

SPECIAL PROVISIONS & SUPPLEMENTAL SPECIFICATIONS

CSI-Inch/Pound

Project No:	F-0173(26)7
PIN Desc:	SR-173; Redwood Rd. to State Street
Concept:	Minor Rehabilitation - Roadway
Location:	SR-173; MP 7.05 - 9.20
County:	SALT LAKE
Bid Opening:	April 21, 2015

Date

THIS PROJECT REQUIRES USING THE ELECTRONIC CERTIFIED PAYROLL PROGRAM. SEE ATTACHMENT TO NOTICE TO CONTRACTORS. THIS IS A P+T PROJECT. QUALIFIED HEALTH INSURANCE APPLIES.



**Project # F-0173(26)7
Pin # 11494**

November 20, 2014

2012 - Standards

Table of Contents

- I. [Statement of 2012 Standard Specifications and Standard Drawings for Road and Bridge Construction applicability](#)
- II. [List of Supplemental Drawings \(November 20, 2014\)](#)
- III. [Materials Minimum Sampling and Testing](#)
- IV. [Notice to Contractors](#)
- V. [Bidding Schedule](#)
- VI. [Measurement and Payment](#)
- VII. [Standard Drawing Index \(November 20, 2014\)](#)
- VIII. [Use of Minority or Women Owned Banks](#)
- IX. [Bid Conditions Disadvantaged Business Enterprise
Contract DBE Goal Percentage
DBE Bid Assurance, Part A or Part B Goal Percentages](#)
- X. [Attention Contractors E.E.O Affirmative Action Requirements](#)
- XI. [Specific Equal Employment Opportunity Responsibilities
Training Hours](#)
- XII. [Title VI Appendix A and E \(November 20, 2014\)](#)
- XIII. [Required Contract Provisions, Federal-Aid Construction Contracts \(FHWA -1273\)](#)
- XIV. [Wage Rates Applicable/Wage Rates Non-Applicable](#)
- XV. [Special Provisions and Supplemental Specifications \(November 20, 2014\)](#)

Federal Projects With Full Size Plan Sheets

	<u>Section No.</u>	<u>Title – Type (current date)</u>
1.	00120M	Bidding Requirements and Conditions – Supplemental Specification (06/26/14)
2.	00221S	Bidding Contract Time – Innovative Contracting (P+T) Special Provision (11/24/14)
3.	00515M	Contract Award and Execution – Construction Special Provision (09/15/14)
4.	00555M	Prosecution and Progress – Innovative Contracting Special Provision (11/24/14)
5.	00570M	Definitions – Supplemental Specification (11/06/14)
6.	00725M	Scope of Work – Innovative Contracting (P+T) Special Provision (11/24/14)
7.	00727M	Control of Work – Supplemental Specification (02/28/13)
8.	00820M	Legal Relations and Responsibility to the Public – Supplemental Specification (02/27/14)
9.	01282M	Payment – Supplemental Specification (06/27/13)
10.	01315S	Public Information Services – Project Special Provision (04/29/13)
11.	01355M	Environmental Compliance – Supplemental Specification (10/31/13)
12.	01455M	Materials Quality Requirements – Materials Special Provision (04/17/13)
13.	01456M	Materials Dispute Resolution – Supplemental Specification (02/28/13)
14.	01554M	Traffic Control – Supplemental Specification (11/06/14)
15.	01557S	Maintenance of Traffic (MOT) – Traffic and Safety Special Provision (06/25/09)
16.	01571M	Environmental Controls – Special Provision (11/14/14)
17.	01571	Temporary Environmental Controls – Supplemental Specification (11/06/14)
18.	01721M	Survey – Supplemental Specification (04/25/13)
19.	02056M	Embankment, Borrow, and Backfill – Supplemental Specification (02/27/14)
20.	02216S	Pothole Utility – Special Provision (11/24/14)
21.	02316M	Roadway Excavation – Special Provision (11/24/14)
22.	02316M	Roadway Excavation – Supplemental Specification (06/26/14)
23.	02411S	Waterline Installation – Special Provision (11/24/14)
24.	02610	Drainage Pipe – Supplemental Specification (02/27/14)
25.	02621S	Trench Drain – Hydraulics Special Provision (11/05/14)
26.	02737S	Asphalt Pavement Soft Spot Repair – Special Provision (02/03/10)
27.	02741M	Hot Mix Asphalt – Materials Special Provision (09/08/14)
28.	02742S	Project Specific Surfacing Requirements – Department Special Provision (11/24/14)
29.	02746M	Hydrated Lime – Materials Special Provision (11/14/12)
30.	02752M	Portland Cement Concrete Pavement – Supplemental Specification (11/06/14)

Federal Projects With Full Size Plan Sheets

31. 02765M Pavement Marking Paint – Supplemental Specification (06/26/14)
32. 02768M Pavement Marking Materials – Supplemental Specification (08/29/13)
33. 02769S Grinding for Grooved-In Pavement Markings – Materials Special Provision (11/24/14)
34. 02771M Curbs, Gutters, Driveways, Pedestrian Access Ramps, And Plowable End Sections – Special Provision (11/24/14)
35. 02771M Curbs, Gutters, Driveways, Pedestrian Access Ramps, And Plowable End Sections – Supplemental Specification (11/06/14)
36. 02776M Concrete Sidewalk, Median Filler, and Flatwork – Special Provision (11/24/14)
37. 02814S Reestablish Existing Landscape and Irrigation System – Special Provision (03/19/13)
38. 02843M Crash Cushions and Barrier End Treatments – Supplemental Specification (06/27/13)
39. 02861S Landscape Wall – Special Provision (11/24/14)
40. 02890M Retroreflective Sheeting – Supplemental Specification (11/06/14)
41. 02891M Traffic Sign – Supplemental Specification (02/28/13)
42. 02924S Invasive Weed Control – Department Special Provision (02/28/13)
43. 02961M Rotomilling – Special Provision (08/17/11)
44. 02981M Grinding Pavement – Special Provision (03/12/09)
45. 03055M Portland Cement Concrete – Supplemental Specification (04/25/13)
46. 03924M Structural Concrete Repair and Sealing – Supplemental Specification (08/30/12)
47. 07922M Joint Sealing – Structures Special Provision (10/06/14)
48. 13551M General ATMS Requirements – ATMS Special Provision (06/27/13)
49. 13551M General ATMS Requirements – Supplemental Specification (04/25/13)
50. 13553M ATMS Conduit – Supplemental Specification (08/29/13)
51. 13555M ATMS Cabinet – ATMS Special Provision (06/27/13)
52. 13557M Variable Message Sign – Supplemental Specification (10/25/12)
53. 13561M ATMS Power Service – ATMS Special Provision (06/27/13)

I. 2012 Standard Specifications and Standard Drawings

The 2012 State of Utah Standard Specifications for Road and Bridge Construction and Standard Drawings Books apply on this project as static Specification and Drawing Books as well as all other applicable specification and drawing changes.

Refer to Part XV for other project specific specifications.

II. List of Supplemental Drawings

This page will be periodically updated to list all approved drawings by date of issue. Include Supplemental Drawings that are applicable to the project at the end of the Plan Set. Update Plan Set Sheet 1A with a listing of the applicable Supplemental Drawings.

Issue Date: September 19, 2012

Revised August 30, 2012

BA 2E	Precast Concrete Half Barrier – 32 Inch New Jersey Shape
BA 3L	Precast Concrete Constant Slope Half Barrier – 42 Inch
BA 4B4	W-Beam Guardrail Median Barrier Transition Hardware and Layout
BA 4D1	W-Beam Guardrail Installations
BA 4E2	W-Beam Guardrail with Curb and Gutter \geq 5 Inches
BA 4F1	W-Beam Guardrail Buried In Backslope Terminal
BA 4H4	W-Beam Guardrail with Precast Barrier For Span \geq 25 Ft
CB 11	Precast Concrete Standard Manhole
DD 14B	Typical Rural 2 Lane Road Intersection (Low Speed)
GW 5A	Pedestrian Access
GW 5B	Pedestrian Access
GW 5C	Pedestrian Access
SN 14D	Freeway Sign Frame Fabrication Details
SN 14E	Freeway Sign Bracket Details
TC 1	Traffic Control Drawing Series General Notes
TC 2B	Work Zone Signing
TC 3A	Hazard Mitigation
TC 4A	Standard Work Zone Signing General
TC 4B1	Reduced Speed Work Zone Signing General
TC 4B2	Reduced Speed Shoulder Work Zone Signing General
TC 4C	Traffic Control Project Limit Signing
TC 4D2	Work Zone Specialty Signs
TC 7	Median Crossover and 2-Lane, 2-Way Diversion
TC 18	Blunt End Protection for W-Beam Guardrail and Concrete Barrier
TC 19	Construction Access Points for Speeds of 55 MPH and Greater

Issue Date: November 14, 2012

Revised October 25, 2012

PV 03	Concrete Pavement Details 1 of 2
PV 04	Concrete Pavement Details 2 of 2

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Issue Date: March 14, 2013

Revised February 28, 2013

AT 5A	Ramp Meter Detection Layout
AT 5B	Ramp Meter Queue Detection Layout
AT 5C	Ramp Meter Detection Zone Number Assignment
BA 4D3	W-Beam Guardrail Typical Line Post Embedment Special Conditions
CB 11	Precast Concrete Standard Manhole
DD 8	Structural Geometric Design Standards for Clearances
GW 4A	Concrete Driveways and Sidewalks
GW 4B	Concrete Driveways and Sidewalks
GW 5A	Pedestrian Access
GW 5B	Pedestrian Access
GW 5C	Pedestrian Access
GW 11	Sidewalks and Shoulders On Urban Roadways
PV 9	Dowel Bar Retrofit
SL 16	Solar Traffic Counting Station
SN 10A	Slipbase Sign Base (B3) Hardware
SN 10B	Slipbase Sign Base (B3) Installation
TC 3A	Hazard Mitigation

Issue Date: May 9, 2013

Revised April 25, 2013

AT 18	Utility Marker Post Details
GW 12A1	Active Pedestrian Controls for Railroad Crossings Sheet 1 of 2
GW 12A2	Active Pedestrian Controls for Railroad Crossings Sheet 2 of 2
GW 12B1	Passive Pedestrian Controls for Railroad Crossings Sheet 1 of 2
GW 12B2	Passive Pedestrian Controls for Railroad Crossings Sheet 2 of 2
GW 12C1	Pedestrian Controls Semi-Exclusive Railroad Alignments Sheet 1 of 2
GW 12C2	Pedestrian Controls Semi-Exclusive Railroad Alignments Sheet 2 of 2
GW 12D	Pedestrian Controls Street Running Railroad Alignment Signalized Intersections
GW 12E	Pedestrian Controls Street Running Railroad Alignment Unsignalized Intersections

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Issue Date: July 17, 2013

Revised June 27, 2013

AT 6	Conduit Details
CC 8A	Grading and Installation Details Crash Cushion Type G
CC 8B	Grading and Installation Details for "3R" Projects End Treatment Type G
DD 18	Utility Location Requirements
ST 9	Location of Bicycle Detector Pavement Markings at Intersection
ST 10	Location of Bicycle Detector Pavement Markings in Bicycle Lane

Issue Date: September 16, 2013

Revised August 29, 2013

BA 4C1	W-Beam Guardrail Anchor Type 1
BA 5B1	Cable Barrier Placement
BA 5J1	Cable Barrier Median Hazard Protection
BA 5J2	Cable Barrier Span Greater Than or Equal 15 Ft to Less Than or Equal 30 Ft
ST 10	Location of Bicycle Detector Pavement Markings in Bicycle Lane

Issue Date: November 21, 2013

Revised October 31, 2013

AT 11A	CCTV Pole Mounting Details
AT 11B	Non-Intrusive Detector Mounting Details
AT 11C	Pole Mounted Cabinet Bracket
AT 15	RWIS Site and Foundation Details
AT 16	RWIS Tower Base and Service Pad Layout
AT 17	RWIS Ground Rod Installation and Tower Grounding
BA 1E	Concrete Barrier Column Protection
BA 4B3	W-Beam Guardrail Transition Curb Sections
BA 4G	W-Beam Guardrail Curve Breakaway Details
BA 5D1	Median Cable Barrier W-Beam Double Sided and Freeway Crossover Anchor System (Type C; C.A.T., Brakemaster)
BA 5D2	Median Cable Barrier W-Beam Double Sided and Freeway Crossover Anchor System (Type C; FLEAT-MT)
GW 1B	Raised Island and Plowable End Section
GW 1D	Median Reflector Details
GW 5C	Pedestrian Access
PV 10	Utility Orientation/Adjustments in PCCP
SL 6	Signal Head Details
SN 2A	School Speed Limit Assembly
SN 3	Overhead School Speed Limit Assembly
SN 6	Speed Reduction Sign Sequence
SN 13A	Tubular Steel Sign Mounting Requirements

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TC 4D1	Work Zone Specialty Signs
TC 4D2	Work Zone Specialty Signs
TC 17	Traffic Control Work Zone Guardrail Intermediate End Protection

Issue Date: March 13, 2014

Revised February 27, 2014

BA 1E	Concrete Barrier Column Protection
DG 3	Fill Height for Plastic and Concrete Pipe
DG 4	Pipe Minimum Cover
DG 5	Drainage Pipe Installation
DG 10	Miscellaneous Pipe Details
SN 13C	Mounting Bar Placement for Small Signs

Issue Date: July 14, 2014

Revised June 26, 2014

BA 1A2	Concrete Barrier General Notes and Standard Details 2 of 2
BA 2A	Precast Concrete Barrier – 32 Inch New Jersey Shape
BA 2C	Precast Concrete Barrier – 32 Inch New Jersey Shape, Median Small Sign Section
BA 2D	Cast-In-Place Concrete Barrier – 32 Inch New Jersey Shape, 42 Inch Constant Slope Barrier Transition
BA 2E	Precast Concrete Half Barrier – 32 Inch New Jersey Shape
BA 4G	W-Beam Guardrail Curve Breakaway Details
BA 5B1	Cable Barrier Placement
BA 5B2	Cable Barrier Placement
GW 1C	Raised Island Details
PV 3	Concrete Pavement Details 1 of 2
SL 16	Solar Traffic Counting Station
TC 2C	Work Zone Advanced Warning Arrow Boards

Issue Date: November 20, 2014

Revised November 6, 2014

GW 5A	Pedestrian Access
GW 5B	Pedestrian Access
GW 5C	Pedestrian Access
GW 5D	Pedestrian Access
PV 3	Concrete Pavement Details 1 of 2
SL 1A	Traffic Signal Mast Arm Pole and Luminaire Extension
SL 4	Traffic Signal Mast Arm Pole Foundation
SL 7	Pedestrian Signal Assembly
SN 2A	School Speed Limit Assembly

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SN 16A	Multi-Directional Breakaway Base for Steel I-Beam Supports, General Notes
SN 16B	Multi-Directional Breakaway Base for Steel I-Beam Sign Supports, Two Posts
SN 16C	Multi-Directional Breakaway Base for Steel I-Beam Sign Supports, Three Posts
SN 16D	Multi-Directional Breakaway Base for Steel I-Beam Sign Supports, Foundation Details
SN 16E	Multi-Directional Breakaway Base for Sign Post, (B7A)
SN 16F	Multi-Directional Breakaway Base for Sign Post, (B7B)
SN 16G	Multi-Directional Breakaway Base for Sign Post, (B7C)
SN 16H	Multi -Directional Breakaway Base for Round Pipe Single Post, (B7D)
SN 16I	Multi -Directional Breakaway Base for Round Pipe Double Post, (B7D)
ST 9	Location of Bicycle Detector Pavement Markings at Intersection
ST 10	Location of Bicycle Detector Pavement Markings in Bicycle Lane
TC 14A	Traffic Control Flagging Operation
TC 14B	Reduced Speed Signing for Pilot Car Operation (Conventional Roads)

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III. Materials Minimum Sampling and Testing Requirements

Follow the requirements of the Materials Minimum Sampling and Testing Requirements: <http://www.udot.utah.gov/go/mstr>

IV. Notice to Contractors



NOTICE TO CONTRACTORS

Sealed proposals will be received by the Utah Department of Transportation UDOT/DPS Building (4th Floor), 4501 South 2700 West, Salt Lake City, Utah. 84114-8220, until 2 o'clock p.m. Tuesday, April 21, 2015, and at that time the download process of bids from the Project Delivery System to UDOT will begin, with the public opening of bids scheduled at 2:30 for SR-173; Redwood Rd. to State Street, Minor Rehabilitation - Roadway of SR-173; MP 7.05 - 9.20 in SALT LAKE County, the same being identified as Federal Aid Project No: F-0173(26)7.

Federal Regulations:

Davis-Bacon wages apply to this project and are made a part of these contract documents as required in the provisions of the Federal-Aid Highway Act of 1968. This contract is subject to all appropriate Federal Laws, including Title VI of the Civil Rights Act of 1964 and the Fair Labor Standards Act of 1938, (52 Stat. 1060).

SEE CERTIFIED PAYROLL SPECIAL REQUIREMENTS ATTACHEMENT.

Project Location: SR-173; MP 7.05 - 9.20

The principal items of work are as follows (for all items of work see attachment):

- HMA - 1/2 inch
- Open Graded Surface Course
- Rotomilling - 4 Inch

The project is to be completed: to be determined by competitive bid.

Other Requirements:

All project bidding information, including Specifications and Plans, can be viewed, downloaded, and printed from UDOT's Project Development Construction Bid Opening Information website, <http://www.udot.utah.gov/cns/bidopeninfo.htm>. To bid on UDOT projects, bidders must use UDOT's Electronic Bid System (EBS). The EBS software is also available on this website.

Project information can also be reviewed at the main office in Salt Lake City, its Region offices, and its District offices in Price, Richfield, and Cedar City.

Project Plans cannot be downloaded or printed from the website unless your company is registered with UDOT. Go to UDOT's website to register. Registered companies may also obtain a **CD**, that contains the Specifications and Plans, from the main office, 4501 South 2700 West, Salt Lake City, (801) 965-4346, for a fee of \$20.00, plus tax and mail charge, if applicable, none of which will be refunded.

Prequalification of bidders is required. Prior to submitting a bid, the bidder must have on file with the Utah Department of Transportation a completed and approved contractor's application for prequalification. Department processing time is 10 working days from receipt of properly executed documentation. Qualified Health Insurance is required on this project. Insurance must be submitted with executed contracts. See Standard Specification 00515 - 1.11(A).

As required, a contractor's license must be obtained from the Utah Department of Commerce.

Each bidder must submit an electronic bid bond from an approved surety company using UDOT's Electronic Bid System (EBS); or in lieu thereof, cash, certified check, or cashier's check for not less than 5% of the total amount of the bid, made payable to the Utah Department of Transportation, showing evidence of good faith and a guarantee that if awarded the contract, the bidder will execute the contract and furnish the contract bonds as required.

The right to reject any or all bids is reserved.

If you need an accommodation under the Americans with Disabilities Act, contact the Construction Division at (801) 965-4346. Please allow three working days.

Additional information may be secured at the office of the Utah Department of Transportation, (801) 965-4346.

Dated this 28th day of March, 2015.

**UTAH DEPARTMENT OF TRANSPORTATION
Carlos M. Bracerias, P.E., Director**

Revised Date:

Revised December 3, 2012

NOTICE TO CONTRACTORS

Special Requirements Attachment **CERTIFIED PAYROLL**

Effective as of 11/02/2009, construction contractors awarded a Federal-aid construction project are required to submit weekly certified payrolls to the Utah Department of Transportation using the (UDOT) Electronic Certified Payroll Program available in the UDOT Project Development Business System (PDBS). Submittal may be accomplished using one of two available options;

Option 1

The Contractor creates and continues to use the company's existing payroll software program to import the weekly certified payroll.

The software program format utilized by the Contractor must be certified by UDOT prior to the first import submittal.

Option 2

The Contractor can access and utilize the Contractor Module in PDBS and enter the certified payroll information and submit to the UDOT project office. After the first payroll submission, personal addresses and full social security numbers are not to be used. After the first payroll submission of an employee, contractors and subcontractors must use the last four digits of the employee's social security number as an identifier.

Effective as of December 3, 2012, a \$50 disincentive will be charged for each payroll not entered into the UDOT Electronic Certified Payroll Program within 7 days of the Payroll Date. This disincentive applies to both the General Contractor and all Subcontractors where Davis Bacon Wages apply.

For questions contact the Civil Rights Office.

Federal Projects With Full Size Plan Sheets

V. Bidding Schedule

Utah Department of Transportation Bidder's Schedule

Bid Opening Date: 4/21/2015

Region: REGION 2

Project Number: F-0173(26)7

County: SALT LAKE

PIN Description: SR-173; Redwood Rd. to State Street

Concept: Minor Rehabilitation - Roadway

Location: SR-173; MP 7.05 - 9.20

Funding: FEDERAL

Bid Items Version#: 1

DBE Goal: 8.00%

#	Item	Description	Quantity	Unit
10 - ROADWAY				
1	00830001U	Equal Opportunity Training	500	hour
2	012850010	Mobilization	1	lump sum
3	01315001*	Public Information Services	1	lump sum
4	01554000P	Traffic Control	1	lump sum
5	01557001*	Maintenance of Traffic	1	lump sum
6	01571002*	Check Dam (6" Bag - Stone Filled)	23	each
7	01571003*	Check Dam (12" Bag - Fiber Roll)	8	each
8	01571007P	Drop-Inlet Barrier (6" Bag - Stone Filled)	23	each
9	015720020	Dust Control and Watering	60	1000 gallons
10	018910020	Move Mailbox	1	each
11	018920010	Reconstruct Catch Basin	9	each
12	018920020	Reconstruct Cleanout Box	7	each
13	018920040	Reconstruct Valve Box	17	each
14	018920050	Reconstruct Manhole	31	each
15	018920060	Reconstruct Monument Box	3	each
16	020560020	Granular Borrow	1647	ton
17	02216001*	Pothole Utility	23	each
18	022210050	Remove Tree	3	each
19	02221007P	Remove Bollard	1	each
20	02221010P	Remove Plastic Junction Box	1	each
21	022210110	Remove Concrete Sidewalk	774	square yard
22	022210115	Remove Concrete Driveway	74	square yard
23	022210120	Remove Concrete Curb	378	foot
24	022210125	Remove Concrete Curb and Gutter	1724	foot
25	02221014P	Remove Raised Island	1920	square yard
26	022210150	Remove Concrete Pavement	90	square yard
27	02221015P	Remove Raised Median	331	foot
28	022210165	Remove Asphalt Pavement	263	square yard
29	022310020	Clearing and Grubbing (Plan Quantity)	1	acre
30	02316002*	Roadway Excavation of Contaminated Soils (Plan Quantity)	124	cubic yard
31	02316002P	Roadway Excavation (Plan Quantity)	2527	cubic yard
32	023180020	Surface Ditch	214	foot
33	02411001*	Relocate Fire Hydrant	1	each
34	02411002*	Remove Meter Box	1	each
35	027210010	Untreated Base Course	1169	ton
36	02737001*	Asphalt Pavement Soft Spot Repair - Type A	1000	square yard
37	02737002*	Asphalt Pavement Soft Spot Repair - Type B	1000	square yard
38	02741005P	HMA - 1/2 inch	21400	ton
39	02748006P	Emulsified Asphalt CQS-1H	52	ton
40	02752002P	Portland Cement Concrete Pavement 8 inch Thick	395	square yard
41	027650030	Remove Pavement Message	967	foot

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

Utah Department of Transportation Bidder's Schedule

Bid Opening Date: 4/21/2015

Region: REGION 2

Project Number: F-0173(26)7

County: SALT LAKE

PIN Description: SR-173; Redwood Rd. to State Street

Concept: Minor Rehabilitation - Roadway

Location: SR-173; MP 7.05 - 9.20

Funding: FEDERAL

Bid Items Version#: 1

DBE Goal:

#	Item	Description	Quantity	Unit
10 - ROADWAY				
42	027650040	Remove Pavement Message	5	each
43	027650050	Pavement Marking Paint	17	gallon
44	027680005	4 inch Pavement Marking Tape - White	20446	foot
45	027680010	8 inch Pavement Marking Tape - White	11001	foot
46	027680015	4 inch Pavement Marking Tape - Yellow	22934	foot
47	027680105	Pavement Message (Preformed Thermoplastic)	199	each
48	02768010P	Pavement Message (Preformed Thermoplastic) (Grooved-In)	11	each
49	027680115	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch)	6114	foot
50	02768011P	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch) (Grooved-In)	240	foot
51	02768012P	Pavement Message Preformed Thermoplastic Crosswalk -24 Inch	73	foot
52	02768013P	Pavement Message (Preformed Thermoplastic Shield)	3	each
53	02771000*	Concrete Curb Type B4	106	foot
54	02771001*	Concrete Curb Type B5	5606	foot
55	02771002*	Concrete Curb and Gutter Type B1	1804	foot
56	02771003*	Concrete Curb and Gutter Type B1 Modified	23	foot
57	02771004*	Concrete Driveway Flared, 7 inch Thick	894	square foot
58	02771005*	Perpendicular/Parallel Pedestrian Access Ramp	2	each
59	02771006*	Corner Pedestrian Access Ramp	4	each
60	02771010*	Plowable End Section	12	each
61	02771011*	Reconstruct Pedestrian Access Ramp	15	each
62	02776001*	Concrete Sidewalk	7626	square foot
63	02776003*	Concrete Flatwork 4 inch thick	115	square foot
64	02776005*	Concrete Flatwork 7 inch thick	218	square foot
65	02786001P	Open Graded Surface Course	6246	ton
66	02786005P	Asphalt Binder PG 58-28	375	ton
67	028420010	Delineator Type I	20	each
68	02843002P	Crash Cushion Type D	1	each
69	02861007*	Landscape Wall	899	square foot
70	028910040	Sign Type A-1, 24 inch X 12 inch	3	each
71	028910065	Sign Type A-1, 36 inch X 36 inch	5	each
72	02891007P	Sign Type A-1, 30 inch X 36 inch	1	each
73	028910080	Sign Type A-2, 12 inch X 18 inch	4	each
74	02891009P	Sign Type A-2, 18 Inch x 18 Inch	1	each
75	028910270	Remove Sign Less Than 20 Square Feet	12	each
76	028910285	Relocate Sign Less Than 20 Square Feet	1	each
77	028910320	Slipbase Sign Base (B3)	10	each
78	028910370	Sign Post P4	10	each
79	029110010	Wood Fiber Mulch	1	acre
80	029120050	Strip, Stockpile, and Spread Topsoil (Plan Quantity)	381	square yard
81	029220030	Broadcast Seed	1	acre
82	029610020	Rotomilling - 1 Inch	1224	square yard

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

Utah Department of Transportation Bidder's Schedule

Bid Opening Date: 4/21/2015

Region: REGION 2

Project Number: F-0173(26)7

County: SALT LAKE

PIN Description: SR-173; Redwood Rd. to State Street

Concept: Minor Rehabilitation - Roadway

Location: SR-173; MP 7.05 - 9.20

Funding: FEDERAL

Bid Items Version#: 1

DBE Goal:

#	Item	Description	Quantity	Unit
10 - ROADWAY				
83	029610050	Rotomilling - 4 Inch	119193	square yard
84	02981001*	Grinding Pavement	193	square yard
10 - ROADWAY				
		Description: Drainage		
85	018920010	Reconstruct Catch Basin	9	each
86	018920050	Reconstruct Manhole	2	each
87	022210030	Remove Catch Basin	1	each
88	026101386	18 Inch Irrigation/Storm Drain, Class C, smooth	19	foot
89	02621000*	Trench Drain -- 12" x 40'	39	each
90	026330070	5 Foot Standard Manhole 7 ft to 9 ft Deep - CB 11	1	each
91	026330120	Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	3	each
92	026330130	Concrete Drainage Structure 5 ft to 7 ft Deep - CB 9	3	each
20 - STRUCTURES				
		Description: D 805R		
93	022250010	Asphalt Surfacing Removal (Structures)	1370	square yard
94	039240085	Parapet Surface Repair	50	foot
95	03924009P	Parapet Sealing	292	foot
96	039340010	Structural Pothole Patching	1850	square foot
97	071050010	Waterproofing Membrane	12331	square foot
98	07922001*	Joint Sealing	338	foot
50 - SIGNALS				
99	02892001D	Traffic Signal System SR-173 & 700 West	1	lump sum
100	02892001P	Install State Furnished Signal Radar Detection Unit	16	each
101	02892002D	Traffic Signal System SR-173 & 1070 West	1	lump sum
102	02892003D	Traffic Signal System SR-173 & Green St.-College Dr. (500 W.)	1	lump sum
103	02892004D	Traffic Signal System SR-173 & Commerce Dr. (320 W.)	1	lump sum
70 - ATMS				
104	13553001P	ATMS	1	lump sum

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

Utah Department of Transportation Bidder's Schedule

Bid Opening Date: 4/21/2015

Region: REGION 2

Project Number: F-0173(26)7

County: SALT LAKE

PIN Description: SR-173; Redwood Rd. to State Street

Concept: Minor Rehabilitation - Roadway

Location: SR-173; MP 7.05 - 9.20

Funding: FEDERAL

Bid Items Version#: 1

DBE Goal:

#	Item	Description	Quantity	Unit
180 - TIME AND/OR LANE RENTAL				
105	00221000*	Contract Time	Date Range: 75 - 120	0 calendar day

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

Federal Projects With Full Size Plan Sheets

VI. Measurement and Payment

Measurement and Payment

Project # F-0173(26)7

02/26/2015

Item #	Bid Item Number	Bid Item Name	UOM
1	00830001U	Equal Opportunity Training	hour
<p>Training Commitments listed in the Table of Contents for Federal projects, XI – 5 http://www.udot.utah.gov/main/f?p=100:pg:::1:T,V:1940</p>			
2	012850010	Mobilization	lump sum
		Amount Paid	When Paid
		<p>The lesser of 25% of Mobilization or 2.5% of contract The lesser of 50% of Mobilization or 5% of contract The lesser of 75% of Mobilization or 7.5% of contract The lesser of 100% of Mobilization or 10% of contract Amount bid in excess of 10% of contract price.</p>	<p>With first estimate With estimate following completion of 5% of contract With estimate following completion of 10% of contract With estimate following completion of 20% of contract Project Acceptance-Final</p>
<p>Includes all costs associated with Railroad Flagging, inspection, and cleanup crew according to Section 00725.</p>			
3	01315001*	Public Information Services	lump sum
<p>25% of bid item amount paid with first estimate. Remaining portion of bid item paid as a percentage of the contract completed with each subsequent estimate.</p>			
4	01554000P	Traffic Control	lump sum
<p>25% of the bid item amount paid with first estimate. Remaining portion of bid item paid as a percentage of the contract completed with each subsequent estimate.</p>			
5	01557001*	Maintenance of Traffic	lump sum
6	01571002*	Check Dam (6" Bag - Stone Filled)	each
7	01571003*	Check Dam (12" Bag - Fiber Roll)	each
8	01571007P	Drop-Inlet Barrier (6" Bag - Stone Filled)	each
9	015720020	Dust Control and Watering	1000 gallons
10	018910020	Move Mailbox	each
11	018920010	Reconstruct Catch Basin	each
12	018920020	Reconstruct Cleanout Box	each
13	018920040	Reconstruct Valve Box	each
14	018920050	Reconstruct Manhole	each
15	018920060	Reconstruct Monument Box	each
16	020560020	Granular Borrow	ton
<p>In final position</p>			
17	02216001*	Pothole Utility	each
18	022210050	Remove Tree	each
19	02221007P	Remove Bollard	each
20	02221010P	Remove Plastic Junction Box	each
21	022210110	Remove Concrete Sidewalk	square yard
<p>Use the area of horizontal projection to calculate the area of steps</p>			
22	022210115	Remove Concrete Driveway	square yard
23	022210120	Remove Concrete Curb	foot
24	022210125	Remove Concrete Curb and Gutter	foot
25	02221014P	Remove Raised Island	square yard
<p>Includes pavement cutting, removal of raised island and asphalt, and disposal.</p>			
26	022210150	Remove Concrete Pavement	square yard
<p>Regardless of the depth A. Does not include discontinued roads within the limits of the new roadbed or roads that are disturbed in performing other items of work.B. Exclude from measurement and payment under "Roadway Excavation."C. Includes curb and gutter integral to the concrete pavement.</p>			
27	02221015P	Remove Raised Median	foot

Measurement and Payment

Project # F-0173(26)7

02/26/2015

Item #	Bid Item Number	Bid Item Name	UOM
		Includes removal of raised median and disposal.	
28	022210165	Remove Asphalt Pavement	square yard
		Regardless of the depth A. Does not include discontinued roads within the limits of the new roadbed or roads that are disturbed in performing other items of work. B. Exclude from measurement and payment under "Roadway Excavation."	
29	022310020	Clearing and Grubbing (Plan Quantity)	acre
		Calculated to the nearest 0.10 acre	
30	02316002*	Roadway Excavation of Contaminated Soils (Plan Quantity)	cubic yard
		Includes excavation, removal, transportation, and disposal at an approved disposal facility for petroleum-impacted soils. Includes disposal fees and any waste profile analyses that may be required by the disposal facility. Includes sawcutting.	
31	02316002P	Roadway Excavation (Plan Quantity)	cubic yard
		Includes sawcutting.	
32	023180020	Surface Ditch	foot
		Measured along centerline	
33	02411001*	Relocate Fire Hydrant	each
34	02411002*	Remove Meter Box	each
35	027210010	Untreated Base Course	ton
36	02737001*	Asphalt Pavement Soft Spot Repair - Type A	square yard
		Includes removal and disposal of existing HMA, and compaction of base. Installation includes HMA and all equipment necessary to repair pavement.	
37	02737002*	Asphalt Pavement Soft Spot Repair - Type B	square yard
		Includes removal and disposal of existing HMA and base, and compaction of sub-base. Installation includes HMA, UTBC, separation fabric, and all equipment necessary to repair pavement.	
38	02741005P	HMA - 1/2 inch	ton
		Includes aggregates, asphalt binder, hydrated lime, and other additives, etc.	
39	02748006P	Emulsified Asphalt CQS-1H	ton
40	02752002P	Portland Cement Concrete Pavement 8 inch Thick	square yard
		Calculated from measured length multiplied by measured width not to exceed plan width. Includes tie bars and dowel bars.	
41	027650030	Remove Pavement Message	foot
		Per foot each line removed regardless of width. Unauthorized removals will not be paid for.	
42	027650040	Remove Pavement Message	each
		A. Measure each letter or single arrow as one pavement message. B. Measure two-headed arrows as two pavement messages. C. Unauthorized removals will not be paid for.	
43	027650050	Pavement Marking Paint	gallon
44	027680005	4 inch Pavement Marking Tape - White	foot
		A. Do not measure the gap in the broken line. B. Include all costs for the Manufacturer's Service Representative and other technical assistance in the contract unit price.	
45	027680010	8 inch Pavement Marking Tape - White	foot
		A. Do not measure the gap in the broken line. B. Include all costs for the Manufacturer's Service Representative and other technical assistance in the contract unit price.	
46	027680015	4 inch Pavement Marking Tape - Yellow	foot
		A. Do not measure the gap in the broken line.	

Measurement and Payment

Project # F-0173(26)7

02/26/2015

Item #	Bid Item Number	Bid Item Name	UOM
		B. Include all costs for the Manufacturer's Service Representative and other technical assistance in the contract unit price.	
47	027680105	Pavement Message (Preformed Thermoplastic)	each
		<p>Measurement</p> <p>A. Letter = one message</p> <p>B. Arrow = one message</p> <p>C. Multi-headed arrow = one message per arrow</p> <p>D. School crossbars = one message per 24 inch x 10 ft bar</p> <p>E. Crosswalk = two message per lane and two messages per shoulder</p> <p>F. Stop Bar = one message per lane and one message per shoulder</p> <p>G. Railroad crossing markings = seven messages per lane</p> <p> 1. R = one message each (two required)</p> <p> 2. X = two messages</p> <p> 3. Transverse Bar = one message each (two required)</p> <p> 4. Stop Bar = one message</p> <p>H. Include all costs for the Manufacturer's Service Representative and other technical assistance in the contract unit price.</p>	
48	02768010P	Pavement Message (Preformed Thermoplastic) (Grooved-In)	each
		<p>This item includes grinding to allow for grooved-in pavement messages. Grinding to be performed in accordance with Manufacturer's recommendations. See special provision 02769S.</p> <p>Measurement</p> <p>A. Letter = one message</p> <p>B. Arrow = one message</p> <p>C. Multi-headed arrow = one message per arrow</p> <p>D. School crossbars = one message per 24 inch x 10 ft bar</p> <p>E. Crosswalk = two message per lane and two messages per shoulder</p> <p>F. Stop Bar = one message per lane and one message per shoulder</p> <p>G. Railroad crossing markings = seven messages per lane</p> <p> 1. R = one message each (two required)</p> <p> 2. X = two messages</p> <p> 3. Transverse Bar = one message each (two required)</p> <p> 4. Stop Bar = one message</p> <p>H. Include all costs for the Manufacturer's Service Representative and other technical assistance in the contract unit price.</p>	
49	027680115	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch)	foot
		By the foot of 12 inch wide line according to Standard Drawings.	
50	02768011P	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch) (Grooved-In)	foot
		<p>This item includes grinding to allow for grooved-in pavement messages. Grinding to be performed in accordance with manufacturer's recommendations. See special provision 02769S.</p> <p>Each lane or shoulder by the 12 inch wide line in place. See Standard Drawings.</p>	
51	02768012P	Pavement Message Preformed Thermoplastic Crosswalk -24 Inch	foot
52	02768013P	Pavement Message (Preformed Thermoplastic Shield)	each
		Hand torches not allowed for instillation.	
53	02771000*	Concrete Curb Type B4	foot
		Measured along the roadway face. Includes excavation.	
54	02771001*	Concrete Curb Type B5	foot
		Measured along the roadway face. Includes excavation. Includes dowel bars. Includes median reflectors.	
55	02771002*	Concrete Curb and Gutter Type B1	foot
		<p>Measured along the roadway face. Includes excavation.</p> <p>Includes any work to reestablish existing landscaping, paved park strip, and/or irrigation systems in-kind that may be disturbed as a result of the work to reconstruct curb and gutter.</p>	
56	02771003*	Concrete Curb and Gutter Type B1 Modified	foot
		<p>Measured along the roadway face. Includes excavation.</p> <p>Includes any work to reestablish existing landscaping, paved park strip, and/or irrigation systems in-kind that may be disturbed as a result</p>	

Measurement and Payment

Project # F-0173(26)7

02/26/2015

Item #	Bid Item Number	Bid Item Name	UOM
		of the work to reconstruct curb and gutter.	
57	02771004*	Concrete Driveway Flared, 7 inch Thick	square foot
		Include Radius and Flares. Includes excavation. Includes all labor, equipment, and materials necessary for a complete driveway, except for untreated base course. Untreated base course is paid for separately. The curb cut will remain part of the curb and gutter installation.	
58	02771005*	Perpendicular/Parallel Pedestrian Access Ramp	each
		Includes all labor, equipment, and materials necessary for a complete pedestrian access ramp according to GW Series Standard Drawings, except for untreated base course. Untreated base course is paid for separately. The curb cut will remain part of the curb and gutter installation. Includes any work to reestablish existing landscaping, paved park strip, and/or irrigation systems in-kind that may be disturbed as a result of the work to reconstruct pedestrian access ramp.	
59	02771006*	Corner Pedestrian Access Ramp	each
		Includes all labor, equipment, and materials necessary for a complete pedestrian access ramp according to GW Series Standard Drawings, except for untreated base course. Untreated base course is paid for separately. The curb cut will remain part of the curb and gutter installation. Includes any work to reestablish existing landscaping, paved park strip, and/or irrigation systems in-kind that may be disturbed as a result of the work to reconstruct pedestrian access ramp.	
60	02771010*	Plowable End Section	each
		Includes excavation and untreated base course. Includes median reflectors and paint.	
61	02771011*	Reconstruct Pedestrian Access Ramp	each
		Includes all labor, equipment, materials, disposal, and incidental work to remove and construct a pedestrian access ramp according to GW Series Standard Drawings, except for untreated base course. Untreated base course is paid for separately. Incidental work includes the removal and replacement of up to 150 sq ft of adjacent sidewalk, up to 40 ft of curb and gutter (measured along top-back-curb including the curb cut), up to 20 sq ft of landscaping, and repair of irrigation and asphalt damaged to construct pedestrian access ramp. Includes any work to reestablish existing landscaping, paved park strip, and/or irrigation systems in-kind that may be disturbed as a result of the work to reconstruct pedestrian access ramp.	
62	02776001*	Concrete Sidewalk	square foot
		Includes excavation. Includes any work to reestablish existing landscaping, paved park strip, and/or irrigation systems in-kind that may be disturbed as a result of the work to reconstruct sidewalk.	
63	02776003*	Concrete Flatwork 4 inch thick	square foot
		Includes excavation.	
64	02776005*	Concrete Flatwork 7 inch thick	square foot
		Includes excavation.	
65	02786001P	Open Graded Surface Course	ton
		Includes aggregates, hydrated lime, and all other additives except for asphalt binder. Asphalt binder is measured and paid for separately. No deduction is made for the weight of asphalt binder in the measurement of Open Graded Surface Course.	
66	02786005P	Asphalt Binder PG 58-28	ton
67	028420010	Delineator Type I	each
		Includes removal and disposal of existing delineators.	
68	02843002P	Crash Cushion Type D	each
		Includes all crash cushion markings, marker posts and plates, object markers, all mounting hardware, and all required elements necessary to construct the crash cushion as shown in UDOT CC Series Standard Drawings, including a concrete pad.	
69	02861007*	Landscape Wall	square foot
		A. Includes all materials, labor, and equipment necessary to complete the item. B. Includes manufacturing, furnishing, and installing all items. Includes any work to reestablish existing landscaping and/or irrigation systems in-kind that may be disturbed as a result of the work to construct landscape wall.	
70	028910040	Sign Type A-1, 24 inch X 12 inch	each
		Includes frame or mounting bar as required in SN Series Standard Drawings.	
71	028910065	Sign Type A-1, 36 inch X 36 inch	each
		Includes frame or mounting bar as required in SN Series Standard Drawings.	
72	02891007P	Sign Type A-1, 30 inch X 36 inch	each
		Includes frame or mounting bar as required in SN Series Standard Drawings.	

