CONTACT INFORMATION

LOWNDES COUNTY **LOWNDES COUNTY ENGINEERING DEPT. 229-671-2424 UTILITIES DEPT. - STEVE STALVEY** 229-671-2500

PROJECT ENGINEER - THOMAS HAWTHORNE **ENGINEER-OF-RECORD - CLAYTON MILLIGAN, PE** PRINCIPAL-IN-CHARGE - JEFF LOVELL, PE

24-HOUR CONTACT CHRIS ARNOLD 229-671-2425

CONTRACTOR SHALL SCHEDULE AN EROSION CONTROL INSPECTION WITH THE DESIGN PROFESSIONAL WITHIN 7 DAYS OF BEGINNING CONSTRUCTION.

NOT FOR CONSTRUCTION UNLESS SIGNED BY CITY ENGINEER OR AUTHORIZED REPRESENTATIVE.

SIGNE		
DATE		



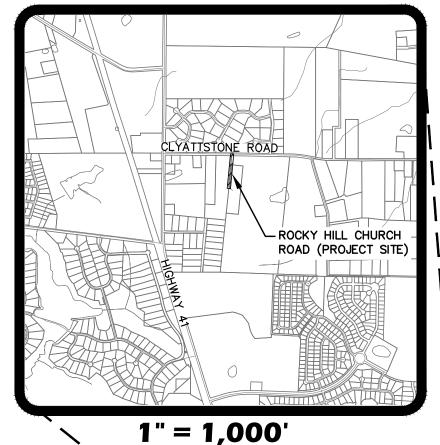
GA CORP#0419099 • FL CORP#F04000002135 P.O. Box 2830 - 3998 Inner Perimeter Road - Valdosta, GA 31604 Telephone: 229-253-0900 = Fax: 229-253-1842 = E-mail: lea@lea-pc.com

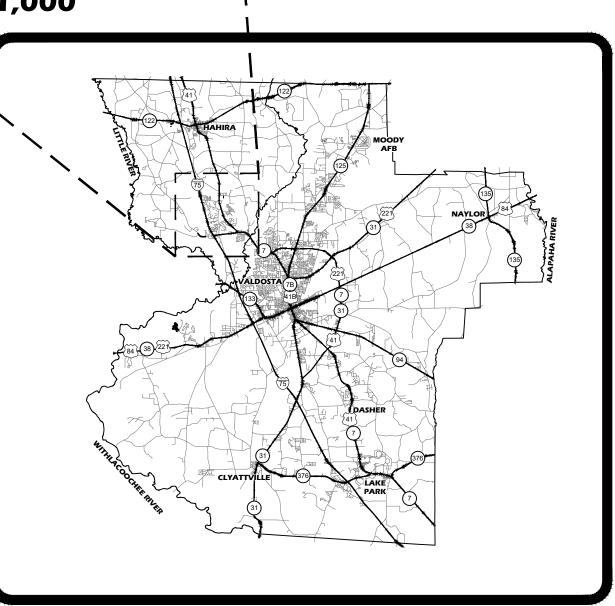
ROCKYHILL CHURCH ROAD

FOR



LEA PROJECT NUMBER 0010-131 SUBMITTAL DATE: APRIL 4, 2023 LOWNDES COUNTY, GEORGIA





LOCATION MAP N.T.S.

DRAWING INDEX

DESCRIPTION COVER **CONSTRUCTION NOTES ESPC DETAILS ESPC DETAILS ESPC DETAILS ESPC VEGETATIVE NOTES EXISTING CONDITIONS AND ESPC PLAN** PLAN AND PROFILE (1 OF 2) PLAN AND PROFILE (2 OF 2) CROSS SECTIONS (1 OF 2) CROSS SECTIONS (2 OF 2)

LEGEND

GAS LINE WATER LINE

SEWER LINE **FORCE MAIN**

STORM PIPE

EASEMENT FENCE

SPOT ELEV.

FLOW ARROW FIRE HYDRANT WATER VALVE

WATER METER

CLEANOUT

UTILITY POLE GAS VALVE MAILBOX

WATER SERVICE

SEWER MANHOLE

STORM CATCHBASIN

STORM GRATE INLET STORM HEADWALL **FLARED END SECTION**

PROPERTY LINE

OVERHEAD POWER UNDERGROUND POWER

RIGHT-OF-WAY LINE

UNDERGROUND CABLE

WATER FIRE DEPARTMENT

0



GA CORP# 0419099 FL CORP# F04000002135

P.O. Box 2830 3998 Inner Perimeter Road Valdosta, GA 31604 Fax: 229-253-1842 E-mail: lea@lea-pc.com



DATE DESCRIPTION



Know what's **below Call** before you dig.

IF YOU DIG GEORGIA... CALL US FIRST!

UTILITIES PROTECTION CENTER IT'S THE LAW

www.gaupc.com

PROPOSED

_____ R/W _____

WM

WS

SCALE: N.T.S. **DESIGNED BY:** TJH **CHECKED BY: MCM**

SUBMITTAL DATE: 4-11-2023 0010-131

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GSWCC LEVEL II CERT. #49262

COVER

G-1

GENERAL CONSTRUCTION NOTES:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY LAND OR PROPERTY BEYOND THE PROJECT CONSTRUCTION AREA WHICH MAY BE SUBJECT TO ANY EFFECTS OR BYPRODUCTS OF HIS/HER CONSTRUCTION EFFORTS.
- 2. THE CONTRACTOR SHALL MAKE SPECIAL EFFORTS TO PREVENT SOIL EROSION AND SEDIMENTATION ON ADJACENT LANDS. THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION CONTROL MEASURES (SILT FENCE, HAY BALES, SWALES AND DITCHING, AND TEMPORARY SEDIMENT PONDS AND BASINS) AS NECESSARY TO CONTROL EROSION.
- 3. LOWNDES COUNTY WILL BE RESPONSIBLE FOR ALL UTILITY RELOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO UTILITIES RESULTING FROM WORK PERFORMED BY THE CONTRACTOR. THE EXISTING UTILITIES SHOWN ON THIS SET OF DRAWINGS REPRESENT APPROXIMATE LOCATIONS OF THE UTILITIES ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER AND SHOULD BE USED FOR REFERENCE ONLY. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO MINIMIZE ANY INTERRUPTION OF UTILITY SERVICE TO THE SURROUNDING RESIDENTS.
- 4. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT DAMAGE TO THE ADJOINING STREETS.
- 5. ALL ITEMS SHOWN TO BE REMOVED AND REPLACED SHALL BE REBUILT WITH SIMILAR MATERIALS, AND SHALL MATCH EXISTING CONDITIONS WHERE
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, SUPERVISING AND MAINTAINING ALL SAFETY PROGRAMS THROUGHOUT THE DURATION OF CONSTRUCTION. ALL NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL METHODS AS NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF CONSTRUCTION. SAFE TRENCH CONSTRUCTION IS MANDATORY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PROPER TRAFFIC CONTROL DEVICES AS REQUIRED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) DURING CONSTRUCTION TO ENSURE SAFE AND ORDERLY TRAFFIC FLOW IN THE PROJECT AREA. 8. ALL SLOPES SHALL BE LAID BACK OR SHORED AS NECESSARY.
- 9. THE CONTRACTOR SHALL KEEP RECORDS OF WORK PERFORMED ON A DAILY BASIS.
- 10. THE CONTRACTOR SHALL PROVIDE ADEQUATE OVERSIGHT AND MANAGEMENT FOR HIS/HER CONSTRUCTION EFFORTS.
- 11. COOPERATION AND COORDINATION BETWEEN ALL CONTRACTORS, UTILITY COMPANIES AND SUB-CONTRACTORS ENGAGED IN THE WORK WITHIN AND ADJACENT TO THE CONSTRUCTION IS IMPORTANT FOR THE COMPLETION OF THIS PROJECT IN A TIMELY MANNER. IN THE CASE OF INTERFERENCE BETWEEN THE OPERATIONS OF THE DIFFERENT CONTRACTORS, UTILITY COMPANIES, AND SUB-CONTRACTORS, THE OWNER WILL BE THE SOLE
- JUDGE OF THE RIGHTS OF EACH AND THE SEQUENCE OF THE WORK NECESSARY TO EXPEDITE THE COMPLETION OF THIS PROJECT. 12. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, RULES, REGULATIONS, AND LAWS OF LOCAL, MUNICIPAL, STATE OR FEDERAL AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT.
- 13. ALL PERMITS REQUIRED FOR CONSTRUCTION OPERATIONS SHALL BE OBTAINED BY LOWNDES COUNTY. THE CONTRACTOR SHALL SAW CUT EXISTING ASPHALT AND CONCRETE PAVEMENT AS REQUIRED TO PRODUCE A SMOOTH JOINT WITH NEW PAVEMENT.
- 14. THE CONTRACTOR SHALL ADJUST ALL EXISTING UTILITIES AND STORM DRAINAGE STRUCTURES AS NECESSARY TO MATCH PROPOSED GRADES. 15. DRIVEWAYS ADJACENT TO THE WORK SHALL BE GRADED TO TIE TO THE PROPOSED FINISHED GRADE. DRIVEWAY GRADES SHALL NOT EXCEED
- THOSE SHOWN ON THE TYPICAL DRIVEWAY PROFILE. 16. THE CONTRACTOR SHALL USE CARE DURING CONSTRUCTION OF ROADSIDE DITCHES TO MINIMIZE DAMAGE TO THE ROOT SYSTEM OF ANY TREES
- AND SHRUBS ON OR NEAR THE RIGHT-OF-WAY LINE. 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING. 18. THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES, CURRENT EDITION,
- AND/OR SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS SHALL GOVERN THE WORK ON THIS PROJECT. 19. THE CONTRACTOR SHALL NOTIFY THE LOWNDES COUNTY ENGINEERING SERVICES AT LEAST 24 HOURS PRIOR TO THE START OF EACH PHASE OF
- CONSTRUCTION, SO THAT A COUNTY INSPECTOR CAN BE PRESENT. 20. ALL DIMENSIONS SHOWN ON THESE DRAWINGS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- 21. THE CONTRACTOR SHALL MAINTAIN, AT ALL TIMES, ADEQUATE AND SAFE ACCESS FOR ALL RESIDENTS AND/OR ADJOINING PROPERTY OWNERS DURING CONSTRUCTION. 22. ALL EXISTING STORM PIPES TO BE REMOVED UNLESS NOTED OTHERWISE ON THE PLANS.
- 23. THE CONTRACTOR SHALL RELOCATE ALL MAILBOXES AND SIMILAR ITEMS WITHIN THE RIGHT-OF-WAY WHICH CONFLICT WITH PROPOSED WORK.

