FLOOD DIVERSION BOARD OF AUTHORITY
Thursday, August 14, 2014
3:30 PM

Fargo City Commission Room
Fargo City Hall
200 3rd Street North

1.	Call to order		
2.	Approve minutes from previous meetings	Item 2.	Action
3.	Approve order of agenda		Action
4.	Management		Information
	a. PMC report		
	b. Corps of Engineers report		
5.	Administrative/Legal		
	a. Lawsuit update		
6.	Technical		Information
	a. Contracts and Task Orders	Item 6a.	
7.	Public Outreach		Information
	a. Committee report		
	b. Business Leaders Task Force update		
8.	Land Management		Information/action
	a. Committee report		
	b. CCJWRD update		
9.	Finance		Information/action
	a. Committee report		
	b. U.S Bank Loan	Item 9b.	
	c. Voucher approval	Item 9c.	
10.	Other Business		
11.	Special Meeting – August 28, 2014		
12.	Next Regular Meeting – September 11, 2014		
13.	Adjournment		

cc: Local Media

Item 2.

FLOOD DIVERSION BOARD OF AUTHORITY
JULY 10, 2014—3:30 PM

1. MEETING TO ORDER

A meeting of the Flood Diversion Board of Authority was held Thursday, July 10, 2014, at 3:30 PM in the Fargo City Commission Room with the following members present: Cass County Commissioner Darrell Vanyo; Cass County Commissioner Ken Pawluk; West Fargo City Commissioner Mike Thorstad; Fargo City Commissioner Tim Mahoney; Fargo City Commissioner Melissa Sobolik; Fargo City Commissioner Mike Williams; Cass County Joint Water Resource District Manager Rodger Olson; Clay County Commissioner Kevin Campbell; and Moorhead City Council Member Nancy Otto. Also present was ex-officio member Gerald Van Amburg, Buffalo-Red River Watershed District.

Staff members and others present: Fargo City Administrator Pat Zavoral; Moorhead City Manager Michael Redlinger; Clay County Administrator Brian Berg; Fargo City Director of Engineering Mark Bittner; Fargo City Engineer April Walker; Cass County Engineer Jason Benson; Moorhead City Engineer Bob Zimmerman; John Glatzmaier, CH2MHill; Brett Coleman, Project Manager, Corps of Engineers; and Terry Williams, Project Manager, Corps of Engineers.

2. INTRODUCTION OF NEW BOARD MEMBER

Mr. Vanyo welcomed Melissa Sobolik to the board. She replaces former Fargo City Commissioner Brad Wimmer.

3. MINUTES APPROVED

MOTION, passed

Mr. Thorstad moved and Ms. Otto seconded to approve minutes from the June 12, 2014, meeting as presented. Motion carried.

4. AGENDA ORDER

MOTION, passed

Mr. Campbell moved and Mr. Williams seconded to approve the order of the agenda with the addition of discussion on a news article regarding Ducks Unlimited to the Public Outreach Committee report. Motion carried.

5. MANAGEMENT UPDATE

Program management consultant (PMC) report

John Glatzmaier provided an update on activities over the last month including Oxbow/Hickson/Bakke (OHB) levee permits and construction; work on the in-town levee designs in coordination with the new Fargo City Hall building; on-going process with the Minnesota EIS (Environmental Impact Statement); continued work on land acquisition activities and policies; and reconvening of Lower Rush inlet design team for Reach 5 channel.

Corps of Engineers report

Terry Williams provided an update of activities by Corps of Engineers staff including continued work on the Maple River aqueduct physical modeling; continued coordination and information to the Minnesota DNR during their EIS process; participation in weekly meetings on the OHB levee; continued coordination on the in-town levee design; posting of cemetery study on the diversion website and sending letters to impacted and non-impacted sites.

She said an open house and tour of the Maple River aqueduct model will be held on Thursday, July 24th at UMore Park in Rosemount, Minnesota.

6. ADMINISTRATIVE/LEGAL UPDATE

Lawsuit update

Attorney Erik Johnson provided an update regarding lawsuits filed by the Richland-Wilkin Joint Powers Authority. The first lawsuit was filed in Federal Court and last month a second lawsuit was filed in Wilkin County District Court. As a result of the second lawsuit, a motion was filed in Federal Court to make a determination if the case should remain under Federal jurisdiction. A hearing on the motion is scheduled for July 23rd.

7. TECHNICAL UPDATE

Design Contracts / Task Orders / Authority Work Directives (AWD)

Mr. Glatzmaier reviewed Authority Work Directives as follows: AWD-00038 to provide additional assistance to the Corps of Engineers to complete the Hickson hydrology update at a cost of $20,000 with Houston-Moore Group (HMG); AWD-00039 to provide conceptual non-structural berm designs for 11 impacted cemeteries and survey six rural wells in staging area at a cost of $12,000 with HMG; and AWD-00040 to provide engineering services during the bidding phase of 2014 in-town levee construction projects at a cost of $20,000 with HMG.

MOTION, passed

Mr. Mahoney moved and Ms. Otto seconded to approve AWD-00038, AWD-00039, and AWD-00040 with HMG for a total cost of $52,000. On roll call vote, the motion carried unanimously.

8. PUBLIC OUTREACH UPDATE

Committee report

Mr. Olson discussed numerous outreach activities including work with the Corps to address questions from the public; coordination with the Corps to meet with impacted cemeteries to address each site individually; outreach efforts through presentations to various organizations and service clubs; work on the most recent e-newsletter and updates to the diversion website.

Mr. Olson said Congress included money in the Farm Bill for critical conservation areas, which include funding for projects to help retain water. U.S. Secretary of Agriculture Tom Vilsack visited the area recently and said the Red River Valley is considered a critical conservation area. As a result, there is $20 million available annually for retention projects. Also, an additional $50 million will be made available for the Red River Valley over the next five years to use toward retention.

Mr. Olson said the Red River Retention Authority will serve as the point of contact to discuss requests and will be working within the rules of the National Resources Conservation Service (NRCS). The program will also be available to individual landowners. Mr. Campbell said the dollars being made available for retention are a very important part of the process to help reduce impacts created by the diversion.

Mr. Vanyo discussed an article in today's newspaper regarding the recent approval of an arrangement with Ducks Unlimited to assist with wetland mitigation efforts. He said the 404 permit for the OHB levee requires some wetland acreage to be mitigated. Mr. Coleman said project sponsors considered the services of Ducks Unlimited as the best option to complete the mitigation.

Business Leaders Task Force update

Mr. Vanyo said a meeting was held with Minnesota legislators, Moorhead City Council Members, Clay County Commissioners, and business leaders on July 9th to discuss the project.

9. LAND MANAGEMENT UPDATE

Committee report

Mr. Vanyo said the Land Management Committee met earlier this afternoon. One of the issues discussed was development of RFQ (Request for Qualifications) for crop insurance consulting firms to assist with flowage easement appraisals. He said the mitigation plan for farmland in the staging area requires the purchase of flowage easements. The appraisal process would involve properties in different locations within the staging area, which will help to determine if providing crop insurance may reduce flowage easement values.

CCJWRD update

Mr. Brodshaug provided an update on land acquisitions completed through June 30, 2014. He reviewed a handout with information on completed acquisitions, budget figures, and completed negotiations. He said numerous appraisals are in progress for properties associated with the OHB levee and in-town levee. He said six residential and four commercial properties will be added to the acquisition list as part of the El Zagal Golf Course project.

10. FINANCE UPDATE

Committee report

Michael Montplaisir, Cass County Auditor, said the Finance Committee met on July 9th. He said $52 million has been spent to date on the diversion project. He said work continues on the loan documents for financing through U.S. Bank. The committee discussed future public meetings to present information on the special assessment option and decided to use $900 million for the bond amount for the total state and local cost share. The committee also approved an expenditure with Ducks Unlimited associated with the 404 permit for wetland mitigation.

Voucher approval

The bills for the month are for legal services with Erik Johnson & Associates, Dorsey & Whitney LLP, and Ohnstad Twichell, P.C.

MOTION, passed

Mr. Mahoney moved and Mr. Pawluk seconded to approve the vouchers for June, 2014. On roll call vote, the motion carried unanimously.

11. NEXT MEETING DATE

The next meeting will be held on Thursday, August 14, 2014, at 3:30 PM.

12. ADJOURNMENT

MOTION, passed

On motion by Mr. Pawluk, seconded by Ms. Sobolik, and all voting in favor, the meeting was adjourned at 4:40 PM.

Minutes prepared by Heather Worden, Cass County Administrative Assistant

Item 2.

FLOOD DIVERSION BOARD OF AUTHORITY
AUGUST 6, 2014—3:30 PM

1. MEETING TO ORDER

A special meeting of the Flood Diversion Board of Authority was held on Wednesday, August 6, 2014, at 12:00 PM in the Fargo City Commission Room with the following members present: Cass County Commissioner Darrell Vanyo; Cass County Commissioner Ken Pawluk; West Fargo City Commissioner Mike Thorstad; Fargo Mayor Dennis Walaker; Fargo City Commissioner Mike Williams; Cass County Joint Water Resource District Manager Rodger Olson; Clay County Commissioner Kevin Campbell; and Moorhead City Council Member Nancy Otto. Fargo City Commissioner Tim Mahoney made previous arrangements to phone in for the executive session. Also present was ex-officio member Gerald Van Amburg, Buffalo-Red River Watershed District.

The following administrative staff and officials were also present: Attorney Erik Johnson; Attorney John Shockley; Cass County Administrator Keith Berndt; Clay County Administrator Brian Berg; Bruce Spiller, CH2MHill; Eric Dodds, AE2S; and Rocky Schneider, AE2S.

2. EXECUTIVE SESSION

MOTION, passed

Mr. Walaker moved and Ms. Otto seconded to meet in executive session as authorized by North Dakota Century Code Section 44-04-19.1 for consultation with its attorneys regarding pending litigation with the Richland-Wilkin Joint Powers Authority (JPA). Discussion: Mr. Johnson said the board will move to the River Room for the closed meeting, and normally would reconvene the meeting in the commission chambers; however, the room is being used for another meeting, so the executive session will be adjourned in the River Room and then opened to the public. Motion carried.

The Flood Diversion Board members, administrative staff and legal counsel moved to the River Room at 12:02 PM. Robert Cattanach and Michael Drysdale, Attorneys for the Board, joined the meeting via conference call.

The Chairman ended the executive session at 12:53 PM and the meeting was re-opened to the public.

3. ADJOURNMENT

MOTION, passed

On motion by Mr. Pawluk, seconded by Mr. Thorstad, and all voting in favor, the meeting was adjourned at 12:53 PM.

Minutes prepared by Heather Worden, Administrative Assistant

Item 6a.

MSA and Task Order Summary

Date: August 14, 2014

Master Services Agreement (MSA) Summary

Terracon Consultants, Inc.

- MSA for material testing services

Description – Material Testing Services:

This is a 5-year MSA to perform material testing for construction projects. Work will be authorized via Task Orders for specific construction projects.

Background:

Material testing by the Owner is required to ensure construction quality.
Materials Testing cost for each construction project will be determined in the Task Order(s).

