

DECEMBER 15, 2022



MUNICIPALITY OF TOA ALTA NOVEMBER 2022 MONTHLY REPORT  
Civ. No. 3:21-01087-DRD

N. AYALA  
TERRATEK ENGINEERING GROUP, PSC  
P.O. Box 367445 San Juan, PR 00936

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## I. DISTRIBUTION LIST

DOJ: [david.l.gordon@usdoj.gov](mailto:david.l.gordon@usdoj.gov)

EPA: [spielmann.lee@epa.gov](mailto:spielmann.lee@epa.gov)  
[plossl.carl@epa.gov](mailto:plossl.carl@epa.gov)

DNER: [nildasanchez@drna.pr.gov](mailto:nildasanchez@drna.pr.gov)  
[mariavrodriguez@drna.pr.gov](mailto:mariavrodriguez@drna.pr.gov)

MTA: [carlos@cwlllegal.com](mailto:carlos@cwlllegal.com)  
[dbattle@cstlawpr.com](mailto:dbattle@cstlawpr.com)  
[jramirez@amrclaw.com](mailto:jramirez@amrclaw.com)  
[cagosto674@gmail.com](mailto:cagosto674@gmail.com)

## II. REPORT ORGANIZATION

As part of the USA-MTA Civ. No. 3:21-01087-DRD Stipulation and Preliminary Injunction Order, MTA shall prepare and submit monthly reports regarding the performance of its obligations under this Order until completion of the requirements of Paragraphs 3 through 10 of this Order. Each report shall cover the period ending on the last day of each month. Each report must be sent to DOJ, EPA, and DNER on or before the 15th day of the month following the reporting period. Each monthly report shall include:

- i. description of compliance with each requirement of this Order;
- ii. the volume, acreage and location of the Intermediate Cover that was applied;
- iii. the volume and disposition of leachate and leachate-contaminated stormwater collected;
- iv. results of any sampling analysis performed; and
- v. Notification of any noncompliance with this Order, including a statement describing the noncompliance and its underlying causes, and proposed measures and an implementation schedule to correct the noncompliance.

The monthly report is divided into four sections.

Section 1 presents a summary of the order requirements and the compliance status for each requirement. *Please note that Task ID's are not related to the order assigned paragraphs.*

Section 2 will include detail information or supporting documentation regarding the compliance status of each requirement in need of comprehensive description or status details.

Section 3 is a projection of next month activities.

Section 4 includes all the attachments included with the report.

III. Section 1: SUMMARY

Municipality of Toa Alta Civ. No. 3:21-01087-DRD		
Reporting Period:	November 1 to November 30, 2022	
Reporting Number:	04	
Reporting Official:	Nivia Ayala, PE/TerraTek	
Reporting Date:	12/15/2022	
Description of Compliance with each requirement of the Order		
ID	Requirement	Compliance Status
1	Daily Cover	Daily cover was completed prior to April 30, 2022.
2	Cessation of Waste Disposal	In-Compliance
3	Posting of Signs	In Compliance
4	Intermediate Cover	Intermediate cover was scheduled to start by October 1, 2022. However, MTA is still waiting for DNER funds to acquire specified cover material and contract an independent contractor to perform the required task. After DNER approves, or approves with modifications or conditions, any MTA revised permanent closure plan, and if the approved plan includes a schedule for completion of Intermediate Cover, that schedule shall control. Please see Additional comment for ID 4 item.
5	Maintenance of Cover	Monthly Maintenance for applied daily cover is performed for compliance assurance. Please see Attachment 1 for Inspection reports.
6	Slope Stability	Short Term Controls were completed by May 1, 2022. Diversion works to prevent stormwater runoff on the top deck for entering the North Slope Area and erosion controls. Maintenance is performed monthly. Safety Barrier fencing was still pending installation during the reporting period, even though it has an active Purchase Order the supplier was not able to deliver the materials during the reporting period. Please see additional comments for ID 6 Item.
7	Leachate Management	A Survey of Leachate Seeps was schedule to be completed by December 1, 2022. However, the weather and the personnel shortage oblige us to delay that date up to December 15, 2022. EPA Project Coordinator was notified by email on November 15, 2022.
8	Stormwater Management	
8a	Short Term Controls	A monthly routine for pest control will be implemented for both North and South Ponds. Catch basins, ditches, swales and channels were inspected weekly, when necessary, cleaned of accumulated debris and eliminate any observed standing/stagnant water. When applicable, catch basins, ditches, swales, and channels were periodically mowed and cleaned. The diesel tank secondary containment is inspected weekly, when necessary, cleaned of accumulated debris and eliminate any observed standing/stagnant water. As a complimentary to source reduction a

		monthly larvicide program will start during next quarter. The larvicide program will be applied at the Sedimentation Ponds and other identified areas with standing water within the Toa Alta Municipal Landfill and its facilities.
8b	Survey of Leachate Seeps	Should be completed by December 15, 2022
8c	Stormwater Management Plan	Should be provided by January 1, 2023
8d	Discharges of Stormwater Not from Pond	N/A
8e	Discharge/Disposal of Pond Liquid	N/A
<b>Additional Requirements</b>		
	The volume, acreage, and location the Intermediate Cover that was applied.	N/A
	The volume and disposition of leachate contaminated stormwater collected.	None
	Results Of Any Sampling Analysis Performed	None
	Notification Of Noncompliance	Safety Barrier fencing was still pending installation during the reporting period, even though it has an active Purchase Order the supplier was not able to deliver the materials during the reporting period.

IV. SECTION 2: DETAIL INFORMATION OR SUPPORTING DOCUMENTATION OF EACH REQUIREMENT IN NEED OF COMPREHENSIVE DESCRIPTION OR STATUS DETAILS

## **A. COMPLETED REQUIREMENTS**

### **Access:**

Access is granted to the United States and the Commonwealth of Puerto Rico, and their employees, representatives and contractors, to conduct the necessary inspections and studies, including and the applicable records review to evaluate existing conditions, following the agreed terms in the Stipulation.

### **Daily Cover:**

Daily Cover at the facility was completed on April 30, 2022. All areas of exposed waste were covered by Daily Cover.



### **Cessation of Waste Disposal:**

The cessation of waste disposal at the facility was completed by March 30, 2022. However, as agreed in the Stipulation, the temporary storage of construction and demolition (C&D) waste, bulk household waste (durable goods such as mattresses, furniture, and appliances), or yard waste (vegetation waste generated by land maintenance) for final disposal at a different landfill is active and been performed on a daily basis.

### **Posting of Signs:**

A sign with a size of four feet by five feet was installed at the landfill entrance. See the attached picture.



## B. ID 4: Intermediate Cover

As has been explained numerous times throughout the process, the Municipality needs the funding to perform several of the required tasks, commencing with the Intermediate Cover Task, as it is one of the more costly initial tasks to be performed. The following is a chronological order of the Municipality performed steps to negotiate and acquire the funds to perform this task:

### Rural Development:

1. On May 18, 2020, the Municipality submitted a Notice of Intent to Rural Development requesting the award of funds under the Disaster Mitigation Assistance Grant for the landfill.
2. On September 4, 2020, the Municipality amended its request to include the landfill closure, post-closure activities and expansion.
3. On July 16, 2021, the Municipality received a Rural Development email confirming that all the required documents for the appropriate Disaster Mitigation Assistance Grant for the landfill was completed.
4. On August 22, 2022, the Municipality held a Public Hearing related to the grant funds requested.
5. USDA Rural Grant Program, MTA submitted a final Environmental Assessment to: Quiles, Danna - RD, San Juan, PR <danna.quiles@usda.gov>; Cabrera, Jose - RD, San Juan, PR <Jose.Cabrera@usda.gov>; Davila, Sandimary - RD, San Juan, PR <Sandimary.Davila@usda.gov>; Gonzalez, Melvin - RD, SAN JUAN, PR <Melvin.Gonzalez@usda.gov>. The document was submitted on September 30, 2022.

