

DOCUMENT 00 90 10

ADDENDUM No. 1



PART 1 GENERAL

1.1 DOCUMENT INCLUDES

- A. Changes to the Bid Schedule (Document 00 41 10).
- B. Clarifications

1.2 CONSTRUCTION CONTRACT

- A. The Construction Contract is known as SA009 – 21st Street Sewer Main Upgrade
- B. Date of this Addendum: March 29th, 2024

PART 2 CHANGES

2.1 CHANGES TO PRIOR ADDENDA

- A. None

2.2 CHANGES TO BIDDING REQUIREMENTS

- A. Document 00 41 00 (Bid Schedule), added bid item 1.30, 1.31 for Utility Investigation and Asphalt Removal items respectively. Measurement & payment for added bid items added to bid schedule document.
- B. Document 00 41 00 (Bid Schedule), added clarification for bid item no. 1.19 Reconnect Sewer Lateral in measurement & payment section.
- C. Document 00 41 00 (Bid Schedule), Added clarification for bid item nos. 1.07, 1.08, and 1.09 Install PVC SDR-35 Sewer Pipe in measurement & payment section.
- D. Document 00 41 00 (Bid Schedule), Added bid item 2.10 for Install 36" Steel Casing as well as measurement & payment details.
- E. Document 00 41 00 (Bid Schedule), bid quantity adjustments for bid items 1.22, 1.23, 1.24, 1.29

2.3 CHANGES TO AGREEMENT AND OTHER CONTRACT FORMS

- A. None

2.4 CHANGES TO CONDITIONS OF THE CONTRACT

- A. None

2.5 CHANGES TO SPECIFICATIONS

- A. None

2.6 CHANGE TO DRAWINGS

- A. Modified plan sheets C-3, W-1, and DT-9 to clarify spec requirements for manhole rehabilitation, and include the 36" casing for the ductile iron water line passing under the storm drain culvert at Grant Avenue.

2.7 CLARIFICATIONS

- A. Flow rate data for the existing sewer main has been modeled and estimated at 3,333 gpm. Ogden City has installed a flow meter on 21st Street between Pingree Avenue and Wall Avenue, and will provide updated data to the CONTRACTOR when it becomes available.

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DOCUMENT 00 41 10

BID SCHEDULE

PART 1 GENERAL

1.1 DOCUMENT INCLUDES

- A. Bid schedules.
- B. Measurement and payment provisions.

1.2 CONSTRUCTION CONTRACT

- A. The Construction Contract is known as:

SA009 21st Street Sewer Main Upgrade

1.3 REFERENCES

- A. APWA 01 29 00: Payment Procedures.
- B. Document 00 50 00: Agreement.
- A. Section 01 23 00: Alternates. (Refer to Section 01 23 00 contained in these Specifications)

1.4 SCHEDULE TO BE ADDED TO THE AGREEMENT

- A. This document will be added to the Bid and Agreement by reference.

PART 2 BID SCHEDULES

2.1 BASE BID

- A. Bid Schedule No. 1 below describes work basic to the Contract.

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BID SCHEDULE No. 1a (Sanitary Sewer)

Item #	Description	Bid Quantity	Unit	Unit Price	Bid Price
1.01	MOBILIZATION	1	LS		
1.02	SURVEY	1	LS		
1.03	TRAFFIC CONTROL	1	LS		
1.04	QUALITY CONTROL	1	LS		
1.05	SWPPP PLAN	1	LS		
1.06	SEWER BYPASS PUMPING	1	LS		
1.07	INSTALL 8" PVC SDR-35 SEWER PIPE	100	LF		
1.08	INSTALL 12" PVC SDR-35 SEWER PIPE	398	LF		
1.09	INSTALL 24" PVC SDR-35 SEWER PIPE	2317	LF		
1.10	INSTALL 48" PRE-CAST SEWER MANHOLE	6	EA		
1.11	INSTALL 60" PRE-CAST SEWER MANHOLE	9	EA		
1.12	INSTALL 72" PRE-CAST SEWER MANHOLE	1	EA		
1.13	INSTALL 84" SEWER DOGHOUSE MANHOLE	1	EA		
1.14	REMOVE SEWER PIPE	378	LF		
1.15	PIPE FILL EXISTING 20" SEWER PIPE	2317	LF		
1.16	PIPE FILL SEWER STUBS/LATERALS/STORM CONNECTIONS	40	CY		
1.17	ABANDON EXISTING SEWER MANHOLE	7	EA		
1.18	MANHOLE REHABILITATION	1	EA		
1.19	RECONNECT SEWER LATERAL	45	EA		
1.20	R/R UDOT CONCRETE PANELS	300	SY		
1.21	R/R DECORATIVE CONCRETE INTERSECTION	s1	LS		
1.22	T-PATCH (HMA SP 1/2 Class II PG 58-28)	1500	TON		
1.23	APWA SPEC ROADBASE (1.5"or 1" MINUS)	1200	TON		
1.24	IMPORT TRENCH & BACKFILL	6000	CY		
1.25	R/R OGDEN CITY SURVEY MONUMENT	6	EA		
1.26	R/R 27" RCP STORM DRAIN PIPE	85	LF		
1.27	CAMERA SEWER LINES AND LATERALS	1	LS		
1.28	RAISE & COLLAR SEWER MANHOLE	13	EA		
1.29	REMOVE SEWER MANHOLE	5	EA		
1.30	UTILITY INVESTIGATION	80	HRS		
1.31	REMOVE ASPHALT	33000	SF		

