ADDENDUM NUMBER SIX (6)

Date: July 17, 2014

Project: Socorro County Detention Center
1001 Grefco Road
Socorro, New Mexico
Studio SW Project Number: 1344

From: Studio Southwest Architects, Inc.
2101 Mountain Road NW
Albuquerque, New Mexico 87104
843-9639
843-9683 FAX

To: Prospective Bidders

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated June 16, 2014 as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of (4) pages, including (1) blank page, plus (18) replacement pages for the Project Manual, including (1) blank page, and (12) supplemental drawings.

1. CHANGES TO BIDDING REQUIREMENTS:
   1.1 DOCUMENT 004113 – BID FORM – STIPULATED SUM (SINGLE-PRIME CONTRACT): REPLACE with the attached revised form to add lines for the last addenda.

2. CHANGES TO PROJECT MANUAL:
   2.1 SECTION 072100 – THERMAL INSULATION: DELETE Article 2.03.
   2.2 SECTION 088000 – GLASS AND GLAZING, Article 2.01:
      A. Paragraph A.4.a: CHANGE to read: “a. Coating: None.”
      B. Paragraph A.5: ADD Subparagraph “b” to read as follows: “b. Coating: PPG Solarban XL or equivalent on #3 surface.”
      C. Paragraph B.1.a: DELETE this paragraph referencing the coating.
      D. Paragraph B.2.a: CHANGE to read “a. Opacifier: Water based coating designed for spandrel applications. Apply number of coats recommended by manufacturer.”
   2.3 SECTION 223100 – DOMESTIC WATER SOFTENERS, Article 2.1, Paragraph A.1: ADD “d. Water King Water Conditioning” to the approved manufacturers.
2.4 SECTION 230500 – COMMON WORK RESULTS FOR HVAC, Article 3.4, Paragraph A: ADD Subparagraph 8 to read as follows: “8. Reinforcement: #4’s at 12 inches on center each way and perimeter turndown 8 inches wide by 12 inches deep reinforced with #4’s at 12 inches on center each way.”

2.5 SECTION 331000 – WATER UTILITIES: REPLACE with the attached revised section to clarify the tracer wire and add the locator tape.

3. CHANGES TO DRAWINGS:

3.1 SHEET C-200 – UTILITY PLAN:
   A. CLARIFICATION to the new 18” CMP pipe constructed under Grefco Rd with the offsite improvements project. Refer to attached Supplemental Drawing SKC-01.
   B. Refer to attached Supplemental Drawing SKC-02 which includes information pertaining to the lift station panel location and force main material. (Note: This is provided for information purposes. Refer to the allowance in Section 012100 for the lift station work.)
   C. Refer to attached Supplemental Drawing SKC-03 for additional detail for lift station (i.e. depth, lift station panel, and miscellaneous details. Note: This is provided for information purposes. Refer to the allowance in Section 012100 for the lift station work.)

3.2 SHEET LS-201 – LANDSCAPE PLANTING PLAN: MODIFY to add the gravel path as shown on Supplemental Drawing SKL-01.

3.3 SHEET S-101 – FOUNDATION PLAN: REVISE as shown on attached Supplemental Drawings SKS-01 and SKS-02.

3.4 SHEET S-103 – MEZZANINE AND MASONRY WALL PLAN: REVISE as shown on attached Supplemental Drawings SKS-03, SKS-04, and SKS-05.

3.5 SHEET S-301 – FOUNDATION SECTION AND DETAILS: REVISE Section A4/S-301 as shown on attached Supplemental Drawing SKS-06.

3.6 SHEET S-601 – SCHEDULES:
   A. ADD Section B2/S-601 as shown on Supplemental Drawing SKS-07.
   B. ADD Section A2/S-601 as shown on Supplemental Drawing SKS-08.


4. QUESTIONS

4.1 Questions from Glaz-Tech (7-10-14)

1. Can the Low-e coating be moved from the 2nd surface to the 3rd surface in section 088000-2, 2.01, A., 4., a. ?

Response: See changes in Addendum No. 6.

4.2 Questions from HD Supply (7-09-14)

1. Spec 331000, makes reference to AWWA C-110 Gray iron and ductile iron fittings. Would fittings in conformance with AWWA C-153 Ductile iron compact fittings be acceptable?

Response: Fittings in conformance with AWWA C-153 Ductile Iron Compact Fittings are acceptable.

2. Add #4, Sheet SKC-02: What material should the 4” Force Main be constructed of?

Response: Force main material shall be C-900 DR 18, see SKC-02 for additional information.

