City of Des Moines

PLANS OF PROPOSED IMPROVEMENT FOR THE

16TH STREET RECONSTRUCTION - DAY STREET TO ASCENSION STREET

06-2019-018

THE URBAN STANDARDS SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

Scales: As Noted

Utility Contacts:
Iowa One Call: 1-800-292-8989
CenturyLink: Chuck Brun, 515-371-3429
Des Moines Water Works: Carla Schumacher, 515-323-6227
MidAmerican: Paul May, 515-246-2252
Wisconsin Energy: Tim Davis, 515-242-4224

Kirkham Michael

Department of Engineering
City of Des Moines, Iowa
503-358-4460

City of Des Moines Airports

Approval
City Engineer, A/E/M
Date: 12-23-2019

Scott W. Alumni, P.E.

All Sheets

Iowa One Call: 1-800-292-8989

02/18/2019
Notes:
1. Remove and replace existing brick pavers. Remove underlying base.
2. Compact earth subgrade below modified subbase.
### ESTIMATED PROJECT QUANTITIES

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Code</th>
<th>Item</th>
<th>Unit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2030-708-0</td>
<td>MODIFIED SUBBASE</td>
<td>SY</td>
<td>1,120</td>
</tr>
<tr>
<td>2</td>
<td>2030-708-0</td>
<td>SUBBASE, LON., 6 IN.</td>
<td>SY</td>
<td>700</td>
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<tr>
<td>3</td>
<td>2030-708-0</td>
<td>SUBBASE, LON., 6 IN.</td>
<td>SY</td>
<td>650</td>
</tr>
<tr>
<td>4</td>
<td>2030-708-0</td>
<td>REMOVE SUBBASE</td>
<td>SY</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>7010-101-0</td>
<td>PAVEMENT, PCC, 6 IN.</td>
<td>SF</td>
<td>850</td>
</tr>
<tr>
<td>6</td>
<td>7010-101-0</td>
<td>CURB AND GUTTER, 2 FT</td>
<td>LF</td>
<td>580</td>
</tr>
<tr>
<td>7</td>
<td>7020-101-0</td>
<td>PAVEMENT, UML, 24&quot; HICK, 6 IN.</td>
<td>LF</td>
<td>870</td>
</tr>
<tr>
<td>8</td>
<td>7030-101-0</td>
<td>REMOVAL OF DRIVERWAY</td>
<td>SF</td>
<td>775</td>
</tr>
<tr>
<td>9</td>
<td>7030-101-0</td>
<td>BRICK PATHWAYS, REMOVE &amp; SALVAGE</td>
<td>SF</td>
<td>500</td>
</tr>
<tr>
<td>10</td>
<td>7030-101-0</td>
<td>PAVEMENT REMOVAL</td>
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<td>1,120</td>
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<tr>
<td>11</td>
<td>7030-101-0</td>
<td>DRIVEWAY, PAVED, PCC, 6 IN.</td>
<td>LF</td>
<td>870</td>
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<tr>
<td>12</td>
<td>7030-101-0</td>
<td>INSTALL BRICK SURFACE</td>
<td>LF</td>
<td>870</td>
</tr>
<tr>
<td>13</td>
<td>7050-101-0</td>
<td>REMOVE &amp; REPLACE PCC SUB-SLAB</td>
<td>SF</td>
<td>125</td>
</tr>
<tr>
<td>14</td>
<td>7090-101-0</td>
<td>PROVIDE BRICK &amp; INSTALL BRICK PATCH</td>
<td>SF</td>
<td>125</td>
</tr>
<tr>
<td>15</td>
<td>7090-101-0</td>
<td>SAND SETTING BED</td>
<td>SF</td>
<td>125</td>
</tr>
<tr>
<td>16</td>
<td>7090-101-0</td>
<td>BRICK REPLACEMENTS</td>
<td>LB</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>7090-101-0</td>
<td>TEMPORARY TRAFFIC CONTROL</td>
<td>LB</td>
<td>1,100</td>
</tr>
<tr>
<td>18</td>
<td>9030-101-0</td>
<td>LANE CLOSURE</td>
<td>EA</td>
<td>10,000</td>
</tr>
<tr>
<td>19</td>
<td>9050-101-0</td>
<td>HYDRAULIC SEEDING, SEEDING, FERTILIZING, AND EARTHMOVING</td>
<td>AC</td>
<td>0.5</td>
</tr>
<tr>
<td>20</td>
<td>9060-101-0</td>
<td>INLET PROTECTION DEVICE</td>
<td>EA</td>
<td>2.0</td>
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<tr>
<td>21</td>
<td>1100-101-0</td>
<td>RESURFACING</td>
<td>EA</td>
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<tr>
<td>22</td>
<td>1100-101-0</td>
<td>MAINTENANCE OF FOGAL SERVICIES</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>1100-101-0</td>
<td>MAINTENANCE OF UTILITY COLLECTION</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>1100-101-0</td>
<td>PROJECT SIGN, LID,520</td>
<td>EA</td>
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### ESTIMATE REFERENCE INFORMATION

