

SECOND AMENDATORY AGREEMENT

THIS SECOND AMENDATORY AGREEMENT is made and entered into this _____, day of _____, 2010, by and between the **CITY AND COUNTY OF DENVER**, a municipal corporation of the State of Colorado (the "City), and **PB AMERICAS, INC.** ("Design Consultant" or "Consultant"), a New York corporation authorized to do business in Colorado, whose address is 555 17th Street, Suite 500, Denver, CO 80202.

RECITALS:

1. The City and the Design Consultant entered into an Agreement dated April 14, 2009, which Agreement was amended by First Amendatory Agreement dated March 16, 2010 (jointly, the "Agreement"), for professional engineering and design services for the reconstruction of 14th Street between Market Street and Colfax Avenue (the "Project").
2. The parties wish to amend the Agreement as set out herein, to add additional funding and extend the term.

AGREEMENT:

In consideration of the premises and the mutual covenants and obligations herein set forth the parties agree as follows:

1. The Agreement is amended by adding a new section 2.10, Additional Services, to read as follows:

"2.10 Additional Services.

- (a) If the Design Consultant performs services in addition to its Basic Services, as a result of material changes in the Project or due to other circumstances beyond the Design Consultant's control, and if such services (1) are pre-approved in writing; (2) will not cause the total compensation payable to the Design Consultant to exceed the Maximum Contract Amount; and (3) are not occasioned by any neglect, breach or default of the Design Consultant, then the Design Consultant will be reimbursed its pre-approved cost for performance of such service(s).
- (b) Before providing any such services, the Design Consultant first shall file with the City, and secure the City's written approval of, a complete description of the proposed services including an estimate of the maximum cost of any and all such services, on the basis set out in Exhibits And B, of rates per hour, per day, or other basis of cost. Such description shall also include a statement from the Design Consultant that the maximum cost of such services will not cause the total amount payable to the Design Consultant under this Agreement to exceed the maximum contract amount. In no event shall any form of authorization or pre-approval of additional services be deemed valid or binding upon either the City or the Design Consultant if the maximum cost of such services would cause the aggregate amount payable under this

Agreement to exceed the maximum contract amount. Payment for additional services shall not, in any event, exceed the cost estimated by the Design Consultant and approved in writing by the City.

- (c) The cost of such additional service shall be deemed to be the lesser of the estimated maximum cost or:
 - 1. The actual time card cost of all design personnel including principal designer's time at the rates as set out in Exhibits A;
 - 2. The actual cost to the Design Consultant for other necessary outside services, such as structural, mechanical or electrical engineering performed by independent consultants; and
 - 3. The Design Consultant's actual reproduction cost for drawings.
- (d) The Design Consultant shall maintain an accurate and acceptable cost accounting as to all such additional expenses and shall make available to the City all records, canceled checks and other disbursement media to substantiate any and all requests for payment for additional services.
- (e) Payment to the Design Consultant for such additional services shall not, in any event, exceed the maximum additional services amount set forth in Section 3."

2. Section 3.01 of the Agreement is hereby amended to read in full as follows:

3.01 Fees.

(a) **Basic services.** The City agrees to pay the Design Consultant, as full compensation for its basic services rendered hereunder, a fee not to exceed **Two Million One Hundred Sixty-seven Thousand, Six Hundred Twenty-five and 15/100 Dollars (\$2,167,625.15)**, in accordance with the billing rates and project budget stated in Exhibits A and B. The amounts budgeted for phases and tasks may be increased or decreased, and the amounts allocated for services and expenses adjusted, upon written approval of the Manager or his designee, and subject to the Maximum Contract Amount stated in this Section 3.