Total = \$ _____

Schedule Total in Words _____

Signature_____

BID SCHEDULE No. 2a (Culinary Water)

Item #	Description	Bid Quantity	Unit	Unit Price	Bid Price
2.01	INSTALL 12" DUCTILE IRON PIPE (CLASS 350)	15	LF		
2.02	INSTALL 16" DUCTILE IRON PIPE (CLASS 350)	10	LF		
2.03	INSTALL 24" DUCTILE IRON PIPE (CLASS 350)	135	LF		
2.04	INSTALL 6" GATE VALVE (CLASS 250)	2	EA		
2.05	INSTALL 16" BUTTERFLY VALVE (CLASS 250)	2	EA		
2.06	INSTALL 24" BUTTERFLY VALVE (CLASS 250)	2	EA		
2.07	INSTALL 2" AIR COMBINATION VALVE WITH 48" MANHOLE AND AIR VENT BOX	1	EA		
2.08	REMOVE EXISTING WATER LINE	170	LF		
2.09	INSTALL 36" STEEL CASING	1	LS		

Total = \$ _____

Schedule Total in Words _____

Signature_____

Grand Total Schedules 1, & 2 = \$ _____

Grand Total in Words _____

Signature_____

PART 3 MEASUREMENTS AND PAYMENT

3.1 MOBILIZATION, Bid Item No. 1.01

- A. Measured by lump sum.
- B. Payment covers cost of mobilization, demobilization, installation of temporary facilities and bringing all necessary construction equipment to the site. Payment will be made on a percentage basis as follows.

Percent of Original Contract Amount Earned	Percent of Amount Bid for Mobilization to be Paid
5	40
15	20
40	30
50	10

3.2 CONSTRUCTION STAKING AND SURVEYING, Bid Item 1.02

- A. Measured by lump sum (LS).
- B. Payment shall be as a portion of the lump sum price bid and shall include all costs to provide construction surveying and staking for the project including all labor by the Contractor's Surveyor, equipment, materials and supplies necessary to provide survey preparation, control, staking offsets and markers necessary for construction of the water main, roadway, curb & gutter elevations, sidewalk elevations, driveways, and appurtenances associated with the project.

3.3 TRAFFIC CONTROL, Bid Item No. 1.03

- A. Measured by lump sum (LS).
- B. Payment covers traffic control plan (accepted by Ogden City), traffic control technician, flaggers (if necessary), temporary pavement markings, signs, barricades, and all traffic control devices (Refer to Section 01 55 26, Traffic Control) meeting MUTCD and Ogden City Standards. The traffic control plan shall be stamped by a Professional Engineer and submitted to both Emergency service and Ogden City's traffic engineer for approval.
- C. 20th Street is expected to be closed to thru traffic during the project.
- D. Payment covers any necessary Contractor coordination with UTA for construction constraints on bus service on 21st Street.

3.4 QUALITY CONTROL TESTING, Bid Item No. 1.04

- A. Measurement will be made by lump sum (LS).
- B. Payment shall be for all costs for the Contractor to supply 3rd party testing for quality control/assurance throughout the duration of the project. Testing is to follow Ogden City Standards and be according to APWA Section 01 45 00.

- C. Payment shall include submittals to the ENGINEER before construction and reports to the ENGINEER during construction. Notify Owner (ENGINEER or Inspector) to coordinate location of tests.
- D. Payment shall include testing on all concrete according to APWA Section 03 30 05. Frequency of testing shall be per day of pouring and not per truck.
- E. Payment shall include testing on all asphalt surfaces according to Ogden Standards and Section 32 12 05 SP. Asphalt shall be considered 500 tons to 1500 tons of asphalt and shall be tested accordingly.

