SPECIAL PROVISIONS
&
SUPPLEMENTAL SPECIFICATIONS

CSI-Inch/Pound

Project No:	**F-R199(132)**
PIN Desc:	**Rehabilitate (3) bridges in Cache County**
Concept:	**Off-System Bridge**
Location:	**Avon Bridge 005012C, Lewiston Bridge 005033C, Newton Bridge 005037D**
County:	**CACHE**
Bid Opening:	**May 03, 2016**

Date

THIS PROJECT REQUIRES USING THE ELECTRONIC CERTIFIED PAYROLL PROGRAM. SEE ATTACHMENT TO NOTICE TO CONTRACTORS.

THIS IS A P&T (PRICE + TIME) PROJECT.

UDOT Keeping Utah Moving

Project # F-R199(132)
Pin # 10833

March 10, 2016

2012 - Standards

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Federal Projects With Full Size Plan Sheets

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3.	00515M	Contract Award and Execution – Construction Special Provision, Innovative Contracting (P+T) Special Provision (02/26/15)
4.	00515M	Contract Award and Execution – Supplemental Specification (02/26/15)
5.	00555M	Prosecution and Progress – Construction Special Provision (12/16/15)
6.	00570M	Definitions – Supplemental Specification (10/22/15)
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8.	00727M	Control of Work – Supplemental Specification (10/22/15)
9.	00820M	Legal Relations and Responsibility to the Public – Project Special Provision (03/31/16)
10.	00820M	Legal Relations and Responsibility to the Public – Supplemental Specification (08/27/15)
11.	01282M	Payment – Project Special Provision (03/28/16)
12.	01282M	Payment – Supplemental Specification (08/27/15)
13.	01315M	Public Information Services – Supplemental Specification (10/31/13)
14.	01355M	Environmental Compliance – Supplemental Specification (10/31/13)
15.	01452M	Pavement Smoothness – Supplemental Specification (06/25/15)
16.	01455M	Material Quality Requirements – Materials Special Provision (03/10/16)
17.	01455M	Material Quality Requirements – Supplemental Specification (02/25/16)
18.	01456M	Materials Dispute Resolution – Supplemental Specification (02/28/13)
19.	01554M	Traffic Control – Supplemental Specification (11/06/14)
20.	01557S	Maintenance of Traffic (MOT) – Project Special Provision (10/14/15)
21.	01571	Temporary Environmental Controls – Supplemental Specification (06/25/15)
22.	01721	Survey – Supplemental Specification (02/25/16)
23.	02056M	Embankment, Borrow, and Backfill – Supplemental Specification (04/30/15)
24.	02075M	Geotextiles – Supplemental Specification (04/30/15)
25.	02221M	Remove Structure and Obstruction – Project Special Provision (03/26/15)
26.	02316M	Roadway Excavation – Supplemental Specification (06/26/14)
27.	02317M	Structural Excavation – Supplemental Specification (02/27/14)

28.	02373M	RIPRAP – Supplemental Specification (06/27/13)
29.	02610	Drainage Pipe – Supplemental Specification (02/27/14)
30.	02674S	Relocate Steel Irrigation Pipe – Project Special Provision (10/15/15)
31.	02741M	Hot Mix Asphalt (HMA) – Materials Special Provision (09/08/2014)
32.	02742S	Project Specific Surfacing Requirements – Department Special Provision (10/14/15)
33.	02746M	Hydrated Lime – Materials Special Provision (11/14/12)
34.	02765M	Pavement Marking Paint – Supplemental Specification (02/26/15)
35.	02768M	Pavement Marking Materials – Supplemental Specification (08/29/13)
36.	02822M	Right-of-Way Fence and Gate – Supplemental Specification (08/30/12)
37.	02841M	W-Beam Guardrail – Supplemental Specification (08/29/13)
38.	02843M	Crash Cushions and Barrier End Treatments – Supplemental Specification (06/27/13)
39.	02844M	Concrete Barrier – Supplemental Specification (10/22/15)
40.	02845S	Two Tube Curb Mounted Rail – Project Special Project (08/25/15)
41.	02890M	Retroreflective Sheeting – Supplemental Specification (11/06/14)
42.	02891M	Traffic Sign – Supplemental Specification (02/28/13)
43.	02924S	Invasive Weed Control – Department Special Provision (02/28/13)
44.	03055M	Portland Cement Concrete – Supplemental Specification (10/22/15)
45.	03211M	Reinforcing Steel and Welded Wire – Supplemental Specification (10/25/12)
46.	03310M	Structural Concrete – Supplemental Specification (10/22/15)
47.	03311M	Joint Closure – Supplemental Specification (10/22/15)
48.	03390	Concrete Curing – Supplemental Specification (10/22/15)
49.	03393M	Concrete Healer/Sealer – Supplemental Specification (08/30/12)
50.	03924M	Structural Concrete Repair and Sealing – Supplemental Specification (08/30/12)
51.	05120M	Structural Steel – Supplemental Specification (08/30/12)
52.	06055M	Timber and Timber Treatment – Supplemental Specification (08/30/12)

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 ≥ 5 Inches
BA 4F1	W-Beam Guardrail Buried In Backslope Terminal
BA 4H4	W-Beam Guardrail with Precast Barrier For Span ≥ 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

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

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

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

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)

Issue Date: March 12, 2015

Revised February 26, 2015

EN 3	Temporary Erosion Control (Slope Drain and Temporary Berm)
SL 1A	Traffic Signal Mast Arm Pole and Luminaire Extension 30 Ft Through 55 Ft
SL 1B	Traffic Signal Mast Arm Pole and Luminaire Extension 60 Ft Through 75 Ft
SL 2	Traffic Signal Mast Arm Mounting Details
SL 4	Traffic Signal Mast Arm Pole Foundation

Issue Date: May 14, 2015

Revised April 30, 2015

DD 3	Passing and Climbing Lanes
DD 19	Marked Pedestrian Crosswalk Enhancement Flowchart
PV 4	Concrete Pavement Details 2 of 2
PV 6A	Rumble Strips Shoulder Details
PV 6B	Rumble Strips Depth and Location Details
PV 7A	Typical Rumble Strip Shoulder Sequencing and Applications
PV 7B	Typical Rumble Strip Center Line Sequencing and Application
PV 8	Typical Rumble Strip Centerline Application
SL 17A	Pedestrian Signal Crosswalk
SL 17B	Pedestrian Hybrid Beacon Crosswalk
SL 17C	Flashing Beacon at a Crosswalk Intersection

SL 17D	Flashing Beacon at Midblock Crosswalk
SN 19A	Preferential Lane Signing and Pavement Marking Details
SN 19B	Preferential Lane Access Opening Details
SN 19C	Preferential Lane Median Signing Spacing Greater 1 Mile
SN 19D	Preferential Lane Median Signing Spacing Equal to or Less Than 1 Mile
ST 1	Typical Pavement Markings No Pass Zone and Lane Reduction
ST 6A	Passing Lane Details
ST 6B1	Freeway Climbing Lane Inside Widening Detail
ST 6B2	Freeway Climbing Lane Outside Widening Detail

Issue Date: September 21, 2015

Revised August 27, 2015

AT 12	CCTV Foundations for CCTV Pole
BA 4D3	W-Beam Guardrail Typical Line Post Embedment Special Conditions
SL 18	Advance Warning Signal (AWS) System

Issue Date: November 10, 2015

Revised October 22, 2015

AT 01	Legend Sheet
AT 06	Conduit Details
AT 07A	Polymer Concrete Junction Box Details
AT 07B	Precast Concrete Fiber Optic and Utility Vault Details
AT 10E	CCTV DIP Switch Settings
AT 12	CCTV Foundations for CCTV Pole
AT 18	Utility Marker Post Details
AT 19	Utility Marker Post Locations
AT 20	Electronic Toll Lanes Control Systems (ETC)
AT 21	Electronic Toll Lanes Control Systems (ETC Gantry)
AT 22	Attachment Details
AT 23	ETC Equipment Wiring Diagram
BA 05A	Cable Barrier Typical Hardware and Foundation Requirements
SL 06	Signal Head Details

Issue Date: March 10, 2016

Revised October 22, 2015

DG 04	Pipe Minimum Cover and Spacing
SL 12	Highway Luminaire Slip Base Details
SL 14	Highway Luminaire Pole Foundation Extension

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, May 03, 2016, 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 Rehabilitate (3) bridges in Cache County, Off-System Bridge of Avon Bridge 005012C, Lewiston Bridge 005033C, Newton Bridge 005037D in CACHE County, the same being identified as Federal Aid Project No: F-R199(132).

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: Avon Bridge 005012C, Lewiston Bridge 005033C, Newton Bridge 005037D

The principal items of work are as follows (for all items of work see attachment):
Maintenance of Traffic
Structural Steel
Structural Concrete(Est. Lump Qty: 45 cu yd)

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.

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 09th day of April, 2016.

UTAH DEPARTMENT OF TRANSPORTATION
Carlos M. Braceras, P.E., Director

Revised Date:

Revised September 8, 2015

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.

If Option 1 is chosen:

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

The Contractor is required to go over the errors that show on the Import Summary Report. The Contractor is required to fix the issues related to these errors. If the issues related to these errors cannot be resolved with the import feature, the Contractor will need to manually input the employee payrolls in which the errors pertain.

NOTE: The apprentice payroll information is not part of the import feature. Any apprentice payroll information needs to be manually entered.

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 September 8, 2015, 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.

V. Bidding Schedule

Utah Department of Transportation
Bidder's Schedule

Bid Opening Date: 5/3/2016 **Region:** REGION 1
Project Number: F-R199(132) **County:** CACHE
PIN Description: Rehabilitate (3) bridges in Cache County
Concept: Off-System Bridge
Location: Avon Bridge 005012C, Lewiston Bridge 005033C, Newton Bridge 005037D

Funding: FEDERAL
Bid Items Version#: 1 **DBE Goal:** 3.00%

#	Item	Description	Quantity	Unit
10 - ROADWAY				
Description: Avon - 10700 South, Cove - 12400 North, Newton - 6600 North				
1	012850010	Mobilization	1	lump sum
2	015540005	Traffic Control	1	lump sum
3	01557001*	Maintenance of Traffic	1	lump sum
4	017210010	Survey	1	lump sum
20 - STRUCTURES				
Description: Structure # 005012C - Avon				
5	015710095	Fiber Roll - 12 Inch	200	foot
6	020560025	Granular Backfill Borrow (Plan Quantity)	20	cubic yard
7	020750010	Geotextiles - Separation	300	square yard
8	02221001P	Remove Existing Superstructure	1	lump sum
9	02221002P	Remove Timber Pier	1	lump sum
10	02221003P	Remove Portions of Existing Abutment and Wingwalls	1	lump sum
11	02221004P	Remove Large Obstructions	1	lump sum
12	023160020	Roadway Excavation (Plan Quantity)	30	cubic yard
13	023730010	Loose Riprap	180	cubic yard
14	02674001*	Relocate Steel Irrigation Pipe	1	lump sum
15	027410040	HMA - 3/8 inch	26	ton
16	028410030	W-Beam Guardrail Transition Element	4	each
17	028410086	W-Beam Guardrail 72 inch Wood Post	60	foot
18	028410090	W-Beam Guardrail Anchor Type 1	1	each
19	02841009P	W-Beam Guardrail Anchor Type G	3	each
20	032110015	Reinforcing Steel - Coated	10326	pound
21	03310001D	Structural Concrete(Est. Lump Qty: 45 cu yd)	1	lump sum
22	03924007P	Abutment Backwall Repair	1	lump sum
23	05120001P	Two Tube Curb Mounted Rail	86	foot
24	05120002P	Structural Steel	15500	pound
25	071050010	Waterproofing Membrane	920	square foot
20 - STRUCTURES				
Description: Structure # 005033C - Cove				
26	015710095	Fiber Roll - 12 Inch	200	foot
27	020750010	Geotextiles - Separation	150	square yard
28	023160020	Roadway Excavation (Plan Quantity)	7	cubic yard
29	023730010	Loose Riprap	280	cubic yard
30	027210010	Untreated Base Course	38	ton
31	027410040	HMA - 3/8 inch	6	ton
32	027650060	Pavement Marking Paint	84	foot
33	028410087	W-Beam Guardrail 3 ft 1 1/2 inch on center punched and 84 inch Wood Post	341	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: 5/3/2016 **Region:** REGION 1
Project Number: F-R199(132) **County:** CACHE
PIN Description: Rehabilitate (3) bridges in Cache County
Concept: Off-System Bridge
Location: Avon Bridge 005012C, Lewiston Bridge 005033C, Newton Bridge 005037D

Funding: FEDERAL
Bid Items Version#: 1 **DBE Goal:**

#	Item	Description		Quantity	Unit
20 - STRUCTURES					
Description: Structure # 005033C - Cove					
34	02841008P	W-Beam Guardrail Connect to Existing Posts		84	foot
35	028410092	W-Beam Guardrail Anchor Type II		4	each
36	033930010	Concrete Healer/Sealer		750	square foot
37	03924002P	Curb Repair		84	foot
38	039240070	Abutment Backwall Repair		1	each
39	099910020	Cleaning and Overcoating Structural Steel		1	lump sum
20 - STRUCTURES					
Description: Structure # 005037D - Newton					
40	015710095	Fiber Roll - 12 Inch		425	foot
41	020750010	Geotextiles - Separation		75	square yard
42	023730010	Loose Riprap		250	cubic yard
43	027210010	Untreated Base Course		50	ton
44	02844001P	Precast Concrete Barrier - 32 Inch (New Jersey Shape)		80	foot
45	02844008P	Precast Concrete Barrier - 32 Inch (New Jersey Shape), Sloped End Section (for speeds < 40 MPH)		4	each
46	03924010P	Repair Precast Joints		104	foot
180 - TIME AND/OR LANE RENTAL					
47	00221000*	Contract Time	Date Range: 45 - 90	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.

VI. Measurement and Payment

Measurement and Payment

Project # F-R199(132)

11/09/2015 09:26:49 AM

Item #	Bid Item Number	Bid Item Name	UOM
1	012850010	Mobilization	lump sum

Amount Paid	When Paid
The lesser of 25% of Mobilization or 2.5% of contract	With first estimate
The lesser of 50% of Mobilization or 5% of contract	With estimate following completion of 5% of contract
The lesser of 75% of Mobilization or 7.5% of contract	With estimate following completion of 10% of contract
The lesser of 100% of Mobilization or 10% of contract	With estimate following completion of 20% of contract
Amount bid in excess of 10% of contract price.	Project Acceptance-Final

Includes all costs associated with Railroad Flagging, inspection, and cleanup crew according to Section 00725.

2	015540005	Traffic Control	lump sum

Amount Paid	When Paid
25% of the bid item amount.	With first estimate
Remaining portion of bid item paid as a percentage of the contract completed.	With each subsequent estimate

3	01557001*	Maintenance of Traffic	lump sum
4	017210010	Survey	lump sum

25% of the bid item amount	When the project is 5% complete
A total of 40% of bid item amount	When the project is 10% complete
A total of 75% of bid item amount	When the project is 50% complete
A total or 90% of bid item amount	When the project is 75% complete

The Department retains the remaining 10 percent of bid item amount until the project is completed and the red-lined hard copy plan set showing as-constructed features denoting changes from the original design is provided to the Engineer and verified complete.

5	015710095	Fiber Roll - 12 Inch	foot

Measured along centerline of fiber roll.

6	020560025	Granular Backfill Borrow (Plan Quantity)	cubic yard
7	020750010	Geotextiles - Separation	square yard

Measurement does not include overlaps

8	02221001P	Remove Existing Superstructure	lump sum

Includes removal of pipe railing, asphalt, bridge deck, curbs, steel girders, stiffeners, cross bracing, bearing plates, hardware and all miscellaneous structural steel.

9	02221002P	Remove Timber Pier	lump sum

Includes removal of all timber piping, pier cap and incidental obstructions.

10	02221003P	Remove Portions of Existing Abutment and Wingwalls	lump sum

Includes removal of reinforced concrete, reinforcement, etc. and all labor necessary to complete the item.

11	02221004P	Remove Large Obstructions	lump sum

Includes removal of trees laying in the river.

12	023160020	Roadway Excavation (Plan Quantity)	cubic yard
13	023730010	Loose Riprap	cubic yard

Calculated using the in-place surface area and specified thickness.

14	02674001*	Relocate Steel Irrigation Pipe	lump sum

Includes relocation of steel irrigation pipe, hardware, materials and labor necessary to complete the item.

15	027410040	HMA - 3/8 inch	ton

Includes aggregates, asphalt binder, hydrated lime, tack coat, and other additives, etc.

16	028410030	W-Beam Guardrail Transition Element	each

Includes guardrail with posts, blocks, hardware, curb section, and barrier reflectors. Use same post type as designated in project typical installation.

17	028410086	W-Beam Guardrail 72 inch Wood Post	foot

Item #	Bid Item Number	Bid Item Name	UOM
		Includes W-beam 3 ft 1 1/2 inch on center W-beam guardrail with posts, blocks, hardware, and barrier reflectors.	
18	028410090	W-Beam Guardrail Anchor Type 1	each
		Includes standard 12 foot 6 inch W-beam guardrail with posts, foundation tube, blocks, hardware, object marker, and marker post.	
19	02841009P	W-Beam Guardrail Anchor Type G	each
		Includes standard 12 foot 6 inch W-beam guardrail with posts, foundation tube, blocks, hardware, object marker, and marker post.	
20	032110015	Reinforcing Steel - Coated	pound
		A. Do not include the mass of the coating or the specified test bars as computed weight. B. Department will not make allowances for extra reinforcing steel required to provide lap splices that are requested by the Contractor. C. Department will not make allowances for clips, chairs, wire, or other materials used for fastening reinforcement in place.	
21	03310001D	Structural Concrete (Est. Lump Qty: 45 cu yd)	lump sum
		A. Do not use contract lump sum bid amounts as exact quantities. The plans show estimated quantities only. B. Measure quantities by the dimensions shown when the contract provides measurement per cubic yard. C. Use the prismoidal formula when the method of average end areas is not sufficiently accurate. D. Do not measure concrete required to fill over breakage of excavation for footings, walls, or slabs. E. Department will not deduct for volume occupied by pipes (other than culverts), reinforcing steel, piles, metal grillage, anchors, conduits, or weep holes. F. Department will pay for reinforcing steel for structures separately, unless otherwise noted. G. Department will pay separately for concrete placed in individual structures containing less than eight cubic yards at the bid price per cubic yard for Concrete, Small Structure. H. Department will make no separate payment for excavation for structures. I. Department will adjust prices as follows when the Contract provides for concrete structures as a lump sum: 1. If the Engineer increases or decreases the quantity of concrete: a. Unit price will be determined by dividing the contract lump sum price of that item by the estimated quantity of concrete shown on the plans. b. The contract lump sum price will be adjusted by an amount equal to the product of the change in quantity and computed unit price. 2. If the estimated quantity of concrete as shown is in error by more than 10 percent: a. The contract lump sum price will be increased or decreased by an amount equal to the product of the unit price determined in accordance with number 1 above.	
22	03924007P	Abutment Backwall Repair	lump sum
		Includes delamination repair, epoxy injection, and all materials, equipment, and labor necessary to complete the item.	
23	05120001P	Two Tube Curb Mounted Rail	foot
		Includes hardware, grout, all structural steel, materials and labor necessary to complete the item.	
24	05120002P	Structural Steel	pound
		A. Includes all materials, equipment, and labor necessary for fabrication, delivery, and erection of structural steel members. Cost of polytetrafluoroethylene and its adhesive is included in this pay item. Cost of structural steel coating/paint is included in this pay item. B. The Department will make no separate payment for required inspection and testing.	
25	071050010	Waterproofing Membrane	square foot
		Surface area covered. Measurement does not include overlap or extension on the parapet face.	
26	015710095	Fiber Roll - 12 Inch	foot
		Measured along centerline of fiber roll.	
27	020750010	Geotextiles - Separation	square yard
		Measurement does not include overlaps	
28	023160020	Roadway Excavation (Plan Quantity)	cubic yard
29	023730010	Loose Riprap	cubic yard
		Calculated using the in-place surface area and specified thickness.	
30	027210010	Untreated Base Course	ton
31	027410040	HMA - 3/8 inch	ton
		Includes aggregates, asphalt binder, hydrated lime, tack coat, and other additives, etc.	

Item #	Bid Item Number	Bid Item Name	UOM
32	027650060	Pavement Marking Paint	foot
33	028410087	W-Beam Guardrail 3 ft 1 1/2 inch on center punched and 84 inch Wood Post	foot
		Includes W-beam 3 ft 1 1/2 inch on center W-beam guardrail with posts, blocks, hardware, and barrier reflectors.	
34	02841008P	W-Beam Guardrail Connect to Existing Posts	foot
		Includes removal of existing guardrail, W-beam guardrail fabricated to match existing posts, blocks, hardware, and barrier reflectors.	
35	028410092	W-Beam Guardrail Anchor Type II	each
		Includes standard 12 foot 6 inch W-beam radius guardrail with 3 shortened breakaway posts, 3 foundation tubes, blocks, cable, and hardware.	
36	033930010	Concrete Healer/Sealer	square foot
		Includes materials, equipment, labor, and skid resistance testing necessary to place concrete healer/sealer system.	
37	03924002P	Curb Repair	foot
		Includes delamination repair, epoxy injection, and all materials, equipment, and labor necessary to complete the item.	
38	039240070	Abutment Backwall Repair	each
		Includes delamination repair, epoxy injection, and all materials, equipment, and labor necessary to complete the item.	
39	099910020	Cleaning and Overcoating Structural Steel	lump sum
40	015710095	Fiber Roll - 12 Inch	foot
		Measured along centerline of fiber roll.	
41	020750010	Geotextiles - Separation	square yard
		Measurement does not include overlaps	
42	023730010	Loose Riprap	cubic yard
		Calculated using the in-place surface area and specified thickness.	
43	027210010	Untreated Base Course	ton
44	02844001P	Precast Concrete Barrier - 32 Inch (New Jersey Shape)	foot
		Includes connection pins, stabilization pins, and barrier reflectors. Includes asphalt leveling course. Includes asphalt impregnated polyurethane foam when required. See BA Series, Standard Drawings.	
45	02844008P	Precast Concrete Barrier - 32 Inch (New Jersey Shape), Sloped End Section (for speeds < 40 MPH)	each
		Includes connection pins, and barrier reflectors. Includes asphalt leveling course. Includes asphalt impregnated polyurethane foam when required. See BA Series, Standard Drawings.	
46	03924010P	Repair Precast Joints	foot
		Includes delamination repair, epoxy injection, and all materials, equipment, and labor necessary to complete the repair of the side and bottom edge of deck.	

