

SALEM COUNTY IMPROVEMENT AUTHORITY

RESOLUTION No. 2021-120

DECEMBER 9, 2021

**RESOLUTION OF THE SALEM COUNTY IMPROVEMENT AUTHORITY
AUTHORIZING CHANGE ORDER #4 TO THE CONTRACT
FOR CONSTRUCTION AND INSTALLATION OF
THE EXPOSED GEOMEMBRANE COVER**

WHEREAS, on November 12, 2020, the contract for construction and installation of the exposed geomembrane cover was awarded to the lowest responsible bidder, C. Abbonizio Contractors, Inc. ("Abbonizio") of Sewell, New Jersey, in the amount of \$3,717,620.00, representing a base bid of \$3,660,120.00, plus alternate bids of \$40,000.00 (2.01 Leveling Course) and \$17,500.00 (2.03 Removal and Disposal of Temporary Rain Cover – Cell 7); and

WHEREAS, on December 10, 2020, Resolution 2020-100, authorized Change Order #1 to the Exposed Geomembrane Cover ("EGC") contract to change the completion date from May 29, 2021, to June 13, 2021, due to inclement weather and lead time for material; and

WHEREAS, on May 13, 2021, Resolution 2021-68, authorized Change Order #2 due to the need to raise 32 manhole covers and this change resulted in an increase in the contract in the amount of Forty-Eight Thousand, Eight Hundred and Ninety-Eight (\$48,898.00) dollars bringing the total contract price to Three Million, Seven Hundred and Sixty-Six Thousand, Five Hundred and Eighteen (\$3,766,518.00) dollars; and

WHEREAS, on June 10, 2021, Resolution 2021-77 authorized Change Order #3 due to the discovery that the number of gas wells, condensate sumps, valve stems and other wells and pipes was 240 as opposed to 50 and this resulted in an increase in the contract of One Hundred, Ninety-Six Thousand, Eight Hundred (\$196,800.00) dollars bringing the total contract price to Three Million, Nine Hundred Sixty-three Thousand, Three Hundred Eighteen (\$3,963,318.00) dollars; and

WHEREAS, during the July 1 and 2, 2021, rain event, the access road rip-rap washed down the EGC and this caused punctures in the liner. This damage must be immediately remedied or further instability in the swale rip-rap area will continue in the future; and

WHEREAS, the quality assurance and engineers on the project, Tetra Tech ("Tetra"), have determined that this damage can be remedied as follows:

1. Add a layer of geotextile cushion and new 40 mil textured HDPE geomembrane over the areas of damaged EGC adjacent to the landfill access road.
2. Extend and line Jersey Barrier along the landfill access road toward the perimeter swale.
3. Grout the rip-rap in the channel alongside of the landfill access road.
4. Extend rip-rap upslope from the in-place Jersey Barrier to protect the uphill edge of the landfill access road.

5. Construct gabions at the base of the landfill access road channel to dissipate energy before water enters the perimeter channel, as described in Change Order #4, attached hereto.

WHEREAS, the proposed Change Order #4 is less than 20% of the original contact amount; and

WHEREAS, this Resolution authorizes the execution of Change Order #4, which results in an increase in the contract in the amount of \$307,940.00 bringing the total contract price to \$4,271,258.00; and

WHEREAS, funds are available in the full amount of Change Order #4 and same has been certified by the Certifying Financial Officer.

Vendor: C. Abbonizio Contractors, Inc.

Account Number	Amount	Department Description
60-17-120-102	\$307,940.00	Cell 1-7-Final Cover

NOW THEREFORE, BE IT RESOLVED by the Salem County Improvement Authority Board, as follows:

1. The Salem County Improvement Authority Board Authorizes Change Order #4 as set forth in the attached Exhibit A; and
2. The Salem County Improvement Authority authorizes its Executive Director to execute Change Order #4.

ATTEST:



Steven DiMatteo,
Alt Secretary/Treasurer



Cordy Taylor, Chairman

CERTIFICATION

I hereby certify the above to be a true copy of a resolution adopted by the Salem County Improvement Authority at a regular meeting held on December 9, 2021.



