

## ENGINEER'S REPORT

The undersigned is the engineer for the City of West Fargo, Cass County, North Dakota, and submits the following report to the Board of City Commissioners of said city:

The purpose of the proposed Street Improvement District No. 2244 (Project) is to widen Sheyenne Street between 13th Avenue and Beaton Drive to address capacity needs, roadway reliability and social and economic development along the proposed corridor. The need for the proposed Project is warranted by increasing motorist delay; congestion from development along the corridor; and crash susceptibility issues. Current and projected needs within this corridor include increasing capacity, addressing social demands, accommodating economic development and improving roadway reliability. Additional information on the purpose, need and scope of work can be found in the approved NDDOT Documented Categorical Exclusion prepared by Kadrmass, Lee and Jackson, Inc.

The Project will involve the construction of improvements consisting of a five lane concrete roadway with curb and gutter, sidewalks, multi-use paths, sanitary sewer, water main, storm sewer, traffic signals, street lighting and other miscellaneous installations.

Based upon the estimate of the probable cost, attached hereto and made a part thereof, and the engineering information and studies, the work proposed in said district is feasible.

Dated this 16<sup>th</sup> day of October, 2017.

Dustin Scott  
Moore Engineering, Inc.  
West Fargo ND



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Engineer for the City of West Fargo, ND

**STREET IMPROVEMENT DIST. NO. 2244  
SHEYENNE STREET - 13TH AVE TO BEATON DR (SEGMENT 1)  
WEST FARGO ND**

*Engineer's Opinion of Probable Cost Summary*

**Segment 1 - 13th Avenue to Beaton Drive**

1. Alt. B1 - (5) 10" Concrete Lanes & Traffic Signal		\$5,576,612.22
	Construction Subtotal	\$5,576,612.22
	Contingencies	\$573,387.78
	Private Utility Relocation	\$300,000.00
	<b>Total Construction</b>	<b>\$6,450,000.00</b>
	Engineering	\$1,250,000.00
	Legal & Administration	\$451,500.00
	Bond Discount	\$129,000.00
	Land Acquisition	\$25,000.00
	<b>TOTAL PROJECT</b>	<b>\$8,305,500.00</b>

\*See attached documents for detailed construction costs.