Recommendation:

PMC recommends hiring Terracon Consultants, Inc. for material testing services during construction.

Task Order Summary	Budget Estimate ($)
HMG Task Order No. 1, Amendment 5 – Project Management	$ 920,000
• Period of performance extended to September 30, 2015 • FY-15 funding for Project Management services • 2015 insurance	
HMG Task Order No. 2, Amendment 4 – CR-31 Bridge/CR-4 Road (Reach 1)	
• Period of performance extended to December 31, 2014	
HMG Task Order No. 3, Amendment 4 – I-29 and Hwy 81 Bridges (Reach 3)	
• Period of performance extended to December 31, 2014	
HMG Task Order No. 4, Amendment 4 – CR-32/CR-22 Bridges (Reaches 4 & 5)	
• Period of performance extended to March 31, 2015	
HMG Task Order No. 6, Amendment 6 – Land Management Services	
• Period of performance extended to September 30, 2015	
HMG Task Order No. 7, Amendment 2 – Recreation Master Plan and Design	$ 16,000
• Period of performance extended to September 30, 2015 • Additional undulating design revisions and submittals	
HMG Task Order No. 9, Amendment 11 – Hydrology and Hydraulic Modeling	$ 373,000
• Period of performance extended to September 30, 2015 • Diversion Channel Optimization modeling (upstream of Maple River) • Incorporate AWD-00036 (Maple River Aqueduct technical services) • Additional modeling services Maple River Aqueduct HEC-RAS modeling • Additional ATR QA/QC review for Part 1 review of Phase 7.1 unsteady model • Phase 8 unsteady model updates (based on ATR review) and respond to comments • Additional assistance to USACE for the Hickson Hydrology Update	
HMG Task Order No. 10, Amendment 5 – Utility Relocation Design	
• Period of performance extended to September 30, 2015	
HMG Task Order No. 11, Amendment 2 – CR-20 Bridge (Reach 6)	
• Period of performance extended to March 31, 2015	

Task Order Summary	Budget Estimate ($)
HMG Task Order No. 13, Amendment 6 – Levee Design	$ 549,000
• Period of performance extended to September 30, 2015 • In Town Levees, 2nd St N Pump Station - Additional design work due to project scope changes for pump station size, computational modeling, floodwall and coordination with City Hall project • In Town Levees, 4th St Pump Station - Emergency generator design changes due to electrical load additions, and requested building changes • OHB Ring Levee - Real estate drawings for USACE levee segment, additional design for pre-consolidation construction package, and design services for the addition of a building for the pump station • WP-42 and WP-43 Right of Way surveying for Land Acquisition	
HMG Task Order No. 14, Amendment 2 – Transportation & Drainage (South)	
• Period of performance extended to September 30, 2015	
HMG Task Order No. 15, Amendment 1 – Draft Operations Plan	
• Period of performance extended to September 30, 2015	
HMG Task Order No. 16, Amendment 1 – Permit Submittal Preparation	
• Period of performance extended to September 30, 2015	
Total of Task Orders	**$ 1,858,000**

TASK ORDER SUMMARY

HMG – Task Order No. 1 – Amendment 5 — Increase $ 920,000
Project Management

Description – Subtask 2:

Subtask 2 – Services of Engineer

2.A.i Provide lead project managers to manage day-to-day activities of the engineering design consultant and provide support for agency and public meetings.

2.D Insurance: Provide $5,000,000 in project specific insurance as a project cost ($5M of project specific insurance is to be provided at Engineer's expense).

Background:

Project management services are required for design and Work In Kind (WIK) task orders contracted under the overall Master Services Agreement.

A. Subtask 2.A.i (Project Management) extend period of performance to the end of FY15 and increase budget.
    1. Based on previous project needs the estimated cost budget to fund this subtask through the end of FY15 is $ 840,000.
B. Subtask 2.D (Insurance) provide insurance for 2015.
    1. The estimated cost budget to fund this subtask through the end of 2015 is $ 80,000.

Net budget increase = $ 920,000

Recommendation:

PMC recommends authorization for Task Order No. 1, Amendment 5 for $ 920,000.

Task Order No. 7, Amendment 2 — Increase $ 16,000
Recreation and Use Master Plan and Design

Description:

Subtask 2 – Services of Engineer

B. Perform additional undulating design work and prepare submittals for review.

Background:

Greater than budgeted design revisions and submittals were performed to complete undulating designs for Diversion Channel Reaches 4 – 6 and Bridge Reaches from the Outlet to the Maple River.

Net budget increase = $ 16,000

Recommendation:

PMC recommends authorization for Task Order No. 7, Amendment 2 for $ 16,000.

Task Order No. 9, Amendment 11 — Increase $ 373,000
Hydrology and Hydraulic Modeling

Description:

Subtask 2C – Services of Engineer for Channel Size Evaluation

- Diversion Channel Optimization upstream of the Maple River

Subtask 2F – Services of Engineer for Maple River Aqueduct

- Incorporate AWD-00036 (Technical Support)
- Provide additional modeling services to USACE to update the HEC-RAS model geometry for the Maple River Aqueduct numeric model

Subtask 2K – Services of Engineer for Phase 8 model update

- Additional independent QA/QC review for Part 1 review of Phase 7.1 unsteady model
- Phase 8 unsteady model updates and responses to comments
- Additional assistance to the Corps for the Hickson Hydrology Update

Background:

Subtask 2C – Services of Engineer for Channel Size Evaluation

The Diversion Channel Optimization upstream of the Maple River is being evaluated to determine the most cost effective channel size. Additional work includes development of an updated existing ground profile for realigned channel, update flood profiles in the diversion channel, calculate flood inundation flows, evaluation project operations during extreme events, and provide opinion of optimal channel width. The cost budget for this task is $ 110,000.

Subtask 2F.IV – Services of Engineer for Maple River Aqueduct Technical Support

HMG staff has been providing technical support for the Maple River Aqueduct physical and numerical model project. This amendment incorporates AWD-00036 which authorized the continuation of support services for the Maple River Aqueduct physical and numerical model. $ 25,000 budget will be used from the On-Call Services budget.

Subtask 2F.IX – Services of Engineer for Maple River Aqueduct HEC-RAS Modeling

The USACE physical modeling team is proposing several modifications to the Maple River Physical model as part of the overall physical modeling project. Prior to implementing these changes to the physical model, the USACE team has requested an update to the numeric model geometry to evaluate these proposed changes in the numeric model. $ 25,000 budget will be used from the On-Call Services budget.

Subtask 2K – Services of Engineer for Phase 8 model update

The engineer required additional time to complete the ATR QA/QC review for Part 1 review of Phase 7.1 unsteady model. The cost budget for this additional review effort is $ 51,000.

The ATR QA/QC review for Part 1 review of Phase 7.1 unsteady model recommended several changes and updated to the model. These modeling tasks include updating river geometry (for portions of the Red River, Wild Rice River, Sheyenne River, and Maple River), addressing several model structures and calculations (for bridge approaches, flow limits, bank stations, blocked obstructions, roughness parameters, volume continuity), and recalibrating model using 2006, 2009, 2010, and 2011 historic events. The cost budget for this task is $ 150,000.

Additional assistance to USACE for the Hickson Hydrology Update. These modeling tasks include assessing modeling parameters, development of a baseline storage-discharge relationships, comparison modeling

downstream of the Otter Tail Diversion, historic flow record checks, and revise model calculation at bridges and inline structures. The cost budget for this task is $ 62,000.

Net budget increase = $ 373,000

Recommendation:

PMC recommends authorization for Task Order No. 9, Amendment 11 for $ 373,000.

Task Order No. 13, Amendment 6 — Increase $ 549,000

Levee Design

Description:

Subtask 2.B.i – Red River (In Town) Levees

- Additional design work due to project scope changes for pump station size, computational modeling, floodwall and coordination with City Hall project
- Emergency generator design changes due to electrical load additions, and requested building changes

Subtask 2.B.ii – Upstream Staging Area Ring Levees

- Real estate drawings for USACE levee segment
- Additional design for pre-consolidation construction package
- Design changes for additional pre-consolidation construction package, and design services for the addition of a building for the pump station

Subtask 2.B.iii – Land Surveying for Right of Way Acquisition

- Right of Way surveying for land acquisition

Background:

Subtask 2.B.i – Red River (In Town) Levees

Since the preliminary design submittal the In Town Levees project has changed significantly due to requested from the City of Fargo and design suggestions from the USACE. For the 2nd St N pump station these changes include increased pump station capacity, the addition of computational modeling for the pump stations, and coordinating the floodwall and pump station designs with the New City Hall project. For the 4th St pump station these changes include increased emergency generator capacity and modifications to the generator and pump station buildings. The cost budget for this task is $ 340,000.

Subtask 2.B.ii – Upstream Staging Area Ring Levees

HMG design scope did not include right of way drawings for the USACE's portion of the OHB ring levee (WP-43B). This change adds services to create the right of way drawings for WP-43B and update three times based on review comments and changes. The cost budget for this task is $ 15,000.

A separate construction package is needed to obtain the required soil consolidation for the pump station and gatewell structures. Additional design work is required to create these separate contract documents. The cost budget for this task is $ 20,000.

The OHB ring levee pump station design did not include an above ground building. The USACE suggested the addition of a pump station building for ease of operation and maintenance, and Diversion Authority technical staff agreed with the suggestion. Additional design work for architectural, structural, mechanical,

and electrical drawings and specifications is required for the above ground building. The cost budget forthis task is $ 122,000.

Subtask 2.B.iii – Land Surveying for Right of Way Acquisition
HMG design scope did not include land surveying services for land acquisition drawings for both In Town Levee and OHB Ring Levee projects. The surveying is required to create Right of Way descriptions and certificates of survey for 34 partial takes for the OHB Ring Levee and 17 certificates for the In Town Levee project. The cost budget for this task is $ 52,000.

Net budget increase = $ 549,000

Recommendation:
PMC recommends authorization for Task Order No. 13, Amendment 6 for $ 549,000.

AGREEMENT
BETWEEN OWNER AND TESTING FIRM
FOR
PROFESSIONAL SERVICES

TASK ORDER EDITION

AUGUST 14, 2014

Owner: Metro Flood Diversion Authority

Testing Firm: Terracon Consultants, Inc.

TABLE OF CONTENTS

AGREEMENT
BETWEEN OWNER AND TESTING FIRM
FOR
PROFESSIONAL SERVICES

TASK ORDER EDITION

THIS IS AN AGREEMENT effective as of **August 14, 2014** ("Effective Date") between

Metro Flood Diversion Authority ("Owner") and

Terracon Consultants, Inc. ("Testing Firm").

From time to time Owner, or the Owner's Representative/Construction Manager, may request that Testing Firm provide professional services for Specific Projects. Each engagement will be documented by a Task Order. This Agreement sets forth the general terms and conditions which shall apply to all Task Orders duly executed under this Agreement.

Owner and Testing Firm further agree as follows:

ARTICLE 1 – SERVICES OF TESTING FIRM

1.01 *Scope*

A. Testing Firm's services will be detailed in a duly executed Task Order for each Specific Project. The general format of a Task Order is shown in Attachment 1 to this Agreement. Each Task Order will indicate the specific services to be performed and deliverables to be provided.

