

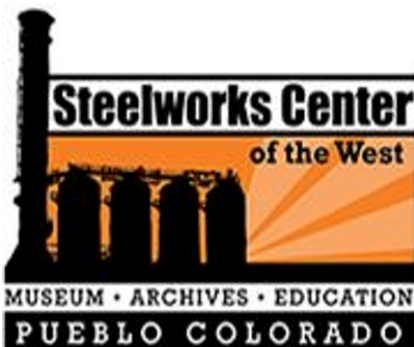
# STEELWORKS PARK

215 Canal Street  
Pueblo, CO 81004

## Project Manual

**THK Associates Inc.**

2953 South Peoria Street, Ste 101  
Aurora, CO 81004



January 18, 2017

**BID ADMINISTRATION – January 18, 2017**  
 7523-001 - STEELWORKS PARK  
 215 CANAL STREET, PUEBLO, COLORADO 81004

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Utilize the Steelworks Park specifications and details. These specifications are hereby included by reference and all provisions thereof shall be applicable. Should additional information be needed, refer to the most current *Colorado Department of Transportation Standard Specifications for Road and Brid Construction*. The *Colorado Department of Transportation Standard Specifications for Road and Brid Construction* are not included in this bid package but are available on the Colorado Department of Transportation’s website. By submitting a bid, the Contractor acknowledges possession of a copy of said documents.

Addenda No.	In Receipt

Signature: \_\_\_\_\_

\*This page required for electronic submittal

**MANDATORY SUBMITTALS**

Deliver all submittals to: Steelworks Center of the West  
Attn: Chris Schreck, Interim Executive Director  
215 Canal Street  
Pueblo, CO 81004

Clearly mark on the outside of the package:

**Project No: 7523-001**  
**Project Name: STEELWORKS PARK**

Deadline: **Thursday, February 2, 2017 at 5:00 pm.**

**SUBMITTAL CHECKLIST**

**Submittals**

**Submitted**

NOTE: ALL submittals requiring a signature MUST be signed.

- 1. Mandatory Submittals.....
- 2. Acknowledgement of Affirmative Action Plan Requirement (signed).....
- 3. Requests for Bids.....
- 4. Certifications of Non-Segregated Facilities.....
- 5. Bid Bond.....
- 6. P.E.R.A. Questionnaire (signed).....
- 7. Preliminary Statement of Workforce Needs.....
- 8. Any Addenda acknowledgement sheets \*.....
- 9. CDOT Form 606 – Anti-Collusion Affidavit.....
- 10. CDOT Form 1413 - Bidders List.....
- 11. CDOT Form 714 – For Emerging Small Businesses (EBS) signature  
only required on form.....

\*(Addenda will be emailed to bidders at the E-mail address provided or you may contact Chris Schreck at [chris.schreck@steelworks.us](mailto:chris.schreck@steelworks.us). It is the Proposer’s responsibility to verify whether any Addenda were issued prior to submitting the proposal)

The undersigned having carefully read the contract documents for the above-referenced project, acknowledges that all required submittals are included in this bid proposal. Pursuant to section 4.2.2 (c) of Article 4 - General Provisions, the proposal forms, entire bid book, and required submittals must be turned in together as one bid package. Failure to do so may result in rejection of the submittal.

Firm Name: \_\_\_\_\_

Business Address: \_\_\_\_\_  
\_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Office Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

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**ACKNOWLEDGEMENT OF  
AFFIRMATIVE ACTION PLAN REQUIREMENT**

**Project No: 7523-001**

**Project Name: STEELWORKS PARK**

In accordance with Article 3 - Labor Provision, Section 3.3 - Contract Provisions, the bidding company named below hereby acknowledges that it has a written affirmative action plan which declares that the Contractor and its Subcontractor(s) do not discriminate on the basis of race, color, religion, creed, national origin, sex or age. I further understand that the written program must be submitted to the Bid Issuer within 10 days of the award of contract.

Neither the receipt by the Bid Issuer of this completed form, nor of any Affirmative Action Plan submitted by any bidder, contractor or subcontractor shall constitute any determination by the Bid Issuer of the adequacy of any Affirmative Action Plan.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Date: \_\_\_\_\_

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**ARTICLE I  
A. ADVERTISEMENT FOR BID**

To Whom It May Concern,

Steelworks Center of the West will receive sealed bids up to the hour of **5:00 pm (MST) on the 2nd day of February, 2017** at Steelworks Museum, 215 Canal St. Pueblo, CO 81004 for the following:

**Project No: 7523-001**

**Project Name: STEELWORKS PARK**

PRE-BID MEETING: No pre-bid meeting is scheduled at this time. All bidders must make themselves familiar with the site.

In general, this project will consist of the construction of an urban plaza with the purpose of the exhibition of significant historical artifacts and other incidental items related to the construction as specified in the plans and the specifications.

Contract documents may be obtained from Steelworks Center of the West via email by request at [chris.shreck@steelworks.us](mailto:chris.shreck@steelworks.us) or paper copies can be obtained from Steelworks Center of the West located at 215 Canal Street, Pueblo, CO 81004 at a NON-REFUNDABLE cost of \$50.00. Payment must be in the form of cash or check. Credit Cards will not be accepted. Paper copies require 24 hour notice prior to pick-up for reproduction.

Addenda shall be sent to all contract document holders by electronic data transmission (i.e. E-mail). It is the bidder's responsibility to provide an accurate E-mail address. It is the bidder's responsibility to verify whether any addenda were issued and to notify Steelworks Center of the West of successful receipt of any addenda. Bidders must follow the bid submittal procedures outlined in the contract document.

Each bid must be accompanied by a certified check, cashier's check, postal money order or bid bond in the amount of five (5) percent of the grand total bid, plus all alternates if applicable, payable to the Bessemer Historical Society as a guarantee that if the bid is accepted, the bidder will execute and file the proposed contract and bond within ten (10) days from the date of the award of the contract by the Bessemer Historical Society.

All bids must be received at Steelworks Center of the West before the time specified and be enclosed in sealed envelopes plainly marked with the above referenced Project number and name. Only bids that are made out upon the forms prepared by Steelworks Center of the West will be considered. The bid form must not be separated from the contract document. Any correction on the bid forms must be initialed by the person signing the bid.

Steelworks Center of the West, on behalf of the Bessemer Historical Society, reserves the right to reject any or all bids for any or all items covered in the Invitation for Bid, to waive informalities or defects in bids or to accept such bids as it shall deem to be in its best interest.

**GENERAL**

This project is to be financed in part by the Colorado Department of Transportation and shall be referred to as Steelworks Park. Bidders shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Water Act of 1970, Federal Water Pollution Control Act, and Contract Work Hours Standards Act, and shall sign the Certification of Non-Segregated Facilities in Article 1-B, Request for Proposals. Bidders must comply with Title VI of the Civil Rights Act of 1964, the Davis-Bacon Act, the Anti-Kickback and the Contract Work Hours and Safety Standards Act.

**EQUAL EMPLOYMENT OPPORTUNITY**

Pursuant to Executive Orders 11246, as amended, and 11375 on Equal Employment Opportunity, Part 60-4, Construction Contractor Affirmative Action Requirements, and Section 3 of the Housing and Urban Development Act of 1968, as amended, a prime contractor and sub-contractor who signs a contract on a Federally assisted construction project are required to take affirmative action toward equal employment opportunity and are required to implement the Colorado Statewide Plan. At pre-construction conferences, the successful bidder and his sub-contractors shall be required to present and discuss the approach to be taken by the successful bidder and his sub-contractors to implement the requirements of affirmative action for equal employment and training in accordance with Executive Orders 11246, as amended, and 11375.

Published: June 20, 2016



Julie Gamec, THK Associates, Inc.

**ARTICLE I  
B. REQUEST FOR BIDS**

**Project No: 7523-001**

**Project Name: STEELWORKS PARK**

All proposals are to be prepared on this form. All blank spaces must be correctly filled in where indicated for each and every item for which a quantity is given, and the bidder must state the prices (written in ink or typewritten) for which he proposes to do each item of the work contemplated or furnish each item of the materials required.

The undersigned, having become familiar with the local conditions affecting the cost of the work, and with the contract documents, including advertisement for bids, the form of proposal, the form of contract, form of bond, special provisions of the contract, general provisions of the contract, etc., plans, drawings and specifications, issued and attached to the contract documents on file in the office of the Purchasing Agent, hereby proposes to furnish all of the labor, materials, necessary tools and equipment and all utility and transportation service necessary to perform and complete in a workmanlike manner all of the work required in connection with the construction of the Steelworks Park in accordance with the plans and specifications as prepared by or for the Bessemer Historical Society, for the sums set forth in the following bidding schedule. The Contractor is responsible for verifying all bid quantities prior to bidding:

SITE DEMOLITION AND FENCING						
CDOT ITEM CODE No.	DESCRIPTION	QTY	UNIT	COMMENTS	SHEET/ DETAIL	BID COST
202-00212	Removal of Concrete Pavement (Special)	272	SY	Removal of Existing Ramp and Stairs	Sheet 3	
202-00003	Removal of Structure (Special)	1	LS	Removal of Mine Rescue Car Stairs	Sheet 3	
210-00001	Reset Structure	2	Ea	Resetting of Mine Rescue Car Stairs		
607-11525	Fence (Plastic)	240	LF	Protection Fencing for Historic Light Structures	Sheet 3	
201-00001	Clearing and Grubbing	0.03	Acre		Sheet 3	
607-11580	Fence (Temporary)	980	LF	Construction Fencing Phase I	Sheet 2	
607-11580	Fence (Temporary)	255	LF	Construction Fencing Phase II	Sheet 2	
<b>SUBTOTAL</b>						

SITE WORK						
CDOT ITEM CODE No.	DESCRIPTION	QTY	UNIT	COMMENTS	SHEET/ DETAIL	BID COST
203-00060	Embankment Material (Complete in Place)	332	CY	Fine Grading - fill required to raise site. Assume 3" typical depth	Sheet 4	
203-01500	Blading	36	Hour	Fine Grading	Sheet 4	
203-01582	Truck (Dump)	36	Hour	Fine Grading	Sheet 4	
609-21010	Curb and Gutter Type 2 (Section I-B)	290	LF	Curb and Gutter at Bus Lane and parking lot	Sheet 5, E/14	
601-07000	Concrete Retaining Wall	101	SF	Entrance and ADA Ramp	Sheet 5, A/15, D/15	
621-00650	Pedestrian Stair Structure	1	LS		Sheet 5, A/15, D/15	
514-00100	Hand Rail - Field Painted Black	67	LF		Sheet 5, A/15, D/15	
412-00400	Concrete Pavement (4 inch), Broom Finish, Troweled Score Joints	835	SY	Plaza paving	Sheet 7, A-F/7	
412-01215	Concrete Pavement (12 Inch) Reinforced	68	SY	Plaza thickened Edge at planters	Sheet 5-6, D/14	
609-20000	Curb Type 2 (Section B)	124	LF	Memorial Wall Curb	Sheet 5, F/15	
403-34721	Hot Mix Asphalt (Grading SX) (75) (PG58-28)	114	TON	New Parking area as required for layout change	Sheet 6	
304-06007	Aggregate Base Course (Class 6)	56	CY	New Parking area as required for layout change	Sheet 6	
212-00050	Sod	250	SF	For repair at memorial wall	Sheet 12	
<b>SUBTOTAL</b>						
ARTIFACTS						
CDOT ITEM CODE No.	DESCRIPTION	QTY	UNIT	COMMENTS	SHEET/ DETAIL	BID COST
700-70110	F/A Install	1	FA	Includes details for bases on: Davenport Engine, 130 Ton Ladle, Rail Roller, Ore Cart, 10 Ton Ladle, Steelworker statue	Sheets 5-6, 16, A-D/16	
<b>SUBTOTAL</b>						

<b>LIGHTING</b>						
<b>CDOT ITEM CODE No.</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>COMMENTS</b>	<b>SHEET/ DETAIL</b>	<b>BID COST</b>
613-50200	Lighting Conduit	1	Ea.		Sheet 8	
<b>SUBTOTAL</b>						
<b>IRRIGATION</b>						
<b>CDOT ITEM CODE No.</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>COMMENTS</b>	<b>SHEET/ DETAIL</b>	<b>BID COST</b>
623-01708	1 Inch Backflow Preventor	1	Ea		Sheets 9-11	
623-08107	7 Station Automatic Controller	1	Ea		Sheets 9-11	
623-06900	Valve Box	6	Ea		Sheets 9-11	
623-03008	1 Inch Manual Control Valve (Master)	1	Ea		Sheets 9-11	
623-05008	1 Inch Gate Valve (Isolation)	1	Ea		Sheets 9-11	
623-07601	1 Inch Flow Sensor	1	Ea		Sheets 9-11	
623-04008	1 Inch Quick Coupler	2	Ea		Sheets 9-11	
623-04000	Control Wire	375	LF		Sheets 9-11	
619-50080	1 Inch Plastic Pipe (mainline)	375	LF		Sheets 9-11	
619-50160	2 Inch Plastic Pipe (sleeve)	190	LF		Sheets 9-11	
<b>SUBTOTAL</b>						
<b>LANDSCAPE</b>						
<b>CDOT ITEM CODE No.</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>COMMENTS</b>	<b>SHEET/ DETAIL</b>	<b>BID COST</b>
608-01600	Aggregate Walkway	300	SY	Crusher Fine Areas	Sheets 12-13, E/15	
213-00460	Metal Landscape Boarder (3/16x4 Inch)	328	LF		Sheets 12-13, H/14	
213-00067	Rock Mulch (Weed Free)	210	SF		Sheet 12	
206-00050	Structure Backfill (Special)	5	CY	Backfill for new median at bus lane	Sheets 12-13, E/14	
<b>SUBTOTAL</b>						

OTHER						
CDOT ITEM CODE No.	DESCRIPTION	QTY	UNIT	COMMENTS	SHEET/ DETAIL	BID COST
626-00000	Mobilization	1	LS	Assume 10% of the project cost		
<b>SUBTOTAL</b>						
<b>PROJECT BID TOTAL</b>						

\$ \_\_\_\_\_  
Grand Total Bid

\_\_\_\_\_  
Grand Total Bid in Writing (Dollars)

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**ADD ALTERNATE ITEMS**

SITE WORK						
CDOT ITEM CODE No.	DESCRIPTION	QTY	UNIT	COMMENTS	SHEET/ DETAIL	BID COST
403-02000	Hot Mix Asphalt Special	1018	TON	Parking lot overlay	Sheet 6	
514-00100	Hand Rail - Powder Coated Black	67	LF		Sheet 5, A/15, D/15	
608-00050	Brick Pavers	5240	SF		Sheet 5, F/14	
608-00051	Brick Pavers (Install Only)	125	SF	Installation of Historic Pavers	Sheet 5, G/14	
627-00001	Pavement Marking Paint	5	GAL	Parking lot overlay	Sheet 6	
<b>SUBTOTAL</b>						

SITE FURNISHINGS						
CDOT ITEM CODE No.	DESCRIPTION	QTY	UNIT	COMMENTS	SHEET/ DETAIL	BID COST
622-00250	Bench	9	Ea		Sheets 5-6, J/14	
622-00350	Trash Receptacle	2	Ea		Sheets 5-6, K/14	
622-00270	Bollard	9	Ea		Sheets 5-6, I/14	
622-00025	Information Sign Board	1	Ea	Large - 36" x 48"	Sheets 5-6, G-H/15	
622-00025	Information Sign Board	1	Ea	Medium - 36" x 24"	Sheets 5-6, G-H/15	
622-00025	Information Sign Board	5	Ea	Small - 12" x 18"	Sheets 5-6, G-H/15	
<b>SUBTOTAL</b>						
LIGHTING						
CDOT ITEM CODE No.	DESCRIPTION	QTY	UNIT	COMMENTS	SHEET/ DETAIL	BID COST
613-50200	Lighting Wiring, Connection and Fixtures	1	Ea.		Sheet 8	
<b>SUBTOTAL</b>						
IRRIGATION						
CDOT ITEM CODE No.	DESCRIPTION	QTY	UNIT	COMMENTS	SHEET/ DETAIL	BID COST
623-06900	Valve Box	4	Ea		Sheets 9-11	
623-03004	3/4 Inch Drip Zone Control Valve	4	Ea		Sheets 9-11	
623-00162	Drip Emitter Tubing	2000	LF	Drip Irrigation Supply	Sheets 9-11	
623-00164	Drip Emitter	1014	Ea		Sheets 9-11	
623-07600	Weather Station (Rain Sensor)	1	Ea		Sheets 9-11	
<b>SUBTOTAL</b>						



LANDSCAPE						
CDOT ITEM CODE No.	DESCRIPTION	QTY	UNIT	COMMENTS	SHEET/ DETAIL	BID COST
213-00008	Mulching (wood chip)	2699	CF		Sheets 12-13, A-E/14	
212-00900	Compost	24.3	CY	Compost / Soil Amendment - 8104 SF 3CY/1,000 SF = 24.3 CY	Sheets 12-13	
214-00230	Deciduous Tree (3 Inch Caliper)	10	Ea		Sheets 12-13, A/14	
214-00220	Deciduous Tree (2 Inch Caliper)	17	Ea		Sheets 12-13, A/14	
214-00350	Deciduous Shrub (5 Gallon Container)	135	Ea		Sheets 12-13, B/14	
214-00650	Evergreen Shrub (5 Gallon Container)	30	Ea		Sheets 12-13, B/14	
214-00910	Perennials (1 Gallon Container)	338	EA	Ornamental Grasses	Sheets 12-13, C/14	
214-00910	Perennials (1 Gallon Container)	247	EA	Perennials	Sheets 12-13, C/14	
<b>SUBTOTAL</b>						
<b>ADD ALTERNATE BID TOTAL</b>						

\$ \_\_\_\_\_  
Grand Total ADD ALTERNATE Bid

\_\_\_\_\_  
Grand Total ADD ALTERNATE Bid in Writing (Dollars)

The contract may be awarded on the basis of the Base Bid, plus those Bid Alternates selected at the sole discretion of Bessemer Historical Society, to the responsible bidder submitting the lowest and best responsive bid. The total of the Base Bid plus all of the Bid Alternates shall be the basis for establishing the Bid Bond amount. The sum of the Base Bid, plus those Bid Alternates, if any, selected at the sole discretion of Bessemer Historical Society, shall be the basis for establishing the amount of the Payment and Performance Bonds for this contract.

This project is to be financed in part by monies from the Colorado Department of Transportation.

**Bidders must submit the following information with the bid documents:**

1. CDOT Form 606 – Anti Collusion Affidavit
2. CDOT Form 1413 – Bidders List
3. CDOT Form 714 – For Emerging Small Businesses (EBS) signature only required on form.

**Selected bidder must submit the following forms to the Bessemer Historical Society within five (5) calendar days of selection:**

1. CDOT Form 605 – Contractors Performance Capability Statement
2. CDOT Form 621 – Assignment of Antitrust Claims

Required CDOT forms have been included as attachments to this bid document and can also be found at:

<http://www.coloradodot.info/library/forms/form-numbers-broken-down>

Measurement of work will be measured and paid as set forth in the unit rate prices in this document and as described in the project Specifications.

Each contractor or sub-contractor in excess of \$10,000, or employing more than (5) persons, shall be required to have a written affirmative action plan which declares that the contractor or sub-contractor does not discriminate on the basis of race, color, religion, creed, national origin, sex and age, and which specifies goals and timetables to assure the implementation of the plan.

Although submittal of Monthly Employment Utilization Reports are not presently required, the prime contractor shall maintain adequate records and be prepared to submit to the Bessemer Historical Society, upon request, all of the information otherwise reportable on the U.S. Department of Labor Form CC-257.

The undersigned has carefully checked the above items against the plans and specifications before preparing this proposal and accepts the said quantities as substantially correct, both as to classification and amount, and as correctly listing the work to be done in accordance with the plans and specifications.

The bidder must sign his proposal correctly and in ink; if the proposal is offered by an individual, his name, office and post office address must be shown. If made by a firm or partnership, the name, office and post office address of each member of the firm or partnership must be given; if offered by a corporation, the person signing the proposal must give the name of the state under the laws of which the corporation was chartered, and the name, title and business address of the President, Secretary and the Treasurer. Anyone signing a proposal as agent must file legal evidence of his authority to do so, and that the signature is binding upon the firm or corporation.

The undersigned, if awarded the contract, agrees to complete and file two sets of complete contract and performance bonds within ten (10) days of the date of Notice of Award and further agrees to complete the work within ***one hundred days (100)*** calendar days of Notice to Proceed.

Liquidated damages will be assessed in accordance with Section 4.8.4 of ARTICLE 4 - GENERAL PROVISIONS, for every calendar day thereafter until the work is complete and accepted by Bessemer Historical Society or authorized representative.

NOTE: Bidders should not add any conditions or qualifying statements to this bid as otherwise the bid may be declared irregular as being not responsive to the advertisement for bids. The contractor shall be subject to all applicable City, County, State and Federal Taxes in the performance of this contract.

Firm Name: \_\_\_\_\_

Business Address: \_\_\_\_\_  
\_\_\_\_\_

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

Date: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Fax No: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Contractor's Federal I.D. Number: \_\_\_\_\_

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**EQUAL OPPORTUNITY CLAUSE**

The Following Equal Opportunity Clause Shall Be Included:

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant or employment because of race, color, religion, sex, national origin, creed or age. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, national origin, creed or age. Such action shall include, but not be limited to the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising,; lay-off or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
2. The contractor will, in all solicitations or advertisements for employees placed by on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, creed or age.
3. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
4. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his book records, and accounts by the Secretary of Labor for purpose of investigation to ascertain compliance with such rules, regulations and orders.
5. In the event of the contractor's noncompliance with the non-discrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked

as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

6. The contractor will include the provisions of paragraphs 1 through 6 in every sub-contract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that each provision will be binding upon each sub-contractor or vendor. The contractor will take such action with respect to any sub-contract or purchase order as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event the contractor becomes involved in or is threatened with litigation with a sub-contractor or vendor as a result, the contractor may request the United States to enter into such litigation to protect the interest of the United States.

### **COMPLIANCE WITH AIR AND WATER ACTS**

This Contract Agreement is subject to the requirements of the Clean Air Act, as amended, 42 USC 1857 et seq., the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq., and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFS Part 15, as amended from time to time.

The contractor shall comply with the following requirements:

1. A stipulation by the contractor of subcontractors that any facility to be utilized in the performance of any nonexempt contract or subcontract is not listed on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.
2. Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
3. A stipulation that as a condition for the award of the contract prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized or to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
4. Agreement by the contractor that he will include or cause to be included the criteria and requirements in paragraphs (1) through (4) of this section in every nonexempt subcontract and requiring that the contractor will take such action as the Government may direct as a means of enforcing such provisions.

### **INTEREST OF MEMBERS, OFFICERS, OR EMPLOYEES OF GRANTEE, MEMBERS OF LOCAL GOVERNING BODY, OR OTHER PUBLIC OFFICIALS**

No members, officers, or employee of the Grantee, or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the program during his tenure or for one year thereafter, shall have any interest, direct or indirect, in any contract or

subcontract, or the proceeds thereof, for work to be performed in connection with the program assisted under the Agreement.

Grantee's officers; employees and agents shall never solicit nor accept gratuities, favors, or anything of monetary value from contractors or potential contractors, and, additionally, shall be governed in their actions by the standards of conduct described in Title VI of the 1971 Code of Ordinances of the City of Pueblo.

**CERTIFICATION OF NONSEGREGATED FACILITIES**

The submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause of this Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed sub- contractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that he will retain such certifications in his files; and that he will forward the following notice to such proposed subcontractors (except where the proposed sub-contractors have submitted identical certifications for specific time periods):

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES**

A Certification of Non-segregated Facilities, as required by the May 9, 1967, order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually)

Company: \_\_\_\_\_

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

Title: \_\_\_\_\_

Date: \_\_\_\_\_

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

\*This page required for electronic submittal

### **WILLIAMS-STEIGER OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970**

This contract is subject to the provisions of the Williams-Steiger Occupational Safety and Health Act of 1970.

These construction documents and the joint and several phases of construction hereby contemplated are to be governed, at all times, by applicable provisions of the Federal Law(s), including but not limited to the latest amendments of the following:

Williams-Steiger Occupational Safety and Health Act of 1970, Public Law 91-596

Part 1910 - Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations

Part 1926 - Safety and Health Regulations for Construction, Chapter XVII of Title 29, Code of Federal Regulations.

### **SAFETY AND HEALTH PROGRAM**

This project, its prime contractor and his subcontractors, shall at all times be governed by Chapter XVII of Title 29, Code of Federal Regulations, Part 1926 Safety and Health Regulations for Construction (37FR243), as amended to date.

To implement the program and to provide safe and healthful working conditions for all persons, general project safety meetings will be conducted at the site at least once each month during the course of construction, by the construction superintendent or his designated safety officer. Notice of such meeting shall be issued not less than three (3) days prior, stating the exact time, location, and agenda to be included. Attendance by the owner, architect, general foreman, shop stewards and trades, or their designated representatives, witnessed in writing as such will be mandatory.

To further implement the program, each trade shall conduct a short gang meeting, not less than once each week, to review project safety requirements mandatory for all persons during the coming week. The gang foreman shall report the agenda and specific items covered to the project superintendent, who shall incorporate these items in his daily log or report.

The prime contractor and all subcontractors shall immediately report all accidents, injuries, or health hazards to the owner and architect, or their designated representatives, in writing. This shall not obviate any mandatory reporting under the provisions of the Occupational Safety and Health act of 1970.

This program shall become a part of the contract documents and the contract between the owner and prime contractor, prime contractor and all subcontractors as though fully written therein.

**ARTICLE I  
C. BID BOND**

KNOW ALL MEN BY THESE PRESENTS:

That \_\_\_\_\_, of \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, are held and firmly bound unto the Bessemer Historical Society as Obligee, in the full and just sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), lawful money of the United States, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:

**WHEREAS**, the said Principal is herewith submitting its proposal dated \_\_\_\_\_, 201\_\_\_\_, for:

and said Obligee has required as a condition for receiving said proposal that the Principal deposit specified Proposal Guaranty in the amount of not less than five per cent (5%) of the amount of said proposal, conditioned that in event of failure of the Principal to execute the Contract Agreement for such construction and furnish required Performance Bond if the Contract is awarded him, that said sum be paid immediately to the Obligee as liquidated damages and not as penalty for the Principal's failure to perform.

The condition of this obligation is such that if the aforesaid Principal, shall within the period specified therefore, on the prescribed form presented to him for signature, enter into a written Contract Agreement with the Obligee in accordance with his bid as accepted, and give required Payment and Performance Bonds with good and sufficient surety or sureties, upon the form prescribed by the Obligee, for the faithful performance and the proper fulfillment of said Contract, or in the event of withdrawal of said bid within the time specified, or upon the payment to the Obligee of the sum determined upon herein as liquidated damages, and not as penalty in the event the Principal fails to enter into said Contract and give such Payment and Performance Bonds within the time specified, then the obligation shall be null and void, otherwise to remain in full force and effect.

(Bid Bond)

Signed, sealed and delivered this \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_\_\_ .

ATTEST:

By \_\_\_\_\_ , \_\_\_\_\_  
Secretary Principal

(SEAL)

By \_\_\_\_\_

\_\_\_\_\_  
Surety

ATTEST:

By \_\_\_\_\_ , By \_\_\_\_\_  
Attorney-in-fact

(SEAL)



**ARTICLE I  
D. NOTICE OF AWARD (EXAMPLE)**

Bessemer Historical Society  
215 Canal Street  
Pueblo, CO 81004

[Date]

To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Bessemer Historical Society, having considered the Proposals submitted on June 22, 2016 for the construction of Project No. 7523-001, Steelworks Park, Pueblo, Colorado and it appearing that your proposal of \$ [Bid Amount, in numbers] [Bid Amount, in words] Dollars is fair, equitable, and in the best interest of Bessemer Historical Society, having authorized the work to be performed, the said Proposal is hereby accepted at the bid prices contained therein.

In accordance with the terms of the Contract Documents, you are required to execute the formal Contract Agreement and furnish the required Payment Bond and Performance Bond, within ten (10) consecutive calendar days from and including the date of this notice.

The Proposal Guaranty submitted with your proposal will be returned upon execution of the Contract Agreement and the furnishing of the Payment Bond and Performance Bond. In the event you should fail to execute the Contract Agreement and furnish the Bonds, within the time specified, said Proposal Guaranty will be retained by said Bessemer Historical Society as liquidated damages and not as penalty, for the delay and extra work caused thereby.

Bessemer Historical Society

\_\_\_\_\_  
Executive Director ARTICLE I

**ARTICLE I  
E. CONTRACT AGREEMENT**

THIS AGREEMENT made and entered into this \_\_\_\_\_ day of \_\_\_\_\_,

201\_\_\_\_, by and between Bessemer Historical Society, hereinafter referred to in the Contract Documents as "Bessemer" and \_\_\_\_\_, referred to in the Contract Documents as " Contractor ".

WITNESSETH: In consideration of the sum to be paid by Bessemer to the Contractor at the time and in the manner hereinafter provided, the said Contractor has agreed, and does hereby agree, to furnish all labor, tools, equipment and material and to pay for all such items, and to construct complete in every detail, To-Wit:

**Project No: 7523-001**

**Project Name: STEELWORKS PARK**

At the prices bid on the Proposal Form, in accordance with the drawings and specifications, and all Contract Documents for this project which are on file and available for inspection in the office of the Executive Director of Bessemer, all to the satisfaction of the Executive Director of Bessemer or authorized representative.

AND FOR SAID CONSIDERATION IT IS FURTHER AGREED BY AND BETWEEN THE PARTIES TO THIS AGREEMENT AS FOLLOWS:

1. Construction and installation of the above enumerated work for Bessemer shall be completed and ready for use in accordance with the time of completion described in the Proposal Form of this Contract. This time shall be extended only for those periods set forth in the Contract Documents and in accordance with the requirements of same.
2. The work and material for the project covered by the Contract Documents shall be completely installed and delivered to Bessemer within the time above stated, clear and free from any and all liens, claims and demands of any kind.
3. The full compensation to be paid to the Contractor by Bessemer, pursuant to the terms of this Contract, shall be payable as provided in the Contract Documents (Contract Agreement).
4. This Contract consists of the following component parts and documents, all of which taken together constitute and are referred to as the Contract Documents, and the same are incorporated as part of the Contract as if set out herein verbatim, whether the same have been attached hereto or not as specified in the Table of Contents and Mandatory Submittals.

- 5. Utilize the Steelworks Park specifications and details. These specifications are hereby included by reference and all provisions thereof shall be applicable. Should additional information be needed, refer to the *Standard Construction Specifications and Standard Details for City of Pueblo, Colorado*, adopted March 28, 2005. The *Standard Construction Specifications and Standard Details for City of Pueblo, Colorado* are not included in this bid package but are available for purchase at the Public Works Office, 211 East "D" Street, Pueblo, CO 80013. By submitting a bid, the Contractor acknowledges possession of a copy of said documents.

Addenda No. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

- 6. Title XII, Chapter 2, of the 1971 Code of Ordinances, City of Pueblo, adopted by Ordinance No. 3476, and amended by Ordinance No. 4476 and 5229, shall be considered a part of this contract.
- 7. All of the covenants and agreements set forth in the Contract Documents shall inure to the benefit of and be binding upon the Bessemer Historical Society and Contractor and their respective heirs, legal successors and assigns and shall be governed by the laws of the State of Colorado. (Contract Agreement).

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in four (4) original counterparts as of the day and year first above written.

\_\_\_\_\_  
Contractor

By \_\_\_\_\_

Title \_\_\_\_\_

Bessemer Historical Society

By \_\_\_\_\_  
Executive Director

ATTEST:

By \_\_\_\_\_  
Authorized Representative

**ARTICLE I  
F. PERFORMANCE BOND**

Bond Number \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS:

That we \_\_\_\_\_ a \_\_\_\_\_  
(Name of Contractor) (Corporation, Partnership, or Individual)

hereinafter called "Principal"  
and \_\_\_\_\_  
(Surety)

of \_\_\_\_\_, State of \_\_\_\_\_, hereinafter called  
the "Surety", are held and firmly bound unto the Bessemer Historical Society, hereinafter called  
"Bessemer", in the penal sum of \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_) in lawful money of the United States, for the payment of which sum  
well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors,  
jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a  
certain contract with Bessemer, dated the \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_\_\_,  
a copy of which is hereto attached and made a part hereof for the construction of:

**Project No: 7523-001**

**Project Name: STEELWORKS PARK**

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the  
undertakings, covenants, terms, conditions and agreements of said contract during the original term  
thereof (including all warranty periods), and any extensions thereof which may be granted by the  
Bessemer Historical Society, with or without notice to the Surety, and if he shall satisfy all claims and  
demands incurred under such contract, and shall fully indemnify and save harmless the Bessemer  
Historical Society from all costs and damages which it may suffer by reason of failure to do so, and  
shall reimburse and repay the Bessemer Historical Society all outlay and expense which the Bessemer  
Historical Society may incur in making good any default, then this obligation shall be void; otherwise to  
remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way effect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Bessemer Historical Society and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

(Performance Bond)

IN WITNESS WHEREOF, this instrument is executed in four (4) counter-parts, each of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_\_\_\_.

