



City of Bishop, California

Bidding Information

and

Contract Documents

for

Sewage Pond Recirculation and Manifold

in the

City of Bishop, County of Inyo, California

5 June 2015

Approved:

David Grah
Director of Public Works

Notice To Bidders

Sealed proposals will be received at the City of Bishop Public Works office, City Hall, 377 West Line Street, Bishop, California, 93514 until three o'clock (3:00) in the afternoon on 16 June 2015, for furnishing all labor, materials, tools, implements and machinery to do and complete all work in a manner satisfactory to the City Engineer, for the following project:

Sewage Pond Recirculation and Manifold

Together with such other incidental items as are necessary to complete the work in the manner and time prescribed and in strict conformity with the contract documents.

At 3:01 in the afternoon on the above date, said proposals will be publicly opened and read aloud.

All proposals shall be made using the forms furnished by the City and shall be enclosed and sealed in an envelope which is addressed to the City Council, Bishop, California, and is clearly labeled:

Bid for Sewage Pond Recirculation and Manifold

Plans, specifications, bid forms to be used for bidding on this project and other contract documents can be obtained at the City of Bishop City Hall, 377 West Line Street, Bishop, California, 93514, 760-873-8458, and publicworks@ca-bishop.us. Only bids referencing all addendums issued for the project shall be considered. To receive addendums and other information issued on the project during the advertisement period, provide your contact information to the Bishop Public Works in City Hall at the above addresses and number at least two working days prior to bid opening.

This project is located at the City of Bishop waste water treatment plant sewage ponds and generally southeast of the city. The project consists of effluent recirculation and manifold including all equipment, wiring, and controls. The project includes furnishing of all labor, implements, tools, machinery, materials and all other work required to complete the project.

Bidders may request a pre-bid review of the project site with project staff by contacting the City of Bishop Department of Public Works at 760-873-8458, publicworks@ca-bishop.us.

The estimated range for the construction cost of this project is \$50,000 to \$70,000.

This project is funded entirely with City of Bishop funds. As a result, the contracting preferences of Chapter 3.26 of the Bishop Municipal Code apply to this project.

Technical questions should be directed to the Director of Public Works, City of Bishop, 377 West Line Street, Bishop, California, 93514, 760-873-8458, publicworks@ca-bishop.us.

The successful bidder shall furnish all items required in the contract documents.

All proposals shall include prices for all items of work contained in the contract documents. Responsive bid proposals shall include the following items.

1. Completed Bid Form
2. Bid Bond or other security
3. Completed Non-collusion Declaration form
4. Completed Contractor's Certificate Regarding Worker's Compensation form
5. Completed Proposed Equipment and Material Manufacturers form
6. Completed Proposed Subcontractors form
7. Completed Contractor Licenses form
8. If a local business preference is claimed, completed City of Bishop Local Business Verification form

The City of Bishop hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

The contract is subject to state contract nondiscrimination and compliance requirements pursuant to Government Code, Section 12990.

The Contractor shall procure all required permits and licenses, pay all charges, fees and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work.

The City Council of the City of Bishop, California, reserves the right to reject any and all proposals and to waive any formalities in the proposal.

Bid Form

Proposal to City of Bishop for the construction of

Sewage Pond Recirculation and Manifold

Bidder Information:

Name: _____

Address: _____

Phone: _____

Email: _____

To the Bishop City Council:

Pursuant to and in compliance with your Notice to Bidders inviting sealed proposals (bids) and the other documents relating thereto, the undersigned bidder, being fully familiar with the terms of the contract documents, local conditions affecting the performance of the contract, the character, quality, quantities, and scope of work, and the cost of the work at the place where the work is to be done, hereby proposes and agrees to perform within the time stipulated in the contract, including all of its component parts and everything required to be performed, and to furnish any and all of the labor, material, tools, equipment, transportation, services, permits, utilities, and all other items necessary to perform the contract and complete in a workman like manner, all of the work required in connection with the construction of said work all in strict conformity with the plans and specifications and other contract documents, including Addenda _____, _____, _____, and _____, for the prices hereinafter set forth.

The bidder, under penalty of perjury, certifies that, except as noted on an attached page, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, and manager: Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency; Has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past 3 years; Does not have a proposed debarment pending; and Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years. If there are any exceptions to this certification, insert the exceptions on an attached page.

The undersigned as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein and that this proposal is made without collusion with any person, firm, or corporation; and he proposes and agrees, if the proposal is accepted, that he will execute a contract with the City in the form set forth in the contract documents and that he will accept in full payment thereof the unit prices on the following pages.

Bid:

Item	Quantity	Unit	Description	Unit Price	Total Item Price
1	1	LS	Mobilization		
2	220	LF	Manifold		
3	1	LS	Recirculation Pump		
4	1	LS	Pump Intake		
5	156	LF	Pump Discharge		
6	155	LF	Effluent Pipe		
7	2	EA	Manhole		

Total Bid:

CY is cubic yard; EA is each; LF is linear foot; LS is lump sum

Provide the following information:

Pump Make and Model: _____

Box Make and Model: _____

Check one and provide required information:

- No contracting preference is claimed
- California Small Business contracting preference is claimed
- Local business contracting preference is claimed
- Small business subcontracting preference is claimed

In the event the total amount for an individual bid item does not agree with the product of the estimated quantity and unit price bid for that item, the unit price stated for the individual item shall govern and the incorrect total amount for that item shall be corrected. In the event the Total Bid does not agree with the sum of the total amounts bid for the respective bid items, the total amounts for the respective bid items shall govern and the incorrect Total Bid shall be corrected.

Unit prices for all items, extensions and total amount of bid must be shown. The proposal submitted shall be in effect for 30 days after the opening of bids.

Accompanying this proposal is a deposit in the form of a _____(Insert words "certified check", "cashier's check", "bid bond", "cash", or appropriate description of substitute security, as the case may be) in the amount of \$_____ which amount is not less than 10% of the total bid, payable to the CITY OF BISHOP.

The undersigned deposits the above-named security as a proposal guarantee and agrees that it shall be forfeited to the City in case this proposal is accepted by the City and the undersigned fails to execute a contract with the City as specified in the contract documents or fails to furnish the required payment and performance bonds, or substitute, and insurance certificates and endorsements. Should the City be required to engage the services of an attorney in connection with the enforcement of this bid, bidder promises to pay City's reasonable attorneys' fees, incurred with or without suit.

The names of all persons interested in the foregoing proposals as principals are as follows. If bidder is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a general partnership, state true name of firm, also names of all individual partners composing firm; if a limited partnership, the names of all general partners and limited partners; if an individual, state first and last names in full; if the bidder is a joint venture, state the complete name of each party.

Authorized Bidder Representative:

Name (typed or printed): _____ (SEAL)

By: _____
(Individual's signature – attach evidence of authority to sign)

Title: _____

Bid Bond

(10% of Total Bid Amount)

We, _____ as Principal,
and _____ as Surety,
jointly and severally, bind ourselves, our heirs, representatives, successors and assigns, as set forth herein to the

City of Bishop, California

(herein called City) for payment of the penal sum of _____

Dollars (\$ _____), lawful money of the United
States. Principal has submitted the accompanying bid for the construction of

Sewage Pond Recirculation and Manifold

If the Principal is awarded the contract and enters into a written contract, in the form prescribed by the City, at the price designated by his bid, and files two bonds with the City, or substitute security in lieu thereof, one to guarantee payment for labor and materials and the other to guarantee faithful performance, in the time and manner specified by the City, and carries all insurance in type and amount which conforms to the contract documents, and furnishes required certificates and endorsements thereof, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Forfeiture of this bond, or any deposit made in lieu thereof, shall not preclude the City from seeking all other remedies provided by law to cover losses sustained as a result of the Principal's failure to do any of the foregoing.

Principal and Surety agree that if the City is required to engage the services of an attorney in connection with the enforcement of this bond, each shall pay City's reasonable attorney's fees incurred with or without suit.

Executed on _____

PRINCIPAL

(Seal of Corporation)

By _____

Title _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

_____ (Name and address of Surety)

_____ (Name and address of Surety's agent for service of
process in California, if different from above)

_____ (Telephone number of Surety's agent in California)

(Attach Acknowledgement)

_____ SURETY

By _____
(Attorney-in-Fact)

Non-collusion Declaration

The undersigned declares:

I am the _____
of _____,

the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on

Date _____ at

City, State _____

Signature _____

Printed Name _____

Contractor Licenses

The Contractor's license classification required for this project are as follows:

Class A – General Engineering Contractor

This classification is provided for information purposes only. The Engineer does not warrant that all classifications required for the project are listed.

It is the City's intent that "plans," as used in Public Contract Code Section 3300, is defined as the construction contract documents, which include both drawings and specifications.

