

## **SECTION 01270**

### **MEASUREMENT AND PAYMENT**

#### **PART 1 GENERAL**

##### **1.01 DESCRIPTION**

- A. This Section describes the methods for Measurement and Payment for the Work of this Contract.
- B. As noted below, Measurement and Payment of Work will be made, and payment for Work will be taken to be included in, and covered by, the Contract unit prices and lump sum payment methods for the various bid items listed in CONTRACTOR's Bid Schedule.
- C. CONTRACTOR shall provide necessary equipment, workers, Construction Quality Control testing, and survey personnel as required.

##### **1.02 ENGINEER'S ESTIMATE OF QUANTITIES**

- A. Bid items and estimated quantities are identified in CONTRACTOR's Bid Schedule of the Contract Documents. The estimated quantities for unit price pay items are approximate only and are included solely for the purpose of comparison of Bids. OWNER does not expressly or by implication agree that the nature of the materials encountered below surface level or the actual quantities of material encountered or required will correspond with the estimated quantities. For unit rate items, CONTRACTOR shall be paid only for the quantity of actual work completed.
- B. If the actual Work requires a quantity different from those quantities indicated on CONTRACTOR's Bid Schedule, then CONTRACTOR shall provide the required quantities at the contract unit prices. If the actual final quantity varies by more than 25% of the quantities indicated on the Bid Schedule, then CONTRACTOR and OWNER shall negotiate a revised unit rate to reflect either the loss or gain in price efficiency.
- C. During the progress of the Work, CONTRACTOR shall monitor the estimate final quantity of work to be performed for each bid item. If the estimated final quantity exceeds the quantity indicated on the Bid Schedule by more than 10%, then CONTRACTOR shall notify OWNER of the discrepancy and shall not construct units beyond the quantity found on the Bid Schedule without prior approval.

### 1.03 BID ITEMS

#### A. Bid Item 1 – Mobilization/Demobilization

1. Measurement for payment will not be made for this item.
2. Payment will be made at the lump sum price listed in the proposal for this bid item.
3. The price shall include and cover the furnishing of all materials, labor, tools, and equipment necessary for the assembling and setting up for the project, including: the initial movement of personnel and equipment to the project site; application, fee payment and acquisition for all necessary permits; the establishment of the CONTRACTOR's shops, plants, storage areas, field office, temporary water, electrical, telephone, sanitary and other temporary facilities; insurance; and other initial expenses required for the start of Work. The price shall also include and cover the furnishing of all materials, labor, tools, and equipment necessary for final project closeout, including: the final movement of personnel and equipment from the project site; dismantling of the CONTRACTOR's shops, plants, storage areas, field office, temporary water, electrical, telephone, sanitary and other temporary facilities; final cleaning; and all other activities required for project closeout.
4. The lump sum price shall include, but is not limited to, the following:
  - a. preparation of a project schedule;
  - b. preparation of a Site Specific Health and Safety Plan; and
  - c. preparing and maintaining all project safety and other records required by this Contract.
5. The lump sum price shall include and cover demobilizing all materials, labor, tools, and personnel and equipment from the project site; dismantling of CONTRACTOR's shops, plants, storage areas, field office, temporary water, electrical, telephone, sanitary, and all other activities required for the project closeout, as described in Specification Section 01775.

#### B. Bid Item Number 2 – Performance Bond

1. Measurement for payment will not be made for this Bid Item.
2. Payment of the lump sum price listed in the Bid Form for this Bid Item will be prorated based on the Contract Schedule as agreed to between OWNER and CONTRACTOR.

3. The lump sum price shall include and cover the cost of furnishing and maintaining performance bond as required for the duration of the Work.