6. As of today, the Rural Development process is still on-going, but has not yet completed.

#### Department of Natural and Environmental Resources (DNER)

1. The DNER, during the EPA Public Hearing held on February 23, 2022, stated publicly and during the hearing that they would make available to the Municipality the required funds for the appropriate landfill closure.
2. As a result of DNER public comments, a meeting on March 24, 2022, between the Municipality, DNER and La Fortaleza was held to discuss the details related to the funds availability.
3. On March 31, 2022, the Municipality provided the required information by the DNER, including the schedule and cost estimate for said agency to prepare a Memorandum of Understanding (MOU) that would provide the necessary funds to the Municipality for the landfill's closure activities.
4. After continuous inquiries by the Municipality, the DNER on June 10, 2022, finally provided a draft MOU for the funds access. The Municipality issued its comments to the MOU on July 12, 2022.
5. A meeting was held on November 2, 2022, with Puerto Rico Office of Management and Budget, the DNER and MTA to discuss the extent of the DOJ requirements and DNER Closure Plan request. The purpose of the meeting also includes the addition of a transfer station located at the Landfill existing site.
6. A conference call was held on November 29, 2022 where PROMB required an additional cost spreadsheet including the cost of a transfer station design and construction.
7. As of today, and after significant follow-up efforts with the DNER, they have not responded with the definitive version of the MOU and the availability of funds.

Currently, the Municipality is analyzing the different alternatives at their disposal in order to advance the execution of the required Intermediate Cover tasks.

A Closure Conceptual Design is ready to be submitted to DNER.

#### C. ID 6: Safety Barrier Fencing

Presently, MTA is going over the contracting and finance process to contract the installation of the safety barrier. Materials are already on site. The shortage on the chain supply of these kind



of construction materials have a delay of three (3) months. As MTA is required to follow purchasing and finances municipal processes,

#### D. ID7: Leachate Management Plan

A technical discussion with Mr. Carl Plossl from EPA and Dr. Tim Townsend regarding the possibility of reaching at least a 90% reduction in releases of leachate from the unlined portion of the Landfill was held on October 13, 2022. The discussion included the data and assumptions for the US HELP Model, the required process flow for an effective closure plan execution and the execution of an on-site pilot leachate generation rate assessment will be completed by December 9, 2022. However, the weather conditions and extensive rainfall events made it impossible to complete the pilot test. This specific test needs to be performed after January 18, 2022, as the MTA Project Coordinator will not be available after that date.

#### E. ID8a: Hurricane Fiona Debris Management

As part of the Public Assistance Debris Management Guide (FEMA-325) The Federal government may provide grants through the Public Assistance Program to reimburse the response and recovery efforts of an applicant (State and local governments, and certain private non-profit organizations) for residentially declared disasters. To receive supplemental disaster assistance under the Public Assistance Program, applicants must meet FEMA eligibility criteria.

Eligible debris work must be in the public interest, which is defined as work necessary to meet the following:

- Eliminate immediate threats to life, public health and safety;
- Eliminate immediate threats of significant damage to improved public or private property;
- Ensure economic recovery of the affected community to the benefit of the community-at-large; or
- Mitigate the risk to life and property by removing substantially damaged structures and associated appurtenances as needed to convert property acquired through a FEMA hazard mitigation program to uses compatible with open space, recreation, or wetlands management practices.

Debris monitoring procedures should be established and included in the debris management plan for the applicant's financial interest, especially if the applicant has contracted for any component of the debris removal operation. Monitoring debris removal operations achieves two objectives:

- Verifying that the work completed by the contractor is within the contract scope of work
- Providing the required documentation for Public Assistance grant reimbursement

Failure to document eligible work and costs may jeopardize Public Assistance grants. In Federally declared disasters, FEMA periodically validates the applicant’s monitoring efforts to ensure that eligible debris is being removed and processed efficiently.

Fiona’s debris started to be hauled and disposed to the La Vega Landfill at Vega Baja on November 28, 2022. The disposal is expected to be completed by December 23, 2022.

**From: November 01, 2022 to November 30, 2022**

<b>Municipality of Toa Alta</b>	
<b>Department of Transportation and Municipal Publics Works</b>	
<b>Debris Log Toa Alta Municipal Landfill</b>	
<b>DATE</b>	<b>CUBIC YARDS</b>
1-Nov-2022	298
2-Nov-2022	314
3-Nov-2022	347
4-Nov-2022	195
7-Nov-2022	207
8-Nov-2022	191
9-Nov-2022	196
10-Nov-2022	277
14-Nov-2022	332
15-Nov-2022	131
16-Nov-2022	204
17-Nov-2022	307
18-Nov-2022	320
21-Nov-2022	253
22-Nov-2022	215
23-Nov-2022	162
28-Nov-2022	294
29-Nov-2022	253
30-Nov-2022	236
<b>TOTAL</b>	<b>4,732</b>

**Photos:**













## V. SECTION 3: PROJECTION OF NEXT MONTH ACTIVITIES

December 2, 2022

Weekly Inspection

December 9, 2022

Weekly Inspection

December 14, 2022

Weekly Inspection

December 14, 2022

Survey of Leachate Seeps

December 19, 2022

Submit Closure Conceptual Design to DNER

December 22, 2022

Weekly Inspection

December 29, 2022

Weekly Inspection

These dates are subject to change.



## VI. Section 4: Attachments

Attachment 1: Weekly Inspections

Attachment 2: Closure Conceptual Design

ATTACHMENT 1  
INSPECTIONS

# Christian Villalta Calderón

cristhianvillalta@gmail.com

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Submission Date Nov 4, 2022 3:30 PM

Nombre de la persona que hace la inspeccion Christian Villalta Calderón

Email [cristhianvillalta@gmail.com](mailto:cristhianvillalta@gmail.com)

Fecha Nov 4, 2022

Hora 03:09 PM

Condicion del Clima **Soleado**

Esta la entrada limpia y libre de basura? Si

Foto Entrada



Hay Personal en la caseta de seguridad? **SI**

Cuantos camiones han llegado en el dia? **10**

Fecha de la ultima verificacion del sistema de manejo de lixiviados Celda Sur? **Nov 4, 2022**

Horas de operacion de la planta electrica **8**

Datos de eventos de lluvia **No hay datos disponibles de lluvia.**

Estan las areas verdes limpias y se ha realizado mantenimiento? **SI**

Incluir Foto



Estan los diques limpios y sus valvulas cerradas con candado? **SI**

Condicion de Cubierta Talud Norte **Excelentes condiciones**

Incluir foto



Condicion Operacion Recibo  
de Escombros

Mucho material acumulado

Tomar foto



Equipos Operando

Retroexcavadora!!

Condicion de medidas de control de erosion y sedimentacion

Buena

Tomar foto solo si faltan medidas o necesitan mantenimiento



Se pueden notar brotes de lixiviado?

SI

Añadir fotos deal area de brotes visibles



Condicion de los caminos  
internos

**Excelentes condiciones**

Condicion de areas de desvio  
de materiales

**Está llenA esta area de White Goods!**

Tomar Foto de haber  
condiciones que necesiten  
mejoras





Signature

A handwritten signature in blue ink, appearing to read "Matta".

# Christian Villalta Calderón

cristhianvillalta@gmail.com

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Submission Date Nov 11, 2022 3:58 PM

Nombre de la persona que hace la inspeccion Christian Villalta Calderón

Email [cristhianvillalta@gmail.com](mailto:cristhianvillalta@gmail.com)

Fecha Nov 11, 2022

Hora 03:40 PM

Condicion del Clima **Soleado**

Esta la entrada limpia y libre de basura? Si

Foto Entrada



Hay Personal en la caseta de seguridad? **SI**

Cuantos camiones han llegado en el dia? **0**

Fecha de la ultima verificacion del sistema de manejo de lixiviados Celda Sur? **Nov 11, 2022**

Horas de operacion de la planta electrica **8**

Datos de eventos de lluvia **No hay datos disponibles de lluvia. No se cuenta con pluviometro.**

Estan las areas verdes limpias y se ha realizado mantenimiento? **SI**

Incluir Foto



Estan los diques limpios y sus valvulas cerradas con candado? **SI**

Condicion de Cubierta Talud Norte **Excelentes condiciones**

Incluir foto



Condicion Operacion Recibo  
de Escombros

Mucho material acumulado

Tomar foto



Equipos Operando

Ninguno. Hoy 11 de Noviembre es día festivo. Día del veterano.

Condicion de medidas de control de erosion y sedimentacion

Buena

Se pueden notar brotes de lixiviado?

SI

Añadir fotos deal area de brotes visibles



Condicion de los caminos  
internos

**Excelentes condiciones**

Condicion de areas de desvio  
de materiales

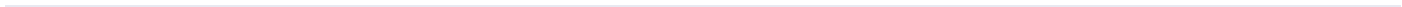
**Está llenA esta area de White Goods!**

Tomar Foto de haber  
condiciones que necesiten  
mejoras



Signature

A handwritten signature in blue ink, appearing to read "G. Kifalla". The signature is written in a cursive style with a prominent horizontal line across the middle.