Principal \_\_\_\_\_

ATTEST:

By \_\_\_\_\_, By \_\_\_\_\_  
Principal Secretary

(SEAL)

\_\_\_\_\_  
\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
(Witness as to Principal)

\_\_\_\_\_  
\_\_\_\_\_  
(Address)

Surety \_\_\_\_\_

ATTEST:

By \_\_\_\_\_, By \_\_\_\_\_  
(Surety) Attorney-In-Fact Attorney-In-Fact

(SEAL)

\_\_\_\_\_  
\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
(Witness as to Surety)

\_\_\_\_\_  
\_\_\_\_\_  
(Address)

Surety \_\_\_\_\_

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners shall execute bond.

**ARTICLE I  
G. PAYMENT BOND**

Bond Number \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS:

That we \_\_\_\_\_ a \_\_\_\_\_  
(Name of Contractor) (Corporation, Partnership, or Individual)

hereinafter called "Principal" and \_\_\_\_\_  
(Surety)

of \_\_\_\_\_, State of \_\_\_\_\_, hereinafter

called the "Surety", are held and firmly bound unto the Bessemer Historical Society hereinafter called "Bessemer", in the penal sum of \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain

contract with Bessemer, dated the \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

Project No: 7523-001 - STEELWORKS PARK

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, supplies, lubricants, oil, gasoline, rental machinery, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractors or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way effect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between Bessemer and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

(Payment Bond)

IN WITNESS WHEREOF, this instrument is executed in four (4) counter-parts, each of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_\_\_.

Principal: \_\_\_\_\_

ATTEST:

By \_\_\_\_\_, By \_\_\_\_\_  
Principal Secretary

(SEAL) \_\_\_\_\_  
\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
(Witness as to Principal)

\_\_\_\_\_  
\_\_\_\_\_  
(Address)

ATTEST: \_\_\_\_\_  
Surety

By \_\_\_\_\_, By \_\_\_\_\_  
(Surety) Attorney-In-Fact Attorney-In-Fact

(SEAL) \_\_\_\_\_  
\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
(Witness as to Surety)

\_\_\_\_\_  
\_\_\_\_\_  
(Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners shall execute bond.

**ARTICLE I**  
**H. NOTICE TO PROCEED (EXAMPLE)**

Bessemer Historical Society  
215 Canal Street  
Pueblo, CO

[Date]

To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

You are hereby authorized to proceed on this date, \_\_\_\_\_,  
201\_\_\_\_, or within three (3) consecutive calendar days hereafter with construction of **Project No. 7523-001, Steelworks Park**, as set forth in detail in the Contract Documents for the Bessemer Historical Society.

The Proposal Guaranty submitted with your Proposal is herewith returned to you.

Bessemer Historical Society

\_\_\_\_\_  
Executive Director





**ARTICLE I  
I. CDOT FORM 606**

<b>COLORADO DEPARTMENT OF TRANSPORTATION ANTI-COLLUSION AFFIDAVIT</b>	PROJECT NO.
	LOCATION

I hereby attest that I am the person responsible within my firm for the final decision as to the price(s) and amount of this bid or, if not, that I have written authorization, enclosed herewith, from that person to make the statements set out below on his or her behalf and on behalf of my firm.

I further attest that:

1. The price(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement for the purpose or with the effect of restricting competition with any other firm or person who is a bidder or potential prime bidder.
- 2A. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential prime bidder on this project, and will not be so disclosed prior to bid opening.
- 2B. Neither the prices nor the amount of the bid of any other firm or person who is a bidder or potential prime bidder on this project have been disclosed to me or my firm.
- 3A. No attempt has been made to solicit, cause or induce any firm or person who is a bidder or potential prime bidder to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.
- 3B. No agreement has been promised or solicited for any other firm or person who is a bidder or potential prime bidder on this project to submit an intentionally high, noncompetitive or other form of complementary bid on this project.
4. The bid of my firm is made in good faith and not pursuant to any consultation, communication, agreement or discussion with, or inducement or solicitation by or from any firm or person to submit any intentionally high, noncompetitive or other form of complementary bid.
5. My firm has not offered or entered into a subcontract or agreement regarding the purchase or sale of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit any intentionally high, noncompetitive or other form of complementary bid or agreeing or promising to do so on this project.
6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting any intentionally high, noncompetitive or other form of complementary bid, or agreeing or promising to do so, on this project.
7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, or other conduct inconsistent with any of the statements and representations made in this affidavit.
8. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as a fraudulent concealment from the Colorado Department of Transportation, of the true facts relating to submission of bids for this contract.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Contractor's firm or company name	By	Date
	Title	
2nd contractor's firm or company name. (If joint venture.)	By	Date
	Title	

Sworn to before me this \_\_\_\_\_ day of, \_\_\_\_\_ 20\_\_

Notary Public	
My commission expires	
<b>NOTE: This document must be signed in ink.</b>	



**ARTICLE I  
K. CDOT FORM 714**

<b>COLORADO DEPARTMENT OF TRANSPORTATION BIDDERS LIST DATA and UNDERUTILIZED DBE (UDBE) BID CONDITIONS ASSURANCE</b>	Project #:
	Location:

**Prime Contractor Instructions:** This form has two sections, both must be completed and submitted with your bid. Complete **Section I** to list *all* subcontract quotes received (non-DBE *and* DBE). Complete **Section II** to report only Underutilized DBE (UDBE) participation percentages which qualify under the contract goal specification for this project. **Please review CDOT Form #715 instructions before completing Section II.** Attach additional sheets as necessary.

**POLICY**  
It is the policy of the Colorado Department of Transportation that underutilized disadvantaged business enterprises have equal opportunity to participate on projects financed with federal, state or local entity funds. Consistent with 49 Code of Federal Regulations (CFR) Part 26.11, the Bidders List data provided by the Contractors will provide CDOT as accurate data as possible about the universe of DBE and non-DBE firms actively seeking work on its highway construction contracts, for use in setting overall DBE goals.

**SECTION I: CDOT BIDDERS LIST INFORMATION (Non-DBEs and DBEs)**

- Are all subcontract bids (quotes) received by your firm for this project listed below?  Yes  No
- If No**, make certain any additional subcontract bidding information is submitted to the CDOT Business Programs Office before 4:00 pm on the day after bids are opened to ensure CDOT has the best data possible for setting future DBE goals (use the same table format as below):  
 CDOT Business Programs Office  
 4201 E. Arkansas Ave., Room 200  
 Denver, Colorado 80222 **FAX:** 303-757-9019 **EMAIL:** eo@dot.state.co.us
- The most recent CDOT Bidders List will be posted online at: [www.dot.state.co.us/EEO/DBEProgramPage.htm](http://www.dot.state.co.us/EEO/DBEProgramPage.htm)

Name of firm submitting Bid/Quote	Certified DBE firm?		Work item(s) description	Firm being used?		
	Yes	No		Yes	No	Maybe
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						

Name of firm submitting Bid/Quote	Certified DBE firm?		Work item(s) description	Firm being used?		
	Yes	No		Yes	No	Maybe
15.						
16.						
17.						
18.						
19.						
20.						

**SECTION II: UNDERUTILIZED DBE (UDBE) PARTICIPATION COMMITMENT**

1) Total eligible Underutilized DBE (UDBE) percentage amount from **Box A** below: . %

2) Will your company's Underutilized DBE (UDBE) participation commitment meet the contract goal?  Yes  No

3) List the UDBE firms, committed work items, and eligible UDBE percentage of your bid committed to each.

UDBE Firm name	Certification #	Committed work item(s)	% Commitment toward DBE Goal*
1.			. %
2.			. %
3.			. %
4.			. %
5.			. %

**BOX A: TOTAL ELIGIBLE UDBE PERCENTAGE AMOUNT** (Round to nearest hundredth) → . %

\* Detailed instructions on how to calculate DBE commitment amounts are available on CDOT Form #715 and in the "Counting DBE Participation Toward Contract Goals and CDOT's annual DBE goal" section of the "DBE – Definitions and Requirements" in the *Standard Special Provisions*.

I understand that, if my company is determined to be the low bidder for the contract on this project, I must submit a completed CDOT Form #715 CERTIFICATION OF UNDERUTILIZED DBE PARTICIPATION for each firm listed in **Section II** of this form to the Transportation Department by 4:00 pm on the **third** work day after the day bids are opened. **The actual amounts submitted on each CDOT Form #715 must equal or exceed the DBE percentage commitments documented on this form. In addition, if my company does not meet the DBE/UDBE goal for this project, I must submit a completed CDOT Form #718 DBE GOOD FAITH EFFORT DOCUMENTATION before 4:00 pm on the day after bids are opened. CDOT Form #715s submitted for firms not included on this form, OR for amounts exceeding those listed on this form, will be accepted but NOT counted as Good Faith Efforts. Only the efforts the contractor made prior to the bid opening will count as Good Faith Efforts.**

I understand my obligation to abide by the **Policy** stated above **Section I**. I shall not discriminate on the basis of race, color, age, sex, national origin, or handicap in the bidding process or the performance of contracts.

**I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE IN THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.**

Company Name:	Date: / /
Company Officer Signature:	Title:

**ARTICLE I  
L. CDOT FORM 605**

CDOT Form 605 will be completed and returned to the Bessemer Historical Society within five (5) days of Contractor selection.

COLORADO DEPARTMENT OF TRANSPORTATION <b>CONTRACTORS PERFORMANCE CAPABILITY STATEMENT</b>		Project #
1. List names of partnerships or joint ventures <input type="checkbox"/> none _____ _____ _____		
2. List decreases in the contractors fiscal or workmanship qualifications compared to the last prequalification statement submitted to CDOT. (Attach additional sheets if necessary.)		
a. Key personnel changes <input type="checkbox"/> none _____ _____ _____		
b. Key equipment changes <input type="checkbox"/> none _____ _____ _____		
c. Fiscal capability changes (legal actions, etc.) <input type="checkbox"/> none _____ _____ _____		
d. Other changes that may effect the contractors ability to perform work. <input type="checkbox"/> none _____ _____ _____		
I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE		
Contractor's firm or company name	By _____ Title	Date _____
2nd Contractor's firm or company name (if joint venture)	By _____ Title	Date _____

CDOT Form #605 1/92



**ARTICLE I  
M. CDOT FORM 621**

CDOT Form 621 will be completed and returned to the Bessemer Historical Society within five (5) days of Contractor selection.

<p><b>COLORADO DEPARTMENT OF TRANSPORTATION ASSIGNMENT OF ANTITRUST CLAIMS</b></p>	<p>PROJECT NO.</p>				
<p>Contractor and Colorado Department of Transportation (CDOT) recognize that in actual economic practice antitrust violations ultimately impact on CDOT. Therefore, for good cause and as consideration for executing this contract and for receiving payments hereunder:</p> <ol style="list-style-type: none"> <li>1. Contractor hereby irrevocably assigns to CDOT any and all claims it may now have or which may hereafter accrue to it under federal or state antitrust laws in connection with the particular project, goods or services purchased or acquired by CDOT pursuant to this contract.</li> <li>2. Contractor hereby expressly agrees:             <ol style="list-style-type: none"> <li>a. That, upon becoming aware that a third party has commenced a civil action asserting on Contractor's behalf an antitrust claim which has been assigned to CDOT hereunder, Contractor shall immediately advise in writing:                 <ol style="list-style-type: none"> <li>(1) Such third party that the antitrust claim has been assigned to CDOT, and</li> <li>(2) CDOT that such civil action is pending and of the date on which, in accordance with subparagraph a. (1) above, Contractor notified such third party that the antitrust claim had been assigned to CDOT;</li> </ol> </li> <li>b. To take no action which will in any way diminish the value of the claims or rights assigned or dedicated to CDOT hereunder; and</li> <li>c. Promptly to pay over to CDOT its proper share of any payment under an antitrust claim brought on Contractor's behalf by any third party and which claim has been assigned to CDOT hereunder.</li> </ol> </li> <li>3. Further, Contractor agrees that in the event it hires one or more subcontractors to perform any of its duties under the contract, Contractor shall require that each such subcontractor:             <ol style="list-style-type: none"> <li>a. Irrevocably assign to CDOT (as a third party beneficiary) any and all claims that such subcontractor may have or which may thereafter accrue to the subcontractor under federal or state antitrust laws in connection with any goods or services provided by the subcontractor in carrying out the subcontractor's obligations to Contractor;</li> <li>b. Upon becoming aware that a third party has commenced a civil action on the subcontractor's behalf asserting an antitrust claim which has been assigned to CDOT hereunder, shall immediately advise in writing:                 <ol style="list-style-type: none"> <li>(1) Such third party that the antitrust claim has been assigned to CDOT, and</li> <li>(2) Contractor and CDOT that such civil action is pending and of the date on which, in accordance with subparagraph b. (1) above, the subcontractor notified such third party that the antitrust claim had been assigned to CDOT;</li> </ol> </li> <li>c. Take no action which will in any way diminish the value of the claims or rights assigned or dedicated to CDOT hereunder; and</li> <li>d. Promptly pay over to CDOT its proper share of any payment under an antitrust claim brought on the subcontractor's behalf by any third party and which claim has been assigned or dedicated to CDOT pursuant hereto.</li> </ol> </li> </ol> <p>I, acting in my capacity as officer of a bidder (bidders if a joint venture) do agree to the above assignment of antitrust claims.</p>					
<p>Contractor's firm or company name</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 2px;">By</td> <td style="width: 40%; padding: 2px;">Date</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Title</td> </tr> </table>	By	Date	Title	
By	Date				
Title					
<p>2nd contractor's firm or company name. (If joint venture.)</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 2px;">By</td> <td style="width: 40%; padding: 2px;">Date</td> </tr> <tr> <td colspan="2" style="padding: 2px;">Title</td> </tr> </table>	By	Date	Title	
By	Date				
Title					

**ARTICLE II  
SPECIAL PROVISIONS**

**Project No:** 7523-001

**Project Name:** STEELWORKS PARK

**2.00 - GENERAL**

All specifications included in the Special Provisions shall have precedence over and will govern in the event of a conflict with other sections contained in this document.

**2.01 - STANDARD CONSTRUCTION SPECIFICATIONS AND STANDARD DETAILS**

Utilize the Steelworks Park specifications and details. These specifications are hereby included by reference and all provisions thereof shall be applicable. Should additional information be needed, refer to the most current *Colorado Department of Transportation Standard Specifications for Road and Brid Construction*. The *Colorado Department of Transportation Standard Specifications for Road and Brid Construction* are not included in this bid package but are available on the Colorado Department of Transportation's website. By submitting a bid, the Contractor acknowledges possession of a copy of said documents.

**2.02 - SITE INVESTIGATION**

By submitting his bid, the Contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions, particularly those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, uncertainties of weather, physical conditions at the site, the character, quality of surface and subsurface materials to be encountered, the character of equipment and facilities needed prior to and during the prosecution of the work and all other matters which can in any way affect the work or the cost thereof under this contract. Failure by the Contractor to acquaint himself with all the available information concerning these conditions will not relieve him from responsibility for estimating properly the difficulty of cost of successfully performing the work.

**2.03 - PRE-CONSTRUCTION CONFERENCE**

The Contractor shall attend a pre-construction conference with the Bessemer Historical Society and authorized representatives of the utility companies and other interested parties prior to any construction.

**2.04 – EMERGENCY REPAIR OR PROTECTIVE WORK BY THE COLORADO DEPARTMENT OF TRANSPORTATION OF THE CITY OF PUEBLO**

It is the Contractor's responsibility to provide adequate barricades, protective devices and safety measures, and to employ other precautionary means, for the adequate protection of the public, the work, and public and private property, from injury or loss. Notwithstanding this duty, should CDOT or the City become aware of any condition or circumstance arising from the work or with respect to any excavation or area disturbed by the Contractor which, in the opinion of the CDOT Engineer or the City's



Director or Public Works, creates or results in any imminent or unreasonable risk to the health or safety of the public or to private or public property, CDOT or the City may undertake emergency work or repairs. Such work may include, by way of illustration, provision of barricades, traffic control devices or flagmen, deployment of warning signs, repair of lines under construction, repair of collapsed excavations or sinkholes, placement of sandbags or dams, and other emergency efforts. The cost of emergency work done by CDOT or the City, including actual cost of labor, equipment, and materials, plus 100 percent, shall be deducted from any amount otherwise owed to the Contactor, or may be invoiced to the Contractor, or the same amount shall be recovered from the Contractor's performance bond.

## **2.05 – REPRESENTATIVE AVAILABLE FOR EMERGENCY CALLS**

The Contractor shall provide the name, address and phone number of his representative who may be reached at any time during the life of the contract regarding project emergencies, repairs, detours, barricading, etc. This information shall be furnished in writing to the Bessemer Historical Society Executive Director.

## **2.06 - SAFETY REGULATIONS**

The Contractor shall be aware of and shall comply with all State and Federal Safety regulations, which are applicable to the work included under this contract. Enforcement will be by the proper State and Federal regulatory agencies.

If any construction activity is deemed to be unsafe to inspect, the Contractor shall be notified that the work shall be discontinued until the deficiencies are corrected so the job can be properly inspected.

## **2.07 - DUST PREVENTION**

During construction and until final acceptance by the Landscape Architect, the Contractor shall be responsible for controlling dust emissions in the construction area. No earthwork activities shall be performed when the wind speed exceeds thirty (30) miles per hour. All fill areas shall be compacted on a daily basis to 95% minimum compaction. Any mud or dirt carry out onto paved surfaces shall be cleaned up on a daily basis. The Contractor shall promptly comply with all directives from the Landscape Architect relating to dust control. If the Contractor fails to comply or provide adequate means to control dust, a stop-work order will be issued until the problems are corrected.

## **2.08 - UTILITY LOCATIONS**

The utility locations are approximate and may not include all utilities. The Contractor shall determine the exact location of all utilities before commencing work. He shall be fully responsible for any damage, which might occur, due to his failure to locate and protect all utilities. He shall repair or have repaired, at no cost to the Bessemer Historical Society, any damage to utilities.

Existing utilities include gas mains, water mains, service lines, meters, meter cans, buried telephone cables, buried power lines, pedestals, utility poles, sanitary sewer mains, manholes and services, and any other existing utility.

**2.09 - CLEANUP**

Cleanup is included in the unit prices bid for each bid item. Partial payments will not be made on any unit price item until the cleanup associated with that item is complete.

**2.10 - COORDINATION OF CONSTRUCTION ACTIVITIES**

The Contractor and subcontractors shall coordinate their work with the work of all other construction activities and contractors and cooperate with them so as to facilitate general progress of the work. Each trade shall afford other trades every reasonable opportunity for installation of their work and for storage of their materials.

**2.11 – LAYING OUT WORK**

The Contractor shall locate all general reference points and take such action as necessary to prevent their destruction. The Contractor shall lay out his own work and be responsible for all lines, elevations and measurements of the building, grading, utilities and other work executed by him under this contract. The Contractor shall exercise proper precaution to verify figures shown on the drawing before laying out work and will be responsible for any error resulting from his failure to exercise such precautions.

**2.12 - INCONSISTENCIES**

Any seeming inconsistencies between the Plans and Specifications or provisions of the Contract Documents, or any matter requiring explanation must be inquired into by bidders at least 72 hours (excluding Sundays and Holidays) prior to the time set for opening of bids.

Decisions of major importance will be issued in the form of an addendum by the Landscape Architect. Addenda shall be sent to all contract document holders as verified by the Plan Holder's List by electronic data transmission (i.e. E-mail). It is the bidder's responsibility to provide an accurate E-mail address. It is the bidder's responsibility to verify whether any addenda were issued and to notify the Department of Public Works of successful receipt of any addenda. Bidders must follow the bid submittal procedures outlined in the contract document. These addenda shall become part of the Contract Documents.

**2.13 – BUILDERS'S RISK INSURANCE**

Builder's Risk Insurance will be required for the Dispensary building in the project limits.

**2.14 - COMPLETE WORK ON TIME**

Failure to complete the work by the allotted **one hundred days (100)** calendar days shall result in the assessing of liquidated damages according to ARTICLE 4.8.4 - GENERAL PROVISIONS.

**2.15 - STATE IMPOSED MANDATES PROHIBITING ILLEGAL ALIENS FROM PERFORMING WORK UNDER THIS CONTRACT (ARTICLE 4.9.8)**

Contractors shall familiarize themselves with the provisions of the recently revised Section 4.68 of Article 4 – GENERAL PROVISIONS and shall be aware of the consequences associated with violation of said section. Contractor shall after award but prior to the time for execution of contract documents, provide a written certification that they do not knowingly employ or contract with an illegal alien who will perform work under this contract and that they will participate in either the “E-Verify Program” or the “Department Program”. Said certification shall be submitted to the Purchasing Agent.

**2.16 – MOBILIZATION**

This item shall consist of mobilization of personnel, equipment and supplies at the project site in preparation for work on the project. The item shall include all costs incurred or labor and operations, which must be performed prior to beginning the other items under Contract.

Partial payments for mobilization made will be made each month as the work progresses. These payments will be made as follows:

1. When 10 percent of the original contract amount is earned, 50 percent of the amount bid for mobilization will be paid.
2. When 50 percent of the original contract amount is earned, 100 percent of the amount bid for mobilization will be paid.
3. The total sum of all payments shall not exceed the original contract amount bid for the item, regardless of the fact the Contractor may have, for any reason, shut down the work on the project or moved equipment away from the project and then back again.

For the purpose of this section, the term “original contract amount” as used above shall mean the amount bid for the construction items in the Contract not including the amount bid for mobilization. Payments for materials on hand will be included as a percent of original contract amount earned until said materials on hand have been incorporated into the work and accepted and paid for as contract items.

**2.17 – PERA LIABILITY**

The contractor shall reimburse the Bessemer Historical Society for the full amount of any employer contribution required to be paid by the Bessemer Historical Society to the Public Employees’ Retirement Association (“PERA”) for salary or other compensation paid to a PERA retiree performing contracted services for the Bessemer Historical Society under this agreement. The Contractor shall fill out the questionnaire attached as Exhibit “A” in the Mandatory Submittals section, at the front of these contract documents and submit the completed form to the Bessemer Historical Society as part of the signed Agreement.

**COLORADO PUBLIC EMPLOYEES RETIREMENT ASSOCIATION  
SUPPLEMENTAL QUESTIONNAIRE TO BE ANSWERED BY  
ANY BUSINESS PERFORMING SERVICES FOR THE BESSEMER HISTORICAL SOCIETY**

Pursuant to section 24-51-1101(2), C.R.S., salary or other compensation from the employment, engagement, retention or other use of a person receiving retirement benefits (Retiree) through the Colorado Public Employees Retirement Association (PERA) in an individual capacity or of any entity owned or operated by a PERA Retiree or an affiliated party by the Bessemer Historical Society to perform any service as an employee, contract employee, consultant, independent contractor, or through other arrangements, is subject to employer contributions to PERA by the Bessemer Historical Society. Therefore, as a condition of contracting for services with the Bessemer Historical Society, this document must be completed, signed and returned to the Bessemer Historical Society:

(a) Are you, or do you employ or engage in any capacity, including an independent contractor, a PERA Retiree who will perform any services for the Bessemer Historical Society? Yes\_\_\_\_, No\_\_\_\_. (Must sign below whether you answer "yes" or "no".)

(b) If you answered "yes" to (a) above, please answer the following question: Are you an individual, sole proprietor or partnership, or a business or company owned or operated by a PERA Retiree or an affiliated party? Yes \_\_\_\_\_, No\_\_\_\_. If you answered "yes" please state which of the above entities best describes your business: \_\_\_\_\_.

(c) If you answered "yes" to both (a) and (b), please provide the name, address and social security number of each such PERA Retiree.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

\_\_\_\_\_  
Social Security Number

\_\_\_\_\_  
Social Security Number

(If more than two, please attach a supplemental list)

If you answered "yes" to both (a) and (b), you agree to reimburse the Bessemer Historical Society for any employer contribution required to be paid by the Bessemer Historical Society to PERA for salary or other compensation paid to you as a PERA Retiree or paid to any employee or independent contractor of yours who is a PERA Retiree performing services for the Bessemer Historical Society. You further authorize the Bessemer Historical Society to deduct and withhold all such contributions from any moneys due or payable to you by the Bessemer Historical Society under any current or future contract or other arrangement for services between you and the Bessemer Historical Society.

**Failure to accurately complete, sign and return this document to the Bessemer Historical Society may result in your being denied the privilege or doing business with the Bessemer Historical Society.**

Signed \_\_\_\_\_, 201\_\_\_\_.

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

Name: \_\_\_\_\_

Title: \_\_\_\_\_

For purposes of responding to question (b) above, an "affiliated party" includes (1) any person who is the named beneficiary or co beneficiary on the PERA account of the PERA Retiree; (2) any person who is a relative of the PERA Retiree by blood or adoption to and including parents, siblings, half-siblings, children, and grandchildren; (3) any person who is a relative of the PERA Retiree by marriage to and including spouse, spouse's parents, stepparents, stepchildren, stepsiblings, and spouse's siblings; and (4) any person or entity with whom the PERA Retiree has an agreement to share or otherwise profit from the performance of services for the Bessemer Historical Society by the PERA Retiree other than the PERA Retiree's regular salary or compensation.

**ARTICLE III  
LABOR PROVISIONS**

**Project No: 7523-001**

**Project Name: STEELWORKS PARK**

**3.1 - EQUAL EMPLOYMENT OPPORTUNITIES**

It is the policy of the Bessemer Historic Society to provide equal opportunity in employment without regard to race, color, religion, sex, age or national origin. It is hereby deemed and declared to be for the public welfare and in the best interests of the Bessemer Historic Society to require bidders and contractor furnishing and providing work, services, supplies and material not to discriminate in the hiring and promotion of employees in order to further equal employment opportunities for members of minority groups and women. Failure to subscribe to and accept the non-discrimination and equal employment requirements shall render a bidder ineligible for the contract award and ineligible to participate in the work for which a contract award is made.

**3.2 - FEDERAL REQUIREMENTS GOVERN**

Whenever the provisions and requirement of this Chapter, or of the bidding specifications, conflict in any way to any degree with the non-discrimination and equal employment opportunity requirements of the United States of America and any such contract under consideration is funded in whole or in part by the United States of America, or is otherwise subject to requirements having the force of law of the United States of America, then such requirements of the United States of America shall govern and control.

By submitting a bid for this project, the Contractor agrees that he will abide by the provision herein set for and that he will require any and all sub-contractors to also comply with said provisions.

**3.3 - DAVIS-BACON WAGES**

Davis-Bacon Wages will be required on this project.

General Decision Number: CO160012 03/25/2016 CO12

Superseded General Decision Number: CO20150012

State: Colorado

Construction Type: Heavy

Counties: Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld Counties in Colorado.

**HEAVY CONSTRUCTION PROJECTS**

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was 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 \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. 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](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/08/2016
1	01/15/2016
2	01/22/2016
3	03/11/2016
4	03/18/2016
5	03/25/2016

ASBE0028-001 10/01/2014

	Rates	Fringes
Asbestos Workers/Insulator (Includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems).....	\$ 28.83	13.53

BRCO0007-004 01/01/2015

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS AND JEFFERSON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 24.50	8.91

BRCO0007-006 05/01/2015

EL PASO AND PUEBLO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 24.44	8.90

ELEC0012-004 09/01/2015

PUEBLO COUNTY

	Rates	Fringes
ELECTRICIAN Electrical contract over \$1,000,000.....	\$ 27.35	11.00+3%
Electrical contract under		

STEELWORKS PARK – BID ADMINISTRATION

January 18, 2017

\$1,000,000.....\$ 24.85 11.00+3%

ELEC0068-001 06/01/2015

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS,  
JEFFERSON, LARIMER, AND WELD COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 33.15	13.46

\* ELEC0111-001 01/01/2016

	Rates	Fringes
Line Construction:		
Groundman.....	\$ 18.79	22.25%+\$5.45
Line Equipment Operator.....	\$ 29.40	22.25%+\$5.45
Lineman and Welder.....	\$ 42.14	25.25%+\$5.45

ELEC0113-002 06/01/2015

EL PASO COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 30.00	14.95

ELEC0969-002 06/01/2015

MESA COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 24.00	7.92

ENGI0009-001 10/23/2013

	Rates	Fringes
Power equipment operators:		
Blade: Finish.....	\$ 25.04	9.15
Blade: Rough.....	\$ 24.73	9.15
Bulldozer.....	\$ 24.73	9.15
Cranes: 50 tons and under..	\$ 24.88	9.15
Cranes: 51 to 90 tons.....	\$ 25.04	9.15
Cranes: 91 to 140 tons.....	\$ 25.19	9.15
Cranes: 141 tons and over...	\$ 25.97	9.15
Forklift.....	\$ 24.37	9.15
Mechanic.....	\$ 24.88	9.15
Oiler.....	\$ 24.01	9.15
Scraper: Single bowl under 40 cubic yards.....	\$ 24.88	9.15
Scraper: Single bowl, including pups 40 cubic yards and over and tandem bowls.....	\$ 25.04	9.15



Trackhoe.....	\$ 24.88	9.15
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 IRON0024-003 11/01/2013

	Rates	Fringes
Ironworkers:.....	\$ 24.80	18.77
Structural		

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 LABO0086-001 05/01/2009

	Rates	Fringes
Laborers:		
Pipelayer.....	\$ 18.68	6.78

-----  
 PLUM0003-005 07/01/2014

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS,  
 JEFFERSON, LARIMER AND WELD COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 35.18	12.34

-----  
 PLUM0058-002 07/01/2015

EL PASO COUNTY

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 34.30	14.38

-----  
 PLUM0058-008 07/01/2015

PUEBLO COUNTY

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 34.30	14.38

-----  
 PLUM0145-002 07/01/2013

MESA COUNTY

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 32.67	11.55

-----  
 PLUM0208-004 06/01/2015

ADAMS, ARAPAHOE, BOULDER, BROOMFIELD, DENVER, DOUGLAS,  
 JEFFERSON, LARIMER AND WELD COUNTIES

Rates	Fringes
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PIPEFITTER.....\$ 35.35 13.39

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 SHEE0009-002 07/01/2015

Rates Fringes

Sheet metal worker.....\$ 32.85 14.63

-----  
 TEAM0455-002 07/01/2015

Rates Fringes

Truck drivers:

Pickup.....\$ 19.66 4.02

Tandem/Semi and Water.....\$ 20.29 4.02

-----  
 SUCO2001-006 12/20/2001

Rates Fringes

BOILERMAKER.....\$ 17.60

Carpenters:

Form Building and Setting...\$ 16.97 2.74

All Other Work.....\$ 15.14 3.37

Cement Mason/Concrete Finisher...\$ 17.31 2.85

IRONWORKER, REINFORCING.....\$ 18.83 3.90

Laborers:

Common.....\$ 11.22 2.92

Flagger.....\$ 8.91 3.80

Landscape.....\$ 12.56 3.21

Painters:

Brush, Roller & Spray.....\$ 15.81 3.26

Power equipment operators:

Backhoe.....\$ 16.36 2.48

Front End Loader.....\$ 17.24 3.23

Skid Loader.....\$ 15.37 4.41

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

=====  
 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

**ARTICLE IV  
GENERAL PROVISIONS**

**Project No: 7523-001**

**Project Name: STEELWORKS PARK**

**4.00 - GENERAL**

The provisions of this Article are of a general nature and are intended to apply to contract work of all types. Whenever any of these provisions do not apply to a specific contract, the exceptions are noted in the Special Provisions (Article 2).

**4.1 - BIDDING AND CONTRACT EXECUTION**

**4.1.1 - DEFINITIONS**

The following terms, as used in these contract documents are respectively defined as follows:

"Bessemer"	Bessemer Historical Society
"Closing Time"	The scheduled closing time for the receipt of bids, and the opening thereof.
"Contractor"	The person, persons, firm, or corporation to whom the within contract is awarded by Bessemer and who is subject to the terms of said contract. Also the agents, employees, workmen, or assignees of said Contractor.
"Landscape Architect"	Landscape Architect shall mean THK Associates, Inc., or authorized agents.
"Work"	All work contemplated by the Contract Documents and Specifications including materials, labor, supervision and use of tools necessary to complete the project in full compliance with the terms of the Contract.
"Notice"	Where in any section of the Contract Document there is any provision in respect to the giving of any notice, such notice shall be deemed to have been given (to Bessemer) when two (2) written notices shall be delivered to the Landscape architect and the Bessemer Historical Society or shall have been placed in the United States Mails addressed to the Bessemer Historical Society Executive Director and THK Associates, Inc.; (as to the Contractor) when a written notice shall be delivered to the chief representative of the Contractor at the site of the project to be constructed under the contract or when such written notice shall have been placed in the United States mails addressed to the Contractor at the place stated in the papers prepared by him to accompany his proposal as the address of his permanent place of business; (as to the Surety) on the performance and payment bonds when a written notice is placed in the United States mails addressed to the Surety at either the home office of such Surety or when such notice is placed in the United States mails addressed to the Commissioner of Insurance of the State of Colorado.

"Project"	The entire improvement proposed by the Bessemer Historical Society to be constructed in whole or in part pursuant to the Contract.
"Subcontractor"	A person, firm, or corporation, other than the Contractor, supplying labor and materials, or labor only, on work at the site of the project, having a direct contract with the Contractor and including one who furnishes material worked to a special design according to the plans and specifications of this work, but not including one who merely furnishes material not so worked.
"Surety"	The person, firm, or corporation that has executed, as surety, the Contractor's Performance and Payment Bonds.

**4.1.2 - SITE EXAMINATION**

Bidders shall inform themselves of the conditions under which the work is to be performed, concerning the site of the work, the structure of the ground, obstacles which may be encountered, availability of labor and all other relevant matters concerning the work to be performed. Where soil reports or test boring logs indicating underground conditions are provided or shown on the plans, such information shall be considered only as indicative of conditions as observed at the time and place indicated, and Bessemer in no way warrants the accuracy or reliability of said reports or boring logs and is not responsible for any deduction, interpretation or conclusion drawn there from by the Contractor. Contractor acknowledges that Bessemer shall not be held responsible for any variance in conditions or unforeseen conditions encountered at the time of actual construction. It shall be the responsibility of the Contractor to satisfy himself by such methods as he deems necessary prior to the letting as to underground conditions, structures and obstacles to be encountered.

