

Croskell PSP - ICP - Interim Costs Summary

Project	Description	Estimated Cost
IN-01	Thompsons Road & Future Bray Blvd & Connector Road	\$ 2,774,590.86
IN-02	Thompsons Road & William Thwaites Blvd & Casey Fields Blvd	\$ 2,986,223.21
IN-03	Thompsons Road & Wheelers Park Dr & Connector Road	\$ 2,516,981.52
IN-04	Narre-Warren Cranbourne Road & Connector Road	\$ 2,700,643.13
IN-05	Berwick Cranbourne Road & Connector Road	\$ 2,573,597.02
IN-06	Casey Fields Boulevard & Linsell Boulevard	\$ 1,846,909.20
	TOTAL INTERSECTION COST	\$ 15,398,944.93
PED-01	Pedestrian Crossing on Narre Warren - Cranbourne Road	\$ 392,048.36
PED-02	Pedestrian Crossing on Berwick - Cranbourne Road	\$ 394,999.14
	TOTAL PEDESTRIAN CROSSING COST	\$ 787,047.50
SUP-01	Shared Use Path - Melbourne Water Pipe Track	\$ 3,069,827.01
SUP-02	Shared Use Path along Thompsons Road	\$ 559,627.01
	TOTAL SHARED USE PATH COST	\$ 3,629,454.02
CU01	Culvert - Casey Fields Blvd (RD-01) over constructed waterway	\$ 2,614,082.61
CU02	Culvert - Shared Use Path (SUP-01) over constructed waterway	\$ 849,295.73
CU03	Culvert - Shared Use Path (SUP-02) over constructed waterway	\$ 849,295.73
	TOTAL CULVERT COST	\$ 4,312,674.07
RD-01	Casey Fields Boulevard	\$ 9,013,760.77
	TOTAL ROAD SECTION COST	\$ 9,013,760.77
RD-01(VDP)	Casey Fields Boulevard VDP Crossing	\$ 344,780.50
SUP-03	Shared Use Path VDP Crossing	\$ 343,382.75
SUP-04	Shared Use Path VDP Crossing	\$ 343,382.75
SUP-05	Shared Use Path VDP Crossing	\$ 343,382.75
	TOTAL VDP CROSSINGS COST	\$ 1,374,928.75
TOTAL PROJECT COST		\$ 34,516,810.04

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IN-01 - Thompsons Road & Future Bray Blvd & Connector Road
Intersection - Primary - Connector Intersection (Benchmark Item 7)

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	8420	m2	4.96	1.29	\$ 53,872.89	Sum of pavement, paths and landscape areas
	1.2	Earthworks	2950	m3	40.52	1.29	\$ 154,212.91	Excavation depths 735mm for primary arterial pavements, 535mm collector arterial pavements, 200mm traffic island and paths
Road Pavement	2.1	Primary Arterial Pavement	1836	m2	186.26	1.29	\$ 441,145.63	
	2.2	Collector Arterial Pavement	2428	m2	112.44	1.29	\$ 352,175.57	
	2.3	Subgrade Preparation	957	m2	16.16	1.29	\$ 19,955.30	20% of pavement area
	2.4	Raised Priority Crossing - asphalt	60	m2	78	1.06	\$ 4,957.51	Hot bituminous concrete including tack coat: 50mm thick multiplied by 3 (Rawlinsons 2023)
	2.5	Raised Priority Crossing - surface treatment	60	m2	21.5	1.06	\$ 1,366.49	Thermoplastic marking of bitumen paving (Rawlinsons 2023)
Concrete Works	3.1	Kerb and Channel	1072	m	60.9	1.29	\$ 84,214.03	
	3.2	Traffic Island	689	m2	84.07	1.29	\$ 74,757.52	
	3.3	SUP/footpath	529	m2	73.63	1.29	\$ 50,285.67	
	3.4	Cycle Path	474	m2	91.94	1.29	\$ 56,217.63	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	55	m	197.96	1.29	\$ 14,045.26	25% of benchmark item (one leg)
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	25% of benchmark item (one leg)
	4.3	Drainage Pipe 450mm CR Bfilled	114	m	334.33	1.29	\$ 49,166.57	25% of benchmark item (one leg)
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	25% of benchmark item (one leg)
	4.5	Drainage - Pits	7	No.	2806.1	1.29	\$ 25,339.08	25% of benchmark item (one leg)
	4.6	Drainage - Subsoil Drainage	1072	m	43.4	1.29	\$ 60,014.60	Based on total kerb length
Traffic	5.1	Traffic Signals	1	Item/ per leg	128786.34	1.29	\$ 166,134.38	
Landscape	6.1	Trees	13	No.	363.01	1.29	\$ 6,087.68	25% of benchmark item (one leg)
	6.2	Landscaping	2463	m2	25.16	1.29	\$ 79,940.11	
	6.3	Topsail Seeding	2463	m2	8.44	1.29	\$ 26,816.16	
Street Lighting	7.1	Street Lighting	1	Item/ per leg	55617.74	1.29	\$ 71,746.88	
Utilities	8.1	Allowance for utility services protection	1	Item	30000	1.00	\$ 30,000.00	
Miscellaneous	9.1	Linemarking	4738	m2 of pavement	4.09	1.29	\$ 24,998.16	
	9.2	Regulatory Signage	4	Item	380.39	1.29	\$ 1,962.81	25% of benchmark item (one leg)
	9.4	Landscape Maintenance (intersections)	0.25	Item	88131.43	1.29	\$ 28,422.39	25% of benchmark item (one leg)
	9.6	Tactile Pavers (Hazard only)	6	Item	319.78	1.29	\$ 2,475.10	25% of benchmark item (one leg)
Other	10.1	Demolition of existing concrete kerbs, footpath, islands	69	m3	230	1.06	\$ 16,845.80	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
Delivery	11.1	Council Fees	1	%	3.25	-	\$ 61,657.57	
	11.2	VicRoads Fees	1	%	1	-	\$ 18,971.56	
	11.3	Traffic Management	1	%	10	-	\$ 189,715.61	
	11.4	Environmental Management	1	%	0.5	-	\$ 9,485.78	
	11.5	Survey/Design	1	%	5	-	\$ 94,857.81	
	11.6	Supervision and Project Management	1	%	9	-	\$ 170,744.05	
	11.7	Site Establishment	1	%	2.5	-	\$ 47,428.90	
	11.8	Contingency	1	%	15	-	\$ 284,573.42	
Total		Excluding Delivery					\$ 1,897,156.14	
		Including Delivery					\$ 2,774,590.86	

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IN-02 - Thompsons Rd & William Thwaites Blvd & Casey Fields Blvd
Intersection - Primary - Connector Intersection (Benchmark Item 7)

