



*South Main Street Sidewalk Connection*

Contract Documents  
and Specifications  
Engineering Number: ENG16109  
December 21, 2018

290 North 100 West  
Logan, Utah

**CIVIL ENGINEER**

CRS Engineers  
160 South Main, Ste. 200  
Farmington, Utah 84025  
801-939-5565

**PROJECT MANAGER**

Matt Collier  
CRS Engineers  
160 South Main, Ste. 200  
Farmington, Utah 84025  
801-939-5565

**PROJECT SPONSOR**

Tom Dickinson  
Logan City Public Works  
290 North 100 West  
Logan, Utah 84321  
435-716-9168

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# 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., January 25, 2019**, for:

## *South Main Street Sidewalk Connection*

Bid opening will then be held 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: Matt Collier, CRS Engineers, at [matt.collier@crsengineers.com](mailto:matt.collier@crsengineers.com) and/or 801-939-5565.

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

Dated this December 21, 2018.

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 January 25, 2019** and then at **2:00 P.M.** publicly opened and read aloud.

**During the Bidding period, all questions pertaining to the project or bid must be submitted in writing by January 23, 2019 @ 5:00 P.M. to [matt.collier@crsengineers.com](mailto:matt.collier@crsengineers.com).**

**The responses to these questions will be posted daily on the City of Logan's, Purchasing Division website. The website address is:**

**[https://www.loganutah.org/government/departments/finance/purchasing/bids\\_and\\_proposals.php](https://www.loganutah.org/government/departments/finance/purchasing/bids_and_proposals.php)**

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 including SWPPP implementation, 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 Contract 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.

The undersigned, after having personally and carefully examined the Plans, Specifications and location 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 hereof, all items included in the **South Main Street Sidewalk Connection** project 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 \$1,000.00 for each consecutive day thereafter as provided in the General Conditions.

It is understood that the quantities stated are approximate only and are for the purpose of comparing Bids and fixing the amount of Bonds, and the payments will only be made on the basis of the above unit prices of the actual quantities, as determined by the Owner's Engineer in the completed work. It is further understood that the quantities will be increased or decreased as necessary to maximize the benefit of the existing budgets.

It is hereby agreed that The City of Logan has the right to reject this proposal or to award the work to the undersigned at the sum stipulated, if action is taken within thirty (30) days after opening of Bids.

The Contractor hereby acknowledges receipt of the following Addenda: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company

\_\_\_\_\_  
Authorized Signature



# BID SCHEDULE

PROJECT:

South Main Street Sidewalk Connection  
ENG16019

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NOTE: Bidder agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices. Bid prices shall include sales tax and all other applicable taxes and fees.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	ITEM PRICE
1	Mobilization	LS	1		
2	Traffic Control Plan	LS	1		
3	Storm Water Pollution Prevention Plan	LS	1		
4	Relocate Fire Hydrant and Adjust to Grade	EA	1		
5	Relocate Irrigation Junction Box	EA	3		
6	Relocate Irrigation Junction Box – Reroute Piping as Needed	EA	1		
7	Remove and Replace Fire Hydrant and Assembly	EA	3		
8	Remove and Replace Water Meter and 1” Service Assembly	EA	1		
9	Remove and Replace Water Meter and 2” Service Assembly	EA	1		
10	Remove 18” CMP	LF	40		
11	Remove and Replace Standard UDOT Catch Basin	EA	2		
12	Adjust Water Meter Lid – Replace Setter	EA	1		
13	Adjust Water Meter Lid – Protect Meter in Place	EA	1		
14	Remove Existing Sampling Well – Salvage Valve to Owner	EA	2		
15	Relocate Mailbox	EA	2		
16	Relocate Sign	EA	6		
17	Relocate Business Sign	EA	3		
18	Relocate Large Business Sign	EA	1		
19	Relocate Decorative Rock	EA	1		
20	Relocate Backflow Preventer and Water Meter	EA	1		
21	Raise Sewer Manhole to Grade	EA	3		
22	Raise Water Meter – Adjust Lid to Grade	EA	1		
23	Raise Electrical Box to Grade	EA	1		
24	Raise Mailbox to Grade	EA	2		
25	Remove Trees, Bushes, and Debris	LS	1		
26	Remove Tree	EA	4		
27	Remove Retaining Wall and Parkstrip	LF	200		
28	Remove Concrete Stairs	LS	1		
29	Remove Concrete Curb and Gutter	LF	340		
30	Remove Concrete Curb	LF	30		
31	Remove Concrete Drive Approach	SF	220		
32	Remove Concrete Waterway to Nearest Joint	SF	60		
33	Sawcut and Remove Asphalt and Concrete	SF	8,400		
34	Sawcut and Remove Asphalt	SF	6,400		
35	Remove Pavement Markings	LF	300		
36	Remove Existing Parking Lot Striping	LF	290		
37	Pothole Utility	EA	28		
38	18” Corrugated Metal Pipe	LF	260		
39	12” Corrugated Metal Pipe	LF	70		
40	2’ x 2’ Concrete Catch Basin	EA	4		
41	Drainage Containment Box – 200 Cu. Ft.	LS	1		
42	Drainage Containment Box – 300 Cu. Ft.	LS	1		

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	ITEM PRICE
43	Drainage Containment Box – 400 Cu. Ft.	LS	1		
44	Drainage Containment Box – 550 Cu. Ft.	LS	1		
45	Curb Cut	LF	80		
46	Concrete Curb Transition	LF	10		
47	Sidewalk	SF	13,600		
48	Curb & Gutter (Type B1)	LF	1,360		
49	Concrete Curb	LF	35		
50	4' Concrete Waterway	LF	40		
51	Concrete Pavement – 10" Thick	SF	650		
52	Driveway Approach	SF	2,100		
53	Concrete Stairs	LS	1		
54	ADA Ramp	EA	11		
55	Retaining Wall	LF	223		
56	Short Retaining Wall	LF	212		
57	Asphalt Section (Type 1)	SY	720		
58	Asphalt Section (Type 2)	SY	870		
59	Decorative Rock Parkstrip	SF	1,510		
60	Crosswalk Striping	LF	690		
61	4" Solid White Line	LF	135		
62	8" Solid White Line	LF	100		
63	4" Solid White Line (Parking)	LF	270		
64	Tree	EA	30		
65	Sod with Irrigation	SF	7,600		
66	Rip Rap	SY	6		
67	Right Turn Arrow	EA	2		
68	Construction Survey	LS	1		
69	Quality Control and Material Testing	LS	1		

**TOTAL  
PRICE**

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**SIGNATURE OF PREPARER**

## MEASUREMENT AND PAYMENT

**Item No. 1: Mobilization.** The unit price to be paid for Mobilization shall be considered compensation in full for all labor, materials and equipment required for mobilization, demobilization, installation of temporary facilities, and bringing all necessary construction equipment to the site. This item shall be paid for on a lump sum basis with half of this item paid at the beginning of the project and half paid at the end of the project.

