

State of Illinois Department of Natural Resources

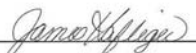
Office of Mines and Minerals
Division of Abandoned Mined Lands

Funded by the
United States Department of Interior
Federal Office of Surface Mining


Farmington Embankments
Reclamation Project
AML-GKnE-1411
Knox County

Prepared By IDNR Staff

Approved for Bidding:


James Haflinger, Acting Director
Office of Mines and Minerals

Approved By:


Greg Pinto, Acting Manager
AML Division

Contract No. M1411

Prepared By:





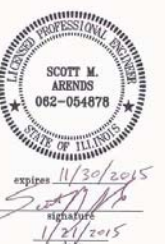
Hanson Professional Services Inc.
1525 S. 6th Street
Springfield, IL 62568
phone: 217-788-2450
fax: 217-788-2503



PROJECT LOCATION MAP

Pre-Bid Meeting:

A pre-bid meeting for this project is scheduled for 10:00 A.M. February 20, 2015 at the Farmington Municipal Building, 322 East Fort Street, Farmington, Illinois.

Structural	Geotechnical	Hydraulic
		



STATE MAP

Farmington Embankment
Knox County

SCHEDULE OF DRAWINGS:

1. Cover Sheet
2. Sheet Index and IDOT Standards List
3. Summary of Quantities and General Notes
4. Erosion Control Plan and Laydown Area
5. Existing West Site Demolition Plan
6. Existing East Site Demolition Plan
7. Site Development Plan
8. Proposed West Site Grading Plan
9. West Site Sections and Details
10. Proposed East Site Grading Plan
11. Proposed Outlet Structure Sections and Details
12. East Site Sections
13. Typical Details
14. Proposed Road Plan and Profile
15. Structural General Notes
16. Proposed Drop Inlet Structural Plans and Sections
17. Proposed Drop Inlet Structural Details and Sections
18. Proposed Energy Dissipator Plans and Sections
19. West Site Road Sections Sta. 0+00 to Sta. 4+00
20. East Site Road Sections Sta. 11+00 to Sta. 13+50
21. East Site Road Sections Sta. 14+00 to Sta. 16+00
22. East Site Road Sections Sta. 16+50 to Sta. 17+16
23. Boring Logs
24. Boring Logs

IDOT Standard Drawings Applicable to the Contract

- | | |
|-----------|--|
| 280001-07 | Temporary Erosion Control System |
| 542301-03 | Precast Reinforced Concrete Flared End Section |
| 602701-02 | Manhole Steps |
| 630001-10 | Steel Plate Beam Guardrail |
| 630301-06 | Traffic Barrier Terminal, Type 1 (Special) Tangent |
| 631011-09 | Traffic Barrier Terminal, Type 2 |
| 665001-02 | Woven Wire Fence |

SPACING LETTERS

4.0"
3.5"
3.0"
2.5"
2.0"
1.5"
1.0"
0.5"

**ABANDONED MINED LANDS
RECLAMATION PROJECT
STATE OF ILLINOIS**

BRUCE RAUNER, GOVERNOR

Department of Natural Resources
Wayne Rosenthal, Director

Funding provided by the US Department of the Interior
Office of Surface Mining, with fees paid by the Coal Industry



1. Furnishing, erecting and removing the sign shall be incidental to the contract.
2. The sign shall be painted on 1/2" or thicker exterior plywood (4' x 8'), color shall be black on white, and a 10" diameter Illinois state seal shall be provided by the D.N.R.
3. The posts shall be made of 4" x 4" wood or 2.5" metal pipe, and shall be 10' long. The sign shall be securely fastened to the posts with six 2.5" long, round head wood screws (for wood posts) or four 5" long, 3/8" diameter carriage bolts (for wood or metal posts).
4. The top of the sign shall be level with the top of the posts, and the posts shall be 1' from the edges of the sign. The posts shall be set in the ground 3', so that the bottom of the sign is 3' from the ground.

CONSTRUCTION SIGN DETAIL

EXACT LOCATION TO BE SET BY ENGINEER

State of Illinois
Department of Natural Resources

Farmington Embankments
Reclamation Project
AML-GKnE-1411
Knox County

Drawn By: SKB	Date: 01/27/2015
Checked By: SMA	01/21/2015
GLC	01/30/2015

Sheet Index and
IDOT Standards List
SHEET 2 of 24

SITE GENERAL NOTES

SUMMARY OF QUANTITIES

ITEM NO.	PAY ITEM	UNIT	QUANTITY WEST SITE	QUANTITY EAST SITE	TOTAL	
1	NRM20110	Special Clearing	L. Sum	-	1	
1	NRM20210	Earth Excavation	Cu Yd	2251	7455	
1	NRM20510	Dam Embankment	Cu Yd	-	7554	
	21001000	Geotechnical Fabric For Ground Stabilization	Sq Yd	889	1149	2038
	25000200	Seeding, Class 2	Acre	.5	3.5	4
1	NRM25040	Nitrogen Fertilizer Nutrient	Pound	120	840	960
1	NRM25050	Phosphorus Fertilizer Nutrient	Pound	100	700	800
1	NRM25060	Potassium Fertilizer Nutrient	Pound	250	1750	2000
1	NRM25070	Agricultural Limestone	Ton	1	7	8
	25100115	Mulch Method 2, Procedure 1	Acre	-	2	2
1	NRM25810	Mowing	Acre	.5	3.5	4
	28000400	Perimeter Erosion Barrier (Silt Filter Fence)	Foot	850	2800	3650
	28000500	Inlet and Pipe Protection	Each	1	-	1
	28100107	Stone Riprap A4 (RR4)	Sq Yd	-	748	748
	28100109	Stone Riprap A5 (RR5)	Sq Yd	240	240	480
	28200200	Filter Fabric	Sq Yd	240	988	1228
1	NRM28610	Special Excelsior Blanket	Sq Yd	2130	5614	7744
	35100700	Aggregate Base Course, Type A, 8"	Ton	405	525	930
	40200800	Aggregate Surface Course, Type B	Ton	202	263	465
	48100300	Aggregate Shoulder Type A 4"	Sq Yd	178	232	410
	50105220	Pipe Culvert Removal	Foot	125	146	271
	50200100	Structure Excavation	Cu Yd	-	66	66
	50200300	Cofferdam Excavation	Cu Yd	-	3600	3600
1	50201101	Cofferdam (Location - 1)	Each	-	1	1
1	50201102	Cofferdam (Location - 2)	Each	-	1	1
1	50201103	Cofferdam (Location - 3)	Each	1	-	1
1	50201104	Cofferdam (Location - 4)	Each	1	-	1
	50300225	Concrete Structures	Cu Yd	-	151	151
	50800205	Reinforcement Bars, Epoxy Coated	Pound	-	34250	34250
	50901760	Pipe Handrail	Foot	-	121	121
	542A4057	Pipe Culverts, Class A, Type 6, 72" (Reinforced Concrete)	Foot	170	-	170
1	NRM54210	Concrete Pressure Pipe, 42"	Foot	-	176	176
	54213717	Precast Reinforced Concrete Flared End Sections 72"	Each	2	-	2
1	NRM55010	Ductile Iron Pipe Vent, 8" Dia.	L. Sum	-	-	1
1	NRM60110	Toe Drain and Graded Filter	L. Sum	-	1	1
1	NRM60410	Trash Rack - Drop Inlet Structure	L. Sum	-	1	1
	63000001	Steel Plate Beam Guardrail Type A 6 ft Spacing	Foot	400	600	1000
	63100045	Traffic Barrier Terminal, Type 2	Each	2	2	4
	63100167	Traffic Barrier Terminal, Type 1 (Special) Tangent	Each	2	2	4
	63200310	Guardrail Removal	Foot	450	957	1407
	66500105	Woven Wire Fence, 4', Metal Posts	Foot	550	696	1246
	66501400	Woven Wire Gates, 4'x12' Double	Each	-	1	1
	67000500	Engineer's Field Office Type B	Cal. Mo.	-	-	6
1	NRM67110	Mobilization	L. Sum	-	-	1
	78201000	Terminal Marker - Direct Applied	Each	2	2	4
1	X0327195	Concrete Pipe Cradle	Cu Yd	-	126	126
2	X0327691	Grating for Concrete Flared End Sections	Each	2	-	2
1	X5504210	Ductile Iron Pipe Storm Sewers, 12"	Foot	-	50	50
2	X6040205	Frames and Lids, Special	Each	-	1	1
2	X6330725	Steel Plate Beam Guardrail (Short Radius)	Foot	-	125	125
1	XX004656	Embankment	Cu Yd	1200	-	1200
1	XX004897	Gate Valve 12" Ductile Iron & Operator	Each	-	1	1
2	Z0004002	Bollards	Each	-	5	5
1	Z0022800	Fence Removal	Foot	672	653	1325

- See Special Provisions
- See Plan Details

GENERAL

- "IDOT STANDARD SPECIFICATIONS", WHERE REFERENCED IN THE PLANS OR TECHNICAL SPECIFICATIONS, REFERS TO THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012, AND THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2015, BOTH PUBLISHED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT).
- PRIOR TO PERFORMING ANY WORK IN OR ON THE RIGHT OF WAY OF ANY PUBLIC R.O.W., THE CONTRACTOR SHALL NOTIFY THE PUBLIC AGENCY ENGINEER'S OFFICE. THE CONTRACTOR SHALL ERECT WARNING SIGNS AND BARRICADES TO PROTECT THE TRAVELING PUBLIC AND HIS WORKERS. THE SIGNING AND BARRICADING SHALL CONFORM TO THE APPROPRIATE APPLICATIONS OUTLINED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES OR AS OTHERWISE DIRECTED BY THE PUBLIC AGENCY ENGINEER. IF PERMITS ARE REQUIRED TO CONDUCT THE WORK ON PUBLIC R.O.W., THE CONTRACTOR SHALL SECURE THE PERMITS AND SUPPLY THEM TO THE OWNER AT NO ADDITIONAL COSTS.
- ALL SECTIONS, DETAILS, AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN.
- ANY EXISTING ADJACENT PAVEMENT DAMAGED DURING REMOVAL SHALL BE REPLACED WITH PAVING MATERIALS MATCHING IN KIND THE EXISTING PAVEMENT.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. IF CONDITIONS VARY FROM THOSE INDICATED ON THE DRAWINGS, THE OWNER SHALL BE NOTIFIED AND NO WORK SHALL BE DONE IN THE AREA WITHOUT HIS APPROVAL.
- THE CONTRACTOR SHALL COORDINATE WORK AND COOPERATE WITH OTHER SUBCONTRACTORS ON ADJACENT AND CONCURRENT WORK.
- SCALE FOR THE DRAWINGS IS FOR GENERAL INFORMATION ONLY. LOCATIONS AND DIMENSIONS SHALL BE TAKEN AS SHOWN AND NOT SCALED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS PROJECT, ORDERING MATERIALS, OR BEGINNING CONSTRUCTION.
- CONTRACTOR'S WORK ACTIVITIES SHALL BE RESTRICTED TO AREAS WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTOR'S ACTIVITIES AND VEHICLES SHALL NOT BE ALLOWED OUTSIDE OF THESE LIMITS UNLESS APPROVED BY THE OWNER.
- DISTURBED EARTH SURFACES SHALL BE SEEDED PER THE PROJECT SPECIFICATIONS.

SURVEY AND LAYOUT

- WHERE SECTION, SUB-SECTION, SUBDIVISION, OR PROPERTY MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS UNTIL AN OWNER OR AUTHORIZED SURVEYOR HAS WITNESSED OR REFERENCED THEIR LOCATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING ANY PROPERTY MONUMENTS THAT BECOME DAMAGED OR DESTROYED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER ALIGNMENT (VERTICAL AND HORIZONTAL) AT ALL INTERFACES BETWEEN NEW AND EXISTING WORK TO ASSURE PROPER INSTALLATION AND USAGE.

CONTACT INFORMATION

MR. JIM GREGG, NORTHERN ILLINOIS REGIONAL MANAGER
ILLINOIS DEPARTMENT OF NATURAL RESOURCES
(217) 785-5190

HANSON PROFESSIONAL SERVICES, INC.
GARY CLACK, PROJECT MANAGER
(217) 747-9321

UTILITIES

- THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRS TO ANY EXISTING FIELD TILE DAMAGED AS A RESULT OF THE WORK.
- ALL WORK AND EXCAVATIONS NEAR AND AROUND EXISTING STRUCTURES AND UTILITIES SHALL BE BY HAND METHODS.

STORM WATER POLLUTION PREVENTION PLAN

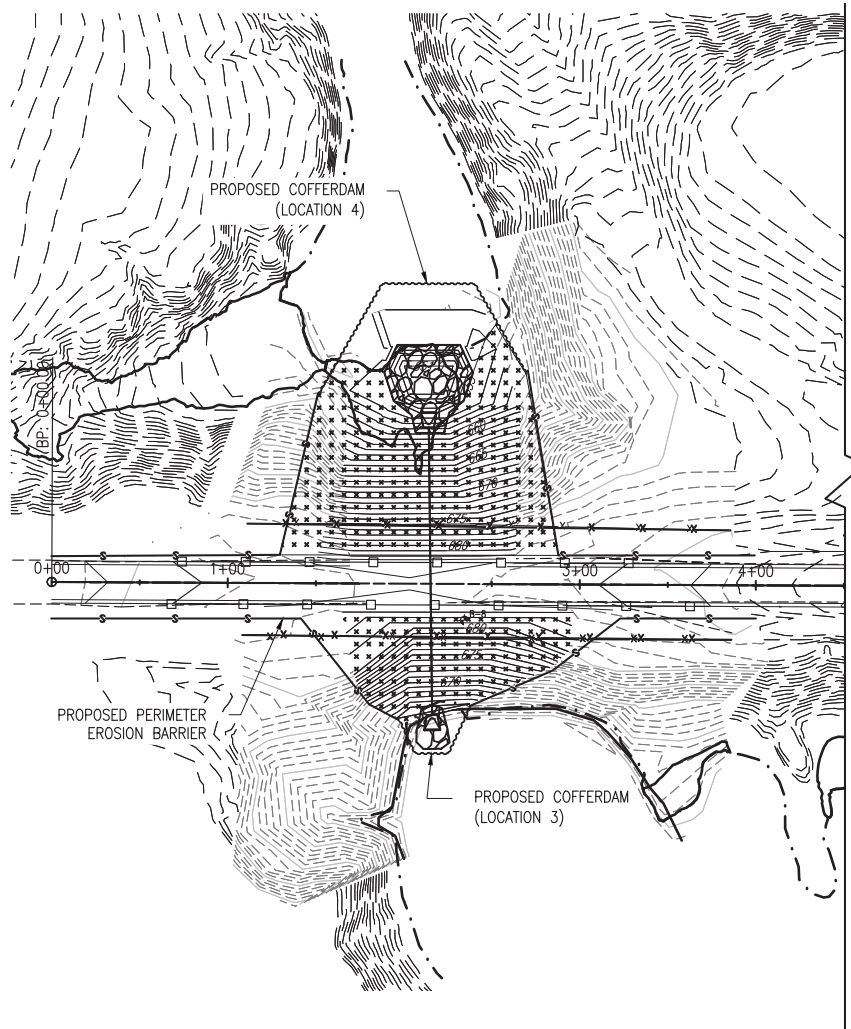
THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL FOLLOW THE STORM WATER POLLUTION PREVENTION PLAN INCLUDED IN THE SPECIFICATIONS.

EARTHWORK

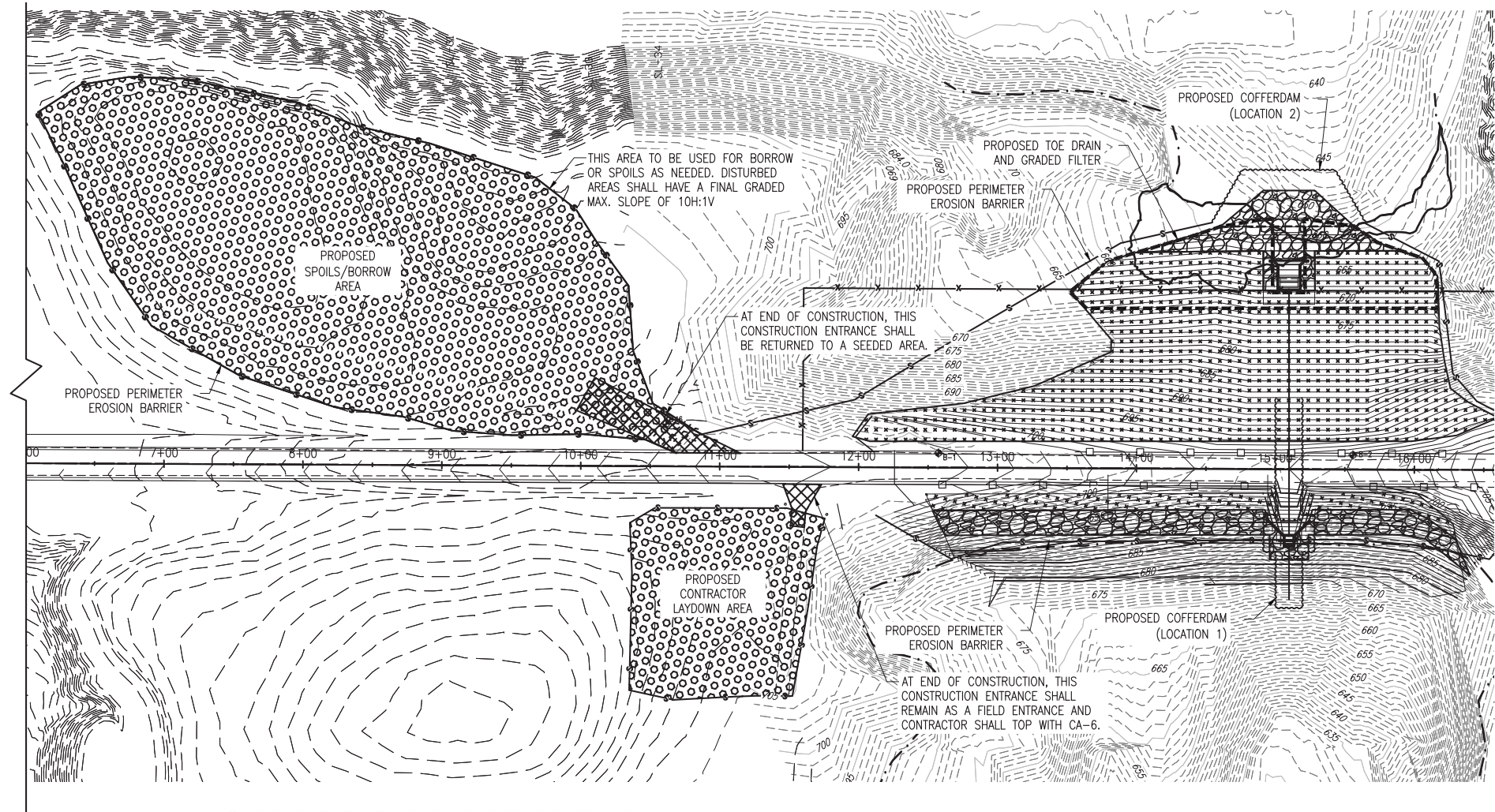
- CONTRACTOR IS RESPONSIBLE FOR THE SITE RESTORATION AND LANDSCAPING WITHIN THE CONSTRUCTION LIMITS.
- ALL OPEN EXCAVATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P- "EXCAVATIONS". THE SUBCONTRACTOR SHALL DESIGNATE A QUALIFIED "COMPETENT PERSON" AS DEFINED IN OSHA SECTION 1926.650(b) PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION ACTIVITIES.
- NO BACKFILL SHALL BE PLACED AGAINST CAST-IN-PLACE CONCRETE STRUCTURES UNTIL THE CONCRETE HAS ATTAINED ITS SPECIFIED 28 DAY DESIGN COMPRESSIVE STRENGTH.
- BACKFILL SHALL BE PLACED AND COMPACTED IN UNIFORM HORIZONTAL LAYERS IN ACCORDANCE WITH THE SPECIFICATIONS.

SCHEDULE OF SEEDING, FERTILIZER NUTRIENTS, MULCH & MOWING

ITEM	APPLICATION RATE	August 15, 2015 - September 15, 2015	April 1, 2016 - May 1, 2016	May 1, 2016 - June 1, 2016	TOTAL QUANTITY
Seeding, Class 2	Per Specifications	4 Acres	-	-	4 Acres
Agricultural Limestone	2 Tons/Acre	8 Tons	-	-	8 Tons
Nitrogen Fertilizer Nutrient	120 Pounds/Acre	480 Pounds	-	480 Pounds	960 Pounds
Phosphorus Fertilizer Nutrient	100 Pounds/Acre	400 Pounds	-	400 Pounds	800 Pounds
Potassium Fertilizer Nutrient	250 Pounds/Acre	1000 Pounds	-	1000 Pounds	2000 Pounds
Special Excelsior Blanket	Sq Yd	7744 Sq Yd	-	-	7744 Sq Yd
Mulch Method 2, Procedure 1	Per Specifications	2 Acres	-	-	2 Acres
Mowing	Acres	-	4 Acres	-	4 Acres



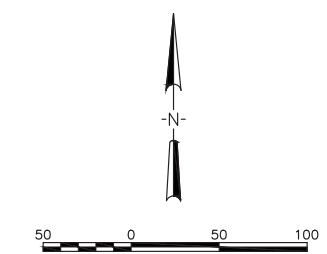
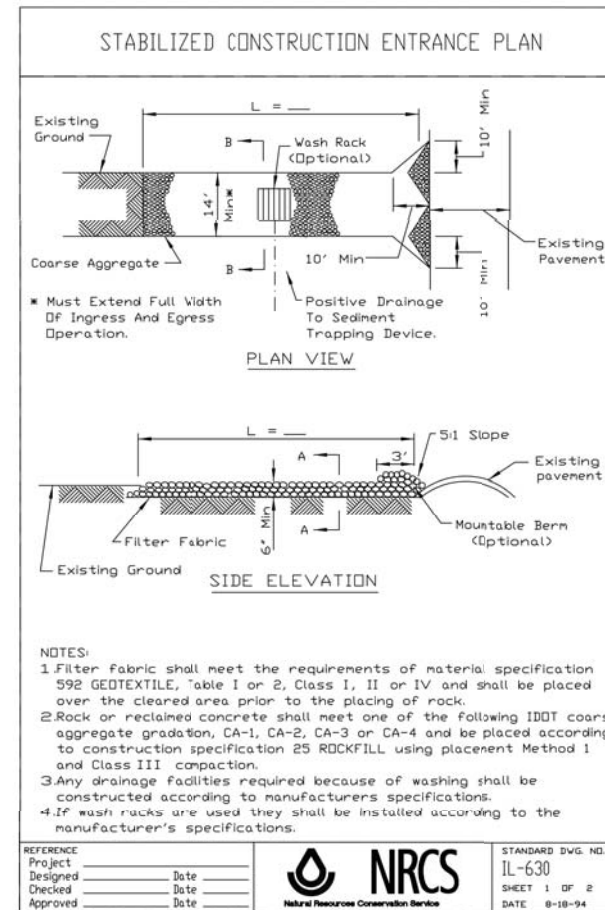
WEST SITE



EAST SITE

EROSION CONTROL NOTES:

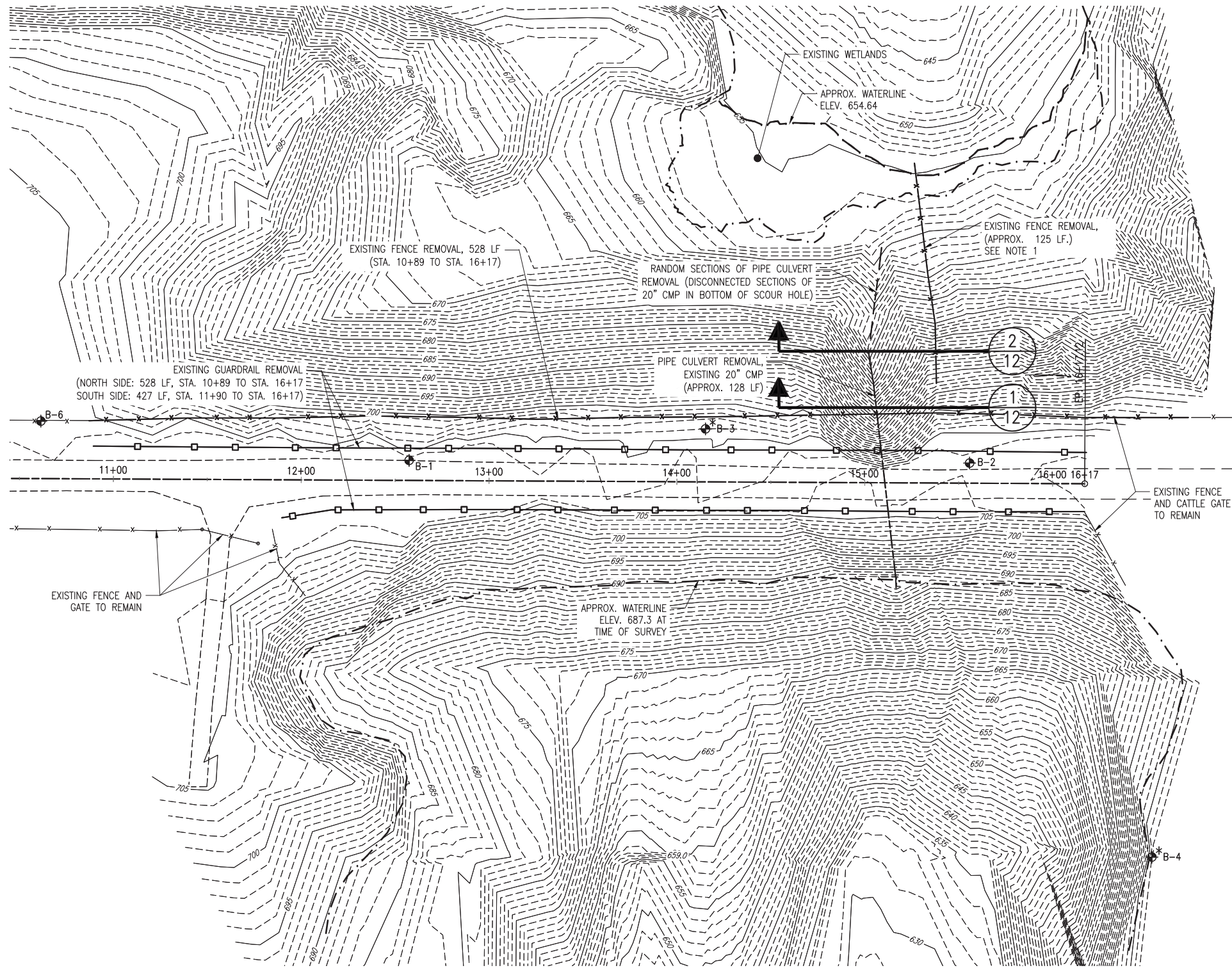
1. THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH THE PROVISIONS OF THE GENERAL PERMIT AND MUST BECOME A PARTY TO THE DEPARTMENT OF NATURAL RESOURCES; OFFICE OF MINES AND MINERALS; DIVISION OF ABANDONED MINED LANDS RECLAMATION STORM WATER POLLUTION PREVENTION PLAN. CONTRACTOR WILL NOT BE SUBJECT TO A PERMIT APPLICATION FEE.
2. THE CONTRACTOR SHALL PROVIDE A STABILIZED CONSTRUCTION ENTRANCE AT LOCATIONS SHOWN ON THE PLANS. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE REMOVED AT THE COMPLETION OF CONSTRUCTION AND THE EXISTING ACCESS ROAD RE-ESTABLISHED TO PRE-CONSTRUCTION CONDITION. RIP RAP USED TO CREATE THE ACCESS ROAD SHALL BE REMOVED AND LEGALLY DISPOSED.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN STORM WATER DRAINAGE FLOWS AT ALL TIMES DURING THE PERFORMANCE OF THE WORK. SURFACE WATER RUNOFF SHALL BE CONTROLLED IN SUCH A MANNER TO PREVENT PONDING.
4. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY INSTALLED AND FUNCTIONING PRIOR TO CONSTRUCTION IN AN AREA.
5. THE CONTRACTOR SHALL IMPLEMENT A DAILY INSPECTION PROGRAM OF THE EROSION AND SEDIMENT CONTROL MEASURES AND MAINTAIN THESE MEASURES IN A FUNCTIONAL CONDITION.
6. CUT AND FILL SLOPES AND STOCKPILED MATERIAL SHALL BE PROTECTED TO PREVENT EROSION.
7. PLACE PERIMETER EROSION BARRIER AT LOCATIONS SHOWN ON THE PLANS. PERIMETER EROSION BARRIER SHALL ALSO BE APPLIED AT AREAS TO BE DETERMINED BY THE CONTRACTOR AT ANY LOCATION AROUND THE PERIMETER OF THE SITE WHERE STORM WATER RUNOFF OCCURS. PERIMETER EROSION BARRIER SHALL ALSO BE APPLIED AROUND ALL SUBSOIL AND TOPSOIL STOCKPILE AREAS.
8. ALL EROSION CONTROL MEASURES WILL BE INSPECTED ONCE PER WEEK AND FOLLOWING ANY STORM EVENT OF 1/2" OR GREATER. ALL EROSION CONTROL MEASURES SHALL BE FUNCTIONAL. ANY REPAIR SHALL BE MADE AS SOON AS IT IS REASONABLE. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED.
9. EROSION CONTROL MEASURES SHALL BE MAINTAINED ON SITE UNTIL SEEDING INSTALLATION IS COMPLETE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN TEMPORARY EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION.