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	9152	m2	4.96	1.29	\$ 58,558.16	Sum of pavement, paths and landscape areas
	1.2	Earthworks	2400	m3	40.52	1.29	\$ 125,447.57	Excavation depths 735mm for primary arterial pavements, 535mm collector arterial pavements, 200mm traffic island and paths
Road Pavement	2.1	Primary Arterial Pavement	1198	m2	186.26	1.29	\$ 287,849.93	
	2.2	Collector Arterial Pavement	2391	m2	112.44	1.29	\$ 346,808.81	
	2.3	Subgrade Preparation	720	m2	16.16	1.29	\$ 15,000.88	20% of pavement area
	2.4	Raised Priority Crossing - asphalt	60	m2	78	1.06	\$ 4,957.51	Hot bituminous concrete including tack coat: 50mm thick multiplied by 3 (Rawlinsons 2023)
	2.5	Raised Priority Crossing - surface treatment	60	m2	21.5	1.06	\$ 1,366.49	Thermoplastic marking of bitumen paving (Rawlinsons 2023)
Concrete Works	3.1	Kerb and Channel	967	m	60.9	1.29	\$ 75,968.49	
	3.2	Traffic Island	242	m2	84.07	1.29	\$ 26,244.97	
	3.3	SUP/footpath	626	m2	73.63	1.29	\$ 59,459.17	
	3.4	Cycle Path	453	m2	91.94	1.29	\$ 53,726.98	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	55	m	197.96	1.29	\$ 14,045.26	25% of benchmark item (one leg)
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	25% of benchmark item (one leg)
	4.3	Drainage Pipe 450mm CR Bfilled	114	m	334.33	1.29	\$ 49,166.57	25% of benchmark item (one leg)
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	25% of benchmark item (one leg)
	4.5	Drainage - Pits	7	No.	2806.1	1.29	\$ 25,339.08	25% of benchmark item (one leg)
	4.6	Drainage - Subsoil Drainage	967	m	43.4	1.29	\$ 54,138.46	Based on total kerb length
Traffic	5.1	Traffic Signals	1	Item/ per leg	128786.34	1.29	\$ 166,134.38	
Landscape	6.1	Trees	13	No.	363.01	1.29	\$ 6,087.68	25% of benchmark item (one leg)
	6.2	Landscaping	4242	m2	25.16	1.29	\$ 137,680.05	
	6.3	Topsoil Seeding	4242	m2	8.44	1.29	\$ 46,185.20	
Street Lighting	7.1	Street Lighting	1	Item/ per leg	55617.74	1.29	\$ 71,746.88	
Utilities	8.1	Allowance for utility services protection	1	Item	30000	1.00	\$ 30,000.00	
Miscellaneous	9.1	Linemarking	4042	m2 of pavement	4.09	1.29	\$ 21,326.00	
	9.2	Regulatory Signage	4	Item	380.39	1.29	\$ 1,962.81	25% of benchmark item (one leg)
	9.4	Landscape Maintenance (intersections)	0.25	Item	88131.43	1.29	\$ 28,422.39	25% of benchmark item (one leg)
	9.6	Tactile Pavers (Hazard only)	6	Item	319.78	1.29	\$ 2,475.10	25% of benchmark item (one leg)
Other	10.1	Demolition of existing concrete kerbs, footpath, islands	69	m3	230	1.06	\$ 16,774.50	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
	10.2	Dewatering dam	1737	m2	72.5	1.06	\$ 133,399.95	Dewatering - deep system (to reduce water level by over 1000mm) (Rawlinsons 2023)
	10.3	Additional earthworks to fill dam	3474	m3	40.52	1.29	\$ 181,588.76	Assumed 2m depth of fill
Delivery	11.1	Council Fees	1	%	3.25	-	\$ 66,360.52	
	11.2	VicRoads Fees	1	%	1	-	\$ 20,418.62	
	11.3	Traffic Management	1	%	10	-	\$ 204,186.20	
	11.4	Environmental Management	1	%	0.5	-	\$ 10,209.31	
	11.5	Survey/Design	1	%	5	-	\$ 102,093.10	
	11.6	Supervision and Project Management	1	%	9	-	\$ 183,767.58	
	11.7	Site Establishment	1	%	2.5	-	\$ 51,046.55	
	11.8	Contingency	1	%	15	-	\$ 306,279.30	
Total		Excluding Delivery					\$ 2,041,862.02	
		Including Delivery					\$ 2,986,223.21	

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IN-03 - Thompsons Road & Wheelers Park Dr & Connector Road
Intersection - Primary - Connector Intersection (Benchmark Item 7)

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	8183	m2	4.96	1.29	\$ 52,355.80	Sum of pavement, paths and landscape areas
	1.2	Earthworks	2535	m3	40.52	1.29	\$ 132,484.68	Excavation depths 735mm for primary arterial pavements, 535mm collector arterial pavements, 200mm traffic island and paths
Road Pavement	2.1	Primary Arterial Pavement	1164	m2	186.26	1.29	\$ 279,680.57	
	2.2	Collector Arterial Pavement	2477	m2	112.44	1.29	\$ 359,282.91	
	2.3	Subgrade Preparation	740	m2	16.16	1.29	\$ 15,420.43	20% of pavement area
	2.4	Raised Priority Crossing - asphalt	60	m2	78	1.06	\$ 4,957.51	Hot bituminous concrete including tack coat: 50mm thick multiplied by 3 (Rawlinsons 2023)
	2.5	Raised Priority Crossing - surface treatment	60	m2	21.5	1.06	\$ 1,366.49	Thermoplastic marking of bitumen paving (Rawlinsons 2023)
Concrete Works	3.1	Kerb and Channel	932	m	60.9	1.29	\$ 73,232.72	
	3.2	Traffic Island	905	m2	84.07	1.29	\$ 98,108.48	
	3.3	SUP/footpath	507	m2	73.63	1.29	\$ 48,156.23	
	3.4	Cycle Path	474	m2	91.94	1.29	\$ 56,217.63	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	55	m	197.96	1.29	\$ 14,045.26	25% of benchmark item (one leg)
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	25% of benchmark item (one leg)
	4.3	Drainage Pipe 450mm CR Bfilled	114	m	334.33	1.29	\$ 49,166.57	25% of benchmark item (one leg)
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	25% of benchmark item (one leg)
	4.5	Drainage - Pits	7	No.	2806.1	1.29	\$ 25,339.08	25% of benchmark item (one leg)
	4.6	Drainage - Subsoil Drainage	932	m	43.4	1.29	\$ 52,188.83	Based on total kerb length
Traffic	5.1	Traffic Signals	1	Item/ per leg	128786.34	1.29	\$ 166,134.38	
Landscape	6.1	Trees	13	No.	363.01	1.29	\$ 6,087.68	25% of benchmark item (one leg)
	6.2	Landscaping	2656	m2	25.16	1.29	\$ 86,204.20	
	6.3	Topsail Seeding	2656	m2	8.44	1.29	\$ 28,917.47	
Street Lighting	7.1	Street Lighting	1	Item/ per leg	55617.74	1.29	\$ 71,746.88	
Utilities	8.1	Allowance for utility services protection	1	Item	30000	1.00	\$ 30,000.00	
Miscellaneous	9.1	Linemarking	4115	m2 of pavement	4.09	1.29	\$ 21,711.15	
	9.2	Regulatory Signage	4	Item	380.39	1.29	\$ 1,962.81	25% of benchmark item (one leg)
	9.4	Landscape Maintenance (Intersections)	0.25	Item	88131.43	1.29	\$ 28,422.39	25% of benchmark item (one leg)
	9.6	Tactile Pavers (Hazard only)	6	Item	319.78	1.29	\$ 2,475.10	25% of benchmark item (one leg)
Other	10.1	Demolition of existing concrete kerbs, footpath, islands	63	m3	230	1.06	\$ 15,347.75	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
Delivery	11.1	Council Fees	1	%	3.25	-	\$ 55,932.92	
	11.2	VicRoads Fees	1	%	1	-	\$ 17,210.13	
	11.3	Traffic Management	1	%	10	-	\$ 172,101.30	
	11.4	Environmental Management	1	%	0.5	-	\$ 8,605.07	
	11.5	Survey/Design	1	%	5	-	\$ 86,050.65	
	11.6	Supervision and Project Management	1	%	9	-	\$ 154,891.17	
	11.7	Site Establishment	1	%	2.5	-	\$ 43,025.33	
	11.8	Contingency	1	%	15	-	\$ 258,151.95	
Total		Excluding Delivery					\$ 1,721,013.00	
		Including Delivery					\$ 2,516,981.52	

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IN-04 - Narre-Warren Cranbourne Road & Connector Road
Intersection - Primary - Connector Intersection (Benchmark Item 7)