3.5 SWPP PLAN, SITE CLEANING, DUST CONTROL, WATERING Bid Item No.

1.05

- A. Measured by lump sum (LS).
- B. Payment covers the CONTRACTOR in obtaining coverage and following all requirements of the State of Utah DWQ General Permit for Storm Water Discharges from Construction Activities or the “Construction General Permit” (CGP). Permit No. UTRC00000 found at: <https://documents.deq.utah.gov/water-quality/stormwater/construction/DWQ-2020-013890.pdf>. The CONTRACTOR will be listed as an Operator and Ogden City will be listed as the Owner. Payment covers the CONTRACTOR to meet all requirements of the CGP. Requirements of this permit include, but are not limited to:
 - a. Preparation and maintenance of a storm water pollution prevention plan (SWPPP). The SWPPP must be submitted to and approved by City prior to beginning construction.
 - b. Submitting a Notice of Intent (NOI) prior to construction.
 - c. Maintaining active permit coverage throughout all phases of construction. It is the responsibility of the CONTRACTOR to ensure that permit coverage does not expire. Once the site meets the conditions for terminating CGP coverage, the CONTRACTOR must pass a final inspection with the City SWPPP inspector prior to submitting the Notice Of Termination (NOT) to DWQ.
 - d. Installing and maintaining all storm water Best Management Practices (BMPs) in accordance with the approved SWPPP that are not listed as separate bid items, which may include; silt fence, construction fencing, inlet protection, inlet clean-out (if necessary).
 - e. Performing necessary Contractor SWPPP inspections in accordance with the SWPPP.
 - f. Maintaining all required documentation (inspection reports, corrective action reports, SWPPPs, etc.). Ogden City may request documents associated with the project for up to three years from the date the site is finalized.
- C. The CGP outlines the required steps for preparing and maintaining the SWPPP, provides guidelines, examples, templates, BMP specifications, etc.
- D. Payment shall cover dust control/watering of the site, daily maintenance of the construction zone, **daily sweeping at a minimum**, maintaining BMP devices, and maintaining general cleanliness of the site and staging areas during the construction process to the satisfaction of the City. Trenches shall be maintained at all times to avoid ruts larger than a 2-inch depth.

E. Payment shall cover temporary water meter rental fees billed to the Contractor from the City. Contractor will NOT be billed for water usage for the project but must utilize a meter to obtain City water for the project.

3.6 BYPASS PUMPING, Bid Item No. 1.06

- A. Measurement will be made by lump sum (LS).
- B. Payment covers all labor, materials, transportation, and other items associated with bypass pumping, including but not limited to:
 - a. Performing all operations required to bypass pump wastewater around a manhole or sewer section in which work is to be performed
 - b. 24-hour pump system monitoring by pump contractor personnel
 - c. Furnishing and installing all pumps, piping, and other equipment necessary to accomplish bypass pumping
 - d. Preparation and coordination with UDOT to utilized their storm drain infrastructure for bypass while crossing Washington Boulevard if required
 - e. Perform complete restoration of all existing facilities and areas disturbed to conditions equal or better than pre-construction conditions
 - f. Verification of sewer flows for bypass pump sizing Pressure testing of bypass piping

3.7 INSTALL PVC SDR-35 SEWER PIPE (VARIOUS SIZES), Bid Item Nos. 1.07, 1.08, 1.09

- A. Measured per lineal foot (LF) from center to center of structure.
- B. Payment covers the cost of the size and type of pipe indicated (8", 12", or 24" PVC SDR-35, color green) with installation per Ogden City Standard Drawing SS-3. Payment covers the cost of incidental work such as excavation, hauling and disposal of trench zone material, fittings, couplings, joint lubricants, nuts, bolts and washers; removal and disposal of interfering structures and obstructions; grout; jackhammer work; trench shoring or trench boxes as applicable; underground plastic line markers; cleaning of invert covers; removal and disposal of waste materials, excavation spoils; restoration of all utilities damaged as a result of construction operations; site dewatering; trunk line cleaning and commissioning; adjustments to grade for manhole inverts and similar work to complete the installation of the sanitary sewer trunk line. (Refer to Section 33 31 00).

3.8 INSTALL PRE-CAST SEWER MANHOLE (SIZE SPECIFIED) Bid Item Nos. 1.10, 1.11, 1.12

- A. Measurement per each (EA).
- B. Payment covers the cost of excavation, bedding and backfill, potholing, and new manhole materials; installation of new manhole (48", 60", or 72" diameter as indicated on project plans), sewer lid, ring & cover, relocation as needed for sewer connection(s) within manhole; providing material, labor, and incidentals for reconnecting all sewer mains and laterals to new manhole; and other miscellaneous devices, materials, or equipment required for a complete installation. (Refer to Section 33 31 00, Sanitary Sewerage System; Ogden City Standard Drawings SS-1 to SS-6).

3.9 INSTALL 84" SEWER DOGHOUSE MANHOLE, Bid Item No. 1.13

- A. Measurement per each (EA).
- B. Payment covers the cost of excavation, bedding and backfill, potholing, and new manhole materials; installation of new manhole (84" doghouse manhole as indicated on project plans), relocation as needed for sewer connection(s) within manhole; sawcutting the top of existing pipe, grout sealing, testing, installation of corrosion-resistant material, providing material, labor, and incidentals for reconnecting all sewer mains and laterals to new manhole; and other miscellaneous devices, materials, or equipment required for a complete installation. (Refer to Section 33 31 00, Sanitary Sewerage System.)