Steven DiMatteo, Alt Secretary/Treasurer



AIA Document G701™ – 2017

Change Order

PROJECT: (name and address) Installation of the Exposed Geomembrane Cover at the Salem County Landfill 286 Welchville Road, P.O. Box 890 Alloway Township, New Jersey 08001	CONTRACT INFORMATION: Contract For: Resolution No. 2020-89 Date: November 12, 2020	CHANGE ORDER INFORMATION: Change Order Number: CO 004 Date: December 8, 2021
OWNER: (name and address) Salem County Improvement Authority 286 Welchville Road, P.O. Box 890 Alloway Township, New Jersey 08001	ARCHITECT: (name and address) Cornerstone Environmental Group, LLC (a Tetra Tech Company) 16 Pearl Street, Suite 210 Metuchen, NJ 08840	CONTRACTOR: (name and address) C. Abbonizio Contractors, Inc. P.O. Box 315 Sewell, New Jersey 08086

The Contract is changed as follows:

(Insert a detailed description of the change and, if applicable, attach or reference specific exhibits. Also include agreed upon adjustments attributable to executed Construction Change Directives.)

Change Order No. 005 constitutes an increase in Contract Price by \$307,940.00, to a final contract Amount of \$4,169,990.00. The scope of work of this Change Order includes liner repair and stormwater enhancement work along the Landfill Access Roadway and the Stormwater Diversion Berm and surveying of the work. The change in Contract Price does not include contingencies for liner and construction crews.

The work is described in greater detail in the Request for Proposal provided to the Contractor on December 1, 2021 (Attachment No.1). The Contractor's proposal was received December 6, 2021 (Attachment No. 2).

This Change Order, once approved, will result in an increase in Contract Price. Scheduling of the work will be discussed with the Contractor and is contingent on availability, material lead times, and suitable weather conditions.

The original (Contract Sum) (Guaranteed Maximum Price) was	\$	3,717,620.00
The net change by previously authorized Change Orders	\$	245,698.00
The (Contract Sum) (Guaranteed Maximum Price) prior to this Change Order was	\$	3,963,318.00
The (Contract Sum) (Guaranteed Maximum Price) will be (increased) (decreased) (unchanged) by this Change Order in the amount of	\$	307,940.00
The new (Contract Sum) (Guaranteed Maximum Price), including this Change Order, will be	\$	4,271,258.00
The Contract Time will be (increased) (decreased) (unchanged) by	(TBD)	days.
The new date of Substantial Completion will be		

NOTE: This Change Order does not include adjustments to the Contract Sum or Guaranteed Maximum Price, or the Contract Time, that have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

Cornerstone Environmental Group, LLC (a Tetra Tech Company)

ARCHITECT (F) *Mark A. Swyka*

SIGNATURE

Mark A. Swyka

PRINTED NAME AND TITLE

December 8, 2021

DATE

C. Abbonizio Contractors, Inc.

CONTRACTOR (Firm name)

SIGNATURE

PRINTED NAME AND TITLE

DATE

Salem County Improvement Authority

OWNER (Firm name)

SIGNATURE

Julie A. Acton
Executive Director
Julie A. Acton

PRINTED NAME AND TITLE

DATE

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.



To: Abbonizio Contractors, Inc. ("Contractor")
Cc: Julie Acton, Mark Swyka, Prentiss Shaw
From: Arie Kremen
Date: December 1, 2021
Subject: Request for Proposal – Liner Repairs and Stormwater Enhancements

The Salem County Improvement Authority ("SCIA", Authority) and Tetra Tech have agreed on a scope of work for the repair of the Exposed Geomembrane Cover ("EGC") and stormwater enhancements at the Landfill Access Roadway and the Stormwater Diversion Berm. The scope differs from that discussed earlier this year.

Tetra Tech was directed to prepare a Change Order for the Authority's Board meeting by 5pm Tuesday December 7, 2021. The scope of work for the Change Order is provided below and in the attachments.

Tetra Tech requests that Abbonizio review the revised scope and submit a cost proposal based on the present scope of work.

This request is subject to the Contract and Technical Specifications and are incorporated by reference.