3. Add #4, Spec 331000, 2.2, S, Tracer Wire: What gauge should this tracer wire be? Also, no mention is made of Detectable Warning Tape. Assuming it is expected what width should it be?

Response: See revised spec section 331000 (Article 2.2) in Addendum No. 6.

End of Addendum
1.1 BID INFORMATION

A. Bidder: ____________________________________________________.

B. Project Name: Socorro County Detention Center.

C. Project Location: 1001 Grefco Road, Socorro, New Mexico 87801.

D. Owner: Socorro County Board of County Commissioners, P.O. Box 1, 210 Park Street, Socorro, New Mexico 87801.


1.2 CERTIFICATIONS AND BASE BID

A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Studio Southwest Architects Inc. and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents. The Base Bid does not include the scope of work defined in the Line Items.

B. Line Items:
   1. The undersigned Bidder proposes the Line Item amounts below be added to the Base Bid. Amounts listed for each Line Item include costs of related coordination, modification, or adjustment.
   2. The Line Item price given below includes adjustment to Contractor's Fee.
   3. Line Items do not include gross receipts tax. Socorro County will pay any and all gross receipts tax on the approved amounts for these items at the prevailing rate.

C. Alternates:
   1. The undersigned Bidder proposes the amount below be added to or deducted from the Base Bid if particular alternates are accepted by the Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment.
   2. The alternate price given below includes adjustment to Contractor's Fee.
   3. Alternates do not include gross receipts tax. Socorro County will pay any and all gross receipts tax on the approved amounts for these items at the prevailing rate.
   4. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."
   5. If the alternate does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."
   6. The Bidder shall be responsible for determining from the Contract Documents the affects of each alternate on the Contract Sum.
   7. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within 90 days of the Notice of Intent to Award unless otherwise indicated in the Contract Documents.
   8. Acceptance or non-acceptance of any alternates by the Owner shall have no affect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.
D. Base Bid, for the stipulated sum of:
1. ___________________________________ Dollars ($______________).
2. The above amount does not include New Mexico Gross Receipts Tax. Socorro County will pay any and all gross receipts tax on the approved amounts for these items at the prevailing rate.
3. By signing at the end of this document, the Bidder certifies that the above amount includes those allowances described in the Contract Documents and scheduled in Section 012100 "Allowances."

E. Line Item No. 1: Detention Equipment Subcontractor:
1. ___________________________________ Dollars ($______________).
2. The above amount does not include New Mexico Gross Receipts Tax. Socorro County will pay any and all gross receipts tax on the approved amounts for these items at the prevailing rate.

F. Line Item No. 2: Security Electronics Subcontractor:
1. ___________________________________ Dollars ($______________).
2. The above amount does not include New Mexico Gross Receipts Tax. Socorro County will pay any and all gross receipts tax on the approved amounts for these items at the prevailing rate.

G. Alternate No. 1: Vehicular Sally Port:
1. ADD____ DEDUCT___ NO CHANGE____ NOT APPLICABLE____.
2. ___________________________________ Dollars ($______________).
3. The above amount does not include New Mexico Gross Receipts Tax. Socorro County will pay any and all gross receipts tax on the approved amounts for these items at the prevailing rate.

H. Alternate No. 2: Paving:
1. ADD____ DEDUCT___ NO CHANGE____ NOT APPLICABLE____.
2. ___________________________________ Dollars ($______________).
3. The above amount does not include New Mexico Gross Receipts Tax. Socorro County will pay any and all gross receipts tax on the approved amounts for these items at the prevailing rate.

I. Alternate No. 3: Entry Canopy:
1. ADD____ DEDUCT___ NO CHANGE____ NOT APPLICABLE____.
2. ___________________________________ Dollars ($______________).
3. The above amount does not include New Mexico Gross Receipts Tax. Socorro County will pay any and all gross receipts tax on the approved amounts for these items at the prevailing rate.

J. Alternate No. 4: Exterior Garden Seating Area:
1. ADD____ DEDUCT___ NO CHANGE____ NOT APPLICABLE____.
2. ___________________________________ Dollars ($______________).
3. The above amount does not include New Mexico Gross Receipts Tax. Socorro County will pay any and all gross receipts tax on the approved amounts for these items at the prevailing rate.

1.3 BID GUARANTEE

A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within 10 days after a written Notice of Intent to Award, if offered within 90 days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid amount above:
1. ___________________________________ Dollars ($______________).

