

CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION

CENTRAL LANDFILL PHASE 2 EXPANSION PERMIT APPLICATION

CITRUS COUNTY, FLORIDA DECEMBER 2002

BOARD OF COUNTY COMMISSIONERS

Roger Batchelor, Commissioner, District 1
 Gary Bartell, 1st Vice Chairman, District 2
 Vicki Phillips, 2nd Vice Chairman, District 3
 Jim Fowler, Chairman, District 4
 Josh Wooten, Commissioner, District 5

COUNTY ADMINISTRATOR

Richard Wm. Wesch, Esq.

PUBLIC WORKS DEPARTMENT DIRECTOR

Kenneth L. Frink, P.E.

SOLID WASTE MANAGEMENT DIRECTOR

Susan J. Metcalfe, P.G.

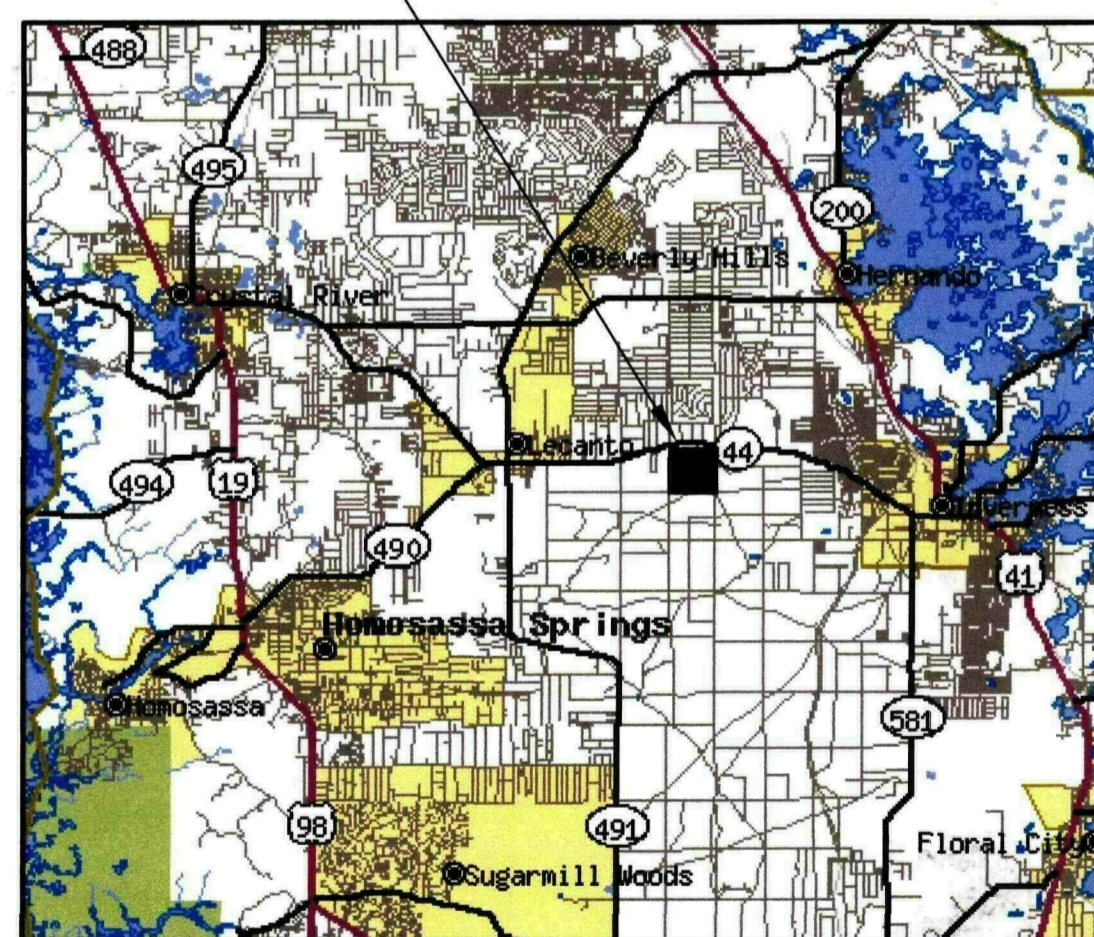
DRAWING INDEX

DRAWING NO.	DRAWING TITLE
1	COVER SHEET
2	OVERALL SITE PLAN
3	SEQUENCE I NEW STORMWATER IMPOUNDMENT
4	SEQUENCE II DEMOLITION PLAN - EXISTING STORMWATER SYSTEM
5	SEQUENCE III NEW WASTE DISPOSAL CELL LINER
6	SECTION - RETENTION POND/IMPOUNDMENTS
7	LEACHATE COLLECTION SYSTEM DETAILS
8	LEACHATE COLLECTION SYSTEM DETAILS
9	LEACHATE COLLECTION SYSTEM DETAILS
10	LEACHATE COLLECTION SYSTEM DETAILS
11	LINER AND TRENCH SYSTEM DETAILS
12	STORMWATER IMPOUNDMENT PUMP STATION DETAILS
13	STORMWATER IMPOUNDMENT SUMP DETAIL
14	STORMWATER AND MISCELLANEOUS DETAILS
15	STORMWATER COLLECTION SYSTEM DETAILS
16	STORMWATER BOX CULVERT DETAILS
17	MISCELLANEOUS DETAILS

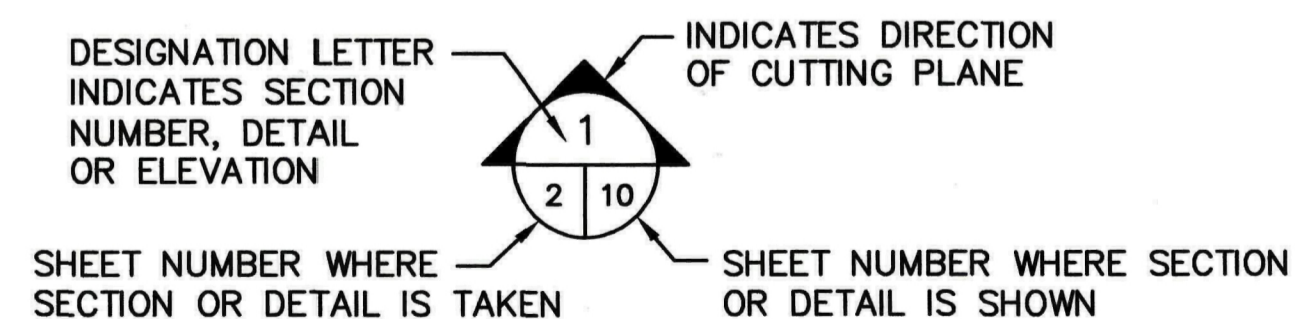
LEGEND AND ABBREVIATIONS

	SHEET FLOW DRAINAGE DIRECTION
	CONCENTRATED DRAINAGE FLOW DIRECTION
	FILL PROGRESSION
	DAILY PROGRESSION
	ZONE/PHASE BOUNDARY
	CENTERLINE OF SWALE
	CENTERLINE OF TEMPORARY SWALE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROJECTED EXISTING CONTOUR
	DOWNCHUTE
	LIMITS OF EXCAVATION OF ORGANIC MATERIAL
	PROPERTY LINE
	FENCELINE
	LANDFILL GAS MONITORING WELL
	EXISTING POWER POLE
	EXISTING GROUNDWATER MONITORING WELL
	SOIL BORING
	VEGETATION
APPROX	APPROXIMATE
CTRD	CENTERED
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ELEV	ELEVATION
IE	INVERT ELEVATION
LF	LINEAR FEET
EXIST	EXISTING
SCH	SCHEDULE
TYP	TYPICAL
Ø	DIAMETER
CONC	CONCRETE
W/	WITH
CMP	CORRUGATED METAL PIPE
MIN	MINIMUM
MAX	MAXIMUM
HDPE	HIGH DENSITY POLYETHYLENE
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
NO	NUMBER
RCP	REINFORCED CONCRETE PIPE
DI	DUCTILE IRON PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
CPP	CORRUGATED POLYETHYLENE PIPE

PROJECT LOCATION



LOCATION MAP

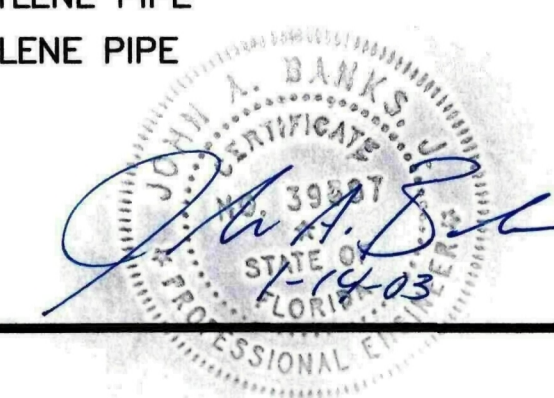


SECTION AND DETAIL DESIGNATION

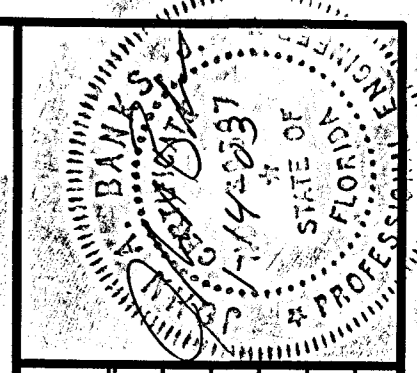
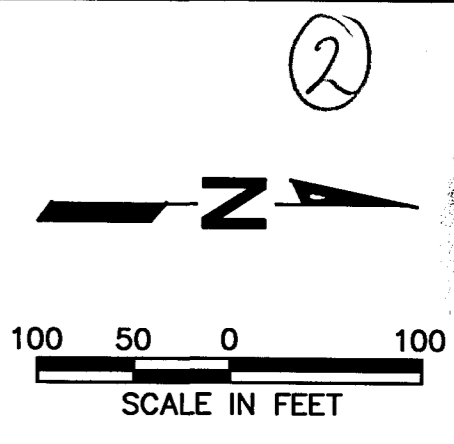
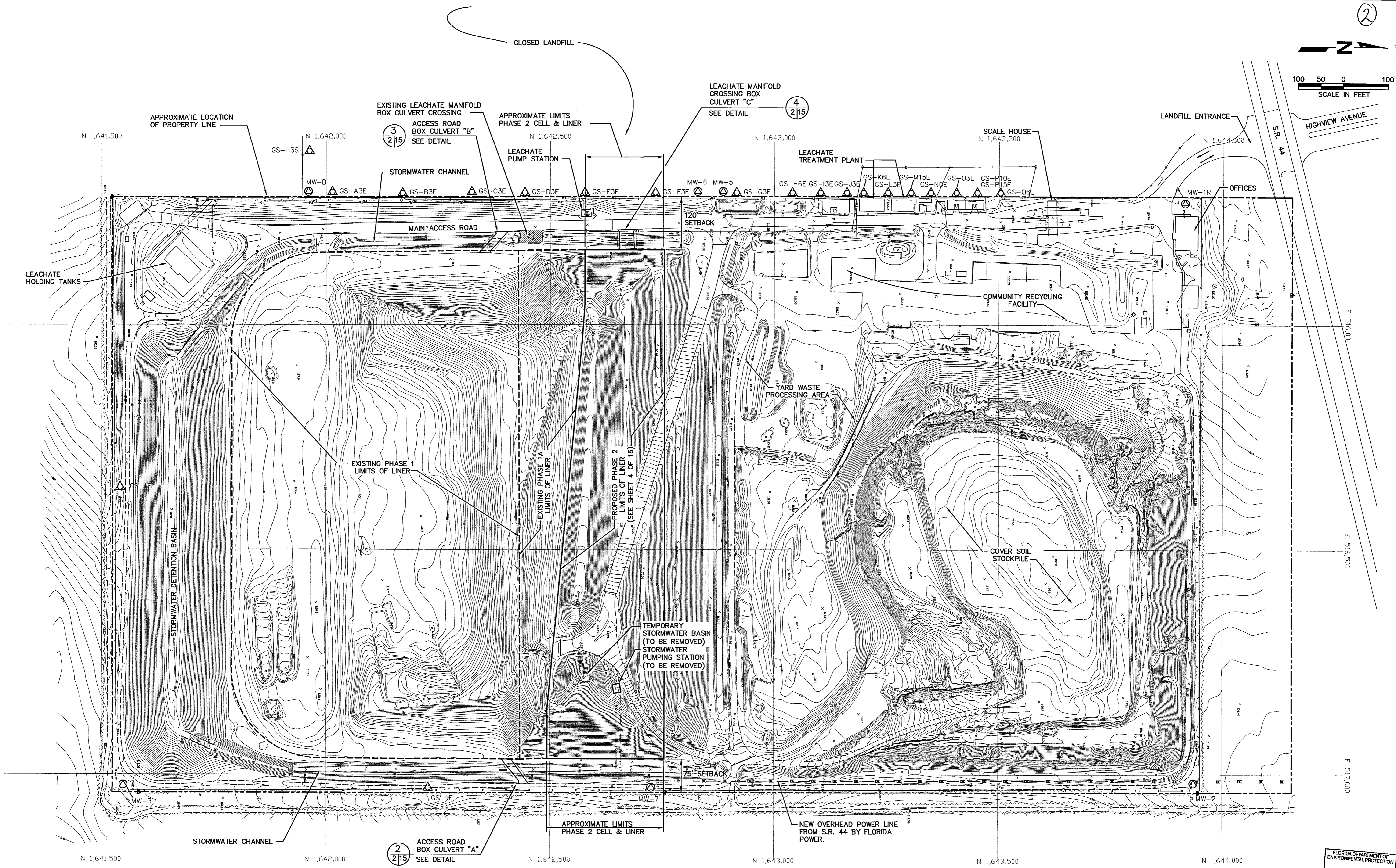
EXISTING STORM WATER PIPELINE	8"	SW
EXISTING LEACHATE FORCE MAIN	6"	FM
UNDERGROUND POWER LINES	UE	
OVERHEAD POWER LINES	OE	

SCS ENGINEERS

ENVIRONMENTAL CONSULTANTS
 3012 U.S. 301 N. SUITE 700
 TAMPA, FLORIDA 33619
 (813) 621-0080
 WWW.SCSENGINEERS.COM



G:\PROJECT\09199056.02\FinalConstruction\995602EXTCND.S.dwg Jan 13, 2003 - 4:27pm Layout Name: EXISTING CONDITIONS By: 99999vel



REV	DATE	DESCRIPTION

DRAWING TITLE
OVERALL SITE PLAN

PROJECT TITLE
CENTRAL LANDFILL
PHASE II EXPANSION

CLIENT
CITRUS COUNTY
SOLID WASTE MANAGEMENT DIVISION
CITRUS COUNTY, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3072 U.S. HWY. 301 NORTH, SUITE 100, TAMPA, FL 33619
PH (813) 995-0556 FAX (813) 995-9151

PROJ. NO. 09199056.02
DWN. BY: GRD/KJG/PEI
CHK. BY: JAB
APP. BY: RJD
SCALE: B/C
DATE: 1/14/03

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JAN 14 2003
SOUTHWEST DISTRICT
TAMPA

NOTE:
THE EXISTING CONTOURS SHOWN
ON THIS SHEET WERE CURRENT AS
OF APRIL 6, 2002.

UPDATE PHOTOGRAPHY: 04-06-02

Prepared by
Kucera South
Lakeland, Florida
Kucera International Inc.
Tampa, FL

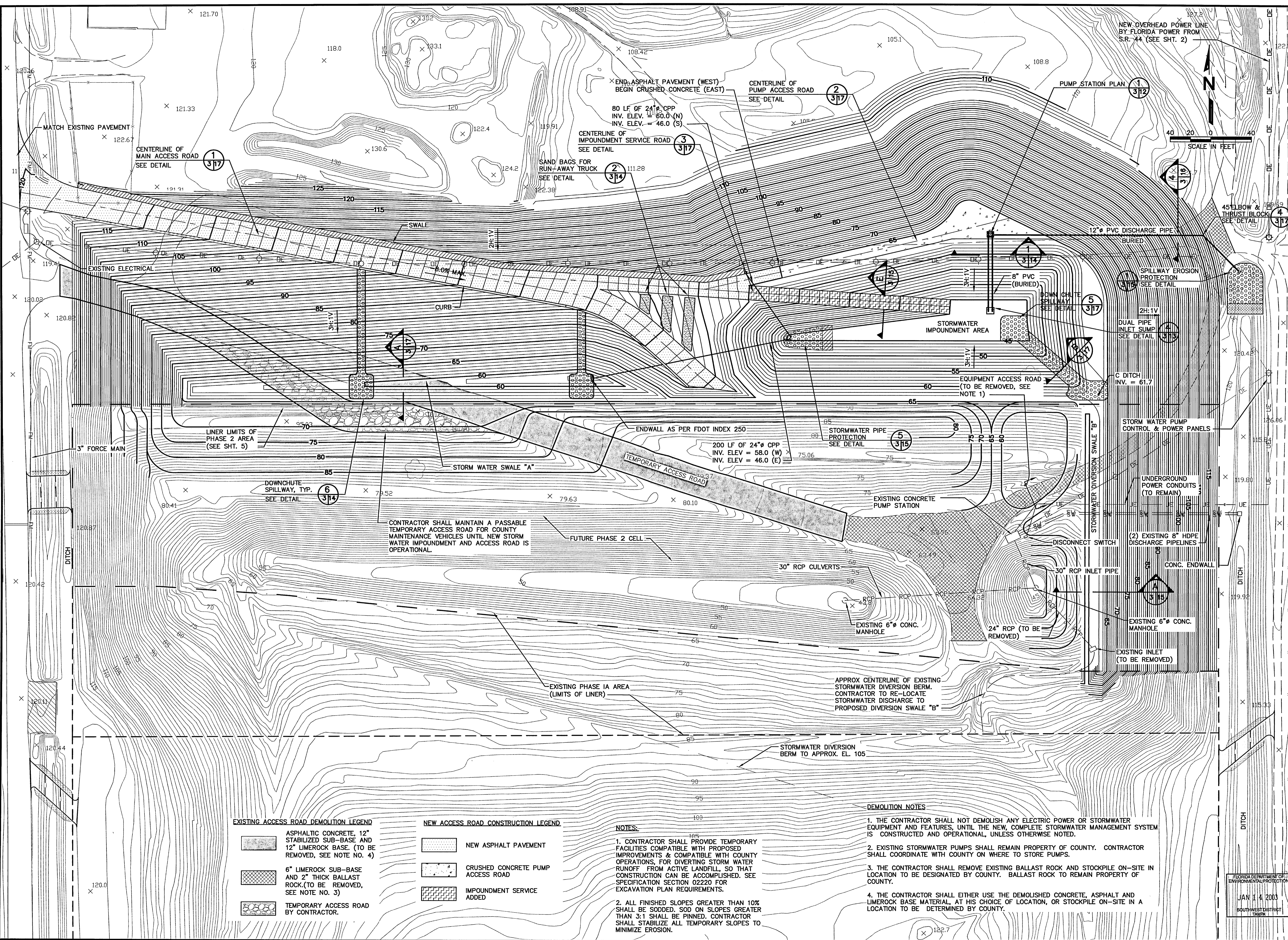
CADD FILE:
995602EXTCND.S.dwg

DATE:
DECEMBER

SCALE:
1" = 100'

DRAWING NO.
2 of 17

G:\PROJECT\0919056.02\FinalConstruction\995602DEMOPLN.dwg Jan 13, 2003 - 3:52pm Layout Name: Sheet 3 By: 9999pe



EXISTING ACCESS ROAD DEMOLITION LEGEND

	ASPHALTIC CONCRETE, 12" STABILIZED SUB-BASE AND 12" LIMEROCK BASE. (TO BE REMOVED, SEE NOTE NO. 4)
	6" LIMEROCK SUB-BASE AND 2" THICK BALLAST ROCK. (TO BE REMOVED, SEE NOTE NO. 3)
	TEMPORARY ACCESS ROAD BY CONTRACTOR.

NEW ACCESS ROAD CONSTRUCTION LEGEND

	NEW ASPHALT PAVEMENT
	CRUSHED CONCRETE PUMP ACCESS ROAD
	IMPOUNDMENT SERVICE ADDED

NOTES:

- CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES COMPATIBLE WITH PROPOSED IMPROVEMENTS & COMPATIBLE WITH COUNTY OPERATIONS, FOR DIVERTING STORM WATER RUNOFF FROM ACTIVE LANDFILL, SO THAT CONSTRUCTION CAN BE ACCOMPLISHED. SEE SPECIFICATION SECTION 02220 FOR EXCAVATION PLAN REQUIREMENTS.
- ALL FINISHED SLOPES GREATER THAN 10% SHALL BE SODDED. SOD ON SLOPES GREATER THAN 3:1 SHALL BE PINNED. CONTRACTOR SHALL STABILIZE ALL TEMPORARY SLOPES TO MINIMIZE EROSION.

DEMOLITION NOTES

- THE CONTRACTOR SHALL NOT DEMOLISH ANY ELECTRIC POWER OR STORMWATER EQUIPMENT AND FEATURES, UNTIL THE NEW, COMPLETE STORMWATER MANAGEMENT SYSTEM IS CONSTRUCTED AND OPERATIONAL, UNLESS OTHERWISE NOTED.
- EXISTING STORMWATER PUMPS SHALL REMAIN PROPERTY OF COUNTY. CONTRACTOR SHALL COORDINATE WITH COUNTY ON WHERE TO STORE PUMPS.
- THE CONTRACTOR SHALL REMOVE EXISTING BALLAST ROCK AND STOCKPILE ON-SITE IN LOCATION TO BE DESIGNATED BY COUNTY. BALLAST ROCK TO REMAIN PROPERTY OF COUNTY.
- THE CONTRACTOR SHALL EITHER USE THE DEMOLISHED CONCRETE, ASPHALT AND LIMEROCK BASE MATERIAL, AT HIS CHOICE OF LOCATION, OR STOCKPILE ON-SITE IN A LOCATION TO BE DETERMINED BY COUNTY.

BY		DESCRIPTION		REV	DATE

SEQUENCE 1 NEW STORMWATER IMPOUNDMENT

CENTRAL LANDFILL PHASE II EXPANSION

DRAWING TITLE

PROJECT TITLE

CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION

CITRUS COUNTY, FLORIDA

CLIENT

SCS ENGINEERS	STEARN, CONRAD AND SCHMIDT CONSULTING ENGINEERS	3012 U.S. HWY. 301 NORTH SUITE 700, TAMPA, FL 33619	PH (813) 821-0000 FAX NO. (813) 822-8157	DWN. BY: CRD/KJG/PEI	O/A R/W BY: BJC
				CHK. BY: JAB	APP. BY: RJD
				DES. BY: BUC/LEK	

CADD FILE: 995602DEMOPLN.dwg

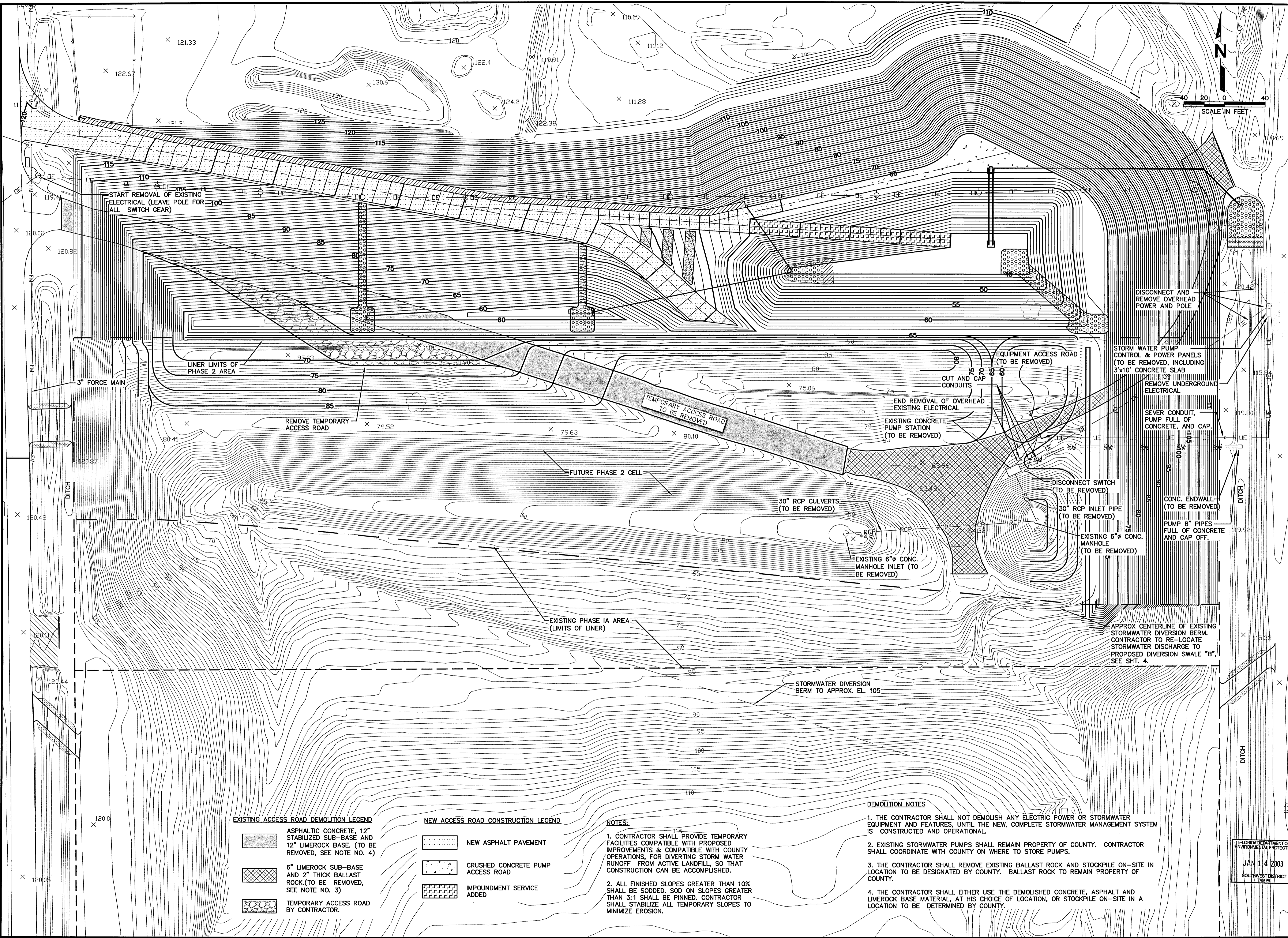
DATE: DECEMBER

SCALE: 1" = 40'

DRAWING NO. **3** of 17

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JAN 14 2003
SOUTHWEST DISTRICT
TAMPA

G:\PROJECT\09199056.02\FinalConstruction\995602GRDRNIMP.dwg Jan 13, 2003 - 4:28pm Layout Name: Seq 2 Demo Plan (4) By: 9999pef



EXISTING ACCESS ROAD DEMOLITION LEGEND

- ASPHALTIC CONCRETE, 12" STABILIZED SUB-BASE AND 12" LIMEROCK BASE. (TO BE REMOVED, SEE NOTE NO. 4)
- 6" LIMEROCK SUB-BASE AND 2" THICK BALLAST ROCK (TO BE REMOVED, SEE NOTE NO. 3)
- TEMPORARY ACCESS ROAD BY CONTRACTOR.

NEW ACCESS ROAD CONSTRUCTION LEGEND

- NEW ASPHALT PAVEMENT
- CRUSHED CONCRETE PUMP ACCESS ROAD
- IMPOUNDMENT SERVICE ADDED

NOTES:

- CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES COMPATIBLE WITH PROPOSED IMPROVEMENTS & COMPATIBLE WITH COUNTY OPERATIONS, FOR DIVERTING STORM WATER RUNOFF FROM ACTIVE LANDFILL, SO THAT CONSTRUCTION CAN BE ACCOMPLISHED.
- ALL FINISHED SLOPES GREATER THAN 10% SHALL BE SODDED, SOD ON SLOPES GREATER THAN 3:1 SHALL BE PINNED. CONTRACTOR SHALL STABILIZE ALL TEMPORARY SLOPES TO MINIMIZE EROSION.

DEMOLITION NOTES

- THE CONTRACTOR SHALL NOT DEMOLISH ANY ELECTRIC POWER OR STORMWATER EQUIPMENT AND FEATURES, UNTIL THE NEW, COMPLETE STORMWATER MANAGEMENT SYSTEM IS CONSTRUCTED AND OPERATIONAL.
- EXISTING STORMWATER PUMPS SHALL REMAIN PROPERTY OF COUNTY. CONTRACTOR SHALL COORDINATE WITH COUNTY ON WHERE TO STORE PUMPS.
- THE CONTRACTOR SHALL REMOVE EXISTING BALLAST ROCK AND STOCKPILE ON-SITE IN LOCATION TO BE DESIGNATED BY COUNTY. BALLAST ROCK TO REMAIN PROPERTY OF COUNTY.
- THE CONTRACTOR SHALL EITHER USE THE DEMOLISHED CONCRETE, ASPHALT AND LIMEROCK BASE MATERIAL, AT HIS CHOICE OF LOCATION, OR STOCKPILE ON-SITE IN A LOCATION TO BE DETERMINED BY COUNTY.

