

January 26, 2015

Cory D. Dilmore, P.E.
Professional Engineer III
FDEP Permitting and Compliance
Assistance Program
2600 Blair Stone Road, MS 4565
Tallahassee, FL 32399



Re: Minor Permit Modification

North Cell Phase II Expansion-Area 3

Tomoka Farms Road Landfill WACS # 27540

Volusia County, Florida

Dear Mr. Dilmore,

On behalf of Volusia County, HDR is submitting the Minor Permit Modification to the Construction Permit #SC64-0078767-029 to add an underliner dewatering system as part of the construction for the Area 3 landfill expansion project. Part A of form FAC 62-701.900(1) is included in Attachment A. The application fee (\$250) per FAC 62 701.315 (1)(a) will be paid online by HDR on behalf of the Owner once FDEP logs the project into the system. As requested per email from FDEP on December 12, 2014, HDR has included a brief summary below of the proposed minor modification.

The original construction permit application for Areas 1 through 4 expansions at the Tomoka Farms Road Landfill was submitted to FDEP in May 2002. On December 02, 2002 FDEP issued the permit # SC64-0078767-014. Based on this permit the bottom of the leachate collection and detection sump is located at elevation 12-feet. The 2002 permit drawings do not specify the bottom elevation of the groundwater collection sump. In August, 2012 HDR modified some of the construction details associated with Areas 3 and 4 in the construction-level design and submitted them to FDEP for approval together with the construction permit renewal application. The permit renewal approval was received by Volusia County on January 29, 2013.

In compliance with the currently permitted design, HDR has prepared a bid package for the construction of Area 3. In order to lower the groundwater elevation below the bottom of the leachate sump, a ground water collection sump is currently proposed at an 11-foot elevation. During construction, groundwater dewatering sump could be placed anywhere between 9-foot and 11-foot elevation. It should be noted that currently certified Areas 1 and 2 have a groundwater dewatering sump located at a 9-foot elevation.

In addition, the proposed design for Area 3 includes a 6-inch HDPE perforated pipe as shown in Sheet 00C-08 that runs from the south to the north end of the cell. Sheet 00C-13 depicts several sections that include the dewatering trench. This perforated dewatering pipe is added to facilitate compaction of the subbase layer to avoid pumping of the subbase during construction. More information about this pipe can be found in Sheets 01C-02 and Detail C of 01C-03. The referenced sheets are included in Attachment B.

The primary purpose of the underliner dewatering pipe network is to prevent floating of the Subtitle D liner system in case the groundwater elevation increases above the geosynthetic liner elevation. This is an additional precaution for Dewatering Ponds A and B where the bottom of the pond is located at 12-feet. Similar to Dewatering Ponds A and B, the underliner dewatering system will also be abandoned in place upon reaching predetermined waste heights.

Volusia County Council will be awarding a construction contract for Area 3 Expansion on February 5, 2014 and would appreciate if FDEP could expedite reviewing/approving this permit modification process. If you have any questions or comments, please contact Kanishka Perera at (904) 598-8978 or Leonard Marion at (386) 947-2952 or Imarion@co.volusia.fl.us.

Sincerely.

HDR Engineering, Inc.

Kanishka Perera, PE

**Project Manager** 

Mark Roberts, PE

Senior Project Manager

Cc: Leonard Marion; Junos Reed, PE. – Volusia County

Cliff Koenig PE - HDR Engineering

Encl.

Attachment A: Part A of form FAC 62-701.900(1)

Attachment B: Excerpts from Bid Drawings: Sheets 00C-08; 00C-13; 01C-02 and 01C-03

### Appendix A

Part A of form FAC 62-701.900(1)

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE A SOLID WASTE MANAGEMENT FACILITY