# Christian Villalta Calderón

cristhianvillalta@gmail.com

---

Submission Date Nov 16, 2022 1:09 PM

Nombre de la persona que hace la inspeccion Christian Villalta Calderón

Email [cristhianvillalta@gmail.com](mailto:cristhianvillalta@gmail.com)

Fecha Nov 16, 2022

Hora 01:00 PM

Condicion del Clima **Soleado**

Esta la entrada limpia y libre de basura? Si

Foto Entrada





Hay Personal en la caseta de seguridad?

SI

Cuantos camiones han llegado en el dia?

10 al momento recogiendo los escombros.

Fecha de la ultima verificacion del sistema de manejo de lixiviados Celda Sur?

Nov 16, 2022

Horas de operacion de la planta electrica

8

Datos de eventos de lluvia

No hay datos disponibles de lluvia. No se tiene pluviometro para registros.

Estan las areas verdes limpias y se ha realizado mantenimiento?

SI

Incluir Foto



Estan los diques limpios y sus valvulas cerradas con candado?

SI

Condicion de Cubierta Talud Norte

Excelentes condiciones

Incluir foto



Condicion Operacion Recibo  
de Escombros

Mucho material acumulado

Tomar foto



Equipos Operando

Al momento solo una excavadora. Encargada de subir los escombros a las vagonetas.

Condicion de medidas de control de erosion y sedimentacion

Buena

Se pueden notar brotes de lixiviado?

NO

Condicion de los caminos internos

Excelentes condiciones

Condicion de areas de desvio de materiales

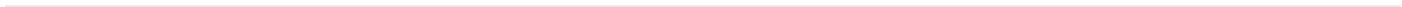
Esta area esta llena de White Goods!

Tomar Foto de haber condiciones que necesiten mejoras



Signature

A handwritten signature in blue ink, appearing to read "P. K. H. K.", written in a cursive style.



# Christian Villalta Calderón

cristhianvillalta@gmail.com

---

Submission Date Dec 2, 2022 3:30 PM

Nombre de la persona que hace la inspeccion Christian Villalta Calderón

Email [cristhianvillalta@gmail.com](mailto:cristhianvillalta@gmail.com)

Fecha Dec 2, 2022

Hora 03:09 PM

Condicion del Clima **Soleado**

Esta la entrada limpia y libre de basura? Si

Foto Entrada



Hay Personal en la caseta de seguridad? **SI**

Cuantos camiones han llegado en el dia? **4**

Fecha de la ultima verificacion del sistema de manejo de lixiviados Celda Sur? **Dec 2, 2022**

Horas de operacion de la planta electrica **8**

Datos de eventos de lluvia **No hay datos disponibles de lluvia. No se cuenta con un pluviometro.**

Estan las areas verdes limpias y se ha realizado mantenimiento? **SI**

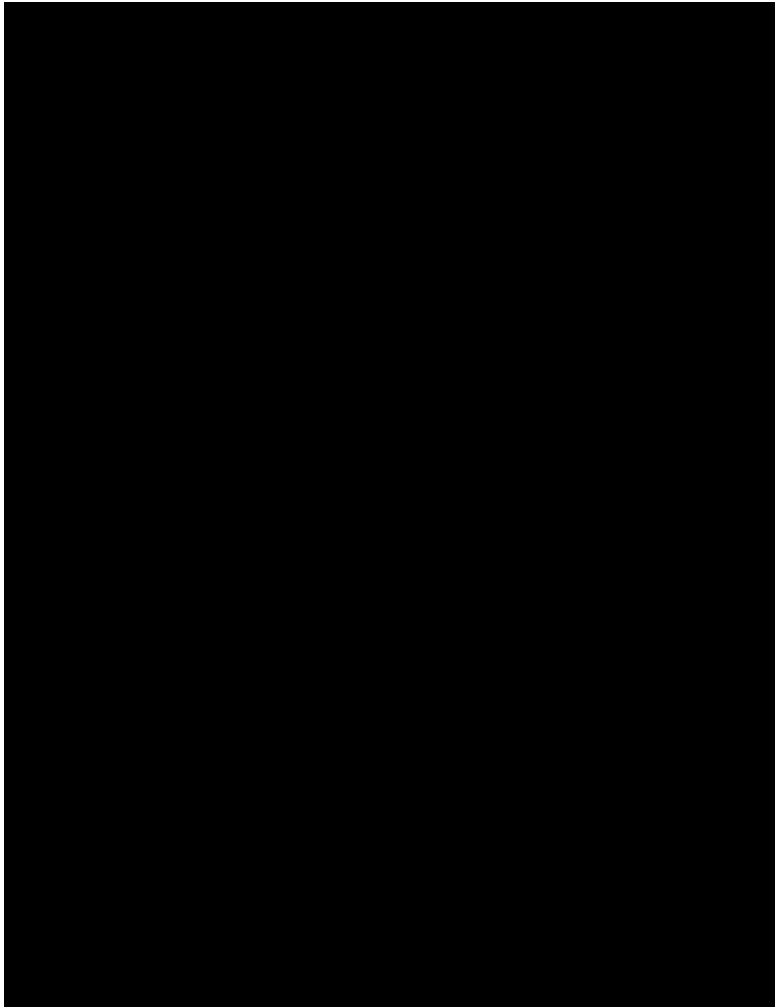
Incluir Foto



Estan los diques limpios y sus valvulas cerradas con candado? **SI**

Condicion de Cubierta Talud Norte **Excelentes condiciones**

Incluir foto



Condicion Operacion Recibo  
de Escombros

Mucho material acumulado

Tomar foto



Equipos Operando

Una retroexcavadora y un digger.

Condicion de medidas de control de erosion y sedimentacion

Buena

Se pueden notar brotes de lixiviado?

SI

Añadir fotos deal area de brotes visibles





Condicion de los caminos  
internos

**Excelentes condiciones**

Condicion de areas de desvio  
de materiales

**Esta area estaba llena de White Goods! y se limpió.**

Tomar Foto de haber  
condiciones que necesiten  
mejoras



Signature

*St. Hatto*

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ATTACHMENT 2  
Closure Conceptual Design