B. This Agreement is not a commitment by Owner to Testing Firm to issue any Task Orders.

C. Testing Firm shall not be obligated to perform any prospective Task Order unless and until Owner and Testing Firm agree as to the particulars of the Specific Project, including the scope of Testing Firm's services, time for performance, Testing Firm's compensation, and all other appropriate matters.

D. Testing Firm may be entitled to appropriate adjustment in compensation arising from:

1. Changes in the instructions or approvals given by Owner or Owner's Representative/Construction Manager, untimely decisions by Owner or Owner's Representative/Construction Manager, or enactment or revision of codes, Laws or Regulations, or official interpretations that cause an unreasonable number of revisions in previously approved Documents.

2. Significant changes in the Project including, but not limited to, size, quality, complexity, schedule or budget, or procurement method.

E. Material testing will be performed by qualified individuals, licensed as appropriate for the Work.

1.02 *Task Order Procedure*

A. Owner and Testing Firm shall agree on the scope, time for performance, and basis of compensation for each Task Order. Each duly executed Task Order shall be subject to the terms and conditions of this Agreement. In the event of a conflict between terms of the duly executed Task Order and this Agreement, the provisions of the duly executed Task Order shall take precedence with regard to the Specific Project referenced in the Task Order.

B. Testing Firm will commence performance as set forth in the Task Order upon receipt of executed Task Order.

ARTICLE 2 – OWNER'S RESPONSIBILITIES

2.01 *General*

A. Owner shall have the responsibilities set forth herein, unless expressly stated otherwise in each executed Task Order.

B. Owner shall compensate Testing Firm as set forth in each Task Order, pursuant to the applicable terms of Exhibit C.

C. Owner or Owner's Representative/Construction Manager shall be responsible for, and Testing Firm may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by Owner or by Owner's Representative/Construction Manager, to Testing Firm pursuant to this Agreement. Testing Firm may use such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this agreement.

D. Owner shall provide access to properties and facilities reasonably required for the prosecution of the Work.

ARTICLE 3 – TERM; TIMES FOR RENDERING SERVICES

3.01 *Term*

A. This Agreement shall be effective and applicable to Task Orders issued hereunder for 5 years from the Effective Date of the Agreement.

B. The parties may extend or renew this Agreement, with or without changes, by written instrument establishing a new term.

3.02 *Times for Rendering Services*

A. The times for performing services or providing deliverables will be stated in each Task Order. If no times are so stated, Testing Firm will perform services and provide deliverables within a reasonable time.

B. If, through no fault of Testing Firm, such periods of time or dates are changed, or the orderly and continuous progress of Testing Firm's services is impaired, or Testing Firm's services are delayed or suspended, then the time for completion of Testing Firm's services, and the rates and amounts of Testing Firm's compensation, shall be adjusted equitably.

C. If Owner authorizes changes in the scope, extent, or character of the Specific Project referenced in an executed Task Order, then the time for completion of Testing Firm's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.

D. Owner shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Testing Firm's performance of its services.

E. If Testing Firm fails, through its own fault, to complete the performance required in a Task Order within the time set forth, as duly adjusted, then Owner shall be entitled, as its sole remedy, to the recovery of direct damages, if any, resulting from such failure.

F. If completion of any portion of the Services or Work for the Project or any Specific Project is delayed for causes beyond the control of or without the fault of Testing Firm, including Force Majeure, the time of performance of the Testing Firm's Services or Work will be extended for a period equal to the delay and fee equitably adjusted. Neither party shall be liable to the other for failure to perform as a result of an event of Force Majeure. Force Majeure includes, without limitation, acts of God; acts of a public enemy; acts of war, terrorism, acts of federal, state, local, or foreign governments; fires; floods; epidemics; strikes; riots; freight embargoes; lawsuit or court order and unusually severe weather.

G. With respect to each Task Order, the number of Construction Contracts for Work designed or specified by Testing Firm upon which the Testing Firm's compensation has been established shall be identified in the Task Order. If the Work designed or specified by Testing Firm under a Task Order is to be performed or furnished under more than one prime contract, or if Testing Firm services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast-tracking), then Owner and Testing Firm shall, prior to commencement of final design services, develop a schedule for performance of Testing Firm remaining services in order to sequence and coordinate properly such services as are applicable to the work under such separate Construction Contracts. This schedule is to be prepared and included in or become an amendment to the authorizing Task Order whether or not the work under such contracts is to proceed concurrently.

ARTICLE 4 – INVOICES AND PAYMENTS

4.01 *Invoices*

A. *Preparation and Submittal of Invoices:* Testing Firm shall prepare invoices in accordance with its standard invoicing practices, the terms of Exhibit C, and the specific Task Order. Testing Firm shall submit its invoices to Owner and Owner's Representative on a monthly basis. Invoices are due and payable within 30 days of receipt.

4.02 *Payments*

A. *Application to Interest and Principal:* Payment will be credited first to any interest owed to Testing Firm and then to principal.

B. *Failure to Pay:* If Owner fails to make any payment due Testing Firm for services and expenses within 30 days after receipt of Engineer's invoice, then:

1. the compounded amount due Testing Firm will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day; and

2. Testing Firm may, after giving seven days written notice to Owner, suspend services under any Task Order issued until Owner has paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Testing Firm for any such suspension.

C. *Disputed Invoices:* If Owner contests an invoice, Owner shall advise Testing Firm in writing within 20 days from receipt of invoice of the amount in dispute and the factual basis for the Owner's belief that the invoice need not be paid. Owner may withhold only that portion so contested, and must pay the undisputed portion.

D. *Legislative Actions:* If after the Effective Date of a Task Order any governmental entity takes a legislative action that imposes sales or use taxes, fees, or charges on Testing Firm's services or compensation under the Task Order, then the Testing Firm may invoice such new taxes, fees, or charges as a Reimbursable Expense without markup. Owner shall reimburse Testing Firm for the cost of such invoiced new taxes, fees, and charges; such reimbursement shall be in addition to the compensation to which Testing Firm is entitled under the terms of Exhibit C and the specific Task Order.

ARTICLE 5 – OPINIONS OF COST (NOT USED)

ARTICLE 6 – GENERAL CONSIDERATIONS

6.01 *Standards of Performance*

A. *Standard of Care:* The standard of care for all professional services performed or furnished by Testing Firm under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Testing Firm makes no warranties, express or implied, under this Agreement or otherwise, in connection with Testing Firm's services.

B. *Technical Accuracy:* Owner shall not be responsible for discovering deficiencies in the technical accuracy of Testing Firm's services. Testing Firm shall correct deficiencies in technical accuracy without additional compensation unless such corrective action is directly attributable to deficiencies in Owner-furnished information. Testing Firm shall not be responsible for discovering deficiencies in the technical accuracy of information provided by Owner or Owner's Representative/Construction Manager. Testing Firm will notify Owner of errors, discrepancies and inconsistencies it may discover. If requested, Testing Firm shall correct deficiencies in technical accuracy of information or materials supplied by Owner or Owner's Representative/Construction Manager as an additional service and Testing Firm's fee shall be equitably adjusted.

C. *Consultants:* Testing Firm shall serve as Owner's prime professional under each Task Order. Testing Firm may employ such Consultants as Testing Firm deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objections by Owner.

D. *Reliance on Others:* Subject to the standard of care set forth in Paragraph 6.01.A, Testing Firm and its Consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.

E. *Compliance with Laws and Regulations, and Policies and Procedures:* When performing Work under an executed Task Order, Testing Firm and Owner shall each exercise due care to comply with applicable Laws and Regulations in effect as of the execution of any Task Order.

1. Prior to the execution and Effective Date of each Task Order, Owner shall provide to Testing Firm in writing any and all policies and procedures of Owner applicable to Testing Firm's performance of services under such Task Order. Testing Firm shall comply with such policies and procedures pursuant to the standard of care set forth in Paragraph 6.01.A, and to the extent compliance is not inconsistent with professional practice requirements.

2. Each Task Order is based on Laws and Regulations and Owner-provided written policies and procedures as of the Effective Date of such Task Order. Changes after the Effective Date to these Laws and Regulations, or to Owner-provided written policies and procedures, may be the basis for modifications to Owner's responsibilities or to Testing Firm's scope of services, times of performance, or compensation.

F. Testing Firm shall not be required to sign any documents, no matter by whom requested, that would result in Testing Firm having to certify, guarantee, or warrant the existence of conditions whose existence Testing Firm cannot ascertain within its services for that Specific Project. Owner agrees not to make resolution of any dispute with Testing Firm or payment of any amount due to the Testing Firm in any way contingent upon Testing Firm signing any such certification.

6.02 *Use of Documents*

The specific work product of Testing Firm for which it is compensated by Owner, including all data, documents, and results that Testing Firm delivers to Owner during the course of its performance under this Agreement, shall be the property of Owner, but Testing Firm may reuse such information in the normal course of its business and retains its rights in any standard details or drawings. Owner may rely on any Document, signed or sealed by the Testing Firm or one of its Consultants whether printed or transmitted electronically.

Either party to this Agreement may rely on data or information set forth on paper (also known as hard copies) that the party receives from the other party by mail, hand delivery, or facsimile. In addition, either party to this Agreement may rely on items sent in electronic media format of text, data, graphics, or other types that are furnished by one party to the other unless otherwise designated by the delivering Party. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any transmittal errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files.

A. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of such documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the documents' creator.

B. If Testing Firm at Owner's request verifies or adapts the Documents for extensions of the Specific Project or for any other purpose, then Owner shall compensate Engineer at rates or in an amount to be agreed upon by Owner and Engineer.

C. Owner acknowledges that the Documents are not intended or represented to be suitable for use on projects other than this Specific Project unless completed by Testing Firm, or for use or reuse by Owner or others on extensions of the Specific Project, on any other project, or for any other use or purpose, without written verification or adaptation by Testing Firm. Any such use or reuse by Owner, or any modification of the Documents, without written verification, completion or adaptation by

Testing Firm, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Testing Firm or its Consultants.

6.03 *Insurance*

A. At all times when any Task Order is under performance, Testing Firm shall procure and maintain insurance as set forth in Exhibit G, "Insurance." Testing Firm shall cause Owner to be listed as an additional insured on any applicable general liability insurance policy carried by Testing Firm which is applicable to a Specific Project.

B. At all times when any Task Order is under performance, Owner shall procure and maintain insurance as set forth herein, or such additional insurance as may be agreed upon by the Parties and set forth in Exhibit G.

C. Owner shall require Contractors to purchase and maintain policies of insurance covering workers' compensation, general liability, property damage (other than to the Work itself), motor vehicle damage and injuries, and other insurance necessary to protect Owner's and Testing Firm s interests in the Project.

D. Owner and Testing Firm shall each deliver to the other certificates of insurance evidencing the coverages indicated in Exhibit G. Such certificates shall be furnished prior to commencement of Testing Firm's services under any Task Order and at renewals thereafter during the life of this Agreement.

