF GREEN WARNING TAPES DIRECTLY OVER PIPING AND AT
- OUTSIDE EDGES OF UNDERGROUND MANHOLES. 1. USE WARNING TAPE OR DETECTABLE WARNING TAPE OVER FERROUS PIPING. 2. USE DETECTABLE WARNING TAPE OVER NONFERROUS PIPING AND OVER EDGES OF UNDERGROUND MANHOLES.
- INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. INSPECT AFTER APPROXIMATELY 24 INCHES OF BACKFILL IS IN PLACE, AND
- 1. DEFECTS REQUIRING CORRECTION INCLUDE THE FOLLOWING:
- a. ALIGNMENT: LESS THAN FULL DIAMETER OF INSIDE OF PIPE IS VISIBLE BETWEEN
- b. DEFLECTION: FLEXIBLE PIPING WITH DEFLECTION THAT PREVENTS PASSAGE OF BALL OR CYLINDER OF SIZE NOT LESS THAN 92.5 PERCENT OF PIPING DIAMETER.
- c. DAMAGE: CRUSHED, BROKEN, CRACKED, OR OTHERWISE DAMAGED PIPING. d. INFILTRATION: WATER LEAKAGE INTO PIPING. e. EXFILTRATION: WATER LEAKAGE FROM OR AROUND PIPING
- 2. REPLACE DEFECTIVE PIPING USING NEW MATERIALS, AND REPEAT INSPECTIONS UNTIL DEFECTS ARE WITHIN ALLOWANCES SPECIFIED . REINSPECT AND REPEAT PROCEDURE UNTIL RESULTS ARE SATISFACTORY.
- B. TEST NEW PIPING SYSTEMS, AND PARTS OF EXISTING SYSTEMS THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED, FOR LEAKS AND DEFECTS.
- DO NOT ENCLOSE, COVER, OR PUT INTO SERVICE BEFORE INSPECTION AND APPROVAL. 2. TEST COMPLETED PIPING SYSTEMS ACCORDING TO REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION
- 3. SCHEDULE TESTS AND INSPECTIONS BY AUTHORITIES HAVING JURISDICTION WITH AT LEAST 24 HOURS ADVANCE NOTICE. 4. SUBMIT A SEPARATE REPORT FOR EACH TEST TO THE ENGINEER FOR APPROVAL 5. AIR TESTS: TEST SANITARY SEWERAGE ACCORDING TO REQUIREMENTS OF AUTHORITIES
- HAVING JURISDICTION, UNI-B-6, AND THE FOLLOWING a. TEST PLASTIC GRAVITY SEWER PIPING ACCORDING TO ASTM F 1417. MANHOLES: PERFORM HYDRAULIC TEST ACCORDING TO ASTM C 969.
- C. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED. D. REPLACE LEAKING PIPING USING NEW MATERIALS, AND REPEAT TESTING UNTIL LEAKAGE IS WITHIN ALLOWANCES SPECIFIED.

SITE STORM UTILITY DRAINAGE PIPING

PROVIDE SUBMITTALS TO ENGINEER FOR ALL MATERIALS PROPOSED FOR INSTALLATION. ALLOW 2 WEEKS FOR REVIEW AND APPROVAL

- A. ALL STORMWATER PIPE, INLETS, HEADWALLS, AND RELATED APPURTENANCES SHALL MEET LOCAL D.O.T. STANDARDS.
- B. ALL STORMWATER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURERS INSTRUCTIONS.
- CORRUGATED-STEEL PIPE AND FITTINGS: ASTM A 760/A 760M, TYPE I WITH FITTINGS OF SIMILAR FORM AND CONSTRUCTION AS PIPE. 1. STANDARD-JOINT BANDS: CORRUGATED STEEL. 2. COATING: ALUMINUM OR BITUMINOUS
- . CORRUGATED PE DRAINAGE PIPE AND FITTINGS NPS 3 TO NPS 10 : AASHTO M 252M; NPS 12 TO NPS 48: AASHTO M 294M TYPE S. WITH SMOOTH WATERWAY FOR COUPLING JOINTS. B. SILTTIGHT COUPLINGS: PE SLEEVE WITH ASTM D 1056, TYPE 2, CLASS A, GRADE 2 GASKET MATERIAL THAT MATES WITH TUBE AND FITTINGS. A. CORRUGATED PVC DRAINAGE PIPE AND FITTINGS NPS 4 TO NPS 36: SMOOTH INTERIOR, ASTM F949, 46 PSI STIFFNESS WHEN TESTED IN ACCORDANCE WITH A

MINIMUM CELL CLASSIFICATION OF 12454 AS DEFINED IN ASTM D1784. FITTINGS: SMOOTH

INTERIOR, ASTM F949, SECTION 5.2.3 OR F794, SECTION 7.2.4. JOINTS SHALL BE MADE WITH

- INTEGRALLY-FORMED BELL AND SPIGOT GASKETED CONNECTIONS. MANUFACTURER SHALL PROVIDE DOCUMENTATION SHOWING NO LEAKAGE WHEN GASKETED PIPE JOINTS ARE TESTED IN ACCORDANCE WITH ASTM D3212. ELASTOMERIC SEALS (GASKETS) SHALL MEET ASTM F477.
- CONCRETE PIPE AND FITTINGS REINFORCED-CONCRETE SEWER PIPE AND FITTINGS: ASTM C 76 . BELL-AND-SPIGOT OR TONGUE-AND-GROOVE ENDS AND GASKETED JOINTS WITH ASTM C 443 . RUBBER GASKETS OR SEALANT JOINTS WITH ASTM C 990 BITUMEN OR BUTYL-RUBBER SEALANT CLASS III WALL B B. CAST-IRON AREA DRAINS: ASME A112.6.3 GRAY-IRON ROUND BODY WITH ANCHOR FLANGE AND
- ROUND GRATE. INCLUDE BOTTOM OUTLET WITH INSIDE CALK OR SPIGOT CONNECTION, OF SIZES INDICATED. MANHOLES

PROVISION FOR SEALANT JOINTS.

- STANDARD PRECAST CONCRETE MANHOLES: DESCRIPTION: ASTM C 478, PRECAST, REINFORCED CONCRETE, OF DEPTH INDICATED, WITH
- DIAMETER: 48 INCHES MINIMUM UNLESS OTHERWISE INDICATED. BALLAST: INCREASE THICKNESS OF PRECAST CONCRETE SECTIONS OR ADD CONCRETE TO BASE SECTION AS REQUIRED TO PREVENT FLOTATION.

- 4. BASE SECTION: 6-INCH MINIMUM THICKNESS FOR FLOOR SLAB AND 4-INCH MINIMUM THICKNESS FOR WALLS AND BASE RISER SECTION, AND SEPARATE BASE SLAB OR BASE
- SECTION WITH INTEGRAL FLOOR. RISER SECTIONS: 4-INCH MINIMUM THICKNESS, AND LENGTHS TO PROVIDE DEPTH INDICATE 6. TOP SECTION: ECCENTRIC-CONE TYPE UNLESS CONCENTRIC-CONE OR FLAT-SLAB-TOP TYI IS INDICATED, AND TOP OF CONE OF SIZE THAT MATCHES GRADE RINGS.
- JOINT SEALANT: ASTM C 990 . BITUMEN OR BUTYL RUBBER. 8. STEPS: INDIVIDUAL FRP STEPS OR FRP LADDER, WIDE ENOUGH TO ALLOW WORKER TO PLACE BOTH FEET ON ONE STEP AND DESIGNED TO PREVENT LATERAL SLIPPAGE OFF STEP. CAST OR ANCHOR STEPS INTO SIDEWALLS AT 12- TO 16-INCH INTERVALS. OMIT STEPS IF TOTAL DEPTH FROM FLOOR OF MANHOLE TO FINISHED GRADE IS LESS THAN 48 INCHES.
- B. MANHOLE FRAMES AND COVERS: DESCRIPTION: FERROUS; 24-INCH ID BY 7- TO 9-INCH RISER WITH 4-INCH- MINIMUM WIDTH FLANGE AND 26-INCH- DIAMETER COVER. INCLUDE INDENTED TOP DESIGN WITH LETTERING CAST INTO COVER, USING WORDING EQUIVALENT TO "STORM SEWER." 2. MATERIAL: ASTM A 536, GRADE 60-40-18 DUCTILE IRON UNLESS OTHERWISE INDICATED.
- **INLET & JUNCTION BOXES** STANDARD PRECAST CONCRETE: 1. DESCRIPTION: ASTM C 478, PRECAST, REINFORCED CONCRETE, OF DEPTH INDICATED, WITH
- PROVISION FOR SEALANT JOINTS. BASE SECTION: 6-INCH MINIMUM THICKNESS FOR FLOOR SLAB AND 4-INCH MINIMUM THICKNESS FOR WALLS AND BASE RISER SECTION, AND SEPARATE BASE SLAB OR BASE
- SECTION WITH INTEGRAL FLOOR. 3. RISER SECTIONS: 4-INCH MINIMUM THICKNESS, 48-INCH DIAMETER, AND LENGTHS TO PROVIDE DEPTH INDICATED.
- 4. TOP SECTION: ECCENTRIC-CONE TYPE UNLESS CONCENTRIC-CONE OR FLAT-SLAB-TOP TY IS INDICATED. TOP OF CONE OF SIZE THAT MATCHES GRADE RINGS. 5. JOINT SEALANT: ASTM C 990 . BITUMEN OR BUTYL RUBBER. 6. STEPS: INDIVIDUAL FRP STEPS OR FRP LADDER, WIDE ENOUGH TO ALLOW WORKER TO PLAC
- BOTH FEET ON ONE STEP AND DESIGNED TO PREVENT LATERAL SLIPPAGE OFF STEP. CAST OR ANCHOR STEPS INTO SIDEWALLS AT 12- TO 16-INCH INTERVALS. OMIT STEPS IF TOTAL DEPTH FROM FLOOR OF CATCH BASIN TO FINISHED GRADE IS LESS THAN 48 INCHES. 7. PIPE CONNECTORS: ASTM C 923 , RESILIENT, OF SIZE REQUIRED, FOR EACH PIPE

CONNECTING TO BASE SECTION.

- PRE-CAST HEAD WALLS: PRE-CAST REINFORCED CONCRETE, WITH APRON AND TAPERED SIDES SLOPE PAVED HEAD WALLS: CAST-IN-PLACE REINFORCED CONCRETE AS SHOWN ON DRAWINGS RIPRAP BASINS: BROKEN, IRREGULARLY SIZED AND SHAPED, GRADED STONE ACCORDING TO NSSGA'S "QUARRIED STONE FOR EROSION AND SEDIMENT CONTROL." MINIMUM STONE SIZE AND DIMENSIONS AS SHOWN ON DRAWINGS.
- PIPING INSTALLATION INSTALL LOCATOR WIRE OR TAPE 6-INCHES ABOVE ALL NON-METALLIC PIPING. INSTALL BEDDING AND BACKFILL IN ACCORDANCE WITH PIPE MANUFACTURERS INSTRUCTIONS.

BEGIN INSTALLATION AT DOWNSTREAM PIPING CONNECTION TO OUTFALL POINT.

CONSTRUCT ALL HEADWALLS FLUSH WITH EXISTING AND PROPOSED EMBANKMENT SLOPES. CLEAN INTERIOR OF PIPING OF DIRT AND SUPERFLUOUS MATERIALS.

ENGINEER:

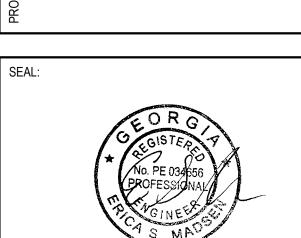


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DEVELOPER:

0 TION RUN



REVISIONS ⚠ ADDENDUM #1 11/20/2013

PROJECT MANAGER: DRAWING BY: JURISDICTION: DUNWOODY, GA DATE: 10 AUGUST 2013 SCALE: AS SHOWN

GENERAL NOTES

SHEET NUMBER:

COMMENTS:

TITLE:

JOB/FILE NUMBER:

EARTH MOVING

- A. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE BEGINNING EARTH MOVING OPERATIONS. B. DO NOT COMMENCE EARTH MOVING OPERATIONS UNTIL TEMPORARY EROSION- AND
- SEDIMENTATION-CONTROL MEASURES, ARE IN PLACE.
- C. DO NOT COMMENCE EARTH MOVING OPERATIONS UNTIL PLANT-PROTECTION MEASURES ARE IN
- D. DO NOT COMMENCE EARTH MOVING OPERATIONS WITHOUT REVIEWING AND MAKING PROVISIONS FOR ALL GEOTECHNICAL RECOMMENDATIONS MADE IN THE PROJECT GEOTECHNICAL REPORT. COMPLY WITH RECOMMENDATIONS IN THE GEOTECHNICAL REPORT REGARDING GENERAL SITE PREPARATION, BUILDING PAD PREPARATION, PAVEMENT SECTIONS, FILL, AND EXCAVATION. E. RETAIN A COPY OF THE PROJECT GEOTECHNICAL REPORT AT THE WORK SITE AT ALL TIMES. ANY
- DISCREPANCIES BETWEEN THESE SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT SHALL BE RESOLVED IN FAVOR OF THE PROJECT GEOTECHNICAL REPORT F. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER
- HAZARDS CREATED BY EARTH MOVING OPERATIONS. G. PROTECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS DURING EARTH MOVING OPERATIONS.
- PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.
- B. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT, AND DAMAGE BY RAIN OR WATER ACCUMULATION. C. DESIGN AND PROVIDE DEWATERING SYSTEM USING ACCEPTED AND PROFESSIONAL METHODS
- CONSISTENT WITH CURRENT INDUSTRY PRACTICE. PROVIDE DEWATERING SYSTEM OF SUFFICIENT SIZE AND CAPACITY TO CONTROL GROUNDWATER IN A MANNER THAT PRESERVES STRENGTH OF FOUNDATION SOILS, DOES NOT CAUSE INSTABILITY OR RAVELING OF EXCAVATION SLOPES, AND DOES NOT RESULT IN DAMAGE TO EXISTING STRUCTURES. LOWER WATER LEVEL IN ADVANCE OF EXCAVATION BY UTILIZING WELLS, WELLPOINTS, OR SIMILAR POSITIVE CONTROL METHODS MAINTAIN THE GROUNDWATER LEVEL TO A MINIMUM OF TWO (2) FEET BELOW EXCAVATIONS. PROVIDE PIEZOMETERS AS DIRECTED BY THE ENGINEER TO DOCUMENT THAT THE GROUNDWATER LEVEL IS BEING MAINTAINED
- D. BY ACCEPTABLE MEANS, CONTRACTOR SHALL CONTROL ALL WATER REGARDLESS OF SOURCE AND IS RESPONSIBLE FOR PROPER DISPOSAL OF THE WATER. NO ADDITIONAL PAYMENT WILL BE MADE FOR ANY SUPPLEMENTAL MEASURES TO CONTROL SEEPAGE, GROUNDWATER, OR
- E. OPEN PUMPING WITH SUMPS AND DITCHES SHALL BE ALLOWED, PROVIDED IT DOES NOT RESULT IN BOILS, LOSS OF FINES, SOFTENING OF THE GROUND, OR INSTABILITY OF SLOPES, SUMPS SHALL BE LOCATED OUTSIDE OF LOAD BEARING AREAS SO THE BEARING SURFACES WILL NOT BE DISTURBED. WATER CONTAINING SILT IN SUSPENSION SHALL NOT BE PUMPED INTO SEWER LINES OR ADJACENT WATER BODIES. DURING NORMAL PUMPING AND UPON DEVELOPMENT OF WELL(S), LEVELS OF FINE SAND OR SILT IN THE DISCHARGE OF WATER SHALL NOT EXCEED FIVE (5) PPM.
- CONTINUOUSLY MAINTAIN EXCAVATIONS IN A DRY CONDITION WITH POSITIVE DEWATERING METHODS DURING PREPARATION OF SUBGRADE, INSTALLATION OF PIPE, AND CONSTRUCTION OF STRUCTURES UNTIL THE CRITICAL PERIOD OF CONSTRUCTION AND/OR BACKFILL IS COMPLETED TO PREVENT DAMAGE OF SUBGRADE SUPPORT, PIPING, STRUCTURE, SIDE SLOPES, OR ADJACENT
- FACILITIES FOR FLOTATION OR OTHER HYDROSTATIC PRESSURE IMBALANCE. G. WHEN CONSTRUCTION IS COMPLETE, PROPERLY REMOVE ALL DEWATERING EQUIPMENT FROM THE SITE, INCLUDING WELLS AND RELATED TEMPORARY ELECTRICAL SERVICE.
- NOTIFY PROJECT GEOTECHNICAL ENGINEER WHEN EXCAVATIONS HAVE REACHED REQUIRED
- B. IF PROJECT GEOTECHNICAL ENGINEER DETERMINES THAT UNSATISFACTORY SOIL IS PRESENT, CONTINUE EXCAVATION AND REPLACE WITH COMPACTED BACKFILL OR FILL MATERIAL AS
- C. PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS AND PAVEMENTS WITH A PNEUMATIC-TIRED AND LOADED 10-WHEEL, TANDEM-AXLE DUMP TRUCK WEIGHING NOT LESS THAN 15 TONS TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. DO NOT PROOF-ROLL WET OR SATURATED SUBGRADES. EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS, AND AREAS OF EXCESSIVE PUMPING OR RUTTING, AS DETERMINED BY PROJECT GEOTECHNICAL ENGINEER, AND
- REPLACE WITH COMPACTED BACKFILL OR FILL AS DIRECTED.). IN HEAVY DUTY PAVEMENT AREAS, THE GRAVEL AGGREGATE BASE SHALL BE EXTENDED UNDER THE CURB AND GUTTER SECTION TO PROVIDE ADDITIONAL STABILITY FOR TRUCK TRAVEL.
- UTILITY TRENCH BEDDING AND BACKFIL M. PLACE AND COMPACT BEDDING COURSE ON TRENCH BOTTOMS AND WHERE INDICATED. SHAPE BEDDING COURSE TO PROVIDE CONTINUOUS SUPPORT FOR BELLS, JOINTS, AND BARRELS OF PIPES AND FOR JOINTS, FITTINGS, AND BODIES OF CONDUITS.
- B. USE CLASS B BEDDING UNDER ALL PVC PIPING CAREFULLY COMPACT INITIAL BACKFILL UNDER PIPE HAUNCHES AND COMPACT EVENLY UP ON BOTH SIDES AND ALONG THE FULL LENGTH OF PIPING OR CONDUIT TO AVOID DAMAGE OR
- DISPLACEMENT OF PIPING OR CONDUIT. D. BACKFILL ALL UTILITIES UNDER ROADWAYS AND TRAFFIC AREAS WITH CRUSHED STONE. COMPACTION OF SOIL BACKFILLS AND FILLS
- PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
- B. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL MATERIALS AS INDICATED ON DRAWINGS OR AS INDICATED IN THE PROJECT GEOTECHNICAL
- C. PROVIDE CONSTRUCTION PHASE MONITORING AND TESTING AS RECOMMENDED IN THE PROJECT GEOTECHNICAL REPORT. PROVIDE TEST REPORTS TO THE ENGINEER FOR REVIEW AND
- GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED . PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
- 2. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES B. LANDSCAPE ISLANDS: FILL ALL CURBED ISLANDS TO TOP OF CURB WITH TOPSOIL AND APPLY
- SEED AND MULCH UNLESS DRAWINGS INDICATE OTHERWISE. SLOPES: DO NOT CREATE CUT OR FILL SLOPES STEEPER THAN 2H:1V WITHOUT OBTAINING SPECIAL WRITTEN PERMISSION FROM THE ENGINEER OF RECORD AND PROJECT GEOTECHNICAL ENGINEER.
- PROTECTING GRADED AREAS: PROTECT NEWLY GRADED AREAS FROM TRAFFIC, FREEZING, AND EROSION. KEEP FREE OF TRASH AND DEBRIS. SEE EROSION AND SEDIMENT CONTROL PLAN AND NOTES FOR FURTHER INFORMATION.

