

Exhibit E

CITY OF PORTLAND, OREGON
BUREAU OF TRANSPORTATION
PRELIMINARY ENGINEER'S ESTIMATE FOR PROJECTS >\$1M
NE 97TH AVE & DAVIS STREET LID

Date: February 2019

By: Gary Brittle

PRELIMINARY ENGINEER'S ESTIMATE FOR THE IMPROVEMENT OF NE 97TH AVE FROM NE DAVIS ST TO E BURNSIDE AND NE DAVIS ST AND NE 97TH TO NE 100TH

VALUES IN BLUE ARE PERCENT OF CONTRACT.

BID ITEMS

NO.	ITEMS OF WORK AND MATERIALS	SPEC REFERENCE	ITEM NUMBER	CLASS OF WORK	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL AMOUNT
1	MOBILIZATION	0210	0100000A	n/a	LS	1.00	\$67,681.28	\$67,681.28
2	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	0225	0100000A	13	LS	1.00	\$33,840.64	\$33,840.64
20	FLAGGERS	0225	0168000T	13	HOURL	500.00	\$52.50	\$26,250.00
24	EROSION CONTROL	0280	0100000A	11	LS	1.00	\$6,768.13	\$6,768.13
30	INLET PROTECTION	0280	0114000E	11	EACH	6.00	\$118.00	\$708.00
31	POLLUTION CONTROL PLAN	0290	0100000A	12	LS	1.00	\$676.81	\$676.81
45	REMOVAL OF STRUCTURES & OBSTRUCTIONS	0310	0106000A	1	LS	1.00	\$27,072.51	\$27,072.51
47	CLEARING AND GRUBBING	0320	0100000A	1	LS	1.00	\$17,597.13	\$17,597.13
51	GENERAL EXCAVATION	0330	0105000K	1	CUYD	172.00	\$50.00	\$8,600.00
70	POTHOLE EXCAVATION	0405	1106000E	1	EACH	1.00	\$743.00	\$743.00
78	12 INCH PIPE, PVC AWWA C900, CI 150, BEDDING TYPE: D, COMPLETE	0445	Special		FOOT	300.00	\$130.00	\$39,000.00
94	CONCRETE MANHOLES, SEDIMENTATION	0470	0113000E	1	EACH	2.00	\$6,000.00	\$12,000.00
95	CONCRETE MANHOLES, SUMP	0470			EACH	2.00	\$15,600.00	\$31,200.00
96	SUMP CAPACITY TEST	0470			EACH	2.00	\$1,690.00	\$3,380.00
98	CONCRETE INLETS, TYPE CG-2	0470	0307000E	1	EACH	4.00	\$2,313.00	\$9,252.00
142	COLD PLANE PAVEMENT REMOVAL, 3 INCHES DEEP	0620	0122000J	12	SQYD	1,772.00	\$5.00	\$8,860.00
148	AGGREGATE BASE, 8 INCHES THICK	0640			SQYD	0.00	\$13.10	\$0.00
151	LEVEL 3, 1/2 INCH DENSE, MWMAC MIXTURE	0744	0302000M	6	TON	207.00	\$110.00	\$22,770.00
154	11 INCH ASPHALT CONCRETE PAVEMENT REPAIR	0748	Special	1	SQYD	424.00	\$110.00	\$46,640.00
165	CONCRETE CURBS, CURB AND GUTTER	0759	0103000F	12	FOOT	807.50	\$25.00	\$20,187.50
172	CONCRETE WALKS	0759	0128000J	12	SQFT	6,056.00	\$8.10	\$49,053.60
173	MONOLITHIC CURB AND SIDEWALKS	0759	0134000J	12	SQFT	886.65	\$18.20	\$16,319.11
174	MONOLITHIC CURB GUTTER AND SIDEWALKS	0759	0134100J	12	SQFT	883.00	\$14.40	\$12,715.20
243	METAL COBRA HEAD STREET LIGHT POLES	0970	0104000A	10	LS*	1.00	\$160,000.00	\$160,000.00
246	TRAFFIC SIGNAL MODIFICATION - NE/SE 97TH & E BURNSIDE	0990	0102000A	10	LS*	1.00	\$175,000.00	\$175,000.00
253	LAWN SEEDING	1030	0138000J	11	SQYD	359.00	\$11.60	\$4,164.40
254	TOPSOIL	1040	0101000K	11	CUYD	60.00	\$61.10	\$3,666.00
257	DECIDUOUS TREES, 2-1/2 INCH CALIPER	1040	0131000E	11	EACH	32.00	\$822.00	\$26,304.00
TOTAL BID ITEMS								\$830,449.31

ANTICIPATED ITEMS

NO.	ITEMS OF WORK AND MATERIALS	SPEC REFERENCE	ITEM NUMBER	CLASS OF WORK	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL AMOUNT
15	BOLI FEE PAYMENT				LS	1.00	\$830.45	\$830.45
16	CONTRACT CONTINGENCY (REQUIREMENT TO ACCEPT BIDS UP TO 10% OVER ESTIMATE)				LS	1.00	\$83,044.93	\$83,044.93