The Contractor to whom a contract is awarded will not be allowed any extra compensation by reason of any matter or thing concerning which he might fully have informed himself, prior to the bidding. Misunderstanding as to the amount of work, availability of materials or labor shall be no cause for failure to enter into the contract or to perform the same.

The successful Contractor will be required to employ, so far as possible, such methods and means in the carrying out of his work as will not cause any interruption or interference with any other Contractor.

**4.1.3 - SPECIFICATION REQUIREMENTS**

The bidder is expected to base his bid on materials and equipment complying fully with the plans and specifications, and in the event he names in his bid, materials or equipment which do not conform, he will be responsible for furnishing materials and equipment which fully conform at no change in his bid price.

Before submitting a proposal, each Contractor should read the complete specifications and plans, including all related documents contained herein, all of which contain provisions applicable not only to the successful bidder, but also to his subcontractors.

**4.1.4 - STATEMENT OF BIDDER'S PLANT AND FINANCIAL CONDITION**

Each bidder shall be prepared to submit the following data within seven (7) days upon demand of the Purchasing Agent:

1. A statement that the bidder maintains a permanent place of business and address thereof; A statement of the equipment which the bidder proposes to use on the project, together with a statement identifying that equipment previously mentioned which the bidder owns and that which he does not own, but is certain he will be able to rent or otherwise procure for use on the project
2. A financial statement, duly sworn to and in form approved by Bessemer, listing assets and liabilities
3. Statement listing projects of similar nature which the bidder has constructed or in the construction of which the bidder was actively engaged in a responsible capacity
4. A statement that the bidder: (i) is not presently debarred or suspended by the Colorado State purchasing director or the head of any Colorado purchasing agency, (ii) is not listed on any federal government list of debarments, suspensions or voluntary exclusions, including but not limited to, the List of Parties Excluded From Federal Procurement or Non procurement Programs maintained by the General Services Administration, and (iii) neither bidder nor any person or firm who has an interest in bidder's firm is a person or firm ineligible to be awarded a federal government contract by virtue of any provision of federal law. In the event bidder cannot truthfully make the required statement, bidder shall furnish a detailed statement indicating the reasons therefore.

By submitting a bid, bidder authorizes Bessemer to obtain information concerning bidder's performance on other projects it has performed during the prior five (5) years, including those listed by bidder and those not listed which Bessemer may become aware of. By submitting its bid, the bidder also waives and releases all claims against owners, landscape architects, and Landscape Architects, and their agents and representatives, relating to or arising from the furnishing of such information to Bessemer concerning bidder's performance on prior projects. In order to effectuate the intent of this clause, bidder may be required by Bessemer to execute information release authorization forms.

Any bidder may be required by Bessemer to submit additional data to satisfy Bessemer that such bidder is prepared to fulfill the contract if it is awarded to him.

The failure of bidder to furnish any information which is or may be required to be furnished under this section shall be grounds for determining bidder not responsible.

**4.1.5 - CONDITIONS IN A BIDDER'S PROPOSAL**

A bidder shall not stipulate in his proposal any conditions not contained in the Form of Proposal contained in the Contract Documents.



#### **4.1.6 - QUANTITIES**

Bidders must satisfy themselves by personal examination of the locations of the proposed work and by such other means as they may prefer as to the correctness of any quantities listed in the proposal and shall not after submission of their proposal, dispute or complain of such estimate, nor assert that there was any misunderstanding in regard to the nature or amount of work to be done.

#### **4.2 - BIDS**

##### **4.2.1 - DATA SHEETS**

Where data sheets concerning equipment to be furnished are included in the Specification Documents as a part of the proposal, the bidder shall furnish the required information by filling in the data sheets complete in every detail. In the event that such data sheets are insufficient, or do not readily lend themselves to the correct description of the equipment, the bidder shall file with the bid additional statements setting out the necessary information. Failure to furnish such information as is required on the data sheets will be considered as grounds for rejecting the bid.

##### **4.2.2 - SUBMISSION AND CONSIDERATION OF BIDS**

Each proposal shall be firmly sealed in an envelope labeled as designated in the Advertisement for Bids and delivered to Steelworks Center of the West, Attn: Chris Schrek, Executive Director, 215 Canal Street, Pueblo, CO 81004.

All bids are to be made only on forms of proposal furnished by the Bessemer Historical Society and included in this volume. Total bid prices are to be written both by words and by figures; in case of conflict, former will apply. Unit bids may be made by figures only. No bid will be accepted which does not contain an adequate or reasonable price for each and every item named in the bidding schedule on the contract bid form.

Only proposals which are made out upon the regular proposal forms attached hereto will be considered. The proposal forms must not be separated from the attached volume. Any correction on the proposal form must be initialed by the same person signing the bid.

The Bessemer Historical Society reserves the right to waive any informality in bids. The Bessemer Historical Society reserves the right to reject any or all bids, or any or all parts of bids.

A Colorado resident bidder shall be allowed a preference against a nonresident bidder to the extent authorized by, and subject to the limitations of, Articles 18 and 19 of Title 8, Colorado Revised Statutes; provided however, that this paragraph shall be suspended to the extent any such preference is inconsistent with a requirement of federal law or the terms and conditions of any grant or cooperative agreement to which Bessemer is a party which relates to the Project.

##### **4.2.3 - BID SECURITY**

No proposal will be received unless accompanied by a certified check, cashier's check, postal money order, bid bond or other suitable collateral, as set forth in the Request for Bids, payable to the Bessemer Historical Society as a guarantee that if the bid is accepted, the bidder will execute and file the proposed contract and bonds within ten (10) days from the date of the award of the contract. On

failure of the successful bidder to execute the contract and furnish bonds, he shall forfeit the deposit as agreed as liquidated damages, and the acceptance of the bid will be contingent upon the fulfillment of this requirement by the bidder.

The bid security of the three lowest formal bidders for each contract may be held until the contract is executed and approved and then returned to the bidders. The balance of bid securities submitted will be returned within seven (7) days after the opening of bids.

**4.2.4 - SIGNING OF BIDS**

Bids which are not signed by individuals making the bid should have attached thereto a power of attorney evidencing authority to sign the bid in the name of the person for whom it is signed.

Bids which are signed for a co-partnership should be signed by all of the co-partners or by an attorney-in-fact. If signed by an attorney-in-fact, there should be attached to the bid a power of attorney evidencing authority to sign the bid.

Bids which are signed for a corporation should have the correct corporate name thereof signed in handwriting or in typewriting and the signature of the president or other authorized officer of the corporation should be manually written below the written or typewritten corporate name following the words "by \_\_\_\_\_".

\_\_\_\_\_

Title

If bids are signed for any other legal entity, the authority of the person signing for such legal entity should be attached to the bid.

**4.2.5 - MODIFICATION OF BIDS**

Modification of bids already submitted will be permitted, provided such modification be in writing and transmitted to Steelworks Center of the West prior to closing time. Such modification shall not reveal the total amount of the original or revised bid.

**4.2.6 - WITHDRAWAL OF BIDS**

Any bidder may withdraw his bid any time prior to the closing time, but no bid shall be withdrawn for a period of sixty (60) days after closing time. Negligence or mistake on the part of the bidder shall not constitute a right to withdraw after closing time. Any bid received after closing time will be returned unopened.

**4.2.7 - DUPLICATION OF BIDS**

If more than one bid is offered by one party, all such bids shall be returned unopened. If duplicate bids are not discovered until after opening, such duplication shall be cause for immediate rejection of such bids. A party who has quoted prices to a bidder is not thereby disqualified from quoting prices to other bidders, or from submitting a direct bid on his own behalf.

**4.2.8 - ALTERNATES**

If the proposal forms include alternates, each bidder shall bid on each alternate unless otherwise

directed in the Special Conditions or other Contract Documents.

Each bidder must submit such special data, if any, in respect to such alternate which any section of the Contract Documents require to be submitted with each bid.

#### **4.2.9 - SUPPLEMENTAL UNIT PRICES**

Bessemer reserves the right to reject any or all supplemental unit prices which it deems to be excessive or unreasonable.

In cases where any part or all of the bidding is to be received on a unit price basis, the quantities stated are not intended to govern. The quantities stated, on which unit prices are to be invited are approximate only, and each bidder will be required to make his own estimates of amounts, and to calculate his unit price bid accordingly. Bids will be compared on the basis of the stated number of units in the proposal form. Such estimated quantities, while made from the best information available, are approximate only. Payment on the contract will be based on actual number of units installed on the completed work. In the event of an error in the extension of prices, the unit price bid shall govern.

### **4.3 - CONTRACTS**

#### **4.3.1 - AWARD OF CONTRACT**

The contract may be awarded to the lowest and best, reliable and responsible bidder submitting a responsive bid within sixty (60) days from the date of opening of said bids.

#### **4.3.2 - DEFINITION OF AWARD**

The contract shall be deemed to have been awarded when formal notice of award shall have been duly served upon the intended awardee (i.e., the bidder to whom Bessemer contemplates awarding the contract) by the Bessemer Historical Society.

#### **4.3.3 - EXECUTION OF CONTRACTS AND BONDS**

The successful bidder shall enter into a written contract agreement with Bessemer on the form attached hereto. The bidder must comply with all State and Federal Laws as to provision of Workers' Compensation.

Each contract must be executed in not less than four (4) original counterparts, and there shall be executed original counterparts of the Contractor's performance bond and payment bond in equal number to the executed original counterparts of the contract. Not less than one copy of such executed documents will be retained by the Bessemer Historical Society and one copy will be retained by THK Associates, Inc. The successful contractor must provide workers' compensation insurance and public liability and property damage insurance as outlined in the General Conditions of the Contract. The costs of executing the bonds and contract and insurance, including all notarial fees and expense, are to be paid by the Contractor to whom the contract is awarded.

#### **4.3.4 - CONTRACT SECURITY**

The Contractor shall furnish a good and sufficient Performance Bond and a Payment Bond on the forms

attached hereto each in an amount not less than the full amount of the Contract price, as security for the faithful performance of the contract and for the payment of all persons performing labor and furnishing material in connection with the work. Said bonds shall be executed by a corporate surety duly authorized to issue bonds in the state of Colorado. Said bonds shall also be complete surety for all guarantees of materials and workmanship required by any provision of the Contract Documents or the specifications. If at any time during the continuance of the contract a Surety on either of the Contractor's bonds becomes irresponsible or insolvent, Bessemer shall have the right to require additional and sufficient sureties which the Contractor shall furnish within ten (10) days after written notice to do so.

#### **4.3.5 - VERBAL AGREEMENTS**

No verbal agreements or conversations with any agent or employee of the Bessemer Historical Society, either before or after execution of the Contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising said contract.

#### **4.3.6 - SCHEDULE OF UNIT PRICES**

Promptly following the execution of the contract documents for all contracts, the Contractor shall prepare and transmit to the Landscape Architect two copies of the itemized breakdown provided showing the unit prices of each major construction item. Such unit prices shall contain all costs including profit, of each item complete in place. The total cost of all the items shall equal the contract price for the project. This breakdown when approved by the Landscape Architect, will be used primarily in determining payment due the Contractor on periodical estimates. If, in the opinion of the Landscape Architect, any unit price submitted by the Contractor is unbalanced, a detailed breakdown of the items contained in the unit will be required.

For contracts bid on a unit price basis, unit bid prices for substantially completed work will be used in determining payment due the Contractor on periodical estimates. Partially completed units may be paid for in periodical estimates.

#### **4.4 - SUBCONTRACTS**

##### **4.4.1 - SUBCONTRACTORS**

The Contractor shall as soon as possible after the execution of the Contract, notify the Landscape Architect in writing of the names of the subcontractors proposed on the Contract, and shall not employ any subcontractor that Bessemer and the Landscape Architect objects to as incompetent or unfit. Additionally, Contractor shall not employ in the work any subcontractor, nor obtain materials from any supplier, who is (1) debarred or suspended by the Colorado state purchasing director or head of any Colorado purchasing agency or (2) listed on any federal government list of debarments, suspensions or voluntary exclusions, including but not limited to, the List of Parties Excluded from Federal Procurement or Non procurement Programs maintained by the General Services Administration.

The Contractor agrees to be fully responsible to Bessemer for the acts or omissions of his subcontractors and of any one employed directly or indirectly by him or them and this contract obligation shall be in addition to the liability imposed by law upon the contractor.

Nothing contained in the contract documents shall create any contractual relationship between any subcontractor and Bessemer.

The Contractor agrees to bind every subcontractor (and every subcontractor of a subcontractor) by the terms of the General Provisions and the Special Provisions of the Contract, Plans and Specifications as far as applicable to his work, unless specifically noted to the contrary in a subcontract approved in writing as adequate by Bessemer.

#### **4.4.2 - ASSIGNMENT OF CONTRACT**

No assignment by the contractor of any principal construction contract or any part thereof or of the funds to be received thereunder by the contractor, will be recognized unless such assignment has had the written approval of Bessemer and the Surety has been given due notice of such assignment and has furnished written consent thereto. Such written approval by Bessemer shall not relieve the contractor of the obligations incurred by him under the terms of this contract. In addition to the usual recitals in assignment contracts, the following language must be set forth:

"It is agreed that the funds to be paid to the assignee under this assignment are subject to a prior lien for services rendered or materials supplied for the performance of the work called for in said contract in favor of all persons, firms or corporations."

#### **4.4.3 - OTHER CONTRACTS**

The Bessemer Historical Society may award other contracts for additional work, at the site of the project (or other locations) and the Contractor shall fully cooperate with such other sub-contractors and carefully fit his own work to that provided under other contracts as may be directed by Bessemer. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other sub-contractor.

### **4.5 - INDEMNITY AND INSURANCE**

#### **4.5.1 - INDEMNITY**

The contractor and his sureties shall indemnify, defend and save harmless the Bessemer Historical Society and all of its officers, agents and employees from all suits, actions or claims of any character, name and description brought for or on account of any injuries or damage received or sustained by any person or persons or property, on account of any negligent act or fault of the Contractor, his agents or employees, in performance of said contract; or on account of the failure of the Contractor to provide necessary barricades, warning lights or signs; and shall forthwith pay any judgment, with costs, which may be obtained against Bessemer, its officers, agents or employees, growing out of such injury or damage.

#### **4.5.2 - CONTRACTORS INSURANCE**

The Contractor shall not commence work under this contract until he has obtained at his own expense and without cost to Bessemer all insurance required under this paragraph and such insurance has been approved by Bessemer, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained and

approved. The Contractor shall maintain such insurance until the final acceptance by Bessemer of all construction covered by the contract.

1. Commercial General Liability Insurance

The Contractor shall secure and maintain during the period of this contract and for such additional time as work on the project is being performed, Commercial General Liability Insurance issued to and covering the liability of the contractor with respect to all work performed by him and all his subcontractors under the contract, to be written on a Commercial General Liability policy form CG 00 01. This insurance shall be written in amounts not less than \$600,000 for each occurrence and aggregate for personal injury including death and bodily injury and \$600,000 for each occurrence and aggregate for property damage. This policy of insurance shall be endorsed naming the Bessemer Historical Society, its agents, officers and employees as additional insureds. To the extent that Contractor's work, or work under his direction, may require blasting, explosive conditions, or underground operations, the commercial general liability coverage shall contain no exclusion relative to blasting, explosion, collapse of building, or damage to underground property. The policy shall also provide coverage for contractual liability assumed by Contractor under the provisions of the Contract, and "Completed Operations and Projects Liability" coverage.

2. Comprehensive Automobile Liability Insurance

The Contractor shall procure and maintain during the period of the contract and for such additional time as work on the project is being performed, Comprehensive Automobile Liability Insurance. This insurance shall be written with limits of liability for and injury to one person in any single occurrence of not less than \$150,000 and for any injury to two or more persons in any single occurrence of not less than \$600,000. This insurance shall include uninsured/underinsured motorist coverage and shall protect the Contractor from any and all claims arising from the use both on and off the site of the project of automobiles, trucks, tractors, backhoes and similar equipment whether owned, leased, hired or used by Contractor.

3. Workers' Compensation Insurance

The Contractor shall procure and maintain during the period of this contract and for such additional time as work on this project is being performed, Workers' Compensation Insurance, including Occupational Disease Provisions, fully complying with the provisions of the Workers' Compensation Act, as amended, of the State of Colorado. Such insurance shall be obtained notwithstanding that Contractor may have no employees as defined under said Act or that Contractor might otherwise avail itself of an exemption under the Act from any legal requirement to obtain such coverage. Such insurance shall cover all employees of Contractor performing work on the project irrespective of whether such employees may be shareholders, managers, partners or owners of Contractor or exempt employees under the Act.

If any class of employees engaged in hazardous work under this contract at the site of the project is not protected by the Workers' Compensation statute, the Contractor shall provide, and similarly shall cause each subcontractor to provide, special insurance for the protection of such employees not otherwise protected. Workers' compensation policy shall contain an endorsement waiving subrogation against Bessemer.

4. Any Subcontractor Performing Work for the Contractor

Any subcontractor performing work for the Contractor under the contract shall provide certificates of insurance protection to the Contractor and to the Bessemer Historical Society, of the same type and in the same amounts as required by the Contractor.

5. The Insurance Coverage

The insurance coverage enumerated in the above subparagraphs constitutes the minimum requirements and said enumeration shall in no way lessen or limit the liability of the Contractor under the terms of the contract. The Contractor shall procure and maintain, at his own cost and expense, any additional kinds and amounts of insurance that, in his own judgement, may be necessary for his proper protection in the prosecution of the work.

6. Certificates of Insurance

Certificates of Insurance for Workers' Compensation Insurance, Commercial General Liability Insurance and Comprehensive Automobile Liability Insurance shall be filed with Bessemer prior to the execution of the contract. Said insurance shall not thereafter be canceled, permitted to expire, or be changed without 30 days advance written notice to Bessemer.

7. Builders Risk Insurance

When specified in Article 2, Special Provisions, the Contractor shall secure and maintain during the period of this Contract, Builder's Risk "All-Risk" Completed Value Insurance coverage (including vandalism) upon 100% of the cost of the entire project which is the subject of this Contract and including completed work, work in progress, and materials delivered to the site for incorporation therein. Such insurance shall include as addition named insured, the Bessemer Historic Society, its officers, agents and employees. Such insurance may have a \$2,000.00 maximum deductible clause, which deductible amount shall be the responsibility of the Contractor.

8. Any Subcontractor Preforming Work for the Contractor

Any subcontract performing work for the Contractor under the contract shall provide certificates of insurance protection to the Contractor of the same type and in the same amounts as required by the Contractor. These insurance certificates will be made available to the Bessemer Historical Society upon request.

9. The Insurance Coverage

The insurance coverage enumerated in the above subparagraphs constitutes the minimum requirements and said enumeration shall in no way lessen or limit the liability of the Contractor under the terms of the contract. The Contractor shall procure and maintain, at his own cost and expenses, any additional kinds and amounts of insurance that, in his own judgement, may be necessary for his proper protection in the prosecution of the work.

10. Certificates of Insurance



Certificates of Insurance for Workers' Compensation Insurance, Commercial General Liability Insurance and Comprehensive Automobile Liability Insurance shall be provided to the Bessemer Historic Society prior to the execution of the contract. Certificates for Builder's Risk Insurance shall be made available to the Bessemer Historical Society upon request. Said insurance shall not thereafter be canceled, permitted to expire, or be changed without 30 days advance written notice to Bessemer Historical Society.

## **4.6 - GUARANTEES, PATENTS, PERMITS**

### **4.6.1 - GUARANTEES**

All work shall be constructed in compliance with applicable building and construction codes, and must be guaranteed for a period of two (2) years from the date of final acceptance, or for such other period as may be required in the Special Provisions.

In placing orders for equipment the Contractor shall purchase same only under a written Guarantee from the respective manufacturer that the equipment supplied will function satisfactorily as an integral part of the completed project in accordance with the plans and specifications. Furthermore, the Contractor shall require that the manufacturer agree in writing at the time the order for equipment is placed that he will be responsible for the proper functioning of the equipment in cooperation with the Contractor, and that whenever necessary during the installation period or tuning up period following construction period the manufacturer will supply, without additional cost to Bessemer, such superintendence and mechanical labor and any additional parts and labor needed to make the equipment function satisfactorily, even if same was not shown on approved shop drawings.

The provisions of this section concerning guarantee by Contractor shall be construed in a manner consistent with the requirements and limitations of 23 CFR § 635.413.

### **4.6.2 - PERMITS, SURVEYS AND COMPLIANCE WITH LAWS**

Except as may otherwise be indicated in the contract documents, the Contractor shall procure at his own expense all permits, licenses and bonds necessary for the prosecution of his work, and/or required by Municipal, State, and Federal regulations and laws, including, but not limited to, permits for transportation of materials and equipment, blasting, environmental permits, and any other permit required for the project or contractor's operations, regardless of whether the necessity for such permit is disclosed in the plans and specifications.

The Landscape Architect will furnish all site surveys, easements and rights of way necessary for construction of any permanent works required in the specifications, where such work is to be done on property other than Bessemer's.

The Contractor shall give all notices, pay all fees and taxes, including City of Pueblo Sales and Use Taxes, and comply with all Federal, State and Municipal laws, ordinances, rules and regulations and building and construction codes bearing on the conduct of the work. This contract as to all matters not particularly referred to and defined herein shall notwithstanding be subject to the provisions of all pertinent ordinances of the Municipality within whose limits the work is constructed, which ordinances are hereby made part hereof with the same force and effect as if specifically set out herein.



This contract is specifically subject to the provisions of the Charter of Pueblo, all applicable portions of the 1971 Code of Ordinances of Pueblo, Colorado, and of the ordinance, resolution or order of the City Council authorizing this improvement. The aggregate payment on this contract may not exceed the estimates of the Landscape Architect nor the amount budgeted for the project. If the cost of the improvement to be constructed under this contract is to be assessed upon the owners of land benefited by such improvements, upon complaint of any such landowner that the improvement is not being constructed in accordance with the contract, the Council may consider the complaint and make such order in the premises as shall be just, and such order shall be final and conclusive.

#### **4.6.3 - DEFENSE OF CLAIMS OR SUITS BY REASON OF PATENT INFRINGEMENT**

The Contractor shall pay for all royalties and patents for any patented product used by him or incorporated in the work, and shall defend all claims or suits for infringement of any patent right brought against himself thereof; except such claims or suits arising by reason of patent infringements or unauthorized use of patented processes where such is the direct result of specification requirements (as distinguished from patented articles, apparatus or equipment).

#### **4.6.4 - LICENSE OR ROYALTY FEES**

If the project is designed so as to require or permit the use of a process or processes (as distinguished from articles, apparatus or equipment) for which license or royalty fees will be charged, such fees for the use of such processes will be paid by the Contractor to the Patentee, Licensee or owner of such process, and bidder shall include such fees in their bid.

### **4.7 - PLANS AND SPECIFICATIONS**

#### **4.7.1 - PLANS AND SPECIFICATIONS**

All work shall be executed in strict conformity with the plans and specifications, and the Contractor shall do no work without proper drawings and instructions.

Bessemer will furnish to the Contractor three (3) complete sets of contract documents, including drawings. Additional copies of same or any part thereof shall be furnished at the expense of the Contractor.

Figured dimensions on the plans shall be taken as correct but shall be checked by the Contractor before starting construction. Any errors, omissions, or discrepancies shall be brought to the attention of the Landscape Architect and his decision thereon shall be final. All notes on the plans shall be followed. Corrections of errors, or omissions on the drawings or specifications may be made by the Landscape Architect when such correction is necessary for the proper execution of the work.

#### **4.7.2 - INTENT OF CONTRACT DOCUMENTS**

The sections of the contract documents and the contract plans are complementary, and what is called for by any one shall be binding as if called for by all. The intention of the contract documents is to include in the contract price the cost of all labor and materials, water, fuel, tools, plant, equipment, light, transportation and all other expense as may be necessary for the proper execution of the work.

Any work shown on the plans and not covered in the specifications, or included in the specifications and not shown on the plans shall be executed by the Contractor as though shown both on the plans and included in the specifications. If the plans and specifications should be contradictory in any part, the specifications shall govern.

If the Contractor, in the course of the work, finds any discrepancy between the plans and the physical layout, or any errors or omissions in plans or layout, he shall immediately so inform the Landscape Architect, and the Landscape Architect shall promptly verify them. Any work done after such discovery without written consent of the Landscape Architect authorizing same shall be done at the Contractor's risk.

Any minor items not specifically called for in the plans and specifications, but which are necessary to complete the work ready for use in accordance with the requirements of good practice, as determined by the Landscape Architect, shall be included as a part of the Contractor's bid price and furnished at no additional cost to Bessemer.

In interpreting the contract documents, words describing materials or work which have a well-known technical or trade meaning, unless otherwise specifically defined in the contract documents, shall be constructed in accordance with such well-known meaning recognized by landscape architects, Landscape Architects and the trade.

#### **4.7.3 - INTERPRETATION OF CONTRACT DOCUMENTS**

If any person contemplating submitting a bid for this contract is in doubt as to the true meaning of any part of the plans, specifications, or other contract documents, he may submit to the Landscape Architect a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the documents will be made only prior to closing time and by written addendum duly issued or delivered to each person receiving a set of such documents. Bessemer will not be responsible for any other explanations or interpretations of the documents.

#### **4.7.4 - STANDARD MANUFACTURER**

Wherever the terms "standard", "recognized" or "reputable" manufacturer are used, they shall be construed as meaning manufacturers who have been engaged in the business of fabricating materials, equipment, or supplies of the nature called for by the specifications for a reasonable period of time prior to the date set for opening of bids, and who can demonstrate to the satisfaction of the Landscape Architect that said manufacturer has successfully installed equipment, materials, or supplies of the type proposed to be furnished in at least three instances and that the performance of such materials, equipment, or supplies for a period of over twelve months prior to the date fixed for opening bids shall, prima facie, be deemed to have been engaged in such business for a reasonable length of time.

#### **4.7.5 - "OR EQUAL" CLAUSE**

Whenever in any section of the contract documents, plans or specifications, any article, material, or equipment is defined by describing a proprietary product, or by using the name of a manufacturer or vendor, the term "or equal" if not inserted, shall be implied. The specific article, material, or equipment mentioned shall be understood as indicating the type, function, minimum standard of

design, efficiency, and quality desired and shall not be construed in such a manner as to exclude manufacturer's products of comparable equality, design and efficiency.

#### **4.7.6 - MATERIALS AND WORKMANSHIP**

The Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, heat, transportation, and other facilities necessary for the execution and completion of the contract. Unless otherwise stipulated in the specifications, all workmanship, equipment, materials and articles incorporated in the work covered by this Contract are to be new and of the best grade of their respective kinds for their purpose. The Contractor shall furnish to the Landscape Architect, for his approval, the name of the manufacturer of machinery, mechanical and other equipment, which he contemplates installing, together with their performance capacities and other pertinent information.

If not otherwise provided, material or work called for in this contract shall be furnished and performed in accordance with well-known established practice and standards recognized by landscape architects, Landscape Architects and the trade insofar as possible.

When required by the specifications, or when called for by the Landscape Architect, the Contractor shall furnish for approval full information concerning the materials or articles which he contemplates incorporating in the work. Samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials and articles installed or used without such approval shall be at the risk of subsequent rejection. All materials and workmanship shall be guaranteed by the Contractor and Surety for a period of two (2) years from date of final acceptance, or for such period as may be required in the Special Provisions.

No material of any kind shall be installed in the project until it has been inspected and approved by the Landscape Architect. All material rejected shall be immediately removed from the site of the work and not again offered for inspection. Any materials or workmanship found at any time to be defective shall be remedied at once regardless of previous inspections.

At any time during the course of construction of this project when in opinion of the Landscape Architect, provisions of the plans, specifications, or contract provisions are being violated by the Contractor or his employees, the Landscape Architect shall have the right and authority to order all construction to cease or material to be removed, until arrangements satisfactory to the Landscape Architect are made by the Contractor for resumption of the work in compliance with the provisions of the contract.

#### **4.7.7 - SHOP DRAWINGS**

The Contractor, as soon as possible after approval of the source and the purchase of items of materials and equipment, shall submit to the Landscape Architect all shop or setting drawings and schedules required for the work, including those pertaining to structural and reinforcing steel. The Contractor shall make any corrections in the drawings required by the Landscape Architect, and resubmit same without delay.

Three final copies of all shop or setting drawings shall be submitted to the Landscape Architect, who after checking will retain two copies and return one copy to the Contractor. The Landscape Architect's approval of shop drawings of equipment and material shall extend only to determining the conformity

of such equipment and materials with the general features of the design drawings prepared by the Landscape Architect. Shop drawings are not part of the Contract Documents and do not modify the Contract Specifications. It shall be the responsibility of the Contractor to determine the correctness of all dimensions and minor details of such equipment and materials so that when incorporated in the work correct operations will result.

#### **4.8 – LANDSCAPE ARCHITECT, INSPECTION AND TESTING**

##### **4.8.1 - AUTHORITY OF LANDSCAPE ARCHITECT**

The Landscape Architect shall decide all questions which may arise as to the fulfillment of the contract on the part of the Contractor and his decision thereon shall be final and conclusive. He shall have authority to reject all work and materials which do not conform to the contract and to decide questions which arise in the execution of the work.

If, in the opinion of the Landscape Architect, the work being done by the Contractor is in violation in any way with the terms of the contract, he shall forthwith notify the Contractor to cease said violation.

The Landscape Architect shall, upon presentation to him, make prompt decisions in writing on all claims of the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the Contract documents. All such decisions of the Landscape Architect shall be final and conclusive.

The Contractor shall submit schedules which shall show the order in which the Contractor proposes to carry on the work, but the right to stipulate the order in which the contract shall be carried out is reserved to the Landscape Architect.

In the event either that Bessemer or the Contractor remains dissatisfied with the final decision of the Landscape Architect hereunder, Bessemer or the Contractor may seek judicial review thereof pursuant to Rule 106, C.R.C.P. In no event shall the Contractor slow or stop the work while a determination is pending under this section, and Bessemer will continue to make payment in accordance with the contract documents except as to any amount in dispute.

##### **4.8.2 - TESTING OF MATERIALS**

Attention of the Contractor is directed to the materials tests required on this contract. All laboratory tests shall be approved by an approved testing laboratory. The specific test requirements are set forth in the sections of these specifications which describe the materials or apparatus to be tested. The Contractor shall furnish the materials to be tested and shall pay transportation charges and costs of testing on any samples required to be submitted to the laboratory.

Where certified test reports are required to be furnished by the manufacturer, the Contractor shall furnish duplicate copies of the reports before the material will be approved for use.

##### **4.8.3 - STAKING WORK**

The Contractor will set control stakes for general layout and all necessary grade stakes for construction work. The protection and care of such stakes shall be the responsibility of the Contractor. The Contractor may, at the discretion of the Landscape Architect, be required to pay the cost of replacing stakes which are lost or destroyed. The detail layout of structures and staking of individual items shall be done by the Contractor subject to verification by the Landscape Architect as

to compliance with the contract plans and specifications. In any case, the Contractor shall be responsible for the correctness and accuracy of the detail layout of finished structures.

Any personnel engaged in the surveying work on the project by the Contractor or his subcontractors, who is judged by the Landscape Architect to be incompetent shall be removed from the work and replaced by competent personnel.

**4.8.4 - FAILURE TO COMPLETE WORK ON TIME**

In case the Contractor shall fail to fully perform and complete the work in conformity with the provisions and conditions of the contract within the specified time limit set forth in the Proposal Form or within such further time as, in accordance with the provisions of this agreement shall be fixed or allowed for such performance and completion, the Contractor shall and will pay to Bessemer for each and every day of the additional time in excess of the contract time and any granted extensions thereof, the sum given in the following schedule which said sum per calendar day is agreed upon, fixed and determined by the parties hereto. The amounts shown are considered to be liquidated damages to reimburse Bessemer for the additional costs caused by delayed completion and in no case constitute a penalty. The amounts set forth below may be reduced or supplemented for project specific considerations as provided for in Article II – Special Provisions.

ORIGINAL CONTRACT AMOUNT	AMOUNT OF LIQUIDATED DAMAGES PER DAY
Less than \$49,999	\$200.00
\$50,000 to \$99,999	\$250.00
\$100,000 to \$249,999	\$300.00
\$250,000 to \$499,999	\$400.00
\$500,000 to \$999,999	\$500.00
\$1,000,000 and above	\$1,000.00 + any additional amount specified

**4.8.5 - INSPECTION**

The Bessemer Historical Society, Landscape Architect and his authorized representatives shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide proper and safe facilities for such access and for inspection.

The Landscape Architect shall have the right to reject materials and workmanship which are defective, or require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to Bessemer. If the Contractor does not correct such condemned work and remove rejected materials within a reasonable time fixed by written notice, Bessemer or authorized representative may remove them and charge the expense to the Contractor.

Should it be considered necessary or advisable by the Landscape Architect at any time before final acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall on request promptly furnish all necessary facilities, labor and materials. If such work is found to be defective in any material respect due to fault of the Contractor or his subcontractors he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the actual cost of labor and material necessarily involved in the examination and replacement, plus fifteen (15)

percent, will be allowed the Contractor.

All materials to be incorporated in the work, all labor performed, all tools, appliances, and methods used shall be subject to the inspection and approval or rejection of the Landscape Architect.

