

Item No	Quantity	Description		Cost	Per Unit	Amount
37	12	Pavement Marking Arrows Epoxy Type 2	@	\$275.00	Each	\$3,300.00
38	7	Pavement Marking Words Epoxy	@	\$335.00	Each	\$2,345.00
39	4	Pavement Marking Railroad Crossings Epoxy	@	\$535.00	Each	\$2,140.00
40	3	Pavement Marking Island Nose Epoxy	@	\$125.00	Each	\$375.00
41	441.3	Signs Reflective Type II	@	\$21.40	Sq. Ft.	\$9,443.82
42	7	Moving Signs	@	\$125.00	Each	\$875.00
43	5	Moving Small Sign Supports	@	\$50.00	Each	\$250.00
44	100	Removing Signs	@	\$18.00	Each	\$1,800.00
45	50	Removing Small Sign Supports	@	\$18.00	Each	\$900.00
46	37	Metal Sign Posts, 2.5-Inch Round	@	\$125.00	Each	\$4,625.00
47	5	Square Break-Away Posts, SPV 0060.12	@	\$150.00	Each	\$750.00
48	5,227.0	Topsoil and Sod	@	\$7.45	Sq. Yd.	\$38,941.15
49	1,923.7	Topsoil, Seed, and Erosion Mat	@	\$4.15	Sq. Yd.	\$7,983.36
50	288	Silt Fence, Delivered, Installed and Maintained	@	\$2.00	Lin. Ft.	\$576.00
51	105	Turbidity Barrier Delivered, Installed and Maintained	@	\$50.00	Lin. Ft.	\$5,250.00
52	0	Straw Bales Delivered, Installed and Maintained	@	\$12.00	Each	\$0.00
53	42	Filter Fabric Inlet Protection, Type A and C	@	\$68.00	Each	\$2,856.00
54	1	Temporary Street Lighting	@	\$55,650.25	Lump Sum	\$55,650.25
55	5,281	Non Metallic Conduit, Street Light, Polyethylene Duct, Black, 2-Inch	@	\$5.03	Lin. Ft.	\$26,563.43
56	7	Street Light Pull Boxes, 15-Inch x 30-Inch	@	\$322.36	Each	\$2,256.52
57	24	Concrete Bases, Type 5	@	\$716.94	Each	\$17,206.56
58	1	Street Light Control Cabinet	@	\$5,420.79	Each	\$5,420.79
59	2	Concrete Control Cabinet Bases Type 9 Special (WisDOT 654.0217)	@	\$1,693.02	Each	\$3,386.04
60	23,028	Electrical Wire Lighting 4 AWG (WisDOT 655.0630)	@	\$1.34	Lin. Ft.	\$30,857.52
61	1	Electrical Service Meter Breaker Pedestal – (Lighting - E. Moreland Blvd. and White Rock Avenue) (WisDOT 656.0200.02)	@	\$1,160.99	Lump Sum	\$1,160.99
62	7	Remove Existing Roadway Lighting Unit, SPV.0060.09	@	\$206.73	Each	\$1,447.11
63	23	Remove and Re-Install Lighting Assembly, SPV.0060.10	@	\$396.02	Each	\$9,108.46
64	1	Removing Existing Light Control Cabinet, SPV.0060.11	@	\$413.45	Each	\$413.45
65	125	Conduit Rigid Nonmetallic Schedule 40 2-Inch (WisDOT 652.0225)	@	\$4.77	Lin. Ft.	\$596.25
66	1,485	Conduit Rigid Nonmetallic Schedule 40 3-Inch (WisDOT 652.0235)	@	\$5.94	Lin. Ft.	\$8,820.90
67	14	Pull Boxes Steel 24x42-Inch (WisDOT 653.0140)	@	\$758.11	Each	\$10,613.54
68	6	Concrete Bases Type 1 (WisDOT 654.0101)	@	\$545.56	Each	\$3,273.36
69	3	Concrete Bases Type 2 (WisDOT 654.0102)	@	\$832.26	Each	\$2,496.78