REV	DATE	DESCRIPTION

DRAWING TITLE
SEQUENCE II DEMOLITION PLAN
EXISTING STORMWATER SYSTEM

PROJECT TITLE
CENTRAL LANDFILL
PHASE II EXPANSION

**CITRUS COUNTY
SOLID WASTE MANAGEMENT DIVISION
CITRUS COUNTY, FLORIDA**

CLIENT

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 100, TAMPA, FL 33619
PH (813) 821-9800 FAX (813) 822-8197

OWN. BY: 09199056.02	DES. BY: BUC/LEK	DRAWN BY: GRD/KJG/PEI	CHECKED BY: JAB	DATE: JAN 14 2003
APP. BY: BJC	APP. BY: BJC	APP. BY: BJC	APP. BY: BJC	APP. BY: BJC

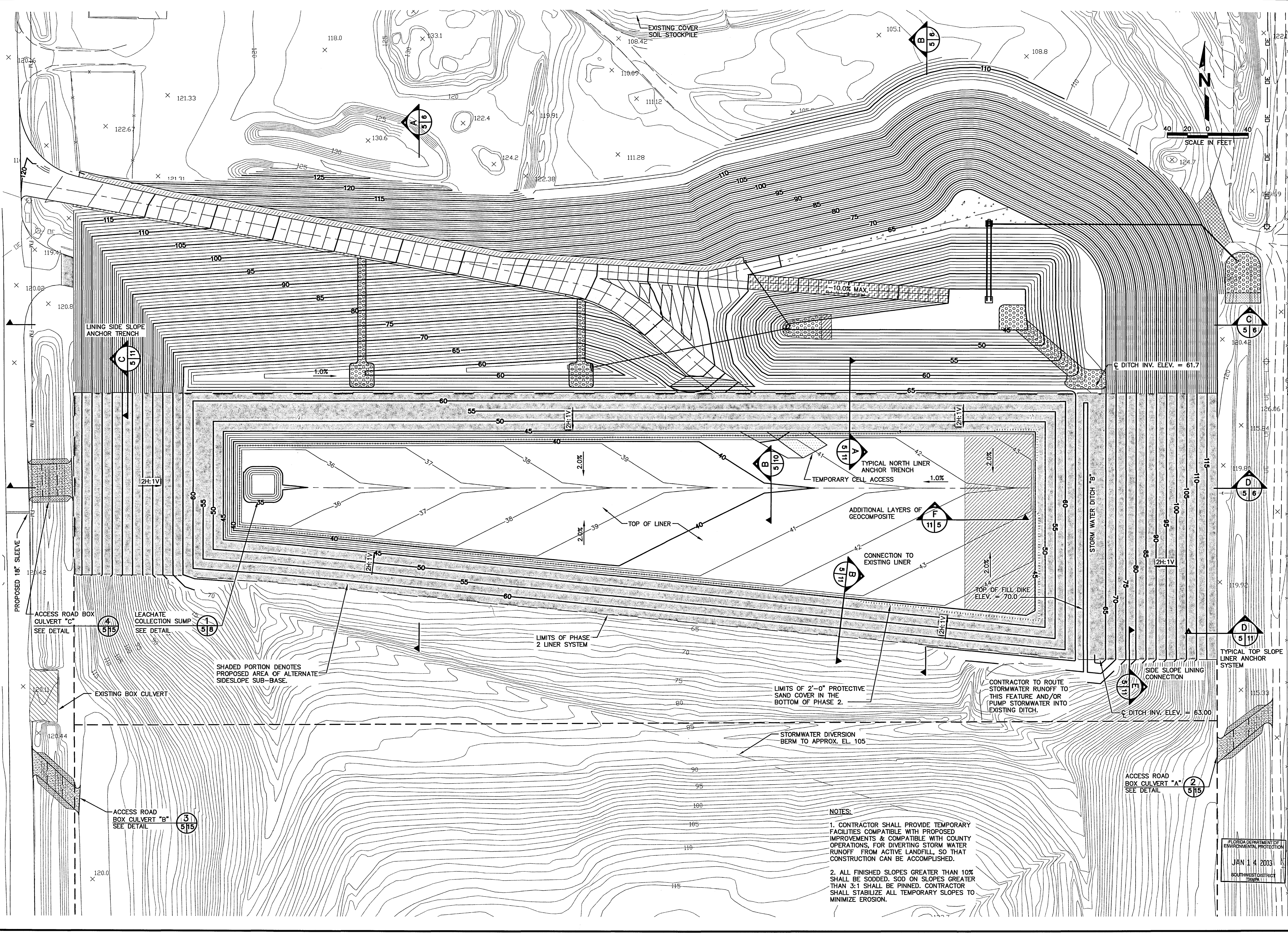
CADD FILE: 995602GRDRNIMP.dwg

DATE: DECEMBER

SCALE: 1" = 40'

DRAWING NO. **4** of 17

C:\PROJECT\09199056.02\FinalConstruction\995602IMPNDGRD.dwg Jan 13, 2003 - 4:28pm Layout Name: Seq 3 grading (5) By: 9999pe1

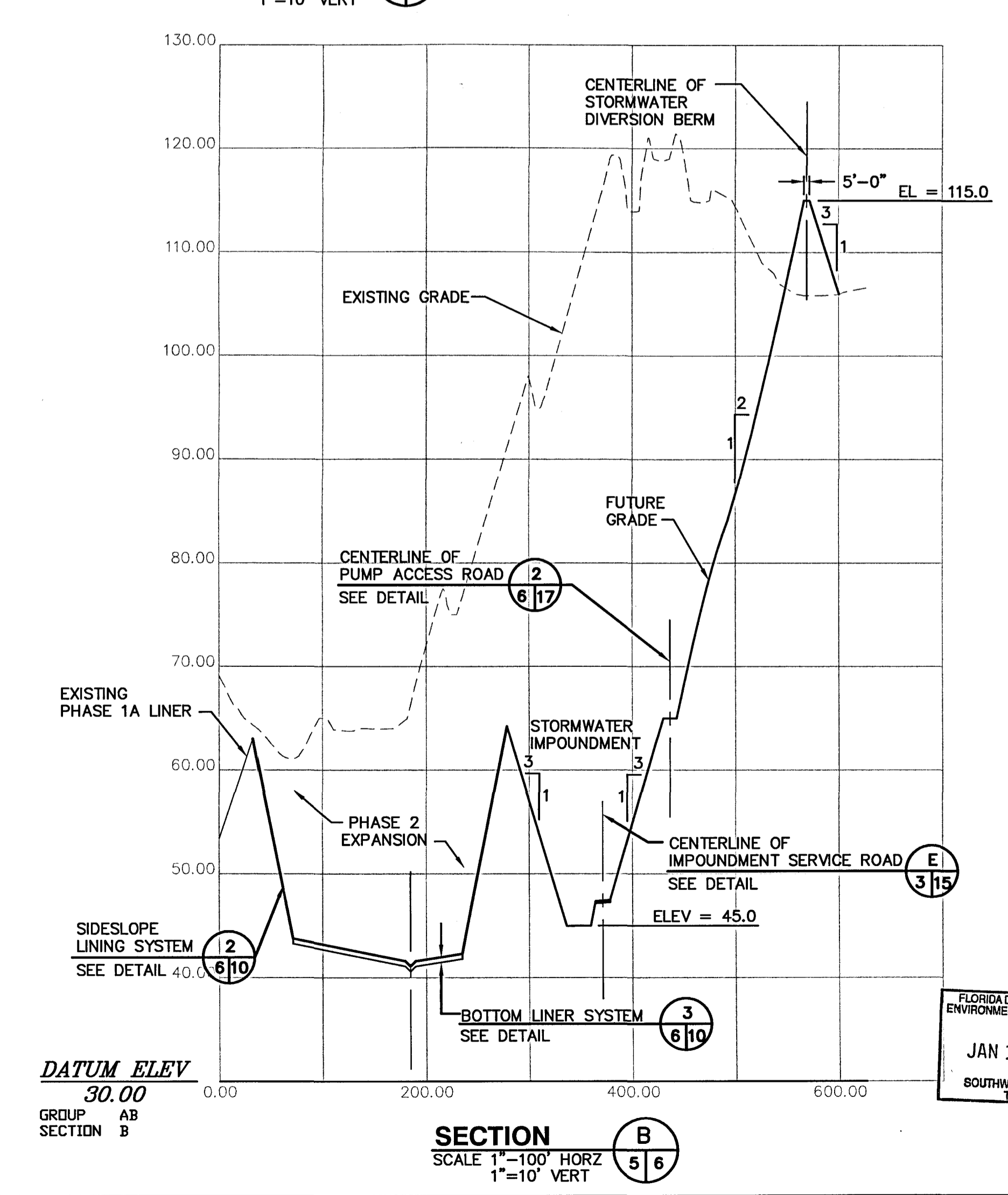
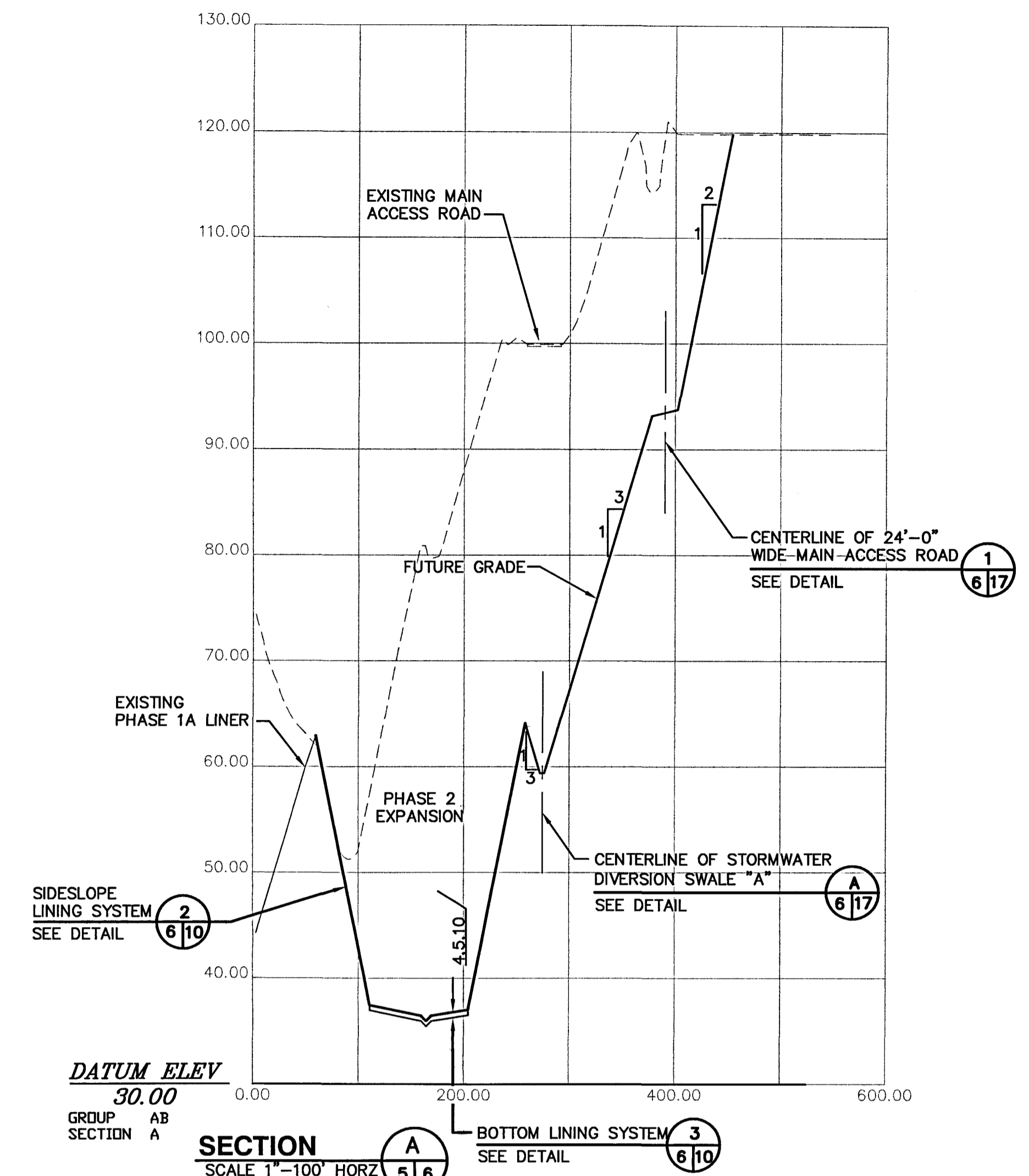
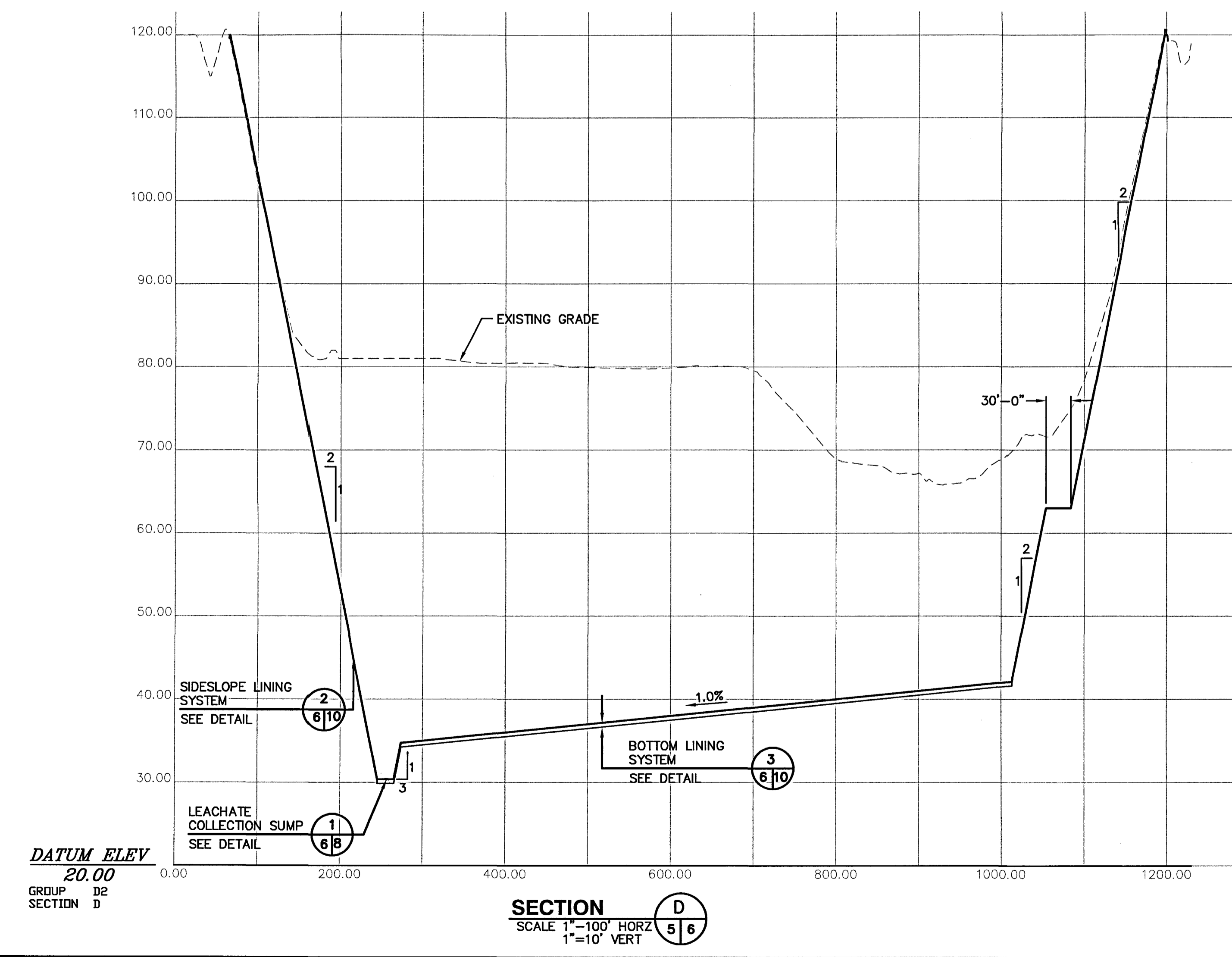
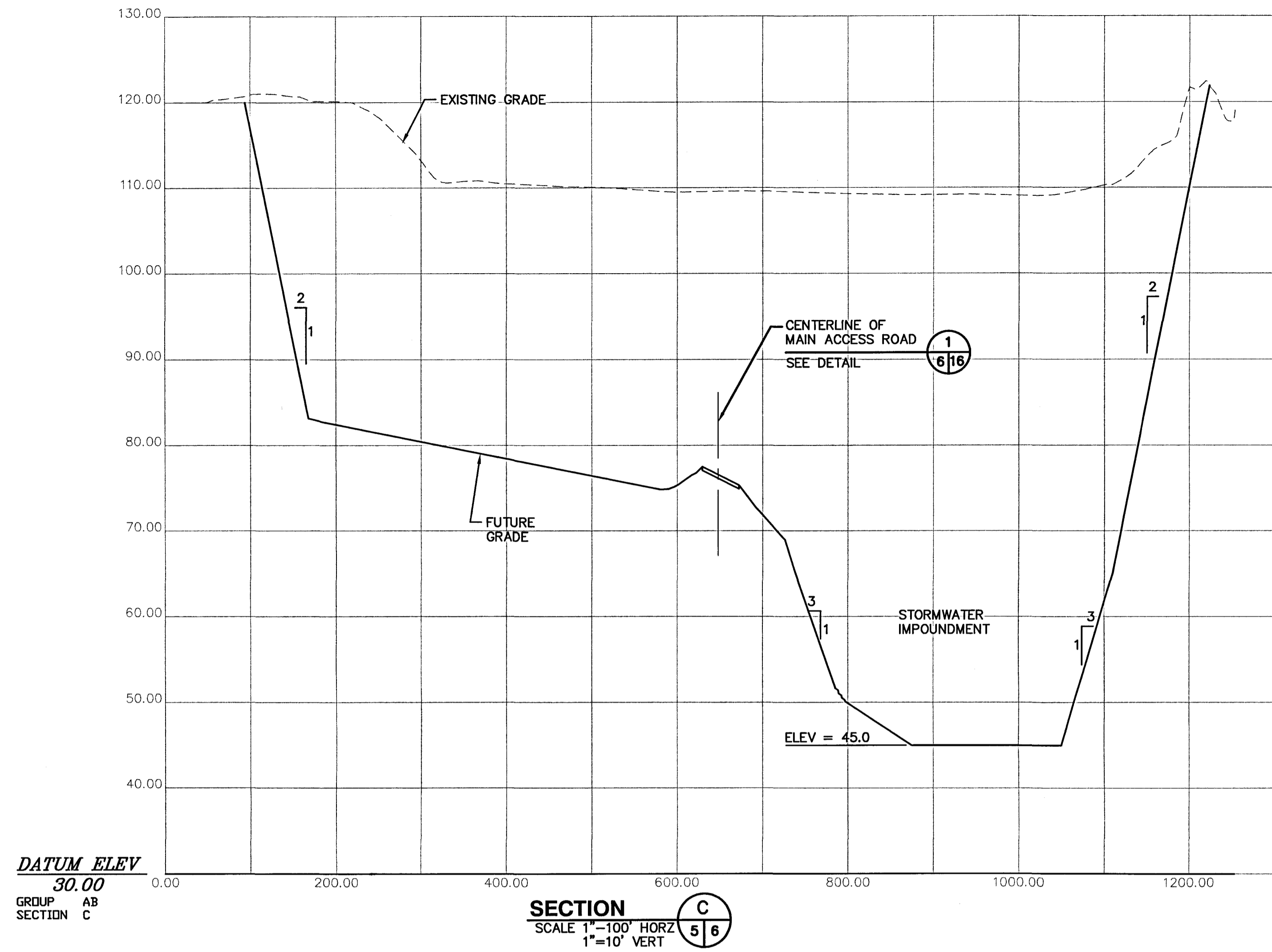


NOTES:

1. CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES COMPATIBLE WITH PROPOSED IMPROVEMENTS & COMPATIBLE WITH COUNTY OPERATIONS, FOR DIVERTING STORM WATER RUNOFF FROM ACTIVE LANDFILL, SO THAT CONSTRUCTION CAN BE ACCOMPLISHED.
2. ALL FINISHED SLOPES GREATER THAN 10% SHALL BE SODDED. SOD ON SLOPES GREATER THAN 3:1 SHALL BE PINNED. CONTRACTOR SHALL STABILIZE ALL TEMPORARY SLOPES TO MINIMIZE EROSION.

BY	DESCRIPTION
DATE	
REV	
SEQUENCE III NEW WASTE DISPOSAL CELL LINER CENTRAL LANDFILL PHASE II EXPANSION	
DRAWING TITLE: SEQUENCE III NEW WASTE DISPOSAL CELL LINER PROJECT TITLE: CENTRAL LANDFILL PHASE II EXPANSION	
CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION CITRUS COUNTY, FLORIDA	
CLIENT: CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION PROJECT TITLE: CITRUS COUNTY, FLORIDA	
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3812 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619 PH (813) 667-0888 FAX (813) 667-9787 PROJ. NO. 09199056.02 GRD/KJG/PEI DESK: BUC/LEK CIRC: BUC/JAB APP: BUC/RUD	
CADD FILE: 995602IMPNDGRD.dwg DATE: DECEMBER SCALE: 1" = 40' DRAWING NO.	
5 of 17	

G:\PROJECT\09199056.02\FinalConstruction\995602IMPSECTS.dwg Jun 13, 2003 4:29pm Layout Name: SECTIONS By: 9999ppl



REV	DATE	DESCRIPTION

DRAWING TITLE
SECTIONS RETENTION POND / IMPOUND

PROJECT TITLE
CENTRAL LANDFILL PHASE II EXPANSION

CLIENT
CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION
CITRUS COUNTY, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 821-0800 FAX NO. (813) 822-6767

PROJ. NO. 09199056.02
ISSN BY: BUC/LEK
DWN BY: GRD/AJG/PEI
APP. BY: JAB
CHK. BY: BUC
RD. BY: BUC

CADD FILE:
995602IMPSECTS.dwg

DATE:
DECEMBER

SCALE:
AS SHOWN

DRAWING NO.:
6 of 17

JAN 14 2003
SOUTHWEST DISTRICT TAMPA



REV	DATE	DESCRIPTION
1		
2		
3		
4		
5		

DRAWING TITLE
LEACHATE COLLECTION SYSTEM DETAILS

PROJECT TITLE
CENTRAL LANDFILL PHASE II EXPANSION

CLIENT
**CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION
CITRUS COUNTY, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 641-0880 FAX NO. (813) 623-6757

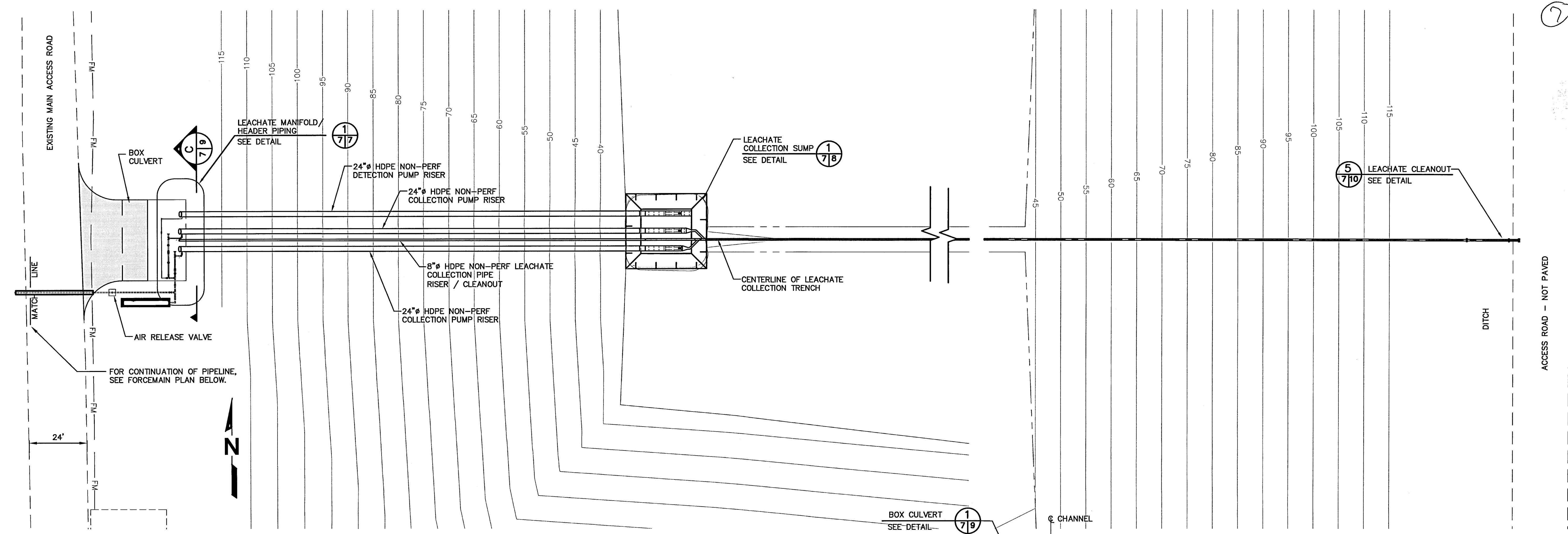
PROJ. NO. 09199056.02
DRAWN BY: CRD/KJG/PEI
CHECKED BY: BUC/LEK
DATE: 1/14/03
SCALE: AS SHOWN
APP. BY: JAB
R.D.