Measurement and Payment

Project # F-0173(26)7

02/26/2015

Item #	Bid Item Number	Bid Item Name	UOM
73	028910080	Sign Type A-2, 12 inch X 18 inch	each
Includes frame or mounting bar as required in SN Series Standard Drawings.			
74	02891009P	Sign Type A-2, 18 Inch x 18 Inch	each
75	028910270	Remove Sign Less Than 20 Square Feet	each
76	028910285	Relocate Sign Less Than 20 Square Feet	each
Includes removal and disposal of existing concrete sign base.			
77	028910320	Slipbase Sign Base (B3)	each
Includes installation of top casting, stub base, concrete foundation, and core drilling as required by SN Series Standard Drawings.			
78	028910370	Sign Post P4	each
Includes post and all hardware to mount sign to post as required by SN Series Standard Drawings.			
79	029110010	Wood Fiber Mulch	acre
80	029120050	Strip, Stockpile, and Spread Topsoil (Plan Quantity)	square yard
81	029220030	Broadcast Seed	acre
82	029610020	Rotomilling - 1 Inch	square yard
Calculated from length multiplied by the average finished width of rotomilled surface			
83	029610050	Rotomilling - 4 Inch	square yard
Calculated from length multiplied by the average finished width of rotomilled surface			
84	02981001*	Grinding Pavement	square yard
85	018920010	Reconstruct Catch Basin	each
86	018920050	Reconstruct Manhole	each
87	022210030	Remove Catch Basin	each
88	026101386	18 Inch Irrigation/Storm Drain, Class C, smooth	foot
<p>A. Measured along centerline of pipe.</p> <p>B. Connections to drainage structures or features are incidental to construction and no separate payment will be made for this work.</p> <p>C. Department will make no separate payment for required inspection and testing.</p>			
89	02621000*	Trench Drain -- 12" x 40'	each
90	026330070	5 Foot Standard Manhole 7 ft to 9 ft Deep - CB 11	each
<p>A. Consists of all necessary materials required to make a complete drainage structure including but not limited to the following: Concrete, reinforcing steel, grate and frame, manhole steps, and any other items required in standard drawings.</p> <p>B. The connection to any pipe culvert or other drainage feature will be incidental to construction and no separate payment will be made for this work.</p> <p>C. The Department will pay a percentage of the unit bid price in addition to the price for each structure, proportional to volume changes (example: a 4 ft deep box increased by 1.5 ft, the percentage of increase in payment is $1.5 \div 4 \times 100$) for any required field changes larger than 1 foot of specified plan dimensions.</p> <p>D. The Department will make no separate payment for testing upon failure of visual inspection.</p>			
91	026330120	Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	each
<p>A. Consists of all necessary materials required to make a complete drainage structure including but not limited to the following: Concrete, reinforcing steel, grate and frame, manhole steps, and any other items required in standard drawings.</p> <p>B. The connection to any pipe culvert or other drainage feature will be incidental to construction and no separate payment will be made for this work.</p> <p>C. The Department will pay a percentage of the unit bid price in addition to the price for each structure, proportional to volume changes (example: a 4 ft deep box increased by 1.5 ft, the percentage of increase in payment is $1.5 \div 4 \times 100$) for any required field changes larger than 1 foot of specified plan dimensions.</p> <p>D. The Department will make no separate payment for testing upon failure of visual inspection.</p>			
92	026330130	Concrete Drainage Structure 5 ft to 7 ft Deep - CB 9	each

Measurement and Payment

Project # F-0173(26)7

02/26/2015

Item #	Bid Item Number	Bid Item Name	UOM
		<p>A. Consists of all necessary materials required to make a complete drainage structure including but not limited to the following: Concrete, reinforcing steel, grate and frame, manhole steps, and any other items required in standard drawings.</p> <p>B. The connection to any pipe culvert or other drainage feature will be incidental to construction and no separate payment will be made for this work.</p> <p>C. The Department will pay a percentage of the unit bid price in addition to the price for each structure, proportional to volume changes (example: a 4 ft deep box increased by 1.5 ft, the percentage of increase in payment is $1.5 \div 4 \times 100$) for any required field changes larger than 1 foot of specified plan dimensions.</p> <p>D. The Department will make no separate payment for testing upon failure of visual inspection.</p>	
93	022250010	Asphalt Surfacing Removal (Structures)	square yard
94	039240085	Parapet Surface Repair	foot
95	03924009P	Parapet Sealing	foot
		Seal all exposed surfaces along the front face and top of parapet.	
96	039340010	Structural Pothole Patching	square foot
		Estimated plan quantities are based on preliminary field review for bidding purposes only. Repair the actual quantities determined by the Engineer. Pothole patching may be reduced, deleted, or increased over the bid quantities from the contract. The price of the actual quantity will be paid at the contract unit price if any of these situations occur. Department will not allow additional compensation for repairing blow throughs or removing and repairing failed patches.	
97	071050010	Waterproofing Membrane	square foot
		Surface area covered. Measurement does not include overlap or extension on the parapet face.	
98	07922001*	Joint Sealing	foot
		Includes all labor, equipment and materials necessary to clean and seal the abutment joint, relief joint, and parapet expansion joint. Measured along the skew through the roadway width of the individual joints. Cleaning and sealing the parapet expansion joint is considered incidental to this item.	
99	02892001D	Traffic Signal System SR-173 & 700 West	lump sum
		Includes all labor, equipment, installation of state furnished materials, power source connection, mast arm mounted signs, and materials necessary to provide a complete and fully operational signal system.	
100	02892001P	Install State Furnished Signal Radar Detection Unit	each
		Includes all materials, equipment, and labor required to install and test a State furnished detection system.	
101	02892002D	Traffic Signal System SR-173 & 1070 West	lump sum
		Includes all labor, equipment, installation of state furnished materials, power source connection, mast arm mounted signs, and materials necessary to provide a complete and fully operational signal system.	
102	02892003D	Traffic Signal System SR-173 & Green St.-College Dr. (500 W.)	lump sum
		Includes all labor, equipment, installation of state furnished materials, power source connection, mast arm mounted signs, and materials necessary to provide a complete and fully operational signal system.	
103	02892004D	Traffic Signal System SR-173 & Commerce Dr. (320 W.)	lump sum
		Includes all labor, equipment, installation of state furnished materials, power source connection, mast arm mounted signs, and materials necessary to provide a complete and fully operational signal system.	
104	13553001P	ATMS	lump sum
		<p>A. Includes all materials, labor, workmanship, equipment, documentation, inspection, and incidental items required for a complete system of conduit as described in the contract. Conduit may be installed by trenching, boring, or plowing unless otherwise specified.</p> <p>B. Includes duct seal, pull tape, conduit sweeps, fittings, conduit proofing, backfill, and warning tape.</p> <p>C. Includes flowable fill.</p> <p>D. Consultant inspection of mandrel test is paid for via consultant services contract.</p>	

VII. Standard Drawings IndexSTANDARD DRAWINGS INDEX (Supplemental Issue #10, November 20, 2014)
UTAH DEPARTMENT OF TRANSPORTATION

NUMBER	TITLE	CURRENT DATE
Advanced Traffic Management System (AT)		
AT 1	Legend Sheet	01/01/12
AT 2A	Ramp Meter Details	01/01/12
AT 2B	Ramp Meter Details	01/01/12
AT 3	Ramp Meter Overhead Sign Panel	01/01/12
AT 4	Typical Ramp Meter Signal Head Mounting	01/01/12
AT 5A	Ramp Meter Detection Layout	02/28/13
AT 5B	Ramp Meter Queue Detection Layout	02/28/13
AT 5C	Ramp Meter Detection Zone Number Assignment	02/28/13
AT 6	Conduit Details	06/27/13
AT 7A	Polymer Concrete Junction Box Details	01/01/12
AT 7B	Precast Concrete Fiber Optic and Utility Vault Details	01/01/12
AT 8	ATMS Cabinet	01/01/12
AT 9	ATMS Cabinet Disconnect and Transformer Frame	01/01/12
AT 10A	CCTV Mounting Detail and Wiring Diagram	01/01/12
AT 10B	CCTV Mounting Detail and Wiring Diagram	01/01/12
AT 10C	CCTV Mounting Detail and Wiring Diagram	01/01/12
AT 10D	Camera Cable Splicing Diagrams	01/01/12
AT 10E	CCTV DIP Switch Settings	01/01/12
AT 11A	CCTV Pole Mounting Details	10/31/13
AT 11B	Non-Intrusive Detector Mounting Details	10/31/13
AT 11C	Pole Mounted Cabinet Bracket	10/31/13
AT 12	CCTV Pole Foundations for CCTV Pole	01/01/12
AT 13	HAR Pole Detail	01/01/12
AT 14	Weigh In Motion Piezo Details	01/01/12
AT 15	RWIS Site and Foundation Details	10/31/13
AT 16	RWIS Tower Base and Service Pad Layout	10/31/13
AT 17	RWIS Ground Rod Installation and Tower Grounding	10/31/13
AT 18	Utility Marker Post Details	04/25/13
AT 19	Utility Marker Post Locations	01/01/12
Barriers (BA)		
BA 1A1	Concrete Barrier General Notes and Standard Details 1 of 2	01/01/12
BA 1A2	Concrete Barrier General Notes and Standard Details 2 of 2	06/26/14
BA 1B	Concrete Barrier Median Installation	01/01/12
BA 1C	Concrete Barrier Shoulder Installation	01/01/12
BA 1D	Concrete Barrier Layout	01/01/12
BA 1E	Concrete Barrier Column Protection	02/27/14
BA 2A	Precast Concrete Barrier – 32 Inch New Jersey Shape	06/26/14

Federal Projects With Full Size Plan Sheets

BA 2B	Precast Concrete Barrier – 32 Inch New Jersey Shape, Sloped End Section (Speeds ≤ 40 MPH)	01/01/12
BA 2C	Precast Concrete Barrier – 32 Inch New Jersey Shape, Median Small Sign Section	06/26/14
BA 2D	Cast-In-Place Concrete Barrier – 32 Inch New Jersey Shape, 42 Inch Constant Slope Barrier Transition	06/26/14
BA 2E	Precast Concrete Half Barrier – 32 Inch New Jersey Shape	06/26/14
BA 3A1	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch 1 of 3	01/01/12
BA 3A2	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch 2 of 3	01/01/12
BA 3A3	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch 3 of 3	01/01/12
BA 3B	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch, Electrical Details	01/01/12
BA 3C1	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch, Sign Structure Foundation Transition 1 of 2	01/01/12
BA 3C2	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch, Sign Structure Foundation Transition 2 of 2	01/01/12
BA 3D	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch, Median Small Sign Section	01/01/12
BA 3E1	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch, TL-5 1 of 2	01/01/12
BA 3E2	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch, TL-5 2 of 2	01/01/12
BA 3F1	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch, Bridge Parapet Transition 1 of 3	01/01/12
BA 3F2	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch, Bridge Parapet Transition 2 of 3	01/01/12
BA 3F3	Cast-In-Place Concrete Constant Slope Barrier – 42 Inch, Bridge Parapet Transition 3 of 3	01/01/12
BA 3G	Precast Concrete Constant Slope Barrier – 42 Inch	01/01/12
BA 3H	Precast Concrete Constant Slope Barrier – 42 Inch, Sloped End Section (Speeds ≤ 40 MPH)	01/01/12
BA 3I1	Precast Concrete Constant Slope Barrier – 42 Inch, Median Small Section 1 of 2	01/01/12
BA 3I2	Precast Concrete Constant Slope Barrier – 42 Inch, Median Small Section 2 of 2	01/01/12
BA 3J	Precast Concrete Constant Slope Barrier – 42 Inch, 32 Inch New Jersey Shape Transition	01/01/12
BA 3K	Cast-In-Place Concrete Constant Slope Half Barrier – 42 Inch	01/01/12
BA 3L	Precast Concrete Constant Slope Half Barrier – 42 Inch	08/30/12
BA 3M1	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch 1 of 3	01/01/12
BA 3M2	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch 2 of 3	01/01/12

Federal Projects With Full Size Plan Sheets

BA 3M3	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch 3 of 3	01/01/12
BA 3N1	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch, Median Small Sign Section 1 of 2	01/01/12
BA 3N2	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch, Median Small Sign Section 2 of 2	01/01/12
BA 3O1	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch, TL-5 1 of 3	01/01/12
BA 3O2	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch, TL-5 2 of 3	01/01/12
BA 3O3	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch, TL-5 3 of 3	01/01/12
BA 3P1	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch, Bridge Parapet Transition 1 of 3	01/01/12
BA 3P2	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch, Bridge Parapet Transition 2 of 3	01/01/12
BA 3P3	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch, Bridge Parapet Transition 3 of 3	01/01/12
BA 3Q	Cast-In-Place Concrete Constant Slope Barrier – 54 Inch, 42 Inch Constant Slope Barrier Transition	01/01/12
BA 4A	W-Beam Guardrail Hardware	01/01/12
BA 4B1	W-Beam Guardrail Transition Hardware	01/01/12
BA 4B2	W-Beam Guardrail Transition Layouts Approach End and Trailing End	01/01/12
BA 4B3	W-Beam Guardrail Transition Curb Sections	10/31/13
BA 4B4	W-Beam Guardrail Median Barrier Transition Hardware and Layout	08/30/12
BA 4C1	W-Beam Guardrail Anchor Type 1	08/29/13
BA 4C2	W-Beam Guardrail Anchor Type II	01/01/12
BA 4D1	W-Beam Guardrail Installations	08/30/12
BA 4D2	W-Beam Guardrail Installations	01/01/12
BA 4D3	W-Beam Guardrail Typical Line Post Embedment Special Conditions	02/28/13
BA 4E1	W-Beam Guardrail with Modified Curb and Gutter	01/01/12
BA 4E2	W-Beam Guardrail with Curb and Gutter \geq 5 Inches	08/30/12
BA 4F1	W-Beam Guardrail Buried In Backslope Terminal	08/30/12
BA 4F2	W-Beam Guardrail Buried In Backslope Terminal with Rub Rail	01/01/12
BA 4F3	W-Beam Guardrail Buried In Backslope Terminal Anchor	01/01/12
BA 4G	W-Beam Guardrail Curve Breakaway Details	06/26/14
BA 4H1	W-Beam Guardrail Nested Rail 12 Ft 6 Inch Span	01/01/12
BA 4H2	W-Beam Guardrail Nested Rail 18 Ft 9 Inch Span	01/01/12
BA 4H3	W-Beam Guardrail Nested Rail 25 Ft Span	01/01/12
BA 4H4	W-Beam Guardrail with Precast Barrier For Span \geq 25 Ft	08/30/12
BA 4H5	W-Beam Guardrail Reduced Deflection Criteria	01/01/12

Federal Projects With Full Size Plan Sheets

BA 4I	W-Beam Guardrail Right Shoulder Transition On Slopes Steeper Than 10:1 or Flatter or Equal to 6:1	01/01/12
BA 4J1	W-Beam Guardrail Typical Divided Roadways	01/01/12
BA 4J2	W-Beam Guardrail Typical Multilane Arterial	01/01/12
BA 4J3	W-Beam Guardrail Typical 2 Lane 2 Way	01/01/12
BA 5A	Cable Barrier Typical Hardware and Foundation Requirements	01/01/12
BA 5B1	Cable Barrier Placement	06/26/14
BA 5B2	Cable Barrier Placement	06/26/14
BA 5C1	Cable Barrier W-Beam Anchor Assembly	01/01/12
BA 5C2	Cable Barrier Parapet Departure Bracket	01/01/12
BA 5D1	Median Cable Barrier W-Beam Double Sided and Freeway Crossover Anchor System (Type C; C.A.T., Brakemaster)	10/31/13
BA 5D2	Median Cable Barrier W-Beam Double Sided and Freeway Crossover Anchor System (Type C; FLEAT-MT)	10/31/13
BA 5E1	Cable Barrier W-Beam Narrow Median Parapet or Concrete Barrier Anchor	01/01/12
BA 5E2	Cable Barrier W-Beam Approach Transition	01/01/12
BA 5E3	Cable Barrier W-Beam Precast Concrete Barrier Trailing Anchor	01/01/12
BA 5F1	Cable Barrier W-Beam Single Sided Approach Anchor System	01/01/12
BA 5F2	Cable Barrier W-Beam Single Sided Departure Anchor System	01/01/12
BA 5G	Cable Barrier W-Beam Freeway/Expressway Right Shoulder Anchor System	01/01/12
BA 5H	Cable Barrier W-Beam Right Shoulder Application	01/01/12
BA 5I1	Cable Barrier with Existing W-Beam Approach	01/01/12
BA 5I2	Cable Barrier with Existing W-Beam Trailing End	01/01/12
BA 5J1	Cable Barrier Median Hazard Protection	08/29/13
BA 5J2	Cable Barrier Span Greater Than or Equal 15 Ft to Less Than or Equal 30 Ft	08/29/13
BA 5K	Cable Barrier with Existing Crash Cushion Median Application	01/01/12

Catch Basins and Cleanouts (CB)

CB 1	Curb and Gutter Inlet	01/01/12
CB 2	Open Curb Inlet	01/01/12
CB 3	Shallow Catch Basin	01/01/12
CB 4	Open Curb Shallow Catch Basin	01/01/12
CB 5A	Standard Catch Basin and Cleanout Box	01/01/12
CB 5B	Standard Catch Basin and Cleanout Box Section	01/01/12
CB 6A	Drop Inlet Type "A"	01/01/12
CB 6B	Berm Apron with Drop Inlet Type "A"	01/01/12
CB 7A	Drop Inlet Type "B"	01/01/12
CB 7B	Normal Apron with Drop Inlet Type "B"	01/01/12
CB 8A	Double Catch Basin	01/01/12

Federal Projects With Full Size Plan Sheets

CB 8B	Double Catch Basin	01/01/12
CB 9A	Standard Catch Basin and Cleanout Box Situation and Layout	01/01/12
CB 9B	Standard Catch Basin and Cleanout Box Section Details	01/01/12
CB 9C	Standard Catch Basin and Cleanout Box Schedule of Installation 18 Inch to 42 Inch RCP 12 Inch to 48 Inch CMP	01/01/12
CB 9D	Standard Catch Basin and Cleanout Box Schedule of Installation 48 Inch to 66 Inch RCP 60 Inch to 78 Inch CMP	01/01/12
CB 10A	Standard Catch Basin and Cleanout Box Situation and Layout	01/01/12
CB 10B	Standard Catch Basin and Cleanout Box Section Details	01/01/12
CB 10C	Standard Catch Basin and Cleanout Box Schedule of Installation 42 Inch to 60 Inch RCP 48 Inch to 72 Inch CMP	01/01/12
CB 11	Precast Concrete Standard Manhole	02/28/13
CB 12	Precast Concrete Drainage Box	01/01/12

Crash Cushions (CC)

CC 1	Crash Cushion and End Treatment Markings	01/01/12
CC 2	Crash Cushion Drainage Details Guideline A	01/01/12
CC 3	Crash Cushion and End Treatments Drainage Details Guideline B	01/01/12
CC 4A	Details for Placement Crash Cushions Type A, B, And D	01/01/12
CC 4B	Crash Cushion Mounted On Median Island	01/01/12
CC 4C	Crash Cushion Split Median Island w/RR Crossing	01/01/12
CC 5A	Grading and Placement Details Crash Cushion Type C Brakemaster	01/01/12
CC 5B	Grading and Placement Details Crash Cushion Type C C.A.T	01/01/12
CC 5C	Grading and Placement Details Crash Cushion Type C FLEAT-MT	01/01/12
CC 6	Crash Cushion Type E Sand Barrel Details	01/01/12
CC 7A	Grading and Installation Details End Treatment Type F Quad Trend 350	01/01/12
CC 7B	Grading and Installation Details End Treatment Type F BEAT-SSCC	01/01/12
CC 8A	Grading and Installation Details Crash Cushion Type G	06/27/13
CC 8B	Grading and Installation Details for "3R" Projects End Treatment Type G	06/27/13
CC 9A	Grading and Installation Details End Treatment Type H	01/01/12
CC 9B	Maintenance Only Grading and Installation Details End Treatment Type H	01/01/12

Diversion Boxes (DB)

DB 1A	Standard Diversion Box/Cover Plate/Grating for 18 Inch DIA. or 24 Inch DIA. Pipe	01/01/12
DB 1B	Standard Diversion Box Hinged Lid Details for 18 Inch DIA or 24 Inch DIA Pipe	01/01/12

Federal Projects With Full Size Plan Sheets

DB 1C	Standard Diversion Box Bicycle Safe Grating Details for 18 Inch DIA or 24 Inch DIA Pipe	01/01/12
DB 1D	Standard Diversion Box Three Gate Box Sections for 18 Inch DIA or 24 Inch DIA Pipe	01/01/12
DB 1E	Standard Diversion Box Three Gate Box Sections for 18 Inch DIA or 24 Inch DIA Pipe	01/01/12
DB 1F	Standard Diversion Box Three Gate Box Sections for 18 Inch DIA or 24 Inch DIA Pipe	01/01/12
DB 2A	Standard Diversion Box w/Interchangeable Walls, Bottom Slab, Walls, and Apron Details	01/01/12
DB 2B	Standard Diversion Box w/Interchangeable Walls, Quantities Schedule	01/01/12
DB 2C	Standard Diversion Box w/Interchangeable Walls, Hand Slide Gate Details	01/01/12
DB 2D	Standard Diversion Box Type G Hand Slide Gate Details	01/01/12
DB 2E	Standard Diversion Box Hinged Lid (Solid Cover Plate) Type A Details Type I Plan	01/01/12
DB 2F	Standard Diversion Box Hinged Lid (Solid Cover Plate) Type A Details Type II Plan	01/01/12
DB 2G	Standard Diversion Box Hinged Lid Solid Cover Type B Details	01/01/12
DB 2H	Standard Diversion Box Hinged Lid Solid Cover Type B and C Details	01/01/12
DB 3A	Standard Diversion Box with Manhole Cover Situation and Layout	01/01/12
DB 3B	Standard Diversion Box with Manhole Cover Up to 42 Inch RCP and Up To 54 Inch CMP	01/01/12
DB 3C	Standard Diversion Box with Manhole Cover 48 Inch to 72 Inch RCP and 60 Inch to 84 Inch CMP	01/01/12
DB 4	Standard Transition Concrete Lined Ditch to Pipe or Diversion Box	01/01/12

Design Drawings (DD)

DD 1	Superelevation, Widening, and Edge Detail	01/01/12
DD 2	Surface Ditch, Benched Slope, and Cut Ditch Details	01/01/12
DD 3	Climbing Lanes	01/01/12
DD 4	Geometric Design for Freeways (Roadway)	01/01/12
DD 5A	Entrance and Exit Ramps At Crossroads	01/01/12
DD 5B	Entrance and Exit Ramps At Crossroads	01/01/12
DD 6	Entrance and Exit Ramp Geometrics	01/01/12
DD 7	Freeway Crossover	01/01/12
DD 8	Structural Geometric Design Standards for Clearances	02/28/13
DD 9	Structural Geometric Design Standards	01/01/12
DD 10	Rural Multi Lane Highways Other Than Freeways	01/01/12
DD 11	Rural Two Lane Highways	01/01/12
DD 12	Frontage and Access Roads (Under 50 ADT)	01/01/12

Federal Projects With Full Size Plan Sheets

DD 13A	Typical Rural 2 Lane Road T-Intersection (High Speed)	01/01/12
DD 13B	Typical Rural 2 Lane Road T-Intersection (Low Speed) 40 MPH or Less	01/01/12
DD 14A1	Typical Rural 2 Lane Road Intersection (High Speed) 45 MPH or Higher	01/01/12
DD 14A2	Typical Rural 2 Lane Road Intersection (High Speed) with Left Turn Acceleration Lane	01/01/12
DD 14B	Typical Rural 2 Lane Road Intersection (Low Speed)	08/30/12
DD 15	Embankment for Bridge Placement	01/01/12
DD 16	Grade-Separated Arterials Other Than Freeways 50 to 60 MPH	01/01/12
DD 17	Clear Zone and Lateral Offset to Obstruction	01/01/12
DD 18	Utility Location Requirements	06/27/13
Drainage (DG)		
DG 1	Fill Height for Metal Pipe (Steel)	01/01/12
DG 2	Fill Height for Metal Pipe (Aluminum)	01/01/12
DG 3	Fill Height for Plastic and Concrete Pipe	02/27/14
DG 4	Pipe Minimum Cover	02/27/14
DG 5	Drainage Pipe Installation	02/27/14
DG 6	Safety Slope End Section for Circular and Arched Pipes	01/01/12
DG 7	Gasketed Joints or Coupling Bands for CMP	01/01/12
DG 8	Metal Culvert End Section	01/01/12
DG 9	Concrete Pipe Culvert End Sections	01/01/12
DG 10	Miscellaneous Pipe Details	02/27/14
Environmental Controls (EN)		
EN 1	Temporary Erosion Control (Check Dams)	01/01/12
EN 2	Temporary Erosion Control (Silt Fence)	01/01/12
EN 3	Temporary Erosion Control (Slope Drain and Temporary Berm)	01/01/12
EN 4	Temporary Erosion Control (Drop Inlet Barriers)	01/01/12
EN 5	Temporary Erosion Control (Pipe Inlet and Gutter Inlet Barriers)	01/01/12
EN 6	Temporary Erosion Control (Sediment Trap and Stabilized Construction Entrance)	01/01/12
EN 7	Temporary Erosion Control (Straw Bale Barrier)	01/01/12
Fence and Gates (FG)		
FG 1A	Right Of Way Fence and Gates (Wood Post)	01/01/12
FG 1B	Right Of Way Fence and Gates (Wood Post)	01/01/12
FG 2A	Right Of Way Fence and Gates (Metal Post)	01/01/12
FG 2B	Right Of Way Fence and Gates (Metal Post)	01/01/12
FG 3	Swing Gates Type I for Gates Less Than 17 FT	01/01/12

Federal Projects With Full Size Plan Sheets

FG 4A	Standard Wildlife Escape Ramp Details	01/01/12
FG 4B	High Migratory Wildlife Escape Ramp Details	01/01/12
FG 4C	Corner Brace Wildlife Escape Ramp Details	01/01/12
FG 4D	Wildlife Pole Fence Detail	01/01/12
FG 5	Swing Gates Type II for Gates Wider Than 17 FT	01/01/12
FG 6	Chain Link Fence	01/01/12

Grates, Frames, and Trash Racks (GF)

GF 1	Manhole Frame and Grated Cover	01/01/12
GF 2	Manhole Frame and Solid Cover	01/01/12
GF 3	Rectangular Grate and Frame	01/01/12
GF 4	Directional Flow Grate and Frame	01/01/12
GF 5	Solid Cover and Frame	01/01/12
GF 6	Manhole Steps	01/01/12
GF 7	Standard Screw Gate and Frame	01/01/12
GF 8	2 FT x 2 FT Grate and Frame	01/01/12
GF 9	28 Inches x 24 Inches Directional Flow Grate and Frame	01/01/12
GF 10	Standard Trash Racks 90 Degree Crossing Angle	01/01/12
GF 11	Standard Trash Racks	01/01/12
GF 12	Standard Trash Racks	01/01/12
GF 13	Open Curb Inlet Grate and Frame	01/01/12
GF 14	Solid Cover for Std Dwg DB 1	01/01/12
GF 15	Standard Screw Grate and Frame	01/01/12
GF 16	Perpendicular Grate and Frame	01/01/12

General Road Work (GW)

GW 1A	Raised Island	01/01/12
GW 1B	Raised Island and Plowable End Section	10/31/13
GW 1C	Raised Island Details	06/26/14
GW 1D	Median Reflector Details	10/31/13
GW 2	Concrete Curb and Gutter Types	01/01/12
GW 3	Concrete Curb and Gutter Details	01/01/12
GW 4A	Concrete Driveways and Sidewalks	02/28/13
GW 4B	Concrete Driveways and Sidewalks	02/28/13
GW 5A	Pedestrian Access	11/06/14
GW 5B	Pedestrian Access	11/06/14
GW 5C	Pedestrian Access	11/06/14
GW 5D	Pedestrian Access	11/06/14
GW 6	Right Of Way Marker	01/01/12
GW 7	Newspaper and Mailbox Stop Layout	01/01/12
GW 8	Newspaper and Mailbox Supports	01/01/12
GW 9A	Delineation Hardware	01/01/12
GW 9B	Linear Delineation Panel and Installation Details	01/01/12
GW 10	Delineation Application	01/01/12
GW 11	Sidewalks and Shoulders On Urban Roadways	02/28/13

Federal Projects With Full Size Plan Sheets

GW 12A1	Active Pedestrian Controls for Railroad Crossings Sheet 1 of 2	04/25/13
GW 12A2	Active Pedestrian Controls for Railroad Crossings Sheet 2 of 2	04/25/13
GW 12B1	Passive Pedestrian Controls for Railroad Crossings Sheet 1 of 2	04/25/13
GW 12B2	Passive Pedestrian Controls for Railroad Crossings Sheet 2 of 2	04/25/13
GW 12C1	Pedestrian Controls Semi-Exclusive Railroad Alignments Sheet 1 of 2	04/25/13
GW 12C2	Pedestrian Controls Semi-Exclusive Railroad Alignments Sheet 2 of 2	04/25/13
GW 12D	Pedestrian Controls Street Running Railroad Alignment Signalized Intersections	04/25/13
GW 12E	Pedestrian Controls Street Running Railroad Alignment Unsignalized Intersections	04/25/13

Paving (PV)

PV 1	Joints for Highways with Concrete Traffic Lanes and Shoulders	01/01/12
PV 2	Pavement/Approach Slab Details	01/01/12
PV 3	Concrete Pavement Details 1 of 2	11/06/14
PV 4	Concrete Pavement Details 2 of 2	10/25/12
PV 5	Urban Concrete Pavement Details	01/01/12
PV 6A	Rumble Strip Shoulder Details	01/01/12
PV 6B	Rumble Strips Depth and Location Details	01/01/12
PV 7	Rumble Strips Typical Applications	01/01/12
PV 8A	Rumble Strips Centerline Application	01/01/12
PV 8B	Rumble Strips Centerline Application	01/01/12
PV 9	Dowel Bar Retrofit	02/28/13
PV 10	Utility Orientation/Adjustments in PCCP	10/31/13

Signals (SL)

SL 1A	Traffic Signal Mast Arm Pole and Luminaire Extension	11/06/14
SL 1B	Traffic Signal Mast Arm Pole and Luminaire Extension	01/01/12
SL 2	Traffic Signal Mast Arm Details 30 FT Thru 75 FT	01/01/12
SL 3	Underground Service Pedestal Details	01/01/12
SL 4	Traffic Signal Mast Arm Pole Foundation	11/06/14
SL 5	Traffic Signal Pole	01/01/12
SL 6	Signal Head Details	10/31/13
SL 7	Pedestrian Signal Assembly	11/06/14
SL 8	Traffic Signal Cabinet Base Details	01/01/12
SL 9	Traffic Signal Loop Detector Details	01/01/12
SL 10	Traffic Counting Loop Detector Details	01/01/12
SL 11	Highway Luminaire Pole Ground Mount	01/01/12
SL 12	Luminaire Slip Base Details	01/01/12

Federal Projects With Full Size Plan Sheets

SL 13	Highway Luminaire Pole Barrier Mount	01/01/12
SL 14	Highway Luminaire Pole Foundation Extension	01/01/12
SL 15	Single Transformer Substation Details	01/01/12
SL 16	Solar Traffic Counting Station	06/26/14

Signs (SN)

SN 1	Signs At Railroad Crossings	01/01/12
SN 2A	School Speed Limit Assembly	11/06/14
SN 2B	School Speed Limit Assembly	01/01/12
SN 3	Overhead School Speed Limit Assembly	10/31/13
SN 4	Object Markers "T" Intersection and Pavement Transition Guidance	01/01/12
SN 5	Typical Installation for Milepost Signs	01/01/12
SN 6	Speed Reduction Sign Sequence	10/31/13
SN 7A	Placement of Ground Mount Signs	01/01/12
SN 7B	Placement of Ground Mount and Barrier Mount Signs	01/01/12
SN 8A	Temporary Use Ground Mounted Timber Sign Post	01/01/12
SN 8B	Temporary Use Ground Mounted Square Steel Sign Post	01/01/12
SN 9A	Small Sign Tubular Steel Post Base with Concrete (B1) (Socket System)	01/01/12
SN 9B	Small Sign Tubular Steel Post Base (B2A) (Triangular Steel Anchor System)	01/01/12
SN 9C	Small Sign Tubular Steel Post Base with Concrete (B2B) (Triangular Steel Anchor System in Concrete)	01/01/12
SN 10A	Slipbase Sign Base (B3) Hardware	02/28/13
SN 10B	Slipbase Sign Base (B3) Installation	02/28/13
SN 11A	Surface Mounted Tubular Steel Sign Base (B4A)	01/01/12
SN 11B	Side Mounted Tubular Steel Sign Base (B4B)	01/01/12
SN 12A	Barrier Mounted Tubular Steel Sign Bases (B5A and B5B)	01/01/12
SN 12B	Barrier Mounted Tubular Steel Sign Bases 20 SQ Ft or Less	01/01/12
SN 13A	Tubular Steel Sign Mounting Requirements	10/31/13
SN 13B	Tubular Steel Sign Mounting Hardware	01/01/12
SN 13C	Mounting Bar Placement for Small Signs	02/27/14
SN 14A	Freeway Sign Post Requirements	01/01/12
SN 14B	Freeway Sign Base and Post Requirements (B6A-B6B-B6C)	01/01/12
SN 14C	Freeway Sign Foundation and Fuse Plate Requirements	01/01/12
SN 14D	Freeway Sign Frame Fabrication Details	08/30/12
SN 14E	Freeway Sign Bracket Details	08/30/12
SN 15	Mounting Brackets and Clamps	01/01/12
SN 16A	Multi-Directional Breakaway Base for Steel I-Beam Supports, General Notes	11/06/14
SN 16B	Multi-Directional Breakaway Base for Steel I-Beam Sign Supports, Two Posts	11/06/14
SN 16C	Multi-Directional Breakaway Base for Steel I-Beam Sign Supports, Three Posts	11/06/14

Federal Projects With Full Size Plan Sheets

SN 16D	Multi-Directional Breakaway Base for Steel I-Beam Sign Supports, Foundation Details	11/06/14
SN 16E	Multi-Directional Breakaway Base for Sign Post, (B7A)	11/06/14
SN 16F	Multi-Directional Breakaway Base for Sign Post, (B7B)	11/06/14
SN 16G	Multi-Directional Breakaway Base for Sign Post, (B7C)	11/06/14
SN 16H	Multi -Directional Breakaway Base for Round Pipe Single Post, (B7D)	11/06/14
SN 16I	Multi -Directional Breakaway Base for Round Pipe Double Post, (B7D)	11/06/14
SN 17	Freeway Crossover Signing	01/01/12
SN 18	Chevron Alignment Signs	01/01/12

Striping (ST)

ST 1	Typical Pavement Markings No Pass Zone and Lane Reduction	01/01/12
ST 2	Typical Pavement Markings Entrance Ramps	01/01/12
ST 3A	Typical Pavement Markings Exit Ramps	01/01/12
ST 3B	Typical Pavement Markings Exit Ramps	01/01/12
ST 4	Crosswalks, Parking, and Intersection Approaches	01/01/12
ST 5	Painted Median and Auxiliary Lane Details	01/01/12
ST 6	Passing/Climbing Lanes	01/01/12
ST 7	Pavement Markings at Railroad Crossing	01/01/12
ST 8	School Crossing and School Message	01/01/12
ST 9	Location of Bicycle Detector Pavement Markings at Intersection	11/06/14
ST 10	Location of Bicycle Detector Pavement Markings in Bicycle Lane	11/06/14

Structures and Walls (SW)

SW 1A	Welded End Guard Unit	01/01/12
SW 1B	Precast Concrete Cattle Guard	01/01/12
SW 2	Noise Wall Placement Options	01/01/12
SW 3A	Precast Concrete Noise Wall 1 of 2	01/01/12
SW 3B	Precast Concrete Noise Wall 2 of 2	01/01/12
SW 4A	Precast Concrete Retaining/Noise Wall 1 of 3	01/01/12
SW 4B	Precast Concrete Retaining/Noise Wall 2 of 3	01/01/12
SW 4C	Precast Concrete Retaining/Noise Wall 3 of 3	01/01/12
SW 5	Precast Pilaster Post	01/01/12
SW 6	Precast Concrete Panel Surface Texture Options	01/01/12

Traffic Control (TC)

TC 1	Traffic Control Drawing Series General Notes	08/30/12
TC 2A	Work Zone Channelization Devices	01/01/12
TC 2B	Work Zone Signing	08/30/12
TC 2C	Work Zone Advanced Warning Arrow Boards	06/26/14
TC 2D	Delineator Mounted Work Zone Sign Bracket	01/01/12

Federal Projects With Full Size Plan Sheets

TC 3A	Hazard Mitigation	02/28/13
TC 3B	Hazard Mitigation and Positive Protection Devices	01/01/12
TC 4A	Standard Work Zone Signing General	08/30/12
TC 4B1	Reduced Speed Work Zone Signing General	08/30/12
TC 4B2	Reduced Speed Shoulder Work Zone Signing General	08/30/12
TC 4C	Traffic Control Project Limit Signing	08/30/12
TC 4D1	Work Zone Specialty Signs	10/31/13
TC 4D2	Work Zone Specialty Signs	10/31/13
TC 5	Traffic Control Urban Intersection with Roadways Under 50 MPH	01/01/12
TC 6	Temporary Pedestrian Access Route	01/01/12
TC 7	Median Crossover and 2-Lane, 2-Way Diversion	08/30/12
TC 8	Traffic Control Lane Closure	01/01/12
TC 9	Work Zone Business Access Signing	01/01/12
TC 10	Traffic Control Expressway and Freeway Crossover/Turn Around	01/01/12
TC 11	Traffic Control Exit Ramp Gore	01/01/12
TC 12	Traffic Control Entrance Ramp Gore	01/01/12
TC 13	Traffic Control Shoulder Haul Road	01/01/12
TC 14A	Traffic Control Flagging Operation	11/06/14
TC 14B	Reduced Speed Signing for Pilot Car Operation (Conventional Roads)	11/06/14
TC 15	Traffic Control 2 Lane/2 Way Seal Coat with Cover Material	01/01/12
TC 16	Traffic Control for Non-Durable Pavement Marking	01/01/12
TC 17	Traffic Control Work Zone Guardrail Intermediate End Protection	10/31/13
TC 18	Blunt End Protection for W-Beam Guardrail and Concrete Barrier	08/30/12
TC 19	Construction Access Points for Speeds of 55 MPH and Greater	08/30/12

VIII. Use of Minority or Women Owned Banks

Federal Department of Transportation regulations and the Utah Department of Transportation encourage all contractors and suppliers to thoroughly investigate the services offered by banks controlled or owned by minorities or women and utilize their services as when possible.

IX. Bid Conditions
DISADVANTAGED BUSINESS ENTERPRISE (DBE)

POLICY

“Policy Statement”

It is the policy of the DEPARTMENT to take all necessary and reasonable actions to ensure that DBEs as defined herein shall have equal opportunity to participate in the performance of contracts financed in whole or in part with US Department of Transportation (DOT) funds under this agreement as modified herein.

“Objectives”

The objectives of this policy are to:

1. Ensure nondiscrimination in the award and administration of DOT assisted contracts;
2. Create a level playing field on which DBEs can compete fairly for DOT assisted contracts;
3. Ensure that the DBE program is narrowly tailored in accordance with applicable law;
4. Ensure that only firms that fully meet *49 CFR 26* eligibility standards are permitted to participate as DBEs;
5. Remove barriers to the participation of DBEs in Federal aid contracts;
6. Assist the development of firms that can compete successfully in the marketplace outside the DBE program; and
7. Provide appropriate flexibility in establishing and providing opportunities for DBEs.