(b) **Additional Services.** If pre-approved additional services are performed by the Design Consultant, the City agrees to pay the Design Consultant for such additional services in accordance with Section 2.08. The maximum amount to be paid by the City for all additional services under this contract is **One Hundred Twenty-five Thousand and No/100 (\$125,000.00).**"

3. Section 3.02 of the Agreement is amended to read in full as follows:

“3.02 Reimbursable Expenses Except for those reimbursable expenses specifically identified in Exhibit A or approved in writing by the City as reasonably related to or necessary for the Design Consultant’s services, all other expenses shall be included in the Consultant’s fee and will not be reimbursed hereunder. The maximum amount to be paid for all reimbursable expenses under this Agreement is **Twenty-four Thousand Nine Hundred Eight and 74/100 Dollars (\$24,908.74)** unless an additional amount is approved by the Manager or his designee in writing, subject to the Maximum Contract Amount stated herein. Unless this Agreement is amended in writing according to its terms to increase the Maximum Contract Amount, any increase in the maximum amount of reimbursable expenses will reduce the Design Consultant’s maximum fee amount accordingly.”

4. Section 3.05(a) of the Agreement is amended to read in full as follows:

“(a) Notwithstanding any other provision of the Agreement, the City’s maximum payment obligation will not exceed **Two Million Three Hundred Seventeen Thousand Five Hundred Thirty-three Dollars and Eighty-Nine Cents (\$2,317,533.89)** (the “**Maximum Contract Amount**”). The City is not obligated to execute an Agreement or any amendments for any further services, including any services performed by Consultant beyond that specifically described in Exhibit A. Any services performed beyond those set forth therein are performed at Consultant’s risk and without authorization under the Agreement.”

4. **Amendment of Section 4.01**: Section 4.01 of the Agreement is amended to read in full as follows:

“4.01 Term: The term of this Agreement shall commence on March 1, 2009, and shall expire, unless sooner terminated, on March 4, 2012.”

5. Section 5.19 of the Agreement is amended to read in full as follows:

5.19 NO EMPLOYMENT OF ILLEGAL ALIENS TO PERFORM WORK UNDER THE AGREEMENT:

a. This Agreement is subject to Division 5 of Article IV of Chapter 20 of the Denver Revised Municipal Code, and any amendments (the “Certification Ordinance”).

b. The Consultant certifies that:

(1) At the time of its execution of this Agreement, it does not knowingly employ or contract with an illegal alien who will perform work under this Agreement.

(2) It will participate in the E-Verify Program, as defined in § 8-17.5-101(3.7), C.R.S., to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.

c. The Consultant also agrees and represents that:

(1) It shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.

(2) It shall not enter into a contract with a subconsultant or subcontractor that fails to certify to the Consultant that it shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.

(3) It has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement, through participation in the E-Verify Program.

(4) It is prohibited from using the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under the Agreement, and that otherwise requires the Consultant to comply with any and all federal requirements related to use of the E-Verify Program including, by way of example, all program requirements related to employee notification and preservation of employee rights.

(5) If it obtains actual knowledge that a subconsultant or subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien, it will notify such subconsultant or subcontractor and the City within three (3) days. The Consultant will also then terminate such subconsultant or subcontractor if within three (3) days after such notice the subconsultant or subcontractor does not stop employing or contracting with the illegal alien, unless during such three-day period the subconsultant or subcontractor provides information to establish that the subconsultant or subcontractor has not knowingly employed or contracted with an illegal alien.

(6) It will comply with any reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S, or the City Auditor, under authority of D.R.M.C. 20-90.3.

d. The Consultant is liable for any violations as provided in the Certification Ordinance. If Consultant violates any provision of this section or the Certification Ordinance, the City may terminate this Agreement for a breach of the Agreement. If the Agreement is so terminated, the Consultant shall be liable for actual and consequential damages to the City. Any such termination of a contract due to a violation of this section or the Certification Ordinance may also, at the discretion of the City, constitute grounds for disqualifying Consultant from submitting bids or proposals for future contracts with the City.

6. Supplemental and/or Amended Exhibits:

(a) Exhibit A-2 attached to this Second Amendatory Agreement is hereby attached to and incorporated by reference into the Agreement. It is intended that Exhibit A-2 shall supplement and amend Exhibit A with respect to the tasks identified in Exhibit A-2.