**Item No. 2: 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 and UDOT 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. This item shall be paid for on a lump sum basis with half of this item paid at the beginning of the project and half paid at the end of the project.

**Item No. 3: Storm Water Pollution Prevention Plan.** The unit price to be paid for this item shall be considered compensation in full for all labor, material and equipment necessary to prepare and implement a Storm Water Pollution Prevention Plan, as submitted by the Contractor and approved by the City Engineer. The Contractor is responsible to ensure that no storm water pollution leaves the designated work zone by implementing standard BMP's and common practices approved by the Logan City Engineer. This item shall be paid for on a lump sum basis with half of this item paid at the beginning of the project and half paid at the end of the project.

**Item No. 4: Relocate Fire Hydrant and Adjust to Grade.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to relocate existing fire hydrant. It shall also include any necessary excavation and backfill. This item shall be measured and paid for on a per each basis.

**Item No. 5: Relocate Irrigation Junction Box.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to relocate existing irrigation box, including any required relocations of valves and any required connections to the existing irrigation system. Verify that backflow preventer is installed and is in working order. Install new if necessary. Item shall also include any required excavation and backfill. This item shall be measured and paid for on a per each basis.

**Item No. 6: Relocate Irrigation Junction Box – Reroute Piping as Needed.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to relocate existing irrigation box, including any required relocations of valves, rerouting pipes, and any required connections to the existing irrigation system. Item shall also include any required excavation and backfill. This item shall be measured and paid for on a per each basis.

**Item No. 7: Remove and Replace Fire Hydrant and Assembly.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to connect a new valve to the tee at the water main, install a new service line, and install a new fire hydrant. It shall also include any necessary excavation, removal of existing materials, and backfill. This item shall be measured and paid for on a per each basis.

**Item No. 8: Remove and Replace Water Meter and 1” Service Assembly.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to install a new 1” lateral to the main, vault setter, tapping saddle, corp-stop, and all appurtenances. It shall also include any necessary excavation, removal of existing materials, and backfill. This item shall be measured and paid for on a per each basis.

**Item No. 9: Remove and Replace Water Meter and 2” Service Assembly.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to install a new 2” lateral to the main, vault setter, tapping saddle, corp-stop, and all appurtenances. It shall also include any necessary excavation, removal of existing materials, and backfill. This item shall be measured and paid for on a per each basis.

**Item No. 10: Remove 18” CMP.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove the existing curb 18” storm drain pipe. It shall also include any necessary excavation, pipe cutting, and disposal of the storm drain pipes. This item shall be measured and paid for on a per linear foot basis.

**Item No. 11: Remove and Replace Standard UDOT Catch Basin.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove and replace the existing curb inlet and catch basin. The catch basin shall be installed per typical UDOT standards. It shall also include any necessary excavation, backfill, and connection to existing storm drain pipes. It shall also include cutting and capping of existing storm drain pipe as shown on sheet CU101. This item shall be measured and paid for on a per each basis.

**Item No. 12: Adjust Water Meter Lid – Replace Setter.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to adjust the water meter lid to be flush with the finish grade of the sidewalk. It shall also include any necessary excavation, replacement of setter and appurtenances, and backfill. This item shall be measured and paid for on a per each basis.

**Item No. 13: Adjust Water Meter Lid – Protect Meter in Place.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to adjust the water meter lid to be flush with the finish grade of the sidewalk. It shall also include any necessary excavation and backfill. This item shall be measured and paid for on a per each basis.

**Item No. 14: Remove Existing Sampling Well – Salvage Valve to Owner.** The unit price to be paid for this item shall be considered compensation in full for all labor, materials and equipment necessary to remove the existing sampling well. It shall also include excavation, disposal, and backfill. Existing horizontal pipes shall be cut, and capped, and existing vertical pipes shall be filled with bentonite. Valve to be salvaged to property owner. This item shall be measured and paid for on a per each basis.

**Item No. 15: Relocate Mailbox.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to relocate the mailbox. This item shall be measured and paid for on a per each basis.

**Item No. 16: Relocate Sign.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to relocate sign and necessary post with new foundation. This item shall be measured and paid for on a per each basis.

**Item No. 17: Relocate Business Sign.** The unit price to be paid for this item shall be considered

compensation in full for all labor and equipment necessary to relocate business sign and necessary post with new foundation. This item shall be measured and paid for on a per each basis.

**Item No. 18: Relocate Large Business Sign.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to relocate large business sign with new foundation. This item shall be measured and paid on a per each basis.

**Item No. 19: Relocate Decorative Rock.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to relocate rock as called out in the plans. This item shall be measured and paid on a per each basis.

**Item No. 20: Relocate Backflow Preventer and Water Meter.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to relocate backflow preventer and water meter with all appurtenances including costs/equipment to connect to service lines. This item shall be measured and paid on a per each basis.

**Item No. 21: Raise Sewer Manhole to Grade.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to raise sewer manhole to grade. This item shall be measured and paid for on a per each basis.

**Item No. 22: Raise Water Meter – Adjust Lid to Grade.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to raise water meter per APWA std. plan 541 and adjust the meter lid to grade. Meter lid shall be flush with finished grade of sidewalk. This item shall be measured and paid for on a per each basis.

