

January 3, 2012

REPORT TO COUNCIL

TO THE COMMISSIONER:

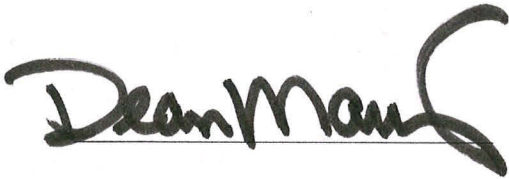
Transmitted herewith is the Certificate of Completion, Progress Payment No. 40 Final, Acknowledgement, Release, and Certification (ARC), Maintenance Bond (MB), Final Quantity Agreement, and Final Report with Moore Excavation, Inc., Project No. E08294, Contract No. 30001048.

Notice to Proceed was issued on January 28, 2010 with a contract length of 263 days. The Contractor completed the work on November 23, 2011, within the revised contract time.

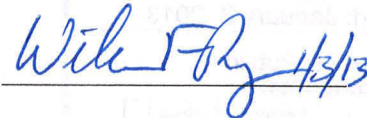
Change Orders 1 through 3 and 5-13 increased the contract amount by \$2,280,037.46 and the contract time by 402 days.

Ordinance No's 184668 on June 15, 2011 and 185517 on July 25, 2012 (attached) were passed by Council to authorize an increase in BES's extra work authority to 45.33 % over the original contract amount, or \$7,340,750.34.

The amount to be paid on Progress Payment No. 40 Final is the retainage withheld for the length of the project, \$5,000.00.



Dean Marriott
Bureau Director



William Ryan
Chief Engineer

TO THE COUNCIL:

The Commissioner of Public Affairs concurs with the above report, and

RECOMMENDS

That the Council approve the Certificate of Completion, accept the ARC, the MB, the Final Quantity Agreement, the Final Report, and the project, and authorize payment of Progress Payment No. 40 FINAL.

Respectfully submitted,

Dan Saltzman
Commissioner of Public Affairs

ORDINANCE No. 184668

Amend contract with Moore Excavation, Inc. for additional work and compensation for Fanno Basin Pump Station Force Main: Multnomah Section Project No. E08294 (Ordinance; amend Contract No. 30001048)

The City of Portland ordains:

Section 1. The Council finds:

1. Moore Excavation, Inc. (MEI) was constructing the Fanno Basin Pump Station Force Main: Multnomah Section project under Contract No. 30001048, with an amended expiration date of April 18, 2011.
2. During the course of construction, many utility conflicts, changed or extra items of work were identified. The largest of these were for relocation of over 3000 linear feet of 12" water line to meet the requirements of OAR 333 by maintaining proper separation between the water and sewer pipes [approximately \$850,000]; grinding and repaving Multnomah Boulevard full width from SW 45th to SW 31st, at the request of PBOT [approx. \$650,000]; and thousands of additional flagger hours necessary to efficiently move the public through the approved traffic detour during force main and water line construction [approx. \$420,000].
3. The amount of changed and extra work brings the contract value to \$7,309,727.35, or 145 % of the original contract value. Consequently, additional change order authority is necessary to compensate MEI for the amount of the overage that exceeds 25% of the original contract value.
4. The estimated cost is \$986,311.25. Funds are available in the Sewer System Operating Fund, FY 10-11 Budget, Bureau of Environmental Services, WBS Element E08294.

NOW, THEREFORE, the council directs:

- a. The Director of the Bureau of Environmental Services or designee is authorized to execute change orders to amendment to Contract No. 30001048 with Moore Excavation, Inc. for the purpose and amount described in Section 1, up to a revised contract amount of \$7,309,727.35.
- b. The Mayor and Auditor are hereby authorized to draw and deliver warrants chargeable to the Sewer System Operating Fund Budget when demand is presented and approved by the proper authority.

Passed by the Council, JUN 15 2011
Dan Saltzman
Commissioner of Public Affairs

Mark Hutchinson
May 23, 2011

E08294 - ord

LaVonne Griffin-Valade
Auditor of the City of Portland

By 

Deputy

ORDINANCE No. 185517

Amend contract with Moore Excavation, Inc. for additional work and compensation for Fanno Basin Pump Station Force Main: Multnomah Section. Project No. E08294 (Ordinance; amend Contract No. 30001048)

The City of Portland ordains:

Section 1. The Council finds:

1. Moore Excavation, Inc. (MEI) was constructing the Fanno Basin Pump Station Force Main: Multnomah Section project under Contract No. 30001048, with an amended expiration date of November 24, 2011, and contract amount of \$5,050,951.00
2. During the course of construction, many utility conflicts, changed or extra items of work were identified. This required the contractor to address them, in order to complete the work. This included removing approximately 3,300 linear feet of 10" water main and replacing it with 12" pipe in order to meet the requirements of OAR 333. Extra work also included grinding and repaving Multnomah Boulevard from SW 45th to SW 31st at the request of PBOT. In order to pay for this extra work, Ordinance No. 184668 (attached) was approved by Council and increased the Contract to \$7,309,727.35.
3. During the course of performing the extra work detailed in Ordinance No. 184668, completion of these items required additional bid item quantities and exceeded the estimated quantity. The number of Flaggers Hours required to do the extra work and the quantity of pavement that had to be ground down and repaved were in excess of what was estimated, but necessary to the work. These excess bid item quantities exceed the authorized Contract value approved by Ordinance No. 184668. The revised Final Contract Amount is \$7,340,750.34.
4. The estimated cost is \$31,022.99. Funds are available in the Sewer System Operating Fund, FY 11-12 Budget, Bureau of Environmental Services, WBS Element E08294.

NOW, THEREFORE, the council directs:

- a. The Director of the Bureau of Environmental Services or designee are hereby authorized to execute change orders and quantity increases for bid item overruns to Contract No. 30001048 with Moore Excavation, Inc. for the purpose and amount described in Section 1.
- b. The Mayor and Auditor are hereby authorized to draw and deliver warrants chargeable to the Sewer System Operating Fund Budget when demand is presented and approved by the proper authority.

Passed by the Council JUL 25 2012
Dan Saltzman
Commissioner of Public Affairs

Mark Hutchinson
June 14, 2011
E08294 - ord

LaVonne Griffin-Valade
Auditor of the City of Portland

By *Gayla Jennings*

Deputy

Project No. E08294

CERTIFICATE OF COMPLETION

for the construction of Fanno Basin Pump Station Force Main: Multnomah Section

according to the provisions of Bid/Ordinance No. 111174 Contract No. 30001048

Name of Contractor: Moore Excavation, Inc.

Contract Signed: January 5, 2010

Contract Expires: November 24, 2011

Contract Completed: November 23, 2011

Delinquent - 0 - days

This work was inspected as to quality and quantity of work done in construction and found to have been completed, in compliance with the plans, specifications, and requirements under the above named Ordinance.

Mark W. Hulse 10/29/12
Construction Division Manager Date

Will F. By 12/21/12
Chief Engineer Date

J. M. Linder 12/14/12
Construction Project Manager Date

I hereby certify that I have completed my contract work under the above numbered Contract and furnished the materials and performed the work in accordance with the plans and specifications.

Roy Moore President 10-3-12
Contractor Roy Moore Title Date

4249-OC

City of Portland - Bureau Of Environmental Services

Payment Summary

Page: 1

PAYMENT NO.: 40 Final
Pay Period: 8/16/2012- 8/31/2012

Project No: 8294 Vendor No: 1164
Contract No: 30001048 Contractor: MOORE EXCAVATION INC
Construction Manager Ted Luyben CM: Ted Luyben
Project: Fanno Basin Pressure Line - Multnomah Section

The following summaries for this pay period are based on work quantities and payment amounts shown on the attached Project Pay Estimate sheets:

Contract Summary:

Original Contract Price:	5,050,951.00
Authorized Change Orders:	2,280,046.46
Other Adjustments:	26,144.16
Adjusted Contract Amount:	7,357,141.62
Percent Change in Contract Amount:	45.66%

Payment Summary:

	Total to Date:	Total Previous Payments	Total this Payment
Value of Work Completed:	\$4,803,728.31	\$4,803,728.31	\$0.00
Change Order Work Completed:	\$2,506,569.69	\$2,506,569.69	\$0.00
Amount Earned:	\$7,310,298.00	\$7,310,298.00	\$0.00
Percentage Retained:	0.00%	0.07%	
Amount (Retained) / Released:	\$0.00	\$(5,000.00)	\$5,000.00
Other Adjustments:	\$26,144.16	\$26,144.16	\$0.00
Payment Amount	\$7,336,442.16	\$7,331,442.16	\$5,000.00
Dollar Percent Complete	144.73%		

The amount to be paid on this certificate is 100 per cent of \$0.00 plus all retainage withheld for the length of the contract amounting to \$5,000.00 for a combined total of \$5,000.00.

Approved by:

Mark W. Hutchinson, PE

Date: 10/29/2012

All questions concerning this progress payment should be directed to Ted Luyben at (503) 823-5303 or Mike Baker at (503) 823-6027.

Distribution: Accounts Payable, MOORE EXCAVATION INC, Ted Luyben, Josh Nault, MTL, Project File

City of Portland - Bureau Of Environmental Services

PROJECT PAY ESTIMATE

Project: Fanno Basin Pressure Line - Multnomah Section
 Construction Manager Ted Luyben

Project Number: 8294

Contract No: 30001048

Award Date:

Notice To Proceed: 1/28/2010

Vendor: 1164
 MOORE EXCAVATION INC
 P.O. Box 789

Fairview, OR 97204

Phone:

Estimate No. 40 Final 8/16/2012- 8/31/2012

Vendor Number

Total Authorized:

\$5,050,951.00

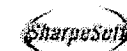
Revised Total Authorized w/ CO:

\$7,357,141.62

Contract Calendar Days:

263

Item No.	Description	UM	Contract			Previous Qty	This Estimate		Total Work Completed		Percent Complete
			Quantity	Unit Price	Total Price		Qty	Amount	Qty	Amount	
01	MOBILIZATION / DEMOBILIZATION	LS	1.0000	400,000.0000	400,000.00	1.0000	0.0000	0.00	1.0000	400,000.00	100
02	EROSION CONTROL	LS	1.0000	25,000.0000	25,000.00	1.0000	0.0000	0.00	1.0000	25,000.00	100
03	TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC	LS	1.0000	205,000.0000	205,000.00	1.0000	0.0000	0.00	1.0000	205,000.00	100
04	TRAFFIC CONTROL, VARIABLE MESSAGE SIGNS	WK	320.0000	200.0000	64,000.00	468.0140	0.0000	0.00	468.0140	93,602.80	146
05	FLAGGERS	HR	10,000.0000	22.8000	228,000.00	10,000.0000	0.0000	0.00	10,000.0000	228,000.00	100
06	ADVANCED POTHOLE EXCAVATION	EA	70.0000	160.0000	11,200.00	72.0000	0.0000	0.00	72.0000	11,520.00	103
07	ADVANCED POTHOLE EXCAVATION, DEPTH OVER 7 FEET	FT	20.0000	32.0000	640.00	1.9000	0.0000	0.00	1.9000	60.80	10
08	ALLOWANCE FOR DIRECTED POTHOLE EXCAVATION	LS	1.0000	23,000.0000	23,000.00	0.0000	0.0000	0.00	0.0000	0.00	0
09	30" PIPE, DIP AWWA C-150 CLASS 250, BELL & SPIGOT, B BEDDING	FT	18,032.0000	107.0000	1,929,424.00	19,160.8900	0.0000	0.00	19,160.8900	2,050,215.23	106
10	30" PIPE, DIP AWWA C-150, CLASS 250, REST. JOINT, B BEDDING	FT	2,076.0000	140.0000	290,640.00	1,035.6000	0.0000	0.00	1,035.6000	144,984.00	50
11	30" FITTING, DI, CLASS 250, 45 DEGREE BEND, REST. JOINT	EA	8.0000	4,000.0000	32,000.00	9.0000	0.0000	0.00	9.0000	36,000.00	113
12	30" FITTING, DI, CLASS 250, 22.5 DEGREE BEND, REST. JOINT	EA	12.0000	3,800.0000	45,600.00	10.0000	0.0000	0.00	10.0000	38,000.00	83
13	30" FITTING, DI, CLASS 250, 11.25 DEGREE BEND, REST. JOINT	EA	6.0000	3,600.0000	21,600.00	4.0000	0.0000	0.00	4.0000	14,400.00	67
14	30" FITTING, DI, CLASS 250, SLEEVE, REST. JOINT	EA	4.0000	2,100.0000	8,400.00	6.0000	0.0000	0.00	6.0000	12,600.00	150
15	8 INCH PIPE, PVC ASTM D3034 SDR 26, BEDDING TYPE: D	FT	73.0000	127.0000	9,271.00	59.3000	0.0000	0.00	59.3000	7,531.10	81
16	CONCRETE MANHOLE, 48 INCH, 0-8 FT DEPTH	EA	2.0000	2,950.0000	5,900.00	2.0000	0.0000	0.00	2.0000	5,900.00	100
17	CONCRETE MANHOLE, 48 INCH, DEEPER THAN 8 FT	FT	8.0000	250.0000	2,000.00	8.7000	0.0000	0.00	8.7000	2,175.00	109