CADD FILE:
995602PLNSECLCH.dwg

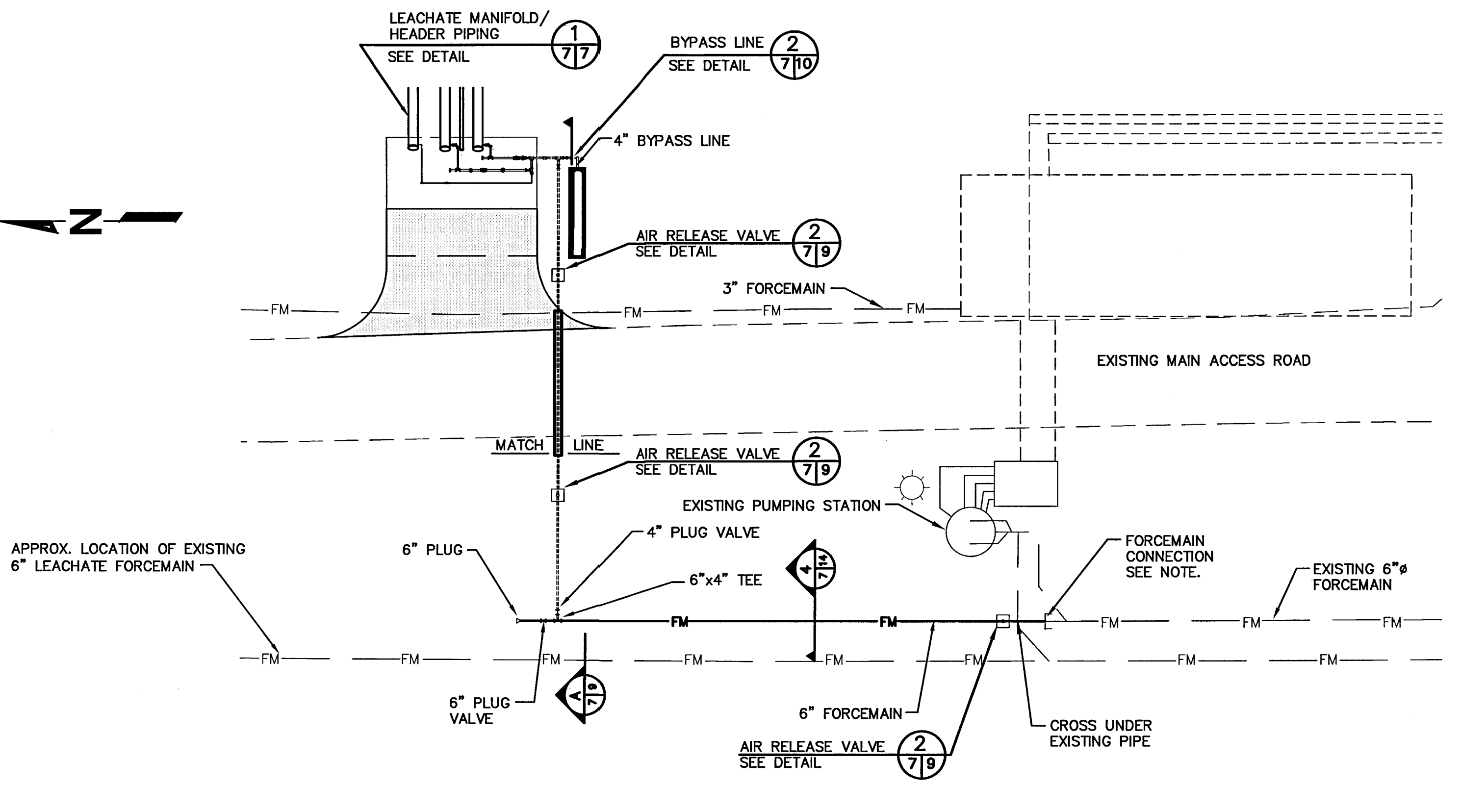
DATE:
DECEMBER

SCALE:
NO SCALE

DRAWING NO.
7 of 17

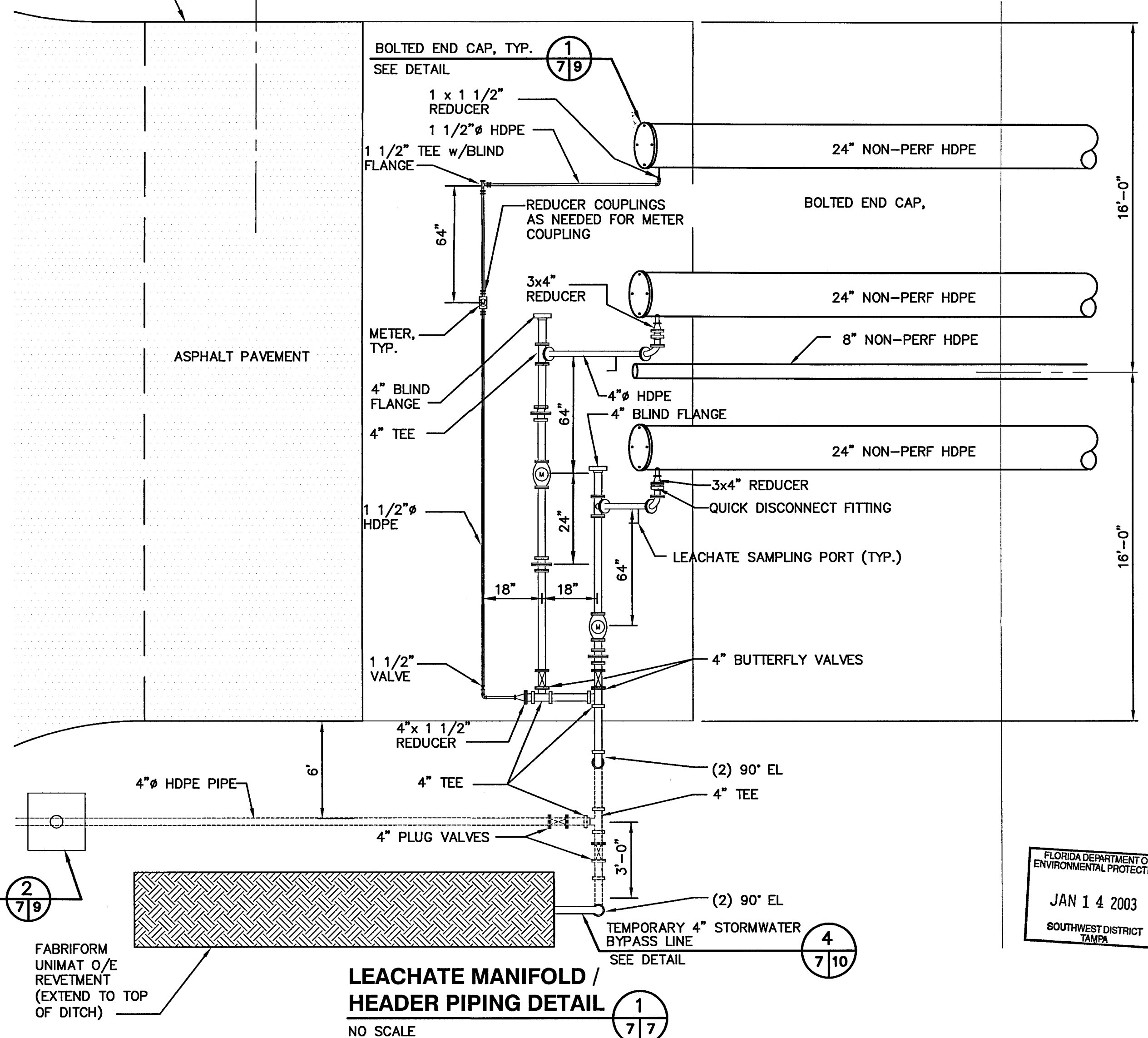


COLLECTION HEADER, SUMP, AND RISER PLAN
NO SCALE



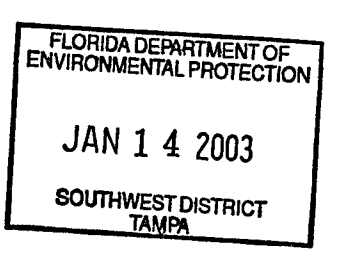
6" FORCEMAIN PLAN
NO SCALE

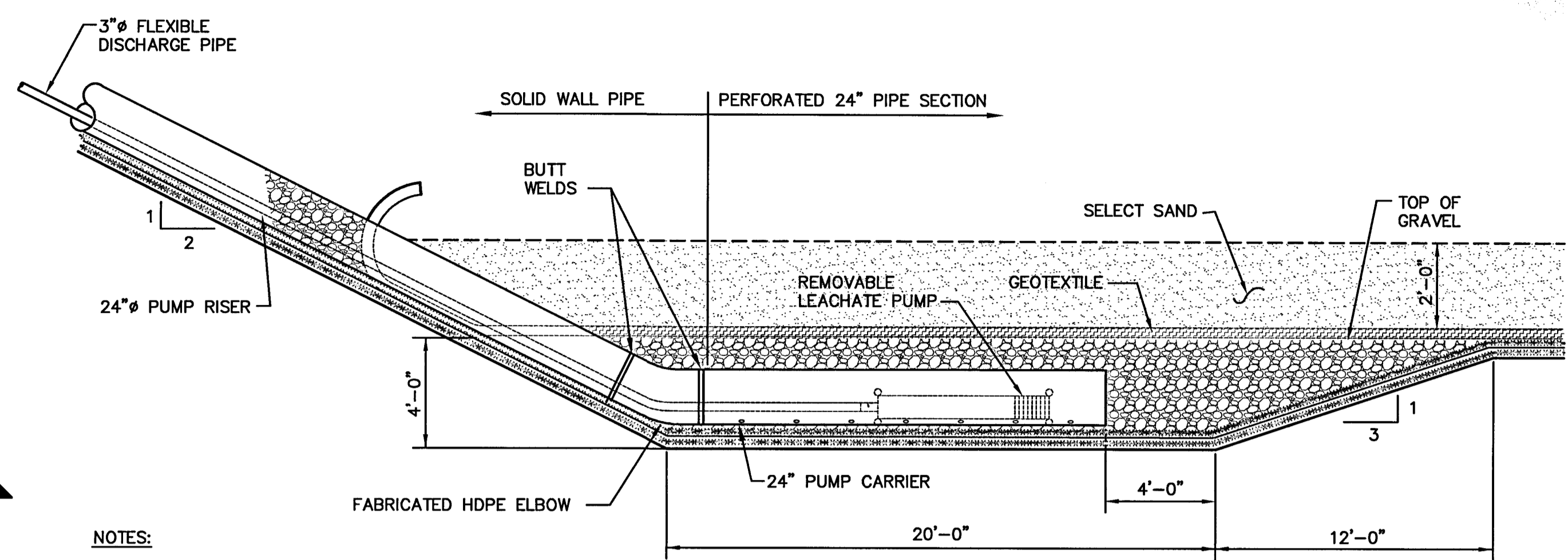
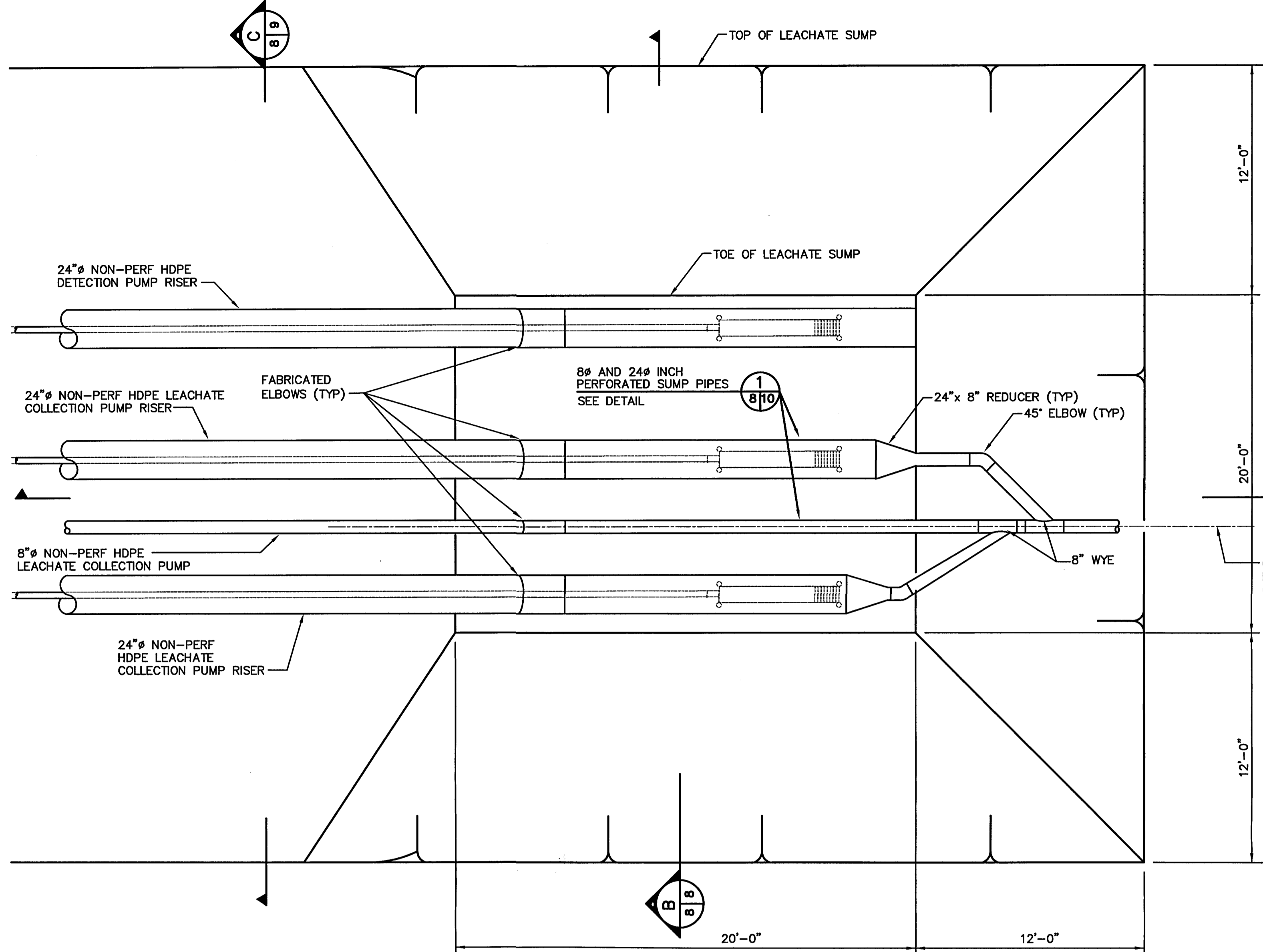
NOTE:
REMOVE THRUST BLOCK AND BLIND FLANGE. CONNECT 6" FORCEMAIN TO EXISTING 6" FORCEMAIN.



LEACHATE MANIFOLD / HEADER PIPING DETAIL
NO SCALE

G:\PROJECT\09199056.02\FinalConstruction\995602PLNSECLCH.dwg Jan 13, 2003 - 4:30pm Layout Name: Leach-FM-Plan (7) BJC 9999pef

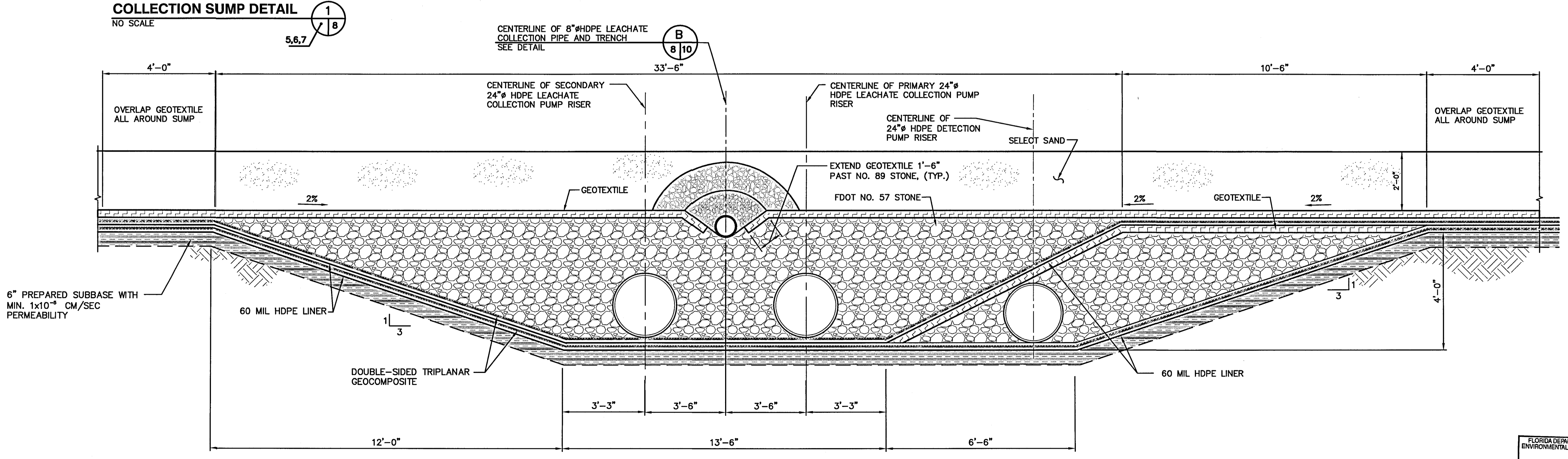




- NOTES:
1. GEOTEXTILE SHALL BE CUT AND FITTED AROUND THE 24" PUMP RISER.
 2. GEOTEXTILE SHALL EXTEND UP THE SLOPE UNTIL IT DAYLIGHTS ABOVE THE 2'-0" SELECT SAND COVER.
 3. CONTRACTOR SHALL GRIND SMOOTH THE WELD BEAD ON THE INTERIOR OF THE 24" PUMP RISER TUBE, 24" ELBOW AND 24" PUMP CARRIER PIPES.
 4. THE GEOCOMPOSITE DRAINAGE NETS SHALL OVERLAP A MINIMUM OF 20 FEET WHEN MATS INTERSECT AT ANGLES GREATER THAN 45°.

LEACHATE COLLECTION SUMP SECTION A
NO SCALE

LEACHATE COLLECTION SUMP DETAIL
NO SCALE



LEACHATE COLLECTION SUMP SECTION B
NO SCALE

REV	DATE	DESCRIPTION

DRAWING TITLE	LEACHATE COLLECTION SYSTEM DETAILS
PROJECT TITLE	CENTRAL LANDFILL PHASE II EXPANSION

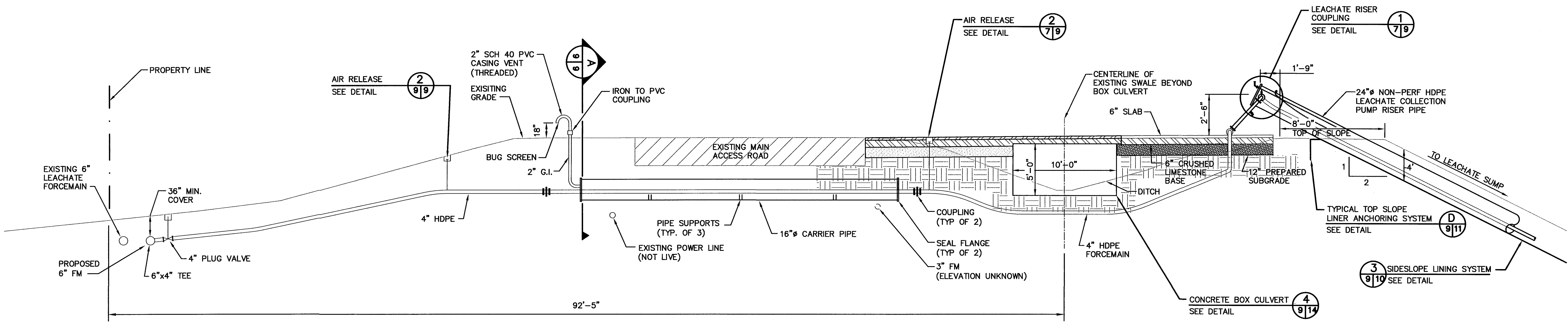
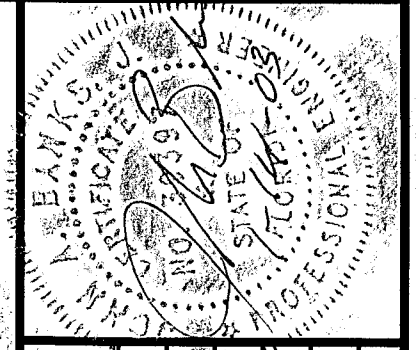
CLIENT	CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION CITRUS COUNTY, FLORIDA
--------	---

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619 PH (813) 854-0080 FAX (813) 823-6757	DRAWN BY: GRD/KJC/PEI CHECKED BY: BUC/LEK DATE: 12/15/02 PROJECT NO: 091990556.02
---	--

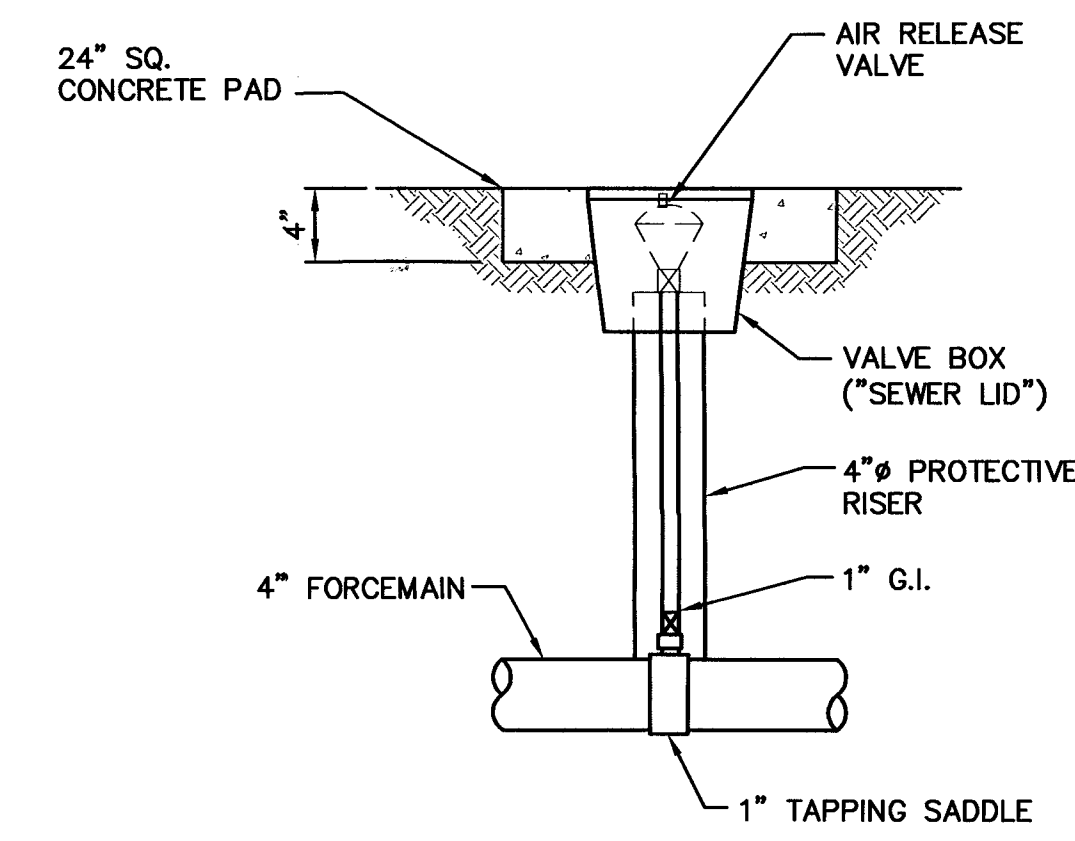
CADD FILE:	995602PLNSECLCH.dwg
DATE:	DECEMBER
SCALE:	NO SCALE
DRAWING NO.	8 of 17

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JAN 14 2003
SOUTHWEST DISTRICT TAMPA

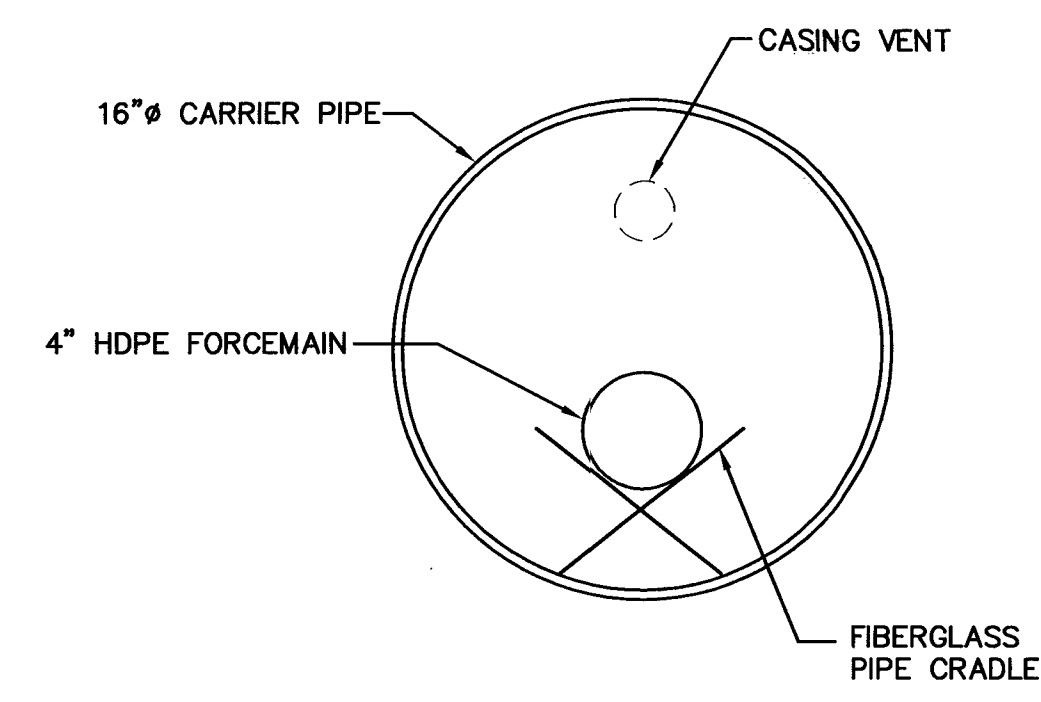
G:\PROJECT\091990556.02\Final\Construction\995602PLNSECLCH.dwg Jan 14, 2003 - 8:58am Layout Name: Leachatesumpdet (8). By: 9999pei



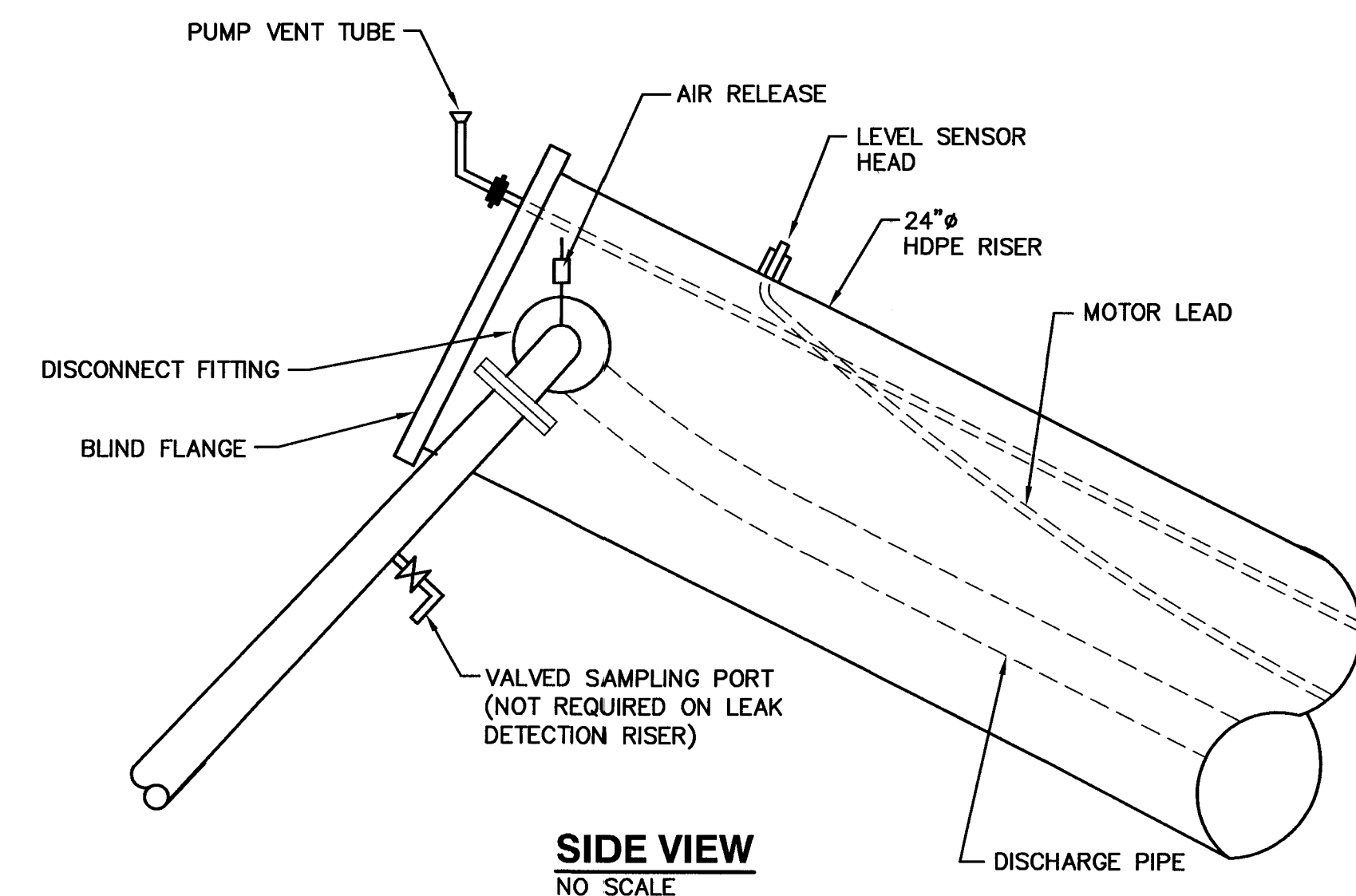
SECTION A
NO SCALE
7/9



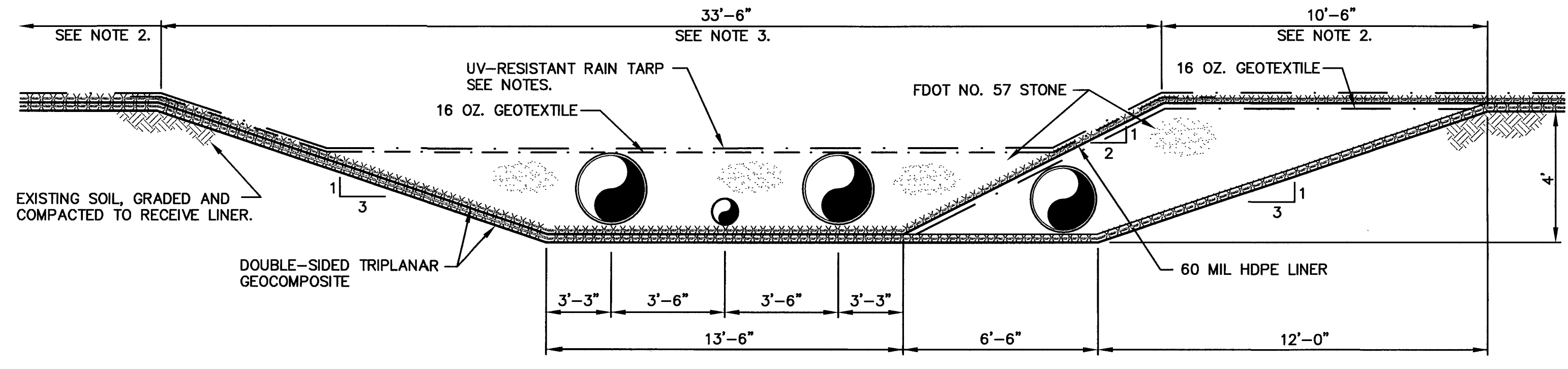
AIR RELEASE DETAIL 2
NO SCALE
7/9



SECTION A
NO SCALE
9/9

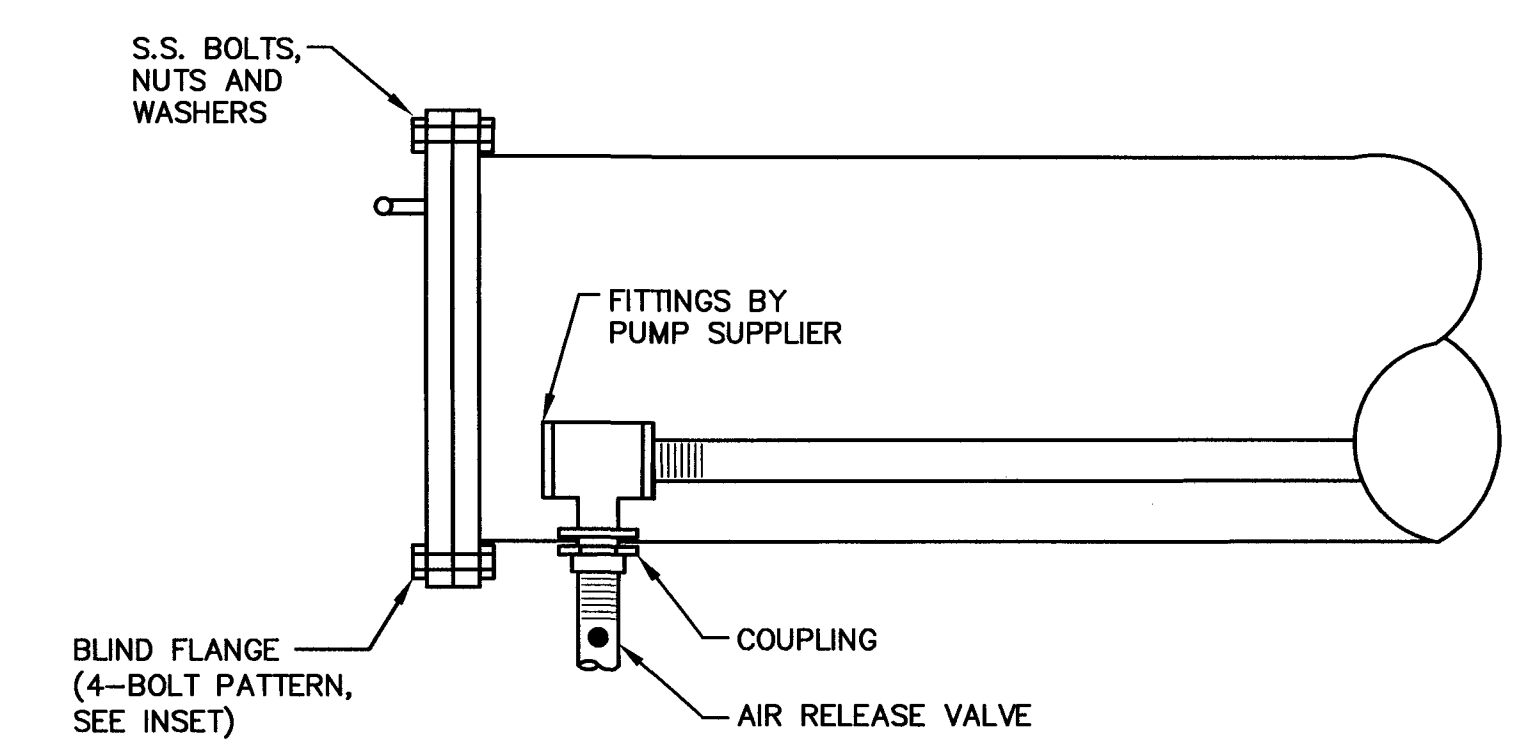


SIDE VIEW
NO SCALE

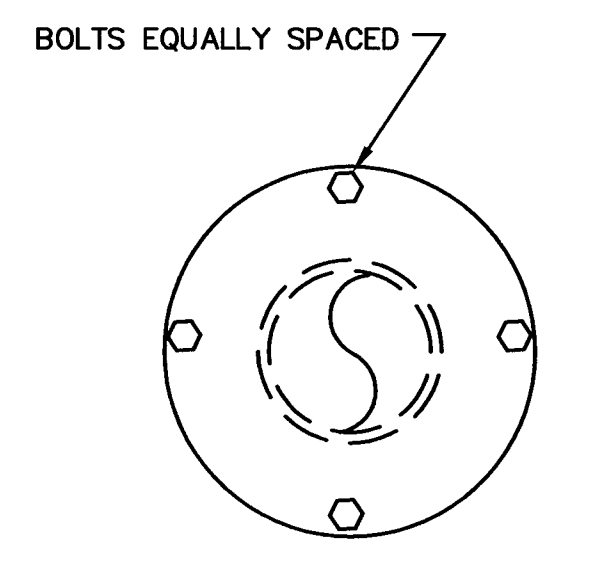


LEACHATE SIDESLOPE RISER SECTION C
NO SCALE
7/9

- NOTES:**
1. UV-RESISTANT RAIN TARP TO BE REMOVED AS FILLING OPERATIONS PROGRESS UP-SLOPE.
 2. WHEN RAIN TARP IS REMOVED, 2'-0" OF SELECT SAND SHALL BE PLACED OVER GEOTEXTILE PRIOR TO PLACEMENT OF WASTE.
 3. WHEN RAIN TARP IS REMOVED, PLACE 4' OF SAND PRIOR TO PLACING WASTE.
 4. ALL PIPES SHOWN ON SIDESLOPE ARE SOLID WALL (NON-PERFORATED).