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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

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	04/30/15
PV 5	Urban Concrete Pavement Details	01/01/12
PV 6A	Rumble Strips Shoulder Details	04/30/15
PV 6B	Rumble Strips Depth and Location Details	04/30/15
PV 7A	Typical Rumble Strip Shoulder Sequencing and Applications	04/30/15
PV 7B	Typical Rumble Strip Center Line Sequencing and Application	04/30/15
PV 8	Typical Rumble Strip Centerline Application	04/30/15
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 30 Ft Through 55 Ft	02/26/15
SL 1B	Traffic Signal Mast Arm Pole and Luminaire Extension 60 Ft Through 75 Ft	02/26/15
SL 2	Traffic Signal Mast Arm Mounting Details	02/26/15
SL 3	Underground Service Pedestal Details	01/01/12
SL 4	Traffic Signal Mast Arm Pole Foundation	02/26/15
SL 5	Traffic Signal Pole	01/01/12
SL 6	Signal Head Details	10/22/15
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	Highway Luminaire Slip Base Details	**02/25/16**
SL 13	Highway Luminaire Pole Barrier Mount	01/01/12
SL 14	Highway Luminaire Pole Foundation Extension	**02/25/16**
SL 15	Single Transformer Substation Details	01/01/12
SL 16	Solar Traffic Counting Station	06/26/14
SL 17A	Pedestrian Signal Crosswalk	04/30/15
SL 17B	Pedestrian Hybrid Beacon Crosswalk	04/30/15
SL 17C	Flashing Beacon at a Crosswalk Intersection	04/30/15
SL 17D	Flashing Beacon at Midblock Crosswalk	04/30/15
SL 18	Advance Warning Signal (AWS) System	08/27/15

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
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
SN 19A	Preferential Lane Signing and Pavement Marking Details	04/30/15
SN 19B	Preferential Lane Access Opening Details	04/30/15
SN 19C	Preferential Lane Median Signing Spacing Greater 1 Mile	04/30/15
SN 19D	Preferential Lane Median Signing Spacing Equal to or Less Than 1 Mile	04/30/15

Striping (ST)

ST 1	Typical Pavement Markings No Pass Zone and Lane Reduction	04/30/15
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 6A	Passing Lane Details	04/30/15
ST 6B1	Freeway Climbing Lane Inside Widening Detail	04/30/15
ST 6B2	Freeway Climbing Lane Outside Widening Detail	04/30/15
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
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 DBEs as defined herein will 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 the DBE program is narrowly tailored in accordance with applicable law;

4. Ensure only firms who 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 who 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 Office will be the DBE liaison officer, who will have direct, independent access to the Executive Director concerning DBE program matters. The Civil Rights Office will be responsible for 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, sub recipient, or supplier at any lower tier will not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor will 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, subcontractor, service provider, sub recipient, or supplier will not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor will 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, which may include, but is not limited to:
> 1. Withholding monthly progress payments;
> 2. Assessing sanctions;
> 3. Liquidated damages/Disincentives; and/or
> 4. Disqualifying the contractor from future bidding as non-responsible.

Federal Projects With Full Size Plan Sheets

A. CONTRACT GOAL

1. The DEPARTMENT has determined that one or more contractors can reasonably be expected to compete for the work contained in the proposal for this project. It is, therefore, the direction of the DEPARTMENT that DBE firms will have an affirmative action opportunity to contract for the following percentage of work under this contract:

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**, submit DBE Commitment. 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.)

CONTRACT DBE GOAL: 3 Percent

NOTE: 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 will be calculated using dollar values and quantities as shown in proposals received for this project. Bidders will compute the percentage of their DBE commitment by dividing the dollar amount of work being committed to certified DBE firms by the total dollar amount of the proposal. This will be the percentage of their DBE commitment reported in the Electronic Bidding System (EBS) software.

b. RACE CONSCIOUS GOAL

At the time of bid, DBE participation is considered race conscious on projects that are assigned a Goal for Bid Evaluation. 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.

c. RACE NEUTRAL GOAL

At the time of bid, DBE participation is considered race neutral on projects that are NOT assigned a Goal (0%) for Bid Evaluation. In this instance, the DBE participation 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.

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.

The committed dollar amount meeting the project goal for bid evaluation will be considered race conscious participation. Any dollar amounts in excess of the project goal for bid evaluation will be considered race neutral participation.

It is the intent of this Policy 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 will be considered 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 Office.**

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 the change be approved by Change Order from the Civil Rights Office. The Contractor will not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE, unless the required approval is obtained.**

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 Office—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 will 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 for the individual item. The explanation for the under-run will include the reasons for the under-run and will 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 will be based on actual payments to DBEs. Over-runs and under-runs on individual contract items may require adjustments to 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, where51 percent of the stock 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 the combined average annual gross receipts of **$23,980,000** from the previous three fiscal years. The Secretary of Transportation may adjust this amount from time to time for inflation.

      OR

      Whose size is limited to the current SBA Business size standard(s), found in 23 CFR part 121, tied to North American Industry Classification System (NAICS) Codes 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 without the effects of discrimination.

   c. The race neutral portion of the overall goal reflects the level of DBE participation achieved in response to assigned DBE goals. The race conscious portion of the overall goal reflects the level of DBE participation achieved in reponse 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 DBE Joint Venture must follow the directions found in the Joint Venture Bidding Process. This process is located at the following link: http://eprpw.dot.utah.gov/applets-production/ProjectExplorer/ProjectExplorer.asp then click on EBS Information.

   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. For DBE participation counted towards goal see 49 CFR Part 26.55.

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 indicates the efforts made to achieve a DBE goal or other requirements by their scope, intensity, and appropriateness to the objective, which 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, including retention, 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 is the committed dollar amount at the time of bid focused specifically on assisting only DBEs. UDOT must establish contract goals to meet the race conscious portion of its overall DBE goal. To ensure that the DBE program continues to be narrowly tailored to overcome the effects of discrimination, UDOT may adjust the use of contract goals as follows:

    a. If during the course of any year it is determined the overall goal will be exceeded, UDOT will reduce or eliminate the use of contract goals to the extent necessary to ensure 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 is the dollar amount that exceeds the committed amount at the time of bid and 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. Race neutral DBE participation includes:

    a. Awarding a subcontract on a prime contract that does not carry a DBE goal,

    b. Awarding a subcontract on a prime contract in which the DBE was not considered 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 under 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-leaser of equipment being used on the present project.

    d. Is not an employeeof 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.

    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 and be operated by another contractor.

14. Reasonable Bid

Any bid that meets the Department bidding requirements and is not greater than 10% above the Engineer's Estimate or exceeds available funds.

15. Responsible Bidder

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

In addition to UDOT prequalification, when applicable, a responsible bidder is defined as one who has signed (manually or electronically) and submitted a bid with the DBE Bid Conditions Assurance of good faith effort included. Part I of this Policy certifies the intention to meet the DBE goal of a proposed contract or to continue a good faith effort. These goals may be met by subcontracting or leasing contracts with a DBE or purchasing material from a DBE, provided that 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 UDOT prequalification and other bidding requirements, a responsive bidder in relationship to this Policy 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 they will continue during the performance of the contract to locate, solicit, and involve DBE firms for contract performance. Documentation of the bidder's good faith efforts must be included with the bid package for the DEPARTMENT's review and assessment. The DEPARTMENT will render any bid non-responsive that fails to do so.

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. 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 specifically experienced and equipped for such work.

    b. Compensation is related to the amount of work accomplished rather than being on an hourly basis.

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 will 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 will not be responsible for the various operating and management activities of a DBE firm.

21. 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.

22. 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 will 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 will be considered toward contract goals as established in Subsection A.

2. It will 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.

3. The DEPARTMENT will 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 download 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 will be subcontracted to DBE Contractors. Bidders will exercise their own judgments in selecting any subcontractor to perform any portion of the work.

   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 section D BIDDING REQUIREMENTS. A DBE prime contractor's performance does not count toward fulfilling the DBE goal. A prime bidder who is a DBE contractor will meet the DBE goal by using other DBE subcontractors or by using good faith efforts.

1. DBE Bid Assurance

a. Race Conscious Goal

Race conscious measure or program is one that is focused specifically on assisting only DBEs. This goal is the amount the prime must commit to DBEs at the time of bid or a good faith effort must be documented.

2. DBE Race Conscious Commitment

For a bid to be considered responsive, Bidders will 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 will be considered committed in their entirety unless Bidders designate otherwise in their DBE Commitment.

(1.) If mobilization is a bid item 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;

c. The dollar amount of participation by each named DBE firm;

d. If the contract goal is not met, evidence of good faith efforts is required at the time of bid.

The DBE Commitment is to be included in the prepared bid, and said information will be kept confidential and will be reviewed to determine the apparent low bidder has either met the DBE Contract Goal or has documented acceptable Good Faith Efforts.

3. DBE Race Neutral Participation

Race Neutral DBE participation includes anytime a DBE;

a. wins a Prime Contract through customary bidding procedures,

b. is awarded a subcontract on a prime contract that does not carry a DBE goal (0% goal),

c. wins a subcontract from a prime contractor that did not consider its DBE status in making the award (e.g., a prime contractor that uses a strict low bid system to award subcontracts).

4. DBE Written Confirmation

Low Bidder will submit to the Civil Rights Office within three (3) work days after the bid opening written confirmation from each DBE participating in the contract as provided in the Prime Contractor's DBE Commitment. The written confirmation will include the following information:

a. A description of the work to be performed (list specific bid items). Listed bid items will be considered committed in their entirety unless Contractors designate otherwise in their DBE commitment.

(1) If mobilization is a bid item that is partially committed, 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 committed to a DBE.

(5) Total dollar amounts (mathematical extensions) for each bid item committed to a DBE

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 they made good faith efforts . 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 will 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 type 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 will be based upon the information and documentation of the actions supplied by the Bidder with their bid proposal. The DEPARTMENT reserves the right to investigate and verify such information or to request the low dollar Bidder clarify information submitted within 7 days of the time of bid. The 7 days will be reduced to 5 days beginning January 1, 2017.

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) Method of contact (i.e. emails, letters, postings, etc.)
(3) Result of contact
(4) Name and contact info of anticipated DBE subcontractor(s)
(5) Anticipated work items to be performed by DBEs
(6) Anticipated dollar amount of subcontract(s)

The DBE information submitted includes the NAICS code applicable to the kind of work the DBE will perform on the contract, and, when a non-DBE subcontractor is selected over a DBE, copies of the quotes from each DBE and non-DBE subcontractor. The bidder will make copies of DBE subcontracts available upon request.

The following items are types of efforts that should be made for acceptable Good Faith Efforts:

(1) Conducting market research and solicit through all reasonable means DBEs with capability to do the proposed work
(2) May include attending pre-bid meetings and matchmaking events
(3) Posting notices; sending emails
(4) Solicit as early as possible
(5) Unbundling
(6) Establishing flexible timeframes

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 Bidding Requirements.

7. Administrative Reconsideration

Good faith efforts as used herein will 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.

b. The Bidder will have the opportunity to provide written documentation or argument concerning whether the goal was met or adequate good faith efforts were made.

c. The Bidder will have the opportunity to meet in person with the reconsideration official to discuss whether the goal was met or adequate good faith efforts were made.

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 or 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 contractors 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. 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.

3. When a DBE bids as a prime contractor and utilizes themselves as a DBE participant, their commitment will be counted as race conscious. The prime contractor is still encouraged to use 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 will 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 established at the time of award by the Contractor's DBE Commitment, without adequate justification, including concurrence of the ENGINEER and Civil Rights Office, will result in the imposition of sanctions as provided in Part I of this Special Provision.

1. Contractors may count toward their contract goals a portion of the total dollar value of a joint venture contract 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.

2. The ENGINEER will recognize and grant DBE credit for work performed by DBE contractors ONLY in the types of work for which DBE certification has been granted by the UUCP prior to bid opening. It is necessary 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 download 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

3. Contractors may count 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.

4. 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.

5. 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 will 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.

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.

6. The DEPARTMENT will 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 as long as the DBE provides the employees for the leased trucks.

   f. A lease must indicate 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.

7. 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 will be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

(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.

8. 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 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., will be submitted to the Resident Engineer or Consultant Engineer at the Preconstruction Conference. The agreement will 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.

9. Prompt payment for the work accomplished is an integral part of the concept of a commercially useful function.

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

10. When a DBE subcontractor is terminated, or fails to complete its work on the contract for any reason, the Contractor must make good faith efforts to find another DBE subcontractor to substitute for the original DBE. Direct these good faith efforts at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal established for the project. Document the good faith efforts. If the Department requests documentation under this provision, submit the documentation within 7 days, which may be extended for an additional 7 days if necessary at the request of the contractor, and the Department will provide a written determination to the contractor stating whether or not good faith efforts have been demonstrated.

Failure by the contractor to carry out the requirements of this part is a material breach of the contract and may result in the termination of the contract or such other remedies set forth in that section you deem appropriate if the prime contractor fails to comply with the requirements of this section.

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 will ascertain 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 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 a DBE subcontractor is unable to perform successfully, the Contractor will 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 will 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 will receive prior approval by the Civil Rights Office.

The Contractor will not substitute DBE subcontractor(s), work item(s), nor decrease dollar amount(s) as indicated in the Contractor's DBE Commitment Substitutions for the **good cause reasons** defined in 49 CFR 26.53 without performing the following steps:

1. Give notice in writing to the DBE subcontractor, with a copy to Civil Rights, of their intent to substitute and the reason of its request.

2. Obtaining a written response from the DBE stating why they would object or oppose to the substitution or decrease. The Contractor must give the DBE five (5) days to respond to the notice of substitution.

3. Obtain Civil Rights Office written consent prior to any substitution, termination or decrease of DBE commitment.

The Contractor will 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 Office.

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.

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. <u>SANCTIONS</u>

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 will be reduced as a disincentive 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 Office.

b. Race neutral participation.

2. The ENGINEER will 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.

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) will be completed in the current bidding 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
(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 the current bidding software. 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

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.

(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)

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.

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DBE BID ASSURANCE

DBE PARTICIPATION

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**, submit DBE Commitment.

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 (when applicable as defined by Section IX, Bid Conditions, D.5) 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 (when project goal is greater than 0.0).

_____ We have not met the advertised DBE Project goal. A Good Faith Effort is required. We have provided the required documentation per 49 CFR, Part 26.53.

Documentation of Good Faith Efforts is not required on a 0.0 percent goal project.

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.

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).

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

18. The need for adequate records and reports
19. Minorities and women reach accumulating work hours expected based on their representation
20. Ensure a workplace free of harassment, intimidation, and coercion

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.

d. Include in the EEO Policy a commitment to provide a workplace free of harassment, intimidation, and coercion; ensure the policy is posted on the project bulletin board; ensure foreman and superintendents are trained in prevention of harassment, intimidation, and coercion; and take other affirmative actions as necessary to satisfy the requirements of 41 CFR 60 4.3.7a. At the time annual registration is due, the contractor will acknowledge that they have a workplace free of harassment, intimidation, and coercion.

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 **Zero (0)** (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.

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 will apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

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 PDBS 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 will 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.

b. OBJECTIVE: Training and upgrading of minorities and women toward journey status is the primary objective of this program. The Contractor will 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 will not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

c. PROJECT TRAINING GOAL: The formula for determining the training goal specified in the Training Special Provision will 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 will submit Form C-130 (Formerly 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 will review annually the training and promotion potential of minority and women employees and will encourage eligible employees to apply for such training and promotion.

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 will 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 Apprenticeship Training 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 C-130 (Formerly 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 C-130 (Formerly 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.

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.

DISINCENTIVES: 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 disincentives to be deducted from the final progress payment:

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DESCRIPTION	**SAMPLE**				
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**	**DISINCENTIVES**
	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 Disincentives**	66,248.00

*The journey worker scale is based on the classification identified in the approved programs submitted previously on the form C-130 (Formerly OJT100).

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(This form C-130 (Formerly OJT100) replaces the required Training Letter of Commitment and is to be completed and submitted to the UDOT Resident Engineer before or at the pre-construction meeting for the project. Form is found on the UDOT web site, Construction forms, DBE, EEO and Labor Forms).

TRAINING COMMITMENT FORM

(This form replaces the required Training Letter of Commitment and is to be completed and submitted to the UDOT Resident Engineer before or at the preconstruction meeting for the project.)

Date: _____

Project # _____ **Location** _____

Company _____

Address _____

City **State** **ZIP** **Phone** _____

Craft/Classification	Training Program	# Trainees	Starting Date	Approx # Hrs

Signature _____ **Title** _____ Date _____

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.

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.

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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 Vl 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 l*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 suh 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-lncome 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).

FHWA-1273 -- Revised May 1, 2012

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
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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.

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

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

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.

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

"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.

(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.

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;

(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.

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.

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 contacting 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.

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

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;

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).

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.

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.

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.

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.

CARGO PREFERENCE ACT (CPA)

DESCRIPTION

The Federal Highway Administration (FHWA) in partnership with the Federal Maritime Administration (MARAD) has mandated the implementation of 46 CFR 381 making the cargo preference requirements applicable to the Federal Aid Highway Program.

The requirements of this Special Provision apply to items transported by ocean vessel.

CONTRACT REQUIREMENTS

A. General

Utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. Gross tonnage is computed separately for dry bulk carriers, dry cargo liners, and tankers.

Furnish a legible, English language copy of a rated ‘on-board’ commercial ocean bill-of-lading for each shipment of cargo described in the previous paragraph. Furnish the bill-of-lading within 20 days following the date of loading for shipments originating in the United States and within 30 working days following the date of loading from shipments originating outside the United States.

Furnish bills-of-lading to the Engineer and to the following:

Division of National Cargo
Office of Market Development
Maritime Administration
Washington, DC 20590

B. Subcontracts

Include the language in Section “A, General” of this Special Provision in all subcontracts issued pursuant to this contract.

Federal Projects With Full Size Plan Sheets

XIV. Wage Rates Applicable

Davis Bacon Wage Rates **ARE** Required.

GENERAL DECISION FILE FOR PROJECTS REPORT

Date: **4/5/2016**

Project #: F-R199(132)

General Decision #: UT20160061 **Modification:** 0 **Publication Date:** 01/08/2016

Counties: CACHE, UT

Note: Under Executive Order (EO) 13658, an hourly minimum wageof $10.15 for calendar year 2016 applies to all contractssubject to the Davis-Bacon Act for which the solicitation wasissued on or after January 1, 2015. If this contract is coveredby the EO, the contractor must pay all workers in anyclassification listed on this wage determination at least$10.15 (or the applicable wage rate listed on this wagedetermination, if it is higher) for all hours spent performingon the contract in calendar year 2016. The EO minimum wage ratewill be adjusted annually. Additional information on contractorrequirements and worker protections under the EO is availableat www.dol.gov/whd/govcontracts.

Contractor Code		Hourly Rate	Fringes
Designation: ELEC0354-010	**Survey Date:** 6/1/2011 00:00:00		
100001	ELECTRICIAN: (Traffic Signal Installation Only)	$27.84	4.30%+8.88
Designation: ENGI0003-070	**Survey Date:** 7/1/2013 00:00:00		
110334	(3) Backhoe Loader Combination	$25.37	15.65
110339	(4) Asphalt Paver, Oil Distributor	$24.37	15.65
110340	(5) Horizontal Directional Drill, Trencher	$23.37	15.65
110332	Crane (35 to 100 tons) -2	$26.99	15.65
110129	Crane (Over 100 tons)	$28.33	15.65
110331	Crane (Under 35 tons) -3	$25.70	15.65
110341	Crane Oiler -5	$22.59	15.65
110342	Crane Piledriver	$27.49	12.40
110211	Operator: Power Equipment: (1) Mechanic	$27.55	15.65
Designation: IRON0027-015	**Survey Date:** 7/1/2015 00:00:00		
120260	IRONWORKER: STRUCTURAL (Excluding Fence Erection)	$26.18	19.10
Designation: IRON0847-001	**Survey Date:** 8/1/2013 00:00:00		
120261	IRONWORKER, REINFORCING	$26.61	11.60

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Contractor Code		Hourly Rate	Fringes
Designation: LABO0295-029	**Survey Date:** 7/1/2014 00:00:0(		
130012	LABORER: (1) Traffic Control, sets cones and barrels	$20.59	8.65
130013	LABORER: (4) Asphalt Shoveler	$21.11	8.65
Designation: SUUT2008-074	**Survey Date:** 9/10/2008 00:00:(		
140241	CARPENTER, Includes Form Work	$15.75	2.80
140015	CEMENT MASON/CONCRETE FINSHER	$14.40	2.41
140285	ELECTRICIAN, Excludes Installation of Traffic Signals	$21.00	0.00
140017	LABORER: Common or General	$11.30	2.73
140018	LABORER: Fence Erector	$12.47	2.84
140019	LABORER: Flagger	$9.03	1.75
140023	LABORER: Grade Checker	$12.30	3.55
140020	LABORER: Landscape	$10.04	2.53
140021	LABORER: Mason Tender-Cement/Concrete	$13.17	3.47
140022	LABORER: Pipelayer	$11.86	3.54
140091	LABORER: Power Tool Operator: (Chain/Concrete Saw, Dirt Compactor (Hand Held), Hand Held Drill and Jackhammer Only)	$13.84	3.13

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Contractor Code		Hourly Rate	Fringes
Designation: SUUT2008-074	**Survey Date:** 9/10/2008 00:00:0		
140026	OPERATOR: Asphalt Roller	$17.21	6.65
140337	OPERATOR: Asphalt/Concrete Laydown	$17.05	4.92
140039	OPERATOR: Backhoe/Excavator/Trackhoe	$20.04	7.27
140278	OPERATOR: Bobcat/Skid Steer/Skid Loader	$12.36	3.31
140327	OPERATOR: Broom/Sweeper	$18.63	5.82
140030	OPERATOR: Bulldozer	$17.56	7.08
140031	OPERATOR: Concrete Finishing Machine	$18.76	6.55
140032	OPERATOR: Concrete Pump, Truck Mounted	$19.18	4.23
140280	OPERATOR: Grader/ Blade	$17.96	6.94
140279	OPERATOR: Loader (Front End)	$17.15	7.08
140033	OPERATOR: Rock Chip Spreader	$16.29	7.08
140034	OPERATOR: Roller (Dirt and Grade Compaction)	$14.13	5.37
140035	OPERATOR: Rotomill	$20.68	6.84

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General Decision #: UT20160061 **Modification:** 0 **Publication Date:** 01/08/2016

Counties: CACHE, UT

Note: Under Executive Order (EO) 13658, an hourly minimum wageof $10.15 for calendar year 2016 applies to all contractssubject to the Davis-Bacon Act for which the solicitation wasissued on or after January 1, 2015. If this contract is coveredby the EO, the contractor must pay all workers in anyclassification listed on this wage determination at least$10.15 (or the applicable wage rate listed on this wagedetermination, if it is higher) for all hours spent performingon the contract in calendar year 2016. The EO minimum wage ratewill be adjusted annually. Additional information on contractorrequirements and worker protections under the EO is availableat www.dol.gov/whd/govcontracts.

