

EXHIBIT E
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CITY OF PORTLAND, OREGON
BUREAU OF TRANSPORTATION
PRELIMINARY ENGINEER'S ESTIMATE FOR PROJECTS >\$1M
NE 46th & SARATOGA LID

Date: November 15, 2018
Date: November 19, 2018

By: Ken Finch
By: Andrew Aebi

PRELIMINARY ENGINEER'S ESTIMATE FOR THE IMPROVEMENT OF NE 42nd Ave., NE Columbia Blvd., NE 46th Ave. & NE Saratoga Ct.

VALUES IN BLUE ARE PERCENT OF CONTRACT.

BID ITEMS

NO.	ITEMS OF WORK AND MATERIALS	SPEC REFERENCE	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL AMOUNT
1	MOBILIZATION	0210	LS	1.00	\$287,501.34	\$287,501.34
2	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	0225	LS	1.00	\$91,137.92	\$91,137.92
3	TEMPORARY TRAFFIC SIGNAL INSTALLATION	0225	EACH	1.00	\$216,000.00	\$216,000.00
4	TRAFFIC CONTROL SUPERVISOR	0225	HOUR	20.00	\$69.00	\$1,380.00
5	EROSION CONTROL	0280	LS	1.00	\$30,475.14	\$30,475.14
6	CONSTRUCTION ENTRANCES	0280	EACH	3.00	\$2,460.00	\$7,380.00
7	SEDIMENT FENCE, UNSUPPORTED	0280	FOOT	4,590.00	\$4.10	\$18,819.00
8	INLET PROTECTION	0280	EACH	4.00	\$118.00	\$472.00
9	POLLUTION CONTROL PLAN	0290	LS	1.00	\$3,737.52	\$3,737.52
10	CONTAMINATED MEDIA DISPOSAL	0291	CUYD	1,894.00	\$262.00	\$496,228.00
11	REMOVAL OF STRUCTURES & OBSTRUCTIONS	0310	LS	1.00	\$143,750.67	\$143,750.67
12	CLEARING AND GRUBBING	0320	LS	1.00	\$75,469.10	\$75,469.10
13	GENERAL EXCAVATION	0330	CUYD	2,420.00	\$42.40	\$102,600.00
14	EMBANKMENT IN PLACE	0330	CUYD	1,367.00	\$24.00	\$32,808.00
15	12 INCH SUBGRADE STABILIZATION	0331	SQYD	474.60	\$38.35	\$18,198.75
16	SUBGRADE GEOTEXTILE	0350	SQYD	4,746.00	\$1.45	\$6,864.00
17	VIDEO INSPECTION OF SEWERS, MAINLINE	0401	FOOT	1,100.00	\$3.60	\$3,960.00
18	STORMWATER PLANTERS	0415	SQFT	1,050.00	\$43.43	\$45,600.00
19	12 INCH PIPE, PVC ASTM D3034 SDR35, BEDDING TYPE: D, COMPLETE	0445	FOOT	1,620.00	\$200.00	\$324,000.00
20	CONCRETE MANHOLES, 48 INCH, 0-8 FT DEPTH	0470	EACH	6.00	\$4,582.00	\$27,492.00
21	CONCRETE INLETS, TYPE G-2	0470	EACH	16.00	\$2,366.00	\$37,856.00
22	CONCRETE INLETS, TYPE METAL	0470	EACH	34.00	\$886.00	\$30,124.00
23	ACCESS DOORS	0470	EACH	1.00	\$40,000.00	\$40,000.00
24	ADJUSTING BOXES	0490	EACH	14.00	\$320.00	\$4,480.00
25	MINOR ADJUSTMENT OF MANHOLES	0490	EACH	3.00	\$1,130.00	\$3,390.00
26	MAJOR ADJUSTMENT OF MANHOLES	0490	EACH	1.00	\$2,033.00	\$2,033.00
27	AGGREGATE BASE, 8 INCHES THICK	0640	SQYD	6,212.00	\$14.23	\$88,372.60
28	LEVEL 3, 1/2 INCH DENSE, MWMAC MIXTURE	0744	TON	831.00	\$122.44	\$101,750.00
29	ASPHALT CONNECTIONS	0749	SQFT	720.00	\$7.70	\$5,544.00
30	PLAIN CONCRETE PAVEMENT, UNDOWELLED, 10 INCHES THICK	0756	SQYD	1,466.00	\$68.10	\$99,834.60
31	CONCRETE CURBS, STANDARD CURB	0759	FOOT	376.00	\$37.25	\$14,006.00
32	CONCRETE CURBS, THICKENED CURB AND GUTTER	0759	FOOT	240.00	\$65.00	\$15,600.00
33	CONCRETE DRIVEWAYS	0759	SQFT	2,059.00	\$17.00	\$35,003.00
34	CONCRETE DRIVEWAYS, REINFORCED	0759	SQFT	1,513.00	\$17.30	\$26,174.90
35	MONOLITHIC CURB AND SIDEWALKS	0759	SQFT	28,583.00	\$19.75	\$564,514.25
36	SIGN SUPPORT FOOTINGS, BREAKAWAY	0920	EACH	6.00	\$182.00	\$1,092.00
37	SIGNAL POLE MOUNTS	0930	EACH	6.00	\$570.00	\$3,420.00
38	PIPE SIGN SUPPORTS	0930	EACH	6.00	\$180.00	\$1,080.00
39	TRAFFIC SIGNAL INSTALLATION	0990	LS	1.00	\$341,000.00	\$341,000.00
40	INTERCONNECT SYSTEM	0990	LS	1.00	\$32,000.00	\$32,000.00
41	TOPSOIL	1040	CUYD	177.00	\$61.10	\$10,814.70
42	DECIDUOUS TREES, 3 INCH CALIPER	1040	EACH	89.00	\$890.00	\$79,210.00
43	BARK MULCH	1040	CUYD	29.00	\$79.10	\$2,293.90
44	ADDITIONAL ESTABLISHMENT PERIOD	1040	EACH	89.00	\$264.00	\$23,496.00
45	ROOT BARRIER	1040	FOOT	534.00	\$13.90	\$7,422.60
46	SINGLE MAILBOX SUPPORTS	1070	EACH	9.00	\$300.00	\$2,700.00
TOTAL BID ITEMS						\$3,507,084.99