CLEARING AND GRADING NOTES:

- 1. ALL STRUCTURES, FENCES, CONCRETE, ASPHALT, AND UTILITIES NOT DESIGNATED TO BE SAVED WITHIN THE CLEARING LIMITS ARE TO BE REMOVED.
- 2. CONTRACTOR TO FILL ALL HOLES CREATED BY THE REMOVAL OF STRUCTURES, FENCES, AND TREES AND RETURN THOSE AREAS TO NATURAL GRADE.
- 3. THE CONTRACTOR SHALL COMPLY WITH APPLICABLE CODES, ORDINANCES, RULES, REGULATIONS AND LAWS OF LOCAL, MUNICIPAL, STATE OR FEDERAL AUTHORITIES HAVING JURISDICTION OVER THE PROJECT. ALL REQUIRED PERMITS OF A TEMPORARY NATURE SHALL BE OBTAINED FOR CONSTRUCTION OPERATIONS BY THE CONTRACTOR
- 4. GRUBBING SHALL CONSIST OF COMPLETELY REMOVING ROOTS, STUMPS, TRASH AND OTHER DEBRIS FROM ALL GRADED AREAS SO THAT TOPSOIL IS FREE OF ROOTS AND DEBRIS. TOPSOIL IS TO BE LEFT SUFFICIENTLY CLEAN SO THAT FURTHER PICKING AND RAKING WILL NOT BE REQUIRED.
- 5. ALL STUMPS, ROOTS, FOUNDATIONS AND PLANKING EMBEDDED IN THE GROUND SHALL BE REMOVED AND DISPOSED OF. PILING AND BUTTS OF UTILITY POLES SHALL BE REMOVED TO A MINIMUM DEPTH OF TWO FEET BELOW THE LIMITS OF EXCAVATION FOR STRUCTURES, TRENCHES AND ROADWAYS OR TWO FEET BELOW FINISH GRADE, WHICHEVER IS LOWER.
- 6. SURFACE ROCKS AND BOULDERS SHALL BE GRUBBED FROM THE SOIL AND REMOVED FROM THE SITE IF NOT SUITABLE AS
- 7. ANY WORK PERTAINING TO UTILITY POLES SHALL COMPLY WITH THE REQUIREMENTS OF THE APPROPRIATE UTILITY 8. THE DEBRIS RESULTING FROM THE CLEARING AND GRUBBING OPERATION SHALL BE HAULED TO A DISPOSAL SITE SECURED BY THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL REQUIREMENTS OF FEDERAL, STATE, COUNTY AND MUNICIPAL REGULATIONS. NO DEBRIS OF ANY KIND SHALL BE DEPOSITED IN ANY STREAM OR BODY OF WATER, OR IN ANY STREET OR ALLEY. NO DEBRIS SHALL BE DEPOSITED UPON ANY PRIVATE PROPERTY EXCEPT WITH WRITTEN CONSENT OF THE PROPERTY OWNER. A COPY OF WRITTEN CONSENT SHALL BE PROVIDED TO THE OWNER FOR PERMANENT RECORDS. IN NO CASE SHALL ANY MATERIAL OR DEBRIS BE LEFT ON THE PROJECT, SHOVED ONTO ABUTTING PRIVATE PROPERTIES OR
- BURIED ON THE PROJECT. 9. ALL GROWTH OF TREES, OTHER VEGETATION AND OBJECTIONABLE DEBRIS SHALL BE CLEARED AND GRUBBED FROM THE PROPOSED PAVED AREAS, LOCATION OF PROPOSED UTILITIES, AS WELL AS AREAS INDICATED TO BE GRADED ON THE
- 10. ALL TREES, BRANCHES, VEGETATION AND DEBRIS SHALL BE DISPOSED OF IN A LEGAL MANNER ACCEPTABLE TO THE OWNER
- AND ENGINEER. BURNING PERMIT WILL BE OBTAINED BY THE CONTRACTOR AT OWN EXPENSE. 11. CONTRACTOR SHALL REMOVE TOPSOIL TO ITS ENTIRE DEPTH FROM ALL AREAS TO BE GRADED AND/OR FILLED.
- CONTRACTOR SHALL STOCKPILE OR REMOVE THE TOPSOIL FROM THE SITE AT OWNER'S DIRECTION. 12. ROADWAYS, EASEMENTS, AND SPECIAL FILL AREAS TO BE GRADED AND COMPACTED TO THE FINISHED SUBGRADE OR
- GRADES AS SHOWN ON THE PLANS. 13. IF UNSUITABLE MATERIAL IS ENCOUNTERED WITHIN THE ROADWAY, PARKING AREA OR ANY SPECIAL FILL AREA. IT SHALL
- BE REMOVED FROM THE ENTIRE PROPOSED PAVED AREA OR FILL AREA AND REPLACED WITH SELECT BACKFILL WHICH IS SUITABLE FOR ROADWAY (OR BUILDING SITE) CONSTRUCTION AS PER GDOT REQUIREMENTS AND ANY SPECIAL REQUIREMENTS OF THE COUNTY, ENGINEER, AND ANY AFFECTED GOVERNMENTAL AGENCIES.
- 14. FILL AND BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STD. PROCTOR DENSITY AT OPTIMUM MOISTURE $\pm 2\%$ UNLESS SPECIFIED OTHERWISE ON THE PLAN.

1/2" PER FOOT

-1 1/2 INCH ASPHALTIC CONCRETE

12.5 mm SUPERPAVE, LEVEL A

- 15. ALL GRADING OPERATIONS SHALL BE DONE IN SUCH A MANNER SO AS TO PROVIDE POSITIVE DRAINAGE AT ALL TIMES. 16. ALL GRADES SHOWN ON PLANS ARE FINAL GRADE.
- 17. ALL UNSUITABLE MATERIALS EXCAVATED/DISCOVERED AS A RESULT OF UTILITY INSTALLATION, STORM PIPE INSTALLATION, AND GRADING THAT IS LOCATED INSIDE THE RIGHT-OF-WAY SHALL BE REMOVED AND GDOT APPROVED STRUCTURAL FILL
- 18. ALL DRAINAGE EASEMENTS SHALL BE CLEANED AND GRADED TO PROVIDE POSITIVE DRAINAGE.

SLOPE TO DRAIN

NOTE: CROSS-SLOPE OF DRIVEWAY SHALL BE IN THE SAME DIRECTION AS DITCH FLOW.

NOTE: DETAILED GRADING FOR DRIVEWAYS NOT SHOWN ON PLAN & PROFILE SHEETS.

TYPICAL DRIVEWAY SECTION

CONTRACTOR TO GRADE DRIVEWAYS PER TYPICAL DRIVEWAY DETAILS.

- 8 INCHES GAB

BASE COURSE

PAVING, STRIPING, & SIGNAGE NOTES:

ALL SUBGRADE, BASE, AND PAVEMENT OPERATIONS SHOULD MEET THE MINIMUM REQUIREMENTS OF THE CURRENT EDITION OF GDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF TRANSPORTATION SYSTEMS" GDOT SPEC SECTION:

SUBGRADE CONSTRUCTION SOIL-CEMENT CONSTRUCTION 301 GRADED AGG. BASE CONSTR. 400 HOT MIX ASPHALTIC CONCRETE PORTLAND CEMENT CONCRETE

- 2. ALL TRAFFIC STRIPING SHALL BE HIGH BUILD ONLY AND ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC ONLY
- 3. CONTRACTOR SHALL INSTALL ALL STORM SEWER PIPE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- 4. CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING OFFICIAL DEPARTMENT OF TRANSPORTATION AND LOCAL GOVERNMENT SIGNS AND POSTS WITH NEW SIGNS IN THEIR APPROXIMATE SAME LOCATION.
- 5. ALL ROAD SIGNS (STOP SIGN, SPEED LIMIT SIGN, NO OUTLET SIGN, ETC & INCLUDING POLES AND
- HARDWARE) SHALL BE PROVIDED BY AND INSTALLED BY CONTRACTOR PER MUTCD STANDARDS.. 6. R2-1 SIGNS SHALL HAVE TYPE III REFLECTIVE SHEETING BACKGROUND. ALL OTHER SIGNS SHALL HAVE
- TYPE VI REFLECTIVE SHEETING BACKGROUND. 7. ALL SIGNS ON THIS PROJECT SHALL BE ERECTED AT A HEIGHT OF 7' ABOVE LEVEL OF ROADWAY EDGE TO
- BOTTOM OF SIGN. 8. A ½" MINIMUM AIR SPACE SHALL BE ALLOWED BETWEEN ALL SIGN PLATES WITHIN AN ASSEMBLY.
- 9. WHERE SIGN ASSEMBLIES EXTEND BELOW STANDARD MOUNTING HOLES ON POSTS, AN ADDITIONAL $rac{3}{8}$ " HOLE OR HOLES, DRILLED OR PUNCHED WILL BE REQUIRED TO PROPERLY MOUNT ASSEMBLY. 10. ALL SIGNS SHALL BE MADE AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS AND
- IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", CURRENT EDITION, AND ANY SUPPLEMENTAL SPECIFICATIONS AND/OR THE SPECIAL PROVISIONS. 11. SIGN ASSEMBLIES SHALL BE MOUNTED ON ALUMINUM OR GALVANIZED STEEL FRAME. SIGNAGE SHALL MEET REQUIREMENTS PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND PER THE GEORGIA

LOWNDES COUNTY NOTES:

DEPARTMENT OF TRANSPORTATION.

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOWNDES COUNTY STANDARDS AND SPECIFICATIONS. 2. CONTRACTOR SHALL NOTIFY THE LOWNDES COUNTY ENGINEERING SERVICES AT LEAST 24 HOURS PRIOR TO THE BEGINNING OF EACH PHASE OF CONSTRUCTION.
- 3. CONTRACTOR SHALL NOTIFY THE LOWNDES COUNTY UTILITIES DEPARTMENT AT LEAST 24 HOURS PRIOR TO
- ANY CONNECTION TO THE LOWNDES COUNTY UTILITY SYSTEM.
- 4. ALL EXTENSIONS AND ADDITIONS TO THE COUNTY UTILITY SYSTEM SHALL BE PERFORMED BY A GEORGIA LICENSED UTILITY CONTRACTOR.
- 5. A MINIMUM OF 18" OF VERTICAL AND 10' OF HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN **ALL UTILITIES.**
- 6. ANY CROSS CONNECTION TO THE LOWNDES COUNTY WATER SYSTEM IS PROHIBITED. 7. ALL T'S AND BENDS SHALL BE DUCTILE IRON.

SIGN LEGEND

SPEED

R2 - 1

SPEED LIMIT



W14 - 2

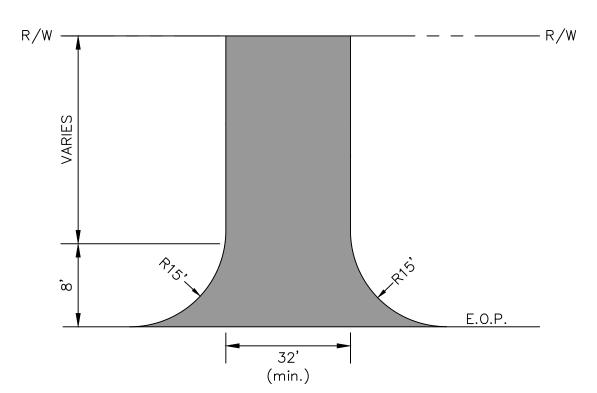
NO OUTLET

24" WIDE THERMOPLASTIC WHITE

STOP BAR WITH R1-1 STOP SIGN

DATE DESCRIPTION

TYPICAL DRIVEWAY PROFILE



TYPICAL DRIVEWAY PLAN (DITCH)

2% SLOPE

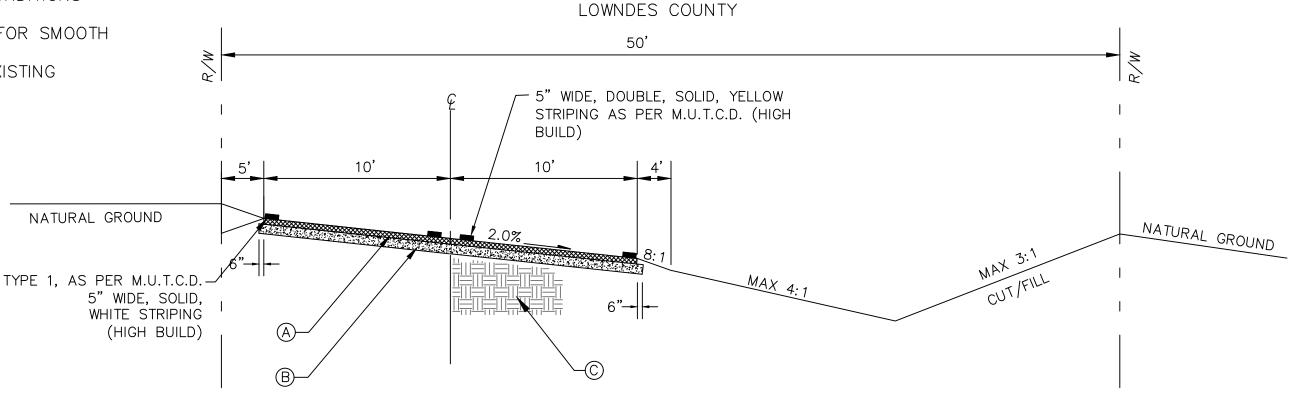
NOTE:

- 1. ALL EXISTING IMPROVED DRIVEWAYS SHALL BE REBUILT WITH SIMILAR MATERIALS AND SHALL MATCH EXISTING CONDITIONS
- 2. CONTRACTOR SHALL SAW CUT EXISTING DRIVEWAY FOR SMOOTH
- 3. CONTRACTOR TO FLARE TIE IN WIDTH TO MATCH EXISTING CONCRETE AND ASPHALT DRIVEWAY WIDTHS WHERE APPLICABLE.