City of Portland - Bureau Of Environmental Services
PROJECT PAY ESTIMATE

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Project: Fanno Basin Pressure Line - Multnomah Section
 Instruction Manager Ted Luyben

Vendor: 1164
 MOORE EXCAVATION INC

Estimate No. 40 Final 8/16/2012- 8/31/2012
 Vendor Number

Item No.	Description	UM	Contract			Previous Qty	This Estimate		Total Work Completed		Percent Complete
			Quantity	Unit Price	Total Price		Qty	Amount	Qty	Amount	
18	TRENCH EXCAVATION, COMMON	CY	32,350.0000	10.0000	323,500.00	32,158.8500	0.0000	0.00	32,158.8500	321,588.50	99
19	TRENCH EXCAVATION, ROCK	CY	2,070.0000	35.0000	72,450.00	1,442.1100	0.0000	0.00	1,442.1100	50,473.85	70
20	TRENCH BACKFILL, CLASS B	CY	16,250.0000	21.0000	341,250.00	13,366.3300	0.0000	0.00	13,366.3300	280,692.93	82
21	TRENCH BACKFILL, CLASS E	CY	100.0000	104.0000	10,400.00	0.0000	0.0000	0.00	0.0000	0.00	0
22	LEVEL 3, 3/4" DENSE, HMAC PAVEMENT, 8" THICKNESS	SY	9,810.0000	35.0000	343,350.00	8,903.8071	0.0000	0.00	8,903.8071	311,633.25	91
23	LEVEL 3, 3/4" DENSE, HMAC PAVEMENT, 6" THICKNESS	SY	200.0000	35.0000	7,000.00	293.3300	0.0000	0.00	293.3300	10,266.55	147
24	LEVEL 3, 3/4" DENSE, HMAC PAVEMENT, 4" THICKNESS	SY	460.0000	26.0000	11,960.00	445.5600	0.0000	0.00	445.5600	11,584.56	97
25	LEVEL 3, 1/2 DENSE HMAC PAVEMENT, 2" THICKNESS	SY	9,230.0000	14.0000	129,220.00	8,984.6000	0.0000	0.00	8,984.6000	125,784.40	97
26	SURFACE RESTORATION STA. 102+00 - 102+67	LS	1.0000	5,600.0000	5,600.00	1.0000	0.0000	0.00	1.0000	5,600.00	100
27	AGGREGATE BASE	CY	5,030.0000	28.0000	140,840.00	4,442.6800	0.0000	0.00	4,442.6800	124,395.04	88
28	SOD SURFACE RESTORATION	SY	150.0000	9.0000	1,350.00	109.2800	0.0000	0.00	109.2800	983.52	73
29	AGGREGATE BASE, ROAD SURFACING	CY	240.0000	19.0000	4,560.00	230.1200	0.0000	0.00	230.1200	4,372.28	96
30	BARK MULCH SURFACE RESTORATION	SY	20.0000	20.0000	400.00	35.0000	0.0000	0.00	35.0000	700.00	175
31	TOPSOIL SURFACE RESTORATION	SY	510.0000	15.0000	7,650.00	694.0000	0.0000	0.00	694.0000	10,410.00	136
32	CONCRETE CURBS	FT	250.0000	20.0000	5,000.00	342.0000	0.0000	0.00	342.0000	6,840.00	137
33	LOOP DETECTORS INSTALLATION	EA	10.0000	4,050.0000	40,500.00	0.0000	0.0000	0.00	0.0000	0.00	0
34	PRESSURE MONITORING MANHOLE	LS	1.0000	6,450.0000	6,450.00	1.0000	0.0000	0.00	1.0000	6,450.00	100
35	CONTAMINATED MEDIA DISPOSAL	TN	100.0000	210.0000	21,000.00	295.3500	0.0000	0.00	295.3500	62,023.50	295
36	GARDEN HOME CONNECTION, STA. 100+84	LS	1.0000	21,250.0000	21,250.00	0.0000	0.0000	0.00	0.0000	0.00	0
37	DISCHARGE STRUCTURE	LS	1.0000	165,000.0000	165,000.00	1.0000	0.0000	0.00	1.0000	165,000.00	100
38	FIBER OPTIC IMPROVEMENTS	LS	1.0000	12,000.0000	12,000.00	1.0000	0.0000	0.00	1.0000	12,000.00	100
39	PIPE ABANDONMENT	FT	3,002.0000	23.0000	69,046.00	367.0000	0.0000	0.00	367.0000	8,441.00	12
40	HYDROSTATIC TESTING	LS	1.0000	9,500.0000	9,500.00	1.0000	0.0000	0.00	1.0000	9,500.00	100

Change Orders

Change Order: 41 CO #1 Traffic Control Supervisor											
41	CO #1 Traffic Control Supervisor	CD	100.0000	666.0000	66,600.00	143.0000	0.0000	0.00	143.0000	95,238.00	143
Change Order: 42 CO #2 ADDITIONAL SIGNS FOR DETOUR #1											
42	CO #2 ADDITIONAL SIGNS FOR DETOUR #1	LS	1.0000	34,932.1000	34,932.10	3.3388	0.0000	0.00	3.3388	116,630.99	334

City of Portland - Bureau Of Environmental Services

PROJECT PAY ESTIMATE

Project: Fanno Basin Pressure Line - Multnomah Section
 Instruction Manager Ted Luyben

Vendor: 1164
 MOORE EXCAVATION INC

Estimate No. 40 Final 8/16/2012- 8/31/2012
 Vendor Number

Item No.	Description	UM	Contract			Previous	This Estimate		Total Work Completed		Percent Complete
			Quantity	Unit Price	Total Price	Qty	Qty	Amount	Qty	Amount	
Change Order: 43 CO #3 Flagger Hours Over 10,000											
43	CO #3 Flagger Hours Over 10,000	HR	8,224.0000	51.0000	419,424.00	9,951.0000	0.0000	0.00	9,951.0000	507,501.00	121
Change Order: 45 CO #5 ADDITIONAL TIME FOR DETOUR APPROVAL DELAY											
45	CO #5 ADDITIONAL TIME FOR DETOUR DELAY	LS	0.0000	0.0000	0.00	1.0000	0.0000	0.00	1.0000	0.00	0
Change Order: 46 CO #6 WATERLINE RELOCATION PT. 1											
46A	MOBILIZATION / DEMOBILIZATION	LS	1.0000	16,750.0000	16,750.00	1.0000	0.0000	0.00	1.0000	16,750.00	100
46B	TRAFFIC CONTROL - VARIABLE MESSAGE SIGNS	WK	8.0000	300.0000	2,400.00	20.0000	0.0000	0.00	20.0000	6,000.00	250
46C	TRAFFIC CONTROL - FLAGGERS	HR	840.0000	51.0000	42,840.00	840.0000	0.0000	0.00	840.0000	42,840.00	100
46D	ADVANCED POTHOLE EXCAVATION	LS	1.0000	7,500.0000	7,500.00	0.0000	0.0000	0.00	0.0000	0.00	0
46E	12" DIP WITH GRANUALR BACKFILL	LF	2,225.0000	90.0000	200,250.00	2,225.0000	0.0000	0.00	2,225.0000	200,250.00	100
46F	12" GATE VALVE	EA	8.0000	2,400.0000	19,200.00	10.0000	0.0000	0.00	10.0000	24,000.00	125
46G	8" DIP WITH GRANULAR BACKFILL	LF	295.0000	160.0000	47,200.00	321.0000	0.0000	0.00	321.0000	51,360.00	109
46H	8" GATE VALVE	EA	3.0000	1,250.0000	3,750.00	3.0000	0.0000	0.00	3.0000	3,750.00	100
46I	1" AIR RELEASE VALVE	EA	1.0000	1,500.0000	1,500.00	0.0000	0.0000	0.00	0.0000	0.00	0
46J	FIRE HYDRANT	EA	4.0000	4,500.0000	18,000.00	5.0000	0.0000	0.00	5.0000	22,500.00	125
46K	1" SERVICE - SHORT SIDE	EA	7.0000	1,300.0000	9,100.00	6.0000	0.0000	0.00	6.0000	7,800.00	86
46L	1" SERVICE - LONG SIDE	EA	2.0000	3,400.0000	6,800.00	2.0000	0.0000	0.00	2.0000	6,800.00	100
46M	2" SERVICE - SHORT SIDE	EA	1.0000	2,000.0000	2,000.00	1.0000	0.0000	0.00	1.0000	2,000.00	100
46N	TRENCH EXCAVATION	CY	1,213.0000	43.0000	52,159.00	1,950.8600	0.0000	0.00	1,950.8600	83,886.98	161
46O	TRENCH BACKFILL	CY	140.0000	32.0000	4,480.00	150.0000	0.0000	0.00	150.0000	4,800.00	107
46P	WATER ZONE BEDDING AND BACKFILL	CY	500.0000	32.0000	16,000.00	600.0000	0.0000	0.00	600.0000	19,200.00	120
46Q	AC TEMP TRENCH PATCHING	SY	1,200.0000	25.0000	30,000.00	1,236.2800	0.0000	0.00	1,236.2800	30,907.00	103
46R	HYDROSTATIC TESTING	LS	1.0000	5,000.0000	5,000.00	1.0000	0.0000	0.00	1.0000	5,000.00	100
46S	DISINFECTION	LS	1.0000	5,000.0000	5,000.00	1.0000	0.0000	0.00	1.0000	5,000.00	100
46T	REPAIR INLET / SEWER LEAD	LF	25.0000	130.0000	3,250.00	14.3000	0.0000	0.00	14.3000	1,859.00	57
46U	INSTALL METER BOX WITH SETTER	EA	10.0000	625.0000	6,250.00	9.0000	0.0000	0.00	9.0000	5,625.00	90
Change Order: 47 CO #7 TEMPORARY AC TRENCH PATCH, 40TH - 31ST											
47A	1.5" THICK ASPHALT	TN	300.0000	138.0000	41,400.00	259.4900	0.0000	0.00	259.4900	35,809.62	86
47B	8" PAVEMENT STRIPING	LF	6,600.0000	0.2300	1,518.00	7,518.0000	0.0000	0.00	7,518.0000	1,729.14	114
47C	4" PAVEMENT STRIPING	LF	13,200.0000	0.1600	2,112.00	8,848.0000	0.0000	0.00	8,848.0000	1,415.68	67
47D	MEI LABOR	LS	1.0000	2,288.0000	2,288.00	1.0000	0.0000	0.00	1.0000	2,288.00	100
Change Order: 48 CO #8 MODIFY DISCHARGE STRUCTURE											