The contractor hereby confirms that it has all licenses and permits required by federal, state, and local statutes, regulations, and ordinances. The following are the Contractor's applicable license numbers:

<u>Contractor License Number</u>	<u>Expiration Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

I state under penalty of perjury that all information submitted by me and included in this contract is true and correct.

Signature of Bidder: _____

Dated: _____

Agreement

THIS AGREEMENT, made and entered into by and between the

City of Bishop, California

hereinafter referred to as “CITY” and

a corporation under the laws of the state of _____;

hereinafter referred to as “CONTRACTOR”.

CITY and CONTRACTOR agree as follows:

1. SCOPE OF WORK: Contractor shall furnish all materials and shall perform all of the work for the construction of the Sewage Pond Recirculation and Manifold in accordance with this agreement and the other contract documents.
2. TIME FOR COMPLETION: The work shall be completed within the times set forth in the contract documents. Time is of the essence and forfeiture due to delay will be assessed as provided for in the contract documents.
3. CONTRACT SUM: CITY will pay CONTRACTOR as described in the Contractor bid and the rest of the contract documents.
4. PAYMENTS: Payment will be made in accordance with the contract documents. The filing of the notice of completion by CITY shall be preceded by acceptance of the work made only by an action of the City Council.
5. COMPLIANCE WITH PUBLIC CONTRACTS LAW: CITY is a public agency in the State of California and is subject to the provisions of law relating to public contracts. It is agreed that all provisions of law applicable to public contracts are a part of this contract to the same extent as though set forth herein and will be complied with by CONTRACTOR.
6. CONTRACT DOCUMENTS: The complete contract includes all of these documents:
 - Notice to Bidders
 - Bid Form
 - Agreement
 - Performance Bond

- Payment Bond
- Worker's Compensation Certificate
- Special Provisions
- Other referenced documents

This Agreement is executed by the CITY pursuant to an action of its Governing Body in session on _____, authorizing the same, and CONTRACTOR has caused this Agreement to be duly executed.

Dated:

_____ By _____
Jim Tatum, City Administrator

Dated:

_____ By _____
(Contractor)

Title:

APPROVED AS TO FORM:

City Attorney

Performance Bond
(100% of the Agreement Amount)

We, _____ as Principal,
and _____ as Surety,
jointly and severally, bind ourselves, our heirs, representatives, successors and assigns, as set forth
herein to the

City of Bishop

(herein called City) for payment of the penal sum of _____
_____ Dollars (\$ _____), lawful money of
the United States. City has awarded Principal a contract for the construction of

Sewage Pond Recirculation and Manifold

The condition of this obligation is such that if the Principal shall in all things abide by and well and truly keep and perform the covenants, and agreements in the said contract, and any alteration thereof made as therein provided, on his part to be kept and performed at the item and in the manner therein specified, and shall faithfully fulfill the one-year guarantee of all materials and workmanship, and shall indemnify and save harmless the City, the Engineer/Architect, the City's Representative, and their consultants, and each of their directors, officers, employees, and agents, as therein stipulated, this obligation shall become null and void, otherwise, it shall be and remain in full force and effect.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the contract, or the work to be performed thereunder, or the plans and specifications shall in any way affect its obligation on this bond, and it does hereby waive notice thereof.

Principal and Surety agree that should Owner become a party to an action on this bond, that each shall pay Owner's reasonable attorney's fees incurred therein in addition to the sum above set forth.

Executed in two original counterparts on
20____

PRINCIPAL

(Seal of Corporation)

By _____

Title _____

Any claims under this bond may be addressed to:

_____ (Name and address of Surety)

_____ (Name and address of Surety's agent for
service of process in California, if different
from above)

_____ (Telephone number of Surety's agent in
California)

(Attach Acknowledgement)

_____ SURETY

By _____
(Attorney-in-Fact)

APPROVED:

(Attorney for CITY)

Payment Bond

(100% of the Agreement Amount)

We, _____ as Principal,

and _____ as Surety,
jointly and severally, bind ourselves, our heirs, representatives, successors and assigns, as set forth
herein to the

City of Bishop

(herein called City) for payment of the penal sum of _____

_____ Dollars (\$ _____), lawful money of
the United States. City has awarded Principal a contract for the construction of

Sewage Pond Recirculation and Manifold

If Principal or any of his subcontractors fails to pay any of the persons named in Section 3181 of the California Civil Code, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract or during the one-year guarantee period, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax board from the wages of employees of the contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, then Surety will pay the same in an amount not exceeding the sum specified above, and also will pay, in case suit is brought upon this bond, such reasonable attorney's fees as shall be fixed by the court.

This bond shall insure to the benefit of any of the persons named in Section 3181 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the contract, or the work to be performed there under, or the plans and specifications shall in any way affect its obligation on this bond, and it does hereby waive notice thereof.

Principal and Surety agree that if the City is required to engage the services of an attorney in connection with the enforcement of this bond, each shall pay City's reasonable attorney's fees incurred with or without suit, in addition to above sum.

Executed in two original counterparts on
20____

PRINCIPAL

(Seal of Corporation)

By _____

Title _____

Any claims under this bond may be addressed to:

_____ (Name and address of Surety)

_____ (Name and address of Surety's agent for
service of process in California, if different
from above)

_____ (Telephone number of Surety's agent in
California)

(Attach Acknowledgement)

SURETY

By _____
(Attorney-in-Fact)

APPROVED:

(Attorney for CITY)

Special Provisions

A. GENERAL PROVISIONS

1. GENERAL

Unless otherwise stated, the work embraced herein shall be done in accordance with the 2010 Standard Specifications and the Standard Plans of the State of California, Department of Transportation insofar as the same may apply and in accordance with these Special Provisions. Copies of the Standard Plans and the Standard Specifications may be obtained from the Department of Transportation. In addition the City of Bishop Specifications for Domestic Water and Sanitary Sewer System (1991) shall also apply. Copies may be obtained from the City of Bishop Public Works Department.

When approved by the Engineer, forms, documents, and standards equivalent to those specified may be used.

In the event of conflict between these Special Provisions, the project plans, the City of Bishop Specifications for Domestic Water and Sanitary Sewer System, the Standard Specifications, and the Standard Plans the order of precedent shall be these Special Provisions over the project plans over the technical specifications of the City of Bishop Specifications for Domestic Water and Sanitary Sewer System over the Standard Specifications over the remaining sections of the City of Bishop Specifications for Domestic Water and Sanitary Sewer System over the Standard Plans.

2. GLOSSARY

All definitions and terms in Section 1-1.07B, Glossary, of the Standard Specifications shall apply, except whenever the following terms are used the intent and meaning shall be as follows.

Bid Item List: The bid form corrected for math errors.

Contract: Executed agreement between the City and Contractor.

Contract Documents: The documents which make up the Contract, including any and all documents incorporated therein; also, any and all written agreements between the City and Contractor which amend or change the Contract. Referred to as the Bid Book in the Standard Specifications.

City: The City of Bishop, State of California, working through its Public Works Department.

Department: The Public Works Department of the City of Bishop.

Director: The Public Works Director of the City of Bishop.

Department of Transportation: The Public Works Department of the City of Bishop, except when Department of Transportation publications are cited, such cites are to remain as written and refer to the State of California, Department of Transportation, also known as Caltrans.

Engineer: The Public Works Director of the City of Bishop, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

Laboratory: The Laboratory of the Public Works Department or other laboratories authorized by the Public Works Department of the City of Bishop to test materials and work involved in the Contract.

Office Engineer: The Public Works Director of the City of Bishop.

Owner: The City.

State or State of California: The City except when State publications or standards are cited, such cites are to remain as written and refer to the State of California.

3. CHANGES TO STANDARD SPECIFICATIONS

The following sections are deleted from the Standard Specifications:

2-1.02, Bid Ineligibility

2-1.06, Bid Documents

2-1.18, Small Business and Non-Small Business Subcontractor Preferences

2-1.27, California Companies

2-1.33D, Opt Out of Payment Adjustments for Price Index Fluctuations

3-1.08, Small Business Participation Request

3-1.11, Payee Data Record,

Delete the numbered list in Section 3-1.18, Contract Execution

Delete the second and third paragraphs of Section 2-1.33A, Bid Document Completion - General.

Modify Section 5-1.23, Submittals, to identify each sheet by the project name.

Delete the column "Umbrella or excess liability" from Liability Limits table of Section 7-1.06D(2), Liability Limits / Additional Insureds.

4. PROPOSAL REQUIREMENTS

The bidder's attention is directed to the provisions in Section 2, Bidding, of the Standard Specifications and these special provisions for the requirements and conditions which the bidder must observe in the preparation and the submission of the bid. Subcontracting Request forms are not required but each proposal shall list the portion of work that will be done by each subcontractor. A sheet for listing the subcontractors is included in the Proposal.