LEGEND

- XXXXXX SEEDING CLASS 2 & SPECIAL EXCELSIOR BLANKET
- OOOOO SEEDING CLASS 2 & MULCH METHOD 2, PROCEDURE 1
- S PERIMETER EROSION BARRIER
- XXXXXX SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE (INCLUDED WITH EARTH EXCAVATION)
- OOOOO STONE RIPRAP AREAS
- TOE DRAIN AND GRADED FILTER LIMITS

EXISTING ON-SITE ROADWAYS MAY BE USED FOR CONSTRUCTION TRAFFIC. THE CONTRACTOR SHALL PROVIDE TEMPORARY ADDITIONAL ROADS NEEDED FOR REQUIRED CONSTRUCTION ACCESS, MAINTAIN EXISTING ROADS THROUGHOUT CONSTRUCTION, AND RESTORE TO ORIGINAL OR BETTER CONDITION AT COMPLETION OF WORK.



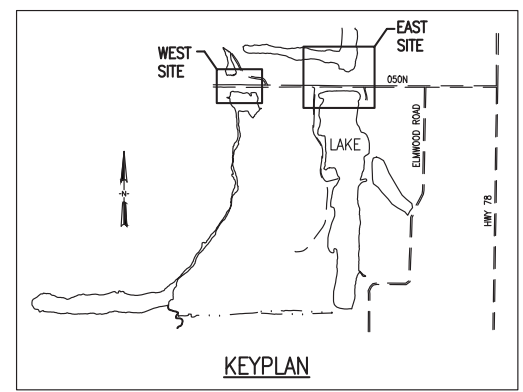
LEGEND

— x — x —	EXISTING FENCE
— □ — □ —	EXISTING GUARDRAIL
— — — —	EXISTING CONTOURS
- - - - -	EDGE OF WATER
⊕	BORINGS
— x — x —	FENCE REMOVAL
— □ — □ —	GUARDRAIL REMOVAL

DEMOLITION NOTES:

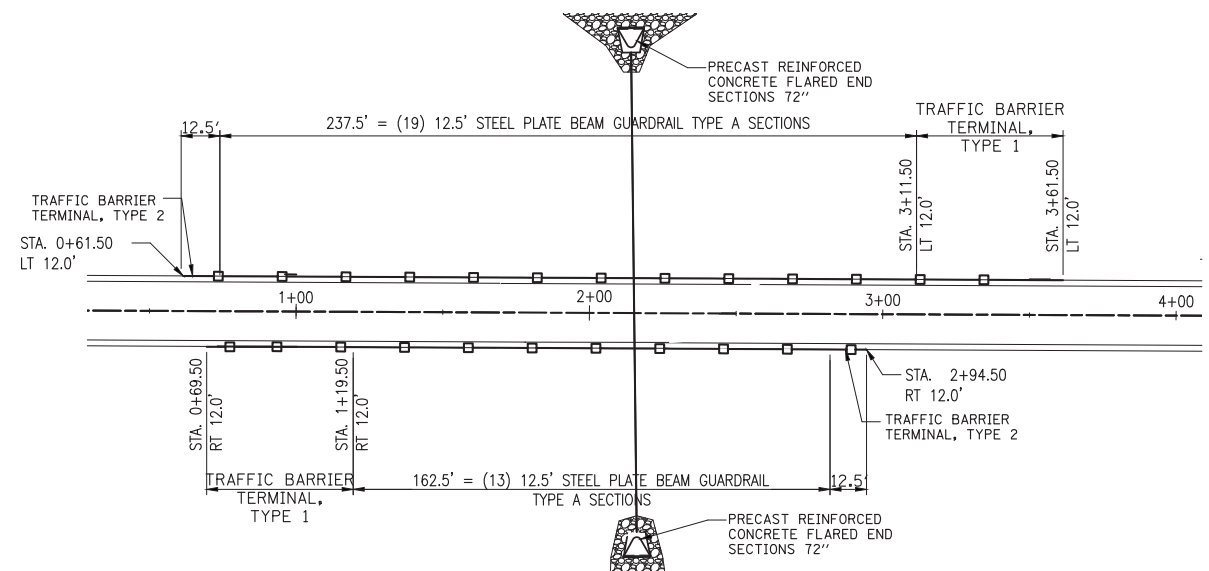
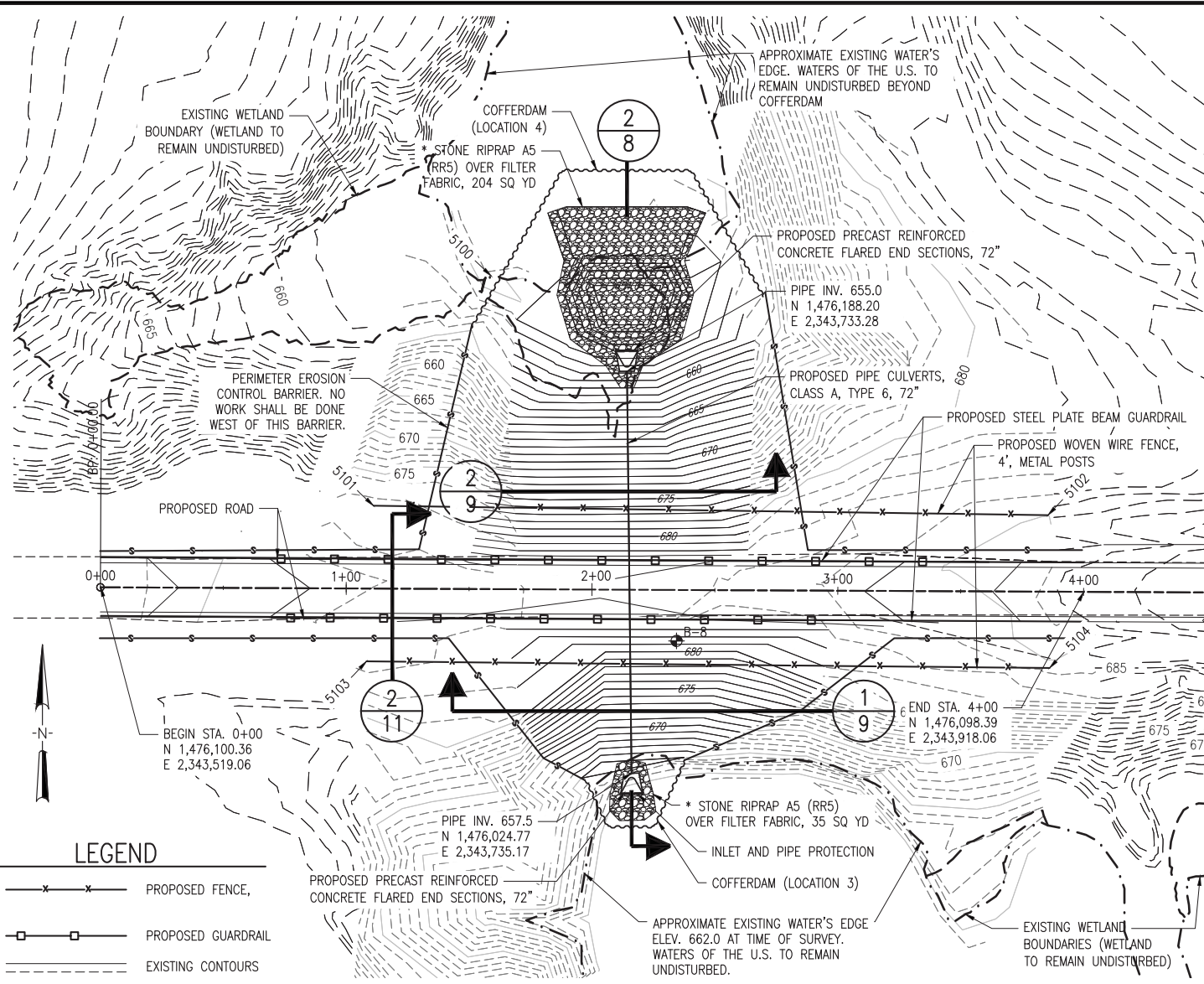
1. CATTLE GATES TO BE REMOVED SHALL BE STOCKPILED WITHIN THE PROJECT LIMITS AS DETERMINED BY THE ENGINEER.
2. EXISTING FENCE IS 5 STRAND BARBED WIRE WITH ELECTRIC. PROPERTY OWNERS WILL DE-ENERGIZE ELECTRIC FENCE. CONTRACTOR TO COORDINATE TIMING WITH ENGINEER.

1 EAST SITE DEMOLITION PLAN
 SCALE: 1" = 30'

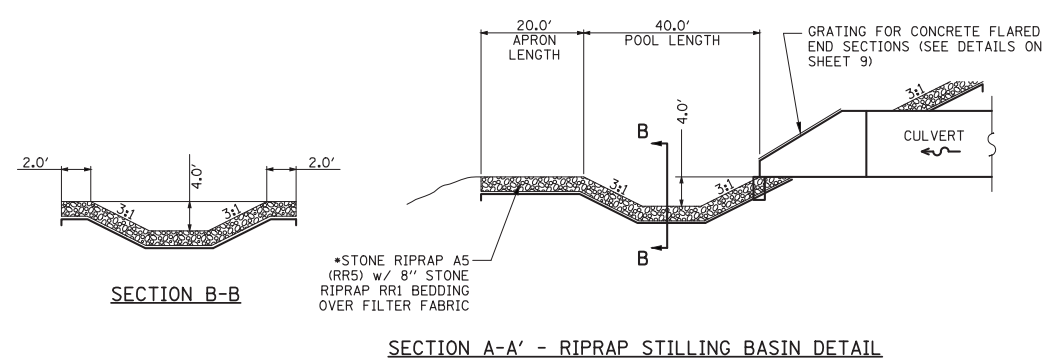
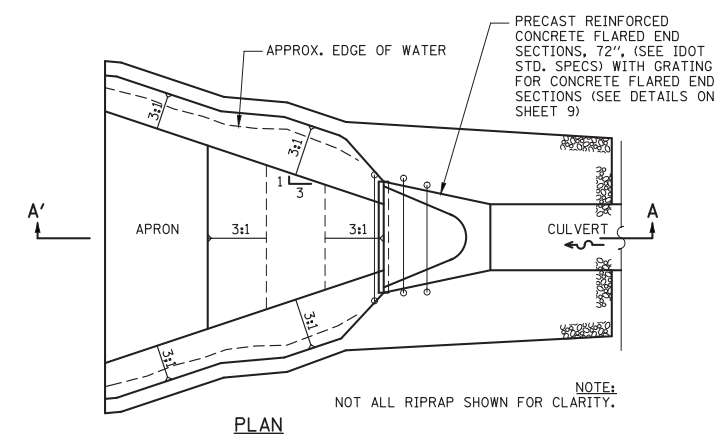
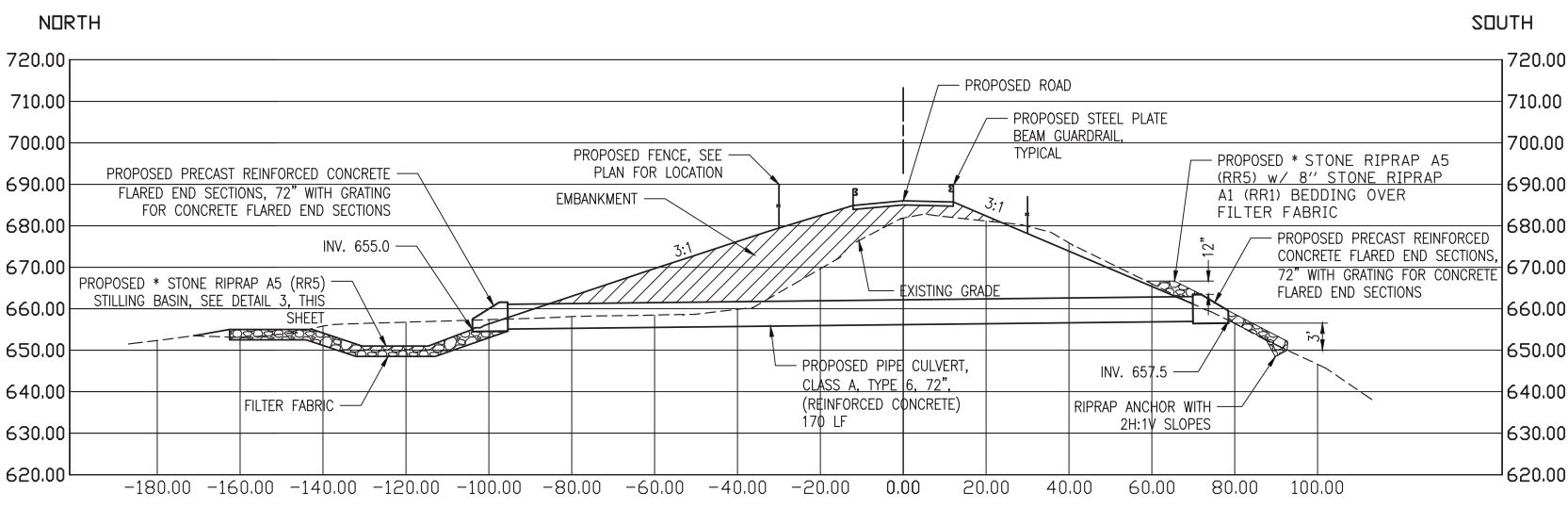


Drawn By: SKB	Date: 01/27/2015
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GLC	01/30/2015
MD	01/30/2015

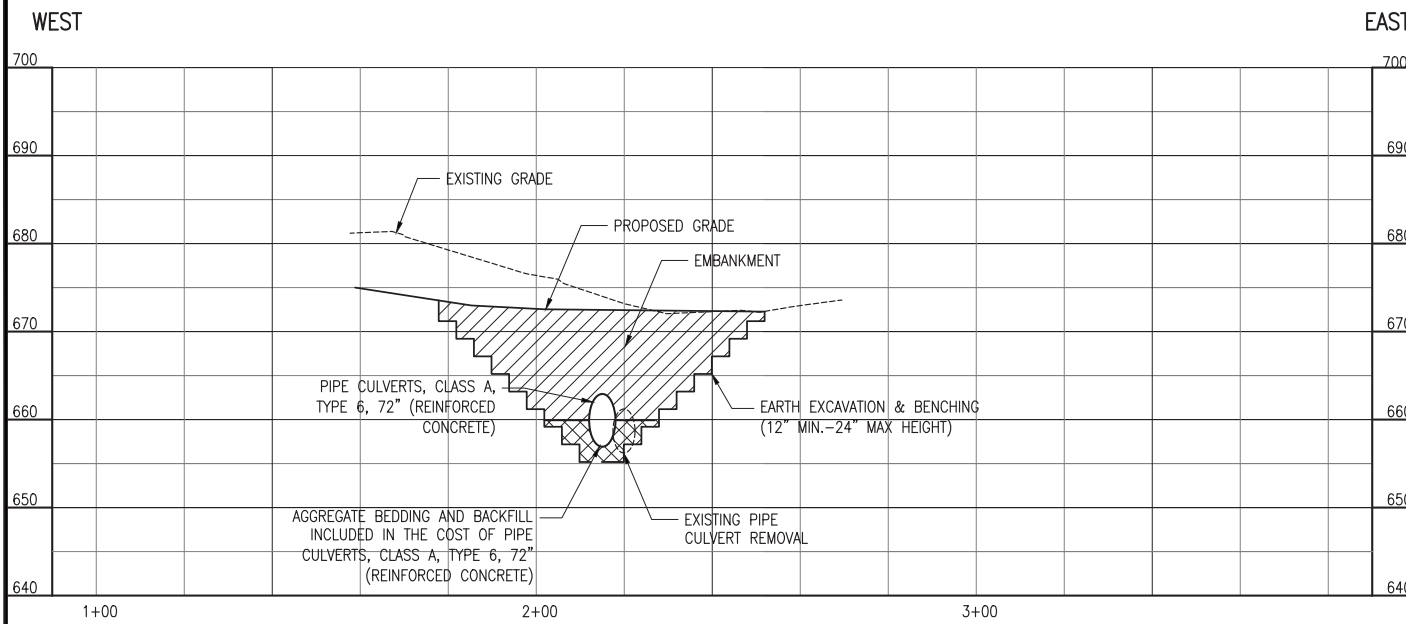
PROPOSED FENCE & GUARDRAIL POINT DATA			
POINT #	NORTHING	EASTING	DESCRIPTION
5100	1476227.0071	2343678.0676	TEMPORARY FENCE
5101	1476133.5544	2343630.1532	PROPOSED FENCE & TEMPORARY FENCE
5102	1476129.6943	2343904.5943	PROPOSED FENCE
5103	1476070.2653	2343627.3106	PROPOSED FENCE
5104	1476067.5258	2343905.2157	PROPOSED FENCE



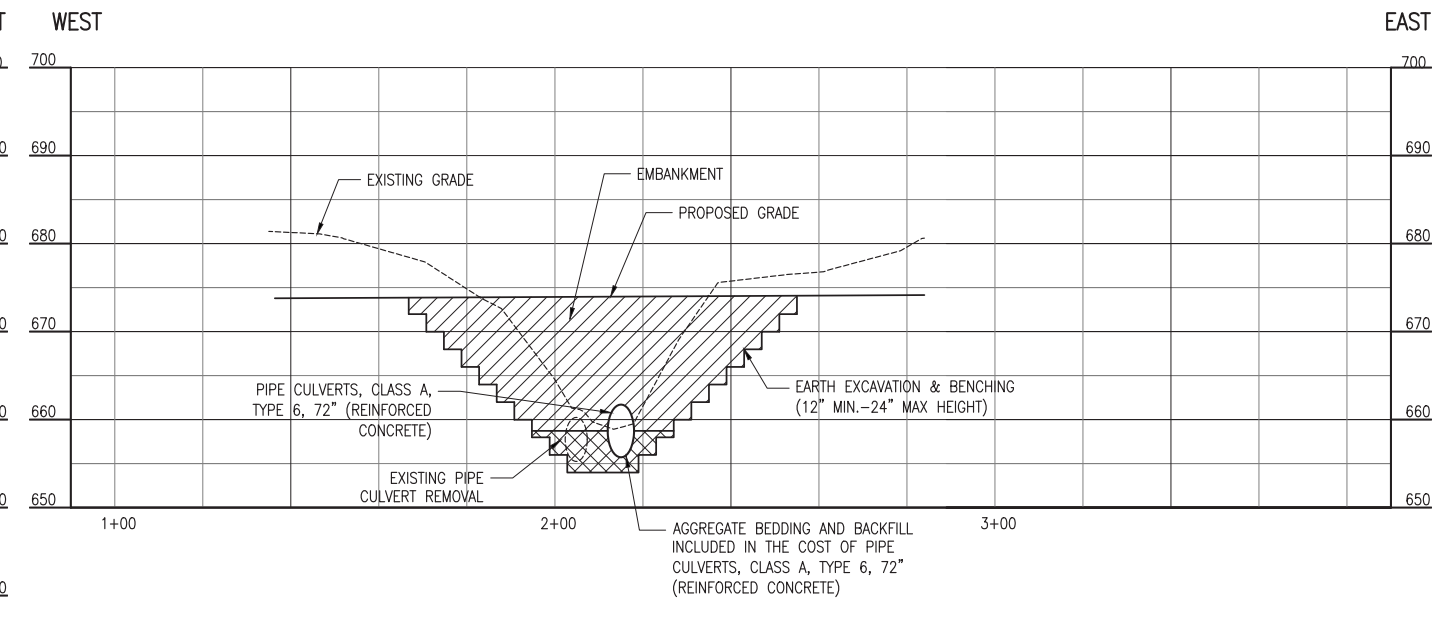
NOTE:
* INDICATES THAT STONE RIPRAP A1 (RR1) BEDDING IS INCLUDED IN THE COST OF THE STONE RIPRAP A5 (RR5). FILTER FABRIC IS MEASURED AND PAID FOR AS FILTER FABRIC.



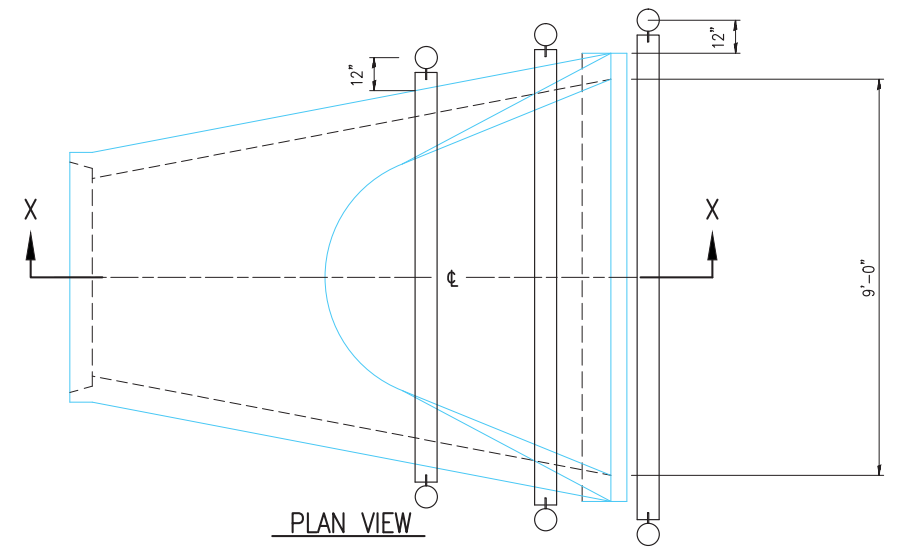
FEB 03 2015 10:40 AM BRANSO0939
I:\12085\1208080\CAD\SITE\8-SHEET\8-WEST SITE PLAN.DWG



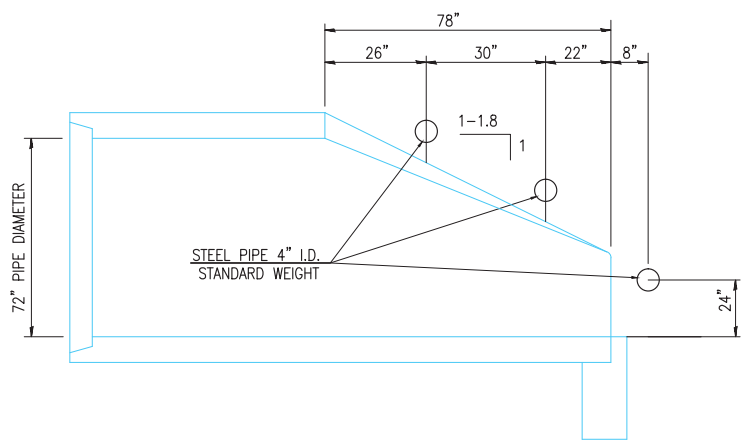
1 CROSS SECTION AT 50 FT SOUTH OF ROAD CENTERLINE
 SCALE: 1"=20' HORIZONTAL
 1"= 10' VERTICAL



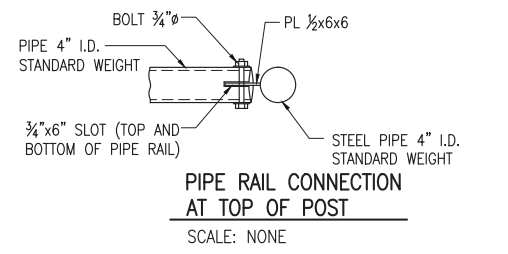
2 CROSS SECTION AT 40 FT NORTH OF ROAD CENTERLINE
 SCALE: 1"=20' HORIZONTAL
 1"= 10' VERTICAL



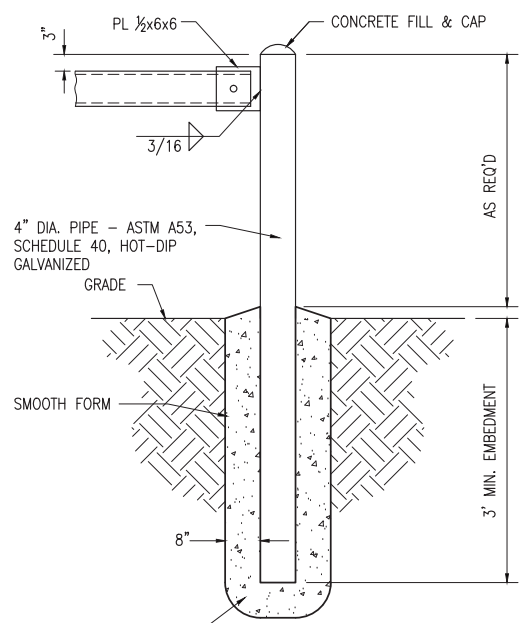
PLAN VIEW



SECTION X-X



PIPE RAIL CONNECTION
 AT TOP OF POST
 SCALE: NONE



GRATING POST DETAIL
 SCALE: NONE

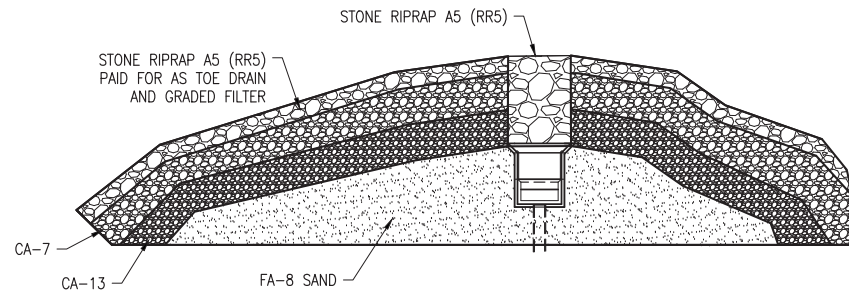
3 GRATING FOR CONCRETE FLARED END SECTION
 SCALE: NONE

GRATING NOTES

1. BOLTS AND NUTS SHALL CONFORM TO A.S.T.M. A307, AND SHALL BE GALVANIZED IN ACCORDANCE WITH A.A.S.H.T.O. M232. ALL BOLTS SHALL HAVE WASHERS AT EACH END. HOLES SHALL BE 7/8" FOR 3/4" BOLTS.
2. STEEL PLATES SHALL CONFORM TO A.A.S.H.T.O. M183. STEEL PIPES SHALL CONFORM TO A.S.T.M. A53 GRADE B.
3. STEEL PIPES AND PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH A.A.S.H.T.O. M-111.
4. THE CONTRACTOR SHALL VERIFY THE PIPE LENGTHS AND HOLE LOCATIONS PRIOR TO CUTTING THE PIPES TO LENGTH OR DRILLING HOLES.
5. ASSEMBLY OF THREE PIPE RAILS, SIX POSTS, CONCRETE ENCASEMENT AND POST FILL WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "GRATING FOR CONCRETE FLARED END SECTIONS" WHICH PRICE SHALL INCLUDE FABRICATION, GALVANIZING AND INSTALLATION OF THE GRATING ASSEMBLY AS DETAILED.