B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.
1.4 TIME OF COMPLETION

A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Architect, and shall fully complete the Work as follows:
   1. The Detention Center and all related work will be substantially complete within 365 calendar days.

1.5 LIQUIDATED DAMAGES

A. Should the Contractor neglect, refuse, or otherwise fail to complete the Work within the time of completion specified, the Contractor agrees, in partial consideration for the award of this Contract, to pay the Owner the amount of one thousand five hundred dollars ($1,500.00) per consecutive calendar day, not as penalty, but as liquidated damages for such breach of the Contract. Liquidated damages shall also apply to failure to complete the entire Work within 30 days after Substantial Completion.

1.6 BID SUPPLEMENTS

A. The following supplements are a part of this Bid Form and are attached hereto, unless noted below.
   1. Bid Form Supplement - Bid Bond Form (AIA Document A310). Contractor provided Bid Bond Form. Form is not attached.
   2. Bid Form Supplement - Proposed Subcontractor’s Form.
   4. Bid Form Supplement - Resident Veterans Preference Certification. (Submit only if applying for this certification.)
   5. Bid Form Supplement - Campaign Contribution Form.

1.7 OTHER FORMS

A. The following additional forms must be included with the Bid Form:
   1. Copy of Certificate of Registration issued by NMDWS. (See Supplementary Instructions to Bidders for further information.)

B. The following additional forms must be included with the Bid Form if applying for the appropriate Resident preferences:
   1. To receive a Resident Contractor preference, Bidder must submit a copy of a valid preference certificate issued by the Taxation and Revenue Department. (See Supplementary Instructions to Bidders for further information.)
   2. To receive a Resident Veteran Contractor preference, Bidder must submit a copy of a valid preference certificate issued by the Taxation and Revenue Department and the attached “Resident Veterans Preference Certification” form. (See Supplementary Instructions for Bidders for further information.)

C. The following additional form may be included with the Bid Form or submitted after bid opening according to instructions on the form:
   1. Subcontractors Supplemental Form.

1.8 CONTRACTOR'S LICENSE

A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in New Mexico, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.
1.9 ACKNOWLEDGEMENT OF ADDENDA

A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:
   1. Addendum No. 1, dated ____________________.
   2. Addendum No. 2, dated ____________________.
   3. Addendum No. 3, dated ____________________.
      Addendum No. 4, dated ____________________.
   5. Addendum No. 5, dated ____________________.
   6. Addendum No. 6, dated ____________________.

1.10 SUBMISSION OF BID

A. Respectfully submitted this ____ day of ____________, 2014.
B. Submitted By:_______________________________ (Name of bidding firm or corporation).
C. Authorized Signature:________________________ (Handwritten signature).
D. Signed By:_______________________________ (Type or print name).
E. Title:_______________________________ (Owner/Partner/President/Vice President).
F. Witness By:_______________________________ (Handwritten signature).
G. Attest:_______________________________ (Handwritten signature).
H. By:_______________________________ (Type or print name).
I. Title:_______________________________ (Corporate Secretary or Assistant Secretary).
J. Street Address:__________________________________________________________.
K. City, State, Zip:__________________________________________________________.
L. Phone:__________________________________________________________.
M. License No./Classification:______________________________________________.
N. Federal ID No.:______________________________________________ (Affix Corporate Seal Here).
O. Resident Contractor Preference Number____________________________________.
P. Resident Veteran Contractor Preference Number______________________________.
Q. Workforce Solutions Number______________________________________________.

END OF DOCUMENT 004113
1.1 DESCRIPTION OF WORK

A. All work and materials in this Section shall be performed in accordance with the Contract Drawings and the New Mexico Standard Specifications for Public Works Construction, Latest Edition, including all updates, and all applicable laws, codes, and regulations.

B. Generally include but not be limited to furnishing all necessary material, labor, and equipment to construct the following:

1. Pipes and appurtenances for potable water.

1.2 REFERENCES

A. AWWA:

1. C110: Gray iron and ductile iron fittings 3" through 48" for water and other liquids.
5. C900: Polyvinyl chloride (PVC) pressure pipe 4" through 12" for water.
6. C905: Polyvinyl chloride (PVC) pressure pipe 14" through 36" for water.