(b) Exhibit B-3 attached to this Second Amendatory Agreement are hereby attached to and incorporated by reference into the Agreement. It is intended that Exhibit B-3 shall supplement and amend Exhibit B, with respect to the tasks identified in Exhibit B-3.

(c) All references in the Agreement to Exhibit A or Exhibit B shall be deemed to refer to such exhibits as amended and supplemented by Exhibit A-2 and Exhibit B-3, respectively.

7. **Existing Agreement:** Except as herein amended, the Agreement is not changed, and is affirmed and ratified in each and every particular.

[END OF PAGE]

The City and the Consultant have executed this Second Amendatory Agreement as of the day and year first above written.

CITY AND COUNTY OF DENVER

ATTEST:

STEPHANIE Y. O'MALLEY, Clerk and
Recorder, Ex-Officio Clerk of the
City and County of Denver

By: _____
JOHN W. HICKENLOOPER,
Mayor

RECOMMENDED AND APPROVED:

APPROVED AS TO FORM:
DAVID R. FINE, Attorney
For the City and County of Denver

By: _____
GUILLERMO VIDAL,
Manager of Public Works

By: _____
Assistant City Attorney

REGISTERED AND COUNTERSIGNED:

By: _____
Manager of Finance
Contract Control No. CE81086(2)

By: _____
DENNIS GALLAGHER, Auditor of the
City and County of Denver

"CITY"

PB AMERICAS, INC.

By: _____
Title: SR. PROJECT MANAGER
"DESIGN CONSULTANT"

EXHIBIT A-2
SCOPE OF SERVICES



*Parsons
Brinckerhoff*

555 17th Street
Suite 500
Denver, CO 80202
303-832-9091
Fax 303-832-9096

November 5, 2010 (rev December 2, 2010)

Michael Harmer, PE
Project Manager
City & County of Denver
Department of Public Works
200 W. Colfax Avenue
Denver, Colorado

Subject: Proposal for Construction Support Services (and Supplemental Construction Management and Inspection Services) - 14th Street, Market Street to Colfax Avenue

Dear Mike:

Parsons Brinckerhoff (PB) appreciates this opportunity to submit our proposal construction support services related to 14th Street, Market Street to Colfax Avenue. In summary, these services include construction observation, meeting attendance and technical support during the bidding and construction of this project. Construction management services have also been included within this proposal as an optional service as requested.

SCOPE OF SERVICES:

Our proposed Construction support services are shown in the attached Exhibit A-2 Scope of Services.

PROFESSIONAL FEES:

Since PB cannot control the bidding or construction timeline or processes, we are proposing to provide these services on an hourly basis, against an agreed construction support services budget for the consulting team. Therefore, our budget recommendation, shown in Exhibit B-3 – Professional Fees, includes assumptions for hours for our staff and our key sub-consultants against the following assumed schedule for this contract amendment.

TENTATIVE SCHEDULE:

The following is our assumed project schedule for completion of these services –

Construction Support Services (this contract)	December, 2010 – November, 2011
Substantial Completion (by contractor)	November, 2011
Close-Out Support Services	November, 2011 - January, 2012



November 5, 2010
(rev December 2, 2010)

Mike, please call me should you have any questions or comments regarding this proposal. We look forward to hearing from you soon.

Yours truly,
PB Americas, Inc.

James L. Price, PE
Senior Project Manager

CC: File

Attachments: Exhibit A-2 – Scope of Services
Exhibit B-3 – Professional Fees Spreadsheet

EXHIBIT A-2 CONSTRUCTION SUPPORT SERVICES

PB will provide the following Construction Support Services during the construction of 14th Street. Supplemental Construction Management and Inspection services are provided as part of this scope exhibit and have been listed as optional at the discretion of the City.

1.0 Pre-Construction Services

Pre-construction services include supplemental design services, design services at final design, meeting participation, and other coordination to be performed before and/or contractor mobilization.