If the Landscape Architect shall point out to the Contractor, his foreman or agent any neglect or disregard of the contract provisions, such neglect or disregard shall be remedied and further defective work shall be at once discontinued.

The Contractor shall execute the work only in the presence of the Landscape Architect or authorized inspectors, unless provision has been made for the work to proceed without complete Landscape Architecting supervision or inspection. The presence of the Landscape Architect or Inspector shall in no way relieve the Contractor of the responsibility of this contract, or be any warrant for the furnishing of bad material or poor workmanship.

The inspection and supervision of the work by the Landscape Architect is intended to aid the Contractor in applying labor, materials and workmanship in compliance with the contract provisions. Such inspection and supervision, however, shall not operate to release the Contractor from any of his contract obligations.

## **4.9 - CONTRACTOR'S WORKING CONDITIONS**

### **4.9.1 - SUPERINTENDENCE**

The Contractor shall give his personal superintendence to the work or have at the site of the work at all times a competent foreman, superintendent, or other representative satisfactory to the Landscape Architect and having authority to act for the Contractor. All directions given to him shall be as binding as if delivered to the Contractor. Such directions shall be confirmed upon written request to the Landscape Architect by the Contractor or his superintendent.

Insofar as it is practicable and except in the event of discharge by the Contractor or in the event of proven incompetence, the individual who has been designated to represent the Contractor shall so act, and shall follow without delay instructions of the Landscape Architect in the prosecution of the work in conformity with the contract.

### **4.9.2 - LABOR**

The Contractor shall employ none but competent and skilled workmen and foremen in the conduct of work on this contract. The Contractor shall at all times enforce strict discipline and good order among his employees. The Landscape Architect shall have the authority to order removal from the work of any Contractor's employee who refuses or neglects to observe any of the provisions of these plans or specifications, or who is incompetent, unfaithful, abusive, threatening, or disorderly in his conduct, and any such person shall not again be employed on this project without permission of the Landscape Architect.

Colorado labor shall be employed to perform the work to the extent of not less than eighty percent (80%) of each type of class of labor in the several classifications of skilled and common labor employed on this project, as required and defined in Article 17 of Title 8 of C.R.S.; provided, however that this subsection (b) shall be suspended and of no effect to the extent prohibited or inconsistent



with a requirement of federal law or regulation or the terms and conditions of any grant or cooperative agreement to which Bessemer is a party and which concerns the Project.

#### **4.9.3 - USE OF JOB SITE AND PRIVATE LAND**

The Contractor shall confine his equipment, apparatus, the storage of materials and operations of his workmen to limits indicated by law, ordinances, permits or directions of Bessemer and shall not encumber the premises with his materials.

The Contractor shall not load or permit any part of the structure to be loaded with a weight that will endanger its safety. The Contractor shall enforce the Landscape Architect's instructions regarding signs, advertisements, fires and smoke.

The Contractor shall not use any vacant lot or private land as a plant site, depository for materials, or as a spoil site without the written authorization of the owner (or his agent) of the land, a copy of which authorization shall be filed with the Landscape Architect. The Contractor shall not interrupt, constrict, or alter established drainage ways on vacant lots or private land without first obtaining permission from the Landscape Architect and the property owner.

#### **4.9.4 - PROTECTION OF THE PUBLIC, WORKS AND PROPERTY**

The Contractor shall provide and maintain all necessary watchmen, barricades, red lights and warning signs and take all necessary precautions for the protection of the public. He shall continuously maintain adequate protection of all work from damage, and shall take all reasonable precautions to protect Bessemer's property from injury or loss arising in connection with the contract. He shall make good any damage, injury, or loss to his work and to the property of Bessemer, except such as may be due to errors in the contract documents, or caused by agents or employees of Bessemer.

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect Bessemer's and adjacent property from injury arising from or in connection with this contract.

The Contractor will be responsible for any and all damage to property, public or private, that may be caused by his operations in the performance of this contract, and the Contractor shall defend any suit that may be brought against himself or Bessemer on account of damage inflicted by his operations, and shall pay any judgments awarded to cover such damage; provided, however, that if either party to this contract should suffer injury or damages in any manner because of any wrongful act or neglect of the other party or of anyone employed by him, then he shall be reimbursed by the other party for such damage. Notice of pending claim for such reimbursement shall be made in writing to the party responsible within a reasonable time of the first observance of such damage, and the claim shall be filed and adjusted prior to the time of final payment.

#### **4.9.5 - ACCIDENT PREVENTION**

Precaution shall be exercised at all times for the protection of persons (including employees) and property. The safety provisions of applicable local ordinances, State and Federal laws, and building and construction codes shall be observed. Machinery, equipment, and all hazards shall be guarded or eliminated in accordance with the safety provisions of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable law.

#### **4.9.6 - SANITARY CONVENIENCES**

The Contractor shall provide and maintain at the site of the construction work at all times, suitable sanitary facilities for use of those employed on this contract without committing any public nuisance. Pit type toilets shall be of proper design and fly tight. All toilet facilities shall be subject to the approval of the Pueblo City-County Health Department.

#### **4.9.7 - WORK IN BAD WEATHER**

No construction work shall be done during stormy, freezing or inclement weather, except such as can be done satisfactorily, and in a manner to secure first class construction throughout, and then only subject to the permission of the Landscape Architect.

#### **4.9.8 - STATE-IMPOSED MANDATES PROHIBITING ILLEGAL ALIENS FROM PERFORMING WORK UNDER THIS CONTRACT**

At or prior to the time for execution of this Contract, Contractor shall submit to Bessemer and the Landscape Architect its certification that it does not knowingly employ or contract with an illegal alien who will perform work under this Contract and that the Contractor will participate in either the "E-Verify Program" created in Public Law 208, 104th Congress, as amended and expanded in Public law 156, 108th Congress, as amended, that is administered by the United States Department of Homeland Security or the "Department Program" established pursuant to section 8-17.5-102(5)(c), C.R.S. that is administered by the Colorado Department of Labor and Employment in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Contract.

Contractor shall not:

1. Knowingly employ or contract with an illegal alien to perform work under this Contract;
2. Enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Contract.

The following state-imposed requirements apply to this Contract:

1. The Contractor shall have confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Contract through participation in either the E-Verify Program or Department Program.
2. The Contractor is prohibited from using either the E-Verify Program or Department Program procedures to undertake pre-employment screening of job applicants while this Contract is being performed.
3. If the Contractor obtains actual knowledge that a subcontractor performing work under this contract knowingly employs or contracts with an illegal alien to perform work under this Contract, the Contractor shall be required to:
  - a. Notify the subcontractor and the Purchasing Agent of the City within three (3) days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and



- b. Terminate the subcontract with the subcontractor if within three (3) days of receiving the notice required pursuant to subparagraph (c)(iii)A. above, the subcontractor does not stop employing or contracting with the illegal alien; except that the Contractor shall not terminate the contract with the subcontractor if, during such three (3) days, the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

The Contractor is required to comply with any reasonable request by the Colorado Department of Labor and Employment (hereinafter referred to as "CDLE") made in the course of an investigation that CDLE is undertaking pursuant to its authority under §8-17.5-102(5), C.R.S.

Violation of this Section by the Contractor shall constitute a breach of contract and grounds for termination. In the event of such termination, the Contractor shall be liable for City's actual and consequential damages.

Nothing in this Section shall be construed as requiring the Contractor to violate any terms of participation in the E-Verify Program.

#### **4.10 - CLEANUP AND FINAL COMPLETION**

##### **4.10.1 - CLEANING UP AND FINAL INSPECTION**

The Contractor shall at all times keep the site of the work free from accumulations of waste materials or rubbish caused by his employees or work and at the completion of the work he shall remove all his rubbish from and about the work and all his tools, equipment, scaffolding and surplus materials and shall leave his work clean and ready to use. In case of dispute, Bessemer may remove the rubbish and surplus materials and charge the cost to the Contractor.

All sewers, conduits, pipes and appurtenances and all tanks, pump wells, chambers, buildings and other structures shall be kept clean during construction; and as the work or any part thereof approaches completion, the Contractor shall systematically and thoroughly clean and make any needed repairs to them. He shall furnish at his own expense, suitable tools and labor for removing all water and cleaning out all dirt, mortar and foreign substances. Any undue leakage of water into the structures such as to make the work, in the opinion of the Landscape Architect, fall short of first class work, shall be promptly corrected by the Contractor at his own expense. Cleaning and repairs shall be arranged, so far as practical, to be completed upon finishing the construction work. Notice to begin the final cleaning, and repairing, if such is needed, will be given by the Landscape Architect, who at the same time will make his final inspection of the work. The Landscape Architect will not approve the final estimate of any portion of the work until after the final inspection is made and the work found satisfactory.

##### **4.10.2 - CUTTING AND PATCHING**

The Contractor shall do all cutting, fitting or patching of his work that may be required to make its several parts fit together or to receive the work of other contractors shown upon, or reasonably implied by, the plans and specifications of the completed project.

Any cost caused by defective or ill-timed work shall be borne by the party responsible therefor.

The Contractor shall not endanger any work by cutting, digging or otherwise, and shall not cut or alter the work of any other contractor without the consent of the Landscape Architect.

#### **4.10.3 - FINAL TESTS**

After completion of the work the Contractor shall make any and all tests required by the specifications or by municipal or state regulations, and where so provided in said regulations shall furnish the City with certificates of inspection by the municipal or state regulatory bodies.

#### **4.10.4 - CORRECTION OF WORK AFTER FINAL PAYMENT**

Neither the final payment nor any provision in the contract documents shall relieve the Contractor of the responsibility for negligence or faulty materials or workmanship, whether latent or patent, within the extent and period provided by law.

#### **4.10.5 - TERMINATION FOR CAUSE**

In the event the Contractor shall be adjudged a bankrupt, or shall make a general assignment for the benefit of his creditors, or a receiver shall be appointed on account of his insolvency, or if he shall persistently or repeatedly refuse or should fail to supply enough properly skilled workmen or proper materials, or shall fail to maintain required insurance, or shall fail to make prompt payment to subcontractors or for material or labor, or persistently disregard laws, or ordinances or the instructions of the Landscape Architect, or otherwise be guilty of a substantial violation of any provisions of the contract, Bessemer may serve written notice upon the Contractor and the Surety of its intention to terminate the contract, and unless within ten days after the serving of such notice upon the Contractor, such violation shall cease and satisfactory arrangement for correction be made, the contract shall, upon the expiration of said ten days cease and terminate. In the event of any such termination, Bessemer shall immediately serve notice thereof upon the Surety and the Contractor, and the Surety shall have the right to take over and perform the contract; provided, however, that if the Surety does not commence performance thereof within thirty days from the date of the mailing to such Surety of a notice of termination, Bessemer may take over the work and prosecute the same to completion for the account and at the expense of the Contractor, and the Contractor and his Surety shall be liable to Bessemer for any excess cost thereby occasioned Bessemer. If the unpaid balance of the contract price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. The expense incurred by Bessemer herein provided, and the damages incurred through the Contractor's default, shall be determined by the Landscape Architect whose decision thereon shall be final and conclusive.

Where the contract has been terminated by Bessemer, said termination shall not affect or terminate any of the rights of the Bessemer as against the Contractor and his Surety then existing or which may thereafter accrue because of such default. Any retention by the Bessemer of the moneys due the Contractor under the terms of the contract shall not release the Contractor or his Surety from liability for his default.

#### **4.10.6 - FINAL ACCEPTANCE OF THE WORK**

The contract shall be deemed as having been finally accepted by Bessemer upon authorization of final payment issued by the Landscape Architect.

Use of part of the improvement by Bessemer before completion of the entire project is not to be construed by the Contractor as an acceptance by Bessemer of that part so used.

#### **4.10.7 - COMMENCEMENT AND COMPLETION OF WORK**

The Contractor shall commence work within three (3) calendar days of the date of execution of the contract (unless otherwise stated in the Proposal Form), and complete the contract within the number of calendar days from the date of the Notice of Award as stated in the Proposal Form.

The dates fixed for commencement and completion of the work shall be extended for a period equivalent to the time lost because of severe and unusual weather, non-delivery of properly ordered materials, or other cause over which the Contractor is not responsible. The Contractor shall document reasons for requesting any such extensions in a letter to the Landscape Architect, and the Landscape Architect shall fix the period of extensions, if any, his decision being binding upon both parties. If satisfactory execution and completion of the Contract shall require work or materials in substantially greater amounts or quantities than those set forth in the contract, then the contract time shall automatically be increased in the same proportions as the cost of the additional work bears to the original contracted for. No allowance will be made for delays or suspension of the prosecution of the work due to the fault of the Contractor or his subcontractors or suppliers.

#### **4.10.8 - LIQUIDATED DAMAGES**

In the event that the contract has not been completed within the specified time (including any approved time extensions as described in Paragraph 4.77) the amounts set forth in Paragraph 4.54 will be deducted from the amount paid the Contractor, as liquidated damages.

No other liquidated damages will be charged for non-completion within the specified time unless specifically stated in the Special Provisions.

#### **4.10.9 – WAIVER OF STATUTORY LIMITATIONS AND CONDITIONS**

The rights and remedies available to Bessemer under the Contract Documents, including Bessemer's right to recover liquidated damages, are in addition to, and not limited by, any rights, remedies and limitations provided under law. By bidding upon and entering into this Contract, the Contractor specifically waives all In the provisions of Chapter 8 of Article 20 of Title 13, Colorado Revised Statutes including, without limitations, those relating to defects in the work under the Contract, limitation of damages and notice of claim process.

#### **4.11 - MEASUREMENT AND PAYMENT**

##### **4.11.1 - MEASUREMENT OF WORK**

Measurement of work will be measured and paid as set forth in the unit rate prices in this document and as described in the project Specifications.

##### **4.11.2 - PAYMENTS**

Not later than the fifth day of each calendar month the Contractor shall prepare and submit to Bessemer a detailed estimate in triplicate of the work performed during the preceding calendar month, and at the time of completion of the work under the Contract, the Contractor shall prepare and submit to Bessemer a detailed estimate of the work performed since the last calendar month for which he has submitted as estimate, such estimates to be used after approval as a basis for periodical and final payments. When approved, one copy of such estimate will be returned to the Contractor and two copies will be retained by Bessemer.

Not later than the 15th day of each calendar month Bessemer will make partial payment to the Contractor on the basis of a duly certified and approved estimate of the work performed by the Contractor during the preceding calendar month. Bessemer at its discretion may include in such monthly estimates, payment for materials that will eventually be incorporated in the project, provided that such material is suitably stored on the site of the project at the time of submission of the estimate for payment. Payment for materials on hand but not in place, unless otherwise provided in the Special Provisions, shall be based on the Contractor's cost of such materials stored at the job site, as evidenced by material bills and freight bills. No additional allowances will be made for handling or drayage by the Contractor's forces, nor overhead, insurance, profit or other incidental costs. The Contractor shall, if required by the Landscape Architect, present certified copies of receipted bills and freight bills for such materials. Such material when so paid for by Bessemer shall become the property of Bessemer, and in case of default on the part of the Contractor, Bessemer may use or cause to be used by others these materials in construction of the project.

Bessemer will retain a percentage of the amount of each periodical estimate until the final completion and acceptance by Bessemer of all work included in this contract. Unless otherwise specified in Article 2 - Special Provisions, the percentage retained shall be 10%, except that the retainage on the periodic estimate considered to be the final estimate may be reduced by the Landscape Architect to an amount deemed by him sufficient to complete minor work, effect minor repairs or perform minor cleanup, provided, however, that in no event may retainage be reduced to less than five percent (5%) of the original contract amount. Nothing in this section shall be construed to limit or restrict Bessemer's right to withhold additional amounts pursuant to Section 3.83 of these General Provisions.

Final payment of the percentage retained by Bessemer on the monthly periodical estimates and on the final estimate will be paid to the Contractor not more than thirty (30) days after final acceptance by Bessemer of the work on this contract and publication of the statutorily required Notice of Final Settlement.

#### **4.11.3 - BESSEMER'S RIGHT TO WITHHOLD CERTAIN AMOUNTS AND MAKE APPLICATIONS THEREOF**

Bessemer may withhold, in addition to retained percentages, from any payment to the Contractor, such an amount or amounts as may be necessary to cover:

1. Claims filed with Bessemer for labor or materials furnished in connection with the work.
2. Correction of defective work not promptly remedied by Contractor.
3. Amounts owed to his suppliers, subcontractors and workers.
4. An amount sufficient to ensure completion if a reasonable basis exists to believe that the contract cannot be completed for the balance then unpaid.

5. Damage caused by Contractor to another contractor or public or private property.
6. Excess cost of field Landscape Architecting and inspection.
7. Liquidated damages.

Bessemer may disburse and shall have the right to act as agent for the Contractor in disbursing such funds as have been withheld pursuant to this paragraph to the party or parties who are entitled to payment there from. Bessemer will render to the Contractor a proper accounting of all such funds disbursed in behalf of the Contractor.

Neither the final payment nor any part of the retained percentage shall become due until 30 days after publication of Notice of Final Settlement on the Project and after the Contractor shall have delivered to Bessemer a complete release for himself and all material men and subcontractors of all claims or liens arising out of the contract, or receipt in full in lieu thereof. The Contractor may, however, furnish a bond, satisfactory to Bessemer, to indemnify Bessemer against any claim or lien. If any claim or lien remains unsatisfied after all payments are made, the Contractor and his Surety shall be liable to Bessemer for all moneys that the latter may be compelled to pay in discharging such claim or lien, including all costs and reasonable attorney's fees.

#### **4.11.4 - UNCORRECTED WORK**

All work performed incorrectly or of incorrect materials shall be replaced before final payment. Final payment will be withheld until such corrections have been accomplished.

#### **4.11.5 - CHANGE ORDERS**

The Landscape Architect, in writing, may direct that changes be made in the work to be performed or the materials to be furnished pursuant to the provisions of this contract. A written change order which causes any increase in the original Contract Price shall include a statement that lawful appropriations have been made sufficient to cover the costs of the change order.

Adjustments, if any, in the amounts to be paid to the Contractor by reason of any such change shall be determined by one or more of the following methods:

1. By unit prices contained in the Contractor's original bid and incorporated in this construction contract;
2. By a supplemental schedule of prices contained in the Contractor's original bid and incorporated in this construction contract; or by schedule of unit prices approved by Landscape Architect pursuant to Section 4.3.6 of this Article;

No claims for an addition to the contract sum shall be valid unless authorized in writing as aforesaid.

In cases where a lump sum proposal or bid item is submitted by the Contractor in excess of \$500.00 (Five Hundred Dollars) and the Bessemer Historical Society or authorized representative considers the proposal so submitted is excessive or unreasonable for the changes or added work contemplated, Bessemer reserves the right to request a proposal for the same changed items from other contractors. If a proposal for such added work is obtained from other contractors at a lesser amount, Bessemer

reserves the right to make an award for such work to another contractor unless the Contractor on this contract agrees to do the added or changed work for the price named by the other contractor.

It shall be expressly understood and hereby agreed to by the Contractor that no claim for extra work will be recognized by Bessemer unless claim for such added work has been filed by the Contractor within ten (10) days after such alleged extra work was performed.

#### **4.11.6- SIGNIFICANT CHANGES IN CHARACTER OF THE WORK**

The Landscape Architect reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the Contract nor release the surety, and the Contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the Contract, whether such alternations or changes are in themselves significant changes to the character of the work, or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding loss of anticipated profit, will be made to the Contract Price. The basis for adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon for any reason what so ever, then an adjustment will be made either for or against the Contractor in such amount as the Landscape Architect may determine to be fair and equitable.

If the alterations or changes in quantities do not significantly change the character of the work to be performed under the Contract, the altered work will be paid for as provided elsewhere in the Contract.

As used in this section, the term "significant change" shall be construed to apply only to the following circumstances:

1. When the character of the work as altered differs substantially and materially in kind or nature from that involved or included in the original proposed construction, or
2. When a major item of work is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed. A major item is defined to be any item having an original contract value in excess of 10 percent of the original contract amount.

#### **4.11.7 – CONTRACTOR’S RIGH TO STOP WORK OR TERMINATE CONTRACT**

If the work should be stopped under an order of any court, or other public authority, for a period of three (3) months, through no act or fault of the Contractor or of anyone employed by him, or if the Landscape Architect should fail without cause to issue any estimate within thirty (30) days after it is due, then the Contractor may, upon ten (10) days written notice to the Bessemer Historical Society, stop work or terminate the contract and recover from Bessemer Historical Society payment for all work executed plus any loss sustained upon any plant or material plus reasonable profit and damages.

**ARTICLE V  
REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**



**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

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

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.

**ATTACHMENTS**

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

**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.

**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).

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 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.

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.

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.

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.

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).

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.

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.

**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.

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**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.

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**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.

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**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.

**ARTICLE VI  
REQUIRED CONTRACT PROVISIONS  
COLORADO DEPARTMENT OF TRANSPORTATION REQUIREMENTS**

**6.00 - GENERAL**

The provisions of this Article are included to meet the contract requirements of the Colorado Department of Transportation and are for informational purposes.

**6.1 – AFFIRMATIVE ACTION REQUIREMENTS**

**February 3, 2011  
AFFIRMATIVE ACTION REQUIREMENTS  
EQUAL EMPLOYMENT OPPORTUNITY**

**NOTICE**

This is a standard special provision that revises or modifies CDOT's *Standard Specifications for Road and Bridge Construction*. It has gone through a formal review and approval process and has been issued by CDOT's Project Development Branch with formal instructions for its use on CDOT construction projects. It is to be used as written without change. Do not use modified versions of this special provision on CDOT construction projects, and do not use this special provision on CDOT projects in a manner other than that specified in the instructions unless such use is first approved by the Standards and Specifications Unit of the Project Development Branch. The instructions for use on CDOT construction projects appear below.

Other agencies which use the *Standard Specifications for Road and Bridge Construction* to administer construction projects may use this special provision as appropriate and at their own risk.

**Instructions for use on CDOT construction projects:**

Use this standard special provision on all projects.



February 3, 2011

**A. AFFIRMATIVE ACTION REQUIREMENTS**

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Bidder’s attention is called to the “Equal Opportunity Clause” and the “Standard Federal Equal Employment Opportunity Construction Contract Specifications” set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor’s aggregate workforce in each trade on all construction work in the covered area are as follows:

**Goals and Timetable for Minority Utilization**

<b>Timetable - Until Further Notice</b>			
<b>Economic Area</b>	<b>Standard Metropolitan Statistical Area (SMSA)</b>	<b>Counties Involved</b>	<b>Goal</b>
157 (Denver)	2080 Denver-Boulder	Adams, Arapahoe, Boulder, Denver, Douglas, Gilpin, Jefferson.....	13.8%
	2670 Fort Collins	Larimer.....	6.9%
	3060 Greeley	Weld.....	13.1%
	Non SMSA Counties	Cheyenne, Clear Creek, Elbert, Grand, Kit Carson, Logan, Morgan, Park, Phillips, Sedgwick, Summit, Washington & Yuma.....	12.8%
158  (Colo. Spgs. - Pueblo)	1720 Colorado Springs	El Paso, Teller.....	10.9%
	6560 Pueblo	Pueblo.....	27.5%
	Non SMSA Counties	Alamosa, Baca, Bent, Chaffee, Conejos, Costilla, Crowley, Custer, Fremont, Huerfano, Kiowa, Lake, Las Animas, Lincoln, Mineral, Otero, Prowers, Rio Grande, Saguache.....	19.0%
159 (Grand Junction)	Non SMSA	Archuleta, Delta, Dolores, Eagle, Garfield, Gunnison, Hinsdale, La Plata, Mesa, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel	10.2%
156 (Cheyenne - Casper WY)	Non SMSA	Jackson County, Colorado.....	7.5%

GOALS AND TIMETABLES FOR FEMALE UTILIZATION

Until Further Notice.....	6.9% --
Statewide	

These goals are applicable to all the Contractor’s construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor’s compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor’s goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Par 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall 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 shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this specification, and in the contract resulting from this solicitation, the “covered area” is the county or counties shown on the Invitation for Bids and on the plans. In cases where the work is in two or more counties covered by differing percentage goals, the highest percentage will govern.

**B. STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS**

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. As used in these Specifications:
  - a. “Covered area” means the geographical area described in the solicitation from which this contract resulted;
  - b. “Director” means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

- c. "Employer identification number" means 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).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
  3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractor toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
  4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any office of Federal Contract Compliance Programs Office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
  5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following;
  - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
  - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and maintain a record of the organization's responses.
  - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source of community organization and of what action was taken with respect to each individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
  - d. Provide immediate written notification to the Director when the union with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
  - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
  - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc., by specific review of the policy with all management personnel and with all minority and female employees at least once a year, and by posting the Contractor's EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
  - g. Review, at least annually, the Contractor's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring,



- assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
  - i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
  - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
  - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
  - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc. such opportunities.
  - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
  - n. Ensure that all facilities and Contractor's activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
  - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligation.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goal and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form, however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

### **C. SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES.**

1. *General.*

- a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required Contract. Provisions (Form FHWA 1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of Title 23, U.S.C., as established by Section 22 of the Federal-Aid highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract provisions.
- b. The Contractor will work with the State highway agencies and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.
- c. The Contractor and all his/her subcontractors holding subcontracts not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of equal employment opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in Volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The Contractor will include these requirements in every subcontract of \$10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. *Equal Employment Opportunity Policy.* The Contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program;

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, or national origin. 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, preapprenticeship, and/or on-the-job training.

3. *Equal Employment Opportunity Officer.* The Contractor will designate and make known to the State highway agency contracting officers and equal employment opportunity officer (herein after referred to as the EEO Officer) who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

4. *Dissemination of Policy.*

- a. 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 equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity 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;
  - i. 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 equal employment opportunity policy and its

implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

- ii. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official, covering all major aspects of the Contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the Contractor.
  - iii. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official in the Contractor's procedures for locating and hiring minority group employees.
- b. In order to make the Contractor's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the Contractor will take the following actions:
- i. Notices and posters setting forth the Contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
  - ii. The Contractor's equal employment opportunity 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.

5. *Recruitment.*

- a. When advertising for employees, the Contractor will include in all advertisements for employees the notation; "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
- b. 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 minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the Contractor will, through his EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the Contractor for employment consideration.

In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the Contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the Contractor to do the same, such implementation violates Executive Order 11246, as amended.)

- c. The Contractor will encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.
6. *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, or national origin. 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 his 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 his avenues of appeal.

7. *Training and Promotion.*

- a. The Contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
- 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. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.
- 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 minority group and women employees and will encourage eligible employees to apply for such training and promotion.

8. *Unions.* If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women with the unions, and to effect referrals by such unions of minority and female employees. 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 best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
- b. The Contractor will use best efforts to incorporate an equal employment opportunity 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, or national origin
- 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 State highway department 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 minority and women 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 or national origin; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) 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 State highway agency.

9. *Subcontracting.*

- a. The Contractor will use his best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of minority-owned construction firms from State highway agency personnel.
- b. The Contractor will use his best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

10. *Records and Reports.*

- a. The Contractor will keep such records as are necessary to determine compliance with the Contractor's equal employment opportunity obligations. The records kept by the Contractor will be designed to indicate:
  - i. The number of minority and nonminority group members and women employed in each work classification on the project.
  - ii. The Progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractors who rely in whole or in part on unions as a source of their work force).
  - iii. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees, and
  - iv. The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.
- b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State highway agency and the Federal Highway Administration.
- c. The Contractors will submit an annual report to the State highway 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 PR 1391.



## 6.2 – DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

6.2.1 This project has a 0% DBE goal.

December 26, 2013  
DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS  
**NOTICE**

This is a standard special provision that revises or modifies CDOT's *Standard Specifications for Road and Bridge Construction*. It has gone through a formal review and approval process and has been issued by CDOT's Project Development Branch with formal instructions for its use on CDOT construction projects. It is to be used as written without change. Do not use modified versions of this special provision on CDOT construction projects, and do not use this special provision on CDOT projects in a manner other than that specified in the instructions unless such use is first approved by the Standards and Specifications Unit of the Project Development Branch. The instructions for use on CDOT construction projects appear below.

Other agencies which use the *Standard Specifications for Road and Bridge Construction* to administer construction projects may use this special provision as appropriate and at their own risk.

### **Instructions for use on CDOT construction projects:**

Use this Standard Special Provision on all partially or wholly funded Federal-Aid Design-Bid-Build Projects. Use in conjunction with the Project Special Provision Worksheet, Disadvantaged Business Enterprise (DBE) Contract Goal.

The Designer should consult with the Regional Civil Rights Office (RCRO) to determine the use of this standard special and to obtain the contract goal. A contract goal of zero still requires the use of this standard special and the worksheet. Designers shall not set their own contract goal.

This standard special provision should not be used for CM/GC services, design-build or other innovative projects. For DBE provisions for these projects, contact the Civil Rights and Business Resource Center (CRBRC) at (303)757-9234. **verview**

The Disadvantaged Business Enterprise (DBE) Program is a federally-mandated program that seeks to ensure non-discrimination in the award of U.S. Department of Transportation (DOT)-assisted contracts and to create a level playing field on which DBEs can compete fairly for DOT-assisted contracts. To such end, CDOT sets a contract goal for DBE participation for each DOT-assisted Contract. In order to be awarded the Contract, the bidder shall show that it has committed to DBE participation sufficient to meet the goal or has otherwise made good faith efforts to do so. CDOT will amend the goal prior to award if the lowest apparent bidder demonstrates that good faith efforts were made but sufficient commitments to meet the goal could not be obtained.

CDOT will monitor the progress of the Contractor throughout the project to ensure that the Contractor's DBE commitments are being fulfilled. Modifications to the commitments must be approved by CDOT. CDOT may withhold payment or seek other contractual remedies if the Contractor is not complying with the requirements of this special provision. Upon completion of the Contract, CDOT may reduce the final payment to the Contractor if the Contractor has failed to fulfill the commitments or made good faith efforts to meet the contract goal.

For general assistance regarding the DBE program and compliance, contact CDOT's Civil Rights and Business Resource Center (CRBRC) at (303)757-9234. For project specific issues, contact the Engineer.

All forms referenced herein can be found on the CDOT website in the forms library:

<http://www.coloradodot.info/library/forms/cdot-forms-by-number>

1. **Contract Assurance** By submitting a proposal for this Contract, the bidder agrees to the following assurance and shall include it verbatim in all (including non-DBE) subcontracts:

The contractor, subrecipient 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 CDOT deems appropriate.

2. **Definitions** Terms not defined herein shall have the meaning provided in the CDOT Standard Specifications for Road and Bridge Construction.
  - a. *Commitment.* A commitment is a portion of the Contract, identified by dollar amount and work area, designated by the bidder or Contractor for participation by a particular DBE. Commitments are submitted to CDOT via Form 1414, Anticipated DBE Participation Plan, or via Form 1420, DBE Plan Modification Request. Once approved, commitments are obligations of the Contract that are enforceable by CDOT.
  - b. *Commercially Useful Function (CUF).* Responsibility for the execution of the work and carrying out such responsibilities by actually performing, managing and supervising the work as further described in Section 8 below.
  - c. *Contract Goal.* The percentage of the contract designated by CDOT for DBE participation. The contract goal for this contract is provided in the Project Special Provision Disadvantaged Business Enterprise Contract Goal.
    - i. The bidder/Contractor shall make good faith efforts to fulfill the contract goal with eligible DBE participation. For determining whether the contract goal was met prior to award, the contract goal shall be based upon the proposal amount excluding force account items. For determining whether the contract goal was met during and upon completion of the project, the contract goal shall be based upon the total earnings amount.
    - ii. If the lowest apparent bidder demonstrates that it was unable to meet the contract goal but made good faith efforts to do so, the contract goal will be amended and the revised contract goal will be provided on Form 1417, Approved DBE Participation Plan.
  - d. *Disadvantaged Business Enterprise (DBE).* A Colorado-certified Disadvantaged Business Enterprise listed on the Colorado Unified Certification Program (UCP) DBE Directory at [www.coloradodbe.org](http://www.coloradodbe.org).
  - e. *DBE Program Manual.* The manual maintained by the CRBRC which details CDOT's policies and procedures for administering the DBE program. A copy of the DBE Program Manual is available on the CRBRC webpage.
  - f. *Eligible Participation.* Work by a DBE that counts toward fulfillment of the contract goal as described in Section 4 below.
  - g. *Good Faith Efforts.* All necessary and reasonable steps to achieve the contract goal which, by their scope, intensity, and appropriateness to the objective, could reasonably



be expected to obtain sufficient DBE participation, even if not fully successful. Good faith efforts are evaluated prior to award and throughout performance of the Contract. For guidance on good faith efforts, see 49 CFR Part 26, Appendix A.

