

CITY OF LOGAN LOGAN, UTAH

2019 Manhole and Valve Collar Adjustments and Repairs

BID Documents and Specifications Engineering Number: ENG18039 Date: 2/5/19

City Of Logan Engineering City Of Logan, Utah

PROJECT MANAGER

Alex Oliphant, P.E. 290 North 100 West Logan, UT 84321 435-716-9165 alex.oliphant@loganutah.org

PROJECT SPONSERS

Streets and Storm Water Division Manager Jed Al-Imari 290 North 100 West Logan, UT 84321 435-716-9643 jed.alimari@loganutah.org

Water and Wastewater Division Manager Cameron Draney, P.E. 290 North 100 West Logan, UT 84321 435-716-9622 cameron.draney@loganutah.org

TABLE OF CONTENTS

| TABLE OF CONTENTS | 3 |
|---|----|
| BID REQUEST | 4 |
| INSTRUCTIONS TO BIDDERS | 5 |
| PROPOSAL | 8 |
| PROJECT SCOPE | 9 |
| BID SCHEDULE | 9 |
| MEASUREMENT AND PAYMENT | 10 |
| CONTRACTOR QUALIFICATION FORM | 11 |
| SCHEDULE FOR CONTRACT COMPLETION | 12 |
| BID BOND | 13 |
| NOTICE OF AWARD | 15 |
| CONTRACT FOR CONSTRUCTION | 17 |
| CITY OF LOGAN INSURANCE AND BOND REQUIREMENTS | 24 |
| PERFORMANCE AND PAYMENT BOND | 26 |
| NOTICE TO PROCEED | 29 |
| CHANGE ORDER FORM | 30 |
| NOTIFICATION OF PROJECT COMPLETION | 31 |
| GENERAL CONDITIONS AND SPECIAL PROVISIONS | 32 |
| APPENDIX A - EXAMPLE MIX DESIGN | 33 |

BID REQUEST

Sealed bids will be received by the City of Logan Purchasing Agent at City Hall, 290 North 100 West, until 2:00 p.m., February 21, 2019, for:

2019 Manhole and Valve Collar Adjustments and Repairs

Bid opening will be held immediately in the City Hall Conference Room

Specifications are available on the Logan City website and on file in the office of the Logan City Engineer, 290 North 100 West, Logan, Utah, and copies may be obtained by prospective bidders.

Contractors should be prepared to submit documentation with their PROPOSAL as outlined in the INSTRUCTIONS FOR BIDDERS as a part of a Contractor Qualification Process.

A Bid Bond, or cashier's check for 5% of bid, payable to City of Logan, must accompany each bid, along with a proposed SCHEDULE FOR CONSTRUCTION COMPLETION. Upon awarding of the bid, a PAYMENT BOND and a PERFORMANCE BOND will be required for 100% of any bid which exceeds \$5,000.

Questions regarding bid, please contact: alex.oliphant@loganutah.org

The right is reserved by the City of Logan to reject any or all bids.

Dated this February 5, 2019.

Lori Mathys Purchasing Agent

INSTRUCTIONS TO BIDDERS

Bids will be received by the **CITY OF LOGAN** (herein called "Owner"), at 290 North 100 West, Logan, Utah until **2:00 p.m. on February 21, 2019** and then immediately after the bid closure publicly opened and read aloud.

During the Bidding period all questions pertaining to the project or bid <u>shall be submitted</u> <u>in writing</u> by 5:00 p.m., February 20, 2019 to alex.oliphant@loganutah.org. The responses to these questions will be posted daily on the City of Logan's, Purchasing Division website at http://purchase.loganutah.org.

Each Bid must be submitted in a sealed envelope addressed to Purchasing Agent, City of Logan, 290 North 100 West, Logan, Utah. Each sealed envelope should bear on the outside the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed to the owner at the address above.

All Bids must be submitted on the required BID SCHEDULE. All blank spaces for unit prices and total costs must be filled in, in ink or typewritten, and the BID SCHEDULE must be fully completed showing the total of the bid and executed when submitted. Only one copy of the Bid Schedule is required.

Any Bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. The purchasing agent or her representative shall have possession of the bids at the designated time and location. Any Bid en route, either in the mail or at other locations in the City; will not be considered timely and will be returned unopened. No Bidder may withdraw a Bid within 90 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the Bidder.

The Bidder shall submit as a part of their Bid the included CONTRACTOR QUALIFICATION FORM outlining experience of the Bidder on similar projects over the past three (3) years. This form will be used to help determine the qualifications of the Bidder. Any Bid which does not include a CONTRACTOR QUALIFICATION FORM, shall be considered non-responsive and shall be returned to the BIDDER without being read.

Owner reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the Work and to negotiate contract terms with the successful Bidder, and the right to disregard all nonconforming, nonresponsive or conditional Bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the Owner.

Each BID must include a detailed SCHEDULE FOR CONSTRUCTION COMPLETION showing the anticipated beginning date, the nature and sequence of construction activity, obtaining of building permits, and the approximate completion date. The time to complete the work shall be less than or equal to the time allowed to complete the work as shown on the

PROPOSAL form, but shall not exceed the time allowed for completion as shown on the PROPOSAL form. Any BID which does not include a SCHEDULE FOR CONSTRUCTION COMPLETION shall be considered non-responsive and shall be returned to the BIDDER without being read. If the TOTAL one or more BIDS submitted is within 5% of the lowest submitted BID, the bid may be awarded to the BIDDER with the earliest start time and/or the shortest, reasonable time for completion, as agreed upon by the Owner of the project.

Liquidated Damages are a part of this Contract. The only way to extend the completion date for a project is by CHANGE ORDER. If the work is not completed by the completion dates as set by the approved SCHEDULE FOR CONSTRUCTION COMPLETION submitted, or as adjusted by CHANGE ORDER, Liquidated Damages will be imposed for every day, Sundays and City observed holidays excluded, that the work proceeds past the completion date, including time to complete the "Punch List" items.

Bidders must satisfy themselves of the accuracy of the estimated quantities in the BID SCHEDULE by examination of the site and review of the Drawings and Specifications including Addenda. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of work or of the nature of the work to be done.

The Owner shall provide to Bidders prior to bidding, all information which is pertinent to, and delineates and describes, the land owned and easements or rights-of way acquired or to be acquired.

The Contract Documents contain the provisions required for the construction of the project. Information obtained from an officer, agent, or employee of the Owner or any other person shall not affect the risks or obligations assumed by the Contractor. All questions about the meaning or intent of the Contact Documents are to be directed to the Engineer. Only questions answered by the formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Each Bid must be accompanied by a BID BOND payable to the Owner for five percent of the total amount of the Bid. As soon as the bid prices have been compared, the Owner will return the Bid Bonds of all except the three lowest responsible Bidders. When the Contract for Construction is executed, the Bid Bonds of the two remaining unsuccessful Bidders will be returned. The Bid Bond of the successful Bidder will be retained until the Payment Bond and Performance Bond have been executed and approved, at which time it will be returned. A certified check may be used in lieu of a Bid Bond.

Attorneys-in-fact who sign Bid Bonds or Payment Bond and Performance Bond must file with each Bond a certified and effective dated copy of their power of attorney.

The party to whom the Project is awarded will be required to execute the CONTRACT FOR CONSTRUCTION and obtain the PERFORMANCE BOND AND PAYMENT BOND and PROOF OF INSURANCE within the (10) calendar days from the date when NOTICE OF AWARD is delivered to the Bidder. The NOTICE OF AWARD shall be accompanied by the necessary CONTRACT FOR CONSTRUCTION and Bond forms. In case of failure of the Bidder to execute the CONTRACT FOR CONSTRUCTION, the Owner may at his option

consider the Bidder in default, in which case the BID BOND accompanying the Proposal shall become the property of the Owner.

The Owner within sixty days of receipt of acceptable PERFORMANCE BOND, PAYMENT BOND and CONTRACT FOR CONSTRUCTION signed by the party to whom the Contract was awarded shall sign the Contract and return to such party an executed duplicate of the Contract. Should the Owner not execute the Contract within such period, the Bidder may by written notice withdraw his signed Contract. Such notice of withdrawal shall be effective upon receipt of the notice by the Owner.

The NOTICE TO PROCEED shall be issued within ten (10) calendar days of the execution of the CONTRACT FOR CONSTRUCTION by the Owner. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period; the time may be extended by mutual agreement between the Owner and Contractor. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the Contractor may terminate the Contract without further liability on the part of either party.

The Owner may make such investigations as the Owner deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the Owner all such information and data the Owner may request. The Owner may reject any Bid if the evidence submitted, or an investigation of such Bidder fails to satisfy the Owner that the Bidder will complete the work contemplated therein or if Bidder fails to furnish requested information.

A conditional or qualified Bid will not be accepted.

Award will be made according to Logan City Municipal Code.

