

**Second Update of Run-on and Run-off
Control System Plan for
Increment 1 Buildout Landfill
Seminole Generating Station
Putnam County, Florida**

July 28, 2026



Ardaman & Associates, Inc.

CORPORATE HEADQUARTERS

8008 S. Orange Avenue, Orlando, Florida 32809 - Phone: (407) 855-3860 Fax: (407) 859-8121

Branch Office Locations

Florida: Bartow, Cocoa, Fort Myers, Miami, Orlando, Port St. Lucie, Sarasota, Tallahassee, Tampa, West Palm Beach
Louisiana: Baton Rouge, New Orleans, Shreveport
Texas: Houston

MEMBERS:

ASTM International
Society of American Military Engineers
American Council of Engineering Companies



Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

July 28, 2026
File Number 26-13-0034

Seminole Electric Cooperative, Inc.
16313 North Dale Mabry
Tampa, FL 33618

Attention: Mr. Justin Gostnell
Senior Environmental Regulatory Specialist

Subject: Second Update of Run-on and Run-off Control System Plan for Increment 1
Buildout Landfill, Seminole Generating Station, Putnam County, Florida

Gentlemen/Ladies:

As requested by Seminole Electric Cooperative, Inc. (Seminole), Ardaman & Associates, Inc. (Ardaman) has completed the second update of the run-on and run-off control system plan for the Increment 1 Buildout Landfill (Increment 1) at the Seminole Generating Station (SGS) in Putnam County, Florida. This plan update is required by the coal combustion residuals (CCR) rule under 40 CFR § 257.81(c). The initial run-on and run-off control system plan for Increment 1 was prepared by Ardaman and placed in the facility's operating record by Seminole on October 17, 2016. The first required update of the plan was prepared by Ardaman and placed in the facility's operating record by Seminole on August 31, 2021.

40 CFR Part 257, Subpart D, promulgated by the U.S. Environmental Protection Agency (EPA) on April 17, 2015, and effective October 19, 2015, requires all existing and new CCR landfills to maintain run-on and run-off control system plans. Furthermore, 40 CFR §257.81(b)(4) requires facility owners to update these plans as follows:

"The owner or operator of the CCR unit must prepare periodic run-on and runoff control system plans required by paragraph (c)(1) of this section every five years. The date of completing the initial plan is the basis for establishing the deadline to complete the first subsequent plan. The owner or operator may complete any required plan prior to the required deadline provided the owner or operator places the completed plan into the facility's operating record."

This report presents the second update of the run-on and run-off control system plan for the CCR landfill at the SGS. It is required to be placed in the facility's operating record no later than August 31, 2026, which is five years after the first updated plan was placed in the facility's operating record.

CCR Landfill Units

A site plan that shows the various CCR landfill units at the SGS is depicted on a December 2025 aerial photograph in Figure 1. As shown, these landfill units consist of the closed original landfill

and its vertical expansion and the active Increment 1. Increment 1 is the only landfill unit that has continued to receive waste since October 19, 2015 and is therefore the only landfill unit subject to the run-on and run-off control provisions of the CCR Rule.

Increment 1 is located within an approximately 27-acre parcel southeast of the closed original landfill, with a natural ground elevation of approximately +75 feet (NGVD). It “piggy backs” on approximately 7 acres of the southeastern slope of the original landfill. Increment 1 is provided with base and slope liner systems consistent with the requirements of Chapter 62-701, F.A.C., with liner installation occurring in stages referred to as Stages I, IIA, IIB, and III, as shown in Figure 1.

The latest topographic survey of Increment 1 and adjacent areas, performed by Pickett and Associates (Pickett) and dated December 9, 2025, is shown in Figure 2. The Stage I, IIA, IIB, and III areas within Increment 1 are identified in the figure. Based on this latest topographic survey, the crest of the outer pozzocrete¹ berm on the east side of the Stage I area had reached elevations of approximately +146 to +152 feet (NAVD88)², and the waste surface across most of the Stage I area had reached elevations of +134 to +148 feet (NAVD88). The low area on the west side of the Stage IIB area had not yet been covered with waste materials. Landfilling in the Stage III area had reached elevations of up to +150 feet (NAVD88), with some waste stockpiles on top of the Stage III area reaching elevations of up to +155 (NAVD88).

Run-On Control System Plan

The CCR Rule defines run-on as “*any rainwater, leachate, or other liquid that drains over land onto any part of a CCR landfill or lateral expansion of a CCR landfill.*” As shown in Figure 2, upslope areas that potentially contribute run-on to the active landfilling area of Increment 1 include the following:

- Approximately 2 acres of the southeastern slope area and 6 acres of the top area of the closed vertical expansion.
- Approximately 0.9 acres of the southeastern slope of the closed original landfill slope that lies below the original landfill access road and above the Stage III area.

Stormwater routing for the closed vertical expansion is included in Appendix 1. As shown, the following drainage features were incorporated into the closure design for the vertical expansion to provide stormwater management for the closed vertical expansion and run-on control for Increment 1:

- A reverse-sloping bench, graded inward to create a drainage swale, was constructed along the toe of the vertical expansion to retain run-off from the closed slope and convey it to two concrete-lined flumes that run down the east and south sides of the original landfill for ultimate discharge to Stormwater Pond B (Pond B).

¹ Pozzocrete is a compacted mixture of fly ash and lime.

² The December 16, 2021 and December 9, 2025 topographic surveys performed by Pickett were referenced to NAVD88. However, elevations in prior topographic surveys and designs were relative to the National Geodetic Vertical Datum of 1929 (NGVD). At the SGS site, elevations referenced to NAVD88 are approximately 1 foot lower than those referenced to NGVD.

- A perimeter berm and drainage swale were constructed to collect run-off from the closed top area of the vertical expansion and route it to Pond B.
- A concrete-lined V-shaped ditch was constructed between elevations +178 and +214 feet (NGVD) on the upslope side of the modified access road to the top of the vertical expansion to preclude run-off from the access road and upslope area from flowing downslope into Increment 1 and to convey it to Pond B.

Hydrologic modeling for closure of the vertical expansion was performed based on the 25-year, 24-hour design storm event and a Curve Number (CN) of 95 for the watershed area.

Currently, all areas of the closed original landfill that lie upslope of the lined waste disposal area in Stage III of Increment 1 are covered with a minimum 2-foot-thick vegetated soil cover over the waste materials. As shown in the drawings in Appendix 2, the HDPE liner for the Stage III area was tied into the liner for the vertical expansion closure.

During lining of the Stage III area, a concrete-lined flume was constructed along the western diagonal boundary of the Stage III slope area and connected to the concrete-lined flume previously constructed west of the Stage IIB slope area. This flume is shown on a figure included in Appendix 3. The flume prevents run-on to the Stage III area from an approximately 0.5-acre slope area of the closed original landfill directly upslope of the flume (shown by a blue outline in Figure 2) and minimizes rainfall erosion along the toe of the western containment berm for the Stage III area.

There is also an approximately 0.4-acre slope area (shown by light blue shading in Figure 2) that is not intercepted by the flume to the west or the reverse Stage bench of the closed vertical expansion to the east. Runoff from this area would flow onto the Stage III area.

Hydrologic modeling for lining of the Stage III area was performed based on the 25-year, 24-hour design storm event and a CN of 95 for the watershed area. The upslope watershed area described above was included in the calculations.

Run-Off Control System Plan

The CCR Rule defines run-off as *“any rainwater, leachate, or other liquid that drains over land from any part of a CCR landfill or lateral expansion of a CCR landfill.”* Under the CCR Rule, the leachate from Increment 1 must be contained such that run-off does not leave the lined waste disposal area and discharge to a stormwater management system or nearby natural drainageways under the 25-year, 24-hour design storm event.

Run-off from the active landfiling areas of Increment 1 is managed as follows:

- Rainfall that infiltrates through the waste materials in Increment 1 enters the leachate collection and removal system above the bottom liner system is collected by a series of HDPE pipes and is conveyed by gravity to the leachate collection sump located near the northeastern corner of the Stage I area. The leachate in the sump then flows by gravity to a collection manhole located between Increment 1 and Pond B, and discharges into Pond 8, which is part of the process water pond system.

- Rainwater that comes in contact with the waste materials or leachate but does not infiltrate into the waste materials accumulates in low areas on the waste surface. For run-off control, a pump with a capacity of approximately 2,400 gallons per minute (gpm) and an intake pipeline stationed near the low area of Stage IIB is used to transfer any standing leachate through 18-inch diameter HDPE pipes to either Pond 9 or Pond 2, both of which are process water ponds located west of Increment 1. As landfill operation progresses, the pump and discharge pipes will be relocated, as necessary. Once the waste surface rises above the existing crest elevation of the western containment dike along the west side of Increment 1, approximately +105 feet (NGVD), any standing leachate above the waste surface will be diverted directly into Pond 9 by gravity drainage or pumping.
- During landfilling operation, the top of the active waste disposal area is graded inward to prevent run-off from flowing down the outside slope of the exposed waste.
- In accordance with the Landfill Operation Plan for Increment 1 and the Florida Department of Environmental Protection (FDEP) solid waste operation permit, run-off from waste that has been covered with 2 feet of vegetated soil cover may be treated as non-contact stormwater and discharged into Pond B by gravity drainage or pumping.
- The uppermost pozzocrete dike along the east and south sides of Increment 1, at elevations of approximately +140 to +150 feet (NAVD88), has not yet been covered with soil; therefore, run-off from this area is considered leachate. The pozzocrete dike should be covered with at least 18 inches of soil and seeded or sodded as soon as conditions permit. Until this is completed, run-off from the uncovered slope will be directed to the interior of Increment 1.

As shown in Figure 3, a perimeter toe swale was constructed on the inside of the lined containment dike along the east side of Increment 1 to collect run-off from the eastern waste slope and convey it to the depressional area located at the northeastern corner of Increment 1, where it is allowed to infiltrate into the leachate collection sump and eventually discharge into Pond 8.

Results of the hydrologic modeling for the perimeter toe swale along the east side of Increment 1 are included in Appendix 4. The modeling was performed using the ICPR model based on the 25-year, 24-hour design storm event and a CN of 90.

Closure

It is our professional opinion that the updated run-on and run-off control system plan for Increment 1, as described above, meets the requirements of 40 CFR § 257.81.

Seminole should remain cognizant of the following CCR Rule requirements: (i) the run-on and run-off control system plans must be placed in the facility's operating record, as stipulated in 40 CFR § 257.105(g)(3); (ii) the State Director must be notified of the availability of the report, as stipulated in 40 CFR § 257.106(g)(3); and (iii) the plan must be posted on the Seminole CCR website, as stipulated in 40 CFR § 257.107(g)(3).

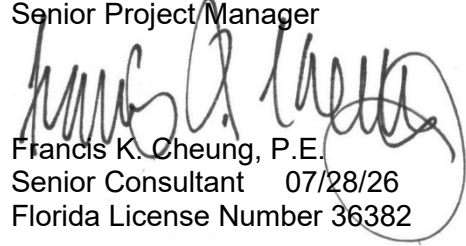
Seminole should periodically review landfilling operation and, if appropriate, update the run-on and run-off control system plan. In any event, 40 CFR §257.81(b)(4) requires that the plan be updated at least every 5 years.

Ardaman appreciates the opportunity to be of service to Seminole. Please contact us if you have any questions or need additional assistance.

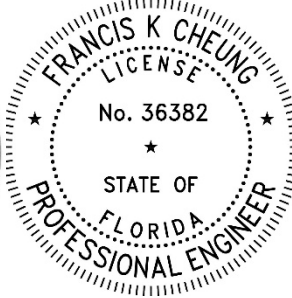
Very truly yours,
ARDAMAN & ASSOCIATES, INC.



Patrick A. Kennedy, P.E.
Senior Project Manager



Francis K. Cheung, P.E.
Senior Consultant 07/28/26
Florida License Number 36382



Francis K Cheung

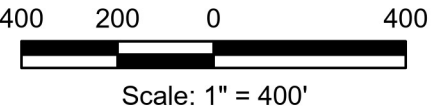
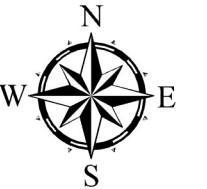
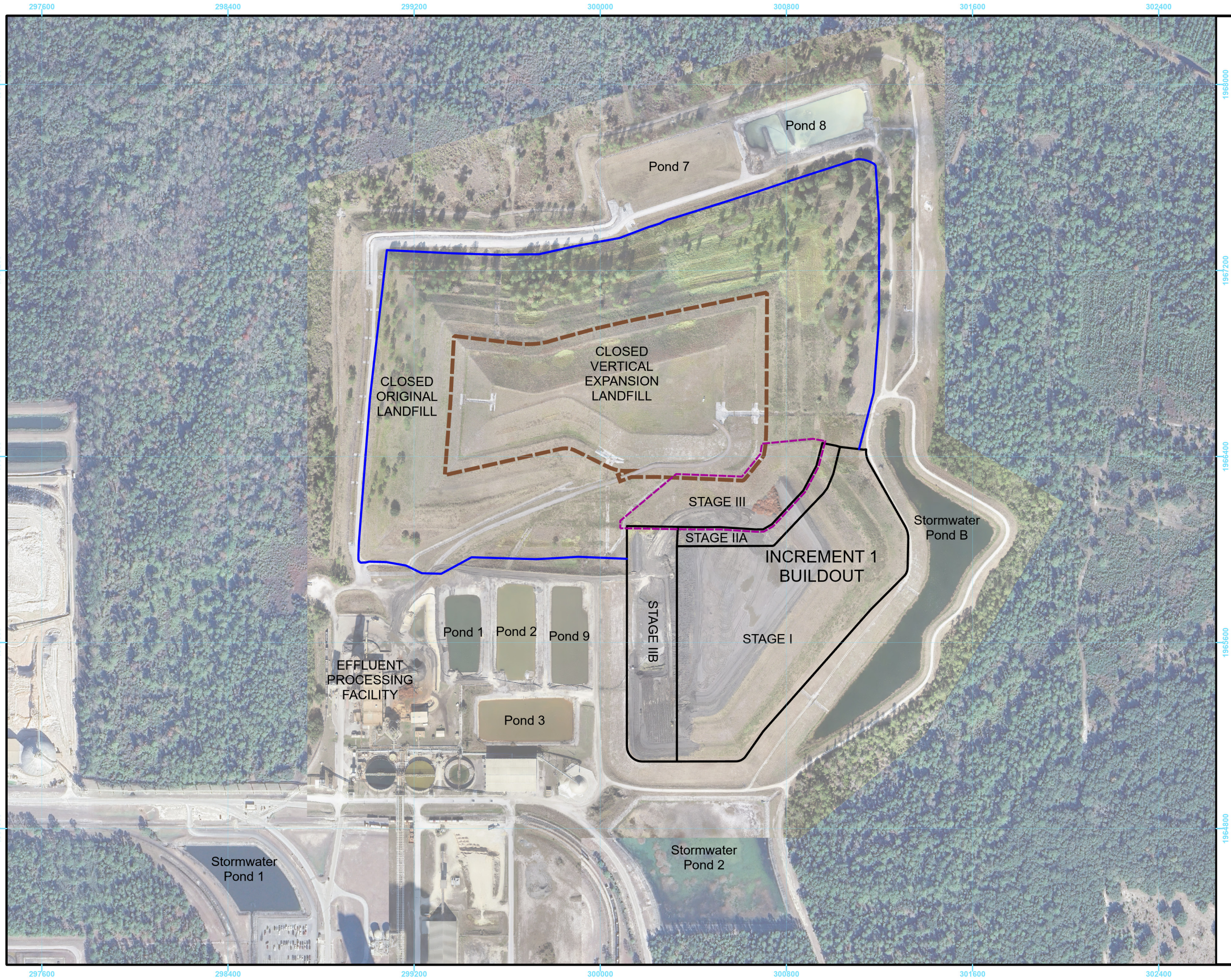
Digitally signed by Francis K Cheung
Date: 2026.07.28 12:32:01 -04'00'