3.10 REMOVE SEWER PIPE, Bid Item No. 1.14

- A. Measurement per linear feet of pipe removed (LF).
- B. Payment covers the cost of furnishing all necessary materials, equipment and labor required to excavate, haul and remove existing sewer pipe and backfill materials as indicated on the project plans or as directed by the ENGINEER.

3.11 PIPE FILL EXISTING 20" SEWER PIPE, Bid Item No. 1.15

- A. Measurement per linear feet of pipe filled (LF).
- B. Payment covers the cost of furnishing all necessary materials, equipment and labor required to abandon fill the existing 20" clay sewer main pipe completely with flowable fill or flowable sand as indicated on the project plan or as directed by the ENGINEER.
- C. Payment also includes the necessary materials, equipment and labor required to abandon and fill the existing 3" diameter clay tracer pipe located directly above the 20" sewer main completely with flowable fill or flowable sand as indicated on the project plans or as directed by the ENGINEER.
- D. Payment includes all plugs, pumps, materials and testing required for a complete job.
- E. Material submissions for the proposed pipe fill material are to be submitted to the ENGINEER in writing and approved in writing before it may be installed by the CONTRACTOR.

3.12 PIPE FILL SEWER STUBS/LATERALS/STORM CONNECTIONS, Bid Item No. 1.16

- A. Measurement per cubic yard of pipe fill used (CY).
- B. Payment covers the cost of furnishing all necessary materials, equipment and labor required to fill the existing sewer stubs, lateral connections and pipes, and storm drain connections within intersections completely with flowable fill or flowable sand as indicated on the project plan or as directed by the ENGINEER.
- C. Payment includes all plugs, pumps, materials and testing required for a complete job.
- D. Material submissions for the proposed pipe fill material are to be submitted to the ENGINEER in writing and approved in writing before it may be installed by the CONTRACTOR.

3.13 ABANDON EXISTING SEWER MANHOLE, Bid Item No. 1.17

- A. Measurement by each manhole abandoned (EA).
- B. Payment covers the cost of furnishing all necessary materials, equipment and labor required to excavate, haul and remove existing manhole structure, remove and dispose of the manhole cone section down to a minimum of 24" below finish grade, fracture the manhole floor, install robust soil-tight plugs within all connected pipes, and backfill with open graded grave (3/4" clean) or sand. Location and description of each abandoned manhole structure shall be precisely recorded and included in as-built drawings (Refer to section 02 41 13 Selective Site Demolition).

3.14 MANHOLE REHABILITATION, Bid Item No. 1.18

- A. Measurement per each manhole rehabilitated (EA).
- B. Payment covers the cost of furnishing all necessary materials, equipment and labor required to rehabilitate existing manhole structures using Quadex GeoKrete geopolymer mortar as indicated on the project plans or as directed by the ENGINEER.
- C. Payment includes procurement of specified product(s), removal of unsound concrete, dirt, dust, oil, and debris from interior surface of manhole structures using high pressure water blasting, identifying and preventing infiltration, dewatering, waterstop installation, injection grouting, sand blasting, acid washing, hydro-blasting/washing, and drying, application of the geopolymer mortar product via low pressure spraying or spin cast application processes to a thickness of 1", and curing processes as recommended/directed by manufacturer.
- D. Payment includes any additional products, equipment or labor required to install the GeoKrete geopolymer mortar as directed and recommended by the product manufacturer.

3.15 RECONNECT SEWER LATERAL, Bid Item No. 1.19

- A. Measurement shall be per each (EA).
- B. Payment covers the cost of excavating, soil preparation, connection of the sewer lateral to the existing sewer lateral and sewer main via wye, tee, Fernco shear coupling, rubber gaskets, fittings, commissioning lateral; and other miscellaneous devices, materials, or equipment required for a complete service connection per Ogden City Standard Drawings SS-2 and SS-8. **Includes installation of required length of PVC (SDR 35) (generally approximately 10 linear feet)** sewer lateral along with trenching, bedding, etc. – any additional length required will be paid by the Lateral Replacement line item and other applicable line items. Payment includes the installation of a robust soil-tight plugs within the lateral to be abandoned. (Refer to Section 33 31 00, Sanitary Sewerage Systems; Ogden City Standard Drawings SS-2).