City of Portland - Bureau Of Environmental Services
PROJECT PAY ESTIMATE

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Project: Fanno Basin Pressure Line - Multnomah Section
 Construction Manager Ted Luyben

1164
 Vendor: MOORE EXCAVATION INC

Estimate No. 40 Final 8/16/2012- 8/31/2012
 Vendor Number

Item No.	Description	UM	Contract			Previous		This Estimate		Total Work Completed		Percent Complete
			Quantity	Unit Price	Total Price	Qty		Qty	Amount	Qty	Amount	
48	CO #8 MODIFY DISCHARGE STRUCTURE	LS	1.0000	-1,670.0000	-1,670.00	1.0000		0.0000	0.00	1.0000	-1,670.00	100
Change Order: 49 CO #9 WATERLINE RELOCATION TO MEET OAR REQUIREMENTS PT 2												
49A	MOBILIZATION/DEMOLITION	LS	1.0000	8,250.0000	8,250.00	1.0000		0.0000	0.00	1.0000	8,250.00	100
49B	TRAFFIC CONTROL - VARIABLE MESSAGE SIGNS	WK	4.0000	300.0000	1,200.00	2.0000		0.0000	0.00	2.0000	600.00	50
49C	TRAFFIC CONTROL FLAGGERS	HR	410.0000	51.0000	20,910.00	426.5000		0.0000	0.00	426.5000	21,751.50	104
49D	12" DIP WITH GRANULAR BACKFILL	LF	1,146.0000	90.0000	103,140.00	1,106.0000		0.0000	0.00	1,106.0000	99,540.00	97
49E	12" GATE VALVE	EA	3.0000	2,400.0000	7,200.00	1.0000		0.0000	0.00	1.0000	2,400.00	33
49F	FIRE HYDRANT	EA	1.0000	4,500.0000	4,500.00	0.0000		0.0000	0.00	0.0000	0.00	0
49G	TRENCH EXCAVATION	CY	598.0000	43.0000	25,714.00	2.2200		0.0000	0.00	2.2200	95.46	0
49H	TRENCH BACKFILL	CY	69.0000	32.0000	2,208.00	171.9900		0.0000	0.00	171.9900	5,503.68	249
49I	WATER ZONE BEDDING AND BACKFILL	CY	253.0000	32.0000	8,096.00	167.6900		0.0000	0.00	167.6900	5,366.08	66
49J	AGGREGATE PAVEMENT BASE	CY	683.0000	32.0000	21,856.00	515.5200		0.0000	0.00	515.5200	16,496.64	75
49K	TRENCH RESTORATION 6"	SY	13.0000	66.0000	858.00	35.1900		0.0000	0.00	35.1900	2,322.54	271
49L	NON-PAVED SURFACE RESTORATION 12"	SY	25.0000	100.0000	2,500.00	0.0000		0.0000	0.00	0.0000	0.00	0
Change Order: 50 CO #10 GRIND AND REPAVE MULTNOMAH - 45th-31st												
50A	4" AC GRINDING MOBILIZATION	LS	1.0000	977.5000	977.50	1.0000		0.0000	0.00	1.0000	977.50	100
50B	4" AC GRINDING & HAUL	SY	17,660.0000	5.4700	96,600.20	20,850.6400		0.0000	0.00	20,850.6400	114,053.00	118
50C	AC PAVING	TN	3,975.0000	84.5300	336,006.75	4,412.5063		0.0000	0.00	4,412.5063	372,989.16	111
50D	AC PAVING TO RAISE & LOWER CASTINGS	TN	68.0000	341.2500	23,205.00	84.0000		0.0000	0.00	84.0000	28,665.00	124
50E	4" STRIPING, WHITE & YELLOW	LF	29,037.5000	0.1600	4,646.00	17,424.0000		0.0000	0.00	17,424.0000	2,787.84	60
50F	8" STRIPING, WHITE	LF	14,500.0000	0.2300	3,335.00	15,514.0000		0.0000	0.00	15,514.0000	3,568.22	107
50G	LOWER & RAISE CASTINGS TO GRADE	LS	1.0000	69,782.8100	69,782.81	1.0000		0.0000	0.00	1.0000	69,782.81	100
50H	PAVE TEMP AC RAMPS FOR APPROACHES	LS	1.0000	38,911.5100	38,911.51	1.0000		0.0000	0.00	1.0000	38,911.51	100
50I	TRAFFIC CONTROL & SIGNAGE	LS	1.0000	22,798.9000	22,798.90	1.0000		0.0000	0.00	1.0000	22,798.91	100
Change Order: 51 CO#11 REPAVE WATER TRENCH 8" THICK												
51	REPAVE WATER TRENCH 8" THICK	SY	1,800.0000	78.0000	140,400.00	1,532.3300		0.0000	0.00	1,532.3300	119,521.74	85
Change Order: 52 CO #12 ELEVEN CONSTRUCTION ISSUES												
52	ELEVEN CONSTRUCTION ISSUES	LS	1.0000	62,640.8700	62,640.87	1.0000		0.0000	0.00	1.0000	62,640.87	100
Change Order: 53 CO #13 42 UTILITY INTERFERENCES AND CHANGES												

PROJECT PAY ESTIMATE

Project: Fanno Basin Pressure Line - Multnomah Section

Construction Manager Ted Luyben

Vendor:

1164

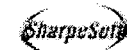
MOORE EXCAVATION INC

Estimate No. 40 Final 8/16/2012- 8/31/2012

Vendor Number

Item No.	Description	UM	Contract			Previous	This Estimate		Total Work Completed		Percent
			Quantity	Unit Price	Total Price	Qty	Qty	Amount	Qty	Amount	Complete
53	CO #13 42 UTILITY INTERFERENCES AND CHANGES	LS	1.0000	208,276.8200	208,276.82	1.0000	0.0000	0.00	1.0000	208,276.82	100

Dollar Percent Complete	144.73%	Amount This Estimate w/CO:	\$0.00
Days Percent Complete	99.85%	Total Work Completed to Date:	\$4,803,728.31
Contractor Started:	1/29/2010	CO Amount This Estimate:	\$0.00
Working Days Started:	1/29/2010	CO Total To Date	\$2,506,569.69
Original Completion:	10/18/2010	Materials On Hand:	\$0.00
Non-Working Days:	0	Materials On Hand Deduction:	\$0.00
Time Extension Days:	402	Total Certificate Amount	\$7,310,298.00
Revised Contract Completion	11/24/2011	Deduct 0.00% Retainage	\$0.00
Actual Completion:		Retention Released this Estimate	\$5,000.00
		Retention Withheld to Date:	\$(247,706.00)
		Retention Released to Date:	\$247,706.00
		Other Adjustments	\$26,144.16
		Retainage +/- Adjustments	\$26,144.16
		Total Due to Date:	\$7,336,442.16
		Deduct Previous Payments:	\$(7,331,442.16)
		Balance Due This Estimate:	\$5,000.00



ACKNOWLEDGEMENT, RELEASE AND CERTIFICATION**1. Acknowledgement**

Contractor acknowledges that the amount earned is \$7,336,442.16 on Contract No 30001048.
 Final payment of \$0.00 plus the release of \$5,000.00 in retainage remains to be made by the City of Portland.

2. Release:

Except for the amount of the final payment that remains to be paid, Contractor releases the City of Portland, its officers, agents and employees from any and all other claims for additional compensation that it does or might have as a result of its performance of work on this contract

3. Certification

Contractor certifies that:

- a) All work required by this Contract is complete;
- b) All amounts due for labor, materials and all other obligations under this Contract were paid by the Contractor except for any payments due after Final Payment by Owner is paid;
- c) All actions for injuries or damages arising out of its operations and work were fully and finally settled, or are fully covered by insurance protecting the Contractor, the City of Portland, its officers, agents and employees, and any additional insurance required by the contract; and
- d) Any claim brought against the Contractor by an employee, subcontractor, or supplier has been fully and finally settled, or if not resolved, is fully covered and payable by the Contractor's performance and payment bond, or, if no bond was required, by the Contractor itself, in the event that such claim is correct.

APPROVED AS TO FORM

James H. Van Dyke
 CITY ATTORNEY *10/11/12*

Signature

Roy Moore
 Moore Excavation, Inc
 17090 NE San Rafael Street
 Portland, Oregon, 97230

President

Title

State of Oregon)
) ss:
 County of Multnomah)

This instrument was acknowledged before me on October 3, 2012 (date),
 by Roy Moore (name) as President (title)
 of Moore Excavation Inc (company).



NOTARY PUBLIC FOR Oregon (State)
 My Commission Expires: 10-5-2012

4249-OC

MAINTENANCE/WARRANTY BOND

KNOW ALL MEN BY THESE PRESENTS that we, Moore Excavation, Inc., as Principal, and *
 , a corporation organized and existing under the laws of the State of Washington, and duly
 authorized to transact a surety business in the State of Oregon, as surety, are held and firmly bound unto the
 CITY OF PORTLAND, a municipal corporation of the State of Oregon, in the penal sum of \$ One Million Four **
 Dollars (\$ 1,467,288.43 ***), lawful money of the United States of America, for the payment whereof well and
 truly to be made, we and each of us, jointly and severally, bind ourselves, our and each of our heirs, executors,
 administrators successors and assign, firmly by these presents. * Safeco Insurance Company of America
 ** Hundred Sixty-Seven Thousand Two Hundred
Eighty-Eight and 43/100 ***

THE CONDITION OF THIS BOND IS SUCH:

THAT WHEREAS the Principal did on the (1-5-2010), enter into Contract with the City of Portland for
 , that was completed on (11-23-2011), which requires a two-year Maintenance and Warranty as described in
 Section 00150.96 of the City of Portland Standard Construction Specifications, and which Contract hereby is
 made a part hereof as if fully copied herein;

NOW THEREFORE, if the Principal herein shall faithfully and truly observe the terms, provisions,
 conditions, stipulations, directions, and requirements of said contract and shall in all respects, whether the same
 be enumerated herein or not, faithfully comply with the same and shall assume the defense of, indemnify and
 save harmless the City of Portland, its officers, agents, and employees from all claims, liabilities, loss, damage or
 injury which may have been suffered or claimed to have been suffered to persons or property directly or indirectly
 resulting from or arising out of the operations or conduct of said Principal or any subcontractor in the performance
 of the work under said contract and shall indemnify and make whole the City for any injury or damage to any
 street, highway, avenue, or road or any part thereof, resulting from the operations or conduct of said Principal or
 any subcontractor in connection with performance or conduct of the work under said contract, and shall in all
 respects faithfully keep and observe all of said terms, provisions, conditions, stipulations, directions, and
 requirements, then this obligation is void, otherwise, it shall remain in full force and effect.

