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Call R below.

ROLLAND CONSULTING ENGINEERS
405 RIDGES BLVD., SUITE A
GRAND JUNCTION, CO 81507
(970) 243-8300

ORCHARD AVENUE
NORMANDY DRIVE TO 29 ROAD
MARCH 2019

SHEET INDEX

ORCHARD AVENUE
RECONSTRUCTION PROJECT

Bid Set
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF GRAND JUNCTION STANDARDS, GUIDELINES, AND SPECIFICATIONS, UNLESS OTHERWISE NOTED.

ALL WATER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF GRAND JUNCTION STANDARDS AND SPECIFICATIONS; ALL INSPECTION AND TESTING IS THE CONTRACTOR'S RESPONSIBILITY. THE WATER LINE SHALL BE APPROVED PRIOR TO PAYING.

SUBSURFACE SHALL BE IDENTIFIED BY THE OAHU OR GEOENVIRONMENTAL ENGINEER. PRIOR TO PLACEMENT OF BASE COURSE AND PRIOR TO PLACEMENT OF ASBESTOS, CONTRACTOR SHALL PROVIDE A PLAN AS NEEDED TO VISUALLY INSPECT CONTRACTOR.

THE CONTRACTOR SHALL MAINTAIN THE COPY OF THE PLANS AND A COPY OF THE CITY OF GRAND JUNCTION STANDARDS AND SPECIFICATIONS, AND THE MESA COUNTY STANDARDS AND SPECIFICATIONS, ON SITE AT ALL TIMES.

ALL TESTING WILL BE PER MESA COUNTY STANDARDS AND SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING ALL TESTING. ALL RE-TESTING WILL BE AT THE CONTRACTOR'S EXPENSE.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS APPROXIMATE ONLY. LOCATING SERVICES ARE USED TO IDENTIFY THE EXISTING UTILITIES. MAY BE VARYING ARE NOT SHOWN IN THE DRAWINGS. LOCATING SERVICES WILL NOT BE RESPONSIBLE FOR DETERMINING ANY WORK ON OR AROUND THESE UTILITIES.

THE CONTRACTOR SHALL PROVIDE TO THE CONTRACTOR IN A TIMELY MANNER WITH NOTICE PRIOR TO COMMENCEMENT OF SERVICE.

UNLESS OTHERWISE SPECIFIED, ALL WORK SHALL BE COMPLETED TO AT LEAST 75% OF THE REQUIREMENTS FOR THE CONSTRUCTION.

EQUIPMENT PROPOSED TO BE USED IN THE CONSTRUCTION OR THE EXISTING UTILITIES WILL BE APPROVED ONLY. CONTRACTOR SHALL VERIFY THAT EQUIPMENT WILL NOT DAMAGE EXISTING UTILITIES.

ALL PUBLIC UTILITIES IN THE RIGHT-OF-WAY SHALL BE COMPLETED BEFORE COMMENCEMENT OF THE WORK. PUBLIC UTILITIES SHALL BE IN ACCORDANCE WITH THE CITY OF GRAND JUNCTION STANDARDS AND SPECIFICATIONS.

CUSTOM CONTROL MEASURES MUST BE TAKEN DURING CONSTRUCTION TO AVOID DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL MAINTAIN AS REQUIRED AT 200380.

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ANY EXISTING UNDERGROUND UTILITIES WITHIN THE LIMITS OF THE RIGHT-OF-WAY WITH THE APPROPRIATE CITY OF GRAND JUNCTION STANDARDS AND SPECIFICATIONS.

DRAINAGE LINES SHALL HAVE A TR,D, AND ARE PLANNED TO THE STRUCTURE. THE VISUAL DRAINAGE LINES SHALL BE LEFT ACCESSIBLE AHEAD TO THE EXISTING STRUCTURE.