Contractor Code		Hourly Rate	Fringes
Designation: SUUT2008-074	**Survey Date:** 9/10/2008 00:00:0		
140036	OPERATOR: Scraper	$17.36	6.49
140037	OPERATOR: Screed	$15.70	4.62
140038	OPERATOR: Tractor	$17.95	7.33
140041	PAINTER (Parking Lot and Highway Striping Only)	$14.05	1.62
Designation: TEAM0222-023	**Survey Date:** 7/1/2015 00:00:0(		
150385	TRUCK DRIVER (Dump Truck, Bottom-end or side) 105 cu. yds. to less than 130 cu. yds	$21.98	10.73
150381	TRUCK DRIVER (Dump Truck, Bottom-end or side) 14 cu. yds. to less than 35 cu. yds	$21.06	10.73
150382	TRUCK DRIVER (Dump Truck, Bottom-end or side) 35 cu. yds. to less than 55 cu. yds	$21.26	10.73
150383	TRUCK DRIVER (Dump Truck, Bottom-end or side) 55 cu. yds. to less than 75 cu. yds	$21.46	10.73
150047	TRUCK DRIVER (Dump Truck, Bottom-end or side) 75 cu. yds. to less than 95 cu. yds	$21.66	10.73
150380	TRUCK DRIVER (Dump Truck, Bottom-end or side) 8 cu. yds. to less than 14 cu. yds	$20.91	10.73
150384	TRUCK DRIVER (Dump Truck, Bottom-end or side) 95 cu. yds. to less than 105 cu. yds	$21.86	10.73
150379	TRUCK DRIVER (Dump Truck, Bottom-end or side) Less than 8 cu. yds	$20.76	10.73
150050	TRUCK DRIVER (Lowboy/Tractor Haul)	$23.83	10.73

GENERAL DECISION FILE FOR PROJECTS REPORT

Date: 4/5/2016

Project #: F-R199(132)

General Decision #: UT20160061 **Modification:** 0 **Publication Date:** 01/08/2016

Counties: CACHE, UT

Note: Under Executive Order (EO) 13658, an hourly minimum wageof $10.15 for calendar year 2016 applies to all contractssubject to the Davis-Bacon Act for which the solicitation wasissued on or after January 1, 2015. If this contract is coveredby the EO, the contractor must pay all workers in anyclassification listed on this wage determination at least$10.15 (or the applicable wage rate listed on this wagedetermination, if it is higher) for all hours spent performingon the contract in calendar year 2016. The EO minimum wage ratewill be adjusted annually. Additional information on contractorrequirements and worker protections under the EO is availableat www.dol.gov/whd/govcontracts.

Contractor Code		Hourly Rate	Fringes
Designation: TEAM0222-023	**Survey Date:** 7/1/2015 00:00:0(		
150051	TRUCK DRIVER (Oil Distribution)	$21.46	10.73
150052	TRUCK DRIVER (Pickup)	$20.59	10.73
150053	TRUCK DRIVER (Sweeper)	$20.91	10.73
150386	TRUCK DRIVER (Water, Fuel & Oil Tank) 1,200 gal. to less than 2,500 gal	$20.76	10.73
150390	TRUCK DRIVER (Water, Fuel & Oil Tank) 10,000 gal. to less than 15,000 gal	$21.71	10.73
150106	TRUCK DRIVER (Water, Fuel & Oil Tank) 15,000 gal. to less than 20,000 gal	$19.66	10.73
150387	TRUCK DRIVER (Water, Fuel & Oil Tank) 2,500 gal. to less than 4,000 gal	$20.91	10.73
150391	TRUCK DRIVER (Water, Fuel & Oil Tank) 20,000 gal. to less than 25,000 gal	$22.31	10.73
150392	TRUCK DRIVER (Water, Fuel & Oil Tank) 25,000 gal. and over	$22.46	10.73
150388	TRUCK DRIVER (Water, Fuel & Oil Tank) 4,000 gal. to less than 6,000 gal	$21.21	10.73
150389	TRUCK DRIVER (Water, Fuel & Oil Tank) 6,000 gal. to less than 10,000 gal	$21.46	10.73
150190	TRUCK DRIVER (Water, Fuel & Oil Tank) less than 1,200 gal	$20.64	10.73

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 1.6, paragraph A and replace with the following:

A. Meet Department requirements for prequalification before submitting a proposal on all projects where the Department Engineer's advertised estimate is greater than or equal to $3 million.
   1. Prequalification information is due at least 10 calendar days before submitting a proposal on projects requiring prequalification.

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 Department 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 submitting a bid. Exception: A Contractor may submit a bid on a Federal-aid highway project if they can become licensed in Utah before beginning construction (notice to proceed).
   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

July 8, 2015

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

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.

G. First day of work must be after spring runoff. Request approval from the Engineer 14 days prior to desired start date.

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	First Day of Work	Substantial Completion	$950	User Cost	45	90

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 $4,750.

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

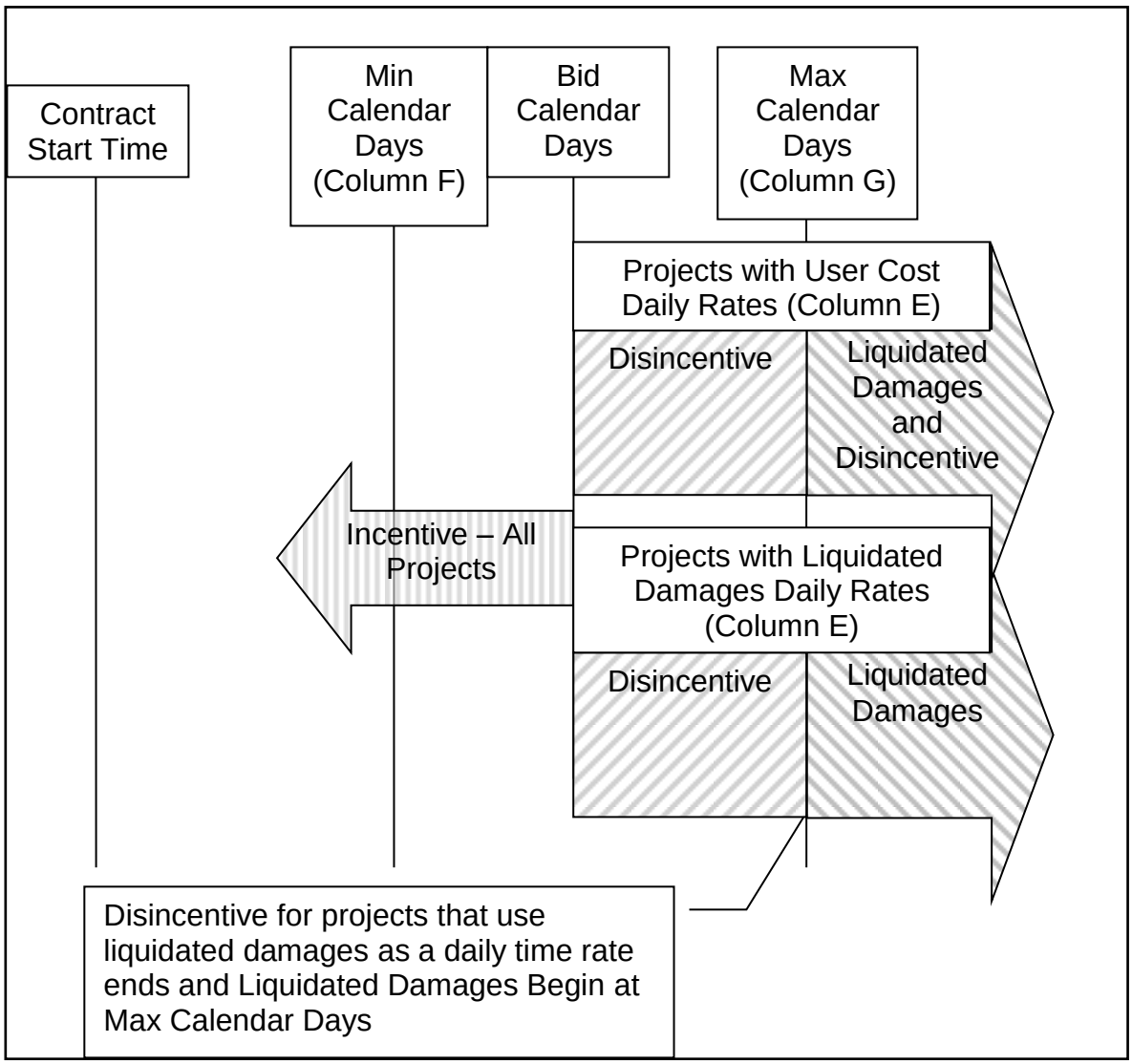

Figure 1 – Timeline of Incentive, Disincentive, and Liquidated Damages

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

END OF SECTION

February 26, 2015

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

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.

Supplemental Specification
2012 Standard Specification Book

SECTION 00515M

CONTRACT AWARD AND EXECUTION

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.

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

B. Qualified Health Benefit Plan
   The Department will issue a Notice to Proceed after the Contractor demonstrates that an offer of qualified health insurance coverage has been or will be maintained for the employees and their dependents for the duration of any contract entered between the Department and the Contractor.
   1. Provide certification of equivalency to a "qualified health insurance" plan as required by Utah Code 72-6-107.5.
   2. Demonstrate compliance of this requirement before the Notice of Proceed or approval to sublet work. Refer to http://www.udot.utah.gov/go/standardsreferences for guidance on this process for Qualified Health Insurance Coverage.
   3. Failure to demonstrate compliance of this requirement may result in cancellation of the contract.
   4. Provide two statements to "demonstrate" compliance. Statements need to be signed originals and on company letterhead. Separate letters for each subsidiary, contracting with Department, are required.
      a. Provide an original signed statement from the Contractor stating that they will maintain an offer of Qualified Health Insurance coverage as required by Utah Code 72-6-107.5 for the duration of any contract between Contractor and UDOT.

b. Provide a written statement of actuarial equivalency from:
   1) The Utah Insurance Department;
   2) An actuary selected by the contractor or the contractor's insurer; or
   3) An underwriter who is responsible for developing the employer group's premium rates.

December 16, 2015

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

SECTION 00555M

PROSECUTION AND PROGRESS

Add the following to Article 1.2 RELATED SECTIONS:

A. Section 01554: Traffic Control

B. Section 02926: Invasive Weed Control

Delete Articles 1.9 and 1.10 and replace with the following:

1.9 BASELINE CONSTRUCTION SCHEDULE

A. Provide the Engineer with a baseline construction schedule meeting the requirements of this section. The schedule format is at the Contractor's discretion. Possible options include:
   1. A schedule created using spreadsheet software
   2. A schedule using Oracle's Primavera P6 or any scheduling software

B. Schedule
   1. Provide the Engineer the baseline construction schedule with schedule narrative within 14 calendar days of the Notice to Proceed.
      a. Provide one hard copy and one electronic copy, if applicable, in a format acceptable to the Engineer.
   2. The Engineer reviews the schedule within 7 calendar days then meets with the Contractor to discuss any concerns.
   3. Complete the final baseline schedule and obtain Engineer's acceptance within 15 calendar days from Notice to Proceed.
      a. Address the Engineer's comments and revise the schedule as necessary to obtain acceptance.
      b. No progress payments are made before the Engineer Accepts the baseline construction schedule.
   4. The Contractor is solely responsible for planning and executing the work. Engineer's acceptance of the baseline schedule does not:
      a. Imply approval of any particular construction methods or relieve the Contractor's responsibility to provide sufficient

materials, equipment, and labor to guarantee the completion of the project according to the contract.

b. Attest to the validity of assumptions, activities, relationships, sequences, resource allocations, or any other aspect of the baseline construction schedule.

5. Failure to include any element of work required by the contract in the accepted baseline construction schedule does not relieve the Contractor's responsibility to perform such work.
6. The baseline construction schedule does not modify the contract requirements.

C. Schedule Requirements

Address the following:

1. Define a complete and logical plan, consistent with how the project was bid, that can realistically accomplish the work defined in the contract.
2. Include sufficient activities for adequate planning.
3. Define the continuous critical path. Begin at Notice to Proceed and end at Physical Completion.
4. Clearly and uniquely define each activity.
5. Define the duration of each activity.
6. Clearly identify the relationships or order of activities.

D. Schedule Narrative Requirements

1. Provide a schedule narrative that describes:
   a. The construction philosophy supporting the approach to the work outlined in the schedule.
   b. Potential problems that may impact the scheduled completion date along with proposed solutions.
   c. Coordination requirements with other entities.
   d. Production rates and crew requirements, as bid by the contractor, for all major activities.
   e. The work calendar used (like calendar days or work days) and holidays taken.
2. Certify that the baseline schedule represents how the work was bid or explain how it is different.

E. All costs to maintain the project schedule are solely the Contractor's obligation and at no additional cost to the Department.

1.10 CONSTRUCTION SCHEDULE UPDATES

A. Update the construction schedule regularly at intervals agreed to by the Engineer.

1. Show actual start and finish dates
2. Show impact of issues encountered

B. Provide the Engineer with one hard copy and one electronic (if appropriate).

C. Meet with the Engineer within seven calendar days of the update submittal to discuss all schedule related issues; specifically issues that may result in a request for added time or additional costs.

Add the following to Article 1.11 LIMITATION OF OPERATIONS:

1.11 LIMITATION OF OPERATIONS

D. Contractor will be provided the draft SWPPP plan at the Pre-Construction Conference. The Contractor is required to file a Notice of Intent (NOI) with the Utah Department of Water Quality, which will serve as the application for the UPDES permit. (See Section 01571) Submit a Notice of Termination (NOT) at the end of construction in similar manner as the NOI under the review and approval of the Engineer. The NOI and NOT forms and instructions can be obtained through the State Division of Water Quality's website: http://waterquality.utah.gov/updes/stormwater.htm.

E. Environment Commitments
   1. Air Quality – See Section 01572
   2. Cultural – Refer to Memorandum of Agreement for adverse effects and see Section 01355
   3. Invasive Species – See Section 02924S
   4. Hazardous Material – See Section 01355
   5. Water Quality – Obtain an UPDES and implement and comply with the SWPPP, the stream alteration permits (see Section 1.20), and the U.S. Army Corps of Engineers permit.

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

A. Contract time begins after spring runoff. Request approval from the Engineer 14 days prior to desired start date.

Add Article 1.19 Stream Alteration Permits:

1.19 STREAM ALTERATION PERMITS

A. Little Bear River Stream Alteration Permit:

GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Water Rights
KENT L. JONES
State Engineer/Division Director

ORDER OF THE STATE ENGINEER

FOR STREAM ALTERATION APPLICATION NUMBER **15-25-05SA**
IN THE NAME OF CACHE COUNTY PUBLIC WORKS FOR ALTERATION
TO LITTLE BEAR RIVER IN CACHE COUNTY, UTAH

This **ORDER** is issued pursuant to statute and in accord with the statutory criteria for approval of a stream alteration application that are described at UTAH CODE ANN. § 73-3-29. The State Engineer has determined that this application does meet the necessary legal criteria to **ORDER** the approval of the application based upon the following information and reasoning set forth in the Findings of Fact and Discussion.

FINDINGS OF FACT

1. The application was received by the Division of Water Rights ("Division") on June 15, 2015, and made available for comment on the Division's webpage, provided to pertinent governmental agencies, and to other entities as warranted, for a period of 20 calendar days, said period concluding prior to July 5, 2015.

2. The application contains the following information:
   - The stated description of the proposed project is: Repair/maintenance of bridge associated with Little Bear River in Cache County.
   - The stated purpose of the proposed project is: To improve safety.

3. The Division received comments or objections on the proposed project from:
   - UDWiR - Utah Division of Wildlife Resources, Bill James
   - USACE - U.S. Army Corps of Engineers (Corps), Hollis Jencks

   The comments or objections received by the Division are summarized as follows:
   - UDWiR requests that on-site decontamination be carried out for any equipment coming in contact with water and/or sediments. They indicated that the Little Bear drainage has tested positive for whirling disease, and may contain unspecified Aquatic Invasive Species (AIS). They also noted that high pressure spraying with water of no less than 140 degrees Fahrenheit will kill AIS and prevent the spread of pathogens to other areas where the same equipment would be used. For further info regarding the above, you can contact Kent Sorenson at 801-643-8342.
   - The Corps has indicated that this project qualifies under PGP40.

UTAH DNR WATER RIGHTS

1594 West North Temple, Suite 220, PO Box 146300, Salt Lake City, UT 84114-6300
telephone (801) 538-7240 • facsimile (801) 538-7467 • TTY (801) 538-7458 • www.waterrights.utah.gov

DISCUSSION

1. Based on a review of the Division's water rights records and/or a review of the application by personnel of the Division's regional office, it is the opinion of the State Engineer that the project will not impair vested water rights.

2. It is the opinion of the State Engineer that the project will not unreasonably or unnecessarily affect recreational use or the natural stream environment.

3. It is the opinion of the State Engineer that the project will not unreasonably or unnecessarily endanger aquatic wildlife.

4. It is the opinion of the State Engineer that the project will not unreasonably or unnecessarily diminish the natural channel's ability to conduct high flows.

5. Other comments or concerns submitted by interested persons or parties are not believed to be within the purview of the State Engineer in evaluating an Application to Alter a Natural Stream.

ORDER

Stream Alteration Application No. **15-25-05SA**, submitted in the name of Cache County Public Works, applicant, in order to complete repair/maintenance of bridge associated with Little Bear River, a natural stream located in Cache County, Utah, is hereby APPROVED, contingent upon the conditions outlined in this **ORDER**. This approval also constitutes compliance with Section 404 (e) of the Clean Water Act (33 USC 1344) pursuant to Programmatic General Permit 040 issued to the State of Utah by the U.S. Army Corps of Engineers on January 3, 2011 and is subject to all conditions therein. Full text of Programmatic General Permit 040 can be found at the following link: http://www.waterrights.utah.gov/strmalt/whitepapers/PGP40.pdf. The applicant is hereby authorized to conduct the work detailed in the application and supporting documentation, as described in this **ORDER**. Any modification or addition to the work may require additional authorization and/or application resubmittal.

1. The expiration date of this order is **January 3, 2016**. If work has been initiated or is under contract prior to January 3, 2016, then this order expires on January 3, 2017. Work affecting the bed and/or banks of the stream may not be conducted after the expiration date. Extension of the order is subject to reverification by the U.S. Army Corps of Engineers and review by the Division. A request for extension must be submitted in writing to the Division and include an explanation for project delay. The request must be submitted at least 30 days prior to expiration of the order.

2. A copy of this order must be kept onsite at any time the work authorized under this order is in progress.

3. We suggest that you coordinate with potentially impacted landowners.

4. Photos must be taken before and after project construction and submitted to this office.

5. Be cognizant of inadvertent consequences from bank hardening such as changes in sediment movement and deposition patterns in and near the activity area, impacts to fish, wildlife and plant species, and likely impact the work would have on upstream and downstream (and across stream) properties. Riprap should be installed along with woody vegetation in and around the area so root mass can hold soil.

6. Disturbed areas must be planted with a variety of appropriate vegetation (especially woody vegetation where feasible) to help hold the soil around riprap, prevent excessive erosion, and to help maintain other riverine functions. Successful revegetation efforts must be monitored and reported to this office.

7. Best Management Practices should be implemented and maintained during any streamside or instream work to minimize sedimentation, temporary erosion of stream banks, and needless damage or alteration to the streambed.

8. Excavated material and construction debris may not be wasted in any stream channel or placed in flowing waters, this will include material such as grease, oil, joint coating, or any other possible pollutant. Excess materials must be wasted at an upland site well away from any channel. Construction materials, bedding material, excavated material, etc. may not be stockpiled in riparian or channel areas.

9. Erosion control, revegetation, and noxious weed control must be implemented and monitored until revegetation becomes well established. Success of these measures must also be reported prior to the compliance inspection. This is especially important for all disturbed areas, including fill, in order to prevent sediments from entering flowing water. Particular attention is required to assure that silt fencing is properly installed and left in place until after revegetation becomes established at which time the silt fence can then be carefully removed.

10. Ingress and egress access should be kept to a minimum.

11. Work must be accomplished during a period of low flow. Sediment introduced into stream flows during construction must be controlled to prevent increases in turbidity downstream. Flows must be diverted away from the construction area using a non-erodible cofferdam or other means of bypass.

12. Machinery must be properly cleaned and fueled offsite prior to construction.

13. Riprap must consist of only clean, properly sized angular rock, which must be keyed deeply into the streambed to prevent undercutting. A filter must be placed behind if necessary (i.e., if soils are fine grained, non-cohesive, and/or erodible). Demolition debris or refuse will not be allowed, nor material such as bricks, concrete, asphaltic material [either natural (tar sand, oil shale, etc.) or man-made].