WITNESS our hand and seals this 30th day of August, 20 12

Moore Excavation, Inc.
 Contractor

BY:

TITLE:

Safeco Insurance Company of America
 Surety

By:

Vicki Mather
 Attorney-In-Fact Vicki Mather

APPROVED

City Attorney

APPROVED AS TO FORM

James H. Van Dyke
 CITY ATTORNEY 9/10/12

Fanno Basin Pump Station Force Main
 Bid No. 111174, Contract No. 30001048

Seal
 ←

Fanno Basin
 41249 - 00

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

4912649

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

SAFECO INSURANCE COMPANY OF AMERICA
SEATTLE, WASHINGTON
POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS: That Safeco Insurance Company of America (the "Company"), a Washington stock insurance company, pursuant to and by authority of the By-law and Authorization hereinafter set forth, does hereby name, constitute and appoint GLORIA BRUNING, GENE M. DIETZMAN, JAMES P. DOONEY, PHILIP O. FORKER, JOHN D. KLUMP, RAY M. PAIEMENT, J. PATRICK DOONEY, RICHARD W. KOWALSKI, VICKI MATHER, BRENT OLSON, JOEL DIETZMAN, KAREN A. PIERCE, CHRISTOPHER A. REBURN, TAMI JONES, ALL OF THE CITY OF PORTLAND, STATE OF OREGON.....

, each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations in the penal sum not exceeding ONE HUNDRED MILLION AND 00/100***** DOLLARS (\$ 100,000,000.00*****) each, and the execution of such undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents, shall be as binding upon the Company as if they had been duly signed by the president and attested by the secretary of the Company in their own proper persons.

That this power is made and executed pursuant to and by authority of the following By-law and Authorization:

ARTICLE IV - Officers: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitations as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and executed, such instruments shall be as binding as if signed by the president and attested by the secretary.

By the following instrument the chairman or the president has authorized the officer or other official named therein to appoint attorneys-in-fact:

Pursuant to Article IV, Section 12 of the By-laws, David M. Carey, Assistant Secretary of Safeco Insurance Company of America, is authorized to appoint such attorneys-in-fact as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

That the By-law and the Authorization set forth above are true copies thereof and are now in full force and effect.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Company and the corporate seal of Safeco Insurance Company of America has been affixed thereto in Plymouth Meeting, Pennsylvania this 7th day of October, 2011.



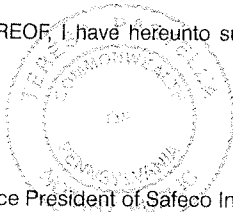
SAFECO INSURANCE COMPANY OF AMERICA

By David M. Carey
David M. Carey, Assistant Secretary

COMMONWEALTH OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 7th day of October, 2011, before me, a Notary Public, personally came David M. Carey, to me known, and acknowledged that he is an Assistant Secretary of Safeco Insurance Company of America; that he knows the seal of said corporation; and that he executed the above Power of Attorney and affixed the corporate seal of Safeco Insurance Company of America thereto with the authority and at the direction of said corporation.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



By Teresa Pastella
Teresa Pastella, Notary Public

CERTIFICATE

I, the undersigned, Vice President of Safeco Insurance Company of America, do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy, is in full force and effect on the date of this certificate; and I do further certify that the officer or official who executed the said power of attorney is an Officer specially authorized by the chairman or the president to appoint attorneys-in-fact as provided in Article IV, Section 12 of the By-laws of Safeco Insurance Company of America.

This certificate and the above power of attorney may be signed by facsimile or mechanically reproduced signatures under and by authority of the following vote of the board of directors of Safeco Insurance Company of America at a meeting duly called and held on the 18th day of September, 2009.

VOTED that the facsimile or mechanically reproduced signature of any assistant secretary of the company, wherever appearing upon a certified copy of any power of attorney issued by the company in connection with surety bonds, shall be valid and binding upon the company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said company, this 30th day of August, 2012.



By Gregory W. Davenport
Gregory W. Davenport, Vice President

To confirm the validity of this Power of Attorney call
1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

Not valid for mortgage, note, loan, letter of credit, bank deposit, currency rate, interest rate or residual value guarantees.

FINAL QUANTITY AGREEMENT

Project: FABA PS FM: Multnomah Section
Contract or PO#: 30001048
Contractor: Moore Excavation, Inc.

Project No.: E08294
Date: June 6, 2012

Original Contract Amount:	<u>\$ 5,050,951.00</u>	
Authorized Change Orders:	<u>\$ 2,280,037.46</u>	
Other Adjustment:	<u>\$ 9,761.88</u>	
Final Amount Earned	<u>\$ 7,336,442.16</u>	
Current Total Amount Paid till Date:	<u>\$ 7,300,419.17</u>	Paid in PP
Remaining Amount to be Paid:	<u>\$ 36,022.99</u>	Final Paid in PP <i>M.P.</i>

By: *[Signature]* Construction Manager *10/15/12* Date

By: *X Roy Moore* *President* Contractor's Representative *10-3-2012* Date

Roy Moore

cc: Contractor, CM, Sr. Inspector, Designer, Const. Eng, TRIM

Sent via Certified Mail to Contractor on: 08/03/10



**CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION**

CONTRACT # <u>30001048</u>	CHANGE ORDER # <u>1</u>
Project Name: <u>Fanno Basin Force Main Replacement, Multnomah Section</u>	
Company: <u>Moore Excavation Inc.</u>	Project Number: <u>8294</u>
Address: <u>PO Box 30569</u>	Bid Number: <u>111174</u>
City, State, Zip: <u>Portland, OR, 97294-3569</u>	

Due to changes in the traffic detour plan, the Contractor was required to provide a Traffic Control Supervisor for this project. This Change Order establishes a bid item for the TCS. The Traffic Control Supervisor shall be governed by the attached Specification Sections.

\$66,600 (estimated). The Traffic Control Supervisor shall be paid at the rate of \$666.00 per day, for an estimated 100 working days.

This change order is subject to and incorporates the provisions of Subsection 109.16-B of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$66,600.00

The above-ordered change order will not change the contract time.

To be completed by Contractor:

Has consent of Surety been obtained?

☐ Yes ☒ Not necessary

Will this change affect expiration or extent of insurance coverage?

☐ Yes ☒ No

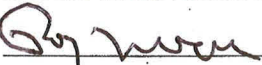
If yes, will the policies be extended?

☐ Yes ☐ No

Approved by:

Moore Excavation Inc.

Bureau of Environmental Services


Authorized Representative

11/17/10
Date


Construction Division Manager

11/19/2010
Date

CC: BES Accounting (106/1000)

Contractor (original)

Construction Manager

Inspector II

Auditor's Office (131/401)



CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION

CONTRACT # 30001048 CHANGE ORDER # 2
Project Name: Fanno Basin Force Main Replacement, Multnomah Section
Company: Moore Excavation Inc. Project Number: 8294
Address: PO Box 30569 Bid Number: 111174
City, State, Zip: Portland, OR, 97294-3569

Compensate the Contractor for the purchase, placement and daily use of 100 additional signs on Detour #1, between SW 69th and SW 45th on SW Multnomah Boulevard, beyond those shown on the Detour #1 drawing in the bid documents.

1. Materials: \$30,270.68
2. Labor: \$4,345.34
3. Equipment \$316.08

Moore Excavation shall be compensated a lump sum amount of \$ 34,932.10. Work shall include all labor, materials, and incidentals for the installations and modifications noted above.

This change order is subject to and incorporates the provisions of Subsection 196.10 (b) of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$34,932.10

The above-ordered change order will not change the contract time.

To be completed by Contractor:

Has consent of Surety been obtained?

☐ Yes ☐ Not necessary

Will this change affect expiration or extent of insurance coverage?

☐ Yes ☐ No

If yes, will the policies be extended?

☐ Yes ☐ No

Approved by:

Moore Excavation Inc.

Authorized Representative

Date

Bureau of Environmental Services

Construction Division Manager

Date

CC: BES Accounting (106/1000)

Contractor (original)

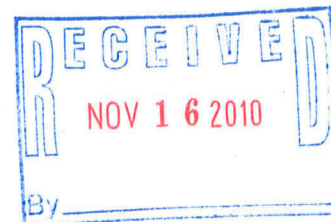
Construction Manager

Inspector II

Auditor's Office (131/401)



CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION



CONTRACT # 30001048 CHANGE ORDER # 3
Project Name: Fanno Basin Force Main Replacement, Multnomah Section
Company: Moore Excavation Inc. Project Number: 8294
Address: PO Box 30569 Bid Number: 111174
City, State, Zip: Portland, OR, 97294-3569

The following item of work with the associated bid item will be added to the contract to compensate the Contractor for work performed:

Item 5.a: Traffic control, Flaggers over 10,000 hrs: \$51.00 per hr. Estimated 7904 hrs.

Contractor to continue to provide flaggers during the construction of the Fanno Force Main, Multnomah Section. All work shall be conformed with the Plan provided and the Contract Specification. All cost for performing this work shall be included in the new bid item 5.a.

Compensation shall be based on the actual flagger hours used that exceed the initial 10,000 hr at the unit prices of \$51.00 per hour established in this change order. The total anticipated cost of this Change Order is \$419,424.00.

This change order is subject to and incorporates the provisions of Subsection 109.16-B of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$419,424.00

The above-ordered change order will not change the contract time.

To be completed by Contractor:

Has consent of Surety been obtained?

() Yes (✓) Not necessary

Will this change affect expiration or extent of insurance coverage?

() Yes (✓) No

If yes, will the policies be extended?

() Yes () No

Approved by:

Moore Excavation Inc.

Ray Moore
Authorized Representative

11/17/10
Date

Bureau of Environmental Services

Mark Withler
Construction Division Manager

11/19/2010
Date

CC: BES Accounting (106/1000)

Contractor (original)

Construction Manager

Inspector II

Auditor's Office (131/401)



**CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION**

CONTRACT # <u>30001048</u>	UNILATERAL CHANGE ORDER # <u>5</u>
Project Name: <u>Fanno Basin Force Main Replacement, Multnomah Section</u>	
Company: <u>Moore Excavation Inc.</u>	Project Number: <u>8294</u>
Address: <u>PO Box 30569</u>	Bid Number: <u>111174</u>
City, State, Zip: <u>Portland, OR, 97294-3569</u>	

This Change Order grants the Contractor a 99 (ninety-nine) calendar day extension of the Contract Time to compensate them for working days lost between the rejection of their original traffic detour submittal on March 9th and the eventual acceptance of a traffic detour plan on June 16th.

There is no cost to this Change Order.

This unilateral Change Order provides all compensation by the City of Portland to the Contractor for all things done or furnished in connection with the work done under this Change Order.

The above-ordered change order will not change the contract amount.

The above-ordered change order will increase the contract time by 99 days.

Bureau of Environmental Services

 12/29/10
Construction Division Manager Date

CC: BES Accounting (106/1000) Contractor (original) Construction Manager Inspector II Auditor's Office (131/401)



**CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION**

CONTRACT # <u>30001048</u>	CHANGE ORDER # <u>6</u>
Project Name: <u>Fanno Basin Force Main Replacement, Multnomah Section</u>	
Company: <u>Moore Excavation Inc.</u>	Project Number: <u>8294</u>
Address: <u>PO Box 30569</u>	Bid Number: <u>111174</u>
City, State, Zip: <u>Portland, OR, 97294-3569</u>	

The Contractor shall procure and install approximately 2,225 LF of 12" DIP and 295 LF of 8" DIP water line as shown in the attached project book and as detailed in the attached Schedule of Values.

The Contractor shall be paid based on the units and prices shown in the attached Schedule of Values.

