

APPENDIX C

COST ESTIMATE



Fargo-Moorhead Area Flood Risk Management Project
Oxbow, Hickison, Bakke Proposed Levee
Cass County, ND

Preliminary Engineer's Opinion of Probable Cost

Date: 3/8/2013

No.	Item	Unit	Quantity	Unit Price	Total Price
LEVEE EARTHWORK AND DRAINAGE					
1.	Clearing and Grubbing	Acre	71	\$1,577.00	\$111,967.00
2.	Infrastructure Demolition	L. Sum	1	\$200,000.00	\$200,000.00
3.	Silt Fence - Furnish and Install	L.F.	20,381	\$2.70	\$55,028.70
4.	Topsoil Stripping	C.Y.	57,000	\$3.32	\$189,240.00
5.	Embankment	C.Y.	550,000	\$11.25	\$6,187,500.00
6.	Inspection Trench	L.F.	20,381	\$10.96	\$223,375.76
7.	Seeding	Acre	157	\$1,833.47	\$287,854.79
8.	Straw Mulch and Disk Anchoring	Acre	157	\$493.85	\$77,534.45
9.	Vegetation Establishment and Maintenance	Acre	157	\$1,159.51	\$182,043.07
LEVEE EARTHWORK AND DRAINAGE SUBTOTAL					\$7,514,543.77
LEVEE EARTHWORK AND DRAINAGE CONTINGENCIES (25%)					\$ 1,878,635.94
TOTAL LEVEE EARTHWORK AND DRAINAGE					\$9,393,179.71
SANITARY SEWER ITEMS					
1.	Topsoil Stripping - 6"	C.Y.	8,750	\$4.00	\$35,000.00
2.	Sanitary Sewer - 8" PVC SDR 35	L.F.	4,750	\$40.00	\$190,000.00
3.	Sanitary Sewer Manhole	Each	24	\$5,000.00	\$120,000.00
4.	Sanitary Sewer Service - 6" PVC SDR 26	L.F.	2,100	\$22.00	\$46,200.00
5.	Sanitary Sewer Connections - 6" PVC SDR 26	Each	42	\$200.00	\$8,400.00
6.	Televising - Sanitary Sewer Service	Each	42	\$100.00	\$4,200.00
7.	Sanitary Sewer - Connect to Existing	Each	1	\$1,000.00	\$1,000.00
8.	Sanitary Sewer Manhole - Tap Existing	Each	1	\$1,500.00	\$1,500.00
9.	Sanitary Sewer Lift Station	L. Sum	1	\$150,000.00	\$150,000.00
SANITARY SEWER ITEMS SUBTOTAL					\$556,300.00
SANITARY SEWER ITEM CONTINGENCIES (25%)					\$ 139,075.00
TOTAL SANITARY SEWER ITEMS					\$695,375.00
WATER MAIN ITEMS					
1.	Water Main - 8" PVC C900	L.F.	7,750	\$30.00	\$232,500.00