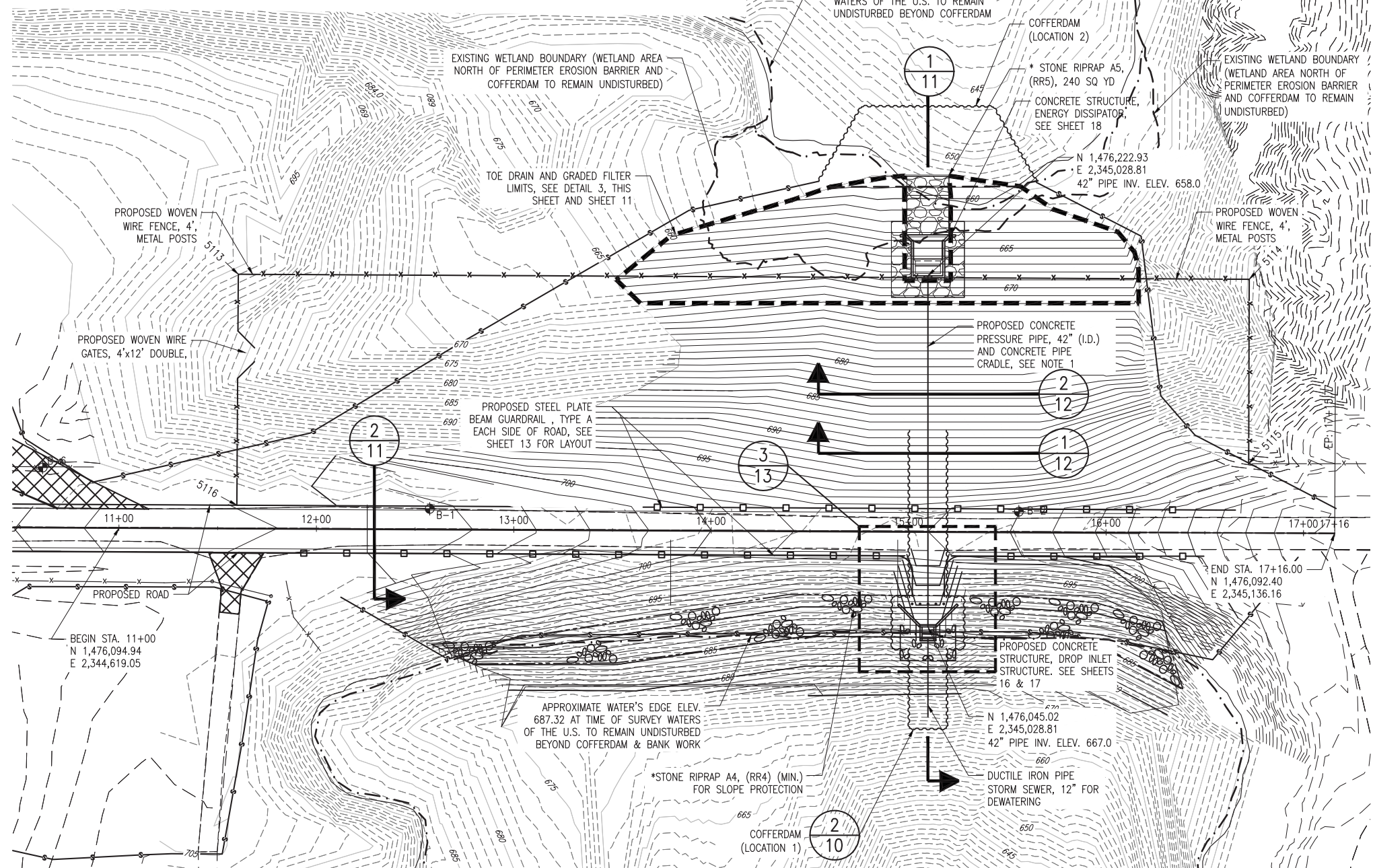
FEB 03, 2015 10:42 AM BRANS00939 I:\2\085\1260860\CAD\SITE\SHEET\9 - W SECTIONS.DWG

Drawn By: SKB	Date: 01/27/2015
Checked By: SMA	01/21/2015
	01/30/2015

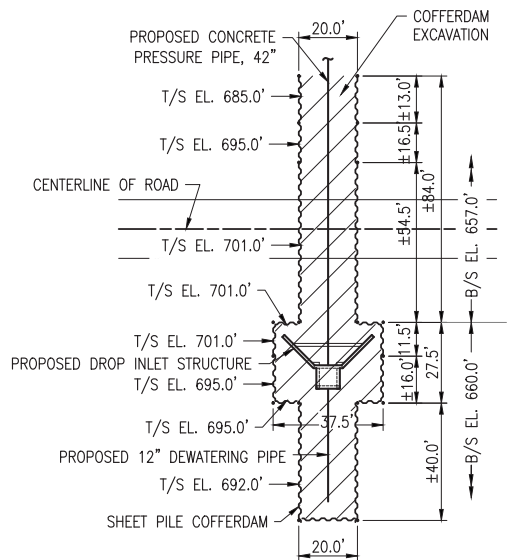


3 TOE DRAIN AND GRADED FILTER DETAIL (PLAN VIEW)
SCALE: 1" = 30'

PROPOSED FENCE & GUARDRAIL POINT DATA			
POINT #	NORTHING	EASTING	DESCRIPTION
5112	1476112.0146	2344678.8255	PROPOSED FENCE
5113	1476223.6531	2344679.5109	PROPOSED FENCE
5114	1476221.1303	2345191.5484	PROPOSED FENCE
5115	1476127.6640	2345191.2417	PROPOSED FENCE



NOTE:
* INDICATES THAT STONE RIPRAP A1 (RR1) BEDDING WILL BE INCLUDED IN THE COST OF STONE RIPRAP A4 (RR4) AND STONE RIPRAP A5 (RR5). FILTER FABRIC IS MEASURED AND PAID FOR AS FILTER FABRIC.

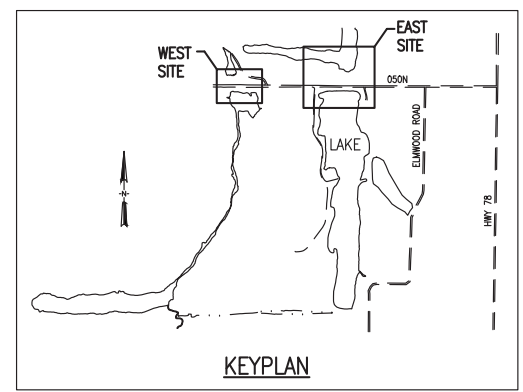


2 COFFERDAM PLAN LOCATION 1
SCALE: 1" = 30'
(FINAL COFFERDAM CONFIGURATION IS SUBJECT TO DESIGN BY CONTRACTOR.)

- LEGEND**
- x — x — PROPOSED WOVEN WIRE FENCE,
 - □ — □ — PROPOSED GUARDRAIL
 - — — — — EXISTING CONTOURS
 - — — — — PROPOSED CONTOURS
 - - - - - EDGE OF WATER
 - ⊕ BORINGS
 - S — PERIMETER EROSION BARRIER

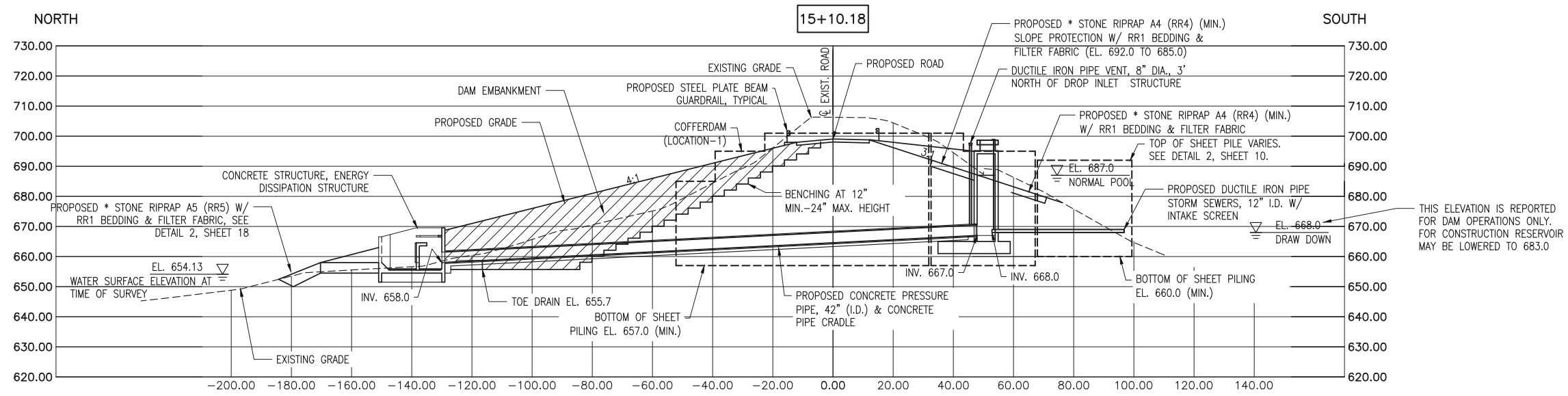
1 PROPOSED EAST SITE GRADING PLAN
SCALE: 1" = 30'

- NOTES:**
- 42" PIPE INVERTS LABELED ARE TO INSIDE FACE OF STRUCTURES.
 - CONTRACTOR TO AVOID ALL WETLAND AREAS AND WATERS OF U.S. OUTSIDE OF IDENTIFIED CONSTRUCTION AREAS.

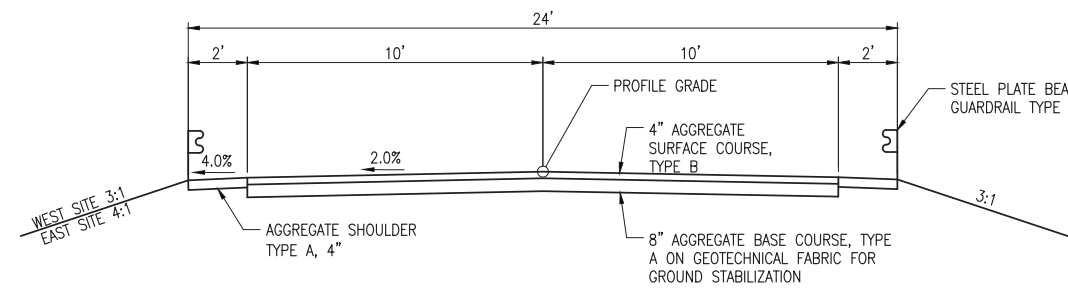


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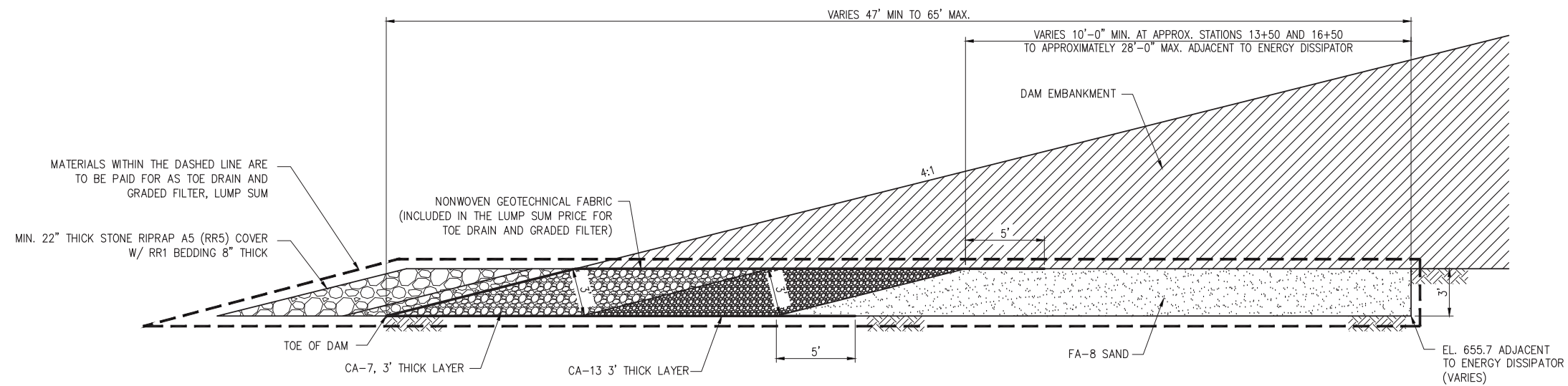
Drawn By: SKB Date: 01/27/2015
Checked By: SMA Date: 01/21/2015
GLC Date: 01/30/2015
MD Date: 01/30/2015



1 CROSS SECTION AT PROPOSED OUTLET STRUCTURE
SCALE: 1" = 20'



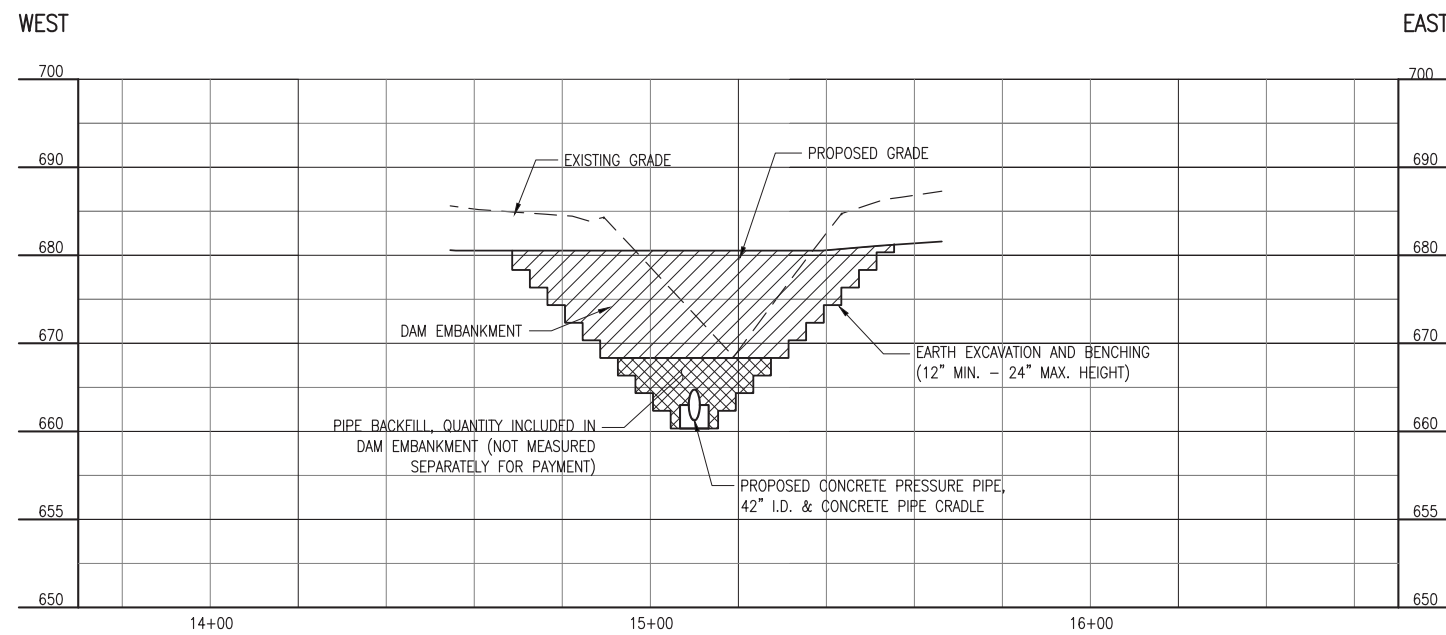
2 TYPICAL ROAD SECTION
SCALE: NONE



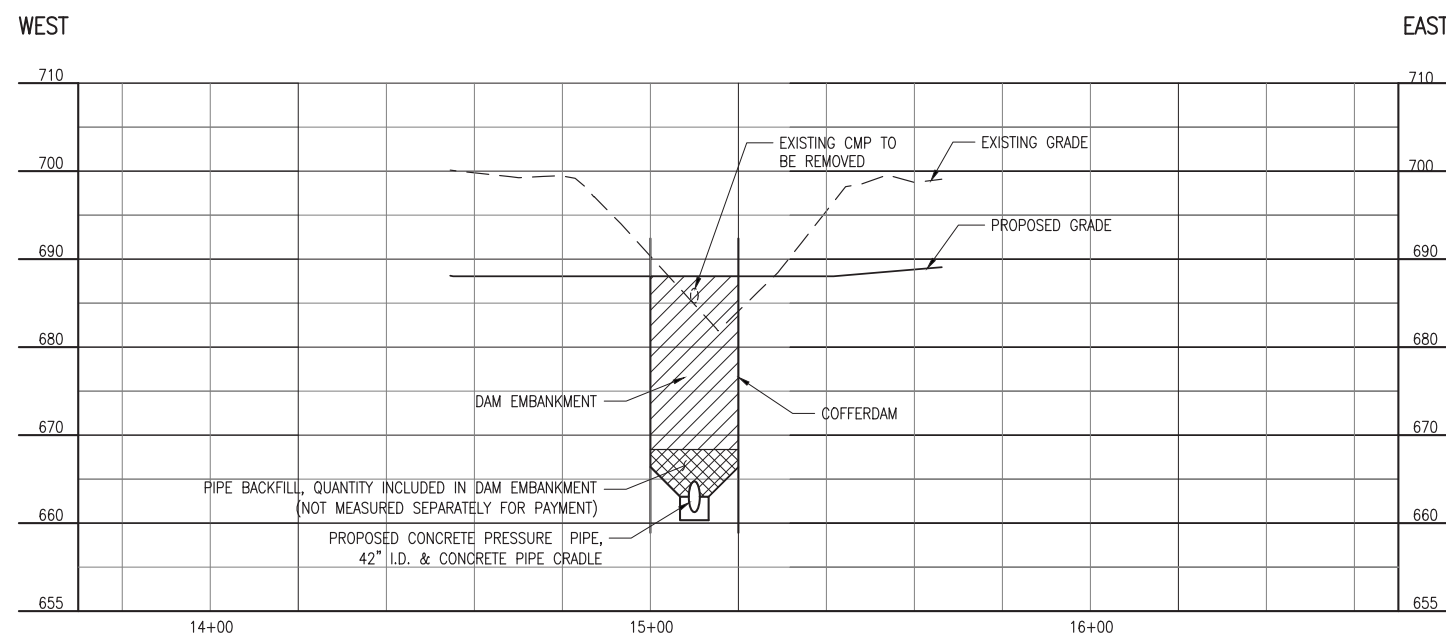
3 TOE DRAIN & GRADED FILTER SECTION
SCALE: NONE

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Drawn By:	SKB	Date:	01/27/2015
Checked By:	SMA		01/21/2015
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	MD		01/30/2015



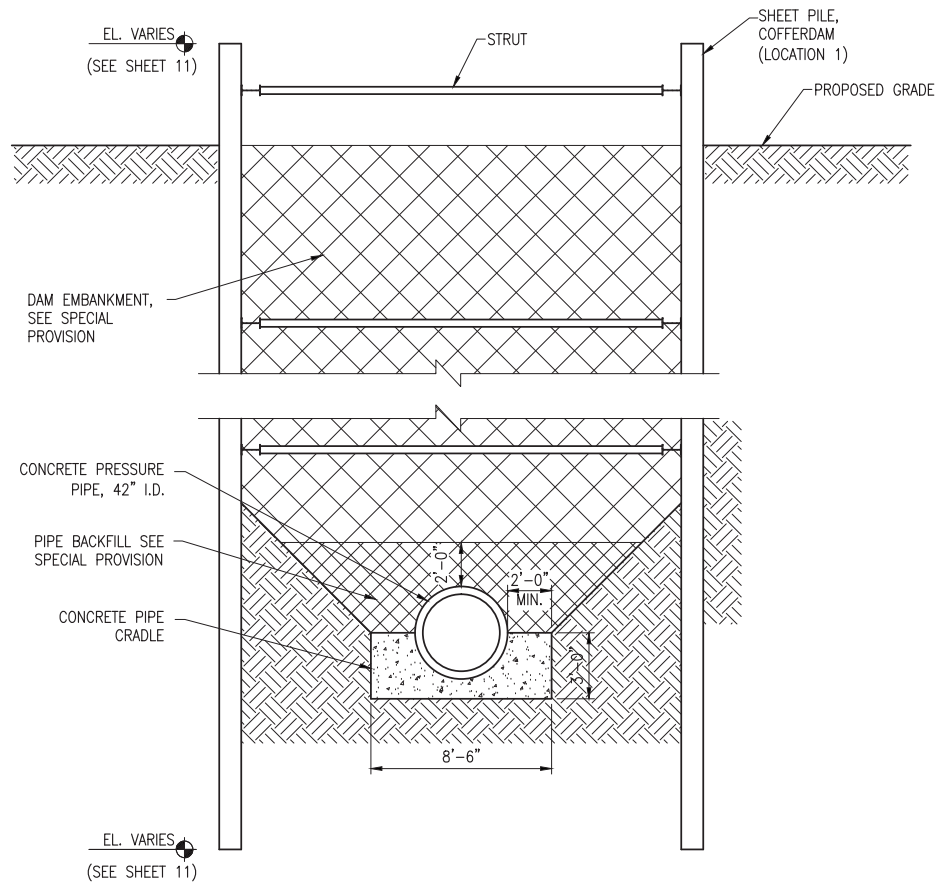
2 CROSS SECTION AT 70 FT NORTH OF ROAD CENTERLINE
 SCALE: 1" = 20' HORIZONTAL
 1" = 10' VERTICAL



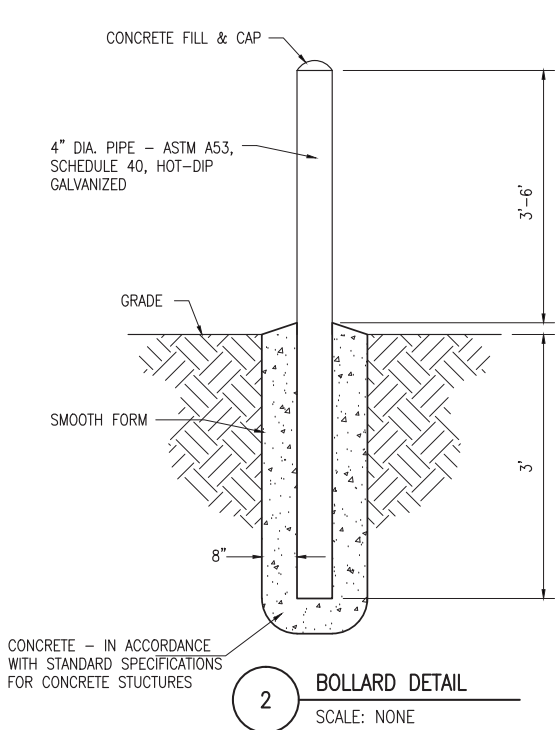
1 CROSS SECTION AT 40 FT NORTH OF ROAD CENTERLINE
 SCALE: 1" = 20' HORIZONTAL
 1" = 10' VERTICAL

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Drawn By: SKB	Date: 01/27/2015
Checked By: SMA	01/21/2015
	01/30/2015

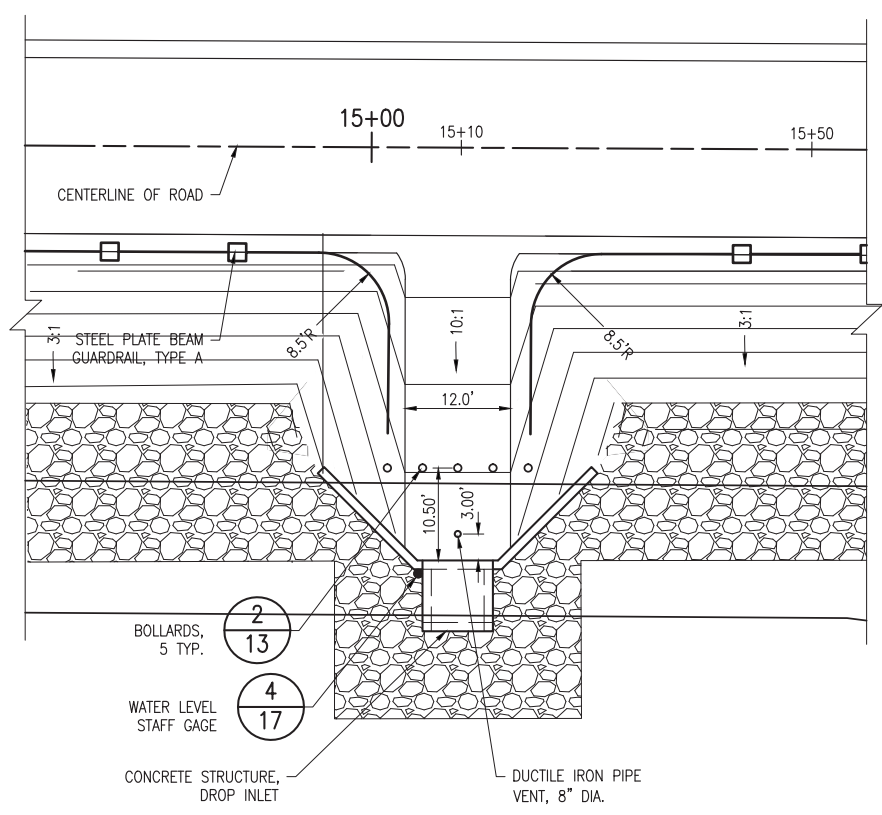


1 EAST SITE DISCHARGE PIPE TRENCH & CRADLE
SCALE: 1/4" = 1'-0"



2 BOLLARD DETAIL
SCALE: NONE

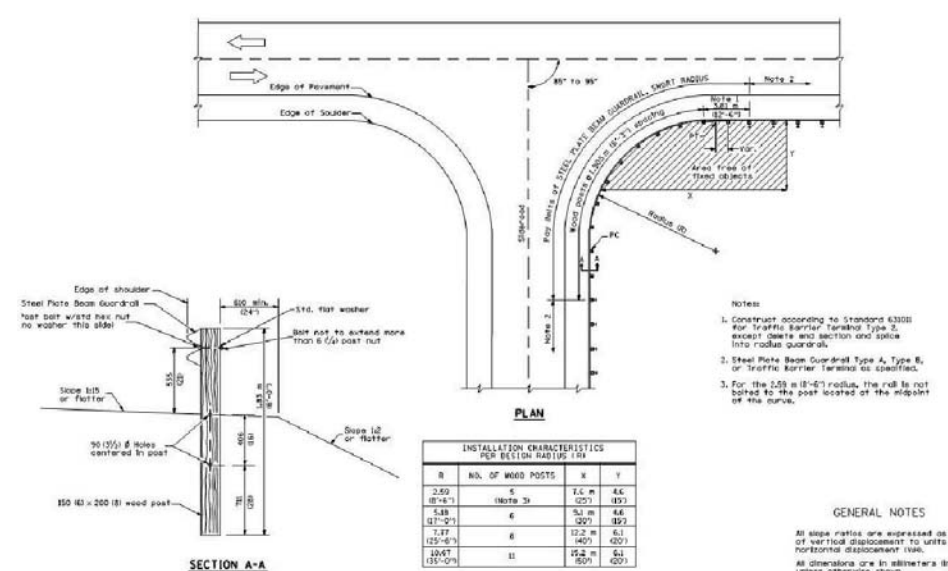
NOTES:
1. THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING STEEL PIPE BOLLARDS AS DETAILED HEREIN AND PAID FOR AS BOLLARDS, EACH. QUANTITY 5.
2. INSTALL BOLLARDS PLUMB AND WITH EQUAL TOP ELEVATION.