All applicable laws, ordinances, and rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout.

Each Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents, including SPECIAL PROVISIONS and the CITY OF LOGAN STANDARDS AND SPECIFICATIONS. The failure or omission of any Bidder to do any of the foregoing shall in no way relieve any Bidder from any obligation in respect to his Bid.

PROPOSAL

Bids will be received at the office of the Purchasing Agent of the City of Logan, at 290 North 100 West, Logan, Utah.

| Dear Sir: | | |
|--|---|--|
| The undersigned, after having personally and carefully examined the Plans, Specifications and ocation which are a part hereof, proposes and agrees to furnish all materials, labor, equipment, and transportation necessary to install ready for service and to the satisfaction of the City Engineer for Logan City, in accordance with the Plans and Specifications which are a part ereof, all items included in the 2019 Manhole and Valve Collar Adjustments and Repairs roject in consideration of the unit prices totaling to the lump sum of \$ and further agree to complete the work within the time specified in the SCHEDULE FOR CONTRACT COMPLETION after being notified by the City Engineer to commence the work. Contractor further agrees to pay as liquidated damages, the sum of \$\frac{\\$100}{200}\$ for each consecutive day hereafter as provided in the General Conditions. | | |
| It is understood that the quantities stated are approximate or Bids and fixing the amount of Bonds, and the payments will unit prices of the actual quantities, as determined by the Ox It is further understood that the quantities will be increased the benefit of the existing budgets. | l only be made on the basis of the above wner's Engineer in the completed work. | |
| It is hereby agreed that The City of Logan has the right to re to the undersigned at the sum stipulated, if action is taken Bids. | | |
| The Contractor hereby acknowledges receipt of the follow | ing Addenda: | |
| | | |
| Date | Contractor | |
| | | |

PROJECT SCOPE

Approximately 120 water valves and 110 sewer/storm water manhole lids and covers need to be adjusted or repaired. These will be done throughout Logan City mainly on the Street Priority list highlighted on Project Overview sheet on the construction drawings. The total number of collars adjusted is subject to change based on budget constraints. All changes in quantity of bid items shall be added or deducted at unit bid prices.

Logan City will provide all Sewer/Storm Water Covers and Frames. As well as water valve risers, slip sleeves (top portion of valve box) and lids, when needed. All else will be provided by contractor.

BID SCHEDULE

| PROJ | ECT: | | 18039 2019 Adjustments | | |
|------|--|------|------------------------|-------|-------|
| ITEM | | | | UNIT | ITEM |
| NO. | DESCRIPTION | UNIT | QUANTITY | PRICE | PRICE |
| 1 | Adjust Existing Valve Box Lids | Each | Approx. 120 | | |
| 2 | Adjust Existing Sewer or Storm Drain Manhole Cover | Each | Approx. 110 | | |
| | | | | | |
| | | | | | |
| | | | TOTAL PRICE | | |
| | COMPANY NAME | | | | |
| | SIGNATURE OF PREPARER | | | | |

MEASUREMENT AND PAYMENT

1. ADJUST EXISTING VALVE BOX COVER -

- A. Measurement will be on a per each basis and include;
- B. Prepare and Implement Traffic Control Plan: The unit price to be paid for Traffic Control shall be considered compensation in full for all labor, materials and equipment required for preparation and implementation of the Traffic Control plan as submitted by the Contractor and approved by the City Engineer as part of a Right of Way Permit to work in the City Right-of-Way, prior to any work on the project. Any necessary modifications to the Traffic Control Plan during construction shall be considered incidental with no additional payment. Traffic Control to prevent traffic from driving on collars to be left up for a minimum of 7 days after concrete is poured.
- C. Bid price includes Cost of work and materials to reset frame to grade, to construct concrete collar, to secure cover to frame to prevent rattle or pop-out. Replace lid and slip sleeve if necessary (provided by Logan City), and incidental work. As shown on the construction drawings. Includes excavation backfill and compaction. For Concrete used in collars see construction drawings sheet GN1.

2. ADJUST EXISTING SEWER / STORM DRAIN MANHOLE COVER –

- A. Measurement will be on a per each basis and includes;
- B. Prepare and Implement Traffic Control Plan: The unit price to be paid for Traffic Control shall be considered compensation in full for all labor, materials and equipment required for preparation and implementation of the Traffic Control plan as submitted by the Contractor and approved by the City Engineer as part of a Right of Way Permit to work in the City Right-of-Way, prior to any work on the project. Any necessary modifications to the Traffic Control Plan during construction shall be considered incidental with no additional payment. Traffic Control to prevent traffic from driving on collars to be left up for a minimum of 7 days after concrete is poured.
- C. Cost of work and materials to reset frame to grade, to construct concrete collar, to secure cover to frame to prevent rattle or pop-out. replace; Cover, or Frame if necessary (provided by Logan City), the contractor is responsible for all concrete risers, plastic/composite risers trimmed to fit (no steel risers will be installed and any existing steel risers will be removed.) and any incidental work. As shown on the construction drawings for all Concrete used in collars see construction drawings sheet GN1.

CONTRACTOR QUALIFICATION FORM

(List similar projects by the Contractor over the past three (3) years)

| NAME / DATE OF | DOLLAR AMOUNT | | INVOLVEMENT OR ROLE IN | COMPLETION | |
|----------------|------------------|------|---------------------------|------------|------------------|
| PROJECT | OF PROJECT | NO.) | PROJECT | ON TIME | WITHIN BUDGET |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

SCHEDULE FOR CONTRACT COMPLETION

TO BE COMPLETED BY CONTRACTOR

Contractor shall provide a detailed Gantt chart including all critical dates from notice of award to the final construction approval and a detailed critical path.

All construction shall be completed by not later than May 24th, 2019.

BID BOND

| KNOW ALL MEN BY THESE PRESENTS, | that we, the undersigned, |
|--|---|
| as Principal, and | as Surety, are hereby held and firmly bound unto |
| as OWNER in the penal sum of | for the payment |
| of which, well and truly to be made, we hereb | y jointly and severally bind ourselves, successors, |
| and assigns. Signed, this day of | , 20 The |
| Condition of the above obligation is such that | whereas the Principal has submitted to |
| a certain BID, attached hereto and hereby mad | de a part hereof to enter into a contract in writing, |
| for the | |

2019 Manhole and Valve Collar Adjustments and Repairs

NOW, THEREFORE,

(a) If the BID shall be rejected, or

WHOM ALL MENDAL MILEGE DDEGENING A

(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND or bonds for his faithful performance of said contract, and for the payment of all persons performing labors and furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID.

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated. The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby wave notice of any such extension.

| and such of them as are corporations have caused their corporate seals to be hereto affixed and | | |
|---|--|--|
| these presents to be signed by their proper officers, the day and year first set forth above. | | |
| | | |
| (L.S.) | | |
| Principal | | |
| | | |
| Surety | | |
| By: | | |

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals,

IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

NOTICE OF AWARD

| TO: |
|--|
| PROJECT DESCRIPTION: 2019 Manhole and Valve Collar Adjustments and Repairs |
| The Owner has considered the Bid submitted by you for the above described work and you are hereby notified that your bid has been accepted for items in the amount of \$ |
| You are required by the Instructions for Bidders to execute the Contract for Construction and furnish the required Contractor's Performance Bond, Payment Bond and certificates of insurance within ten (10) calendar days from the date of this Notice to you. |
| If you fail to execute said Contract and to furnish said Bonds within ten (10) days from the date of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law. |
| You are required to return an acknowledged copy of this Notice of Award to the Owner. |
| The instructions in Paragraph 2.5 of Section 00 72 00 of the APWA Manual of Standard Specifications are expected to be complied with as part of this project. This information is included as Attachment A. |
| Dated this, 2019. |
| Owner: City of Logan, Utah |
| By: |
| Title: |
| ACCEPTANCE OF NOTICE Receipt of the above Notice of Award is hereby acknowledged. |
| This day of, 2019. |
| By: |
| Title: |

Attachment A

APWA Manual of Standard Specifications 2007 Edition Section 00 72 00

Paragraph 2.5

2.5 BEFORE STARTING CONSTRUCTION

A. In General: Before starting each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error or discrepancy that CONTRACTOR may discover and shall obtain a written interpretation or clarifications from ENGINEER before proceeding with any work affected thereby.