CONCRETE PAVING

CEMENT.

- A. TRAFFIC CONTROL: MAINTAIN ACCESS FOR VEHICULAR AND PEDESTRIAN TRAFFIC AS REQUIRED FOR OTHER CONSTRUCTION ACTIVITIES.
- STEEL REINFORCEMENT PLAIN-STEEL WELDED WIRE REINFORCEMENT: ASTM A 185/A 185M, FABRICATED FROM AS-DRAWN
- STEEL WIRE INTO FLAT SHEETS. B. REINFORCING BARS: ASTM A 615/A 615M, GRADE 60; DEFORMED.

C. JOINT DOWEL BARS: ASTM A 615/A 615M, GRADE 60 PLAIN-STEEL BARS. CUT BARS TRUE TO

- LENGTH WITH ENDS SQUARE AND FREE OF BURRS D. BAR SUPPORTS: BOLSTERS, CHAIRS, SPACERS, AND OTHER DEVICES FOR SPACING, SUPPORTING, AND FASTENING REINFORCING BARS, WELDED WIRE REINFORCEMENT, AND DOWELS IN PLACE. MANUFACTURE BAR SUPPORTS ACCORDING TO CRSI'S "MANUAL OF STANDARD PRACTICE" FROM STEEL WIRE, PLASTIC, OR PRECAST CONCRETE OF GREATER COMPRESSIVE STRENGTH THAN CONCRETE SPECIFIED, AND AS FOLLOWS:
- CEMENTITIOUS MATERIAL: USE CEMENTITIOUS MATERIALS, OF SAME TYPE, BRAND, AND SOURCE THROUGHOUT PROJECT B. NORMAL-WEIGHT AGGREGATES: ASTM C 33,, UNIFORMLY GRADED. PROVIDE AGGREGATES FROM
- A SINGLE SOURCE. MAXIMUM COARSE-AGGREGATE SIZE: 1 INCH NOMINAL 2. FINE AGGREGATE: FREE OF MATERIALS WITH DELETERIOUS REACTIVITY TO ALKALI IN
- RELATED MATERIALS JOINT FILLERS: ASTM D 1751, ASPHALT-SATURATED CELLULOSIC FIBER IN PREFORMED STRIPS.
- SIDEWALKS SIDEWALKS: SLOPE SIDEWALKS AWAY FROM BUILDING WITH A 1.5% CROSS-SLOPE UNLESS DRAWINGS INDICATE OTHERWISE.
- A. REMOVE LOOSE MATERIAL FROM COMPACTED SUBBASE SURFACE IMMEDIATELY BEFORE PLACING CONCRETE.
- STEEL REINFORCEMEN A. GENERAL: COMPLY WITH CRSI'S "MANUAL OF STANDARD PRACTICE" FOR FABRICATING, PLACING, AND SUPPORTING REINFORCEMENT.
- B. CLEAN REINFORCEMENT OF LOOSE RUST AND MILL SCALE, EARTH, ICE, OR OTHER BOND-REDUCING MATERIALS.
- C. ARRANGE, SPACE, AND SECURELY TIE BARS AND BAR SUPPORTS TO HOLD REINFORCEMENT IN POSITION DURING CONCRETE PLACEMENT. MAINTAIN MINIMUM COVER TO REINFORCEMENT. D. INSTALL WELDED WIRE REINFORCEMENT IN LENGTHS AS LONG AS PRACTICABLE. LAP ADJOINING PIECES AT LEAST ONE FULL MESH, AND LACE SPLICES WITH WIRE. OFFSET LAPS OF ADJOINING
- WIDTHS TO PREVENT CONTINUOUS LAPS IN EITHER DIRECTION. ZINC-COATED REINFORCEMENT: USE GALVANIZED-STEEL WIRE TIES TO FASTEN ZINC-COATED REINFORCEMENT. REPAIR CUT AND DAMAGED ZINC COATINGS WITH ZINC REPAIR MATERIAL.
- GENERAL: FORM CONSTRUCTION, ISOLATION, AND CONTRACTION JOINTS AND TOOL EDGES TRUE TO LINE, WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE UNLESS OTHERWISE INDICATED. . WHEN JOINING EXISTING PAVING, PLACE TRANSVERSE JOINTS TO ALIGN WITH PREVIOUSLY PLACED JOINTS UNLESS OTHERWISE INDICATED
- 2. ENSURE FORMS PROVIDE CORRECT HORIZONTAL AND VERTICAL ALIGNMENT BETWEEN NEW AND EXISTING PAVEMENTS, SIDEWALKS, CURB AND GUTTER, ETC. B. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVING
- AND AT LOCATIONS WHERE PAVING OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR UNLESS PAVING TERMINATES AT ISOLATION JOINTS. 1. CONTINUE STEEL REINFORCEMENT ACROSS CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED. DO NOT CONTINUE REINFORCEMENT THROUGH SIDES OF PAVING STRIPS UNLESS
- OTHERWISE INDICATED. PROVIDE TIE BARS AT SIDES OF PAVING STRIPS WHERE INDICATED. KEYED JOINTS: PROVIDE PREFORMED KEYWAY-SECTION FORMS OR BULKHEAD FORMS WITH
- KEYS UNLESS OTHERWISE INDICATED. EMBED KEYS AT LEAST 1-1/2 INCHES INTO CONCRETE. 4. DOWELED JOINTS: INSTALL DOWEL BARS AND SUPPORT ASSEMBLIES AT JOINTS WHERE INDICATED. LUBRICATE OR COAT WITH ASPHALT ONE-HALF OF DOWEL LENGTH TO PREVENT CONCRETE BONDING TO ONE SIDE OF JOINT.
- ISOLATION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, OTHER FIXED OBJECTS, AND WHERE INDICATED.
- 1. LOCATE EXPANSION JOINTS AT INTERVALS OF 30 FEET UNLESS OTHERWISE INDICATED. EXTEND JOINT FILLERS FULL WIDTH AND DEPTH OF JOINT. 3. TERMINATE JOINT FILLER NOT LESS THAN 1/2 INCH OR MORE THAN 1 INCH BELOW FINISHED
- SURFACE IF JOINT SEALANT IS INDICATED. 4. PLACE TOP OF JOINT FILLER FLUSH WITH FINISHED CONCRETE SURFACE IF JOINT SEALANT IS
- 5. FURNISH JOINT FILLERS IN ONE-PIECE LENGTHS. WHERE MORE THAN ONE LENGTH IS REQUIRED, LACE OR CLIP JOINT-FILLER SECTIONS TOGETHER. DURING CONCRETE PLACEMENT. PROTECT TOP EDGE OF JOINT FILLER WITH METAL. PLASTIC. OR OTHER TEMPORARY PREFORMED CAP. REMOVE PROTECTIVE CAP AFTER CONCRETE HAS
- BEEN PLACED ON BOTH SIDES OF JOINT D. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS. SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS, AS FOLLOWS:
- GROOVED JOINTS: FORM CONTRACTION JOINTS AFTER INITIAL FLOATING BY GROOVING AND FINISHING EACH EDGE OF JOINT WITH GROOVING TOOL TO A 1/4-INCH RADIUS. REPEAT GROOVING OF CONTRACTION JOINTS AFTER APPLYING SURFACE FINISHES. ELIMINATE GROOVING-TOOL MARKS ON CONCRETE SURFACES.
- SAWED JOINTS: FORM CONTRACTION JOINTS WITH POWER SAWS EQUIPPED WITH SHATTERPROOF ABRASIVE OR DIAMOND-RIMMED BLADES. CUT 1/8-INCH- WIDE JOINTS INTO CONCRETE WHEN CUTTING ACTION WILL NOT TEAR ARRADE OR OTHERWISE DAMAGE SURFACE AND BEFORE DEVELOPING RANDOM CONTRACTION CRACKS.
- . DOWELED CONTRACTION JOINTS: INSTALL DOWEL BARS AND SUPPORT ASSEMBLIES AT JOINTS WHERE INDICATED. LUBRICATE OR COAT WITH ASPHALT ONE-HALF OF DOWEL LENGTH TO PREVENT CONCRETE BONDING TO ONE SIDE OF JOINT. E. EDGING: AFTER INITIAL FLOATING. TOOL EDGES OF PAVING. GUTTERS. CURBS. AND JOINTS IN

CONCRETE WITH AN EDGING TOOL TO A 1/4-INCH RADIUS. REPEAT TOOLING OF EDGES AFTER

APPLYING SURFACE FINISHES. ELIMINATE EDGING-TOOL MARKS ON CONCRETE SURFACES. TESTING AGENCY: ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM TESTS AND

- B. PROMPTLY SEND TEST REPORTS TO THE ENGINEER FOR REVIEW AND APPROVAL. C. TESTING SERVICES: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED BY THE GENERAL CONTRACTOR'S TESTING
- AGENCY ACCORDING TO THE FOLLOWING REQUIREMENTS: 1. TESTING FREQUENCY: OBTAIN AT LEAST ONE COMPOSITE SAMPLE FOR EACH 100 CU. YD. OR FRACTION THEREOF OF EACH CONCRETE MIXTURE PLACED EACH DAY, WHEN FREQUENCY OF B. PIPE AND TUBING TESTING WILL PROVIDE FEWER THAN FIVE COMPRESSIVE-STRENGTH TESTS FOR EACH CONCRETE MIXTURE, TESTING SHALL BE CONDUCTED FROM AT LEAST FIVE RANDOMLY
- SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED. 2. SLUMP: ASTMIC 143/C 143M: ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO
- 3. AIR CONTENT: ASTM C 231, PRESSURE METHOD; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. 4. CONCRETE TEMPERATURE: ASTM C 1064/C 1064M; ONE TEST HOURLY WHEN AIR
- TEMPERATURE IS 40 DEG F AND BELOW AND WHEN IT IS 80 DEG F AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE. 5. COMPRESSION TEST SPECIMENS: ASTM C 31/C 31M; CAST AND LABORATORY CURE ONE SET
- OF THREE STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE. 6. COMPRESSIVE-STRENGTH TESTS: ASTM C 39/C 39M; TEST ONE SPECIMEN AT SEVEN DAYS AND TWO SPECIMENS AT 28 DAYS. A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM TWO SPECIMENS OBTAINED FROM SAME COMPOSITE
- SAMPLE AND TESTED AT 28 DAYS. D. STRENGTH OF EACH CONCRETE MIXTURE WILL BE SATISFACTORY IF AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED
- COMPRESSIVE STRENGTH BY MORE THAN 500 PSI E. TEST RESULTS SHALL BE REPORTED IN WRITING TO ENGINEER, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER. DATE OF CONCRETE PLACEMENT. NAME OF CONCRETE TESTING AND INSPECTING AGENCY. LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIXTURE PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7- AND 28-DAY TESTS.
- ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY ENGINEER.
- G. CONCRETE PAVING WILL BE CONSIDERED DEFECTIVE IF IT DOES NOT PASS TESTS AND INSPECTIONS H. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS. PREPARE TEST AND INSPECTION REPORTS.
- REPAIRS AND PROTECTION A. REMOVE AND REPLACE CONCRETE PAVING THAT IS BROKEN, DAMAGED, OR DEFECTIVE OR THAT DOES NOT COMPLY WITH REQUIREMENTS IN THIS SECTION. REMOVE WORK IN COMPLETE SECTIONS FROM JOINT TO JOINT UNLESS OTHERWISE APPROVED BY ENGINEER.
- DRILL TEST CORES, WHERE DIRECTED BY ENGINEER, WHEN NECESSARY TO DETERMINE MAGNITUDE OF CRACKS OR DEFECTIVE AREAS. FILL DRILLED CORE HOLES IN SATISFACTORY PAVING AREAS WITH PORTLAND CEMENT CONCRETE BONDED TO PAVING WITH EPOXY ADHESIVE. C. PROTECT CONCRETE PAVING FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVING FOR AT LEAST 14 DAYS AFTER PLACEMENT. WHEN CONSTRUCTION TRAFFIC IS PERMITTED, MAINTAIN PAVING AS

CLEAN AS POSSIBLE BY REMOVING SURFACE STAINS AND SPILLAGE OF MATERIALS AS THEY

D. MAINTAIN CONCRETE PAVING FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP PAVING NOT MORE THAN TWO DAYS BEFORE DATE SCHEDULED FOR SUBSTANTIAL COMPLETION INSPECTIONS.

CHAIN LINK FENCES AND GATES

- FIELD MEASUREMENTS: VERIFY LAYOUT INFORMATION FOR CHAIN-LINK FENCES AND GATES SHOWN ON DRAWINGS IN RELATION TO PROPERTY SURVEY AND EXISTING STRUCTURES. VERIFY
- **DIMENSIONS BY FIELD MEASUREMENTS** E. PROVIDE SUBMITTAL OF PROPOSED MATERIALS TO ENGINEER. ALLOW TWO WEEKS FOR REVIEW/APPROVAL.
- WARRANTY SPECIAL WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH INSTALLER AGREES TO
- REPAIR OR REPLACE COMPONENTS OF CHAIN-LINK FENCES AND GATES THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD. CHAIN-LINK FENCE FABRIC GENERAL: PROVIDE FABRIC IN ONE-PIECE HEIGHTS MEASURED BETWEEN TOP AND BOTTOM OF
 - OUTER EDGE OF SELVAGE KNUCKLE OR TWIST. COMPLY WITH CLFMI PRODUCT MANUAL AND WITH REQUIREMENTS INDICATED BELOW:
- FABRIC HEIGHT: AS INDICATED ON DRAWINGS 2. STEEL WIRE FABRIC: WIRE WITH A DIAMETER OF 0.148 INCH.
- MESH SIZE: 2 INCHES. b. POLYMER-COATED FABRIC: ASTM F 668, OVER ZINC-COATED STEEL WIRE. COLOR: BLACK, COMPLYING WITH ASTM F 934 3. SELVAGE: TWISTED TOP AND KNUCKLED BOTTOM.
- A. POSTS AND RAILS: COMPLY WITH ASTM F 1043 FOR FRAMING, INCLUDING RAILS, BRACES, AND LINE; TERMINAL; AND CORNER POSTS. PROVIDE MEMBERS WITH MINIMUM DIMENSIONS AND WALL THICKNESS ACCORDING TO ASTM F 1043 BASED ON THE FOLLOWING:
 - a. LINE POST: 1.9 INCHES IN DIAMETER.

. FENCE HEIGHT: AS INDICATED ON DRAWINGS.

b END CORNER AND PULL POST: 2 375 INCHES 3. HORIZONTAL FRAMEWORK MEMBERS: TOP RAILS COMPLYING WITH ASTM F 1043. TOP RAIL: 1.66 INCHES IN DIAMETER.

A. METALLIC-COATED STEEL WIRE: 0.177-INCH- DIAMETER, MARCELLED TENSION WIRE COMPLYING

WITH ASTM A 817 AND ASTM A 824, WITH THE FOLLOWING METALLIC COATING: TYPE II, ZINC COATED (GALVANIZED) BY HOT-DIP PROCESS. WITH THE FOLLOWING MINIMUM COATING WEIGHT:

- 4. BRACE RAILS: COMPLY WITH ASTM F 1043. METALLIC COATING FOR STEEL FRAMING:
- TYPE A, CONSISTING OF NOT LESS THAN MINIMUM 2.0-OZ./SQ. FT. AVERAGE ZINC COATING PER ASTM A 123/A 123M OR 4.0-OZ./SQ. FT. ZINC COATING PER ASTM A 653/A 653M. TENSION WIRE

- MATCHING CHAIN-LINK FABRIC COATING WEIGHT.
- SWING GATES A. GENERAL: COMPLY WITH ASTM F 900 FOR GATE POSTS AND SINGLE OR DOUBLE SWING GATE
- 1. GATE LEAF WIDTH: AS INDICATED. 2. GATE FABRIC HEIGHT: AS INDICATED.
- I. ZINC-COATED STEEL: COMPLY WITH ASTM F 1043 AND ASTM F 1083; PROTECTIVE COATING AND FINISH TO MATCH FENCE FRAMING.
- 2. GATE POSTS: ROUND TUBULAR STEEL. 3. GATE FRAMES AND BRACING: ROUND TUBULAR STEEL.
- C. FRAME CORNER CONSTRUCTION: ASSEMBLED WITH CORNER FITTINGS.
- . HINGES: 360-DEGREE INWARD AND OUTWARD SWING. 2. LATCHES PERMITTING OPERATION FROM BOTH SIDES OF GATE WITH PROVISION FOR PADLOCKING ACCESSIBLE FROM BOTH SIDES OF GATE
- GENERAL: COMPLY WITH ASTM F 626. B. POST CAPS: PROVIDE FOR EACH POST. PROVIDE LINE POST CAPS WITH LOOP TO RECEIVE
- TENSION WIRE OR TOP RAIL. C. RAIL AND BRACE ENDS: FOR EACH GATE, CORNER, PULL, AND END POST.
- D. RAIL FITTINGS: PROVIDE THE FOLLOWING: 1. TOP RAIL SLEEVES: PRESSED-STEEL OR ROUND-STEEL TUBING NOT LESS THAN 6 INCHES
- LINE-TO-LINE POSTS. TENSION AND BRACE BANDS: PRESSED STEEL. TENSION BARS: STEEL, LENGTH NOT LESS THAN 2 INCHES SHORTER THAN FULL HEIGHT OF

2. RAIL CLAMPS: LINE AND CORNER BOULEVARD CLAMPS FOR CONNECTING RAILS IN THE FENCE

- CHAIN-LINK FABRIC. PROVIDE ONE BAR FOR EACH GATE AND END POST, AND TWO FOR EACH
- CORNER AND PULL POST, UNLESS FABRIC IS INTEGRALLY WOVEN INTO POST. G. TRUSS ROD ASSEMBLIES: STEEL, HOT-DIP GALVANIZED AFTER THREADING ROD AND
- TURNBUCKLE OR OTHER MEANS OF ADJUSTMENT. H. TIE WIRES, CLIPS, AND FASTENERS: ACCORDING TO ASTM F 626. STANDARD ROUND WIRE TIES: FOR ATTACHING CHAIN-LINK FABRIC TO POSTS, RAILS, AND FRAMES, COMPLYING WITH THE FOLLOWING: HOT-DIP GALVANIZED STEEL: 0.148-INCH- DIAMETER WIRE; GALVANIZED COATING
- GROUT AND ANCHORING CEMENT NONSHRINK, NONMETALLIC GROUT: PREMIXED, FACTORY-PACKAGED, NONSTAINING NONCORROSIVE, NONGASEOUS GROUT COMPLYING WITH ASTM C 1107. PROVIDE GROUT,

THICKNESS MATCHING COATING THICKNESS OF CHAIN-LINK FENCE FABRIC.

- RECOMMENDED IN WRITING BY MANUFACTURER, FOR EXTERIOR APPLICATIONS. B. EROSION-RESISTANT ANCHORING CEMENT: FACTORY-PACKAGED, NONSHRINK, NONSTAINING. HYDRAULIC-CONTROLLED EXPANSION CEMENT FORMULATION FOR MIXING WITH POTABLE WATER AT PROJECT SITE TO CREATE POURABLE ANCHORING, PATCHING, AND GROUTING COMPOUND. PROVIDE FORMULATION THAT IS RESISTANT TO EROSION FROM WATER EXPOSURE WITHOUT NEEDING PROTECTION BY A SEALER OR WATERPROOF COATING AND THAT IS RECOMMENDED IN WRITING BY MANUFACTURER, FOR EXTERIOR APPLICATIONS.
- GATES: ADJUST GATES TO OPERATE SMOOTHLY, EASILY, AND QUIETLY, FREE OF BINDING, WARP, EXCESSIVE DEFLECTION, DISTORTION, NONALIGNMENT, MISPLACEMENT, DISRUPTION, OR MALFUNCTION, THROUGHOUT ENTIRE OPERATIONAL RANGE. CONFIRM THAT LATCHES AND LOCKS ENGAGE ACCURATELY AND SECURELY WITHOUT FORCING OR BINDING.