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	7199	m2	4.96	1.29	\$ 46,064.19	Sum of pavement, paths and landscape areas
	1.2	Earthworks	1986	m3	40.52	1.29	\$ 103,788.16	Excavation depths 735mm for primary arterial pavements, 535mm collector arterial pavements, 200mm traffic island and paths
Road Pavement	2.1	Primary Arterial Pavement	625	m2	186.26	1.29	\$ 150,172.13	
	2.2	Collector Arterial Pavement	2107	m2	112.44	1.29	\$ 305,615.29	
	2.3	Subgrade Preparation	522	m2	16.16	1.29	\$ 10,884.26	20% of pavement area
	2.4	Raised Priority Crossing - asphalt	60	m2	78	1.06	\$ 4,957.51	Hot bituminous concrete including tack coat: 50mm thick multiplied by 3 (Rawlinsons 2023)
	2.5	Raised Priority Crossing - surface treatment	60	m2	21.5	1.06	\$ 1,366.49	Thermoplastic marking of bitumen paving (Rawlinsons 2023)
Concrete Works	3.1	Kerb and Channel	820	m	60.9	1.29	\$ 64,420.02	
	3.2	Traffic Island	700	m2	84.07	1.29	\$ 75,950.93	
	3.3	SUP/footpath	889	m2	73.63	1.29	\$ 84,439.62	
	3.4	Cycle Path	468	m2	91.94	1.29	\$ 55,506.02	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	55	m	197.96	1.29	\$ 14,045.26	25% of benchmark item (one leg)
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	25% of benchmark item (one leg)
	4.3	Drainage Pipe 450mm CR Bfilled	114	m	334.33	1.29	\$ 49,166.57	25% of benchmark item (one leg)
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	25% of benchmark item (one leg)
	4.5	Drainage - Pits	7	No.	2806.1	1.29	\$ 25,339.08	25% of benchmark item (one leg)
	4.6	Drainage - Subsoil Drainage	820	m	43.4	1.29	\$ 45,908.52	Based on total kerb length
Traffic	5.1	Traffic Signals	1	Item/ per leg	128786.34	1.29	\$ 166,134.38	
Landscape	6.1	Trees	13	No.	363.01	1.29	\$ 6,087.68	25% of benchmark item (one leg)
	6.2	Landscaping	2410	m2	25.16	1.29	\$ 78,219.92	
	6.3	Topsoil Seeding	2410	m2	8.44	1.29	\$ 26,239.12	
Street Lighting	7.1	Street Lighting	1	Item/ per leg	55617.74	1.29	\$ 71,746.88	
Utilities	8.1	Allowance for utility services protection	1	Item	30000	1.00	\$ 30,000.00	
Miscellaneous	9.1	Linemarking	3200	m2 of pavement	4.09	1.29	\$ 16,883.52	
	9.2	Regulatory Signage	4	Item	380.39	1.29	\$ 1,962.81	25% of benchmark item (one leg)
	9.4	Landscape Maintenance (intersections)	0.25	Item	88131.43	1.29	\$ 28,422.39	25% of benchmark item (one leg)
	9.6	Tactile Pavers (Hazard only)	6	Item	319.78	1.29	\$ 2,475.10	25% of benchmark item (one leg)
Other	10.1	Demolition of existing concrete kerbs, footpath, islands	104	m3	230	1.06	\$ 25,370.06	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
	10.2	Dewatering dam	1960	m2	72.5	1.06	\$ 150,526.13	Dewatering - deep system (to reduce water level by over 1000mm) (Rawlinsons 2023)
	10.3	Additional earthworks to fill dam	3920	m3	40.52	1.29	\$ 204,901.54	Assumed 2m depth of fill
Delivery	11.1	Council Fees	1	%	3.25	-	\$ 60,014.29	
	11.2	VicRoads Fees	1	%	1	-	\$ 18,465.94	
	11.3	Traffic Management	1	%	10	-	\$ 184,659.36	
	11.4	Environmental Management	1	%	0.5	-	\$ 9,232.97	
	11.5	Survey/Design	1	%	5	-	\$ 92,329.68	
	11.6	Supervision and Project Management	1	%	9	-	\$ 166,193.42	
	11.7	Site Establishment	1	%	2.5	-	\$ 46,164.84	
	10.8	Contingency	1	%	15	-	\$ 276,989.04	
Total		Excluding Delivery					\$ 1,846,593.59	
		Including Delivery					\$ 2,700,643.13	

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IN-05 - Berwick Cranbourne Road & Connector Road
Intersection - Primary - Connector Intersection (Benchmark Item 7)

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	8015	m2	4.96	1.29	\$ 51,285.45	Sum of pavement, paths and landscape areas
	1.2	Earthworks	2593	m3	40.52	1.29	\$ 135,518.11	Excavation depths 735mm for primary arterial pavements, 535mm collector arterial pavements, 200mm traffic island and paths
Road Pavement	2.1	Primary Arterial Pavement	1289	m2	186.26	1.29	\$ 309,714.99	
	2.2	Collector Arterial Pavement	2426	m2	112.44	1.29	\$ 351,885.48	
	2.3	Subgrade Preparation	776	m2	16.16	1.29	\$ 16,183.54	20% of pavement area
	2.4	Raised Priority Crossing - asphalt	60	m2	78	1.06	\$ 4,957.51	Hot bituminous concrete including tack coat: 50mm thick multiplied by 3 (Rawlinsons 2023)
	2.5	Raised Priority Crossing - surface treatment	60	m2	21.5	1.06	\$ 1,366.49	Thermoplastic marking of bitumen paving (Rawlinsons 2023)
Concrete Works	3.1	Kerb and Channel	1101	m	60.9	1.29	\$ 86,499.59	
	3.2	Traffic Island	671	m2	84.07	1.29	\$ 72,808.63	
	3.3	SUP/footpath	720	m2	73.63	1.29	\$ 68,387.54	
	3.4	Cycle Path	474	m2	91.94	1.29	\$ 56,217.63	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	55	m	197.96	1.29	\$ 14,045.26	25% of benchmark item (one leg)
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	25% of benchmark item (one leg)
	4.3	Drainage Pipe 450mm CR Bfilled	114	m	334.33	1.29	\$ 49,166.57	25% of benchmark item (one leg)
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	25% of benchmark item (one leg)
	4.5	Drainage - Pits	7	No.	2806.1	1.29	\$ 25,339.08	25% of benchmark item (one leg)
	4.6	Drainage - Subsoil Drainage	1101	m	43.4	1.29	\$ 61,643.39	Based on total kerb length
Traffic	5.1	Traffic Signals	1	Item/ per leg	128786.34	1.29	\$ 166,134.38	
Landscape	6.1	Trees	13	No.	363.01	1.29	\$ 6,087.68	25% of benchmark item (one leg)
	6.2	Landscaping	2435	m2	25.16	1.29	\$ 79,031.33	
	6.3	Topsoil Seeding	2435	m2	8.44	1.29	\$ 26,511.31	
Street Lighting	7.1	Street Lighting	1	Item/ per leg	55617.74	1.29	\$ 71,746.88	
Utilities	8.1	Allowance for utility services protection	1	Item	30000	1.00	\$ 30,000.00	
Miscellaneous	9.1	Linemarking	4189	m2 of pavement	4.09	1.29	\$ 22,101.58	
	9.2	Regulatory Signage	4	Item	380.39	1.29	\$ 1,962.81	25% of benchmark item (one leg)
	9.4	Landscape Maintenance (intersections)	0.25	Item	88131.43	1.29	\$ 28,422.39	25% of benchmark item (one leg)
	9.6	Tactile Pavers (Hazard only)	6	Item	319.78	1.29	\$ 2,475.10	25% of benchmark item (one leg)
Other	10.1	Demolition of existing concrete kerbs, footpath, islands	83	m3	230	1.06	\$ 20,231.73	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
Delivery	11.1	Council Fees	1	%	3.25	-	\$ 57,191.04	
	11.2	VicRoads Fees	1	%	1	-	\$ 17,597.24	
	11.3	Traffic Management	1	%	10	-	\$ 175,972.45	
	11.4	Environmental Management	1	%	0.5	-	\$ 8,798.62	
	11.5	Survey/Design	1	%	5	-	\$ 87,986.22	
	11.6	Supervision and Project Management	1	%	9	-	\$ 158,375.20	
	11.7	Site Establishment	1	%	2.5	-	\$ 43,993.11	
	11.8	Contingency	1	%	15	-	\$ 263,958.67	
Total		Excluding Delivery					\$ 1,759,724.46	
		Including Delivery					\$ 2,573,597.02	