3.16 R/R UDOT CONCRETE PANELS, Bid Item No. 1.20

- A. Measured by square yard of concrete pavement (SY).
- B. Payment covers saw cutting and drilling pavements and necessary work to remove, haul, and dispose of all pavement, concrete, and reinforced concrete within the existing roadway. Payment covers the cost of furnishing all necessary traffic control, equipment, labor, hauling, and disposal.
- C. Remove UDOT concrete road panels according to APWA Standard Plan 256.1,256.2

- D. Payment includes all costs, permits, materials, concrete, labor, sawcutting, drilling, dowel bars, tie bars, joint filler, sealant, and equipment incidental to the placement of the UDOT concrete road panels in according to APWA Plan 256.2. Payment includes untreated base course, granular borrow fill, and any other material for correct installation of panels.
- E. High Early Rapid Set concrete must be used, and concrete work must be completed Saturday night into Sunday.
- F. Match existing thickness for concrete, untreated base course, and granular borrow.
- G. The Contractor is responsible for obtaining the UDOT encroachment permit before doing any work in the UDOT Right-of-Way. If night work will be performed, the Contractor must submit for a night work permit through the City.

3.17 R/R DECORATIVE CONCRETE INTERSECTION, Bid Item No. 1.21

- A. Measurement by lump sum (LS).
- B. Payment covers the cost of furnishing all necessary materials, equipment and labor required to excavate, haul and remove existing colored/decorative concrete at the intersection of Grant Avenue and 21st Street, including subgrade material, concrete collars, and other material within the footprint of the colored concrete as indicated on the project plans or as directed by the ENGINEER.
- C. Payment includes installation of new colored concrete within the intersection. Color of the new concrete shall be Lanxess Ready Mix color Sandstone Buff 960/4. Thickness and reinforcement shall match the existing concrete section of the intersection. Thickness of the subgrade material (roadbase) shall match existing subgrade material thickness. Intersection shall be graded to match pre-construction conditions.

3.18 T-PATCH (HMA SP 1/2 CLASS II PG 58-28), Bid Item No. 1.22

- A. Measurement will be made by tons (TONS) of HMA placed per project plans and specifications. Asphalt shall be Class II per Section 32 12 05 SP.
- B. Payment covers the cost of furnishing all necessary materials, asphalt, tack coat equipment, labor, hauling, placement, and compaction to produce an acceptably deep excavation asphalt “T” patch per Ogden City Standard Drawing RD-3. Payment covers the cost of installing the full thickness of hot-mixed, hot laid asphalt concrete pavement (with no more than 15% recycled asphalt content). (Refer to Section 32 12 05 SP, Bituminous Concrete)
- C. Payment also covers the costs of final sawcutting, “scratching” out the trench and general prep work prior to paving.
- D. Payment covers the mobilization costs to pave at each site (four separate mobilizations incrementally throughout the duration of the project).

3.19 APWA SPEC ROADBASE (1.5" OR 1" MINUS), Bid Item No. 1.23

- A. Measurement will be made by tons (TONS) of untreated base course placed and compacted.
- B. Payment covers the cost of furnishing all necessary materials, aggregate base course, labor, hauling, placement, and compaction to produce an acceptably deep aggregate base

course layer per Ogden City Standard Drawings RD-3 and project plan specified thickness. Payment covers the cost of installing the full thickness of aggregate base course layer and preparation for pavement installation (or concrete). (Refer to Section 33 05 25, Pavement Restoration)

- C. No payment will be made for aggregate base course purchased and installed as a temporary construction measure.
- D. No payment for this item will be made for aggregate base used as trench backfill (below the bottom of UTBC level).
- E. Aggregate base course shall be untreated. No recycled roadbase (or any recycled material) will be accepted for roadbase on the project.

3.20 IMPORT PIPE BEDDING, TRENCH & BACKFILL, Bid Item No. 1.24

- A. Measured per cubic yard of import bedding & trench backfill material placed and compacted (CY).
- B. Payment covers the cost of furnishing all necessary materials and equipment, labor, hauling, placement, and compaction to produce an acceptable trench fill (APWA - 2" Minus Granular Fill Borrow). No allowance will be made for bedding and fill materials required to fill voids caused by trenching operations, which exceed the dimensions shown on the drawings. Payment also includes cost to remove and dispose of existing soils displaced by the trench bedding and fill. (Refer to Section 31 05 13, Common Fill and 33 05 20, Backfilling Trenches).
- C. Trench backfill is defined as the material required to fill the trench from the top of the pipe zone to the bottom of the aggregate base course. See Ogden City Standard Drawing SS-3.
- D. Payment covers the cost of furnishing all necessary materials and equipment, labor, hauling, placement, and compaction to produce an acceptable trench bedding (Sewer Rock ASTM Size No. 4). No allowance will be made for bedding and fill materials required to fill voids caused by trenching operations, which exceed the dimensions shown on the drawings. (Refer to Section 31 05 13, Common Fill and 33 05 20, Backfilling Trenches).
- E. Pipe zone includes all of the pipe zone area per Ogden City Standard Drawing SS-4.