- B. **Submittals**: Within 10 Days after the Effective Date of the Construction Contract, CONTRACTOR shall submit to ENGINEER, in reasonable detail and form acceptable to ENGINEER, copies of the following documents.
- 1. **Preliminary Progress Schedule**: The preliminary progress schedule shall show starting and completion dates for each construction sequence and:
- a. submittal dates and dates required for approved submittals for shop drawings, product data and samples;
- b. decision dates for products specified by allowances, selection of finishes and critical material or equipment release orders;
- c. product procurement and delivery dates;
- d. holiday cleanup preparations, And
- e. specific dates for all special Inspections required prior to any utilities "turn-on" including temporary power.
- 2. **Preliminary Shop Drawing Schedule**: A supplemental schedule to the preliminary progress schedule shall show all Shop Drawing submissions required for the Work.
- 3. **Preliminary Schedule of Values**: The preliminary schedule of values (for Lump Sum Work), which includes provisions set forth in quantities and prices of items aggregating the Contract Price, shall subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of work. Bond expense shall not be prorated, but shall be shown as a separate item.
- 4. **Mobilization Program**: The site mobilization program shall allow for field office and trailer locations, material storage locations, power requirements for trailers, if any, and sanitary facilities.
- 5. **Permits**: The listing of, and photocopies of permits that the CONTRACTOR is required to purchase and maintain in accordance with Article 6.7.
- 6. Quality Control Program: The written program for the control of product quality and workmanship.
- 7. Safety and Protection Plan: The safety and protection plan shall comply with Article 6.12.
- C. **Field Office**: When specified, the CONTRACTOR shall establish and maintain a field office in such a location that ENGINEER may always contact CONTRACTOR for transmittal of Plans, instructions and dissemination of Project information. Unless waived by ENGINEER, CONTRACTOR shall provide and maintain a telephone and facsimile machine in the field office during work performance.

CONTRACT FOR CONSTRUCTION

| This Contract is | by and between The | e City of Logan (hereinafter called the OW | NER) and |
|------------------|---------------------|---|-------------------|
| | • | (hereinafter called CONTRACTO | R). OWNER and |
| CONTRACTOR, | in consideration of | the mutual covenants hereinafter set forth, | agree as follows: |

ARTICLE 1 – THE PROJECT

- 1.01 The Project for which the Work under the Contract Documents shall apply is generally described as follows:
 - Reinstalling/leveling sewer/ storm water rims and lids as well as water valve lids to city standards and adding concrete collars.

ARTICLE 2 – WORK

2.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents for completion of the project.

ARTICLE 3 – ENGINEER

3.01 The ENGINEER, unless otherwise indicated in the Contract Documents, shall be the CITY ENGINEER, or his appointed representative.

ARTICLE 4 – CONTRACT TIMES

- 4.01 Time of the Essence:
 - A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 4.02 Dates for Substantial Completion and Final Payment:
 - A. The Work will be substantially completed on or before May 24, 2019 and completed and ready for final payment in accordance with the General Conditions.
- 4.03 Liquidated Damages:
 - A. CONTRACTOR and OWNER recognize that time is of the essence of this Agreement and the OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 4.02, plus any extensions thereof allowed in accordance with the General Conditions. The parties also recognize that it will be impracticable to determine actual damages which OWNER will sustain in the event of or by reason of the delay. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER \$ 100.00 for each day that expires after the specified time in paragraph 4.02 for substantial completion until the Work is substantially complete. After substantial completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the contract time or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER \$ 100.00 for each day that expires after the time

specified in paragraph 4.02 for completion and readiness for the final payment until the Work is completed and ready for final payment. It is further agreed that the amount stipulated for liquidated damages per day of delay is a reasonable estimate of the damages that would be sustained by OWNER, and CONTRACTOR agrees to pay such liquidated damages as herein provided. In case the liquidated damages are not paid, CONTRACTOR agrees that OWNER may deduct the amount thereof from any money due or that may become due to CONTRACTOR by progress payments or otherwise under the Agreement, or if said amount is not sufficient, recover the total amount.

ARTICLE 5 – CONTRACT PRICE

| 0.01 | the Contract Documents an amount in current funds equal to t pursuant to paragraph 5.01.A below: | |
|------|--|---------------|
| | A. For all Work, the sum of: | |
| | | \$ |
| | (use words) | (use figures) |

5.01 OWNER shall pay CONTRACTOR FOR COMPLETION OF THE Work in accordance with

ARTICLE 6 – PAYMENT PROCEDURES

- 6.01 Submittal and Processing of Payments:
 - A. CONTRACTOR shall submit Applications of Payment in accordance with the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.
- 6.02 Progress Payments; Retainage:
 - A. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment once each month during performance of the Work as provided in paragraphs 6.02.A.1 and 6.02.A.2 below. All payments will be made based on the percentage of job completion, and will be verified by Engineer prior to invoicing:
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER may determine or OWNER may withhold, in accordance with the General Conditions:
 - a. The OWNER will pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate submitted by the CONTRACTOR and verified by the ENGINEER, including any approved Change Orders, but will not hold retainage.
 - 2. Upon Substantial Completion of the project, the OWNER will pay to 95 percent of the revised contract amount including any approved Change Orders.

A. When all items on any generated 'Punch' or Completion List have been completed, the OWNER will pay the remaining 5 percent of the revised contract amount within 30 days of notification to the OWNER in writing by the CONTRACTOR that all items have been completed. The OWNER shall verify that all items have been completed before final payment is made.

ARTICLE 7 – INTEREST

7.01 All moneys not paid when due as provided in the General Conditions shall bear interest at the same rate that OWNER's funds accrue interest in the State's treasury account.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:
 - A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect the cost, progress, and performance of the Work.
 - C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. CONTRACTOR has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in the General Conditions and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which is identified in the Supplementary Conditions as provided in the General Conditions..
 - E. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto.
 - F. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
 - G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.

- H. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- I. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- J. CONTRACTOR agrees to register and participate in the Status Verification System to verify the work eligibility status of the CONTRACTOR's new employees that are employed in the state as set forth in Utah Code Section 63G-12-302. Each contractor or subcontractor who works under or for another contractor shall certify to the main contractor by affidavit that the contractor or subcontractor has verified through the Status Verification System the employment status of each new employee of the respective contractor or subcontractor.
- K. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions of performance and furnishing of the work.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 Contents:

- A. The Contract Documents consist of the following:
 - 1. Instructions to Bidders
 - 2. Bid Bond
 - 3. This Agreement
 - 4. Performance Bond
 - 5. Payment Bond
 - 6. General Conditions, Document 00 72 00 of the APWA Manual of Standard Specifications, 2017 Edition, as modified herein.
 - 7. Special Provisions
 - 8. APWA Manual of Standard Specifications, including Standard Drawings
 - 9. City of Logan Standards and Specifications, including Standard Drawings
 - 10. Construction Plans
 - 11. Stormwater Pollution Prevention Plan
 - 12. Addenda (numbers ______ to _____, inclusive)
 - 13. Insurance and Bond Requirements
 - 14. Exhibits to this Agreement (enumerated as follows):
 - a. Proposal
 - b. Bid Schedule
 - c. Schedule of Values (for Lump Sum Bid)
 - d. Measurement and Payment
 - e. Schedule of Project Completion
 - f. Contractor Qualification Form
 - g. Certificate of Insurance, approved by OWNER's Risk Management Division
 - 15. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice of Award

- b. Notice to Proceed
- c. Written Amendments
- d. Change Orders
- e. Field Orders
- B. There are no Contract Documents other than those listed above in this Article 9.
- C. The Contract Documents may only be amended, modified or supplemented as provided in the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms:

Terms used in this Agreement will have the meanings indicated in the General Conditions

10.02 Assignment of Contract:

No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns:

OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party thereto, its partners, successors assign and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Termination for OWNER's Convenience:

- A. Upon ten (10) days' written notice to Contractor, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any payment amounts or work items):
 - 1. completed and acceptable Work executed prior to the effective date of termination, in accordance with the payment provisions of the Contract Documents; provided, however, that no completed work items shall be paid on a cost-plus basis;
 - 2. reasonable expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work or unacceptable Work (but only those portions of the unacceptable Work that are acceptable and Contractor shall not be entitled to any compensation for any portions of the Work which are unacceptable), plus fair and reasonable sums for overhead and profit on such expenses; provided, however, that Contractor shall not be entitled to additional compensation for

Work items paid under subparagraph 10.04 A.1. above;

- 3. costs incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; provided, however, that Contractor shall not be entitled to additional compensation for Work items paid under subparagraphs 10.04 A.1. and 2. above; and
- 4. reasonable expenses directly attributable to termination; provided, however, that Contractor shall not be entitled to additional compensation for Work items paid under subparagraphs 10.04 A. 1., 2. and 3. above.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination. Termination under this Subparagraph 10.04 shall not entitle Contractor to compensation on a cost-plus basis except for items paid under Subparagraph 10.04 A. 2. above.
- C. This Article 10.04 shall amend the General Conditions, Document 007200 referenced in Article 9.01 A. 6. by replacing the "Termination for Owner's Convenience" clause contain in 15.2 F. therein.

10.05 Severability:

Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision of part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.06 Guarantee Period

The CONTRACTOR agrees to indemnify and save harmless the OWNER from any and all defects appearing or developing in the workmanship or materials performed or furnished under the Contract for a period of **one** (1) **year after** the date of the written notice from the Engineer recommending final acceptance of the entire project by the OWNER.

