

FOR THE CONSTRUCTION OF
PAI ROAD (TUNNEL SECTION)
FEDERAL AID SECONDARY PROJECT NO. S 216(5)
DISTRICTS OF HONOLULU AND KOOLAUPOKO
ISLAND OF OAHU
JOB NO. 5708

(Opened Thursday, May 19, 1955)

First Advertised in the Honolulu Advertiser
Issue of March 24, 1955

Item No.	Item	Unit Used	Quantity	J. M. TANAKA		HAWAIIAN TUNNEL BUILDERS		HAWAIIAN BRIDGING CO. LTD.		L. E. DIXON COMPANY		TERRITORY OF HAWAII	
				Bid Bond - \$2,500 + 2%	Amount Bid Over \$50,000	Bid Bond - \$2,500 + 2%	Amount Bid Over \$50,000	Bid Bond - \$2,500 + 2%	Amount Bid Over \$50,000	Bid Bond - \$2,500 + 2%	Amount Bid Over \$50,000	Price	Amount
13	Unclassified Excavation	cu. yd.	186,000	\$ 1.26	\$ 234,360.00	\$ 1.26	\$ 234,360.00	\$ 0.99	\$ 184,140.00	\$ 1.40	\$ 260,000.00	\$ 1.50	\$ 279,000.00
14(1)	Unclassified Excavation for Structures other than at Bridges	cu. yd.	2,300	3.75	8,625.00	3.75	8,625.00	4.15	9,545.00	5.80	13,340.00	4.00	9,200.00
14(2)	Unclassified Excavation for Structures at Bridges	cu. yd.	600	6.40	3,840.00	9.00	5,400.00	9.70	5,820.00	8.90	5,340.00	5.00	3,000.00
23	Hand Trimming Rounded Out Slopes	lin. ft.	1,000	0.50	500.00	0.50	500.00	0.70	700.00	0.60	600.00	0.30	300.00
28(1)	Select Borrow Sub-Base Course	M gal.	240	3.00	720.00	3.40	816.00	2.80	672.00	3.50	840.00	2.50	600.00
31(1)	Coarse Rock for Waterbound Macadam Base Course	cu. yd.	4,500	1.90	8,550.00	2.50	11,250.00	2.45	11,025.00	2.30	10,350.00	2.00	9,000.00
31(2)	Filler for Waterbound Macadam Base Course	cu. yd.	2,400	3.63	8,712.00	4.70	11,280.00	4.20	10,080.00	4.50	10,800.00	4.00	9,600.00
34(1)	Slow Curing Liquid Asphalt for Prime Coat	gal.	700	4.53	3,171.00	5.25	3,675.00	5.40	3,780.00	5.30	3,710.00	5.00	3,500.00
42(1)	Emulsified Asphalt, Penetration Type, for Tack Coat	gal.	3,400	0.165	561.00	0.16	544.00	0.23	782.00	0.17	578.00	0.16	544.00
42(2)	Asphalt Concrete Pavement Mix No. III	ton	200	0.22	44.00	0.22	44.00	0.24	48.00	0.24	48.00	0.25	50.00
42(4)	Asphalt Concrete Pavement Mix No. V	ton	380	9.85	3,743.00	9.85	3,743.00	9.85	3,743.00	9.40	3,592.00	9.00	3,420.00
51(1)	Glass A-1 Concrete other than in Bridges	cu. yd.	35	57.40	2,009.00	80.00	2,800.00	76.00	2,660.00	76.40	2,674.00	45.00	1,575.00
51(2)	Glass B-1 Concrete other than in Bridges	cu. yd.	15	49.50	742.50	78.00	1,170.00	76.00	1,140.00	74.30	1,114.50	45.00	817.50
51(7)	Glass A-1 Concrete in Bridges	cu. yd.	550	64.80	35,640.00	80.00	44,000.00	75.00	41,250.00	62.50	34,375.00	65.00	35,750.00
52(1)	Reinforcing Steel other than in Bridges	lb.	600	0.132	79.20	0.13	78.00	0.13	78.00	0.13	78.00	0.10	60.00
52(2)	Reinforcing Steel in Bridges	lb.	92,000	0.113	10,396.00	0.12	11,040.00	0.11	10,120.00	0.11	10,120.00	0.10	9,200.00
55	Cement Rubble Masonry	cu. yd.	907	22.00	19,954.00	22.00	19,954.00	23.00	20,861.00	21.30	19,319.10	30.00	27,210.00
58(3)	24 Inch Standard-Strength Reinforced Concrete Culvert Pipe	lin. ft.	336	6.35	2,133.60	9.00	3,024.00	6.75	2,268.00	6.50	2,184.00	5.50	1,848.00
58(4)	24 Inch Extra-Strength Reinforced Concrete Culvert Pipe	lin. ft.	144	8.35	1,202.40	10.30	1,483.20	9.30	1,339.20	9.00	1,296.00	7.50	1,080.00
58(5)	30 Inch Standard-Strength Reinforced Concrete Culvert Pipe	lin. ft.	424	7.95	3,370.80	10.45	4,430.80	8.70	3,688.80	8.30	3,519.20	7.50	3,180.00
58(6)	30 Inch Extra-Strength Reinforced Concrete Culvert Pipe	lin. ft.	104	10.50	1,092.00	13.40	1,393.60	11.90	1,215.60	11.70	1,215.60	9.50	1,092.00
65(2)	Concrete Railing	lin. ft.	380	10.50	3,990.00	13.00	4,940.00	13.00	4,940.00	9.35	3,553.00	8.50	3,230.00
66	Drainage	sq. yd.	75	1.25	93.75	1.25	93.75	1.25	93.75	1.20	90.00	1.00	75.00