“Responsibilities”

Implementation of the DBE Program is accorded the same priority as compliance with all other legal obligations incurred by the DEPARTMENT in financial assistance agreements with DOT.

1. The Civil Rights Manager shall be the DBE liaison officer, who shall have direct, independent access to the Executive Director concerning DBE program matters. The Civil Rights manager shall be responsible for

Federal Projects With Full Size Plan Sheets

implementing all aspects of the DBE program. Adequate staff will be assigned to administer the DBE program.

2. The ENGINEER is responsible for supervision of the DBE participation covered by the Contract.

DBE BID AND PERFORMANCE CONDITIONS

“Obligations”

The contractor, subcontractor, service provider, or supplier at any lower tier shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the DEPARTMENT deems appropriate.

“Assurances”

Each contract between the DEPARTMENT and the Contractor and each subcontract at any lower tier must include the following assurance:

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the DEPARTMENT deems appropriate.

A. CONTRACT GOAL

1. The DEPARTMENT has determined that one or more can reasonably be expected to compete for the work contained in the proposal for this project. It is, therefore, the goal of the DEPARTMENT that DBE firms shall have an affirmative action opportunity to contract for the following percentage of work under this contract:
 - a. If the indicated DBE percent of the *CONTRACT DBE GOAL* is greater than 0.0 percent, complete Part A of the DBE BID ASSURANCE. Refer to Bidding Requirements, Section D, Subsection 1,a, of this Special Provision. (The commitment dollar amount up to the amount of the assigned goal is Race Conscious DBE participation. Any commitment dollar amount in excess of the assigned goal is Race Neutral Participation.)

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- b. If the indicated DBE percent of the *CONTRACT DBE GOAL* is 0.0 percent, complete Part B of the DBE BID ASSURANCE. Refer to Bidding Requirements, Section D, Subsection 1,b, of this Special Provision. (Any commitment to a DBE is Race Neutral Participation.)

CONTRACT DBE GOAL: 8 Percent

- c. At the time of Bid on Additive Projects, DBE commitment can only be made on Base bid items. No Additive bid items may be committed.

2. GOALS

a. GOAL FOR BID EVALUATION

The above entered DBE percentage is a goal for bid evaluation to determine responsiveness of the proposal as it relates to this specification. Percentages for bidding purposes shall be calculated using dollar values and quantities as shown in proposals received for this project. Bidders shall compute the percentage of their DBE commitment by dividing the dollar amount of subcontract work that is being committed to certified DBE firms by the total dollar amount of the proposal. This will be the percentage of their DBE commitment to be used by the Electronic Bidding System (EBS) software.

b. RACE CONSCIOUS GOAL

DBE participation on projects that are assigned a Goal for Bid Evaluation that is greater than 0.0 percent is *race conscious* and the DBE commitment becomes a contract specification upon award. The Bidder must submit with its Bid Proposal a *DBE Commitment*, prepared within the EBS software, that indicates:

- (1) Name of DBE firm
- (2) Work items to be performed
- (3) Total dollar amount of commitment

If the DBE commitment does not meet or exceed the assigned goal, the Bidder must submit with the Bid Proposal documentation of good faith efforts.

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c. RACE NEUTRAL GOAL

DBE participation on projects that are assigned 0.0 percent Goal for Bid Evaluation is *race neutral* and does not become a contract specification upon award. The Bidder must take equal opportunity action to allow DBEs to compete for and perform on subcontracts. Only work classifications that the Bidder will subcontract need to be considered in evaluating equal opportunity action in the bid preparation. Contacts that have been made with DBE firms regarding potential work to be subcontracted and the results of such contacts are to be submitted with the EBS prepared Bid Proposal in *Race Neutral DBE Documentation* which contains:

- (1) The work classifications that will be subcontracted.
- (2) DBE firms contacted.
- (3) Result of contact
- (4) Name of anticipated DBE subcontractor(s)
- (5) Anticipated work items to be performed by DBEs.
- (6) Anticipated dollar amount of subcontract(s).

NOTE: In the EBS (Electronic Bidding System):

Use the Quote Comparison to document item (1).

Use the DBE Contact Log to document items (2) and (3).

Use the DBE Commitment to document items (4), (5), and (6).

The *Race Neutral DBE Documentation* is required to document equal opportunity action and to assist UDOT with DBE reporting and DBE goal setting. Use the EBS functions in above NOTE as the Race Neutral DBE Documentation.

d. GOAL FOR CONTRACT PERFORMANCE

The Bidder's *DBE Commitment* becomes an attachment to the Bid Proposal and is a condition of award, and thereby becomes a contract specification. Upon award, this Race Conscious DBE Commitment also becomes the minimum goal for contract performance.

Commitments to DBEs that exceed the Goal for Bid Evaluation will be considered as both race conscious and race neutral. The dollar amount of the Goal for Bid Evaluation will be considered to be race conscious participation. Any dollar amounts in excess of the Goal for Bid Evaluation will be considered as race neutral participation.

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It is the intent of this Special Provision that the DBE Firm(s) listed for *race conscious* participation, as a minimum level of participation, will perform to the extent indicated in the Bidder's DBE Commitment. The minimum level of DBE participation includes:

- (1) Indicated DBE firm(s),
- (2) Indicated work item(s) (bid items),
- (3) Indicated total dollar amounts.

Listed bid items shall be considered to be committed in their entirety unless Bidders designate otherwise in their DBE Commitment. If the DBE will perform only a part of the bid item, i.e., haul only, the Bidder must indicate what part the DBE will perform (Partial Performance). If the DBE will perform only a part of the quantity of the bid item, the Bidder must indicate the estimated quantity of the work to be performed by the DBE (Partial Quantity).

Substitutions of DBE subcontractor(s), work item(s), or decreases of total dollar amount(s) as indicated in the Bidder's DBE Commitment will not be allowed without prior submission of written justification to the ENGINEER and approval of the ENGINEER and the Civil Rights Manager.

After award of a contract, substitutions will not be allowed without prior submission of a written "hold harmless" statement from the DBE.

*Any change by the Contractor or the Department in the DBE Commitment requires that the change is approved by a Change Order by the Civil Rights Office.

Substitution of race neutral participation in excess of the Goal for Bid Evaluation requires equal opportunity efforts to substitute with other DBE participation.

**DEPARTMENT generated decreases of quantities in individual bid items do not require prior approval of the Civil Rights Manager—but must be fully justified by the ENGINEER at the conclusion of the project in the Explanation of Overruns and Under-runs Statement. The ENGINEER'S justification shall show the total estimated quantity, the final pay quantity as shown on the final estimate invoice, the quantity of the under-run, and the percent of under-run of the individual item. The explanation for the under-run shall*

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include the reasons for the under-run and shall include as much detail as possible.

There is a difference between the under-run of quantity on individual bid items versus the under-run of DBE commitment on DBE committed bid items, in the approval process. Refer to asterisks (*) above.

e. GOAL FOR FINAL COMPLIANCE

Percentages for final compliance shall be based on actual payments to DBEs. Over-runs and under-runs in individual contract items may require adjustments in the predetermined DBE percentage for a project if those items were not related to DBE performance. "The predetermined percentage for a project" refers to the percentage of the Contractor's DBE Commitment that becomes a contract specification upon award.

B. DEFINITIONS

For the purpose of this Special Provision, the following terms are defined:

1. Contract means a legally binding relationship obligating a seller to furnish supplies or services including but not limited to, construction and professional services, and the buyer to pay for them.
2. Contractor means one who participates, through a contract or subcontract (at any tier).
3. Disadvantaged Business Enterprise or DBE means a for profit small business concern.
 - a. That has been certified to DBE status by the UUCP.
 - b. That is at least 51 per cent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 per cent of the stock of which is owned by one or more such individuals; and
 - c. Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.
 - d. Whose size is limited to average annual gross receipts of \$22,041,000 over the previous three fiscal years. The Secretary of Transportation may adjust this amount from time to time for inflation.

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OR

Whose size is limited to the current SBA Business size standard(s) found in 23 CFR part 121 appropriate to the type(s) of work the firm seeks to perform in DOT-assisted contracts.

4. DBE Goals mean:

- a. UDOT's overall goal on DOT-assisted projects. The current approved DBE Goal and Methodology can be found at the following website:

<http://www.udot.utah.gov/main/f?p=100:pg:0:::1:T,V:2250>,

- b. The race neutral portion of the overall goal reflects the level of DBE participation that would be expected absent the effects of discrimination.
- c. There is an implied DBE goal on projects with no goals (0.0 percent) that have subcontracting opportunities.
- d. The race neutral portion of the overall goal reflects the level of DBE participation that will be achieved in response to assigned DBE goals. The race conscious portion of the overall goal reflects the level of DBE participation that will be achieved in response to the assigned DBE project goals.

5. DBE Joint Venture means an association of a DBE firm and one or more other firms to carry out a single, for profit business enterprise, for which the parties combine their property, capital, efforts, skills, and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture to a degree commensurate with its ownership interest.

The DEPARTMENT's Civil Rights Office prior to bid opening must approve a DBE joint venture in order to be utilized for the satisfaction of contract DBE goals. A DBE Joint Venture application must be submitted allowing ample lead-time for the Civil Rights Office to review, evaluate, and verify information provided for in the application. An interview of the applicant may be necessary at the discretion of the DEPARTMENT prior to approval of the application. If an interview is deemed necessary it will be scheduled at the convenience of all parties.

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6. Equal Opportunity Action requires individuals to be considered on the basis of individual capacities and not on the basis of any characteristics generally attributed to the group.

If a bidder requests or accepts bids for subcontract work, the bidder will request and accept bids from DBEs in the work classifications that potentially will be subcontracted.

7. Good Faith Efforts means efforts to achieve a DBE goal or other requirements of this part that by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirements.

8. Lack of Financial Fitness is a performance-based definition based solely on failure to pay promptly. There is no reference to financial status or financial capability.

9. Prompt Payment means payment made no later than 30 work days after receipt of payment by the Contractor or Subcontractor, Service Provider or Supplier at any lower tier.

10. Race Conscious measure or program is focused specifically on assisting only DBEs, including women-owned DBEs. UDOT must establish contract goals to meet any portion of its overall DBE goal that it does not project being able to meet using race neutral means. To ensure that the DBE program continues to be narrowly tailored to overcome the effects of discrimination, UDOT must adjust the use of contract goals as follows:

- a. If during the course of any year it is determined that the overall goal will be exceeded, UDOT will reduce or eliminate the use contract goals to the extent necessary to ensure that the use of contract goals does not result in exceeding the overall goal.
- b. If it is determined that UDOT will fall short of its overall goal, then appropriate modifications in the use of race neutral and/or race conscious measures will be made to allow UDOT to meet the overall goal.

11. Race Neutral measure or program is one that is, or can be, used to assist all small businesses. UDOT must meet the maximum feasible portion if its overall DBE goal by using race -neutral means of facilitating DBE participation. Race neutral DBE participation includes:

- a. Any time a DBE wins a prime contract through customary competitive procurement procedures,

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- b. Is awarded a subcontract on a prime contract that does not carry a DBE goal,
- c. Is awarded a subcontract from a prime contractor that did not consider its DBE status in making the award even if there is a DBE goal.

For the purposes of this part, race-neutral includes gender-neutrality.

12. Regular Employee is a person who:

- a. Would be working for the DBE firm on any other subcontract with any other contractor.
 - b. Is a permanent employee of the DBE firm
- Or
- Has been recruited through the traditional recruitment and/or employment centers
- c. Has not recently been employed by the prime contractor on the present project, another subcontractor on the present project, or the renter-lesser of equipment being used on the present project.
 - d. Is not a member of a construction crew that regularly works for a non-DBE.
 - e. Is not a licensed contractor who is at the time “unemployed” or “between jobs.”

13. Regular Equipment is owned or leased and operated on a long term agreement and not on an *ad hoc* or contract by contract agreement.

- a. The equipment would be used by the DBE firm on any other subcontract with any other contractor.
- b. The equipment would be owned by the DBE firm.

Or

The equipment would be leased/rented from traditional equipment lease/rental sources.

- c. The DBE firm would have a rental/lease agreement for any rented or leased equipment.

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- d. The equipment cannot belong to:
 - (1.) Prime Contractor
 - (2.) Another subcontractor on the present project.
 - (3.) Supplier of materials being installed by the DBE firm.
- e. The equipment cannot come from another contractor fully operated.

14. Reasonable Bid

This is a bid the DEPARTMENT would accept if it were the only bid submitted. Generally, this is a bid within 10 percent of the Engineer's Estimate.

15. Responsible Bidder

A responsible bidder has the apparent ability and capacity to perform the contract requirements.

In addition to normal prequalification, a responsible bidder is defined as one who has signed (manually or electronically) and submitted with the bid the DBE Bid Conditions Assurance of good faith effort included as Part I of this Special Provision certifying the intention to meet the DBE goal of a proposed contract or to continue good faith effort to do so. These goals may be met by subcontracting or leasing contracts with a DBE or purchasing material from a DBE insofar as the work or material becomes a part of a proposed contract.

16. Responsive Bidder

- a. A responsive bidder is a bidder who unequivocally offers to provide services or supplies in conformity with the material terms of the solicitation. In addition to normal prequalification and other bidding requirements, a responsive bidder in relationship to this Special Provision is defined as one who submits evidence of proposed subcontract performance with certified DBE firms to achieve the required dollar amount necessary to achieve the percentage goal.
- b. Bidders may be considered as presumptively responsive if they have failed to satisfy the advertised DBE goal set for the proposed contract but have certified in their bid that good faith efforts have been expended to meet the goal and that they will continue during the performance of the contract to locate, solicit, and involve DBE firms in contract performance. Documentation of the bidder's good faith efforts must be included with the bid package of the

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DEPARTMENT's review and assessment. Failure to do so shall render the bid non-responsive. The DEPARTMENT will reject the bid.

17. Satisfactory Completion of a subcontract occurs when:
 - a. The subcontractor has satisfactorily completed in all respects the work under the Contract.
 - b. The Contractor and the subcontractor have notified the ENGINEER in writing that the work of the subcontractor has been completed.
 - c. The Engineer will be given a reasonable length of time to check quantities if necessary. Checking quantities does not guarantee the absolute correctness of quantities.
 - d. The Contractor and the subcontractor have satisfactorily executed and delivered to the ENGINEER all documents, certificates and proofs of compliance required by the Contract. The satisfactory execution and delivery of these documents, certificates and proofs of compliance to the ENGINEER is a material requirement of the contract.
 - e. The ENGINEER accepts in writing the work of the subcontract.
 - f. Satisfactory Completion refers only to payment of retainage and accrued interest. A determination of Satisfactory Completion and payment in full for work performed does not relieve the contractor nor the subcontractor from any contractual obligation.
18. Satisfactory Performance means work performed and materials furnished in conformity with the plans and specifications.
19. Service Provider means a broker or a middle man. A business person who buys, sells or performs a service for another in exchange for a mark up or commission.
20. Socially and Economically Disadvantaged Individuals means any individual who is a citizen (or lawful admitted permanent resident) of the United States and who is:
 - a. Any individual who the DEPARTMENT finds to be a socially and economically disadvantaged individual on a case-by-case basis.

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- b. Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:
 - (1) “Black Americans,” which includes persons having origins in any of the black racial groups of Africa;
 - (2) “Hispanic Americans,” which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American or other Spanish or Portuguese culture or origin, regardless of race;
 - (3) “Native Americans,” which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;
 - (4) “Asian-Pacific Americans,” which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands, (Republic of Palau), the Commonwealth of the Northern Mariana Islands, Macao, Fiji, Tonga, Kirbati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
 - (5) “Subcontinent Asian Americans,” which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka.
 - (6) Women.
 - (7) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

21. Subcontractor

A subcontracting arrangement is generally considered to exist when a person or firm assumes an obligation to perform a part of the contract work and the following conditions are present.

- a. The person or firm performing the work is particularly experienced and equipped for such work.
- b. Compensation is related to the amount of work accomplished rather than being on an hourly basis.

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- c. Choice of work methods, except as restricted by the specifications, and the furnishing and controlling of labor and equipment are exercised by the subcontractor with only general supervision being executed by the prime contractor.
- d. Personnel involved in the operation are under the direct supervision of the subcontractor and are included on the subcontractor's payroll.

All conditions involved shall be considered and no one condition alone will normally determine whether a subcontract actually exists. In all cases, a DBE subcontractor must be an independent organization, and the ownership and control by the socially and economically disadvantaged individual(s) must be real and continuing. The prime contractor, a subcontractor, or a supplier shall not be responsible for the various operating and management activities of a DBE firm.

22. Supplier

Provides or furnishes materials, goods or services that may be incorporated into the project. The supply transaction is to be documented by an appropriate purchase agreement that includes the required provisions for Federal-aid construction projects.

23. UUCP The Utah Unified Certification Program (UUCP) provides "one-stop shopping" to applicants for DBE certification, such that an applicant is required to apply only once for a DBE certification that is honored by all recipients of Federal-aid Funds in the State of Utah.

C. DETERMINATION OF DBE CONTRACTOR'S ELIGIBILITY BY UUCP

1. Any Contractor may apply to the UUCP for status as a DBE. Applications shall be made on forms provided by the UUCP, entitled "UNIFORM CERTIFICATION APPLICATION" or "Information for Determining DBE Joint Venture Eligibility," Form No. R-817. Application need not be made in connection with a particular bid. Only work contracted to certified DBE prime contractors or subcontractor to firms that have applied for and have been granted status as a DBE by the UUCP shall be considered toward contract goals as established in Subsection A.
2. It shall be the Contractor's responsibility to submit a DBE application so that the UUCP has time to review it. The UUCP will review applications in a timely manner but is not committed to approve DBE status within any given period of time. The UUCP must have ample lead time to review, evaluate, and verify information provided with an application.

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3. The DEPARTMENT shall maintain a UUCP Unified DBE Directory of DBE Contractors, vendors, service providers and suppliers that is updated as changes occur for the purpose of providing a reference source to assist any bidder in meeting the requirements of this bid condition. Bidders must use the most current DBE information available on the web site when submitting bids. A current UUCP DBE directory representing certified DBE Contractors is available through the UDOT Civil Rights Office, and also on the Internet at (click on this link):

<http://www.udot.utah.gov/main/f?p=100:pg:::::V,T:,198>

An electronic file of the UUCP DBE Directory is available for downloading to use in the Electronic Bidding System (EBS) at the following URL (click on this link):

<http://www.udot.utah.gov/main/f?p=100:pg:::::V,T:,317>

4. In meeting the requirements of this bid condition, bidders are in no way limited to the DBE Directory referred to in 3 above in seeking out and negotiating with the DBE Contractors and determining which items of work shall be subcontracted to DBE Contractors. Bidders shall exercise their own judgments in selecting any subcontractor to perform any portion of the work.

The UUCP prior to bid opening must grant DBE status to any DBE Contractor or DBE Joint Ventures. DBE credit will not be allowed toward *race conscious* goals for a firm or joint venture that has not been DBE certified by the UUCP.

D. BIDDING REQUIREMENTS

All bidders must satisfy the bidding requirements of this part. A DBE prime contractor's performance does not count toward fulfilling the DBE goal. A prime bidder who is a DBE contractor shall meet the DBE goal by using DBE subcontractors or by using good faith efforts.

1. DBE Bid Assurance
 - a. Race Conscious Goal

For a bid with a DBE goal greater than 0.0 percent to be considered responsive, *Part A* of the DBE Bid Assurance must be completed and included in the BID PROPOSAL, certifying that they will meet or exceed the Goal for Bid Evaluation established in Subsection A, or that they fail to meet the goal but have and will put forth good faith effort to meet or exceed the goal of the DBE program. *The EBS software based upon the entry of the DBE Commitment and/or*

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the Good Faith Documentation into EBS will complete part A of the DBE Bid Assurance. In either event, the Contractor shall continue efforts to consider and utilize DBE firms during the performance of the contract.

b. Race Neutral Goal

For a bid with a DBE goal of 0.0 percent to be considered responsive, *Part B* of the DBE Bid Assurance must be included in the BID PROPOSAL certifying that the Bidder has utilized equal opportunity action to allow DBE's to compete for and perform on subcontracts. *Part B* of the DBE Bid Assurance will be completed based upon the following information entered into EBS:

(1) Bids with no subcontracting opportunities

Bidders who intend to do all the work with their own organization will indicate this in EBS on the Bid Submission Checklist and Forms window. EBS will subsequently indicate on Part B of the DBE Bid Assurance that the Bidder does not intend to sublet a portion of the contract work.

After the award of the bid, in the event that a Contractor indicates that he does not intend to sublet any work and subsequently determines to sublet a portion of the work, the Contractor:

- (a) must justify why subcontract quotes were not a part of the Bid Proposal,
- (b) must utilize equal opportunity action to allow DBEs to compete for and perform on the work to be sublet,
- (c.) must submit the required Race Neutral Documentation with the proposed subcontract.

NOTE: The Contractor may use the 'DBE Contact Log' and 'Quote Comparison' functions in EBS to develop the above requirements for documentation.

(2.) Bids with subcontracting opportunities

Race Neutral measure or program is one that is, or can be, used to assist all small businesses. UDOT must meet the maximum feasible portion of its overall DBE goal by using race -neutral means of facilitating DBE participation.

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Bidders who solicit non-DBE subcontract quotes will utilize equal opportunity action to allow DBEs to compete for and perform on subcontracts. If the Bidder has selected 'Intend to Sublet' on the 'Bid Submission Checklist and Forms' window in the EBS software, Part B of the DBE Bid Assurance will indicate that the Bidder intends to sublet a portion of the contract work.

The results of the equal opportunity actions will be included with the EBS prepared Bid Proposal as a *Race Neutral Documentation*. Part B of the Bid Assurance Form will indicate the existence of any of the following types of Race Neutral Documentation that the Bidder has entered into EBS:

- (a) DBE Commitment
- (b) DBE Contact Log
- (c) Quote Comparison

In either event, the Contractor shall continue efforts to consider and utilize DBE firms during the performance of the contract.

2. DBE Commitment

For a bid to be considered responsive, Bidders shall submit the following information regarding DBE compliance with the EBS prepared Bid Proposal:

Submit a DBE Commitment of work that will be subcontracted to certified DBE firm(s) as listed in the UUCP's Directory or DBE firms that have been approved by the UUCP prior to bid opening.

- a. The names of DBE firms that will participate in the contract;
- b. A specific description of the work each named DBE firm will perform (list specific bid items). Listed bid items shall be considered to be committed in their entirety unless Bidders designate otherwise in their DBE Commitment.
 - (1.) If mobilization is a bid item that is partially committed to a DBE, indicate the dollar amount of the DBE mobilization.
 - (2.) If a partial quantity is committed to a DBE, indicate the quantity committed to the DBE.

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- (3.) If a partial performance of an item is committed to a DBE, explain what part of the item the DBE will perform;
- c. The dollar amount of participation by each named DBE firm;
- d. If the contract goal is not met, evidence of good faith efforts.

The DBE Commitment is to be included in the bid prepared within, and said information will be kept confidential and will not be reviewed unless the Contractor is otherwise determined to be the low Bidder or the DEPARTMENT elects to review said information in making its determination as to award of the contract.

3. Race Neutral Commitment

For a bid to be considered responsive, Bidders shall submit the following information regarding equal opportunity compliance with their EBS prepared Bid Proposal:

Submit a Race Neutral DBE Commitment of work that will be subcontracted to certified DBE firm(s) as listed in UUCP DBE_Directory or DBE firms that have been approved by the DEPARTMENT prior to bid opening. The DBE Commitment will include:

- a. The bid item(s) or work classification(s) that will be subcontracted;
- b. The DBE firms that have been contacted. A reasonable number of DBEs available to perform the anticipated subcontract work must be contacted. The DBE firms must be given a reasonable amount of time to develop subcontract quotes.
- c. The results of the contacts with the DBE firms
- d. Name(s) of anticipated DBE subcontractor(s)
- e. Anticipated work items to be performed by DBE(s)
- f. Anticipated dollar amount of subcontract(s).

A specific description of the work each named DBE firm will perform (list specific bid items). Listed bid items shall be considered to be committed in their entirety unless Contractors designate otherwise in their DBE commitment.

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- (1.) If mobilization is a bid item that is partially committed to a DBE, indicate the dollar amount of the DBE mobilization.
- (2.) If a partial quantity is committed to a DBE, indicate the quantity committed to the DBE.
- (3.) If a partial performance of an item is committed to a DBE, explain what part of the item the DBE will perform;

NOTE: In the EBS (Electronic Bidding System):

Use the quote comparison to document item (a)

Use the contact log to document items (b) and (c).

Use the DBE commitment to document items (d), (e), and (f).

The *Race Neutral Documentation* submitted in the EBS prepared bid, will be kept confidential and not reviewed unless the Contractor is otherwise determined to be the low Bidder or the DEPARTMENT elects to review said information in making their determination as to award of the contract.

4. DBE Written Confirmation

Low Bidder shall submit to the Director of Construction & Materials within three (3) work days after the bid opening written confirmation from each DBE that it is participating in the contract as provided in the Prime Contractor's DBE Commitment or Race Neutral Documentation. The written confirmation shall include the following information:

- a. A description of the work that will be performed (list specific bid items). Listed bid items shall be considered to be committed in their entirety unless Contractors designate otherwise in their DBE commitment.
 - (1) If mobilization is a bid item that is partially committed, please confirm the dollar amount of the mobilization to be performed.
 - (2) If a partial quantity is committed, confirm the quantity to be performed.
 - (3) If a partial performance of an item is committed, confirm what part of the item will be performed.
 - (4) Unit bid prices for each bid item that is committed to a DBE.
 - (5) Total dollar amounts (mathematical extensions) for each bid item that is committed to a DBE

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b. The dollar amount of participation by each named DBE firm.

5. Good Faith Efforts

Bidders who fail to meet the DBE goal for bid evaluation must demonstrate with documentary evidence that they made good faith efforts to do so. Bidders are required to include the Good Faith Efforts Documentation with the EBS prepared Bid Proposal. The said information will be kept confidential and not reviewed unless the Bidder is otherwise determined to be the low Bidder or UDOT and authorized representatives elect to review said information in making their determination as to award of the contract. For the bid to be considered responsive, Bidders shall include with the BID PROPOSAL specific documentary evidence that good faith efforts have been made to meet the goal.

Attached hereto and marked Exhibit A, and by this reference made a part hereof, is a list of actions that may be used to prove the kinds of efforts prospective Bidders should consider in their attempts to demonstrate good faith efforts. The list of actions, as contained in Exhibit A, is not intended to be an exclusive list of efforts that a prospective Bidder may wish to consider in demonstrating good faith efforts to satisfy DBE participation requirements. The determination of good faith efforts shall be based upon the information and documentation of the actions supplied by the Bidder with the bid proposal. The DEPARTMENT reserves the right to investigate and verify such information or to request the low dollar Bidder to clarify information submitted at the time of bid.

6. Award of the Contract

The award of the contract, if awarded, will be made to the apparent successful responsive, responsible Bidder who submitted a reasonable bid for the contract and has complied with this Subsection D.

7. Administrative Reconsideration

Good faith efforts as used herein shall be determined on a case by case basis. If it is determined that the apparent low Bidder has failed to meet the requirements of Exhibit A, the bidder will be provided an opportunity for administrative reconsideration.

a. Official(s) who did not take part in the original determination will perform the administrative reconsideration..

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- b. The Bidder will have the opportunity to provide to written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so.
- c. The Bidder will have the opportunity to meet in person with the reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do so.
- d. The Bidder will be notified in writing of the decision and the basis for the decision.
- e. The reconsideration decision is administratively final and is not appealable to FHWA nor to the DOT.

E. COUNTING DBE PARTICIPATION TOWARD GOALS FOR BID EVALUATION

1. The DEPARTMENT will recognize and grant DBE credit toward the goal for bid evaluation (*race conscious* goals) for work committed to DBE subcontractors ONLY in the types of work for which DBE certification has been granted by the UUCP prior to bid opening. It is necessary that all bidders refer to the UUCP DBE Directory for direction and guidance. A current copy of the DBE directory is available through the Civil Rights Office and on the Internet at (click on this link):

<http://www.udot.utah.gov/main/f?p=100:pg:::::V,T:,198>

An electronic file of the DBE Directory is available for downloading to use in the Electronic Bidding system (EBS) at the following URL (click on this link):

<http://www.udot.utah.gov/main/f?p=100:pg:::::V,T:,317>

2. The DEPARTMENT will grant DBE credit toward *race neutral* goals for work performed by firms who are not DBE certified prior to bid opening or who bid types of work for which DBE certification has not been granted by the DEPARTMENT prior to bid opening but subsequently are granted DBE certification.
3. Commitments to DBEs that exceed the Goal for Bid Evaluation will be considered as both race conscious and race neutral. The dollar amount of the Goal for Bid Evaluation will be considered to be race conscious participation. Any dollar amounts in excess of the Goal for Bid Evaluation will be considered as race neutral participation.
4. When a DBE bids as a prime contractor and utilizes themselves as a DBE participant, their commitment will be counted as race neutral, therefore this prime must meet the goal by using other DBE subcontractors.

F. COUNTING DBE PARTICIPATION TOWARD GOALS FOR PERFORMANCE

Subcontracts to DBEs that exceed the *Goal For Bid Evaluation* will be considered in part as race conscious participation and in part as race neutral participation. Any dollar amounts in excess of the *Goal For Bid Evaluation* will be considered as race neutral participation.

It is intended that the Contractor shall utilize the subcontractors designated in the DBE Commitment in the performance of the contract. Any changes in the Contractor's DBE Commitment, such as substitution of a DBE subcontractor, substitution of contract items, or decrease in total dollar amount must be approved by the DEPARTMENT and must be covered by a Change Order. Unauthorized substitutions or eliminations may result in the imposition of sanctions. Failure to meet the Goal for Performance, that is established at the time of award by the Contractor's DBE Commitment, without adequate justification, including concurrence of the ENGINEER and Civil Rights Manager, shall result in the imposition of sanctions as provided in Part I of this Special Provision.

1. Only the value of the work actually performed by the DBE will count toward DBE goals.
2. Contractors may count toward their contract goals a portion of the total dollar value of a contract with a joint venture eligible under the standards of this bid condition equal to the percentage of the ownership and controls of the DBE partner in the joint venture.
3. The ENGINEER will recognize and grant DBE credit for work subcontracted and performed by DBE subcontractors ONLY in the types of work for which DBE certification has been granted by the UUCP prior to bid opening. It is necessary that all Bidders refer to the UUCP'DBE Directory for direction and guidance. A current copy of the UUCP DBE directory is available through the Civil Rights Office and on the Internet at (click on this link):

<http://www.udot.utah.gov/main/f?p=100:pg:::::V,T:,198>

An electronic file of the DBE Directory is available for downloading to use in the Electronic Bidding system (EBS) at the following URL (click on this link):

<http://www.udot.utah.gov/main/f?p=100:pg:::::V,T:,317>

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4. Contractors may count toward their goals only the value of the work actually performed by the DBE toward the DBE goals.
 - a. Work performed by the DBE's own forces using "regular employees" and "regular equipment."
 - b. The cost of supplies and materials obtained and purchased by the DBE and equipment leased for the work of the contract.
 - c. Work that a DBE subcontracts to a lower tier DBE firm.
5. Contractors may not count toward the DBE goals:
 - a. Supplies and material purchased and equipment leased by the DBE from the prime Contractor or its affiliates or another subcontractor on the project.
 - b. Work that a DBE subcontracts to a lower tier non-DBE firm.
6. Contractors may count toward their goals only expenditures to a DBE that performs a commercially useful function in the work of the contract.
 - a. A DBE performs a "commercially useful function" when it is responsible for the execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.
 - b. The DEPARTMENT shall evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.
 - c. A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, the DEPARTMENT must examine similar transactions, particularly those in which DBEs do not participate.

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- d. A DBE does not perform a commercially useful function if it does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved.
7. The DEPARTMENT shall use the following factors in determining whether a DBE trucking company is performing a commercially useful function:
 - a. The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
 - b. The DBE must be responsible for the management and supervision of the entire trucking arrangement for the purpose of meeting DBE goals.
 - c. The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.
 - d. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - e. The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE lessees not to exceed the value of transportation services provided by DBE-owned trucks on the contract. Additional participation by non-DBE lessees receives credit only for the fee or commission it receives as a result of the lease arrangement.

Example: Leases two trucks from DBE Firm Y and six trucks from non-DBE Firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four of the six trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight trucks. With respect to the other two trucks provided by Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks Firm X receives as a result of the lease with Firm Z.

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- f. For purposes of this paragraph (d), a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.
8. Contractors may count expenditures with DBEs for materials or supplies as provided in the following:

- a. If the materials or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materials or supplies counts toward DBE goals.

For purposes of this paragraph, a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

- b. If the materials or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies counts toward DBE goals.

For purposes of this paragraph, a regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

- (1) To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
- (2) A firm may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating or maintaining a place of business if the firm both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an *ad hoc* or contract-by-contract basis.

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- (3) Packagers, brokers, manufacturers representatives, or other persons or firms who arrange, or expedite, transactions are not regular dealers.
 - (4) A DBE trucking company that picks up a product from a manufacturer or regular dealer and delivers the product to the Contractor performs a delivery service. Credit will not be given based on a percentage of the cost of the product; credit will be allowed only for the cost of the transportation service.
9. If the materials or supplies are purchased from a service provider, the fees or commission charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies, count toward the DBE goals.

A Service Provider is a business that is neither a manufacturer nor a regular dealer but simply transfers title of a product from manufacturer to ultimate purchaser or a firm that puts a product into a container for delivery. A service provider charges a fee or a commission for assistance in the procurement of the materials and supplies, or fees or transportation for the delivery of materials or supplies required on a job site.

- a. Only the fees, commissions, or transportation performed by the DBE service provider count toward the DBE goals. The DEPARTMENT must determine that the fees are reasonable and not excessive as compared with fees customarily allowed for similar services.
 - b. No portion of the cost of the materials and supplies count toward the DBE goals. Documentary evidence of the supply agreements, i.e., sales contract, purchase order, etc., shall be submitted to the Resident Engineer or Consultant Engineer at the Preconstruction Conference. The agreement shall set forth the estimated quantities, unit prices, total dollar amounts, material guarantees, delivery, and payment requirements including the requirements listed part E, 4, e, of this DBE Special Provision.
10. Prompt payment for the work accomplished is an integral part of the concept of commercially useful function.

See Section F, Subsection 6,a for a definition of “commercially useful function.”

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G. CONTRACTOR'S RESPONSIBILITY

1. It is the Contractor's responsibility to determine the level of professional competence and financial responsibility of any proposed DBE subcontractor. The Contractor shall ascertain that the proposed DBE subcontractor is particularly experienced and equipped for the work of the subcontract.
2. It is the Contractor's responsibilities to monitor and assure that DBE's listed to fulfill DBE goals perform a commercially useful function.

H. DBE SUBCONTRACTOR'S FAILURE TO PERFORM SUCCESSFULLY

If, during the performance of the contract, the Prime Contractor determines that a DBE subcontractor is unable to perform successfully, the Contractor shall make good faith efforts to replace the DBE subcontractor with another DBE to fulfill the Goal for Bid Evaluation. For Race Conscious DBE participation, the Contractor shall consider the uncompleted DBE committed work items as well as other work items as a part of the good faith efforts. All substitutions of DBE subcontractors shall receive prior approval by the DEPARTMENT.

The Contractor shall not substitute DBE subcontractor(s), work item(s), nor decrease dollar amount(s) as indicated in the Contractor's DBE Commitment without prior submission of written justification to the ENGINEER and without prior approval of the ENGINEER and the Civil Rights Manager.

The Contractor shall not substitute DBE subcontractor(s), work item(s), nor decrease dollar amount(s) as indicated in the Contractor's DBE Commitment Substitutions without prior submission of a written statement from the DBE consenting to the substitution or decrease and holding the ENGINEER harmless for approving the substitution.

Unauthorized substitutions of the DBE(s), under-runs of work item(s), or decreases in dollar amount(s) may result in the imposition of sanctions as allowed under Section I.

UDOT reserves the right to authorize completion of the work that was subcontracted to a DBE who is unable to perform successfully by either of the following methods:

1. Approve, at no additional cost to the DEPARTMENT, a replacement DBE subcontractor and, when appropriate, modify the contract to provide for reasonable extra time necessary to obtain a DBE replacement at no additional cost to the DEPARTMENT.

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2. Direct the Contractor to perform at unit bid prices. In the event this option is selected, the percentage DBE goal will be adjusted as may be appropriate.

I. SANCTIONS

1. The Contractor's DBE Commitment becomes a 3-part commitment comprised of the DBE Contractor(s), work item(s) and dollar amount(s). The Commitment becomes a contract specification upon award of the contract and becomes the minimum goal for contract performance.

If the Contractor fails to achieve the minimum goal, established in the contract at the time of the award of the contract or later modified, the contract payments shall be reduced as a liquidated damage and not as a penalty by an amount equal to the dollar amount of work not performed by the DBE. The dollar amount of any sanction will be computed using the unit prices indicated in the DBE subcontract

Exceptions:

- a. Any authorized adjustment in the DBE Commitment that has been approved by the ENGINEER and Civil Rights Manager.
 - b. Race neutral participation.
2. The ENGINEER shall deduct maximum points for *Compliance with EEO* when completing the *Contract Performance Report*.

J. RECORD KEEPING

1. The DEPARTMENT must create and maintain a Bidders list consisting of all firms bidding on prime contracts and bidding or quoting subcontractors on DOT-assisted projects. For every firm, the following information must be submitted annually:
 - a. Firm name
 - b. Firm address
 - c. Firm's status as a DBE or non-DBE
 - d. Age of firm
 - e. Annual gross receipts of the firm.

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Every firm bidding or quoting as a prime or subcontractor at any level on DOT-assisted projects must register annually with UDOT.

NOTE: Items (a) and (b) should be completed in the EBS software by using the 'Quote Comparison' and submitted with your bid.

2. With the bid or no later than 10 work days after bid opening date, each and every prime bidder must submit to The DEPARTMENT a list of all firms bidding and/or quoting as subcontractors, service providers or suppliers.* The Prime Bidder must also submit for each and every firm sub-quoting the following information:
 - a. Firm Name
 - b. Firm address
 - c. Work classification(s) bid by subcontractor, service provider or supplier:
 - (1) Building
 - (2) Concrete: Curb & gutter, Flatwork, Inlet Boxes, etc.
 - (3) Concrete: Structural
 - (4) Consulting firms
 - (5) Demolition
 - (6) Electrical: Hwy lighting, signals & fiber optics
 - (7) Equipment rentals and sales
 - (8) Excavation
 - (9) Fencing
 - (10) Grading
 - (11) Guardrail
 - (12) Landscaping & erosion control
 - (13) Miscellaneous
 - (14) Painting: Highway structures
 - (15) Painting: Highway striping & painted messages
 - (16) Paving: Asphalt highway & runway, etc.
 - (17) Paving: Concrete
 - (18) Paving: Miscellaneous
 - (19) Pipe Culverts, drainage, sewer & water
 - (20) Reconstruction : Manholes, etc.
 - (21) Rotomilling
 - (22) Sawing & sealing
 - (23) Signs permanent
 - (24) Steel reinforcing
 - (25) Steel structural
 - (26) Surveying
 - (27) Traffic Control: Flagging

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- (28) Traffic Control: Temp. Signs and Devices
- (29) Trucking
- (30) Supplier: Manufacturer
- (31) Supplier: Regular Dealer
- (32) Supplier: Service Provider

*NOTE: This requirement can be met with the 'Quote Comparison' function in EBS. The report must be printed and faxed to the Civil Rights Department at (801) 965-4101.

Exhibit A

Suggested Actions and Required Documentation to Demonstrate
Good Faith Efforts to Comply With DBE Requirements

A Bidder must show that it took necessary and reasonable steps to achieve a DBE goal that, by their scope, intensity, and appropriateness, can reasonably be expected to fulfill the program requirement. The efforts employed should be those that would be taken if a Bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract. Goal. Mere *pro forma* efforts are not good faith efforts to meet the DBE contract requirements.

Documentary evidence of each action taken must be submitted with the Bid Proposal.

The following is taken, with some modification, from CFR 49 Part 26, Appendix A. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive.