SURVEY PROVIDED BY:



P.O. Box 2860 = 3998 Inner Perimeter Road = Valdosta, GA 31604 Telephone: 229-247-1552 **F**ax: 229-247-1553 **E**-mail: gl@gl-sm.com **UPC LOCATE TICKET #: 210816-003235**



A 1.5" 12.5 mm SUPERPAVE

(B) 8" GAB

(C) UPPER 12" COMPACTED TO 95% STANDARD PROCTOR

ROAD TYPICAL SECTION

N.T.S. SCALE: **DESIGNED BY:** TJH **CHECKED BY: MCM** SUBMITTAL DATE: 4-11-2023

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GSWCC LEVEL II CERT. #49262

CONSTRUCTION **NOTES**

G-2

EROSION CONTROL NOTES

EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE MINIMUM REQUIREMENTS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE EMPLOYED BY THE CONTRACTOR WHERE DETERMINED NECESSARY BY LOCAL AUTHORITIES OR THE ENGINEER BASED UPON ACTUAL SITE CONDITIONS.

EROSION CONTROL MEASURES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE DRAINAGE PATTERNS SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION.

IF FINES OR PENALTIES ARE LEVIED AGAINST THE PROPERTY OR THE PROPERTY OWNER BECAUSE OF A LACK OF EROSION OR SEDIMENTATION CONTROL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF SUCH FINES OR PENALTIES, OR THE COST OF SUCH FINES OR PENALTIES SHALL BE DEDUCTED FROM THE CONTRACT AMOUNT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES AT ALL TIMES DURING CONSTRUCTION. STORM DRAINAGE SYSTEMS SHALL BE KEPT CLEAN AND FREE OF SILT AND DEBRIS.

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

THE CONSTRUCTION OF THE SITE WILL INITIATE WITH INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS AND/OR PARKING AREAS HAVE BEEN PAVED.

THE CONTRACTOR SHALL INSPECT AND REPAIR EROSION CONTROL MEASURES AT LEAST DAILY AND FOLLOWING EACH RAINFALL.

THE CONTRACTOR SHALL NOT ALLOW SILT TO ACCUMULATE IN SILT FENCE ABOVE ONE-HALF OF THE ORIGINAL HEIGHT OF THE SILT FENCE. THE CONTRACTOR SHALL REMOVE SILT AS NEEDED TO PREVENT EXCESS ACCUMULATION.

ALL AREAS TO BE PAVED SHALL BE STABILIZED WITH BASE MATERIAL AS SOON AS PRACTICAL. TEMPORARY VEGETATIVE STABILIZATION, OUTSIDE OF PAVED AREAS, SHALL BE PROVIDED IMMEDIATELY AFTER REACHING FINAL GRADE.

PERMANENT VEGETATION SHALL BE PROVIDED AT THE EARLIEST SUITABLE GROWING SEASON.

TEMPORARY MULCHING SHALL BE EMPLOYED TO PROTECT CRITICAL AREAS DURING CONSTRUCTION.

ALL TEMPORARY AND PERMANENT VEGETATION SPECIES TO BE APPROVED BY LOWNDES COUNTY ENGINEERING DEPARTMENT PRIOR TO APPLICATION.

CHECKDAM W/ STONE L - THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL DISTANCE SPACING BETWEEN CHECK DAMS STONE CHECK DAM 24" MAXIMUM GEOTEXTILE → 24" MAXIMUM 1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO <u>BE USED IN LIVE STREAMS).</u> THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDGE.

THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE. GEOTEXTILE SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL

PARTICLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3).

Ch CHANNEL STABILIZATION

DEFINITION

IMPROVING, CONSTRUCTING OR STABILIZING AN OPEN CHANNEL FOR WATER CONVEYANCE.

PURPOSE

OPEN CHANNELS ARE CONSTRUCTED OR STABILIZED TO BE NON-EROSIVE, WITH NO SEDIMENT DEPOSITION AND TO PROVIDE ADEQUATE CAPACITY FOR FLOOD WATER, DRAINAGE, OTHER WATER MANAGEMENT PRACTICES, OR ANY COMBINATION THEREOF.

CONDITIONS

THIS STANDARD APPLIES TO THE IMPROVEMENT, CONSTRUCTION OR STABILIZATION OF OPEN CHANNELS AND EXISTING DITCHES WITH DRAINAGE AREAS LESS THAN ONE SQUARE MILE. THIS STANDARD APPLIES ONLY TO CHANNELS CONVEYING INTERMITTENT FLOW, NOT TO CHANNELS CONVEYING A CONTINUOUS, LIVE STREAM.

DESIGN CRITERIA

VEGETATED LINING - CH-V VEGETATED LINING SHALL BE DESIGNED TO RESIST EROSION WHEN THE CHANNEL IS FLOWING AT THE BANKFULL DISCHARGE OR 25-YEAR FREQUENCY DISCHARGE, WHICHEVER IS THE LESSER. TEMPORARY EROSION CONTROL BLANKETS OR SOD SHALL BE USED ON ALL CHANNELS AND CONCENTRATED FLOW AREAS TO AID IN THE ESTABLISHMENT OF THE VEGETATED LINING. IF A VEGETATED LINING IS DESIRED IN A CHANNEL WITH VELOCITIES BETWEEN 5-10 FT/SEC, PERMANENT SOIL REINFORCEMENT SHALL

SPECIFICATIONS

- 1. WHERE NEEDED, ALL TREES, BRUSH, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED SO THEY WILL NOT INTERFERE WITH THE CONSTRUCTION OR PROPER FUNCTIONING OF THE CHANNEL.
- 2. WHERE POSSIBLE, TREES WILL BE LEFT STANDING, AND STUMPS WILL NOT BE REMOVED.
- 3. EXCAVATION SHALL BE AT THE LOCATIONS AND GRADES SHOWN ON THE DRAWINGS.
- 4. THE GEOTEXTILE SHALL BE PLACED ON A SMOOTH GRADED SURFACE. THE GEOTEXTILE SHALL BE PLACED IN SUCH A MANNER THAT IT WILL NOT EXCESSIVELY STRETCH OR TEAR UPON PLACEMENT OF THE OVERLYING MATERIALS. CARE SHOULD BE TAKEN TO PLACE THE GEOTEXTILE IN INTIMATE CONTACT WITH THE SOIL SUCH THAT NO VOID SPACES EXIST BETWEEN THE UNDERLYING SOIL AND THE GEOTEXTILE.

- 5. CONSTRUCTION PLANS WILL SPECIFICALLY DETAIL LOCATION AND HANDLING OF SPOILS. SPOIL MATERIAL RESULTING FROM CLEARING, GRUBBING AND CHANNEL EXCAVATION SHALL BE DISPOSED OF IN A MANNER WHICH WILL:
- 5.1. NOT CAUSE AN INCREASE IN FLOOD STAGE. 5.2. MINIMIZE OVERBANK WASH,
- 5.3. NOT CAUSE AN ADVERSE EFFECT ON THE ENVIRONMENTAL INTEGRITY OF THE AREA,
- 5.4. PROVIDE FOR THE FREE FLOW OF WATER BETWEEN THE CHANNEL AND FLOOD PLAIN UNLESS THE VALLEY ROUTING AND WATER SURFACE PROFILE ARE BASED ON CONTINUOUS DIKES BEING INSTALLED.
- 5.5. LEAVE THE RIGHT-OF-WAY IN THE BEST CONDITIONS FEASIBLE AND
- 5.6. IMPROVE THE AESTHETIC APPEARANCE OF THE SITE TO THE EXTENT FEASIBLE.
- CHANNEL LININGS SHALL BE ESTABLISHED OR INSTALLED IMMEDIATELY
- AFTER CONSTRUCTION OR AS SOON AS WEATHER CONDITIONS PERMIT STRUCTURES SHALL BE INSTALLED ACCORDING TO LINES AND GRADES SHOWN ON THE PLAN. THE FOUNDATION FOR STRUCTURES SHALL BE CLEARED OF ALL UNDESIRABLE MATERIALS PRIOR TO THE
- INSTALLATION OF THE STRUCTURES. 8. MATERIALS USED IN CONSTRUCTION SHALL BE OF PERMANENCY COMMENSURATE WITH THE DESIGN FREQUENCY AND LIFE EXPECTANCY OF THE FACILITY.
- 9. EARTHFILL, WHEN USED AS A PART OF THE STRUCTURES, SHALL BE PLACED ACCORDING TO THE INSTALLATION REQUIREMENTS FOR SEDIMENT BASIN EMBANKMENTS.
- 10. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT SHALL BE COMPLIED WITH.
- 11. VEGETATION SHALL BE ESTABLISHED ON ALL DISTURBED AREAS IMMEDIATELY AFTER CONSTRUCTION. IF WEATHER CONDITIONS CAUSE A DELAY IN ESTABLISHING VEGETATION, THE AREA SHALL BE MULCHED IN ACCORDANCE WITH THE STANDARD FOR MULCHING. SEEDING, FERTILIZING AND MULCHING SHALL CONFORM TO THE
- STANDARDS FOR PERMANENT VEGETATIVE COVER. 12. ALL TEMPORARY ACCESS ROADS OR TRAVELWAYS SHALL BE APPROPRIATELY CLOSED TO EXCLUDE TRAFFIC.
- 13. TREES AND OTHER FALLEN NATURAL VEGETATION NOT CAUSING A DETERRENT TO STREAM FLOW SHOULD BE LEFT FOR THE PURPOSE OF HABITAT.