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IN-06 - Casey Fields Boulevard & Linsell Boulevard
Intersection - Secondary - Connector Intersection (Benchmark Item 9)

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	5937	m2	4.96	1.29	\$ 37,989.49	Sum of pavement, paths and landscape areas
	1.2	Earthworks	1714	m3	40.52	1.29	\$ 89,605.42	Excavation depths 635mm for secondary arterial pavements, 535mm collector arterial pavements, 200mm traffic island and paths
Road Pavement	2.1	Secondary Arterial Pavement	737	m2	133.78	1.29	\$ 127,122.60	
	2.2	Collector Arterial Pavement	1715	m2	112.44	1.29	\$ 248,788.62	
	2.3	Subgrade Preparation	490	m2	16.16	1.29	\$ 10,218.37	20% of pavement area
	2.4	Raised Priority Crossing - asphalt	60	m2	78	1.06	\$ 4,957.51	Hot bituminous concrete including tack coat: 50mm thick multiplied by 3 (Rawlinsons 2023)
	2.5	Raised Priority Crossing - surface treatment	60	m2	21.5	1.06	\$ 1,366.49	Thermoplastic marking of bitumen paving (Rawlinsons 2023)
Concrete Works	3.1	Kerb and Channel	726	m	60.9	1.29	\$ 57,035.29	
	3.2	Traffic Island	934	m2	84.07	1.29	\$ 101,286.32	
	3.3	SUP/footpath	401	m2	73.63	1.29	\$ 38,121.57	
	3.4	Cycle Path	309	m2	91.94	1.29	\$ 36,648.20	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	53	m	197.96	1.29	\$ 13,534.53	25% of benchmark item (one leg)
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	25% of benchmark item (one leg)
	4.3	Drainage Pipe 450mm CR Bfilled	135	m	334.33	1.29	\$ 58,223.57	25% of benchmark item (one leg)
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	25% of benchmark item (one leg)
	4.5	Drainage - Pits	6	No.	2806.1	1.29	\$ 21,719.21	25% of benchmark item (one leg)
	4.6	Drainage - Subsoil Drainage	726	m	43.4	1.29	\$ 40,645.84	Based on total kerb length
Traffic	5.1	Traffic Signals	1	Item/ per leg	128786.34	1.29	\$ 166,134.38	
Landscape	6.1	Trees	11	No.	363.01	1.29	\$ 5,151.11	25% of benchmark item (one leg)
	6.2	Landscaping	1841	m2	25.16	1.29	\$ 59,759.04	
	6.3	Topsoil Seeding	1841	m2	8.44	1.29	\$ 20,046.36	
Street Lighting	7.1	Street Lighting	1	Item/ per leg	55617.74	1.29	\$ 71,746.88	
Utilities	8.1	Allowance for utility services protection	1	Item	30000	1.00	\$ 30,000.00	
Miscellaneous	9.1	Linemarking	2761	m2 of pavement	4.09	1.29	\$ 14,566.46	
	9.2	Regulatory Signage	3	Item	380.39	1.29	\$ 1,472.11	25% of benchmark item (one leg)
	9.4	Landscape Maintenance (intersections)	0.25	Item	88131.43	1.29	\$ 28,422.39	25% of benchmark item (one leg)
	9.6	Tactile Pavers (Hazard only)	6	Item	319.78	1.29	\$ 2,475.10	25% of benchmark item (one leg)
Other	10.1	Demolition of existing concrete kerbs, footpath, islands	84	m3	230	1.06	\$ 20,509.48	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
Delivery	11.1	Council Fees	1	%	3.25	-	\$ 42,495.26	
	11.2	VicRoads Fees	1	%	1	-	\$ 13,075.46	
	11.3	Traffic Management	1	%	5	-	\$ 65,377.32	
	11.4	Environmental Management	1	%	0.5	-	\$ 6,537.73	
	11.5	Survey/Design	1	%	5	-	\$ 65,377.32	
	11.6	Supervision and Project Management	1	%	9	-	\$ 117,679.17	
	11.7	Site Establishment	1	%	2.5	-	\$ 32,688.66	
	11.8	Contingency	1	%	15	-	\$ 196,131.95	
Total		Excluding Delivery					\$ 1,307,546.34	
		Including Delivery					\$ 1,846,909.20	

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PED-01 - Pedestrian Crossing on Narre Warren - Cranbourne Road
Pedestrian Operated Signals

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	950	m2	4.96	1.29	\$ 6,078.48	Based on project area
	1.2	Earthworks	15	m3	40.52	1.29	\$ 784.06	Excavation depth 200mm for paths
Road Pavement	2.1	Primary Arterial Pavement	0	m2	186.26	1.29	\$ -	
	2.2	Collector Arterial Pavement	0	m2	112.44	1.29	\$ -	
	2.3	Subgrade Preparation	0	m2	16.16	1.29	\$ -	
Concrete Works	3.1	Kerb and Channel	24	m	60.9	1.29	\$ 1,885.46	
	3.2	Traffic Island	0	m2	84.07	1.29	\$ -	
	3.3	SUP/footpath	75	m2	73.63	1.29	\$ 7,123.70	
	3.4	Cycle Path	0	m2	91.94	1.29	\$ -	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	0	m	197.96	1.29	\$ -	
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	
	4.3	Drainage Pipe 450mm CR Bfilled	0	m	334.33	1.29	\$ -	
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	
	4.5	Drainage - Pits	0	No.	2806.1	1.29	\$ -	
	4.6	Drainage - Subsoil Drainage	0	m	43.4	1.29	\$ -	
Traffic	5.1	Traffic Signals	1	Item/ per leg	128786.34	1.29	\$ 166,134.38	Based on the cost of one leg of a primary signalised intersection
Landscape	6.1	Trees	0	No.	363.01	1.29	\$ -	
	6.2	Landscaping	150	m2	25.16	1.29	\$ 4,868.46	1m wide on both sides of path
	6.3	Topsoil Seeding	150	m2	8.44	1.29	\$ 1,633.14	1m wide on both sides of path
Street Lighting	7.1	Street Lighting	1	Item/ per leg	55617.74	1.29	\$ 71,746.88	
Miscellaneous	8.1	Linemarking	300	m2 of pavement	4.09	1.29	\$ 1,582.83	
	8.2	Regulatory Signage	0	Item	380.39	1.29	\$ -	
	8.3	Landscape Maintenance (Intersections)	0.1	Item	88131.43	1.29	\$ 11,368.95	10% of benchmark item 7 landscape maintenance
	8.4	Tactile Pavers (Hazard only)	4	Item	319.78	1.29	\$ 1,650.06	
	8.5	Pedestrian fencing	12	m	102	1.06	\$ 1,296.58	1200mm high fence of galvanised welded mesh roll top panels and tubular posts (Rawlinsons 2023)
Other	9.1	Demolition of existing concrete kerbs, footpath, islands	5.76	m3	230	1.06	\$ 1,403.36	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
Delivery	10.1	Council Fees	1	%	3.25	-	\$ 9,020.58	
	10.2	VicRoads Fees	1	%	1	-	\$ 2,775.56	
	10.3	Traffic Management	1	%	5	-	\$ 13,877.82	
	10.4	Environmental Management	1	%	0.5	-	\$ 1,387.78	
	10.5	Survey/Design	1	%	5	-	\$ 13,877.82	
	10.6	Supervision and Project Management	1	%	9	-	\$ 24,980.07	
	10.7	Site Establishment	1	%	2.5	-	\$ 6,938.91	
	10.8	Contingency	1	%	15	-	\$ 41,633.45	
Total		Excluding Delivery					\$ 277,556.36	
		Including Delivery					\$ 392,048.36	