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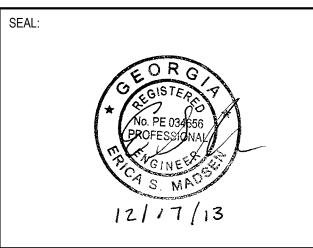
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DEVELOPER:

CONTACT:

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REVISIONS ⚠ ADDENDUM #1 11/20/2013

PROJECT MANAGER: DRAWING BY: NJP JURISDICTION: DUNWOODY, GA DATE: 10 AUGUST 2013 SCALE: AS SHOWN

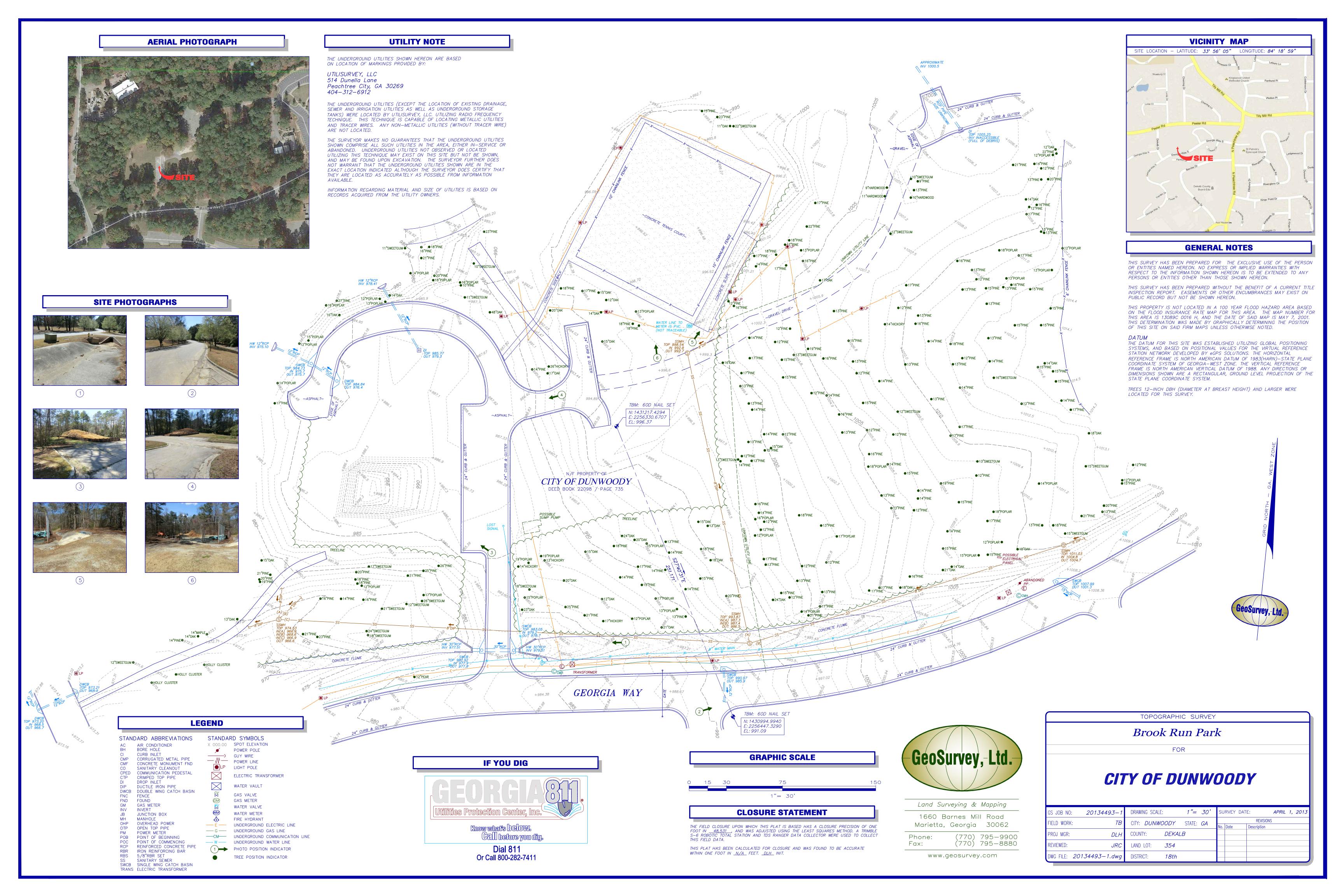
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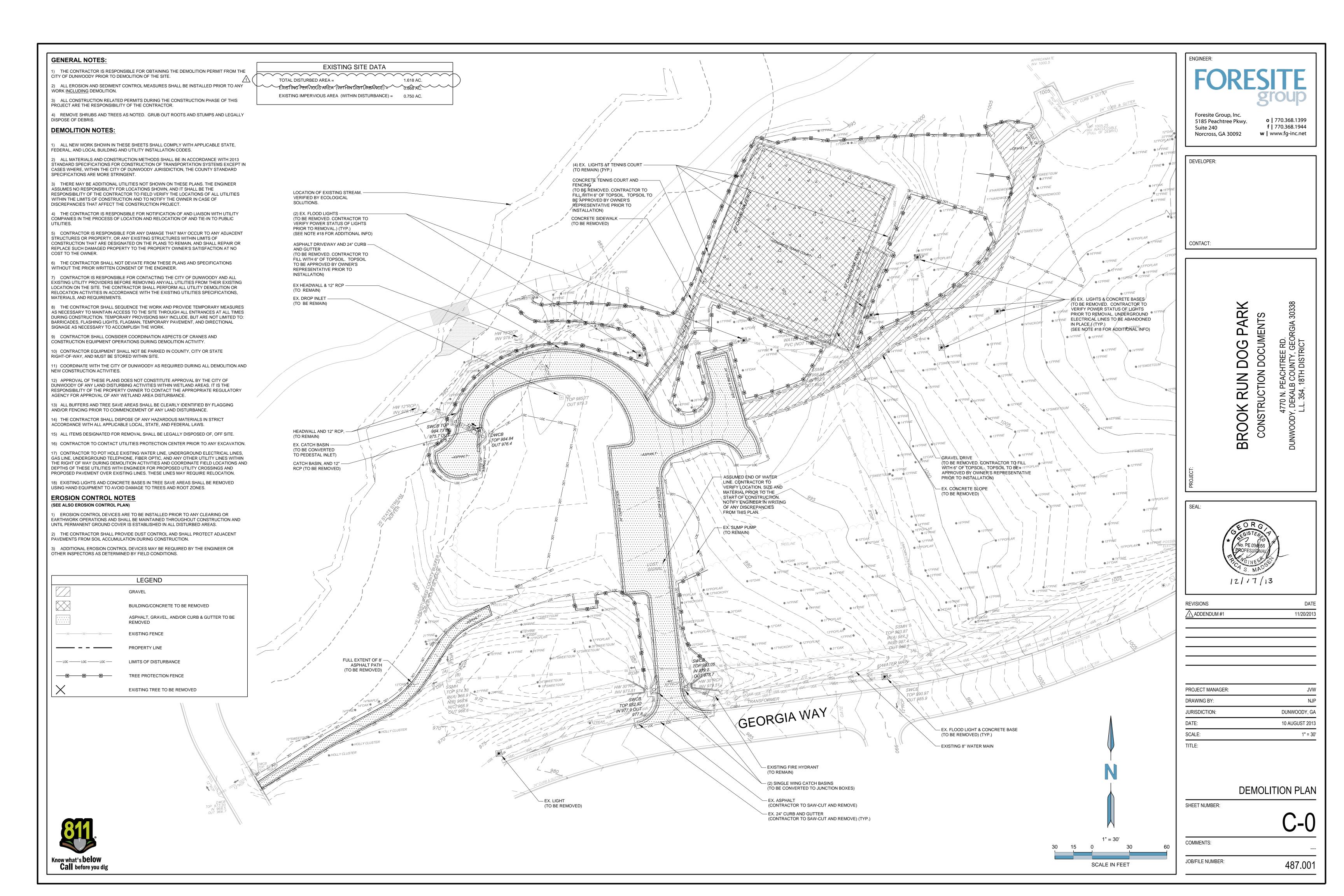
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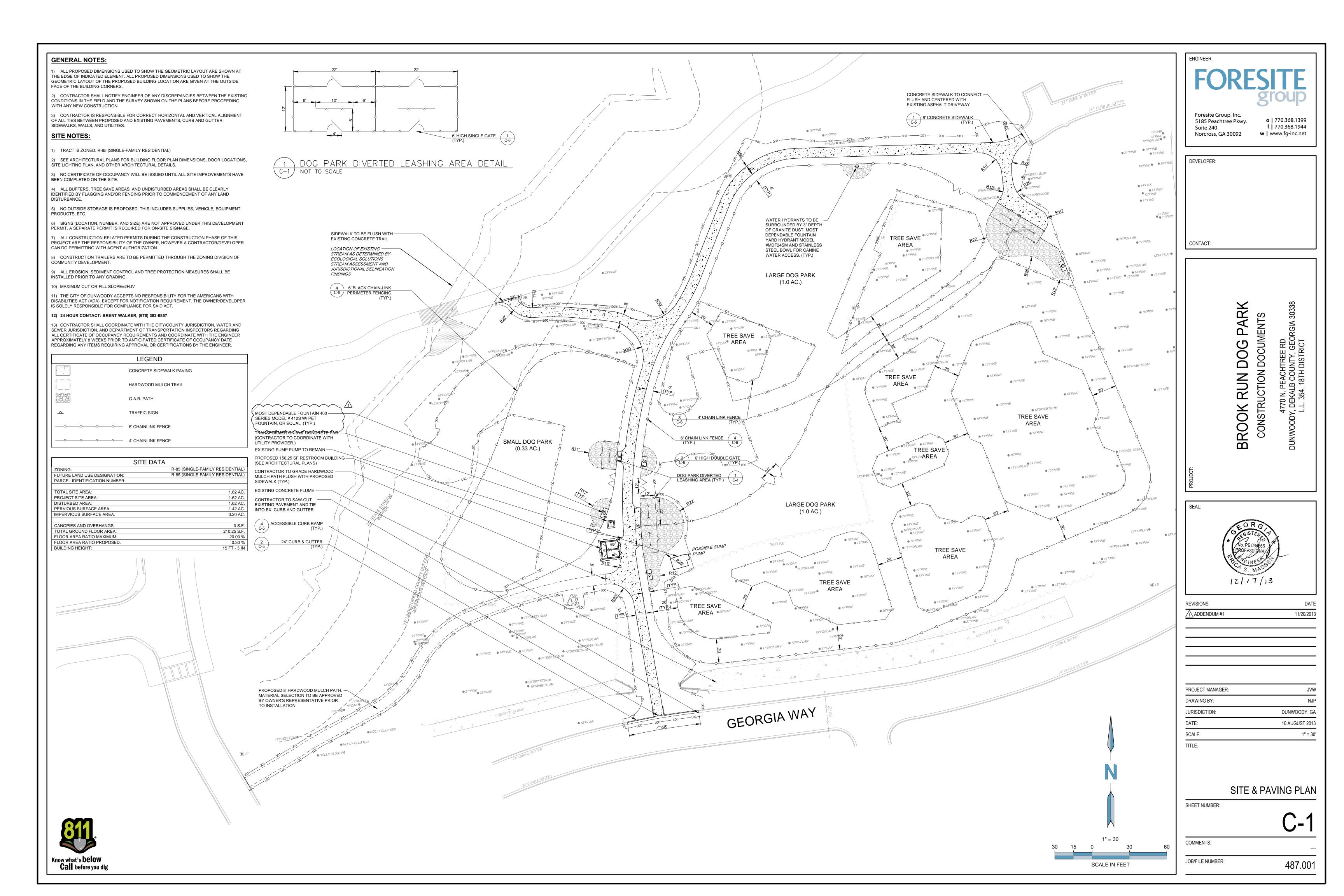
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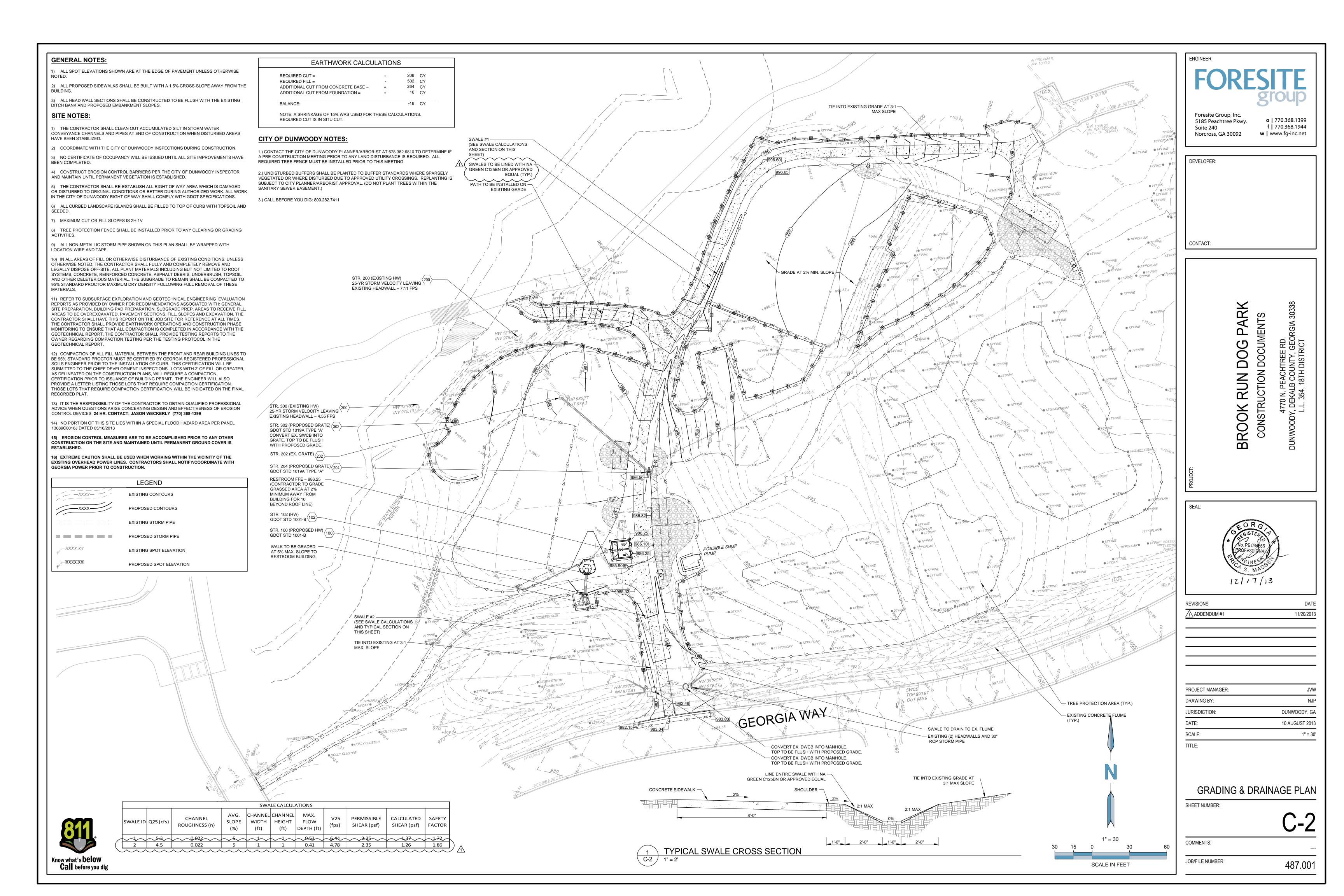
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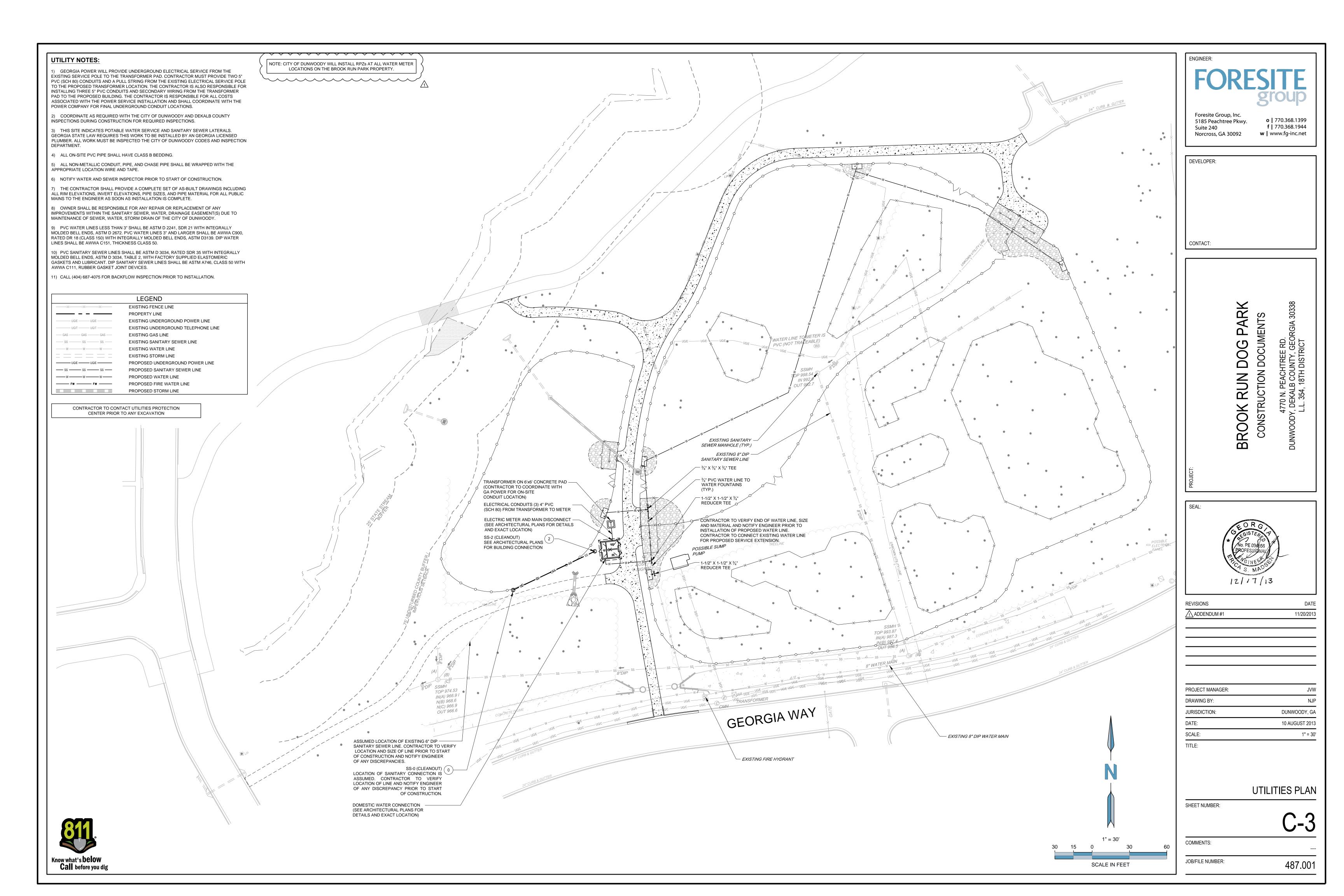
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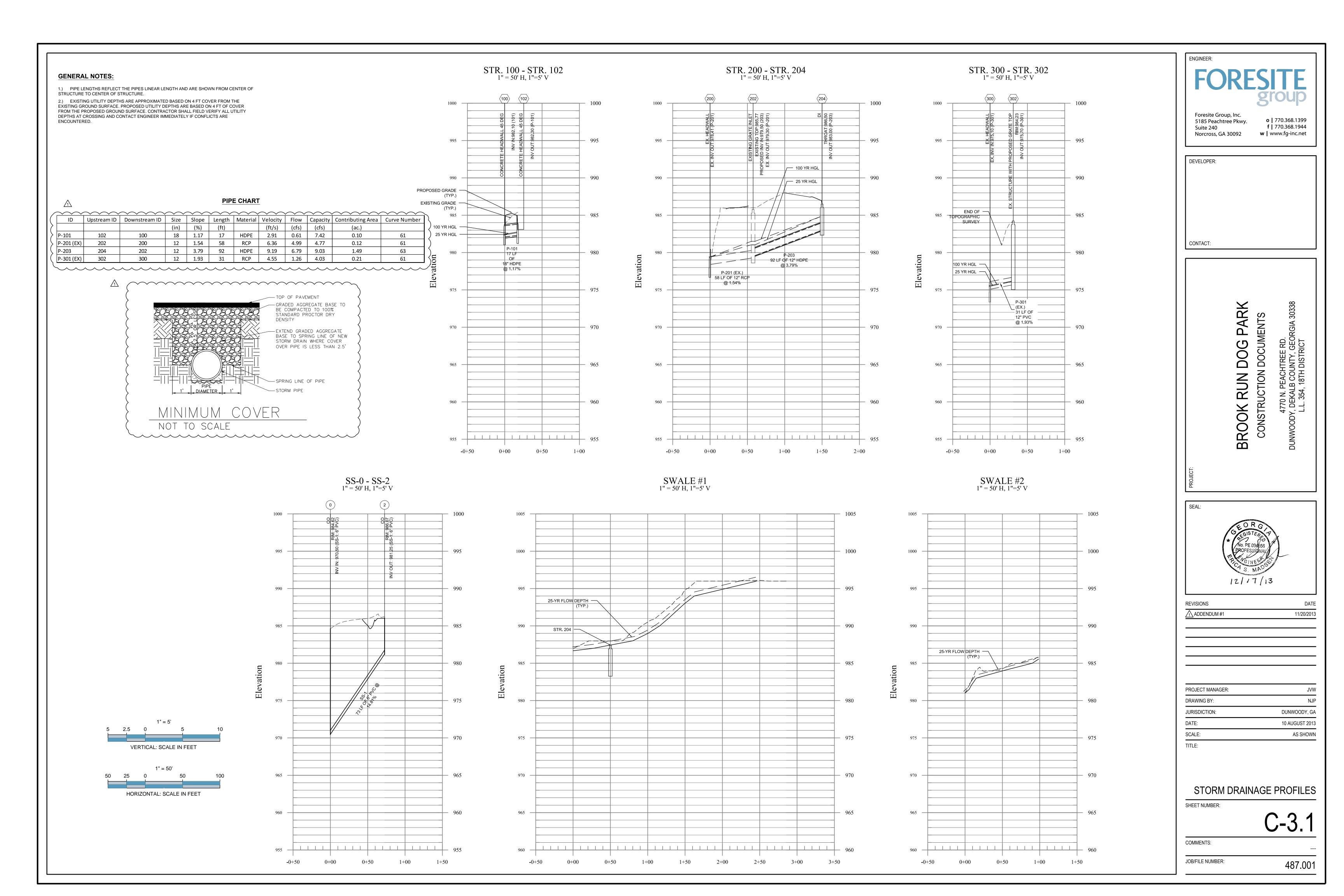