CTRUCTURAL PRACTICES

	21KC	CIURA	L PK	ACTICES
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Co	CONSTRUCTION EXIT		(Label)	A CRUSHED STONE PAD LOCATED AT THE CONSTRUCTION SITE EXIT TO PROVIDE A PLACE FOR REMOVING MUD FROM TIRES, THEREBY PROTECTING PUBLIC STREETS.
Cd	CHECK DAM			A SMALL TEMPORARY BARRIER OR DAM CONSTRUCTED ACROSS A SWALE, DRAINAGE DITCH OR AREA OF CONCENTRATED FLOW.
Rt	RETROFITTING		(Label)	A DEVICE OR STRUCTURE PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER.
Sd1	SEDIMENT BARRIER		TYPE (Indicate type)	A BARRIER TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. IT MAY BE SANDBAGS, BALES OF STRAW OR HAY, BRUSH, LOGS AND POLES, GRAVEL, OR A SEDIMENT FENCE. THE BARRIERS ARE USUALLY TEMPORARY AND INEXPENSIVE.
Sd2	SEDIMENT TRAP, TEMPORARY	1, 1, 6		AN IMPOUNDING AREA CREATED BY EXCAVATING AROUND A STORM DRAIN DROP INLET. THE EXCAVATED AREA WILL BE FILLED AND STABILIZED ON COMPLETION OF CONSTRUCTION ACTIVITIES.
Sd3	SEDIMENT BASIN, TEMPORARY			A BASIN CREATED BY EXCAVATION OR A DAM ACROSS A WATERWAY. THE SURFACE WATER RUN— OFF IS TEMPORARILY STORED ALLOWING THE BULK OF THE SEDIMENT TO DROP OUT. THE BASIN IS USUALLY TEMPORARY BUT MAY BE DESIGNED AS A PERMANENT POND OR STORMWATER RETENTION DEVICE.
St	STORM DRAIN INLET/OUTLET PROTECTION		(Label)	A PAVED OR SHORT SECTION OF RIPRAP CHANNEL AT THE OUTLET OF A STORM DRAIN SYSTEM PREVENTING EROSION FROM THE CONCENTRATED RUNOFF.
Тр	TOPSOILING	WANTED THE STATE OF THE STATE O	Tp	THE PRACTICE OF STRIPPING OFF THE MORE FERTILE TOP SOIL, STORING IT, THEN SPREADING IT OVER THE DISTURBED AREA AFTER THE COMPLETION OF CONSTRUCTION ACTIVITIES.
Di	DIVERSION	FLOW	(Label)	TO INTERCEPT STORMWATER RUNOFF AND DIVERT IT TO A STABLE OUTLET
Fr	FILTER RING	U	Fr	A TEMPORARY STONE BARRIER CONSTRUCTED AT STORM DRAIN INLETS AND POND OUTLETS
Sk	FLOATING SURFACE SKIMMER		Sk	A BUOYANT DEVICE THAT RELEASES/DRAINS WATER FROM THE SURFACE OF SEDIMENT PONDS, TRAPS, OR BASINS AT A CONTROLLED RATE OF FLOW.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	ESTABLISHING TEMPORARY PROTECTION FOR DISTURBED AREAS WHERE SEEDLINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDING COVER.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)		Ds2	ESTABLISHING A TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS ON DISTURBED AREAS.
Ds3	DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)		Ds3	ESTABLISHING PERMANENT VEGETATIVE COVER SUCH AS TREES, SHRUBS, VINES, GRASSES, SOD OR LEGUMES ON DISTURBED AREAS.
Ds4	DISTURBED AREA STABILIZATION (WITH SODDING)	FLOW	Ds4	A PERMANENT VEGETATIVE COVER USING SODS ON HIGHLY ERODIBLE OR VERTICALLY ERODED LANDS.
Du	DUST CONTROL ON DISTURBED AREAS		Du	CONTROLLING SURFACE AND AIR MOVEMENTS OF DUST ON CONSTRUCTION SITES, ROADWAYS AND SIMILAR SITES.
Pm	POLYACRYLAMIDE	TO BE USED ONLY WHERE STORM WATER RUNOFF IS DIRECTED TO A DETENTION POND.	Pm	THE LAND APPLICATION OF PRODUCT CONTAINING ANIONIC POLYACRYLAMIDE (PAM) AS TEMPORARY SOIL BINDING AGENTS TO REDUCE SOIL EROSION.
МЬ	DISTURBED AREA STABILIZATION (WITH MATTING)	FLOW	МЬ	A PROTECTIVE COVERING (BLANKET) OR SOIL STABILIZATION MAT USED TO ESTABLISH PERMANENT VEGETATION ON STEEP SLOPES, CHANNELS, OR SHORELINES.

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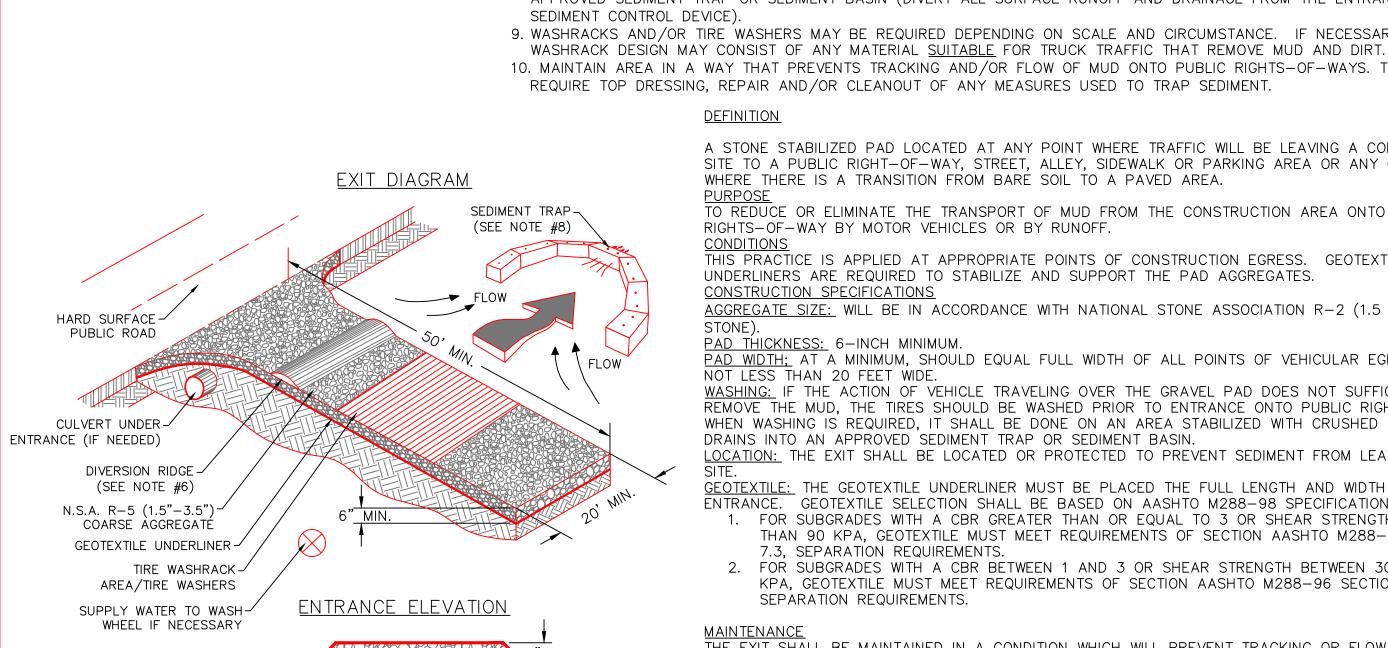
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(1 OF 3)



CONSTRUCTION EXIT

- 1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
- 2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE
- 3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
- 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
- 5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
- 6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%..
- 7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
- 8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
- 9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY,
- 10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS—OF—WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

A STONE STABILIZED PAD LOCATED AT ANY POINT WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE TO A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, SIDEWALK OR PARKING AREA OR ANY OTHER AREA WHERE THERE IS A TRANSITION FROM BARE SOIL TO A PAVED AREA.

TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE CONSTRUCTION AREA ONTO PUBLIC RIGHTS-OF-WAY BY MOTOR VEHICLES OR BY RUNOFF.

CONDITIONS THIS PRACTICE IS APPLIED AT APPROPRIATE POINTS OF CONSTRUCTION EGRESS. GEOTEXTILE UNDERLINERS ARE REQUIRED TO STABILIZE AND SUPPORT THE PAD AGGREGATES.

CONSTRUCTION SPECIFICATIONS AGGREGATE SIZE: WILL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5 TO 3.5 INCH STONE).

PAD THICKNESS: 6-INCH MINIMUM. PAD WIDTH; AT A MINIMUM, SHOULD EQUAL FULL WIDTH OF ALL POINTS OF VEHICULAR EGRESS, BUT

NOT LESS THAN 20 FEET WIDE. WASHING: IF THE ACTION OF VEHICLE TRAVELING OVER THE GRAVEL PAD DOES NOT SUFFICIENTLY REMOVE THE MUD. THE TIRES SHOULD BE WASHED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

LOCATION: THE EXIT SHALL BE LOCATED OR PROTECTED TO PREVENT SEDIMENT FROM LEAVING THE

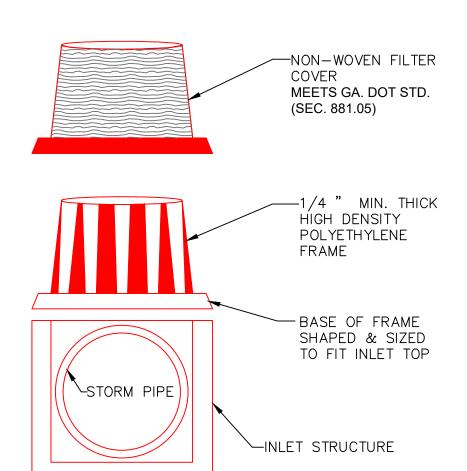
GEOTEXTILE: THE GEOTEXTILE UNDERLINER MUST BE PLACED THE FULL LENGTH AND WIDTH OF THE GEOTEXTILE SELECTION SHALL BE BASED ON AASHTO M288-98 SPECIFICATION: FOR SUBGRADES WITH A CBR GREATER THAN OR EQUAL TO 3 OR SHEAR STRENGTH GREATER THAN 90 KPA, GEOTEXTILE MUST MEET REQUIREMENTS OF SECTION AASHTO M288-96 SECTION

7.3, SEPARATION REQUIREMENTS. 2. FOR SUBGRADES WITH A CBR BETWEEN 1 AND 3 OR SHEAR STRENGTH BETWEEN 30 AND 90 KPA, GEOTEXTILE MUST MEET REQUIREMENTS OF SECTION AASHTO M288-96 SECTION 7.4, SEPARATION REQUIREMENTS.

THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1.5 TO 3.5 INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

INLET PROTECTION

- EXCAVATE APPROXIMATELY 4" TO 6" BELOW THE TOP OF THE INLET STRUCTURE. PLACE THE FRAME ONTO THE INLET STRUCTURE, ENSURING PROPER SEATING OF FRAME TO STRUCTURE.
- 3. SLIDE THE FILTER OVER THE FRAME.
- 4. FILL THE FILTER POCKETS WITH SOIL, #57 GRAVEL OR EQUIVALENT. THE FILTER POCKETS SHOULD BE COMPLETELY FILLED TO ENSURE A GOOD SEAL BETWEEN THE GROUND AND INLET STRUCTURE.
- 5. BACK FILL AROUND THE FRAME AND FILTER ASSEMBLY IS NOT REQUIRED TO COMPLETE INSTALLATION; HOWEVER, BACK FILLING MAY BE NECESSARY TO COMPLETE EXCAVATION REQUIREMENTS FOR THE SITE.



<u>DEFINITION</u>

A TEMPORARY PROTECTIVE DEVICE FORMED AROUND A STORM DRAIN DROP INLET TO TRAP SEDIMENT.

<u>PURPOSE</u>

TO PREVENT SEDIMENT FROM LEAVING THE SITE, OR FROM ENTERING STORM DRAINAGE SYSTEMS, PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA.

CONDITIONS

SEDIMENT TRAPS SHOULD BE INSTALLED AT OR AROUND ALL STORM DRAIN DROP INLETS THAT RECEIVE RUNOFF FROM DISTURBED AREAS.