1.1 Public Art Coordination (studioINSITE)

studioINSITE will work with the artist that is selected to provide the public art for 14th Street. The task will include coordination with the artist to insure seamless integration into the streetscape of 14th Street. As part of the scope the design team will:

- Attend one kickoff meeting
- Concept coordination and review with artist
- Stakeholder review and input (2 meetings)
- CCD and Downtown Denver Partnership review and input (2 meetings)
- Art installation coordination (3 meetings or site visits)

Assumptions / Exclusions:

- Modifications to final design are excluded.
- Reissuing any design drawings has been excluded.

1.2 Wayfinding Graphics (ArtHouse)

ArtHouse will create three (3) district identities to graphically identify the different blocks. The project team will facilitate the shooting of all final high resolution photos (based on existing designs). The final deliverable will include final high resolution files (cropped and color adjusted) for creation of the samples and final fabrication for handoff to the approved signage fabricator. The contractor will be responsible for final graphic production, print out, and installation of final graphics.

1.3 Utility Coordination (PB and Goodbee & Associates) (Bid Documents)

PB and Goodbee and Associates, as a sub-consultant to PB, provided additional utility support during final design with Qwest Local / Fiber and Comcast. The additional coordination was required due to conflicts with proposed trees and existing utility lines. Conflicts occur on the north side of 14th Street from Arapahoe Street to Curtis Street and Champa Street to Stout Street. Very little space exists for the relocations therefore studies and exhibits were prepared to support the relocation discussions with Qwest and Comcast. Actual hours have been used in Exhibit B for this task.

1.4 Bid Support Services (PB, studioINSITE, Clanton, ArtHouse, & Hydrosystems)

PB, studioINSITE, Clanton, and ArtHouse have provided support to the City during the bid process of the project. The scope includes response to questions of clarification from contractors and assisting the City in issuing addenda. PB led and coordinated the design team effort providing responses. Actual hours have been provided for this task in Exhibit B.

EXHIBIT A-2 CONSTRUCTION SUPPORT SERVICES

1.5 Structural Design of Extended Throat Inlet (PB) (Bid Documents)

PB provided structural design for the extended throat inlet required along various locations of 14th Street to avoid conflicts with existing utilities. Services were provided at final design. PB included a structural design drawing in the construction document package that was sealed by a structural engineer. Actual hours have been used in Exhibit B for this task.

1.6 Stout / California Light Rail Safety Improvements (Service provided at final design)

PB worked with the City and County of Denver (CCD) TES, the Downtown Denver Partnership (DDP), and RTD to provide safety improvements at the pedestrian sidewalk crossings at Stout and California Street. Actual hours have been used in Exhibit B for this task, an additional 12 hours has been added for final design revisions post bid. As part of the scope PB provided the following:

- Coordination with CCD TES, DDP, and RTD
- Preparation of a concept design
- Coordination of design with CCD, RTD, and the Downtown Denver Partnership
- Revisions to the concept and final design
- Construction document and specifications for the final design.
- PB has estimated that there will be an additional 12 hours need for revisions to the final plans and on-going coordination with RTD and Denver TES.

2.0 Construction Support Services

Construction support services will be provided from the notice to proceed to substantial completion and final acceptance. Fees are shown in Exhibit B and are based on a 240 working day construction period.

2.1 Response to Contractor's Request for Information (PB, studioINSITE, Clanton, ArtHouse, & Hydrosystems)

The PB team will assist the City in providing clarification of construction documents and coordination with the contractor during the construction process. We anticipate that the contractor will contact the design team and will require immediate coordination and response. The design team will also assist the City in developing written responses to the Contractor's RFI's. PB has assumed that 200 hours will be necessary to perform this task.

Assumptions / Exclusions:

- It has been assumed that 8 site visits total (PB and studioINSITE) outside of the scope of other tasks within this proposal will be required onsite to provide clarification of the design intent. We have anticipated that each meeting with preparation will last 2 hours

2.2 Utility Coordination (PB, Goodbee and Clanton)

PB, Goodbee and Associates, and Clanton, as a sub-consultants to PB, will provide on-going coordination with franchise utility companies regarding the adjustment or relocation of their facilities. Clanton will also provide coordination with Xcel for private lighting coordination. We have assumed 72 hours for utility coordination.

