

CLARK COUNTY PUBLIC WORKS
CRP #322012
NE MANLEY ROAD
90% Engineers Estimate of Construction Costs



Estimate date: 6/8/2018

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Estimate assumptions

Overlay or rebuild 5,200 ft of NE Manley Rd, shoulder widening, improve two horizontal and one vertical curves, guardrail
 Replace 4 undersized culverts with fish passable structures plus headwalls and retaining walls, stream restoration

Unit costs for items derived from prior bid tabulations, WSDOT unit costs, and professional experience.

Note: Estimate does not include costs for property acquisition, utility impacts or offsite mitigation

Schedule A - Manley Road Improvements

Bid Item Number	Bid Item Ident. Number	Bid Item Description	Unit	Quantity	Unit Price	Total	Remarks
1	101.07	MOBILIZATION	L.S.	1	8%	\$ 267,750	
2	105.50	CONSTRUCTION SURVEYING	L.S.	1	\$ 25,000	\$ 25,000	
3	107.15	SPPC PLAN	L.S.	1	\$ 2,000	\$ 2,000	
4	108.01	TYPE B PROGRESS SCHEDULE (Minimum Bid of \$1,000 Lump Sum)	L.S.	1	\$ 2,000	\$ 2,000	
5	110.00	TEMPORARY TRAFFIC CONTROL	L.S.	1	\$ 10,000	\$ 10,000	
6	110.01	TRAFFIC CONTROL SUPERVISOR	HOURL	540	\$ 65	\$ 35,100	\$/hr updated by courtney
7	110.02	FLAGGERS	HOURL	2,880	\$ 65	\$ 187,200	\$/hr updated by courtney
8	110.04	CONSTRUCTION SIGNS, CLASS A	S.F.	450	\$ 25	\$ 11,250	updated 6/7/18 per E2
9	110.07	PORTABLE CHANGEABLE MESSAGE SIGN	HOURL	400	\$ 7	\$ 2,800	
10	201.00	CLEARING AND GRUBBING	L.S.	1	\$ 86,000	\$ 86,000	
11	202.00	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	1	\$ 1,200	\$ 1,200	
12	202.00	REMOVING EXISTING STRUCTURE (NORTH CULVERT A)	L.S.	1	\$ 5,000	\$ 5,000	From Otak
13	202.00	REMOVING EXISTING STRUCTURE (MIDDLE CULVERT)	L.S.	1	\$ 10,000	\$ 10,000	From Otak
14	202.00	REMOVING EXISTING STRUCTURE (SOUTH CULVERT)	L.S.	1	\$ 7,000	\$ 7,000	From Otak
15	203.01	ROADWAY EXCAVATION INCL. HAUL	C.Y.	6,010	\$ 22	\$ 132,220	updated 6/7/18 per WSDOT bid tabs
16	203.04	CHANNEL EXCAVATION	C.Y.	606	\$ 22	\$ 13,332	From Otak
17	204.01	SELECT BORROW INCL. HAUL	C.Y.	1,160	\$ 30	\$ 34,800	
18	209.07	SHORING OR EXTRA EXCAVATION CL. A (NORTH A CULVERT)	L.S.	1	\$ 1,600	\$ 1,600	From Otak
19	209.07	SHORING OR EXTRA EXCAVATION CL. A (MIDDLE CULVERT)	L.S.	1	\$ 35,000	\$ 35,000	From Otak
20	209.07	SHORING OR EXTRA EXCAVATION CL. A (SOUTH CULVERT)	L.S.	1	\$ 9,700	\$ 9,700	From Otak
21	209.07	SHORING OR EXTRA EXCAVATION CL. A (WALL B)	L.S.	1	\$ 6,300	\$ 6,300	From Otak
22	404.02	CRUSHED SURFACING BASE COURSE	C.Y.	3,320	\$ 50	\$ 166,000	updated 6/7/18 per E2
23	504.02	HMA CL. 3/8 IN. PG 58H-22	TON	3,530	\$ 120	\$ 423,600	updated 6/7/18 per WSDOT bid tabs
24	504.10	HMA FOR PRELEVELING CL. 3/8 IN. PG 58H-22	TON	70	\$ 125	\$ 8,750	From Brad F.
25	504.15	HMA FOR PAVEMENT REPAIR CL. 3/8 IN. PG 58H-22	TON	70	\$ 175	\$ 12,250	From Brad F.
26	504.30	PLANING BITUMINOUS PAVEMENT	S.Y.	440	\$ 20	\$ 8,800	updated 6/7/18 per WSDOT bid tabs
27	504.40	SAWCUT ASPHALT PAVEMENT	L.F.	900	\$ 3	\$ 2,700	
28	602.31	PRECAST REINF. CONC. THREE SIDED STRUCTURE (NORTH A CULVERT)	L.S.	1	\$ 134,275	\$ 134,275	
29	610.00	PRECAST CONCRETE BARRIER	L.F.	67	\$ 120	\$ 8,040	
30	702.73	DUCTILE IRON CULV. PIPE 12 IN. DIAM.	L.F.	40	\$ 100	\$ 4,000	updated 6/7/18 per WSDOT bid tabs
31	703.05	ST. STR. PLATE ARCH 8 GAGE 22 FT SPAN (MIDDLE CULVERT)	L.F.	84	\$ 3,371	\$ 283,164	From Otak
32	703.05	ST. STR. PLATE ARCH 8 GAGE 22 FT SPAN (SOUTH CULVERT)	L.F.	74	\$ 3,331	\$ 246,494	From Otak
33	706.00	TEMPORARY STREAM DIVERSION (NORTH CULVERT A&B)	L.S.	1	\$ 21,000	\$ 21,000	From Otak
34	706.00	TEMPORARY STREAM DIVERSION (MIDDLE CULVERT)	L.S.	1	\$ 50,000	\$ 50,000	From Otak