- h. *Joint Check.* A check issued by the Contractor or one of its subcontractors to a DBE firm and a material supplier or other third party for materials or services to be incorporated into the work.
  - i. *Reduction.* A reduction occurs when the Contractor reduces a commitment to a DBE. A reduction constitutes a partial termination.
  - j. *Subcontractor.* An individual, firm, corporation or other legal entity to whom the Contractor sublets part of the Contract. For purposes of this special provision, the term subcontractor includes suppliers.
  - k. *Substitution.* Substitution occurs when a Contractor seeks to find another DBE to perform work on the contract as a result of a reduction or termination.
  - l. *Termination.* A termination occurs when a Contractor no longer intends to use a DBE for fulfillment of a commitment.
  - m. *Total Earnings Amount:* Amount of the Contract earned by the Contractor, including approved changes and approved force account work performed, but not including any deductions for liquidated damages, price reduced material, work time violations, overweight loads or liens. The amount of the Contract earned does not include plan force account items (i.e. OJT, pavement incentives, etc).
  - n. *Work Code.* A code to identify the work that a DBE is certified to perform. A work code includes a six digit North American Industry Classifications System code plus a descriptor. Work codes are listed on a firm's profile on the UCP DBE Directory. The Contractor may contact the CRBRC to receive guidance on whether a work code covers the work to be performed.
3. **Eligible Participation** The following rules will be used to determine whether work performed by a DBE qualifies as eligible participation on the Contract:
- a. *Work Must be Identified in Commitment.* The work performed by the DBE must be reasonably construed to be included in the work area and work code identified by the Contractor in the approved commitment.
    - i. If the Contractor intends to use a DBE for work that was not listed in the commitment, the Contractor shall submit Form 1420, DBE Participation Plan Modification for approval of the modification. Unapproved work will not count toward the contract goal.
    - ii. A DBE commitment cannot be modified to include work for which the DBE was not certified at the time of the approval of the original commitment.
  - b. *DBE Must be Certified to Perform the Work.* The DBE must be certified to perform the work upon submission of the commitment and upon execution of the DBE's subcontract.
    - i. When a commitment has been made, but upon review of Form 205 or 205B, Sublet Permit, CDOT determines that the DBE is no longer certified in the work code which covers the work to be performed, the Contractor may not use the DBE's participation toward the contract goal. The Contractor shall terminate the DBE commitment and seek substitute DBE participation in accordance with Section 9 below.
    - ii. A DBE's work will continue to count as eligible participation if the DBE was certified upon approval of Form 205 or 205B, Sublet Permit and the certification status changes during the performance of the work.
    - iii. Suppliers must be certified upon execution of the purchase order.

- c. *DBE Performs the Work.* Eligible participation will only include work actually performed by the DBE with its own forces.
    - i. Work performed by the DBE includes the cost of supplies and materials obtained by the DBE for its work on the Contract, including any equipment leased by the DBE, provided that such supplies or equipment are not purchased or leased from the Contractor or a subcontractor that is subletting to the DBE.
    - ii. If CDOT determines that a DBE has not performed a CUF on the project, no participation by such DBE shall count toward the contract goal.
  - d. *DBE Subcontracts to Another Firm.* When a DBE subcontracts part of the work, the value of the subcontracted work may only be counted toward the goal if the subcontractor is a DBE. Performance by non-DBE subcontractors, including non-DBE trucking firms and owner-operators, shall be deducted from the DBE's participation.
  - e. *DBE Received Payment for the Work.* Eligible participation only includes work for which the DBE has received payment, including the release of its retainage.
  - f. *Special Calculations for Suppliers.* When a DBE supplies goods on a project, the DBE may be classified as a manufacturer, dealer or broker. The DBE's status as a manufacturer, dealer or broker is determined on a contract-by-contract basis and is based upon the actual work performed.
    - i. When a DBE is deemed to be acting as a manufacturer, one hundred percent of the commitment will count as eligible participation.
    - ii. When a DBE is deemed to be acting as a regular dealer (i.e. non-manufacturer supplier), only sixty percent of the commitment will count as eligible participation.
    - iii. When a DBE is deemed to be acting as a broker, only the reasonable brokerage fee will count as eligible participation.
  - g. *Reasonable Fee for Contract-Specific Services.* Services shall count toward the contract goal only if they are specifically required for the performance of the Contract. Non-contract specific expenses may not be counted toward the contract goal. Fees for services must be reasonable. Services include but are not limited to professional services, public involvement, etc. In the case of temporary employment placement agencies, only the placement fee for an individual to be specifically and exclusively used for work on the contract shall count as eligible participation.
  - h. *Pre-Approval for Joint Venture Participation.* When a DBE is a participant in a joint venture, the DBE must apply to CDOT to determine how much of the work performed by the joint venture will count toward the contract goal. The DBE shall complete Form 893, Information for Determining DBE Participation when a Joint Venture Includes a DBE. Form 893 shall be submitted to CDOT no less than ten days before the submission of the Proposal to ensure sufficient time for review.
4. **Proposal Requirements** In order to be eligible for award, the following shall be submitted with the proposal, or, for electronic bidders, via email to [cdot\\_hq\\_dbefirms@state.co.us](mailto:cdot_hq_dbefirms@state.co.us) by the proposal submission deadline. In order to avoid an error within the electronic bidding system, electronic bidders shall also enter the total percentage of anticipated eligible DBE participation into the Form 714 and electronically sign the form.
- a. *Form 1413, Bidders List.* The bidder shall list each subcontractor (including both DBE and non-DBE subcontractors) that submitted a quote for participation on the project. Failure to submit a signed Form 1413 will result in rejection of the proposal.

- b. *Form 1414, Anticipated DBE Participation Plan.* If the Contract Goal is greater than zero, the bidder shall submit Form 1414 to document anticipated DBE participation.
  - c. If the Bidder has not obtained any DBE commitments, it shall still submit Form 1414 documenting zero anticipated participation. If the Contract Goal is greater than zero, failure to submit a signed Form 1414 shall result in rejection of the proposal.
    - i. The bidder shall list the DBE, work area(s), commitment amount and estimated eligible participation for each commitment. Once Form 1414 is submitted, a commitment may only be terminated or reduced in accordance with Section 9 below. The bidder is responsible for ensuring that commitments, and the estimated eligible participation resulting therefrom, have been properly calculated prior to submitting its proposal.
    - ii. If the bidder is a DBE, the bidder must include itself in Form 1414 and list the work area(s) and amount that it intends to self-perform and count as eligible participation on the contract.
    - iii. Commitments may be made to second tier or lower DBE subcontractors; however, the Contractor is ultimately responsible for the fulfillment of the commitment and shall sign the Form 1415, Commitment Confirmation.
5. **Additional Forms Due Prior to Award.** If the contract goal is greater than zero, or if the bidder has voluntarily made commitments, the Bidder shall submit the following forms within five calendar days of selection as the lowest apparent bidder:
- a. *Form 1415, Commitment Confirmation.* A Form 1415, Commitment Confirmation shall be obtained from each DBE listed on Form 1414. The bidder shall complete Section 1 and the DBE shall complete Section 2 of Form 1415. Form 1415s shall be consistent with the commitments listed on Form 1414. The bidder shall not modify commitments listed on Form 1414 without good cause and approval from CDOT. The bidder shall contact CDOT if any issues arise which may require the bidder to alter or terminate a commitment.
  - b. *Form 1416, Good Faith Effort Report.* If the total eligible participation listed on Form 1414 does not meet the contract goal, the lowest apparent bidder shall also submit Form 1416, Good Faith Effort Report and any supporting documentation that the bidder would like considered by CDOT as evidence of good faith efforts.
6. **Commitment and Good Faith Effort Review**
- a. *Commitment Review.* CDOT will evaluate the Form 1414 and each Form 1415 to ensure that the commitment is valid and has been properly calculated. CDOT may investigate or request additional information in order to confirm the accuracy of a commitment. If CDOT determines that the total estimated eligible participation of the commitments does not meet the contract goal, within two business days of notice from CDOT or within the original five calendar day deadline, whichever is later, the bidder shall submit Form 1416 to CDOT.
  - b. *Good Faith Effort Review.* If the total eligible participation of Form 1414 and all supporting Form 1415s does not meet the contract goal, CDOT will review Form 1416 and all supporting documentation submitted by the bidder in order to determine whether the bidder has demonstrated good faith efforts to obtain DBE participation. CDOT will use 49 CFR Part 26, Appendix A as a guide for determining whether the bidder made good faith efforts to meet the contract goal. A bidder will be deemed to not have made good faith efforts if the bidder lists a DBE for a work area for which the DBE is not certified and the bidder cannot establish a reasonable basis for its

determination. CDOT may consider and approve commitments made after submission of the bid if the Bidder demonstrates that (1) good faith efforts were made prior to submission of the bid and (2) there is a reasonable justification for not obtaining the commitments prior to submission of the bid.

- c. *Administrative Reconsideration.* If CDOT determines that the bidder did not demonstrate good faith efforts to meet the contract goal, it will provide the bidder with written notice of its determination and an opportunity to appeal. The process for reconsideration is set forth in the *Good Faith Effort Appeal Process*, which is an Appendix I to the DBE Program Manual. A copy of the *Good Faith Effort Appeal Process* will be included in the written notice from CDOT.
- d. *Form 1417, Approved DBE Participation Plan.* If CDOT determines that the bidder has met the contract goal or made good faith efforts to do so, CDOT will issue Form 1417, Approved DBE Participation Plan, documenting the approved commitments. If CDOT determines that the bidder did not meet the contract goal but made good faith efforts to do so, via the Form 1417 CDOT will amend the contract goal in accordance with the commitments that were obtained and attach an explanation of its determination.

## 7. Ongoing Oversight of DBE Participation

- a. *Consistency Review.* CDOT will review Form 205 or 205B, Sublet Permit Application to determine whether the work being sublet is consistent with the DBE commitments. CDOT may withhold approval of the sublet or stop performance of the work if the Contractor has reduced, terminated, or otherwise modified the type or amount of work to be performed by a DBE without seeking prior approval.
- b. *Form 1419, DBE Participation Report.* The Contractor shall submit Form 1419, DBE Participation Report to the Engineer on a quarterly basis (January 15, April 15, July 15, and October 15) and upon completion of the Contract. CDOT may withhold progress payments if the quarterly Form 1419 is not received on time. CDOT will not provide final payment on the Contract in accordance with subsection 109.09 of CDOT's *Standard Specifications for Road and Bridge Construction* until the final Form 1419 has been reviewed and approved.
- c. *Joint Checks.* All joint checks must be approved by CDOT before they are used in payment to a DBE. Joint checks used in payments to DBEs will be monitored closely to ensure (1) the DBE is performing a CUF and (2) the joint checks are not being used in a discriminatory manner. The Contractor shall request approval for the use of a joint check in a written letter signed by the DBE and the Contractor, stating the reason for the joint checks and the approximate number of checks that will be needed.
- d. *Commercially Useful Function.* CDOT will monitor performance during the Contract to ensure each DBE is performing a CUF. If CDOT determines that a DBE is not performing a CUF, no work performed by such DBE shall count as eligible participation. The DBE, Contractor, and any other involved third parties may also be subject to additional enforcement actions.
  - i. When determining whether a DBE is performing a CUF, CDOT will consider the amount of work subcontracted, industry practices, the amount the firm is to be paid compared to the work performed and eligible participation claimed, and any other relevant factors.
  - ii. With respect to material and supplies used on the Contract, in order to perform a CUF the DBE must be responsible for negotiating price, determining quality and quantity, ordering the material, installing the material, if applicable, and paying

- for the material itself.
- iii. With respect to trucking, in order to perform a CUF, the DBE trucking firm must own and operate at least one fully licensed, insured and operational truck used on the Contract. Additionally, the DBE trucking firm must be responsible for the management and supervision of the entire trucking operation for which it is responsible on the Contract.
  - iv. A DBE does not perform a CUF when 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. CDOT will evaluate similar transactions involving non-DBEs in order to determine whether a DBE is an extra participant.
  - v. If a DBE 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 than would be expected on the basis of normal industry practice for the type of work involved, CDOT will presume that the DBE is not performing a CUF. The DBE may present evidence to rebut this presumption.
  - vi. If the Contractor disagrees with CDOT's determination regarding CUF, in accordance with 49 CFR 26.55 the Contractor may seek review of the determination by the applicable USDOT operating administration, however, CUF determination is not subject to administrative appeal.

#### 8. DBE Participation Plan Modifications

- a. *Form 1420, DBE Participation Plan Modification Request.* During the performance of the Contract, the Contractor shall use Form 1420, DBE Participation Plan Modification Request to communicate all requests for *termination*, reduction, substitution, and waivers to CDOT. One Form 1420 may include multiple requests and must be submitted at the time of the occurrence or, if that is not possible, within a reasonable time of the occurrence requiring termination, reduction, substitution or waiver.
- b. *Commitment Terminations and Reductions.* No commitment shall be terminated or reduced without CDOT's approval. Terminations and reductions include, but are not limited to, instances in which a Contractor seeks to *perform* work originally designated for a DBE subcontractor with its own forces, those of an affiliate, a non-DBE firm or with another DBE firm. In order to receive approval, the Contractor shall:
  - i. Have good cause for termination or reduction. Good cause may include:
    1. the DBE fails or refuses to execute a written contract;
    2. the DBE fails or refuses to perform the work of its subcontract consistent with normal industry standards, provided that such failure is not the result of bad faith or discriminatory actions of the Contractor or one of its subcontractors;
    3. the DBE fails to meet reasonable, nondiscriminatory bond requirements;
    4. the DBE becomes bankrupt, insolvent, or exhibits credit unworthiness;
    5. the DBE is ineligible to work because of suspension or debarment proceedings or other state law;
    6. the DBE is not a responsible contractor;
    7. the DBE voluntarily withdraws from the project and provides written notice to CDOT;
    8. the DBE is ineligible to receive DBE credit for the work required;



9. the DBE owner dies or becomes disabled and is unable to complete the work;
  10. the DBE ceases business operations or otherwise dissolves;
  11. or other documented good cause that compels termination. Good cause does not exist if the Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the Contractor can self-perform the work for which the DBE was engaged or so that the Contractor can substitute another DBE or non-DBE contractor after contract award.
- ii. Provide the DBE notice of the Contractor's intent to terminate or reduce the commitment and the reason for such termination or reduction, with a copy to CDOT;
  - iii. In the notice of intent, provide the DBE at least five calendar days to respond to the notice and inform CDOT and the Contractor of the reasons, if any, why it objects to the proposed termination or reduction and any reasons that it shall not be approved. The Contractor is not required to provide the five calendar days written notice in cases where the DBE in question has provided written notice that it is withdrawing from the subcontract or purchase order. The notice period may be reduced by CDOT if required by public necessity.
  - iv. Following the notice period, if the Contractor decides to proceed, submit Form 1420 requesting approval of the termination or reduction.
  - v. When a commitment is terminated or reduced (including when a DBE withdraws), make good faith efforts to find another DBE to substitute. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the participation that was terminated or reduced up to the contract goal.
- c. *Contract Changes.* In the event of a contract change:
- i. If CDOT eliminates or reduces work committed to a DBE, such change shall be considered good cause for termination or reduction in accordance with Section 9.B above. The Contractor shall follow the processes outlined in Section 9.B but is not required to substitute. If the change reduces the Contractor's DBE participation to below the contract goal, the Contractor shall indicate so on a Form 1420 and request a waiver of the unmet participation.
  - ii. If CDOT issues a change which increases or adds new work items, the Contractor shall ensure that it has obtained sufficient DBE participation to meet the Contract Goal, or has made good faith efforts to do so.
- d. *Process for Substitution or Increase in Participation to Meet the Contract Goal.* When the Contractor must obtain additional DBE participation to meet the Contract Goal, whether resulting from an approved termination or reduction or a change to the Contract, the Contractor shall:
- i. Increase the participation of a DBE for any work items previously identified in an approved commitment without seeking CDOT approval; provided, however, that at its discretion, CDOT may request a Form 1420 documenting such additional participation; or
  - ii. If the Contractor needs to add new work to a commitment or obtain additional participation from a DBE that is not already participating on the contract pursuant to an approved commitment, submit a Form 1420 and Form 1415 requesting approval of the additional participation; or
  - iii. If the Contractor determines that additional DBE participation cannot be

obtained, submit a Form 1420 requesting waiver of the participation. The Contractor shall include its justification for not obtaining additional participation and, at its discretion, CDOT may require additional information regarding the efforts of the Contractor.

9. **Payment Reduction** The Contractor's retainage will not be released until CDOT has determined whether the Contractor will be subject to a payment reduction. Payment reductions will be calculated as follows:
- a. *Failure to Fulfill Commitments.* If the Contractor terminated or reduced a commitment, the Contractor will be subject to a payment reduction for any termination or reduction which was not approved via a Form 1420.
  - b. *Failure to Meet Contract Goal.* If the Contractor failed to meet the contract goal, the Contractor will be subject to a payment reduction for the portion of the contract goal that was not met and was not waived via an approved Form 1420.
  - c. *Duplication.* The contractor will not be subject to duplicate reduction for the same offense.
  - d. *Adjustments.* CDOT may adjust the payment reduction wherein the Contractor demonstrates that its failure to obtain DBE participation was due to circumstances outside of its control.
10. **Other Enforcement**
- a. *Investigations.* As it determines necessary, CDOT may conduct reviews or investigations of participants. All participants, including, but not limited to, DBE firms and applicants for DBE certification, complainants, and contractors using DBE firms to meet contract goals, are required to cooperate fully and promptly with compliance reviews, certification reviews, investigations, and other requests for information.
  - b. *Intimidation and retaliation.* Participants shall not intimidate, threaten, coerce, or discriminate against any individual or firm for the purpose of interfering with any right or privilege secured by the DBE program or because the individual or firm has made a complaint, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing under the DBE program.
  - c. *Consequences of Non-Compliance.* Failure to comply with subsections 11 A. or 11 B. shall be a ground for appropriate action against the party involved (e.g., with respect to recipients, a finding of noncompliance; with respect to DBE firms, denial of certification or removal of eligibility and/or suspension and debarment; with respect to a complainant or appellant, dismissal of the complaint or appeal; with respect to a contractor which uses DBE firms to meet goals, findings of non-responsibility for future contracts and/or suspension and debarment).
  - d. *Fraud and Misrepresentation.* If CDOT determines that a Contractor or subcontractor was a knowing and willing participant in any intended or actual subcontracting arrangement contrived to artificially inflate DBE participation or any other business arrangement determined by CDOT to be unallowable, or if the Contractor engages in repeated violations, falsification or misrepresentation, CDOT may:
    - i. refuse to count any fraudulent or misrepresented DBE participation;
    - ii. withhold progress payments to the Contractor commensurate with the violation;
    - iii. suspend or reduce the Contractor's prequalification status;
    - iv. refer the matter to the Office of Inspector General of the US Department of Transportation for investigation; or
    - v. seek any other available contractual remedy.

### 6.3 – ON THE JOB TRAINING

6.3.1 This project does not require On the Job Training

July 29, 2011  
ON THE JOB TRAINING  
**NOTICE**

This is a standard special provision that revises or modifies CDOT's *Standard Specifications for Road and Bridge Construction*. It has gone through a formal review and approval process and has been issued by CDOT's Project Development Branch with formal instructions regarding its use on CDOT construction projects. It is to be used as written without change. Do not use modified versions of this special provision on CDOT construction projects, and do not use this special provision on CDOT projects in a manner other than that specified in the instructions unless such use is first approved by the Standards and Specifications Unit of the Project Development Branch. The instructions for use on CDOT construction projects appear below.

Other agencies that use the *Standard Specifications for Road and Bridge Construction* to administer construction projects may use this special provision as appropriate and at their own risk.

#### **Instructions for use on CDOT construction projects:**

Use this standard special provision in all Federal-aid projects.

This training special provision is an implementation of 23 U.S.C. 140 (a). The Contractor shall meet the requirements of the FHWA 1273 for all apprentices and trainees.

As part of the Contractor's Equal Employment Opportunity Affirmative Action Program, training shall be provided on projects as follows:

1. The Contractor shall provide on the job training aimed at developing full journey workers in the skilled craft identified in the approved training plan. The Contractor shall provide at a minimum, required training hours listed in the Project Special Provisions for each project.
2. The primary objective of this specification is to train and upgrade women and minority candidates to full journey worker status. The Contractor shall make every reasonable effort to enroll and train minority and women workers. This training commitment shall not be used to discriminate against any applicant for training whether or not the applicant is a woman or minority.
3. The Contractor may employ temporary workers from CDOT supportive services providers to meet OJT requirements. Information pertaining to supportive services providers may be obtained by calling the CDOT OJT Coordinator at the number shown on the link <http://www.coloradodot.info/business/equal-opportunity/training.html>
4. An employee shall not be employed or utilized as a trainee in a skilled craft in which the employee has achieved journey status.



5. The minimum length and type of training for each skilled craft shall be as established in the training program selected by the Contractor and approved by the Department and the Colorado Division of the Federal Highway Administration (FHWA), or the U. S Department of Labor (DOL), Office of Apprenticeship or recognized state apprenticeship agency. To obtain assistance or program approval contact:

CDOT Center for Equal Opportunity  
4201 East Arkansas Avenue  
Denver, CO 80222  
[eo@dot.state.co.us](mailto:eo@dot.state.co.us)  
1-800-925-3427

6. The Contractor shall pay the training program wage rates and the correct fringe benefits to each approved trainee employed on the project and enrolled in an approved program. The minimum trainee wage shall be no less than the wage for the Guardrail Laborer classification as indicated in the wage decision for the project.
7. The CDOT Regional Civil Rights Manager must approve all proposed apprentices and trainees for the participation to be counted toward the project goal and reimbursement. Approval must occur before training begins. Approval for the apprentice or trainee to begin work on a CDOT project will be based on:
  - A. Evidence of the registration of the trainee or apprentice into the approved training program.
  - B. The completed Form 838 for each trainee or apprentice as submitted to the Engineer.
8. Before training begins, the Contractor shall provide each trainee with a copy of the approved training program, pay scale, pension and retirement benefits, health and disability benefits, promotional opportunities, and company policies and complaint procedures.
9. Before training begins, the Contractor shall submit a copy of the approved training program and CDOT Form 1337 to the Engineer. Progress payments may be withheld until this is submitted and approved and may be withheld if the approved program is not followed.
10. On a monthly basis, the Contractor shall provide to the Engineer a completed On the Job Training Progress Report (Form 832) for each approved trainee or apprentice on the project. The Form 832 will be reviewed and approved by the Engineer before reimbursement will be made. The Contractor will be reimbursed for no more than the OJT Force Account budget. At the discretion of the Engineer and if funds are available, the Engineer may increase the force account budget and the number of reimbursable training hours through a Change Order. The request to increase the force account must be approved by the Engineer prior to the training.
11. Upon completion of training, transfer to another project, termination of the trainee or notification of final acceptance of the project, the Contractor shall submit to the Engineer a "final" completed Form 832 for each approved apprentice or trainee.
12. All forms are available from the CDOT Center for Equal Opportunity, through the CDOT Regional Civil Rights Manager, or on CDOT's website at <http://www.coloradodot.info/business/bidding/Bidding%20Forms/Bid%20Winner%20Forms>

13. Forms 838 and 832 shall be completed in full by the Contractor. Reimbursement for training is based on the number of hours of on the job training documented on the Form 832 and approved by the Engineer. The Contractor shall explain discrepancies between the hours documented on Form 832 and the corresponding certified payrolls.
14. The OJT goal (# of training hours required) for the project will be included in the Project Special Provisions and will be determined by the Regional Civil Rights Manager after considering:
  - A. Availability of minorities, women, and disadvantaged for training;
  - B. The potential for effective training;
  - C. Duration of the Contract;
  - D. Dollar value of the Contract;
  - E. Total normal work force that the average bidder could be expected to use;
  - F. Geographic location;
  - G. Type of work; and
  - H. The need for additional journey workers in the area
  - I. The general guidelines for minimum total training hours are as follows:

<b>Contract dollar value</b>	<b>Minimum total training hours to be provided on the project</b>
Up to 1 million	0
>1 - 2 million	320
>2 - 4 million	640
>4 - 6 million	1280
>6 - 8 million	1600
>8 - 12 million	1920
>12 - 16 million	2240
>16 - 20 million	2560
For each increment of \$5 million, over \$20 million	1280

15. The number of training hours for the trainees to be employed on the project shall be as shown in the Contract. The trainees or apprentices employed under the Contract shall be registered with the Department using Form 838, and must be approved by the Regional Civil Rights Manager before training begins for the participation to be counted toward the OJT project goal. The goal will be met by an approved trainee or apprentice working on that project; or, if a Contractor’s apprentice is enrolled in a DOL approved apprenticeship program and registered with CDOT using Form 838 and working for the Contractor on a

non-CDOT project. The hours worked on the non-CDOT project may be counted toward the project goal with approved documentation on Form 832. Training hours will be counted toward one project goal.

16. Subcontractor trainees who are enrolled in an approved Program may be used by the Contractor to satisfy the requirements of this specification.
17. The Contractor will be reimbursed \$2.00 per hour worked for each apprentice or trainee working on a CDOT project and whose participation toward the OJT project goal has been approved
18. The Contractor shall have fulfilled its responsibilities under this specification if the CDOT Regional Civil Rights Manager has determined that it has provided acceptable number of training hours.
19. Failure to provide the required training will result in the following disincentives: A sum representing the number of training hours specified in the Contract, minus the number of training hours worked as certified on Form 832, multiplied by the journey worker hourly wages plus fringe benefits [(A hours – B hours worked) x (C dollar per hour + D fringe benefits)] = Disincentives Assessed. Wage rate will be determined by averaging the wages for the crafts listed on Form 1337. The Engineer will provide the Contractor with a written notice at Final Acceptance of the project informing the Contractor of the noncompliance with this specification which will include a calculation of the disincentives to be assessed.

# **Steelworks Park**

215 Canal Street  
Pueblo, CO 81004

## **Landscape Construction Project Manual**

Landscape Architect: THK Associates, Inc.  
2953 South Peoria Street, Suite 101  
Aurora, CO 80014  
303-770-7201

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**ADDITIONAL SPECIFICATION**

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Additional specifications and pay items not specifically listed in this document shall reference and adhere to the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction.

**SECTION 05 52 00**

**METAL RAILINGS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.
- B. Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, 2011.

1.2 SCOPE OF WORK

- A. The work of this section shall consist of erecting steel hand railings at locations as shown on the drawings, in accordance with the designs, dimensions instructions by the owner and these specifications.

1.3 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
  - 1. American Institute of Steel Construction, Inc. (AISC).
  - 2. American Architectural Manufacturers Association (AAMA)
  - 3. American Welding Society (AWS):
    - a. AWS D1.1/D1.1M, Structural Welding Code – Steel.
  - 4. ASTM International (ASTM):
    - a. ASTM A53/A53M, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
    - b. ASTM A501, Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.

1.4 SUBMITTALS

- A. Contractor shall submit detailed shop drawings based on field measurements to owner for review prior to fabrication.
- B. Color Schedule: contractor shall provide two (2) copies of the color schedule (if applicable) according to the drawings and specifications. Color shall be shown on the drawings or shall be selected by the owner from color systems of recognized paint companies. If materials of other manufacturers are used, colors shall match those selected
- C. Paint and Stain Samples: if requested by the owner, prepare and submit paint samples. Remake samples until accepted.
- D. Material List: As part of the submittal, include a letter listing the brand and quality of each different material for use of the project. Materials listed shall be accepted by the owner before ordering materials

## PART 2 – PRODUCTS

### 2.1 MATERIALS

#### A. Steel Railings and Steel Sleeves

1. Pipe shall be standard weight pipe conforming to ASTM A53/A53M. Steel tubing shall conform to ASTM A501 or as designated on the drawings.

#### B. Fasteners

1. Acceptable expansion bolts are as follows (or equal):
  - a. Hilti Corp; Kwik Bolt.
  - b. Wej-it Corp; Standard Wej-its.
  - c. USE; Taper-Bolt.
  - d. Olin Corp; Trubolt.
  - e. Phillips; Red Head Wedge Anchors
2. Other brands of expansion bolts will be considered upon submission to the owner of data sheets describing capacities and installation procedures of bolts.
3. The bolts, nuts, and washers shall be galvanized.

### 2.2 FABRICATION

- #### A. General: Field measure the locations where the railings are to be installed, compare to the drawings, and review with the owner prior to fabrication.

- #### B. Workmanship: Construct all items of sizes, shape, and materials as contractor shall indicate and specify. Fabricate structural steel in accordance with AISC Specifications and additional requirements specified hereafter; perform fabrication and assembly in the shop to the greatest extent possible; form materials well, with sharp angles or lines, free from bends, twists, or open joints; shear and punch clean, true lines and surfaces; thickness of metal and details of assembly and supports shall provide ample strength and rigidity.

- #### C. Welding: welding shall be performed in the shop with welders qualified under the AWS D1.1/D1.1M welding code for class of work employed; protect adjacent construction and materials against damage; neatly and symmetrically make all welds; fill or grind to a uniform, smooth shape; where required to present uniform appearance, fill space between welds and weld irregularities with suitable metal putty or compound made for this purpose.

- #### D. Fastenings: provide concealed fastenings wherever possible; do not use screws or bolts where they can be avoided; where used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening; and make threaded connections tight so that threads shall be entirely concealed by fittings.

- #### E. Powder Coating: All metal rails shall be powder coated with a “black” powdercoat finish. All elements shall be powder coated after fabrication and after all welds and cleanup has been performed. Powder coating to be conducted in accordance with AAMA Specification 2605 or approved equal by owner.

PART 3 – EXECUTION

3.1 GENERAL

- A. Contractor shall erect structural steel in accordance with the AISC Specifications with modifications and additional requirements according to manufacturer's recommendations.
- B. Erect all work true to lines and planes, with vertical lines plumb and horizontal lines level.
- C. Weld or bolt all permanent connections.

3.2 MISCELLANEOUS ANGLES, LINTELS, PLATES, AND EMBEDDED ITEMS

- A. All welding procedures shall conform to AWS D1.1/D1.1M. All welds shall develop capacity of members being joined, unless specific length or extent is noted on the drawings.
- B. Finish all cut ends neatly without irregular torch marks or sharp fins. Grind all cut surfaces to a smooth surface. Clean of all loose mill scale, rust, and foreign matter.
- C. The expansion bolts shall be installed per manufacturer's recommendations.

3.3 BASIS OF PAYMENT

- A. The accepted quantities of will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.
- B. Payment will be made under:

Pay Item	Pay Unit
Hand Rail	LF

- C. All equipment, bracing, concrete, etc. required to install the hand rail will not be paid for separately, but shall be included in the price of the work.

**END OF SECTION 05 52 00**



**SECTION 11 68 17**

**INTERPRETIVE ELEMENTS**

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to work of this Section.
- B. Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, 2011.

1.2 RELATED SECTIONS:

- A. The following Sections contain requirements that relate to this Section.
  - 1. CDOT Standard Specifications: Division 100 General Provisions
  - 2. CDOT Standard Specifications: Division 200 Earthwork
  - 3. CDOT Standard Specifications: Division 400 Pavements
  - 4. CDOT Standard Specifications: Division 600 Miscellaneous Construction

1.3 SUBMITTALS

- A. Product Data:
  - 1. Submit product data, installation instructions, and general recommendations by the manufacturer.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store products in a safe location and protect from construction traffic and damage.

1.5 PROJECT CONDITIONS

- A. Stake locations of interpretive signage and acquire approval by owner prior to installation.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Interpretive signs at interpretive structure. See drawings.
  - a. Product available through KVO Industries, Inc. (or equal).
    - i. 1825 Empire Industrial Court, Suite A  
Santa Rosa, CA 95403  
Phone: 800-657-6412  
Web: [www.kvoindustries.com](http://www.kvoindustries.com)
- B. Interpretive signs.
  - a. All interpretive signs shall be high density laminate.
  - b. Sign panel information will be provided by the owner, not in this contract.
  - c. Federal Standard Color 17038 ‘black’

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Locate items as shown on the drawings and details.
- B. Do not proceed until unsatisfactory conditions are acceptably remedied.

3.2 INSTALLATION

- A. Install, in grade, by use of concrete footing, as determined by manufacturer.

3.3 PROTECTION

- A. Provide protections to ensure that work will be without damage or deterioration until final acceptance.

3.4 BASIS OF PAYMENT

- A. The accepted quantities of interpretive elements will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.
- B. Payment will be made under:

Pay Item	Pay Unit
Information Sign Board	Each

- C. All equipment, bracing, concrete, etc. required to install the interpretive elements will not be paid for separately, but shall be included in the price of the work.

**END OF SECTION 11 68 17**

**SECTION 11 68 18**

**SITE FURNISHINGS**

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to work of this Section.
- B. Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, 2011.

1.2 RELATED SECTIONS:

- A. The following Sections contain requirements that relate to this Section.
  - 1. CDOT Standard Specifications: Division 100 General Provisions
  - 2. CDOT Standard Specifications: Division 200 Earthwork
  - 3. CDOT Standard Specifications: Division 400 Pavements
  - 4. CDOT Standard Specifications: Division 600 Miscellaneous Construction

1.3 SUBMITTALS

- A. Product Data:
  - 1. Submit product data, installation instructions, and general recommendations by the manufacturer.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store products in a safe location and protect from construction traffic and damage.

1.5 PROJECT CONDITIONS

- A. Temporarily mark location of assorted site furniture and acquire approval by owner prior to installation.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Benches:
  - a. Model: Dewart Collection (or approved equal)
    - i. Six Foot (6') Bench
    - ii. Slat Pattern
    - iii. Powder coat color: Federal Standard Color 17038 'black'

Available through Wabash Valley (or approved equal).  
505 East Main Street  
PO Box 5  
Silver Lake, Indiana 46982  
(800) 253-8619  
www.wabashvalley.com

- B. Trash Receptacles:
  - a. Model: Urbanscape (or approved equal)
    - i. FG – 32
    - ii. Flat Top
    - iii. Slat Pattern
    - iv. Powder coat color: Federal Standard Color 17038 ‘black’

Available through Wabash Valley (or approved equal).  
505 East Main Street  
PO Box 5  
Silver Lake, Indiana 46982  
(800) 253-8619  
www.wabashvalley.com

- C. Bollards:
  - a. Model: SL101 (or approved equal)
    - i. Powder coat color: Federal Standard Color 17038 ‘black’

Available through Modern Design and Site Furnishings (or approved equal).  
700 Goldman Dr.  
Cream Ridge, NJ 08514  
(800) 999-2550 x 1274  
www.mdsfco.com

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Locate items as shown on the drawings.
- B. Do not proceed until unsatisfactory conditions are acceptably remedied.