CONSTRUCTION SPECIFICATIONS

MANY SEDIMENT FILTERING DEVICES CAN BE DESIGNED TO SERVE AS TEMPORARY SEDIMENT TRAPS. WHERE EXCAVATION IS TO BE USED, IT SHALL BE DONE IN COMBINATION WITH A SEDIMENT FILTER SUCH AS STONE OR SILT FENCE. ALL EXCAVATED SEDIMENT TRAPS SHOULD PROVIDE A MINIMUM OF 1.5 FEET OF SEDIMENT STORAGE. SEDIMENT TRAPS MUST BE SELF-DRAINING UNLESS THEY ARE OTHERWISE PROTECTED IN AN APPROVED FASHION THAT WILL NOT PRESENT A SAFETY HAZARD.

SEDIMENT TRAPS MAY BE CONSTRUCTED ON NATURAL GROUND SURFACE, ON AN EXCAVATED SURFACE, OR ON MACHINE COMPACTED FILL PROVIDED THEY HAVE A NON-ERODIBLE OUTLET.

<u>MAINTENANCE</u>

THE TRAP SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION.

SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET AGAIN. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND THE INLET.

<u>PLAN</u> SECTION A-A ─ FILTER BLANKET PIPE OUTLET TO WELL DEFINED CHANNEL RIPRAP APRON 1. La IS THE LENGTH OF THE RIPRAP APRON. 2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6". 3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP

OF THE BANK (WHICHEVER IS LESS).

BETWEEN THE RIPRAP AND THE SOIL

4. A FILTER BLANKET OR FILTER

FOUNDATION.

BLANKET

FABRIC SHOULD BE INSTALLED

STORM DRAIN OUTLET PROTECTION

PIPE OUTLET

SECTION A-A

RIPRAP APRON

PAVED AND/OR RIPRAPPED CHANNEL SECTIONS, PLACED BELOW STORM DRAIN OUTLETS.

TO REDUCE VELOCITY OF FLOW BEFORE ENTERING RECEIVING CHANNELS BELOW STORM DRAIN OUTLETS.

THIS STANDARD APPLIES TO ALL STORM DRAIN OUTLETS, ROAD CULVERTS, PAVED CHANNEL OUTLETS, ETC., DISCHARGING INTO NATURAL OR CONSTRUCTED CHANNELS. ANALYSIS AND/OR TREATMENT WILL EXTEND FROM THE END OF THE CONDUIT, CHANNEL OR STRUCTURE TO THE POINT OF ENTRY INTO AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM.

GEOTEXTILE
THE GEOTEXTILE SHALL BE SPECIFIED IN ACCORDANCE WITH AASHTO M288-96 SECTION 7.5, PERMANENT EROSION CONTROL RECOMMENDATIONS. THE GEOTEXTILE SHOULD PLACED IMMEDIATELY ADJACENT TO THE SUBGRADE WITHOUT ANY VOIDS.

CONSTRUCTION SPECIFICATIONS

ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.

- 2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS
- GEOTEXTILE MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER FABRIC OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FOOT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER FABRIC.
- 4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
- 5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
- 6. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
- 7. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON
- 8. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION. STONE QUALITY - SELECT STONE FOR RIPRAP FROM FIELD STONE OR QUARRY STONE. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER—RESISTANT. THE
- SPECIFIC GRAVITY OF THE INDIVIDUAL STONES SHOULD BE AT LEAST 2.5. 10. FILTER - INSTALL A FILTER TO PREVENT SOIL MOVEMENT THROUGH THE OPENINGS IN THE RIPRAP. THE FILTER SHOULD CONSIST OF A GRADED GRAVEL LAYER OR A SYNTHETIC FILTER CLOTH.

INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.



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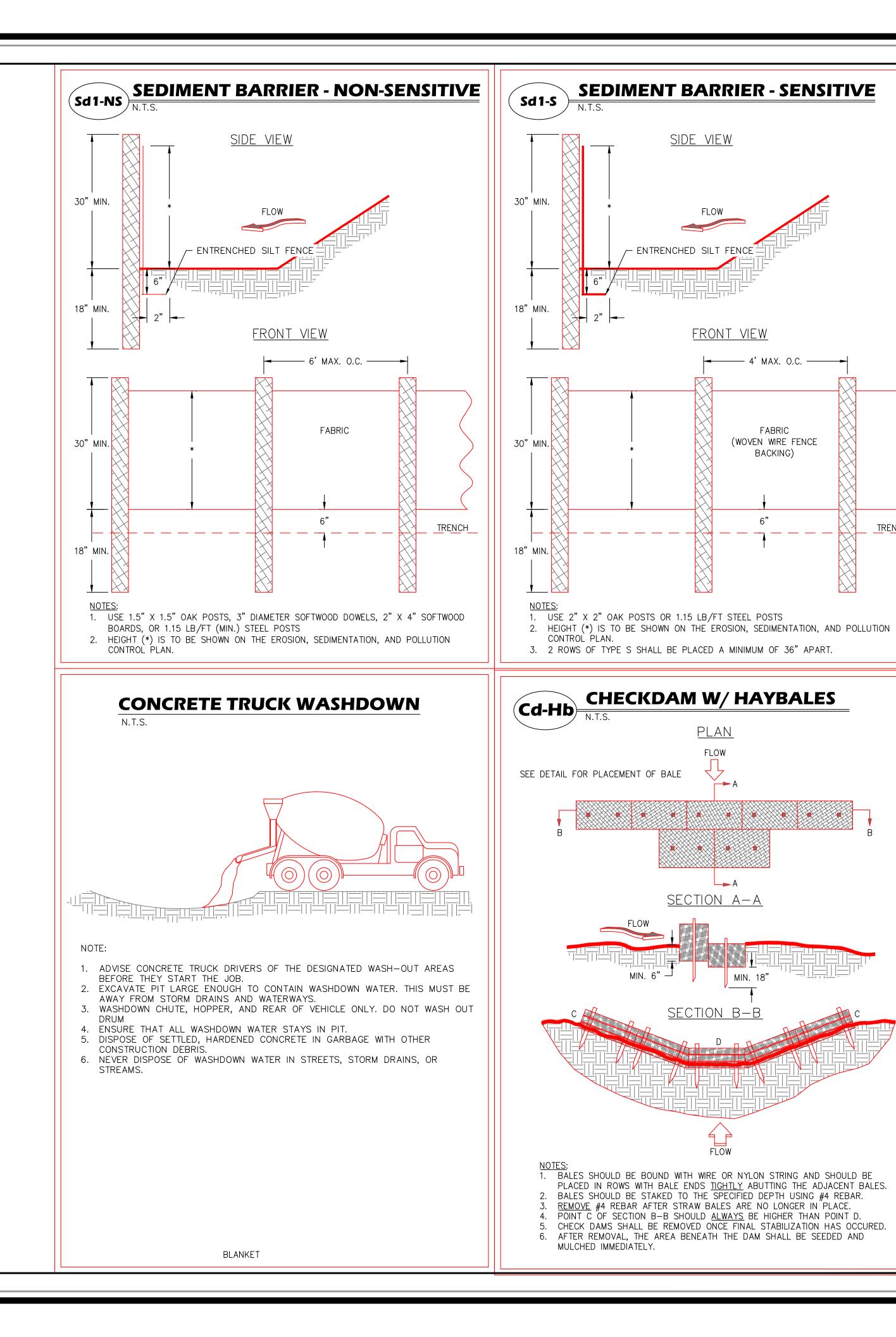
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G-5

5 OF 11 SHEETS

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TRENCH



DEFINITION

CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADS AND DEMOLITION SITES.

PURPOSE

TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE, OR SAFETY, OR TO ANIMALS OR PLANT LIFE.

CONDITIONS

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

METHODS AND MATERIALS

A. TEMPORARY METHODS

MULCHES: SEE STANDARD DS1 - DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, CURRENT EDITION. SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. TACKIFIERS, BINDERS, AND RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER: SEE STANDARD DS2 - DISTURBED AREA STABILIZATION (WITH TEMPORARY

SPRAY-ON ADHESIVES: THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

TILLAGE: THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY

PRODUCE THE DESIRED EFFECT. IRRIGATION: THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.

BARRIERS: SOLID BOARD FENCES, SNOWFENCES, BURLAP FENCES, CRATE WALL, BALES OF HAY AND SIMILAR MATERIALS CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

PERMANENT METHODS PERMANENT VEGETATION: SEE STANDARD DS3 - DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

TOPSOILING: THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. STONE: COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

WATER DILUTION	TYPE OF NOZZLE	APPLICATION RATE (Gallons/Acre)
7:1	COARSE SPRAY	1,200
12.5:1	FINE SPRAY	235
4:1	FINE SPRAY	300
	7: 1 12.5: 1	7:1 COARSE SPRAY 12.5:1 FINE SPRAY

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

DEFINITION

THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDLINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDED AREAS.

PURPOSE

- TO REDUCE RUNOFF AND SEDIMENT DAMAGE OF DOWNSTREAM RESOURCES
- TO PROTECT THE SOIL SURFACE FROM EROSION TO IMPROVE WILDLIFE HABITAT
- TO IMPROVE AESTHETICS
- TO IMPROVE TILTH, INFILTRATION AND AERATION AS WELL AS ORGANIC MATTER FOR PERMANENT PLANTINGS.

CONDITIONS

THIS PRACTICE IS APPLICABLE ON AREAS SUBJECT TO EROSION FOR UP TO SIX MONTHS OR UNTIL THE ESTABLISHMENT OF FINISHED GRADE OR PERMANENT VEGETATIVE COVER. TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL AND EFFECTIVE STABILIZATION.

SPECIFICATIONS

1. GRADING AND SHAPING

3. LIME AND FERTILIZER

- 1.1. EXCESSIVE WATER RUN-OFF MUST BE CONTROLLED BY PLANNED AND INSTALLED EROSION CONTROL PRACTICE SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BASINS AND OTHERS.
- NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED. 2. SEEDBED PREPARATION
- 2.1. WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. 2.2. WHEN USING CONVENTIONAL OR HAND-SEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL
- IS LOOSE AND NOT SEALED BY RAIN. 2.3. WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH UNDISTURBED CUT SLOPES. THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND
- GERMINATE.
- 3.1. AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE GRADED AREAS REQUIRE LIME APPLICATION.
- SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS OR SOIL MATERIAL. FERTILIZER IS NOT REQUIRED 3.3. ON SOILS OF VERY LOW FERTILITY, USE 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER
- ACRE (12-16 LBS./1,000SQ.FT.). IF THE SITE WILL PERMIT, APPLY BEFORE LAND PREPARATION AND DISK, RIP OR CHISEL TO INCORPORATE.
- SEEDING SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. IRRIGATION 5.1. DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL ENSURE GERMINATION OF THE SEED.

SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

SEEDING RATES FOR TEMPORARY SEEDING

			TEIVII ORAINI		
	ALONE		IN MIX	KTURE	PLANTING DATES **
SPECIES	RATE PER 1,000 SQ.FT.	RATE PER ACRE *	RATE PER 1,000 SQ.FT.	RATE PER ACRE *	COASTAL AREA
Barley	3.3 lbs.	3 bushels	0.6 lbs.	1/2 bushel	9/1–12/31
Annual Lespedeza	0.9 lbs.	40 lbs.	0.2 lbs.	10 lbs.	1/15–3/15
Weeping Lovegrass	0.1 lbs.	4 lbs.	0.05 lbs.	2 lbs.	2/14-6/15
Browntop Millet	0.9 lbs.	40 lbs.	0.2 lbs.	10 lbs.	4/1-7/15
Pearl Millet	1.1 lbs.	50 lbs.	NOT RECOMMENDED FOR MIXTURES		4/1-8/31
Oats	2.9 lbs.	4 bushels	0.7 lbs.	1 bushel	9/1-11/30
Rye	3.9 lbs.	3 bushels	0.6 lbs.	1/2 bushel	9/1-2/28
Ryegrass	0.9 lbs.	40 lbs.	NOT TO BE USED IN MIXTURES		8/15–3/31
Sudangrass	1.4 lbs.	60 lbs.	NOT RECOMMENDED FOR MIXTURES		3/1-7/31
Triticale	3.3 lbs.	3 bushels	0.6 lbs.	1/2 bushel	1/1-1/31, 9/15-10/15, 12/15-12/31
Wheat	4.1 lbs.	3 bushels	0.7 lbs.	1/2 bushel	10/15–1/31

* UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES ** SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND CONDITIONS.

DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

DEFINITION

THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE USED TO ACHIEVE FINAL STABILIZATION.

PURPOSE

- TO PROTECT THE SOIL FROM EROSION • TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM AREAS.
- TO IMPROVE WILDLIFE HABITAT AND VISUAL RESOURCES.

REQUIREMENT FOR REGULATORY COMPLIANCE

THIS PRACTICE SHALL BE APPLIED IMMEDIATELY TO ROUGH GRADED AREAS THAT WILL BE UNDISTURBED FOR LONGER THAN SIX MONTHS. THIS PRACTICE OR SODDING SHALL BE APPLIED TO ALL AREAS AT FINAL GRADE. FINAL STABILIZATION MEANS THAT ALL SOIL DISTURBING ACTIVITIES HAVE BEEN COMPLETED, AND THAT FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, AT LEAST 70% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION OR EQUIVALENT PERMANENT STABILIZATION MEASURES HAVE BEEN EMPLOYED. PERMANENT VEGETATION SHALL CONSIST OF PLANTED TREES, SHRUBS, PERENNIAL VINES, A CROP OF PERENNIAL VEGETATION APPROPRIATE FOR THE REGION, SUCH THAT WITHIN THE GROWING SEASON A 70% COVERAGE BY PERENNIAL VEGETATION SHALL BE ACHIEVED. FINAL STABILIZATION APPLIES TO EACH PHASE OF CONSTRUCTION. FOR LINEAR 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. UNTIL THIS STANDARD IS SATISFIED AND PERMANENT CONTROL MEASURES AND FACILITIES ARE OPERATIONAL, INTERIM STABILIZATION MEASURES AND TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL NOT BE REMOVED.

CONDITIONS

PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED AREAS.

CONSTRUCTION SPECIFICATIONS

- 1. GRADING AND SHAPING
- 1.1. GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT. WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING, AND MAINTENANCE OF VEGETATION.
- 2. LIME AND FERTILIZER RATES AND ANALYSIS 2.1. AGRICULTURAL LIME IS REQUIRED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS 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 SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.
 - 2.2. LIME SPREADED BY CONVENTIONAL EQUIPMENT SHALL BE "GROUND LIMESTONE". GROUND LIMESTONE IS DOLOMITIC LIMESTONE GROUND SO THAT 90 PERCENT OF THE MATERIAL WILL PASS THROUGH A 10-MESH SIEVE, NOT LESS THAN 50 PERCENT WILL PASS THROUGH A 50-MESH SIEVE AND NOT LESS THAN 25 PERCENT WILL PASS THROUGH A 100-MESH SIEVE.
 - 2.3. AGRICULTURAL LIME SPREAD BY HYDRAULIC SEEDING EQUIPMENT SHALL BE "FINELY GROUND LIMESTONE". FINELY GROUND LIMESTONE IS DOLOMITIC LIMESTONE GROUND SO THAT 98 PERCENT OF THE MATERIAL WILL PASS THROUGH A 20-MESH SIEVE AND NOT LESS THAN 70 PERCENT WILL PASS THROUGH A 100-MESH SIEVE.
- 3. LIME AND FERTILIZER APPLICATION 3.1. WHEN HYDRAULIC SEEDING EQUIPMENT IS USED, THE INITIAL FERTILIZER SHALL BE MIXED WITH SEED, INNOCULANT (IF NEEDED), AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A SLURRY. THE INNOCULANT, IF NEEDED, SHALL BE MIXED WITH THE SEED PRIOR TO BEING PLACED INTO THE HYDRAULIC SEEDER. THE SLURRY MIXTURE WILL BE SPREAD
- UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER BEING PLACED IN THE HYDROSEEDER. . FINELY GROUND LIMESTONE WILL BE MIXED WITH WATER AND APPLIED IMMEDIATELY AFTER MULCHING IS COMPLETED OR IN COMBINATION WITH THE TOP DRESSING.
- 3.3. WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS:

 3.3.1. APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE MIXED WITH THE SOIL DURING SEEDBED PREPARATION.
 - 3.3.2. MIX WITH THE SOIL USED TO FILL THE HOLES, DISTRIBUTE IN FURROWS. 3.3.3. BROADCAST AFTER STEEP SURFACES ARE SCARIFIED. PITTED OR TRENCHED.
- 3.3.4. A FERTILIZER PELLET SHALL BE PLACED AT ROOT DEPTH IN THE CLOSING HOLE BESIDE EACH PINE TREE SEEDLING. 4. PLANT SELECTION
- 4.1. PLANTS SHALL BE SELECTED ON THE BASIS OF SPECIES CHARACTERISTICS, SITE AND SOIL CONDITIONS, PLANNED USE AND MAINTENANCE OF THE AREA; TIME OF YEAR OF PLANTING, METHOD OF PLANTING; AND THE NEEDS AND DESIRES OF THE LAND USER.
- 4.2. SOME PERENNIAL SPECIES ARE EASILY ESTABLISHED AND CAN BE PLANTED ALONE. EXAMPLES OF THESE ARE COMMON BERMUDA AND WEEPING LOVEGRASS.
- OTHER PERENNIALS SUCH AS BAHIA GRASS AND SERICEA LESPEDEZA, ARE SLOW TO BECOME ESTABLISHED AND SHOULD BE PLANTED WITH ANOTHER PERENNIAL SPECIES. THE ADDITIONAL SPECIES WILL PROVIDE QUICK COVER AND AMPLE SOIL PROTECTION UNTIL THE TARGET PERENNIAL SPECIES BECOME ESTABLISHED. 4.4. PLANT SELECTION MAY ALSO INCLUDE ANNUAL COMPANION CROPS. ANNUAL COMPANION CROPS SHOULD BE USED ONLY WHEN THE PERENNIAL SPECIES ARE NOT PLANTED DURING THEIR
- OPTIMUM PLANTING PERIOD. A COMMON MIXTURE IS BROWN TOP MILLET WITH COMMON BERMUDA IN MID-SUMMER. CARE SHOULD BE TAKEN IN SELECTING COMPANION CROP SPECIES AND SEEDING RATES BECAUSE ANNUAL CROPS WILL COMPETE WITH PERENNIAL SPECIES FOR WATER, NUTRIENT AND GROWING SPACE. A HIGH SEEDING RATE OF THE COMPANION CROP MAY PREVENT THE ESTABLISHMENT OF PERENNIAL SPECIES.
- 4.5. RYEGRASS SHALL NOT BE USED IN ANY SEEDING MIXTURES CONTAINING PERENNIAL SPECIES DUE TO ITS ABILITY TO OUT-COMPETE DESIRED SPECIES CHOSEN FOR PERMANENT PERENNIAL
- 5. SEEDBED PREPARATION 5.1. SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS USED. WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS FOLLOWS FOR BROADCAST PLANTINGS:
- 5.2. TILLAGE AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES; ALLEVIATE COMPACTION; INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A DISK IS USED.
- 5.3. TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.
- 5.4. TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE.
 5.5. ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE WILL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8 INCHES APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.
 - MIX THE SEED, INOCULANT, FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE. 6.2. CONVENTIONAL SEEDING
- SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER- SEEDER, DRILL, ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.
- NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.
- 7. MULCHING 7.1. MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED.
- 7.2. DRY STRAW OR 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 2½ TONS PER ACRE. SERICEA LESPEDEZA HAY SHALL BE APPLIED AT THE RATE OF 3 TONS PER ACRE.
 7.3. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL
- BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING. 7.4. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
- 7.5. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED. 7.6. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS. WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS
- SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING. 8.1. IF WATER IS APPLIED, IT MUST BE AT A RATE NOT CAUSING RUNOFF AND EROSION. THOROUGHLY WET THE SOIL TO A DEPTH THAT WILL ENSURE GERMINATION OF THE SEED.
- MOW SERICEA LESPEDEZA ONLY AFTER FROST TO ENSURE THAT THE SEEDS ARE MATURE. MOW BETWEEN NOVEMBER AND MARCH 9.2. BERMUDAGRASS AND BAHIAGRASS MAY BE MOWED AS DESIRED. MAINTAIN AT LEAST 6 INCHES OF TOP GROWTH UNDER ANY USE AND MANAGEMENT. MODERATE USE OF TOP GROWTH IS

SPECIES

Cool season

Cool season

grasses and

Warm seasc

Warm season grasses and

arasses

FERTILIZER REQUIREMENTS

EQUIVALENT

6-12-12

6-12-12

10-10-10

6-12-12

0-10-10

0-10-10

6-12-12

6-12-12

10-10-10

6-12-12

0-10-10

0-10-10

2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED. 3/ APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

YEAR

Maintenance

Maintenance

Maintenance

Maintenance

Second

Second

1/ APPLY IN SPRING FOLLOWING SEEDING.

TOP DRESSING

30 lbs/ac.

50 lbs/ac. ³/

1500 lbs/ac. |50-100 lbs/ac. 1/2/

1500 lbs/ac. | 0-50 lbs/ac. 1/

1500 lbs/ac. $|50-100 \text{ lbs/ac.}^{2/3}$

800 lbs/ac. |50-100 lbs/ac.²/

400 lbs/ac. | 30 lbs/ac.

1000 lbs/ac.

400 lbs/ac.

1000 lbs/ac.

400 lbs/ac.

1500 lbs/ac.

1000 lbs/ac.

400 lbs/ac.

RATE

BENEFICIAL AFTER ESTABLISHMENT. 9.3. EXCLUDE TRAFFIC UNTIL THE PLANTS ARE WELL ESTABLISHED.

CEEDING DATES FOR DEDMANIENT VEGETATION

	SEEDING	RATES FOR	PERMANENT	VEGETATION	
	ALONE		WITH OTHER PERENNIALS		PLANTING DATES **
SPECIES	RATE PER 1,000 SQ.FT.	RATE PER ACRE *	RATE PER 1,000 SQ.FT.	RATE PER ACRE *	COASTAL AREA
Pensacola Bahia	1.4 lbs.	60 lbs.	0.7 lbs.	30 lbs.	1/1–12/31
Common Bermuda (Hulled seed)	0.2 lbs.	10 lbs.	0.7 lbs.	6 lbs.	2/14-6/30
Common Bermuda (Unhulled seed)***	0.2 lbs.	10 lbs.	0.1 lbs.	6 lbs.	11/1–1/31
Sericea Lespedeza (scarified)	1.4 lbs.	60 lbs.	1.4 lbs.	60 lbs.	2/14-6/15
Sericea Lespedeza (unscarified)	1.7 lbs.	75 lbs.	1.7 lbs.	75 lbs.	1/1–12/31
Lespedeza (scarified)	1.4 lbs.	60 lbs.	1.4 lbs.	60 lbs.	2/14-5/31
Weeping Lovegrass	0.1 lbs.	4 lbs.	0.05 lbs.	2 lbs.	2/1-6/15
Panicgrass, Atlantic Coastal	0.5 lbs.	20.0 lbs.	0.5 lbs.	20.0 lbs.	2/1-4/30
Sunflower 'Aztec'	0.2 lbs.	10 lbs.	0.2 lbs.	10 lbs.	4/1-5/31

* UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES.

- ** SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND CONDITIONS.

 *** PLANT WITH TEMPORARY COVER SUCH AS WINTER ANNUALS.
- DROUGHT TOLERANT. GROWS WELL WITH SERICEA LESPEDEZA ON ROADBANKS.

GA CORP# 0419099 FL CORP# F04000002135

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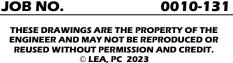
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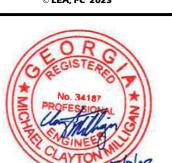
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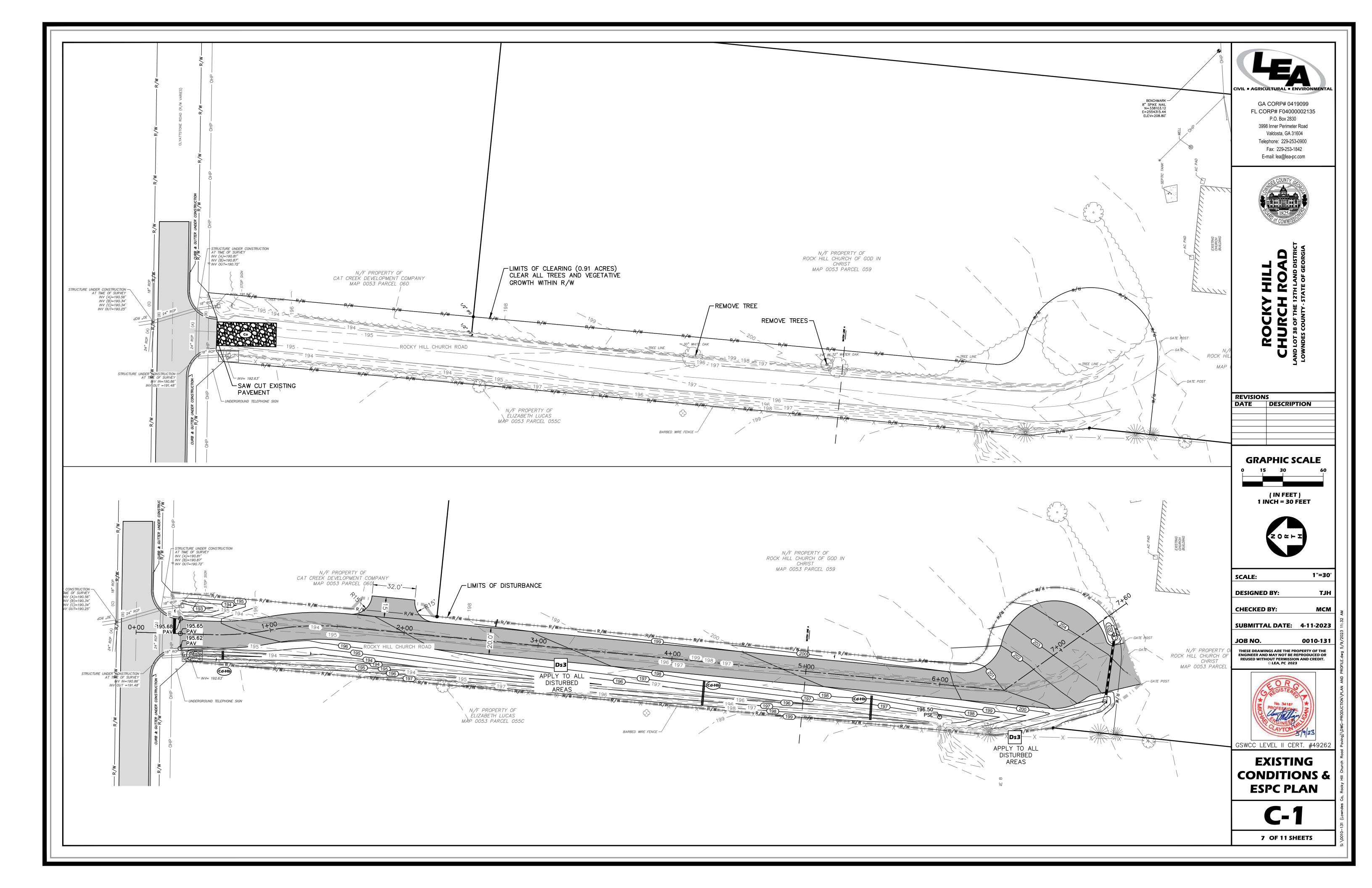
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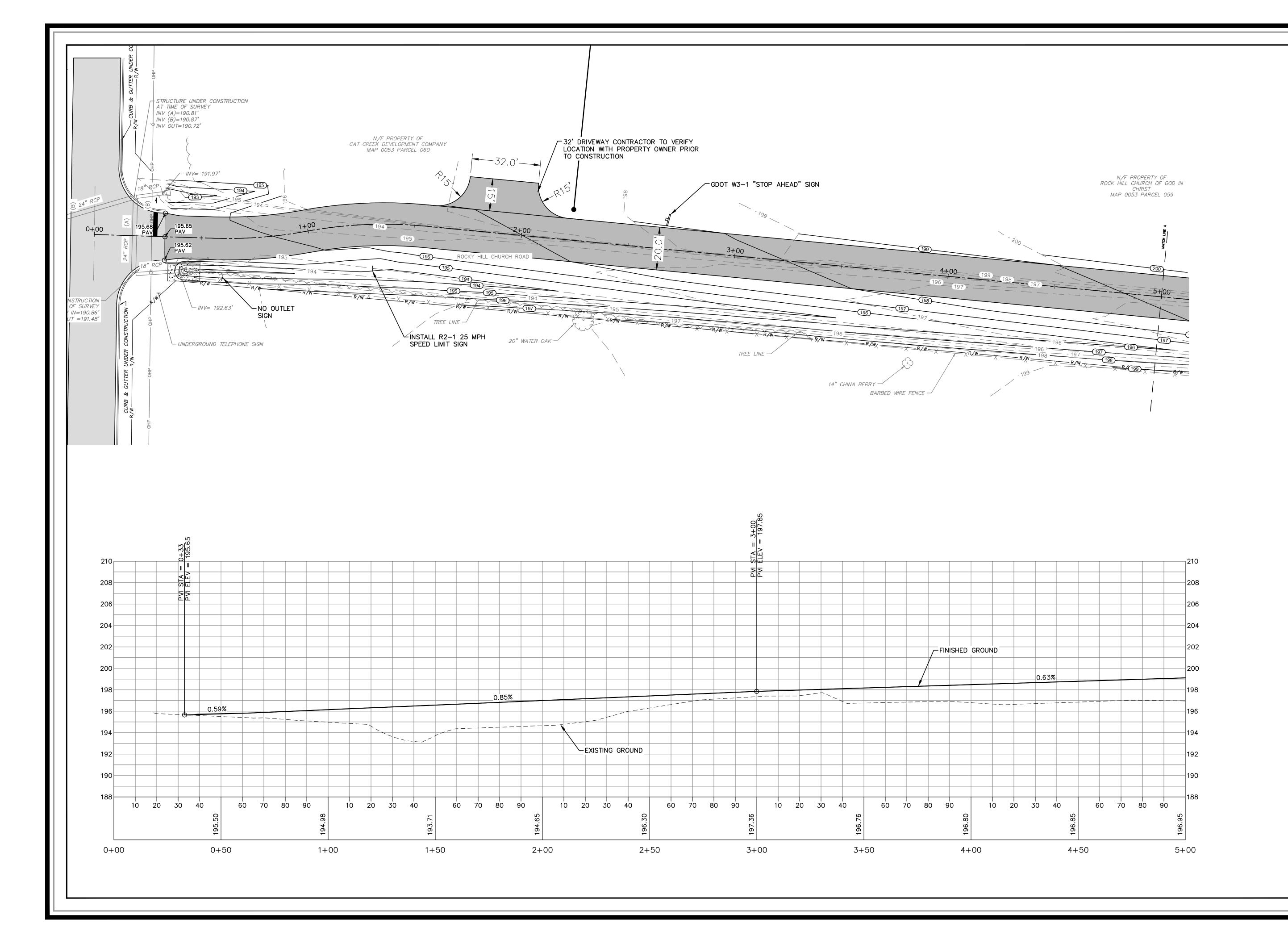




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ESPC VEGETATIVE NOTES









CHURCH ROAD
LAND LOT 38 OF THE 12TH LAND DISTRICT
LOWNDES COUNTY - STATE OF GEORGIA

REVISIONS
DATE DESCRIPTION

GRAPHIC SCALE

(IN FEET) 1 INCH = 20 FEET (HOR) 1 INCH = 4 FEET (VERT)



SCALE:

CHECKED BY: MCM
SUBMITTAL DATE: 4-11-2023

1"=20'

JOB NO. 0010-131

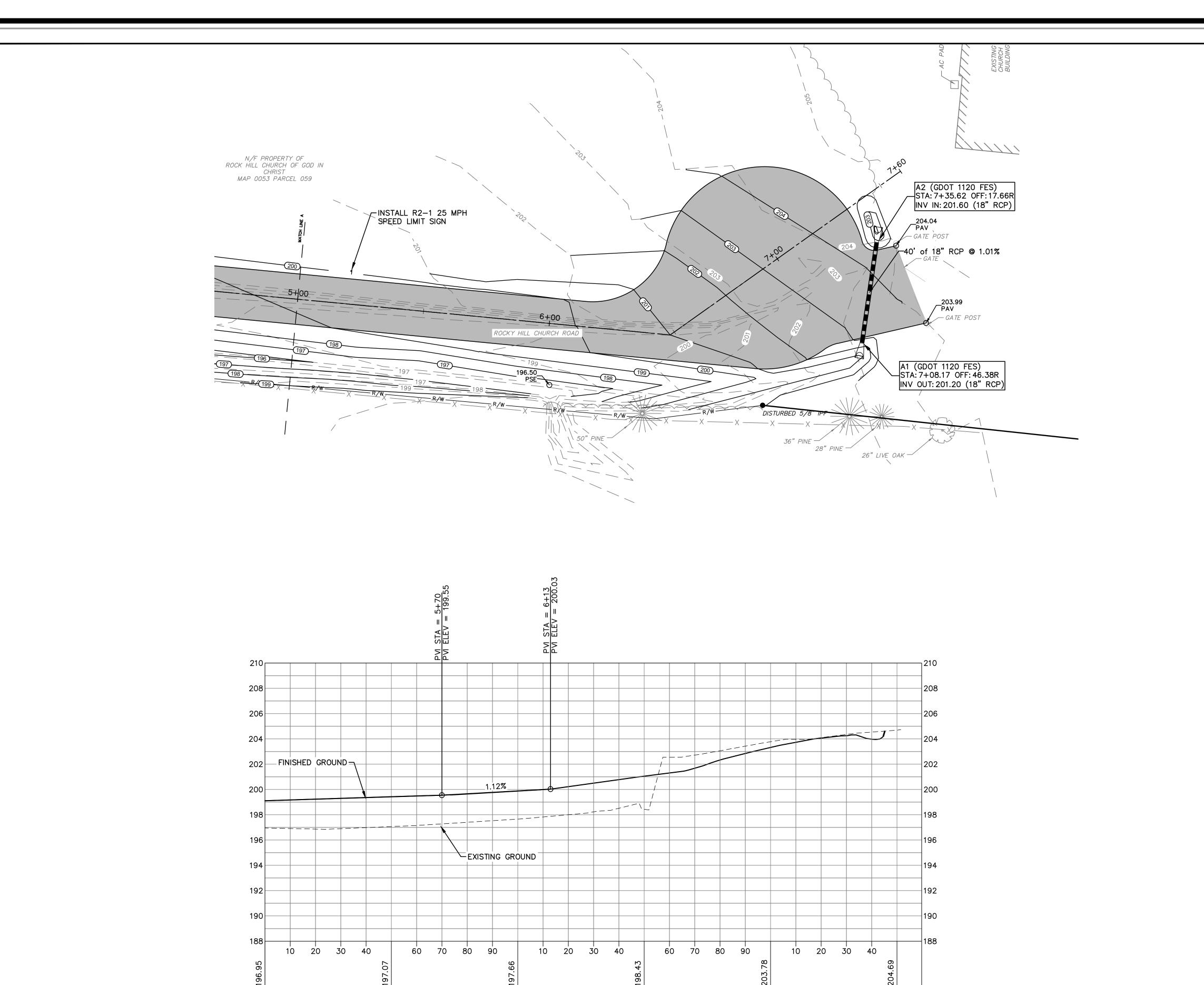
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PLAN AND PROFILE (1 OF 2)