**STREET IMPROVEMENT DIST. NO. 2244**  
**SHEYENNE STREET - 13TH AVE TO BEATON DR (SEGMENT 1)**  
**WEST FARGO ND**

*Engineer's Opinion of Probable Cost*

<u>SPEC</u>	<u>CODE</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL</u>
<b>Alt. B1 - (5) 10" Concrete Lanes &amp; Traffic Signal</b>						
103	0100	CONTRACT BOND	L SUM	1	\$22,000.00	\$22,000.00
201	0300	CLEARING & GRUBBING	ACRE	0.10	\$2,000.00	\$200.00
201	0370	REMOVAL OF TREES 10IN	EA	80	\$250.00	\$20,000.00
202	9999	REMOVAL OF CONCRETE	SY	6,030	\$10.00	\$60,300.00
202	0114	REMOVAL OF CONCRETE PAVEMENT	SY	680	\$10.00	\$6,800.00
202	0130	REMOVAL OF CURB & GUTTER	LF	7,600	\$9.00	\$68,400.00
202	9998	REMOVE & SALVAGE BASE & SURFACING	TON	11,365	\$7.50	\$85,237.50
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES	LF	2	\$355.00	\$710.00
202	0174	REMOVAL OF PIPE ALL TYPES AND SIZES	LF	4,570	\$20.00	\$91,400.00
202	0210	REMOVAL OF MANHOLES	EA	20	\$750.00	\$15,000.00
202	0235	REMOVAL OF CATCH BASIN	EA	27	\$420.00	\$11,340.00
202	0312	REMOVE EXISTING FENCE	LF	300	\$5.00	\$1,500.00
203	0101	COMMON EXCAVATION-TYPE A	CY	9,822	\$5.00	\$49,110.00
203	0109	TOPSOIL	CY	2,607	\$10.00	\$26,070.00
216	0100	WATER	M GAL	231	\$25.00	\$5,775.00
230	0300	SUBGRADE PREPARATION-TYPE A	STA	38	\$1,200.00	\$45,600.00
251	0200	SEEDING CLASS II	ACRE	6	\$125.00	\$750.00
253	0201	HYDRAULIC MULCH	ACRE	6	\$1,600.00	\$9,600.00
258	0100	CONCRETE SLOPE PROTECTION	SY	67	\$100.00	\$6,700.00
265	0100	STABILIZED CONSTRUCTION ACCESS	EA	2	\$3,500.00	\$7,000.00
265	0101	REMOVE STABILIZED CONSTRUCTION ACCESS	EA	2	\$1,500.00	\$3,000.00
302	0100	SALVAGED BASE COURSE	TON	11,200	\$18.00	\$201,600.00
302	0120	AGGREGATE BASE COURSE CL 5	TON	2,250	\$30.00	\$67,500.00
302	0314	TEMPORARY TRAFFIC SURFACE AGGREGATE	TON	3,035	\$20.00	\$60,700.00
430	0500	COMMERCIAL GRADE HOT MIX ASPHALT	TON	15	\$130.00	\$1,950.00
550	0112	10IN NON REINF CONCRETE PVMT CL AE	SY	25,500	\$65.00	\$1,657,500.00
702	0100	MOBILIZATION	L SUM	1	\$80,000.00	\$80,000.00
704	1100	TRAFFIC CONTROL	L SUM	1	\$150,000.00	\$150,000.00
708	1540	INLET PROTECTION-SPECIAL	EA	21	\$175.00	\$3,675.00
708	1541	REMOVE INLET PROTECTION-SPECIAL	EA	21	\$30.00	\$630.00
709	0151	GEOSYNTHETIC MATERIAL TYPE R1	SY	28,700	\$2.00	\$57,400.00
714	0210	PIPE CONC REINF 15IN CL III-STORM DRAIN	LF	780	\$45.00	\$35,100.00
714	0315	PIPE CONC REINF 18IN CL III-STORM DRAIN	LF	375	\$50.00	\$18,750.00
714	0405	PIPE CONC REINF 21IN CL III-STORM DRAIN	LF	600	\$55.00	\$33,000.00
714	0620	PIPE CONC REINF 24IN CL III-STORM DRAIN	LF	310	\$60.00	\$18,600.00
714	0825	PIPE CONC REINF 30IN CL III-STORM DRAIN	LF	180	\$70.00	\$12,600.00
714	0910	PIPE CONC REINF 36IN CL III-STORM DRAIN	LF	1,370	\$80.00	\$109,600.00
714	1010	PIPE CONC REINF 42IN CL III-STORM DRAIN	LF	555	\$110.00	\$61,050.00
714	1110	PIPE CONC REINF 48IN CL III-STORM DRAIN	LF	110	\$150.00	\$16,500.00
714	3015	END SECT-CONC REINF 21IN	EA	1	\$750.00	\$750.00
714	3045	END SECT-CONC REINF 48IN	EA	1	\$1,950.00	\$1,950.00
714	7040	SANITARY SEWER SERVICE CONNECTION	EA	30	\$300.00	\$9,000.00
714	9720	UNDERDRAIN PIPE PVC PERFORATED 4IN	LF	7,525	\$6.00	\$45,150.00
714	9911	FLAP GATE 21IN	EA	1	\$10,000.00	\$10,000.00
714	9918	FLAP GATE 48IN	EA	1	\$30,000.00	\$30,000.00
722	0100	MANHOLE 48IN	EA	7	\$3,000.00	\$21,000.00
722	0110	MANHOLE 60IN	EA	5	\$3,500.00	\$17,500.00
722	0120	MANHOLE 72IN	EA	4	\$4,500.00	\$18,000.00
722	0140	MANHOLE 96IN	EA	2	\$8,500.00	\$17,000.00
722	0300	MANHOLE SANITARY	EA	10	\$5,000.00	\$50,000.00
722	3291	ABANDON SANITARY SEWER MANHOLE	EA	7	\$500.00	\$3,500.00
722	3499	INLET	EA	2	\$1,500.00	\$3,000.00
722	3510	INLET-TYPE 2	EA	19	\$1,800.00	\$34,200.00
722	6240	ADJUST UTILITY APPURTENANCE	EA	1	\$300,000.00	\$300,000.00
722	9999	ABANDON SANITARY SEWER	LF	2,000	\$10.00	\$20,000.00
724	0411	6IN HYDRANT	EA	2	\$5,000.00	\$10,000.00
724	0430	REMOVE HYDRANT	EA	1	\$500.00	\$500.00
724	0508	TAPPING SLEEVE & VALVE 8IN X 6IN	EA	1	\$3,500.00	\$3,500.00
724	0810	WATERMAIN 6IN PVC	LF	12	\$60.00	\$720.00
724	0944	CONNECTION TO EXISTING MAIN	EA	25	\$1,150.00	\$28,750.00
724	1110	8IN SANITARY SEWER PIPE	LF	2,620	\$27.50	\$72,050.00
724	1120	6IN SEWER SERVICE PIPE	LF	925	\$25.00	\$23,125.00
748	0190	CURB & GUTTER-TYPE I 30IN	LF	8,100	\$20.00	\$162,000.00
750	0030	PIGMENTED IMPRINTED CONCRETE	SY	700	\$80.00	\$56,000.00
750	9999	SIDEWALK CONCRETE 4IN REINF	SY	1,175	\$30.00	\$35,250.00