Enclosures

This item has been digitally signed and sealed by Francis K. Cheung on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

W:\Projects\2026\26-13-0034_Seminole_Generating_Station\ArcGIS\APRX\20260615\Landfill_Layout\Landfill_Layout.aprx



AERIAL SOURCE:
PICKETT & ASSOCIATES, INC.,
DECEMBER 9, 2025 AND
GOOGLE EARTH, DECEMBER 11, 2024



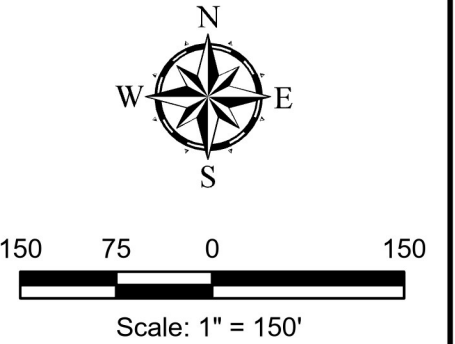
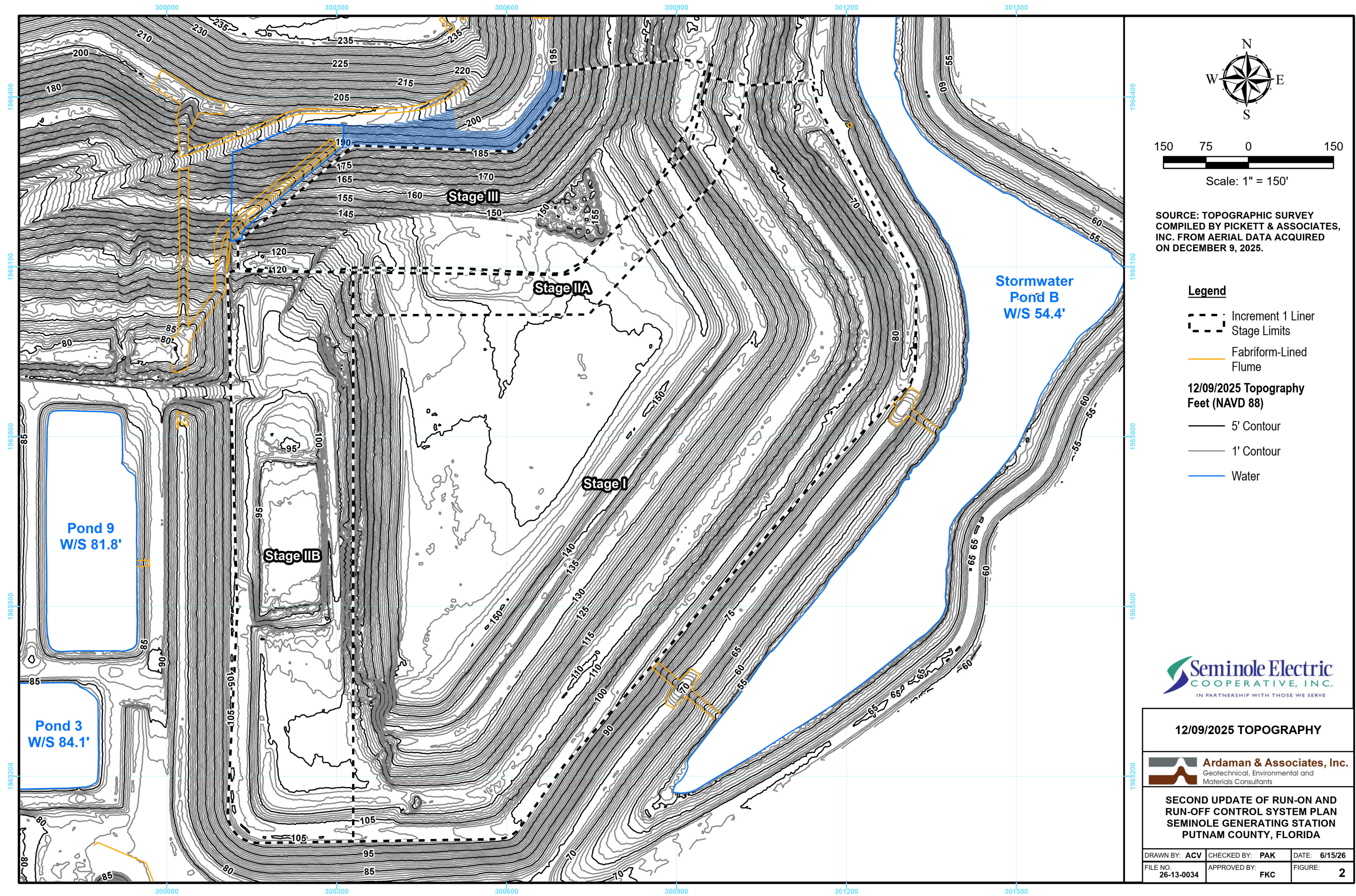
LANDFILL LAYOUT



SECOND UPDATE OF RUN-ON AND
RUN-OFF CONTROL SYSTEM PLAN
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA

DRAWN BY: ACV	CHECKED BY: PAK	DATE: 6/15/26
FILE NO. 26-13-0034	APPROVED BY: FKC	FIGURE: 1

W:\Projects\2026\26-13-0034_Seminole_Generating_Station\ArcGIS\APRX\20260615\Topography\Topography.aprx



SOURCE: TOPOGRAPHIC SURVEY
COMPILED BY PICKETT & ASSOCIATES,
INC. FROM AERIAL DATA ACQUIRED
ON DECEMBER 9, 2025.

Legend

- Increment 1 Liner Stage Limits
- Fabriform-Lined Flume
- 12/09/2025 Topography Feet (NAVD 88)
- 5' Contour
- 1' Contour
- Water



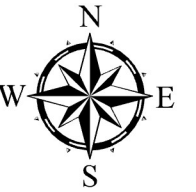
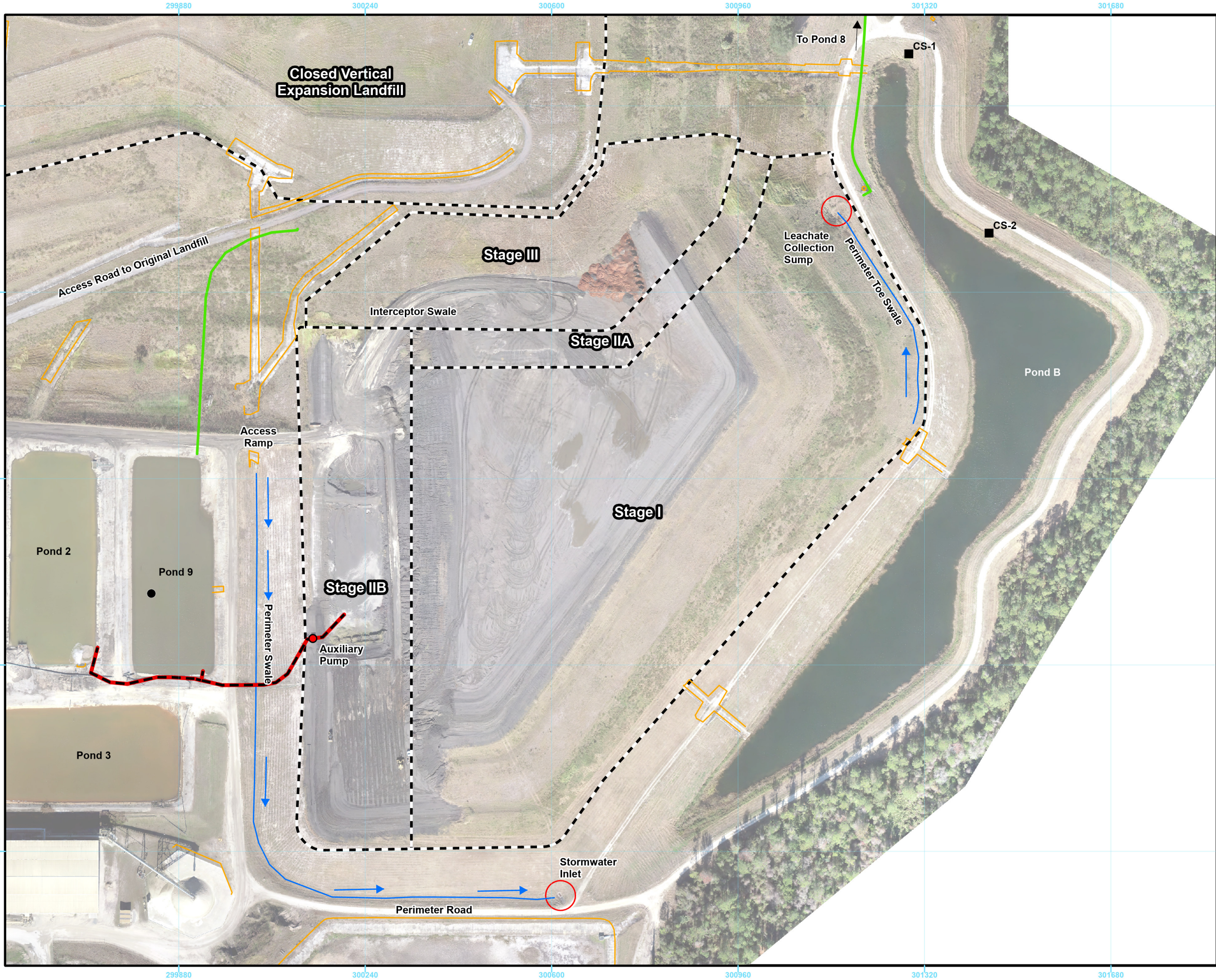
12/09/2025 TOPOGRAPHY



**SECOND UPDATE OF RUN-ON AND
RUN-OFF CONTROL SYSTEM PLAN
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA**

DRAWN BY: ACV	CHECKED BY: PAK	DATE: 6/15/26
FILE NO. 26-13-0034	APPROVED BY: FKC	FIGURE: 2

W:\Projects\2026\26-13-0034_Seminole_Generating_Station\ArcGIS\APRX\20260615\Annotated_Aerial_Photo\Annotated_Aerial_Photo.aprx



Scale: 1" = 180'

SOURCE: AERIAL IMAGERY
FLOWN DECEMBER 9, 2025 BY
PICKETT & ASSOCIATES, INC.

Legend

- Temporary Pipeline
- Flow Arrows
- Leachate Pipeline
- Fabriform-Lined Flume



**ANNOTATED
12/09/2025 AERIAL PHOTO**

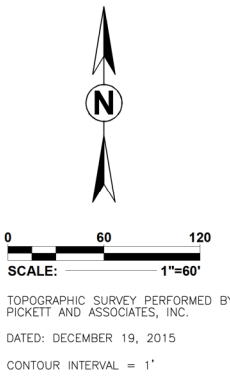
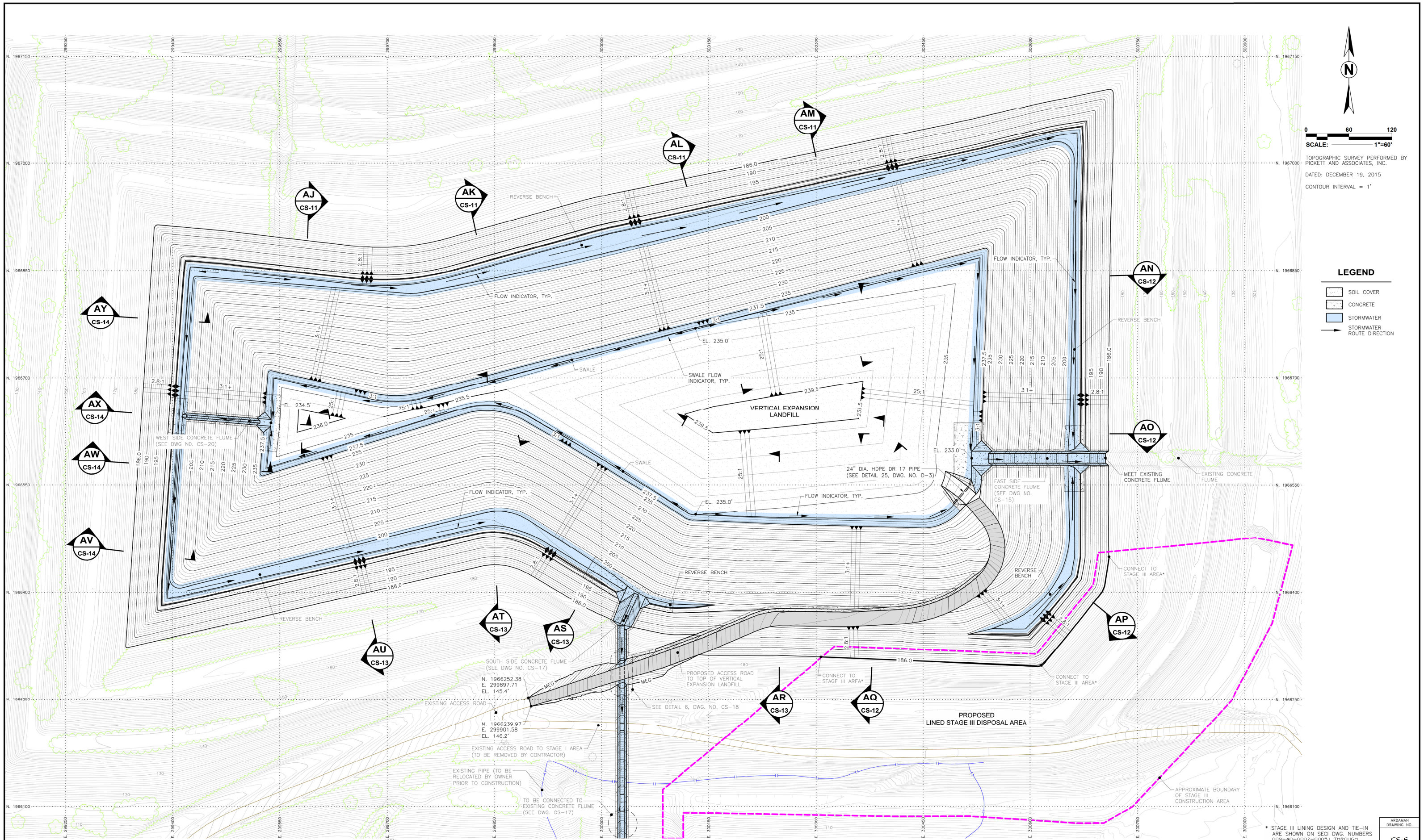


**SECOND UPDATE OF RUN-ON AND
RUN-OFF CONTROL SYSTEM PLAN
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA**

DRAWN BY: ACV	CHECKED BY: PAK	DATE: 6/15/26
FILE NO. 26-13-0034	APPROVED BY: FKC	FIGURE: 3

Appendix 1

Stormwater Routing for Closed Vertical Expansion



- LEGEND**
- SOIL COVER
 - CONCRETE
 - STORMWATER
 - STORMWATER ROUTE DIRECTION

0	10/24/16	ISSUED FOR CONSTRUCTION	FKC	DESIGNED BY	JM	DATE	04/01/16	NAME	36382	DATE	04/01/16
P3	07/21/16	ISSUED FOR BID	FKC	DRAWN BY	PS	DATE	04/05/16	NAME	36382	DATE	04/05/16
P2	07/12/16	ISSUED FOR REGULATORY REVIEW	FKC	FILE NO.	13-13-0136	STATE OF	FLORIDA	PROFESSIONAL ENGINEER			
P1	06/03/16	ISSUED FOR 90% REVIEW	FKC	APPROVED BY:							
P0	04/29/16	ISSUED FOR 30% REVIEW	FKC								
REVISION	DATE	DESCRIPTION	APPR'D	APPROVED BY:							

