

AMENDMENT NO. 5

CONTRACT NO. 30002215

FOR

SW 86TH AVENUE PUMP STATION AND APPURTENANCES

This Contract was made and entered by and between Brown and Caldwell, hereinafter called Contractor, and the City of Portland, a municipal corporation of the State of Oregon, by and through its duly authorized representatives, hereinafter called City.

1. Additional compensation is necessary and shall not exceed \$316,194. The amended not-to-exceed contract amount is \$3,412,374.
2. Additional work is necessary as described in the modifications to the Scope of Work as follows:

PROJECT E09051 SW 86th Avenue Pump Station and Appurtenances**E09051 – Task 1.0 Project Management**

Additional work and compensation are required to complete the Project Management task due to the additional work beyond the currently approved scope, and as described below by project task.

E09051 – Task 2.0 Basis of Final Design

Reduce the completed Task 2.0 authorized budget amount to the actual costs incurred, and transfer the remaining budget amount to Task 6.0 Services during Construction.

E09051 – Task 3.0 Permitting and Public Outreach

Reduce the Task 3.0 authorized budget amount to the actual costs incurred to date, and the anticipated level of effort required in this project task to complete public outreach activities during the construction and startup/closeout phases of the project.

Coordinate required permitting by Washington County and Clean Water Services (CWS) associated with the restoration of the Fanno Creek Trail from SW 90th to the Fanno Creek Bridge as required by the Obligations Agreement between the City and Tualatin Hills Park and Recreation District (THPRD).

Portions of the project are adjacent to the 100-year floodplain of Fanno Creek, and areas mapped as wetlands and significant natural resources. CWS has design requirements for storm and surface water management related to water quality Sensitive Areas and Vegetated Corridors. The

provisions in Chapter 3 Sensitive Areas and Vegetated Corridors are intended to prevent or reduce adverse impacts to the drainage system and water resources of the Tualatin River Basin. CWS requires the preparation of a Natural Resource Assessment to document existing conditions, resource impact assessment, and mitigation. ESA VA shall produce one Natural Resources Assessment Report using current CWS reporting requirements. This report shall be provided to BES for submittal to CWS for obtaining a Service Provider Letter.

Sensitive Natural Resource areas are mapped along the corridor at Vista Brook Park and the pond. It is assumed that no trees will need to be removed. If trees do need to be removed, it will require a Type II tree removal permit from Washington County. Preparation of a Type II Tree Removal Permit is currently outside this scope of services. Assistance with preparing the application would require an amendment to this scope of services.

ESA VA will attend one on-site coordination meeting with the THPRD arborist.

Transfer the remaining budget amount to Task 6.0 Services during Construction.

Additional E09051 – Task 3.0 Assumptions:

- Trail repaving will not require a Washington County Land Use Review
- An Alternatives Analysis will not be required to support the Service Provider letter Application
- The proposed work is outside of the Fanno Creek floodplain and a Land Use Permit is not required

Additional E09051 – Task 3.0 Deliverables:

- Natural Resource Assessment

E09051 – Task 4.0 Final Design

Reduce the completed Task 4.0 authorized budget amount to the actual costs incurred, and transfer the remaining budget amount to Task 6.0 Services during Construction.

E09051 – Task 5.0 Services during Bidding

Reduce the completed Task 5.0 authorized budget amount to the actual costs incurred, and transfer the remaining budget amount to Task 6.0 Services during Construction.

E09051 – Task 6.0 Services during Construction

Additional work and compensation are required to complete Task 6.0. The construction contractor, as allowed by the construction contract documents, proposed and after detailed review the Owner's Representative accepted changes to significant elements of the work

required in the project. Those construction contractor proposals require additional review and coordination effort from the Contractor, including:

- Changing the installation method for the 66-inch gravity sewer influent by to a single-pass microtunnel method without a casing pipe requiring 3 rounds of review by Contractor
- Changing the configuration of the interior concrete at the caisson to accommodate the changed influent pipe installation method requiring 2 rounds of review, coordination, and extensive concrete redesign by Contractor
- Changing the planned construction method for the excavation of materials inside the concrete caisson by using a complex dewatering system rather than excavation in the wet requiring 3 rounds of submittal review plus 2 additional review cycles during tremie concrete placement
- Installation of the influent diversion manhole structure required additional coordination and redesign to accommodate the configuration of the existing influent pipe from the Fanno Creek Interceptor, which was significantly different than what was depicted on the “as-built” drawing for that pipeline, which was the basis of the design shown in the contract documents.