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PED-02 - Pedestrian Crossing on Berwick - Cranbourne Road
Pedestrian Operated Signals

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	950	m2	4.96	1.29	\$ 6,078.48	Based on project area
	1.2	Earthworks	16	m3	40.52	1.29	\$ 815.42	Excavation depth 200mm for paths
Road Pavement	2.1	Primary Arterial Pavement	0	m2	186.26	1.29	\$ -	
	2.2	Collector Arterial Pavement	0	m2	112.44	1.29	\$ -	
	2.3	Subgrade Preparation	0	m2	16.16	1.29	\$ -	
Concrete Works	3.1	Kerb and Channel	24	m	60.9	1.29	\$ 1,885.46	
	3.2	Traffic Island	0	m2	84.07	1.29	\$ -	
	3.3	SUP/footpath	78	m2	73.63	1.29	\$ 7,408.65	
	3.4	Cycle Path	0	m2	91.94	1.29	\$ -	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	0	m	197.96	1.29	\$ -	
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	
	4.3	Drainage Pipe 450mm CR Bfilled	0	m	334.33	1.29	\$ -	
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	
	4.5	Drainage - Pits	0	No.	2806.1	1.29	\$ -	
	4.6	Drainage - Subsoil Drainage	0	m	43.4	1.29	\$ -	
Traffic	5.1	Traffic Signals	1	Item/ per leg	128786.34	1.29	\$ 166,134.38	Based on the cost of one leg of a primary signalised intersection
Landscape	6.1	Trees	0	No.	363.01	1.29	\$ -	
	6.2	Landscaping	156	m2	25.16	1.29	\$ 5,063.20	1m wide on both sides of path
	6.3	Topsoil Seeding	156	m2	8.44	1.29	\$ 1,698.47	1m wide on both sides of path
Street Lighting	7.1	Street Lighting	1	Item/ per leg	55617.74	1.29	\$ 71,746.88	
Miscellaneous	8.1	Linemarking	300	m2 of pavement	4.09	1.29	\$ 1,582.83	
	8.2	Regulatory Signage	0	Item	380.39	1.29	\$ -	
	8.3	Landscape Maintenance (intersections)	0.1	Item	88131.43	1.29	\$ 11,368.95	10% of benchmark item 7 landscape maintenance
	8.4	Tactile Pavers (Hazard only)	4	Item	319.78	1.29	\$ 1,650.06	
	8.5	Pedestrian fencing	26	m	102	1.06	\$ 2,809.26	1200mm high fence of galvanised welded mesh roll top panels and tubular posts (Rawlinsons 2023)
Other	9.1	Demolition of existing concrete kerbs, footpath, islands	5.76	m3	230	1.06	\$ 1,403.36	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
Delivery	10.1	Council Fees	1	%	3.25	-	\$ 9,088.48	
	10.2	VicRoads Fees	1	%	1	-	\$ 2,796.45	
	10.3	Traffic Management	1	%	5	-	\$ 13,982.27	
	10.4	Environmental Management	1	%	0.5	-	\$ 1,398.23	
	10.5	Survey/Design	1	%	5	-	\$ 13,982.27	
	10.6	Supervision and Project Management	1	%	9	-	\$ 25,168.09	
	10.7	Site Establishment	1	%	2.5	-	\$ 6,991.14	
	10.8	Contingency	1	%	15	-	\$ 41,946.81	
Total		Excluding Delivery					\$ 279,645.41	
		Including Delivery					\$ 394,999.14	

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SUP-01 - Shared Use Path - Melbourne Water Pipe Track (1184m)
Shared Use Path

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	17309	m2	4.96	1.29	\$ 110,749.91	Sum of pavement, paths and landscape areas
	1.2	Earthworks	19093	m3	40.52	1.29	\$ 997,997.13	Fill volume from 12d minus 200mm depth to subgrade
Road Pavement	2.1	Primary Arterial Pavement	0	m2	186.26	1.29	\$ -	
	2.2	Collector Arterial Pavement	0	m2	112.44	1.29	\$ -	
	2.3	Subgrade Preparation	0	m2	16.16	1.29	\$ -	
Concrete Works	3.1	Kerb and Channel	0	m	60.9	1.29	\$ -	
	3.2	Traffic Island	0	m2	84.07	1.29	\$ -	
	3.3	SUP/footpath	3554	m2	73.63	1.29	\$ 337,568.52	
	3.4	Cycle Path	0	m2	91.94	1.29	\$ -	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	0	m	197.96	1.29	\$ -	No allowance for drainage
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	
	4.3	Drainage Pipe 450mm CR Bfilled	0	m	334.33	1.29	\$ -	
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	
	4.5	Drainage - Pits	0	No.	2806.1	1.29	\$ -	
	4.6	Drainage - Subsoil Drainage	0	m	43.4	1.29	\$ -	
Traffic	5.1	Traffic Signals	0	Item/ per leg	128786.34	1.29	\$ -	
Landscape	6.1	Trees	118	No.	363.01	1.29	\$ 55,444.70	Trees at 20m spacing on both sides
	6.2	Landscaping	13755	m2	25.16	1.29	\$ 446,437.78	Area of fill batters
	6.3	Topsoil Seeding	13755	m2	8.44	1.29	\$ 149,758.94	Area of fill batters
Street Lighting	7.1	Street Lighting	0	Item/ per leg	55617.74	1.29	\$ -	No allowance for lighting
Miscellaneous	8.1	Linemarking	3554	m2 of pavement	4.09	1.29	\$ 18,751.26	
	8.2	Regulatory Signage	8	Item	380.39	1.29	\$ 3,925.62	1 sign at each path start/end
	8.4	Landscape Maintenance (road)	13755	m2	2.9	1.29	\$ 51,457.46	
	8.6	Tactile Pavers (Hazard only)	3	Item	319.78	1.29	\$ 1,237.55	
Other	9.1	Demolition of existing concrete kerbs, footpath, islands	0	m3	230	1.06	\$ -	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
Delivery	10.1	Council Fees	1	%	3.25	-	\$ 70,633.19	
	10.2	VicRoads Fees	1	%	1	-	\$ 21,733.29	
	10.3	Traffic Management	1	%	5	-	\$ 108,666.44	
	10.4	Environmental Management	1	%	0.5	-	\$ 10,866.64	
	10.5	Survey/Design	1	%	5	-	\$ 108,666.44	
	10.6	Supervision and Project Management	1	%	9	-	\$ 195,599.60	
	10.7	Site Establishment	1	%	2.5	-	\$ 54,333.22	
	10.8	Contingency	1	%	15	-	\$ 325,999.33	
Total		Excluding Delivery					\$ 2,173,328.86	
		Including Delivery					\$ 3,069,827.01	

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SUP-02 - Shared Use Path along Thompsons Road (587m)
Shared Use Path