AT-EASE SANITARY SEwer LINE SHOULD BE PROVIDE AT THE END OF THE PIPE AND DRAINAGE AT THE ELEVATIONS ALONG WITH EXISTING UTILITIES WILL BE REQUIRED. THE CONTRACTOR SHALL MAINTAIN THE EXISTING UTILITIES. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN ALL EXISTING UTILITIES.
Know what's before you dig. Call below.

Rolland Consulting Engineers, LLC
405 Ridges Blvd. Suite A
Grand Junction, CO 81507
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Fax: (970) 241-1273
www.rcegj.com

811
Digging Smarter. Digging Safer.
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Rollo Consulting Engineers, LLC
405 Ridges Blvd. Suite A
Grand Junction, CO 81507
Voice: (970) 243-8300
Fax: (970) 241-1273
www.rcegj.com
<table>
<thead>
<tr>
<th>Item No.</th>
<th>COT#</th>
<th>City Ref.</th>
<th>Description</th>
<th>Quantity</th>
<th>Units</th>
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<tbody>
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<td>106</td>
<td>2</td>
<td>4&quot; Inverted Pipe (GSI 35 PVC)</td>
<td>166</td>
<td>LF</td>
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<tr>
<td>2</td>
<td>106</td>
<td>2</td>
<td>10&quot; Inverted Pipe (GSI 80 PVC)</td>
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<td>3</td>
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<td>2</td>
<td>12&quot; Inverted Pipe (GSI 150 PVC)</td>
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<td>7</td>
<td>106</td>
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<td>Storm Water Quality Structure</td>
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<td>Each</td>
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<tr>
<td>8</td>
<td>106</td>
<td>5</td>
<td>Concrete Infiltration Control Structure Type 1</td>
<td>1</td>
<td>Each</td>
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<tr>
<td>9</td>
<td>106</td>
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<td>Concrete Infiltration Control Structure Type 2</td>
<td>1</td>
<td>Each</td>
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<td>10</td>
<td>106</td>
<td>5</td>
<td>Concrete Infiltration Control Structure Type 3</td>
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<td>Each</td>
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<tr>
<td>11</td>
<td>106</td>
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<td>Infiltration Structure 20&quot; Infiltration HD</td>
<td>8</td>
<td>Each</td>
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<tr>
<td>12</td>
<td>106</td>
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<td>Marina barrier Section E (H = 5')</td>
<td>4</td>
<td>Lin. Ft</td>
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<tr>
<td>13</td>
<td>106</td>
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<td>Marina barrier Section S (H = 5')</td>
<td>3</td>
<td>Each</td>
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<td>14</td>
<td>106</td>
<td>5</td>
<td>Marina barrier Section X (H = 3')</td>
<td>9</td>
<td>Lin. Ft</td>
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<tr>
<td>15</td>
<td>106</td>
<td>6</td>
<td>Single Storm drain inlet (Vertical Cells)</td>
<td>10</td>
<td>Each</td>
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<tr>
<td>16</td>
<td>106</td>
<td>7</td>
<td>Gravel Stabilization Material (Type B)</td>
<td>102</td>
<td>Ton</td>
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<tr>
<td>20</td>
<td>201</td>
<td></td>
<td>Clear &amp; Grub (includes both, hedge &amp; sod removed)</td>
<td>1</td>
<td>Lamp Burn</td>
</tr>
<tr>
<td>21</td>
<td>202</td>
<td></td>
<td>Removal of Asphalt Sidewalk (all depths)</td>
<td>7,425</td>
<td>SY</td>
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<tr>
<td>22</td>
<td>202</td>
<td></td>
<td>Removal of Asphalt Sidewalk</td>
<td>245</td>
<td>SY</td>
</tr>
<tr>
<td>23</td>
<td>202</td>
<td></td>
<td>Removal of Fence</td>
<td>588</td>
<td>LF</td>
</tr>
<tr>
<td>24</td>
<td>202</td>
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<td>Removal of Tree Stump</td>
<td>17</td>
<td>Each</td>
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<tr>
<td>25</td>
<td>202</td>
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<td>Removal of Concrete Curb</td>
<td>11</td>
<td>Each</td>
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<tr>
<td>26</td>
<td>202</td>
<td></td>
<td>Removal of Concrete Sidewalk</td>
<td>200</td>
<td>SY</td>
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<tr>
<td>27</td>
<td>202</td>
<td></td>