14. Approval of this application does not authorize trespass, easements, rights-of-way, or any other access and land use permits. It is the responsibility of the applicant to obtain any such authorizations as may be necessary for this proposal.

15. The applicant must maintain existing stream shade on all Class 3 A streams. Destruction of any stream shade vegetation within the project area must be replaced at a 1:1 shade ratio at mature life stage with native vegetation along a Class 3 A stream. If stream shade vegetation is to be removed, the applicant must submit an estimate in their restoration plan of the portion of the water surface area within the project area that is shaded by estimating areas with no shade, poor shade, and shade prior to the commencement of work. Time of the year, time of the day, and weather can affect your observation of shading. Therefore, the relative amount of shade is a professional best-guess estimate. Ideally the applicant would be measuring when the sun is at an angle that provides maximum stream shade and the vegetation is in full leaf-out. As noted in General Condition #6 of PGP 40 the destruction of mature trees is to be avoided to the maximum extent possible and the permittee is ultimately responsible for revegetation success.

16. Within 30 days after the completion of this project, the attached compliance certification form must be completed and returned to the U.S. Army Corps of Engineers. Failure to return this compliance certification form would invalidate U.S. Army Corps of Engineers General Permit 040, thereby placing the applicant in violation of Section 404 of the Clean Water Act.

Your contact with the Division is Daren Rasmussen, who can be reached at telephone number 801-538-7377.

This **ORDER** is subject to the provisions of UTAH ADMIN. CODE R. 655-6-17 of the Division of Water Rights and to UTAH CODE ANN. §§ 63G-4-302 and 73-3-14, which provide for persons or parties with legal standing to file either a Request for Reconsideration with the State Engineer or an appeal with the appropriate District Court. A Request for Reconsideration must be filed with the State Engineer within 20 days of the date of this **ORDER**. However, a Request for Reconsideration is not a prerequisite to filing a court appeal. A court appeal must be filed within 30 days after the date of this **ORDER**, or if a Request for Reconsideration has been filed, within 30 days after the date the Request for Reconsideration is denied. A Request for Reconsideration is considered denied when no action is taken within 20 days after the Request is filed.

Dated this 14th day of December, 2015.

David K. Marble, P.E.
Assistant State Engineer

Enclosure

Mailed a copy of the foregoing Order this 14th day of December, 2015, to:

CACHE COUNTY PUBLIC WORKS
179 NORTH MAIN STREET, SUITE 305
LOGAN UT 84321

Corps of Engineers
Will Atkin - Regional Engineer
Richard Clark - EPA
Scott Walker - Regional Wildlife Habitat Manager
John Powell - J-U-B Engineers, Inc.
Bill James - Utah Division of Wildlife Resources

By: Tiffany Gonzales
Tiffany Gonzales
Secretary

COMPLIANCE CERTIFICATION

Programmatic General Permit Number: **40**

Stream Alteration Number: _____

Corps Project Identification Number: _____
(Corps Use Only)

Permittee's Name and Address: _____

_____

County Location of Permitted Activity: _____

Within 30 days after completion of the activity authorized by this permit, please sign and return this certification to the following address:

U.S. Army Corps of Engineers
Intermountain Regulatory Section
533 West 2600 South, Suite 150
Bountiful, UT 84010

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers' representative. If you fail to comply with the terms and conditions of the permit, your authorization may be suspended, modified or revoked. If you have any questions about this certification, please contact the Corps of Engineers at 801-295-8380.

* * *

I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.

_____
Signature of Permittee **Date**

B. Cub River Stream Alteration Permit:

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Water Rights

KENT L. JONES
State Engineer/Division Director

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

ORDER OF THE STATE ENGINEER

FOR STREAM ALTERATION APPLICATION NUMBER **15-25-04SA**
IN THE NAME OF CACHE COUNTY PUBLIC WORKS FOR ALTERATION
TO CUB RIVER IN CACHE COUNTY, UTAH

This **ORDER** is issued pursuant to statute and in accord with the statutory criteria for approval of a stream alteration application that are described at UTAH CODE ANN. § 73-3-29. The State Engineer has determined that this application does meet the necessary legal criteria to **ORDER** the approval of the application based upon the following information and reasoning set forth in the Findings of Fact and Discussion.

FINDINGS OF FACT

1. The application was received by the Division of Water Rights ("Division") on June 15, 2015, and made available for comment on the Division's webpage, provided to pertinent governmental agencies, and to other entities as warranted, for a period of 20 calendar days, said period concluding prior to July 5, 2015.

2. The application contains the following information:
   - The stated description of the proposed project is: Repair/maintenance of bridge associated with Cub River in Cache County.
   - The stated purpose of the proposed project is: To provide increased safety.

3. The Division received comments or objections on the proposed project from:
   - USACE, U.S. Army Corps of Engineers (Corps), Hollis Jencks

   The comments or objections received by the Division are summarized as follows:
   - The Corps has indicated that this project qualifies under PGP40.

DISCUSSION

1. Based on a review of the Division's water rights records and/or a review of the application by personnel of the Division's regional office, it is the opinion of the State Engineer that the project will not impair vested water rights.

2. It is the opinion of the State Engineer that the project will not unreasonably or unnecessarily affect recreational use or the natural stream environment.

3. It is the opinion of the State Engineer that the project will not unreasonably or unnecessarily endanger aquatic wildlife.

1594 West North Temple, Suite 220, PO Box 146300, Salt Lake City, UT 84114-6300
telephone (801) 538-7240 • facsimile (801) 538-7467 • TTY (801) 538-7458 • www.waterrights.utah.gov

4. It is the opinion of the State Engineer that the project will not unreasonably or unnecessarily diminish the natural channel's ability to conduct high flows.

5. Other comments or concerns submitted by interested persons or parties are not believed to be within the purview of the State Engineer in evaluating an Application to Alter a Natural Stream.

ORDER

Stream Alteration Application No. **15-25-04SA**, submitted in the name of Cache County Public Works, applicant, in order to complete repair/maintenance of bridge associated with Cub River, a natural stream located in Cache County, Utah, is hereby APPROVED, contingent upon the conditions outlined in this **ORDER**. This approval also constitutes compliance with Section 404 (e) of the Clean Water Act (33 USC 1344) pursuant to Programmatic General Permit 040 issued to the State of Utah by the U.S. Army Corps of Engineers on January 3, 2011 and is subject to all conditions therein. Full text of Programmatic General Permit 040 can be found at the following link: http://www.waterrights.utah.gov/strmalt/whitepapers/PGP40.pdf. The applicant is hereby authorized to conduct the work detailed in the application and supporting documentation, as described in this **ORDER**. Any modification or addition to the work may require additional authorization and/or application resubmittal.

1. The expiration date of this order is **January 3, 2016**. If work has been initiated or is under contract prior to January 3, 2016, then this order expires on January 3, 2017. Work affecting the bed and/or banks of the stream may not be conducted after the expiration date. Extension of the order is subject to reverification by the U.S. Army Corps of Engineers and review by the Division. A request for extension must be submitted in writing to the Division and include an explanation for project delay. The request must be submitted at least 30 days prior to expiration of the order.

2. A copy of this order must be kept onsite at any time the work authorized under this order is in progress.

3. We suggest that you coordinate with potentially impacted landowners.

4. Photos must be taken before and after project construction and submitted to this office.

5. Be cognizant of inadvertent consequences from bank hardening such as changes in sediment movement and deposition patterns in and near the activity area, impacts to fish, wildlife and plant species, and likely impact the work would have on upstream and downstream (and across stream) properties. Riprap should be installed along with woody vegetation in and around the area so root mass can hold soil.

6. Machinery must be properly cleaned and fueled offsite prior to construction.

7. Disturbed areas must be planted with a variety of appropriate vegetation (especially woody vegetation where feasible) to help hold the soil around riprap, prevent excessive erosion, and to help maintain other riverine functions. Successful revegetation efforts must be monitored and reported to this office.

8. Best Management Practices should be implemented and maintained during any streamside or instream work to minimize sedimentation, temporary erosion of stream banks, and needless damage or alteration to the streambed.

9. Approval of this application does not authorize trespass, easements, rights-of-way, or any other access and land use permits. It is the responsibility of the applicant to obtain any such authorizations as may be necessary for this proposal.

10. Excavated material and construction debris may not be wasted in any stream channel or placed in flowing waters, this will include material such as grease, oil, joint coating, or any other possible pollutant. Excess materials must be wasted at an upland site well away from any channel. Construction materials, bedding material, excavated material, etc. may not be stockpiled in riparian or channel areas.

11. Erosion control, revegetation, and noxious weed control must be implemented and monitored until revegetation becomes well established. Success of these measures must also be reported prior to the compliance inspection. This is especially important for all disturbed areas, including fill, in order to prevent sediments from entering flowing water. Particular attention is required to assure that silt fencing is properly installed and left in place until after revegetation becomes established at which time the silt fence can then be carefully removed.

12. Ingress and egress access should be kept to a minimum.

13. Work must be accomplished during a period of low flow. Sediment introduced into stream flows during construction must be controlled to prevent increases in turbidity downstream. Flows must be diverted away from the construction area using a non-erodible cofferdam or other means of bypass.

14. Riprap must consist of only clean, properly sized angular rock, which must be keyed deeply into the streambed to prevent undercutting. A filter must be placed behind if necessary (i.e., if soils are fine grained, non-cohesive, and/or erodible). Demolition debris or refuse will not be allowed, nor material such as bricks, concrete, asphaltic material [either natural (tar sand, oil shale, etc.) or man-made].

15. Disturbed riparian areas must be planted with naturally occurring vegetation. Plantings shall be protected from grazing animals by fencing. If beaver or other rodent damage should occur, other methods such as metal collars placed around the trees must be included.

16. The applicant must maintain existing stream shade on all Class 3 A streams. Destruction of any stream shade vegetation within the project area must be replaced at a 1:1 shade ratio at mature life stage with native vegetation along a Class 3 A stream. If stream shade vegetation is to be removed, the applicant must submit an estimate in their restoration plan of the portion of the water surface area within the project area that is shaded by estimating areas with no shade, poor shade, and shade prior to the commencement of work. Time of the year, time of the day, and weather can affect your observation of shading. Therefore, the relative amount of shade is a professional best-guess estimate. Ideally the applicant would be measuring when the sun is at an angle that provides maximum stream shade and the vegetation is in full leaf-out. As noted in General Condition #6 of PGP 40 the destruction of mature trees is to be avoided to the maximum extent possible and the permittee is ultimately responsible for revegetation success.

17. Within 30 days after the completion of this project, the attached compliance certification form must be completed and returned to the U.S. Army Corps of Engineers. Failure to return this compliance certification form would invalidate U.S. Army Corps of Engineers General Permit 040, thereby placing the applicant in violation of Section 404 of the Clean Water Act.

Your contact with the Division is Daren Rasmussen, who can be reached at telephone number 801-538-7377.

This **ORDER** is subject to the provisions of UTAH ADMIN. CODE R. 655-6-17 of the Division of Water Rights and to UTAH CODE ANN. §§ 63G-4-302 and 73-3-14, which provide for persons or parties with legal standing to file either a Request for Reconsideration with the State Engineer or an appeal with the appropriate District Court. A Request for Reconsideration must be filed with the State Engineer within 20 days of the date of this **ORDER**. However, a Request for Reconsideration is not a prerequisite to filing a court appeal. A court appeal must be filed within 30 days after the date of this **ORDER**, or if a Request for Reconsideration has been filed, within 30 days after the date the Request for Reconsideration is denied. A Request for Reconsideration is considered denied when no action is taken within 20 days after the Request is filed.

Dated this 14th day of December, 2015.

David K. Marble, P.E.
Assistant State Engineer

Enclosure

Mailed a copy of the foregoing Order this 14th day of December, 2015, to:

CACHE COUNTY PUBLIC WORKS
179 NORTH MAIN STREET, SUITE 305
LOGAN UT 84321

Corps of Engineers
Will Atkin - Regional Engineer
Richard Clark - EPA
Scott Walker - Regional Wildlife Habitat Manager
John Powell - J-U-B Engineers, Inc.

By: Tiffany Gonzales
Tiffany Gonzales
Secretary

COMPLIANCE CERTIFICATION

Programmatic General Permit Number: **40**

Stream Alteration Number: _____

Corps Project Identification Number: _____
(Corps Use Only)

Permittee's Name and Address: _____

_____

County Location of Permitted Activity: _____

Within 30 days after completion of the activity authorized by this permit, please sign and return this certification to the following address:

U.S. Army Corps of Engineers
Intermountain Regulatory Section
533 West 2600 South, Suite 150
Bountiful, UT 84010

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers' representative. If you fail to comply with the terms and conditions of the permit, your authorization may be suspended, modified or revoked. If you have any questions about this certification, please contact the Corps of Engineers at 801-295-8380.

* * *

I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.

_____
Signature of Permittee **Date**

C. Newton Creek Stream Alteration Permit:

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Water Rights

KENT L. JONES
State Engineer/Division Director

ORDER OF THE STATE ENGINEER

FOR STREAM ALTERATION APPLICATION NUMBER **15-25-06SA**
IN THE NAME OF CACHE COUNTY PUBLIC WORKS FOR ALTERATION
TO NEWTON CREEK IN CACHE COUNTY, UTAH

This **ORDER** is issued pursuant to statute and in accord with the statutory criteria for approval of a stream alteration application that are described at UTAH CODE ANN. § 73-3-29. The State Engineer has determined that this application does meet the necessary legal criteria to **ORDER** the approval of the application based upon the following information and reasoning set forth in the Findings of Fact and Discussion.

FINDINGS OF FACT

1. The application was received by the Division of Water Rights ("Division") on June 15, 2015, and made available for comment on the Division's webpage, provided to pertinent governmental agencies, and to other entities as warranted, for a period of 20 calendar days, said period concluding prior to July 5, 2015.

2. The application contains the following information:
   - The stated description of the proposed project is: Repair/maintenance of bridge associated with Newton Creek in Cache County.
   - The stated purpose of the proposed project is: To improve integrity/safety.

3. The Division received comments or objections on the proposed project from:
   - USACE - U.S. Army Corps of Engineers (Corps), Hollis Jencks

   The comments or objections received by the Division are summarized as follows:
   - The Corps has indicated that separate Corps permitting is required. For more information, Hollis Jencks can be contacted at 801-295-8380 extension 13 or at hollis.g.jencks@usace.army.mil.

DISCUSSION

1. Based on a review of the Division's water rights records and/or a review of the application by personnel of the Division's regional office, it is the opinion of the State Engineer that the project will not impair vested water rights.

2. It is the opinion of the State Engineer that the project will not unreasonably or unnecessarily affect recreational use or the natural stream environment.

1594 West North Temple, Suite 220, PO Box 146300, Salt Lake City, UT 84114-6300
telephone (801) 538-7240 • facsimile (801) 538-7467 • TTY (801) 538-7458 • *www.waterrights.utah.gov*

3. It is the opinion of the State Engineer that the project will not unreasonably or unnecessarily endanger aquatic wildlife.

4. It is the opinion of the State Engineer that the project will not unreasonably or unnecessarily diminish the natural channel's ability to conduct high flows.

5. Other comments or concerns submitted by interested persons or parties are not believed to be within the purview of the State Engineer in evaluating an Application to Alter a Natural Stream.

ORDER

Stream Alteration Application No. **15-25-06SA**, submitted in the name of Cache County Public Works, applicant, in order to complete repair/maintenance of bridge associated with Newton Creek, a natural stream located in Cache County, Utah, is hereby APPROVED, as a STATE ONLY PERMIT, contingent upon the conditions outlined in this **ORDER**. The applicant is hereby authorized to conduct the work detailed in the application and supporting documentation, as described in this **ORDER**. Any modification or addition to the work may require additional authorization and/or application resubmittal.

1. The expiration date of this order is **December 14, 2017**. Work affecting the bed and/or banks of the stream may not be conducted after the expiration date. A request for extension must be submitted in writing to the Division and include an explanation for project delay. The request must be submitted at least 30 days prior to expiration of the order.

2. A copy of this order must be kept onsite at any time the work authorized under this order is in progress.

3. We suggest that you coordinate with potentially impacted landowners.

4. Photos must be taken before and after project construction and submitted to this office.

5. Be cognizant of inadvertent consequences from bank hardening such as changes in sediment movement and deposition patterns in and near the activity area, impacts to fish, wildlife and plant species, and likely impact the work would have on upstream and downstream (and across stream) properties. Riprap should be installed along with woody vegetation in and around the area so root mass can hold soil.

6. Excavated material and construction debris may <u>not</u> be wasted in any stream channel or placed in flowing waters, this will include material such as grease, oil, joint coating, or any other possible pollutant. Excess materials must be wasted at an upland site well away from any channel. Construction materials, bedding material, excavated material, etc. may <u>not</u> be stockpiled in riparian or channel areas.

7. Machinery must be properly cleaned and fueled offsite prior to construction.

8. Disturbed areas must be planted with a variety of appropriate vegetation (especially woody vegetation where feasible) to help hold the soil around riprap, prevent excessive erosion, and to help maintain other riverine functions. Successful revegetation efforts must be monitored and reported to this office.

9. Best Management Practices should be implemented and maintained during any streamside or instream work to minimize sedimentation, temporary erosion of stream banks, and needless damage or alteration to the streambed.

10. Approval of this application does not authorize trespass, easements, rights-of-way, or any other access and land use permits. It is the responsibility of the applicant to obtain any such authorizations as may be necessary for this proposal.

11. Erosion control, revegetation, and noxious weed control must be implemented and monitored until revegetation becomes well established. Success of these measures must also be reported prior to the compliance inspection. This is especially important for all disturbed areas, including fill, in order to prevent sediments from entering flowing water. Particular attention is required to assure that silt fencing is properly installed and left in place until after revegetation becomes established at which time the silt fence can then be carefully removed.

12. Ingress and egress access should be kept to a minimum.

13. Work must be accomplished during a period of low flow. Sediment introduced into stream flows during construction must be controlled to prevent increases in turbidity downstream. Flows must be diverted away from the construction area using a non-erodible cofferdam or other means of bypass.

14. Riprap must consist of only clean, properly sized angular rock, which must be keyed deeply into the streambed to prevent undercutting. A filter must be placed behind if necessary (i.e., if soils are fine grained, non-cohesive, and/or erodible). Demolition debris or refuse will not be allowed, nor material such as bricks, concrete, asphaltic material [either natural (tar sand, oil shale, etc.) or man-made].

Your contact with the Division is Daren Rasmussen, who can be reached at telephone number 801-538-7377.

This **ORDER** is subject to the provisions of UTAH ADMIN. CODE R. 655-6-17 of the Division of Water Rights and to UTAH CODE ANN. §§ 63G-4-302 and 73-3-14, which provide for persons or parties with legal standing to file either a Request for Reconsideration with the State Engineer or an appeal with the appropriate District Court. A Request for Reconsideration must be filed with the State Engineer within 20 days of the date of this **ORDER**. However, a Request for Reconsideration is not a prerequisite to filing a court appeal. A court appeal must be filed within 30 days after the date of this **ORDER**, or if a Request for Reconsideration has been filed, within 30 days after the date the Request for Reconsideration is denied. A Request for Reconsideration is considered denied when no action is taken within 20 days after the Request is filed.

Dated this 14th day of December, 2015.

David K. Marble, P.E.
Assistant State Engineer

Mailed a copy of the foregoing Order this 14th day of December, 2015, to:

CACHE COUNTY PUBLIC WORKS
179 NORTH MAIN STREET, SUITE 305
LOGAN UT 84321

Corps of Engineers
Will Atkin - Regional Engineer
Richard Clark - EPA
Scott Walker - Regional Wildlife Habitat Manager
John Powell - J-U-B Engineers, Inc.

By: Tiffany Gonzales
Tiffany Gonzales
Secretary

COMPLIANCE CERTIFICATION

Programmatic General Permit Number: **40**

Stream Alteration Number: _____

Corps Project Identification Number: _____
(Corps Use Only)

Permittee's Name and Address: _____

_____

County Location of Permitted Activity: _____

Within 30 days after completion of the activity authorized by this permit, please sign and return this certification to the following address:

U.S. Army Corps of Engineers
Intermountain Regulatory Section
533 West 2600 South, Suite 150
Bountiful, UT 84010

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers' representative. If you fail to comply with the terms and conditions of the permit, your authorization may be suspended, modified or revoked. If you have any questions about this certification, please contact the Corps of Engineers at 801-295-8380.

* * *

I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.

_____
Signature of Permittee **Date**

Supplemental Specification
2012 Standard Specification Book

SECTION 00570M

DEFINITIONS

Delete Article 1.2 and replace with the following:

1.2 Related Sections

A. Section 00725: Scope of Work

B. Section 01280: Measurement

C. Section 01282: Payment

Add Article 1.3, paragraph B:

B. UDOT Specification Writers' Guide

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 (l).
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. Contract designated holidays or days restricted in the contract.
    b. Days when the Contractor is specifically required by the contract or letter from the Engineer to suspend operations through no fault of the Contractor.
    c. 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 for at least 50 percent of the normal working day.
        2) The day may be considered a working day even though conditions may improve and the major portion of the day could be considered suitable for operations if weather stops the Contractor's crew from beginning work at the normal starting hour and the crew is released as a result.
    d. Saturdays and Sundays for submittals and notifications.

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.

March 12, 2015

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

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

Delete Article 1.5 and replace with the following:

1.5 SUBMITTALS

A. Refer to this Section, article 1.7, paragraph C.

Delete Article 1.7 and replace with the following:

1.7 PARTNERING

A Implement partnering according to the Partnering Field Guide. Refer to http://www.udot.utah.gov/go/standardsreferences.

B. Share all partnering costs equally with the Department.

C. Submit certificates for all required individuals, as listed in the Partnering Field Guide before execution of the first month's construction estimate. Failure to comply will result in 25 percent of the first estimates Mobilization payment up to $25,000 being withheld until all individuals have completed the required training.

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.