**Item No. 23: Raise Electrical Box to Grade.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to raise electrical box to grade. This item shall be measured and paid for on a per each basis.

**Item No. 24: Raise Mailbox to Grade.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to raise mailbox to finished grade. This item shall be measured and paid for on a per each basis.

**Item No. 25: Remove Trees, Bushes, and Debris.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to clear area necessary to install the sidewalk in front of the business at 975 S. Hwy 89. Includes disposal of material. This item shall be measured and paid for on a lump sum basis.

**Item No. 26: Remove Tree.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove tree and roots/stump. Also includes any necessary backfill. This item shall be measured and paid for on a per each basis.

**Item No. 27: Remove Retaining Wall and Parkstrip.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove retaining wall and adjoining parkstrip. Includes disposal of material. This item shall be measured and paid for on a per linear foot basis.

**Item No. 28: Remove Concrete Stairs.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove concrete stairs. Includes disposal of material. This item shall be measured and paid for on a lump sum basis.

**Item No. 29: Remove Concrete Curb and Gutter.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove concrete curb and gutter including disposal of material. This item shall be measured and paid for on a per linear foot basis.

**Item No. 30: Remove Concrete Curb.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove concrete curb including disposal of material. This item shall be measured and paid for on a per linear foot basis.

**Item No. 31: Remove Concrete Drive Approach.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove concrete drive approach apron including any required sawcutting. Includes removal and disposal of material. This item shall be measured and paid for on a per square foot basis.

**Item No. 32: Remove Concrete Waterway to Nearest Joint.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove concrete water including any required sawcutting. Includes removal and disposal of material. This item shall be measured and paid for on a per square foot basis.

**Item No. 33: Sawcut and Remove Asphalt and Concrete.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to sawcut and remove asphalt and concrete. Includes removal and disposal of material. This item shall be measured and paid for on a per square foot basis.

**Item No. 34: Sawcut and Remove Asphalt.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to sawcut and remove asphalt. Includes removal and disposal of material. This item shall be measured and paid for per square foot.

**Item No. 35: Remove Pavement Markings.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove and dispose of pavement markings. This item shall be measured and paid for on a per linear foot basis.

**Item No. 36: Remove Existing Parking Lot Striping.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to remove and dispose of pavement markings. This item shall be measured and paid for on a per linear foot basis.

**Item No. 37: Pothole Utility.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to locate and mark utility depths. Each pothole shall consist of a trench at least as wide as the proposed sidewalk, a minimum of 3 feet below existing or finish grade, whichever is lower. Includes disposal of material. Payment also includes backfill and any safety measures to protect hole before backfilling. This item shall be measured and paid for on a per each basis.

**Item No. 38: 18" Corrugated Metal Pipe.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to install pipe. Includes excavation, backfill, regrading, and compaction of trench per Logan City Storm Drain Typical Trench Detail (B/CP504). This item shall be measured and paid for on a per linear foot basis.

**Item No. 39: 12” Corrugated Metal Pipe.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to install pipe. Includes excavation, backfill, regrading, and compaction of trench per Logan City Storm Drain Typical Trench Detail (B/CP504). This item shall be measured and paid for on a per linear foot basis.

**Item No. 40: 2’ x 2’ Concrete Catch Basin.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to install catch basin. This item also includes tying into the existing storm drain system, as well as any excavation, backfill, and compaction. Catch basin shall be installed per detail A/CP504. This item shall be measured and paid for on a per each basis.

**Item No. 41: Drainage Containment Box – 200 Cu. Ft.** The unit price to be paid for this item shall be considered compensation in full for all labor, materials, and equipment necessary to install a curb inlet and drainage box, as well as an ACF environmental R-Tank including all free draining material, sand, geotextile fabric, oil water separator and geogrid. This item shall also include any excavation and removal of existing material, as well as backfill and compaction of sand and free draining material. Drainage containment box to be installed according to detail C/CP504 as well as manufacturer specifications. This item shall be measured and paid for on a lump sum basis.

**Item No. 42: Drainage Containment Box – 300 Cu. Ft.** The unit price to be paid for this item shall be considered compensation in full for all labor, materials, and equipment necessary to install a curb inlet and drainage box, as well as an ACF environmental R-Tank including all free draining material, sand, geotextile fabric, oil water separator and geogrid. This item shall also include any excavation and removal of existing material, as well as backfill and compaction of sand and free draining material. Drainage containment box to be installed according to detail C/CP504 as well as manufacturer specifications. This item shall be measured and paid for on a lump sum basis.

**Item No. 43: Drainage Containment Box – 400 Cu. Ft.** The unit price to be paid for this item shall be considered compensation in full for all labor, materials, and equipment necessary to install a curb inlet and drainage box, as well as an ACF environmental R-Tank including all free draining material, sand, geotextile fabric, oil water separator and geogrid. This item shall also include any excavation and removal of existing material, as well as backfill and compaction of sand and free draining material. Drainage containment box to be installed according to detail C/CP504 as well as manufacturer specifications. This item shall be measured and paid for on a lump sum basis.

**Item No. 44: Drainage Containment Box – 550 Cu. Ft.** The unit price to be paid for this item shall be considered compensation in full for all labor, materials, and equipment necessary to install a curb inlet and drainage box, as well as an ACF environmental R-Tank including all free draining material, sand, geotextile fabric, oil water separator and geogrid. This item shall also include any excavation and removal of existing material, as well as backfill and compaction of sand and free draining material. Drainage containment box to be installed according to detail C/CP504 as well as manufacturer specifications. This item shall be measured and paid for on a lump sum basis.

**Item No. 45: Curb Cut.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to curb cut. This item shall be measured and paid for on a per linear foot basis.

**Item No. 46: Concrete Curb Transition.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install curb transition. This item shall be installed per detail D/CP501. This item shall be measured and paid for on a per linear foot basis.

**Item No. 47: Sidewalk.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to excavate, place and compact base, install formwork, and pour/finish concrete. This item shall be measured and paid for on a per square foot basis.

