SUBJECT: TRAIL RIDGE LANDFILL CONSTRUCTION, PHASE 6, CLASS 1 CELL EXPANSION

BID #: CP-0070-15 **OPEN DATE:** 2015-03-18

GENERAL GOVERNMENT AWARDS COMMITTEE

KIND AND BASIS OF CONTRACT: CONSTRUCTION PARTICIPATION

AGENCY: SOLID WASTE

BASIS OF AWARD: TOTAL BASE BID TO THE LOWEST RESPONSIVE, RESPONSIBLE BIDDER

NUMBER OF BIDS INVITED: (5) **NUMBER RECEIVED:** (4) **OTHER** (2)

SUMMARY OF BIDS AND RECOMMENDED ACTIONS:
Subject bid was awarded on 04/02/15 to Glover Construction Corporation of North Carolina in the amount of $27,833,790.00; Change Order #1 was awarded on 11/05/15 in the amount of $251,179.00.

Recommend approval of Change Order #2 under Sequence #2 to Glover Construction Corporation of North Carolina in the amount of $756,371.00, for a revised maximum indebtedness to the city not-to-exceed $28,841,340.00.

This award to be funded by account: PWSW44K-069505-SW0005-06 to be executed by contract Change Order #2 through Office of General Counsel.

Attachments: Recommendation Memo, Change Order, Previous Award(s)

BUYER: _____ **RESPECTFULLY SUBMITTED** _____
MARILYN LAIDLER
GREGORY PEASE, CHIEF
PROCUREMENT DIVISION

CONCURRENCE BY: **Will Williams, C.P.A., Chief, Solid Waste Division**

(ALL AWARD ACTIONS SUBJECT TO LAWFULLY APPROPRIATED FUNDS)
ACTION OF GGAC COMMITTEE ON RECOMMENDATIONS ABOVE

MEMBERS APPROVING _____ MEMBERS DISAPPROVING _____ DATE: _____

_____ _____ OTHER: _____

_____ _____

_____ _____

ACTION OF AWARDING AUTHORITY DATE _____

APPROVED _____ DISAPPROVED _____

OTHER _____

SIGNATURE OF AUTHENTICATION _____

DEPARTMENT OF PUBLIC WORKS

Jacksonville
Where Florida Begins.

MEMORANDUM

August 24, 2016

TO: Greg Pease,
Chief of Procurement

THROUGH: John Pappas, P. E.
Director, Public Works

FROM: Will Williams, C.P.A., Chief, Solid Waste Division
Lee Alford, P.E., Environmental Engineering Manager
Solid Waste Division

SUBJECT: RECOMMENDATION OF AWARD

RE: Trail Ridge Landfill Phase 6 Class 1 Cell Expansion Change Order #2

Bid No.:	CP-0070-15
Bid Date:	March 18, 2015
Award Amount:	$27,833,790.00

The Department of Public Works has tabulated and reviewed the Change Order #2 from Glover Corporation and recommends approval of same.

We recommend encumberance of funds for Change Order #2 under Sequence #2 as shown in the attached Change Order document.

Attachments Change Order #2
cc: Lori West, PW EN
Nick Zelaya, PW EN

150267

DEPARTMENT OF PUBLIC WORKS

Jacksonville
Where Florida Begins.

Date August 8, 2016

TO: James R. McCain, Jr.
Corporation Secretary/Assistant General Counsel

THROUGH: Kevin G. Stork, CPA, City Comptroller

FROM: Will Williams, M.B.A.
Chief, Solid Waste Division
Lee Alford, P.E.
Environmental Engineering Manager, SWD

SUBJECT: Trail Ridge Landfill Phase 6 Class I Cell Expansion Change Order #2
Contractor: Glover Construction Company of North Carolina
Contract No: 10112

Forwarded herewith for review & execution is Change Order No.2 for the subject project.

Original Contract Amount	$27,833,790.00
Change Order No. 1	$251,179.00
Change Order No. 2	$756,371.00
Total Revised Contract Amount	$28,841,340.00

Total Revised Contract Expiration date: June 22, 2017

Account Number PWSW44K; CT No: SW0005 06* - 069505 S/O

This office recommends the Change Order be approved by your office, the Office of General Counsel, and Mayor Curry, in accordance with Executive Order No. 94-187.

Attachments:
1. Change Order Form & Background information
2. Accounting balance from FAMIS for Sequence #2
3. Legal Request Memorandum

***Change Order #2 funds will be provided as part of Sequence #2 under the contract. Current balance for CT SW0005 06 is estimated as $3,923,659, as of August 9, 2016. Remaining total contract funding will be available when Sequence #3 is encumbered by City Council.**

WW:laa CTPW16000061 8/17/16

214 N. Hogan St. 10th floor | Jacksonville, FL 32202 | Phone: 904.255.8786 | Fax: 904.255.8929

Account Balance for Sequence 1 & 2 - TRLF Phase 6 Class I Cell Expansion

As of August 8, 2016 (including pay app #14, june 2016)

Contract No: 10112

Project SW0005 06

Index Code PWSW44K

CTPW	16000003 04	15000027 01	16000003 05	**Total Available**
S/O	069505			
Balance:	$1,049,491.76	$1,089,513.94	$1,784,655.00	**$3,923,660.70**

Pay applications pending (contractor forecasts):

July		**August**		**Change Order #2**	
Glover	CDM	Glover	CDM		**Total Forecast Invoices**
$1,400,000	$180,000	$800,000	$180,000	$756,371	**$3,316,371**

** Sequence 3 funding proposed to Council will complete the total construction contract funding with amount available for Change Order #2. Funding is proposed for FY 2017 budget, and if approved, would be encumbered on October 2, 2016.

REQUEST FOR LEGAL SERVICES

TO: **The Office of General Counsel**
117 West Duval Street, Suite 480, Jacksonville, FL 32202

Telephone 904-630-1700
FAX 904-630-1731

FROM:
NAME: Will Williams
TITLE: Division Chief
DEPARTMENT: Public Works
DIVISION: Solid Waste

A. **The Office of General Counsel is requested to provide legal assistance as detailed in this request and supporting documents. Give brief description:**
Contract for construction of Phase 6 Disposal Unit Trail Ridge Landfill, change order #2 preparation.