LEACHATE RISER COUPLING DETAIL 1
NO SCALE
7/9



BOLT PATTERN INSET FOR 8" & 24" RISER
NO SCALE

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JAN 14 2003
SOUTHWEST DISTRICT TAMPA

REV	DATE	DESCRIPTION

DRAWING TITLE
LEACHATE COLLECTION SYSTEM DETAILS

PROJECT TITLE
CENTRAL LANDFILL PHASE II EXPANSION

CLIENT
CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION
CITRUS COUNTY, FLORIDA

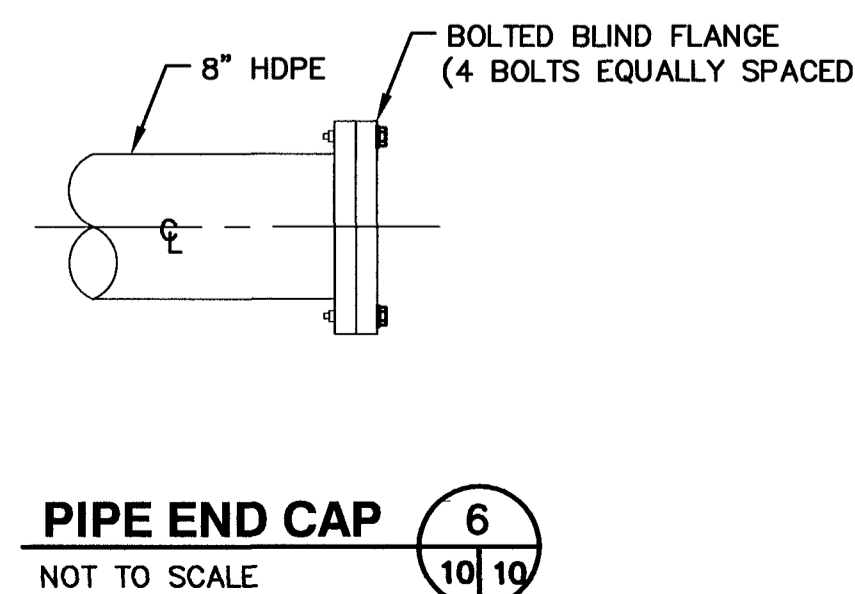
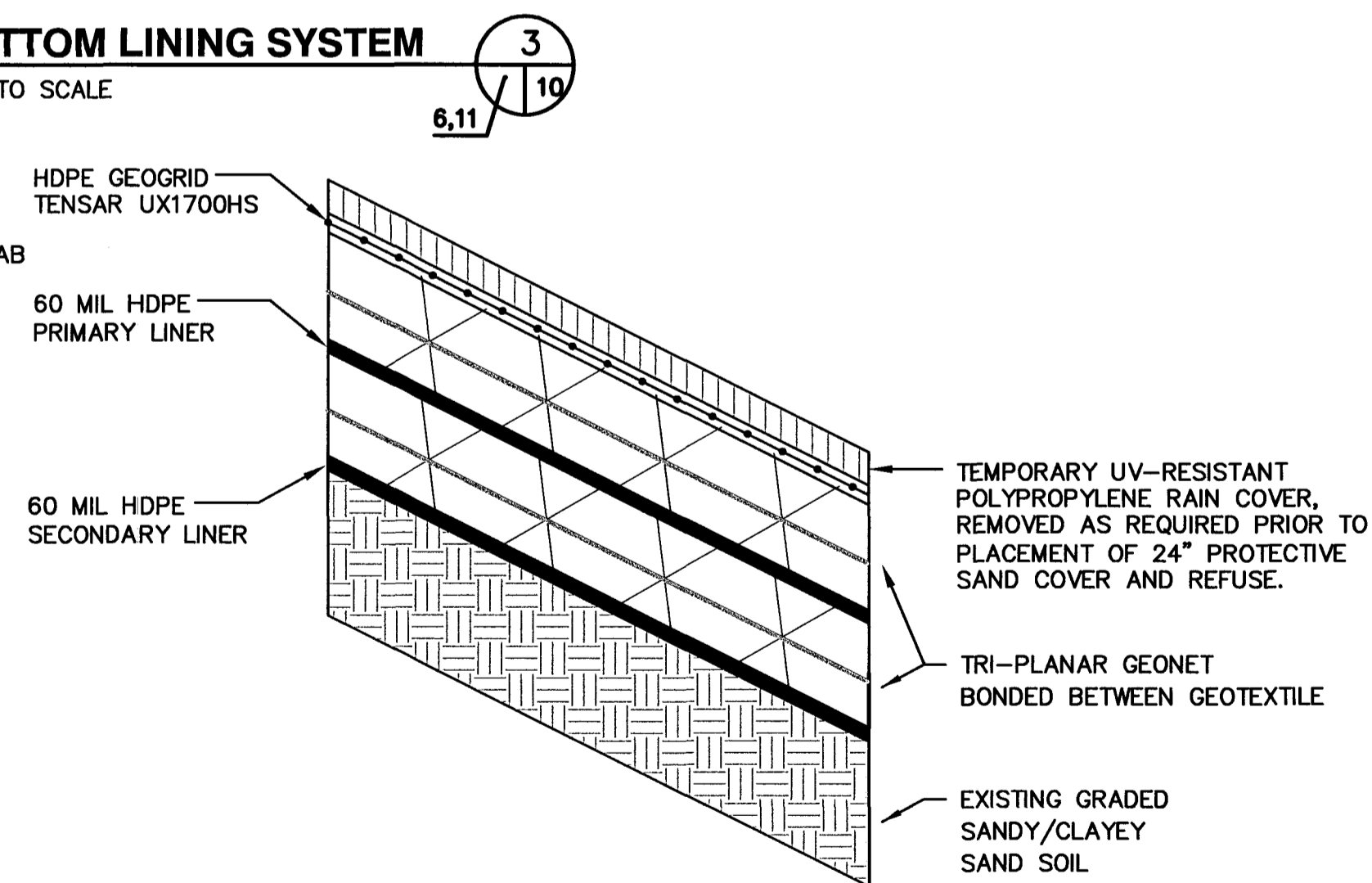
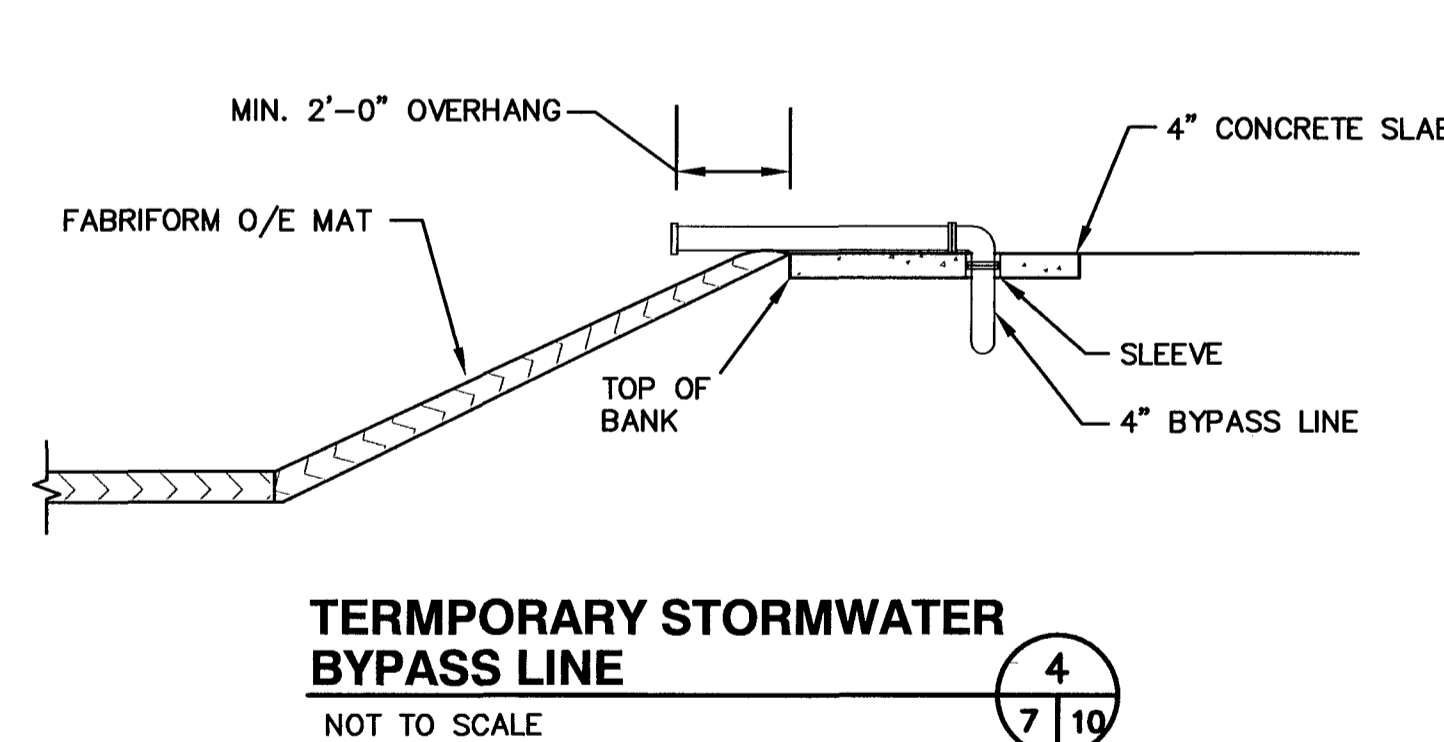
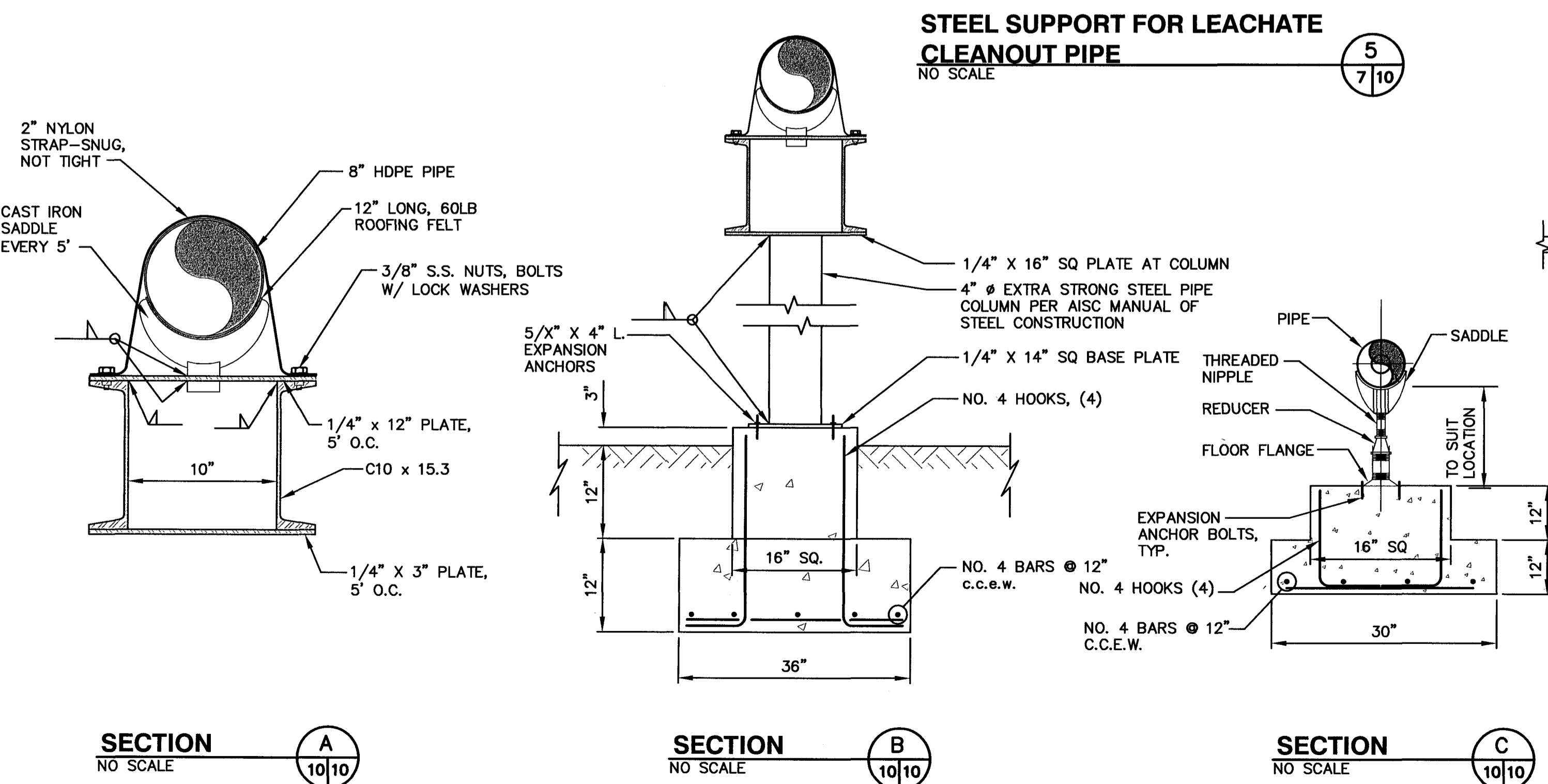
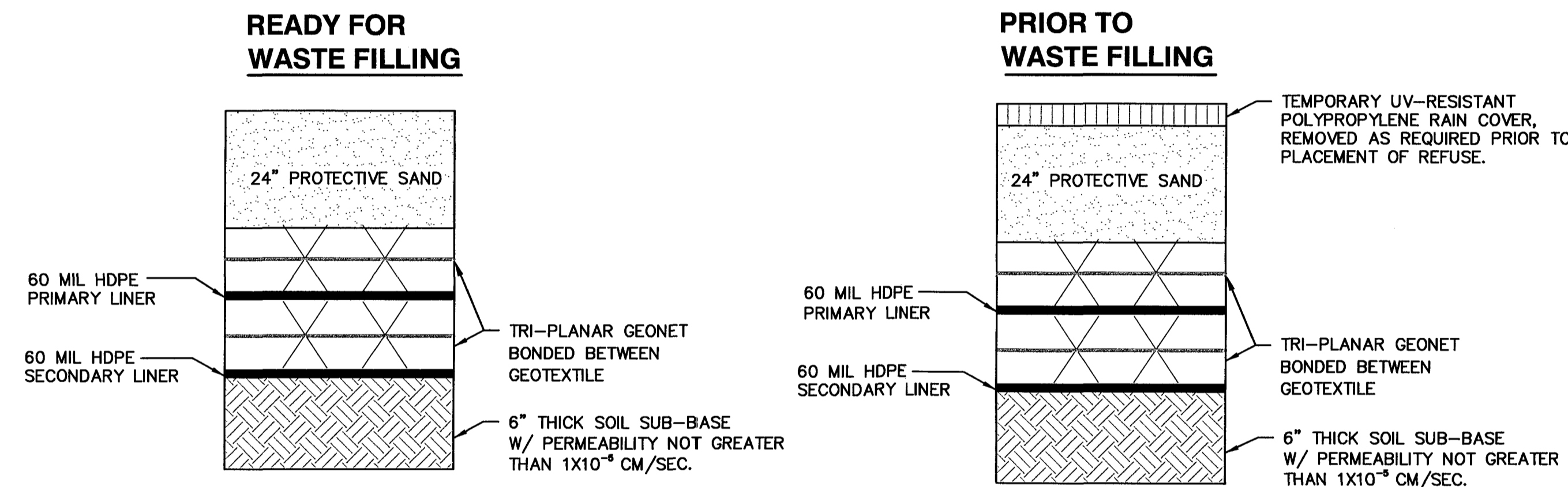
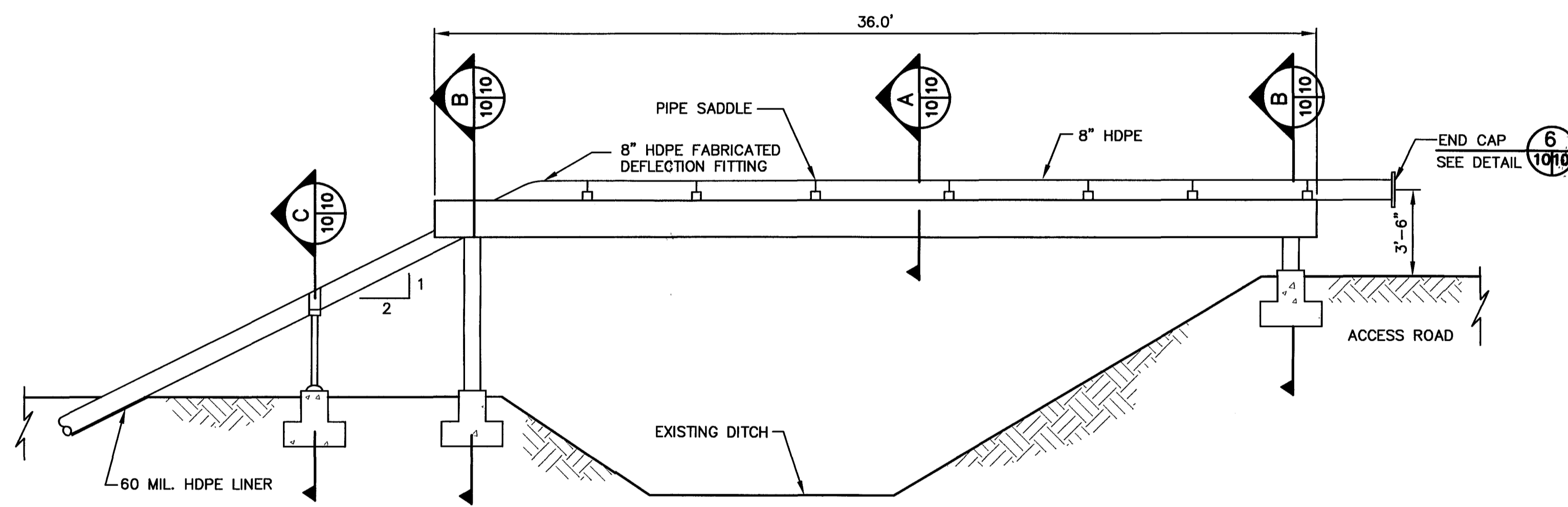
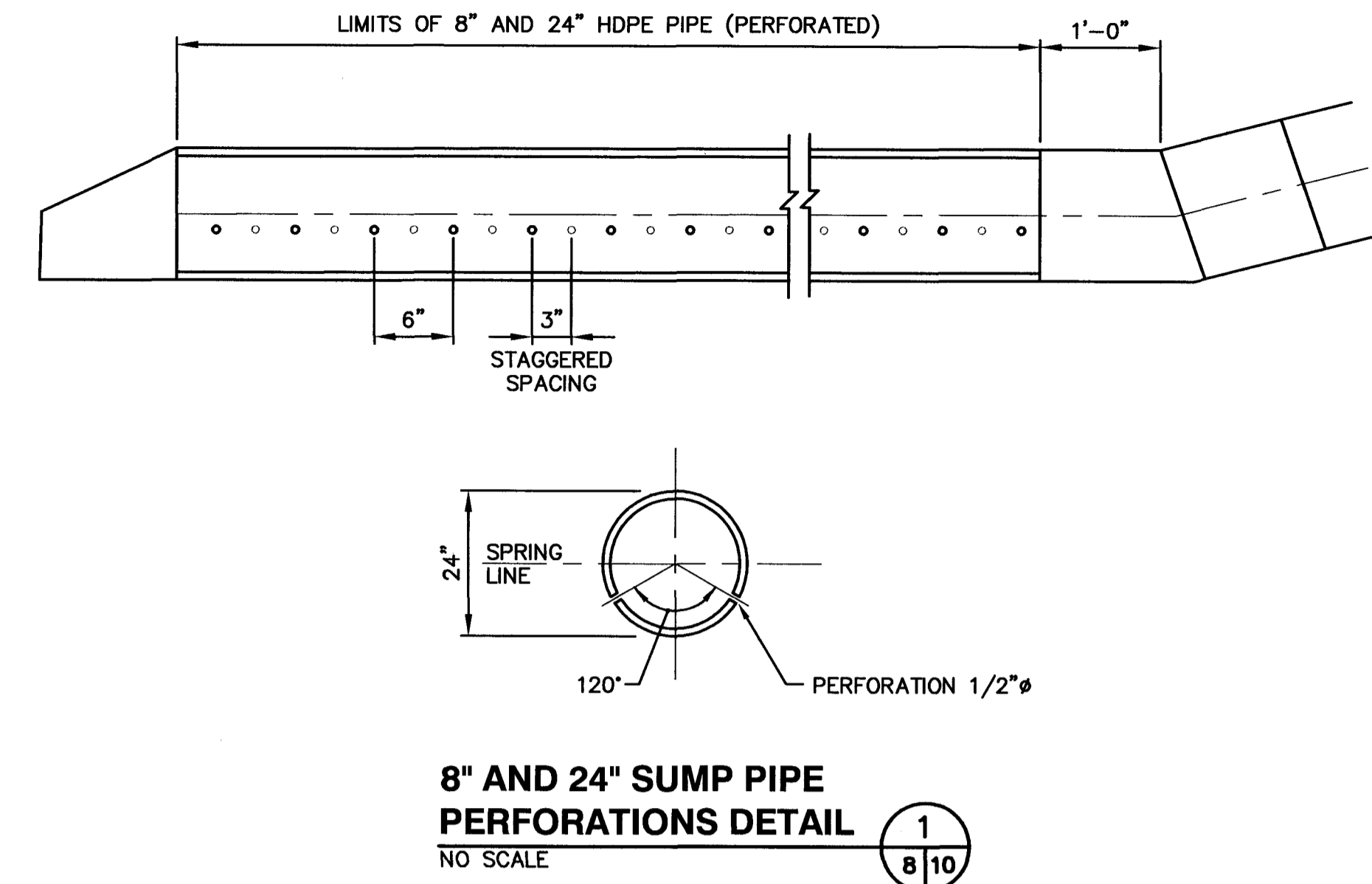
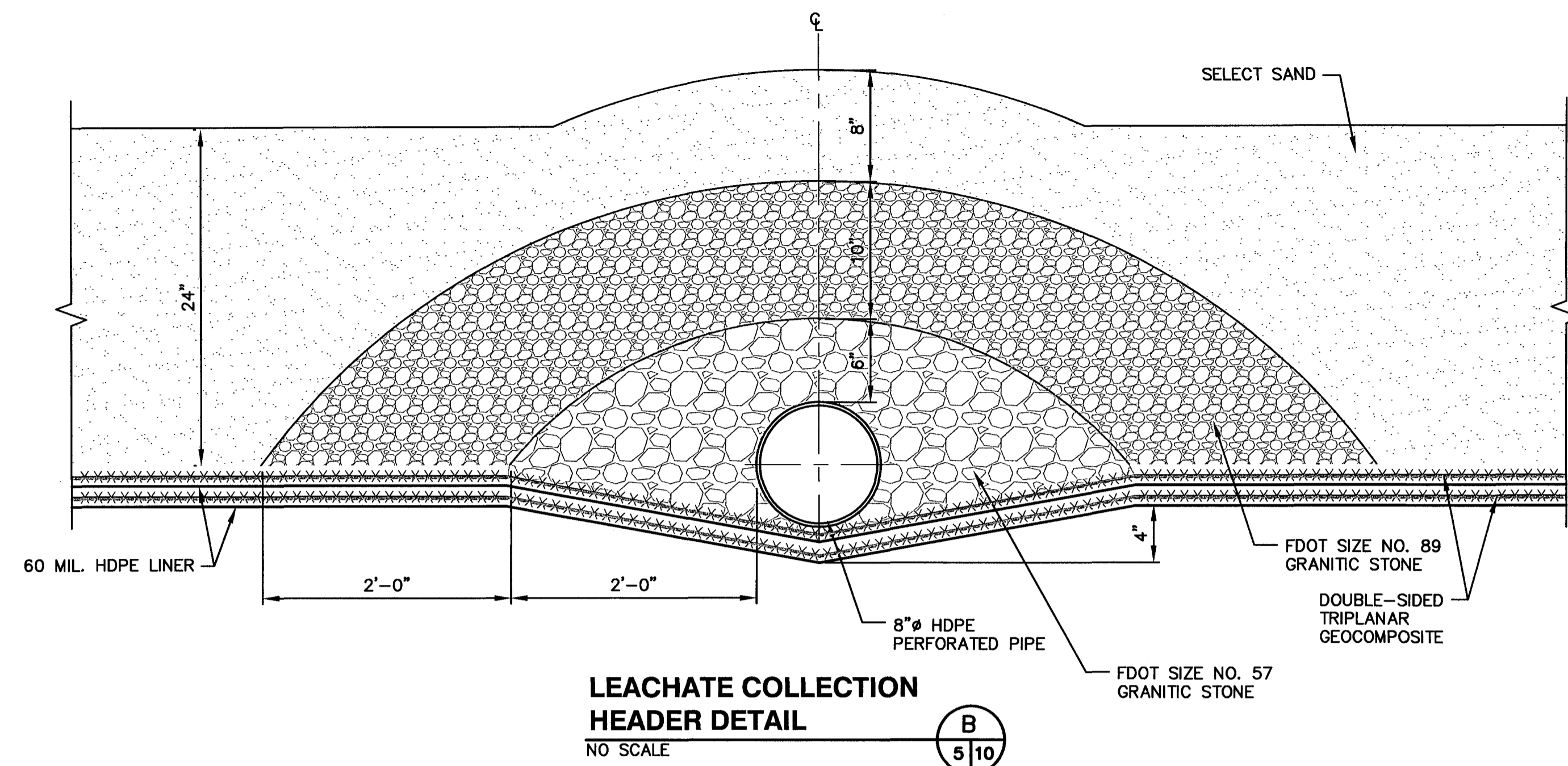
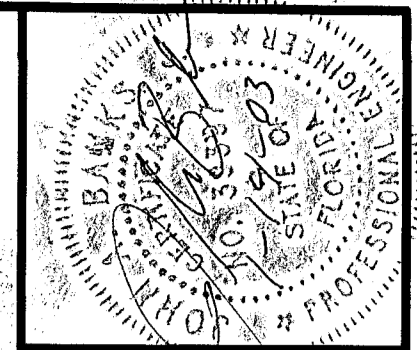
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 661-0900 FAX (813) 623-6757
PROJ. NO. 09199056.02
DATE: 12/15/03
DRAWN BY: GRD/KJG/PEI
CHECKED BY: BUC/LEK
SCALE: JAB
APP'D BY: RUD

CADD FILE:
995602PLNSECLCH.dwg

DATE:
DECEMBER

SCALE:
NO SCALE

DRAWING NO.:
9 of 17



REV	DATE	DESCRIPTION	BY
1			
2			
3			
4			
5			
6			

DRAWING TITLE
LEACHATE COLLECTION SYSTEM DETAILS

PROJECT TITLE
CENTRAL LANDFILL PHASE II EXPANSION

CLIENT
CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION
CITRUS COUNTY, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH SUITE 700, TAMPA, FL 33619
PH (813) 827-0080 FAX NO. (813) 824-9257

OWN: BY: GRD/KJG/PEI
DESIGN: BY: BUC/LEK
APP: BY: BJC
RD: BY: BJC

CADD FILE: 995602PLNSECLCH.dwg

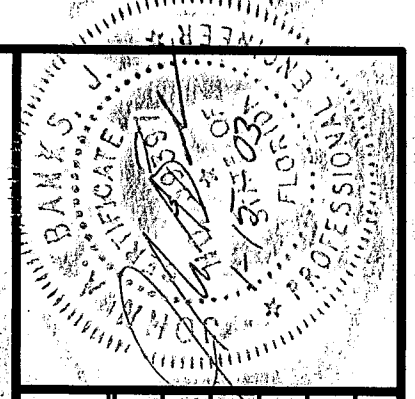
DATE: DECEMBER

SCALE: NO SCALE

DRAWING NO. 10 of 17

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JAN 14 2003
SOUTHWEST DISTRICT TAMPA

G:\PROJECT\09199056.02\FinalConstruction\995602PLNSECLCH.dwg Jan 13, 2003 - 3:55pm Layout Name: LeachateDetail.dwg (10) By: 9999pei



REV	DATE	DESCRIPTION

DRAWING TITLE
STORMWATER COLLECTION DETAILS

PROJECT TITLE
CENTRAL LANDFILL PHASE II EXPANSION

CLIENT
**CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION
CITRUS COUNTY, FLORIDA**

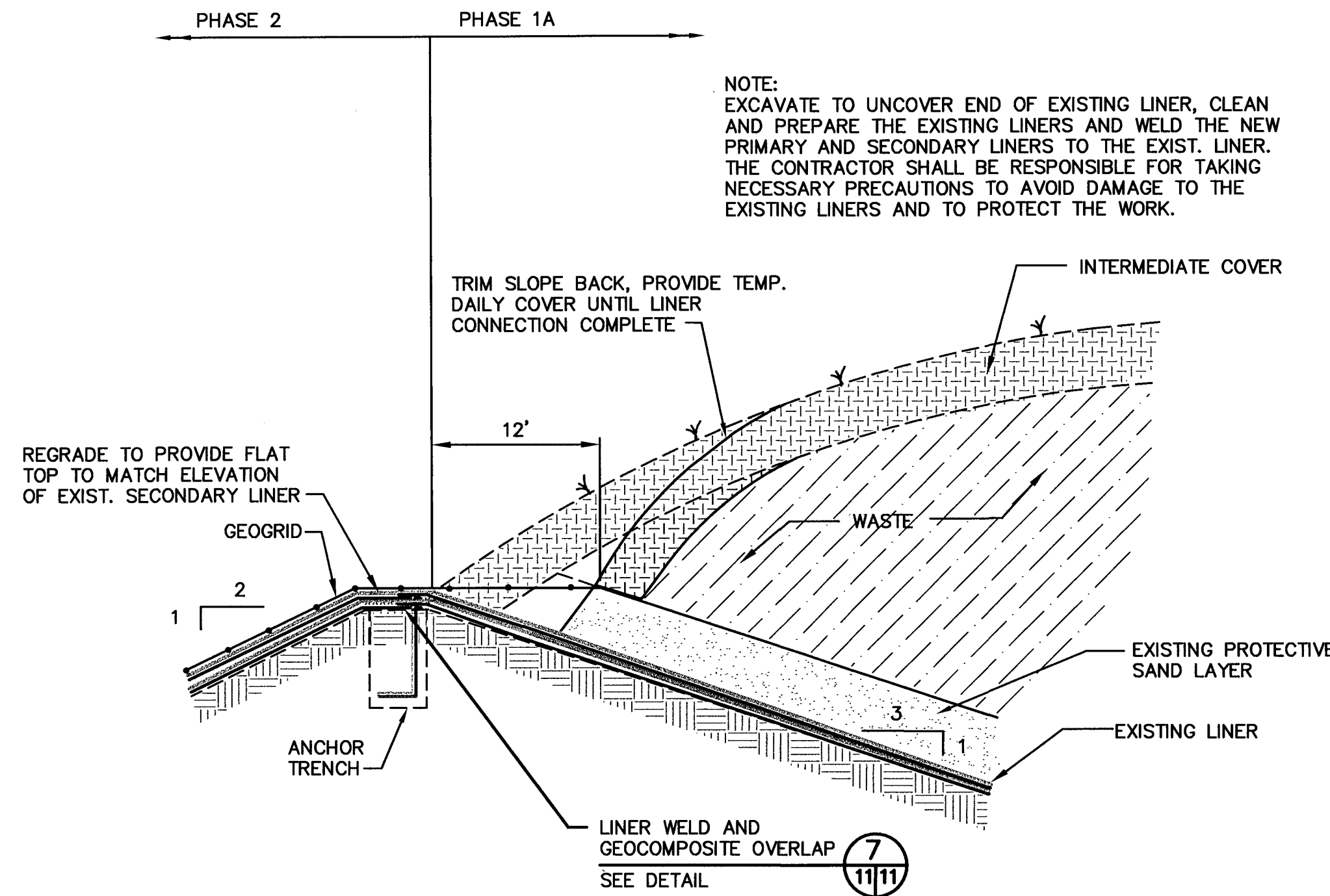
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 1700, TAMPA, FL 33619
PH (813) 991-0800 FAX (813) 991-0757
PROJ. NO. 09199056.02
DATE: 01/15/2003
DRAWN BY: GRD/KLS/PEI
CHECKED BY: BUC/LEK
DATE: 01/15/2003
SCALE: AS SHOWN
APP. TO: RJD