### 3.2 INSTALLATION

- A. Surface mount all furnishings as per manufacturer’s recommendations.

### 3.3 PROTECTION

- A. Provide protections to ensure that work will be without damage or deterioration until final acceptance.

### 3.4 BASIS OF PAYMENT

- A. The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

B. Payment will be made under:

PAY ITEM	UNIT
Bench	Ea
Trash Receptacle	Ea
Bollard	Ea

C. All equipment, bracing, concrete, etc. required to install the site furnishing will not be paid for separately, but shall be included in the price of the work.

**END OF SECTION 11 68 18**

**SECTION 32 14 00**

**UNIT PAVING**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.
- B. Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, 2011.

1.2 SUMMARY

- A. Section Includes:
  - 1. Brick pavers set in sand bedding.
  - 2. Historic Brick pavers set in mortar bed in concrete channel.
  - 3. Bedding and Joint Sand
  - 4. Cast-in-place thickened concrete edge restraints.
- B. Related Sections:
  - 1. CDOT Standard Specifications: Division 100 General Provisions
  - 2. CDOT Standard Specifications: Division 200 Earthwork
  - 3. CDOT Standard Specifications: Division 400 Pavements
  - 4. CDOT Standard Specifications: Division 700 Materials Details

2.1 SUBMITTALS

- A. Product Data: For materials other than historic bricks located on site, water and aggregates.
  - 1. Brick Pavers.
    - a. Samples:
      - 1) Full-size units of brick pavers
      - 2) Joint materials

2.2 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of unit paver, joint material, and setting material from single source, as indicated on the drawings, with resources to provide materials and products of consistent quality in appearance and physical properties.
- B. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Contractor to provide one (1) mockup for plaza. Mockup to be an area of 6-feet by 6-feet of coverage. Mockup shall demonstrate color, pattern, and quality of brick pavers.

2. Owner approved mockups may become part of the completed work if undisturbed at time of Substantial Completion.

### 2.3 DELIVERY, STORAGE, AND HANDLING

- A. Store pavers on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied.
- B. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- C. Store liquids in tightly closed containers protected from freezing.

### 2.4 PROJECT CONDITIONS

- A. Cold-Weather Protection: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen subgrade or setting beds. Remove and replace unit paver work damaged by frost or freezing.

## PART 3 - PRODUCTS

### 3.1 BRICK PAVERS

- A. Brick Pavers: Light-traffic paving brick. Provide brick without frogs or cores in surfaces exposed to view in the completed Work.
  1. Manufacturers: Summit Brick Company (or approved equal).
    - a. Main Office, Showroom & Summit Brick Plant (or approved equal)  
601 East 13<sup>th</sup> Street  
Pueblo, CO 81001  
Phone: 719-542-8278  
Web: <http://www.summitbrick.com>
  2. Product: Classic Traditions, Tumbled
    - a. Color Class: Wheatridge Classic

### 3.2 HISTORIC BRICK PAVERS

- A. Preserve and reuse historic brick pavers located on site.
  1. Contractor to coordinate access and acquisition of historic brick pavers with the owner.

### 3.3 CURBS AND EDGE RESTRAINTS

- A. Thickened Concrete Edge as shown on drawings.

1. Concrete installation per CDOT Standard Specifications for Road and Bridge Construction, 2011.

B. Historic Brick Band, Concrete Channel as shown on drawings.

1. Concrete installation per CDOT Standard Specifications for Road and Bridge Construction, 2011.

### 3.4 SETTING-BED MATERIALS

A. Sand for Leveling Course: Sound, sharp, washed, natural sand or crushed stone complying with gradation requirements in ASTM C 33 for fine aggregate.

B. Sand for Joints: Fine, sharp, washed, natural sand or crushed stone with 100 percent passing No. 16 sieve and no more than 10 percent passing No. 200 sieve.

1. Sand color to be standard tan.

C. Separation Geotextile: Woven geotextile fabric, manufactured for separation applications; made from polyolefins or polyesters, with elongation less than 50 percent; complying with AASHTO M 288.

D. Historic Concrete Channel Mortar Bed: Polymer Adhesive

1. Specifically manufactured for use with concrete pavers.  
Install per manufacturer's recommendations.  
Contractor to present owner with recommended adhesive product for approval.

E. Historic Concrete Channel Grout

1. Contractor to verify compatibility of the selected pigmented grout with the Historic Brick Pavers before proceeding with the grouting. Consult with grout manufacturer's representative for recommendations.
2. Use epoxy grouts.
  - a. Application is subject to freeze-thaw conditions and possibly deicing salts.
3. Grout colors: selected by owner from the manufacturer's complete color range.

F. Herbicide: Commercial chemical for weed control, registered with the EPA. Provide in granular, liquid, or wettable powder form.

## PART 4 - EXECUTION

### 4.1 EXAMINATION

A. Examine areas indicated to receive paving, with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.

B. Proceed with installation only after unsatisfactory conditions have been corrected.



#### 4.2 PREPARATION

- A. For Plaza Pavers: proof-roll prepared subgrade according to requirements in Division 200 Earthwork, Division 300 Bases and Division 400 Pavements of CDOT Standard Specifications for Road and Bridge Construction, 2011.. To identify soft pockets and areas of excess yielding. Proceed with unit paver installation only after deficient subgrades have been corrected and are ready to receive course for unit pavers.
- B. For Historic Concrete Channel: remove substances from concrete substrates that could impair mortar bond, including curing and sealing compounds, form oil, and laitance. Sweep concrete substrates to remove dirt, dust, debris, and loose particles.

#### 4.3 INSTALLATION, GENERAL

- A. Do not use unit pavers with chips, cracks, voids, discolorations, or other defects that might be visible or cause staining in finished work.
- B. Mix pavers from several pallets or cubes, as they are placed, to produce uniform blend of colors and textures.
- C. Cut unit pavers with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable.
- D. Joint Pattern for Plaza: Running bond.
- E. Tolerances: do not exceed 1/32-inch unit-to-unit offset from flush (lippage) nor 1/8 inch in 10 feet from level, or indicated slope, for finished surface of paving.
- F. Provide edge restraints as indicated on drawings. Install edge restraints before placing unit pavers.

#### 4.4 BEDDING AND JOINT SAND

- A. Provide bedding and joint sand as follows:
  - 1. Washed, clean, non-plastic, free from deleterious or foreign matter, symmetrically shaped, natural or manufactured from crushed rock.
  - 2. Do not use limestone screenings, stone dust, or sand for the bedding sand material that does not conform to the grading requirements of ASTM C 33.
  - 3. Do not use mason sand or sand conforming to ASTM C 144 for the bedding sand.

**Note: Vehicular traffic, of any sort, is not permitted on the paver plaza.**

- 4. Sieve according to ASTM C 136.
- 5. Bedding Sand Material Requirements: Conform to the grading requirements of ASTM C 33 with modifications as shown in Table 1.

Table 1

Grading Requirements for Bedding Sand  
 ASTM C 33

Sieve Size	Percent Passing
3/8 in.(9.5 mm)	100
No. 4 (4.75 mm)	95 to 100
No. 8 (2.36 mm)	85 to 100
No. 16 (1.18 mm)	50 to 85
No. 30 (0.600 mm)	25 to 60
No. 50 (0.300 mm)	10 to 30
No. 100 (0.150 mm)	2 to 10
No. 200 (0.075 mm)	0 to 1

Note: Coarser sand than that specified in Table 2 below may be used for joint sand including C 33 material as shown in Table 1. Use material where the largest sieve size easily enters the smallest joints. For example, if the smallest paver joints are 2 mm wide, use sand 2 mm and smaller in particle size. If C 33 sand is used for joint sand, extra effort may be required in sweeping material and compacting the pavers in order to completely fill the joints.

6. Joint Sand Material Requirements: Conform to the grading requirements of ASTM C 144 as shown with modifications in Table 2 below:

Table 2  
 Grading Requirements for Joint Sand  
 ASTM C 144      ASTM C 144  
 Natural Sand      Manufactured Sand

Sieve Size	Percent Passing	Percent Passing
No. 4 (4.75 mm)	100	100
No. 8 (2.36 mm)	95 to 100	95 to 100
No. 16 (1.18 mm)	70 to 100	70 to 100
No. 30 (0.600 mm)	40 to 75	40 to 100
No. 50 (0.300 mm)	10 to 35	20 to 40
No. 100 (0.150 mm)	2 to 15	10 to 25
No. 200 (0.075 mm)	0 to 1	0 to 10

4.5 REPAIRING, POINTING, AND CLEANING

- A. If pavers are damaged during installation operations: remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Provide new units to match adjoining units and install in same manner as original units, with same joint treatment and with no evidence of replacement.
- B. Cleaning: Remove excess sand from exposed paver surfaces; wash and scrub clean.

4.6 BASIS OF PAYMENT

- A. The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

B. Payment will be made under:

Pay Item	Unit
Brick Pavers	SF
Brick Pavers (Install Only)	SF

C. All equipment, material, sand, concrete, etc. will not be paid for separately, but shall be included in the price of the work.

**END OF SECTION 32 14 00**

**SECTION 32 15 40**

**CRUSHER FINES SURFACING**

**PART 1 GENERAL**

1.1 RELATED SECTIONS

- A. Drawings and general provisions of the contract apply to this section.

1.2 SUMMARY

- A. Section Includes:
  - 1. Crusher Fines Paving Material
  - 2. Steel Edging
  - 3. Landscape Fabric
- B. Related Sections
  - 1. CDOT Standard Specifications: Division 100 General Provisions
  - 2. CDOT Standard Specifications: Division 200 Earthwork
  - 3. CDOT Standard Specifications: Division 400 Pavements
  - 4. CDOT Standard Specifications: Division 700 Materials Details

1.3 SUBMITTALS

- A. Contractor shall cooperate with owner in obtaining and providing samples of all specified materials.
- B. Contractor shall submit certification from the supplier certifying the crusher fines, or approved equal, meets the requirements of this specification.
- C. Samples: For each bulk-supplied material, 1-gallon volume of each in sealed containers labeled with content, source, and date obtained. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of composition, color, and texture.

1.4 QUALITY ASSURANCE

- A. Warranty Period: Contractor shall warranty installation of product for the time of one year from completion and acceptance of the work by the owner.

**PART 2 PRODUCTS**

2.1 AGGREGATE BASE COURSE

- A. Aggregate Base Course shall be:  
Compacted Class 6 Road Base as defined by the Colorado Department of Transportation (CDOT).

2.2 HERBICIDE

- A. Herbicide as defined in Section 32 93 00 "Trees, Plants and Ground Covers"

2.3 CRUSHER FINES

- A. Red Breeze

2.4 STEEL EDGING

- A. 14 ga x 4" x 10' galvanized, rolled top, steel edging.
- B. Min. 12" pins for permanent installation
- C. Install edging square and ensure linear appearance is straight. Buckles, bends, crimps, arcs, or curves will not be accepted. Refer to drawings for layout.

2.5 LANDSCAPE FABRIC

- A. Separation Geotextile: Woven geotextile fabric, manufactured for separation applications; made from polyolefins or polyesters, with elongation less than 50 percent; complying with AASHTO M 288.

**PART 3 EXECUTION**

3.1 GENERAL

A. Equipment:

1. Equipment shall be capable of performing the work as described in this specification. Equipment that is inadequate to obtain the results specified shall be replaced or supplemented as required to meet the requirements of this Specification. Any equipment that is used in an improper manner may be cause for rejection of the work if in the opinion of the owner the work fails to meet the requirements of this specification.
2. Equipment used for compaction shall be the rolling type, vibratory type, or combination of both types, and shall be of sufficient capacity to meet the compaction requirements herein.

3.2 LAYOUT OF WORK

- A. The Contractor shall install crusher fines surfacing in accordance with the locations as defined by the drawings and approved by the owner.

3.3 WEED CONTROL

- A. Herbicide application

1. Apply herbicide as specified in Section 32 93 00 "Trees, Plants and Ground Covers"

### 3.4 SUB-GRADE PREPARATION

#### A. Aggregate Base Course

1. Compacted Class 6 Road Base as defined by the Colorado Department of Transportation (CDOT) and where applicable as shown on the drawings.
- B. Pre-soak Aggregate Base Course with water prior to installing crusher fines or approved equal as needed to compact aggregate base course.
- C. Make sure proper drainage is available to ensure no standing water on the surface or adjacent to crusher fines including downspouts.

### 3.5 PLACEMENT AND COMPACTION

- A. The contractor is responsible for controlling placement of the material; no additional compensation will be made for material placement in excess of the specified thickness or width defined on the drawings.
- B. Do not install crusher fines material during rain or snow. Do not install crusher fines on sub-grade that has standing water.
- C. The required compacted depth of the crusher fines is four inches (4").
- D. Add water to  $\pm 2\%$  wet of optimum moisture content. Use roller or mechanical hand tamper for compaction. Compact to 95% Standard Proctor Density (ASTM D698-70) to a uniform thickness.
1. Use plate compactor on edges and hard to get areas.
  2. Loose material shall not be present on final surface.

### 3.6 SURFACE FINISHING

- A. Use a smooth steel wheel roller for the final rolling of top surface of Crusher Fines. Water surface and evenly spread loose stones before final rolling. Make minimum of two complete passes over area to embed stones. Correct soft spots developed during rolling.
- B. Compacted surface shall be smooth and free from waves and other irregularities. Unsatisfactory portions of base course shall be torn up, reworked, re-laid, and rerolled at no additional expense to the owner.

### 3.7 INSPECTION

- A. Finished surface shall be uniform and solid.

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- B. Compacted paving material shall be firm to the full depth of crusher fines material with no soft areas.
- C. Loose material shall not be present on the surface
- D. No ruts shall be visible on the surface.
- E. Sections that do not meet this specification, shall be repaired or replaced at the contractor's expense.

3.8 REPAIRS

Repairs are applicable to crusher fines surfacing, in the event an area is damaged during construction operations.

- A. Excavate damaged area to depth of crusher fines paving material and square off sidewalls.
- B. If area is dry, moisten damaged portion lightly and scarify.
- C. Apply crusher fines to excavated area to finished grade.
- D. Compact with an 8” to 10” hand tamp or 1000 lb. roller.
- E. Repaired surface shall be smooth and free from waves and other irregularities. Unsatisfactory portions of base course shall be torn up, reworked, re-laid, and rerolled at no additional expense to the Owner.

3.9 BASIS OF PAYMENT

- A. The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.
- B. Payment will be made under:

Pay Item	Pay Unit
Aggregate Walkway	SY

**END OF SECTION 32 15 40**



**SECTION 32 91 13**

**SOIL PREPARATION**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.

1.2 SUMMARY

- A. The Work of this Section includes preparation of soil for the purpose of amending the soil for irrigation, sod and shrub bed areas.
  - 1. Soil preparation consists of ripping, soil conditioning and fine grading the topsoil. Soil preparation as specified herein MUST precede all sodding, and planting.
- B. Related Work:
  - 1. CDOT Standard Specifications: Division 100 General Provisions
  - 2. CDOT Standard Specifications: Division 200 Earthwork
  - 3. CDOT Standard Specifications: Division 600 Miscellaneous Construction
  - 4. CDOT Standard Specifications: Division 700 Materials Details

2.1 SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include recommendations for application and use.
  - 2. Include test data substantiating that products comply with requirements.
  - 3. Include sieve analyses for aggregate materials.
  - 4. Material Certificates: For each type of soil amendment and fertilizer before delivery to the site, according to the following:
    - a. Manufacturer's qualified testing agency's certified analysis of standard products.
- B. Samples: For each bulk-supplied material, 1-gallon volume of each in sealed containers labeled with content, source, and date obtained. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of composition, color, and texture.
- C. Quality Control Submittals:
  - 1. Certificates: State, Federal and other inspection certificates shall accompany invoice for materials showing source or origin. Submit to owner prior to acceptance of material.

2.2 DELIVERY, STORAGE, AND HANDLING

- A. Notify owner of delivery schedule in advance so material can be inspected upon arrival at project site. Immediately remove unacceptable material from project site.

2.3 PROJECT/SITE CONDITIONS

- A. General: Do not perform work when climate and existing site conditions will not provide satisfactory results.
- B. Vehicular site access shall be limited to the area(s) indicated on the drawings or as defined by the owner.
- C. Damage to lawns, natural areas, pavements, irrigation systems, underground utilities, and other improvements shall be repaired by the contractor at no additional cost to the owner.

2.4 QUALITY ASSURANCE

- A. Provide compliant Certificate of Authenticity for Class 1 Compost.
  - 1. Recommended participants in the US Composting Council's Seal of Testing Assurance Program, or approved equal by the owner.

2.5 DELIVERY, STORAGE, AND HANDLING

- A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and compliance with state and Federal laws if applicable.
- B. Bulk Materials:
  - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
  - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
  - 3. Do not move or handle materials when they are wet or frozen.
  - 4. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

PART 3 - PRODUCTS

3.1 MATERIALS

- A. Class A Compost
  - 1. Recommended manufacturers are as follows, or approved equal by owner:
    - a. Biocomp
      - 1) Recommended per US Composting Council
      - 2) Meets EPA 40 CFR 503-13 requirements for unrestricted use and distribution.

## 2.2 SOIL CONDITIONER APPLICATION RATES

- A. Irrigated Sod and Tree and Shrub Beds:
  - 1. 3 cubic yards per 1000 SF
    - a. Class A Compost

## 2.4 HERBICIDE

- A. Post Emergent Herbicide: Glyphosate or approved equal.
  - 1. Acceptable herbicide intensity: "Weed and Grass Killer"
    - a. All ornamental flowers, trees and shrubs may be planted one day after application. Sod may be planted three (3) days after application.

## PART 4 - EXECUTION

### 4.1 EXAMINATION

- A. General: Verify that existing site conditions are as specified and indicated on drawings before beginning work under this Section.
  - 1. Grades: Inspect to verify rough grading is within +/- 0.1-foot of grades indicated and specified.
  - 2. Damaged Earth: Inspect to verify that soil rendered unfit to support planting due to concrete, water, mortar, limewater or any other contaminant dumped on it has been removed and replaced with clean soil from a source approved by the owner.
- B. Unsatisfactory Conditions: Report in writing to General Contractor with copy to owner.
- C. Acceptance: Beginning of installation means acceptance of existing conditions by installer.

### 4.2 PREPARATION

- A. Areas of Existing Soil:
  - 1. Protection:
    - a. Locate sewer, water, irrigation, gas, electric, phone and other pipelines or conduits and equipment prior to commencing work.
    - b. Contractor shall be responsible for proper repair to landscape, utilities, walls, pavements and other site improvements damaged by operations under this section.
- B. Weed Control: If weeds are present in the area to be planted, perform herbicide treatment over the entire area to be planted. Allow sufficient time to successfully complete the entire herbicide treatment process before proceeding with planting. Repeat procedure as needed as weed growth becomes evident throughout the duration of construction.
  - 1. Herbicide treatment must be completed during the growing season.
  - 2. Water surface 1/2" per week for two weeks prior to application if natural precipitation does not supply this amount to encourage weed seed germination.
  - 3. Treat site with "Roundup" herbicide in accordance with manufacturer's recommendations.
    - a. Two days after application water surface 1/2" per week if natural precipitation does not supply this amount to encourage weed seed germination.

- b. Ten (10) days after the first “Roundup” application, review surface for evidence of plant growth.
  - c. Repeat steps 2, 3, 4, and 5, up to three (3) applications, until there is no evidence of plant growth after a 10-day period.
  - d. Obtain Owner approval of surface conditions fourteen (14) days after last herbicide application.
  - e. Herbicide treatments beyond the 3 applications shall be considered additional to the contract and will be performed at the directed of owner after the owner has approved the cost.
  - f. Remove plant debris from treated area.
  - g. Contact owner 48 hours in advance to review the site after each herbicide treatment. Do not proceed with additional planting until the results are approved and accepted by the owner.
4. Surface Grade: Establish grades as indicated on drawings, and as required in Division 31 Section “Earth Moving”.
  5. Remove weeds, debris, clods and rocks larger than one 1-inch. Remove and dispose of accumulated materials at direction of owner.
  6. Erosion Control: Take measures and furnish equipment and labor necessary to control the flow, drainage and accumulation of water, and prevent soil erosion, blowing soil and accumulation of wind-deposited material on the site throughout duration of work. Insure that all excess water will run off the grades or will percolate within 12 hours.
  7. Timing: Perform soil preparation just prior to planting operations and in accordance with final planting schedule. Coordinate with irrigation system installation to avoid damage.

#### 4.3 INSTALLATION

- A. Soil Preparation in Turf Grass Areas and Shrub Bed Areas:
  1. Apply amendments at the following rates:
    - a. Soil conditioner: 3 cubic yards per 1000 square feet.
  2. After applying soil conditioner, thoroughly till area to depth of 8-inches minimum by plowing, rototilling, harrowing, or disking until soil is well pulverized and thoroughly mixed.
- B. Fine Grading in all Landscape Areas:
  1. Complete fine grading for all areas prior to planting.
  2. For ground surface areas surrounding buildings to be landscaped, maintain required positive drainage away from buildings.
  3. Establish finish grades to within plus or minus 0.10-foot of grades indicated, in order to prevent “bird-baths” or ponding.
  4. Finish grade shall be below edge of pavement prior to sodding or planting.
    - a. Sodded Areas: Allow 1-1/2-inches for sod.
    - b. Shrub Beds: Allow 3-inch depth for mulch and 2-inch clear from top of adjacent hardscape to finish grade of mulch, as shown on drawings.
  5. Noxious weeds or parts thereof shall not be present in the surface grade prior to seeding.
  6. Compaction of Surface Grade Prior to Landscape Installation: Firm, but not hard, 85% standard Proctor density within 2% optimum moisture.
  7. Hand Raking:
    - a. Turfgrass Lawn Areas: Prior to acceptance of grades, hand rake to smooth, even surface, free of debris, clods, rocks and organic matter greater than 1-inch.

- 8. Restore planting areas to specified condition if eroded or otherwise disturbed after fine grading and prior to planting.

4.4 FIELD QUALITY CONTROL

- A. Inspection: Provide notice to the owner requesting inspection at least 7 days prior to anticipated date of completion.
- B. Deficiencies: The owner will specify deficiencies to Contractor who shall make satisfactory adjustments and shall again notify owner for final inspection.

4.5 CLEANING

- A. Protect areas adjacent to planting-soil preparation and placement areas from contamination. Keep adjacent paving and construction clean and work area in an orderly condition.
- B. Remove debris and excess materials from site. Clean out drainage inlet structures. Clean paved and finished surfaces soiled as a result of work under this Section, in accordance with Section 208 of the General Specifications or as directed by the owner.

4.6 PROTECTION

- A. Provide and install barriers as required and as directed by owner to protect completed areas against damage from pedestrian and vehicular traffic until acceptance by owner.
- B. Protect areas of in-place soil from additional compaction, disturbance, and contamination. Prohibit the following practices within these areas except as required to perform planting operations:
  - 1. Storage of construction materials, debris, or excavated material.
  - 2. Parking vehicles or equipment.
  - 3. Vehicle traffic.
  - 4. Foot traffic.
  - 5. Erection of sheds or structures.
  - 6. Impoundment of water.
  - 7. Excavation or other digging unless otherwise indicated.
- C. If planting soil or subgrade is over compacted, disturbed, or contaminated by foreign or deleterious materials or liquids, remove the planting soil and contamination; restore the subgrade as directed by owner and replace contaminated planting soil with new planting soil.

4.7 BASIS OF PAYMENT

- A. The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.
- B. Payment will be made under:

Pay Item	Pay Unit
Embankment Material	CY
Blading	Hour
Truck (Dump)	Hour

**Steelworks Park**

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Date: 04-25-16

Aggregate Base Course (Class 6)	TON
Soil Conditioning	Acre
Structure Backfill (Special)	CY

**END OF SECTION 32 91 13**

**SECTION 32 92 23**

**SODDING**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.

1.2 SUMMARY

- A. The Work of this Section includes furnishing and installation of bluegrass sod.
- B. Related Sections:
  - 1. CDOT Standard Specifications: Division 100 General Provisions
  - 2. CDOT Standard Specifications: Division 200 Earthwork
  - 3. CDOT Standard Specifications: Division 700 Materials Details

2.1 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- C. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- D. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- E. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- F. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- G. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas such as urban environments, the surface soil can be subsoil.
- H. Weeds: Including but not limited to Goathead, Bindweed, Twitch, Dandelion, Jimsonweed, Knapweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Weed, Bent Grass, Wild Garlic, Perennial Sorrel, and Broom Grass.



## 2.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
  - 1. Pesticides and Herbicides: Include product label and manufacturer's application instructions specific to this Project.
- B. Sod Certificates:
  - 1. State, Federal and other inspection certificates for sod shall be provided to the Owner a minimum of 10 working days prior to anticipated date of sod delivery.
- C. Planting schedule: Schedule all Work during specified planting seasons, located in Division 32 "Trees, Plants & Groundcovers". Once accepted, by owner, revise dates only as approved in writing, after documentation of reasons for delays.
- D. The owner reserves the right to reject the sod at any time prior to acceptance and that fails to meet specification requirements.

## 2.3 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape Installer whose work has resulted in successful turf establishment.
  - 1. Experience: Five years' experience in turf installation in addition to requirements as established by the owner.
  - 2. Sod Producer: Company specializing in sod production and harvesting with minimum 5 years' experience, and certified by the State of Colorado Department of Agriculture.
  - 3. Pesticide Applicator: State licensed, commercial.
- B. Soil Analysis: See Division 32 Section "Soil Preparation".
- C. Preinstallation Conference: See Division 32 Section "Trees, Plants & Groundcovers".
- D. Standards: All materials and methods used during this portion of the work shall meet or exceed applicable federal, state, county, and local laws and regulations. All sod shall be free from insects and disease. Species shall be true to their scientific name as specified.
- E. Materials: The Contractor shall submit to the owner for approval a complete list of all materials to be used during this portion of the work prior to delivery of any materials to the site. Include complete data on source, amount and quality. This submittal shall in no way be construed as permitting substitution for specific items described on the plans or in these specifications unless approved in writing by the owner.
- F. Source Quality Control:
  - 1. Sod Materials: Subject to inspection and acceptance. The owner reserves the right to reject at any time or place prior to acceptance, any work and sod which in the owner's opinion fails to meet these specification requirements.
  - 2. Inspection will be made periodically during sodding, at completion and at end of warranty period by the owner in accordance with the CDOT standard specifications.
  - 3. Promptly remove rejected sod from site.
- G. Sod Standards:

1. Sod shall consist of healthy, thick turf having undergone a program of regular fertilization, mowing and weed control; free of weeds; uniform in green color, leaf texture and density; healthy, vigorous root system; inspected and found free of disease, nematodes, pests and pest larvae by the State Department of Agriculture.
2. Each piece of Sod shall consist of a sandy-loam soil base that will not break, crumble or tear during sod installation.
3. Sod thickness shall be a minimum 3/4-inch thick, excluding top growth and thatch.
4. Thatch layer shall not exceed 1/2-inch, uncompressed.
5. Sod shall be delivered and installed within 24 hours of being cut.

#### 2.4 DELIVERY, STORAGE AND HANDLING

- A. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver on pallets properly loaded on vehicles with root system protected from exposure to sun, wind, and heat in accordance with standard practice. Sod that has been damaged by poor handling or improper storage is subject to rejection by the owner.
  1. Protect from dehydration, contamination, freezing and heating at all times. Keep stored sod moist and under shade or covered with moistened burlap.
  2. Do not drop sod rolls from carts, trucks or pallets.
  3. Do not deliver more sod than can be installed within 24 hours.
- B. Bulk Materials:
  1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
  2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
  3. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.
- C. Material will be inspected upon arrival at project site. Owner will reject any opened or unacceptable materials as described above.
- D. Immediately remove unacceptable material from job site.

#### 2.5 PROJECT/SITE CONDITIONS

- A. Work scheduling: Proceed with and complete landscape work as rapidly as portions of the site become available, working within the specified planting season and approved schedule.
- B. Vehicular accessibility on site shall be as directed by owner. Repair damage to prepared topsoil and existing surfaces, caused by vehicular access and movement during work under this section, to original condition at no additional cost to the owner.
- C. Install sod between April 15 and October 1 or when irrigation is available for 21 days per owner's requirements for sod establishment.

- D. Schedule work for periods of favorable weather. Do not install sod on saturated or frozen soil. The owner reserves the right to deny sod installation on days that are deemed to be unfavorable for installation.
- E. Existing conditions:
  - 1. Utilities: Determine location of underground utilities. Perform work in a manner to avoid possible damage. Hand excavate, as required.
  - 2. When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, noxious materials or obstructions, notify owner before planting.
  - 3. If weeds are present on site, treat with herbicide prior to preparing soil for installing sod as specified in this or other Sections.
- F. Coordination:
  - 1. Coordinate sodding with Contractor(s) approved schedule. Limit construction access to areas where soil has been placed if placement is completed more than 3 days prior to commencement of landscaping in the area. Limit fine grading to areas that can be prepared for planting within 24 hours after fine grading.
  - 2. Coordinate with Contractors work requiring access to site over sodded areas.
  - 3. Coordinate with installation of underground irrigation system.

## 2.6 WARRANTY

- A. Warranty for Sod Areas: Areas in sod to be in a healthy, vigorous growing condition, and for consistency and completion of coverage for a period of one year from date of Substantial Completion as a full stand of grass. Re-sod any spots larger than 12” square where sod has failed to establish, as defined in this Section. Continue this procedure until a successful stand of grass is growing and accepted by the owner.
  - 1. During the original warranty period, re-sod at once with comparable blend/mix, those areas that have failed to achieve a stand of grass or which in the Owner’s opinion are unhealthy.
  - 2. Re-sodding will not be allowed in any season considerable unfavorable for sodding by the owner.
- B. Re-sod in a manner to achieve quality as originally specified per CDOT standard specifications.

## PART 3 - PRODUCTS

### 3.1 MATERIALS

- A. Soil Preparation: See Division 32 Section 32 91 13 “Soil Preparation.
- B. Sod:
  - 1. Colorado grown Kentucky Bluegrass blend Reveille Hybrid Bluegrass available thru Graff’s Turf Farm 800.280.8873 or approved equal by owner.
  - 2. Provide sod of uniform pad sizes 18” maximum width by 24” minimum length, with maximum 5% deviation in either length or width. Broken pads or pads with uneven ends will not be acceptable. Sod pads incapable of supporting their own weight when suspended vertically from upper 10% of pad will be rejected. Sod which has dried out, sod with adhering soil which breaks, tears, or crumbles away will not be accepted. Sod cut for more than twenty-four (24) hours will not be accepted.

3. Plastic netting: Sod to be free of plastic netting used during establishment by sod grower.

C. Water: Contractor to utilize the existing irrigation system and or quick coupler(s) when available. If irrigation or quick coupler(s) are not available then the contractor is responsible for watering. Water shall be free of substances that may be harmful to sod growth. Hoses and other watering equipment necessary to water the sod to be furnished by Contractor.

### 3.2 HERBICIDES

A. General: Herbicide, registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted herbicides unless authorized in writing by owner and authorities having jurisdiction.

1. Pre-Emergent Herbicide (Selective and Non-Selective): Use only with approval by Owner. Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.

## PART 4 - EXECUTION

### 4.1 EXAMINATION

A. Examine areas to be planted for compliance with requirements and other conditions affecting performance.

1. Verify that finish grades are consistent with the slopes and grades indicated on the Drawings. Verify grades are in conformance with City of Pueblo and Colorado Department of Transportation Specifications and Details.
2. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
3. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
4. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
5. Uniformly moisten excessively dry soil that is not workable and which is too dusty.

B. Proceed with installation only after unsatisfactory conditions have been corrected and approved by the owner.

C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by owner and replace with new planting soil.

D. Acceptance: Beginning of installation means acceptance of existing conditions by the Contractor.

### 4.2 PREPARATION

A. Work notification: Notify the owner at least 7 working days prior to start of sodding operations.

- B. Limit turf subgrade preparation to areas that can be sodded within 24 hours.
- C. Prepare soil as required by Division 32 Section "Soil Preparation".
- D. Unchanged Subgrades: If turf is to be planted in areas unaltered or undisturbed by excavating, grading, or surface-soil stripping operations, prepare surface soil as follows:
  - 1. Remove existing grass, vegetation, and turf. Do not mix into surface soil.
  - 2. Loosen surface soil to a depth of at least 8 inches. Apply soil amendments and fertilizers according to planting soil mix proportions and mix thoroughly into top 6 inches (100 mm) of soil. Till soil to a homogeneous mixture of fine texture.
  - 3. Remove stones larger than ½ inch in any dimension and sticks, roots, trash, and other extraneous matter.
  - 4. Legally dispose of waste material, including grass, vegetation, and turf, as directed by owner.
- E. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- F. Verify that all areas are graded to drain at a minimum of 2%. Verify that subsurface drainage system and drain inlets, if any, are operative.
- G. Verify that irrigation system is operable and provides adequate coverage prior to planting.
- H. Adjustment: Adjust irrigation heads to proper watering height according to depth of sod material but lower than compacted blade height to enable lawn mowers to cut grass freely without damage to the sprinkler system.
- I. When completed, the soil shall be firmed by float dragging, followed by steel raking, to provide for the proper sodded subgrade. The sod bed shall be totally free from rock or clay clods over 1/2-inch in diameter.
- J. Repair: Re-establish grade and specified conditions to damaged sod areas prior to placing sod.

