

City of Cheyenne - Purchasing 2101 O'Neil Avenue, Room 309 Cheyenne, WY 82001 307-773-1045 tbarttelbort@cheyennecity.org

#### ADDENDUM NUMBER ONE BID S-7-22

To: All Prospective Bidders and all others concerned

From: City of Cheyenne, Purchasing Manager, TJ Barttelbort

Date: November 23, 2021

Subject: Addendum Number One to Bid S-7-22 for the Landfill & Street and Alley

**Department - Tent Building Repairs** 

The changes, clarifications, omissions, additions, and/or alterations in, on, and to the bid information and specifications shall apply to the Invitation For Bid submitted for and to the project indicated above. Except as modified by this Addendum Number One, all of the terms and provisions of the Invitation for Bid for the above listed project remain in full force and effect. This Addendum Number One supersedes all previous instructions pertaining to the items listed:

#### **BID SCHEDULE & BID DUE DATE REVISION:**

Questions will be received until 5:00 pm local time on <u>Wednesday</u>, <u>December 1, 2021</u> Thursday, <u>November 4, 2021</u>, after which no additional questions will be accepted.

The City will respond via Addendum, no-later-than 5:00 pm local time on <u>Tuesday</u>, <u>December 7</u>, <u>2021</u> <u>November 8</u>, <u>2021</u>.

The Governing Body of the City of Cheyenne, Wyoming ("the Governing Body") will receive sealed bid proposals at the Office of the City Purchasing Agent, located in Room 309 of the Municipal Building at 2101 O'Neil Avenue, Cheyenne, WY 82001, until 2:00 p.m. local time on the <u>17<sup>th</sup> Day of December, 2021</u>, <u>22nd day of November, 2021</u>, for the "Landfill & Street and Alley Department - Tent Building Repairs" project.

#### **CLARIFICATIONS:**

This addendum addresses additional damage and the revised specifications to make those repairs.

A revised Itemized Bid Sheet is included with this Addendum One, for use by Bidders.

#### LANDFILL:

The updated specifications, provided with this addendum, gives design drawings for the following:

- Repair of the end wall truss.
- Repair of interior truss.
- Secure west end vertical columns to truss cord.
- Install diagonal supports from west end wall vertical columns to truss bottom cord at 45-degree angle.

\*Note\* if the Contractor is unable to make a fix work, the Engineer on this project will design a solution in the field.

The following additional repairs are reflected on the itemized bid sheet.

- Two Vertical Columns need to be reattached to the cement wall and the above truss.
  - Specifications 1O and 1P.
- An interior truss has broken at the weld (bottom cord) and needs to be reattached.
- Tighten existing ½" undamaged cables.
  - $\circ$  Specifications 1F.2.
- The North West bay door Contractor shall frame out a wall to completely close off the existing 14' x 14' opening. Plywood used for the wall will be 3/4" treated wood and install a metal man-door.
- Install eight (8) diagonal braces from the exterior column to the interior truss.
  - Specifications 1Q and 1R.3.

#### **STREET AND ALLEY:**

The following additional repairs are reflected on the itemized bid sheet:

- Install 6 galvanized man-doors:
  - One door in each of the two tent buildings.
  - o Two doors to be replaced on the west end of storage bay.
  - o Two doors man-doors in the Wash Bay.
- Install two insulated garage doors in the wash bay.
  - o Door dimensions are 16' x 14'.
- Remove two bollards in the wash bay.
- Attach fabric to the 14' x 14' door in the north tent building.
  - o Specifications 1K.
- Secure end wall fabric to steel columns for both tent buildings.
  - $\circ$  Specifications 1L.
- Install fabric end wall mounts on both tent buildings.
  - Specifications 1M.

