LISBON AVENUE
CULVERT REPLACEMENT
PROJECT NUMBER: FS1976

CITY OF RIO RANCHO
SANDOVAL COUNTY, NEW MEXICO

CONSTRUCTION PLANS

PROJECT LOCATION

SHEET INDEX:
1 TITLE SHEET
2 GENERAL NOTES
3 ABBREVIATIONS AND LEGEND
4 TOPOGRAPHIC SURVEY
5 PROJECT CONTROL PLAN
6 REMOVAL PLAN
7 CHANNEL PLAN AND PROFILE STA. 8+50 TO STA. 9+70
8 CBC AND[channel_plan_and_profile_sta_8_to_sta_9]
9 LISBON AVENUE GRADING AND PAVING PLAN
10 LISBON AVENUE UTILITY PLAN AND PROFILE
11 PLAN AND LONGITUDINAL PROFILE
12 STRUCTURAL SECTIONS
12A END OF NMDOT CBC SECTIONS AND DETAILS
13 TRAPEZOIDAL CHANNEL DETAILS
14 SCAFCA STANDARD MAINTENANCE ACCESS GATE DETAIL
15 PIPE RAIL DETAILS
16 ROADWAY DETAILS
17 ROADWAY DETAILS
18 ROADWAY DETAILS
19 UTILITY DETAILS
19A UTILITY DETAILS
20 NMDOT STD DWG 511-62-12
21 NMDOT STD DWG 511-62-22
22 NMDOT STD DWG 511-66-16
23 NMDOT STD DWG 511-66-26
13. Facilities which are not specifically located with actual vertical and horizontal controls on the construction documents, No work shall be performed in a floodplain without written authorization from the City's Floodplain Manager. Uniform Traffic Control Devices (MUTCD). The Contractor is responsible for the setup and maintenance of all traffic meeting. The Contractor will provide construction staking utilizing approved construction plans, the appropriate Right-of-Way vegetation, landscaping, and private property. Approval of these plans does not give or imply any permission to otherwise on these plans or on the landscaping plan, native grass seeding shall be in accordance on the job site conditions during the course of the preconstruction involvement is subject to removal and replacement at the Contractor's expense. The Contractor agrees to assume the sole and complete responsibility for the job site conditions during the course of the preconstruction. Vibration monitoring will be at the Contractor's discretion and incidental to the Contract.

Erosion Control/Runoff/Protection/Storm WATER POLLUTION PREVENTION PLANS (SWPPP) and accompanying Federal EPA Administrative System (NPDES) requirements including, but not limited to, obtaining an NPDES permit (if required by the NPDES permit limiting criteria). The Contractor shall be responsible for coordinating with the appropriate utility owner to remove or support the utility system. The Contractor shall mitigate erosion of temporary or permanent dirt swales by installing BMPs vegetation, landscaping, and private property. Approval of these plans does not give or imply any permission to otherwise on these plans or on the landscaping plan, native grass seeding shall be in accordance

12. Termination (NOT) application. The Contractor shall also be responsible for the implementation of the approved SWPPP until final inspection is completed.

7. Where storm inlets are susceptible to inflow of silt or debris from construction activities, protection systems will be required in the approved SWPPP to contain sediment. The Contractor shall either promptly remove any material excavated within the public Right-of-Way or ensure installation of BMPs identified in the approved SWPPP within 72 hours. The Contractor shall be responsible for testing of all lines, including but not limited to, hydrostatic and service installation and before final acceptance.

6. The Contractor is responsible for testing of all lines, including but not limited to, hydrostatic and service installation and before final acceptance.

5. The Contractor shall be responsible for coordinating with the appropriate utility owner to remove or support the utility system. The Contractor shall mitigate erosion of temporary or permanent dirt swales by installing BMPs identified in the approved SWPPP in the swales perpendicular to the direction of flow, and at intervals required in the approved SWPPP shall be included in and are incidental to the SWPPP bid amount.