B. ASTM:

2. A536: Ductile iron castings.
4. D1598: Test for time-of-failure of plastic pipe under long-term hydrostatic pressure.
5. D1599: Test for short-term rupture strength of plastic pipe, tubing and fittings.
6. D1784: Polyvinyl chloride (PVC) compound and chlorinated polyvinyl chloride (PVC) compounds, rigid.
7. D1785: Polyvinyl chloride (PVC) plastic pipe, Schedules 40, 80 and 120.
10. D2241: Polyvinyl chloride (PVC) plastic pipe (SDR-DO).
11. D3139: Joints for plastic pressure pipes using flexible elastomeric seals.
12. E8: Tension testing for metallic materials.

1.3 SUBMITTALS
A. Submittals per Section 01 33 00.
B. Product Requirement: Section 01 60 00.
C. Manufacturer's installation recommendations.

1.4 GENERAL REQUIREMENTS
A. Pipes, fittings and materials to be new, of highest quality and shall be in first class condition when installed.
B. Pipe, fittings and appurtenances of the same type and made by the same manufacturer.
C. Provide labor, equipment and materials for pipe field testing.
D. Contact and coordination with utility's owner is the full responsibility of the Contractor.

1.5 HANDLING AND STORAGE OF PIPE AND APPUR TENANCES
A. Pipe, valves, hydrants, and other appurtenances shall, unless otherwise directed, be unloaded, hauled and laid as follows:
   1. Pipe and appurtenances shall be lifted by hoists with broad well padded contact surfaces, or rolled on skidways in such a manner to avoid shock.
   2. Under no circumstances shall pipe or appurtenances be dropped.
   3. Pipe must not be rolled or skidded against pipe already on the ground.
B. The Contractor shall be responsible for the safe storage of material furnished by or to him and accepted by him, and intended for the work, until it has been incorporated in the completed project.
C. Installation:

1. In distributing material at the site of the work, each piece shall be unloaded opposite or near the place where it is to be laid in the trench.
2. Pipe shall be handled in a manner that only a minimum amount of damage to the pipe exterior will result. Damaged piping shall be repaired in a manner satisfactory to the Engineer or replaced.
3. The interior of all pipe, fittings, and other appurtenances shall be kept free from dirt and foreign matter at all times.

1.6 QUALITY ASSURANCE

A. Ductile Iron:

1. Tests:
   b. ASTM E23: Impact Test.

2. Marking: cast on each pipe length:
   a. Weight, class, nominal thickness and casting period.
   b. Manufacturer's name, year of production and the letters "DI" or the words "Ductile Iron."

B. PVC Pipe and Fittings:

1. Tests: ASTM D3034
2. Marking: indelible, in each pipe:
   a. Diameter and cell classification.
   b. Manufacturer's name, ASTM, SDR or Schedule and date of production.
   c. Service designation.
   d. NSF approved.
3. Rubber rings: marked with the manufacturer's identification, size, year of production and classes of pipe in which they are to be used.

C. Valves:

1. Valves shall be built and equipped for the type of operation shown on the Plans or as directed by the Engineer.
2. All valves shall be of standard makes approved by the Engineer and shall have the name, monogram, or initials of the manufacturer cast thereon.
3. Dielectric gaskets or unions will be used when dissimilar metals are connected to each other.
2.1 MATERIALS AND FABRICATION

D. Ductile Iron:

1. Pipe:
   a. ANSI A21.51 (AWWA C151).
   b. ASTM A536, Grade 60-42-10.
   c. Ductile iron pipe shall meet ANSI/AWWA A21.51/C151 specifications:

2. Fittings:
   a. Ductile iron, ANSI A21.10 (AWWA C111).
   b. ASTM A536, Grade 80-60-03 or 70-50-05.
   c. Hydrostatic test: Rated at minimum 150psi.

3. Threaded connections: ANSI B2.1 NPT.

4. Joints:
   a. Mechanical: 350 psi working pressure.
   b. Flange: DI; ANSI A21.14 or B16.1, 125 lb.
   c. Gaskets: ASTM D1330, Grade I.
   d. Push-on gaskets: neoprene or other synthetic rubber, D412 and D395. Natural rubber not acceptable.
   e. Lubricant: Heavy vegetable soap solution suitable for potable water use.

5. Flanged adapters:
   c. Bolts: Steel with heavy hex nuts, ASTM A576.
   d. Gaskets: Fastite neoprene.

E. Polyvinyl Chloride (PVC):

1. Pipe and fittings:
   a. AWWA C900:
      (1) All Sizes: SDR18 or as scheduled.
      (2) Pressure Class: 200 psi or as scheduled.