**VERTICAL EXPANSION
LANDFILL CLOSURE**
**SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA**

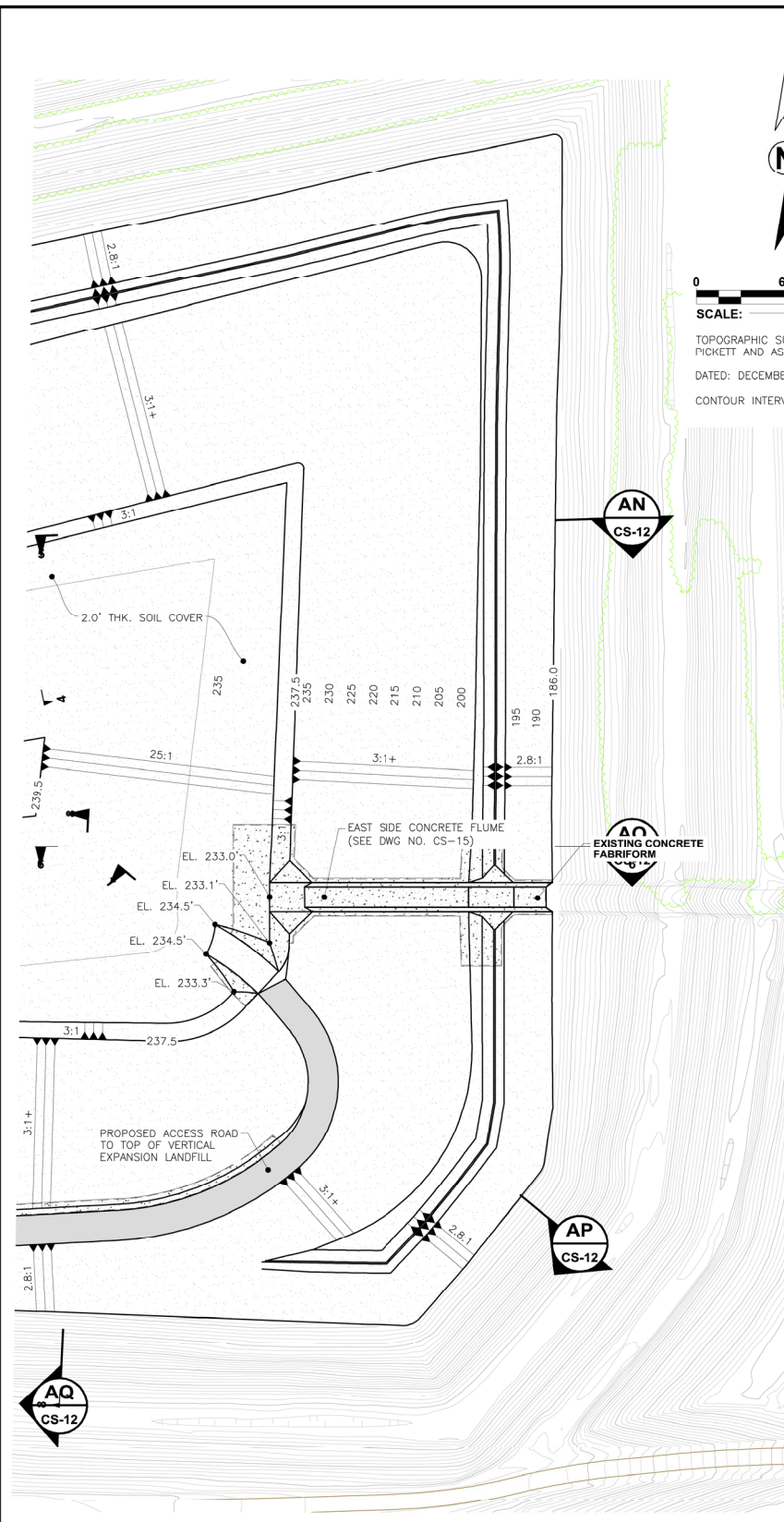
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
8008 S. Orange Ave., Orlando, FL 32809
TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950

**Seminole Electric
COOPERATIVE, INC.**

STORMWATER ROUTING PLAN
SECT DWG. NO. 009-40-0001-00075
REV. 1

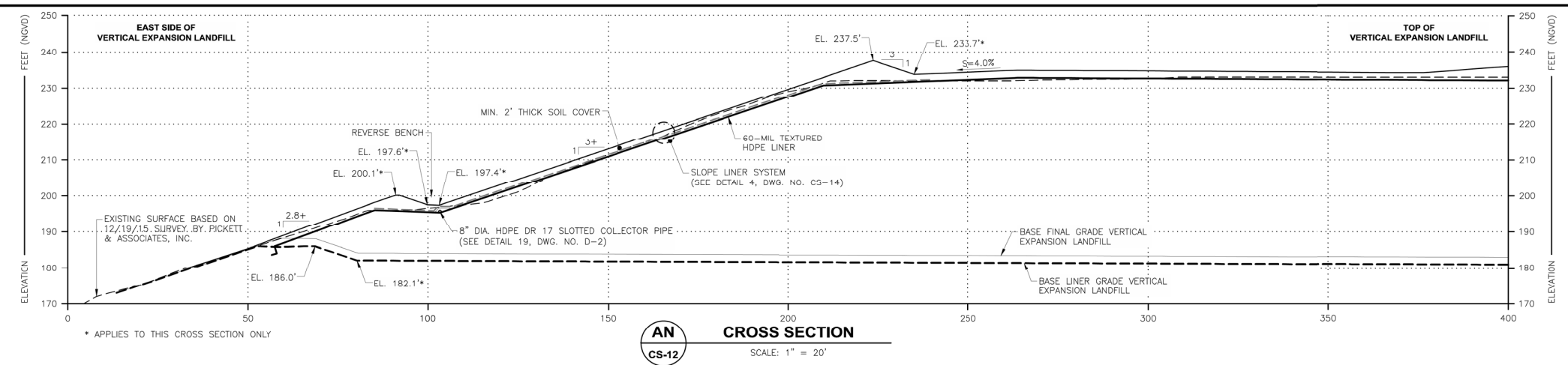
Appendix 2

Cross Sections through Vertical Expansion Closure and Stage III Area



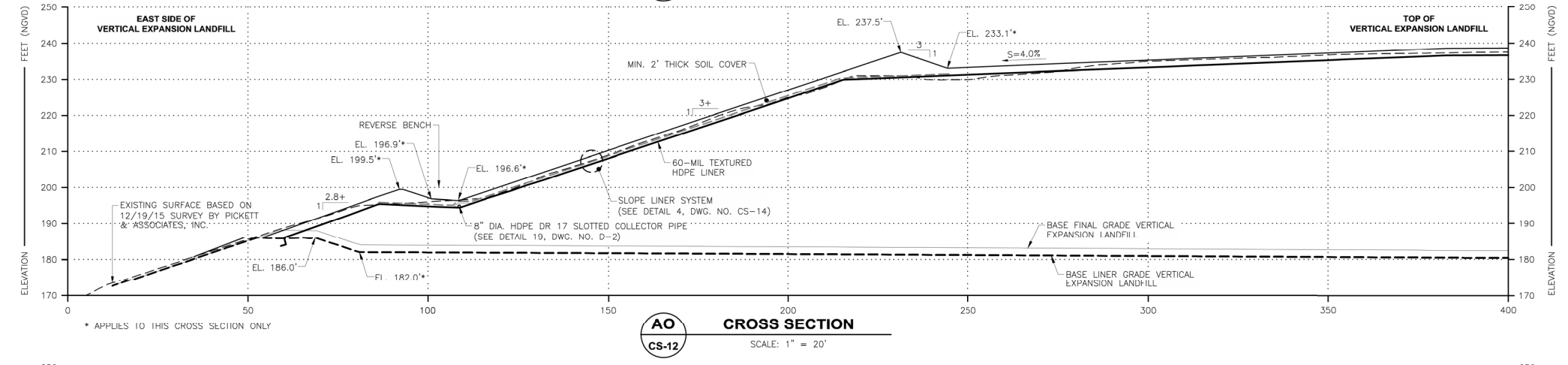
PLAN VIEW - LINER SYSTEM (EAST SIDE)

SCALE: 1" = 60'



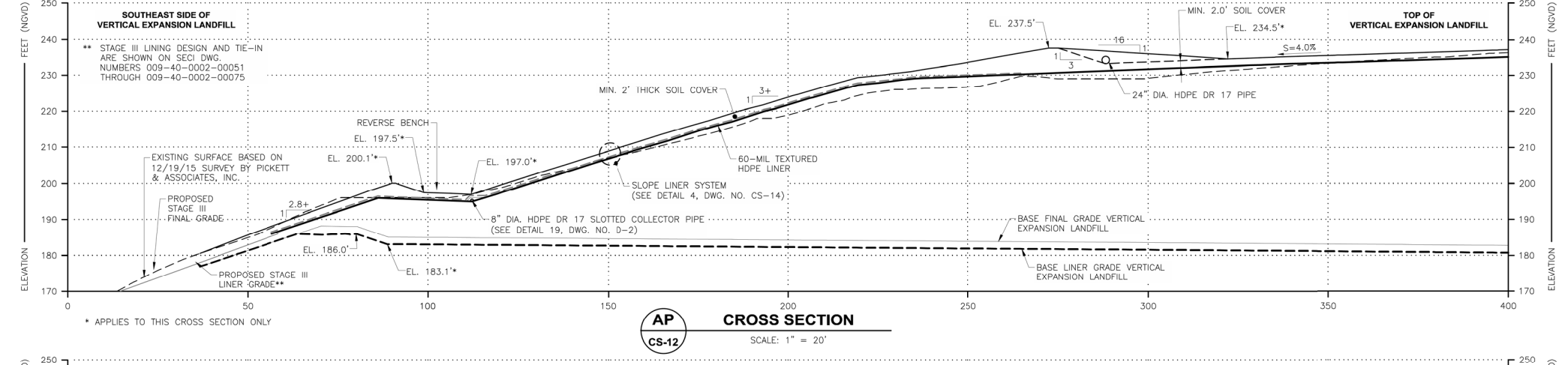
CROSS SECTION

SCALE: 1" = 20'



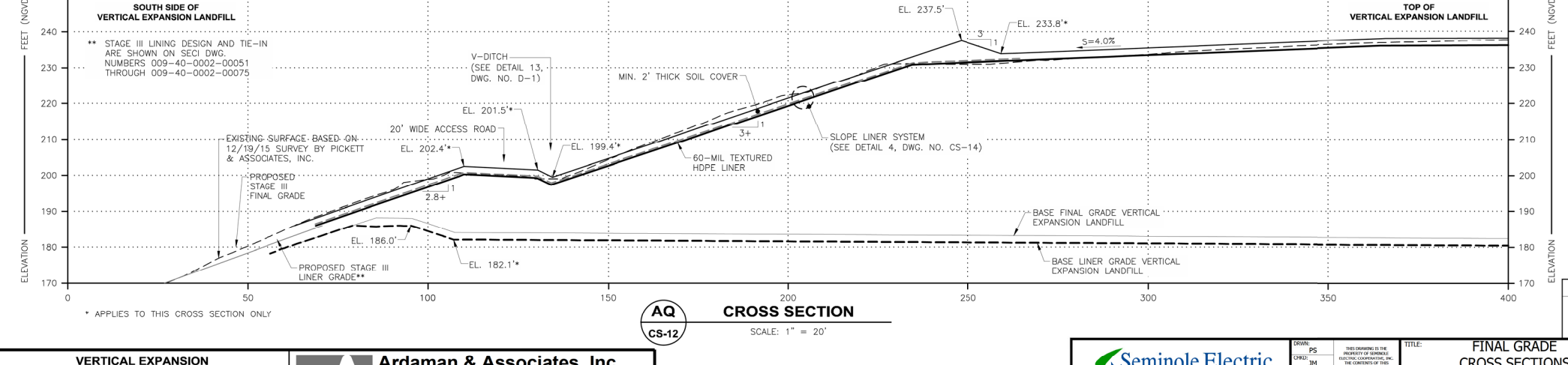
CROSS SECTION

SCALE: 1" = 20'



CROSS SECTION

SCALE: 1" = 20'



CROSS SECTION

SCALE: 1" = 20'

REVISION	DATE	DESCRIPTION	APPROVED	DATE
0	10/24/16	ISSUED FOR CONSTRUCTION	FKC	
P3	07/21/16	ISSUED FOR BID	FKC	
P2	07/12/16	ISSUED FOR REGULATORY REVIEW	FKC	
P1	06/03/16	ISSUED FOR 90% REVIEW	FKC	
P0	04/29/16	ISSUED FOR 30% REVIEW	FKC	

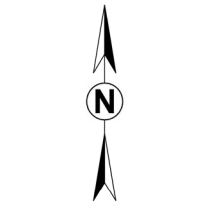
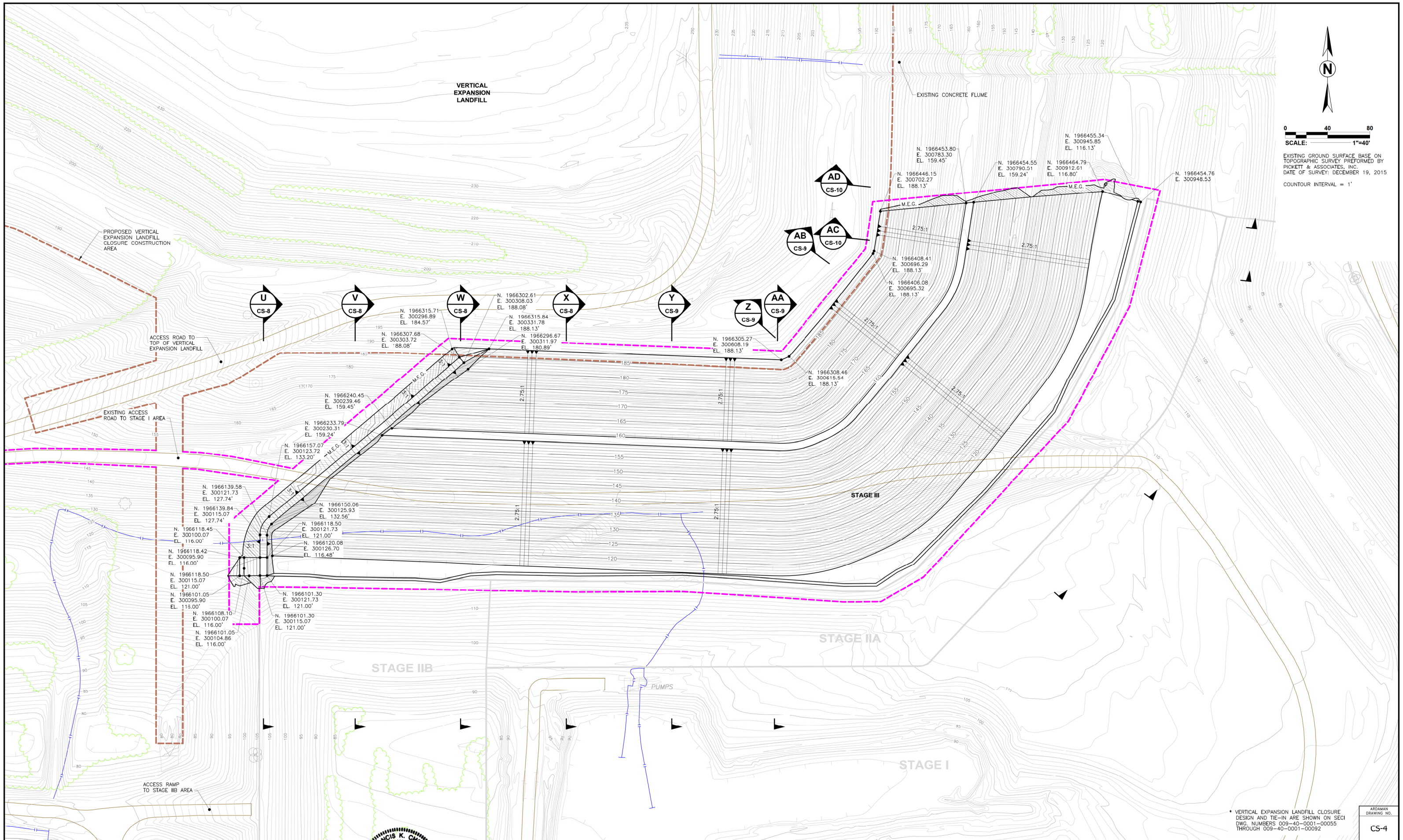
VERTICAL EXPANSION
LANDFILL CLOSURE
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
8008 S. Orange Ave., Orlando, FL 32809
TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950

Seminole Electric
COOPERATIVE, INC.