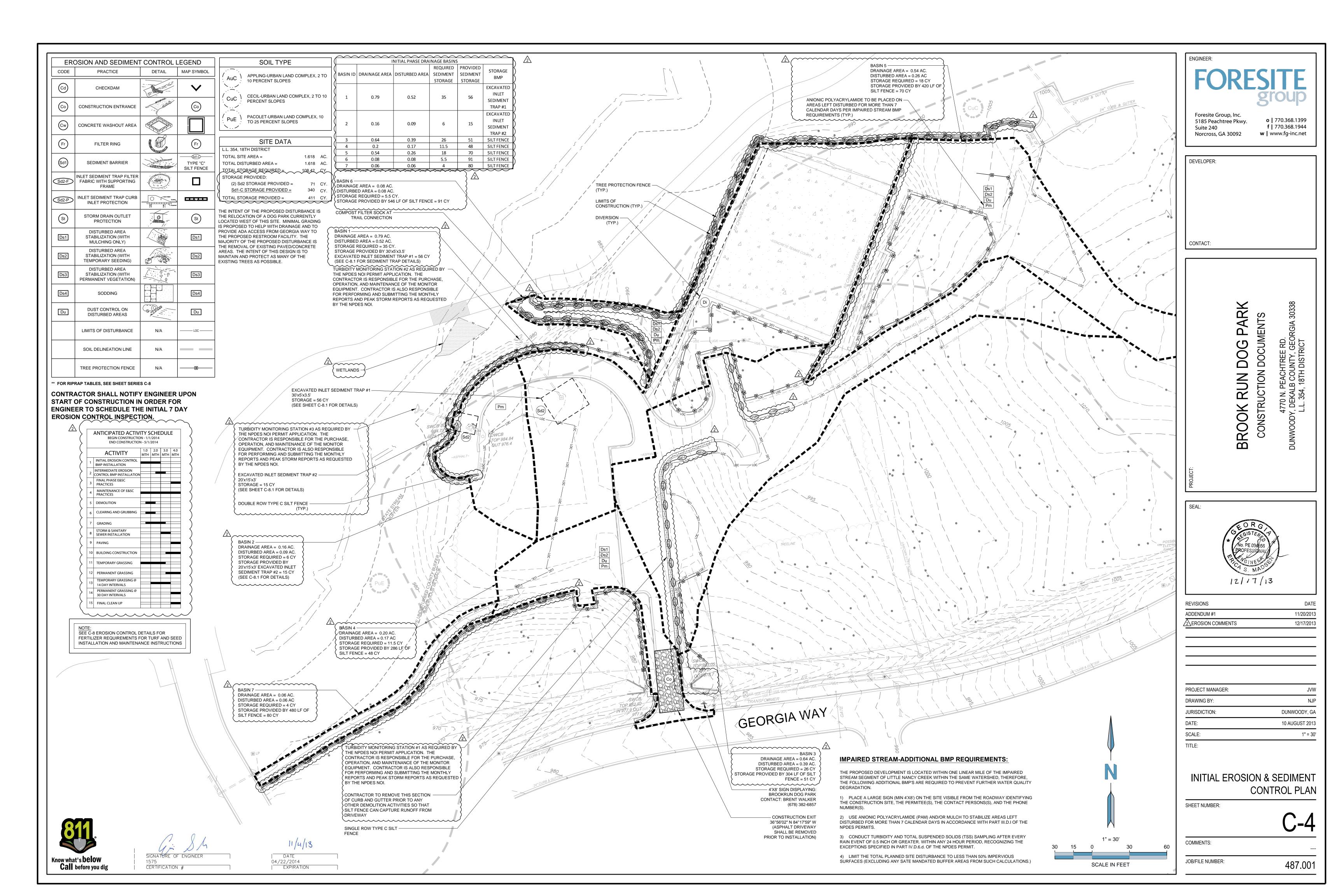


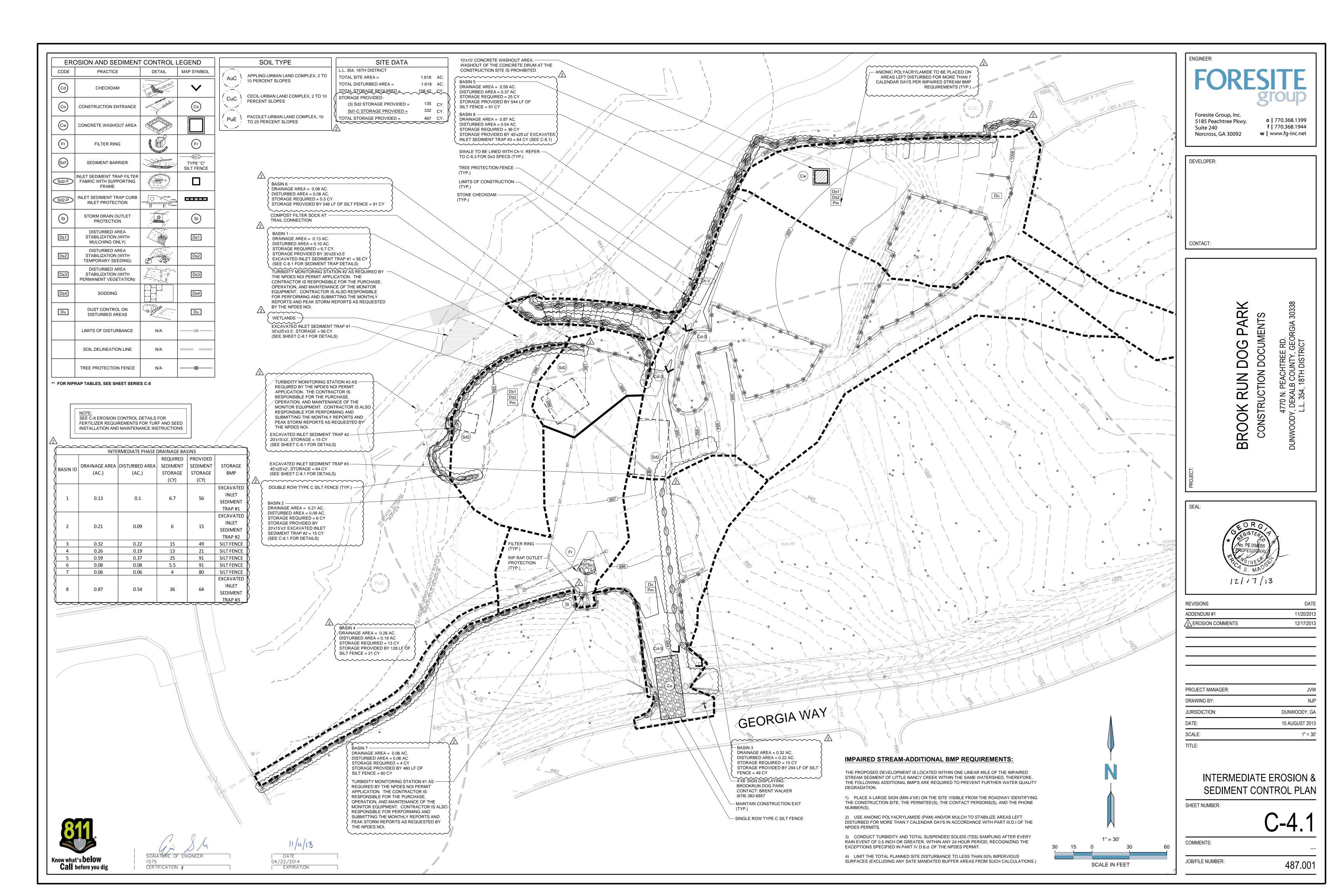


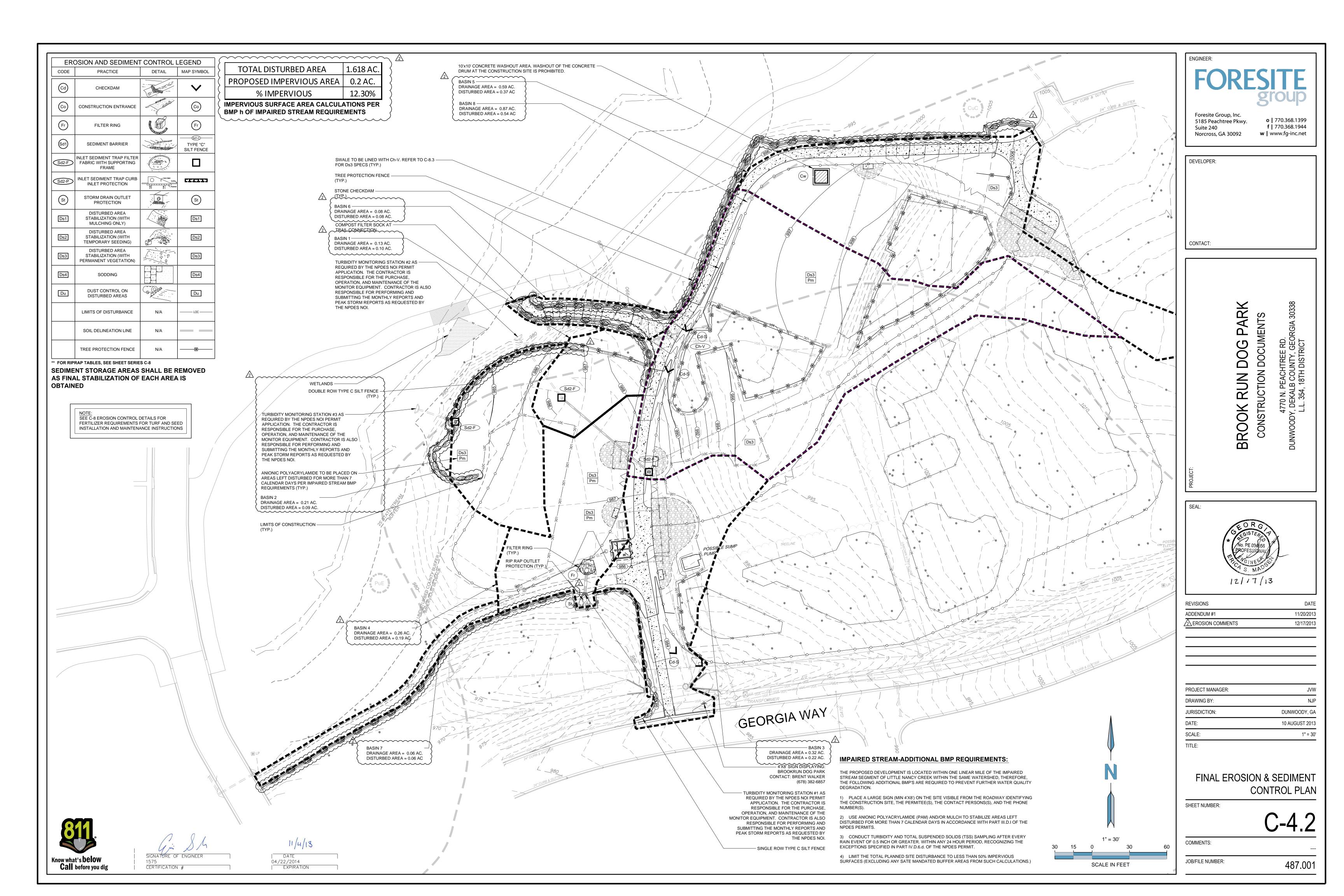












EROSION CONTROL NOTES:

EROSION & SEDIMENT CONTROL STRUCTURES.

) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN QUALIFIED PROFESSIONAL ADVICE WHEN QUESTIONS ARISE CONCERNING DESIGN AND EFFECTIVENESS OF EROSION CONTROL DEVICES. 24 HR CONTACT: JASON WECKERLY (770) 368-1399. CONTRACTOR SHALL INFORM ENGINEER WHEN CONSTRUCTION BEGINS.

2) THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL TAKE PLACE PRIOR TO OR CONCURRENT WITH ALL LAND DISTURBING ACTIVITIES THROUGHOUT THE ENTIRE PROJECT.

3) ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR

4) EROSION AND SEDIMENT CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

5) THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, ALL LAND DISTURBING ACTIVITIES THROUGHOUT THE ENTIRE PROJECT.

SEDIMENT STORAGE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/3 FULL

) THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE ACCUMULATED SILT IS ONE-THIRD (1/3) FULL FOR ALL

8) MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE PROPERTY OWNER.

9) A 25-FOOT UNDISTURBED BUFFER IS TO BE MAINTAINED ADJACENT TO ALL STREAMS.

10) DETENTION POND, DETENTION OUTLET STRUCTURES AND TEMPORARY SEDIMENT POND FEATURES ARE TO BE CONSTRUCTED AND FULLY OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION.

11) ALL FILL SLOPES SHALL HAVE SILT FENCE PLACED AT THE SLOPE'S TOE.

12) CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 WITH A HEIGHT OF TEN FEET OR GREATER SHALL STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING.

13) THE PROFESSIONAL WHO SEALS THIS PLAN CERTIFIES UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY THE PROFESSIONAL OR THE PROFESSIONAL'S AUTHORIZED AGENT, UNDER THE PROFESSIONAL'S DIRECT SUPERVISION.

14) EROSION CONTROL DEVICES THAT ARE INSTALLED AS DIRECTED BY THE LAND DEVELOPMENT INSPECTOR BUT NOT SHOWN ON THE APPROVED PLAN AND WHICH ALSO SUBSEQUENTLY FAIL, ARE THE RESPONSIBILITY OF THE CONTRACTOR.

15) ALL TEMPORARY AND PERMANENT SEEDING MUST BE PERFORMED AT THE APPROPRIATE SEASON. ADDITIONAL PLANTINGS WILL BE NECESSARY IF A SUFFICIENT STAND OF GRASS FAILS TO GROW.

16) TOPSOIL SHALL BE STOCKPILED AND USED TO DRESS FINAL GRADES.

17) NO PORTION OF THE SUBJECT PROPERTY LIES WITHIN A 100 YEAR FLOOD HAZARD AREA PER FIRM MAP NUMBER 13089C0016J

18) THE CONTRACTOR WILL CLEAN OUT ACCUMULATED SILT IN THE STORM DRAINAGE PIPES AT END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.

19) ALL LOTS WITH WET LAND OR WITHIN A DAM ZONE SHALL BE DENOTED WITH AN ASTERISK.

20) APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY THE CITY OF DUNWOODY OR EPD OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS AND/OR WHICH MAY IMPACT ENDANGERED SPECIES. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULARITY AGENCY FOR APPROVAL OF ANY DISTURBANCE WHICH MAY HAVE THIS EFFECT.

21) ALL CONSTRUCTION SHALL COMPLY WITH THE SPECIFICATIONS AND PROCEDURES DETAILED IN THE CURRENT DEVELOPMENT REGULATIONS OF THE CITY OF DUNWOODY AND THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GA.

22) TWO ROWS OF GA. D.O.T. TYPE C SILT FENCE SHALL BE INSTALLED ADJACENT TO STATE WATERS AND WILL PROTECT STATE WATERS FROM ANY LAND DISTURBING ACTIVITIES.

23) ALL SLOPES AND AREAS DISTURBED DURING CONSTRUCTION SHALL BE GRADED SMOOTH AND 4" OF TOPSOIL APPLIED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL A HEALTHY STAND OF PERMANENT VEGETATION HAS BEEN ESTABLISHED FOR ALL DISTURBED AREAS. SEEDS FOR GRASSED AREAS USE THE FOLLOWING MIXTURES.

24) ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL TAKE PLACE UNTIL SILT BARRIER INSTALLATION IS COMPLETE.

25) SILT BARRIERS SHALL BE PLACED AS SHOWN AND/OR AS DIRECTED BY THE PROJECT ENGINEER AND/OR COUNTY

26) CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES UNTIL CONSTRUCTION IS COMPLETE

AND PERMANENT VEGETATION HAS BEEN ESTABLISHED. 27) ALL DISTURBED AREAS SHALL BE GRASSED AS SOON AS POSSIBLE AS PER THE SEEDING SCHEDULES AND RATES.

28) ALL OPEN DRAINAGE SWALES MUST BE GRASSED AND RIP-RAP PLACED AS REQUIRED TO PREVENT EROSION. 29) MAXIMUM SLOPES ON CUT OR FILL SECTIONS SHALL NOT EXCEED 2 TO 1

30) ALL FILL AREAS AND DITCH WORK ON THIS SITE SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR.

31) ALL DRAINAGE STRUCTURES SHALL HAVE RING AND COVER ACCESS. 32) LENGTH OF STORM WATER OUTFALL STRUCTURE RIP-RAP SHALL BE AT LEAST 6 TIMES THE DIAMETER OF THE STORM DRAIN

33) WHERE APPLICABLE, EACH INDIVIDUAL LOT BUILDER SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING EROSION CONTROL MEASURES ON THEIR OWN LOT.

