

FCP MN Diversion Phase 4

Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study, Phase 3, Report for the US Army Corps of Engineers and the cities of Fargo, ND & Moorhead, MN

State Sales Tax Source: MN Department of Revenue Website 2010 sales tax rate 6.875%. City/County sales tax not included. Not assuming all materials are purchased in Clay County.

Sources: U.S. Department of Labor January 2009, MN Department of Revenue June 2010, 2010 RS Means Heavy Construction Cost Data

Contractor assumptions for the MII estimates are coordinated with the USACE. Contractor assumptions are developed in the estimate to reflect one possible scenario by which the work could be constructed. Other scenarios are certainly possible. These contractor assumptions apply to items in estimate groups 09 Channels & Canals and 11 Levees & Floodwalls. These assumptions do not apply to cost estimate group 08 Roads, Railroads and Bridges, as discussed in Section G3.1 and Section G3.2.

The cost estimate assumes the work is performed by a prime general contractor performing management duties, and discipline-specific subcontractors performing work tasks. This arrangement exists once, estimate-wide. However, this arrangement and the estimated contractor costs are assumed to be applicable to each 1-year to 2-year phase of the \$200M/year funding scenario utilized, as discussed during the July 1st, 2010 meeting with USACE. A summary of contractor assumptions is included in Consultant Exhibit G-K.

PRIME CONTRACTOR:

Job Office Overhead (JOOH) costs are those that occur specifically as a result of a particular project and include contractor supervision, field engineering, surveying, quality control, testing, shop drawings, safety and security, temporary offices, permits and fees, travel, vehicles, supplies and other miscellaneous items to run a field office. JOOH rates are individualized by contractor. A JOOH of 5% is assumed for the earthwork prime contractor. This is assumed to cover all estimated costs associated with mobilization/demobilization for the prime contractor. This percentage assumes the prime contractor functions as a management company in this estimate and does not incur significant costs to manage the fleet of equipment (rather, this cost is incurred by the subcontractors). Page 5-8 of EPA/COE guidance document EPA 540-R-00-002 indicates 5% for JOOH is appropriate for large projects over \$500,000. A summary of contractor assumptions is included in Consultant Exhibit G-K1.1.

Home Office Overhead (HOOH) is commonly referred to as general and administrative (G & A) cost. Typical estimated costs associated with HOOH are the contractor's main office, furniture and equipment, equipment yard, management and staff, office utilities, corporate vehicles, business insurance and taxes. A HOOH of 5% was used for the prime contractor. Page 5-8 of EPA/COE guidance document EPA 540-R-00-002 indicates 5% for HOOH is appropriate. A summary of contractor assumptions is included in Consultant Exhibit G-K1.1.

Mobilization/demobilization includes all costs required to furnish construction equipment and supplies at the beginning, during and at the end of the Project. The prime contractor is assumed to have no mobilization/demobilization (0%), as the entity is assumed to be performing a managerial role only. The prime contractor is assumed to not be performing the role of a subcontractor for facilities/components of the Project, and it does not have significant field equipment mobilization needs beyond that covered under JOOH. A summary of contractor assumptions is included in Consultant Exhibit G-K1.1.

Contractor profit is determined using USACE weighted guidelines method (ETL 1110-2-573, Section 5.3.3) to calculate the percentage for prime contractor profit at 9%. Section 5.3 of COE ETL 1110-2-573 identifies a profit range of 3% (for basic work) to 12% (for the most risky work) as appropriate. Exhibit G-K2.1 in Consultant's Appendix G shows weighted guidelines profit calculations performed to help develop the assumed rate.

All government construction contracts require the contractor to provide a Performance and Payment Bond. The assumed percentage rate for Performance and Payment Bond Premium is 1% (running percent) for the prime contractor. All government construction contracts require the contractor to provide a performance and payment bond. Consultant Exhibit G-K2.3 shows a calculation to help develop the assumed percentage rate for Performance and Payment Bond Premium.

Estimated by MRM, RKN, ATS  
SUBCONTRACTOR MARKUPS

Designed by

Prepared by Barr Engineering Company Job # 34/09-1004 400 100

Preparation Date 8/18/2010

Effective Date of Pricing 8/18/2010

Estimated Construction Time Days

This report is not copyrighted, but the information contained herein is For Official Use Only.

Date	Author	Note
7/7/2010	Index	Historical Cost Reference Data Barr Engineering Company 7/7/2010, Revised 2/20/11 Fargo-Moorhead Metro Flood Risk Management Project Phase 3 Cost Estimate
		INDEX Bonds Mobilization Temporary Flood Protection Temporary Erosion Control Clearing and Grubbing Topsoil Excavation and Embankment - Local Projects Excavation and Embankment - Other Projects Excavation & Haul Steel Sheet Piling Steel Piles Concrete Gates Aggregate and Bit Paving Backfill Aggregate Riprap Site Restoration References
8/18/2010	Bonds	Bonds  Bonds (Bid & Performance Bonds) varied 0.7% to 1.5% of Total for July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012  Bonds (Bid & Performance Bonds) varied 0.5% to 1.0% of Total for June 2001 - USACE Bid Results Grand Forks Phase 1 Levees - Grand Forks, ND DACW37-01-B-0003
8/18/2010	Mobilization/Indirect Costs	Mobilization  Mobilization & Demobilization varied 1.6% to 4.8% of Total Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017  Mobilization & Demobilization varied 2.2% to 14.7% of Total Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020  Mobilization and Demobilization varied 1.4% to 1.5% of Total Aug 1999 - USACE Bid Results SELA Urban Flood Control Project, Jefferson Parish LA Pumping Station #2, Suburban Canal DACW29-99-B-0074
8/18/2010	Temporary Flood Protection	Temporary Flood Protection  Temporary Flood Protection varied 0.6% to 3.4% of Total Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017

Date	Author	Note
8/18/2010	Temporary Flood Protection	<p>Temporary Flood Protection varied 0.9% to 2.0% of Total Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020</p> <p>Traffic Control 0.13% of total April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p>
8/18/2010	Temporary Erosion Control	<p>Temporary Erosion Control</p> <p>Temporary Erosion Control (all items) bid price was approximately 3% of Total project cost June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District</p> <p>Temporary Erosion Protection 0.60% of total April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Stabilized Construction Entrance avg bid price \$2840/Each Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Silt Fence avg bid price \$3.06/LF Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Flotation Silt Curtain avg bid price \$12.62/LF Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Silt Fence avg bid price \$3.88/LF (32,300 LF) Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-0023</p> <p>Silt Fence avg bid price \$4.06/LF (2300 LF) Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020</p>
8/18/2010	Clearing and Grubbing	<p>Clearing and Grubbing</p> <p>Clearing and Grubbing avg bid price \$1690/Acre Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>31 11 10.10-0150 - Clear and grub site, cut and chip trees up to 6" dia., grub stumps and remove; \$1700/acre @ 2 acre/day(8hr)</p> <p>31 11 10.10-0250 - Clear and grub site, cut and chip trees up to 12" dia., grub stumps and remove; \$3400/acre @ 1 acre/day(8hr)</p>
8/18/2010	Topsoil	<p>Topsoil</p> <p>Topsoil Stripping avg bid price (x1.39 time factor \$1.33/CY ) \$0.96/CY (270,000 CY) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Topsoil avg bid price (x1.39 time factor \$1.50/CY) \$1.08/CY (253000 CY) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Haul and Stockpile Excess Topsoil avg bid price (x1.39 time factor \$3.38/CY ) \$2.43/CY (17000 CY) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>31 14 13.23-0200 - Topsoil Stripping and Stockpiling; 300HP dozer, ideal conditions, 3000 BCY/Day(8hr) = 375 BCY/HR; \$0.75/BCY</p> <p>31 14 13.23-0200 - Topsoil Stripping and Stockpiling; 300HP dozer, adverse conditions, 1650 BCY/Day(8hr) = 206 BCY/HR; \$1.37/BCY</p>

Date	Author	Note
8/18/2010	Topsoil	<p>31 14 13.23-1430 - Topsoil Stripping and Stockpiling; Loam or topsoil, remove and stockpile on site; dozer; 300' haul; 520 BCY/Day(8hr)=65 BCY/HR; \$3.62/BCY</p> <p>31 14 13.23-1430 - Topsoil Stripping and Stockpiling; Loam or topsoil, remove and stockpile on site; dozer; 500' haul; 225 BCY/Day(8hr)=28 BCY/HR; \$8.40/BCY</p> <p>31 91 19.13-0400 - Topsoil Placement and Grading; Spread from pile to rough finish grade; F.E. loader 1.5 CY; \$5.30/CY @ 200 CY/Day(8hr)</p> <p>Topsoil Stripping (x1.62 time factor \$1.22/CY) 9 inches \$0.75/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel</p> <p>Replace Topsoil (x1.62 time factor \$1.62/CY) \$1.00/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel</p> <p>Topsoil avg bid price \$2.85/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Remove and Salvage Topsoil avg bid price \$7.08/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Topsoil Stripping contractor quote 5xCAT-D8's with 1 grader and 2 small dozers for 1000CY/HR 2009 Wanzek Construction</p> <p>Topsoil Stripping (x1.13 time factor \$1.15) \$1.02/CY (200,000CY+) May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate</p>
8/18/2010	Excavation Local	<p>Excavation and Embankment - Local Projects</p> <p>Common Excavation avg bid price (x1.46 time factor \$4.35/CY) \$2.98/CY (700,000 CY) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020</p> <p>Common Excavation avg bid price (x1.46 time factor \$3.74/CY) \$2.56/CY (&gt;700,000 CY) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020</p> <p>Semi-Compacted Fill avg bid price (x1.46 time factor \$1.71/CY) \$1.17/CY (120,000 CY+) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020</p> <p>Compacted Fill avg bid price (x1.46 time factor \$2.13/CY) \$1.46/CY (50,000 CY+) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020</p> <p>Select Impervious Fill avg bid price (x1.27 time factor \$5.22/CY) \$4.11/CY July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012</p> <p>Common Excavation avg bid price (x1.39 time factor \$2.92/CY) \$2.10/CY April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Semi-Compacted Fill avg bid price (x1.39 time factor \$2.52 ) \$1.81/CY April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Compacted Fill avg bid price (x1.39 time factor \$2.86 ) \$2.06/CY April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p>

Date	Author	Note
8/18/2010	Excavation Local	Ditch Excavation avg bid price (x1.27 time factor \$2.45/CY) \$1.93/CY (81,425 CY) July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012
		Common Excavation avg bid price (x1.27 time factor \$3.73/CY) \$2.94/CY July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012
		Impervious Fill Common avg bid price (x1.27 time factor \$3.48/CY) \$2.74/CY (604,600 CY) July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012
		Impervious Fill avg bid price (x1.27 time factor \$5.98/CY) \$4.71/CY July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012
		Floodway Channel Excavation (x1.62 time factor \$3.40/CY) \$2.10/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel
		Floodway Inlet Structure Excavation (x1.62 time factor \$5.67/Cy ) \$3.50/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - East Floodway Channel
		Floodway Inlet Structure Backfill (x1.62 time factor \$8.10/Cy ) \$5.00/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel
		Excavation (Ditch/Channel) avg bid price (x1.13 time factor \$3.78/CY) \$3.35/CY (180,000 CY) June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District
		Spoil Bank Leveling avg bid price (cost/mile) was 11-15% of Excavation cost - June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District
		Channel Excavation (x1.13 time factor \$2.88) \$2.55/CY (1,200,000 CY+) May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate
		Embankment Fill and Earthwork (x1.13 time factor \$5.41/CY) \$4.79/CY (8000+CY) May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate
		Common Excavation - Type A avg bid price \$3.10/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)
		Common Excavation - Type B avg bid price \$1.76/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)
		Common Excavation - Type C avg bid price \$1.71/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)
		Excavation and Embankment avg bid price \$2.02/CY to \$4.99/CY (2010 US dollars) Manitoba Floodway Authority - Red River Floodway Expansion Project - Bid Tenders (14 contracts from 2005-2008)
		Embankment quote - need 1 D8 dozer for every 4 scrapers - 2009 Hugh Munro Construction Canada (worked on Manitoba Floodway)
		Compaction quote - past USACE levees 87% std. proctor unless road traffic, then 95%, CAT627 scraper 190 CY/HR w/ 400' move 2009 Veit Construction
		Levee (x1.46 time factor \$10.00/CY) \$2.92/CY+\$3.93/CY (70,000 CY) June 2001 - USACE Bid Results Grand Forks Phase 1 Levees - Grand Forks,

Date	Author	Note
8/18/2010	Excavation Local	ND DACW37-01-B-0003
8/18/2010	Excavation Other	<p>Excavation and Embankment - Other Projects</p> <p>Excavation cost quote to 10-15' depth, 5xCAT627 scrapers 1500 CY/HR, 1 tractor with disc for each 3 scrapers at spoil 2009 Wanzek Construction</p> <p>Grading and Earth Fill avg bid price (x1.08 time factor \$5.94) \$5.50/CY (2,600 CY) May 2007 - USACE Bid Results Flood Control, Mississippi/Atchafalaya/Red/Old River LA channels W912P8-07-B-0039</p> <p>Embankment, Compacted Fill avg bid price \$14.59/CY (65,900 CY) Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure &amp; Levee, Ph2 W912P8-09-B-0083</p> <p>Embankment, Compacted Fill avg bid price \$12.22/CY (236,000 CY) Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-0023</p> <p>Embankment, Uncompacted Fill avg bid price \$5.21/CY (183,000 CY) Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-002</p>
8/18/2010	Excavation and Haul	<p>Excavation &amp; Haul</p> <p>Excavation &amp; Spoil cost quote \$3-4/CY for diversion channel 2010 Ames Construction</p> <p>31 23 16.46 5420 - Excavating, Bulk, Dozer 300HP, 300' haul, common earth; 410 BCY/Day = 51 BCY/HR; \$5.50/BCY</p> <p>31 23 16.50 2420 - **modified approximation (see contractor quote)- Excavation, Bulk, Self-Propelled Scraper, 21 C.Y. 1/4 push dozer, **400' haul, sandy clay and loam; 1800 BCY/day(8hr) = 225 BCY/HR</p> <p>31 23 16.50 2420 - Excavation, Bulk, Self-Propelled Scraper, 21 C.Y. 1/4 push dozer, 1500' haul, sandy clay and loam; 1112 BCY/day(8hr) = 139 BCY/HR; \$3.22/BCY</p> <p>31 23 16.50 2500 - Excavation, Bulk, Self-Propelled Scraper, 21 C.Y. 1/4 push dozer, 1500' haul, clay; 645 BCY/day(8hr) = 81 BCY/HR; \$5.15/BCY</p> <p>G1030 125 5700 - Cut and Fill Clay; 21 CY SP scraper &amp; sheepsfoot rollers; 1500' haul; 8" lifts; 2 passes; \$8.87/CY</p> <p>G1030 115 5700 - Cut and Fill Common Earth; 21 CY SP scraper &amp; sheepsfoot rollers; 1500' haul; 8" lifts; 2 passes; \$5.65/CY</p> <p>31 23 16.43-5700 - Excavator, 4.5 CY bucket with truck loading, 80% fill factor, crew B-14A, daily output 2720 LCY (340 LCY/hr for 8 hours) \$1.03/LCY or \$1.18/BCY (no dozers)</p> <p>31 23 16.43-5720 - Excavator, 6.0 CY bucket with truck loading, 80% fill factor, crew B-14B, daily output 4000 LCY (500 LCY/hr for 8 hours) \$1.33/LCY or \$1.53/BCY (no dozers)</p> <p>G1030 130 6200 - Excavate Clay; 3CY pwr shovel; (6) 20CY truck dump trailers; 1 mile round trip; \$5.42/CY</p> <p>G1030 130 6000 - Excavate Clay; 3CY pwr shovel; (9) 16CY truck dump trailers; 2 mile round trip; \$6.80/CY</p> <p>31 23 23.20 3014 - Hauling; 16.5 CY truck, cycle 0.5 mile, 15MPH avg, 15 min. wait ld/unld; 462 LCY/Day(hr)= 58 LCY/HR; \$2.27/LCY</p> <p>31 23 23.20 6090 - Hauling; 34 CY truck, cycle 0.5 mile, 10 MPH avg, 15 min. wait/ld/uld; 884 LCY/Day(8hr) = 110 LCY/HR; \$2.41/LCY</p>

Date	Author	Note
8/18/2010	Excavation and Haul	Haul Excess Fill to Landfill and Stockpile avg bid price (x1.46 time factor ) \$2.12/CY (138,800+CY) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020
8/18/2010	Steel Sheet Piling	Steel Sheet Piling Steel Sheet Pile PZC18 cost quote \$19.65/SF Furnish (no install) 2009 LB Foster Bridge Piling avg bid price (x1.39 time factor \$30.30/LF ) \$21.80/LF (7800 LF) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016 Sheet Piling avg bid price (x1.39 time factor \$18.69/SF ) \$13.45/SF April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016 Steel Sheet Pile Z Type 2 avg bid price \$30.86/SF (5794 SF) Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure & Levee, Ph2 W912P8-09-B-0083 Steel Sheet Pile PZC-19 avg bid price \$46.22/SF Dec 2009 - USACE Bid Results LPV 104.02 Lake Pontchartrain and Vicinity, New Orleans LA W912P8-10-B-0029 35 31 16.19-0210 - Steel Sheet Piling Seawalls; 12' high shore driven; \$375/LF @ 27 LF/Day 35 31 16.19-0260 - Steel Sheet Piling Seawalls; 12' high barge driven; \$655/LF @ 15 LF/Day
8/18/2010	Steel Piles	Steel Piles Steel Piles HP 14x73 cost quote \$34.95/LF Furnish 2010 LB Foster Steel H Piling avg bid price \$56.14/LF (37,000+LF) Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure & Levee, Ph2 W912P8-09-B-0083 Steel Piling HP 14x73 avg bid price \$71.62/LF (11,940 LF) Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017 Steel H Piling avg bid price \$53.14/SF (56,321 SF) Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020 Steel Piling HP 14x102 avg bid price \$66.05/LF Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices) Steel Pile 12" dia Driving cost quote \$3/LF 2009 Lunda Construction
8/18/2010	Concrete	Concrete Concrete (x1.62 time factor \$535/CY) \$330/CY July 1997 (24,000 CY+) - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel Reinforced Concrete avg bid price \$321/CY Barr Confidential 22-66-1001 Bid Results Reinforced Concrete avg bid price \$550/CY Barr Confidential 22-52-0088 Bid Results

Date	Author	Note
8/18/2010	Concrete	<p>Concrete Class AAE-3 avg bid price \$609.09/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Concrete Class AE-3 avg bid price \$565.62/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Concrete Bridge Slab cost quote \$12-13/SF 2009 Lunda Construction</p> <p>Concrete 1A43 Footing cost quote \$325/CY (\$90/CY material only) 2009 Lunda Construction</p> <p>Concrete 3Y43 Air Entrained (piers) cost quote \$350-400/CY 2009 Lunda Construction</p> <p>Concrete cost quote \$100/CY material only 2010 Strata Corps Ready Mix</p> <p>RSMeans A1010 210 8650 Spread Footing 18' x 18' x 4.3' deep, 51.6CY, \$13750, avg cost \$266.47/CY including forming and reinforcing.</p> <p>RSMeans A2020 110 9220 Wall CIP, pumped, 16' high, 0.397 CY/LF, \$281.50/LF, \$709/CY including forming and reinforcing</p> <p>RSMeans A2020 110 9420 Wall CIP, crane and bucket, 16' high, 0.397 CY/LF, \$290.50/LF, \$732/CY including forming and reinforcing</p> <p>Concrete 4000 psi mix MnDOT 3Y43 cost quote \$90/CY material only 2009 Cemstone (would prefer to set up a batch plant on site for large project)</p> <p>Concrete 4000 psi mix MnDOT 3Y43 cost quote \$90/CY material only, add \$4-5/CY for batch plant, add \$2/CY for MN due to truck wash, winter concrete add \$6/CY. \$100/CY for all these. 2010 Cemstone</p> <p>Concrete Pump Truck cost quote \$3/CY up to \$12/CY (less than \$12/CY due to job size) 2010 Midwest Concrete Pumping</p> <p>Concrete Bucket/Crane cost quote 150-ton crane w/ 7 or 9 CY bucket for placing concrete, batch plant production 100 CY/HR, pump trucks 75-100 CY/HR - 2010 Obayashi/PSM J V</p> <p>Reinforcing Steel cost quote \$0.85/lb Furnish(\$0.40/lb) and Install(\$0.45/lb) 2009 J&amp;L Steel Erectors</p> <p>Reinforcing Steel cost quote \$1.00/LB Furnish and Install 2009 Lunda Construction</p> <p>Reinforcing Steel cost quote \$0.89/LB Furnish and Install 2010 Sioux City Foundry Co</p> <p>Reinforcing Steel Grade 60 avg bid price \$1.14/LBS Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p>
8/18/2010	Gates	<p>Gates</p> <p>Sluice Gates and Hoist \$44,055/Ea Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure &amp; Levee, Ph2 W912P8-09-B-0083</p> <p>Sluice Gates and Hoists \$90,000/Ea Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure &amp; Levee, Ph2 W912P8-09-B-0083</p> <p>Structural Swing Gates \$318,000/LS Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017</p>



Date	Author	Note
8/18/2010	Gates	<p>Carbon Steel Tainter Gate cost quote \$340,000 min. for a 30'x20' gate w/ wire rope drum hoist and electric operator 2009 Rodney Hunt</p> <p>Gates \$324.85/SF+ delivered and installed Barr Cost Estimate internal</p> <p>Cost Estimate, Waters Bluff Reservoir, Sabine Watershed TX, Tainter Gate 40'x28' (11), cost \$742,500 each for gate; \$89,000 each for gate anchorage; \$234,000 for gate machinery; 1998</p> <p>Cost estimate, Waters Bluff Reservoir, Sabine Watershed TX, Maintenance Bulkheads, \$4.26/lbs, 1998</p> <p>35 20 16.73-0190 - Slide Gates; 72"x72"; \$20,700/Ea @ 0.36Ea/Day(8hr) = \$575/SF</p>
8/18/2010	Aggregate and Bit Paving	<p>Aggregate and Bit Paving</p> <p>Road Aggregate avg bid price (x1.13 time factor \$16/TON) \$14/TON (2000 TON) June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District</p> <p>Select Granular Borrow avg bid price (x 1.39 time factor \$21.43) \$15.42/CY April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Aggregate Base Class V avg bid price (x 1.39 time factor \$14.62) \$10.52/TON April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Bituminous Base Course avg bid price (x1.39 time factor \$59.77/TON ) \$43/TON April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Bituminous Wear Course avg bid price (x1.39 time factor \$62.55/TON ) \$45/TON April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p>
8/18/2010	Backfill Aggregate	<p>Backfill Aggregate</p> <p>Select Backfill avg bid price \$15.26/TON Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>31 23 23.14 5440 - Backfill, structural, 300 H.P. 300' haul, clay; 1225 LCY/Day(8hr) = 153 LCY/HR; \$1.85/LCY</p> <p>31 23 23.17 0190 - General fill, spread fill from stockpile w/ 300HP dozer, 300' haul; 600 LCY/Day(8hr) = 75 LCY/HR; \$3.77/LCY</p> <p>31 23 23.14-5200 - Backfill, structural, dozer or F.E. loader, from existing stockpile, no compaction; 300HP, 150' haul, sand &amp; gravel; \$1.02/LCY @ 2200 LCY/day(8hr) = 275 LCY/HR</p> <p>31 23 23.23-5600 - Compaction, Riding, vibrating roller, sheepsfoot or wobbly wheel roller, 6" lifts, 2 passes; \$0.81/ECY @ 2400 ECY/Day(8hr) = 300 ECY/HR</p> <p>31 23 23.23 6020 - Compaction, Towed sheepsfoot, 6" lifts, 3 passes; 2000 ECY/day(8hr) = 250 ECY/hr; \$1.20/ECY</p>
8/18/2010	Riprap	<p>Riprap</p> <p>Riprap avg bid price (x1.62 time factor \$49/CY ) \$30/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel</p>

Date	Author	Note
8/18/2010	Riprap	<p>R6-R12 Riprap avg bid price (x1.39 time factor \$34.11/TON) \$24.54/TON (16,000 TON) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>B1 Bedding avg bid price (x1.39 time factor \$31.80/TON ) \$22.88/TON April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Stone Subaqueous Paving Grade B (x1.08 time factor \$32.94/CY ) \$30.50/CY (353,500 CY) May 2007 - USACE Bid Results Flood Control, Mississippi/Atchafalaya/Red/Old River LA channels W912P8-07-B-0039</p> <p>Riprap avg bid price \$73/Ton (1240 ton) Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020</p> <p>Riprap (x1.13 time factor \$30.33/TON) \$26.84/TON May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate</p> <p>Riprap avg bid price (x1.13 time factor \$75/TON) \$67/TON (800CY) June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District</p> <p>Riprap avg bid price \$51.05/TON Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Cost quote, Class V Riprap, \$42.50/ton including delivery, large quantity, Aggregate Industries – Moorhead, MN June 30, 2010</p> <p>Cost quote, Granular Bedding Material, \$36.20/ton including delivery, large quantity, Aggregate Industries – Moorhead, MN June 30, 2010</p> <p>31 37 13.10-0370 - Rip-rap and rock lining; 300 lb average; 1 dozer or F.E. loader; \$54.50/Ton @ 600 ton/day(8hr ) = 75 ton/HR</p> <p>31 22 16.10 3300 - Finish Grading slopes, gentle; grader; 8900 BCY/day(8hr) = 1112 BCY/HR; \$0.17/SY or \$822.80/acre</p>
8/18/2010	Site Restoration	<p>Site Restoration</p> <p>Seeding w/ Fert and Mulch avg bid price (x1.39 time factor \$1457/Ac ) \$1048/Ac April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Seeding and Mulching \$2426/Ac (23 Acres) Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017</p> <p>Seeding and Mulching avg bid price \$2204/Acre (132 Acre) Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-0023</p> <p>Seeding and Mulching avg bid price \$4268/acre (6 acres) Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020</p> <p>Seeding avg bid price (x1.13 time factor \$994/Acre) \$879/Acre (30Acres) June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District</p> <p>Seeding-HydroMulch avg bid price \$4100 - 6200/Acre Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Seeding and Mulching cost quote \$800 - 1200/Acre for 2007 Manitoba Floodway Expansion projects - 2009 Rick Hay - Manitoba Floodway Authority</p>

Date	Author	Note
8/18/2010	Site Restoration	<p>Mulching avg bid price \$246/Acre Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Vegetation Establishment and Maintenance \$50/ac/yr spraying Barr Engineering Hibbing Taconite restoration JTL2 23-69-0887.</p> <p>Seeding, Mulching, Vegetation Establishment and Maintenance including 15-20 types of upland seed, disk-anchored straw mulch, 3-4 years of establishment/maintenance (spraying and mowing) \$4000/acre Barr Engineering internal estimate MRM/JTL2.</p> <p>50 17 00 97.0010 - Warehouses and Storage Buildings; Total Project Costs; \$60/S.F.</p>
8/18/2010	References	<p>References - These projects were referenced in developing estimated costs.</p> <p>2008-2010 Barr Engineering conversations with contractors and distributors (various), cost quotes and productivity estimates</p> <p>2008 - Manitoba Floodway Authority - Red River Floodway Expansion Project - Bid Tenders (14 contracts from 2005-2008)</p> <p>July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel</p> <p>July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - East Floodway Channel</p> <p>July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012</p> <p>Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020</p> <p>June 2001 - USACE Bid Results Grand Forks Phase 1 Levees - Grand Forks, ND DACW37-01-B-0003</p> <p>April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>May 2007 - USACE Bid Results Flood Control, Mississippi/Atchafalaya/Red/Old River LA channels W912P8-07-B-0039</p> <p>April 2009 - USACE Bid Results Atchafalaya River and Bayous Chene, Boeuf and Black Channel Maintenance Dredging, St. Mary's Parish, LA W912P8-09-B-0039</p> <p>Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, Louisiana Project North of Airline Highway St. Charles Parish St. Rose Drainage Structure &amp; Levee, Ph2 W912P8-09-B-0083</p> <p>Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017</p> <p>Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-0023</p> <p>Dec 2009 - USACE Bid Results LPV 104.02 Lake Pontchartrain and Vicinity, New Orleans LA W912P8-10-B-0029</p> <p>Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020</p> <p>Aug 1999 - USACE Bid Results SELA Urban Flood Control Project, Jefferson Parish LA Pumping Station #2, Suburban Canal DACW29-99-B-0074</p>

<b>Date</b>	<b>Author</b>	<b>Note</b>
8/18/2010	References	<p>May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate</p> <p>June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District</p> <p>May 2006 - Maple River Dam Phase IV Part 2 - Cass County Joint Water Resource District</p> <p>June 2006 - Harwood Township Improvement Dist. #65 SE Cass - Rush River Joint Water Resource District</p> <p>December 19, 1998 – Waters Bluff Reservoir, Opinion of Probable Construction Cost, Sabine Watershed, Sabine River Authority (TX)</p> <p>March 2004 – Final Indian River Lagoon, South Project Implementation Report and EIS – Appendix D Cost Estimates (USACE)</p> <p>July 2009 – Spreader Canal Western Project Final EIS – Appendix B Cost Estimates (USACE)</p> <p>November 2008 – Canonsburg Lake, Washington County, PA, Final Draft Feasibility Study and Environmental Assessment – Appendix H Selected Plan (USACE)</p> <p>December 28, 2009 – Hydraulic Analysis, Conceptual Design and Preliminary Cost Estimate for Kopta Slough Flood Reduction and Habitat Restoration Study on the Sacramento River, RM 216 to RM 224, Tehama County, CA (CA Dept. of Water Resources)</p> <p>Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>May 2010 - North Dakota DOT Price Sheet List for 2010 (average bid prices)</p> <p>RS Means 2010 Heavy Construction Cost Data, 23rd Edition</p>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>FCP MN Diversion Phase 4 With Unit Prices and Notes</b>				<b>748,008,802.34</b>	<b>772,736,162.90</b>	<b>637,773,946.04</b>	<b>929,850,789.19</b>	<b>133,292,708.21</b>	<b>1,063,143,497.40</b>
<b>01 Lands and Damages</b>	<b>1.00</b>	<b>LS</b>		<b>39,200,000.00</b>	<b>39,200,000.00</b>	<b>0.00</b>	<b>39,200,000.00</b>	<b>0.00</b>	<b>39,200,000.00</b>
USR Easements & ROW	1.00	LS		39,200,000.00	39,200,000.00	0.00	39,200,000.00	0.00	39,200,000.00
<b>02 Relocations</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>80,743,100.00</b>	<b>83,294,453.75</b>	<b>84,078,511.75</b>	<b>84,956,364.47</b>	<b>0.00</b>	<b>84,956,364.47</b>
<b>201 Utilities Relocations</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>3,563,900.00</b>	<b>3,563,900.00</b>	<b>4,347,958.00</b>	<b>5,225,810.72</b>	<b>0.00</b>	<b>5,225,810.72</b>
<b>Electric Power</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>2,037,500.00</i> <b>2,037,500.00</b>	<i>2,037,500.00</i> <b>2,037,500.00</b>	<i>2,485,750.00</i> <b>2,485,750.00</b>	<i>2,987,622.93</i> <b>2,987,622.93</b>	<b>0.00</b>	<i>2,987,622.93</i> <b>2,987,622.93</b>
USR 80+00 Minnkota Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	<i>20.00</i> 50,000.00	<i>20.00</i> 50,000.00	<i>24.40</i> 61,000.00	<i>29.33</i> 73,315.90	<i>0.00%</i> 0.00	<i>29.33</i> 73,315.90
USR 100+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	<i>15.00</i> 37,500.00	<i>15.00</i> 37,500.00	<i>18.30</i> 45,750.00	<i>21.99</i> 54,986.93	<i>0.00%</i> 0.00	<i>21.99</i> 54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (110th Ave NW).)									
USR 202+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	<i>20.00</i> 50,000.00	<i>20.00</i> 50,000.00	<i>24.40</i> 61,000.00	<i>29.33</i> 73,315.90	<i>0.00%</i> 0.00	<i>29.33</i> 73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 304+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	<i>15.00</i> 37,500.00	<i>15.00</i> 37,500.00	<i>18.30</i> 45,750.00	<i>21.99</i> 54,986.93	<i>0.00%</i> 0.00	<i>21.99</i> 54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (90th Ave N).)									
				<i>15.00</i>	<i>15.00</i>	<i>18.30</i>	<i>21.99</i>	<i>0.00%</i>	<i>21.99</i>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR 308+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (90th Ave N).)									
				20.00	20.00	24.40	29.33	0.00%	29.33
USR 378+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
				20.00	20.00	24.40	29.33	0.00%	29.33
USR 385+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
				15.00	15.00	18.30	21.99	0.00%	21.99
USR 448+00 Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Used same pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (Cty Road 14).)									
				20.00	20.00	24.40	29.33	0.00%	29.33
USR 410+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
				15.00	15.00	18.30	21.99	0.00%	21.99
USR 640+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (28th Ave N).)									
				20.00	20.00	24.40	29.33	0.00%	29.33
USR 690+00 Moorhead Public Service buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Used same pricing info as from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)</b>									
USR 699+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00%	73,315.90
<i>20.00      20.00      24.40      29.33      0.00%      29.33</i>									
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 730+00 Moorhead Public Service buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00%	73,315.90
<i>20.00      20.00      24.40      29.33      0.00%      29.33</i>									
(Note: Used same pricing info as from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 750+00 Xcel Buried & Overhead Power Lines	1.00	LS	Subcontractor - Excavation - Earth MN	550,000.00	550,000.00	671,000.00	806,474.90	0.00%	806,474.90
(Note: Quote from Scott Ladwig of XcelEnergy (701) 241-8663, 21 Dec 2009 to relocate and bury 2 circuit feeder lines under the proposed diversion channel and relocate an affected distribution line & re-route some primary cable serving Dilworth)									
USR 865+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00%	54,986.93
<i>15.00      15.00      18.30      21.99      0.00%      21.99</i>									
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating buried power line to a conduit attached to a bridge (Interstate 94).)									
USR 916+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00%	73,315.90
<i>20.00      20.00      24.40      29.33      0.00%      29.33</i>									
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 955+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00%	54,986.93
<i>15.00      15.00      18.30      21.99      0.00%      21.99</i>									
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating buried power line to a conduit attached to a bridge (50th Ave S).)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR 1002+00 Ottertail Power Overhead High Voltage Lines	1.00	LS	Subcontractor - Excavation - Earth MN	300,000.00	300,000.00	366,000.00	439,895.40	0.00	439,895.40
				15.00	15.00	18.30	21.99	0.00%	21.99
USR 1040+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (60th Ave S).)									
				15.00	15.00	18.30	21.99	0.00%	21.99
USR 1056+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (60th Ave S).)									
				20.00	20.00	24.40	29.33	0.00%	29.33
USR 1074+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
				15.00	15.00	18.30	21.99	0.00%	21.99
USR 1160+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating buried power line to a conduit attached to a bridge (Interstate 94).)									
USR 1214+00 Western Area Power Administration (WAPA) Overhead High Voltage Line	1.00	LS	Subcontractor - Excavation - Earth MN	275,000.00	275,000.00	335,500.00	403,237.45	0.00	403,237.45
(Note: Quote from Jerry Paulson at WAPA (701) 221-4531 (2 Feb 2010) to relocate high voltage power line tower structures.)									
				15.00	15.00	18.30	21.99	0.00%	21.99
USR 1288+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (Hwy 75 South).)									



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>Natural Gas Pipeline</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>270,000.00</b>	<b>270,000.00</b>	<b>329,400.00</b>	<b>395,905.86</b>	<b>0.00</b>	<b>395,905.86</b>
USR 745+00 Xcel Natural Gas Line	1.00	LS	Subcontractor - Excavation - Earth MN	270,000.00	270,000.00	329,400.00	395,905.86	0.00	395,905.86
(Note: Quote from Susan Balkovatz at XcelEnergy (701) 241-8610 (6 Jan 2010) to relocate 6-inch natural gas line and other misc nearby service lines.)									
<b>Petroleum Pipeline</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>825,000.00</b>	<b>825,000.00</b>	<b>1,006,500.00</b>	<b>1,209,712.35</b>	<b>0.00</b>	<b>1,209,712.35</b>
USR 525+00 Viking Gas Transmission Petro Line	1.00	LS	Subcontractor - Excavation - Earth MN	275,000.00	275,000.00	335,500.00	403,237.45	0.00	403,237.45
USR 994+00 Nustar Energy Petro Pipeline	1.00	LS	Subcontractor - Excavation - Earth MN	275,000.00	275,000.00	335,500.00	403,237.45	0.00	403,237.45
USR 1059+00 Magellan Midstream Partners 6-inch Petro Line	1.00	LS	Subcontractor - Excavation - Earth MN	275,000.00	275,000.00	335,500.00	403,237.45	0.00	403,237.45
(Note: Pricing from Bret Ropper at Megellan in Tulsa, OK (918) 574-7490 (16 Dec 2009) to relocate petro line = \$175,000 to 225,000 construction + \$25,000 to \$50,000 admin.)									
<b>Fiber Optic</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>300,000.00</b>	<b>300,000.00</b>	<b>366,000.00</b>	<b>439,895.40</b>	<b>0.00</b>	<b>439,895.40</b>
USR 683+00 702 Communications Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	20.00 50,000.00	20.00 50,000.00	24.40 61,000.00	29.33 73,315.90	0.00% 0.00	29.33 73,315.90
(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)									
USR 736+00 702 Communications Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	20.00 50,000.00	20.00 50,000.00	24.40 61,000.00	29.33 73,315.90	0.00% 0.00	29.33 73,315.90
(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)									
USR 694+00 Dakota Carrier Network Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	20.00 50,000.00	20.00 50,000.00	24.40 61,000.00	29.33 73,315.90	0.00% 0.00	29.33 73,315.90

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Pricing info from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)</b>									
USR 850+00 702 Communications Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	20.00 50,000.00	20.00 50,000.00	24.40 61,000.00	29.33 73,315.90	0.00% 0.00	29.33 73,315.90
<b>(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)</b>									
USR 988+00 AT&T Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	20.00 50,000.00	20.00 50,000.00	24.40 61,000.00	29.33 73,315.90	0.00% 0.00	29.33 73,315.90
<b>(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)</b>									
USR 1090+00 SHAL Network Fiber Optic Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	20.00 50,000.00	20.00 50,000.00	24.40 61,000.00	29.33 73,315.90	0.00% 0.00	29.33 73,315.90
<b>(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)</b>									
<b>Water Utilities</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>131,400.00</b>	<b>131,400.00</b>	<b>160,308.00</b>	<b>192,674.19</b>	<b>0.00</b>	<b>192,674.19</b>
USR 725+00 Moorhead Public Service Water Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50.00 125,000.00	50.00 125,000.00	61.00 152,500.00	73.32 183,289.75	0.00% 0.00	73.32 183,289.75
<b>(Note: Used the same cost info from Gregg Christensen at Cass County Rural Water District (701) 428-3139 (27 July 2010) to bore under the proposed channel diversion location.)</b>									
USR 725+00 Moorhead Public Service Water Line Tie-in	2.00	EA	Subcontractor - Excavation - Earth MN	3,200.00 6,400.00	3,200.00 6,400.00	3,904.00 7,808.00	4,692.22 9,384.44	0.00% 0.00	4,692.22 9,384.44
<b>(Note: Used the same cost info from Gregg Christensen at Cass County Rural Water District (701) 428-3139 (27 July 2010) to Tie-in water lines at each end of the bore.)</b>									
<b>202 Roads, Railroads and Bridges</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>77,179,200.00</b>	<b>79,730,553.75</b>	<b>79,730,553.75</b>	<b>79,730,553.75</b>	<b>0.00</b>	<b>79,730,553.75</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
-------------	----------	-----	------------	----------	------------	-------------	--------------	-------------	-------------

(Note: Assumptions for Bridge Cost Summary: - The superstructures for all bridges are of prestressed concrete girders with cast in place concrete decks. - Pile termination to be 100 feet below existing grade (consistent w/ bridge in the area) - Channel has 7:1 slopes with a 250' channel bottom - Freeboard to be 3'-0" above 500-year water surface - Superstructure depth of approximately 5'-5" (54" prestressed girders w/ 11" deck/risers) - Bridge lengths for bridges with a deck elevation lower than the existing ground were based on matching the bridge deck to the existing ground elevations - Bridge lengths rounded to the nearest 20' - Pier heights for each bridge were assumed to be the same independent of channel slope to be conservative for estimating - Cost estimates include cost to construct a temporary bypass or crossover - Cost estimates include cost for grade raises for bridge sites that require building a bridge above existing ground elevations. Maximum grade assumed to be 2.5% for highways. - Approach costs for each bridge were included in the estimate. These costs include pavement, guardrail, aggregate base, embankment, and other misc. costs. )

20201 Roadway Bridges	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	77,179,200.00	79,730,553.75	79,730,553.75	79,730,553.75	0.00	79,730,553.75
-----------------------	------	----	--	---------------	---------------	---------------	---------------	------	---------------

(Note: Road bridge costs are estimated for each alternative. Costs are used in the range of \$105/SF to \$125/SF. Conversations with contractors indicate that an estimated cost (before contingency) of \$120/SF is in the upper range of typical bridge costs. A review of historical bridge costs (see Exhibit G-G1.1) and MNDOT State Aid Bridge Office - Bridge Cost Reports from 2008 and 2009 calendar years (see Consultant Exhibit G-G1.3-G-G1.6) indicated that construction costs are typically below \$120/SF. Given this fact, a 10% contingency was used for these estimated costs. Preliminary work analysis was performed (outside of MII) on a typical roadway bridge for this estimate, and the split was 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other). A summary of this preliminary work analysis is in Consultant Exhibit G-G1.2. Estimated roadway bridge quantities and costs are in Consultant Exhibit G-I. Although hydraulic modeling performed assumed 7H:1V channel slopes at bridge crossings, cost estimates assume bridge crossings for the full width of the channel cross section (i.e. non 7H:1V slopes and longer length) for both ND and MN alternatives. This assumption is conservative cost-wise, and any surplus cost is intended to cover costs of potential slope stabilizations at these locations, if side slopes steeper than the benched diversion cross section are desired in subsequent stages of design. Estimated costs developed for road bridges include all costs for contractor direct costs, indirect costs and markups and are therefore included in the estimate under a no-markup contractor in the MII estimate. Roadway reconstruction costs and road raises due to levee construction are estimated. A summary of quantities is presented in Consultant Appendix G, Exhibit G-I. For additional bridge information see Consultant Appendix E. )

2020101 Interstate 29 (SB-South)	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,570,000.00	2,654,810.00	2,654,810.00	2,654,810.00	0.00	2,654,810.00
----------------------------------	------	----	--	--------------	--------------	--------------	--------------	------	--------------

(Note: Roadway bridge construction at diversion channel; Bridge Length 300 LF, Bridge Deck Area 13350 SF, \$125/SF deck, includes \$670,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI).)

USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,670,000.00	1,725,110.00	1,725,110.00	1,725,110.00	0.00	1,725,110.00
-------------------------	------	----	--	--------------	--------------	--------------	--------------	------	--------------

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	670,000.00	692,110.00	692,110.00	692,110.00	0.00	692,110.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020102 Interstate 29 (NB-South)</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>2,400,000.00</b>	<b>2,479,200.00</b>	<b>2,479,200.00</b>	<b>2,479,200.00</b>	<b>0.00</b>	<b>2,479,200.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 300 LF, Bridge Deck Area 13350 SF, \$125/SF deck, includes \$500,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,670,000.00	1,725,110.00	1,725,110.00	1,725,110.00	0.00	1,725,110.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	500,000.00	516,500.00	516,500.00	516,500.00	0.00	516,500.00
Labor ID: LNS2009	EQ ID: EP07R04			Currency in US dollars					TRACES MII Version 3.01

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020103 110th Avenue S</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>2,230,000.00</b>	<b>2,303,590.00</b>	<b>2,303,590.00</b>	<b>2,303,590.00</b>	<b>0.00</b>	<b>2,303,590.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 420 LF, Bridge Deck Area 14490 SF, \$115/SF deck, includes \$290,000 Approach Road Cost and \$270,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,670,000.00	1,725,110.00	1,725,110.00	1,725,110.00	0.00	1,725,110.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	290,000.00	299,570.00	299,570.00	299,570.00	0.00	299,570.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	270,000.00	278,910.00	278,910.00	278,910.00	0.00	278,910.00
Labor ID: LNS2009	EQ ID: EP07R04			Currency in US dollars					TRACES MII Version 3.01

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020104 US Highway 75 (South)</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>4,480,000.00</b>	<b>4,627,840.00</b>	<b>4,627,840.00</b>	<b>4,627,840.00</b>	<b>0.00</b>	<b>4,627,840.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 680 LF, Bridge Deck Area 34340 SF, \$110/SF deck, includes \$390,000 Approach Road Cost and \$310,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,780,000.00	3,904,740.00	3,904,740.00	3,904,740.00	0.00	3,904,740.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	390,000.00	402,870.00	402,870.00	402,870.00	0.00	402,870.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	310,000.00	320,230.00	320,230.00	320,230.00	0.00	320,230.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020105 80th Avenue S</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,600,000.00</b>	<b>3,718,800.00</b>	<b>3,718,800.00</b>	<b>3,718,800.00</b>	<b>0.00</b>	<b>3,718,800.00</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 800 LF, Bridge Deck Area 27600 SF, \$110/SF deck, includes \$260,000 Approach Road Cost and \$300,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,040,000.00	3,140,320.00	3,140,320.00	3,140,320.00	0.00	3,140,320.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	260,000.00	268,580.00	268,580.00	268,580.00	0.00	268,580.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	300,000.00	309,900.00	309,900.00	309,900.00	0.00	309,900.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
<b>2020106 60th Avenue S</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,490,000.00</b>	<b>3,605,170.00</b>	<b>3,605,170.00</b>	<b>3,605,170.00</b>	<b>0.00</b>	<b>3,605,170.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 800 LF, Bridge Deck Area 27600 SF, \$110/SF deck, includes \$70,000 Approach Road Cost and \$250,000 Temporary Bypass Cost. Demolition not included. (HEI). )</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,170,000.00	3,274,610.00	3,274,610.00	3,274,610.00	0.00	3,274,610.00
Labor ID: LNS2009	EQ ID: EP07R04			Currency in US dollars					TRACES MII Version 3.01

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	70,000.00	72,310.00	72,310.00	72,310.00	0.00	72,310.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	250,000.00	258,250.00	258,250.00	258,250.00	0.00	258,250.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020107 Clay County Highway 52</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,570,000.00</b>	<b>3,687,810.00</b>	<b>3,687,810.00</b>	<b>3,687,810.00</b>	<b>0.00</b>	<b>3,687,810.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 820 LF, Bridge Deck Area 28290 SF, \$115/SF deck, includes \$70,000 Approach Road Cost and \$250,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,250,000.00	3,357,250.00	3,357,250.00	3,357,250.00	0.00	3,357,250.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	70,000.00	72,310.00	72,310.00	72,310.00	0.00	72,310.00



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	250,000.00	258,250.00	258,250.00	258,250.00	0.00	258,250.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020108 50th Avenue S</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,530,000.00</b>	<b>3,646,490.00</b>	<b>3,646,490.00</b>	<b>3,646,490.00</b>	<b>0.00</b>	<b>3,646,490.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 820 LF, Bridge Deck Area 28290 SF, \$115/SF deck, includes \$50,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI). )</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,250,000.00	3,357,250.00	3,357,250.00	3,357,250.00	0.00	3,357,250.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	50,000.00	51,650.00	51,650.00	51,650.00	0.00	51,650.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00
Labor ID: LNS2009	EQ ID: EP07R04			Currency in US dollars					TRACES MII Version 3.01

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020109 Interstate 94 (EB)	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,790,000.00	4,948,070.00	4,948,070.00	4,948,070.00	0.00	4,948,070.00
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 860 LF, Bridge Deck Area 38270 SF, \$115/SF deck, includes \$160,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,400,000.00	4,545,200.00	4,545,200.00	4,545,200.00	0.00	4,545,200.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	160,000.00	165,280.00	165,280.00	165,280.00	0.00	165,280.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020110 Interstate 94 (WB)	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,790,000.00	4,948,070.00	4,948,070.00	4,948,070.00	0.00	4,948,070.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost	
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 860 LF, Bridge Deck Area 38270 SF, \$115/SF deck, includes \$160,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>										
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,400,000.00	4,545,200.00	4,545,200.00	4,545,200.00	0.00	4,545,200.00	
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)										
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	160,000.00	165,280.00	165,280.00	165,280.00	0.00	165,280.00	
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)										
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00	
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)										
<b>2020111 US Highway 10 (EB)</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>4,950,000.00</b>	<b>5,113,350.00</b>	<b>5,113,350.00</b>	<b>5,113,350.00</b>	<b>0.00</b>	<b>5,113,350.00</b>	
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 900 LF, Bridge Deck Area 40050 SF, \$115/SF deck, includes \$80,000 Approach Road Cost and \$260,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>										
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,610,000.00	4,762,130.00	4,762,130.00	4,762,130.00	0.00	4,762,130.00	
Labor ID: LNS2009	EQ ID: EP07R04			Currency in US dollars				TRACES MII Version 3.01		

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	80,000.00	82,640.00	82,640.00	82,640.00	0.00	82,640.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	260,000.00	268,580.00	268,580.00	268,580.00	0.00	268,580.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020112 US Highway 10 (WB)</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>4,950,000.00</b>	<b>5,113,350.00</b>	<b>5,113,350.00</b>	<b>5,113,350.00</b>	<b>0.00</b>	<b>5,113,350.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 900 LF, Bridge Deck Area 40050 SF, \$115/SF deck, includes \$80,000 Approach Road Cost and \$260,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,610,000.00	4,762,130.00	4,762,130.00	4,762,130.00	0.00	4,762,130.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	80,000.00	82,640.00	82,640.00	82,640.00	0.00	82,640.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	260,000.00	268,580.00	268,580.00	268,580.00	0.00	268,580.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020113 28th Avenue N</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,970,000.00</b>	<b>4,101,010.00</b>	<b>4,101,010.00</b>	<b>4,101,010.00</b>	<b>0.00</b>	<b>4,101,010.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 880 LF, Bridge Deck Area 30360 SF, \$120/SF deck, includes \$70,000 Approach Road Cost and \$260,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,640,000.00	3,760,120.00	3,760,120.00	3,760,120.00	0.00	3,760,120.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	70,000.00	72,310.00	72,310.00	72,310.00	0.00	72,310.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	260,000.00	268,580.00	268,580.00	268,580.00	0.00	268,580.00
Labor ID: LNS2009	EQ ID: EP07R04		Markups are included in the unit prices.)	Currency in US dollars					TRACES MII Version 3.01

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020114 57th Avenue N	1.00	EA	Prime - Roads, Railroads and Bridges  Note   <b>(Note: No markup contractor. Markups are included in the unit prices.)</b>	3,380,000.00 <b>3,380,000.00</b>	3,491,540.00 <b>3,491,540.00</b>	3,491,540.00 <b>3,491,540.00</b>	3,491,540.00 <b>3,491,540.00</b>	0.00	3,491,540.00 <b>3,491,540.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 700 LF, Bridge Deck Area 24150 SF, \$115/SF deck, includes \$300,000 Approach Road Cost and \$300,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   <b>(Note: No markup contractor. Markups are included in the unit prices.)</b>	2,780,000.00	2,871,740.00	2,871,740.00	2,871,740.00	0.00	2,871,740.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   <b>(Note: No markup contractor. Markups are included in the unit prices.)</b>	300,000.00	309,900.00	309,900.00	309,900.00	0.00	309,900.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   <b>(Note: No markup contractor. Markups are included in the unit prices.)</b>	300,000.00	309,900.00	309,900.00	309,900.00	0.00	309,900.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020115 40th Street North	1.00	EA	Prime - Roads, Railroads and Bridges  Note   <b>(Note: No markup contractor. Markups are included in the unit prices.)</b>	3,280,000.00 <b>3,280,000.00</b>	3,388,240.00 <b>3,388,240.00</b>	3,388,240.00 <b>3,388,240.00</b>	3,388,240.00 <b>3,388,240.00</b>	0.00	3,388,240.00 <b>3,388,240.00</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost	
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 700 LF, Bridge Deck Area 24150 SF, \$115/SF deck, includes \$220,000 Approach Road Cost and \$280,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>										
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,780,000.00	2,871,740.00	2,871,740.00	2,871,740.00	0.00	2,871,740.00	
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)										
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	220,000.00	227,260.00	227,260.00	227,260.00	0.00	227,260.00	
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)										
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	280,000.00	289,240.00	289,240.00	289,240.00	0.00	289,240.00	
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)										
<b>2020116 90th Avenue N</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,300,000.00</b>	<b>3,408,900.00</b>	<b>3,408,900.00</b>	<b>3,408,900.00</b>	<b>0.00</b>	<b>3,408,900.00</b>	
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 680 LF, Bridge Deck Area 23460 SF, \$110/SF deck, includes \$400,000 Approach Road Cost and \$320,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>										
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,580,000.00	2,665,140.00	2,665,140.00	2,665,140.00	0.00	2,665,140.00	
Labor ID: LNS2009	EQ ID: EP07R04			Currency in US dollars				TRACES MII Version 3.01		

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	400,000.00	413,200.00	413,200.00	413,200.00	0.00	413,200.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	320,000.00	330,560.00	330,560.00	330,560.00	0.00	330,560.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020117 100th Avenue N</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,400,000.00</b>	<b>3,512,200.00</b>	<b>3,512,200.00</b>	<b>3,512,200.00</b>	<b>0.00</b>	<b>3,512,200.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 680 LF, Bridge Deck Area 23460 SF, \$110/SF deck, includes \$480,000 Approach Road Cost and \$340,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,580,000.00	2,665,140.00	2,665,140.00	2,665,140.00	0.00	2,665,140.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	480,000.00	495,840.00	495,840.00	495,840.00	0.00	495,840.00
Labor ID: LNS2009	EQ ID: EP07R04			Currency in US dollars					TRACES MII Version 3.01



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	340,000.00	351,220.00	351,220.00	351,220.00	0.00	351,220.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020118 US Highway 75 (North)</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>4,690,000.00</b>	<b>4,844,770.00</b>	<b>4,844,770.00</b>	<b>4,844,770.00</b>	<b>0.00</b>	<b>4,844,770.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 680 LF, Bridge Deck Area 34340 SF, \$110/SF deck, includes \$560,000 Approach Road Cost and \$350,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,780,000.00	3,904,740.00	3,904,740.00	3,904,740.00	0.00	3,904,740.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	560,000.00	578,480.00	578,480.00	578,480.00	0.00	578,480.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	350,000.00	361,550.00	361,550.00	361,550.00	0.00	361,550.00
Labor ID: LNS2009	EQ ID: EP07R04		Markups are included in the unit prices.)	Currency in US dollars				TRACES MII Version 3.01	

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020119 110th Avenue NW	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,340,000.00	3,450,220.00	3,450,220.00	3,450,220.00	0.00	3,450,220.00
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 660 LF, Bridge Deck Area 22770 SF, \$110/SF deck, includes \$500,000 Approach Road Cost and \$340,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,500,000.00	2,582,500.00	2,582,500.00	2,582,500.00	0.00	2,582,500.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	500,000.00	516,500.00	516,500.00	516,500.00	0.00	516,500.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	340,000.00	351,220.00	351,220.00	351,220.00	0.00	351,220.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020120 15 Street NW	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,240,000.00	3,346,920.00	3,346,920.00	3,346,920.00	0.00	3,346,920.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 640 LF, Bridge Deck Area 22080 SF, \$110/SF deck, includes \$480,000 Approach Road Cost and \$330,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,430,000.00	2,510,190.00	2,510,190.00	2,510,190.00	0.00	2,510,190.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	480,000.00	495,840.00	495,840.00	495,840.00	0.00	495,840.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	330,000.00	340,890.00	340,890.00	340,890.00	0.00	340,890.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
<b>2020121 Local Road Construction</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>1,240,000.00</b>	<b>1,282,625.00</b>	<b>1,282,625.00</b>	<b>1,282,625.00</b>	<b>0.00</b>	<b>1,282,625.00</b>
USR BARR Local Road Construction	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,240,000.00	1,282,625.00	1,282,625.00	1,282,625.00	0.00	1,282,625.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Reconstruct rural roadways cut off by the diversion channel. (6.2 miles) Allowance)</b>									
2020122 Levee Road Raise	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,989,200.00	2,057,578.75	2,057,578.75	2,057,578.75	0.00	2,057,578.75
USR BARR Levee Road Raise	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,989,200.00	2,057,578.75	2,057,578.75	2,057,578.75	0.00	2,057,578.75
<b>(Note: 11 road raises due to levees (9 section line and 2 interstate crossings))</b>									
06 Fish & Wildlife Facilities	1.00	LS	Prime - Management (Excavation - Earth) MN	38,099,335.00	38,099,335.00	38,099,335.00	45,791,590.74	0.00	45,791,590.74
Aquatic Impacts Mitigation	7.10	MI	Prime - Management (Excavation - Earth) MN	2,761,350.00	2,761,350.00	2,761,350.00	3,318,866.57	0.00	3,318,866.57
USR Acquisition of Aquatic Mitigation Easements	2,840.00	ACR	Prime - Management (Excavation - Earth) MN	5,000.00	5,000.00	5,000.00	6,009.50	0.00%	6,009.50
<b>(Note: Approximately 400 acres per mile)</b>									
USR Revegetation	258.16	ACR	Prime - Management (Excavation - Earth) MN	3,750.00	3,750.00	3,750.00	4,507.13	0.00%	4,507.13
<b>(Note: 150 foot corridor each side of revegetated stream = 300 feet x 5280 ft/mi = 1,584,000 SF = 36.36 acres per mile of revegetated stream)</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR Grading	7.10	MI	Prime - Management (Excavation - Earth) MN	625,000.00 4,437,500.00	625,000.00 4,437,500.00	625,000.00 4,437,500.00	751,187.50 5,333,431.25	0.00% 0.00	751,187.50 5,333,431.25
<b>Fish Bypass Channel Optimization</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>3,000,000.00</b> <b>3,000,000.00</b>	<b>3,000,000.00</b> <b>3,000,000.00</b>	<b>3,000,000.00</b> <b>3,000,000.00</b>	<b>3,605,700.00</b> <b>3,605,700.00</b>	<b>0.00</b> <b>0.00</b>	<b>3,605,700.00</b> <b>3,605,700.00</b>
USR Fish Bypass Channel Optimization	1.00	LS	Prime - Management (Excavation - Earth) MN	3,000,000.00	3,000,000.00	3,000,000.00	3,605,700.00	0.00	3,605,700.00
<b>Wetlands Impacts Mitigation</b>	<b>620.00</b>	<b>ACR</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>13,750.00</b> <b>8,525,000.00</b>	<b>13,750.00</b> <b>8,525,000.00</b>	<b>13,750.00</b> <b>8,525,000.00</b>	<b>16,526.13</b> <b>10,246,197.50</b>	<b>0.00</b> <b>0.00</b>	<b>16,526.13</b> <b>10,246,197.50</b>
USR Acquisition of Wetlands Impacts Mitigation Easements	620.00	ACR	Prime - Management (Excavation - Earth) MN	5,000.00 3,100,000.00	5,000.00 3,100,000.00	5,000.00 3,100,000.00	6,009.50 3,725,890.00	0.00% 0.00	6,009.50 3,725,890.00
USR Wetland Seed Mixture	620.00	ACR	Prime - Management (Excavation - Earth) MN	1,125.00 697,500.00	1,125.00 697,500.00	1,125.00 697,500.00	1,352.14 838,325.25	0.00% 0.00	1,352.14 838,325.25
USR Planting Wetland Seed Mixtutre	620.00	ACR	Prime - Management (Excavation - Earth) MN	1,375.00 852,500.00	1,375.00 852,500.00	1,375.00 852,500.00	1,652.61 1,024,619.75	0.00% 0.00	1,652.61 1,024,619.75
USR Invasive Species Control	620.00	ACR	Prime - Management (Excavation - Earth) MN	6,250.00 3,875,000.00	6,250.00 3,875,000.00	6,250.00 3,875,000.00	7,511.88 4,657,362.50	0.00% 0.00	7,511.88 4,657,362.50
(Note: Control of invasive species during first 5 years per acre of wetland mitigation footprint)				13,125.00	13,125.00	13,125.00	15,774.94		15,774.94

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>Riparian Forest Impacts Mitigation</b>	<b>150.00</b>	<b>ACR</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>1,968,750.00</b>	<b>1,968,750.00</b>	<b>1,968,750.00</b>	<b>2,366,240.63</b>	<b>0.00</b>	<b>2,366,240.63</b>
USR Acquisition of Riparian Forest Footprint Mitigation Easements	150.00	ACR	Prime - Management (Excavation - Earth) MN	5,000.00 750,000.00	5,000.00 750,000.00	5,000.00 750,000.00	6,009.50 901,425.00	0.00% 0.00	6,009.50 901,425.00
USR Riparian Forest Seedling Purchase & Planting	150.00	ACR	Prime - Management (Excavation - Earth) MN	1,875.00 281,250.00	1,875.00 281,250.00	1,875.00 281,250.00	2,253.56 338,034.38	0.00% 0.00	2,253.56 338,034.38
(Note: For providing and planting seedlings)									
USR Invasive Species Control	150.00	ACR	Prime - Management (Excavation - Earth) MN	6,250.00 937,500.00	6,250.00 937,500.00	6,250.00 937,500.00	7,511.88 1,126,781.25	0.00% 0.00	7,511.88 1,126,781.25
(Note: Control and management of invasive species during first 5 years per acre of raparian forest mitigation footprint)									
<b>Adaptive Management</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>5,000,000.00</b>	<b>5,000,000.00</b>	<b>5,000,000.00</b>	<b>6,009,500.00</b>	<b>0.00</b>	<b>6,009,500.00</b>
USR Adaptive Management	1.00	LS	Prime - Management (Excavation - Earth) MN	5,000,000.00	5,000,000.00	5,000,000.00	6,009,500.00	0.00	6,009,500.00
<b>08 Roads, Railroads and Bridges</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>128,793,777.00</b>	<b>132,712,321.71</b>	<b>132,712,321.71</b>	<b>132,712,321.71</b>	<b>39,662,973.70</b>	<b>172,375,295.41</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
-------------	----------	-----	------------	----------	------------	-------------	--------------	-------------	-------------

(Note: Assumptions for Bridge Cost Summary: - The superstructures for all bridges are of prestressed concrete girders with cast in place concrete decks. - Pile termination to be 100 feet below existing grade (consistent w/ bridge in the area) - Channel has 7:1 slopes with a 250' channel bottom - Freeboard to be 3'-0' above 500-year water surface - Superstructure depth of approximately 5'-5" (54" prestressed girders w/ 11" deck/risers) - Bridge lengths for bridges with a deck elevation lower than the existing ground were based on matching the bridge deck to the existing ground elevations - Bridge lengths rounded to the nearest 20' - Pier heights for each bridge were assumed to be the same independent of channel slope to be conservative for estimating - Cost estimates include cost to construct a temporary bypass or crossover - Cost estimates include cost for grade raises for bridge sites that require building a bridge above existing ground elevations. Maximum grade assumed to be 2.5% for highways. - Approach costs for each bridge were included in the estimate. These costs include pavement, guardrail, aggregate base, embankment, and other misc. costs. )

801 Railroad Bridges	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	128,793,777.00	132,712,321.71	132,712,321.71	132,712,321.71	39,662,973.70	172,375,295.41
				128,793,777.00	132,712,321.71	132,712,321.71	132,712,321.71		172,375,295.41

(Note: Railroad bridge costs are estimated for each alternative. A similar procedure (work analysis outside of MII) was used to develop contingency, labor and material costs as shown in the Road Bridges section above. The split was 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other). Cost information for railroad bridges and relocating the rail yard in Dilworth, MN (FCP) was provided by TKDA and Moore Engineering, Inc. The estimate includes a 35% contingency for railroad bridges (structure only), 30% contingency for track raises at railroad bridges (included as part of the bridge cost in the MII cost estimate) and a 31% contingency for relocation of the railroad yard in MN. Estimated railroad bridge quantities and costs are included in Consultant Exhibit G-J. Costs developed for railroad bridges included all costs for contractor direct costs, indirect costs and markups and are therefore included in the estimate under a no-markup contractor in the MII estimate. For additional bridge information see Consultant Appendix G Exhibit J.)

80101 Bridge 1 BNSF P-Line Subdivision	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	14,890,248.00	15,381,626.18	15,381,626.18	15,381,626.18	4,834,489.95	20,216,116.13
--	------	----	--	---------------	---------------	---------------	---------------	--------------	---------------

(Note: Railroad bridge construction at diversion channel; Length 702 LF, Bridge Cost \$4,259,478, Tracks/Raise Cost \$10,630,769 (TKDA, MEI). )

USR MOORE Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,259,479.00	4,400,041.81	4,400,041.81	4,400,041.81	1,540,014.63	5,940,056.45
USR MOORE Tracks/Raise	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	10,630,769.00	10,981,584.37	10,981,584.37	10,981,584.37	3,294,475.31	14,276,059.68

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>80102 Bridge 2 BNSF Mainline &amp; Dilworth Yard</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>87,098,499.00</b>	<b>89,972,749.50</b>	<b>89,972,749.50</b>	<b>89,972,749.50</b>	<b>28,120,895.76</b>	<b>118,093,645.26</b>
<b>(Note: Railroad bridge construction at diversion channel; Length 877 LF, Bridge Cost \$21,860,037, Tracks/Raise Cost \$65,238,462 (TKDA, MEI). )</b>									
USR MOORE Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	21,860,037.00	22,581,418.24	22,581,418.24	22,581,418.24	7,903,496.38	30,484,914.62
USR MOORE Tracks/Raise	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	65,238,462.00	67,391,331.26	67,391,331.26	67,391,331.26	20,217,399.38	87,608,730.64
<b>80103 Bridge 3 OTVRR</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>6,762,130.00</b>	<b>6,985,280.33</b>	<b>6,985,280.33</b>	<b>6,985,280.33</b>	<b>2,350,686.19</b>	<b>9,335,966.52</b>
<b>(Note: Railroad bridge construction at diversion channel; Length 814 LF, Bridge Cost \$4,939,053, Tracks/Raise Cost \$1,823,077 (TKDA, MEI). )</b>									
USR MOORE Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,939,053.00	5,102,041.79	5,102,041.79	5,102,041.79	1,785,714.63	6,887,756.41



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost	
USR MOORE Tracks/Raise	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,823,077.00	1,883,238.54	1,883,238.54	1,883,238.54	564,971.56	2,448,210.11	
<b>80104 Bridge 4 BNSF Moorhead Subdivision</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>9,992,900.00</b>	<b>10,322,665.70</b>	<b>10,322,665.70</b>	<b>10,322,665.70</b>	<b>3,351,901.80</b>	<b>13,674,567.50</b>	
<b>(Note: Railroad bridge construction at diversion channel; Length 814 LF, Bridge Cost \$4,939,053, Tracks/Raise Cost \$5,053,846 (TKDA, MEI). )</b>										
USR MOORE Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,939,053.00	5,102,041.79	5,102,041.79	5,102,041.79	1,785,714.63	6,887,756.41	
USR MOORE Tracks/Raise	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	5,053,847.00	5,220,623.91	5,220,623.91	5,220,623.91	1,566,187.17	6,786,811.09	
<b>80105 RR Signal System</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>10,050,000.00</b>	<b>10,050,000.00</b>	<b>10,050,000.00</b>	<b>10,050,000.00</b>	<b>1,005,000.00</b>	<b>11,055,000.00</b>	
<b>(Note: Estimated railroad signal cost from Clyde Stack at BSNF (May 6, 2010))</b>										
USR RR Signal System	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	10,050,000.00	10,050,000.00	10,050,000.00	10,050,000.00	1,005,000.00	11,055,000.00	
Labor ID: LNS2009	EQ ID: EP07R04			Currency in US dollars				TRACES MII Version 3.01		

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>09 Channels and Canals</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>276,962,910.60</b>	<b>294,379,329.22</b>	<b>359,834,984.85</b>	<b>432,485,668.29</b>	<b>90,357,431.52</b>	<b>522,843,099.81</b>
<b>901 Diversion Channel</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>227,407,113.77</b>	<b>240,970,636.82</b>	<b>293,984,176.92</b>	<b>353,339,582.24</b>	<b>70,667,916.45</b>	<b>424,007,498.69</b>
<b>90102 Reach 2013</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>5,891,209.23</b>	<b>6,240,561.22</b>	<b>7,613,484.68</b>	<b>9,150,647.24</b>	<b>1,830,129.45</b>	<b>10,980,776.69</b>
<b>9010201 Site Preparation and Traffic Control</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>62,000.00</b>	<b>62,000.00</b>	<b>75,640.00</b>	<b>90,911.72</b>	<b>18,182.34</b>	<b>109,094.06</b>
<b>(Note: Historical projects referenced; 1.5% of construction cost, including bridge traffic management costs)</b>									
USR Site Preparation and Traffic Control	1.00	LS	Subcontractor - Excavation - Earth MN	62,000.00	62,000.00	75,640.00	90,911.72	18,182.34	109,094.06
(Note: Miscellaneous site preparation allowance. Determined by cost engineering judgement that will be reconciled upon design refinement.)									
<b>9010202 Clearing and Grubbing</b>	<b>25.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>27,299.46</b>	<b>31,152.41</b>	<b>38,005.94</b>	<b>45,679.34</b>	<b>9,135.87</b>	<b>54,815.21</b>
USR BARR Clearing and Grubbing	25.00	ACR	Subcontractor - Excavation - Earth MN	27,299.46	31,152.41	38,005.94	45,679.34	9,135.87	54,815.21
(Note: Allowance: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
<b>9010203 Temporary Erosion and Sedimentation Control</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>353,702.53</b>	<b>386,367.30</b>	<b>471,368.11</b>	<b>566,537.33</b>	<b>113,307.47</b>	<b>679,844.80</b>
<b>(Note: Historical projects referenced; 3% of construction cost)</b>									
RSM 312513101120 Erosion control, silt fence, polypropylene, 3' high, includes 7.5' posts	19,575.00	LF	Subcontractor - Excavation - Earth MN	49,576.20	62,584.32	76,352.88	91,768.52	18,353.70	110,122.23

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Cost Book 2008)</b>									
RSM 312513100120 Biodegradable erosion control, revegetation mat, webbed	30,173.00	SY	Subcontractor - Excavation - Earth MN	6.31 190,389.22	6.92 208,657.46	8.44 254,562.11	10.14 305,958.19	20.00% 61,191.64	12.17 367,149.83
(Note: The area needing revegetation mat was derived from the drawings. See Consultant Appendix F-Drawings for specific dimensions. Unit cost was obtained from the MII 2008 cost book.)									
USR BARR Temporary Sedimentation Basins	26,400.00	BCY	Subcontractor - Excavation - Earth MN	3.04 80,137.11	3.04 80,370.52	3.71 98,052.03	4.46 117,848.73	20.00% 23,569.75	5.36 141,418.48
(Note: Volume based on MPCA NPDES construction permit criteria)									
USR BARR Rock Checks	42.00	EA	Subcontractor - Excavation - Earth MN	800.00 33,600.00	827.50 34,755.00	1,009.55 42,401.10	1,213.38 50,961.88	20.00% 10,192.38	1,456.05 61,154.26
(Note: mat/lab/equip split = 50/35/15, low flow ditch protection)									
<b>9010204 Dewatering and Control of Water</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>334,736.37</b>	<b>344,764.35</b>	<b>420,612.51</b>	<b>505,534.18</b>	<b>101,106.84</b>	<b>606,641.01</b>
<b>(Note: The total cost of Dewatering and Control of Water is estimated to be approximately 2% of the total cost of construction of the reach)</b>									
RSM 312319201100 Dewatering, pumping, 8 hr., attended 8 hours per day, 6" centrifugal pump, includes 20 L.F. of suction hose and 100 L.F. of discharge hose	56.00	DAY	Subcontractor - Excavation - Earth MN	909.58 50,936.37	1,086.26 60,830.29	1,325.23 74,212.96	1,592.80 89,196.55	20.00% 17,839.31	1,911.35 107,035.86
(Note: Cost Book 2008 (includes fuel cost))									
USR BARR Temporary Storm Sewer Pipe	312.00	LF	Subcontractor - Excavation - Earth MN	25.00 7,800.00	25.43 7,934.06	31.02 9,679.56	37.29 11,633.86	20.00% 2,326.77	44.75 13,960.63
(Note: Pipes for temporary crossing along the low flow channel. mat/lab/equip split = 25/50/25)									
USR BARR Control of water	1.00	LS	Subcontractor - Excavation - Earth MN	276,000.00	276,000.00	336,720.00	404,703.77	80,940.75	485,644.52

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010205 Strip and Stockpile Topsoil - Channel</b>	<b>165,647.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>219,928.63</b>	<b>229,715.68</b>	<b>280,253.13</b>	<b>336,836.24</b>	<b>67,367.25</b>	<b>404,203.49</b>
<p>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes scraper crews will strip material over the channel excavation areas and dozer crews will stockpile at the edges. See Consultant Appendix F-Drawings for specific dimensions. )</p>									
USR BARR Topsoil - Channel - Strip	165,647.00	BCY	Subcontractor - Excavation - Earth MN	121,594.03	126,564.58	154,408.79	185,583.92	37,116.78	222,700.71
<p>(Note: See CSI task for note)</p>									
USR BARR Topsoil - Channel - Stockpile	165,647.00	BCY	Subcontractor - Excavation - Earth MN	98,334.59	103,151.10	125,844.35	151,252.32	30,250.46	181,502.78
<p>(Note: See CSI task for note)</p>									
<b>9010206 Strip and Stockpile Topsoil - Spoil Berm</b>	<b>164,686.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>163,220.24</b>	<b>171,060.78</b>	<b>208,694.15</b>	<b>250,829.49</b>	<b>50,165.90</b>	<b>300,995.39</b>
<p>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes dozer crews will strip and stockpile material over the spoil berm excavation areas. See Consultant Appendix F-Drawings for specific dimensions. )</p>									
USR BARR Topsoil - Berms - Strip and Stockpile	164,686.00	BCY	Subcontractor - Excavation - Earth MN	163,220.24	171,060.78	208,694.15	250,829.49	50,165.90	300,995.39
<p>(Note: See CSI task for note)</p>									
<b>9010207 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>724,832.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,443,262.74</b>	<b>1,526,980.53</b>	<b>1,862,916.25</b>	<b>2,239,039.04</b>	<b>447,807.81</b>	<b>2,686,846.84</b>
<p>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations. )</p>									
				0.96	1.00	1.22	1.46	20.00%	1.76

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note)	724,832.00	BCY	Subcontractor - Excavation - Earth MN	692,794.08	723,786.04	883,018.97	1,061,300.50	212,260.10	1,273,560.60
				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Spoil  (Note: See CSI task for note)	724,832.00	BCY	Subcontractor - Excavation - Earth MN	473,486.47	494,575.97	603,382.69	725,205.65	145,041.13	870,246.78
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	724,832.00	BCY	Subcontractor - Excavation - Earth MN	276,982.19	308,618.51	376,514.59	452,532.88	90,506.58	543,039.46
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	0.00	BCY	Subcontractor - Excavation - Earth MN	2.31 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00% 0.00	0.00 0.00
<b>9010208 Excavation and Embankment - Channel - Type 2 Saturated Non- Brenna</b>	<b>319,757.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>738,564.64</b>	<b>780,053.77</b>	<b>951,665.59</b>	<b>1,143,806.88</b>	<b>228,761.38</b>	<b>1,372,568.25</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations. )</b>									
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note.)	319,757.00	BCY	Subcontractor - Excavation - Earth MN	407,498.12	425,727.44	519,387.48	624,251.81	124,850.36	749,102.17
				1.27	1.33	1.62	1.95	20.00%	2.34
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil  (Note: See CSI task for note.)	319,757.00	BCY	Subcontractor - Excavation - Earth MN	208,876.83	218,180.39	266,180.08	319,921.84	63,984.37	383,906.20
				0.65	0.68	0.83	1.00	20.00%	1.20

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note.)	319,757.00	BCY	Subcontractor - Excavation - Earth MN	0.38 122,189.69	0.43 136,145.93	0.52 166,098.04	0.62 199,633.23	20.00% 39,926.65	0.75 239,559.88
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note.)	0.00	BCY	Subcontractor - Excavation - Earth MN	2.31 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00% 0.00	0.00 0.00
<b>9010212 Temporary Haul Roads</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>166,688.30 166,688.30</b>	<b>180,316.92 180,316.92</b>	<b>219,986.64 219,986.64</b>	<b>264,401.94 264,401.94</b>	<b>52,880.39</b>	<b>317,282.33 317,282.33</b>
<b>(Note: The volume of class V aggregate base was calculated using a typical temporary haul road cross section and reach length. This calculation is assuming 1-way traffic and that the haul road would be constructed only on one side of the diversion (protected side). See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note.)	9,753.00	BCY	Subcontractor - Excavation - Earth MN	2.31 22,513.17	2.47 24,133.36	3.02 29,442.69	3.63 35,387.17	20.00% 7,077.43	4.35 42,464.61
USR BARR Aggregate Base - Class V - Furnish and Install  (Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)	5,486.00	ECY	Subcontractor - Excavation - Earth MN	20.83 114,257.58	22.28 122,240.55	27.18 149,133.47	32.67 179,243.51	20.00% 35,848.70	39.21 215,092.22
RSM 312323184600 Hauling, haul road maintenance, includes loading  (Note: Cost Book 2008)	39.00	DAY	Subcontractor - Excavation - Earth MN	767.12 29,917.55	870.33 33,943.02	1,061.81 41,410.48	1,276.19 49,771.26	20.00% 9,954.25	1,531.42 59,725.51
				47,415.22	50,087.24	61,106.43	73,443.82		88,132.58

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010213 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation</b>	<b>1.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>47,415.22</b>	<b>50,087.24</b>	<b>61,106.43</b>	<b>73,443.82</b>	<b>14,688.76</b>	<b>88,132.58</b>
				1.99	2.11	2.57	3.09		3.71
<b>901021301 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>2,319.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>4,617.52</b>	<b>4,885.36</b>	<b>5,960.14</b>	<b>7,163.50</b>	<b>1,432.70</b>	<b>8,596.20</b>
<b>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
				0.96	1.00	1.22	1.46	20.00%	1.76
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Excavate and Haul	2,319.00	BCY	Subcontractor - Excavation - Earth MN	2,216.50	2,315.65	2,825.10	3,395.48	679.10	4,074.58
(Note: See CSI task for note)									
				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil	2,319.00	BCY	Subcontractor - Excavation - Earth MN	1,514.85	1,582.33	1,930.44	2,320.20	464.04	2,784.23
(Note: See CSI task for note)									
				0.38	0.43	0.52	0.62	20.00%	0.75
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Semi Compact and Manage Moisture Content	2,319.00	BCY	Subcontractor - Excavation - Earth MN	886.17	987.38	1,204.61	1,447.82	289.56	1,737.38
(Note: See CSI task for note)									
				2.31	2.44	2.98	3.58		4.29
<b>901021302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna</b>	<b>18,529.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>42,797.70</b>	<b>45,201.88</b>	<b>55,146.29</b>	<b>66,280.32</b>	<b>13,256.06</b>	<b>79,536.39</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
				1.27	1.33	1.62	1.95	20.00%	2.34

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note)	18,529.00	BCY	Subcontractor - Excavation - Earth MN	23,613.35	24,669.68	30,097.01	36,173.60	7,234.72	43,408.32
				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil  (Note: See CSI task for note)	18,529.00	BCY	Subcontractor - Excavation - Earth MN	12,103.81	12,642.93	15,424.37	18,538.55	3,707.71	22,246.26
				0.38	0.43	0.52	0.62	20.00%	0.75
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	18,529.00	BCY	Subcontractor - Excavation - Earth MN	7,080.54	7,889.27	9,624.90	11,568.17	2,313.63	13,881.81
				77.96	83.33	101.67	122.19		146.63
<b>9010214a Lower Bank Protection</b>	<b>13,410.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,045,384.79</b>	<b>1,117,493.40</b>	<b>1,363,341.95</b>	<b>1,638,600.69</b>	<b>327,720.14</b>	<b>1,966,320.83</b>
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F- Drawings for specific dimensions.)</b>									
USR BARR Lower Bank Protection Riprap - Furnish and Install  (Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)	13,410.00	CY	Subcontractor - Excavation - Earth MN	862,516.79	922,053.23	1,124,904.94	1,352,023.25	270,404.65	1,622,427.89
				64.32	68.76	83.89	100.82	20.00%	120.99
USR BARR Lower Bank Protection Geotextile - Furnish and Install  (Note: See CSI task for note)	45,717.00	SY	Subcontractor - Excavation - Earth MN	182,868.00	195,440.18	238,437.01	286,577.45	57,315.49	343,892.94
				4.00	4.28	5.22	6.27	20.00%	7.52
<b>9010214b Low Flow Channel Protection</b>	<b>629.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>42,724.60</b>	<b>45,673.10</b>	<b>55,721.19</b>	<b>66,971.29</b>	<b>13,394.26</b>	<b>80,365.55</b>
				67.92	72.61	88.59	106.47		127.77



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Grade Control Riprap - Furnish and Install	629.00	CY	Subcontractor - Excavation - Earth MN	40,456.60	43,249.18	52,764.00	63,417.05	12,683.41	76,100.46
<i>(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)</i>									
USR BARR Grade Control Geotextile - Furnish and Install	567.00	SY	Subcontractor - Excavation - Earth MN	2,268.00	2,423.93	2,957.19	3,554.24	710.85	4,265.09
<i>(Note: See CSI task for note)</i>									
<b>9010215 Topsoil Placement - Channel</b>	<b>51,762.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>58,674.88</b>	<b>61,655.60</b>	<b>75,219.83</b>	<b>90,406.72</b>	<b>18,081.34</b>	<b>108,488.06</b>
USR BARR Topsoil - Channel - Placement from Stockpile	51,762.00	BCY	Subcontractor - Excavation - Earth MN	58,674.88	61,655.60	75,219.83	90,406.72	18,081.34	108,488.06
<i>(Note: See CSI task for note.)</i>									
<b>9010216 Topsoil Placement - Spoil Berm</b>	<b>278,571.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>302,319.32</b>	<b>319,446.88</b>	<b>389,725.19</b>	<b>468,410.71</b>	<b>93,682.14</b>	<b>562,092.85</b>
USR BARR Topsoil - Berms - Placement from Stockpile	278,571.00	BCY	Subcontractor - Excavation - Earth MN	302,319.32	319,446.88	389,725.19	468,410.71	93,682.14	562,092.85
<i>(Note: See CSI task for note.)</i>									
<b>9010217 Dust Control</b>	<b>105.00</b>	<b>DAY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>52,500.00</b>	<b>52,500.00</b>	<b>64,050.00</b>	<b>76,981.70</b>	<b>15,396.34</b>	<b>92,378.03</b>
USR BARR Dust Control	105.00	DAY	Subcontractor - Excavation - Earth MN	52,500.00	52,500.00	64,050.00	76,981.70	15,396.34	92,378.03

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: assume 2 water trucks per day per reach.)</b>									
<b>9010218 Restore Local Roadways</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>260,000.00</i> <b>260,000.00</b>	<i>268,937.50</i> <b>268,937.50</b>	<i>328,103.75</i> <b>328,103.75</b>	<i>394,347.90</i> <b>394,347.90</b>	<b>78,869.58</b>	<i>473,217.48</i> <b>473,217.48</b>
<b>(Note: Resurface existing roadways damaged during construction; allowance)</b>									
USR BARR Restore Local Haul Roadways - Aggregate Surfacing	1.60	MI	Subcontractor - Excavation - Earth MN	<i>100,000.00</i> 160,000.00	<i>103,437.50</i> 165,500.00	<i>126,193.75</i> 201,910.00	<i>151,672.27</i> 242,675.63	<i>20.00%</i> 48,535.13	<i>182,006.72</i> 291,210.75
<i>(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)</i>									
USR BARR Restore Local Haul Roadways - Bituminous Surfacing	0.50	MI	Subcontractor - Excavation - Earth MN	<i>200,000.00</i> 100,000.00	<i>206,875.00</i> 103,437.50	<i>252,387.50</i> 126,193.75	<i>303,344.54</i> 151,672.27	<i>20.00%</i> 30,334.45	<i>364,013.44</i> 182,006.72
<i>(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)</i>									
<b>9010219 Site Restoration</b>	<b>198.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>2,638.86</i> <b>522,495.16</b>	<i>2,814.24</i> <b>557,218.72</b>	<i>3,433.37</i> <b>679,806.84</b>	<i>4,126.56</i> <b>817,059.84</b>	<b>163,411.97</b>	<i>4,951.88</i> <b>980,471.81</b>
<b>(Note: The area of site restoration was determined calculating the disturbed area from the drawings. See Consultant Appendix F-Drawings for specific areas. )</b>									
USR BARR Seeding	198.00	ACR	Subcontractor - Excavation - Earth MN	<i>1,288.86</i> 255,195.16	<i>1,453.92</i> 287,876.85	<i>1,773.79</i> 351,209.75	<i>2,131.91</i> 422,119.00	<i>20.00%</i> 84,423.80	<i>2,558.30</i> 506,542.80
<i>(Note: Material cost quote from Shooting Star Native Seed of \$37.50/lb or \$412.50/acre for seed (Dry Prairie Northwest modified, 11lbs/acre + 3lb/acre cover crop). For cost quote communication see Consultant Exhibit G-F1.26 in Consultant Appendix G.)</i>									
USR BARR Straw Mulch and Disk Anchoring	198.00	ACR	Subcontractor - Excavation - Earth MN	<i>400.00</i> 79,200.00	<i>406.88</i> 80,561.25	<i>496.39</i> 98,284.73	<i>596.61</i> 118,128.41	<i>20.00%</i> 23,625.68	<i>715.93</i> 141,754.09
<i>(Note: Assumptions: Estimate from MN DOT 2009 Bid Prices for "disk anchor straw mulch = 2tons/acre at approximately \$400/acre. Assuming mat/lab/equip split = 25/50/25)</i>									
USR BARR Vegetation Establishment and Maintenance	198.00	ACR	Subcontractor - Excavation - Earth MN	<i>950.00</i> 188,100.00	<i>953.44</i> 188,780.63	<i>1,163.19</i> 230,312.36	<i>1,398.04</i> 276,812.43	<i>20.00%</i> 55,362.49	<i>1,677.65</i> 332,174.91
<i>(Note: See CSI task for note.)</i>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010220 Snow Removal</b>	<b>374.00</b>	<b>HR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>102.39</i> <b>38,292.34</b>	<i>114.79</i> <b>42,930.78</b>	<i>140.04</i> <b>52,375.55</b>	<i>168.32</i> <b>62,950.17</b>	<b>12,590.03</b>	<i>201.98</i> <b>75,540.21</b>
USR BARR Snow Removal	374.00	HR	Subcontractor - Excavation - Earth MN	<i>102.39</i> 38,292.34	<i>114.79</i> 42,930.78	<i>140.04</i> 52,375.55	<i>168.32</i> 62,950.17	20.00% 12,590.03	<i>201.98</i> 75,540.21
<b>9010221 Monuments and Markers</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>12,000.00</b>	<b>12,206.25</b>	<b>14,891.63</b>	<b>17,898.24</b>	<b>3,579.65</b>	<b>21,477.89</b>
USR BARR Monuments and Markers	1.00	LS	Subcontractor - Excavation - Earth MN	12,000.00	12,206.25	14,891.63	17,898.24	3,579.65	21,477.89
(Note: mat/labor/equip split = 25/50/25)									
<b>90103 Reach 2014</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>19,390,548.17</i> <b>19,390,548.17</b>	<i>20,562,497.53</i> <b>20,562,497.53</b>	<i>25,086,246.99</i> <b>25,086,246.99</b>	<i>30,151,160.25</i> <b>30,151,160.25</b>	<b>6,030,232.05</b>	<i>36,181,392.30</i> <b>36,181,392.30</b>
<b>9010301 Site Preparation and Traffic Control</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>120,000.00</b>	<b>120,000.00</b>	<b>146,400.00</b>	<b>175,958.16</b>	<b>35,191.63</b>	<b>211,149.79</b>
<b>(Note: Historical projects referenced; 1.5% of construction cost, including bridge traffic management costs)</b>									
USR Site Preparation and Traffic Control	1.00	LS	Subcontractor - Excavation - Earth MN	120,000.00	120,000.00	146,400.00	175,958.16	35,191.63	211,149.79
(Note: Miscellaneous site preparation allowance. Determined by cost engineering judgement that will be reconciled upon design refinement.)									
<b>9010302 Clearing and Grubbing</b>	<b>67.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>1,091.98</i> <b>73,162.55</b>	<i>1,246.10</i> <b>83,488.46</b>	<i>1,520.24</i> <b>101,855.92</b>	<i>1,827.17</i> <b>122,420.63</b>	<b>24,484.13</b>	<i>2,192.61</i> <b>146,904.76</b>
USR BARR Clearing and Grubbing	67.00	ACR	Subcontractor - Excavation - Earth MN	<i>1,091.98</i> 73,162.55	<i>1,246.10</i> 83,488.46	<i>1,520.24</i> 101,855.92	<i>1,827.17</i> 122,420.63	20.00% 24,484.13	<i>2,192.61</i> 146,904.76
(Note: Allowance: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
				<i>968,747.59</i>	<i>1,052,294.84</i>	<i>1,283,799.71</i>	<i>1,542,998.87</i>		<i>1,851,598.65</i>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010303 Temporary Erosion and Sedimentation Control</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>968,747.59</b>	<b>1,052,294.84</b>	<b>1,283,799.71</b>	<b>1,542,998.87</b>	<b>308,599.77</b>	<b>1,851,598.65</b>
<b>(Note: Historical projects referenced; 3% of construction cost)</b>									
RSM 312513101120 Erosion control, silt fence, polypropylene, 3' high, includes 7.5' posts  (Note: Cost Book 2008)	49,955.00	LF	Subcontractor - Excavation - Earth MN	126,517.46	159,713.92	194,850.98	234,191.39	46,838.28	281,029.67
				<i>2.53</i>	<i>3.20</i>	<i>3.90</i>	<i>4.69</i>	<i>20.00%</i>	<i>5.63</i>
RSM 312513100120 Biodegradable erosion control, revegetation mat, webbed  (Note: The area needing revegetation mat was derived from the drawings. See Consultant Appendix F-Drawings for specific dimensions.)	77,000.00	SY	Subcontractor - Excavation - Earth MN	485,863.84	532,483.50	649,629.87	780,790.14	156,158.03	936,948.17
				<i>6.31</i>	<i>6.92</i>	<i>8.44</i>	<i>10.14</i>	<i>20.00%</i>	<i>12.17</i>
USR BARR Temporary Sedimentation Basins  (Note: Volume based on MPCA NPDES construction permit criteria)	89,200.00	BCY	Subcontractor - Excavation - Earth MN	270,766.29	271,554.92	331,297.01	398,185.87	79,637.17	477,823.05
				<i>3.04</i>	<i>3.04</i>	<i>3.71</i>	<i>4.46</i>	<i>20.00%</i>	<i>5.36</i>
USR BARR Rock Checks  (Note: mat/lab/equip split = 50/35/15, low flow ditch protection)	107.00	EA	Subcontractor - Excavation - Earth MN	85,600.00	88,542.50	108,021.85	129,831.46	25,966.29	155,797.75
				<i>800.00</i>	<i>827.50</i>	<i>1,009.55</i>	<i>1,213.38</i>	<i>20.00%</i>	<i>1,456.05</i>
<b>9010304 Dewatering and Control of Water</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>392,785.25</b>	<b>426,518.83</b>	<b>520,352.98</b>	<b>625,412.24</b>	<b>125,082.45</b>	<b>750,494.69</b>
<b>(Note: The total cost of Dewatering and Control of Water is estimated to be approximately 2% of the total cost of construction of the reach)</b>									
RSM 312319201100 Dewatering, pumping, 8 hr., attended 8 hours per day, 6" centrifugal pump, includes 20 L.F. of suction hose and 100 L.F. of discharge hose  (Note: Cost Book 2008 (includes fuel cost))	189.00	DAY	Subcontractor - Excavation - Earth MN	171,910.25	205,302.23	250,468.72	301,038.36	60,207.67	361,246.03
				<i>909.58</i>	<i>1,086.26</i>	<i>1,325.23</i>	<i>1,592.80</i>	<i>20.00%</i>	<i>1,911.35</i>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Temporary Storm Sewer Pipe	795.00	LF	Subcontractor - Excavation - Earth MN	25.00 19,875.00	25.43 20,216.60	31.02 24,664.25	37.29 29,643.97	20.00% 5,928.79	44.75 35,572.76
(Note: Pipes for temporary crossing along the low flow channel. mat/lab/equip split = 25/50/25)									
USR BARR Control of water	1.00	LS	Subcontractor - Excavation - Earth MN	201,000.00	201,000.00	245,220.00	294,729.92	58,945.98	353,675.90
<b>9010305 Strip and Stockpile Topsoil - Channel</b>	<b>510,220.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1.33 677,416.34</b>	<b>1.39 707,562.08</b>	<b>1.69 863,225.74</b>	<b>2.03 1,037,511.01</b>	<b>207,502.20</b>	<b>2.44 1,245,013.21</b>
<b>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes scraper crews will strip material over the channel excavation areas and dozer crews will stockpile at the edges. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Topsoil - Channel - Strip	510,220.00	BCY	Subcontractor - Excavation - Earth MN	0.73 374,529.61	0.76 389,839.72	0.93 475,604.46	1.12 571,628.99	20.00% 114,325.80	1.34 685,954.79
(Note: See CSI task for note)									
USR BARR Topsoil - Channel - Stockpile	510,220.00	BCY	Subcontractor - Excavation - Earth MN	0.59 302,886.72	0.62 317,722.36	0.76 387,621.28	0.91 465,882.02	20.00% 93,176.40	1.10 559,058.42
(Note: See CSI task for note)									
<b>9010306 Strip and Stockpile Topsoil - Spoil Berm</b>	<b>596,062.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>0.99 590,756.86</b>	<b>1.04 619,134.77</b>	<b>1.27 755,344.41</b>	<b>1.52 907,848.45</b>	<b>181,569.69</b>	<b>1.83 1,089,418.14</b>
<b>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes dozer crews will strip and stockpile material over the spoil berm excavation areas. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Topsoil - Berms - Strip and Stockpile	596,062.00	BCY	Subcontractor - Excavation - Earth MN	0.99 590,756.86	1.04 619,134.77	1.27 755,344.41	1.52 907,848.45	20.00% 181,569.69	1.83 1,089,418.14
(Note: See CSI task for note)									
				1.99	2.11	2.57	3.09		3.71

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010307 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>2,017,993.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>4,018,164.37</b>	<b>4,251,241.69</b>	<b>5,186,514.87</b>	<b>6,233,672.22</b>	<b>1,246,734.44</b>	<b>7,480,406.66</b>
<b>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Excavate and Haul	2,017,993.00	BCY	Subcontractor - Excavation - Earth MN	1,928,796.76	2,015,080.96	2,458,398.77	2,954,749.49	590,949.90	3,545,699.38
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil	2,017,993.00	BCY	Subcontractor - Excavation - Earth MN	1,318,225.99	1,376,940.94	1,679,867.94	2,019,033.28	403,806.66	2,422,839.94
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Semi Compact and Manage Moisture Content	2,017,993.00	BCY	Subcontractor - Excavation - Earth MN	771,141.62	859,219.79	1,048,248.15	1,259,889.45	251,977.89	1,511,867.34
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Levee Embankment	0.00	BCY	Subcontractor - Excavation - Earth MN	2.31 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00% 0.00	0.00 0.00
(Note: See CSI task for note)									
<b>9010308 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna</b>	<b>2,315,829.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>5,349,028.82</b>	<b>5,649,512.38</b>	<b>6,892,405.11</b>	<b>8,283,981.70</b>	<b>1,656,796.34</b>	<b>9,940,778.04</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
				1.27	1.33	1.62	1.95	20.00%	2.34