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	4156	m2	4.96	1.29	\$ 26,591.75	Sum of pavement, paths and landscape areas
	1.2	Earthworks	904	m3	40.52	1.29	\$ 47,252.80	Allowance for cut/fill based on path area multiplied by 0.5m depth
Road Pavement	2.1	Primary Arterial Pavement	0	m2	186.26	1.29	\$ -	
	2.2	Collector Arterial Pavement	0	m2	112.44	1.29	\$ -	
	2.3	Subgrade Preparation	0	m2	16.16	1.29	\$ -	
Concrete Works	3.1	Kerb and Channel	0	m	60.9	1.29	\$ -	
	3.2	Traffic Island	0	m2	84.07	1.29	\$ -	
	3.3	SUP/footpath	1808	m2	73.63	1.29	\$ 171,728.72	
	3.4	Cycle Path	0	m2	91.94	1.29	\$ -	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	0	m	197.96	1.29	\$ -	No allowance for drainage
	4.2	Drainage Pipe 375mm CR Bfilled	0	m	282.96	1.29	\$ -	
	4.3	Drainage Pipe 450mm CR Bfilled	0	m	334.33	1.29	\$ -	
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	
	4.5	Drainage - Pits	0	No.	2806.1	1.29	\$ -	
	4.6	Drainage - Subsoil Drainage	0	m	43.4	1.29	\$ -	
Traffic	5.1	Traffic Signals	0	Item/ per leg	128786.34	1.29	\$ -	
Landscape	6.1	Trees	61	No.	363.01	1.29	\$ 28,565.26	Trees at 20m spacing on both sides
	6.2	Landscaping	2348	m2	25.16	1.29	\$ 76,207.63	Area of fill batters
	6.3	Topsoil Seeding	2348	m2	8.44	1.29	\$ 25,564.08	Area of fill batters
Street Lighting	7.1	Street Lighting	0	Item/ per leg	55617.74	1.29	\$ -	No allowance for lighting
Miscellaneous	8.1	Linemarking	1808	m2 of pavement	4.09	1.29	\$ 9,539.19	
	8.2	Regulatory Signage	4	Item	380.39	1.29	\$ 1,962.81	1 sign at each path start/end
	8.4	Landscape Maintenance (road)	2348	m2	2.9	1.29	\$ 8,783.87	
	8.6	Tactile Pavers (Hazard only)	0	Item	319.78	1.29	\$ -	
Other	9.1	Demolition of existing concrete kerbs, footpath, islands	0	m3	230	1.06	\$ -	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
Delivery	10.1	Council Fees	1	%	3.25	-	\$ 12,876.37	
	10.2	VicRoads Fees	1	%	1	-	\$ 3,961.96	
	10.3	Traffic Management	1	%	5	-	\$ 19,809.81	
	10.4	Environmental Management	1	%	0.5	-	\$ 1,980.98	
	10.5	Survey/Design	1	%	5	-	\$ 19,809.81	
	10.6	Supervision and Project Management	1	%	9	-	\$ 35,657.65	
	10.7	Site Establishment	1	%	2.5	-	\$ 9,904.90	
	10.8	Contingency	1	%	15	-	\$ 59,429.42	
Total		Excluding Delivery					\$ 396,196.11	
		Including Delivery					\$ 559,627.01	

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SUP-03
Shared Use Path VDP Crossing

Indexation factor for cost items provided by Spiire: 1.00

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Precast Shared Use Bridge	1.1	15m precast beam (supply only)	3	No.	16500	1.00	\$ 49,500.00	
	1.2	Headstock Unit	2	No.	10300	1.00	\$ 20,600.00	
	1.3	Hardware	1	No.	2500	1.00	\$ 2,500.00	
	1.4	Piles (10m)	6	No.	6000	1.00	\$ 36,000.00	
	1.5	Handrail	30	No.	350	1.00	\$ 10,500.00	
	1.6	Delivery to Site	1	No.	20000	1.00	\$ 20,000.00	
	1.7	Installation	1	No.	100000	1.00	\$ 100,000.00	
Ancillaries	2.1	Structural Design Piles/footings	1	Item	10000	1.00	\$ 10,000.00	
	2.2	Geotechnical Investigations	1	Item	10000	1.00	\$ 10,000.00	
Delivery	3.1	Council Fees	1	%	3.25	-	\$ 7,770.75	
	3.2	Environmental Management	1	%	0.5	-	\$ 1,195.50	
	3.3	Surveying and design	1	%	5	-	\$ 11,955.00	
	3.4	Supervision and project management	1	%	9	-	\$ 21,519.00	
	3.5	Site establishment	1	%	2.5	-	\$ 5,977.50	
Total	3.8	Contingency	1	%	15	-	\$ 35,865.00	
		Excluding Delivery and Ancillaries					\$ 239,100.00	
		Including Delivery and Ancillaries					\$ 343,382.75	

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SUP-04
Shared Use Path VDP Crossing

Indexation factor for cost items provided by Spiire: 1.00

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Precast Shared Use Bridge	1.1	15m precast beam (supply only)	3	No.	16500	1.00	\$ 49,500.00	
	1.2	Headstock Unit	2	No.	10300	1.00	\$ 20,600.00	
	1.3	Hardware	1	No.	2500	1.00	\$ 2,500.00	
	1.4	Piles (10m)	6	No.	6000	1.00	\$ 36,000.00	
	1.5	Handrail	30	No.	350	1.00	\$ 10,500.00	
	1.6	Delivery to Site	1	No.	20000	1.00	\$ 20,000.00	
	1.7	Installation	1	No.	100000	1.00	\$ 100,000.00	
Ancillaries	2.1	Structural Design Piles/footings	1	Item	10000	1.00	\$ 10,000.00	
	2.2	Geotechnical Investigations	1	Item	10000	1.00	\$ 10,000.00	
Delivery	3.1	Council Fees	1	%	3.25	-	\$ 7,770.75	
	3.2	Environmental Management	1	%	0.5	-	\$ 1,195.50	
	3.3	Surveying and design	1	%	5	-	\$ 11,955.00	
	3.4	Supervision and project management	1	%	9	-	\$ 21,519.00	
	3.5	Site establishment	1	%	2.5	-	\$ 5,977.50	
	3.8	Contingency	1	%	15	-	\$ 35,865.00	
Total		Excluding Delivery and Ancillaries					\$ 239,100.00	
		Including Delivery and Ancillaries					\$ 343,382.75	

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SUP-05
Shared Use Path VDP Crossing

Indexation factor for cost items provided by Spiire: 1.00

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Precast Shared Use Bridge	1.1	15m precast beam (supply only)	3	No.	16500	1.00	\$ 49,500.00	
	1.2	Headstock Unit	2	No.	10300	1.00	\$ 20,600.00	
	1.3	Hardware	1	No.	2500	1.00	\$ 2,500.00	
	1.4	Piles (10m)	6	No.	6000	1.00	\$ 36,000.00	
	1.5	Handrail	30	No.	350	1.00	\$ 10,500.00	
	1.6	Delivery to Site	1	No.	20000	1.00	\$ 20,000.00	
	1.7	Installation	1	No.	100000	1.00	\$ 100,000.00	
Ancillaries	2.1	Structural Design Piles/footings	1	Item	10000	1.00	\$ 10,000.00	
	2.2	Geotechnical Investigations	1	Item	10000	1.00	\$ 10,000.00	
Delivery	3.1	Council Fees	1	%	3.25	-	\$ 7,770.75	
	3.2	Environmental Management	1	%	0.5	-	\$ 1,195.50	
	3.3	Surveying and design	1	%	5	-	\$ 11,955.00	
	3.4	Supervision and project management	1	%	9	-	\$ 21,519.00	
	3.5	Site establishment	1	%	2.5	-	\$ 5,977.50	
	3.8	Contingency	1	%	15	-	\$ 35,865.00	
Total		Excluding Delivery and Ancillaries					\$ 239,100.00	
		Including Delivery and Ancillaries					\$ 343,382.75	

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RD-01 - Casey Fields Boulevard (898m long)
Road - Connector Boulevard - 800m (Benchmark Item 3)