The estimated cost of this work is \$499,429.00

This change order is subject to and incorporates the provisions of Subsection 109.16-B of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$499,429.00

The above-ordered change order will increase the contract time by 53 days.

To be completed by Contractor:

Has consent of Surety been obtained?	() Yes () Not necessary
Will this change affect expiration or extent of insurance coverage?	() Yes () No
If yes, will the policies be extended?	() Yes () No

Approved by:

Moore Excavation Inc.

Authorized Representative

Date

Bureau of Environmental Services

Construction Division Manager

Date

CC: BES Accounting (106/1000)

Contractor (original)

Construction Manager

Inspector II

Auditor's Office (131/401)



**CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION**

CONTRACT # <u>30001048</u>	CHANGE ORDER # <u>7</u>
Project Name: <u>Fanno Basin Force Main Replacement, Multnomah Section</u>	
Company: <u>Moore Excavation Inc.</u>	Project Number: <u>8294</u>
Address: <u>PO Box 30569</u>	Bid Number: <u>111174</u>
City, State, Zip: <u>Portland, OR, 97294-3569</u>	

The Contractor shall place a 1 1/2" HMAC overlay of the previous asphalt trench patch over the force main trench, between 40th and 31st. In addition, they shall provide temporary painted pavement striping to maintain traffic lanes.

The Contractor shall be paid for the temporary Asphalt trench patch and temporary pavement striping per the following schedule:

300 Tons Asphalt, 1 1/2" Thick @ \$138/Ton	= \$41,400
6600 LF 8" Pavement Striping @ \$0.23/LF	= \$1,518
13,200 LF 4" Pavement Striping @ \$0.16/LF	= \$2,112
MEI Labor 1 LS @ \$2,288	= \$2,288

Total \$47,318.00

This change order is subject to and incorporates the provisions of Subsection 109.16-B of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$47,318.00

The above-ordered change order will increase the contract time by 30 days.

To be completed by Contractor:

Has consent of Surety been obtained?

() Yes (☒) Not necessary

Will this change affect expiration or extent of insurance coverage?

() Yes (☒) No

If yes, will the policies be extended?

() Yes () No

Approved by:

Moore Excavation Inc.

Authorized Representative

4/6/2011
Date

Bureau of Environmental Services

Construction Division Manager

4/12/2011
Date

CC: BES Accounting (106/1000) Contractor (original) Construction Manager Inspector II Auditor's Office (131/401)



CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION



CONTRACT # 30001048 CHANGE ORDER # 8
Project Name: Fanno Basin Force Main Replacement, Multnomah Section
Company: Moore Excavation Inc. Project Number: 8294
Address: PO Box 30569 Bid Number: 111174
City, State, Zip: Portland, OR, 97294-3569

MODIFY DISCHARGE STRUCTURE TO FACILITATE BYPASS PIPING ON BURLINGAME TRUNK PROJECT

The Contractor shall:

- 1) Delete the planned concrete infill, including dowels and waterproofing
- 2) Delete the remaining interior waterproofing of the vault walls
- 3) Install 2 each hold down straps (one on each force main pipe) as shown on the attached sketch
- 4) Provide and install a megalug cap, tapped with a 2" fill/test pipe with a 2" cap on the "B" line of the force main, as shown on the attached sketch

This Change Order shall result in a net credit to the project of \$1,670, as detailed below.

1) Delete Infill	(\$9,013)
2) Delete Waterproofing	Included in #1
3) 2 EA Hold Down Straps	\$2,111
4) Megalug Cap	\$5,232
Total	(\$1,670)

This change order is subject to and incorporates the provisions of Subsection 109.16-B of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will decrease the contract amount by \$1,670.00

The above-ordered change order will not change the contract time.

To be completed by Contractor:

Has consent of Surety been obtained?

() Yes (X) Not necessary

Will this change affect expiration or extent of insurance coverage?

() Yes (X) No

If yes, will the policies be extended?

() Yes (X) No

CONTRACT # 30001048

CHANGE ORDER # 8

Project Name: Fanno Basin Force Main Replacement, Multnomah Section

Company: Moore Excavation Inc.

Project Number: 8294

Address: PO Box 30569

Bid Number: 111174

City, State, Zip: Portland, OR, 97294-3569

Approved by:

Moore Excavation Inc.

Bureau of Environmental Services



4/21/11



4/25/11

Authorized Representative

Date

Construction Division Manager

Date

CC: BES Accounting (106/1000)

Contractor (original)

Construction Manager

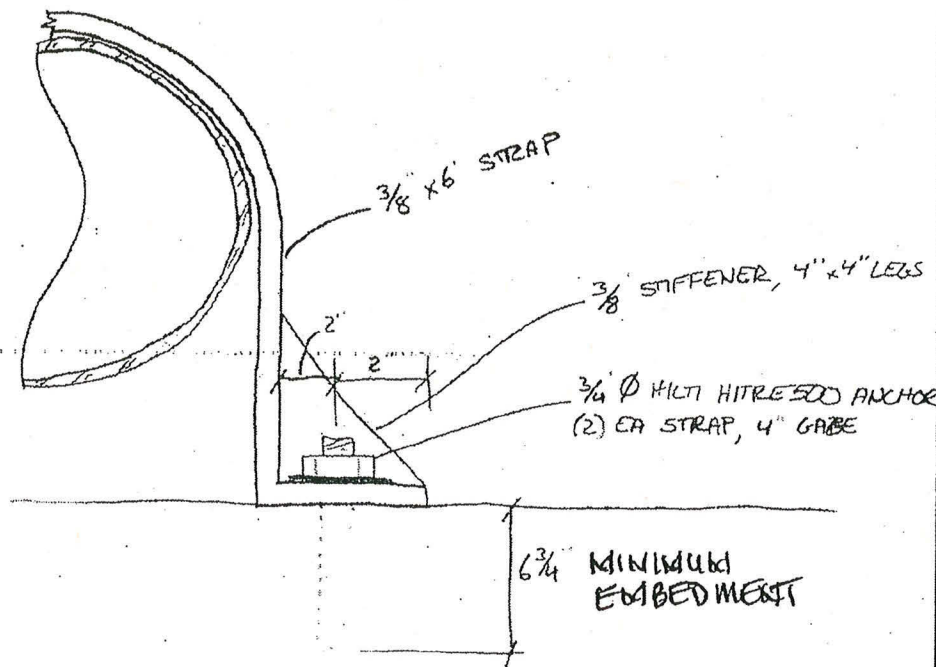
Inspector II

Auditor's Office (131/401)

Proj. 8294
CO #8

BROWN AND
CALDWELL

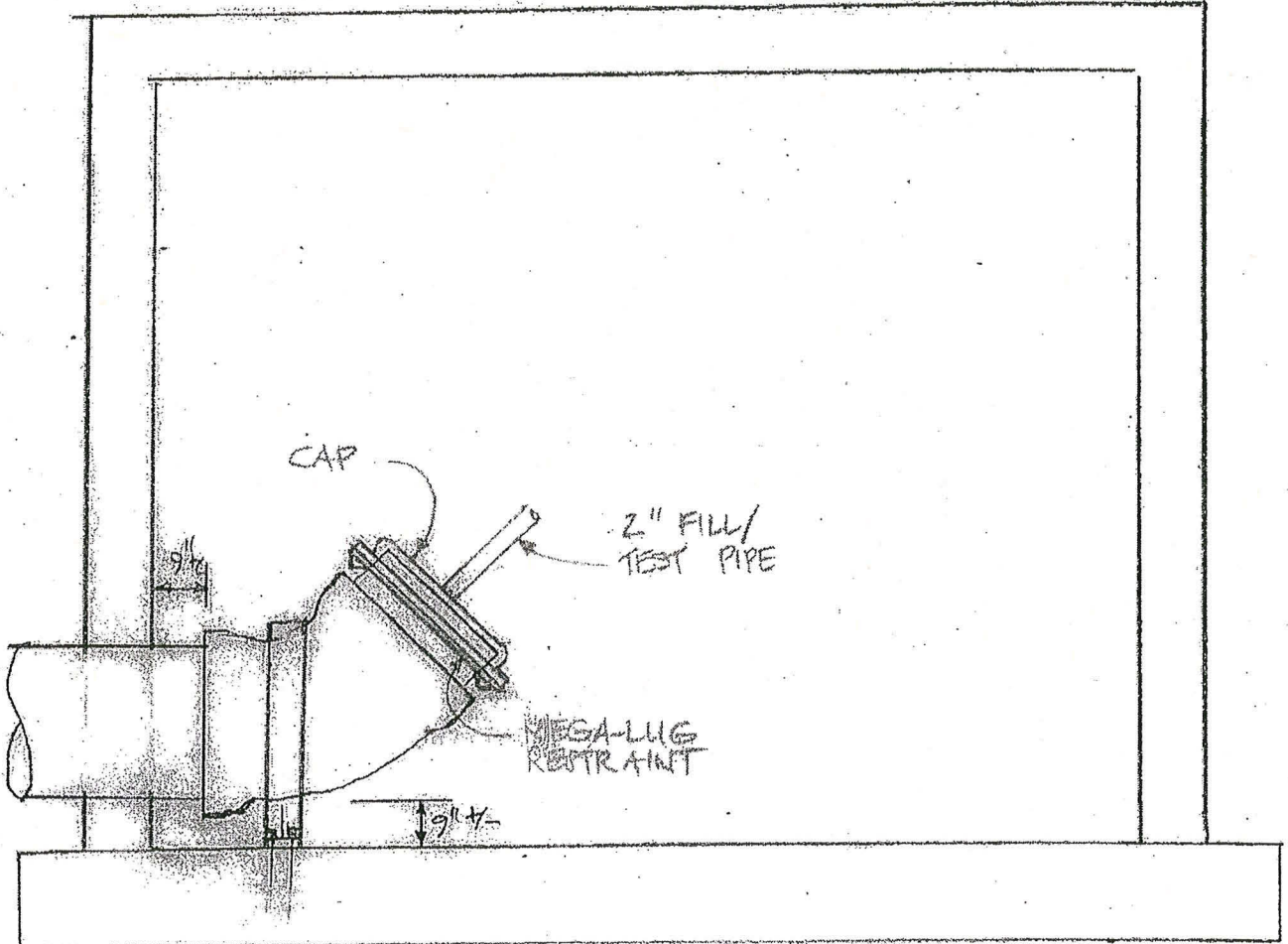
Date Checked	Checked By	Job Number	By	Date	Calc. No.	Sheet No.
			EJF	12/15/16		2/2
Project			Subject			
FANCO FM			PRESSURE TEST RESTRAINT			



Proposed ANCHOR
FOR PIPE TESTING
NTS

References/Notes

Proj. 8294
CO#8





CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION



CONTRACT # 30001048 CHANGE ORDER # 9
Project Name: Fanno Basin Force Main Replacement, Multnomah Section
Company: Moore Excavation Inc. Project Number: 8294
Address: PO Box 30569 Bid Number: 111174
City, State, Zip: Portland, OR, 97294-3569

WATERLINE RELOCATION TO MEET OAR REQUIREMENTS, PART 2

The Contractor shall procure and install approximately 1146 linear feet of 12" Ductile Iron water pipe, with granular backfill and all fittings and appurtenances required to construct a complete and operable system, including chlorination and testing.

The cost of this change shall be \$206,432, as detailed in the attached Bid Schedule.

This change order is subject to and incorporates the provisions of Subsection 109.16-B of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$206,432.00

The above-ordered change order will not change the contract time.

To be completed by Contractor:

Has consent of Surety been obtained?