34) SECONDARY PERMITTEES SHALL BE RESPONSIBLE FOR RETURNING AREAS DISTURBED DURING THEIR ACTIVITIES TO THE

CONDITION PRIOR TO THEIR DISTURBANCE (TO INCLUDE SEEDING, STRAW, OR OTHER PRE-EXISTING BMP CONTROLS APPLIED). 35) EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL

MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS.

36) INSPECTIONS ARE TO BE MADE AFTER EACH RAINFALL EVENT AND SILT ACCUMULATIONS SHALL BE REMOVED FROM ANY SÉDIMENT BASINS AND PLACED AT A STABLE LOCATION WHERE IT IS TO BE SEEDED AND MULCHED.

37) SEE EROSION CONTROL DETAIL SHEET FOR EROSION CONTROL DETAILS & SEEDING RATES AND SCHEDULES.

38) RED LINE COMMENTS ON WORKING SETS OF PLANS SHOULD BE MAINTAINED ON SITE FOR ANY CHANGES MADE TO EROSION CONTROL PLAN. COMMENTS SHOULD INCLUDE DATE AND JUSTIFICATION FOR CHANGES.

39) PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE. ANY MUD, DIRT, OR ROCK TRACKED FROM THE SITE WILL BE CLEANED AS NECESSARY. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE SHALL BE COVERED WITH A TARPAULIN.

40) PRIOR TO COMMENCING LAND DISTURBING ACTIVITY. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY AND ACCURATELY MARKED WITH STAKES, RIBBON OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.

11) IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCE/EXITS, ALL PERIMETER EROSION CONTROL SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.

CERTIFICATION STATEMENT:

I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF THE BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET TH REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001. ADDITIONALLY, I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

SIGNATURE OF ENGINEER

CERTIFICATION #

Call before you dig

EXPIRATION

SEE SHEET SERIES C-4 FOR EROSION AND

GENERAL NOTES:

THIS PLAN INCLUDES, AS A MINIMUM, BEST MANAGEMENT PRACTICES, INCLUDING SOUND CONSERVATION AND ENGINEERING PRACTICES TO PREVENT AND MINIMIZE EROSION AND RESULTANT SEDIMENTATION, WHICH ARE CONSISTENT WITH, AND NO LESS STRINGENT THAN, THOSE PRACTICES CONTAINED IN THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND DISTURBING ACTIVITY WAS PERMITTED, AS WELL AS THE FOLLOWING:

1) STRIPPING OF VEGETATION, CUT AND FILL OPERATIONS, AND OTHER DEVELOPMENT ACTIVITIES WILL BE CONDUCTED IN A MANNER SO AS TO MINIMIZE EROSION.

2) DEVELOPMENT PLANS CONFORM TO TOPOGRAPHY AND SOIL TYPE, SO AS TO CREATE THE LOWEST PRACTICABLE EROSION

3) THE DISTURBED AREA AND THE DURATION OF EXPOSURE TO EROSIVE ELEMENTS WILL BE KEPT TO A PRACTICAL MINIMUM. WHENEVER FEASIBLE, NATURAL VEGETATION WILL BE RETAINED, PROTECTED, AND SUPPLEMENTED.

4) DISTURBED SOIL WILL BE STABILIZED AS QUICKLY AS PRACTICABLE.

5) TEMPORARY VEGETATION OR MULCHING WILL BE EMPLOYED TO PROTECT EXPOSED CRITICAL AREAS DURING DEVELOPMENT AT A MINIMUM OF EVERY 7 DAYS IF THE SOIL HAS BEEN LEFT UNDISTURBED.

6) PERMANENT VEGETATION AND STRUCTURAL EROSION CONTROL MEASURES WILL BE INSTALLED AS SOON AS PRACTICABLE. 7) TO THE EXTENT NECESSARY, SEDIMENT IN RUN-OFF WATER WILL BE TRAPPED BY THE USE OF DEBRIS BASINS, SILT FENCE, SILT TRAPS, OR SIMILAR MEASURES UNTIL THE DISTURBED AREA IS STABILIZED.

8) ADEQUATE PROVISIONS SHALL BE PROVIDED TO MINIMIZE DAMAGE FROM SURFACE WATER TO THE CUT FACE OF EXCAVATIONS OR THE SLOPING SURFACES OF FILLS.

9) CUTS AND FILLS WILL NOT ENDANGER ADJOINING PROPERTY.

10) FILLS WILL NOT ENCROACH UPON NATURAL WATER COURSES OR CONSTRUCTED CHANNELS IN A MANNER SO AS TO ADVERSELY AFFECT OTHER PROPERTY OWNERS.

11) GRADING EQUIPMENT WILL CROSS FLOWING STREAMS BY THE MEANS OF BRIDGES OR CULVERTS, EXCEPT WHEN SUCH METHODS ARE NOT FEASIBLE, PROVIDED IN ANY CASE THAT SUCH CROSSINGS ARE KEPT TO A MINIMUM.

12) PROVISIONS ARE PROVIDED FOR TREATMENT OR CONTROL OF ANY SOURCE OF SEDIMENTS AND ADEQUATE SEDIMENTATION CONTROL FACILITIES TO RETAIN SEDIMENTS ON SITE OR PRECLUDE SEDIMENTATION OF ADJACENT WATERS BEYOND THE LEVELS GAR 100001; OR SPECIFIED IN THE GENERAL NPDES PERMIT NUMBER.

13) NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 25 FOOT BUFFER ALONG THE BANKS OF ALL STATE WATERS, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION. EXCEPT WHERE THE DIRECTOR OF EPD HAS DETERMINED TO ALLOW A VARIANCE THAT IS AT LEAST AS PROTECTIVE OF NATURAL RESOURCES AND THE ENVIRONMENT IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6. OR HERE A DRAINAGE STRUCTURE OR A ROADWAY STRUCTURE MUST BE CONSTRUCTED, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED.

14) NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 50 FOOT BUFFER, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, ALONG THE BANKS OF ANY STATE WATERS CLASSIFIED AS "TROUT STREAMS" EXCEPT WHEN APPROVAL IS GRANTED BY THE DIRECTOR OF EPD FOR ALTERNATE BUFFER REQUIREMENTS IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED; PROVIDED, HOWEVER, THAT SMALL SPRINGS AND STREAMS CLASSIFIED AS "TROUT STREAMS" WHICH DISCHARGE AN AVERAGE ANNUAL FLOW OF 25 GALLONS PER MINUTE OR LESS SHALL HAVE A 25 FOOT BUFFER OR THEY MAY BE PIPED. AT THE DISCRETION OF THE PERMITTEE. PURSUANT TO THE TERMS OF A RULE PROVIDING FOR A GENERAL VARIANCE PROMULGATED BY THE BOARD OF NATURAL RESOURCES INCLUDING NOTIFICATION OF SUCH TO EPD AND THE LOCAL ISSUING AUTHORITY OF THE LOCATION AND EXTENT OF THE PIPING AND PRESCRIBED METHODOLOGY FOR MINIMIZING THE IMPACT OF SUCH PIPING SHORT OF THE DOWNSTREAM PERMITTEE'S PROPERTY, AND THE PERMITTEE MUST. COMPLY WITH THE BUFFER REQUIREMENT FOR ANY ADJACENT TROUT STREAMS.

15) FOR COMMON DRAINAGE LOCATIONS A TEMPORARY (OR PERMANENT) SEDIMENT BASIN PROVIDING AT LEAST 67 CUBIC YARDS. OF STORAGE PER ACRE DRAINED. OR EQUIVALENT CONTROL MEASURES. SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE 67 CUBIC YARDS OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFF-SITE AREAS AND FLOWS FROM ON-SITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN, FOR DRAINAGE LOCATIONS WHERE A TEMPORARY SEDIMENT BASIN PROVIDING AT LEAST 67 CUBIC YARDS OF STORAGE PER ACRE DRAINED, OR EQUIVALENT CONTROLS IS NOT ATTAINABLE, SEDIMENT TRAPS, SILT FENCES, OR EQUIVALENT SEDIMENT CONTROLS ARE REQUIRED FOR ALL SIDE SLOPE AND DOWN SLOPE BOUNDARIES OF THE CONSTRUCTION AREA. WHEN THE SEDIMENT FILLS TO A VOLUME AT MOST OF 22 CUBIC YARDS PER ACRE FOR EACH DRAINAGE AREA. THE SEDIMENT SHALL BE REMOVED TO RESTORE THE ORIGINAL DESIGN VOLUME. THIS SEDIMENT MUST BE PROPERLY DISPOSED. SEDIMENT BASINS MAY NOT BE APPROPRIATE AT SOME CONSTRUCTION

16) NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS **AUTHORIZED BY A SECTION 404 PERMIT**

17) OFF SITE VEHICLE TRACKING OF DIRT, SOILS, AND SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED OR ELIMINATED TO THE MAXIMUM EXTENT PRACTICAL

18) ALL LOTS AND DEVELOPMENT AREAS SHALL MAINTAIN COMPLIANCE WITH APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

19) A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE WHENEVER LAND DISTURBANCE ACTIVITY IS IN PROGRESS

20) THERE SHALL BE NO ON-SITE STORAGE OF PETROLEUM, MOBILE PETROLEUM TRUCKS SHALL BE USED TO FUE CONSTRUCTION EQUIPMENT ON-SITE, NOTHING IN THIS PERMIT SHALL BE CONSTRUED TO PRECLUDE THE INSTITUTION OF ANY LEGAL ACTION OR RELIEVE THE PERMITTEE FROM ANY RESPONSIBILITIES, LIABILITIES, OR PENALTIES TO WHICH THE PERMITTEE IS OR MAY BE SUBJECT UNDER THE GEORGIA HAZARDOUS WASTE MANAGEMENT ACT, O.C.G.A. 12-8-60, ET SEQ. OR UNDER CHAPTER 14 OF TITLE 12 OF THE OFFICIAL CODE OF GEORGIA ANNOTATED; NOR IS THE OPERATOR RELIEVED FROM ANY RESPONSIBILITIES. LIABILITIES OR PENALTIES TO WHICH THE PERMITTEE IS OR MAY BE SUBJECT UNDER SECTION 311 OF THE CLEAN WATER ACT OR SECTION 106 OF COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT.

21) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A "QUALIFIED PROFESSIONAL" INSPECT AND REPORT ALL DÉFICIENCIES OF ALL EROSION CONTROL MEASURES AT A MINIMUM OF EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF

22) AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL

23) THE DESIGN PROFESSIONAL OR DESIGNEE IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE

REQUIREMENTS AND PERIMETER CONTROL BMP'S WITHIN 7 DAYS AFTER INSTALLATION. PERMITTEE REQUIREMENTS FOR INSPECTION:

) EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (A) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT; (B) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

2) MEASURE RAINFALL ONCE EACH 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY, AND NON-WORKING FEDERAL HOLIDAY UNTIL A NOTICE OF TERMINATION IS SUBMITTED. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION

3) CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (A) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE; (B) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION: AND (C) STRUCTURAL CONTROL MEASURES, EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4.A.(3). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION IS RECEIVED BY EPD) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S), EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).

5) BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.

6) A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E. INITIAL, INTERMEDIATE, OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.A.(5). OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION PROJECT THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALLBE READILY AVIALABLE BY THE END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE NOT BEEN PROPERLY INSTALLED AND/OR MAINTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A STATEMENT THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2 OF THIS PERMIT

THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THIS SHALL NOT APPLY TO ANY LAND DISTURBANCE ASSOCIATED WITH THE CONSTRUCTION OF SINGLE-FAMILY HOMES WHICH ARE NOT PART OF A SUBDIVISION OR PLANNED COMMON DEVELOPMENT UNLESS FIVE (5) ACRES OR MORE WILL BE DISTURBED

SAMPLING REQUIREMENTS (CONTINUED):

. SEE PLAN SHEETS FOR GUIDELINES ON SAMPLING LOCATIONS, DESCRIPTIONS, AND MAXIMUM ALLOWABLE NTU'S.

b. SAMPLE TYPE. ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORMWATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.

1. SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.

PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E.

2. SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER. 3. LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.

4. MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. DILUTION OF SAMPLES IS NOT REQUIRED, SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED. 5. SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS

. SAMPLING POINTS

I. FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES:

1.a. THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.

1.b. THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORMWATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY, WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.

1.c. IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR STORM WATER OUTFALL CHANNEL(S).

1.d. CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATERS OR IN THE STORMWATER CHANNEL.

1.e. THE SAMPLING CONTAINER SHOULD BE HELD SO THE OPENING FACES UPSTREAM.

1.f. THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS. 1.g. PERMITTEES DO NOT HVAE TO SAMPLE SHEETFLOW THAT FLOWS ONTO UNDISTRUBED NATURAL AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND NOT COVERED BY PERMANENT STRUCTURES, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS DEFINED IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL OR SILVICULTURAL PURPOSES, FINAL STABILIZATION MAY BE

ACCOMPLISHED BY STABILIZING THE DISTURBED LAND FOR ITS AGRICULTURAL OR SILVICULTURAL USE. 1.h. ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY(INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER THE STORMWATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS III.D.3 OR III.D.4 OF THE GENERAL PERMIT, WHICHEVER IS APPLICABLE.

d. SAMPLING FREQUENCY

1. THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORMWATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN FOURTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.

2. HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN PERMIT GAR 10001), OR ARE BEYOND THE PERMITTEE'S CONTROL. THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORMWATER DISCHARGE.

3. SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING EVENTS: 3.a. FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS* (MONDAY THRU FRIDAY, 8:00 AM TO 5:00 PM AND SATURDAY 8:00 AM TO 5:00 PM, EXCLUDING ALL NON-WORKING FEDERAL HOLIDAYS, WHEN CONSTRUCTION ACTIVITY IS BEING CONDUCTED BY THE PRIMARY PERMITTEE) AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE

REPRESENTATIVE SAMPLING LOCATION: 3.b. IN ADDITION TO (a) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS* FITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOTICE OF TERMINATION, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION, WHICHEVER

COMES FIRST: 3.c. AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (a) AND (b) ABOVE, IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED. INSTALLED AND MAINTAINED CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPS ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED:

BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (a), b), OR

3.e. EXISTING CONSTRUCTION ACTIVITIES. I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (a) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (b) THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (b) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (c) ABOVE.

3.d. WHERE SAMPLING PURSUANT TO (a), (b), OR (c) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED

NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (a) AND (b) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING AT ANY TIME OF THE DAY

RETENTION OF RECORDS:

1) THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:

A) A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;

B) A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT; C) THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT

D) A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT: E) A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THIS PERMIT F) A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2.

OF THIS PERMIT: AND G) DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(2) OF THIS PERMIT

COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, PLANS, SAMPLING REPORTS (INCLUDING CALIBRATION AND MAINTENANCE RECORDS OF ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION) OR OTHER REPORTS REQUESTED BY THE EPD. EROSION, SEDIMENTATION AND POLITITION. CONTROL PLANS. RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL THER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE

LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY

THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C OF THE GENERAL PERMIT GAR 10001 BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORM WATER DISCHARGE(S). OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMIL AR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

2) ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

A) THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS: B) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;

C) THE DATE(S) ANALYSES WERE PERFORMED;

D) THE TIME(S) ANALYSES WERE INITIATED:

E) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES: REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED: G) THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES. ETC., USED TO DETERMINE THESE RESULTS.

H) RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU."; AND I) CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

REPORTING (CONTINUED):

2) ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI. IF AN ELECTRONIC SUBMITTAL IS PROVIDED BY EPD THEN THE WRITTEN CORRESPONDENCE MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMILAR SERVICE.

WASTE DISPOSAL:

1) WASTE MATERIALS: ALL SANITARY WASTE UNITS WILL BE LOCATED IN ONE AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORM WATER DISCHARGE IS NEGLIGIBLE, ADDITIONAL CONTAINMENT BMP'S MUST BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE TO PREVENT WASTES FROM CONTRIBUTING T STORM WATER DISCHARGES. THE LOCATION OF SANITARY WASTE UNITS MUST BE IDENTIFIED ON THE ES&PC PLAN BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED. ALL PERSONNEL WILL BE INSTRUCTED CONCERNING WASTE DISPOSAL THE CONTRACTOR WILL BE RESPONSIBLE FOR THIS INSTRUCTION, AND WILL BE RESPONSIBLE FOR SEEING THAT THESE INSTRUCTIONS

2) HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE AND/OR FEDERAL REGULATION AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT, WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. WILL INSTRUCT SITE PERSONNEL IN THESE PRACTICES. MATERIAL SAFETY DATA SHEETS (MSDS'S) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED AND ANOTHER COPY OF EACH MSDS WILL BE MAINTAINED IN THE ESPCP FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE O EMSDS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.

3) THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN FOUND WITHIN THE ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORMWATER DISCHARGES, IF SUCH CONTACT OCCURS, THE STORMWATER DISCHARGE WILL BE CONTAINED ON SITE UNTIL APPROPRIATE MEASURE IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS ARE TAKEN TO DISPOSE OF SUCH CONTAMINATED STORMWATER. IT SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERTY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC PLAN.

4) A MINIMUM OF ONE PORTABLE SANITARY UNIT WILL BE PROVIDED FOR EVERY TEN (10) WORKERS ON SITE. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS.

5) SANITARY SEWER WILL BE PROVIDED BY MUNICIPAL AUTHORITY/SEPTIC SYSTEM AT THE COMPLETION OF THIS PROJECT .

SPILL PREXENTION AND CONTROL NOTES:

PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ONSITE VEHICLES AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT, EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATERS, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION, DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED, PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS

FERTILIZERS/HERBICIDES-THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.

PAINTS/FINISHES/SOLVENTS-ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS, AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. THE DISCHARGE OF SOAPS OR SOLVENTS USED IN VEHICLE AND FOUIPMENT WASHING AND THE DISCHARGE OF WASTEWATER FROM WASHOUT AND CLEANOUT STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS IS PROHIBITED.

4) AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB

5) ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS. 6) PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL

7) SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER 8) WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER

9) MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED 10) THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

11) THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

A) PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RE-SEALABLE. B) ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED. C) IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER

12) MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES. 13) MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS TYPICAL

SAND. SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS. 14) SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.