2.	Corporation - 1"	Each	42	\$200.00	\$8,400.00
3.	Curb Stop & Box - 1"	Each	42	\$200.00	\$8,400.00
4.	Water Service Line - 1" Copper	L.F.	2,100	\$20.00	\$42,000.00
5.	Hydrant - 6"	Each	18	\$3,500.00	\$63,000.00
6.	Hydrant Lead - 6" PVC C900	L.F.	500	\$40.00	\$20,000.00
6.	Gate Valve & Box - 8"	Each	20	\$1,500.00	\$30,000.00
7.	Gate Valve & Box - 6"	Each	18	\$1,100.00	\$19,800.00
8.	Specials	Lbs.	3,750	\$4.00	\$15,000.00
9.	Water Main - Connect To Existing	Each	3	\$1,000.00	\$3,000.00
WATER MAIN ITEMS SUBTOTAL					\$442,100.00
WATER MAIN ITEM CONTINGENCIES (25%)					\$ 110,525.00
TOTAL WATER MAIN ITEMS					\$552,625.00
STORM SEWER ITEMS					
1.	Storm Sewer - 15" RCP	L.F.	500	\$35.00	\$17,500.00
2.	Storm Sewer - 18" RCP	L.F.	1,000	\$40.00	\$40,000.00
3.	Storm Sewer - 21" RCP	L.F.	500	\$45.00	\$22,500.00
4.	Storm Sewer - 24" RCP	L.F.	3,000	\$50.00	\$150,000.00
5.	Storm Sewer - 27" RCP	L.F.	650	\$60.00	\$39,000.00
6.	Storm Sewer - 30" RCP	L.F.	800	\$70.00	\$56,000.00
7.	Storm Sewer - 36" RCP	L.F.	1,250	\$85.00	\$106,250.00
8.	Storm Sewer - 42" RCP	L.F.	2,050	\$110.00	\$225,500.00
9.	Storm Sewer - 48" RCP	L.F.	2,000	\$130.00	\$260,000.00
10.	Storm Sewer - 54" RCP	L.F.	1,000	\$160.00	\$160,000.00
11.	Storm Sewer - 60" RCP	L.F.	3,600	\$210.00	\$756,000.00
12.	Storm Sewer Manhole - 48"	Each	6	\$2,500.00	\$15,000.00
13.	Storm Sewer Manhole - 60"	Each	10	\$3,500.00	\$35,000.00
14.	Storm Sewer Manhole - 72"	Each	4	\$5,500.00	\$22,000.00
15.	Storm Sewer Manhole - 84"	Each	6	\$7,000.00	\$42,000.00
16.	Storm Sewer Manhole - 96"	Each	7	\$8,500.00	\$59,500.00
17.	Storm Sewer Manhole - 10' x 10'	Each	2	\$12,000.00	\$24,000.00
18.	Storm Sewer Manhole - Tee Inlet	Each	10	\$5,000.00	\$50,000.00
19.	Storm Sewer Inlet	Each	30	\$1,500.00	\$45,000.00
STORM SEWER ITEMS SUBTOTAL					\$2,125,250.00
CONTINGENCIES (25%)					\$ 531,312.50
STORM SEWER ITEMS					\$2,656,562.50