CADD FILE:
995602DLS4.dwg

DATE:
DECEMBER

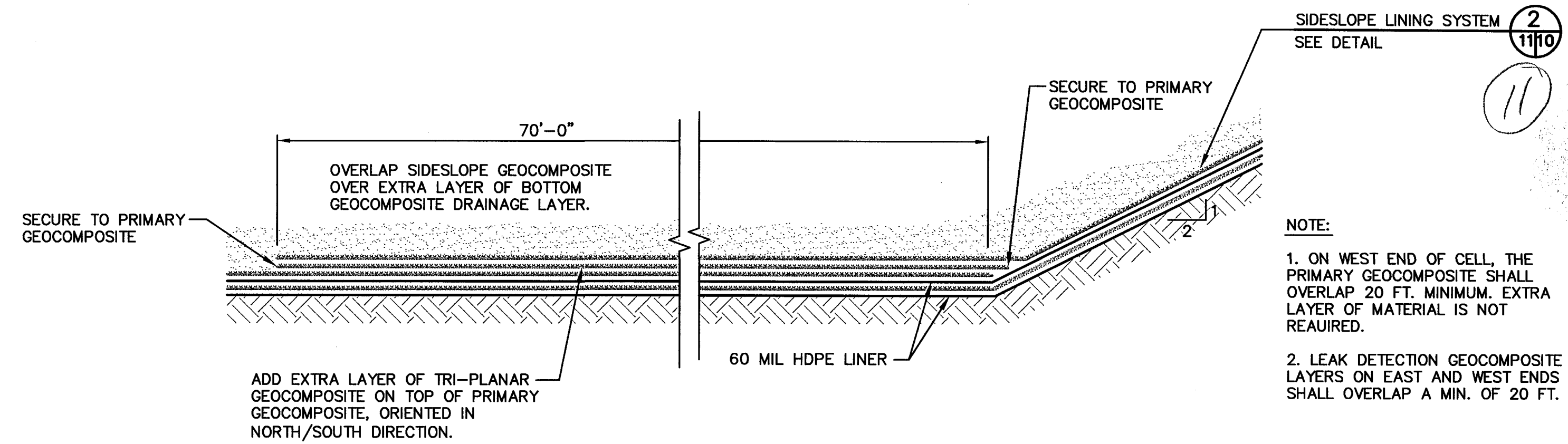
SCALE:
NO SCALE

DRAWING NO.
11 of 17

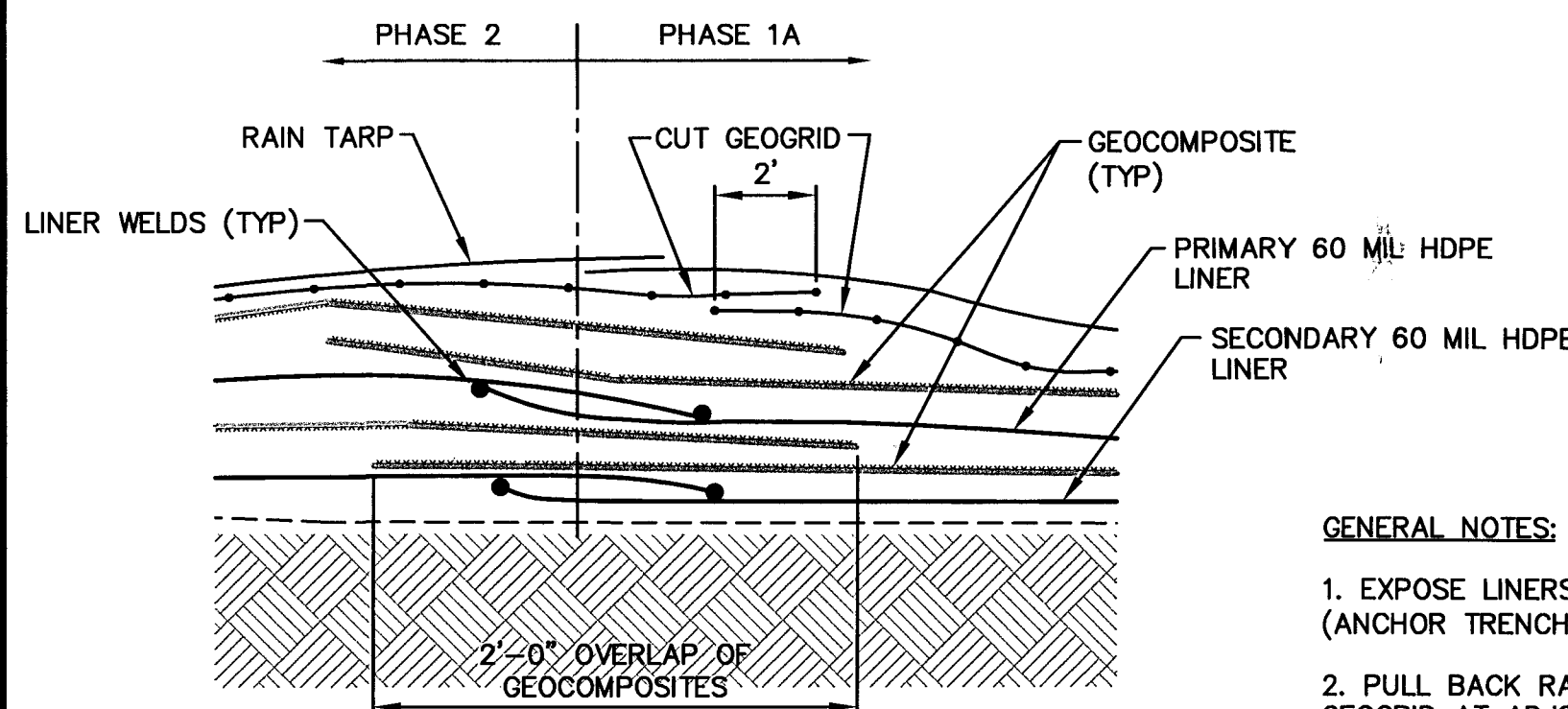
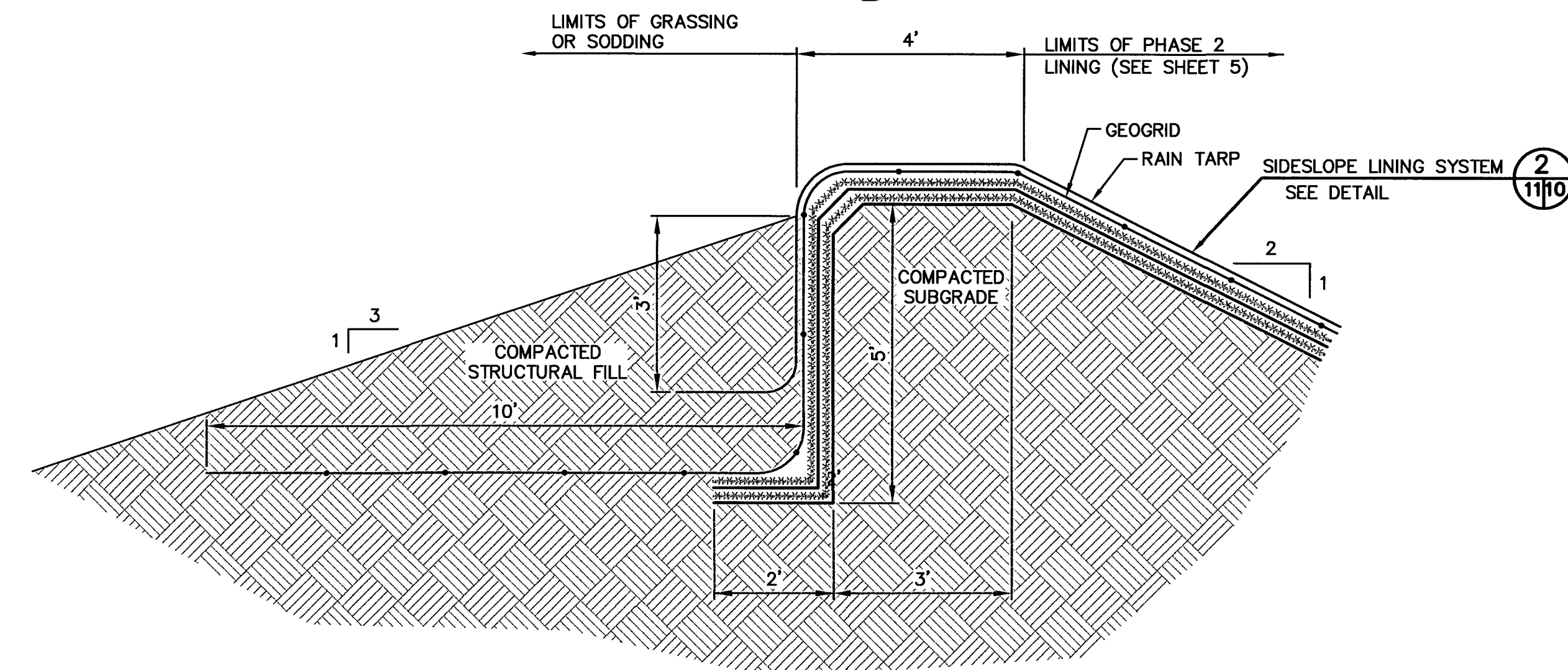


CONNECTION TO EXISTING LINER B
NO SCALE 5/11

- GENERAL STEPS FOR CONNECTING LINERS FROM PHASE 1A TO PHASE 2
1. REMOVE GRASSING AND INTERMEDIATE COVER AND TRIM BACK SLOPE TO EXPOSE EXISTING LINERS.
 2. PROVIDE TEMPORARY DAILY COVER TO EXPOSED SLOPE UNTIL LINER CONNECTIONS ARE COMPLETE. COORDINATE WITH COUNTY, WHO WILL FURNISH COVER MATERIAL.
 3. CUT ALL LINER LAYERS AT ANCHOR TRENCH, EXCEPT SECONDARY HDPE LINER (BOTTOM LINER).
 4. EXTRUSION WELD NEW SECONDARY LINER TO EXPOSED EXISTING SECONDARY LINER. OVERLAP NEW GEOCOMPOSITE OVER EXISTING GEOCOMPOSITE 2'-0".
 5. EXTRUSION WELD NEW PRIMARY LINER TO EXPOSED EXISTING PRIMARY LINER. OVERLAP NEW GEOCOMPOSITE OVER EXISTING GEOCOMPOSITE 2'-0".
 6. APPLY PROTECTIVE SAND COVER TO JOINED SECTIONS, AND REGRADE EXISTING WASTE SLOPE AS NEEDED.

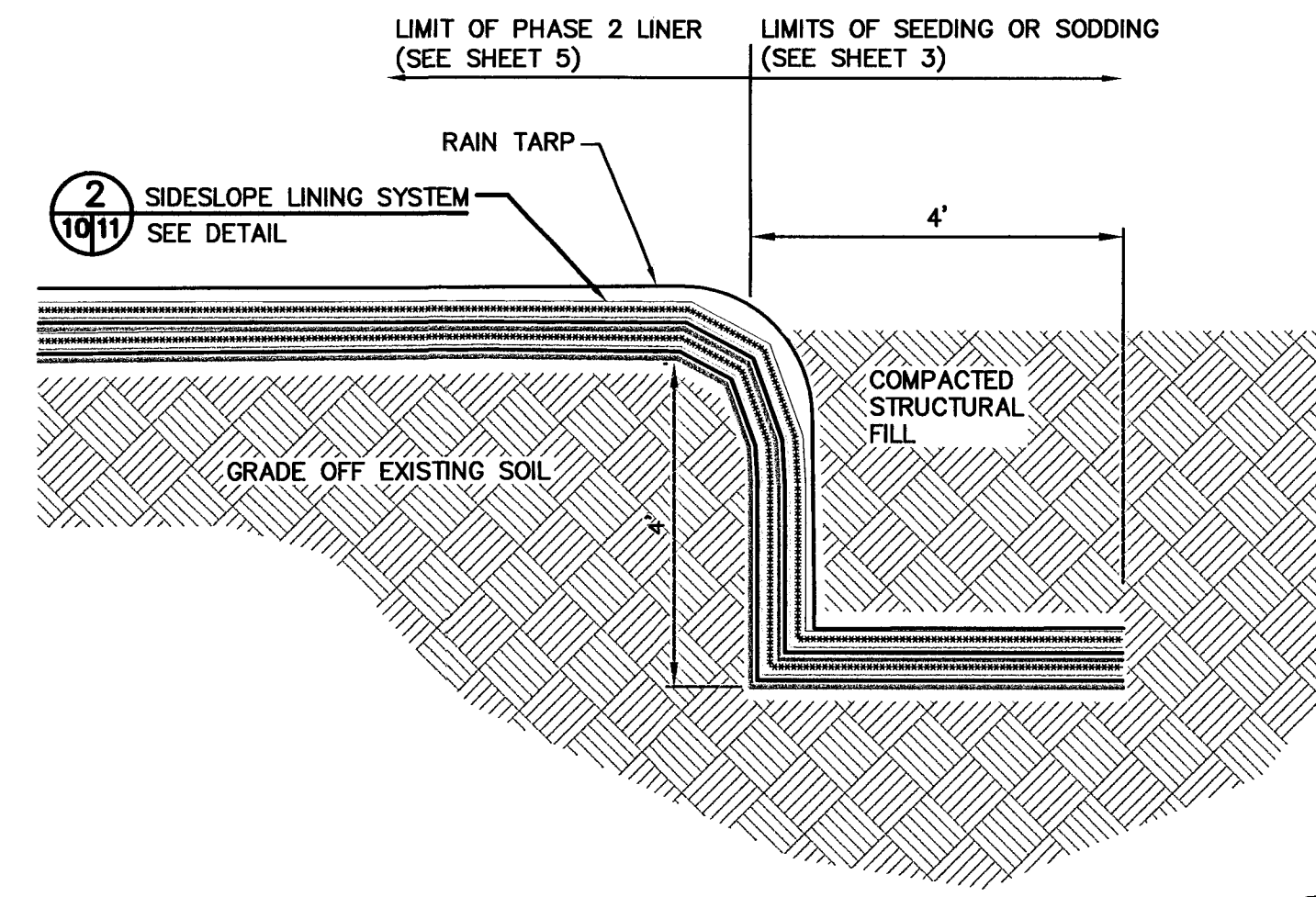


EAST END GEOCOMPOSITE ADDITION F
NO SCALE 5/11



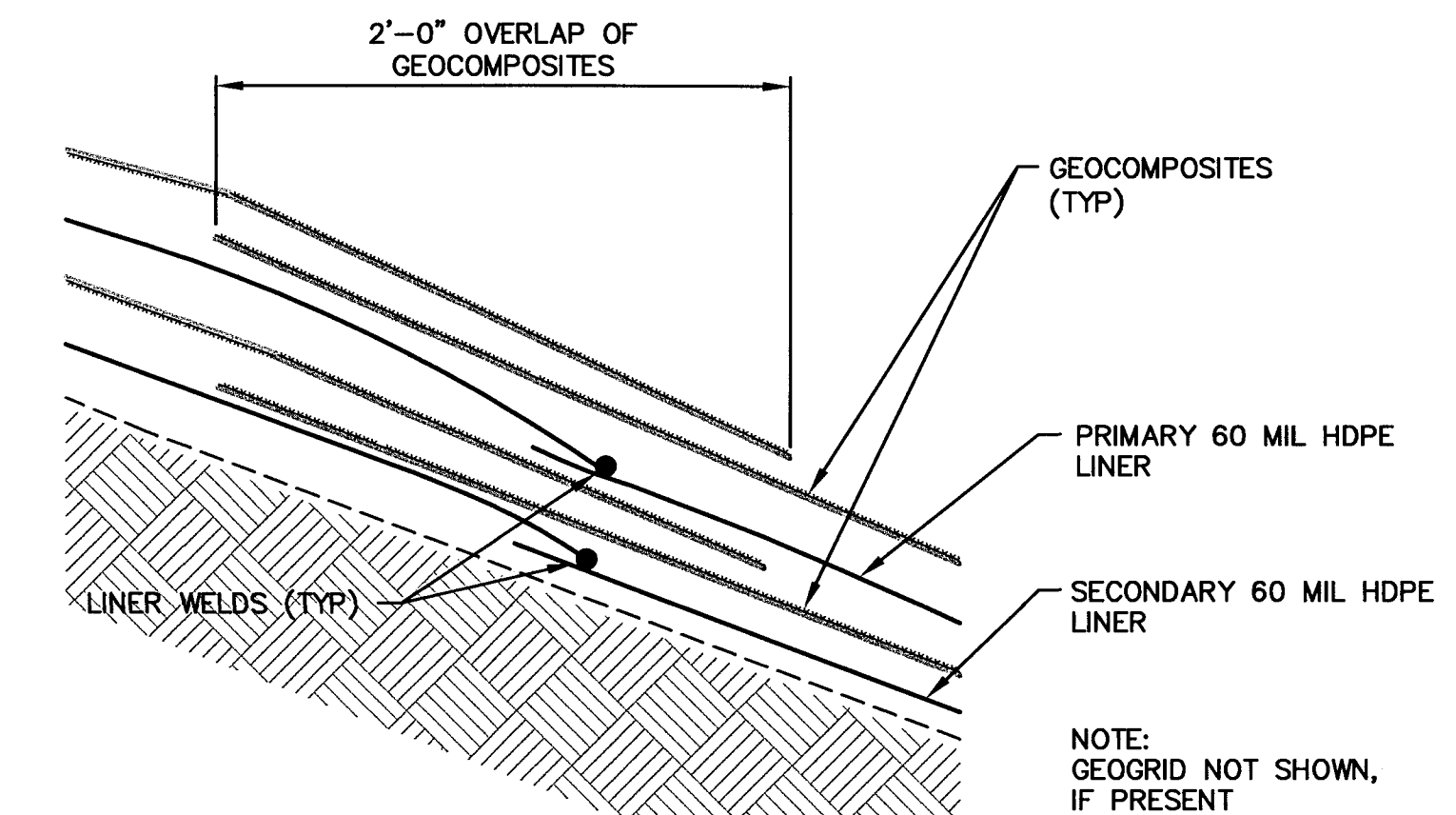
SIDE SLOPE LINING CONNECTION E
NO SCALE 5/11

- GENERAL NOTES:
1. EXPOSE LINERS FROM EXISTING ANCHOR TRENCH. (ANCHOR TRENCH NOT SHOWN).
 2. PULL BACK RAIN TARP AND CUT EXISTING GEOGRID AT ADJOINING AREA.
 3. PULL BACK ALL OTHER LINERS, WELD NEW SECONDARY LINER TO EXISTING SECONDARY LINER.
 4. OVERLAP EXISTING GEOCOMPOSITE, THEN WELD NEW PRIMARY LINER TO EXIST. PRIMARY LINER.
 5. OVERLAP EXIST. GEOCOMPOSITE, THEN JOIN NEW RAIN TARP TO EXIST. RAIN TARP.

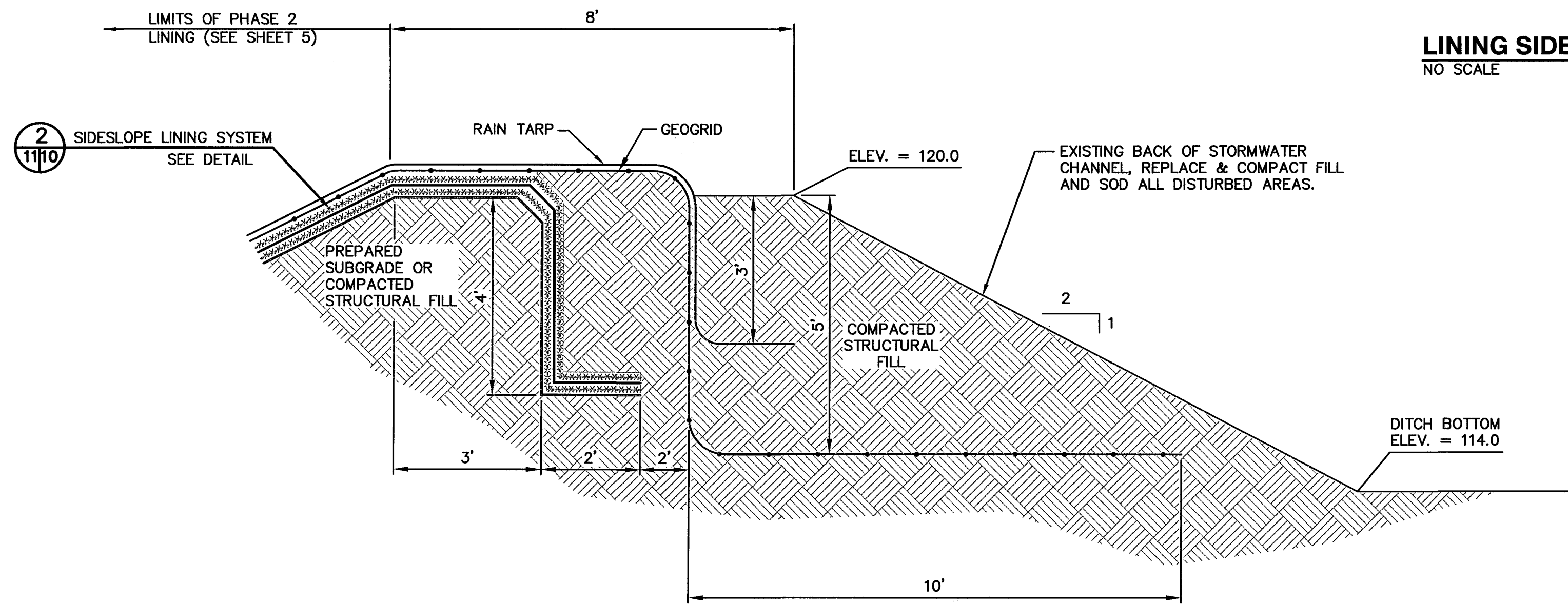


LINING SIDE SLOPE ANCHOR TRENCH C
NO SCALE 5/11

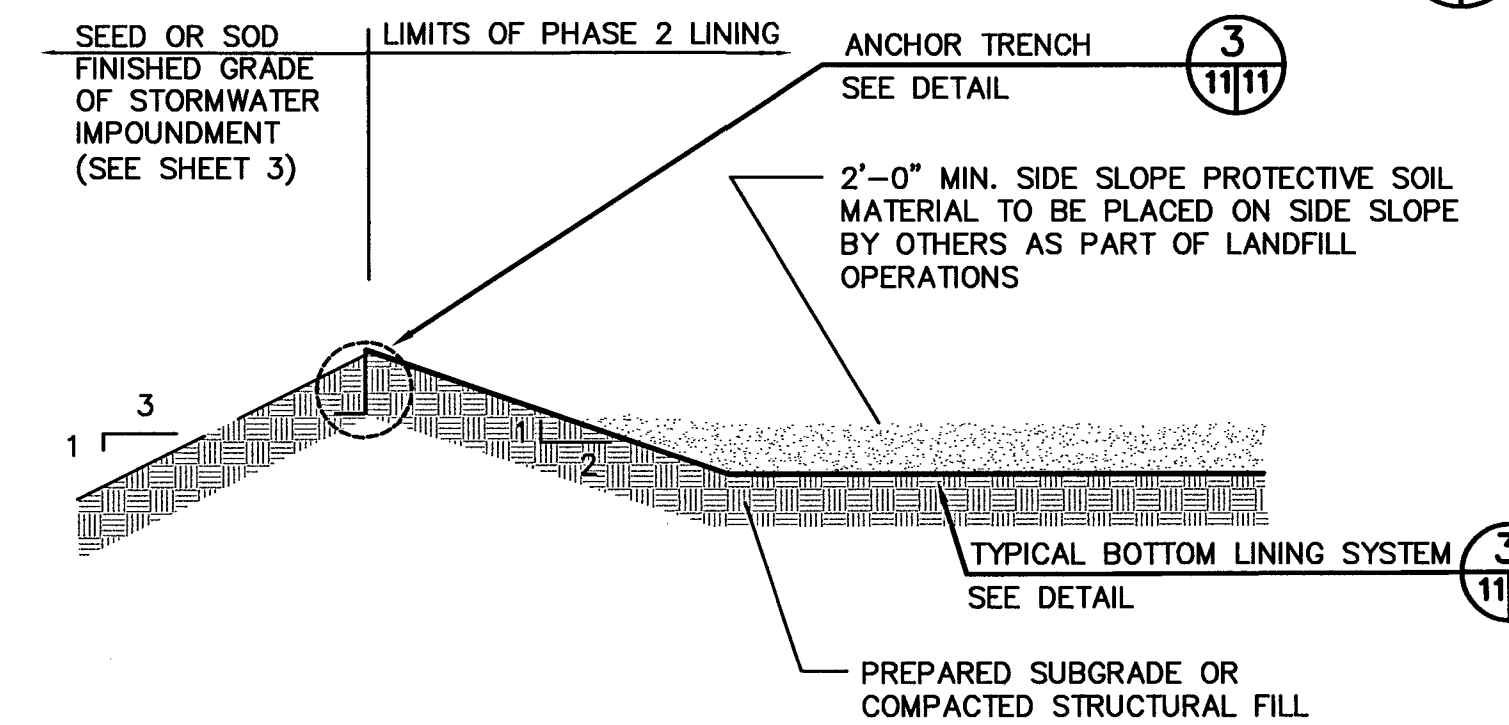
TYPICAL NORTH LINER ANCHOR TRENCH 3
NO SCALE 5/11



LINER WELD AND GEOCOMPOSITE OVERLAP DETAIL 7
NO SCALE 11/11

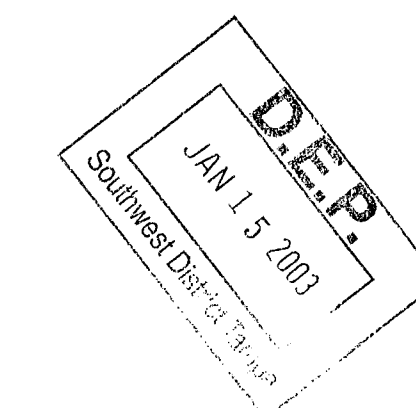


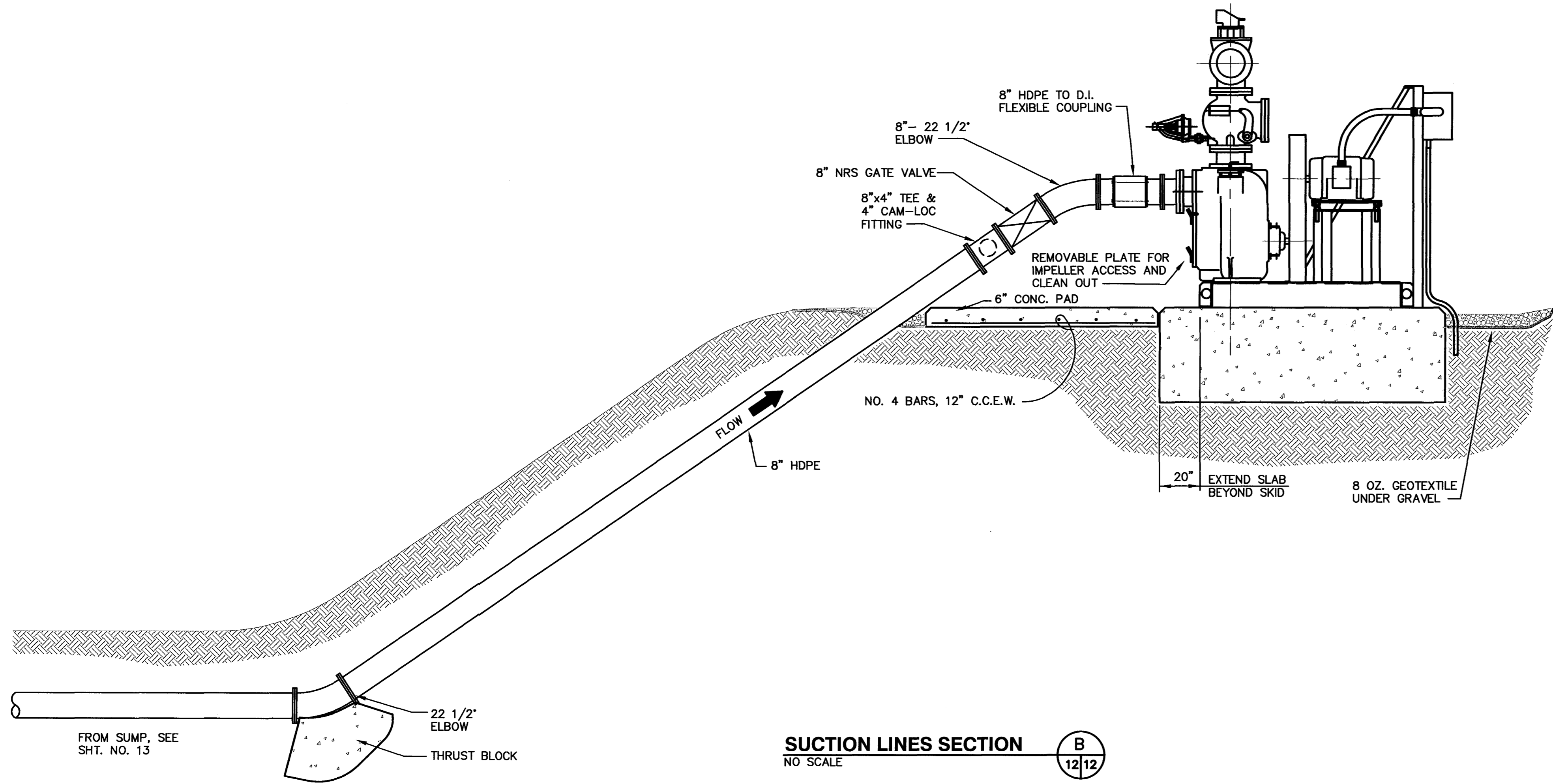
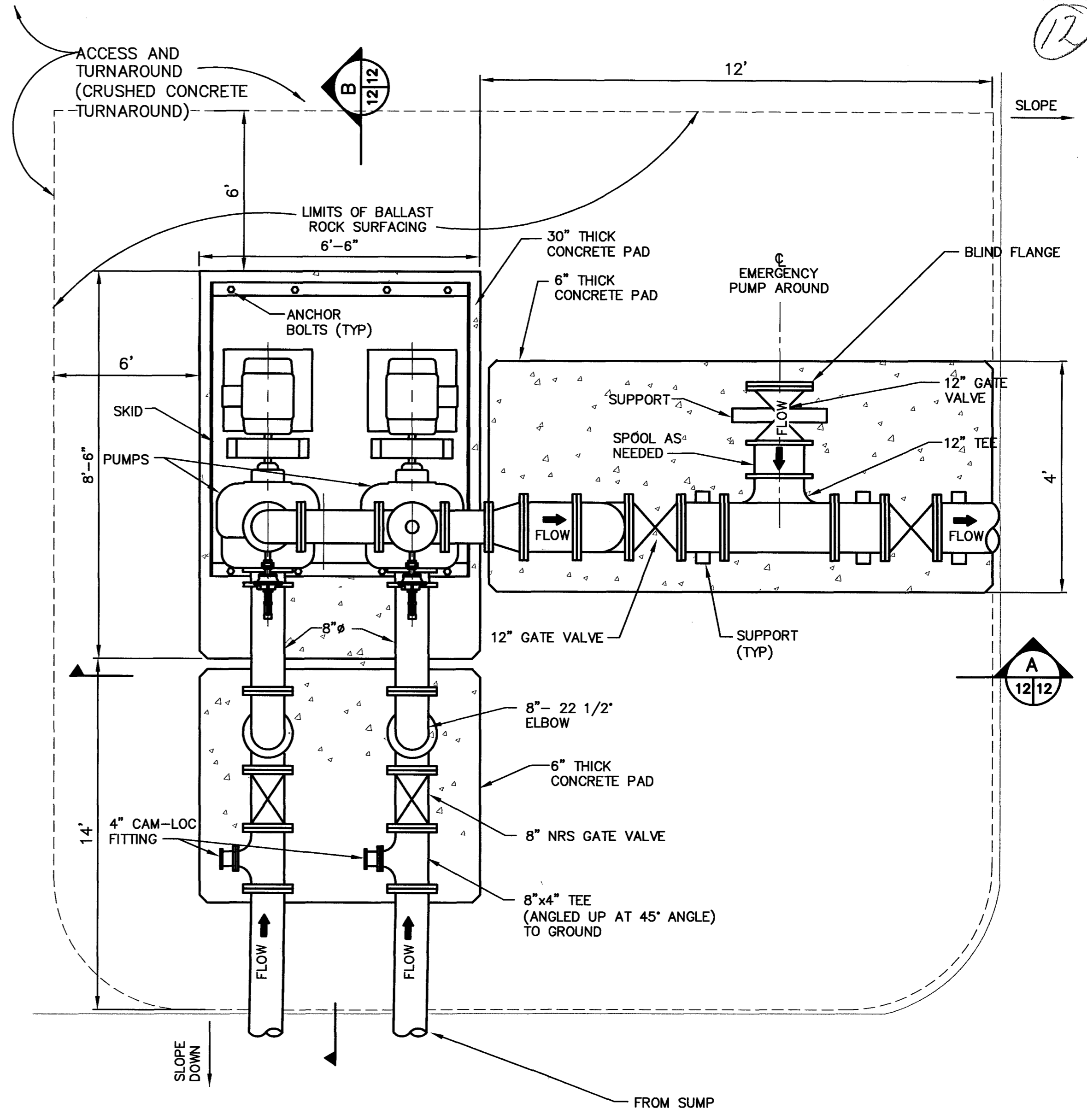
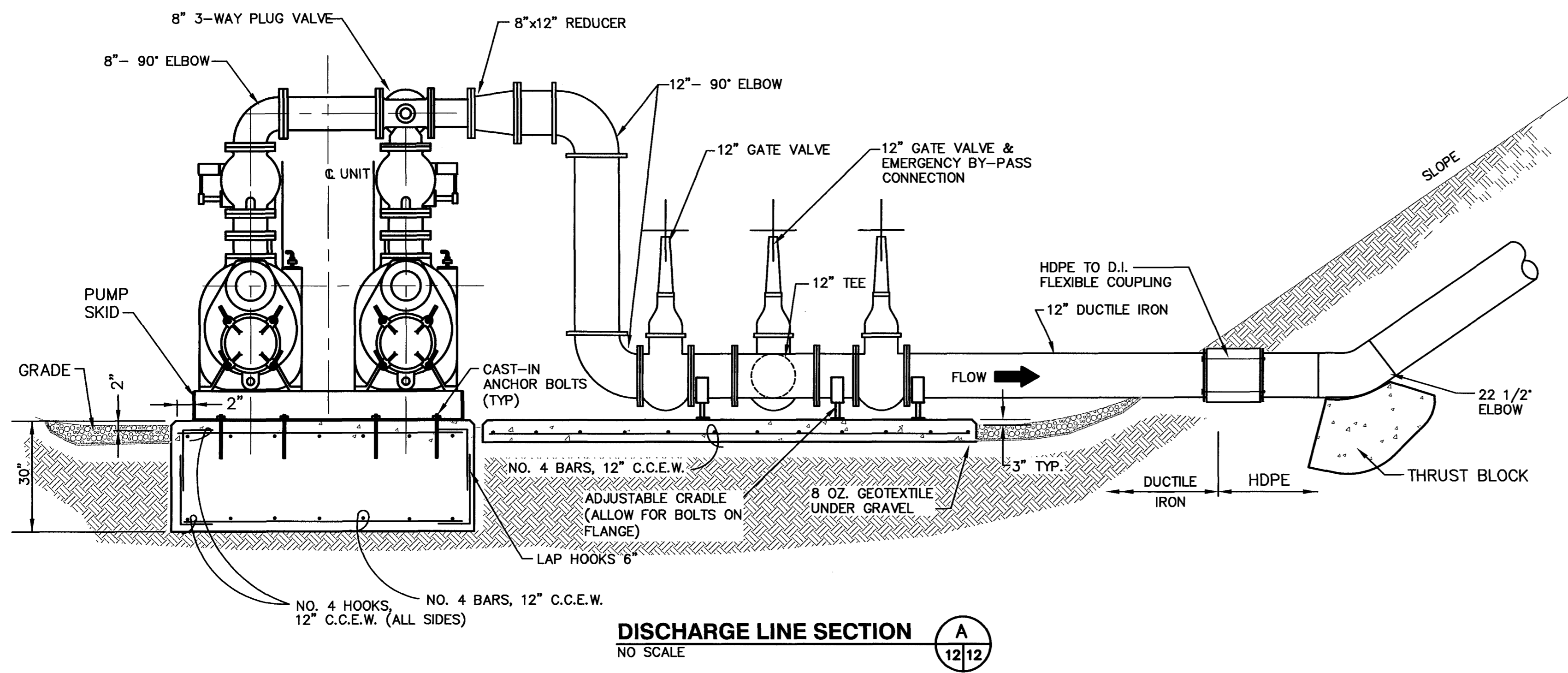
LINING TOP SLOPE ANCHOR TRENCH D
NO SCALE 5/11