750	0120	SIDEWALK CONCRETE 5IN REINF	SY	4,015	\$35.00	\$140,525.00
750	9998	SIDEWALK CONCRETE 6IN REINF	SY	165	\$45.00	\$7,425.00
750	9997	DRIVEWAY CONCRETE REINFORCED	SY	1,425	\$55.00	\$78,375.00
750	2115	DETECTABLE WARNING PANELS	SF	225	\$40.00	\$9,000.00
752	0850	ORNAMENTAL FENCE	LF	85	\$65.00	\$5,525.00
752	0911	TEMPORARY SAFETY FENCE	LF	1,000	\$3.00	\$3,000.00
754	0110	FLAT SHEET FOR SIGNS - TYPE XI REFLECTIVE SHEETING	SF	113	\$22.00	\$2,486.00
754	0112	FLAT SHEET FOR SIGNS - TYPE IV REFLECTIVE SHEETING	SF	19	\$22.00	\$418.00
754	0206	STEEL GALV POSTS - TELESCOPING PERFORATED TUBE	LF	270	\$19.00	\$5,130.00
754	0592	RESET SIGN PANEL	EA	1	\$75.00	\$75.00
754	1104	REMOVE SIGN FOUNDATION	EA	1	\$550.00	\$550.00
762	0122	PREFORMED PATTERNED PVMT MK-MESSAGE(GROOVED)	SF	348	\$30.00	\$10,440.00
762	1305	PREFORMED PATTERNED PVMT MK 4IN LINE-GROOVED	LF	8,500	\$3.50	\$29,750.00
762	1309	PREFORMED PATTERNED PVMT MK 8IN LINE-GROOVED	LF	2,100	\$7.50	\$15,750.00
762	1325	PREFORMED PATTERNED PVMT MK 24IN LINE-GROOVED	LF	1,530	\$25.00	\$38,250.00
766	0120	RESET MAILBOX	EA	9	\$200.00	\$1,800.00
770	0001	LIGHTING SYSTEM	EA	1	\$250,000.00	\$250,000.00
770	4567	REMOVE LIGHTING SYSTEM	EA	1	\$8,000.00	\$8,000.00
772	2800	INTERIM TRAFFIC SIGNALS	EA	2	\$80,000.00	\$160,000.00
772	2904	REVISE TRAFFIC SIGNAL SYSTEM	EA	1	\$100,000.00	\$100,000.00
772	3125	REMOVE TRAFFIC SIGNAL SYSTEM	EA	2	\$5,000.00	\$10,000.00
772	9200	IT SYSTEM	EA	1	\$55,000.00	\$55,000.00
772	9811	TRAFFIC SIGNAL SYSTEM - SITE 1	EA	3	\$180,000.00	\$540,000.00
910	0010	VIDEO INSPECTION-UNDERGROUND PIPE	EA	1	\$2,000.00	\$2,000.00
920	0099	PUMPING EQUIPMENT	EA	1	\$5,000.00	\$5,000.00
970	0105	HERBICIDE WEED CONTROL	SF	252,072	\$0.01	\$2,520.72

Construction Subtotal \$5,576,612.22