10.07 Counterparts:

This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which shall constitute one and the same instrument.

| IN WITNESS WHEREOF, the Parties respective behalves. | have duly caused this Agreement to be executed on their |
|--|---|
| This Agreement will be effective on _ | , 20 |

OWNER: CONTRACTOR:

| By: |
|-----------------------------|
| Attest: |
| Address for giving notices: |
| |
| |
| |
| |

END OF DOCUMENT

CITY OF LOGAN INSURANCE AND BOND REQUIREMENTS

FOR: Manhole and Valve Collar Adjustments and Repairs – February 2019

The Contracting party shall procure and maintain for the duration of the contract insurance and bonds against claims or liability which arises out of or in connection with the performance of the work hereunder by the Contracting party, his agents, representatives, employees or subcontractors. The cost of such insurance and bonds shall be included in the Contracting party's bid or proposal.

A. MINIMUM LIMITS OF INSURANCE

Contracting party shall maintain limits not less than:

- 1. **GENERAL LIABILITY**: \$2,000,000 combined single limit per occurrence, personal injury and property damage, \$3,000,000 aggregate. Broad Form Commercial General Liability is required. (ISO 1993 or better) to include Products Comp/OP aggregate of \$3,000,000. Limits to apply to this project individually.
- 2. **PROFESSIONAL LIABILITY:** Not applicable to this project.
- 3. AUTOMOBILE LIABILITY: \$2,000,000 per occurrence. "Any Auto" coverage is required.
- 4. **WORKERS' COMPENSATION and EMPLOYERS LIABILITY**: Workers' Compensation statutory limits as required by the Workers Compensation Act of the State of Utah and Employers Liability limits at a minimum of \$100,000 per occurrence.
- 5. **PAYMENT and PERFORMANCE BONDS:** Contracting party shall provide payment and performance bonds in a form acceptable to the City and in the full amount of the contract.

B. ACCEPTABILITY OF INSURERS

Insurance and bonds are to be placed with insurers admitted in the State of Utah with an A. M. Best rating of not less than A-: IX, and in the limits as listed in this document, unless approved by the City's Risk Manager, or his designee, a minimum of five (5) business days prior to bid or proposal deadline.

C. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retention exceeding 5% of the policy limits must be declared to and approved by Logan City. At the option of Logan City, either (1) the insurer may be required to reduce or eliminate such deductibles or self-insured retention as respects Logan City, its officers, officials and employees; or (2) the Contracting party may be required to procure a bond guaranteeing payment of losses and related investigations, claim distribution and defense expenses.

D. NOTICE OF INCIDENT OR ACCIDENT

Contracting party shall agree to promptly disclose to Logan City, all incidents or occurrences of accident, injury, and/or property damage covered by the insurance policy or policies.

E. OTHER INSURANCE PROVISIONS

The policies are to contain, or be endorsed to contain, the following provisions:

I. General Liability and Automobile Liability Coverages

A. <u>Logan City</u>, its officers, officials, employees and volunteers are to be covered as additional <u>insureds</u> as respects: liability arising out of activities performed by or on behalf of the contracting party; products and completed operations of the Contracting party; premises owned, leased, hired or borrowed by the Contracting party. The coverage shall contain no special limitations on the scope of protection afforded to Logan City, its officers, officials, employees or volunteers.

- B. The Contracting party's insurance coverage shall be a primary insurance as respects to Logan City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by Logan City, its officers, officials, employees or volunteers shall be in excess of the Contracting party's insurance and shall not contribute with it.
- C. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to Logan City, its officers, officials, employees or volunteers.
- D. The Contracting party's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respects to the limits of the insurer's liability.

F. VERIFICATION OF COVERAGE

Contracting party shall furnish Logan City with certificates of insurance and with original endorsements effecting coverage required by this clause. The certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be on forms acceptable to Logan City before work commences. Logan City reserves the right to require complete, certified copies of all required insurance policies, with all endorsements, at any time.

G. <u>SUBCONTRACTORS</u>

Contracting party shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

PERFORMANCE AND PAYMENT BOND

| KNOW ALL MEN BY THESE PRESENTS, that we | as |
|---|--|
| Principal, and | , a corporation duly authorized to do a |
| general surety business in Utah, as Surety, are jointly | and severally held and bound unto |
| Hereinafter called the Obligee, in the sum of | dollars (\$ |
|). for the payment of which we jointly and severally | bind ourselves, our heirs, executors, administrators, |
| successors and assigns, firmly by these presents: | |
| | |
| THE CONDITION OF THIS BOND IS SUCH THA | T |
| WHEREAS, the Principal herein entered into a Cont | ract with Obligee dated |
| 20, which Contract includes and consists of A | dvertisement for Bids, Information for Bidders, |
| Proposal, Special Provisions, General Conditions, Co | ontract for Construction, Specifications and Plans, all of |
| which are hereinafter referred to as Contract Docume | ents and are attached hereto and made a part hereof and |
| pursuant to the terms and conditions of all of which | Principal has undertaken to perform all labor and to |
| furnish all material, tools, and equipment of every ki | nd and nature necessary or required in accordance with |
| the terms and conditions set forth in said Contract De | ocuments, and has undertaken to make payment |
| promptly for all such labor (including all sums requi | red to be paid by the laws of the State of Utah for the |
| benefit and welfare of all workers, including workme | en's compensation and unemployment security), all |
| taxes of every kind and nature, and for all materials a | and services furnished or rendered pursuant to such |
| Contract: and, | |

WHEREAS, said Principal has agreed to save the Obligee harmless from any claim for damages and injury to property or persons arising by reason of said work, as set out more fully in said Contract Documents, and to do and perform all things in said Contract Documents required in the time and manner and under the terms and conditions therein set forth, and in conformity with all laws, State and National, applicable thereto.

NOW, THEREFORE, if the Principal shall promptly make payment to all persons supplying labor and material to Principal or to any subcontractor in the prosecution of the work provided for, and shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term of said Contract and any extensions thereof that may be granted by the Obligee, with or without notice to the Surety, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said Contract that may hereafter

be made to Principal and/or to subcontractors, or their assigns, and shall, commencing with the date hereof and continuing for one (1) year after the complete performance of the Contract and the final settlement thereof, save harmless the Obligee, its officers and agents, from all claims therefore, or from any claim for damages or injury to property or persons arising by reason of said work; and shall, in the time and manner and under the terms and conditions prescribed, well and faithfully do, perform, and furnish all labor, materials, and things as by it in said Contract undertaken and as by law, State and National, prescribed, then this obligation shall be void, but otherwise it shall remain in full force and effect.

PROVIDED HOWEVER, that this Bond is subject to the following further conditions:

- a) All material suppliers, and all persons who shall supply such laborers, mechanics, or subcontractors with material, supplies, or provisions for carrying on such work, shall have a direct right of action against the Principal and Surety on this Bond, second only to the right of the Obligee under this Bond, which right of action shall be asserted in proceedings instituted in the appropriate court of the State of Utah and insofar as permitted by the law of Utah, such right or action shall be asserted in a proceeding firm, or corporation instituting such action and of all persons, firms, or corporations having claims thereunder, and any other person, firm, or corporation having a claim hereunder shall have the right to be made a party to such proceeding, but not later than one (1) year after, the complete performance of said Contract and final settlement thereof and to have such claim adjudicated in such action and judgement rendered thereon.
- b) In no event shall the Surety be liable for a greater sum than the penalty of this Bond, or subject to any suit, action, or proceeding thereon that is instituted later than one (1) year after the complete performance of said Contract and final settlement thereof.
- c) The said Surety, for value received, hereby stipulates and agree that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the Specifications.

| | IN WITNESS WHEREO | OF, the parties hereto have caused this Bo | ond to be executed in |
|----------|-------------------|--|-----------------------|
| , this _ | day of | , 20 | |
| | | | (Seal) |
| | | | (Seal) |

| | | (Seal) |
|----------------|-----------|--------|
| | Principal | , |
| Witnesses: | | |
| | | |
| | | |
| | | (Seal) |
| | | (Seal) |
| | | (Seal) |
| | Surety | |
| Countersigned: | | |
| Ву | | |
| Resident Agent | | |

The Attorney-in-Fact (Resident Agent), who executes this Bond in behalf of the surety company, must attach a copy of their power-of-attorney as evidence of their authority.