**Item No. 48: Curb & Gutter (Type B1).** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to excavate, place and compact base, install formwork, and pour/finish concrete. This item shall be measured and paid for on a per linear foot basis.

**Item No. 49: Concrete Curb.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to excavate, place and compact base, install formwork, install reinforcement, and pour/finish concrete all in accordance with project plans and specifications. This item shall be measured and paid for on a per linear foot basis, measured along the roadway face.

**Item No. 50: 4' Concrete Waterway.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to excavate, place and compact base, install formwork, install reinforcement, and pour/finish concrete all in accordance with project plans and specifications. This item shall be measured and paid for on a per linear foot basis, measured along the centerline of the waterway.

**Item No. 51: Concrete Pavement – 10” Thick.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to excavate, place and compact base, install formwork, install reinforcement, and pour/finish concrete all in accordance with project plans and specifications. Pavement shall be 10” thick to match adjacent driveway aprons. Reinforcement shall be wire fiber or wire mesh. This item shall be measured and paid for on a per square foot basis.

**Item No. 52: Driveway Approach.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install driveway approach in accordance with project plans and specifications. Includes excavation and untreated base course. This item shall be measured and paid for on a per square foot basis.

**Item No. 53: Concrete Stairs.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install concrete stairs in accordance with project plans and specifications. This item shall be measured and paid for on a lump sum basis.

**Item No. 54: ADA Ramp.** The unit price to be paid for this item shall be considered compensation in full for all labor and equipment necessary to install ADA Ramp in accordance with project plans and specifications. Includes detectable warning surface. Curb cut and concrete material included in other items. This item shall be measured and paid for on a per each basis.

**Item No. 55: Retaining Wall.** The unit price to be paid for this item shall be considered



compensation in full for all labor, material, and equipment necessary to install retaining wall in accordance with project plans and specifications. Includes excavation and untreated base course. This item shall be measured and paid for on a per linear foot basis.

**Item No. 56: Short Retaining Wall.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install short retaining wall in accordance with project plans and specifications. Includes excavation and untreated base course. This item shall be measured and paid for on a per linear foot basis.

**Item No. 57: Asphalt Section (Type 1).** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install asphalt section (type 1). Includes excavation and untreated base course. This item shall be measured and paid for on a per square yard basis.

**Item No. 58: Asphalt Section (Type 2).** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install asphalt section (type 2). Includes excavation and untreated base course. This item shall be measured and paid for on a per square yard basis.

**Item No. 59: Decorative Rock Parkstrip.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install decorative rock parkstrip. Includes excavation and fabric. This item shall be measured and paid for on a per square foot basis.

**Item No. 60: Crosswalk Striping.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install crosswalk striping. This item shall be measured and paid for on a per linear foot of 12-inch wide line painted.

**Item No. 61: 4" Solid White Line.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install striping. This item shall be installed per UDOT SPEC 2765. This item shall be measured and paid for on a per linear foot of 4-inch wide line painted.

**Item No. 62: 8" Solid White Line.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install striping. This item shall be installed per UDOT SPEC 2765. This item shall be measured and paid for on a per linear foot of 8-inch wide line painted.

**Item No. 63: 4" Solid White Line (Parking).** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install striping. Parking lines shall be installed per UDOT SPEC 2765 (Parking). This item shall be measured and paid for on a per linear foot of 4-inch wide parking line painted.

**Item No. 64: Tree.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install London planetree. This item shall be measured and paid for on a per each basis. This item also includes a 1-year warranty on each tree installed.

**Item No. 65: Sod with Irrigation.** The unit price to be paid for this item shall be considered compensation in full for all labor, material testing, water, and equipment necessary to install sod

with irrigation. Includes excavation, necessary topsoil, sprinkler heads, pipe, connections to the existing water line, backflow preventers, including testing, repairing, and replacing backflow preventers as necessary, and all other appurtenances required for the successful operation of the irrigation system. Contractor shall obtain signature of City and/or property owner before work will be considered completed. A 1-year warranty on all sprinkler system work is included in this item. This warranty specifically includes blowing out the system and winterizing valves, pressure regulators, and backflow preventers before the first winter after the project is completed. This item shall be measured and paid for on a per square foot of new sod basis.

**Item No. 66: Rip Rap.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install Rip Rap. Rip Rap will be installed around the catch basin at station 56+04.21 (CU101), and from said catch basin to the flow line of the existing ditch. This item shall be measured and paid for on a square yard of Rip Rap basis.

**Item No. 67: Right Turn Arrow.** The unit price to be paid for this item shall be considered compensation in full for all labor, material, and equipment necessary to install a Right Turn Arrow pavement marking. Right Turn Arrow shall be white thermoplastic per UDOT SPEC 2768, and shall be installed in conformance with UDOT STD DWG ST 6. This item shall be measured and paid for on a per each basis.

**Item No. 68: Construction Survey.** The unit price to be paid for this item shall be considered compensation in full for all labor, materials and equipment necessary to provide Construction Surveying for the project by a Professional Licensed Surveyor to include survey control verification, construction staking, quantity verification, and as-built survey to include the preparation and delivery of record drawings. This item shall be measured and paid for on a lump sum basis.

**Item No. 69: Quality Control and Material Testing.** This item shall be measured and paid on a lump sum basis matching the percent completion of the construction contract at each invoice. The unit price to be paid for this item shall be considered compensation in full for all subcontractors, labor, materials, and equipment necessary to verify and ensure the quality of the installed project including in part proctor, gradation, CBR values, and compaction testing of the untreated base course and granular borrow, asphalt density, asphalt core samples of the asphalt and other testing required in the APWA 2007 Standard Specifications as amended by Logan City, by UDOT, and in accordance with the design drawings.

# CONTRACTOR QUALIFICATION FORM

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

NAME / DATE OF PROJECT	DOLLAR AMOUNT OF PROJECT	OWNER REFERENCE (NAME AND TELE NO.)	INVOLVEMENT OR ROLE IN PROJECT	COMPLETION	
				ON TIME	WITHIN BUDGET

# **SCHEDULE FOR CONTRACT COMPLETION**

**TO BE PREPARED 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.

# BID BOND

KNOW ALL MEN BY THESE PRESENTS,

that we, the undersigned, \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, are hereby held and firmly bound unto Logan City, as OWNER in the penal sum of \_\_\_\_\_ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors, and assigns.