Please Type or Print

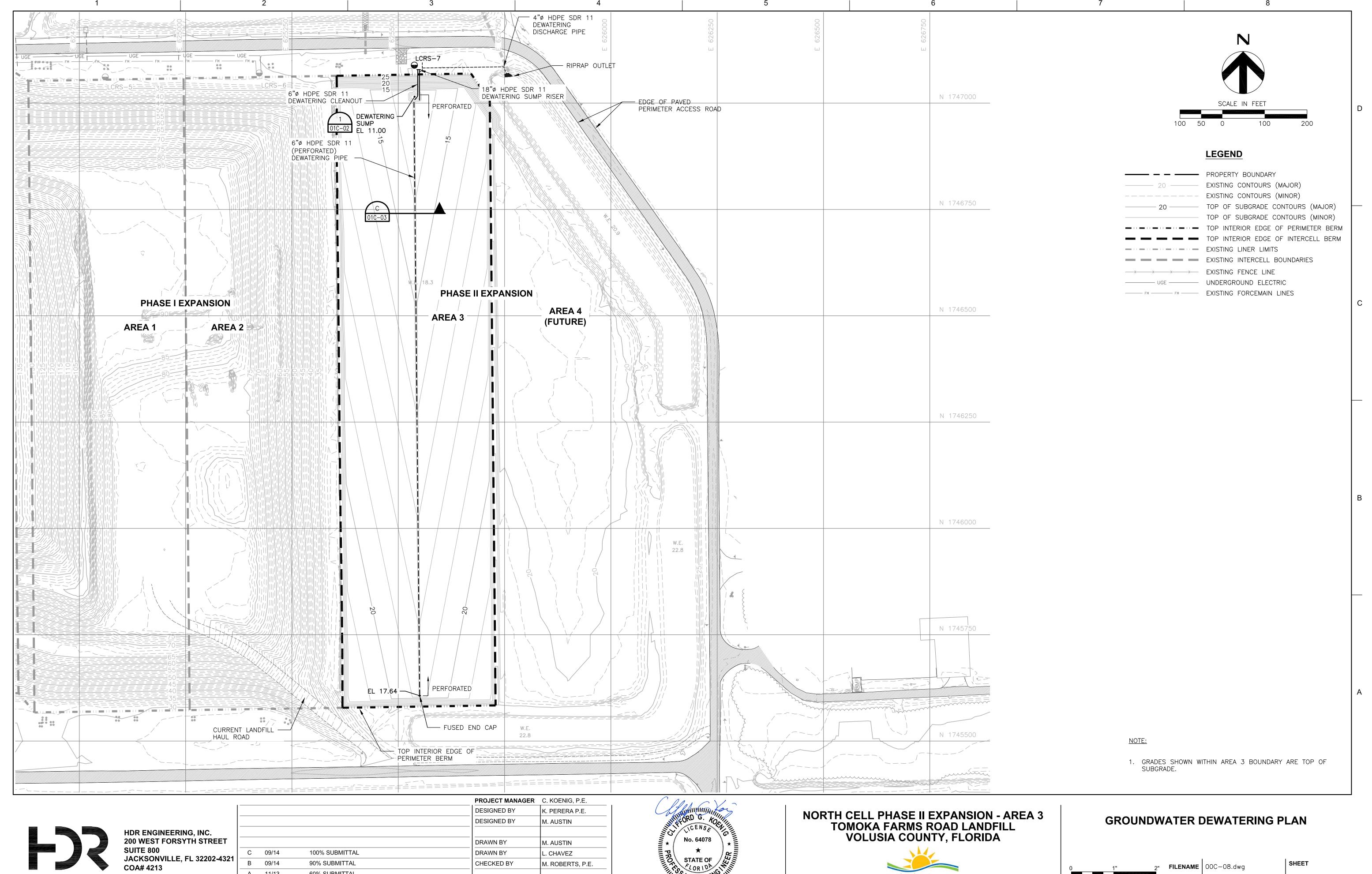
PART /	A. GENERAL INFORMATION	
1.	Type of disposal facility (check all that apply):  Class I Landfill Class III Landfill Industrial Solid Waste Other (describe):	□ Ash Monofill □ Asbestos Monofill
NOTE:	Waste Processing Facilities should apply on F Yard Trash Disposal Facilities should notify on Compost Facilities should apply on Form 62-70 C&D Disposal Facilities should apply on Form	Form 62-701.900(3), FAC; 09.901(1), FAC; and
2.	Type of application:	
	□ Construction	
	<ul><li>☐ Operation</li><li>☐ Construction/Operation</li></ul>	
	□ Closure	
	☐ Long-term Care Only	
3.	Classification of application:	
	□ New	□ Substantial Modification
	□ Renewal	☐ Intermediate Modification
		☐ Minor Modification
4.	Facility name:	
5.	DEP ID number:	County:
6.	Facility location (main entrance):	
7.	Location coordinates:	
	Section: Townshi	p: Range:
		Longitude:°'
	Datum: Coordinate	e method:
	Collected by:	Company/Affiliation:

Ар	Applicant name (operating authority):					
Ma	ailing address:Street or P.O. Box	City State Zip				
		, , , , , , , , , , , , , , , , , , ,				
Co	ontact person:	Telephone: ()				
Tit	le:					
		E-Mail address (if available)				
_		,				
Au	thorized agent/Consultant:					
Ma	ailing address:Street or P.O. Box	City State Zip				
Co						
	ntact person:					
Tit	le:					
		E-Mail address (if available)				
دا	ndowner (if different than applicant):	,				
Ma	ailing address:Street or P.O. Box	City State Zip				
Co	ontact person:	Telephone: ( )				
00						
		E-Mail address (if available)				
Cit	ies, towns, and areas to be served:					
_						
Po	pulation to be served:					
Cu	rrent:	Five-Year Projection:				
Da	te site will be ready to be inspected for completion: _					
	pected life of the facility: years					
Es	timated costs:					
То	tal Construction: \$	Closing Costs: \$				
An	ticipated construction starting and completion dates:					
Fro	om:	_ To:				
Ex	pected volume or weight of waste to be received:					
	yds³/daytons	dallons/day				