70	1	Concrete Bases Type 10 (WisDOT 654.0110)	@	\$4,438.25	Each	\$4,438.25
71	2	Concrete Bases Type 13 (WisDOT 654.0113)	@	\$8,144.09	Each	\$16,288.18
72	743	Cable Traffic Signal 5-14 AWG (WisDOT 655.0230)	@	\$1.06	Lin. Ft.	\$787.58
73	148	Cable Traffic Signal 7-14 AWG (WisDOT 655.0240)	@	\$1.22	Lin. Ft.	\$180.56
74	3,419	Cable Traffic Signal 12-14 AWG (WisDOT 655.0260)	@	\$1.78	Lin. Ft.	\$6,085.82
75	759	Cable Traffic Signal 15-14 AWG (WisDOT 655.0270)	@	\$2.14	Lin. Ft.	\$1,624.26
76	929	Cable Type UF 2-10 AWG (WisDOT 655.0315)	@	\$1.15	Lin. Ft.	\$1,068.35
77	1,926	Electrical Wire Traffic Signals 10 AWG (WisDOT 655.0515)	@	\$0.76	Lin. Ft.	\$1,463.76
78	1,134	Electrical Wire Lighting 12 AWG	@	\$0.64	Lin. Ft.	\$725.76

Item No	Quantity	Description		Cost	Per Unit	Amount
79	1	Electrical Service Meter Breaker Pedestal (Signal – E. Moreland Blvd. and White Rock Ave) (WisDOT 656.0200.01)	@	\$1,160.99	Lump Sum	\$1,160.99
80	5	Pedestal Bases (WisDOT 657.0100)	@	\$227.12	Each	\$1,135.60
81	3	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle (WisDOT 657.0255)	@	\$380.58	Each	\$1,141.74
82	1	Poles Type 3 (WisDOT 657.0310)	@	\$2,605.68	Each	\$2,605.68
83	2	Poles Type 4 (WisDOT 657.0315)	@	\$1,332.78	Each	\$2,665.56
84	1	Traffic Signal Standards Aluminum 13-Foot (WisDOT 657.0420)	@	\$562.62	Each	\$562.62
85	2	Traffic Signal Standards Aluminum 15-Foot (WisDOT 657.0425)	@	\$574.90	Each	\$1,149.80
86	2	Traffic Signal Standards Aluminum 10-Foot (WisDOT 657.0430)	@	\$390.45	Each	\$780.90
87	1	Trombone Arms 15-FT (WisDOT 657.0585)	@	\$1,321.79	Each	\$1,321.79
88	4	Luminaire Arms Single Member 4-Inch Clamp 6-Foot (WisDOT 657.0609)	@	\$223.43	Each	\$893.72
89	14	Traffic Signal Face 3-12 Inch Vertical (WisDOT 658.0110)	@	\$440.04	Each	\$6,160.56
90	2	Traffic Signal Face 4-12 Inch Vertical (WisDOT 658.0115)	@	\$539.54	Each	\$1,079.08
91	2	Traffic Signal Face 5-12 Inch Vertical (WisDOT 658.0120)	@	\$645.33	Each	\$1,290.66
92	14	Backplates Signal Face 3 Section 12-Inch (WisDOT 658.0215)	@	\$89.48	Each	\$1,252.72
93	2	Backplates Signal Face 4 Section 12-Inch (WisDOT 658.0220)	@	\$95.62	Each	\$191.24
94	2	Backplates Signal Face 5 Section 12-Inch (WisDOT 658.0225)	@	\$106.93	Each	\$213.86
95	8	Pedestrian Signal Face 16-Inch (WisDOT 658.0416)	@	\$292.79	Each	\$2,342.32
96	13	LED Modules 12-Inch Red Ball (WisDOT 658.0600)	@	\$51.56	Each	\$670.28
97	13	LED Modules 12-Inch Yellow Ball (WisDOT 658.0605)	@	\$52.79	Each	\$686.27
98	12	LED Modules 12-Inch Green Ball (WisDOT 658.0610)	@	\$54.02	Each	\$648.24