4. Construction activities will utilize temporary erosion control and sediment plans accepted by the City.

3. The Contractor shall be responsible for ensuring all necessary permits from all jurisdictional authorities before the start of the work. All work in this project will be performed in accordance with applicable federal, state, local, and municipal regulations concerning construction safety, health, and environmental protection.
KEYED NOTES

1. REMOVE AND DISPOSE OF EXISTING RPCC HEADWALL.
2. REMOVE AND DISPOSE OF EXISTING W-BEAM GUARD RAIL AND WOOD POSTS.
3. REMOVE AND DISPOSE OF FIVE (5) EXISTING 36-INCH DIAMETER CMP CULVERTS.
4. PLAN ONLY SHOWS CENTERLINE FOR CLARITY.
5. SAWCUT, REMOVE AND DISPOSE OF EXISTING ROLL CURB AND GUTTER.
6. SAWCUT, REMOVE AND DISPOSE OF EXISTING ASPHALTIC CONCRETE PAVEMENT.
7. REMOVE AND DISPOSE OF FIVE (5) EXISTING 36-INCH DIAMETER CMP CULVERTS.
8. REMOVE AND DISPOSE OF EXISTING STANDARD PCC CURB.
9. REMOVE AND DISPOSE OF EXISTING PCC SIDEWALK AND SIDEWALK CULVERTS.
10. REMOVE AND DISPOSE OF EXISTING PIPE RAILING.
11. SAWCUT, REMOVE AND DISPOSE OF EXISTING REINFORCED SHOTCRETE CHANNEL LINING AND BATTLE BLOCKS.
12. SAWCUT, REMOVE AND DISPOSE OF EXISTING RPCC CHANNEL LINING.
13. ADJUST EXISTING SAS MANHOLE RING AND COVER TO NEW ROAD GRADE.
14. REMOVE AND DISPOSE OF EXISTING RPCC RUNDOWN.
15. REMOVE AND DISPOSE OF EXISTING TREES.
16. REMOVE AND DISPOSE OF LARGE BUSHES. THESE ITEMS PAID FOR UNDER "CLEAR AND GRUB" BID ITEM.
17. REMOVE AND STORE EXISTING WOOD SPLIT RAIL FENCE TO LIMITS SHOWN.
18. REINSTALL WOOD FENCE AFTER CONSTRUCTION IS COMPLETE.
19. REMOVE EXISTING TREES AS REQUIRED FOR INSTALLATION OF NEW 10" WATERLINE. COORDINATE EXTENT OF REMOVALS WITH ENGINEER.
20. INSTALL TEMPORARY 4' CHAINLINK FENCE. SEE SHEET 7.

See Sheet 7 for North Limit of Removal of Chainlink Fence.
PIPE RAIL FOR HEADWALL

EXIST. 8" PVC SAS

CONSTRUCTION BASELINE

SS 30.00' DRAINAGE EASEMENT

NEW TOP OF CHANNEL

E=1503627.30

FENCE. SEE SHEET 6.

N=1547733.18

POINT OF REMOVAL OF EXISTING GRADE LEFT 5'

PROPOSED GRADE

AT CL

30.00' DRAINAGE EASEMENT

8' @ S=0.013 FT/FT

EASEMENT

30.00'

SS

6.00'

0.67'

0.5'

STA. 8+81.00 CL

CHANNEL INV. = 5528.87

TOP OF CHANNEL WALL = 5533.87

BOTTOM CUTOFF WALL = 5524.87

SUGAR CHANNEL

RECTANGULAR CHANNEL SUBGRADE PREP UNDER

INV. = 8.23' LT

STA. 8+81.00

INV. =  19.53' RT

STA. 8+81.00

EXISTING CHANNEL GRADE @ TOP OF CHANNEL WALL = 5533.49

INSTALL 14" STEEL CASING PIPE WITH END SEALS

POST LOCATION

4" INV. = 5525.67±

TH 8

N=1547590.73

E=1503686.55

STA. 9+48.00 CL

INV. = 8.25' LT

STA. 9+48.00

9+50

TOP OF CHANNEL WALL = 5533.22

S=0.1105 FT/FT

22.00' @ INV. = 8.23' RT

STA. 9+48.00

ROW

STA. 9+70.00 CL

INSTALL WALL MOUNT PIPE RAIL. SEE SHEET 15 FOR INSTALL NEW 4' CHAINLINK FENCE AND POSTS AFTER INSTALL PVC CAP AT NORTHEAST END OF 4" SAS