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 2019. The Condition of the above obligation is such that whereas the Principal has submitted to Logan City a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for the

## **South Main Street Sidewalk Connection Project**

NOW, THEREFORE,

- (a) If the BID shall be rejected, or
- (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.

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

**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: South Main Street Sidewalk Connection-** Right-of-way improvements for 0.5 miles of roadway, including: sidewalk, curb & gutter, lighting, landscaping, utility relocation and other miscellaneous work.

---

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:

## Notice of Award: 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 City of Logan (hereinafter called the OWNER) and \_\_\_\_\_ (hereinafter called CONTRACTOR). 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:

*South Main Street Sidewalk Connection - Right-of-way improvements for 0.5 miles of roadway, including sidewalk, curb & gutter, lighting, landscaping, utility relocation and other miscellaneous work.*

## **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 Critical Dates and Dates for Substantial Completion and Final Payment:

A. All work that will take place in the UDOT roadway including installation of curb, gutter, drive approaches, asphalt pavement, and utility work in the roadway, must be complete by May 31, 2019.

B. The remaining Work will be substantially completed on or before June 28, 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 \$1,000.00 for each day that expires after the

specified times 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 \$ 1,000.00 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**

5.01 OWNER shall pay CONTRACTOR FOR COMPLETION OF THE Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 5.01.A below:

A. For all Work, the sum of:

<p>(use words)</p>	\$	<p>(use figures)</p>
--------------------	----	----------------------

**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.

### 6.03 Final Payment

- 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, 2007 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. Addenda (numbers \_\_\_\_\_ to \_\_\_\_\_, inclusive)
  - 12. Insurance and Bond Requirements

13. 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

14. 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 have duly caused this Agreement to be executed on their respective behalves.

This Agreement will be effective on \_\_\_\_\_, 2019.

OWNER:

CONTRACTOR:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Address for giving notices:

Address for giving notices:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**END OF DOCUMENT**

# CITY OF LOGAN INSURANCE AND BOND REQUIREMENTS

FOR: South Main Street Sidewalk Connection  
December 2018

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 \$2,000,000. 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.

## 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. Logan City, its officers, officials, employees and volunteers are to be covered as additional insureds 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. SUBCONTRACTORS**

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 THAT

WHEREAS, the Principal herein entered into a Contract with Obligee dated \_\_\_\_\_, 20\_\_\_\_, which Contract includes and consists of Advertisement for Bids, Information for Bidders, Proposal, Special Provisions, General Conditions, Contract for Construction, Specifications and Plans, all of which are hereinafter referred to as Contract Documents 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 kind and nature necessary or required in accordance with the terms and conditions set forth in said Contract Documents, and has undertaken to make payment promptly for all such labor (including all sums required to be paid by the laws of the State of Utah for the benefit and welfare of all workers, including workmen's compensation and unemployment security), all taxes of every kind and nature, and for all materials 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 WHEREOF, the parties hereto have caused this Bond to be executed in \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_ .

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Principal

Witnesses:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Surety

Countersigned:

By  
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: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_ Project: South Main Street Sidewalk Connection  
\_\_\_\_\_

You are hereby notified to commence work in accordance with the Contract for Construction dated \_\_\_\_\_, on or before \_\_\_\_\_, 2019, and you are to complete the work within \_\_\_\_\_ consecutive calendar 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 \_\_\_\_\_ 20\_\_\_\_ .

Title

CITY OF LOGAN  
**CHANGE ORDER FORM**

CHANGE ORDER #: \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT NAME: South Main Street Sidewalk Connection

CONTRACTOR: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

<u>Item</u>	<u>Description</u>	<u>Total</u>
CHANGE ORDER AMOUNT: \$ _____		
TOTAL ADJUSTED CONTRACT AMOUNT: \$ _____		
TIME EXTENSION PER THIS CHANGE ORDER: _____		
REVISED COMPLETION 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, SPECIAL PROVISIONS, AND SUPPLEMENTAL SPECIFICATIONS

## TECHNICAL SPECIFICATIONS

See APWA Manual of Standard Specifications, 2007 Edition, As Amended by Logan City. [http://www.loganutah.org/public\\_works/Engineering/stdspecsdesign.cfm](http://www.loganutah.org/public_works/Engineering/stdspecsdesign.cfm)

## STANDARD DRAWINGS

See APWA Manual of Standard Plans, 2007 Edition, As Amended by Logan City. [http://www.loganutah.org/public\\_works/Engineering/stdspecsdesign.cfm](http://www.loganutah.org/public_works/Engineering/stdspecsdesign.cfm)

## SPECIAL PROVISIONS:

- 1- The City has made an attempt to identify potential utility conflicts within the project. It is the responsibility of the Contractor to verify and identify any utility conflicts and coordinate with the utility operator to have the conflict resolved.
- 2- Any closer of an access to a residence or a business shall be coordinated with the property owner, and permission granted from the property owner, before any work can commence at the access location. Where possible, contractor shall perform work on one-half of each driveway or access at any one time to maintain reasonable ingress and egress at affected properties.
- 3- Contractor to notify all residents and business owners a minimum of 48 hours prior to any road closures, access closures, or utility interruptions.
- 4- Final quantities and project locations will be dependent upon bids and the final stimulus budgets.
- 5- 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. Contractor shall complete and submit a hauler agent form and fee waiver form to Logan City.
- 6- Contractor shall complete a right of way permit, including a traffic control plan, and submit it to Logan City.
- 7- Contractor shall complete and submit a UDOT encroachment permit, along with the required fee.
- 8- Weekly progress meetings shall be held by the Contractor with invitations to the City and CRS. Contractor shall coordinate with Logan City to determine time, day, and location of meetings. Contractor shall provide the agenda and minutes for each meeting.
- 9- The Contractor is hereby notified that UDOT is in the process of completing a mill and pave project in the same area of Hwy 89/91 as this project. Coordination with UDOT by the Contractor, Logan City, and CRS will be necessary throughout the duration of the project. Completion of the work within the Hwy 89/91 roadway including curb, gutter, drive approaches, asphalt, utilities in the roadway, etc. must be complete by May 31, 2019 to avoid negatively impacting the UDOT project.
- 10- A CAD file of the design will be provided to the Contractor by CRS upon receipt of a signed release agreement. The Contractor shall use the CAD file at his own risk and if any discrepancies are found, the design drawings, pdf or hard copy, shall supersede any version of the CAD file.