LANDFILL ACCESS ROADWAY

- Additional 6-inch rip-rap (270 ft)
 - a. Install D₅₀ = 6 inch rip-rap stone over 16-oz geotextile. Rip-rap shall extent 3 feet outward from the uphill side of the Landfill Access Roadway uphill from the existing Jersey Barrier. Rip-rap shall not be placed in direct contact with the geomembrane;
- Repair EGC (1,030 ft)
 - a. Overline existing damaged (liner with punctures along the Landfill Access Roadway) EGC with 16-oz geotextile provided by Contractor and 40-mil LLDPE "patch" (approx. 1 geomembrane panel width), remaining on site from the EGC installation, as shown on Detail Sheets No. 2 and No. 3;
 - b. Displaced stone to be removed from EGC and placed over rip-rap;
 - c. Expose at least 12 inches of competent geomembrane to either side of the damaged EGC;
 - d. Stone removed for exposing competent geomembrane shall be placed over rip-rap;
 - e. Place new 16-oz geotextile over damaged geomembrane, extending at least 6 inches beyond limits of damage;
 - f. Install overliner in sections, shingled downslope with a minimum overlap of 12 inches;
 - g. Shingled geomembrane sections shall be welded to the existing EGC. Perform quality control and testing as specified in the contract documents;
 - h. Provide a drain through the existing geomembrane at any cross-slope seam between the overliner and the existing EGC;
 - i. Contractor to comply with installation and testing requirements in accordance with the Technical Specifications;
 - j. Schedule inspection by Engineer at least 48 hours prior to completion of repair;
- Grout Rip-rap (950 ft)
 - a. Grout rip-rap as shown on Detail Sheet No. 2 upon written acceptance of EGC Repair by Engineer;
 - b. Grout in accordance with the attached Rip-rap Grouting memo;
 - c. Grout should be applied in a manner that does not damage the existing EGC, landfill access roadway, landfill access roadway swale, perimeter swale, or other features constructed as part of the Contract.

TETRA TECH

16 Pearl Street, Suite 210, Metuchen, NJ 08840
Tel 877.294.9070 Fax 877.845.1456 tetratech.com

- d. Grout will be placed to the limits shown on the attached plan.
 - e. Only rip-rap placed along the existing Jersey Barrier at the Landfill Access Roadway shall be grouted.
- Additional Jersey Barrier (80 ft)
 - a. Relocate rip-rap along the DGA roadway, to the extent required to place Jersey barriers;
 - b. Contractor to use care in removing existing rip-rap and geotextile;
 - c. Extend the existing Jersey Barrier to the limits and lines shown on the attached plan;
 - d. Place Jersey Barriers over 16-oz geotextile, install geomembrane over top of Jersey Barrier and sheet anchors as shown Sheet No. 2;
 - e. No rip-rap will be placed on the swale side of the Jersey Barriers.
- Additional Gabions
 - a. Place gabions over 16-oz geotextile as shown on the attached Sheet No. 3. Gabion baskets shall be at least 18 inches tall and 3 feet wide. Gabions shall be filled with a $D_{50} = 6$ inch rip-rap stone;
 - b. Gabions shall not be in direct contact with geomembrane. Geotextile shall extend at least 12 inches beyond the limits of the gabions;
 - c. Contractor shall remove rip-rap, as required, to place the gabions;
 - d. Contractor shall take care to not damage the underlying EGC during any portion of gabion placement, including the placement of $D_{50} = 6$ inch stone in the gabion;

STORMWATER DIVERSION BERM

- Grout Rip-rap (400 ft)
 - a. Grout 3 ft leading edge of rip-rap ;
 - b. Grout in accordance with the attached Rip-rap Grouting memo;
 - c. Grout should be applied in a manner that does not damage the existing EGC, landfill access roadway, landfill access roadway swale, perimeter swale, or other features constructed as part of the Contract.
 - d. Grout will be placed to the limits shown on the attached plan.
- Repair EGC (400 ft)
 - a. Repair EGC by filling puncture with extrudant;
 - b. Installation and testing requirements shall be consistent with industry standards;;

MISCELLANEOUS

- Liner Crew (Day Rate)
 - a. Provide the daily rate for a liner crew;
 - b. Daily rate shall include equipment, supplies, and tools necessary to perform miscellaneous liner repairs at the written direction of the Owner or Engineer;
 - c. Repairs may include, but are not limited, to applying patches, repairing liner penetrations, and manhole boots, and other liner related work;
- Construction Crew (Day Rate)
 - a. Provide the daily rate for a construction crew;
 - b. Daily rate shall include equipment supplies, and tools necessary to perform miscellaneous construction work at the written direction of the Owner or Engineer;