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2030-101-0-0</td>
<td>MODIFIED SUBBASE TO BE PLACED UNDER ROADWAY PAVEMENT TO ATTAIN A SLOPE OF 6%. SEE TYPICAL SECTIONS FOR ADDITIONAL INFORMATION.</td>
</tr>
<tr>
<td>2</td>
<td>2030-101-0-0</td>
<td>SUBBASE, LON., 6 IN. DIA. SEE TYPICAL SECTIONS CASE A, TYPE 1</td>
</tr>
<tr>
<td>3</td>
<td>2030-101-0-0</td>
<td>SUBBASE, OUTLETS REFER TO SHEETS D-23 FOR LOCATIONS.</td>
</tr>
<tr>
<td>4</td>
<td>2030-101-0-0</td>
<td>REMOVE &amp; REPLACE PCC SUB-SLAB</td>
</tr>
<tr>
<td>5</td>
<td>7010-101-0-0</td>
<td>PAVEMENT, PCC, 6 IN. PAVEMENT TO PCC UNLESS OTHERWISE SPECIFIED. USE OF A PRESSING MACHINE IS NOT REQUIRED FOR THIS ITEM.</td>
</tr>
<tr>
<td>6</td>
<td>7020-101-0-0</td>
<td>CURB AND GUTTER, 2 FT REFER TO TYPICAL CROSS SECTIONS FOR MORE DETAILS. CURB PROVING MACHINE REQUIRED FOR THIS ITEM.</td>
</tr>
<tr>
<td>7</td>
<td>7020-101-0-0</td>
<td>PAVEMENT, PCC, 6 IN. REFER TO TYPICAL CROSS SECTIONS FOR MORE DETAILS. CURB PROVING MACHINE REQUIRED FOR THIS ITEM.</td>
</tr>
<tr>
<td>8</td>
<td>7030-101-0-0</td>
<td>BRICK PATTENS, REMOVE &amp; SALVAGE CONTRACTOR SHALL SALVAGE, STOCKPILE, PROTECT, AND CLEAN THE EXISTING BRICK SURFACE FOR REINSTALLATION. PAYMENT SHALL BE FOR EVERY SQUARE YARD SALVAGED, STOCKPILED, AND MADE READY FOR REINSTALLATION.</td>
</tr>
<tr>
<td>9</td>
<td>7030-101-0-0</td>
<td>BRICK PATHWAYS, REMOVE &amp; SALVAGE CONTRACTOR SHALL SALVAGE, STOCKPILE, PROTECT, AND CLEAN THE EXISTING BRICK SURFACE FOR REINSTALLATION. PAYMENT SHALL BE FOR EVERY SQUARE YARD SALVAGED, STOCKPILED, AND MADE READY FOR REINSTALLATION.</td>
</tr>
<tr>
<td>10</td>
<td>7040-101-0-0</td>
<td>PAVEMENT REMOVAL REMOVE THE EXISTING SALVAGED BRICKS, THE CONTRACTOR SHALL REMOVE 1-FOOT OF EXISTING PAVEMENT AND/OR SOIL TO REACH THE BOTTOM OF THE MODIFIED SUBBASE INSTALLATION GRADE. IT IS CURRENTLY UNKNOW WHAT MATERIAL LIES BENEATH THE EXISTING BRICK PATHWAYS, SO THIS STEP SHALL COVER THE REMOVAL AND DISPOSAL OF ANY PAVERING OR SOILS UNDERTAKEN BELOW THE BRICKS. MEASUREMENT AND PAYMENT SHALL BE FOR EACH SQUARE YARD OF SOIL/PAVEMENT REMOVED AND DISPOSED OF.</td>
</tr>
<tr>
<td>11</td>
<td>7050-101-0-0</td>
<td>DRIVEWAY, PAVED, PCC, 6 INCHES SEE &quot;B&quot; SHEETS FOR LOCATIONS</td>
</tr>
<tr>
<td>12</td>
<td>7060-101-0-0</td>
<td>INSTALL BRICK SURFACE CONTRACTOR SHALL INSTALL THE CLEANED 8 SALVAGED BRICKS FROM THE EXISTING STREET IN A RUNNING BOND PATTERN. INSTALLED BRICKS SHALL BE JOINED WITH POLYMER SAND AND VIBRATED WITH A PLATE FOR COMPACTION. SHOULDBEHAVE THE CONTRACTOR RUN SHOT OF BRICKS, THE CITY WILL PROVIDE ADDITIONAL BRICKS TO COMPLIMENT THE MIX. THE CONTRACTOR SHALL COORDINATE WITH THE CITY TO PICK UP ADDITIONAL BRICKS AT THE CITY OF DES MOINES PUBLIC WORKS 5TH STREET SUPPLY YARD LOCATED AT 1003 5TH STREET. ANY UNMATCHING BRICKS SHALL BE GROUPED TOGETHER. PAYMENT SHALL BE FOR EVERY SQUARE YARD OF INSTALLED BRICK SURFACING.</td>