35	706.00	TEMPORARY STREAM DIVERSION (SOUTH CULVERT)	L.S.	1	\$ 35,000	\$ 35,000	From Otak
36	721.10	BIORETENTION SOIL MIX	C.Y.	630	\$ 50	\$ 31,500	
37	721.20	BIORETENTION CELL CHECK DAM	EACH	7	\$ 400	\$ 2,800	
38	801.01	ESC LEAD	DAY	60	\$ 60	\$ 3,600	
39	801.06	CHECK DAM	L.F.	260	\$ 12	\$ 3,120	updated 6/7/18 per WSDOT bid tabs
40	801.11	SILT FENCE	L.F.	4,750	\$ 6	\$ 28,500	
41	801.16	WATTLE	L.F.	750	\$ 6	\$ 4,500	
42	801.21	TEMPORARY SEEDING	ACRE	1.5	\$ 7,000	\$ 10,500	
43	801.31	SEEDING AND MULCHING	ACRE	1.5	\$ 10,000	\$ 15,000	
44	801.40	SEEDING AND MULCHING (BIORETENTION)	ACRE	0.24	\$ 7,000	\$ 1,680	
45	801.40	SEEDING AND MULCHING (WETLAND)	ACRE	0.10	\$ 4,200	\$ 420	From Otak
46	801.40	SEEDING AND MULCHING (RIPARIAN)	ACRE	1.10	\$ 3,600	\$ 3,960	From Otak
47	801.40	SEEDING AND MULCHING (BIORETENTION)	ACRE	0.10	\$ 3,200	\$ 320	From Otak
48	801.40	SEEDING AND MULCHING (UPLAND)	ACRE	1.00	\$ 3,600	\$ 3,600	From Otak
49	801.41	EROSION CONTROL AND SPILL PREVENTION REINSPECTION FEE	EACH	1	\$ (100)	\$ (100)	
50	801.51	COIR FABRIC	S.Y.	782	\$ 15	\$ 11,730	
51	801.51	COIR LOG	L.F.	135	\$ 12	\$ 1,620	From Otak
52	801.56	HIGH VISIBILITY SILT FENCE	L.F.	2,180	\$ 6	\$ 13,080	
53	801.58	BIODEGRADABLE EROSION CONTROL BLANKET (COIR MATTING)	S.Y.	2,230	\$ 6	\$ 13,380	
54	802.01	TOPSOIL TYPE A	C.Y.	3,640	\$ 40	\$ 145,600	From Otak
55	802.04	PSIPE - BIG-LEAF MAPLE (NO. 1 CONT.)	EACH	199	\$ 12	\$ 2,388	From Otak
56	802.04	PSIPE - RED ALDER (NO. 1 CONT.)	EACH	40	\$ 12	\$ 480	From Otak
57	802.04	PSIPE - OREGON ASH (NO. 1 CONT.)	EACH	26	\$ 12	\$ 312	From Otak
58	802.04	PSIPE - DOUGLAS FIR (NO. 1 CONT.)	EACH	50	\$ 16	\$ 800	From Otak
59	802.04	PSIPE - WESTERN RED CEDAR (NO. 1 CONT.)	EACH	100	\$ 16	\$ 1,600	From Otak
60	802.04	PSIPE - VINE MAPLE (NO. 1 CONT.)	EACH	100	\$ 10	\$ 1,000	From Otak
61	802.04	PSIPE - RED-OZIER DOGWOOD (NO. 1 CONT.)	EACH	283	\$ 10	\$ 2,830	From Otak
62	802.04	PSIPE - TWINBERRY (NO. 1 CONT.)	EACH	208	\$ 10	\$ 2,080	From Otak
63	802.04	PSIPE - TALL OREGON GRAPE (NO. 1 CONT.)	EACH	52	\$ 10	\$ 520	From Otak
64	802.04	PSIPE - DULL OREGON GRAPE (NO. 1 CONT.)	EACH	156	\$ 10	\$ 1,560	From Otak
65	802.04	PSIPE - THIMBLEBERRY (NO. 1 CONT.)	EACH	122	\$ 10	\$ 1,220	From Otak
66	802.04	PSIPE - SALMONBERRY (NO. 1 CONT.)	EACH	122	\$ 10	\$ 1,220	From Otak
67	802.04	PSIPE - SLOUGH SEDGE (10 CI PLUG)	EACH	205	\$ 3	\$ 615	From Otak
68	802.04	PSIPE - SPREADING RUSH (10 CI PLUG)	EACH	205	\$ 3	\$ 615	From Otak
69	802.04	PSIPE - SWORD FERN (NO. 1 CONT.)	EACH	100	\$ 8	\$ 800	From Otak
70	802.04	PSIPE - PACIFIC WILLOW (LIVE STAKE)	EACH	780	\$ 5	\$ 3,900	From Otak
71	802.04	PSIPE - SCOULER'S WILLOW (LIVE STAKE)	EACH	780	\$ 5	\$ 3,900	From Otak
72	802.04	PSIPE - SITKA WILLOW (LIVE STAKE)	EACH	780	\$ 5	\$ 3,900	From Otak
73	802.30	BARK-COMPOST-WOOD MULCH	ACRE	2	\$ 15,000	\$ 30,000	
74	804.09	EXTRUDED CURB	L.F.	78	\$ 40	\$ 3,120	
75	809.02	RAISED PAVEMENT MARKER TYPE 2	HUND.	2	\$ 500.00	\$ 1,000	From Traffic
76	811.08	BEAM GUARDRAIL TYPE 31	L.F.	1,313	\$ 35	\$ 45,955	updated 6/7/18 per E2
77	811.19	BEAM GUARDRAIL ANCHOR TYPE 10	EACH	2	\$ 1,300	\$ 2,600	updated 6/7/18 per E3
78	811.37	BEAM GUARDRAIL NON-FLARED TERMINAL	EACH	17	\$ 3,200	\$ 54,400	updated 6/7/18 per E4
79	811.60	BEAM GUARDRAIL TYPE 31-9 FT POST	L.F.	200	\$ 40	\$ 8,000	
80	811.61	BEAM GUARDRAIL TYPE 31-9 FT POST	L.F.	600	\$ 45	\$ 27,000	
81	811.70	BEAM GUARDRAIL TRANSITION SECTION TYPE 21	EACH	3	\$ 4,000	\$ 12,000	updated 6/7/18 per E4
82	812.10	WIRE FENCE TYPE 2	L.F.	250	\$ 10	\$ 2,500	
83	815.03	LIGHT LOOSE RIPRAP	TON	450	\$ 70	\$ 31,500	