GENERAL NOTES AND INSTRUCTIONS

1. The proposal shall remain in effect 60 days;
2. Contractor shall take care not to disrupt existing landfill systems, including those related to the LFG system and existing EGC.
3. Contractor shall provide submittals of previously not utilized construction materials for approval by the Engineer. Proposed construction materials shall be consistent with the requirements of the applicable section of the Technical Specifications.
4. Contractor shall repair any damages caused by Contractor during performing the repair at no cost to the Owner;
5. Prior to commencement of work, Engineer and Contractor shall mark construction limits in the field;
6. Only approved construction materials shall be used;
7. Use of a different construction material than previously used shall be approved in writing by the Engineer;
8. Daily rates for liner or construction crew shall be invoiced hourly;
9. Payment will be based on the actual work performed, based on field measurements by the Engineer;
10. Actual quantities may vary. The Authority does not guarantee quantities;
11. Monthly progress payments will be made based on work actually completed;
12. Retainage of 5% will be withheld until satisfactory completion of work, punch list items, and submittal of As-built Survey;

Attachments

- Site plan
- Construction Details
- Rip-rap Grouting memo, dated November 11, 2021

COST PROPOSAL: LINER REPAIR AND STORMWATER ENHANCEMENTS

Item	Description	Unit	Quantity	Unit Cost	Cost
1. Landfill Access Roadway					
1.1	Repair EGC	LS	1		
1.2	Rip Rap Enhancement (grouting)	LS	1		
1.3	Additional 6-inch Rip-rap	LS	1		
1.4	Additional Jersey Barrier	LS	1		
1.5	Additional Gabions	LS	1		
2. Stormwater Diversion Berm					
2.1	Repair EGC	LS	1		
2.2	Rip Rap Enhancement (grouting)	LS	1		
3. Miscellaneous					
3.1	Liner Crew, Day Rate	EA	5		
3.2	Construction Crew, Day Rate	EA	5		
3.2	As-built Survey	LS	1		
Total					