</tr>
</tbody>
</table>
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<th>Item No.</th>
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</thead>
<tbody>
<tr>
<td>12</td>
<td>7800-100-0-0</td>
<td>DEMO AND REPLACE PCC SUBBASE. THE CONTRACTOR SHALL REMOVE AND REPLACE THE PCC SUBBASE FOR EACH CROSSWALK BRICK REPAIR ON SW 11TH AND MLK. THE SUBBASE PATCH SHALL INCLUDE REINFORCEMENT DETAIL 7800.186. OVER-DRAINS AND PLACEMENT OF A BUMPS UP MODIFIED SUBBASE SHALL BE INCLUDED IN THE PRICE OF THIS ITEM.</td>
</tr>
<tr>
<td>14</td>
<td>7800-100</td>
<td>PROVIDE BRICK &amp; INSTALL BRICK PATH. CONTRACTOR SHALL PATCH SECTION OF BRICK CROSSWALKS ON MLK JR., PRUARY AT SW 11TH STREET. BRICK SMALL PATCH EXISTING CROSSWALKS AS BEST AS POSSIBLE. PAYMENT SHALL BE FOR EVERY SQUARE FOOT OF BRICK SMALL PATCH INSTALLED.</td>
</tr>
<tr>
<td>15</td>
<td>7800-100</td>
<td>SAND SETTING BED. CONTRACTOR SHALL INSTALL A SAND SETTING BED FOR ALL BRICK PATCHES AT SW 11TH STREET.</td>
</tr>
<tr>
<td>16</td>
<td>7800-100</td>
<td>HOM CONSULT. THIS BID ITEM IS FOR RELOCATION OF INDIVIDUAL BRICKS AT VARIOUS LOCATIONS. REFER TO THE SCHEDULE ON SHEET C.01 FOR PCC. BRICK REPLACEMENT LOCATIONS. THE CONTRACTOR SHALL PURCHASE A PALLET OF MATCHING BRICKS, REMOVE BROKEN BRICKS ON MLK CROSSWALK, AND REPLACE THE BROKEN AREAS. THIS ITEM INCLUDES ALL EQUIPMENT MATERIALS &amp; LABOR REQUIRED TO PATCH THE BRICKS AS DESIGNATED.</td>
</tr>
<tr>
<td>17</td>
<td>8930-100-0-0</td>
<td>TEMPORARY TRAFFIC CONTROL. INCLUDES BUT IS NOT LIMITED TO TRAFFIC CONTROL SHOWN IN 3 SHEETS.</td>
</tr>
<tr>
<td>18</td>
<td>8930-100-0-0</td>
<td>LANE CLOSURE. THE CONTRACTOR SHALL INSTALL A SINGLE LANE CLOSURE FOR EACH BRICK CROSSWALK PATCH IDENTIFIED BY THE CITY. PAYMENT SHALL BE FOR EACH LANE CLOSURE INSTALLED.</td>
</tr>
<tr>
<td>19</td>
<td>9810-100-0-0</td>
<td>HYDRAULIC SEEDING, SEEDING, FERTILIZING, AND MULCHING. THIS ITEM IS FOR RESTORATION OF DISTURBED AREAS. IF THE SEEDING IS NOT COMPLETE DURING THE FALL SEEDING PERIOD, THE CONTRACTOR WILL BE REQUIRED TO PLACE SEED. THE SEED WILL BE PAID AT THE SEEDING PRICE.</td>
</tr>
<tr>
<td>20</td>
<td>8040-100-1-1</td>
<td>SUMP PROTECTION DEVICE. SUMP PROTECTION SHALL BE DROP-IN IMMERSE PROTECTION AS SHOWN SECTION D0010, 2.1B,A.</td>
</tr>
<tr>
<td>21</td>
<td>11801-100-A-3</td>
<td>MOBILIZATION. BID ITEM PER SHEET.</td>
</tr>
<tr>
<td>22</td>
<td>11802-100-A-0</td>
<td>MAINTENANCE OF PORTAL SERVICES.</td>
</tr>
<tr>
<td>23</td>
<td>11802-100-A-0</td>
<td>MAINTENANCE OF SOLID WASTE COLLECTION.</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>PROJECT SIGN, LIST. SEE PROJECT SHEET SUPPLEMENTAL SPECIFICATION FOR MORE DETAILS.</td>
</tr>
</tbody>
</table>