MATERIALS AND EQUIPMENT INCLUDES, BUT IT NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER,

15) ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE

16) THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE. 17) SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY,

REGARDLESS OF THE SIZE. 18) THE SPILL PREVENTION PLAN WILL BE AD JUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RE-OCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

19) THE CONTRACTOR RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. ANY SPILL SHALL BE REPORTED TO HIM FOR IMMEDIATE ACTION AS SOON AS THE SPILL IS DISCOVERED. 20) CONCRETE TRUCK WASHING-NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR

 BUILDING MATERIALS-NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES. 22) FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL

BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675. 23) FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HRS.,

24) FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS. 25) SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

26) THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL

SITE DETAILS (PART IV.D):

NATURE OF THE CONSTRUCTION ACTIVITY = DEMOLITION AND DOG PARK DEVELOPMENT

) CONSTRUCTION SCHEDULE = SEE G-1 3) TOTAL AREA OF THE SITE = 1.62 ACRES

4) TOTAL DISTURBED AREA OF THE SITE = 1.62 ACRES 5) PRE-DEVELOPMENT CURVE NUMBER = 63.5

6) POST-DEVELOPMENT CURVE NUMBER = 56.9 EXISTING TOPOGRAPHIC MAP = SEE SHEET SERIES V-1

8) PLAN INDICATING DRAINAGE PATTERNS AND APPROX. SLOPES ANTICIPATED AFTER MAJOR GRADING ACTIVITIES = SEE SHEET C-2 9) PLAN INDICATING AREAS OF SOIL DISTURBANCE = SEE SHEET SERIES C-2

10) SEE SHEET SERIES C-4 FOR ALL STRUCTURAL AND NONSTRUCTURAL BMP'S. 1) IDENTIFICATION OF RECEIVING WATER(S) = TRIBUTARY OF NANCY CREEK

A) TYPE OF STREAM = WARM WATER B) SURFACE DRAINAGE AREA = 0-4.99

12) APPENDIX B RATIONALE

C) NTU ALLOWED VALUE = 75

13) BÚFFERED STATÉ WATERS PRESENT ON SITE YES (14) WETLAND ACREAGE AT THE SITE = APPROXIMATELY 0.1 ACRES 15) NO PORTION OF THE PROPERTY SWITHING A 100 PR. FLOOD HAZARD AREA PER FIRM MAP NO. 13089C0016J DATED 05/16/2013

16) NAMES AND ADDRESSES OF ALL SECONDARY PERMITTEES = N/A 17) DESCRIPTION OF APPROPRIATE CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE = SEE SHEI 18) TMDL PLÂN COMPLETED FOR FC. TMDL DRAFTED FOR BIO(F) ÎN 2007. NO SITE SPECIFIC CONDITIONS OR REQUIREMENTS

ENGINEER:

Foresite Group, Inc. **o** | 770.368.1399 5185 Peachtree Pkwy **f** | 770.368.1944 Suite 240 Norcross, GA 30092 **w** | www.fg-inc.net

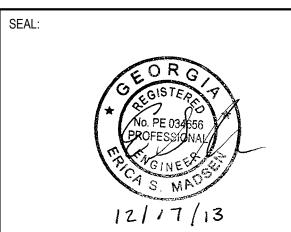
CONTACT

DEVELOPER:

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PROJECT MANAGER: DRAWING BY: N.JP

11/20/2013

12/17/2013

DUNWOODY, GA

10 AUGUST 2013

SHEET NUMBER:

COMMENTS:

JOB/FILE NUMBER:

SEDIMENTATION CONTROL PLANS

JURISDICTION:

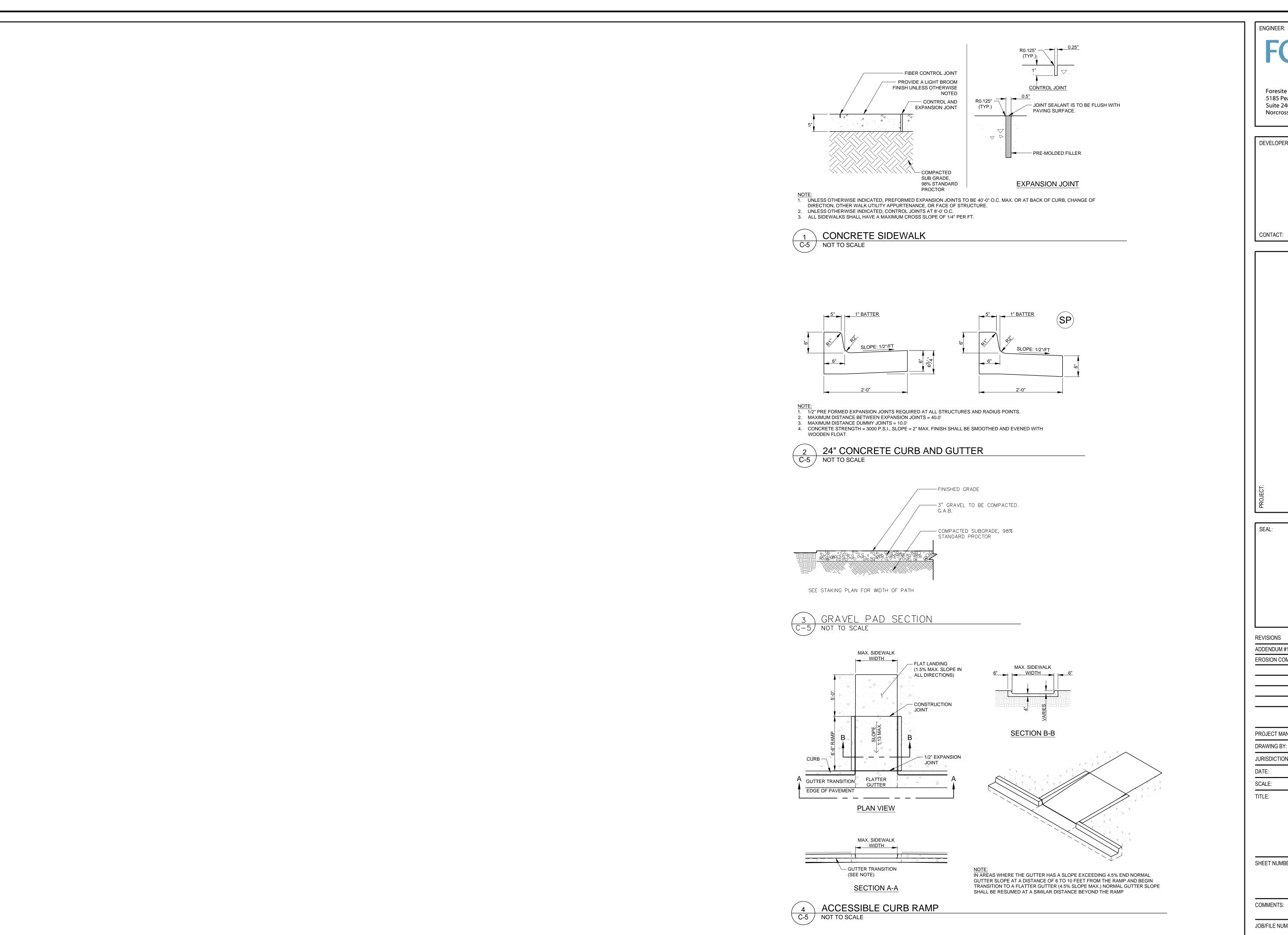
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SCALE:

REVISIONS

⚠ ADDENDUM #1

\ EROSION REVISIONS



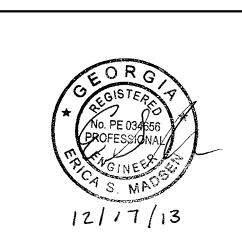
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DEVELOPER:

BROOK RUN DOG



ADDENIDURA #4	
ADDENDUM #1	11/20/2013
EROSION COMMENTS	12/9/13
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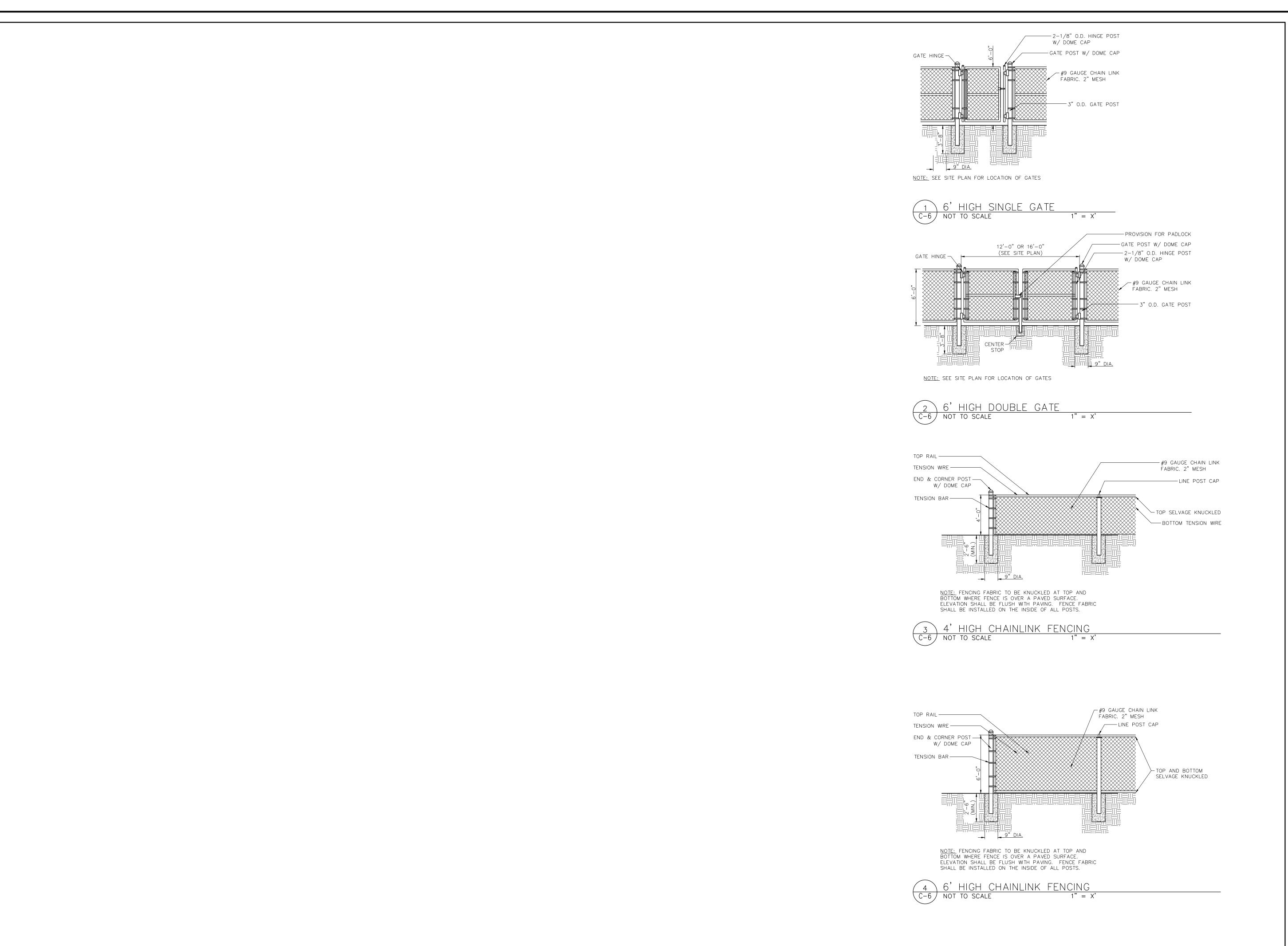
PROJECT MANAGER:	JVW
DRAWING BY:	NJP
JURISDICTION:	DUNWOODY, GA
DATE:	10 AUGUST 2013
SCALE:	AS SHOWN
TITI E:	

PAVING DETAILS

SHEET NUMBER:

JOB/FILE NUMBER:

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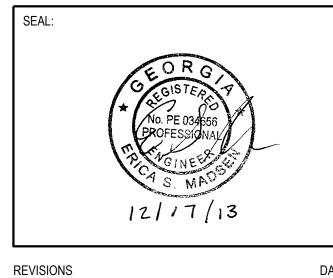
DEVELOPER:

CONTACT:

PARK

CONSTRUCTION DOCUMENTS **BROOK RUN DOG**

4770 N. PEACHTREE RD. UNWOODY, DEKALB COUNTY, GEOR L.L. 354, 18TH DISTRICT



ADDENDUM #1	11/20/2013
EROSION COMMENTS	12/9/13
-	

PROJECT MANAGER:	JVW
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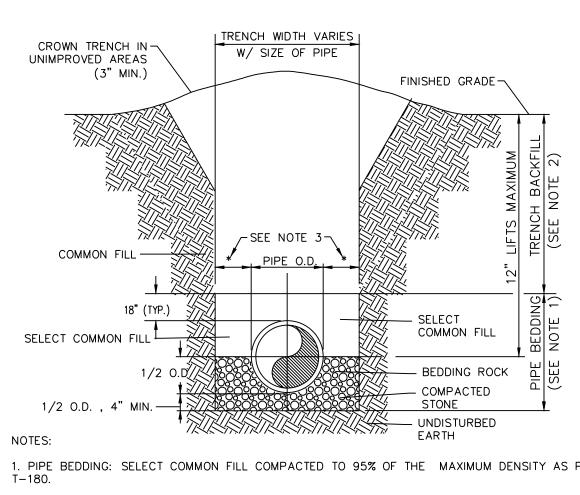
CONSTRUCTION DETAILS

SHEET NUMBER:

COMMENTS:

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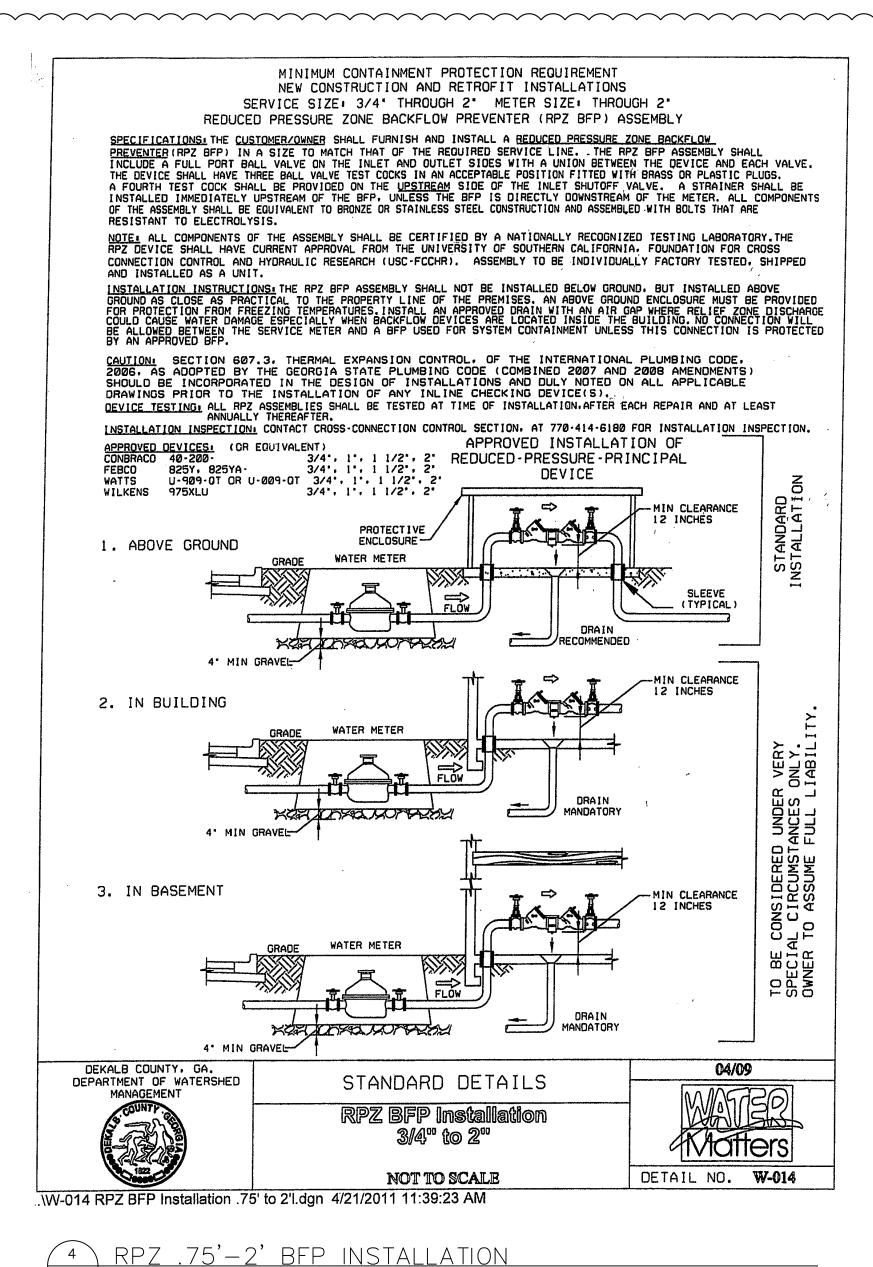


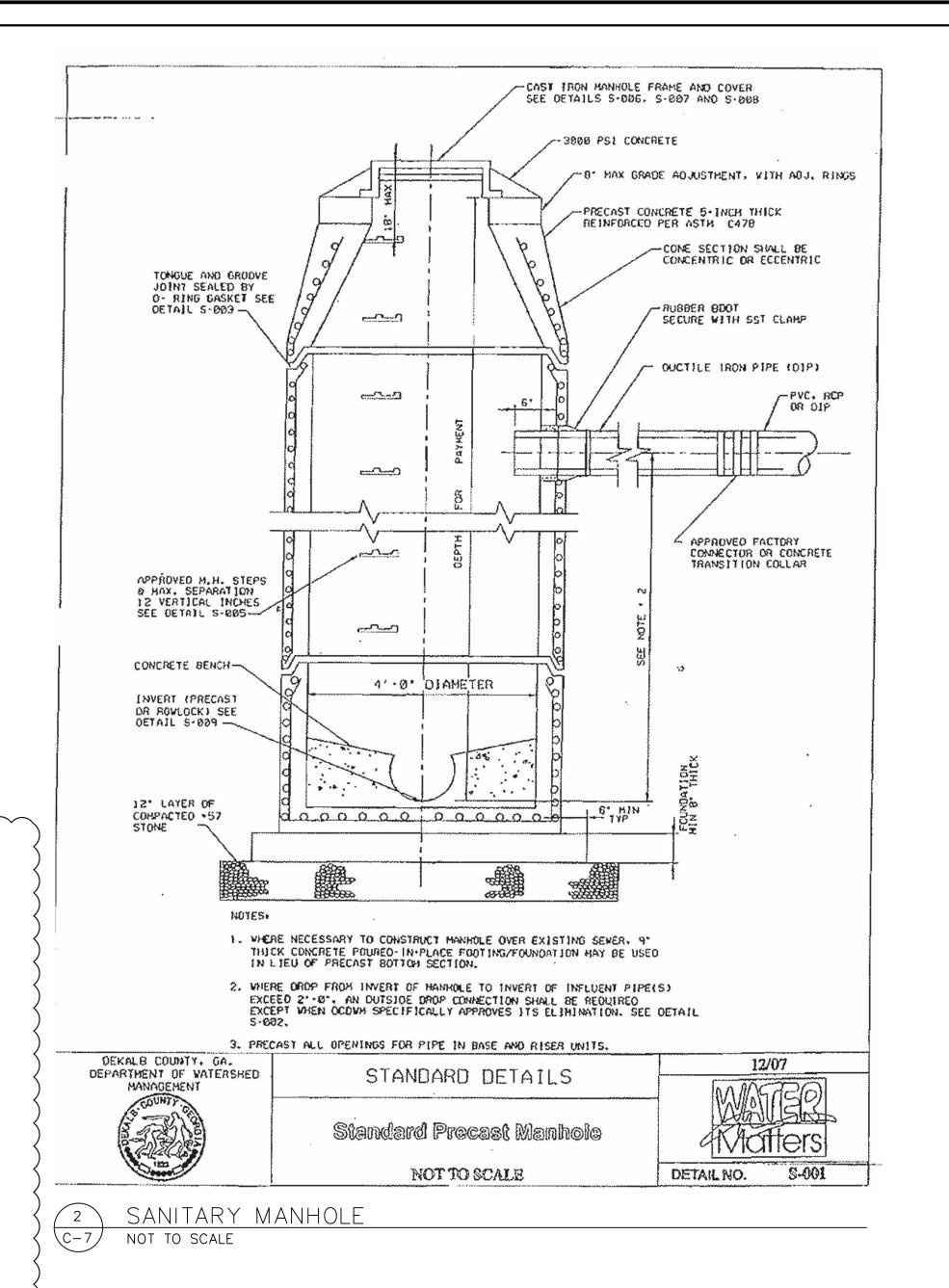
- 1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO
- 2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180. 3. (*): 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX (12" MIN.)FOR PIPE
- 4. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.