The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract.

5. BONDS

The Contractor, simultaneously with the execution of the contract, shall furnish a payment bond and a performance bond each in an amount equal to 100 percent of the contract amount, or equivalent cash or security in lieu of bonds pursuant to Section 995.710 of the Code of Civil Procedures. Bonds shall be furnished by surety companies satisfactory to the City on the forms furnished as part of the contract documents. Surety companies, to be acceptable to the City, must be authorized to do business and have an agent for service of process in California.

6. SCOPE OF WORK

The scope of the work shall consist of construction of sewage recirculation and sewage outlet manifold and related improvements described in the contract documents for the Sewage Pond Recirculation and Manifold project and as provided in the improvement plans.

7. PRE-CONSTRUCTION CONFERENCE

Prior to issuance to the Notice to Proceed, the City will hold a pre-construction conference for the purpose of discussing essential matters pertaining to the pursuit of the satisfactory completion of the project. The Contractor's representatives at this conference shall include all major superintendents for the work and may include subcontractors.

8. CONSTRUCTION STAKES

Contractor shall request staking by notifying the Engineer at least 7 working days before the staking will be required.

9. SUBMITTALS

In addition to submittals required in the Standard Specifications and elsewhere in these Special Provisions, the Contractor shall submit the following information to the City 7 working days prior to beginning of work for review and approval.

- a) A schedule of work conforming to Section 8-1.02B, Level 1 Critical Path Model Schedule, of the Standard Specifications.
- b) A health and safety plan.

10. PERMITS AND LICENSES

The following permits and licenses are known to be required for the work:

- a) City of Bishop Business License and
- b) California Contractors License Classification A

11. TIME OF COMPLETION

The Contractor shall have 20 working days to complete the work, excluding delivery time for parts and materials.

12. LIQUIDATED DAMAGES

Liquidated damages shall be \$1000 per day.

13. MEASUREMENT AND PAYMENT

All work will be measured and paid for as shown on the bid form and the contract documents.

Item quantities shall be measured by planned, actual, or lump sum in accordance with these special provisions. Item quantities to be measured for payment by planned quantities shall be based on theoretical or calculated quantities of completed work based on the plans. Item quantities to be measured for payment by actual quantities shall be determined by measurement of completed work.

The price paid for bid items shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in completing those items of work complete in place in accordance with the contract documents.

When the contract does not include a contract pay item for work required by the contract, full compensation for that work is included in the prices paid for the contract pay items included in the contract.

The Contractor with assistance from the City shall, on or before the tenth day of each calendar month after construction work is started, cause an estimate in writing to be made of the value of the work completed.

A request for payment shall be submitted by the Contractor each month and upon completion of all work for approval and payment by the City.

The City shall retain 10 percent of the estimated value of the work done and 10 percent of the value of materials so estimated to have been furnished and delivered and unused or furnished and stored as aforesaid as part security for the fulfillment of the contract by the Contractor, except that at any time after 20 percent of the work has been completed, if the Engineer finds that satisfactory progress is being made, the City may reduce the total amount being retained from payment pursuant to the above requirements to 5 percent of the estimated value of the work and materials and may also reduce the amount retained from any of the remaining partial payments to 5 percent of the estimated value of the work and materials. In addition, on any partial payment made after 95 percent of the work has been completed, the Department may reduce the amount withheld from payment pursuant to the requirements of this section to such lesser amount as the Department determines is adequate security for the fulfillment of the balance of the work and other requirements of the contract, but in no event will that amount be reduced to less than 125 percent of the estimated value of the work yet to be completed as determined by the Engineer.

14. RESOLUTION OF CLAIMS

All public works claims between the Contractor and City relating to this contract where the total claims of both parties are equal or less than \$375,000 shall be resolved in accordance with Public Contract Sections 20104 et seq., which are incorporated herein by reference. There shall be no claims for labor compliance issues.

15. GENERAL SAFETY

Contractor shall transmit to the City copies of reports and other documents related to accidents and injuries encountered during this work. Where there is conflict between applicable safety orders, laws and regulations and policies, the more stringent measures shall apply.

16. CHEMICALS

The Contractor shall provide two copies of Material Safety Data Sheets to the City for all chemicals used during this project at least three days prior to bringing them on site. Use of all such chemicals and disposal of residues shall be in strict accordance with the printed instructions of the manufacturer.

If the Contractor encounters hazardous substances during this work, he shall immediately notify the City and the County Environmental Services Office. Hazardous substances shall be disposed of in accordance with the requirements of Inyo County Department of Environmental Health.

B. BID ITEMS

1. Mobilization

Mobilization shall be measured lump sum.

2. Manifold

Pipe used for Manifold shall be Type S plastic pipe, smooth interior wall. Manifold, where underground, shall include backfill in accordance with detail WS-1 except that pavement section is not present and trench zone may extend to surface. Care shall be taken near existing underground electrical conduits. Existing underground electrical conduits in conflict with new construction will be relocated by others. Manifold shall include support cable system with anchors at no more than 10 foot intervals. Cables and anchors shall be of suitable size and materials for application. Cable support cables shall be adjustable with clamps at the anchor. Manifold pipe shall be protected for long term damage and wear caused by support cables. Manifold shall be measured actual.

3. Recirculation Pump

Recirculation pump shall be capable of delivering 100 gallons per minute through system shown on the plans, use 240 volt single phase power, shall include connection in separate conduit for Supervisory Control And Data Acquisition (SCADA) controls for start, stop, and fault, shall include power connection in conduit, and shall include insulated box cover. SCADA connection will be by others. Pump shall be capable of self-priming in the configuration shown on the plans. Bid shall include make and model of pump and box cover included in proposal. Recirculation Pump shall be measured lump sum.

4. Pump Intake

Pump intake shall include 3/4 inch drain valve at Recirculation Pump. Intake shall include anchor cables with anchors. Cables and anchors shall be of suitable size and materials to secure intake in position. Pump Intake shall be measured lump sum.

5. Pump Discharge

Pump Discharge shall include 3/4 inch include drain valve located at Recirculation Pump. Pump Discharge shall be measured actual.

6. Effluent Pipe

Effluent Pipe shall conform to special provisions for sewer pipe. Effluent Pipe shall include backfill in accordance with detail WS-1 except that pavement section is not present and trench zone may extend to surface. Care shall be taken near existing underground electrical conduits. Existing underground electrical conduits in conflict with new construction will be relocated by others. Concrete lining of sewage pond shall be patched, in kind, at new Effluent Pipe penetration and at holes or damage where existing pipes are removed. Effluent Pipe shall be measured actual.

7. Manhole

Manhole shall be a new manhole and conform to City of Bishop Standard Detail S-1 except that inside diameter shall be suitable for pipes involved. Manhole shall include frame and cover per City of Bishop Standard Detail S-2. Where plans show future pipe connections, manholes shall have properly constructed openings (size and elevation) to accept future

pipes, but openings shall be blocked or covered to prevent soil to enter manhole and to allow specified backfill. Manhole shall be measured actual.

MATERIALS

1. Portland Cement Concrete

Concrete shall be 711 Materials, Mix 650016F4, or equal.

2. PVC Sewer Pipe

Sanitary sewer shall be plastic pipe. Sewer pipe shall be SDR 35 / PS 46 polyvinyl chloride (PVC) solid wall sewer pipe made of compounds conforming to ASTM D1784 and manufactured in accordance with the material requirements of ASTM D3034 or ASTM F679. Sewer pipe shall meet all dimensional, chemical, and physical requirements as outlined in ASTM D3034 and ASTM F679 or ASTM F679 ANNEX. Sewer pipe shall be installed according to the requirements of ASTM D2321. Joints shall meet the requirements of ASTM D3212 and shall be formed using a Rieber gasket system for sealing that meets the requirements of ASTM F477.

3. Plastic Pipe

Except for PVC flex pipe, plastic pipe for pump intake and pump discharge shall conform to specifications for plastic pipe supply lines.

4. Synthetic Fiber Reinforcement

The synthetic fibers specified shall conform to the requirements of ASTM C1116, Section 4.1.3 and Note 3, as well as International Conference of Building Officials Evaluation Service (ICBO ES) Acceptance Criteria 32, Sections 4.1.1 and 4.1.2. Both of these specifications apply to the use of synthetic fibers as secondary reinforcement in concrete. At the request of the project engineer the synthetic fiber vendor shall furnish a Letter of Certification stating compliance with these specifications and signed by a registered Professional Engineer.