Project No.: **PWSW44K SW0005 06** **Vendor Name:** **Glover Construction Corporation of North Carolina** **Solicitation No.:** **CP-0070-15**

Contract No.: **10112**

Purchase and Sale Agreement: ☐ **Amount:** **$11,196,510.00**

Lease Agreement: ☐ **License Agreement:** ☐ **Use Agreement:** ☐ **Easement:** ☐

Land Swap: ☐ **Subordination:** ☐

B. **Is a specific attorney already involved? Yes** ☒ **No** ☐ **Name:** James McCain

C. **Date submitted:** 08-11-2016 **Completion is requested by (date):** 9-15-16

D. **For more information or discussion contact:**
Name: Lee Alford
Title: Environamental Engineering Manager
Telephone: 904.255.7526 **Fax:** 387.8905 **E-mail:** Lalford@coj.net

E. **Bill to agency (name, address):** Solid Waste Division, 1031 Superior Street
Bill to account number (index code) PWSW441DO 04205

F. **Department Approval (Name and Title)** Will Williams, Division Chief

(For use by Office of General Counsel only)

CLIENT ID: _____ **MATTER NO.:** _____
CLIENT: _____

WORK DESCRIPTION: _____

CATERGORY CODE: _____ **ATTORNEY(S):** _____
Primary _____
Secondary _____
Dept. Head _____

OUTCOME: _____

INDEX CODE: _____ **DATE OPENED:** _____
DATE CLOSED: _____ **CLOSING BOX NO.:** _____

CITY OF JACKSONVILLE
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
CONSTRUCTION CHANGE ORDER

Change Order No. ONE (1) Date June 23, 2016

Description of Project Trail Ridge Landfill Phase 6 Expansion Project

Name of Contractor Glover Construction Co., Inc.

Contractor's Address 4493 US Highway 301, Pleasant Hill, NC 27866

Contract No. 10112

Account No. PWSW44K-069505 / CTPW1500002701 Original Contract $27,833,790.00

+ Change Order No. 1 $251, 179.00
+ Change Order No. 2 $756,371.00

*See attached appendix for additional listings.

TOTAL REVISED CONTRACT $28,841,340.00

Bid Number CP-0070-15

Construction Completion Date February 15, 2016 (Sequence 1); March 9, 2016 (Phase 6)

Revised Construction Completion Date March 2, 2016 (Sequence 1) March 25, 2016 (Phase 6)

Contract Expiration Date June 15, 2017

Revised Contract Expiration Date June 22, 2017

In compliance with General Conditions of above-referenced contract, CONTRACTOR and OWNER do both hereby agree that the CONTRACTOR shall make the following changes, additions or deletions to the Work specified in the plans and specifications: See attached.

Justification: See attached.

The Issuing Authority has looked over cost and pricing data for this change order and has determined that this change order is necessary and all costs are reasonable.

Accepted for Contractor Glover Construction Co., Inc.

Signed _____ Attest _____

Title Pres. Title Asst. Sec.

Date 8/2/16 Date 8/2/16

Signed _____ By _____ 8/5/16

Issuing Authority Date

Capital Improvement Construction Manager

Signed Solid Waste Division By _____

Using Division Div/Department Head Date

_____ 8/12/2016

Chief, Engineering Division Date Assistant Counsel Date

_____ 8/16/16

Director of Public Works Date Mayor Date

Director of Procurement Date Corporation Secretary Date

Director of Administration & Finance Date

10112

RECEIVED

AUG 04 2016

Solid Waste Division

TRAIL RIDGE LANDFILL PHASE 6 EXPANSION PROJECT
CITY OF JACKSONVILLE PROJECT NUMBER PWSW44K 38484
BID NO: CP-0070-15
CHANGE ORDER No.2

Contractor: Glover Construction Co., Inc.

Date: June 23, 2016

Justification: The following components are being added to the above referenced project at the request of the City of Jacksonville.

1. REMOVE STUMPS FROM SUBGRADE
Stumps, roots and other woody material were discovered within the Phase 6 footprint in mid-October 2015 when the cell floor was being prepared for construction of the sawtooth. CDM Smith directed Glover to remove these materials in the areas that risked liner puncture threats and conflicts with necessary grades in Request For Information (RFI) 19 dated October 22, 2015.

While there are indications that stumps, roots and other woody materials are present in the available geotechnical report, the level of silviculture and quantity of large stumps were unknown at the time of bidding. Additional labor and equipment are required to remove the stumps and large roots found 2 to 3 feet below subgrade to meet the requirements of the specifications and protect the liner from puncture hazard.

Work shall be performed for a lump sum fee of **$177,050.**

2. REMOVAL AND REPLACEMNT OF UNSUITABLE SOILS
CONTRACTOR shall provide over excavation for removal and replacement of unsuitable soils from station 161+00 to station 170+00 for installation of the interceptor ditch. The quantities of unsuitable material is based on the volumes surveyed by R.E. Holland and estimated by the Civil 3D-model from CDM Smith as outlined in Table 1.

Item	Description	Quantity (cy)
1	Excavation (Surveyed)	6,910
2	Excavation (Estimated)	7,105
3	Sub-total Excavation	14,015
4	Ditch Volume	(3,080)
5	Total Overexcavation and Fill	10,935

Removal and replacement of the unsuitable material shall be reimbursed at $18.00/cy including all material for replacement of unsuitable material, all excavating, dredging, pumping, placing and compacting of material for constructing the ditch, complete, dressing of the surface, maintenance and protection of the completed earthwork, and the removal of rubbish, vegetation.

Based on the quantities outlined in Table 1, CONTRACTOR work shall be performed for a lump sum of **$196,830.**

3. PHASE 6 RAIN COVER
CONTRACTOR shall install am 8 mil scrim reinforced polyethylene geomembrane cover and associated earthen berms over the Phase 6 new cell floor for stormwater control once the cell becomes active. This rain cover shall be a Raven Dura Scrim 8BV and approximate area of coverage shall be approximately 1,401,970 square feet (32.2 acres). Refer to **Exhibit A** for additional information regarding scope of work. A summary of services includes:
- Earthen berm fill for the construction of three (3) intermediate rain berms;
- 8mil scrim reinforced geomembrane covering 4 sub-cells and associated anchoring (sandbags and nylon rope); and
- As-built survey.

Work shall be performed for a lump sum fee of **$302,940**

4. TEMPORARY SCRIM COVERING– NORTH FACE

The contract documents indicate installation of a temporary 8 mil scrim reinforced polyethylene geomembrane cover over the exposed sideslope of the existing landfill to protect against erosion. During construction, the extent of sideslope removal was increased to facilitate replacement of a let-down structure at the northeast corner of the existing landfill. An additional 107,197 square feet of temporary geomembrane shall be installed by the contractor along the north slode of the existing landfill, terminating at the northeast let-down structure. Notes and installation requirements in the contract documents remain applicable to this additional installation.

Work shall be performed for a lump sum fee of **$43,629**.

5. INSPECTION AND EXCAVATION FOR GAS MAIN RELOCATION
During construction, elevation of the 20-inch gas main was discovered to be different that as-built information depicted in the contract documents. CONTRACTOR shall be provided additional funding for the extra excavation costs associated with the 20-inch HDPE gas pipe located along the north portion of the existing TRLF Phase 5 and new Phase 6. The associated labor/equipment for this effort is as follows:

Work shall be performed for a lump sum fee of **$11,264.**

6. PIPE ENCASEMENT
During construction CONTRACTOR discovered that concrete pipe encasement shown on the as-built drawings for the 20-inch gas main did not exist in the field. CONTRACTOR shall provide concrete encasement for the portion of the 20-inch gas main under the landfill perimeter road. CONTRACTOR shall use Detail C on Sheet CD-8 of the contract documents for encasement.