Supplemental Specification
2012 Standard Specification Book

SECTION 00727M

CONTROL OF WORK

Delete Article 1.26 and 1.27 and replace with the following:

1.26 CLAIMS HIGHER LEVEL REVIEW

A. Make a good-faith effort to settle the claim by utilizing the Partnering Escalation Ladder identified in the Partnering Field Guide prior to submitting a claim and requesting a meeting with the Claims Review Board.

B. Submit a written request for a higher-level review to the Engineer within 10 calendar days after receiving the Engineer's decision or offer if not accepting the Engineer's denial of a claim, or a settlement offer. Attach to the written request for a higher-level review all required information. Refer to this Section, Article 1.23, paragraph D.

C. Failure to submit a request within this 10-day time frame is considered acceptance of the Engineer's claim denial or offer.

1.27 CLAIMS REVIEW BOARD

A. A Claim will be referred to the Claims Review Board (CRB) when requested by the Contractor as provided in this Section.

B. The purpose of the CRB is to provide an independent and impartial review of submitted claims, written findings, and recommendations to the Department's Deputy Director.

C. Scheduling a hearing or utilizing the CRB does not relieve the Contractor or Department of complying with all Contract terms and conditions, and does not waive any notice or timeliness requirements. Proceed diligently with all work during the CRB process.

D. The Director of Construction or designee schedules a hearing before the CRB when deemed to be in the best interest of both the Contractor and the Department based on the Contractor's request for a higher-level review.
   1. The claim may be presented informally with or without legal counsel.

2. Notify the Department at least 10 calendar days before the meeting when using legal counsel.
3. Legal counsel will be allowed to attend the presentation, and will be allowed to make brief opening and closing remarks and advise their clients. No other participation by legal counsel at the presentation will be permitted.

E. Parties will bear their own costs.
1. All costs associated with preparation and participation in the CRB meeting will be the responsibility of each party.
2. The Contractor will not receive compensation for travel, time, research activities, time away from the project, presentation preparation, presentation time or any other activities associated with the preparation for or participation in the CRB process.

F. Pre-presentation Requirements

1. The Department and the Contractor will prepare concise written statements describing the claim and each party's position with reasoning and submit to the Project Controls Engineer who will distribute them to the other party a minimum of 7 calendar days before the scheduled presentation.
2. The parties will submit their visual presentation to the Project Controls Engineer who will distribute it to the other party a minimum of 7 calendar days before the scheduled presentation, if either party chooses to prepare a visual presentation.

G. Presentation
1. The party that is in attendance will prevail in their position on the claim if either the Department or the Contractor fails to appear before the CRB on the date and time scheduled for the presentation without justifiable cause.
2. The Contractor will submit their position first, followed by the Department.
3. The duration of each party's presentation will be determined when the Claim meeting is scheduled and will be agreed to by both parties.
   a. The duration may vary depending on the complexity and size of the claim.
4. Only information or claims related to the Contractor's original claim may be discussed in the hearing.
   a. No new information may be submitted.
   b. The CRB will inform the party that no additional information or claims are permitted if the Contractor or Department attempts to submit new information.

5. Recording the meeting by tape, court reporter, or video is prohibited.
6. This presentation is informal, allowing for the Contractor and Department to present their positions, and for all parties to exchange questions and answers.
7. The meeting will be conducted as follows:
    a. The chairman informs the meeting attendees of the procedures and format of the meeting.
    b. Both parties may deliver brief opening and closing remarks.
    c. The Contractor presents their claim in detail as supported by previously submitted information and documentation.
        1) The presentation can be verbal or visual.
    d. The Department presents its detailed position as supported by previously submitted information and documentation.
        1) The presentation can be verbal or visual.
8. The CRB may allow rebuttals by both parties during the meeting after both the Contactor and Department make their presentations.
    a. Rebuttals will not be heard after the meeting has ended.

H. Offer of Settlement or Rejection of Claim
1. The Department Deputy Director makes an offer of settlement within 45 calendar days of the claim hearing if the offer is less than the amount required to be reviewed by the Transportation Commission.
2. The decision of the Department Deputy Director is administratively final.
    a. The CRB hearing ends all administrative appeal processes available to the Contractor.
    b. The Contractor may elect to file a complaint in State court if the claim is rejected, or if the sum tendered by way of settlement is not acceptable to the contractor.

I. Acceptance or Rejection
1. Provide written notice to the Deputy Director of acceptance or rejection of the offer or rejection of the claim within 7 days of the date of the Deputy Director's offer.
    a. The Department will promptly process any required payments or contract changes if both the Department and Contractor agree to resolve the Claim.

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.

March 31, 2016

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

SECTION 00820M

LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Add the following to Article 1.18 Paragraph B, Insurance Program #1:

9. Builder's Risk Coverage
   a. Provide Builder's Risk Coverage in the amount of the bridges.

10. Contractor's Environmental Protective Liability Coverage
    a. Provide Contractor's Environmental Protective Liability Insurance with the following minimum limit:
       1) $1,000,000.00 per Occurrence / $2,000,000.00 Aggregate.

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. Secure legal right to access the property before any work is performed on public or private property. 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 their right to request re-examination of denied or partially denied claims of $5,000 or less 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
      4) Department project number and location
   b. The claim can be overturned by the Department if claimant is not notified of right to request re-examination.

Add Article 1.17, paragraph F5:

5. The Claims Re-examination Board cannot review any claim filed in the small claims court, district court, or appealed to the district court.
   a. The person in charge of responding to Claims Re-examination Board requests will put the following paragraph on all written correspondence:

      "Parties seeking to file a claim before the Claims Re-examination Board must certify that the claim has not been filed in or heard by a small claims or district court."

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

March 28, 2016

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

SECTION 01282M

PAYMENT

Delete Article 1.14, paragraph A4

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 soley 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 may be required, as determined by the Engineer, 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.

Add Article 1.16, paragraph A3:

3. The Contractor can choose to opt out of the Asphalt Cost Adjustment (ACA).
   a. Check the appropriate box on the bid proposal indicating the intent to opt out of the ACA.
   b. The ACA cannot be reactivated on a project for which the Contractor has opted out.

Delete Article 1.16, paragraph C.1.a.2) and replace with the following:

2) The high reported wholesale asphalt price (per ton) from the Argus Asphalt Report for Rocky Mountain and West coast asphalt prices for:
   Denver
   Las Vegas
   Montana
   Phoenix
   Salt Lake City
   Wyoming

Supplemental Specification
2012 Standard Specification Book

SECTION 01315M

PUBLIC INFORMATION SERVICES

Delete Article 3.1 paragraph D2 and replace with the following:

2. Deliver to the Region Communications Manager upon completion of the project.

Delete Article 3.1 paragraph H1 and replace with the following:

1. Provide copies of all fliers, e-mail, or other materials containing project information to the Engineer and the Region Communications Manager for review before distribution.

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.

Supplemental Specification
2012 Standard Specification Book

SECTION 01452M

PAVEMENT SMOOTHNESS

Delete Article 1.8 paragraph I and replace with the following:

I. Failure to correct defects identified at the time of acceptance testing within 14 calendar days after notification by the Engineer results in penalty assessed at $100 per day per affected pavement section.
   1. The Engineer may waive the penalty when it is determined to be in the best interests of the Department to defer corrective work.

March 10, 2016

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

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 that could be removed without damaging the completed work
3. Items such as nuts, bolts, washers, screws, concrete chairs, spacers, mailboxes, and other steel or iron parts that may be considered miniscule or non-structural to the whole of the project.
4. Fencing stays, clips, staples, or other miscellaneous fencing components.
5. Manufactured assemblies that are less than 51 percent by weight 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.

Supplemental Specification
2012 Standard Specification Book

SECTION 01455M

MATERIAL QUALITY REQUIREMENTS

Add Article 1.4, paragraph B:

B. Approved Products List (APL) - A list of products and materials that the Department accepts as meeting the requirements in the Department's Standard Specifications and Drawings. Refer to the Department Materials Web site to access the APL at http://www.udot.utah.gov/go/standardsreferences.

1. The APL does not include all acceptable products. It includes products submitted by manufacturers and reviewed by the Approved Products Panel.
2. Inclusion in the APL is not a product endorsement by the Department.

Add Article 1.5, paragraph E:

E. Completed APL Compliance Form and Manufacturer Instructions printed from the Department's Approved Products List Web site. Refer to the Department Materials Web site to access the APL at http://www.udot.utah.gov/go/standardsreferences. Refer to this Section, Article 1.18.

Delete Article 1.11, paragraph A4 and replace with the following:

4. Lot identification or manufacturer's identification of the certified materials or assemblies delivered to the project

Add Article 1.11, paragraph D:

D. Provide the APL Compliance Form and Manufacturer Instructions instead of a Certificate of Compliance if the product is listed in the Department's APL. Refer to this Section, article 1.18.

1. Do not use the APL Compliance Form for acceptance when a project special provision modifies the product requirements in the Standard Specifications.

Add Article 1.18:

1.18 APL COMPLIANCE FORM

A. Provide the completed APL Compliance Form and Manufacturer Instructions printed from the Department's Approved Products List website instead of a Certificate of Compliance if the product is listed in the Department's APL. Refer to the Department Materials Web site to access the APL at http://www.udot.utah.gov/go/standardsreferences.

1. The Engineer will evaluate the suitability of the product for its intended use according to the restrictions in the APL.
2. Do not use the APL Compliance Form for acceptance when a project special provision modifies the product requirements in the Standard Specifications.

B. Buy America requirements still apply when acceptance is based upon the APL Compliance Form. Refer to this Section, article 1.16.

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.

October 14, 2015

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

SECTION 01557S

MAINTENANCE OF TRAFFIC (MOT)

Add Section 01557:

PART 1 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

D. Construct a temporary roadway at the location shown on the plans and as specified in this provision.

1.2 RELATED SECTIONS

A. Section 00555: Prosecution and Progress

B. Section 01554: Traffic Control

C. Section 02221: Remove Structure and Obstruction

D. Section 02771: Untreated Base Course (UTBC)

E. Section 02891: Traffic Signs

F. Section 02911: Wood Fiber Mulch

G. Section 02912: Topsoil

H. Section 02922: Seed, Turf Seed, and Turf Sod

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.

C. Submit a copy of the plans and calculations for the proposed detour roadway and bridge stamped and signed by a professional engineer licensed to practice in the State of Utah in accordance with Section 01554. Drawings shall include: (1) bridge length and width if used, (2) clear water opening, (3) bulkheads if used and method of construction and (4) details for the bridge rail if used.

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.55 of the MUTCD.
   2. Messages can be changed on-site.

2.3 UNTREATED BASE COURSE (UTBC)

A. Refer to Section 02721

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 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. Use necessary traffic control devices with VMS to provide safe operation.

D. Remove devices from the site of work when they are not needed for the immediate control of traffic.

E. 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 sites.

F. Make 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.

3.5 DETOUR ROADWAY

A. Design, construct and maintain the temporary roadway for detour of the 10700 South roadway around the construction zone of the Avon Bridge, bridge # 005012C. Install at the approximate location shown on the plans or as approved by the Engineer. Provide roadway surface on the detour roadway as indicated on the plans and as indicated in these specifications. Maintain the detour in a manner that will provide the traveling public with a safe and smooth riding surface.

B. One lane road will be allowed. Maintain adequate site distance through one lane section for oncoming vehicles to see each other or provide a temporary signal.

C. Maintain a minimum of 14 feet wide with a minimum four (4) inch thick layer of untreated base course roadway surface.

D. Provide a waterway opening of sufficient size to accommodate the following flows along Little Bear River.
   1. From July through February: -150 cubic feet per second (cfs)
   2. From March through June: 1,000 cfs

E. Provide waterway opening by one of the following options:
   1. Option 1 – Pipe Culverts
      a. Install temporary pipes parallel to the creek flow so that the current remains un-deflected. Provide adequate bulkheads at the approach fills as necessary to prevent fill materials from entering the stream.
   2. Option 2 – Temporary bridge structure.
      a. Provide the a temporary bridge with 2 foot minimum freeboard; a minimum width of 20 feet and a design load capacity of AASHTO HL–93. Provide a rail system with blunt end protection at all bridge ends. Ensure the rail system either meets NCHRP350 TL-1 crash test requirements or can resist railing design forces as specified in AASHTO LRFD TL-1 (Table A13.2-1)

F. Provide and install a temporary 36 inch diameter pipe for flows from West Canyon Creek.

G. Clear and grub within footprint of temporary road according to Section 02231. Strip and stockpile 4 inches of topsoil. Protect existing trees larger than 4 inches in diameter. Trim trees as needed to allow for overhead and side clearance and line of site. Coordinate with Engineer.

H. After completion of the rehabilitation of the structure and construction of approaches and upon opening the new bridge deck to traffic, completely remove detour route and restore site to preconstruction condition. Remove and dispose of temporary fill, culverts, bridge, and other miscellaneous items. Spread stockpiled topsoil, seed, and mulch disturbed areas. Refer to Sections 02912, 02922, and 02911.

END OF SECTION

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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. Penalties
   1. Penalties 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 penalties 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 penalty 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 ½ 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 devises 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

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SECTION 01721

SURVEY

Delete Section 01721 and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Construction surveying, staking, measurement, and calculations essential to complete the project and properly control the entire work.

B. Directed surveying as requested by the Engineer.

C. Processes and procedures for implementing Machine Control Guidance (MCG) technology. MCG uses Global Positioning System (GPS) and Robotic Total Station (RTS) in conjunction with three-dimensional computer models to determine the precise location and elevation of the materials being moved.

1.2 RELATED SECTIONS

A. Section 02765: Pavement Marking Paint

1.3 REFERENCES

A. Plan Sheet Development Standards

B. UDOT CADD Standards

C. UDOT Survey & Geomatics Standards Manual

D. Utah Administrative Code

E. Utah Code

1.4 DEFINITIONS **Not Used**

1.5 SUBMITTALS

A. The Department requires that all submittals be signed and sealed by a Professional Land Surveyor licensed in the State of Utah.

B. Re-submittals may be required depending on completeness and correctness of the work.

C. Submit a statement before award date indicating all Department provided horizontal and vertical survey control has been field checked and the control has been determined to be accurate within the tolerances specified in the UDOT Survey and Geomatics Standards Manual. Refer to http://www.udot.utah.gov/go/standardsreferences.
   1. Attach field survey information used to verify control.
   2. Notify the Engineer verbally and in writing if discrepancies are found.
   3. Include any additional survey points required to implement the MCG/RTS technology.

D. Provide a written description of the equipment before beginning work including calibration certifications, manpower, methods, and data storage format proposed for use to complete all survey activities.

E. Record keeping – Keep all field notes, diaries, and books according to standard surveying practice.
   1. Loose leaf books are not acceptable.
   2. Make available at any time all survey records including field notebooks and forms used for the work to the Engineer upon verbal or written request.
   3. Electronic records and reports are acceptable

F. Surveying and design data requirements:
   1. Return all survey and design data to the Engineer after project completion with compliance to the UDOT Survey and Geomatics Standards, Plan Sheet Development Standards, and UDOT CADD Standards. Refer to http://www.udot.utah.gov/go/standardsreferences.
   2. Complete the following if design plans were included with the advertising package for the project:
      a. Provide a red-lined hard copy plan set showing "As-built" features denoting changes from the original design.
      b. Provide an electronic copy of the red-lined 11 x 17 "As-built" plan, containing the “As-Built” stamp dated and signed by the Engineer, in a colored PDF format as follows:
         1) Resolution of not less than 400 dpi.

2) Individual file sizes not greater than 100 megabytes.
3) Group similar sheet types together into individual PDF files such as Summary Sheets grouped together in a single PDF file or Summary Sheets and Plan and Profile Sheets grouped together in a single PDF file.

3. Complete the following if the Department provides 3D elements, 3D models, or both at advertising:
   a. Provide all files, named and placed in accordance to the UDOT CADD Standards Manual, Plan Sheet Development Standards, and submitted into the UDOT Projectwise System.
   b. Update 3D model with "As-built" features denoting changes from the original design.
   c. Provide final model incorporating all design changes.
   d. Intermediate models at request of the Engineer.
   e. Support paperless inspection.
   f. Provide documentation of quality control measurements when requested by the Engineer.
   g. Submit completed "As-Built" electronic files into the UDOT Projectwise System in accordance with the UDOT Survey and Geomatics Standards, Plan Sheet Development Standards, and UDOT CADD Standards.
4. Submit an "As-Built" model with approval of the Engineer to document design changes if construction of a project was based on a model prepared by the Contractor or a project that was not designed using paperless methodology.

G. Survey Monuments
   1. Refer to this Section, article 3.12, paragraph C3 for submittal of drawings and notes.

H. Provide the following for MCG technology implementation:
   1. Written notification to the Engineer that MCG will be used on the project.
   2. Electronic or hand written stakeout/cut-fill reports or both for cross section stakes, according to this Section, Article 3.5.
      a. Reports are not required when measurement of work is by “Plan Quantity” or Weight.

I. Alternate methods of calculating quantities.
   1. Engineer may approve alternate methods of calculating quantities. Submit proposed alternate method of quantity calculation before beginning item of work.

1.6 MEASUREMENT PROCEDURES

A. Directed Survey – Use a survey crew measured by the hour authorized if extra survey work is needed. Department makes no additional payment for travel time to and from the project.

1.7 PAYMENT PROCEDURES

A. Include the costs in all items of work that require survey if contract does not include separate pay item for survey. Failure to comply with any portion of this specification may result in withholding up to 25 percent of contract payments until the deficiencies are corrected.

B. Directed survey work is paid for in the accepted quantities if needed and approved at a standard negotiated rate.

C. Include the costs of all machine control equipment in equipment cost. Include all survey equipment and labor in the bid item for survey.

1.8 QUALITY ASSURANCE

A. Assume responsibility for survey and control of the work and for correcting errors whether the errors are discovered during the actual survey work or in subsequent phases of the project and bears any cost overruns resulting from errors.

B. Perform all work according to the plans and specifications and standard Engineering and Surveying practices under the responsible charge of a Professional Engineer or Professional Land Surveyor licensed in the State of Utah.

C. The Engineer may spot check the work for accuracy and may reject unacceptable portions of work. Resurvey rejected work and correct work that is not within the specified tolerances at no additional cost to the Department.

D. Any 3D model used in conjunction with MCG must be verified by a Professional Engineer or Professional Land Surveyor licensed in the State of Utah.

E. Correct any construction errors that result from errors in a 3-D model once the design 3D model has been accepted.

PART 2 PRODUCTS

2.1 EQUIPMENT

A. Furnish tools, supplies, and stakes suitable for use in highway survey work.

B. Furnish stakes and hubs of sufficient length to provide a solid set in the ground with sufficient surface area above ground for necessary legible markings.

C. Furnish survey instruments and supporting equipment capable of achieving the specified tolerances.
   1. Calibrate survey equipment yearly and check for accuracy before beginning survey work and as required throughout the duration of the project. Make the calibration certificate available upon request by the Engineer.

2.2 EQUIPMENT FOR DEPARTMENT USE

A. Provide and maintain the following equipment when MCG is to be used on the project:
   1. GPS Capable Rover compatible with the other GPS equipment being used on the project.
   2. Other hardware and software associated with the equipment so that Department personnel can operate the equipment for quality assurance purposes.
   3. Provide adequate training so that Department personnel can operate the survey equipment.
   4 Make GPS rover available immediately upon request from the Engineer.
   5. Develop a process with the Department to check-in and check-out equipment from the Contractor.

PART 3 EXECUTION

3.1 PREPARATION

A. Discuss and coordinate the following with the Engineer before survey work begins:
   1. Required submittals
   2. Survey and staking methods
   3. Stake markings
   4. Grade control
   5. Referencing

6. Structure control
7. Any other procedures and control necessary for the work
8. Documentation procedures

B. Establish construction survey points, elevations, and grades as necessary to control layout and complete the work. Verify all control surveying and staking meet specified tolerances before beginning work.

C. Calculate all grades, elevations, offsets, and alignment data necessary for staking or setting items of work. Obtain approval from the Engineer for alternate methods of establishing grade control with wire lines, computer, or laser controlled grading or other suitable methods.

D. Provide appropriate traffic control for all survey activities.

E. The Department furnishes:
1. Horizontal and vertical control points
2. Cross sections developed during design, if any
3. Electronic project data
4. Digital Terrain Model used for design
5. 3-D data consisting of:
   a. LandXML files for the Design Digital Terrain Models, including features for projects implementing MCG
   b. LandXML files for the Design Alignments
   c. A Bentley iModel may be substituted for LandXML data.

F. Contract Provision Disclaimer
1. Provide a written request to the Engineer to obtain electronic data points.
2. Electronic data points are available in UDOT standard CADD formats only.
3. Data points are prepared by the Department for its own purposes and not for the benefit of private individuals or businesses.
4. Waive any claims that may result from the use of or reliance on the data points.
5. Indemnify the Department and hold it harmless for any damages, costs, attorney fees, or other liabilities that might be incurred as a result of the Department's use and reliance on the Contractor's modified data.

3.2 DIRECTED SURVEY

A. Conduct directed surveying if requested by the Engineer.
1. Includes work needed for changes and extra work. Provide all labor, materials, and equipment including total stations, global positioning system (GPS), LiDAR scanning or other equipment.

2. Obtain written authorization from the Engineer documenting the affected work and requirements before performing work under these items.

3.3 COMPUTATIONS AND PLOTS

A. Use cross-sections to calculate volume measurements.
   1. Superimpose final cross sections with original cross sections and calculate final quantities using the average end area method.
   2. Develop cross-sections from field measurements.
      a. Take cross section measurements both before and after excavation and before backfill.
      b. Take cross sections at a maximum centerline spacing of 15ft when the centerline curve radius is less than or equal to 500 ft.
      c. Take cross sections at a maximum spacing of 30 ft when the centerline curve radius is greater than 500 ft.
      d. Take additional cross sections at breaks in terrain and at changes in typical sections.
      e. Measure and record points at breaks in terrain for each cross section but at least every 15 ft unless otherwise approved by the Engineer.
      f. Measure and record points to at least the anticipated slopes and reference locations.
      g. Reduce all cross section distances to horizontal distances from centerline.
      h. Take cross sections at right angles to tangents and normal to curves.
      i. Include in cross sections all grades, locations, and existing ground line profiles.
   3. May develop cross sections from digital terrain models provided if:
      a. Ground survey locations do not exceed 50 ft in any direction.
      b. Major horizontal and vertical breaks in terrain are also included.
      c. Horizontal and vertical control for the project is used.
      d. DTM is verified accurate to required tolerances as indicated in the UDOT Survey & Geomatics Standards manual by spot checking throughout the length of the project. Refer to http://www.udot.utah.gov/go/standardsreferences to view this manual.