<td>Removal of Existing Infiltration System, shall include the Removal of all pipes, Concrete Curb and Infiltrations Above &amp; Below</td>
<td>1,200</td>
<td>LF</td>
</tr>
<tr>
<td>28</td>
<td>203</td>
<td></td>
<td>Finishing</td>
<td>20</td>
<td>Each</td>
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<tr>
<td>29</td>
<td>203</td>
<td></td>
<td>Unlevelled Excavation</td>
<td>5,000</td>
<td>CY</td>
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<td>30</td>
<td>207</td>
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<td>Topsoil</td>
<td>106</td>
<td>CY</td>
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<tr>
<td>31</td>
<td>208</td>
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<td>Erosion Control Management</td>
<td>1</td>
<td>Lamp Burn</td>
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<tr>
<td>32</td>
<td>258</td>
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<td>Aggregate Rip</td>
<td>102</td>
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<tr>
<td>33</td>
<td>258</td>
<td></td>
<td>Pre-Fabricated Concrete Wall Structure</td>
<td>1</td>
<td>Each</td>
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<tr>
<td>34</td>
<td>258</td>
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<td>Erosion Control Log (Type A)</td>
<td>1,706</td>
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<tr>
<td>35</td>
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<td>Slat Fence</td>
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<tr>
<td>37</td>
<td>210</td>
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<td>Storm Drain Inlet (Type 4)</td>
<td>11</td>
<td>Each</td>
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<tr>
<td>38</td>
<td>210</td>
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<td>Rest Structure (Med Box)</td>
<td>19</td>
<td>Each</td>
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<tr>
<td>39</td>
<td>210</td>
<td></td>
<td>Rest Structure (Sign/Post)</td>
<td>10</td>
<td>Each</td>
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<tr>
<td>40</td>
<td>210</td>
<td></td>
<td>Rest Sign Panel</td>
<td>4</td>
<td>Each</td>
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<tr>
<td>41</td>
<td>210</td>
<td></td>
<td>Rest Supplies System (Complete in Place)</td>
<td>8</td>
<td>Each</td>
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<tr>
<td>42</td>
<td>210</td>
<td></td>
<td>Rest Infiltration Pump (Complete in Place)</td>
<td>5</td>
<td>Each</td>
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<tr>
<td>44</td>
<td>210</td>
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<td>Rest Landscape Border</td>
<td>126</td>
<td>LF</td>
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<tr>
<td>45</td>
<td>210</td>
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<td>Landscape Grade</td>
<td>476</td>
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<td>46</td>
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<td>Sodding</td>
<td>6,005</td>
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<tr>
<td>47</td>
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<td>Aggregate Base Course Class C</td>
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<tr>
<td>48</td>
<td>403</td>
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<td>Hot Mix Asphalt (PG 74-22) (Grading SI)</td>
<td>3,246</td>
<td>SY</td>
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<tr>
<td>49</td>
<td>403</td>
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<td>Hot Mix Asphalt (Painting) (Chink Thrch) (PG64-22) (Grading SI)</td>
<td>95</td>
<td>SY</td>
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<tr>
<td>50</td>
<td>403</td>
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<td>Gesteckas (Motar RS3660)</td>
<td>9,750</td>
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</table>
IRRIGATION CONTROL STRUCTURE TYPE 1 (SPECIAL)(3+54.23)

IRRIGATION CONTROL STRUCTURE TYPE 2 (SPECIAL)(6+86.06)

30" NYLOPLAST HEAVY DUTY DRAIN BASIN

MODIFIED 2X2 ROAD AND HIGHWAY GRATE

IRRIGATION FILL ACROSS DRIVeways AND ROADS

IRRIGATION CONTROL STRUCTURE TYPE 3 (SPECIAL)(3+54.23)
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Grand Junction, CO 81507
Voice: (970) 243-8300
Fax: (970) 241-1273
www.rcegj.com
1. SITE DESCRIPTION
The Contractor shall comply with all County contractual requirements and all requirements associated with the COPS-SCP on this project. The SWMP Administrator shall update to reflect current project site conditions.