3.21 R/R OGDEN CITY SURVEY MONUMENT, Bid Item No. 1.25

- A. Measurement will be made by actual count per each installed (EA)/adjusted to finish grade or each collar installed.
- B. Payment includes all equipment, materials and labor required to remove existing survey monuments as indicated on the project plans or as directed by the ENGINEER.
- C. Payment covers all costs to reconstruct or install a new monument including the concrete cylinder cast off site.
- D. Payment covers the required coordination with the City Surveyor to get the location of the monument verified and to obtain the brass monument as necessary. The City will provide the brass.
- E. Concrete for surface collars shall be obtained from batched concrete (i.e. Jack B. Parsons, Geneva, etc.) with fiber reinforcement and sealed with a curing compound.

3.22 R/R 27" RCP STORM DRAIN PIPE, Bid Item No. 1.26

- A. Measurement per linear feet of pipe removed (LF).
- B. Payment covers the cost of furnishing all necessary materials, equipment and labor required to excavate, haul and remove existing sewer pipe and backfill materials as indicated on the project plans or as directed by the ENGINEER.
- C. Payment includes all costs for labor, equipment, tools and materials required to install new 27" RCP, gaskets, coupler, utility service restoration if needed, and all other appurtenances required to complete the work.

3.23 CAMERA SEWER LINES & LATERALS, Bid Item No. 1.27

- A. Measurement will be made by lump sum (LS).
- B. Payment covers all labor, materials, equipment, transportation, and other items associated with the video inspection and locating of the existing and/or new sewer lines and laterals that cross the storm drain culvert at Grant Avenue prior to construction of the sewer line components and again prior to paving to verify that no settlement or damage has occurred as a result of construction.
 - a. Video submittals will be provided to Ogden City prior to construction of the water line and again prior to construction of the asphalt pavement.

3.24 RAISE & COLLAR SEWER MANHOLE, Bid Item No. 1.28

- A. Measurement will be made by actual count per each installed (EA)/adjusted to finish grade with collar installed. Manholes are expected to be lowered for paving, then raised to grade with collar after paving.
- B. Payment covers all tools, labor, materials, and equipment to lower and raise existing structures to be flush with new grade as shown on Drawings. Payment covers all costs associated with raising/lowering the existing structure; including grade rings, removal and disposal of existing materials, concrete collars, concrete seal, **reinforcement rebar**, labor, and all other appurtenant work not otherwise stipulated to be paid for separately.
- C. Payment covers the required coordination with the Sewer Department for ordering manhole lids for existing sanitary sewer manholes. New manhole covers will NOT be paid for with this item.
- D. Concrete for surface collars shall be obtained from batched concrete (i.e. Jack B. Parsons, Geneva, etc.). Concrete must be batched with fiber reinforcement and sealed with a curing compound.

3.25 REMOVE SEWER MANHOLE, Bid Item No. 1.29

- A. Measurement shall be per each (EA).
- B. Payment covers the cost of excavation, removal and disposal of existing manholes; install robust soil-tight plugs within all pipes to be abandoned; providing material, labor, and incidentals for backfilling and compacting, placing new aggregate base course, and asphalt patching the disturbed roadway; and other miscellaneous devices, materials, or equipment required for a complete removal and restoration of the affected roadway or surfacing. (Refer to 02 41 19 Selective Site Demolition and 33 31 00, Sanitary Sewerage

Systems; Ogden City Standard Drawings SS-1 to SS-6).

3.26 UTILITY INVESTIGATION, Bid Item No. 1.30

- A. Measurement will be made by counting the actual number of hours of work completed by the machine and operator to investigate miscellaneous underground features as required by the ENGINEER (HR). No allowance of time will be made for transporting the backhoe to and from the job site when the backhoe is located on the site of the Contract.
- B. Payment covers furnishing and providing labor and equipment for investigation of existing miscellaneous pipelines, wires and cables, and sub-surface features as required by the ENGINEER. ENGINEER must approve time before Contractor is to proceed with any paid utility investigation.

3.27 REMOVE ASPHALT, Bid Item No. 1.31

- A. Measured by square yard (SY) of asphalt pavement removed.
- B. Remove Asphalt Pavement shall be limited to the locations indicated on the Drawings (plan quantity) or as directed by the Engineer. No direct payment shall be made for removal at locations not on the Drawings unless written direction is provided by the Engineer. The unit price named shall include all costs associated with; saw cutting; demolition, removal, and disposal of waste material; and all other work or materials required to complete the work. (Refer to Section 02 41 14, Pavement Removal).