E. All policies of property insurance relating to a Specific Project shall contain provisions to the effect that Testing Firm's and Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against Testing Firm or its Consultants, or any insureds, additional insureds, or loss payees thereunder.

F. All policies of insurance shall contain a provision or endorsement that the coverage afforded will not be canceled or reduced in limits by endorsement, and that renewal will not be refused, until at least 10 days prior written notice has been given to Owner and Engineer and to each other additional insured (if any) to which a certificate of insurance has been issued.

G. Under the terms of any Task Order, or after commencement of performance of a Task Order, Owner may request that Testing Firm or its Consultants, at Owner's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective than those specified in Exhibit G. If so requested by Owner and consented to by Testing Firm (which such consent shall not be unreasonably withheld), and if commercially available, Testing Firm shall obtain and shall require its Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by Owner. The additional costs associated with any such additional insurance coverage, increased insurance limits and/or revised deductibles shall be invoiced to, and paid by, Owner in accordance with Article 4.

H. Testing Firm's insurance (except for Professional Liability), through a policy or endorsement, shall include: (1) "Waiver of Subrogation" waiving any right to recovery the insurance company may have against an Owner; (2) A provision that the policy or endorsements may not be canceled, non- renewed or reduced without 30 days' prior written notice to Owner; and (3) A provision that the Testing Firm's Commercial General Liability and Auto Liability insurance coverage shall be primary, and that the Owner's insurance shall be in excess of Testing Firm's insurance.

6.04 *Suspension and Termination*

A. *Suspension:*

1. *By Owner:* Owner may suspend a Task Order upon seven days written notice to Testing Firm.

2. *By Testing Firm:* If Testing Firm's services are substantially delayed through no fault of Testing Firm, then Testing Firm may, after giving seven days written notice to Owner, suspend services under a Task Order.

3. If Owner suspends services required in any Task Order for more than 90 days, then Testing Firm's fees shall be adjusted equitably.

B. *Termination:* The obligation to provide further services under this Agreement, or under a Task Order, may be terminated:

1. For cause:

a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement or any Task Order through no fault of the terminating party.

b. By Testing Firm:

1) Upon seven days written notice if Owner demands that Testing Firm furnish or perform services contrary to Testing Firm's responsibilities as a licensed professional; or

2) Upon seven days written notice if the Testing Firm's services under a Task Order are delayed or suspended for more than 90 days for reasons beyond Testing Firm's control.

3) Testing Firm shall have no liability to Owner on account of such termination.

c. Notwithstanding the foregoing, neither this Agreement nor the Task Order will terminate under Paragraph 6.04.B.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience:

a. By Owner effective upon Testing Firm's receipt of notice from Owner.

C. *Effective Date of Termination:* The terminating party under Paragraph 6.04.B may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Testing Firm to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Task Order materials in orderly files.

D. *Payments Upon Termination:*

1. In the event of any termination under Paragraph 6.04, Testing Firm will be entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all Reimbursable Expenses incurred through the effective date of termination.

2. In the event of termination by Owner for convenience or by Testing Firm for cause, Testing Firm shall be entitled, in addition to invoicing for those items identified in Paragraph 6.04.D.1, to invoice Owner and to payment of a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with Testing Firm's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit C.

6.05 *Controlling Law*

A. This Agreement is to be governed by the laws of the state of North Dakota.

6.06 *Successors, Assigns, and Beneficiaries*

A. Owner and Testing Firm each is hereby bound and the successors, executors, administrators, and legal representatives of Owner and Engineer are hereby bound to the other party to this Agreement and to the successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements and obligations of this Agreement.

B. Neither Owner nor Testing Firm may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Any assignment in violation of this provision shall be null and void and unenforceable.

C. Unless expressly provided otherwise in this Agreement:

1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or Testing Firm to any Contractor, Subcontractor, Supplier, other individual or entity, or to any surety for or employee of any of them.

2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner, City of Oxbow, Diversion Authority member entities, U.S. Army Corps of Engineers, and Testing Firm and not for the benefit of any other party.

3. The Owner agrees that the substance of the provisions of this Paragraph 6.06.C shall appear in any Contract Documents prepared for any Specific Project under this Agreement.

6.07 *Dispute Resolution*

Owner and Testing Firm agree to use their best efforts to resolve amicably any dispute, including use of alternative dispute resolution options. Nothing prevents either party from seeking redress in a court of law.

6.08 *Environmental Condition of Site*

A. With respect to each Task Order, Specific Project, and Site:

1. Owner shall disclose to Testing Firm in writing the existence of all known and suspected Asbestos, PCBs, Petroleum, Hazardous Waste, Radioactive Material, hazardous substances, and other Constituents of Concern located at or near the Site, including type, quantity, and location.

2. Owner represents to Testing Firm that to the best of its knowledge no Constituents of Concern, other than those disclosed in writing to Testing Firm, exist at the Site.

3. If Testing Firm encounters or learns of an undisclosed Constituent of Concern at the Site, then Testing Firm shall notify (a) Owner and (b) appropriate governmental officials if Testing Firm reasonably concludes that doing so is required by applicable Laws or Regulations.

4. It is acknowledged by both parties that Testing Firm's scope of services does not include any services related to Constituents of Concern. If Testing Firm or any other party encounters an undisclosed Constituent of Concern, or if investigative or remedial action, or other professional services, are necessary with respect to disclosed or undisclosed Constituents of Concern, then Testing Firm may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Specific Project affected thereby until Owner: (1) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Constituents of Concern; and (2) warrants that the Site is in full compliance with applicable Laws and Regulations.

5. If the presence at the Site of undisclosed Constituents of Concern adversely affects the performance of Testing Firm's services under this Agreement or any executed Task Order, then the Engineer shall have the option of (a) accepting an equitable adjustment in its compensation or in the time of completion, or both; or (b) terminating the executed Task Order or (c) terminating this Agreement for cause on 30 days' notice.

6. Owner acknowledges that Testing Firm is performing services for Owner and that Testing Firm is not and shall not be required to become an "owner," "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, which are or may be encountered at or near the Site in connection with Engineer's activities under this Agreement.

6.09 *Indemnification and Mutual Waiver*

A. *Indemnification by Testing Firm:* To the fullest extent permitted by law, Testing Firm shall indemnify Owner, the Diversion Authority, and the State of North Dakota its officers, directors, partners, employees, and representatives, from and against losses, damages, and judgments arising from claims by third parties, including reasonable attorneys' fees and expenses recoverable under applicable law, but only to the extent they are found to be caused by a negligent act, error, or omission of Testing Firm or Testing Firm's officers, directors, members, partners, agents, employees, or Consultants in the performance of services under this Agreement. This indemnification provision is subject to and limited by the provisions, if any, agreed to by Owner and Testing Firm in Subdivision D, below, entitled "Limitations of Liability."

B. *Percentage Share of Negligence:* As controlled by state law.

C. *Mutual Waiver*: To the fullest extent permitted by law, Owner and Testing Firm waive against each other, and the other's employees, officers, directors, members, agents, insurers, partners, and Consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project or any Specific Project.

D. *Limitations of Liability:* Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, the total liability, in the aggregate, of Testing Firm and Testing Firm's officers, directors, members, partners, agents, guarantors, Consultants, and employees, to Owner and anyone claiming by, through, or under Owner for any and all claims, losses, costs, or damages whatsoever arising out of, resulting from, or in any way related to the Project, a Specific Project or Task Order, from any cause or causes, including but not limited to the negligence, professional errors or omissions, strict liability, breach of contract, indemnity obligations, or warranty, express or implied, of Testing Firm or Testing Firm's officers, directors, members, partners, agents, employees, guarantors or Consultants, shall not exceed the total amount, individually or collectively, of $3,000,000.

6.10 *Miscellaneous Provisions*

A. *Notices:* Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, by facsimile, by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

B. *Survival:* All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.

C. *Severability:* Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Testing Firm, which agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

D. *Waiver:* A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

E. *Accrual of Claims*: To the fullest extent permitted by law, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of Substantial Completion of Work called for in each particular Specific Project.

F. *Applicability to Task Orders:* The terms and conditions set forth in this Agreement apply to each Task Order as if set forth in the Task Order, unless specifically modified. In the event of conflicts between this Agreement and a Task Order, the conflicting provisions of the Task Order shall take precedence for that Task Order. The provisions of this Agreement shall be modified only by a written instrument. Such amendments shall be applicable to all Task Orders issued after the effective date of the amendment if not otherwise set forth in the amendment.

G. *Non-Exclusive Agreement*: Nothing herein shall establish an exclusive relationship between Owner and Testing Firm. Owner may enter into similar agreements with other professionals for the same or different types of services contemplated hereunder, and Testing Firm may enter into similar or different agreements with other project owners for the same or different services contemplated hereunder.

ARTICLE 7 – DEFINITIONS

7.01 *Defined Terms*

A. Wherever used in this Agreement (including the Exhibits hereto and any Task Order) terms (including the singular and plural forms) printed with initial capital letters have the meanings indicated in the text above, in the exhibits or Task Order, or in the following provisions:

1. *Addenda:* Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Documents.

2. *Additional Services:* Services to be performed for or furnished to Owner by Testing Firm in accordance with a Task Order which are not included in Basic Services for that Task Order.

3. *Agreement:* This "Agreement between Owner and Testing Firm for Professional Services – Task Order Edition" including those Exhibits listed in Article 8 and any duly executed Task Order.

4. *Application for Payment:* The form acceptable to Owner which is to be used by a Testing Firm in requesting progress or final payments for the completion of its Work and which is to be accompanied by such supporting documentation as is required by the Agreement.

5. *Asbestos:* Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

6. *Authority Work Directive:* A written directive to the Testing Firm signed by Owner upon recommendation of the Owner's Representative/Construction Manager, ordering an addition, deletion, or revision in a Task Order Scope of Work. An Authority Work Directive will not change the Task Order Price or Schedule, but is evidence that the parties expect that the change directed or documented by an Authority Work Directive will be incorporated into a subsequent issued Amendment following negotiations by the Parties as to its effect, if any, on the Task Order Price or Schedule.

7. *Basic Services:* Specified services to be performed for or furnished to Owner by Testing Firm in accordance with a Task Order.

8. *Bid:* The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

9. *Bidding Documents:* The advertisement or invitation to Bid, instructions to bidders, the Bid form and attachments, the Bid bond, if any, the proposed Contract Documents, and all Addenda, if any.

10. *Change Order:* A document recommended by Engineer, which is signed by a Contractor and Owner to authorize an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times.

11. *Constituent of Concern:* Any substance, product, waste, or other material of any nature whatsoever (including, but not limited to, Asbestos, Petroleum, Radioactive Material, and PCBs) which is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq.

("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§1801 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; and (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Construction Agreement:* The written instrument which is evidence of the agreement, contained in the Contract Documents, between Owner and a Contractor covering the Work.

13. *Construction Contract:* The entire and integrated written agreement between Owner and Contractor concerning the Work.