## SUPPLEMENTAL SPECIFICATIONS:

REPLACE PARAGRAPH 1.1 OF SECTION 01 45 00 WITH THE FOLLOWING:

### **1.1 QUALITY CONTROL AND TESTING**

- A. Contractor quality control responsibilities are outlined below.
- B. Contractor shall employ an approved agency to provide testing and observation for placement of untreated base course, subgrade preparation, placement of trenching and backfill, placement of granular borrow material, and asphalt for the project.
- C. Contractor shall employ an agency approved by UDOT to perform testing and sampling of materials placed within the UDOT right of way.
- D. Contractor's quality control testing agency shall provide proctor, gradation, and CBR values for untreated base course material proposed as part of this project.
- E. Contractor's quality control testing agency shall provide field testing and lab sampling of asphalt collected in the field.
- F. Field test results shall be immediately submitted to the Project Manager for the City of Logan, UDOT, and the public works inspector. A copy of the results shall be clearly identified and included in each field test report.
- G. Laboratory test results shall be submitted to the Project Manager for the City of Logan and UDOT within 48 hours of determination.
- H. A final summary report, in tabular form, shall be submitted to the Project Manager for the City of Logan and UDOT prior to final acceptance of the project. The final summary report shall include tabular results showing each failed test and its corresponding passing test.

**SECTION 21 41 00  
REMOVE TREES, BUSHES, AND DEBRIS**

**PART 1      GENERAL**

1.1      SECTION INCLUDES

- A. Remove tree, bushes, and debris in designated areas.

1.2      RELATED WORK

- A. Section 31 11 00 Site Clearing

1.3      REFERENCES      NOT USED

1.4      SUBMITTALS      NOT USED

1.5      PAYMENT PROCEDURES

- A. Work for clearing of trees, stumps, logs, limbs, sticks, vegetation, debris, and other material on the natural ground surface will be considered incidental to other items of work if not designated in the project plans.

**PART 2      PRODUCTS   NOT USED**

**PART 3      EXECUTION**

3.1 REMOVE TREES, BUSHES, AND DEBRIS

- A. Remove any vegetation and other material necessary to the sidewalk installation at the property located at 975 South Hwy 89. Verify with the Engineer the vegetation or objects to be removed.

**END OF SECTION**

**SECTION 32 01 07  
RELOCATE MAILBOX AND STREET SIGN**

ADD THE FOLLOWING SECTION

**3.5 RELOCATE LARGE BUSINESS SIGN**

- A. Remove large business sign by cutting the support at the base.
- B. Remove foundation. Refer to Section 02 41 13 Selective Site Demolition.
- C. Connect existing sign support to sleeve extension with base. Attach to anchor bolts.
- D. Relocate electrical line and attach to new retaining wall.

**END OF SECTION**

**SECTION 32 17 23  
PAVEMENT MARKING PAINT**

**PART 1      GENERAL**

1.1      SECTION INCLUDES

- A.      Furnish acrylic water-based pavement marking paint. Refer to this Section, Article 2.2 for resin requirement.
- B.      Apply to hot mix asphalt or portland cement concrete pavement as longitudinal lines, transverse markings, contrast lines, and other related markings.
- C.      Remove pavement markings.

1.2      RELATED SECTIONS      Not Used

1.3      REFERENCES

- A.      AASHTO M 247: Glass Beads Used in Traffic Paints
- B.      ASTM D 562: Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer
- C.      ASTM D 1155: Roundness of Glass Spheres
- D.      ASTM D 1475: Density of Liquid Coatings, Inks, and Related Products
- E.      ASTM D 1644: Nonvolatile Content of Varnishes
- F.      ASTM D 2205: Selection of Tests for Traffic Paints
- G.      ASTM D 2743: Traffic Paint Vehicle Solids by Spectroscopy and Gas Chromatography
- H.      ASTM D 2805: Hiding Power of Paints by Reflectometry
- I.      ASTM D 3723: Pigment Content of Water-Emulsion Paints by Low-Temperature Ashing
- J.      ASTM D 3960: Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings
- K.      ASTM D 5381: X-Ray Fluorescence (XRF) Spectroscopy of Pigments and Extenders
- L.      ASTM E 1347: Color and Color-Difference Measurement by Tristimulus (Filter) Colorimetry
- M.      Environmental Protection Agency Testing Methods
- N.      Federal Specification

- O. Federal Standards
- P. Manual on Uniform Traffic Control Devices (MUTCD)
- Q. UDOT Materials Manual of Instruction
- R. UDOT Minimum Sampling and Testing Requirements
- S. UDOT Quality Management Plans

#### 1.4 DEFINITIONS

- A. Longitudinal Markings – pavement markings that are generally placed parallel and adjacent to the flow of traffic such as lane lines, center lines, edge lines, channelizing lines, and others.
- B. Transverse Markings – pavement markings that are generally placed perpendicular and across the flow of traffic such as shoulder markings; word, symbol, and arrow markings; stop lines; crosswalk lines; speed measurement markings; parking space markings; and others.
- C. Long-term stationary – work that occupies a location more than 3 days.

#### 1.5 SUBMITTALS

- A. Documentation of the manufacturer and production batch identification for the paint used.