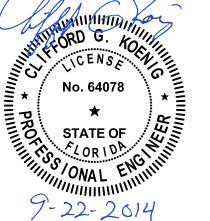


#### **Attachment B**

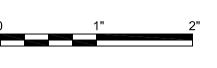
Excerpts from Bid Drawings: Sheets 00C-08; 01C-02 and 01C-03



A 11/13 60% SUBMITTAL ISSUE DATE DESCRIPTION PROJECT NUMBER 000000000219894



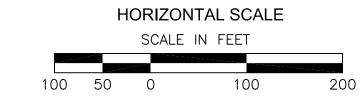


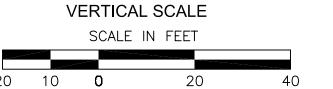


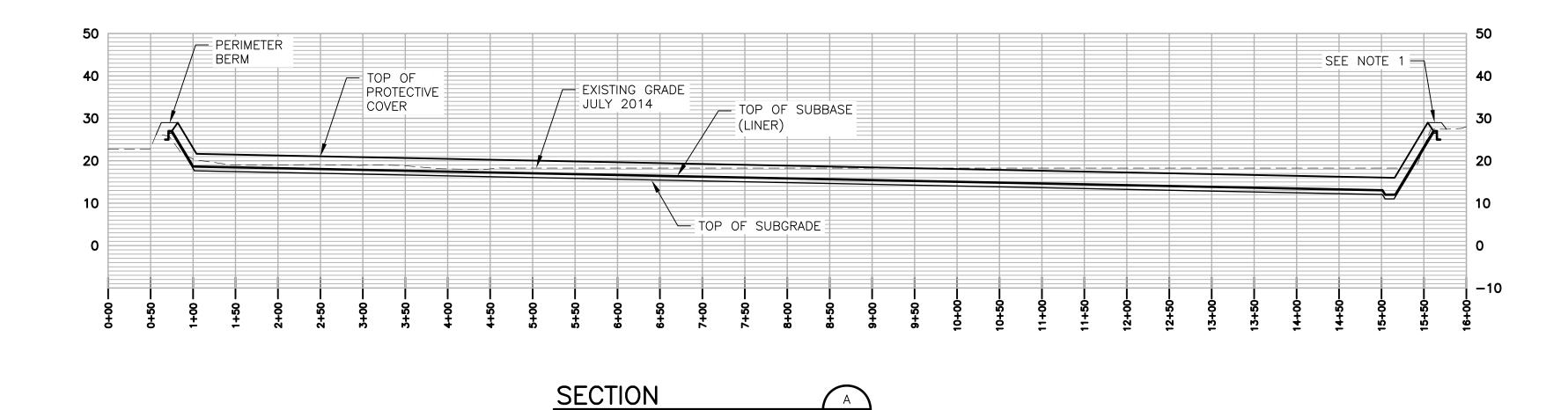
SCALE AS SHOWN

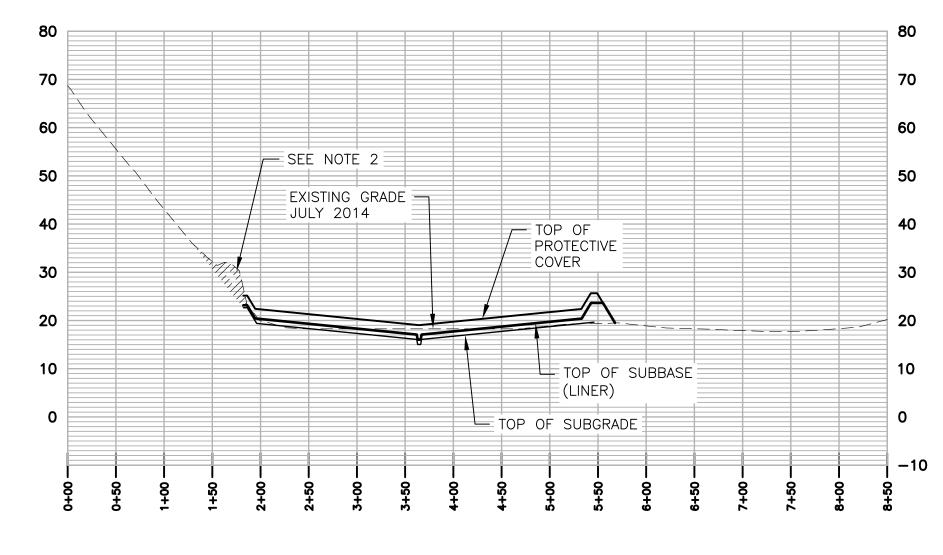
80-200

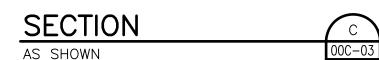
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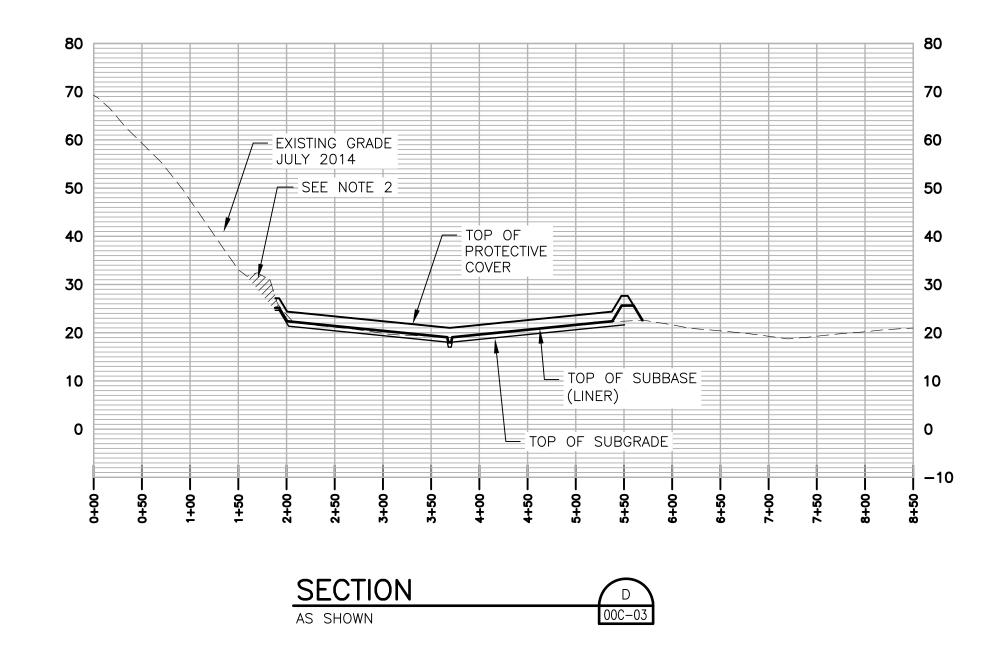