99	5	LED Modules 12-Inch Red Arrow (WisDOT 658.0615)	@	\$51.56	Each	\$257.80
100	7	LED Modules 12-Inch Yellow Arrow (WisDOT 658.0620)	@	\$52.79	Each	\$369.53
101	11	LED Modules 12-Inch Green Arrow (WisDOT 658.0625)	@	\$54.02	Each	\$594.22
102	8	LED Modules Pedestrian Countdown Timer 16-Inch (WisDOT 658.0635)	@	\$275.23	Each	\$2,201.84
103	1	Signal Mounting Hardware (E. Moreland Blvd. and White Rock Ave.) WisDOT 658.5069.01	@	\$3,477.74	Lump Sum	\$3,477.74
104	1	Monotube Poles Type 10, SPV.0060.01	@	\$4,882.32	Each	\$4,882.32
105	2	Monotube Poles Type 13, SPV.0060.02	@	\$9,840.07	Each	\$19,680.14
106	1	Monotube Arms 25-FT, SPV.0060.03	@	\$3,372.31	Each	\$3,372.31
107	2	Monotube Arms 40-FT, SPV.0060.04	@	\$5,764.26	Each	\$11,528.52
108	3	Luminaire Arm Steel 12-FT, SPV.0060.05	@	\$456.93	Each	\$1,370.79
109	7	Install LED Luminaire, SPV.0060.06	@	\$183.16	Each	\$1,282.12
110	1	Traffic Signal Controller and Cabinet 8-Phase Fully Actuated, SPV.0060.07	@	\$15,980.33	Each	\$15,980.33
111	1	Battery Backup System, E. Moreland Blvd. and White Rock Avenue, SPV.0060.08	@	\$7,106.36	Each	\$7,106.36
112	1	Video Vehicle Detection System, Intersection of E. Moreland Blvd. and White Rock Avenue, SPV.0105.01	@	\$24,417.94	Lump Sum	\$24,417.94
113	1	Emergency Vehicle Preemption System, Intersection of E. Moreland Blvd. and White Rock Avenue, SPV.0105.02	@	\$12,170.85	Lump Sum	\$12,170.85
114	1	Remove Traffic Signals, Intersection of E. Moreland Blvd. and White Rock Avenue, SPV.0105.03	@	\$3,100.88	Lump Sum	\$3,100.88
115	0	Salvage Copper Communications Cable at the E. Moreland Blvd. and White Rock Avenue Traffic Signal, SPV.0105.04	@	\$413.45	Lump Sum	\$0.00
116	1	Audible Pedestrian Push Button System, Intersection of E. Moreland Blvd and White Rock Avenue, SPV.0105.05	@	\$5,866.90	Lump Sum	\$5,866.90

Item No	Quantity	Description		Cost	Per Unit	Amount
117	18	Remove Existing Storm Manhole	@	\$550.00	Each	\$9,900.00
118	23	Remove Existing Inlet	@	\$500.00	Each	\$11,500.00
119	764.7	Remove Existing 12-Inch Storm Sewer	@	\$11.00	Lin. Ft.	\$8,411.70
120	530	Remove Existing 15-Inch Storm Sewer	@	\$12.00	Lin. Ft.	\$6,360.00
121	60	Remove Existing 18-Inch Storm Sewer	@	\$14.00	Lin. Ft.	\$840.00
122	0	Remove Existing 24-Inch Storm Sewer	@	\$16.00	Lin. Ft.	\$0.00
123	739	Remove Existing 30-Inch Storm Sewer	@	\$20.00	Lin. Ft.	\$14,780.00
124	1,226	Remove Existing 36-Inch Storm Sewer	@	\$30.00	Lin. Ft.	\$36,780.00
125	7	Abandon Existing Storm Manhole	@	\$450.00	Each	\$3,150.00
