SAN JOAQUIN ROAD:
OLD AJO HIGHWAY TO NEAL AVENUE
PAVEMENT TREATMENT TESTING

PIMA COUNTY PROJECT NO. 4PPP19

GENERAL PROJECT DESCRIPTION

THE PROJECT CONSISTS OF 14 PAVEMENT STRUCTURAL SECTIONS TO BE INSTALLED ON SAN JOAQUIN ROAD OVER 2.5 MILES OF ROADWAY FOR PAVEMENT PRESERVATION FROM OLD AJO HIGHWAY TO NEAL AVENUE.

LOCATION MAP
Sections 26,30,32 & 33 of
T-14-S, R-12-E
Section 4 of
T-15-S, R-12-E
G & S R M
Pima County, Arizona

PROJECT LOCATION

SAN JOAQUIN ROAD
PAVEMENT TREATMENT TESTING AREA

PROJECT IN SUPERVISOR DISTRICT 3

SHEET INDEX

<table>
<thead>
<tr>
<th>SHEET NO.</th>
<th>SHEET NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C1</td>
<td>TITLE SHEET</td>
</tr>
<tr>
<td>2</td>
<td>G1</td>
<td>GENERAL NOTES</td>
</tr>
<tr>
<td>3-6</td>
<td>TS1-TS4</td>
<td>TYPICAL ROADWAY &amp; STRUCTURAL SECTIONS</td>
</tr>
<tr>
<td>7-9</td>
<td>R1-R3</td>
<td>ROADWAY PLANS</td>
</tr>
<tr>
<td>10-15</td>
<td>PM1-PM6</td>
<td>PAVEMENT MARKING PLANS</td>
</tr>
<tr>
<td>16-18</td>
<td>S1-S3</td>
<td>SIGN PLANS</td>
</tr>
<tr>
<td>19-22</td>
<td>ER1-ER4</td>
<td>EROSION AND POLLUTION CONTROL PLANS</td>
</tr>
</tbody>
</table>

PIMA COUNTY DEPARTMENT OF TRANSPORTATION
201 N. STONE AVE. TUCSON, ARIZONA 85701

ANA M. OLIVARES, P.E., DIRECTOR
1. **CRACK SEALING AND FILLING.** This work consists of furnishing and placing sealant or filler material in contractor prepared depressions or cracks, and repairing the pavement. Depression preparation shall consist of removing the pavement to the required depth, and filling each depression to the level of the adjacent pavement. The contractor shall be responsible for ensuring that the depression is properly prepared and that the sealant or filler material is properly placed.

2. **LAYOUT LOCATIONAL GUIDELINES.** The layout and location of the work shall be in accordance with the plans and specifications. The contractor shall be responsible for ensuring that the work is properly located and that it meets the requirements of the plans and specifications.

3. **RIGHT-OF-WAY ENCROACHMENTS.** The contractor shall be responsible for ensuring that the work does not encroach on the right-of-way unless otherwise noted.

4. **REMOVAL OF ALL FATS AND NATIVE PLANTS.** The contractor shall be responsible for removing all fats and native plants in accordance with the latest provisions of the Arizona Native Plant Law, A.R.S. ch. 1-11.

5. **BASES OF ELEVATION FOR THIS PROJECT.** The bases of elevation for this project are provided in the plans and specifications. The contractor shall be responsible for ensuring that the work is properly located and that it meets the requirements of the plans and specifications.

6. **SURFACE LEVELS AND ELEVATION COORDINATES ARE DERIVED FROM DOWING THE GRID COORDINATES BY 3,595,039.** For Pima County GP control point "PD1," the coordinates are:

   - North: 2,586,240-0
   - East: 1,986,184-0
   - Elevation: 915-0

   The contractor shall be responsible for ensuring that the work is properly located and that it meets the requirements of the plans and specifications.