REV	DESCRIPTION	DATE	BY	CHKD	APPRO	PROJECT NO.	SECT DWG. NO.	REV
1	POST-CONSTRUCTION DRAWINGS	12/11/17	RDC	JM	FKC	35841	009-40-0001-00081	1

T:\Corporate\13\13-13-0136\SEMINOLE ELECTRIC - VERTICAL EXPANSION\Current Sheet Set\CS-14 FINAL GRADE CROSS SECTIONS AV THROUGH AY.dwg 2017/12/11 12:28 PM, vonGierchten, Mark



0 40 80
SCALE: 1"=40'

EXISTING GROUND SURFACE BASE ON
TOPOGRAPHIC SURVEY PERFORMED BY
PICKETT & ASSOCIATES, INC.
DATE OF SURVEY: DECEMBER 19, 2015
COUNTOUT INTERVAL = 1'

REVISION		DATE		DESCRIPTION		APPR'D	APPROVED BY:	NAME	DATE	CHECKED	DATE	DESIGNED BY	NAME	DATE	CHECKED	DATE	FILE NO.	STATE OF FLORIDA	PROFESSIONAL ENGINEER	NO. 36382	DATE	05/18/16
1	05/25/17	REVISED GRADES PER PRE-CONSTRUCTION SURVEY				FKC		NAME				NAME										
0	10/24/16	ISSUED FOR CONSTRUCTION				FKC		DESIGNED BY	JM	04/26/16		NAME										
P3	07/21/16	ISSUED FOR BID				FKC		DRAWN BY	SC	04/25/16		NAME										
P2	07/12/16	ISSUED FOR REGULATORY REVIEWS				FKC		FILE NO.	15-13-0070			NAME										
P1	05/18/16	ISSUED FOR 90% COMPLETION REVIEW				FKC		APPROVED BY:				NAME										

LANDFILL INCREMENT 1 BUILDOUT
STAGE III LINING

SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
8008 S. Orange Ave., Orlando, FL 32809
TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950

Seminole Electric COOPERATIVE, INC.

REV	DESCRIPTION	DATE	BY	CHKD	APPR	SCALE	AS SHOWN	PROJECT NO.	35885
1	POST-CONSTRUCTION DRAWINGS	12/13/17	PS	JM	FKC				

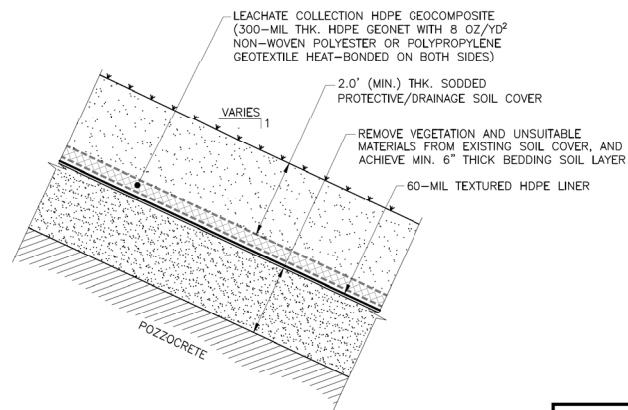
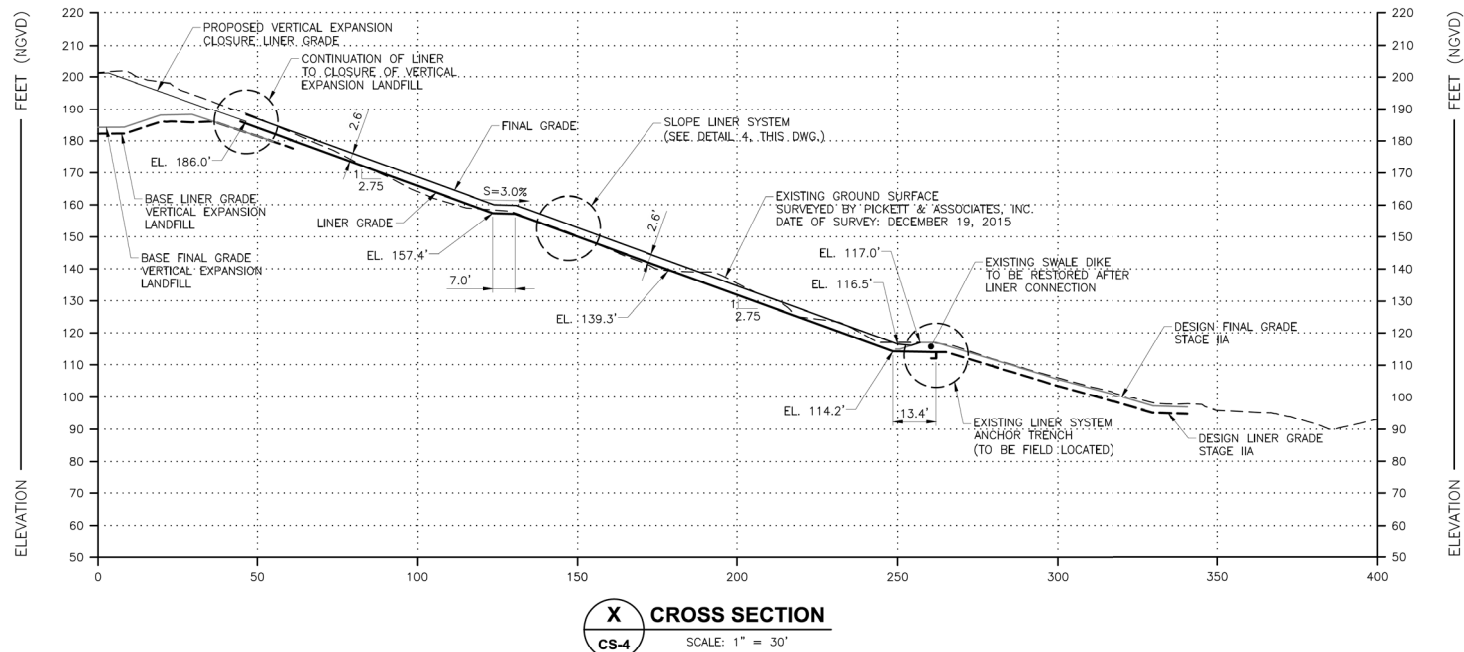
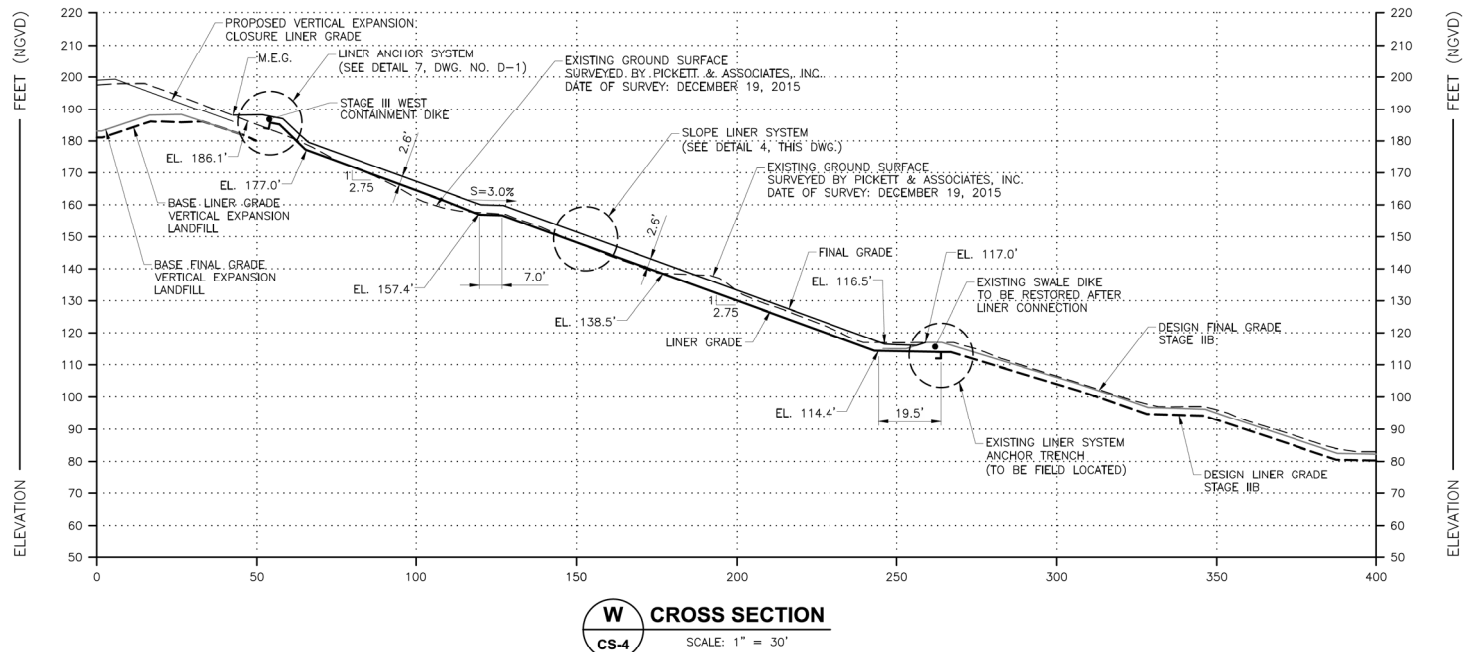
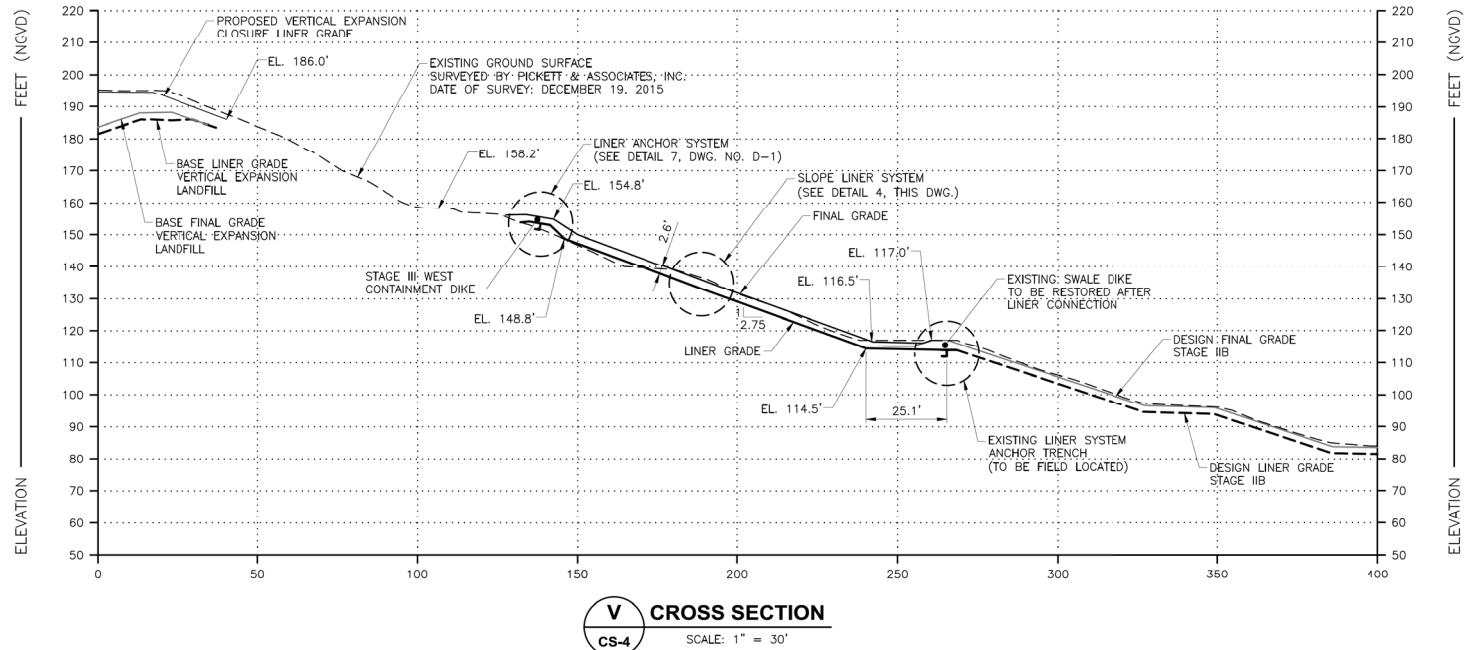
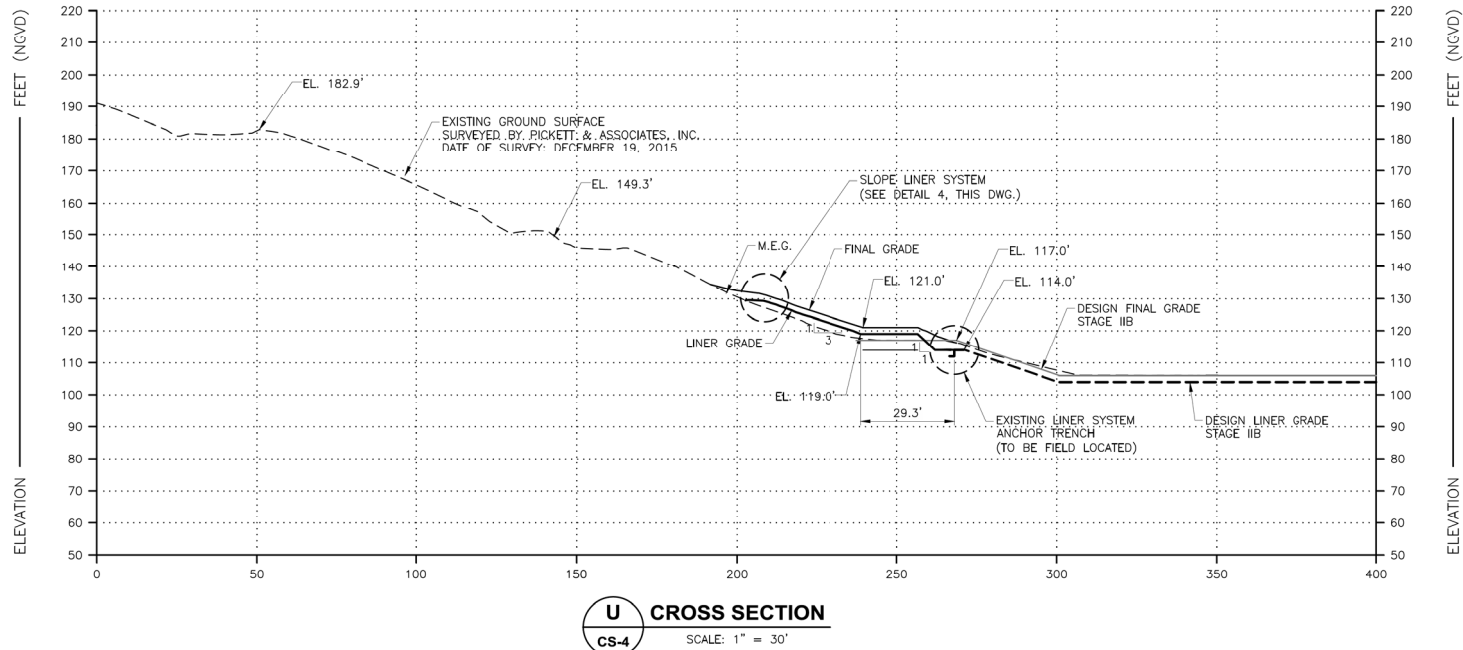
SOIL COVER GRADING PLAN