84	815.10	FILTER BLANKET	TON	130	\$ 50	\$ 6,500	From Otak
85	815.14	STREAMBED SEDIMENT	TON	986	\$ 50	\$ 49,300	From Otak
86	815.16	STREAMBED COBBLES 6 IN	TON	610	\$ 70	\$ 42,700	From Otak
87	815.16	STREAMBED COBBLES 8 IN	TON	37	\$ 90	\$ 3,330	
88	815.19	HABITAT BOULDERS ONE MAN	TON	267	\$ 160	\$ 42,720	From Otak
89	815.19	HABITAT BOULDERS TWO MAN	TON	207	\$ 160	\$ 33,120	
90	815.XX	NATIVE STREAM BANK MATERAIL	CY	695	\$ 25	\$ 17,375	
91	818.01	MAILBOX SUPPORT, TYPE 1	EACH	2	\$ 300	\$ 600	
92	821.01	PERMANENT SIGNING	L.S.	1	\$ 11,000	\$ 11,000	From Traffic
93	822.01	PAINT LINE	L.F.	15,560	\$ 0.25	\$ 3,890	From Traffic
94	822.08	PLASTIC WIDE LANE LINE	L.F.	125	\$ 3	\$ 375	From Traffic
95	822.15	PLASTIC STOP LINE	L.F.	12	\$ 20	\$ 240	From Traffic
96	822.43	REMOVING PAINT LINE	L.F.	40	\$ 1	\$ 40	From Traffic
97	824.01	ROCK FOR ROCK WALL	TON	16	\$ 200	\$ 3,200	From Otak
98	824.03	GABION CRIBBING	C.Y.	1,368	\$ 315	\$ 430,920	From Otak
99	824.04	GRAVITY BLOCK WALL	S.F.	1,250	\$ 46	\$ 57,500	From Otak
100	830.20	FABRIC ENCAPSULATED SOIL LIFTS	L.F.	1,110	\$ 50	\$ 55,500	From Otak
101	877.55	ROCK FOR EROSION AND SCOUR PROTECTION CLASS B	C.Y.	218	\$ 75	\$ 16,350	From Otak
102		EMBEDDED LOG STRUCTURE	EACH	10	\$ 800	\$ 8,000	From Otak
					Schedule A Subtotal	\$ 3,614,610	
					Contingencies	10%	\$ 361,460
					Schedule A Total	\$ 3,976,070	