Synthetic fibers shall be either nylon multifilament fiber or polypropylene collated fibrillated fiber or monofilament fiber.

Nylon multifilament or polypropylene monofilament fibers shall be introduced at the rate of 1 pound per cubic yard at the standard length of $\frac{3}{4}$ inch.

Polypropylene collated fibrillated fiber shall be introduced at the rate of 1.5 pounds per cubic yard at the standard length of $\frac{3}{4}$ inch.

Synthetic fibers shall be added at the concrete batch plant and mixed with the other ingredients for 3 to 5 minutes. The concrete producer shall list the type and quantity of synthetic fiber added on each delivery ticket.

5. Crushed Rock

Crushed rock shall be the product of crushing rock or gravel. The portion of the material that is retained on a 3/8-inch sieve shall contain at least 50 percent of particles having three or more fractured faces. Not over 5 percent shall be pieces that show no such faces resulting from crushing. Of that portion which passes the 3/8-inch sieve but is retained on the Number

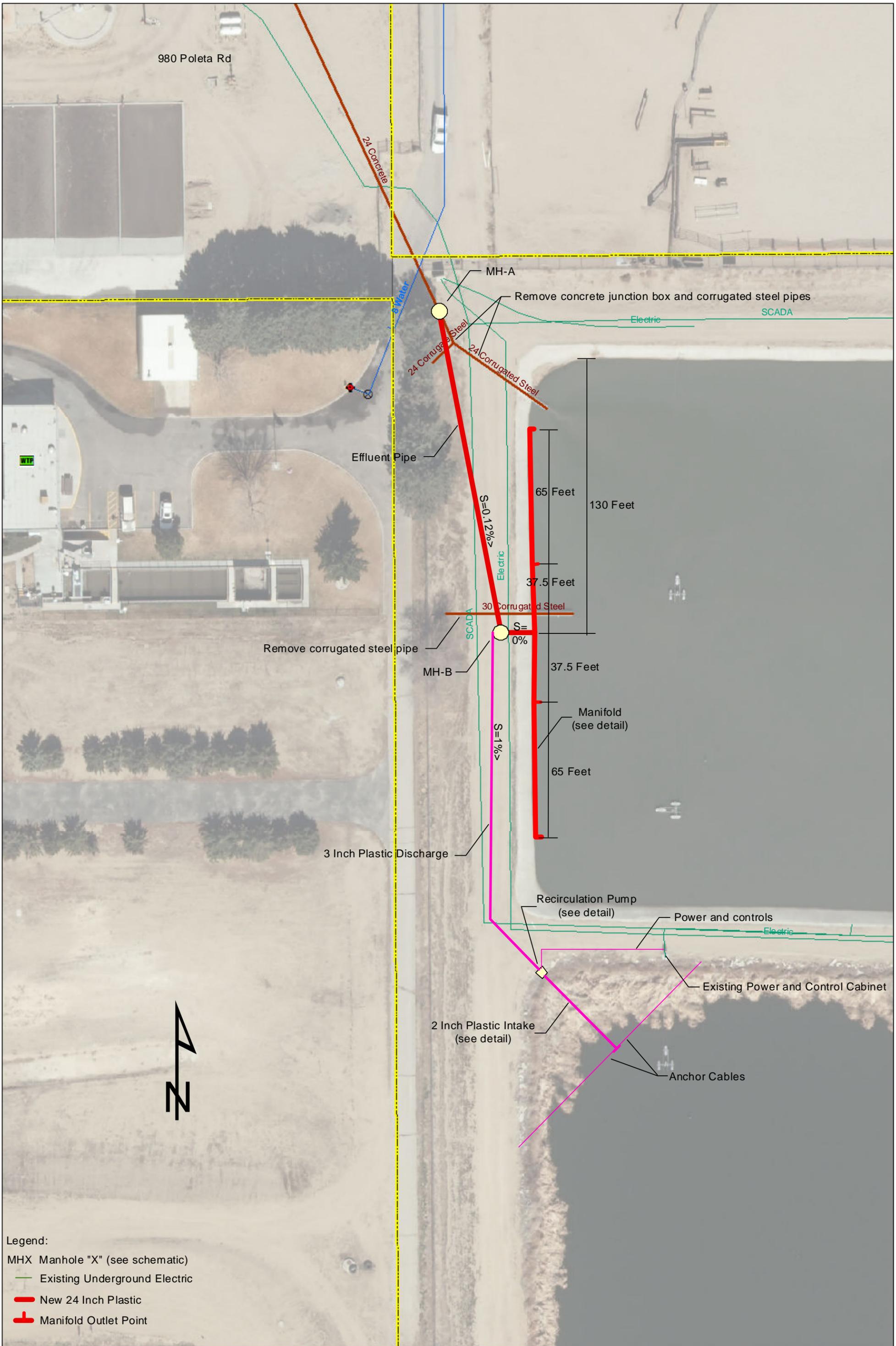
4 sieve, not more than 10 percent shall be gravel particles. Crushed rock will be designated by nominal size and shall conform to the following gradations:

Sieve Size	Percent Passing		
	1"	3/4"	1/2"
1 1/2 inch	100	-	-
1 inch	90-100	100	-
3/4 inch	30-60	90-100	100
1/2 inch	0-20	30-60	90-100
3/8 inch	-	0-20	20-60
Number 4	0-5	0-5	0-15
Number 8	-	-	0-5
ASTM C 131 Test Grading	A	B	B

Sieve Size	Percent Passing			
	3/8"	1/4"	3/16"	Rock Dust
1/2 inch	100	-	-	-
3/8 inch	90-100	-	-	100
1/4 inch	-	100	-	-
Number 4	30-60	75-100	100	90-100
Number 8	0-10	0-25	40-75	-
Number 16	-	0-5	0-10	-
Number 30	-	-	-	20-60
Number 200	-	0-2	0-2	5-20
ASTM C 131 Test Grading	C	D	D	-

Crushed rock shall meet the following requirements:

TEST	Test Method Number	Requirements in percent
Percentage Wear	ASTM C 131	
100 Revolutions		15 Maximum
500 Revolutions		52 Maximum



980 Poleta Rd

24 Concrete

8 Water

MH-A

Remove concrete junction box and corrugated steel pipes

Electric

SCADA

24 Corrugated Steel

24 Corrugated Steel

Effluent Pipe

S=0.12%

Electric

65 Feet

130 Feet

37.5 Feet

30 Corrugated Steel

S=0%

Remove corrugated steel pipe

MH-B

37.5 Feet

Manifold
(see detail)

S=1%

65 Feet

3 Inch Plastic Discharge

Recirculation Pump
(see detail)