A. PROJECT SITE LOCATION: Orchard Avenue between Normandy Drive and 29 Road.

B. PROJECT SITE DESCRIPTION: Reconstruct Orchard Avenue from Normandy Drive to 29 Road. Project is located in a fully developed section of Grand Junction, with two churches and the rest being residential properties. Churches and houses currently have established irrigation and landscape areas that will be modified by this project. Grading activities outside of the proposed roadway section will be minor. The street reconstruction has been designed to match existing grades as closely as possible while still allowing for good drainage to inlets. Proposed new utilities include water lines, storm drain, gas, sanitary sewer and irrigation. The street will be resurfaced with asphalt pavement. Existing driveways and yards will be regraded with materials similar to existing, primarily sod and gravel.

B. PROPOSED SEQUENCING FOR MAJOR CONSTRUCTION ACTIVITIES:
1. Installation of Initial erosion control items.
2. Clearing and grubbing.
3. Removal and stockpile of topsoil.
4. Utility installation and relocations (irrigation, storm drain, water, sanitary sewer, dry utilities).
5. Asphalt removal.
8. Installation of interim erosion control items.
9. Concrete sidewalks and cross pans, hot mix asphalt of proposed roadway.
10. Landscape installation.
11. Signing and striping.
12. Installation of final erosion control items (re-vegetation).

C. ACRES OF DISTURBANCE:
1. Total area of construction site (LOC [PERMITTED AREA]): 4.1 acres
2. Total area of proposed disturbance (LDA): 4.1 acres
3. Total area of seeding: 0.0 acres
4. Total area of impervious surface: 1.6 acres
5. Total area of NAV Impervious surface: 2.7 acres

E. EXISTING SOIL DATA: Sagers Urban Land complex, 0 to 2 percent slopes. Parent Material: Cretaceous source although derived from sandstone and shale. Runoff Class is: low. Depth to water table: more than 80 inches. Hydrologic soil group C.

F. EXISTING VEGETATION, INCLUDING PERCENT COVER:
A survey including general description of existing vegetation shall be conducted by the SWMP Administrator prior to any ground disturbance on the project. The SWMP Administrator shall photo-document existing vegetation where all work will be occurring.

Pre-Construction Date of survey: _______________ %Density: ___________
Description of existing vegetation:
Map or table showing transect locations in SWMP notebook tab 17:

Post-Construction Date of survey: _______________ %Density: ___________
Description of existing vegetation:
Map or table showing transect locations in SWMP notebook tab 17:

G. POTENTIAL POLLUTANT SOURCES: See first Construction Activities under Potential Pollutant Sources. The SWMP Administrator shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.27.

H. RECEIVING WATER:
1. Outfall locations: The owner of the new storm pipe installed that is underground and crossing Orchard Avenue will be owned and maintained by the City of Grand Junction and Mesa County. All storm drain piping that is part of this project, conveys storm water to Indian Wash which conveys water to the Colorado River. This project is located within M44 boundaries.
2. Names of receiving water(s) on site: Indian Wash
3. Ultimate receiving water: Colorado River
4. Horizontal distance nearest water of the state is from project: 15,200 feet.

I. NON-STORMWATER DISCHARGES:
No non-stormwater discharges are anticipated. Irrigation water normally flows through the site in a network of pipes and open ditches. As a part of the proposed improvements the irrigation water will be entirely piped within the project area. The soils investigated indicated groundwater levels between 8.5 and 11.5 feet below the surface which may be encountered with construction of the storm drain and should be managed through the dewatering procedures.