# TOA ALTA ECOPARK LANDFILL

TOA ALTA, PUERTO RICO

## CONCEPTUAL CLOSURE DESIGN

PROJECT NO.: 22XXX

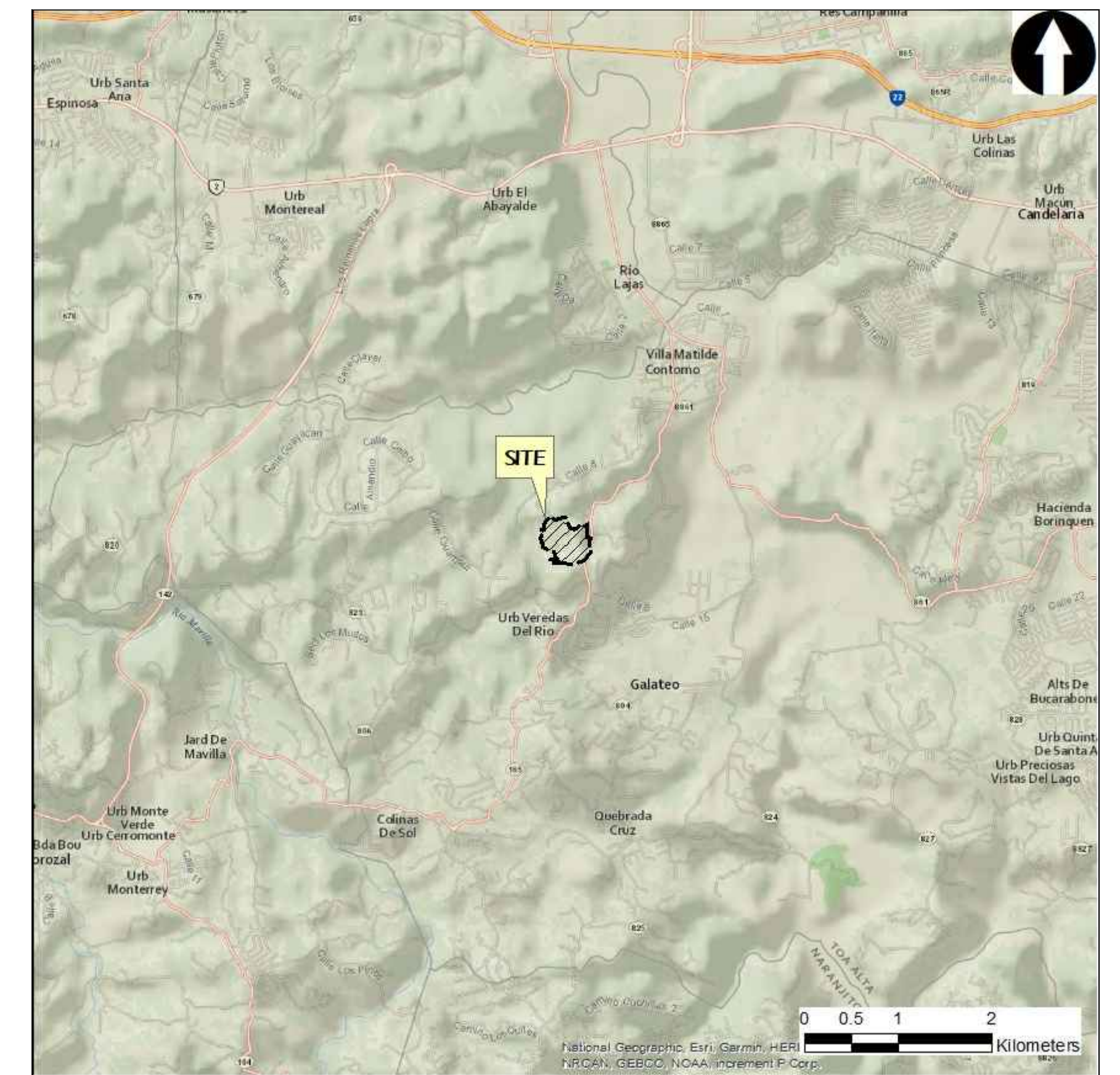
NOVEMBER 2022



LOCATION MAP

### DRAWING LIST

1. COVER SHEET
2. EXISTING SITE CONDITIONS
3. TOP OF FINAL COVER GRADING PLAN
4. PROFILE 1
5. PROFILE 2
6. DETAILS



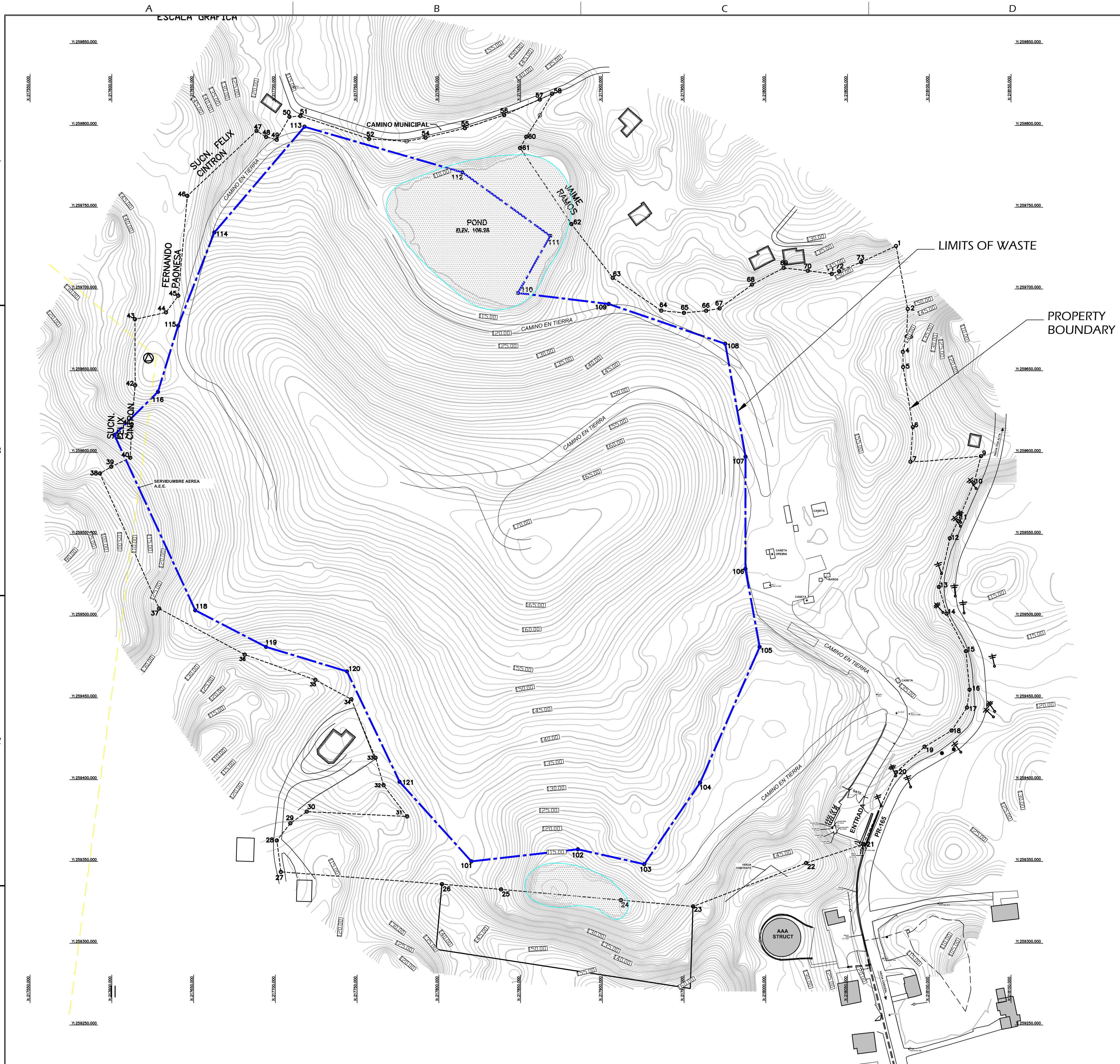
VICINITY MAP

RESPONSIBLE OFFICIAL:  
 LUIS A. HERNANDEZ BORRES, PRESIDENT  
 PUERTO RICO ECO PARK INC  
 P.O. BOX 582  
 VEGA BAJA, PR 00693-0582  
 787-345-6300 | 787-855-5769

OFFICIAL NAME AND PROPERTY LOCATION:  
 TOA ALTA ECOPARK LANDFILL  
 9PCP+CCJ, TOA ALTA, 00953, PUERTO RICO

C:\Project\Toa Alta\Closure Design\P22122F001.dwg, 8/19/2014 2:44 PM, SAMUEL SIN

					PREPARED FOR: <b>TOA ALTA ECOPARK</b> TOA ALTA, 00953, PUERTO RICO		PREPARED BY:  45 ROSWELL STREET ROSWELL, GEORGIA 30075 PHONE: (678) 739-2400 • FAX: (770) 552-5550		SITE: TOA ALTA LANDFILL TOA ALTA, PUERTO RICO		TITLE: COVER	
									DESIGN BY: S.SIN DATE BY: NOVEMBER 2022			
									PROJECT: CONCEPTUAL CLOSURE DESIGN		DRAWN BY: S.SIN PROJECT NO.:	
									CHECKED BY: M.MONTELEONE FILE: P22122F001		REVIEWED BY: M.MONTELEONE SHEET NO.:	
									APPROVED BY: M.MONTELEONE		REV.: 0	
									SHEET NO.: <b>1</b> OF <b>6</b>			



**LEGEND**

- PROPERTY BOUNDARY
- 142 --- EXISTING GROUND ELEVATION (METERS)
- LIMITS OF WASTE
- ▨ STRUCTURE
- ⊕ TELEPHONE POST
- ⊙ SANITARY
- ⊕ ELECTRIC POLE
- ⊙ ELECTRIC TOWER