NOTICE TO PROCEED

| To: Da | nte: |
|---------------------------------------|--|
| Pro | oject: 2019 Manhole and Valve Collars |
| You are hereby notified to commence w | ork in accordance with the Contract for |
| Construction dated, on or before | e, 2019, and you are to complete |
| the work within consecutive calendar | r days thereafter. The date of completion of all |
| work is therefore, 2019. | |
| | City of Logan, Utah |
| | by |
| | Title |
| ACCEPTANCE OF NOTICE | |
| Receipt of the above Notice to | |
| Proceed is hereby acknowledged by | |
| This day of | |
| Title | |

CITY OF LOGAN

CHANGE ORDER FORM

| CHANGE ORDER | #: DATE | |
|----------------|-------------------------------|--------------|
| PROJECT NAME | 2019 Manhole and Valve Collar | <u>s</u> |
| CONTRACTOR _ | | |
| DESCRIPTION: | | |
| <u>Item</u> | <u>Description</u> | <u>Total</u> |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| CHANGE ORDER | AMOUNT | \$ |
| TOTAL ADJUSTE | D CONTRACT AMOUNT | \$ |
| TIME EXTENSION | PER THIS CHANGE ORDER: | |
| REVISED COMPL | ETION DATE: | |
| | | |
| Date | Project Manager | |
| Date | Assistant City Engineer _ | |
| Date | Sponsoring Dept. Rep | |
| Contractor | | Date |

NOTIFICATION OF PROJECT COMPLETION

| PROJECT NAME AND LIMITS: |
|---|
| CONTRACTOR: |
| DATE: |
| PROJECT MANAGER: |
| |
| This is to certify that as of the above date, all work connected with the above PROJECT, |
| including BID items, CHANGE ORDER items, and PUNCH LIST items have been completed. |
| We further certify that payment for any testing that was required by the project has been paid, |
| including all bacteriological testing of pipe lines. |
| We hereby request that the Project Manager verify completion of the PROJECT |
| CONTRACTOR Signature: |
| (ABOVE TO BE COMPLETED BY THE CONTRACTOR) |
| (BELOW TO BE COMPLETED BY ENGINEERING DIVISION) |
| DATE OF COMPLETION VERIFICATION: |
| (For verification of payment for bacteriological testing, call 753-5135 ext. 119 or 111) |
| PROJECT MANAGER Signature: |
| CITY ENGINEER Signature: |

GENERAL CONDITIONS AND SPECIAL PROVISIONS

TECHNICAL SPECIFICATIONS

As specified in the construction plans general and special notes.

STANDARD DRAWINGS

As specified in the construction plans general and special notes.

SPECIAL PROVISIONS:

- 1- Contractor shall familiarize themselves with the full construction plan set, especially the general notes and special notes which take precedence over all conflicts.
- 2- Final quantities and project locations will be dependent upon bids and the final budgets.
- 3- The Contractor is required to use Logan City Environmental Department solid waste collection and disposal services for all waste generated from the construction site. The Contractor is responsible for all fees and costs associated with solid waste collection and disposal services. A solid waste collection and disposal fee schedule can be obtained from the City of Logan Environmental Department by calling 435-716-9755 or 435-716-9763.

APPENDIX A - EXAMPLE MIX DESIGN

LeGrand Johnson Construction Company Suggested Concrete Mix Design

| Prepared By: | | | ason Latim | er | | Date: | 06/17/15 |
|--|---------------|-----------------------|---------------|--|----------------------------|---------------|-----------------|
| Company: | | | LJCC | | | Mix Number: 7 | 70B |
| Address: | | | | | | • | |
| City: | | | | | Zip: | | |
| Phone #: | 435 994 201 | 2 . | Fax #: | | | | |
| Submitted to: | | Log | gan city ring | ı mix | | | |
| | | | | | | | |
| 28 Day F' c = | | 5000 | P.S.I. | | W/C Ratio: | 0.42 | |
| | ı | Pump Mix: | Yes | * | Bag Mix: | 7.26 | |
| | | | Sand / A | ggregate Ratio | | | |
| Coarse Aggregate #1 Coarse Aggregate #2 | | 55.00% 0.00% | | | ggregate #1 ggregate #2 | | 45.00% 0.00% |
| Coarse Aggregate #2 | | 0.00% | | Fille A | ggregate #2 | | 0.00% |
| Minaratal E | · · | 6.6 | | | Solid | | Actual |
| Material | 4 | / S.G. | <u></u> | Weight (lbs) | Volume | | Batch Weight |
| Cement | | 3:15 | | 545.00 | 2.77 | , | |
| Fly Ash | | 2.17 | | 137.00 | 0.95 | | |
| 1 13 7 1011 | | | | | 0.00 | | |
| Water | | 1.00 | | 260.00 | 4.17 | | |
| Air % 6.009 | % plus/n | ninus 1.5% | | | 1.62 | • | |
| Coarse Aggregate #1 | | 2.67 | | 1,602.33 | 9.62 | | |
| Coarse Aggregate #2 | | 0.00 | | 0.00 | 0.00 | ı. | |
| Fine Aggregate #1 | | 2.65 | | 1/301.17 | 7.87 | | |
| Fine Aggregate #2 | | 0.00 | | 0.00 | 0.00 |) | |
| * | t/a | and the second second | | and the second s | ent in the country | | |
| | | Plastic Uni | t Weight: | 3,845.50 Cu. Yo | | Cu. Ft. | |
| 2 | | | | 142.43 Cu. Ft | . 27.00 | JCu. Ft. | |
| | | | | | - | 4 | |
| Slum | p: 3" Max | | | | | | |
| Actual Unit Weigl | nt: | _ | | | | Yeild | : |
| Concrete Temperatur | re: | _ | Ambient | Temperature: | | Air % | : |
| Chemical Admixture – | MasterAir AE | 200 as requ | ired for AE | Α | | | |
| Admixture - MasterFib | oer F 100 @ 1 | .5 Lbs per C | Y | | | | |
| Chemical Admitxure - | | _ | | • | | | |
| Chemical Admitxure – Chemical Admixture – | | | | | | | |
| Comments: | WIGSTOTT UZZC | 111 200 60 3 | 027100 VVC | agait of Germent | | | 1 |
| All aggregate design v | weights above | are at S.S.D | Э. | | | | |
| | | | | | | | |



Material Certification Report

Material:

Portland Cement

Test Period:

01-May-2015

Type:

II-V

To:

31-May-2015

Certification

This Holcim cement meets the specifications of ASTM C150 for Type II-V cement.

General Information

Supplier:

Holcim (US) Inc.

Source Location:

Devil's Slide Plant

Address:

6055 East Croydon Road

6055 East Croydon Road Morgan, UT 84050

Morgan, UT 84050 (801) 829-6821

Contact:

Doug Wilde

Telephone: Date Issued:

08-Jun-2015

The following information is based on average test data during the test period. The data is typical of cement shipped by Holcim; individual shipments may vary.

| Chemica | al | | Physic | :al | |
|---|----------------------|--------|---|--------------------|-----------|
| Item | Limit ^A | Result | Item | Limit ^A | Result |
| SiO ₂ (%) | • | 20.2 | Air Content (%) | 12 max | 7 |
| Al ₂ O ₃ (%) | 6.0 max | 4.1 | Blaine Fineness (m ² /kg) | 260 min | 413 |
| =e ₂ O ₃ (%) | 6.0 max | 3.7 | 1 | | |
| CaO (%) | - | 63.5 | | | |
| MgO (%) | 6,0 max | 2.7 | Autoclave Expansion (%) (C151) | 0.80 max | 0.03 |
| SO ₃ (%) | 2.3 max ^B | 3.0 | Compressive Strength MPa (psi): | | |
| oss on Ignition (%) | 3.0 max | 1.9 | | | |
| nsoluble Residue (%) | 0.75 max | 0.50 | 3 days | 10.0 (1450) min | 30.7 (445 |
| CO ₂ (%) | - | 1.3 | 7 days | 17.0 (2470) min | 37.1 (538 |
| imestone (%) | 5.0 max | 3.4 | 20 00 *COOK 00 00 00 00 00 | | |
| CaCO ₃ in Limestone (%) | 70 min | 86 | Initial Vicat (minutes) | 45-375 | 111 |
| norganic Processing Addition (%) | 5.0 max | 0.0 | | | |
| Potential Phase Compositions ^C : | | | Mortar Bar Expansion (%) (C1038) | - | 0.013 |
| C ₃ S (%) | - | 60 | | | |
| C₂S (%) | - | 12 | | | |
| C₃A (%) | 5 max | 5 | | | |
| C ₄ AF (%) | - | 11 | | | |
| C ₃ S + 4.75C ₃ A (%) | - | 83.8 | | | |

| | Tests Data o | on ASTM | Optional Requirements | | |
|-------------------------|--------------------|--|---|--------------------|--------|
| Che | mical | D to programme to the contract of the contract | Physical | | , |
| Item | Limit ^A | Result | ltem | Limit ^A | Result |
| Equivalent Alkalies (%) | 0.60 max | 0.55 | Heat of Hydration: kJ/kg (cal/g) ^D 7 Days (for informational purposes) | - | 83 |

Notes

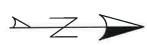
| Inorganic Processing Add | ition Data | Base Cement Phase Con | ıposition |
|-----------------------------------|---------------------|-----------------------|-----------|
| Item | Result ^A | Item | Result |
| Гуре | - | C ₃ S (%) | 62 |
| Amount (%) | - | C ₂ S (%) | 13 |
| SiO ₂ (%) | ¥. | C ₃ A (%) | 5 |
| N ₂ O ₃ (%) | - | C ₄ AF (%) | 12 |
| e ₂ O3 (%) | - | | |
| CaO (%) | | | |
| SO ₃ (%) | - | | |

A Dashes in the limit / result columns mean Not Applicable.