126	3	Abandon Existing Inlet	@	\$400.00	Each	\$1,200.00
127	80	Abandon Existing 12-Inch Storm Sewer	@	\$6.00	Lin. Ft.	\$480.00
128	36	Abandon Existing 15-Inch Storm Sewer	@	\$7.00	Lin. Ft.	\$252.00
129	72	Abandon Existing 30-Inch Storm Sewer	@	\$20.00	Lin. Ft.	\$1,440.00
130	168	Abandon Existing 36-Inch Storm Sewer	@	\$25.00	Lin. Ft.	\$4,200.00
131	1,057.6	12-Inch RCP Storm Sewer, Class III	@	\$68.00	Lin. Ft.	\$71,916.80
132	339	15-Inch RCP Storm Sewer, Class III	@	\$69.00	Lin. Ft.	\$23,391.00
133	150	18-inch RCP Storm Sewer, Class III	@	\$73.00	Lin. Ft.	\$10,950.00
134	13	27-Inch RCP Storm Sewer, Class III	@	\$85.00	Lin. Ft.	\$1,105.00
135	94	36-Inch RCP Storm Sewer, Class III	@	\$115.00	Lin. Ft.	\$10,810.00
136	223	54-Inch RCP Storm Sewer, Class IV	@	\$190.00	Lin. Ft.	\$42,370.00
137	3,156.2	66-Inch RCP Storm Sewer, Class IV	@	\$295.00	Lin. Ft.	\$931,079.00
138	58	53x83-inch RCP Horizontal Elliptical Storm Sewer, Class IV	@	\$400.00	Lin. Ft.	\$23,200.00
139	10	48-Inch Diameter Storm Tee Manhole	@	\$3,000.00	Dia.	\$30,000.00
140	1	72-Inch Diameter Storm Manhole	@	\$4,500.00	Dia.	\$4,500.00
141	1	108-Inch Diameter Storm Manhole	@	\$10,000.00	Dia.	\$10,000.00
142	3	108-Inch Diameter Storm Manhole, with Reduced Riser	@	\$16,800.00	Dia.	\$50,400.00
143	2	120-Inch Diameter Storm Manhole, with Reduced Riser	@	\$20,000.00	Dia.	\$40,000.00
144	1	54-Inch RCP Storm Sewer 61-Degree Bend	@	\$2,317.00	Each	\$2,317.00
145	1	54-Inch RCP Storm Sewer 66-Degree Bend	@	\$2,317.00	Each	\$2,317.00
146	1	66-Inch RCP Storm Sewer 54-Degree Bend	@	\$4,091.00	Each	\$4,091.00
147	1	66-Inch RCP Storm Sewer 13-Degree Bend	@	\$4,342.00	Each	\$4,342.00
148	1	66-Inch RCP Storm Sewer 10-Degree Bend	@	\$4,342.00	Each	\$4,342.00
149	4	Inlets 2x3-Ft	@	\$1,500.00	Each	\$6,000.00
150	38	Inlets 2x3-Ft, with Sump	@	\$1,900.00	Each	\$72,200.00
151	1	Concrete Collars 30-Inches and Under	@	\$500.00	Each	\$500.00
152	5	Concrete Collars Over 30-Inches	@	\$1,500.00	Each	\$7,500.00
153	1	54-Inch Apron Endwall	@	\$2,300.00	Each	\$2,300.00
154	0	54-Inch RCP Bore and Jack Under Railroad	@	\$2,000.00	Lin. Ft.	\$0.00
155	7	Removing Bulkheads (Wolf Road to Manhattan Drive)	@	\$1,000.00	Each	\$7,000.00
156	1	Bulkheads (Wolf Road to Manhattan Drive)	@	\$3,000.00	Each	\$3,000.00
157	21	Chimney Replacement	@	\$800.00	Each	\$16,800.00
158	15	Chimney Seals	@	\$400.00	Each	\$6,000.00
159	9,306.6	Main Line Sewer Televising	@	\$1.00	Lin. Ft.	\$9,306.60
160	65	Lateral Sewer Televising	@	\$125.00	Each	\$8,125.00
161	62	8-Inch PVC Sanitary Sewer	@	\$85.00	Lin. Ft.	\$5,270.00