Power and controls

Electric

Existing Power and Control Cabinet

2 Inch Plastic Intake
(see detail)

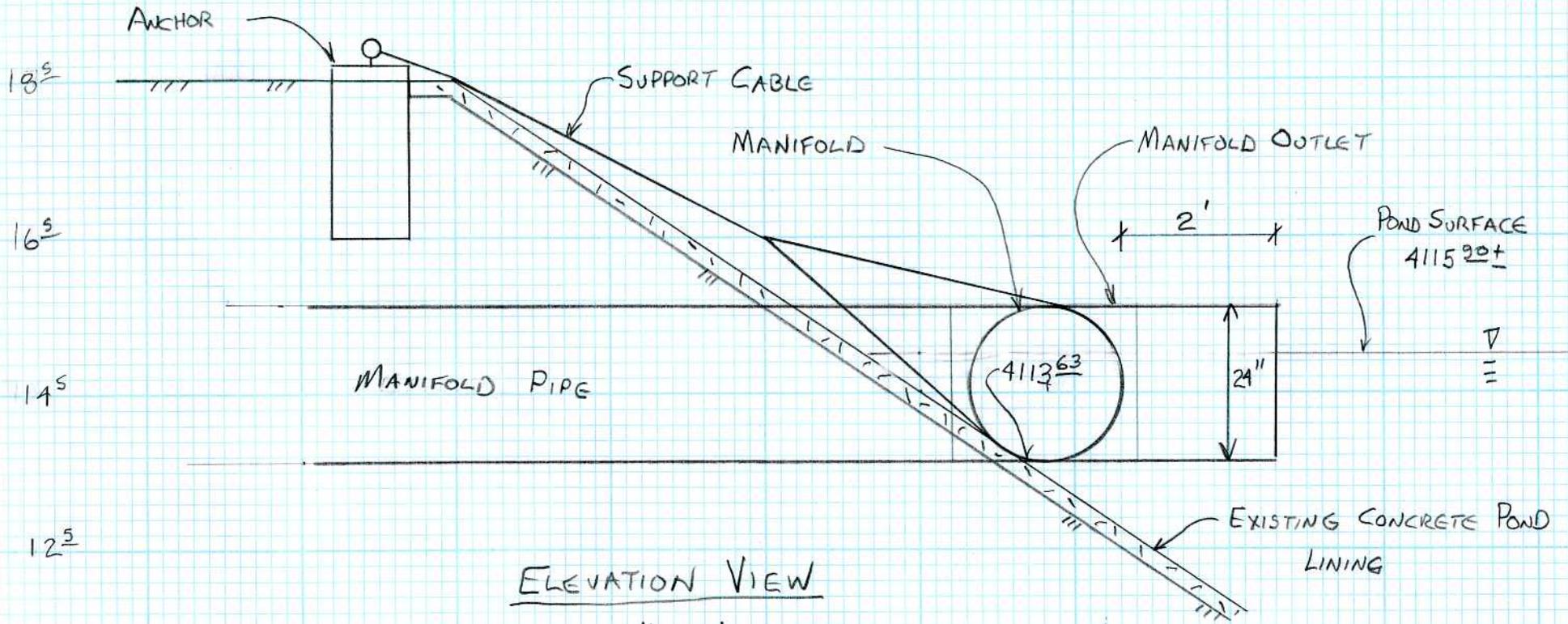
Anchor Cables



- Legend:
- MHX Manhole "X" (see schematic)
 - Existing Underground Electric
 - New 24 Inch Plastic
 - Manifold Outlet Point

0 20 40 80 Feet

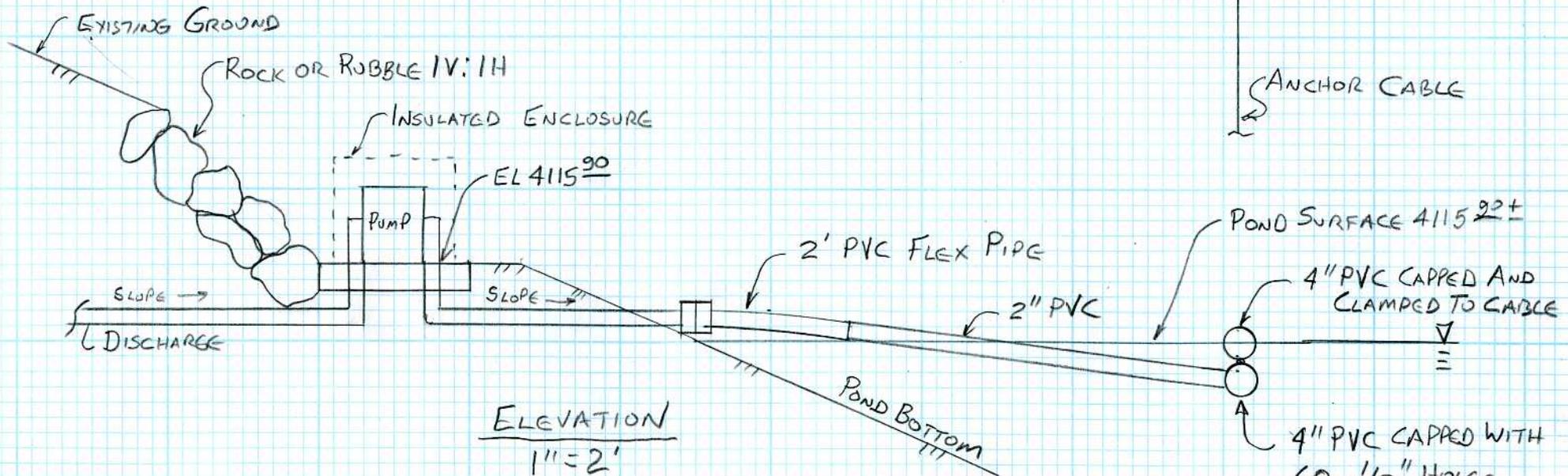
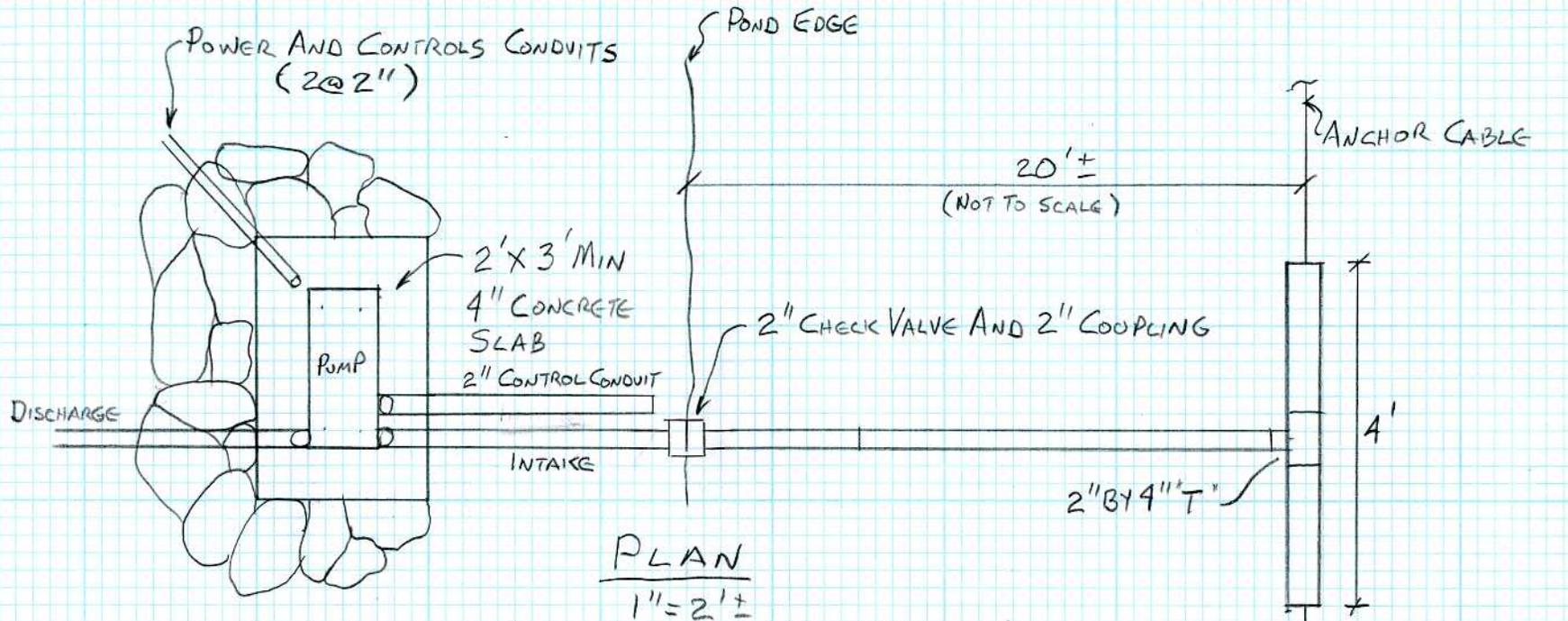
City of Bishop Sewage Pond Recirculation and Manifold
Project Plan



ELEVATION VIEW
1" = 2'