REMOVE AND DISPOSE OF TEMPORARY 4' CHAINLINK FENCE AFTER NEW 4' CHAINLINK FENCE IS INSTALLED.

NEW 10" WATERLINE. SEE SHEET 10.

ADJUSTMENTS TO THE INVERTS OF THE SAS SERVICE ARE COMPLETE.

CONTACTOR SHALL NOTIFY ENGINEER AFTER SERVICE CONNECTION AT SAS MAIN MANUFACTURER'S INSTRUCTIONS. CASING PIPE SHALL HAVE FACTORY APPLIED COATING INSIDE AND OUTSIDE.

REINFORCING FOR RPCC CHANNEL AND RPCC BOX CULVERT NOT SHOWN IN PROFILE FOR CLARITY. SEE DETAILS AND SECTIONS ON SHEETS 12, 13, AND 20-23.

NOTE: CONTRACTOR SHALL NOTIFY ENGINEER WHEN EXISTING 8" SAS AND 4" SAS SERVICE ARE EXPOSED SO THAT ENGINEER MAY MAKE MODIFICATIONS TO THE DESIGN AS NEEDED.
NOTE: SEE SHEET 6 FOR LIMITS OF REMOVALS

KEYED NOTES

1. CONVERT 6" ROLL Curb with SPILL PAV PER DETAIL SHEET 14.
2. BACKFILL AREA BETWEEN CURB AND HEADWALL TO MIN. ADEO 0'-0".
3. TRANSITION FROM EXISTING CURB AND GUTTER TO NEW 8" CURB AND GUTTER.
4. IF CURB AND GUTTER PER CURR STD Dwg. COV SHT 16.
5. CONSTRUCT DOUBLE 24" SEWER W. CURB AND GUTTER AS MODIFIED IN THESE DRAWINGS.
6. CONSTRUCT NEW LISBON AVENUE ASPHALT PAVEMENT SECTION PER DETAIL SHEET 18.
7. CONSTRUCT SIDEWALK PER CORR STD Dwg.
8. INSTALL PIPE RAIL FENCE ON NEW HEADER CURB PER DETAIL SHEET 15.
9. OUTSIDE EDGE OF NEW CBC.
10. CONSTRUCT RPCC RUNDOWN AND SLOPE PAVING.
11. INSTALL 2" Ø PVC PERFORATED DRAIN PIPE PER DETAIL SHEET 17.

NOTE: SEE SHEET 6 FOR LIMITS OF REMOVALS

LEGEND

FL = FLOWLINE
INV = INVERT
ME = MATCH EXISTING
S = SLOPE
TC = TOP CURB
THC = TOP HEADER CURB
THW = TOP OF HEADWALL
TOC = TOP OF CONCRETE
TOR = TOP OF ROCK

1 Foot Contour Interval

ENLARGED GRADING PLAN

ENLARGED LAYOUT PLAN

GRAPHIC SCALE
1" = 10' 1 foot contour interval

GRAPHIC SCALE
1" = 10' 1 foot contour interval
THE ENGINEER SHALL BE NOTIFIED TO INSPECT EXISTING CONCRETE CHANNEL LINING AND STEEL PRIOR TO CONCRETE PLACEMENT. EXISTING CONCRETE SHALL BE SOUNDED WITH A HAMMER AND ANY DELAMINATED AREAS OR UNSOUND CONCRETE SHALL BE REMOVED. NEW DOWELS SHALL BE DRILLED 8" DEEP AND EPOXYED IF EXISTING REINFORCING STEEL IS NOT OF SUFFICIENT LENGTH OR IS DAMAGED.