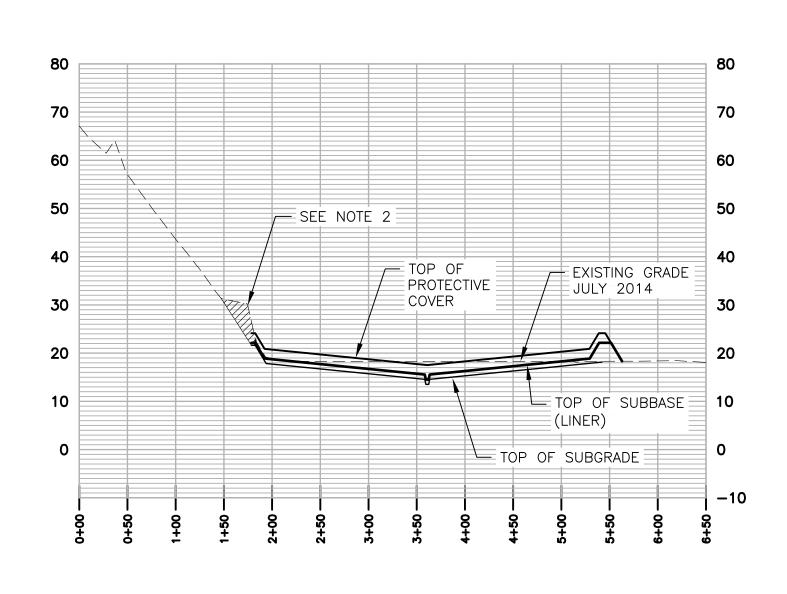












AS SHOWN

SECTION

AS SHOWN

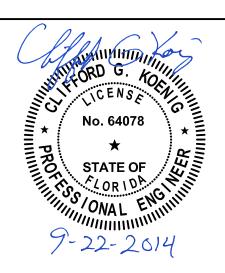
OUC-03

## NOTES

- CONTRACTOR SHALL ESTABLISH PERIMETER BERM AROUND AREA 3 (I.E. TOP OF PROTECTIVE COVER/LOW PERMEABILITY SOIL) AT ELEVATION 29.0' AS SHOWN IN DETAIL 1 ON SHEET 01C-01.
- 2. CONTRACTOR TO REMOVE SIDE SLOPE SOIL DIVERSION BERM AND EXCAVATE BY HAND TO EXPOSE PHASE I AREA 2 LINER AT ANCHOR TRENCH.
- GROUNDWATER DEWATERING TRENCH AND COMPONENTS NOT SHOWN FOR CLARITY.