GUIDANCE CONCERNING GOOD FAITH EFFORTS

- I. When the DEPARTMENT establishes a contract goal on a Federal aid contract, a Bidder must, in order to be responsive, make good faith efforts to meet the goal. The Bidder can meet this requirement in either of two ways:
 - A. The Bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose.
 - B. If it doesn't meet the goal, the Bidder can document adequate good faith efforts. This means that the Bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part that, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.
- II. In any situation in which the DEPARTMENT has established a contract goal, CFR 49, Part 26 requires UDOT to use the good faith efforts mechanism of this part. It is up to the DEPARTMENT to make a fair and reasonable judgment whether a Bidder that did not meet the goal made adequate good faith efforts. It is important for the DEPARTMENT to consider the quality, quantity, and intensity of the different kinds of efforts that the Bidder has made. The efforts employed by the Bidder should be those that one could reasonably expect a Bidder to take if the Bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. The DEPARTMENT emphasizes, however, that its determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.
- III. The U. S. Department of Transportation also strongly cautions the DEPARTMENT against requiring that a Bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the Bidder makes an adequate good faith efforts showing. This rule specifically prohibits UDOT from ignoring bona fide good faith efforts.
- IV. The following is a list of types of actions that UDOT should consider as part of the Bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
 - A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The Bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The Bidder must determine with certainty if

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the DBEs are interested by taking appropriate steps to follow up initial solicitations.

- B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
- C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- D. Negotiating in good faith with interested DBEs.
 - (1) It is the Bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
 - (2) A Bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration.
 - (a) The fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable.
 - (b) No specific price differential has been established by 49 CFR 26. This approach allows flexibility.
 - (c) Along with the reasonableness of the cost necessarily comes the fact that prime Contractors are not expected to bear unreasonable costs.
 - (d) Any burden that a non-DBE subcontractor might face is also limited by the reasonableness of competing bids.

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- (3) The ability or desire of a prime Contractor to perform the work of a contract with its own organization does not relieve the Bidder of the responsibility to make good faith efforts. Prime Contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
 - (4) The ability or desire of a prime Contractor to bundle the work of a subcontractor who wishes to perform all the work of the subcontract with its own organization does not relieve the Bidder of the responsibility to require a subcontractor to make good faith efforts. Subcontractors are not required to accept higher quotes from lower tier DBEs if the price difference is excessive or unreasonable.
- E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The Contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the Contractor's efforts to meet the project goal.
 - F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
 - G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
 - H. Effectively using the services of available minority/women community organizations; minority/women Contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

NOTE: The DBE 'Contact Log' in EBS, submitted as part of the Bid Proposal, can be used to document the following efforts:

- IV. A.
- IV. C.
- IV. D. (1)

The 'Quote Comparison' in EBS, submitted as part of the Bid Proposal, can be used to document the following efforts:

- IV. B.
- IV. D. (3)

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- V. In determining whether a Bidder has made good faith efforts, the DEPARTMENT may take into account the performance of other Bidders in meeting the contract. For example, when the apparent successful Bidder fails to meet the contract goal, but others meet it, UDOT may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful Bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other Bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful Bidder having made good faith efforts.

Submit with the Bid Proposal documentary evidence to prove that good faith efforts were accomplished:

1. Submit copies of all solicitations: correspondence, faxes, advertisements, telephone logs with dates, times, names of persons contacted, nature of conversation, DBEs' responses, and etc.
2. If DBEs submitted quotes that were not used because the range of additional costs was determined to be excessive or unreasonable, submit the range that has been determined by the Bidder to be a reasonable range of additional costs and explain how that range was determined.
3. As a part of demonstrating a reasonable range of additional costs, submit copies of all subcontractor quotes, copies of spread sheet(s) which compare all DBE quotes with non-DBE quotes and which include bid item(s) quoted, work classifications, quantities, prices, and dollar amounts.
4. Submit a narrative of specific names and types of information, assistance, considerations given, and efforts to assist DBEs under Item IV, subparts C through F.

**DBE BID ASSURANCE
COMPLETE ONLY PART A. OR PART B.**

**PART A. RACE CONSCIOUS DBE PARTICIPATION
SPECIFIC ASSIGNED CONTRACT DBE GOAL FOR BID
EVALUATION 8 PERCENT**

If the DBE goal which is indicated in Section A, CONTRACT GOAL, of APPENDIX A, BID CONDITIONS, DISADVANTAGED BUSINESS ENTERPRISE (DBE) is greater than 0.0 percent, complete only Part A, and submit *DBE Commitment*, and if applicable, *Documentation of Good Faith Efforts*.

By signing the BID REPORT (either manually or electronically), it is understood that those individuals who sign as owners or authorized representatives of the Bidder, have read and are familiar with APPENDIX A, SPECIAL PROVISION, BID CONDITIONS, DISADVANTAGED BUSINESS ENTERPRISE and hereby certify that good faith efforts have been utilized to meet or exceed the goal of the DBE Program as established by the DBE Special Provision.

Indicate intended DBE commitment.

_____ We intend to meet or exceed the contract goals as per the DBE Commitment which is submitted with the Bid Proposal.

RACE CONSCIOUS AND RACE NEUTRAL COMMITMENT _____
PERCENT

_____ We fail to meet the advertised goal. This firm commits to DBE participation as per the DBE Commitment that is submitted with the EBS Bid Proposal and to continue Good Faith Efforts throughout the performance of the project. Documentation of Good Faith Efforts is submitted with the Bid Proposal, including:

1. DBE Contact Log Report
2. Quote Comparison Report

**PART B. RACE NEUTRAL DBE PARTICIPATION
ASSIGNED CONTRACT DBE GOAL FOR BID EVALUATION
_____ PERCENT**

If the DBE goal, which is indicated in Section A, CONTRACT GOAL, of APPENDIX A, BID CONDITIONS, DISADVANTAGED BUSINESS ENTERPRISE (DBE) is 0.0 percent, complete only Part B and submit *Race Neutral DBE Information*.

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By signing the BID REPORT (either manually or electronically), it is understood that those individuals who sign as owners or authorized representatives of the Bidder, have read and are familiar with APPENDIX A, SPECIAL PROVISION, BID CONDITIONS, DISADVANTAGED BUSINESS ENTERPRISE and hereby certify that equal opportunity action has been utilized to allow DBEs to compete for and perform on subcontracts.

_____ We do not intend to sublet a portion of the contract work.

_____ We intend to sublet a portion of the contract work. Our firm has taken equal opportunity action to allow DBEs to compete for and perform on subcontracts. Any DBEs utilized by our firm for DBE participation at the time of bid, on a 0.0 percent project goal, will become Race Neutral DBE Information.

X. Attention Contractors
E.E.O. Affirmative Action Requirements on
Federal and Federal-Aid Construction Contracts of \$10,000 or More

Include the Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity, Executive Order (EO) 11246, as amended (incorporated by reference & Appendix A - below) and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth in §60-4.3 (incorporated by reference) in all requests for bids/solicitations on all contracts and subcontracts of \$10,000 or more

Include in Appendix A, Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity, the goals established by the Office of Federal Contract Compliance Programs (OFCCP) for minority and female participation in each craft on all contracts and subcontracts.

APPENDIX A (EO 11246)

The OFCCP goals for minority representation in each trade are shown below. The goal for female utilization (6.9 percent) applies to all contracts and subcontracts irrespective of their geographical location.

COUNTY	GOAL	COUNTY	GOAL	COUNTY	GOAL
Beaver	12.6	Box Elder	5.1	Cache	5.1
Carbon	5.1	Daggett	5.1	Davis	6.0
Duchesne	5.1	Emery	5.1	Garfield	12.6
Grand	10.2	Iron	12.6	Juab	5.1
Kane	12.6	Millard	5.1	Morgan	5.1
Piute	5.1	Rich	5.1	Salt Lake	6.0
San Juan	10.2	Sanpete	5.1	Sevier	5.1
Summit	5.1	Tooele	6.0	Uintah	5.1
Utah	2.4	Wasatch	5.1	Washington	12.6
Wayne	5.1	Weber	6.0		

These goals are applicable to all contractors' or subcontractors' construction work (whether or not it is Federal or Federally assisted) performed in the covered area.

The Bidder's attention is called to the "Equal Opportunity Clause" (form FHWA 1273- II 1 b, included in this contract) and the "Standard Federal Equal Employment Specifications" set forth in 41 CFR Part 60-4 (incorporated by reference).

Compliance with the Executive Order and the regulations in 41 CFR part 60-4 is based on the implementation of the "Equal Opportunity Clause," specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and the efforts to meet the goals.

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Provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification lists the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract will be performed.

Under Section 303 of EO 11246, only the U. S. Department of Labor (DOL) has the authority to determine compliance with EO 11246 and its implementing regulations. The Federal Highway Administration (FHWA) and the State highway agency (UDOT) do not have independent authority to determine compliance with EO 11246, 41 CFR Chapter 60, or the minority and female participation goals established by the Office of Federal Contract Compliance Programs (OFCCP), pursuant to 41 CFR Chapter 60.

If the State highway agency (UDOT) or the FHWA becomes aware of any possible violations of EO 11246 or 41 CFR Chapter 60, each has the authority and the responsibility to notify the OFCCP.

APPENDIX B

As used in these specifications:

- a. Covered area: The geographical area described in the solicitation from which this contract resulted;
- b. Director: Director, Office of Federal Contract Compliance Programs, United State Department of Labor, or any person to whom the Director delegates authority;
- c. Employer identification number: The Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- d. Minority includes:
 - (i) Black (all persons having origins in any of the black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

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XI. Specific Equal Employment Opportunity Responsibilities

1. General

- a. The State Transportation Agency (STA) and Federal Highway Administration (FHWA) have the authority and the responsibility to ensure compliance with 23 USC Section 140 and Title VI of the Civil Rights Act of 1964, as amended, and related regulations, including 49 CFR Parts 21 and 23, and 23 CFR Parts 200, 230, and 633. Pursuant to this authority, the STA and the FHWA will conduct compliance reviews of contractors on federally funded highway projects to determine compliance with these laws and related regulations. The STA will prepare complete, written reports of findings of the compliance reviews. The FHWA will analyze the reports, and the evidence on which they are based.
- b. A contractor's EO requirements are in the contract provisions referenced in the FHWA-1273 (included herein). These include contractor acceptance of Section II, 1 c, and the obligation of the contractor to comply with specific EO activities at a minimum.
- c. Submit form PR-1391 in July and at other times when such information is required by the STA or the FHWA; and submit other documentation and reports as requested by the STA or the FHWA.

2. Equal Employment Opportunity (EEO)

- a. Where minorities and women have been excluded from certain classifications in a contractor's work force, the EEO affirmative action requirements specified in the contract will be implemented in good faith to provide EEO.
- b. The contractor will use the avenue afforded by the Training Special Provision (included herein) to increase minority and female employment in crafts where they have been underrepresented.

3. Minority and Female Average Availability Percentages – Utah

- a. Average percentages for minority (M) and female (F) availability in each trade, by County, are shown below. Availability is defined as "an estimate of the number of qualified minorities or women available for employment in a given job group."

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COUNTY	M	F	COUNTY	M	F	COUNTY	M	F	COUNTY	M	F
Beaver	6.8	3.0	Box Elder	9.9	5.0	Cache	9.9	5.0	Carbon	12.3	3.0
Daggett	12.3	3.0	Davis	8.9	3.0	Duchesne	12.3	3.0	Emery	15.5	5.0
Garfield	15.5	5.0	Grand	15.5	5.0	Iron	6.8	3.0	Juab	8.2	4.0
Kane	15.5	5.0	Millard	6.8	3.0	Morgan	11.1	3.0	Piute	15.5	5.0
Rich	9.9	5.0	Salt Lake	21.6	5.0	San Juan	15.5	5.0	Sanpete	8.2	4.0
Sevier	15.5	5.0	Summit	11.1	3.0	Tooele	8.2	4.0	Uintah	12.3	3.0
Utah	11.9	4.0	Wasatch	11.1	3.0	Washington	10.0	4.0	Wayne	15.5	5.0
Weber	17.8	5.0									

- b. The use of these average percentages in no way precludes the contractor from performing and documenting good faith efforts to recruit and employ minorities and females.

4. Compliance Determinations

- a. The list below is a set of “Good-Faith Efforts” criterion established in FHWA’s regulatory and policy requirements that may be used to determine a contractor’s good faith efforts:
1. Contractor’s EEO Policy
 2. Dissemination of the EEO Policy
 3. Authority and Responsibility of EEO Officer
 4. Periodic EEO meetings (EEO indoctrination)
 5. Notices/posters on bulletin board
 6. Advertising as an “EEO Employer”
 7. Recruitment – Systematic and direct recruitment efforts with sources likely to yield minorities and women
 8. Educate all new supervisors within 30 days of reporting to duty
 9. Encourage present employees to refer minorities and women
 10. Evaluates the spread of wages to determine whether discrimination exists
 11. Investigates all complaints, promptly, and appropriate corrective action is taken
 12. Assist in locating, qualifying, and increasing the skills of minorities and women
 13. Fully uses training programs and advises employees and applicants of opportunities
 14. Minorities and women exist in contractor’s training program
 15. Ensure nonsegregated facilities
 16. Minorities and women are employed in all occupations, crafts, and job classifications on an equal basis
 17. Procedures establishing the monitoring of subcontractors’ compliance with nondiscrimination, EO and EEO obligations

Federal Projects With Full Size Plan Sheets

18. The need for adequate records and reports
 19. Minorities and women reach accumulating work hours expected based on their representation
- b. Affirmative Action is determined based on the evaluation of the contractor's compliance with all of the above good faith efforts and on the contractor's efforts to achieve maximum results from the actions.
 - c. A contractor is in compliance when there is no evidence of discrimination in employment, training, DBE, Indian Preference provisions, equal opportunity requirements, or evidence every good faith effort has been made.
5. Training Special Provisions

This Training Special Provisions supersedes subparagraph II 6b of the FHWA-1273, and is an implementation of 23 U.S.C.C.140 (a).

Provide training as follows as part of the equal employment opportunity affirmative action program:

Provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of training hours to be trained under the special provision is 500 (amount to be filled in by the State Highway Department (STA)).

If a portion of the contract work is subcontracted, determine how many, if any, of the trainees are to be trained by the Subcontractor. Make this training special provision applicable to the subcontract. Retain the primary responsibility for meeting the training requirements imposed by this special provision. Where feasible, 25 percent of apprentices or trainees in each occupation will be in their first year of apprenticeship or training.

Distribute the number of trainees among the work classifications on the basis of needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, submit to the State highway agency for approval the number of trainees to be trained in each selected classification and training program to be used. Specify the starting time for training in each of the classifications. The STA gives credit for each trainee employed on the contract work that is currently enrolled or becomes enrolled in an approved program. Reimbursement is made for the trainees as specified in this provision.

Federal Projects With Full Size Plan Sheets

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. Demonstrate the steps taken to achieve compliance with Federal Projects With Full Size Plan Sheets this Training Special Provision. This training commitment is not intended nor used to discriminate against any applicant for training, whether a member of a minority group or not.

Do not employ a trainee in any classification in which they have successfully completed a training course leading to journeyman status or in which they have been employed as a journeyman. Include appropriate questions in the employee application or by other suitable means to satisfy this requirement. Document the findings in each case. The training program selected, and approved by the STA and the FHWA, establishes the minimum length and type of training for each classification in that program. The STA and the FHWA approves a program if it meets the equal employment opportunity obligations and qualification of the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and training are considered acceptable if administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program is obtained from the State prior to commencing work on the classification covered by the program.

Provide training in the construction crafts rather than clerk typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification if approved by the division office. Some off-site training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Trainees are paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

Federal Projects With Full Size Plan Sheets

Furnish the trainee a copy of the program to be followed in providing the training. Provide each trainee with a certification showing the type and length of training satisfactorily completed.

Provide for the maintenance of records and furnish periodic reports documenting their performance under this Training Special Provision. UDOT form, Monthly Training Summary satisfies this reporting requirement. Contractor will accomplish entry of this information electronically by entry into PDDBS at least monthly for the duration of the project.

- a. Training Program Description: As part of the Equal Employment Opportunity Affirmative Action Program, the Contractor shall provide on-the-job training aimed at developing full journey status in the type of trade or job classification involved. The number of hours of training to be provided under this contract will be as shown on the bid schedule. Apprentices must be enrolled in an Office of Apprenticeship Training Employer and Labor Services (OATELS - formerly BAT) approved program; or if employee is a foreign born and English challenged worker, enrolled in the AGC Daily Dose English Program.

Following their *Daily Dose English Program* training, each trainee will be allowed a maximum of 600 hours towards his or her journeyman certification when enrolling in an apprenticeship program.

- b. **OBJECTIVE**: Training and upgrading of minorities and women toward journey status is the primary objective of this program. The Contractor shall enroll minorities and/or women, where possible, and document good faith efforts prior to the hire of non-minority males in order to demonstrate compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.
- c. **DAILY DOSE PROGRAM**: Only those employees who have a language barrier are eligible to enroll in the Daily Dose Program and receive credit towards their journeyman certification.

Contractors utilizing the Daily Dose Program will receive credit of twenty hours per week up to a maximum of 600 hours for reimbursement towards a training goal per project, subject to verification; and/or credit of twenty hours per week up to a maximum of one half of assigned hours if the training goal is 600 hours or less on a project.

Federal Projects With Full Size Plan Sheets

Employees enrolled only in the AGC Daily Dose Program working on a project will be compensated at a wage of 50 percent of the base rate for the specific classification to which they are assigned, but not less than the laborer rate in the wage determination for the project – whichever is greater.

An employee enrolled in the AGC Daily Dose Program may be concurrently enrolled in an approved apprenticeship program at any point prior to completion of the 600-hour program, based on language skill level commensurate with the approved apprenticeship program. Once enrolled in a defined apprenticeship program, compensation will be assigned at the period of apprenticeship employee is placed. Employee will be required to continue and/or complete the Daily Dose Program of 600 hours established while employed by the contractor.

- d. **PROJECT TRAINING GOAL:** The formula for determining the training goal specified in the Training Special Provision shall be as follows:

DESCRIPTION	SAMPLE				
Engineer's estimate times 33% equals total labor dollars.	\$25,000,000	X	33%	=	\$8,250,000
Total labor \$ divided by \$50/hr equals total labor hours.	\$8,250,000	÷	*\$50/hr	=	165,000 hrs.
Total labor hours times 5% equals project training hours.	165,000 hrs.	X	5%	=	8,250 hrs.

*\$50.00 = labor cost per hour per employee – to be adjusted periodically to accommodate increase in cost.

- e. **GENERAL:** Prior to beginning construction on the contract, the Contractor shall submit Form OJT100 indicating the training program to be used, the number of hours of training to be provided by classification, and the anticipated starting time for training in each selected classification.
- f. Training should begin within 2 weeks of the anticipated start dates of project as outlined on the OJT 100 Form, unless otherwise authorized by the Resident Engineer (RE). Only after submission of documentation by the Contractor and approval by the RE, of efforts made in good faith, will authorization of a delay be made.
- g. The Contractor shall review annually the training and promotion potential of minority and women employees and shall encourage eligible employees to apply for such training and promotion.

Federal Projects With Full Size Plan Sheets

- h. **METHOD OF MEASUREMENT:** The Contractor will be credited for each approved apprentice/trainee employed on the project and reimbursed on the basis of hours worked in the program to which he/she is indentured, as listed on the certified payrolls, and reported monthly, by the Contractor in the UDOT PDBS Contractor module, OJT Hours Worked screen. There shall be no credit for training provided under this section prior to the Contractor's submittal and approval by the RE of the Apprentice/Trainee Certification from the appropriate agency. This certification expires 90 days from the date of issue, and must be renewed by the Contractor in order to keep the apprentice/trainee's hours eligible for reimbursement.
- i. **BASIS OF PAYMENT:** Payment for contractor participating in the AGC Daily Dose program will be made at a rate of \$10.00 a hour, 20 hours per week, up to a maximum of 600 hours per project unless otherwise specified in accordance with 5,C of this provision. Payment will be made at the contract unit price of \$10.00 for each hour of approved apprenticeship training actually provided. If the contractor provides training for more than the number of hours specified on the bid schedule, the payment of \$10.00 per hour continues to be paid for all hours of training provided, up to a maximum of double the assigned goal. No reimbursement will be provided to the contractor for hours in excess of twice the assigned training goal per project. All reimbursement payments made to the contractor for training must be paid to the agency administering the training program. Certified documentation showing the payment to the training agency is required to be submitted to the UDOT Civil Rights EEO and Labor Specialist when the project is complete.

A contractor will have fulfilled his/her responsibilities under this Training Special Provision if he/she has provided acceptable training to the number of trainees specified on the OJT100 and the number of hours specified and shown on the bid schedule.

EXAMPLE (a): Training Goal = 750 hours; Hours specified on bid schedule = 750. Contractor may use any number of trainees to satisfy the number of hours specified on the bid schedule but the number of trainees specified on the Form OJT100 must be used unless change is approved by RE. EXAMPLE (b): Training Goal = 2000 hours; Hours specified on bid schedule = 2,000. Contractor may use any number of trainees to satisfy the number of hours specified on the bid schedule.

Federal Projects With Full Size Plan Sheets

Any request for adjustment to the OJT Training Form or goal MUST be submitted and approved by the UDOT Civil Rights Office prior to substantial completion of project. Good Faith Efforts and mitigating circumstances will be considered in approval process.

LIQUIDATED DAMAGES: Where the Contractor has failed, by the end of the project, to provide the required number of hours of training and has failed to submit acceptable good faith efforts documentation which establishes exactly why he/she was unable to do so, the Contractor will be assessed an amount equal to the following damages to be deducted from the final progress payment:

DESCRIPTION	SAMPLE					DAMAGES
Number of hours of training not provided, times the journey worker hourly scale plus benefits	HOURS OF TRAINING NOT PROVIDED	*JOURNEY WORKER	BASE PLUS FRINGE	TOTAL HOURLY WAGE OF TRAINEE		
	600	OPERATOR – Blade Smooth/Finish	23.80 + 9.76	= 33.56		20,136.00
	500	CARPENTER	16.13 + 2.80	= 18.93		9,465.00
	600	IRONWORKER	21.84 + 9.92	= 31.76		19,056.00
	700	OPERATOR – Bulldozer	18.05 + 7.08	= 25.13		17,591.00
Total training hours not provided	2,400		Project Total Damages			66,248.00

*The journey worker scale is based on the classification identified in the approved programs submitted previously on the form OJT100.

XII. Title VI Appendix A and E

Title VI of the Civil Rights Act of 1964 – Non – Discrimination Notice; Attachment A

NON-DISCRIMINATION NOTICE

In accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C 2000d to 2000d-4 and the Title 49, Code of Federal Regulations. The text below, in its entirety, is in all contracts entered into by UDOT. All of the text except the final section, entitled "Incorporation of Provisions," should be included in any contract entered into by any UDOT contractor.

During the performance of this contract, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

A. COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964 FOR FEDERAL-AID CONTRACTS

- 1. Compliance with Regulations:** The contractor shall comply with the Regulation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as Regulations), which are herein incorporated by reference and made a part of this contract.
- 2. Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, sex, age, disability, income status, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
- 3. Solicitations for Subcontractors, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, sex, age, disability, income status, or national origin.

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- 4. Information and Reports:** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the (Recipient) or the (Name of Appropriate Administration) to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the (Recipient), or the (Name of Appropriate Administration) as appropriate, and shall set forth what efforts it has made to obtain the information.
- 5. Sanctions for Noncompliance:** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the (Recipient) shall impose such contract sanctions as it or the (Name of Appropriate Administration) may determine to be appropriate, including, but not limited to:

 - a. Withholding of payments to the contractor under the contract until the contractor complies, and/or
 - b. Cancellation, termination or suspension of the contract, in whole or in part.
- 6. Incorporation of Provisions:** The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

The contractor shall take such action with respect to any subcontractor procurement as the (Recipient) or the (Name of Appropriate Administration) may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with litigation with a subcontractor or supplier as a result of such direction, the contractor may request the (Recipient) to enter into such litigation to protect the interests of the (Recipient), and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Federal Projects With Full Size Plan Sheets

Title VI of the Civil Rights Act of 1964 – Non – Discrimination Notice; Attachment E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 610 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*).

XIII. Required Contract Provisions FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

- A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.
4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

Federal Projects With Full Size Plan Sheets

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
 - a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.
 - b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."
2. **EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.
3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
 - a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the

Federal Projects With Full Size Plan Sheets

contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

- b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
- c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.
- d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
- e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

- a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.
- b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.
- c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of

Federal Projects With Full Size Plan Sheets

each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. **Training and Promotion:**

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
- b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

- a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
- b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
- c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.
- d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. **Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

Federal Projects With Full Size Plan Sheets

- 9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
- a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.
 - b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.
- 10. Assurance Required by 49 CFR 26.13(b):**
- a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.
 - b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.
- 11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.
- a. The records kept by the contractor shall document the following:
 - (1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;
 - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and
 - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;
 - b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term

Federal Projects With Full Size Plan Sheets

"facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

- a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (ii) The classification is utilized in the area by the construction industry; and
 - (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

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- (2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
 - (3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
 - (4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
 - d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

Federal Projects With Full Size Plan Sheets

3. Payrolls and basic records

- a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- b.
 - (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.
 - (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - (i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
 - (ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

Federal Projects With Full Size Plan Sheets

- (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
 - (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.
 - (4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

- a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

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In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. **Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

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7. **Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
8. **Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
9. **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.
10. **Certification of eligibility.**
 - a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. **CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
2. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.
3. **Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

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4. **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).
 - a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:
 - (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
 - (2) the prime contractor remains responsible for the quality of the work of the leased employees;
 - (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
 - (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.
 - b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.
2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.
4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

Federal Projects With Full Size Plan Sheets

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.
2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).
3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Federal Projects With Full Size Plan Sheets

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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- f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
- g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov>), which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

- a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:
 - (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
 - (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and
 - (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

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- b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

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- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.
2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Federal Projects With Full Size Plan Sheets

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:
 - a. To the extent that qualified persons regularly residing in the area are not available.
 - b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.
 - c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.
2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.
3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.
4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.
5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.
6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Federal Projects With Full Size Plan Sheets

XIV. Wage Rates Applicable

GENERAL DECISION FILE FOR PROJECTS REPORT

Date: 3/26/2015

Project #: F-0173(26)7

General Decision #: UT20150065

Modification: 0

Publication Date: 01/02/2015

Counties: SALT LAKE, UT

Contractor Code		Hourly Rate	Fringes
110276	(2a) Blade/Grader	\$25.89	15.65
110345	(3) Front End Loader (Over 5 cu. yds.), Backhoe Loader Combination, Rotomill	\$25.37	15.65
110357	(4) Asphalt Laydown Machine, Asphalt Paver, Bulldozer, Front End Loader (2 to 5 cu. yds.), Grade Setter, Scraper, Oil Distributor	\$24.37	15.65
110347	(5) Asphalt Roller, Front End Loader (Under 2 cu. yds.), Horizontal Directional Drill	\$23.37	15.65
110296	(6) Screed	\$22.41	15.65
110297	(7) Roller (Dirt and Grade Compaction)	\$21.50	15.65
110332	Crane (35 to 100 tons) -2	\$26.99	15.65
110333	Crane (Over 100 tons) -1	\$28.33	15.65
110331	Crane (Under 35 tons) -3	\$25.70	15.65
110341	Crane Oiler -5	\$22.59	15.65
110348	Crane Piledriver 5	\$22.59	15.65
110211	Operator: Power Equipment: (1) Mechanic	\$27.55	15.65
120265	IRONWORKER, STRUCTUAL	\$26.18	17.45

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Modification: 0

Publication Date: 01/02/2015

Counties: SALT LAKE, UT

Contractor Code		Hourly Rate	Fringes
120261	IRONWORKER, REINFORCING	\$26.61	11.60
130012	LABORER: (1) Traffic Control, sets cones and barrels	\$20.59	8.65
130071	LABORER: (4) Asphalt Raker, Asphalt Shoveler	\$21.11	8.65
140241	CARPENTER, Includes Form Work	\$18.03	3.44
140015	CEMENT MASON/CONCRETE FINISHER	\$16.53	2.79
140277	ELECTRICIAN, Includes Low Voltage Wiring for Traffic Cameras and Installation of Traffic Signals	\$21.56	5.00
140017	LABORER: Common or General	\$12.86	2.66
140019	LABORER: Flagger	\$7.43	1.57
140023	LABORER: Grade Checker	\$12.87	3.59
140020	LABORER: Landscape	\$12.27	2.66
140021	LABORER: Mason Tender-Cement/Concrete	\$13.17	3.21
140022	LABORER: Pipelayer	\$12.60	2.79
140091	LABORER: Power Tool Operator: (Chain/Concrete Saw, Dirt Compactor (Hand Held), Hand Held Drill and Jackhammer Only)	\$13.75	4.65

GENERAL DECISION FILE FOR PROJECTS REPORT

Date: 3/26/2015

Project #: F-0173(26)7

General Decision #: UT20150065

Modification: 0

Publication Date: 01/02/2015

Counties: SALT LAKE, UT

Contractor Code		Hourly Rate	Fringes
140039	OPERATOR: Backhoe/Excavator/Trackhoe	\$17.96	6.81
140278	OPERATOR: Bobcat/Skid Steer/Skid Loader	\$13.06	3.31
140327	OPERATOR: Broom/Sweeper	\$16.78	6.55
140031	OPERATOR: Concrete Finishing Machine	\$18.76	6.55
140032	OPERATOR: Concrete Pump, Truck Mounted	\$19.18	4.23
140033	OPERATOR: Rock Chip Spreader	\$16.29	7.08
140038	OPERATOR: Tractor	\$18.01	6.73
140076	OPERATOR: Trencher	\$24.35	6.70
140041	PAINTER (Parking Lot and Highway Striping Only)	\$14.05	1.62
140089	SIGN INSTALLER (Permanent and Temporary Road Signs Only)	\$12.27	2.66
150055	TRUCK DRIVER (Water, Fuel & Oil Tank): 1,200 gal. to less than 2,500 gal.	\$19.61	11.33
150059	TRUCK DRIVER (Water, Fuel & Oil Tank): 10,000 gal. to less than 15,000 gal.	\$20.56	11.33
150106	TRUCK DRIVER (Water, Fuel & Oil Tank): 15,000 gal. to less than 20,000 gal	\$20.81	11.33

GENERAL DECISION FILE FOR PROJECTS REPORT

Date: 3/26/2015

Project #: F-0173(26)7

General Decision #: UT20150065

Modification: 0

Publication Date: 01/02/2015

Counties: SALT LAKE, UT

Contractor Code		Hourly Rate	Fringes
150056	TRUCK DRIVER (Water, Fuel & Oil Tank): 2,500 gal. to less than 4,000 gal.	\$19.76	11.33
150061	TRUCK DRIVER (Water, Fuel & Oil Tank): 20,000 gal. to less than 25,000 gal.	\$21.16	11.33
150062	TRUCK DRIVER (Water, Fuel & Oil Tank): 25,000 gal. and over.	\$21.31	11.33
150057	TRUCK DRIVER (Water, Fuel & Oil Tank): 4,000 gal. to less than 6,000 gal.	\$20.06	11.33
150058	TRUCK DRIVER (Water, Fuel & Oil Tank): 6,000 gal. to less than 10,000 gal.	\$20.31	11.33
150054	TRUCK DRIVER (Water, Fuel & Oil Tank): less than 1,200 gal.	\$19.49	11.33
150049	TRUCK DRIVER (Dump Truck, Bottom-end or side): 105 cu. yds. to less than 130 cu. yds.	\$20.83	11.33
150044	TRUCK DRIVER (Dump Truck, Bottom-end or side): 14 cu. yds. to less than 35 cu. yds.	\$19.91	11.33
150045	TRUCK DRIVER (Dump Truck, Bottom-end or side): 35 cu. yds. to less than 55 cu. yds.	\$20.11	11.33
150046	TRUCK DRIVER (Dump Truck, Bottom-end or side): 55 cu. yds. to less than 75 cu. yds.	\$20.31	11.33
150047	TRUCK DRIVER (Dump Truck, Bottom-end or side): 75 cu. yds. to less than 95 cu. yds.	\$20.51	11.33
150043	TRUCK DRIVER (Dump Truck, Bottom-end or side): 8 cu. yds. to less than 14 cu. yds.	\$19.76	11.33
150048	TRUCK DRIVER (Dump Truck, Bottom-end or side): 95 cu. yds. to less than 105 cu. yds.	\$20.71	11.33

GENERAL DECISION FILE FOR PROJECTS REPORT

Date: 3/26/2015

Project #: F-0173(26)7

General Decision #: UT20150065

Modification: 0

Publication Date: 01/02/2015

Counties: SALT LAKE, UT

Contractor Code		Hourly Rate	Fringes
150042	TRUCK DRIVER (Dump Truck, Bottom-end or side): Less than 8 cu. yds.	\$19.61	11.33
150099	TRUCK DRIVER (Lowboy)	\$21.68	11.33
150051	TRUCK DRIVER (Oil Distribution)	\$20.31	11.33
150052	TRUCK DRIVER (Pickup)	\$19.44	11.33
150053	TRUCK DRIVER (Sweeper)	\$19.76	11.33

Note: Executive Order (EO) 13658 establishes an hourly minimum wage of \$10.10 for 2015 that applies to all contracts subject to the Davis-Bacon Act for which the solicitation is issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.10 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

XV. Special Provisions and Supplemental Specifications

**Supplemental Specification
2012 Standard Specification Book**

SECTION 00120M

BIDDING REQUIREMENTS AND CONDITIONS

Delete Article 1.15, paragraph A20 and replace with the following:

20. Unsatisfactory performance on previous or current contracts or serving probation for actions on another project.

Delete Article 1.15, paragraph B and replace with the following:

- B. The bidder may appeal in writing to the UDOT Deputy Director according to Utah Code Section 63G-6-801 through 806, as amended if the Department refuses to accept a proposal for any of the foregoing reasons.

Delete Article 1.17 and replace with the following:

1.17 PROPOSAL DELIVERY

- A. Electronically transmit the proposal before the time specified in the Notice to Contractors.
- B. A manually submitted bid must include both a signed hard copy and electronic version. Electronic media device (CD/Flash Drive) must not be blank or unreadable and must contain the correct electronic bid items txt file in the indicated format.
 1. File format- Proj#_UDOTContractorID_bidopendate.txt
 2. The signed hard copy takes precedence over a manually delivered electronic version in the case of discrepancies or initialed changes to unit prices or DBE commitment.

Delete Article 1.18 and replace with the following:

1.18 WITHDRAWING OR REVISING PROPOSALS

- A. A proposal may be withdrawn or revised before the time set for receiving proposals.

- B. Provide the request for withdrawal to the Department with a telephone call followed by documented electronic communications including a company authorized signature and the UDOT Contractor ID before the time set for receiving proposals.
- C. Revise and save bid proposal using the current version of the Department's Electronic Bid System. Transmit to Department authorized repository before the time set for receiving proposals.

Delete Article 1.20 and replace with the following:

1.20 SUSPENSION

- A. A Contractor will be placed on suspension if its Contractor ratings performed by the Department do not meet the minimum standard outlined in the Contractor rating process for any Department or Department administered projects.
 - 1. The Contractor will not be allowed to bid on Department or Department administered projects while on suspension.

Add Article 1.21, paragraph A14

- 14. Contractor ratings performed by the Department do not meet the minimum standard outlined in the Contractor rating process.

Add Article 1.27:

1.27 PUBLIC OPENING OF PROPOSALS

- A. Proposals are publicly opened at the time indicated in the invitation for bids.

Add Article 1.28:

1.28 CONTRACTOR LICENSING

- A. Apply and conform to the laws of Utah relative to the licensing of contractors.
 - 1. A contractor's license is required before submission of a bid, except that a contractor may submit a bid on a Federal-aid highway project without having first obtained a license, provided that such contractor, before undertaking any construction under that bid (before notice to proceed), must be licensed in Utah.

2. Failure to do so will result in forfeiture of award.
- B. Obtain a commercial license to perform work in Utah.
1. A license will be required to proceed with work.
 2. All license requirements and application to perform heavy highway construction in the state of Utah requires the applicable license for the category of work being performed.
 - a. The Prime contractor is required to hold an E-100 classification title/code or the applicable license relating to their specific category of work being performed.
 - b. A Sub-contractor is required to hold the applicable license relating to their specific category of work being performed. Licensing is governed by:

Utah Department of Commerce
Occupational/Professional Licensing
P O Box 145741
Salt Lake City, UT 84114-6741
(801)530-6628

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 00221S

BIDDING CONTRACT TIME

Add Section 00221

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Procedures for bidding contract time for the Price + Time bidding process.
 - 1. Includes incentive/disincentive for early/late completion of project milestones.
- B. Description of time component pricing, and time related incentive or disincentive.
 - 1. Refer to Section 00515M for information regarding bidding time and determination of the low bidder.
 - 2. Time is a bid item that captures societal costs and is used for evaluation of the low bidder. Incentive/Disincentive is the only time related payment. Refer to this Section, article 1.7.

1.2 RELATED SECTIONS

- A. Section 00515M: Contract Award And Execution
- B. Section 00555: Prosecution and Progress

1.3 REFERENCES Not Used

1.4 DEFINITIONS Not Used

1.5 SUBMITTALS Not Used

1.6 TIME COMPONENT

- A. Determine the bid price for the time component as follows.
 - 1. Measure contract time in calendar days.
 - 2. Determine the number of consecutive calendar days required between each start milestone and finish milestone in Table 1.
 - a. Consider all requirements of the contract when determining the number of calendar days,
 - b. Include the days of the start milestone and finish milestone in the number of calendar days.
- B. The Department does not guarantee that any milestone can be completed in the minimum calendar days shown in Table 1.
- C. Bidders are responsible to complete the milestones within the time bid and according to project requirements.
- D. The Department will consider the bid non-responsive if the bidder:
 - 1. Does not submit a bid for the time component.
 - 2. Submits a time component bid for any awardable portion of the contract which is outside the minimum or maximum range.
- E. Negative amounts are not permitted for time related bid items.
- F. Time is bid in calendar days. Consider seasonal project specific weather conditions during bid preparation.

Table 1

Determination of Calendar Days						
A	B	C	D	E	F	G
TIME SEGMENT	START MILESTONE	FINISH MILESTONE	TIME-RELATED COST-RATE	TIME-RELATED COST-RATE METHOD	MIN	MAX
			Dollars per calendar day	User Cost or Liquidated Damages	Calendar days	Calendar Days
1	Flexible Start Date: See 00555M spec	Substantial Completion	\$5,000	User Cost	75	120

1.7 INCENTIVES/DISINCENTIVES RELATED TO “TIME”

- A. Contract time related charges are determined by multiplying the number of calendar days accrued for each time segment by its corresponding time related cost rate and summing the products.
- B. Document accrued time charges per time segment for the duration of the project.
- C. Payments or deductions to the Contractor will be based on the difference between the time related bid amounts and the actual time charges assessed for the completed project.
 - 1. Payment for the incentive will be made in the project accounting system after substantial completion.
 - 2. Deduction for any milestone disincentive will be made on the first progress payment after the total number of calendar days bid for a milestone has passed without completion as defined in Table 1.
- D. Incentive

1. The Contractor is eligible for incentive when a milestone is achieved before the number of calendar days bid as determined by the Department.
2. Payment is made at the rate shown in column D for the difference between the number of calendar days bid and the actual number of calendar days used to achieve the milestone when Column E is defined as "User Cost."
3. Payment is made at the rate shown in the schedule of liquidated damages in Section 00555 based on the original contract amount when Column E is defined as "Liquidated Damages."
4. The maximum dollar amount eligible for incentive payment for all combined milestones is **\$50,000**.

E. Disincentive

1. When the time related cost in Column E is defined as "User Cost."
 - a. The Contractor is assessed a disincentive when a milestone is not achieved within the number of calendar days bid as determined by the Department.
 - b. Disincentive is assessed at the rate shown in column D for the difference between the number of calendar days bid and the actual number of calendar days used to achieve the milestone.
 - c. There is no maximum dollar amount for disincentive charges.
 - d. Liquidated damages are charged in addition to disincentive for the difference between the maximum calendar days and the actual number of days to achieve the milestone if milestone completion is not achieved prior to the maximum calendar days shown in Table 1. Refer to Section 00555.

2. When the time related cost in Column E is defined as “Liquidated Damages.”
 - a. The Contractor is assessed disincentive at the rate shown in the schedule of liquidated damages in Section 00555 based on the original contract amount.
 - b. Disincentive is assessed for the difference between the number of calendar days bid and the actual number of calendar days used to achieve the milestone.
 - c. Disincentive applies until milestone completion or the maximum calendar days defined in Column G, whichever occurs first.

F. Liquidated Damages

1. Liquidated damages are assessed according to Section 00555 for the difference between the number of maximum calendar days from Column G and the actual number of calendar days used to achieve the milestone.