B It is permissible to exceed the specification limit provided that ASTM C1038 Mortar Bar Expansion does not exceed 0.020 % at 14 days.

^c Adjusted per Annex A1.6 of ASTM C150 and AASHTO M85.

D Test result represents most recent value and is provided for information only. Analysis of Heat of Hydration has been carried out by CTLGroup, Skokie, IL. This data may have been reported on previous mill certificates.



Τ

CITY OF LOGAN

2019 CONCRET E COLLARS MANHOLE & VALVE COLLARS PROJECT 18039



PUBLIC WORKS DEPARTMENT

THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE FOLLOWING: STREETS DIVISION MANAGER: WATER/ WASTE WATER DIVISION MANAGER LOGAN CITY EN CITY ENGINEER: 290 NORTH LOGAN, UTAH 84321 100 WEST **NGINEERING** CAMERON DRANEY, JED AL-IMARI BILL YOUNG, P.E. DRAFTED: AOLIPHANT DESIGNED: AOLIPHANT CHECKED: SODD DATE: November 1, 2018 REVISION: PROJECT: 1-8-2019 DATE 18039

GENERAL NOTES

- ALL CONSTRUCTION SHALL MEET CITY OF LOGAN STANDARDS AND SPECIFICATIONS (APWA 2007, AS AMENDED BY LOGAN CITY AS OF DATE APPROVED FOR CONSTRUCTION BY ENGINEER) UNLESS SPECIFIED OTHERWISE. STANDARDS AND SPECIFICATIONS CAN BE VIEWED AND RINTED AT: HTTP://WWW.LOGANUTAH.ORG/GOVERNMENT/DEPARTMENTS/PUBLIC_WORKS/ENGINEERING/
- UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD VERRY ALL UTILITY LOCATIONS BY CONTACTING BLUE STAKES AT 1-800-662-411 OR 811 AND OTHER APPLICABLE UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL ALSO POT-HOLE AND LOCATE UTILITIES AT THE CONTRACTOR'S EXPENSE WHEN REQUIRED.

 CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COSTS AND REPAIRS DUE TO DAMAGE OF EXISTING UTILITIES. ALL UTILITIES MAY NOT BE SHOWN ON PLANS. CONTRACTOR SHALL COORDINATE UTILITY INTERRUPTIONS WITH UTILITY PROVIDERS.

 CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN, ADEQUATE TRAFFIC CONTROL, SIGNING, BARRICADING, AND PEDESTRIAN DIRECTION THE RUGGH AND AROUND THE CONTRACTOR SHALL REPAIR DISTURBED SURFACES TO EXISTING CONDITIONS, INCLUDING, BUT NOT LIMITED TO UTILITY LINES AND SERVICES, ASPHALT REPAIR, DRIVEWAYS, PLANTER STRIPS, SPRINKLER AND IRRIGATION SYSTEMS AND GENERAL CLEANUP EXCEPT WHERE INSTRUCTED OTHERWISE
- OTHERWISE.

 ALL UTILITIES SHALL BE KEPT IN WORKING ORDER EXCEPT FOR THE MINIMUM TIME NEEDED FOR
- EXCAVATION, TRENCHING, CONNECTIONS, ETC.

 APPROVAL FROM THE ENGINEER IS REQUIRED PRIOR TO WATER, SEWER AND DRIVEWAY ACCESS RESTRICTIONS IF REQUIRED TO COMPLETE THIS PROJECT, ALL AFFECTED ENTITIES AND PROPERTY OWNERS SHALL BE NOTIFIED 48 HOURS PRIOR TO APPROVED SHUTDOWNS.
 CONTRACTOR IS RESPONSIBLE FOR NOTIFYING PROPERTY OWNERS AND RESIDENTS BEFORE NEW PIPING AND CONCRETE IS INSTALLED.
 ALL PERSONNEL ARE REQUIRED TO WEAR HARD-HATS, ORANGE VESTS OR CLOTHING, AND CONFORM TO APPLICABLE OSHA RULES AND REGULATIONS WHILE WORKING ON THIS PROJECT.

 ROAD AND LANE CLOSURES SHALL BE MINIMIZED. CONTRACTOR SHALL COORDINATE LANE CLOSURES AND PARTIAL AND COMPLETE ROAD CLOSURES WITH ENGINEER.

 CLOSURES AND PARTIAL AND COMPLETE ROAD CLOSURES WITH ENGINEER.

 AGREED UPON.

 PERMITS

- CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT (CITY OF LOGAN) PRIOR TO INITIATING ANY SITE DISTURBANCE OR CONSTRUCTION. CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS REQUIRED FOR THIS PROJECT. CONTRACTOR SHALL PREPARE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND COMPLY WITH ALL REQUIREMENTS OF THE SWPPP. CONTRACTOR SHALL MAINTAIN A COPY OF THE SWPPP AT THE PROJECT SITE. SWPPP SHALL BE AVAILABLE FOR REVIEW DURING NORMAL WORD THE SWPPP AT THE PROJECT SITE. SWPPP SHALL BE AVAILABLE FOR REVIEW DURING NORMAL
- WORK HOURS.

 CONTRACTOR SHALL OBTAIN AND KEEP COPIES OF ALL REQUIRED PERMITS AT PROJECT LOCATION DURING REASONABLE WORKING HOURS.

CONSTRUCTION NOTES

- MANHOLE/VALVE COLLARS

 I. MANHOLES AND VALVES COLLAR THAT WILL BE REPLACED WILL BE DECIDED BY THE LOGAN CITY WATER DEPARTMENT INCLUDING ANY WITHOUT A CONCRETE COLLAR, ANY SUNKEN FRAMES OR ONES 24" LIDS (REPLACE ALL WRONG SIZED LIDS WITH NEW FRAME AND LID).

 2. THE CITY WILL BE NOTIFIED PER EACH SECTION A WEEK AHEAD OF CONSTRUCTION IN SAID SECTION.

 3. CONTRACTOR SHALL COORDINATE CONSTRUCTION TIMELINES, PLANS, AND CONCRETE DELIVERES WITH LOGAN CITY'S INSPECTOR AT LEAST 24 HOURS AHEAD OF TIME.

 4. THE STREETS OF FOCUS WILL BE RE-COLLARED IN ORDER OF THE PRIORITY LIST ON MAP. WITH A FEW EMERGENCY COLLARS TO BE DONE AS NEEDED OFF OF THE STREETS OF FOCUS.

CONCRETE

CONCRETE SHALL BE A UDOT COMPLIANT HIGH STRENGTH EARLY MIX WITH FIBER I.E. LEGRANDS (UDOT 70-B MIX) OR PARSON'S (AA-AE HP WITH FIBER ADD IN). MIX DESIGN SHALL BE SUBMITTED TO LOGAN CITY FOR APPROVAL BEFORE CONSTRUCTION.

CONCRETE SHALL BE BE MECHANICALLY VIBRATED. TRAFFIC CONTROL

1. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN PER SECTION TO BE APPROVED BY THE ENGINEER BEFORE ANY CONSTRUCTION WITHIN SAID SECTION CAN TAKE PLACE. STARTING WITH THE PLANS FOR THE FIRST 3 STREETS IN THE PRIORITY LIST TO BE TURNED IN WITH THE RIGHT OF WAY PERMIT.

CAST IRON PRODUCTS (LIDS, FRAMES, VALVE BOX TOPS, VALVE LIDS) WILL BE PROVIDED BY LOGAN CITY.