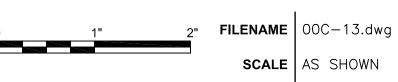
			PROJECT MANAGER	C. KOENIG, P.E.
			DESIGNED BY	K. PERERA P.E.
			DESIGNED BY	M. AUSTIN
			DRAWN BY	M. AUSTIN
С	09/14	100% SUBMITTAL	DRAWN BY	L. CHAVEZ
В	09/14	90% SUBMITTAL	CHECKED BY	M. ROBERTS, P.E.
Α	11/13	60% SUBMITTAL		
ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	000000000219894
			·	•

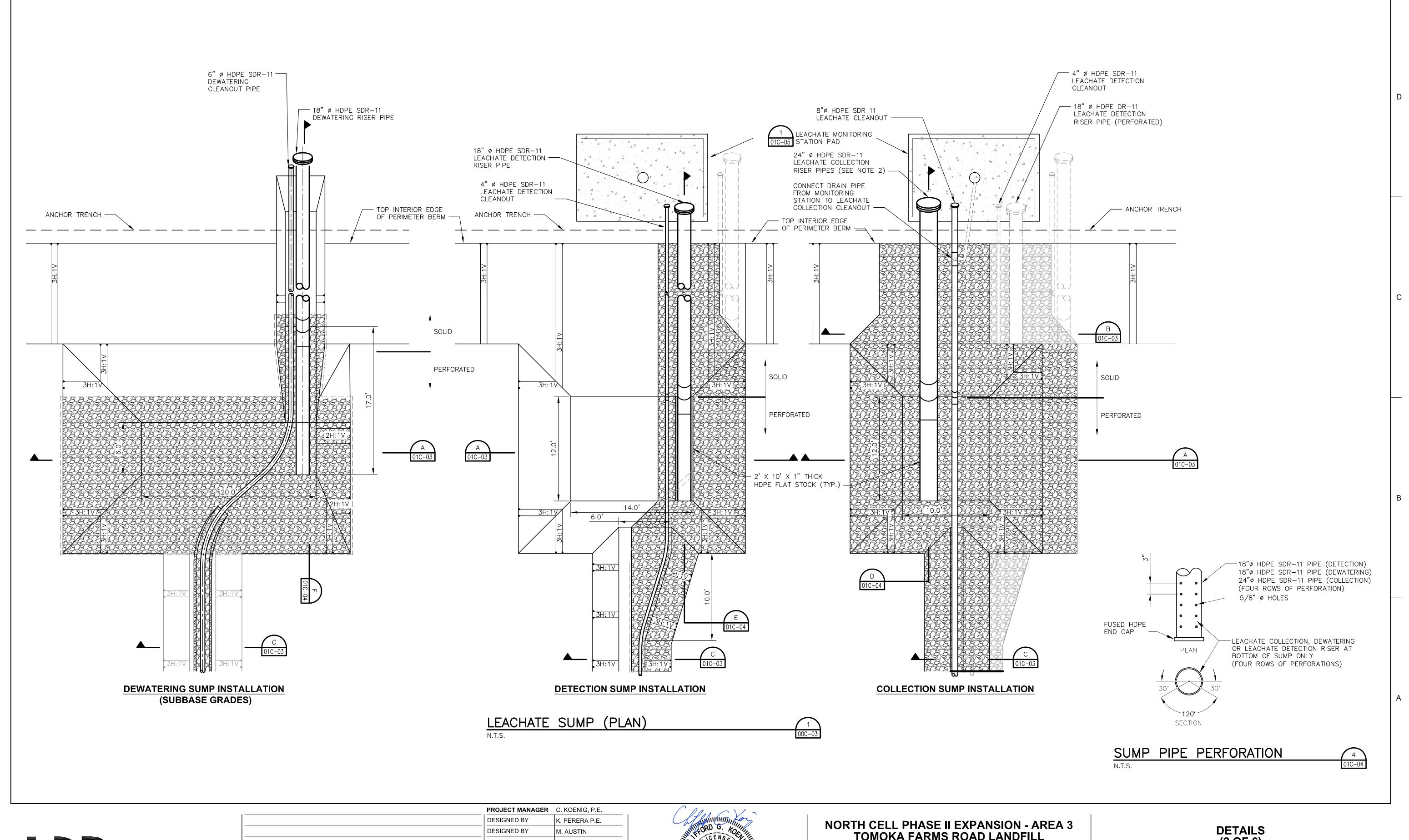






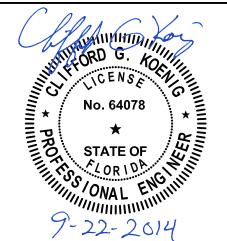
## **CROSS SECTIONS**







			PROJECT MANAGER	C. KOENIG, P.E.
			DESIGNED BY	K. PERERA P.E.
			DESIGNED BY	M. AUSTIN
			DRAWN BY	M. AUSTIN
С	09/14	100% SUBMITTAL	DRAWN BY	L. CHAVEZ
В	09/14	90% SUBMITTAL	CHECKED BY	M. ROBERTS, P.E.
A	11/13	60% SUBMITTAL		
ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	000000000219894



