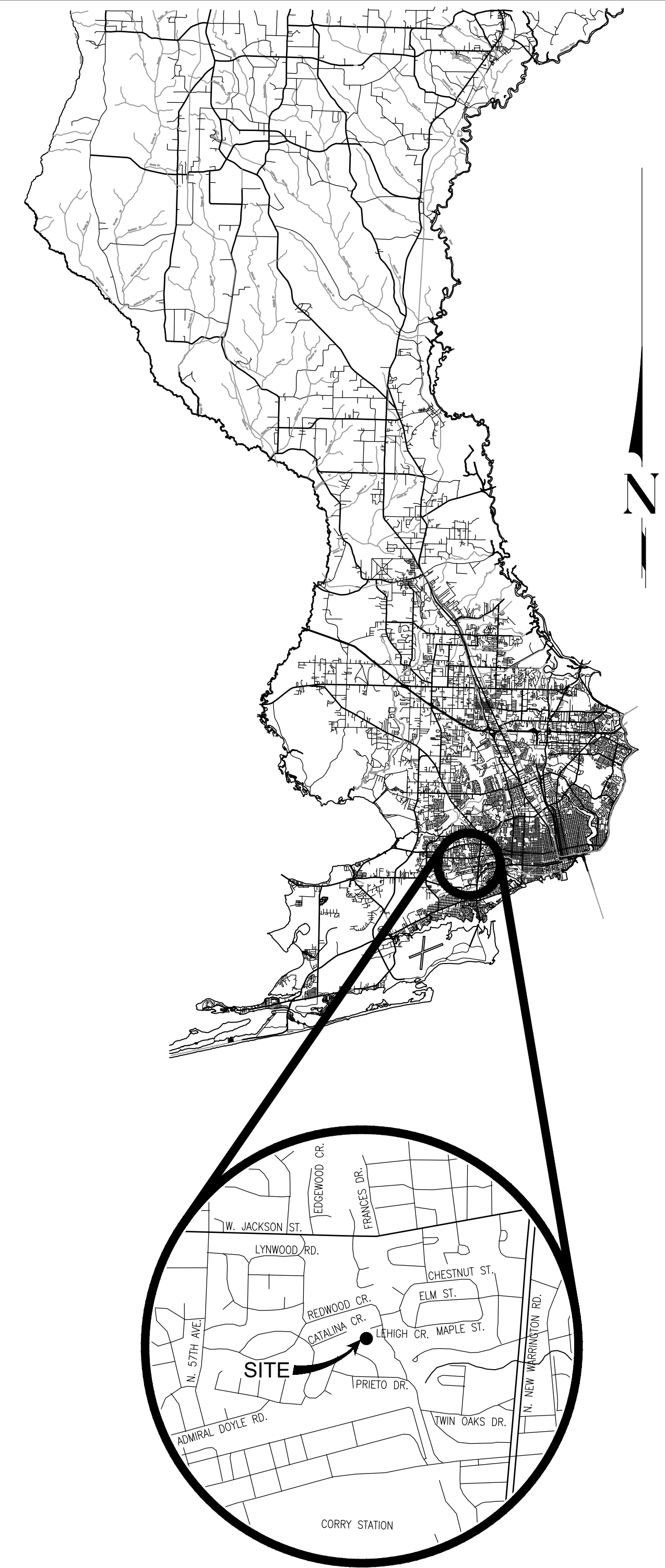


BOARD OF COUNTY COMMISSIONERS  
 ESCAMBIA COUNTY, FLORIDA  
 ENGINEERING DEPARTMENT  
 CONSTRUCTION MANAGEMENT DIVISION



PLANS PROPOSED FOR  
**MYRTLE GROVE GULLY  
 RESTORATION**

INDEX OF PLANS	
Sheet Number	Sheet Title
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2	PROJECT NOTES
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4	EXISTING SITE CONDITIONS II
5	STABILIZATION PLAN I
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7	ALIGNMENT AND PROFILE I
8	ALIGNMENT AND PROFILE II
9	CROSS-SECTIONS I
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12	SWPPP NOTES I
13	SWPPP NOTES II
14	DETAILS I
15	DETAILS II

FOR CONSTRUCTION  
 MARCH 2022  
 100% SUBMITTAL

COMMISSIONERS

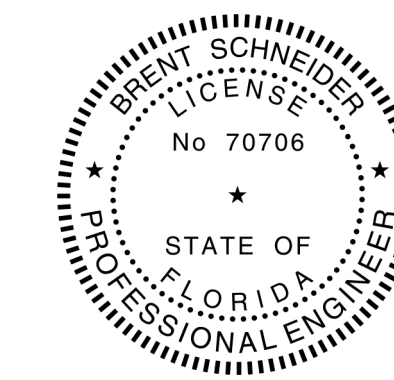
- DISTRICT ONE     JEFF BERGOSH, CHAIRMAN
- DISTRICT TWO     DOUG UNDERHILL, VICE CHAIRMAN
- DISTRICT THREE    LUMON MAY
- DISTRICT FOUR     ROBERT BENDER,
- DISTRICT FIVE     STEVEN BARRY

**VICINITY MAP**  
**LENGTH OF PROJECT = ±1,400 LF**  
**±0.27 MI**

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE LATEST ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS.

ANY REFERENCE TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, DIVISION 1, GENERAL REQUIREMENTS AND COVENANTS, SHALL BE EXCLUDED AND NOT APPLICABLE TO ANY SPECIFICATION REFERED HEREIN OR OTHERWISE LISTED IN THESE PLANS OR RELATED DOCUMENTS OR THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS.

This item has been electronically signed and sealed by Brent Schneider, PE, on 03/09/2022 using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.



PROJECT MANAGER: MARK SOLTERO	
SECTION / TOWNSHIP / RANGE: 56/2S/30W	DISTRICT: 2
PROJECT ENGINEER: BRENT SCHNEIDER	REG FLA ENG NO: 70706
SIGNATURE:	DATE: MARCH 2022

**GENERAL NOTES:**

1. THE CONTRACTOR SHALL NOTIFY THE COUNTY DESIGN ENGINEER OR DESIGNEE 48 HOURS PRIOR TO CONSTRUCTION.
2. ALL CONDITIONS AND STIPULATIONS OF THE CONSTRUCTION PERMITS AND THE APPROVALS ISSUED BY THE ESCAMBIA COUNTY ENGINEER SHALL BE COMPLIED WITH IN EVERY DETAIL.
3. ALL ROADS DAMAGED BY CONSTRUCTION OPERATIONS ARE TO BE PATCHED OR RECONSTRUCTED AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE.
4. THE CONTRACTOR SHALL TAKE STEPS NECESSARY TO PREVENT EROSION AND ANY OFF SITE SEDIMENT TRANSPORT RESULTING FROM INCREASED RUNOFF DURING CONSTRUCTION BY PROVIDING SILT FENCE AND/OR STAKED HAY BALES AS REQUIRED BY FDOT INDEX 102, THE FLORIDA STORMWATER, EROSION, AND SEDIMENT CONTROL INSPECTOR'S MANUAL, 2000 EDITION, OR AS INDICATED ON THE PLANS. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ASSOCIATED DISTURBED AREAS ARE STABILIZED AS TO REDUCE SEDIMENT RUNOFF, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR DESIGNEE.
5. ANY NECESSARY PERMITS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. ESCAMBIA COUNTY OR ITS DESIGNEE WILL ASSIST CONTRACTOR WITH REQUIRED PERMITS.
6. THE CONTRACTOR IS CAUTIONED TO VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE PROJECT PRIOR TO BIDDING AND/OR CONSTRUCTION.
7. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PRESERVE OR RELOCATE ALL BENCHMARKS (VERTICAL CONTROL) AS NEEDED DURING CONSTRUCTION. ALL PUBLIC OR PRIVATE CORNER MONUMENTATION SHALL BE PROTECTED. IF A PUBLIC OR PRIVATE CORNER MONUMENTATION IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR DESIGNEE IMMEDIATELY. ANY ESCAMBIA COUNTY HARN/GPS NETWORK MONUMENTS OR BUREAU OF SURVEY AND MAPPING GPS NETWORK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A HARN/GPS NETWORK MONUMENT OR BUREAU OF SURVEY AND MAPPING GPS NETWORK MONUMENTS ARE DISTURBED OR DESTROYED THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELACEMENT OF THE MONUMENTS AND HAVE THE MONUMENT POSITION DETERMINED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER USING GUIDELINES AS ESTABLISHED BY NATIONAL GEODETIC SURVEY FOR BLUE BOOKING AND APPROVAL.
8. EXISTING DRAINAGE FEATURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL MATCH EXISTING CONDITIONS AT THE BEGINNING AND END OF CONSTRUCTION AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE.
10. EXISTING STREETS AND DRIVES SHALL BE MAINTAINED TO LOCAL TRAFFIC AND PROPERTY OWNERS.
11. ALL ROADWAY CONSTRUCTION SHALL COMPLY WITH THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS, LATEST EDITION.
12. ALL MATERIALS, TESTING AND CONSTRUCTION METHODS SHALL CONFORM TO THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS, LATEST EDITION.
13. ANY REFERENCE TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, DIVISION 1, GENERAL REQUIREMENTS AND COVENANTS, SHALL BE EXCLUDED AND NOT APPLICABLE TO ANY SPECIFICATION REFERRED HEREIN OR OTHERWISE LISTED IN THESE PLANS OR RELATED DOCUMENTS OR THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS.
14. EXISTING STREET AND ROAD NAME SIGNS ON THE PROJECT SHALL BE KEPT VISIBLE AT ALL TIMES FOR THE FACILITATION OF ACCESS BY EMERGENCY VEHICLES. ALL OTHER EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE TAKEN DOWN AND STOCKPILED WITHIN THE R/W LIMITS BY THE CONTRACTOR AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE. ANY EXISTING SIGNS THAT ARE TO BE RELOCATED AND ARE DAMAGED BEYOND USE BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
15. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE 10' OPEN LANE AT ALL TIMES. NO OPEN EXCAVATION SHALL REMAIN OVER NIGHT. CONTRACTOR SHALL RESTORE ROAD TO TWO LANES OF TRAFFIC AT THE END OF EACH WORK DAY.
16. CONTRACTOR SHALL COMPLY WITH ALL F.D.E.P. AND ARMY CORP. OF ENGINEERS REQUIREMENTS.
17. ONLY ACCESS TO THE ROAD R/W AS SHOWN IS GUARANTEED BY THE COUNTY. PRIVATE R/W REQUIRED BY THE CONTRACTOR TO FACILITATE CONSTRUCTION SHALL BE ACQUIRED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION OR ASSISTANCE FROM THE COUNTY.
18. IN THE EVENT THAT SURVEY MONUMENTATION OR REFERENCE POINTS ARE MISSING OR HAVE BEEN DESTROYED, PLEASE CONTACT:

ESCAMBIA COUNTY SURVEYOR  
3363 WEST PARK PLACE  
PENSACOLA, FLORIDA 32505 PH (850) 595-3427

19. VEGETATION ON R/W AND EASEMENTS SHALL BE RESTORED TO ORIGINAL CONDITION UNLESS OTHERWISE NOTED ON THE PLAN SHEETS. COST OF SAID RESTORATION SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS.
20. GRADED AGGREGATE BASE SHALL BE REQUIRED WHERE THE SEASONAL HIGH GROUND WATER ENCROACHES WITHIN TWO (2) FEET OF THE BOTTOM OF BASE.
21. ALL TREES WITHIN LIMITS OF CONSTRUCTION SHALL BE REMOVED UNLESS OTHERWISE NOTED IN PLANS.
22. ALL COMPACTED FILL SHALL BE PLACED IN 4" LIFTS FOR HAND POWERED TAMPERS AND 8" LIFTS FOR HEAVY EQUIPMENT OPERATED TAMPERS.
23. MAINTENANCE OF TRAFFIC AS PER FDOT INDEX 600.
24. ALL SPEED BUMPS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED TO THE LATEST ESCAMBIA COUNTY DESIGN SPECIFICATIONS. ALL COSTS FOR REPLACEMENT OF SAID SPEED BUMPS SHALL BE INCIDENTAL TO OTHER ITEMS AND NO ADDITIONAL COMPENSATION SHALL BE CONSIDERED.
25. ALL EXISTING MAILBOXES INTERFERING WITH NEW CONSTRUCTION SHALL BE RELOCATED OR REPLACED BY THE CONTRACTOR IN ACCORDANCE WITH POSTAL REQUIREMENTS AND IN ACCORDANCE WITH ESCAMBIA COUNTY TECHNICAL SPECIFICATION, FDOT DESIGN STANDARDS AND UNITED POSTAL REQUIREMENTS. ALL EXISTING BRICK MAILBOXES WITHIN LIMITS OF CONSTRUCTION OR COUNTY RIGHT OF WAY SHALL BE REMOVED AND PLACED ON THE PROPERTY LINE OF THE OWNER. CONTRACTOR SHALL REPLACE EXISTING BRICK MAILBOX WITH APPROVED PLASTIC BREAK AWAY MAILBOX.
26. THE CONTRACTOR SHALL, AT A MINIMUM, MATCH EXISTING SIGNING AND PAVEMENT MARKINGS. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE LATEST FDOT DESIGN STANDARDS. THE CONTRACTOR SHALL CONTACT THE COUNTY TRAFFIC DEPARTMENT PRIOR TO INSTALLATION OF ANY SIGNING AND PAVEMENT MARKINGS.
27. WHERE UNSUITABLE MATERIAL, AS DEFINED BY THE COUNTY SPECIFICATIONS SECTION 02300, 1.3(I), IS ENCOUNTERED IN THE AREAS PROPOSED FOR PAVING, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY ENGINEER OR DESIGNEE PRIOR TO ANY EXCAVATION.
28. PIPE LENGTHS SHOWN IN THE PLANS DO NOT INCLUDE THE LENGTH OF PIPE THAT MUST BE INSTALLED WITH THE MITERED END SECTION. THEREFORE, ALL PIPE LENGTHS ASSOCIATED WITH MITERED END SECTIONS SHALL BE PAID FOR IN THE UNIT COST OF THE MITERED END SECTION.
29. IF ARCHAEOLOGICAL MATERIAL/PREHISTORIC ARTIFACTS SUCH AS POTTERY OR CERAMICS, STONE TOOLS OR METAL IMPLEMENTS, OR ANY OTHER PHYSICAL REMAINS THAT COULD BE ASSOCIATED WITH NATIVE AMERICAN CULTURES, OR EARLY COLONIAL OR AMERICAN SETTLEMENT ARE ENCOUNTERED AT ANY TIME, THE PROJECT SHOULD CEASE ALL ACTIVITIES INVOLVING SUBSURFACE DISTURBANCE IN THE IMMEDIATE VICINITY OF SUCH DISCOVERIES. THE APPLICANT/RECIPIENT, OR OTHER DESIGNEE, SHOULD CONTACT THE FLORIDA DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES, THE STATE HISTORIC PRESERVATION OFFICER (SHPO) AND THE DSH/FEMA REGION IV ENVIRONMENTAL OFFICER AND FDEM STATE ENVIRONMENTAL LIAISON OFFICER FOR FURTHER GUIDANCE. PROJECT ACTIVITIES SHOULD NOT RESUME WITHOUT VERBAL AND/OR WRITTEN AUTHORIZATION FROM THE DIVISION OF HISTORICAL RESOURCES.
30. IN THE EVENT THAT UNMARKED HUMAN REMAINS ARE ENCOUNTERED DURING PERMITTED ACTIVITIES, ALL WORK MUST STOP IMMEDIATELY AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH F.S. 872.05.

**UTILITY NOTES:**

1. THE LOCATION SHOWN FOR EXISTING UNDERGROUND UTILITIES IS APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR AGREES TO BE COMPLETELY RESPONSIBLE FOR ALL DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES.
2. UTILITY OWNERS SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION SO THAT THE UTILITY OWNER CAN SPOT VERIFY AND/OR EXPOSE THEIR UTILITIES.  
KNOWN UTILITIES OWNERS INCLUDE:  
  
SEWER/WATER - EMERALD COAST UTILITY AUTHORITY  
MR. BRANDON KNIGHT  
P.O.BOX 15311  
PENSACOLA, FL. 32514 PH: (850) 969-6650  
  
ELECTRIC - GULF POWER  
MR. CHAD SWAILS  
5120 DOGWOOD DRIVE  
MILTON, FL. 32570 PH: (850) 244-4747  
  
NATURAL GAS - PENSACOLA ENERGY  
MRS. DIANE MOORE  
1625 ATWOOD DRIVE  
PENSACOLA, FL. 32514 PH: (850) 474-5319  
  
CABLE - COX COMMUNICATIONS  
MR. TROY YOUNG  
2421 EXECUTIVE PLAZA  
PENSACOLA, FL. 32504 PH: (850) 232-5044  
  
TELEPHONE - AT&T CORPORATION  
MR. MICHAEL FILLINGIM  
2221 INDUSTRIAL DRIVE  
PANAMA CITY, FL. 32405 PH: (850) 623-3654  
  
SUNSHINE STATE ONE-CALL  
7200 LAKE ELLENOR DRIVE, SUITE 200  
ORLANDO, FL. 32809 PH: (800) 432-4770  
  
TRAFFIC DEPARTMENT - ESCAMBIA COUNTY PUBLIC WORKS  
MRS. JOHNNY PETTIGREW  
3363 WEST PARK PLACE  
PENSACOLA, FL. 32505 PH:(850) 595-3404
3. AT&T FLORIDA WILL COMPLETE ALL WORK DURING THE HOURS OF 7:30 AM - 4:30 PM, MONDAY THRU FRIDAY. NO NIGHT OR WEEKEND WORK.
4. ALL CABLE DAMAGE MUST BE REPORTED TO THE ATT FLORIDA REPAIR SERVICE DEPARTMENT AT 611 FROM A LAND LINE OR 877-737-2478 IF USING A CELL PHONE.
5. ALL LOOP DETECTOR INSTALLATION SHALL BE DONE AS PER FDOT INDEX 17781.
6. CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES.
7. UTILITIES TO REMAIN AND BE PROTECTED DURING CONSTRUCTION. NECESSARY REPAIRS SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS AND SHALL BE TO THE SATISFACTION OF UTILITY OWNERS.

**PAY ITEM NOTES:**

1. PAY ITEM #2 - PRICE SHALL INCLUDE CHAIN LINK AND/OR WOODEN FENCE REMOVAL. INCLUDES CLEANING/FLUSHING OF THE UPSTREAM 60" PIPES AND DOWNSTREAM 72" PIPES AS STATED ON THE THE PLAN SHEETS.
2. PAY ITEM #3 - QUANTITY SHOWS ANTICIPATED AMOUNT OF TREES >12" IN DIAMETER. PRICE SHALL INCLUDE TREES <12" DIAMETER.
3. PAY ITEM #8 - PRICE SHALL INCLUDE SEED BED MATERIAL AND PREPARATION. PRICE SHALL ALSO INCLUDE MEASURES REQUIRED TO ENSURE LONG-TERM SURVIVABILITY OF VEGETATION.
4. PAY ITEM #9 - PRICE SHALL INCLUDE BEDDING STONE.
5. PAY ITEM #15 - PRICE SHALL INCLUDE ANCHORS/PINS PER MANUFACTURER'S RECOMMENDATIONS.

**SUMMARY OF QUANTITIES**

PAY ITEM	SECTION	CATEGORY	SUB-CATEGORY	QUANTITY	UNITS
1	02100-	00101	MOBILIZATION, 0-15 MILES	1	EA
2	03100-	00102	CLEARING AND GRUBBING (INCLUDING TREES UNDER 12" DIA.)	5600	SY
3	03100-	00105	REMOVE TREE, 13"-24"	40	EA
4	04100-	00101	EARTHWORK EXCAVATION BY MACHINE	30	CY
5	04100-	00104	EARTHWORK BORROW (FILL)	140	CY
6	04100-	00106	EARTHWORK ESTABLISHING GRADE	5600	SY
7	13100-	00107	ARGENTINE BAHIA SOD, STAKED	4000	SY
8	13100-	00112	SEED AND MULCH ROAD AND SHOULDERS	3000	SY
9	13200-	00101	18" DEPTH RIP RAP RUBBLE W/ 4" BEDDING STONE AND GEOTEXTILE	784	SY
10	13300-	00109	ESTABLISH, QUANTIFY, AND SUBMIT AN APPROVED EROSION CONTROL PLAN PREPARED BY A CERTIFIED TECHNICIAN	1	EA
11	13300-	00110	CONSTRUCT STABILIZED GRAVEL CONSTRUCTION ENTRANCE	111	SY
12	13400-	00101	REMOVE EXISTING RUBBLE (STONE RIP RAP OR CONCRETE)	60	CY
13	07900-	00100	MOT BASED ON SECTION 07900-0100 AND SUB TOTAL OF PRODUCT	1	EA
14	01100-	00100	PERFORMANCE AND PAYMENT BOND (REQUIRED FOR PROJECTS OVER \$25,000.00)	1	EA
15			BALANCE OF LINE ITEM:3,400 SY OF TURF REINFORCMENT MAT (TRM)	3400	SY

**MYRTLE GROVE GULLY RESTORATION**

**PROJECT NOTES**



**GEOSYNTEC CONSULTANTS**

12802 TAMPA OAKS BLVD., SUITE 151, TEMPLE TERRACE, FLORIDA 33637

ISSUED BY: BDS  
PROJECT MANAGER: BRENT SCHNEIDER  
FIELDBOOK PAGES: XXXXX

CHECKED BY: BDS  
DATE: 2/8/22

REQ. PEA. ENG. NO.: 70706  
DATE: MARCH 2022  
SIGNATURE:

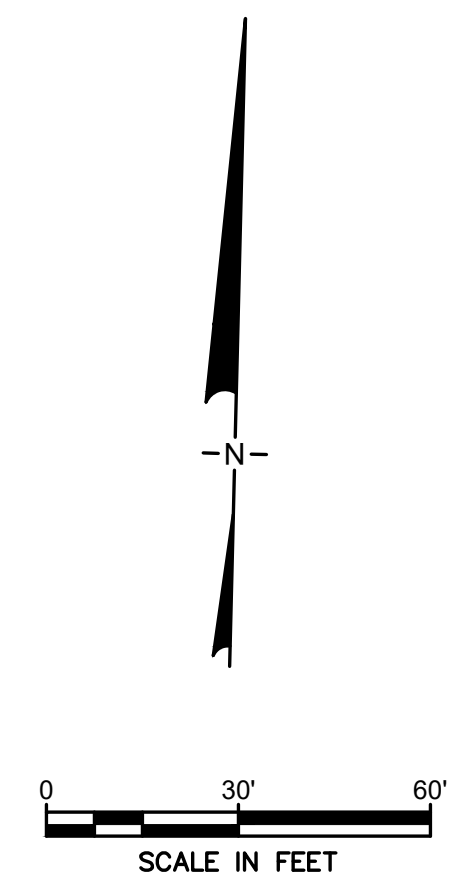
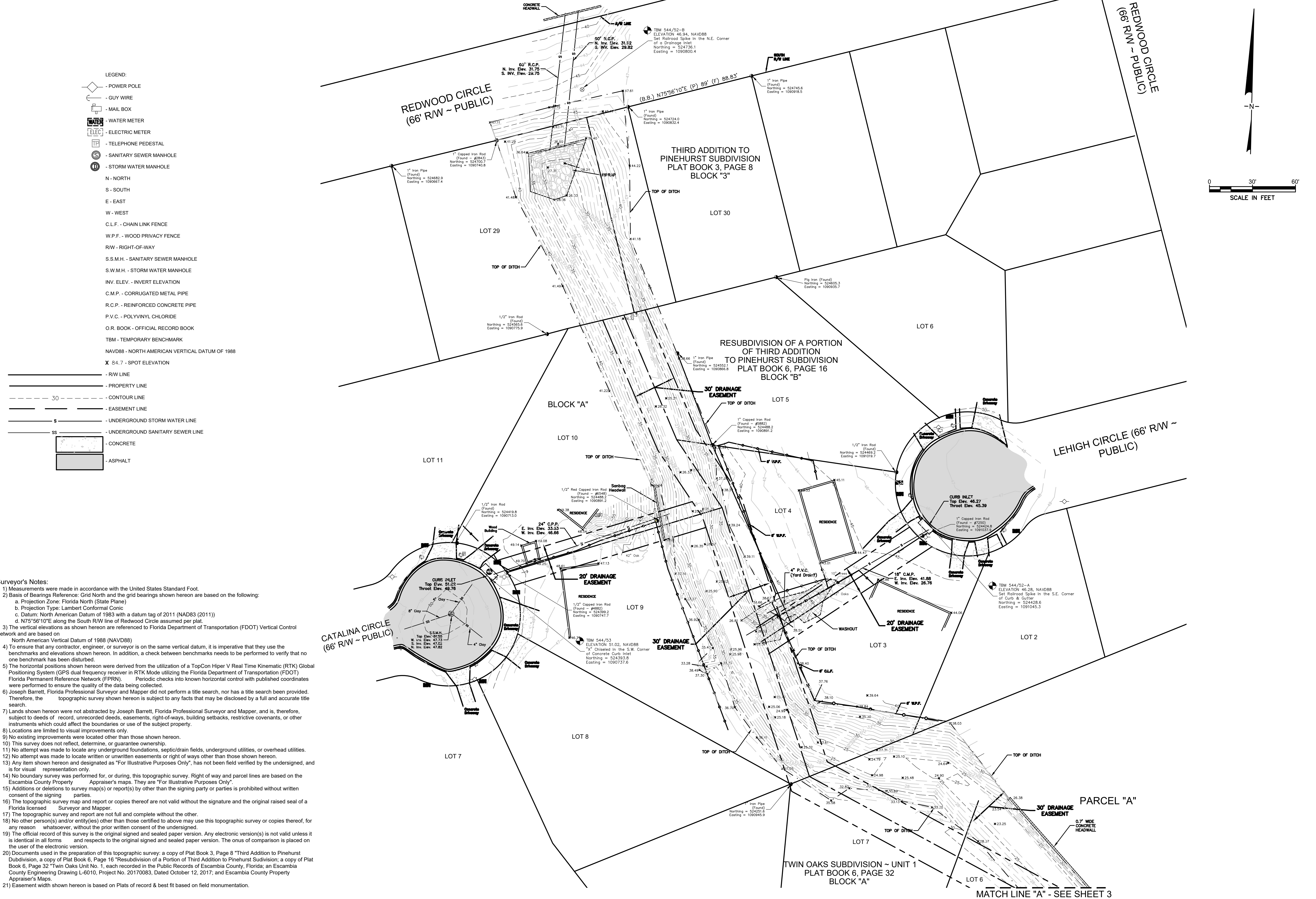
DISTRICT: 2  
SECTION/TOWNSHIP/RANGE: 36, 28, 30W

\\brnchdata-01\pensacola-data\Projects\FW8205 -E520 - Myrtle Grove Gully\Drawings\FW8205C02.dwg, Mar 08, 2022 - 3:32:07PM, Mloland

NUMBER	REVISIONS	DATE	APPROVED BY

DRAWING NUMBER	FW8205C02
PROJECT NUMBER	FW8205
SURVEY NUMBER	XXX





- LEGEND:**
- POWER POLE
  - GUY WIRE
  - MAIL BOX
  - WATER METER
  - ELECTRIC METER
  - TELEPHONE PEDESTAL
  - SANITARY SEWER MANHOLE
  - STORM WATER MANHOLE
  - N - NORTH
  - S - SOUTH
  - E - EAST
  - W - WEST
  - C.L.F. - CHAIN LINK FENCE
  - W.P.F. - WOOD PRIVACY FENCE
  - R.W. - RIGHT-OF-WAY
  - S.S.M.H. - SANITARY SEWER MANHOLE
  - S.W.M.H. - STORM WATER MANHOLE
  - INV. ELEV. - INVERT ELEVATION
  - C.M.P. - CORRUGATED METAL PIPE
  - R.C.P. - REINFORCED CONCRETE PIPE
  - P.V.C. - POLYVINYL CHLORIDE
  - O.R. BOOK - OFFICIAL RECORD BOOK
  - TBM - TEMPORARY BENCHMARK
  - NAVD88 - NORTH AMERICAN VERTICAL DATUM OF 1988
  - X 84.7 - SPOT ELEVATION
  - RW LINE
  - PROPERTY LINE
  - 30 --- CONTOUR LINE
  - EASEMENT LINE
  - UNDERGROUND STORM WATER LINE
  - UNDERGROUND SANITARY SEWER LINE
  - CONCRETE
  - ASPHALT

- Surveyor's Notes:**
- 1) Measurements were made in accordance with the United States Standard Foot.
  - 2) Basis of Bearings Reference: Grid North and the grid bearings shown hereon are based on the following:
    - a. Projection Zone: Florida North (State Plane)
    - b. Projection Type: Lambert Conformal Conic
    - c. Datum: North American Datum of 1983 with a datum tag of 2011 (NAD83 (2011))
    - d. N75°56'10"E along the South R/W line of Redwood Circle assumed per plat.
  - 3) The vertical elevations as shown hereon are referenced to Florida Department of Transportation (FDOT) Vertical Control Network and are based on North American Vertical Datum of 1988 (NAVD88).
  - 4) To ensure that any contractor, engineer, or surveyor is on the same vertical datum, it is imperative that they use the benchmarks and elevations shown hereon. In addition, a check between benchmarks needs to be performed to verify that no one benchmark has been disturbed.
  - 5) The horizontal positions shown hereon were derived from the utilization of a TopCon Hiper V Real Time Kinematic (RTK) Global Positioning System (GPS) dual frequency receiver in RTK Mode utilizing the Florida Department of Transportation (FDOT) Florida Permanent Reference Network (FPRN). Periodic checks into known horizontal control with published coordinates were performed to ensure the quality of the data being collected.
  - 6) Joseph Barrett, Florida Professional Surveyor and Mapper did not perform a title search, nor has a title search been provided. Therefore, the topographic survey shown hereon is subject to any facts that may be disclosed by a full and accurate title search.
  - 7) Lands shown hereon were not abstracted by Joseph Barrett, Florida Professional Surveyor and Mapper, and is, therefore, subject to deeds of record, unrecorded deeds, easements, right-of-ways, building setbacks, restrictive covenants, or other instruments which could affect the boundaries or use of the subject property.
  - 8) Locations are limited to visual improvements only.
  - 9) No existing improvements were located other than those shown hereon.
  - 10) This survey does not reflect, determine, or guarantee ownership.
  - 11) No attempt was made to locate any underground foundations, septic/drain fields, overhead utilities, or overhead utilities.
  - 12) No attempt was made to locate written or unwritten easements or right of ways other than those shown hereon.
  - 13) Any item shown hereon and designated as "For Illustrative Purposes Only", has not been field verified by the undersigned, and is for visual representation only.
  - 14) No boundary survey was performed for, or during, this topographic survey. Right of way and parcel lines are based on the Escambia County Property Appraiser's maps. They are "For Illustrative Purposes Only".
  - 15) Additions or deletions to survey map(s) or report(s) by other than the signing party or parties is prohibited without written consent of the signing parties.
  - 16) The topographic survey map and report or copies thereof are not valid without the signature and the original raised seal of a Florida licensed Surveyor and Mapper.
  - 17) The topographic survey and report are not full and complete without the other.
  - 18) No other person(s) and/or entity(ies) other than those certified to above may use this topographic survey or copies thereof, for any reason whatsoever, without the prior written consent of the undersigned.
  - 19) The official record of this survey is the original signed and sealed paper version. Any electronic version(s) is not valid unless it is identical in all forms and respects to the original signed and sealed paper version. The onus of comparison is placed on the user of the electronic version.
  - 20) Documents used in the preparation of this topographic survey: a copy of Plat Book 3, Page 8 "Third Addition to Pinehurst Subdivision, a copy of Plat Book 6, Page 16 "Resubdivision of a Portion of Third Addition to Pinehurst Subdivision; a copy of Plat Book 6, Page 32 "Twin Oaks Unit No. 1, each recorded in the Public Records of Escambia County, Florida; an Escambia County Engineering Drawing L-6010, Project No. 20170083, Dated October 12, 2017; and Escambia County Property Appraiser's Maps.
  - 21) Easement width shown hereon is based on Plats of record & best fit based on field monumentation.

# MYRTLE GROVE GULLY RESTORATION

EXISTING SITE CONDITIONS II

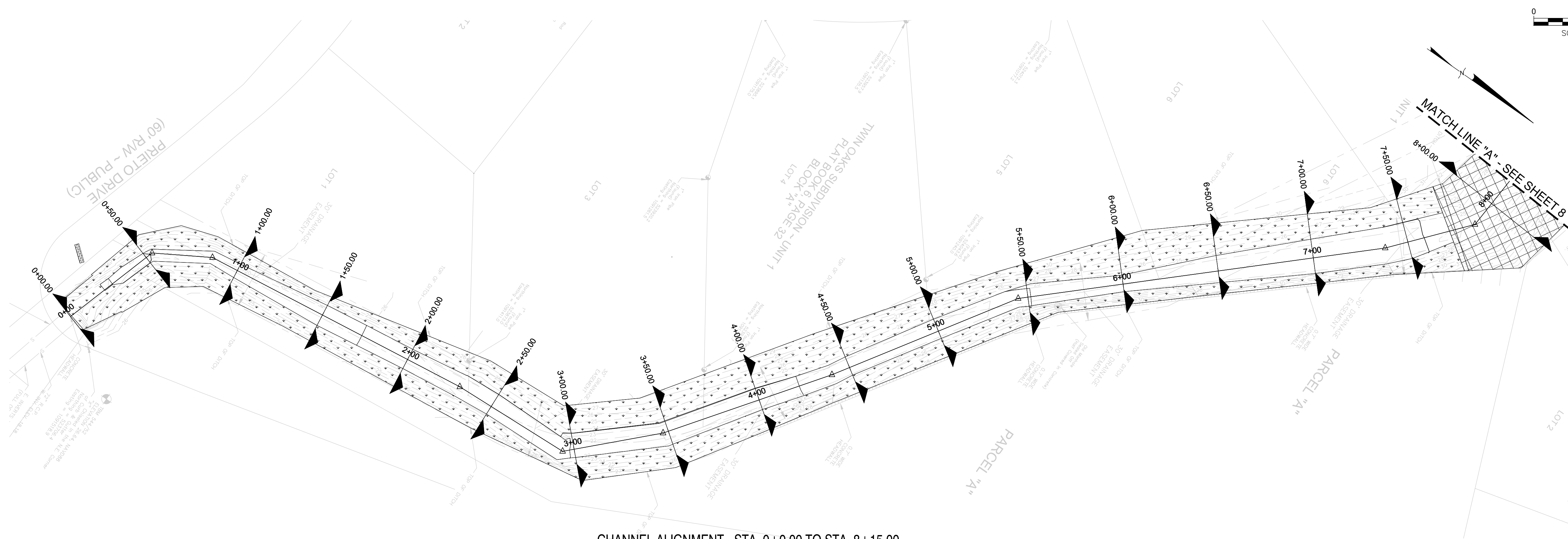
DESIGNED BY: BDS		CHECKED BY: BDS		DATE: MARCH 2022	
PROJECT MANAGER: BRENT SCHNEIDER		DISTRICT: 2		SIGNATURE: 70706	
FIELDBOOK PAGES: XXXXX		SECTION/TOWNSHIP/RANGE: 36, 28, 30W		DATE: 2/8/22	

DATE	APPROVED	

DRAWING NUMBER: FW8205C03
PROJECT NUMBER: FW8205
SURVEY NUMBER: XXX
SHEET 4 OF 15

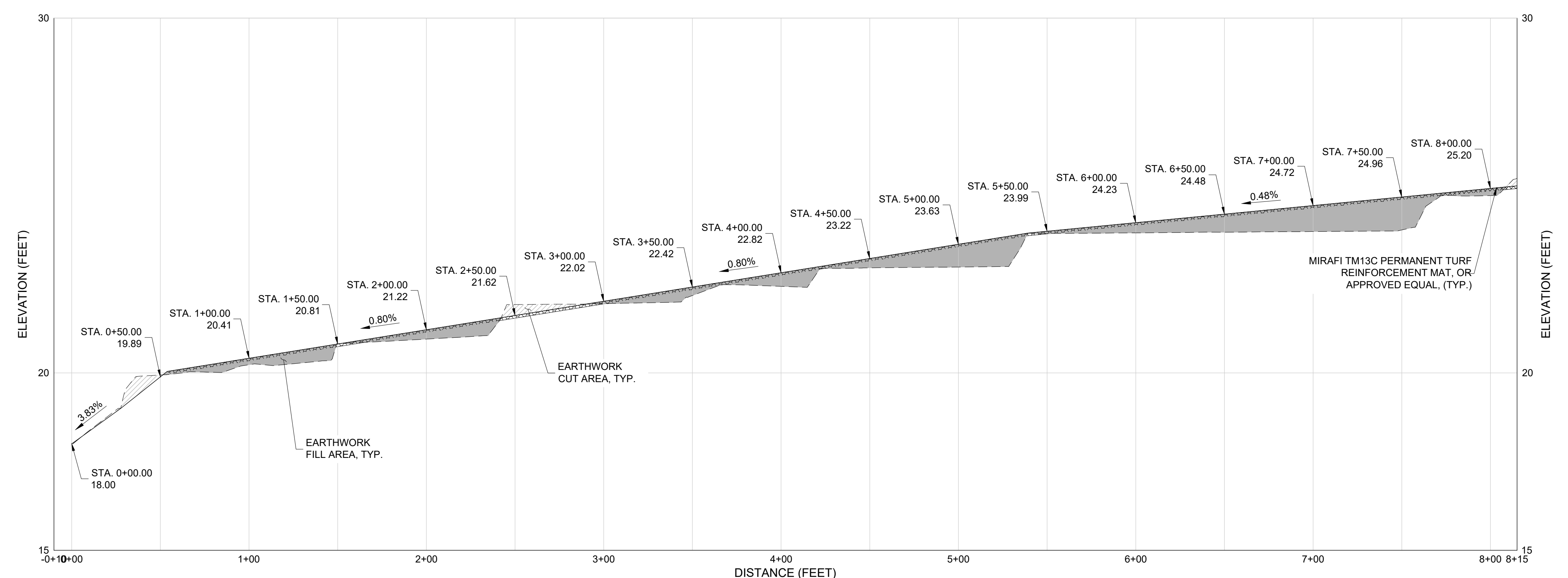






- LEGEND**
- FENCE
  - MAJOR CONTOUR
  - MINOR CONTOUR
  - TOP OF DITCH
  - EX. STORM PIPE
  - EX. SANITARY SEWER PIPE
  - PARCEL BOUNDARY
  - STORMWATER EASEMENT
  - STORMWATER EASEMENT CENTERLINE
  - EX. CONCRETE
  - EX. ASPHALT
  - LAYDOWN AREA BOUNDARY
  - DISSIPATION BASIN RIP RAP
  - OUTLET PROTECTION RIP RAP
  - CONSTRUCTION EXIT
  - TURF REINFORCEMENT MAT
  - SOD

CHANNEL ALIGNMENT - STA. 0+0.00 TO STA. 8+15.00



CHANNEL PROFILE - STA. 0+0.00 TO STA. 8+15.00

SCALE: HORIZONTAL - 1" = 40'  
VERTICAL - 1" = 2'

# MYRTLE GROVE GULLY RESTORATION

ALIGNMENT AND PROFILE I

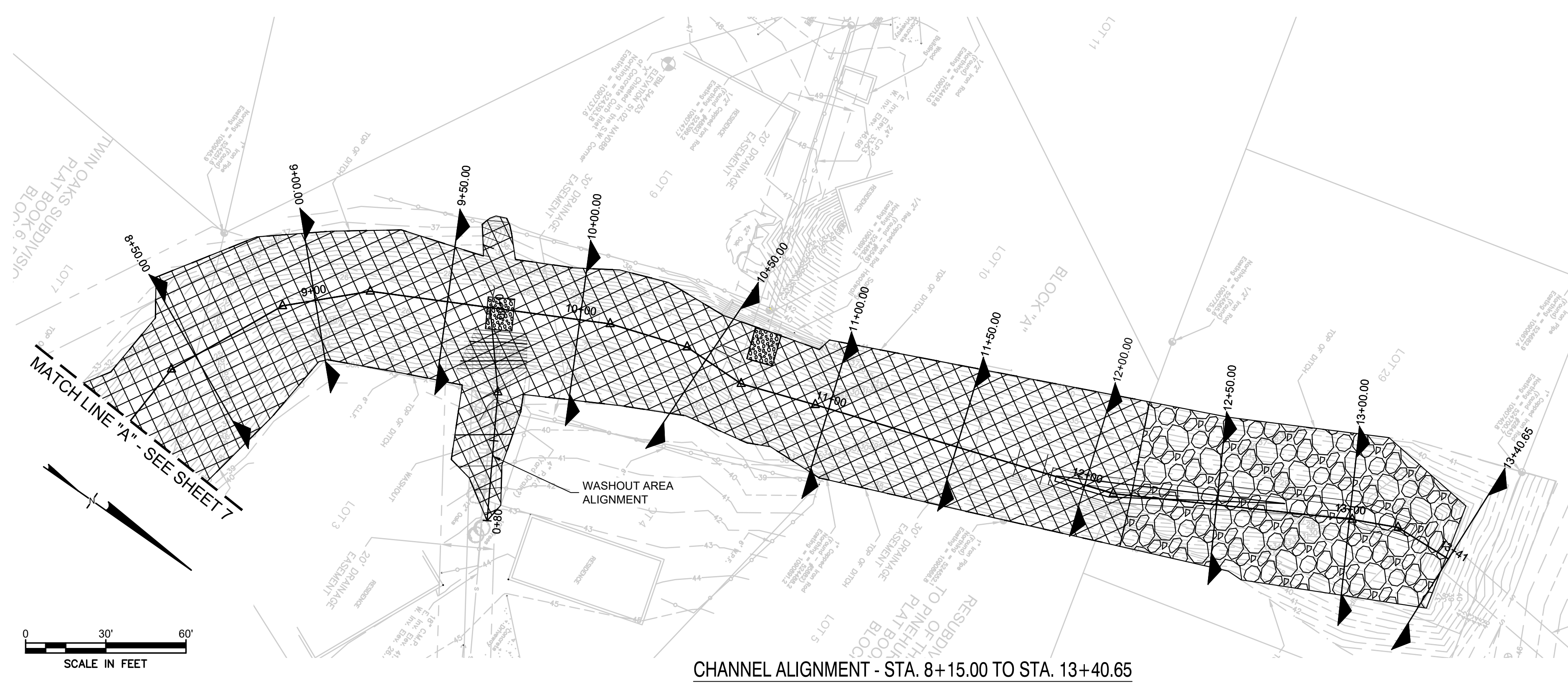


<b>GEOSYNTEC CONSULTANTS</b> 12802 TAMPA OAKS BLVD., SUITE 151, TEMPLE TERRACE, FLORIDA 33637 REG. P.E. NO. 70706 DATE: MARCH 2022	
DESIGNED BY: BDS PROJECT MANAGER: BRENT SCHNEIDER DATE: 2/8/22 FIELDBOOK PAGES: XXXXX	CHECKED BY: BDS DISTRICT: 2 SECTION/TOWNSHIP/RANGE: 36.7/28.50W

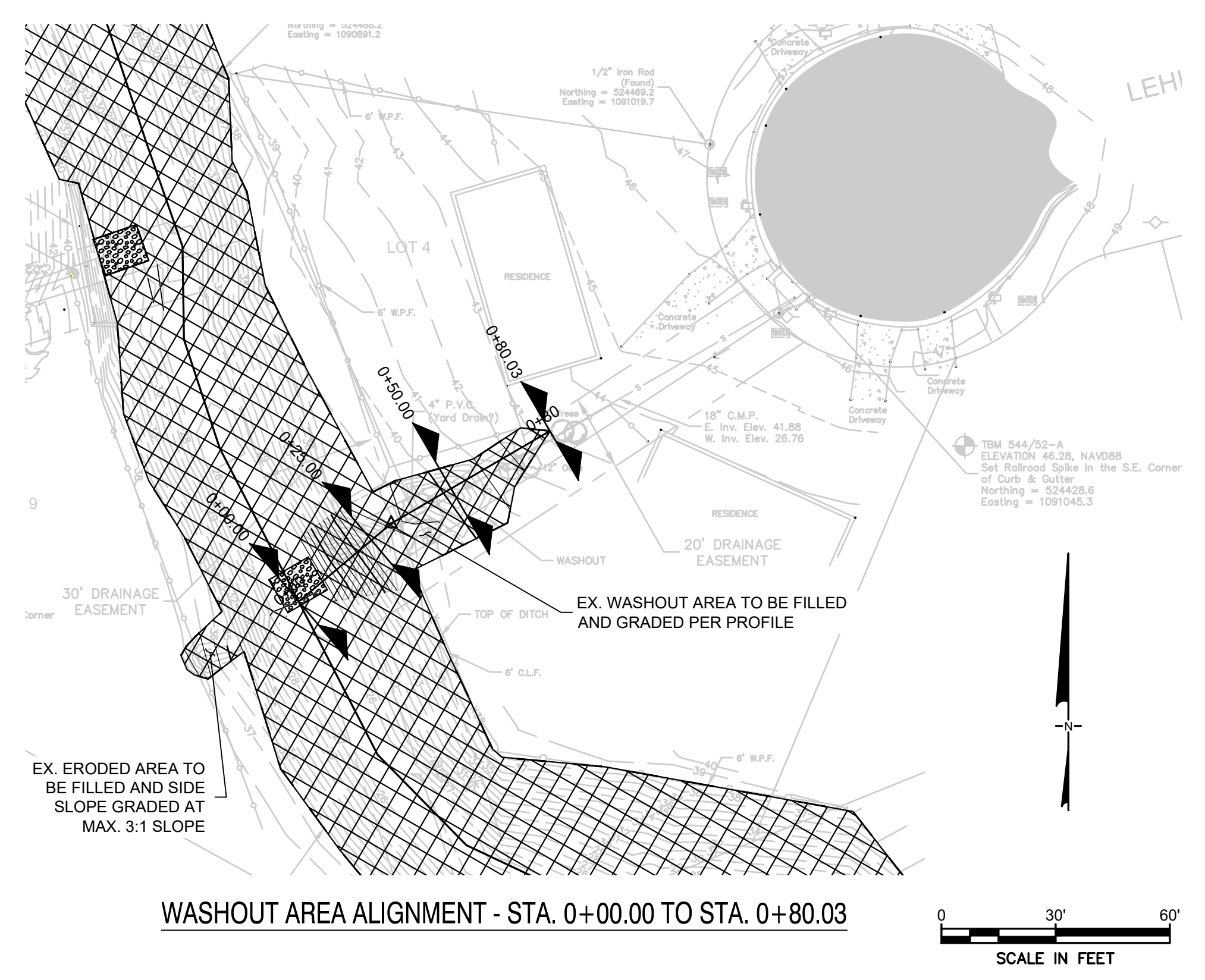
NUMBER	REVISIONS	DATE	APPROVED BY

DRAWING NUMBER	FW8205C07
PROJECT NUMBER	FW8205
SURVEY NUMBER	XXX

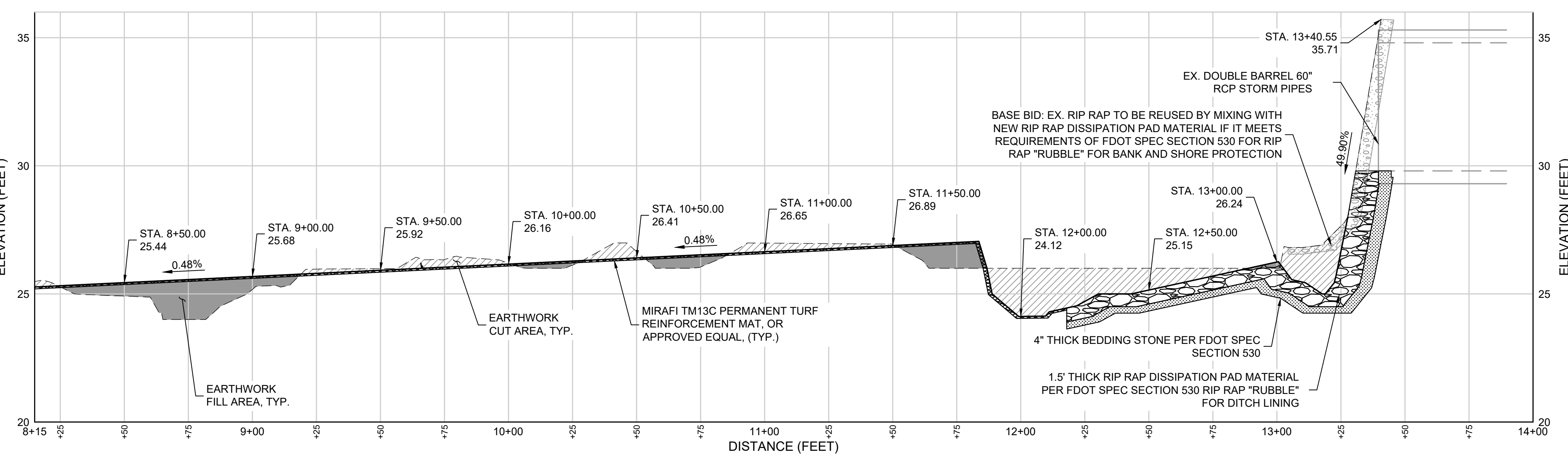
\\brunchdata-01\pers\csc\Drawings\FW8205\FW8205C07.dwg, Mar 08, 2022 - 3:34:11PM, Mloland



CHANNEL ALIGNMENT - STA. 8+15.00 TO STA. 13+40.65

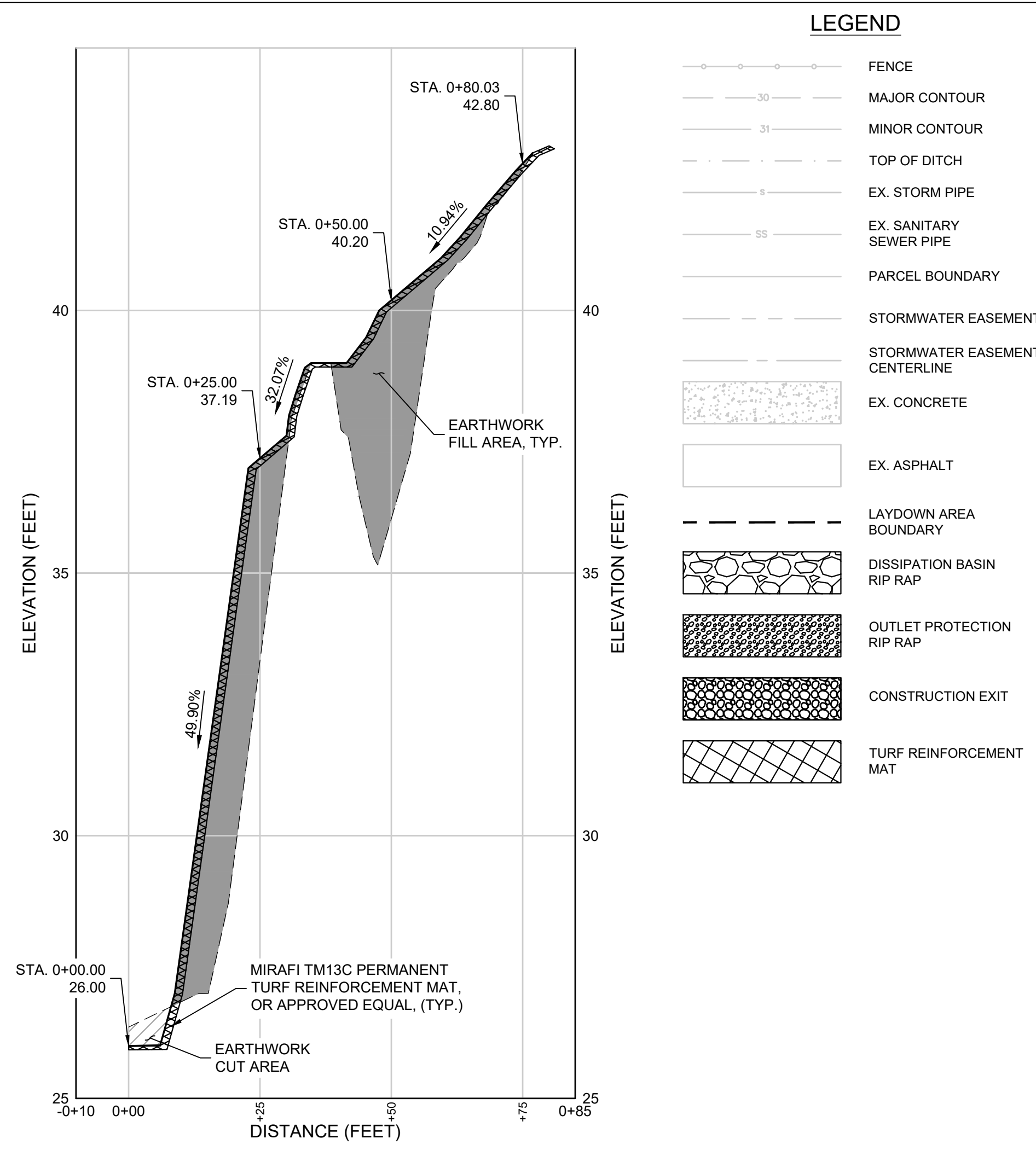


WASHOUT AREA ALIGNMENT - STA. 0+00.00 TO STA. 0+80.03



CHANNEL PROFILE - STA. 8+15.00 TO STA. 13+40.65

SCALE: HORIZONTAL - 1" = 30'  
VERTICAL - 1" = 3'



WASHOUT AREA PROFILE - STA. 0+00.00 TO STA. 0+80.03

SCALE: HORIZONTAL - 1" = 20'  
VERTICAL - 1" = 2'

# MYRTLE GROVE GULLY RESTORATION

ALIGNMENT AND PROFILE II



## GEOSYNTEC CONSULTANTS

12802 TAMPA OAKS BLVD., SUITE 151, TEMPLE TERRACE, FLORIDA 33637

DATE: MARCH 2022  
DRAWN BY: BDS  
CHECKED BY: BDS  
PROJECT MANAGER: BRENT SCHNEIDER  
DISTRICT: 2  
SECTION/TOWNSHIP/RANGE: 36, 28, 30W

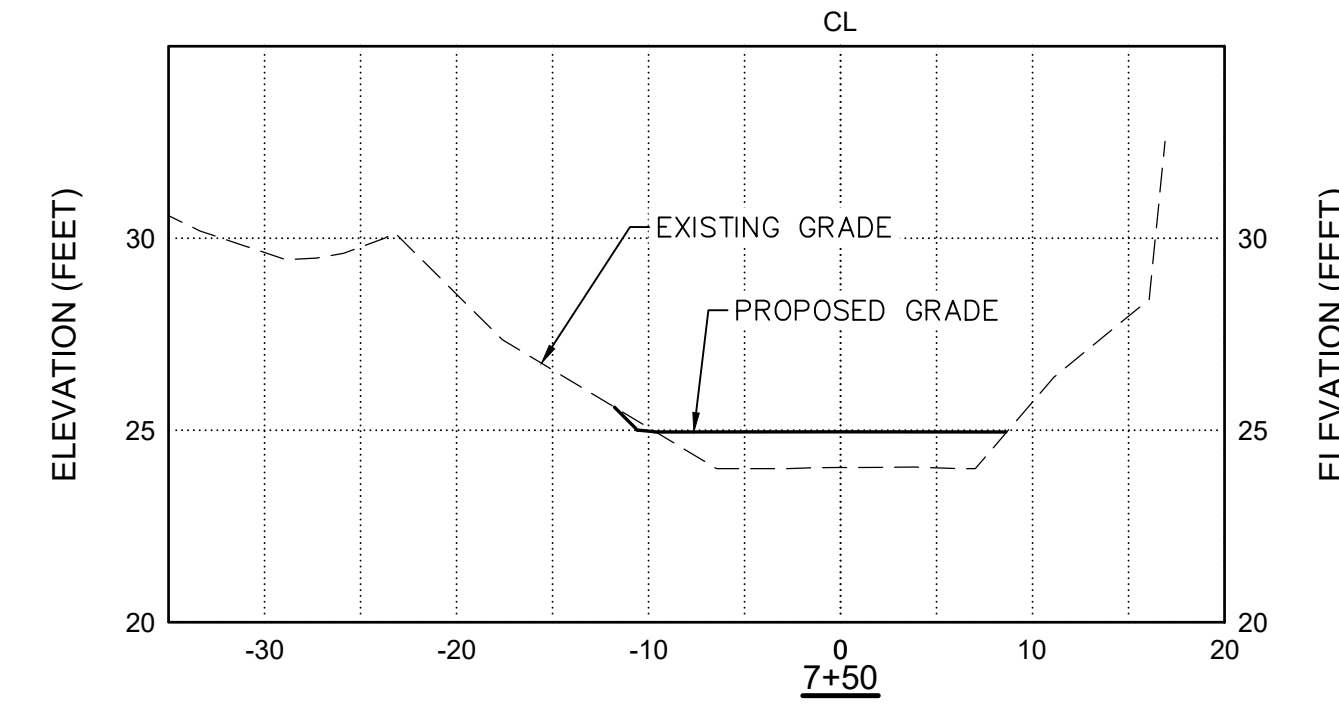
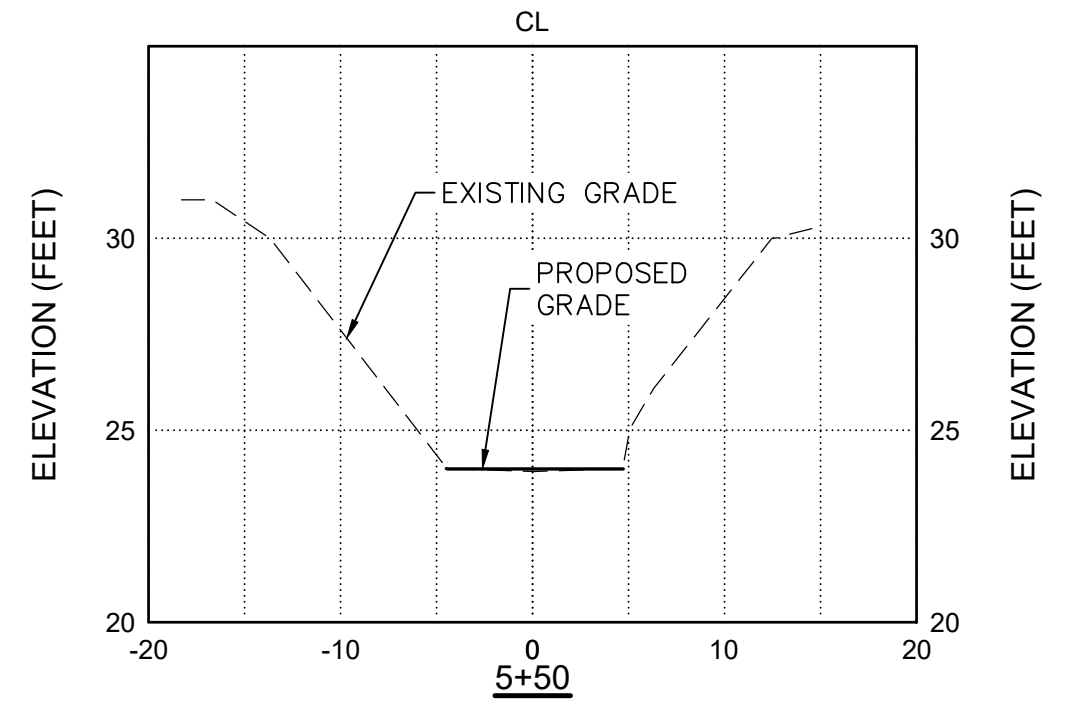
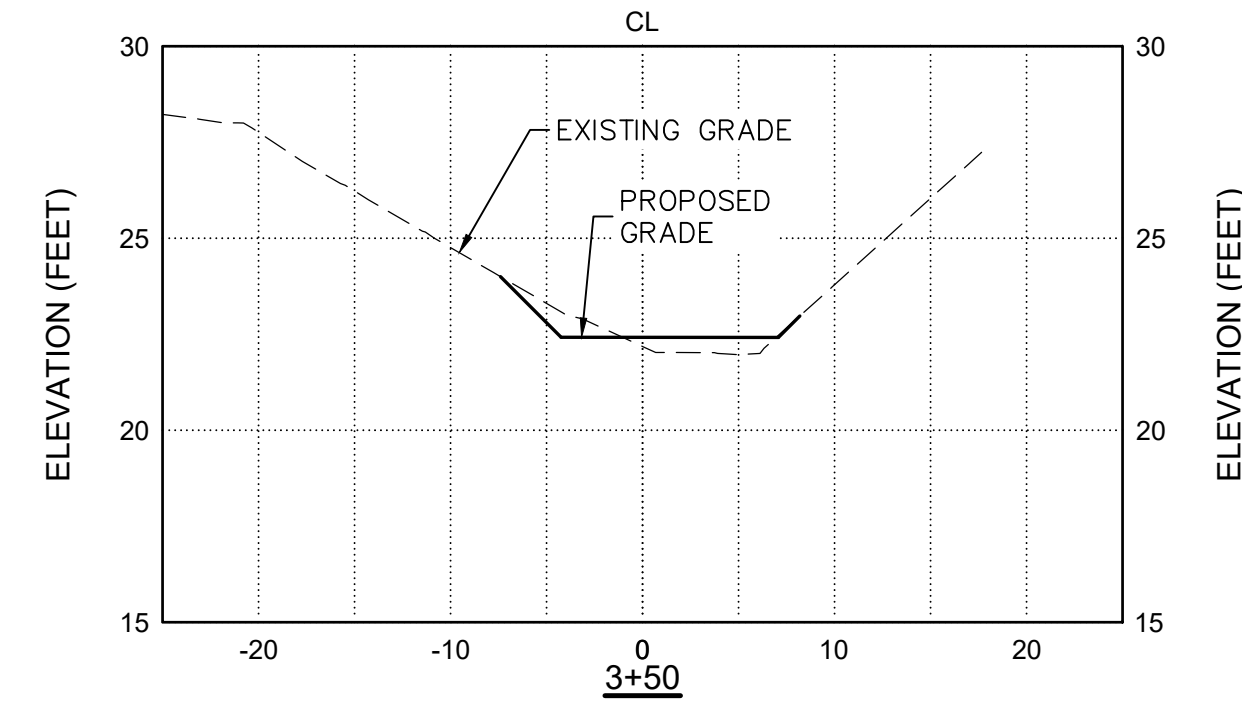
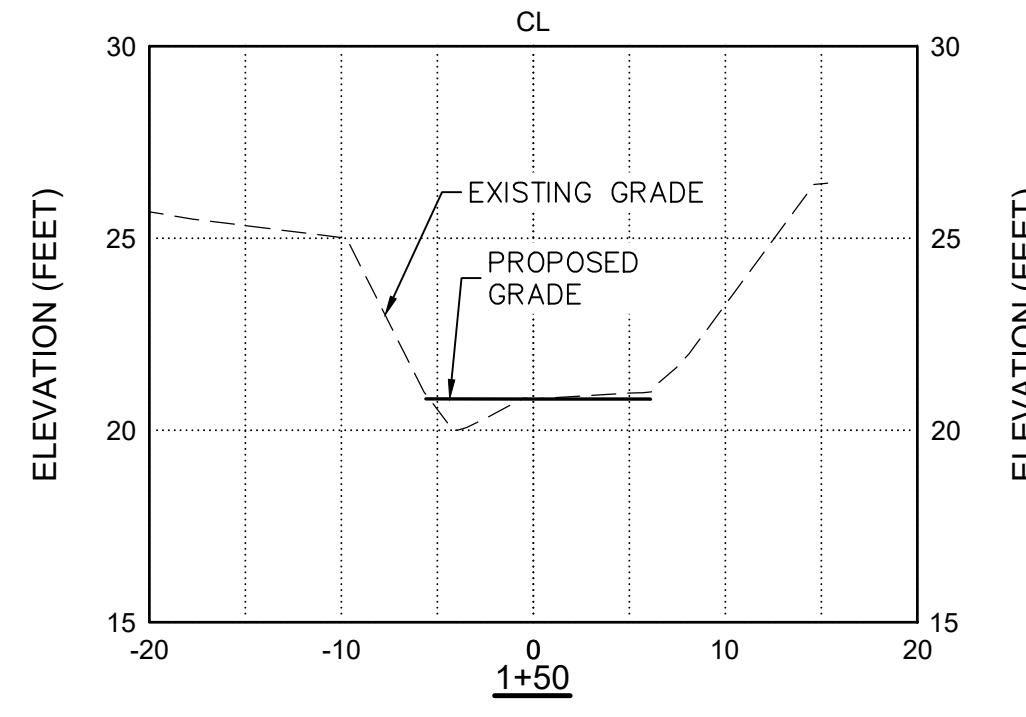
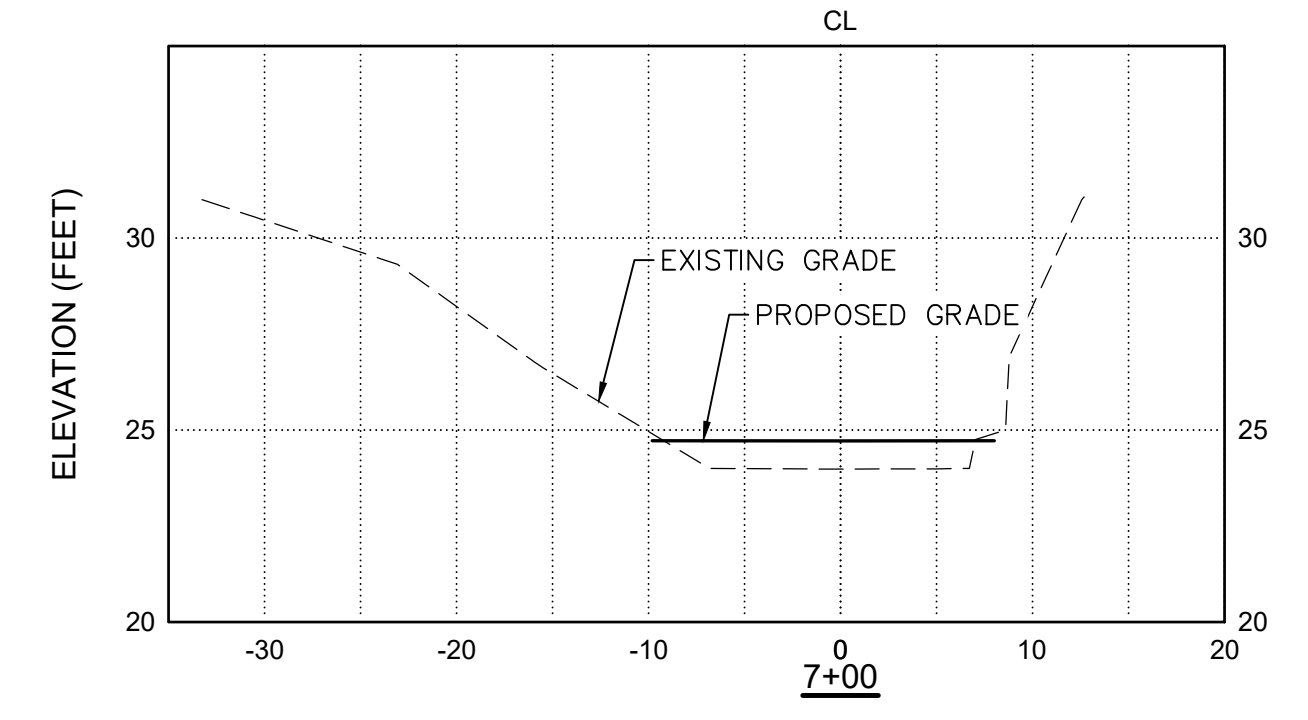
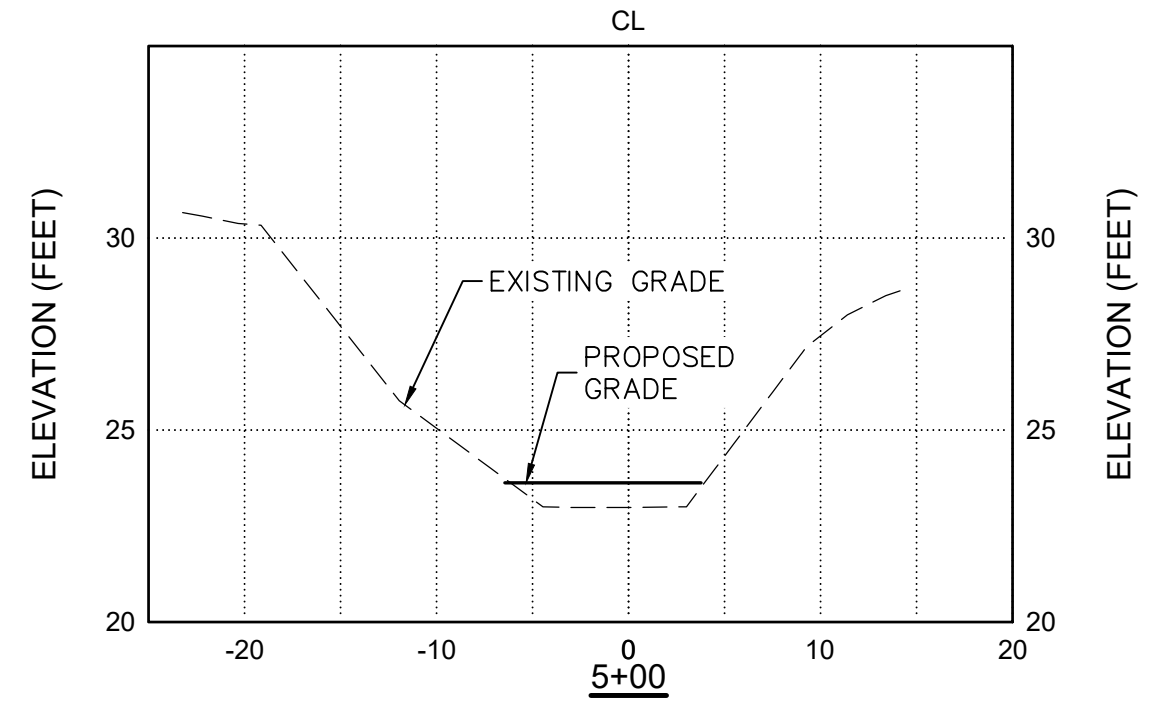
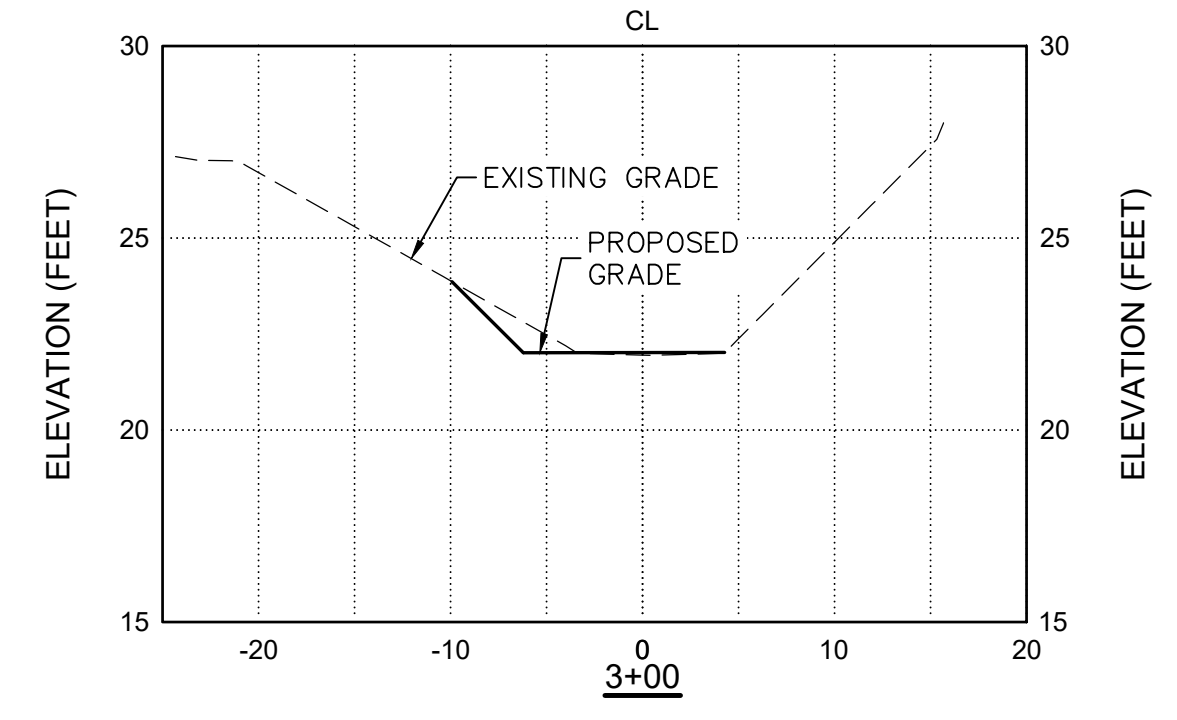
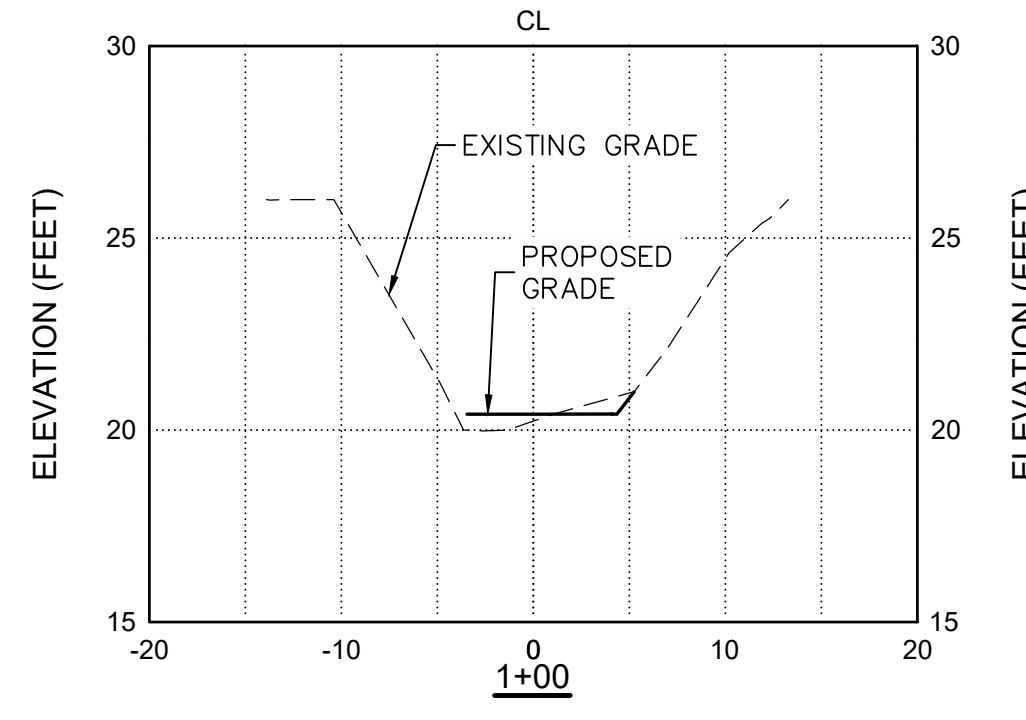
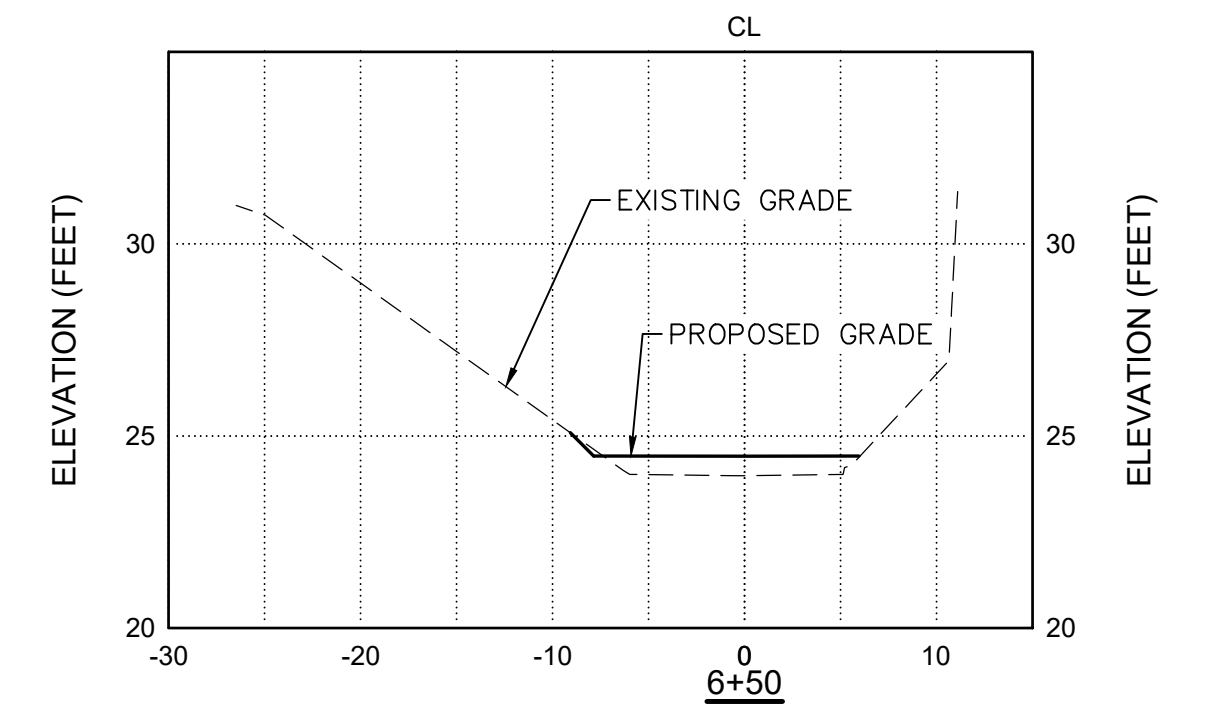
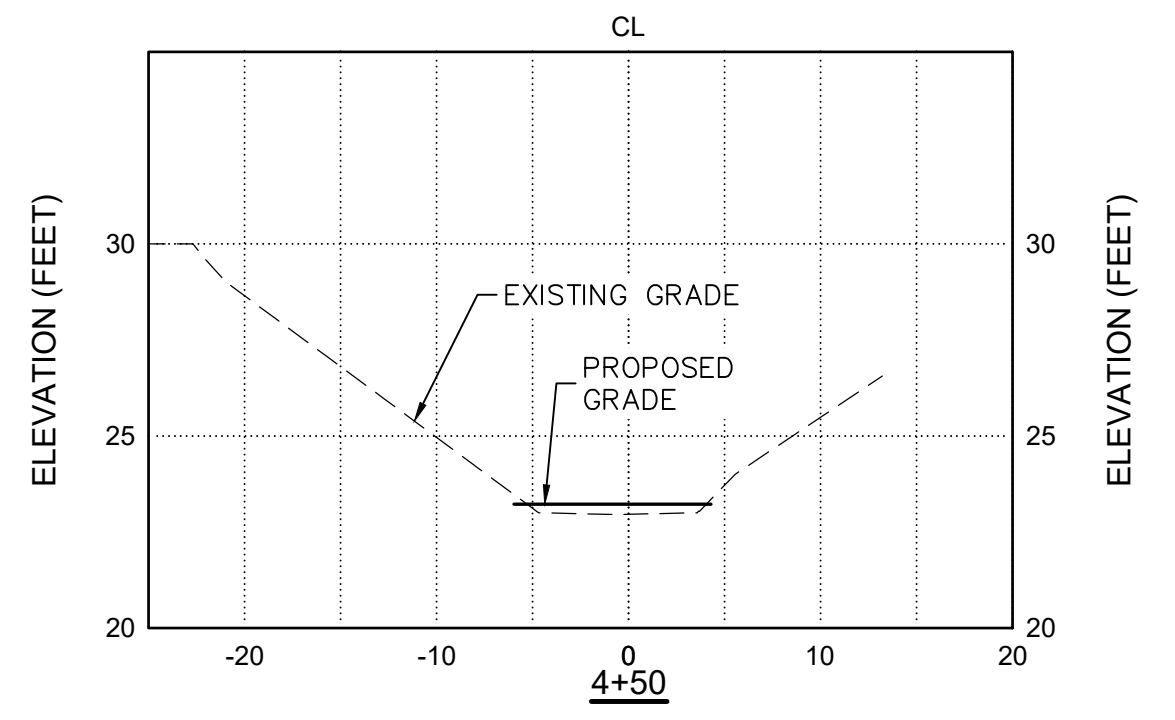
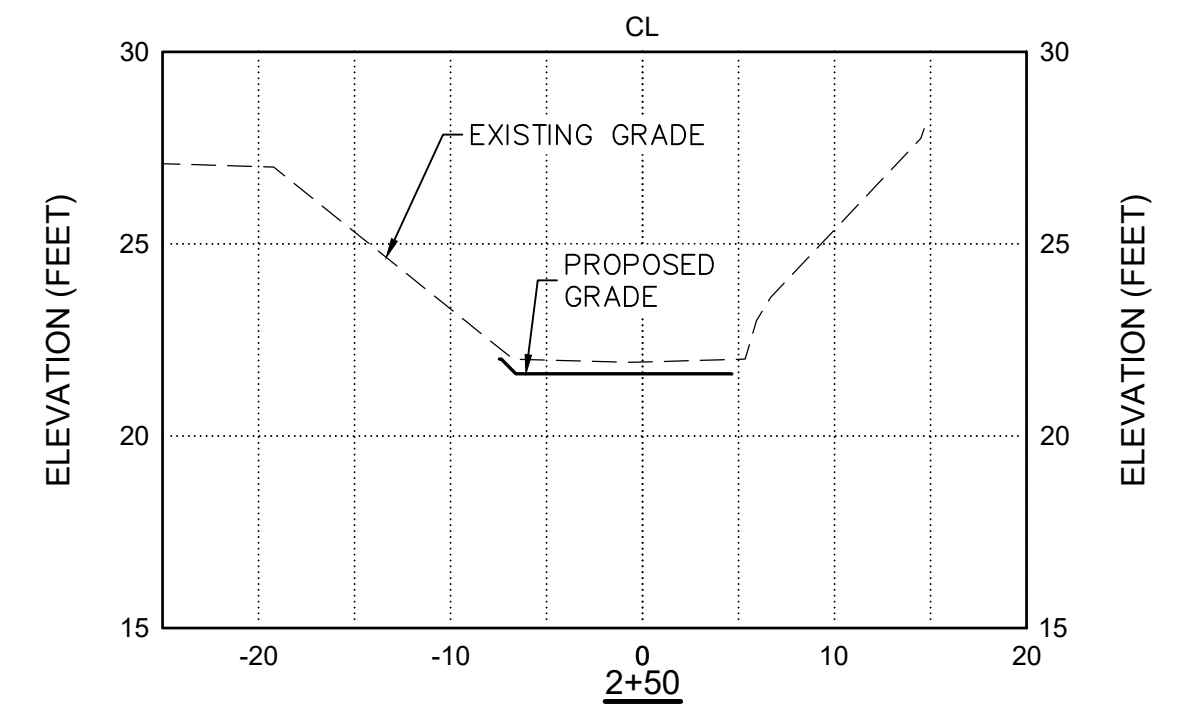
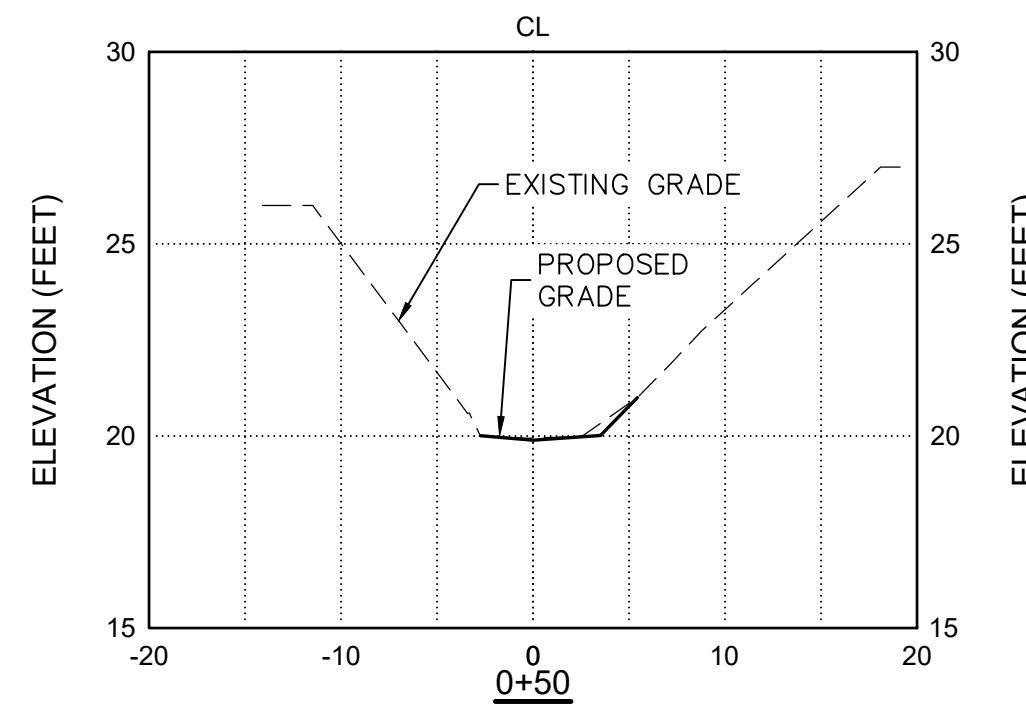
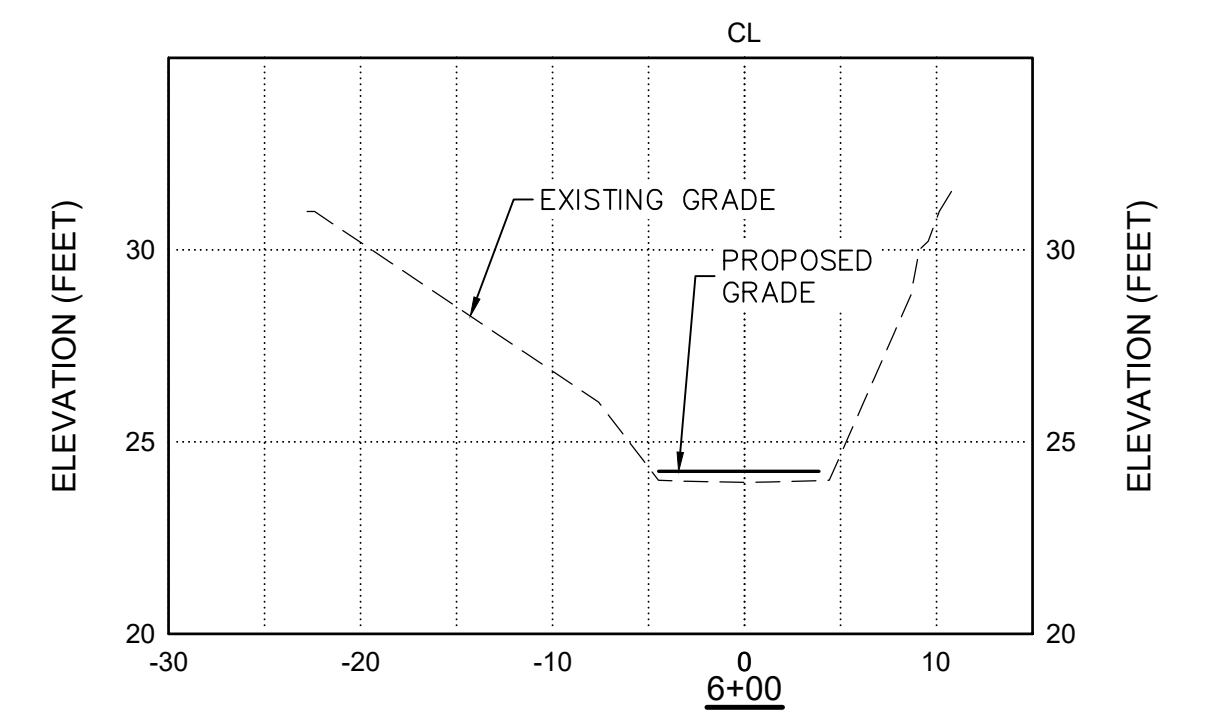
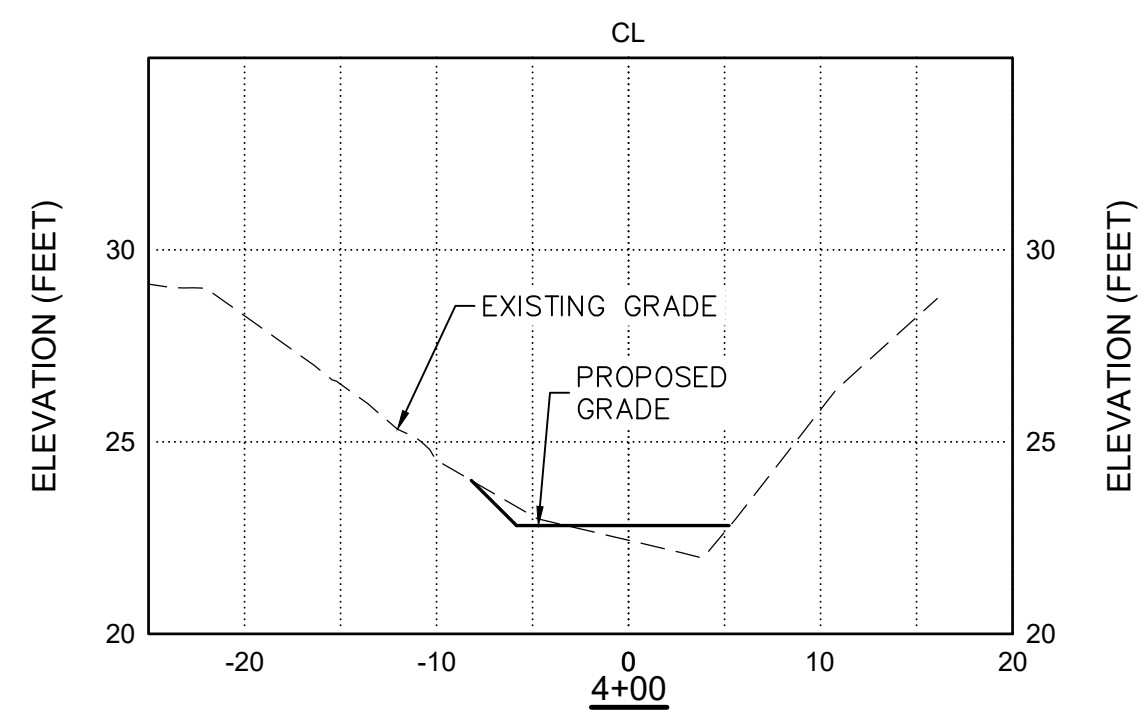
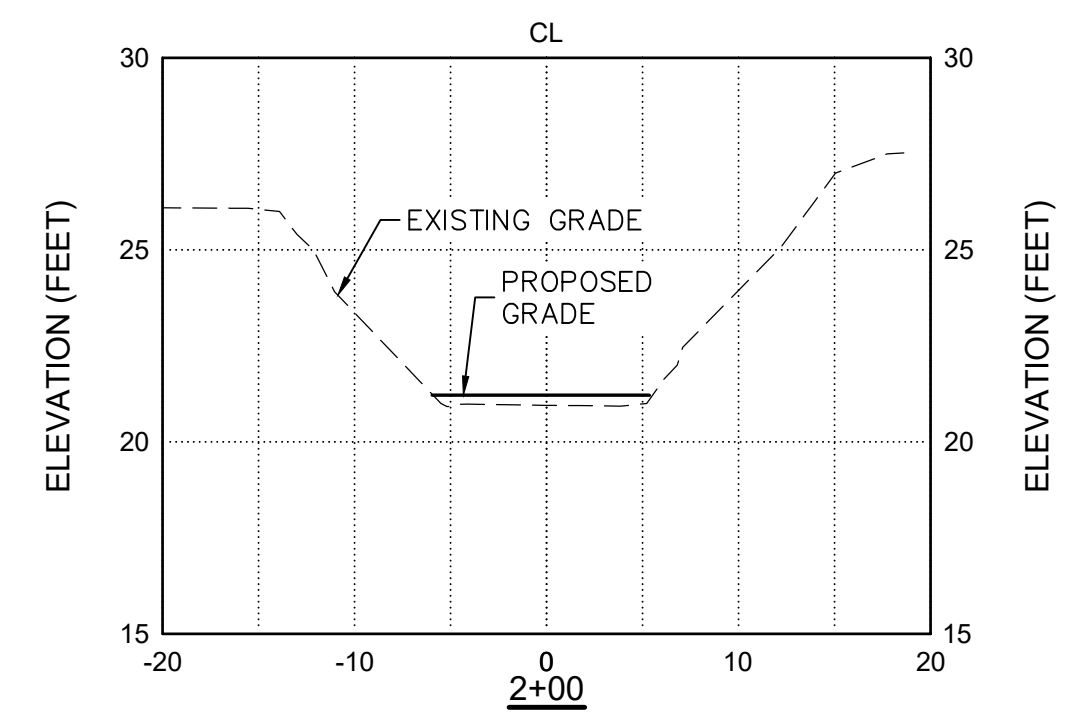
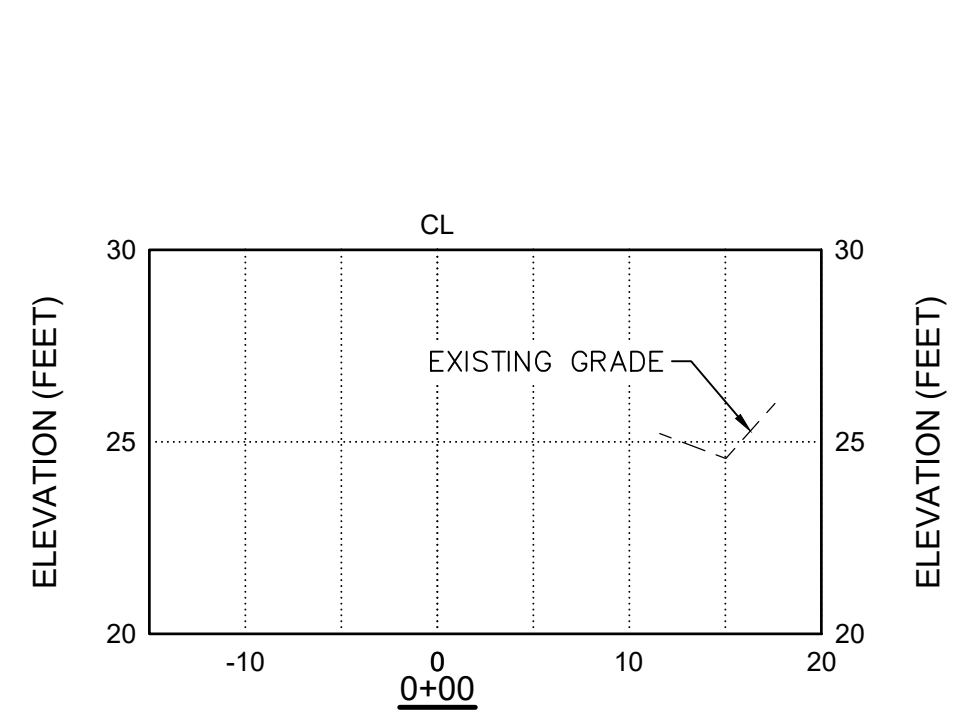
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DRAWING NUMBER: FW8205C07  
PROJECT NUMBER: FW8205  
SURVEY NUMBER: XXX

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MAIN CHANNEL CROSS-SECTIONS  
SCALE: HORIZONTAL - 1" = 10'  
VERTICAL - 1" = 5'

MYRTLE GROVE GULLY RESTORATION

CROSS-SECTIONS I

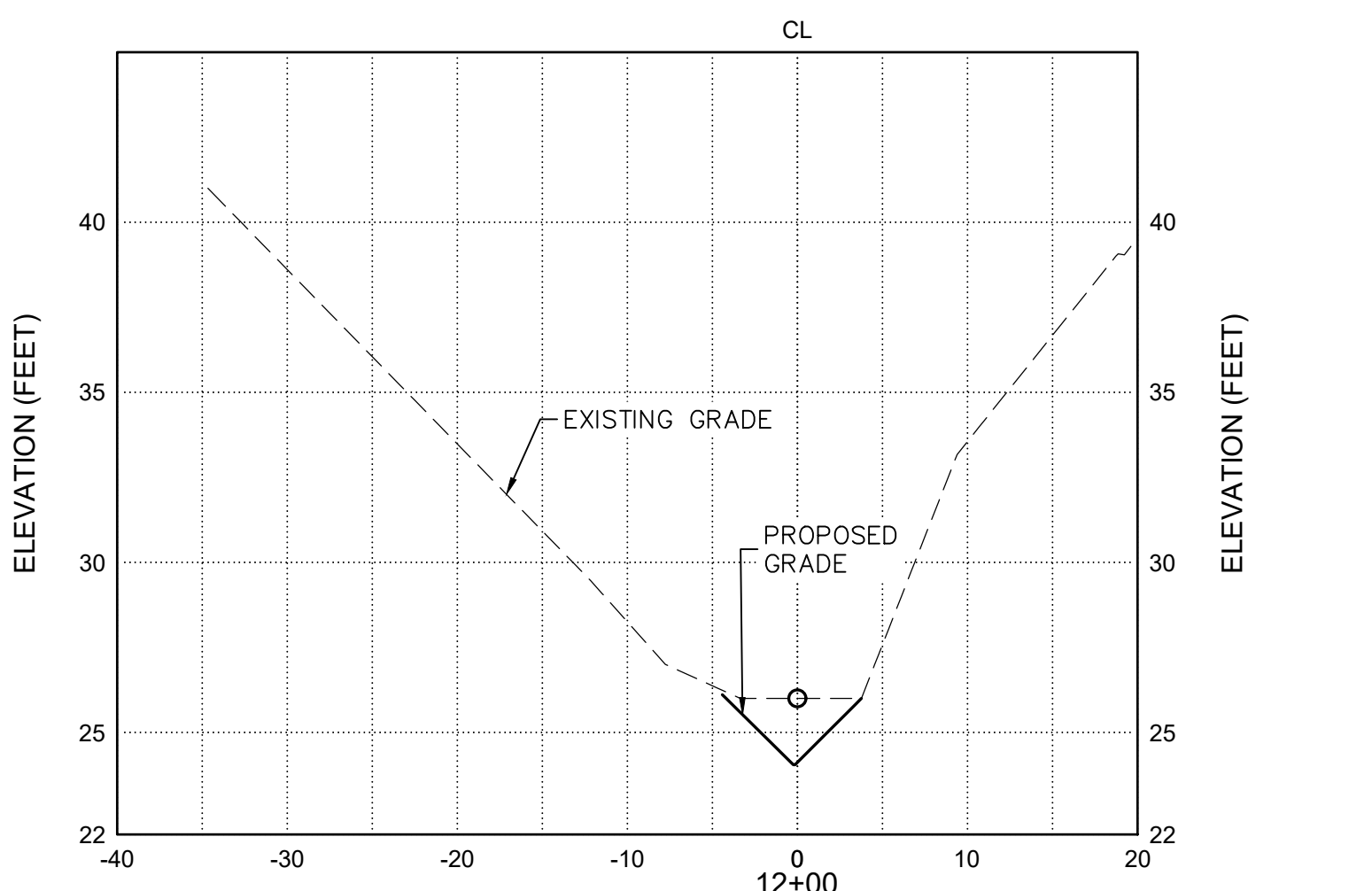
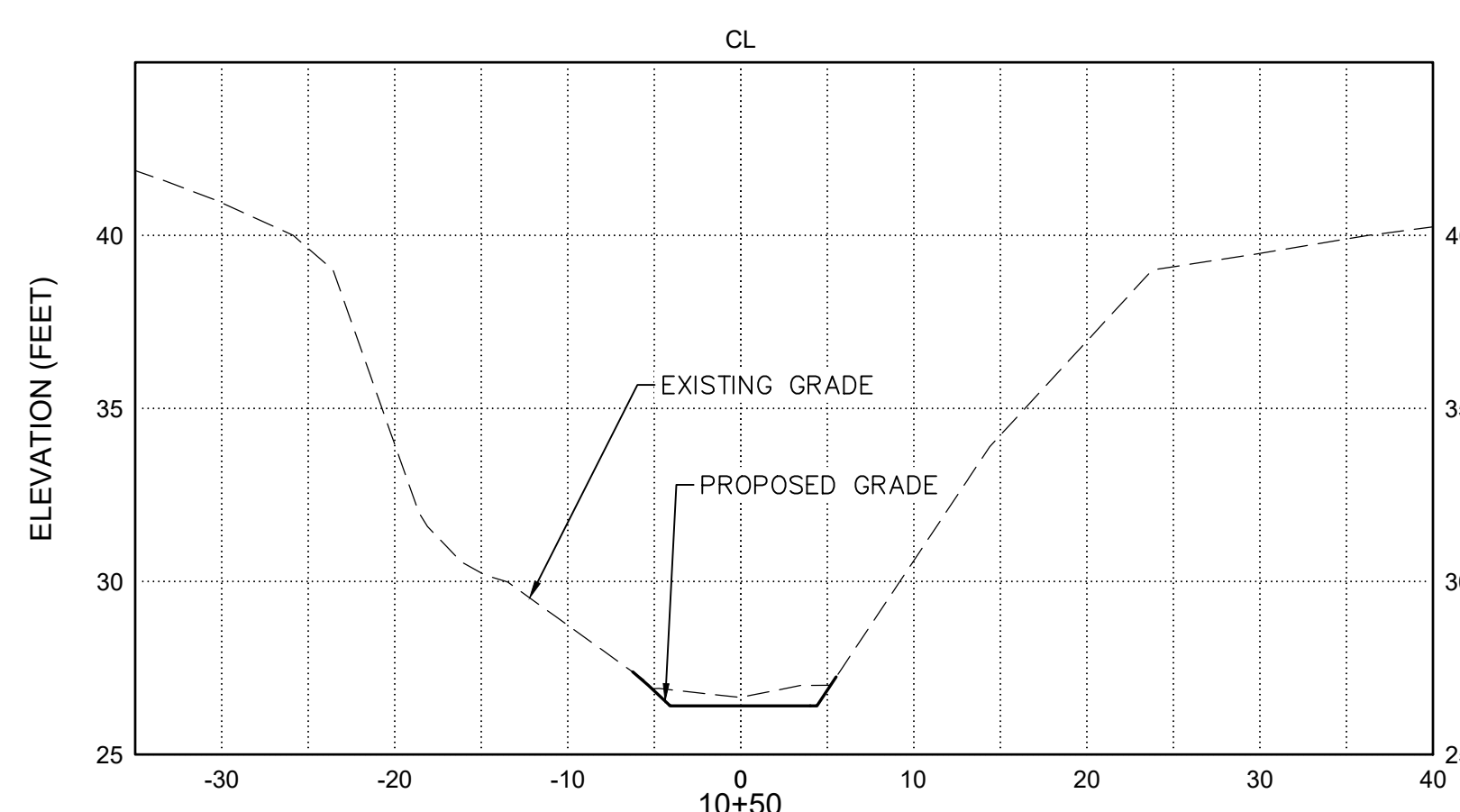
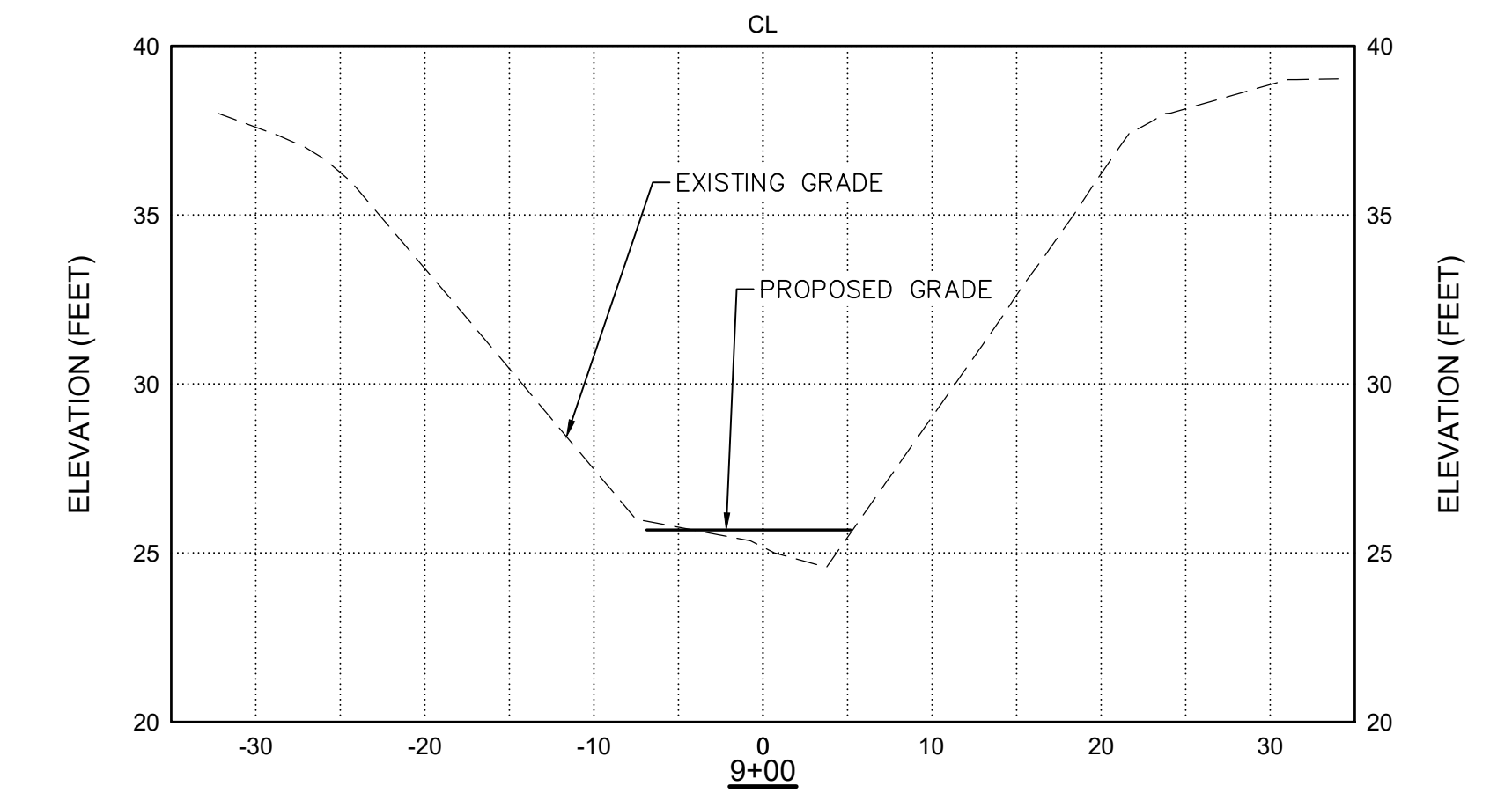
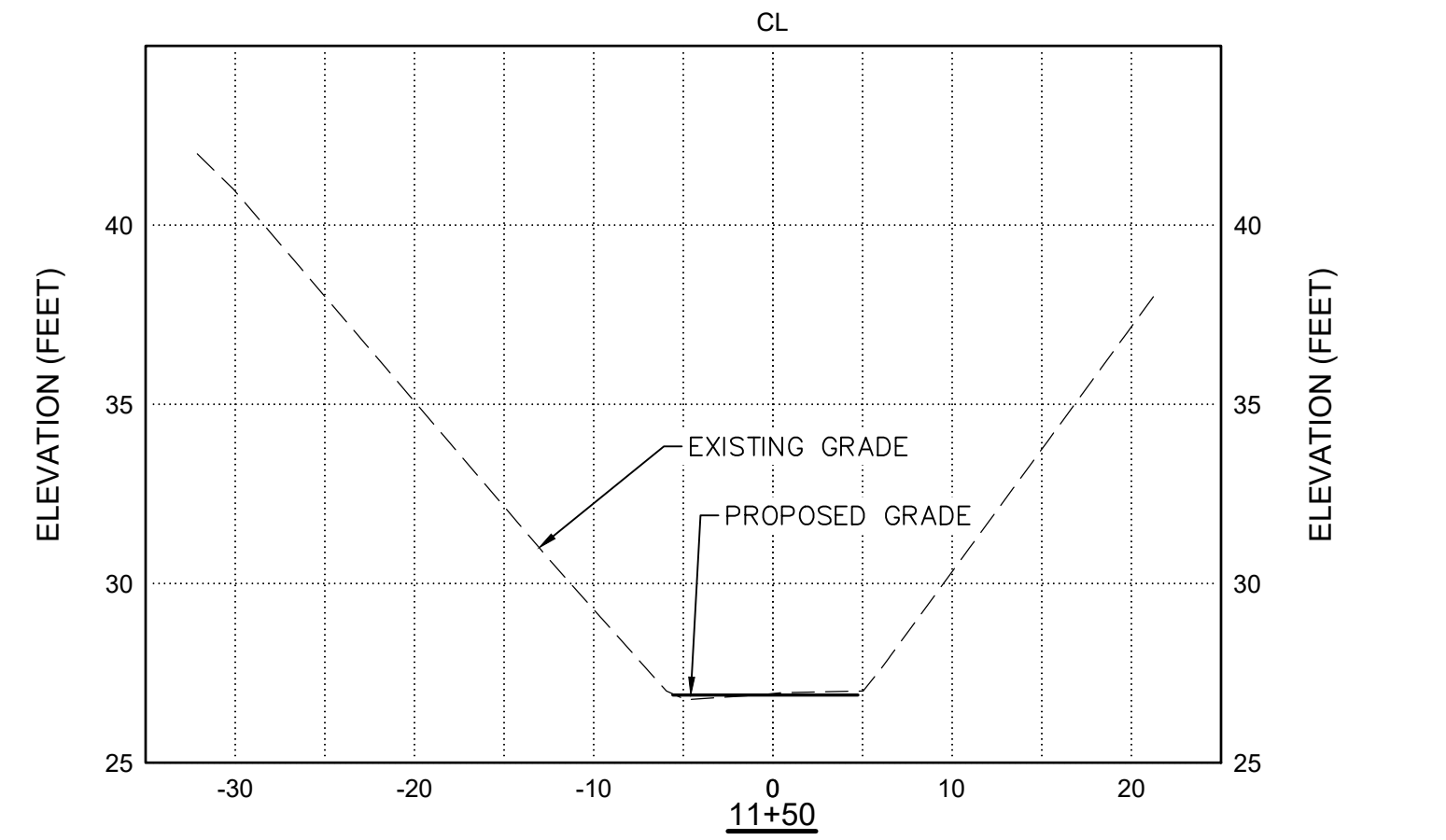
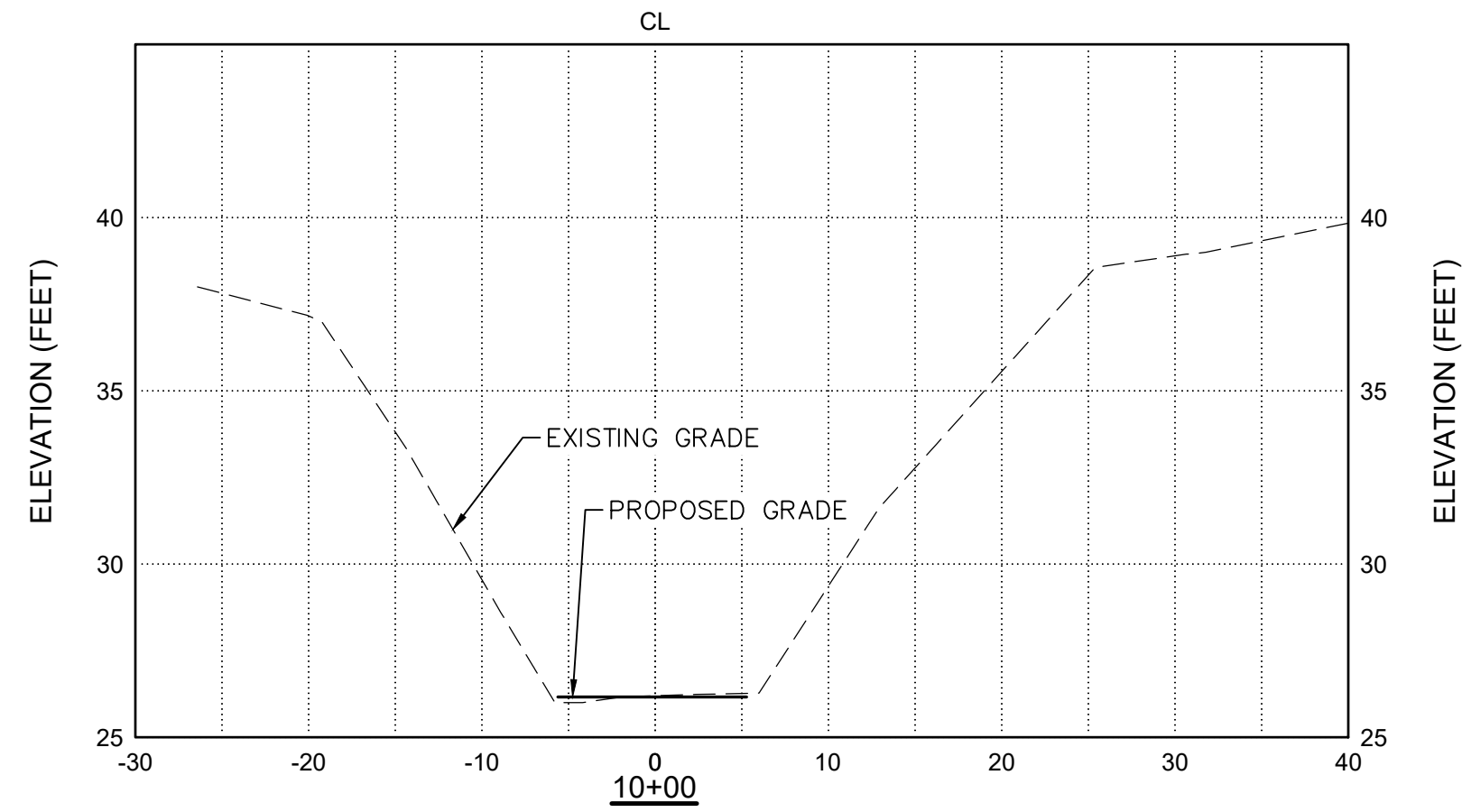
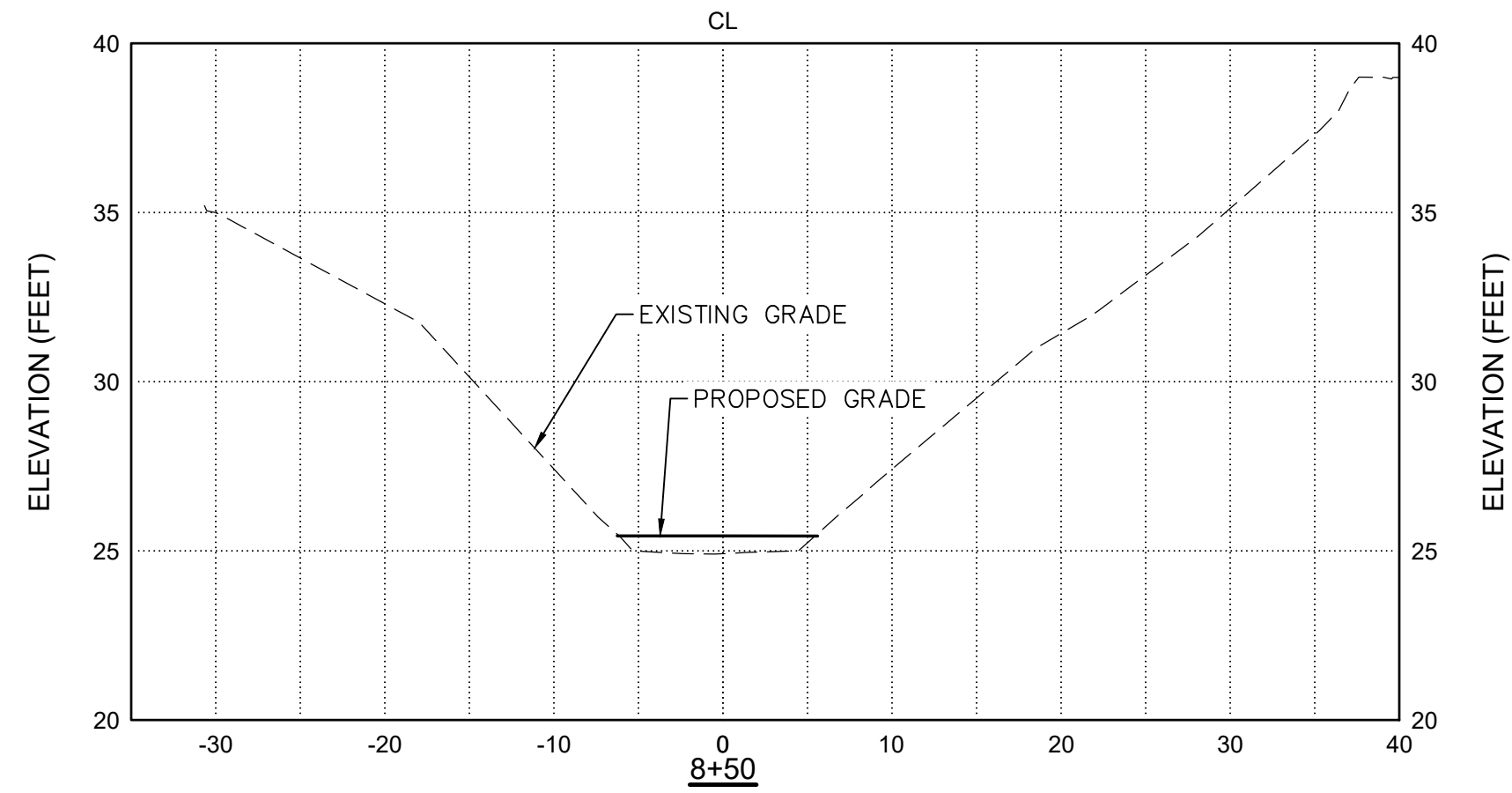
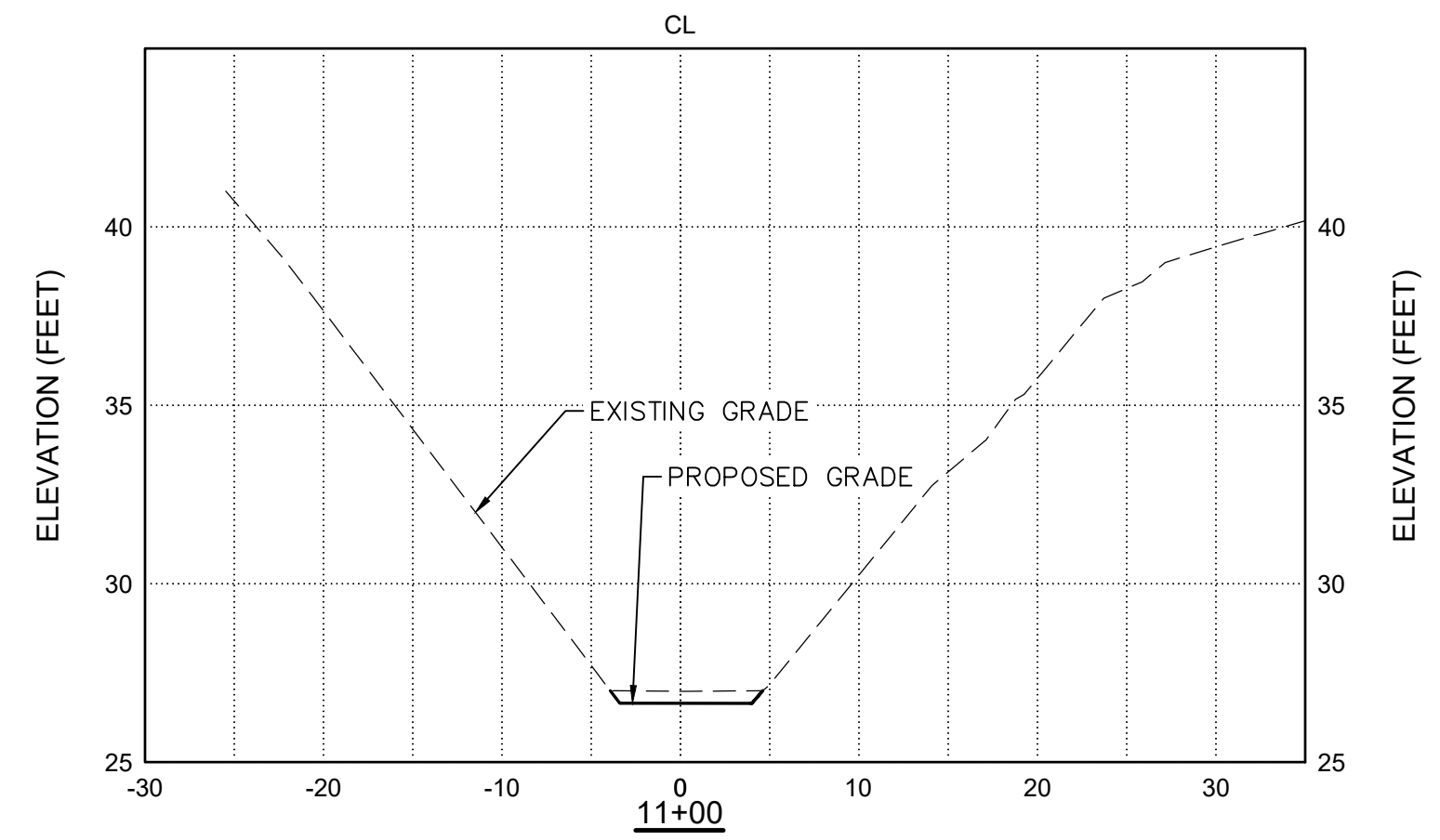
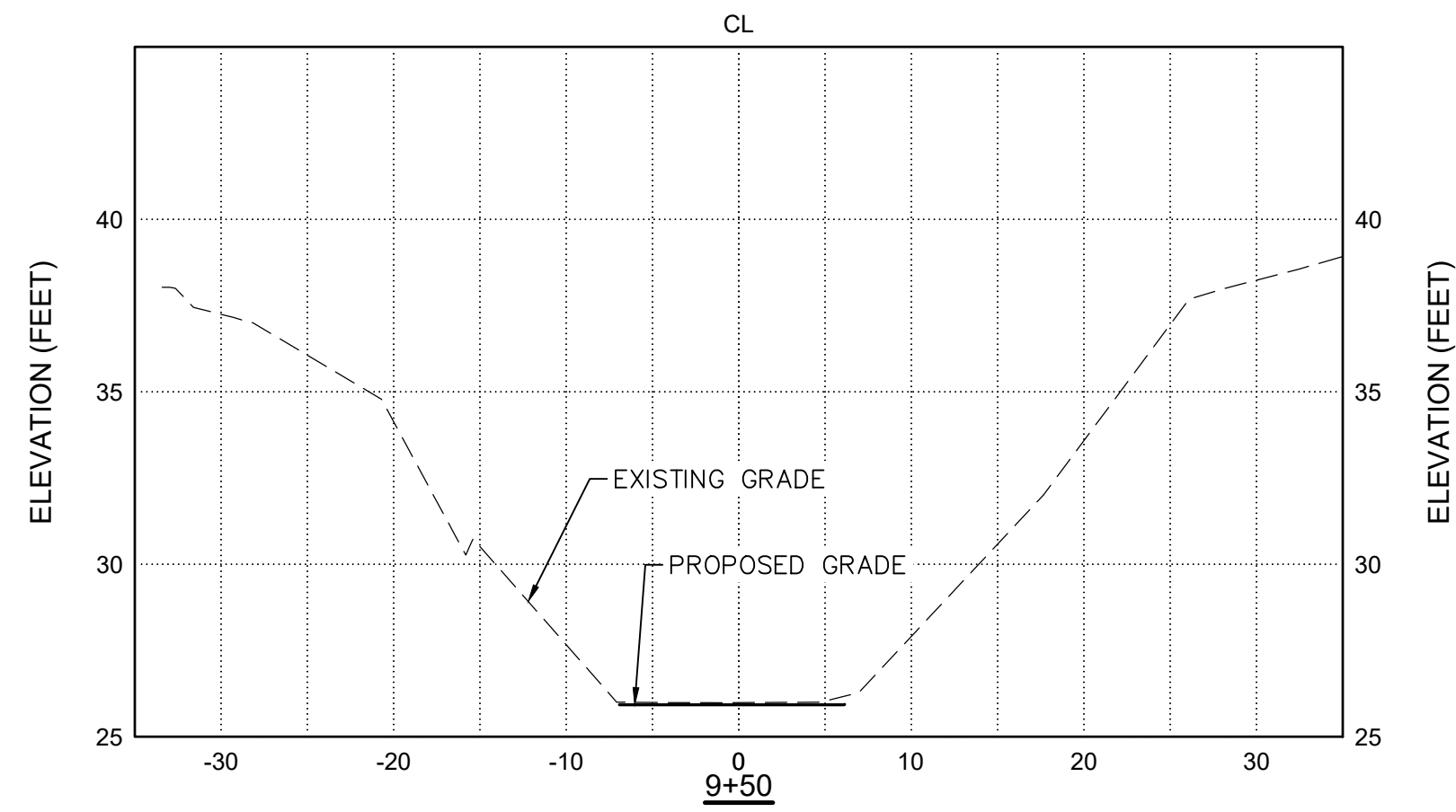
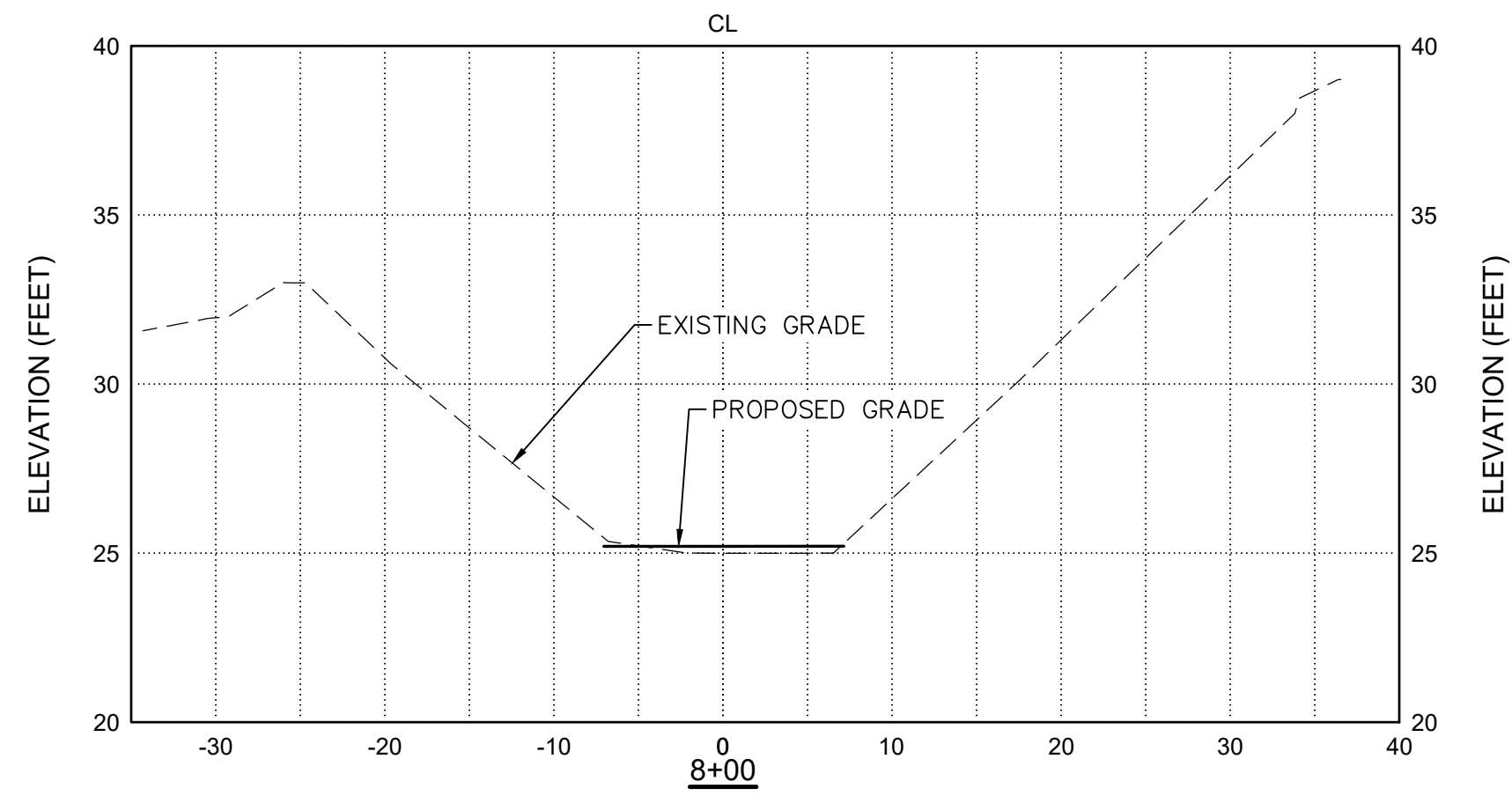


<b>GEOSYNTEC CONSULTANTS</b> 12802 TAMPA OAKS BLVD., SUITE 151, TEMPLE TERRACE, FLORIDA 33637		REG. P.E. NO. <b>70706</b>	DATE MARCH 2022
DESIGNED BY: BDS	CHECKED BY: BDS	SIGNATURE:	
PROJECT MANAGER: BRENT SCHNEIDER	DISTRICT: 2	SECTION/TOWNSHIP/RANGE 36/28/30W	
DATE: 2/8/22	FIELDBOOK PAGES: XXXXX		

NUMBER	REVISIONS	DATE	APPROVALS

DRAWING NUMBER	FW8205C09
PROJECT NUMBER	FW8205
SURVEY NUMBER	XXX
SHEET	9 OF 15

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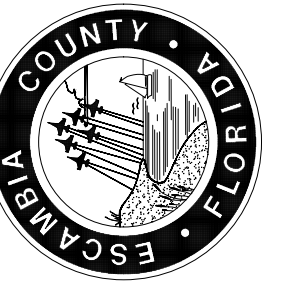


**MAIN CHANNEL CROSS-SECTIONS**

SCALE: HORIZONTAL - 1" = 10'  
VERTICAL - 1" = 5'