7. **Prior to application of spray sealant material, the contractor shall submit the material's product specifications together with installation recommendations which shall include surface preparation, product installation, and curing requirements. Certification of compliance for sealant material shall be submitted to the engineer. The engineer may require that the material be tested in the field and during production, to verify the quality of the materials and to ensure compliance with the specifications.

8. **Prior to application of sealant material, the contractor shall be responsible for ensuring that the work is properly located and that it meets the requirements of the plans and specifications.**

9. **Temperature requirements for the installation of asphalt sealant are as follows: **

   - **Cold Temperature: Sealants shall be applied only when the temperature of the pavement surface is within the range of 50°F to 90°F (10°C to 32°C).**
   - **Warm Temperature:**
     - **Cold Weather Sealant:** Sealants shall be applied only when the temperature of the pavement surface is within the range of 50°F to 70°F (10°C to 21°C).
     - **Warm Weather Sealant:** Sealants shall be applied only when the temperature of the pavement surface is within the range of 70°F to 90°F (21°C to 32°C).

   The contractor shall be responsible for ensuring that the work is properly located and that it meets the requirements of the plans and specifications.
STRUCTION SECTIONS

12' 12'

1" Green Asphalt Overlay

Travel Lone Travel Lone

R/W Regrade Shldr.

R/W

J
to Match Roodl.

Regrade Shldr. nXIS.

EXI GND

SECTION NO. 1
San Joaquin Road
STA: 0+00 to 11+43
(Done by Others)

SECTION NO. 2
San Joaquin Road
STA: 11+43 to 22+30

SECTION NO. 3
San Joaquin Road
STA: 22+30 to 32+74

SECTION NO. 4
San Joaquin Road
STA: 32+74 to 43+17

1 2" Overlay

PAG A.C. (No. 3 Mix, PG70-22TR+)

Existing Asphaltic Pavement

TYPICAL SECTION
San Joaquin Road
STA: 0+00 to 11+43

2" Overlay

PAG 2 Mix

Existing Asphaltic Pavement

TYPICAL SECTION
San Joaquin Road
STA: 11+43 to 22+30

2" Overlay

PAG 2 Mix (w/ Fiber)

Existing Asphaltic Pavement

TYPICAL SECTION
San Joaquin Road
STA: 22+30 to 32+74

Revision to Treatment

TYPICAL SECTION
San Joaquin Road
STA: 32+74 to 43+17

TYPICAL SECTION
San Joaquin Road
STA: 11+43 to 22+30

TYPICAL SECTION
San Joaquin Road
STA: 22+30 to 32+74

TYPICAL SECTION
San Joaquin Road
STA: 32+74 to 43+17

Arizona Blue Stoke
1-800-STAKHT
1-800-782-5348

VTR - San JoaquinCAD Files\4PPP19- San Joaquin Sections.dwg

Revision to Treatment

Revision to Treatment
STRUCTURAL SECTIONS

TYPICAL SECTION
San Joaquin Road
STA: 130+13 to 141+00

SECTION NO. 13
San Joaquin Road
STA: 130+13 to 141+00

TYPICAL SECTION
San Joaquin Road
STA: 141+00 to 154+75.65

SECTION NO. 14
San Joaquin Road
STA: 141+00 to 154+75.65

DESIGN DATA
San Joaquin Road 2015 ADT = 9,110 VPD
San Joaquin Road Design Speed = 55 MPH
San Joaquin Rd Classification: Urban Cycleway
GENERAL NOTES:
1. Areas outside of the Project Disturbance Limits or Right of Way shall remain undisturbed. Should additional area require disturbance, the Engineer, Owner and appropriate parties must be notified. Any project related activities or disturbance beyond the Project Disturbance Limits or Right of Way will require historic and cultural resources compliance to have been included before any disturbance can occur. The Plans and NOI must be updated accordingly and reflect additional BMPs.

2. All disturbed soils shall be stabilized.

3. All Erosion Control Measures shall be installed within 14 days of establishing rough grade. Disturbed areas where construction is delayed for more than 14 days require Temporary Erosion Control Measures.