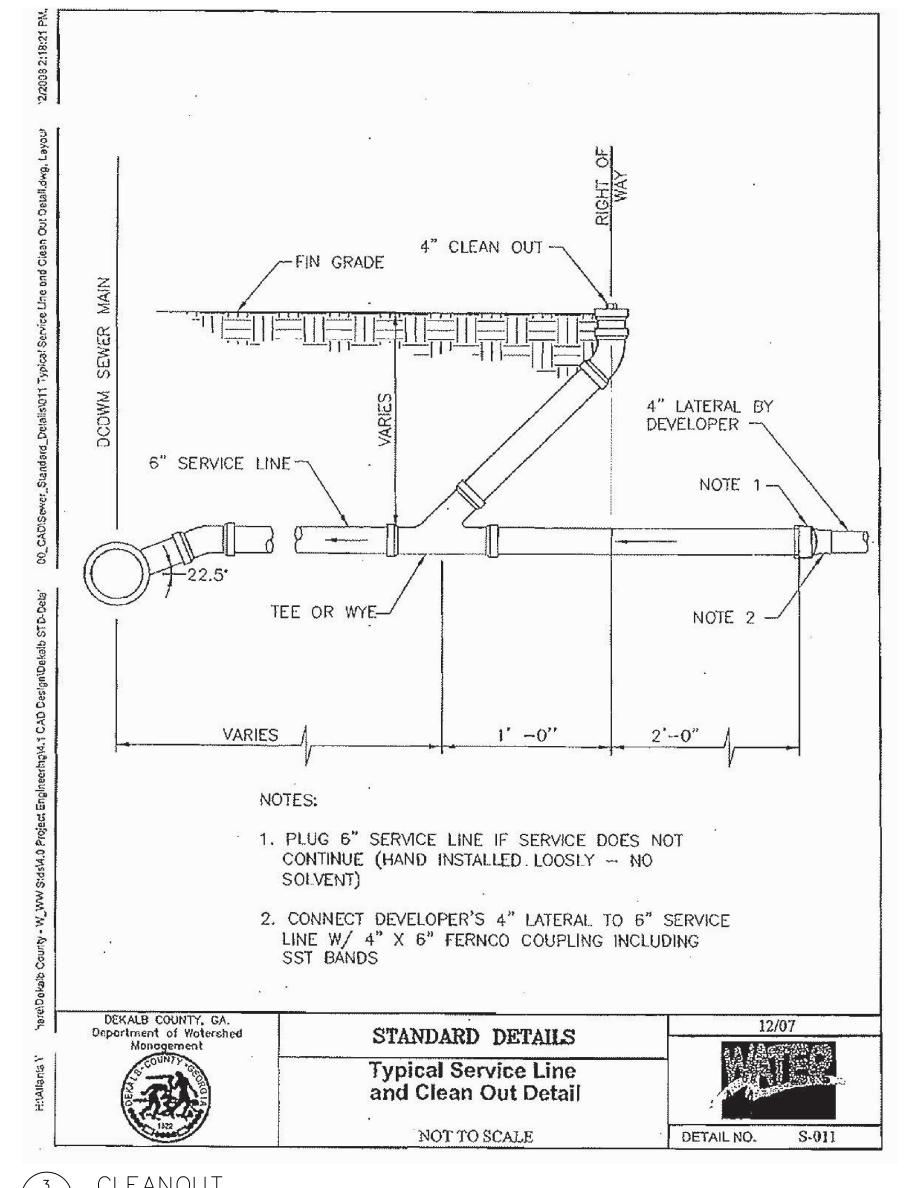
DIAMETER 24" AND LARGER.

NOT TO SCALE

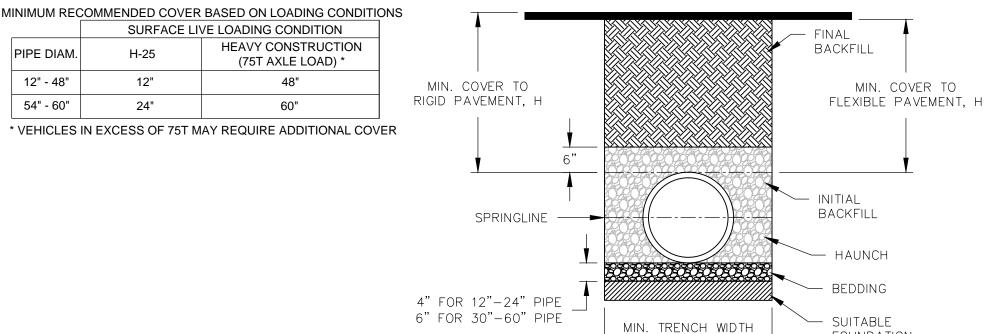
- 5. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
- 6. REFER TO THE SECTION OF THE ALDOT STANDARDS FOR SHEETING AND BRACING IN EXCAVATIONS.
- 7. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. A CERTIFIED GEOTECHNICAL ENGINEER SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
- CLASS B BEDDING AND TRENCHING DETAIL $\backslash C-7/$ NOT TO SCALE







CLEANOUT



(SEE TABLE) 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 ADDITION

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).

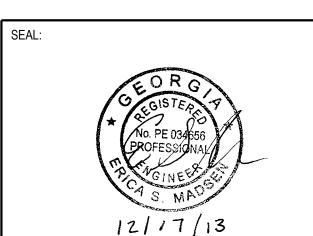
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

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 FLOATION. 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.

RECOMMENDED MINIMUM TRENCH WIDTHS PIPE DIAM. MIN. TRENCH WIDTH

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"

FOUNDATION



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PEACH B COU 18TH

ENGINEER:

Foresite Group, Inc.

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DEVELOPER:

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REVISIONS	DATE
ADDENDUM #1	11/20/2013

PROJECT MANAGER:	JVW
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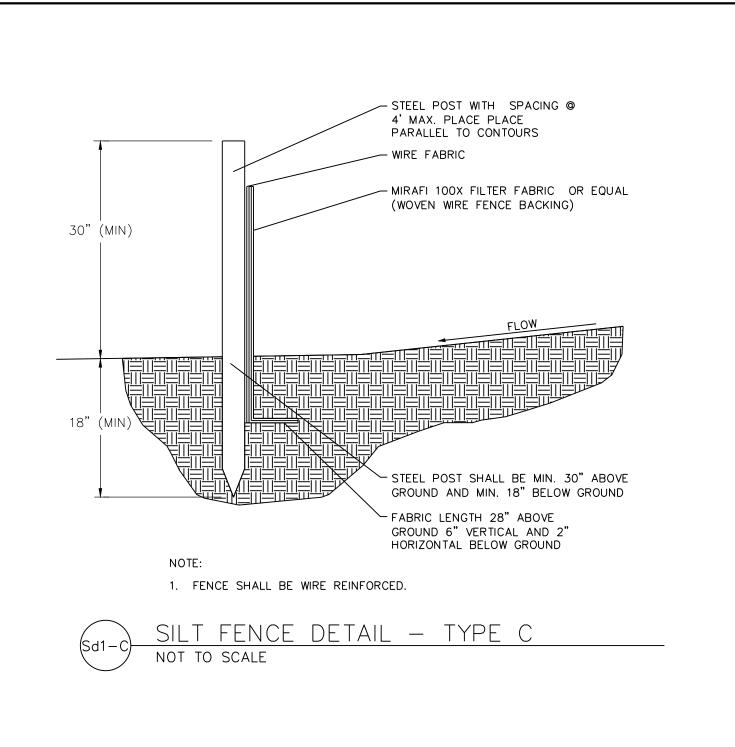
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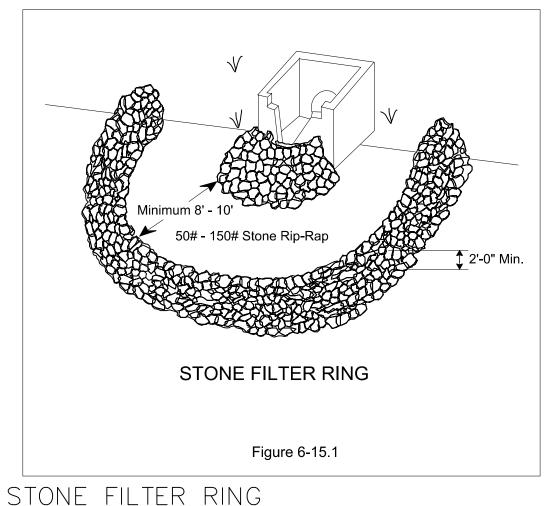
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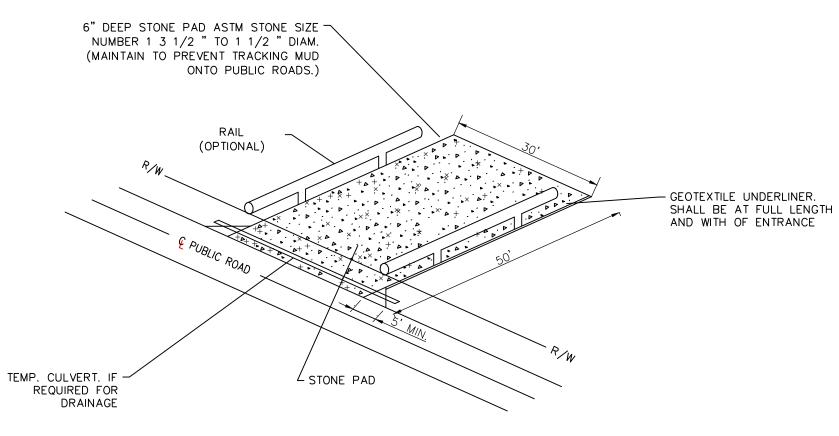
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HDPE BEDDING DETAIL NOT TO SCALE



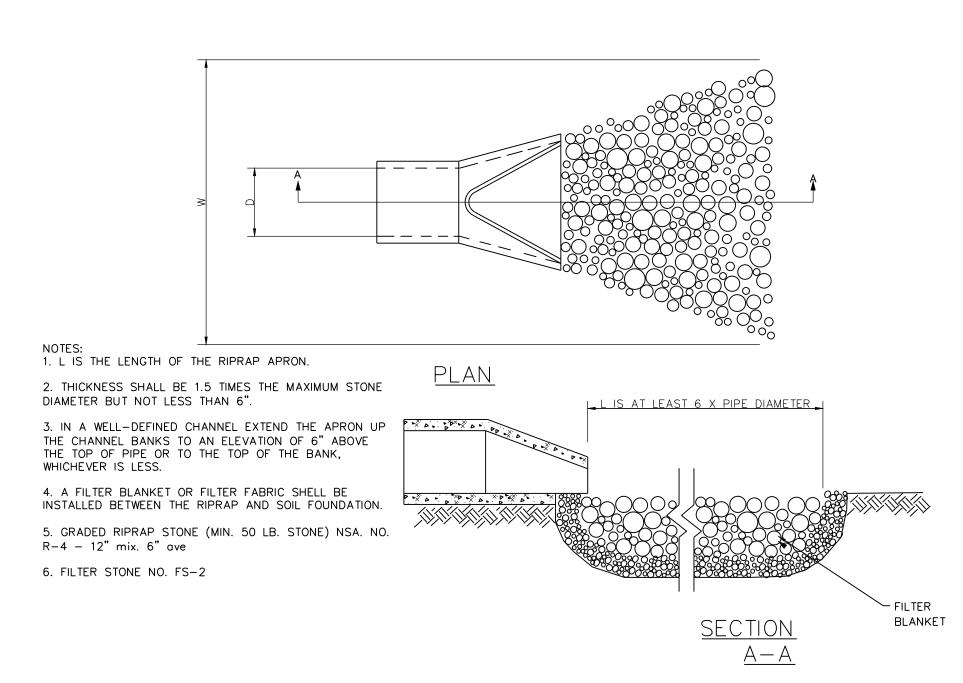


Fr STONE FILTER RING NOT TO SCALE



NOTE: THE CONSTRUCTION EXIT PAD SHALL BE AT LEAST 50 FEET IN LENGTH, SHALL OCCUPY THE FULL WIDTH OF VEHICLE EGRESS, AND SHALL BE COMPLETELY UNDERLAIN BY SUITABLE GEOTEXTTILE.

CO TEMPORARY CONSTRUCTION EXIT NOT TO SCALE



Rip-Rap Apron Summary							
	Pipe		25-year		Initial	Apron	Apron
Headwall	Diameter,	25-year	Velocity	Rip-Rap	Apron	Length,	Width,
ID	D0 (in)	Q (cfs)	(ft/sec)	Size d50	width (ft)	La (ft)	W (ft)
100	18	0.6	4.2	0.5	4.5	9	10.5

St RIP RAP
NOT TO SCALE

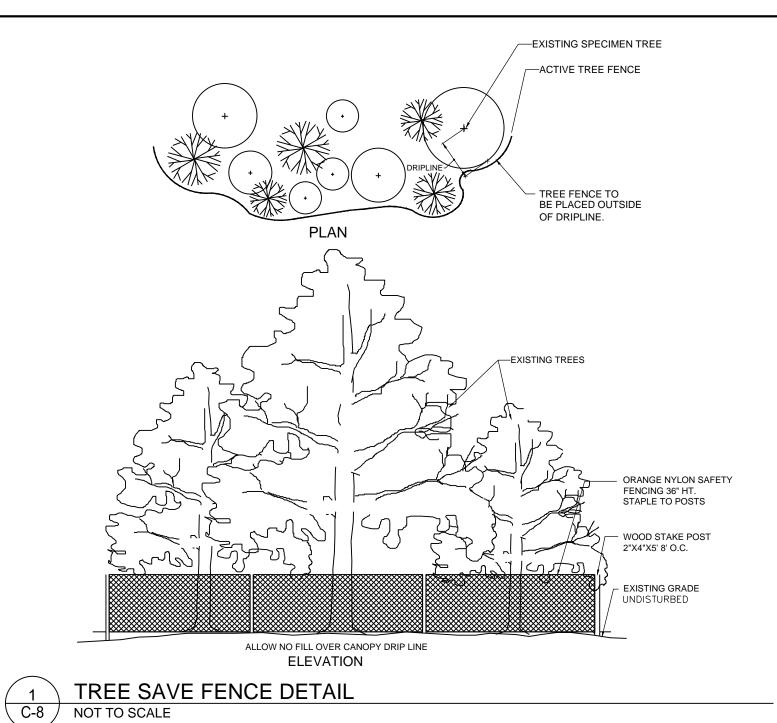
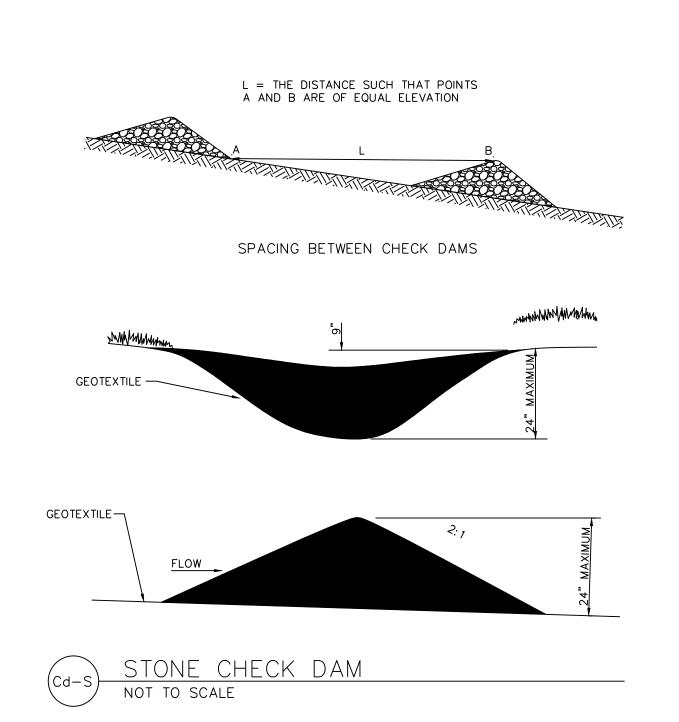
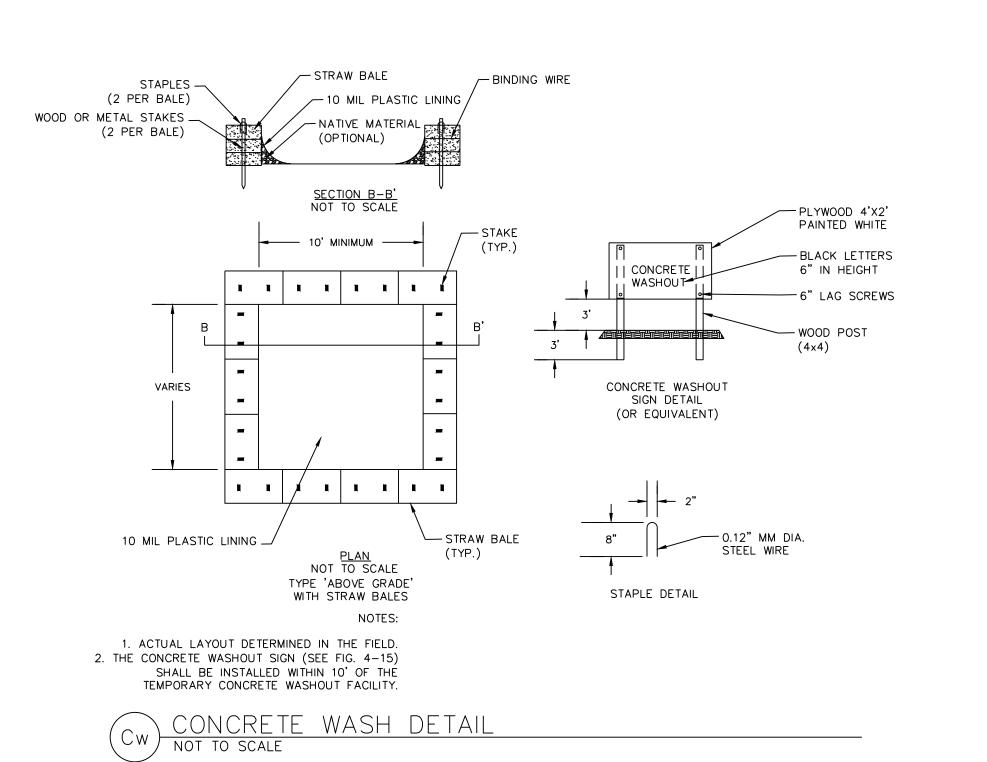


Table 6-5.1. Fertilizer Requirements						
TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE		
Cool season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 1/2/		
Cool season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	0-50 lbs./ac. 1/ —		
3. Ground covers	First Second Maintenance	10-10-10 10-10-10 10-10-10	1300 lbs./ac. 3/ 1300 lbs./ac. 3/ 1100 lbs./ac.	_		
4. Pine seedlings	First	20-10-5	one 21-gram pellet per seedling placed in the closing hole	_		
5. Shrub Lespedeza	First Maintenance	0-10-10 0-10-10	700 lbs./ac. 700 lbs./ac. 4/	_		
Temporary cover crops seeded alone	First	10-10-10	500 lbs./ac.	30 lbs./ac. 5/		
7. Warm season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 800 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 2/6/ 50-100 lbs./ac. 2/ 30 lbs./ac.		
Warm season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	50 lbs./ac./6/		

1/ Apply in spring following seeding.
2/ Apply in split applications when high rates are used.
3/ Apply in 3 split applications.
4/ Apply when plants are pruned.
5/ Apply to grass species only.
6/ Apply when plants grow to a height of 2 to 4 inches.