NORTH CELL PHASE II EXPANSION - AREA 3 TOMOKA FARMS ROAD LANDFILL VOLUSIA COUNTY, FLORIDA

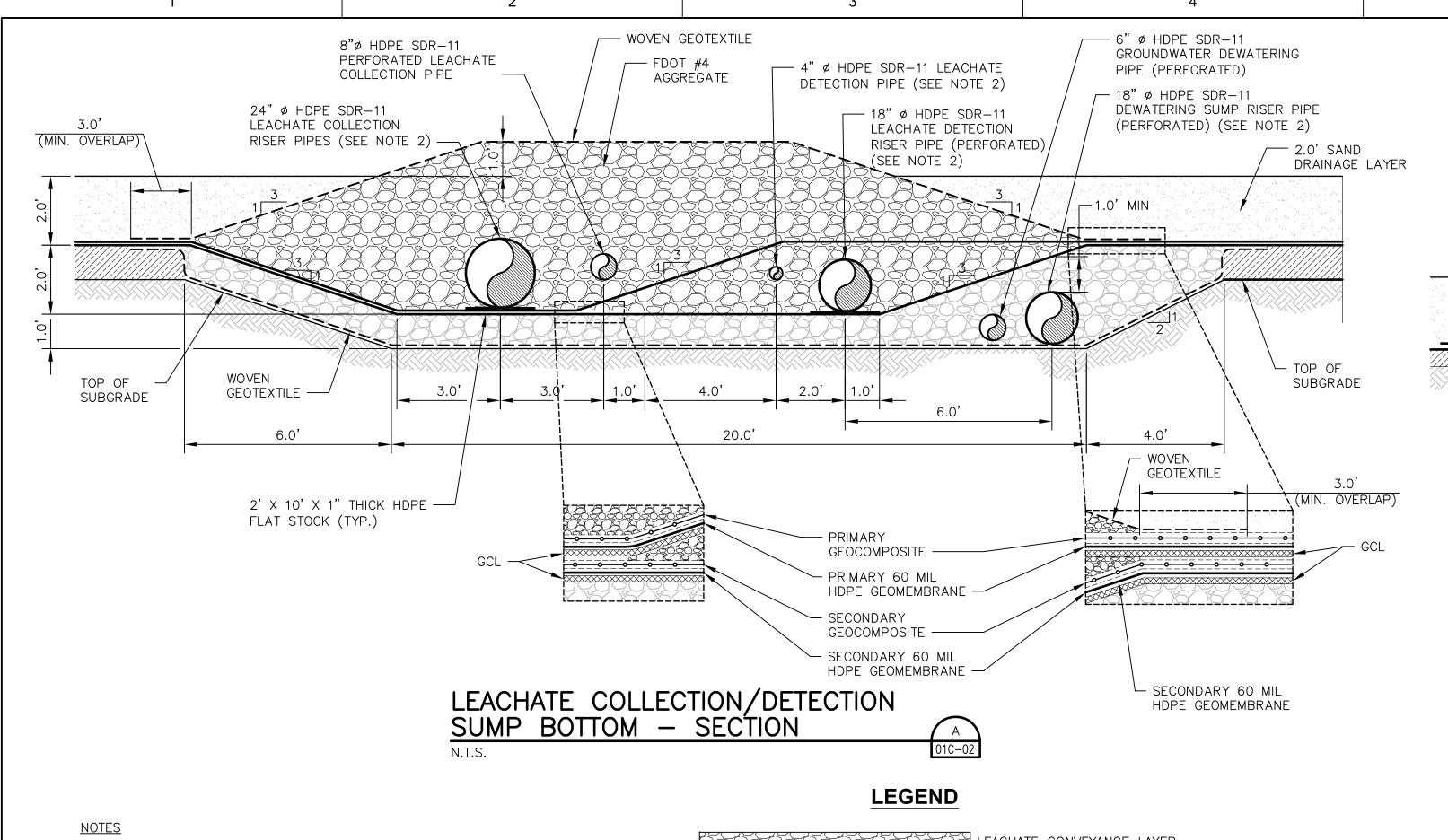




FILENAME 01C-02.dwg

SCALE AS SHOWN

SHEET 01C-02



1. DETAILS ARE SHOWN NOT TO SCALE AS NOTED AND THE GEOSYNTHETIC LAYERS ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.