Work shall be performed for a lump sum fee of **$2,110.**

7. REPLACEMENT OF LET-DOWN STRUCTURE AT NORTHEAST CORNER OF LANDFILL
During removal of the clay cap on the existing landfill and regrading of the sideslope for stormwater management, CONTRACTOR discovered that the existing let down structure at the northeast corner of the existing landfill was in poor condition and had failed in several areas along the down slope. CONTRACTOR shall:

- Remove the temporary let-down structure in the area stripped of clay and topsoil on the northeast corner of the existing hill.
- Install a 24-inch HDPE or ADS pipe from elevation 210 and connect to the existing stormwater structure at the toe of slope.
- Grade terraces along the north face of the existing hill and direct stormwater flow to the let-down structure as shown in contract drawing C-10.
- Tie stormwater flow from the terraces on the east side of the landfill into the let-down structure as shown in contract drawing C-10.

Work shall be performed for a lump sum fee of **$22,548.**

* 8. The Contractor will be permitted an additional 7 days to the Sequence 1 contract duration as a result of the excessive rains in November 2015, February 2016, and April 2016 that caused delay in scheduled construction activities. The new revised construction completion date is March 2, 2016 for Sequence 1.

* In addition to the 7 rain days added to the construction completion date there is also additional time involved in performing the specific items on this change order which will extend the cell completion date beyond March 2, 2016 All parties have agreed to address this at a later date if required. Currently, the existing landfill operation has not been impacted. If completion of the new cell is performed prior to detrimental impact to the current landfill operation a determination of the additional time will not be required as long as liquidated damages are not assessed.

EXHIBIT A

SARCIFICIAL LINER FOR PHASE 6 STORMWATER CONTROL

CDM Smith

Sacrificial Liner System – Trail Ridge Landfill Phase 6

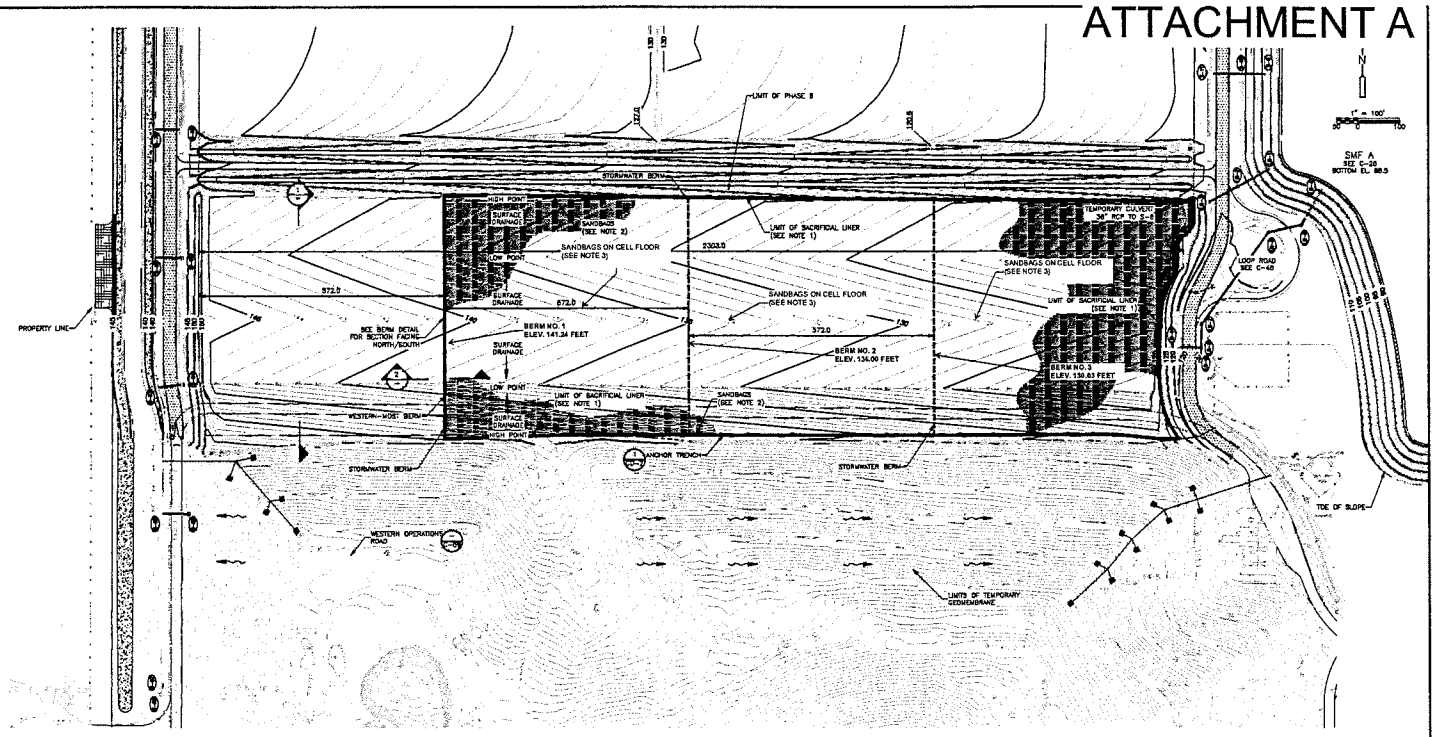
A sacrificial liner will be required for the new Phase 6 Trail Ridge Landfill (TRLF) for initial filling operations in the cell by Waste Management Inc. (WMI). The intent of the sacrificial liner is to provide daily operations stormwater control in areas that have not received waste-in-place in the cell and limit the amount of rainwater that would be introduced into the cell's leachate system. **Attachment A** depicts a plan and profile of the coverage for the sacrificial liner for Phase 6. Phase 6 will be divided by into four equal sub-cells, each approximately 572 feet in width (west-to-east) by 560 feet in length (north-to-south) and only three sub-cells will be covered by the sacrificial liner. Three earthen berms will be constructed (as shown in Attachment A) to allow for isolation of each sub-cell and allow for peel-back and management of the exposed areas as waste-in-place progresses west-to-east. The construction details as it pertains to the sacrificial liner is as follows:

- The sacrificial liner shall be Raven Industries Dura Scrim 8BV.
- The approximate area of the required sacrificial liner quantity for the four (4) sub-cells for Phase 6 is approximately 1,401,970 ft^2 (32.2 acres).
- Three (3) intermediate rain berms shall be constructed (as shown in Attachment A). They shall be comprised of local sand material (meeting common fill specifications). The berm quantity is approximately 4,395 cubic yards and shall be constructed with an approximate 1V:2H slope. The top of the berm shall be constructed with 12-foot width.
- The westernmost sub-cell shall be constructed separately from the remaining three-subcells. It shall be used as the first active filling area for WMI during the initial filling of Phase 6. The sacrificial liner in this location shall be anchored by sandbags along the north face of the existing cell, cell floor and perimeter berms. Once WMI begins filling operation, this will be peeled back to the north.
- The intermediate rain berms shall be constructed to an elevation of typically 1-foot above the high point in the cell, denoted as "Point A" in East/West Section 1 of the berm in Attachment A. The elevations of these berms shall be:
    - Berm No. 1 (Westernmost): 141.24 feet EL
    - Bern No. 2 (Middle): 136.00 feet EL
    - Berm No. 3 (Easternmost): 130.03 feet EL
- Intermediate berms shall be compacted by the Contractor for WMI operations (light truck) traffic. Soil surface shall be firm and unyielding. The method of compaction and procedures

shall be such that no damage is incurred on the existing liner system and protective sand layer.