2. Joints:
   a. Gasket bell end: ASTM D3139 for plastic pressure pipes using elastomeric seals.
   c. Solvent-Cement: Manufacturer's standard; use only where specifically scheduled, shown on Drawings or approved by Engineer.
F. Service Lines:

1. High Density Polyethylene:
   a. ASTM D2239, SDR-9, iron pipe size; or:
   b. ASTM D2737, SDR-7, copper pipe size.
   c. Contractor's option unless otherwise scheduled.
3. Joints:
   a. Compression fittings.
   b. Compatible with heavy duty copper service fittings.

2.2 APPURTENANCES

G. Fire Hydrants:

1. Latest revision of AWWA C-502.
3. 1-1/2" Pentagon bronze operating nut equipped with elastomer weather seal between the top casting and the operating nut.
4. Sealed oil reservoir will inmate a system of ford lubrication of the thrust collar area each time the hydrant is operated.
5. Two 2.5" and one 4.5" nozzles with National Standard fire hose threads mechanically connected into the barrel, O-ring sealed with National Standard nozzle caps.
6. Steel safety stem coupling with stainless steel fasteners and two-piece breakaway safety flange.
7. Centerline of hose nozzle will be a minimum of 18" above ground line.
8. 5-1/4" diameter main valve opening.
9. Upper valve plate shall be all bronze.
10. All internal surfaces of the shoe, the lower valve plate and cap nut shall be coated with a factory-applied, two-part, thermosetting epoxy coating with a minimum thickness of 4 mils.
11. The bronze valve seat shall be threaded into a bronze drain ring or shoe bushing; the drain channel shall be all bronze.
12. The hydrant shall have two drain outlets above the lower flange of the hydrant shoe assembly.
13. 200 psi working pressure, and be certified as such by the manufacturer.
14. Lower barrel to shoe connection will have a minimum of six bolts made of stainless steel.
15. All hydrants furnished will have a standard 10-year warranty certified by the manufacturer.
16. Painted chrome yellow.
H. One Manufacturer’s hydrant wrench supplied with each hydrant installed.

I. Resilient Wedge Gate Valves:
   1. Size as shown on Drawings.
   2. Mueller, Clow, Waterous, American Darling, Resilient Wedge Gate Valves or Engineer approved equivalent.
   3. Valves shall conform to AWWA C-509 and comply with its latest revisions.
   4. The wedge shall be cast iron, fully encapsulated in molded rubber including the guides. The bronze stem nut must be rigidly enclosed in the wedge to maintain alignment.
   5. The stem shall have two O-rings above and one O-ring below the collar. Stem seats must be replaceable with the valve under pressure.
   6. The stem material shall be stainless steel (AISI420) or Engineer-approved equivalent.
   7. The waterway shall be full size to allow for tapping use; no cavities or depressions are permitted in the seat area.
   8. Valve body and bonnet shall be electrostatically applied, fusion bonded and epoxy coated, both inside and out, by the valve manufacturer. The coating shall meet the requirements of AWWA C-550. Coating to be applied only at the valve manufacturer's facilities.
   9. The bonnet bolts shall not be exposed to the environment or, alternatively, be in 316 stainless steel.
   10. O-ring style seals shall be used as gaskets on the bonnet and on the stuffing box.
   11. All valves must be tested by hydrostatic pressure equal to the requirements in the AWWA C-509 specifications prior to shipment from the manufacturer.
   12. 2-inch AWWA operating nut for valves in below-ground service; handwheel for above-ground service.
   13. Mechanical joint ends for pipe or as shown on drawings.

J. Swing Check Valves:
   1. 3" and smaller: bronze, swing disc, screwed ends.
   2. 4" and larger: iron body, bronze trim, swing disc, renewable disc and seat, outside weight and lever for exposed service, flanged ends.

K. Air Pressure and Vacuum Relief Valves:
   1. Cast iron body, cover and baffle; stainless steel trim and float.
2. Sized for up to 800 gpm; 0 - 250 psi.
3. Seat: Buna-N.
4. 3" and smaller: NPT threaded outlet.
5. 4" and larger: Plain outlet with steel protector hood.
6. Val-Matic, Crispin or Engineer-approved equivalent.

L. Backflow Preventer:

5. Minimum working pressure: 250 psi.
7. Breco Model 6 (Hersey-Sparling) or Engineer-approved equivalent.

M. Valve Boxes:

1. Cast iron, adjustable extension, traffic type.
2. Minimum thickness of metal at any point: 3/16".
3. Removable cast iron cover.
4. For valves on washwater and irrigation system only: Class 200 PVC pipe.
5. All valve boxes for plug valves shall be designed for integral installation of the required valve position indicator.
7. Cover marked "Water".