SECT DWG. NO. **009-40-0002-00067**

REV **1**

* VERTICAL EXPANSION LANDFILL CLOSURE DESIGN AND TIE-IN ARE SHOWN ON SECT DWG. NUMBERS 009-40-0001-00055 THROUGH 009-40-0001-00092

ARDAMAN DRAWING NO. **CS-4**



LEGEND

---	SURFACE SURVEYED BY PICKETT & ASSOCIATES, INC.
---	DATE OF SURVEY: DECEMBER 19, 2015
---	EXISTING FINAL GRADE
---	EXISTING LINER SYSTEM
---	DESIGN FINAL GRADE STAGE III
---	DESIGN LINER STAGE III

ARDAMAN
DRAWING NO.
CS-8

REVISION	DATE	DESCRIPTION	APPROVED
1	05/25/17	REVISED GRADES PER PRE-CONSTRUCTION SURVEY	FKC
0	10/24/16	ISSUED FOR CONSTRUCTION	FKC
P3	07/21/16	ISSUED FOR BID	FKC
P2	07/12/16	ISSUED FOR REGULATORY REVIEWS	FKC
P1	05/18/16	ISSUED FOR 90% COMPLETION REVIEW	FKC

DESIGNED BY	NAME	DATE	CHECKED BY	NAME	DATE
JM	JM	04/26/16	CH	CH	05/18/16
SC	SC	04/25/16	CH	CH	05/18/16

LANDFILL INCREMENT 1 BUILDOUT
STAGE III LINING
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA

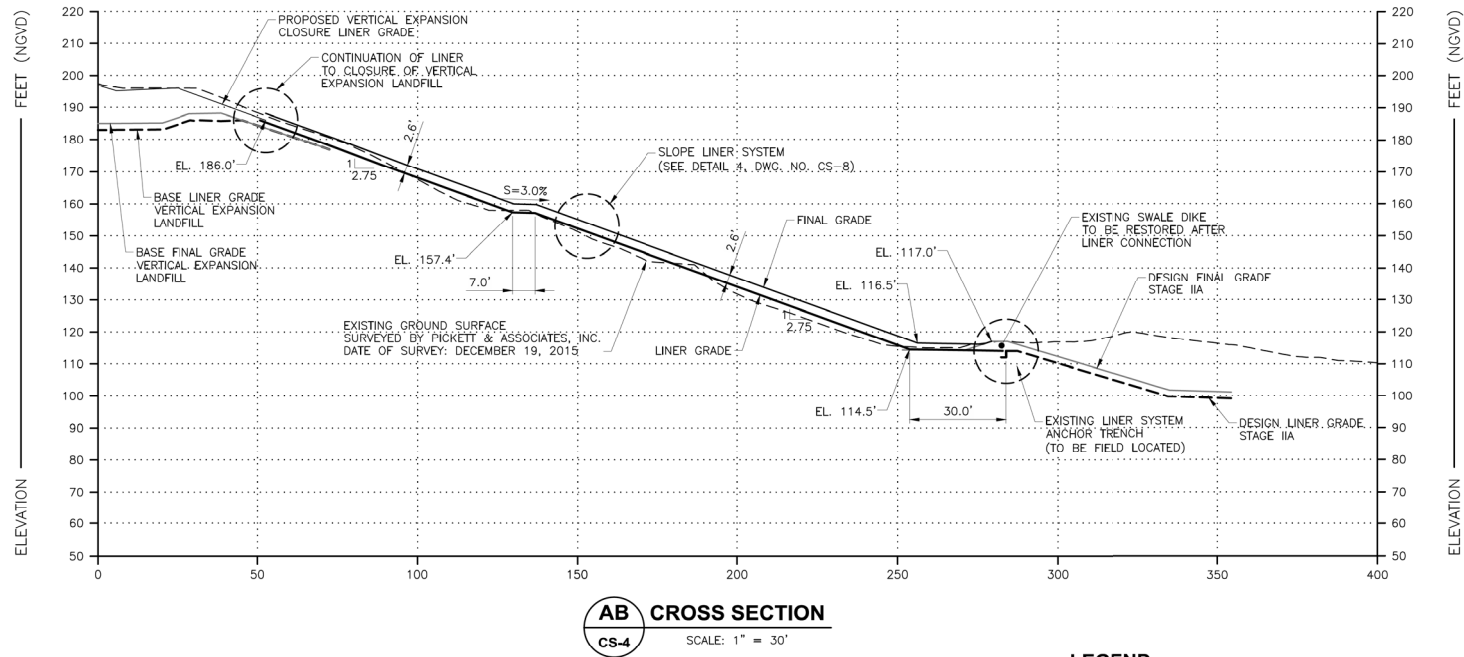
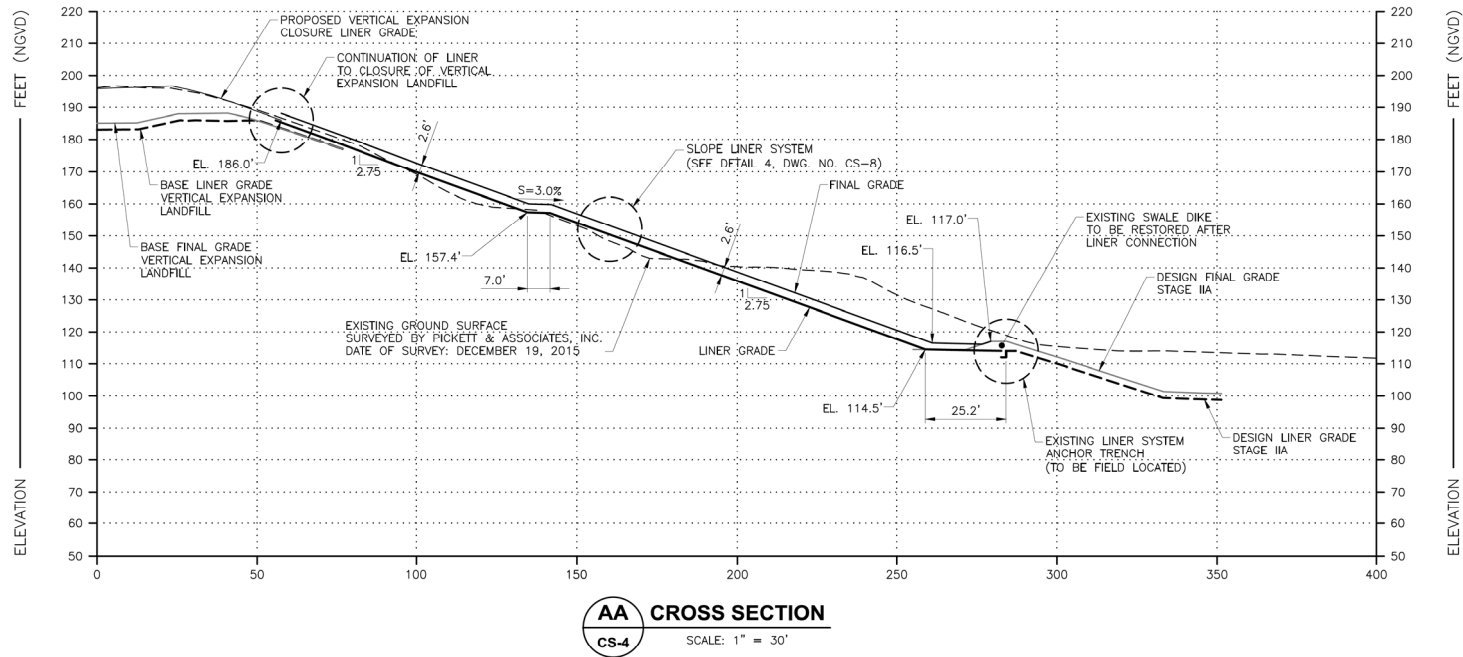
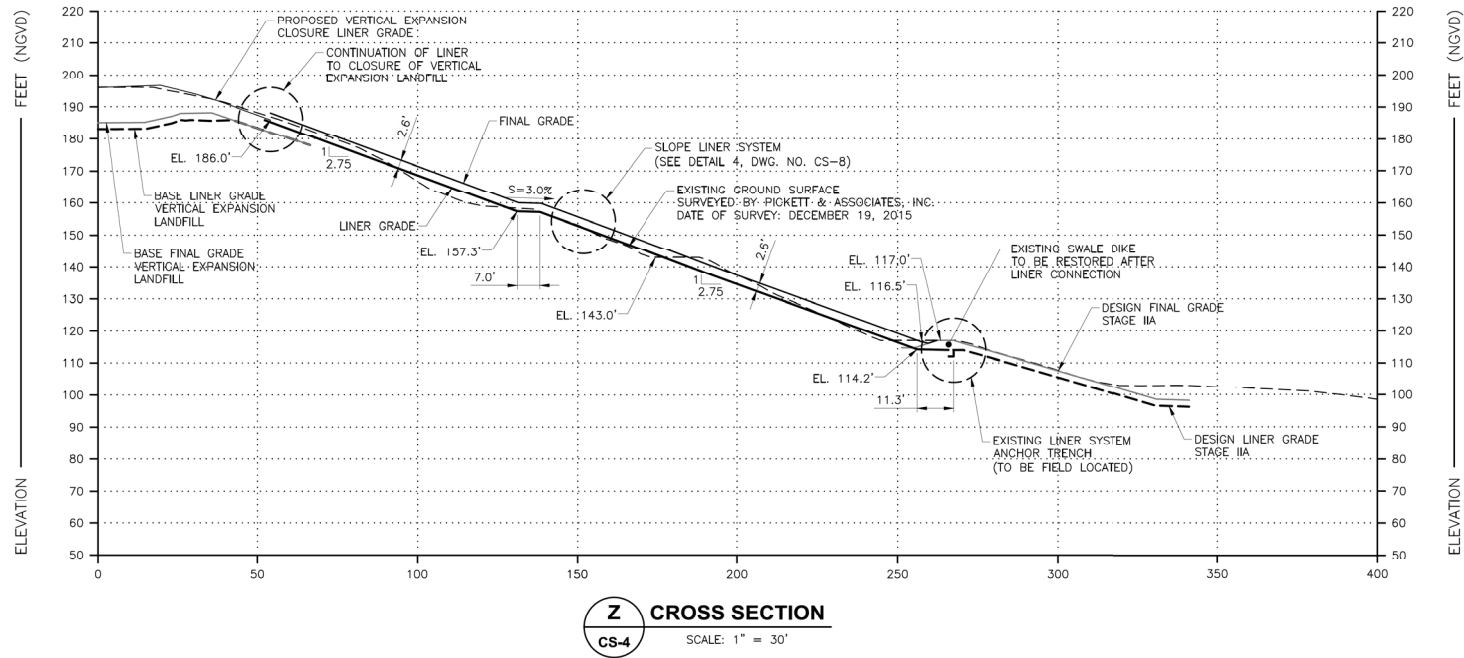
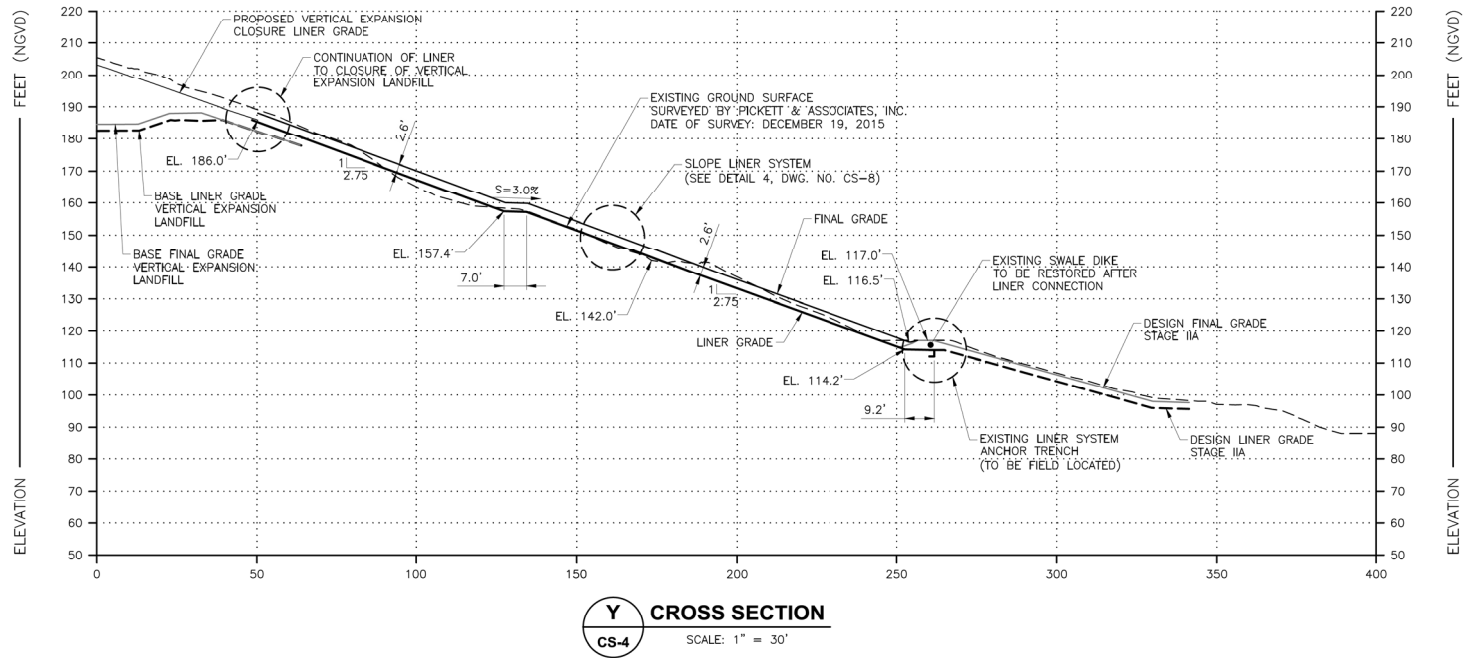
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
8008 S. Orange Ave., Orlando, FL 32809
TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950

4
CS-8
TYPICAL SLOPE LINER SYSTEM
WITH SOIL COVER DETAIL
NOT TO SCALE

Seminole Electric
COOPERATIVE, INC.