**LIMIT OF WASTE**

LINE	COURSE	DISTANCE	POINT	COORDINATES		DESCRIPTION
				NORTHING	EASTING	
101-102	N 83°32'14" E	65.602	101	259350.0421	217819.9128	WOOD STAKE
102-103	S 77°21'55" E	41.589	102	259357.4263	217885.0984	WOOD STAKE
103-104	N 34°24'35" E	60.417	103	259348.3294	217925.6800	WOOD STAKE
104-105	N 23°40'59" E	90.597	104	259398.1748	217959.8222	WOOD STAKE
105-106	N 10°21'13" W	48.496	105	259481.1416	217996.2130	WOOD STAKE
106-107	N 0°4'12" E	68.584	106	259528.8484	217987.4971	WOOD STAKE
107-108	N 10°10'25" W	70.161	107	259597.4322	217987.5808	WOOD STAKE
108-109	N 71°8'54" W	75.283	108	259666.4901	217975.1882	WOOD STAKE
109-110	N 83°5'6" W	55.943	109	259690.8154	217903.9434	WOOD STAKE
110-111	N 29°26'15" E	40.113	110	259697.5507	217848.4075	WOOD STAKE
111-112	N 54°8'4" W	66.318	111	259732.4847	217868.1220	WOOD STAKE
112-113	N 73°54'14" W	100.474	112	259771.3395	217814.3781	WOOD STAKE
113-114	S 40°28'21" W	84.979	113	259799.1960	217717.8424	WOOD STAKE
114-115	S 21°12'22" W	61.199	114	259734.5513	217662.6842	WOOD STAKE
115-116	S 16°58'46" W	42.237	115	259677.4962	217640.5471	WOOD STAKE
116-117	S 45°21'54" W	37.460	116	259637.1007	217628.2127	WOOD STAKE
117-118	S 24°46'30" E	118.111	117	259610.7817	217601.5560	WOOD STAKE
118-119	S 62°41'6" E	48.717	118	259503.5417	217651.0507	WOOD STAKE
119-120	S 73°7'52" E	51.721	119	259481.1866	217694.3355	WOOD STAKE
120-121	S 25°29'43" E	74.752	120	259466.1781	217743.8307	WOOD STAKE
121-101	S 42°3'29" E	65.543	121	259398.7056	217776.0067	WOOD STAKE

- NOTES**
- EXISTING TOPOGRAPHY PROVIDED BY THE CLIENT DATED SEPTEMBER 2022.
  - THE CONTOURS ARE SPACED AT ONE (1) METER OF LEVEL.
  - ALL ELEVATIONS AND DISTANCES ARE IN METERS, EXCEPT THOSE THAT INDICATE THE OPPOSITE.
  - THE PLACE, REQUIREMENTS, AMARE DATA (NAD83) AND ELEVATION (MSL) OF THE STUDY WERE GIVEN BY THE CLIENT.
  - THE LIMIT OF WASTE SHOWN ON THIS PLAN WAS GIVEN AND LOCATED FOR THE EFFECTS OF THE PLAN BY THE SUBSCRIBER.

C:\Project\Toa Alta\Toa Alta Closure Design\P22122F001.dwg, B/19/2014 2:44 PM, SAMUEL SPN

REV.	DATE	DESCRIPTION	DRN	APP
0	11/XX/22	DRAFT	SS	MM

PREPARED FOR:  
**TOA ALTA ECOPARK**  
 TOA ALTA, 00953, PUERTO RICO

PREPARED BY:



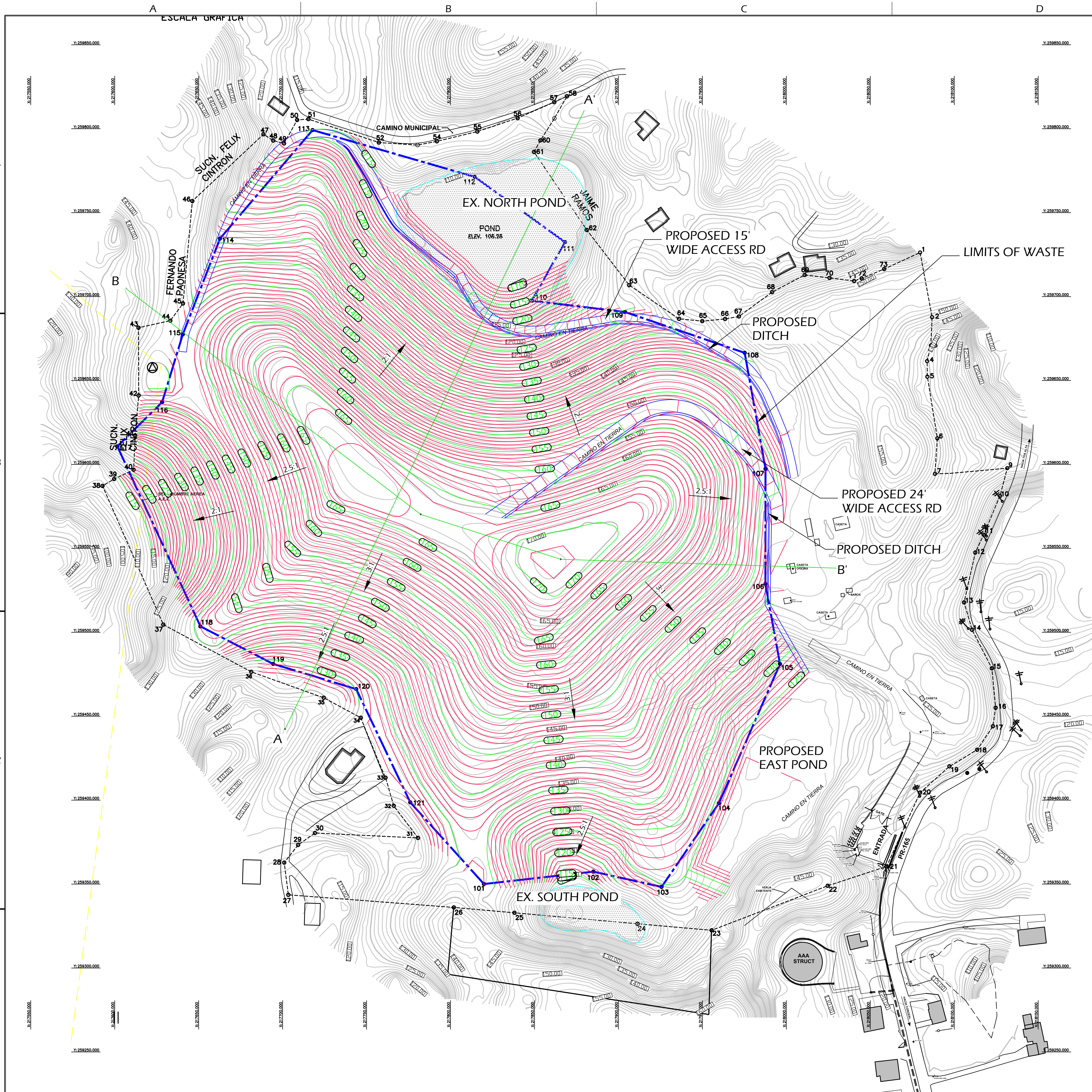
45 ROSWELL STREET  
 ROSWELL, GEORGIA 30075  
 PHONE: (678) 739-2400 • FAX: (770) 552-5550

SITE: TOA ALTA LANDFILL  
 TOA ALTA, PUERTO RICO

PROJECT: CONCEPTUAL CLOSURE DESIGN

TITLE: EXISTING SITE CONDITIONS

DESIGN BY:	S.SIN	DATE BY:	NOVEMBER 2022
DRAWN BY:	S.SIN	PROJECT NO.:	-
CHECKED BY:	M.MONTELEONE	FILE:	P22122F001
REVIEWED BY:	M.MONTELEONE	SHEET NO.:	2 OF 6
APPROVED BY:	M.MONTELEONE	REV.:	0



**LEGEND**

- PROPERTY BOUNDARY
- EXISTING GROUND ELEVATION (METERS)
- LIMITS OF WASTE
- ▨ STRUCTURE
- ⊕ TELEPHONE POST
- ⊙ SANITARY
- ⊕ ELECTRIC POLE
- ⊙ ELECTRIC TOWER
- PROPOSED FINAL GRADE ELEVATION (METERS)