G. Timeline of Incentive, Disincentive, and Liquidated Damages

1. Refer to Figure 1

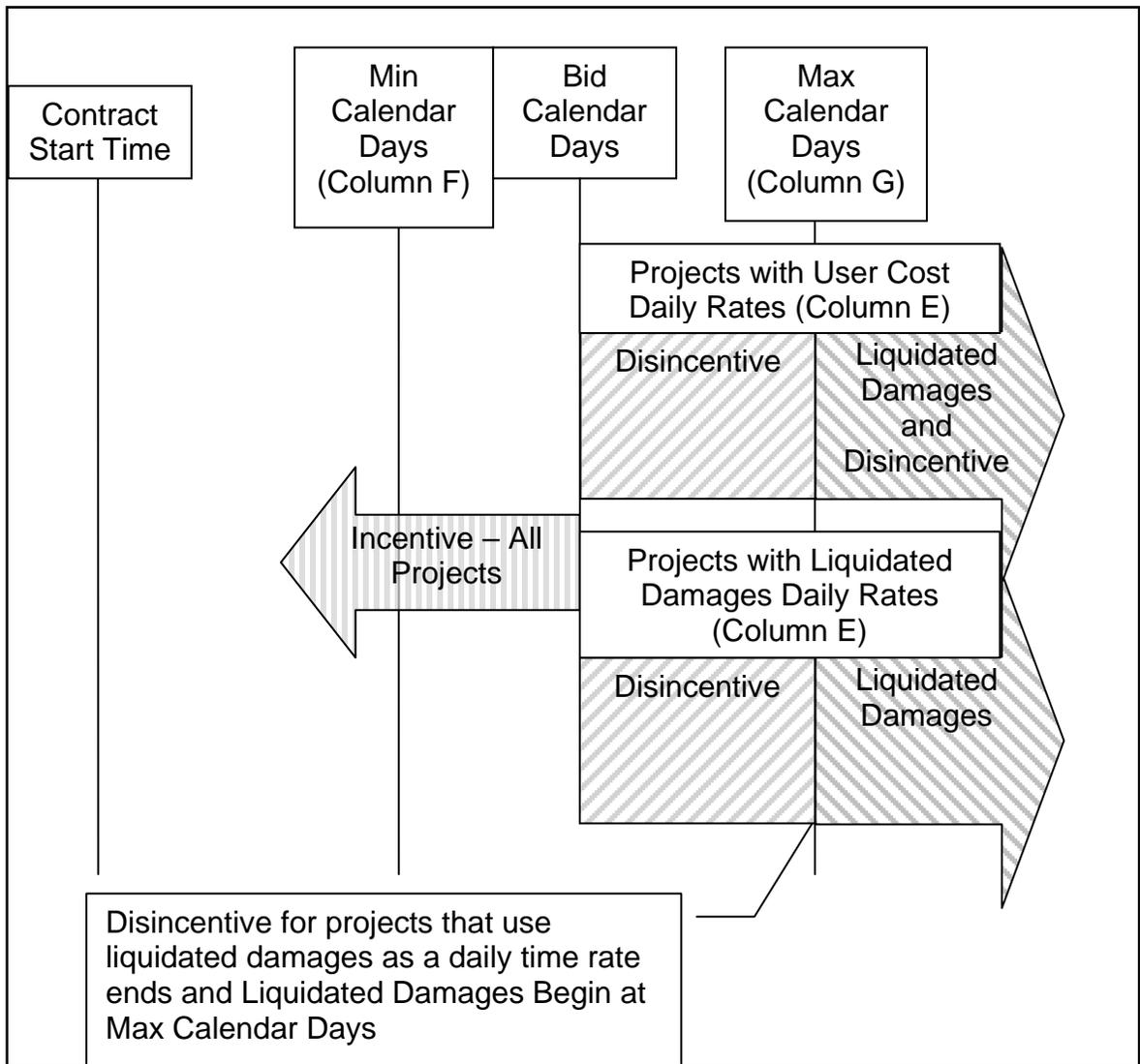


Figure 1 – Timeline of Incentive, Disincentive, and Liquidated Damages

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

END OF SECTION

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 00515M

CONTRACT AWARD AND EXECUTION

Delete Article 1.6 and replace with the following:

1.6 PROPOSAL CONSIDERATION

- A. This project uses a price + time or price + time + lane rental bidding process. These processes provide:
 - 1. For the determination of the low bidder based on the price of construction plus the costs associated with contract time and lane rental.
 - 2. An incentive/disincentive for completion of project time-related milestones based on durations established by Contractor bid as applicable.
 - 3. An incentive/disincentive for minimizing duration of lane and shoulder closures based on durations established by Contractor bid as applicable.

- B. The Department publicly opens properly executed proposals using the current version of the Electronic Bid System (EBS) to compare bids on the basis of the summation of the products of the quantities and the unit bid prices.
 - 1. The Department makes the results of the comparisons available to the public.
 - 2. The unit bid prices govern if a discrepancy exists between unit bid prices and extensions.

- C. The Department reserves the right to reject any or all proposals, waive technicalities, or advertise for new proposals.

- D. The bidder can request withdrawal of a bid after bid opening by:
 - 1. Submitting to the Director for Construction and Materials a notarized affidavit within 24 hours after bid opening declaring a clerical or mathematical error in bid preparation.
 - 2. Submitting accompanying declaration with original work sheets used in bid preparation.
 - 3. Describing specific errors in detail.

4. Verifying that error has a significant monetary effect in the amount of 3 percent of the bid or greater.
- E. The bidder may not request bid withdrawal for judgmental errors.

Delete Article 1.11, paragraph A and replace with the following:

- A. The awarded Contractor must return the signed contracts, properly executed contract bonds, National Safety Rating Scores, and all required insurances to the Department within 20 calendar days after notice of award.
1. The bidder can withdraw the proposal without penalty if the Department does not execute the contract within 30 calendar days after receiving requisite signed contracts, bonds, and insurances.
 2. The contract is not considered in effect until executed by all parties.

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 00555M

PROSECUTION AND PROGRESS

Delete Article 1.7 and replace with the following:

1.7 NOTICE TO PROCEED

- A. Proceed with work after receipt of written notice from the Department.
- B. Time charges begin based on the following:
 - 1. The Contractor notifies the Engineer in writing of the desired start date.
 - 2. The start date must be on or after the Early Start Date and on or before the Late Start Date as defined below:
 - a. Early Start Date – May 26, 2015
 - b. Late Start Date – June 15, 2015
 - 3. If the Contractor fails to notify the Engineer two weeks prior to the Late Start Date, then contract time begins on the Late Start Date.
- C. Notify the Engineer a minimum of ten days before beginning work.

Delete Article 1.11, paragraph B through C and replace with the following:

- B. Holiday, Special Event, and Sunday Work:
 - 1. Do not perform any work without written approval except for repairing or servicing equipment, protecting work, maintaining or curing concrete, and maintaining traffic on Category II holidays as defined in Section 00570. Including the following holidays and special events:
 - Independence Day - from 3 p.m. Friday, July 3, 2015 to 5 a.m. Monday, July 6, 2015.
 - Pioneer Day - from 3 p.m. Thursday, July 23, 2015 to 5 a.m. Monday, July 27, 2014.
 - Labor Day - from 3 p.m. Friday, September 4, 2015 to 5 a.m. Tuesday, September 8, 2015.

2. Provide notice to the Engineer before 12:00 noon the Wednesday before any Sunday or Category I holiday work as defined in Section 00570, unless otherwise restricted in the contract.
- C. Night work:
1. Provide five calendar day's notice to the Engineer before starting night work.
 2. Provide adequate lighting for performing satisfactory inspection and construction operations.
 3. Control noise and vibration in accordance with Section 01355.
 4. The Contractor must obtain a variance to the noise ordinance for night work. Coordinate with James Bennett of Salt Lake County Health Department, 385-468-3793, jbennett@slco.org.
Noise permit not guaranteed.

Add Article 1.11, paragraph D through T:

- D. Traffic Limitations:
1. See Table A for SR-173 lane closure limitations from Warrior Way to Green St. and from Commerce Dr. to State St.
 2. See Table B for SR-173 lane closure limitations from Green St. to Commerce Dr.
 3. At the SR-173 / 700 West intersection, maintain turn bays for all four left-turn movements at the intersection. Also maintain turn bays for right-turn movements from SR-173 (eastbound and westbound) to 700 West. On 700 West, maintain a through lane in each direction for northbound and southbound through movements. On 700 West, a thru-lane may be used for right-turn movements.
 4. Maintain access to and from all cross streets along SR-173. Turning movements for left- and right-turning traffic from SR-173 to cross streets must be maintained at all intersections.
 5. Maintain one access to all businesses except for during the time required to rotomill, pave, and/or allow curing for concrete pavement in front of business.
 - a. Coordinate with 3rd Party Public Involvement Representative (Amalia Deslis, 801-647-8136)
- E. Traffic is not allowed on the milled surface.
- F. Do not close lanes if no work is taking place.
- G. Property Access/Right of Way:
1. On portions of SR-173(5300 South), work may commence on existing UDOT or City owned Rights of Way and properties cleared for construction as part of this project.

2. The Contractor shall verify legal rights for entry are obtained before construction activities occur on any property.
3. For legal rights for entry obtained after the date of this agreement, the Contractor must obtain written approval from the Resident Engineer before entering upon those properties.
4. No physical entry is allowed on the properties listed in Table 1 until UDOT has secured a right of entry on the property.
5. None of the properties listed in Table 1 shall be on the critical path until the committed clearance date as shown in Table 1.
6. Do not enter or commence work on any property unless the necessary legal rights for entry are obtained. Contractor is responsible to enforce this requirement with the subcontractors. Any physical entry on the property without the necessary legal rights for entry is considered trespassing. Contractor assumes all liability for any trespass. Contractor will indemnify, defend, and hold harmless the State of Utah, UDOT, its employees and agents from and against all claims, damages, injuries, suits and costs, including attorneys' fees, or increased costs caused by the Contractor's entry upon parcels without having the necessary legal rights for entry.

Table 1: Right-of-Way Limitations

Table 1			
Parcel No.	Owner Name	Property Address	Committed Clearance Date
105	Wirthlin Properties, LLC	695 West 5300 South, Murray, UT	June 30, 2015
107	Tesoro Refining & Marketing Company, LLC	696 West 5300 South, Murray, UT	May 30, 2015

- H. Stripe traffic lanes or provide temporary traffic markings before removing traffic control (temporary striping is paid under traffic control item).
- I. Make the new traffic signal operational prior to removing existing traffic signals.
 1. Maintain signal detection and communication throughout the duration of the project. New detection must be installed, inspected, and operation before removal of old detection. Contact Region 2 Signals Inspector Sean Montgomery (801-514-9283) at least 14 days prior to signal work with any question and to schedule integration.
- J. Contact Police, Fire and Emergency Services in the area at least 5 working days prior to beginning work. Also contact Intermountain Medical Center at least 5 working days prior to beginning work. Inform them in writing of work location, lane closures and schedule as work progresses.

Give the Engineer a copy of the work plan. Provide 24 hour contact information.

- K. Contractor is responsible for obtaining all permits, including cost to obtain permit and required insurances.
- L. Contact Blue Stakes prior to installation of signs. Mark each sign location prior to contacting Blue Stakes and provide Blue Stakes with a location of each sign location by route and milepost. Adjust final location of signs as needed to avoid utilities.
- M. All subsurface work and all roadway widening work is to be done prior to rotomilling and repaving.
 - 1. On the south leg of 700 West, perform concrete grinding work prior to PCCP roadway widening work.
- N. Area disturbed behind curb and gutter, sidewalk, and pedestrian access ramps is to be reestablished in-kind in accordance with special provision 02814S. This work will be incidental to the "Concrete Curb and Gutter Type B1", "Concrete Curb and Gutter Type B1 Modified", "Concrete Sidewalk", "Landscape Wall", "Corner Pedestrian Access Ramp", "Reconstruct Pedestrian Access Ramp", and "Perpendicular/Parallel Pedestrian Access Ramp" pay items, respectively.
- O. It is the Contractor's responsibility to identify and stay within UDOT right of way.
- P. The use of VMS overhead signs near the project area is allowed and approved. Contractor must contact Mike Evans at 801-887-3700 two days prior to posting construction message. TOC Engineer will develop message displayed on overhead VMS. Important: Construction message will not be displayed if an amber alert or similar alert is issued. Therefore, the use of overhead VMS signs should be used as a **supplemental** method to warn drivers.
- Q. Contact David Frandsen (801-270-2457) of Murray City Water seven days prior to relocating fire hydrant to coordinate work and for water shut-off.
- R. Contract time will not be charged during the six (6) calendar days required for the installation of variable message boards prior to beginning any construction activities.
- S. The contractor will be responsible to routinely inspect, adjust and maintain all environmental controls (e.g., Drop Inlet Barriers, Check Dams) throughout construction.

- T. Remove and dispose of existing contaminated soils located as shown in the plans at the former dry cleaner property on the southeast corner of SR-173 (5400 South) and 700 West (Parcel #105) at an appropriate facility. The soil removed from these locations cannot be considered clean fill, but instead industrial waste, and must be disposed of appropriately as petroleum-impacted soil at an approved disposal facility.

- U. Pedestrian access ramps may be closed for a total of 5 continuous calendar days, provided safe passage of pedestrians and bicyclists is maintained through the work zone according to the Americans with Disabilities Act and the MUTCD. Comply with Section 01554, article 1.8, paragraph G. Closures beyond 5 days will be assessed a price adjustment per Section 01554, article 1.12, paragraph B.
 - 1. Accommodate bicyclists throughout the entire construction zone.

- V. During Signal replacement: Signals can only be turned off from 12 am to 5 am any day or Sundays from 8 am to 5 pm. Utilize law enforcement personnel to direct traffic.

Delete Article 1.14, paragraph A and replace with the following:

- A. Contract time begins on the Start Date as defined in Article 1.7 Notice to Proceed.

TABLE A: SR-173 LANE CLOSURE RESTRICTIONS					
(WARRIOR WAY TO GREEN ST. AND COMMERCE DR. TO STATE ST.)					
TIME	WEEKDAY		SATURDAY AND SUNDAY		TIME
	EB	WB	EB	WB	
0:00	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION			0:00
1:00					1:00
2:00					2:00
3:00					3:00
4:00					4:00
5:00	TWO LANES EACH DIRECTION	ONE LANE EACH DIRECTION			5:00
6:00					6:00
7:00					7:00
8:00					8:00
9:00	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION	9:00
10:00					10:00
11:00					11:00
12:00					12:00
13:00					13:00
14:00					14:00
15:00					15:00
16:00					16:00
17:00					17:00
18:00					18:00
19:00					19:00
20:00	20:00				
21:00	21:00				
22:00	ONE LANE EACH DIRECTION				22:00
23:00					23:00
Legend:	Maintain a minimum of ONE lane open in each direction:				
	Maintain a minimum of TWO lanes open in each direction:				

TABLE B: SR-173 LANE CLOSURE RESTRICTIONS (GREEN ST. TO COMMERCE DR.)							
TIME	WEEKDAY		SATURDAY		SUNDAY		TIME
	EB	WB	EB	WB	EB	WB	
0:00	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION			0:00
1:00							1:00
2:00							2:00
3:00							3:00
4:00							4:00
5:00	THREE LANES EACH DIRECTION	TWO LANES EACH DIRECTION					5:00
6:00							6:00
7:00							7:00
8:00							8:00
9:00							9:00
10:00	TWO LANES EACH DIRECTION	THREE LANES EACH DIRECTION	TWO LANES EACH DIRECTION	TWO LANES EACH DIRECTION	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION	10:00
11:00							11:00
12:00							12:00
13:00							13:00
14:00							14:00
15:00	ONE LANE EACH DIRECTION	TWO LANES EACH DIRECTION	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION			15:00
16:00							16:00
17:00							17:00
18:00							18:00
19:00							19:00
20:00	ONE LANE EACH DIRECTION	TWO LANES EACH DIRECTION	ONE LANE EACH DIRECTION	ONE LANE EACH DIRECTION			20:00
21:00		ONE LANE EACH DIRECTION					21:00
22:00		ONE LANE EACH DIRECTION					22:00
23:00		ONE LANE EACH DIRECTION					23:00
Legend:							
<i>Maintain a minimum of ONE lane open in each direction:</i>							
<i>Maintain a minimum of TWO lanes open in each direction:</i>							
<i>Maintain a minimum of THREE lanes open in each direction:</i>							

**Supplemental Specification
2012 Standard Specification Book**

SECTION 00570M

DEFINITIONS

Delete Article 1.6, paragraph A45 and replace with the following:

45. **MUTCD** Utah Manual on Uniform Traffic Control Devices (This applies to all references to the MUTCD in Department Standard Specifications and Drawings, Supplemental Specifications and Drawings, Special Provisions, and Plan Sheets.) Refer to <http://www.udot.utah.gov/go/standardsreferences> for a link to the Utah MUTCD.

Delete Article 1.7, paragraph A38 and replace with the following:

38. **Debarment** – Action taken by the Department or federal government pursuant to policies or regulations that prohibits a person or company from performing work on a public project.

Delete Article 1.7, paragraph A49, Table 1 and replace with the following:

Table 1

Holiday Categories	
Category I	Category II
Martin Luther King, Jr. Day	New Year's Day
Presidents' Day	Memorial Day
Columbus Day	Independence Day
Veteran's Day	Pioneer Day
	Labor Day
	Thanksgiving Day
	Christmas Day

Delete Article 1.7, paragraph A66 through A104 and replace with the following:

66. **Probation** – Action taken by the Department pursuant to Department policies that prohibits a person or company from bidding on Department or Department administered projects.

67. **Profile Grade** – The trace of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal centerline of the roadbed. Profile grade means either elevation or gradient of such trace according to the context.
68. **Project** – The specific section of the highway or other specific property on which construction is to be performed together with all improvements to be constructed under the contract.
69. **Proposal** – A bidder’s written response to a Department request for proposals. See Value Engineering Change Proposal.
70. **Responsible Bidder** – A bidder able to perform the specified work as determined by the Department.
71. **Responsive Bid** – A bid that meets all requirements of the invitation for bids.
72. **Resources** – The labor, equipment, materials, and incidentals necessary to perform work on a contract bid item or other element of work.
73. **Right-of-Way** – A general term denoting land, property, or interest acquired for or devoted to transportation purposes.
74. **Roadbed** – The graded portion of highway within top and side slopes, prepared as a foundation for the pavement structure and shoulders.
75. **Roadbed Material** – Material in cuts, embankments, and embankment foundations from the subgrade down that supports the pavement structure.
76. **Roadside** – The areas between the outside edges of the shoulders and the right-of-way boundaries including unpaved median areas between inside shoulders of divided highways and areas within interchanges.
77. **Roadside Development** – Items necessary for the preservation or replacement of landscape materials. Features may include suitable plantings and other improvements or ground cover to preserve and enhance the appearance and stability of the highway right-of-way or acquired easements for scenic improvements.
78. **Roadway** – The portion of a highway within the construction limits.
79. **Shoulder** – The portion of the roadway adjacent to the traveled way where vehicles may stop for emergencies and which supports base and surface courses.
80. **Sidewalk** – That portion of the roadway constructed exclusively for pedestrian use.
81. **Significant Change in Character of Work** – Work that differs materially in kind or nature from that involved or included in the original contract or results in the total quantity of a major contract item, as defined in this section, varying from the original contract quantity by more than 25 percent.
82. **Site of Work** – As defined in Title 29 CFR Part 5.2 (I).

83. **Specifications** – The compilation of provisions and requirements for the performance of prescribed work.
- a. **Special Provisions** – A unique specification or a modification or revision to the standard specifications applicable to an individual contract.
 - b. **Supplemental Specifications** – Approved additions and revisions to the Standard Specifications.
 - c. **Standard Specifications** – Specifications approved for general application and repetitive use.
84. **Specifications Format** – See the Specification Writer’s Guide. Refer to <http://www.udot.utah.gov/go/standardsreferences>. The titles or headings of the sections, parts, articles, paragraphs, and sub-paragraphs in Standard Specifications and Special Provisions are intended for convenience of reference and have no bearing on their interpretation.
85. **Stabilization** – Modification of soils or aggregates by incorporating materials that increases load-bearing capacity, firmness, and resistance to weathering or displacement.
86. **State** – The State of Utah acting through its authorized representative.
87. **Structures** – Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, and other such features that may be encountered in the work.
88. **Subcontractor** – An individual or legal entity to which a Contractor sublets part of the work.
89. **Substantial Completion** – Substantially complete. The day, determined by the Engineer, when all of the following have occurred:
- a. The public, including vehicles and pedestrians, has full and unrestricted use and benefit of the facilities both from the operational and safety standpoint including all Intelligent Transportation Systems (ITS) and Advanced Traffic Management Systems (ATMS).
 - b. All safety features are installed and fully functional, including, but not limited to, illumination, signing, pavement markings, all coats of striping paint, barrier, guardrail, impact attenuators, delineators, and all other safety appurtenances.
 - c. All remaining bid items in the contract are complete in addition to safety features. Only minor corrective work and replacement of temporary substitute facilities remains for physical completion.
 - d. The Contractor and Engineer mutually agree that all work remaining will be performed without lane closures, trail or sidewalk closures, or further delays, disruption, or impediment to the public.

90. **Substructure** – All of the structure below the girders or main load carrying members of simple and continuous span bridges, including abutments, bent caps, columns, bents, footings, wingwalls, and skewbacks of arches.
91. **Superintendent** – The Contractor’s authorized employee in responsible charge of the work.
92. **Superstructure** – All of the structure except the substructure as defined in this section.
93. **Surety** – The legal entity or individual, other than the Contractor, executing a bond furnished by the Contractor.
94. **Time Related Cost (Time component)** – A bid item that identifies a daily value based on user costs or liquidated damages. Time value is the sum of the products of the time-related cost rates multiplied by the time bid by the Contractor to achieve the milestones specified.
95. **Town, City, or District** – A subdivision of the county used to designate or identify the location of the contract.
96. **Traveled Way** – The portion of the roadway designated for the movement of vehicles, excluding shoulders and auxiliary lanes.
97. **Unbalanced Bid**
 - a. **Mathematically Unbalanced** – A bid containing lump sum or unit bid items that do not include reasonable actual costs plus a reasonable proportionate share of the bidder's anticipated profit, overhead costs, and other indirect costs.
 - b. **Materially Unbalanced** – A mathematically unbalanced bid that generates a reasonable doubt that awarding the contract to the bidder will result in the lowest ultimate cost to the Department.
98. **Unrestricted Traffic** – No traffic control measures in use that obstruct, delay, or in any way impede traffic flow, other than those specifically permitted in the contract.
99. **User Costs** – Costs incurred by the traveling public due to construction activities.
100. **Utility** – All privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, power, heat, gas, oil, water, waste, and storm water not connected with the highway drainage, signal systems, and other products that directly or indirectly serve the public. The utility company.
101. **Value Engineering Change Proposal** – A change proposed by the Contractor and considered by the Department intended to result in project cost savings to contract pay items without reducing the essential functions and characteristics of the project. Refer to Section 00725.

102. **Work** – The elements, activities, and incidentals necessary to complete a project (including labor, materials, equipment, and the interim products and stages attained in the course of reaching completion), and all alterations, amendments, or extensions made by change order or other written orders of the Engineer.
103. **Working Day** – Any calendar day, except:
- a. Saturdays, Sundays, and contract-designated holidays.
 - b. Days between December 1 and February 29, inclusive.
 - c. Days when the Contractor is specifically required by the contract or letter from the Engineer to suspend operations through no fault of the Contractor.
 - d. Days when the Engineer determines that inclement weather or adverse conditions interfere with the progress of the work.
 - 1) When the Engineer determines that inclement weather prevents the Contractor from working with at least 75 percent of the normal labor and equipment force engaged in the work for at least 60 percent of the normal working day.
 - 2) When inclement weather stops the Contractor from beginning work at the normal starting hour and the crew is released as a result, it is not considered a working day even though conditions may improve and the major portion of the day could be considered suitable for operations.
104. **Working Drawings** – Drawings produced by the Contractor that supplement the contract drawings to provide information not included in the contract documents but that is required to fabricate, erect, transport, or temporarily support the structure or structural elements in the completion of the work. Working drawings do not supersede the contract drawings.
105. **Written Permission of the Engineer** – A letter signed by the Engineer granting specific permission and outlining limitations of the permission.

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 00725M

SCOPE OF WORK

Delete Article 1.2 and replace with the following:

1.2 RELATED SECTIONS

- A. Section 00221S: Bidding Contract Time
- B. Section 00555: Prosecution and Progress
- C. Section 00570: Definitions
- D. Section 00727: Control of Work
- E. Section 01282: Payment
- F. Section 01355: Environmental Compliance
- G. Section 01554: Traffic Control
- H. Section 01741: Final Cleanup

Add Article 1.19, paragraph J5:

- 5. Time savings resulting from a VECP are not financially compensated to the Contractor above the maximum dollar amount eligible for incentive payment as specified in Section 00221S.

Add Article 1.20:

1.20 PROJECT SCOPE OF WORK

- A. The purpose of this project is to rehab the pavement on 5400 South (SR-173) between Warrior Way (approx. 1500 West) in Taylorsville and State

Street in Murray, and to widen and improve the intersection at 5400 South and 700 West. This includes but is not limited to the following work:

1. Perform rotomilling on the existing asphalt pavement and replace it with three inches of Hot Mix Asphalt and one inch of Open Graded Surface Course.
2. Widen the intersection at 5400 South and 700 West with all the associated curb and gutter, sidewalk, ped ramp, and driveway modifications as shown on the roadway plan sheets. Add back-to-back B5 median curb as shown on the roadway plan sheets.
3. Replace the traffic signal and lighting system at the intersection of 5400 South and 700 West.
4. Improve the ATMS within the project limits as shown on the "AT" plan sheets.
5. Replace drainage components as a result of roadway widening as shown on the drainage plan sheets.
6. Perform structure rehab work on the 5400 South bridge over the Jordan River as shown on the Structures plan sheets.
7. Re-stripe 5400 South the entire project length with pavement marking tape. On the south leg of 700 West at the intersection with 5400 South, re-stripe the roadway with pavement marking paint.
8. Replace signs as shown on the signing plan sheets.
9. Provide maintenance of traffic and traffic control.
10. Any other work specified in the project plans and specifications.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 00727M

CONTROL OF WORK

Delete Article 1.28, paragraph B and replace with the following:

- B. Employ a qualified safety person.
 - 1. Required qualifications
 - a. Verifiable broad based safety background.
 - b. One of the following degrees or certifications:
 - 1) College degree in Occupational Safety & Health (OSH) related field
 - 2) Associate Safety Professional (ASP)
 - 3) Certified Safety Professional (CSP)
 - 4) Certified Industrial Hygienist (CIH)
 - 5) Construction Health and Safety Technician (CHST)
 - 6) Associate in Risk Management (ARM)
 - 7) OSHA 500, or other nationally recognized OSH related field certification approved by UDOT Risk Management
 - c. Must stay current on certification via the OSHA 502 or equivalent of 8 Continuing Education Units (CEU) in OSH related fields every 3years.
 - 2. Responsibilities
 - a. Perform on-site safety inspections on a monthly basis, for jobs 45 days or longer in duration. Refer to the UDOT Safety and Health Manual.
 - b. Coordinate all safety related efforts with the on-site competent safety person.
 - c. Cannot perform production-related responsibilities on the project.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 00820M

LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Delete Article 1.13 and replace with the following:

1.13 PROTECTING AND RESTORING PROPERTY AND LANDSCAPE

- A. Preserve public and private property during the work.
- B. Do not perform work on public or private property if the legal right to access the property has not been secured. All damage as a result of trespass will be the financial responsibility of the Contractor including additional acquisition costs.
- C. The Engineer verifies the location of monuments and property line markers and provides written approval before they are moved, disturbed, or damaged.
- D. Accept liability for any damage to public or private property resulting from defective work, materials, or non-execution of the contract until contract completion.
- E. Restore damaged property and items removed temporarily during construction to a condition similar or equal to that existing before the damage at no cost to the Department.
- F. Temporarily discontinue work if remains of prehistoric dwelling sites or artifacts of historical or archeological significance are encountered. Refer to Section 01355.

Delete Article 1.17, paragraph C and replace with the following:

- C. Contractor and the Department agree to provide each other with a copy of the summons and complaint within a reasonable time if served with a lawsuit or Notice of Claim. Do not file a responsive pleading on behalf of the Department until receiving written notice that the Department chooses to have Contractor handle the defense. The Department will provide the Contractor such written notice in a timely manner allowing the Contractor adequate time to respond to the summons.

Delete Article 1.17, paragraph F3 and replace with the following:

3. Notify claimants of denied or partially denied claims of \$5,000 or less of their right to request re-examination by the
UDOT Claims Re-Examination Board
4501 South 2700 West
West Valley City, UT 84114-8430
Phone: (801) 965-4715
 - a. The information provided to the claimant includes:
 - 1) A time deadline for requesting re-examination equal to seven days after notification of denial or partial denial
 - 2) Address and name of the person to whom it should be directed
 - 3) General information helpful in making a determination

Delete Article 1.18, paragraph B.2.a and replace with the following:

- a. Provide General Liability insurance with the following minimum limits of liability:
 - 1) \$1 million Bodily Injury and Property Damage – Each Accident
 - 2) \$3 million General Aggregate
 - 3) \$3 million Products and Complete Operations Annual Aggregate

**Supplemental Specification
2012 Standard Specification Book**

SECTION 01282M

PAYMENT

Delete Article 1.8, paragraph A1 and replace with the following:

1. The Department does not allow compensation for loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense and subsequent loss of expected reimbursement or from any other cause.

Delete Article 1.9, paragraphs C and D and replace with the following:

- C. Negotiated lump sum or unit prices for changes to the contract work will be based on the Contractor's estimate to do the work as validated by the Engineer's independent cost assessment. Support the price with a detailed cost estimate that includes the following information:
 1. Estimated Labor hours based on agreed upon productivity rates.
 - a. Use the actual cost of wages and benefits for the labor rates applied to the estimated man-hours.
 - b. Include certified accounting records verifying these costs or make them available upon request of the Engineer.
 2. Estimated Material quantities based on agreed upon quantities.
 - a. Use actual material costs as verified by supplier estimates or invoices.
 - b. Use agreed to production rates for material produced on site.
 3. Estimated Equipment hours based on agreed upon productivity rates.
 - a. Use the lesser of the following for determining equipment costs:
 - 1) Rental rates obtained from the Rental Rate Blue Book for Construction Equipment according to this Section article 1.11.

- 2) Actual cost of the equipment to the Contractor based on internal equipment billing rates or actual rental rates supported by rental agreements for equipment applied to the estimated equipment hours. Include certified accounting records substantiating these costs or make them available upon request of the Engineer.
4. A 15 percent markup will be paid on all expenses identified above. This markup compensates the Contractor for home office overheads and profit.
5. The following additional markups will be allowed on the total of all work according to change order performed solely by subcontractors:
 - a. 15 percent markup on first \$75,000 of total subcontracted work.
 - b. 10 percent markup on total of subcontracted work between \$75,000 up to \$250,000.
 - c. 7.5 percent markup on total of subcontracted work exceeding \$250,000.
6. No other expenses will be compensated unless approved by the Engineer.

Delete Article 1.10, paragraph A2 and replace with the following:

2. The Department does not compensate for the following:
 - a. Labor inefficiencies caused by the Contractor.
 - b. Consequential damages, including but not limited to, loss of bonding capacity, loss of bidding opportunities, and insolvency.
 - c. Attorney's fees, claims preparation expenses, or litigation costs.

Delete Article 1.11 and replace with the following:

1.11 FORCE ACCOUNT

- A. The Engineer may require the Contractor to work on a force account basis for the convenience of the Department or when the Contractor and Engineer are unable to negotiate an agreed upon price for changed or added work. Costs reimbursed according to this Section are considered full and complete compensation for the work performed.

- B. Labor will be reimbursed at the actual cost of wages, benefits and burdens. A 15 percent markup will be paid on all labor expenses. This markup compensates the Contractor for field overheads, home office overheads and profit.
1. Provide daily field records showing the labor hours charged to the force account work. The Engineer must approve these records daily.
 2. Include certified accounting records verifying these costs or make them available upon request of the Engineer.
- C. Materials installed and accepted by the Engineer as part of the force account work will be paid for at actual cost plus a 15 percent markup. The markup compensates the Contractor for field overheads, home office overheads and profit.
1. Provide daily field records showing the materials installed as part of the force account work. The Engineer must review and approve these records daily.
 2. Include copies of invoices and certified accounting records verifying these costs or make them available upon request of the Engineer.
- D. Compensation for Equipment
1. The Department will pay the following:
 - a. Hourly rates for machinery or special equipment, excluding small tools, authorized by the Engineer. Hourly rental rates are determined by the monthly rental rate found in the Rental Rate Blue Book for Construction Equipment divided by 176. The total hourly rates have been computed from equipment costs currently in effect and do not include costs for operating personnel.

Obtain this publication through:

Equipment Watch

1735 Technology Drive, Suite 410

San Jose, CA 95110-1313

Phone: (800) 669-3282

Fax: (800) 224-3527

Refer to <http://www.udot.utah.gov/go/standardsreferences>.

The rates require adjustment by a Regional Factor and a Depreciation Factor with operating and standby rates established as follows:

- 1) Operating Rate – Hours the equipment is actually in use. This includes ownership and operating costs adjusted for depreciation and region factors.

- 2) Standby Rate – Compensation for equipment required to be at the work site but not operating. This rate is 50 percent of the adjusted ownership and operating costs computed above. The duration of allowable standby time must be approved in writing by the Engineer with a maximum of eight hours per day or 40 hours in a week.
 - 3) The Department uses the shown capacity that is closest to the manufacturers when the manufacturer's rated capacity falls between those shown in the Rental Rate Blue Book for Construction Equipment.
 - 4) Agree upon all rates in writing before beginning work.
 - 5) Obtain approval from the Engineer for any equipment rental rates not provided before the start of any force account work.
2. The Department does not pay for pickup trucks used solely for transportation.
 3. Provide daily field records showing the equipment hours charged to the force account work. The Engineer must review and approve these records daily.
 4. Provide certified accounting records verifying these costs.
- E. Subcontract work will be reimbursed in the same manner as the Contractor's work is reimbursed as described above.
1. The following additional markups will be allowed on the total of all work according to force account performed solely by subcontractors:
 - a. 15 percent markup on first \$75,000 of total subcontracted work.
 - b. 10 percent markup on total of subcontracted work between \$75,000 up to \$250,000.
 - c. 7.5 percent markup on total of subcontracted work exceeding \$250,000.
 2. Provide daily field records showing the subcontract labor, material, and equipment charged to the force account work. The Engineer must review and approve these records daily.
 3. Provide certified accounting records verifying these costs.

Delete Article 1.12 paragraph C and replace with the following:

- C. Payments are based on estimates prepared by the Engineer of the value of work performed and materials in place under the contract and for payment for material on hand according to this Section. Payment will not be made for material and work without complete acceptance documentation.

Delete Article 1.13 title and paragraph A and replace with the following:

1.13 PAYMENT FOR MATERIAL ON HAND (Stockpile)

- A. Present the delivery copies of invoices. The Department may include advance partial payments for acceptable nonperishable materials purchased expressly for incorporation in the work when delivered in the vicinity of the project or stored in approved storage place.
1. The Engineer determines the amount to be included in the estimate but in no case will the amount exceed the value of the materials as shown on the delivery invoice or 75 percent of the in-place price, whichever is less.
 2. Furnish evidence that the stockpiled materials are irrevocably obligated to the project when the approved storage location is other than the project site.
 3. The Department does not pay when the invoice value of such materials, as determined by the Engineer, amounts to less than \$2,000 or if materials are to be stored less than 30 calendar days, unless otherwise specified.
 - a. The Department will waive the 30 day limit and pay advance payment for Pavement Marking Tape if the Pavement Marking Tape placement is delayed more than one week beyond the original CPM schedule date.
 4. Furnish the Engineer certified paid invoices or a certified statement with a copy of the check showing payment within 60 calendar days following the date of the estimate invoice on which the stockpile material is to be paid by the Department.
 5. Material will be removed from the next partial estimate as stockpiled materials if proper invoices showing payment to the supplier is not received.

Add Article 1.14, paragraph A4:

4. An affidavit is required from all Subcontractors certifying they have been paid for all labor and materials incorporated into the project.

Delete Article 1.15, paragraph A3 and replace with the following:

3. This provision is automatically invoked and becomes effective when the change in the cost of fuel warrants the adjustment during the course of construction of the project and remains in effect for the duration of the project.
 - a. Adjustments are then made on all future partial estimates.

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 01315S

PUBLIC INFORMATION SERVICES

Delete Section 01315 in its entirety and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Responsibilities of Contractor Public Information Contact for the duration of a project.

1.2 RELATED SECTIONS

- A. Section 01554: Traffic Control

1.3 REFERENCES Not Used

1.4 DEFINITIONS Not Used

1.5 SUBMITTALS

- A. Provide a copy of the logbook to the Engineer on a weekly basis.

1.6 PERFORMANCE REQUIREMENT

- A. Designate the contractor public information contact at the pre-construction conference.
 - 1. Responsible to coordinate project public information services with Engineer and third-party Public Information Manager.
 - a. Public information duties take precedence over other assigned duties.

1.7 CONTRACTOR PUBLIC INFORMATION CONTACT RESPONSIBILITIES

- A. Maintain daily, or as needed, communication with Engineer and third-party Public Information Manager.

- B. Maintain and document communications with Engineer, Region Two Public Involvement Coordinator, third-party Public Information Manager.
- C. Attend weekly meeting with Engineer and third-party Public Information Manager to review correspondence and communication logbook and to provide construction schedule updates and information for distribution.
- D. Respond to Engineer and third-party PIM with plan to resolve public information issues within 24 hours. (Safety issues must be resolved immediately)

1.8 PAYMENT PROCEDURES

- A. Compensation includes:
 - 1. Printed information
 - 2. All labor, materials, and meeting facilities required to meet provisions of this section.
- B. The Engineer monitors and evaluates contractor interaction with the Public Information Manager regarding all public information services.
- C. Failure to provide public information services in accordance with this specification results in a \$1,000 weekly deduction.

PART 2 PRODUCTS

2.1 OFFICE SPACE AND EQUIPMENT

- A. Labor and material required to perform the duties and responsibilities of this section.

PART 3 EXECUTION

3.1 ESTABLISH LOCAL PUBLIC INFORMATION SERVICES

- A. Provide office address and local telephone number for coordination with third-party Public Information Manager.
 - 1. Establish and publish office hours, working days, telephone number for internal use.
- B. Maintain a logbook.
 - 1. Information and corresponding communications
 - a. Date, time
 - b. Contact information

1. Name, phone number, address and/or email address
 - c. Description of inquiry and/or request
 - d. Response
 - e. Subsequent responses or actions taken during construction
 2. Follow up all inquiries with third-party Public Information Manager to coordinate a response. Response may be a phone call, in writing or with a meeting as warranted.
 3. Document discussions, resolutions and actions.
 - a. Provide copies of logbook documentation to the Engineer, third-party Public Information Manager and Region Public Involvement Coordinator on a weekly basis.
- C. Respond to questions concerning project activities and schedules.
- D. Participate in meetings held with affected individuals and/or organizations.
- E. Maintain and document regular (daily or as needed) communication and project updates with the following:
 1. Region Two Public Involvement Coordinator and third-party Public Information Manager, providing copies of logbook documentation.
- F. Communicate deviations from schedule established in the weekly update meeting to Engineer and third-party Public Information Manager.
- G. Provide project telephone number (established and communicated by the third-party Public Information Manager) to sign manufacturer or Traffic Control Maintainer for placement on Construction Zone Information Sign as per TC Series Standard Drawings and refer to Section 01554.
- H. Provide updates to the Engineer and third-party Public Information Manager on project activities that affect traffic and access.
 1. Contact the Engineer and third-party Public Information Manager within 15 minutes of a major accident or other unexpected occurrence in or adjacent to the project area that impedes traffic flow, alters traffic routes significantly or causes other disruption to the traveling public.
- I. Forward all media inquiries, written and verbal, regarding the project or project activities to the 24 Hr. UDOT Communications Hotline 801-746-9932.

END OF SECTION

**Supplemental Specification
2012 Standard Specifications Book**

SECTION 01355M

ENVIRONMENTAL COMPLIANCE

Delete Article 3.7, paragraph A1 and replace with the following:

1. Cultural and Paleontological – Initiate consultation with a Department staff archaeologist to determine cultural resource survey needs and clearance requirements. The Department staff archaeologist provides clearance to the Engineer through written notification.

April 17, 2013

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 01455M

MATERIAL QUALITY REQUIREMENTS

Delete Article 1.16, paragraph B1 and replace with the following:

1. All manufacturing processes of the steel and iron material in a product such as melting, rolling, extruding, machining, bending, grinding, drilling, and coating must occur within the United States.

Delete Article 1.16, paragraph C1c and replace with the following:

- c. Material descriptions, quantities, and means of material identification such as heat numbers, lot numbers, and other industry identification markings for each process the material underwent so the final product can be tracked through a step process from melting to final product.
- d. Tracking quantities is not required for coating operations and for mill certifications.

Delete Article 1.16, paragraph D1 and replace with the following:

1. Track the use of all permanent foreign steel incorporated in the project.

Delete Article 1.16, paragraph E and replace with the following:

- E. The following are exempt from Buy America except as noted:
 1. Temporary steel or iron materials.
 2. Materials left in place for the Contractor's convenience.
 3. Nuts, bolts, washers, screws, tie wire, concrete chairs, spacers, lifting hooks, mailboxes, irrigation sprinkler components, and other miscellaneous steel or iron parts that are considered common, off-the-shelf products.