14. *Construction Cost:* The cost to Owner of those portions of an entire Specific Project designed or specified by Engineer. Construction Cost does not include costs of services of Engineer or other design professionals and consultants; cost of land or rights-of-way, or compensation for damages to properties; Owner's costs for legal, accounting, insurance counseling or auditing services; interest or financing charges incurred in connection with a Specific Project; or the cost of other services to be provided by others to Owner Construction Cost is one of the items comprising Total Project Costs.

15. *Construction Manager:* Professional firm retained by Owner to assist Owner with management of construction contracts.

16. *Consultants:* Individuals or entities having a contract with Testing Firm to furnish services with respect to a Specific Project as Testing Firm's independent professional associates, consultants, subcontractors, or vendors. The term Testing Firm includes Testing Firm's Consultants.

17. *Contract Documents:* Those items so designated in the Construction Contract, including the Drawings, Specifications, construction agreement, and general and supplementary conditions. Only printed or hard copies of the items listed in the Construction Contract are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

18. *Contract Price:* The moneys payable by Owner to a Contractor for completion of the Work in accordance with the Contract Documents and as stated in the Construction Agreement.

19. *Contract Times:* The numbers of days or the dates stated in a Construction Agreement to: (i) achieve Substantial Completion, and (ii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

20. *Contractor:* The entity or individual with which Owner has entered into the Construction Contract.

21. *Correction Period:* The time after Substantial Completion during which a Contractor must correct, at no cost to Owner, any Defective Work, normally one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee or specific provision of the Contract Documents.

22. *Defective:* An adjective which, when modifying the word Work, refers to Work that is unsatisfactory, faulty, or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to Engineer's recommendation of final payment.

23. *Documents:* Data, reports, Drawings, Specifications, Record Drawings, and other deliverables, whether in printed or electronic media format, provided or furnished in appropriate phases by Engineer to Owner pursuant to this Agreement.

24. *Drawings:* That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by a Contractor. Shop Drawings are not Drawings as so defined.

25. *Effective Date of the Construction Agreement:* The date indicated in a Construction Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Construction Agreement is signed and delivered by the last of the two parties to sign and deliver.

26. *Effective Date of the Agreement*: The date indicated in this Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

27. *Effective Date of the Task Order*: The date indicated in the Task Order on which it becomes effective, but if no such date is indicated, it means the date on which the Task Order is signed and delivered by the last of the two parties to sign and deliver.

28. *Engineer:* The individual or entity named as such in the Contract Documents.

29. *Field Order:* A written order issued by Engineer which directs minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

30. *General Conditions*: That part of the Contract Documents which sets forth terms, conditions, and procedures that govern the Work to be performed or furnished by a Contractor with respect to a Specific Project.

31. *Hazardous Waste*: The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

32. *Laws and Regulations; Laws or Regulations:* Any and all applicable laws, rules, regulations, ordinances, codes, standards, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

33. *Owner:* The individual or entity with which Testing Firm has entered into this Agreement and for which the Testing Firm's services are to be performed. Unless indicated otherwise, this is the same individual or entity that will enter into any construction contracts concerning the Project.

34. *Owner's Representative*: Professional firm retained by Owner to assist Owner with Owner's activities, also referred to as Program Management Consultant or Construction Manager.

35. *PCBs:* Polychlorinated biphenyls.

36. *Petroleum:* Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

37. *Program:* The total Fargo-Moorhead Area Diversion.

38. *Program Management Consultant:* Professional firm retained by Owner to assist Owner with the management of the Program, also referred to as Owner's Representative or Construction Manager.

39. *Project:* A discrete engineering or construction project carried out under the Program. Also referred to as a Specific Project.

40. *Radioactive Materials:* Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

41. *Record Drawings:* The Drawings as issued for construction on which Engineer, upon completion of the Work, has shown changes due to Addenda or Change Orders and other information which Engineer considers significant based on record documents furnished by Contractor to Engineer and which were annotated by Contractor to show changes made during construction.

42. *Reimbursable Expenses:* The expenses incurred directly by Testing Firm in connection with the performing or furnishing of Basic and Additional Services for a Specific Project for which Owner shall pay Testing Firm as indicated in Exhibit C.

43. *Resident Project Representative:* The authorized representative, if any, of Construction Manager assigned to assist Construction Manager at the Site of a Specific Project during the Construction Phase. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of the RPR agreed to by Owner. The duties and responsibilities of the RPR will be as set forth in each Task Order.

44. *Samples:* Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

45. *Shop Drawings:* All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for a Contractor and submitted by a Contractor to Engineer to illustrate some portion of the Work.

46. *Site:* Lands or areas indicated in the Contract Documents for a Specific Project as being furnished by Owner upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for use of a Contractor.

47. *Specifications:* That part of the Contract Documents prepared by Engineer consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work to be performed by a Contractor and certain administrative details applicable thereto.

48. *Specific Project:* An undertaking of Owner as set forth in a Task Order.

49. *Subcontractor*: An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at a Site.

50. *Substantial Completion:* The time at which the Work has progressed to the point where, in the opinion of Engineer, the Work is sufficiently complete, in accordance with the Contract Documents, so that the Work can be utilized for the purposes for which it is intended.

51. *Supplementary Conditions:* That part of the Contract Documents which amends or supplements the General Conditions.

52. *Supplier:* A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.

53. *Task Order:* A document executed by Owner and Testing Firm, including amendments if any, stating the scope of services, Testing Firm's compensation, times for performance of services and other relevant information for a Specific Project.

54. *Total Project Costs:* The sum of the Construction Cost, allowances for contingencies, the total costs of services of Engineer or other design professionals and consultants, cost of land, rights-of-way, or compensation for damages to properties, or Owner's costs for legal, accounting, insurance counseling, or auditing services, or interest and financing charges incurred in connection with a Specific Project, or the cost of other services to be provided by others to Owner.

55. *Work:* The entire completed construction or the various separately identifiable parts thereof required to be provided under the Contract Documents for a Specific Project. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by those Contract Documents.

56. *Work Change Directive:* A written directive to a Contractor signed by Owner upon recommendation of the Engineer, ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

ARTICLE 8 – EXHIBITS AND SPECIAL PROVISIONS

8.01 *Exhibits*

Attachment 1, Task Order (Suggested Form)

Exhibit A, Testing Firm’s Services – Not Included

Exhibit B, Owner’s Responsibilities

Exhibit C, Payments to Testing Firm for Services and Reimbursable Expenses

Exhibit D, Duties, Responsibilities and Limitations of Authority of Resident Project Representative – Not Included

Exhibit E, Notice of Acceptability of Work – Not Included

Exhibit F, Construction Cost Limit – Not Included

Exhibit G, Insurance

Exhibit H, Dispute Resolution – Not Included

Exhibit I, Limitations on Liability-Not included

Exhibit J, Special Provisions-Not Included

Exhibit K, Amendment to Task Order (Suggested Form)

8.02 *Total Agreement*

A. This Agreement (together with the Exhibits identified as included above) constitutes the entire agreement between Owner and Testing Firm and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument based on the format provided in Exhibit K to this Agreement, "Amendment to Task Order."

8.03 *Designated Representatives*

A. With the execution of this Agreement, Testing Firm and Owner shall designate specific individuals to act as Testing Firm's and Owner's representatives with respect to the services to be performed or furnished by Testing Firm and responsibilities of Owner under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Agreement on behalf of each respective party. Each Task Order shall likewise designate representatives of the two parties.

8.04 *Testing Firm's Certifications*

A. Testing Firm certifies that it has not engaged in corrupt, fraudulent, or coercive practices in competing for or in executing the Agreement. For the purposes of this Paragraph 8.04:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the selection process or in the Agreement execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the selection process or the execution of the Agreement to the detriment of Owner, or (b) to deprive Owner of the benefits of free and open competition;

3. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the selection process or affect the execution of the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on Page 1.

OWNER:	TESTING FIRM:
Metro Flood Diversion Authority	**Terracon Consultants, Inc.**
By:	By:
Name: Darrell Vanyo	Name:
Title: Chairman, Diversion Authority	Title:
	Testing Firm License or Firm's Certificate No.
	State of :
Date Signed:	Date Signed:
Address for giving notices:	Address for giving notices:
211 9th Street South	
PO Box 2806	
Fargo, ND 58108-2806	
DESIGNATED REPRESENTATIVE (Paragraph 8.03.A):	DESIGNATED REPRESENTATIVE (Paragraph 8.03.A):
Keith Berndt	
Title: Cass County Administrator	Title:
Phone Number: (701) 241-5720	Phone Number:
E-Mail Address: berndtk@casscountynd.gov	E-Mail Address:

SUGGESTED FORM OF
TASK ORDER

This is Task Order No. _____,
consisting of _____ pages.

Task Order

[NOTE TO USER: Modify as to scope, compensation, schedule, and other key items.]

In accordance with Paragraph 1.01 of the Agreement Between Owner and Testing Firm for Professional Services – Task Order Edition, dated _____ ("Agreement"), Owner and Engineer agree as follows:

1. Specific Project Data

   A. Title: _____

   B. Description: _____

2. Services of Testing Firm

3. Owner's Responsibilities

   Owner shall have those responsibilities set forth in Article 2 and in this executed Task Order subject to the following: *[Here state any additions or modifications to Exhibit B, for this Specific Project.]*

4. Times for Rendering Services

Phase	Completion Date
_____	_____
_____	_____
_____	_____

5. Payments to Testing Firm

   A. Owner shall pay Testing Firm for services rendered as follows:

Category of Services	***Compensation Method***	***Lump Sum, or Estimate of Compensation for Services***
	Choose One: A. Standard Hourly Rates *B. [Insert any other compensation method]*	

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants:

7. Other Modifications to Agreement:

[Supplement or modify Agreement and Exhibits, if appropriate.]

8. Attachments:

9. Documents Incorporated By Reference:

10. Terms and Conditions: Execution of this Task Order by Owner and Testing Firm shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Testing Firm is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is _____, _____.

OWNER:	TESTING FIRM:
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
	Testing Firm License or Firm's Certificate No. _____
	State of: _____
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
Name: _____	Name: _____
Title: _____	Title: _____
Address: _____	Address: _____
E-Mail Address: _____	E-Mail Address: _____

Phone: _____	Phone: _____
Fax: _____	Fax: _____

This is **EXHIBIT B**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Testing Firm for Professional Services – Task Order Edition** dated August 14, 2014.

Owner's Responsibilities

Article 2 of the Agreement is amended and supplemented to include the following responsibilities unless expressly stated otherwise in a Task Order.

B2.01 Owner or, at Owner's designation, Owner's Representative/Construction Manager shall provide the following services:

A. Provide Testing Firm with all criteria and full information as to Owner's requirements for the Specific Project identified in any executed Task Order, including Contract Documents consisting of Drawings and Specifications; and furnish copies of Owner's standard forms, conditions, and related documents, when applicable.

B. Furnish to Testing Firm any other available information pertinent to the Specific Project including reports and data relative to previous investigation at or adjacent to the Site of the Specific Project.