162	1	48-Inch Diameter Sanitary Sewer Drop Manhole	@	\$4,400.00	Dia.	\$4,400.00
163	1,720.2	6-Inch Sanitary Lateral Replacement	@	\$88.80	Lin. Ft.	\$152,753.76
164	29	Sanitary Lateral Abandonment	@	\$800.00	Each	\$23,200.00
165	145	16-Inch DI Water Main and Fittings	@	\$250.00	Lin. Ft.	\$36,250.00

Item No	Quantity	Description		Cost	Per Unit	Amount
166	265	16-Inch HDPE Horizontal Direction Drilled Water Main and Fittings	@	\$390.00	Lin. Ft.	\$103,350.00
167	3,210	12-Inch DI Water Main and Fittings	@	\$170.00	Lin. Ft.	\$545,700.00
168	725	8-Inch DI Water Main and Fittings	@	\$170.00	Lin. Ft.	\$123,250.00
169	0	Corrosion Protection	@	\$8,000.00	Lump Sum	\$0.00
170	1	16-Inch Butterfly Valves	@	\$4,550.00	Each	\$4,550.00
171	9	12-Inch Gate Valves	@	\$2,666.00	Each	\$23,994.00
172	8	8-Inch Gate Valves	@	\$1,522.00	Each	\$12,176.00
173	6	Furnish and Install Hydrant Assembly	@	\$6,275.00	Each	\$37,650.00
174	2	Furnish and Install Hydrant Assembly, WWU Provides Direct Tap	@	\$5,475.00	Each	\$10,950.00
175	4	WL1 - Connect Existing 3/4-Inch Service Lateral	@	\$4,027.00	Each	\$16,108.00
176	13	WL2 - Connect Existing 1-Inch Service Lateral	@	\$3,895.00	Each	\$50,635.00
177	16	WL3 - Connect Existing 1-Inch Service Lateral	@	\$2,250.00	Each	\$36,000.00
178	0	WL4 - Connect Existing 1 1/4- Inch Service Lateral	@	\$2,760.00	Each	\$0.00
179	12	WL6 - Connect Existing 1-Inch Service Lateral	@	\$2,950.00	Each	\$35,400.00
180	2	WL7 - Connect Existing 2-Inch Service Lateral	@	\$1,745.00	Each	\$3,490.00
181	3	WL8 - Connect Existing 1 1/4-Inch Service Lateral	@	\$2,855.00	Each	\$8,565.00
182	19	WL10 - Connect Existing 1-Inch Service Lateral	@	\$1,600.00	Each	\$30,400.00
183	1	WL11 - Connect Existing 3/4-Inch Service Lateral	@	\$4,180.00	Each	\$4,180.00
184	4	WL12 - Connect Existing 3/4-Inch Service Lateral	@	\$2,283.00	Each	\$9,132.00
185	0	Furnish and Install Curb Boxes and Rods (If Required)	@	\$250.00	Each	\$0.00
186	0	Furnish and Install Curb Stop (If Required)	@	\$201.00	Each	\$0.00
187	2	Cap and Abandon Water Service	@	\$800.00	Each	\$1,600.00
188	8	Remove Existing Hydrant	@	\$500.00	Each	\$4,000.00
189	15	Abandon Valve Boxes and Manholes	@	\$500.00	Each	\$7,500.00
190	0	Valve Box Adjustment	@	\$100.00	Each	\$0.00
191	2	Pipe Insulation, 2-Inch Extruded Polystyrene	@	\$20.00	Sq. Yd.	\$40.00
192	0	Loose Rock Excavation	@	\$200.00	Cu. Yd.	\$0.00
193	0	Solid Rock Excavation	@	\$400.00	Cu. Yd.	\$0.00
194	218.7	Rip Rap Heavy	@	\$85.00	Cu. Yd.	\$18,589.50
195	1	Outfall Grading	@	\$12,000.00	Lump Sum	\$12,000.00