N. Tapping Sleeves:

1. Minimum working pressure 250 psi.
2. Mechanical joint type.
3. Sizes as shown on Drawings.
4. Mueller Type H-615 with two end gasket sets that allow to fit all classes of cast iron pipe or Engineer-approved equivalent.

O. Tapping Crosses:

1. Minimum working pressure 250 psi.
2. Mechanical joint type.
3. Sizes as shown on Drawings.
4. Mueller Type H-715 with two end gaskets sets that allow to fit all classes of cast-in pipe or Engineer-approved equivalent.
P. Tapping Valves:

1. Minimum working pressure 250 psi.
2. Size as shown on the Drawings.
3. Mueller Type H-667 mechanical joint on outlet side and flange end on opposite side; attach to tapping drilling machine, or Engineer-approved equivalent.
4. AWWA C500.

Q. Inserting Valves:

1. Sizes as shown on Drawings.
2. Minimum working pressure 250 psi.
3. Comply with Part 2.02C.
4. Mueller Type H-800 for cast iron pipe or Engineer-approved equivalent.

R. Gauges:

1. All gauges shall be 3" in diameter.
2. Each gauge shall be installed with block and bleed valves, and with a snubber and dielectric coupling.

S. Tracer Wire:

1. Conductor shall be solid or stranded copper per ASTM B-1, B-3, or B-8 (12 gauge).
2. Insulation of conductor shall be yellow, high molecular weight polyethylene (HMWPE).
3. The temperature rating of the tracer wire shall be 75 degrees Celcius, dry and wet. The voltage rating shall be 600 Volts.
4. Tracer wire shall be installed on all gas/propane and water lines.

T. Sentry Posts:

1. Metal posts.
2. Water pipeline warning sign.

U. Locator Tape:

1. Metallic foil type, 6" wide; 5 mil min. thickness.
2. Labeling for water.
4. Magnatec or approved equivalent.
3.1 INSTALLATION

A. General:

1. Trenching, Backfilling and Compacting: Section 31.00.00
2. Pipe Cutting:
   a. Pipe cutting measurement taken at site.
   b. Cutting of pipe or inserting valves, fittings, or closure pieces shall be done in a neat and workmanlike manner without damage to the pipe.
3. Direction of Bells:
   a. Unless otherwise directed, pipe shall be laid with bell ends facing the direction in which work is progressing.
   b. Pipe laid on an appreciable slope shall be laid with bell ends facing uphill.
4. Pipe Plugs: At times when pipe laying is not in progress, the open ends of pipe shall be closed by a watertight plug or other means approved by the Engineer.
5. Pipe Cleanliness:
   a. Clean all pipe, fittings and appurtenances before use.
   b. Foreign materials or objects shall be prevented from entering the pipe while it is placed in the trench.
6. Temporarily support, adequately protect and maintain all underground and surface utility structures, drains, sewers, and other obstructions encountered in the progress of work.

B. Pipe Alignment and Grade

1. All pipe shall be laid and maintained to the required lines and grades; with fittings, valves, and hydrants at the required locations, with joints centered and spigots home; and with all valve and hydrant stems plumb.
2. Deviations:
   a. Wherever existing utility structures or branch connections leading to main sewers or to main drains, or other conduits, ducts, pipes or structures present obstructions to the grade and alignment of the pipe, they shall be permanently supported, removed, relocated, or reconstructed by the Contractor through cooperation with the owner of the utility, structure or obstruction involved.
   b. No deviation shall be made from the required line or grade except with the written consent of the Engineer.
   c. The Contractor shall make all necessary explorations to determine the location of existing pipes, valves, or other
underground structures. The Owner and Engineer shall furnish all available information; however, such information cannot be guaranteed as accurate.

3. Depth of Bury:
   a. Depth of bury shall be as shown in the Plans.
   b. Minimum depth of bury of 3’-0” as measured from the established road grade or the surface of the permanent improvement to the top of the barrels of the pipe. When crossing the arroyo and/or drainage swales, depth of bury shall be 4’-0”.

C. Pipe Laying:

1. Proper implements, tools, and facilities shall be provided and used for the safe and convenient performance of the work.
2. All pipe fittings, valves and hydrants shall be lowered carefully into the trench by means of a derrick, ropes, or other suitable tools or equipment, in such a manner as to prevent damage to water main materials and protective coatings and linings.
3. Under no circumstances shall water main materials be dropped into trench.
4. Trench shall be dewatered prior to installation of pipe.