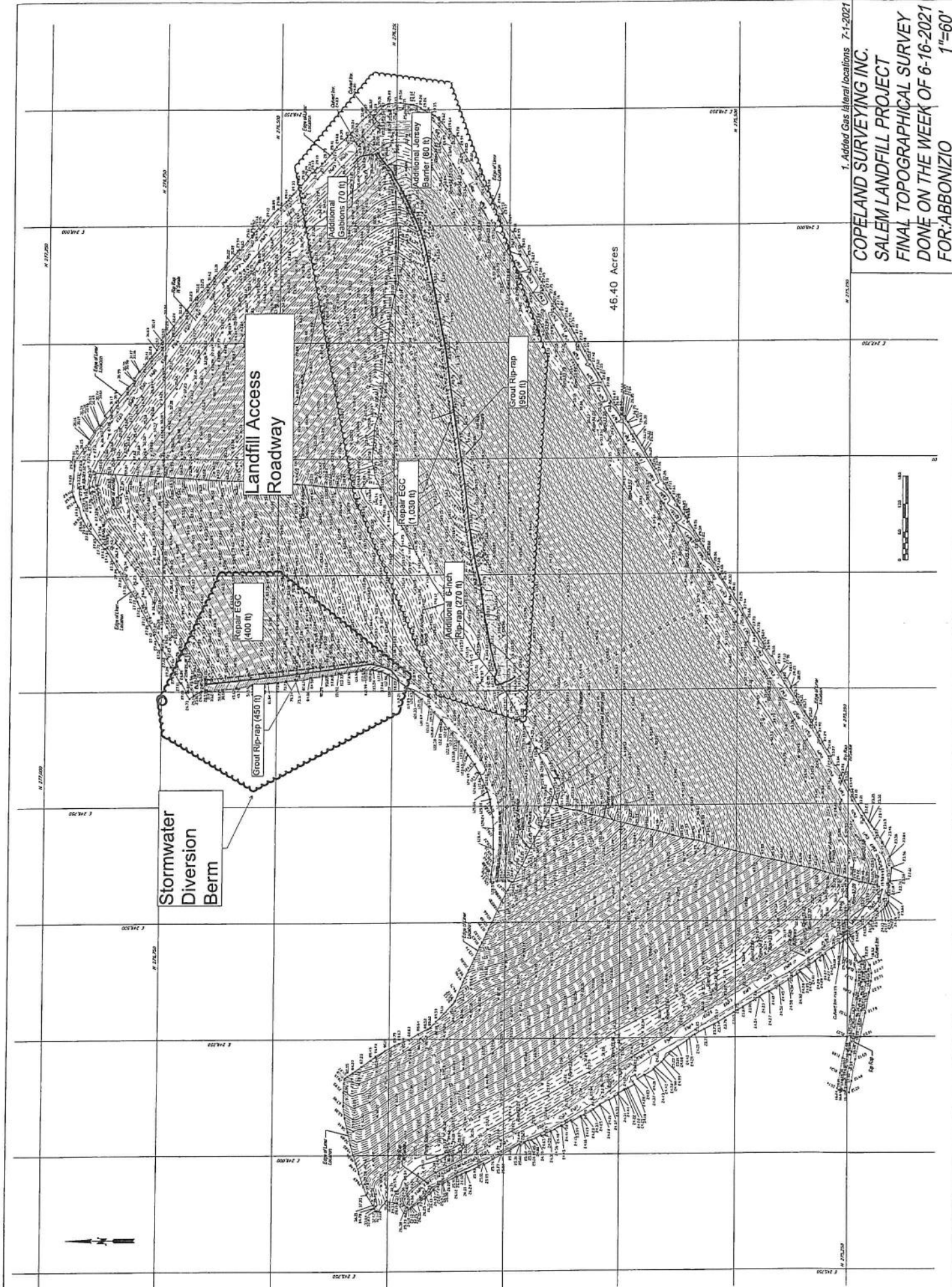
Proposal Authorization

Company: _____

Name and Title: _____

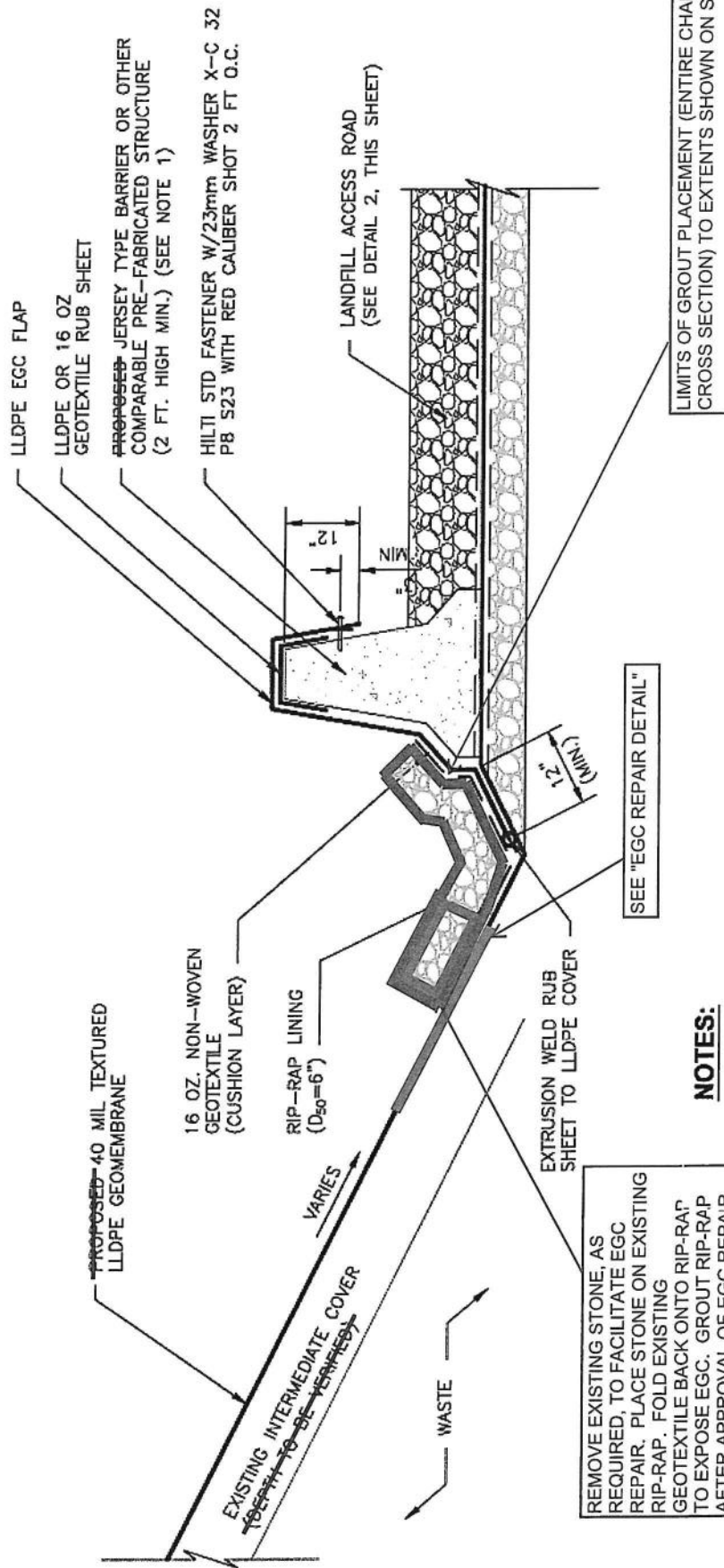
Signature: _____

Date: _____



46.40 Acres

1. Added Gas lateral locations 7-1-2021
COPELAND SURVEYING INC.
SALEM LANDFILL PROJECT
FINAL TOPOGRAPHICAL SURVEY
DONE ON THE WEEK OF 6-16-2021
FOR: ABBONIZIO
1"=60'



NOTES:

1. JERSEY TYPE BARRIER TO BE LOCATED AS SHOWN ON SHEET-2: SITE PLAN

REMOVE EXISTING STONE, AS REQUIRED, TO FACILITATE EGC REPAIR. PLACE STONE ON EXISTING RIP-RAP. FOLD