4. Erosion Control Measures shall be installed at perimeter of Limits of Disturbance.

5. Sediment Control Measures shall be installed on all side slope boundaries. Sediment controls shall be placed on side slope boundaries when adjacent side slope is at lower elevation than project area with potential to receive stormwater runoff. Adjacent slopes at higher elevation than project area do not require perimeter control.

6. Sediment Wattles shall be installed on slopes where necessary, per Erosion & Pollution Control plans, and per Detail E1. Ends of Wattles shall be turned upslope at a 45 degree angle, 3° min., Typ.

7. Contractor shall determine final location of Stabilized Construction Entrance/Exit Gravel Pad according to site conditions and/or construction sequencing, with approval from the Engineer. Use of other access points must be approved by the Engineer.

8. Sweeping and/or vacuuming may be required as a secondary measure if trackout is visible.

9. Containment Areas shall be identified on Contractor’s Stormwater Pollution Prevention Plan.

10. Spill response equipment shall be accessible in case of a spill, and located within/near the Containment Area.

11. Quantities shown in Summary of Quantities are for Contractor convenience. Contractor to verify all quantities.

12. All work and materials relating to the BMPs detailed within these Plans (including all materials used for BMPs, all ground preparation, furnishing, installing, maintenance, final removal, and disposal of temporary BMPs, as well as returning the area to an acceptable condition as approved by the Engineer) shall be paid for under the Erosion and Pollution Control bid items.

13. Note that a majority of the roadway shoulder has been graded, resulting in sediment control berms existing along segments of the shoulder. When additional SWPPP measures are identified to be installed for the project, these measures shall be tracked and recorded based on the type and location of measure installed, on the roadway plans which are part of this plan set.
WATTLE SPACING INTERVALS

<table>
<thead>
<tr>
<th>Slope Ratio (H:V)</th>
<th>Maximum Spacing Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:1</td>
<td>10'</td>
</tr>
<tr>
<td>3:1</td>
<td>20'</td>
</tr>
<tr>
<td>4:1</td>
<td>30'</td>
</tr>
<tr>
<td>5:1</td>
<td>40'</td>
</tr>
</tbody>
</table>

*Notes:*
1) Top Row Shall Not be Placed within 6'-0" of Edge of Pavement and 9'-0" from Outside Surface of Spurrier.
2) For active soils, place rows of wattles closer together.
3) For soils with low erosive potential, place rows of wattles further apart.

Sediment Load Zone Min. 2'-0"

Wattle at toe of slope to be 20" (Min.) Dia. When roadside ditch exists, install wattle above designated high flow line or estimated bankfull level. Site fence may be used in place of bottom wattle as described in layout plans and/or in special provisions.

SECTION (NTS)

Stake Length: 24" for 9" Dia. Wattle 33" for 20" Dia. Wattle

SEDIMENT WATTLE STAKING DETAIL (NTS)

Augered Hole or Tiltage May Be Required for Proper Stake & Trench

SEDIMENT WATTLE LAYOUT (NTS)

Abut Wattle Ends Tight Per Detail, Right

SEDIMENT WATTLE OVERLAP (NTS)

Abut Wattle Ends Tight, No Gaps. Wood Stake to Penetrate Netting Only

SEDIMENT WATTLE PARALLEL TO AND ALONG CONTOUR

Rip 6"-12" with Furrows Left Parallel to New Slope Contour Created During Soil Tillage

NEW SHOULDER BUILDUP ** PROTECTION SECTION (NTS)

Excavated Material To Be Topped Against Upstream Side Of Sediment Wattles To Prevent Undermining. The Thickness Should Be No More Than 2" To Avoid Dramatic Reduction Of The Sediment Loading Capacity.

6'-0" Minimum from Edge of Pavement

9" Dia. Wattle

**Note:** Applicable only in areas of concentrated flow— to include but not limited to roadway sags, spots, and drop-off repair locations as per the direction of the Engineer.