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note)	2,315,829.00	BCY	Subcontractor - Excavation - Earth MN	2,951,291.02	3,083,316.23	3,761,645.80	4,521,122.09	904,224.42	5,425,346.51
				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil  (Note: See CSI task for note)	2,315,829.00	BCY	Subcontractor - Excavation - Earth MN	1,512,783.23	1,580,163.93	1,927,800.00	2,317,022.82	463,404.56	2,780,427.38
				0.38	0.43	0.52	0.62	20.00%	0.75
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	2,315,829.00	BCY	Subcontractor - Excavation - Earth MN	884,954.57	986,032.22	1,202,959.31	1,445,836.79	289,167.36	1,735,004.15
				2.31	0.00	0.00	0.00	0.00%	0.00
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00	0.00
				424,976.33	459,701.56	560,835.90	674,068.67		808,882.40
<b>9010312 Temporary Haul Roads</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>424,976.33</b>	<b>459,701.56</b>	<b>560,835.90</b>	<b>674,068.67</b>	<b>134,813.73</b>	<b>808,882.40</b>
<b>(Note: The volume of class V aggregate base was calculated using a typical temporary haul road cross section and reach length. This calculation is assuming 1-way traffic and that the haul road would be constructed only on one side of the diversion (protected side). See Consultant Appendix F-Drawings for specific dimensions. )</b>									
				2.31	2.47	3.02	3.63	20.00%	4.35
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	24,889.00	BCY	Subcontractor - Excavation - Earth MN	57,452.09	61,586.70	75,135.77	90,305.69	18,061.14	108,366.83
				20.83	22.28	27.18	32.67	20.00%	39.21
USR BARR Aggregate Base - Class V - Furnish and Install	14,000.00	ECY	Subcontractor - Excavation - Earth MN	291,579.69	311,951.82	380,581.21	457,420.56	91,484.11	548,904.67

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)</b>									
RSM 312323184600 Hauling, haul road maintenance, includes loading  (Note: Cost Book 2008)	99.00	DAY	Subcontractor - Excavation - Earth MN	767.12 75,944.55	870.33 86,163.04	1,061.81 105,118.91	1,276.19 126,342.42	20.00% 25,268.48	1,531.42 151,610.90
<b>9010313 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation</b>	<b>1.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>123,143.00 123,143.00</b>	<b>130,060.60 130,060.60</b>	<b>158,673.93 158,673.93</b>	<b>190,710.20 190,710.20</b>	<b>38,142.04</b>	<b>228,852.23 228,852.23</b>
<b>901031302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna</b>	<b>53,314.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2.31 123,143.00</b>	<b>2.44 130,060.60</b>	<b>2.98 158,673.93</b>	<b>3.58 190,710.20</b>	<b>38,142.04</b>	<b>4.29 228,852.23</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Excavate and Haul  (Note: See CSI task for note)	53,314.00	BCY	Subcontractor - Excavation - Earth MN	1.27 67,943.33	1.33 70,982.75	1.62 86,598.96	1.95 104,083.29	20.00% 20,816.66	2.34 124,899.95
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Spoil  (Note: See CSI task for note)	53,314.00	BCY	Subcontractor - Excavation - Earth MN	0.65 34,826.63	0.68 36,377.84	0.83 44,380.97	1.00 53,341.48	20.00% 10,668.30	1.20 64,009.78
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	53,314.00	BCY	Subcontractor - Excavation - Earth MN	0.38 20,373.04	0.43 22,700.00	0.52 27,694.00	0.62 33,285.42	20.00% 6,657.08	0.75 39,942.50



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010314a Lower Bank Protection</b>	<b>34,222.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	77.96 <b>2,667,790.27</b>	83.33 <b>2,851,809.26</b>	101.67 <b>3,479,207.30</b>	122.19 <b>4,181,659.25</b>	<b>836,331.85</b>	146.63 <b>5,017,991.10</b>
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Lower Bank Protection Riprap - Furnish and Install	34,222.00	CY	Subcontractor - Excavation - Earth MN	64.32 2,201,122.27	68.76 2,353,057.84	83.89 2,870,730.56	100.82 3,450,331.06	20.00% 690,066.21	120.99 4,140,397.27
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
USR BARR Lower Bank Protection Geotextile - Furnish and Install	116,667.00	SY	Subcontractor - Excavation - Earth MN	4.00 466,668.00	4.28 498,751.43	5.22 608,476.74	6.27 731,328.19	20.00% 146,265.64	7.52 877,593.83
(Note: See CSI task for note)									
<b>9010314b Low Flow Channel Protection</b>	<b>1,605.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	67.92 <b>109,015.88</b>	72.61 <b>116,539.25</b>	88.58 <b>142,177.89</b>	106.47 <b>170,883.60</b>	<b>34,176.72</b>	127.76 <b>205,060.32</b>
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Grade Control Riprap - Furnish and Install	1,605.00	CY	Subcontractor - Excavation - Earth MN	64.32 103,231.88	68.76 110,357.60	83.89 134,636.27	100.82 161,819.34	20.00% 32,363.87	120.99 194,183.20
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
USR BARR Grade Control Geotextile - Furnish and Install	1,446.00	SY	Subcontractor - Excavation - Earth MN	4.00 5,784.00	4.28 6,181.65	5.22 7,541.61	6.27 9,064.26	20.00% 1,812.85	7.52 10,877.12
(Note: See CSI task for note)									
<b>9010315 Topsoil Placement - Channel</b>	<b>161,259.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	1.13 <b>182,795.35</b>	1.19 <b>192,081.46</b>	1.45 <b>234,339.38</b>	1.75 <b>281,652.50</b>	<b>56,330.50</b>	2.10 <b>337,983.00</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Topsoil - Channel - Placement from Stockpile  (Note: See CSI task for note.)	161,259.00	BCY	Subcontractor - Excavation - Earth MN	1.13 182,795.35	1.19 192,081.46	1.45 234,339.38	1.75 281,652.50	20.00% 56,330.50	2.10 337,983.00
<b>9010316 Topsoil Placement - Spoil Berm</b>	<b>945,023.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1.09 1,025,586.69</b>	<b>1.15 1,083,690.15</b>	<b>1.40 1,322,101.98</b>	<b>1.68 1,589,034.37</b>	<b>317,806.87</b>	<b>2.02 1,906,841.24</b>
USR BARR Topsoil - Berms - Placement from Stockpile  (Note: See CSI task for note.)	945,023.00	BCY	Subcontractor - Excavation - Earth MN	1.09 1,025,586.69	1.15 1,083,690.15	1.40 1,322,101.98	1.68 1,589,034.37	20.00% 317,806.87	2.02 1,906,841.24
<b>9010317 Dust Control</b>	<b>268.00</b>	<b>DAY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>500.00 134,000.00</b>	<b>500.00 134,000.00</b>	<b>610.00 163,480.00</b>	<b>733.16 196,486.61</b>	<b>39,297.32</b>	<b>879.79 235,783.93</b>
USR BARR Dust Control  (Note: assume 2 water trucks per day per reach.)	268.00	DAY	Subcontractor - Excavation - Earth MN	500.00 134,000.00	500.00 134,000.00	610.00 163,480.00	733.16 196,486.61	20.00% 39,297.32	879.79 235,783.93
<b>9010318 Restore Local Roadways</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>640,000.00 640,000.00</b>	<b>662,000.00 662,000.00</b>	<b>807,640.00 807,640.00</b>	<b>970,702.52 970,702.52</b>	<b>194,140.50</b>	<b>1,164,843.02 1,164,843.02</b>
<b>(Note: Resurface existing roadways damaged during construction; allowance)</b>									
USR BARR Restore Local Haul Roadways - Aggregate Surfacing  (Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)	4.00	MI	Subcontractor - Excavation - Earth MN	100,000.00 400,000.00	103,437.50 413,750.00	126,193.75 504,775.00	151,672.27 606,689.07	20.00% 121,337.81	182,006.72 728,026.89
USR BARR Restore Local Haul Roadways - Bituminous Surfacing  (Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)	1.20	MI	Subcontractor - Excavation - Earth MN	200,000.00 240,000.00	206,875.00 248,250.00	252,387.50 302,865.00	303,344.54 364,013.44	20.00% 72,802.69	364,013.44 436,816.13

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010319 Site Restoration</b>	<b>669.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	2,638.86 <b>1,765,400.31</b>	2,814.24 <b>1,882,723.86</b>	3,433.37 <b>2,296,923.11</b>	4,126.56 <b>2,760,671.89</b>	552,134.38	4,951.88 <b>3,312,806.27</b>
<b>(Note: The area of site restoration was determined calculating the disturbed area from the drawings. See Consultant Appendix F-Drawings for specific areas.)</b>									
USR BARR Seeding	669.00	ACR	Subcontractor - Excavation - Earth MN	1,288.86 862,250.31	1,453.92 972,674.80	1,773.79 1,186,663.26	2,131.91 1,426,250.57	20.00% 285,250.11	2,558.30 1,711,500.68
(Note: Material cost quote from Shooting Star Native Seed of \$37.50/lb or \$412.50/acre for seed (Dry Prairie Northwest modified, 11lbs/acre + 3lb/acre cover crop). For cost quote communication see Consultant Exhibit G-F1.26 in Consultant Appendix G.)									
USR BARR Straw Mulch and Disk Anchoring	669.00	ACR	Subcontractor - Excavation - Earth MN	400.00 267,600.00	406.88 272,199.38	496.39 332,083.24	596.61 399,130.84	20.00% 79,826.17	715.93 478,957.01
(Note: Assumptions: Estimate from MN DOT 2009 Bid Prices for "disk anchor straw mulch = 2tons/acre at approximately \$400/acre. Assuming mat/lab/equip split = 25/50/25)									
USR BARR Vegetation Establishment and Maintenance	669.00	ACR	Subcontractor - Excavation - Earth MN	950.00 635,550.00	953.44 637,849.69	1,163.19 778,176.62	1,398.04 935,290.48	20.00% 187,058.10	1,677.65 1,122,348.57
(Note: See CSI task for note)									
<b>9010320 Snow Removal</b>	<b>955.00</b>	<b>HR</b>	<b>Subcontractor - Excavation - Earth MN</b>	102.39 <b>97,778.56</b>	114.79 <b>109,622.71</b>	140.04 <b>133,739.70</b>	168.32 <b>160,741.75</b>	32,148.35	201.98 <b>192,890.10</b>
USR BARR Snow Removal	955.00	HR	Subcontractor - Excavation - Earth MN	102.39 97,778.56	114.79 109,622.71	140.04 133,739.70	168.32 160,741.75	20.00% 32,148.35	201.98 192,890.10
(Note: Allowance)									
<b>9010321 Monuments and Markers</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>30,000.00</b>	<b>30,515.63</b>	<b>37,229.06</b>	<b>44,745.61</b>	<b>8,949.12</b>	<b>53,694.73</b>
USR BARR Monuments and Markers	1.00	LS	Subcontractor - Excavation - Earth MN	30,000.00	30,515.63	37,229.06	44,745.61	8,949.12	53,694.73
(Note: mat/labor/equip split = 25/50/25)									
<b>90104 Reach 2015</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	58,567,603.39 <b>58,567,603.39</b>	62,021,729.82 <b>62,021,729.82</b>	75,666,510.38 <b>75,666,510.38</b>	90,943,578.82 <b>90,943,578.82</b>	18,188,715.76	109,132,294.59 <b>109,132,294.59</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010401 Site Preparation and Traffic Control</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>300,000.00</b>	<b>300,000.00</b>	<b>366,000.00</b>	<b>439,895.40</b>	<b>87,979.08</b>	<b>527,874.48</b>
<b>(Note: Historical projects referenced; 1.5% of construction cost, including bridge traffic management costs)</b>									
USR Site Preparation and Traffic Control	1.00	LS	Subcontractor - Excavation - Earth MN	300,000.00	300,000.00	366,000.00	439,895.40	87,979.08	527,874.48
(Note: Miscellaneous site preparation allowance. Determined by cost engineering judgement that will be reconciled upon design refinement.)									
<b>9010402 Clearing and Grubbing</b>	<b>154.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>168,164.68</b>	<b>191,898.85</b>	<b>234,116.60</b>	<b>281,384.74</b>	<b>56,276.95</b>	<b>337,661.69</b>
				<i>1,091.98</i>	<i>1,246.10</i>	<i>1,520.24</i>	<i>1,827.17</i>		<i>2,192.61</i>
USR BARR Clearing and Grubbing	154.00	ACR	Subcontractor - Excavation - Earth MN	168,164.68	191,898.85	234,116.60	281,384.74	56,276.95	337,661.69
				<i>1,091.98</i>	<i>1,246.10</i>	<i>1,520.24</i>	<i>1,827.17</i>	<i>20.00%</i>	<i>2,192.61</i>
(Note: Allowance: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
<b>9010403 Temporary Erosion and Sedimentation Control</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,794,161.41</b>	<b>1,934,714.46</b>	<b>2,360,351.65</b>	<b>2,836,906.64</b>	<b>567,381.33</b>	<b>3,404,287.97</b>
<b>(Note: Historical projects referenced; 3% of construction cost)</b>									
				<i>2.53</i>	<i>3.20</i>	<i>3.90</i>	<i>4.69</i>	<i>20.00%</i>	<i>5.63</i>
RSM 312513101120 Erosion control, silt fence, polypropylene, 3' high, includes 7.5' posts	83,733.00	LF	Subcontractor - Excavation - Earth MN	212,064.59	267,707.45	326,603.09	392,544.25	78,508.85	471,053.10
(Note: Cost Book 2008)									
				<i>6.31</i>	<i>6.92</i>	<i>8.44</i>	<i>10.14</i>	<i>20.00%</i>	<i>12.17</i>
RSM 312513100120 Biodegradable erosion control, revegetation mat, webbed	129,067.00	SY	Subcontractor - Excavation - Earth MN	814,402.44	892,546.08	1,088,906.22	1,308,756.38	261,751.28	1,570,507.66
(Note: The area needing revegetation mat was derived from the drawings. See Consultant Appendix F-Drawings for specific dimensions.)									
				<i>3.04</i>	<i>3.04</i>	<i>3.71</i>	<i>4.46</i>	<i>20.00%</i>	<i>5.36</i>
USR BARR Temporary Sedimentation Basins	205,467.00	BCY	Subcontractor - Excavation - Earth MN	623,694.37	625,510.94	763,123.34	917,197.94	183,439.59	1,100,637.53
(Note: Volume based on MPCA NPDES construction permit criteria)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Rock Checks	180.00	EA	Subcontractor - Excavation - Earth MN	800.00 144,000.00	827.50 148,950.00	1,009.55 181,719.00	1,213.38 218,408.07	20.00% 43,681.61	1,456.05 262,089.68
(Note: mat/lab/equip split = 50/35/15, low flow ditch protection)									
<b>9010404 Dewatering and Control of Water</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,248,991.44</b>	<b>1,349,450.04</b>	<b>1,646,329.04</b>	<b>1,978,722.88</b>	<b>395,744.58</b>	<b>2,374,467.45</b>
<b>(Note: The total cost of Dewatering and Control of Water is estimated to be approximately 2% of the total cost of construction of the reach)</b>									
RSM 312319201100 Dewatering, pumping, 8 hr., attended 8 hours per day, 6" centrifugal pump, includes 20 L.F. of suction hose and 100 L.F. of discharge hose	435.00	DAY	Subcontractor - Excavation - Earth MN	909.58 395,666.44	1,086.26 472,521.01	1,325.23 576,475.63	1,592.80 692,866.06	20.00% 138,573.21	1,911.35 831,439.28
(Note: Cost Book 2008 (includes fuel cost))									
USR BARR Temporary Storm Sewer Pipe	1,333.00	LF	Subcontractor - Excavation - Earth MN	25.00 33,325.00	25.43 33,897.77	31.02 41,355.28	37.29 49,704.92	20.00% 9,940.98	44.75 59,645.90
(Note: Pipes for temporary crossing along the low flow channel. mat/lab/equip split = 25/50/25)									
USR BARR Control of water	1.00	LS	Subcontractor - Excavation - Earth MN	820,000.00	843,031.25	1,028,498.13	1,236,151.90	247,230.38	1,483,382.28
<b>9010405 Strip and Stockpile Topsoil - Channel</b>	<b>1,009,173.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1.33 1,339,873.54</b>	<b>1.39 1,399,499.32</b>	<b>1.69 1,707,389.18</b>	<b>2.03 2,052,111.05</b>	<b>410,422.21</b>	<b>2,462,533.26</b>
<b>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes scraper crews will strip material over the channel excavation areas and dozer crews will stockpile at the edges. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Topsoil - Channel - Strip	1,009,173.00	BCY	Subcontractor - Excavation - Earth MN	0.73 740,788.63	0.76 771,070.75	0.93 940,706.31	1.12 1,130,634.92	20.00% 226,126.98	1.34 1,356,761.90
(Note: See CSI task for note)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Topsoil - Channel - Stockpile	1,009,173.00	BCY	Subcontractor - Excavation - Earth MN	599,084.91	628,428.58	766,682.86	921,476.13	184,295.23	1,105,771.36
(Note: See CSI task for note)									
<b>9010406 Strip and Stockpile Topsoil - Spoil Berm</b>	<b>1,521,555.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,508,012.68</b>	<b>1,580,452.37</b>	<b>1,928,151.89</b>	<b>2,317,445.75</b>	<b>463,489.15</b>	<b>2,780,934.90</b>
<b>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes dozer crews will strip and stockpile material over the spoil berm excavation areas. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Topsoil - Berms - Strip and Stockpile	1,521,555.00	BCY	Subcontractor - Excavation - Earth MN	1,508,012.68	1,580,452.37	1,928,151.89	2,317,445.75	463,489.15	2,780,934.90
(Note: See CSI task for note)									
<b>9010407 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>3,755,851.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>7,478,532.71</b>	<b>7,912,331.89</b>	<b>9,653,044.90</b>	<b>11,601,994.67</b>	<b>2,320,398.93</b>	<b>13,922,393.60</b>
<b>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Excavate and Haul	3,755,851.00	BCY	Subcontractor - Excavation - Earth MN	3,589,840.61	3,750,431.17	4,575,526.03	5,499,324.73	1,099,864.95	6,599,189.68
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil	3,755,851.00	BCY	Subcontractor - Excavation - Earth MN	2,453,457.67	2,562,736.84	3,126,538.94	3,757,787.16	751,557.43	4,509,344.59
(Note: See CSI task for note)									
				0.38	0.43	0.52	0.62	20.00%	0.75

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	3,755,851.00	BCY	Subcontractor - Excavation - Earth MN	1,435,234.43	1,599,163.88	1,950,979.93	2,344,882.78	468,976.56	2,813,859.34
				2.31	0.00	0.00	0.00	0.00%	0.00
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00	0.00
				2.31	2.44	2.98	3.58		4.29
<b>9010408 Excavation and Embankment - Channel - Type 2 Saturated Non- Brenna</b>	<b>11,065,135.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>25,557,900.03</b>	<b>26,993,623.97</b>	<b>32,932,221.24</b>	<b>39,581,236.71</b>	<b>7,916,247.34</b>	<b>47,497,484.05</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note)	11,065,135.00	BCY	Subcontractor - Excavation - Earth MN	14,101,401.09	14,732,223.48	17,973,312.64	21,602,124.46	4,320,424.89	25,922,549.36
				1.27	1.33	1.62	1.95	20.00%	2.34
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil  (Note: See CSI task for note)	11,065,135.00	BCY	Subcontractor - Excavation - Earth MN	7,228,146.24	7,550,094.26	9,211,115.00	11,070,839.12	2,214,167.82	13,285,006.94
				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	11,065,135.00	BCY	Subcontractor - Excavation - Earth MN	4,228,352.70	4,711,306.23	5,747,793.60	6,908,273.13	1,381,654.63	8,289,927.76
				0.38	0.43	0.52	0.62	20.00%	0.75
				2.31	0.00	0.00	0.00	0.00%	0.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00	0.00
				3.80	4.03	4.92	5.91		7.09
<b>9010410 Excavation and Embankment - Channel - Type 4 Brenna</b>	<b>1,370,400.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>5,212,755.40</b>	<b>5,524,344.29</b>	<b>6,739,700.03</b>	<b>8,100,445.47</b>	<b>1,620,089.09</b>	<b>9,720,534.56</b>
<b>(Note: The volume of Type 4 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 4 Brenna - Excavate  (Note: See CSI task for note)	1,370,400.00	BCY	Subcontractor - Excavation - Earth MN	1.53 2,102,102.43	1.59 2,177,632.91	1.94 2,656,712.14	2.33 3,193,102.33	20.00% 638,620.47	2.80 3,831,722.79
USR BARR Earthwork - Type 4 Brenna - Haul  (Note: See CSI task for note)	1,370,400.00	BCY	Subcontractor - Excavation - Earth MN	1.23 1,691,783.15	1.33 1,828,155.74	1.63 2,230,350.00	1.96 2,680,657.66	20.00% 536,131.53	2.35 3,216,789.19
USR BARR Earthwork - Type 4 Brenna - Spoil  (Note: See CSI task for note)	1,370,400.00	BCY	Subcontractor - Excavation - Earth MN	0.65 895,194.83	0.68 935,067.60	0.83 1,140,782.47	1.00 1,371,106.45	20.00% 274,221.29	1.20 1,645,327.74
USR BARR Earthwork - Type 4 Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	1,370,400.00	BCY	Subcontractor - Excavation - Earth MN	0.38 523,675.00	0.43 583,488.05	0.52 711,855.42	0.62 855,579.03	20.00% 171,115.81	0.75 1,026,694.84
<b>9010412 Temporary Haul Roads</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>713,159.85</b> <b>713,159.85</b>	<b>771,475.60</b> <b>771,475.60</b>	<b>941,200.23</b> <b>941,200.23</b>	<b>1,131,228.56</b> <b>1,131,228.56</b>	<b>226,245.71</b>	<b>1,357,474.27</b> <b>1,357,474.27</b>
<b>(Note: The volume of class V aggregate base was calculated using a typical temporary haul road cross section and reach length. This calculation is assuming 1-way traffic and that the haul road would be constructed only on one side of the diversion (protected side). See Consultant Appendix F-Drawings for specific dimensions. )</b>									



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	41,719.00	BCY	Subcontractor - Excavation - Earth MN	2.31 96,301.33	2.47 103,231.77	3.02 125,942.76	3.63 151,370.61	20.00% 30,274.12	4.35 181,644.73
USR BARR Aggregate Base - Class V - Furnish and Install  (Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)	23,467.00	ECY	Subcontractor - Excavation - Earth MN	20.83 488,750.04	22.28 522,898.09	27.18 637,935.67	32.67 766,734.88	20.00% 153,346.98	39.21 920,081.86
RSM 312323184600 Hauling, haul road maintenance, includes loading  (Note: Cost Book 2008)	167.00	DAY	Subcontractor - Excavation - Earth MN	767.12 128,108.48	870.33 145,345.74	1,061.81 177,321.80	1,276.19 213,123.07	20.00% 42,624.61	1,531.42 255,747.69
<b>9010413 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation</b>	<b>1.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>254,207.16 254,207.16</b>	<b>268,951.74 268,951.74</b>	<b>328,121.13 328,121.13</b>	<b>394,368.78 394,368.78</b>	<b>78,873.76</b>	<b>473,242.54 473,242.54</b>
<b>901041302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna</b>  (Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)	<b>54,190.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2.31 125,166.35</b>	<b>2.44 132,197.62</b>	<b>2.98 161,281.09</b>	<b>3.58 193,843.75</b>	<b>38,768.75</b>	<b>4.29 232,612.50</b>
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note)	54,190.00	BCY	Subcontractor - Excavation - Earth MN	1.27 69,059.70	1.33 72,149.07	1.62 88,021.86	1.95 105,793.48	20.00% 21,158.70	2.34 126,952.17
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil	54,190.00	BCY	Subcontractor - Excavation - Earth MN	0.65 35,398.87	0.68 36,975.56	0.83 45,110.19	1.00 54,217.94	20.00% 10,843.59	1.20 65,061.52

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: See CSI task for note)</b>									
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content	54,190.00	BCY	Subcontractor - Excavation - Earth MN	20,707.78	23,072.98	28,149.04	33,832.33	6,766.47	40,598.80
<i>0.38                      0.43                      0.52                      0.62                      20.00%                      0.75</i>									
<i>(Note: See CSI task for note)</i>									
<b>901041304 Excavation and Embankment - Channel - Type 4 Brenna</b>	<b>33,924.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>129,040.80</b>	<b>136,754.13</b>	<b>166,840.03</b>	<b>200,525.04</b>	<b>40,105.01</b>	<b>240,630.05</b>
<i>3.80                      4.03                      4.92                      5.91                      20.00%                      7.09</i>									
<b>(Note: The volume of Type 4 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 4 Brenna - Excavate	33,924.00	BCY	Subcontractor - Excavation - Earth MN	52,037.16	53,906.90	65,766.42	79,044.66	15,808.93	94,853.59
<i>1.53                      1.59                      1.94                      2.33                      20.00%                      2.80</i>									
<i>(Note: See CSI task for note)</i>									
USR BARR Earthwork - Type 4 Brenna - Haul	33,924.00	BCY	Subcontractor - Excavation - Earth MN	41,879.78	45,255.66	55,211.90	66,359.19	13,271.84	79,631.02
<i>1.23                      1.33                      1.63                      1.96                      20.00%                      2.35</i>									
<i>(Note: See CSI task for note)</i>									
USR BARR Earthwork - Type 4 Brenna - Spoil	33,924.00	BCY	Subcontractor - Excavation - Earth MN	22,160.38	23,147.43	28,239.86	33,941.49	6,788.30	40,729.79
<i>0.65                      0.68                      0.83                      1.00                      20.00%                      1.20</i>									
<i>(Note: See CSI task for note)</i>									
USR BARR Earthwork - Type 4 Brenna - Semi Compact and Manage Moisture Content	33,924.00	BCY	Subcontractor - Excavation - Earth MN	12,963.48	14,444.14	17,621.85	21,179.70	4,235.94	25,415.64
<i>0.38                      0.43                      0.52                      0.62                      20.00%                      0.75</i>									
<i>(Note: See CSI task for note)</i>									
<b>9010414a Lower Bank Protection</b>	<b>57,363.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>4,471,750.53</b>	<b>4,780,203.19</b>	<b>5,831,847.89</b>	<b>7,009,297.98</b>	<b>1,401,859.60</b>	<b>8,411,157.58</b>
<i>77.96                      83.33                      101.67                      122.19                      20.00%                      146.63</i>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Lower Bank Protection Riprap - Furnish and Install	57,363.00	CY	Subcontractor - Excavation - Earth MN	3,689,526.53	3,944,201.29	4,811,925.58	5,783,453.35	1,156,690.67	6,940,144.02
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
USR BARR Lower Bank Protection Geotextile - Furnish and Install	195,556.00	SY	Subcontractor - Excavation - Earth MN	782,224.00	836,001.90	1,019,922.32	1,225,844.63	245,168.93	1,471,013.56
(Note: See CSI task for note)									
<b>9010414b Low Flow Channel Protection</b>	<b>2,691.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>182,778.23</b>	<b>195,392.07</b>	<b>238,378.33</b>	<b>286,506.91</b>	<b>57,301.38</b>	<b>343,808.30</b>
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Grade Control Riprap - Furnish and Install	2,691.00	CY	Subcontractor - Excavation - Earth MN	173,082.23	185,029.47	225,735.96	271,312.05	54,262.41	325,574.46
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
USR BARR Grade Control Geotextile - Furnish and Install	2,424.00	SY	Subcontractor - Excavation - Earth MN	9,696.00	10,362.60	12,642.37	15,194.87	3,038.97	18,233.84
(Note: See CSI task for note)									
<b>9010415 Topsoil Placement - Channel</b>	<b>321,616.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>364,568.24</b>	<b>383,088.51</b>	<b>467,367.99</b>	<b>561,729.58</b>	<b>112,345.92</b>	<b>674,075.50</b>
USR BARR Topsoil - Channel - Placement from Stockpile	321,616.00	BCY	Subcontractor - Excavation - Earth MN	364,568.24	383,088.51	467,367.99	561,729.58	112,345.92	674,075.50
(Note: See CSI task for note.)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010416 Topsoil Placement - Spoil Berm</b>	<b>2,209,112.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>1.09</i> <b>2,397,439.91</b>	<i>1.15</i> <b>2,533,264.18</b>	<i>1.40</i> <b>3,090,582.29</b>	<i>1.68</i> <b>3,714,570.86</b>	<b>742,914.17</b>	<i>2.02</i> <b>4,457,485.03</b>
USR BARR Topsoil - Berms - Placement from Stockpile	2,209,112.00	BCY	Subcontractor - Excavation - Earth MN	<i>1.09</i> 2,397,439.91	<i>1.15</i> 2,533,264.18	<i>1.40</i> 3,090,582.29	<i>1.68</i> 3,714,570.86	<i>20.00%</i> 742,914.17	<i>2.02</i> 4,457,485.03
(Note: See CSI task for note.)									
<b>9010417 Dust Control</b>	<b>450.00</b>	<b>DAY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>500.00</i> <b>225,000.00</b>	<i>500.00</i> <b>225,000.00</b>	<i>610.00</i> <b>274,500.00</b>	<i>733.16</i> <b>329,921.55</b>	<b>65,984.31</b>	<i>879.79</i> <b>395,905.86</b>
USR BARR Dust Control	450.00	DAY	Subcontractor - Excavation - Earth MN	<i>500.00</i> 225,000.00	<i>500.00</i> 225,000.00	<i>610.00</i> 274,500.00	<i>733.16</i> 329,921.55	<i>20.00%</i> 65,984.31	<i>879.79</i> 395,905.86
(Note: assume 2 water trucks per day per reach.)									
<b>9010418 Restore Local Roadways</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>1,070,000.00</i> <b>1,070,000.00</b>	<i>1,106,781.25</i> <b>1,106,781.25</b>	<i>1,350,273.13</i> <b>1,350,273.13</b>	<i>1,622,893.27</i> <b>1,622,893.27</b>	<b>324,578.65</b>	<i>1,947,471.92</i> <b>1,947,471.92</b>
<b>(Note: Resurface existing roadways damaged during construction; allowance)</b>									
USR BARR Restore Local Haul Roadways - Aggregate Surfacing	6.70	MI	Subcontractor - Excavation - Earth MN	<i>100,000.00</i> 670,000.00	<i>103,437.50</i> 693,031.25	<i>126,193.75</i> 845,498.13	<i>151,672.27</i> 1,016,204.20	<i>20.00%</i> 203,240.84	<i>182,006.72</i> 1,219,445.04
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
USR BARR Restore Local Haul Roadways - Bituminous Surfacing	2.00	MI	Subcontractor - Excavation - Earth MN	<i>200,000.00</i> 400,000.00	<i>206,875.00</i> 413,750.00	<i>252,387.50</i> 504,775.00	<i>303,344.54</i> 606,689.07	<i>20.00%</i> 121,337.81	<i>364,013.44</i> 728,026.89
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
<b>9010419 Site Restoration</b>	<b>1,541.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>2,638.86</i> <b>4,066,490.10</b>	<i>2,814.24</i> <b>4,336,737.63</b>	<i>3,433.37</i> <b>5,290,819.91</b>	<i>4,126.56</i> <b>6,359,036.45</b>	<b>1,271,807.29</b>	<i>4,951.88</i> <b>7,630,843.74</b>
<b>(Note: The area of site restoration was determined calculating the disturbed area from the drawings. See Consultant Appendix F-Drawings for specific areas.)</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Seeding	1,541.00	ACR	Subcontractor - Excavation - Earth MN	1,288.86 1,986,140.10	1,453.92 2,240,496.07	1,773.79 2,733,405.20	2,131.91 3,285,279.71	20.00% 657,055.94	2,558.30 3,942,335.65
(Note: Material cost quote from Shooting Star Native Seed of \$37.50/lb or \$412.50/acre for seed (Dry Prairie Northwest modified, 11lbs/acre + 3lb/acre cover crop). For cost quote communication see Consultant Exhibit G-F1.26 in Consultant Appendix G.)									
USR BARR Straw Mulch and Disk Anchoring	1,541.00	ACR	Subcontractor - Excavation - Earth MN	400.00 616,400.00	406.88 626,994.38	496.39 764,933.14	596.61 919,373.14	20.00% 183,874.63	715.93 1,103,247.77
(Note: Assumptions: Estimate from MN DOT 2009 Bid Prices for "disk anchor straw mulch = 2tons/acre at approximately \$400/acre. Assuming mat/lab/equip split = 25/50/25)									
USR BARR Vegetation Establishment and Maintenance	1,541.00	ACR	Subcontractor - Excavation - Earth MN	950.00 1,463,950.00	953.44 1,469,247.19	1,163.19 1,792,481.57	1,398.04 2,154,383.60	20.00% 430,876.72	1,677.65 2,585,260.32
(Note: See CSI task for note)									
<b>9010420 Snow Removal</b>	<b>1,600.00</b>	<b>HR</b>	<b>Subcontractor - Excavation - Earth MN</b>	102.39 <b>163,817.49</b>	114.79 <b>183,661.08</b>	140.04 <b>224,066.52</b>	168.32 <b>269,305.55</b>	<b>53,861.11</b>	<b>201.98</b> <b>323,166.65</b>
USR BARR Snow Removal	1,600.00	HR	Subcontractor - Excavation - Earth MN	102.39 163,817.49	114.79 183,661.08	140.04 224,066.52	168.32 269,305.55	20.00% 53,861.11	201.98 323,166.65
(Note: Allowance)									
<b>9010421 Monuments and Markers</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>50,000.00</b>	<b>50,859.38</b>	<b>62,048.44</b>	<b>74,576.02</b>	<b>14,915.20</b>	<b>89,491.22</b>
USR BARR Monuments and Markers	1.00	LS	Subcontractor - Excavation - Earth MN	50,000.00	50,859.38	62,048.44	74,576.02	14,915.20	89,491.22
(Note: mat/labor/equip split = 25/50/25)									
<b>90105 Reach 2016</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	41,458,360.21 <b>41,458,360.21</b>	43,913,047.26 <b>43,913,047.26</b>	53,573,917.65 <b>53,573,917.65</b>	64,390,491.63 <b>64,390,491.63</b>	<b>12,878,098.33</b>	77,268,589.95 <b>77,268,589.95</b>
<b>9010501 Site Preparation and Traffic Control</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>232,000.00</b>	<b>232,000.00</b>	<b>283,040.00</b>	<b>340,185.78</b>	<b>68,037.16</b>	<b>408,222.93</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Historical projects referenced; 1.5% of construction cost, including bridge traffic management costs)</b>									
USR Site Preparation and Traffic Control	1.00	LS	Subcontractor - Excavation - Earth MN	232,000.00	232,000.00	283,040.00	340,185.78	68,037.16	408,222.93
(Note: Miscellaneous site preparation allowance. Determined by cost engineering judgement that will be reconciled upon design refinement.)									
<b>9010502 Clearing and Grubbing</b>	<b>91.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>99,370.04</b>	<b>113,394.78</b>	<b>138,341.63</b>	<b>166,272.80</b>	<b>33,254.56</b>	<b>199,527.36</b>
				<i>1,091.98</i>	<i>1,246.10</i>	<i>1,520.24</i>	<i>1,827.17</i>		<i>2,192.61</i>
USR BARR Clearing and Grubbing	91.00	ACR	Subcontractor - Excavation - Earth MN	99,370.04	113,394.78	138,341.63	166,272.80	33,254.56	199,527.36
				<i>1,091.98</i>	<i>1,246.10</i>	<i>1,520.24</i>	<i>1,827.17</i>	<i>20.00%</i>	<i>2,192.61</i>
(Note: Allowance: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
<b>9010503 Temporary Erosion and Sedimentation Control</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>954,433.49</b>	<b>1,024,836.53</b>	<b>1,250,300.56</b>	<b>1,502,736.25</b>	<b>300,547.25</b>	<b>1,803,283.49</b>
				<i>954,433.49</i>	<i>1,024,836.53</i>	<i>1,250,300.56</i>	<i>1,502,736.25</i>		<i>1,803,283.49</i>
<b>(Note: Historical projects referenced; 3% of construction cost)</b>									
RSM 312513101120 Erosion control, silt fence, polypropylene, 3' high, includes 7.5' posts	41,841.00	LF	Subcontractor - Excavation - Earth MN	105,967.71	133,772.20	163,202.08	196,152.58	39,230.52	235,383.10
				<i>2.53</i>	<i>3.20</i>	<i>3.90</i>	<i>4.69</i>	<i>20.00%</i>	<i>5.63</i>
(Note: Cost Book 2008)									
RSM 312513100120 Biodegradable erosion control, revegetation mat, webbed	64,493.00	SY	Subcontractor - Excavation - Earth MN	406,945.67	445,992.97	544,111.42	653,967.52	130,793.50	784,761.02
				<i>6.31</i>	<i>6.92</i>	<i>8.44</i>	<i>10.14</i>	<i>20.00%</i>	<i>12.17</i>
(Note: The area needing revegetation mat was derived from the drawings. See Consultant Appendix F-Drawings for specific dimensions.)									
USR BARR Temporary Sedimentation Basins	121,733.00	BCY	Subcontractor - Excavation - Earth MN	369,520.10	370,596.36	452,127.56	543,412.12	108,682.42	652,094.54
				<i>3.04</i>	<i>3.04</i>	<i>3.71</i>	<i>4.46</i>	<i>20.00%</i>	<i>5.36</i>
(Note: Volume based on MPCA NPDES construction permit criteria)									
USR BARR Rock Checks	90.00	EA	Subcontractor - Excavation - Earth MN	72,000.00	74,475.00	90,859.50	109,204.03	21,840.81	131,044.84
				<i>800.00</i>	<i>827.50</i>	<i>1,009.55</i>	<i>1,213.38</i>	<i>20.00%</i>	<i>1,456.05</i>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: mat/lab/equip split = 50/35/15, low flow ditch protection)</b>									
<b>9010504 Dewatering and Control of Water</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>921,321.13</b>	<b>990,221.26</b>	<b>1,208,069.94</b>	<b>1,451,979.26</b>	<b>290,395.85</b>	<b>1,742,375.11</b>
<b>(Note: The total cost of Dewatering and Control of Water is estimated to be approximately 2% of the total cost of construction of the reach)</b>									
RSM 312319201100 Dewatering, pumping, 8 hr., attended 8 hours per day, 6" centrifugal pump, includes 20 L.F. of suction hose and 100 L.F. of discharge hose	258.00	DAY	Subcontractor - Excavation - Earth MN	234,671.13	280,253.84	341,909.69	410,941.25	82,188.25	493,129.50
<i>(Note: Cost Book 2008 (includes fuel cost))</i>									
USR BARR Temporary Storm Sewer Pipe	666.00	LF	Subcontractor - Excavation - Earth MN	16,650.00	16,936.17	20,662.13	24,833.81	4,966.76	29,800.58
<i>(Note: Pipes for temporary crossing along the low flow channel. mat/lab/equip split = 25/50/25)</i>									
USR BARR Control of water	1.00	LS	Subcontractor - Excavation - Earth MN	670,000.00	693,031.25	845,498.13	1,016,204.20	203,240.84	1,219,445.04
<b>9010505 Strip and Stockpile Topsoil - Channel</b>	<b>645,138.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>856,546.23</b>	<b>894,663.45</b>	<b>1,091,489.41</b>	<b>1,311,861.12</b>	<b>262,372.22</b>	<b>1,574,233.34</b>
<b>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes scraper crews will strip material over the channel excavation areas and dozer crews will stockpile at the edges. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Topsoil - Channel - Strip	645,138.00	BCY	Subcontractor - Excavation - Earth MN	473,566.87	492,925.44	601,369.03	722,785.44	144,557.09	867,342.53
<i>(Note: See CSI task for note)</i>									
USR BARR Topsoil - Channel - Stockpile	645,138.00	BCY	Subcontractor - Excavation - Earth MN	382,979.37	401,738.01	490,120.37	589,075.68	117,815.14	706,890.81
<i>(Note: See CSI task for note)</i>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010506 Strip and Stockpile Topsoil - Spoil Berm</b>	<b>850,784.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>843,211.75</b>	<b>883,716.72</b>	<b>1,078,134.39</b>	<b>1,295,809.73</b>	<b>259,161.95</b>	<b>1,554,971.67</b>
<p>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes dozer crews will strip and stockpile material over the spoil berm excavation areas. See Consultant Appendix F-Drawings for specific dimensions. )</p>									
USR BARR Topsoil - Berms - Strip and Stockpile	850,784.00	BCY	Subcontractor - Excavation - Earth MN	843,211.75	883,716.72	1,078,134.39	1,295,809.73	20.00%	1,554,971.67
(Note: See CSI task for note)									
<b>9010507 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>2,600,814.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>5,178,659.26</b>	<b>5,479,052.16</b>	<b>6,684,443.64</b>	<b>8,034,032.81</b>	<b>1,606,806.56</b>	<b>9,640,839.37</b>
<p>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</p>									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Excavate and Haul	2,600,814.00	BCY	Subcontractor - Excavation - Earth MN	2,485,856.79	2,597,060.93	3,168,414.34	3,808,117.19	20.00%	4,569,740.63
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil	2,600,814.00	BCY	Subcontractor - Excavation - Earth MN	1,698,945.74	1,774,618.28	2,165,034.30	2,602,154.73	20.00%	3,122,585.68
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Semi Compact and Manage Moisture Content	2,600,814.00	BCY	Subcontractor - Excavation - Earth MN	993,856.73	1,107,372.95	1,350,995.00	1,623,760.89	20.00%	1,948,513.07
(Note: See CSI task for note)									
				2.31	0.00	0.00	0.00	0.00%	0.00



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00	0.00
<b>9010508 Excavation and Embankment - Channel - Type 2 Saturated Non- Brenna</b>	<b>6,510,722.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>15,038,260.45</b>	<b>15,883,039.97</b>	<b>19,377,308.76</b>	<b>23,289,587.40</b>	<b>4,657,917.48</b>	<b>27,947,504.88</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note)	6,510,722.00	BCY	Subcontractor - Excavation - Earth MN	8,297,260.02	8,668,435.72	10,575,491.58	12,710,683.33	2,542,136.67	15,252,820.00
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil  (Note: See CSI task for note)	6,510,722.00	BCY	Subcontractor - Excavation - Earth MN	4,253,039.01	4,442,473.12	5,419,817.21	6,514,078.30	1,302,815.66	7,816,893.96
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	6,510,722.00	BCY	Subcontractor - Excavation - Earth MN	2,487,961.42	2,772,131.12	3,381,999.97	4,064,825.77	812,965.15	4,877,790.92
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00	0.00
<b>9010509 Excavation and Embankment - Channel - Type 3 Oxidized Brenna</b>	<b>795,024.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2,372,905.88</b>	<b>2,520,160.85</b>	<b>3,074,596.24</b>	<b>3,695,357.22</b>	<b>739,071.44</b>	<b>4,434,428.66</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: The volume of Type 3 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 3 Oxidized Brenna - Excavate	795,024.00	BCY	Subcontractor - Excavation - Earth MN	762,533.83	790,495.26	964,404.22	1,159,117.43	231,823.49	1,390,940.91
(Note: See CSI task for note)				0.96	0.99	1.21	1.46	20.00%	1.75
USR BARR Earthwork - Type 3 Oxidized Brenna - Haul	795,024.00	BCY	Subcontractor - Excavation - Earth MN	787,228.76	848,690.56	1,035,402.48	1,244,450.24	248,890.05	1,493,340.29
(Note: See CSI task for note)				0.99	1.07	1.30	1.57	20.00%	1.88
USR BARR Earthwork - Type 3 Oxidized Brenna - Spoil	795,024.00	BCY	Subcontractor - Excavation - Earth MN	519,338.42	542,470.21	661,813.66	795,433.84	159,086.77	954,520.61
(Note: See CSI task for note)				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 3 Oxidized Brenna - Semi Compact and Manage Moisture Content	795,024.00	BCY	Subcontractor - Excavation - Earth MN	303,804.87	338,504.82	412,975.88	496,355.71	99,271.14	595,626.85
(Note: See CSI task for note)				0.38	0.43	0.52	0.62	20.00%	0.75
<b>9010510 Excavation and Embankment - Channel - Type 4 Brenna</b>	<b>1,817,877.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>6,914,877.52</b>	<b>7,328,209.59</b>	<b>8,940,415.70</b>	<b>10,745,485.63</b>	<b>2,149,097.13</b>	<b>12,894,582.75</b>
<b>(Note: The volume of Type 4 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 4 Brenna - Excavate	1,817,877.00	BCY	Subcontractor - Excavation - Earth MN	2,788,502.38	2,888,695.84	3,524,208.92	4,235,746.70	847,149.34	5,082,896.04
(Note: See CSI task for note)				1.53	1.59	1.94	2.33	20.00%	2.80
USR BARR Earthwork - Type 4 Brenna - Haul	1,817,877.00	BCY	Subcontractor - Excavation - Earth MN	2,244,201.46	2,425,103.81	2,958,626.65	3,555,973.37	711,194.67	4,267,168.05
(Note: See CSI task for note)				1.23	1.33	1.63	1.96	20.00%	2.35