CITY OF BISHOP SEWAGE POND RECIRCULATION AND MANIFOLD

MANIFOLD DETAIL

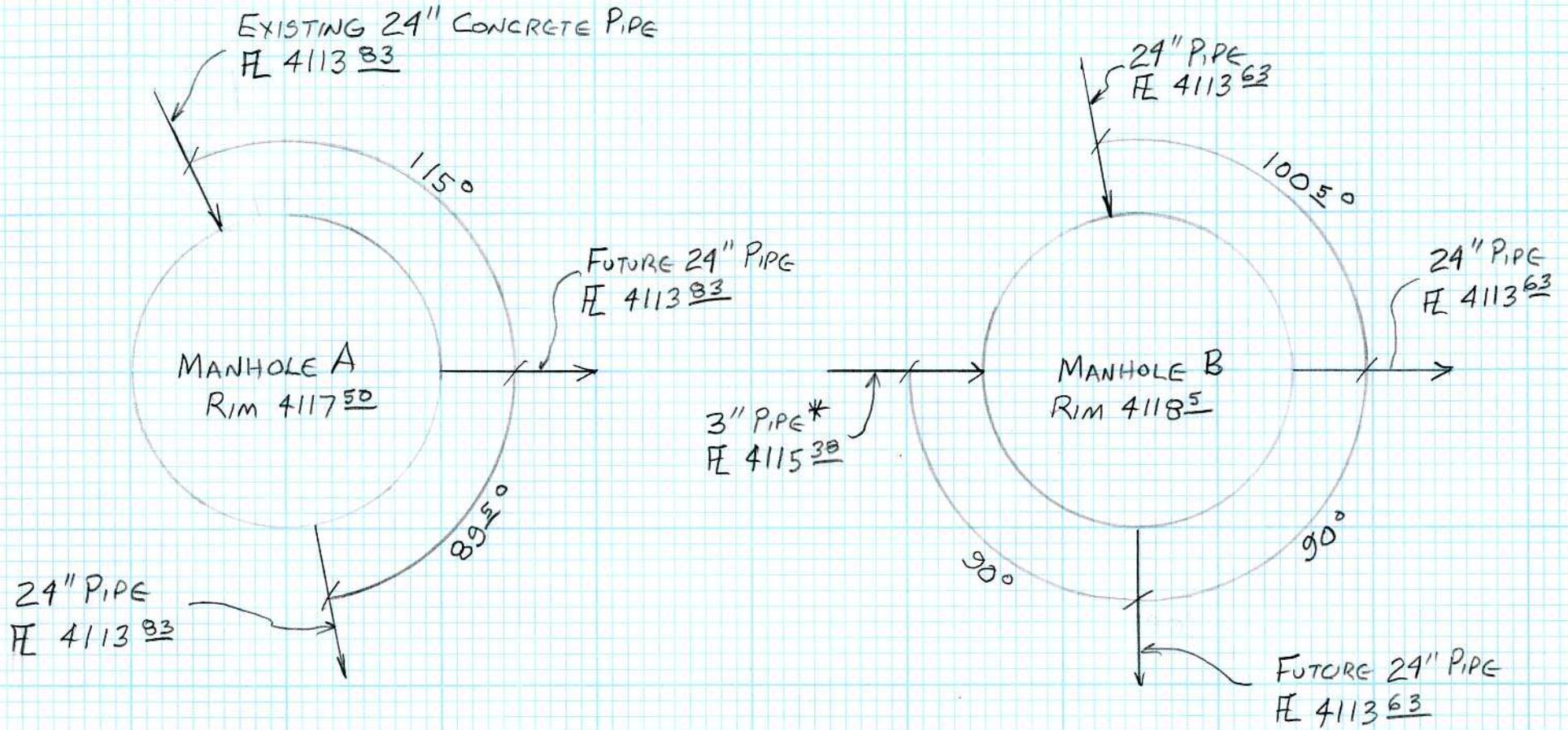


CITY OF BISHOP SEWAGE POND RECIRCULATION AND MANIFOLD

RECIRCULATION PUMP AND INTAKE DETAIL

LOCATE MANHOLE A AT END OF EXISTING
CONCRETE PIPE ABOUT 14' FROM EXISTING
JUNCTION BOX

LOCATE MANHOLE B ABOUT 10' FROM
TOP EDGE OF POND LINING



* FL OF 3" PIPE 4116.70 2' OUTSIDE MANHOLE

PLAN VIEW

CITY OF BISHOP SEWAGE POND RECIRCULATION AND MANIFOLD

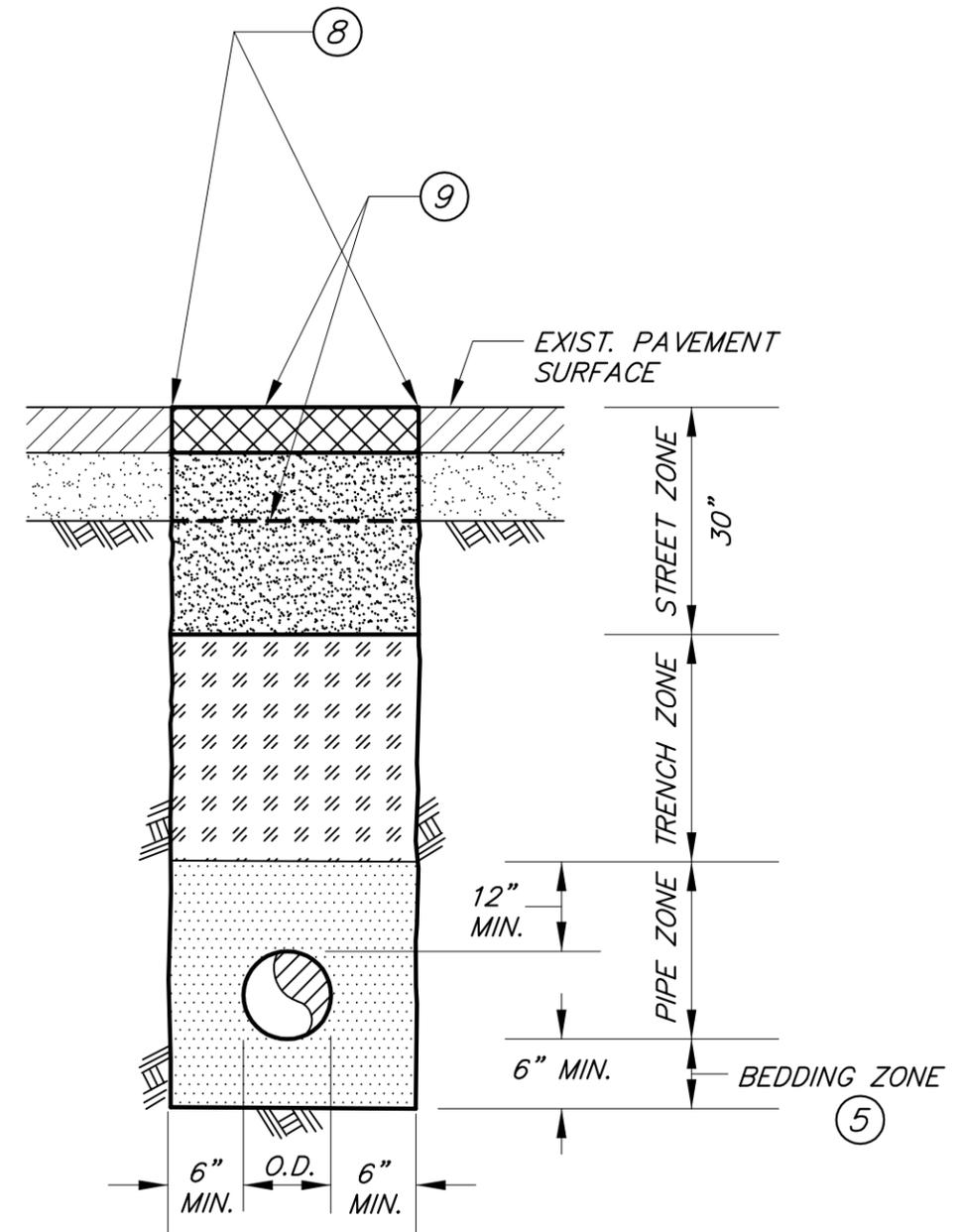
MANHOLE SCHEMATICS

NOTES:

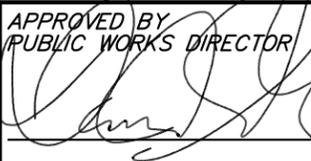
1. THE FOLLOWING APPLIES FOR WORK ACCOMPLISHED THROUGH EXCAVATION AND BACKFILL.
2. EXCEPT AS SHOWN, WORK SHALL BE IN ACCORDANCE WITH THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS.
3. BACKFILL SHALL BE AS FOLLOWS:

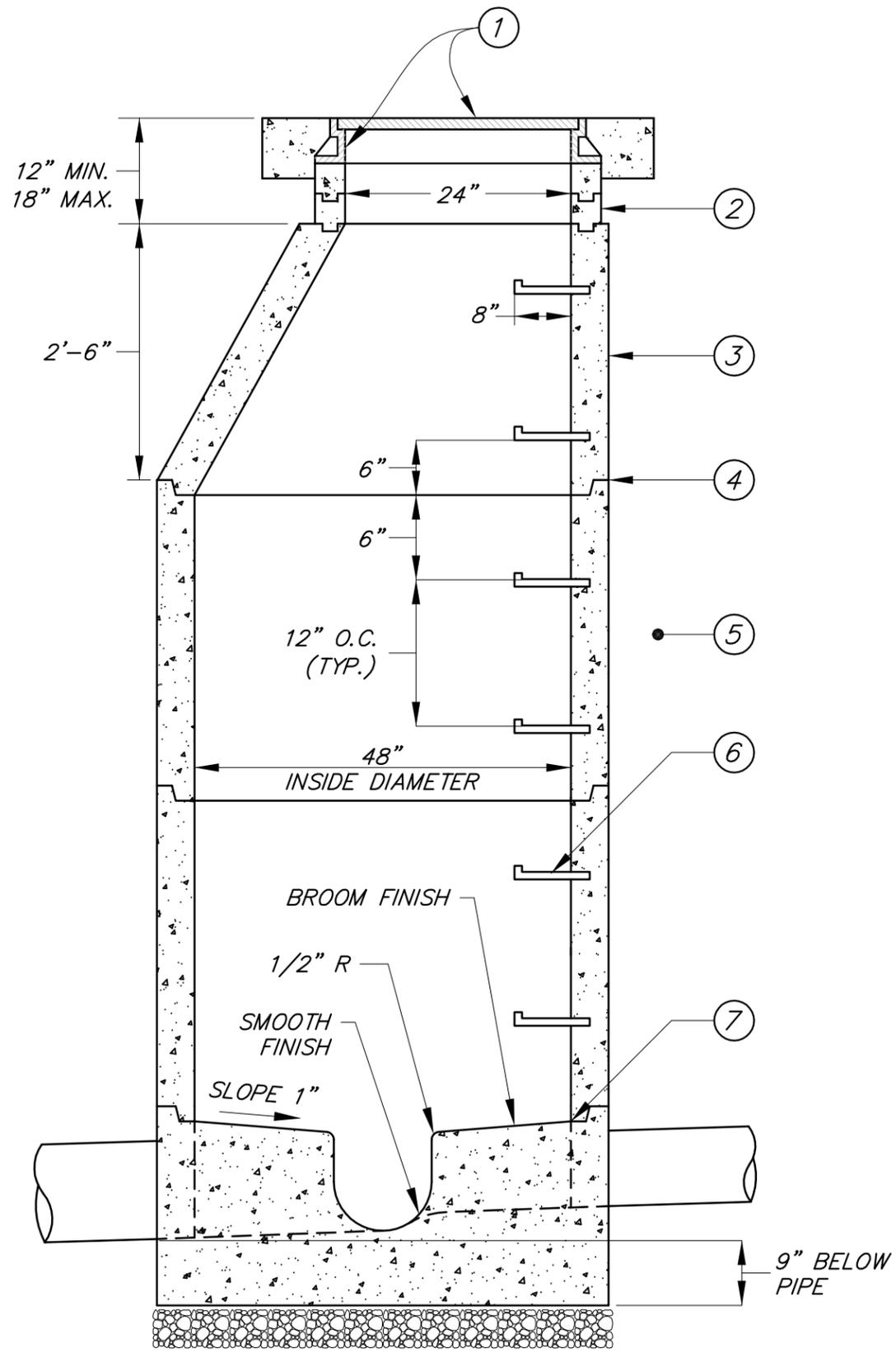
ZONE	MINIMUM COMPACTION	MINIMUM CALTRANS R VALUE	MATERIAL
STREET	95%	60	AS SHOWN AND NOTE 7
TRENCH	90%	60	NOTE 7
PIPE AND BEDDING	90%		NOTE 4

4. MATERIAL IN THE PIPE AND BEDDING ZONES SHALL BE SAND OR CRUSHED ROCK EXCEPT THAT CRUSHED ROCK SHALL NOT BE USED WITHIN 6 INCHES OF WATER LINES, UNLESS DIRECTED BY THE ENGINEER.
5. IN UNSUITABLE AREAS AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, MINIMUM THICKNESS OF BEDDING SHALL BE 18 INCHES.
6. INSTALLATION OF MANHOLES AND OTHER IN-GROUND STRUCTURES IS SIMILAR.
7. SLURRY CEMENT BACKFILL MAY BE USED IN PLACE OF COMPACTED MATERIAL AND IN PLACE OF AGGREGATE BASE IN THE TRENCH ZONE AND THE STREET ZONE. NOT LESS THAN 70 POUNDS AND NOT MORE THAN 75 POUNDS OF CEMENT SHALL BE USED FOR EACH CUBIC YARD OF SLURRY CEMENT BACKFILL.
8. SAWCUT EXISTING ASPHALT TO A CLEAN STRAIGHT VERTICAL EDGE.
9. REPAVE TRENCH WITH 4" MIN. A.C. OVER 6" MIN. A.B. IN PAVED AREAS.

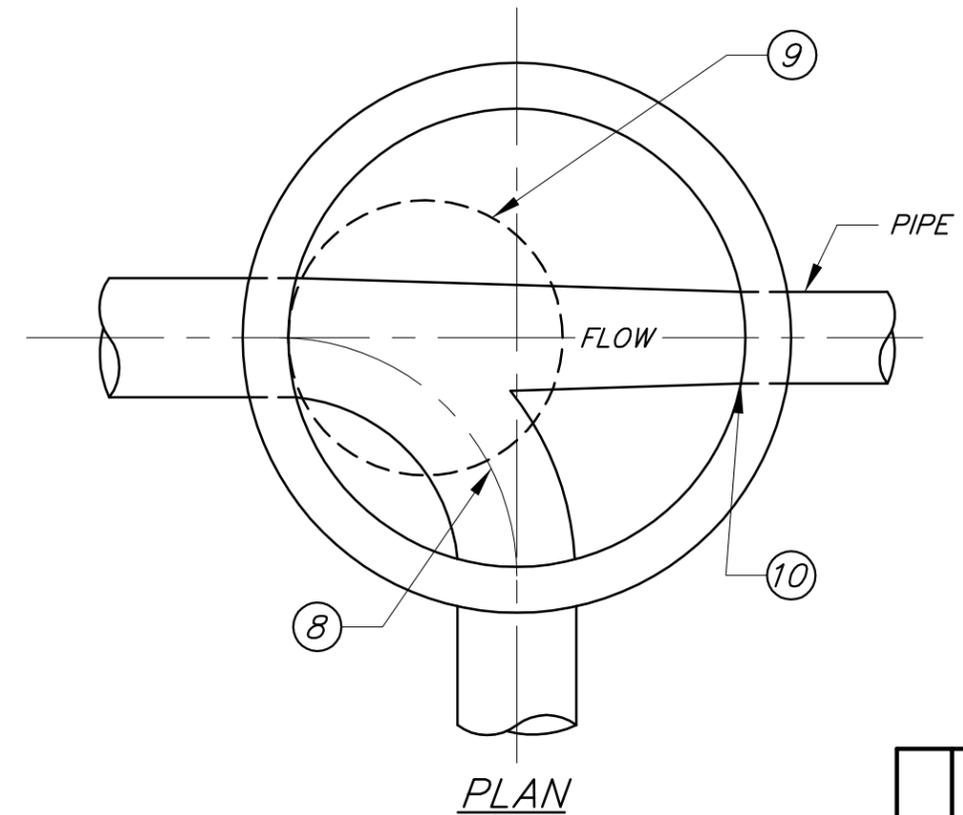


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION
PIPE BEDDING AND BACKFILL

	APPROVED BY PUBLIC WORKS DIRECTOR  20 APRIL 2012 DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION PIPE BEDDING AND BACKFILL	
		DATE REVISION STANDARD DETAIL NO. WS-1	



ELEVATION



PLAN

NOTES:

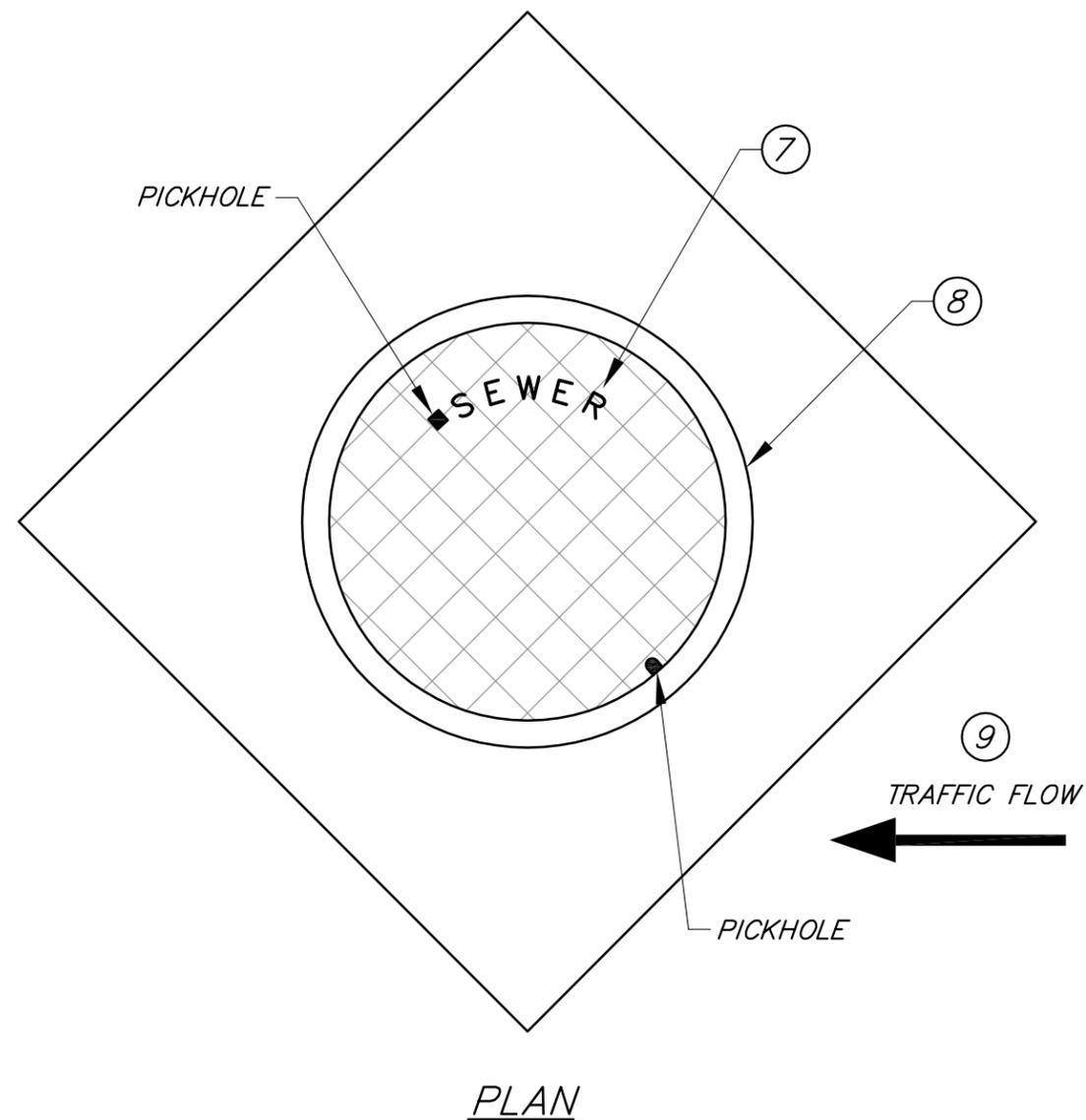
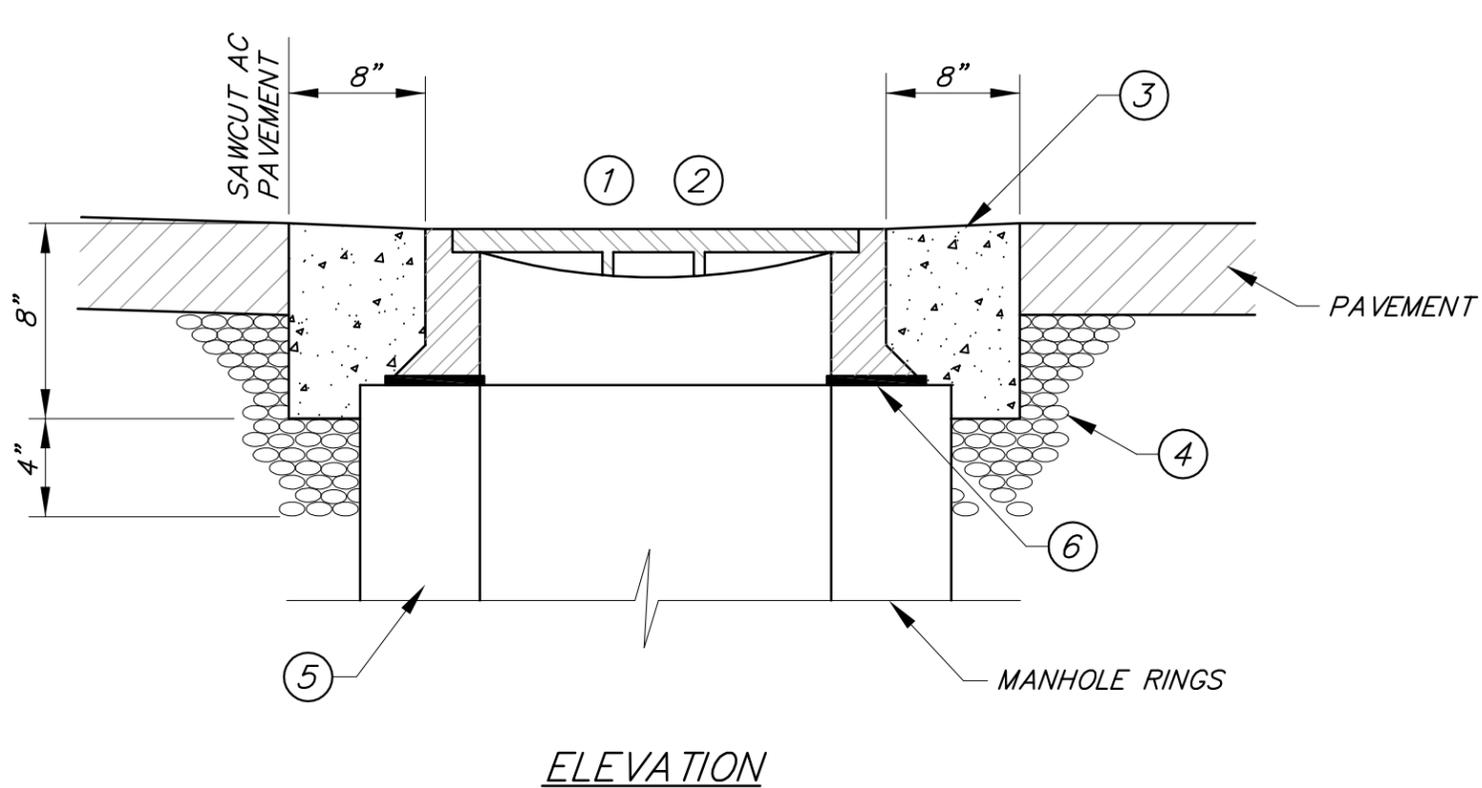
1. SEE DRAWING S-2 FOR MANHOLE FRAME AND COVER DETAILS.
2. 24" DIAMETER GRADE RING SECTION AS NEEDED. MAXIMUM HEIGHT 6" PER SECTION.
3. ECCENTRIC CONE SECTION.
4. MORTAR BETWEEN SECTIONS TO FORM WATER TIGHT JOINTS.
5. FOR BACKFILL AND BEDDING REQUIREMENTS SEE TRENCH BACKFILL DETAILS WS-1.
6. POLYPROPYLENE COVERED MANHOLE STEPS (TYPICAL).
7. MATCH PIPE CROWNS UNLESS OTHERWISE SHOWN.
8. RADIUS = 2 x DIAMETER OF INLET.
9. MANHOLE OPENING OVER OUTLET.
10. PIPE FLUSH WITH INSIDE MANHOLE WALL.
11. PRECAST MANHOLE RINGS, CONES AND SECTIONS SHALL BE APPROVED BY THE CITY AND TO CONFORM TO ASTM C478.
12. MORTAR SHALL BE 1 PART CEMENT TO 4 PARTS SAND.
13. MANHOLES WITH A DEPTH GREATER THAN 10 FEET SHALL BE 60" INSIDE DIAMETER AND ENGINEERED DETAILS SHALL BE PROVIDED ON DESIGN PLANS.
14. CAST IN PLACE PARTS MAY BE USED IF APPROVED BY CITY.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION
STANDARD MANHOLE



APPROVED BY
PUBLIC WORKS DIRECTOR
[Signature]
20 APRIL 2012
DATE

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		STANDARD DETAIL NO. S-1
STANDARD MANHOLE		
DATE	REVISION	SCALE: NOT TO SCALE



NOTES:

1. GRADE OF FRAME AND COVER TO MATCH PAVEMENT GRADE.
2. DEPRESS FRAME AND COVER 1/4" BELOW PAVEMENT.
3. CLASS 1 CONCRETE COLLAR.
4. AGGREGATE BASE.
5. FOR MANHOLE DETAILS SEE DRAWING S-1.
6. 1/2" THICK CEMENT MORTAR. MORTAR SHALL BE 1 PART CEMENT TO 4 PARTS SAND.
7. LETTERING FOR MANHOLE SHALL BE 2" HIGH.
8. FRAME AND COVER SHALL BE D&L FOUNDRY A-1024 OR APPROVED EQUAL.
9. PLACE CONCRETE SUCH THAT NO EDGES ARE PERPENDICULAR TO THE DIRECTION OF THE TRAFFIC FLOW.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION
MANHOLE FRAME AND COVER

	APPROVED BY PUBLIC WORKS DIRECTOR	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		
		MANHOLE FRAME AND COVER		
	20 APRIL 2012	DATE	REVISION	STANDARD DETAIL NO.
	DATE			S-2
				SCALE: NOT TO SCALE