☐ Yes ☒ Not necessary

Will this change affect expiration or extent of insurance coverage?

☐ Yes ☒ No

If yes, will the policies be extended?

☐ Yes ☐ No

Approved by:

Moore Excavation Inc.

Authorized Representative

April 26, 2011

Date

Bureau of Environmental Services

Construction Division Manager

Date

CC: BES Accounting (106/1000)

Contractor (original)

Construction Manager

Inspector II

Auditor's Office (131/401)

Proj. 8294
CO#9

Fanno Basin (Multnomah) Water Work - Bid Schedule

<u>Bid Item</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Bid Total</u>
MOBILIZATION/DEMOBILIZATION	1	LS	\$8,250.00	\$8,250.00
TRAFFIC CONTROL - VARIABLE MESSAGE SIGNS	4	WK	\$300.00	\$1,200.00
TRAFFIC CONTROL - FLAGGERS	410	HR	\$51.00	\$20,910.00
12" DIP WITH GRANULAR BACKFILL	1146	LF	\$90.00	\$103,140.00
12" GATE VALVE	3	EA	\$2,400.00	\$7,200.00
FIRE HYDRANT	1	EA	\$4,500.00	\$4,500.00
TRENCH EXCAVATION	598	CY	\$43.00	\$25,714.00
TRENCH BACKFILL	69	CY	\$32.00	\$2,208.00
WATER ZONE BEDDING AND BACKFILL	253	CY	\$32.00	\$8,096.00
AGGREGATE PAVEMENT BASE	683	CY	\$32.00	\$21,856.00
TRENCH RESTORATION 6"	13	SY	\$66.00	\$858.00
NON-PAVED SURFACE RESTORATION 12"	25	SY	\$100.00	\$2,500.00
			<u>TOTAL</u>	<u>\$206,432.00</u>



**CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION**

CONTRACT # <u>30001048</u>	CHANGE ORDER # <u>10</u>
Project Name: <u>Fanno Basin Force Main Replacement, Multnomah Section</u>	
Company: <u>Moore Excavation Inc.</u>	Project Number: <u>8294</u>
Address: <u>PO Box 30569</u>	Bid Number: <u>111174</u>
City, State, Zip: <u>Portland, OR, 97294-3569</u>	

GRIND AND REPAVE SW MULTNOMAH, 4" DEEP, BETWEEN SW 45TH AND SW 31ST AVENUES

The Contractor shall grind SW Multnomah to a 4" depth, from curb to curb, between SW 45th and SW 31st and repave with 4" of Asphalt Cement. This work shall include: lowering all utility castings below the grind depth then resetting them at the new street grade; applying temporary traffic striping after grinding and again after paving; installing temporary pavement ramps at each end of the paving work and at each access point to Multnomah; traffic control.

The Contractor will be paid according to the attached schedule of values for this work.

The estimated cost of this work is \$596,263.67.

This change order is subject to and incorporates the provisions of Subsection 109.16-B of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$596,263.67

The above-ordered change order will increase the contract time by 90 days.

To be completed by Contractor:

Has consent of Surety been obtained?

☐ Yes ☐ Not necessary

Will this change affect expiration or extent of insurance coverage?

☐ Yes ☐ No

If yes, will the policies be extended?

☐ Yes ☐ No

Approved by:

Moore Excavation Inc.


Authorized Representative

7/11/11
Date

Bureau of Environmental Services


Construction Division Manager

7/5/2011
Date

CC: BES Accounting (106/1000)

Contractor (original)

Construction Manager

Inspector II

Auditor's Office (131/401)



P.O. Box 30569 Portland, Oregon 97294
17090 NE San Rafael, Portland, Oregon 97230
Tel: 503.252.1180 | Fax: 503.252.1730
WWW.themeigroup.com

OR CCB#28397 | WA# MOORE1166BR

Since 1956

April 11, 2011

City of Portland/BES
1120 SW 5th Ave. Room 1000
Portland, OR 97201

Attn: Ted Luyben

Re: **FABA PS FM Multnomah Section Project # E08294**
(Quote to Grind and Overlay SW Multnomah from SW 45th to SW 31st)

Ted,

This is the pricing from your request to Grind and Overlay pave SW Multnomah Blvd fro SW 45th to SW 31st full width @ 4" depth, based on the following conditions.

- 1) Lower all castings below grade so street can be ground to grade.
- 2) Grind SW Multnomah from East side of SW 45th to the West side SW 31st full width and approximately 4" depth to city provided survey grades.
- 3) Sweep ground street and temp stripe (Sprayed temp stripe) for traffic maintenance.
- 4) Install temporary paved approaches at each end of project and at each access to Multnomah and at crossing intersections.
- 5) Pave back on ground surface approximately 4" depth using a profile grade ski.
- 6) Once paved, install sprayed temp paint striping of centerlines, turn lanes, fog lines and bike lanes. Location of temp striping installed per city provided survey.
- 7) Raise all castings to grade that had been lowered for the grinding. New AC to be diamond cut and castings paved into place with AC like the road surface.
- 8) Provide additional traffic control for lowering castings, AC Grinding, new paving, temp striping, raising castings to grade.
- 9) Traffic Control Supervisor to be paid for by the day rate as shown in Change Order #1.
- 10) Traffic Control Flaggers to be paid for by the hour rate as shown in Change Order #3.
- 11) AC grinding to be paid for by the Square Yard as listed below.
- 12) New Asphalt paving to be paid for by the delivered ton rate as listed on the individual truck tickets as listed below
- 13) Lowering castings for grinding and paving, and raising castings to final grade after final paving to be by the 1 lump sum for the project.
- 14) Temp sprayed paint striping to be paid by the lineal foot as listed below.
- 15) Traffic control to be paid by the 1 lump sum for the project.

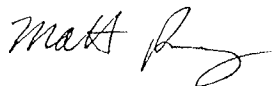
- 16) Temp AC approaches to be paid for by the 1 lump sum as listed below.
- 17) City to provide survey location of all castings prior to start of work.
- 18) City to provide survey location of all castings after final paving.
- 19) City to provide to grade survey for AC grinding operations as requested.
- 20) City to provide survey for Temp striping after grinding and again after final paving.

4" Grind and Overlay pricing –

Description	Unit price	Qty	Units	Total
4" AC Grinding Mobilization	\$977.50	1	LS	\$977.50
4" AC Grinding & Haul	\$5.47	17660	SY	\$96,600.20
AC Paving	\$84.53	3975	TN	\$336,006.75
AC Paving to raise and lower castings	\$341.25	68	TN	\$23,205.00
4" Striping White and Yellow	\$0.16	29,000	LF	\$4,646.00
8" Striping 8" White	\$0.23	14,500	LF	\$3,335.00
Lower & raise castings to grade	\$69,782.81	1	LS	\$69,782.81
Pave temp AC ramps for approaches	\$38,911.51	1	LS	\$38,911.51
Traffic Control and Signage	\$22,798.90	1	LS	\$22,798.90
Total cost				\$596,263.67

Please call if you have any questions.

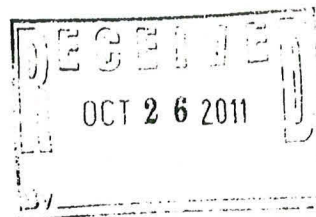
Sincerely,
MOORE EXCAVATION, INC.



Matt Posey
Project Manager



CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION



CONTRACT # 30001048 CHANGE ORDER # 11
Project Name: Fanno Basin Force Main Replacement, Multnomah Section
Company: Moore Excavation Inc. Project Number: 8294
Address: PO Box 30569 Bid Number: 111174
City, State, Zip: Portland, OR, 97294-3569

REPAVE WATER LINE TRENCH WITH 8" THICK ASPHALT CONCRETE

The Contractor shall repave the trench of the relocated water line in SW Multnomah with 8" thick AC. The estimated area to be repaved is 1,800 SY.

1,800 SY 8" Thick AC @ \$78.00 / SY for a total of \$140,400.

This change order is subject to and incorporates the provisions of Subsection 00196.10 (b) of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$140,400.00

The above-ordered change order will increase the contract time by 120 days.

To be completed by Contractor:

Has consent of Surety been obtained?

☐ Yes ☐ Not necessary

Will this change affect expiration or extent of insurance coverage?

☐ Yes ☐ No

If yes, will the policies be extended?

☐ Yes ☐ No

Approved by:

Moore Excavation Inc.

[Signature]

Authorized Representative

11/10/11

Date

Bureau of Environmental Services

[Signature]

Construction Division Manager

11/16/2011

Date

CC: BES Accounting (106/1000)

Contractor (original)

Construction Manager

Inspector II

Auditor's Office (131/401)



**CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION**



CONTRACT # <u>30001048</u>	CHANGE ORDER # <u>12</u>
Project Name: <u>Fanno Basin Force Main Replacement, Multnomah Section</u>	
Company: <u>Moore Excavation Inc.</u>	Project Number: <u>8294</u>
Address: <u>PO Box 30569</u>	Bid Number: <u>111174</u>
City, State, Zip: <u>Portland, OR, 97294-3569</u>	

SETTLEMENT OF ELEVEN CONSTRUCTION ISSUES

The Contractor shall:

- 1) Provide portable toilets for flaggers during the traffic detour.
- 2) Purchase, install and operate speed reader signs to help maintain appropriate and safe traffic speeds during the detour.
- 3) Provide traffic control for the Water Bureau on a Friday and Saturday to allow BWW to cut off the water main in Multnomah Boulevard.
- 4) Provide traffic control and saw cutting on a Saturday to assist BWW in transferring services from the cut main to another main.
- 5) Investigate and remove an unknown 4" steel pipe which was in conflict with the force main installation.
- 6) Drain 1200 linear feet of existing 10" water line that BWW had cut and capped, but left full of water.
- 7) Provide temporary waterline trench paving in Multnomah Blvd. for the Water Bureau.
- 8) Replace an existing catch basin which was in such poor condition that it fell apart as the trench for the water line passed it.
- 9) Lower two manhole covers which were unlocated and which were hit by the grinding machine as the Contractor ground the pavement in preparation for overlaying the street.
- 10) Dig out and replace a soft shoulder near SW 40th Avenue, during the overlay operation.
- 11) Test the Cathodic Protection system installed with the pipe.

Negotiated Lump Sum - \$62,640.87

This change order is subject to and incorporates the provisions of Subsection 00196.10 (b) of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$62,640.87

The above-ordered change order will increase the contract time by 10 days.

To be completed by Contractor:

Has consent of Surety been obtained?

☐ Yes ☐ Not necessary

Will this change affect expiration or extent of insurance coverage?

☐ Yes ☐ No

If yes, will the policies be extended?

☐ Yes ☐ No

CONTRACT # 30001048

CHANGE ORDER # 12

Project Name: Fanno Basin Force Main Replacement, Multnomah Section

Company: Moore Excavation Inc.

Project Number: 8294

Address: PO Box 30569

Bid Number: 111174

City, State, Zip: Portland, OR, 97294-3569

Approved by:

Moore Excavation Inc.

Bureau of Environmental Services



1/5/12



1/12/2011

Authorized Representative

Date

Construction Division Manager

Date

CC: BES Accounting (106/1000)

Contractor (original)

Construction Manager

Inspector II

Auditor's Office (131/401)



CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
CONSTRUCTION SERVICES DIVISION



CONTRACT # 30001048 CHANGE ORDER # 13
Project Name: Fanno Basin Force Main Replacement, Multnomah Section
Company: Moore Excavation Inc. Project Number: 8294
Address: PO Box 30569 Bid Number: 111174
City, State, Zip: Portland, OR, 97294-3569

RESOLUTION OF FORTY TWO (42) UTILITY INTERFERENCES AND CHANGED OR EXTRA ITEMS OF WORK

The Contractor shall complete the forty-two items of work shown on the attached list, in order to allow the force main installation to be completed so that the Fanno Basin Pump Station can be put back into service in a timely manner.