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: See CSI task for note)</b>									
USR BARR Earthwork - Type 4 Brenna - Spoil	1,817,877.00	BCY	Subcontractor - Excavation - Earth MN	1,187,502.98	1,240,395.41	1,513,282.40	1,818,814.12	363,762.82	2,182,576.95
<b>(Note: See CSI task for note)</b>									
USR BARR Earthwork - Type 4 Brenna - Semi Compact and Manage Moisture Content	1,817,877.00	BCY	Subcontractor - Excavation - Earth MN	694,670.70	774,014.53	944,297.72	1,134,951.43	226,990.29	1,361,941.72
<b>(Note: See CSI task for note)</b>									
<b>9010511 Excavation and Embankment - Channel</b>	<b>1,701,963.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>403,171.85</b>	<b>440,641.37</b>	<b>537,582.47</b>	<b>646,120.37</b>	<b>129,224.07</b>	<b>775,344.45</b>
USR BARR Earthwork - Haul from No-Spoil Areas	1,701,963.00	BCY	Subcontractor - Excavation - Earth MN	403,171.85	440,641.37	537,582.47	646,120.37	129,224.07	775,344.45
<b>(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)</b>									
<b>9010512 Temporary Haul Roads</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>356,009.00</b>	<b>385,102.11</b>	<b>469,824.58</b>	<b>564,682.16</b>	<b>112,936.43</b>	<b>677,618.59</b>
<b>(Note: The volume of class V aggregate base was calculated using a typical temporary haul road cross section and reach length. This calculation is assuming 1-way traffic and that the haul road would be constructed only on one side of the diversion (protected side). See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment	20,846.00	BCY	Subcontractor - Excavation - Earth MN	48,119.50	51,582.48	62,930.63	75,636.32	15,127.26	90,763.58
<b>(Note: See CSI task for note)</b>									
USR BARR Aggregate Base - Class V - Furnish and Install	11,726.00	ECY	Subcontractor - Excavation - Earth MN	244,218.82	261,281.93	318,763.95	383,122.39	76,624.48	459,746.87
<b>(Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
RSM 312323184600 Hauling, haul road maintenance, includes loading  (Note: Cost Book 2008)	83.00	DAY	Subcontractor - Excavation - Earth MN	767.12 63,670.68	870.33 72,237.70	1,061.81 88,130.00	1,276.19 105,923.44	20.00% 21,184.69	1,531.42 127,108.13
<b>9010513 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation</b>	<b>1.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>169,561.51</b> <b>169,561.51</b>	<b>179,690.45</b> <b>179,690.45</b>	<b>219,222.35</b> <b>219,222.35</b>	<b>263,483.34</b> <b>263,483.34</b>	<b>52,696.67</b>	<b>316,180.00</b> <b>316,180.00</b>
<b>901051302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna</b>	<b>780.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,801.62</b> <i>2.31</i>	<b>1,902.83</b> <i>2.44</i>	<b>2,321.45</b> <i>2.98</i>	<b>2,790.15</b> <i>3.58</i>	<b>558.03</b>	<b>3,348.18</b> <i>4.29</i>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note)	780.00	BCY	Subcontractor - Excavation - Earth MN	994.03 <i>1.27</i>	1,038.50 <i>1.33</i>	1,266.97 <i>1.62</i>	1,522.77 <i>1.95</i>	20.00% 304.55	1,827.32 <i>2.34</i>
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil  (Note: See CSI task for note)	780.00	BCY	Subcontractor - Excavation - Earth MN	509.52 <i>0.65</i>	532.22 <i>0.68</i>	649.31 <i>0.83</i>	780.40 <i>1.00</i>	20.00% 156.08	936.48 <i>1.20</i>
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	780.00	BCY	Subcontractor - Excavation - Earth MN	298.06 <i>0.38</i>	332.11 <i>0.43</i>	405.17 <i>0.52</i>	486.98 <i>0.62</i>	20.00% 97.40	584.37 <i>0.75</i>
<b>901051304 Excavation and Embankment - Channel - Type 4 Brenna</b>	<b>44,103.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>167,759.89</b> <i>3.80</i>	<b>177,787.62</b> <i>4.03</i>	<b>216,900.90</b> <i>4.92</i>	<b>260,693.19</b> <i>5.91</i>	<b>52,138.64</b>	<b>312,831.83</b> <i>7.09</i>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: The volume of Type 4 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 4 Brenna - Excavate	44,103.00	BCY	Subcontractor - Excavation - Earth MN	1.53 67,651.07	1.59 70,081.83	1.94 85,499.84	2.33 102,762.25	20.00% 20,552.45	2.80 123,314.70
(Note: See CSI task for note)									
USR BARR Earthwork - Type 4 Brenna - Haul	44,103.00	BCY	Subcontractor - Excavation - Earth MN	1.23 54,445.94	1.33 58,834.76	1.63 71,778.40	1.96 86,270.46	20.00% 17,254.09	2.35 103,524.56
(Note: See CSI task for note)									
USR BARR Earthwork - Type 4 Brenna - Spoil	44,103.00	BCY	Subcontractor - Excavation - Earth MN	0.65 28,809.67	0.68 30,092.88	0.83 36,713.32	1.00 44,125.74	20.00% 8,825.15	1.20 52,950.88
(Note: See CSI task for note)									
USR BARR Earthwork - Type 4 Brenna - Semi Compact and Manage Moisture Content	44,103.00	BCY	Subcontractor - Excavation - Earth MN	0.38 16,853.21	0.43 18,778.15	0.52 22,909.34	0.62 27,534.74	20.00% 5,506.95	0.75 33,041.68
(Note: See CSI task for note)									
<b>9010514a Lower Bank Protection</b>	<b>28,664.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>77.96 2,234,505.68</b>	<b>83.33 2,388,637.54</b>	<b>101.67 2,914,137.80</b>	<b>122.19 3,502,502.23</b>	<b>700,500.45</b>	<b>146.63 4,203,002.67</b>
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F- Drawings for specific dimensions.)</b>									
USR BARR Lower Bank Protection Riprap - Furnish and Install	28,664.00	CY	Subcontractor - Excavation - Earth MN	64.32 1,843,637.68	68.76 1,970,897.37	83.89 2,404,494.79	100.82 2,889,962.29	20.00% 577,992.46	120.99 3,467,954.75
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
				4.00	4.28	5.22	6.27	20.00%	7.52

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Lower Bank Protection Geotextile - Furnish and Install  (Note: See CSI task for note)	97,717.00	SY	Subcontractor - Excavation - Earth MN	390,868.00	417,740.18	509,643.01	612,539.94	122,507.99	735,047.93
<b>9010514b Low Flow Channel Protection</b>	<b>1,345.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>91,352.95</b>	<b>97,657.38</b>	<b>119,142.01</b>	<b>143,196.78</b>	<b>28,639.36</b>	<b>171,836.13</b>
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Grade Control Riprap - Furnish and Install  (Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)	1,345.00	CY	Subcontractor - Excavation - Earth MN	86,508.95	92,480.36	112,826.04	135,605.61	27,121.12	162,726.74
USR BARR Grade Control Geotextile - Furnish and Install  (Note: See CSI task for note)	1,211.00	SY	Subcontractor - Excavation - Earth MN	4,844.00	5,177.03	6,315.97	7,591.16	1,518.23	9,109.40
<b>9010515 Topsoil Placement - Channel</b>	<b>207,663.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>235,396.67</b>	<b>247,354.95</b>	<b>301,773.04</b>	<b>362,701.02</b>	<b>72,540.20</b>	<b>435,241.22</b>
USR BARR Topsoil - Channel - Placement from Stockpile  (Note: See CSI task for note.)	207,663.00	BCY	Subcontractor - Excavation - Earth MN	235,396.67	247,354.95	301,773.04	362,701.02	72,540.20	435,241.22
<b>9010516 Topsoil Placement - Spoil Berm</b>	<b>1,288,260.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,398,084.81</b>	<b>1,477,291.74</b>	<b>1,802,295.92</b>	<b>2,166,179.47</b>	<b>433,235.89</b>	<b>2,599,415.36</b>
USR BARR Topsoil - Berms - Placement from Stockpile  (Note: See CSI task for note.)	1,288,260.00	BCY	Subcontractor - Excavation - Earth MN	1,398,084.81	1,477,291.74	1,802,295.92	2,166,179.47	433,235.89	2,599,415.36

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010517 Dust Control</b>	<b>225.00</b>	<b>DAY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>500.00</i> <b>112,500.00</b>	<i>500.00</i> <b>112,500.00</b>	<i>610.00</i> <b>137,250.00</b>	<i>733.16</i> <b>164,960.78</b>	<b>32,992.16</b>	<i>879.79</i> <b>197,952.93</b>
USR BARR Dust Control	225.00	DAY	Subcontractor - Excavation - Earth MN	<i>500.00</i> 112,500.00	<i>500.00</i> 112,500.00	<i>610.00</i> 137,250.00	<i>733.16</i> 164,960.78	20.00% 32,992.16	<i>879.79</i> 197,952.93
(Note: assume 2 water trucks per day per reach.)									
<b>9010518 Restore Local Roadways</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>530,000.00</i> <b>530,000.00</b>	<i>548,218.75</i> <b>548,218.75</b>	<i>668,826.88</i> <b>668,826.88</b>	<i>803,863.02</i> <b>803,863.02</b>	<b>160,772.60</b>	<i>964,635.63</i> <b>964,635.63</b>
<b>(Note: Resurface existing roadways damaged during construction; allowance)</b>									
USR BARR Restore Local Haul Roadways - Aggregate Surfacing	3.30	MI	Subcontractor - Excavation - Earth MN	<i>100,000.00</i> 330,000.00	<i>103,437.50</i> 341,343.75	<i>126,193.75</i> 416,439.38	<i>151,672.27</i> 500,518.48	20.00% 100,103.70	<i>182,006.72</i> 600,622.18
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
USR BARR Restore Local Haul Roadways - Bituminous Surfacing	1.00	MI	Subcontractor - Excavation - Earth MN	<i>200,000.00</i> 200,000.00	<i>206,875.00</i> 206,875.00	<i>252,387.50</i> 252,387.50	<i>303,344.54</i> 303,344.54	20.00% 60,668.91	<i>364,013.44</i> 364,013.44
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
<b>9010519 Site Restoration</b>	<b>913.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>2,638.86</i> <b>2,409,283.23</b>	<i>2,814.24</i> <b>2,569,397.44</b>	<i>3,433.37</i> <b>3,134,664.88</b>	<i>4,126.56</i> <b>3,767,553.72</b>	<b>753,510.74</b>	<i>4,951.88</i> <b>4,521,064.46</b>
<b>(Note: The area of site restoration was determined calculating the disturbed area from the drawings. See Consultant Appendix F-Drawings for specific areas.)</b>									
USR BARR Seeding	913.00	ACR	Subcontractor - Excavation - Earth MN	<i>1,288.86</i> 1,176,733.23	<i>1,453.92</i> 1,327,432.13	<i>1,773.79</i> 1,619,467.20	<i>2,131.91</i> 1,946,437.62	20.00% 389,287.52	<i>2,558.30</i> 2,335,725.15
(Note: Material cost quote from Shooting Star Native Seed of \$37.50/lb or \$412.50/acre for seed (Dry Prairie Northwest modified, 11lbs/acre + 3lb/acre cover crop). For cost quote communication see Consultant Exhibit G-F1.26 in Consultant Appendix G.)									
USR BARR Straw Mulch and Disk Anchoring	913.00	ACR	Subcontractor - Excavation - Earth MN	<i>400.00</i> 365,200.00	<i>406.88</i> 371,476.88	<i>496.39</i> 453,201.79	<i>596.61</i> 544,703.23	20.00% 108,940.65	<i>715.93</i> 653,643.87

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assumptions: Estimate from MN DOT 2009 Bid Prices for "disk anchor straw mulch = 2tons/acre at approximately \$400/acre. Assuming mat/lab/equip split = 25/50/25)</b>									
USR BARR Vegetation Establishment and Maintenance	913.00	ACR	Subcontractor - Excavation - Earth MN	950.00 867,350.00	953.44 870,488.44	1,163.19 1,061,995.89	1,398.04 1,276,412.86	20.00% 255,282.57	1,677.65 1,531,695.44
(Note: See CSI task for note)									
<b>9010520 Snow Removal</b>	<b>800.00</b>	<b>HR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>102.39 81,908.74</b>	<b>114.79 91,830.54</b>	<b>140.04 112,033.26</b>	<b>168.32 134,652.77</b>	<b>20.00% 26,930.55</b>	<b>201.98 161,583.33</b>
USR BARR Snow Removal	800.00	HR	Subcontractor - Excavation - Earth MN	102.39 81,908.74	114.79 91,830.54	140.04 112,033.26	168.32 134,652.77	20.00% 26,930.55	201.98 161,583.33
(Note: Allowance)									
<b>9010521 Monuments and Markers</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>25,000.00</b>	<b>25,429.69</b>	<b>31,024.22</b>	<b>37,288.01</b>	<b>7,457.60</b>	<b>44,745.61</b>
USR BARR Monuments and Markers	1.00	LS	Subcontractor - Excavation - Earth MN	25,000.00	25,429.69	31,024.22	37,288.01	7,457.60	44,745.61
(Note: mat/labor/equip split = 25/50/25)									
<b>90106 Reach 2017</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>23,139,994.71 23,139,994.71</b>	<b>24,495,825.75 24,495,825.75</b>	<b>29,884,907.42 29,884,907.42</b>	<b>35,918,670.22 35,918,670.22</b>	<b>7,183,734.04</b>	<b>43,102,404.27 43,102,404.27</b>
<b>9010601 Site Preparation and Traffic Control</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>132,000.00</b>	<b>132,000.00</b>	<b>161,040.00</b>	<b>193,553.98</b>	<b>38,710.80</b>	<b>232,264.77</b>
<b>(Note: Historical projects referenced; 1.5% of construction cost, including bridge traffic management costs)</b>									
USR Site Preparation and Traffic Control	1.00	LS	Subcontractor - Excavation - Earth MN	132,000.00	132,000.00	161,040.00	193,553.98	38,710.80	232,264.77
(Note: Miscellaneous site preparation allowance. Determined by cost engineering judgement that will be reconciled upon design refinement.)									
<b>9010602 Clearing and Grubbing</b>	<b>61.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,091.98 66,610.68</b>	<b>1,246.10 76,011.88</b>	<b>1,520.24 92,734.50</b>	<b>1,827.17 111,457.59</b>	<b>22,291.52</b>	<b>2,192.61 133,749.11</b>



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Clearing and Grubbing	61.00	ACR	Subcontractor - Excavation - Earth MN	1,091.98 66,610.68	1,246.10 76,011.88	1,520.24 92,734.50	1,827.17 111,457.59	20.00% 22,291.52	2,192.61 133,749.11
(Note: Allowance: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
<b>9010603 Temporary Erosion and Sedimentation Control</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>665,921.58 665,921.58</b>	<b>716,291.51 716,291.51</b>	<b>873,875.65 873,875.65</b>	<b>1,050,311.14 1,050,311.14</b>	<b>210,062.23</b>	<b>1,260,373.37 1,260,373.37</b>
<b>(Note: Historical projects referenced; 3% of construction cost)</b>									
RSM 312513101120 Erosion control, silt fence, polypropylene, 3' high, includes 7.5' posts	29,973.00	LF	Subcontractor - Excavation - Earth MN	2.53 75,910.48	3.20 95,828.35	3.90 116,910.59	4.69 140,514.84	20.00% 28,102.97	5.63 168,617.80
(Note: Cost Book 2008)									
RSM 312513100120 Biodegradable erosion control, revegetation mat, webbed	46,200.00	SY	Subcontractor - Excavation - Earth MN	6.31 291,518.30	6.92 319,490.10	8.44 389,777.92	10.14 468,474.09	20.00% 93,694.82	12.17 562,168.90
(Note: The area needing revegetation mat was derived from the drawings. See Consultant Appendix F-Drawings for specific dimensions.)									
USR BARR Temporary Sedimentation Basins	81,467.00	BCY	Subcontractor - Excavation - Earth MN	3.04 247,292.80	3.04 248,013.06	3.71 302,575.93	4.46 363,666.01	20.00% 72,733.20	5.36 436,399.22
(Note: Volume based on MPCA NPDES construction permit criteria)									
USR BARR Rock Checks	64.00	EA	Subcontractor - Excavation - Earth MN	800.00 51,200.00	827.50 52,960.00	1,009.55 64,611.20	1,213.38 77,656.20	20.00% 15,531.24	1,456.05 93,187.44
(Note: mat/lab/equip split = 50/35/15, low flow ditch protection)									
<b>9010604 Dewatering and Control of Water</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>504,282.00 504,282.00</b>	<b>535,052.11 535,052.11</b>	<b>652,763.57 652,763.57</b>	<b>784,556.54 784,556.54</b>	<b>156,911.31</b>	<b>941,467.85 941,467.85</b>
<b>(Note: The total cost of Dewatering and Control of Water is estimated to be approximately 2% of the total cost of construction of the reach)</b>									
				909.58	1,086.26	1,325.23	1,592.80	20.00%	1,911.35

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
RSM 312319201100 Dewatering, pumping, 8 hr., attended 8 hours per day, 6" centrifugal pump, includes 20 L.F. of suction hose and 100 L.F. of discharge hose  (Note: Cost Book 2008 (includes fuel cost))	173.00	DAY	Subcontractor - Excavation - Earth MN	157,357.00	187,922.15	229,265.02	275,553.63	55,110.73	330,664.36
				25.00	25.43	31.02	37.29	20.00%	44.75
USR BARR Temporary Storm Sewer Pipe  (Note: Pipes for temporary crossing along the low flow channel. mat/lab/equip split = 25/50/25)	477.00	LF	Subcontractor - Excavation - Earth MN	11,925.00	12,129.96	14,798.55	17,786.38	3,557.28	21,343.66
USR BARR Control of water	1.00	LS	Subcontractor - Excavation - Earth MN	335,000.00	335,000.00	408,700.00	491,216.53	98,243.31	589,459.84
				1.33	1.39	1.69	2.03		2.44
<b>9010605 Strip and Stockpile Topsoil - Channel</b>	<b>404,198.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>536,651.50</b>	<b>560,533.06</b>	<b>683,850.33</b>	<b>821,919.71</b>	<b>164,383.94</b>	<b>986,303.66</b>
<b>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes scraper crews will strip material over the channel excavation areas and dozer crews will stockpile at the edges. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Topsoil - Channel - Strip  (Note: See CSI task for note)	404,198.00	BCY	Subcontractor - Excavation - Earth MN	296,703.62	308,832.34	376,775.45	452,846.41	90,569.28	543,415.69
				0.73	0.76	0.93	1.12	20.00%	1.34
USR BARR Topsoil - Channel - Stockpile  (Note: See CSI task for note)	404,198.00	BCY	Subcontractor - Excavation - Earth MN	239,947.88	251,700.72	307,074.88	369,073.30	73,814.66	442,887.96
				0.59	0.62	0.76	0.91	20.00%	1.10
<b>9010606 Strip and Stockpile Topsoil - Spoil Berm</b>	<b>596,808.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>591,496.22</b>	<b>619,909.64</b>	<b>756,289.76</b>	<b>908,984.67</b>	<b>181,796.93</b>	<b>1,090,781.60</b>
<b>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes dozer crews will strip and stockpile material over the spoil berm excavation areas. See Consultant Appendix F-Drawings for specific dimensions.)</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Topsoil - Berms - Strip and Stockpile	596,808.00	BCY	Subcontractor - Excavation - Earth MN	591,496.22	619,909.64	756,289.76	908,984.67	181,796.93	1,090,781.60
(Note: See CSI task for note)									
<b>9010607 Excavation and Embankment - Channel - Type 1 Non-Saturated Non- Brenna</b>	<b>2,144,380.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>4,269,822.20</b>	<b>4,517,497.17</b>	<b>5,511,346.54</b>	<b>6,624,087.41</b>	<b>1,324,817.48</b>	<b>7,948,904.89</b>
(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)									
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Excavate and Haul	2,144,380.00	BCY	Subcontractor - Excavation - Earth MN	2,049,597.39	2,141,285.58	2,612,368.41	3,139,805.59	627,961.12	3,767,766.71
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Spoil	2,144,380.00	BCY	Subcontractor - Excavation - Earth MN	1,400,786.55	1,463,178.82	1,785,078.16	2,145,485.44	429,097.09	2,574,582.52
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Semi Compact and Manage Moisture Content	2,144,380.00	BCY	Subcontractor - Excavation - Earth MN	819,438.26	913,032.77	1,113,899.98	1,338,796.38	267,759.28	1,606,555.66
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00	0.00
(Note: See CSI task for note)									
				2.31	2.44	2.98	3.58		4.29

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010608 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna</b>	<b>3,635,893.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>8,398,071.04</b>	<b>8,869,835.61</b>	<b>10,821,199.44</b>	<b>13,005,999.61</b>	<b>2,601,199.92</b>	<b>15,607,199.53</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Excavate and Haul	3,635,893.00	BCY	Subcontractor - Excavation - Earth MN	4,633,579.75	4,840,861.70	5,905,851.27	7,098,242.64	1,419,648.53	8,517,891.17
(Note: See CSI task for note)									
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Spoil	3,635,893.00	BCY	Subcontractor - Excavation - Earth MN	2,375,096.76	2,480,885.67	3,026,680.52	3,637,767.32	727,553.46	4,365,320.78
(Note: See CSI task for note)									
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Semi Compact and Manage Moisture Content	3,635,893.00	BCY	Subcontractor - Excavation - Earth MN	1,389,394.52	1,548,088.24	1,888,667.65	2,269,989.65	453,997.93	2,723,987.58
(Note: See CSI task for note)									
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Levee Embankment	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00	0.00
(Note: See CSI task for note)									
<b>9010609 Excavation and Embankment - Channel - Type 3 Oxidized Brenna</b>	<b>147,721.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>440,902.45</b>	<b>468,263.45</b>	<b>571,281.41</b>	<b>686,623.12</b>	<b>137,324.62</b>	<b>823,947.75</b>
<b>(Note: The volume of Type 3 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
				0.96	0.99	1.21	1.46	20.00%	1.75

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 3 Oxidized Brenna - Excavate  (Note: See CSI task for note)	147,721.00	BCY	Subcontractor - Excavation - Earth MN	141,684.10	146,879.53	179,193.02	215,372.10	43,074.42	258,446.52
				0.99	1.07	1.30	1.57	20.00%	1.88
USR BARR Earthwork - Type 3 Oxidized Brenna - Haul  (Note: See CSI task for note)	147,721.00	BCY	Subcontractor - Excavation - Earth MN	146,272.59	157,692.62	192,385.00	231,227.53	46,245.51	277,473.03
				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 3 Oxidized Brenna - Spoil  (Note: See CSI task for note)	147,721.00	BCY	Subcontractor - Excavation - Earth MN	96,496.70	100,794.75	122,969.59	147,797.15	29,559.43	177,356.58
				0.38	0.43	0.52	0.62	20.00%	0.75
USR BARR Earthwork - Type 3 Oxidized Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	147,721.00	BCY	Subcontractor - Excavation - Earth MN	56,449.06	62,896.55	76,733.80	92,226.35	18,445.27	110,671.62
				3.80	4.03	4.92	5.91		7.09
<b>9010610 Excavation and Embankment - Channel - Type 4 Brenna</b>	<b>591,681.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2,250,648.23</b>	<b>2,385,179.18</b>	<b>2,909,918.60</b>	<b>3,497,431.17</b>	<b>699,486.23</b>	<b>4,196,917.40</b>
<b>(Note: The volume of Type 4 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 4 Brenna - Excavate  (Note: See CSI task for note)	591,681.00	BCY	Subcontractor - Excavation - Earth MN	907,599.29	940,210.17	1,147,056.41	1,378,647.09	275,729.42	1,654,376.51
				1.53	1.59	1.94	2.33	20.00%	2.80
USR BARR Earthwork - Type 4 Brenna - Haul  (Note: See CSI task for note)	591,681.00	BCY	Subcontractor - Excavation - Earth MN	730,440.71	789,320.65	962,971.19	1,157,395.07	231,479.01	1,388,874.09
				1.23	1.33	1.63	1.96	20.00%	2.35
				0.65	0.68	0.83	1.00	20.00%	1.20

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 4 Brenna - Spoil	591,681.00	BCY	Subcontractor - Excavation - Earth MN	386,507.42	403,722.80	492,541.82	591,986.01	118,397.20	710,383.22
(Note: See CSI task for note)									
USR BARR Earthwork - Type 4 Brenna - Semi Compact and Manage Moisture Content	591,681.00	BCY	Subcontractor - Excavation - Earth MN	226,100.81	251,925.56	307,349.19	369,402.99	73,880.60	443,283.59
(Note: See CSI task for note)									
<b>9010612 Temporary Haul Roads</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>255,445.14</b>	<b>276,342.15</b>	<b>337,137.42</b>	<b>405,205.46</b>	<b>81,041.09</b>	<b>486,246.55</b>
<b>(Note: The volume of class V aggregate base was calculated using a typical temporary haul road cross section and reach length. This calculation is assuming 1-way traffic and that the haul road would be constructed only on one side of the diversion (protected side). See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment	14,933.00	BCY	Subcontractor - Excavation - Earth MN	34,470.33	36,951.03	45,080.26	54,181.96	10,836.39	65,018.35
(Note: See CSI task for note)									
USR BARR Aggregate Base - Class V - Furnish and Install	8,400.00	ECY	Subcontractor - Excavation - Earth MN	174,947.81	187,171.09	228,348.73	274,452.34	54,890.47	329,342.80
(Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)									
RSM 312323184600 Hauling, haul road maintenance, includes loading	60.00	DAY	Subcontractor - Excavation - Earth MN	46,027.00	52,220.03	63,708.43	76,571.16	15,314.23	91,885.40
(Note: Cost Book 2008)									
<b>9010613 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation</b>	<b>1.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>119,964.22</b>	<b>127,134.74</b>	<b>155,104.38</b>	<b>186,419.95</b>	<b>37,283.99</b>	<b>223,703.94</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>901061302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna</b>	<b>31.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	2.31 <b>71.60</b>	2.44 <b>75.63</b>	2.98 <b>92.26</b>	3.58 <b>110.89</b>	22.18	4.29 <b>133.07</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Excavate and Haul	31.00	BCY	Subcontractor - Excavation - Earth MN	1.27 39.51	1.33 41.27	1.62 50.35	1.95 60.52	20.00% 12.10	2.34 72.62
(Note: See CSI task for note)									
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Spoil	31.00	BCY	Subcontractor - Excavation - Earth MN	0.65 20.25	0.68 21.15	0.83 25.81	1.00 31.02	20.00% 6.20	1.20 37.22
(Note: See CSI task for note)									
USR BARR Earthwork - Type 2 Saturated Non-Brenna - Semi Compact and Manage Moisture Content	31.00	BCY	Subcontractor - Excavation - Earth MN	0.38 11.85	0.43 13.20	0.52 16.10	0.62 19.35	20.00% 3.87	0.75 23.23
(Note: See CSI task for note)									
<b>901061304 Excavation and Embankment - Channel - Type 4 Brenna</b>	<b>31,519.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	3.80 <b>119,892.61</b>	4.03 <b>127,059.11</b>	4.92 <b>155,012.12</b>	5.91 <b>186,309.06</b>	37,261.81	7.09 <b>223,570.88</b>
<b>(Note: The volume of Type 4 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 4 Brenna - Excavate	31,519.00	BCY	Subcontractor - Excavation - Earth MN	1.53 48,348.05	1.59 50,085.24	1.94 61,103.99	2.33 73,440.89	20.00% 14,688.18	2.80 88,129.07
(Note: See CSI task for note)									
				1.23	1.33	1.63	1.96	20.00%	2.35

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 4 Brenna - Haul	31,519.00	BCY	Subcontractor - Excavation - Earth MN	38,910.77	42,047.32	51,297.72	61,654.73	12,330.95	73,985.68
(Note: See CSI task for note)									
USR BARR Earthwork - Type 4 Brenna - Spoil	31,519.00	BCY	Subcontractor - Excavation - Earth MN	20,589.35	21,506.42	26,237.83	31,535.25	6,307.05	37,842.30
(Note: See CSI task for note)									
USR BARR Earthwork - Type 4 Brenna - Semi Compact and Manage Moisture Content	31,519.00	BCY	Subcontractor - Excavation - Earth MN	12,044.45	13,420.14	16,372.57	19,678.19	3,935.64	23,613.83
(Note: See CSI task for note)									
<b>9010614a Lower Bank Protection</b>	<b>20,533.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,600,660.50</b>	<b>1,711,070.95</b>	<b>2,087,506.56</b>	<b>2,508,974.13</b>	<b>501,794.83</b>	<b>3,010,768.96</b>
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F- Drawings for specific dimensions.)</b>									
USR BARR Lower Bank Protection Riprap - Furnish and Install	20,533.00	CY	Subcontractor - Excavation - Earth MN	1,320,660.50	1,411,820.95	1,722,421.56	2,070,178.47	414,035.69	2,484,214.17
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
USR BARR Lower Bank Protection Geotextile - Furnish and Install	70,000.00	SY	Subcontractor - Excavation - Earth MN	280,000.00	299,250.00	365,085.00	438,795.66	87,759.13	526,554.79
(Note: See CSI task for note)									
<b>9010614b Low Flow Channel Protection</b>	<b>963.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>65,411.13</b>	<b>69,925.26</b>	<b>85,308.82</b>	<b>102,532.67</b>	<b>20,506.53</b>	<b>123,039.20</b>
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F- Drawings for specific dimensions.)</b>									



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Grade Control Riprap - Furnish and Install	963.00	CY	Subcontractor - Excavation - Earth MN	64.32 61,939.13	68.76 66,214.56	83.89 80,781.76	100.82 97,091.60	20.00% 19,418.32	120.99 116,509.92
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
USR BARR Grade Control Geotextile - Furnish and Install	868.00	SY	Subcontractor - Excavation - Earth MN	4.00 3,472.00	4.28 3,710.70	5.22 4,527.05	6.27 5,441.07	20.00% 1,088.21	7.52 6,529.28
(Note: See CSI task for note)									
<b>9010615 Topsoil Placement - Channel</b>	<b>129,444.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1.13 146,731.42</b>	<b>1.19 154,185.46</b>	<b>1.45 188,106.26</b>	<b>1.75 226,084.91</b>	<b>45,216.98</b>	<b>2.10 271,301.89</b>
USR BARR Topsoil - Channel - Placement from Stockpile	129,444.00	BCY	Subcontractor - Excavation - Earth MN	1.13 146,731.42	1.19 154,185.46	1.45 188,106.26	1.75 226,084.91	20.00% 45,216.98	2.10 271,301.89
(Note: See CSI task for note.)									
<b>9010616 Topsoil Placement - Spoil Berm</b>	<b>871,562.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1.09 945,863.10</b>	<b>1.15 999,449.91</b>	<b>1.40 1,219,328.89</b>	<b>1.68 1,465,511.39</b>	<b>293,102.28</b>	<b>2.02 1,758,613.67</b>
USR BARR Topsoil - Berms - Placement from Stockpile	871,562.00	BCY	Subcontractor - Excavation - Earth MN	1.09 945,863.10	1.15 999,449.91	1.40 1,219,328.89	1.68 1,465,511.39	20.00% 293,102.28	2.02 1,758,613.67
(Note: See CSI task for note.)									
<b>9010617 Dust Control</b>	<b>161.00</b>	<b>DAY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>500.00 80,500.00</b>	<b>500.00 80,500.00</b>	<b>610.00 98,210.00</b>	<b>733.16 118,038.60</b>	<b>23,607.72</b>	<b>879.79 141,646.32</b>
USR BARR Dust Control	161.00	DAY	Subcontractor - Excavation - Earth MN	500.00 80,500.00	500.00 80,500.00	610.00 98,210.00	733.16 118,038.60	20.00% 23,607.72	879.79 141,646.32
(Note: assume 2 water trucks per day per reach.)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9010618 Restore Local Roadways</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>380,000.00</b>	<b>393,062.50</b>	<b>479,536.25</b>	<b>576,354.62</b>	<b>115,270.92</b>	<b>691,625.54</b>
<b>(Note: Resurface existing roadways damaged during construction; allowance)</b>									
USR BARR Restore Local Haul Roadways - Aggregate Surfacing	2.40	MI	Subcontractor - Excavation - Earth MN	240,000.00	248,250.00	302,865.00	364,013.44	72,802.69	436,816.13
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
USR BARR Restore Local Haul Roadways - Bituminous Surfacing	0.70	MI	Subcontractor - Excavation - Earth MN	140,000.00	144,812.50	176,671.25	212,341.18	42,468.24	254,809.41
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
<b>9010619 Site Restoration</b>	<b>611.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,612,346.17</b>	<b>1,719,498.18</b>	<b>2,097,787.78</b>	<b>2,521,331.13</b>	<b>504,266.23</b>	<b>3,025,597.35</b>
<b>(Note: The area of site restoration was determined calculating the disturbed area from the drawings. See Consultant Appendix F-Drawings for specific areas.)</b>									
USR BARR Seeding	611.00	ACR	Subcontractor - Excavation - Earth MN	787,496.17	888,347.24	1,083,783.63	1,302,599.55	260,519.91	1,563,119.46
(Note: Material cost quote from Shooting Star Native Seed of \$37.50/lb or \$412.50/acre for seed (Dry Prairie Northwest modified, 11lbs/acre + 3lb/acre cover crop). For cost quote communication see Consultant Exhibit G-F1.26 in Consultant Appendix G.)									
USR BARR Straw Mulch and Disk Anchoring	611.00	ACR	Subcontractor - Excavation - Earth MN	244,400.00	248,600.63	303,292.76	364,527.57	72,905.51	437,433.09
(Note: Assumptions: Estimate from MN DOT 2009 Bid Prices for "disk anchor straw mulch = 2tons/acre at approximately \$400/acre. Assuming mat/lab/equip split = 25/50/25)									
USR BARR Vegetation Establishment and Maintenance	611.00	ACR	Subcontractor - Excavation - Earth MN	580,450.00	582,550.31	710,711.38	854,204.01	170,840.80	1,025,044.81
(Note: See CSI task for note)									
<b>9010620 Snow Removal</b>	<b>573.00</b>	<b>HR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>58,667.14</b>	<b>65,773.62</b>	<b>80,243.82</b>	<b>96,445.05</b>	<b>19,289.01</b>	<b>115,734.06</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Snow Removal	573.00	HR	Subcontractor - Excavation - Earth MN	102.39 58,667.14	114.79 65,773.62	140.04 80,243.82	168.32 96,445.05	20.00% 19,289.01	201.98 115,734.06
(Note: Allowance)									
<b>9010621 Monuments and Markers</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>18,000.00</b>	<b>18,309.38</b>	<b>22,337.44</b>	<b>26,847.37</b>	<b>5,369.47</b>	<b>32,216.84</b>
USR BARR Monuments and Markers	1.00	LS	Subcontractor - Excavation - Earth MN	18,000.00	18,309.38	22,337.44	26,847.37	5,369.47	32,216.84
(Note: mat/labor/equip split = 25/50/25)									
<b>90107 Reach 2018</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>78,959,398.07</b> <b>78,959,398.07</b>	<b>83,736,975.25</b> <b>83,736,975.25</b>	<b>102,159,109.81</b> <b>102,159,109.81</b>	<b>122,785,034.08</b> <b>122,785,034.08</b>	<b>24,557,006.82</b>	<b>147,342,040.89</b> <b>147,342,040.89</b>
<b>9010701 Site Preparation and Traffic Control</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>358,000.00</b>	<b>358,000.00</b>	<b>436,760.00</b>	<b>524,941.84</b>	<b>104,988.37</b>	<b>629,930.21</b>
<b>(Note: Historical projects referenced; 1.5% of construction cost, including bridge traffic management costs)</b>									
USR Site Preparation and Traffic Control	1.00	LS	Subcontractor - Excavation - Earth MN	358,000.00	358,000.00	436,760.00	524,941.84	104,988.37	629,930.21
(Note: Miscellaneous site preparation allowance. Determined by cost engineering judgement that will be reconciled upon design refinement.)									
<b>9010702 Clearing and Grubbing</b>	<b>203.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,091.98</b> <b>221,671.62</b>	<b>1,246.10</b> <b>252,957.58</b>	<b>1,520.24</b> <b>308,608.24</b>	<b>1,827.17</b> <b>370,916.25</b>	<b>74,183.25</b>	<b>2,192.61</b> <b>445,099.50</b>
USR BARR Clearing and Grubbing	203.00	ACR	Subcontractor - Excavation - Earth MN	1,091.98 221,671.62	1,246.10 252,957.58	1,520.24 308,608.24	1,827.17 370,916.25	20.00% 74,183.25	2,192.61 445,099.50
(Note: Allowance: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
<b>9010703 Temporary Erosion and Sedimentation Control</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2,554,093.92</b> <b>2,554,093.92</b>	<b>2,761,718.33</b> <b>2,761,718.33</b>	<b>3,369,296.36</b> <b>3,369,296.36</b>	<b>4,049,557.29</b> <b>4,049,557.29</b>	<b>809,911.46</b>	<b>4,859,468.75</b> <b>4,859,468.75</b>
<b>(Note: Historical projects referenced; 3% of construction cost)</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
RSM 312513101120 Erosion control, silt fence, polypropylene, 3' high, includes 7.5' posts  (Note: Cost Book 2008)	123,868.00	LF	Subcontractor - Excavation - Earth MN	2.53 313,711.64	3.20 396,025.30	3.90 483,150.86	4.69 580,699.02	20.00% 116,139.80	5.63 696,838.82
RSM 312513100120 Biodegradable erosion control, revegetation mat, webbed  (Note: The area needing revegetation mat was derived from the drawings. See Consultant Appendix F-Drawings for specific dimensions.)	190,931.00	SY	Subcontractor - Excavation - Earth MN	6.31 1,204,759.34	6.92 1,320,358.54	8.44 1,610,837.42	10.14 1,936,065.49	20.00% 387,213.10	12.17 2,323,278.59
USR BARR Temporary Sedimentation Basins  (Note: Volume based on MPCA NPDES construction permit criteria)	271,067.00	BCY	Subcontractor - Excavation - Earth MN	3.04 822,822.95	3.04 825,219.49	3.71 1,006,767.78	4.46 1,210,034.19	20.00% 242,006.84	5.36 1,452,041.03
USR BARR Rock Checks  (Note: mat/lab/equip split = 50/35/15, low flow ditch protection)	266.00	EA	Subcontractor - Excavation - Earth MN	800.00 212,800.00	827.50 220,115.00	1,009.55 268,540.30	1,213.38 322,758.59	20.00% 64,551.72	1,456.05 387,310.30
<b>9010704 Dewatering and Control of Water</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,561,397.79</b>	<b>1,686,689.08</b>	<b>2,057,760.68</b>	<b>2,473,222.56</b>	<b>494,644.51</b>	<b>2,967,867.07</b>
<b>(Note: Dewatering and Control of Water: The total cost of Dewatering and Control of Water is estimated to be approximately 2% of the total cost of construction of the reach)</b>									
RSM 312319201100 Dewatering, pumping, 8 hr., attended 8 hours per day, 6" centrifugal pump, includes 20 L.F. of suction hose and 100 L.F. of discharge hose  (Note: Cost Book 2008 (includes fuel cost))	574.00	DAY	Subcontractor - Excavation - Earth MN	909.58 522,097.79	1,086.26 623,510.48	1,325.23 760,682.79	1,592.80 914,264.65	20.00% 182,852.93	1,911.35 1,097,117.58
USR BARR Temporary Storm Sewer Pipe	1,972.00	LF	Subcontractor - Excavation - Earth MN	25.00 49,300.00	25.43 50,147.34	31.02 61,179.76	37.29 73,531.95	20.00% 14,706.39	44.75 88,238.34

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Pipes for temporary crossing along the low flow channel. mat/lab/equip split = 25/50/25)</b>									
USR BARR Control of water	1.00	LS	Subcontractor - Excavation - Earth MN	990,000.00	1,013,031.25	1,235,898.13	1,485,425.96	297,085.19	1,782,511.15
				<i>1.33</i>	<i>1.39</i>	<i>1.69</i>	<i>2.03</i>		<i>2.44</i>
<b>9010705 Strip and Stockpile Topsoil - Channel</b>	<b>1,356,161.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,800,567.63</b>	<b>1,880,694.79</b>	<b>2,294,447.64</b>	<b>2,757,696.62</b>	<b>551,539.32</b>	<b>3,309,235.95</b>
<b>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes scraper crews will strip material over the channel excavation areas and dozer crews will stockpile at the edges. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Topsoil - Channel - Strip	1,356,161.00	BCY	Subcontractor - Excavation - Earth MN	<i>0.73</i>	<i>0.76</i>	<i>0.93</i>	<i>1.12</i>	<i>20.00%</i>	<i>1.34</i>
									<i>1.34</i>
(Note: See CSI task for note)									
USR BARR Topsoil - Channel - Stockpile	1,356,161.00	BCY	Subcontractor - Excavation - Earth MN	<i>0.59</i>	<i>0.62</i>	<i>0.76</i>	<i>0.91</i>	<i>20.00%</i>	<i>1.10</i>
									<i>1.10</i>
(Note: See CSI task for note)									
<b>9010706 Strip and Stockpile Topsoil - Spoil Berm</b>	<b>1,981,915.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,964,275.33</b>	<b>2,058,632.29</b>	<b>2,511,531.39</b>	<b>3,018,609.58</b>	<b>603,721.92</b>	<b>3,622,331.50</b>
<b>(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes dozer crews will strip and stockpile material over the spoil berm excavation areas. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Topsoil - Berms - Strip and Stockpile	1,981,915.00	BCY	Subcontractor - Excavation - Earth MN	<i>0.99</i>	<i>1.04</i>	<i>1.27</i>	<i>1.52</i>	<i>20.00%</i>	<i>1.83</i>
									<i>1.83</i>
(Note: See CSI task for note)									
<b>9010707 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>6,982,546.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>13,903,426.59</b>	<b>14,709,907.66</b>	<b>17,946,087.34</b>	<b>21,569,402.37</b>	<b>4,313,880.47</b>	<b>25,883,282.85</b>
				<i>1.99</i>	<i>2.11</i>	<i>2.57</i>	<i>3.09</i>		<i>3.71</i>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Excavate and Haul	6,982,546.00	BCY	Subcontractor - Excavation - Earth MN	6,673,914.17	6,972,469.93	8,506,413.32	10,223,858.17	2,044,771.63	12,268,629.80
(Note: See CSI task for note)				0.96	1.00	1.22	1.46	20.00%	1.76
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Spoil	6,982,546.00	BCY	Subcontractor - Excavation - Earth MN	4,561,251.50	4,764,413.67	5,812,584.68	6,986,145.53	1,397,229.11	8,383,374.63
(Note: See CSI task for note)				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Semi Compact and Manage Moisture Content	6,982,546.00	BCY	Subcontractor - Excavation - Earth MN	2,668,260.91	2,973,024.05	3,627,089.34	4,359,398.68	871,879.74	5,231,278.42
(Note: See CSI task for note)				0.38	0.43	0.52	0.62	20.00%	0.75
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00%	0.00
(Note: See CSI task for note)				2.31	0.00	0.00	0.00	0.00%	0.00
<b>9010708 Excavation and Embankment - Channel - Type 2 Saturated Non- Brenna</b>	<b>5,599,732.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>12,934,084.46</b>	<b>13,660,661.16</b>	<b>16,666,006.62</b>	<b>20,030,873.35</b>	<b>4,006,174.67</b>	<b>24,037,048.02</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul	5,599,732.00	BCY	Subcontractor - Excavation - Earth MN	7,136,294.94	7,455,535.18	9,095,752.92	10,932,185.43	2,186,437.09	13,118,622.52
(Note: See CSI task for note)				1.27	1.33	1.62	1.95	20.00%	2.34

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil  (Note: See CSI task for note)	5,599,732.00	BCY	Subcontractor - Excavation - Earth MN	0.65 3,657,947.40	0.68 3,820,875.61	0.83 4,661,468.24	1.00 5,602,618.68	20.00% 1,120,523.74	1.20 6,723,142.42
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	5,599,732.00	BCY	Subcontractor - Excavation - Earth MN	0.38 2,139,842.12	0.43 2,384,250.37	0.52 2,908,785.46	0.62 3,496,069.24	20.00% 699,213.85	0.75 4,195,283.09
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	0.00	BCY	Subcontractor - Excavation - Earth MN	2.31 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00% 0.00	0.00 0.00
<b>9010709 Excavation and Embankment - Channel - Type 3 Oxidized Brenna</b>  <b>(Note: The volume of Type 3 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations. )</b>	<b>5,301,701.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2.98 15,823,971.97</b>	<b>3.17 16,805,957.17</b>	<b>3.87 20,503,267.75</b>	<b>4.65 24,642,877.50</b>	<b>4,928,575.50</b>	<b>5.58 29,571,453.00</b>
USR BARR Earthwork - Type 3 Oxidized Brenna - Excavate  (Note: See CSI task for note)	5,301,701.00	BCY	Subcontractor - Excavation - Earth MN	0.96 5,085,036.91	0.99 5,271,500.62	1.21 6,431,230.76	1.46 7,729,696.25	20.00% 1,545,939.25	1.75 9,275,635.50
USR BARR Earthwork - Type 3 Oxidized Brenna - Haul  (Note: See CSI task for note)	5,301,701.00	BCY	Subcontractor - Excavation - Earth MN	0.99 5,249,717.63	1.07 5,659,582.06	1.30 6,904,690.12	1.57 8,298,747.05	20.00% 1,659,749.41	1.88 9,958,496.46
USR BARR Earthwork - Type 3 Oxidized Brenna - Spoil	5,301,701.00	BCY	Subcontractor - Excavation - Earth MN	0.65 3,463,262.78	0.68 3,617,519.56	0.83 4,413,373.86	1.00 5,304,434.05	20.00% 1,060,886.81	1.20 6,365,320.86

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: See CSI task for note)</b>									
USR BARR Earthwork - Type 3 Oxidized Brenna - Semi Compact and Manage Moisture Content	5,301,701.00	BCY	Subcontractor - Excavation - Earth MN	2,025,954.65	2,257,354.92	2,753,973.01	3,310,000.16	662,000.03	3,972,000.19
<i>0.38                      0.43                      0.52                      0.62                      20.00%                      0.75</i>									
<i>(Note: See CSI task for note)</i>									
<b>9010710 Excavation and Embankment - Channel - Type 4 Brenna</b>	<b>2,167,628.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>8,245,267.49</b>	<b>8,738,122.71</b>	<b>10,660,509.70</b>	<b>12,812,866.61</b>	<b>2,562,573.32</b>	<b>15,375,439.94</b>
<i>3.80                      4.03                      4.92                      5.91                      7.09</i>									
<b>(Note: The volume of Type 4 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 4 Brenna - Excavate	2,167,628.00	BCY	Subcontractor - Excavation - Earth MN	3,324,997.14	3,444,467.35	4,202,250.17	5,050,684.48	1,010,136.90	6,060,821.37
<i>1.53                      1.59                      1.94                      2.33                      20.00%                      2.80</i>									
<i>(Note: See CSI task for note)</i>									
USR BARR Earthwork - Type 4 Brenna - Haul	2,167,628.00	BCY	Subcontractor - Excavation - Earth MN	2,675,975.28	2,891,682.40	3,527,852.53	4,240,125.95	848,025.19	5,088,151.14
<i>1.23                      1.33                      1.63                      1.96                      20.00%                      2.35</i>									
<i>(Note: See CSI task for note)</i>									
USR BARR Earthwork - Type 4 Brenna - Spoil	2,167,628.00	BCY	Subcontractor - Excavation - Earth MN	1,415,972.98	1,479,041.67	1,804,430.83	2,168,745.42	433,749.08	2,602,494.50
<i>0.65                      0.68                      0.83                      1.00                      20.00%                      1.20</i>									
<i>(Note: See CSI task for note)</i>									
USR BARR Earthwork - Type 4 Brenna - Semi Compact and Manage Moisture Content	2,167,628.00	BCY	Subcontractor - Excavation - Earth MN	828,322.09	922,931.29	1,125,976.17	1,353,310.76	270,662.15	1,623,972.91
<i>0.38                      0.43                      0.52                      0.62                      20.00%                      0.75</i>									
<i>(Note: See CSI task for note)</i>									
<b>9010712 Temporary Haul Roads</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,054,950.06</b>	<b>1,141,212.50</b>	<b>1,392,279.25</b>	<b>1,673,380.43</b>	<b>334,676.09</b>	<b>2,008,056.51</b>
<i>1,054,950.06                      1,141,212.50                      1,392,279.25                      1,673,380.43                      334,676.09                      2,008,056.51</i>									



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: The volume of class V aggregate base was calculated using a typical temporary haul road cross section and reach length. This calculation is assuming 1-way traffic and that the haul road would be constructed only on one side of the diversion (protected side). See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment	61,715.00	BCY	Subcontractor - Excavation - Earth MN	142,458.75	152,710.97	186,307.38	223,922.84	44,784.57	268,707.41
(Note: See CSI task for note)									
USR BARR Aggregate Base - Class V - Furnish and Install	34,715.00	ECY	Subcontractor - Excavation - Earth MN	723,013.49	773,529.09	943,705.49	1,134,239.63	226,847.93	1,361,087.56
(Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)									
RSM 312323184600 Hauling, haul road maintenance, includes loading	247.00	DAY	Subcontractor - Excavation - Earth MN	189,477.81	214,972.44	262,266.38	315,217.96	63,043.59	378,261.55
(Note: Cost Book 2008)									
<b>9010713 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation</b>	<b>1.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>404,471.01</b>	<b>428,876.40</b>	<b>523,229.21</b>	<b>628,869.19</b>	<b>125,773.84</b>	<b>754,643.03</b>
<b>901071301 Excavation and Embankment - Channel - Type 1 Non- Saturated Non-Brenna</b>	<b>1,579.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>3,144.06</b>	<b>3,326.43</b>	<b>4,058.24</b>	<b>4,877.60</b>	<b>975.52</b>	<b>5,853.12</b>
<b>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 1 Non-Saturated Non- -Brenna - Excavate and Haul	1,579.00	BCY	Subcontractor - Excavation - Earth MN	1,509.21	1,576.72	1,923.60	2,311.98	462.40	2,774.37
(Note: See CSI task for note)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 1 Non-Saturated Non -Brenna - Spoil  (Note: See CSI task for note)	1,579.00	BCY	Subcontractor - Excavation - Earth MN	0.65 1,031.46	0.68 1,077.40	0.83 1,314.43	1.00 1,579.81	20.00% 315.96	1.20 1,895.78
USR BARR Earthwork - Type 1 Non-Saturated Non -Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	1,579.00	BCY	Subcontractor - Excavation - Earth MN	0.38 603.39	0.43 672.31	0.52 820.21	0.62 985.81	20.00% 197.16	0.75 1,182.98
<b>901071303 Excavation and Embankment - Channel - Type 3 Oxidized Brenna</b>	<b>34,344.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2.98 102,506.44</b>	<b>3.17 108,867.66</b>	<b>3.87 132,818.55</b>	<b>4.65 159,634.61</b>	<b>31,926.92</b>	<b>5.58 191,561.54</b>
<b>(Note: The volume of Type 3 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (BEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations. )</b>									
USR BARR Earthwork - Type 3 Oxidized Brenna - Excavate  (Note: See CSI task for note)	34,344.00	BCY	Subcontractor - Excavation - Earth MN	0.96 32,940.47	0.99 34,148.36	1.21 41,661.00	1.46 50,072.36	20.00% 10,014.47	1.75 60,086.83
USR BARR Earthwork - Type 3 Oxidized Brenna - Haul  (Note: See CSI task for note)	34,344.00	BCY	Subcontractor - Excavation - Earth MN	0.99 34,007.26	1.07 36,662.33	1.30 44,728.04	1.57 53,758.63	20.00% 10,751.73	1.88 64,510.35
USR BARR Earthwork - Type 3 Oxidized Brenna - Spoil  (Note: See CSI task for note)	34,344.00	BCY	Subcontractor - Excavation - Earth MN	0.65 22,434.74	0.68 23,434.01	0.83 28,589.49	1.00 34,361.70	20.00% 6,872.34	1.20 41,234.05
USR BARR Earthwork - Type 3 Oxidized Brenna - Semi Compact and Manage Moisture Content	34,344.00	BCY	Subcontractor - Excavation - Earth MN	0.38 13,123.97	0.43 14,622.97	0.52 17,840.02	0.62 21,441.92	20.00% 4,288.38	0.75 25,730.30