- Contractor shall seam the panels of the sacrificial liner using a fusion weld method.
- Contractor shall provide photographs of the intermediate berm installation prior to backfilling at 300-feet spacing.
- Contractor shall provide the necessary anchoring system and sandbags, as shown in Attachment A. For the perimeter anchoring, the Contractor shall anchor sandbags as 8-foot on-center and tied off using 3/8" nylon rope. For anchoring in the cell floor, Contractor shall place sandbags at 40-foot on-center pattern across the entire footprint covered by the sacrificial liner. All sandbags utilized for the sacrificial liner anchoring shall be 50 pounds.
- Contractor shall also be responsible for final as-built of the intermediate rain berms for the City of Jacksonville. The limited survey of installed conditions with topographic elevations at the berm toe and top at 100-foot spacing (verification that the 1V:2H slope is maintained and top of berm elevations).
- Contractor shall notify the resident project representative of visual inspection of all seams and sandbags (along with City of Jacksonville, Engineer and WMI).

ATTACHMENT A



NOTES:

1. THE LIMIT OF TEMPORARY 8 MIL SCRIM REINFORCED POLYETHYLENE GEOMEMBRANE (SACRIFICIAL LINER) SHALL BE INSTALLED AT THE LIMITS OF NEW PHASE 6 AS FOLLOWS:

   A. FOR THE SOUTHERN EDGE OF NEW PHASE 6, LINER SHALL EXTEND TO THE BOTTOM OF THE TEMPORARY STORMWATER SWALE, (SEE SHEET CD-2A OF CONTRACT DOCUMENTS)

   B. FOR THE EAST EDGE OF NEW PHASE 6, LINER SHALL EXTEND TO THE TOP OF THE PROPOSED ANCHOR BERM.

   C. FOR THE WEST EDGE (WESTERN MOST BERM), LINER SHALL BE ANCHORED AS SHOWN ON SACRIFICATION LINEAR SECTIONS ISSUED IN JANUARY 2016.

   D. FOR THE NORTHERN EDGE OF PHASE 6, LINER SHALL EXTEND TO TOP OF INTERNAL BERM.

2. THE TEMPORARY GEOMEMBRANCE COVER SHALL BE ANCHORED WITH SANDBAGS (SANDBAGS CAN BE SPACE ON 10' CENTERS). SANDBAGS SHOULD HAVE A 2 YEAR MINIMUM UV RATING AND SHALL BE TIED OFF USING 3/8" NYLON ROPE EACH WAY (ROPE LINES NOT REQUIRED ON CELL FLOOR.)

3. FOR THE OF THE CELL AREA, CONTRACTOR SHALL ANCHOR WITH FREE SANDBAGS (NO NYLON ROPES). SANDBAGS SHALL BE SPACED ON 40' CENTERS.

4. CONTRACTOR SHALL PROVIDE COMPACTION TESTING ON INTERMEDIATE RAIN BERMS IN ACCORDANCE WITH THE CONTRACTOR SPECIFICATION REQUIREMENTS FOR COMMON FILL. THE METHOD OF COMPACTION AND PROCEDURES SHALL BE SUCH THAT NO DAMAGE IS INCURRED ON THE EXISTING LINER SYSTEM AND 2-FEET OF PROTECTIVE SAND LAYER. CONTRACTOR SHALL SUBMIT TO ENGINEER A DETAILED PLAN OF COMPACTION FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.

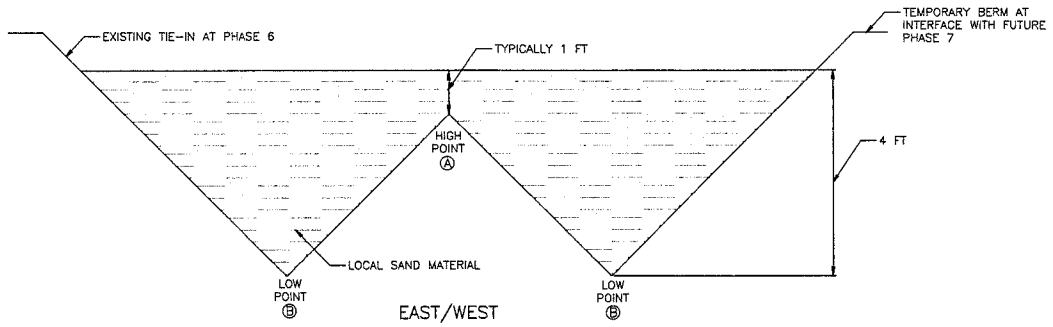
5. CONTRACTOR SHALL NOTIFY RESIDENT PROJECT REPRESENTATIVE OF VISUAL INSPECTION OF ALL SEAMS AND SANDBAGS (ALONG WITH CITY OF JACKSONVILLE, ENGINEER AND WMI).

6. CONTRACTOR SHALL SURVEY AS-BUILT THE CONSTRUCTED INTERMEDIATE RAIN BERMS. THE SURVEY SHALL INCLUDE INSTALLED CONDITIONS WITH TOPOGRAPHIC ELEVATIONS AT THE BERM TOE AND TOP AT 100-FOOT SPACING (VERIFICATION THAT THE 2V:1H SLOPE IS MAINTAINED AND TOP OF BERM ELEVATION).

THIS DRAWING AND DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED PERSONS, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.