2.3 Construction Observation – Curb, Gutter, Paving, & Wet Utilities (PB)

PB will provide field observations during significant construction activities to verify design intent. This task will include observation of curb and gutter installation, asphalt patching, asphalt

EXHIBIT A-2

CONSTRUCTION SUPPORT SERVICES

paving, concrete patching, as well as asphalt overlay activities. Observation by PB will be in coordination with the City's inspector. PB has estimated 28 hours will be needed to complete this task.

2.4 Construction Observation - Hardscape , Stone, & Lighting (studioINSITE & Clanton)

The studioINSITE and Clanton will provide weekly field observations during significant construction activities. This task will include observation of street lighting pedestrian scale lighting, accent lighting, sidewalk, sidewalk scoring, paver grates, stone pavers, unit pavers, site furnishing, stone curb, stone site furnishing and other streetscape elements. PB has estimated that 147 hours will be required to complete this task.

2.5 Construction Observation - Landscape / Planting / Irrigation (studioINSTIE, Hydrosystem)

The studioINSITE and Hydrosystem will provide weekly field observations during significant construction activities. This task will include observation landscape elements including trees, shrubs, and other plantings. Observation will also be provided for the installation of construction. PB has estimated that 77 hours will be required to complete this task.

2.6 Shop Drawing Review (PB, ArtHouse)

The PB and ArtHouse will review the following structural shop drawings and calculations from the Contractor. The following shop drawing submittals are anticipated:

- Inlet / manhole modification shop drawings / calculations
- Corner Monument foundation shop drawings / calculations
- Corner Monument shop drawings / calculations
- Lighting foundation shop drawings / calculations

PB has assumed 70 hour will be required to complete this task.

2.7 Material Submittal Review (PB, studioINSITE, ArtHouse, Clanton, & Hydrosystem)

The design team will assist the City in the review of material submittals from the Contractor. The following submittals are anticipated:

- Asphalt Paving Mix (patching and SMA mixes)
- Concrete Mixes
- Lighting
- Corner Monument
- Irrigation

2.8 Material Submittal Review - Tree Nursery Visit (studioINSITE)

Key members from studioINSITE will make three (3) visits to the nursery that has been selected by the Contractor to confirm the quality of trees to be planted within the project.

Assumptions / Exclusions:

- The nursery will be located within a 60-mile radius from the project site.
- We assume that a total of 3 visits (1 person) to the nursery will be required.

EXHIBIT A-2 CONSTRUCTION SUPPORT SERVICES

- It has been assumed that each visit will be 5 hours including travel and preparation time.

2.9 Material Testing (Yeh & Associates)

Yeh and Associates will provide material quality control (QC) for the project materials. The test frequency will follow the MGPEC construction specifications as well as their strength requirements. QA will be provided for the following construction items:

Subgrade Density Testing (removals):

Yeh will provide a total of **116** subgrade density tests during removals of materials on site. Test will be provided for every 200 LF of pipe removal and 1 test per 250 square yards of asphalt and concrete removal. One density test and R-value test will be provided for removal of 200 square yards of unclassified excavation and replacement of aggregate base course within the project.

Asphalt Pavement Testing:

Yeh will provide **15** density, gradation, percent asphalt concrete, and void tests on the asphalt pavement to be install within the project. One test will be provided for every 250 lane feet.

Concrete Pavement Testing:

Yeh will provide **29** air entrainment, slump, and cylinder test will be provided for the concrete. One test will be provided for every 200 cubic yards of concrete poured plus air and slump test on the each of the first 3 trucks.

Concrete Pavement Testing (Intersections):

Yeh will provide **27** air entrainment, slump, and cylinder test will be provided for the concrete. One test will be provided for each pour. Yeh assumes that there will be four (4) pours per intersection at the 10 intersections that will be replaced.

Pipe Trench / Inlet / Manhole Fill Density Test :

Yeh will provide **27** soil density tests will be provided for the fill in the storm sewer pipe trench constructed with the project. One test will be provided for every 100 feet of pipe installed.

Certification Documents:

Yeh will collect and compile certification of manufactured products that are to be installed in the project.