B. The Engineer may approve alternate methods of calculating quantities.

3.4 STAKE MAINTENANCE AND MARKINGS

A. Provide and maintain reference/location stakes that identify stationing at least every 200 ft until all work has been completed and accepted by the Engineer for each alignment.
   1. Provide reference/location stakes at whole station intervals such as 1032+00.

B. Maintain ALL staking necessary for the work until the construction has been completed and accepted by the Engineer.
   1. Legibly mark all survey stakes with station and offset referenced to their respective control line.
   2. Mark slope, reference, and guard stakes with station.
   3. Renew illegible or damaged stakes at no additional cost to the Department.

3.5 CONTROL POINTS AND SURVEY TOLERANCES

A. Survey using the guidelines set in the UDOT Survey & Geomatics Standards manual.
   1. Refer to http://www.udot.utah.gov/go/standardsreferences to view this manual.

B. Amend the survey control diagram as requested for the project.
   1. Have the amended diagram sealed, signed, and dated by a licensed surveyor in accordance with UC 58-22-601, 602, 603, and Utah Administrative Code R156-22-601.
   2. Refer to http://www.udot.utah.gov/go/standardsreferences for Utah Code and Utah Administrative Code.

C. Relocate initial horizontal and vertical control points in conflict with construction to areas that will not be disturbed by construction operations.
   1. Furnish the coordinates and elevations for the relocated points before the initial points are disturbed.
   2. Furnish to the Region Surveyor or Engineer the coordinates and elevations for the relocated points before the initial points are disturbed.

D. Protect benchmarks from construction activities.
   1. Position all benchmarks to allow a level rod to stand vertically and squarely on the mark.

E. Reference benchmarks to centerline and horizontal measurements. The surveyor should, to the extent necessary to achieve the standards contained herein:

1. Compensate or correct for systematic errors, including those associated with instrument calibration
2. Select the appropriate equipment and methods, and use trained personnel.
3. Use appropriate error propagation and other measurement design theory to select the proper instruments, field procedures, geometric layouts and computational procedures to control random errors.

F. The surveyor will apply appropriate procedures in order to assure that the allowable positional tolerance of such points is not exceeded if radial survey methods, GPS or other acceptable technologies or procedures are used to locate or establish points on the survey.

G. The positional tolerance may be tested by:

1. Comparing the relative location of points in a survey as measured by an independent survey of equal or higher accuracy or,
2. The results of a minimally constrained, correctly weighted least squares adjustment of the points on the survey.

H. The surveyor will employ, in his judgment, proper field procedures, instrumentation and adequate survey personnel in order to achieve a precision of 0.02 feet (or 6 mm) + 20 ppm.

1. See Table 1 for construction staking tolerances.

Table 1

CONSTRUCTION STAKING TOLERANCES		
Description	**Horizontal**	**Vertical**
	Decimals of a foot	
Box Culverts	± 0.02	± 0.02
Bridge Superstructures	± 0.02	± 0.02
Bridge Substructures	± 0.02	± 0.02
Clearing and Grubbing Stakes	± 1.00	-----
Construction Centerline Control	± 0.05	-----
Construction Centerline Station	± 0.10	-----
Curbs, Walks, and Bike Paths	± 0.03	± 0.02
Grade Stakes – Roadway Subgrade	± 0.20	± 0.05
Grade Stakes – Top of Rock	± 0.20	± 0.03
Grade Stakes – Roadway Finish	± 0.10	± 0.02
Luminaire and Signal Poles (incl.	± 0.20	± 0.20
Manholes, Inlets, and Culverts	± 0.10	± 0.03
PCC Pavement	± 0.10	± 0.02
Slope Stakes and References	± 0.30	± 0.10
Traffic Markings	± 0.20	-----
Walls – Retaining, MSE, Sound, etc.	± 0.05	± 0.05
Wetland Mitigation Control Stakes	± 0.20	± 0.20

Notes:

1. Stakes for miscellaneous items not listed above will have a horizontal and vertical tolerance of 0.20 ft, unless otherwise directed.
2. Features that are to be constructed flush to another surface should take on the same tolerance as that surface.
3. Staking tolerances for special circumstances will be discussed at the pre-survey meeting.
4. Meet the appropriate construction tolerances for the material as specified in the special provisions or standard specifications, regardless of the construction staking tolerances, specific to the work item.
5. Use bridge control once established, independent of other project controls for the duration of the bridge construction. Refer to Survey & Geomatics Standards manual for bridge control methodology. Refer to http://www.udot.utah.gov/go/standardsreferences.
6. Tolerances stated for each type of construction stake in this table indicates the acceptable deviation of the position of each reference point from its computed position relative to the given alignment and grade. Staked positions are generally checked using electronic stakeout reports and, if within tolerances, the stated position is accepted. Reference points may also have an accuracy relative to each other for precise measurements such as structures.

2. Survey Staking Methods:
    a. Furnish reference stakes for all slope stakes and stakes used for setting items for work.
    b. Furnish the following for projects using Conventional Survey Methods:
        1) Maintain the reference stakes for the duration of the project until the Engineer approves removal.
        2) Establish and set slope stakes and references on both sides of centerline at cross section locations.
            a) Place slope stakes at a maximum centerline spacing of 25 ft when the centerline curve radius is less than or equal to 500 ft.
            b) Place slope stakes at a maximum spacing of 50 ft when the centerline curve radius is greater than 500 ft.
            c) Place reference stakes at a maximum centerline spacing of 100 ft on tangents.
        3) Establish slope stakes in the field as the actual point of intersections of the design slope with the natural ground line.
        4) Set slope stake references outside the clearing limits.
        5) Include all reference point and slope stake information on the reference stakes.
3. Furnish the following for projects using Machine Control Guidance Methods:
    a. Maintain the reference stakes for the duration of the project until the Engineer approves removal.
    b. Establish and set location stakes and references on one side of centerline at cross section locations.
        1) Place cross section stakes at a maximum spacing of 300 ft. (Cross-section stakes reference physical points in the proposed cross-section, such as edge of pavement or top back of curb)
    c. Place slope stakes at a maximum spacing of 300 ft.
    d. Establish slope stakes in the field at the actual point of intersections of the design slope with the natural ground line.
    e. Set slope stake references outside the clearing limits.
    f. Include all reference point information on the reference stakes.
    g. Provide adequate bench marks throughout the project for construction equipment equipped with MCG to check setup and tolerances.
        1) Perform equipment checks at least once per day.
        2) Record equipment checks in a log for verification by the Engineer.

4. Staking limits – Reference/Location stakes can serve the purpose of the following staking requirements as long as all required information for both purposes can be written on the stake.
    a. Stake clearing limits on both sides of centerline at each established station.
        1) Locate the clearing limit on the ground as shown by the cut and fill limits on the plans.
    b. Stake right of way limits, or temporary construction easement (TCE) if one exists, every 500 ft maximum on tangents, every 250 ft maximum on curves where ROW is not delineated by existing fence lines or other obvious boundaries.
        1) Stake Right of Way limits at all right of way break/angle points along the right of way lines.
        2) Reduce the distance if staking distance is affected by line of sight.
    c. Stake environmental control limits on both sides of centerline at each established station.
        1) Locate the environmental control limits on the ground as shown by the slope rounding contours and environmental and silt fence locations as shown on the Plans.
        2) Stake environmental control limits every 25 ft in environmentally sensitive areas.
        3) Provide staking as needed to guarantee the silt fence is located inside of right of way in standard silt fence installations where stations/locations are not called out on the environmental control plan sheets,.

I. Furnish reference stakes for all slope stakes and stakes used for setting items for work.
    1. Accomplish the following for projects using ground based total stations, robotics, and levels. (Conventional Survey):
        a. Maintain the reference stakes for the duration of the project until the Engineer approves removal.
        b. Establish and set slope stakes and references on both sides of centerline at cross section locations.
        c. Place reference stakes at a maximum centerline spacing of 100 ft on tangents.
            1) Place slope stakes at a maximum centerline spacing of 25 ft when the centerline curve radius is less than or equal to 500 ft.
            2) Place slope stakes at a maximum spacing of 50 ft when the centerline curve radius is greater than 500 ft.

c. Establish slope stakes in the field as the actual point of intersections of the design slope with the natural ground line.
d. Set slope stake references outside the clearing limits.
e. Include all reference point and slope stake information on the reference stakes.

2. Accomplish the following for projects using Machine Control Guidance Methods:
   a. Maintain the reference stakes for the duration of the project Survey until the Engineer approves removal.
   b. Establish and set location stakes and references on one side of centerline at cross section locations.
      1) Place cross section stakes at a maximum spacing of 300 ft.
         a) Cross-section stakes reference physical points in the proposed cross-section, such as edge of pavement or top back of curb.
   c. Place slope stakes at a maximum spacing of 300 ft.
   d. Establish slope stakes in the field as the actual point of intersections of the design slope with the natural ground line.
   e. Set slope stake references outside the clearing limits.
   f. Include all reference point information on the reference stakes.
   g. Provide adequate bench marks throughout the project for construction equipment equipped with MCG to check setup and tolerances.
      1) Perform equipment checks at least once per day.
      2) Record equipment checks in a log for verification by the Engineer.

J. Setting grade finishing stakes (Conventional Survey or RTK):
1. Grade elevations and horizontal alignment:
   a. On centerline.
   b. On each shoulder at roadway cross section locations and between centerline and shoulder with a maximum spacing of 25 ft.
   c. At the top of sub grade and the top of each aggregate course.
2. Locations:
   a. Set stakes on centerline, on each normal shoulder, and on the shoulder of the turnout where turnouts are constructed.
   b. Set hubs at the center and along the edges of parking areas.
   c. Set stakes in all ditches to be paved.
3. Maximum spacing between stakes along the alignment is 50 ft.
4. Use brushes or guard stakes at each grade finishing stake.
5. Reset grade finishing stakes as many times as necessary to construct the sub grade and each aggregate course.

K. Grade Verification (Machine Control Guidance)

1. The following procedure will only be applicable for verification of roadway layers for grade elevations and horizontal alignment.
   a. The Department will use the Contractor provided survey equipment listed above.
   b. The Department will verify elevations at the following locations:
      1) On centerline.
      2) On each shoulder at roadway cross section locations and between centerline and shoulder with a maximum spacing of 25 ft.
      3) At the top of sub grade and the top of each aggregate course.
2. Locations:
   a. On centerline, on each normal shoulder, and on the shoulder of the turnout where turnouts are constructed.
   b. At the center and along the edges of parking areas.
   c. At the top of subgrade and the top of each aggregate course.
   d. In all ditches to be paved.
3. The Department will verify and document elevations at a 300 ft maximum spacing between locations along the alignment.
   a. The Department reserves the right to increase the spacing between grade verification locations up to, but not to exceed, 1000 ft if a level of confidence can be attained by the Engineer.

3.6 CONCRETE PAVING

A. Develop a method of horizontal and vertical control for the placement of concrete pavement.

1. Use laser, wire, or string line, for example, to maintain horizontal and vertical control.
2. Maximum spacing, 50 ft Set control on both sides of roadway.

B. 3D Paving, Machine Control Guidance, Wireless Paver

1. Survey control should be staggered on either side of the highway to provide a good strength of figure.
   a. Typically the distance between control points set for MCG should be no farther than 650 ft. The actual distance may vary by the type of equipment used by the Contractor.
   b. The instrument setup must obtain vertical accuracies within ± 0.02 ft of the existing control.

C. Stake concrete joint and station stamp locations if requested by the Engineer.

3.7 DRAINAGE STRUCTURES

A. Stake drainage structures to fit field conditions and in coordination with the Engineer. The location of the structures may differ from the plans.
   1. Survey and record the ground profile along the centerline of the structure.
   2. Determine the slope catch points at inlets and outlets.
   3. Set reference points and record information necessary to determine structure length and end treatments.
   4. Stake ditches or grade to make the structure functional.
   5. Plot the profile along centerline of the structure to show the natural ground, the flow line, the roadway section, and the structure.
   6. Mark guard stakes with the following, when applicable:
      a. Diameter, length, and type of culvert such as 18 inch x 35 ft corrugated metal pipe (cmp)
      b. The vertical and horizontal distance from the hub to the invert at the end of the culvert or any intermediate point as needed or directed
      c. Flow line grade of the pipe
      d. Station
   7. Provide a reference at a maximum spacing of 50 ft for storm sewers and waterlines. Reference inverts of pipe at all manholes.

3.8 BRIDGES

A. Based upon the Projects Primary Control points, set at least 4 horizontal and vertical control reference points to be used for surveying all bridge substructure and superstructure components including but not limited to pile locations and cutoffs, line and grade for abutments, bents, beam seats, anchor bolts, and screed grades.

B. Set intermediate slope stakes at bridge abutments to establish transitions.
   1. Place finish grade stakes on the centerline of abutment bearing and at the top of slope of all bridge berms.
   2. Place finish grade stakes on each side at top, mid-point, or slope and toe of fill.

3.9 BOX CULVERTS

A. Set horizontal and vertical control and reference points.
   1. Establish and reference the centerline, back of parapet or barrier, skew, and flow line elevations at inlet, outlet, and breaks.

3.10 CURB AND GUTTER

A. Set curb and gutter staking at 25 ft intervals on tangent and 10 ft intervals on curve radii.

B. Set line and grade for curb and gutter within 0.02 ft of the proposed or established grade line.

3.11 GUARDRAIL

A. Stake guardrail vertical and horizontal control at a maximum spacing of 25 ft on tangent sections and 10 ft on curved sections unless otherwise approved.

B. Obtain the Engineer's approval and field verification of staking before installation.

3.12 EXISTING SURVEY MONUMENTS

A. Locate and reference all private and public land survey monuments that may be destroyed by project construction activities before disturbing those existing monuments and under the direction of a Professional Land Surveyor licensed in the State of Utah.

B. Complete referencing and reestablishing those existing monuments at no cost to the Department and before project completion.

C. Reference and reestablish the monuments created by the county surveyor.
   1. Notify the county surveyor at least 30 days before the destruction of any monument.
   2. Coordinate the reestablishment of section corner and quarter corner monuments with the county surveyor.
   3. Prepare a corner record to be filed in the office of the County Surveyor's Office per Utah State Code 17-23-17.5 unless prepared by the County Surveyor's Office.
   4. Submit a certified supplement to the Survey Control Sheet with notes to the Engineer showing references to section corners and quarter corners.

D. The Department pays for the additional work under the Directed Survey item if a monument is found during construction but is not shown on the contract plans and must be reset.

3.13 RETAINING WALLS

A. Set horizontal and vertical control and reference points based upon the Projects Primary and Secondary control.
   1. Establish and reference the centerline offsets for the walls, radius points, and the beginning and ending wall locations as shown on the plans.

B. Stake retaining wall vertical and horizontal control at a maximum spacing of 25 ft on tangent sections and 10 ft on curved sections unless otherwise approved.

3.14 PAVEMENT MARKING

A. Layout all temporary and permanent pavement markings according to Section 02765.
   1. Place references for traffic striping at least 150 ft apart on tangents and at least 50 ft on curves.

3.15 CLEANUP

A. Remove and dispose of all flagging, lath, stakes, and other staking material after the project is complete.

3.16 UTILITIES

A. Stake control lines as needed in cooperation with the utility companies so their facilities can be relocated to their proper final position.

B. Stake crossings or potential points of conflict between facilities to give proper horizontal and vertical control for the relocation.

C. Schedule this survey work with the utility companies to minimize delays and disruption of survey stakes.

D. Replace all disturbed stakes as necessary to facilitate the relocations.

E. The Contractor is responsible for costs incurred to relocate any utility more than once due to inaccurate or incomplete staking.

F. Collect survey grade coordinate data for all exposed, relocated, and new utilities during construction.
   1. Collect data in one foot intervals unless otherwise directed in the UDOT Survey & Geomatics Standards manual. Refer to http://www.udot.utah.gov/go/standardsreferences.

3.17 EXISTING MILEPOST SIGNS

A. Locate all existing milepost sign stations within the project limits.
   1. Contact the Engineer to determine any locations where a milepost sign was placed at a point other than the actual mile point due to prior physical limitations such as driveways, intersections, or bridge parapets, in coordination with Highway Referencing Specialist of the Asset Management Division.

B. Reestablish location of milepost signs before project completion if construction activities required removal of any existing milepost signs.
   1. Reset sign location at original station of existing sign.
      a. Exceptions
         1) Any prior physical limitations listed in this Section, Article 3.17, paragraph A were removed during construction and no longer prevent installation of a sign at the actual mile point.
         2) Roadside conditions or newly constructed physical limitations would prevent reestablishment of any milepost sign within 3 ft of its original station.
      b. Contact the Engineer to determine how to proceed in either of these special cases in this Section, Article 3.17, paragraph B1a, in consultation with the Highway Referencing Specialist.
   2. Establish an appropriate offset for each milepost sign to meet installation and clear zone requirements.

C. Contact the Highway Referencing Specialist through the Engineer to determine the preferred action for reestablishing the milepost signs where the alignment of the roadway was modified during construction to the extent that the new measured mile point locations of any milepost signs were shifted more than 10 ft from their original location.

END OF SECTION

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SECTION 02056M

EMBANKMENT, BORROW, AND BACKFILL

Delete Article 1.3, paragraph G and replace with the following:

G. UDOT Materials Manual of Instruction

H. UDOT Minimum Sampling and Testing Requirements

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 1.5, paragraph A, and replace with the following:

A. Provide the following before delivering material to the project:
   1. Supplier and source of materials.
   2. Gradation analysis. Refer to AASHTO T 27 and T 11.
   3. Soil classification when applicable. Refer to AASHTO M 145.
   4. Maximum Dry Density and Optimum Moisture Determination
      a. Use AASHTO T 180 Method D for A-1 soils and AASHTO T 99 Method D for all other soils.

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

C. Density Requirements – Acceptance is on a lot-by-lot basis.
   1. Meet minimum density test average of 96 percent of maximum laboratory density with no single determination lower than 92 percent.
      a. Use AASHTO T 180 Method D for A-1 soils and AASHTO T 99 Method D for all other soils.
      b. Maintain appropriate moisture for compaction during processing.
   2. Meet 100 percent of established field density for free-draining granular backfill or for material with more than 30 percent retained on the ¾ inch sieve.
      a. Develop a field density compaction curve according to UDOT Materials Manual of Instruction Section 989 and approved by the Engineer.

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. Over excavate 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 or 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.

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SECTION 02075M

GEOTEXTILES

Delete Article 1.5 and replace with the following:

1.5 SUBMITTALS

A. Certification that the supplied material was manufactured, sampled, tested, and inspected in accordance with AASHTO M 288.

B. Manufacturer's data sheet and recommended installation instructions.

Delete Article 1.6 and replace with the following:

1.6 SAMPLING AND TESTING Not Used

Delete Article 2.3 and replace with the following:

2.3 DRAINAGE GEOTEXTILE

A. Furnish Class 2 nonwoven drainage geotextile according to AASHTO M 288.

Delete Article 3.4 and replace with the following:

3.4 INSTALL DRAINAGE GEOTEXTILE

A. Install at locations shown on the drawings or as designated by the Engineer.

B. Place and secure geotextile to provide direct contact against the excavated surface.

C. Overlap successive sheets of geotextile at least 1 ft in the down-gradient direction of flow.

D. Overlap geotextile at least 1 ft at the top of the trench, where applicable.

E. Place fill beginning with the sheets overlapped above subsequent sheets to hold geotextile in place.

F. Repair – Place patch over damaged area and extend 3 ft beyond the perimeter of the tear or damage.

March 26, 2015

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

SECTION 02221M

REMOVE STRUCTURE AND OBSTRUCTION

Delete Article 1.1 and replace with the following:

A. Remove, dispose of, or salvage fences, pavements, utility items, trees, and other obstructions that interfere with construction on or off the site.

B. Remove dispose of, or salvage the existing bridge superstructure including steel girders, concrete bridge deck, concrete curbs, and steel pipe railing.

C. Remove portions of the existing abutment walls as indicated in the plans.

D. Remove the existing timber pier consisting of three piles and cap. Remove to the level of the top of existing footings.

E. Salvage the bridge superstructure and timber pier as specified or dispose of in an approved manner.

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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.

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SECTION 02317M

STRUCTURAL EXCAVATION

Delete Article 1.4 and replace with the following:

1.4 DEFINITIONS

A. Unsuitable material – Material not meeting specifications, organic materials, frozen lumps, soils such as peat or bog, and over-saturated silts, clays, or sands whose water content prevents appropriate compaction.

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SECTION 02373M

RIPRAP

Delete Article 2.1, Paragraph D and replace with the following:

D. Loose Riprap – Stones well graded in size throughout the riprap layer to produce a dense mass.
   1. The riprap layer thickness to be at least 1.5 times the median stone diameter (D_{50}). The diameter of any given stone is based on the middle dimension of the stone (not the longest or the shortest).
   2. Refer to Table 1 for gradation limits.
   3. Control of gradation will be by sample measurement or by visual inspection, as determined by the Engineer.

Table 1

Rock Riprap Gradation Limits	
Stone Diameter Range (ft)	Percent of Gradation Smaller Than
$1.5D_{50}$ to $1.7D_{50}$	100
$1.2D_{50}$ to $1.4D_{50}$	85
$1.0D_{50}$ to $1.15D_{50}$	50
$0.4D_{50}$ to $0.6D_{50}$	15
$0.1D_{50}$	10

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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 ⅜ 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

October 15, 2015

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

SECTION 02674S

RELOCATE STEEL IRRIGATION PIPE

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Procedures for relocation of the 6” diameter steel irrigation pipe.