TABULATION OF E MLK Jr Pkwy Brick Replacement

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BID ITEM 16</td>
<td>SW 11TH AND MLK PKWY BRICK REPAIR</td>
</tr>
</tbody>
</table>
GENERAL NOTES

The Contractor shall contact the principal construction inspector for the City of Des Moines engineering department (283-4177 or 208-4177 cell) 24 hours before beginning construction.

Utilities: The Contractor shall coordinate work with the utility companies with respect to protecting, relocating and constructing utility facilities. The Contractor shall be responsible for following the guidelines of each utility in protecting their facilities and shall exercise all due caution and use construction methods and equipment to complete work without damaging utilities.

All costs for staging construction for utility installation, providing temporary supports for utilities with assistance from the affected utility company, and coordinating with utilities, including delays, shall be incidental to the contract. No additional compensation shall be allowed.

The exact location and elevation of all utilities shall be determined by the Contractor at the time of construction. It shall be the duty of the Contractor to ascertain whether any additional facilities, other than those shown on the plans, may be present.

Construction Limits: The Contractor shall not disturb desirable grass areas and desirable trees outside the construction limits. The Contractor shall not park, service vehicles and equipment, or use these areas for storage of materials, storage, parking and service areas will be subject to the approval of the Engineer or as designed in the plans. The Contractor shall access the site in a manner that does not damage existing paved surfaces, sidewalks, and trails that are not designated to be replaced. Any damage to these surfaces shall be repaired at the Contractor's expense as approved by the Engineer.

Access to Properties: The Contractor shall be responsible to maintain access to adjacent properties at all times.

Pavement Removal: Existing pavement to be removed shall be saw cut at removal limits unless otherwise specified by the Engineer. Unnecessary surface breaks or premature spalling that occurs during the removal process shall be repaired at the Contractor's expense. The method of repair will be subject to the approval of the Engineer. All hot mix asphalt and concrete removed shall become the property of the Contractor for disposal unless otherwise specified in the plans.

Abandoned Utility Lines: All removal and disposal of abandoned utility lines including gas mains, water mains, telephone conduits, service lines, etc., required to complete the work shall be incidental to the contract.

Backfilling Holes: All holes resulting from operations of the Contractor, including removal of guardrail posts, fence posts, and utility poles, shall be filled and consolidated to finished grade, as approved by the Engineer, to prevent future settlement and shall be filled immediately. Any portion of the right-of-way or project limits disturbed by any such operations shall be restored to an acceptable condition. This operation shall be considered incidental to the contract.

Street/Sanitary Sewers: The Contractor shall maintain flow at all times. The Contractor shall be responsible for flow diverting and/or bypass pumping required to facilitate construction. The costs for maintaining, diverting, or pumping shall be incidental to the contract.

The Contractor shall protect all storm sewer inlets and culverts from siltation and debris during construction. The Contractor shall place steel plates over intakes and manholes prior to placement of pavement to prevent soil from entering into the sewer. The costs for placing for placement of pavement shall be incidental to the contract items.

The Contractor shall have a representative at the final inspection and will be responsible to open all manholes and intakes for inspection by City Personnel.

Site Cleanup: The Contractor shall clean all surfaces prior to opening the project to the public. A street sweeper that creates a minimal amount of dust shall be used for cleaning. All costs for cleaning shall be incidental to the contract.