DATE: 04/26/16
SCALE: AS SHOWN
PROJECT NO.: 35885

TITLE: CROSS SECTIONS U THROUGH X
SECT DWG. NO.: 009-40-0002-00071
REV: 1



LEGEND	
---	SURFACE SURVEYED BY PICKETT & ASSOCIATES, INC. DATE OF SURVEY: DECEMBER 19, 2015
---	EXISTING FINAL GRADE
---	EXISTING LINER SYSTEM
---	DESIGN FINAL GRADE STAGE III
---	DESIGN LINER STAGE III

REVISION	DATE	DESCRIPTION
1	05/25/17	REVISED GRADES PER PRE-CONSTRUCTION SURVEY
0	10/24/16	ISSUED FOR CONSTRUCTION
P3	07/21/16	ISSUED FOR BID
P2	07/12/16	ISSUED FOR REGULATORY REVIEWS
P1	05/18/16	ISSUED FOR 90% COMPLETION REVIEW

APPROVED	DATE	DESCRIPTION
APPR'D	05/18/16	ISSUED FOR 90% COMPLETION REVIEW

DESIGNED BY	NAME	DATE
JM	04/26/16	
DRAWN BY	NAME	DATE
SC	04/25/16	
FILE NO.	DATE	DESCRIPTION
15-13-0070	05/18/16	ISSUED FOR 90% COMPLETION REVIEW

LANDFILL INCREMENT 1 BUILDOUT
STAGE III LINING
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA

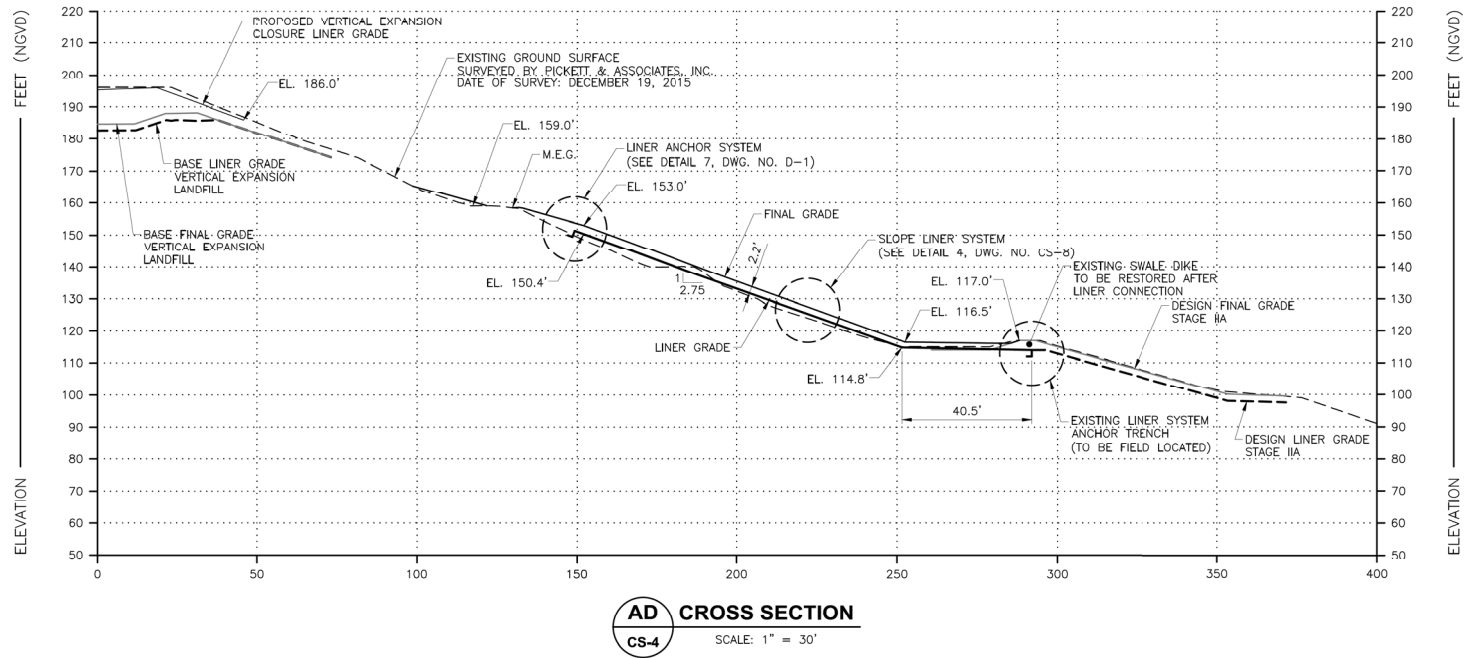
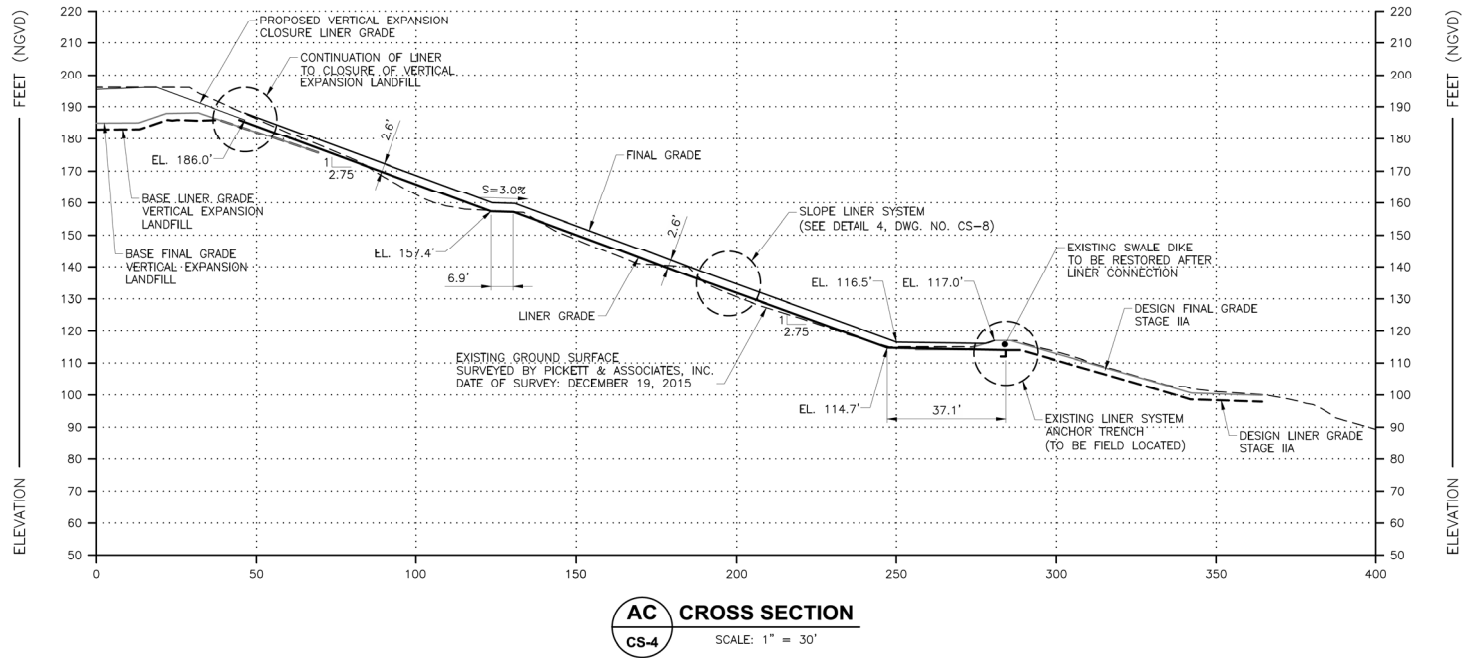
Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
8008 S. Orange Ave., Orlando, FL 32809
TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950

REV	DESCRIPTION	DATE	BY	CHKD	APPR
1	POST-CONSTRUCTION DRAWINGS	12/13/17	PS	JM	FKC

SCALE	PROJECT NO.
AS SHOWN	35885

TITLE	SECT DWG. NO.	REV
CROSS SECTIONS Y THROUGH AB	009-40-0002-00072	1

ARDAMAN
DRAWING NO.
CS-9



LEGEND

- SURFACE SURVEYED BY PICKETT & ASSOCIATES, INC. DATE OF SURVEY: DECEMBER 19, 2015
- EXISTING FINAL GRADE
- EXISTING LINER SYSTEM
- DESIGN FINAL GRADE STAGE III
- DESIGN LINER GRADE STAGE III

ARDAMAN
DRAWING NO.
CS-10

1	05/25/17	REVISED GRADES PER PRE-CONSTRUCTION SURVEY	FKC
0	10/24/16	ISSUED FOR CONSTRUCTION	FKC
P3	07/21/16	ISSUED FOR BID	FKC
P2	07/12/16	ISSUED FOR REGULATORY REVIEWS	FKC
P1	05/18/16	ISSUED FOR 90% COMPLETION REVIEW	FKC
REVISION	DATE	DESCRIPTION	APPR'D

DESIGNED BY	JM	DATE	04/26/16	CHECKED BY	FKC	DATE	05/18/16
DRAWN BY	SC	DATE	04/25/16	CHECKED BY	FKC	DATE	05/18/16
FILE NO.	15-13-0070	STATE OF	FLORIDA	PROFESSIONAL ENGINEER	FRANCIS K. CHESTNUT	NO. 38382	05/18/16
APPROVED BY:							

LANDFILL INCREMENT 1 BUILDOUT
STAGE III LINING
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants
8008 S. Orange Ave., Orlando, FL 32809
TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950



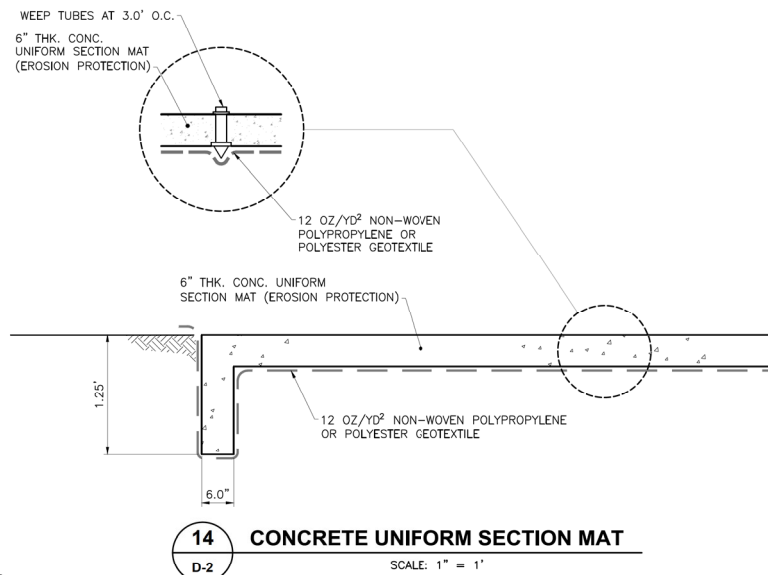
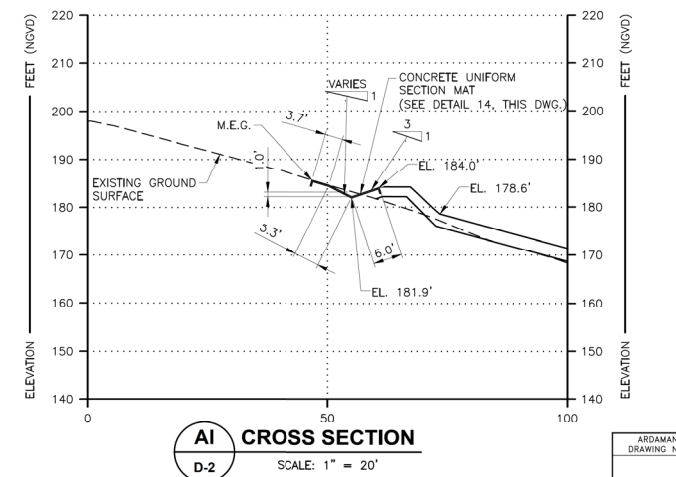
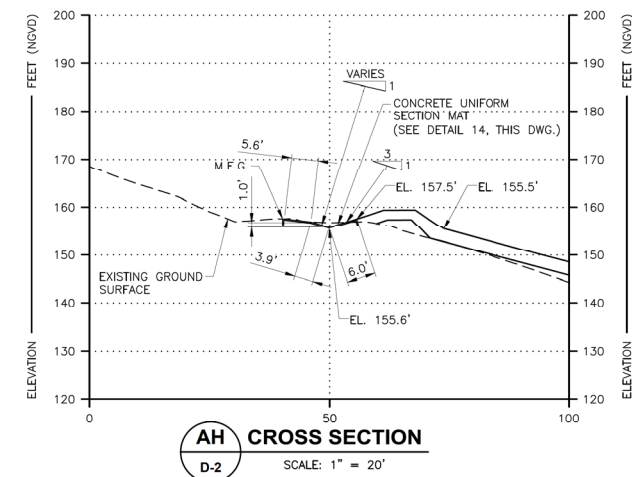
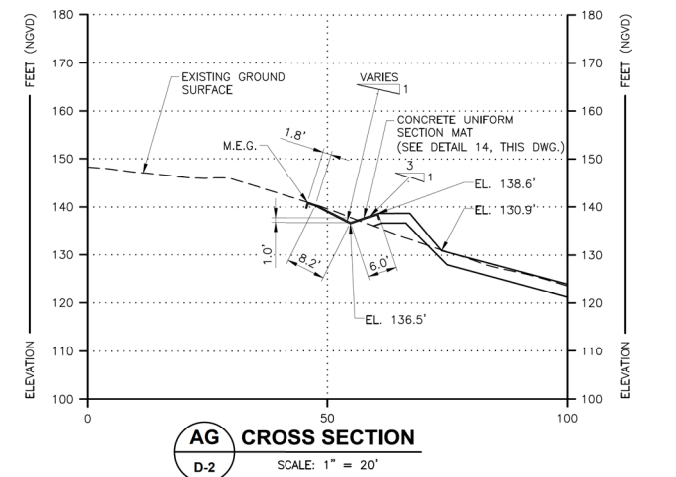
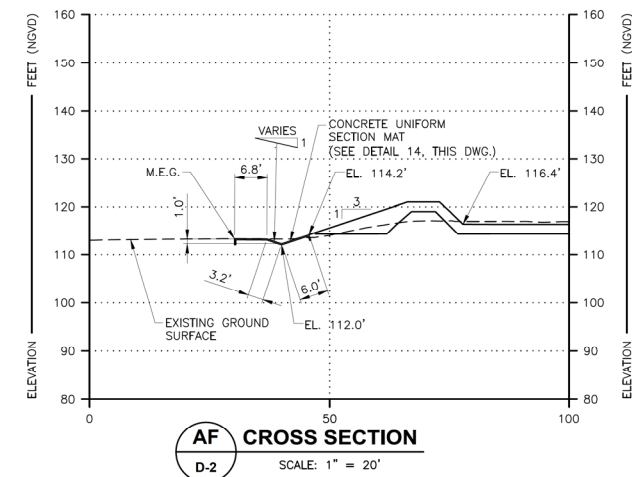
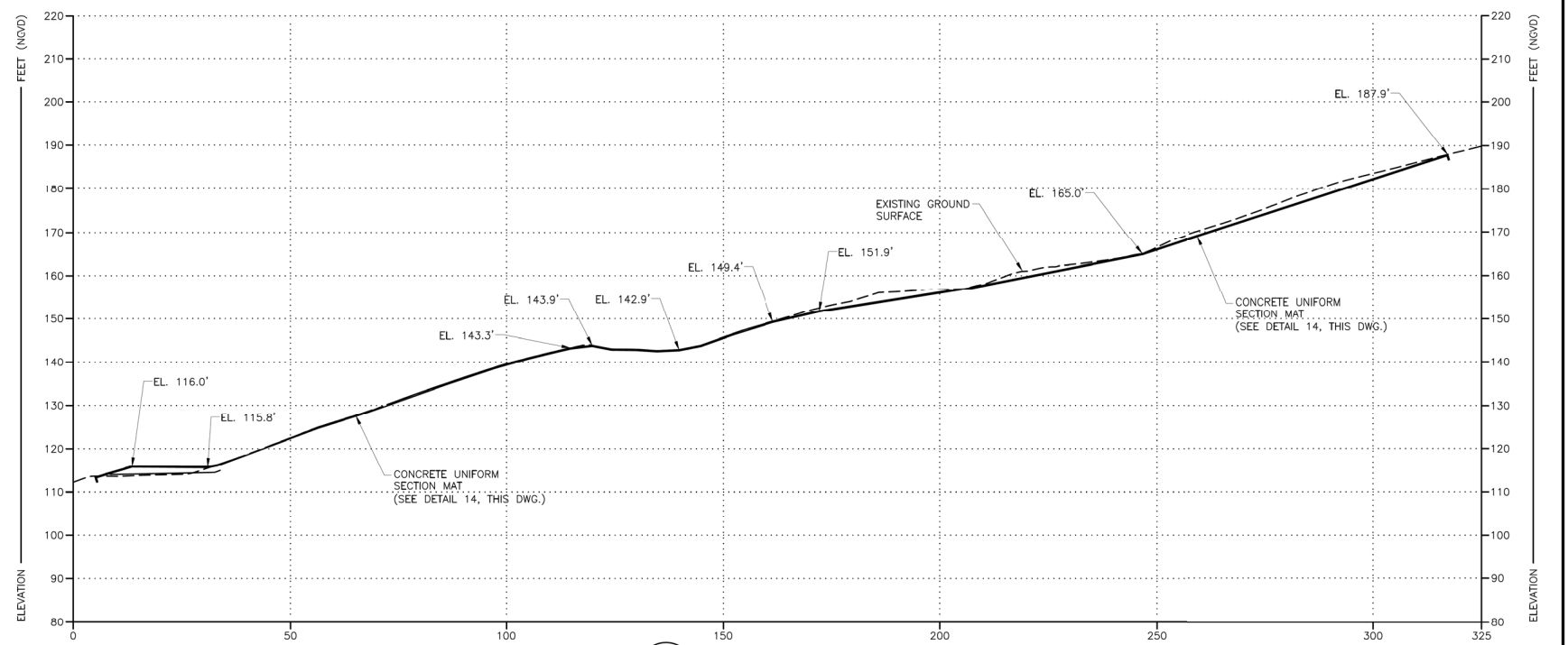
REV	DESCRIPTION	DATE	BY	CHKD	APPR
1	POST-CONSTRUCTION DRAWINGS 12/13/17	PS	JM	FKC	