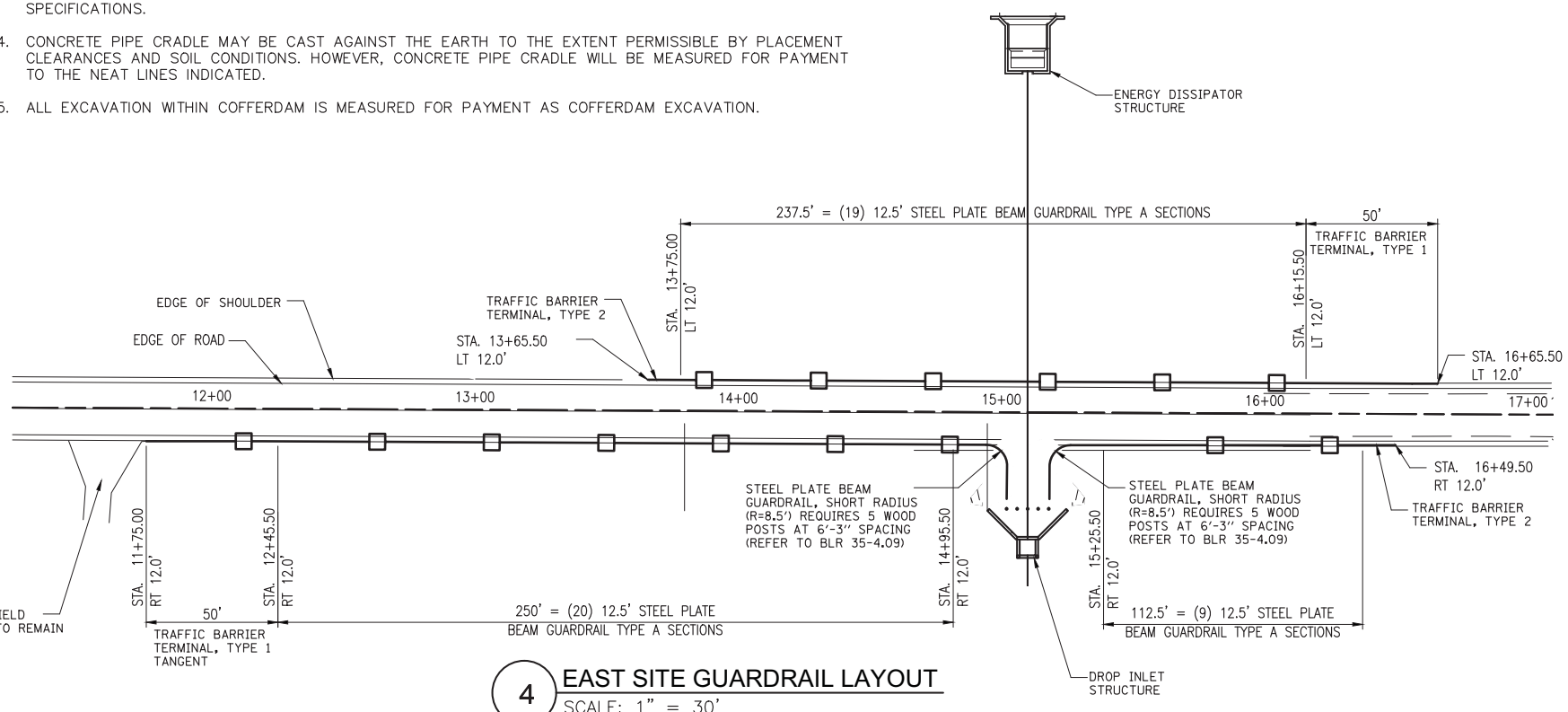
3 ENLARGED PLAN AT ROAD TURNOUT AT STA. 15+10
SCALE: NONE

GENERAL NOTES:

- ALL OPEN EXCAVATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P- "EXCAVATIONS". THE SUBCONTRACTOR SHALL DESIGNATE A QUALIFIED "COMPETENT PERSON" AS DEFINED IN OSHA SECTION 1926.650(b) PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION ACTIVITIES.
- NO BACKFILL SHALL BE PLACED AGAINST CAST-IN-PLACE CONCRETE STRUCTURES UNTIL THE CONCRETE HAS ATTAINED ITS SPECIFIED 28 DAY DESIGN COMPRESSIVE STRENGTH.
- BACKFILL SHALL BE PLACED AND COMPACTED IN UNIFORM HORIZONTAL LAYERS IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONCRETE PIPE CRADLE MAY BE CAST AGAINST THE EARTH TO THE EXTENT PERMISSIBLE BY PLACEMENT CLEARANCES AND SOIL CONDITIONS. HOWEVER, CONCRETE PIPE CRADLE WILL BE MEASURED FOR PAYMENT TO THE NEAT LINES INDICATED.
- ALL EXCAVATION WITHIN COFFERDAM IS MEASURED FOR PAYMENT AS COFFERDAM EXCAVATION.



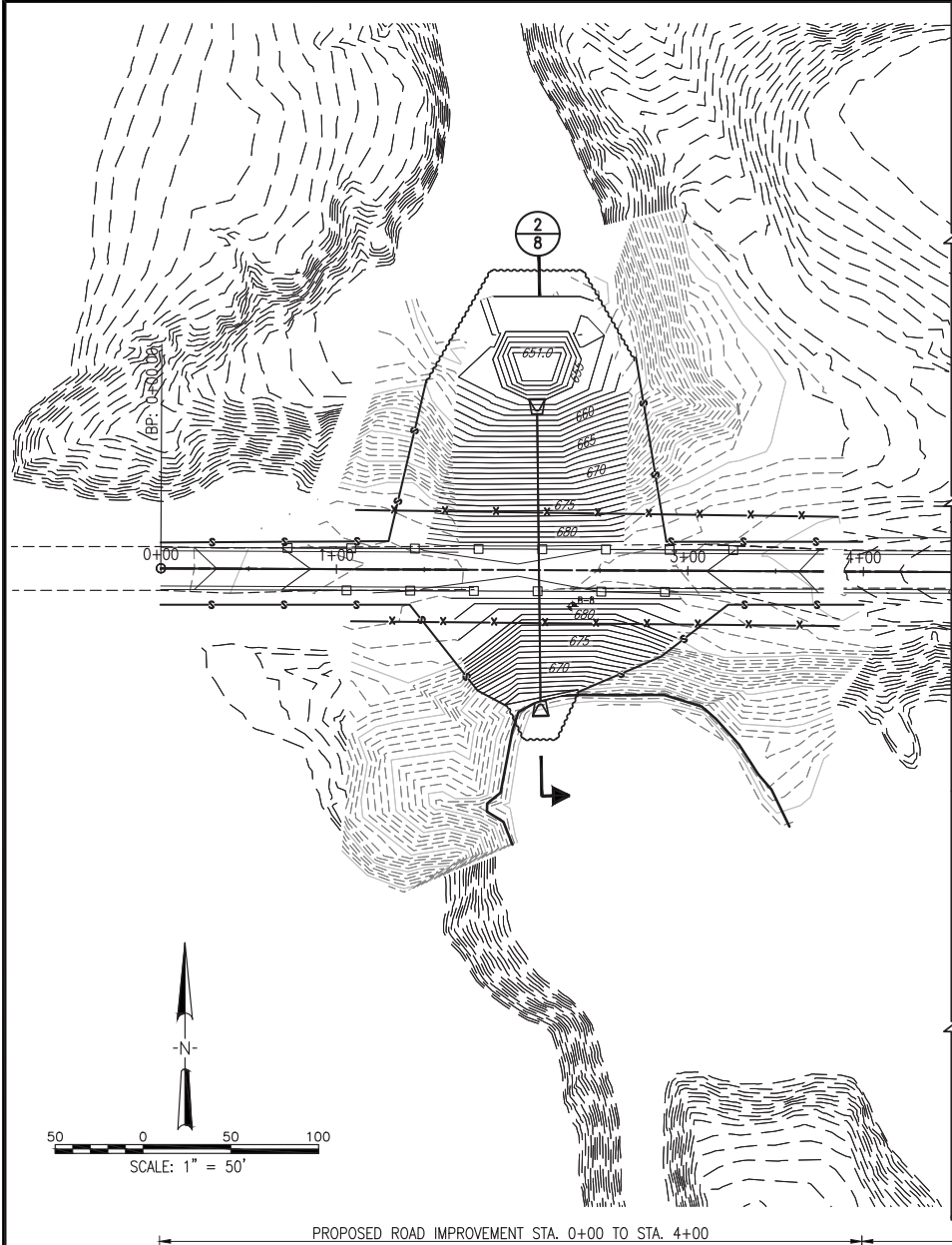
5 STEEL PLATE BEAM GUARDRAIL TYPE A, SHORT RADIUS DETAILS
SCALE: 1" = 30'



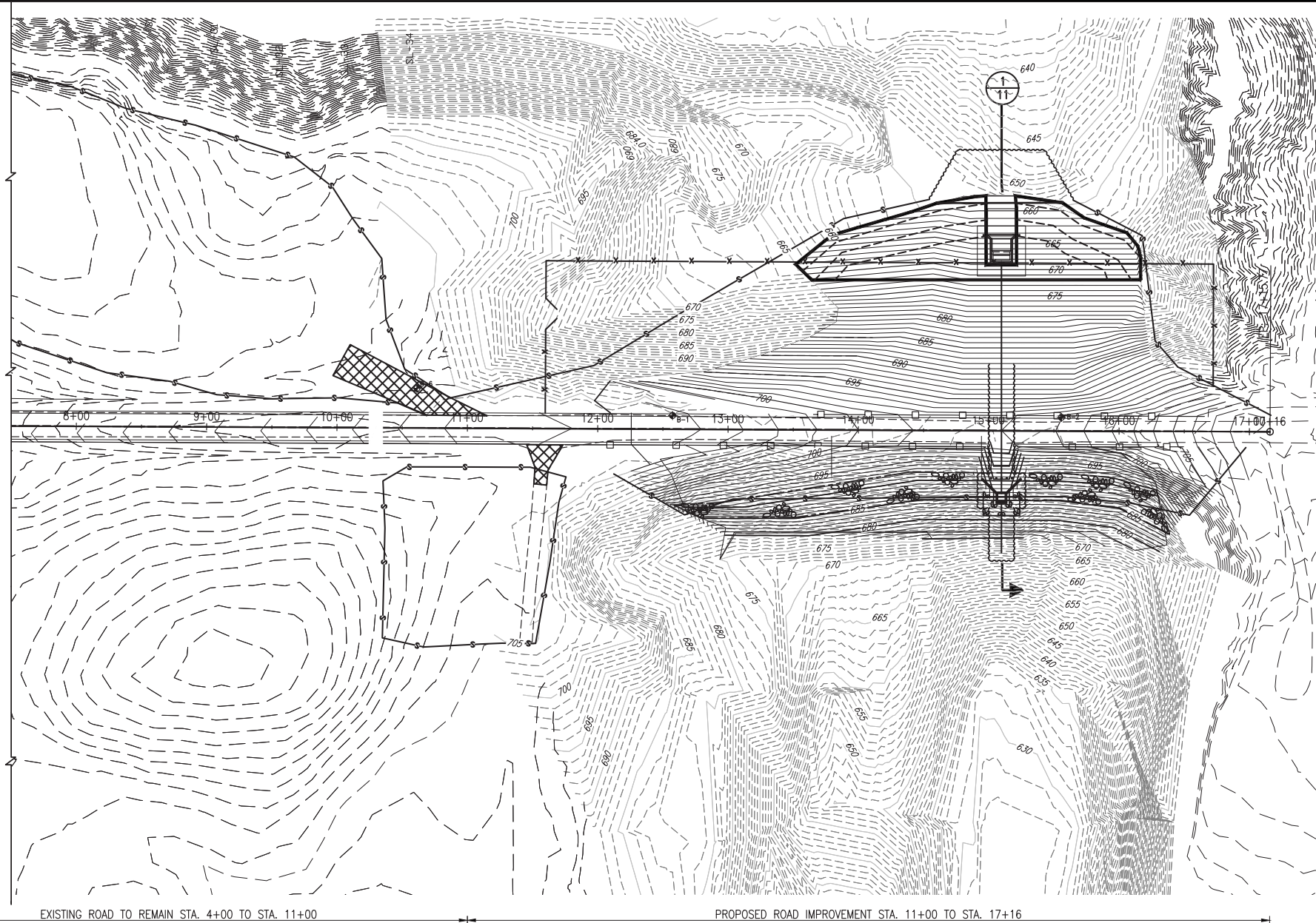
4 EAST SITE GUARDRAIL LAYOUT
SCALE: 1" = 30'

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Drawn By: SKB
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01/30/2015



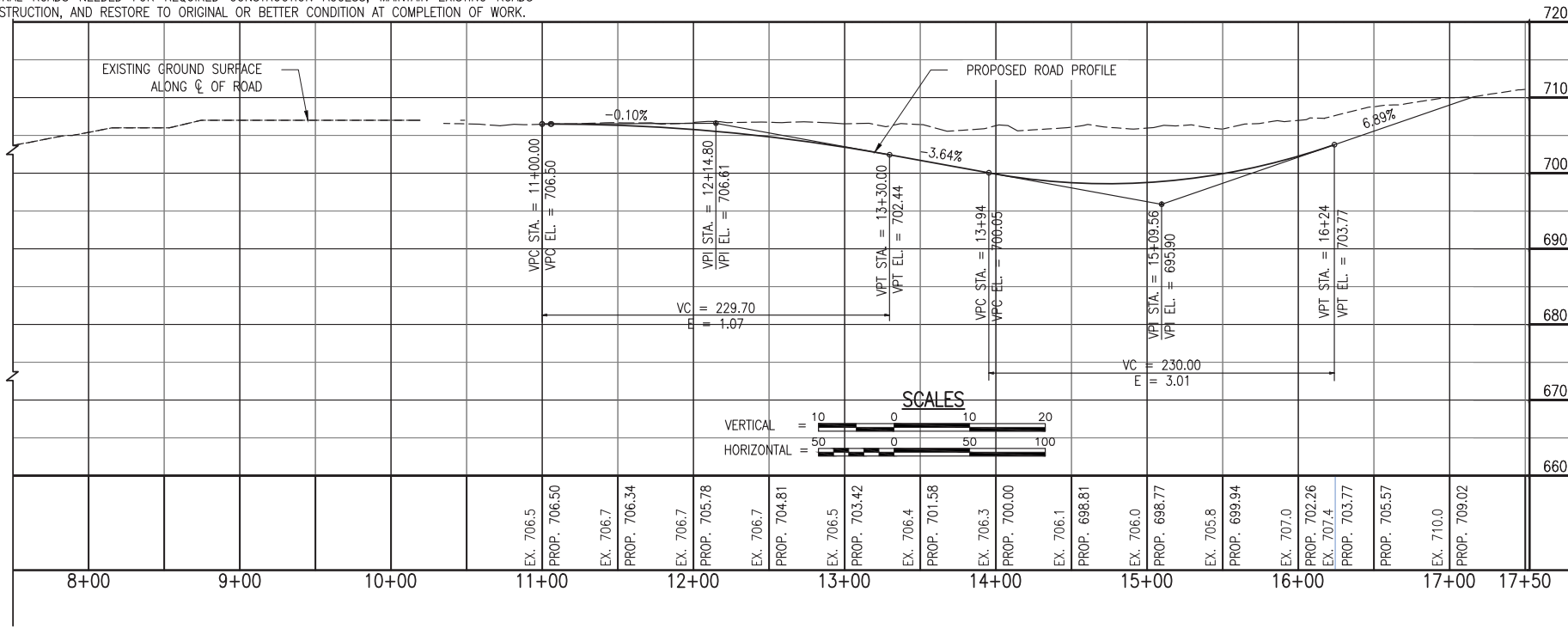
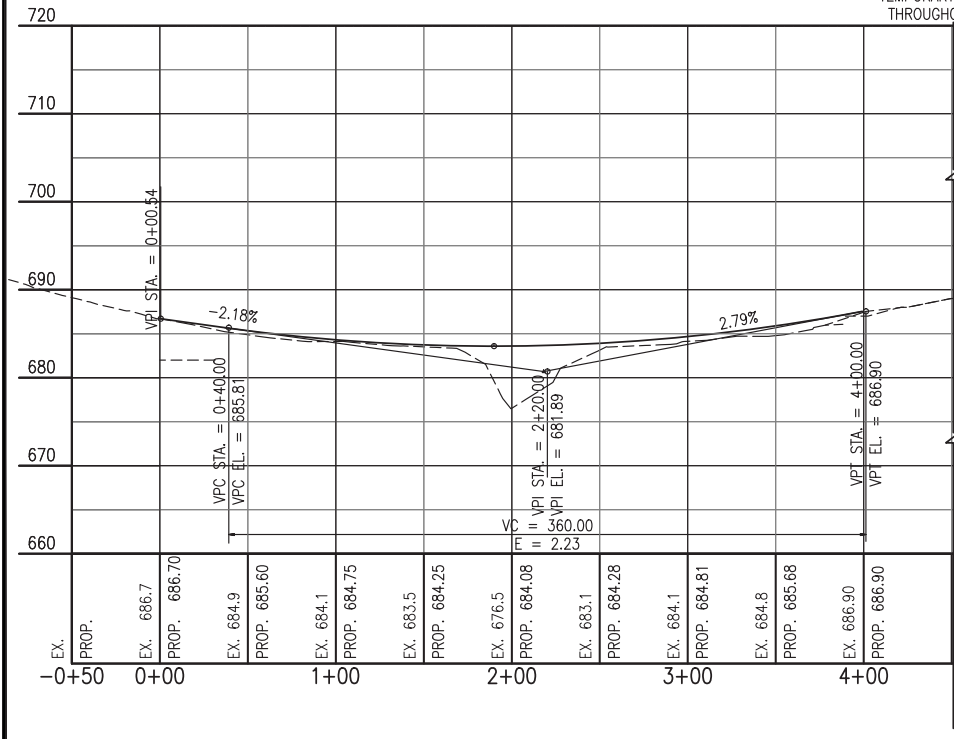
PROPOSED ROAD IMPROVEMENT STA. 0+00 TO STA. 4+00



EXISTING ROAD TO REMAIN STA. 4+00 TO STA. 11+00

PROPOSED ROAD IMPROVEMENT STA. 11+00 TO STA. 17+16

EXISTING ON-SITE ROADWAYS MAY BE USED FOR CONSTRUCTION TRAFFIC. THE CONTRACTOR SHALL PROVIDE TEMPORARY ADDITIONAL ROADS NEEDED FOR REQUIRED CONSTRUCTION ACCESS, MAINTAIN EXISTING ROADS THROUGHOUT CONSTRUCTION, AND RESTORE TO ORIGINAL OR BETTER CONDITION AT COMPLETION OF WORK.



SCALES



GENERAL STRUCTURAL NOTES

GENERAL:

- G-1. GOVERNING CODE:
ACI 318
ACI 350
- G-2. SOIL PRESSURES
EQUIVALENT FLUID PRESSURES
ACTIVE/AT REST = 100 PCF
PASSIVE = 150 PCF
- G-3. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, COORDINATES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER OF ANY DISCREPANCY IMMEDIATELY.
- G-4. STRUCTURAL SYSTEM IS DESIGNED TO WORK AS A COMPLETED SYSTEM, ANY TEMPORARY SHORING, OR BRACING NEEDED DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR; CONTRACTOR IS RESPONSIBLE FOR ADEQUACY OF TEMPORARY SHORING.
- G-5. ALL SUBTERRANEAN STRUCTURES, UTILITIES, PIPING, ETC. IN THE AREA OF ALL EXCAVATIONS TO BE LOCATED AND MARKED BY CONTRACTOR PRIOR TO EARTH REMOVAL WORK. FLAGS OR PAINT ARE ACCEPTABLE METHODS. CONTRACTOR TO MAINTAIN MARKERS UNTIL ALL EXCAVATION ACTIVITIES HAVE CEASED. COORDINATE WITH OWNER.
- G-6. THE CONTRACTOR IS SOLEY RESPONSIBLE FOR ALL SITE SAFETY AND ALL ACCIDENTS WHICH RESULT IN DEATH, PERSONAL INJURY OR DAMAGE TO PROPERTY ARISING OUT OF OR IN CONNECTION WITH PERFORMANCE OF THE WORK, WHETHER ADJACENT TO OR AT THE SITE.
- G-7. NO PIPES OR SLEEVES FOR MECHANICAL TRADES SHALL PASS THROUGH STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ENGINEER.
- G-8. ALL SECTIONS, DETAILS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE SHOWN.
- G-9. SHOP DRAWINGS PREPARED BY SUPPLIERS AND SUBCONTRACTORS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTING TO ENGINEER. ENGINEER'S REVIEW SHALL BE FOR SIZES AND GENERAL CONFORMANCE WITH INFORMATION GIVEN IN CONSTRUCTION DOCUMENTS ONLY. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW. BASED ON SUCH REVIEWS, ACTIONS WILL BE NOTED FOR EACH SHOP DRAWING SUBMITTAL AS LISTED BELOW:

<u>NO EXCEPTIONS TAKEN</u>	FABRICATION, MANUFACTURING OR CONSTRUCTION MAY PROCEED ON THE BASIS THAT THE SUBMITTAL IS IN CONFORMANCE WITH THE DESIGN CONCEPT AND THE CONTRACT DOCUMENTS.
<u>FURNISH AS CORRECTED</u>	FABRICATION, MANUFACTURING OR CONSTRUCTION MAY PROCEED AFTER MAKING THE NOTED CORRECTIONS TO SATISFY COMPLIANCE WITH THE DESIGN CONCEPT AND / OR THE CONTRACT DOCUMENTS.
<u>REVISE AND SUBMIT</u>	NO FABRICATION, MANUFACTURING OR CONSTRUCTION MAY PROCEED. RESUBMIT FOR REVIEW AFTER REQUESTED REVISIONS ARE MADE.
<u>SUBMIT SPECIFIED ITEM</u>	NO FABRICATION, MANUFACTURING OR CONSTRUCTION MAY PROCEED. SUBMIT SPECIFIED ITEM TO HANSON FOR REVIEW.
<u>REJECTED-SEE REMARKS</u>	NO FABRICATION, MANUFACTURING OR CONSTRUCTION MAY OCCUR FOR REASONS STATED IN "REMARKS".
- G-10. ALL ASTM AND AASHTO DESIGNATIONS SHALL BE THE LATEST UNLESS NOTED OTHERWISE.

PIPE HANDRAIL

- PH-1. PIPE HANDRAIL SHALL BE CONSTRUCTED AS SHOWN OR AS REQUIRED BY THE LATEST O.S.H.A. REQUIREMENTS.
- PH-2. PIPE HANDRAIL PIPE SHALL CONFORM TO ASTM A-53 TYPE E OR S, GRADE B.

FOUNDATION:

- F-1. ALL FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE OF DEBRIS, STANDING WATER AND LOOSE SOIL AND BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
- F-2. ALL FILL MATERIAL SHALL BE APPROVED FOR USE IN ADVANCE OF PLACEMENT BY THE ENGINEER. NO FILL SHALL BE PLACED OVER FROZEN, MUDDY OR OTHER DELETERIOUS MATERIAL. LIFT THICKNESS SHALL BE MINIMIZED TO ALLOW EFFICIENT COMPACTION. NO FILL MAY BE PLACED OVER A PREVIOUS LIFT THAT HAS NOT BEEN ADEQUATELY COMPACTED AND ACCEPTED BY THE ENGINEER.
- F-3. BACKFILL AGAINST WALLS SHALL BE PLACED EVENLY ON ALL SIDES IN ORDER TO ACHIEVE GENERALLY BALANCED LOADINGS. DO NOT BACKFILL AROUND WALLS UNTIL CONCRETE HAS ATTAINED THE SPECIFIED MIN. 28 DAY COMPRESSIVE STRENGTH.

CONCRETE:

- C-1. MATERIAL PROPERTIES (U.N.O.)
CONCRETE - CLASS SI
CONCRETE REINFORCEMENT - FY = 60 KSI (A615 GR 60) EPOXY COATED
- C-2. PROTECTIVE COVERING FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
FOOTINGS:
BOTTOM AND SIDES = 3"
TOP = 2"
WALLS:
EXTERIOR EXPOSURE = 2"
INTERIOR EXPOSURE = 2"
BEAMS / COLUMNS:
OVER TIES OR STIRRUPS = 2"
ELEVATED SLABS: = 2"
- C-3. A 3/4" X 3/4" CHAMFER SHALL BE PROVIDED AT THE EDGE OF ALL FINISHED WALLS, BEAMS AND COLUMNS.
- C-4. TWO #5 BARS EACH FACE SHALL BE PROVIDED DIAGONALLY AT ALL CORNERS OF WALL AND SLAB OPENINGS.
- C-5. LAP ALL BARS AS FOLLOWS U.N.O. (CLASS B):
#3=1'-7" #4=2'-1" #5=2'-7"
#6=3'-1" #7=4'-6" #8=5'-2"
#9=5'-10" #10=6'-7" #11=7'-4"
- C-6. ALL CONCRETE SHALL BE WET CURED.
- C-7. FOR EPOXY COATED BARS, PROVIDE 1.3 TIMES THE INDICATED LAP LENGTH. FOR TOP BARS, PROVIDE AN ADDITIONAL 1.3 TIMES THE INDICATED LAP LENGTH.
- C-8. HOOK REINFORCEMENT BARS AT DISCONTINUOUS ENDS, TYPICAL UNLESS OTHERWISE NOTED.
- C-9. COUPLER AND STRUCTURAL CONNECTORS: WHERE SPECIFIED, PROVIDE COUPLER / CONNECTOR CAPABLE OF DEVELOPING 125% OF THE YIELD STRENGTH OF THE SPLICED / CONNECTED BAR. PROVIDE THREADED DOWELS WHERE REQUIRED.