4. Fencing stays, clips, staples, or other miscellaneous fencing components.
5. Manufactured products that are less than 90 percent steel or iron content when it is delivered to the job site for installation.
 - a) Pre-cast items such as pipe, manholes, and drainage boxes must meet the Buy America requirements.
6. The major steel and iron components of the following and other similar assemblies must meet the requirements of Buy America:
 - a) Guardrail, guardrail posts, end sections, terminals, cable barrier, steel or iron pipe, conduit, grates, manhole covers and risers, mast arms, poles, standards, trusses, supporting structural members for signs, luminaires, and traffic control systems
 - b) The miscellaneous steel or iron components, subcomponents, and hardware necessary to encase, assemble, and construct these items are exempt from Buy America Requirements.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 01456M

MATERIALS DISPUTE RESOLUTION

Delete Article 1.6, paragraph C and replace with the following:

- C. Include the following items in the engineering analysis where applicable:
 - 1. Data supporting the Contractor's test results. Data must be based on project quality control testing.
 - a. Split sample testing performed within the applicable contract.
 - b. Contractor's test data for the disputed results along with all supporting test data and calculations for calculated values such as bulk specific gravity, maximum specific gravity, and ignition oven results for disputing VMA in asphalt concrete.
 - c. Successful laboratory correlation information when required by material specification.
 - 2. Slump, air, yield, and similar items for disputing compressive strength of Portland cement concrete.
 - 3. Statistical analysis or identification of outliers.
 - 4. Procedures or issues leading to disputed acceptance test results.
 - 5. Incentive/Disincentive calculations based on both Contractor and Department test values, individually.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 01554M

TRAFFIC CONTROL

Delete Article 1.2, paragraph G and replace with the following:

- G. Section 02845: High Tension Cable Barrier
- H. Section 02890: Retroreflective Sheeting

Add Article 2.3, paragraph E:

- E. Maintain cable barrier and anchor systems during construction.
 - 1. Protect existing hazards when cable barrier and anchor systems are rendered inoperable by work. Address barrier length of need for the hazard.
 - 2. Maintain the required tension in the cable barrier system when the cable is disconnected by installing anchor systems on each end of the disconnect.
 - a. Do not cut cable. Disconnect cable at cable splice or anchor system locations only.
 - 3. Install NCHRP 350 approved terminal compatible with existing cable system. Refer Section 02845.
 - a. Tension cable to manufacturer's requirements.

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 01557S

MAINTENANCE OF TRAFFIC (MOT)

Add Section 01557:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. MOT Maintainer
- B. Maintenance of Traffic (MOT) plans, Materials, and labor necessary for implementation.
- C. Variable message signs and construction signs

1.2 RELATED SECTIONS

- A. Section 00555: Prosecution and Progress
- B. Section 01554: Traffic Control
- C. Section 02891: Traffic Signs

1.3 REFERENCES

- A. Manual on Uniform Traffic Control Devices, Latest Edition (MUTCD).

1.4 DEFINITIONS

- A. Maintenance of Traffic (MOT): The work necessary to advise the public of changes to normal traffic flow, and to indicate planned detours and alternate routes to closed roads. Use solely as advisory information to the public.

1.5 SUBMITTALS

- A. Daily inspection reports on a form acceptable to the Engineer.

- B. Proposed MOT plan to the Engineer for approval if a construction phase is proposed that is not covered by a Department supplied MOT plan.
 - 1. Submit proposed MOT plan to the Engineer 10 working days before the proposed MOT plan is to be implemented.

1.6 POST-BID REQUIREMENTS

- A. Department provides MOT plans to be implemented as part of the bid package.
- B. Attend a mandatory meeting as detailed in Section 01554.
- C. Attendees of the mandatory meeting will review the Contractor's submitted traffic control plans and the Department's supplied MOT plans for compatibility. Modify plans where necessary, as set forth in Section 01554.
- D. Do not begin work on the project until written approval of the MOT plan is received from the Engineer. No item of work can begin until the approved MOT plan is implemented for that phase of work.

1.7 MOT MAINTAINER

- A. The Traffic Control Maintainer, as specified in Section 01554 is responsible for maintenance of MOT on the project. The Department makes no separate payment for maintenance of MOT.
- B. Inspect MOT devices daily for compliance with the MOT plans.

1.8 MAINTENANCE OF MOT DEVICES

- A. Maintain traffic control devices per Section 01554.

1.9 WAGE RATES FOR TRAFFIC CONTROL PERSONNEL (FEDERAL AID JOBS ONLY)

- A. Refer to Section 01554 for wage rate information.

1.10 PAYMENT PROCEDURES

- A. Partial Payments - Based on the percentage of the project completed, excluding the cost of MOT.
 - 1. Failure to comply with any of the requirements of this special provision will result in non-compliance.

- B. Price Adjustments:
 - 1. The Department reduces payment if the MOT implemented is not in compliance with the approved MOT plan, as determined by the Engineer.
 - 2. The amount per day by which the Contractor's compensation will be reduced is calculated using the greater of the following:
 - a. The daily charge in the Schedule of Liquidated Damages found in Section 00555 or
 - b. The Contract lump sum bid price for MOT divided by the number of Contract days.
- C. Payment for change in scope: Negotiate a price adjustment for MOT if the Engineer orders a change in the scope of work that requires modification to the approved MOT Plan.

PART 2 PRODUCTS

2.1 SIGNS

- A. Refer to Section 02891.
- B. Use type and configuration as directed by the MOT plans.

2.2 VARIABLE MESSAGE SIGNS (VMS)

- A. Advance warning device
 - 1. Conform to guidelines set forth in Section 6F.60 of the MUTCD.
 - 2. Messages can be changed on-site and by dial-up modem

PART 3 EXECUTION

3.1 MODIFICATION OF MOT PLANS

- A. Engineer may modify the MOT plans at any time.
- B. Implement changes to the MOT plan before the end of the work shift.
- C. Each phase of construction must be covered by an approved MOT plan.
 - 1. Do not begin work until the proposed MOT plan is approved for use, and has been fully implemented.

3.2 TRAFFIC CONTROL DEVICES

- A. Installation and Maintenance:
 - 1. Install appropriate devices for each construction phase as identified in the appropriate MOT plan.
 - 2. Maintain devices to provide proper, continuous functionality.
 - 3. Wash devices weekly unless conditions warrant more frequent cleaning.
 - 4. Replace any device missing any part of the message or background.
- B. Channelizing Devices: Use as directed by the MOT plan.
 - 1. Furnish a daily record of the number and location of all traffic control devices in use.
 - 2. Remove devices from the site of work when they are not needed for the immediate control of traffic.

3.3 VARIABLE MESSAGE SIGN (VMS)

- A. The Department retains control of messages appearing on the VMS. Do not change the location or the message configuration of the VMS unless directed to by the Engineer in writing.
- B. Place in view of oncoming traffic without obstructing traffic flow. Relocate VMS to match field conditions at no additional cost to Department.
- C. Provide dial-up modem number to the Engineer.
- D. Use necessary traffic control devices with VMS to provide safe operation.
- E. Remove devices from the site of work when they are not needed for the immediate control of traffic.
- F. Unless directed by the Engineer, display advance notification VMS messages for a minimum of seven days prior to any traffic impacts such as start of work, change in traffic directions, etc. at each end of the project.
- G. Make an additional two VMS signs available at all times during the project to be used as directed by the Engineer at no additional cost to the Department.

3.4 COORDINATION OF SIGNAL OPERATIONS

- A. Notify the Engineer seven days prior to implementing a MOT plan (detour plans and alternate route plans) or any traffic control plan that impacts signal operations to allow the Engineer to coordinate any necessary signal timing adjustments with the TOC (Traffic Operations Center).
- B. Changes to traffic signal operations will be done by the Department.

END OF SECTION

November 14, 2014

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 01571M

ENVIRONMENTAL CONTROLS

Add the following to Paragraph 1.5 SUBMITTALS:

- C. Submit a sample and all manufacturer's information and specifications for mono-filament weave bag to Engineer for approval prior to installation.

Add the following to Part 1 GENERAL:

1.9 ALTERNATIVE TYPES

- A. Check Dam (6" Bag – Stone Filled):
 - 1. A structure comprised of a mono-filament weave bag, filled with stone that is placed across a ditch or gutter to intercept and trap sediment. Construct so water will flow over a low point at the face of the gutter or in the middle of the dam and not around the sides.
- B. Drop inlet Barrier (6" Bag - Stone Filled):
 - 1. A barrier comprised of mono-filament weave bag(s), filled with stone that is placed around a drop inlet that intercepts and traps sediment.

Add the following to Part 2 PRODUCTS:

2.2 ALTERNATIVE MATERIALS:

- L. 6" Bag – Stone Filled:
 - 1. Mono-filament Weave Bag:
 - a. Submit manufacturer's information and material specification to Engineer for approval prior to installation.
 - b. Bag Dimensions: 6 inch minimum diameter; 4 foot maximum length
 - c. Bag Construction: Heat sealed to prevent rupture at longitudinal seam and made of High UV Mono-Filament Weave or approved equal.

- c. Bag Closures: Per manufacturer's recommendation or approved equal.
- 2. Stone Fill: Well-graded, 2 inches in diameter or less.

END OF SECTION

**Supplemental Specification
2012 Standard Specification Book**

SECTION 01571

TEMPORARY ENVIRONMENTAL CONTROLS

Delete Section 01571 and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Requirements for controlling erosion and preventing sediment laden runoff from leaving the construction site and areas under the Contractor's control.
- B. Requirements for installing, inspecting, maintaining, and removing temporary erosion and sediment control measures.
- C. Materials and procedures for installing and removing temporary environmental fencing.

1.2 RELATED SECTIONS Not Used

1.3 REFERENCES

- A. AASHTO M 288: Geotextile Specifications for Highway Applications
- B. UDOT Erosion and Sediment Control Field Guide
- C. Utah General Permit for Discharges from Construction Activities No. UTRC00000.

1.4 DEFINITIONS

- A. Check Dam – A fiber roll or stone structure placed across a ditch to slow velocity and intercept and trap sediment.
- B. Drop Inlet Barrier – A fiber roll or silt fence placed around a drop inlet that intercepts and traps sediment.
- C. Fiber Roll – A tube-like structure of encased natural materials used to intercept and trap sediment in a sheet flow situation.

- D. Gutter Inlet Barrier – A protective barrier placed around a gutter inlet that intercepts and traps sediment before it enters the inlet.
- E. Pipe Inlet Barrier – A barrier protecting a pipe inlet that intercepts and traps sediment before it enters the pipe.
- F. Sediment Trap – An excavated basin usually installed at low points on a construction site that intercepts and traps sediment.
- G. Silt Fence – A geotextile fabric fence used to intercept and trap sediment in a sheet flow situation.
- H. Slope Drain – A polyethylene pipe placed on a slope to collect and transport storm runoff down the face of a slope until permanent drainage facilities are installed or vegetation growth is adequate.
- I. Stabilized Construction Entrance – A layer of rock placed at a construction site entrance or exit that removes mud from vehicle tires to prevent tracking onto a paved road.
- J. Straw Bale Barrier – Straw bales placed end to end, used where a silt fence would fail. Install to intercept and trap sediment.
- K. Temporary Berm – A ridge of compacted soil with or without a shallow ditch that diverts storm runoff from a slope to a controlled release point.
- L. Temporary Environmental Fence – A visual barrier used to delineate and prevent encroachment on sensitive areas.

1.5 SUBMITTALS

- A. Submit a signed copy of the Notice of Intent (NOI) to the Engineer before beginning any earth disturbing activities on projects that disturb more than one acre.
- B. Environmental Control Supervisor (ECS), Certificate of Training
 1. Certification to the Engineer that the ECS selected for the project has completed Department's online ECS training and passed the ECS examination.

1.6 PAYMENT PROCEDURES

- A. Payment for the items associated with this section includes all costs for labor, equipment, and materials for installation, inspection, maintenance, and removal as required.

- B. Work required by the ECS will be paid under that item when a bid item has been included in the contract for an ECS. Work listed in this Section will still need to be performed by the Contractor and paid under the individual erosion and sediment control measures when a bid item for an ECS is not included on the project.
- C. Liquidated Damages
 - 1. Liquidated damages are assessed against the Contractor in the amount of \$500 for each calendar day or portion thereof the project is not in compliance with all required permits and regulations. The damages assessed are increased to \$1,000 per day if the contractor remains in non-compliance after three days and increased to \$1,500 per day if the Contractor remains not in compliance after seven days.
 - 2. Any fines issued by regulatory agencies against the Department are added to the liquidated damages assessed to the Contractor.
 - 3. No extension of contract time is allowed for any delay resulting directly or indirectly from a violation of environmental requirements.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Check Dams
 - 1. Fiber Roll
 - a. Use 12 inch diameter fiber roll selected from products included on the Department Approved Products List for Fiber Rolls.
 - b. Wood Stakes – 1 inch square by 18 inches long.
 - c. Channel Liner – Use products included on the Department Approved Products List for Channel Liners.
 - 2. Stone
 - a. Angular, well-graded, within 2 to 6 inches in diameter.
- B. Silt Fence
 - 1. Silt Fence Fabric – Refer to AASHTO M 288, Table 7 – Temporary Silt Fence Property Requirements
 - 2. Wood Post – Nominal 2 inch square by 4 ft long.
 - 3. Fasteners – Staples, wire, zip ties, or nails sufficient to maintain fabric attachment to post.
- C. Fiber Roll
 - 1. Use 12 inch diameter fiber roll selected from products included on the Department Approved Products List for Fiber Rolls.
 - 2. Wood Stakes – Nominal 1 inch square by 18 inches long.

- D. Slope Drain
 - 1. 12 inch diameter single wall polyethylene pipe
 - 2. Polyethylene end section
 - 3. Loose Riprap
 - 4. Wood Stakes – Nominal 2 inch square by 3 ft long.

- E. Temporary Berm
 - 1. Existing Soil

- F. Drop Inlet Barriers
 - 1. Fiber Roll
 - a. Use 18 inch diameter fiber roll selected from products included on the Department Approved Products List for Fiber Rolls.
 - b. Wood stakes – Nominal 2 inch square by 2 feet long.
 - 2. Stone – Angular, well-graded within 2 to 6 inch diameter.
 - 3. Silt Fence – Refer to AASHTO M 288, Table 6 – Temporary Silt Fence Property Requirements.
 - a. Wood stud: 2 inches x 4 inches nominal.

- G. Pipe Inlet Barrier
 - 1. Stone – Well-graded within 2 to 6 inch in diameter.
 - 2. Fiber Roll
 - a. Use 18 inch diameter fiber roll selected from products included on the Department Approved Products List for Fiber Rolls.
 - b. Wood stakes – Nominal 2 inch square by 2 ft long.

- H. Curb Inlet Barrier
 - 1. Fiber Roll – 9 inch minimum diameter selected from products included on the Department Approved Products List for Fiber Rolls.
 - 2. Sand Bags – 14 inch x 26 inch, UV stabilized polypropylene bags, 50 lb capacity with attached ties.
 - 3. Sand

- I. Sediment Trap
 - 1. Loose Riprap – Refer to Section 02373.

- J. Stabilized Construction Entrance
 - 1. Stone – 2 to 3 inch diameter.

- K. Straw Bale Barrier
 - 1. Straw Bales – Obtained from weed-free fields that have been certified by the Utah Department of Agriculture.

- L. Temporary Environmental Fence
 - 1. Fence Fabric
 - a. Polyethylene, high-density, UV stabilized
 - b. Width, 4 ft minimum
 - c. Color, Orange
 - 2. Posts
 - a. Wood Post – Nominal 2 inch square by 4 ft long.
 - b. Fasteners – Staples, wire, zip ties, or nails sufficient to maintain fabric attachment to post.

PART 3 EXECUTION

3.1 PERMIT COMPLIANCE

(Only for projects disturbing one or more acres of ground)

- A. Complete the remaining sections of the Storm Water Pollution Prevention Plan (SWPPP) provided by the Department and sign the SWPPP before submitting the Notice of Intent (NOI).
- B. Obtain permit coverage and renewals at the Contractor's expense under the Utah General Permit for Discharges from Construction Activities by completing and submitting the online NOI form located on the Utah Division of Water Quality web site. Refer to <http://www.udot.utah.gov/go/standardsreferences>.
- C. Post documentation of permit coverage on the project site in a publicly assessable location.
 - 1. Include permit tracking number and contractor's contact name, phone number or email address or both.
- D. Do not begin any earth-disturbing activity until the NOI form has been completed online and submitted to the Division of Water Quality.
- E. Comply with the requirements of Utah General Permit for Discharges from Construction Activities – Permit No. UTRC00000. Refer to <http://www.udot.utah.gov/go/standardsreferences>
- F. Modify the SWPPP whenever changes are made to the construction plans, stormwater control measures, pollution prevention measures, or other activities at project site that are no longer accurately reflected in the SWPPP.
 - 1. Document and sign the modifications in the SWPPP within 7 calendar days.

- G. Install sediment control measures along the project perimeter and those protecting surface waters and wetlands before starting earth-disturbing activity.
- H. Provide and maintain a 50-foot no disturbance buffer around surface waters or equivalent sediment control measures (See Permit 2.1.2) unless the project qualifies under a compliance alternative.
- I. Obtain written approval from the Engineer to change the SWPPP.
- J. Designate an ECS to work directly with the Engineer's designated ECS and be available as needed to coordinate the SWPPP, inspect and maintain erosion control devices, and resolve other sediment and erosion control issues.
- K. Maintain a copy of the prepared SWPPP on the project site at all times and attach the following items as they occur through project construction:
 - 1. Any changes made to the SWPPP
 - 2. Inspection forms
 - 3. Corrective Actions
- L. Minimize sediment trackout onto offsite streets, other paved surfaces, or sidewalks from vehicles exiting the construction site.
- M. Follow the Permit if a conflict occurs between erosion and sediment control plans or specifications and the Utah General Permit for Discharges from Construction Activities.

3.2 INSTALLATION

- A. The control measures in the SWPPP are illustrative.
 - 1. Adapt measures in the field to meet their intended purpose and implement appropriate control measures through all phases of the project.
 - 2. Make required changes to the SWPPP to accommodate construction sequencing with the approval of the Engineer.
- B. Install additional control measures as directed by the Engineer.
- C. Follow installation procedures outlined in the EN Series Standard Drawings and the UDOT Erosion and Sediment Control Field Guide.
- D. Provide or construct control measures such as check dams, silt fence, slope drains, drop inlet barriers, sediment traps, and other sediment and erosion control devices or methods to reduce construction site erosion and prevent sediment laden runoff from leaving the site.

- E. Initiate soil stabilization measures whenever earth-disturbing activities have permanently ceased on any portion of the site but in no case longer than 14 days.
- F. Initiate soil stabilization measures whenever earth-disturbing activities have temporarily ceased on any portion of the site where grading, excavation, or topsoil placement operations will not resume for a period of 14 or more calendar days but such activities will resume in the future.
- G. Document on the inspection form the date when earth-disturbing activities temporarily ceased on an area.
- H. Refer to the Utah General Permit for Discharges from Construction Activities Part 2.2 for what defines initiation of stabilization.
- I. Install temporary environmental fence in the required locations before construction activities begin.
 - 1. Install posts at a 12 ft maximum spacing so the fence does not sag more than 2 inches between posts.
 - 2. Weave the fence over the support posts alternating every two loops and secure it to the posts with fasteners.

3.3 INSPECTION

- A. Inspect all denuded areas during construction to determine potential erosion problems. Apply control measures as required.
- B. Conduct SWPPP inspections at least once a week upon beginning earth-disturbing activities and within 24 hours after any storm event $\frac{1}{2}$ inch or greater. Conduct inspections at least once a month for areas that are temporarily or permanently stabilized and in cases where the ground is frozen, suspend inspections until thawing conditions begin to occur.
 - 1. Include the Engineer's ECS on all inspections.
 - 2. Complete a Division of Water Quality inspection form during each inspection and submit it to the Engineer within 24 hours of the inspection. Include the following information:
 - a. Names of personnel attending and date of the inspection.
 - b. List of problems identified in the previous inspection and note whether or not corrections have been made.
 - c. List by location, all earth-disturbing activities since previous inspection.
 - d. List by location, erosion and sediment control measures installed since previous inspection.

- e. List by location, new and unresolved problems encountered with specific erosion control measures. Describe solutions to be implemented.
 - f. Sign the inspection form.
- C. Accommodate inspections requested by regulatory agencies.

3.4 MAINTENANCE

- A. Maintain sediment control devices to function properly until all disturbed areas draining to them are stabilized.
- B. Remove and properly dispose of sediment when it has accumulated half way up the overall structure height or when it interferes with the performance of the structure.
- C. Dispose of sediment removed from erosion control structures in a manner acceptable to the Engineer.

3.5 REMOVAL

- A. Remove temporary sediment and erosion control devices as indicated below:
 - 1. Remove check dams in cut ditches when the areas draining to the cut ditch have been seeded and mulched or blanketed and the ditch has been permanently lined.
 - 2. Remove drop inlet and curb inlet protection when the areas draining to them have been stabilized.
 - 3. Remove silt fence and fiber rolls when the areas draining to them have been seeded and mulched or blanketed. Do not remove silt fence or fiber rolls protecting a wetland or waterway unless the surrounding area meets final stabilization requirements.
- B. Remove temporary environmental fence and posts upon completion of construction.
 - 1. Temporary environmental fence and all components become property of the Contractor when construction is complete.

3.6 PERMIT CLOSE-OUT

(Only for projects that obtained a permit)

- A. Obtain approval from Engineer through the Region Landscape Architect that all permit requirements for final close-out under the Contractor's control have been met before terminating the permit.

- B. Close-out the Utah General Permit for Discharges from Construction Activities by submitting a Notice of Termination (NOT) form to the Division of Water Quality along with a signed copy to the Engineer on project locations that receive less than 20 inches of average annual precipitation.
- C. Transfer the permit to the Department as directed by procedures identified in the permit on project locations that receive more than 20 inches of average annual precipitation and the project has not met final stabilization requirements upon project close-out.

END OF SECTION

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02056M

EMBANKMENT, BORROW, AND BACKFILL

Delete Article 1.4, paragraph A and replace with the following:

- A. Well-graded material – Material having an even distribution of different particle sizes. This even distribution of particles of different sizes results in a dense mass upon compaction.

Delete Article 2.9, and replace with the following:

2.9 PIPE FOUNDATION, BEDDING, AND BACKFILL

- A. Pipe Foundation (When Required)
 - 1. Classification A-1. Refer to AASHTO M 145.
 - 2. Use suitable backfill material or granular backfill borrow when directed by Engineer.
 - 3. Use Free-Draining Granular Backfill or other uniformly graded materials only with the approval of the engineer and only if enclosed with an appropriate drainage geotextile. Refer to Section 02075.
 - 4. Overexcavate and replace unsuitable materials according to Section 02317 when directed by the Engineer.

- B. Pipe Bedding and Backfill
 - 1. Classification A-1. Refer to AASHTO M145.
 - 2. Non-plastic, well-graded material.
 - 3. Maximum aggregate size is 1½ inches for plastic pipe, 2 inches for all other pipes.

- C. Other materials/trench configurations for pipe bedding and backfill may be used only upon approval of the Contractor's engineering proposal. Proposals using this option may include the use of native material or uniformly graded materials enclosed in an appropriate drainage geotextile. The Department decides whether or not to consider or approve the Contractor's engineering proposal. Any proposal must include all of the following:
 - 1. Stamped drawings and specifications signed and sealed by a Professional Engineer licensed in the state of Utah.

2. Evaluation of site specific conditions and surrounding soils, including potential for migration of fines.
3. A structural evaluation of the pipe support system for the proposed pipe that includes the pipe structural capacity and the depth of fill.
4. Complete bedding or backfill source information including gradation, soil classification, and laboratory testing reports.

Delete Article 3.3, paragraphs C and D and replace with the following:

- C. Structural Backfill Placement includes bridges, foundation, box culverts, drains, and other structures.
 1. Place suitable backfill material in structural backfill sections. Refer to Section 02317.
 - a. Use granular backfill borrow when specified.
 2. Use appropriate compaction equipment adjacent to abutments, backwalls, approach slabs, wing walls, retaining walls, and other structures.
- D. Pipe Foundation, Bedding, and Backfill
 1. Refer to Section 02317 and DG Series Standard Drawings for excavation and over-excavation requirements.
 2. Imported material for pipe bedding and pipe backfill and embankment in the pipe trench are incidental when constructed according to the plans and specifications. No separate measurement or payment for these items will be made except for pipe foundation work or other over-excavation of unsuitable material beyond the limits indicated in the contract.
 3. Place uniform layers of pipe backfill on both sides of the pipe.
 4. Use compaction equipment smaller than the trench width between the pipe and the trench wall. Expand the width of the trench to accommodate necessary compaction equipment .
 5. Fully compact the haunch areas. Hand-tamp areas where compaction equipment cannot compact the soil.

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02216S

POTHOLE UTILITY

PART I GENERAL

1.1 SECTION INCLUDES

- A. Procedure for pot holing utilities during construction activities.

1.2 RELATED SECTIONS

- A. Section 01721: Survey

1.3 REFERENCES

- A. CI/ASCE 38-02: Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data

1.4 DEFINITIONS Not Used

1.5 SUBMITTALS Not Used

PART 2 PRODUCTS Not Used

PART 3 EXECUTION

3.1 PREPARATION

- A. Locations of utilities shown on the plans are approximate and based only on a record search by local controlling agencies and are for general guidance.
- B. Use potholing to verify location, elevation and type of existing buried utilities.

- C. Contact Blue Stakes before excavating or potholing.
- D. Pothole locations of possible conflicts including excavation, pipe culvert extensions, catch basins, and other construction or as directed by the Engineer.
- E. Use vacuum excavation or other methods that protect the integrity of the potholed utility.
- F. Cooperate with the utility companies to protect their facilities.
- G. Adhere to OSHA health and safety practices
- H. Request potholing in writing from the Engineer at least 21 calendar days before potholing. Inform the Engineer 24 hours prior to any pothole. Pothole and backfill utility in the presence of the Engineer.

3.2 RECORDS

- A. Record coordinates of elevation and horizontal position, owner, material, size, number of ducts, casings and any other information relevant to identifying and establishing utility.
- B. Provide written documentation to the Engineer within 72 hours of potholing. Tie all coordinates and benches into the project coordinate system.

3.3 RESPONSIBILITY OF DAMAGED UTILITY

- A. The Contractor is solely responsible for any damage to utility facilities resulting from pothole operations. In the event of utility damage, stop work and immediately notify the appropriate agencies, including the utility owner. No compensation for any delays to the project schedule resulting from damages, repair time, materials or any other circumstance due to damages will be made.

3.4 BACKFILL AND CLEAN-UP

- A. Backfill potholed utility according to utility owner's specifications when outside of roadway prism. If pothole is within the roadway prism, then backfill according to the most restrictive of either the Department's or the utility owner's specifications. Backfill within 24 hours or as otherwise directed.
- B. Backfill potholed utility to the same depth and materials of surrounding pavement or terrain.

- C. Provide complete cleanup of the work to equal or better condition than existing prior to potholing.

END OF SECTION

November 24, 2014

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02316M

ROADWAY EXCAVATION

Add Paragraph D to Article 1.1

- D. Excavation, removal, and disposal of contaminated soil materials.

Add Paragraph F to Article 3.5

- F. Remove and dispose of existing contaminated soils located as shown in the plans at the former dry cleaner property on the southeast corner of SR-173 (5400 South) and 700 West (Parcel #105) at an appropriate facility. The soil removed from these locations cannot be considered clean fill, but instead industrial waste, and must be disposed of appropriately as petroleum-impacted soil at an approved disposal facility.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02316M

ROADWAY EXCAVATION

Delete Article 3.5, paragraph C and replace with the following:

- C. Remove material in all cut sections to the depth shown. Scarify to an 8 inch depth and compact subgrade to at least 90 percent of maximum laboratory density before placing pavement section.

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02411S

WATERLINE INSTALLATION

PART I GENERAL

1.1 SECTION INCLUDES

- A. Materials and procedures for the installation of Local Governments waterlines, manholes fire hydrants, accessories, and any required looping of water lines.

1.2 RELATED SECTIONS Not Used

1.3 REFERENCES

- A. APWA Standard Specifications and Plans.
- B. Local Agencies Standards – Murray City “Water Specifications and Requirements” reference manual

1.4 DEFINITIONS Not Used

1.5 SUBMITTALS Not Used

1.6 PAYMENT PROCEDURES

- A. Refer to Measurement and Payment

PART 2 Products

2.1 PIPE, VALVES AND ACCESSORIES

- A. Refer to “Local Agencies Standards” and APWA Standard Specifications.

- B. Asbestos – The Contractor is advised of encountering asbestos in the removal of water pipes on this project. When removing asbestos pipes, adhere to the following:
 - 1. Remove asbestos contamination in accordance with State of Utah Administration Code R307 by a licensed asbestos contractor.
 - 2. Dispose of all such materials in an environmentally safe area.
 - 3. Obtain and provide necessary permits for any asbestos disposal.

2.2 MANHOLE

- A. Refer to “Local Agencies Standards” and APWA Standard Specifications.

2.3 FIRE HYDRANT

- A. Refer to “Local Agencies Standards” and APWA Standard Specifications.

2.4 METER

- A. Refer to “Local Agencies Standards” and APWA Standard Specifications.

2.5 LATERALS

- A. Refer to “Local Agencies Standards” and APWA Standard Specifications.

PART 3 EXECUTION

3.1 PREPARATION

- A. Obtain all permits associated with the connection and installation.
 - 1. Coordinate with the water system authority the installation of items not performed by Water Authority forces. Refer to “Local Agencies Standards”.
- B. Before trenching:
 - 1. Stake waterline location
 - 2. Contact Blue Stakes to locate and mark utility lines.
- C. Coordinate all water main shutdowns with the water system authority and notify the Engineer ten (10) calendar days prior to the shutdown.
 - 1. Notify the Fire Department prior to any work associated with the waterlines.

3.2 INSTALLATION

- A. Install Waterline System:
 - 1. Locate waterlines as shown on the plan sheets.
 - 2. Coordinate the installation of waterlines, water meters, fire hydrants, and associated piping with the water system authority.
 - 3. Follow local agencies standards for pipe bedding. Follow UDOT standards above the pipe zone for bedding and compaction.
- B. Loop Waterline
 - 1. At locations of utility lines, drainage lines, or other obstacles encountered during construction.
- C. Cutting Pipe: The pipe will be cut in a neat manner without damage so as to produce a smooth end at right angles to the axis of the pipe. Existing transit Asbestos-Cement pipe will not be cut except by a licensed asbestos contractor and should be removed and replaced with ductile iron or PVC pipe.

3.3 PIPE REMOVAL

- A. All asbestos pipes to be removed must be pre-approved by The Engineer before removal.
- B. Excavate all material necessary to permit removing items such as pipe, pipe culverts, end sections, and headwalls.
- C. Plugs
 - 1. Cut existing pipe culvert 2 ft inside the Department's right-of-way and abandon culvert located on private property.
 - 2. Plug disconnected pipelines near the right-of-way line with a water-tight concrete plug extending into the remaining pipe at least 2 ft.
- D. Seal openings in remaining manhole walls or catch basins with watertight concrete plug.
- E. Obtain written approval from the Engineer to leave abandon pipe and pipe culverts in place.

END OF SECTION

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02610

DRAINAGE PIPE

Delete Section 02610 and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Materials and procedures for installing drainage pipe.
- B. Class, type, and size designations for drainage pipe.
- C. Inspection and acceptance.

1.2 RELATED SECTIONS

- A. Section 01282: Payment
- B. Section 02056: Embankment, Borrow, and Backfill
- C. Section 02317: Structural Excavation

1.3 REFERENCES

- A. AASHTO M 36: Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains
- B. AASHTO M 167: Corrugated Steel Structural Plate, Zinc-Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches
- C. AASHTO M 170: Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- D. AASHTO M 196: Corrugated Aluminum Pipe for Sewers and Drains
- E. AASHTO M 197: Aluminum Alloy Sheet for Corrugated Aluminum Pipe
- F. AASHTO M 198: Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants

- G. AASHTO M 207: Reinforced Concrete Elliptical Culvert, Storm Drain and Sewer Pipe
- H. AASHTO M 219: Corrugated Aluminum Alloy Structural Plate for Field-Bolted Pipe, Pipe-Arches, and Arches
- I. AASHTO M 243: Field Applied Coating of Corrugated Metal Structural Plate for Pipe, Pipe Arches, and Arches
- J. AASHTO M 245: Corrugated Steel Pipe, Polymer Precoated, for Sewers and Drains
- K. AASHTO M 246: Steel Sheet, Metallic-Coated and Polymer-Precoated for Corrugated Steel Pipe
- L. AASHTO M 274: Steel Sheet, Aluminum-Coated (Type 2), for Corrugated Steel Pipe
- M. AASHTO M 294: Corrugated Polyethylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter
- N. AASHTO M 304: Poly (Vinyl Chloride) (PVC) Profile Wall Drain Pipe and Fittings Based on Controlled Inside Diameter
- O. AASHTO M 330: Polypropylene Pipe
- P. AASHTO MP 20: Steel Reinforced Polyethylene Pipe
- Q. AASHTO PP 63: Pipe Joint Selection for Highway Culvert and Storm Drains
- R. AASHTO LRFD Bridge Construction Specifications
- S. ASTM A 849: Post-Applied Coatings, Pavings, and Linings for Corrugated Steel Sewer and Drainage Pipe
- T. ASTM C 443: Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
- U. ASTM D 1056: Flexible Cellular Materials—Sponge or Expanded Rubber
- V. ASTM D 1784: Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds

- W. ASTM D 3212: Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
- X. ASTM D 3350: Polyethylene Plastics Pipe and Fittings Materials
- Y. ASTM F 477: Elastomeric Seals (Gaskets) for Joining Plastic Pipe
- Z. ASTM F 949: Poly(Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth Interior and Fittings
- AA. ASTM F 2562: Steel Reinforced Thermoplastic Ribbed Pipe and Fittings for Non-Pressure Drainage and Sewerage
- BB. ASTM F 2881: Polypropylene Pipe
- CC. National Transportation Product Evaluation Program (NTPEP)
- DD. Occupation Safety and Health Administration (OSHA)
- EE. UDOT Minimum Sampling and Testing Requirements
- FF. UDOT Quality Management Plan 505

1.4 DEFINITIONS

- A. The following definitions apply to this Section and the DG Series Standard Drawings.
 1. Backfill – Material used to fill the trench or excavation, exclusive of bedding material.
 2. Bedding Material – Material on which a pipe is supported.
 3. Cover – The vertical dimension above the crown to the finished fill elevation or pavement surface.
 4. Crown – The top or highest point of a pipe.
 5. Culvert – A pipe, open on both ends, that conveys surface runoff through an embankment.
 6. Distortion – A deviation from a pipe’s original shape due to earth pressure or surface loads.
 7. Down Drain – A pipe that is connected to a drainage structure that drains vertically down to a surface below.
 8. Drainage pipe – A pipe that conveys water regardless of shape and material type such as culverts, irrigation pipes, and storm drains.
 9. End Section – A structure made of steel or concrete, attached to the ends of a pipe to retain the embankment and provide anchorage.
 10. Foundation – The natural ground or prepared base.

11. Haunch – The area of backfill material placed under the pipe, between the spring line and the bottom of the pipe.
12. Headwall – A concrete wall placed at the end of a pipe to serve one or more of the following purposes:
 - a. Protect embankment fill from scour or undermining
 - b. Increase hydraulic efficiency
 - c. Alter the direction of flow
 - d. Anchor the pipe
 - e. Provide needed structural support
13. Invert – The floor, bottom, or lowest part of the internal cross section of a pipe.
14. Irrigation Pipe – A pipe designed to convey seasonal irrigation water.
15. NASSCO – National Association of Sewer Service Companies.
16. NHS – National Highway System.
17. Nominal Diameter – The inside diameter of the pipe as specified in the plans.
18. NTPEP – National Transportation Product Evaluation Program
19. Pipe Corrosion Classifications:
 - a. Class A – Pipe used in mostly non-reactive soils that requires no special materials, treatments, or coatings.
 - b. Class B – Pipe used in moderately reactive and corrosive soils.
 - c. Class C – Pipe used in soils that are highly reactive and corrosive.
 - d. Class D – Untreated structural plate pipe used in mostly non-reactive and non-corrosive soils.
 - e. Class E – Structural plate pipe used in highly reactive and corrosive soils.
20. Pipe Interior Roughness:
 - a. Corrugated – Interior surface that is formed into a series of alternating crests and valleys with a Manning's "n" coefficient greater than 0.013.
 - b. Smooth Lined – Interior surface that is essentially smooth, with a Manning's "n" coefficient less than or equal to 0.013.
21. Pipe Sample Unit – The length of pipe from inlet to outlet or from drainage structure to drainage structure.
22. Rise – The maximum vertical dimension of a pipe arch.
23. Slope drain – A pipe that is placed along the face of a cut or fill slope.
24. Span – The maximum horizontal dimension of a pipe arch.
25. Spring Line – The location of the maximum horizontal dimension of a pipe.
26. Storm Drain – A pipe that conveys surface drainage from one drainage structure to another or an outfall.

27. Working Drawings – Drawings produced by the Contractor that supplement the contract drawings to provide information not included in the contract documents but that are required to fabricate, erect, transport or temporarily support the structure or structural elements in the completion of the work.
 - a. Approval of Working Drawings - Acceptance by the Department for use on the project.

1.5 SUBMITTALS

- A. Manufacturer's Certificate of Compliance for the following:
 1. Material, structural, and coating according to requirements of Table 5.
 2. Pipe joints according to AASHTO PP 63. Refer to this Section, article 2.2.
 3. Concrete pipe manufacturer is prequalified according to UDOT Quality Management Plan 505, Precast/Prestressed Concrete Structures.
 4. Thermoplastic pipe manufacturer is compliant with the AASHTO NTPEP for the diameter of pipe specified in the plans.
- B. Manufacturer's installation instructions for each type of pipe used and any incidental materials required for installation.
- C. NASSCO pipe inspection certification.
- D. Inspection reports. Refer to this Section, article 1.6.
- E. Installation plan and working drawings for structural plate pipe. Refer to this Section, article 2.1 paragraph E.
 1. Working drawings must be sealed by a Professional Engineer (PE) or Professional Structural Engineer (SE) licensed in the State of Utah.
- F. Repair plan when required according to this Section, article 1.6 paragraph D.

1.6 ACCEPTANCE

A. General

1. Inspect pipes after installation and placement of backfill according to Table 1 and Table 2.

Table 1

Roadway Functional Classification	Percent of Pipes to Inspect*
Interstate Freeways, NHS Highways and Arterials	100
Collectors and Local Roads	50

* Indicated in the project plans

Table 2

Pipe Testing Requirements				
Pipe Size	Visual		Deflection*	
	Manual	Remote	Manual	Mandrel**
≤ 48-inch dia.		X		X
> 48-inch dia.	X		X	

* Deflection testing is required for circular metal and thermoplastic pipe only

** A manual inspection or other method may be performed in place of a mandrel inspection with the approval of the Engineer

2. The Engineer will determine which pipe sample units to inspect when the percentage of pipes to inspect is less than 100 percent.
 - a. Inspect additional pipe sample units with apparent defects or as directed by the engineer.
 - 1) Repair or replacement will be at the contractor's expense if pipe does not meet the acceptance criteria in this article.
 - 2) The Department will pay for the cost of additional inspection if pipe meets the acceptance criteria in this article.
3. Perform inspections so that pipe sample units and required repairs are accepted by the Engineer before placing pavement or finished grade. Exceptions to this requirement are at the discretion of the Engineer.

4. The Department will not make final payment for a pipe installation until the pipe has been inspected and accepted according to this article.
 - a. Refer to Section 01282 regarding progress payments and payment for material on hand.
 - b. Protect all pipe from damage throughout the duration of the project.
 5. No inspection is required for any slope drain or down drain. No inspection is required for a pipe extension or pipe sample unit that is less than 20 ft long.
 6. Clean and flush the pipe with water immediately before the inspection.
 - a. Remove all material or debris from pipes.
 - b. Do not discharge debris into other pipes, structures, or drainage ditches.
 7. Submit an inspection report to the Engineer for each pipe sample unit as specified in this article for remote and manual inspections within five calendar days of completing inspection.
 - a. The Engineer will determine acceptance within seven calendar days of receipt of complete inspection reports.
 8. Notify the Engineer at least 24 hours before performing a mandrel inspection or a manual inspection of a pipe.
- B. Remote Inspection
1. Perform remote inspection for pipes with a nominal diameter less than 48 inches using closed-circuit television (CCTV) video inspection and a mandrel test as outlined below.
 2. Remote video inspection operator is to have a current NASSCO certification.
 3. CCTV Equipment: Record video using a crawler mounted camera capable of panning and tilting to a 90 degree angle with the axis of the pipe and rotating 360 degrees.
 4. CCTV Inspection: Produce a picture quality that satisfies the Engineer. Repeat unsatisfactory inspections at no additional cost to the Department. Use the video image to determine horizontal and vertical alignment deviations, joints gaps, and pipe damage.
 - a. Center the camera head in the pipe both vertically and horizontally and use lighting sufficient to allow a clear picture of the entire periphery of the pipe.
 - b. Do not move the crawler through the pipe at a speed greater than 30 ft/minute. Stop the crawler and video the entire circumference at each joint. Stop the crawler and zoom when necessary to video defects.