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: See CSI task for note)</b>									
<b>901071304 Excavation and Embankment - Channel - Type 4 Brenna</b>	<b>78,558.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>298,820.52</b>	<b>316,682.31</b>	<b>386,352.42</b>	<b>464,356.97</b>	<b>92,871.39</b>	<b>557,228.37</b>
				3.80	4.03	4.92	5.91		7.09
<b>(Note: The volume of Type 4 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 4 Brenna - Excavate	78,558.00	BCY	Subcontractor - Excavation - Earth MN	120,502.75	124,832.52	152,295.67	183,044.17	36,608.83	219,653.01
				1.53	1.59	1.94	2.33	20.00%	2.80
<b>(Note: See CSI task for note)</b>									
USR BARR Earthwork - Type 4 Brenna - Haul	78,558.00	BCY	Subcontractor - Excavation - Earth MN	96,981.25	104,798.79	127,854.52	153,668.35	30,733.67	184,402.02
				1.23	1.33	1.63	1.96	20.00%	2.35
<b>(Note: See CSI task for note)</b>									
USR BARR Earthwork - Type 4 Brenna - Spoil	78,558.00	BCY	Subcontractor - Excavation - Earth MN	51,316.93	53,602.63	65,395.21	78,598.50	15,719.70	94,318.20
				0.65	0.68	0.83	1.00	20.00%	1.20
<b>(Note: See CSI task for note)</b>									
USR BARR Earthwork - Type 4 Brenna - Semi Compact and Manage Moisture Content	78,558.00	BCY	Subcontractor - Excavation - Earth MN	30,019.60	33,448.38	40,807.02	49,045.96	9,809.19	58,855.15
				0.38	0.43	0.52	0.62	20.00%	0.75
<b>(Note: See CSI task for note)</b>									
<b>9010714a Lower Bank Protection</b>	<b>84,858.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>6,615,131.39</b>	<b>7,071,430.30</b>	<b>8,627,144.96</b>	<b>10,368,965.53</b>	<b>2,073,793.11</b>	<b>12,442,758.64</b>
				77.96	83.33	101.67	122.19		146.63
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F- Drawings for specific dimensions.)</b>									
USR BARR Lower Bank Protection Riprap - Furnish and Install	84,858.00	CY	Subcontractor - Excavation - Earth MN	5,457,975.39	5,834,719.82	7,118,358.18	8,555,554.70	1,711,110.94	10,266,665.64
				64.32	68.76	83.89	100.82	20.00%	120.99

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)</b>									
USR BARR Lower Bank Protection Geotextile - Furnish and Install	289,289.00	SY	Subcontractor - Excavation - Earth MN	1,157,156.00	1,236,710.48	1,508,786.78	1,813,410.83	362,682.17	2,176,093.00
(Note: See CSI task for note)									
<b>9010714b Low Flow Channel Protection</b>	<b>3,981.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>270,397.64</b>	<b>289,058.26</b>	<b>352,651.07</b>	<b>423,851.32</b>	<b>84,770.26</b>	<b>508,621.59</b>
<b>(Note: The area of geotextile and volume of rip rap was calculated from the typical cross sections on the drawings and the reach length. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Grade Control Riprap - Furnish and Install	3,981.00	CY	Subcontractor - Excavation - Earth MN	256,053.64	273,728.11	333,948.29	401,372.45	80,274.49	481,646.94
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
USR BARR Grade Control Geotextile - Furnish and Install	3,586.00	SY	Subcontractor - Excavation - Earth MN	14,344.00	15,330.15	18,702.78	22,478.87	4,495.77	26,974.65
(Note: See CSI task for note)									
<b>9010715 Topsoil Placement - Channel</b>	<b>432,388.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>490,133.99</b>	<b>515,033.07</b>	<b>628,340.35</b>	<b>755,202.26</b>	<b>151,040.45</b>	<b>906,242.72</b>
USR BARR Topsoil - Channel - Placement from Stockpile	432,388.00	BCY	Subcontractor - Excavation - Earth MN	490,133.99	515,033.07	628,340.35	755,202.26	151,040.45	906,242.72
(Note: See CSI task for note)									
<b>9010716 Topsoil Placement - Spoil Berm</b>	<b>2,905,687.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>3,153,398.28</b>	<b>3,332,050.52</b>	<b>4,065,101.63</b>	<b>4,885,845.65</b>	<b>977,169.13</b>	<b>5,863,014.78</b>
				1.09	1.15	1.40	1.68		2.02
				1.09	1.15	1.40	1.68	20.00%	2.02

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Topsoil - Berms - Placement from Stockpile	2,905,687.00	BCY	Subcontractor - Excavation - Earth MN	3,153,398.28	3,332,050.52	4,065,101.63	4,885,845.65	977,169.13	5,863,014.78
(Note: See CSI task for note)									
<b>9010717 Dust Control</b>	<b>666.00</b>	<b>DAY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>333,000.00</b>	<b>333,000.00</b>	<b>406,260.00</b>	<b>488,283.89</b>	<b>97,656.78</b>	<b>585,940.67</b>
USR BARR Dust Control	666.00	DAY	Subcontractor - Excavation - Earth MN	333,000.00	333,000.00	406,260.00	488,283.89	97,656.78	585,940.67
(Note: assume 2 water trucks per day per reach.)									
<b>9010718 Restore Local Roadways</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,590,000.00</b>	<b>1,644,656.25</b>	<b>2,006,480.63</b>	<b>2,411,589.06</b>	<b>482,317.81</b>	<b>2,893,906.88</b>
<b>(Note: Resurface existing roadways damaged during construction; allowance)</b>									
USR BARR Restore Local Haul Roadways - Aggregate Surfacing	9.90	MI	Subcontractor - Excavation - Earth MN	990,000.00	1,024,031.25	1,249,318.13	1,501,555.45	300,311.09	1,801,866.55
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
USR BARR Restore Local Haul Roadways - Bituminous Surfacing	3.00	MI	Subcontractor - Excavation - Earth MN	600,000.00	620,625.00	757,162.50	910,033.61	182,006.72	1,092,040.33
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
<b>9010719 Site Restoration</b>	<b>2,033.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>5,364,811.40</b>	<b>5,721,341.73</b>	<b>6,980,036.91</b>	<b>8,389,306.36</b>	<b>1,677,861.27</b>	<b>10,067,167.63</b>
<b>(Note: The area of site restoration was determined calculating the disturbed area from the drawings. See Consultant Appendix F-Drawings for specific areas.)</b>									
USR BARR Seeding	2,033.00	ACR	Subcontractor - Excavation - Earth MN	2,620,261.40	2,955,826.41	3,606,108.22	4,334,181.47	866,836.29	5,201,017.77
(Note: Material cost quote from Shooting Star Native Seed of \$37.50/lb or \$412.50/acre for seed (Dry Prairie Northwest modified, 11lbs/acre + 3lb/acre cover crop). For cost quote communication see Consultant Exhibit G-F1.26 in Consultant Appendix G.)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Straw Mulch and Disk Anchoring	2,033.00	ACR	Subcontractor - Excavation - Earth MN	400.00 813,200.00	406.88 827,176.88	496.39 1,009,155.79	596.61 1,212,904.34	20.00% 242,580.87	715.93 1,455,485.21
(Note: Assumptions: Estimate from MN DOT 2009 Bid Prices for "disk anchor straw mulch = 2tons/acre at approximately \$400/acre. Assuming mat/lab/equip split = 25/50/25)									
USR BARR Vegetation Establishment and Maintenance	2,033.00	ACR	Subcontractor - Excavation - Earth MN	950.00 1,931,350.00	953.44 1,938,338.44	1,163.19 2,364,772.89	1,398.04 2,842,220.54	20.00% 568,444.11	1,677.65 3,410,664.65
(Note: See CSI task for note)									
<b>9010720 Snow Removal</b>	<b>2,367.00</b>	<b>HR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>102.39 242,347.50</b>	<b>114.79 271,703.61</b>	<b>140.04 331,478.40</b>	<b>168.32 398,403.89</b>	<b>20.00% 79,680.78</b>	<b>201.98 478,084.67</b>
USR BARR Snow Removal	2,367.00	HR	Subcontractor - Excavation - Earth MN	102.39 242,347.50	114.79 271,703.61	140.04 331,478.40	168.32 398,403.89	20.00% 79,680.78	201.98 478,084.67
(Note: Allowance)									
<b>9010721 Monuments and Markers</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>74,000.00</b>	<b>75,271.88</b>	<b>91,831.69</b>	<b>110,372.51</b>	<b>22,074.50</b>	<b>132,447.01</b>
USR BARR Monuments and Markers	1.00	LS	Subcontractor - Excavation - Earth MN	74,000.00	75,271.88	91,831.69	110,372.51	22,074.50	132,447.01
(Note: mat/labor/equip split = 25/50/25)									
<b>902 Hydraulic Structure - Red River Control Structure</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>37,070,894.49 37,070,894.49</b>	<b>40,006,810.66 40,006,810.66</b>	<b>49,542,997.65 49,542,997.65</b>	<b>59,545,728.87 59,545,728.87</b>	<b>11,909,145.77</b>	<b>71,454,874.64 71,454,874.64</b>
<b>90201 Hydraulic Structure - Red River Control Structure - Site work</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>8,882,511.61 8,882,511.61</b>	<b>9,440,094.60 9,440,094.60</b>	<b>11,544,350.98 11,544,350.98</b>	<b>13,875,155.44 13,875,155.44</b>	<b>2,775,031.09</b>	<b>16,650,186.53 16,650,186.53</b>
<b>9020101 Site Preparation and Traffic Control</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>54,000.00 54,000.00</b>	<b>54,000.00 54,000.00</b>	<b>65,880.00 65,880.00</b>	<b>79,181.17 79,181.17</b>	<b>15,836.23</b>	<b>95,017.41 95,017.41</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Historical projects referenced; 1.5% of construction cost, including bridge traffic management costs)</b>									
USR BARR Site Preparation and Traffic Control	1.00	LS	Subcontractor - Excavation - Earth MN	54,000.00	54,000.00	65,880.00	79,181.17	15,836.23	95,017.41
(Note: Miscellaneous site preparation allowance. Determined by cost engineering judgement that will be reconciled upon design refinement.)									
<b>9020102 Temporary Erosion and Sedimentation Control</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>621,378.45</b>	<b>682,061.01</b>	<b>832,114.43</b>	<b>1,000,118.33</b>	<b>200,023.67</b>	<b>1,200,142.00</b>
<b>(Note: Historical projects referenced; 3% of construction cost)</b>									
RSM 312513101120 Erosion control, silt fence, polypropylene, 3' high, includes 7.5' posts	18,000.00	LF	Subcontractor - Excavation - Earth MN	45,587.31	57,548.80	70,209.54	84,384.85	16,876.97	101,261.82
(Note: Cost Book 2008)									
RSM 312513100120 Biodegradable erosion control, revegetation mat, webbed	79,860.00	SY	Subcontractor - Excavation - Earth MN	503,910.21	552,261.46	673,758.98	809,790.92	161,958.18	971,749.10
(Note: The area needing revegetation mat was derived from the drawings. See Consultant Appendix F-Drawings for specific dimensions. Unit cost was obtained from the MII 2008 cost book.)									
USR BARR Temporary Sedimentation Basins	22,000.00	BCY	Subcontractor - Excavation - Earth MN	66,780.92	66,975.43	81,710.02	98,207.28	19,641.46	117,848.73
(Note: Volume based on MPCA NPDES construction permit criteria)									
USR BARR Floating Silt Curtain	600.00	LF	Subcontractor - Excavation - Earth MN	5,100.00	5,275.31	6,435.88	7,735.29	1,547.06	9,282.34
(Note: \$12.62/LF ND DOT 2009 average bid price)									
<b>9020103 Clearing and Grubbing</b>	<b>26.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>28,391.44</b>	<b>32,398.51</b>	<b>39,526.18</b>	<b>47,506.51</b>	<b>9,501.30</b>	<b>57,007.82</b>
				1,091.98	1,246.10	1,520.24	1,827.17	20.00%	2,192.61

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Clearing and Grubbing	26.00	ACR	Subcontractor - Excavation - Earth MN	28,391.44	32,398.51	39,526.18	47,506.51	9,501.30	57,007.82
(Note: Allowance: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
<b>9020104 Strip and Stockpile Topsoil</b>	<b>266,200.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>353,432.30</b>	<b>369,160.41</b>	<b>450,375.70</b>	<b>541,306.56</b>	<b>108,261.31</b>	<b>649,567.87</b>
(Note: It is assumed that the contractor will strip and salvage 12 inches of topsoil from work areas. Topsoil quantities for suitable topsoil stripping are based on channel and spoil pile plan areas multiplied by the depth of 12 inches. The estimate assumes scraper crews will strip material over the structural excavation areas and dozer crews will stockpile at the edges. See Consultant Appendix F-Drawings for specific dimensions. )									
USR BARR Topsoil - Channel - Strip	266,200.00	BCY	Subcontractor - Excavation - Earth MN	195,405.48	203,393.31	248,139.83	298,239.27	59,647.85	357,887.12
(Note: See CSI task for note)									
USR BARR Topsoil - Channel - Stockpile	266,200.00	BCY	Subcontractor - Excavation - Earth MN	158,026.82	165,767.11	202,235.87	243,067.29	48,613.46	291,680.75
(Note: See CSI task for note)									
<b>9020105 Temporary Haul Roads</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>405,666.01</b>	<b>437,165.53</b>	<b>533,341.95</b>	<b>641,023.68</b>	<b>128,204.74</b>	<b>769,228.42</b>
(Note: The volume of class V aggregate base was calculated using a typical temporary haul road cross section and road length (derived from drawing to nearest accessible roadway). Added to this was the volume of base material required to convert the temp haul road to a permanent haul road. (extra thickness). See Consultant Appendix F-Drawings for specific dimensions.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Levee Embankment	37,000.00	BCY	Subcontractor - Excavation - Earth MN	85,408.31	91,554.82	111,696.88	134,248.48	26,849.70	161,098.18
(Note: See CSI task for note)									
USR BARR Aggregate Base - Class V - Furnish and Install	13,167.00	ECY	Subcontractor - Excavation - Earth MN	274,230.70	293,390.68	357,936.63	430,204.04	86,040.81	516,244.85



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)</b>									
RSM 312323184600 Hauling, haul road maintenance, includes loading  (Note: Cost Book 2008)	60.00	DAY	Subcontractor - Excavation - Earth MN	46,027.00	52,220.03	63,708.43	76,571.16	15,314.23	91,885.40
<b>9020106 Coffering - Steel Sheetpile</b>	<b>9,000.00</b>	<b>SF</b>	<b>Subcontractor - Pile Driving MN</b>	<b>871,389.82</b>	<b>914,518.98</b>	<b>1,143,148.73</b>	<b>1,373,950.46</b>	<b>274,790.09</b>	<b>1,648,740.55</b>
<b>(Note: Sheet Pile quantities were obtained from the structural design and drawings. The number of sheets were determined by dividing the total wall length by the width of one sheet (1.5'). See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Sheet Piling - Furnish Material	9,000.00	SF	Subcontractor - Pile Driving MN	157,500.00	168,328.13	210,410.16	252,891.97	50,578.39	303,470.36
(Note: The material cost of \$17.50/SF was obtained from a cost quote from Skyline Steel. Cost quote communication can be found in Consultant Exhibit G-F1.13 in Consultant Appendix G.)									
USR BARR Sheet Piling - Unload Sheeting	7.00	EA	Subcontractor - Pile Driving MN	1,486.28	1,874.40	2,342.99	2,816.05	563.21	3,379.25
(Note: Unit of EA refers to each load of material. See CSI task for note.)									
USR BARR Sheet Piling - Set up Rig	2.00	EA	Subcontractor - Pile Driving MN	4,813.90	5,717.57	7,146.97	8,589.94	1,717.99	10,307.93
(Note: Ea refers to number of rig set ups. See CSI task for note.)									
USR BARR Sheet Piling - Drive Sheets	200.00	EA	Subcontractor - Pile Driving MN	32,092.64	38,117.16	47,646.44	57,266.26	11,453.25	68,719.51
(Note: unit of EA refers to pair of sheets. See CSI task for note.)									
USR BARR Sheet Piling - Cut Sheets	400.00	EA	Subcontractor - Pile Driving MN	5,497.00	7,450.48	9,313.10	11,193.42	2,238.68	13,432.11
(Note: unit of EA refers to number of sheets. See CSI task for note.)									
USR BARR Control of water	1.00	LS	Subcontractor - Pile Driving MN	670,000.00	693,031.25	866,289.06	1,041,192.82	208,238.56	1,249,431.39
(Note: allowance for placement of sheetpile and dewatering of levee fill area)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9020108 Embankment - Temporary Levee</b>	<b>21,352.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>91,802.95</b>	<b>97,816.13</b>	<b>119,335.68</b>	<b>143,429.56</b>	<b>28,685.91</b>	<b>172,115.47</b>
				4.30	4.58	5.59	6.72		8.06
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Excavate (Note: See CSI task for note)	21,352.00	BCY	Subcontractor - Excavation - Earth MN	20,408.23	21,321.19	26,011.85	31,263.64	6,252.73	37,516.37
				0.96	1.00	1.22	1.46	20.00%	1.76
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil (Note: See CSI task for note)	21,352.00	BCY	Subcontractor - Excavation - Earth MN	13,947.90	14,569.15	17,774.36	21,363.01	4,272.60	25,635.61
				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Semi Compact and Manage Moisture Content (Note: See CSI task for note)	21,352.00	BCY	Subcontractor - Excavation - Earth MN	8,159.30	9,091.24	11,091.31	13,330.65	2,666.13	15,996.78
				0.38	0.43	0.52	0.62	20.00%	0.75
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Levee Embankment (Note: See CSI task for note)	21,352.00	BCY	Subcontractor - Excavation - Earth MN	49,287.52	52,834.55	64,458.16	77,472.26	15,494.45	92,966.71
				2.31	2.47	3.02	3.63	20.00%	4.35
<b>9020109 Excavation and Embankment - Channel Realignment</b>	<b>1.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>4,184,901.09</b>	<b>4,441,995.51</b>	<b>5,419,234.53</b>	<b>6,513,377.98</b>	<b>1,302,675.60</b>	<b>7,816,053.57</b>
				4,184,901.09	4,441,995.51	5,419,234.53	6,513,377.98		7,816,053.57
<b>902010901 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>367,010.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,295,740.88</b>	<b>1,374,052.94</b>	<b>1,676,344.59</b>	<b>2,014,798.56</b>	<b>402,959.71</b>	<b>2,417,758.27</b>
				3.53	3.74	4.57	5.49		6.59
<b>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note)	367,010.00	BCY	Subcontractor - Excavation - Earth MN	0.96 350,787.98	1.00 366,480.39	1.22 447,106.08	1.46 537,376.79	20.00% 107,475.36	1.76 644,852.15
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Spoil  (Note: See CSI task for note)	367,010.00	BCY	Subcontractor - Excavation - Earth MN	0.65 239,744.20	0.68 250,422.62	0.83 305,515.60	1.00 367,199.20	20.00% 73,439.84	1.20 440,639.03
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	73,706.00	BCY	Subcontractor - Excavation - Earth MN	0.38 28,165.49	0.43 31,382.49	0.52 38,286.64	0.62 46,016.72	20.00% 9,203.34	0.75 55,220.06
USR BARR Earthwork - Type 1 Non-Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	293,304.00	BCY	Subcontractor - Excavation - Earth MN	2.31 677,043.20	2.47 725,767.43	3.02 885,436.27	3.63 1,064,205.85	20.00% 212,841.17	4.35 1,277,047.02
<b>902010902 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna</b>	<b>305,632.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2.31 705,939.16</b>	<b>2.44 745,595.54</b>	<b>2.98 909,626.56</b>	<b>3.58 1,093,280.16</b>	<b>218,656.03</b>	<b>4.29 1,311,936.19</b>
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul  (Note: See CSI task for note)	305,632.00	BCY	Subcontractor - Excavation - Earth MN	1.27 389,497.23	1.33 406,921.28	1.62 496,443.96	1.95 596,676.00	20.00% 119,335.20	2.34 716,011.20
				0.65	0.68	0.83	1.00	20.00%	1.20

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil  (Note: See CSI task for note)	305,632.00	BCY	Subcontractor - Excavation - Earth MN	199,649.87	208,542.45	254,421.79	305,789.55	61,157.91	366,947.47
				0.38	0.43	0.52	0.62	20.00%	0.75
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	305,632.00	BCY	Subcontractor - Excavation - Earth MN	116,792.06	130,131.80	158,760.80	190,814.60	38,162.92	228,977.52
				2.31	0.00	0.00	0.00	0.00%	0.00
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Levee Embankment  (Note: See CSI task for note)	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00	0.00
				2.98	3.17	3.87	4.65		5.58
<b>902010903 Excavation and Embankment - Channel - Type 3 Oxidized Brenna</b>	<b>483,789.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,443,963.66</b>	<b>1,533,571.44</b>	<b>1,870,957.15</b>	<b>2,248,703.40</b>	<b>449,740.68</b>	<b>2,698,444.08</b>
<b>(Note: The volume of Type 3 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 3 Oxidized Brenna - Excavate  (Note: See CSI task for note)	483,789.00	BCY	Subcontractor - Excavation - Earth MN	464,018.04	481,033.17	586,860.46	705,347.59	141,069.52	846,417.11
				0.96	0.99	1.21	1.46	20.00%	1.75
USR BARR Earthwork - Type 3 Oxidized Brenna - Haul  (Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)	483,789.00	BCY	Subcontractor - Excavation - Earth MN	479,045.43	516,446.24	630,064.41	757,274.42	151,454.88	908,729.30
				0.99	1.07	1.30	1.57	20.00%	1.88
USR BARR Earthwork - Type 3 Oxidized Brenna - Spoil  (Note: See CSI task for note)	483,789.00	BCY	Subcontractor - Excavation - Earth MN	316,028.47	330,104.65	402,727.68	484,038.40	96,807.68	580,846.07
				0.65	0.68	0.83	1.00	20.00%	1.20

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 3 Oxidized Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	483,789.00	BCY	Subcontractor - Excavation - Earth MN	0.38 184,871.72	0.43 205,987.38	0.52 251,304.60	0.62 302,043.00	20.00% 60,408.60	0.75 362,451.60
<b>902010904 Excavation and Embankment - Channel - Type 4 Brenna</b>	<b>152,096.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>3.80 578,545.86</b>	<b>4.03 613,128.04</b>	<b>4.92 748,016.21</b>	<b>5.91 899,040.68</b>	<b>179,808.14</b>	<b>7.09 1,078,848.82</b>
<b>(Note: The volume of Type 4 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 4 Brenna - Excavate  (Note: See CSI task for note)	152,096.00	BCY	Subcontractor - Excavation - Earth MN	1.53 233,305.15	1.59 241,688.01	1.94 294,859.38	2.33 354,391.49	20.00% 70,878.30	2.80 425,269.78
USR BARR Earthwork - Type 4 Brenna - Haul  (Note: See CSI task for note)	152,096.00	BCY	Subcontractor - Excavation - Earth MN	1.23 187,765.21	1.33 202,900.74	1.63 247,538.90	1.96 297,517.01	20.00% 59,503.40	2.35 357,020.41
USR BARR Earthwork - Type 4 Brenna - Spoil  (Note: See CSI task for note)	152,096.00	BCY	Subcontractor - Excavation - Earth MN	0.65 99,354.61	0.68 103,779.95	0.83 126,611.54	1.00 152,174.41	20.00% 30,434.88	1.20 182,609.29
USR BARR Earthwork - Type 4 Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	152,096.00	BCY	Subcontractor - Excavation - Earth MN	0.38 58,120.89	0.43 64,759.34	0.52 79,006.39	0.62 94,957.78	20.00% 18,991.56	0.75 113,949.34
<b>902010905 Excavation and Embankment - Channel</b>	<b>678,433.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>0.24 160,711.54</b>	<b>0.26 175,647.56</b>	<b>0.32 214,290.02</b>	<b>0.38 257,555.18</b>	<b>51,511.04</b>	<b>0.46 309,066.21</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Haul from No-Spoil Areas	678,433.00	BCY	Subcontractor - Excavation - Earth MN	0.24 160,711.54	0.26 175,647.56	0.32 214,290.02	0.38 257,555.18	20.00% 51,511.04	0.46 309,066.21
<b>9020110 Dewatering and Control of Water</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>861,234.76</b>	<b>920,083.71</b>	<b>1,122,502.12</b>	<b>1,349,135.30</b>	<b>269,827.06</b>	<b>1,618,962.36</b>
<b>(Note: The total cost of Dewatering and Control of Water is estimated to be approximately 2% of the total cost of construction of the structure.)</b>									
RSM 312319201100 Dewatering, pumping, 8 hr., attended 8 hours per day, 6" centrifugal pump, includes 20 L.F. of suction hose and 100 L.F. of discharge hose	202.00	DAY	Subcontractor - Excavation - Earth MN	909.58 183,734.76	1,086.26 219,423.55	1,325.23 267,696.73	1,592.80 321,744.70	20.00% 64,348.94	1,911.35 386,093.64
(Note: Cost Book 2008 (includes fuel cost))									
USR BARR Temporary Storm Sewer Pipe	300.00	LF	Subcontractor - Excavation - Earth MN	25.00 7,500.00	25.43 7,628.91	31.02 9,307.27	37.29 11,186.40	20.00% 2,237.28	44.75 13,423.68
(Note: Pipes for temporary crossing along the low flow channel. mat/lab/equip split = 25/50/25)									
USR BARR Control of water	1.00	LS	Subcontractor - Excavation - Earth MN	670,000.00	693,031.25	845,498.13	1,016,204.20	203,240.84	1,219,445.04
<b>9020111 Electrical Utilities</b>	<b>5,000.00</b>	<b>LF</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>24.00</b> <b>120,000.00</b>	<b>25.65</b> <b>128,250.00</b>	<b>31.29</b> <b>156,465.00</b>	<b>37.61</b> <b>188,055.28</b>	<b>37,611.06</b>	<b>45.13</b> <b>225,666.34</b>
USR BARR Electrical Utilities	5,000.00	LF	Subcontractor - Excavation - Earth MN	24.00 120,000.00	25.65 128,250.00	31.29 156,465.00	37.61 188,055.28	20.00% 37,611.06	45.13 225,666.34
(Note: MEZ 2009 quote (BARR) - \$24/LF)									
<b>9020113 Restore Local Roadways</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>400,000.00</b>	<b>413,750.00</b>	<b>504,775.00</b>	<b>606,689.07</b>	<b>121,337.81</b>	<b>728,026.89</b>
<b>(Note: Resurface existing roadways damaged during construction; allowance)</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Restore Local Haul Roadways - Aggregate Surfacing	2.00	MI	Subcontractor - Excavation - Earth MN	100,000.00 200,000.00	103,437.50 206,875.00	126,193.75 252,387.50	151,672.27 303,344.54	20.00% 60,668.91	182,006.72 364,013.44
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
USR BARR Restore Local Haul Roadways - Bituminous Surfacing	1.00	MI	Subcontractor - Excavation - Earth MN	200,000.00 200,000.00	206,875.00 206,875.00	252,387.50 252,387.50	303,344.54 303,344.54	20.00% 60,668.91	364,013.44 364,013.44
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
<b>9020114 Dust Control</b>	<b>60.00</b>	<b>DAY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>30,000.00</b>	<b>30,000.00</b>	<b>36,600.00</b>	<b>43,989.54</b>	<b>8,797.91</b>	<b>52,787.45</b>
USR BARR Dust Control	60.00	DAY	Subcontractor - Excavation - Earth MN	30,000.00	30,000.00	36,600.00	43,989.54	8,797.91	52,787.45
(Note: assume 2 water trucks per day per reach.)									
<b>9020115 Topsoil Placement</b>	<b>266,200.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>301,751.36</b>	<b>317,080.50</b>	<b>386,838.21</b>	<b>464,940.85</b>	<b>92,988.17</b>	<b>557,929.02</b>
USR BARR Topsoil - Placement from Stockpile	266,200.00	BCY	Subcontractor - Excavation - Earth MN	301,751.36	317,080.50	386,838.21	464,940.85	92,988.17	557,929.02
(Note: See CSI task for note.)									
<b>9020116 Site Restoration</b>	<b>165.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>435,412.63</b>	<b>464,348.93</b>	<b>566,505.70</b>	<b>680,883.20</b>	<b>136,176.64</b>	<b>817,059.84</b>
<b>(Note: The area of site restoration was determined calculating the disturbed area from the drawings. See Consultant Appendix F-Drawings for specific areas. )</b>									
USR BARR Seeding	165.00	ACR	Subcontractor - Excavation - Earth MN	212,662.63	239,897.37	292,674.79	351,765.84	70,353.17	422,119.00
(Note: Material cost quote from Shooting Star Native Seed of \$37.50/lb or \$412.50/acre for seed (Dry Prairie Northwest modified, 11lbs/acre + 3lb/acre cover crop). For cost quote communication see Consultant Exhibit G-F1.26 in Consultant Appendix G.)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Straw Mulch and Disk Anchoring	165.00	ACR	Subcontractor - Excavation - Earth MN	400.00 66,000.00	406.88 67,134.38	496.39 81,903.94	596.61 98,440.34	20.00% 19,688.07	715.93 118,128.41
(Note: Assumptions: Estimate from MN DOT 2009 Bid Prices for "disk anchor straw mulch = 2tons/acre at approximately \$400/acre. Assuming mat/lab/equip split = 25/50/25)									
USR BARR Vegetation Establishment and Maintenance	165.00	ACR	Subcontractor - Excavation - Earth MN	950.00 156,750.00	953.44 157,317.19	1,163.19 191,926.97	1,398.04 230,677.02	20.00% 46,135.40	1,677.65 276,812.43
(Note: See CSI task for note.)									
<b>9020117 Miscellaneous Features</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>57,623.80</b>	<b>64,000.94</b>	<b>78,081.14</b>	<b>93,845.73</b>	<b>18,769.15</b>	<b>112,614.87</b>
USR BARR Signage	1.00	LS	Subcontractor - Excavation - Earth MN	4,000.00	4,171.88	5,089.69	6,117.30	1,223.46	7,340.75
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement.)									
RSM 323113202100 Fence, chain link industrial, no barbed wire, galvanized steel, 2" line post, 10' O.C., 1-5/8" top rail, 5' - 0" high, includes excavation, in concrete	3,000.00	LF	Subcontractor - Excavation - Earth MN	16.70 50,091.04	18.65 55,953.86	22.75 68,263.71	27.35 82,046.15	20.00% 16,409.23	32.82 98,455.38
(Note: cost book 2008)									
HNC 323113307215 Gates, swing, chain link, without barbed wire, double, galvanized, 5' high, 20' wide, excludes excavation	4.00	EA	Subcontractor - Excavation - Earth MN	883.19 3,532.76	968.80 3,875.20	1,181.94 4,727.75	1,420.57 5,682.28	20.00% 1,136.46	1,704.68 6,818.74
(Note: cost book 2008)									
<b>9020118 Snow Removal</b>	<b>640.00</b>	<b>HR</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>102.39</b> <b>65,527.00</b>	<b>114.79</b> <b>73,464.43</b>	<b>140.04</b> <b>89,626.61</b>	<b>168.32</b> <b>107,722.22</b>	<b>21,544.44</b>	<b>201.98</b> <b>129,266.66</b>
USR BARR Snow Removal	640.00	HR	Subcontractor - Excavation - Earth MN	102.39 65,527.00	114.79 73,464.43	140.04 89,626.61	168.32 107,722.22	20.00% 21,544.44	201.98 129,266.66



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>90202 Hydraulic Structure Red River Control Structure - Structure</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<i>21,288,678.39</i> <b>21,288,678.39</b>	<i>23,153,733.80</i> <b>23,153,733.80</b>	<i>28,872,099.47</i> <b>28,872,099.47</b>	<i>34,701,376.36</i> <b>34,701,376.36</b>	<b>6,940,275.27</b>	<i>41,641,651.63</i> <b>41,641,651.63</b>
<b>9020201 Earthwork - Structural</b>	<b>44,855.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>3.90</i> <b>175,027.21</b>	<i>4.17</i> <b>186,924.25</b>	<i>5.08</i> <b>228,047.59</b>	<i>6.11</i> <b>274,090.39</b>	<b>54,818.08</b>	<i>7.33</i> <b>328,908.47</b>
USR BARR Earthwork - Structural Excavation	44,855.00	BCY	Subcontractor - Excavation - Earth MN	<i>0.72</i> 32,144.09	<i>0.74</i> 33,403.41	<i>0.91</i> 40,752.16	<i>1.09</i> 48,980.02	<i>20.00%</i> 9,796.00	<i>1.31</i> 58,776.02
(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
USR BARR Earthwork - Structural Haul	44,855.00	BCY	Subcontractor - Excavation - Earth MN	<i>1.29</i> 57,980.11	<i>1.39</i> 62,507.68	<i>1.70</i> 76,259.37	<i>2.04</i> 91,656.14	<i>20.00%</i> 18,331.23	<i>2.45</i> 109,987.37
(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
USR BARR Earthwork - Structural Embankment	44,855.00	BCY	Subcontractor - Excavation - Earth MN	<i>1.89</i> 84,903.01	<i>2.03</i> 91,013.16	<i>2.48</i> 111,036.06	<i>2.98</i> 133,454.24	<i>20.00%</i> 26,690.85	<i>3.57</i> 160,145.09
(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
<b>9020202 Gated Structure</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<i>6,785,442.49</i> <b>6,785,442.49</b>	<i>7,577,823.77</i> <b>7,577,823.77</b>	<i>9,467,823.03</i> <b>9,467,823.03</b>	<i>11,379,376.50</i> <b>11,379,376.50</b>	<b>2,275,875.30</b>	<i>13,655,251.80</i> <b>13,655,251.80</b>
<b>902020201 HP 14X73 Piling</b>	<b>13,442.00</b>	<b>LF</b>	<b>Subcontractor - Pile Driving MN</b>	<i>42.33</i> <b>568,987.62</b>	<i>46.25</i> <b>621,687.81</b>	<i>57.81</i> <b>777,109.76</b>	<i>69.48</i> <b>934,008.22</b>	<b>186,801.64</b>	<i>83.38</i> <b>1,120,809.86</b>
(Note: Pile quantities were obtained from the structural design and drawings. See Consultant Appendix F-Drawings for specific dimensions. )									
USR BARR HP 14X73 Piling - Furnish Material	13,442.00	LF	Subcontractor - Pile Driving MN	<i>29.93</i> 402,319.06	<i>31.99</i> 429,978.50	<i>39.98</i> 537,473.12	<i>48.06</i> 645,988.94	<i>20.00%</i> 129,197.79	<i>57.67</i> 775,186.73
(Note: Material cost was calculated using the steel cost quote from Sioux City Foundary Co. of \$0.41/LB. Assuming a HP 14X73 Pile, \$0.41/LB by 73 lbs. results in \$29.93/LF of pile. For cost quote communication see Consultant Exhibit G-F1.18 in Consultant Appendix G.)									

<u>Description</u>	<u>Quantity</u>	<u>UOM</u>	<u>Contractor</u>	<u>BareCost</u>	<u>DirectCost</u>	<u>CostToPrime</u>	<u>ContractCost</u>	<u>Contingency</u>	<u>ProjectCost</u>
USR BARR HP 14X73 Piling - Set up Rig  (Note: Ea refers to number of rig set ups. See CSI task for note.)	2.00	EA	Subcontractor - Pile Driving MN	2,406.95 4,813.90	2,858.79 5,717.57	3,573.48 7,146.97	4,294.97 8,589.94	20.00% 1,717.99	5,153.96 10,307.93
USR BARR HP 14X73 Piling - Unload Piles  (Note: Each refers to truck loads of piles. See CSI task for note.)	25.00	EA	Subcontractor - Pile Driving MN	499.37 12,484.28	593.56 14,839.11	741.96 18,548.89	891.76 22,293.91	20.00% 4,458.78	1,070.11 26,752.69
USR BARR HP 14X73 Piling - Weld Splices  (Note: Each refers to number of piles that require welding. See CSI task for note.)	72.00	EA	Subcontractor - Pile Driving MN	63.59 4,578.56	80.70 5,810.41	100.88 7,263.02	121.24 8,729.42	20.00% 1,745.88	145.49 10,475.30
USR BARR HP 14X73 Piling - Drive Piling  (Note: See CSI task for note.)	13,442.00	LF	Subcontractor - Pile Driving MN	7.41 99,551.36	8.80 118,239.42	11.00 147,799.27	13.22 177,639.94	20.00% 35,527.99	15.86 213,167.93
USR BARR HP 14X73 Piling - Cut Offs  (Note: EA refers to total number of piles. See CSI task for note.)	286.00	EA	Subcontractor - Pile Driving MN	18.32 5,240.47	24.83 7,102.79	31.04 8,878.49	37.31 10,671.06	20.00% 2,134.21	44.77 12,805.27
USR HP 14X73 Piling - Pile Test, 52 ft  (Note: It is assumed a pile test will be needed on every footing face and the quantity was calculated accordingly. Prior estimating and field experience has shown this is approximately a \$5000 labor cost)	8.00	EA	Subcontractor - Pile Driving MN	5,000.00 40,000.00	5,000.00 40,000.00	6,250.00 50,000.00	7,511.88 60,095.00	20.00% 12,019.00	9,014.25 72,114.00
<b>902020202 Concrete - Footing</b>	<b>2,257.00</b>	<b>CY</b>	<b>Subcontractor - Concrete MN</b>	<b>140.34 316,755.46</b>	<b>151.12 341,072.23</b>	<b>188.90 426,340.28</b>	<b>227.04 512,418.39</b>	<b>20.00% 102,483.68</b>	<b>272.44 614,902.07</b>
<b>(Note: Quantities for form, strip cure and concrete were derived from the structural design and the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Concrete - Footing - Form, Strip and Cure  (Note: See CSI task for note)	1,791.00	SF	Subcontractor - Concrete MN	8.15 14,593.56	9.68 17,340.60	12.10 21,675.75	14.55 26,052.09	20.00% 5,210.42	17.46 31,262.50
				128.56	137.75	172.19	206.95	20.00%	248.34

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Concrete - Footing - Pour	2,257.00	CY	Subcontractor - Concrete MN	290,154.65	310,898.89	388,623.61	467,086.72	93,417.34	560,504.06
(Note: Concrete Material Cost Quote from Aggregate Industries for a 1A43 concrete mix = \$106.40/CY. For cost quote communication see Appendix G, Exhibit F, section G-F1.19.)									
				106.40	113.72	142.14	170.84	20.00%	205.01
USR BARR Concrete - 5% Waste	112.85	CY	Subcontractor - Concrete MN	12,007.24	12,832.74	16,040.92	19,279.58	3,855.92	23,135.50
(Note: Concrete Material Cost Quote from Aggregate Industries for a 1A43 concrete mix = \$106.40/CY. For cost quote communication see Appendix G, Exhibit F, section G-F1.19.)									
				405.95	494.87	618.58	743.48		892.17
<b>902020203 Concrete - Piers</b>	<b>3,953.00</b>	<b>CY</b>	<b>Subcontractor - Concrete MN</b>	<b>1,604,716.95</b>	<b>1,956,209.33</b>	<b>2,445,261.66</b>	<b>2,938,959.98</b>	<b>587,792.00</b>	<b>3,526,751.98</b>
<b>(Note: Quantities for form, strip cure and concrete were derived from the structural design and the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Concrete - Pier - Build Forms	2,560.00	SF	Subcontractor - Concrete MN	12,627.20	14,163.33	17,704.16	21,278.63	4,255.73	25,534.35
(Note: See CSI task for note)									
				4.93	5.53	6.92	8.31	20.00%	9.97
USR BARR Concrete - Pier - Assemble and Modify Forms	4.00	EA	Subcontractor - Concrete MN	930.23	1,177.91	1,472.39	1,769.66	353.93	2,123.60
(Note: See CSI task for note)									
				232.56	294.48	368.10	442.42	20.00%	530.90
USR BARR Concrete - Pier- Form, Strip and Cure	37,501.00	SF	Subcontractor - Concrete MN	456,154.39	552,019.59	690,024.48	829,340.43	165,868.09	995,208.51
(Note: See CSI task for note)									
				12.16	14.72	18.40	22.12	20.00%	26.54
USR BARR Concrete - Pier- Pour	3,953.00	CY	Subcontractor - Concrete MN	1,113,283.39	1,365,633.40	1,707,041.75	2,051,693.47	410,338.69	2,462,032.17
(Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)									
				281.63	345.47	431.83	519.02	20.00%	622.83
USR BARR Concrete - Walls, Piers and Elevated Deck - 5% waste	197.65	CY	Subcontractor - Concrete MN	21,721.74	23,215.10	29,018.88	34,877.79	6,975.56	41,853.35
(Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)									
				109.90	117.46	146.82	176.46	20.00%	211.75
				251.89	288.75	360.94	433.81		520.57