#### 4.3 INSTALLATION

- A. Sodding:
  - 1. Sod within 24 hours after preparation of bed.
  - 2. If plastic netting is present within sod, remove all netting during sod installation.
  - 3. Subgrade on which sod is laid shall be slightly moist during installation.
  - 4. Lay sod with longest dimension parallel to contours and in continuous rows.
  - 5. Tightly butt ends and sides of sod together. Stagger and compact vertical joints between sod strips.
  - 6. Sod shall not be overlapped or stretched during placement. Exposed joints due to shrinkage will require replacement of sod in affected areas.
- B. Topsoil: Where new sod abuts an existing turf area topsoil shall be placed along seams and or joints to provide a smooth transition.
- C. Rolling: Sod shall be rolled after installation to ensure proper contact with the subgrade, and to ensure tight joints between adjacent pieces. Sod shall be moist prior to rolling. Once rolling is complete additional watering shall occur. Roller shall weigh 100 pounds.

- D. Drainage: Contractor shall ensure that finished areas are graded so that positive drainage of storm and irrigation water is achieved.
- E. Water thoroughly with a fine spray as laying progresses and immediately after planting. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches (38 mm) below sod.
- F. After sod and soil have dried, roll sodded areas to ensure a good bond between sod and soil and to remove minor depressions and irregularities. Roller shall not exceed 100 pounds.

4.4 PROTECTION

- A. Protect existing utilities, paving and other facilities from damage caused by sodding operations, Contractor shall repair any damage at no additional cost to the owner.
- B. Restrict vehicular and pedestrian traffic from sodded areas until grass is established. Erect signs and barriers as required or directed by the owner at no additional cost to the owner.
- C. Locate, protect and maintain the irrigation system during sodding operations. Repair irrigation system components damaged during sodding operations according to specification Section 32 "Irrigation Systems" and shall be replaced or repaired at Contractor's expense.
- D. Erosion Control: Take measures and furnish equipment and labor necessary to control and prevent soil erosion, blowing soil and accumulation of wind-deposited materials on the site throughout the duration of work.

4.5 CLEANING

- A. General: Provide and install barriers as required and as directed by owner to protect sodded areas against damage from pedestrian and vehicular traffic until Final Acceptance.

4.6 BASIS OF PAYMENT

- A. The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.
- B. Payment will be made under:

Pay Item	Pay Unit
Sod	SF

- C. All equipment, soil amendment, etc. required to properly install sod shall not be paid for separately, but shall be included in the price of the work.

**END OF SECTION 32 92 23**

**SECTION 32 93 00 TREES, PLANTS, GROUNDCOVERS AND MISC LANDSCAPE ITEMS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.

1.2 SUMMARY

- A. The Work of this Section includes furnishing and installing live woody plant material, as well as other landscape items, including mulches.

B. Related Work:

1. CDOT Standard Specifications: Division 100 General Provisions
2. CDOT Standard Specifications: Division 200 Earthwork
3. CDOT Standard Specifications: Division 600 Miscellaneous Construction
4. CDOT Standard Specifications: Division 700 Materials Details

2.1 DEFINITIONS

- A. ANSI: American National Standards Institute. Z60.1 is the national standard for nursery stock.
- B. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- C. Balled and Burlapped Stock: Plants dug with firm, natural balls of earth in which they were grown, with a ball size not less than sizes indicated; wrapped with burlap, tied, rigidly supported, and drum laced with twine with the root flare visible at the surface of the ball as recommended by ANSI Z60.1.
- D. Caliper: Trunk diameter is measured 6-inches (15 cm) from the ground; if the caliper is greater than 4-inches (10 cm), the measurement is taken at 12-inches (30 cm) from the ground.
- E. Cane: A cane shall be considered a primary stem which starts from the ground or at a point close to the ground at a point not higher than one-fourth the height of the plant, and which reaches the minimum height stated in the plant size specification.
- F. Central leader: Also referred to as leader or the dominant leader. A continuation of the main trunk located more or less in the center of the crown, beginning at the lowest main scaffold branch and extending to the top of the tree.
- G. Circling root(s): One or more roots whose diameter is greater than 10% of the trunk caliper circling more than one-third of the trunk. Circling roots are unacceptable.
- H. Clear trunk: The portion of the trunk below the main crown which may include shortened temporary branches.



- I. Co-dominant: Two or more vigorous, upright branches or stems of relatively equal diameter that originate from a common point, usually where the leader was lost or removed. Co-dominant stems are unacceptable.
- J. Container-Grown: Healthy, vigorous, well-rooted plants grown in a container, with a well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of plant required.
- K. Crown: The portion of a tree beginning at the lowest main scaffold branch extending to the top of the tree. On younger trees, the crown may be comprised of temporary branches.
- L. Cultivar: A named plant selection from which identical or nearly identical plants can be produced, usually by vegetative propagation or cloning.
- M. Finish Grade: Elevation of finished surface of planting soil.
- N. Included bark: Bark embedded in the union between a branch and the trunk or between two or more stems that prevents the formation of a normal branch bark ridge. Included bark is unacceptable.
- O. Kinked root: A main root that is sharply bent. Kinked roots are unacceptable.
- P. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant. Some sources classify herbicides separately from pesticides.
- Q. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- R. Root collar: Also referred to as the root flare. The base of a tree where the main roots and trunk meet.
- S. Scaffold branches: Large main branches that form the main structure of the crown.
- T. Stem-girdling root: A circling, bent, or straight root that touches or rests on the trunk or root flare that can become a permanent root. Stem-girdling roots are unacceptable.
- U. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
- V. Temporary branch: A small branch that is temporarily retained along the lower trunk of young trees.
- W. Trunk: The main stem of a tree, beginning at the root collar and ending at the lowest main scaffold branch.

- X. Taper: The thickening of a trunk or branch toward its base.

## 2.2 SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.
- B. Product Samples: At a minimum provide the following samples for approval by the owner, additional product samples may be required at the direction of the owner.
  - a. Mulch- 1 gallon bag minimum of each type of mulch.
  - b. Tree Stakes- 1 of each type.
  - c. Tree Straps- 1 each.
  - d. Guy Material- 1 linear foot.
  - e. Guy Signal- 1 linear foot.
- C. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to this project.
- D. Proper Identification: All plants shall be true to name as ordered or shown on planting plans and shall be labeled individually or in groups by species and cultivar (as appropriate).
- E. Contractor shall provide a complete list of all plant material for approval by the owner a minimum of 10-days prior to delivery. Any substitutions of plant material, including but not limited to size, type, species and variety shall be listed and submitted to the owner for approval. Comply with current applicable requirements of ANSI Z60.1 "American Standard for Nursery Stock", and all applicable state and local rules and regulations.
- F. Analysis of existing soil shall be per Division 32 Sections "Soil Preparation".
- G. Contract Close Out Submittals:
  - 1. Operating and Maintenance Data: At completion of work, submit 1 digital copy and 2 hard copies to the owner in accordance with Division 01 Section "Contract Closeout". Include recommended procedures for continued and proper maintenance during a full calendar year.
  - 2. Warranty for Trees, Plants, and Groundcovers: All warranties for trees, plants and groundcovers shall conform to the CDOT standard specifications.

## 2.3 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who has completed landscaping work similar in material, design, and extent to that indicated for this Project and with a record of successful landscape establishment.
  - 1. Installer's Field Supervision:
    - a. Installer to maintain an experienced full-time supervisor on the Project site at all times.
    - b. Supervisor to be a Certified Landscape Technician - Exterior, with installation maintenance irrigation specialty area(s), designated CLT-Exterior.
  - 2. Pesticide Applicator: State licensed, commercial.
- B. Preinstallation Conference: Conduct conference at Project site to coordinate the process with other trades, to coordinate equipment movement within planting areas and to avoid soil

compaction, to review proposed methods of installation, performance criteria, and maintenance procedures. Review underground utility location maps and plans. This meeting shall be coordinated by the Contractor, and comply with requirements set forth by the owner.

- C. Provide quantity, size, genus, species, and variety of trees indicated, complying with current applicable requirements of ANSI Z60.1 "American Standard for Nursery Stock", and all applicable state and local rules and regulations.
- D. Inspection: Contractor shall arrange for the Owner to select and/or inspect plant material prior to delivery at the nursery(s) or upon delivery to the site, for compliance with requirements for genus, species, variety, cultivar, size, and quality. Selection and approval of plant material shall be at the discretion of the Owner.
  - 1. The Project Manager reserves the right to reject, at any time or place prior to final acceptance, all plant materials that fail to meet these specifications in the Owner's opinion. Inspection of materials is primarily for quality, size, and variety, but other requirements are not waived even though visual inspection results in approval. Plants are to be inspected where available; however, inspection at the places of supply shall not preclude the right of rejection at the site or at a later time prior to final acceptance. Rejected material shall be removed from the site within 24 hours.
  - 2. The Contractor shall schedule inspection of the plants, at either the supplier or on-site, to be completed in one visit. Any further inspection required due to plants being unavailable, rejected, and or not meeting specifications shall be charged to the Contractor.
- E. Measurements: Measure trees according to the requirements of the Colorado Nursery Act, with branches and trunks in their normal position. Do not prune to obtain required sizes. Take caliper measurements 6-inches above ground for trees up to 4-inch caliper. Measure main body of tree for height and spread; do not measure branches or roots tip-to-tip.

## 2.4 DELIVERY, STORAGE, AND HANDLING

- A. Materials: Deliver materials in original containers with tags showing genus, species and size. Protect materials from damage during delivery and while stored at site. The owner reserves the right to inspect containers before or after installation to verify compliance with Specifications.
- B. Bulk Materials:
  - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
  - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
  - 3. Accompany each delivery of bulk materials with appropriate certificates.
- C. Trees: Nursery stock shall be harvested and planted during the same growing season. Do not prune, except as approved by the owner. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or tie trees in such a manner as to destroy natural shape. Provide protective covering during delivery. Plant materials delivered without protective covering may be rejected. Do not

drop trees during delivery. All trees shall be labeled with a securely attached waterproof tag bearing a legible plant name. Remove all tags and flagging as directed by the owner.

- F. Handle planting stock by the root ball only.
- G. Deliver trees after preparations for planting have been completed and install immediately. If planting is delayed more than 6 hours after delivery, set planting materials in shade, protect from weather and mechanical damage, and keep roots moist.
  - 1. Set balled stock on ground and cover ball with wood chips, or other acceptable material.
  - 2. Do not remove container-grown stock from containers before planting.
  - 3. Water root systems of trees stored on site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.

## 2.5 PROJECT/SITE CONDITIONS

- A. Field Measurements: Verify actual grade elevations, service and utility locations, irrigation system components, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.
- B. Vehicular accessibility on site shall be as directed by owner. Repair damage to prepared soil and existing surfaces, caused by vehicular access and movement during work under this section, to original condition at no additional cost to the owner.
- C. Utilities: Contractor shall be responsible locating utilities and, repair of utilities damaged during the work. Determine location of overhead and underground utilities and perform work in a manner that will avoid damage. Hand excavate, as required. Maintain markings until their removal is mutually agreed upon by the Contractor and owner.
- D. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify the owner before planting.
- E. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and CDOT standard specifications.
- F. Protection: Erect and maintain barricades, warning signs and lights, and provide guards as necessary or required to protect all persons on the site from exposed excavations.

## 2.6 COORDINATION AND SCHEDULING

- A. Coordinate installation of planting materials during normal planting seasons for each type of plant material required. Planting materials should be planted between April 15 and October 1, or at the direction of the owner. Irrigation shall be available at the time of planting.

## 2.7 WARRANTY

- A. Warranty: The warranty period and conditions shall be as set forth in the CDOT standard specifications. If contract documents and CDOT standard specifications vary, the more stringent specification shall be used.
- B. The warranty specified in this Article shall not deprive the owner of other rights the owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- C. Trees, Plants, and Groundcovers shall be warranted for a period of 12 months after date of Substantial Completion, against defects including death, structural failures and unsatisfactory growth as determined by the owner. Warranty shall not cover defects resulting from lack of adequate maintenance, neglect or abuse by owner, hail, or incidents that are beyond Contractor's control.
- D. The warranty shall not be enforced should any plant die due to vandalism after Final Acceptance.
- E. Remedial Actions:
  - 1. Replace any plant materials that may be excessively pruned, more than 20 percent dead, or in an unhealthy or declining condition immediately upon notice from the owner during warranty period.
  - 2. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.
- F. All plants shall be true to name and meet all conditions of these specifications. Any plant that is not true to name as indicated by form, leaf, flower, or fruiting characteristics shall be replaced at the Contractor's expense.

## 2.8 TREE MAINTENANCE DURING CONSTRUCTION PERIOD

- A. Maintain trees by pruning, cultivating, watering, mulching, winter watering, weeding, wrapping, unwrapping, restoring planting saucers, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Control as required to keep trees free of insects and disease. Restore or replace damaged tree wrappings, stakes, guying. Trees shall be maintained by the Contractor through the construction period of the project.

## PART 3 - PRODUCTS

### 3.1 PLANT MATERIALS

- A. General: Furnish nursery-grown trees and shrubs conforming to the requirements of the Colorado Nursery Act, with healthy root systems developed by transplanting or root pruning. Provide well shaped, symmetrical, fully branched, healthy, and vigorous stock free of disease, insects, eggs, larvae, girdling, and defects such as sun scald, injuries, abrasions, and disfigurement. Trees of a larger size than that specified in the plant list may be used with a proportionate increase in size of roots and balls, if acceptable to the owner. The use of larger plants shall be covered by the Contractor at no additional cost to the owner.

- B. Label all plants of each size, caliper and variety and caliper with a securely attached waterproof tag bearing legible designation of botanical and common name.
- C. All plants shall be the genus, species and variety designated on the drawings. No substitutions will be accepted without the prior written approval of the owner. Contractor must provide proof of non-availability.

### 3.2 TREES

- A. These specifications shall apply to deciduous, broadleaf evergreen and coniferous species. Note that leaf characteristics will not be evident on deciduous trees during the dormant season.
- B. Crown: The form and density of the crown shall be typical for a young specimen of the species/cultivar. Changes in form caused by wind, pruning practices, pests, or other factors shall not substantially alter the form for the species/cultivar. These crown specifications do not apply to plants that have been specifically trained in the nursery to be: topiary, espalier, multi-stem, or clump; or unique selections such as contorted or weeping cultivars.
  - 1. Trees shall have a single, relatively straight trunk, and central leader, unless noted on plans to be "Multi-trunk" or "Clump". They shall be free of co-dominant stems and vigorous, upright branches that compete with the central leader. If the original leader has been headed, a new leader at least one-half of the diameter of the original leader shall be present.
  - 2. Main branches shall be well-distributed along the central leader, not clustered together. They shall form a balanced crown appropriate for the age of the species/cultivar.
  - 3. Branch diameter shall be no larger than two-thirds (one-half is preferred) the diameter of the central leader measured 1-inch (2.5 cm) above where the branch is attached.
  - 4. The attachment of the largest scaffold branches shall be free of included bark.
  - 5. Temporary branches, unless otherwise specified, should be present along the lower trunk below the lowest scaffold branch, particularly for trees less than 1-inch (2.5 cm) in caliper. These branches should be no greater than 3/8-inch (1 centimeter) diameter. Clear trunk shall be no more than 30% of the total height of the tree, unless otherwise noted
- C. Trunk: The tree trunk shall be relatively straight, vertical, and free of wounds, except properly made pruning cuts, which shall be closed over or less than 3/4-inch (2 cm) diameter open, sunburned areas, conks (fungal fruiting bodies), wood cracks, bleeding areas, signs of boring insects, galls, cankers, stem-girdling ties, or lesions (mechanical injury).
  - 1. Trunk caliper and taper shall be sufficient so that the tree will remain vertical without a stake. Trunk caliper at 6-inches (15 cm) above the soil media (substrate) surface shall be within the diameter range shown for each container size below and as specified in current edition of ANSI Z60.1.
  - 2. The cut made when re-growing the top should be just above the major structural roots. The "shank" that results from this procedure should be at a consistent height above the structural roots and no longer than 5-inches (12 cm), to ensure that the trees are consistently planted at the correct depth. The base of the trunk should not have a large pruning cut from re-growing the top.
- D. Roots: The root system shall be substantially free of injury from biotic (e. g., insects and pathogens) and abiotic (e. g., herbicide toxicity and salt injury) agents.

1. The uppermost roots or root collar shall be within the upper 2-inches (5 cm) of the soil media (substrate). Depth of the root-ball shall be measured from the top of the ball, which in all cases shall begin at the root flare. Soil above the root flare shall not be included in the root-ball depth measurement, and shall be removed.
  2. The root collar and the inside portion of the root-ball shall be free of defects, including circling, kinked, and stem-girdling roots. Soil removal or root washing near the root collar may be necessary to inspect for the aforementioned root defects.
  3. Roots on the periphery and bottom of the root-ball shall be less than 1/4-inch (65 mm) in diameter while 1/8 inch (3 mm) is preferred.
  4. The tree shall be well rooted in the soil media (substrate). Root distribution shall be uniform throughout the soil or media. Structure and growth shall be appropriate for the species/cultivar. When the burlap or container is removed, the root-ball shall remain intact. Trees should have several lateral roots or many fibrous roots spaced evenly around the trunk to provide support so the trees are stable when planted. Trees should have as many small roots as possible. These roots are key to the uptake of sufficient water and nutrients. Fibrous roots can be achieved by root-pruning, using air-pruning containers, or under-cutting or root pruning and transplanting at any stage of production.
  5. As a general rule for young nursery-grown trees, there should be two or more structural roots within 1 - 3 inches (2.5 - 7.5 cm) of the soil surface. "First order lateral roots" is another term that has been used for these roots. If the roots are deeper than 3 inches (7.5 cm), the stock shall be rejected if the root-ball is undersized as specified in current edition of ANSI Z60.1. Field grown trees for balled and burlap delivery shall have the roots pruned at least six inches inside the final root-ball size performed within adequate time for the tree to develop fibrous roots at the outer edge of the root-ball prior to harvest and delivery.
- E. Leaves: The size, color, and appearance of leaves shall be typical for the time of year and stage of growth of the species or cultivar. Trees shall not show signs of prolonged moisture stress or extended drought as indicated by wilted, shriveled, or dead leaves.
- F. Branches: Shoot growth (length and diameter) throughout the crown shall be appropriate for the age and size of the species/cultivar. Trees shall not have dead, diseased, broken, distorted, or otherwise injured branches.
- G. All deciduous trees of one species used in formal rows or groupings shall exhibit cultural uniformity, i.e. "matched" in height, crown width and shape, height to first branch, and trunk taper. For this reason it is desired that these trees be produced by a single grower.
- H. Collected Stock: Do not use plants harvested from the wild, from native stands, from an established landscape planting, or not grown in a nursery unless otherwise indicated, and only if approved by owner.

### 3.3 SHRUBS

- A. Container Grown Shrubs: All specifications for container grown plants shall include both plant size and container size. Plant size intervals and reference to height or spread shall be in accordance with the guidelines for the appropriate plant type set forth in ANSI Z60.1; Section 2.2 Types of Deciduous Shrubs.



- B. Container size shall be by container classification (i.e., not by container volume) as set forth in the ANSI Z60.1 Container Class Table.
- C. In all cases, container grown nursery stock shall meet the following general requirement:
  - 1. All container grown nursery stock shall be healthy, vigorous, well rooted, and established in the container in which it is growing. Container grown nursery stock shall have a well-established root system reaching the sides of the container to maintain a firm ball when the container is removed, but shall not have excessive root growth encircling the inside of the container.
- D. The container shall be sufficiently rigid to hold the ball shape and to protect the root mass during shipping.
- E. Minimum shrub sizes shall conform to the following standards:
  - 1. Tender shrubs (Type 0) that do not produce top growth that is winter hardy:

Height or Spread	Minimum number of canes	Minimum spread of roots
15 inches	3 canes	9 inches

- 2. Small shrubs (Type 1) that grow to a mature height of not more than three feet (3’):

Height or Spread	Minimum number of canes	Minimum spread of roots
15 inches	4 canes	9 inches

- 3. Intermediate shrubs (Type 2) that grow to a mature height between three feet (3’) and seven feet (7’):

Height or Spread	Minimum number of canes	Minimum spread of roots
2 feet	4 canes	12 inches

- 4. Large shrubs (Type 3) that grow to a mature height exceeding seven feet (7’):

Height or Spread	Minimum number of canes	Minimum spread of roots
4 feet	6 canes	20 inches

3.4 PERENNIALS, GRASSES, GROUNDCOVERS, AND VINES

- A. All container grown plants shall be healthy, vigorous, well rooted, and established in the container in which they are growing, and be in conformance with ANSI Z60.1. A container grown plant shall have a well-established root system reaching the sides of the container to maintain a firm root ball, but shall not have excessive root growth encircling the inside of the container. Top growth is to be in conformance with established nursery standards.

3.5 TREE-STABILIZATION MATERIALS

- A. Trunk-Stabilization Materials:

1. Upright and Guy Stakes: Rough-sawn, sound, new softwood with specified wood preservative treatment by pressure process, free of knots, holes, cross grain, and other defects, 2-inch diameter by length indicated, pointed at one end.
2. Wood Deadmen: Timbers measuring 8 inches (200 mm) in diameter and 48 inches (1200 mm) long, treated with specified wood preservative treatment by pressure process.
3. Guys and Tie Wires: ASTM A 641/A 641M, Class 1, #14 galvanized-steel wire, two-strand, twisted.
4. Tree-Tie Webbing: UV-resistant nylon webbing with brass grommets, size as indicated.
5. Flags: ½” diameter PVC pipe, length as indicated.

### 3.6 MULCH

- A. Organic Mulch: Cedar Fiber Mulch or approved equal.  
Organic mulch, free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of chipped wood material not larger than four inches (4”) in length. Submit a 1 gallon bag sample to owner for approval. Mulch is to be weed-free.

### 3.7 PLANT PIT BACKFILL MATERIAL

- A. Unless otherwise directed by the owner, the plant pit backfill material shall consist of the following, thoroughly mixed:
  1. Soil originally excavated from the pit: two thirds proportion of total mix.
  2. Soil Conditioner as specified in Division 32 Section “Soil Preparation”; min. 1/3 proportion of total mix.

### 3.8 WATER

- A. During the irrigation season (generally May through September), water will be available from on-site quick couplers. When the system is not charged, it shall be the Contractor’s responsibility to supply adequate amounts of water from a water truck or other approved source. Hoses and other watering equipment shall be supplied by Contractor.
  1. Watering Amount: 10 gallons per caliper inch.
- B. Watering: Refer to Division 32 Section “Irrigation Systems”.

## PART 4 - EXECUTION

### 4.1 EXAMINATION

- A. Examine areas to receive landscaping for compliance with requirements and for conditions affecting performance of work of this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.
  1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
  2. Verify that plants and vehicles loaded with plants can travel to planting locations with adequate overhead clearance.

3. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
  4. Uniformly moisten excessively dry soil that is not workable or which is dusty.
- B. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, notify Owner immediately.
1. If contamination is determined to have been existing on-site prior to construction, owner will determine the best course of action to remediate the contamination, which may include requesting the Contractor perform the removal of contamination and replacement of clean material under a negotiated Change Order. Obtain approval from owner following remediation prior to moving forward with construction in the affected area.
  2. If contamination is determined to be the result of construction operations, Contractor is to remove contaminated material and replace with clean material at the direction of the owner. Obtain approval from owner following remediation prior to moving forward with construction in the affected area.
- C. Cooperate with any other contractors and trades, who may be working in and adjacent to the landscape work areas. Examine drawings which show the development of the entire site and become familiar with the scope of all work required.

#### 4.2 FINISH AND FINE GRADING

- A. See Division 32 Section "Soil Preparation".

#### 4.3 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, turf areas and existing plants from damage caused by planting operations. Repair damage to surrounding areas and site elements noted above resulting from planting operations at no additional cost to the owner.
- B. Layout, stake and label all individual tree locations for approval by the owner prior to installing trees.
- C. Outline planting beds and mark plant locations within the bed(s) for approval by the owner prior to installing any plant material or mow bands. Make adjustments as directed at no additional cost to the owner.
1. If formal arrangements or consecutive order of plants is indicated on the drawings, select stock for uniform height and spread, and number the labels to assure symmetry in planting.
- D. Prepare planting area for soil placement and mix planting soil according to Division 32 Section "Soil Preparation".

#### 4.4 WEED CONTROL

- A. Do not proceed with landscape work until weed growth has been controlled and eliminated.
- B. See Division 32 Section "Soil Preparation" for detailed weed control measures.

- C. Use herbicides only with the written approval of owner, and in strict accordance with manufacturer's instructions.

#### 4.5 EXCAVATION FOR TREES AND SHRUBS

- A. Planting Pits: Excavate by hand. Scarify sides of tree pit. Tree spade or backhoe may not be used to dig tree pits.
  - 1. Balled and Burlapped Trees: Excavate a minimum two times (2X) as wide as ball diameter at base of pit. The base of the root collar shall be 3-inches higher than the grade at which the tree originally grew and finished grade. Slope sides of the pit as shown on the detail.
  - 2. Container-Grown Trees and Shrubs: Excavate approximately two times (2X) times as wide as container diameter. Plants shall be set 1-inch higher than finished grade.
  - 3. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.
  - 4. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
- B. Obstructions:
  - 1. Utilities: Notify Owner immediately of utilities that conflict or may potentially conflict with proposed plant locations. In such cases, alternative plant locations will be determined by owner.
  - 2. Notify the owner prior to planting if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavation.
- C. Drainage: Notify the Owner if subsoil conditions show evidence of water seepage or retention in tree or shrub pits.
  - 1. Fill the pit with water and allow it to completely drain before planting occurs.
  - 2. If water does not drain out of pit within 24 hours, notify owner.

#### 4.6 PLANTING TREES AND SHRUBS

- A. Balled and Burlapped Stock:
  - 1. Set balled and burlapped stock plumb and in center of pit with top of ball raised above adjacent finish grades as indicated. Root collar shall be set 3-inches above the grade at which the tree originally grew and finished grade.
  - 2. Remove burlap from tops of root balls and partially from sides, but do not remove from under balls.
  - 3. Remove top 2/3 wire baskets. Do not remove lower portion of wire basket entirely. Ensure rootball is not broken during planting operations. Ensure wire basket remaining is completely buried by planting soil.
  - 4. Remove pallets, if any, before setting. Do not use planting stock if ball is cracked or broken before or during planting operation.
  - 5. Place backfill around ball in layers, tamping to settle backfill and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill.
- B. Container Grown Stock
  - 1. Carefully remove containers so as not to damage root balls.
  - 2. Lightly scratch sides of exposed root ball to loosen surface roots.

3. Set plants plumb and in center of pit with top of ball raised above adjacent finish grades as indicated.
  4. Place backfill around ball in layers, tamping to settle backfill and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly, then place remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill.
- C. Tree Staking: Stake trees as shown on the details.
- D. Wrapping tree trunks: Wrap trees with trunk-wrap tape. Start at base of trunk and spiral cover trunk to height of first branches. Overlap wrap, exposing half the width, and securely attach without causing girdling. Use specified tape to secure. Do not use staples. Inspect tree trunks for injury, improper pruning, and insect infestation and take corrective measures required before wrapping.
1. All deciduous trees shall be wrapped between November 1st and November 15th. All tree wrap shall be removed by May 15.
  2. Contractor shall be responsible for wrapping and unwrapping trees during the warranty period.

#### 4.7 PRUNING OF PLANTS

- A. Prune only damaged or dead branches as directed by the owner. Plants that, due to dieback and subsequent pruning, have lost esthetic appeal in the opinion of the owner shall be removed and replaced at no additional cost to the owner.

#### 4.8 MULCHING

- A. Trees: Create a 48-inch diameter saucer around tree and fill with 3-inch deep specified wood mulch. Mulch shall be kept 3-inches away from tree trunk.
- B. Shrubs:
1. Mulch backfilled surfaces of pits, planting beds areas, and other areas indicated or as directed by the Owner.
  2. Mulch in shrub bed areas: Apply 3-inch thick layer of mulch and finish 1-inch below adjacent finish grades. Do not place mulch against stems of plants.
- C. Pre-Emergent Herbicide: Apply pre-emergent herbicide to all shrub beds at the rate recommended by the manufacturer and approved by owner. Do not apply to annual, perennial, or ground cover areas. Apply to surface of soil only. Do not incorporate into soil volume.

#### 4.9 INSTALLATION OF MISCELLANEOUS MATERIALS

- A. Apply antidesiccant using power spray to provide an adequate film over trunks, branches, stems, twigs, and foliage.
1. When deciduous plants are moved in full-leaf, owner may direct the use of an antidesiccant at nursery before moving and again 2 weeks after planting.

4.10 PROTECTION

- A. Protect existing utilities, paving and other facilities from damage caused by planting operations. Contractor shall repair any damage at no additional cost to the owner.
- B. Restrict vehicular and pedestrian traffic from planted areas. Erect signs and barriers as required or directed by the Owner at no additional cost to the owner.
- C. Locate, protect and maintain the irrigation system during planting operations. Repair irrigation system components damaged during planting operations according to specification Section 32 "Irrigation Systems" and shall be replaced or repaired at Contractor's expense.
- D. Erosion Control: Take measures and furnish equipment and labor necessary to control and prevent soil erosion, blowing soil and accumulation of wind-deposited materials on the site throughout the duration of work.
- E. At time of Substantial Completion, verify that tree-watering devices are in good working order and leave them in place. Replace improperly functioning devices.

3.12 CLEANING

- A. General: Provide and install barriers as required and as directed by owner to protect sodded areas against damage from pedestrian and vehicular traffic until Final Acceptance.

3.13 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus soil including excess subsoil and unsuitable soil, waste material, including, trash, and debris generated during installation off site at no additional cost to the owner.

3.14 BASIS OF PAYMENT

- A. The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.
- B. Payment will be made under:

Pay Item	Unit
Mulching (wood chip)	CF
Metal Landscape Boarder (3/16x4 Inch)	LF
Deciduous Tree (3 Inch Caliper)	Ea
Deciduous Tree (2 Inch Caliper)	Ea
Deciduous Shrub (5 Gallon Container)	Ea
Evergreen Shrub (5 Gallon Container)	Ea
Perennials (1 Gallon Container)	EA
Perennials (1 Gallon Container)	EA
Rock Mulch (Weed Free)	SF

- C. Water required for all items of work will not be measured and paid for separately, but shall be included in the work.

- D. Payment shall be full compensation for all work necessary to complete the item.
- E. Landscape maintenance performed during construction will not be measured and paid for separately, but shall be included in the work.
- F. Landscape Establishment will not be paid for separately, but shall be included in the work.

**END OF SECTION 32 93 00**

**SECTION 32 80 00**

**IRRIGATION SYSTEM**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.
- B. Related Sections:
  - 1. CDOT Standard Specifications: Division 100 General Provisions
  - 2. CDOT Standard Specifications: Division 200 Earthwork
  - 3. CDOT Standard Specifications: Division 600 Miscellaneous Construction
  - 4. CDOT Standard Specifications: Division 700 Materials Details

2.1 SUMMARY

- A. This section includes piping, valves, sprinklers, specialties, controls, and wiring for automatic control irrigation system.
- B. Related Work:
  - 1. The work shall consist of installing a new underground irrigation system. Included as part of this contract will be provision and installation of all labor, equipment, tools and materials necessary for the construction of the irrigation system per specifications and drawings, including any miscellaneous incidental material required to result in a complete and operable system.
    - a) Coordinate tap location and connection with the Bessemer Historical Society.
    - b) Installation of electric pedestal, electric meter and extension of secondary power in order to serve Controller is the responsibility of the Contractor. Owner's Representative will initiate meter service.
- C. Work under this section to include provision of all labor, material, permits, and services needed to complete the underground sprinkler system in accordance with the Drawings, General Notes, and Specifications.
  - 1. Provision and installation of incidental equipment of the wet tap and point of connection as required on the Drawings, including a meter pit per City of Pueblo Specifications.
  - 2. Provision and installation of subsurface sleeves as required on the irrigation Drawings.
  - 3. Provision and installation of miscellaneous incidental equipment which may not be indicated on drawings but which are required to result in a complete and operable system.
  - 4. Irrigation lines shown on the drawings are diagrammatic. The Contractor shall establish locations of all sprinkler heads, valves, piping, wiring, etc. at the time of construction. Spacing of the sprinkler heads or quick-coupling valves are shown on the drawings and shall not be altered in any manner without the permission of the Owner's Representative.
  - 5. Preparation and provisions of professionally drafted reproducible Mylar full scale as-built Drawings.

2.2 DEFINITIONS

- A. Circuit Piping: Downstream from control valves to sprinklers, specialties, and drain valves. Piping is under pressure during flow.
- B. Drain Piping: Downstream from circuit-piping drain valves. Piping is not under pressure.
- C. Irrigation Main Piping: Downstream from point of connection to water distribution piping to, and including, control valves. Piping is under regulated distribution.
- D. The following are industry abbreviations for plastic materials:



1. ABS: Acrylonitrile-butadiene-styrene plastic.
2. FRP: Fiberglass-reinforced plastic.
3. PA: Polyamide (nylon) plastic.
4. PE: Polyethylene plastic.
5. PP: Polypropylene plastic.
6. PTFE: Polytetrafluoroethylene plastic.
7. PVC: Polyvinyl chloride plastic.
8. TFE: Tetrafluoroethylene plastic.