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State of Illinois
Department of Natural Resources

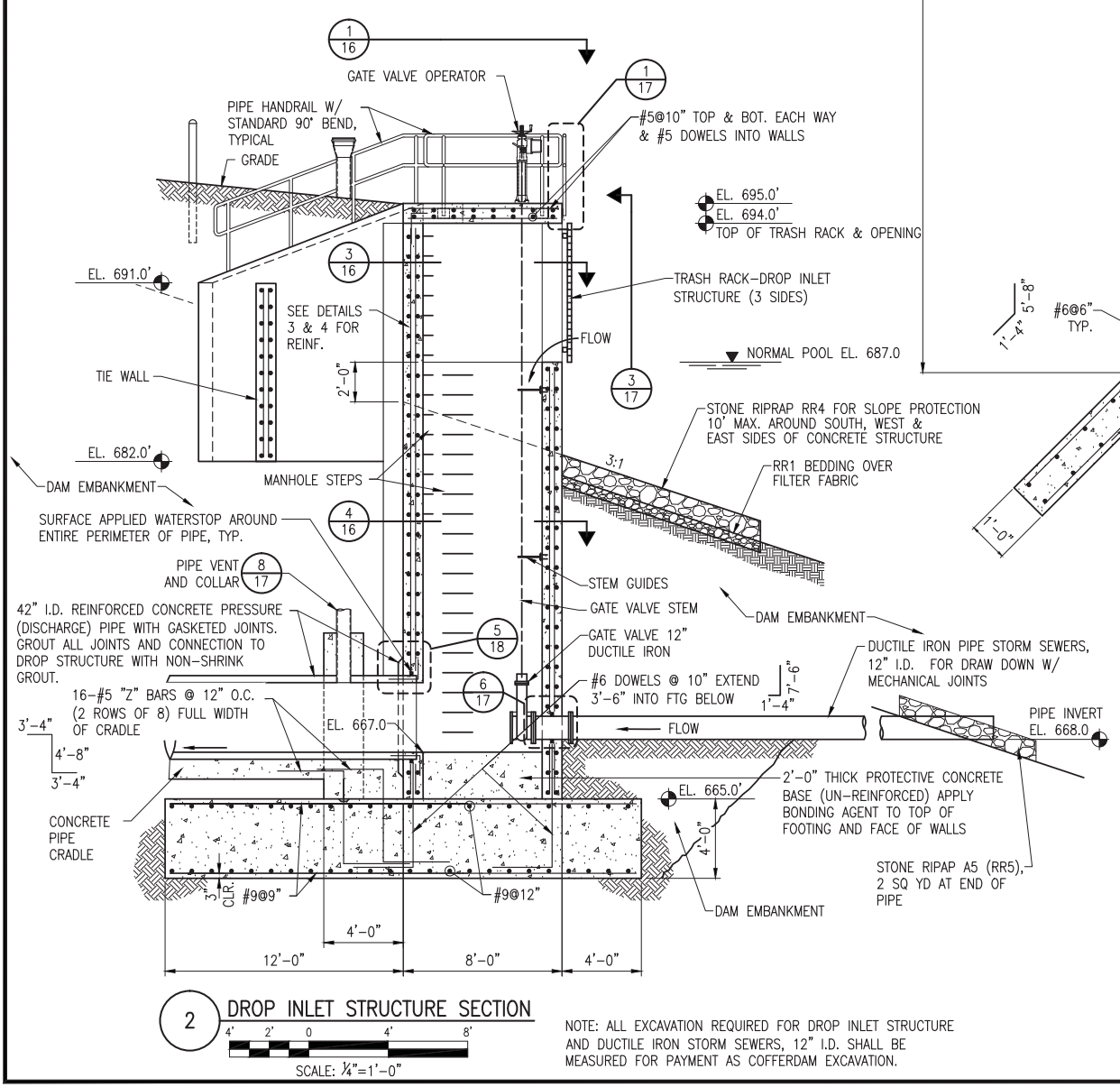
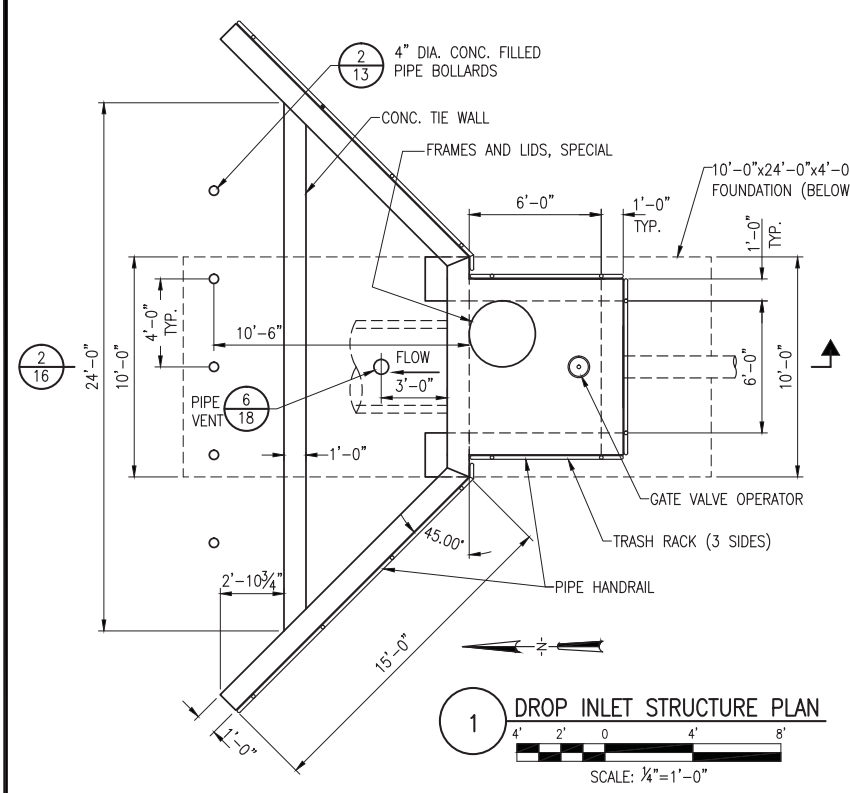
Farmington Embankments
Reclamation Project
AML-GkNE-1411
Knox County

Date:	01/21/2015		
Drawn By:	SMA	GLC	
Checked By:			

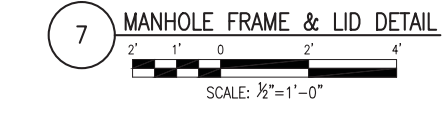
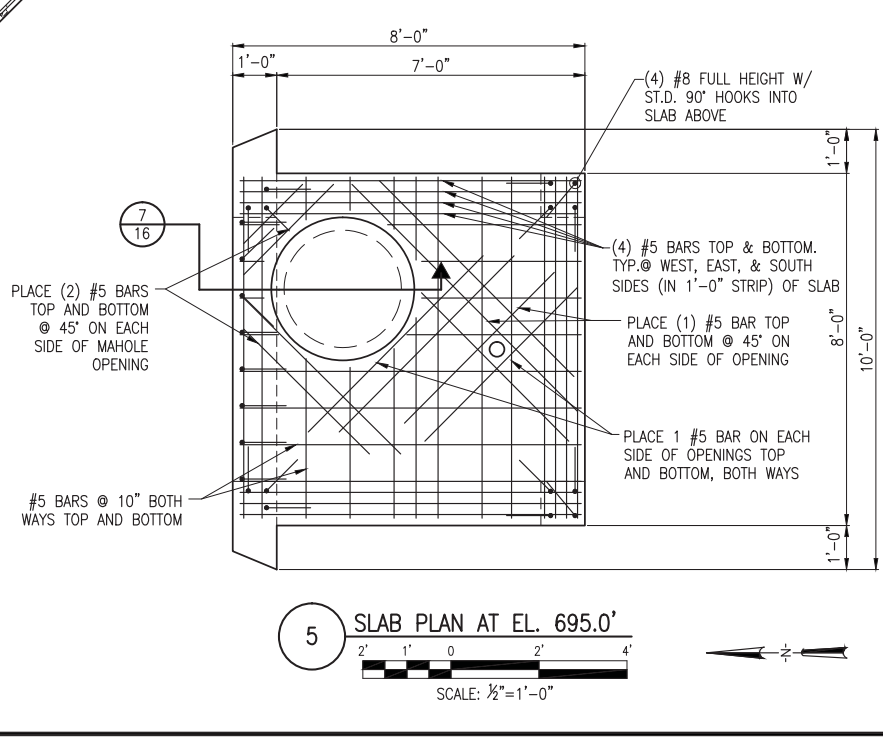
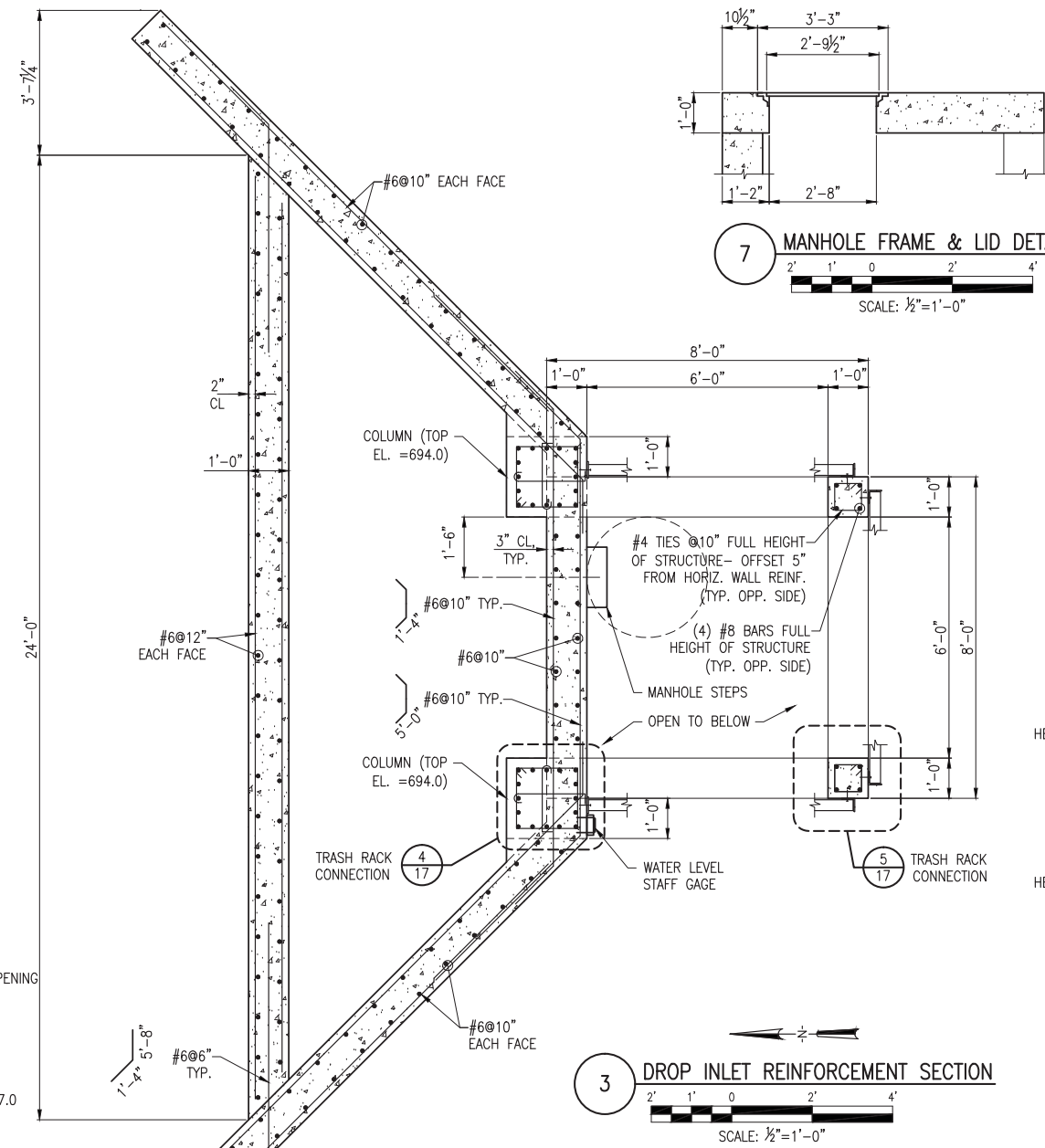
Structural General Notes

Sheet 15 of 24

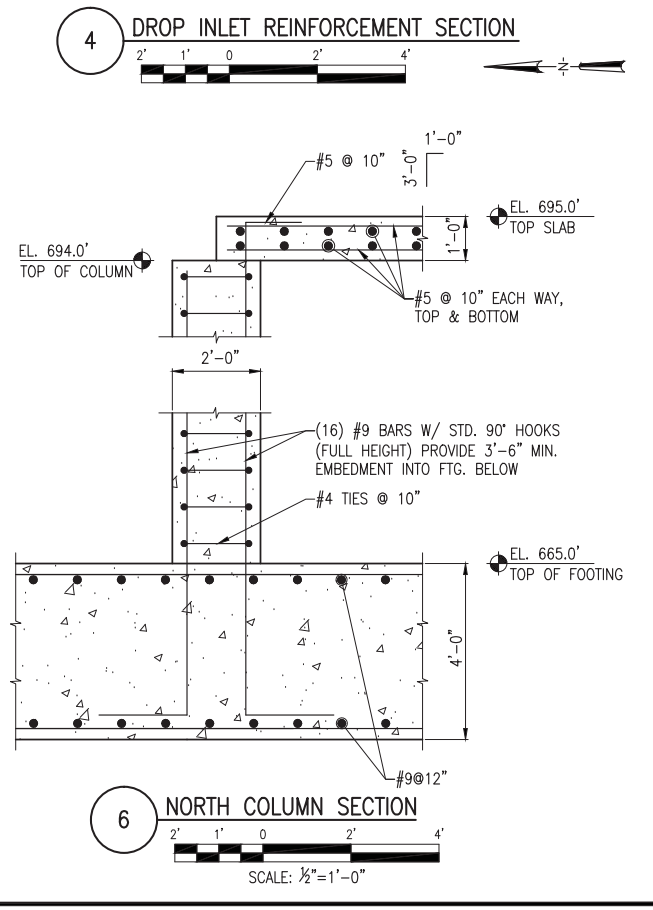
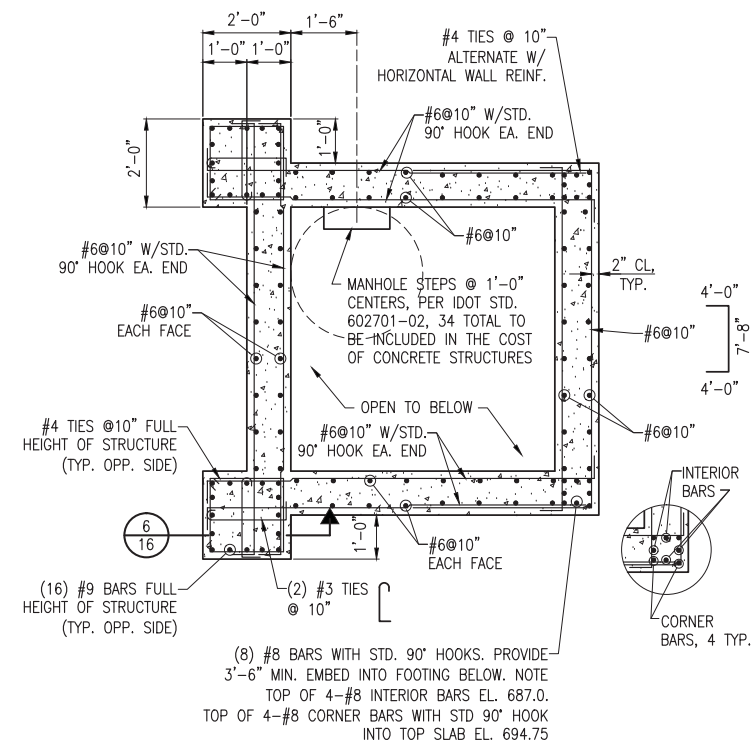
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 I:\2\085\126080\CAD\SITE\SHEET\16 - DROP INLET STRUCTURE DETAILS.DWG

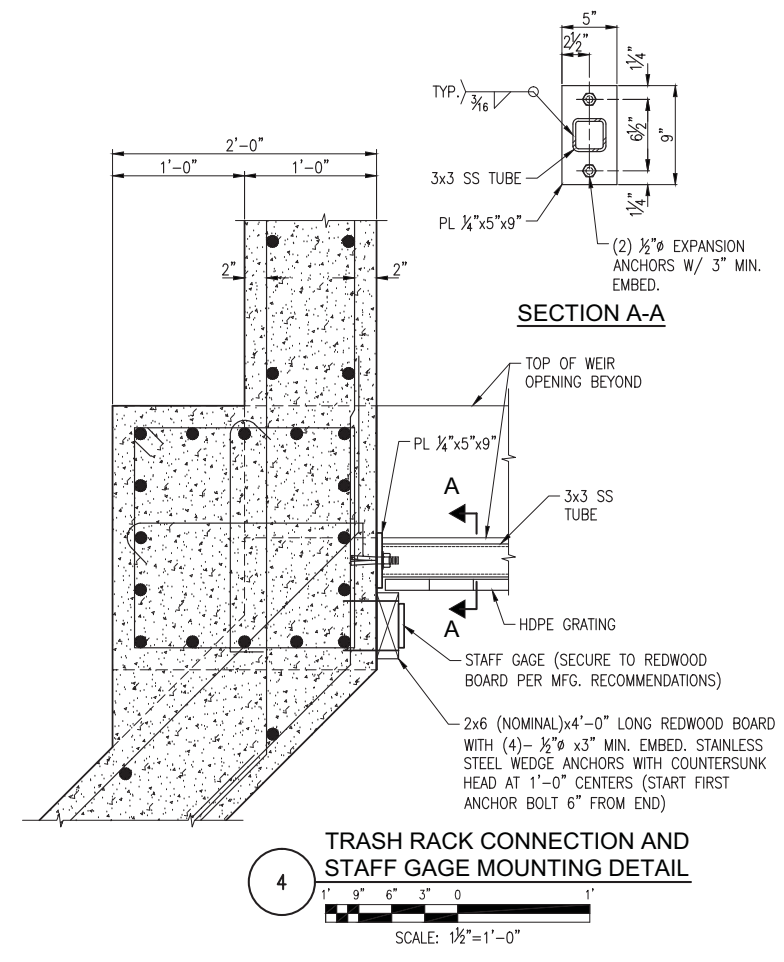
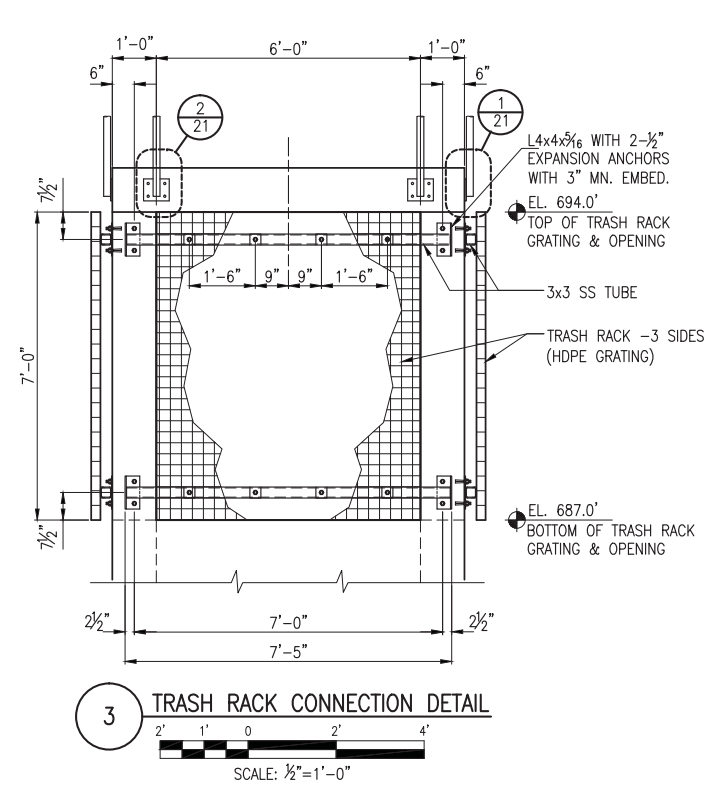
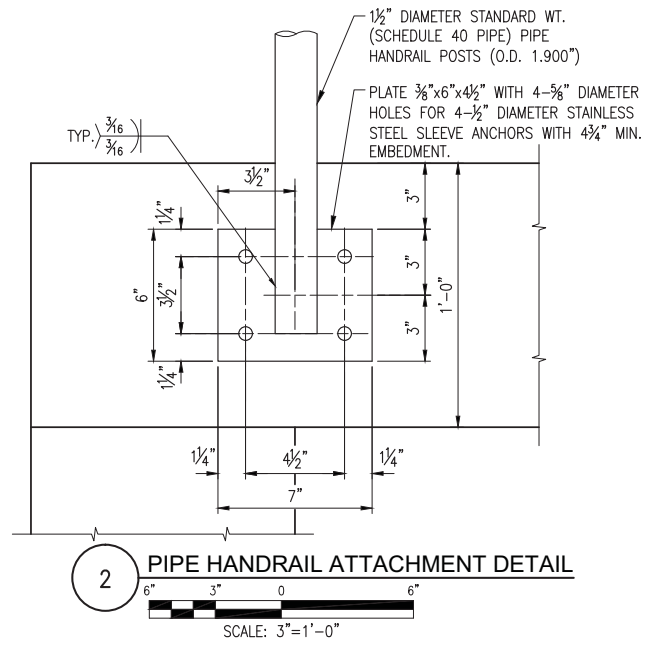
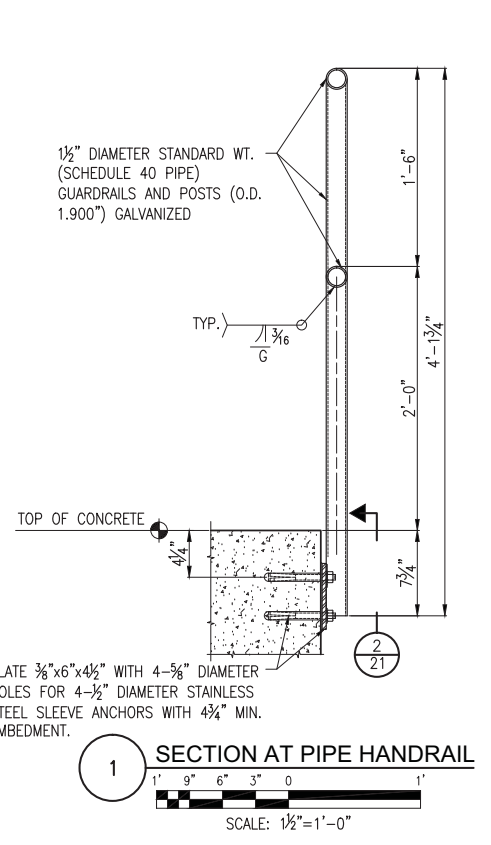


NOTE: ALL EXCAVATION REQUIRED FOR DROP INLET STRUCTURE AND DUCTILE IRON STORM SEWERS, 12" I.D. SHALL BE MEASURED FOR PAYMENT AS COFFERDAM EXCAVATION.