1/4" RADIUS GROOVE, BOTH SIDES. SEAL WITH MASTERSEAL P173 PRIMER AND NP-1 SEALANT.

TYPICAL CONCRETE CHANNEL LINING

CONCRETE

TYPICAL SILL WALL DETAIL

TYPICAL TRANSVERSE CONSTRUCTION JOINT DETAIL

TYPICAL LONGITUDINAL CONSTRUCTION JOINT DETAIL

NEW TO EXISTING CHANNEL LINING CONSTRUCTION JOINT DETAIL

KEYED NOTES

1. CAST-IN-PLACE CONCRETE SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS. (f'c = 4000 psi MINIMUM). 3/4" CHAMFER ON ALL EXPOSED FORMED EDGES UNLESS NOTED OTHERWISE.

2. REINFORCING STEEL / STEEL REINFORCEMENT AND PLACEMENT SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND SHALL CONFORM TO ASTM A615, GRADE 60. ALL LAP SPLICES SHALL BE CLASS "B" UNLESS NOTED OTHERWISE. REINFORCING STEEL SHALL BE INCISENTIAL TO CONCRETE BID ITEMS.

3. ALL EXPOSED CHANNEL SURFACES SHALL BE GIVEN A CLASS 2 FLOAT'S FINISH TIME SHALL BE TRANSFERRED TO FLOW:

4. MINIMUM REBAR LAP LENGTH:

5. THE EARTH SIDE OF SILL WALLS SHALL BE WATERPROOFED AT IRRIGATED AREAS AND DAMPROOFED AT ALL OTHER AREAS. WATERPROOFING SHALL BE CONWRAP BARRIER CS-212 AS MANUFACTURED BY CONCRETE SEALANTS, INC. (MEMBRANE THICKNESS 0.100 INCHES MINIMUM) OR ENGINEER APPROVED EQUAL. DAMP PROOFING SHALL BE HYDROCIDE 700B OR ENGINEER APPROVED EQUAL.

6. ALL EXPOSED SURFACES OF THE CHANNEL SILL WALLS SHALL RECEIVE A "THROCOAT" CLASS 4 FINISH. THE COLOR SHALL BE SIMILAR TO THE CHANNEL LINING AND SHALL BE APPROVED BY THE CITY OF RIO RANCHO. "THROCOAT" SHALL BE APPLIED TO THE BACK OF WALLS 6 INCHES BELOW GRADE.

NOTES FOR CHANNEL CONSTRUCTION


2. REMOVAL OF CONCRETE ALONG "A" TO THE 2" SAWCUT WILL BE WITH A 25 LB. MAX. PHNEUMATIC HAMMER. IF THE EVENT OF DAMAGE TO THE CONCRETE TO REMOVAL, THE CONTRACTOR SHALL BE GIVEN 5 DAYS TO REMOVE AND REPAIR ANY CONCRETE AT NO EXTRA COST TO THE OWNER.

3. SILL WALL PER DETAIL THIS SHEET. SEE PLANS AND PROFILES FOR ELEVATIONS.
Southern Sandoval County Arroyo Flood Control Authority

SSCAFCA STANDARD MAINTENANCE ACCESS GATE

SSCAFCA MAINTENANCE GATE DETAIL.DWG

February 14, 2019
1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS, 2017 EDITION.

2. ALL PIPE SHALL BE 2" SCHEDULE 40 STEEL, PIPE AND CONFORM WITH ASTM A53 GRADE B. THE TOP RAIL SHALL BE CONTINUOUS, WITH POSTS, MIDDLE RAIL, AND BOTTOM RAIL. SADDLE CUT, WELDED ALL AROUND AND GRIND BEFORE PAINTING.