Schedule B - North Culvert B Replacement

Bid Item Number	Bid Item Ident. Number	Bid Item Description	Unit	Quantity	Unit Price	Total	Remarks
103	101.07	MOBILIZATION	L.S.	1	8%	\$ 7,050	
104	202.00	REMOVING EXISTING STRUCTURE (NORTH B CULVERT)	L.S.	1	\$ 3,000	\$ 3,000	From Otak
105	204.01	SELECT BORROW INCL. HAUL	C.Y.	129	\$ 30	\$ 3,870	
106	209.07	SHORING OR EXTRA EXCAVATION CL. A (NORTH B CULVERT)	L.S.	1	\$ 400	\$ 400	From Otak
107	404.02	CRUSHED SURFACING BASE COURSE	C.Y.	27	\$ 50	\$ 1,350	
108	602.31	PRECAST REINF. CONC. THREE SIDED STRUCTURE (NORTH B CULVERT)	L.S.	1	\$ 71,965	\$ 71,965	From Otak
109	815.14	STREAMBED SEDIMENT	TON	24	\$ 50	\$ 1,200	From Otak
110	815.16	STREAMBED COBBLES 6 IN	TON	16	\$ 70	\$ 1,120	From Otak
111	815.19	HABITAT BOULDERS ONE MAN	TON	11	\$ 160	\$ 1,760	From Otak
112	815.19	HABITAT BOULDERS TWO MAN	TON	1.5	\$ 160	\$ 240	From Otak
113	824.01	ROCK FOR ROCK WALL	TON	16	\$ 200	\$ 3,200	From Otak
					Schedule B Subtotal	\$ 95,155	
					Contingencies	10%	\$ 9,520
					Schedule B Total	\$ 104,675	
					Schedule A Plus B Total	\$ 4,080,745	