ALLOWABLE:
1. Groundwater and construction dewatering. Discharges to the ground of water from construction dewatering activities may be authorized provided that:
   a. the source is groundwater that does not contain pollutants
   b. the source and BMPs/Control Measures are identified in the SWMP
   c. discharges do not leave the site as surface runoff or to surface waters
   d. the contractor shall protect all work areas and facilities from water at all times. Areas and facilities subject to flooding, regardless of the source of water, shall be promptly dewatered and restored at no cost to the owner. This shall include removal of any debris caused by flooding. Any dewatering shall be done in accordance with Subsection 107.25.

CONTAMINATED:
1. If discharges do not meet the above criteria a separate CDPS permit shall be obtained from the Contractor from the CDPSH. See standard special provision 250 Hazardous Waste and Contaminated Water.

2. SITE MAP COMPONENTS:
Pre-construction

A. PROJECT CONSTRUCTION POTENTIAL SITE BOUNDARIES

B. FLOW ARROWS THAT DEPICT STORMWATER FLOW DIRECTIONS

C. ALL AREAS OF GROUND SURFACE DISTURBANCE

D. AREAS OF CUT AND FILL

E. LOCATION OF ALL STRUCTURAL BMPs/CONTROL MEASURES IDENTIFIED IN THE SWMP

F. LOCATION OF NON-STRUCTURAL BMPs/CONTROL MEASURES AS APPLICABLE IN THE SWMP

G. SPRINGS, STREAMS, WETLANDS AND OTHER SURFACE WATER

H. PROTECTION OF TREES, SHRUBS, CULTURAL RESOURCES AND MATURE VEGETATION

I. AREAS USED FOR STORING AND STOCKPILING OF MATERIALS, STAGING AREAS (field trailer, fueling, etc.) AND BATCH PLANTS
3. SWMP ADMINISTRATOR:

A. SWMP ADMINISTRATOR FOR DESIGN:

<table>
<thead>
<tr>
<th>Name/Title</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kent Sheffer/Project Manager</td>
<td>970-243-8300, <a href="mailto:kent@rceg.com">kent@rceg.com</a></td>
</tr>
</tbody>
</table>

B. SWMP ADMINISTRATOR FOR CONSTRUCTION: (As defined in Subsection 206) The Contractor shall designate a SWMP Administrator for Construction upon applying for the CDPEE permit. The SWMP Administrator shall assume responsibility for all design changes to the SWMP Implementation and maintenance in accordance to 208.03. The SWMP Administrator shall be responsible for implementing, maintaining and revising SWMP including the title and contact information. The activities and responsibilities of the SWMP Administrator shall address all aspects of the projects SWMP. (Update the information below for each new SWMP Administrator) (Copy of TEC5 Certification must also be included in the SWMP Notebook.)

<table>
<thead>
<tr>
<th>Name/Title</th>
<th>Contact Information</th>
<th>Certification #: Start Date</th>
<th>Engineer Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>231</td>
<td>EEE</td>
<td>EE</td>
<td>EEE</td>
</tr>
</tbody>
</table>

C. EROSION CONTROL INSPECTOR: (As defined in Subsection 206) The Contractor may designate an Erosion Control Inspector. Copy of TEC5 Certification, or equivalent, must also be included in the SWMP Notebook.

4. STORMWATER MANAGEMENT CONTROLS FIRST CONSTRUCTION ACTIVITIES

The Contractor shall perform the following:

A. POTENTIAL POLLUTANT SOURCES

1. Evaluate, identify, locate and describe all potential sources of pollutants at the site in accordance with subsection 107.25, CDPH-SCP and place in the SWMP Notebook. All BMPs/Control Measures related to potential pollutants shall be shown on the SWMP site map by the Contractor’s SWMP Administrator.