CDM Smith

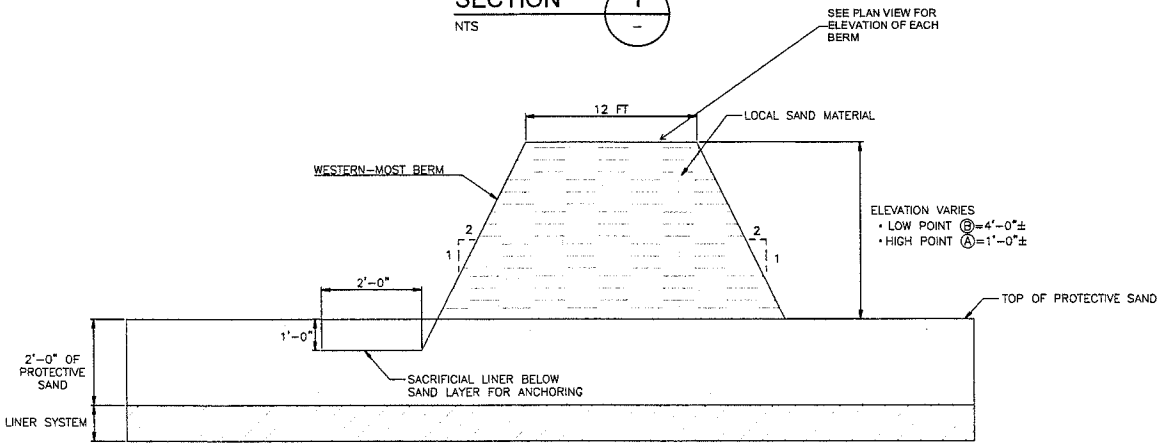
LIMITS OF SACRIFICIAL LINER
APRIL 2016



EAST/WEST

SECTION 1

NTS



WESTERN-MOST BERM NORTH/SOUTH

SECTION 2

NTS

V:/ - CDM SMITH ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.

CDM Smith

SACRIFICIAL LINER
SECTIONS
APRIL 2016

CITY OF JACKSONVILLE
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
CONSTRUCTION CHANGE ORDER

Change Order No. ONE (1) Date June 23, 2016

Description of Project Trail Ridge Landfill Phase 6 Expansion Project

Name of Contractor Glover Construction Co., Inc.

Contractor's Address 4493 US Highway 301, Pleasant Hill, NC 27866

Contract No. 10112

Account No. PWSW44K-069505 / CTPW1500002701 Original Contract $27,833,790.00

+ Change Order No. 1 $251, 179.00
+ Change Order No. 2 $756,371.00

*See attached appendix for additional listings.

TOTAL REVISED CONTRACT $28,841,340.00

Bid Number CP-0070-15

Construction Completion Date February 15, 2016 (Sequence 1); March 9, 2016 (Phase 6)

Revised Construction Completion Date March 2, 2016 (Sequence 1) March 25, 2016 (Phase 6)

Contract Expiration Date June 15, 2017

Revised Contract Expiration Date June 22, 2017

In compliance with General Conditions of above-referenced contract, CONTRACTOR and OWNER do both hereby agree that the CONTRACTOR shall make the following changes, additions or deletions to the Work specified in the plans and specifications: See attached.

Justification: See attached.

The Issuing Authority has looked over cost and pricing data for this change order and has determined that this change order is necessary and all costs are reasonable.

Accepted for Contractor Glover Construction Co., Inc.

Signed [signature] Attest [signature]

Title Pres. Title Asst. Sec.

Date 8/2/16 Date 8/2/16

Signed SWD, Lee Alford By [signature] 8/5/16

Issuing Authority Date

Capital Improvement Construction Manager

Signed Solid Waste Division By [signature]

Using Division Div/Department Head Date

[signature] 8/12/2016.

Chief, Engineering Division Date Assistant Counsel Date

[signature] 8/16/16

Director of Public Works Date Mayor Date

Director of Procurement Date Corporation Secretary Date

Director of Administration & Finance Date

10112 [signature]

RECEIVED
AUG 04 2016
Solid Waste Division

TRAIL RIDGE LANDFILL PHASE 6 EXPANSION PROJECT
CITY OF JACKSONVILLE PROJECT NUMBER PWSW44K 38484
BID NO: CP-0070-15
CHANGE ORDER No.2

Contractor: Glover Construction Co., Inc.

Date: June 23, 2016

Justification: The following components are being added to the above referenced project at the request of the City of Jacksonville.

1. REMOVE STUMPS FROM SUBGRADE
Stumps, roots and other woody material were discovered within the Phase 6 footprint in mid-October 2015 when the cell floor was being prepared for construction of the sawtooth. CDM Smith directed Glover to remove these materials in the areas that risked liner puncture threats and conflicts with necessary grades in Request For Information (RFI) 19 dated October 22, 2015.

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Work shall be performed for a lump sum fee of **$177,050.**

2. REMOVAL AND REPLACEMNT OF UNSUITABLE SOILS
CONTRACTOR shall provide over excavation for removal and replacement of unsuitable soils from station 161+00 to station 170+00 for installation of the interceptor ditch. The quantities of unsuitable material is based on the volumes surveyed by R.E. Holland and estimated by the Civil 3D-model from CDM Smith as outlined in Table 1.

Item	Description	Quantity (cy)
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4	Ditch Volume	(3,080)
5	Total Overexcavation and Fill	10,935

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Based on the quantities outlined in Table 1, CONTRACTOR work shall be performed for a lump sum of **$196,830.**

3. PHASE 6 RAIN COVER
CONTRACTOR shall install am 8 mil scrim reinforced polyethylene geomembrane cover and associated earthen berms over the Phase 6 new cell floor for stormwater control once the cell becomes active. This rain cover shall be a Raven Dura Scrim 8BV and approximate area of coverage shall be approximately 1,401,970 square feet (32.2 acres). Refer to **Exhibit A** for additional information regarding scope of work. A summary of services includes:
   - Earthen berm fill for the construction of three (3) intermediate rain berms;
   - 8mil scrim reinforced geomembrane covering 4 sub-cells and associated anchoring (sandbags and nylon rope); and
   - As-built survey.

Work shall be performed for a lump sum fee of **$302,940**

4. TEMPORARY SCRIM COVERING– NORTH FACE

The contract documents indicate installation of a temporary 8 mil scrim reinforced polyethylene geomembrane cover over the exposed sideslope of the existing landfill to protect against erosion. During construction, the extent of sideslope removal was increased to facilitate replacement of a let-down structure at the northeast corner of the existing landfill. An additional 107,197 square feet of temporary geomembrane shall be installed by the contractor along the north slode of the existing landfill, terminating at the northeast let-down structure. Notes and installation requirements in the contract documents remain applicable to this additional installation.

Work shall be performed for a lump sum fee of **$43,629**.

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During construction, elevation of the 20-inch gas main was discovered to be different that as-built information depicted in the contract documents. CONTRACTOR shall be provided additional funding for the extra excavation costs associated with the 20-inch HDPE gas pipe located along the north portion of the existing TRLF Phase 5 and new Phase 6. The associated labor/equipment for this effort is as follows:

Work shall be performed for a lump sum fee of **$11,264.**

6. PIPE ENCASEMENT
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Work shall be performed for a lump sum fee of **$2,110.**

7. REPLACEMENT OF LET-DOWN STRUCTURE AT NORTHEAST CORNER OF LANDFILL
During removal of the clay cap on the existing landfill and regrading of the sideslope for stormwater management, CONTRACTOR discovered that the existing let down structure at the northeast corner of the existing landfill was in poor condition and had failed in several areas along the down slope. CONTRACTOR shall:

- Remove the temporary let-down structure in the area stripped of clay and topsoil on the northeast corner of the existing hill.
- Install a 24-inch HDPE or ADS pipe from elevation 210 and connect to the existing stormwater structure at the toe of slope.
- Grade terraces along the north face of the existing hill and direct stormwater flow to the let-down structure as shown in contract drawing C-10.
- Tie stormwater flow from the terraces on the east side of the landfill into the let-down structure as shown in contract drawing C-10.