SCALE	DATE	PROJECT NO.
AS SHOWN	04/26/16	35885

TITLE	CROSS SECTIONS AC AND AD
SECT DWG. NO.	009-40-0002-00073
REV	1

Appendix 3

**Concrete-Lined Flume along
Western Boundary of Stage III Area**



0	10/24/16	ISSUED FOR CONSTRUCTION	FKC	NAME	DATE	CH	BY
P3	07/21/16	ISSUED FOR BID	FKC	DESIGNED BY	JM	04/26/16	CH
P2	07/12/16	ISSUED FOR REGULATORY REVIEWS	FKC	DRAWN BY	SC	04/25/16	CH
P1	05/18/16	ISSUED FOR 90% COMPLETION REVIEW	FKC	FILE NO: 15-13-0070	STATE OF		
PO	04/26/16	ISSUED FOR 30% COMPLETION REVIEW	FKC	APPROVED BY:	[Signature]		
REVISION	DATE	DESCRIPTION	APPR'D	[Signature]			

**LANDFILL INCREMENT 1 BUILDOUT
STAGE III LINING**

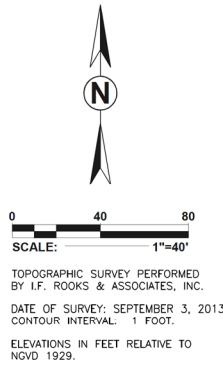
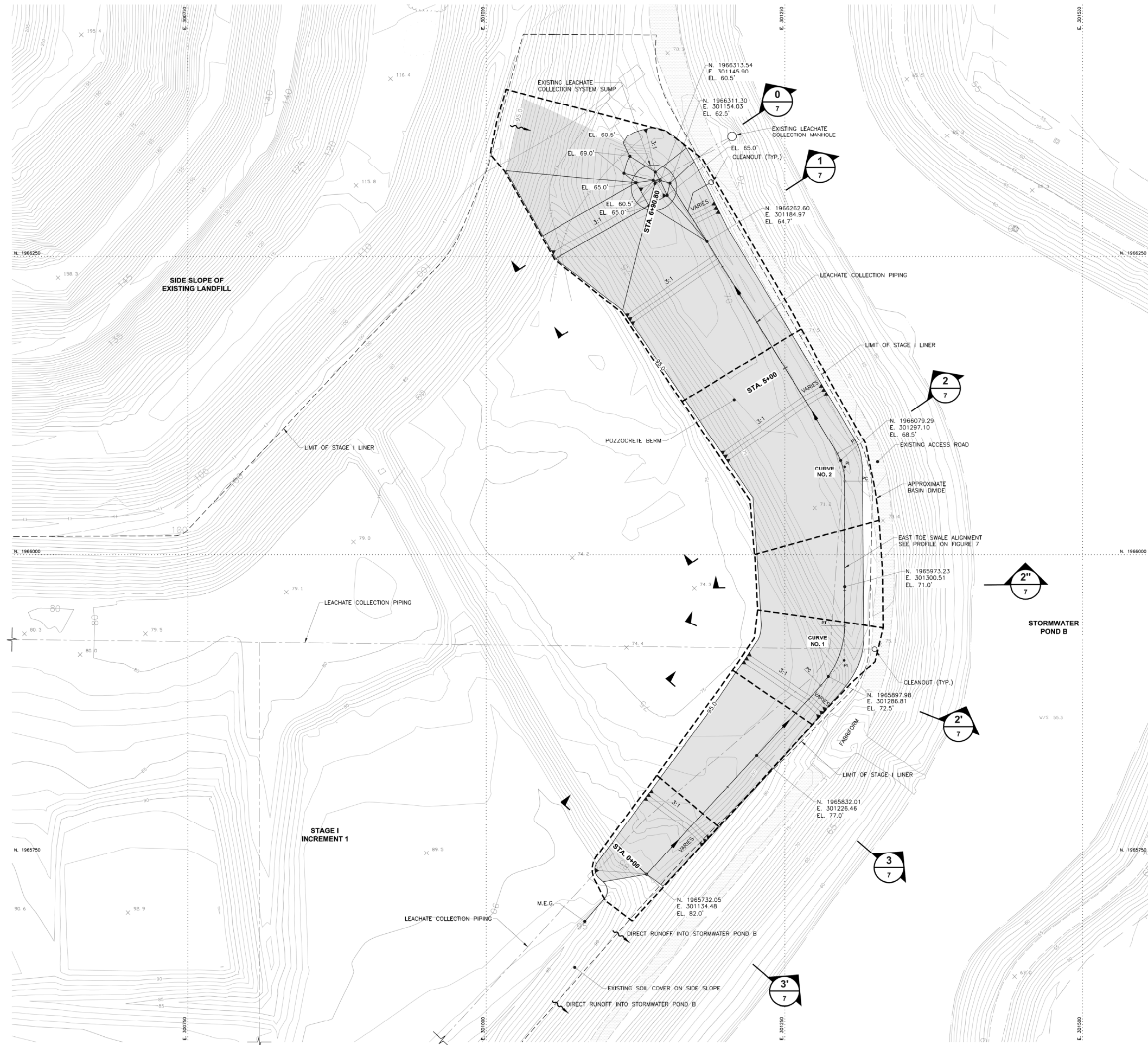
**SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA**

 **Ardaman & Associates, Inc.**
Geotechnical, Environmental and Materials Consultants
8008 S. Orange Ave., Orlando, FL 32809
TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950

				DRAWING NO. SC PROJECT NO. JM REVISED BY: FKC DATE: 04/26/16 THIS DRAWING IS THE PROPERTY OF SEMINOLE ELECTRIC COOPERATIVE, INC. ANY REUSE OF THIS DRAWING WITHOUT THE WRITTEN CONSENT OF SEMINOLE ELECTRIC COOPERATIVE, INC. IS PROHIBITED.		TITLE: CONCRETE FLUME DETAILS	
REVISIONS 1 POST-CONSTRUCTION DRAWINGS 12/13/17 DATE PS BY CHD APPV FKC				PROJECT NO. 35885 SECT DWG. NO. 009-40-0002-00075		REV. 1	

Appendix 4

Results of Hydrologic Modeling for Toe Swale along East Side of Increment 1



LEGEND
W/S WATER SURFACE ELEVATION

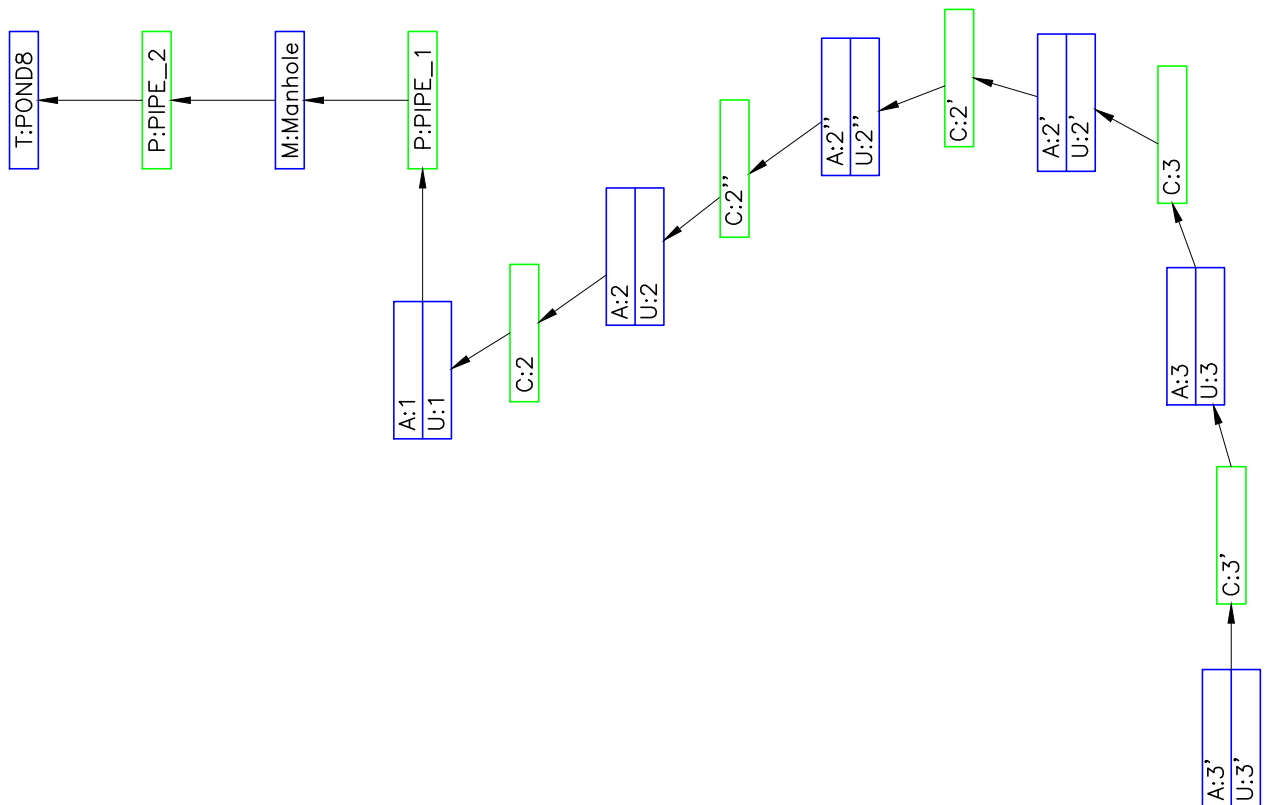
EAST TOE SWALE ALIGNMENT CURVE DATA								
CURVE NO.	R	L	PI N	PI E	PC	PT	T	Δ
CURVE NO. 1	75.00'	54.83'	N. 1965911.68	E. 301300.06	STA. 2+15.61	STA. 2+70.43	28.70'	41°53'03"
CURVE NO. 2	47.77'	24.60'	N. 1966074.01	E. 301300.50	STA. 3+91.48	STA. 4+16.09	12.58'	29°30'47"

EAST TOE SWALE ALIGNMENT



PERIMETER TOE SWALE FOR LIFT 1
WITHIN STAGE I LINER AREA
INCREMENT 1 BUILDOUT
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA

DRAWN BY: NA	CHECKED BY: PAK	DATE: 10/04/13
FILE NO. 13-13-0066	APPROVED BY: FKC	FIGURE: 6



NETWORK LAYOUT



Ardaman & Associates, Inc.
Geotechnical, Environmental and
Materials Consultants

**PERIMETER TOE SWALE FOR LIFT 1
WITHIN STAGE I LINER AREA
INCREMENT 1 BUILDOUT
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA**

DRAWN BY: **RDO** CHECKED BY: **FKC** DATE: **08/22/16**

FILE NO.
13-13-0066

APPROVED BY:
FKC

FIGURE:
-

Input_Data.TXT

=====

==== Basins =====

=====

Name: 1	Node: 1	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	
Unit Hydrograph: GAMMA	Peaking Factor: 484.0	
Rainfall File:	Storm Duration(hrs): 0.00	
Rainfall Amount(in): 0.000	Time of Conc(min): 6.00	
Area(ac): 0.780	Time Shift(hrs): 0.00	
Curve Number: 90.00	Max Allowable Q(cfs): 999999.000	
DCIA(%): 0.00		

Name: 2	Node: 2	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	
Unit Hydrograph: GAMMA	Peaking Factor: 484.0	
Rainfall File:	Storm Duration(hrs): 0.00	
Rainfall Amount(in): 0.000	Time of Conc(min): 6.00	
Area(ac): 0.400	Time Shift(hrs): 0.00	
Curve Number: 90.00	Max Allowable Q(cfs): 999999.000	
DCIA(%): 0.00		

Name: 2'	Node: 2'	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	
Unit Hydrograph: GAMMA	Peaking Factor: 484.0	
Rainfall File:	Storm Duration(hrs): 0.00	
Rainfall Amount(in): 0.000	Time of Conc(min): 6.00	
Area(ac): 0.160	Time Shift(hrs): 0.00	
Curve Number: 90.00	Max Allowable Q(cfs): 999999.000	
DCIA(%): 0.00		

Name: 2"	Node: 2"	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	
Unit Hydrograph: GAMMA	Peaking Factor: 484.0	
Rainfall File:	Storm Duration(hrs): 0.00	
Rainfall Amount(in): 0.000	Time of Conc(min): 6.00	
Area(ac): 0.160	Time Shift(hrs): 0.00	
Curve Number: 90.00	Max Allowable Q(cfs): 999999.000	
DCIA(%): 0.00		

Name: 3	Node: 3	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	
Unit Hydrograph: GAMMA	Peaking Factor: 484.0	
Rainfall File:	Storm Duration(hrs): 0.00	
Rainfall Amount(in): 0.000	Time of Conc(min): 6.00	
Area(ac): 0.180	Time Shift(hrs): 0.00	
Curve Number: 90.00	Max Allowable Q(cfs): 999999.000	
DCIA(%): 0.00		

Name: 3'	Node: 3'	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	
Unit Hydrograph: GAMMA	Peaking Factor: 484.0	
Rainfall File:	Storm Duration(hrs): 0.00	
Rainfall Amount(in): 0.000	Time of Conc(min): 6.00	
Area(ac): 0.140	Time Shift(hrs): 0.00	
Curve Number: 90.00	Max Allowable Q(cfs): 999999.000	
DCIA(%): 0.00		

Input_Data.TXT

Nodes

Name: 1 Base Flow(cfs): 0.000 Init Stage(ft): 60.400
 Group: BASE Warn Stage(ft): 69.000
 Type: Stage/Area

Stage(ft)	Area(ac)
60.400	0.0100
62.400	0.0100
63.000	0.0100
64.000	0.0200
65.000	0.0300

Name: 2 Base Flow(cfs): 0.000 Init Stage(ft): 68.500
 Group: BASE Warn Stage(ft): 70.950
 Type: Stage/Area

Stage(ft)	Area(ac)
-----------	----------

Name: 2' Base Flow(cfs): 0.000 Init Stage(ft): 72.500
 Group: BASE Warn Stage(ft): 74.430
 Type: Stage/Area

Stage(ft)	Area(ac)
-----------	----------

Name: 2" Base Flow(cfs): 0.000 Init Stage(ft): 71.000
 Group: BASE Warn Stage(ft): 73.180
 Type: Stage/Area

Stage(ft)	Area(ac)
-----------	----------

Name: 3 Base Flow(cfs): 0.000 Init Stage(ft): 77.000
 Group: BASE Warn Stage(ft): 78.800
 Type: Stage/Area

Stage(ft)	Area(ac)
-----------	----------

Name: 3' Base Flow(cfs): 0.000 Init Stage(ft): 82.000
 Group: BASE Warn Stage(ft): 83.600
 Type: Stage/Area

Stage(ft)	Area(ac)
-----------	----------

Name: Manhole Base Flow(cfs): 0.000 Init Stage(ft): 57.100
 Group: BASE Plunge Factor: 1.30 Warn Stage(ft): 71.580
 Type: Manhole, Flat Floor

six foot dia HDPE SDR 32.5 Manhole, top elevation 71.58 ft.