Bid Items 3 through 5 – Interior Tipping Floor

C. Bid Item Number 3a – Demolition – Bays 1 and 2: 8-in Tipping Floor Replacement Section

1. Measurement for payment will be made on a per square foot basis.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to demolish the existing 8-inch tipping floor slab at the locations shown on the Drawings. The unit price includes appropriate demolition of concrete slab around rebar area at perimeter walls to protect rebar, as described in the Drawings. The unit price also includes, but is not limited to, removal of existing aggregate subbase and (if encountered) removal of unsuitable or saturated subgrade soils below the Bays 1 and 2 of the tipping floor and transporting it to an on-site location for disposal.
4. No payment will be made for stored materials.

D. Bid Item Number 3CON – Contingency for Bays 1 and 2 Tipping Floor Subgrade Preparation

1. Measurement for payment will be made on a per cubic yard basis.
2. Contingency may only be applied upon receiving authorization from OWNER and ENGINEER.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to remove and replace unsuitable subgrade at Bays 1 and 2, if encountered. The unit price includes, but is not limited to, the following:
  - a. smooth and compact existing subgrade soils;
  - b. prepare CQC submittals;
  - c. supply and install woven geotextile separation fabric;
  - d. supply and place aggregate subbase; and
  - e. conduct CQC necessary to document field moisture-density testing of fill.
4. No payment will be made for stored materials.

~~D~~E. Bid Item Number 3b – Demolition – Bays 3 and 4: 12-in Tipping Floor Replacement Section

1. Measurement for payment will be made on a per square foot basis.

2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to demolish the existing 12-inch tipping floor slab at the locations shown on the Drawings. The unit price includes, but is not limited to, appropriate demolition of concrete slab around rebar area at perimeter walls to protect rebar, as described in the Drawings.
4. No payment will be made for stored materials.

**EF.** Bid Item Number 4 – Bays 1 and 2 Tipping Floor Subbase Preparation

1. Measurement for payment will be made on a per square foot basis.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to prepare the Bays 1 and 2 subbase for tipping floor replacement as shown on the Drawings. The unit price includes, but is not limited to, the following:
  - a. smooth and compact existing subgrade soils;
  - b. prepare CQC submittals;
  - c. supply and install woven geotextile separation fabric;
  - d. supply and place aggregate subbase; and
  - e. conduct CQC necessary to document field moisture-density testing of fill.
4. No payment will be made for stored materials.

**FG.** Bid Item Number 4CON – Contingency for Bays 3 and 4 Tipping Floor Subbase Preparation

1. Measurement for payment will be made on a per ~~square foot~~cubic yard basis.
2. Contingency may only be applied upon receiving authorization from OWNER and ENGINEER.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to remove and replace unsuitable subbase at Bays 3 and 4, if encountered. The unit price includes, but is not limited to, the following:
  - ~~a.f.~~ smooth and compact existing subgrade soils;
  - ~~b.g.~~ prepare CQC submittals;
  - ~~e.h.~~ supply and install woven geotextile separation fabric;
  - ~~d.i.~~ supply and place aggregate subbase; and
  - ~~e.j.~~ conduct CQC necessary to document field moisture-density testing of fill.
4. No payment will be made for stored materials.

**GH.** Bid Item Number 5 – Tipping Floor Slab Replacement in Bays 1 through 4

1. Measurement for payment will be made on a per square foot basis.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to supply and install the replacement 12-inch concrete tipping floor as shown on the Drawings. The unit price includes, but is not limited to, the following:
  - a. prepare CQC submittals;
  - b. supply and place 6,000 psi steel-fiber-reinforced concrete;
  - c. install concrete finishing, saw cutting, and filling joints;
  - d. conduct CQC necessary to document testing of slump and air entrainment of concrete; and
  - e. conduct CQC testing necessary to document 28-day compressive strength.
4. No payment will be made for stored materials.