No.	Item	Unit	Quantity	Unit Price	Total Price
POND ITEMS					
1.	Excavation - Pond	C.Y.	630,000	\$5.00	\$3,150,000.00
2.	Control Structure	Each	1	\$40,000.00	\$40,000.00
3.	Storm Sewer - 60" RCP	L.F.	1,500	\$210.00	\$315,000.00
4.	Flared End Section - 48" RCP	Each	1	\$2,500.00	\$2,500.00
5.	Flared End Section - 60" RCP	Each	1	\$3,000.00	\$3,000.00
6.	Check Valve - 60"	Each	1	\$50,000.00	\$50,000.00
7.	Sluice Gate - 60"	Each	1	\$30,000.00	\$30,000.00
8.	Outfall Structure	L. Sum	1	\$10,000.00	\$10,000.00
9.	Storm Pump Station - M&E	L. Sum	1	\$500,000.00	\$500,000.00
10.	Storm Pump Station - Buildings, Pumps, General	L. Sum	1	\$2,000,000.00	\$2,000,000.00
POND ITEMS SUBTOTAL					\$6,100,500.00
CONTINGENCIES (25%)					\$ 1,525,125.00
POND ITEMS					\$7,625,625.00
TRANSPORTATION - HIGHWAY 81 AND 18 ITEMS					
1.	Topsoil Stripping - 6"	C.Y.	25,000	\$4.00	\$100,000.00
2.	Unclassified Excavation	C.Y.	12,500	\$5.00	\$62,500.00
3.	Clay Embankment	C.Y.	78,000	\$6.00	\$468,000.00
4.	Subgrade Preparation	S.Y.	30,500	\$2.00	\$61,000.00
5.	Reinforcement Fabric	S.Y.	30,500	\$1.50	\$45,750.00
6.	Gravel - NDDOT Class 5 - 9"	C.Y.	7,500	\$35.00	\$262,500.00
7.	Asphalt Base Course - 3.5"	S.Y.	26,000	\$15.00	\$390,000.00
8.	Asphalt Wear Course - 2"	S.Y.	26,000	\$10.00	\$260,000.00
9.	Seeding	Acre	30	\$1,833.47	\$55,004.10
TRANSPORTATION - HIGHWAY 81 AND 18 ITEMS SUBTOTAL					\$1,704,754.10
CONTINGENCIES (25%)					\$ 426,188.53
TRANSPORTATION - HIGHWAY 81 AND 18 ITEMS					\$2,130,942.63
TRANSPORTATION - OXBOW ADDITION ITEMS					
1.	Topsoil Stripping - 6"	C.Y.	4,750	\$4.00	\$19,000.00
2.	Clay Embankment	C.Y.	14,000	\$6.00	\$84,000.00
3.	Subgrade Preparation	S.Y.	22,500	\$2.00	\$45,000.00
4.	Reinforcement Fabric	S.Y.	22,500	\$1.50	\$33,750.00
5.	Gravel - NDDOT Class 5 - 9"	C.Y.	5,600	\$35.00	\$196,000.00
6.	Pipe - 4" Perforated PVC	L.F.	12,500	\$4.00	\$50,000.00
7.	Curb & Gutter	L.F.	12,500	\$14.00	\$175,000.00
8.	Asphalt Base Course - 3.5"	S.Y.	20,000	\$15.00	\$300,000.00
9.	Asphalt Wear Course - 2"	S.Y.	20,000	\$10.00	\$200,000.00
10.	Seeding	Acre	4	\$1,833.47	\$7,333.88
TRANSPORTATION - OXBOW ADDITION ITEMS SUBTOTAL					\$1,110,083.88
CONTINGENCIES (25%)					\$ 277,520.97
TRANSPORTATION - OXBOW ADDITION ITEMS					\$1,387,604.85
GENERAL ITEMS					
1.	Tree - Large Deciduous	Each	160	\$400.00	\$64,000.00
2.	Cleaning	L.Sum	1	\$10,000.00	\$10,000.00
3.	Storm Water Management	L.Sum	1	\$25,000.00	\$25,000.00
4.	Traffic Control	L.Sum	1	\$10,000.00	\$10,000.00
GENERAL ITEMS SUBTOTAL					\$109,000.00
CONTINGENCIES (25%)					\$ 27,250.00
GENERAL ITEMS					\$136,250.00
STREET LIGHTING ITEMS					
1.	LED Street Light	Each	21	\$5,000.00	\$105,000.00
2.	Feedpoint	L. Sum	1	\$7,000.00	\$7,000.00
STREET LIGHTING ITEMS SUBTOTAL					\$112,000.00
CONTINGENCIES (25%)					\$ 28,000.00
STREET LIGHTING ITEMS					\$140,000.00
GOLFCOURSE ITEMS					
1.	Golf hole	Each	9.5	\$600,000.00	\$5,700,000.00
2.	Golf Clubhouse and Amenities	L.Sum	1	\$1,000,000.00	\$1,000,000.00
GOLFCOURSE ITEMS SUBTOTAL					\$6,700,000.00
CONTINGENCIES (25%)					\$ 1,675,000.00
GOLFCOURSE ITEMS					\$8,375,000.00
LAND ACQUISITIONS ITEMS					
1.	Real Estate Buyout - Home Properties	L.Sum	1	\$17,418,710.00	\$17,418,710.00
2.	Real Estate Buyout - Agricultural Land	Acre	260	\$6,000.00	\$1,560,000.00
LAND ACQUISITIONS ITEMS SUBTOTAL					\$18,978,710.00
CONTINGENCIES (25%)					\$ 4,744,677.50
LAND ACQUISITIONS ITEMS					\$23,723,387.50
Subtotal Estimated Project Cost					\$56,816,553.00
PLANNING AND ENGINEERING DESIGN (15%)		L.Sum	1	\$4,963,974.70	\$4,963,974.70
CONSTRUCTION MANAGEMENT (7%)		L.Sum	1	\$2,316,521.53	\$2,316,521.53
Total Estimated Project Cost					\$64,097,050.00