B. OFFSET DRAINAGE (RUN ON WATER)

1. Describe and record BMP/Control Measures on the SWMP site map that have been implemented to address all site run-on water in accordance with subsection 208.03.

C. VEHICLE TRACKING PAD/VEHICLE TRACKING CONTROL

1. BMP/Control Measures shall be implemented in accordance with subsection 208.04.

D. PERIMETER CONTROL

1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters.
2. Perimeter control may consist of vegetation buffers, berms, silt fence, erosion logs, existing landforms, or other BMPs/Control Measures as approved.
3. Perimeter control shall be in accordance with subsection 208.04

5. DURING CONSTRUCTION

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR DURING CONSTRUCTION

The SWMP should be considered a “living document” that is continuously reviewed and modified. During construction, the following items shall be added, updated, or amended as needed by the SWMP Administrator in accordance with subsection 208. During construction, indicate how items that have not been addressed during design are being handled in construction. If items are covered in the template or other sections of the SWMP notebook indicate below what section the discussion takes place.

A. STORMWATER MANAGEMENT: shall be done in accordance with subsection 107.25 and 208.07
B. CONCRETE WASHOUT: Concrete washout water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.
C. SAW CUTTING: Shall be done in accordance with subsection 107.25, 208.04, 208.05
D. STREET SWEEPING: Shall be done in accordance with subsection 208.04

6. INSPECTIONS

A. Inspections shall be in accordance with subsection 208.03 (a).

7. BMP/CONTROL MAINTENANCE

A. Maintenance shall be in accordance with subsection 208.04 (f).

8. RECORD KEEPING

A. Records shall be kept in accordance with subsection 208.03 (d).

9. INTERIM AND PERMANENT STABILIZATION (Not Applicable)

10. PRIOR TO PROJECT FINAL ACCEPTANCE

A. At the Substantial Completion of the project, it shall be determined by the SWMP Administrator and the Engineer which temporary BMPs/Control Measures shall remain until 70% revegetation is established or which shall be removed.
B. At the end of the project, all ditch checks shall either consist of temporary erosion logs (or equivalent) or permanent p-trap.
C. All storm drains shall be cleaned prior to the Final Acceptance of the project.
### 11. NARRATIVES:

**A. ADDITIONAL BMPS/CONTROL MEASURES AND NARRATIVES:**

BMP/Control Measure details and narratives not covered by the SWMP or Standard Plan M-208, M-216 shall be added to the SWMP notebook by the SWMP Administrator.

**BMP Matrix:**

1. M-Standards have been included along with standard BMP narratives. If a Non-Standard BMP will be used or the standard narrative does not apply, the SWMP Administrator shall write a Non-Standard BMP narrative, place an "X" in the column and complete a Non-Standard BMP Specification and Narrative for the SWMP notebook.

2. The SWMP Administrator shall place an "X" in the column in use on site when the BMP/Control Measure has been installed.

3. Place an "X" in the column BMP/Control Measure to be located by SWMP Administrator if the SWMP Administrator shall locate the BMP/Control Measure during construction. These BMP/Control Measures are not currently located on SWMP Plans but are anticipated to be used during construction (i.e. Vehicle Tracking Pad, Batch Plants, etc.). The SWMP Administrator shall locate these prior to or during construction and reflect on SWMP Map.

4. Place an "X" in the column Installation BMP/Control Measure Pre-Construction if the BMP/Control Measure is to be installed prior to construction activity.