\$208,267.82 This is the sum of 42 negotiated lump sums, based on the items of work listed.

This change order is subject to and incorporates the provisions of Subsection 00196.10 (b) of the Standard Specifications. By signing this form the Contractor agrees that the information presented herein is complete, accurate, and resolves all issues of contract time and compensation associated with the work identified herein.

The above-ordered change order will increase the contract amount by \$208,267.82

The above-ordered change order will not change the contract time.

To be completed by Contractor:

Has consent of Surety been obtained?

☐ Yes ☐ Not necessary

Will this change affect expiration or extent of insurance coverage?

☐ Yes ☐ No

If yes, will the policies be extended?

☐ Yes ☐ No

Approved by:

Moore Excavation Inc.

[Signature]
Authorized Representative

1/31/12
Date

Bureau of Environmental Services

[Signature] Feb 6, 2012
Construction Division Manager Date

CC: BES Accounting (106/1000)

Contractor (original)

Construction Manager

Inspector II

Auditor's Office (131/401)

Quantities agreed to to date

3	8008	6" Tee off 8" Sewer Line	\$1,123.33	0
	8010-6	Detour #1 Flagger support (Toilets)	\$7,680.00	—
4	8012	Add Shoulder Paving	\$5,352.47	0
5	8013	Re-Rock Hume st.	\$668.46	0
6	8014	Add Permanent Signs	\$5,558.54	0
7	8016	Add Yellow Deliniators	\$1,086.77	0
8	8019 8020	10" Storm Sta 108+30 <i>Daily Maint Detour #1</i>	\$7,072.69	0 40,25.00
9	8021	Speed Limit Signs	\$23,833.45	—
10	8022	6" Fire line by Church	\$2,181.94	0
11	8023	Irrigation by church	\$1,921.10	0
12	8024	8" Waterline Cut Out Sta. 118+00	\$1,560.45	0
13	8025	10" Waterline Cut Out	\$4,655.15	0
14	8026	7-13 Night Call Out Steel Can	\$158.16	0
15	8028	Waterline conflict Sta. 144+00	\$523.98	0
16	8030	Unlocated Steel Gas Line	\$5,086.99	0
17	8031	Pressure Manhole	\$2,285.20	0
18	8032 8033	Sta 127+00 4" Force Mains <i>Fiber Relocate</i>	\$1,545.81	0 7388.51
19	8034	New 12" Water Main	\$3,557.49	0
20	8035	CIV's	\$3,604.66	0
21	8036	Sta 143+50 10" & 12" Water	\$3,403.01	0
22	8038	Fiber Conflict @ 45th	\$3,088.98	0
23	8039	BWW Saturday Cut Off	\$2,162.44	—
25	8040 8041	Relocate Marker Balls <i>Detour #2</i>	\$7,850.19	— 44,131.33
25A	8042	45th to 40 water Cut & Cap	\$2,164.87	—
26	8043	4" Steel line delay 35th & Multnomah	\$3,142.76	—
27	8044	10 Water Delay STA 167+50	\$1,810.84	—
28	8045	18" Storm Delay STA 193+08	\$12,868.53	—
30	8047 8048	BWW Support 40th East <i>Grind & Place Bille Lark</i>	\$1,171.09	— 32,676.3
31	8050	10" Sanitary Conflict Sta 181+90	\$4,830.63	—
32	8053	Phone Conflict STA 102+80	\$20,172.55	0
34	8054 8056	Conflict at Discharge Structure <i>Pull Boxes Upsize</i>	\$3,884.24	— 2,335.94
34-10	8060	Temp Paving BWW	\$600.00	— 184.53
35	8062	Remove Detour #1	\$3,534.28	—
36	8064	Repair Temp Paving 40th East	\$1,900.05	—
38	8066	Hydrant Conflict STA. 14+75	\$2,390.88	—
39	8067	40th Waterline Boondogle	\$5,851.52	—
40	8068	Storm line by Bridge footing	\$3,890.90	—
41	8069	Bridge Footing Conflict	\$2,137.43	—
42	8070	Concrete Footings	\$10,865.57	—
43	8072	35th Waterline Conflict	\$3,308.46	—
44	8074	6" Sewer Lat Sta. 26+43	\$1,444.69	—
45	8075	Storm Conflict @ 8" Run North	\$1,244.81	—
46	8077	Waterline CDF Sta 21+10	\$2,908.06	—
47	8081	Rail Road Compaction delay	\$6,019.63	0
48	8083	Catch Basin	\$1,924.04	—
50	8084	Unidentified MH Delay for Grinding	\$12,407.52	0
49	8085	Soft Shoulder dig out	\$2,818.34	—

\$209,252.95 193,348.94

21,099.77

63,311.28

8087 Corrosion Test

9,667.02 (181,793.1)

002 25



BUREAU OF ENVIRONMENTAL SERVICES
FINAL PROJECT REPORT
FY 2009 – FY 2012



FABA PS FM: Multnomah Section

Job No. E08294

Bid No. 111174

Contract No. 30001048

July 25, 2012



By: Ted Luyben and Dan Hebert

PROJECT STAFF:

Contractor:	Moore Excavation, Inc.
Construction Manager:	Ted Luyben
BES Inspection:	Josh Nault, Jason Horner, Paul Akerill, Bryan Schmitt, Tony Grant, Phil Choate, Sue Terzo
Project Technician:	Mike Baker
Design Manager:	Dan Hebert, Brenda Sherwood
Design Consultant:	Brown & Caldwell

FINAL PROJECT STATUS:

Notice to Proceed:	January 28, 2010
Scheduled Contract Time:	263 Calendar days
Scheduled Completion:	October 18, 2010
Additional Contract Time:	402 Calendar Days
Revised Completion:	November 24, 2011
Final Completion:	November 23, 2011
Days Delinquent:	0 Calendar Days
Substantial Completion:	November 23, 2011
Original Contract Amount:	\$5,050,951.00
Change Orders:	\$2,280,037.46
Quantity Increase:	\$9,761.88
Other Adjustments:	\$26,144.16
Final Amount Earned:	\$7,336,442.16, which is 45.25% over the original Contract amount.

The City completed inspection of the sewer on November 23, 2011. Construction of the new Force Main installation was completed and accepted as of November 23, 2011.

CHANGE ORDERS:

There were 12 Change Orders issued on this project. Change Orders amounted to 45.14% of the original contract amount.

Change Orders	Description	Type	Amount	Days
1	Add Traffic Control Supervisor Bid Item	DM	\$66,600.00	0
2	Detour #1 Traffic Control Signage Impacts	DM	\$34,932.10	0
3	Additional Flaggers	DM	\$419,424.00	0
5	Extend Contract Time - Delayed Approval of Detour	DM	\$0.00	99
6	Waterline Relocation to Meet OAR 333	OE	\$499,429.00	53
7	Temp. Pavement on Force Main Trench, 40 th to 31st	OE	\$47,318.00	30
8	Modify Discharge Structure	OE	-\$1,670.00	0
9	Waterline Relocation to Meet OAR 333, Part 2	CC	\$206,432.00	0
10	Grind & Repave Multnomah 4" Deep, 45 th to 31st	OE	\$596,263.67	90
11	Repave Waterline Trench w/ 8" Thick AC	OE	\$140,400.00	120
12	Settlement of Eleven Construction Issues	CM	\$62,640.87	10
13	42 Utility Interferences & Changed or Extra Items of Work	CM	\$208,267.82	0
TOTAL:			\$2,280,037.46	402



FORCE MAIN INSTALLATION



WRAPPED FORCE MAIN PIPES

This project replaced approximately 10,000 linear feet of existing pipe; replaced an existing pressure monitoring manhole; made improvements to existing fiber optic conduit (installing new conduit, pull boxes and connection manhole); and removed and replaced the discharge structure at SW 31st.

In addition, extra work was added to the project scope, in cooperation with other Bureaus – roughly 3,000 feet of 10" water main was relocated and replaced with 12" pipe, in order to meet the requirements of OAR 333 for sewer / water separation and the full width of Multnomah Blvd. (rather than just the mainline pipe and water line trenches) was ground and repaved 4" deep between SW 45th and SW 31st.



EXISTING FOOTINGS IN WATERLINE TRENCH



GRINDING ROAD FOR GRIND & PAVE

COMPARISON WITH FINAL DESIGN REPORT:

The completed project meets the goals and design criteria established prior to advertisement for bids.

PROJECT BACKGROUND:

Construction of the Fanno Basin Pump Station and the Fanno force mains (Garden Home and Multnomah sections) began in 1999. The Pump Station replaced five smaller pump stations in the Fanno basin and the force mains conveyed the flows from the Pump Station to a discharge structure at SW 31st & Multnomah, where they return to gravity flow. Pipe joint failures were discovered and repaired in the Garden Home section even before construction was complete and several other failures occurred over the next several years, including a point failure in the Multnomah section force main on October 4, 2005. Analysis concluded that the existing PVC pipe did not have the structural capacity to withstand the recurring pressure surges over the planned 50-year life of the pipe and recommended replacement of the Multnomah section of the force main. Other studies and basin modeling concluded that the firm pumping capacity of the Fanno Creek Basin Sewage Conveyance System needed to be increased from 24 cfs to 47 cfs. To handle this peak flow, a design for parallel 30-inch DIP force mains was developed. These pipes have been installed along the alignment of the existing force main. The Multnomah section of the force main connects to the Garden Home section at SW 69th & Railroad Street and to the discharge structure at SW 31st & Multnomah.



UTILITY CONFLICTS NEAR 69TH & RAILROAD



SETTING DISCHARGE STRUCTURE @ 31ST & MULTNOMAH

PROJECT DESCRIPTION AND OBJECTIVES:

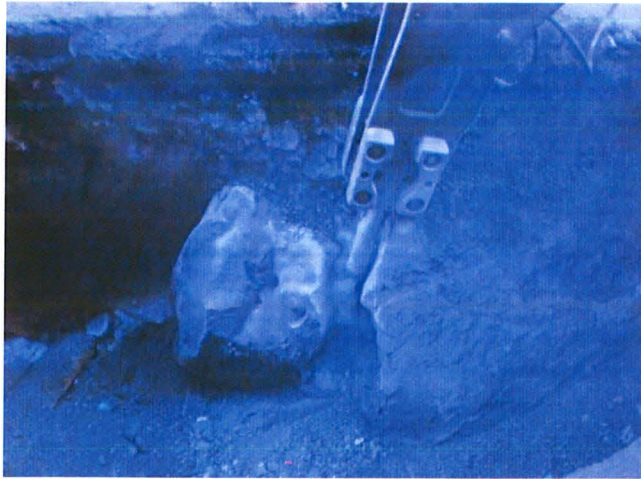
The Fanno Pump Station Pressure Line: Multnomah Section involves the replacement of one existing 30" PVC pressure line with two parallel 30" DIP pressure lines. This was done in order to replace the PVC pipe, which analysis suggested would not survive through its life cycle, with Ductile Iron pipe and to increase the capacity of the system in conjunction with the expansion of the Fanno Basin Pump Station.