- c. Video image must be continuously illuminated, clear, focused, and free from roll, static, or other image distortion qualities that may prevent the reviewer from evaluating the pipe's condition.
 - 1) Calibrate the video's lighting and focus to view the internal markings within the pipe.
 - d. Superimpose the pipe identification and location within the pipe on the video recording.
 - e. Document all defects with captions in the video.
 - 1) Note the defect at each location and provide a still image of the defective area in the inspection report.
 - 2) Document all cracks and joint separations.
5. Mandrel Inspection: Used for circular metal and thermoplastic pipes only.
- a. Perform the mandrel inspection for pipes in the presence of the Engineer or representative according to Table 2.
 - b. Provide a mandrel that meets the following requirements to determine pipe deflection:
 - 1) The diameter of the mandrel, whether it is fixed or variable size, must be verified with a proving ring or other method according to manufacturer's guidelines.
 - 2) Contains at least nine equally spaced runners (40 degree angles).
 - 3) Length not less than the diameter.
 - c. Provide a proving ring to verify mandrel size when requested by the Engineer.
 - d. Mandrel Inspection Procedure
 - 1) Pull a mandrel that is 5 percent less than the pipe nominal inside diameter.
 - 2) The inspection is complete if the mandrel passes through at 5 percent.
 - 3) Accomplish the following before completing the inspection if the mandrel cannot pass through:
 - a) Record the maximum distance achieved from the inlet side.
 - b) Remove the mandrel and continue the inspection from the outlet end of the pipe toward the inlet end. Record the maximum distance achieved from the outlet side.
 - c) Repeat with the mandrel set to 7.5 percent less than the pipe nominal inside diameter.
6. Prepare an Inspection Report and include:
- a. A video recording of each pipe inspection in a digital format.
 - b. The project number, date, and time of the inspection for each pipe inspection, the pipe identification used in the plan set, and type and size of pipe.

- c. Written and still image documentation of locations where alignment deviations, joint gaps, pipe damage, and any other deficiencies were observed.
- d. The size of the mandrel and whether or not it was successfully pulled through the pipe.
 - 1) Mandrel size and maximum distance pulled from each side of the pipe if the mandrel was not able to pass.

C. Manual Inspection

- 1. Perform manual inspection for pipes in the presence of the Engineer or representative according to Table 2.
 - a. Follow OSHA requirements for inspecting confined entry spaces.
- 2. Perform the following inspection:
 - a. Deflection (for circular metal and thermoplastic pipes only). Perform a mandrel inspection or take the following measurements every 10 ft along the length of the pipe to the nearest ¼ inch:
 - 1) Vertically from the crown to invert
 - 2) Horizontally at the spring line
 - 3) Two measurements, each diagonally at 45 degrees to the pipe springline
 - b. Cracks – Measure observed cracks using a feeler gauge capable of measuring 0.01 inch. Other measuring devices may be used when approved by the Engineer.
 - c. Gaps – Measure and record the widest gap at each joint to the nearest ¼ inch.
- 3. Inspection Report
 - a. Include the project number, date and time of the inspection, the pipe identification used in the plan set, and type and size of pipe.
 - 1) Document inspection results for deflection and observations of alignment deviations, joint gaps, and pipe damage. Include the type and location along the pipe for each measurement along with still images for each observation.

D. Acceptance

- 1. Each pipe sample unit is accepted after verifying that the allowable tolerances for the following requirements have been met:
 - a. Horizontal and vertical alignment deviations
 - b. Deflection
 - c. Joints gaps
 - d. Damage
- 2. Repair or replace damaged or improperly installed pipes at no cost to the Department.

3. Evaluate each pipe that does not meet the acceptance criteria described in this article and recommend appropriate action. Submit documentation that has been signed and sealed by a Professional Engineer (P.E.), competent in the structural design of pipe material being evaluated, either:
 - a. No repair is required for the pipe to function and maintain its structural integrity over its design life.
 - b. A repair is required to allow the pipe to function and maintain its structural integrity over its design life.
 - 1) Submit repair plans to the Engineer, obtain written approval from the Engineer before performing work.
 - 2) Inspect the repaired portion of the pipe and any feature potentially affected by the repair.
4. Alignment
 - a. Evaluate each pipe that exceeds the alignment tolerances shown in Table 3 and recommend appropriate action.
 - b. Evaluate each pipe that has areas where ponding occurs and recommend appropriate action.

Table 3

Installation Alignment Tolerances		
Design Grade	Horizontal	Vertical*
		inch/100 ft
> 1%	Horizontal joint deflections not to exceed industry standards	1½
0.5% - 1%		1
< 0.5%		½

* Increase tolerance by 50 percent for culverts.

5. Distortion – Based on the percentage change from the nominal diameter.
 - a. Evaluate each pipe with a distortion between 5 percent and 7.5 percent and recommend appropriate action.
 - b. Remove and replace each pipe with a distortion greater than 7.5 percent.

- 6. Joint Gaps
 - a. Evaluate each pipe joint with a gap exceeding the tolerance specified in Table 4 and recommend appropriate action according to manufacturer's recommendations.

Table 4

Joint Gap Tolerances	
Nominal Diameter (inches)	Joint Gap (inches)
12 to 36	0.75
42 to 48	1.00
54 to 90	1.25
96 to 144	1.75

- b. Repair joints showing visible signs of soil or water infiltration according to the approved plans submitted.
- 7. Damage – Fractures, cracks, or other defects passing through the walls or joints sufficient to impair strength, durability, function or product serviceability. Evaluate damage and recommend appropriate action according to this Section, Article 1.6 paragraph D.3.
 - a. Metal pipe – Repair damaged, delaminated, or scaled coating on metal pipe according to the approved plans submitted.
 - b. Plastic pipe – Evaluate pipes that show the following signs:
 - 1) Damaged pipe cross section such as dents, cuts, cracks, breaks, fractures, or deformations.
 - c. Reinforced concrete pipe
 - 1) Evaluate pipes that show the following:
 - a) Cracks between 0.01 inch and 0.10 inch
 - b) Damaged pipe cross section such as breaks or fractures
 - c) Broken bells or spigots
 - 2) Remove and replace pipe that show the following:
 - a) Exposed reinforcing steel
 - b) Imperfect proportioning mixing and casting such as honeycomb or open texture
 - 3) Repair or replace reinforced concrete pipe if cracks are greater than 0.10 inch.

PART 2 PRODUCTS

2.1 PIPE

- A. General – pipes are identified according to interior roughness, joint type, diameter or span and rise, and corrosion class.
1. Provide the type of pipe specified in the plans with the following exceptions:
 - a. Provide any pipe type that meets the interior roughness requirements of Table 5 and the specified pipe joint rating and corrosion classification when no material type is specified in the plans.
 - b. Substitutions to a higher pipe corrosion classification are allowed.
 2. Do not change the material type, strength, or thickness of the pipe along an installation unless approved in writing by the Engineer.
 3. Use the cover over the pipe to determine the strength or thickness. Refer to the DG Series Standard Drawings.
 4. Internally label each section of pipe with the manufacturer's name or trademark, nominal diameter, and manufacture date. Include the pipe class, gauge, and coating according to the pipe material type.
 - a. Place the pipe so that the location of the label is above the spring line of the pipe.

Table 5

AASHTO/ASTM Specifications for Pipe					
Interior Roughness and Material Type	Corrosion Class				
	A	B	C	D	E
Corrugated					
Corrugated steel pipe and pipe arch	M 36	M 36 Polymeric Coating (outside only) M 245 & M 246 ASTM A 849 or Aluminized Type II Steel M 274	M 36 Polymeric Coating (both sides) M 245 & M 246 ASTM A 849	N/A	N/A
Corrugated aluminum pipe and pipe arch	M 196 M 197	M 196 M 197	M 196 M 197	N/A	N/A
Corrugated polyethylene (HDPE) pipe	M 294 ASTM D 3350	M 294 ASTM D 3350	M 294 ASTM D 3350	N/A	N/A
Smooth Lined					
Smooth lined corrugated polyethylene (HDPE) pipe	M 294 ASTM D 3350	M 294 ASTM D 3350	M 294 ASTM D 3350	N/A	N/A
Smooth lined polyvinyl chloride (PVC) pipe	M 304 & ASTM F 949 Cell Class # 12454C ASTM D 1784	M 304 & ASTM F 949 Cell Class # 12454C ASTM D 1784	M 304 & ASTM F 949 Cell Class # 12454C ASTM D 1784	N/A	N/A
Smooth lined polypropylene pipe	M 330 ASTM F 2881	M 330 ASTM F 2881	M 330 ASTM F 2881	N/A	N/A
Steel reinforced thermoplastic ribbed pipe	MP 20 ASTM F 2562	MP 20 ASTM F 2562	MP 20 ASTM F 2562	N/A	N/A
Spiral rib steel pipe and pipe arch	M 36	M 36 Polymeric Coating (outside only) M 245 & M 246, ASTM A 849 or Aluminized Type II Steel M 274	M 36 Polymeric Coating (both sides) M 245 & M 246 ASTM A 849	N/A	N/A
Spiral rib aluminum pipe and pipe arch	M 196 M 197	M 196 M 197	M 196 M 197	N/A	N/A
Reinforced concrete pipe	M 170 Type II Cement	M 170 Type II Cement	M 170 Type V Cement	N/A	N/A
Elliptical reinforced concrete pipe	M 207 Type II Cement	M 207 Type II Cement	M 207 Type V Cement	N/A	N/A

AASHTO/ASTM Specifications for Structural Plate Pipe					
Interior Roughness and Material Type	Corrosion Class				
	A	B	C	D	E
Corrugated					
Structural steel plate pipe and pipe arch	N/A	N/A	N/A	M 167	M 167 M 243
Aluminum alloy structural plate pipe and pipe arch	N/A	N/A	N/A	M 219	M 219

B. Reinforced Concrete Pipe

1. Concrete pipe manufacturer is pre-qualified according to UDOT QMP 505.
2. Do not cast lift holes except for circular pipe that has a nominal diameter greater than 54 inches or any elliptical pipe.
 - a. Fill lift holes with a plug supplied by the manufacturer or with non-shrink grout according to the pipe manufacturer's recommendations.

C. Metal Pipe

1. Do not allow pipes of different types of metal to contact each other.
2. Use matching materials to make direct extensions of existing pipes.
3. Do not use aluminum pipe when a paved invert is required unless protective measures are taken.
4. Class B Aluminized Type II Steel is acceptable only when the minimum metal thickness is 16 gauge and where pH is greater than 5.5 and less than 8.5 and soil resistivity is greater than 1,500 ohm-centimeters.

D. Thermoplastic Pipe

1. HDPE pipe – Do not use greater than 60 inch diameter.
 - a. HDPE pipe manufacturer is compliant with NTPEP.
2. PVC pipe – Do not use greater than 36 inch diameter.
3. Do not use in permanent above ground installations unless approved in writing by the Engineer.

E. Structural Plate Pipe

1. Spray or brush-coat all areas of aluminum pipe contacting concrete with an asphalt mastic or tar based material at least 0.05 inch thick. Refer to AASHTO M 243.
2. Assembly
 - a. Provide the Engineer an installation plan and working drawings showing the position of each plate and the assembly order.

- b. Do not begin work until working drawings have been approved.
 - 1) The Department will review working drawings for general conformance with the design concept and compliance with the contract documents.
 - 2) Approval does not relieve the Contractor from responsibility for errors, correctness of details, conformance to the contract, and the successful completion of the work.
 - c. Follow the manufacturer's instructions.
- F. Steel Reinforced Thermoplastic Ribbed Pipe
 - 1. Do not use greater than 60 inch diameter.
 - 2. Do not use in permanent above ground installations unless approved in writing by the Engineer.
- G. Polypropylene Pipe
 - 1. Do not use greater than 60 inch diameter.
 - 2. Do not use in permanent above ground installations, unless approved in writing by the Engineer.

2.2 JOINTS OR COUPLING BANDS

- A. General
 - 1. Supply pipe joints that have been evaluated according to AASHTO PP 63.
 - a. Culverts – Meet the silt-tight joint requirements of at least 2 psi for all culverts except where project plans or specifications require a higher pressure rating.
 - b. Storm Drains and Irrigation Pipes – Meet the leak resistant joint requirements of at least 10.8 psi for all storm drains and irrigation pipes except where project plans or specifications require a higher pressure rating.
 - 2. Comply with manufacturer's recommendations for connecting pipes and for connecting pipe to end sections, concrete headwalls, catch basins, and similar structures.
 - 3. Elliptical, arched, and structural plate pipes are not pressure rated.
- B. Reinforced Concrete Pipe
 - 1. Use a rubber gasket joint that meets the requirements of ASTM C 443 for circular reinforced concrete pipe.
 - 2. Use a mastic joint sealant that meets the requirements of AASHTO M 198 for elliptical reinforced concrete pipe.

- C. Metal Pipe
 - 1. Use an external corrugated connecting band with a neoprene sleeve/flat gasket. Refer to ASTM D 1056.
 - a. Continuous one piece construction closed-cell neoprene, skin on all sides.
 - b. Minimum thickness of $\frac{3}{8}$ inch and no less than the width of the connection band used.
 - 2. Re-roll ends of helically corrugated pipe to form at least two full annular corrugations each before being joined.
 - 3. Refer to AASHTO LRFD Bridge Construction Specifications and AASHTO M 36 or M 245 with the following modifications for external corrugated connecting bands:
 - a. Use bands of the same or better corrosion class as the pipe. Maintain a minimum thickness of 16 gauge but not less than a 2 gauge step lighter than the pipe gauge.
 - b. Use bands with projections (dimple bands) only in extension of existing pipes or a field cut where annular corrugations do not exist.
- D. Thermoplastic Pipe
 - 1. Use bell and spigot joints with an elastomeric rubber seal that meets the requirements of ASTM F 477.
- E. Steel Reinforced Thermoplastic Ribbed Pipe
 - 1. Use pipe joints that meet the requirements of ASTM D 3212.

2.3 PIPE BEDDING AND BACKFILL

- A. Refer to Section 02056.

PART 3 EXECUTION

3.1 PREPARATION

- A. Excavation
 - 1. Refer to Section 02317.
 - 2. Keep trenches free from water.
- B. Foundation
 - 1. Grade and prepare the bottom of the trench to provide a firm and uniform bearing throughout the entire length of the pipe. Do not use blocking to bring the pipe to grade.
 - 2. Shape the foundation to have recesses to fit any projecting hubs or bells.

3.2 INSTALLATION

- A. Refer to DG Series Standard Drawings, Standard Specifications, AASHTO LRFD Bridge Construction Specifications, and manufacturer's installation requirements for installing all types of pipe. Adhere to the more stringent requirement if there is a conflict between any of the above installation requirements.

- B. Pipe Bedding
 - 1. Refer to Section 02056 and DG Series Standard Drawings for bedding requirements.
 - 2. Place the bottom of the pipe in contact with the bedding throughout its full length.
 - 3. Shape the bedding to have recesses to fit any projecting hubs or bells.

- C. Pipe Placement
 - 1. Check pipe for alignment and grade when joining the sections.
 - 2. Remove and relay or replace pipe that is out of alignment, settled, or damaged.
 - 3. Verify joints are assembled properly.

- D. Pipe Backfill
 - 1. Refer to Section 02056 for backfill requirements.
 - 2. Test frequency according to UDOT Minimum Sampling and Testing Requirements and Section 02056.

- E. Provide adequate cover and protect pipe during project construction.

END OF SECTION

November 5, 2014

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02621S

TRENCH DRAIN

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Materials and installation requirements for placing continuous precast Trench Drains, including necessary fittings, coupling systems, frames, grates and any other required item.

1.2 RELATED SECTIONS

- A. Section 02324: Compaction
- B. Section 03055: Portland Cement Concrete
- C. Section 02610: Pipe Culverts

1.3 REFERENCES

- A. ASTM C 307: Tensile Strength (PSI)
- B. ASTM C 579: Compressive Strength (PSI)
- C. ASTM C 580: Bending Strength (PSI)
- D. ASTM C 140: Moisture Absorption (%)
- E. ASTM C 267: Chemical Resistance
- F. ASTM C 666: Freeze/Thaw

PART 2 PRODUCTS

2.1 MATERIALS

A. Precast Trench Drains

Furnish monolithic precast polymer concrete Trench Drains, with polymer concrete of two-part polymer resin and one-part aggregate having the following properties:

PROPERTY	ASTM TEST METHOD	REQUIRED
Compressive Strength	C 579	12,000 psi min.
Tensile Strength	C 307	1,200 psi min.
Bending Strength	C 580	2,000 psi min.
Moisture Absorption	C 140	0.5% max.
Freeze/Thaw, No. of cycles Without Weight Loss	C 666	1,600 cycles

B. Trench Drain Channel

Furnish Trench Drains with channel dimensions according to plans, with rounded invert and tongue and groove joints, pre-sloped or non-sloped as required on the plans. Provide Trench Drain channel mitered at 20-degree to 45-degree angle measured parallel to the pavement surface.

C. Channel Roughness

Furnish Trench Drains with smooth interior face with a roughness coefficient not greater than 0.010.

2.2 PORTLAND CEMENT CONCRETE

Use AA(AE) Portland Cement Concrete as specified in Section 3055 on each side of the Trench Drain and other applications as required by this section.

2.3 PRE-SLOPED CHANNEL DRAINS

A. Dura Slope Channel Drain:

1. Description: 6-5/8-inch wide trench drain system.
 - a. Material: Molded, gray, structural-foam polyethylene with UV inhibitor.
 - b. Built-In Slope: 0.7 percent.
 - c. Inside Diameter: 4 inches.
 - d. Bottom Radius: 2 inches.

- e. Each Modular Channel Section: 4-feet long. Molded bottom outlet.
- f. Pre-Installed Pro Fit Locking System: Locks grate to integral frame.
- g. Leve Loc Integral Rebar Supports: Located at 24-inch intervals along each side of channel contain internal protruding knob to grip No.4 rebar to provide channel height adjustment during installation.
- h. Dura Loc Tongue-and-Groove Ends: Connect to allow for precise fit and straight channel runs.

2.4 TRENCH DRAIN GRANULAR BACKFILL

- A. Use Granular Backfill Borrow as specified in Section 02061 as bedding and foundation for the Trench Drain.

2.5 TRENCH DRAIN GRATE AND FRAME

- A. Furnish on-piece or removable grate and frame that fits on the drain without rocking, having minimum 60% open area, except in location regulated by ADA. Provide removable grates, as required on the plans, with stainless steel tamper resistant locking devices, that have a minimum 200 pounds per foot length of repetitive pullout resistance, after completing 1,000 hours of salt spray according to ASTM B 117.

Provide ductile iron grate and frame for the grate support for the Trench Drain conforming to ASTM A 536, Grade 65-45-12, or cast iron conforming to ASTM A 48 Class 38B.

Submit to the engineer prior to the installation of the Trench Drain the following:

- Test results from independent laboratory showing the grate meets AASHTO M 306 requirements for "Proof Load Testing".
- Test results verifying the grates will withstand a minimum repetitive pullout resistance of 200 pound per foot, after completing 1,000 hours of salt spray in conformance to ASTM B 117. Test results that the grate retaining device can withstand, without maintenance, cyclic vertical loads of 500 pounds.

Provide bicycle safe grates.

Provide a frame that is independent of the Trench Drain channel that has four metal extensions for anchoring the frame to the surrounding concrete.

PART 3 EXECUTION

3.1 INSTALLATION - GENERAL

- A. Submit to the Engineer, 10 days prior to the installation of the Trench Drains, the Trench Drain detail plans for the specific location. Include in the submittal quantities of all materials required, details and manufacturer's recommendations for installation. **No work on the Trench Drain will be allowed until the submittal is complete and approved by the Engineer.**
- B. Have a manufacturer representative be at the project location to review and inspect the first part of the installation of the Trench Drain. **No Trench Drain construction will be allowed until a manufacturer representative will be at the project location.**
- C. The Engineer must approve any variations from the contract plans and specifications.
- D. Seal and plug with a suitable waterproof cap Trench Drains that begin or end without a connection to other pipes or drainage structures.

3.2 TRENCH DRAIN EXCAVATION

- A. Excavate the Trench Drain trench as close as possible to the dimensions shown on the plans.

3.3 TRENCH DRAIN PLACEMENT AND PROTECTION

- A. Install Trench Drains according to the line and grades shown on the plans or as directed by the Engineer. Protect the trench slot during installation with a removable wood strip, heavy-duty tape or any other suitable material, to prevent infiltration of material into the drain. Remove any debris or material in the Trench Drain after the installation is complete.

3.4 CONCRETE PLACEMENT

- A. Furnish and place concrete in accordance to section 3055. Place the Trench Drain on supports that allow the concrete to freely flow into the trench, around the Trench Drain. Encase the Trench Drain with concrete.

Place minimum 6-inches next and under the Trench Drain. Prevent floating and shifting of the Trench Drain when placing the concrete around the Trench Drain in the trench. Remove any voids and avoid segregation in the concrete. Finish and level the concrete surface flush with surface next to it. Texture the concrete with a durable and skid resistant surface.

- B. Remove and replace any portions of the Trench Drain where the grate or the Trench Drain extends above the paved surface or the gutter surface.

3.5 CONNECTIONS

- A. Connect Trench Drain to new or existing structures in accordance to plans. Provide a smooth hydraulic passage for the storm-water.

END OF SECTION

February 3, 2010

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02737S

ASPHALT PAVEMENT SOFT SPOT REPAIR

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Remove and replace soft spots in the existing pavement, as directed by the Engineer. Remove the damaged asphalt leaving a square and vertical edge on all sides, replace the base if necessary, and replace hot mix asphalt.

1.2 RELATED SECTIONS

- A. Section 02075: Geotextiles
- B. Section 02721: Untreated Base Course
- C. Section 02741: Hot Mix Asphalt
- D. Section 02742S: Project Specific Surfacing Requirements
- E. Section 02748: Prime Coat/Tack Coat

PART 2 PRODUCTS

2.1 GEOTEXTILES

- A. Refer to Section 02075.

2.2 UNTREATED BASE COURSE

- A. Refer to Section 02721.

2.2 HOT MIX ASPHALT

- A. Refer to Section 02741 for mix design and material requirements.
- B. Refer to Section 02742S for project specific requirements.

- C. Refer to Section 02748 for tack coat requirements.

PART 3 EXECUTION

3.1 REMOVE DETERIORATED ASPHALT SURFACING

- A. Remove the deteriorated asphalt to a minimum depth of 6" or as determined by the engineer. Remove by either saw cutting or rotomilling, leaving all edges square and vertical. Locate cut at least 6" beyond the visible limits of the distressed area or to a minimum patch width of 3' in all directions. If rotomilling is used, the mill must be at least 6' wide and a minimum patch size of 6' in all directions.
- B. Remove the damaged asphalt surfacing without damaging the surrounding asphalt pavement. Remove all loose material and clean vertical edges prior to applying tack coat and paving.

3.2 BASE COURSE REQUIREMENTS FOR TYPE A (SURFACE ONLY) REPAIR

- A. Grade and compact the existing base course surface.
 - 1. Use the largest piece of vibratory or impact compaction equipment possible.
 - 2. Control compaction using a nuclear density gauge.
 - 3. Continue compaction until additional work does not improve the measured density.

3.3 BASE COURSE REQUIREMENTS FOR TYPE B (FULL DEPTH) REPAIR

- A. Excavate and remove 8" of existing base course. Install a geotextile separation fabric that conforms to Section 02075 of the UDOT Standard Specifications. Replace with new untreated base course that conforms to Section 02721 of the UDOT Standard Specifications.
- B. Grade and compact the new base course surface.
 - 1. Use the largest piece of vibratory or impact compaction equipment possible.
 - 2. Control compaction using a nuclear density gauge.
 - 3. Continue compaction until additional work does not improve the measured density.

3.4 PLACE AND COMPACT HOT MIX ASPHALT

- A. Tack all bituminous surfaces conforming to Section 02748 of the UDOT Standard Specifications.
- B. Place and compact hot mix asphalt mix, conforming to Section 02741 of the UDOT Standard Specifications and Section 02742S, to within $\frac{1}{4}$ " of the existing surface.
 - 1. Control compaction using a nuclear density gauge
 - 2. Compact material to minimum 92% of the maximum specific gravity.

END OF SECTION

September 8, 2014

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02741M

Hot Mix Asphalt (HMA)

Delete Article 1.6, paragraph D8 and replace with the following:

8. The Department will reject the lot according to Table 1.

Delete Article 1.6, paragraph E1 and replace with the following:

1. According to Table 1.

Delete Table 1 and replace with the following:

Table 1

Incentive/Disincentive for Asphalt Binder Content, and Density	
PT Based on Min. Four Samples	Incentive/Disincentive (Dollars/Ton)
>99	1.50
96-99	1.00
92-95	0.60
88-91	0.00
84-87	-0.26
80-83	-0.60
76-79	-0.93
72-75	-1.27
68-71	-1.60
64-67	-1.93
60-63	-2.27
<60	Reject
Incentive/Disincentive for Gradation	
PT Based on Min. Four Samples	Incentive/Disincentive (Dollars/Ton)
>99	1.50
96-99	1.00
92-95	0.60
88-91	0.00
84-87	-0.26
80-83	-0.60
76-79	-0.93
72-75	-1.27
68-71	-1.60
64-67	-1.93
60-63	-2.27
56-59	-5.00
52-55	-10.00
<52	Reject

Delete Table 3 and replace with the following

Table 3

Quality Index Values for Estimating Percent Within Limits										
PU/PL	n=3	n=4	n=5	n=6	n=7	n=8	n=10	n=12	n=15	n=20
100	1.16	1.50	1.75	1.91	2.06	2.15	2.29	2.35	2.47	2.56
99	1.16	1.47	1.68	1.79	1.89	1.95	2.04	2.09	2.14	2.19
98	1.15	1.44	1.61	1.70	1.77	1.80	1.86	1.89	1.93	1.97
97	1.15	1.41	1.55	1.62	1.67	1.69	1.74	1.77	1.80	1.82
96	1.15	1.38	1.49	1.55	1.59	1.61	1.64	1.66	1.69	1.70
95	1.14	1.35	1.45	1.49	1.52	1.54	1.56	1.57	1.59	1.61
94	1.13	1.32	1.40	1.44	1.46	1.47	1.49	1.50	1.51	1.53
93	1.12	1.29	1.36	1.38	1.40	1.41	1.43	1.43	1.44	1.46
92	1.11	1.26	1.31	1.33	1.35	1.36	1.37	1.37	1.38	1.39
91	1.10	1.23	1.27	1.29	1.30	1.31	1.32	1.32	1.32	1.33
90	1.09	1.20	1.23	1.24	1.25	1.25	1.26	1.26	1.27	1.27
89	1.08	1.17	1.20	1.21	1.21	1.21	1.21	1.21	1.22	1.22
88	1.07	1.14	1.16	1.17	1.17	1.17	1.17	1.17	1.17	1.17
87	1.06	1.11	1.12	1.12	1.12	1.13	1.13	1.13	1.13	1.13
86	1.05	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08
85	1.03	1.05	1.05	1.05	1.05	1.04	1.04	1.04	1.04	1.04
84	1.02	1.02	1.02	1.01	1.01	1.01	1.00	1.00	1.00	1.00
83	1.00	0.99	0.98	0.97	0.97	0.96	0.96	0.96	0.96	0.96
82	0.98	0.96	0.95	0.94	0.94	0.93	0.93	0.92	0.92	0.92
81	0.96	0.93	0.92	0.91	0.90	0.90	0.89	0.89	0.89	0.88
80	0.94	0.90	0.88	0.87	0.86	0.86	0.85	0.85	0.85	0.85
79	0.92	0.87	0.85	0.84	0.83	0.83	0.82	0.82	0.82	0.81
78	0.89	0.84	0.82	0.81	0.80	0.79	0.79	0.78	0.78	0.78
77	0.87	0.81	0.79	0.78	0.77	0.76	0.76	0.75	0.75	0.75
76	0.84	0.78	0.76	0.75	0.74	0.73	0.72	0.72	0.72	0.72
75	0.82	0.75	0.73	0.72	0.71	0.70	0.69	0.69	0.69	0.68
74	0.79	0.72	0.70	0.68	0.67	0.67	0.66	0.66	0.66	0.65
73	0.77	0.69	0.67	0.65	0.64	0.64	0.62	0.62	0.62	0.62
72	0.74	0.66	0.64	0.62	0.61	0.61	0.60	0.59	0.59	0.59
71	0.71	0.63	0.60	0.59	0.58	0.58	0.57	0.56	0.56	0.56
70	0.68	0.60	0.58	0.56	0.55	0.55	0.54	0.54	0.54	0.53
69	0.65	0.57	0.55	0.54	0.53	0.52	0.51	0.51	0.51	0.50
68	0.62	0.54	0.52	0.51	0.50	0.50	0.48	0.48	0.48	0.48
67	0.59	0.51	0.49	0.48	0.47	0.47	0.46	0.45	0.45	0.45
66	0.56	0.48	0.46	0.45	0.44	0.44	0.43	0.42	0.42	0.42
65	0.53	0.45	0.43	0.42	0.41	0.41	0.40	0.40	0.40	0.39
64	0.49	0.42	0.40	0.39	0.38	0.38	0.37	0.37	0.37	0.37
63	0.46	0.39	0.37	0.36	0.35	0.35	0.35	0.34	0.34	0.34
62	0.43	0.36	0.34	0.33	0.33	0.33	0.32	0.31	0.31	0.31
61	0.39	0.33	0.31	0.30	0.30	0.30	0.29	0.29	0.29	0.28
60	0.36	0.30	0.28	0.27	0.26	0.26	0.25	0.25	0.25	0.25
59	0.32	0.27	0.25	0.25	0.24	0.24	0.24	0.23	0.23	0.23

Table 3 Continued										
PU/PL	n=3	n=4	n=5	n=6	n=7	n=8	n=10	n=12	n=15	n=20
58	0.29	0.24	0.23	0.22	0.21	0.21	0.21	0.21	0.21	0.20
57	0.25	0.21	0.20	0.19	0.19	0.19	0.18	0.18	0.18	0.18
56	0.22	0.18	0.17	0.16	0.16	0.16	0.16	0.16	0.15	0.15
55	0.18	0.15	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13
54	0.14	0.12	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10
53	0.11	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
52	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05
51	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Enter table in the appropriate “number of tests” column and round down to the nearest value.

Delete Article 2.4, and replace with the following:

2.4 RECLAIMED ASPHALT PAVEMENT (RAP) (Optional)

- A. Do not adjust the asphalt binder grade if the lower end is already a PG XX-34.
- B. Do not adjust the asphalt binder grade when RAP content is not more than 15 percent by total weight of the hot mix and RAP asphalt binder content is not more than 15 percent of the total asphalt binder content by weight.
- C. Adjust asphalt binder grade according to AASHTO M 323 when RAP asphalt binder content is between 15 to 25 percent of the asphalt binder weight.
 - 1. Select one grade softer than the grade specified. Do not adjust the asphalt binder grade if the lower end is already a PG XX-34.
 - 2. Provide test reports indicating that the PG grade and quantity of the recovered asphalt binder is consistent throughout the stockpile.
 - 3. Limit RAP to 25 percent of the total weight of the hot mix and RAP binder to 25 percent of the total binder.
- D. RAP aggregate is required to meet Table 5 with exception of Sand Equivalent. Refer to AASHTO T 176.

Add Article 2.6, paragraph A3 and A4:

- 3. Delete the first bullet of paragraph 960.04 in UDOT Materials Manual of Instruction 960.
- 4. Delete “SSD” from GsbSSD – fine and coarse aggregate specific gravities – AASHTO T 84 and T 85 of paragraph 960.05.02 in UDOT Materials Manual of Instruction 960.

Delete Table 8 and replace with the following:

Table 8

Volumetric Design Requirements	
HMA design mixing and compaction temperatures	Provided by the Engineer
Dust Proportion Range	0.6 – 1.40
Voids in Mineral Aggregate (VMA) at N_{Design} AASHTO R 35.9.2 using G_{sb} Dry. Equation based on percent of total mix.	12.0% - 13.0% for 1 inch 13.0% - 14.0% for $\frac{3}{4}$ inch 14.0% - 15.0% for $\frac{1}{2}$ inch 15.0% - 16.0% for $\frac{3}{8}$ inch
Hamburg Wheel Tracker UDOT Materials MOI 990	75 Design Gyration and Greater Maximum 10 mm impression at 20,000 passes. Less than 75 Design Gyration Maximum 10 mm impression at 10,000 passes.

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02742S

PROJECT SPECIFIC SURFACING REQUIREMENTS

Add Section 02742:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Required PG Asphalt or emulsion
- B. Number of gyrations to use for Superpave Mix Design
- C. PCCP Pavement Texture Type

1.2 RELATED SECTIONS Not Used

1.3 REFERENCES Not Used

1.4 DEFINITIONS Not Used

1.5 SUBMITTALS Not Used

PART 2 PRODUCTS

2.1 MIXES

- A. Hot Mix Asphalt (HMA): (Refer to bid item for size)
 - 1. PG 64-34 Asphalt
 - 2. $N_{\text{initial}} = 7$, $N_{\text{design}} = 75$, $N_{\text{final}} = 115$
- B. Open-Graded Surface Course:
 - 1. PG 58-28 Asphalt.
- C. PCCP Pavement Texture Type
 - 1. Texture Type: Artificial Turf Drag

PART 3 EXECUTION Not used

END OF SECTION

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02746M

HYDRATED LIME

Add the following to Article 1.6:

- B. Comply with UDOT Quality Management Plan 514 Hot Mix Asphalt

Delete Article 3.1, paragraph B and replace with the following:

- B. Method A: Dynamic Feed Lime Slurry
 - 1 Lime Slurry – One part lime and at least three parts water by weight. The amount of added water to meet the 3:1 lime slurry may be adjusted to account for the moisture in the stockpile. Use lime slurry with a minimum of one part water by weight of lime.
 2. Add at least 1 percent lime by weight of the virgin aggregate.
 3. Deliver lime slurry to the twin shaft pugmill for mixing with aggregate. The virgin aggregate/lime mixture will contain at least 3 percent water by weight of the virgin aggregate after the pugmill
 4. Adjust quantity (percent) of lime as necessary, based on results of Hamburg Wheel Tracker test.
 5. Verify that Lime Slurry equipment is operating at all times. The Engineer may require Method B, marination of the aggregate/hydrated lime mixture in the stockpile if the HMA is supplied without hydrated lime slurry treatment.

Delete Article 3.1, paragraph C4 and replace with the following:

4. Provide sufficient free moisture to thoroughly wet the aggregate and activate the lime before introducing hydrated lime.
 - a. The aggregate/lime mixture will contain at least 3 percent water by weight of the virgin aggregate.

Delete Article 3.2, paragraph A and replace with the following:

- A. Control, monitor, and document the lime addition process according to the requirements of the UDOT Quality Management Plan 514 Hot-Mix Asphalt.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02752M

PORTLAND CEMENT CONCRETE PAVEMENT

Delete Article 1.2, paragraph C – F and replace with the following:

- C. Section 02742S: Project Specific Surfacing Requirements
- D. Section 03055: Portland Cement Concrete
- E. Section 03152: Concrete Joint Control
- F. Section 03211: Reinforcing Steel and Welded Wire
- G. Section 03390: Concrete Curing

Delete Article 3.6, paragraph A and replace with the following:

- A. Refer to Section 02742S for required texture type. Provide a written texturing plan to the Engineer for approval before placing pavement. Show texturing locations and describe methods that will be used for hand texturing. Refer to Table 3.

Table 3

Pavement Texturing Options	
> 50 mph	≤ 50 mph
Longitudinal Tining	Longitudinal Tining
Diamond Grinding	Diamond Grinding
Transverse Tining	Transverse Tining
	Artificial Turf Drag

Delete Article 3.10, paragraph E and replace with the following:

- E. Remove and replace panel with any full depth transverse crack within 4 ft or less of a transverse sawed joint.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02765M

PAVEMENT MARKING PAINT

Delete Article 1.3, paragraphs M through R and replace with the following:

- 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

Delete Article 2.2 and replace with the following:

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. 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

Heavy Metal Materials	
Material	Level (ppm, total)
Arsenic	200
Antimony	200
Lead	200

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02768M

Pavement Marking Materials
(Warranty Specification)

Delete Article 1.5, paragraph B and replace with the following:

- B. Installation Warranty
 - 1. Manufacturer provides a warranty bond or letter of credit to the Department's Engineer for Maintenance to cover the total installed price of the material on this project and any other projects where the manufacturer's material is installed.
 - 2. Submit material type, manufacturer, installation date, quantities, and project number to the Engineer for each project.
 - 3. Warranty bond or letter of credit covers the specified service life of the materials and begins after all pavement markings are installed and accepted.

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

1. Gradation:

Table 6

Gradation	
Sieve Size	Accumulated Percent Passing
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/D² 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

Gradation	
Sieve Size	Accumulated Percent Passing
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.

Delete Article 3.2, paragraph B2c and replace with the following:

- 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.

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02769S

GRINDING FOR GROOVED-IN PAVEMENT MARKINGS

Add Section 02769:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Procedures for the grinding of Portland Cement Concrete Pavement for the installation of Grooved-In Pavement Markings.
- B. The grinding provides that the pavement markings are below the surface to prevent damage by snowplows or other traffic that might damage or cause the paint to be lifted.

1.2 RELATED SECTIONS

- A. Section 02765: Pavement Marking Paint
- B. Section 02768: Pavement Marking Materials

1.3 REFERENCES Not Used

1.4 DEFINITIONS

- A. Contrast Striping: broken lines, lane drop lines, and dotted lines that are applied over or in conjunction with an 8 inch black line.
 - 1. Continuous: created by applying pavement markings over an 8 inch solid black line.
 - 2. Background Option 1: created by applying colored markings simultaneously with either a 2 inch to 3 inch black line on each side for paint, or a 1.5 inch black line on each side for tape. Black lines on each side match length of colored line.
 - 3. Background Option 2: created by applying colored markings over an 8 inch broken black line. The black line extends 6 inches past the overlying marking on each end.

- B. Contrast Messaging: Pavement messages applied over a solid black background or with a 1 inch or more black border around entire message.
- C. Non-Contrast Striping: striping that is applied over bare pavement.

1.5 SUBMITTALS Not Used

PART 2 PRODUCTS

2.1 EQUIPMENT

- A. Provide and operate a grooving machine, grinder, or saw that is:
 - 1. Capable of grinding or cutting to the required depth and cross section.
 - 2. Self-propelled with sufficient power, traction, and stability to maintain an accurate depth of cut.
- B. Do not allow walk behind machines for longitudinal lines.
- C. Dry grind only. Do not use water in the grinding process unless approved in writing by the Engineer.
- D. Use appropriate cleaning equipment capable of sweeping and picking up millings during and after grinding operations.

2.2 PAVEMENT MARKING PAINT

- A. Refer to Section 02765.

2.3 PAVEMENT MARKING MATERIALS

- A. Refer to Section 02768.

PART 3 EXECUTION

3.1 PREPARATION

- A. Establish line control as specified in Section 02765 or Section 02768 whichever is applicable prior to grinding.

3.2 GRINDING

- A. Grind pavement along lane lines or in pavement message areas to specified depth, width, length.

- B. Depth.
 - 1. 140 mils minimum for contrast striping or contrasted messages.
 - 2. 120 mils minimum non-contrast striping and messages.
 - 3. Use manufacturers recommended depth for non-painted messages.
- C. Width
 - 1. 8-9 inches for 8 inch lines or contrast striping.
 - 2. 5.5-6 inches for 4 inch non-contrast striping.
 - 3. As necessary to apply messages.
- D. Length
 - 1. Match line length and spacing as specified in standard drawings for broken lines, lane drop lines, and dotted lines (non-contrast or contrast).
 - 2. Grind as continuous groove for solid lines.

3.2 CLEANING

- A. Remove and clean all millings from the surface as work progresses.
 - 1. Milled material is the property of the Contractor.
- B. Thoroughly clean grooved areas with an adequate compressed air acceptable by the Engineer before applying pavement-marking paint.
- C. Remove all remaining pavement markings that are to be contrasted prior to application of black paint. Do not apply black contrast paint over any existing markings.

3.3 APPLYING PAVEMENT MARKING PAINT

- A. Apply black paint first for contrast striping. Do not use glass beads in black contrast paint.
 - 1. Black and white lines may be applied in a single application if can be applied at the appropriate application rates, in which case Background Option 1 could be used.
- B. Apply white and yellow lines in groove. Refer to Section 02765.