73	Standard CGO Street Survey Monuments	each	6	35.00	210.00	40.00	240.00	40.00	240.00	50.00	300.00	35.00	210.00
78(1a)	Type B Cast Iron Frame and Cover	each	6	38.00	228.00	47.00	282.00	46.00	276.00	43.50	217.50	40.00	200.00
80(1)	Type A Cast-in-Place Concrete Curb	lin. ft.	2,500	1.90	4,750.00	2.00	5,000.00	2.45	6,125.00	2.40	6,000.00	1.85	4,525.00
80(1b)	Type C Cast-in-Place Concrete Curb	lin. ft.	60	4.00	240.00	5.00	300.00	2.30	138.00	3.70	222.00	4.00	240.00
80(1d)	Type D-1 Cast-in-Place Concrete Curb	lin. ft.	460	1.80	828.00	3.00	1,380.00	2.25	1,035.00	2.25	1,035.00	1.90	874.00
80(2a)	Type E Cast-in-Place Concrete Gutter	lin. ft.	1,050	5.25	5,512.50	8.00	8,400.00	6.15	6,457.50	6.25	6,562.50	5.00	5,250.00
86	Plain Concrete Sidewalk	sq. ft.	1,100	0.40	440.00	0.60	660.00	0.55	605.00	0.55	605.00	0.45	495.00
90(2)	Metal Guard Rail with Concrete Posts	lin. ft.	425	4.90	2,082.50	6.20	2,635.00	4.15	1,763.75	6.60	2,805.00	3.75	1,593.75
105	Warning and Regulatory Signs	each	14	40.00	560.00	40.00	560.00	35.00	490.00	44.00	616.00	40.00	560.00
106(1)	Federal Aid Marker	each	1	37.50	37.50	35.00	35.00	45.00	45.00	50.00	50.00	35.00	35.00
106(2)	Additional Number Plate for Federal Aid Marker	each	1	7.00	7.00	5.00	5.00	7.00	7.00	5.30	5.30	5.00	5.00
117	Leveling Surfaces - An Estimated Amount	P. A.	700	1.00	700.00	2.50	1,750.00	4.30	3,010.00	1.95	1,365.00	2.00	1,400.00
118	Top Soil	cu. yd.	4,100	0.03	123.00	0.035	143.50	0.06	246.00	0.03	123.00	0.025	102.50
119	Sodding Surfaces	sq. ft.	45,000	14.00	630,000.00	13.25	596,250.00	19.50	877,500.00	19.00	855,000.00	10.00	450,000.00
121(1)	Tunnel Excavation	cu. yd.	1,600	6.45	10,320.00	6.60	10,560.00	1.40	2,240.00	5.30	7,220.00	4.00	5,600.00
121(2)	Structure Excavation at Tunnel Portals and Structures	cu. yd.	1,100	59.40	65,340.00	78.50	86,350.00	55.70	61,270.00	52.00	57,200.00	38.00	41,800.00
121(3)	Glass A-1 Concrete (Tunnel Portals and Structures)	cu. yd.	1,900	40.35	76,665.00	54.00	102,600.00	48.70	92,530.00	70.00	133,000.00	40.00	76,000.00
121(4)	Glass A-1 Concrete (Tunnel Footings and Struts)	cu. yd.	6,000	40.35	242,100.00	49.90	299,400.00	43.85	263,100.00	54.00	324,000.00	40.00	240,000.00
121(5)	Glass A-1 Concrete (Tunnel Lining)	cu. yd.	2,900	40.35	117,015.00	49.90	144,710.00	54.30	157,470.00	45.00	130,500.00	40.00	116,000.00
121(6)	Glass A-1 Concrete (Lining Overbreak)	cu. yd.	360	40.35	14,526.00	85.00	30,600.00	51.00	18,360.00	75.00	27,000.00	36.00	12,960.00
121(7)	Glass A-1 Concrete (Tunnel Drain, Walkway and Curb)	cu. yd.	35	40.35	1,412.25	60.00	2,100.00	35.00	1,225.00	45.90	1,606.50	35.00	1,225.00
121(8)	Glass A-1 Concrete (Ditch Lining)	cu. yd.	35	40.35	1,412.25	60.00	2,100.00	35.00	1,225.00	45.90	1,606.50	35.00	1,225.00
121(9)	Bar Reinforcing Steel	lb.	697,000	0.107	74,579.00	0.11	76,670.00	0.11	76,670.00	0.12	83,640.00	0.10	69,700.00
121(10)	Structural Steel Ribs	lb.	900,000	0.225	202,500.00	0.30	270,000.00	0.18	162,000.00	0.27	243,000.00	0.25	225,000.00
121(11)	Drilling Gout Holes, Mixing and Placing Portland Concrete Grout - An Estimated Amount	P. A.	700	1.00	700.00	2.50	1,750.00	4.30	3,010.00	1.95	1,365.00	2.00	1,400.00
121(12)	Rubber Waterstop	lin. ft.	3,900	1.75	6,825.00	2.75	10,725.00	2.10	8,190.00	3.00	11,700.00	1.50	5,850.00
121(13)	Membrane Waterproofing	sq. yd.	80	1.50	120.00	1.35	108.00	1.25	100.00	2.00	160.00	2.00	160.00
121(14)	2" Grout Pipes	each	320	3.80	1,216.00	4.00	1,280.00	12.50	4,000.00	10.00	3,200.00	2.25	720.00
121(15)	2" Pipe Wesspers	each	220	61.50	13,530.00	50.00	11,000.00	70.00	15,400.00	75.00	16,500.00	2.25	495.00
121(16)	Filter Material	cu. yd.	560	8.92									