**LIMIT OF WASTE**

LINE	COURSE	DISTANCE	POINT	COORDINATES		DESCRIPTION
				NORTHING	EASTING	
101-102	N 83°32'14" E	65.602	101	259350.0421	217819.9128	WOOD STAKE
102-103	S 77°21'55" E	41.589	102	259357.4263	217885.0984	WOOD STAKE
103-104	N 34°24'35" E	60.417	103	259348.3294	217925.6800	WOOD STAKE
104-105	N 23°40'59" E	90.597	104	259398.1748	217959.8222	WOOD STAKE
105-106	N 10°21'13" W	48.496	105	259481.1416	217996.2130	WOOD STAKE
106-107	N 0°4'12" E	68.584	106	259528.8484	217987.4971	WOOD STAKE
107-108	N 10°10'25" W	70.161	107	259597.4322	217987.5808	WOOD STAKE
108-109	N 71°8'54" W	75.283	108	259666.4901	217975.1882	WOOD STAKE
109-110	N 83°5'6" W	55.943	109	259690.8154	217903.9434	WOOD STAKE
110-111	N 29°26'15" E	40.113	110	259697.5507	217848.4075	WOOD STAKE
111-112	N 54°8'4" W	66.318	111	259732.4847	217868.1220	WOOD STAKE
112-113	N 73°54'14" W	100.474	112	259771.3395	217814.3781	WOOD STAKE
113-114	S 40°28'21" W	84.979	113	259799.1960	217717.8424	WOOD STAKE
114-115	S 21°12'22" W	61.199	114	259734.5513	217662.6842	WOOD STAKE
115-116	S 16°58'46" W	42.237	115	259677.4962	217640.5471	WOOD STAKE
116-117	S 45°21'54" W	37.460	116	259637.1007	217628.2127	WOOD STAKE
117-118	S 24°46'30" E	118.111	117	259610.7817	217601.5560	WOOD STAKE
118-119	S 62°41'6" E	48.717	118	259503.5417	217651.0507	WOOD STAKE
119-120	S 73°7'52" E	51.721	119	259481.1866	217694.3355	WOOD STAKE
120-121	S 25°29'43" E	74.752	120	259466.1781	217743.8307	WOOD STAKE
121-101	S 42°3'29" E	65.543	121	259398.7056	217776.0067	WOOD STAKE

- NOTES**
- EXISTING TOPOGRAPHY PROVIDED BY THE CLIENT DATED SEPTEMBER 2022.
  - THE CONTOURS ARE SPACED AT ONE (1) METER OF LEVEL.
  - ALL ELEVATIONS AND DISTANCES ARE IN METERS, EXCEPT THOSE THAT INDICATE THE OPPOSITE.
  - THE PLACE, REQUIREMENTS, AMARE DATA (NAD83) AND ELEVATION (MSL) OF THE STUDY WERE GIVEN BY THE CLIENT.
  - THE LIMIT OF WASTE SHOWN ON THIS PLAN WAS GIVEN AND LOCATED FOR THE EFFECTS OF THE PLAN BY THE SUBSCRIBER.

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REV.	DATE	DESCRIPTION	DRN	APP
0	11/XX/22	DRAFT	SS	MM

PREPARED FOR:  
**TOA ALTA ECOPARK**  
 TOA ALTA, 00953, PUERTO RICO

PREPARED BY:



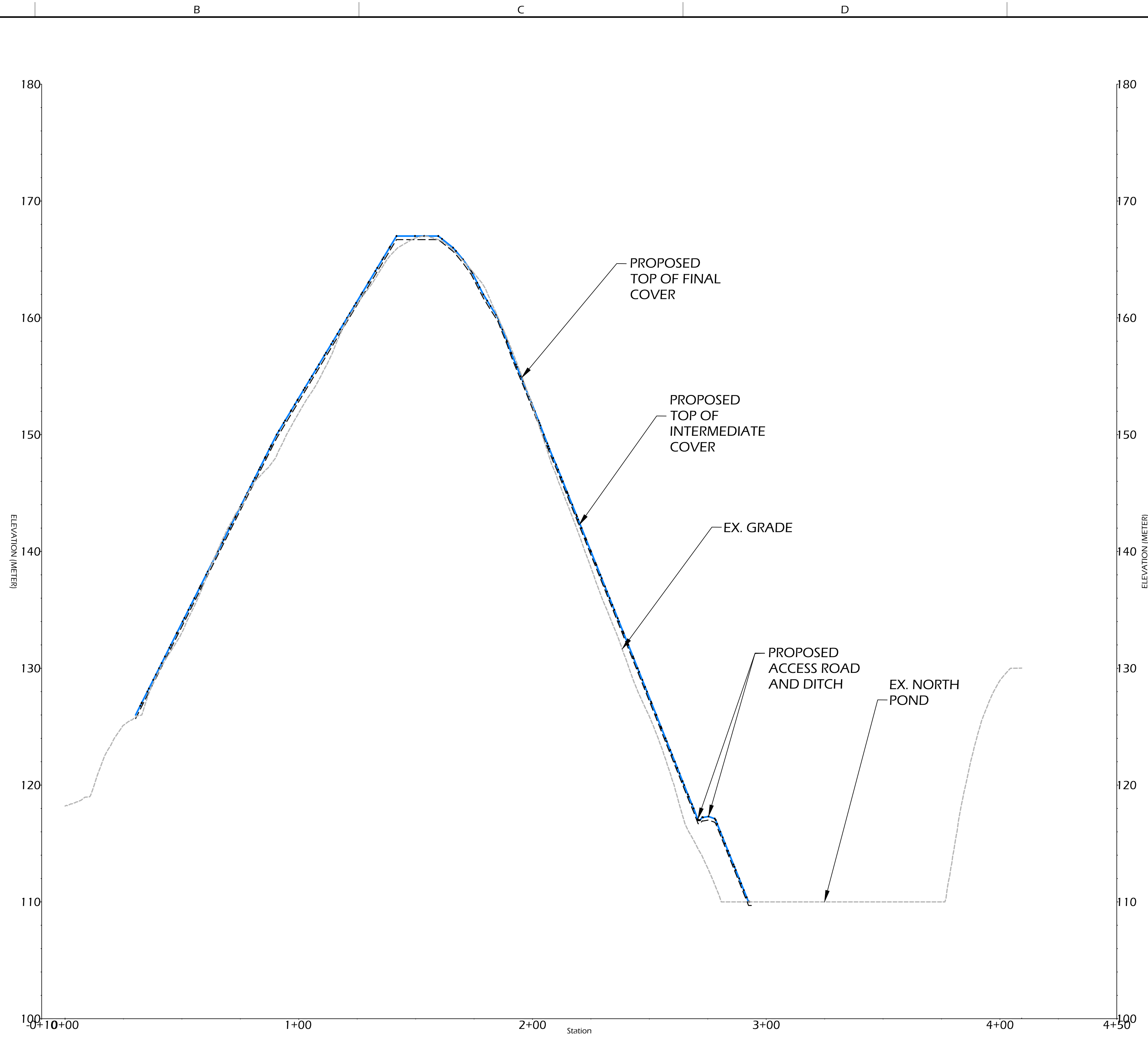
45 ROSWELL STREET  
 ROSWELL, GEORGIA 30075  
 PHONE: (678) 739-2400 • FAX: (770) 552-5550

SITE:  
 TOA ALTA LANDFILL  
 TOA ALTA, PUERTO RICO

PROJECT:  
 CONCEPTUAL CLOSURE DESIGN

TITLE:  
 TOP OF FINAL COVER GRADING PLAN

DESIGN BY:	S.SIN	DATE BY:	NOVEMBER 2022
DRAWN BY:	S.SIN	PROJECT NO.:	-
CHECKED BY:	M.MONTELEONE	FILE:	P22122F01
REVIEWED BY:	M.MONTELEONE	SHEET NO.:	3 OF 6
APPROVED BY:	M.MONTELEONE	REV.:	0