EXISTING GEOTEXTILE BACK ONTO RIP-RAP TO EXPOSE EGC. GROUT RIP-RAP AFTER APPROVAL OF EGC REPAIR BY THE ENGINEER.

RIP-RAP LINED DRAINAGE SWALE AND LANDFILL ACCESS ROAD TYPICAL DETAIL SHEET NO. 2

N.T.S.

Client Name: SCIA Project Name: EGC REPAIRS
Subject: TYPICAL SECTIONS (NEW) Project #: 42034310
2021

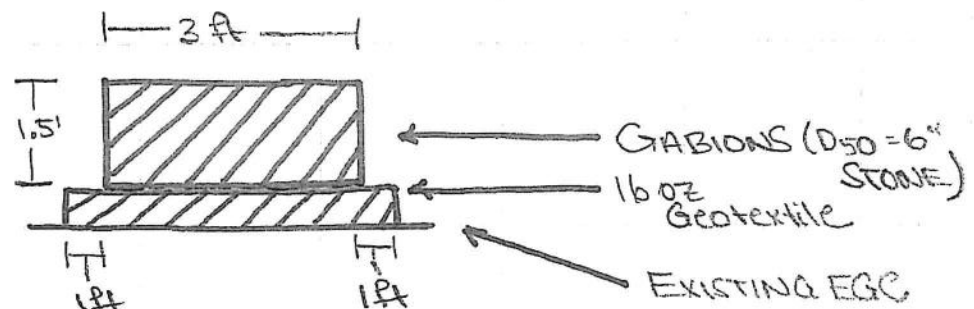


TETRA TECH

Designed By: DL Date: 8/17/21 Checked By: _____ Date: _____

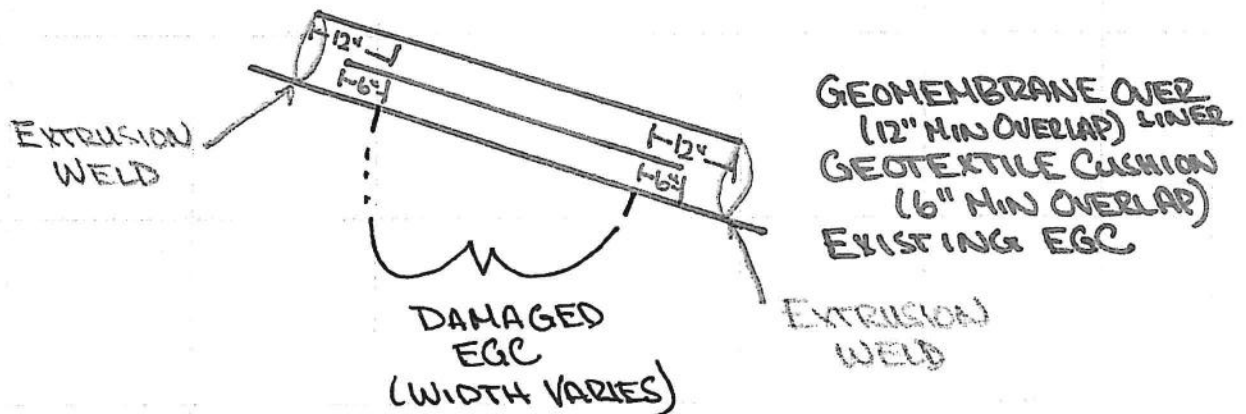
TYPICAL DETAIL
SHEET NO. 3

TYPICAL DETAIL " GABION PLACEMENT DETAIL "



N.T.S.