NORTH END LINER TERMINATION DETAIL A
NO SCALE 5/11

G:\PROJECT\09199056.02\FinalConstruction\995602DLS4.dwg Jan 15, 2003 - 4:06pm Layout Name: Liner and Trench Details (11) By: 9999pei





REV	DATE	DESCRIPTION
1		

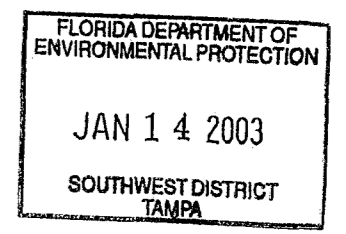
DRAWING TITLE: **STORMWATER IMPOUNDMENT PUMP STATION DETAILS**
 PROJECT TITLE: **CENTRAL LANDFILL PHASE II EXPANSION**

CLIENT: **CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION CITRUS COUNTY, FLORIDA**

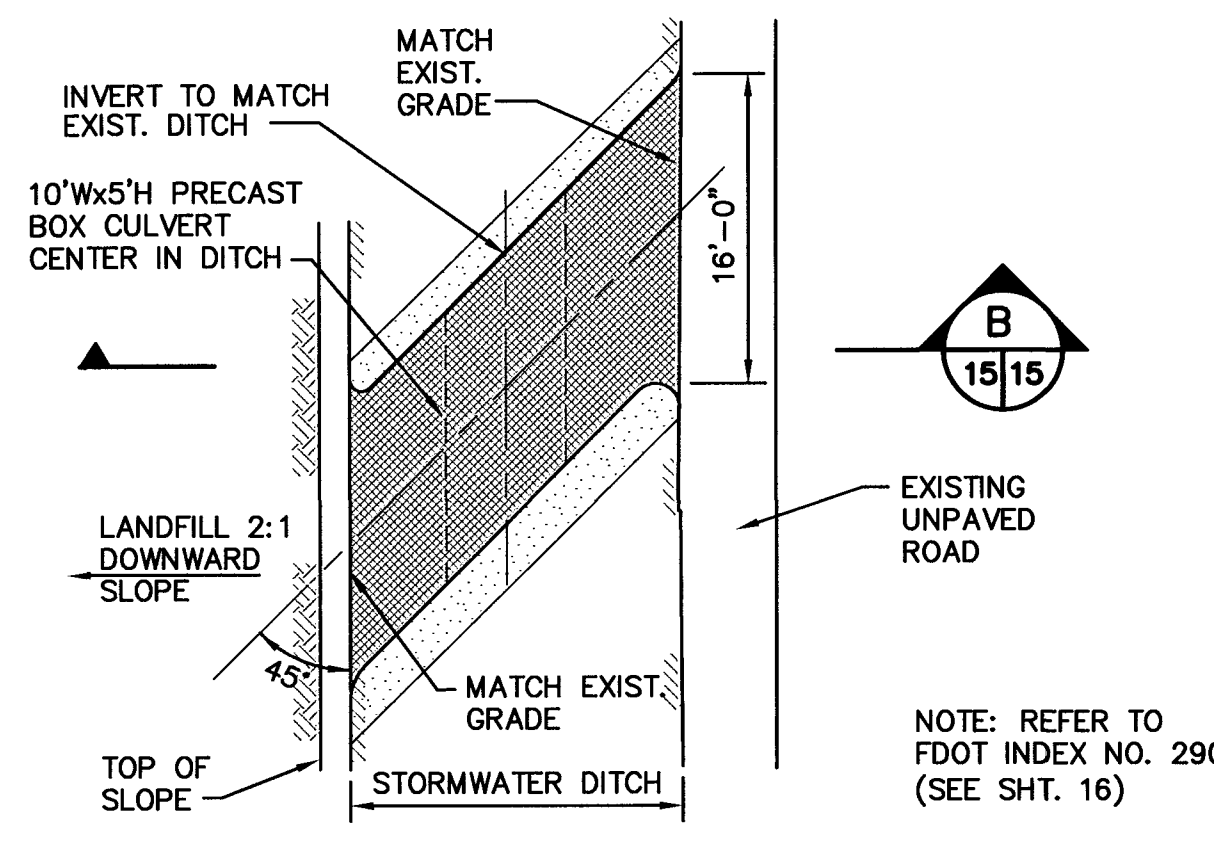
SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
 PH (813) 821-0080 FAX NO. (813) 824-9157

CADD FILE: 995602SMPD.TLS.dwg
 DATE: DECEMBER
 SCALE: NO SCALE
 DRAWING NO.

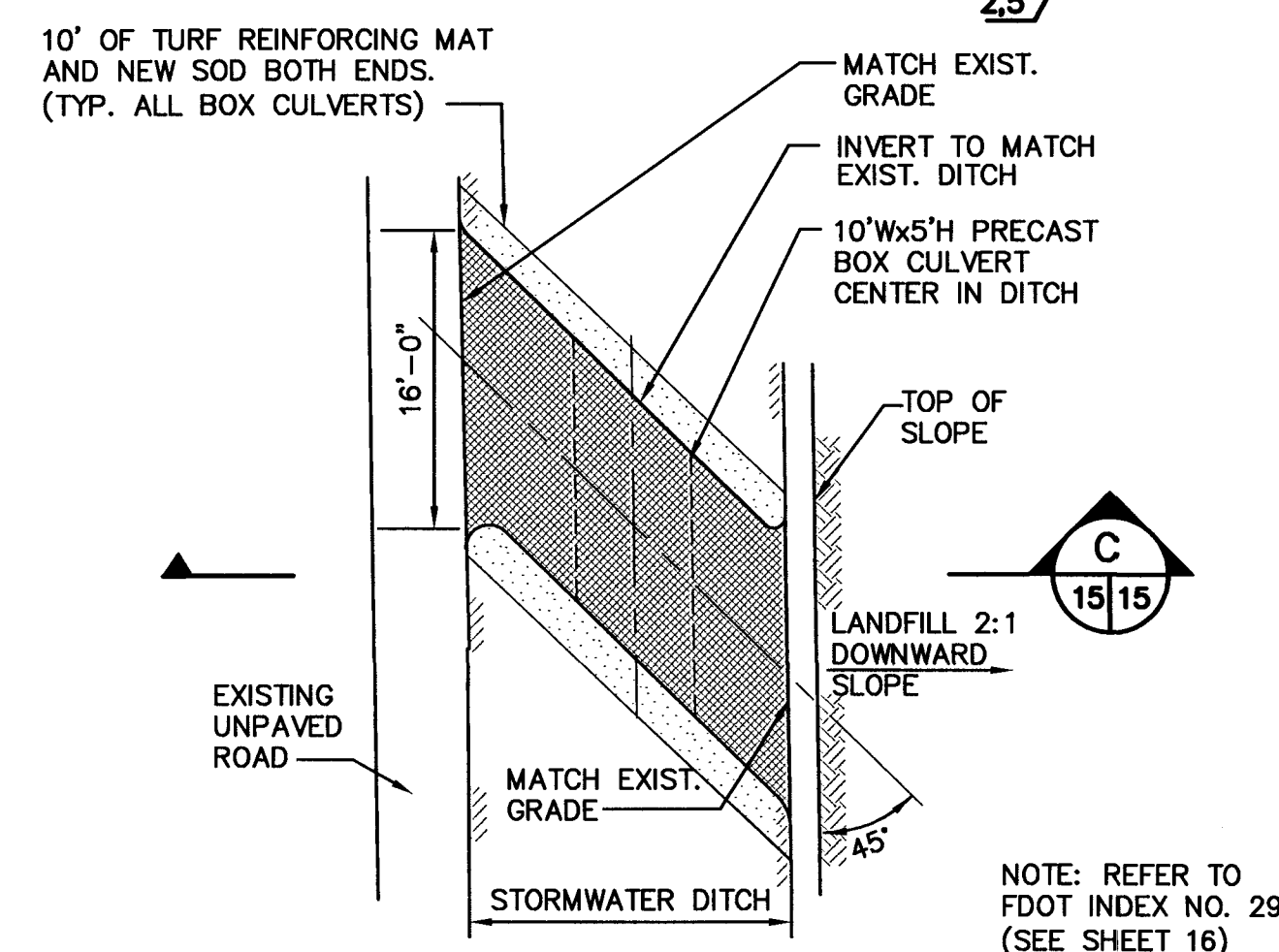
G:\PROJECT\09199056.dwg FinalConstruction\995602SMPD.TLS.dwg Jan 13, 2003 - 4:32pm Layout Name: SW-PUMP-PIPING(12) By: 9999pel



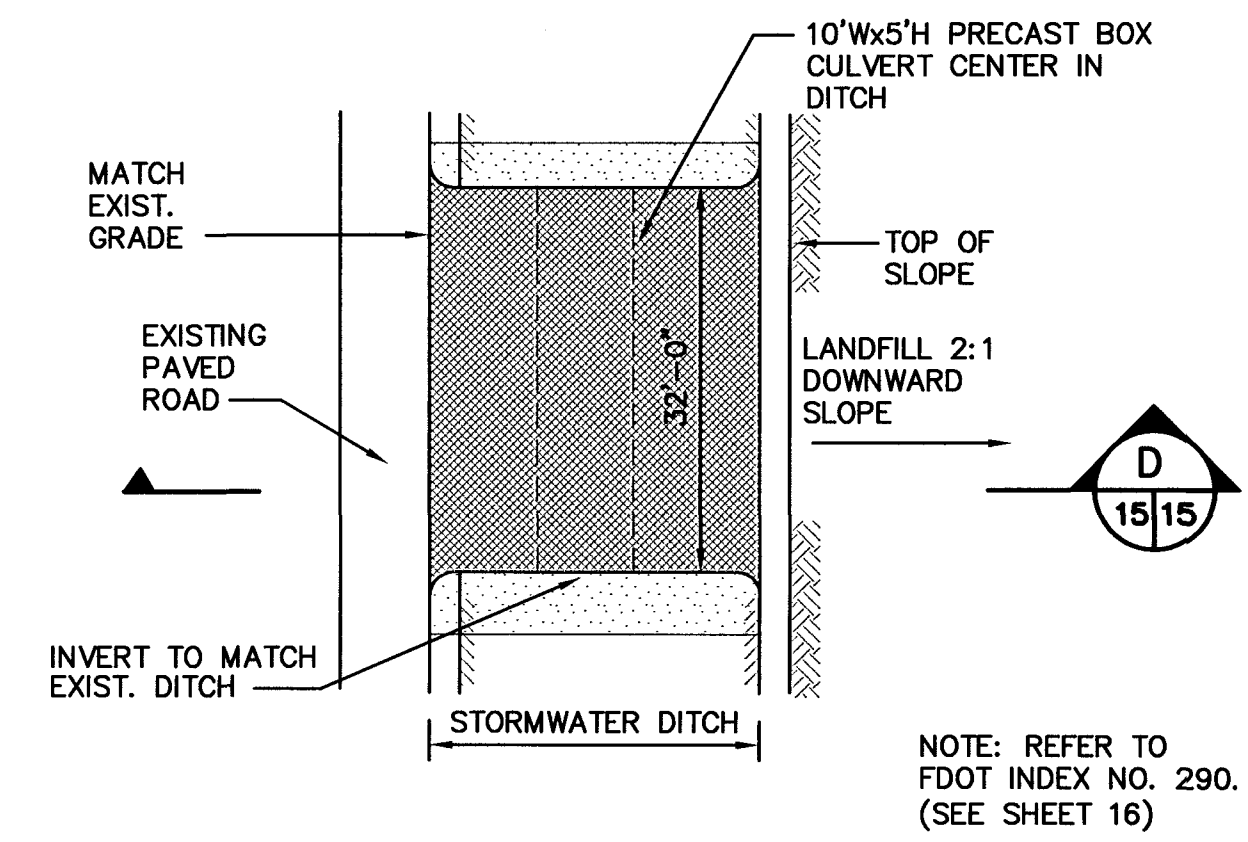
15



EAST HEAVY EQUIPMENT ACCESS ROAD BOX CULVERT "A" DETAIL
NO SCALE



WEST HEAVY EQUIPMENT ACCESS ROAD BOX CULVERT "B" DETAIL
NO SCALE



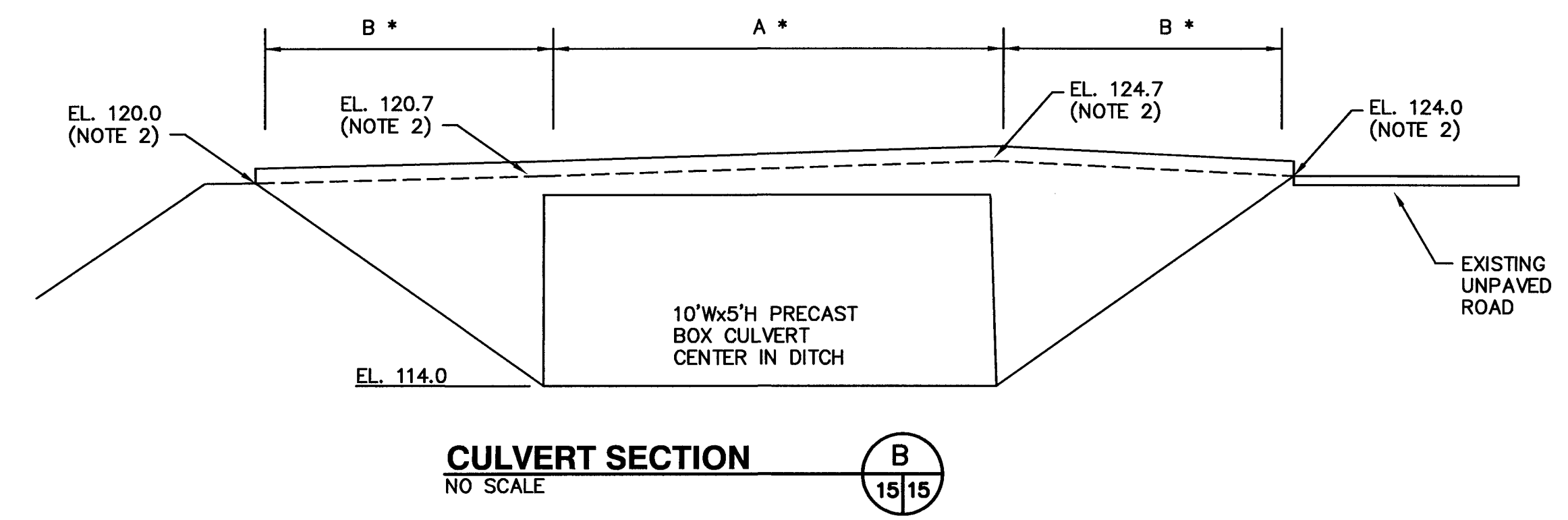
LEACHATE MANIFOLD CROSSING BOX CULVERT "C" (LOCATED EAST OF PHASE 2) DETAIL
NO SCALE

CULVERT PAVEMENT GUIDE

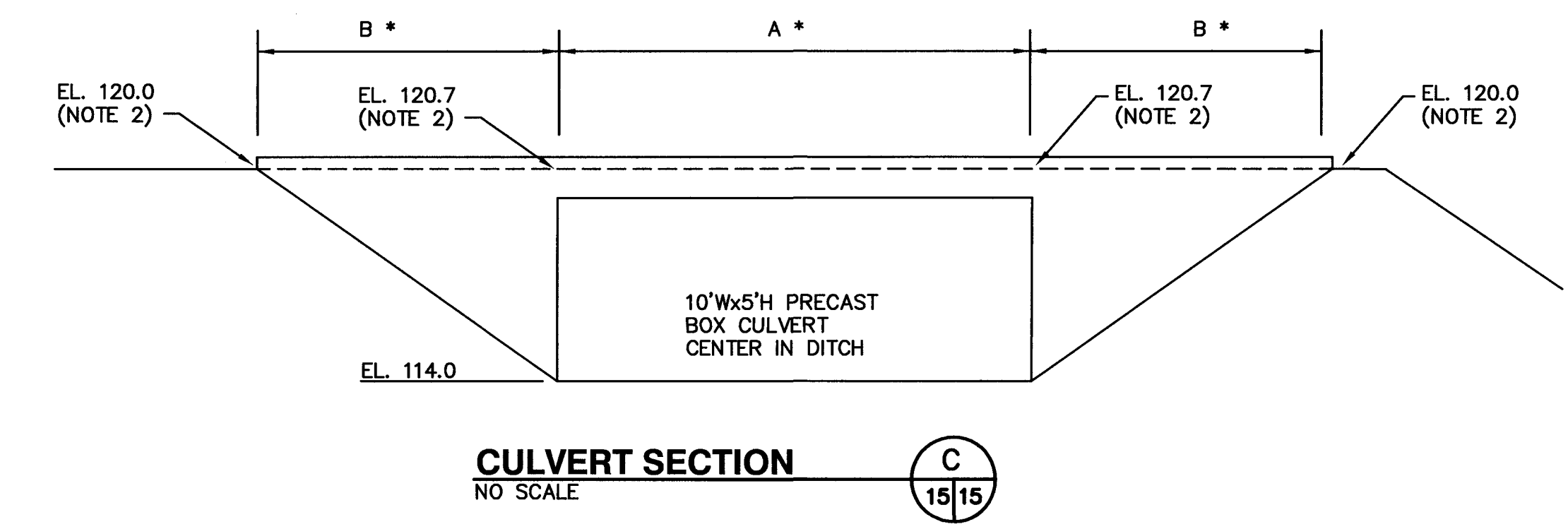
A	= 2" ASPHALT ONLY
B	= 2" ASPHALT OVER 8" LIMEROCK BASE

NOTE:

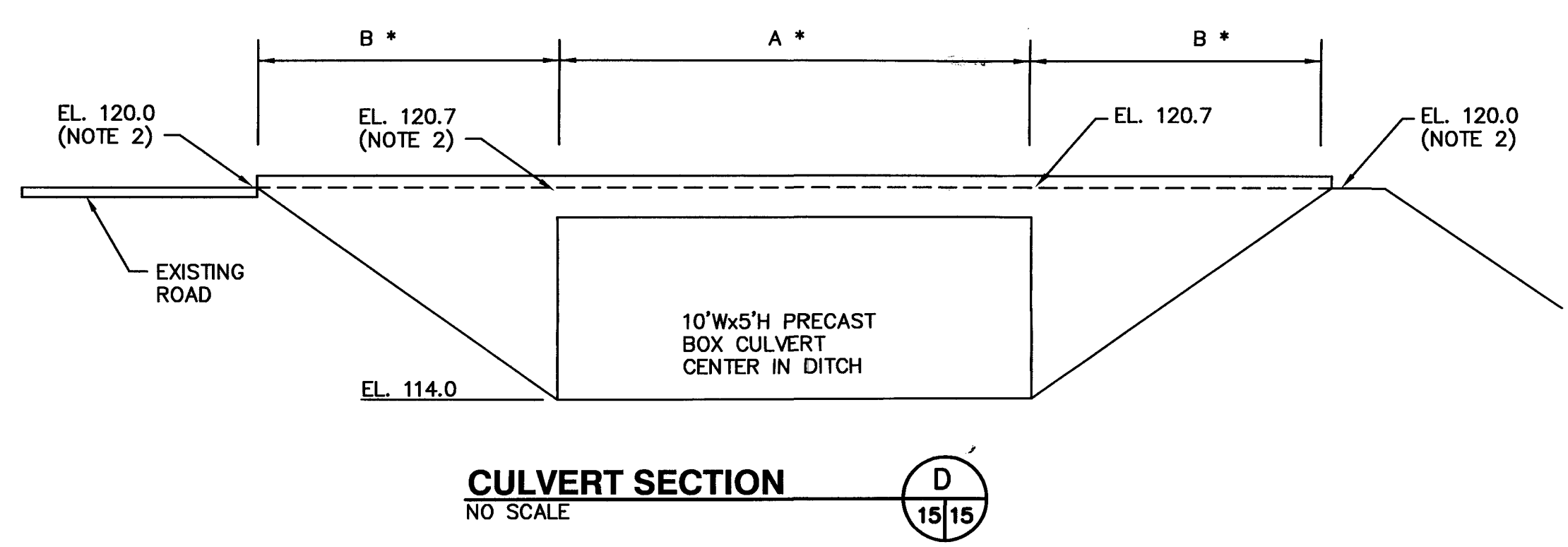
- CONTRACTOR SHALL VERIFY DEPTH OF EXISTING DITCH PRIOR TO ORDERING BOX CULVERT, AND ASCERTAIN IF THERE IS AT LEAST 6' OF DEPTH. IF LESS THAN 6' OF DEPTH, THEN INSIDE HEIGHT OF BOX MAY HAVE TO BE CHANGED ACCORDINGLY.
- CONTRACTOR SHALL VERIFY EXISTING GRADES AND MAKE ADJUSTMENT AS NEEDED IN FILL PLACEMENT AND APPLICATION OF PAVEMENT SO THAT TRANSITION FROM NEW SURFACE TO EXISTING SURFACE IS FLUSH.



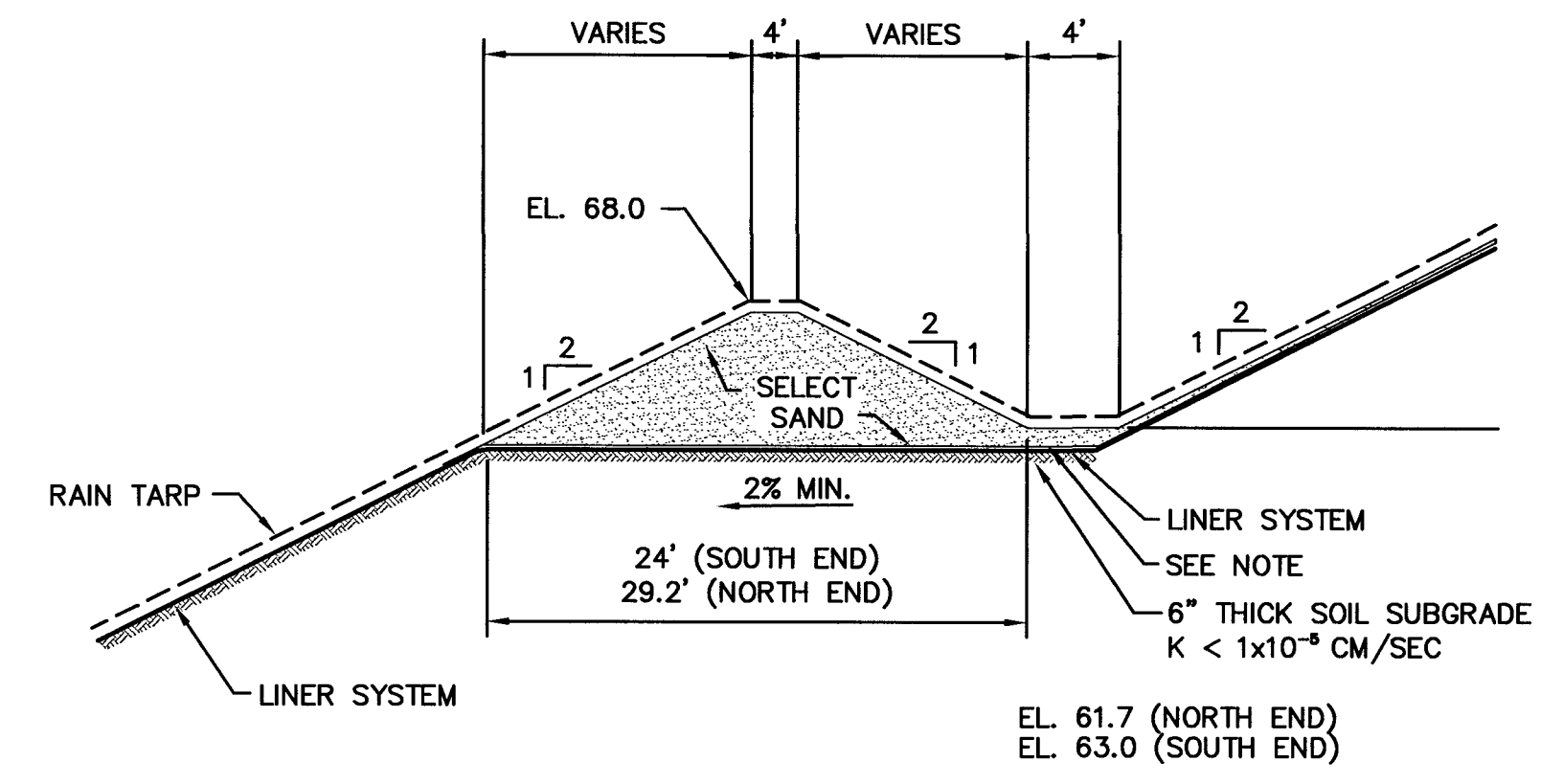
CULVERT SECTION B
NO SCALE



CULVERT SECTION C
NO SCALE

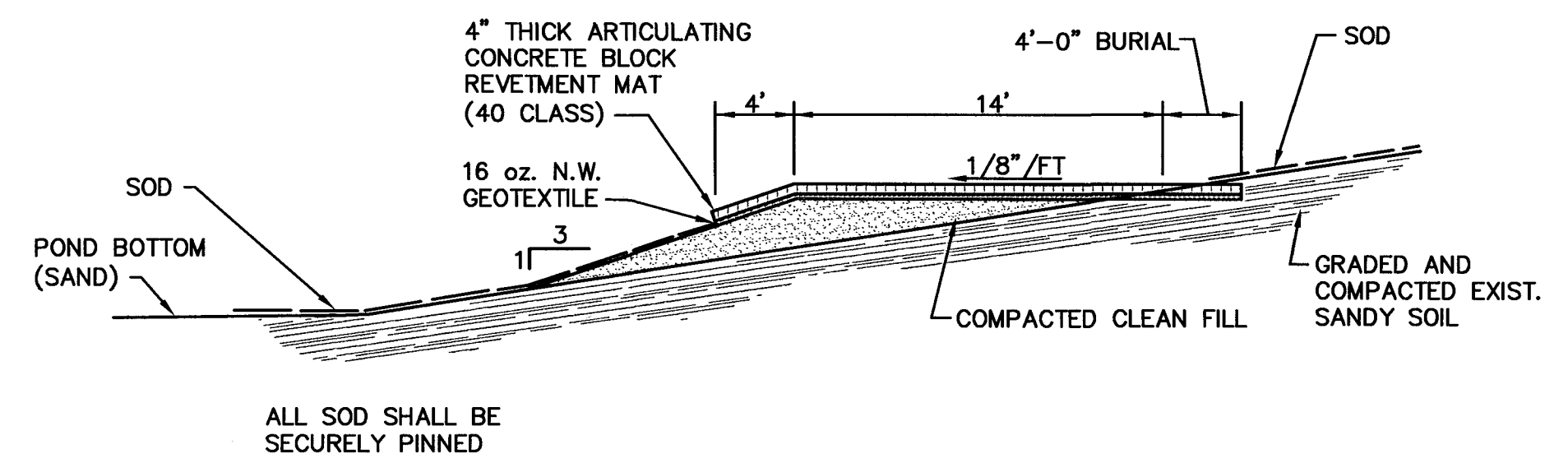


CULVERT SECTION D
NO SCALE

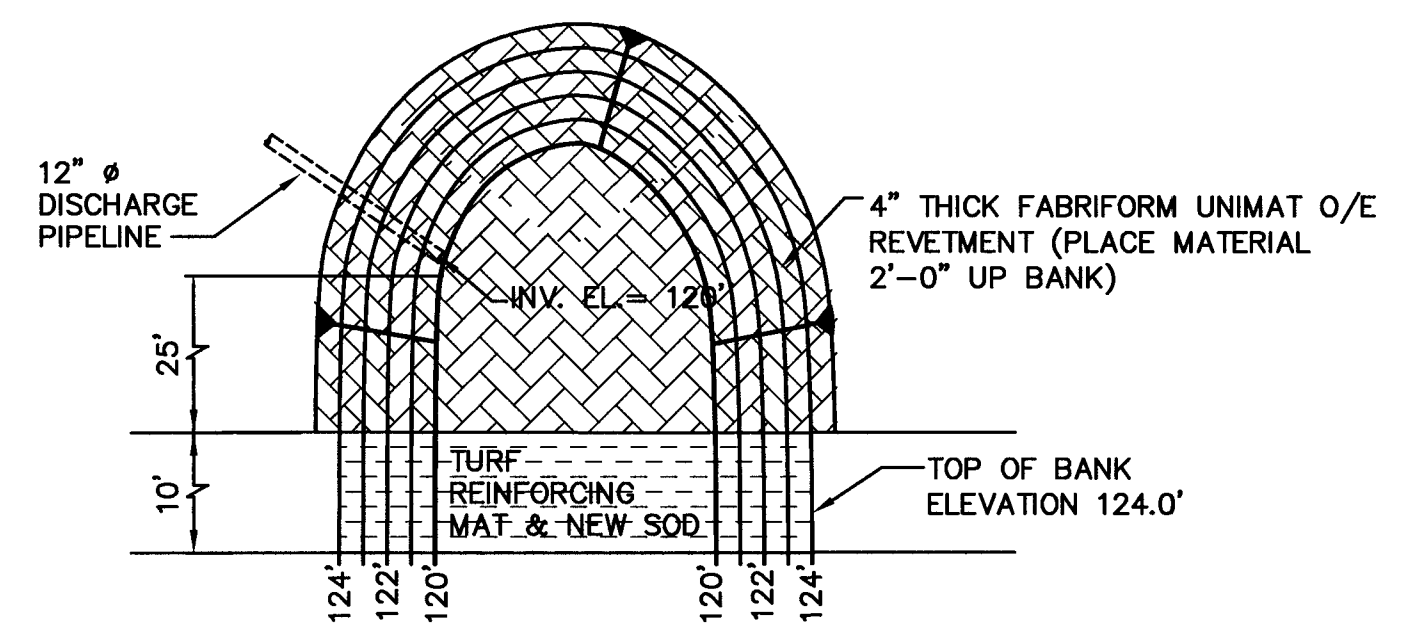


STORMWATER DIVERSION SWALE "B" SECTION
NO SCALE

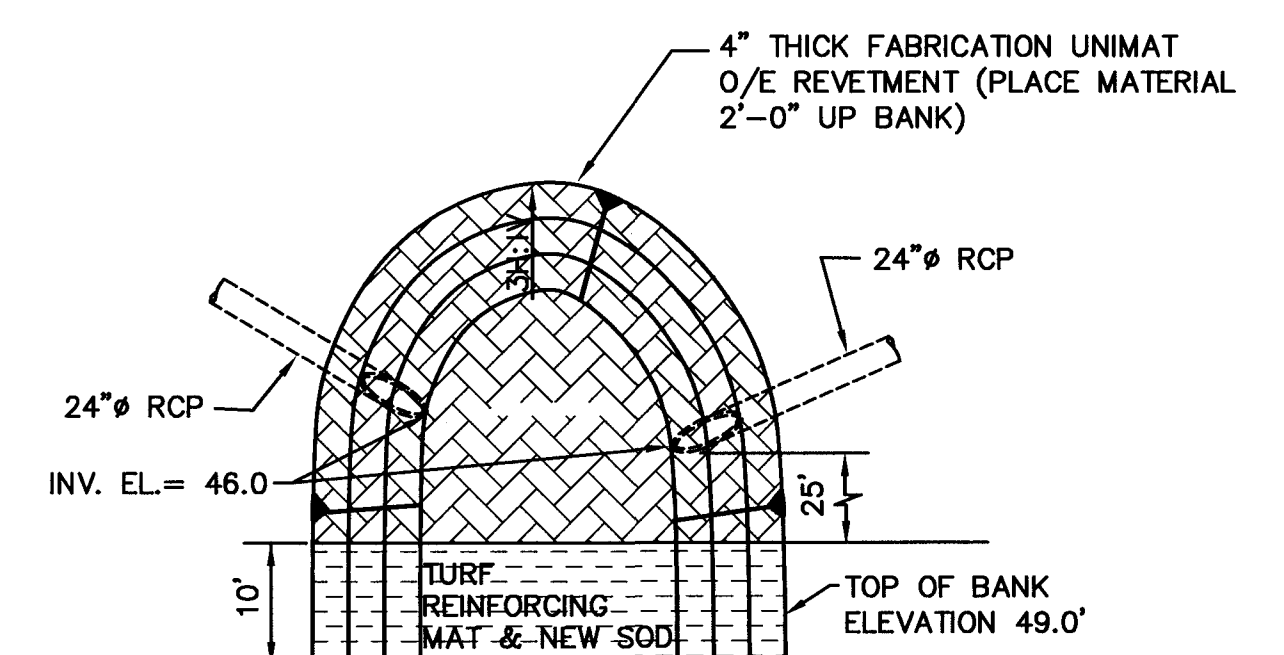
NOTE:
THE COUNTY SHALL REMOVE RAIN TARP AND REGRADE BERM TO ACHIEVE A 2" THICK LAYER OF PROTECTIVE SAND COVER OVER BENCH AREA PRIOR TO PLACING REFUSE AT THIS LEVEL.