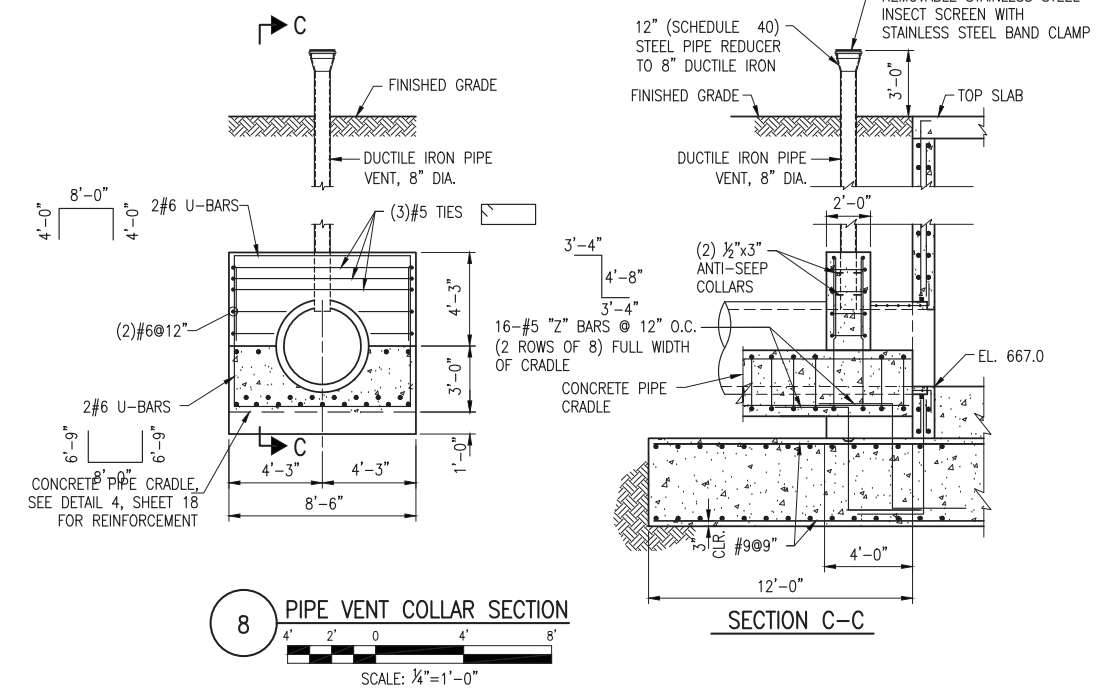
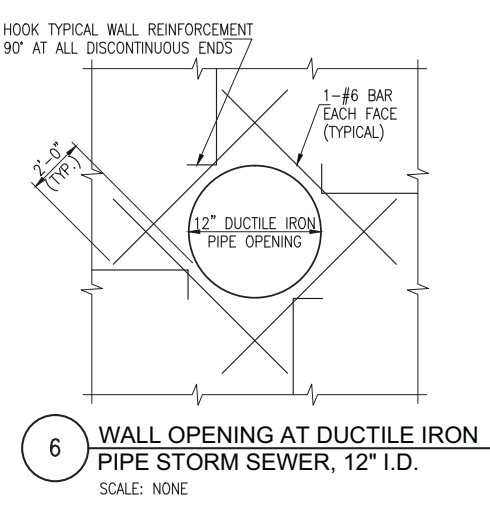
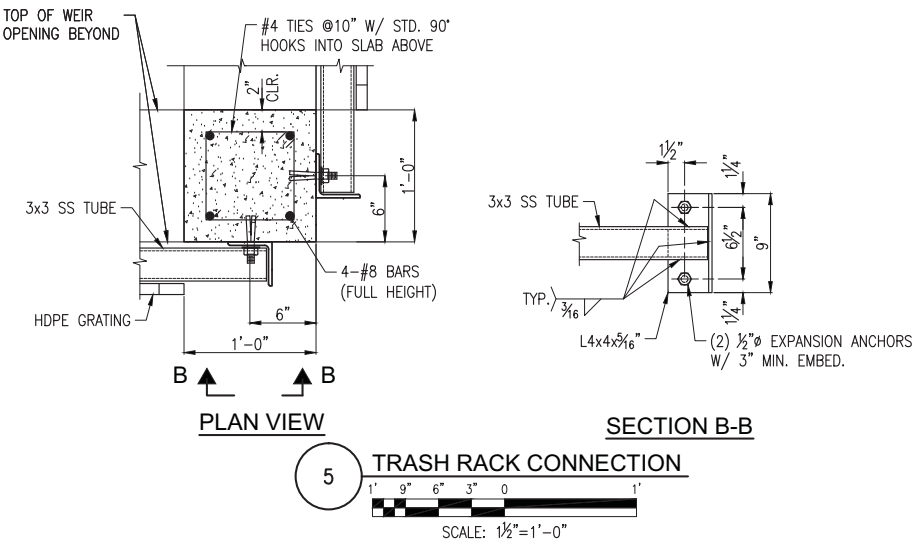
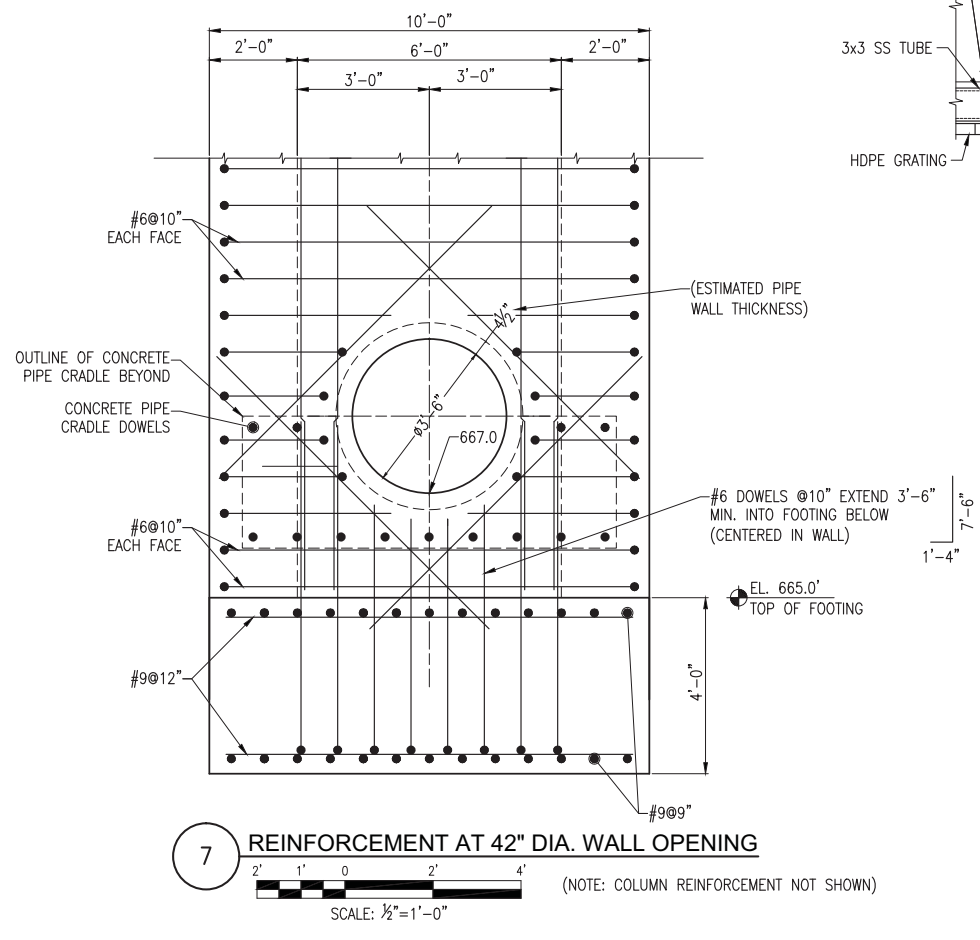
FRAME & LID SHALL BE CAST IRON WITH SOLID LID. LIGHT DUTY INTENDED BY MANUFACTURER FOR USE IN SIDEWALKS. LID SHALL BE BOLTED OR LOCKABLE.





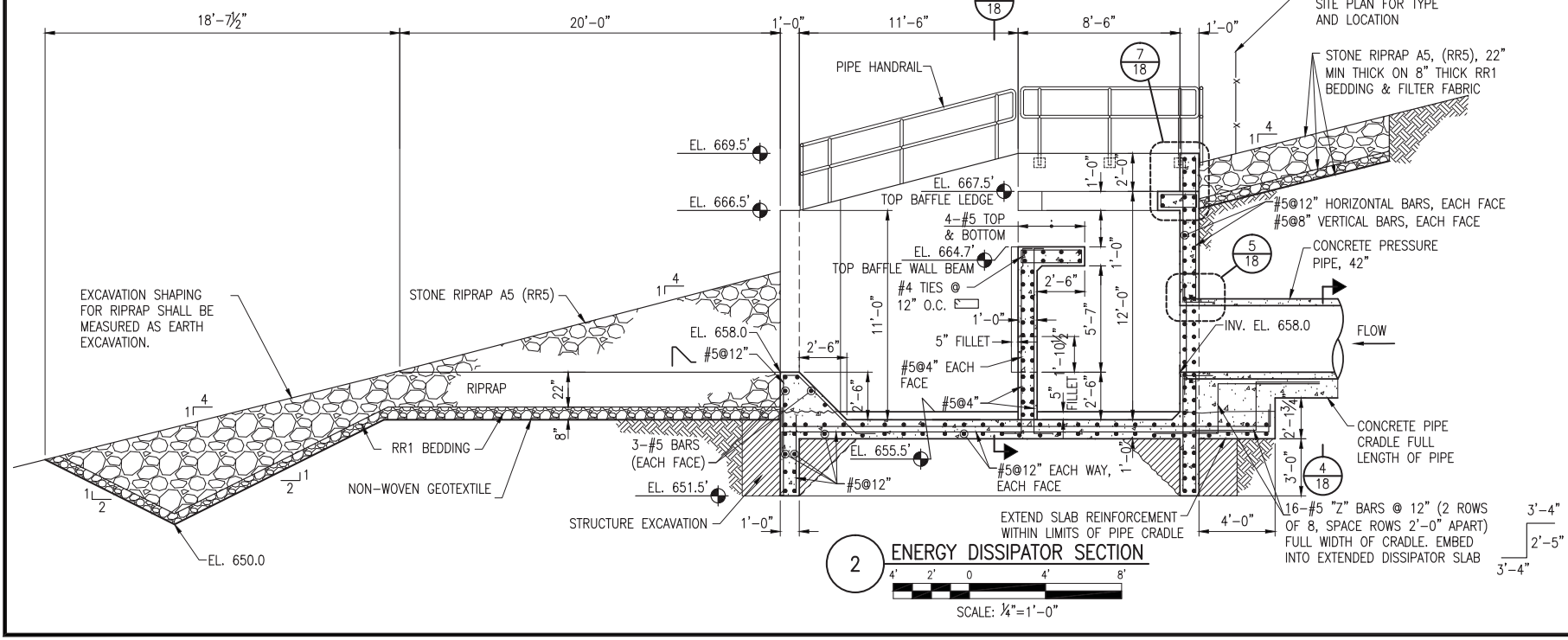
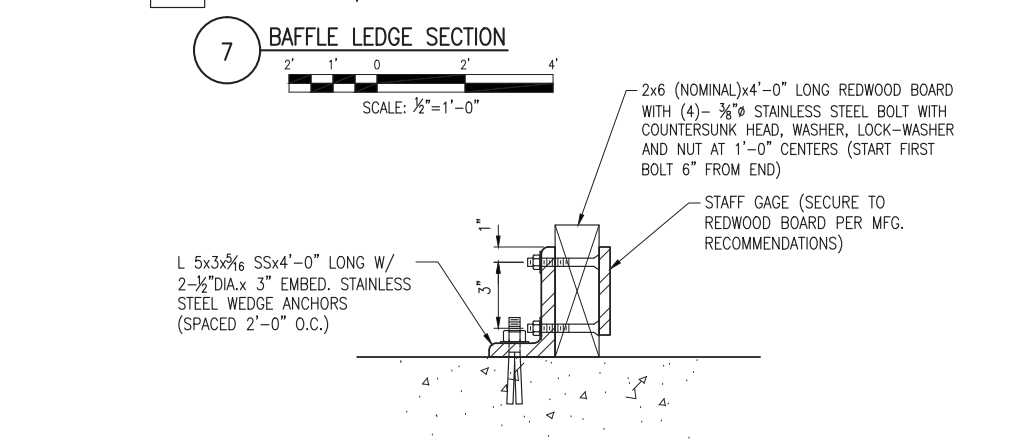
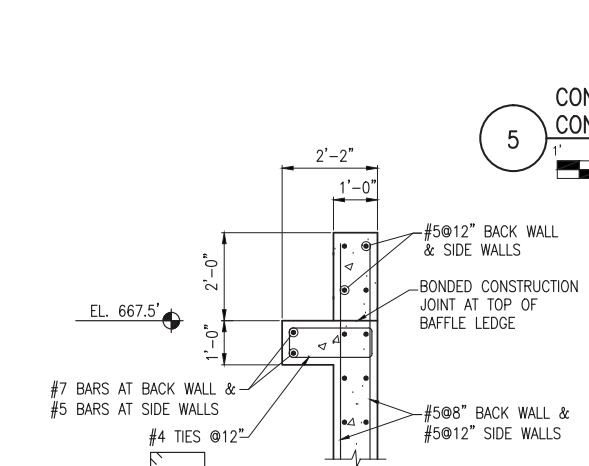
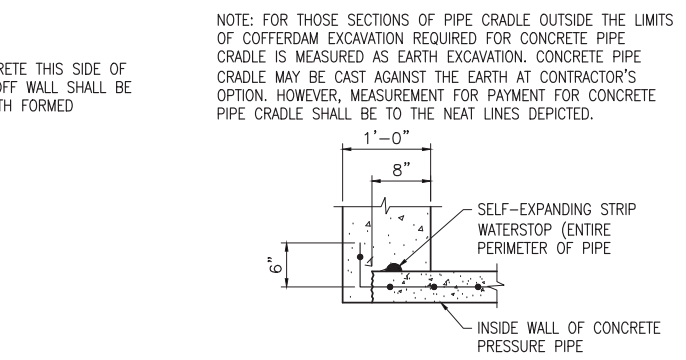
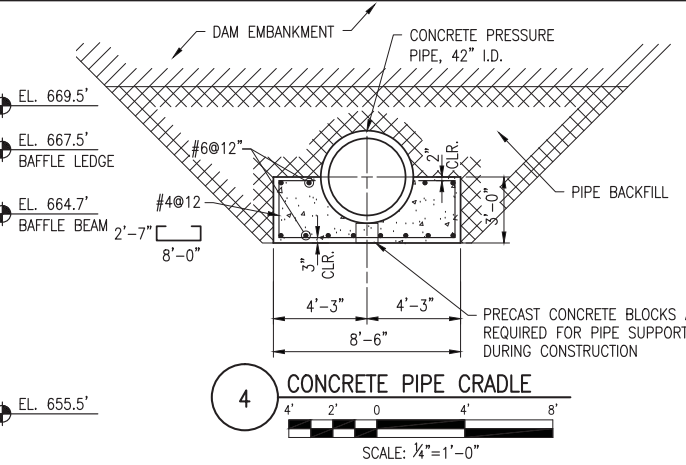
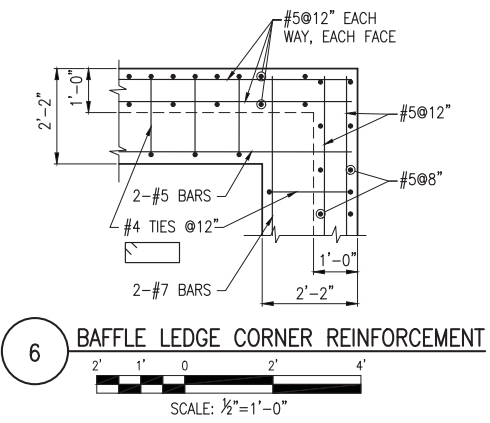
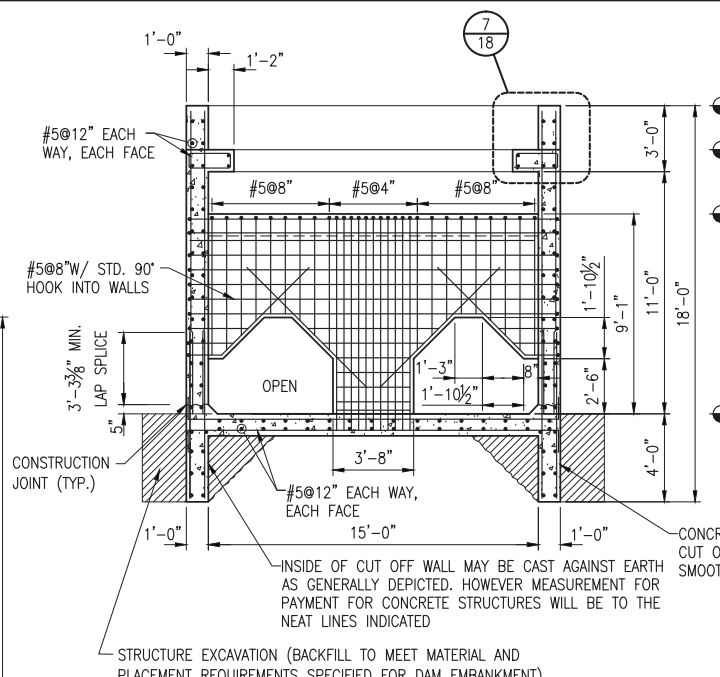
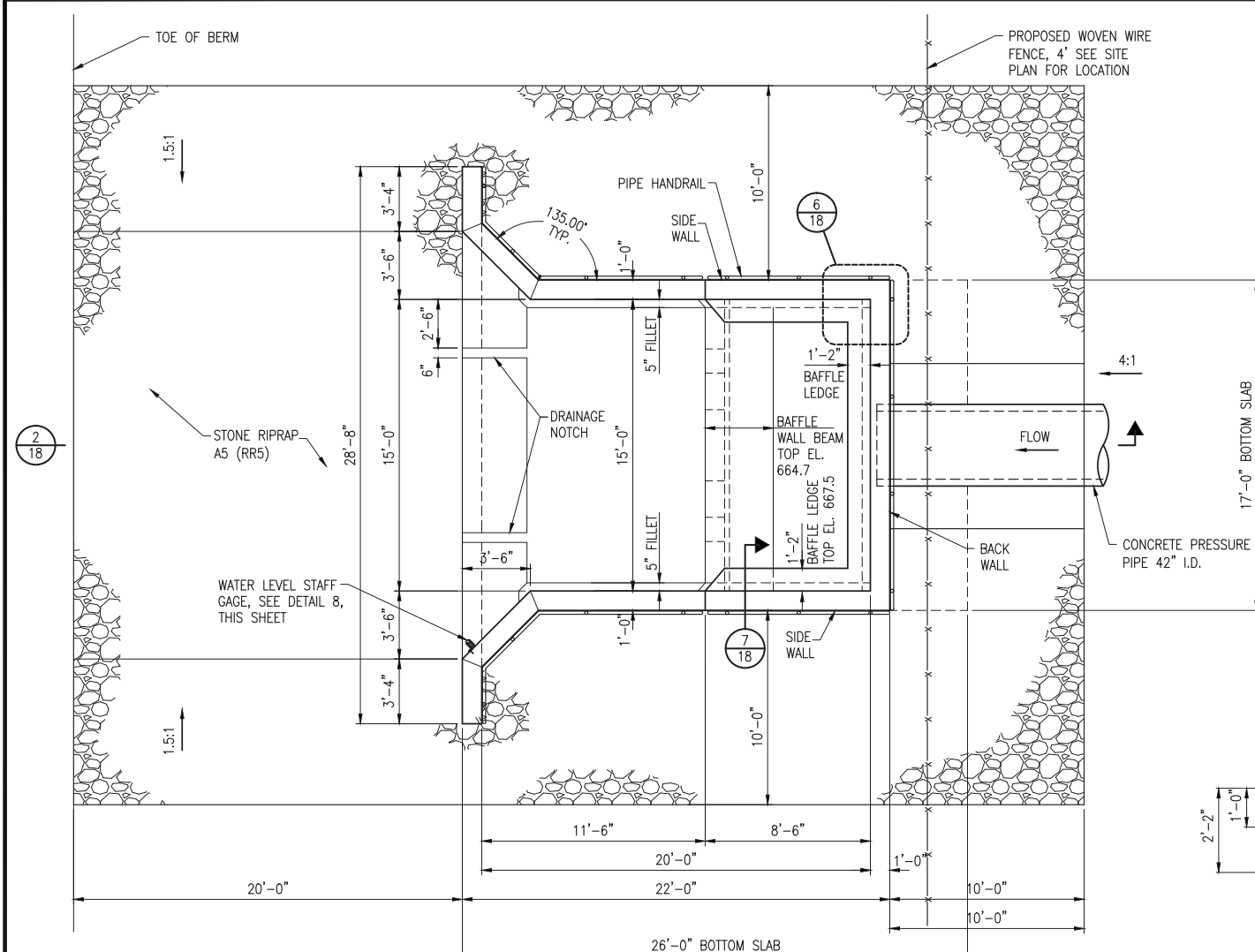
STYLE I STAFF GAGE - IRON FRAME WITH PORCELAIN-ENAMEL FINISH AND GROMMETTED MOUNTING HOLES, MOUNTED TO REDWOOD BOARD IN ACCORDANCE WITH MANUFACTURERS INSTALLATION GUIDELINES. GAGE SHALL BE A MINIMUM OF 48-INCHES IN LENGTH AND SHALL HAVE NUMERICAL MARKS EVERY INCH FROM 0 TO 48. GAGE SHALL BE MOUNTED SUCH THAT ZERO ELEVATION ON THE GAGE SHALL CORRESPOND TO THE PRIMARY SPILLWAY WEIR ELEVATION 687.0 FT.

FURNISHING AND INSTALLING STAFF GAGE AND REDWOOD BOARD WILL BE INCLUDED IN THE COST OF CONCRETE STRUCTURE.



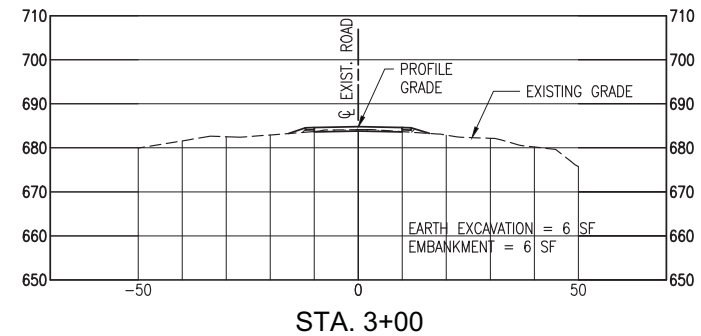
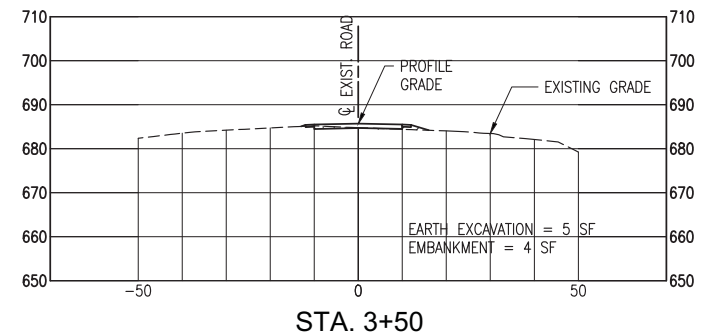
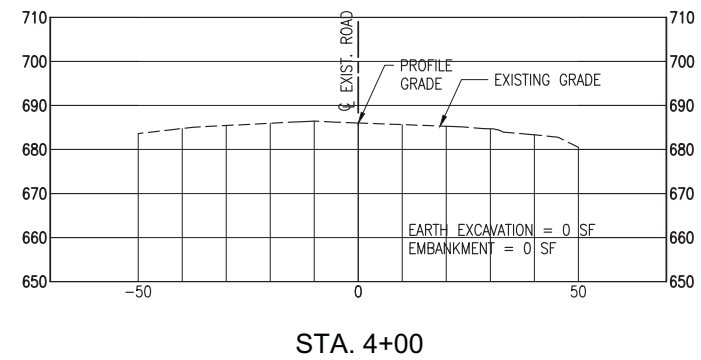
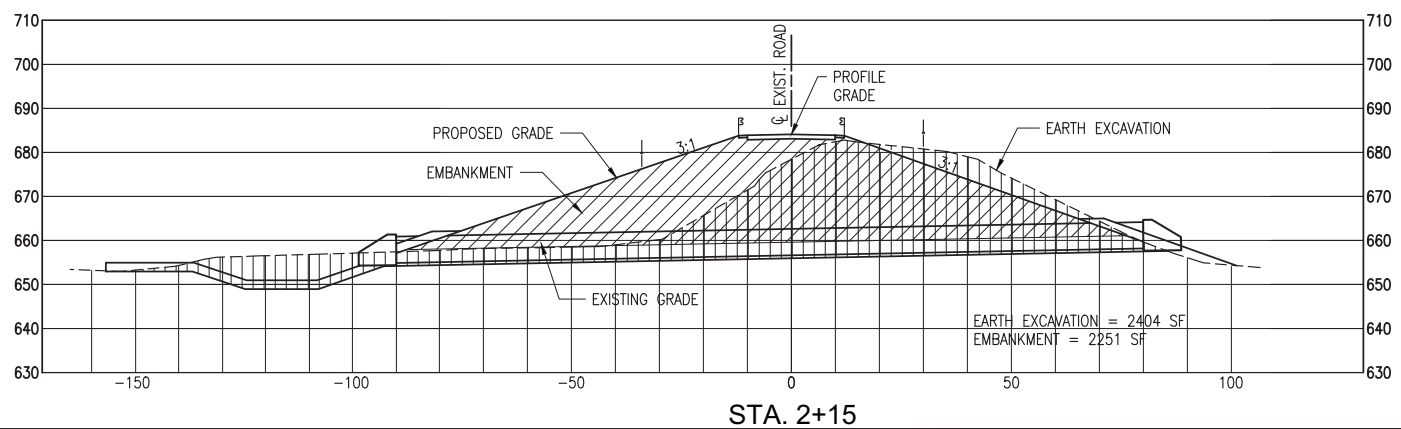
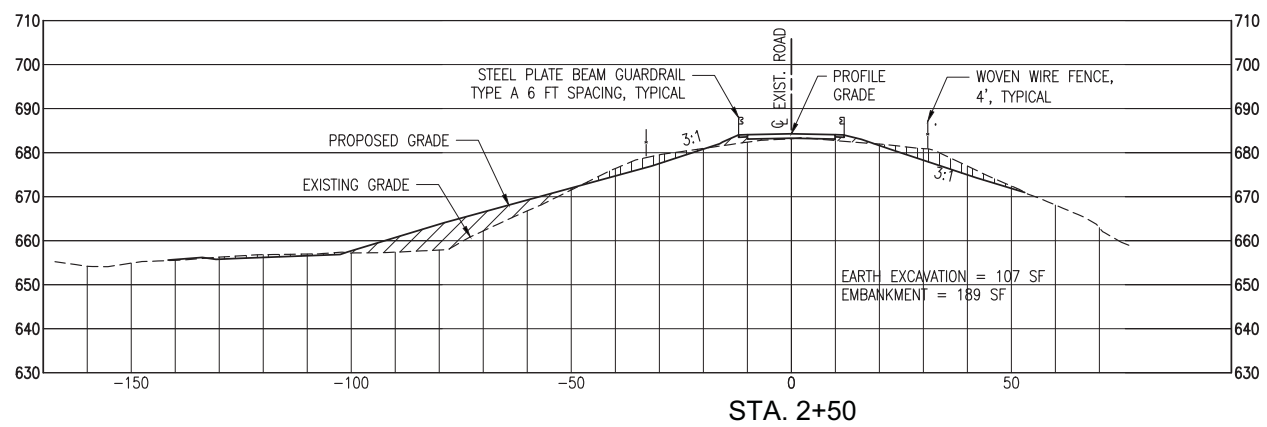
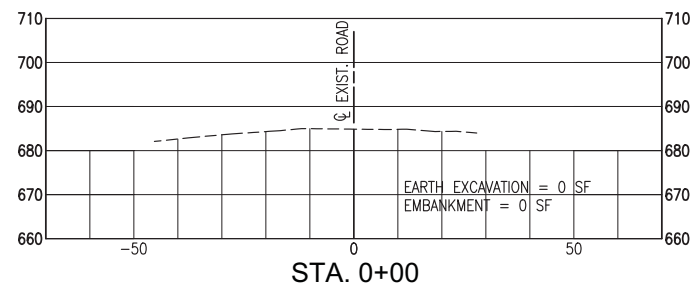
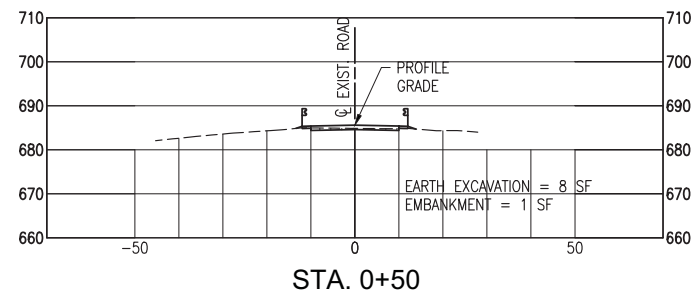
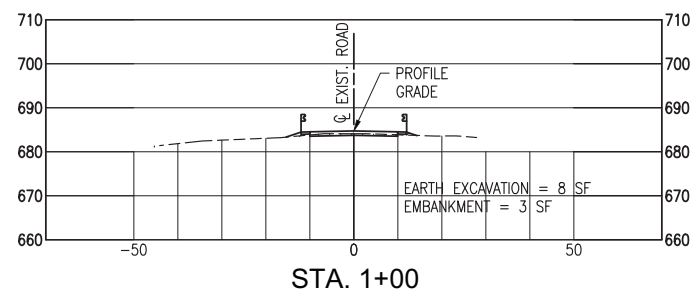
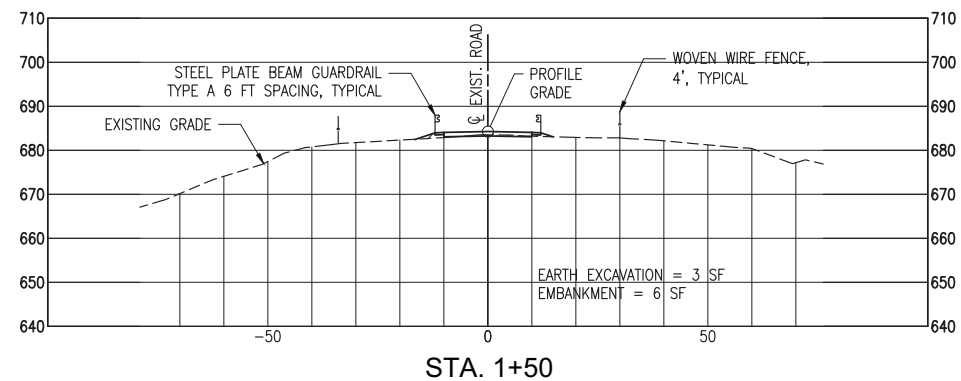
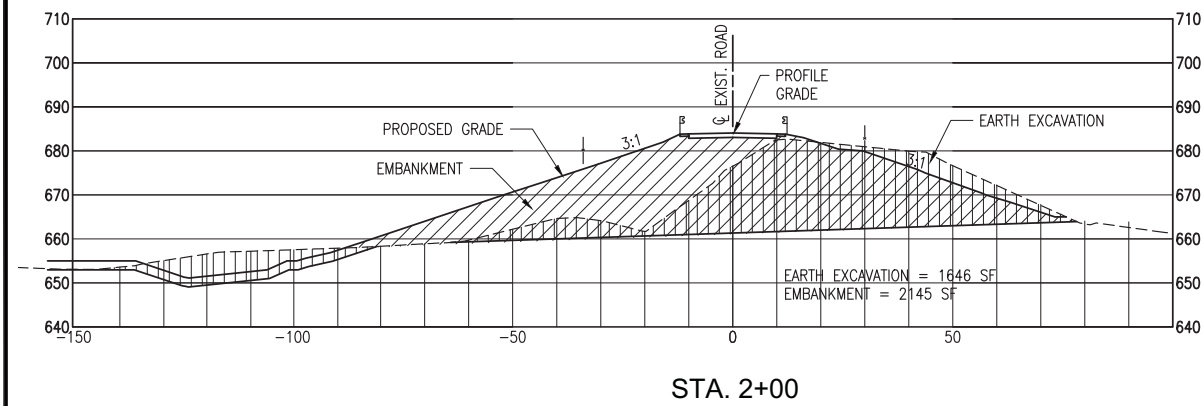
JAN 30, 2015 4:54 PM BRANSO0939
I:\21085\126080\CAD\SITE\SHEET\17- DROP INLET STRUCTURE DETAILS.DWG