#### ADDENDUM ONE ACKNOWLEDGED:

| BY                                      |      |    |        |     | TITL     | E    |     |    |         |    |     |          |             |    |
|---|------|----|--------|-----|----------|------|-----|----|---------|----|-----|----------|-------------|----|
| (Addendum                               | must | be | signed | and | returned | with | bid | or | receipt | of | the | addendum | <u>must</u> | be |
| acknowledged on the Invitation to Bid). |      |    |        |     |          |      |     |    |         |    |     |          |             |    |

# Landfill & Street and Alley Department - Tent Building Repairs CITY OF CHEYENNE ITEMIZED BID SHEET FORM (ADDENDUM ONE REVISED) BID S-7-22

| ITEM#                                  | DESCRIPTION  | UNIT | QUANTITY | UNIT PRICE   | TOTAL PRICE |  |
|--|--|------|----------|--------------|-------------|--|
| 1                                      | PERFORMANCE BOND (BUILDINGS 1, 2 & 3)                                    | BOND | 1.00     |              |             |  |
| BUILDING 1 (LANDFILL) REPAIRS          |  |      |          |              |             |  |
| 2                                      | MOBILIZATION (LANDFILL)  | EA   | 1.00     |              |             |  |
| 3                                      | REPAIR END WALL TRUSS GUSSETS AND PURLINS                                | EA   | 6.00     |              |             |  |
| 4                                      | REPAIR WEBBING ON TRUSSES  | EA   | 30.00    |              |             |  |
| 5                                      | REPAIR WEST END EXTERIOR WALL VERTICAL COLUMNS                           | EA   | 2.00     |              |             |  |
| 6                                      | REPAIR INTERIOR TRUSS WHERE WELDS FAILED                                 | EA   | 1.00     |              |             |  |
| 7                                      | REPLAIR/REPLACE 3/16" SWAY ASSEMBLIES WITH 1/2" CABLE AND NEW ASSEMBLIES | EA   | 100.00   |              |             |  |
| 8                                      | TIGHTEN EXISTING UNDAMAGED 1/2" CABLES                                   | EA   | 100.00   |              |             |  |
| 9                                      | FRAME UP NW WALL TO REPLACE 14' X 14' DOOR                               | EA   | 1.00     |              |             |  |
| 10                                     | ADD VERTICAL BRACES FROM EXTERIOR COLUMN TO INTERIOR TRUSS               | EA   | 8.00     |              |             |  |
| 11                                     | FORCE ACCOUNT FOR BUILDING 1   | LS   | 1.00     | \$ 75,000.00 | \$75,000.00 |  |
| SUB TOTAL BUILDING 1 (LINE ITEMS 2-11) |  |      |          |              |             |  |

## CITY OF CHEYENNE ITEMIZED BID SHEET FORM (ADDENDUM ONE REVISED) BID S-7-22

| ITEM#  | DESCRIPTION  | UNIT | QUANTITY | UNIT PRICE   | TOTAL PRICE |  |
|--|--|------|----------|--------------|-------------|--|
|  | STREET & ALLEY BUILDING REPAIRS                    |      |          |              |             |  |
| 12   | MOBILIZATION (STREET & ALLEY)                      | EA   | 1.00     |              |             |  |
| BUILDING 2 (STREET & ALLEY) NORTH BUILDING REPAIRS |  |      |          |              |             |  |
| 13   | REPLACE MAN-DOOR                                   | EA   | 1.00     |              |             |  |
| 14   | FABRIC REPAIR ON 14' X 14' OPENING                 | EA   | 1.00     |              |             |  |
| 15   | INSTALL SECURE WALL AND COLUMN MOUNTS FOR FABRIC   | EA   | 1.00     |              |             |  |
| 16   | PAINT BOLLARDS                                     | EA   | 4.00     |              |             |  |
|  | BUILDING 3 (STREET & ALLEY) SOUTH BUILDING REPAIRS |      |          |              |             |  |
| 17   | INSTALL BOLLARDS                                   | EA   | 4.00     |              |             |  |
| 18   | INSTALL MAN-DOOR                                   | EA   | 1.00     |              |             |  |
| 10   | INSTALL SECURE WALL AND COLUMN MOUNTS FOR FABRIC   | EA   | 1.00     |              |             |  |
| 20   | FORCE ACCOUNT FOR BUILDINGS 2 AND 3                | LS   | 1.00     | \$ 10,000.00 | \$10,000.00 |  |