#### 1.6 ACCEPTANCE

- A. Provide fixtures such as ball valves, gate valves, or others on paint truck for the purposes of obtaining field samples.
- B. The Department will:
  - 1. Accept pavement marking paint from qualified manufacturer supplied samples.
  - 2. Sample from the applicator's yard, at the Department's discretion for acceptance.
- C. Stop all agitation before sample is drawn.
- D. The Engineer will:
  - 1. Visually inspect longitudinal lines and transverse markings to verify compliance with the required dimensions.
  - 2. Inspect at the end of each production day or more frequently as required.
  - 3. Verify quantities applied by either of the following methods:
    - a. Measuring both paint and bead tanks before and after application.
    - b. Witnessing the meter readings before and after application.
      - 1) A printout of meter readings instead of witnessing may be accepted at the Engineer's discretion.
  - 4. Sample in the field according to the UDOT Quality Management Plan 513, Pavement Marking Paint and the UDOT Minimum Sampling and Testing Requirements.

- E. Repaint any line or legend failing to meet bead application rates and dimensional requirements. Do not remove earlier application.
- F. Price Reductions
  - 1. Price reductions for pavement markings installed below the specified wet mil thickness are outlined in Table 1.

Table 1

<b>Price Reduction for Wet Mil Thickness</b>	
	<b>Pay Factor</b>
Less than 2 percent below the specified mil thickness	1.00
Less than 10 percent below the Specified wet mil thickness	0.75
Less than 15 percent below the Specified wet mil thickness	0.50
15 percent or more below the Specified wet mil thickness	0.00 *

\* Repaint pavement markings at no cost to the Department. Do not remove earlier application.

- 2. The Department will apply price reductions for applied pavement markings that do not meet the requirements of Table 4 when the batch is sampled at the applicator's yard for quality verification according to UDOT Quality Management Plan 513, Pavement Marking Paint.
  - a. Apply the lowest pay factor from Tables 2 and 3.
- 3. The Department will require repainting for pavement markings more than five percentage points below total solids, pigment, or non-volatile vehicle properties from Table 4 when the project is sampled for quality verification according to Minimum Sampling and Testing Requirements.

Table 2

<b>Price Reduction for Total Solids, Pigment and Non-Volatile Vehicle</b>	
	<b>Pay Factor</b>
Less than 0.5 percent below or above the specified percentage	1.00
Less than 1.0 percent below the specified percentage	0.95
Less than 2.0 percent below the specified percentage	0.85
2.0 percent or more below the specified percentage	0.00 *

\* Repaint pavement markings at no cost to the Department. Do not remove earlier application.

Table 3

<b>Price Reductions for remaining requirements of Table 4</b>	
	<b>Pay Factor</b>
Less than 0.2 percent deficient	1.00
Less than 1 percent deficient	0.90
Less than 2 percent deficient	0.80
Less than 3 percent deficient	0.70
Less than 4 percent deficient	0.60
Less than 5 percent deficient	0.50
5 percent or more below specified quantitative requirements	0.00 *

\* Repaint pavement markings at no cost to the Department. Do not remove earlier application.

## PART 2 PRODUCTS

### 2.1 PAINT

- A. Meet the requirements for Acrylic Water Based Paint specified in Table 4.

Table 4

Paint Requirements				
Property	White	Yellow	Black	Test
Pigment – Percent by weight, minimum	62.0	62.0	62.0	ASTM D 3723
Total Solids – Percent by weight, minimum	77.0	77.0	77.0	ASTM D 1644
Nonvolatile vehicle – Percent by weight vehicle, minimum*	43.0	43.0	43.0	ASTM D 3723 ASTM D 1644
Viscosity, KU @ 77 degrees F	80 – 95	80 – 95	80 – 95	ASTM D 562
Density, lb/gal, minimum	14.0	14.0	14.0	ASTM D 1475
Volatile Organic Content (VOC) – g/L, maximum	100	100	100	ASTM D 3960
Titanium Dioxide Content, lb/gal	1.0 min	0.2 max	N/A	ASTM D 5381
Color Definition	37875	33538	N/A	Federal Standard 595B
Directional Reflectance Minimum	90.0	50.0	N/A	ASTM E 1347
Dry Opacity – Minimum (5 mils wet)	0.95	0.95	N/A	ASTM D 2805

\* Binder – 100 percent acrylic cross-linking polymer, by weight, as determined by infrared analysis and other chemical analysis available to the Department. Refer to ASTM D 2205.

- B. No-Pick-Up Time
1. Paint may not smear or track three minutes after application to the roadway using standard application equipment, at the mil thickness required, and with an ambient shaded temperature of at least 50 degrees
- C. Additional Requirements
1. Free of lead, chromium, or other related heavy metals. Refer to ASTM D 5381.
  2. Refer to ASTM D 2743 and ASTM D 5381 for tests used to verify paint samples meet ASTM requirements.

### 2.2 GLASS SPHERES (BEADS) USED IN PAVEMENT MARKING PAINT

- A. Heavy metal concentration: Manufacturer must provide a certificate of compliance stating that all beads contain no more than the amounts listed for the following materials as determined by testing performed according to EPA test methods 3052 and 6010C.

1. Other suitable x-ray fluorescence spectrometry analysis methods may be used to screen samples of glass spheres for arsenic, antimony and lead content.

Table 5

<b>Heavy Metal Materials</b>	
<b>Material</b>	<b>Level (ppm, total)</b>
Arsenic	200
Antimony	200
Lead	200

- B. Longitudinal Lines – Refer to AASHTO M 247, Specific Properties, with the following exceptions:

1. Gradation:

Table 6

<b>Gradation</b>	
<b>Sieve Size</b>	<b>Accumulated Percent Passing</b>
No. 18	65 – 80
No. 30	30 – 50
No. 50	0 – 5

2. Coating – Dual coating for optimum adhesion and embedment.
3. Roundness – 80 percent true spheres below the number 30 sieve. Refer to ASTM D 1155
4. Color/Clarity – Colorless/clear and free of carbon residue.
5. Refractive Index – Minimum 1.51 by oil immersion method.
6. Air Inclusions – Less than 5 percent by visual inspection.
7. Hardness – Beads above the number 30 sieve exhibit an average hardness of C70.5 when measured using the Rockwell C scale method and using a minimum sample of 100 beads.
8. Crushing Strength – Beads above the number 30 sieve exhibit an average crushing strength of 60,000 psi when measured by the  $L/D^2$  method and with a minimum sample of 100 beads.
9. Chemical Resistance – Beads resistant to hydrochloric acid, water, calcium chloride, and sodium sulfide. TT-B Federal Specification 1325C sections 4.3.6 to 4.3.9.