Work shall be performed for a lump sum fee of **$22,548.**

* 8. The Contractor will be permitted an additional 7 days to the Sequence 1 contract duration as a result of the excessive rains in November 2015, February 2016, and April 2016 that caused delay in scheduled construction activities. The new revised construction completion date is March 2, 2016 for Sequence 1.

* In addition to the 7 rain days added to the construction completion date there is also additional time involved in performing the specific items on this change order which will extend the cell completion date beyond March 2, 2016. All parties have agreed to address this at a later date if required. Currently, the existing landfill operation has not been impacted. If completion of the new cell is performed prior to detrimental impact to the current landfill operation a determination of the additional time will not be required as long as liquidated damages are not assessed. GMA

EXHIBIT A

SARCIFICIAL LINER FOR PHASE 6 STORMWATER CONTROL

CDM Smith

Sacrificial Liner System – Trail Ridge Landfill Phase 6

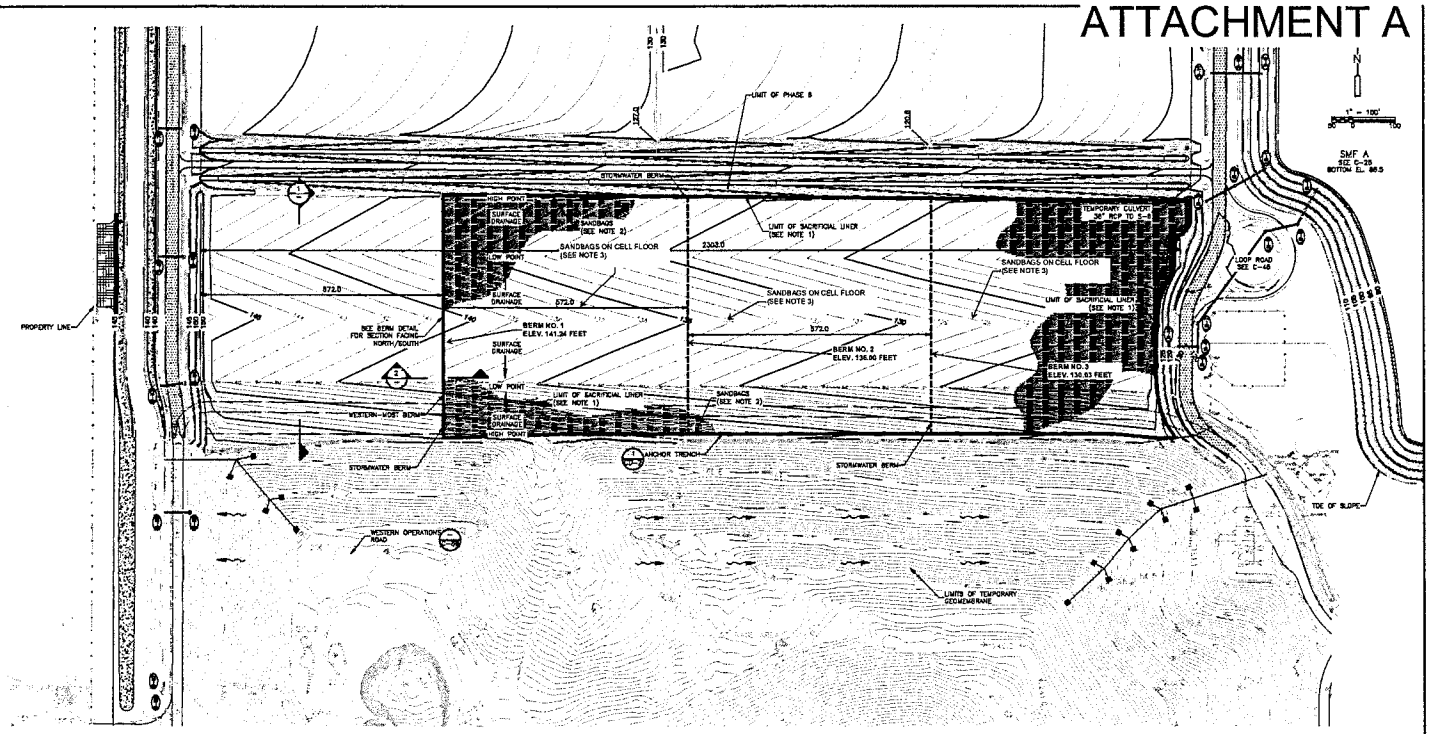
A sacrificial liner will be required for the new Phase 6 Trail Ridge Landfill (TRLF) for initial filling operations in the cell by Waste Management Inc. (WMI). The intent of the sacrificial liner is to provide daily operations stormwater control in areas that have not received waste-in-place in the cell and limit the amount of rainwater that would be introduced into the cell's leachate system. **Attachment A** depicts a plan and profile of the coverage for the sacrificial liner for Phase 6. Phase 6 will be divided by into four equal sub-cells, each approximately 572 feet in width (west-to-east) by 560 feet in length (north-to-south) and only three sub-cells will be covered by the sacrificial liner. Three earthen berms will be constructed (as shown in Attachment A) to allow for isolation of each sub-cell and allow for peel-back and management of the exposed areas as waste-in-place progresses west-to-east. The construction details as it pertains to the sacrificial liner is as follows:

- The sacrificial liner shall be Raven Industries Dura Scrim 8BV.
- The approximate area of the required sacrificial liner quantity for the four (4) sub-cells for Phase 6 is approximately 1,401,970 ft^2 (32.2 acres).
- Three (3) intermediate rain berms shall be constructed (as shown in Attachment A). They shall be comprised of local sand material (meeting common fill specifications). The berm quantity is approximately 4,395 cubic yards and shall be constructed with an approximate 1V:2H slope. The top of the berm shall be constructed with 12-foot width.
- The westernmost sub-cell shall be constructed separately from the remaining three-subcells. It shall be used as the first active filling area for WMI during the initial filling of Phase 6. The sacrificial liner in this location shall be anchored by sandbags along the north face of the existing cell, cell floor and perimeter berms. Once WMI begins filling operation, this will be peeled back to the north.
- The intermediate rain berms shall be constructed to an elevation of typically 1-foot above the high point in the cell, denoted as "Point A" in East/West Section 1 of the berm in Attachment A. The elevations of these berms shall be:
    - Berm No. 1 (Westernmost): 141.24 feet EL
    - Bern No. 2 (Middle): 136.00 feet EL
    - Berm No. 3 (Easternmost): 130.03 feet EL
- Intermediate berms shall be compacted by the Contractor for WMI operations (light truck) traffic. Soil surface shall be firm and unyielding. The method of compaction and procedures

shall be such that no damage is incurred on the existing liner system and protective sand layer.