2. LEACHATE COLLECTION, LEAK DETECTION, AND DEWATERING SUMP RISER PIPES SHALL BE PERFORATED FOR THE PORTIONS OF PIPE ON THE BOTTOM OF THE LANDFILL CELL. THE PORTIONS ON THE CELL SIDESLOPES AND ELBOWS BETWEEN THE FLAT PORTIONS AND SIDESLOPE PORTIONS OF THE PIPE SHALL BE NON-PERFORATED.

3. HDPE GEOMEMBRANE SEAMS ON THE CELL FLOOR SHALL BE LOCATED AT LEAST 10 FT FROM THE TOE OF SIDESLOPES. HDPE GEOMEMBRANE SEAMS ON THE BERM SIDESLOPES SHALL BE PERPENDICULAR TO THE TOE OF SLOPE.

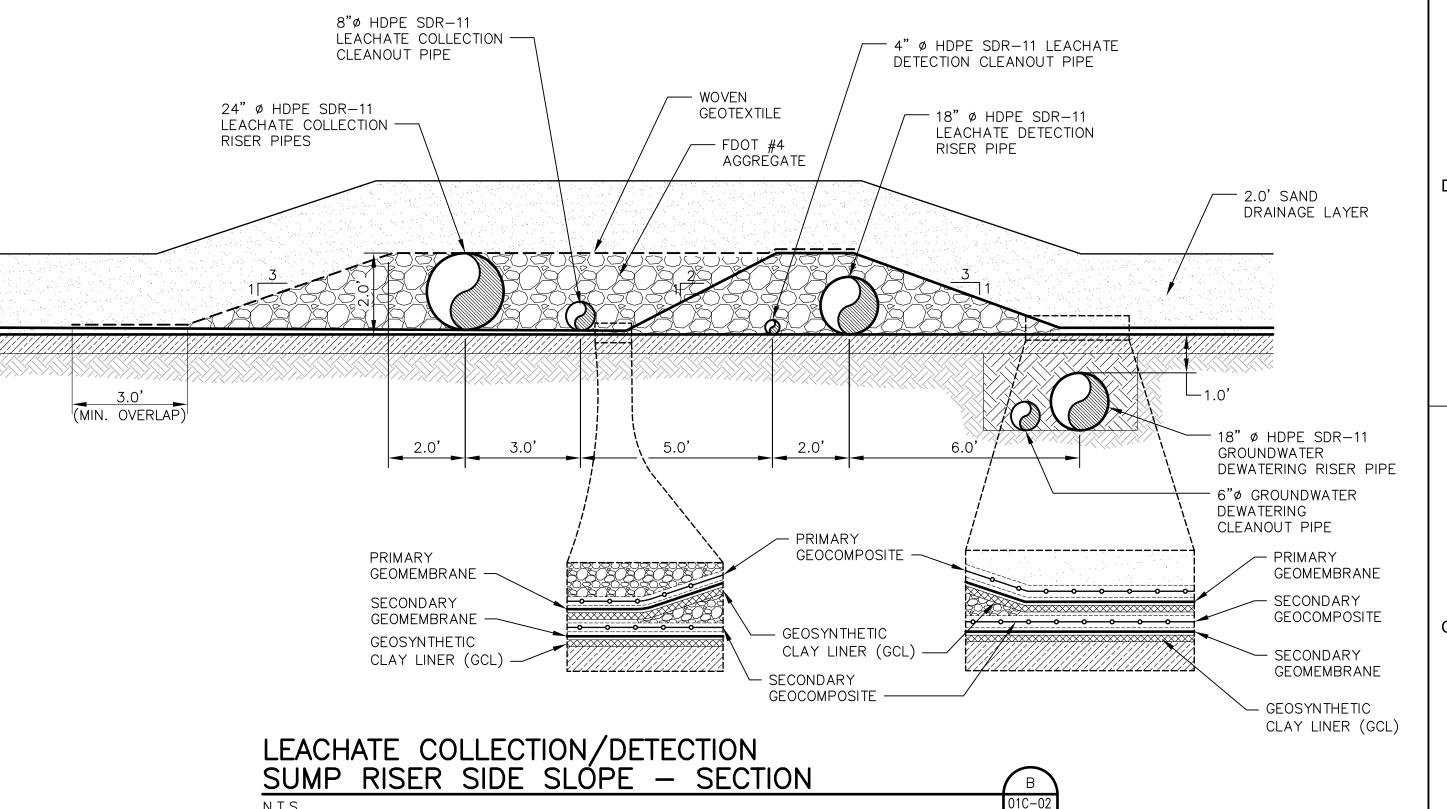
LEACHATE CONVEYANCE LAYER (FDOT #4 AGGREGATE)