Assumptions / Exclusions:

- Testing of warm mix asphalt has been excluded

2.10 Meeting Participation

The consulting team will participate in the following meetings:

Construction Meetings

Our staff will attend meetings with the contractor during construction of the project. We will assist in the preparation of meeting minutes for the content of the meeting, and for

EXHIBIT A-2

CONSTRUCTION SUPPORT SERVICES

follow up on critical issues requiring written clarification. It is assumed that each meeting with preparation time is 2-hours. We have assumed 60 hours for this task

3.0 Additional Services

This task is for additional or unanticipated services approved in writing by the Project Manager in advance of services to be performed by the Design Consultant. The maximum amount to be paid by the City for all additional services under this contract is \$125,000.

4.0 Project Closeout

The following services will be provided after substantial completion:

4.1 Punch List (PB, studioINSITE, Clanton, Hydrosystems, & ArtHouse)

The PB team will walk the project with the City's inspector to determine final work scope and adjustments that need to be addressed as part of the contractor's "punch list" prior to acceptance by the City or 14th Street General Improvement District improvements.

4.2 Warranty

Members of the project team will support City staff in acceptance of improvements and verification of warranty.

4.3 As-built Drawings (PB, Clanton, & Hydrosystems)

The PB team will collect final redline drawings from the contractor and draft the final record drawings for the irrigation and lighting plans. The only field survey to be provided as part of this task will be the location of new storm inverts installed as part of the project. PB will also provide survey shots (x, y, rim, and invert) for the storm sewer that will be constructed. PB will provide as-built drawings per Denver Wastewater Standards and will be sealed by a licensed professional engineer.

5.0 Miscellaneous Support Services

The following Miscellaneous construction support services will be provided during construction.

5.1 Project Management / Sub-Consultant Management / Administration (PB)

PB will provide project management services for the project. Services will include project setup and administration, coordination with the City's project manager and Sub-Consultant management and administration.

5.2 Public Outreach (CRL)

CRL, as a subconsultant to PB, will work in close coordination with the Contractor, the City and County of Denver Public Works Department, and the Downtown Denver Partnership to insure proper outreach is provided to property owners, business owners, and residents who will be impacted by the construction of the project.

Outreach will be provided in two 'levels'. The first is 'universal', referring to outreach to stakeholders for the entire 12 block project. The second is 'impacted sections', referring to focused outreach to specific 'sections' of 14th prior and during actual construction.

EXHIBIT A-2 CONSTRUCTION SUPPORT SERVICES

Universal Outreach

Newsletters

Four (4) newsletters will be created throughout the 1 year duration of construction. These newsletters will be delivered to the 12 block stretch of 14th street via e-mail and providing hard copies at key locations along the corridor.

Newsletters will contain:

- Project progress
- Construction schedule
- Upcoming street lane and sidewalk closures
- Notice of planned night time construction (as applicable)
- Photos of completed sections
- Contact numbers for questions, concerns, etc

E-mail updates

A database already exists for property owners along the corridor, this database will be expanded whenever possible to include business owners, general managers, residents, etc. E-mail updates will be used to provide timely information, for example in case of an unexpected change in schedule.

Websites

Newsletters and other key information will be posted on the City and County of Denver website and the Downtown Denver Partnership website to provide another vehicle for information gathering by the public.

Construction Workers

CRL will work with the selected general contractor to provide talking points for workers on the street in case they are contacted by someone regarding the construction project, including referral to appropriate contact people to answer questions and alleviate concerns.

Impacted Sections

Pre-Construction Meeting:

Prior to construction beginning in specific 3-block segments outreach will be more in-depth to those likely to be impacted or receive complaints. Including:

- An open house to provide information relative to the likely impacts from construction. Invitees to include property owners, business owners, general managers, residents, and other 14th street users.
- CRL will also offer to provide 'pretty pictures' for display in businesses, hotels, lobbies, etc... to show how the project will look at completion. This will help create a positive 'spin' to help endure the inconveniences of construction.

On-going Construction

CRL will coordinate distribution of information throughout the construction phase for each section as necessary.