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>902020204 Concrete - Elevated Deck</b>	<b>128.00</b>	<b>CY</b>	<b>Subcontractor - Concrete MN</b>	<b>32,241.49</b>	<b>36,960.01</b>	<b>46,200.01</b>	<b>55,527.80</b>	<b>11,105.56</b>	<b>66,633.35</b>
<b>(Note: Quantities for form, strip cure and concrete were derived from the structural design and the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Concrete - Elevated Deck - Form, Strip and Cure	2,689.00	SF	Subcontractor - Concrete MN	14,220.06	17,538.12	21,922.65	26,348.83	5,269.77	31,618.60
(Note: See CSI task for note.)									
USR BARR Concrete - Elevated Deck - Pour	128.00	CY	Subcontractor - Concrete MN	17,318.07	18,670.18	23,337.72	28,049.61	5,609.92	33,659.53
(Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)									
USR BARR Concrete - Walls, Piers and Elevated Deck - 5% waste	6.40	CY	Subcontractor - Concrete MN	703.36	751.72	939.65	1,129.36	225.87	1,355.23
(Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)									
<b>902020205 Steel Reinforcement Bars</b>	<b>475,140.00</b>	<b>LB</b>	<b>Subcontractor - Steel Erection MN</b>	<b>507,313.27</b>	<b>602,891.73</b>	<b>753,614.66</b>	<b>905,769.46</b>	<b>181,153.89</b>	<b>1,086,923.35</b>
<b>(Note: Rebar quantities were obtained from the structural design and drawings. The amount of rebar was determined by the bar type and spacing in a particular concrete section. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Steel Reinforcement Bars - Furnish and Install	475,140.00	LB	Subcontractor - Steel Erection MN	384,863.40	469,921.03	587,401.29	705,997.61	141,199.52	847,197.14
(Note: The material cost of \$0.41/LB for rebar was obtained from a cost quote from Sioux City Foundary Co. Cost quote communication can be found in Consultant Exhibit G-F1.18 in Consultant Appendix G.)									
USR BARR Steel Reinforcement Bars - Hoist	475,140.00	LB	Subcontractor - Steel Erection MN	122,449.87	132,970.69	166,213.37	199,771.85	39,954.37	239,726.22
(Note: See CSI task for note.)									
<b>902020206 Hydraulic Gates - Steel</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Steel Erection MN</b>	<b>3,194,428.74</b>	<b>3,417,963.93</b>	<b>4,272,454.91</b>	<b>5,135,063.56</b>	<b>1,027,012.71</b>	<b>6,162,076.27</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: The surface area of the hydraulic gates was calculated assuming gate dimensions as shown on the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Hydraulic Gates - Steel - Furnish	6,900.00	SF	Subcontractor - Steel Erection MN	400.00 2,760,000.00	427.50 2,949,750.00	534.38 3,687,187.50	642.27 4,431,630.66	20.00% 886,326.13	770.72 5,317,956.79
(Note: Cost Quote from Rodney Hunt for 30' x 20' carbon steel tainter gate = \$240,000 (\$400/SF). For cost quote communication see Consultant Exhibit G-F1.1 in Consultant Appendix G.)									
USR BARR Hydraulic Gates - Steel - Install	3.00	EA	Subcontractor - Steel Erection MN	44,809.58 134,428.74	56,071.31 168,213.93	70,089.14 210,267.41	84,240.13 252,720.40	20.00% 50,544.08	101,088.16 303,264.48
(Note: See CSI task for note.)									
USR BARR Hydraulic Gate Hoist - Furnish and Install	3.00	EA	Subcontractor - Steel Erection MN	100,000.00 300,000.00	100,000.00 300,000.00	125,000.00 375,000.00	150,237.50 450,712.50	20.00% 90,142.50	180,285.00 540,855.00
(Note: Internal Barr estimate \$100,000 EA. Assume installation cost included in gate installation. (therefore 100% labor cost))									
<b>902020207 Bulkheads - Steel</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Steel Erection MN</b>	<b>315,504.00</b>	<b>335,025.81</b>	<b>418,782.26</b>	<b>503,334.40</b>	<b>100,666.88</b>	<b>604,001.28</b>
USR BARR Bulkheads - Steel - Furnish	1.00	LS	Subcontractor - Steel Erection MN	315,504.00	335,025.81	418,782.26	503,334.40	100,666.88	604,001.28
(Note: Assumptions on material and labor cost: Barr internal estimate of \$0.55/lb for material and \$0.95/lb for fabrication. Assuming 90/10 material/labor split)									
<b>902020208 Bridge Railing</b>	<b>364.00</b>	<b>LF</b>	<b>Subcontractor - Steel Erection MN</b>	40.00 <b>14,560.00</b>	41.38 <b>15,060.50</b>	51.72 <b>18,825.63</b>	62.16 <b>22,626.52</b>	4,525.30	74.59 <b>27,151.82</b>
USR BARR Bridge Railing - Furnish and Install	364.00	LF	Subcontractor - Steel Erection MN	40.00 14,560.00	41.38 15,060.50	51.72 18,825.63	62.16 22,626.52	20.00% 4,525.30	74.59 27,151.82
(Note: Barr (2009) - Internal Estimate \$40/LF. Assuming a mat/lab/equip split = 50/35/15)									
<b>902020209 Steel Sheetpile</b>	<b>3,640.00</b>	<b>SF</b>	<b>Subcontractor - Pile Driving MN</b>	25.30 <b>92,080.55</b>	28.13 <b>102,396.52</b>	35.16 <b>127,995.65</b>	42.26 <b>153,837.97</b>	30,767.59	50.72 <b>184,605.57</b>
<b>(Note: Sheet Pile quantities were obtained from the structural design and drawings. The number of sheets were determined by dividing the total wall length by the width of one sheet (1.5'). See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Sheet Piling - Furnish	3,640.00	SF	Subcontractor - Pile Driving MN	17.50 63,700.00	18.70 68,079.38	23.38 85,099.22	28.10 102,280.75	20.00% 20,456.15	33.72 122,736.90
(Note: The material cost of \$17.50/SF was obtained from a cost quote from Skyline Steel. Cost quote communication can be found in Consultant Exhibit G-F1.13 in Consultant Appendix G.)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Sheet Piling - Unload Sheeting	3.00	EA	Subcontractor - Pile Driving MN	212.33 636.98	267.77 803.31	334.71 1,004.14	402.29 1,206.88	20.00% 241.38	482.75 1,448.25
(Note: Unit of EA refers to each load of material. See CSI task for note.)									
USR BARR Sheet Piling - Set up Rig	2.00	EA	Subcontractor - Pile Driving MN	2,406.95 4,813.90	2,858.79 5,717.57	3,573.48 7,146.97	4,294.97 8,589.94	20.00% 1,717.99	5,153.96 10,307.93
(Note: Ea refers to number of rig set ups. See CSI task for note.)									
USR BARR Sheet Piling - Drive Sheets	122.00	EA	Subcontractor - Pile Driving MN	160.46 19,576.51	190.59 23,251.47	238.23 29,064.33	286.33 34,932.42	20.00% 6,986.48	343.60 41,918.90
(Note: unit of EA refers to pair of sheets. See CSI task for note.)									
USR BARR Sheet Piling - Cut Sheets	244.00	EA	Subcontractor - Pile Driving MN	13.74 3,353.17	18.63 4,544.80	23.28 5,680.99	27.98 6,827.99	20.00% 1,365.60	33.58 8,193.58
(Note: unit of EA refers to number of sheets. See CSI task for note.)									
<b>90202010 Structural Aggregate Backfill</b>	<b>6,667.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>20.83 138,854.41</b>	<b>22.28 148,555.91</b>	<b>27.18 181,238.21</b>	<b>32.67 217,830.21</b>	<b>20.00% 43,566.04</b>	<b>39.21 261,396.25</b>
<b>(Note: The volume of aggregate was calculated as the base material needed for the gated structure work area and the pile caps. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Aggregate Base - Class V - Furnish and Install	6,667.00	ECY	Subcontractor - Excavation - Earth MN	20.83 138,854.41	22.28 148,555.91	27.18 181,238.21	32.67 217,830.21	20.00% 43,566.04	39.21 261,396.25
(Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)									
<b>9020203 Walls</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>5,412,552.24 5,412,552.24</b>	<b>6,064,284.59 6,064,284.59</b>	<b>7,577,405.79 7,577,405.79</b>	<b>9,107,284.02 9,107,284.02</b>	<b>1,821,456.80</b>	<b>10,928,740.83 10,928,740.83</b>
<b>902020301 HP 14X73 Piling</b>	<b>37,688.00</b>	<b>LF</b>	<b>Subcontractor - Pile Driving MN</b>	<b>41.87 1,578,092.50</b>	<b>45.79 1,725,616.03</b>	<b>57.23 2,157,020.04</b>	<b>68.79 2,592,522.38</b>	<b>518,504.48</b>	<b>82.55 3,111,026.86</b>
<b>(Note: Pile quantities were obtained from the structural design and drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR HP 14X73 Piling - Furnish Material	37,688.00	LF	Subcontractor - Pile Driving MN	29.93 1,128,001.84	31.99 1,205,551.97	39.98 1,506,939.96	48.06 1,811,191.14	20.00% 362,238.23	57.67 2,173,429.36
(Note: Material cost was calculated using the steel cost quote from Sioux City Foundary Co. of \$0.41/LB. Assuming a HP 14X73 Pile, \$0.41/LB by 73 lbs. results in \$29.93/LF of pile. For cost quote communication see Consultant Exhibit G-F1.18 in Consultant Appendix G.)									
USR BARR HP 14X73 Piling - Set up Rig	2.00	EA	Subcontractor - Pile Driving MN	2,406.95 4,813.90	2,858.79 5,717.57	3,573.48 7,146.97	4,294.97 8,589.94	20.00% 1,717.99	5,153.96 10,307.93
(Note: Ea refers to number of rig set ups. See CSI task for note.)									
USR BARR HP 14X73 Piling - Unload Piles	69.00	EA	Subcontractor - Pile Driving MN	499.37 34,456.60	593.56 40,955.95	741.96 51,194.93	891.76 61,531.19	20.00% 12,306.24	1,070.11 73,837.43
(Note: Each refers to truck loads of piles. See CSI task for note.)									
USR BARR HP 14X73 Piling - Weld Splices	364.00	EA	Subcontractor - Pile Driving MN	56.59 20,599.14	73.70 26,826.86	92.13 33,533.58	110.73 40,304.01	20.00% 8,060.80	132.87 48,364.81
(Note: Each refers to number of piles that require welding. See CSI task for note)									
USR BARR HP 14X73 Piling - Drive Piling	37,688.00	LF	Subcontractor - Pile Driving MN	7.41 279,117.08	8.80 331,513.70	11.00 414,392.13	13.22 498,057.90	20.00% 99,611.58	15.86 597,669.48
(Note: See CSI task for note.)									
USR BARR HP 14X73 Piling - Cut Offs	606.00	EA	Subcontractor - Pile Driving MN	18.32 11,103.94	24.83 15,049.98	31.04 18,812.47	37.31 22,610.71	20.00% 4,522.14	44.77 27,132.85
(Note: EA refers to total number of piles. See CSI task for note.)									
USR HP 14X73 Piling - Pile Test, 52 ft	20.00	EA	Subcontractor - Pile Driving MN	5,000.00 100,000.00	5,000.00 100,000.00	6,250.00 125,000.00	7,511.88 150,237.50	20.00% 30,047.50	9,014.25 180,285.00
(Note: It is assumed a pile test will be needed on every footing face and the quantity was calculated accordingly. Prior estimating and field experience has shown this is approximately a \$5000 labor cost)									
<b>902020302 Concrete - Footing</b>	<b>2,413.00</b>	<b>CY</b>	<b>Subcontractor - Concrete MN</b>	<b>160.96 388,404.13</b>	<b>175.62 423,767.35</b>	<b>219.52 529,709.19</b>	<b>263.84 636,657.48</b>	<b>20.00% 127,331.50</b>	<b>316.61 763,988.97</b>
<b>(Note: Quantities for form, strip cure and concrete were derived from the structural design and the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
				8.15	9.68	12.10	14.55	20.00%	17.46

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Concrete - Footing - Form, Strip and Cure  (Note: See CSI task for note)	8,021.00	SF	Subcontractor - Concrete MN	65,357.32	77,659.95	97,074.93	116,674.36	23,334.87	140,009.23
				<i>128.56</i>	<i>137.75</i>	<i>172.19</i>	<i>206.95</i>	<i>20.00%</i>	<i>248.34</i>
USR BARR Concrete - Footing - Pour  (Note: Concrete Material Cost Quote from Aggregate Industries for a 1A43 concrete mix = \$106.40/CY. For cost quote communication see Appendix G, Exhibit F, section G-F1.19.)	2,413.00	CY	Subcontractor - Concrete MN	310,209.65	332,387.69	415,484.61	499,370.96	99,874.19	599,245.15
				<i>106.40</i>	<i>113.72</i>	<i>142.14</i>	<i>170.84</i>	<i>20.00%</i>	<i>205.01</i>
USR BARR Concrete - Footing - 5% waste  (Note: Concrete Material Cost Quote from Aggregate Industries for a 1A43 concrete mix = \$106.40/CY. For cost quote communication see Appendix G, Exhibit F, section G-F1.19.)	120.65	CY	Subcontractor - Concrete MN	12,837.16	13,719.71	17,149.64	20,612.16	4,122.43	24,734.59
				<i>234.18</i>	<i>266.91</i>	<i>333.64</i>	<i>401.00</i>		<i>481.20</i>
<b>902020303 Concrete - Elevated Deck</b>	<b>708.00</b>	<b>CY</b>	<b>Subcontractor - Concrete MN</b>	<b>165,799.83</b>	<b>188,974.05</b>	<b>236,217.56</b>	<b>283,909.88</b>	<b>56,781.98</b>	<b>340,691.86</b>
<b>(Note: Quantities for form, strip cure and concrete were derived from the structural design and the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Concrete - Elevated Deck - Form, Strip and Cure  (Note: See CSI task for note.)	12,503.00	SF	Subcontractor - Concrete MN	66,118.80	81,546.70	101,933.38	122,513.73	24,502.75	147,016.47
				<i>5.29</i>	<i>6.52</i>	<i>8.15</i>	<i>9.80</i>	<i>20.00%</i>	<i>11.76</i>
USR BARR Concrete - Elevated Deck - Pour  (Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)	708.00	CY	Subcontractor - Concrete MN	95,790.57	103,269.42	129,086.77	155,149.39	31,029.88	186,179.27
				<i>135.30</i>	<i>145.86</i>	<i>182.33</i>	<i>219.14</i>	<i>20.00%</i>	<i>262.97</i>
USR BARR Concrete - Walls, Piers and Elevated Deck - 5% waste  (Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)	35.40	CY	Subcontractor - Concrete MN	3,890.46	4,157.93	5,197.41	6,246.77	1,249.35	7,496.12
				<i>109.90</i>	<i>117.46</i>	<i>146.82</i>	<i>176.46</i>	<i>20.00%</i>	<i>211.75</i>
<b>902020304 Concrete - Wall</b>	<b>8,355.00</b>	<b>CY</b>	<b>Subcontractor - Concrete MN</b>	<b>1,606,213.05</b>	<b>1,784,109.36</b>	<b>2,230,136.70</b>	<b>2,680,401.30</b>	<b>536,080.26</b>	<b>3,216,481.56</b>
<b>(Note: Quantities for form, strip cure and concrete were derived from the structural design and the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Concrete - Wall- Build Forms  (Note: See CSI task for note.)	2,560.00	SF	Subcontractor - Concrete MN	1.93 4,947.20	2.53 6,483.33	3.17 8,104.16	3.80 9,740.39	20.00% 1,948.08	4.57 11,688.47
USR BARR Concrete - Wall - Assemble and Modify Forms  (Note: See CSI task for note.)	4.00	EA	Subcontractor - Concrete MN	232.56 930.23	294.48 1,177.91	368.10 1,472.39	442.42 1,769.66	20.00% 353.93	530.90 2,123.60
USR BARR Concrete - Wall - Form, Strip and Cure  (Note: See CSI task for note.)	49,109.00	SF	Subcontractor - Concrete MN	9.19 451,083.08	11.10 545,237.45	13.88 681,546.81	16.68 819,151.12	20.00% 163,830.22	20.02 982,981.34
USR BARR Concrete - Wall - Pour  (Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)	8,355.00	CY	Subcontractor - Concrete MN	132.06 1,103,341.81	141.49 1,182,143.58	176.86 1,477,679.48	212.57 1,776,022.96	20.00% 355,204.59	255.08 2,131,227.55
USR BARR Concrete - Walls, Piers and Elevated Deck - 5% waste  (Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)	417.75	CY	Subcontractor - Concrete MN	109.90 45,910.73	117.46 49,067.09	146.82 61,333.86	176.46 73,717.17	20.00% 14,743.43	211.75 88,460.60
<b>902020305 Steel Reinforcement</b>	<b>1,100,839.00</b>	<b>LB</b>	<b>Subcontractor - Steel Erection MN</b>	<b>1.07 1,175,380.37</b>	<b>1.27 1,396,823.52</b>	<b>1.59 1,746,029.40</b>	<b>1.91 2,098,552.74</b>	<b>419,710.55</b>	<b>2,518,263.28</b>
<b>(Note: Rebar quantities were obtained from the structural design and drawings. The amount of rebar was determined by the bar type and spacing in a particular concrete section. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Steel Reinforcement Bars - Hoist  (Note: See CSI task for note.)	1,100,839.00	LB	Subcontractor - Steel Erection MN	0.26 283,700.78	0.28 308,076.20	0.35 385,095.25	0.42 462,845.98	20.00% 92,569.20	0.50 555,415.18
USR BARR Steel Reinforcement Bars - Furnish and Install	1,100,839.00	LB	Subcontractor - Steel Erection MN	0.81 891,679.59	0.99 1,088,747.32	1.24 1,360,934.15	1.49 1,635,706.75	20.00% 327,141.35	1.78 1,962,848.10

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: The material cost of \$0.41/LB for rebar was obtained from a cost quote from Sioux City Foundary Co. Cost quote communication can be found in Consultant Exhibit G-F1.18 in Consultant Appendix G.)</b>									
902020306 Bridge Railing	1,440.00	LF	Subcontractor - Steel Erection MN	57,600.00	59,580.00	74,475.00	89,511.50	17,902.30	107,413.80
				40.00	41.38	51.72	62.16		74.59
USR BARR Bridge Railing - Furnish and Install	1,440.00	LF	Subcontractor - Steel Erection MN	57,600.00	59,580.00	74,475.00	89,511.50	17,902.30	107,413.80
				40.00	41.38	51.72	62.16	20.00%	74.59
(Note: Barr (2009) - Internal Estimate \$40/LF. Assuming a mat/lab/equip split = 50/35/15)									
902020307 Steel Sheetpile	14,400.00	SF	Subcontractor - Pile Driving MN	349,152.29	387,082.62	483,853.27	581,543.25	116,308.65	697,851.90
				24.25	26.88	33.60	40.38		48.46
<b>(Note: Sheet Pile quantities were obtained from the structural design and drawings. The number of sheets were determined by dividing the total wall length by the width of one sheet (1.5'). See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Sheet Piling - Furnish Material	14,400.00	SF	Subcontractor - Pile Driving MN	252,000.00	269,325.00	336,656.25	404,627.15	80,925.43	485,552.58
				17.50	18.70	23.38	28.10	20.00%	33.72
(Note: The material cost of \$17.50/SF was obtained from a cost quote from Skyline Steel. Cost quote communication can be found in Consultant Exhibit G-F1.13 in Consultant Appendix G.)									
USR BARR Sheet Piling - Unload Sheeting	10.00	EA	Subcontractor - Pile Driving MN	2,123.26	2,677.71	3,347.14	4,022.92	804.58	4,827.51
				212.33	267.77	334.71	402.29	20.00%	482.75
(Note: Unit of EA refers to each load of material. See CSI task for note.)									
USR BARR Sheet Piling - Set up Rig	2.00	EA	Subcontractor - Pile Driving MN	4,813.90	5,717.57	7,146.97	8,589.94	1,717.99	10,307.93
				2,406.95	2,858.79	3,573.48	4,294.97	20.00%	5,153.96
(Note: Ea refers to number of rig set ups. See CSI task for note.)									
USR BARR Sheet Piling - Drive Sheets	480.00	EA	Subcontractor - Pile Driving MN	77,022.33	91,481.17	114,351.47	137,439.03	27,487.81	164,926.83
				160.46	190.59	238.23	286.33	20.00%	343.60
(Note: unit of EA refers to pair of sheets. See CSI task for note.)									
USR BARR Sheet Piling - Cut Sheets	960.00	EA	Subcontractor - Pile Driving MN	13,192.80	17,881.16	22,351.45	26,864.21	5,372.84	32,237.05
				13.74	18.63	23.28	27.98	20.00%	33.58
(Note: unit of EA refers to number of sheets. See CSI task for note.)									
				20.83	22.28	27.18	32.67		39.21

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>902020308 Structural Aggregate Backfill</b>	<b>4,413.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>91,910.08</b>	<b>98,331.67</b>	<b>119,964.64</b>	<b>144,185.50</b>	<b>28,837.10</b>	<b>173,022.59</b>
<b>(Note: The volume of aggregate was calculated as the base material needed for the gated structure work area and the pile caps. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Aggregate Base - Class V - Furnish and Install	4,413.00	ECY	Subcontractor - Excavation - Earth MN	91,910.08	98,331.67	119,964.64	144,185.50	28,837.10	173,022.59
(Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)									
<b>9020204 Riprap</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,778,915.69</b>	<b>1,901,780.56</b>	<b>2,320,172.28</b>	<b>2,788,615.06</b>	<b>557,723.01</b>	<b>3,346,338.08</b>
<b>(Note: The volume of rip rap and Select granular aggregate was determined by the area shown on the drawings and a specified thickness. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Select Granular Aggregate - Furnish and Install	9,592.00	CY	Subcontractor - Excavation - Earth MN	545,085.74	582,783.76	710,996.18	854,546.31	170,909.26	1,025,455.58
(Note: Assumptions: Barr Internal Estimate with Aggregate Industries Quote - 8-27-09 - \$40/ton or \$56/CY material delivered)									
USR BARR Riprap - Furnish and Install	19,183.00	CY	Subcontractor - Excavation - Earth MN	1,233,829.95	1,318,996.80	1,609,176.09	1,934,068.75	386,813.75	2,320,882.50
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
USR BARR Riprap - Chink Mortar - Furnish and Install	0.00	CY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00	0.00
<b>9020205 Fish Passage System</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Steel Erection MN</b>	<b>3,489,740.74</b>	<b>3,643,937.81</b>	<b>4,554,922.27</b>	<b>5,474,561.07</b>	<b>1,094,912.21</b>	<b>6,569,473.29</b>
<b>(Note: The surface area of the hydraulic gates was calculated assuming gate dimensions as shown on the drawings. See Consultant Appendix F-Drawings for specific dimensions.)</b>									
				7.31	7.56	9.45	11.36	20.00%	13.64

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Fish Passage System - Furnish and Install  (Note: Assuming a mat/lab/equip split = 50/35/15)	216,800.00	SF	Subcontractor - Steel Erection MN	1,584,808.00	1,639,807.45	2,049,759.31	2,463,605.72	492,721.14	2,956,326.86
				400.00	427.50	534.38	642.27	20.00%	770.72
USR BARR Hydraulic Gates - Steel - Furnish  (Note: Cost Quote from Rodney Hunt for 30' x 20' carbon steel tainter gate = \$240,000 (\$400/SF). For cost quote communication see Consultant Exhibit G-F1.1 in Consultant Appendix G.)	450.00	SF	Subcontractor - Steel Erection MN	180,000.00	192,375.00	240,468.75	289,019.39	57,803.88	346,823.27
USR BARR Hydraulic Gates - Steel - Install  (Note: See CSI task for note.)	3.00	EA	Subcontractor - Steel Erection MN	44,809.58 134,428.74	56,071.31 168,213.93	70,089.14 210,267.41	84,240.13 252,720.40	20.00% 50,544.08	101,088.16 303,264.48
USR BARR Hydraulic Gate Hoist - Furnish and Install  (Note: Internal Barr estimate \$100,000 EA. Assume installation cost included in gate installation. (therefore 100% labor cost))	3.00	EA	Subcontractor - Steel Erection MN	100,000.00 300,000.00	100,000.00 300,000.00	125,000.00 375,000.00	150,237.50 450,712.50	20.00% 90,142.50	180,285.00 540,855.00
USR BARR Bulkheads - Steel - Furnish  (Note: Assumptions on material and labor cost: Barr internal estimate of \$0.55/lb for material and \$0.95/lb for fabrication. Assuming 90/10 material/labor split)	1.00	LS	Subcontractor - Steel Erection MN	315,504.00	335,025.81	418,782.26	503,334.40	100,666.88	604,001.28
USR BARR Wall Extension  (Note: lump sum with a mat/lab/equip split = 50/35/15)	1.00	LS	Subcontractor - Steel Erection MN	975,000.00	1,008,515.63	1,260,644.53	1,515,168.66	303,033.73	1,818,202.39
<b>9020206 Miscellaneous Features</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Steel Erection MN</b>	<b>3,647,000.00</b>	<b>3,778,982.81</b>	<b>4,723,728.52</b>	<b>5,677,449.30</b>	<b>1,135,489.86</b>	<b>6,812,939.16</b>
USR BARR Mechanical - Miscellaneous  (Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)	1.00	LS	Subcontractor - Steel Erection MN	67,000.00	69,303.13	86,628.91	104,119.28	20,823.86	124,943.14
USR BARR Electrical - Miscellaneous  (Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)	1.00	LS	Subcontractor - Steel Erection MN	134,000.00	138,606.25	173,257.81	208,238.56	41,647.71	249,886.28
USR BARR Safety Features - Miscellaneous  (Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)	1.00	LS	Subcontractor - Steel Erection MN	33,500.00	34,651.56	43,314.45	52,059.64	10,411.93	62,471.57

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR SCADA (Supervisory Control and Data Aquisition) System	1.00	LS	Subcontractor - Steel Erection MN	75,000.00	78,437.50	98,046.88	117,842.54	23,568.51	141,411.05
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Facility operation, monitoring and communication system, radio.)									
USR BARR Ice Control Measure - Furnish and Install	3,000.00	LF	Subcontractor - Steel Erection MN	2,700,000.00	2,792,812.50	3,491,015.63	4,195,851.68	839,170.34	5,035,022.02
(Note: The length was calculated as the length across the river corridor for the control structure plus the extension channel inlet. See Consultant Appendix F-Drawings for specific dimensions.)									
USR BARR Debris Control Measure - Furnish and Install	300.00	LF	Subcontractor - Steel Erection MN	270,000.00	279,281.25	349,101.56	419,585.17	83,917.03	503,502.20
(Note: Assuming a mat/lab/equip split = 50/35/15)									
USR BARR Debris Picking Measures	1.00	LS	Subcontractor - Steel Erection MN	167,500.00	179,015.63	223,769.53	268,948.60	53,789.72	322,738.32
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Allowance for removing debris.)									
USR BARR Equipment Storage Shed	5,000.00	SF	Subcontractor - Steel Erection MN	200,000.00	206,875.00	258,593.75	310,803.83	62,160.77	372,964.59
(Note: RSM 50 17 00 97.0010 warehouses and storage buildings. Used to store miscellaneous equipment. Assume mat/lab/equip split = 50/35/15)									
USR BARR Winter Channel Heating Coil System	0.00	LS	Subcontractor - Steel Erection MN	0.00	0.00	0.00	0.00	0.00	0.00
(Note: Low flow channel freeze prevention measure. Assuming a mat/lab/equip split = 50/35/15)									
<b>90203 Hydraulic Structure - Red River Control Structure - Inlet Weir to Diversion</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>4,861,350.86</b>	<b>5,224,311.75</b>	<b>6,432,026.73</b>	<b>7,730,652.93</b>	<b>1,546,130.59</b>	<b>9,276,783.51</b>
<b>9020301 Earthwork - Structural</b>	<b>46,667.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>182,097.76</b>	<b>194,475.40</b>	<b>237,259.99</b>	<b>285,162.78</b>	<b>57,032.56</b>	<b>342,195.33</b>
USR BARR Earthwork - Structural Excavation	46,667.00	BCY	Subcontractor - Excavation - Earth MN	33,442.61	34,752.80	42,398.41	50,958.65	10,191.73	61,150.38

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)</b>									
USR BARR Earthwork - Structural Haul	46,667.00	BCY	Subcontractor - Excavation - Earth MN	60,322.32	65,032.79	79,340.01	95,358.76	19,071.75	114,430.51
<i>1.29      1.39      1.70      2.04      20.00%      2.45</i>									
<i>(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)</i>									
USR BARR Earthwork - Structural Embankment	46,667.00	BCY	Subcontractor - Excavation - Earth MN	88,332.83	94,689.81	115,521.56	138,845.37	27,769.07	166,614.44
<i>1.89      2.03      2.48      2.98      20.00%      3.57</i>									
<i>(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)</i>									
<b>9020302 Steel Sheetpile</b>	<b>87,997.00</b>	<b>SF</b>	<b>Subcontractor - Pile Driving MN</b>	<b>1,744,224.32</b>	<b>1,893,827.73</b>	<b>2,367,284.67</b>	<b>2,845,239.44</b>	<b>569,047.89</b>	<b>3,414,287.33</b>
<i>19.82      21.52      26.90      32.33      38.80</i>									
<b>(Note: Sheet Pile quantities were obtained from the structural design and drawings. The number of sheets were determined by dividing the total wall length by the width of one sheet (1.5'). See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Sheet Piling - Furnish	87,997.00	SF	Subcontractor - Pile Driving MN	1,539,947.50	1,645,818.89	2,057,273.61	2,472,637.16	494,527.43	2,967,164.59
<i>17.50      18.70      23.38      28.10      20.00%      33.72</i>									
<i>(Note: The material cost of \$17.50/SF was obtained from a cost quote from Skyline Steel. Cost quote communication can be found in Consultant Exhibit G-F1.13 in Consultant Appendix G.)</i>									
USR BARR Sheet Piling - Unload Sheeting	59.00	EA	Subcontractor - Pile Driving MN	12,527.23	15,798.48	19,748.10	23,735.24	4,747.05	28,482.29
<i>212.33      267.77      334.71      402.29      20.00%      482.75</i>									
<i>(Note: Unit of EA refers to each load of material. See CSI task for note.)</i>									
USR BARR Sheet Piling - Set up Rig	4.00	EA	Subcontractor - Pile Driving MN	9,627.79	11,435.15	14,293.93	17,179.88	3,435.98	20,615.85
<i>2,406.95      2,858.79      3,573.48      4,294.97      20.00%      5,153.96</i>									
<i>(Note: Ea refers to number of rig set ups. See CSI task for note.)</i>									
USR BARR Sheet Piling - Drive Sheets	969.00	EA	Subcontractor - Pile Driving MN	155,488.83	184,677.62	230,847.03	277,455.04	55,491.01	332,946.05
<i>160.46      190.59      238.23      286.33      20.00%      343.60</i>									
<i>(Note: unit of EA refers to pair of sheets. See CSI task for note.)</i>									
USR BARR Sheet Piling - Cut Sheets	1,938.00	EA	Subcontractor - Pile Driving MN	26,632.97	36,097.59	45,121.99	54,232.12	10,846.42	65,078.55
<i>13.74      18.63      23.28      27.98      20.00%      33.58</i>									
<i>(Note: unit of EA refers to number of sheets. See CSI task for note.)</i>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>9020303 Riprap</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2,885,028.78</b>	<b>3,084,289.87</b>	<b>3,762,833.64</b>	<b>4,522,549.75</b>	<b>904,509.95</b>	<b>5,427,059.70</b>
<b>(Note: The volume of rip rap and Select granular aggregate was determined by the area shown on the drawings and a specified thickness. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Select Granular Aggregate - Furnish and Install	15,556.00	CY	Subcontractor - Excavation - Earth MN	884,002.69	945,140.13	1,153,070.96	1,385,875.99	277,175.20	1,663,051.18
(Note: Assumptions: Barr Internal Estimate with Aggregate Industries Quote - 8-27-09 - \$40/ton or \$56/CY material delivered)									
USR BARR Riprap - Furnish and Install	31,111.00	CY	Subcontractor - Excavation - Earth MN	2,001,026.09	2,139,149.74	2,609,762.68	3,136,673.76	627,334.75	3,764,008.52
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
<b>9020304 Miscellaneous Features</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Steel Erection MN</b>	<b>50,000.00</b>	<b>51,718.75</b>	<b>64,648.44</b>	<b>77,700.96</b>	<b>15,540.19</b>	<b>93,241.15</b>
USR BARR SCADA (Supervisory Control and Data Aquisition) System	1.00	LS	Subcontractor - Steel Erection MN	50,000.00	51,718.75	64,648.44	77,700.96	15,540.19	93,241.15
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Facility operation, monitoring and communication system, radio. Assuming a mat/lab/equip split = 50/35/15)									
<b>90204 Hydraulic Structure - Red River Control Structure - Inlet Weir to Extension Channel</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>2,038,353.63</b>	<b>2,188,670.52</b>	<b>2,694,520.46</b>	<b>3,238,544.14</b>	<b>647,708.83</b>	<b>3,886,252.97</b>
<b>9020401 Earthwork - Structural</b>	<b>19,444.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>75,871.79</b>	<b>81,028.98</b>	<b>98,855.36</b>	<b>118,814.26</b>	<b>23,762.85</b>	<b>142,577.11</b>
USR BARR Earthwork - Structural Excavation	19,444.00	BCY	Subcontractor - Excavation - Earth MN	13,934.00	14,479.90	17,665.48	21,232.14	4,246.43	25,478.56
(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Structural Haul	19,444.00	BCY	Subcontractor - Excavation - Earth MN	1.29 25,133.55	1.39 27,096.18	1.70 33,057.34	2.04 39,731.62	20.00% 7,946.32	2.45 47,677.95
(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
USR BARR Earthwork - Structural Embankment	19,444.00	BCY	Subcontractor - Excavation - Earth MN	1.89 36,804.24	2.03 39,452.90	2.48 48,132.54	2.98 57,850.50	20.00% 11,570.10	3.57 69,420.60
(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
<b>9020402 Temporary Haul Roads</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>10,413.56</b> <b>10,413.56</b>	<b>11,141.14</b> <b>11,141.14</b>	<b>13,592.19</b> <b>13,592.19</b>	<b>16,336.45</b> <b>16,336.45</b>	<b>3,267.29</b>	<b>19,603.74</b> <b>19,603.74</b>
<b>(Note: The volume of class V aggregate base was calculated using a typical temporary haul road cross section and road length (derived from drawing to nearest accessible roadway). Added to this was the volume of base material required to convert the temp haul road to a permanent haul road. (extra thickness). See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Aggregate Base - Class V - Furnish and Install	500.00	ECY	Subcontractor - Excavation - Earth MN	20.83 10,413.56	22.28 11,141.14	27.18 13,592.19	32.67 16,336.45	20.00% 3,267.29	39.21 19,603.74
(Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)									
<b>9020403 Steel Sheetpile</b>	<b>35,400.00</b>	<b>SF</b>	<b>Subcontractor - Pile Driving MN</b>	<b>19.77</b> <b>700,005.48</b>	<b>21.46</b> <b>759,695.64</b>	<b>26.83</b> <b>949,619.55</b>	<b>32.24</b> <b>1,141,347.74</b>	<b>228,269.55</b>	<b>38.69</b> <b>1,369,617.29</b>
<b>(Note: Sheet Pile quantities were obtained from the structural design and drawings. The number of sheets were determined by dividing the total wall length by the width of one sheet (1.5'). See Consultant Appendix F-Drawings for specific dimensions.)</b>									
USR BARR Sheet Piling - Furnish	35,400.00	SF	Subcontractor - Pile Driving MN	17.50 619,500.00	18.70 662,090.63	23.38 827,613.28	28.10 994,708.40	20.00% 198,941.68	33.72 1,193,650.08
(Note: The material cost of \$17.50/SF was obtained from a cost quote from Skyline Steel. Cost quote communication can be found in Consultant Exhibit G-F1.13 in Consultant Appendix G.)									
USR BARR Sheet Piling - Unload Sheeting	24.00	EA	Subcontractor - Pile Driving MN	212.33 5,095.82	267.77 6,426.50	334.71 8,033.13	402.29 9,655.01	20.00% 1,931.00	482.75 11,586.02
(Note: Unit of EA refers to each load of material. See CSI task for note.)									
				2,406.95	2,858.79	3,573.48	4,294.97	20.00%	5,153.96



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Sheet Piling - Set up Rig	4.00	EA	Subcontractor - Pile Driving MN	9,627.79	11,435.15	14,293.93	17,179.88	3,435.98	20,615.85
(Note: Ea refers to number of rig set ups. See CSI task for note.)									
				160.46	190.59	238.23	286.33	20.00%	343.60
USR BARR Sheet Piling - Drive Sheets	350.00	EA	Subcontractor - Pile Driving MN	56,162.12	66,705.02	83,381.28	100,215.96	20,043.19	120,259.15
(Note: unit of EA refers to pair of sheets. See CSI task for note.)									
				13.74	18.63	23.28	27.98	20.00%	33.58
USR BARR Sheet Piling - Cut Sheets	700.00	EA	Subcontractor - Pile Driving MN	9,619.75	13,038.35	16,297.93	19,588.49	3,917.70	23,506.18
(Note: unit of EA refers to number of sheets. See CSI task for note.)									
<b>9020404 Riprap</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,202,062.80</b>	<b>1,285,086.00</b>	<b>1,567,804.92</b>	<b>1,884,344.74</b>	<b>376,868.95</b>	<b>2,261,213.69</b>
<b>(Note: The volume of rip rap and Select granular aggregate was determined by the area shown on the drawings and a specified thickness. See Consultant Appendix F- Drawings for specific dimensions. )</b>									
				56.83	60.76	74.12	89.09	20.00%	106.91
USR BARR Select Granular Aggregate - Furnish and Install	6,481.00	CY	Subcontractor - Excavation - Earth MN	368,296.57	393,767.88	480,396.82	577,388.94	115,477.79	692,866.72
(Note: Assumptions: Barr Internal Estimate with Aggregate Industries Quote - 8-27-09 - \$40/ton or \$56/CY material delivered)									
				64.32	68.76	83.89	100.82	20.00%	120.99
USR BARR Riprap - Furnish and Install	12,963.00	CY	Subcontractor - Excavation - Earth MN	833,766.23	891,318.12	1,087,408.11	1,306,955.80	261,391.16	1,568,346.96
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
<b>9020405 Miscellaneous Features</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Steel Erection MN</b>	<b>50,000.00</b>	<b>51,718.75</b>	<b>64,648.44</b>	<b>77,700.96</b>	<b>15,540.19</b>	<b>93,241.15</b>
USR BARR SCADA (Supervisory Control and Data Aquisition) System	1.00	LS	Subcontractor - Steel Erection MN	50,000.00	51,718.75	64,648.44	77,700.96	15,540.19	93,241.15
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Facility operation, monitoring and communication system, radio. Assuming a mat/lab/equip split = 50/35/15)									
				149,398.02	168,310.43	208,668.38	250,798.52		376,197.78

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>908 Hydraulic Structure - Small Drain Structure (3 Structures)</b>	<b>3.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>448,194.07</b>	<b>504,931.28</b>	<b>626,005.13</b>	<b>752,395.56</b>	<b>376,197.78</b>	<b>1,128,593.34</b>
<b>90801 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>36,000.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>71,682.07</b>	<b>75,840.06</b>	<b>92,524.87</b>	<b>111,205.64</b>	<b>55,602.82</b>	<b>166,808.46</b>
<p>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations. )</p>									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Excavate and Haul	36,000.00	BCY	Subcontractor - Excavation - Earth MN	34,408.78	35,948.05	43,856.62	52,711.27	26,355.64	79,066.91
(Note: See CSI task for note.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil	36,000.00	BCY	Subcontractor - Excavation - Earth MN	23,516.50	24,563.95	29,968.02	36,018.56	18,009.28	54,027.84
(Note: See CSI task for note.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Semi Compact and Manage Moisture Content	36,000.00	BCY	Subcontractor - Excavation - Earth MN	13,756.79	15,328.06	18,700.23	22,475.81	11,237.90	33,713.71
(Note: See CSI task for note.)									
<b>90802 Concrete - Wall</b>	<b>200.00</b>	<b>CY</b>	<b>Subcontractor - Concrete MN</b>	<b>190,039.88</b>	<b>218,767.04</b>	<b>273,458.80</b>	<b>328,670.13</b>	<b>164,335.07</b>	<b>493,005.20</b>
<p>(Note: Quantities for form, strip cure and concrete were derived from the structural design and the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</p>									
USR BARR Concrete - Wall-Build Forms	9,000.00	SF	Subcontractor - Concrete MN	17,392.51	22,792.95	28,491.18	34,243.55	17,121.78	51,365.33
(Note: See CSI task for note.)									
				232.56	294.48	368.10	442.42	50.00%	663.62

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Concrete - Wall - Assemble and Modify Forms  (Note: See CSI task for note.)	3.00	EA	Subcontractor - Concrete MN	697.67	883.43	1,104.29	1,327.25	663.62	1,990.87
USR BARR Concrete - Wall - Form, Strip and Cure  (Note: See CSI task for note.)	9,000.00	SF	Subcontractor - Concrete MN	9.94 89,418.10	11.85 106,673.38	14.82 133,341.72	17.81 160,263.41	50.00% 80,131.71	26.71 240,395.12
USR BARR Concrete - Wall - Pour  (Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)	600.00	CY	Subcontractor - Concrete MN	132.06 79,234.60	141.49 84,893.61	176.86 106,117.02	212.57 127,542.04	50.00% 63,771.02	318.86 191,313.07
USR BARR Concrete - Walls, Piers and Elevated Deck - 5% waste  (Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)	30.00	CY	Subcontractor - Concrete MN	109.90 3,297.00	117.46 3,523.67	146.82 4,404.59	176.46 5,293.87	50.00% 2,646.94	264.69 7,940.81
<b>90803 Steel Reinforcement Bars</b>	<b>90,000.00</b>	<b>LB</b>	<b>Subcontractor - Steel Erection MN</b>	<b>1.07 96,094.19</b>	<b>1.27 114,198.46</b>	<b>1.59 142,748.07</b>	<b>1.91 171,568.91</b>	<b>85,784.45</b>	<b>2.86 257,353.36</b>
<b>(Note: Rebar quantities were obtained from the structural design and drawings. The amount of rebar was determined by the bar type and spacing in a particular concrete section. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Steel Reinforcement Bars - Furnish and Install  (Note: The material cost of \$0.41/LB for rebar was obtained from a cost quote from Sioux City Foundary Co. Cost quote communication can be found in Consultant Exhibit G-F1.18 in Consultant Appendix G.)	90,000.00	LB	Subcontractor - Steel Erection MN	0.81 72,900.00	0.99 89,011.43	1.24 111,264.29	1.49 133,728.55	50.00% 66,864.28	2.23 200,592.83
USR BARR Steel Reinforcement Bars - Hoist  (Note: See CSI task for note.)	90,000.00	LB	Subcontractor - Steel Erection MN	0.26 23,194.19	0.28 25,187.02	0.35 31,483.78	0.42 37,840.36	50.00% 18,920.18	0.63 56,760.53
<b>90804 Erosion Protection</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>90,377.93 90,377.93</b>	<b>96,125.73 96,125.73</b>	<b>117,273.39 117,273.39</b>	<b>140,950.88 140,950.88</b>	<b>70,475.44</b>	<b>211,426.32 211,426.32</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Geotextile Fabric - Furnish and Install	1,770.00	SY	Subcontractor - Excavation - Earth MN	8.00 14,160.00	8.28 14,646.75	10.10 17,869.04	12.13 21,476.79	50.00% 10,738.40	18.20 32,215.19
(Note: Mat/Lab/Equip split = 50/35/15)									
USR BARR Riprap - Furnish and Install	1,185.00	CY	Subcontractor - Excavation - Earth MN	64.32 76,217.93	68.76 81,478.98	83.89 99,404.35	100.82 119,474.09	50.00% 59,737.04	151.23 179,211.13
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
<b>910 Hydraulic Structure - Side Channel Inlet 1X72" (7 Inlets)</b>	<b>7.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>280,529.99 1,963,709.93</b>	<b>303,179.55 2,122,256.82</b>	<b>371,889.52 2,603,226.65</b>	<b>446,974.02 3,128,818.11</b>	<b>1,564,409.05</b>	<b>670,461.02 4,693,227.16</b>
<b>91001 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>84,000.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1.99 167,258.17</b>	<b>2.11 176,960.13</b>	<b>2.57 215,891.36</b>	<b>3.09 259,479.82</b>	<b>129,739.91</b>	<b>4.63 389,219.73</b>
<b>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations. )</b>									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Excavate and Haul	84,000.00	BCY	Subcontractor - Excavation - Earth MN	0.96 80,287.16	1.00 83,878.78	1.22 102,332.12	1.46 122,992.97	50.00% 61,496.49	2.20 184,489.46
(Note: See CSI task for note.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil	84,000.00	BCY	Subcontractor - Excavation - Earth MN	0.65 54,871.84	0.68 57,315.88	0.83 69,925.37	1.00 84,043.30	50.00% 42,021.65	1.50 126,064.95
(Note: See CSI task for note.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Semi Compact and Manage Moisture Content	84,000.00	BCY	Subcontractor - Excavation - Earth MN	0.38 32,099.17	0.43 35,765.47	0.52 43,633.87	0.62 52,443.55	50.00% 26,221.77	0.94 78,665.32
(Note: See CSI task for note.)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>91002 Manhole</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<i>1,351,000.00</i> <b>1,351,000.00</b>	<i>1,443,881.25</i> <b>1,443,881.25</b>	<i>1,761,535.13</i> <b>1,761,535.13</b>	<i>2,117,189.07</i> <b>2,117,189.07</b>	<b>1,058,594.53</b>	<i>3,175,783.60</i> <b>3,175,783.60</b>
USR MOORE 96" Reinforced Concrete Manhole	217.00	LF	Subcontractor - Excavation - Earth MN	<i>3,000.00</i> 651,000.00	<i>3,206.25</i> 695,756.25	<i>3,911.63</i> 848,822.63	<i>4,701.38</i> 1,020,199.91	<i>50.00%</i> 510,099.96	<i>7,052.07</i> 1,530,299.87
(Note: Provided by Moore Engineering)									
USR MOORE 72" Reinforced Concrete Pipe	1,750.00	LF	Subcontractor - Excavation - Earth MN	<i>400.00</i> 700,000.00	<i>427.50</i> 748,125.00	<i>521.55</i> 912,712.50	<i>626.85</i> 1,096,989.15	<i>50.00%</i> 548,494.58	<i>940.28</i> 1,645,483.73
(Note: Provided by Moore Engineering)									
<b>91003 Concrete - Wall</b>	<b>560.00</b>	<b>CY</b>	<b>Subcontractor - Concrete MN</b>	<i>318.48</i> <b>178,347.30</b>	<i>366.82</i> <b>205,419.38</b>	<i>458.53</i> <b>256,774.22</b>	<i>551.10</i> <b>308,616.94</b>	<b>154,308.47</b>	<i>826.65</i> <b>462,925.40</b>
<b>(Note: Quantities for form, strip cure and concrete were derived from the structural design and the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Concrete - Wall- Build Forms	8,400.00	SF	Subcontractor - Concrete MN	<i>1.93</i> 16,233.01	<i>2.53</i> 21,273.42	<i>3.17</i> 26,591.77	<i>3.80</i> 31,960.65	<i>50.00%</i> 15,980.32	<i>5.71</i> 47,940.97
(Note: See CSI task for note.)									
USR BARR Concrete - Wall - Assemble and Modify Forms	7.00	EA	Subcontractor - Concrete MN	<i>232.56</i> 1,627.90	<i>294.48</i> 2,061.35	<i>368.10</i> 2,576.68	<i>442.42</i> 3,096.91	<i>50.00%</i> 1,548.46	<i>663.62</i> 4,645.37
(Note: See CSI task for note.)									
USR BARR Concrete - Wall - Form, Strip and Cure	8,400.00	SF	Subcontractor - Concrete MN	<i>9.94</i> 83,456.89	<i>11.85</i> 99,561.82	<i>14.82</i> 124,452.27	<i>17.81</i> 149,579.19	<i>50.00%</i> 74,789.59	<i>26.71</i> 224,368.78
(Note: See CSI task for note.)									
USR BARR Concrete - Wall - Pour	560.00	CY	Subcontractor - Concrete MN	<i>132.06</i> 73,952.29	<i>141.49</i> 79,234.04	<i>176.86</i> 99,042.55	<i>212.57</i> 119,039.24	<i>50.00%</i> 59,519.62	<i>318.86</i> 178,558.86
(Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)									
				<i>109.90</i>	<i>117.46</i>	<i>146.82</i>	<i>176.46</i>	<i>50.00%</i>	<i>264.69</i>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Concrete - Walls, Piers and Elevated Deck - 5% waste	28.00	CY	Subcontractor - Concrete MN	3,077.20	3,288.76	4,110.95	4,940.95	2,470.47	7,411.42
(Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)									
<b>91004 Steel Reinforcement Bars</b>	<b>84,000.00</b>	<b>LB</b>	<b>Subcontractor - Steel Erection MN</b>	<b>89,687.91</b>	<b>106,585.23</b>	<b>133,231.53</b>	<b>160,130.98</b>	<b>80,065.49</b>	<b>240,196.47</b>
(Note: Rebar quantities were obtained from the structural design and drawings. The amount of rebar was determined by the bar type and spacing in a particular concrete section. See Consultant Appendix F-Drawings for specific dimensions. )									
USR BARR Steel Reinforcement Bars - Furnish and Install	84,000.00	LB	Subcontractor - Steel Erection MN	68,040.00	83,077.34	103,846.67	124,813.32	62,406.66	187,219.98
(Note: The material cost of \$0.41/LB for rebar was obtained from a cost quote from Sioux City Foundary Co. Cost quote communication can be found in Consultant Exhibit G-F1.18 in Consultant Appendix G.)									
USR BARR Steel Reinforcement Bars - Hoist	84,000.00	LB	Subcontractor - Steel Erection MN	21,647.91	23,507.89	29,384.86	35,317.66	17,658.83	52,976.50
(Note: See CSI task for note.)									
<b>91005 Erosion Protection</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>30,416.55</b>	<b>32,304.59</b>	<b>39,411.60</b>	<b>47,368.80</b>	<b>23,684.40</b>	<b>71,053.20</b>
USR BARR Geotextile Fabric - Furnish and Install	763.00	SY	Subcontractor - Excavation - Earth MN	6,104.00	6,313.83	7,702.87	9,258.08	4,629.04	13,887.11
(Note: See CSI task for note.)									
USR BARR Riprap - Furnish and Install	378.00	CY	Subcontractor - Excavation - Earth MN	24,312.55	25,990.76	31,708.73	38,110.72	19,055.36	57,166.08
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
<b>91006 Gates</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Steel Erection MN</b>	<b>147,000.00</b>	<b>157,106.25</b>	<b>196,382.81</b>	<b>236,032.50</b>	<b>118,016.25</b>	<b>354,048.75</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR MOORE 72" Flap Gates	7.00	EA	Subcontractor - Steel Erection MN	21,000.00 147,000.00	22,443.75 157,106.25	28,054.69 196,382.81	33,718.93 236,032.50	50.00% 118,016.25	50,578.39 354,048.75
(Note: Provided by Moore Engineering)									
<b>911 Hydraulic Structure - Side Channel Inlet 2X72" (11 Inlets)</b>	<b>11.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>514,728.45 5,662,012.94</b>	<b>554,603.48 6,100,638.31</b>	<b>679,715.14 7,476,866.53</b>	<b>816,949.63 8,986,445.89</b>	<b>4,493,222.94</b>	<b>1,225,424.44 13,479,668.83</b>
<b>91101 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>132,000.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>262,834.26</b>	<b>278,080.20</b>	<b>339,257.85</b>	<b>407,754.01</b>	<b>203,877.00</b>	<b>611,631.01</b>
(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Excavate and Haul	132,000.00	BCY	Subcontractor - Excavation - Earth MN	126,165.54	131,809.52	160,807.61	193,274.67	96,637.34	289,912.01
(Note: See CSI task for note.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil	132,000.00	BCY	Subcontractor - Excavation - Earth MN	86,227.17	90,067.81	109,882.72	132,068.05	66,034.02	198,102.07
(Note: See CSI task for note.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Semi Compact and Manage Moisture Content	132,000.00	BCY	Subcontractor - Excavation - Earth MN	50,441.55	56,202.88	68,567.51	82,411.29	41,205.65	123,616.94
(Note: See CSI task for note.)									
<b>91102 Manhole</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>4,334,000.00 4,334,000.00</b>	<b>4,631,962.50 4,631,962.50</b>	<b>5,650,994.25 5,650,994.25</b>	<b>6,791,929.99 6,791,929.99</b>	<b>3,395,964.99</b>	<b>10,187,894.98 10,187,894.98</b>
USR MOORE 96" Reinforced Concrete Manhole	682.00	LF	Subcontractor - Excavation - Earth MN	3,000.00 2,046,000.00	3,206.25 2,186,662.50	3,911.63 2,667,728.25	4,701.38 3,206,342.58	50.00% 1,603,171.29	7,052.07 4,809,513.88