D. Jointing and Assembling:

1. Joints shall be installed in accordance with manufacturer’s written Installation and Operation Manual and approved submittals.
2. Lubricants: Vegetable soap solution suitable for use on potable water systems.
3. Precaution must be taken to prevent entrance of soil and other contaminants.
4. Use mechanical or push-on for exterior locations.
5. All lumps, blisters, burrs or excess coating shall be removed from the socket and plain ends of each pipe, and the outside of the plain end and the inside of the bell shall be wiped leaned and dry and be free from dirt, sand, grit, or any other foreign materials.

E. Clean all lines by repeated flushings after installation.

F. Disinfection: Refer to New Mexico Standard Specifications for Public Works Construction section 801.

G. Pipe Sleeves:

1. For all pipes passing through concrete or masonry.
2. Install where practical before concrete is placed.
3. Sleeve seal: watertight, modular sealing element when sleeve is placed in slabs with one side against soil.

H. Buried pipe anchorage:
   1. Anchors, joint harness or other acceptable means of preventing pipe movement whether indicated or not required for:
      a. Unlugged bell and spigot or all unflanged tees.
      b. Y branches.
      c. Bends deflecting 22 ½ degrees or more.
      d. Plugs and caps.
      e. Fittings in fills or unstable ground.
      f. Above grade or exposed structure.
   2. Restrained joints shall be installed within the vicinity of the arroyo and/or drainage swales.

I. Valves: Installed as shown on Drawings with valve boxes and joint restraint.

J. Fire hydrants: As indicated on Drawings with concrete blocking.

3.2 FIELD QUALITY CONTROL

A. All pipes and fittings tested in the presence of and to the satisfaction of the Engineer. AWWA C600 and C605 should be followed for proper pipe installation procedures and hydrostatic testing methods.

B. Test Conditions (PVC):
   2. Perform test at 150 psi for one hour per 1,000 linear foot of pipe or 2 hours minimum.

C. Testing Equipment:
   1. Pressure gauge used to perform pressure test shall be a digital type gauge with the ability to display testing pressure to one hundredth (1/100) of a psi. The pressure gauge shall be rated for at least the required testing pressure.
   2. All equipment for use in supplying water for the testing procedure shall be for potable water use only. A suitable amount of chlorine should be added to the storage device in order to disinfect such device. Prior notice will be given to engineer of method used for supplying water for testing.
   3. When existing water mains are used to supply test water, they should be protected from backflow contamination by temporarily
installing a double check-valve assembly between the test and supply main, or by other means approved by the Engineer.

4. All testing equipment are subject to and shall be disinfected per New Mexico Standard specifications for Public Works Construction Section 801 prior to any test. All equipment must pass a bacteriological test prior to being placed in service.

D. Procedure (PVC):

1. Disconnect fixtures, equipment and accessories that may be damaged by test pressure.
2. Plug ends as required.
3. Water shall be applied by means of a pump connected to the pipe in a satisfactory manner.
4. All air shall be expelled from the pipe prior to pressure testing.
5. No installation will be accepted unless the leakage is less than the number of gallons per hour as determined by the formula in New Mexico Standard specifications for Public Works Construction Section 801:
6. Leakage shall be defined as the quantity of water that must be supplied into the pipe section being tested to maintain a pressure within 5 psi of the specified leakage-test pressure after the pipe has been filled with water and the air in the pipeline has been expelled.
7. All joints showing visible leaks shall be properly repaired. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced by the Contractor with sound material, and the test repeated.
8. Retest repaired joints, pipes and fittings until system is tight and test results are satisfactory to the Engineer.
9. Pipe testing and preparation for use should strictly follow AWWA C605 Section. 7: Preparation for use.
10. Ductile Iron pipe hydrostatic pipe testing shall be done in accordance with section C600: Installation of Ductile-Iron Water Mains and Their Appurtenances. Previously described procedures for hydrostatic testing is for Polyvinyl Chloride (PVC) pipe only.

3.3 PIPE SCHEDULE

A. PVC Pipe:

1. Pipe sizes 4” or less, ASTM 2241, PVC 1120 , SDR-21 pressure class 200 psi.
2. Pipe sizes 4” through 12”, AWWA C900, SDR 44 18, pressure class 200 Or Engineer acceptable alternate:

B. Ductile Iron Pipe: Pipe sizes 3” through 12”, pressure class 350 psi.
C. End connections to be push-on joints unless otherwise indicated on the Drawings.