1.2 RELATED SECTIONS

A. Section 01455 – Material Quality Requirements.

1.3 WORK INCLUDED

A. Includes all labor, materials, equipment, transportation and services required for the relocation of the steel irrigation pipe as shown on the drawings and specified herein.

B. The relocation of the irrigation pipe includes but is not limited to:
   1. Cutting and removal of portions of the steel irrigation pipe.
   2. Removal of existing irrigation pipe support brackets on the southeast wingwall.
   3. Installation of new irrigation pipe supports including pipe hangers and inserts in concrete slab.
   4. Core drilling in abutment wall and placing joint filler material between pipe and edge of core drilled hole.
   5. Excavation, fill and compaction for pipe trenching.
   6. Welding of steel pipe sections.
   7. Furnishing additional steel pipe as needed to connect to existing irrigation pipe.
   8. Installation of irrigation pipe, including air relief valves.
   9. Reconnection of pipe to existing irrigation pipe.

1.4 REFERENCES

A. AASHTO M 213: Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types)

1.5 SUBMITTALS

A. Refer to Section 01330 - Submittal Procedures.

B. Shop Drawings
   1. Indicate configurations, dimensions, locations, fastening methods and installation details.

C. Product Data
   1. Submit product structural performance values.
   2. Submit manufacturer's installation instructions, including any special procedures or requirements.

D. Units purchased prior to written approval will be rejected.

PART 2 PRODUCTS

2.1 BUY AMERICA

A. Products must meet Buy America standards specified in Section 01455.

2.2 SIZE AND LOCATION

A. Dimensions described herein and on the drawings are based on as-built plans for existing bridge and approximate field measurements. Verify all dimensions, contact Engineer if dimensions vary significantly.

2.3 IRRIGATION PIPE HANGER

A. Manufacturers:
   1. Anvil International.
   2. Elcen Metal Product Company.
   3. Cooper Industries.
   4. Substitutions: Refer to Section 01600 - Material and Equipment.

2.4 CONCRETE INSERT

A. Manufacturers:
   1. Anvil International.
   2. Unistrut - Atkore International.
   3. Cooper Industries.
   4. Substitutions: Refer to Section 01600 - Material and Equipment.

2.5 JOINT FILLER MATERIAL

A. Refer to AASHTO M 213.

2.6 WARRANTY

A. Refer to Section 01700 - Execution Requirements: Product warranties and product bonds.

PART 3 EXECUTION

3.1 DRILLING

A. Core drill a hole slightly larger than the irrigation pipe through the east abutment wall as shown on the plans. Mark location of proposed hole in the presence of the Engineer.
   1. Locate all abutment wall reinforcing before drilling holes.
   2. Avoid drilling through reinforcing steel.

B. Minimize size of drilled hole. Do not allow drill bits to wander.

3.2 RELOCATION

A. Maintain steel pipe until construction requires removal. Coordinate with Engineer 24 hours before removing any section of pipe.

B. Relocate steel irrigation pipe as indicated or as directed by the Engineer.

3.3 INSTALLATION

A. Submit installation details prior to any work being performed.

B. Install pipe hanger and concrete inserts according to manufacturer recommendations.

C. Install steel pipe per approved installation details with care to avoid damage to pipe, hardware, or any bridge elements.

D. Install joint filler between pipe and core-drilled hole.

3.4 REFURNISHMENT

A. Any products, materials or hardware damaged during relocation or installation and found to be unfit for use are to be replaced in-kind at no additional cost to the project.

B. Any additional pipe required to complete the work is to be included in this lump sum bid item.

END OF SECTION

September 8, 2014

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

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 ¾ inch 14.0% - 15.0% for ½ inch 15.0% - 16.0% for ⅜ inch
Hamburg Wheel Tracker UDOT Materials MOI 990	75 Design Gyrations and Greater Maximum 10 mm impression at 20,000 passes. Less than 75 Design Gyrations Maximum 10 mm impression at 10,000 passes.

October 14, 2015

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

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 Mix Design.

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): (3/8")

1. PG _58-28_ Asphalt.

2. $N_{initial}$ _6_ N_{design} _50_ N_{final} _75_

3. Maximum recycled asphalt pavement (RAP) content of 15%.

PART 3 EXECUTION Not used

END OF SECTION

November 14, 2012

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

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 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 2.1, paragraph A, Table 4 and replace with the following:

Table 4

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

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

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

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/D^2 method and with a minimum sample of 100 beads.
9. Chemical Resistance – Beads resistant to hydrochloric acid, water, calcium chloride, and sodium sulfide. TT-B Federal Specification 1325C sections 4.3.6 to 4.3.9.

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

1. Gradation:

Table 7

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.

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.

Supplemental Specification
2012 Standard Specification Book

SECTION 02822M

RIGHT-OF-WAY FENCE AND GATE

Delete Article 1.3, paragraph G and H and replace with the following:

G. ASTM A 641: Zinc-Coated (Galvanized) Carbon Steel Wire

H. American Wood-Preservers' Association (AWPA) Book of Standards

I. National Electrical Code (NEC)

Delete Article 2.5, paragraph B8 and replace with the following:

8. Apply field treatment preservatives according to AWPA Standard M4 after field drilling. Refer to AWPA Standard M4, Section 7 for accepted field treatment preservative systems.

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2012 Standard Specification Book

SECTION 02841M

W-BEAM GUARDRAIL

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

C. Have a certified guardrail installer present at each location within the project and be an active participant during the installation and maintenance repair of guardrail or elements of a W-Beam guardrail system.

Delete Article 3.3, paragraph B and replace with the following:

B. Drive post if satisfactory results are obtained without damaging the post.
   1. Do not drive posts through asphalt. Refer to BA 4D Series Standard Drawings.

Add Article 3.6:

3.6 Raising Existing W-Beam Guardrail

A. Raise W-beam guardrail to maintain the minimum rail height according to BA Series Standard Drawings.
   1. Only W-beam guardrail with three-hole post system is eligible to be raised. Raise the three-hole post systems rail element only if the rail element is not currently set in the highest hole.
   2. W-beam guardrail with single-hole post system cannot be raised. Do not lift posts in order to raise rail.

B. Remove existing rail element and blocks.

C. Complete shoulder grading as required by BA Series Standard Drawings.

D. Reinstall rail elements and blocks on existing three-hole post system using the next hole up on the three-hole system to meet the height requirements according to BA Series Standard Drawings.
   1. Do not drill new holes in posts.

Supplemental Specification
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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.

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SECTION 02844M

CONCRETE BARRIER

Delete Article 1.2, paragraph E - J and replace with the following:

E. Section 03056: Self-Consolidating Concrete (SCC)

F. Section 03152: Concrete Joint Control

G. Section 03211: Reinforcing Steel and Welded Wire

H. Section 03310: Structural Concrete

I. Section 03390: Concrete Curing

J. Section 03392: Penetrating Concrete Sealer

K. Section 09981: Concrete Coating

L. Section 13553: ATMS Conduit

Add the following to Article 1.3:

G. ASTM C 1315: Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete

Add the following to Article 2.1:

B. SCC – Refer to Section 03056

Delete Article 2.6, paragraph C and replace with the following:

C. Prevent cracking or damage during handling and storage of precast units. Replace units with cracks greater than .007 inch or damaged precast units at no additional cost to the Department.

Delete Article 2.8 and replace with the following:

2.8 SURFACE SEALING MATERIAL

A. Penetrating concrete sealer – Refer to Section 03392.

B. Concrete coating – Refer to Section 09981.
   1. Use only when colored concrete coating is specified.
   2. Coating system includes water repellent and two coats of tinted concrete sealer.

Add the following to Article 3.2:

D. Curing – Refer to Section 03390.

Delete Article 3.3, paragraph E and replace with the following:

E. Mark barrier at beginning, end, and 1,000 ft intervals with 1½ inch numbers indicating the date of casting. Impress ¼ inch deep into the front face of barrier, 6 inches below the top.

Delete Article 3.3, paragraph G and replace with the following:

G. Seal concrete surfaces with a penetrating concrete sealer or a concrete coating.
   1. Penetrating concrete sealer
      a. Use when a colored concrete coating is not specified.
      b. Not required when curing compound meets ASTM C 1315. Refer to Section 03390.
      c. Refer to Section 03392.
   2. Concrete Coating
      a. Use when a colored concrete coating is specified.
      b. Refer to Section 09981.

August 25, 2015

SPECIAL PROVISION

PROJECT # F-R199(132)
PIN # 10883

SECTION 02845S

TWO TUBE CURB MOUNTED RAIL

Add Section 02845:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and procedures for fabricating and installing the Two Tube Curb Mounted Rail.

1.2 1.2 RELATED SECTIONS

A. Section 03055: Portland Cement Concrete

B. Section 03211: Reinforcing Steel and Welded Wire

C. Section 03310: Structural Concrete

D. Section 03390: Concrete Curing

E. Section 05120: Structural Steel

1.3 SUBMITTALS

A. Shop Drawings: Furnish to the Engineer.
   1. Shop drawings: 1 full-size 24 inch by 36 inch, and 4 half-size 11½ inch by 17 inch sheets with a 1½ inch blank margin on the left-hand edge.
   2. Place the State project designation data in the lower right-hand corner of each sheet.
   3. Submit grout material specifications for approval prior to use.

B. Department rejects units fabricated prior to written approval.

PART 2 PRODUCTS

2.1 GROUT

A. Provide grout that meets the following requirements:

1. Pre-blended commercial grout with a 28 day compressive strength of not less than 6,000 psi.
2. Nonmetallic, non-shrink, water mixing compound containing Portland cement, silica sand and/or other agents (water reducers, plasticizers, fillers, etc.). Chlorides, fluorides or nitrates are not permitted.
3. Conform to ASTM C1107 grade B or C and the following: When dried in the air at 50% relative humidity for 28 days after standard 28 day moist cure, maximum allowable expansion from beginning of cure shall be 0.3% and shrinkage shall not exceed 0.0%. Furnish test report verifying conformance.
4. Strictly observe the manufacturers recommendations regarding mixing, maximum water content, application, curing temperatures and curing conditions.

PART 3 EXECUTION

3.1 MANUFACTURE

A. Portland Cement Concrete: Follow Sections 03055 and 03310.

B. Concrete Curing: Follow Section 03390.

C. Follow Sections 03211 and 05120.

END OF SECTION

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. 2⅜ 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. 2⅜ 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. 2⅞ 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. 2⅞ 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. 2⅞ 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-R199(132)
PIN # 10883

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*	*Cynodon dactylon*	Glyphosate
Black henbane	*Hyoscyamus niger*	Tordon (picloram) & Escort
Canada thistle	*Cirsium arvense*	2,4-D, Dicamba, Picloram
Dalmation toadflax	*Linaria genistifolia*	Tordon (picloram)
Diffuse knapweed	*Centaurea diffusa*	2,4-D+Dicamba or Picloram or Clopyralid
Dyer's woad	*Isatis tinctoria*	2,4-D+Dicamba or Chlorsulfuron
Field bindweed	*Convolvulus arvensis*	Dicamba+2,4-d or Picloram
Hoary cress, (whitetop)	*Cardaria draba*	2,4-D+Dicamba or Chlorsulfuron
Houndstounge	*Cynoglossum officinale*	Tordon (picloram)
Johnsongrass	*Sorghum halepense*	Glyphosate
Leafy Spurge	*Euphorbia esula*	Dicamba or Picloram
Medusahead	*Taeniatherum caput-medusae*	Glyphosate
Musk thistle	*Carduus nutans*	2,4-D amine, Metsulfuron or Picloram
Ox-eye daisy	*Chrysanthemum leucanthemum*	Tordon (picloram) & clopyralid
Perennial pepperweed	*Lepidium latifolium*	Metsulfuron or Chlorsulfuron
Perennial sorghum	*Sorghum halepense*	Glyphosate
Poison hemlock	*Conium maculatum*	Tordon (picloram)
Purple loosestrife	*Lythrum salicaria*	Glyphosate (Rodeo aquatic label)

Quackgrass	*Elytrigia repens*	Glyphosate
Russian knapweed	*Centaurea repens*	Picloram, Clopyralid or Chlorsulfuron
Saltcedar	*Tamarix ramosissima*	Habitat or Arsenal
Scotch thistle	*Onopordum acanthium*	2,4-D amine, Metsulfuron or Picloram
Spotted knapweed	*Centaurea maculosa*	2,4-D+Dicamba, Picloram or Clopyralid
Squarrose knapweed	*Centaurea virgata*	Picloram
St. Johnswort	*Hypercium perforatum*	Tordon (picloram) & Escort
Sulfur cinquefoil	*Potentilla recta*	Tordon (picloram)
Yellow star-thistle	*Centaurea solstitialis*	Picloram or Clopyralid
Yellow toadflax	*Linaria vulgaris*	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	*Cirsium vulgare*	2,4-D amine or Dicamba
Box Elder		
Catchweed	*Asperugo procumbens*	2,4-D amine or Dicamba
Cache County		
Goatsrue	*Galega officinalis*	2,4-D+Dicamba
Puncturevine	*Tribulus terrestris*	2,4-D+Dicamba
Carbon County		
Russian olive	*Elaeagnus angustifolia*	2,4-D, Dicamba, or Glyphosate
Davis County		
Buffalobur	*Solanum rostratum*	2,4-D or Dicamba
Yellow nutsedge	*Cyperus esculentus*	Glyphosate
Duchesne County		
Russian olive	*Elaeagnus angustifolia*	2,4-D, Dicamba, or Glyphosate
Water hemlock	*Cicuta maculata*	2,4-D amine or Dicamba

Grand County		
Russian olive	*Elaeagnus angustifolia*	2,4-D, Dicamba, or Glyphosate
Iron County		
Western whorled milkweed	*Asclepias subverticillata*	2,4-D or Dicamba
Bull thistle	*Cirsium vulgare*	2,4-D amine or Dicamba
Puncturevine	*Tribulus terrestris*	2,4-D+Dicamba
Juab County		
Blue lettuce	*Lactuca pulchella*	2,4-D amine, Arsenal or Metsulfuron
Morgan County		
Common burdock	*Arctium minus*	2,4-D+Dicamba
Salt Lake County		
Garlic mustard	*Alliaria petiolata*	Glyphosate
Myrtle spurge	*Euphorbia myrsinities*	Glyphosate or Dicamba
San Juan County		
Camelthorn	*Alhagi pseudalhagi*	Arsenal
Russian olive	*Elaeagnus angustifolia*	2,4-D, Dicamba, or Glyphosate
Buffalobur	*Solanum rostratum*	2,4-D or Dicamba
Western whorled milkweed	*Asclepias subverticillata*	2,4-D or Dicamba
Sevier County		
Russian olive	*Elaeagnus angustifolia*	2,4-D, Dicamba, or Glyphosate
Summit County		
Common Burdock	*Arctium minus*	2,4-D+Dicamba
Vipers bugloss	*Anchusa officinalis*	2,4-D amine or Dicamba
Tooele County		
Jointed goatgrass	*Aegilops cylindrica*	Glyphosate
Uintah County		
Russian olive	*Elaeagnus angustifolia*	2,4-D, Dicamba, or Glyphosate
Utah County		
Common reed	Phragmites australis	
Washington County		
Western whorled milkweed	*Asclepias subverticillata*	2,4-D, or Dicamba
Silverleaf nightshade	*Solanum elaeagnifolium*	2,4-D or Dicamba

Wayne County		
Russian olive	*Elaeagnus angustifolia*	2,4-D, Dicamba, or Glyphosate
Bull thistle	*Cirsium vulgare*	2,4-D amine or Dicamba
Weber County		
Puncturevine	*Tribulus terrestris*	2,4-D+Dicamba
Use rates: Use rates for herbicides vary, follow the use rate on the LABEL for each herbicide		

END OF SECTION

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SECTION 03055M

PORTLAND CEMENT CONCRETE

Delete Article 1.2 and replace with the following:

1.2 RELATED SECTIONS

A. Section 03390: Concrete Curing

Delete Article 1.4 and replace with the following:

1.4 DEFINITIONS

A. Cold Weather Protection Period: The required time during which the concrete is maintained at or above a specific temperature to prevent freezing of the concrete and to ensure the necessary strength development for structural safety.

Delete Article 1.5, paragraphs F, F, G, and H, and replace with the following:

F. Written plan for admixtures. Refer to this Section, Article 2.5, paragraph C.

G. Verification that fly ash or other pozzolan used is from a pre-qualified supplier. Refer to this Section, Article 2.6, paragraph D.

H. Verification that the batch plant meets the requirements of the UDOT Quality Management Plan for Ready-Mix Concrete.

I. Cold Weather Concreting Plan and Hot Weather Concreting Plan for approval.
   1. Include the following:
      a. Detailed procedures for the placement, protection, curing, and temperature monitoring of concrete during cold and hot weather.
      b. Procedures to be implemented upon abrupt changes in weather conditions or equipment failures.

c. Refer to this Section, Article 3.4, paragraph D for cold weather concreting requirements and Article 3.4, paragraph E for hot weather concreting requirements.

2. Allow the Engineer 10 calendar days to review and approve the plans.
   a. The Engineer may grant an increase in contract time when this review and approval time is exceeded.
   b. This review period applies each time the plans are submitted.
3. Do not begin cold weather concreting before the Cold Weather Concreting Plan is approved.
4. Do not begin hot weather concreting before the Hot Weather Concreting Plan is approved.
5. Not required for precast concrete members provided by prequalified suppliers. Refer to this Section, Article 3.4D1.

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.

Delete Article 3.4, paragraphs D and E, and replace with the following:

D. Cold Weather – Comply with the following when placing, finishing, curing, and protecting concrete exposed to cold weather during the protection period. Cold weather applies when the temperature is forecast to fall below 35 degrees F during the protection period.
   1. Provide necessary cold weather protection for placing, finishing, curing and protecting in-place concrete such as covers, insulation, and heat.
      a. Follow the approved Cold Weather Concreting Plan when placing cast-in-place concrete.
      b. Follow the prequalified supplier’s approved Quality Control Plan when fabricating precast concrete members.
   2. Concrete materials
      a. Do not use chemical anti-freeze additives in the concrete. This does not apply to normal accelerators. Refer to AASHTO M 194.
      b. Remove and replace concrete damaged by frost action at no additional cost to the Department.
      c. Do not use material containing frost or lumps.

3. Determine the concrete compressive strength by one of the following methods:
    a. Field cured cylinders cured and protected the same as the concrete being protected.
    b. Maturity method. Refer to AASHTO T 325.
4. Maintain the temperature of the concrete at or above 50 degrees F during and after placement until the end of the protection period.
    a. Measure the specified concrete temperature at the concrete surface. Use surface thermometers insulated from the surrounding air.
5. Placing concrete
    a. Do not place concrete during adverse weather including rain, snow, and high winds without adequate protection approved by the Engineer.
    b. Do not proceed with the placement of concrete if the temperature of all contact surfaces, including reinforcement, is less than 36 degrees F or greater than 95 degrees F.
    c. Cease placement operations when the ambient temperature is 40 degrees F and decreasing unless adequate precautions are taken according to the approved Cold Weather Concreting Plan.
6. Protection of in-place concrete
    a. Maintain the concrete above 50 degrees F during placement and until the end of the protection period.
        1) The protection period is the time required for the concrete to reach a compressive strength of at least 3,500 psi.
        2) Extend the duration of the protection period at least 24 hr beyond the termination of the cure before exposing the concrete to freezing temperatures when curing by the water method. Refer to Section 03390.
    b. Comply with the following when heating is required.
        1) Adequately vent combustion-type heaters that produce carbon monoxide.
        2) Position heaters and ducts so the hot dry air does not cause areas of the concrete surface to overheat or dry.
        3) Keep concrete surfaces moist to avoid excessive loss of moisture from the concrete when applying external heat.
7. Termination of protection
    a. Limit the drop in temperature of concrete surfaces to 40 degrees F during any 24 hour period when removing cold weather protection until the surface temperature of the concrete reaches that of the ambient air temperature.

E. Hot Weather – Comply with the approved Hot Weather Concreting Plan and with the following when placing, finishing, curing, and protecting concrete exposed to hot weather during the protection period. Hot weather applies when the temperature is forecast to rise above 95 degrees F during the protection period:

1. Cool all surfaces that will come in contact with the concrete to below 95 degrees F.

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SECTION 03211M

REINFORCING STEEL AND WELDED WIRE

Delete Article 1.3 and replace with the following:

1.3 REFERENCES

A. AASHTO M 31: Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement

B. AASHTO M 55: Steel Welded Wire Reinforcement, Plain, for Concrete

C. AASHTO M 111: Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

D. AASHTO M 235: Epoxy Resin Adhesives

E. AASHTO T 106: Compressive Strength of Hydraulic Cement Mortar (Using 50-mm or 2-in Cube Specimens)

F. ASTM A 108: Steel Bar, Carbon and Alloy, Cold-Finished

G. ASTM A 493: Stainless Steel Wire and Wire Rods for Cold Heading and Cold Forging

H. ASTM A 706: Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement

I. ASTM A 767: Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement

J. ASTM A 775: Epoxy-Coated Steel Reinforcing Bars

K. ASTM A 955: Deformed and Plain Stainless-Steel Bars for Concrete Reinforcement

L. ASTM A 970: Headed Steel Bars for Concrete Reinforcement

M. ASTM E 1512: Testing Bond Performance of Bonded Anchors

N. American Welding Society (AWS) Standards

O. Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice

P. UDOT Quality Management Plans (QMP)

Add the following to Article 2.1:

C. Refer to ASTM A 955, Type XM-28, Grade 60 for deformed or plain stainless steel bars.

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

A. Refer to ASTM A 775 or AASHTO M 111.

Delete Article 2.7, paragraph B and replace with the following:

B. Provide epoxy coated, painted, or plain basket assemblies with a U-shaped leg for the assembly frame and a minimum 0.3 inch diameter wire with sufficient structure to maintain the proper location and alignment of dowels during concrete pavement placement as approved by the Engineer.

Add the following to Article 2.7:

D. Provide bar supports and wire ties for use with stainless steel bars that meet the following:
   1. Meet the requirements of Table 2.
   2. Provide bar supports that are plastic coated, epoxy coated, plastic, or stainless steel conforming to the requirements of ASTM A 493, Type 316.
   3. Provide wire ties that are plastic coated, plastic, or stainless steel conforming to the requirements of ASTM A 493, Type 316, annealed.
   4. Provide tie-down wires that are plastic coated or stainless steel conforming to the requirements of ASTM A 493, Type 316, annealed.