2 FERTILIZER APPLICATION TABLE
C-8 NOT TO SCALE





SIGNATURE OF ENGINEER

CERTIFICATION #

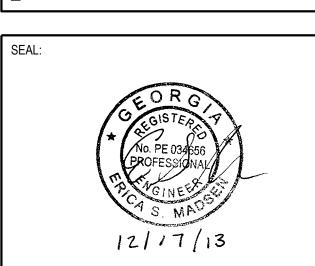
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DEVELOPER:

CONTACT:

ROOK RUN DOG PARK



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REVISIONS	DATE
ADDENDUM #1	11/20/2013

PROJECT MANAGER:	JVW
DRAWING BY:	NJP
JURISDICTION:	DUNWOODY, GA
DATE:	10 AUGUST 2013
SCALE:	AS SHOWN
TITI F:	

EROSION CONTROL DETAILS

SHEET NUMBER:

11/4/13

| DATE 04/22/2014 | EXPIRATION C-8

487.001

JOB/FILE NUMBER:

DS2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

PLANTS, PLANTING RATES AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CROPS

<u>SPECIES</u>	BROADCAST RATES 1/ - PLS 2/ PER PER ACRE 1000 SQ. FT.	RESOURCE AREA 3/				<u>REMARKS</u>								
			J	F	м	A	м,	J,	, ,	4 5	s	N	D	
BARLEY (HORDEUM VULGARE) ALONE IN MIXTURES	3 BU. (144 LBS.) 3.3 LB 1/2 BU.	M-L P C												14,000 DEED PER POUND. WINTER HARDY USE ONLY ON PRODUCTIVE SOILS.
	(24 LBS.) 0.6 LB		J	F	м	A	м .	J ,	, ,	A 5	s c	N	D	
LESPEDEZA, ANNUAL (LEZPEDEZA STRIADA)		M-L P C	_											200,000 SEED PER POUND. MAY VOLUNTEER FOR SEVERAL YEARS. USE INOCULATE EL.
ALONE	40 LBS 0.9 LB													MOGOLATE EE.
IN MIXTURES	10 LBS 0.2 LB		J	F	м	Α	м ,	J ,	, ,	A 9	s c	N	D	
LOVEGRASS, WEEPING (ERAGROSTIS BURVULA)		M-L P			=			-						1,500,000 SEED PER POUND. MAY LAST SEVERAL YEARS. MIX WITH SERICEA LESPEDEZA.
ALONE	4 LBS 0.1 LB	С		$ \uparrow $		$^{+}$	$^{+}$	-						SERICEA LESPEDEZA.
N MIXTURES	2 LBS 0.5 LB		J	F	м	A	м .	J ,	, ,	4 5	5 0	N	D	
MILLET, BROWNTOP (PANICUM FASCICULATUM)		M-L P					+	1						137,000 SEED PER POUND. QUICK DENSE COVER. WILL PROVIDE TOO
ALONE	40 LBS 0.9 LB	c				r	t	T						COMPETITION IN MIXTURES IF SEEDED AT HIGH RATE.
N MIXTURES	10 LBS 0.2 LB		J	F	м	A	м ,	J,	J /	A 5	s c	N	D	
MILLET, PEARL (PENNESETUM GLAUCUM)		M-L P				_			╡.					88,000 SEED PER POUND. QUICK
ALONE	50 LBS 1.1 LB	С				+	+	+	+					DENSE COVER. MAY REACH 5 FEET IN HEIGHT. NOT RECOMMENDED FOR MIXTURES.
IN MIXTURES			J	F	м	A	м .	J ,	, ,	A 5	s c	N	D	
OATS (AVENA SATIVA)		M-L									ŧ	Ė		13,000 SEED PER POUND. USE ON
ALONE IN MIXTURES	4 BU. (128 LBS.) 2.9 LB 1 BU. (32 LBS.) 0.7 LB	P C												PRODUCTIVE SOILS. NOT AS WINTERHARDY AS RYE OR BARLEY.
	(32 LBS.) 0.7 LB		J	F	м	A	м .	J,	J /	A 5	s	N	D	
RYE (SECALE CEREALE)		M-L P							-	t	\pm		_	18,000 SEED PER POUND. QUICK
ALONE	3 BU. (168 LBS.) 3.9 LB 1/2 BU.	С									+			COVER. DROUGHT TOLERANT AND WINTERHARDY.
IN MIXTURES	(28 LBS.) 0.6 LB		J	F	м	A	м ,	J ,	J /	A 5	s c) N	D	
RYEGRASS ANNUAL (LOLIUM		M-L P							-				L	227,000 SEED PER LB. DENSE COVER. VERY COMPETITIVE AND IS NOT TO BE
TEMULENTUM) ALONE	40 LBS 0.9 LB	C							-					USED IN MIXTURES.
			J	F	м	A	м .	J ,	, ,	4 5	s c	N	D	
SUDANGRASS (SORGHUM SUDANESE)		M-L P					+	+	+					55,000 SEED PER LB. GOOD ON DROUGHT SITES AND IS NOT TO BE
ALONE	60 LBS 1.4 LB	С												used in mixtures.
			J	F	М	A	м .	J ,	J /	4 5	5 0	N	D	
TRITICALE (X-TRITICOSECALE) ALONE	3 BU.	С								-				USE ON LOWER PART OF SOUTHERN
ALONE IN MIXTURES	(144 LBS.) 3.3 LB 1/2 BU.													COASTAL PLAIN AND IN ATLANTIC COASTAL FLATWOODS ONLY.
	(24 LBS.) 0.6 LB		J	F	м	A	м .	J ,	J /	4 5	s c	N	D	
WHEAT (TRITICUM AESTIVUM)		M-L					\dagger				E	Ė	L	15,000 SEED PER POUND.
ALONE N MIXTURES	3 BU. (180 LBS.) 4.1 LB 1/2 BU.	P C									-			WINTERHARDY

- 1/ TEMPORARY COVER CROPS ARE VERY COMPETITIVE AND WILL CROWN OUT PERENNIALS IF SEEDED TOO HEAVILY. 2/ REDUCE SEEDING RATES BY 50% WHEN DRILLED.
 3/ PLS IS AN ABBREVIATION FOR PURE LIVE SEED.
- 4/ M-L REPRESENTS THE MOUNTAIN; BLUE RIDGE; RIDGES AND VALLEYS MLPS'S
 P REPRESENTS THE SOUTHERN PIEDMONT MLRA
 C REPRESENTS SOUTHERN COASTAL PLAIN; SAND HILLS; BLACK HILLS; BLACK LANDS; AND ATLANTIC COASTAL FLATWOODS MLRA'S

DS1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

MULCHING WITHOUT SEEDING
THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT
HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE
ESTABLISHED WITH A MULCH COVER.

SITE PREPARATION

1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.

2. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES AND SEDIMENT BARRIERS.

3. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

 $\frac{\text{MULCHING MATERIALS}}{\text{SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:}$

- DRY STRAW OR HAY SHALL BE APPLIED AT THE DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.
 WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
 CHIPACK ASPHALT (SUM CHIPING) SHALL BE ADDIED AT 1200 CALLONS FED ACRE.
- 3. CUTBACK ASPHALT (SLOW CURING) SHALL BE APPLIED AT 1200 GALLONS PER ACRE (OR 4. GALLON PER SO. YD.).

 4. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND RE-USED.

<u>APPLYING MULCH</u> WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

- DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
 IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20–30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.

 CUTBACK ASPHALT SHALL BE APPLIED UNIFORMLY. CARE SHOULD BE TAKEN IN AREAS OF PEDESTRIAN TRAFFIC DUE TO PROBLEMS OF "TRACKING IN" OR DAMAGE TO SHOES, CLOTHING FTC.
- CLOTHING, ETC.

 4. APPLY POLYETHYLENE FILM ON EXPOSED AREAS.
- ANCHORING MULCH

 1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION.

 2. STRAW OR HAY MULCH SPREAD WITH THE SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED WITH FMILL SIED A SPHALT FROM SION.
- ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1. THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE. USE 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. TACKIFERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT, PLEASE REFER TO SPECIFICATION TB TACKIFERS AND BINDERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO
- MANUFACTURER'S SPECIFICATIONS.

 3. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE 4. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

<u>MULCHING</u>

MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. DRY STRAW OF DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 1 1/2 TONS PER ACRE.

APPLYING MULCH STRAW OR HAY MULCH SHALL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE.

ANCHORING MULCH.
STRAW OR HAY MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS STRAW OR HAY MOLCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AF THER THE MUCH IS SPREAD. A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL.

DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

	FERTI	LIZER REQUIREMENTS		
PES OF SPECIES YEAR ANALYSIS OR EQUIVALENT N-P-K		RATE	TOP DRESSING RATE	
1. COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS./AC 1000 LBS./AC 400 LBS./AC	50-100 LBS/AC 1/2/ 30
2. COOL SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LBS./AC 1000 LBS./AC 400 LBS./AC	0-50 LBS/AC 1/
3. GRAOUD COVERS	FIRST SECOND MAINTENANCE	10-10-10 10-10-10 10-10-10	1300 LBS./AC 3/ 1300 LBS./AC 3/ 1100 LBS./AC	
4. PINE SEEDLINGS	FIRST	20-10-15	ONE 21-GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	
5. SHRUB LESPEDEZA	FIRST MAINTENANCE	0-10-10 0-10-10	700 LBS./AC 700 LBS./AC 4/	
6. TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10-10-10	500 LBS./AC	30 LBS/AC 5/
7. WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS./AC 800 LBS./AC 400 LBS./AC	50-100 LBS/AC 2/6/ 50-100 LBS/AC 2/ 30 LBS/AC
8. WARM SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LBS./AC 1000 LBS./AC 400 LBS./AC	50-100 LBS/AC 6/

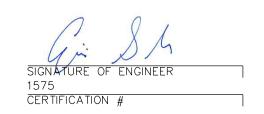
1/ APPLY IN THE SPRING FOLLOWING SEEDING.
2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED. 3/ APPLY IN SPLIT APPLICATIONS.
4/ APPLY WHEN PLANTS ARE PRUNED. 5/ APPLY TO GRASS SPECIES ONLY 6/ APPLY WHEN PLANTS GROW TO HEIGHT OF 2 TO 4 INCHES.

LIME AND FERTILIZER RATES AND ANALYSIS

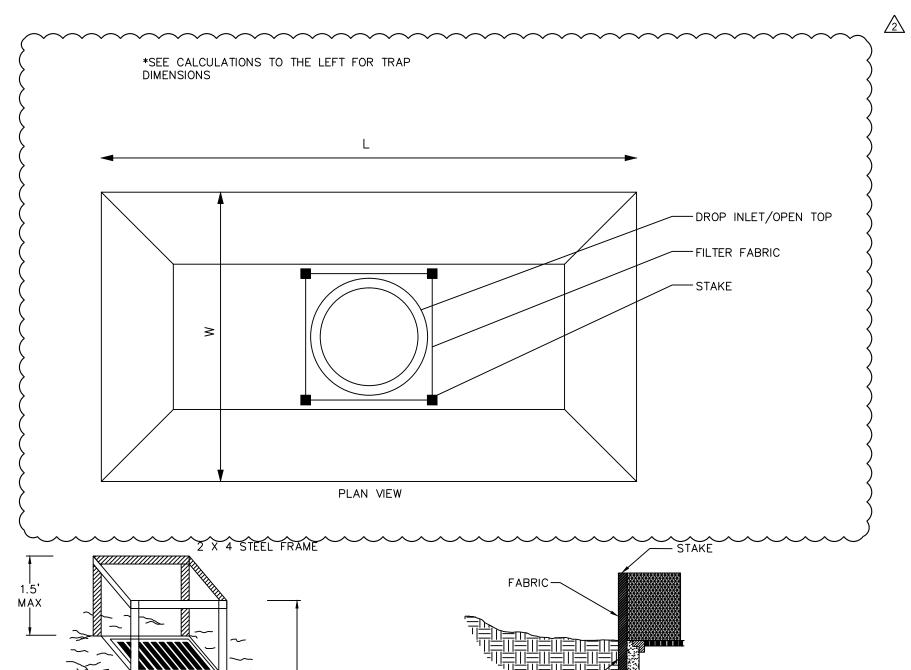
AGRICULTURAL LIME IS REQUIRED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TEST INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATION OF THE FLORIDA DEPARTMENT OF AGRICULTURE.

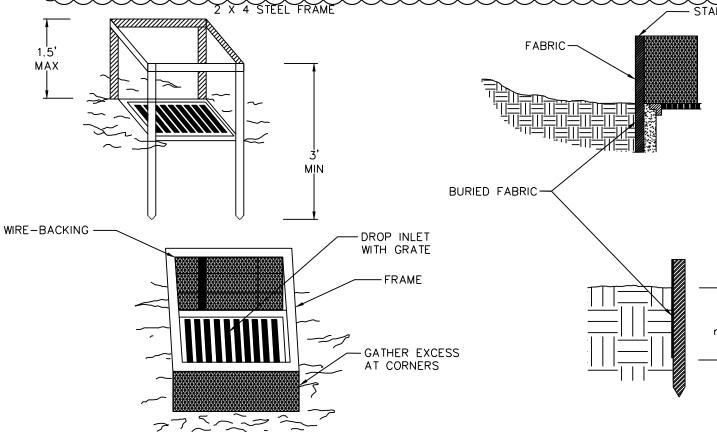
LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE "GROUND LIMESTONE." GROUND LIMESTONE IS CACITIC OR DOLOMITIC LIMESTONE GROUND SO THAT 90% OF THE MATERIAL WILL PASS THROUGH A 10-MESH SIEVE, NOT LESS THAN 50% WILL PASS THROUGH A 100-MESH SIEVE. IT IS DESIRABLE TO USE DOLOMITIC LIMESTONE IN THE SAND HILLS, SOUTHERN COASTAL PLAIN AND ATLANTIC COAST FLATWOODS MLRAS. (SEE FIGURE 6-4.1 MANUAL FOR EROSION & SEDIMENTATION

AGRICULTURAL LIME IS GENERALLY NOT REQUIRED WHERE ONLY TREES ARE PLANTED.



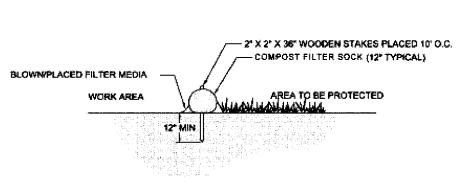




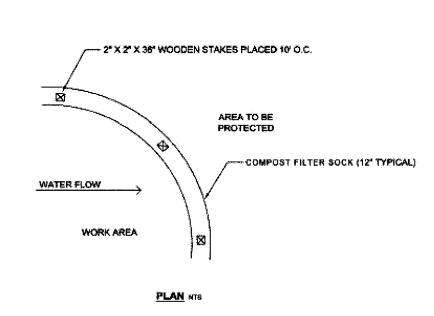


- 1. FOR STAKES, USE STEEL WITH A MINIMUM LENGTH OF 3 FEET.
- 2. SPACE STAKES EVENLY AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3 FEET APART, AND SECURELY DRIVE THEM INTO THE GROUND, MINIMUM OF 18 INCHES DEEP.
- 3. TO PROVIDE NEEDED STABILITY TO THE INSTALLATION, FRAME WITH 2 X 4 INCH WOOD STRIPS AROUND THE CREST OF THE OVERFLOW AREA AT A MAXIMUM OF 1.5 FEET ABOVE THE DROP INLET CREST.
- 4. PLACE THE BOTTOM 12 INCHES OF THE FABRIC IN A TRENCH AND BACKFILL THE TRENCH WITH CRUSHED STONE OF COMPACTED SOIL.
- 5. FASTEN FABRIC SECURELY TO THE STAKES AND FRAME. JOINTS MUST BE OVERLAPPED TO THE NEXT STAKE.
- 6. THE TOP OF THE FRAME AND FABRIC MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE FROM THE DROP INLET TO KEEP RUNOFF FROM BYPASSING THE INLET. IT MAY BE NECESSARY TO BUILD A TEMPORARY DIKE ON THE DOWN SLOPE SIDE OF THE STRUCTURE TO PREVENT BYPASS FLOW.

SEDIMENT TRAP



SECTION HTS



COMPOST FILTER SOCK

Sd1-CFS COMPOST FILTER SOCK

TO BE SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN

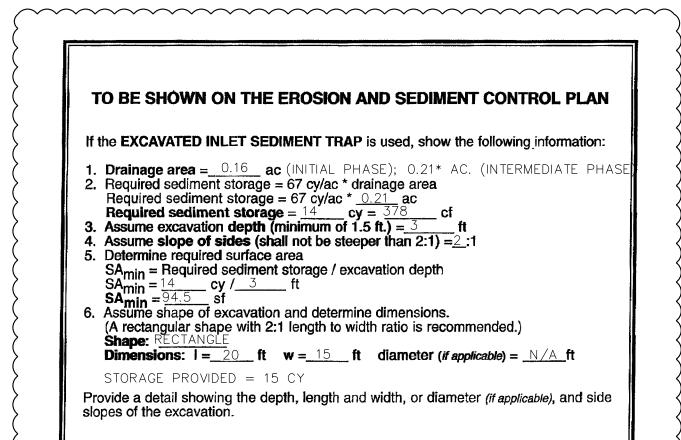
If the EXCAVATED INLET SEDIMENT TRAP is used, show the following information:

- **1. Drainage area =_ 0**.79* ac (INITIAL PHASE); 0.13 AC. (INTERMEDIATE PHASE) 2. Required sediment storage = 67 cy/ac * drainage area
- Required sediment storage = 67 cy/ac * 0.79 acRequired sediment storage = 53 cy = 1431 cf3. Assume excavation depth (minimum of 1.5 ft.) = 3.5 cf4. Assume slope of sides (shall not be steeper than 2:1) = 2:1
- SA_{min} = Required sediment storage / excavation depth 6. Assume shape of excavation and determine dimensions.

5. Determine required surface area

- (A rectangular shape with 2:1 length to width ratio is recommended.) Shape: SQUAREDimensions: I = 30 ft w = 25 ft diameter (if applicable) = N/A ft
- STORAGE PROVIDED = 56 CYProvide a detail showing the depth, length and width, or diameter (if applicable), and side slopes of the excavation.

EXCAVATED Sd2-F #1 CALCULATION



EXCAVATED Sd2-F #2 CALCULATION

TO BE SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN

If the **EXCAVATED INLET SEDIMENT TRAP** is used, show the following information:

- Drainage area = 0.87 ac (INTERMEDIATE PHASE)
 Required sediment storage = 67 cy/ac * drainage area Required sediment storage = 67 cy/ac * 0.87 ac
- Required sediment storage = 58 cy = 1566 cf 3. Assume excavation depth (minimum of 1.5 ft.) = 2 ft 4. Assume slope of sides (shall not be steeper than 2:1) =2:1 5. Determine required surface area
- SA_{min} = Required sediment storage / excavation depth SA_{min} = $\frac{58}{783}$ cy / 2 ft Assume shape of excavation and determine dimensions. (A rectangular shape with 2:1 length to width ratio is recommended.)
- **Dimensions:** l = 45 ft w = 25 ft diameter (if applicable) = N/A ft STORAGE PROVIDED = 64 CY
- Provide a detail showing the depth, length and width, or diameter (if applicable), and side slopes of the excavation.

EXCAVATED Sd2-F #3 CALCULATION

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS (*LARGEST DRAINAGE AREA USED FOR DESIGN CALCULATIONS)

			T	
		LENGTH OF SILT	STORAGE PROVIDED	
PHASE	BASIN ID	FENCE WITHIN	(16.75 CY PER 100 LF)	
		BASIN (LF)	(10.75 CT F LIX 100 LT	
INITIAL	3	304	51	
INITIAL	4	286	48	
INITIAL	5	420	70	
INITIAL	6	546	91	
INITIAL	7	480	80	
INTERMEDIATE	3	294	49	
INTERMEDIATE	4	128	21	
INTERMEDIATE	5	544	91	
INTERMEDIATE	6	546	91	
INTERMEDIATE	7	480	80	

SILT FENCE SEDIMENT STORAGE CALCULATIONS

ENGINEER:

Foresite Group, Inc. **o** | 770.368.1399 5185 Peachtree Pkwy. **f** | 770.368.1944 Suite 240 **w** | www.fg-inc.net Norcross, GA 30092

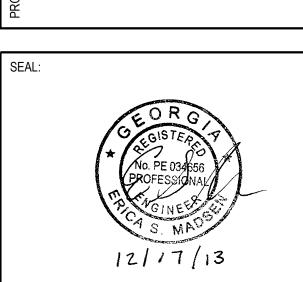
DEVELOPER:

CONTACT:

DOG NOIL 9

PEACH B COU 18TH

8



DATE
11/20/2013
12/17/2013

PROJECT MANAGER:	JVW
DRAWING BY:	NJP
JURISDICTION:	DUNWOODY, GA
DATE:	10 AUGUST 2013
SCALE:	AS SHOWN
TITLE:	

EROSION CONTROL DETAILS

SHEET NUMBER:

COMMENTS:

JOB/FILE NUMBER:

