



BOARD OF COUNTY COMMISSIONERS ESCAMBIA COUNTY, FLORIDA ENGINEERING DEPARTMENT

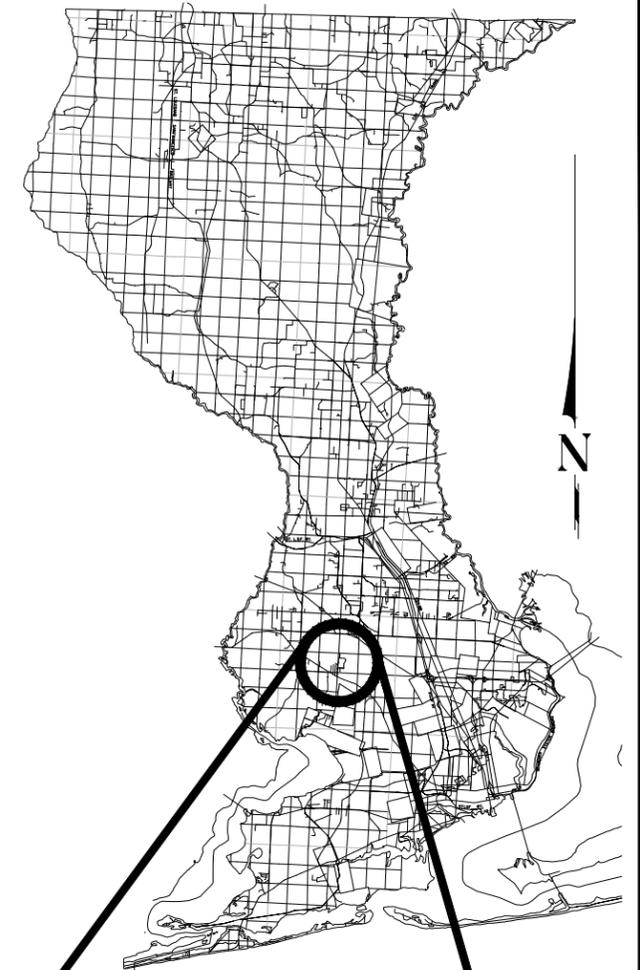
PLANS PROPOSED FOR JAMESVILLE ROAD: COFFEE CREEK BRIDGE REPLACEMENT

INDEX OF ROADWAY PLANS

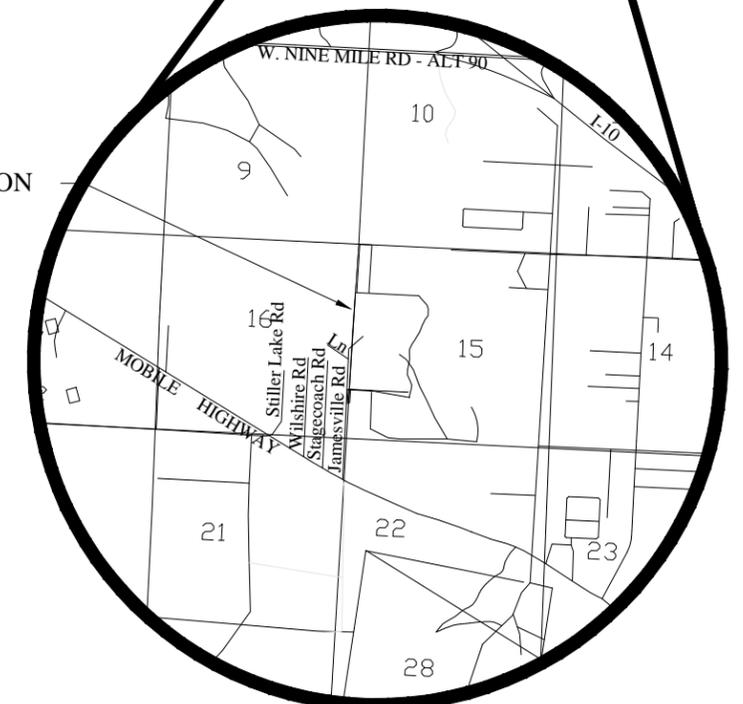
SHEET NO.	SHEET DESCRIPTION
1	TITLE SHEET
2	TYPICAL ROADWAY SECTION
3	TYPICAL BRIDGE PAVEMENT SECTION
4	GENERAL NOTES
5	PLAN & PROFILE SHEET
6	EROSION CONTROL SHEET
CT1-CT7	BRIDGE DETAIL SHEETS

**100% PLANS SUBMITTAL
 RELEASED FOR BIDDING**

AUGUST 2016



PROJECT LOCATION
 VICINITY MAP



**SIGMA
 CONSULTING
 GROUP, INC.**
 3298 SUMMIT BOULEVARD, SUITE 32
 PENSACOLA, FLORIDA 32503
 PHONE: (850) 332-7912
 CERTIFICATE OF AUTHORIZATION #26889

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

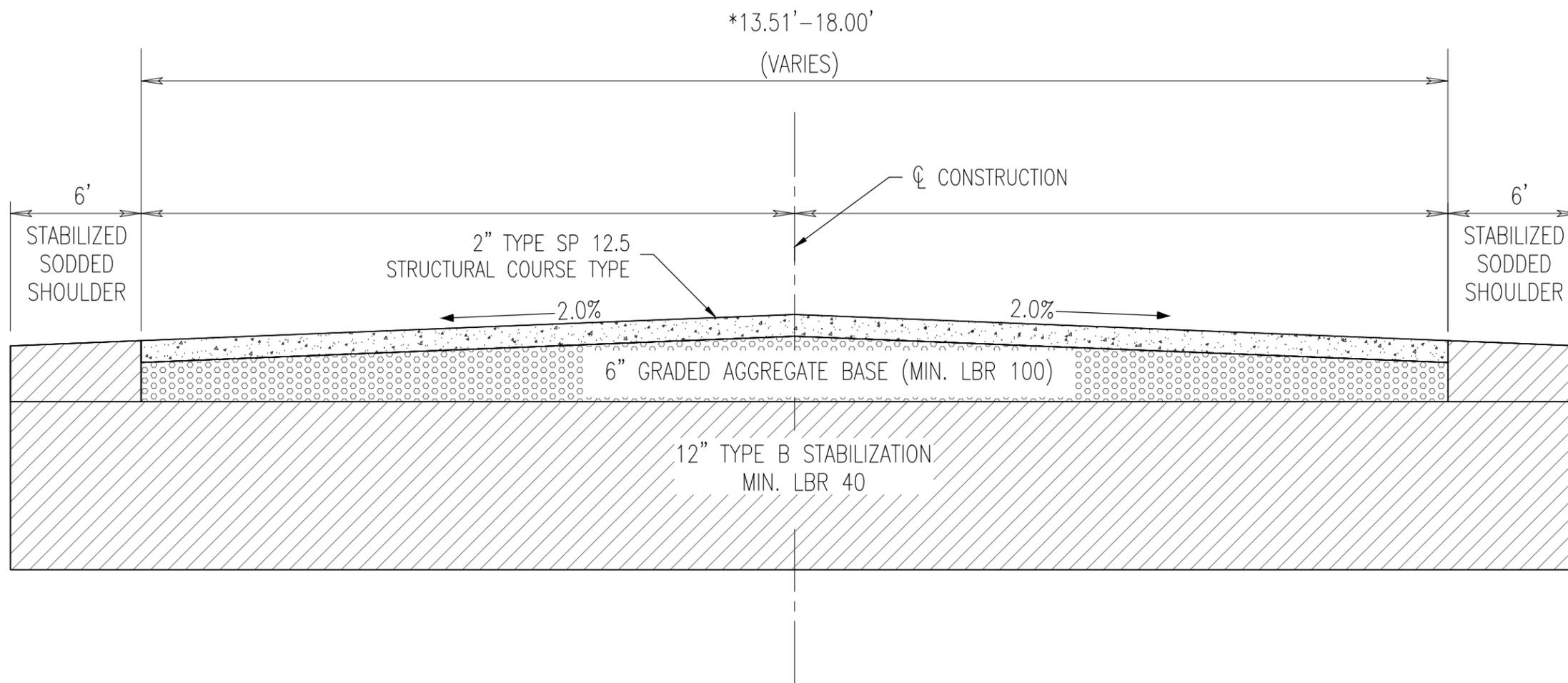
ANY REFERENCE TO THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, DIVISION 1, GENERAL REQUIREMENTS AND COVENANTS, SHALL BE EXCLUDED AND NOT APPLICABLE TO ANY SPECIFICATION REFERRED HEREIN OR OTHERWISE LISTED IN THESE PLANS OR RELATED DOCUMENTS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

COMMISSIONERS

**DISTRICT ONE
 DISTRICT TWO
 DISTRICT THREE
 DISTRICT FOUR
 DISTRICT FIVE**

**WILSON ROBERTSON
 DOUG UNDERHILL
 LUMON MAY
 GROVER ROBINSON
 STEVEN BARRY**

PROJECT MANAGER: DEREK FOX	
SECTION/TOWNSHIP/RANGE: 15 / T-1-S / R-31-W	DISTRICT: I
PROJECT ENGINEER: JASON L. LASHLEY	REG FLA ENG NO: 57353
SIGNATURE:	DATE:



TYPICAL ROADWAY SECTION
STA. 12+13.25 TO STA. 13+03.22
STA. 13+51.23 TO STA. 14+82.28
(NOT TO SCALE)


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BOARD OF COUNTY COMMISSIONERS
 ESCAMBA COUNTY, FLORIDA
 ENGINEERING DEPARTMENT


COFFEE CREEK
BRIDGE REPLACEMENT
TYPICAL ROADWAY SECTION

NO.	REVISION	DATE

Project Number:	140507
Date:	AUG. 2016
Drawn By:	C.W.H.
Designed By:	P.M.H.
Checked By:	J.L.L.
Sheet:	2

P:\Projects\Bentley\140507 - Pendo-Bridge-17-Dump-Assessment\10000 (Searchable)\1008_Joinville_Road\Drawings\TYP_SECTION-2.dwg, Aug 25, 2016 - 3:16:50PM, P1

GENERAL NOTES:

- THE CONTRACTORS SHALL NOTIFY THE COUNTY DESIGN ENGINEER OR DESIGNEE 48 HOURS PRIOR TO CONSTRUCTION.
- ALL CONDITIONS AND STIPULATIONS OF THE CONSTRUCTION PERMITS AND THE APPROVALS ISSUED BY THE ESCAMBIA COUNTY ENGINEER SHALL BE COMPLIED WITH IN EVERY DETAIL.
- ALL ROADS DAMAGED BY CONSTRUCTION OPERATIONS ARE TO BE PATCHED OR RECONSTRUCTED AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE.
- 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.
- ANY NECESSARY PERMITS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. ESCAMBIA COUNTY OR ITS DESIGNEE WILL ASSIST CONTRACTOR WITH REQUIRED PERMITS.
- THE CONTRACTOR IS CAUTIONED TO VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE PROJECT PRIOR TO BIDDING AND/OR CONSTRUCTION.
- 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 MONUMENTS 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 MONUMENTS POSITION DETERMINED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER USING GUIDELINES AS ESTABLISHED BY NATIONAL GEODETIC SURVEY FOR BLUE BOOKING AND APPROVAL.
- EXISTING DRAINAGE FEATURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL MATCH EXISTING CONDITIONS AT THE BEGINNING AND END OF CONSTRUCTION AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE.
- EXISTING STREETS AND DRIVES SHALL BE MAINTAINED TO LOCAL TRAFFIC AND PROPERTY OWNERS.
- ALL ROADWAY CONSTRUCTION SHALL COMPLY WITH THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS, LATEST EDITION.
- ALL MATERIALS, TESTING AND CONSTRUCTION METHODS SHALL CONFORM TO THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS, LATEST EDITION.
- 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.
- 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 RW 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.
- CONTRACTOR SHALL COMPLY WITH ALL F.D.E.P. AND ARMY CORP. OF ENGINEERS REQUIREMENTS.
- 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.
- IN THE EVENT THAT SURVEY MONUMENTATION OR REFERENCE POINTS ARE MISSING OR HAVE BEEN DESTROYED, PLEASE CONTACT:

DANNY SWAIN
ESCAMBIA COUNTY SURVEYOR
3363 WEST PARK PLACE
PENSACOLA, FLORIDA 32505 PH (850) 595-3427
- 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.
- GRADED AGGREGATE BASE SHALL BE REQUIRED WHERE THE SEASONAL HIGH GROUND WATER ENCROACHES WITHIN TWO (2) FEET OF THE BOTTOM OF BASE.
- ALL TREES WITHIN LIMITS OF CONSTRUCTION SHALL BE REMOVED UNLESS OTHERWISE NOTED IN PLANS.
- ALL COMPACTED FILL SHALL BE PLACED IN 4" LIFTS FOR HAND POWERED TAMPERS AND 8" LIFTS FOR HEAVY EQUIPMENT OPERATED TAMPERS.
- MAINTENANCE OF TRAFFIC AS PER FDOT INDEX 600.
- 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.
- 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.
- 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.
- 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.
- PIPE LENGTHS SHOWN IN THE PLANS DO NOT INCLUDE THE LENGTH OF PIPE THAT MUST BE INSTALLED WITH THE MITERED END SECTION. THEREFORE, ALL PIPES LENGTHS ASSOCIATED WITH MITERED END SECTIONS SHALL BE PAID FOR IN THE UNIT COST OF THE MITERED END SECTION.

- 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 WRERBAL AND/OR WRITTEN AUTHORIZATION FROM THE DIVISION OF HISTORICAL RESOURCES.
- IN THE EVENT THAT UNMARKED HUMAN REMIANS ARE ENCOUNTERED DURING PERMITTED ACTIVITIES, ALL WORK MUST STOP IMMEDIATELY AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH F.S. 872.05.

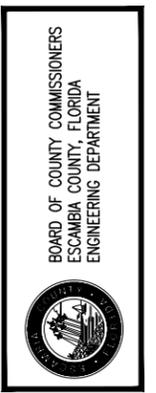
UTILITY NOTES:

- 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.
- 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:

ESCAMBIA COUNTY DIVISION OF SOLID WASTE MANAGEMENT
13009 BEULAH ROAD
CANTONMENT, FL 32533
ATTN: MR. BRENT SCHNEIDER (850)-937-2160
- AT&T FLORIDA WILL COMPLETE ALL WORK DURING THE HOURS OF 7:30 AM - 4:30 PM, MONDAY THRU FRIDAY. NO NIGHT OR WEEKEND WORKWORK.
- 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.
- ALL LOOP DETECTOR INSTALLATION SHALL BE DONE AS PER FDOT INDEX 17781.
- CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES.
- 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.

PROJECT NOTES:

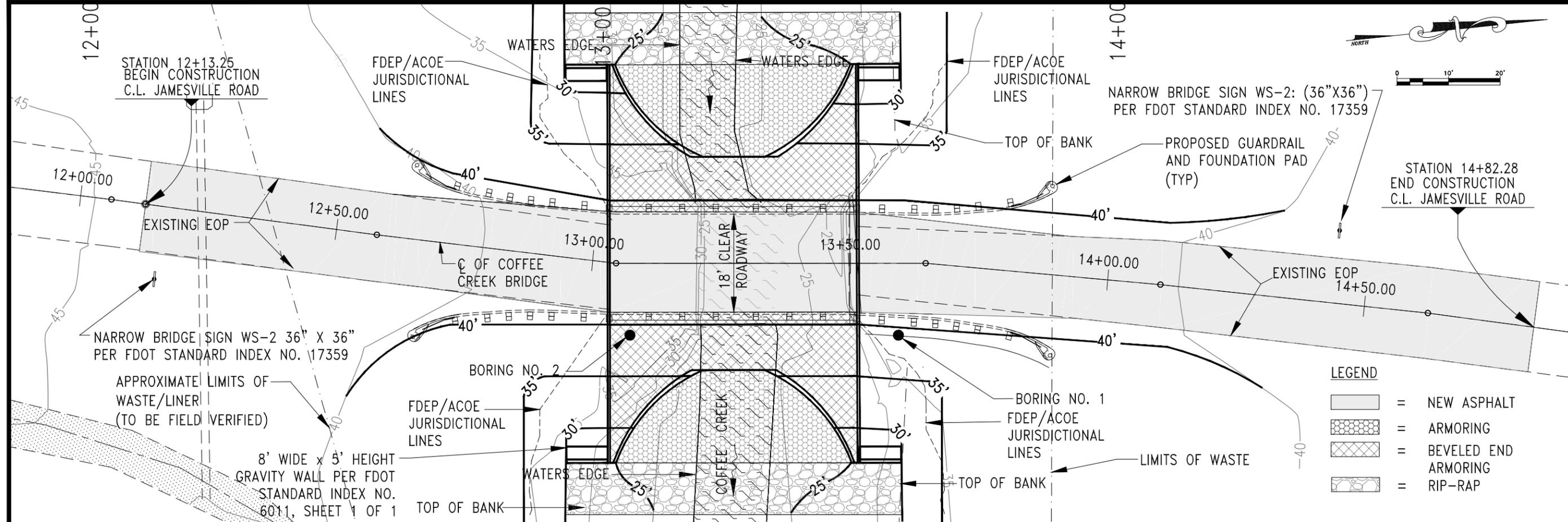
- BACKFILL FOR THE BRIDGE COMPONENT OF THIS PROJECT SHALL ADHERE TO THE REQUIREMENTS SHOWN ON SHEET CT5. AREAS BEYOND THESE REQUIREMENTS SHALL ADHERE TO ESCAMBIA COUNTY TECHNICAL SPECIFICATION, LATEST EDITION.
- CONTRACTOR SHALL NOTE THAT A GEOSYNTHETIC CAP/LINER SYSTEM IS LOCATED ON THE SOUTH SIDE OF THE BRIDGE AND IT MUST BE LOCATED PRIOR TO ANY EXCAVATION ACTIVITY.
- CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR BRIDGE STRUCTURE TO EOR FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- ANY AREA DISTURBED BY EQUIPMENT OR STAGING ACTIVITIES WILL BE STABILIZED BY THE PLACEMENT OF SOD.
- CONTRACTOR SHALL COORDINATE AND PRE-APPROVE LOCATION OF STAGING AREA AT BEULAH LANDFILL WITH ESCAMBIA COUNTY DIVISION OF SOLID WASTE MANAGEMENT.



**COFFEE CREEK
BRIDGE REPLACEMENT
ESCAMBIA COUNTY, FLORIDA**

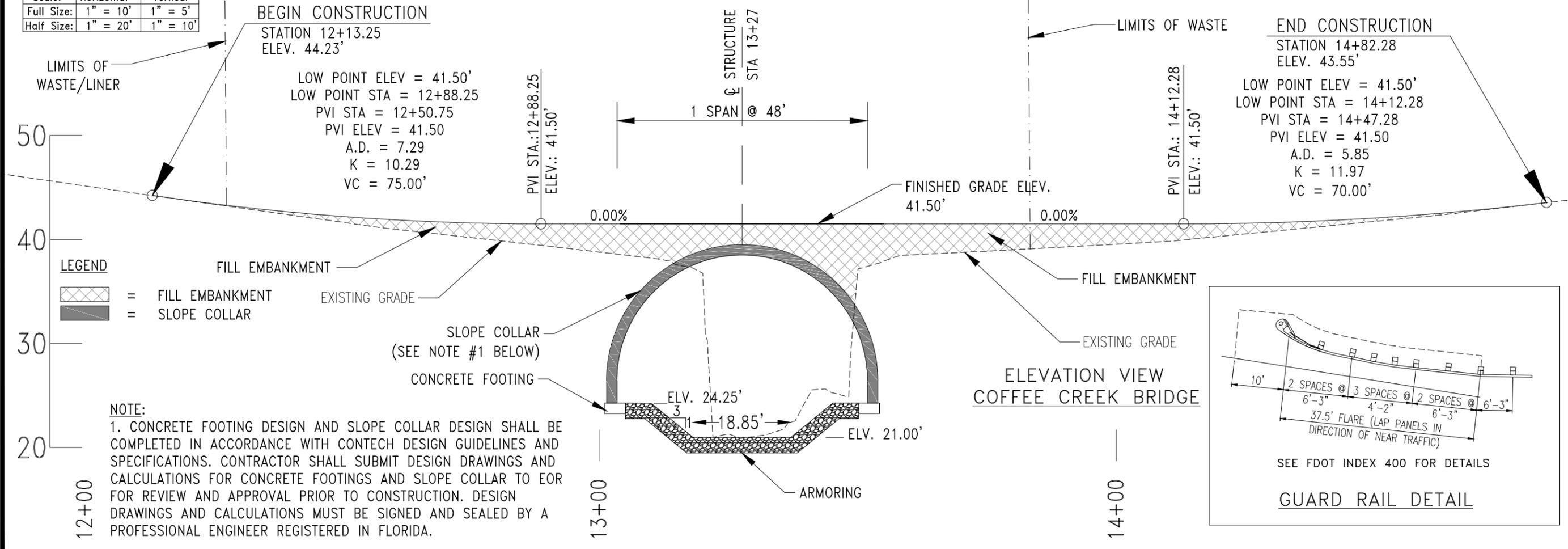
NO.	REVISION	DATE

Project Number:	140507
Date:	AUG. 2016
Drawn By:	C.W.H.
Designed By:	P.M.H.
Checked By:	J.L.L.
Sheet:	4



- LEGEND**
- = NEW ASPHALT
 - = ARMORING
 - = BEVELED END ARMORING
 - = RIP-RAP

Scale:	Horizontal	Vertical
Full Size:	1" = 10'	1" = 5'
Half Size:	1" = 20'	1" = 10'



NOTE:
 1. CONCRETE FOOTING DESIGN AND SLOPE COLLAR DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CONTECH DESIGN GUIDELINES AND SPECIFICATIONS. CONTRACTOR SHALL SUBMIT DESIGN DRAWINGS AND CALCULATIONS FOR CONCRETE FOOTINGS AND SLOPE COLLAR TO EOR FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. DESIGN DRAWINGS AND CALCULATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN FLORIDA.

SIGMA CONSULTING GROUP, INC.
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 PENSACOLA, FLORIDA 32503
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 CERTIFICATE OF AUTHORIZATION #26689

BOARD OF COUNTY COMMISSIONERS
 ESCAMBIA COUNTY, FLORIDA
 ENGINEERING DEPARTMENT

**COFFEE CREEK
 BRIDGE REPLACEMENT
 PLAN AND PROFILE**

NO.	REVISION	DATE

Project Number: 140507
 Date: AUG. 2016
 Drawn By: C.W.H.
 Designed By: P.M.H.
 Checked By: J.L.L.
 Sheet: 5

BENCH MARKS:

966/60A - A 60d nail in the east side of a power pole located at the northeast corner of the intersection of Mobile Highway and Jamesville Road.

Elevation - 93.95' NAVD 88; 94.07' NGVD 29

966/60B - The north bonnet bolt of a fire hydrant located in the west right of way of Jamesville Road and 220' +/- north of the north right of way of Mobile Highway.

966/60C - An "X" in the east side of a concrete drainage structure located at the southwest corner of the intersection of Jamesville Road and Jamesville Lane.

Elevation = 84.75' NAVD 88; 84.87' NGVD 29

966/60D - A 60d nail in the west side of a power pole located in the east right of way of Jamesville Road at the intersection of Jamesville Road and Jamesville Lane.

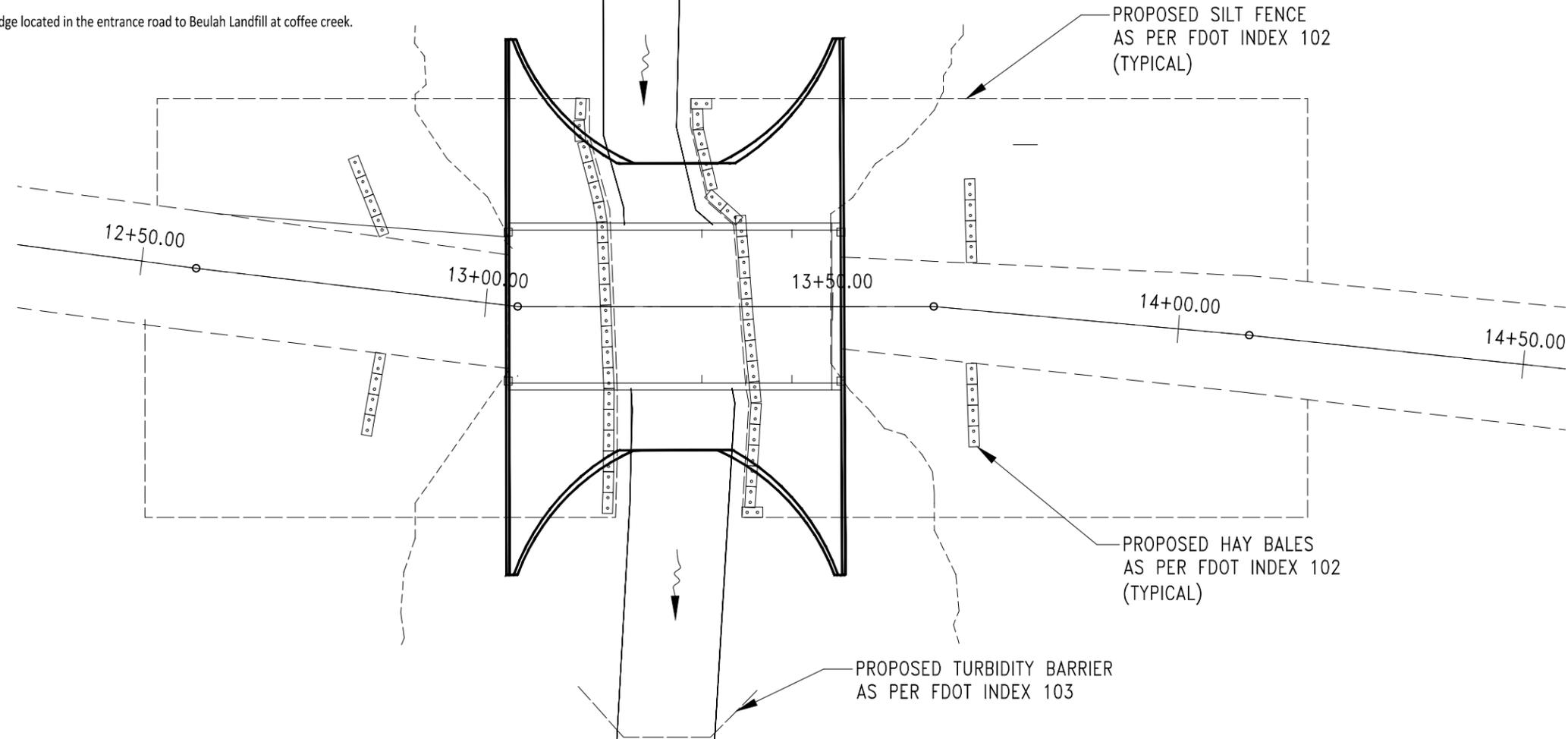
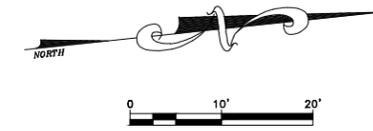
Elevation = 85.89' NAVD 88; 86.01' NGVD 29

48-99-Z39V - Proceed from the intersection of State Road 10A and State Road 297, go northwest along State Road 10A for 4.73km to the station on the right: wood utility pole; N 20 W, 25.5m; 0.47m pine N 40E, 25.3M: 0.9m pine S 40 W, 11.3m; said point being a concrete monument with brass disk.

Elevation - 53.83' NAVD 88; 53.95' NGVD 29

966/64 - AN "X" set in the southeast corner of bridge located in the entrance road to Beulah Landfill at coffee creek.

Elevation = 39.04' NAVD 88; 39.16' NGVD 29



LEGEND

← = FLOW ARROW

SIGMA
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CERTIFICATE OF AUTHORIZATION #26889

BOARD OF COUNTY COMMISSIONERS
ESCAMBA COUNTY, FLORIDA
ENGINEERING DEPARTMENT

**COFFEE CREEK
BRIDGE REPLACEMENT
EROSION CONTROL PLAN**

NO.	REVISION	DATE

Project Number:
140507

Date:
AUG. 2016

Drawn By:
C.W.H.

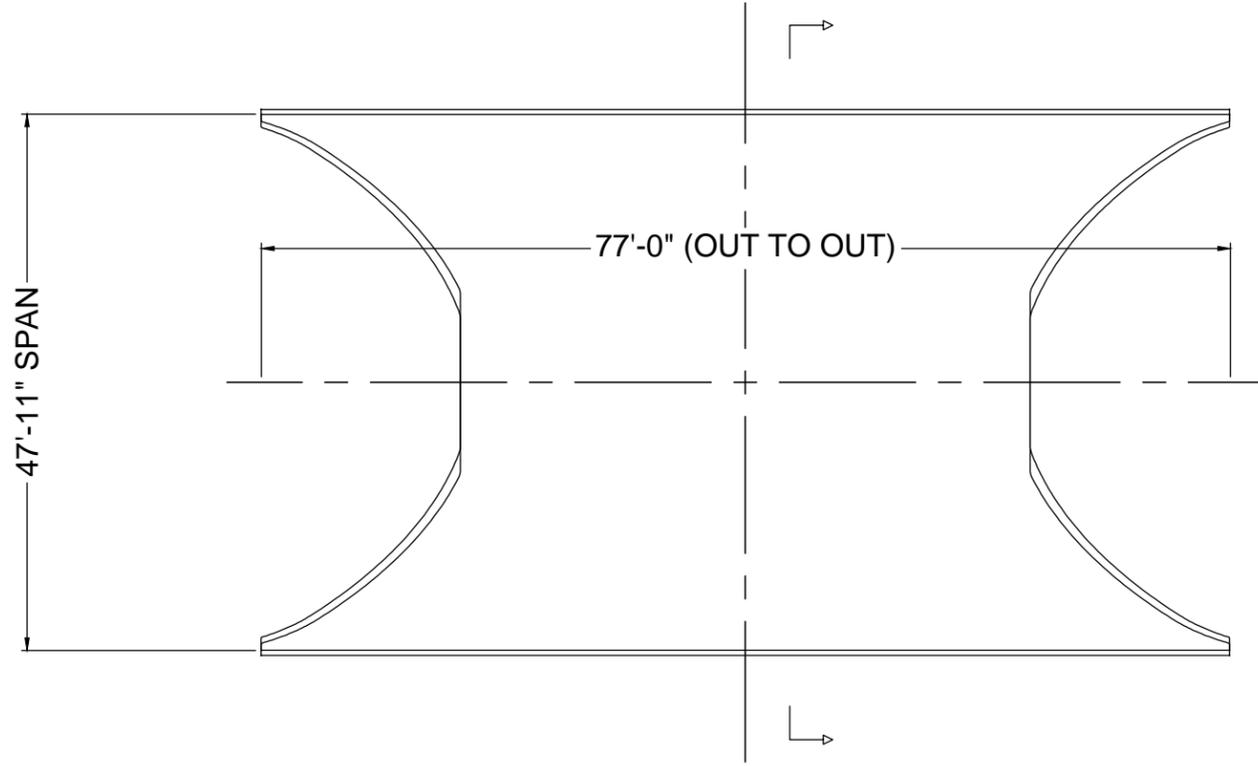
Designed By:
P.M.H.

Checked By:
J.L.L.

Sheet:
6

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BRIDGE PLAN

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MARK	DATE	REVISION DESCRIPTION	BY
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CONTECH
 ENGINEERED SOLUTIONS LLC
www.ContechES.com
 9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
 800-338-1122 513-645-7000 513-645-7993 FAX

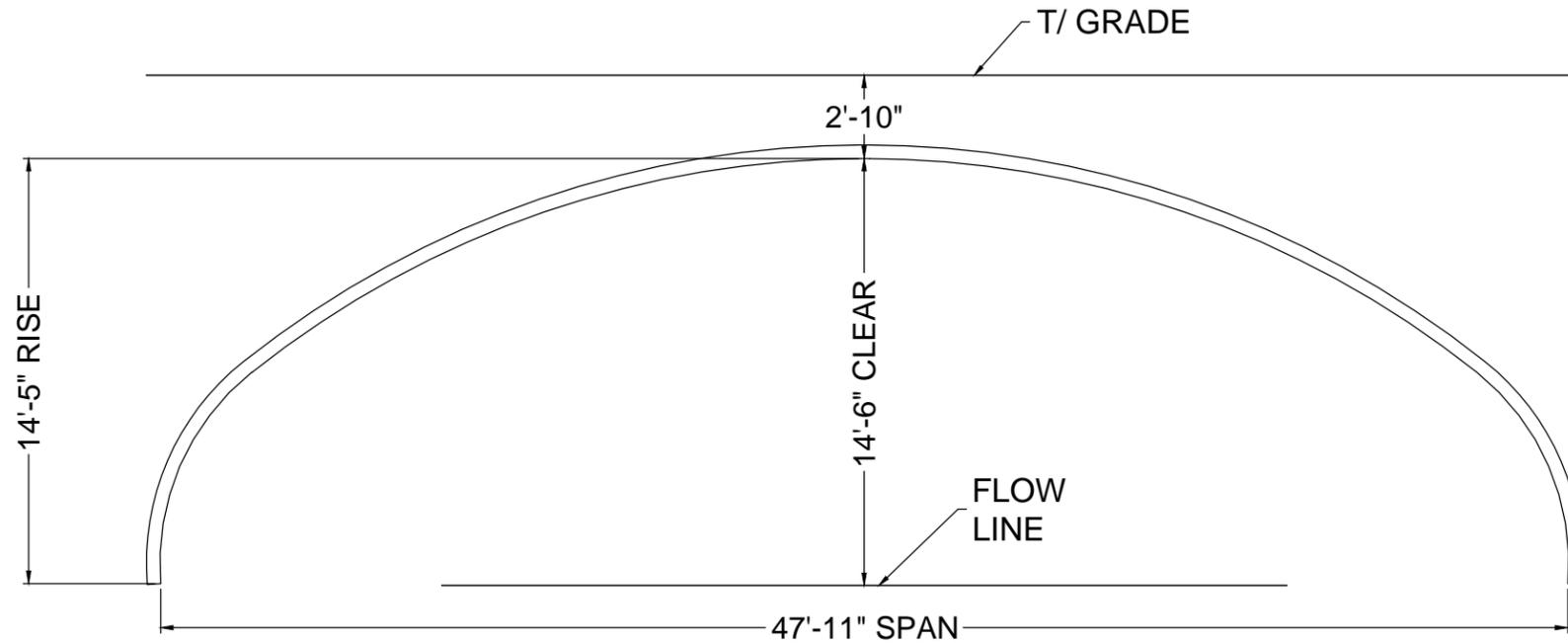

CONTECH
 STRUCTURAL PLATE

PROPOSAL
 DRAWING

BRIDGECOR TWO RADIUS ARCH 47'-11" X 14'-5"
COFFEE CREEK BRIDGE REPLACEMENT
BEULAH LANDFILL
CANTONMENT, FLORIDA

PROJECT No.: 449580	SEQ. No.: 001	DATE: 08/23/2016
DESIGNED:	DRAWN: TAG	
CHECKED:	APPROVED:	
SHEET NO.: CT1 OF CT7		

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CROSS SECTION A-A

Approximate Area: 542 sq. ft. used, 539 sq. ft. total

NOTES

- MEASUREMENTS ARE TO THE INSIDE CRESTS OF THE CORRUGATION
- DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES

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MARK	DATE	REVISION DESCRIPTION	BY
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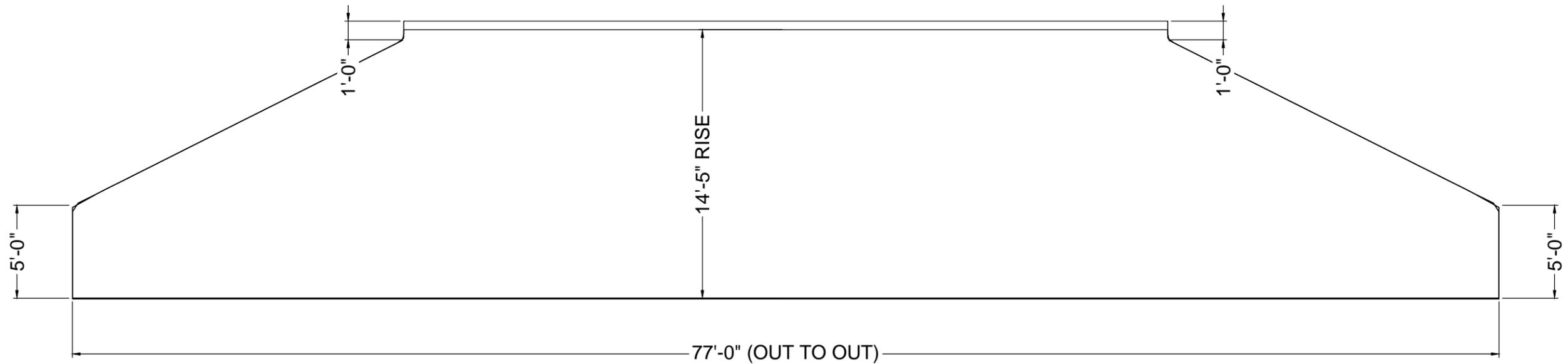

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 ENGINEERED SOLUTIONS LLC
www.ContechES.com
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 800-338-1122 513-645-7000 513-645-7993 FAX


CONTECH
 STRUCTURAL PLATE


BRIDGECOR TWO RADIUS ARCH 47'-11" X 14'-5"
COFFEE CREEK BRIDGE REPLACEMENT
BEULAH LANDFILL
CANTONMENT, FLORIDA

PROJECT No.: 449580	SEQ. No.: 001	DATE: 08/23/2016
DESIGNED:	DRAWN: TAG	
CHECKED:	APPROVED:	
SHEET NO.: CT2 OF CT7		

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77'-0" (OUT TO OUT)

PROFILE SECTION

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MARK	DATE	REVISION DESCRIPTION	BY
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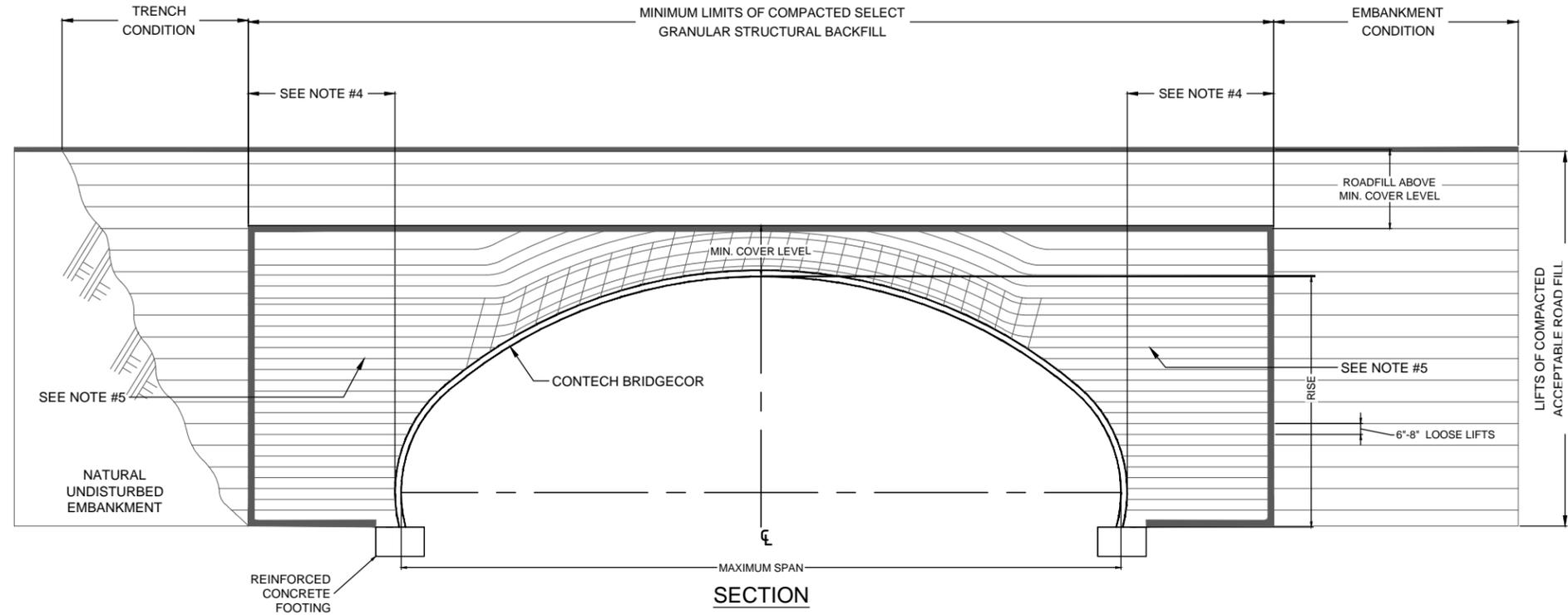


PROPOSAL
DRAWING

BRIDGECOR TWO RADIUS ARCH 47'-11" X 14'-5"
 COFFEE CREEK BRIDGE REPLACEMENT
 BEULAH LANDFILL
 CANTONMENT, FLORIDA

PROJECT No.: 449580	SEQ. No.: 001	DATE: 08/23/2016
DESIGNED:	DRAWN: TAG	
CHECKED:	APPROVED:	
SHEET NO.: CT3 OF CT7		

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 SELECT GRANULAR STRUCTURAL BACKFILL LIMITS.

 INITIAL LIFTS OVER CROWN OF STRUCTURE AS INDICATED BY SHADED AREA TO BE PLACED WITH LIGHT WEIGHT EQUIPMENT (D-4 OR LIGHTER) AND COMPACTED TO REQUIRED DENSITY WITH HAND OPERATED EQUIPMENT OR WITH LIGHTWEIGHT (D-4 OR LIGHTER) TRACTOR/DOZER DRAWN EQUIPMENT.

NOTES:

- 1.) ALL SELECT GRANULAR STRUCTURAL BACKFILL TO BE PLACED IN A BALANCED FASHION IN THIN LIFTS (6"-8" LOOSE TYPICALLY) AND COMPACTED TO 90 PERCENT DENSITY PER AASHTO T-180.
- 2.) MONITORING OF THE SHAPE IS NECESSARY DURING ALL BACKFILLING STEPS. THE METHODS SHALL BE DETERMINED BASED ON THE SIZE AND SHAPE OF THE STRUCTURE.
- 3.) PREVENT DISTORTION OF SHAPE AS NECESSARY BY VARYING COMPACTION METHODS AND EQUIPMENT.
- 4.) MINIMUM SELECT GRANULAR STRUCTURAL BACKFILL WIDTH IS BASED ON AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12 AND/OR THE RESULTS OF THE JOB SPECIFIC FINITE ELEMENT ANALYSIS.
- 5.) SWITCH TO PLACING SELECT GRANULAR STRUCTURAL BACKFILL IN RADIAL LIFTS @ APPROXIMATELY 75% OF THE RISE OF THE STRUCTURE.
- 6.) BECAUSE OF THE FLEXING AND VIBRATION OF THE CROWN PLATES, THE FULL COMPACTION DENSITY LEVELS OFTEN CAN NOT BE ACHIEVED IN THE FIRST SEVERAL INCHES OF FILL OVER THE CROWN.

ADDITIONAL SELECT GRANULAR STRUCTURAL BACKFILL NOTES:

SATISFACTORY BACKFILL MATERIAL, PROPER PLACEMENT, AND COMPACTION ARE KEY FACTORS IN OBTAINING MAXIMUM STRENGTH AND STABILITY.

THE BACKFILL MATERIAL SHOULD BE FREE OF ROCKS, FROZEN LUMPS, AND FOREIGN MATERIAL THAT COULD CAUSE HARD SPOTS OR DECOMPOSE TO CREATE VOIDS. BACKFILL MATERIAL SHOULD BE WELL GRADED GRANULAR MATERIAL THAT MEETS THE REQUIREMENTS OF AASHTO M-145 FOR SOIL CLASSIFICATIONS **A-1, A-2-4, A-2-5, A-3.** (DEPENDING ON THE SIZE AND SHAPE OF THE STRUCTURE; SPECIFIC BACKFILLS MAY BE REQUIRED). BACKFILL MUST BE PLACED SYMMETRICALLY ON EACH SIDE OF THE STRUCTURE IN 6"-8" LOOSE LIFTS. EACH LIFT IS TO BE COMPACTED TO A MINIMUM OF 90% DENSITY PER AASHTO T-180.

A HIGH PERCENTAGE OF SILT OR FINE SAND IN THE NATIVE SOILS SUGGESTS THE NEED FOR A WELL GRADED GRANULAR BACKFILL MATERIAL TO PREVENT SOIL MIGRATION.

DURING BACKFILL, ONLY LIGHTWEIGHT TRACKED VEHICLES (D-4 OR LIGHTER) SHOULD BE NEAR THE STRUCTURE AS FILL PROGRESSES ABOVE THE CROWN AND TO THE FINISHED GRADE. THE ENGINEER AND CONTRACTOR ARE CAUTIONED THAT THE MINIMUM COVER MAY NEED TO BE INCREASED TO HANDLE TEMPORARY CONSTRUCTION VEHICLE LOADS (HEAVIER THAN D-4).

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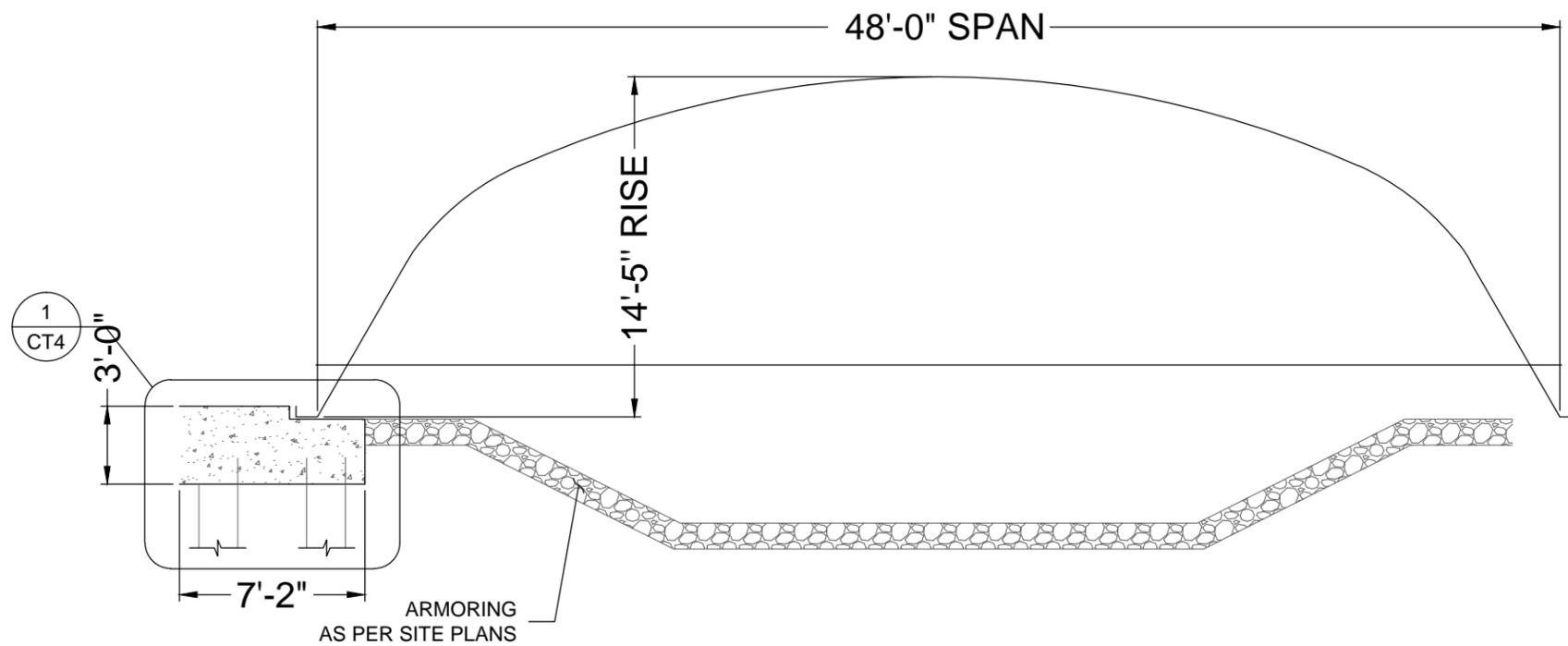
CONTECH
STRUCTURAL PLATE

PROPOSAL
DRAWING

BRIDGECOR TWO RADIUS ARCH 47'-11" X 14'-5"
COFFEE CREEK BRIDGE REPLACEMENT
BEULAH LANDFILL
CANTONMENT, FLORIDA

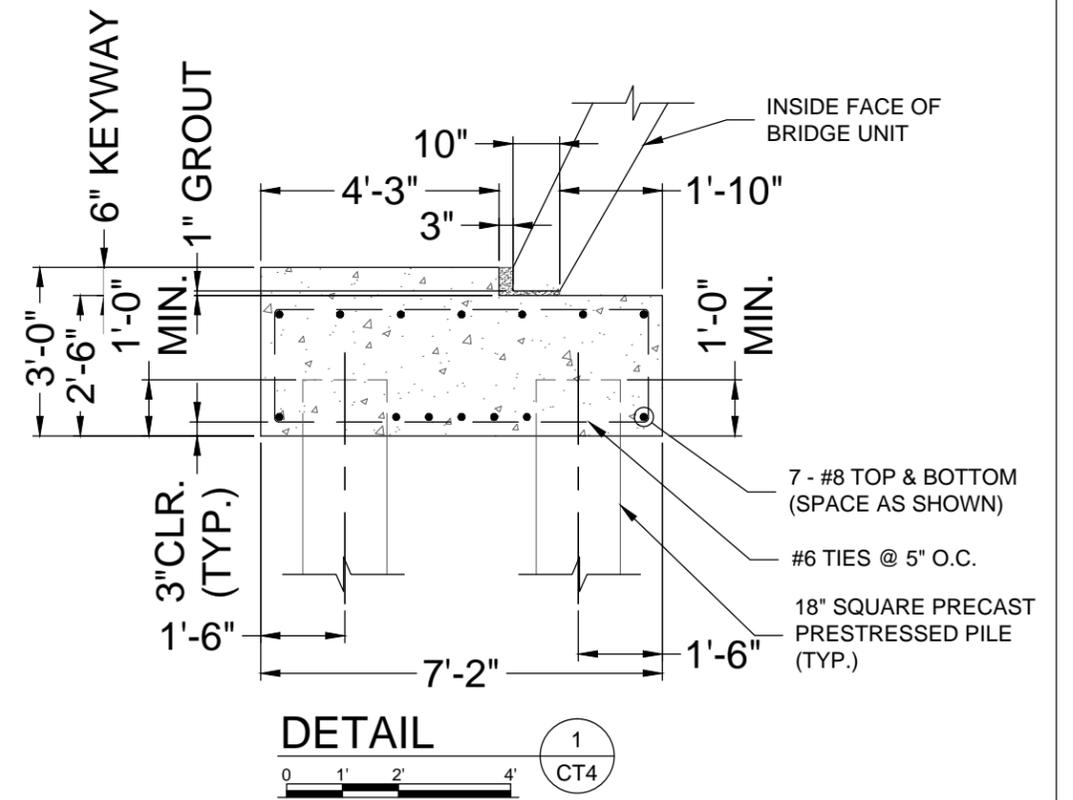
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DESIGNED:	DRAWN: TAG	
CHECKED:	APPROVED:	
SHEET NO.: CT4 OF CT7		

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PILE NOTES:

1. 18" SQUARE PRESTRESSED CONCRETE PILES SHALL BE PER FDOT DESIGN STANDARDS INDEX 20618.
2. PILES SHALL BE DRIVEN AS PER THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT FOR THIS PROJECT PREPARED BY LARRY M. JACOBS & ASSOCIATES, INC. DATED 9-10-2015.
3. APPROXIMATE PILE TIP ELEVATION IS -4.0 AS PER THE PROJECT GEOTECHNICAL REPORT.
4. PILE CAPACITIES SHALL BE VERIFIED BY A PDA AND THE DRIVING CRITERION ESTABLISHED INCORPORATING THE PDA RESULTS. GEOTECHNICAL ENGINEER SHALL HAVE A TECHNICIAN ON SITE DURING PILE DRIVING TO RECORD ALL PILE DRIVING RESULTS.



DETAIL
 0 1' 2' 4'
 1 CT4

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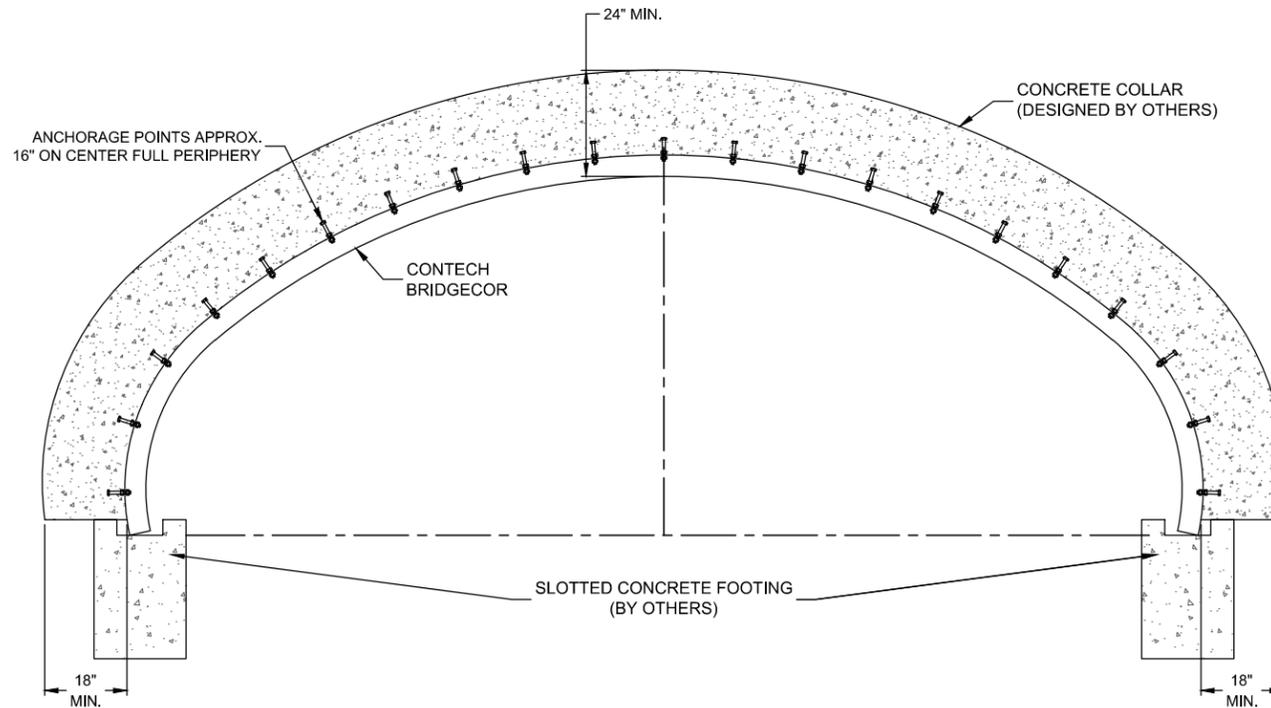
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PROPOSAL
DRAWING

BRIDGECOR TWO RADIUS ARCH 47'-11" X 14'-5"
COFFEE CREEK BRIDGE REPLACEMENT
BEULAH LANDFILL
CANTONMENT, FLORIDA

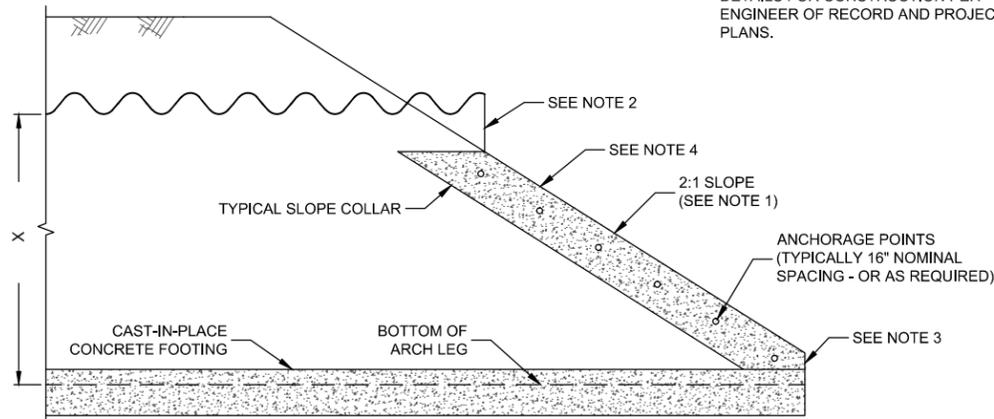
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NOTE:
TYPICAL DETAILS ARE SHOWN. ACTUAL DETAILS FOR CONSTRUCTION PER ENGINEER OF RECORD AND PROJECT PLANS.

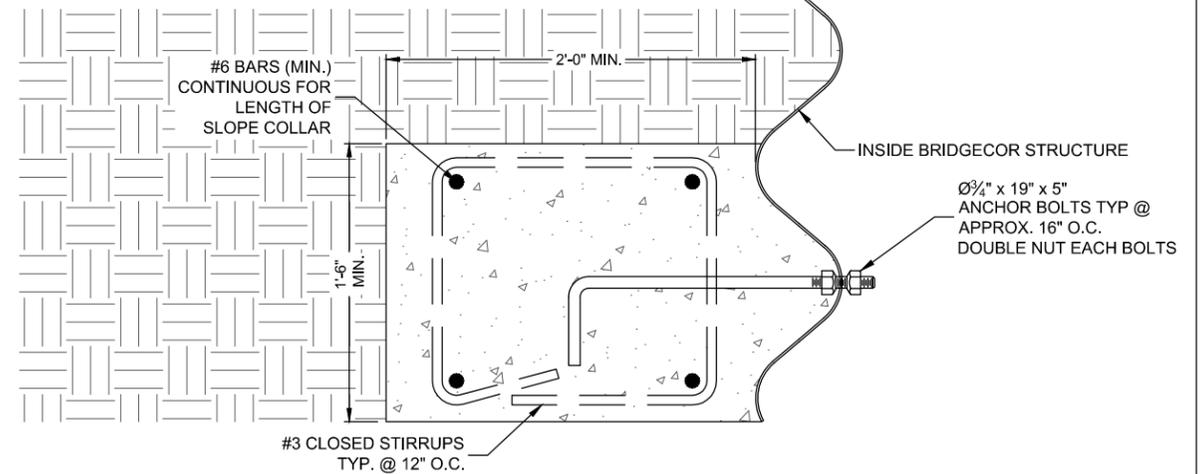
STANDARD HOOK OR ANCHOR BOLTS	
BOLT DIA. & LENGTH	TYPE
$\frac{3}{4}$ " X 6"	ANCHOR BOLT
$\frac{3}{4}$ " X 19" X 5"	HOOK BOLT



SECTION
NOT TO SCALE

NOTES:

1. IF FLATTER BEVELS ARE USED, THE CONTRACTOR MAY NEED TO BRACE OR OTHERWISE SUPPORT THE CUT END DURING BACKFILL OPERATIONS. STEEPER SLOPES REQUIRE CONFIRMATION FROM PROJECT ENGINEER THAT SLOPE STABILITY ISSUES HAVE BEEN CONSIDERED.
2. COORDINATE TOP STEP DIMENSION WITH PLATE LAYOUT AND EMBANKMENT CONTOURS.
3. COORDINATE BOTTOM STEP DIMENSION WITH PLATE LAYOUT AND STRUCTURE LENGTH FACTORS. HYDRAULIC FORCES AND APPLICABLE SCOUR ANALYSIS ALSO MUST BE TAKEN INTO CONSIDERATION. A MINIMUM 12" BOTTOM STEP IS RECOMMENDED.
4. TERMINATE SLOPE COLLAR AT ELEVATION APPROPRIATE FOR SITE CONDITIONS AND PROJECT REQUIREMENTS. THE SLOPE COLLAR SHOULD EXTEND AT LEAST TO THE BOTTOM OF THE TOP STEP.



TYPICAL SECTION OF SLOPE COLLAR
NOT TO SCALE

NOTE:

TYPICAL REQUIREMENTS SHOWN.
FINAL DESIGN BY OTHERS THAN CONTECH

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SHEET NO.: CT7 OF CT7		