**MYRTLE GROVE GULLY RESTORATION**

CROSS-SECTIONS II



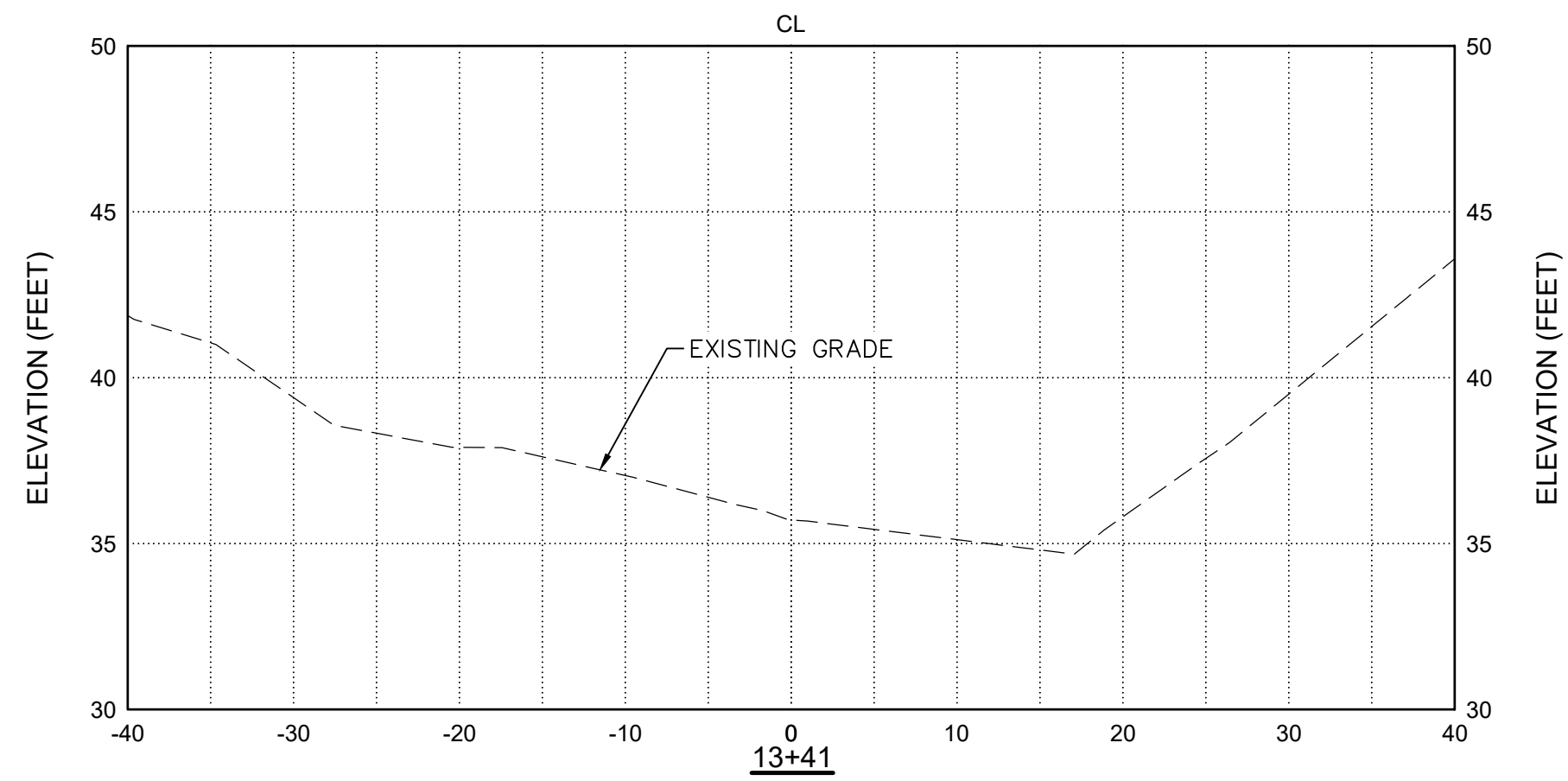
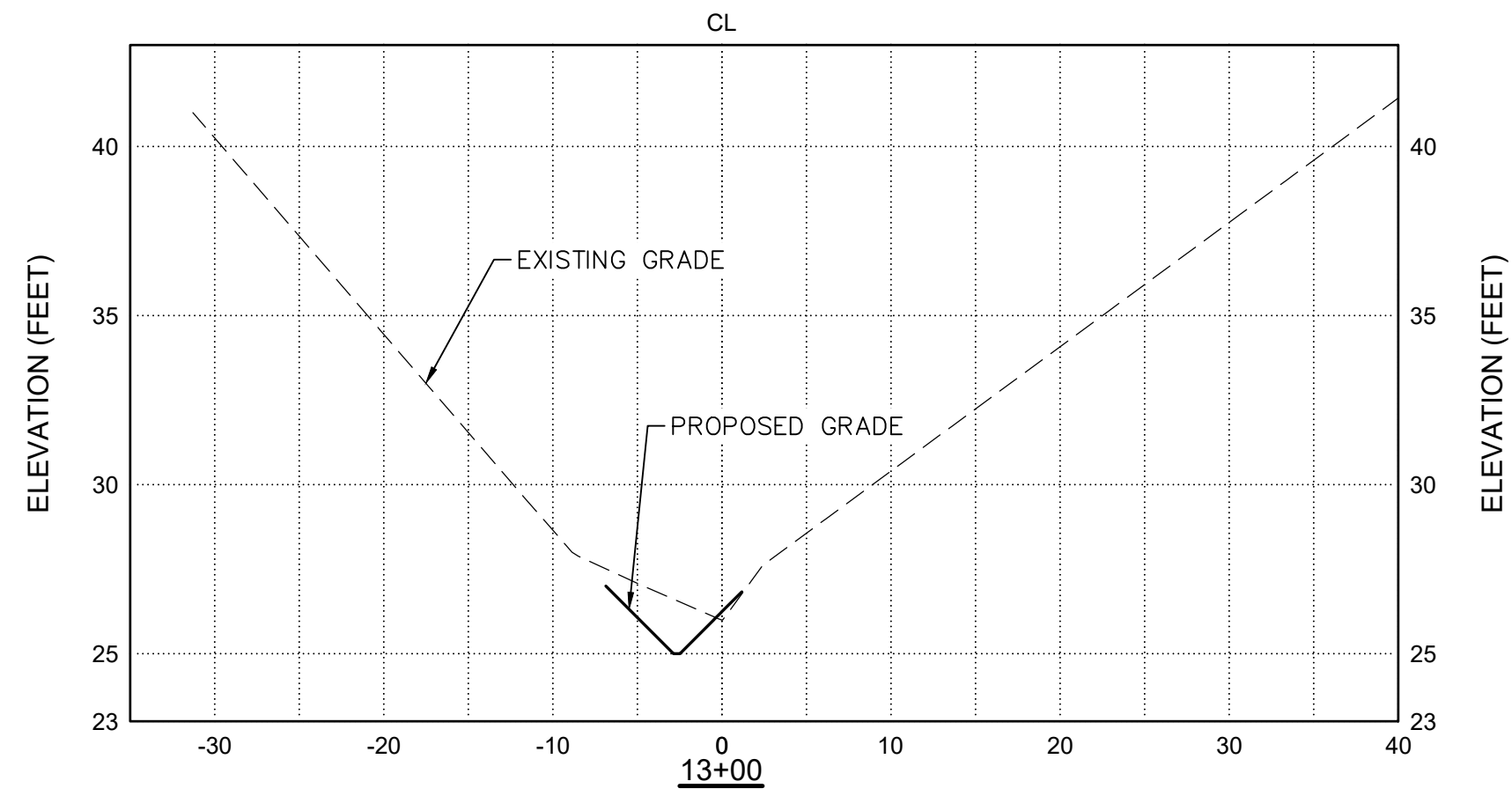
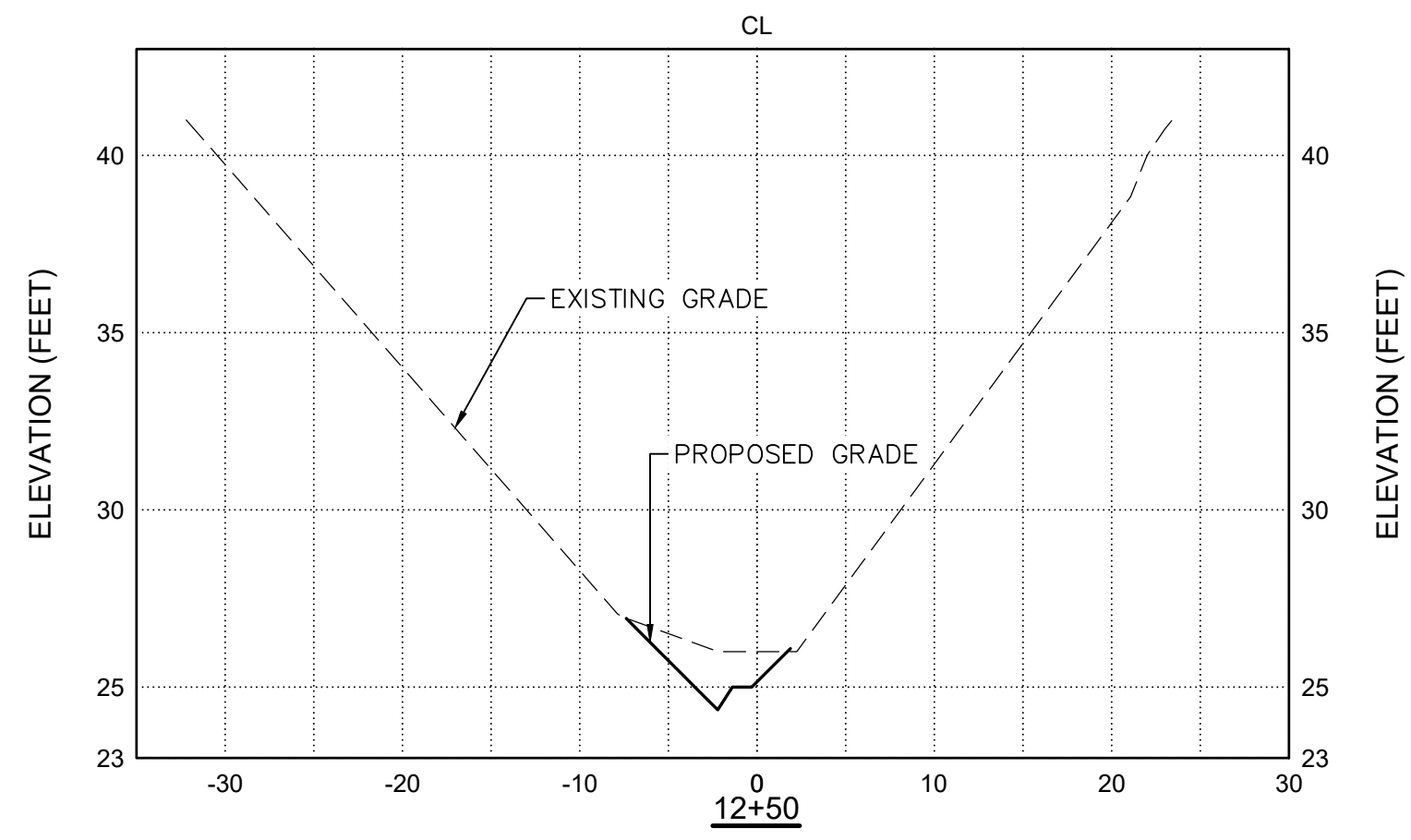
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12802 TAMPA OAKS BLVD., SUITE 151, TEMPLE TERRACE, FLORIDA 33637

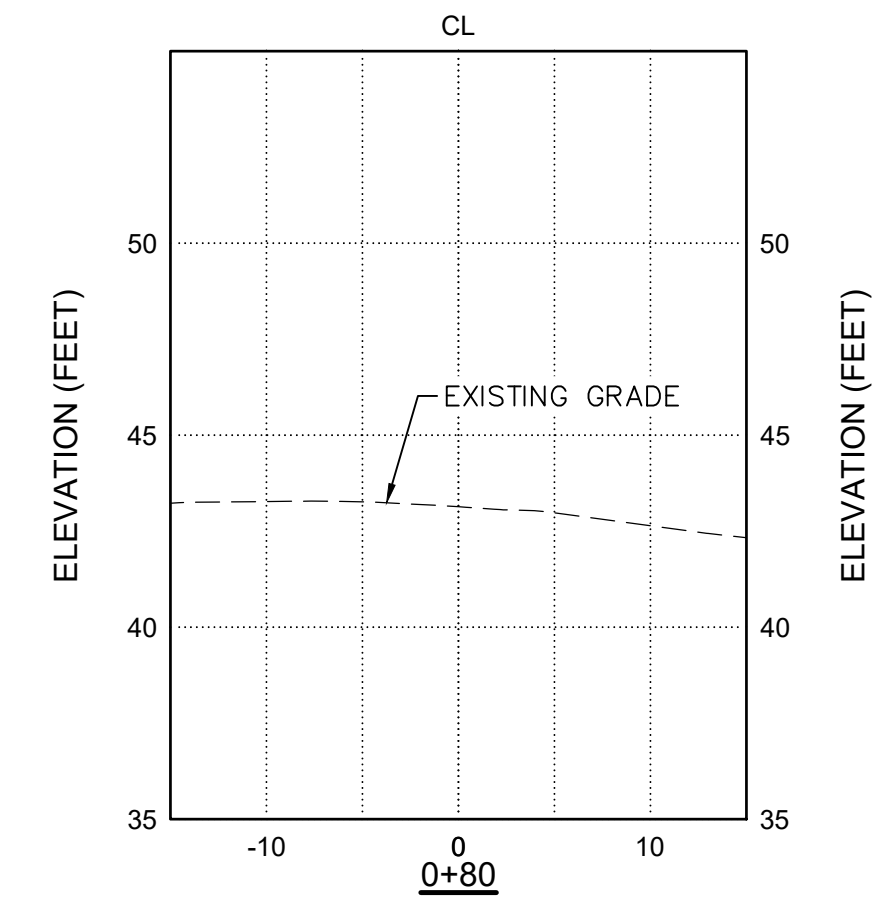
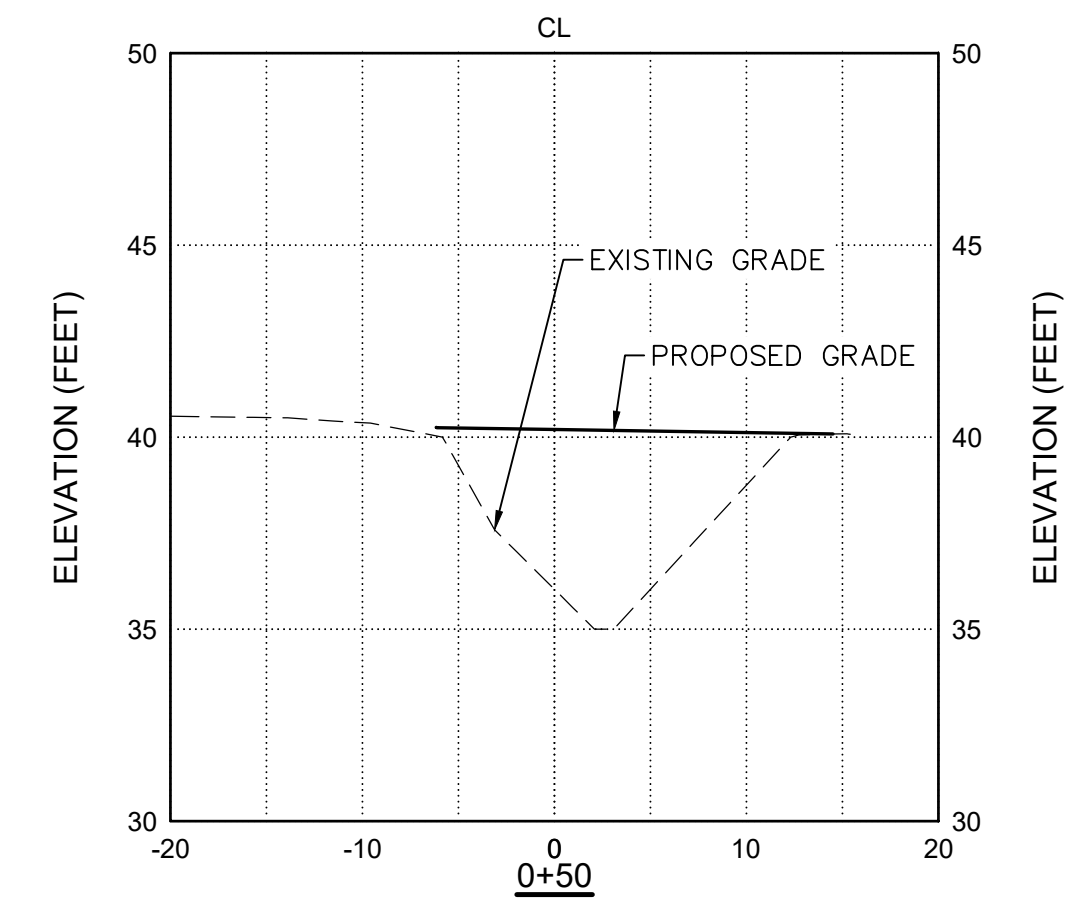
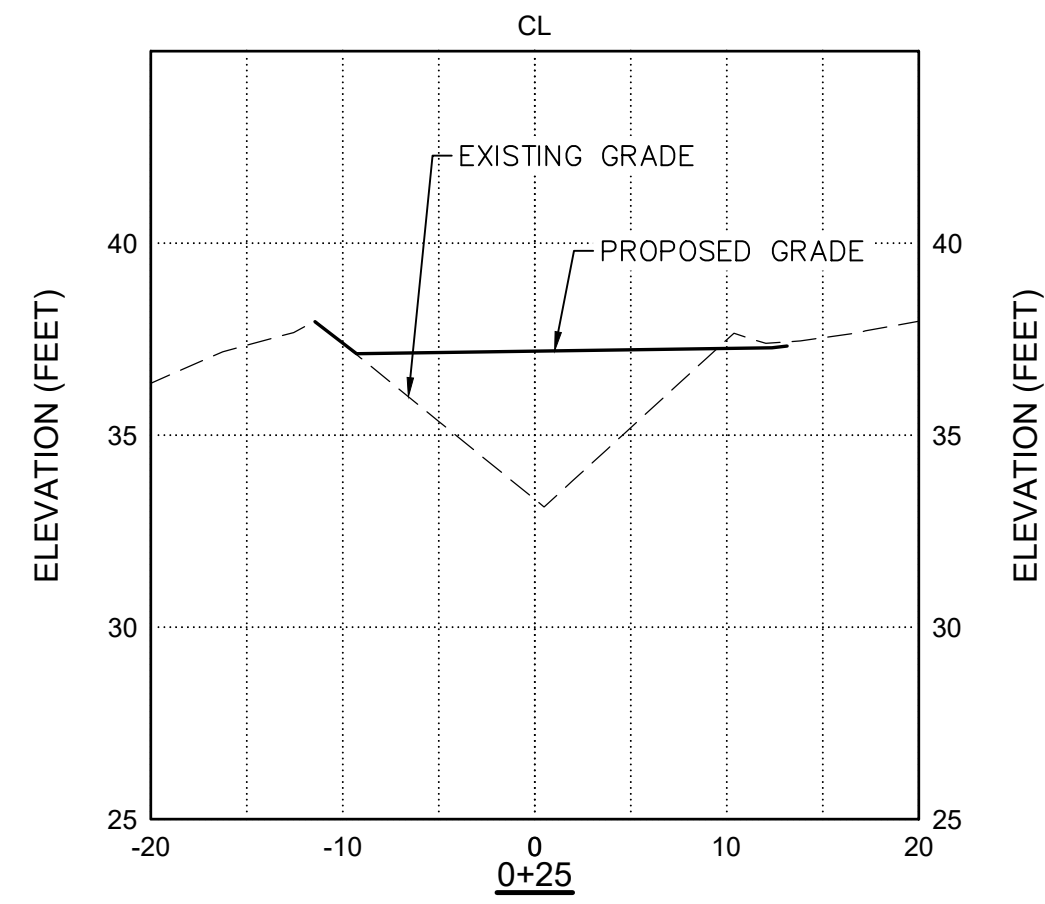
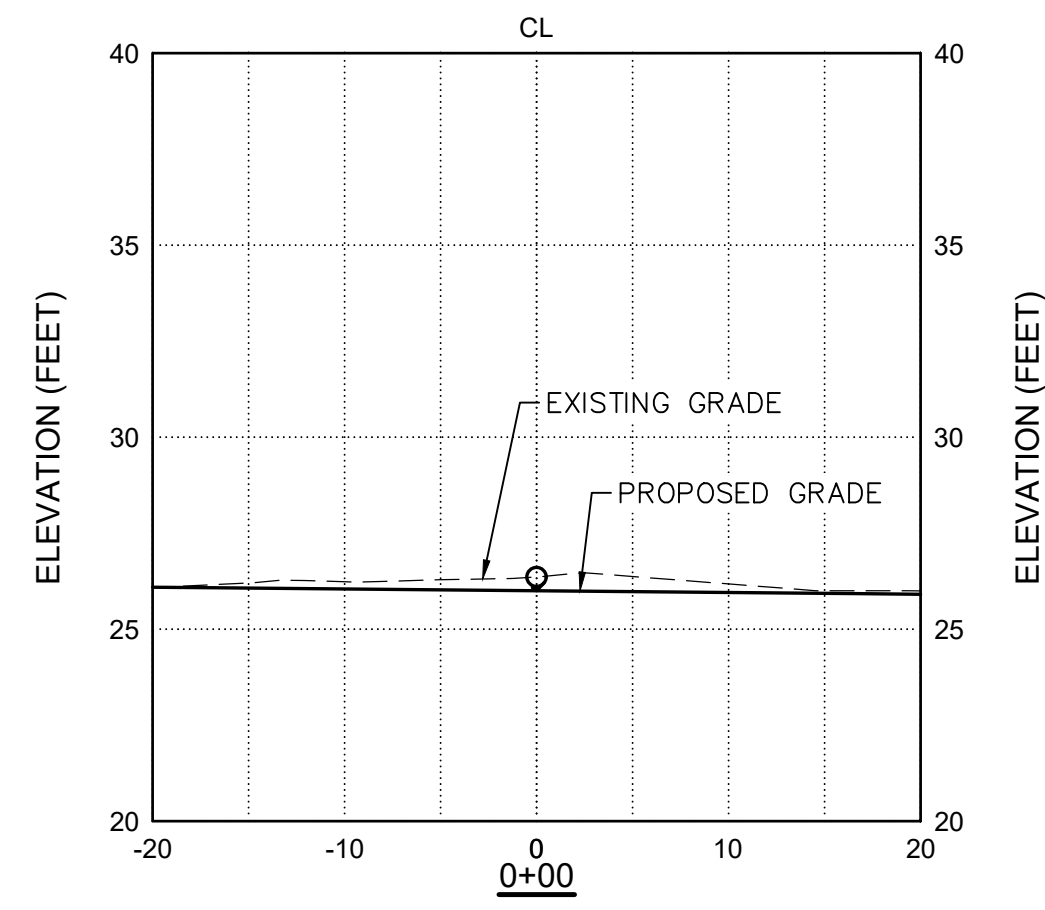
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DRAWING NUMBER	FW8205C09
PROJECT NUMBER	FW8205
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SHEET	10 OF 15



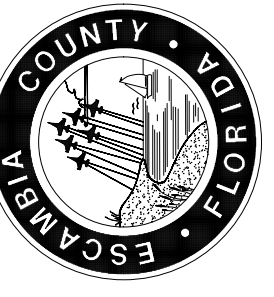
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SCALE: HORIZONTAL - 1" = 10'  
VERTICAL - 1" = 5'



**WASHOUT AREA CROSS-SECTIONS**  
SCALE: HORIZONTAL - 1" = 10'  
VERTICAL - 1" = 5'

**MYRTLE GROVE GULLY RESTORATION**

CROSS-SECTIONS III



**GEOSYNTEC CONSULTANTS**

12802 TAMPA OAKS BLVD., SUITE 151, TEMPLE TERRACE, FLORIDA 33637  
 DRAWN BY: BDS  
 CHECKED BY: BDS  
 DATE: 2/8/22  
 PROJECT MANAGER: BRENT SCHNEIDER  
 DISTRICT: 2  
 SECTION/TOWNSHIP/RANGE: 36.7 28.50W  
 REG. P.E. NO.: 70706  
 DATE: MARCH 2022  
 SIGNATURE:

NUMBER	REVISIONS	DATE	APPROVED BY

DRAWING NUMBER: FW8205C09  
 PROJECT NUMBER: FW8205  
 SURVEY NUMBER: XXX

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**STORMWATER POLLUTION PREVENTION PLAN GENERAL NOTES:**

1. EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. WORK AND MATERIALS TO BE IN ACCORDANCE WITH THE FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION, SECTIONS 104, 570, 575 AND 980 TO 986.
3. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATION COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
4. SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS-OF-WAY WILL BE REMOVED IMMEDIATELY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR ON OR OFF SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
6. AREAS USED FOR THE CONTRACTOR'S STAGING, INCLUDING BUT NOT LIMITED TO, TEMPORARY STORAGE OF STOCKPILED MATERIALS OR DEBRIS, SHALL BE ENTIRELY PROTECTED BY A SILT FENCE ALONG THE LOW ELEVATION SIDE TO CONTROL SEDIMENT RUNOFF.

**PROPOSED CONSTRUCTION**

THIS PROJECT SHALL CONSIST OF THE CLEARING OF ACCUMULATED DEBRIS FROM THE DRAINAGE CHANNEL, CLEARING AND GRUBBING OF THE CHANNEL AND BANKS, AND THE PERMANENT STABILIZATION OF THE CHANNEL AND BANKS. THE CONSTRUCTION SHALL PROCEED IN THE FOLLOWING MANNER:

1. INSTALLATION OF ROCK CHECK DAMS AND ANY OTHER NEEDED SEDIMENT AND EROSION CONTROL DEVICES THAT CAN BE PLACED PRIOR TO ANY MAJOR SOIL DISTURBANCES.
2. REMOVE EXISTING VEGETATION AND TRASH/DEBRIS FROM THE MAIN DRAINAGE CHANNEL.
3. CLEAR AND GRUB EXISTING VEGETATION FROM MAIN DRAINAGE CHANNEL AND BANKS. REMAINING VEGETATION IS TO BE PROPERLY PROTECTED AND TO REMAIN IN ITS NATURAL STATE.
4. INITIATE CONSTRUCTION.
5. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, FINE GRADE REMAINDER OF SITE, AND PROVIDE PERMANENT STABILIZATION OF ALL DISTURBED AREAS.
6. FINALLY, REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES.