C-2



6+50

7+00

7+50

5+00

5+50

6+00



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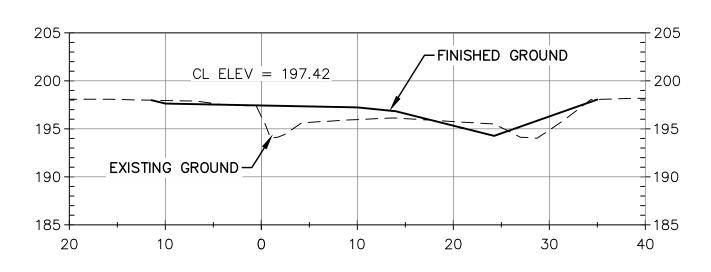
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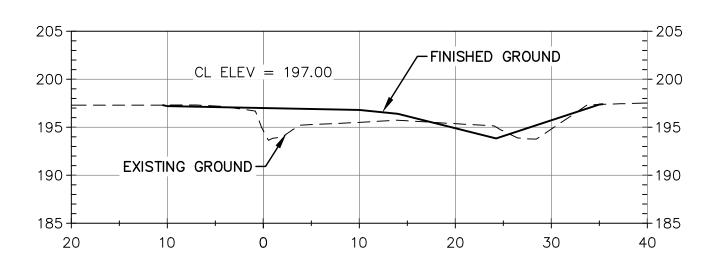


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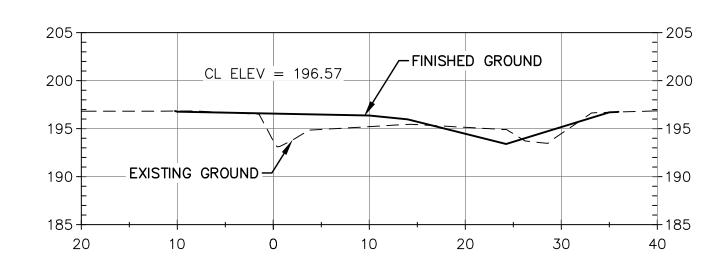
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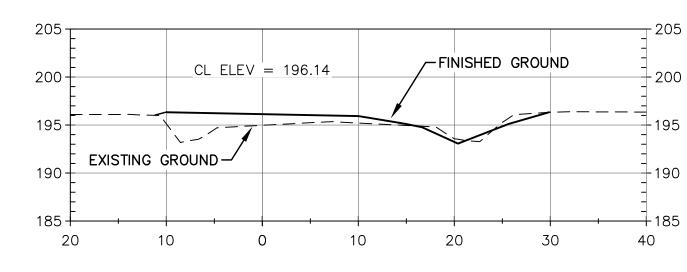
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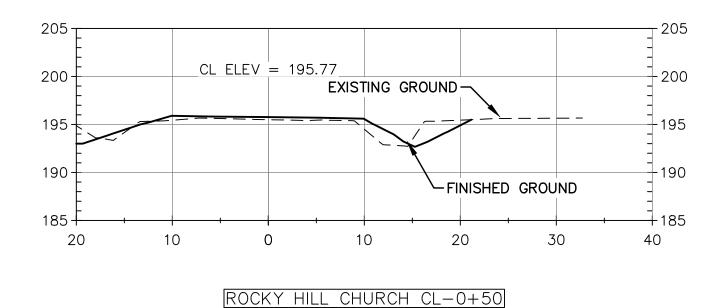
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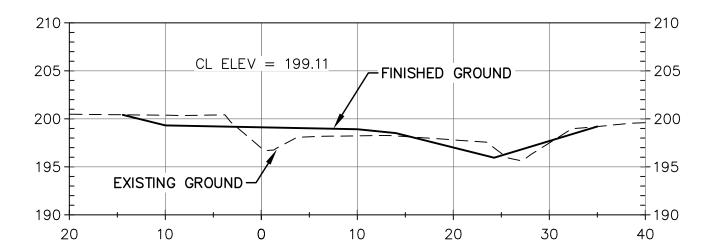


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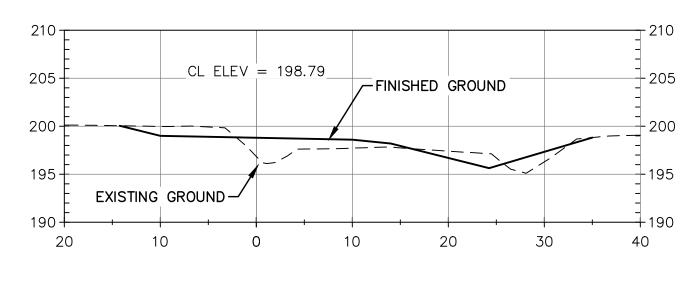


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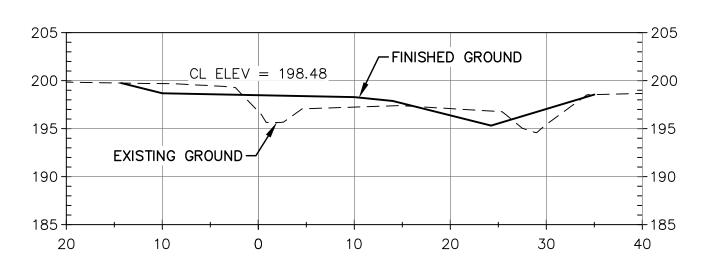




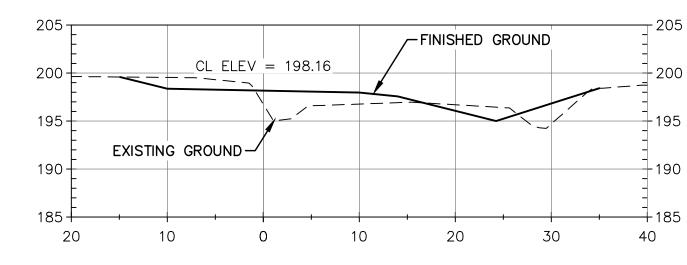
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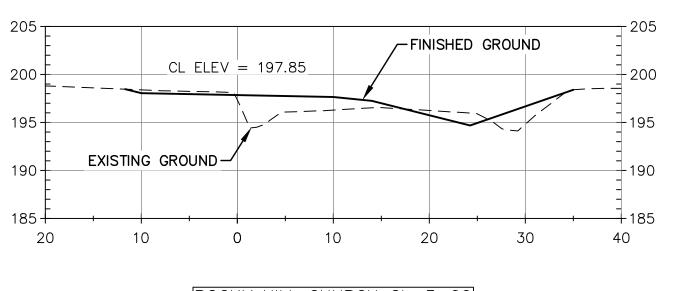
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ROCKY HILL CHURCH CL-4+00



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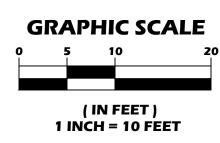
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CHURCH ROAD
LAND LOT 38 OF THE 12TH LAND DISTRICT
LOWNDES COUNTY - STATE OF GEORGIA

REVISIONS
DATE DESCRIPTION



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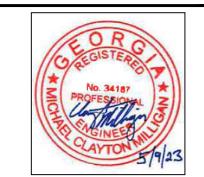
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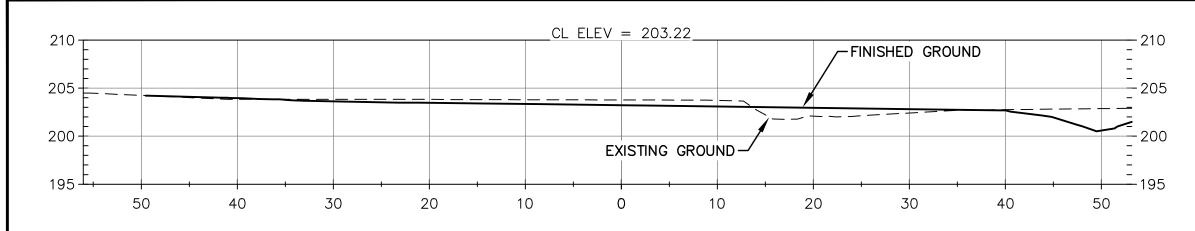
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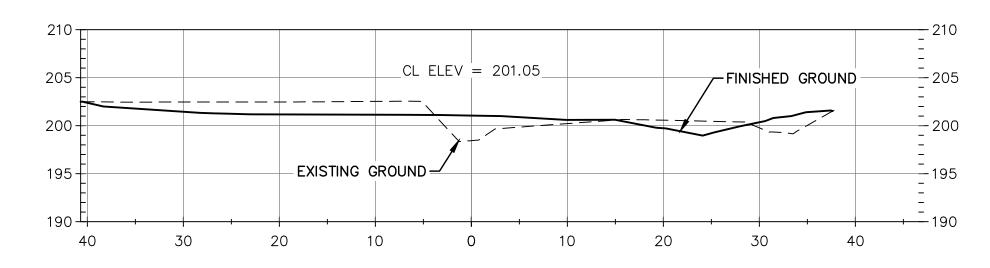
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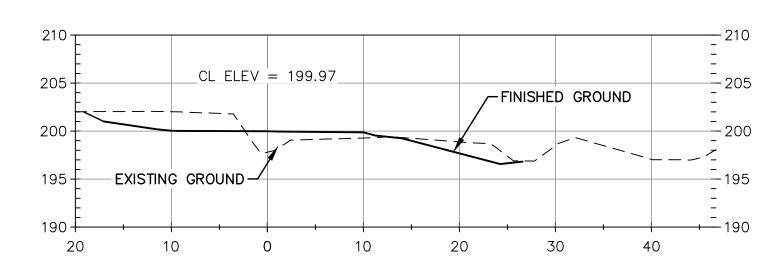
C-4



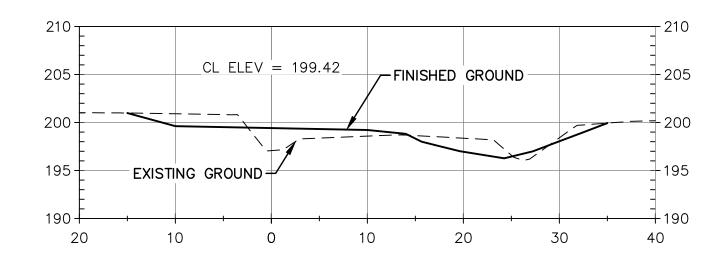
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ROCKY HILL CHURCH CL-6+50



ROCKY HILL CHURCH CL-6+08



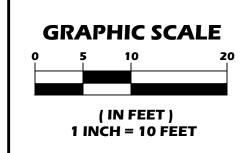
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CROSS SECTIONS (2 OF 2)