C. Following Testing Firm's assessment of initially-available Specific Project information and data and upon Testing Firm's request, furnish or otherwise make available such additional Specific Project related information and data as is reasonably required to enable Testing Firm to complete its Basic and Additional Services. Such additional information or data would generally include the following:

1. Descriptions of property to be accessed or acquired.

2. Known zoning, deed, and other land use restrictions.

3. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions relating to existing surface or subsurface structures at the Site, or hydrographic surveys, with appropriate professional interpretation thereof.

4. Environmental assessments, audits, investigations and impact statements, and other relevant environmental or cultural studies as to a Specific Project, the Site and adjacent areas.

5. Data or consultations as required for a Specific Project but not otherwise identified in the Agreement, the Exhibits thereto, or the Task Order.

D. Give prompt written notice to Testing Firm whenever Owner observes or otherwise becomes aware of the presence at the Site of any Constituent of Concern, or of any other development that affects the scope or time of performance of Testing Firm's services, or any defect or nonconformance in Testing Firm's services, the Work, or in the performance of any Contractor.

E. Authorize Testing Firm to provide Additional Services as set forth in the Task Order as required.

F. Arrange for safe access to and make provisions for Testing Firm to enter upon public and private property as required for Testing Firm to perform services under the Task Order.

G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by Testing Firm for the Specific Project (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as Owner deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.

H. Obtain, arrange, provide and/or pay for reviews, approvals, and permits from governmental authorities having jurisdiction to approve phases of the Specific Project as may be necessary for completion of each phase of the Project or any Specific Project.

I. If more than one materials testing contract is to be awarded for the Work of the Specific Project, designate in the Task Order a person or entity to have authority and responsibility for coordinating the activities among the various Testing Firms.

J. Inform Testing Firm of any specific requirements of safety or security programs that are applicable to Testing Firm, as a visitor to the Site.

This is **EXHIBIT C**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Testing Firm for Professional Services – Task Order Edition** dated August 14, 2014.

Payments to Testing Firm for Services and Reimbursable Expenses

Article 2 of the Agreement is amended and supplemented to include the following agreement of the parties:

ARTICLE 2 – OWNER'S RESPONSIBILITIES

C2.01 *Method of Payment*

B. Owner shall pay Testing Firm for services in accordance with one or more of the following methods as identified in each Task Order:

1. Method A: Standard Hourly Rates

2. Method B: [Identify any other method to be used to compensate Testing Firm for some or all of its services]

C2.02 *Explanation of Methods*

C. Method A – Standard Hourly Rates

1. For the specified category of services, the Owner shall pay Testing Firm an amount equal to the cumulative hours charged to the Specific Project by each class of Testing Firm employees times Standard Hourly Rates for each applicable billing class for all services performed on the Specific Project, plus Reimbursable Expenses and Consultant's charges, if any.

2. Standard Hourly Rates include salaries and wages paid to personnel in each billing class plus the cost of customary and statutory benefits, general and administrative overhead, non-project operating costs, and operating margin or profit.

3. Engineer's Reimbursable Expenses Schedule and Standard Hourly Rates are attached to this Exhibit as Appendices 1 and 2.

4. The total estimated compensation for the specified category of services shall be stated in the Task Order. This total estimated compensation will incorporate all labor at Standard Hourly Rates, Reimbursable Expenses, and Consultants' charges, if any.

5. The amounts billed will be based on the cumulative hours charged to the specified category of services on the Specific Project during the billing period by each class of Testing Firm's employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and Testing Firm's Consultant's charges, if any.

6. The Standard Hourly Rates and Reimbursable Expenses Schedule may be adjusted annually (as of January 1st) to reflect equitable changes in the compensation payable to Testing Firm.

D. Method B – *[Identify and define any other method to be used to compensate Testing Firm for some or all of its services]*

C2.03 *Reimbursable Expenses*

Costs incurred by Testing Firm in the performance of the Task Order in the following categories constitute Reimbursable Expenses:

A. Transportation and subsistence incidental thereto; postage, and shipping costs; reproduction of reports. If authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for the use of highly specialized equipment. Reimbursable expenses shall be paid at rates set forth in Appendix 1 to this Exhibit C which may be adjusted annually (as of January 1st) to reflect equitable changes in the rates.

B. The amounts payable to Testing Firm for Reimbursable Expenses will be the project-specific internal expenses actually incurred or allocated by Testing Firm, plus all invoiced external Reimbursable Expenses allocable to a Specific Project, the latter multiplied by a Factor of 1.0. In addition, all invoiced Consultants Expenses allocated to a Specific Project or Task Order multiplied by a factor of 1.05.

C2.04 *Serving as a Witness*

A. For services performed by Testing Firm's employees as witnesses giving testimony in any litigation, arbitration or other legal or administrative proceedings, the rate of 1.3 times the witness's standard hourly rate. Compensation for Consultants for such services will be by reimbursement of Consultants' reasonable charges to Testing Firm for such services.

C2.05 *Other Provisions Concerning Payment*

A. *Extended Contract Times*. Should the Contract Times to complete the Work be extended beyond the period stated in the Task Order, payment for Testing Firm's services shall be continued based on the Standard Hourly Rates Method of Payment.

B. *Estimated Compensation Amounts*

1. Testing Firm's estimate of the amounts that will become payable for services are only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.

2. When estimated compensation amounts have been stated in a Task Order and it subsequently becomes apparent to Testing Firm that a compensation amount thus estimated will be exceeded, Testing Firm shall give Owner written notice thereof. Promptly thereafter Owner and Testing Firm shall review the matter of services remaining to be performed and compensation for such services. Owner shall either agree to such compensation exceeding said estimated amount or Owner and Testing Firm shall agree to a reduction in the remaining services to be rendered by Testing Firm so that total compensation for such services will not exceed said estimated amount when such services are completed. If Testing Firm exceeds the estimated amount before Owner and Testing Firm have agreed to an increase in the compensation due Testing Firm or a reduction in the remaining services, the Testing Firm shall give written notice thereof to Owner and shall be paid for all services rendered thereafter.

This is **Appendix 1 to EXHIBIT C**, consisting of 1 page, referred to in and part of the **Standard Form of Agreement between Owner and Testing Firm for Professional Services – Task Order Edition** dated August 14, 2014.

Reimbursable Expenses Schedule

Current agreements for engineering services stipulate that the Reimbursable Expenses are subject to review and adjustment per Exhibit C. Rates for reimbursable expenses effective on the date of this Agreement are:

Reimbursable Expenses

This is **Appendix 2 to EXHIBIT C**, consisting of _____ pages, referred to in and part of the **Agreement between Owner and Testing Firm for Professional Services – Task Order Edition** dated August 14, 2014.

Standard Hourly Rates Schedule

Current agreements for engineering services stipulate that the standard hourly rates are subject to review and adjustment per Exhibit C. Hourly rates for services effective on the date of this Agreement are:

This is **EXHIBIT G**, consisting of 3 pages, referred to in and part of the **Agreement between Owner and Testing Firm for Professional Services – Task Order Edition** dated August 14, 2014.

Insurance

Paragraph 6.03 of the Agreement is amended and supplemented to include the following agreement of the parties.

G6.03 *Insurance*

A. The limits for the insurance required by Paragraphs 6.03.A and 6.03.B of the Agreement are as follows:

1. *By Testing Firm:*

a.	Workers' Compensation:		Statutory
b.	Employer's Liability –		
	1)	Each Accident:	$1,000,000
	2)	Disease, Policy Limit:	$1,000,000
	3)	Disease, Each Employee:	$1,000,000
c.	General Liability –		
	1)	Each Occurrence (Bodily Injury and Property Damage):	$2,000,000
	2)	General Aggregate:	$2,000,000
d.	Excess or Umbrella Liability –		
	1)	Each Occurrence:	$3,000,000
	2)	General Aggregate:	$3,000,000
e.	Automobile Liability –		
	1)	Combined Single Limit (Bodily Injury and Property Damage): Each Accident	$2,000,000
f.	Professional Liability –		
	1)	Each Claim Made:	$3,000,000
	2)	Annual Aggregate:	$3,000,000
g.	Other (specify):		$_____

By Owner:

a.	Workers' Compensation:		Statutory
b.	Employer's Liability –		
	1)	Each Accident:	$1,000,000
	2)	Disease, Policy Limit:	$1,000,000
	3)	Disease, Each Employee:	$1,000,000
c.	General Liability –		
	1)	Each Occurrence (Bodily Injury and Property Damage):	$2,000,000
	2)	General Aggregate:	$2,000,000
d.	Excess or Umbrella Liability –		
	1)	Each Occurrence:	$NA
	2)	General Aggregate:	$NA
e.	Automobile Liability –		
	1)	Combined Single Limit (Bodily Injury and Property Damage): Each Accident	$NA
f.	Other (specify):		$_____

3. The policies of insurance required by this Paragraph 6.03 will:

   a. not limit in any way Testing Firm's duties to defend, indemnify, and hold harmless Owner, the Diversion Authority, and the State of North Dakota, and those parties' officers, employees, agents, consultants, subcontractors, and representatives;

   b. either in the policies or in endorsements, contain a "waiver of subrogation" that waives any right to recovery any of Testing Firm's insurance companies might have against Owner, the Diversion Authority, or the State of North Dakota;

   c. either in the policies or in endorsements, contain a provision that Testing Firm's insolvency or bankruptcy will not release the insurers from payment under the policies, even when Testing Firm's insolvency or bankruptcy prevents Testing Firm from meeting the retention limits under the policies;

   d. either in the policies or in endorsements, contain cross liability/severability of interests, to ensure that all additional insured parties are covered as if they were all separately covered;

   e. either in the policies or in endorsements, contain a provision that the legal defense provided to Owner, the Diversion Authority, and the State of North Dakota must be free of any conflicts of interest, even if retention of separate legal counsel is necessary;

f. either in the policies or in endorsements, contain a provision that any attorney who represents the State of North Dakota must first qualify as and be appointed by the North Dakota Attorney General as a Special Assistant Attorney General as required under N.D.C.C. § 54-12-08;

g. either in the policies or in endorsements, contain a provision that Testing Firm's policies will be primary and noncontributory regarding any other insurance maintained by or available to Owner, the Diversion Authority, or the State of North Dakota, and that any insurance maintained by those parties will be in excess of Testing Firm's insurance and will not contribute with it.

4. Testing Firm will ensure that all of Testing Firm's Subcontractors purchases and maintain the same insurance policies and endorsements required of Testing Firm under the Contract Documents, with the same conditions and terms required of Testing Firm and its insurers.

5. All insurance policies required under the Contract Documents, including the Excess or Umbrella Liability policies, must be from insurers rated "A-" or better by A.M. Best Company, Inc.

This is **EXHIBIT J**, consisting of _____ pages, referred to in and part of the **Agreement between Owner and Testing Firm for Professional Services** dated August 14, 2014.

Special Provisions

Paragraph(s) ___ of the Agreement is/are amended to include the following agreement(s) of the parties:

SUGGESTED FORM OF

This is **EXHIBIT K**, consisting of _____ pages, referred to in and part of the **Agreement between Owner and Testing Firm for Professional Services – Task Order Edition** dated August 14, 2014.