**STRUCTURAL BMPs/Control Measures** that may be potentially used on the project for erosion and sediment control: practices may include, but are not limited to:

<table>
<thead>
<tr>
<th>APPLICATION, BMP/CONTROL MEASURE</th>
<th>NARRATIVE</th>
<th>M-STANDARD/NO- STANDARD</th>
<th>IN USE ON SITE</th>
<th>BMP CONTROL MEASURE TO BE LOCATED BY SWMP ADMINISTRATOR</th>
<th>INSTALLATION BMP/CONTROL MEASURE PRE-CONSTRUCTION</th>
<th>BMP/CONTROL MEASURE PHASIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOE OF FILL PROTECTION</td>
<td>Erosion logs, temporary berm, sill fence, topsoil window*</td>
<td>Place prior to slope/embankment work to capture sediment and protect and delineate undisturbed areas. *Can be used to stockpile topsoil for salvage.</td>
<td>M-208</td>
<td>X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERIMETER CONTROL</td>
<td>Erosion logs, sill fence, temporary berm, topsoil window*</td>
<td>Placed prior to construction commencing to address potential run-on water from off site, and to divert around disturbed area. *Can be used to stockpile topsoil for salvage.</td>
<td>M-208</td>
<td>X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONCRETE WASHOUT</td>
<td>In-ground or fabricated</td>
<td>Construction control, used for waste management of concrete and concrete equipment cleaning. Place prior to start of concrete activities.</td>
<td>M-208</td>
<td>X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWEEPING</td>
<td>Source control, used to remove sediment tracked onto paved surfaces and to prevent sediment from entering drainage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.</td>
<td></td>
<td></td>
<td>X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEWATERING (Contractor is responsible for obtaining a permit from Colorado Department of Health and Environment)</td>
<td>Shall be done in such a manner to prevent potential pollutants from entering state waters.</td>
<td></td>
<td></td>
<td>X X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NON-STRUCTURAL BMPs/Control Measures that may be potentially used on the project for erosion and sediment control practices may include, but are not limited to:

- Erosion control devices are used to limit the amount of soil loss on site
- Sediment control devices are designed to capture sediment on the project site.

Construction controls are BMPs/Control Measures related to construction access and staging. BMP/Control Measure locations are indicated on the SWMP Site map.

<table>
<thead>
<tr>
<th>APPLICATION, BMP/CONTROL MEASURE</th>
<th>NARRATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOPSOIL MANAGEMENT STOCKPILE/SALTVALE Window or stockpile Other</td>
<td></td>
</tr>
<tr>
<td>Prior to embankment work commencing, existing topsoil shall be scraped to a depth of 4 inches, and placed in stockpiles or windows. Upon completion of slope work/final grading (less 4 inches), topsoil shall be evenly distributed over embankment to a depth of 4 inches.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BMP/CONTROL MEASURE PHASING</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN USE ON SITE</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>X</td>
</tr>
</tbody>
</table>

12. TABULATION OF STORMWATER QUANTITIES

A. BMP/Control Measure sediment removal and disposal shall be included in the Erosion Control lump sum cost. All other BMP/Control Measure maintenance shall be included in the cost of the BMP/Control Measure.

B. Establishment of seeded areas shall be paid for as (N/A). This shall include mowing, weed control, reseeding/mulch/ tackifier.

<table>
<thead>
<tr>
<th>FSP Spec.</th>
<th>Pay Item</th>
<th>Description</th>
<th>Pay Unit</th>
<th>Initial Const.</th>
<th>Interim Const.</th>
<th>Permanent Stabilization</th>
<th>*Total Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>207-00205</td>
<td>Topsoil</td>
<td>CY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>208-00002</td>
<td>Erosion Log</td>
<td>LF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1700</td>
</tr>
<tr>
<td>208-00220</td>
<td>Silt Fence</td>
<td>LF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>208-00035</td>
<td>Aggregate Bag</td>
<td>LF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>208-0046</td>
<td>Pre-fabricated Concrete Washout Structure</td>
<td>Each</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>208-0051</td>
<td>Storm Drain Inlet Protection</td>
<td>Each</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>208-00207</td>
<td>Erosion Control Management</td>
<td>LS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*It is anticipated that additional BMPs/Control Measures and BMP/Control Measure quantities not shown on the SWMP Site Map shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsection 208.03 and 208.04. Quantities for all BMPs/Control Measures shown above are estimated, and have been increased for unforeseen conditions and normal BMP/Control Measure life expectancy. Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.
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