1  
3 PROFILE A-A'  
SOUTH TO NORTH

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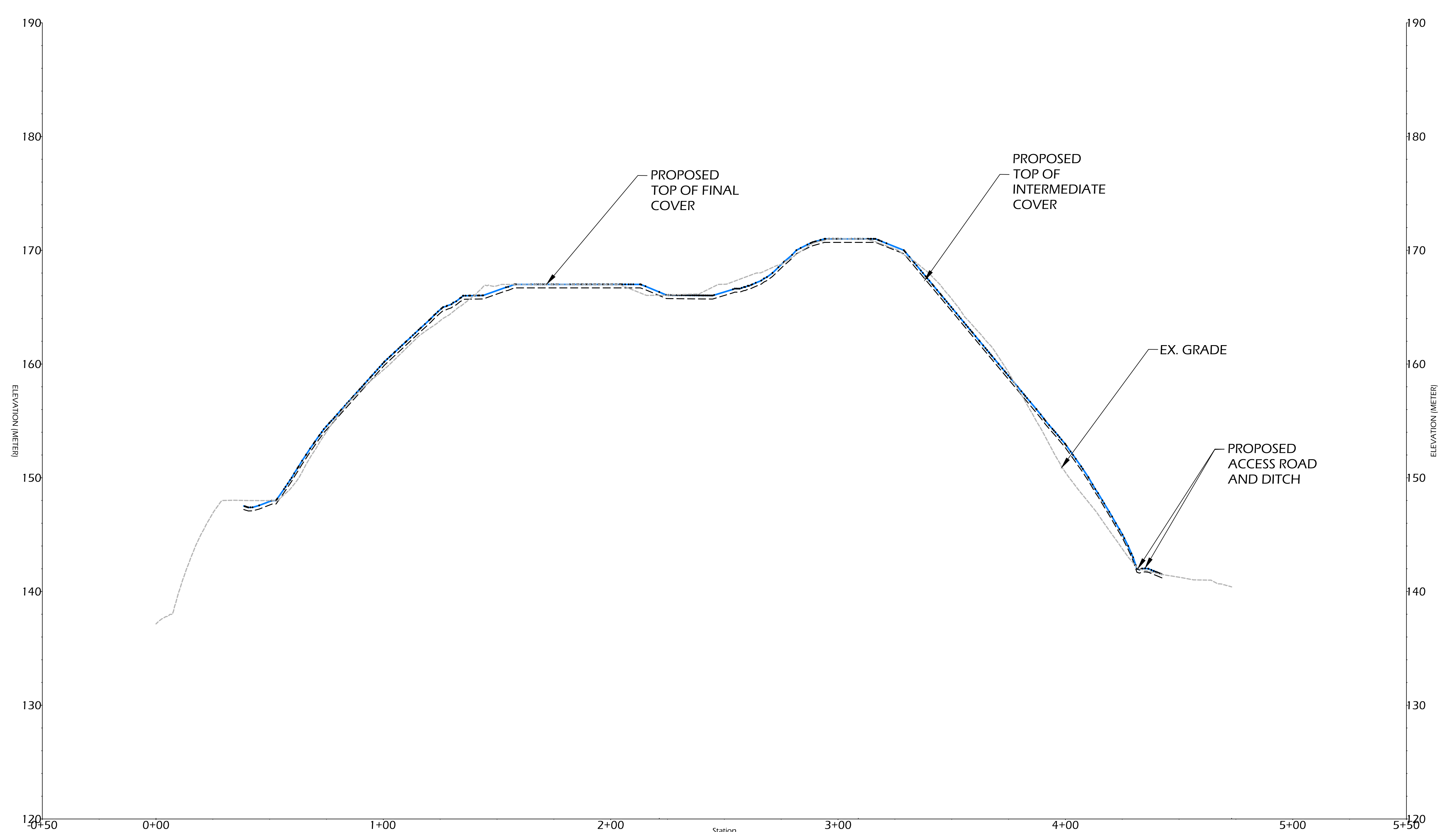
REV.	DATE	DESCRIPTION	DRN	APP
0	11/XX/22	DRAFT	SS	MM

PREPARED FOR:  
**TOA ALTA ECOPARK**  
TOA ALTA, 00953, PUERTO RICO

PREPARED BY:  
**OASIS**  
CONSULTING SERVICES  
45 ROSWELL STREET  
ROSWELL, GEORGIA 30075  
PHONE: (678) 739-2400 • FAX: (770) 552-5550

SITE:  
TOA ALTA LANDFILL  
TOA ALTA, PUERTO RICO  
PROJECT:  
CONCEPTUAL CLOSURE DESIGN

TITLE: PROFILE 1			
DESIGN BY:	S.SIN	DATE BY:	NOVEMBER 2022
DRAWN BY:	S.SIN	PROJECT NO.:	-
CHECKED BY:	M.MONTELEONE	FILE:	P22122F001
REVIEWED BY:	M.MONTELEONE	SHEET NO.:	4 OF 6
APPROVED BY:	M.MONTELEONE	REV.:	0



2 PROFILE B-B'  
3 WEST TO EAST

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REV.	DATE	DESCRIPTION	DRN	APP
0	11/XX/22	DRAFT	SS	MM

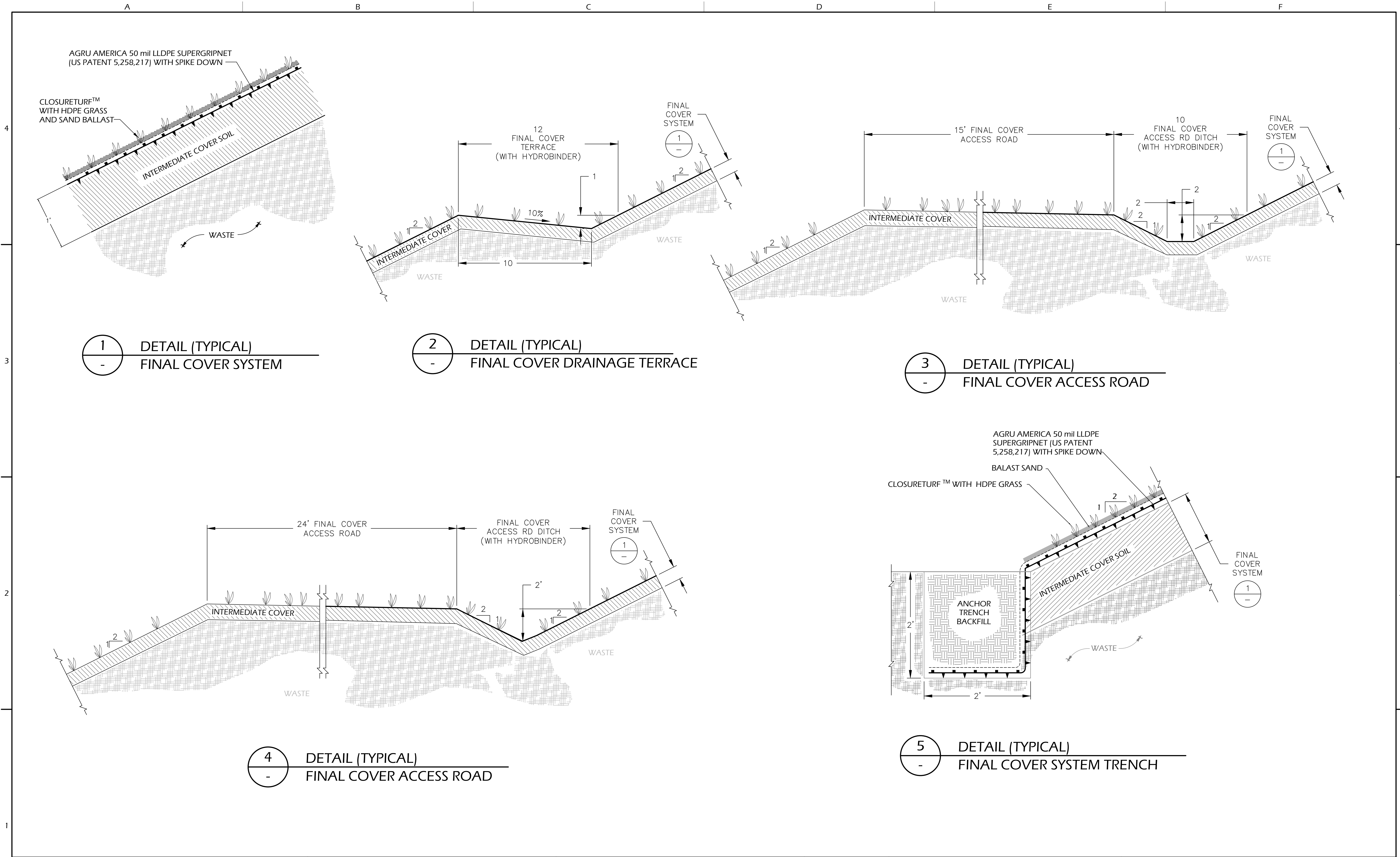
PREPARED FOR:  
**TOA ALTA ECOPARK**  
TOA ALTA, 00953, PUERTO RICO

PREPARED BY:  
**OASIS**  
CONSULTING SERVICES  
45 ROSWELL STREET  
ROSWELL, GEORGIA 30075  
PHONE: (678) 739-2400 • FAX: (770) 552-5550