JAN 30, 2015 4:55 PM BRANS00939
 I:\21085\126080\CAD\SITE SHEET\18- ENERGY DISSIPATOR STRUC DETAILS.DWG

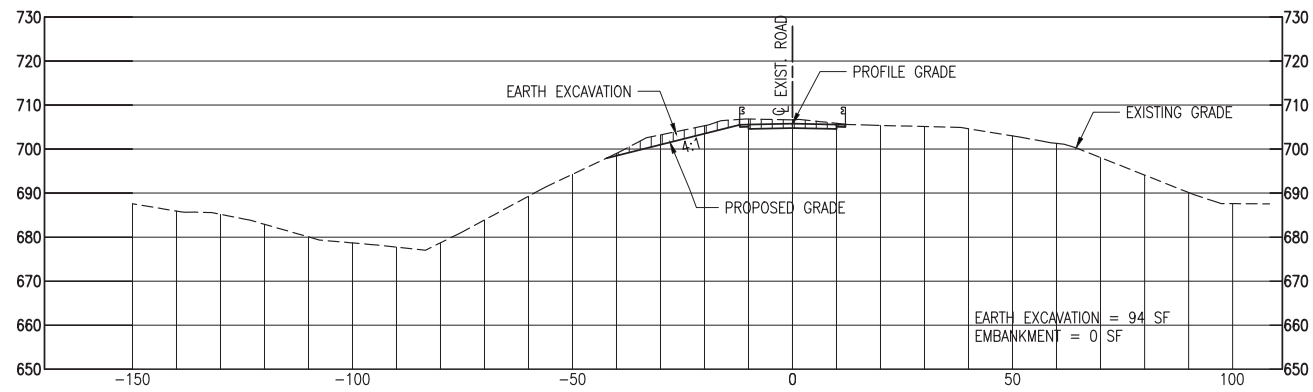


STYLE 1 STAFF GAGE - IRON FRAME WITH PORCELAIN-ENAMEL FINISH AND GROMMETTED MOUNTING HOLES, MOUNTED TO REDWOOD, CYPRESS OR CEDAR BOARD IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES. GAGE SHALL BE A MINIMUM OF 48-INCHES IN LENGTH AND SHALL HAVE NUMERICAL MARKS EVERY INCH FROM 0 TO 48. GAGE SHALL BE MOUNTED SUCH THAT ZERO ELEVATION ON THE GAGE SHALL CORRESPOND TO THE IMPACT BASIN END SILL ELEVATION 658.0 FT.

FURNISHING AND INSTALLING STAFF GAGE AND REDWOOD BOARD WILL BE INCLUDED IN THE COST OF CONCRETE STRUCTURES.



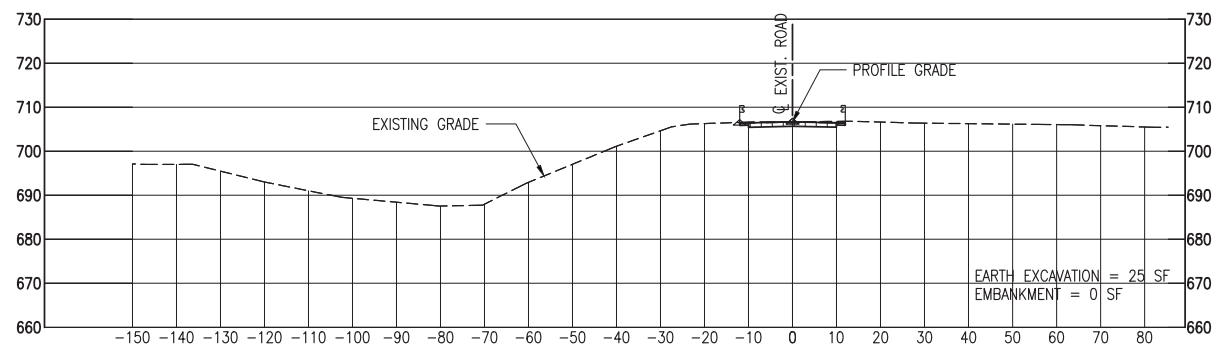
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 I:\12\085\12\06080\CAD\SITE\12\06080\20-E ROAD_XSEC.DWG



STA. 12+00

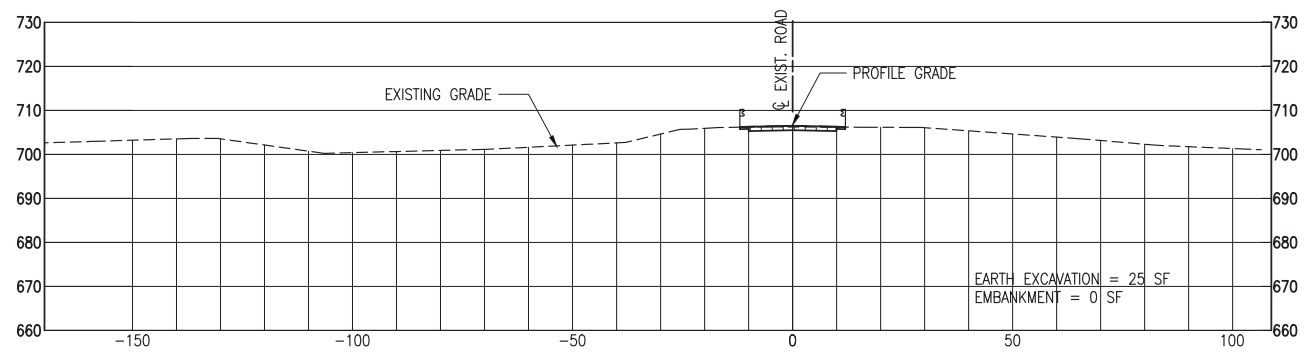
EARTH EXCAVATION = 94 SF
 EMBANKMENT = 0 SF

LEGEND	
	EARTH EXCAVATION
	DAM EMBANKMENT
	COFFERDAM EXCAVATION
	STONE RIPRAP—INCLUDING 2H:1V ANCHOR AT TOE OF RIPRAP



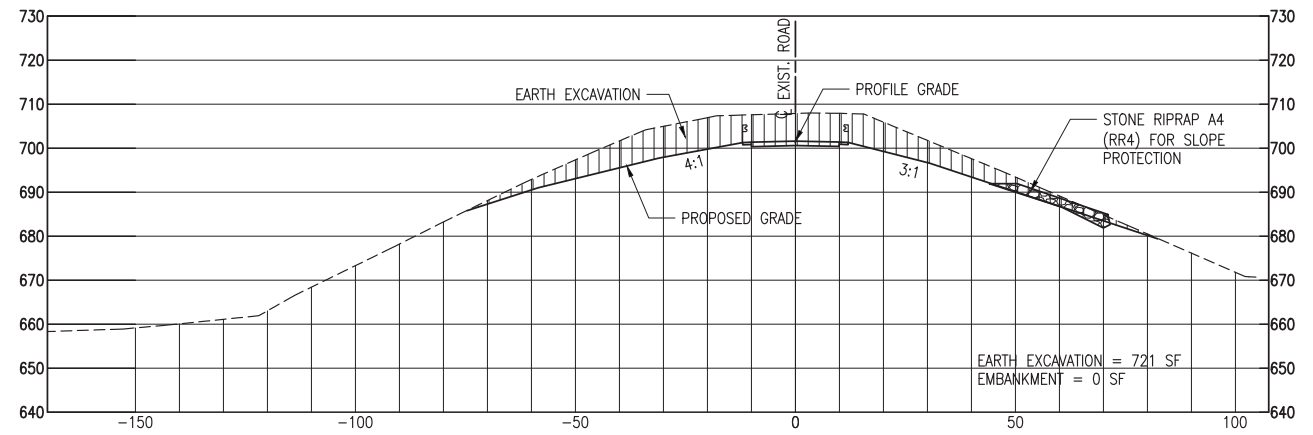
STA. 11+50

EARTH EXCAVATION = 25 SF
 EMBANKMENT = 0 SF



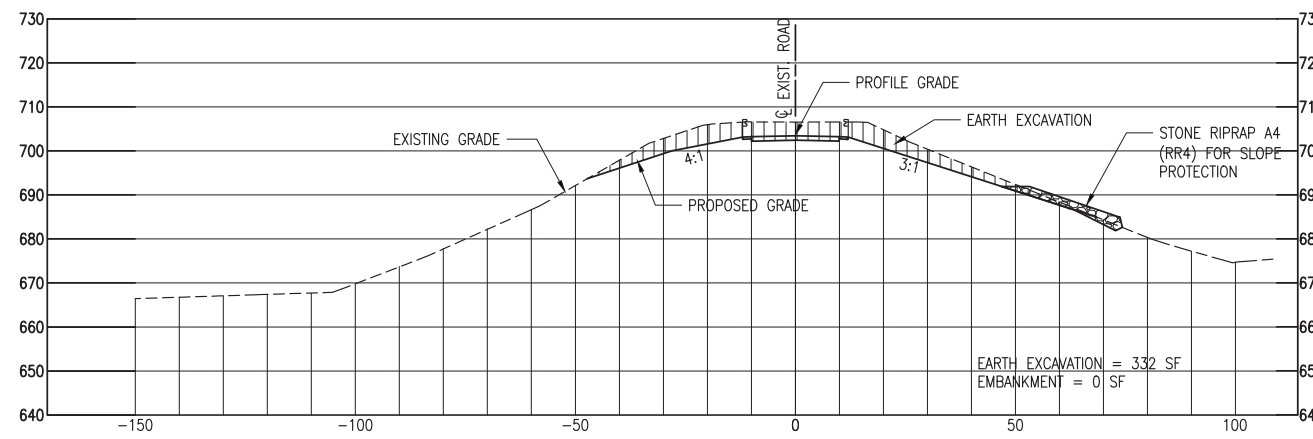
STA. 11+00

EARTH EXCAVATION = 25 SF
 EMBANKMENT = 0 SF



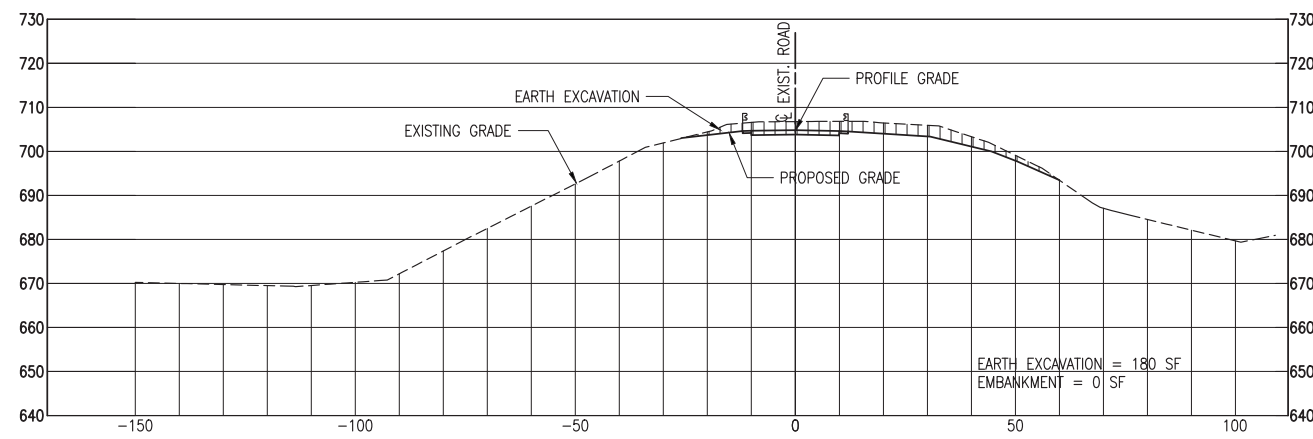
STA. 13+50

EARTH EXCAVATION = 721 SF
 EMBANKMENT = 0 SF



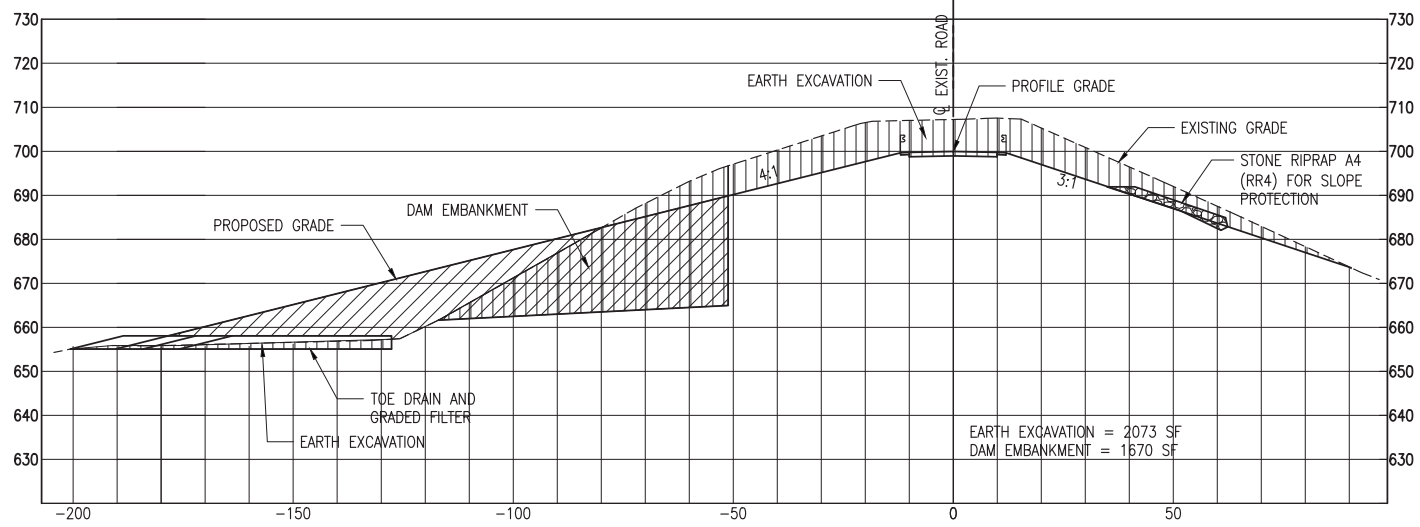
STA. 13+00

EARTH EXCAVATION = 332 SF
 EMBANKMENT = 0 SF



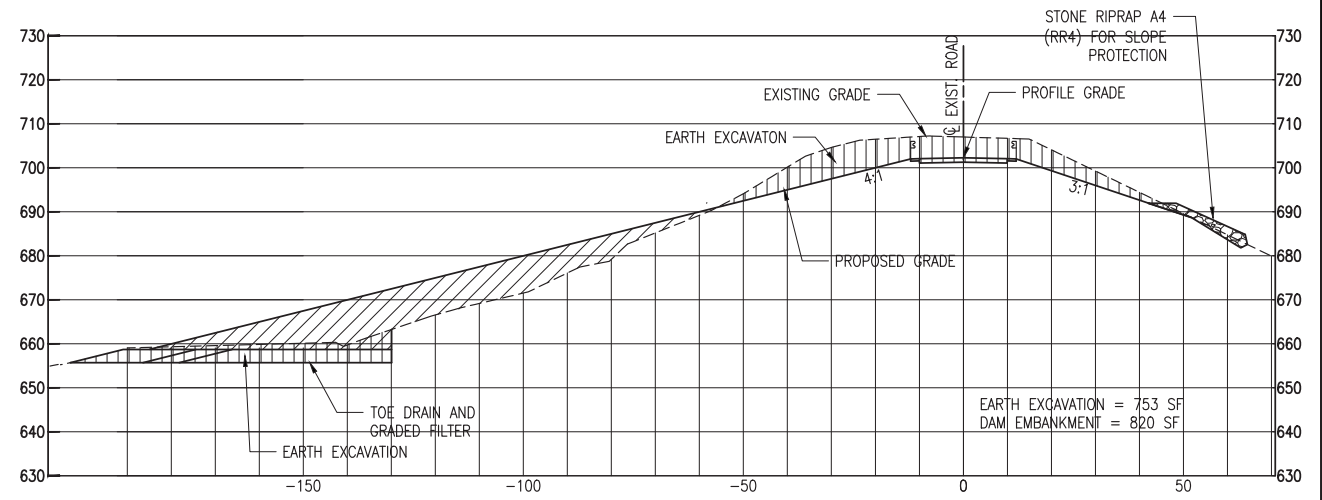
STA. 12+50

EARTH EXCAVATION = 180 SF
 EMBANKMENT = 0 SF

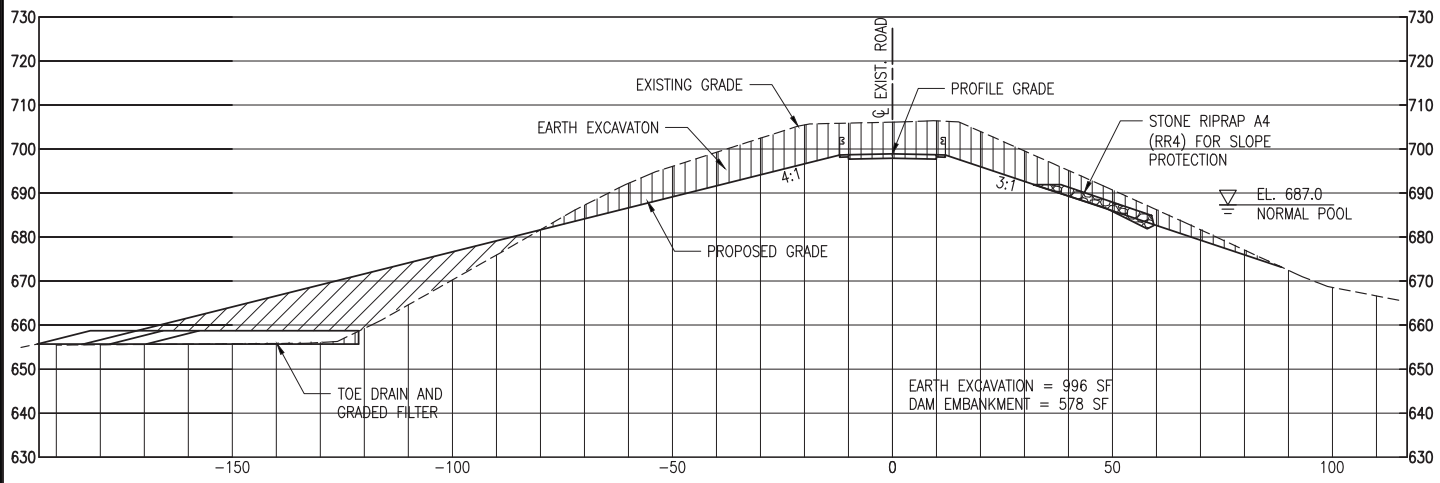


STA. 15+00

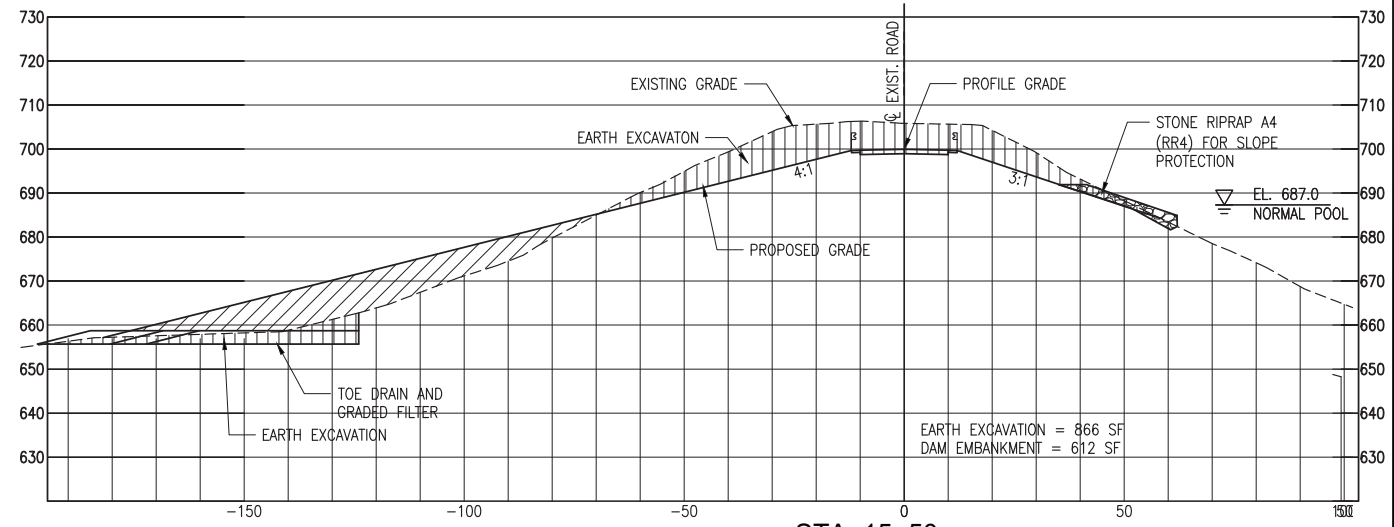
LEGEND	
	EARTH EXCAVATION
	DAM EMBANKMENT
	COFFERDAM EXCAVATION
	STONE RIPRAP—INCLUDING 2H:1V ANCHOR AT TOE OF RIPRAP