5.4 Greenroads Sustainability Program Certification (PB)

PB will coordinate with the Contractor and the City to provide all required documentation for the Greenroads certification. PB will also complete the documentation and prepare the certification package for submittal to Greenroads.

EXHIBIT A-2 CONSTRUCTION SUPPORT SERVICES

Below is a list of credits that will require coordination between PB and the Contractor. PB will work with the contractor to assure that all documentation has been provided and is in the required format for submittal for Greenroads certification.

PR-4: Quality Control Plan (2 hours)

Contractor Requirement: Contractor to establish, implement, and maintain a formal construction Quality Control Plan (QCP). The QCP must address the following quality control elements:

1. Key quality control personnel, their responsibilities, and their qualifications.
2. Procedures used to control quality during construction including (as a minimum):
 - a. Items to be monitored
 - b. Testing to be done (including testing standards and frequency)
 - c. When corrective action is required (action limits)
 - d. Procedures to implement corrective action

The QCP should cover all of construction, not just paving. The contractor must submit a QCP before construction begins and it must be approved by the City.

PR-5: Noise Mitigation Plan (4 hours)

Contractor Requirement: Contractor to establish, implement, and maintain a formal Noise Mitigation Plan (NMP) during construction for the prime contractor.

Required Documentation:

- Copy of the Noise Mitigation Plan.
- A copy of any applicable noise permits, or agency or local authority noise policies (a live hyperlink to any large policy documents is sufficient).

CA-4 Fossil Fuel Reduction (4 hours)

Contractor Requirement: Reduce the fossil fuel requirements of the nonroad construction equipment fleet by 15% through the use of biofuel or biofuel blends as a replacement for fossil fuel.

Required Deliverables:

1. A signed letter from the prime contractor that describes the fossil fuel use reduction measures used and the percentage reduction achieved.
2. A spreadsheet summarizing all receipts for all fuel used in nonroad equipment for the project. The spreadsheet should indicate (and receipts should show) associated biofuel blend (e.g., B5, B20, B100) used.

CA-8 Contractor Warranty (2 hours)

Contractor Requirement: The project construction contract shall include, as a minimum, a 3-year warranty for constructed portions of the pavement structure to include surfacing (e.g., hot mix asphalt, portland cement concrete, etc.) as well as any underlying layers (e.g., granular base material). Other items may also be included in the warranty but are not required to be for this credit.

The terms of the warranty shall be defined by the owner and may include contractor input if desired. As a minimum, the contractual warranty clause shall include:

EXHIBIT A-2 CONSTRUCTION SUPPORT SERVICES

1. Definition of what product(s) are warranted.
2. Length of the warranty period.
3. Responsibilities of the owner.
4. Responsibilities of the contractor.
5. Responsibility for maintenance.
6. Conflict resolution process.
7. Performance indicators and associated threshold levels that require corrective action by the contractor.
8. Requirements for corrective action.
9. Basis of payment.

Submittal Documentation: The City and County of Denver Public Works Department requires that the Contractor's warranties and guarantees are for a three year period. Title 18 (Section 1801, Page 143) of the City and County of Denver's General Contract Conditions states that:

The Contractor's warranties and guarantees for all Work components shall continue for the following periods: For Contracts executed under the authority of the Manager of Public Works, for a period of three (3) years after the date of Final Inspection for Work performed within the Public Right-of-Way or permanent easements held by the City, or for a period of one (1) year after the date of Substantial Completion for Work constructed outside of the Public Right-of-Way, in accordance with GC 1902, or for such longer period of time as may be prescribed by the terms of any special warranties and guarantees required by the Contract Documents. (Refer to the **Appendix** for the City's General Contract Conditions).

PR-9: Pavement Management System (2 hours)

Requirement: Have a pavement management system in effect for the project pavement.

Documentation: The City and County of Denver has a system in place for pavement management. It is the dTims CT produced and managed by Deighton Associates in Toronto, Ontario, Canada. Contractor must follow this system.