3. CHAINLINK SHALL CONFORM TO THE REQUIREMENTS OF ASABE WD81, WITH A CLASSE C COATING OR BETTER. THE WIRE SHALL BE GALVANIZED, 6 GAUGE, WITH A 4" MESH, SERVING ON TOP AND BOTTOM TO BE INFRATEXULAR. THE CHAINLINK SHALL BE TACK WELDED AT 3 PLACES PER POST AND 3 PLACES PER PIPE.

4. COLOR OF FINAL COATING TO BE DATA SAFETY BLUE OR EQUAL.

5. GALVANIZED TENSION BARS AND CLAMPS SHALL BE INSTALLED ON ALL ENDS AND AT ALL CORNERS AND ANGLE POINTS WHERE CHAINLINK IS REQUIRED.

6. NEW MATERIALS SHALL BE USED THROUGHOUT.

7. ALL ANCHOR BOLTS SHALL BE S/P TRANSFER EXPANSION ANCHOR WITH A MINIMUM OF 3 ANCHOR PLATE. PROVIDE HELD WASH BOLTS ECH 1-1/4" IN CONCRETE OR ENGINEERS APPROVED EQUAL, PROVIDE FLAT WASHERS BETWEEN ALL NUTS AND BASE PLATES.

8. BOLTS SHALL CONFORM TO ASTM A325, 3/8" BOLTS SHALL CONFORM TO ASTM A325 GRADE 8.

9. ALL WELDING OR OAS CUTTING SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE AMERICAN WELDING SOCIETY D1.1 2008. ALL WELDING SHALL USE E70XX ELECTRODES.

10. PROVIDE EXPANDING POLYURETHANE FOAM PLUG (9" X 3") AT THE BASE OF ALL POSTS ON THE WALL MOUNT PIPE RAIL.

NOTES FOR PIPE RAILS

11. PIPE RAILS MOUNTED ON GRADE TO BE INSTALLED UNDER NUTS OF FASTENERS.

12. BASE PLATES TO CONFORM TO ASTM A500, TUBE STEEL, SHALL CONFORM TO ASTM A500 V.

13. ALL MOUNTING DETAILS TO BE IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE AMERICAN WELDING SOCIETY D1.1 2008. ALL WELDING SHALL USE E70XX ELECTRODES.

14. PROVIDE EXPANDING POLYURETHANE FOAM PLUG (9" X 3") AT THE BASE OF ALL POSTS ON THE WALL MOUNT PIPE RAIL.

PIECE RAILS MOUNTED ON GRADE TO BE INSTALLED UNDER NUTS OF FASTENERS.
SPILL CURB AND GUTTER
17 LISBON AVENUE
ROADWAY DETAILS

NOTE: REINFORCING FOR CBC AND CBC HEADWALL NOT SHOWN IN SECTIONS FOR CLARITY. SEE SHEETS 20-23.

SECTION: CONCRETE FILL

8" HEADER CURB DETAIL

EXPANSION JOINT

SECTION: SIDEWALK CULVERT AND RUNDOWN

SECTION: SLOPE PAVING

SECTION: RUNDOWN

SECTION: GUTTER PAN

FLG = INVERT IN SW/OL (CURB) + 5531.84
12" X 56" SMOOTH DUNEL @ 1/2" O.C. GREASE ONE SIDE OF DUNEL, ALONG WITH LONGITUDINAL REINFORCING
2 PERFORATED PVC DRN WITH FILTER FABRIC AND GRAVEL PACK, SEE DETAIL THIS SHEET.
PROPOSED CBC (REINFORCING STEEL NOT SHOWN FOR CLARITY), SEE SHEETS 20-23.
LISBON AVENUE
CULVERT REPLACEMENT

CONLEY ENGINEERING LLC
3915 Carlisle Blvd NE     Albuquerque, NM 87110     505-331-1587

ROADWAY DETAILS

CITY OF RIO RANCHO
NEW MEXICO

CORR PWD
STANDARD DRAWINGS

THIS SHEET NOT TO SCALE
GENERAL NOTES:

1. All materials and workmanship shall conform to the New Mexico Department of Transportation specifications for design and grade construction (current edition) with applicable special provisions.