## CITY OF CHEYENNE ITEMIZED BID SHEET FORM (ADDENDUM ONE REVISED) BID S-7-22

| ITEM#  | DESCRIPTION                           | UNIT | QUANTITY | UNIT PRICE | TOTAL PRICE |
|--|---------------------------------------|------|----------|------------|-------------|
|  | STREET AND ALLEY ADDITIONAL REPAIRS   |      |          |            |             |
| 21   | REMOVE BALLARDS IN WASH BAY           | EA   | 2.00     |            |             |
| 22   | INSTALL MAN-DOORS IN WASH BAY         | EA   | 2.00     |            |             |
| 23   | INSTALL GARAGE DOORS IN WASH BAY      | EA   | 2.00     |            |             |
| 24   | INSTALL TWO MAN-DOORS IN THE WEST BAY | LS   | 2.00     |            |             |
| SUB TOTAL BUILDINGS 2 & 3 (LINE ITEMS 12-24) |                                       |      |          |            |             |
| GRAND TOTAL (LINE ITEMS 1-24)                |                                       |      |          |            |             |

| COMPANY NAME:       |  |
|---------------------|--|
| ADDRESS:            |  |
| CITY, STATE, ZIP:   |  |
|                     |  |
| BIDDER'S SIGNATURE: |  |



# CITY OF CHEYENNE, WYOMING TENT BUILDINGS REPAIR

Building 1: The City of Cheyenne Landfill, Happy Jack Road,

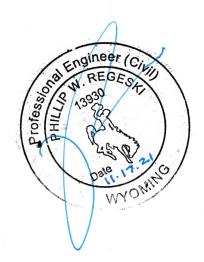
Building 2: The City of Cheyenne Street and Alley Department, 110 Cleveland Place,

Cheyenne, Wyoming. The north building.

Building 3: The City of Cheyenne Street and Alley Department, 110 Cleveland Place,

Cheyenne, Wyoming. The south building.

November 17, 2021



#### **CONSULTANT:**

ENGINEERING & CONSULTING ALLIANCE 1740-H Dell Range Blvd., Suite 454 Cheyenne, Wyoming 82009 Principal: Phillip Regeski, P.E. 307-757-5070; pregeski@engalliance.com



#### **INTRODUCTION LANDFILL BUILDING (building 1)**

The Martin/Martin structural report, dated October 1, 2018, indicated that the problems with the tent structure were caused by the structural details and connections.

ECA agrees with that assessment with the following additions:

- 1. The major failures are with the welds at the truss connections.
- 2. It appears that the actual wind loading at the landfill site is higher than the data used on the design plans.
- 3. The canvas damage was caused by the truss support failures.

ECA suggests less reliance on welds, and more use of mechanical supports to resolve the structural damage, and to mitigate any future damage.

ECA also suggests that the damaged trusses and supports be repaired as standing rather than to remove them from the building for repairs.

# INTRODUCTION STREET AND ALLEY BUILDINGS (buildings 2 and 3) DAMAGE ASSESSMENT

These buildings are located in the City of Cheyenne construction yard at 110 Cleveland Place. The building fabric has been replaced recently.

ECA inspected these two buildings for structural damage. Please note the following:

#### **NORTH BUILDING (building 2)**

- 1. Man-door is damaged and unusable.
- 2. 14'x14' opening is damaged.
- 3. The north and south wall connection straps are loose and disconnected.
- 4. The bollards need painting.
- 5. The fabric bottom connections need secure wall mounts.

#### **SOUTH BUILDING (building 3)**

- 1. Bollards need to be installed inside and outside the 14'x14' opening.
- 2. The fabric bottom connections need secure wall mounts.



#### TENT BUILDINGS SPECIFICATIONS AND COST ESTIMATES.

The cost estimates are based on material and labor costs in Cheyenne, Wyoming in November 2021.

#### 1A. REMOVAL OF FABRIC FROM AN EXISTING BUILDING

The fabric provides some structural stability between the roof trusses. It is important to complete the structural repairs of the steel trusses and the cable and steel cross supports before the fabric is removed.

- **1A.1.** Any damaged fabric can be cut from the channel supports and disposed. The fabric end rope can then be pulled from the channel supports.
- **1.A.2.** For undamaged fabric that is expected to be reused, it should be removed as follows:
- 1. Loosen and remove the tension straps at each end of the fabric.
- 2. Extract the fabric rope from both the sides of the fabric at the same time, to collect the fabric segments at one side of the building.
- 3. Store the fabric in a roll that can be reinstalled.

#### 1B. REMOVAL OF END WALL FABRIC

The fabric provides some structural stability between the steel wall horizontal and vertical supports. It is important to complete the structural repairs of the steel supports before the fabric is removed.