D. Repair and/or replacement of existing water lines damaged during construction: Material generally to match existing or at least quality required by this section.

E. Provide sizes as shown on the Drawings.

3.04 VALVE SCHEDULE

A. Resilient wedge gate valves: as shown on the Drawings.

B. Provide sizes as shown on the Drawings and as provided for in the Bid Schedule.

END OF SECTION - 331000
2 NEW 18" CMP PIPES CONSTRUCTED W/ OFFSITE GREFCO RD IMPROVEMENTS. (NOT A PART OF THIS CONSTRUCTION). COORDINATION W/ OFFSITE WORK IS REQUIRED.

MATCH TO EXISTING RIP RAP FOR CURB OPENING.
UTILITY KEYED NOTES

10. EXTEND C-900 DR18, 4" FORCE MAIN TO LIFT STATION.

15. INSTALL LIFT STATION CONTROL PANEL ALONG SCREEN WALL. EXACT LOCATION SHALL BE DETERMINED IN FIELD. EXTEND POWER AS NECESSARY.
FOUNDATION PLAN

A1

SCALE: 1/8" = 1'-0"

21'-0"

1'-1 1/4"

F6.0

F7.0

TIE BEAM

A1 FOUNDATION PLAN

PROJECT: SOCORRO COUNTY DETENTION CENTER

SUPPLEMENTAL DRAWING

07.16.14

ADD 06

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FOUNDATION PLAN

SCALE: 1/8" = 1'-0"
MEZZANINE AND MASONRY WALL PLAN

SCALE: 1/8" = 1'-0"

SUPPLEMENTAL DRAWING
07.16.14
ADD 06
MEZZANINE AND MASONRY WALL PLAN

SCALE: 1/8" = 1'-0"

PROJECT: SOCORRO COUNTY DETENTION CENTER

REF S-103

SUPPLEMENTAL DRAWING
07.16.14
ADD 06

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A1 MEZZANINE AND MASONRY WALL PLAN

SCALE: 1/8" = 1'-0"

PROJECT: SOCORRO COUNTY DETENTION CENTER

SCALE: 1/8" = 1'-0"
METAL BLDG WALL
Z PURLINS BY MFR
2-#4 CONT TOP & BOT W/ #3 STIRRUPS @ 48" OC
STD HOOK TO MATCH SLAB REINF
1/2" EXP MATL W/ CONT SEALANT
EXT PAVING SEE ARCH AND CIVIL

GRID

1 1/4", 18 GA VERT HAT CHANNELS @ 24" OC
WALL SHEATHING SEE ARCH

SCALE: 3/4" = 1'-0"

FOUNDATION SECTION

PROJECT: SOCORRO COUNTY DETENTION CENTER
D06-258-14 REF S-301
07.16.14 ADD 06
SKS-06
2-#4 CONT TOP & BOT W/ #3 STIRRUPS @ 48" OC

3" CLR

1'-0"

16 FIN FLR

SEE PLAN

2' - 0" 3" CLR

TOF

SEE PLAN

1/2" EXP MATL W/ CONT SEALANT

EXT PAVING SEE ARCH AND CIVIL

400S162-43 @ 16" OC

CONT 400T125-43 W/ 1/2" x 3 1/2"
EMBED EXP AHR @ 48" OC

600S162-43 @ 16" OC

CONT 600T125-43 W/ 1/2" x 3 1/2"
EMBED EXP AHR @ 48" OC

DWLS W/ STD HOOK TO MATCH SLAB REINF

16 30

SCALE: 3/4" = 1'-0"

FOUNDATION SECTION

B2

PROJECT: SOCORRO COUNTY DETENTION CENTER

SUPPLEMENTAL DRAWING

07.16.14 ADD 06

REF: S-601

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2-#4 CONT TOP & BOT W/#3 STIRRUPS @ 48" OC

1/2" EXP MATL W/ CONT SEALANT

EXT PAVING SEE ARCH AND CIVIL

600S162-43 @ 16" OC

CONT 600T125-43 W/ 1/2" DIA x 3 1/2" EMBED EXP AHR @ 48" OC

1' - 0"

FIN FLR SEE PLAN

DWLS W/ STD HOOK TO MATCH SLAB REINF

2' - 0"

3" CLR

16 30

DWLS TO MATCH VERT WALL REINF

A2 FOUNDATION SECTION

SCALE: 3/4" = 1'-0"