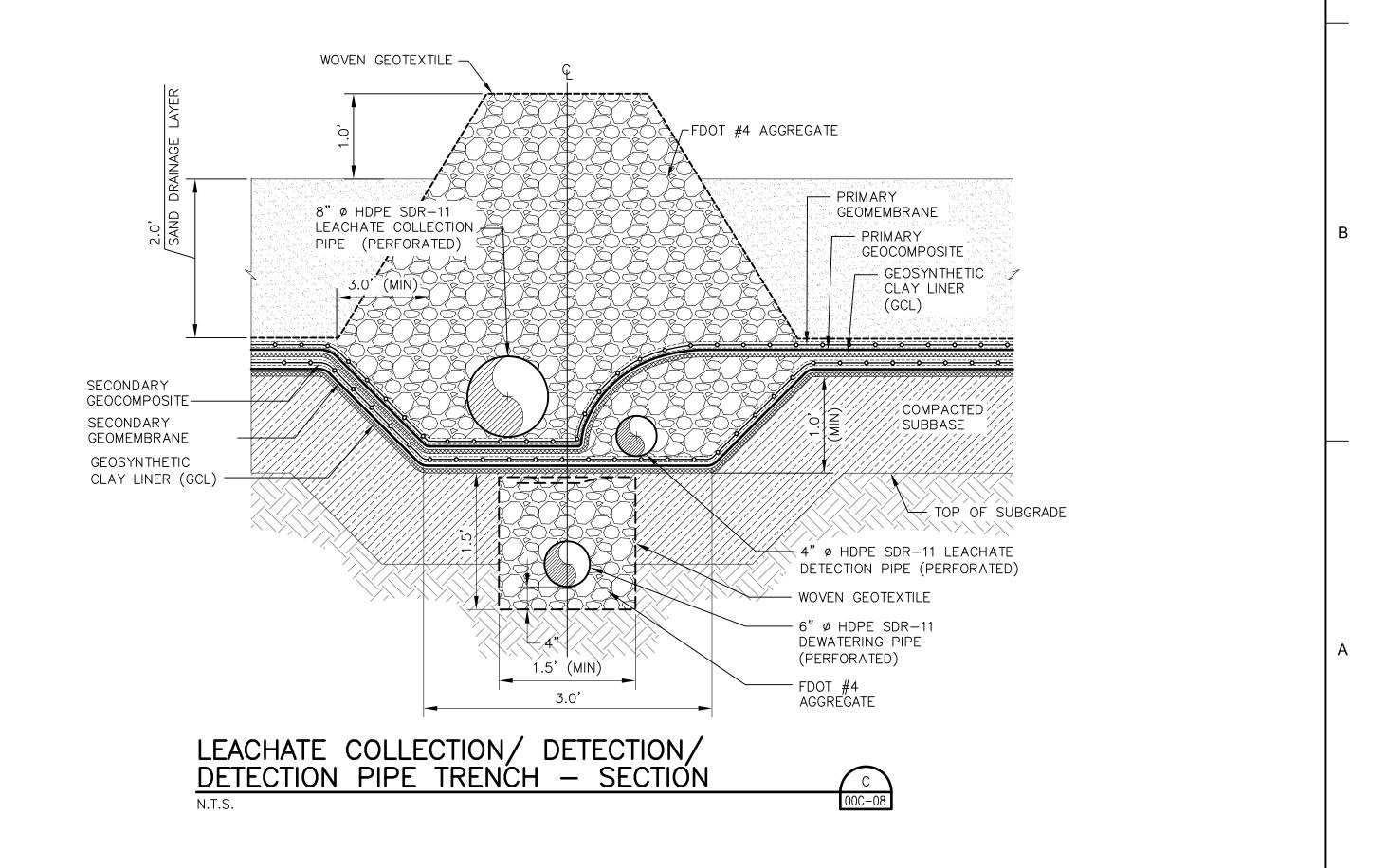
SAND DRAINAGE LAYER (K ≥ 6×10<sup>-3</sup> CM/SEC)

GEOCOMPOSITE

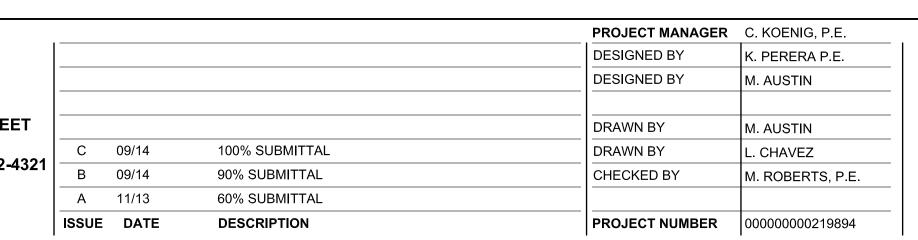
60-MIL HDPE GEOMEMBRANE (TEXTURED BOTH SIDES)

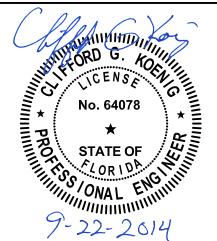
GEOTEXTILE







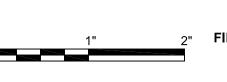












01C-03