- 1B.1. Damaged fabric can be cut from the fabric supports and disposed.
- **1.B.2.** For undamaged fabric the is expected to be reused, it should be removed as follows:
- 1. Loosen and remove the tension straps at the bottom of the fabric.
- 2. Disconnect the holding straps from the top of the wall down as the fabric is removed from the structural supports.
- 3. Store the fabric in a roll that can be reinstalled.



#### 1C. REMOVAL OF END WALL AND INTERIOR TRUSSES

The fabric on the building will have to be removed from the entire building. The trusses to remain would have to be supported to prevent their movement and damage. The supports that would be installed to stabilize the trusses left standing will be a function of which trusses will be removed. A plan to remove the trusses will have to be designed by a structural engineer.

#### **1D. REPAIR OF THE END WALL TRUSSES**

**1D.1.** Where truss cord (top and/or bottom) is damaged, cord O.D. =W. And where the truss web brace is disconnected:

Install 3/8" square tube (customized to remove one side); length = 24"; I.D. = W. Connect with (4) 5/8" 120 ksi bolts horizontally.

Replace the damaged truss web legs with 2-1/2", 3/8" square steel tube. Weld the steel web to the steel cord.

**1D.2**. Where truss cord (top and/or bottom) is damaged, cord O.D. =W. And where the end support purlin is disconnected:

Install 3/8" square tube (customized to remove one side); length = 24"; I.D. = W. Connect with (4) 5/8" bolts horizontally.

Reconnect the purlin with two 5/8" 120 ksi bolts attached to a 3/8"x4"x12" steel plate welded to the steel square tube and supported with 4 gussets.

1D.3. Paint all steel tubing with black rust proof paint.

#### **1E. REPAIR OF THE INTERIOR TRUSSES**

**1E.1.** Where truss cord (top and/or bottom) is damaged, cord O.D. =W. And where the truss web brace is disconnected:

Install 3/8" square tube (customized to remove one side); length = 24"; I.D. = W. Connect with (4) 5/8" 120 ksi bolts horizontally.

Replace the damaged truss web legs with 2-1/2", 3/8" square steel tube. Weld the steel web to the steel cord.

**1E.2.** Where truss cord (top and/or bottom) is damaged, cord O.D. =W. And where the end support purlin is disconnected:

Install 3/8" square tube (customized to remove one side); length = 24"; I.D. = W. Connect with (4) 5/8" bolts horizontally.

Reconnect the purlin with two 5/8" 120 ksi bolts attached to a 3/8"x4"x12" steel plate welded to the steel square tube and supported with 4 gussets.

**1E.3.** Paint all steel tubing with black rust proof paint.



#### 1F. REPAIR AND REPLACE SWAY CABLE ASSEMBLY.

1F.1. Broken or disconnected sway cables:

Remove the existing swale cable assembly and replace it with a ½" steel bar with minimum tensile strength of 120 ksi that has a tension adjuster assembly. Connect the steel bar with one 5/8" 120 ksi bolt on each end. Install all of the damaged assemblies on the building. And once installed, set the tension of each as ½ required strength. Then set those same assemblies to full tension.

**1F.2.** Existing undamaged sway cables:

Replace all of the undamaged 3/16" sway assemblies with a ½" steel bar with a tension adjuster assembly. Connect the steel bar with one 5/8" 120 ksi bolt on each end. Replace them, and set the full tension, one at a time through the entire building.

#### 1J. REPLACE MAN-DOOR

Remove door and frame and dispose. Purchase steel door and frame that is the same size at the door removed. Install door without threshold and sill and with a 1" space between the door bottom and the floor.

#### 1K. FABRIC ATTACHMENTS TO 14'x14' OPENING

Install a 3"x3"x1/4" steel square tube horizontally at the top of the opening. Connect the square tube to the steel columns on each side of the opening with 3/8" welded steel gussets, and connect with (3) ½" 120 ksi bolts. Wrap the fabric on three sides of the square tube and connect with fabric manufacture's secure screws.

#### 1L. SECURE END WALL FABRICS TO STEEL COLUMNS

Secure treated wood 2x4 to the end wall vertical columns that have connection straps. Secure the wood on the outside of the fabric with #10 self-threading 2-1/2" screws with ½" washers. Place the screws at 12" O.C.