PROJECT FILE LOCATION: G:\publicw\Engineer\00 Engineering File System\PROJECTS 2018\ENG18039 2019 Manhole and Valve Collars\Design (CAD Files)\2019 COLLAR DETAILS.dwg

STORM WATER POLLUTION PREVENTION INFORMATION

SITE EVALUATION, ASSESSMENT, AND PLANNING PROJECT SITENAME: 2019 CONCRETTE COLLARS PROJECT LOCATION: LOCATION XXXXXX, SEE COVER SHEET CITY: LOGAN, UTAH 84321 COUNTY: CACHE

LATITUDE/LONGITUDE (GOOGLE EARTH)
LAT: N/A

CONTACT INFORMATION AND RESPONSIBLE PARTIES: OWNER: LOGAN CITY

(435) 716-9152 (PUBLIC WORKS) LOGAN CITY 290 NORTH 100 WEST LOGAN, UT 84321

MANAGING PROJECT ENGINEER:
ALEX OLIPHANT E.I.T LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UT 84321

ALEX.OLIPHANT@LOGANUTAH.ORG

STORMWATER MANAGER AND SWPPP CONTACT JED AL-IMARI

LOGAN CITY STREETS AND STORMWATER MANAGER 950 WEST 600 NORTH LOGAN, UT 84321 (435) 716-9643 (DAY) (435) 716-9090 (AFTER HOURS EMERGENCY)

OPERATOR/STORM WATER MANAGER/ SWPPP CONTACT/STORM WATER INSPECTOR

IED.ALIMARI@LOGANUTAH.ORG

(435) 716-9644 (DAY) (435) 716-9090 (AFTER HOURS EMERGENCY) PAUL.RIGGS@LOGANUTAH.ORG LOGAN CITY STREETS AND STORMWATER FOREMAN 950 WEST 600 NORTH LOGAN, UT 84321

NATURE AND SEQUENCE OF CONSTRUCTION THE CITY OF LOGAN IS REPLACING CONCRETE COLLARS AROUND MUTHOUT A COLLAR OR WITH BROKEN OR UNLEVELED COLLARS TO F LOGAN IS REPLACING CONCRETE COLLARS AROUND MANHOLES AND VALVE BOXES BOTH IN AREA COLLAR OR WITH BROKEN OR UNLEVELED COLLARS. THIS WORK WILL TAKE PLACE THROUGH OUT

THE CONSTRUCTION ACTIVITIES FOR THIS PROJECT WILL INCLUDE JACK HAMMERING OF EXISTING CONCRETE OR ASPHALT, INSTALLATION OF NEW RIM AND COVER IF NEEDED, INSTALLATION OF NEW CONCRETE, AND SITE.

BEST MANAGEMENT PRACTICES (BMPS) FOR ALL OF THE ACTIVITIES WILL BE APPLIED TO THE SITE WHEN NECESSARY AND MONITORED BY THE STORM WATER MANAGER AND ON-SITE INSPECTOR. ADDITIONAL BMPS WILL BE ADDED IF

THE FUNCTION OF THIS ACTIVITY IS PUBLIC. ESTIMATED START DATE: MARCH 2019 ESTIMATED COMPLETION: JUNE 2019

SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS THE SOILS ON THIS SITE ARE VARIES AS OBTAINED THROUGH TEST EXCAVATIONS AND INSPECTION PERFORMED BY THE PROJECT ENGINEER.

SLOPES: SLOPES ON THIS PROJECT ARE LESS THAN 2 PERCENT. SITE CONDITIONS ARE NOT SUBJECT TO EROSION IN THEIR PRE-CONSTRUCTION CONDITION.

DRAINAGE PATTERNS: DRAINAGE PATTERNS DIFFER BETWEEN SITES VEGETATION: VEGETATION IS GRASS (BLUE GRASS) AND TREES.

CONSTRUCTION SITE ESTIMATES

PERCENT IMPERVIOUS AREA BEFORE CONSTRUCTION:
PERCENT IMPERVIOUS AREA AFTER CONSTRUCTION:
RUNOFF COEFFICIENT AFTER CONSTRUCTION:
100-YEAR PEAK RUNOFF BEFORE CONSTRUCTION:
100-YEAR PEAK RUNOFF AFTER CONSTRUCTION: ION SITE AREA TO BE DISTURBED: 1.6 ACRES
0.13 ACRES
0.13 ACRES
95%
95%
95%
6.8 CFS
6.8 CFS
6.8 CFS
0.0 ACRE-FEET

THE RECEIVING WATER FOR THIS PROJECT IS THE LOGAN RIVER. THERE ARE NO WETLANDS ON THIS SITE

SITE FEATURES AND SITE SENSITIVE AREAS TO BE PROTECTED THERE ARE NO SENSITIVE SITE FEATURES OR SENSITIVE AREAS ASSOCIATED WITH THIS PROJECT

ENDANGERED SPECIES

THERE ARE NO ENDANGERED SPECIES ASSOCIATED WITH THIS SITE

HISTORIC PRESERVATION

THERE ARE NO HISTORIC SITES ASSOCIATED WITH THIS PROJECT

GENERAL LOCATION MAP

COVER SHEET.

POTENTIAL SOURCES OF POLLUTION

| POTENTIAL POLLUTANT MATERIAL | ACTUAL POLLUTANT | POLLUTANT SOURCE | MANAGEMENT PRACTICE |
|---|---|---|---|
| SEDIMENT/TOTAL SUSPENDED SOLIDS | SEDIMENT | EROSION OF DISTURBED SOILS | MINIMIZE SOIL DISTURBANCE. INSTALL BMPS LISTED |
| SOILS STABILIZATION MATERIAL | VARIOUS MATERIALS BOTH FLOATABLE AND SOLUBLE | DISTURBED AREAS WHERE SLOPES OR SUSCEPTIBLE SOIL TYPES ARE EXPOSED | INSTALL SEDIMENT CONTROL BMPS LISTED |
| CONCRETE-WHITE/SOLID GREY | LIMESTONE, SAND, pH, CHROMIUM | EXTRA CONCRETE WHEN POURING CONCRETE | CLEAN UP EXCESS AND EXTRA CONCRETE AND DISPOSE OF AT SPECIFIED LOCATION |
| OILS-BROWN OILY PETROLEUM AND HYDROCARBONS | MINERAL OIL, HYDRAULIC FLUID, MOTOR OIL, ETC. | VEHICLES AND EQUIPMENT USED IN CONSTRUCTION | NO OILS WILL BE CHANGED ON SITE. LEAKS WILL BE REPAIRED IMMEDIATELY. |
| ASPHALT AND PAVING - B | BIONICIA NOIHDISTOLEUM DISTILLAGES | ASPHALT PAVING OPERATIONS | PAVING OPERATIONS WILL NOT BE PERFORMED WITHIN 8 HOURS OF EXPECTED STORMS EXCEEDING 0.5 INCH. |
| GREASE | GREASE AND LUBE OIL | VEHICLES AND EQUIPM CONSTRUCTION | IKNED SEDIMMENT CLEAN AND WIPED DOWN |
| ANTIFREEZE | ETHYLENE GLYCOL | ENGINE COLLUANT | FIX LEAKS IMMEDIATELY. REPAIRS WILL NOT BE MADE ON SITE |
| CONSTRUCTION DEWATERING | TSS/SEDIMENTS | DEWATERING ACTIVITIES | PUMP ONTO VEGETATED AREAS OR THROUGH A FILTER BAG |
| FUELS | BENZENE, ETHYL BENZENE, TOULENE, XYLENE, MTBE, PETROLEUM DISTALLATE, OILSGREASES, NAPHTHALEN, COL OIL | USED IN VEHICLES AND POWER EQUIPMENT | FUELING WILL NOT BE ALLOWED ON SITE UNLESS OVER AN IMPERMEABLE SURFACE WITH AN EMERGENCY CLEANUP KIT AT THE LOCATION |
| PESTICIDES AND INSECTICIDES, FUNGICIDES, HERBICIDES, AND RODENTICIDES | CHLORINATED HYDROCARBONS, ORANOPHOSPHATES, CARBAMATES, ARSENIC | USED FOR CONTROL OF PESTS DURING REVEGETATION | APPLICATION WILL BE PER MANUFACTURER INSTRUCTIONS. EXCESS OR LEFT OVER PESTICIDES WILL BE IMMEDIATELY REMOVED FROM SITE |
| CONCRETE CURING COMPOUNDS - CREAMY WHITE LIQUID | NAPHTHA | USED TO CONTROL CURING AND SEALING OF CONCRETE | EXCESS COMPOUND WILL BE REMOVED FROM SITE |
| CONCRETE WASHOUT WATER | рН | CONCRETE TRUCKS AND PUMP TRUCKS | WASH WATER FROM CONCRETE TRUCKS WILL BE CONTAINED AT THE DESIGNATED SITE |
| TRASH | SOLID WASTES | TRASH LEFT OVER FROM CONSTRUCTION ACTIVITES | REMOVE ALL TRASH FROM SITE DAILY. DO NOT DISPOSE OF TRASH IN HOLES OR TRENCHES |
| SANITARY WASTE MANAGEMENT | BACTERIA, PARASITES, VIRUSES | FECAL COLIFORM, BACTERIA ASSOCIATED WITH HUMAN OR ANIMAL WASTES | PUBLIC RESTROOMS ARE AVAILABLE ON SITE AND WILL BE AVAILABLE TO CONSTRUCTION WORKERS |
| FERTILIZERS - LIQUID AND SOLID GRAIN | NITROGEN, PHOSPHORUS | FERILIZERS USED IN RESTORING VEGETATION | APPLICATION WILL BE PER MANUFACTURER INSTRUCTIONS. EXCESS WILL BE PROMPTLY REMOVED FROM SITE |

BEST MANAGEMENT PRACTICES DETERMINED AND SPECIFIED BY CONTRACTOR.