EXHIBIT E
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NO.	ITEMS OF WORK AND MATERIALS	SPEC REFERENCE	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL AMOUNT
##### ANTICIPATED ITEMS #####						
NO.	ITEMS OF WORK AND MATERIALS	REFERENCE	UNIT	QUANTITY	UNIT PRICE	TOTAL AMOUNT
1	RELOCATE WATER FACILITIES - FIRE HYDRANT		EACH	1.00	\$20,000.00	\$20,000.00
2	RELOCATE WATER FACILITIES - METER		EACH	6.00	\$6,000.00	\$36,000.00
3	STREET LIGHTING SYSTEM		LS	1.00	\$103,390.00	\$103,390.00
4	POWER HOOK UP		LS	1.00	\$56,610.00	\$56,610.00
5	STORMWATER PLANTINGS AND PLANT ESTABLISHMENT		SQFT	945.00	\$21.71	\$20,520.00
6	30 YEAR SIGNAL MAINTENANCE FEE		LS	1.00	\$100,000.00	\$100,000.00
7	LEVEL 2 ENVIRONMENTAL REPORT		LS	1.00	\$133,000.00	\$133,000.00
8	CONTAMINATED SOIL DISPOSAL		LS	1.00	\$215,000.00	\$215,000.00
9	BOLI FEE PAYMENT		LS	1.00	\$3,507.08	\$3,507.08
10	CONTRACT CONTINGENCY (REQUIREMENT TO ACCEPT BIDS UP TO 10% OVER ESTIMATE)		LS	1.00	\$350,708.50	\$350,708.50

TOTAL ANTICIPATED ITEMS \$1,038,735.58

SCHEDULE SUMMARY

BID ITEMS			\$3,507,084.99
CONSTRUCTION CONTINGENCY	4.9% of Bid Items*		\$173,570.00
SUBTOTAL			\$3,680,654.99
ANTICIPATED ITEMS			\$1,038,735.58
TOTAL CONSTRUCTION			\$4,719,390.57
PROJECT MANAGEMENT	4.9% of Bid Items		\$173,569.93
DESIGN ENGINEERING	24.7% of Bid Items		\$867,850.00
CONSTRUCTION MANAGEMENT	14.8% of Bid Items		\$520,710.00
SUBTOTAL			\$1,562,129.93
PROJECT ENGINEERING & MANAGEMENT OVERHEAD	76.07% of PM, Eng, and CM		\$1,188,312.24
TOTAL PROJECT ENGINEERING & MANAGEMENT			\$2,750,442.18
RIGHT-OF-WAY LAND, IMPROVEMENTS, AND DAMAGES			\$1,261,647.00
RIGHT-OF-WAY APPRAISAL, TITLE INSURANCE, AND NEGOTIATION			\$235,750.00
RIGHT-OF-WAY CONTINGENCY	30% of Land, Improve, and Damages		\$378,494.10
TOTAL PROJECT RIGHT-OF-WAY			\$1,875,891.10
INFLATION RATE ON CONTRACT	5 Years	4.5% of Construction Inflation	\$1,151,757.00
INFLATION RATE ON PERSONNEL	5	2.0% of Eng & Mgmt Inflation	\$286,269.00
ESTIMATE CONTINGENCY FOR UNDEFINED OR CHANGE IN SCOPE		19.5% of Const, Eng & Mgmt, and Inflation	\$1,732,480.21
TOTAL PROJECT CONTINGENCY			\$3,170,506.21
TOTAL PROJECT ESTIMATE			\$12,516,230.06