**Bid Items 6 and 7 – Other**

**HI.** Bid Item Number 6 – Construct Bollards

1. Measurement for payment will be made on a per unit installed basis.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built number of units accomplished as listed in the Bid Schedule.
3. The unit sum price shall include all labor, tools, equipment, supervision, materials, and testing necessary to ~~replace existing interior bollards and construct an additional bollard between Bays 1 and 2~~ **construct bollards** as described in the Drawings. ~~The unit price shall include appropriate removal and re-installation of exterior bollards as described in the Drawings.~~
4. No payment will be made for stored materials.

**IJ.** Bid Item Number 7OPT – Tacked-on Stormwater Diversion Curb

1. Measurement for payment will be made on a per square foot basis.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to remove existing asphalt and subgrade, supply and install the placement 12-inch concrete diversion curb and seal the slab joint as shown on the Drawings.
4. The depth of the below grade portion of the diversion curb below surrounding surface may be extended or reduced up to 6 inches to coincide with the bottom of the surrounding pavement substructure, to include existing asphalt and subbase aggregate.

OPTIONAL Bid Items 8 through 10 – Exterior Concrete Apron Area

~~J~~~~K~~. Bid Item Number 8OPT – Demolition – Exterior Apron Area Replacement Section

1. Measurement for payment will be made on a per square foot basis.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to demolish the exterior paved apron at the locations shown on the Drawings. The unit price includes, but is not limited to, removing existing aggregate and unsuitable or saturated subbase materials below the exterior apron area pavement and transporting it to an on-site location for disposal.
4. No payment will be made for stored materials.

~~K~~~~L~~. Bid Item Number 9OPT – Exterior Apron Area Subbase Preparation

1. Measurement for payment will be made on a per square foot basis.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to prepare the subbase for exterior pavement replacement as shown on the Drawings. The unit price includes, but is not limited to, the following:
  - a. smooth and compact existing subgrade soils;
  - b. prepare CQC submittals;
  - c. supply and install woven geotextile separation fabric;
  - d. supply and place aggregate subbase; and
  - e. conduct CQC necessary to document field moisture-density testing of fill.
4. No payment will be made for stored materials.

~~L~~~~M~~. Bid Item Number 10OPT – Exterior Apron Area Slab Replacement

1. Measurement for payment will be made on a per square foot basis.
2. Payment of the unit price listed in the Bid Form for this Bid Item will be based on the as-built area of actual work accomplished as listed in the Bid Schedule.
3. The per square foot bid price shall include all labor, tools, equipment, supervision, materials, and testing necessary to supply and install the replacement 12-inch concrete apron as shown on the Drawings. The unit price includes, but is not limited to, the following:
  - a. prepare CQC submittals;
  - b. supply and place 6,000 psi steel-fiber-reinforced concrete;
  - c. install concrete finishing, saw cutting, and filling joints;
  - d. conduct CQC necessary to document testing of slump and air entrainment of concrete; and
  - e. conduct CQC testing necessary to document 28-day compressive strength.

4. No payment will be made for stored materials.

## **PART 2 PRODUCTS**

Not used.

## **PART 3 EXECUTION**

### **3.01 APPLICATION FOR PAYMENT FORM**

- A. Contractor shall use the Application for Payment Form provided in this Section.

### **3.02 SUPPORT DOCUMENTATION FOR APPLICATIONS FOR PAYMENT**

- A. CONTRACTOR is responsible to obtain and submit all documentation, including all measurement and quantity computations, required for verification of pay applications. ENGINEER shall verify measurements and quantities for payment.
- B. Should ENGINEER determine that insufficient data has been submitted to accurately verify a pay application, ENGINEER shall notify CONTRACTOR of deficiencies. CONTRACTOR shall address identified deficiencies prior to further review of the pay application.
- C. In the event that survey data provided by CONTRACTOR is not sufficient to determine actual pay quantity, and the status of Work prevents additional data from being obtained, ENGINEER shall attempt to reasonably estimate the pay quantity based upon available information. ENGINEER's estimate shall be final.