2. All concrete shall be class "H" (high way) conformed all exposed edges B2.

3. All reinforcing steel to be designed bars, conformed to ASTM A-615.

4. "CON" is width of fill from top of box to the top of pavement, original.

5. Trenching and fill area shall be constructed of AR-80 or AR-90 in the pavement area and adequate concrete replacement with proper design for 

6. Construction shown for placed and compacted soil, use of appropriate sheets and corresponding tables to determine the reinforcing requirements and spacing.

7. All construction, including, but not limited to, this sheet, shall be the responsibility of the general contractor.

8. All construction, including, but not limited to, this sheet, shall be the responsibility of the general contractor.

9. All construction, including, but not limited to, this sheet, shall be the responsibility of the general contractor.

10. All construction, including, but not limited to, this sheet, shall be the responsibility of the general contractor.

11. All construction, including, but not limited to, this sheet, shall be the responsibility of the general contractor.

PAYMENT NOTE:

Payment for costs is based on "A" [ inserts the envelope of measurement for the total length of all new pipe(s) and new concrete(s) which will be constructed in the paved area]. If separate concrete, such as for Kerber Boxes, and other work and materials shall be included as determined by the bid, but no further payment shall be made.

Alternatively, complete concrete box culvert may be paid for under class "B" [ inserts the envelope of measurement for the total length of all new pipe(s) and new concrete(s) which will be constructed in the paved area]. If separate concrete, such as for Kerber Boxes, and other work and materials shall be included as determined by the bid, but no further payment shall be made.
PAYMENT NOTE: PAYMENT NOTE ON THIS NMDOT STD DWG DOES NOT APPLY. PAYMENT WILL BE PAID BY THE CUBIC YARD OF COMPLETE AND IN-PLACE RPCC. SEE BID DOCUMENTS.
**LISBON AVENUE**

**CULVERT REPLACEMENT**

**CONLEY ENGINEERING LLC**
3915 Carlisle Blvd NE     Albuquerque, NM 87110     505-331-1587

**CITY OF RIO RANCHO**
**NEW MEXICO**

**NMDOT STANDARD DRAWING**

**NMDOT STD DWG 511-66-2/6**

**THIS SHEET NOT TO SCALE**

### BOX CULVERT HEADWALL & GRADE 83

#### CULVERT REPLACEMENT SCHEDULE (MAX SIZE AND NUMBER OF BARS REQUIRED)

<table>
<thead>
<tr>
<th>Beam Type</th>
<th>Size (in)</th>
<th>Length (ft)</th>
<th>Number of Bars</th>
<th>Size of Bars (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>2</td>
<td>12</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>B2</td>
<td>3</td>
<td>18</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>B3</td>
<td>4</td>
<td>24</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

**Example of use of this table:

- For inspecting structure, double barrel, 12 ft. span to 18 ft. head.
- Use the following build information from the table above.

**CITY OF RIO RANCHO**
**NEW MEXICO**

**NMDOT STANDARD DRAWING**

**NMDOT STD DWG 511-66-2/6**

**THIS SHEET NOT TO SCALE**

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**EXAMPLE OF USE OF THIS TABLE:**

- Inspecting structure, double barrel, 12 ft. span to 18 ft. head.
- Use the following build information from the table above.

**CITY OF RIO RANCHO**
**NEW MEXICO**

**NMDOT STANDARD DRAWING**

**NMDOT STD DWG 511-66-2/6**

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**NEW MEXICO DEPARTMENT OF TRANSPORTATION**

**STANDARD DRAWING**

**CITY OF RIO RANCHO**
**NEW MEXICO**

**NMDOT STANDARD DRAWING**

**NMDOT STD DWG 511-66-2/6**

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