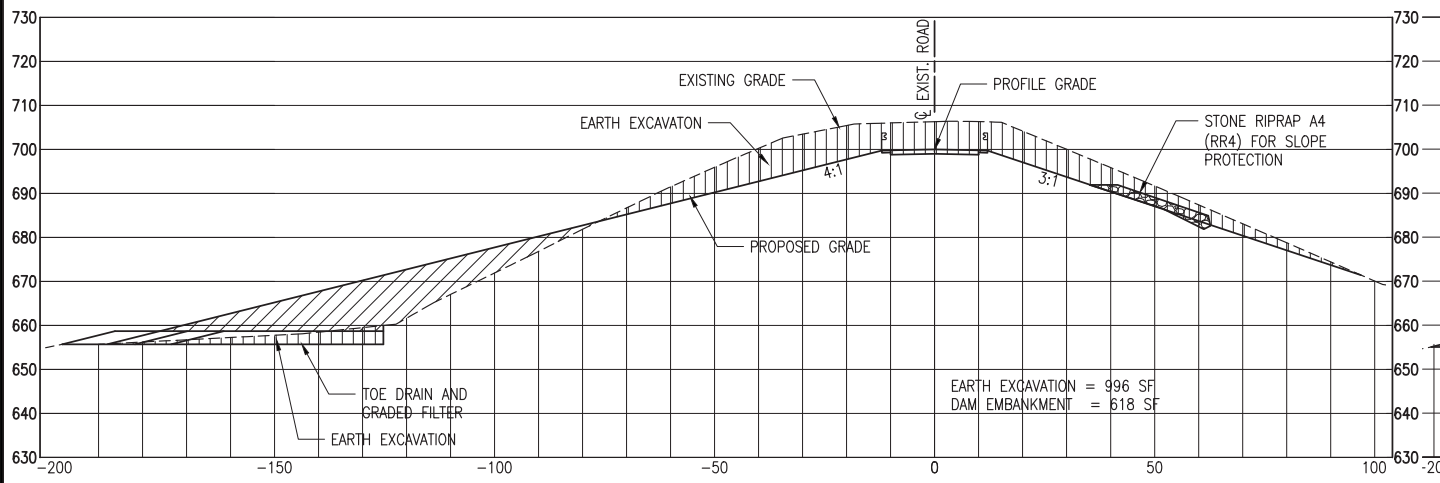
STA. 16+00



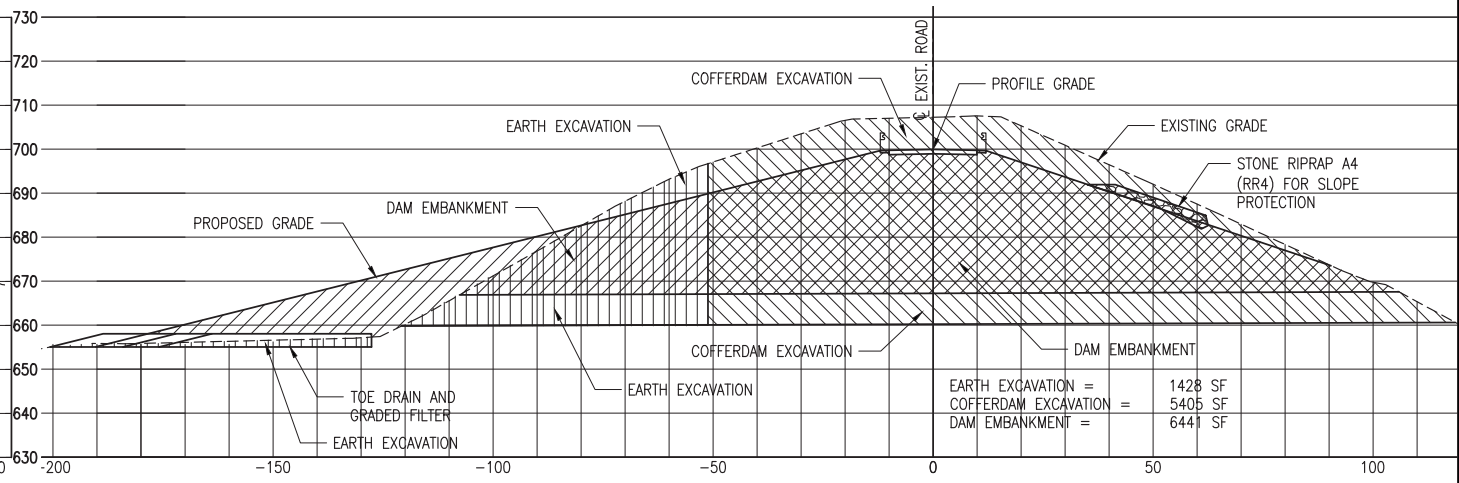
STA. 14+50



STA. 15+50



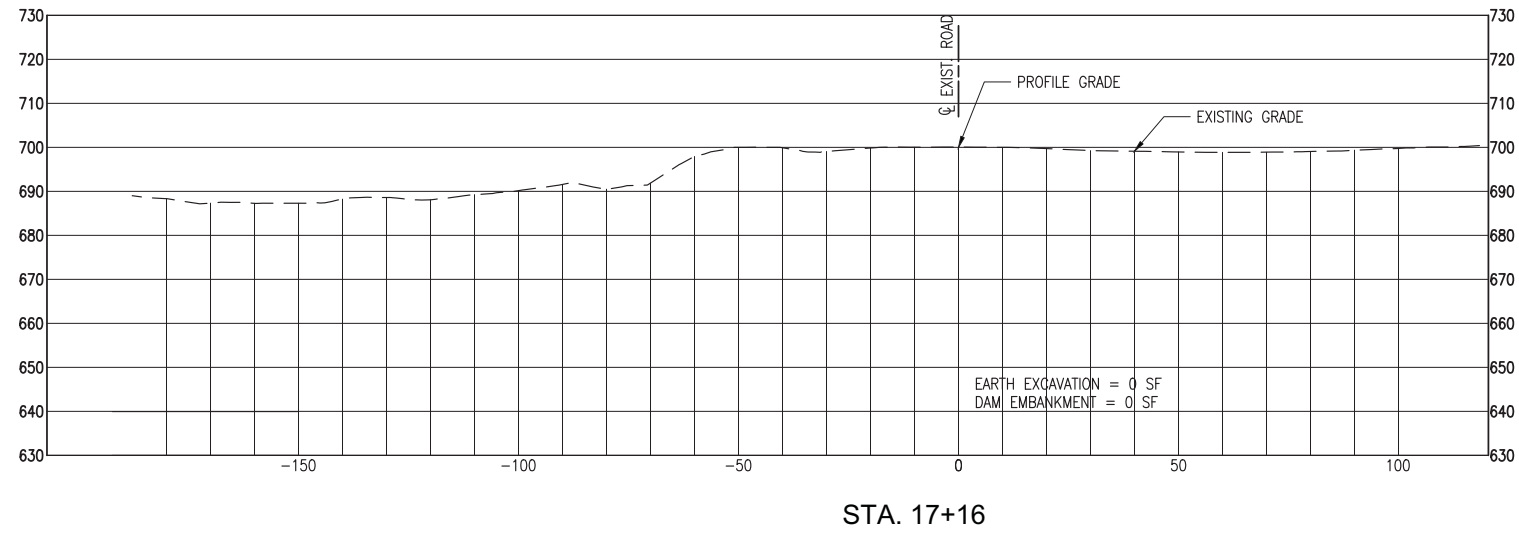
STA. 14+00



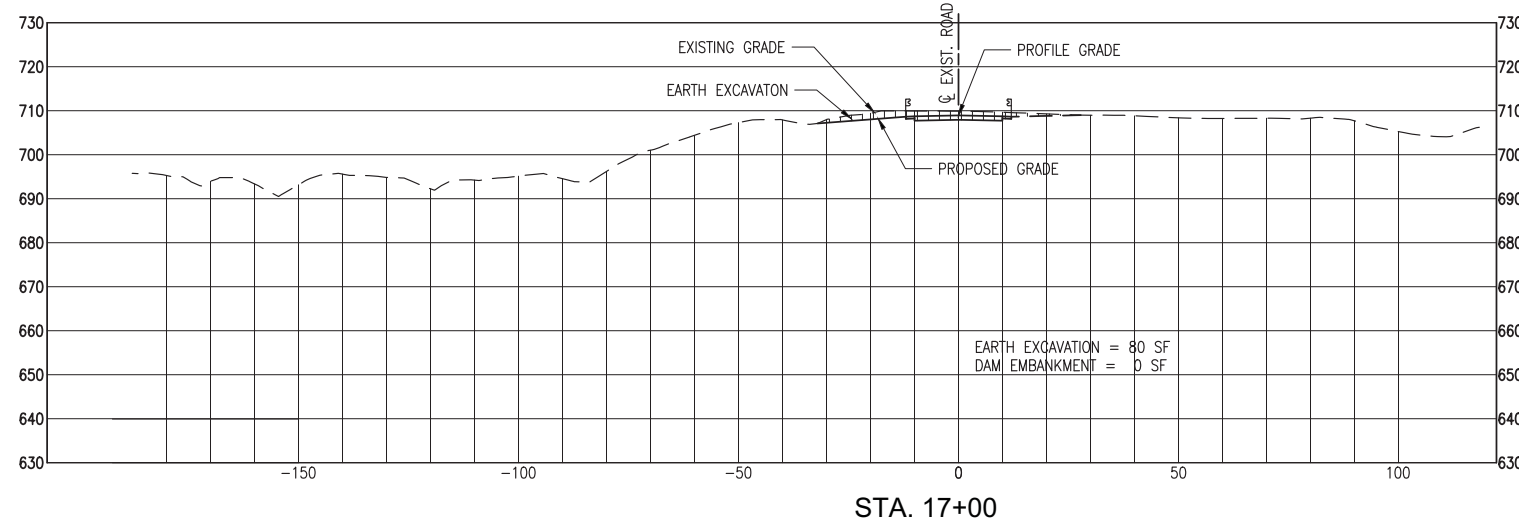
STA. 15+00 TO 15+20 (WITHIN COFFERDAM)
(CULVERT AND CONCRETE STRUCTURES NOT SHOWN FOR CLARITY)

JAN 30, 2015 4:59 PM BRANS00939
I:\12\085\12\08080\CAD\SITE\SHSHEET\21-E ROAD_XSEC.DWG

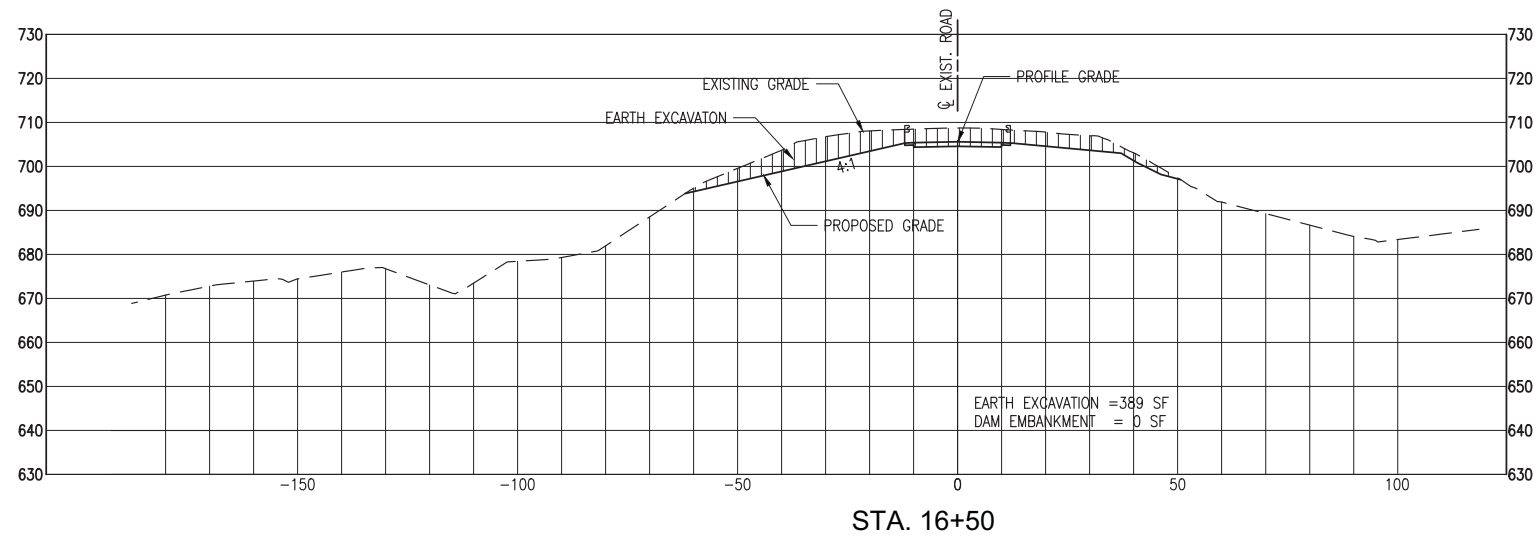
Drawn By: SKB
Checked By: SMA
Date: 12/17/2014
01/21/2015
01/30/2015
01/30/2015



STA. 17+16



STA. 17+00



STA. 16+50

LEGEND	
	EARTH EXCAVATION
	DAM EMBANKMENT
	COFFERDAM EXCAVATION
	STONE RIPRAP

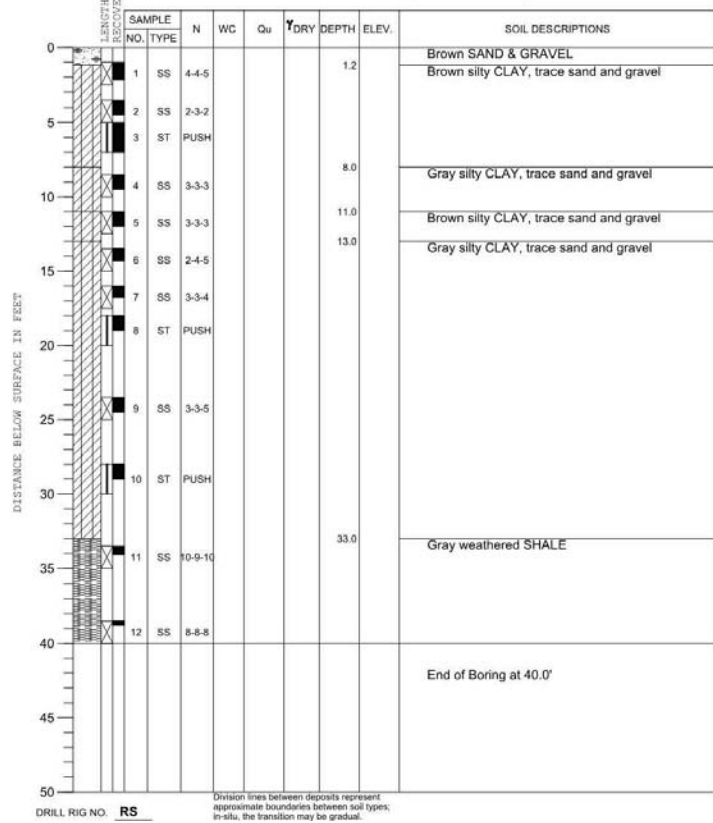
PROJECT Farmington Dam Embankment, Farmington, Illinois

CLIENT Hanson Professional Services Inc., 1525 S. Sixth St., Springfield, IL 62703



BORING B-1 DATE STARTED 6-2-14 DATE COMPLETED 6-2-14 JOB 14-081

ELEVATIONS WATER TABLE
GROUND SURFACE 706.57 (SURVEYED) WHILE DRILLING DRY
END OF BORING AT END OF BORING DRY
24 HOURS



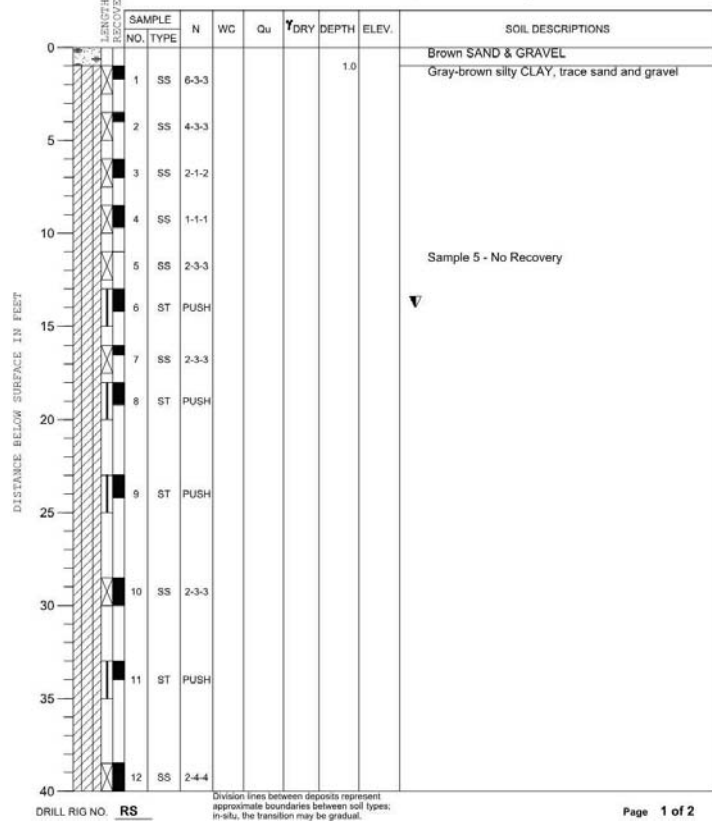
PROJECT Farmington Dam Embankment, Farmington, Illinois

CLIENT Hanson Professional Services Inc., 1525 S. Sixth St., Springfield, IL 62703



BORING B-2 DATE STARTED 6-2-14 DATE COMPLETED 6-2-14 JOB 14-081

ELEVATIONS WATER TABLE
GROUND SURFACE 706.30 (SURVEYED) WHILE DRILLING 14.0'
END OF BORING AT END OF BORING 55.0'
24 HOURS



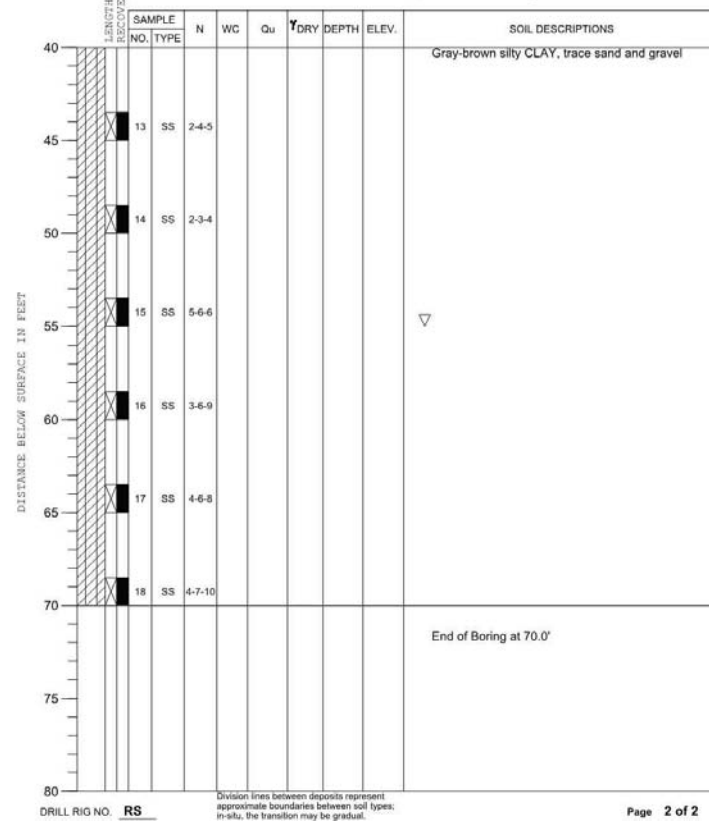
PROJECT Farmington Dam Embankment, Farmington, Illinois

CLIENT Hanson Professional Services Inc., 1525 S. Sixth St., Springfield, IL 62703



BORING B-2 DATE STARTED 6-2-14 DATE COMPLETED 6-2-14 JOB 14-081

ELEVATIONS WATER TABLE
GROUND SURFACE 706.30 (SURVEYED) WHILE DRILLING 14.0'
END OF BORING AT END OF BORING 55.0'
24 HOURS



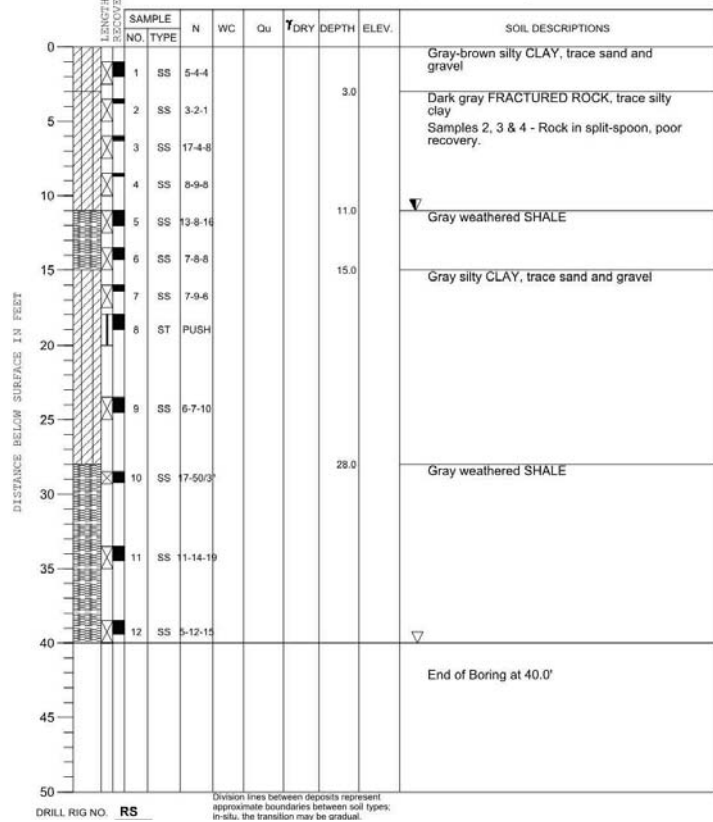
PROJECT Farmington Dam Embankment, Farmington, Illinois

CLIENT Hanson Professional Services Inc., 1525 S. Sixth St., Springfield, IL 62703



BORING B-3 DATE STARTED 6-3-14 DATE COMPLETED 6-3-14 JOB 14-081

ELEVATIONS WATER TABLE
GROUND SURFACE 704.00 (APPROX.) WHILE DRILLING 11.0'
END OF BORING AT END OF BORING 40.0'
24 HOURS



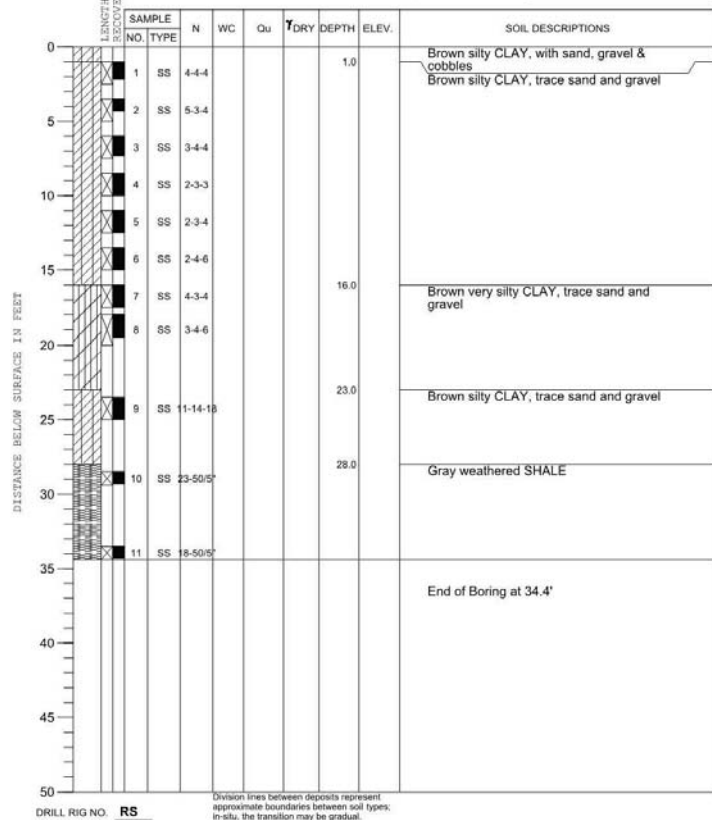
PROJECT Farmington Dam Embankment, Farmington, Illinois

CLIENT Hanson Professional Services Inc., 1525 S. Sixth St., Springfield, IL 62703



BORING B-4 DATE STARTED 6-2-14 DATE COMPLETED 6-2-14 JOB 14-081

ELEVATIONS WATER TABLE
GROUND SURFACE 687.00 (APPROX.) WHILE DRILLING DRY
END OF BORING AT END OF BORING DRY
24 HOURS



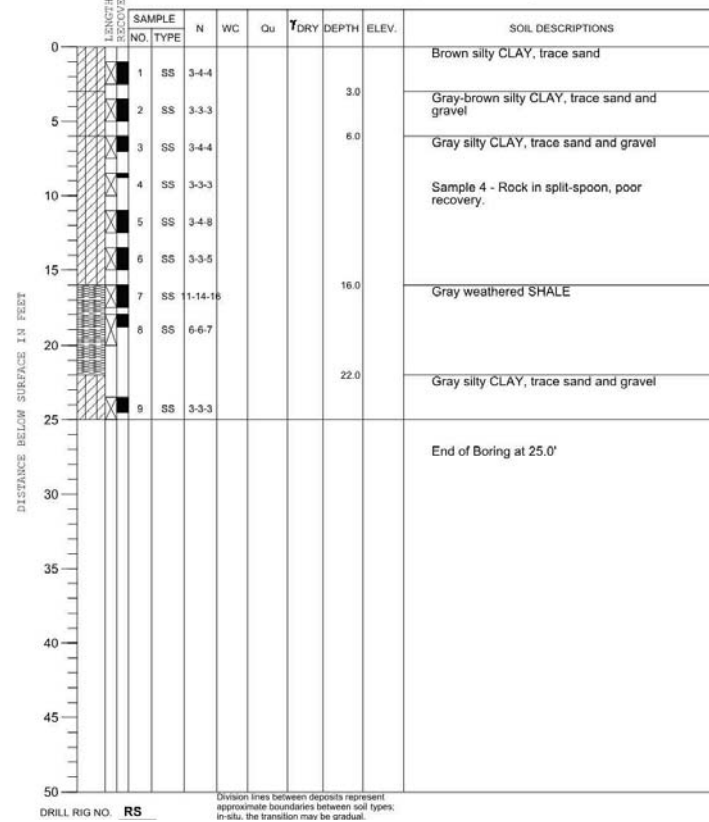
PROJECT Farmington Dam Embankment, Farmington, Illinois

CLIENT Hanson Professional Services Inc., 1525 S. Sixth St., Springfield, IL 62703



BORING B-6 DATE STARTED 5-30-14 DATE COMPLETED 5-30-14 JOB 14-081

ELEVATIONS WATER TABLE
GROUND SURFACE 705.42 (SURVEYED) WHILE DRILLING DRY
END OF BORING AT END OF BORING DRY
24 HOURS



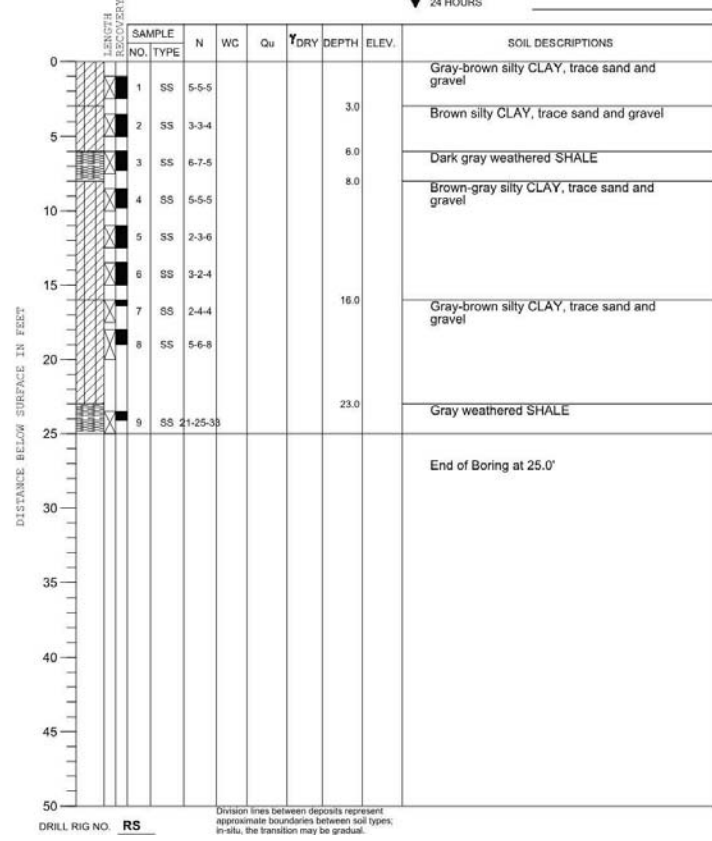
PROJECT Farmington Dam Embankment, Farmington, Illinois

CLIENT Hanson Professional Services Inc., 1525 S. Sixth St., Springfield, IL 62703



BORING B-7 DATE STARTED 5-30-14 DATE COMPLETED 5-30-14 JOB 14-081

ELEVATIONS WATER TABLE
 GROUND SURFACE 698 (APPROX.) WHILE DRILLING DRY
 END OF BORING AT END OF BORING DRY
 24 HOURS



PROJECT Farmington Dam Embankment, Farmington, Illinois

CLIENT Hanson Professional Services Inc., 1525 S. Sixth St., Springfield, IL 62703



BORING B-8 DATE STARTED 5-30-14 DATE COMPLETED 5-30-14 JOB 14-081

ELEVATIONS WATER TABLE
 GROUND SURFACE 682.02 (SURVEYED) WHILE DRILLING DRY
 END OF BORING AT END OF BORING DRY
 24 HOURS