LOGAN CITY ENGINEERING 290 NORTH 100 WEST LOGAN, UTAH 84321

2019 CONCRETTE COLLARS **GENERAL NOTES**

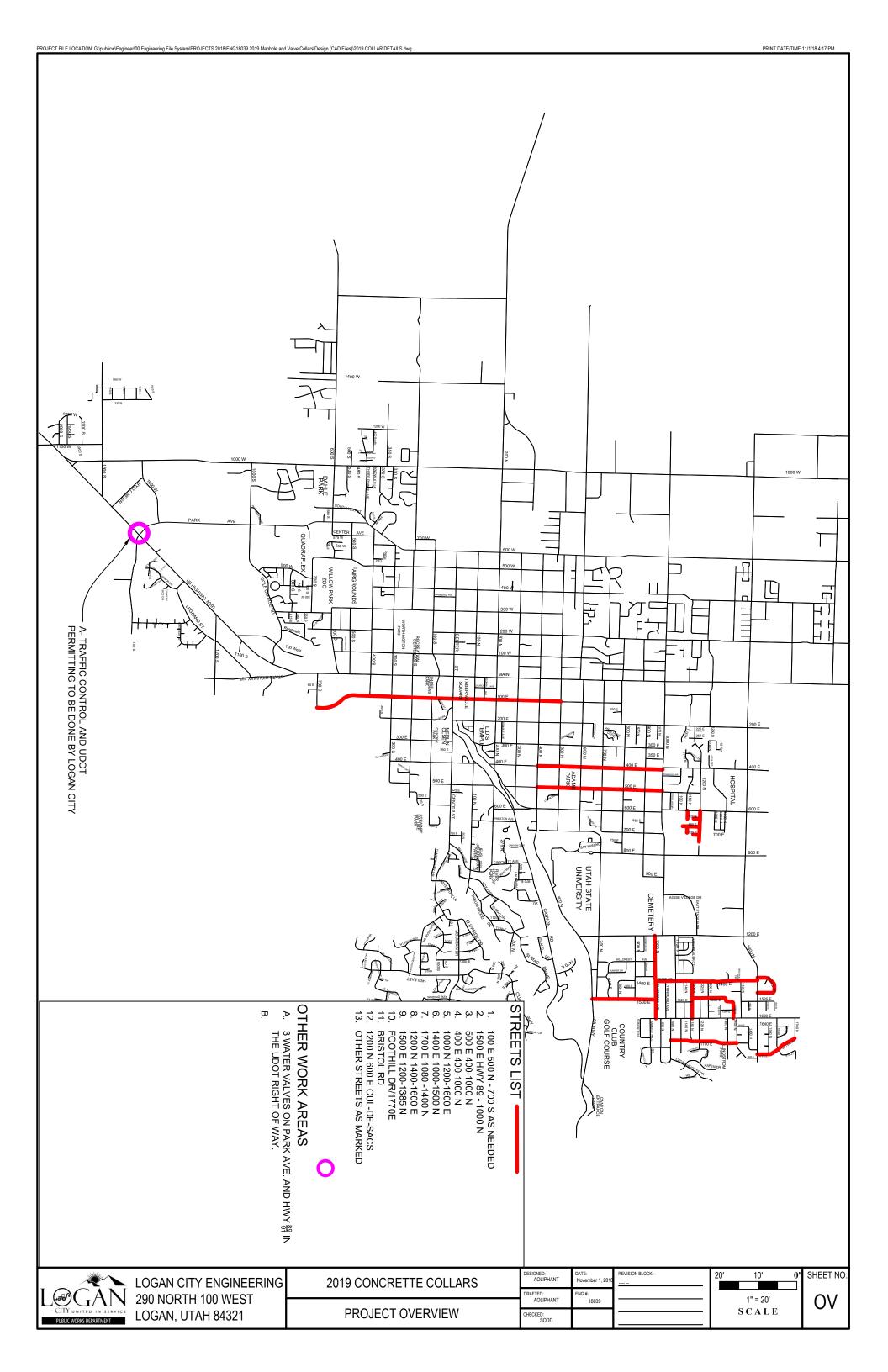
AOLIPHANT

18039

REVISION BLOCK

10' 1" = 20' SCALE

SHEET NO **GN**



- CONCRETE TO BE SET 1/4". BELOW PAVEMENT LIP ALL AROUND

NO STEEL RISERS ALLOWED,
ALL EXISTING RISERS TO BE REMOVED

CONCRETE COLLAR SEE MIX DESIGN DETAIL

UNTREATED BASE COURSE

SLIP SLEEVE

—ADD SHIMS AS
NECESSARY
(COMPOSITE ONLY)

SECTION B - B

PLAN 413 / 362

MATCH CROSS SLOPE GRADE

C GRADE RINGS (PLAN No. 360)

SECTION A - A

Cover collar for sanitary sewer/Storm drain manhole

- GENERAL
 GONCRETE: Concrete collars USE LEGRANDS (UDOT 70-B MIX) OR PARSON'S (AA-AE HP WITH FIBER ADD IN). OR POOLVAL ENT HIGH EARLY STRENGTH MESH MIX TO UDOT STANDARD.
 GENERAL Curing Agent Type ID Cass A (clear with fugilities dye), membrane forming compound, APWA Section 03 39 00
 SECUTION
 FREE CHARD STRENGTH MESH ADD TO CASS A CONCRETE CONTROL OF STANDARD STRENGTH MESH AND TO CONTROL OF STANDARD STANDARD.

 Pavement Preparation: Provide a neat vertical and concentric joint between concrete and existing asphal and concentric joint between concrete and existing and concentric joint between concentric joint between concentric joint between concrete and existing and concentric joint between concentric joint between concentric joint bet

30" FRAME AND COVER SEE DETAIL

CONCRETE COLLAR
SEE EXAMPLE MIX DESIGN

Pavement Preparation: Provide a neat vertical and concentric joint between concrete and existing asphalt surfaces. Olean edges of all dirt, oil and loose debris. Concrete Placement, APMA Section 03.09 (10, Fill the annular space around the frame and cover casting with concrete, and mechanically vibrate. Apply a broom finish, apply a curing agent.

Cover collar for water valve box

- Pavement Preparation: Provide a neat vertical and concentric joint between concrete and existing asphalt surfaces. Clean edges of all dirt, oil and loose debris. Concrete Placement. APVA Section 03.3 01.0. Fill the annular space around the frame and cover casting with concrete, and mechanically vibrate. Apply a broom finish, apply a curing agent.

PLAN 574

CONCRETE TO BE SET 1/4". BELOW ASPHALT LIP ALL AROUND

- 1. GENERAL
 1. In a pawement surface, the concrete will support the frame under traffic loadings
 2. PRODUCTS
 2. PRODUCTS
 2. CONCRETE: Concrete collars USE LEGRANDS (UDOT 70-B MIX) OR PARSON'S (AA-AE HP WITH 21. CONCRETE: Concrete CUIVALENT HIGH EARLY STRENGTH FIBER MIX TO UDOT STANDARD.
 2. Concrete Curing Agent: Type ID Cass A (clear with fugitive dye), membrane forming compound, APWA Section 03 39 00
 2. SECUTION
 2. EXECUTION
 3. SECUTION
 3. EXECUTION
 3. SECUTION
 3. SECUTION
 4. CONCRETE CONCRETE STANDARD CONCRET

NOMINAL

30" Frame and cover - type A

- 1. CASTING: Grey iron class 35 minimum per ASTM A 48.
- 2. COATING: Except machined surfaces, coat all metal parts with asphaltum paint.
- INSCRIPTION: Cast the words "STROM DRAIN" or "SEWER" on the cover flush with The surface finish. neat number on the inside of the frame and on
- HEAT NUMBER: Place foundry and I the bottom of the cover.
- 5. Fit \(\frac{1}{2} \) designates machined surface. so the cover will not rock.6. Sewer manhole lids will be vented
- 7. MANHOLE COVER COLLAR: See Plan No. 413/362.

B. ALL FRAME AND COVERS OR WATER VALVE LIDS THAT ARE NOT LOGAN CITY STANDARD SHALL BE REPLACED WITH STANDARD PARTS OR THE COLLAR WILL BE REDONE AT NO ADDITIONAL COST TO LOGAN CITY.



PLAN 302 / 402

| OGAN CITY ENGINEERING | G |
|-----------------------|---|
| 290 NORTH 100 WEST | |
| OGAN, UTAH 84321 | |

| NGINEERING | |
|------------|---|
| 0 WEST | H |
| 84321 | |