196	0	Slurry Backfill	@	\$100.00	Cu. Yd.	\$0.00
Extra No. 1	1	Traffic Control - Fixed Message Sign	@	\$576.00	Lump Sum	\$576.00
Extra No. 2	1	Traffic Control - Extra Detour Sign	@	\$1,250.00	Lump Sum	\$1,250.00
Extra No. 3	1	Remove Railing	@	\$500.00	Lump Sum	\$500.00
Extra No. 4	0	Reinstall Railing	@	\$1,500.00	Lump Sum	\$0.00
Extra No. 5	1	Replace Existing Storm Manhole at STA 2+93 36'LT	@	\$8,000.00	Lump Sum	\$8,000.00
Extra No. 6	1	Replace Existing 8-Inch Sanitary Sewer from STA 6+63 to STA 7+8	@	\$12,600.00	Lump Sum	\$12,600.00
Extra No. 7	1	New Sanitary Lateral Connection at 921 E. Moreland Blvd.	@	\$2,900.00	Lump Sum	\$2,900.00
Extra No. 8	1	Separate Laterals at 1220 & 1221 E. Moreland Blvd.	@	\$2,500.00	Lump Sum	\$2,500.00
Extra No. 9	391	Topsoil, Seed and Erosion Mat, Special at Outfall	@	\$6.00	Sq. Yd.	\$2,346.00
Extra No. 10	641	Grading Channel	@	\$12.00	Cu. Yd.	\$7,692.00
Extra No. 11	1	96-Inch Diameter Storm Manhole	@	\$10,000.00	Each	\$10,000.00

Item No	Quantity	Description	Cost	Per Unit	Amount
Extra No. 12	64	54-inch Steel Bore and Jack Under Railroad @	\$1,800.00	Lin. Ft.	\$115,200.00
Extra No. 13	14	54-Inch Steel Storm Sewer Pipe @	\$600.00	Lin. Ft.	\$8,400.00
Extra No. 14	1	36-Inch Storm Sewer Outfall Repair at the E. Moreland Blvd. Bridge @	\$7,597.79	Lump Sum	\$7,597.79
Extra No. 15	1,020	Concrete Bridge Approach Slabs @	\$13.50	Sq. Ft.	\$13,770.00
Extra No. 16	1	Storm Sewer Manhole Concrete Flowlines @	\$3,250.81	Lump Sum	\$3,250.81
Extra No. 17	1	Railroad Flagging per Specifications @	\$8,350.00	Lump Sum	\$8,350.00
Extra No. 18	1	Provide and Install #12 Wire In Street Light Poles and Luminaires @	\$5,423.98	Lump Sum	\$5,423.98
Extra No. 19	1	Provide, Install and Deliver 24 Full Circle Louver Visors @	\$7,538.74	Lump Sum	\$7,538.74
Extra No. 20	1	Sanitary Sewer Lateral Repairs (Invoiced to We Energies) @	\$16,025.00	Lump Sum	\$16,025.00
Extra No. 21	1	Concrete Base for Overhead Sign Structure @	\$10,036.95	Lump Sum	\$10,036.95
Extra No. 22	1	Supply and Install Overhead Sign Structure @	\$29,321.25	Lump Sum	\$29,321.25
Subtotal					\$5,518,324.03
Less Retainage					\$25,000.00
Subtotal					\$5,493,324.03
Less 50 Cylinders @ \$13.50 per Cylinder					\$675.00
Subtotal					\$5,492,649.03
Less Amount Previously Paid					\$5,463,848.74
Total Amount Due					\$28,800.29

This estimate has been checked by the Engineering Department and we recommend that the above amount of \$28,800.29 be allowed.

Respectfully Submitted,



Fred V. Abadi, PhD., P.E.

Director of Public Works