- Contractor shall seam the panels of the sacrificial liner using a fusion weld method.
- Contractor shall provide photographs of the intermediate berm installation prior to backfilling at 300-feet spacing.
- Contractor shall provide the necessary anchoring system and sandbags, as shown in Attachment A. For the perimeter anchoring, the Contractor shall anchor sandbags as 8-foot on-center and tied off using 3/8" nylon rope. For anchoring in the cell floor, Contractor shall place sandbags at 40-foot on-center pattern across the entire footprint covered by the sacrificial liner. All sandbags utilized for the sacrificial liner anchoring shall be 50 pounds.
- Contractor shall also be responsible for final as-built of the intermediate rain berms for the City of Jacksonville. The limited survey of installed conditions with topographic elevations at the berm toe and top at 100-foot spacing (verification that the 1V:2H slope is maintained and top of berm elevations).
- Contractor shall notify the resident project representative of visual inspection of all seams and sandbags (along with City of Jacksonville, Engineer and WMI).

ATTACHMENT A



NOTES:

1. THE LIMIT OF TEMPORARY 8 MIL SCRIM REINFORCED POLYETHYLENE GEOMEMBRANE (SACRIFICIAL LINER) SHALL BE INSTALLED AT THE LIMITS OF NEW PHASE 6 AS FOLLOWS:

   A. FOR THE SOUTHERN EDGE OF NEW PHASE 6, LINER SHALL EXTEND TO THE BOTTOM OF THE TEMPORARY STORMWATER SWALE, (SEE SHEET CD-2A OF CONTRACT DOCUMENTS)

   B. FOR THE EAST EDGE OF NEW PHASE 6, LINER SHALL EXTEND TO THE TOP OF THE PROPOSED ANCHOR BERM.

   C. FOR THE WEST EDGE (WESTERN MOST BERM), LINER SHALL BE ANCHORED AS SHOWN ON SACRIFICATION LINEAR SECTIONS ISSUED IN JANUARY 2016.

   D. FOR THE NORTHERN EDGE OF PHASE 6, LINER SHALL EXTEND TO TOP OF INTERNAL BERM.

2. THE TEMPORARY GEOMEMBRANCE COVER SHALL BE ANCHORED WITH SANDBAGS (SANDBAGS CAN BE SPACE ON 10' CENTERS). SANDBAGS SHOULD HAVE A 2 YEAR MINIMUM UV RATING AND SHALL BE TIED OFF USING 3/8" NYLON ROPE EACH WAY (ROPE LINES NOT REQUIRED ON CELL FLOOR.)

3. FOR THE OF THE CELL AREA, CONTRACTOR SHALL ANCHOR WITH FREE SANDBAGS (NO NYLON ROPES). SANDBAGS SHALL BE SPACED ON 40' CENTERS.

4. CONTRACTOR SHALL PROVIDE COMPACTION TESTING ON INTERMEDIATE RAIN BERMS IN ACCORDANCE WITH THE CONTRACTOR SPECIFICATION REQUIREMENTS FOR COMMON FILL. THE METHOD OF COMPACTION AND PROCEDURES SHALL BE SUCH THAT NO DAMAGE IS INCURRED ON THE EXISTING LINER SYSTEM AND 2-FEET OF PROTECTIVE SAND LAYER. CONTRACTOR SHALL SUBMIT TO ENGINEER A DETAILED PLAN OF COMPACTION FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.

5. CONTRACTOR SHALL NOTIFY RESIDENT PROJECT REPRESENTATIVE OF VISUAL INSPECTION OF ALL SEAMS AND SANDBAGS (ALONG WITH CITY OF JACKSONVILLE, ENGINEER AND WMI).

6. CONTRACTOR SHALL SURVEY AS-BUILT THE CONSTRUCTED INTERMEDIATE RAIN BERMS. THE SURVEY SHALL INCLUDE INSTALLED CONDITIONS WITH TOPOGRAPHIC ELEVATIONS AT THE BERM TOE AND TOP AT 100-FOOT SPACING (VERIFICATION THAT THE 2V:1H SLOPE IS MAINTAINED AND TOP OF BERM ELEVATION).

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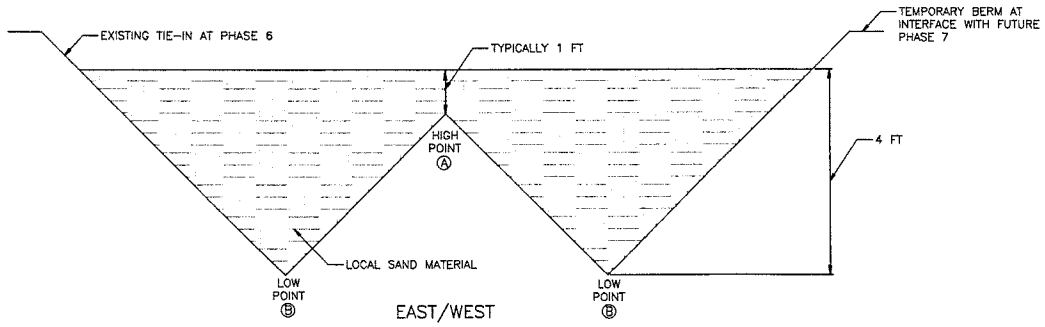
CDM Smith