Indexation factor for VPA benchmark items (July 2024): 1.29

Indexation factor for Rawlinsons items (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	36910	m2	4.96	1.29	\$ 236,164.94	Sum of pavement, paths and landscape areas
	1.2	Earthworks	31254	m3	40.52	1.29	\$ 1,633,671.58	Cut and fill volumes from 12d
Road Pavement	2.1	Primary Arterial Pavement	0	m2	186.26	1.29	\$ -	
	2.2	Collector Arterial Pavement	6305	m2	112.44	1.29	\$ 914,525.12	
	2.3	Subgrade Preparation	1261	m2	16.16	1.29	\$ 26,287.31	20% of pavement area
	2.4	Raised Priority Crossing - asphalt	120	m2	78	1.06	\$ 9,915.02	Hot bituminous concrete including tack coat: 50mm thick multiplied by 3 (Rawlinsons 2023)
	2.5	Raised Priority Crossing - surface treatment	120	m2	21.5	1.06	\$ 2,732.99	Thermoplastic marking of bitumen paving (Rawlinsons 2023)
Concrete Works	3.1	Kerb and Channel	3592	m	60.9	1.29	\$ 282,191.11	
	3.2	Traffic Island	0	m2	84.07	1.29	\$ -	
	3.3	SUP/footpath	2655	m2	73.63	1.29	\$ 252,179.07	
	3.4	Cycle Path	2819	m2	91.94	1.29	\$ 334,340.73	
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	225	m	197.96	1.29	\$ 57,330.21	Scaled up from benchmark item 3
	4.2	Drainage Pipe 375mm CR Bfilled	1019	m	282.96	1.29	\$ 372,037.70	Scaled up from benchmark item 3
	4.3	Drainage Pipe 450mm CR Bfilled	786	m	334.33	1.29	\$ 338,882.74	Scaled up from benchmark item 3
	4.4	Drainage Pipe 525mm CR Bfilled	0	m	448.03	1.29	\$ -	Scaled up from benchmark item 3
	4.5	Drainage - Pits	36	No.	2806.1	1.29	\$ 130,025.69	Scaled up from benchmark item 3
	4.6	Drainage - Subsoil Drainage	3592	m	43.4	1.29	\$ 201,101.71	Based on total kerb length
Traffic	5.1	Traffic Signals	0	Item/ per leg	128786.34	1.29	\$ -	
Landscape	6.1	Trees	216	No.	363.01	1.29	\$ 100,924.33	Scaled up from benchmark item 3
	6.2	Landscaping	25131	m2	25.16	1.29	\$ 815,661.79	Area of fill batters and verges
	6.3	Topsoil Seeding	25131	m2	8.44	1.29	\$ 273,616.28	Area of fill batters and verges
Street Lighting	7.1	Street Lighting	898	m	225.67	1.29	\$ 261,420.64	Based on length of road
Miscellaneous	8.1	Linemarking	6305	m2 of pavement	4.09	1.29	\$ 33,265.81	
	8.2	Regulatory Signage	12	Item	380.39	1.29	\$ 5,888.44	Scaled up from benchmark item 3
	8.3	Landscape Maintenance (road)	25131	m2	2.96	1.29	\$ 95,960.21	
	8.4	Tactile Pavers (Hazard only)	8	Item	319.78	1.29	\$ 3,300.13	
Other	9.1	Demolition of existing concrete kerbs, footpath, islands	0	m3	230	1.06	\$ -	Break up and remove reinforced concrete in open excavations (Rawlinsons 2023)
Delivery	10.1	Council Fees	1	%	3.25	-	\$ 207,396.27	
	10.2	VicRoads Fees	1	%	1	-	\$ 63,814.24	
	10.3	Traffic Management	1	%	5	-	\$ 319,071.18	
	10.4	Environmental Management	1	%	0.5	-	\$ 31,907.12	
	10.5	Survey/Design	1	%	5	-	\$ 319,071.18	
	10.6	Supervision and Project Management	1	%	9	-	\$ 574,328.12	
	10.7	Site Establishment	1	%	2.5	-	\$ 159,535.59	
	10.8	Contingency	1	%	15	-	\$ 957,213.53	
		Excluding Delivery					\$ 6,381,423.55	
		Including Delivery					\$ 9,013,760.77	

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RD-01 VDP CROSSING

Indexation factor for cost items provided by Spiire: 1.00

Road VDP cable/conduit crossing

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Preliminary Site & Earthworks	1.1	Service Proving	1	Item	25000	1.00	\$ 25,000.00	
	1.2	Site Preparation	0	m2	7	1.00	\$ -	
	1.3	Earthworks	80	m3	50	1.00	\$ 4,000.00	
Road Pavement	2.1	Subgrade preparation	120	m2	10	1.00	\$ 1,200.00	
	2.2	Thermal backfill	80	m3	175	1.00	\$ 14,000.00	
Ancillaries	3.1	Structural Design HV Crossing	1	Item	10000	1.00	\$ 10,000.00	
	3.2	Proof Engineering (Nexans Olex)	1	Item	15000	1.00	\$ 15,000.00	
	3.3	Permits/Insurance	1	Item	250000	1.00	\$ 250,000.00	
	3.4	Construction certification of independent reviewer	1	Item	10000	1.00	\$ 10,000.00	
Delivery	8.1	Council Fees	1	%	3.25	-	\$ 1,436.50	
	8.2	Environmental Management	1	%	0.5	-	\$ 221.00	
	8.3	Survey/Design	1	%	5	-	\$ 2,210.00	
	8.4	Supervision and Project Management	1	%	9	-	\$ 3,978.00	
	8.5	Site Establishment	1	%	2.5	-	\$ 1,105.00	
	8.6	Contingency	1	%	15	-	\$ 6,630.00	
Total		Excluding Delivery and Ancillaries					\$ 44,200.00	
		Including Delivery and Ancillaries					\$ 344,780.50	

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CU-01 - Culvert - (RD-01) over constructed waterway
Culvert Option 4 - Item 28

VPA benchmark indexation factor (July 2024): 1.29
Rawlinsons items indexation factor (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	1120.5	m2	4.23	1.29	\$ 6,114.23	Scaled up from benchmark item 28
	1.2	Diversion works	1	Item	20125	1.29	\$ 25,961.25	As per benchmark item 28
	1.3	Waterway re-shaping	1	Item	4600	1.29	\$ 5,934.00	As per benchmark item 28
	1.4	Stripping of topsoil	1620	m2	4.49	1.29	\$ 9,383.20	Scaled up from benchmark item 28
	1.5	Excavation	5647.5	m3	42.55	1.29	\$ 309,988.45	Scaled up from benchmark item 28
	1.6	Formation of batters	292	m3	17.25	1.29	\$ 6,497.73	As per benchmark item 28
Drainage Structure	2.1	Box culvert units 1200 x 2100 (No.)	68	No.	4830	1.29	\$ 423,687.60	Scaled up from benchmark item 28
	2.2	Link slab 1200 x 2100 (No.)	55	No.	2839.35	1.29	\$ 201,451.88	Scaled up from benchmark item 28
	2.3	Foundation slab 1200 x 2100 (200mm)	1410	m2	243.8	1.29	\$ 443,447.82	Scaled up from benchmark item 28
	2.4	Granular Bedding 150 mm thick crushed	1410	m2	19.84	1.29	\$ 36,086.98	Scaled up from benchmark item 28
	2.5	Apron slab (m2)	229.5	m2	253.29	1.29	\$ 74,987.77	Scaled up from benchmark item 28
	2.6	Wing wall (m2)	33	m2	805	1.29	\$ 34,268.85	As per benchmark item 28
	2.7	End wall (m2)	60	m2	805	1.29	\$ 62,307.00	Scaled up from benchmark item 28
On Structure	3.1	Structural Fill (m3)	1545	m3	86.25	1.29	\$ 171,900.56	Scaled up from benchmark item 28
	3.2	Vehicle Barrier	96	lm	284.63	1.29	\$ 35,248.58	Scaled up from benchmark item 28
	3.3	Signs (Item)	1	Item	2645	1.29	\$ 3,412.05	As per benchmark item 28
Delivery	4.1	Council Fees	1	%	3.25	-	\$ 60,147.03	
	4.2	VicRoads Fees	1	%	1	-	\$ 18,506.78	
	4.3	Traffic Management	1	%	5	-	\$ 92,533.90	
	4.4	Environmental Management	1	%	0.5	-	\$ 9,253.39	
	4.5	Survey/Design	1	%	5	-	\$ 92,533.90	
	4.6	Supervision and Project Management	1	%	9	-	\$ 166,561.02	
	4.7	Site Establishment	1	%	2.5	-	\$ 46,266.95	
	4.8	Contingency	1	%	15	-	\$ 277,601.69	
		Excluding Delivery					\$ 1,850,677.96	
		Including Delivery					\$ 2,614,082.61	