3.28 INSTALL 12" DUCTILE IRON PIPE (CLASS 350), Bid Item No. 2.01

- A. Measurement will be made by linear foot (LF) with no reduction in length because of valves and fittings.
- B. Payment covers the cost of the size and type of pipe indicated, with installation per Ogden City Standard Drawing W-18 and surface restoration not identified as separate pay items in the price schedule.
- C. Payment covers the cost of incidental work such as joint restraint systems, fittings, couplings, joint lubricants, nuts, bolts and washers; removal and disposal of interfering structures and obstructions; jackhammer work; trench shoring or trench boxes as applicable, underground plastic line markers, tracer wire; removal and disposal of waste materials; restoration of all utilities damaged as a result of operations; site dewatering; pipe line cleaning; water main repair or replacement if damaged by CONTRACTOR; adjustments to grade of existing valve boxes or traffic lids or manholes; and similar work to complete the installation of the water line. (Refer to Section 33 05 05, Ductile Iron Pipe)
- D. Payment covers the cost of the material and transportation to the site, all necessary equipment, labor, on-site hauling, placement, and compaction to produce an acceptable pipe trench bedding. No allowance will be made for bedding materials required to fill voids caused by trenching operations which exceed the dimensions shown on the drawings. If native material meets specification requirements this bid item will not be used. Acceptability of native material will be approved by the ENGINEER.
- E. The trench bedding includes all of the pipe zone area, per Ogden City Standard Drawing

W-18. (Refer to Section 33 05 20, Backfilling Trenches)

- F. Payment covers the cost of the material, Untreated Base Course (UTBC), and transportation to the site, all necessary equipment, labor, on-site hauling, placement, and compaction to produce an acceptable pipe trench backfill. No allowance will be made for backfill materials required to fill voids caused by trenching operations, which exceed the dimensions shown on the drawings. If native material meets specification requirements this bid item will not be used. Acceptability of native material will be approved by ENGINEER. (Refer to Section 33 05 20, Backfilling Trenches)
- G. Trench backfill is defined as the material required to fill the trench from the top of the pipe zone to the bottom of the aggregate base course. The depth of this material varies along the length of the pipe.

3.29 INSTALL 16" DUCTILE IRON PIPE (CLASS 350), Bid Item No. 2.02

- A. Measurement will be made by linear foot (LF) with no reduction in length because of valves and fittings.
- B. Payment covers the cost of the size and type of pipe indicated, with installation per Ogden City Standard Drawing W-18 and surface restoration not identified as separate pay items in the price schedule.
- C. Payment covers the cost of incidental work such as joint restraint systems, fittings, couplings, joint lubricants, nuts, bolts and washers; removal and disposal of interfering structures and obstructions; jackhammer work; trench shoring or trench boxes as applicable, underground plastic line markers, tracer wire; removal and disposal of waste materials; restoration of all utilities damaged as a result of operations; site dewatering; pipe line cleaning; water main repair or replacement if damaged by CONTRACTOR; adjustments to grade of existing valve boxes or traffic lids or manholes; and similar work to complete the installation of the water line. (Refer to Section 33 05 05, Ductile Iron Pipe)
- D. Payment covers the cost of the material and transportation to the site, all necessary equipment, labor, on-site hauling, placement, and compaction to produce an acceptable pipe trench bedding. No allowance will be made for bedding materials required to fill voids caused by trenching operations which exceed the dimensions shown on the drawings. If native material meets specification requirements this bid item will not be used. Acceptability of native material will be approved by the ENGINEER.
- E. The trench bedding includes all of the pipe zone area, per Ogden City Standard Drawing W-18. (Refer to Section 33 05 20, Backfilling Trenches)
- F. Payment covers the cost of the material, Untreated Base Course (UTBC), and transportation to the site, all necessary equipment, labor, on-site hauling, placement, and compaction to produce an acceptable pipe trench backfill. No allowance will be made for backfill materials required to fill voids caused by trenching operations, which exceed the dimensions shown on the drawings. If native material meets specification requirements this bid item will not be used. Acceptability of native material will be approved by ENGINEER. (Refer to Section 33 05 20, Backfilling Trenches)
- G. Trench backfill is defined as the material required to fill the trench from the top of the pipe zone to the bottom of the aggregate base course. The depth of this material varies along the length of the pipe.