Increased levels of effort are also required to address, and coordinate design solutions for other construction issues that have been encountered, including:

- During the installation of the concrete caisson structure the final depth exceeded the installation tolerance, and the final elevation was significantly lower than the planned elevation, which required Contractor to coordinate and redesign the mezzanine level supporting concrete, and top slab connection.

In addition, several key items of work have required extensive submittal review cycles which have significantly exceed the level of effort negotiated for the original Task 6.0 budget, which based on a maximum of two resubmittals as per contract specification 01 33 00 – 1.03.S. Additional efforts include, but are not limited to:

- Custom pump manufacturer designed two-stage pumps and associate motor supports
- Replacement submersible pumps for the existing Fanno Basin (FABA) PS
- Sump pump system submittals for the project
- The surge tank control system
- Seal water pumps.

- Surge tank recirculation chopper pumps
- Large diameter metal seated ball valves
- Large diameter steel pipe.
- Floor hatches
- Centrifugal fans
- Slide gates

Other construction issues that required unanticipated and significant additional design support include, but are not limited to:

- Analysis required to address errors in placement of roof beam support connections at the masonry walls of the electrical building.
- Extensive reviews of mechanical building reinforcing shop drawings after witnessed discrepancies in placement that required rework on previous buildings.
- Calculation of adequacy of under-strength CMU block in the walls of the compressor building.
- Unanticipated additional site visits to discuss urgent or time-sensitive RFIs regarding reinforcement placement.

In order to comply with a portion of the terms of an obligation agreement between BES and THPRD for temporary and permanent easements, Contractor shall prepare a plan and details for a screen wall around MH AMN802. Effort shall include preparation of concept sketches for review by THPRD and construction details for use by the construction contractor.

Additional E09051 – Task 6.0 Deliverables:

- Screen wall plan and design details

E09051 – Task 7.0 Services during Startup/Closeout

No changes

E09051 – Task 8.0 FABA Submersible Pump Replacement

Reduce the completed Task 8.0 authorized budget amount to the actual costs incurred, and transfer the remaining budget amount to Task 6.0 Services during Construction.

E09051 – Task 9.0 FABA PS FM – Hydraulic Surge Tank

Reduce the completed Task 9.0 authorized budget amount to the actual costs incurred, and transfer the remaining budget amount to Task 6.0 Services during Construction.

E09051 – Task 10.0 Garden Home FM Repairs

No changes

E09051 – Task 11.0 Fanno Creek Trail Restoration

Prepare plans and specifications for the restoration of the Fanno Creek Trail from SW 90th to the Fanno Creek Bridge as required by the Obligations Agreement between the City and THPRD.

The major items of work that are to be included in this Task are:

1. **Survey Coordination.** Review the available base survey data for the project. Staff will make one trip to the project site to collect additional location data describing trail access from the park, existing overhead lines, and trees that may need to be removed. The location of these elements will be recorded using a Trimble GPS unit.
2. **Coordination with THPRD and CWS.** Attend three coordination meetings, one with CWS and two with THPRD to discuss potential impacts, mitigation, and revegetation.
3. **Initial Review Documents.** Prepare draft construction documents for the trail restoration work. Plans will be developed to meet THPRD's trail design standards and CWS standards for development. Also develop revegetation plans for disturbed areas due to construction activities and will incorporate on-site mitigation design for impacts to the vegetative corridor and Significant Natural Areas (SNA) into the revegetation plans. Mitigation, if needed, will be developed to meet Section 3.08.2 CWS's Design and Construction Standards (Appendix C, Resolution and Order 04-9). The mitigation design tasks are meant to specifically address required on-site mitigation elements as required by CWS. Any mitigation or revegetation along the trail will need to be approved by THPRD.

Mitigation requirements for impacts to the vegetated corridor and the SNA are assumed to be limited as no trees are proposed or known to be required to be removed. The preliminary sheet list includes the following:

- Cover (1 sheet)
- General Notes (1 sheet)
- Existing Conditions / Demo Plan (2 sheets)
- Traffic Control Plan (1 sheet)
- Layout / Materials Plan (2 sheets)
- Trail Details (2 sheets)
- Erosion Control Plan (2 sheets)
- Erosion Control Details (1 sheet)
- Planting Plan (2 sheets)
- Plant Schedule (1 sheet)
- Planting Details (1 sheet)

Attend up to three coordination meetings with BES to discuss the project.