Add the following to Article 2.8:

D. Use stainless steel splice coupler with stainless steel reinforcement.

Delete Article 3.1, paragraph B.1.a and replace with the following:

a. Meet requirements of ASTM A 775 Appendix A.2 for repair material.

Add the following to Article 3.1:

E. Ship, handle, and store stainless reinforcing steel so it does not come in contact with carbon steel.
   1. Cover stainless reinforcing steel with tarps during outdoor storage.
   2. Separate bundles of stainless reinforcing steel from other types of reinforcing steel with wooden spacers.
   3. Store stainless reinforcing steel on wooden supports off the ground or floor.

Add the following to Article 3.2:

O. Place stainless steel reinforcement so that it does not come in contact with carbon steel.
   1. Do not tie stainless steel to uncoated or coated carbon steel reinforcement, galvanized attachments, or galvanized conduits.
      a. Direct contact is not acceptable.
      b. Use nylon or polyethylene spacers to maintain a minimum 1 inch clearance between the two metals and bind them with nylon cable ties when stainless reinforcing steel or dowels must be near coated or uncoated carbon steel reinforcing or galvanized metals,.
      c. Either bar may be sleeved with a continuous ⅛ inch minimum thickness polyethylene or nylon tube extending at least 1 inch in each direction past the point of closest contact between the two dissimilar bars where insufficient space exists to maintain this minimum.
   2. Use only epoxy coated or non-metallic snap ties, straps, or other forming hardware in members that use stainless steel reinforcement to prevent corrosion from dissimilar metals.

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SECTION 03310M

STRUCTURAL CONCRETE

Delete Article 1.3, paragraph H and replace with the following:

H. UDOT Structures Quality Control/Quality Assurance (QC/QA) Procedures

Delete Article 1.5, paragraph A3c and replace with the following:

c. Certify that engineering calculations have been checked according to the UDOT Structures QC/QA Procedures.

Delete Article 1.5, paragraph B3 and replace with the following:

3. Hot and cold weather concreting plans according to Section 03055.

Add the following to Article 2.1, paragraph D:

4. Use only where specified in the plans.

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

A. Deck – Do not place parapet forms or parapet for at least seven days after deck placement and until the deck has attained the specified 28 day minimum compressive strength, or leave all falsework in place and design it to carry all additional loads that are part of the parapet placement process.
   1. Do not allow the installation of the parapet and parapet forms to interrupt the curing of the deck and approach slabs when installed before curing is complete.

Add the following to Article 3.2:

F. Do not backfill abutments, wingwalls, and retaining walls until all concrete has been in place at least 7 days and has attained 100 percent of the specified 28 day minimum compressive strength based on field cured cylinders. Do not interfere with curing.

G. Do not place the approach slab until the sleeper slab concrete has been in place at least seven days or has attained 75 percent of the specified 28 day compressive strength.

Delete Article 3.3, paragraph E and replace with the following:

E. Do not backfill until the concrete has been in place at least 7 days and has attained 100 percent of the specified 28 day minimum compressive strength based on field cured cylinders.

Delete Article 3.4 and replace with the following:

3.4 HEADWALLS

A. Allow apron and pipe collar to attain 75 percent of the specified 28 day minimum compressive strength based on field cured cylinders before the remainder of the headwall is constructed.

B. Construct wingwalls monolithically.

C. Do not backfill headwalls and wingwalls until all concrete has been in place at least 7 days and has attained 100 percent of the specified 28 day minimum compressive strength based on field cured cylinders.

Delete Article 3.9, paragraphs B and C and replace with the following:

B. Keep all traffic off concrete bridges and culverts for 14 days after final concrete placement, until all concrete is fully cured, and until all concrete achieves 100 percent of the specified 28 day minimum compressive strength based on field cured cylinders.

C. Keep all traffic off bridge deck and approach slab closure pours for at least 7 days after final concrete placement, until all concrete is fully cured, and until all concrete achieves 100 percent of the specified 28 day minimum compressive strength based on field cured cylinders.

1. High-early strength concrete used in bridge deck and approach slab closure pours may be opened to traffic at least 3 days after final concrete placement and after concrete achieves 100 percent of the specified 28 day minimum compressive strength based on field cured cylinders.

Delete Article 3.9, paragraph G2b and replace with the following:

b. Use fog sprayers upwind of the placement operations to effectively increase the relative humidity. Refer to Section 03390.

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SECTION 03311M

JOINT CLOSURE

Add the following to Article 1.2:

E. Section 03390: Concrete Curing

Delete Article 1.5 and replace with the following:

1.5 SUBMITTALS

A. Concrete mix design for approval. Refer to Section 03055.

B. Hot and cold weather concreting plans. Refer to Section 03055.

C. Manufacturer's certificate of compliance for reinforcing steel.

Delete Article 2.1, paragraph A and replace with the following:

A. Portland Cement Concrete Class AA(AE) – Refer to Section 03055.
   1. Do not use High Early Strength concrete, unless specified in the plans.

Delete Article 3.4 and replace with the following:

3.4 PLACE CONCRETE

A. Refer to Section 03055 and Section 03310 for placing and finishing concrete.

B. Clean existing concrete and steel surfaces. Dampen the cleaned surfaces before placing concrete.

C. Cure concrete according to the requirements for cast-in-place concrete closure pours in bridge decks and approach slabs in Section 03390.

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SECTION 03390

CONCRETE CURING

Delete Section 03390 in its entirety and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Concrete curing materials and methods.

B. This section does not apply to cast-in-place Portland Cement Concrete Pavement and Lean Concrete Base Course. Refer to Section 02752.

C. This section does not apply to dry cast precast concrete members, except for precast concrete box and three-sided culvert structures.

1.2 RELATED SECTIONS

A. Section 02752: Portland Cement Concrete Pavement

B. Section 03055: Portland Cement Concrete

C. Section 03310: Structural Concrete

1.3 REFERENCES

A. ASTM C 309: Liquid Membrane-Forming Compounds for Curing Concrete

B. ASTM C 1315: Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete

C. UDOT Quality Management Plans

1.4 DEFINITIONS **Not Used**

1.5 SUBMITTALS

A. Manufacturer's product data, specifications, and recommended installation instructions.

PART 2 PRODUCTS

2.1 CURING COMPOUND

A. Refer to this Section, Part 3, Tables 1 and 2.

B. Limit Volatile Organic Compounds (VOC) content to 350 grams / liter maximum.

PART 3 EXECUTION

3.1 CURING MEASURES

A. Prevent drying of exposed concrete surfaces after placing concrete and until applying the selected curing method.
   1. Keep exposed concrete surfaces moist by fogging if the surfaces begin to dry before the selected curing method can be applied.

B. Cure all newly placed concrete to prevent loss of water by one or more of the following methods according to this Section.
   1. Forms-in-Place Method (FIPM)
      a. Cure formed surfaces of concrete by retaining the forms in place without loosening for the specified curing period.
      b. Complete the cure using one of the methods specified for the element when forms are removed before completing the specified curing period.
         1) Prevent drying of the exposed concrete surfaces while transitioning between curing methods.
   2. Water Method (WM)
      a. Keep concrete surfaces continuously wet by ponding, spraying, or covering with materials that are continuously and thoroughly wet.
         1) Acceptable materials for covering concrete surfaces include cotton mats, multiple layers of burlap, or other materials that retain water.
         2) Secure the cover materials to prevent wind or other forces from removing them.
         3) Keep the cover materials saturated throughout the curing period.
      b. Do not erode or damage the finish.
      c. Prevent excess water from impacting traffic on in-service roadways.

3. Liquid Membrane-Curing Compound Method (LMCCM)
    a. Thoroughly seal exposed concrete surfaces with a liquid membrane-curing compound immediately after finishing operations are completed for exposed concrete surfaces or immediately after forms are removed and necessary patching is complete when forms are removed before the end of the curing period.
    b. Apply liquid membrane-curing compound uniformly at the rates specified in Tables 1 and 2.
    c. Immediately repair damage to the curing compound film during the specified curing period by re-spraying.
4. Waterproof Cover Method (WCM)
    a. Exposed concrete surfaces must be wet before installing cover.
    b. Cover exposed concrete surfaces with a material that prevents moisture loss from the concrete.
        1) Do not use materials that have lost their waterproof qualities.
        2) Secure cover to prevent displacement by wind.
    c. Use this method only when the covering can be secured adequately to prevent moisture loss.
    d. Maintain the air temperature beneath the cover at not less than 50 degrees F.
        1) The use of insulated blankets is permitted.
5. Steam or Radiant-Heat Method (SRHM)
    a. Use only for precast concrete members manufactured in prequalified plants.
    b. Use a complete steam or radiant heat curing system that includes 24 hour temperature control and monitoring devices.
        1) Use temperature recording devices as necessary to verify that temperatures are uniform throughout the enclosure and within the limits specified.
    c. Steam Heat Curing System
        1) Use a suitable enclosure to contain live steam and minimize moisture and heat losses.
        2) Use low-pressure and saturated steam.
        3) Maintain 90 to 100 percent relative humidity in the curing enclosure.
        4) Do not apply heat directly on the concrete or cause localized high temperatures.
    d. Radiant Heat Curing System
        1) Apply heat by means of pipes circulating steam, hot oil, or hot water, or by electric heating elements.
        2) Use a suitable enclosure to contain the heat.

3) Minimize moisture loss by covering exposed concrete surfaces with plastic sheeting.

e. Waiting Period

1) Do not apply the initial application of heat before the initial set of the concrete except to maintain the minimum temperature within the curing enclosure.

2) Maintain the temperature within the curing enclosure at not less than 50 degrees F. Live steam or radiant heat may be used to maintain the curing enclosure at the proper minimum temperature. Keep the concrete wet during this period.

f. Curing Period

1) Increase the temperature within the concrete during the initial application of heat at an average rate not to exceed 40 degrees F per hour until the curing temperature is reached.

2) Do not exceed a concrete temperature of 160 degrees F when applying heat.

3) Maintain the concrete temperature at between 50 degrees F and 160 degrees F.

4) Maintain the curing temperature until the concrete achieves the specified strength for terminating the curing.

5) Decrease the concrete temperature at a rate not to exceed 40 degrees F per hour until reaching a temperature of not more than 20 degrees F above the air temperature to which the concrete will be exposed when discontinuing heat.

g. Transfer the stressing force to the concrete immediately after discontinuing steam curing or radiant heat curing for prestressed members.

C. Prevent exposed concrete surfaces from drying when transitioning between curing methods.

D. Fogging

1. Use fogging when necessary to prevent drying of exposed concrete surfaces.

2. Use fogging equipment with compressed air misters that atomize the water and produce a very fine mist and not a spray.

a. Use equipment that allows for adjusting the rate of fogging depending on the conditions that are present.

b. Maintain misters at least 5 ft above the concrete surface and aimed in a direction not lower than horizontal.

c. Do not use fogging to apply excess water to the concrete surface to aid finishing.

d. Do not affect the water/cement ratio of the concrete.
e. Discontinue fogging when a fine coating of water or sheen is visible on the concrete surface.

3. Do not damage the concrete surface.

E. Follow the hot and cold weather limitations according to Section 03055.

3.2 CURING COMPOUND APPLICATION

A. Comply with the following when applying liquid membrane-curing compound to structural elements in bridges, box culverts, headwalls, retaining walls, concrete drainage structures, and concrete slope protection.

1. Do not use curing compounds on surfaces that require a rubbed finish or on surfaces of construction joints against which new concrete will be cast, unless the Engineer gives written approval.
   a. Completely remove the curing compound before casting new concrete against the surface when curing compound is allowed.
2. Do not use curing compounds on architectural surfaces that require a concrete coating or penetrating concrete sealer and where removal will diminish the texture.

B. Preparation

1. Verify concrete surfaces are ready for curing.
   a. Complete all patching and surface finishing before applying curing compound.
2. Prepare concrete surfaces and apply curing compound according to product manufacturer's recommendations. Refer to Tables 1 and 2 for application rates.
3. Keep surfaces moist until the curing compound is applied.

3.3 CURE CAST-IN-PLACE CONCRETE

A. Cure all formed surfaces using the FIPM.

B. Cure exposed surfaces of newly placed cast-in-place concrete according to the curing methods and curing periods in Table 1.

1. Determine the concrete compressive strength using field cured cylinders cured the same as the concrete member when compressive strength is used to determine the curing period. The curing period is the specified number of consecutive days when compressive strength is not used to determine the curing period.

Table 1

Cast-in-Place Concrete Curing Requirements				
Element	Curing Methods for Exposed Surfaces [1]	Curing Period [2]	Curing Compound	
			Type	Application Rate
Bridge Decks and Approach Slabs	• LMCCM and WM	14 days	ASTM C309, Type I D, Class A	Manufacturer's recommended rate
Closure Pours in Bridge Decks and Approach Slabs	• LMCCM and WM	7 days and f′c [3]	ASTM C309, Type I D, Class A	Manufacturer's recommended rate
Other Bridge Elements (superstructure, substructure, and foundation elements)	• LMCCM or • WM or • WCM	0.70 f′c or 7 days [3]	ASTM C309, Type I D, Class A	100 ft^2/gal
Box Culverts (including wingwalls, and aprons), Headwalls, Retaining Walls, Concrete Drainage Structures, Sign Structure Foundations	• LMCCM or • WM or • WCM	0.70 f′c or 7 days	ASTM C309, Type I D, Class A	100 ft^2/gal
Concrete barrier	• LMCCM or • WM or • WCM	0.70 f′c or 7 days	ASTM C309, Type I D, Class A or ASTM C1315, Type 1, Class A [4]	100 ft^2/gal
Curbs, gutters, flatwork, sidewalks, driveways, concrete slope protection, and other concrete items not specified	• LMCCM	7 days	ASTM C309, Type I D, Class A	100 ft^2/gal

Table 1 Notes:
[1] Use FIPM for all formed surfaces. Specified curing methods apply to exposed concrete surfaces and any formed surfaces where the forms are removed before the curing period ends.
[2] f'c = specified 28 day minimum compressive strength.
[3] The curing period for bridge elements that use high early strength concrete may be reduced to the greater of 3 days and the time required to achieve the specified 28 day minimum compressive strength. (Refer to Section 03310 for when the use of high early strength concrete is permitted.)
[4] Use a curing compound meeting ASTM C309 when removal is required.

C. Bridge Decks and Approach Slabs
   1. Cure the exposed surfaces of newly placed concrete bridge decks and approach slabs for the specified curing period by a combination of the liquid membrane-curing compound method and the water method.
   2. Apply membrane-curing compound so that no portion of the deck or approach slab is exposed to the atmosphere for more than 20 minutes after the tining or finishing operation.
      a. Use a work bridge that follows immediately after the finishing machine to allow application of the curing compound while the concrete is still plastic.
   3. Cover the entire exposed surface of bridge decks, approach slabs, curbs, and sidewalks as soon as the concrete is sufficiently set to support the materials. Refer to this Section, Article 3.1 for water method requirements.

D. Concrete Barrier
   1. Broom clean the formed surfaces of the barrier after removing forms.
   2. Apply curing compound to exposed concrete surfaces immediately after finishing operations are completed.

3.4 CURE PRECAST CONCRETE

A. Cure all formed surfaces using the FIPM.

B. Cure exposed surfaces of newly placed precast concrete according to the curing methods and curing periods in Table 2.
   1. Determine the concrete compressive strength using field cured cylinders cured the same as the concrete member when compressive strength is used to determine the curing period. The curing period is the specified number of consecutive days when compressive strength is not used to determine the curing period.

Table 2

Precast Concrete Curing Requirements				
Element	Curing Methods for Exposed Surfaces [1]	Curing Period [2]	Curing Compound	
			Type	Application Rate
Precast Concrete Deck Panels (full depth), Precast Approach Slabs, (includes parapets when cast concurrent with precast deck and approach slab panels)	• LMCCM and WM	14 days	ASTM C309, Type I D, Class A	Manufacturer's recommended rate
Precast Substructure Elements, Partial Depth Precast Deck Panels (non-prestressed)	• WM or • SRHM	0.7 f′c or 7 days	Not used	Not used
Prestressed Concrete Members (includes all pretensioned concrete members where pretensioning is required in the plans)	• SRHM or • WM or • WCM	Specified release strength (f'ci)	Not used	Not used
Precast Noise Walls, Precast Retaining/Noise Walls, MSE Retaining Wall Panels	• SRHM or • WM or • WCM	0.70 f′c or 7 days	Not used	Not used
Precast Box Culvert Structures and Precast Three-Sided Culvert Structures (wet cast and dry cast)	• SRHM or • WM or • WCM • LMCCM	0.70 f′c or 7 days	ASTM C309, Type I D, Class A	100 ft^2/gal
Wet Cast Concrete Drainage Structures (such as manholes, grade rings, catch basin grade sections, pipe end sections, precast inlets and boxes)	• SRHM or • WM or • WCM • LMCCM	0.50 f′c or 7 days	ASTM C309, Type I D, Class A	100 ft^2/gal
Modular Block (wet cast)	• WM or • WCM or • LMCCM	0.70 f'c or 7 days	ASTM C309, Type I D, Class A	100 ft^2/gal

Table 2 (Continued)

Precast Concrete Curing Requirements				
Element	Curing Methods for Exposed Surfaces [1]	Curing Period [2]	Curing Compound	
			Type	Application Rate
Concrete Barrier	• LMCCM	7 days and until certified according to QMP [3]	ASTM C1315, Type 1, Class A	100 ft^2/gal
PCC Pavement Panels	• LMCCM and WM	14 days	ASTM C309, Type I D, Class A	Manufacturer's recommended rate

Table 2 Notes:
[1] Use FIPM for all formed surfaces. Specified curing methods apply to exposed concrete surfaces and any formed surfaces where the forms are removed before the curing period ends.
[2] f'c = specified 28 day minimum compressive strength.
[3] QMP = UDOT Quality Management Plan: Precast-Prestressed Concrete Structures.

C. Precast Concrete Deck Panels (full depth), and Precast Approach Slabs
   1. Refer to this Section, Article 3.3, paragraph C.

D. Precast Concrete Barrier
   1. Broom clean the formed surfaces of the barrier after removing forms.
   2. Apply curing compound to exposed concrete surfaces immediately after finishing operations are completed.

END OF SECTION

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SECTION 03393M

CONCRETE HEALER/SEALER

Delete Article 1.5, paragraph B.

Delete Article 2.1, paragraph A and replace with the following:

A. Use approved low viscosity, low modulus polymer or high molecular weight methacrylate (HMWM) system.
   1. Refer to Table 1 for concrete healer/sealer properties.

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

B. Healer/Sealer Systems
   1. Deliver materials to the project in their original containers bearing the manufacturer's label specifying the date of manufacturing, batch number, trade name brand, quantity, and mixing ratio.

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

C. Handle and mix according to the manufacturer's recommendations.

D. Apply the concrete healer/sealer to the entire prepared concrete surface according to the manufacturer's recommendations.
   1. Do not place materials when weather or surface conditions prevent the material from being properly handled, placed, and cured.
   2. Completely cover or flood the deck with the material. Coverage rates will vary depending on the existing surface conditions.
      a. Sweep, squeegee, pour, or spray the area with the sealer allowing it to flow into the cracks.
   3. Place all material within five minutes of mixing.
   4. Repeat this procedure until all cracks are completely filled and a uniform coating covers the deck.
   5. Sweep excess sealer with a broom from tined surfaces after the cracks have been filled and before the material begins to gel.
   6. Do not allow excess sealer to plug the tined surfaces of the bridge deck and approach slabs.

Add Article 3.3, paragraph I:

I. Verify that the application has not caused the deck to become less skid resistant than the original deck surface as measured before the application according to AASHTO T 242. Take the necessary measures to correct the surface skid resistance if the deck does become less skid resistant after the application.

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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.

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SECTION 05120M

STRUCTURAL STEEL

Delete Article 1.3 and replace with the following:

1.3 REFERENCES

A. AASHTO M 111: Zinc (Hot-dip Galvanized) Coatings on Iron and Steel Products

B. AASHTO M 270: Structural Steel for Bridges

C. AASHTO LRFD Bridge Construction Specifications

D. AASHTO LRFD Bridge Design Specifications

E. AASHTO/AWS D1.5 Bridge Welding Code

F. ASTM A 194: Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both

G. ASTM A 325: Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength

H. ASTM A 563: Carbon and Alloy Steel Nuts

I. ASTM F 436: Hardened Steel Washers

J. ASTM F 606: Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, Direct Tension Indicators, and Rivets

K. ASTM F 959: Compressible-Washer-Type Direct Tension Indicators for Use With Structural Fasteners

L. American Institute of Steel Construction (AISC)

M. Society for Protective Coatings (SSPC)

N. UDOT Quality Management Plan

O. UDOT Steel and Concrete Construction Manual

Delete Article 1.5, paragraph B.1 and replace with the following:

1. Manufacturer's certificate of compliance for nut, bolt, and washer proof load tests as specified. Refer to ASTM F 606 and ASTM A 325.
   a. Provide Certificate showing corresponding lot numbers appearing on the shipping package, certification, test location, time and date, and results of the testing.
   b. Include rotational capacity and proof load test results.

Delete Article 2.2, paragraph C.1 and replace with the following:

1. Refer to ASTM A 194 or ASTM A 563.

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

D. Washers – Refer to ASTM F 436.

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SECTION 06055M

TIMBER AND TIMBER TREATMENT

Delete Article 1.3 and replace with the following:

1.3 REFERENCES

A. AASHTO M 133: Preservatives and Pressure Treatment Processes for Timber

B. AASHTO M 168: Wood Products

C. AASHTO LRFD Bridge Requirements

D. Southern Pine Inspection Bureau (SPIB) Standard Grading Rules

E. Western Wood Products Association (WWPA) Standard Grading Rules

Delete Article 2.3 and replace with the following:

2.3 TREATMENT

A. Meet requirements of AASHTO LRFD Bridge Requirements.

B. Meet requirements of AASHTO M 133.