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Provided by Moore Engineering)</b>									
USR MOORE 72" Reinforced Concrete Pipe	5,720.00	LF	Subcontractor - Excavation - Earth MN	400.00 2,288,000.00	427.50 2,445,300.00	521.55 2,983,266.00	626.85 3,585,587.41	50.00% 1,792,793.70	940.28 5,378,381.11
<b>(Note: Provided by Moore Engineering)</b>									
<b>91103 Concrete - Wall</b>	<b>1,155.00</b>	<b>CY</b>	<b>Subcontractor - Concrete MN</b>	<b>317.79 367,041.89</b>	<b>365.94 422,665.20</b>	<b>457.43 528,331.50</b>	<b>549.78 635,001.63</b>	<b>317,500.81</b>	<b>824.68 952,502.44</b>
<b>(Note: Quantities for form, strip cure and concrete were derived from the structural design and the drawings. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Concrete - Wall - Build Forms	17,325.00	SF	Subcontractor - Concrete MN	1.93 33,480.59	2.53 43,876.42	3.17 54,845.53	3.80 65,918.84	50.00% 32,959.42	5.71 98,878.26
<b>(Note: See CSI task for note.)</b>									
USR BARR Concrete - Wall - Assemble and Modify Forms	11.00	EA	Subcontractor - Concrete MN	232.56 2,558.13	294.48 3,239.26	368.10 4,049.07	442.42 4,866.58	50.00% 2,433.29	663.62 7,299.87
<b>(Note: See CSI task for note.)</b>									
USR BARR Concrete - Wall - Form, Strip and Cure	17,325.00	SF	Subcontractor - Concrete MN	9.94 172,129.84	11.85 205,346.25	14.82 256,682.81	17.81 308,507.07	50.00% 154,253.54	26.71 462,760.61
<b>(Note: See CSI task for note.)</b>									
USR BARR Concrete - Wall - Pour	1,155.00	CY	Subcontractor - Concrete MN	132.06 152,526.61	141.49 163,420.21	176.86 204,275.26	212.57 245,518.43	50.00% 122,759.22	318.86 368,277.65
<b>(Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)</b>									
USR BARR Concrete - Walls, Piers and Elevated Deck - 5% waste	57.75	CY	Subcontractor - Concrete MN	109.90 6,346.73	117.46 6,783.06	146.82 8,478.83	176.46 10,190.70	50.00% 5,095.35	264.69 15,286.05
<b>(Note: Concrete Material Cost Quote from Aggregate Industries for a 3Y43 concrete mix = \$109.90/CY. For cost quote communication see Consultant Exhibit G-F1.19 in Consultant Appendix G.)</b>									
<b>91104 Steel Reinforcement Bars</b>	<b>173,250.00</b>	<b>LB</b>	<b>Subcontractor - Steel Erection MN</b>	<b>1.07 184,981.32</b>	<b>1.27 219,832.03</b>	<b>1.59 274,790.04</b>	<b>1.91 330,270.15</b>	<b>165,135.08</b>	<b>2.86 495,405.23</b>



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Rebar quantities were obtained from the structural design and drawings. The amount of rebar was determined by the bar type and spacing in a particular concrete section. See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Steel Reinforcement Bars - Furnish and Install	173,250.00	LB	Subcontractor - Steel Erection MN	140,332.50	171,347.01	214,183.76	257,427.47	128,713.73	386,141.20
<i>(Note: The material cost of \$0.41/LB for rebar was obtained from a cost quote from Sioux City Foundary Co. Cost quote communication can be found in Consultant Exhibit G-F1.18 in Consultant Appendix G.)</i>									
USR BARR Steel Reinforcement Bars - Hoist	173,250.00	LB	Subcontractor - Steel Erection MN	44,648.82	48,485.02	60,606.28	72,842.68	36,421.34	109,264.03
<i>(Note: See CSI task for note.)</i>									
<b>91105 Erosion Protection</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>51,155.47</b>	<b>54,335.88</b>	<b>66,289.77</b>	<b>79,673.68</b>	<b>39,836.84</b>	<b>119,510.52</b>
USR BARR Geotextile Fabric - Furnish and Install	1,265.00	SY	Subcontractor - Excavation - Earth MN	10,120.00	10,467.88	12,770.81	15,349.23	7,674.62	23,023.85
<i>(Note: Mat/Lab/Equip split = 50/35/15)</i>									
USR BARR Riprap - Furnish and Install	638.00	CY	Subcontractor - Excavation - Earth MN	41,035.47	43,868.01	53,518.97	64,324.45	32,162.22	96,486.67
<i>(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)</i>									
<b>91106 Gates</b>	<b>2.00</b>	<b>EA</b>	<b>Subcontractor - Steel Erection MN</b>	<b>231,000.00</b>	<b>246,881.25</b>	<b>308,601.56</b>	<b>370,908.22</b>	<b>370,908.22</b>	<b>556,362.33</b>
USR MOORE 72" Flap Gates	22.00	EA	Subcontractor - Steel Erection MN	462,000.00	493,762.50	617,203.13	741,816.44	370,908.22	1,112,724.65
<i>(Note: Provided by Moore Engineering)</i>									
<b>913 Hydraulic Structure - Outlet to Red River of the North</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>1,018,904.17</b>	<b>1,087,794.70</b>	<b>1,327,109.54</b>	<b>1,595,052.95</b>	<b>319,010.59</b>	<b>1,914,063.54</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>91301 Excavation and Embankment - Channel Realignment</b>	<b>1.00</b>	<b>BCY</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>95,935.32</b>	<b>101,658.03</b>	<b>124,022.80</b>	<b>149,063.01</b>	<b>29,812.60</b>	<b>178,875.61</b>
<b>9130101 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna</b>	<b>16,093.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>33,006.98</b>	<b>34,926.95</b>	<b>42,610.88</b>	<b>51,214.01</b>	<b>10,242.80</b>	<b>61,456.82</b>
<p>(Note: The volume of Type 1 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</p>									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Excavate and Haul	16,093.00	BCY	Subcontractor - Excavation - Earth MN	15,381.68	16,069.78	19,605.13	23,563.40	4,712.68	28,276.08
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil	16,093.00	BCY	Subcontractor - Excavation - Earth MN	10,512.53	10,980.77	13,396.54	16,101.30	3,220.26	19,321.56
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Semi Compact and Manage Moisture Content	15,593.00	BCY	Subcontractor - Excavation - Earth MN	5,958.60	6,639.18	8,099.80	9,735.15	1,947.03	11,682.18
(Note: See CSI task for note)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Levee Embankment	500.00	BCY	Subcontractor - Excavation - Earth MN	1,154.17	1,237.23	1,509.42	1,814.17	362.83	2,177.00
(Note: See CSI task for note)									
<b>9130102 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna</b>	<b>7,537.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>17,408.73</b>	<b>18,386.67</b>	<b>22,431.73</b>	<b>26,960.70</b>	<b>5,392.14</b>	<b>32,352.84</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: The volume of Type 2 excavation based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Excavate and Haul	7,537.00	BCY	Subcontractor - Excavation - Earth MN	9,605.15	10,034.83	12,242.49	14,714.25	2,942.85	17,657.11
(Note: See CSI task for note)				1.27	1.33	1.62	1.95	20.00%	2.34
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Spoil	7,537.00	BCY	Subcontractor - Excavation - Earth MN	4,923.44	5,142.74	6,274.14	7,540.89	1,508.18	9,049.06
(Note: See CSI task for note)				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Semi Compact and Manage Moisture Content	7,537.00	BCY	Subcontractor - Excavation - Earth MN	2,880.14	3,209.10	3,915.10	4,705.56	941.11	5,646.67
(Note: See CSI task for note)				0.38	0.43	0.52	0.62	20.00%	0.75
USR BARR Earthwork - Type 2 Saturated Non- Brenna - Levee Embankment	0.00	BCY	Subcontractor - Excavation - Earth MN	0.00	0.00	0.00	0.00	0.00%	0.00
(Note: See CSI task for note)				2.31	0.00	0.00	0.00	0.00%	0.00
<b>9130103 Excavation and Embankment - Channel - Type 3 Oxidized Brenna</b>	<b>15,251.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>45,519.62</b>	<b>48,344.42</b>	<b>58,980.19</b>	<b>70,888.29</b>	<b>14,177.66</b>	<b>85,065.95</b>
<b>(Note: The volume of Type 3 excavation is based on the stratigraphic profiles developed in coordination with USACE, based on a number of soil borings performed by the Corps of Engineers. Digital 3-D grading models are developed to calculate volumes of excavations in bank cubic yards (HEI). Earthwork quantities are calculated using the average end area method using cross sections at 100 foot intervals as well as at specific stations.)</b>									
USR BARR Earthwork - Type 3 Oxidized Brenna - Excavate	15,251.00	BCY	Subcontractor - Excavation - Earth MN	14,627.74	15,164.12	18,500.23	22,235.43	4,447.09	26,682.52
(Note: See CSI task for note)				0.96	0.99	1.21	1.46	20.00%	1.75
				0.99	1.07	1.30	1.57	20.00%	1.88

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Earthwork - Type 3 Oxidized Brenna - Haul  (Note: See CSI task for note)	15,251.00	BCY	Subcontractor - Excavation - Earth MN	15,101.46	16,280.49	19,862.20	23,872.37	4,774.47	28,646.85
				0.65	0.68	0.83	1.00	20.00%	1.20
USR BARR Earthwork - Type 3 Oxidized Brenna - Spoil  (Note: See CSI task for note)	15,251.00	BCY	Subcontractor - Excavation - Earth MN	9,962.50	10,406.24	12,695.62	15,258.86	3,051.77	18,310.63
				0.38	0.43	0.52	0.62	20.00%	0.75
USR BARR Earthwork - Type 3 Oxidized Brenna - Semi Compact and Manage Moisture Content  (Note: See CSI task for note)	15,251.00	BCY	Subcontractor - Excavation - Earth MN	5,827.91	6,493.56	7,922.14	9,521.63	1,904.33	11,425.95
				4,623.62	4,946.66	6,034.93	7,253.38		8,704.06
<b>91303 Temporary Haul Roads</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>4,623.62</b>	<b>4,946.66</b>	<b>6,034.93</b>	<b>7,253.38</b>	<b>1,450.68</b>	<b>8,704.06</b>
<b>(Note: The volume of class V aggregate base was calculated using a typical temporary haul road cross section and road length (derived from drawing to nearest accessible roadway). Added to this was the volume of base material required to convert the temp haul road to a permanent haul road. (extra thickness). See Consultant Appendix F-Drawings for specific dimensions.)</b>									
				20.83	22.28	27.18	32.67	20.00%	39.21
USR BARR Aggregate Base - Class V - Furnish and Install  (Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)	222.00	ECY	Subcontractor - Excavation - Earth MN	4,623.62	4,946.66	6,034.93	7,253.38	1,450.68	8,704.06
				93.43	99.86	121.83	146.43		175.71
<b>91304 Erosion Protection</b>	<b>9,722.00</b>	<b>CY</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>908,345.23</b>	<b>970,846.25</b>	<b>1,184,432.43</b>	<b>1,423,569.34</b>	<b>284,713.87</b>	<b>1,708,283.20</b>
				64.32	68.76	83.89	100.82	20.00%	120.99
USR BARR Riprap - Furnish and Install  (Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)	9,722.00	CY	Subcontractor - Excavation - Earth MN	625,308.59	668,471.40	815,535.11	980,191.65	196,038.33	1,176,229.98

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Select Granular Aggregate - Furnish and Install	4,861.00	CY	Subcontractor - Excavation - Earth MN	56.83 276,236.63	60.76 295,341.10	74.12 360,316.14	89.09 433,063.97	20.00% 86,612.79	106.91 519,676.77
(Note: Assumptions: Barr Internal Estimate with Aggregate Industries Quote - 8-27-09 - \$40/ton or \$56/CY material delivered)									
USR BARR Floating Silt Curtain	800.00	LF	Subcontractor - Excavation - Earth MN	8.50 6,800.00	8.79 7,033.75	10.73 8,581.18	12.89 10,313.71	20.00% 2,062.74	15.47 12,376.46
(Note: \$12.62/LF ND DOT 2009 average bid price)									
<b>91305 Miscellaneous Features</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>10,000.00</b> <b>10,000.00</b>	<b>10,343.75</b> <b>10,343.75</b>	<b>12,619.38</b> <b>12,619.38</b>	<b>15,167.23</b> <b>15,167.23</b>	<b>3,033.45</b>	<b>18,200.67</b> <b>18,200.67</b>
USR BARR SCADA (Supervisory Control and Data Acquisition) System	1.00	LS	Subcontractor - Excavation - Earth MN	10,000.00	10,343.75	12,619.38	15,167.23	3,033.45	18,200.67
(Note: Determined by cost engineering judgement that will be reconciled upon design refinement. Assuming a mat/lab/equip split = 50/35/15)									
<b>914 Diversion Channel Drop Structure</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>2,700,793.35</b> <b>2,700,793.35</b>	<b>2,894,972.74</b> <b>2,894,972.74</b>	<b>3,583,314.56</b> <b>3,583,314.56</b>	<b>4,306,785.77</b> <b>4,306,785.77</b>	<b>861,357.15</b>	<b>5,168,142.92</b> <b>5,168,142.92</b>
<b>91401 Steel Sheetpile</b>	<b>87,997.00</b>	<b>SF</b>	<b>Subcontractor - Pile Driving MN</b>	<b>18.15</b> <b>1,596,993.69</b>	<b>19.49</b> <b>1,714,927.17</b>	<b>24.36</b> <b>2,143,658.97</b>	<b>29.28</b> <b>2,576,463.71</b>	<b>515,292.74</b>	<b>35.13</b> <b>3,091,756.46</b>
<b>(Note: Sheet Pile quantities were obtained from the structural design and drawings. The number of sheets were determined by dividing the total wall length by the width of one sheet (1.5'). See Consultant Appendix F-Drawings for specific dimensions. )</b>									
USR BARR Sheet Piling - Furnish	87,997.00	SF	Subcontractor - Pile Driving MN	17.50 1,539,947.50	18.70 1,645,818.89	23.38 2,057,273.61	28.10 2,472,637.16	20.00% 494,527.43	33.72 2,967,164.59
(Note: The material cost of \$17.50/SF was obtained from a cost quote from Skyline Steel. Cost quote communication can be found in Consultant Exhibit G-F1.13 in Consultant Appendix G.)									
USR BARR Sheet Piling - Unload Sheeting	7.00	EA	Subcontractor - Pile Driving MN	212.33 1,486.28	267.77 1,874.40	334.71 2,342.99	402.29 2,816.05	20.00% 563.21	482.75 3,379.25
(Note: Unit of EA refers to each load of material. See CSI task for note.)									
				2,406.95	2,858.79	3,573.48	4,294.97	20.00%	5,153.96

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Sheet Piling - Set up Rig	2.00	EA	Subcontractor - Pile Driving MN	4,813.90	5,717.57	7,146.97	8,589.94	1,717.99	10,307.93
(Note: Ea refers to number of rig set ups. See CSI task for note.)									
USR BARR Sheet Piling - Drive Sheets	270.00	EA	Subcontractor - Pile Driving MN	43,325.06	51,458.16	64,322.70	77,309.45	15,461.89	92,771.34
(Note: unit of EA refers to pair of sheets. See CSI task for note.)									
USR BARR Sheet Piling - Cut Sheets	540.00	EA	Subcontractor - Pile Driving MN	7,420.95	10,058.15	12,572.69	15,111.12	3,022.22	18,133.34
(Note: unit of EA refers to number of sheets. See CSI task for note.)									
<b>91402 Riprap</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>1,103,799.67</b>	<b>1,180,045.57</b>	<b>1,439,655.59</b>	<b>1,730,322.05</b>	<b>346,064.41</b>	<b>2,076,386.47</b>
USR BARR Select Granular Aggregate - Furnish and Install	7,200.00	CY	Subcontractor - Excavation - Earth MN	409,155.27	437,452.36	533,691.88	641,444.27	128,288.85	769,733.13
(Note: Assumptions: Barr Internal Estimate with Aggregate Industries Quote - 8-27-09 - \$40/ton or \$56/CY material delivered)									
USR BARR Riprap - Furnish and Install	10,800.00	CY	Subcontractor - Excavation - Earth MN	694,644.40	742,593.20	905,963.71	1,088,877.78	217,775.56	1,306,653.34
(Note: Material Cost quote from Aggregate industries of 42.50/ton for Class V rip rap (approx \$60/CY material cost) including delivery, large quantity. For cost quote communication see Consultant Exhibit G-F1.25 in Consultant Appendix G.)									
<b>09 20 Plantings</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>691,287.88</b>	<b>691,287.88</b>	<b>691,287.88</b>	<b>830,858.90</b>	<b>166,171.78</b>	<b>997,030.68</b>
<b>(Note: Trees along the diversion channel)</b>									
<b>Main Channel Plantings</b>	<b>130,000.00</b>	<b>LF</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>615,530.30</b>	<b>615,530.30</b>	<b>615,530.30</b>	<b>739,805.87</b>	<b>147,961.17</b>	<b>887,767.05</b>
USR Trees Along Main Channel	24.62	MI	Prime - Management (Excavation - Earth) MN	615,530.30	615,530.30	615,530.30	739,805.87	147,961.17	887,767.05

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>Extension Channel Plantings</b>	<b>16,000.00</b>	<b>LF</b>	<b>Prime - Management (Excavation - Earth) MN</b>	4.73 <b>75,757.58</b>	4.73 <b>75,757.58</b>	4.73 <b>75,757.58</b>	5.69 <b>91,053.03</b>	18,210.61	6.83 <b>109,263.64</b>
USR Trees Along Extension Channel	3.03	MI	Prime - Management (Excavation - Earth) MN	25,000.00 75,757.58	25,000.00 75,757.58	25,000.00 75,757.58	30,047.50 91,053.03	20.00% 18,210.61	36,057.00 109,263.64
<b>11 Levees, Floodwalls and Floodproofing</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth ND</b>	<b>11,923,249.96</b>	<b>12,214,592.90</b>	<b>6,861,393.34</b>	<b>14,837,208.65</b>	<b>3,272,302.99</b>	<b>18,109,511.64</b>
<b>1101 Tie-Back Levee</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth ND</b>	5,332,749.96 <b>5,332,749.96</b>	5,624,092.90 <b>5,624,092.90</b>	6,861,393.34 <b>6,861,393.34</b>	8,246,708.65 <b>8,246,708.65</b>	1,954,202.99	10,200,911.64 <b>10,200,911.64</b>
<b>110101 Temporary Erosion and Sedimentation Control</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth ND</b>	182,782.99 <b>182,782.99</b>	205,954.53 <b>205,954.53</b>	251,264.53 <b>251,264.53</b>	301,994.84 <b>301,994.84</b>	60,398.97	362,393.81 <b>362,393.81</b>
<b>(Note: Historical projects referenced; 3% of construction cost)</b>									
RSM 312513101120 Erosion control, silt fence, polypropylene, 3' high, includes 7.5' posts	45,000.00	LF	Subcontractor - Excavation - Earth ND	2.53 113,968.29	3.06 137,667.08	3.73 167,953.84	4.49 201,863.72	20.00% 40,372.74	5.38 242,236.46
(Note: Cost Book 2008)									
USR BARR Temporary Sedimentation Basins	22,670.00	BCY	Subcontractor - Excavation - Earth ND	3.04 68,814.71	3.01 68,287.46	3.67 83,310.70	4.42 100,131.13	20.00% 20,026.23	5.30 120,157.35
(Note: Volume based on MPCA NPDES construction permit criteria)									
<b>110102 Strip and Stockpile Topsoil - Channel</b>	<b>165,000.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth ND</b>	1.33 <b>219,069.61</b>	1.36 <b>224,993.18</b>	1.66 <b>274,491.67</b>	2.00 <b>329,911.54</b>	65,982.31	2.40 <b>395,893.85</b>
(Note: )									
				0.73	0.75	0.92	1.10	20.00%	1.32

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Topsoil - Channel - Strip	165,000.00	BCY	Subcontractor - Excavation - Earth ND	121,119.10	124,026.31	151,312.10	181,862.01	36,372.40	218,234.42
(Note: See CSI task for note.)									
USR BARR Topsoil - Channel - Stockpile	165,000.00	BCY	Subcontractor - Excavation - Earth ND	97,950.51	100,966.86	123,179.57	148,049.53	29,609.91	177,659.43
(Note: See CSI task for note.)									
<b>110103 Excavation and Embankment - Tie-Back Levee</b>	<b>575,000.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth ND</b>	<b>2,610,966.51</b>	<b>2,748,437.56</b>	<b>3,353,093.82</b>	<b>4,030,083.46</b>	<b>806,016.69</b>	<b>4,836,100.15</b>
USR BARR Earthwork - Tie Back Levee - Haul from diversion excavation	575,000.00	BCY	Subcontractor - Excavation - Earth ND	908,064.45	968,443.79	1,181,501.43	1,420,046.56	284,009.31	1,704,055.88
(Note: See Index Costs and Historical Cost References in the Project Property Notes within Project Library included with this MII file.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Spoil	575,000.00	BCY	Subcontractor - Excavation - Earth ND	375,610.79	385,847.08	470,733.43	565,774.51	113,154.90	678,929.41
(Note: See CSI task for note.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Semi Compact and Manage Moisture Content	0.00	BCY	Subcontractor - Excavation - Earth ND	0.00	0.00	0.00	0.00	0.00%	0.00
(Note: See CSI task for note.)									
USR BARR Earthwork - Type 1 Non-Saturated Non-Brenna - Levee Embankment	575,000.00	BCY	Subcontractor - Excavation - Earth ND	1,327,291.27	1,394,146.69	1,700,858.96	2,044,262.39	408,852.48	2,453,114.86
(Note: See CSI task for note.)									
<b>110104 Topsoil Placement</b>	<b>165,000.00</b>	<b>BCY</b>	<b>Subcontractor - Excavation - Earth ND</b>	<b>1,201,323.90</b>	<b>1,278,315.78</b>	<b>1,559,545.25</b>	<b>1,874,417.44</b>	<b>374,883.49</b>	<b>2,249,300.92</b>



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR BARR Topsoil - Berms - Placement from Stockpile	165,000.00	BCY	Subcontractor - Excavation - Earth ND	179,066.33	185,732.74	226,593.95	272,343.26	54,468.65	326,811.92
(Note: See CSI task for note.)									
USR BARR Aggregate Base - Class V - Furnish and Install	49,083.00	ECY	Subcontractor - Excavation - Earth ND	1,022,257.56	1,092,583.04	1,332,951.30	1,602,074.17	320,414.83	1,922,489.01
(Note: Aggregate material cost quote from Aggregate Industries of \$10.75/ton or \$15-\$20/CY. For cost quote communication see Consultant Exhibit G-F1.27 in Consultant Appendix G.)									
<b>110105 Site Restoration</b>	<b>170.00</b>	<b>ACR</b>	<b>Subcontractor - Excavation - Earth ND</b>	<b>448,606.95</b>	<b>473,360.60</b>	<b>577,499.93</b>	<b>694,097.17</b>	<b>138,819.43</b>	<b>832,916.60</b>
<b>(Note: The area of site restoration was determined calculating the disturbed area from the drawings. See Consultant Appendix F-Drawings for specific areas.)</b>									
USR BARR Seeding	170.00	ACR	Subcontractor - Excavation - Earth ND	219,106.95	241,873.73	295,085.95	354,663.80	70,932.76	425,596.56
(Note: Material cost quote from Shooting Star Native Seed of \$37.50/lb or \$412.50/acre for seed (Dry Prairie Northwest modified, 11lbs/acre + 3lb/acre cover crop). For cost quote communication see Consultant Exhibit G-F1.26 in Consultant Appendix G.)									
USR BARR Straw Mulch and Disk Anchoring	170.00	ACR	Subcontractor - Excavation - Earth ND	68,000.00	69,402.50	84,671.05	101,766.13	20,353.23	122,119.36
(Note: Assumptions: Estimate from MN DOT 2009 Bid Prices for "disk anchor straw mulch = 2tons/acre at approximately \$400/acre. Assuming mat/lab/equip split = 25/50/25)									
USR BARR Vegetation Establishment and Maintenance	170.00	ACR	Subcontractor - Excavation - Earth ND	161,500.00	162,084.38	197,742.94	237,667.24	47,533.45	285,200.68
(Note: See CSI task for note)									
<b>110106 Floodwall</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth ND</b>	<b>670,000.00</b>	<b>693,031.25</b>	<b>845,498.13</b>	<b>1,016,204.20</b>	<b>508,102.10</b>	<b>1,524,306.29</b>
USR BARR Floodwall	1.00	LS	Subcontractor - Excavation - Earth ND	670,000.00	693,031.25	845,498.13	1,016,204.20	508,102.10	1,524,306.29

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>1102 Non-Structural Floodproofing</b>	<b>1.00</b>	<b>EA</b>		<b>6,590,500.00</b>	<b>6,590,500.00</b>	<b>0.00</b>	<b>6,590,500.00</b>	<b>1,318,100.00</b>	<b>7,908,600.00</b>
<b>(Note: Costs for Non-Structural Floodproofing provided by Omaha District)</b>									
<b>Residential Structures w/Basements</b>	<b>1.00</b>	<b>LS</b>		<b>5,888,500.00</b>	<b>5,888,500.00</b>	<b>0.00</b>	<b>5,888,500.00</b>	<b>1,177,700.00</b>	<b>7,066,200.00</b>
USR Buyouts	1.00	LS		1,099,600.00	1,099,600.00	0.00	1,099,600.00	219,920.00	1,319,520.00
USR Elevate Main Floor	1.00	LS		2,420,600.00	2,420,600.00	0.00	2,420,600.00	484,120.00	2,904,720.00
USR Elevate Entire Structure	1.00	LS		2,368,300.00	2,368,300.00	0.00	2,368,300.00	473,660.00	2,841,960.00
<b>Bi-Level Residences</b>	<b>1.00</b>	<b>LS</b>		<b>354,000.00</b>	<b>354,000.00</b>	<b>0.00</b>	<b>354,000.00</b>	<b>70,800.00</b>	<b>424,800.00</b>
USR Elevate Entire Structure	1.00	LS		354,000.00	354,000.00	0.00	354,000.00	70,800.00	424,800.00
<b>Critical Facilities</b>	<b>1.00</b>	<b>LS</b>		<b>348,000.00</b>	<b>348,000.00</b>	<b>0.00</b>	<b>348,000.00</b>	<b>69,600.00</b>	<b>417,600.00</b>
USR Floodwall	1.00	LS		348,000.00	348,000.00	0.00	348,000.00	69,600.00	417,600.00
<b>14 Recreation Facilities</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>11,874,429.77</b>	<b>12,424,130.32</b>	<b>16,187,399.39</b>	<b>19,455,635.33</b>	<b>0.00</b>	<b>19,455,635.33</b>
<b>Multi-Purpose Trails</b>	<b>30.00</b>	<b>MI</b>	<b>Subcontractor - Recreation MN</b>	<b>4,401,514.82</b>	<b>4,778,842.01</b>	<b>6,226,353.25</b>	<b>7,483,453.97</b>	<b>0.00</b>	<b>7,483,453.97</b>
				146,717.16	159,294.73	207,545.11	249,448.47		249,448.47
<b>Compacted 12-inch Subgrade</b>	<b>93,900.00</b>	<b>CY</b>	<b>Subcontractor - Recreation MN</b>	<b>190,747.26</b>	<b>210,300.86</b>	<b>274,000.99</b>	<b>329,321.79</b>	<b>0.00</b>	<b>329,321.79</b>
				2.03	2.24	2.92	3.51		3.51
<b>(Note: 10-foot wide trail + 3-foot shoulders each side = 16-feet. 16 ft x 5280 ft/mile x 1 ft = 84480 CF = 3,130 CY/mile)</b>									
RSM 312323170020 Fill, dumped material, spread, by dozer, excludes compaction	122,070.00	LCY	Subcontractor - Recreation MN	173,616.58	190,125.80	247,714.91	297,728.55	0.00%	297,728.55
				1.42	1.56	2.03	2.44	0.00%	2.44
<b>(Note: 30% increase from bank CY to LCY)</b>									
RSM 312323235060 Compaction, riding, vibrating roller, 2 passes, 12" lifts	93,900.00	ECY	Subcontractor - Recreation MN	17,130.68	20,175.06	26,286.08	31,593.24	0.00%	31,593.24
				0.18	0.21	0.28	0.34	0.00%	0.34
<b>Class 5 Aggregate</b>	<b>176,010.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>675,969.60</b>	<b>730,171.12</b>	<b>951,339.95</b>	<b>1,143,415.48</b>	<b>0.00</b>	<b>1,143,415.48</b>
				3.84	4.15	5.41	6.50		6.50

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: 6 inch depth. 10-foot wide trail x 5280 ft/mile = 52800 SF/mile = 5867 SY/mile)</b>									
RSM 321123230100 Base course drainage layers, aggregate base course for roadways and large paved areas, stone base, compacted, 3/4" stone base, to 6" deep	176,010.00	SY	Subcontractor - Recreation MN	3.84 675,969.60	4.15 730,171.12	5.41 951,339.95	6.50 1,143,415.48	0.00% 0.00	6.50 1,143,415.48
<b>(Note: Material quote from Aggregate Industries 7-14-2010 = \$10.75/ton or \$15-\$20/CY = \$3/SY)</b>									
<b>10-foot Wide Bituminous Trail</b>	<b>1,584,000.00</b>	<b>SF</b>	<b>Subcontractor - Recreation MN</b>	<b>2.20 3,480,559.66</b>	<b>2.39 3,781,209.28</b>	<b>3.11 4,926,537.57</b>	<b>3.74 5,921,205.50</b>	<b>0.00</b>	<b>3.74 5,921,205.50</b>
<b>(Note: 6-inch depth pavement)</b>									
RSM 321216130200 Plant-mix asphalt paving, for highways and large paved areas, binder course, 4" thick	176,000.00	SY	Subcontractor - Recreation MN	12.53 2,205,286.28	13.59 2,392,675.42	17.71 3,117,416.80	21.29 3,746,823.25	0.00% 0.00	21.29 3,746,823.25
RSM 321216130380 Plant-mix asphalt paving, for highways and large paved areas, wearing course, 2" thick	176,000.00	SY	Subcontractor - Recreation MN	7.25 1,275,273.38	7.89 1,388,533.86	10.28 1,809,120.77	12.35 2,174,382.25	0.00% 0.00	12.35 2,174,382.25
<b>Turf Shoulders</b>	<b>950,400.00</b>	<b>SF</b>	<b>Subcontractor - Recreation MN</b>	<b>0.00 0.00</b>	<b>0.00 0.00</b>	<b>0.00 0.00</b>	<b>0.00 0.00</b>	<b>0.00</b>	<b>0.00 0.00</b>
<b>(Note: 3+3 = 6 feet total width.)</b>									
<b>Topsoil for Turf Shoulders</b>	<b>105,600.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>0.00 0.00</b>	<b>0.00 0.00</b>	<b>0.00 0.00</b>	<b>0.00 0.00</b>	<b>0.00</b>	<b>0.00 0.00</b>
HNC 329119130705 Loam or topsoil, imported topsoil, 4" deep, furnish and place	0.00	LCY	Subcontractor - Recreation MN	31.39 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00% 0.00	0.00 0.00
<b>Seeding for Turf Shoulders</b>	<b>1,092,960.00</b>	<b>SF</b>	<b>Subcontractor - Recreation MN</b>	<b>0.00 0.00</b>	<b>0.00 0.00</b>	<b>0.00 0.00</b>	<b>0.00 0.00</b>	<b>0.00</b>	<b>0.00 0.00</b>
<b>(Note: Add 15% to Qty to account for areas disturbed outside Trail footprint)</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
RSM 329219130020 Seeding, mechanical seeding, 215 lb/acre	0.00	ACR	Subcontractor - Recreation MN	913.74 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00% 0.00	0.00 0.00
RSM 329113160650 Soil preparation, mulching, oat straw, 1" deep, power mulcher, small	0.00	MSF	Subcontractor - Recreation MN	54.55 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00% 0.00	0.00 0.00
<b>Park Benches</b>	<b>15.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,597.27 23,959.06</b>	<b>1,649.24 24,738.62</b>	<b>2,148.80 32,231.95</b>	<b>2,582.64 38,739.57</b>	<b>0.00</b>	<b>2,582.64 38,739.57</b>
<b>Benches</b>	<b>15.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,325.00 19,875.00</b>	<b>1,325.00 19,875.00</b>	<b>1,726.34 25,895.14</b>	<b>2,074.89 31,123.37</b>	<b>0.00</b>	<b>2,074.89 31,123.37</b>
USR Benches	15.00	EA	Subcontractor - Recreation MN	1,325.00 19,875.00	1,325.00 19,875.00	1,726.34 25,895.14	2,074.89 31,123.37	0.00% 0.00	2,074.89 31,123.37
(Note: Unit price from GF-EGF CWE)									
<b>Concrete Pad for Bench</b>	<b>15.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>272.27 4,084.06</b>	<b>324.24 4,863.62</b>	<b>422.45 6,336.81</b>	<b>507.75 7,616.21</b>	<b>0.00</b>	<b>507.75 7,616.21</b>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	53.33	SY	Subcontractor - Recreation MN	27.06 1,443.36	30.02 1,601.14	39.11 2,086.12	47.01 2,507.31	0.00% 0.00	47.01 2,507.31
(Note: Reduced Crew Output from 637.5 to account for small individual placements)									
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	480.00	SF	Subcontractor - Recreation MN	5.50 2,640.70	6.80 3,262.48	8.86 4,250.69	10.64 5,108.90	0.00% 0.00	10.64 5,108.90
(Note: Reduced Crew Output from 75 to account for small individual placements)									
<b>Trash Receptacles</b>	<b>15.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,401.58 21,023.64</b>	<b>1,416.19 21,242.89</b>	<b>1,845.16 27,677.36</b>	<b>2,217.69 33,265.42</b>	<b>0.00</b>	<b>2,217.69 33,265.42</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>Trash Cans</b>	<b>15.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>19,875.00</b>	<b>19,875.00</b>	<b>25,895.14</b>	<b>31,123.37</b>	<b>0.00</b>	<b>31,123.37</b>
				<i>1,325.00</i>	<i>1,325.00</i>	<i>1,726.34</i>	<i>2,074.89</i>		<i>2,074.89</i>
USR Trash Cans	15.00	EA	Subcontractor - Recreation MN	19,875.00	19,875.00	25,895.14	31,123.37	0.00%	31,123.37
(Note: Unit price from GF-EGF CWE)									
<b>Concrete Pad for Trash Cans</b>	<b>15.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,148.64</b>	<b>1,367.89</b>	<b>1,782.23</b>	<b>2,142.06</b>	<b>0.00</b>	<b>2,142.06</b>
				<i>76.58</i>	<i>91.19</i>	<i>118.82</i>	<i>142.80</i>		<i>142.80</i>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	15.00	SY	Subcontractor - Recreation MN	405.94	450.32	586.72	705.18	0.00%	705.18
				<i>27.06</i>	<i>30.02</i>	<i>39.11</i>	<i>47.01</i>		<i>47.01</i>
(Note: Reduced Crew Output from 637.5 to account for small individual placements)									
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	135.00	SF	Subcontractor - Recreation MN	742.70	917.57	1,195.51	1,436.88	0.00%	1,436.88
				<i>5.50</i>	<i>6.80</i>	<i>8.86</i>	<i>10.64</i>		<i>10.64</i>
(Note: Reduced Crew Output from 75 to account for small individual placements)									
<b>Trail Signage</b>	<b>120.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>9,255.60</b>	<b>11,179.25</b>	<b>14,565.44</b>	<b>17,506.20</b>	<b>0.00</b>	<b>17,506.20</b>
				<i>77.13</i>	<i>93.16</i>	<i>121.38</i>	<i>145.89</i>		<i>145.89</i>
(Note: Assume about 4 info signs per mile)									
HNC 101453200570 Signs, stock, reflectorized, UTMCD standard, information sign, 12" x 18", with posts	120.00	EA	Subcontractor - Recreation MN	9,255.60	11,179.25	14,565.44	17,506.20	0.00%	17,506.20
				<i>77.13</i>	<i>93.16</i>	<i>121.38</i>	<i>145.89</i>		<i>145.89</i>
<b>Soft Trails</b>	<b>18.00</b>	<b>MI</b>	<b>Subcontractor - Recreation MN</b>	<b>1,129,282.43</b>	<b>1,226,466.56</b>	<b>1,597,963.28</b>	<b>1,920,592.06</b>	<b>0.00</b>	<b>1,920,592.06</b>
				<i>62,737.91</i>	<i>68,137.03</i>	<i>88,775.74</i>	<i>106,699.56</i>		<i>106,699.56</i>
				<i>2.03</i>	<i>2.24</i>	<i>2.92</i>	<i>3.51</i>		<i>3.51</i>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>Compacted 12-inch Subgrade</b>	<b>56,340.00</b>	<b>CY</b>	<b>Subcontractor - Recreation MN</b>	<b>114,448.36</b>	<b>126,180.51</b>	<b>164,400.59</b>	<b>197,593.07</b>	<b>0.00</b>	<b>197,593.07</b>
<b>(Note: 10-foot wide trail + 3-foot shoulders each side = 16-feet. 16 ft x 5280 ft/mile x 1 ft = 84480 CF = 3,130 CY/mile)</b>									
RSM 312323170020 Fill, dumped material, spread, by dozer, excludes compaction	73,242.00	LCY	Subcontractor - Recreation MN	104,169.95	114,075.48	148,628.94	178,637.13	0.00%	178,637.13
(Note: 30% increase from bank CY to LCY)									
RSM 312323235060 Compaction, riding, vibrating roller, 2 passes, 12" lifts	56,340.00	ECY	Subcontractor - Recreation MN	10,278.41	12,105.03	15,771.65	18,955.94	0.00%	18,955.94
<b>Class 5 Aggregate</b>	<b>105,606.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>405,581.76</b>	<b>438,102.67</b>	<b>570,803.97</b>	<b>686,049.29</b>	<b>0.00</b>	<b>686,049.29</b>
<b>(Note: 6 inch depth. 10-foot wide trail x 5280 ft/mile = 52800 SF/mile = 5867 SY/mile)</b>									
RSM 321123230100 Base course drainage layers, aggregate base course for roadways and large paved areas, stone base, compacted, 3/4" stone base, to 6" deep	105,606.00	SY	Subcontractor - Recreation MN	405,581.76	438,102.67	570,803.97	686,049.29	0.00%	686,049.29
(Note: Material quote from Aggregate Industries 7-14-2010 = \$10.75/ton or \$15-\$20/CY = \$3/SY)									
<b>10-foot Wide Aggregate Trail</b>	<b>105,606.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>298,235.29</b>	<b>323,285.21</b>	<b>421,208.30</b>	<b>506,250.26</b>	<b>0.00</b>	<b>506,250.26</b>
<b>(Note: 4 inch depth. 10-foot wide trail x 5280 ft/mile = 52800 SF/mile = 5867 SY/mile)</b>									
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	105,606.00	SY	Subcontractor - Recreation MN	298,235.29	323,285.21	421,208.30	506,250.26	0.00%	506,250.26
(Note: Material quote from Aggregate Industries 7-14-2010 = \$10.75/ton or \$15-\$20/CY = \$2/SY)									
<b>Turf Shoulders</b>	<b>570,240.00</b>	<b>SF</b>	<b>Subcontractor - Recreation MN</b>	<b>270,524.03</b>	<b>296,651.71</b>	<b>386,507.51</b>	<b>464,543.38</b>	<b>0.00</b>	<b>464,543.38</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: 3+3 = 6 feet total width.)</b>									
<b>Topsoil for Turf Shoulders</b>	<b>63,360.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	3.49 <b>220,992.55</b>	3.83 <b>242,354.05</b>	4.98 <b>315,763.09</b>	5.99 <b>379,515.66</b>	<b>0.00</b>	5.99 <b>379,515.66</b>
HNC 329119130705 Loam or topsoil, imported topsoil, 4" deep, furnish and place	7,040.00	LCY	Subcontractor - Recreation MN	31.39 220,992.55	34.43 242,354.05	44.85 315,763.09	53.91 379,515.66	0.00% 0.00	53.91 379,515.66
<b>Seeding for Turf Shoulders</b>	<b>655,776.00</b>	<b>SF</b>	<b>Subcontractor - Recreation MN</b>	0.08 <b>49,531.48</b>	0.08 <b>54,297.66</b>	0.11 <b>70,744.42</b>	0.13 <b>85,027.72</b>	<b>0.00</b>	0.13 <b>85,027.72</b>
<b>(Note: Add 15% to Qty to account for areas disturbed outside Trail footprint)</b>									
RSM 329219130020 Seeding, mechanical seeding, 215 lb/acre	15.05	ACR	Subcontractor - Recreation MN	913.74 13,755.95	1,031.10 15,522.74	1,343.42 20,224.58	1,614.66 24,307.92	0.00% 0.00	1,614.66 24,307.92
RSM 329113160650 Soil preparation, mulching, oat straw, 1" deep, power mulcher, small	655.78	MSF	Subcontractor - Recreation MN	54.55 35,775.53	59.13 38,774.92	77.04 50,519.84	92.59 60,719.80	0.00% 0.00	92.59 60,719.80
<b>Park Benches</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	2,480.60 <b>22,325.44</b>	2,532.57 <b>22,793.17</b>	3,299.69 <b>29,697.22</b>	3,965.90 <b>35,693.09</b>	<b>0.00</b>	3,965.90 <b>35,693.09</b>
<b>Benches</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	2,208.33 <b>19,875.00</b>	2,208.33 <b>19,875.00</b>	2,877.24 <b>25,895.14</b>	3,458.15 <b>31,123.37</b>	<b>0.00</b>	3,458.15 <b>31,123.37</b>
USR Benches	15.00	EA	Subcontractor - Recreation MN	1,325.00 19,875.00	1,325.00 19,875.00	1,726.34 25,895.14	2,074.89 31,123.37	0.00% 0.00	2,074.89 31,123.37
<b>(Note: Unit price from GF-EGF CWE)</b>									
<b>Concrete Pad for Bench</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	272.27 <b>2,450.44</b>	324.24 <b>2,918.17</b>	422.45 <b>3,802.08</b>	507.75 <b>4,569.73</b>	<b>0.00</b>	507.75 <b>4,569.73</b>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	32.00	SY	Subcontractor - Recreation MN	27.06 866.01	30.02 960.68	39.11 1,251.67	47.01 1,504.38	0.00% 0.00	47.01 1,504.38

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Reduced Crew Output from 637.5 to account for small individual placements)</b>									
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	288.00	SF	Subcontractor - Recreation MN	5.50 1,584.42	6.80 1,957.49	8.86 2,550.41	10.64 3,065.34	0.00% 0.00	10.64 3,065.34
<b>(Note: Reduced Crew Output from 75 to account for small individual placements)</b>									
<b>Trash Receptacles</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,401.58 12,614.19</b>	<b>1,416.19 12,745.74</b>	<b>1,845.16 16,606.42</b>	<b>2,217.69 19,959.25</b>	<b>0.00</b>	<b>2,217.69 19,959.25</b>
<b>Trash Cans</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,325.00 11,925.00</b>	<b>1,325.00 11,925.00</b>	<b>1,726.34 15,537.08</b>	<b>2,074.89 18,674.02</b>	<b>0.00</b>	<b>2,074.89 18,674.02</b>
USR Trash Cans	9.00	EA	Subcontractor - Recreation MN	1,325.00 11,925.00	1,325.00 11,925.00	1,726.34 15,537.08	2,074.89 18,674.02	0.00% 0.00	2,074.89 18,674.02
<b>(Note: Unit price from GF-EGF CWE)</b>									
<b>Concrete Pad for Trash Cans</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>76.58 689.19</b>	<b>91.19 820.74</b>	<b>118.82 1,069.34</b>	<b>142.80 1,285.24</b>	<b>0.00</b>	<b>142.80 1,285.24</b>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	9.00	SY	Subcontractor - Recreation MN	27.06 243.57	30.02 270.19	39.11 352.03	47.01 423.11	0.00% 0.00	47.01 423.11
<b>(Note: Reduced Crew Output from 637.5 to account for small individual placements)</b>									
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	81.00	SF	Subcontractor - Recreation MN	5.50 445.62	6.80 550.54	8.86 717.30	10.64 862.13	0.00% 0.00	10.64 862.13
<b>(Note: Reduced Crew Output from 75 to account for small individual placements)</b>									



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>Trail Signage</b>	<b>72.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	77.13 <b>5,553.36</b>	93.16 <b>6,707.55</b>	121.38 <b>8,739.26</b>	145.89 <b>10,503.72</b>	<b>0.00</b>	145.89 <b>10,503.72</b>
<b>(Note: Assume about 4 info signs per mile)</b>									
HNC 101453200570 Signs, stock, reflectorized, UTMCD standard, information sign, 12" x 18", with posts	72.00	EA	Subcontractor - Recreation MN	77.13 5,553.36	93.16 6,707.55	121.38 8,739.26	145.89 10,503.72	0.00% 0.00	145.89 10,503.72
<b>Pedestrian Trail River Crossing</b>	<b>2.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	1,820,000.00 <b>3,640,000.00</b>	1,820,000.00 <b>3,640,000.00</b>	2,371,278.00 <b>4,742,556.00</b>	2,850,039.03 <b>5,700,078.06</b>	<b>0.00</b>	2,850,039.03 <b>5,700,078.06</b>
<b>(Note: Pedestrian bridges to cross tributaries. Steel Truss bridge with lift mechanism, Approximately 250 LF, Estimated cost of \$1,029,000.00 in 2005 by SRF Consulting Group Bridge Replacement Study for Fargo-Moorhead. Index to 2010 CWBS 711.83/603.75 = 1.1790)</b>									
USR Trail Bridge	2.00	EA	Subcontractor - Recreation MN	1,820,000.00 3,640,000.00	1,820,000.00 3,640,000.00	2,371,278.00 4,742,556.00	2,850,039.03 5,700,078.06	0.00% 0.00	2,850,039.03 5,700,078.06
<b>(Note: \$1,029,000 x 1.1790 CWBS index + 50% for sitework =)</b>									
<b>Traihead Facilities</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	91,219.04 <b>273,657.12</b>	99,001.72 <b>297,005.16</b>	128,989.34 <b>386,968.02</b>	155,032.29 <b>465,096.87</b>	<b>0.00</b>	155,032.29 <b>465,096.87</b>
<b>Picnic Tables</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	3,446.16 <b>31,015.48</b>	3,727.30 <b>33,545.73</b>	4,856.30 <b>43,706.73</b>	5,836.79 <b>52,531.12</b>	<b>0.00</b>	5,836.79 <b>52,531.12</b>
<b>Tables</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	3,173.89 <b>28,565.05</b>	3,403.06 <b>30,627.56</b>	4,433.85 <b>39,904.65</b>	5,329.04 <b>47,961.40</b>	<b>0.00</b>	5,329.04 <b>47,961.40</b>
USR Picnic Tables	9.00	EA	Subcontractor - Recreation MN	3,096.00 27,864.00	3,308.85 29,779.65	4,311.10 38,799.91	5,181.51 46,633.61	0.00% 0.00	5,181.51 46,633.61
<b>(Note: Cost of picnic Tables from "theparkcatalog.com". Used highest price for concrete table of \$1894 + shipping of \$1202 = \$3096)</b>									
USR Install Picnic Tables	9.00	EA	Subcontractor - Recreation MN	77.89 701.05	94.21 847.91	122.75 1,104.74	147.53 1,327.79	0.00% 0.00	147.53 1,327.79
<b>Concrete Pad for Tables</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	272.27 <b>2,450.44</b>	324.24 <b>2,918.17</b>	422.45 <b>3,802.08</b>	507.75 <b>4,569.73</b>	<b>0.00</b>	507.75 <b>4,569.73</b>
				27.06	30.02	39.11	47.01	0.00%	47.01