4. **Final Review Documents.** Respond to comments from THPRD, CWS and BES review of the initial review drawings, specifications, and cost estimate and prepare approximately 100% complete drawings, specifications, and cost estimate. Any permit conditions received from the agencies will be incorporated into the design. Attend two coordination meetings during this phase.
5. **Construction Documents.** Respond to comments from BES review of the final review drawings, specifications, and cost estimate and prepare construction drawings, specifications, and cost estimate. The plans and specifications will be stamped by a licensed and registered Oregon Landscape Architect or Professional Engineer as required. Any additional permit conditions received from the agencies will be incorporated into the design.

E09051 – Task 11.0 Assumptions:

- The Construction Documents will be used to execute a Change Order with the existing SW 86th Avenue Construction Contractor
- THPRD's arborist will provide input on which trees will need to be removed to install the root barrier

E09051 – Task 11.0 Deliverables:

- Initial Review drawings and Cost Estimate (PDF copies)
- Final Review drawings, specifications, and Cost Estimate (PDF copies)
- Construction Documents including:
 - One full-sized set of sealed and signed drawings
 - One camera-ready set of sealed and signed specifications
 - Cost estimate

The payment schedule is revised as follows:

Payment Schedule – Project & Project Task Budget Adjustments

Task #	Task Name/Description	Current Budget Amounts	Amendment No. 5 Amounts	Adjusted Task Budget Amounts
1.0	Project Management	\$112,800	\$7,280	\$120,080
2.0	Basis of Final Design	\$32,751	-\$18	\$32,733
3.0	Permitting and Public Outreach	\$340,200	-\$12,280	\$327,920
4.0	Final Design	\$1,705,145	-\$9,837	\$1,695,308
5.0	Services During Bidding	\$25,210	-\$65	\$25,145
6.0	Services During Construction	\$285,302	\$334,325	\$619,627
7.0	Services During Startup/Closeout	\$116,472	\$0	\$116,472
8.0	FABA Submersible Pump Replacement	\$93,500	-\$17,752	\$75,748
9.0	FABA PS FM Hydraulic Surge Tank	\$264,300	-\$6,039	\$258,261
10.0	Garden Home FM Repairs	\$120,500	\$0	\$120,500
11.0	Fanno Creek Trail Restoration	\$0	\$20,580	\$20,580
TOTALS		\$3,096,180	\$316,194	\$3,412,374

3. M/W/ESB Participation:

The following table summarizes the Contractor's amended M/W/ESB subconsultant participation

Subconsultant	M/W/ESB Certifications	Scope/Type of Work	Current Subcontract Amounts	Amendment No. 5 Amended Subcontract Amounts
Greenbusch Group	WBE	Acoustical Engineering	\$26,835	\$26,835
JLA Public ¹ Involvement	DBE/WBE	Public Involvement	\$84,000	\$57,500
MEC Electrical Engineering	ESB	Electrical CADD	\$142,340	\$142,340
Shur Architects	ESB	Architectural Design	\$183,542	\$188,542
Superelevation	DBE/MBE/ESB	CADD	\$169,160	\$169,160
Vigil-Agrimis ²	DBE/MBE	Civil Design and Permitting	\$497,860	\$497,860
M/W/ESB Total Amounts			\$1,103,737	\$1,082,237
Amended Contract Amounts			\$3,096,180	\$3,412,374
M/W/ESB Percentage of the Amended Contract Amounts			35.7%	31.7%

¹JLA Public Involvement contract has been reduced as BES staff have taken on many of the scope items originally assigned to JLA.

²Vigil-Agrimis was purchased by Environmental Science Associates in June 2013 and as a result, ESA Vigil-Agrimis, no longer qualifies as a DBE/MBE. Their contract amounts are shown on this table as they did qualify when their contract for this work was authorized. Additional work for ESA Vigil-Agrimis is part of this Amendment, but is not included in this table.

All other terms and conditions shall remain unchanged and in full force and effect.

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Contract Title: SW 86th Avenue Pump Station and Appurtenances

This contract amendment may be signed in two (2) or more counterparts, each of which shall be deemed an original, and which, when taken together, shall constitute one and the same contract amendment.

The parties agree the City and Contractor may conduct this transaction by electronic means, including the use of electronic signatures.

BROWN AND CALDWELL

By:  Date: 2-2-15

Name: Bryan K. Paulson

Title: Vice President

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CITY OF PORTLAND SIGNATURES:

By: n/a Date: _____
Bureau Director

By: n/a Date: _____
Purchasing Agent

By: _____ Date: _____
Elected Official

Approved:

By: _____ Date: _____
Office of the City Auditor

Approved as to Form: **APPROVED AS TO FORM**

By: [Signature] Date: 2/9/15
Office of City Attorney
CITY ATTORNEY