Amendment To Task Order No. _____

1. Background Data:

   a. Effective Date of Task Order Agreement:

   b. Owner:

   c. Testing Firm:

   d. Specific Project:

2. Description of Modifications

3. Task Order Summary (Reference only)
   a. Original Task Order amount: $_____
   b. Net change for prior amendments: $_____
   c. This amendment amount: $_____
   d. Adjusted Task Order amount: $_____

The foregoing Task Order Summary is for reference only and does not alter the terms of the Task Order, including those set forth in Exhibit C.

Owner and Testing Firm hereby agree to modify the above-referenced Task Order as set forth in this Amendment. All provisions of the Agreement and Task Order not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is _____.

OWNER:		TESTING FIRM:	
By:	_____	By:	_____
Title:	_____	Title:	_____
Date Signed:	_____	Date Signed:	_____

This is Task Order No. 1, Amendment 54, consisting of 5 pages.

Task Order No. 1, Amendment 54

In accordance with Paragraph 1.01 of the Agreement between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 1 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data
    - A. Title: Project Management
    - B. Description: Provide overall project management of Engineer design teams and subcontractor design teams, coordinate with Owner and Program Management Consultant (PMC), and provide public involvement assistance.
    - C. Background:
        - i. Project Management will be led by two lead Project Managers, who will report to and work closely with the PMC to plan, organize, and direct activities required to implement the project. The lead Project Managers will have primary responsibility for satisfactory completion of assigned Task Orders. Engineer will assist Owner with the Owner's public involvement process. Such assistance is anticipated to include, at the request of Owner or PMC, attending public meetings, preparing exhibits, displays, and presentations for public meetings, meeting with individuals or agencies, and other task to be determined.
        - ii. Provide project controls, including general scheduling and reporting, compliance with USACE, Owner, and PMC guidelines and protocols, schedule management, and invoicing.
        - iii. Provide on-call services as requested by Owner or PMC for tasks not included in defined scopes.
2. Services of Engineer
    - A. Project Management
        - i. General responsibilities for this task include, but are not limited to, the following:
            1. Provide the primary points of contact with the PMC.
            2. Provide overall project management to satisfactorily complete assigned Task Orders.
            3. Provide day-to-day management oversight of Engineer's Design Consultant Teams (DCTs) for assigned Task Orders.
        - ii. Public Involvement Assistance: General responsibilities for this task include, but are not limited to, the following:
            1. Attend public meetings and meetings with individual property and business owners. For requested public events, attend and give project presentations.

2. Prepare exhibits, displays, and presentations for public meetings.
3. Develop project animations of staging area and function of Diversion.
4. Provide up to 8 staff for individual meetings with residents in the upstream staging area communities of Oxbow, Hickson, and Bakke.
5. Meet with individuals or agencies, and other tasks determined by Owner or PMC.

Deliverables

i. Monthly reports

B. Project Controls: Responsibilities for this task include, but are not limited to, the following:

i. General

1. Establish and maintain task order cost and schedule reporting systems.
2. Prepare budget and schedule reports, implement cost and schedule variance reporting systems, and issue periodic variance reports.
3. Establish and maintain a change control system.
4. Track and report status for each task order.

ii. USACE/Diversion Authority Compliance

1. Develop Project Management Guide/Protocols Document
2. Develop Project Specific Safety Plan
3. Develop Project Document Controls/Standards
4. Develop Quality Assurance Plan (QAP)
5. Develop survey standards

iii. Schedule Management

1. Review and monitor task order schedules.
2. Implement a schedule reporting system, which will monitor and manage the progress of project tasks on a monthly basis.

Deliverables

i. Prepare and submit project controls budget and schedule updates for monthly reports, and monthly invoices.

C. On-Call Services: Respond to requests for services from PMC for tasks not included in defined scopes. Requests will be provided by PMC in writing. Work will not be performed by Engineer without authorization by PMC or Owner.

Deliverables

i. On-call service deliverables as requested.

D. Insurance: Provide $5M in project specific insurance as a project cost ($5M of project specific insurance is to be provided at Engineer's expense) for 2012, 2013, 2014, and 2015.

Deliverables

i. Insurance Certificates naming the Diversion Board of Authority, Fargo, ND; City of Fargo, ND; Cass County, Fargo, ND; Cass County Joint Water Resource District, West Fargo, ND; City of Moorhead, MN; Clay County, Moorhead, MN; Buffalo-Red River Watershed District, Barnesville MN; North Dakota State Water Commission, Bismarck, ND; and CH2M HILL as additional insureds.

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Phase	**Start Time**	**Completion Time**
All Work	March 8, 2012	September 30, 20154

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

i. Compensation for services identified under Subtasks A through D shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

ii. The total compensation for services identified under the Task Order for Subtasks A through D is not-to-exceed amount as defined in the table below.

iii. Estimated budget for Subtask A.ii, Public Involvement Assistance, and Subtask C, On-Call Services, is based on an allowance.

1. Engineer will notify Owner when eighty percent (80%) of the budget on Subtask A.ii, Public Involvement Assistance, and Subtask C, On-Call Services, is expended.

2. Engineer will prepare and submit an amendment for additional compensation when ninety percent (90%) of budget on Subtask A.ii, Public Involvement Assistance, and Subtask C, On-Call Services, is expended.

3. Engineer will not perform work beyond one hundred percent (100%) of the budget for Subtask A.ii, Public Involvement Assistance, and Subtask C, On-Call Services, without Owner's authorization by an amendment to this Task Order.

Subtask		Current Budget ($)	Change ($)	Revised Budget ($)
A.i	Project Management	1,849,175	~~0~~840,000	2,689,175~~1,849,175~~
A.ii	Public Involvement Assistance	236,000~~136,000~~	~~100,0000~~	236,000
B.	Project Controls	97,500~~207,500~~	~~-110,0000~~	97,500
C.	On-Call Services	50,000~~150,000~~	~~-100,0000~~	50,000
D.	Insurance	255,000~~80,000~~	~~175,000~~80,000	335,000~~255,000~~
TOTAL		**2,487,675~~2,422,675~~**	**~~65,000~~920,000**	**3,407,675~~2,487,675~~**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants:

   A. Barr Engineering Company
   B. Braun Intertec Corporation
   C. HDR, Inc.
   D. Kadrmas, Lee & Jackson
   E. Northern Technologies, Inc.
   F. SRF Consulting Group, Inc.

7. Other Modifications to Agreement: None

8. Attachments: None

9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is March 8, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
(701) 237-5065 Phone	(701) 241-5720 Phone
Fax	(701) 297-6020 Fax

This is Task Order No. 2, Amendment ~~43~~, consisting of 9 pages.

Task Order No. 2, Amendment ~~3~~4

In accordance with Paragraph 1.01 of the Agreement Between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 2 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data

    A. Title: Design of Work Package 2 (CR-31 Bridge)

    B. Description: As part of the Owner's Lands, Easements, Rights of Way, Relocations, and Disposal (LERRDs) work, design and prepare contract documents for the construction of the new County Road 31 (CR-31) bridge, which crosses the diversion channel at 24th Street SE, approximately 3.5 miles of associated county road to accommodate road alignment and grade changes, local drainage facilities and structures, and 1000-feet of diversion channel (nominally 500-feet on either side of the centerline of the bridge).

    C. Background: The draft Red River Diversion Master Transportation Plan provides for one (1) bridge perpendicular to the diversion channel, CR-31 (at 24th Street SE), along with modifications to road alignments and grades for 24th Street SE, 25th Street SE, 172nd Avenue SE, and 173rd Avenue SE. Approach roadways will need to be reconstructed to accommodate the raised elevation of the new structure and provide appropriate approach roadway grades and cross section. These roads are aggregate surfaced roads serving farm to market and rural residential needs. The diversion channel crosses 24th Street SE approximately one mile upstream of the diversion channel outlet to the Red River. United States Army Corps of Engineers (USACE) will provide some design criteria for the bridge, including length, channel geometry, pier configuration, and clearance line elevation. USACE will also provide diversion channel design criteria.

2. Services of Engineer

    A. General

        i. Design of Work Package 2 Contract Documents: Prepare contract documents (Plans and Specifications) for the construction of the new CR-31 bridge, associated roads, local drainage facilities, and diversion channel. Design items include, but are not limited to:

            1. CR-31 bridge, approximately 520 feet long and per Cass County roadway bridge design requirements and USACE design criteria.

            2. Approximately 3.5 miles of associated county roadway on 24th Street SE, 25th Street SE, 172nd Avenue SE, and 173rd Avenue SE per Cass County roadway design requirements.

            3. Drainage ditch 29 crossing on new county road segment of 25th Street SE per Cass County roadway and bridge design requirements.

            4. 1000-feet of diversion channel per USACE design requirements.

            5. Include a list and forms of permits required for construction of these facilities.

ii. Certain of these design items may be included in the Work Package 2 Contract Documents and certain items may be provided to USACE for inclusion in their Contract Documents.

iii. Roadway and bridge design services will be prepared in accordance with applicable Cass County Standards, NDDOT Design Manual, NDDOT Cadd Standards, and AASHTO bridge and roadway design specifications, modified as required for this project. Plan drawings will be generated using MicroStation V8i. Survey will follow USACE standards and will be translated to Cass County standards under a future Task Order.

B. Scope of Work

100 Project Management and Coordination

101 Project Schedule.

Develop and maintain a project schedule. The schedule will include the establishment of milestone dates for the major work items. Review and adjust the schedule as necessary to incorporate changes in the work concept and progress to date.

102 Progress Reports (Monthly).

Provide written progress reports describing the work performed on each task. Provide progress reports concurrently with the monthly invoice.

103 Bridge Design Team Meetings.

Participate in weekly team meetings (conference calls) to discuss design progress, technical issues, and other topics developed as the project progresses.

104 Coordination Meetings.

Participate in coordination meetings with the PMC, USACE, BNSF Railway, contractors or other organizations relevant to the project.

200 Field Survey

201 Survey Criteria and Standards Development.

Participate in the development of project survey criteria and standards with the design team to establish consistency across the team and to meet deliverable requirements of the project stakeholders including the NDDOT, Cass County, and USACE.

202 Landowner Notification.

Notify landowners prior to accessing property to conduct the field survey in accordance with Right-of-Entry agreements. Coordinate access with PMC and Owner.

203 Field Survey.

Collect survey data in accordance with the criteria developed in Task 201. Field survey will include establishing control, collecting topographic data of the existing ground and roadways, utilities, drainage features, and existing right of way.

204 Compile Data and Generate Base Map.

Download the survey data collected and generate a base map for development of project plan drawings.

205 Geotechnical Location Survey.

Stake the location of the planned soil borings and record the coordinates and elevation of the borings for inclusion in the geotechnical report and the project plans.

206 Pickup Survey.

After the final bridge alignment and elevation has been established, collect additional data from the site if needed.

207 Survey Control Report.

Develop a report documenting the survey control established for the bridge site and the standards used.