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep  (Note: Reduced Crew Output from 637.5 to account for small individual placements)	32.00	SY	Subcontractor - Recreation MN	866.01	960.68	1,251.67	1,504.38	0.00	1,504.38
				5.50	6.80	8.86	10.64	0.00%	10.64
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base  (Note: Reduced Crew Output from 75 to account for small individual placements)	288.00	SF	Subcontractor - Recreation MN	1,584.42	1,957.49	2,550.41	3,065.34	0.00	3,065.34
				6,897.27	6,949.24	9,054.17	10,882.20		10,882.20
<b>Park Benches</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>20,691.81</b>	<b>20,847.72</b>	<b>27,162.50</b>	<b>32,646.61</b>	<b>0.00</b>	<b>32,646.61</b>
				6,625.00	6,625.00	8,631.71	10,374.46		10,374.46
<b>Benches</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>19,875.00</b>	<b>19,875.00</b>	<b>25,895.14</b>	<b>31,123.37</b>	<b>0.00</b>	<b>31,123.37</b>
USR Benches	15.00	EA	Subcontractor - Recreation MN	1,325.00	1,325.00	1,726.34	2,074.89	0.00%	2,074.89
				19,875.00	19,875.00	25,895.14	31,123.37	0.00	31,123.37
(Note: Unit price from GF-EGF CWE)				272.27	324.24	422.45	507.75		507.75
<b>Concrete Pad for Bench</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>816.81</b>	<b>972.72</b>	<b>1,267.36</b>	<b>1,523.24</b>	<b>0.00</b>	<b>1,523.24</b>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep  (Note: Reduced Crew Output from 637.5 to account for small individual placements)	10.67	SY	Subcontractor - Recreation MN	27.06	30.02	39.11	47.01	0.00%	47.01
				288.67	320.23	417.22	501.46	0.00	501.46
				5.50	6.80	8.86	10.64	0.00%	10.64

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	96.00	SF	Subcontractor - Recreation MN	528.14	652.50	850.14	1,021.78	0.00	1,021.78
(Note: Reduced Crew Output from 75 to account for small individual placements)									
<b>Restroom Facility</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>158,792.91</b>	<b>173,978.59</b>	<b>226,676.70</b>	<b>272,442.73</b>	<b>0.00</b>	<b>272,442.73</b>
USR Excavate for Vault	3.00	EA	Subcontractor - Recreation MN	1,076.15	1,362.84	1,775.64	2,134.15	0.00	2,134.15
RSM 333613100200 Utility Septic Tank and Effluent Wet Wells, septic tanks precast concrete, 5,000 gallon, excludes excavation or piping	3.00	EA	Subcontractor - Recreation MN	24,250.89	26,401.43	34,398.42	41,343.46	0.00	41,343.46
RSM 133423100400 Comfort Stations, prefab, stock, w/doors, windows and fixtures, permanent, incl. concrete slab, excl. int. finish or electrical, min	480.00	SF	Subcontractor - Recreation MN	78,440.25	85,228.61	111,044.36	133,464.22	0.00	133,464.22
(Note: 10 x 8 for each structure. Two structures for each restroom facility - 1 mens & 1 womens)									
RSM 102113132000 Toilet cubicles, floor mounted, stainless steel	9.00	EA	Subcontractor - Recreation MN	14,104.29	15,308.89	19,945.95	23,973.04	0.00	23,973.04
(Note: Assume one stall in mens and two in womens)									
RSM 102813131000 Toilet Accessories, grab bars, straight, stainless steel, 30" long	12.00	EA	Subcontractor - Recreation MN	583.64	673.60	877.63	1,054.82	0.00	1,054.82
(Note: assume one handicapped stall each in mens and womens with two bars per stall)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
HNC 102813136820 Toilet Accessories, towel dispenser & receptacle  (Note: one each in mens and womens)	6.00	EA	Subcontractor - Recreation MN	399.21 2,395.24	438.07 2,628.44	570.76 3,424.59	686.00 4,116.01	0.00% 0.00	686.00 4,116.01
RSM 224139100300 Faucets/fittings, bath, faucets, three valve combinations, spout, head, arm and flange, soldered	6.00	EA	Subcontractor - Recreation MN	132.89 797.32	163.35 980.09	212.83 1,276.96	255.80 1,534.78	0.00% 0.00	255.80 1,534.78
RSM 233423106675 Fans, residential, bath exhaust, grille, back draft damper, 300 CFM	6.00	EA	Subcontractor - Recreation MN	288.18 1,729.06	318.48 1,910.88	414.95 2,489.69	498.73 2,992.36	0.00% 0.00	498.73 2,992.36
RSM 224239100972 Faucets/fittings, flush valve, automatic flush sensor and operator for urinals or waterclosets	3.00	EA	Subcontractor - Recreation MN	465.29 1,395.87	513.27 1,539.82	668.74 2,006.23	803.76 2,411.29	0.00% 0.00	803.76 2,411.29
RSM 224216205910 Sink, scullery sink, stainless steel, and drain board, 1 bowl, 43" x 22" OD, excludes faucet and drain	6.00	EA	Subcontractor - Recreation MN	2,778.92 16,673.52	3,008.89 18,053.36	3,920.29 23,521.73	4,711.79 28,270.77	0.00% 0.00	4,711.79 28,270.77
RSM 224213403100 Water closet, bowl only, wall hung, includes flush valve and seat	9.00	EA	Subcontractor - Recreation MN	473.30 4,259.74	542.08 4,878.75	706.28 6,356.53	848.88 7,639.91	0.00% 0.00	848.88 7,639.91
RSM 224213303100 Urinal, wall hung, vitreous china, with hanger & self-closing valve, siphon jet type	3.00	EA	Subcontractor - Recreation MN	617.06 1,851.17	729.54 2,188.62	950.52 2,851.56	1,142.43 3,427.28	0.00% 0.00	1,142.43 3,427.28
RSM 102813135000 Toilet Accessories, soap dispenser, stainless steel, recessed, liquid	6.00	EA	Subcontractor - Recreation MN	205.00 1,230.00	228.23 1,369.38	297.36 1,784.17	357.40 2,144.39	0.00% 0.00	357.40 2,144.39

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
HNC 102813135750 Toilet Accessories, shelf, stainless steel, 6" w x 18" long	6.00	LF	Subcontractor - Recreation MN	80.88 485.27	91.51 549.08	119.23 715.40	143.31 859.84	0.00% 0.00	143.31 859.84
RSM 102813136200 Toilet Accessories, toilet tissue dispenser, stainless steel, surface mounted, double roll	9.00	EA	Subcontractor - Recreation MN	38.58 347.25	45.04 405.38	58.69 528.18	70.53 634.81	0.00% 0.00	70.53 634.81
RSM 102813130400 Toilet Accessories, diaper changing station, plastic, wall mounted, horizontal	6.00	EA	Subcontractor - Recreation MN	289.00 1,734.00	318.01 1,908.03	414.33 2,485.97	497.98 2,987.89	0.00% 0.00	497.98 2,987.89
HNC 096613101650 Cast-in-Place Terrazzo, floor, bonded to concrete, white cement, 1-3/4 thick, with 5/8" topping  (Note: 80 SF per restroom = 160 SF per facility = 1 mens + 1 womens)	480.00	SF	Subcontractor - Recreation MN	8.42 4,041.77	10.19 4,891.78	13.28 6,373.50	15.96 7,660.31	0.00% 0.00	15.96 7,660.31
RSM 102813138100 Toilet Accessories, waste receptacle, stainless steel, w/top, 36 gallon	6.00	EA	Subcontractor - Recreation MN	566.25 3,397.50	616.60 3,699.60	803.37 4,820.21	965.57 5,793.41	0.00% 0.00	965.57 5,793.41
<b>Drinking Fountains</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>985.58 2,956.74</b>	<b>1,085.33 3,255.98</b>	<b>1,414.07 4,242.22</b>	<b>1,699.57 5,098.72</b>	<b>0.00 0.00</b>	<b>1,699.57 5,098.72</b>
RSM 224713104600 Drinking fountain, wall mounted, semi-recessed, stainless steel, satin finish, single bubbler, for connection to cold water supply	3.00	EA	Subcontractor - Recreation MN	985.58 2,956.74	1,085.33 3,255.98	1,414.07 4,242.22	1,699.57 5,098.72	0.00% 0.00	1,699.57 5,098.72
<b>Picnic Grills</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>498.79 4,489.09</b>	<b>555.01 4,995.05</b>	<b>723.12 6,508.06</b>	<b>869.11 7,822.03</b>	<b>0.00 0.00</b>	<b>869.11 7,822.03</b>
USR Picnic Grill	9.00	EA	Subcontractor - Recreation MN	343.00 3,087.00	366.58 3,299.23	477.62 4,298.57	574.05 5,166.45	0.00% 0.00	574.05 5,166.45

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Cost of picnic grill from "theparkcatalog.com". Used price for grill of \$296 + shipping of \$47 = \$343)</b>									
USR Install Picnic Grills	9.00	EA	Subcontractor - Recreation MN	155.79 1,402.09	188.42 1,695.82	245.50 2,209.49	295.06 2,655.58	0.00% 0.00	295.06 2,655.58
<b>Bike Racks</b>	<b>18.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>681.91 12,274.32</b>	<b>750.47 13,508.49</b>	<b>977.79 17,600.21</b>	<b>1,175.20 21,153.69</b>	<b>0.00</b>	<b>1,175.20 21,153.69</b>
RSM 116813100200 Playground equipment, bike rack, permanent, 10' long	18.00	EA	Subcontractor - Recreation MN	681.91 12,274.32	750.47 13,508.49	977.79 17,600.21	1,175.20 21,153.69	0.00% 0.00	1,175.20 21,153.69
<b>Trash Receptacles</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,401.58 12,614.19</b>	<b>1,416.19 12,745.74</b>	<b>1,845.16 16,606.42</b>	<b>2,217.69 19,959.25</b>	<b>0.00</b>	<b>2,217.69 19,959.25</b>
<b>Trash Cans</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,325.00 11,925.00</b>	<b>1,325.00 11,925.00</b>	<b>1,726.34 15,537.08</b>	<b>2,074.89 18,674.02</b>	<b>0.00</b>	<b>2,074.89 18,674.02</b>
USR Trash Cans	9.00	EA	Subcontractor - Recreation MN	1,325.00 11,925.00	1,325.00 11,925.00	1,726.34 15,537.08	2,074.89 18,674.02	0.00% 0.00	2,074.89 18,674.02
<b>(Note: Unit price from GF-EGF CWE)</b>									
<b>Concrete Pad for Trash Cans</b>	<b>9.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>76.58 689.19</b>	<b>91.19 820.74</b>	<b>118.82 1,069.34</b>	<b>142.80 1,285.24</b>	<b>0.00</b>	<b>142.80 1,285.24</b>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	9.00	SY	Subcontractor - Recreation MN	27.06 243.57	30.02 270.19	39.11 352.03	47.01 423.11	0.00% 0.00	47.01 423.11
<b>(Note: Reduced Crew Output from 637.5 to account for small individual placements)</b>									
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	81.00	SF	Subcontractor - Recreation MN	5.50 445.62	6.80 550.54	8.86 717.30	10.64 862.13	0.00% 0.00	10.64 862.13
<b>(Note: Reduced Crew Output from 75 to account for small individual placements)</b>									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>Recycling Trash Receptacles</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>4,204.73</b>	<b>4,248.58</b>	<b>5,535.47</b>	<b>6,653.08</b>	<b>0.00</b>	<b>6,653.08</b>
				1,401.58	1,416.19	1,845.16	2,217.69		2,217.69
<b>Trash Cans</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>3,975.00</b>	<b>3,975.00</b>	<b>5,179.03</b>	<b>6,224.67</b>	<b>0.00</b>	<b>6,224.67</b>
				1,325.00	1,325.00	1,726.34	2,074.89		2,074.89
USR Trash Cans	3.00	EA	Subcontractor - Recreation MN	3,975.00	3,975.00	5,179.03	6,224.67	0.00%	6,224.67
(Note: Unit price from GF-EGF CWE)									
<b>Concrete Pad for Trash Cans</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>229.73</b>	<b>273.58</b>	<b>356.45</b>	<b>428.41</b>	<b>0.00</b>	<b>428.41</b>
				76.58	91.19	118.82	142.80		142.80
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	3.00	SY	Subcontractor - Recreation MN	81.19	90.06	117.34	141.04	0.00%	141.04
(Note: Reduced Crew Output from 637.5 to account for small individual placements)									
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	27.00	SF	Subcontractor - Recreation MN	148.54	183.51	239.10	287.38	0.00%	287.38
				5.50	6.80	8.86	10.64		10.64
(Note: Reduced Crew Output from 75 to account for small individual placements)									
<b>Information Kiosks</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>26,617.84</b>	<b>29,879.28</b>	<b>38,929.71</b>	<b>46,789.62</b>	<b>0.00</b>	<b>46,789.62</b>
				8,872.61	9,959.76	12,976.57	15,596.54		15,596.54
RSM 133423450100 Kiosks, round, fiberglass, 5' dia x 8' h, 1" insulated double wall	3.00	EA	Subcontractor - Recreation MN	19,125.00	20,439.84	26,631.07	32,007.89	0.00%	32,007.89
				6,375.00	6,813.28	8,877.02	10,669.30		10,669.30
				17.63	22.67	29.53	35.50	0.00%	35.50

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base  (Note: Reduced Crew Output from 75 to account for small individual placements)	363.00	SF	Subcontractor - Recreation MN	6,401.30	8,228.58	10,721.01	12,885.59	0.00	12,885.59
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep  (Note: Assume 11 x 11 foot concrete base. Reduced Crew Output from 637.5 to account for small individual placements)	40.33	SY	Subcontractor - Recreation MN	27.06 1,091.54	30.02 1,210.86	39.11 1,577.63	47.01 1,896.15	0.00% 0.00	47.01 1,896.15
<b>Parking Lots</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>410,113.18</b>	<b>460,000.59</b>	<b>599,334.77</b>	<b>720,340.46</b>	<b>0.00</b>	<b>720,340.46</b>
<b>Car Parking Areas</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>169,024.55</b>	<b>190,287.93</b>	<b>247,926.15</b>	<b>297,982.44</b>	<b>0.00</b>	<b>297,982.44</b>
<b>(Note: Aggregate surface Car Parking Areas at 1600 SY each)</b>									
<b>Compacted 12-inch Subgrade</b>	<b>1,600.00</b>	<b>CY</b>	<b>Subcontractor - Recreation MN</b>	<b>3,250.22</b>	<b>3,583.40</b>	<b>4,668.81</b>	<b>5,611.45</b>	<b>0.00</b>	<b>5,611.45</b>
<b>(Note: 1600 SY at 12 inches = compacted 533.33 CY per parking lot)</b>									
RSM 312323170020 Fill, dumped material, spread, by dozer, excludes compaction  (Note: 30% increase from bank CY to LCY)	2,080.00	LCY	Subcontractor - Recreation MN	1.42 2,958.32	1.56 3,239.63	2.03 4,220.91	2.44 5,073.12	0.00% 0.00	2.44 5,073.12
RSM 312323235060 Compaction, riding, vibrating roller, 2 passes, 12" lifts	1,600.00	ECY	Subcontractor - Recreation MN	0.18 291.90	0.21 343.77	0.28 447.90	0.34 538.33	0.00% 0.00	0.34 538.33
<b>Aggregate Sub-Base</b>	<b>4,800.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>24,313.85</b>	<b>26,231.39</b>	<b>34,176.88</b>	<b>41,077.19</b>	<b>0.00</b>	<b>41,077.19</b>



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: 1600 SY at 7 inches for each parking lot)</b>									
RSM 321123230100 Base course drainage layers, aggregate base course for roadways and large paved areas, stone base, compacted, 3/4" stone base, to 6" deep	5,601.60	SY	Subcontractor - Recreation MN	4.34 24,313.85	4.68 26,231.39	6.10 34,176.88	7.33 41,077.19	0.00% 0.00	7.33 41,077.19
(Note: Material quote from Aggregate Industries 7-14-2010 = \$10.75/ton or \$15-\$20/CY = \$18 x 7/36 = \$3.50/SY for 7 inch depth)									
<b>Aggregate Base</b>	<b>4,800.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>2.82 13,555.38</b>	<b>3.06 14,693.95</b>	<b>3.99 19,144.74</b>	<b>4.79 23,010.07</b>	<b>0.00</b>	<b>4.79 23,010.07</b>
<b>(Note: 1600 SY at 4 inch depth for each parking lot.)</b>									
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	4,800.00	SY	Subcontractor - Recreation MN	2.82 13,555.38	3.06 14,693.95	3.99 19,144.74	4.79 23,010.07	0.00% 0.00	4.79 23,010.07
(Note: Material quote from Aggregate Industries 7-14-2010 = \$10.75/ton or \$15-\$20/CY = \$2/SY)									
<b>Aggregate Surface Course</b>	<b>4,800.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>1.82 8,755.38</b>	<b>1.99 9,563.95</b>	<b>2.60 12,460.87</b>	<b>3.12 14,976.72</b>	<b>0.00</b>	<b>3.12 14,976.72</b>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	4,800.00	SY	Subcontractor - Recreation MN	1.82 8,755.38	1.99 9,563.95	2.60 12,460.87	3.12 14,976.72	0.00% 0.00	3.12 14,976.72
(Note: Material quote from Aggregate Industries 7-14-2010 = \$10.75/ton or \$15-\$20/CY = \$1/SY for 2-inch depth)									
<b>Barrier Posts</b>	<b>300.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>346.40 103,919.15</b>	<b>396.25 118,875.70</b>	<b>516.28 154,883.15</b>	<b>620.51 186,154.06</b>	<b>0.00</b>	<b>620.51 186,154.06</b>
<b>(Note: for 1600 SY parking lot assume about 100 posts for each lot)</b>									
HNC 321713132000 Parking barriers, bollard, concrete filled steel pipe, 8' long, 6" diameter	300.00	EA	Subcontractor - Recreation MN	346.40 103,919.15	396.25 118,875.70	516.28 154,883.15	620.51 186,154.06	0.00% 0.00	620.51 186,154.06

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>Signs</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Recreation MN</b>	<b>3,198.59</b>	<b>3,638.24</b>	<b>4,740.26</b>	<b>5,697.32</b>	<b>0.00</b>	<b>5,697.32</b>
HNC 101453200500 Signs, stock, reflectorized, UTMCD standard, stop sign, 24" x 24", with posts	6.00	EA	Subcontractor - Recreation MN	86.37 518.20	103.03 618.19	134.24 805.44	161.34 968.06	0.00% 0.00	161.34 968.06
RSM 101453201800 Signs, highway road signs, aluminum, reflectorized, over 20 S. F., excludes posts  (Note: assume one 20 SF sign per parking lot)	60.00	SF	Subcontractor - Recreation MN	33.10 1,986.22	36.36 2,181.60	47.37 2,842.41	56.94 3,416.29	0.00% 0.00	56.94 3,416.29
HNC 101453200580 Signs, stock, reflectorized, UTMCD standard, handicap parking sign, 12" x 18", with posts  (Note: assume 3 handicap space per lot)	9.00	EA	Subcontractor - Recreation MN	77.13 694.17	93.16 838.44	121.38 1,092.41	145.89 1,312.97	0.00% 0.00	145.89 1,312.97
<b>Site Work</b>	<b>1,600.00</b>	<b>CY</b>	<b>Subcontractor - Recreation MN</b>	<b>4.89</b> <b>7,827.26</b>	<b>5.91</b> <b>9,452.73</b>	<b>7.70</b> <b>12,315.96</b>	<b>9.25</b> <b>14,802.56</b>	<b>0.00</b>	<b>9.25</b> <b>14,802.56</b>
HNC 312213103030 Rough grading, open site, small area, 75 H.P., dozer	1,600.00	BCY	Subcontractor - Recreation MN	0.87 1,388.63	1.04 1,660.23	1.35 2,163.11	1.62 2,599.84	0.00% 0.00	1.62 2,599.84
RSM 329119130400 Topsoil placement and grading, loam or topsoil, F.E. loader, 1-1/2 C.Y., remove and stockpile on site, spread from pile to rough finish grade	1,600.00	ECY	Subcontractor - Recreation MN	4.02 6,438.63	4.87 7,792.50	6.35 10,152.85	7.63 12,202.71	0.00% 0.00	7.63 12,202.71
<b>Trash Receptacles</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,401.58</b> <b>4,204.73</b>	<b>1,416.19</b> <b>4,248.58</b>	<b>1,845.16</b> <b>5,535.47</b>	<b>2,217.69</b> <b>6,653.08</b>	<b>0.00</b>	<b>2,217.69</b> <b>6,653.08</b>
<b>Trash Cans</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>1,325.00</b> <b>3,975.00</b>	<b>1,325.00</b> <b>3,975.00</b>	<b>1,726.34</b> <b>5,179.03</b>	<b>2,074.89</b> <b>6,224.67</b>	<b>0.00</b>	<b>2,074.89</b> <b>6,224.67</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR Trash Cans	3.00	EA	Subcontractor - Recreation MN	1,325.00 3,975.00	1,325.00 3,975.00	1,726.34 5,179.03	2,074.89 6,224.67	0.00% 0.00	2,074.89 6,224.67
(Note: Unit price from GF-EGF CWE)									
<b>Concrete Pad for Trash Cans</b>	<b>3.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	76.58 <b>229.73</b>	91.19 <b>273.58</b>	118.82 <b>356.45</b>	142.80 <b>428.41</b>	<b>0.00</b>	142.80 <b>428.41</b>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	3.00	SY	Subcontractor - Recreation MN	27.06 81.19	30.02 90.06	39.11 117.34	47.01 141.04	0.00% 0.00	47.01 141.04
(Note: Reduced Crew Output from 637.5 to account for small individual placements)									
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	27.00	SF	Subcontractor - Recreation MN	5.50 148.54	6.80 183.51	8.86 239.10	10.64 287.38	0.00% 0.00	10.64 287.38
(Note: Reduced Crew Output from 75 to account for small individual placements)									
<b>Car/Trailer Parking Areas</b>	<b>2.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	120,544.31 <b>241,088.63</b>	134,856.33 <b>269,712.66</b>	175,704.31 <b>351,408.62</b>	211,179.01 <b>422,358.02</b>	<b>0.00</b>	211,179.01 <b>422,358.02</b>
<b>(Note: Aggregate surface Car Parking Areas at 5500 SY each)</b>									
<b>Compacted 12-inch Subgrade</b>	<b>3,666.67</b>	<b>CY</b>	<b>Subcontractor - Recreation MN</b>	2.03 <b>7,448.42</b>	2.24 <b>8,211.96</b>	2.92 <b>10,699.36</b>	3.51 <b>12,859.57</b>	<b>0.00</b>	3.51 <b>12,859.57</b>
<b>(Note: 5500 SY at 12 inches = compacted 1833.33 CY per parking lot)</b>									
RSM 312323170020 Fill, dumped material, spread, by dozer, excludes compaction	4,766.67	LCY	Subcontractor - Recreation MN	1.42 6,779.49	1.56 7,424.15	2.03 9,672.93	2.44 11,625.89	0.00% 0.00	2.44 11,625.89
(Note: 30% increase from bank CY to LCY)									
				0.18	0.21	0.28	0.34	0.00%	0.34

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
RSM 312323235060 Compaction, riding, vibrating roller, 2 passes, 12" lifts	3,666.67	ECY	Subcontractor - Recreation MN	668.93	787.81	1,026.44	1,233.67	0.00	1,233.67
<b>Aggregate Sub-Base</b>	<b>11,000.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>55,719.23</b>	<b>60,113.60</b>	<b>78,322.01</b>	<b>94,135.23</b>	<b>0.00</b>	<b>94,135.23</b>
<b>(Note: 5500 SY at 7 inches for each parking lot)</b>									
RSM 321123230100 Base course drainage layers, aggregate base course for roadways and large paved areas, stone base, compacted, 3/4" stone base, to 6" deep	12,837.00	SY	Subcontractor - Recreation MN	55,719.23	60,113.60	78,322.01	94,135.23	0.00%	94,135.23
(Note: Material quote from Aggregate Industries 7-14-2010 = \$10.75/ton or \$15-\$20/CY = \$18 x 7/36 = \$3.50/SY for 7 inch depth)									
<b>Aggregate Base</b>	<b>11,000.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>31,064.41</b>	<b>33,673.63</b>	<b>43,873.37</b>	<b>52,731.41</b>	<b>0.00</b>	<b>52,731.41</b>
<b>(Note: 5500 SY at 4 inch depth for each parking lot.)</b>									
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	11,000.00	SY	Subcontractor - Recreation MN	31,064.41	33,673.63	43,873.37	52,731.41	0.00%	52,731.41
(Note: Material quote from Aggregate Industries 7-14-2010 = \$10.75/ton or \$15-\$20/CY = \$2/SY)									
<b>Aggregate Surface Course</b>	<b>11,000.00</b>	<b>SY</b>	<b>Subcontractor - Recreation MN</b>	<b>20,064.41</b>	<b>21,917.38</b>	<b>28,556.15</b>	<b>34,321.64</b>	<b>0.00</b>	<b>34,321.64</b>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	11,000.00	SY	Subcontractor - Recreation MN	20,064.41	21,917.38	28,556.15	34,321.64	0.00%	34,321.64
(Note: Material quote from Aggregate Industries 7-14-2010 = \$10.75/ton or \$15-\$20/CY = \$1/SY for 2-inch depth)									
<b>Barrier Posts</b>	<b>300.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>103,919.15</b>	<b>118,875.70</b>	<b>154,883.15</b>	<b>186,154.06</b>	<b>0.00</b>	<b>186,154.06</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: for 5500 SY parking lot assume about 150 posts for each lot)</b>									
HNC 321713132000 Parking barriers, bollard, concrete filled steel pipe, 8' long, 6" diameter	300.00	EA	Subcontractor - Recreation MN	346.40 103,919.15	396.25 118,875.70	516.28 154,883.15	620.51 186,154.06	0.00% 0.00	620.51 186,154.06
<b>Signs</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Recreation MN</b>	<b>2,132.39</b>	<b>2,425.49</b>	<b>3,160.17</b>	<b>3,798.21</b>	<b>0.00</b>	<b>3,798.21</b>
HNC 101453200500 Signs, stock, reflectorized, UTMCD standard, stop sign, 24" x 24", with posts	4.00	EA	Subcontractor - Recreation MN	86.37 345.47	103.03 412.13	134.24 536.96	161.34 645.37	0.00% 0.00	161.34 645.37
RSM 101453201800 Signs, highway road signs, aluminum, reflectorized, over 20 S. F., excludes posts	40.00	SF	Subcontractor - Recreation MN	33.10 1,324.15	36.36 1,454.40	47.37 1,894.94	56.94 2,277.53	0.00% 0.00	56.94 2,277.53
<i>(Note: assume one 20 SF sign per parking lot)</i>									
HNC 101453200580 Signs, stock, reflectorized, UTMCD standard, handicap parking sign, 12" x 18", with posts	6.00	EA	Subcontractor - Recreation MN	77.13 462.78	93.16 558.96	121.38 728.27	145.89 875.31	0.00% 0.00	145.89 875.31
<i>(Note: assume 3 handicap space per lot)</i>									
<b>Site Work</b>	<b>3,666.67</b>	<b>CY</b>	<b>Subcontractor - Recreation MN</b>	<b>4.89 17,937.46</b>	<b>5.91 21,662.51</b>	<b>7.70 28,224.08</b>	<b>9.25 33,922.53</b>	<b>0.00</b>	<b>9.25 33,922.53</b>
<b>(Note: Assume about same yardage as Compacted Subgrade)</b>									
HNC 312213103030 Rough grading, open site, small area, 75 H.P., dozer	3,666.67	BCY	Subcontractor - Recreation MN	0.87 3,182.27	1.04 3,804.69	1.35 4,957.13	1.62 5,957.98	0.00% 0.00	1.62 5,957.98
				4.02	4.87	6.35	7.63	0.00%	7.63

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
RSM 329119130400 Topsoil placement and grading, loam or topsoil, F.E. loader, 1-1/2 C.Y., remove and stockpile on site, spread from pile to rough finish grade	3,666.67	ECY	Subcontractor - Recreation MN	14,755.19	17,857.82	23,266.95	27,964.55	0.00	27,964.55
<b>Trash Receptacles</b>	<b>2.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>2,803.15</b>	<b>2,832.39</b>	<b>3,690.32</b>	<b>4,435.39</b>	<b>0.00</b>	<b>4,435.39</b>
<b>Trash Cans</b>	<b>2.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>2,650.00</b>	<b>2,650.00</b>	<b>3,452.69</b>	<b>4,149.78</b>	<b>0.00</b>	<b>4,149.78</b>
USR Trash Cans	2.00	EA	Subcontractor - Recreation MN	2,650.00	2,650.00	3,452.69	4,149.78	0.00	4,149.78
(Note: Unit price from GF-EGF CWE)									
<b>Concrete Pad for Trash Cans</b>	<b>2.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<b>153.15</b>	<b>182.39</b>	<b>237.63</b>	<b>285.61</b>	<b>0.00</b>	<b>285.61</b>
RSM 321123230085 Base course drainage layers, aggregate base course, spread & compacted, 3/4" crushed stone, 4" deep	2.00	SY	Subcontractor - Recreation MN	54.13	60.04	78.23	94.02	0.00	94.02
(Note: Reduced Crew Output from 637.5 to account for small individual placements)									
RSM 320610100310 Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	18.00	SF	Subcontractor - Recreation MN	99.03	122.34	159.40	191.58	0.00	191.58
(Note: Reduced Crew Output from 75 to account for small individual placements)									
<b>Recreational Area Landscaping</b>	<b>100.00</b>	<b>ACR</b>	<b>Subcontractor - Recreation MN</b>	<b>2,000,000.00</b>	<b>2,000,000.00</b>	<b>2,605,800.00</b>	<b>3,131,911.02</b>	<b>0.00</b>	<b>3,131,911.02</b>
				20,000.00	20,000.00	26,058.00	31,319.11	0.00%	31,319.11

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR Deciduous and ConiferousTrees	100.00	ACR	Subcontractor - Recreation MN	2,000,000.00	2,000,000.00	2,605,800.00	3,131,911.02	0.00	3,131,911.02
<b>Interpretive Signage</b>	<b>30.00</b>	<b>EA</b>	<b>Subcontractor - Recreation MN</b>	<i>662.07</i> <b>19,862.22</b>	<i>727.20</i> <b>21,816.00</b>	<i>947.47</i> <b>28,424.07</b>	<i>1,138.76</i> <b>34,162.89</b>	<b>0.00</b>	<i>1,138.76</i> <b>34,162.89</b>
RSM 101453201800 Signs, highway road signs, aluminum, reflectorized, over 20 S. F., excludes posts	600.00	SF	Subcontractor - Recreation MN	<i>33.10</i> 19,862.22	<i>36.36</i> 21,816.00	<i>47.37</i> 28,424.07	<i>56.94</i> 34,162.89	<i>0.00%</i> 0.00	<i>56.94</i> 34,162.89
<b>31 Construction Management</b>	<b>1.00</b>	<b>LS</b>		<b>51,040,000.00</b>	<b>51,040,000.00</b>	<b>0.00</b>	<b>51,040,000.00</b>	<b>0.00</b>	<b>51,040,000.00</b>
<b>(Note: CM is based on a percentage of the construction cost of the proposed project.)</b>									
USR Construction Management	1.00	LS		51,040,000.00	51,040,000.00	0.00	51,040,000.00	0.00	51,040,000.00
<b>30 Planning, Engineering and Design</b>	<b>1.00</b>	<b>LS</b>		<b>109,372,000.00</b>	<b>109,372,000.00</b>	<b>0.00</b>	<b>109,372,000.00</b>	<b>0.00</b>	<b>109,372,000.00</b>
<b>(Note: PED is based on a percentage of the construction cost of the proposed project.)</b>									
USR Planning, Engineering and Design	1.00	LS		109,372,000.00	109,372,000.00	0.00	109,372,000.00	0.00	109,372,000.00

<b>Description</b>	<b>Page</b>
<b>Project Notes</b>	<b>i</b>
<b>FCP MN Diversion Phase 4 With Unit Prices and Notes</b>	<b>1</b>
01 Lands and Damages	1
02 Relocations	1
201 Utilities Relocations	1
Electric Power	1
Natural Gas Pipeline	5
Petroleum Pipeline	5
Fiber Optic	5
Water Utilities	6
202 Roads, Railroads and Bridges	6
20201 Roadway Bridges	7
2020101 Interstate 29 (SB-South)	7
2020102 Interstate 29 (NB-South)	8
2020103 110th Avenue S	9
2020104 US Highway 75 (South)	10
2020105 80th Avenue S	10
2020106 60th Avenue S	11
2020107 Clay County Highway 52	12
2020108 50th Avenue S	13
2020109 Interstate 94 (EB)	14
2020110 Interstate 94 (WB)	14
2020111 US Highway 10 (EB)	15
2020112 US Highway 10 (WB)	16
2020113 28th Avenue N	17
2020114 57th Avenue N	18
2020115 40th Street North	18
2020116 90th Avenue N	19
2020117 100th Avenue N	20
2020118 US Highway 75 (North)	21
2020119 110th Avenue NW	22
2020120 15 Street NW	22
2020121 Local Road Construction	23
2020122 Levee Road Raise	24
06 Fish & Wildlife Facilities	24
Aquatic Impacts Mitigation	24
Fish Bypass Channel Optimization	25
Wetlands Impacts Mitigation	25
Riparian Forest Impacts Mitigation	25
Riparian Forest Impacts Mitigation	26
Adaptive Management	26
08 Roads, Railroads and Bridges	26
801 Railroad Bridges	27
80101 Bridge 1 BNSF P-Line Subdivision	27



Description	Page
80102 Bridge 2 BNSF Mainline & Dilworth Yard .....	27
80102 Bridge 2 BNSF Mainline & Dilworth Yard .....	28
80103 Bridge 3 OTVRR .....	28
80104 Bridge 4 BNSF Moorhead Subdivision .....	29
80105 RR Signal System .....	29
09 Channels and Canals .....	29
09 Channels and Canals .....	30
901 Diversion Channel .....	30
90102 Reach 2013 .....	30
9010201 Site Preparation and Traffic Control .....	30
9010202 Clearing and Grubbing .....	30
9010203 Temporary Erosion and Sedimentation Control .....	30
9010204 Dewatering and Control of Water .....	31
9010205 Strip and Stockpile Topsoil - Channel .....	32
9010206 Strip and Stockpile Topsoil - Spoil Berm .....	32
9010207 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna .....	32
9010208 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna .....	33
9010212 Temporary Haul Roads .....	34
9010213 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation .....	34
9010213 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation .....	35
901021301 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna .....	35
901021302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna .....	35
9010214a Lower Bank Protection .....	36
9010214b Low Flow Channel Protection .....	36
9010215 Topsoil Placement - Channel .....	37
9010216 Topsoil Placement - Spoil Berm .....	37
9010217 Dust Control .....	37
9010218 Restore Local Roadways .....	38
9010219 Site Restoration .....	38
9010220 Snow Removal .....	39
9010221 Monuments and Markers .....	39
90103 Reach 2014 .....	39
9010301 Site Preparation and Traffic Control .....	39
9010302 Clearing and Grubbing .....	39
9010303 Temporary Erosion and Sedimentation Control .....	39
9010303 Temporary Erosion and Sedimentation Control .....	40
9010304 Dewatering and Control of Water .....	40
9010305 Strip and Stockpile Topsoil - Channel .....	41
9010306 Strip and Stockpile Topsoil - Spoil Berm .....	41
9010307 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna .....	41
9010307 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna .....	42
9010308 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna .....	42
9010312 Temporary Haul Roads .....	43
9010313 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation .....	44

Description	Page
901031302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna	44
9010314a Lower Bank Protection	45
9010314b Low Flow Channel Protection	45
9010315 Topsoil Placement - Channel	45
9010316 Topsoil Placement - Spoil Berm	46
9010317 Dust Control	46
9010318 Restore Local Roadways	46
9010319 Site Restoration	47
9010320 Snow Removal	47
9010321 Monuments and Markers	47
90104 Reach 2015	47
9010401 Site Preparation and Traffic Control	47
9010401 Site Preparation and Traffic Control	48
9010402 Clearing and Grubbing	48
9010403 Temporary Erosion and Sedimentation Control	48
9010404 Dewatering and Control of Water	49
9010405 Strip and Stockpile Topsoil - Channel	49
9010406 Strip and Stockpile Topsoil - Spoil Berm	50
9010407 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna	50
9010408 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna	51
9010410 Excavation and Embankment - Channel - Type 4 Brenna	52
9010412 Temporary Haul Roads	52
9010413 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation	53
901041302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna	53
901041304 Excavation and Embankment - Channel - Type 4 Brenna	54
9010414a Lower Bank Protection	54
9010414b Low Flow Channel Protection	55
9010415 Topsoil Placement - Channel	55
9010416 Topsoil Placement - Spoil Berm	56
9010417 Dust Control	56
9010418 Restore Local Roadways	56
9010419 Site Restoration	56
9010420 Snow Removal	57
9010421 Monuments and Markers	57
90105 Reach 2016	57
9010501 Site Preparation and Traffic Control	57
9010502 Clearing and Grubbing	58
9010503 Temporary Erosion and Sedimentation Control	58
9010504 Dewatering and Control of Water	59
9010505 Strip and Stockpile Topsoil - Channel	59
9010506 Strip and Stockpile Topsoil - Spoil Berm	60
9010507 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna	60
9010508 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna	61
9010509 Excavation and Embankment - Channel - Type 3 Oxidized Brenna	61

Description	Page
9010510 Excavation and Embankment - Channel - Type 4 Brenna .....	62
9010511 Excavation and Embankment - Channel .....	63
9010512 Temporary Haul Roads .....	63
9010513 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation .....	64
901051302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna .....	64
901051304 Excavation and Embankment - Channel - Type 4 Brenna .....	64
9010514a Lower Bank Protection .....	65
9010514b Low Flow Channel Protection .....	66
9010515 Topsoil Placement - Channel .....	66
9010516 Topsoil Placement - Spoil Berm .....	66
9010517 Dust Control .....	67
9010518 Restore Local Roadways .....	67
9010519 Site Restoration .....	67
9010520 Snow Removal .....	68
9010521 Monuments and Markers .....	68
90106 Reach 2017 .....	68
9010601 Site Preparation and Traffic Control .....	68
9010602 Clearing and Grubbing .....	68
9010603 Temporary Erosion and Sedimentation Control .....	69
9010604 Dewatering and Control of Water .....	69
9010605 Strip and Stockpile Topsoil - Channel .....	70
9010606 Strip and Stockpile Topsoil - Spoil Berm .....	70
9010607 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna .....	71
9010608 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna .....	71
9010608 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna .....	72
9010609 Excavation and Embankment - Channel - Type 3 Oxidized Brenna .....	72
9010610 Excavation and Embankment - Channel - Type 4 Brenna .....	73
9010612 Temporary Haul Roads .....	74
9010613 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation .....	74
901061302 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna .....	75
901061304 Excavation and Embankment - Channel - Type 4 Brenna .....	75
9010614a Lower Bank Protection .....	76
9010614b Low Flow Channel Protection .....	76
9010615 Topsoil Placement - Channel .....	77
9010616 Topsoil Placement - Spoil Berm .....	77
9010617 Dust Control .....	77
9010618 Restore Local Roadways .....	78
9010619 Site Restoration .....	78
9010620 Snow Removal .....	78
9010621 Monuments and Markers .....	79
90107 Reach 2018 .....	79
9010701 Site Preparation and Traffic Control .....	79
9010702 Clearing and Grubbing .....	79
9010703 Temporary Erosion and Sedimentation Control .....	79

Description	Page
9010704 Dewatering and Control of Water .....	80
9010705 Strip and Stockpile Topsoil - Channel .....	81
9010706 Strip and Stockpile Topsoil - Spoil Berm .....	81
9010707 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna .....	81
9010708 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna .....	82
9010709 Excavation and Embankment - Channel - Type 3 Oxidized Brenna .....	83
9010710 Excavation and Embankment - Channel - Type 4 Brenna .....	84
9010712 Temporary Haul Roads .....	84
9010713 Excavation and Embankment - Channel - Lower Bank Protection Riprap Excavation .....	85
901071301 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna .....	85
901071303 Excavation and Embankment - Channel - Type 3 Oxidized Brenna .....	86
901071304 Excavation and Embankment - Channel - Type 4 Brenna .....	87
9010714a Lower Bank Protection .....	87
9010714b Low Flow Channel Protection .....	88
9010715 Topsoil Placement - Channel .....	88
9010716 Topsoil Placement - Spoil Berm .....	88
9010717 Dust Control .....	89
9010718 Restore Local Roadways .....	89
9010719 Site Restoration .....	89
9010720 Snow Removal .....	90
9010721 Monuments and Markers .....	90
902 Hydraulic Structure - Red River Control Structure .....	90
90201 Hydraulic Structure - Red River Control Structure - Site work .....	90
9020101 Site Preparation and Traffic Control .....	90
9020102 Temporary Erosion and Sedimentation Control .....	91
9020103 Clearing and Grubbing .....	91
9020104 Strip and Stockpile Topsoil .....	92
9020105 Temporary Haul Roads .....	92
9020106 Coffering - Steel Sheetpile .....	93
9020108 Embankment - Temporary Levee .....	94
9020109 Excavation and Embankment - Channel Realignment .....	94
902010901 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna .....	94
902010902 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna .....	95
902010903 Excavation and Embankment - Channel - Type 3 Oxidized Brenna .....	96
902010904 Excavation and Embankment - Channel - Type 4 Brenna .....	97
902010905 Excavation and Embankment - Channel .....	97
9020110 Dewatering and Control of Water .....	98
9020111 Electrical Utilities .....	98
9020113 Restore Local Roadways .....	98
9020114 Dust Control .....	99
9020115 Topsoil Placement .....	99
9020116 Site Restoration .....	99
9020117 Miscellaneous Features .....	100
9020118 Snow Removal .....	100

Description	Page
90202 Hydraulic Structure Red River Control Structure - Structure	101
9020201 Earthwork - Structural	101
9020202 Gated Structure	101
902020201 HP 14X73 Piling	101
902020202 Concrete - Footing	102
902020203 Concrete - Piers	103
902020204 Concrete - Elevated Deck	103
902020204 Concrete - Elevated Deck	104
902020205 Steel Reinforcement Bars	104
902020206 Hydraulic Gates - Steel	104
902020207 Bulkheads - Steel	105
902020208 Bridge Railing	105
902020209 Steel Sheetpile	105
902020210 Structural Aggregate Backfill	106
9020203 Walls	106
902020301 HP 14X73 Piling	106
902020302 Concrete - Footing	107
902020303 Concrete - Elevated Deck	108
902020304 Concrete - Wall	108
902020305 Steel Reinforcement	109
902020306 Bridge Railing	110
902020307 Steel Sheetpile	110
902020308 Structural Aggregate Backfill	110
902020308 Structural Aggregate Backfill	111
9020204 Riprap	111
9020205 Fish Passage System	111
9020206 Miscellaneous Features	112
90203 Hydraulic Structure - Red River Control Structure - Inlet Weir to Diversion	113
9020301 Earthwork - Structural	113
9020302 Steel Sheetpile	114
9020303 Riprap	115
9020304 Miscellaneous Features	115
90204 Hydraulic Structure - Red River Control Structure - Inlet Weir to Extension Channel	115
9020401 Earthwork - Structural	115
9020402 Temporary Haul Roads	116
9020403 Steel Sheetpile	116
9020404 Riprap	117
9020405 Miscellaneous Features	117
908 Hydraulic Structure - Small Drain Structure (3 Structures)	117
908 Hydraulic Structure - Small Drain Structure (3 Structures)	118
90801 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna	118
90802 Concrete - Wall	118
90803 Steel Reinforcement Bars	119
90804 Erosion Protection	119

Description	Page
910 Hydraulic Structure - Side Channel Inlet 1X72" (7 Inlets)	120
91001 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna	120
91002 Manhole	121
91003 Concrete - Wall	121
91004 Steel Reinforcement Bars	122
91005 Erosion Protection	122
91006 Gates	122
911 Hydraulic Structure - Side Channel Inlet 2X72" (11 Inlets)	123
91101 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna	123
91102 Manhole	123
91103 Concrete - Wall	124
91104 Steel Reinforcement Bars	124
91105 Erosion Protection	125
91106 Gates	125
913 Hydraulic Structure - Outlet to Red River of the North	125
91301 Excavation and Embankment - Channel Realignment	126
9130101 Excavation and Embankment - Channel - Type 1 Non-Saturated Non-Brenna	126
9130102 Excavation and Embankment - Channel - Type 2 Saturated Non-Brenna	126
9130103 Excavation and Embankment - Channel - Type 3 Oxidized Brenna	127
91303 Temporary Haul Roads	128
91304 Erosion Protection	128
91305 Miscellaneous Features	129
914 Diversion Channel Drop Structure	129
91401 Steel Sheetpile	129
91402 Riprap	130
09 20 Plantings	130
Main Channel Plantings	130
Extension Channel Plantings	131
11 Levees, Floodwalls and Floodproofing	131
1101 Tie-Back Levee	131
110101 Temporary Erosion and Sedimentation Control	131
110102 Strip and Stockpile Topsoil - Channel	131
110103 Excavation and Embankment - Tie-Back Levee	132
110104 Topsoil Placement	132
110105 Site Restoration	133
110106 Floodwall	133
1102 Non-Structural Floodproofing	134
Residential Structures w/Basements	134
Bi-Level Residences	134
Critical Facilities	134
14 Recreation Facilities	134
Multi-Purpose Trails	134
Compacted 12-inch Subgrade	134
Class 5 Aggregate	134

Description	Page
10-foot Wide Bituminous Trail .....	135
Turf Shoulders .....	135
Topsoil for Turf Shoulders .....	135
Seeding for Turf Shoulders .....	135
Park Benches .....	136
Benches .....	136
Concrete Pad for Bench .....	136
Trash Receptacles .....	136
Trash Cans .....	137
Concrete Pad for Trash Cans .....	137
Trail Signage .....	137
Soft Trails .....	137
Compacted 12-inch Subgrade .....	137
Compacted 12-inch Subgrade .....	138
Class 5 Aggregate .....	138
10-foot Wide Aggregate Trail .....	138
Turf Shoulders .....	138
Topsoil for Turf Shoulders .....	139
Seeding for Turf Shoulders .....	139
Park Benches .....	139
Benches .....	139
Concrete Pad for Bench .....	139
Trash Receptacles .....	140
Trash Cans .....	140
Concrete Pad for Trash Cans .....	140
Trail Signage .....	141
Pedestrian Trail River Crossing .....	141
Traihead Facilities .....	141
Picnic Tables .....	141
Tables .....	141
Concrete Pad for Tables .....	141
Park Benches .....	142
Benches .....	142
Concrete Pad for Bench .....	142
Restroom Facility .....	143
Drinking Fountains .....	145
Picnic Grills .....	145
Bike Racks .....	146
Trash Receptacles .....	146
Trash Cans .....	146
Concrete Pad for Trash Cans .....	146
Recycling Trash Receptacles .....	147
Trash Cans .....	147
Concrete Pad for Trash Cans .....	147

Description	Page
Information Kiosks .....	147
Parking Lots .....	148
Car Parking Areas .....	148
Compacted 12-inch Subgrade .....	148
Aggregate Sub-Base .....	148
Aggregate Base .....	149
Aggregate Surface Course .....	149
Barrier Posts .....	149
Signs .....	149
Signs .....	150
Site Work .....	150
Trash Receptacles .....	150
Trash Cans .....	150
Concrete Pad for Trash Cans .....	151
Car/Trailer Parking Areas .....	151
Compacted 12-inch Subgrade .....	151
Aggregate Sub-Base .....	152
Aggregate Base .....	152
Aggregate Surface Course .....	152
Barrier Posts .....	152
Signs .....	153
Site Work .....	153
Trash Receptacles .....	154
Trash Cans .....	154
Concrete Pad for Trash Cans .....	154
Recreational Area Landscaping .....	154
Interpretive Signage .....	155
31 Construction Management .....	155
30 Planning, Engineering and Design .....	155