SITE:  
TOA ALTA LANDFILL  
TOA ALTA, PUERTO RICO  
PROJECT:  
CONCEPTUAL CLOSURE DESIGN

TITLE: PROFILE 2			
DESIGN BY:	S.SIN	DATE BY:	NOVEMBER 2022
DRAWN BY:	S.SIN	PROJECT NO.:	-
CHECKED BY:	M.MONTELEONE	FILE:	P22122F001
REVIEWED BY:	M.MONTELEONE	SHEET NO.:	5 OF 6
APPROVED BY:	M.MONTELEONE	REV.:	0





1 - DETAIL (TYPICAL)  
FINAL COVER SYSTEM

2 - DETAIL (TYPICAL)  
FINAL COVER DRAINAGE TERRACE

3 - DETAIL (TYPICAL)  
FINAL COVER ACCESS ROAD

4 - DETAIL (TYPICAL)  
FINAL COVER ACCESS ROAD

5 - DETAIL (TYPICAL)  
FINAL COVER SYSTEM TRENCH

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REV.	DATE	DESCRIPTION	DRN	APP
0	11/XX/22	DRAFT	SS	MM

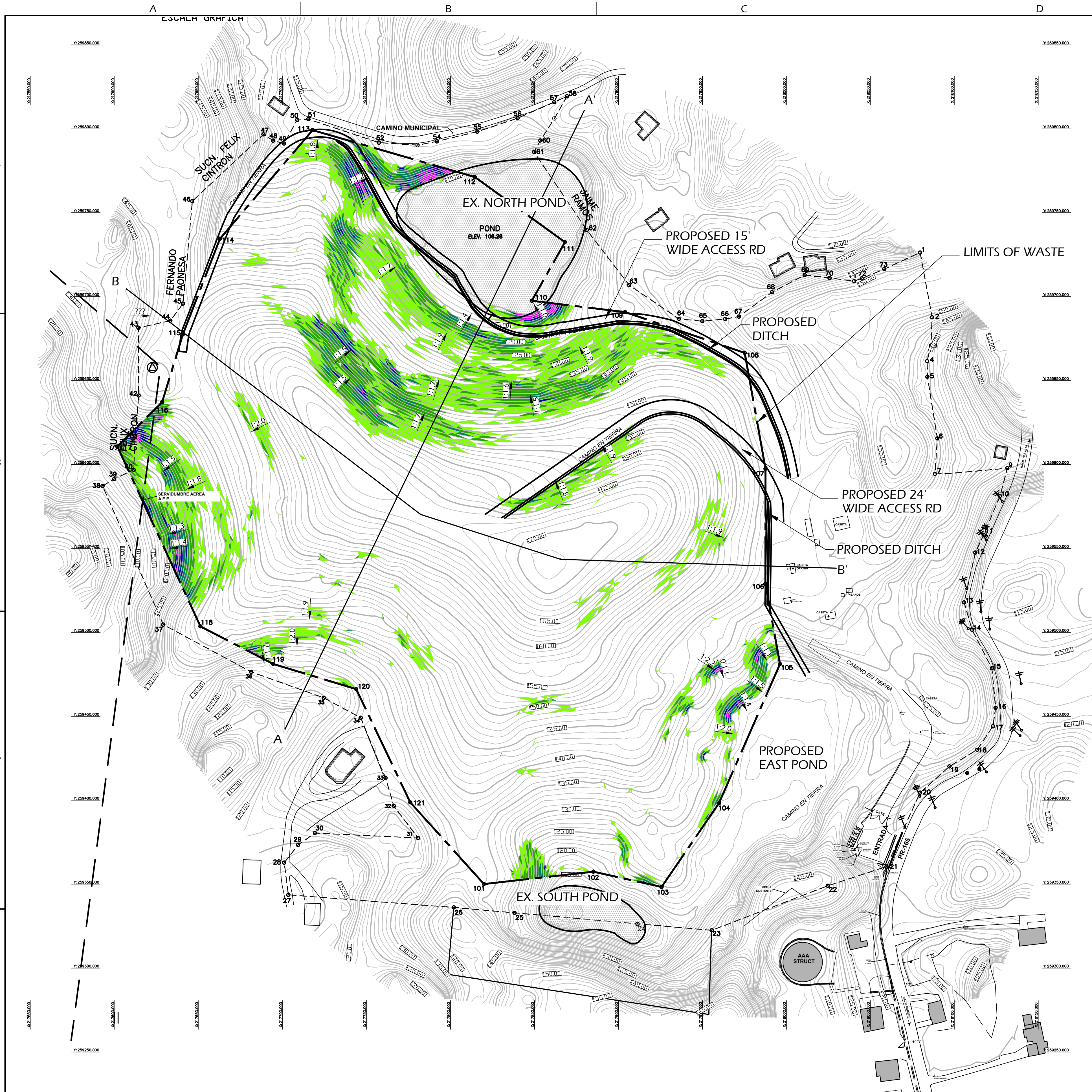
PREPARED FOR:  
**TOA ALTA ECOPARK**  
TOA ALTA, 00953, PUERTO RICO

PREPARED BY:  
**OASIS**  
CONSULTING SERVICES  
45 ROSWELL STREET  
ROSWELL, GEORGIA 30075  
PHONE: (678) 739-2400 • FAX: (770) 552-5550

SITE:  
TOA ALTA LANDFILL  
TOA ALTA, PUERTO RICO

PROJECT:  
CONCEPTUAL CLOSURE DESIGN

TITLE: DETAILS			
DESIGN BY:	S.SIN	DATE BY:	NOVEMBER 2022
DRAWN BY:	S.SIN	PROJECT NO.:	-
CHECKED BY:	M.MONTELEONE	FILE:	P22122F001
REVIEWED BY:	M.MONTELEONE	SHEET NO.:	6 OF 6
APPROVED BY:	M.MONTELEONE	REV.:	0



**LEGEND**

- PROPERTY BOUNDARY
- EXISTING GROUND ELEVATION (METERS)
- LIMITS OF WASTE
- ▨ STRUCTURE
- ⊕ TELEPHONE POST
- ⊙ SANITARY
- ⊕ ELECTRIC POLE
- ⊕ ELECTRIC TOWER
- (160)--- PROPOSED FINAL GRADE ELEVATION (METERS)

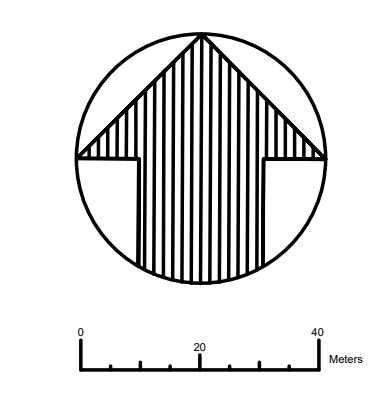
**LIMIT OF WASTE**

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121-101	S 42°3'29" E	65.543	121	259398.7056	217776.0067	WOOD STAKE

**Slopes Table**

Number	Minimum Slope	Maximum Slope	Area	Color
1	50.00%	59.99%	13178.89	Light Green
2	60.00%	69.99%	6034.17	Green
3	70.00%	79.99%	1854.78	Dark Green
4	80.00%	89.99%	639.16	Blue
5	90.00%	9887.41%	281.77	Purple

- NOTES**
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Y:\Server\Project\CADD\PROJECTS\AMARE2022\Toa Alta\Toa Alta Closure Design\221222\F002.dwg, 9/19/2019, 2:44 PM, RODRIGUEZ

	PREPARED FOR: <b>TOA ALTA ECOPARK</b> TOA ALTA, 00953, PUERTO RICO	PREPARED BY:  45 ROSWELL STREET ROSWELL, GEORGIA 30075 PHONE: (678) 739-2400 • FAX: (770) 552-5550	SITE: TOA ALTA LANDFILL TOA ALTA, PUERTO RICO	TITLE: EG SLOPE STUDY
			PROJECT: CONCEPTUAL CLOSURE DESIGN	
				DESIGN BY: S.SIN      DATE BY: NOVEMBER 2022 DRAWN BY: S.SIN      PROJECT NO.: CHECKED BY: M.MONTELEONE      FILE: P22122F002 REVIEWED BY: M.MONTELEONE      SHEET NO.: APPROVED BY: M.MONTELEONE      OF 5      REV: 0