3.30 INSTALL 24" DUCTILE IRON PIPE (CLASS 350), Bid Item No. 2.03

- A. Measurement will be made by linear foot (LF) with no reduction in length because of valves and fittings.
- B. Payment covers the cost of the size and type of pipe indicated, with installation per Ogden City Standard Drawing W-18 and surface restoration not identified as separate pay items in the price schedule.
- C. Payment covers the cost of incidental work such as joint restraint systems, fittings, couplings, joint lubricants, nuts, bolts and washers; removal and disposal of interfering structures and obstructions; jackhammer work; trench shoring or trench boxes as applicable, underground plastic line markers, tracer wire; removal and disposal of waste materials; restoration of all utilities damaged as a result of operations; site dewatering; pipe line cleaning; water main repair or replacement if damaged by CONTRACTOR; adjustments to grade of existing valve boxes or traffic lids or manholes; and similar work to complete the installation of the water line. (Refer to Section 33 05 05, Ductile Iron Pipe)
- D. Payment covers the cost of the material and transportation to the site, all necessary equipment, labor, on-site hauling, placement, and compaction to produce an acceptable pipe trench bedding. No allowance will be made for bedding materials required to fill voids caused by trenching operations which exceed the dimensions shown on the drawings. If native material meets specification requirements this bid item will not be used. Acceptability of native material will be approved by the ENGINEER.
- E. The trench bedding includes all of the pipe zone area, per Ogden City Standard Drawing W-18. (Refer to Section 33 05 20, Backfilling Trenches)
- F. Payment covers the cost of the material, Untreated Base Course (UTBC), and transportation to the site, all necessary equipment, labor, on-site hauling, placement, and compaction to produce an acceptable pipe trench backfill. No allowance will be made for backfill materials required to fill voids caused by trenching operations, which exceed the dimensions shown on the drawings. If native material meets specification requirements this bid item will not be used. Acceptability of native material will be approved by ENGINEER. (Refer to Section 33 05 20, Backfilling Trenches)
- G. Trench backfill is defined as the material required to fill the trench from the top of the pipe zone to the bottom of the aggregate base course. The depth of this material varies along the length of the pipe.

3.31 INSTALL 6" GATE VALVE, Bid Item No. 2.04

- A. Measurement will be made by actual count per each installed (EA).
- B. Payment covers the cost of excavation, foundation preparation, restraint devices, valve boxes, valve, concrete collar with seal, backfill and other miscellaneous devices, materials, or equipment required for a complete installation. See Ogden City Standard Drawing W-11 and W-12. Ogden City's Water Department Approved Materials List should be consulted for acceptable valve types. (Refer to Section 33 12 16, Water Valves)

3.32 INSTALL 16" BUTTERFLY VALVE, Bid Item No. 2.05

- A. Measurement will be made by actual count per each installed (EA).

B. Payment covers the cost of excavation, foundation preparation, restraint devices, valve boxes, valve, concrete collar with seal, backfill and other miscellaneous devices, materials, or equipment required for a complete installation. See Ogden City Standard Drawing W-11 and W-12. Ogden City's Water Department Approved Materials List should be consulted for acceptable valve types. (Refer to Section 33 12 16, Water Valves)

3.33 INSTALL 24" BUTTERFLY VALVE, Bid Item No. 2.06

A. Measurement will be made by actual count per each installed (EA).

B. Payment covers the cost of excavation, foundation preparation, restraint devices, valve boxes, valve, concrete collar with seal, backfill and other miscellaneous devices, materials, or equipment required for a complete installation. See Ogden City Standard Drawing W-11 and W-12. Ogden City's Water Department Approved Materials List should be consulted for acceptable valve types. (Refer to Section 33 12 16, Water Valves)

3.34 INSTALL 2" AIR COMBINATION VALVE WITH 48" MANHOLE AND AIR VENT BOX, Bid Item No. 2.07

A. Measurement will be made by actual count per each installed (EA).

B. Payment covers the cost of excavation, foundation preparation, restraint devices, manhole, saddle, combination air valve, piping, venting, backfill and other miscellaneous devices, materials, and equipment required for a complete installation as shown on the plans and according to Ogden City Engineering Standard Drawing W-14A and W-14B. Ogden City's Water Department Approved Materials List should be consulted for acceptable equipment types. (Refer to Section 33 11 00, Water Distribution and Transmission)

3.35 REMOVE EXISTING WATER LINE, Bid Item No. 2.08

A. Measurement per linear feet of pipe removed (LF).

B. Payment covers the cost of furnishing all necessary materials, equipment and labor required to excavate, haul and remove existing water pipe and backfill materials as indicated on the project plans or as directed by the ENGINEER.

3.36 INSTALL 36" STEEL CASING, Bid Item No. 2.09

A. Measurement per lump sum (LS).

B. Payment covers the cost of furnishing all necessary materials, equipment and labor required for all stages of installing a 36 inch steel casing via open cut or trenchless method, including trenching, excavation, disposal of excavated material as required, bracing and shoring of pits as needed, backfilling and compaction of pits, and testing. Payment shall also include all materials, equipment and labor required to install the carrier pipe including the casing spacers and end seals, stabilization of the carrier pipe against movement and flotation, supporting and preventing the undermining of the storm drain culvert, filling the clearance space between the culvert and steel casing with flowable fill, and all incidental work not specifically identified in other pay items. CONTRACTOR shall submit shop drawings for approval by the ENGINEER for methods where utilities shall require protection.

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