Stage(ft)	Area(ac)
57.000	0.0001
71.580	0.0001

Input_Data.TXT

```
-----
Name: POND8                      Base Flow(cfs): 0.000          Init Stage(ft): 47.090
Group: BASE                      Warn Stage(ft): 47.090
Type: Time/Stage
```

Pipe out of manhole invert at 47.09, WS elevation for Pond 8 is around 43.2 ft according to CAD drawing.

Time(hrs)	Stage(ft)
0.00	47.090
999.00	47.090

==== Operating Tables =====

```

Name: PUMP                      Group: BASE
Type: Rating Curve
Function: Time vs. Discharge
```

Time(hrs)	Discharge(cfs)
0.00	0.00
999.00	0.00

==== Pipes =====

Name: PIPE_1	From Node: 1	Length(ft): 65.00
Group: BASE	To Node: Manhole	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Automatic
Span(in): 7.61	7.61	Flow: Both
Rise(in): 7.61	7.61	Entrance Loss Coef: 0.50
Invert(ft): 60.400	60.280	Exit Loss Coef: 1.00
Manning's N: 0.010000	0.010000	Bend Loss Coef: 0.70
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
		Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

8 inch SDR 17 HDPE pipe ID = 7.61 inch

Name: PIPE_2	From Node: Manhole	Length(ft): 1600.00
Group: BASE	To Node: POND8	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Automatic
Span(in): 7.61	7.61	Flow: Both
Rise(in): 7.61	7.61	Entrance Loss Coef: 0.50
Invert(ft): 57.100	47.090	Exit Loss Coef: 1.00
Manning's N: 0.010000	0.010000	Bend Loss Coef: 0.00
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
		Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Input_Data.TXT

==== Channels =====

Name: 2	From Node: 2	Length(ft): 295.00
Group: BASE	To Node: 1	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Trapezoidal	Trapezoidal	Solution Algorithm: Automatic
Invert(ft): 68.500	64.710	Flow: Both
TClpInitZ(ft): 9999.000	9999.000	Contraction Coef: 0.100
Manning's N: 0.030000	0.030000	Expansion Coef: 0.300
Top Clip(ft): 0.000	0.000	Entrance Loss Coef: 0.000
Bot Clip(ft): 0.000	0.000	Exit Loss Coef: 0.000
Main XSec:		Outlet Ctrl Spec: Use dc or tw
AuxElev1(ft):		Inlet Ctrl Spec: Use dc
Aux XSec1:		Stabilizer Option: None
AuxElev2(ft):		
Aux XSec2:		
Top width(ft):		
Depth(ft):		
Bot width(ft): 0.100	0.100	
LtSdSlp(h/v): 3.00	3.00	
RtSdSlp(h/v): 3.00	3.00	

Name: 2'	From Node: 2'	Length(ft): 83.70
Group: BASE	To Node: 2"	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Trapezoidal	Trapezoidal	Solution Algorithm: Automatic
Invert(ft): 72.500	71.000	Flow: Both
TClpInitZ(ft): 9999.000	9999.000	Contraction Coef: 0.100
Manning's N: 0.030000	0.030000	Expansion Coef: 0.300
Top Clip(ft): 0.000	0.000	Entrance Loss Coef: 0.000
Bot Clip(ft): 0.000	0.000	Exit Loss Coef: 0.000
Main XSec:		Outlet Ctrl Spec: Use dc or tw
AuxElev1(ft):		Inlet Ctrl Spec: Use dc
Aux XSec1:		Stabilizer Option: None
AuxElev2(ft):		
Aux XSec2:		
Top width(ft):		
Depth(ft):		
Bot width(ft): 0.100	0.100	
LtSdSlp(h/v): 3.00	3.00	
RtSdSlp(h/v): 3.00	3.00	

Name: 2"	From Node: 2"	Length(ft): 108.41
Group: BASE	To Node: 2	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Trapezoidal	Trapezoidal	Solution Algorithm: Automatic
Invert(ft): 71.000	68.500	Flow: Both
TClpInitZ(ft): 9999.000	9999.000	Contraction Coef: 0.100
Manning's N: 0.030000	0.030000	Expansion Coef: 0.300
Top Clip(ft): 0.000	0.000	Entrance Loss Coef: 0.000
Bot Clip(ft): 0.000	0.000	Exit Loss Coef: 0.000
Main XSec:		Outlet Ctrl Spec: Use dc or tw
AuxElev1(ft):		Inlet Ctrl Spec: Use dc
Aux XSec1:		Stabilizer Option: None
AuxElev2(ft):		
Aux XSec2:		
Top width(ft):		
Depth(ft):		
Bot width(ft): 0.100	0.100	
LtSdSlp(h/v): 3.00	3.00	
RtSdSlp(h/v): 3.00	3.00	

Input_Data.TXT

Name: 3	From Node: 3	Length(ft): 88.59
Group: BASE	To Node: 2'	Count: 1

UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Trapezoidal	Trapezoidal	Solution Algorithm: Automatic
Invert(ft): 77.000	72.500	Flow: Both
TClpInitz(ft): 9999.000	9999.000	Contraction Coef: 0.100
Manning's N: 0.030000	0.030000	Expansion Coef: 0.300
Top Clip(ft): 0.000	0.000	Entrance Loss Coef: 0.000
Bot Clip(ft): 0.000	0.000	Exit Loss Coef: 0.000
Main XSec:		Outlet Ctrl Spec: Use dc or tw
AuxElev1(ft):		Inlet Ctrl Spec: Use dc
Aux XSec1:		Stabilizer Option: None
AuxElev2(ft):		
Aux XSec2:		
Top width(ft):		
Depth(ft):		
Bot width(ft): 0.100	0.100	
LtSdSlp(h/v): 3.00	3.00	
RtSdSlp(h/v): 3.00	3.00	

Name: 3'	From Node: 3'	Length(ft): 135.78
Group: BASE	To Node: 3	Count: 1

UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Trapezoidal	Trapezoidal	Solution Algorithm: Automatic
Invert(ft): 82.000	77.000	Flow: Both
TClpInitz(ft): 9999.000	9999.000	Contraction Coef: 0.100
Manning's N: 0.030000	0.030000	Expansion Coef: 0.300
Top Clip(ft): 0.000	0.000	Entrance Loss Coef: 0.000
Bot Clip(ft): 0.000	0.000	Exit Loss Coef: 0.000
Main XSec:		Outlet Ctrl Spec: Use dc or tw
AuxElev1(ft):		Inlet Ctrl Spec: Use dc
Aux XSec1:		Stabilizer Option: None
AuxElev2(ft):		
Aux XSec2:		
Top width(ft):		
Depth(ft):		
Bot width(ft): 0.100	0.100	
LtSdSlp(h/v): 3.00	3.00	
RtSdSlp(h/v): 3.00	3.00	

==== Hydrology Simulations =====

Name: 100Yr
 Filename: Y:\Projects\2013\113_13_13_0066_SGS\ICPR\20130926\100Yr.R32

Override Defaults: Yes
 Storm Duration(hrs): 24.00
 Rainfall File: Flmod
 Rainfall Amount(in): 10.60

Time(hrs)	Print Inc(min)
-----	-----
30.000	5.00

Name: 25Yr
 Filename: Y:\Projects\2013\113_13_13_0066_SGS\ICPR\20130926\25yr.R32

Override Defaults: Yes
 Storm Duration(hrs): 24.00
 Rainfall File: Flmod
 Rainfall Amount(in): 8.00

Input_Data.TXT

Time(hrs)	Print Inc(min)
-----	-----
30.000	5.00

==== Routing Simulations =====

Name: 100Yr Hydrology Sim: 100Yr
 Filename: Y:\Projects\2013\113_13_13_0066_SGS\ICPR\20130926\100Yr.I32

Execute: Yes	Restart: No	Patch: No
Alternative: No		
Max Delta Z(ft): 1.00		Delta Z Factor: 0.00500
Time Step Optimizer: 10.000		
Start Time(hrs): 0.000		End Time(hrs): 48.00
Min Calc Time(sec): 0.5000		Max Calc Time(sec): 1.0000
Boundary Stages:		Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
999.000	15.000

Group	Run
-----	-----
BASE	Yes

 Name: 25Yr Hydrology Sim: 25Yr
 Filename: Y:\Projects\2013\113_13_13_0066_SGS\ICPR\20130926\25Yr.I32

Execute: Yes	Restart: No	Patch: No
Alternative: No		
Max Delta Z(ft): 1.00		Delta Z Factor: 0.00500
Time Step Optimizer: 10.000		
Start Time(hrs): 0.000		End Time(hrs): 40.00
Min Calc Time(sec): 0.5000		Max Calc Time(sec): 1.0000
Boundary Stages:		Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
999.000	15.000

Group	Run
-----	-----
BASE	Yes

25-Year Maximum Flow

Name	Group	Simulation	Max Time Flow (hrs)	Max Flow (cfs)	Max Delta Q (cfs)	Max Time US Stage (hrs)	Max US Stage (ft)	Max Time DS Stage (hrs)	Max DS Stage (ft)

East Swale									
3'	BASE	25Yr	12.00	0.80	0.003	12.00	82.32	12.00	77.30
3	BASE	25Yr	12.00	1.84	-0.002	12.00	77.46	12.00	72.89
2'	BASE	25Yr	12.00	2.75	0.725	12.00	73.04	12.00	71.56
2''	BASE	25Yr	12.00	3.67	-0.089	12.00	71.61	12.00	69.09
2	BASE	25Yr	11.96	8.96	3.288	11.96	69.37	12.63	68.01
PIPE_1	BASE	25Yr	11.79	2.47	-0.016	12.63	68.01	12.76	66.69
PIPE_2	BASE	25Yr	12.79	1.51	0.918	12.76	66.69	12.70	47.66

100-Year Maximum Flow

Name	Group	Simulation	Max Time Flow (hrs)	Max Flow (cfs)	Max Delta Q (cfs)	Max Time US Stage (hrs)	Max US Stage (ft)	Max Time DS Stage (hrs)	Max DS Stage (ft)

East Swale									
3'	BASE	100Yr	12.00	1.09	0.003	12.00	82.37	12.00	77.34
3	BASE	100Yr	12.00	2.48	-0.003	12.00	77.52	12.00	72.94
2'	BASE	100Yr	12.00	3.72	0.726	12.00	73.11	12.00	71.63
2''	BASE	100Yr	12.00	4.96	-0.087	12.00	71.68	12.00	69.17
2	BASE	100Yr	11.87	10.20	3.728	11.87	69.42	12.77	69.13
PIPE_1	BASE	100Yr	11.70	2.43	-0.019	12.77	69.13	12.89	67.74
PIPE_2	BASE	100Yr	12.93	1.55	0.922	12.89	67.74	12.66	47.67

25-Year Maximum Stage

Name	Group	Simulation	Max Time Stage (hrs)	Max Stage (ft)	Warning Stage (ft)	Max Delta Stage (ft)	Max Surf Area (ft2)	Max Time Inflow (hrs)	Max Inflow (cfs)	Max Time Outflow (hrs)	Max Outflow (cfs)

East Swale											
3'	BASE	25Yr	12.00	82.32	83.60	0.0002	249	12.00	0.81	12.00	0.80
3	BASE	25Yr	12.00	77.46	78.80	0.0003	365	12.00	1.84	12.00	1.84
2'	BASE	25Yr	12.00	73.04	74.43	0.0018	366	12.00	2.76	12.00	2.75
2''	BASE	25Yr	12.00	71.61	73.18	-0.0019	457	12.00	3.68	12.00	3.67
2	BASE	25Yr	11.96	69.37	70.95	-0.0022	1111	12.00	5.97	11.96	8.96
1	BASE	25Yr	12.63	68.01	69.00	0.0035	4925	11.96	13.40	11.79	2.47
Manhole	BASE	25Yr	12.76	66.69	71.58	0.0050	209	11.79	2.47	12.79	1.51
POND8	BASE	25Yr	0.00	47.09	47.09	0.0000	25	12.79	1.51	0.00	0.00

100-Year Maximum Stage

Name	Group	Simulation	Max Time Stage (hrs)	Max Stage (ft)	Warning Stage (ft)	Max Delta Stage (ft)	Max Surf Area (ft2)	Max Time Inflow (hrs)	Max Inflow (cfs)	Max Time Outflow (hrs)	Max Outflow (cfs)

East Swale											
3'	BASE	100Yr	12.00	82.37	83.60	0.0003	266	12.00	1.09	12.00	1.09
3	BASE	100Yr	12.00	77.52	78.80	0.0004	396	12.00	2.49	12.00	2.48
2'	BASE	100Yr	12.00	73.11	74.43	0.0018	397	12.00	3.72	12.00	3.72
2''	BASE	100Yr	12.00	71.68	73.18	-0.0019	500	12.00	4.96	12.00	4.96
2	BASE	100Yr	12.03	69.41	70.95	-0.0021	1687	12.00	8.06	11.85	9.81
1	BASE	100Yr	12.79	69.29	69.00	0.0039	6419	11.85	15.08	11.68	2.38
Manhole	BASE	100Yr	12.91	67.89	71.58	0.0050	206	11.68	2.38	12.94	1.56
POND8	BASE	100Yr	0.00	47.09	47.09	0.0000	25	12.94	1.56	0.00	0.00

25-Year Maximum Velocity

Link	Simulation	Group	Max USVel fps	Max DSVel fps	Max AvgVel fps

East Swale					
3'	25Yr	BASE	2.33	2.69	2.51
3	25Yr	BASE	2.75	3.72	3.24
2'	25Yr	BASE	2.99	2.79	2.89
2''	25Yr	BASE	3.16	3.29	3.23
2	25Yr	BASE	3.40	3.11	2.71
PIPE_1	25Yr	BASE	7.41	7.45	7.43
PIPE_2	25Yr	BASE	4.77	5.03	4.90

East Perimeter Toe Swale Profile