## 2.3 SUBMITTALS

- A. Product Data: Include pressure ratings, rated capacities, and settings of selected models for the following:
  1. Water regulators.
  2. Water hammer arresters.
  3. General-duty valves.
  4. Specialty valves.
  5. Control-valve boxes.
  6. Sprinklers.
  7. Irrigation specialties.
  8. Controllers. Include wiring diagrams.
  9. Control cables. Include splice kits and conduit.
- B. Shop Drawings: Shop Drawings which clearly indicate changes proposed by the installer to pipe routing, sprinkler head placement, valve placement, zone sequencing, etc., which improve operation and serviceability of the system may be provided. The Owner's Representative must approve any deviations in layout prior to construction.
- C. Other submittals shall be made in accordance with the contract documents and Requirements at Substantial Completion under this Section.
- D. Field quality-control test reports.
- E. Operation and Maintenance Data: For irrigation systems, to include in operation and maintenance manuals. In addition to items specified in Division 1 Section "Closeout Procedures Operation and Maintenance Data," include data for the following:
  1. Automatic-control valves.
  2. Sprinklers.
  3. Controllers.
- F. As-Built Drawings: As-built drawings which clearly indicate changes by the installer to the pipe routing, sprinkler head placement, valve placement, zone sequencing, etc., as previously approved by the Owner. As-built drawings shall be provided as a reproducible, full-scale Mylar.

## 2.4 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with the following codes, ordinances, regulations, and standards in effect at time of installation:
  1. American Society for Testing and Materials (ASTM).
  2. National Plumbing Code (NPC).
  3. Federal Specifications (FS).
  4. Plastic Pipe Institute (PPI).
  5. National Electric Code (NEC).

6. National Sanitation Code (NEC).
  7. All State and Local codes for cross connection of potable water systems.
  8. All cut-sheets, catalogs, and published data of the manufacturers whose equipment is scheduled for use under this contract.
- C. Failure to be familiar with any requirement shall not preclude installer's responsibility to abide by them.
  - D. In the event of a conflict between requirements, the most stringent requirement will prevail in any case.
  - E. Qualified personnel who have successfully completed comparable projects previously, and who are knowledgeable and familiar with irrigation system hydraulics shall perform all work under this Section.
  - F. On-site personnel shall be capable of determining feasibility of proposed installations (with regard to hydraulics). Failure to be familiar with hydraulic feasibility will not preclude installer's responsibility of accidental or deliberate installation of incompatible equipment, pipe sizes, etc., which do not permit operation of system as intended by design.
  - G. The installer shall field verify static pressure at the point of connection and determine its suitability prior to commencing any work downstream of the backflow preventer.
  - H. Failure to test and verify adequate static pressure prior to constructing the sprinkler system shall not relieve the installer to provide the adequate operating pressure to provide coverage as intended by design.
  - I. It is the installer's responsibility to report inadequate static pressure to the Owner's Representative and to correct the problem prior to commencing work downstream of the point of connection.
  - J. All material for use under this Section to be new and previously unused.
  - K. The installer shall be responsible for measuring and verifying accuracy of field dimensions versus drawing dimensions. All discrepancies shall be reported to the Owner's Representative and resolved prior to commencing work.
  - L. Conflicts and/or discrepancies, which are not fully resolved by the installer prior to commencing work under this Section, shall be resolved in favor of the Owner after commencement of work.

## 2.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pip-end damage and to prevent entrance of dirt, debris, and moisture.
- B. Store plastic piping protected from direct sunlight. Support the pipe to prevent sagging.

## 2.6 PROJECT/SITE CONDITIONS

- A. Interruption of Existing Water Service: Do not interrupt water service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water service according to requirements indicated:
- B. Notify Owner's Representative no fewer than two days in advance of proposed interruption of water service. Do not proceed with interruption of water service without Owner's Representative written permission.
- C. The installer shall be completely familiar with all job site conditions, which may affect the work prior to commencing any work under this Section.
- D. No work shall commence until unsatisfactory job site conditions have been brought to the Owner's Representative's attention or otherwise totally resolved.

- E. Should the installer fail to resolve job site conditions, which may negatively affect the work under this Section, he shall assume responsibility for subsequent additional work and costs to resolve unsatisfactory job site conditions.
- F. Prior to commencing any work under this Section, it will be this installer's responsibility for scheduling and coordinating the locations of all existing utilities on the job site which may affect the work.
- G. All known existing utilities shall be clearly indicated on field drawings, and shall be flagged or otherwise marked on the job site.
- H. Failure to locate existing utilities and provide adequate protection to them during the work shall not preclude responsibility for subsequent damage.
- I. Costs for repair to existing utilities because of failure to properly locate and protect utilities shall be this installer's responsibility. "Utility" shall include but may not be limited to gas, electric, sewer and water, telephone, cablevision lines and sprinkler lines.

## 2.7 COORDINATION AND SCHEDULING

- A. Coordinate installation of planting materials during normal planting seasons for each type of plant material required. Planting materials should be planted between April 15 and October 1, or at the direction of the owner. Irrigation shall be available at the time of planting.

## 2.8 PERFORMANCE REQUIREMENTS

- A. Location of Sprinklers and Specialties: Design location is approximate. Make minor adjustments necessary to avoid plantings and obstructions such as signs and light standards. 100 percent water coverage must be maintained in areas where indicated.
- B. Minimum Working Pressures: The following are minimum pressure requirements for piping, valves, and specialties, unless otherwise indicated:
  - 1. Irrigation Main Piping: 200 psi
  - 2. Circuit Piping: 200 psi
  - 3. Drain Piping: 200 psi
- C. Field Verification: All sprinkler heads, control valve locations, and pipeline locations are to be flagged prior to commencing excavation.
- D. The services of a professional engineer may be retained at the irrigation contractor's expense to assist in accurate field dimensioning and precise location of sprinkler heads proposed or installation per the Drawings.
- E. Minor relocation of equipment, which facilitates the installation, may be made with Owner's approval. Changes shall be made and documented on as-built Drawings.
- F. Sprinkler heads, which are adjacent to curbing and pavement, are to be installed no closer than one inch and not further than four inches away from curbing/pavement to accommodate turf-trimming operations.

## 2.9 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. One (1) Spare sprinkler head bodies and nozzles of each type installed.
  - 2. Two (2) spare valve keys for drain valves installed.
  - 3. Two (2) spare quick coupling valve keys suitable for use with valves installed.
  - 4. Two (2) spare swivel hose bibs suitable for use with quick coupling valves installed.
  - 5. Two (2) spare locking valve cap keys.
  - 6. Two (2) spare emitter units of each type installed

- B. All spare equipment to be new and unused.
- C. All Spare equipment to be provided in a new, sealed cardboard box clearly labeled with the job name and "Spare Irrigation Equipment". Valve keys may be securely taped to the outside of box.
- D. Mylar as-built drawing to be provided in a new sealed cardboard plan tube clearly labeled with the job name and "Irrigation System As-Built".
- E. Provision of required spare equipment and plans as specified above is to occur at inspection for Substantial Completion.
- F. Failure to provide spare equipment and plans in the format and at the time required will result in delay of Final Acceptance of all work provided and installed under this Section.

### PART 3 - PRODUCTS

#### 3.1 MANUFACTURERS

- 1. Irrigation components shall be procured from the Manufacturer as stated on the Drawings. Equal products can be substituted with Owners approval.

#### 3.2 PIPES, TUBES AND FITTINGS

- A. Refer to Part 3 "Piping Applications" Article for applications of pipe, fitting, and joining materials.
- B. Soft Copper Tube: ASTM B 88, Type K, water tube, annealed temper.
  - 1. Copper Pressure Fittings: ASME B16.18, cast-copper-alloy or ASME B16.22, wrought-copper, solder-joint fittings. Furnish wrought-copper fittings unless otherwise indicated.
  - 2. Bronze Flanges: ASME B16.24, Class 150, with solder-joint end.
  - 3. Copper Unions: MSS SP-123, cast-copper-alloy, hexagonal-stock body, with ball-and-socket, metal-to-metal seating surfaces and solder-joint or threaded ends.
- C. Hard Copper Tube: STM B 88, Type L.
  - 1. Copper Pressure Fittings: ASME B16.18, cast-copper-alloy or ASME B16.22, wrought-copper, solder-joint fittings. Furnish wrought-copper fittings unless otherwise indicated.
  - 2. Bronze Flanges: ASME B16.24, Class 150, with solder-joint end.
  - 3. Copper Unions: MSS SP-123, cast-copper-alloy, hexagonal-stock body, with ball-and-socket, metal-to-metal seating surfaces and solder-joint or threaded ends
- D. PVC Pipe: ASTM D 1785, PVC 1120 compound, Schedule 200.
  - 1. PVC Socket Fittings, Schedule 200
- E. Transition Fittings: Basic Materials and Methods for transition fittings.
- F. Dielectric Fittings: Basic Materials and Methods for dielectric fittings.
- G. Furnish all equipment to complete the sprinkler system per the Drawings and Specification
- H. Acceptable manufacturers, including alternates, as per the Drawings.
- I. Piping:
  - 1. All PVC piping for all mainlines and lateral lines shall be of the size and classification stated on Drawings.
    - a) All piping shall be new and NSF approved.
  - 2. All mainline PVC pipefittings shall be NSF approved Schedule 200, unless otherwise indicated on the drawings.
    - a) BOE PVC Class 200 mainline pipe shall meet ASTM requirements.
    - b) BOE PVC Class 200 lateral pipelines shall meet ASTM requirements.
    - c) Solvent weld for PVC pipe shall meet ASTM requirements. Cement to be fast set or very fast set.
    - d) Teflon based pipe sealant shall be used on all threaded joints.

- e) Pipe shall be homogeneous throughout, free from imperfections, cracks, or holes.
- f) Pipe must be continuously and permanently marked with manufacturer's name or trademark, kind and size (IPS) of pipe, material, and manufacturer's lot number, schedule of type and NSF seal of approval.
- 3. Unless otherwise indicated on the Drawings, all sprinkler heads shall be installed on polyethylene swing riser pipe with spiral barb elbows or swing joints as required per the Drawings.
- 4. Copper pipe and fittings to be wrought and fastened with silver solder.
- J. PVC sleeves to be Class 200 BOE of the size and length indicated on the Drawings. Low voltage wiring shall be run in separate sleeve from mainline or lateral sleeve. All hard surfaces, that have sleeves under them, shall be stamped as indicated in the drawings.

### 3.3 VALVES

- A. Electric control valves shall be of the type, size and manufacturer indicated on the Drawings.
- B. Unless otherwise indicated on the Drawings, all control valves shall be installed in a globe configuration.
- C. Automatic Drain Valves: As indicated on drawings.
- D. Isolation Valves: As indicated on drawings.
- E. Quick-Couplers: Factory-fabricated, bronze or brass, one-piece assembly. Include coupler water-seal valve; removable upper body with spring-loaded or weighted, rubber-covered cap; hose swivel with ASE B1.20.7, 3/4-11.5NH threads for garden hose on outlet; and operating key or as indicated on drawings.

### 3.4 SPRINKLERS

- A. Description: Brass or plastic housing and corrosion-resistant interior parts designed for uniform coverage over entire spray area indicated, at available water pressure.
  - 1. Pop-up Spray Sprinklers: Fixed pattern, with screw-type flow adjustment and stainless-steel retraction spring.
- B. Pop up Heads:
  - 1. Sprinkler heads shall be of the type, size, and manufacturer indicated on the Drawings.
    - a) Nozzle types and arcs to be provided shall be as indicated on the Drawings to satisfy the coverage requirements intended by the design.
    - b) Sprinkler nozzles installed on any single zone shall have matched rates of precipitation.

### 3.5 SPRINKLER SPECIALTIES

- A. Application Pressure Regulators: Brass or plastic housing, NPS 3/4, with corrosion-resistant internal parts, and capable of controlling outlet pressure to approximately 20 psig.
- B. Strainer/Filter Units: Brass or plastic housing, with corrosion-resistant internal parts, of size and capacity required for devices downstream from unit.
- C. Emitters: As indicated on drawings.
- D. Drip Tubes: As indicated on drawings.
- E. Other Equipment:
  - 1. Other equipment to be provided and installed, including but not limited to valves, gauges, pressure regulating valves needed to result in a complete and operable sprinkler system shall be provided and installed under this Section.
  - 2. Installation of other equipment shall be as indicated on Drawings, and per manufacturer's recommendations.
  - 3. Water meter pits that are used for irrigation systems will use a 30-300 psi. range clay-valve water regulator.

- a) Clay-valve 90-016-2" threaded.
- b) Clay-valve 90-016-3" 150# flange.
- c) Clay-valve 90-016-4" 150# flange.ed.

### 3.6 AUTOMATIC CONTROLLER

- A. As indicated on drawings.
- B. Exterior Control Enclosures: As indicated on drawings.
- C. Wiring: As recommended by Automatic Controller manufacturer.
  1. Feeder-Circuit Cables: No. 12 AWG minimum, between building and controllers.
  2. Splicing Materials: Manufacturer's packaged kit consisting of insulating, spring-type connector or crimped joint and epoxy resin moisture seal; suitable for direct burial.
- D. Automatic controllers shall be of the size, type, and manufacturer indicated in the drawings.
- E. Pedestal or cabinet for the controller shall be of the same manufacturer or as indicated in the drawings.
- F. PVC conduit of adequate size shall be installed under this Section to enclose all control wiring from controller to master control valve and mainline location.
- G. The installer shall provide at least two sets of controller cabinet keys to the Owner's Representative at the time of Final Acceptance
- H. Provide and install type UF 600 volt stranded or solid copper, single conductor wire with PVC insulation and bearing UL approval for direct underground burial.

### 3.7 BACKFLOW PREVENTER

- A. Backflow preventer to be the type, size and manufacturer indicated on the Drawings, and shall be reduced pressure type rated for high hazard application.
  1. Provide and install mounting pad and protective enclosure for backflow preventer as indicated on Drawings.
- A. The installer shall be responsible for coordinating and providing required point-of-connection, tap, meter pit, etc., as needed to complete all work under this Section.
  1. Permits, tap fees, and all related fees associated with cross connection needed to complete work under this Section are the installer's responsibility.
  2. It is the installer's responsibility to schedule and perform backflow preventer tests that may be required as per local codes. Fees associated with any tests are the installer's responsibility.

## PART 4 - EXECUTION

### 4.1 EARTHWORK

- A. Refer to Division 2 Section "Earthwork" for excavating, trenching, and backfilling.
- B. Install piping and wiring in sleeves under sidewalks, roadways, and parking lots as indicated on drawings.
- C. Provide minimum cover over top of underground piping according to the following:
  1. Irrigation Main Piping: Minimum depth of 24 inches below finished grade.
  2. Lateral Piping: **12 inches**.
  3. Drain Piping: **12 inches**
  4. Sleeves: **24 inches for main line and 12 inches for laterals**
  5. As indicated on drawings.

- D. Clean cuts shall be made on all severed tree roots greater than 2-inch diameter. If excavation is within drip line of a tree, the Owner's Representative shall be contacted whenever a tree root greater than 2" is encountered under drip line, work is not proceed until the Owner's Representative has made a recommendation. Trenches located within five feet of existing tree trunks are to be hand dug. Auguring may be required.
- E. This installer shall provide all necessary excavation required for proper installation of work under this Section.
- F. Mechanical trenchers used for excavation shall be capable of digging smooth, flat bottom trenches regardless of slope conditions.
- G. Concrete curbs above sleeve locations shall be painted or stamped with an "S" to permanently locate sleeve location on existing curbs.
- H. Mainline and lateral pipelines may be installed in common sleeves. Control wiring must be installed in a separate sleeve.
- I. Generally, piping under existing concrete or asphalt shall be installed by jacking, boring or hydraulic driving. Where any cutting or break of concrete or asphalt is necessary, it shall be removed and replaced by the Contractor. Permission to cut or break paved areas shall be obtained from the Owner's Representative.
- J. Trenches for irrigation lines shall be excavated of sufficient depth and width to permit proper handling and installation of the pipe and fittings, or the piping may be installed by trenchless technique, if approved by the Owner. The backfill shall be thoroughly compacted, and evened off with the adjacent soil level. Approved fill dirt or sand shall be used if soil condition is determined rocky by Owner's Representative. In rocky areas, the trenching depth shall be two inches (2") below normal trench depth to allow for this bedding. The fill dirt or sand shall be used in filling four inches (4") above the pipe. The remainder of the backfills shall contain no lumps or rocks larger than three inches (3"). The top six inches (6") of backfill shall be free of rocks larger than one (1"), and free from subsoil or trash. All trenches that are opened during any particular working day shall be backfilled the same day.
- K. In the event the installer is required to re-route pipe, relocate sprinkler heads, or deviate in any way from the Drawing as a result of encountering consolidated rock or debris, and additional material/labor is required to complete installation, the Owner Representative may issue a change order for additional material and labor costs.
- L. Consolidated material shall be defined as any obstruction occurring in an area normally scheduled to be excavated which runs ten feet or longer in any trench, or is greater than twenty-five square feet in area, both at depths less than thirty inches for irrigation pipelines.
- M. The installer shall provide a unit cost per linear foot for excavation through consolidated material in his bid to be used in determining change order value.
- N. Additional costs for excavating previously known consolidated material shall be the installer's responsibility.
- O. Provide clean backfill soil free of colds and rocks greater than one inch in size, and debris that could puncture and damage pipelines and equipment installed under this Section.
- P. Clean sand may be provided and installed as bedding material beneath pipelines to facilitate installation.
- Q. Backfilling to be done when pipelines are cool to avoid excessive contraction.
- R. Frozen or saturated soil is not to be used as backfill at any time.
- S. Open trenches and other excavations are to be backfilled with suitable material and compacted to not less than eighty five percent density modified in six inch lifts.
- T. Compaction shall only be done with a vibratory plate, jumping jack or trench flooding.
- U. After compaction, backfill shall be precisely flush with surrounding finish grades.
- V. The installer is responsible for the repair to damaged equipment, finish grades, undermined pavements, sod, mulches and underlayment, etc., from settling of one inch or more in any

trench or excavation as a result of work under this Section for a period of not less than two years from date of Final Acceptance.

#### 4.2 PIPING APPLICATIONS

- A. Install components having pressure rating equal to or greater than system operating pressure.
- B. Piping in control-valve boxes and above ground may be joined with flanges instead of joints indicated.
- C. Underground Irrigation Main Piping: As indicated on drawings.
- D. Lateral Piping: As indicated on drawings.
- E. Sleeves: Class 200, PVC pipe and socket fittings; and solvent-cemented joints.
  - 1. Fittings: Underground Piping: Union with plastic end of same material as plastic piping.

#### 4.3 VALVE APPLICATIONS

- A. Underground, shutoff-duty valves: As indicated on the Drawings.
- B. Underground, Manual Control Valves: As indicated on the Drawings.
- C. Control Valves: As indicated on the Drawings.
- D. Drain Valves: As indicated on the Drawings.

#### 4.4 PIPING INSTALLATION

- A. Planting Location and Arrangement: Drawings indicate location and arrangement of piping systems. Install piping as indicated unless deviations are approved by Owner's Representative.
- B. Install piping at minimum uniform slope of 0.5 percent down toward drain valves.
- C. Install piping free of sags and bends.
- D. Install groups of pipes parallel to each other, spaced a minimum of 6 inches to permit valve servicing.
- E. Install fittings for changes in direction and branch connections.
- F. Lay piping on solid subbase, uniformly sloped without humps or depressions.
- G. Install PVC piping in dry weather when temperature is above 40 degree F 5 degree C. Allow joints to cure at least 24 hours at temperatures above 40 degrees F 5 degree C before testing unless otherwise recommended by manufacturer.
- H. All installations are to be made in full accordance with the Drawings. Specifications, Local Codes and Ordinances, etc., with the most stringent requirement prevailing at all times in the event of conflict.
- I. Generally, no deviations from the layout of pipelines, sprinkler heads, control valves, point of connection, controller locations, or other scheduled installations will be considered or accepted by the Owner's Representative from that indicated on the Drawings.
- J. The irrigation installer is not authorized to make minor field adjustments in layout to facilitate minor changes in site layout without prior approval from Owner's Representative.
- K. No direct contact between any equipment installed under this Section and other utilities or structures is permitted.
- L. Open pipe ends are to be taped or plugged closed at all times to keep out dirt and debris during installation.
- M. All pipes are to be flushed with clean water to remove all dirt and debris prior to installing sprinkler heads.



#### 4.5 VALVE INSTALLATION

- A. Balled Underground Gate Valves: Install in valve box that is flush with grade.
- B. Underground Curb Stops: Install in service box with top flush with grade.
- C. Underground, Manual Control Valves: Install in manual control-valve box.
- D. All electrical control valves, gate valves, and wire connections are to be housed in control valve boxes with lock-bolt-equipped covers equal to Ametek 10-170-001 and 10-173-134 or Carson 1419E.
  - 1. Valve boxes shall be adequately sized to allow clearance around all valves for servicing and removal without excavation of box, and shall not bear on valve or system pipes.
  - 2. Valve boxes and covers shall be green or black in color and purple for non-potable systems. Valve coverlid shall be etched with the corresponding valve number, controller zone, and stamped "Irrigation Control Valve".
  - 3. Valves shall have a brass tag labeled with etched corresponding controller zone number, as recorded on the as-built Drawings.
- E. Drain Valves: Install in control valve box.
- F. Electric control valves are to be connected to mainline per the Drawing detail allowing clearance for servicing valve in valve box.
- G. Control valves are to be adjusted for optimum flow to provide coverage as intended by design.
- H. Quick coupling valves to be installed on PVC swing joint riser assemblies, and are to be installed plumb and one inch above adjacent finish grade or bed mulch.
- I. Quick coupling valves and boxes shown next to a control valve on the drawings shall not be installed in same control valve box as control valve. Quick Coupling will be installed in a 6" or 10" round box next to the control valve. As shown on drawings.
- J. Control valves and boxes to be installed above aggregate drainage sumps not less than two cubic feet in size.
  - 1. Aggregate to be separated from soil with filter fabric.
  - 2. Aggregate sumps to be constructed prior to installation of control valve and box; do not attempt to fill valve boxes with aggregate.
  - 3. Valve box interiors to be completely free of standing water, mud, or other debris at all times.
- K. Provide and install manufactured valve box extensions as needed to result in box cover being precisely one inch above adjacent finish grades, or flush with top of mulches.

#### 4.6 SPRINKLER INSTALLATION / ALTERNATE EQUIPMENT

- A. Install sprinklers after hydrostatic test is completed.
- B. Install sprinklers at manufacturer's recommended heights.
- C. Locate part-circle sprinklers to maintain a distance of 6 inches from walls and 2 inches from other boundaries, unless otherwise indicated.
- D. Generally, only the equipment appearing on the Drawings will be considered or accepted for installation. The Owner may approve alternate manufacturers for certain equipment.
- E. Install water regulators with shutoff valve and strainer on inlet and pressure gage on outlet. Install shutoff valve on outlet.
- F. Swing pipe risers to be installed and adjusted to result in all sprinkler heads being flush a plumb with finish grades prior to backfilling around heads.
- G. No sprinkler head is to be pulled into a plumb and flush position after installing backfill.
- H. Backflow preventer to be installed per the Drawings and in full accordance with applicable State and Local code for backflow prevention.

- I. Unless indicated otherwise on the Drawings, all backflow preventers shall be reduced pressure type for high hazard service, equal to the 825YA series manufactured by Febco Backflow Prevention Assemblies.
- J. Other equipment, miscellaneous products, fittings, etc., which are not specifically indicated on the Drawings but which are required to result in a complete and operable system are to be provided and installed under this Section within the base contract sum.

#### 4.7 AUTOMATIC CONTROL SYSTEM WIRING INSTALLATION

- A. Install control wiring in same trench as irrigation piping. Installer is responsible for sizing all wire in accordance with recognized practice, and shall clearly indicate changes in wire sizes on as-built Drawings. Install wiring in separate sleeve under paved areas if irrigation piping is installed in sleeve.
- B. All control wiring is to be installed in mainline trench when possible. All Main lines shall have a common white wire run with them.
- C. Wiring to be installed at a depth not less than twenty-four inches. Splices are to be made in valve boxes.
- D. No splices are to occur in any sleeve.
- E. Multiple wires in trenches are to be banded together at twenty foot intervals, and banded alongside all mainline piping with duct tape.
- F. Two yellow spare wires for system expansion shall be pulled to the end points of the mainline, labeled with indelible markings for corresponding controller zone, and installed in control valve boxes.
- G. All wire connections to be made with manufacturer's recommended wire connectors or approved equal. Wire connection and sealant to be made water-resistant. All splices to be made in a valve box.
- H. All wire splices and connections shall be left with sufficient "slack" so that the wire may be brought to the surface without disconnection.
- I. Installer shall furnish and install indelible wire markers at the end of each control wire and inside controller cabinet with corresponding controller zone number.

#### 4.8 FIELD QUALITY CONTROL / TESTING AND INSPECTION

- A. Perform the following field tests and inspections and prepare test reports:
  - 1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
  - 2. Operational Test: After any electrical circuitry is energized, operate controllers and automatic control valves to confirm proper system operation.
- B. Remove and replace units and retest as specified above.
- C. After completion of all work under this Section, the installer shall activate the water source and pressurize the mainline to not less than 150 psi., or maximum available pressure if less than 150 psi.
- D. The mainline shall remain closed and pressurized for not less than twenty-four hours prior to preparation of the completed system.
- E. The installer shall request Owner's Representative to inspect point of connection, and all equipment installed on the mainline. Twenty-four hours notice must be given to Owner's Representative.
- F. Inspection at this time is mandatory and Owner's Representative upon successful completion of the pressure test will issue a certificate of approval.

- G. After all irrigation piping and risers are connected, and prior to installation of sprinkler heads, control valves shall be opened and a full head of water used to flush out the system. After the system is thoroughly flushed, risers shall be capped and the system pressure tested.
- H. At the conclusion of the pressure test, heads shall be installed and tested for operation in accordance with design requirements under normal operating pressure. Adjustments shall be made to eliminate back splash on any building, structures, or fences.
- I. After successful completion of the pressurized period and repair to any leaks, and when the system is operating at the pressure intended by design, the installer shall adjust and fine-tune all equipment for optimum performance and coverage as intended by design.
- J. When wind conditions are less than five mph, the installer shall adjust all sprinkler head nozzles to provide coverage to areas as intended by design. Over spray onto roadways shall be minimal.
- K. All sprinkler heads are to be fully adjusted to be plumb and flush prior to sodding and mulching operations.
- L. The installer shall assume all liability for sod and mulch that is installed prior to adjustment, fine-tuning, and functional operation of the sprinkler system.
- M. The installer shall assume all liability for manually operating the sprinkler system and furnishing supplemental irrigation to sustain optimum condition of all landscaping should the system not be fully operable prior to installation of landscaping.
- N. After the installer has verified that all adjustments and fine-tuning have been adequately performed, the Owner's Representative shall be given two days notice that an inspection for Substantial Completion is requested.
- O. The entire installed system shall operate automatically via the controller through entire cycles prior to requesting an inspection.
- P. The Owner's Representative inspection for Substantial Completion shall include visually observing the operation of all work provide and installed under this Section.
- Q. Any installation, which does not comply entirely with any part of this Section, will be documented in a written punch list.
- R. All punch list items are to be corrected by the installer prior to re-inspection by Owner's Representative.
- S. Re-inspection for correction of punch list items for consideration of Final Acceptance will be made within five working days from date of Owner's Representative's first inspection and punch list.
- T. The installer may be subject to liquidated damages for any additional inspections which must be made by Owner's Representative to verify complete correction of deficiencies subsequent to second inspection.

#### 4.9 ADJUSTING / WINTERIZATION AND START-UP

- A. Protect Adjust settings of controllers.
- B. Adjust automatic control valves to provide flow rate of rated operating pressure required for each sprinkler circuit.
- C. The installer is responsible for initial programming of controller to operating sequence of all zones shall be per the Drawings.
- D. The operating sequence of all zones shall be per the Drawings.
- E. During and up until Final Acceptance, the installer is responsible for making any adjustments that may be required to equipment installed under this Section.
- F. It shall be the contractor's responsibility to shut down and winterize the completed irrigation system on a date to be agreed upon by the Owner and the contractor.

- G. It shall be the contractor's responsibility to activate the irrigation in the spring after the first winter on a date agreed upon by the Owner and the contractor. Contractor shall verify the correct functioning of the system and repair any leaks at this time.

### 3.12 CLEANING AND JOB SITE RESTORATION

- A. Flush dirt and debris from piping before installing sprinklers and other devices.
- B. Prior to Final Acceptance, all areas on the job site in which work under this Section has occurred will be thoroughly cleaned of dirt, unused material, and the installer's installation equipment.
- C. Work by other trades, which is damaged or destroyed because of work under this Section, shall be fully restored by this installer as a condition of Final Acceptance.
- D. Damage caused by water from the sprinkler system because of incorrect adjustment and controller programming is this installer's responsibility.
- E. Sod, trim edges, mulches, pavements, and other existing work which is damaged as a result of work under this Section is to be completely restored as a condition of Final Acceptance of all work completed under this Section.

### 3.13 WARRANTY

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain controller and automatic control valves.
- B. Warranty: The warranty period and conditions shall be as set forth in the CDOT standard specifications. If contract documents and CDOT standard specifications vary, the more stringent specification shall be used.
- C. The warranty specified in this Article shall not deprive the owner of other rights the owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- D. During the warranty period, the installer is responsible for all the following:
  - 1. Winterization: Shut off all water sources to system, drain all pipelines, and provide air injection as required to prevent freeze damages to all equipment.
  - 2. Activation: Turn on all water sources to system, charge all pipelines, repair damaged equipment not caused by vandalism, snow removal, or unauthorized winter-use of system, adjust and fine tune all equipment to provide optimum performance.
  - 3. Controller programming: Program controller at frequencies deemed necessary to sustain and promote establishment of landscaping until time of Final Acceptance, shut down controller at winterization, re-program controller at time of activation
  - 4. It is this installer's responsibility to perform seasonal service at the time he deems appropriate to protect his warranty interests.
  - 5. The installer is responsible for damages caused to equipment installed under this Section as a result of his failure to provide seasonal maintenance at the appropriate times
  - 6. The installer may be back charged if the services of others are employed to perform seasonal maintenance, as determined necessary by Owner's Representative.
  - 7. During the warranty period, the installer is responsible for providing labor and material as needed to keep the system completely operable as intended by design.
  - 8. Equipment, which fails to operate as intended by design, shall be repaired and/or replaced by the installer at his expense within twenty-four hours after Owner's notice.

9. Equipment, which is removed from the system for repair, shall be replaced immediately with equal equipment capable of providing uninterrupted operation of the system as intended by design.
  10. Should at any time during the warranty period the installer fail to repair/replace equipment after being given reasonable notice from Owner to do so, he may be back charged for any costs incurred by the Owner for needed repairs which must be made by others.
- C. The following do not constitute valid warranty claims:
1. Vandalism to equipment
  2. Damage to the installed system because of work performed by others in the work area after Final Acceptance.
  3. Unauthorized use of the system after the installer's completion of winterization.

**3.14 REQUIREMENTS AT SUBSTANTIAL COMPLETION**

- A. At Owner's Representative's inspection for Substantial Completion the installer shall provide Owner's Representative with all of the following:
1. Reproducible full-scale Mylar as-built drawing.
  2. Black one inch size three-ringed binders, indexed and including the following type written data:
    - a) Warranty statement on installer's letterhead, including date of enactment, emergency contact name and phone number, and FAX telephone number if available.
    - b) Recommended routine and seasonal maintenance procedures.
    - c) Operating instructions for automatic controller.
    - d) Operating Schedule for the initial program entered into the controller at the time of inspection for Substantial Completion.
    - e) Copies of equipment warranties provided by manufacturers of products installed which are transferable to the Owner.
    - f) Statement of names and addresses of all local suppliers to the project from which replacement equipment can be obtained.

**3.15 BASIS OF PAYMENT**

- A. The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.
- B. Payment will be made under:

1 Inch Backflow Preventor	Ea
1 Inch Automatic Control Valve	Ea
7 Station Automatic Controller	Ea
Valve Box	Ea
1 Inch Manual Control Valve (Master)	Ea
1 Inch Gate Valve (Isolation)	Ea
1 Inch Flow Sensor	Ea
1 Inch Quick Coupler	Ea
Weather Station (Rain Sensor)	Ea
3/4 Inch Drip Zone Control Valve	Ea

Control Wire	LF
Drip Emitter Tubing	LF
Drip Emitter Tubing	Ea
1 Inch Plastic Pipe (mainline)	LF
2 Inch Plastic Pipe (sleeve)	Ea

- C. Kick blocks, unions, fittings, filter fabric, valve access sleeves, valve boxes, piping and wire inside boxes, keys and aggregate for valves will not be paid for separately, but shall be included in the work.
- D. Structure excavation and backfill including compaction and water will not be paid for separately, but shall be included in the work.
- E. Concrete pad, bolts, enclosure, ground wire, and all other items necessary to complete the work shall be included in the price of the automatic controller.
- F. Capillary tubing, tubing stakes, enclosure box and debris caps shall be included in the price of the drip emitter.
- G. System flushing and adjustment, pressure and coverage tests, maintenance manuals, and training will not be paid for separately but shall be included in the price of the work.
- H. The backflow preventer enclosure and pad will not be paid for separately, but shall be included in the work.
- I. Detectable underground marking tape will not be paid for separately, but shall be included in the work.
- J. Advisor message receiver pagers and hand held two-way radios will not be paid for separately, but shall be included in the work.
- K. Warranty work will not be measured and paid for separately, but shall be included in the work.

**END OF SECTION 32 80 00**