**EROSION AND SEDIMENTATION CONTROL NOTES**

1. TEMPORARY CONSTRUCTION ENTRANCES SHALL BE 20'X50'.
2. SILT FENCE, WHERE NECESSARY, SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR, WITH ENDS OF ADJACENT FENCES TIGHTLY ABUTTING ONE ANOTHER PRIOR TO EARTHWORK OPERATIONS.
3. THE SILT FENCE BARRIER SHALL BE ENTRENCHED AND BACK FILLED. A TRENCH SHALL BE EXCAVATED THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF 6 INCHES. THE EXCAVATED SOIL SHALL CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP TO 4 INCHES AGAINST THE UPHILL SIDE OF THE BARRIER.
4. SILT FENCE BARRIERS SHALL BE SECURELY ANCHORED.
5. SILT FENCE BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.
6. SILT FENCE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
7. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE, END RUNS AND UNDERCUTTING BENEATH FENCE.
8. NECESSARY REPAIRS TO SILT FENCE BARRIERS OR REPLACEMENT OF FENCE SHALL BE ACCOMPLISHED PROMPTLY.
9. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE BARRIER.
10. SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

**BEST MANAGEMENT PRACTICES**

1. SILT FENCE: SILT FENCE ACTS AS A VERTICAL INTERCEPTOR OF SEDIMENT TRANSPORTED BY OVERLAND SHEET FLOW AS SHOWN ON THE CONSTRUCTION DRAWINGS. SILT FENCE PREVENTS SEDIMENT-LADEN RUNOFF FROM ENTERING INTO DOWNSTREAM CREEKS AND SURFACE WATER MANAGEMENT FEATURES BY PONDING RUNOFF AND SLOWLY DISSIPATING FILTERED RUNOFF. SILT FENCE SHALL NOT BE USED TO TREAT CONCENTRATED FLOWS (I.E., IN GULLIES, DITCHES, OR CHANNELS).
2. ROLLED EROSION CONTROL PRODUCTS (RECPs): ROLLED EROSION CONTROL PRODUCTS (RECPs) ARE DEGRADABLE MANUFACTURED MATERIALS USED TO STABILIZE EASILY ERODED AREAS WHILE VEGETATION BECOMES ESTABLISHED. TWO TYPES OF RECPs CAN BE USED IN DRAINAGE CHANNELS: EROSION CONTROL BLANKETS (ECBS) AND TURF REINFORCEMENT MATS (TRMS). TRMS AS BEING COMPOSED OF INTERWOVEN LAYERS OF NONDEGRADABLE GEOSYNTHETIC MATERIALS SUCH AS POLYPROPYLENE, NYLON, AND POLYVINYL CHLORIDE NETTING, STITCHED TOGETHER TO FORM A THREE-DIMENSIONAL MATRIX. TRMS ARE THICK AND POROUS ENOUGH TO ALLOW FOR PLANTING SEED AND FILLING WITH SOIL. IN THIS MANNER, CONDITIONS WILL EXIST TO ALLOW FOR DEVELOPMENT OF A ROOT STRUCTURE WITHIN THE MATRIX.
3. INLET PROTECTION: INLET PROTECTION PREVENTS SEDIMENT FROM ENTERING STORMWATER CONVEYANCE SYSTEMS BEFORE DISTURBED AREAS ARE PERMANENTLY STABILIZED.
4. TEMPORARY SLOPE DRAINS: TEMPORARY SLOPE DRAINS SHALL BE USED ON CUT OR FILL SLOPES BEFORE PERMANENT STORMWATER DRAINAGE STRUCTURES ARE INSTALLED. THESE FEATURES TEMPORARILY CONVEY CONCENTRATED STORMWATER RUNOFF SAFELY DOWN THE FACE OF A CUT OR FILL SLOPE WITHOUT CAUSING EROSION PROBLEMS ON OR BELOW THE SLOPE.
5. STABILIZATION: TEMPORARY VEGETATION SHALL BE UTILIZED IN AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN 7 DAYS OR ARE LIKELY TO BE REDISTURBED IN AREAS INCLUDING BUT NOT LIMITED TO SOIL STORAGE AREAS AND STOCKPILES, CUT AND FILL SLOPES, AND CONVEYANCE FEATURES. PERMANENT VEGETATION (FINAL STABILIZATION MEASURES) SHALL BE IMPLEMENTED ONCE ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED. A UNIFORM, EVENLY DISTRIBUTED PERENNIAL VEGETATIVE COVER WITH A DENSITY OF AT LEAST 70% FOR ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES.
6. PHASED CONSTRUCTION: CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN A PHASED APPROACH AS TO LIMIT THE AMOUNT OF DISTURBED AREA AT ANY ONE TIME. CURRENT PHASE ACTIVITIES SHALL BE COMPLETED AND AREAS STABILIZED PRIOR TO MOVING ON TO THE SUBSEQUENT PHASE.
7. WASTE DISPOSAL - WASTE COLLECTION AREAS SHALL BE LOCATED AWAY FROM STREETS, GUTTERS, WATERCOURSES, AND STORM DRAINS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE HAULED TO AN APPROVED LANDFILL. NO CONSTRUCTION WASTE MATERIAL WILL BE BURIED ON-SITE OR DISCHARGED TO WATERS OF THE STATE. ALL PERSONNEL WILL RECEIVE INSTRUCTION REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. EMPLOYEE WASTE AND OTHER LOOSE MATERIALS WILL BE COLLECTED SO AS PREVENT THE RELEASE OF "FLOATABLES" DURING RUNOFF EVENTS.
8. SANITARY WASTE - ALL WORKERS, THROUGHOUT THE LIFE OF THE PROJECT WILL BE PROVIDED PORTABLE SANITARY UNITS, FOR USE. A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR WILL REGULARLY COLLECT ALL SANITARY WASTE FROM THE PORTABLE UNITS.

**NPDES NOTES:**

1. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR CONTROL OF ALL EROSION AND SEDIMENTATION.
2. ALL DISTURBED AREAS WHICH ARE NOT PAVED SHALL BE SODDED WITH ARGENTINE BAHIA. SODDING SHALL BE WATERED, FERTILIZED UNTIL WELL ESTABLISHED BUT NO LESS THAN FOUR WEEKS FROM DATE OF PLACEMENT.
3. THE CONTRACTOR SHALL SUBMIT THE NPDES NOI TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR USE OF THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL ACT AS THE "OPERATOR" FOR THE PERMIT AND ABIDE BY ALL REQUIREMENTS THEREOF, INCLUDING DEVELOPMENT OF A STORMWATER POLLUTION PREVENTION PLAN FOR THE PROJECT AND PERFORMANCE OF REQUIRED INSPECTIONS BY A CERTIFIED INSPECTOR.
4. THE CONTRACTOR SHALL INSTALL PRIOR TO COMMENCEMENT OF CONSTRUCTION AND MAINTAIN THROUGHOUT CONSTRUCTION THOSE SEDIMENT AND EROSION CONTROL FEATURES DEPICTED IN THE CONTRACT DOCUMENTS AND AS REQUIRED FOR COMPLIANCE WITH THE NPDES GENERIC PERMIT.

**DISTURBED AREA STABILIZATION NOTES:**

**REQUIREMENT FOR REGULATORY COMPLIANCE**  
MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH (DEPENDING ON THE MATERIAL USED), ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE.

MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN SIX MONTHS.

IF ANY AREA WILL REMAIN UNDISTURBED FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED. REFER TO Ds2-DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING), AND Ds3 - DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION).

**SPECIFICATIONS**  
MULCHING WITHOUT SEEDING:  
THIS STANDARD APPLIES TO GRADED OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED 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 COMPACTED SOIL TO A MINIMUM DEPTH OF 3 INCHES.

**MULCHING MATERIALS**

- SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:
1. DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.
  2. 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 REMAINING ON SITE CAN BE CHIPPED AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
  3. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND RE-USED.

**MULCHING NOTES:**

MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL RECEIVE 75% TO 100% SOIL COVER. WHEN SELECTING A MULCH, DESIGN PROFESSIONALS SHOULD CONSIDER THE MULCH'S FUNCTIONAL LONGEVITY, VEGETATION ESTABLISHMENT ENHANCEMENT, AND EROSION CONTROL EFFECTIVENESS. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:

1. 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 2 1/2 TONS PER ACRE.
2. 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.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 1/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.

**APPLYING MULCH**

1. STRAW OR HAY MULCH SHALL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING.
2. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT, OR BY HAND.
3. WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.
4. WHEN SEEDING, MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE.
5. 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.
6. WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

**ANCHORING MULCH**

ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS:

1. HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL WITH A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT. 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.
2. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED.
3. SYNTHETIC TACKIFIERS, BINDERS, OR HYDRAULIC MULCH SPECIFICALLY DESIGNED TO TACK STRAW, SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. ALL TACKIFIERS, BINDERS OR HYDRAULIC MULCH SPECIFICALLY DESIGNED TO TACK STRAW SHOULD BE VERIFIED NONTOXIC THROUGH EPA 2021.0 TESTING.
4. RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE-QUARTER TO ONE-HALF BUSHEL PER ACRE.
5. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

**LIME AND FERTILIZER APPLICATION**

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 AGITATED DURING APPLICATION TO KEEP THE INGREDIENTS THOROUGHLY MIXED. THE MIXTURE WILL BE SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER BEING PLACED IN THE HYDROSEEDER. FINELY GROUND LIMESTONE CAN BE APPLIED IN THE MULCH SLURRY OR IN COMBINATION WITH THE TOP DRESSING. WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS:

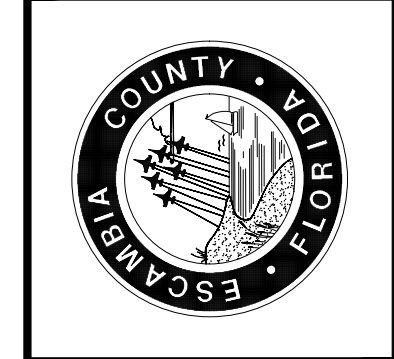
1. APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE MIXED WITH THE SOIL DURING SEED BED REPARATION.
2. MIX WITH THE SOIL USED TO FILL THE HOLES, DISTRIBUTE IN FURROWS.
3. BROADCAST AFTER STEEP SURFACES ARE SCARIFIED, PITTED OR TRENCHED.
4. A FERTILIZER PELLET SHALL BE PLACED AT ROOT DEPTH IN THE CLOSING HOLE BESIDE EACH PINE TREE SEEDLING.

**PLANT SELECTION**

REFER TO THE FLORIDA STORMWATER, EROSION, AND SEDIMENTATION CONTROL INSPECTOR MANUAL, LATEST EDITION, FOR APPROVED SPECIES. SPECIES NOT LISTED SHALL BE APPROVED BY THE STATE RESOURCE CONSERVATIONIST OF THE NATURAL RESOURCES CONSERVATION SERVICE BEFORE THEY ARE USED. 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. SOME PERENNIAL SPECIES ARE EASILY ESTABLISHED AND CAN BE PLANTED ALONE. EXAMPLES OF THESE ARE COMMON BERMUDA, TALL FESCUE, 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. FOR EXAMPLE, COMMON SEEDING COMBINATIONS ARE 1) WEEPING LOVEGRASS WITH SERICEA LESPEDEZA (SCARIFIED) AND 2) TALL FESCUE WITH SERICEA LESPEDEZA (UNSPECIFIED). 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, NUTRIENTS, AND GROWING SPACE. A HIGH SEEDING RATE OF THE COMPANION CROP MAY PREVENT THE ESTABLISHMENT OF PERENNIAL SPECIES. 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 COVER.

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**MYRTLE GROVE GULLY RESTORATION**



<b>GEOSYNTEC CONSULTANTS</b>		12802 TAMPA OAKS BLVD., SUITE 151, TEMPLE TERRACE, FLORIDA 33637	
DRAWN BY: BDS	CHECKED BY: BDS	REQ. PEA. ENG. NO. 70706	DATE: MARCH 2022
PROJECT MANAGER: BRENT SCHNEIDER	DISTRICT: 2	SIGNATURE:	
FIELDBOOK PAGES: XXXXX	SECTION/TOWNSHIP/RANGE: 56 / 28 / 30W		

NUMBER	DATE	APPROVED	REVISIONS

DRAWING NUMBER <b>FW8205C12</b>	
PROJECT NUMBER <b>FW8205</b>	
SURVEY NUMBER <b>XXX</b>	
SHEET <b>12</b> OF <b>15</b>	

**SWPPP NOTES I**

**PERMANENT SEEDING:**

SEEDING SHALL BE INSTALLED IN TWO BATCHES PER PROGANICS AND FLEXTERRA BY PROFILE RECOMMENDATIONS (OR OTHER APPROVED EQUAL). IN GENERAL, THIS REQUIRES ½ OF THE REQUIRED SEED TO BE MIXED WITH THE PROGANICS (OR APPROVED EQUAL) AND APPLIED TO THE GROUND SURFACE IN ONE APPLICATION, AND THEN THE REMAINING ½ OF THE REQUIRED SEED TO BE MIXED WITH THE FLEXIBLE GROWING MEDIA, FLEXTERRA, (OR APPROVED EQUAL) AND APPLIED IN ANOTHER APPLICATION.

SEED MIX SHALL CONTAIN THE FOLLOWING, PERMANENT NATIVE GROUND COVER CERTIFIED, WHEN AVAILABLE (WEIGHT SHOWN IN POUNDS PURE LIVE SEED):

- 4.5 LB/ACRE - BEAKED PANICGRASS, GA ECOTYPE (PANICUM ANCEPS, GA ECOTYPE)
- 3.75 LB/ACRE - REDTOP PANICGRASS, COASTAL PLAIN NC ECOTYPE (PANICUM RIGIDULUM (P. STIPITATUM), COASTAL PLAIN NC ECOTYPE)
- 3.75 LB/ACRE - VIRGINIA WILD RYE, GA ECOTYPE (ELYMUS VIRGINICUS, GA ECOTYPE)
- 3.75 LB/ACRE - RIVER OATS, COASTAL PLAIN NC ECOTYPE (CHASMANTHIUM LATIFOLIUM (UNIOLA LATIFOLIA), COASTAL PLAIN NC ECOTYPE)
- 2.5 LB/ACRE - SWITCHGRASS, 'CARTHAGE', NC ECOTYPE (PANICUM VIRGATUM, 'CARTHAGE', NC ECOTYPE)
- 1.25 LB/ACRE - WINTER BENTGRASS, NC ECOTYPE (AGROSTIS HYEMALIS, NC ECOTYPE)
- 1.25 LB/ACRE - PARTRIDGE PEA, FL ECOTYPE (CHAMAECRISTA FASCICULATA (CASSIA F.), FL ECOTYPE)
- 0.75 LB/ACRE - SLENDER WOODOATS, NC ECOTYPE (CHASMANTHIUM LAXUM (UNIOLA LAXA), NC ECOTYPE)
- 0.5 LB/ACRE - BONESET, FL ECOTYPE (EUPATORIUM PERFOLIATUM, FL ECOTYPE)
- 0.5 LB/ACRE - JOE PYE WEED, AL ECOTYPE (EUPATORIUM FISTULOSUM, AL ECOTYPE)
- 0.5 LB/ACRE - MISTFLOWER, FL ECOTYPE (EUPATORIUM COELESTINUM (CONOCLINIUM C.), FL ECOTYPE)
- 0.5 LB/ACRE - SWAMP (NARROWLEAF) SUNFLOWER, AL ECOTYPE (HELIANTHUS ANGUSTIFOLIUS, AL ECOTYPE)
- 0.5 LB/ACRE - LEATHERY RUSH, COASTAL PLAIN NC ECOTYPE (JUNCUS CORIACEUS, COASTAL PLAIN NC ECOTYPE)
- 0.5 LB/ACRE - COMMON SNEEZEWEED, FL ECOTYPE (HELENIUM AUTUMNALE, FL ECOTYPE)
- 0.25 LB/ACRE - CRIMSONEYED ROSEMALLOW, 'SUTHER'-PIEDMONT NC ECOTYPE (HIBISCUS MOSCHEUTOS, 'SUTHER'-PIEDMONT NC ECOTYPE)
- 0.25 LB/ACRE - NEW YORK IRONWEED, 'SUTHER'-PIEDMONT NC ECOTYPE (VERNONIA NOVEBORACENSIS, 'SUTHER'-PIEDMONT NC ECOTYPE)

**SUPPLEMENTAL PERMANENT GROUND COVER SEED MIX TO INCREASE DIVERSITY AND PROVIDE DIFFERING GERMINATION TIMES TO ASSIST WITH SHORT AND LONG-TERM HERBACEOUS COVER (OR APPROVED EQUAL):**

- LEMON MINT, *MONARDA CITRIODORA* - 1 POUND PER ACRE
- SIDE OATS GRAMA, *BOUPELOUA CURTIPENDULA* - 1 POUNDS PER ACRE
- BLUE GRAMA, *BOUPELOUA GRACILIS* - 1 POUND PER ACRE
- SAND DROPSEED, *SPOROBOLUS CRPTANDRUS* - 0.1 POUNDS PER ACRE
- GREEN SPRANGLETOP, *LEPTOCHLOA DUBIA* - 0.5 POUNDS PER ACRE
- SAND LOVEGRASS, *ERAGROSTIS TRICHODES* - 0.25 POUNDS PER ACRE.
- EASTERN GRAMA, *TRIPSACUM DACTYLOIDES* - 1 POUND PER ACRE.
- FLORIDA PASPALUM, *PASPALUM FLORIDANUM* - 1 POUND PER ACRE.
- ILLINOIS BUNDLEFLOWER, *DESMANTHUS ILLINOENSIS* - 2 POUNDS PER ACRE
- VIRGINIA WILD RYE, *ELYMUS VIRGINICUS* - 1 POUND PER ACRE.
- CANADA WILD RYE, *ELYMUS CANADENSIS* - 1 POUND PER ACRE.
- BUTTERFLY MILKWEED, *ASCLEPIAS TUBEROSA* - 0.25 POUNDS PER ACRE.
- BLUE FLAX, *LINUM LEWISII* - 1 POUND PER ACRE
- COWPEN DAISY, *VERBESINA ENCELOIDES* - 1 POUND PER ACRE.
- SPOTTED BEEBALM, *MONARDA PUNCTATA* - 1 POUND PER ACRE.
- SLEEPY DAISY, *XANTHISMA TEXANA* - 1 POUND PER ACRE

**TOPSOILING NOTES:**

**CONDITIONS**

THIS PRACTICE IS RECOMMENDED FOR SITES OF 2H:1V OR FLATTER SLOPES WHERE:

1. THE TEXTURE OF THE EXPOSED SUBSOIL OR PARENT MATERIAL IS NOT SUITABLE TO PRODUCE ADEQUATE VEGETATIVE GROWTH.
2. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS WITH CONTINUING SUPPLIES OF MOISTURE AND FOOD.
3. THE SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

**CONSTRUCTION SPECIFICATIONS:**

**MATERIALS**

TOPSOIL SHOULD BE FRIABLE AND LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE THAT MAY BE HARMFUL TO PLANT GROWTH. A pH RANGE OF 5.0-7.5 IS ACCEPTABLE. SOLUBLE SALTS SHOULD NOT EXCEED 500 PPM.

**TESTING**

FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER THE QUANTITY AND QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.

**STRIPPING**

STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. A 4 TO 6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.

**TOPSOIL pH**

IF pH VALUE IS LESS THAN 6.0, LIME SHALL BE APPLIED AND INCORPORATED WITH THE TOPSOIL TO ADJUST THE pH TO 6.5 OR HIGHER. TOPSOILS CONTAINING SOLUBLE SALTS GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

**SITE PREPARATION (WHERE TOPSOIL IS TO BE ADDED)**

TOPSOILING - WHEN TOPSOILING, MAINTAIN NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, DIKES, LEVEL SPREADERS, WATERWAYS, SEDIMENT BASINS, ETC.

GRADING - GRADES ON THE AREAS TO BE TOPSOILED WHICH HAVE BEEN PREVIOUSLY ESTABLISHED SHALL BE MAINTAINED.

LIMING - SOIL TESTS SHOULD BE USED TO DETERMINE THE pH OF THE SOIL. WHERE THE pH OF THE SUBSOIL IS 5.0 OR LESS OR COMPOSED OF HEAVY CLAYS, AGRICULTURAL LIMESTONE SHALL BE SPREAD AT THE RATE OF 100 POUNDS PER 1,000 SQUARE FEET. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURE.

BONDING - USE ONE OF THE FOLLOWING METHODS TO INSURE BONDING OF TOPSOIL AND SUBSOIL:

1. TILLING. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO DUMPING AND SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENEED BY DISCING OR SCARIFYING TO A DEPTH OF AT LEAST 3 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SUBSOIL.
2. TRACKING. PASSING A BULLDOZER OVER THE ENTIRE SURFACE AREA OF THE SLOPE TO LEAVE HORIZONTAL DEPRESSIONS.

**APPLYING TOPSOIL**

1. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE.
2. A UNIFORM APPLICATION OF 6 INCHES (UNSETTLED) IS RECOMMENDED, BUT MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER OR LANDSCAPE ARCHITECT.

**CUBIC YARDS OF TOPSOIL REQUIRED FOR APPLICATION TO VARIOUS DEPTHS**

DEPTH (IN.)	PER 1,000 SQUARE FEET	PER ACRE
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806

**TEMPORARY SEEDING SCHEDULE AND NOTES:**

**DEFINITION**

THE ESTABLISHMENT OF TEMPORARY VEGETATION COVER WITH FAST GROWING SEEDINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDEED AREAS.

**CONDITIONS**

TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL AND EFFECTIVE STABILIZATION. MOST TYPES OF TEMPORARY VEGETATION ARE IDEAL TO USE AS COMPANION CROPS UNTIL THE PERMANENT VEGETATION IS ESTABLISHED. NOTE: SOME SPECIES OF TEMPORARY VEGETATION ARE NOT APPROPRIATE FOR COMPANION CROP PLANTINGS BECAUSE OF THEIR POTENTIAL TO OUT-COMPETE THE DESIRED SPECIES (E.G. ANNUAL RYEGRASS). CONTACT NATURAL RESOURCE CONSERVATION SERVICE OR THE LOCAL SOIL WATER CONSERVATION DISTRICT FOR MORE INFORMATION.

**SPECIFICATIONS:**

**GRADING AND SHAPING**

EXCESSIVE WATER RUNOFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS 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.

**SEEDBED PREPARATION**

WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HAND-SEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL. WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED, OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LEDGE AND GERMINATE.

**LIME AND FERTILIZER**

AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE DETERMINED BY SOIL TEST FOR pH. QUICK ACTING LIME SHOULD BE INCORPORATED TO MODIFY pH DURING THE GERMINATION PERIOD. BIO STIMULANTS SHOULD ALSO BE CONSIDERED WHEN THERE IS LESS THAN 3% ORGANIC MATTER IN THE SOIL. GRADED AREAS REQUIRE LIME APPLICATION. SOILS MUST BE TESTED TO DETERMINE REQUIRED AMOUNTS OF FERTILIZER AND AMENDMENTS. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER, OR CHISEL. ON SLOPES TOO STEEP FOR OR INACCESSIBLE TO EQUIPMENT, FERTILIZER SHALL BE HYDRAULICALLY APPLIED, PREFERABLY IN THE FIRST PASS WITH SEED AND SOME HYDRAULIC MULCH, THEN TOPPED WITH THE REMAINING REQUIRED APPLICATION RATE.

**SEEDING**

SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER-SEEDER, OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ONE-QUARTER TO ONE-HALF INCH DEEP. APPROPRIATE DEPTH OF PLANTING IS TEN TIMES THE SEED DIAMETER. SOIL SHOULD BE "RAKED" LIGHTLY TO COVER SEED WITH SOIL IF SEEDED BY HAND. SEE THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN FLORIDA, LATEST EDITION, FOR MORE INFORMATION.

**MULCHING**

TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH, PROVIDED THERE IS LITTLE TO NO EROSION POTENTIAL. HOWEVER, THE USE OF MULCH CAN OFTEN ACCELERATE AND ENHANCE GERMINATION AND VEGETATION ESTABLISHMENT. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. REFER TO DS1-DISTURBED AREA STABILIZATION (WITH MULCHING ONLY).

**IRRIGATION**

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 INSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

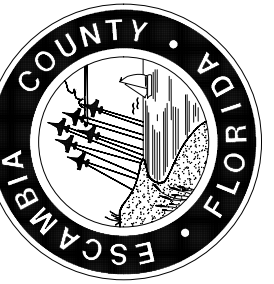
**SEEDING RATES FOR TEMPORARY SEEDING**

BROADCAST SPECIES	RATES	PLANTING DATES												COMMENTS		
		J	F	M	A	M	J	J	A	S	O	N	D			
BARLEY ALONE	144 LBS./AC									.....	.....	.....				WINTER HARDY, USE ON PRODUCTIVE SOILS
BARLEY IN MIXTURE	24 LBS./AC									.....	.....	.....				
LESPEDEZA, ANNUAL ALONE	40 LBS./AC			.....												MAY VOLUNTEER FOR SEVERAL YEARS. USE INOCULANT TYPE EL.
LESPEDEZA, ANNUAL IN MIXTURE	10 LBS./AC			.....												
LOVEGRASS, WEEPING ALONE	4 LBS./AC				.....											MAY LAST FOR SEVERAL YEARS. MIX WITH SERICEA LESPEDEZA.
LOVEGRASS, WEEPING IN MIXTURE	2 LBS./AC				.....											
MILLET, BROWNTOP ALONE	40 LBS./AC					.....										QUICK DENSE COVER. WILL PROVIDE TOO MUCH COMPETITION IN MIXTURES IF SEEDED AT HIGH RATES.
MILLET, BROWNTOP IN MIXTURE	10 LBS./AC					.....										
MILLET, PEARL ALONE	50 LBS./AC					.....										QUICK DENSE COVER. MAY REACH 5 FEET IN HEIGHT. NOT RECOMMENDED FOR MIXTURES.
OATS ALONE	128 LBS./AC									.....	.....	.....				USE ON PRODUCTIVE SOILS. NOT AS WINTER HARDY AS RYE OR BARLEY.
OATS IN MIXTURE	32 LBS./AC									.....	.....	.....				
RYE ALONE	168 LBS./AC									.....	.....	.....				QUICK COVER. DROUGHT TOLERANT AND WINTER HARDY.
RYE IN MIXTURE	28 LBS./AC									.....	.....	.....				
RYEGRASS, ANNUAL ALONE	40 LBS./AC	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	DENSE COVER. VERY COMPETITIVE AND NOT TO BE USED IN MIXTURES. GOOD ON DROUGHTY SITES. NOT RECOMMENDED FOR MIXTURES.
SUDANGRASS ALONE	60 LBS./AC					.....										USE ON LOWER PART OF SOUTHERN COASTAL PLAIN AND IN ATLANTIC COASTAL FLATWOODS ONLY.
TRITICALE ALONE	144 LBS./AC									.....	.....	.....				
TRITICALE IN MIXTURE	24 LBS./AC									.....	.....	.....				
WHEAT ALONE	180 LBS./AC									.....	.....	.....				WINTER HARDY.
WHEAT WITH OTHER PERENNIALS	30 LBS./AC									.....	.....	.....				

SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATE PERMISSIBLE BUT MARGINAL DATES.