#### 1M. INSTALLATION OF FABRIC END WALL MOUNTS

- **1M.1.** Remove existing wood boards that are mounted on the bottom of the fabric.
- **1M.2.** Install treated wood 2x4 to the fabric bottoms (on top of the existing wood 2x4). Secure the wood on the outside of the fabric with #10 self-threading 2-1/2" screws with ½" washers. Place the screws at 12" O.C. Seal the top of the treated word between the edge of the wood and the building fabric. Use General Electric CLEAR Silicone 1, All Purpose 100% Silicone, 100% Waterproof, Weatherproof, or equal.

#### **1N. INSTALL AND PAINT BOLLARDS**

**1N.1.** Install 4" schedule 40 steel pipe, 6' long and filled with 3000 psi (min.) concrete. Excavate 12" diameter (min.) hole 3.5' deep. Place the bollard 3' into the hole and fill the remainder with 3000 psi (min.) concrete.

The center of the bollard must be 10" from the structure wall and must intrude 2" into the access opening. Cost estimate is \$8000.00, building 3.

**1N.2.** Paint bollard with yellow 'OSHA' safety paint.

#### 10. SECURE WEST END WALL VERTICAL COLUMNS TO TRUSS CORD

Install 3/8" square tube (customized to remove one side); length = 24"; I.D. = W. Connect with (4) 5/8" 120 ksi bolts horizontally.

Extend the column to the bottom of the steel square tube with a 3/8" square steel tube. Weld the steel extension to the steel square tube. Bolt the steel extension to the existing vertical column with (3) 5/8" 120 ksi bolts horizontally. Make that stated connection on all of the columns on the west wall of building 1.

#### 1P. SECURE WEST END WALL VERTICAL COLUMNS TO CONCRETE WALL

Keep the existing secure bolts in the top of the concrete wall, and the existing bolts at the bottom of the columns. Install a 3/8"x 6"x6" steel angle to the column and concrete wall with existing bolts.

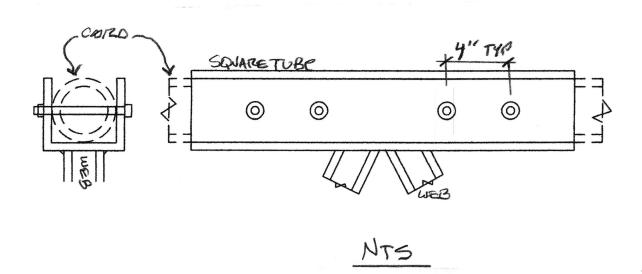


## 1Q. INSTALL DIAGONAL SUPPORTS FROM WEST END WALL VERTICAL COLUMNS TO TRUSS BOTTOM CORD AT 45 DEGREE ANGLE

Install 3/8"x6" steel square tubing from the bottom cord of the first interior truss to the columns of the west side of building 1 at a 45 degree angle. Install the diagonal support on all of the columns on the west wall except the (2) end columns.

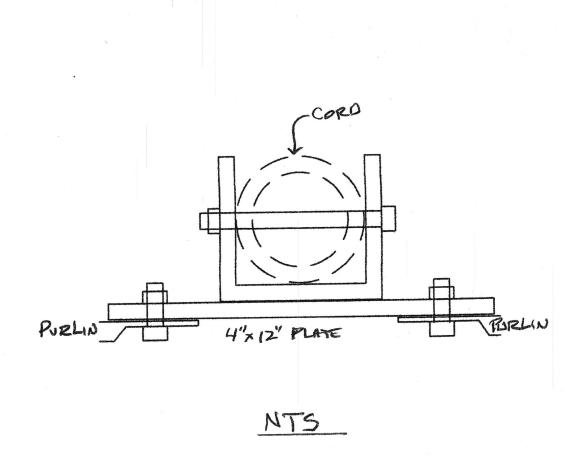
#### **1R. DETAILS**

1R.1 REPAIR OF THE END WALL TRUSSES
REPAIR OF THE INTERIOR TRUSSES
SECURE WEST END WALL VERTICAL COLUMNS TO TRUSS CORD
COLUMNS TO TRUSS BOTTOM CORD





#### 1R.2 REPAIR OF THE INTERIOR TRUSSES





## 1R.3 INSTALL DIAGONAL SUPPORTS FROM WEST END WALL VERTICAL COLUMNS TO TRUSS BOTTOM CORD AT 45 DEGREE ANGLE