IMPOUNDMENT SERVICE ROAD EROSION PROTECTION SECTION
NO SCALE



SPILLWAY EROSION PROTECTION SECTION
NO SCALE



STORMWATER DISCHARGE PIPE PROTECTION DETAIL
NO SCALE

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JAN 14 2003
SOUTHWEST DISTRICT TAMPA

REV	DATE	DESCRIPTION

DRAWING TITLE
STORMWATER COLLECTION SYSTEM DETAILS

PROJECT TITLE
CENTRAL LANDFILL PHASE II EXPANSION

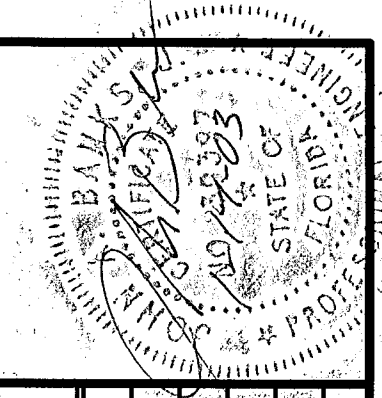
CLIENT
CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION
CITRUS COUNTY, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 624-0000 FAX (813) 624-6757

SCALE: BUC/LEK
DATE: JAN 14 2003

CADD FILE: 995602D1S1.dwg
DATE: DECEMBER
SCALE: NO SCALE
DRAWING NO.

G:\PROJECT\09190056.02\Final\Construction\995602D1S1.dwg Jan 13, 2003 4:34pm Layout Name: Details(15) By: 9999rei



BY	
DESCRIPTION	
DATE	
REV	

DRAWING TITLE: **STORMWATER BOX CULVERT DETAILS**

PROJECT TITLE: **CENTRAL LANDFILL PHASE II EXPANSION**

CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION
CITRUS COUNTY, FLORIDA

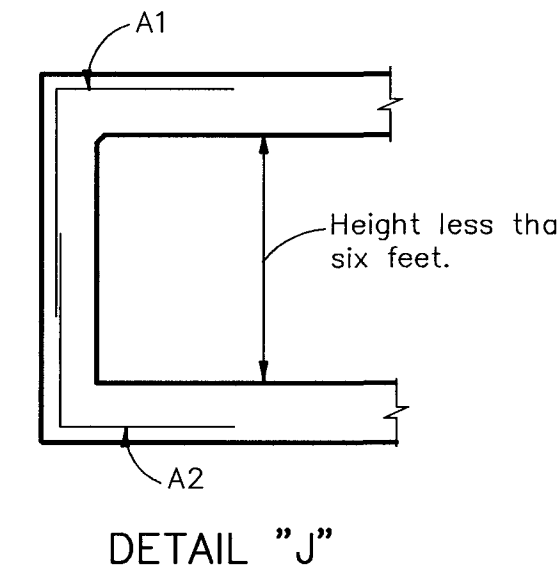
CLIENT: FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JAN 14 2003
SOUTHWEST DISTRICT TAMPA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 651-0800 FAX (813) 623-6757

CADD FILE: 995602SMPDLS.dwg
DATE: DECEMBER
SCALE: NO SCALE
DRAWING NO. 16 of 17

F.D.O.T. INDEX 290

NOTE: Designs for box culverts under this index are to be produced only by computer analysis, utilizing the program named PSTDN55. Designs under this index are to be limited to the live loads and dimensional restraints shown in the General Notes as shown in the roadway plans. It is the construction Contractors responsibility to provide for supporting construction loads that exceed the above loadings.



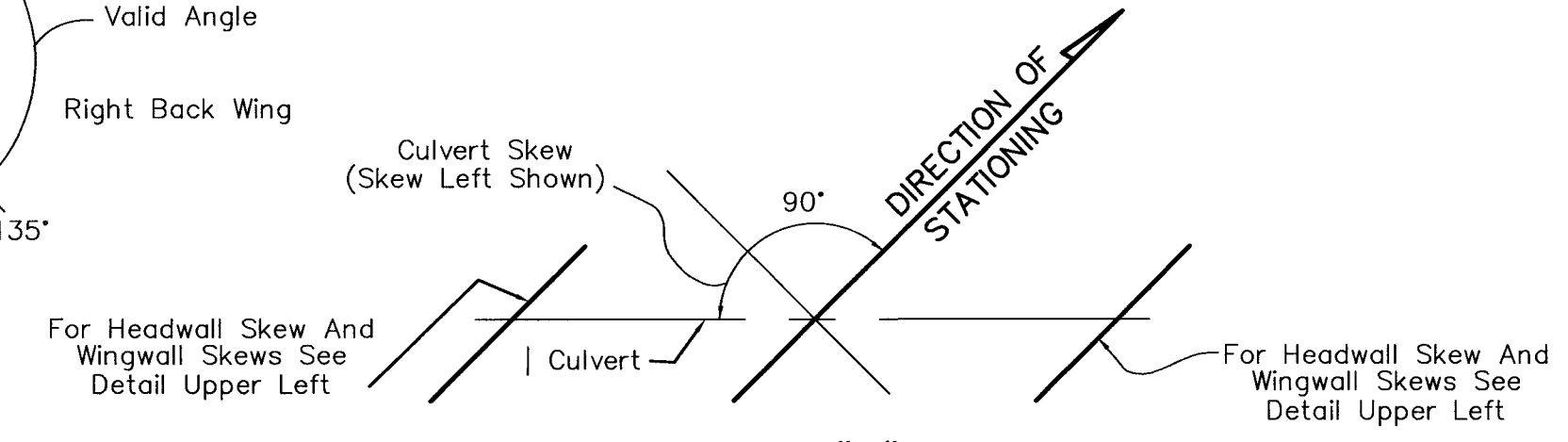
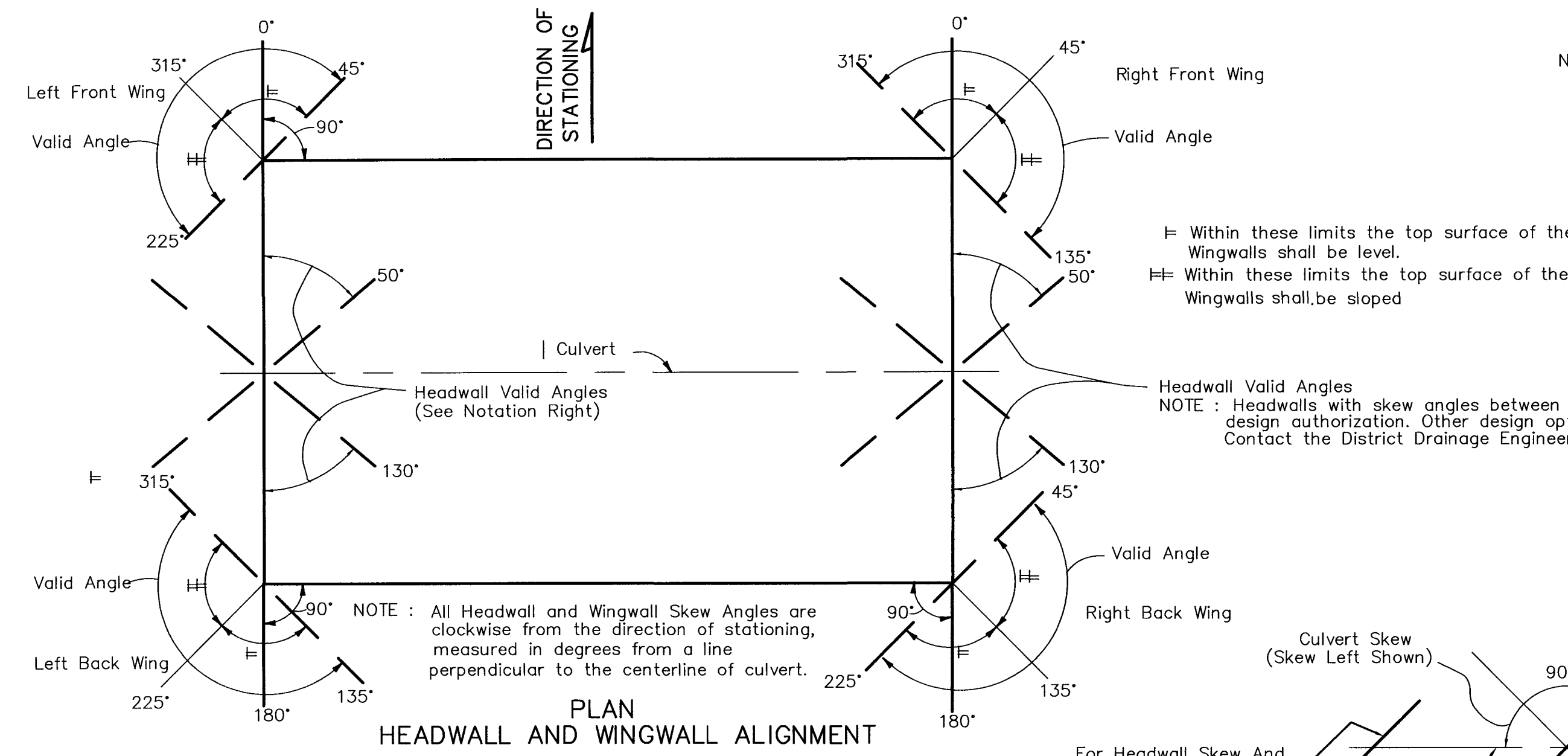
GENERAL NOTES

DESIGN SPECIFICATIONS: A.A.S.H.T.O. 1983.
LOADING: HS20-44, Modified for Military Loading as Required
SURFACE FINISH: The Class Surface finish for all concrete surfaces shall be a general surface finish.
SKEWED CONSTRUCTION JOINTS: Construction joints in barrels of culverts with skewed wingwalls may be placed parallel to the headwalls and the reinforcing steel, in the slabs may be cut provided that the cut reinforcing steel extends beyond the construction joint enough for splices to be made in accordance with the table (lower right) this sheet. The cost of construction joints shall be at the expense of the contractor.
CULVERT EXTENSIONS: For cut backs and ties into existing concrete box culverts see Index No. 280

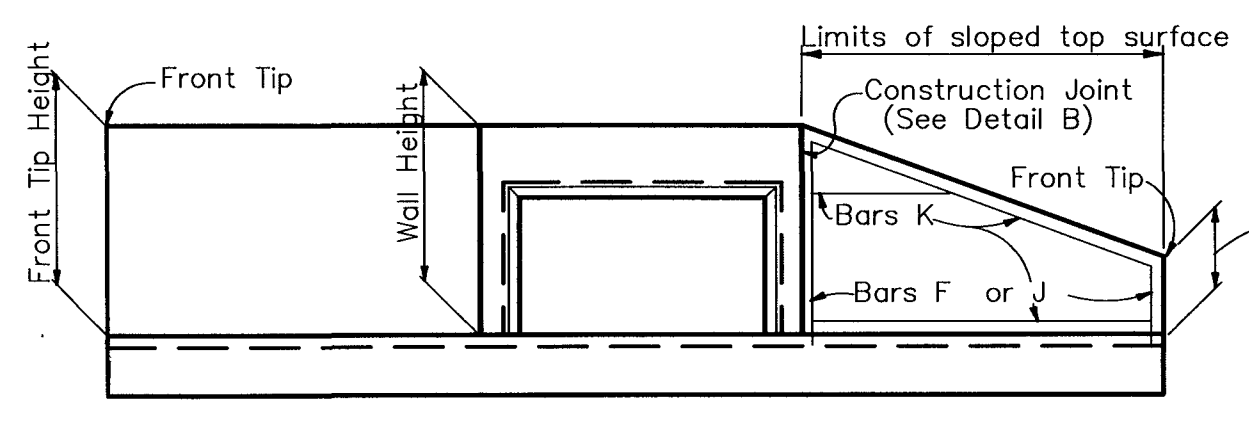
- * REINFORCING BAR SCHEDULE:
- A. When the depth is less than or equal to 2.0 feet, Bars C2 are utilized in the bottom of the top slab. In all other cases, Bars C2 are replaced with Bars C1 spaced at 18 inches on centers.
 - B. When the skew angle for a headwall equals 0 degrees plus or minus 11 degrees the respective S Bars (S2 or S3) will not be utilized.
 - C. When the barrel height is less than 6 Feet, Bars B2 will be eliminated as shown in Detail J.
 - D. If the span is less than five feet, Bars A1 and A2 will be Type II Bars.
 - E. The portions of Bars "N" that extend thru Construction Joints into wingwalls above footings shall be given one coat of approved zinc rich paint and shall be encased in approved capped plastic (PVC) pipes filled with durable lubricant or cut back asphalt. The length and inside diameter of the plastic pipe shall be approximately 1/4" larger than those of the bar.
 - F. For culvert extensions Bar C1 is redesignated Bar C3 in the bottom slab.

TABLE OF MINIMUM BAR SPLICE LENGTHS

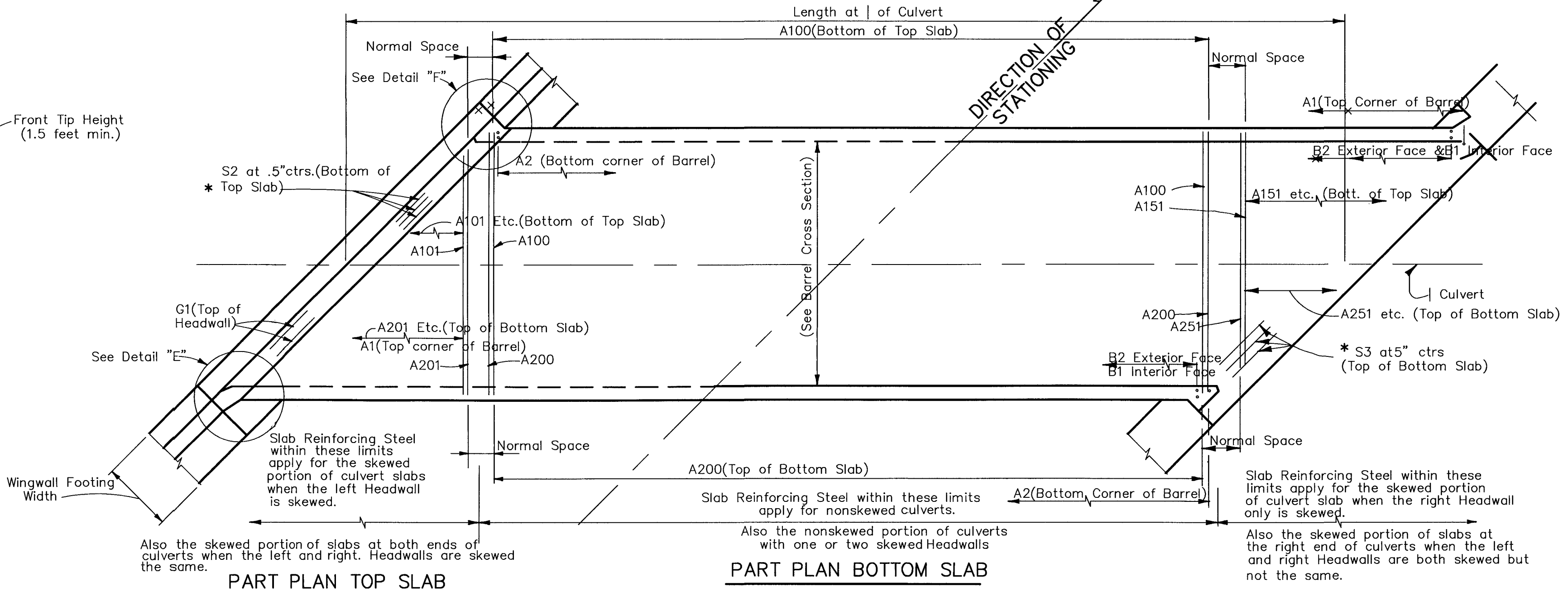
BAR SIZE	SPLICE	BAR SIZE	SPLICE
4	1'- 8"	8	3'- 10"
5	2'- 2"	9	4'- 10"
6	2'- 7"	10	6'- 1"
7	3'- 0"	11	7'- 6"



NOTE: For Culvert Skew see Roadway Plans.
CULVERT ALIGNMENT



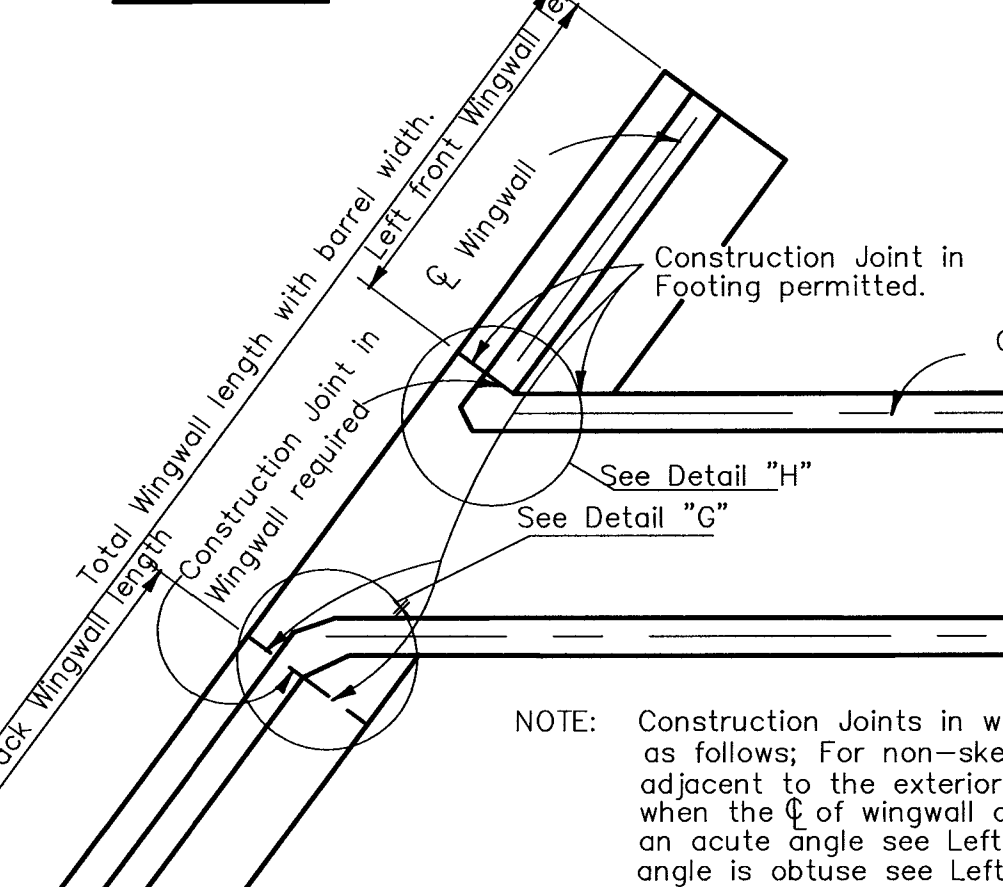
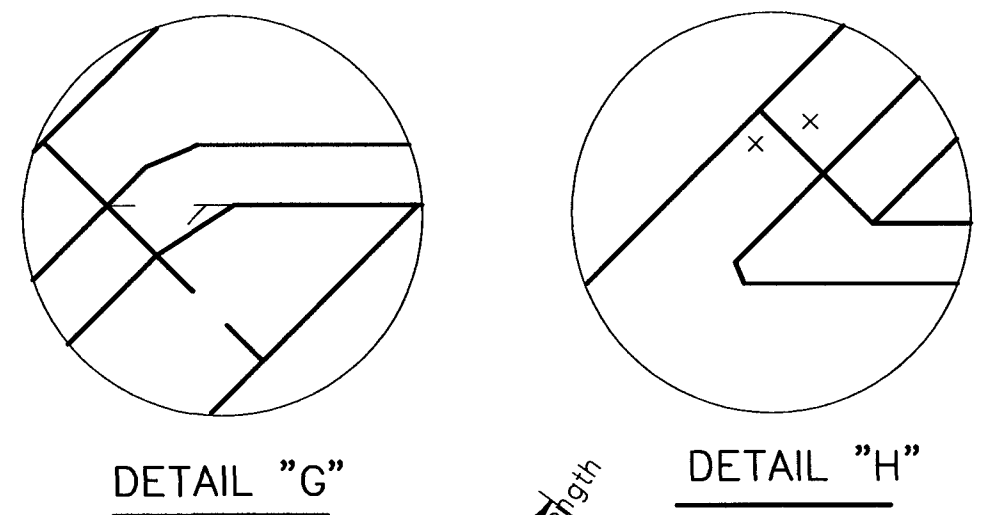
NOTE: Cut the vertical bars F as required for the longest bar and use the remainder for the shortest bar in the wingwall. The vertical bars J and the horizontal bars K shall be constructed likewise. The lengths shown in the reinforcing steel bar schedule for bars F, J and K require cutting for sloped wingwalls only.



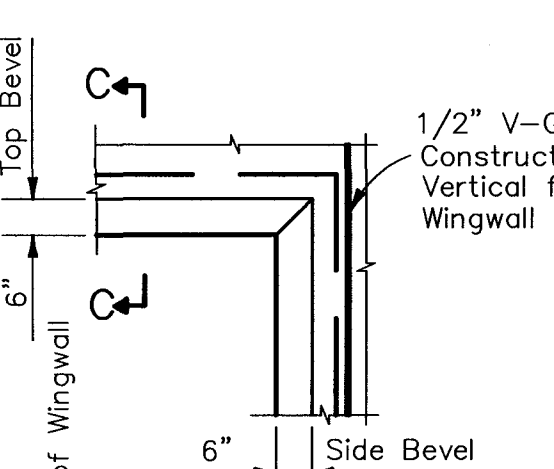
Slab Reinforcing Steel within these limits apply for the skewed portion of culvert slabs when the left Headwall is skewed. Also the skewed portion of slabs at both ends of culverts when the left and right Headwalls are skewed the same.

Slab Reinforcing Steel within these limits apply for non-skewed culverts with one or two skewed Headwalls. Also the non-skewed portion of culverts with one or two skewed Headwalls.

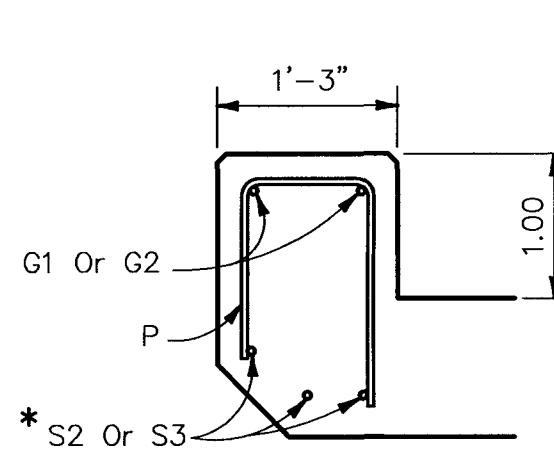
Slab Reinforcing Steel within these limits apply for the skewed portion of culvert slab when the right Headwall only is skewed. Also the skewed portion of slabs at the right end of culverts when the left and right Headwalls are both skewed but not the same.



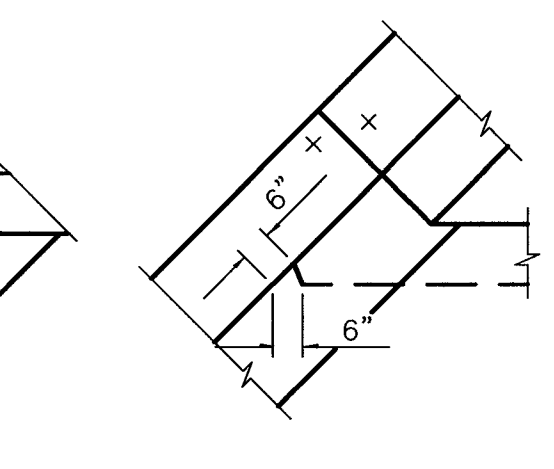
NOTE: Construction Joints in wingwalls and footings are located as follows; For non-skewed wingwalls they are located adjacent to the exterior face of the exterior barrel wall when the ϕ of wingwall and ϕ of the exterior barrel wall results in an acute angle see Left Front Wingwall above and when the angle is obtuse see Left Back Wingwall above.



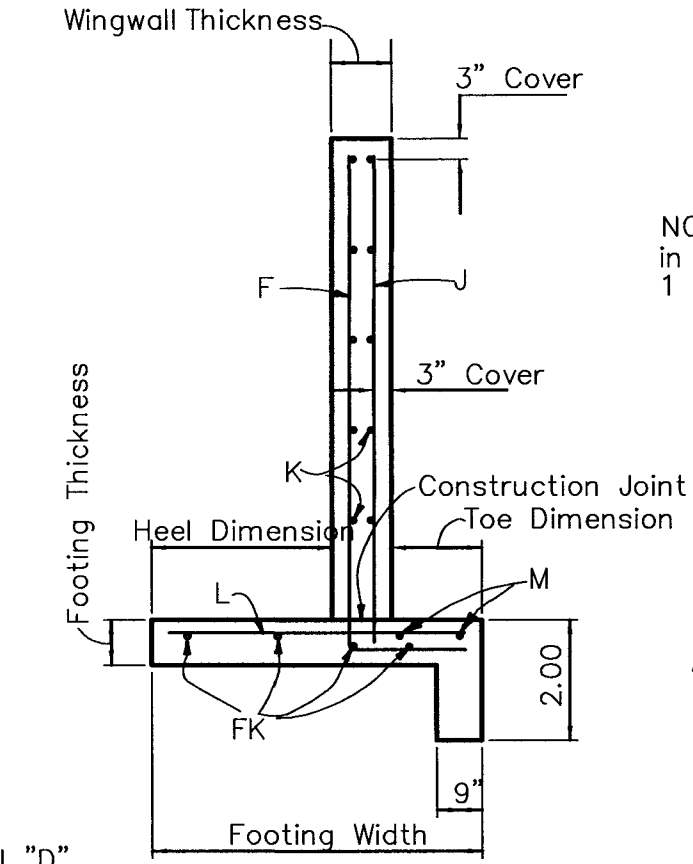
SECTION C-C



DETAIL 'E'



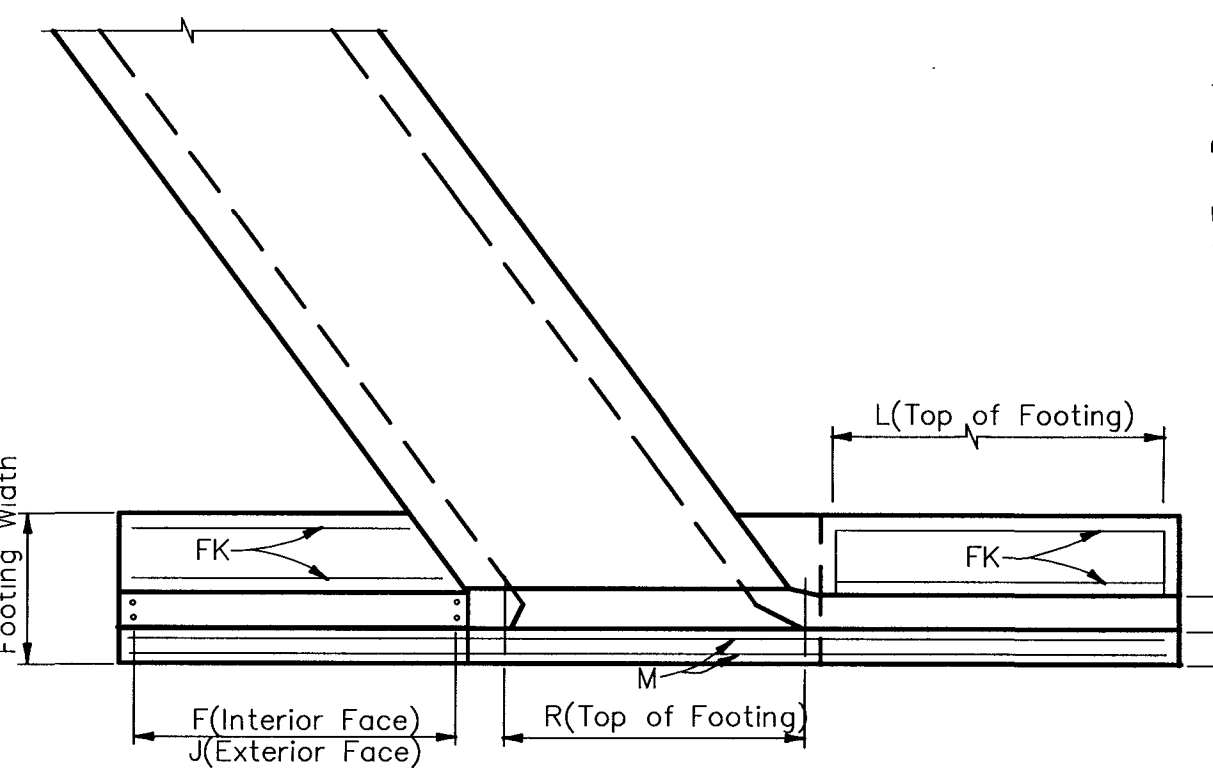
DETAIL 'F'