**MYRTLE GROVE GULLY RESTORATION**

**SWPPP NOTES II**

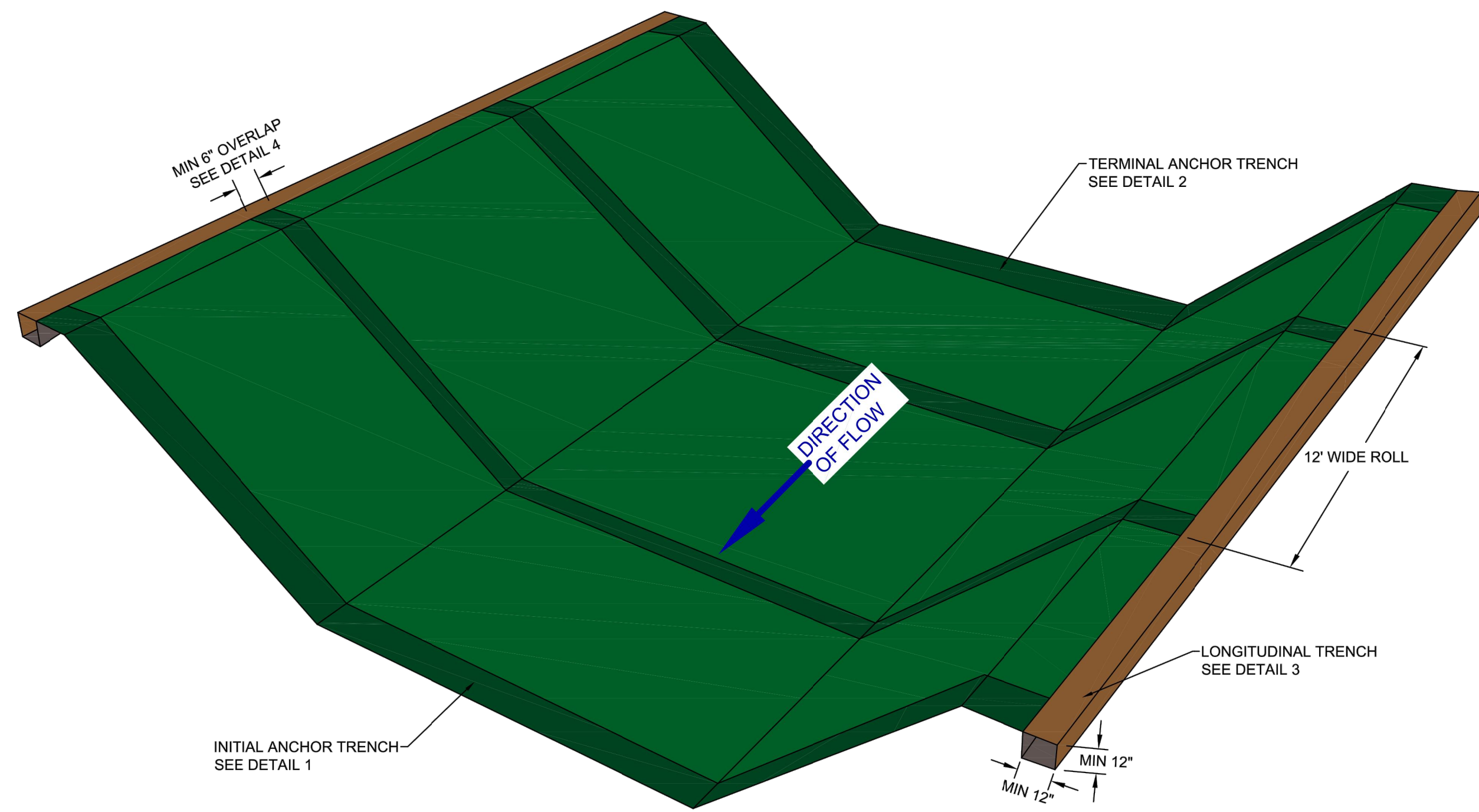


**GEOSYNTEC CONSULTANTS**

12802 TAMPA OAKS BLVD., SUITE 151, TEMPLE TERRACE, FLORIDA 33637  
 DRAWN BY: BDS  
 CHECKED BY: BDS  
 PROJECT MANAGER: BRENT SCHNEIDER  
 DATE: 2/8/22  
 FIELD BOOK PAGES: XXXXX  
 REG. PEA. ENG. NO.: 70706  
 DATE: MARCH 2022  
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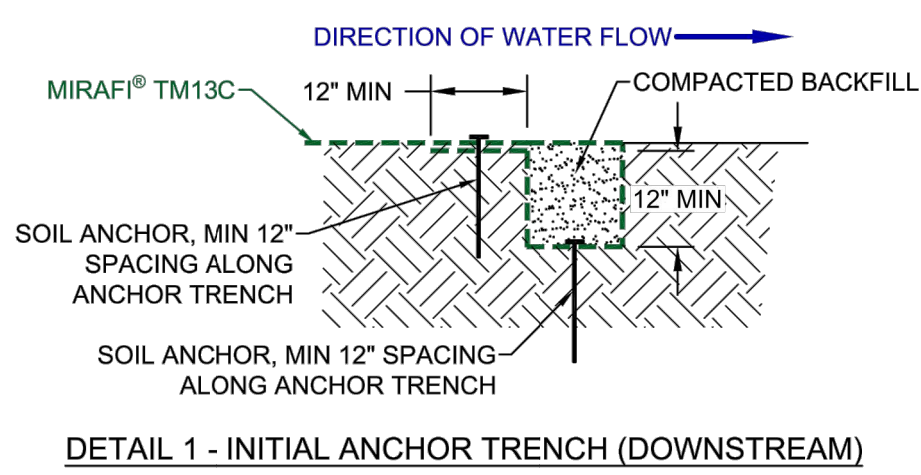
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PROJECT NUMBER	FW8205
SURVEY NUMBER	XXX
SHEET	13 OF 15

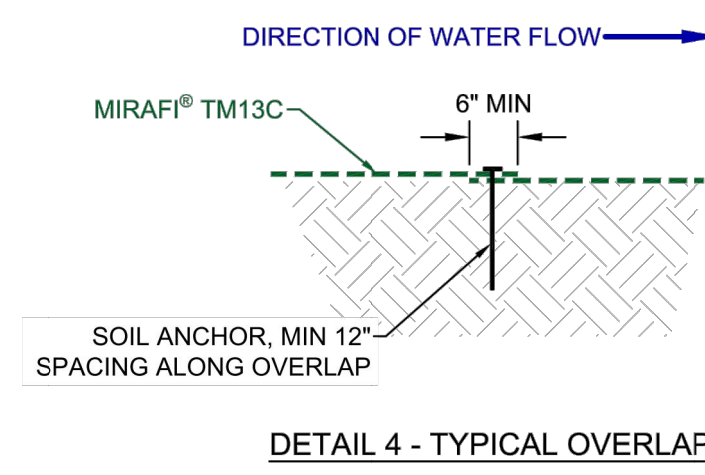


**TYPICAL CHANNEL CONFIGURATION WITH MIRAF<sup>®</sup> TM13C FACING**  
NOT TO SCALE

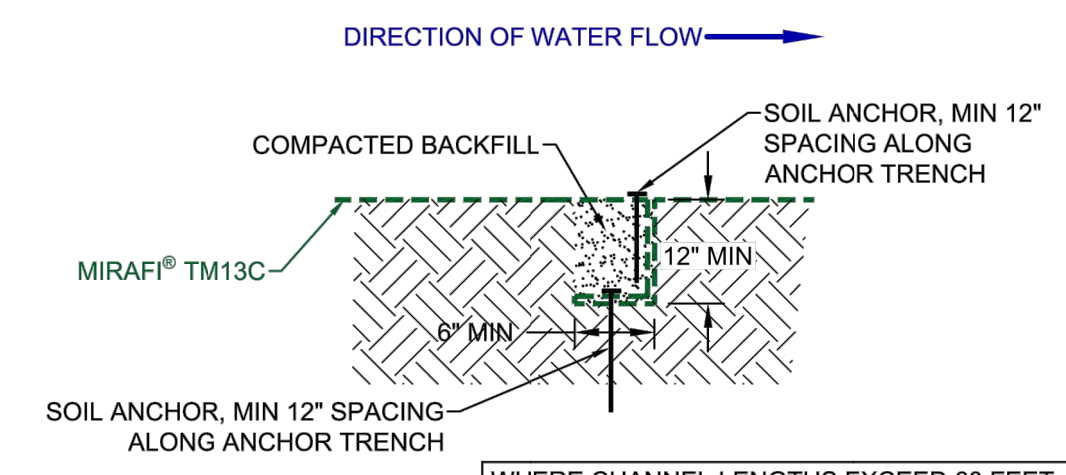
NOTE: DETAIL PROVIDED BY MANUFACTURER, DATED 10/24/2019.  
**PERMANENT TURF REINFORCEMENT MAT PLACEMENT AND INSTALLATION DETAIL**  
N.T.S.



**DETAIL 1 - INITIAL ANCHOR TRENCH (DOWNSTREAM)**

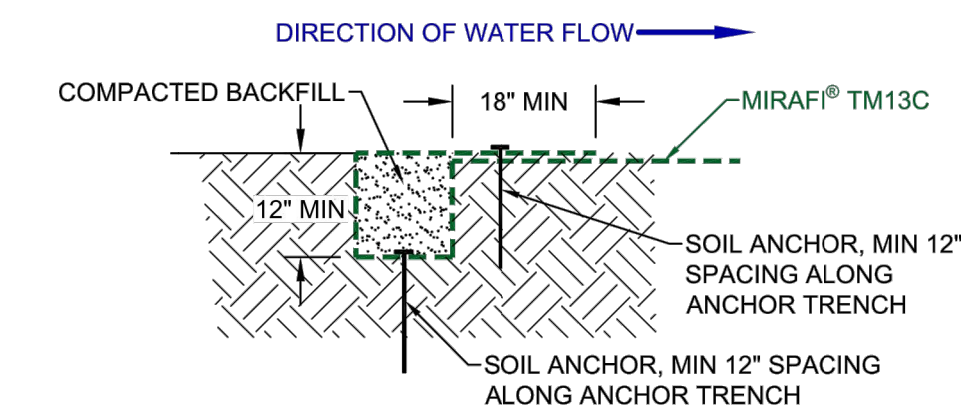


**DETAIL 4 - TYPICAL OVERLAP**

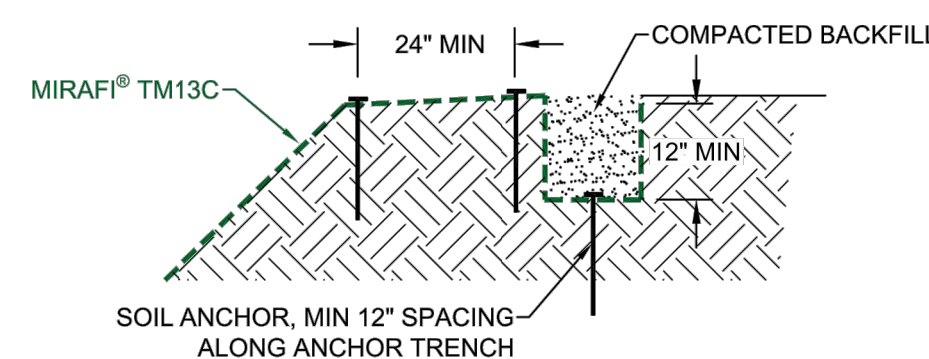


**DETAIL 5 - TYPICAL INTERMITTENT TRENCH**

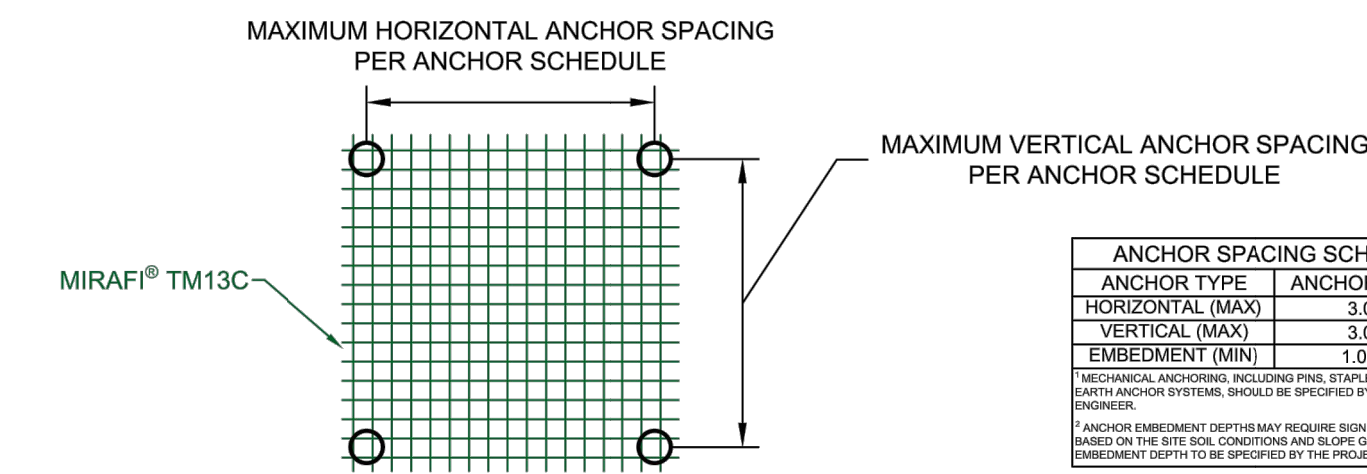
WHERE CHANNEL LENGTHS EXCEED 60 FEET IN LENGTH, AN INTERMITTENT TRENCH SHOULD BE UTILIZED AT MIN 40 FT INTERVALS.



**DETAIL 2 - TERMINAL ANCHOR TRENCH (UPSTREAM)**



**DETAIL 3 - LONGITUDINAL TRENCH AT TOP OF SLOPE**



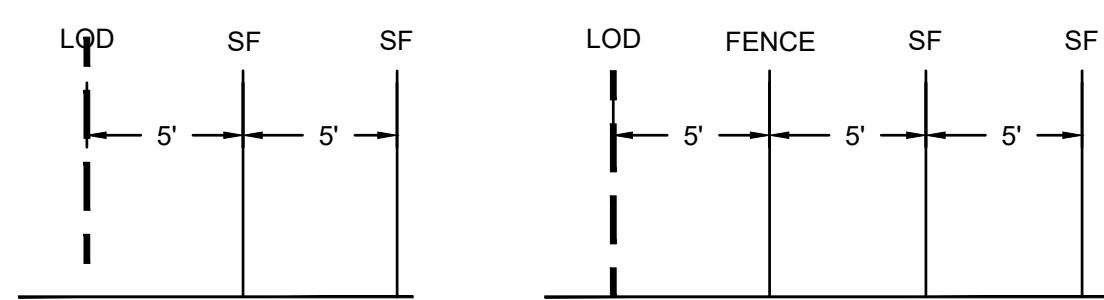
**DETAIL 6 - ANCHOR PLACEMENT DENSITY**

ANCHOR SPACING SCHEDULE	
ANCHOR TYPE	ANCHOR DEVICE <sup>1</sup>
HORIZONTAL (MAX)	3.00 FT
VERTICAL (MAX)	3.00 FT
EMBEDMENT (MIN)	1.00 FT <sup>2</sup>

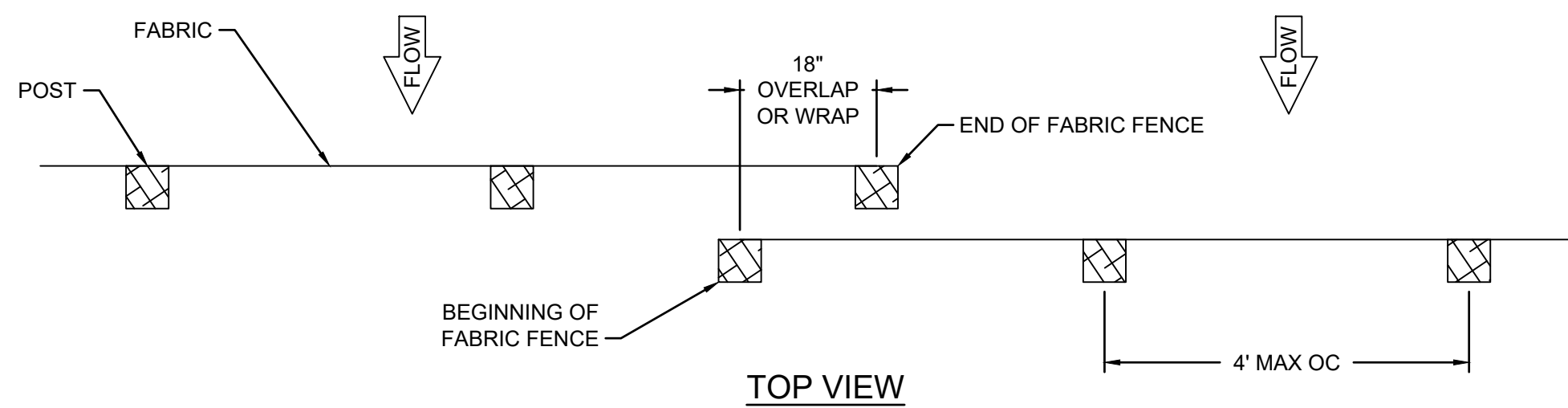
<sup>1</sup>MECHANICAL ANCHORS, INCLUDING PIPE, STAPLES, STAPLES, AND SUTURE ANCHORS SYSTEMS, SHALL BE SPECIFIED BY THE PROJECT ENGINEER.

IN ADDITION TO ANCHOR TRENCHES AND OVERLAPS, A MINIMUM ANCHOR SPACING ALONG THE FACE OF THE CHANNEL IS RECOMMENDED.

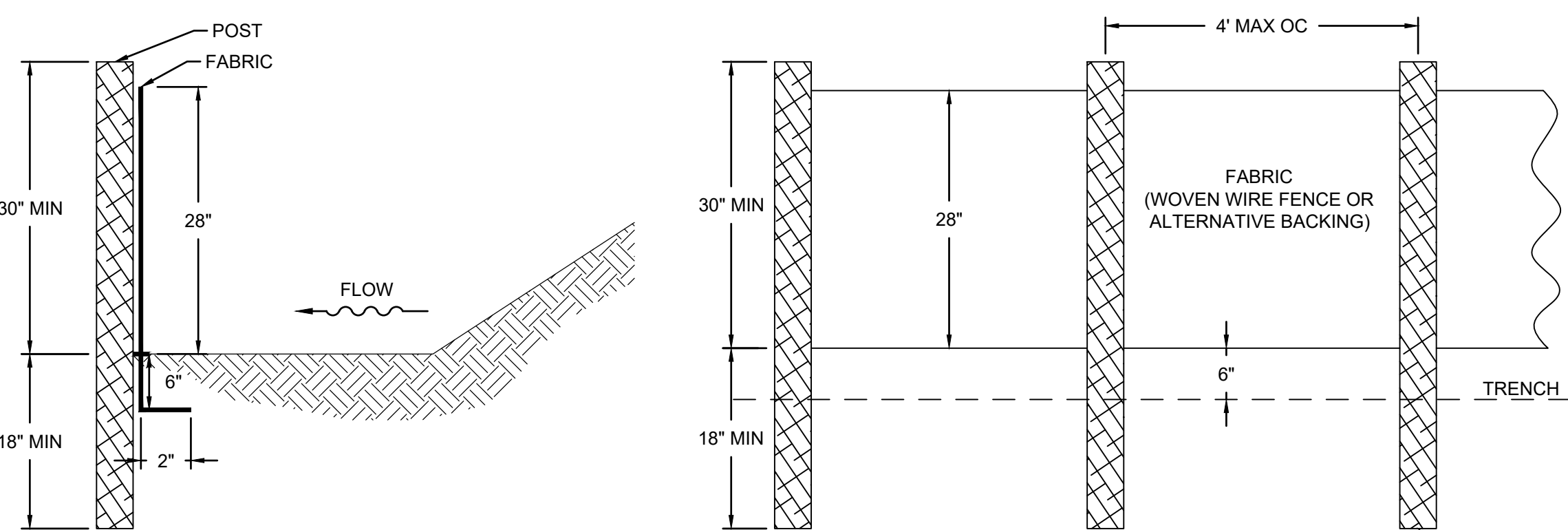
NOTE: DETAIL PROVIDED BY MANUFACTURER, DATED 10/24/2019.  
**PERMANENT TURF REINFORCEMENT MAT TRENCH AND ANCHORING DETAIL**  
N.T.S.



**SILT FENCE SPACING**



**TOP VIEW**



**SIDE VIEW**

**FRONT VIEW**

**ROLLED EROSION CONTROL BLANKET INSTALLATION DETAIL**  
N.T.S.

**NOTES:**

- FENCE WILL BE MAINTAINED DURING CONSTRUCTION UNTIL FINAL SURFACE TREATMENTS HAVE BEEN APPLIED AND A SUFFICIENT STAND OF GRASS HAS BEEN ESTABLISHED.
- ADDITIONAL SILT FENCE WILL BE REQUIRED IN AREAS WHICH ARE CLEARED OR GRADED AND DO NOT HAVE STORMWATER RUNOFF DIVERTED TO SEDIMENT BASINS.

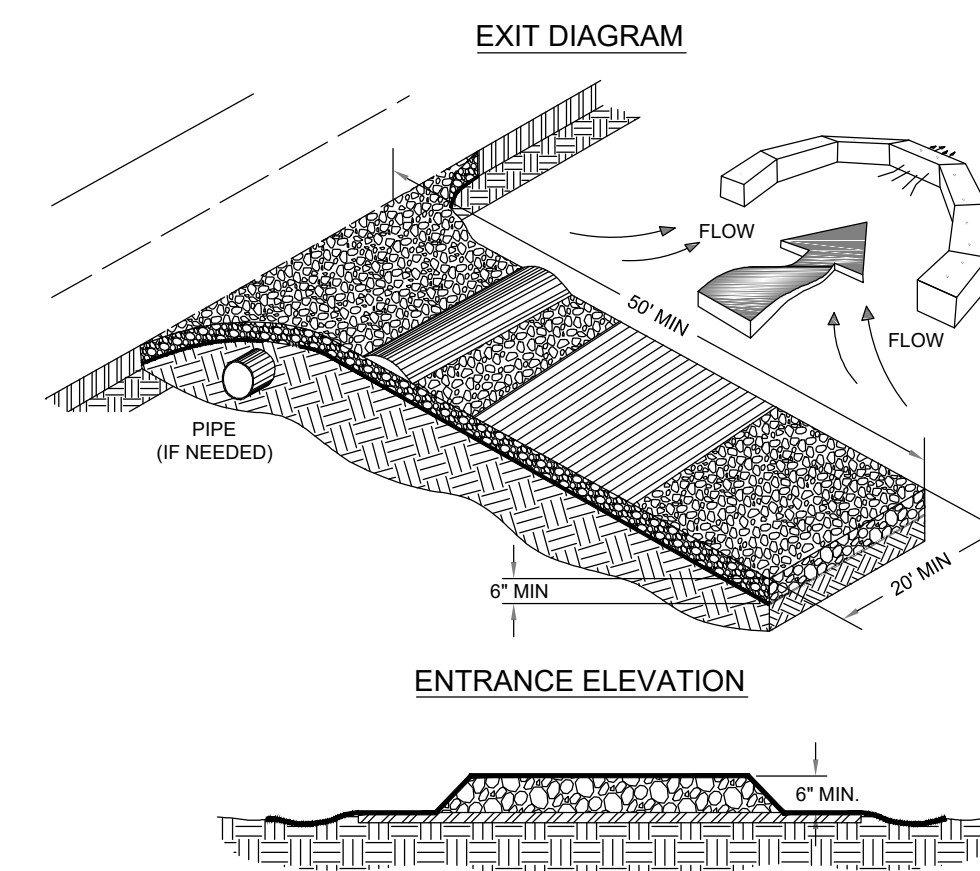
**INSTALLATION:**

- WHERE NO SEDIMENT TRAP/STORMWATER DISPOSAL SYSTEM IS PRESENT, MAXIMUM SLOPE LENGTH WILL NOT EXCEED THAT IN THE TABLE. THE DRAINAGE AREA WILL NOT EXCEED 1/4 ACRE PER 100 FEET OF SILT FENCE.
- INSTALL ALONG CONTOURS TO THE EXTENT POSSIBLE WITH ENDS POINTING UPHILL.
- DO NOT PLACE IN WATERWAYS OR AREAS OF CONCENTRATED FLOW.
- PROVIDE A RIPRAP SPLASH PAD OR OTHER OUTLET PROTECTION DEVICE FOR ANY POINT WHERE FLOW MAY TOP THE SEDIMENT FENCE. ENSURE THAT THE MAXIMUM HEIGHT OF THE FENCE AT A PROTECTED, REINFORCED OUTLET DOES NOT EXCEED 1 FT.
- POSTS WILL BE STEEL AND HAVE A MINIMUM LENGTH OF 4 FEET. POSTS WILL BE "U", "T", OR "C" SHAPED AND HAVE A MINIMUM WEIGHT OF 1.3 POUNDS PER FOOT. THE POSTS WILL HAVE PROJECTIONS FOR FASTENING THE WOVEN WIRE AND FILTER FABRIC. MAXIMUM POST SPACING WILL BE 4 FEET FOR TYPE C.
- SAFETY CAPS ARE REQUIRED FOR ALL STEEL POSTS.
- A WOVEN WIRE SUPPORT FENCE WILL BE USED WITH TYPE "C" FENCE. THE WIRE FENCE FABRIC WILL BE AT LEAST 36 INCHES HIGH AND WILL HAVE AT LEAST 6 HORIZONTAL WIRES. VERTICAL WIRES WILL HAVE A MAXIMUM SPACING OF 12 INCHES. THE TOP AND BOTTOM WIRES WILL BE AT LEAST 10 GAUGE AND ALL OTHER WIRES WILL BE AT LEAST 12 1/2 GAUGE.

CRITERIA FOR SILT FENCE PLACEMENT	
LAND SLOPE (PERCENT)	MAXIMUM LENGTH OF SLOPE ABOVE FENCE (FEET)
<2	100
2 TO 5	75
5 TO 10	50
10 TO 20	25
>20	15

**NOTES:**

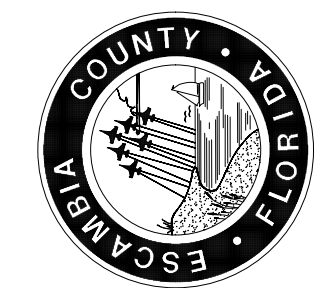
- AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
- REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
- AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
- GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
- PAD WIDTH SHALL EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
- A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
- INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
- 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).
- WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVES MUD AND DIRT.
- 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.
- GEOTEXTILE UNDERLINE MUST BE PLACED THE FULL LENGTH AND WIDTH OF THE ENTRANCE. GEOTEXTILE SELECTION SHALL BE BASED ON AASHTO M288-06 SECTION 7.3, SEPARATION REQUIREMENTS.



**CONSTRUCTION EXIT DETAIL**  
N.T.S.

**MYRTLE GROVE GULLY RESTORATION**

DETAILS I



**GEOSYNTEC CONSULTANTS**

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DESIGNED BY: BDS	CHECKED BY: BDS	DATE: MARCH 2022
DRAWN BY: BDS	PROJECT MANAGER: BRENT SCHNEIDER	REG. P.E. NO.: 70706
DATE: 2/8/22	DISTRICT: 2	SIGNATURE:
FIELDBOOK TAGS: XXXXX	SECTION/TOWNSHIP/RANGE: 36/28/30W	

NUMBER	DATE	APPROVED

DRAWING NUMBER	FW8205C12
PROJECT NUMBER	FW8205
SURVEY NUMBER	XXX
SHEET	14 OF 15