EW-1: Environmental Management System (2 hours)

Requirement: The general contractor, design-builder or construction management firm shall have a documented environmental management system (EMS) for the entire company or at least the portion(s) of the company participating in the project. The EMS must be in place for the duration of project construction. As a minimum, the EMS and its documentation shall meet the requirements of International Standards Organization (ISO) 14001:2004.

CA-1: Quality Management System (2 hours)

Requirement: The general contractor, design-builder or construction management firm shall have a documented quality management system (QMS) for the entire company or at least the portion(s) of the company participating in the project. The QMS must be in place for the duration of project construction. As a minimum, the QMS and its documentation

EXHIBIT A-2
CONSTRUCTION SUPPORT SERVICES

shall meet the requirements of International Standards Organization (ISO) 9001:2008 or ISO 9001:2000.

EXHIBIT B-3

Work Hour Estimate

WORK ACTIVITY	Jim Daves	Jamie Pr	Yeh & Assoc.		Goodbee & Assoc.	Art House Design		Hydro-systems	Subtotal Task
	PIC	Sr. Proj. Managt	Tech	Expense	Engineer	Principal	Sr. Designer	Sr. PM	
CONSTRUCTION SUPPORT SERVICES									
1.0 Pre Construction Services									
1.1 Public Art Coordination									\$56,344
1.2 Wayfinding Graphics		4							\$10,285
1.3 Utility Coordination		2				24	95		\$13,598
1.4 Bid Support Services		4			61				\$11,642
1.5 Extended Throat Inlet Structural Design		4					4	3	\$6,387
1.6 Stout / California LRT Safety Design									\$2,873
2.0 Construction Support Services									
2.1 Response to Contractor's RFI									\$11,060
2.2 Utility Coordination		4				2	10	20	\$25,928
2.3 Const. Observation Curb / Gutter / Paving / Wet Utility		8			53				\$15,721
2.4 Const. Observation Hardscape / Stone / Lighting		4							\$4,367
2.5 Const. Observation Landscape / Irrigation						2	7		\$18,690
2.6 Shop Drawing Reviews								24	\$12,986
2.7 Material Submittal Review							5		\$11,580
2.8 Material Review - Tree Nursery Visit							8	3	\$3,490
2.9 Material Testing (Yeh and Associates) Quality Control			994	\$ 3,515					\$2,025
2.10 Construction Meetings									\$73,255
2.10A Pre-construction Meetings					5	2	3	6	\$5,048
2.10B Construction Meetings		2						2	\$18,207
3.0 Additional Services									
4.0 Project Closeout									
4.1 Punch List						4	14	36	\$19,363
4.2 Warranty		4					8	8	\$3,885
4.3 As-Built Drawings								34	\$10,194
5.0 Misc. Construction Support									
5.1 Project Management / Admin / Sub-Consultant Mgmt		60							\$65,448
5.2 Public Outreach									\$28,052
5.3 Greenroads Sustainability Program Certification (Optional)		2							\$25,096
5.3A Contractor and CCD Coordination									\$1,294
5.3B Final Certification Submittal									\$10,004
SUBTOTAL (HOURS)	0	100	994	3515	120	34	164	136	
RATE (LABOR)	\$87.31	\$83.2	1	1	1	1	1	1	
SUBTOTAL (LABOR)	\$0.00	\$8,321	\$65.00	1	\$100.00	\$150.00	\$100.00	\$90.00	
RATE (LABOR+OVH+PROFIT)	\$261.06	\$248.2	\$64.610	\$3,515	\$11,965	\$5,100	\$15,400	\$12,240	
SUBTOTAL (LABOR+OVH+PROFIT)	\$0	\$24,810	\$64,610	\$3,515	\$11,965	\$5,100	\$15,400	\$12,240	
Total									
Construction Support Services \$		\$205,793		\$73,255			\$20,500		
Additional Services \$		\$125,000							
Material Testing \$		\$73,255							
Design \$		\$56,344							
Greenroads \$		\$11,298							
TOTAL (All Items) \$		\$471,691							
Total (D/M/W BE) \$		\$99,790							
D/M/W BE %		21%							