- C. Transverse Markings – Refer to AASHTO M 247, Specific Properties, with the following exceptions:

1. Gradation:

Table 7

<b>Gradation</b>	
<b>Sieve Size</b>	<b>Accumulated Percent Passing</b>
No. 20	90 – 95
No. 30	45 – 70
No. 50	5 – 25
No. 80	0 – 5

2. Coating – Dual coating for optimum adhesion and embedment.
3. Roundness – The glass beads will have at least 75 percent true spheres.
4. Refractive index – Minimum 1.51 by oil immersion method.
5. Air Inclusions – Less than 10 percent by visual inspection.



- 6. Have at least 80 percent true spheres.
- D. Beads used in Temporary Pavement Markings. Meet the above or AASHTO M 247 Type II uniform gradation.

**PART 3 EXECUTION**

**3.1 PREPARATION**

- A. Line Control
  - 1. Establish control points at 100 ft intervals on tangent and at 50 ft intervals on curves.
  - 2. Maintain the line within 2 inches of the established control points and mark the roadway between control points as needed.
    - a. Remove paint that is not placed within tolerance of the established control points and replace. Refer to this Section, Article 3.4.
    - b. Maintain the line dimension within 10 percent of the width and length dimensions defined in Standard Drawings.
- B. Remove dirt, loose aggregate, curing compounds, and other foreign material and follow manufacturer’s recommendations for surface preparation.

**3.2 APPLICATION**

- A. Use Qualified Applicators as identified in UDOT Quality Management Plan 513, Pavement Marking Paint.
- B. Apply Pavement marking paint at the following wet mil thickness:
  - 1. 20-25 wet mils for all longitudinal markings.
  - 2. **Approximate** application rate for required mil thickness requirements:
    - a. 4 inch Solid Line – From 190 to 240 ft/gal
    - b. 4 inch Broken Line – From 760 to 960 ft/gal
    - c. 8 inch Solid Line – From 95 to 120 ft/gal. Use the following calculation to determine wet mil thickness if approximation is outside the range for the desired line type.

**Calculation** – Determine wet mil thickness

$$4 \text{ inch Solid Line – Wet mils} = \frac{4812.516 \text{ ft}^3/\text{gal mil/ft}}{X \text{ ft/gal}}$$

$$4 \text{ inch Broken Line – Wet mils} = \frac{19250.064 \text{ ft}^3/\text{gal mil/ft}}{X \text{ ft/gal}}$$

$$8 \text{ inch Solid Line – Wet mils} = \frac{2406.258 \text{ ft}^3/\text{gal mil/ft}}{X \text{ ft/gal}}$$

Where: X = application rate. (Meter readings or dipping tanks).

- C. Refer to Table 1 for price reduction of pavement markings that are less than required wet mils in thickness.

- D. No additional payment for pavement markings placed in excess of required wet mils in thickness or exceeding dimensional requirements outlined in this Section, Article 3.2 paragraph B.
- E. Glass Sphere (Beads) – Apply at least 8 lb/gal of paint, the full length and width of line and pavement markings.
  - 1. Calibrate bead guns and measure bead distribution according to UDOT Materials Manual of Instruction 932, Procedure for Sampling and Accepting Pavement Marking Paint and Beads.
  - 2. Do not apply glass beads to contrast lines (black paint).
- F. Begin striping operations no later than 24 hours after notification by the Engineer.
  - 1. Apply two applications on new bituminous surfaces.
    - a. Verify timing of second application with the Engineer.
- G. Apply lines and pavement markings only when the air and pavement temperature are:
  - 1. 50 degrees F and rising for Acrylic Water Based Paint.
    - a. Non-grooved lines and markings applied at temperatures below 50 degrees F are temporary and must be repainted, when temperature conditions are met.
      - 1) Do not remove earlier application.
    - b. Grooved lines and markings applied below 50 degrees F must be removed and reapplied when temperature conditions are met.
- H. Comply with TC Series Standard Drawings.

### 3.3 CONTRACTOR QUALITY CONTROL

- A. Adhere to the requirements of UDOT Quality Management Plan 513, Pavement Marking Paint

### 3.4 REMOVE PAVEMENT MARKINGS

- A. Use equipment specifically designed for removal of pavement marking material.
- B. Use one of these removal methods
  - 1. High pressure water spray
  - 2. Sand blasting
  - 3. Shot blasting
- C. Do not use grinding without approval from the Engineer. The Engineer will consult with the Region Traffic Operations Engineer before issuing approval.
- D. Do not eliminate or obscure existing striping, instead of removal, by covering with black paint or any other covering.
  - 1. The Engineer may approval for use of black paint or other obscuring material prior to installation for work durations shorter than “long term stationary” as defined in this Section, Article 1.4 and in the Temporary Traffic Control section of the MUTCD.

**END OF SECTION**

**SECTION 32 93 00  
DECORATIVE ROCK PARKSTRIP**

**PART 1      GENERAL**

1.1      SECTION INCLUDES

- A. Placement of Decorative Rock Parkstrip & Weed Barrier.

1.2      RELATED WORK

- B. Section 32 93 13 Ground Cover
- C. Section 32 91 19 Landscape Grading

1.3      REFERENCES      NOT USED

1.4      SUBMITTALS      NOT USED

**PART 2      PRODUCTS**

2.1 WEED BARRIER FABRIC

- A. USE DEWITT 20YR350 WEED BARRIER FABRIC OR EQUIVALENT

**PART 3      EXECUTION**

3.1 DECORATIVE ROCK PARKSTRIP

- A. Excavate landscaping area to 6" deep.
- B. Place weed fabric with staples/stakes with minimum 12" overlap.
- C. Place landscaping rock that is 6" minus in diameter so as to fully cover ground with no gaps or showing of the weed barrier.

**END OF SECTION**