NOTES:
1. Install Sediment Wattles as slopes are constructed to grade or as directed by the Engineer. Select, install and maintain in conformance with manufacturers specifications to meet site conditions for slope protection and in accordance with good engineering practices.
2. Sediment Wattles shall be in continuous contact with trench bottom and sides. Do not overlap wattles ends on top of each other. A 20" Dia. wattle may be made from 2-3 rolled exsclor or straw blankets.
3. Butt adjoining wattles tightly against each other. Drive the first end stake of the second wattle at an angle toward the first wattle to help butt them tightly.
4. Repair any rills or gullies promptly. Make field adjustments and corrections of Wattle BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
5. For seeded areas, stake shall be performed to form minor ridges and furrows parallel to new slope contours and as specified in Section B105 of the Project Specifications.
6. Divert and direct run-on water from outside of the slopes to the spillways and/or rock riprap/rock mulch. Diversion dikes and/or ditches are necessary on natural undisturbed slopes beyond the top limits of new slopes to divert run-on water.
7. Installation and maintenance of Sediment Wattle BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities.
8. Install and maintain Sediment Wattle BMPs to carry the stormwater of at least 2-year, 24-hour events.
9. Refer to Project Specification Section B10 for Sediment Wattle material specifications.
10. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.
1. Locate Sediment Logs as indicated in plans, SWPPP, or as directed by the Engineer.
2. Select, install, and maintain Logs per manufacturers' specifications and good engineering practices.
3. Lay Sediment Log across prepared roadside ditch or channel. Trenching or burial of Sediment Logs is not required. The close, continuous contact between the bottom of the Log and the ground is mandatory. The Logs shall be installed in the roadside ditch, swale, or channel bottom perpendicular to the flow of water as shown on detail this sheet.
4. Stake Log as shown. Stakes shall be placed through downstream side only as shown.
5. DO NOT drive stakes through center of the Log. Stakes must be driven into the ground as shown.
6. Ensure that no gaps exist between soil and bottom of Sediment Log. Repair any rills or undercut promptly.
7. Placement of Sediment Logs shall be evaluated by the Engineer in rocky soil conditions.
8. Remove Sediment Log BMPs within the ditches/channels as per the direction of the Engineer or as soon as practicable upon stabilization of the construction disturbed area.
9. Dispose of Sediment Logs and trapped sediment material and fill trench created by Sediment Log.
10. The installation and maintenance of Sediment Log BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. Sediment Logs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
11. Make field adjustments and corrections of Sediment Log BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
12. Rock mulch/trap may be required for channel/ditch lining or rock check dams for longitudinal ditch slopes that exceed 5% and/or for soil conditions not suitable for Log installation.
13. The Sediment Log BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal, as well as returning the area to an acceptable condition as approved by the Engineer.
14. Refer to Standard Specification Section B10-2.06(B) for Sediment Log material specifications.
15. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.
16. Construct Rock Wedge with angular-shaped Gradation C Rock Mulch as defined in Section B10-2.03 of the Standard Specifications and these special provisions. Natural river-run materials such as rounded river rocks/cobblestones and pebbles are NOT acceptable.
NOTES:
1. Install Stabilized Construction Entrance/Exit Gravel Pad BMP for traffic entering or exiting a construction site where sedimentation, clay, silt or other pollutants can be tracked onto public roads and/or adjacent water bodies, as approved by the Engineer. It may also be applied for construction entrance/exit wind erosion/dust control, as approved by the Engineer.
2. Locate new Construction Entrance(s)/Exit(s) at appropriate project entrance/exit points as determined in field with the approval of the Engineer. Relocate Stabilized Construction Entrance/Exit Gravel Pad BMP as needed as project progresses. Replace Rip Rap materials in drive paths when dirt or mud accumulates.
3. Rip Rap materials shall be fractured/crushed rocks in angular shape as defined in Section 810 of the Project Specifications. Natural river-run materials, especially rounded natural river rocks, are not acceptable.
4. Field adjust and correct Construction Entrance/Exit Rip Rap Pad BMP immediately if it is causing flooding and/or affecting roadway safety.