## APPLICATION FOR PAYMENT

### TRANSFER STATION REPAIRS AND IMPROVEMENTS CONSTRUCTION PROJECT

CONTRACTOR: \_\_\_\_\_ CONTRACT DESCRIPTION:

\_\_\_\_\_

\_\_\_\_\_ Agreement by and between

\_\_\_\_\_

and the Northeast Maryland Waste Disposal Authority as

OWNER: Carroll County Department of  
Public Works  
225 N. Center Street, Room 221  
Westminster, Maryland 21157

thereafter amended or changed pursuant to the terms and  
conditions of such Agreement (herein referred to as  
the "Agreement") for the satisfactory performance of  
all necessary and/or related Work to properly complete  
construction of the project at the Site.

PROJECT: Transfer Station Repair Project  
Contract Number SW-08-01

PERIOD: From: \_\_\_\_\_ To: \_\_\_\_\_

#### AGREEMENT PRICE SUMMARY:

ORIGINAL AGREEMENT PRICE \$ \_\_\_\_\_

Net change by Change Orders \$ \_\_\_\_\_

REVISED AGREEMENT PRICE \$ \_\_\_\_\_

#### PAYMENT CALCULATION:

TOTAL COMPENSATION FOR WORK COMPLETED TO DATE \$ \_\_\_\_\_

(completed work is detailed in this application)

LESS: RETAINAGE (10%) \$ ( \_\_\_\_\_ )

TOTAL COMPENSATION AMOUNT \$ \_\_\_\_\_

LESS: Amounts previously paid by OWNER \$ ( \_\_\_\_\_ )



LESS: Previous approved Payment Applications which have  
not yet been paid by OWNER \$ (\_\_\_\_\_)

LESS: Disputed amounts \$ (\_\_\_\_\_)

CURRENT PAYMENT APPLICATION AMOUNT \$ \_\_\_\_\_

Supplemental Information:

SUBCONTRACTOR'S VALUE OF WORK

Total Value of All Subcontractor's Work Completed to Date \$ \_\_\_\_\_

Total Value of All Subcontractor's Work for this Payment Application \$ \_\_\_\_\_

CERTIFICATION:

CONTRACTOR certifies that the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by CONTRACTOR to its subcontractors, materialmen, and suppliers for Work for which previous Applications for Payment were submitted by CONTRACTOR.

CONTRACTOR:

By: \_\_\_\_\_ STATE OF \_\_\_\_\_)

Printed Name: \_\_\_\_\_ COUNTY OF \_\_\_\_\_)

Title: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_  
day of \_\_\_\_\_, 202\_\_.

Notary Public:

My commission expires:

**APPLICATION FOR PAYMENT**  
**ITEMIZED PAYMENT SUMMARY**

Item No.	Description	Unit	Unit Price (\$)	Completed This Period	Amount Requested This Period (\$)	Completed To Date	Amount Completed To Date (\$)
1	Mobilization / Demobilization	LS					
2	Performance Bond	LS					
3A	Demolition – 8” Tipping Floor Replacement	SF					
<b>3CON</b>	<u>CONTINGENCY - Bays 3 and 4 Tipping Floor Subgrade Preparation</u>	<u>CY</u>					
3B	Demolition – 12” Tipping Floor Replacement	SF					
4	Bays 1 and 2 Tipping Floor Subbase Preparation	SF					
<b>4CON</b>	CONTINGENCY - Bays 3 and 4 Tipping Floor Subbase Preparation	<del>SF</del> <u>CY</u>					
5	Tipping Floor Slab Replacement	SF					
6	Construct Bollards	Unit					
<b>7OPT</b>	Tacked-On Stormwater Diversion Curb	SF					
<b>8OPT</b>	Demolition – Outdoor Apron Area Replacement Section	SF					
<b>9OPT</b>	Outdoor Apron Area Subbase Preparation	SF					
<b>10OPT</b>	Outdoor Apron Area Slab Replacement	SF					

[ END OF SECTION ]