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CU-02 - Culvert - (SUP-01) over constructed waterway
Culvert Option 4 - Item 28

VPA benchmark indexation factor (July 2024): 1.29
Rawlinsons items indexation factor (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	261.45	m2	4.23	1.29	\$ 1,426.65	Scaled down from benchmark item 28
	1.2	Diversion works	1	Item	20125	1.29	\$ 25,961.25	As per benchmark item 28
	1.3	Waterway re-shaping	1	Item	4600	1.29	\$ 5,934.00	As per benchmark item 28
	1.4	Stripping of topsoil	378	m2	4.49	1.29	\$ 2,189.41	Scaled down from benchmark item 28
	1.5	Excavation	1317.75	m3	42.55	1.29	\$ 72,330.64	Scaled down from benchmark item 28
	1.6	Formation of batters	292	m3	17.25	1.29	\$ 6,497.73	As per benchmark item 28
Drainage Structure	2.1	Box culvert units 1200 x 2100 (No.)	15	No.	4830	1.29	\$ 93,460.50	Scaled down from benchmark item 28
	2.2	Link slab 1200 x 2100 (No.)	12	No.	2839.35	1.29	\$ 43,953.14	Scaled down from benchmark item 28
	2.3	Foundation slab 1200 x 2100 (200mm)	329	m2	243.8	1.29	\$ 103,471.16	Scaled down from benchmark item 28
	2.4	Granular Bedding 150 mm thick crushed	329	m2	19.84	1.29	\$ 8,420.29	Scaled down from benchmark item 28
	2.5	Apron slab (m2)	229.5	m2	253.29	1.29	\$ 74,987.77	Scaled up from benchmark item 28
	2.6	Wing wall (m2)	33	m2	805	1.29	\$ 34,268.85	As per benchmark item 28
	2.7	End wall (m2)	60	m2	805	1.29	\$ 62,307.00	Scaled up from benchmark item 28
On Structure	3.1	Structural Fill (m3)	360.5	m3	86.25	1.29	\$ 40,110.13	Scaled down from benchmark item 28
	3.2	Safety barrier	70	lm	350	1.06	\$ 25,952.78	Bridge balustrade (Rawlinsons 2023)
	3.3	Signs (Item)	0	Item	2645	1.29	\$ -	No allowance for signage
Delivery	4.1	Council Fees	1	%	3.25	-	\$ 19,541.32	
	4.2	VicRoads Fees	1	%	1	-	\$ 6,012.71	
	4.3	Traffic Management	1	%	5	-	\$ 30,063.57	
	4.4	Environmental Management	1	%	0.5	-	\$ 3,006.36	
	4.5	Survey/Design	1	%	5	-	\$ 30,063.57	
	4.6	Supervision and Project Management	1	%	9	-	\$ 54,114.42	
	4.7	Site Establishment	1	%	2.5	-	\$ 15,031.78	
	4.8	Contingency	1	%	15	-	\$ 90,190.70	
		Excluding Delivery					\$ 601,271.31	
		Including Delivery					\$ 849,295.73	

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CU-03 - Culvert - (SUP-02) over constructed waterway
Culvert Option 4 - Item 28

VPA benchmark indexation factor (July 2024): 1.29
Rawlinsons items indexation factor (March 2024): 1.06

Group	Item	Description	Quantity	Unit	Rate (\$)	Indexation factor	Cost (\$)	Comments
Siteworks and Earthworks	1.1	Site Preparation	261.45	m2	4.23	1.29	\$ 1,426.65	Scaled down from benchmark item 28
	1.2	Diversion works	1	Item	20125	1.29	\$ 25,961.25	As per benchmark item 28
	1.3	Waterway re-shaping	1	Item	4600	1.29	\$ 5,934.00	As per benchmark item 28
	1.4	Stripping of topsoil	378	m2	4.49	1.29	\$ 2,189.41	Scaled down from benchmark item 28
	1.5	Excavation	1317.75	m3	42.55	1.29	\$ 72,330.64	Scaled down from benchmark item 28
	1.6	Formation of batters	292	m3	17.25	1.29	\$ 6,497.73	As per benchmark item 28
Drainage Structure	2.1	Box culvert units 1200 x 2100 (No.)	15	No.	4830	1.29	\$ 93,460.50	Scaled down from benchmark item 28
	2.2	Link slab 1200 x 2100 (No.)	12	No.	2839.35	1.29	\$ 43,953.14	Scaled down from benchmark item 28
	2.3	Foundation slab 1200 x 2100 (200mm)	329	m2	243.8	1.29	\$ 103,471.16	Scaled down from benchmark item 28
	2.4	Granular Bedding 150 mm thick crushed	329	m2	19.84	1.29	\$ 8,420.29	Scaled down from benchmark item 28
	2.5	Apron slab (m2)	229.5	m2	253.29	1.29	\$ 74,987.77	Scaled up from benchmark item 28
	2.6	Wing wall (m2)	33	m2	805	1.29	\$ 34,268.85	As per benchmark item 28
	2.7	End wall (m2)	60	m2	805	1.29	\$ 62,307.00	Scaled up from benchmark item 28
On Structure	3.1	Structural Fill (m3)	360.5	m3	86.25	1.29	\$ 40,110.13	Scaled down from benchmark item 28
	3.2	Safety barrier	70	lm	350	1.06	\$ 25,952.78	Bridge balustrade (Rawlinsons 2023)
	3.3	Signs (Item)	0	Item	2645	1.29	\$ -	No allowance for signage
Delivery	4.1	Council Fees	1	%	3.25	-	\$ 19,541.32	
	4.2	VicRoads Fees	1	%	1	-	\$ 6,012.71	
	4.3	Traffic Management	1	%	5	-	\$ 30,063.57	
	4.4	Environmental Management	1	%	0.5	-	\$ 3,006.36	
	4.5	Survey/Design	1	%	5	-	\$ 30,063.57	
	4.6	Supervision and Project Management	1	%	9	-	\$ 54,114.42	
	4.7	Site Establishment	1	%	2.5	-	\$ 15,031.78	
	4.8	Contingency	1	%	15	-	\$ 90,190.70	
		Excluding Delivery					\$ 601,271.31	
		Including Delivery					\$ 849,295.73	

The estimated construction costs provided in this document have been issued to the Victorian Planning Authority for budgeting purposes only for the Infrastructure Contributions Plan. Rates are based on VPA Benchmark Infrastructure Report 11 April 2019 Indexed to 1 July 2024 (based on VPA Indexation rates) and Rawlinsons indexed to March 2024 (based on Australian Bureau of Statistics Producer Price Index for Road and Bridge Construction – Victoria). No allowance has been included for utility relocation works, geotechnical testing or WSUD. An allowance for utility services protection has been provided at intersections. Costing for VDP cable crossing items were prepared by Spiire. SMEC Australia assumes no liability for losses incurred through changes to the quantities required to construct the intersection or increases in construction costs. These values are not intended for use in construction pricing and do not constitute a Bill of Quantities.