END OF SECTION

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02771M

**CURBS, GUTTERS, DRIVEWAYS, PEDESTRIAN ACCESS
RAMPS, AND PLOWABLE END SECTIONS**

Add the following to Article 1.2 RELATED SECTIONS:

- J. Section 02814S – Reestablish Existing Landscaping and Irrigation System
- K. Section 02812 – Pressurized Irrigation System
- L. Section 02912 – Topsoil
- M. Section 02922 – Seed, Turf Seed, and Turf Sod
- N. Section 02932 – Trees, Shrubs, and Groundcovers

Delete paragraph 3.4.C and replace with the following:

- C. Expansion Joints
 1. Place expansion joint every 30 ft.
 2. Expansion joint not required when using slip form method to place concrete, except at adjacent pavement, curb radius, sidewalk, structures and except as noted in paragraph D.
 3. ½ inch thick premolded expansion joint filler.
 4. Place joint filler between the curb and gutter and sidewalk or structures

- D. Expansion Joints for Curbs (B3, B5, & M2, single and back-to-back)
 1. Follow the Expansion-Contraction Joint Detail shown in Standard Drawing GW 4A.
 2. Place an expansion joint between each plowable end section and the curb located behind it.
 3. Place expansion joints a minimum of every 150 linear feet of curb (single or back-to-back) installed. Match the joint locations when placing on PCCP.

Add Article 3.6:

3.6 REESTABLISH EXISTING LANDSCAPE AND IRRIGATION SYSTEM

- A. Refer to special provision 02814S for guidance on the execution of reestablishing existing landscape and irrigation system.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02771M

**CURBS, GUTTERS, DRIVEWAYS, PEDESTRIAN ACCESS
RAMPS, AND PLOWABLE END SECTIONS**

Delete Article 2.5, paragraph D:

November 24, 2014

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02776M

CONCRETE SIDEWALK, MEDIAN FILLER, AND FLATWORK

Add the following to Article 1.2 RELATED SECTIONS:

- F. Section 02814S – Reestablish Existing Landscaping and Irrigation System
- G. Section 02812 – Pressurized Irrigation System
- H. Section 02912 – Topsoil
- I. Section 02922 – Seed, Turf Seed, and Turf Sod
- J. Section 02932 – Trees, Shrubs, and Groundcovers

Add Article 3.5:

3.5 REESTABLISH EXISTING LANDSCAPE AND IRRIGATION SYSTEM

- A. Refer to special provision 02814S for guidance on the execution of reestablishing existing landscape and irrigation system.

March 19, 2013

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02814S

**REESTABLISH EXISTING LANDSCAPE
AND IRRIGATION SYSTEM**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Restore existing landscaping that is impacted by work on this project.
- B. Restore existing irrigation systems that are impacted by work on this project.

1.2 RELATED SECTIONS

- A. Section 02812 - Pressurized Irrigation System
- B. Section 02912 - Topsoil
- C. Section 02922 - Seed, Turf Seed, and Turf Sod
- D. Section 02932 - Trees, Shrubs, and Groundcovers

1.3 REFERENCES

- A. See related sections.

1.4 DEFINITIONS

- A. See related sections.

1.5 SUBMITTALS

- A. See related sections.
- B. Product Data: Manufacturer's technical data and installation instructions for all new materials.
- C. Existing Conditions Drawings: Plan layout and details illustrating existing landscape materials, irrigation mainline and lateral line locations, size, and assembly. Indicate number and type all materials that are to be removed and re-established.

- D. Irrigation As-Built Drawings: Red-lined plan layout and details illustrating mainline and lateral lines location, size, and assembly. Include type and coverage of heads, type of valves, controllers, fittings and all accessories that have been re-established. Indicate on the drawings which components are new and which are salvaged.
- E. Operating and Maintenance Data for all new materials:
 - 1. Instructions covering full operation, care, and maintenance of system and controls and manufacturers parts catalog. Include drain procedures, blow out features for example.
 - 2. Instruct maintenance personnel in proper adjustment of sprinkler heads and use of special tools for adjustments.

PART 2 PRODUCTS

2.1 EXISTING PRODUCTS

- A. Salvage existing landscape materials for relocation. If the materials are damaged in the process of being salvaged or if the contractor is not able to relocate the material while maintaining the pre-construction condition, the material will be replaced with new material of equal color, form and value.
 - 1. Existing landscape materials include but are not limited to the following:
 - a. Plant material
 - b. Rock/wood mulch
 - c. Topsoil
 - d. Concrete Edging
 - e. Landscape Edging (steel and plastic)
 - 2. Condition of all materials will be approved by the UDOT Region Landscape Architect prior to relocation.
 - 3. Plant material will be replaced "in kind" or as approved by the Region Landscape Architect.
- B. Salvage existing irrigation system components for relocation. If the components are damaged in the process of being salvaged or if they are not capable of providing a functional system, replace them with new components of same make and model or approved equal.
 - 1. Do not salvage existing pipe. All pipe to be replaced will be new.

2.2 MATERIALS

- A. Refer to the appropriate Related Section(s) for detailed material requirements.

PART 3 EXECUTION

3.1 EXAMINATION

- A. The drawings do not show existing landscape materials and/or irrigation system components but they do indicate locations where system impacts are anticipated. Verify construction impacts to the existing landscape materials and/or irrigation system and determine appropriate relocation of the materials/components.

3.2 PREPARATION

- A. If construction within the right-of-way impacts existing landscape materials and/or an irrigation system, notify the owner that their landscaping and/or irrigation system will be impacted and coordinate how the work will be accomplished and when the work is to begin so that the owners can be prepared for restricted access to the landscape area and/or the irrigation system to be turned off.

3.3 INSTALLATION

- A. Minimize disturbance to the owner's existing landscaping and irrigation system. Coordinate scheduling of restoration to minimize restricted access to the landscape area and downtime of their irrigation system.
- B. Landscape Materials:
 - 1. Coordinate approval of materials to be relocated with Region Landscape Architect.
 - 2. Remove, relocate, repair, and install all landscape materials as required to fully restore landscape area.
- C. Irrigation System:
 - 1. Excavate, relocate, repair, and install irrigation pipes, heads, valves and wires to provide a fully functional irrigation system with irrigation head spacing that provides head to head coverage and minimizes overspray onto sidewalks and roads.
 - 2. Test the system for leaks before backfilling.
 - 3. Backfill and settle trenches and provide finish grading.

3.4 FIELD QUALITY CONTROL

- A. Obtain approval of the final installation of all landscape materials and irrigation system components from the region landscape architect.
- B. Obtain a signed letter of acceptance from the property owner upon completion of the work on the landscape area and/or irrigation system.

END OF SECTION

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02843M

CRASH CUSHIONS AND BARRIER END TREATMENTS

Delete Article 3.1, paragraph A2b and replace with the following:

- b. Crash Cushion Type C and End Treatment Types F, G, and H.
 - 1) Create block out hole by forming, saw cutting, or other similar method required when installing ground mounted system into asphalt or concrete.
 - 2) Refer to BA 4D Series Standard Drawings.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02890M

RETROREFLECTIVE SHEETING

Delete Article 2.2, paragraph A1 and replace with the following:

1. Meet or exceed the minimum requirements of ASTM Type XI.

Delete Article 2.3, paragraph A1a and replace with the following:

- a. Meet or exceed the minimum requirements of ASTM Type XI.

Delete Article 2.3, paragraph C1 and replace with the following:

1. Vertical panels, barricade Types I, II, and III, and directional indicator barricades.
 - a. Meet or exceed the minimum requirements of ASTM Type XI.
 - b. Use of standard orange acceptable.

Delete the text immediately following Table 3 and replace with the following:

4. Use fluorescent retroreflective sheeting for orange and yellow.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 02891M

TRAFFIC SIGNS

Delete Article 1.3 and replace with the following:

1.3 REFERENCES

- A. ASTM A 123 / A 123M: Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- B. ASTM A 513: Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing
- C. ASTM A 653: Steel, Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvanized) by Hot-Dip Process
- D. ASTM A 787: Electric-Resistance-Welded Metallic-Coated Carbon Steel Mechanical Tubing
- E. ASTM B 209: Aluminum and Aluminum-Alloy Sheet and Plate
- F. American Plywood Association (APA) Product Standard

Delete Article 1.4, paragraph A1 and replace with the following:

- A. Traffic Sign Components
 - 1. Panel – Assembly of substrate and attached sheeting. Several panels may be necessary to complete one sign. Panel types are:
 - a. Type
 - 1) A: Retroreflective sheeting on sheet aluminum.
 - 2) PW: Retroreflective sheeting on plywood-backed sheet aluminum.
 - b. Legend
 - 1) Non-reflective legend and border.
 - 2) Retroreflective legend and border.

Delete Article 2.1, paragraph B and replace with the following:

- B. Substrate Aluminum – 0.080 or 0.125 inch thick as follows. Refer to ASTM B 209 alloy 6061-T6, or 5052-H38.
 - 1. Use 0.125 for signs installed on frame and Gore signs.
 - 2. Use 0.080 for all other signs.

Delete Article 2.1, paragraph C and replace with the following:

- C. Plywood Backing – According to APA product standard PS 1-83, Group One: ½ inch thick.
 - 1. 90/90, high density BB exterior (Douglas Fir) B Grade.
 - 2. Plugged-core (Douglas Fir) with ½ inch maximum gaps.

Delete Article 2.1, paragraph E and replace with the following:

- E. Posts, “T” and “U” brackets, extensions, and hardware according to SN Series Standard Drawings.
 - 1. Post P1
 - a. 2³/₈ inch outside diameter 0.080 (14 Gauge)
 - b. Refer to ASTM A 513 or ASTM A 787
 - c. Galvanize according to ASTM A 653 or ASTM A 123
 - d. Color – Powder coated as required
 - 2. Post P2
 - a. 2³/₈ inch outside diameter 0.095 (13 Gauge)
 - b. Refer to ASTM A 513 or ASTM A 787
 - c. Galvanize according to ASTM A 653 or ASTM A 123
 - d. Color – Powder coated as required
 - 3. Post P3
 - a. 2⁷/₈ inch outside diameter 0.134 (BWG 10)
 - b. Refer to ASTM A 513 or ASTM A 787
 - c. Galvanize according to ASTM A 653 or ASTM A 123
 - d. Color – Powder coated as required
 - 4. Post P4
 - a. 2⁷/₈ inch outside diameter 0.160 (NP 40)
 - b. Refer to ASTM A 513 or ASTM A 787
 - c. Galvanize according to ASTM A 653 or ASTM A 123
 - 5. Post P5
 - a. 2⁷/₈ inch outside diameter 0.276 (SCH 80)
 - b. Refer to ASTM A 513 or ASTM A 787
 - c. Galvanize according to ASTM A 653 or ASTM A 123
 - 6. “T” and “U” Extension and 90 degree Post Extension
 - a. Manufacture according to SN Series Standard Drawings.
 - b. Galvanize according to ASTM A 653 or ASTM A 123

7. Standard Pipe Posts
 - a. Match post size with base requirements.
8. S Section and W Section steel posts
 - a. Structural Steel: Refer to Section 05120.
 - b. Match post size with base requirements

February 28, 2013

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02924S

INVASIVE WEED CONTROL

Add Section 02924:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Controlling the introduction and spread of noxious weeds on construction projects.

1.2 RELATED SECTIONS Not Used

1.3 REFERENCES

- A. Utah Noxious Weed Control Act

1.4 DEFINITIONS

- A. Noxious weeds subject to control are listed on the Utah State Noxious Weed List and the county's weed list that applies based on the project location.
- B. Refer to the Section, article 3.3 for a list of the Utah State Noxious Weeds (Table 1) and the county lists (Table 2) for additional noxious weeds.

1.5 SUBMITTALS Not Used

1.6 PAYMENT PROCEDURES

- A. Include payment for cleaning earth-moving construction equipment under mobilization.
- B. Pay for the control of invasive weeds using pre-emergent, selective, and non-selective herbicides by the unit area.

1.7 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. Follow all regulatory, application, and safety precautions listed by the herbicide manufacturer. Refer to Utah Noxious Weed Control Act: Utah Code - Title 04 - Chapter 17.
 - 2. Apply herbicides using only state licensed pesticide applicators.

1.8 SEQUENCING

- A. Clean all earth-moving equipment before bringing them on the project.
- B. Treat existing noxious weeds 10 days before starting earthwork operations.

PART 2 PRODUCTS

2.1 HERBICIDE

- A. Refer to this Section, article 3.3 for a list of noxious weeds subject to control and the recommended herbicide for each species.
- B. Use commercially available herbicides specified to control the weed species identified.

PART 3 EXECUTION

3.1 PREPARATION

- A. Use high-pressure water blasting or steam cleaning methods to clean all earth-moving construction equipment (scrapers, bulldozers, excavators, backhoes, trenchers) of dirt, mud, and seed residue before initially entering the project.

3.2 EXAMINATION

- A. Verify and locate all noxious weeds on the project. Contact the county weed control supervisor or the Department's region landscape architect if assistance is needed for identification.

3.3 CONTROLLING INVASIVE WEEDS

- A. Spray invasive weeds located within the project limits before starting earth disturbing activities and if they appear during construction. Use pre-emergent, selective, and non-selective herbicides as appropriate (See Noxious Weed Tables 1 and 2 below). Apply herbicide as directed on the manufacturer's label.
- B. Noxious Weed Tables:

Table 1

Utah State Noxious Weeds		
Common Name	Scientific Name	Herbicide
Bermudagrass*	<i>Cynodon dactylon</i>	Glyphosate
Black henbane	<i>Hyoscyamus niger</i>	Tordon (picloram) & Escort
Canada thistle	<i>Cirsium arvense</i>	2,4-D, Dicamba, Picloram
Dalmation toadflax	<i>Linaria genistifolia</i>	Tordon (picloram)
Diffuse knapweed	<i>Centaurea diffusa</i>	2,4-D+Dicamba or Picloram or Clopyralid
Dyer's woad	<i>Isatis tinctoria</i>	2,4-D+Dicamba or Chlorsulfuron
Field bindweed	<i>Convolvulus arvensis</i>	Dicamba+2,4-d or Picloram
Hoary cress, (whitetop)	<i>Cardaria draba</i>	2,4-D+Dicamba or Chlorsulfuron
Houndstounge	<i>Cynoglossum officinale</i>	Tordon (picloram)
Johnsongrass	<i>Sorghum halepense</i>	Glyphosate
Leafy Spurge	<i>Euphorbia esula</i>	Dicamba or Picloram
Medusahead	<i>Taeniatherum caput-medusae</i>	Glyphosate
Musk thistle	<i>Carduus nutans</i>	2,4-D amine, Metsulfuron or Picloram
Ox-eye daisy	<i>Chrysanthemum leucanthemum</i>	Tordon (picloram) & clopyralid
Perennial pepperweed	<i>Lepidium latifolium</i>	Metsulfuron or Chlorsulfuron
Perennial sorghum	<i>Sorghum halepense</i>	Glyphosate
Poison hemlock	<i>Conium maculatum</i>	Tordon (picloram)
Purple loosestrife	<i>Lythrum salicaria</i>	Glyphosate (Rodeo aquatic label)

Quackgrass	<i>Elytrigia repens</i>	Glyphosate
Russian knapweed	<i>Centaurea repens</i>	Picloram, Clopyralid or Chlorsulfuron
Saltcedar	<i>Tamarix ramosissima</i>	Habitat or Arsenal
Scotch thistle	<i>Onopordum acanthium</i>	2,4-D amine, Metsulfuron or Picloram
Spotted knapweed	<i>Centaurea maculosa</i>	2,4-D+Dicamba, Picloram or Clopyralid
Squarrose knapweed	<i>Centaurea virgata</i>	Picloram
St. Johnswort	<i>Hypericum perforatum</i>	Tordon (picloram) & Escort
Sulfur cinquefoil	<i>Potentilla recta</i>	Tordon (picloram)
Yellow star-thistle	<i>Centaurea solstitialis</i>	Picloram or Clopyralid
Yellow toadflax	<i>Linaria vulgaris</i>	Tordon (picloram)
*Do not consider Bermudagrass a noxious weed in Washington County		

Table 2

County Noxious Weeds		
Common Name	Scientific Name	Herbicide
Beaver County		
Bull thistle	<i>Cirsium vulgare</i>	2,4-D amine or Dicamba
Box Elder		
Catchweed	<i>Asperugo procumbens</i>	2,4-D amine or Dicamba
Cache County		
Goatsrue	<i>Galega officinalis</i>	2,4-D+Dicamba
Puncturevine	<i>Tribulus terrestris</i>	2,4-D+Dicamba
Carbon County		
Russian olive	<i>Elaeagnus angustifolia</i>	2,4-D, Dicamba, or Glyphosate
Davis County		
Buffalobur	<i>Solanum rostratum</i>	2,4-D or Dicamba
Yellow nutsedge	<i>Cyperus esculentus</i>	Glyphosate
Duchesne County		
Russian olive	<i>Elaeagnus angustifolia</i>	2,4-D, Dicamba, or Glyphosate
Water hemlock	<i>Cicuta maculata</i>	2,4-D amine or Dicamba

Grand County		
Russian olive	<i>Elaeagnus angustifolia</i>	2,4-D, Dicamba, or Glyphosate
Iron County		
Western whorled milkweed	<i>Asclepias subverticillata</i>	2,4-D or Dicamba
Bull thistle	<i>Cirsium vulgare</i>	2,4-D amine or Dicamba
Puncturevine	<i>Tribulus terrestris</i>	2,4-D+Dicamba
Juab County		
Blue lettuce	<i>Lactuca pulchella</i>	2,4-D amine, Arsenal or Metsulfuron
Morgan County		
Common burdock	<i>Arctium minus</i>	2,4-D+Dicamba
Salt Lake County		
Garlic mustard	<i>Alliaria petiolata</i>	Glyphosate
Myrtle spurge	<i>Euphorbia myrsinities</i>	Glyphosate or Dicamba
San Juan County		
Camelthorn	<i>Alhagi pseudalhagi</i>	Arsenal
Russian olive	<i>Elaeagnus angustifolia</i>	2,4-D, Dicamba, or Glyphosate
Buffalobur	<i>Solanum rostratum</i>	2,4-D or Dicamba
Western whorled milkweed	<i>Asclepias subverticillata</i>	2,4-D or Dicamba
Sevier County		
Russian olive	<i>Elaeagnus angustifolia</i>	2,4-D, Dicamba, or Glyphosate
Summit County		
Common Burdock	<i>Arctium minus</i>	2,4-D+Dicamba
Vipers bugloss	<i>Anchusa officinalis</i>	2,4-D amine or Dicamba
Tooele County		
Jointed goatgrass	<i>Aegilops cylindrica</i>	Glyphosate
Uintah County		
Russian olive	<i>Elaeagnus angustifolia</i>	2,4-D, Dicamba, or Glyphosate
Utah County		
Common reed	<i>Phragmites australis</i>	
Washington County		
Western whorled milkweed	<i>Asclepias subverticillata</i>	2,4-D, or Dicamba
Silverleaf nightshade	<i>Solanum elaeagnifolium</i>	2,4-D or Dicamba

Wayne County		
Russian olive	<i>Elaeagnus angustifolia</i>	2,4-D, Dicamba, or Glyphosate
Bull thistle	<i>Cirsium vulgare</i>	2,4-D amine or Dicamba
Weber County		
Puncturevine	<i>Tribulus terrestris</i>	2,4-D+Dicamba
Use rates: Use rates for herbicides vary, follow the use rate on the LABEL for each herbicide		

END OF SECTION

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02861S

LANDSCAPE WALL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Design and construction of Landscape Walls using a wall system approved by the Engineer. Landscape walls will be used as directed by the Engineer or as required by the plans. Landscape walls will not exceed an exposed wall height of 3.5 feet and will be used for landscaping purposes only. Installation of landscape walls within urban areas must be located behind curb and gutter and associated sidewalk. All other retaining wall construction will be in accordance with the applicable Mechanically Stabilized Earth (MSE) wall supplemental specifications available from UDOT Geotechnical Division.
- B. The approved landscape wall systems will use concrete modular block units for the wall face and geogrid reinforcing elements as required.
- C. Provide and install concrete modular block units to the lines and grades designated on the approved plans or as directed by the Engineer. Includes provision and installation of the base leveling pad, geogrid (as applicable), free draining fill, select backfill, and all incidental materials required by the approved wall system manufacturer's specifications and construction manual.

1.2 RELATED SECTIONS

- A. Section 03055: Portland Cement Concrete

1.3 REFERENCES

- A. "NCMA Design Manual for Segmental Retaining Walls," Second

Edition.

- B. ASTM C 1372 - Standard Specification for Segmental Retaining Wall Units.

1.4 DEFINITIONS

- A. Concrete Modular Block Units: Dry-stacked masonry units used as the retaining wall fascia.
- B. Select Backfill: Soil that is used as fill behind the concrete modular block unit, and within the reinforced soil mass (if applicable).
- C. Free Draining fill: Material used (if applicable) within, between, and directly behind the concrete retaining wall units.
- D. Geotextile Filter Fabric: Material used for separation and filtration of dissimilar soil types.
- E. Foundation Soil: Existing soil mass supporting the base leveling pad and select backfill of the landscape wall system.
- F. Geogrid: Polymeric material designed specifically to reinforce the soil mass.

1.5 SUBMITTALS

- A. Due to the design-build nature of landscape wall construction, the contractor will provide a System Specific Submittal Package (SSSP) to the Engineer for approval prior to installation of any landscape wall.
 - 1. SSSP will include the following:
 - a. Product Data
 - 1) Material description and installation instructions for each manufactured product specified including concrete modular block, geogrid and fill materials.
 - 2) Supplier's certification stating that the proposed units are manufactured in complete compliance with approved wall system manufacturer's specifications and Section 2.1 of this specification.

- b. Samples
 - 1) Submit for approval at least 3 color alternative samples of proposed segmental concrete unit colors, matched to colors of local features, as otherwise indicated on the plans or as directed by the Engineer.
 - 2) Submit one unit demonstrating the color, face pattern, and texture of the proposed concrete modular block unit as requested by the Engineer.
 - 3) Submit 10-inch square or larger piece of the geogrid meeting the approved wall system manufacturer's specifications.
 - c. Final Design Drawings
 - 1) Submit Four (4) sets of final design drawings for approval, include wall elevation views, geosynthetic reinforcement layout, pertinent details, and drainage provisions.
- B. UDOT will complete a review of the SSSP and provide the Contractor with written notification indicating the approval/rejection of the proposed wall system(s) within 15 working days, following receipt of the SSSP by the Engineer. Rejection notifications will provide comment/justification as to why the proposed wall system was rejected.
- C. Do not initiate construction of any landscape wall until the System Specific Submittal Package and Final Design Drawings have been reviewed and approved by the Engineer.
- 1. Review and approval of the drawings does not relieve the Contractor of any responsibility under the contract for the successful completion of the work.

1.6 DELIVERY STORAGE AND HANDLING

- A. Deliver, store, and handle materials in accordance with manufacturer's recommendations, in such a manner as to prevent damage. Remove damaged or otherwise unsuitable material from the site.
- B. Prevent mud, wet cement, adhesives and similar materials that may harm appearance of units, from coming in contact with system components.

1.7 WARRANTY

- A. Supplier will warranty all materials for a period of one year against defect, shrinkage or deterioration.
- B. Contractor will warranty all installation and workmanship for a period of one year following final acceptance of landscape wall construction.

PART 2 PRODUCTS

2.1 GENERAL

- A. All products will be in accordance this specification and the approved wall system manufacturer's specifications.
 - 1. Notify the Engineer when UDOT and the selected wall system manufacturer's product specifications/requirements differ. The Engineer will determine the product to be used.
 - 2. Do not use any product that does not meet both UDOT and the selected wall system manufacturer's product specifications/requirements without approval from the Engineer.

2.2 CONCRETE MODULAR BLOCK UNITS

- A. Provide machine formed. Portland cement concrete blocks specifically design for Segmental Retaining Wall applications. Concrete modular block units are to be purchased directly from a Manufacture Certified distributor. Provide certification that the block conforms to the requirements and specifications of the approved wall system manufacturer.
 - 1. Verify the compatibility of all components and the environment in which the block will be used, including sulfate soils and/or groundwater.
- B. Concrete modular block units will have minimum 28 day compressive strength of 3000 psi in accordance with ASTM C1372. The concrete units will have adequate freeze-thaw protection in accordance with ASTM C1372 or an average absorption rate of 7.5 lb/ft³.
- C. Finish and Appearance

1. All units will be sound and free from cracks or other defects that would interfere with the proper placement of the unit or impair the strength or permanence of the construction.
2. Minor cracks incidental to the usual method of manufacture or minor chipping resulting from shipment and delivery are not grounds for rejection.
3. The face or faces of units that are to be exposed will be free of chips, cracks or other imperfections when viewed from a distance of 20 feet.
4. Provide block that is uniform in color or as approved by the Engineer.

C. Acceptance

1. Units will be rejected for not meeting any of the requirements specified above. In addition, any of the following defects will be cause for rejection:
 - a. Defects that indicate imperfect molding;
 - b. Defects indicating honeycomb or open-texture concrete.
 - c. Cracked or severely chipped units.
 - d. Color variation on exposed face(s) of unit due to excess form oil or other reasons.

2.3 BASE LEVELING PAD

- A. Material for base leveling pad will consist of compacted sand, gravel, or combination thereof and will be a minimum of 6 inches in depth. Extend the leveling pad laterally for a distance of at least 6 inches from the toe and heel of the lowermost concrete modular block unit.
 1. All base leveling pad materials will conform to or exceed the requirements of the approved wall system manufacturer's specifications.
- B. A base leveling pad consisting of cast-in-place concrete may be used as approved by the Engineers.
 1. Use Class A or B concrete as per Section 03055.

2.4 FREE DRAINING FILL

- A. Use free draining fill, consisting of crushed stone.
 1. Free draining fill will conform to all requirements of the approved wall system manufacturer's specifications.

2. In general, free draining fill will be clean, well graded, compactable crushed stone, predominantly 3/8 to 3/4-inch, with no more than 5 percent passing the No 200 sieve

B. Geotextile will not be accepted as a substitute for free draining fill.

2.5 GEOGRID

A. Geogrid will conform to all requirements of the approved wall system manufacturer's specifications.

2.6 FIBERGLASS PINS

A. Provide fiberglass connecting pins as required.

1. All fiber will as manufactured and supplied by the approved wall system manufacturer.

2.7 OTHER FASTENERS

A. Provide fasteners to wingwalls and abutment wall, where used, as manufactured and supplied by the approved wall system manufacturer.

2.8 GEOTEXTILE FILTER FABRIC

A. Geotextile filter fabric will conform to all requirements of the approved wall system manufacturer's specifications.

2.9 WALL CAP ADHESIVE

A. Use a medium-viscosity synthetic elastomeric polymer adhesive, meeting the requirements of the approved wall system manufacturer's specifications or an Engineer-approved equivalent.

PART 3 EXECUTION

3.1 GENERAL

A. Construct all landscape walls in accordance with the final design drawings, this specification, and the approved wall system manufacturer's recommendations, construction manual, details and specifications.

1. Where UDOT and the selected wall system manufacturer's specifications/requirements differ, the stricter of the two will be applied.
- B. The Contractor will have demonstrated experience with landscape wall design and construction and be qualified to direct all landscape wall construction at the site. The wall construction supervisor will be directly involved with and provide technical assistance during all phases of construction of the wall(s).
1. The wall construction supervisor is responsible for training the wall construction crew(s) and UDOT inspectors in proper quality control for construction of the walls.

3.2 EXCAVATION

- A. Perform excavation (including removal of unsuitable soils) in accordance with the approved project specification and the approved wall system manufacturer's recommendations, construction manual, details and specifications.

3.3 FOUNDATION PREPARATION

- A. Prepare foundation soil in accordance with the approved wall system manufacturer's recommendations, construction manual, details and specifications.
- B. Foundation soil will be examined by the Engineer to ensure that the actual foundation soil strength meets or exceeds assumed design strength. Soil not meeting the required strength will be removed and replaced with acceptable material.

3.4 BASE LEVELING PAD

- A. Prepare the foundation soils and/or base leveling pad material so as to construct the leveling pad to the design elevations shown on the drawings and to ensure complete contact of the concrete modular block units with the base leveling pad.
- B. Construct base leveling pad in accordance with the approved wall system manufacturer's recommendations, construction manual, details and specifications.

3.5 CONCRETE MODULAR BLOCK UNIT INSTALLATION

- A. Install all concrete modular block in accordance with the approved wall system manufacturer's recommendations, construction manual, details and specifications and as directed by the engineer.
- B. As approved by the engineer, where the wall changes elevation, the units can be stepped with grade or turned into the embankment with a convex return end. Provide appropriate buried units on the compacted leveling pad in the area of the convex return end.
- C. All tolerances (horizontal, vertical, joint offset/width etc.) conform to the approved wall system manufacturer's recommendations, construction manual, details and specifications.

3.6 GEOTEXTILE FILTER FABRIC

- A. Install geotextile filter fabric in accordance with the approved wall system and the geotextile manufacture's recommendations, construction manual, details and specifications.

3.7 GEOGRID INSTALLATION

- A. Install geogrid, as required, according to the approved wall system and geogrid manufacturer's recommendations, construction manual, details and specifications.

3.5 WALL CAP INSTALLATION

- A. Provide a permanent connection between the wall cap and the top course of the wall units using wall cap adhesive as described in article 2.9. Construct according to the approved wall system manufacturer's specifications.

3.6 WARRANTY

- A. Provide Supplier and Contractor warranties to the Engineer within 5 working days following the final acceptance of any landscape wall.

END OF SECTION

August 17, 2011

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN# 11494**

SECTION 02961M

ROTOMILLING

Add Article 2.2 paragraph A.4:

4. Use a minimum 12 foot mill head on Interstates and a minimum 7 foot mill head on all other roads or as directed by the engineer.

March 12, 2009

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 02981M

GRINDING PAVEMENT

Delete article 3.2 SMOOTHNESS TESTS and replace with the following:

- A. Refer to Section 01452. Determine pavement smoothness with the following change.
 - 1. Provide finished pavement surface with an average profile index not greater than 5 inches per mile.
 - 2. No incentive or disincentive will be paid.

END OF SECTION

**Supplemental Specification
2012 Standard Specification Book**

SECTION 03055M

PORTLAND CEMENT CONCRETE

Delete Article 2.1, Table 2, note ** and replace with the following:

** For $f'c$ over 4,000 psi, design and proportion mixes according to ACI Manual of Concrete Practice 301: Specifications for Concrete and project specific criteria. Use Table 2 Class AA(AE) Air Content Percentages according to coarse aggregate size for these mixes.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 03924M

STRUCTURAL CONCRETE REPAIR AND SEALING

Add Article 1.1, paragraph B.

- B. Materials, procedures, and equipment for sealing columns, pedestals, bent and pier caps, diaphragms, wingwalls, abutment backwalls, beam ends, and parapets.

October 6, 2014

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 07922M

RELIEF JOINT CRACK SEALING

Delete Article 1.1, paragraph A and replace with the following:

- A. Materials and procedures for cleaning and sealing designated joints as shown in the drawings.

Add Article 2.1, paragraph C:

- C. Joint Sealer – Refer to Section 03152.

Add Article 3.1, paragraph B:

- B. Provide a sawcut through the full depth of the newly placed asphalt pavement and along the entire length of the abutment joint and relief joint.

Delete Article 3.2, paragraph C and replace with the following:

- C. Fill the joints following the Joint Sealing details on the plans.

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 13551M

GENERAL ATMS REQUIREMENTS

Delete Article 1.3, paragraphs D through K and replace with the following:

- D. ASTM B 800: 8000 Series Aluminum Alloy Wire for Electrical Purposes
- E. ASTM F 1554: Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength
- F. American Wire Gauge (AWG)
- G. International Building Code (IBC)
- H. International Municipal Signal Association (IMSA)
- I. Manual on Uniform Traffic Control Devices (MUTCD)
- J. National Electrical Code (NEC)
- K. National Electrical Safety Code (NESC)
- L. Underwriters Laboratory (UL)

Delete Article 2.1 and replace with the following:

2.1 WIRING

- A. Power Conductors
 - 1. Size – AWG size and material as specified.
 - 2. Material – Wire to be copper or aluminum, as specified.
 - a. Copper Wire. Refer to NEC.
 - b. Aluminum Wire
 - 1) Series 8000 aluminum. Refer to ASTM B 800.
 - 2) Concentric, condensed or compacted wire is acceptable.
 - c. Insulation – Cross linked polyethylene, RHH/ USE-2/ RHW-2, resistant to oil, gasoline and sunlight.

- d. Cable to be stranded single conductor.
- B. Signal Cable
- 1. Multi-colored cables and specified.
 - 2. Refer to IMSA 20.1.
 - 3. Use copper wire only.
- C. Detector Cables – Refer to Section 13591.
- D. Ground Wire
- 1. Stranded insulated soft drawn copper, or stranded insulated aluminum wire, as specified.
 - 2. Insulation – Green crosslinked polyethylene, RHH/ USE-2/ RHW-2, resistant to oil, gasoline and sunlight.
 - 5. Refer to NEC section 250.
- E. Power Conductor Connectors
- 1. Connectors to be suitable for the type and gauge of wire being connected
 - 2. Suitable for submersion and direct bury.
 - a. UL listed for the type and size of conductors being joined.
 - b. Set screw type connection with standard hex socket.
 - c. Field adaptable cable sleeves to accurately fit size of cables being connected.
 - d. Factory assembled and tested for water tightness.
 - e. Connectors to have four conductor connection points.
- F. Aluminum Ground Wire Connections – Non-reversible compression connector suitable for copper and aluminum wire.
- G. Self Fusing Rubber Electrical Tape – 30 mil minimum, ethylene propylene rubber self fusing tape.
- H. Vinyl Electrical Tape – 8.5 mil vinyl insulating electrical tape.
- I. Electrical Coating – Liquid electrical coating suitable for direct burial and water immersion.
- J. Thick Wall Heat Shrink Tubing – Thick wall polyolefin tubing with factory applied adhesive; 3:1 shrink ratio; UL 486D listed; and suitable for direct burial.

Delete Article 3.12, paragraphs A and B and replace with the following:

- A. Power Conductors
 - 1. Verify conduit is free of dirt and debris according to Section 13553 before installing conductors.
 - 2. Install grounding conductor in all conduits containing metallic conductors or metallic cable armor or strength members. Refer to NEC, Section 250.
 - 3. Use NEC approved lubricants when pulling conductors in conduit.
 - 4. Protect wire during installation according to Section 13553.
 - 5. Cap wire and cable tape and seal the ends of unused conductors and label them as spares.
 - 6. Use conductors that are color coded as specified in IMSA and comply with NEC, Article 310.
 - 7. Leave 6 ft of slack conductor in each junction box that the conductor passes through.
 - a. Loop slack conductors twice around the ground rod and secure with plastic wire ties.
 - 8. Make aluminum wire connections by mechanically cleaning oxidation from wire, immediately applying oxide inhibitor, installing connector with manufacturer's recommended torque, loosening, and retightening to the manufacturer's recommended torque.
 - 9. Do not use twist-type or wire nut connectors except in dry step-down transformer enclosures.

- B. Ground Wire
 - 1. Copper ground wire in non-metallic conduit must run continuously between and be bonded to ground rods in each junction box.
 - 2. Aluminum ground wire in non-metallic conduit must run continuously between junction boxes, and be bonded to the ground rod in each junction box, using a 24 inch insulated copper pigtail wire.
 - a. Copper pigtail wire gauge to match aluminum ground wire gauge.
 - b. Mechanically clean conductors and immediately apply corrosion inhibiting compound to aluminum ground wire.
 - c. Compress connector according to manufacturer's instructions.

3. Insulation and Waterproofing. – Use either self-fusing rubber tape or thick walled heat tubing to insulate and waterproof all ground wire splices.
 - a. Self fusing rubber tape.
 - 1) Wrap ground wire and connector with two half lapped layers of self-fusing rubber electrical tape.
 - a) Wrap beginning at the center of the splice and extend the wrap 1 inch beyond the end of stripped insulation, using moderate tension.
 - 2) Wrap self-fusing rubber tape with vinyl electrical tape.
 - a) Wrap beginning at the center of the splice and extend the wrap 1 inch beyond the ends of self-fusing rubber tape, using moderate tension.
 - 3) Coat vinyl electrical tape with electrical coating.
 - a) Extend coating 1 inch beyond the vinyl tape layer.
 - b. Thick walled heat shrink tubing.
 - 1) Clean thoroughly cable and slide tubing onto cable.
 - 2) Center heat shrink tubing over connection and shrink tubing, beginning at the center.
 - a) Extend tubing 2 inches past end of removed ground wire insulation.
 - 3) Heat until tubing is completely shrunk, and adhesive/sealant is squeezed from tubing ends.
 - a) Take care to not damage ground wire insulation.
 - 4) Coat vinyl electrical tape with electrical coating.
 - a) Extend coating 1 inch beyond the vinyl tape layer.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 13551M

GENERAL ATMS REQUIREMENTS

Add the following to Article 3.13:

- H. Maintain in operable condition all existing ATMS devices and fiber optic cable until they are replaced by operable contractor-installed items or until Final Acceptance.
 - 1. Complete repairs within 48 hours of notice given by the Engineer.
 - 2. Failure to provide adequate repairs will result in the Department making the necessary repairs at the Contractor's Expense.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 13553M

ATMS CONDUIT

Delete Article 1.3, paragraph G and replace with the following:

- G. State of Utah Administrative Rules

Delete Article 1.5 paragraph B and replace with the following:

- B. Refer to this Section articles 3.2 paragraph F4, 3.2 paragraph I1, and 3.7 paragraph A.

Delete Article 2.1 paragraph A3 and replace with the following:

- 3. HDPE conduit with ribbed or smooth interior.

Delete Article 3.1 paragraph B and replace with the following:

- B. The placement of conduit in areas of parallel utilities must meet Department Utilities and Local Utilities standards and be approved by the Engineer. Refer to State of Utah Administrative Rule R930-7.

Delete Article 3.1 paragraph H and replace with the following:

- 1. Minimum cover in pavement is 4ft and minimum cover in sidewalks is 3 ft.
- 2. Minimum cover in highway right-of-way, greater than 20 ft from the edge of the pavement is 3 ft.
- 3. Minimum cover in highway right-of-way, within 20 ft of the edge of the pavement is 5 ft.
- 4. Refer to State of Utah Administrative Rule 930-7.

Delete Article 3.2 paragraph F and replace with the following:

- F. Proof all conduit before installation of cabling and detectable pull tape.
 - 1. Use a mandrel approved by the Engineer.
 - 2. Schedule proofing with the Engineer at least 5 working days in advance of performing the work.
 - 3. Proof all conduit with a Department representative witness present.
 - 4. Submit a completed Conduit Mandrel Test form to the Engineer for all ATMS conduit prior to Final Acceptance. Refer to <http://www.udot.utah.gov/go/standardsreferences>.

Delete Article 3.2 paragraph O and replace with the following:

- O. Install a bushing or adapter at ends of all nonmetallic conduit that contain a conductor according to the NEC.

Delete Article 3.2 paragraph F and replace with the following:

- F. Proof all conduit before installation of cabling and detectable pull tape.
 - 1. Use a mandrel approved by the Engineer.
 - 2. Schedule proofing with the Engineer at least 5 working days in advance of performing the work.
 - 3. Proof all conduit with a Department representative witness present.
 - 4. Submit a completed Conduit Mandrel Test form to the Engineer for all ATMS conduit prior to Final Acceptance. Refer to <http://www.udot.utah.gov/go/standardsreferences>.

Delete Article 3.2 paragraph O and replace with the following:

- O. Install a bushing or adapter at ends of all nonmetallic conduit that contain a conductor according to the NEC.

June 27, 2013

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 13555M

ATMS CABINET

Add Article 2.9:

2.9 WIRING

A. Refer to Section 13551.

**Supplemental Specification
2012 Standard Specification Book**

SECTION 13557M

VARIABLE MESSAGE SIGN

Delete Article 3.1, paragraph A and replace with the following:

- A. Contact the Engineer at least 14 calendar days before picking up the State furnished VMS display, VMS controller, and VMS cable (fiber optic).

Delete Article 3.2, paragraph E and replace with the following:

- E. Make final adjustments to sign horizontal and vertical angles.
 - 1. Aim VMS in the direction of on-coming vehicles
 - 2. Type I Overhead VMS
 - a. Mount on full span support structure
 - b. Use for Type I VMS only
 - c. Orient perpendicular to the viewing angle of motorists 800 ft before the sign
 - 2. Type I Cantilever VMS
 - a. Mount on cantilever support structure
 - b. Use for Type I and Type II VMS
 - c. Typically installed perpendicular to the oncoming driver's eye
 - d. Orient perpendicular to the viewing angle of motorists 800 ft before the sign
 - 3. Roadside Butterfly VMS
 - a. Used for Type II VMS only
 - b. Orient the according to the plans.
 - 4. Adjust the sign angle as needed based on the Engineer's recommendations during initial installation

June 27, 2013

SPECIAL PROVISION

**PROJECT # F-0173(26)7
PIN # 11494**

SECTION 13561M

ATMS POWER SERVICE

Delete Article 2.1, paragraph M.