TOTAL ANTICIPATED ITEMS

\$83,875.38

SCHEDULE SUMMARY

BID ITEMS

\$830,449.31

NO.	ITEMS OF WORK AND MATERIALS	SPEC REFERENCE	ITEM NUMBER	CLASS OF WORK	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL AMOUNT
	CONSTRUCTION CONTINGENCY						5% of Bid Items*	\$41,522.00
	SUBTOTAL							\$871,971.31
	ANTICIPATED ITEMS							\$83,875.38
	TOTAL CONSTRUCTION							\$955,846.69
	PROJECT MANAGEMENT						5% of Bid Items	\$41,522.47
	DESIGN ENGINEERING						25% of Bid Items	\$207,612.00
	CONSTRUCTION MANAGEMENT						15% of Bid Items	\$124,567.00
	SUBTOTAL							\$373,701.47
	PROJECT ENGINEERING & MANAGEMENT OVERHEAD						76.76% of PM, Eng, and CM	\$286,853.24
	TOTAL PROJECT ENGINEERING & MANAGEMENT							\$660,554.71
	RIGHT-OF-WAY LAND, IMPROVEMENTS, AND DAMAGES							\$288,520.00
	RIGHT-OF-WAY APPRAISAL, TITLE INSURANCE, AND NEGOTIATION							\$0.00
	RIGHT-OF-WAY CONTINGENCY						30% of Land, Improve, and Damages	\$86,556.00
	TOTAL PROJECT RIGHT-OF-WAY							\$375,076.00
					Years	Inflation		
	INFLATION RATE ON CONTRACT				3	4.5% of Construction		\$134,933.00
	INFLATION RATE ON PERSONNEL				3	2.0% of Eng & Mgmt		\$40,431.00
	ESTIMATE CONTINGENCY FOR UNDEFINED OR CHANGE IN SCOPE					20% of Const, Eng & Mgmt, and Inflation		\$358,353.08
	TOTAL PROJECT CONTINGENCY							\$533,717.08
	TOTAL PROJECT ESTIMATE							\$2,525,194.48

**PRELIMINARY ENGINEER'S ESTIMATE FOR LESS THAN \$1M
NE 97TH AVE & NE DAVIS STREET LID**

Date: March 2019

By: Gary Brittle

PRELIMINARY ENGINEER'S ESTIMATE FOR THE IMPROVEMENT OF NE 97TH AVE FROM NE DAVIS ST TO E BURNSIDE

VALUES IN BLUE ARE PERCENT OF CONTRACT.

BID ITEMS

NO.	ITEMS OF WORK AND MATERIALS	SPEC REFERENCE	ITEM NUMBER	CLASS OF WORK	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL AMOUNT
1	MOBILIZATION	0210	0100000A	n/a	LS	1.00	\$13,816.13	\$13,816.13
2	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	0225	0100000A	13	LS	1.00	\$6,808.06	\$6,808.06
24	EROSION CONTROL	0280	0100000A	11	LS	1.00	\$1,443.31	\$1,443.31
31	POLLUTION CONTROL PLAN	0290	0100000A	12	LS	1.00	\$177.01	\$177.01
45	REMOVAL OF STRUCTURES & OBSTRUCTIONS	0310	0106000A	1	LS	1.00	\$6,808.06	\$6,808.06
47	CLEARING AND GRUBBING	0320	0100000A	1	LS	1.00	\$3,574.23	\$3,574.23
51	GENERAL EXCAVATION	0330	0105000K	1	CUYD	170.00	\$72.00	\$12,240.00
173	CONCRETE WALKS	0759	0128000J	12	SQFT	9,159.00	\$13.53	\$123,921.27
TOTAL BID ITEMS								\$168,588.07

ANTICIPATED ITEMS

NO.	ITEMS OF WORK AND MATERIALS	REFERENCE	NUMBER	OF	UNIT	QUANTITY	UNIT PRICE	AMOUNT
15	BOLI FEE PAYMENT				LS	1.00	\$250.00	\$250.00
16	CONTRACT CONTINGENCY (REQUIREMENT TO ACCEPT BIDS UP TO 10% OVER ESTIMATE)				LS	1.00	\$16,858.81	\$16,858.81

TOTAL ANTICIPATED ITEMS

\$17,108.81

SCHEDULE SUMMARY

BID ITEMS							\$168,588.07
CONSTRUCTION CONTINGENCY						5% of Bid Items*	\$8,429.00
SUBTOTAL							\$177,017.07
ANTICIPATED ITEMS							\$17,108.81
TOTAL CONSTRUCTION							\$194,125.88
PROJECT MANAGEMENT						7% of Bid Items	\$11,801.16
DESIGN ENGINEERING						30% of Bid Items	\$50,576.00
CONSTRUCTION MANAGEMENT						20% of Bid Items	\$33,718.00
SUBTOTAL							\$96,095.16
PROJECT ENGINEERING & MANAGEMENT OVERHEAD						76.76% of PM, Eng, and CM	\$73,762.65
TOTAL PROJECT ENGINEERING & MANAGEMENT							\$169,857.81
RIGHT-OF-WAY LAND, IMPROVEMENTS, AND DAMAGES							\$0.00
RIGHT-OF-WAY APPRAISAL, TITLE INSURANCE, AND NEGOTIATION							\$0.00
RIGHT-OF-WAY CONTINGENCY						30% of Land, Improve, and Damages	\$0.00
TOTAL PROJECT RIGHT-OF-WAY							\$207,000.00
INFLATION RATE ON CONTRACT				Years		Inflation	
INFLATION RATE ON PERSONNEL				3		4.5% of Construction	\$27,404.00
ESTIMATE CONTINGENCY FOR UNDEFINED OR CHANGE IN SCOPE				3		2.0% of Eng & Mgmt	\$10,397.00
						20% of Const, Eng & Mgmt, and Inflation	\$80,356.94
TOTAL PROJECT CONTINGENCY							\$118,157.94
TOTAL PROJECT ESTIMATE							\$689,141.63