SUGGESTIONS FOR IMPROVEMENT:

- During the design of this project, considerable effort was put into the design of a preliminary traffic control plan that would comply with the criteria established by the Bureau of Transportation. However, the traffic control design did not consider traffic volumes according to the City Traffic Control engineer. Part of the plan was to have the majority of the work done at night, to avoid detouring traffic from Multnomah Boulevard during busy traffic hours in the daytime. This night work would require a noise variance. Due to an oversight during review, two of the proposed detour plans specified "Detour route to be used during night working hours only", but the other two did not contain this language. This led the Contractor to believe they could establish a traffic detour for daytime working hours. Based on this belief, they proposed to close Multnomah completely and detour traffic while working days. This created a conflict which delayed the start of construction for several months, until PBOT was convinced that the design could be modified considering actual traffic volumes, and the project could be accomplished without undue effect on the travelling public. This also led to several Change Orders being written to accommodate the change to daytime detours – inclusion of a Traffic Control Supervisor to oversee the detour; additional traffic signage for the detour; additional flaggers and a time extension for the delay. When PBOT mandates night work in approved Traffic Control Plans, we should hold high-level meetings with them to come to agreement as to whether this is the best option for the project and the public.
- A continuing problem during construction was the presence of utilities in the right-of-way that had not been relocated prior to the start of construction of the force mains. The most severe problem was with Level 3 fiber optic duct banks, which forced the Contractor to change pipe laying sequences and caused additional work, while they were waiting for the duct banks to be moved. More effort should have been applied to enforce the timely relocation of the Level 3 duct banks prior to the award of the force main contract.
- Performing major items of work under Change Order is not a desired or efficient use of public resources. The relocation of major water facilities, such as 8" and 12" mains which turned out to be within the OAR variance zone with our sewer force mains was one of the reasons this project exceeded 125% of the bid price and had to go before City Council with two ordinances to increase the contract value. Another major Change Order was written for grinding and repaving Multnomah Blvd curb to curb between SW 45th and 31st. As a result of extending the contract to relocate water lines which, created additional trench patches, and major trench excavations for the dual force mains the roadway was in no shape to be left in this permanent condition. This change was proposed by PBOT while one-half of the street was already torn up.

ITEMS THAT WORKED WELL:

- The design consultant was very prompt in reviewing and commenting on submittals dealing with the force main pipe and fittings. They also quickly processed proposed alignment and profile changes as the work progressed.
- The revised Traffic Control Plan which provided for a daytime detour of Multnomah Blvd. with additional signage and flaggers worked very well, once it was approved by PBOT. There were minimal backups or delays to the travelling public. One of the major advantages of the daytime detour was the absence of citizen complaints regarding nighttime construction noise.
- The approval of the use of a precast concrete vault for the discharge structure at SW 31st aided the project by speeding up the vault installation over the specified cast in place vault. The approval process for the precast vault was lengthy and difficult, but it did not slow down the overall project completion.
- The specified Ductile Iron Pipe laid very well with minimum labor and rework. In two instances, a gasket rolled during installation, and resulted in leaks and rework, but overall the installation was relatively trouble-free.
- The contract provided for the purchase of a minimal number of additional fittings and bends to be on hand during construction. These additional pieces were therefore on hand to allow for quick changes in elevation and alignment necessitated by encountering several utility obstructions.



ROCK IN TRENCH



FIBER OPTICS IN TRENCH



RESULT OF ACCIDENT AT CHURCH PARKING LOT



SETTING TRENCH BOX



TRENCH ROCK EXCAVATION



PAVEMENT CRACKING OUTSIDE TRENCH

FUTURE CIP OR O&M ISSUES:

None noted.

FACILITIES ACCEPTANCE REPORT:

Project does not require a Facilities Acceptance Report.

RECORD DRAWINGS:

Record drawings have been reviewed and accepted by the BES Inspector. They were checked and transmitted to CADD on July 20, 2012. Copies were sent to the main file, to Locates and to the Designer.

PROJECT PHOTOS:



MULTNOMAH BLVD. TRAFFIC DETOUR – ROAD CLOSED



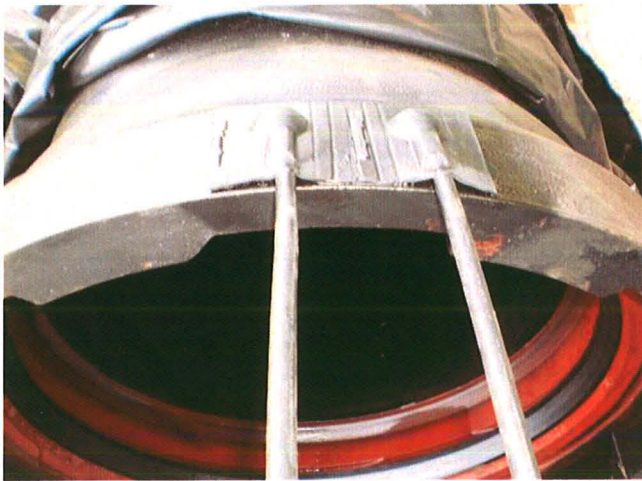
MULTNOMAH BLVD. TRAFFIC DETOUR – DETOUR ROUTE



VIEW FROM CAPITOL OVERPASS – PRECONSTRUCTION



VIEW FROM CAPITOL OVERPASS - CONSTRUCTION



CATHODIC PROTECTION



69TH AND RAILROAD STREET



PIPE CONNECTION SLEEVES



FEBRUARY WORK



"B" LINE WITH CAP IN DISCHARGE STRUCTURE



TEMPORARY OUTLET PIPE AT DISCHARGE STRUCTURE



8" AC PAVING OVER FORCE MAINS



GRIND & PAVE TRENCH PATCH AT SW 40TH

PROJECT COST:

- The final amount earned by Moore Excavation for this work is \$7,336,442.16. This is 45.25% over the original Contract Amount of \$5,050,951.00.
- The current life budget in PIPER is \$8,691,000. Based on the costs to date, and the final contract amount, the project costs are \$10,216,498.40, or 17.55% over budget.
- Costs incurred during NTP/Bid Award, Construction, and Startup/Closeout for Construction Management are \$250,075.39 and for Inspection are \$306,250.85 for a total of \$556,326.24.
- Construction Phase costs for Construction Management were 3.19% of the Construction Cost and Inspection costs were 4.15% of the total Construction Costs, for a total of 7.34%.

PIPER COST SUMMARY: As of July 25, 2012

Note – final project costs shown below do not include final payment of \$31,022.99, which is awaiting approval of an Ordinance by City Council.

Piper Cost Status Report
Bureau of Environmental Services
City of Portland

E08294

Printed 7/25/12 5:00 PM

Phase	Tow Code Description of Work	TOW Cost	% Total Cost	% Construction Costs
Predesign	12 - Project Management	\$272.34	0.00	0.00
Predesign	30 - Inspection	\$8,291.63	0.08	0.11
Design	14 - Engineering	\$645,975.44	6.34	8.80
Design	20 - Construction Management - General	\$24,911.48	0.24	0.34
Design	30 - Inspection	\$33,374.74	0.33	0.45
Design	41 - Survey	\$65,732.43	0.65	0.90
Design	43 - CAD	\$796.66	0.01	0.01
Design	44 - Modeling	\$675.00	0.01	0.01
Design	45 - Mapping & GIS	\$595.80	0.01	0.01
Design	47 - Public Involvement	\$16,721.45	0.16	0.23
Design	49 - I&C Support	\$20,794.94	0.20	0.28
Design	73 - Miscellaneous	\$32,070.10	0.31	0.44
Advertise-NTP	20 - Construction Management - General	\$14,685.26	0.14	0.20
Advertise-NTP	30 - Inspection	\$303.74	0.00	0.00
Advertise-NTP	72 - Advertise-NTP Expenses	\$4,343.88	0.04	0.06
Construction	14 - Engineering	\$280,960.94	2.76	3.83
Construction	21 - Contract Management	\$234,120.47	2.30	3.19
Construction	22 - Submittals and RFI	\$30,956.77	0.30	0.42
Construction	23 - Progress Payments	\$9,880.93	0.10	0.13
Construction	24 - Claims, Legal, Audist	\$200.55	0.00	0.00
Construction	30 - Inspection	\$304,268.14	2.99	4.15
Construction	41 - Survey	\$59,509.94	0.58	0.81
Construction	42 - Material Testing Lab	\$26,374.39	0.26	0.36
Construction	45 - Mapping & GIS	\$198.53	0.00	0.00
Construction	46 - Environ. Assessment & Doc	\$8,916.81	0.09	0.12
Construction	47 - Public Involvement	\$40,409.65	0.40	0.55
Construction	49 - I&C Support	\$2,761.92	0.03	0.04
Construction	50 - Electrical Support	\$1,262.31	0.01	0.02
Construction	53 - PCL - Lab Services	\$224.00	0.00	0.00
Construction	60 - Construction Contract	\$7,339,727.25	72.06	100.00
Construction	61 - Inter-agency Construction	\$912,175.23	8.96	12.43
Construction	67 - OCIP - Premiums	\$31,067.00	0.31	0.42
Construction	73 - Miscellaneous	\$17,657.16	0.17	0.24
Startup/Closeout	14 - Engineering	\$1,054.00	0.01	0.01
Startup/Closeout	21 - Contract Management	\$1,269.66	0.01	0.02
Startup/Closeout	30 - Inspection	\$1,678.97	0.02	0.02
Startup/Closeout	43 - CAD	\$98.04	0.00	0.00
Startup/Closeout	73 - Miscellaneous	\$11,157.86	0.11	0.15

\$10,185,475.41

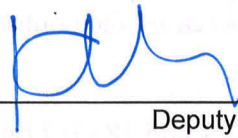

 Ted Luyben, Construction Manager

 7-31-12
 Dan Hebert, Design Project Manager

cc: Jamie De La Garza, Bill Ryan, Mark Hutchinson, Dan Hebert, Ted Luyben, Neil Choate, Josh Nault, Scott Gibson, MTL, Const. Eng. Project File

Agenda No.
REPORT NO.
 Title

Accept completion of Fanno Basin Pump Station Force Main: Multnomah Section Project and authorize final payment to Moore Excavation, Inc., Project No. E08294 (Report)

INTRODUCED BY Commissioner/Auditor: Dan Saltzman	CLERK USE: DATE FILED <u>JAN 25 2013</u>
COMMISSIONER APPROVAL Mayor—Finance and Administration - Hales Position 1/Utilities - Fritz Position 2/Works - Fish Position 3/Affairs - Saltzman Position 4/Safety - Novick	LaVonne Griffin-Valade Auditor of the City of Portland By:  Deputy
BUREAU APPROVAL Bureau: Bureau of Environmental Service Bureau Head: Dean Marriott Prepared by: Ted Luyben Date Prepared: January 3, 2013 Financial Impact & Public Involvement Statement Completed <input checked="" type="checkbox"/> Amends Budget <input type="checkbox"/> Council Meeting Date January 30, 2013 City Attorney Approval: required for contract, code, easement, franchise, charter, Comp Plan	ACTION TAKEN: JAN 30 2013 ACCEPTED

AGENDA TIME CERTAIN <input type="checkbox"/> Start time: _____ Total amount of time needed: _____ (for presentation, testimony and discussion) CONSENT <input checked="" type="checkbox"/> REGULAR <input type="checkbox"/> Total amount of time needed: _____ (for presentation, testimony and discussion)

FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS:		
		YEAS	NAYS
1. Fritz	1. Fritz	✓	
2. Fish	2. Fish	✓	
3. Saltzman	3. Saltzman	✓	
4. Novick	4. Novick	✓	
Hales	Hales	✓	