The Contractor shall not remove any City of Des Moines traffic control signs. If a sign must be removed for any phase of construction, the Contractor will be responsible for removing, storage, and resetting the sign. This will be considered incidental to the contract.
BEGIN PROJECT STA 4+02.79

CONNECT SUBDRAIN TO EXISTING STORM SEWER

ADJUST MANHOLE TO GRADE

REMOVE AND REPLACE DRENNWAYS

REPLACE DRIVEWAYS

SUBDRAIN

STORM SEWER TO EXISTING

CONNECT SUBDRAIN TO EXISTING STORM SEWER

SUBDRAIN

ADJUST MANHOLE TO GRADE

END PROJECT STA 4+15.13

16TH STREET

TOP OF LEFT CURB PROFILE

TOP OF RIGHT CURB PROFILE

+$2.378\%$

+$7.446\%$

+$2.104\%$

+$2.378\%$

+$7.446\%$

+$2.104\%$

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STAGING NOTES:

1. COMPLETE GRADING, SUBGRADE PREP AND SUBBASE INSTALLATION. INSTALL TEMPORARY ROCK DRIVES TO EACH HOUSE.

2. CONSTRUCT NEW CURB AND GUTTER AND DRIVEWAYS ON ONE SIDE OF THE STREET. AFTER NEW DRIVEWAYS ARE CONSTRUCTED INSTALL TEMPORARY ROCK WEDGES IN THE GUTTER AT EACH DRIVEWAY TO PROVIDE ACCESS. ONE LANE OF THE STREET MAY BE USED FOR CONSTRUCTION ACTIVITIES DURING THIS PHASE. MAINTAIN LOCAL TRAFFIC IN THE OPPOSITE LANE (INSTALL CABLEGUARD DOWN THE CENTER OF THE STREET)

3. CONSTRUCT NEW CURB AND GUTTER AND DRIVEWAYS ON THE OPPOSITE SIDE OF THE STREET. AFTER NEW DRIVEWAYS ARE CONSTRUCTED INSTALL TEMPORARY ROCK WEDGES IN THE GUTTER AT EACH DRIVEWAY TO PROVIDE ACCESS. ONE LANE OF THE STREET MAY BE USED FOR CONSTRUCTION ACTIVITIES DURING THIS PHASE. MAINTAIN LOCAL TRAFFIC IN THE OPPOSITE LANE.

LEGEND

- **SIGN**
- **TYPE III BARRICADE**
- **WORK ZONE**

MAIN STREET LOCAL TRAFFIC IN THE OPPOSITE LANE. THE STREET MAY BE USED FOR CONSTRUCTION ACTIVITIES DURING THIS PHASE. MAINTAIN LOCAL TRAFFIC IN THE OPPOSITE LANE.

STAGING NOTES:

1. COMPLETE GRADING, SUBGRADE PREP AND SUBBASE INSTALLATION. INSTALL TEMPORARY ROCK DRIVES TO EACH HOUSE.

2. CONSTRUCT NEW CURB AND GUTTER AND DRIVEWAYS ON ONE SIDE OF THE STREET. AFTER NEW DRIVEWAYS ARE CONSTRUCTED INSTALL TEMPORARY ROCK WEDGES IN THE GUTTER AT EACH DRIVEWAY TO PROVIDE ACCESS. ONE LANE OF THE STREET MAY BE USED FOR CONSTRUCTION ACTIVITIES DURING THIS PHASE. MAINTAIN LOCAL TRAFFIC IN THE OPPOSITE LANE (INSTALL CABLEGUARD DOWN THE CENTER OF THE STREET)

3. CONSTRUCT NEW CURB AND GUTTER AND DRIVEWAYS ON THE OPPOSITE SIDE OF THE STREET. AFTER NEW DRIVEWAYS ARE CONSTRUCTED INSTALL TEMPORARY ROCK WEDGES IN THE GUTTER AT EACH DRIVEWAY TO PROVIDE ACCESS. ONE LANE OF THE STREET MAY BE USED FOR CONSTRUCTION ACTIVITIES DURING THIS PHASE. MAINTAIN LOCAL TRAFFIC IN THE OPPOSITE LANE.
STREET TO ASCENSION STREET
16TH STREET RECONSTRUCTION - DAY

- Protect tree
- Remove and replace driveways
- Protect fence and shrubs
- Remove and salvage brick pavers
- Remove curb and gutter
- Remove curb and gutter

SCALE IN FEET
20 40