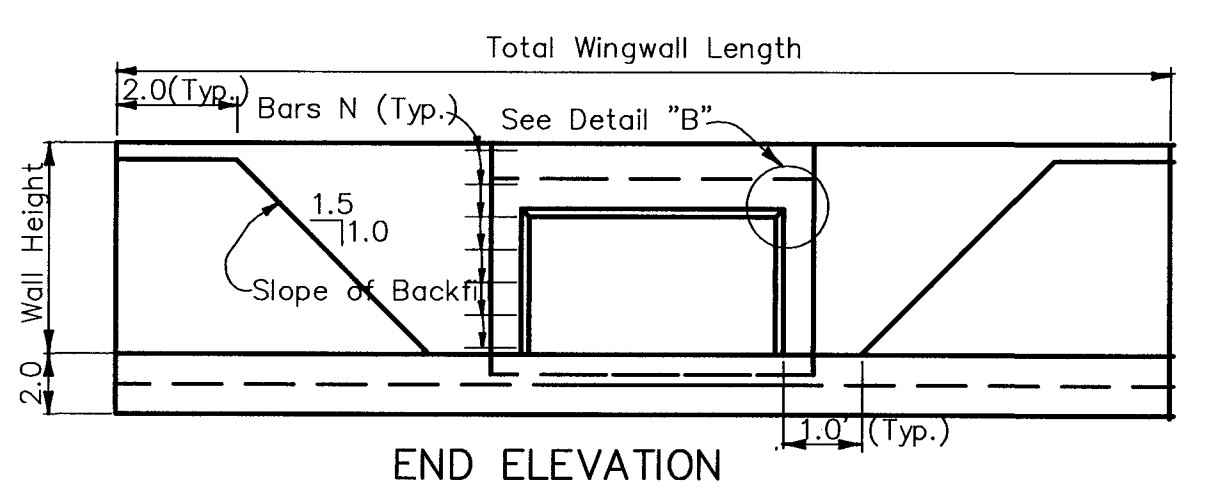
SECTION THRU WINGWALL

NOTE: For Bars F, J, K, L and/or FK in the Wingwalls, the subscripts 1 thru 4 apply as follows:
1~Left Front
2~Left Back
3~Right Front
4~Right Back

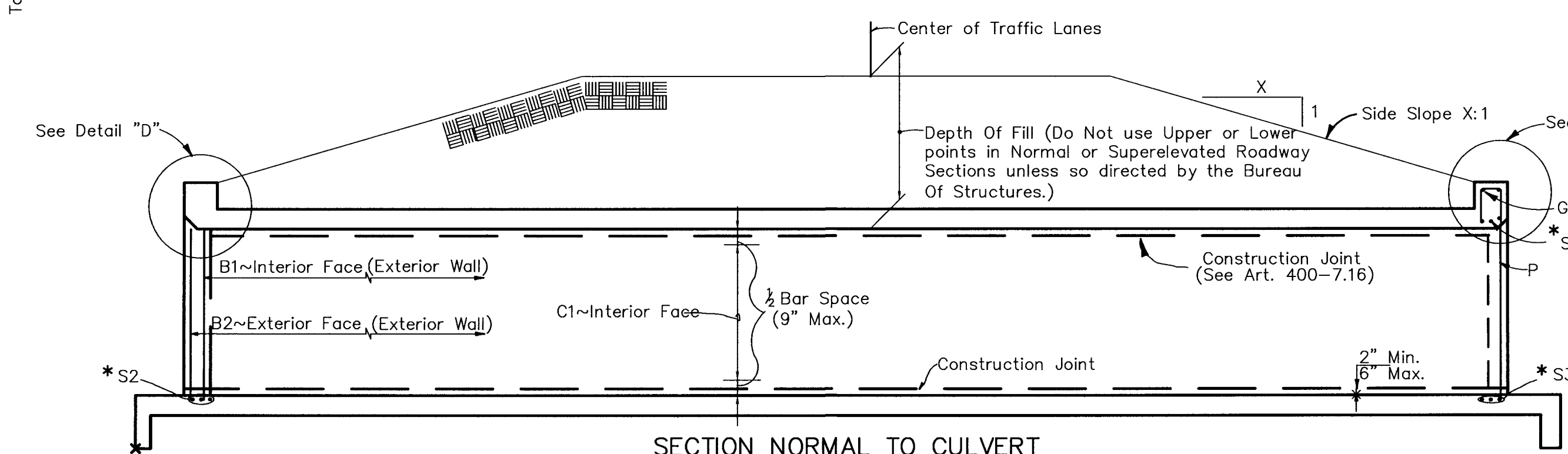
* See Culvert Details and Reinforcing Bar Schedule, Sheet 1 of 5



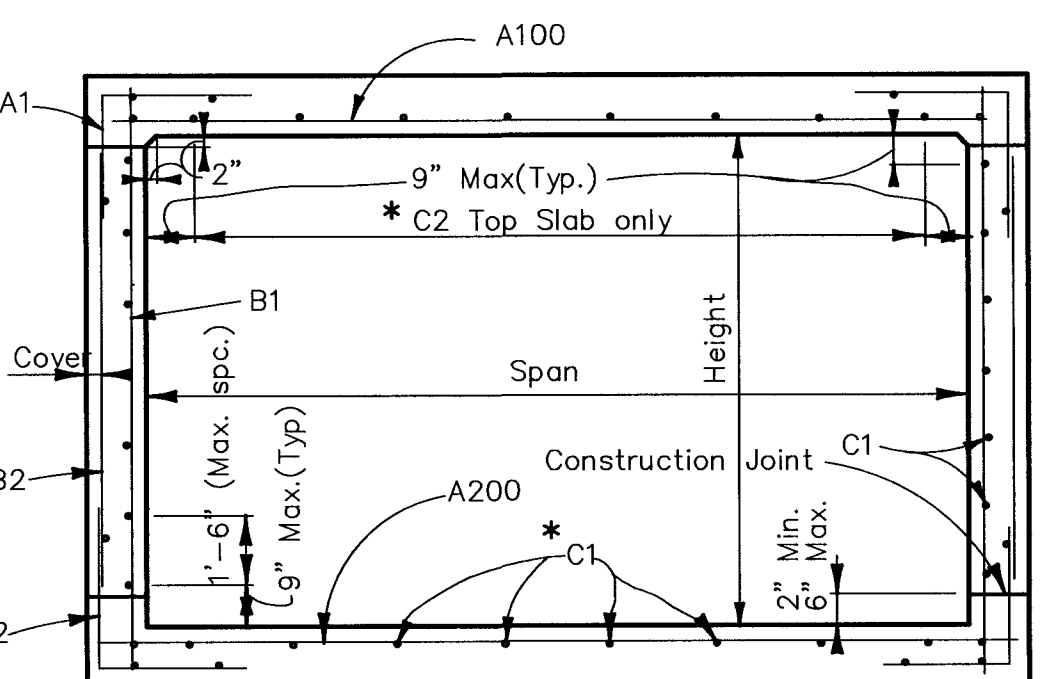
PART PLAN AT END OF CULVERT



END ELEVATION



SECTION NORMAL TO CULVERT

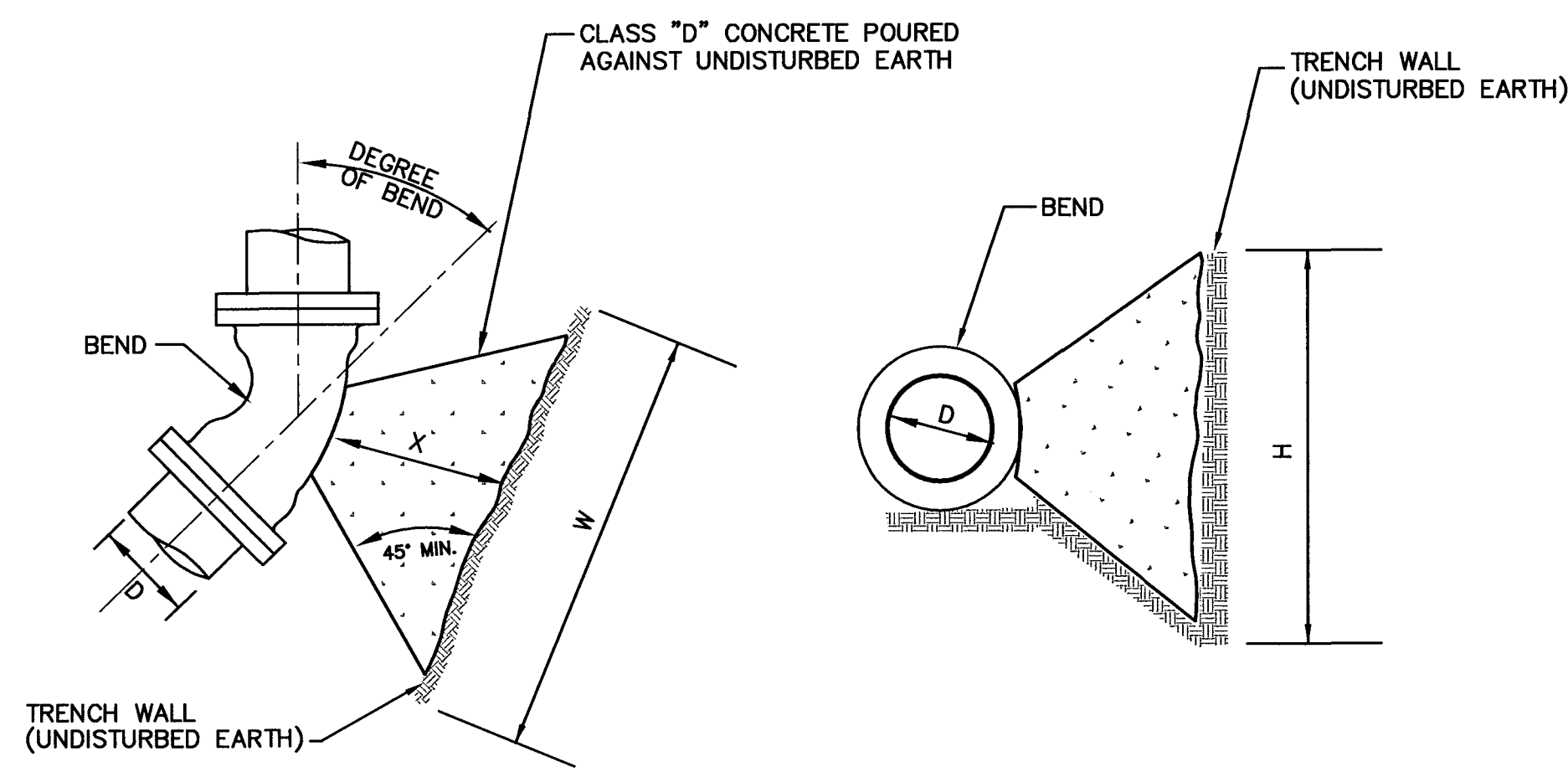
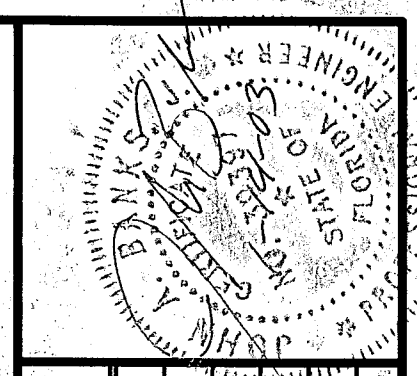


SECTION THRU BARREL

NOTE: The location of the first bar from the ends of the culvert shall not be less than .25, but not greater than one half the bar spacing.

G:\PROJECT\09199056.02\FinalConstruction\995602SMPDLS.dwg Jan 13, 2003 - 4:31pm Layout Name: FDOTDETAILS(16).By: 9999pep

17

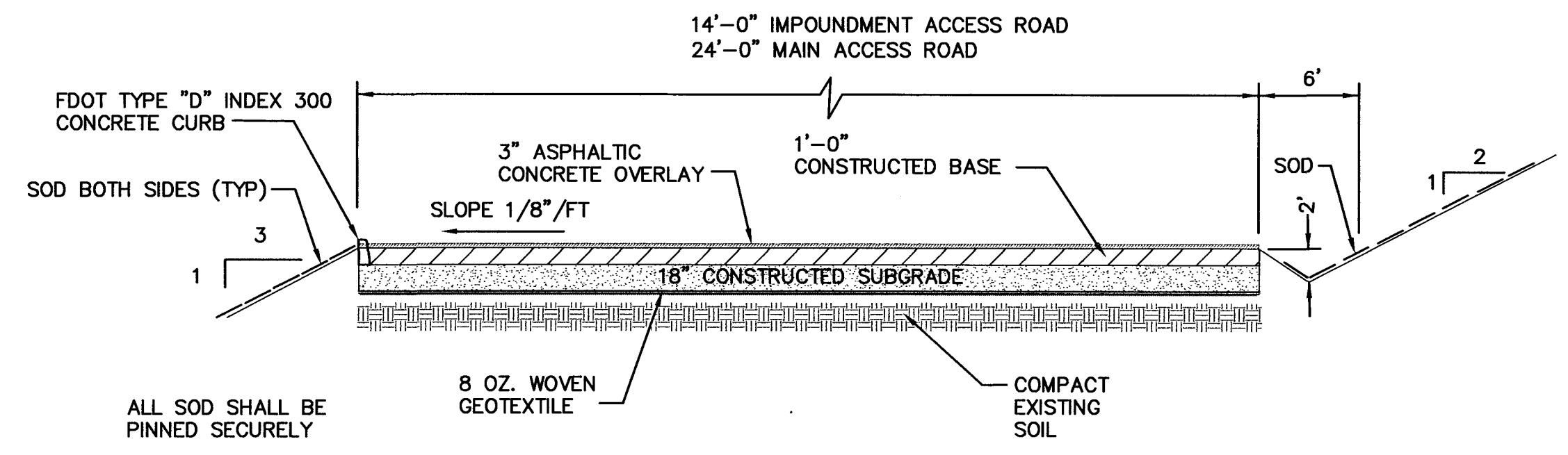


THRUST BLOCK DETAIL 4
NO SCALE 3/17

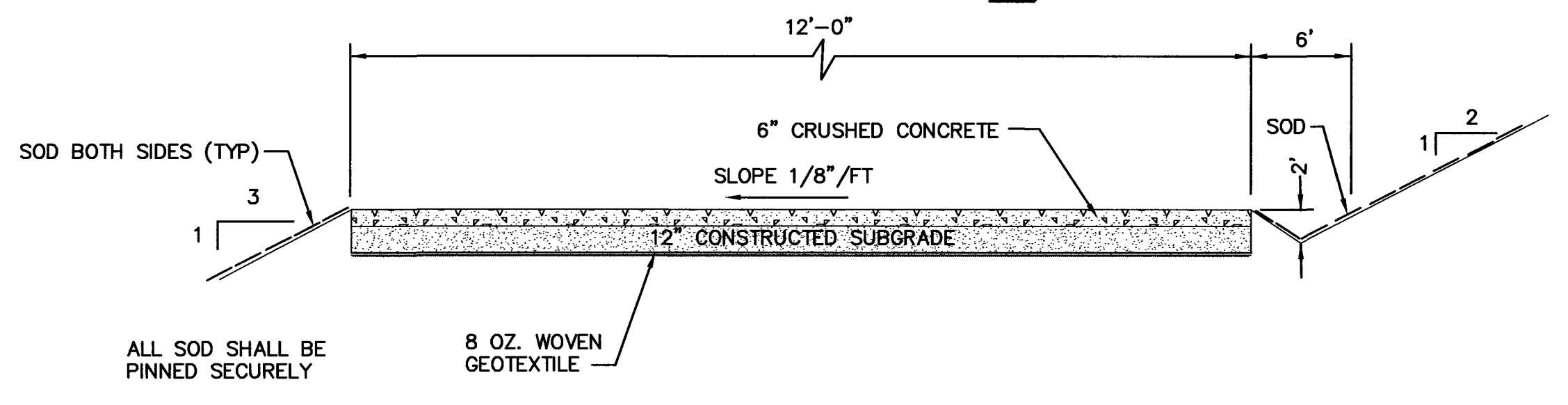
DIMENSIONS OF THRUST BLOCKS FOR GOOD SOIL

	SIZE (D)	4"	6"	8"	12"
11-1/4° BEND	THRUST (lbs.)	532	1100	1892	4024
	BEARING AREA (ft. ²)	0.27	0.55	0.95	2.01
	CONCRETE (yds)	0.02	0.04	0.08	0.24
	H	5"	7"	9"	1'-1"
	W	8"	1'-0"	1'-4"	1'-11"
22-1/2° BEND	THRUST (lbs.)	1059	2188	3765	8010
	BEARING AREA (ft. ²)	0.53	1.09	1.88	4.01
	CONCRETE (yds)	0.03	0.08	0.15	0.48
	H	7"	10"	1'-0"	1'-6"
	W	1'-0"	1'-5"	1'-10"	2'-8"
45° BEND	THRUST (lbs.)	2078	4293	7384	15,711
	BEARING AREA (ft. ²)	1.04	2.15	3.69	7.81
	CONCRETE (yds)	0.07	0.16	0.30	0.94
	H	9"	1'-1"	1'-5"	2'-1"
	W	1'-4"	2'-0"	2'-6"	3'-8"
6'-8" BEND	THRUST (lbs.)	3838	7932	13,645	15,711
	BEARING AREA (ft. ²)	1.92	3.97	6.82	14.51
	CONCRETE (yds)	0.12	0.29	0.55	1.75
	H	1'-0"	1'-6"	2'-0"	2'-11"
	W	1'-10"	2'-8"	3'-5"	5'-0"
	X	12" Min.	12" Min.	12" Min.	18" Min.

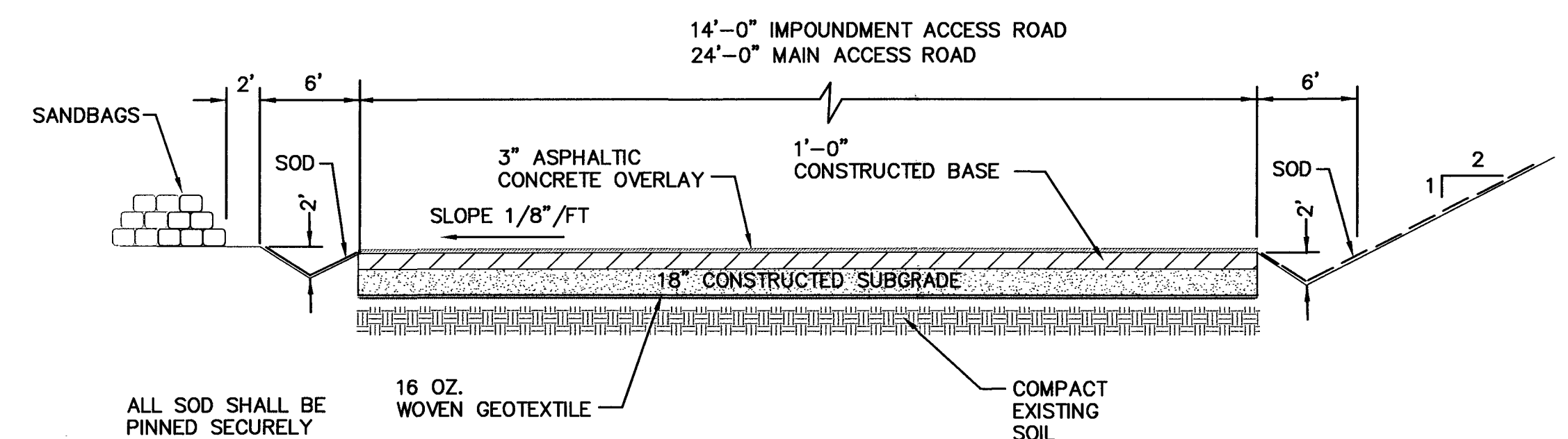
NOTES:
 1. Concrete shall be kept at sufficient distance from joint for removal of all joint accessories including bolts.
 2. All bearing surfaces to be carried to undisturbed soil.
 3. This table shows the minimum size thrust blocks for soil bearing pressure of 2000 psf and an internal pressure of 150 psi.
 4. Poor and wet soil (silty soils, clay, muck and peat) will require larger thrust blocks.
 5. Fittings shall be completely polywrapped prior to pouring thrust blocks.



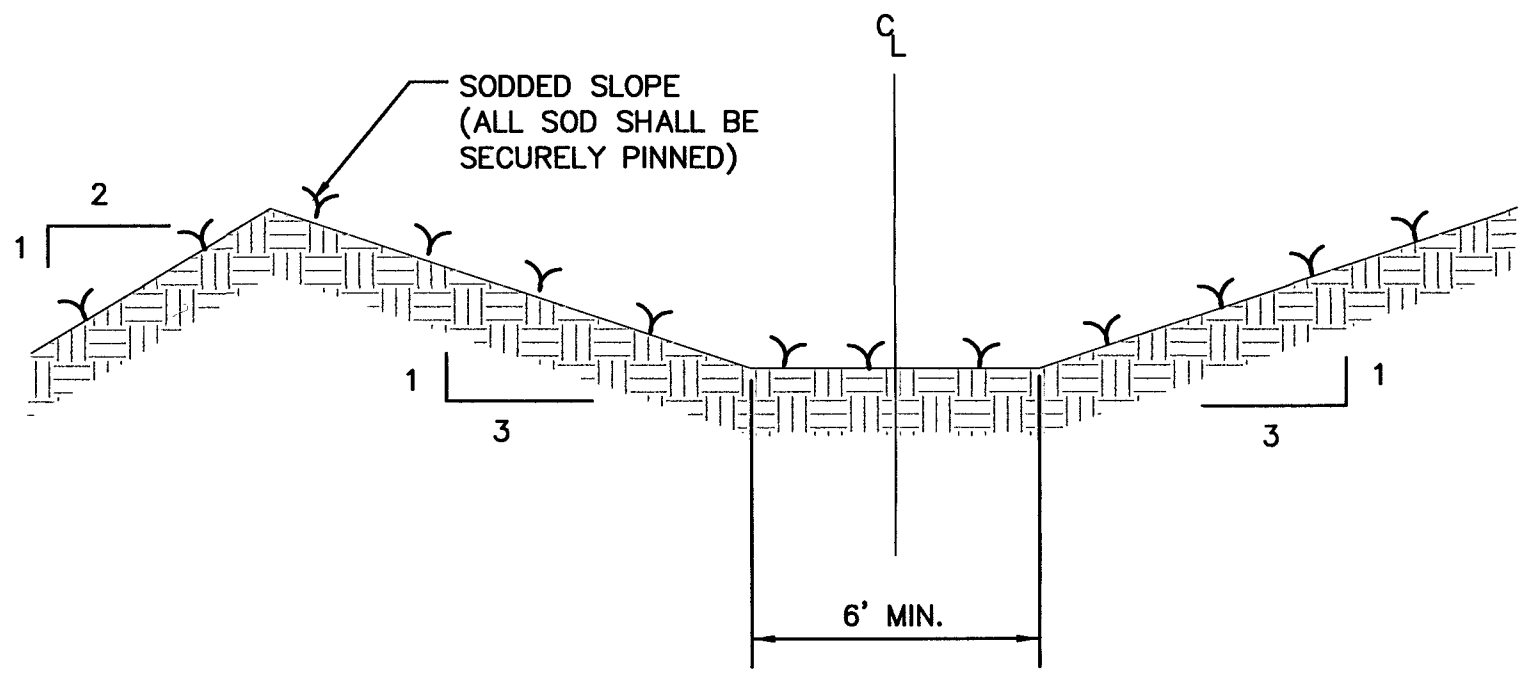
MAIN AND IMPOUNDMENT ACCESS ROADS 1
NO SCALE 3.5 1/17



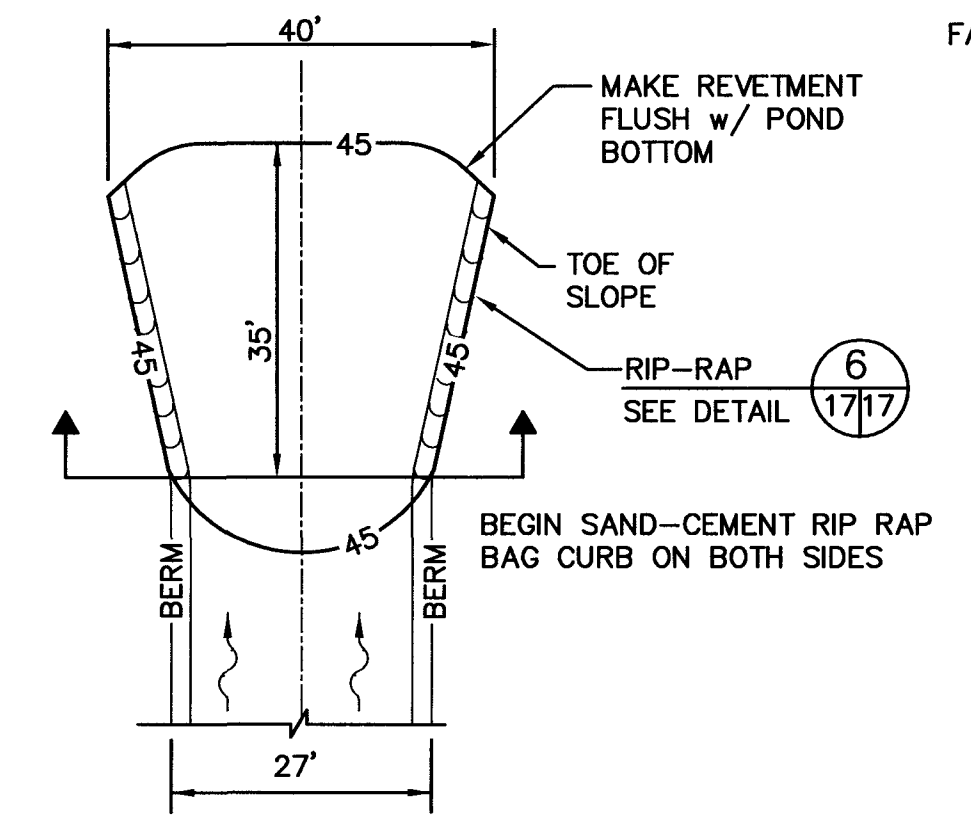
STORMWATER PUMP ACCESS ROAD 2
NO SCALE 3.5 2/17



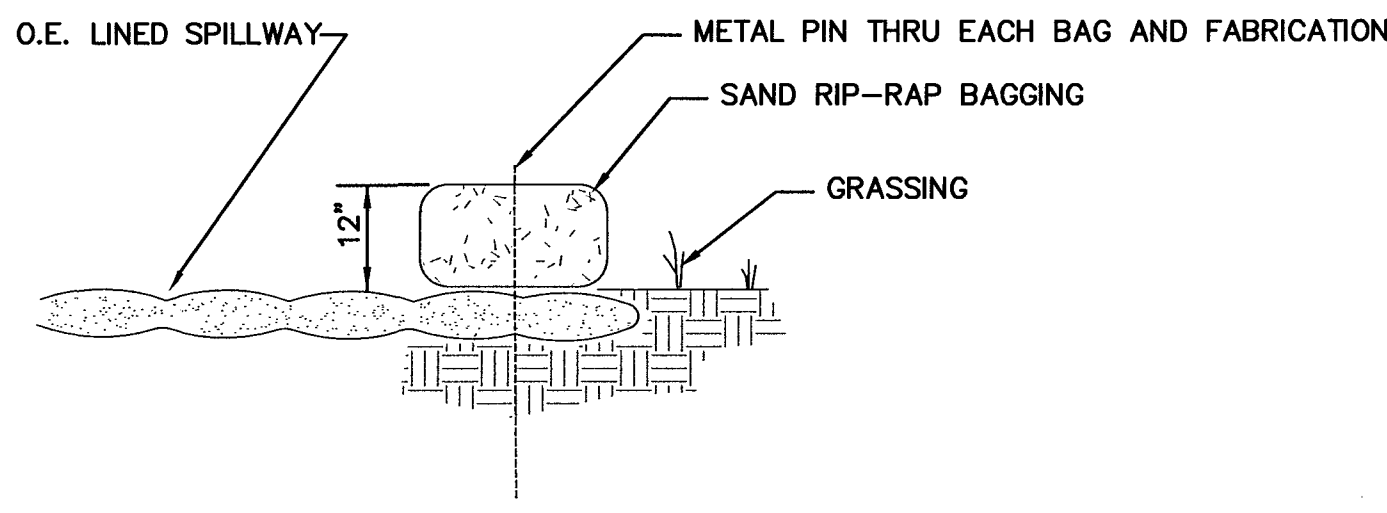
MAIN AND IMPOUNDMENT ACCESS ROADS 3
NO SCALE 3.5 3/17



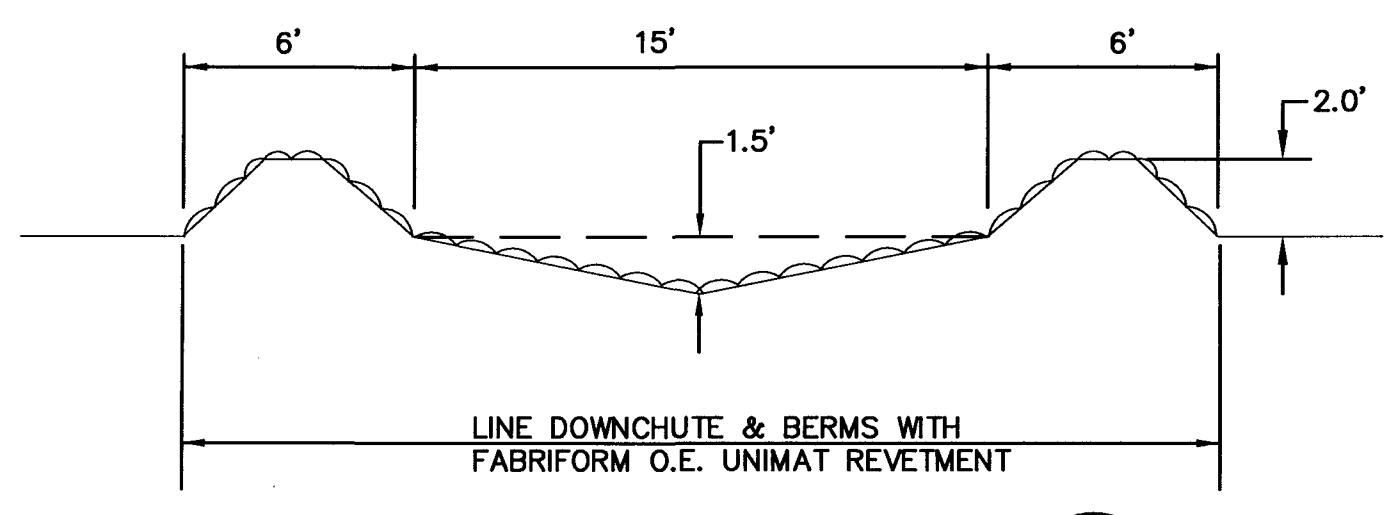
STORMWATER DIVERSION SWALE "A" SECTION A
NO SCALE 3.5 A 1/17



DOWNCHUTE SPILLWAY 5
NO SCALE 3/17



RIP-RAP DETAIL 6
NO SCALE 4/17



DOWNCHUTE FROM SWALE "B" B
NO SCALE 3/17

REV	DATE	DESCRIPTION

DRAWING TITLE
MISCELLANEOUS DETAILS

PROJECT TITLE
CENTRAL LANDFILL PHASE II EXPANSION

CLIENT
CITRUS COUNTY SOLID WASTE MANAGEMENT DIVISION CITRUS COUNTY, FLORIDA

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS
 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
 PH (813) 991-0800 FAX NO. (813) 622-6767

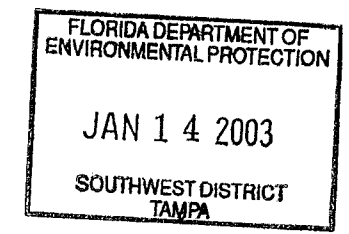
DATE: 01/14/03
 DRAWN BY: CRD/KJG/PEI
 CHECKED BY: BUC/LEK
 APPR. BY: BUC

CADD FILE:
995602DLS2.dwg

DATE:
DECEMBER

SCALE:
NO SCALE

DRAWING NO.
17 of 17



C:\PROJECT\09199056.02\FinalConstruction\995602DLS2.dwg Jan 13, 2003 4:34pm Layout Name: Details (17) By: 9999pei