TYPICAL DETAIL " EGC REPAIR DETAIL "



NOTE: OVERLAPS MEASURED FROM OUTERMOST
LIMIT OF EGC DAMAGE WITHIN A REPAIRED
AREA.



MEMO

To: Julie Acton
Cc: Prentiss Shaw, Mark Swyka
From: Arie Kremen
Date: November 11, 2021
Subject: Rip-rap Grouting

Tetra Tech recommends grouting the 6-inch rip-rap in the Landfill Access Roadway swale.

- Grout mixture is specified below. Tolerances are 5% by weight;
- Any changes to the mixture shall be approved by the Engineer in writing;
- Grout shall have a minimum compressive strength of 2,000 psi at 28 days;
- Grout shall be placed continuously to prevent the grout from setting between applications;
- If grouting cannot proceed continuously, advancing face of grout shall be tapered and partially expose rip-rap stones for embedment with subsequent application;
- Grout shall be applied after repairs have been made to the geomembrane;
- Grout shall have a slump of no more than 5 inches. Grouts with larger slumps will be rejected;
- Rip-rap shall be placed over geotextile to a consistent cross section;
- Rip-rap shall be wetted prior to grouting, but excessive water application resulting in flowing or ponded water at the time of group application shall be avoided;
- Grouting shall proceed from the upslope end towards the downstream end of the swale.
- Rip-rap shall be embedded by grout on all sides; the grout shall extend to the swale invert;
- Rip-rap shall not protrude more than one (1) inch above grout;
- Grout shall be extended to full cross section of rip-rap and be in intimate contact with the Jersey Barrier;
- Batter boards shall be placed on the geotextile and conform to the outside edge of the rip-rap;
- Batter boards may be held in place by sandbags or tie-backs secured to the Jersey Barrier;
- Grout shall be vibrated into the rip-rap voids as necessary to completely embed the rip-rap within 10 minutes of placement;
- Taper grout at both ends of the swale and,
- Contractor shall provide tickets and test results for grout to the Engineer.

Grout Mix

Material	Specific Gravity	Component / Qualifier		Volume of Mix	
Cement	3.15	625 lb	min	3.18	cf
Fine Aggregate	2.6	1,550 lb		9.55	cf
Coarse Aggregate	2.7	1,055 lb		6.26	cf
Water (w/c=0.6)	1.0	375 lb	Max	6.01	cf
Air	8%			2.16	cf
Mix, total		6,605 lb		27.16	cf
Density (pcf)			133.5 pcf		

COST PROPOSAL: LINER REPAIR AND STORMWATER ENHANCEMENTS

Item	Description	Unit	Quantity	Unit Cost	Cost
1. Landfill Access Roadway					
1.1	Repair EGC	LS	1	94,000. ⁰⁰	94,000. ⁰⁰
1.2	Rip Rap Enhancement (grouting)	LS	1	66,000. ⁰⁰	66,000. ⁰⁰
1.3	Additional 6-inch Rip-rap	LS	1	17,500. ⁰⁰	17,500. ⁰⁰
1.4	Additional Jersey Barrier	LS	1	46,000. ⁰⁰	46,000. ⁰⁰
1.5	Additional Gabions	LS	1	31,000. ⁰⁰	31,000. ⁰⁰
2. Stormwater Diversion Berm					
2.1	Repair EGC	LS	1	16,000. ⁰⁰	16,000. ⁰⁰
2.2	Rip Rap Enhancement (grouting)	LS	1	33,000. ⁰⁰	33,000. ⁰⁰
3. Miscellaneous					
3.1	Liner Crew, Day Rate	EA	5	2,050. ⁰⁰	10,250. ⁰⁰
3.2	Construction Crew, Day Rate	EA	5	4,300. ⁰⁰	21,500. ⁰⁰
3.2	As-built Survey	LS	1	4,440. ⁰⁰	4,440. ⁰⁰
Total					339,690.⁰⁰

Proposal Authorization

Company: C. ABBONIZIO CONTRACTORS, INC.
 Name and Title: PETER ABBONIZIO, President
 Signature: [Signature]
 Date: 12 / 6 / 2021