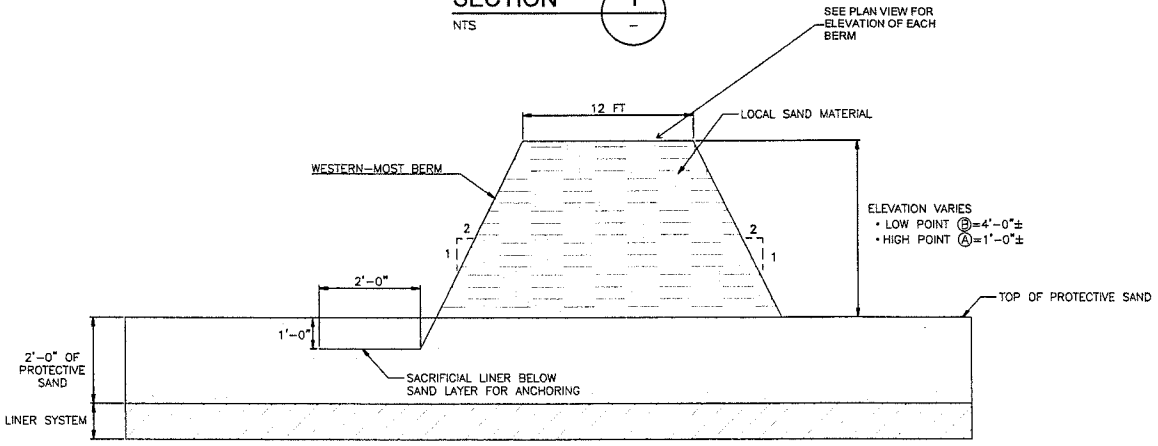
LIMITS OF
SACRIFICIAL LINER
APRIL 2016



EAST/WEST

SECTION 1

NTS



WESTERN-MOST BERM NORTH/SOUTH

SECTION 2

NTS

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CDM Smith

SACRIFICIAL LINER
SECTIONS
APRIL 2016

SUBJECT: **TRAIL RIDGE LANDFILL CONSTRUCTION, PHASE 6, CLASS 1 CELL EXPANSION**

BID# CP-0070-15 OPEN DATE: **2015-03-18**

GENERAL GOVERNMENT AWARDS COMMITTEE

KIND AND BASIS OF CONTRACT:
CONSTRUCTION PARTICIPATION

AGENCY: **SOLID WASTE**

BASIS OF AWARD: **TOTAL BASE BID TO THE LOWEST RESPONSIVE, RESPONSIBLE BIDDER**

NUMBER OF BIDS INVITED NUMBER RECEIVED OTHER

SUMMARY OF BIDS AND RECOMMENDED ACTIONS:

Subject bid was awarded on 04/02/15 to Glover Construction Corporation of North Carolina in the amount of $27,833,790.00.

Recommend approval of Change Order #1 to Glover Construction Corporation of North Carolina in the amount of $251,179.00, for a revised maximum indebtedness to the city not-to-exceed $28,084,969.00.

This award to be funded by account: PWSW44K-069505-SW0005-06 to be executed by Contract Change Order #1 through Office of General Counsel.

Attachments: Recommendation Memo, Change Order, Previous Award

BUYER: Marilyn Laidler
MARILYN LAIDLER

RESPECTFULLY SUBMITTED: Greg Pease
GREGORY PEASE, CHIEF
PROCUREMENT DIVISION

CONCURRENCE BY: **John P. Pappas, P.E., Acting Director of Public Works**

(ALL AWARD ACTIONS SUBJECT TO LAWFULLY APPROPRIATED FUNDS)

ACTION OF GGAC COMMITTEE ON RECOMMENDATIONS ABOVE

MEMBERS APPROVING 3 MEMBERS DISAPPROVING _____ DATE: 11-5-15

Teresa R. Eichner

OTHER: _____

William Peck

James R McCall

ACTION OF AWARDING AUTHORITY DATE: 11/05/15

APPROVED ✓ DISAPPROVED _____

OTHER _____

SIGNATURE OF AUTHENTICATION _____

~~Sam E. Mousa~~
Chief Administrative Officer
~~For: Mayor Lenny Curry~~
Under Authority of:
~~Executive Order No. 2015-05~~

FORM GB-108, Revised 12/2007

SUBJECT: **TRAIL RIDGE LANDFILL CONSTRUCTION, PHASE 6, CLASS 1 CELL EXPANSION- PQ-HORIZONTAL- $100.00**

BID# CP-0070-15 OPEN DATE: **2015-03-18**

GENERAL GOVERNMENT AWARDS COMMITTEE

KIND AND BASIS OF CONTRACT:
CONSTRUCTION PARTICIPATION

AGENCY: **SOLID WASTE**

BASIS OF AWARD: **TOTAL BASE BID TO THE LOWEST RESPONSIVE, RESPONSIBLE BIDDER**

NUMBER OF BIDS INVITED **5** NUMBER RECEIVED **4** OTHER **2**

SUMMARY OF BIDS AND RECOMMENDED ACTIONS:

Recommend approval of award to the lowest responsive, responsible bidder Glover Construction Corporation of North Carolina for the Total Base Bid amount of $27,833,790.00. This project to be executed by formal contract thru the Office of General Counsel and Sequence 1 of 3 to be encumbered by account PWSW44K 069505 in the amount of $8,398,842.50. Funding for Sequence 2 in the amount of $11,196,510.00 and Sequence 3 in the amount of $8,238,437.50 to be identified and encumbered at a later date upon the next city council budget allocation.

Attachments: Recommendation Memo, Bid Tabulation, EBO Letter, Scope of Work

BUYER: Daniel Pearson
DANIEL PEARSON

RESPECTFULLY SUBMITTED: Gregory Pease
GREGORY PEASE, CHIEF
PROCUREMENT DIVISION

MR

CONCURRENCE BY: **John Pappas, P.E.Operations Director, Public Works**

(ALL AWARD ACTIONS SUBJECT TO LAWFULLY APPROPRIATED FUNDS)

ACTION OF GGAC COMMITTEE ON RECOMMENDATIONS ABOVE

MEMBERS APPROVING 3 MEMBERS DISAPPROVING _____ DATE: 04/02/15

Catherine Stone

OTHER: _____

James R McCall

ACTION OF AWARDING AUTHORITY DATE: 4/2/15

APPROVED CG FA DISAPPROVED _____

OTHER _____

SIGNATURE OF AUTHENTICATION _____
Cleveland Ferguson III
Deputy Chief Administrative Officer
For: Mayor Alvin Brown
Under Authority of:
Executive Order No. 2015-01

FORM GB-108, Revised 12/2007

QWS3270X 8/30/2016 9:17 AM
FAML6350 V5.1 ** NW COJ FAMIS PRODUCTION ** 08/30/2016
LINK TO: ACCOUNT SUMMARY INQUIRY 9:16 AM

FISCAL MO/YEAR : 11 2016 CURRENCY CODE :
INDEX CODE : PWSW44K SOLID WASTE GENERAL CAPITAL PROJECTS
SUBOBJECT : 069505 BF-OTHER CONSTRUCTION COSTS
PROJECT : SW0005 TRAIL RIDGE LANDFILL CONST & EXPANSION
PROJECT DETAIL : 06 TRAIL RIDGE LANDFILL EXPANSION
GRANT :
GRANT DETAIL :
USER CODE :

S	AUG 2016	ANNUAL BALANCE	ALL YEARS BALANCE
ESTIMATED REVENUES	.00	.00	.00
REVENUES	.00	.00	.00
UNREALIZED REVENUES	.00	.00	.00
BUDGET	.00	1,588,145.00	13,588,145.00
EXPENDITURES	694,688.72	7,639,865.13	9,413,568.72
ENCUMBRANCES	-694,688.72	-4,415,509.13	3,206,188.08
PRE-ENCUMBRANCES	.00	.00	.00
REMAINING BALANCE	.00	-1,636,211.00	968,388.20

F1-HELP F2-SELECT F4-PRIOR F5-NEXT
F9-LINK F10-PRIOR-MO F11-NEXT-MO
G005 - PRIOR RECORD DISPLAYED

CP-0070-15	Glover Construction Corp. of NC	
4/2/2015	$27,833,790.00	Award
11/5/2015	$251,179.00	Change Order #1
PENDING	$756,371.00	

$28,841,340.00 Total Award