300 Roadway Design

301 Preliminary Roadway Design.

Perform preliminary roadway design functions and prepare preliminary roadway plans for review Cass County and the PMC. The preliminary design will include the following:

- Traffic Operations
- Preliminary alignment and profile
- Settlement countermeasure concepts
- Existing and proposed typical sections
- Establish subgrade criteria
- Preliminary pavement/section design
- Roadway design report

302 Final Roadway Design and Plan Preparation.

Develop the final roadway design and final plans and conduct a Plans, Specifications and Estimate (PS&E) review meeting with Cass County, the local sponsors, USACE, and other interested parties and agencies. Preparation of final roadway plans will consist of the following:

- Final alignment and grade
- Final typical section
- Traffic control/construction staging
- Utility relocations
- Drainage design
  - Coordinate Drain 29 temporary and permanent outlets with USACE's Outlet and Reach 1 design team. Incorporate permanent drain outlet into the Diversion Outlet. Provide a temporary Drain 29 outlet into the Red River outside of the construction limits for the Outlet and Reach 1.
- Signing and pavement marking
- Guardrail design and plans
- Settlement countermeasures
- Roadway plan drawings
- Roadway plan notes and special provisions

Assemble and distribute plans for review.

Attend a PS&E Review Meeting and provide written response to comments.

400 Preliminary Bridge Design

401 Develop Design Criteria.

Develop a Bridge Design Criteria Document detailing the governing design and construction specifications, the hydraulic and geometric criteria used to determine the bridge length and elevation, material strengths and properties, and specific design methodologies to be used for the major components of the bridge. Deliver the Bridge

Design Criteria Document to the PMC for distribution to project stakeholders for review. Incorporate comments and produce a final document.

402 Bridge Length Determination.

Determine the final bridge length in accordance with the design criteria established for the bridge.

403 Conceptual Superstructure Design.

Perform preliminary design calculations to establish the preliminary designs for the girders, bridge deck, and traffic barriers. Evaluate two girder types for cost effectiveness comparison: prestressed concrete I-girders, and steel plate girders.

404 Conceptual Substructure Design.

Perform preliminary design calculations to establish the preliminary designs for the piers and abutments. Evaluate two foundation types for cost effectiveness comparison: driven piles and drilled reinforced concrete shafts.

405 Evaluate Use of Alternate Designs.

Prepare cost estimates for the various structure concepts developed in Tasks 403 and 404 to determine if there is potential for overall construction cost savings by bidding competing superstructure and/or substructure types.

406 Bridge Aesthetic Design Concepts.

Incorporate bridge aesthetic concepts and features developed in Task Order No. 3.

407 Type, Size & Location Inspection (TS&L).

Conduct a TS&L Inspection with the bridge owners and other interested parties to confirm the site conditions and the suitability of the bridge concept. Complete and distribute TS&L report following the meeting.

408 Bridge Preliminary Design Report.

Prepare a Bridge Preliminary Design Report to document the conceptual designs studied, the structure site data, hydraulic and geotechnical criteria used as a basis for the design, a discussion of the span optimization process used, and a recommendation for bridge substructure and superstructure, along with a recommendation regarding the use of alternate designs.

410 Channel Preliminary Design.

Prepare a draft Preliminary Design Report (PDR) on the Diversion Channel design for 1,000 feet of channel, nominally 500 feet each side of the bridge centerline, consistent with USACE Design Criteria and Engineer's analysis of specific project requirements. The PDR will be submitted to USACE for review. Respond to USACE and Owner comments and issue a final PDR.

500 Final Bridge Design Calculations

501 Design Kickoff Meeting.

Participate in a design kickoff meeting with the bridge owner and other interested parties to discuss the final design criteria, the submittal schedule, and agency review requirements.

502 Foundation/Substructure Design.

The substructure design will be either driven piles or drilled shafts. If alternate designs are to be bid, both types will be designed. The following elements are included in the substructure design:

- Finalize geotechnical criteria
- Foundation design (piling or drilled shafts)
- Pier column and cap design
- Abutment design
- Bearing design
- Scour countermeasures

503 Superstructure Design.

The superstructure design is based on designing prestressed concrete I-girders or steel plate girders as the structural system. If the preliminary design recommends alternate designs, both types will be designed. The following elements are included in the superstructure design:

- Deck design
- Girder design
- Camber and deflection calculations
- Pier and abutment diaphragms
- Traffic barriers
- Drainage system
- Expansion joints
- Utility supports (if applicable)

510 Final Channel Design.

Based on the final PDR, prepare final design drawings and specifications of the Diversion Channel, including a 90% cost estimate. Submit design to Owner and USACE for review. Respond to Owner and USACE comments and issue 90% design.

600 Bridge Plan Preparation

601 30% Plan Submittal.

- Bridge Layout
- Construction Staging
- Preliminary Foundation/Substructure
- Preliminary Superstructure
- Miscellaneous Sheets (Soil borings, framing plan, etc.)

Assemble and distribute plans.

Attend review meeting and provide written response to comments.

602 90% Plans.

- Bridge layout
- Construction staging
- Foundation/substructure
- Superstructure
- Miscellaneous sheets
- Aesthetic details
- Details
- Plan notes
- Quantity calculations

- Special Provisions

Assemble and distribute plans.

Attend PS&E Review Meeting and provide written response to comments.

610 Channel Plan Preparation.

Prepare plans and specifications for inclusion in construction documents.

700 Quality Assurance/Quality Control

701 Internal Design Review (IDR).

This review will consist of internal quality control checks and quality assurance reviews of the design calculations and the 30%, 90%, and final plan submittals.

702 Discipline Design Review (DDR).

This review will consist of cross review of the bridge plans, roadway plans, diversion channel plans, and the geotechnical report by the various disciplines involved in the project.

703 Rotational Team Review (RTR).

The design calculations and bridge plans for each bridge will be reviewed by designers from a team other than the team that designed the bridge to ensure consistency in design approach and compliance with NDDOT and Cass County standards across the overall team.

Deliverables

1. Project Schedule with milestone dates for key activities and monthly updates
2. Monthly Progress Reports
3. Survey Control Report
4. Roadway Design Report
5. Preliminary Bridge Design Report
6. Final Roadway Plans
7. Channel Preliminary Design Report
8. 90% Channel Design
9. Final Channel Plan Submittal
10. 30% Bridge Plan Submittal
11. 90% Bridge Plan Submittal
12. Final Bridge Plan Submittal
13. 30% cost estimate
14. 90% cost estimate
15. Contract Documents (final plans and specifications)

Work not included in this Scope of Services

1. Environmental documentation and permitting
2. Utility Relocation Agreements
3. ROW Acquisition including Appraisals, Title Searches, Title Opinions, Deeds
4. Bid documents and bidding services

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3. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Phase	Start Time	Completion Time
Design of Work Package 2 (CR-31 Bridge) Contract Documents (100 % Plans and Specifications)	March 8, 2012	December 31, 2014~~3~~

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

i. Compensation for services identified under Subtasks 100 through 700 shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

ii. The total compensation for services identified under the Task Order, for Subtasks 100 through 700 is not-to-exceed total amount as defined in the table below.

Subtask	Current Budget ($)	Change ($)	Revised Budget ($)
100 Project Management and Coordination	38,000	0	38,000
200 Field Survey	17,000	0	17,000
300 Roadway Design	178,000	0	178,000
400-409 Preliminary Bridge Design	93,000	0	93,000
410 Preliminary Channel Design	66,000	0	66,000
500-509 Final Bridge Design Calculations	114,000	0	114,000
510 Final Channel Design	38,000	0	38,000
600-609 Bridge Plan Preparation	170,000	0	170,000
610 Channel Plan Preparation	51,000	0	51,000
700 Quality Assurance/Quality Control	126,000	0	126,000
TOTAL	**891,000**	**0**	**891,000**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants:

C. Barr Engineering Company
D. Braun Intertec Corporation
E. HDR, Inc.
F. Kadrmas, Lee & Jackson
G. Northern Technologies, Inc.
H. SRF Consulting Group, Inc.

7. Other Modifications to Agreement: None

8. Attachments: None
9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is March 8, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South PO Box 2806 Fargo, ND 58108-2806 Address
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This is Task Order No. 3, Amendment ~~43~~, consisting of 10 pages.

Task Order No. 3, Amendment ~~43~~

In accordance with Paragraph 1.01 of the Agreement Between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 3 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data

   A. Title: Design of Work Package 4 (Reach 3)

   B. Description: As part of the Authority's Lands, Easements, Rights of Way, Relocations, and Disposal (LERRDs) work, design and prepare contract documents for the construction of the new County Road 81 (CR-81) bridge and the two (2) Interstate Highway 29 (I-29) north and south bound bridges, which will cross the diversion channel, road alignment and grade changes, local drainage facilities and structures, and 5,000-feet of diversion channel.

   C. Background: I-29 is a concrete surfaced divided highway with separate roadways carrying northbound and southbound traffic. The project location is approximately one mile south of the Argusville Interchange. County Road 81 is a paved 2 lane road approximately 300-ft east of the I-29 bridges. The diversion channel will cross these bridges approximately five miles upstream of the outlet to the Red River. The segment of I-29 in Section 17 of Harwood Township will be impacted by construction of the diversion channel, necessitating construction of new bridges in this location to accommodate traffic over the diversion channel. United States Army Corps of Engineers (USACE) will provide some design criteria for the bridges, to include length, waterway geometry, pier configuration, and clearance line elevation. In addition to bridge construction, approach roadways will need to be reconstructed to accommodate the raised elevation of the new structure and provide appropriate approach roadway grades and cross section. Design and construction must be coordinated and comply with standards of the North Dakota Department of Transportation (NDDOT), and Cass County, as applicable.

   D. BNSF Railway bridge is being designed by others under contract to USACE. This design will need to be coordinated with the railroad bridge design.

2. Services of Engineer

   A. Design of Work Package 4 Contract Documents: Prepare contract documents (Plans and Specifications) for the construction of the new I-29 and CR-81 bridges, associated road raises, local drainage facilities, and diversion channel.

      i. Design items include but are not limited to:

         1. I-29 north and south bound bridges, approximately 520 feet long and per NDDOT roadway bridge design requirements and USACE design criteria. Include temporary by-pass requirements in the design.

         2. CR-81 bridge, approximately 520 feet long and per Cass County roadway bridge design requirements and USACE design criteria. Include temporary by-pass requirements in the design.

3. Local drainage and road raises as required.

4. Approximately 5,000-feet of diversion channel per USACE design requirements. Coordinate with BNSF bridge design team.

5. Include a list and forms of permits required for construction of these facilities.

ii. Roadway and bridge design services will be prepared in accordance with applicable Cass County Standards, NDDOT Design Manual, NDDOT Cadd Standards, and AASHTO bridge and roadway design specifications, modified as required for this project. Plan drawings will be generated using MicroStation V8i. Survey will follow USACE standards and will be translated to NDDOT or Cass County standards, as appropriate, under a future Task Order.

B. Scope of Work

100 Project Management and Coordination

101 Project Schedule.

Develop and maintain a project schedule. The schedule will include the establishment of milestone dates for the major work items. Review and adjust the schedule as necessary to incorporate changes in the work concept and progress to date.

102 Progress Reports (Monthly).

Provide written progress reports describing the work performed on each task. Provide progress reports concurrently with the monthly invoice.

103 Bridge Design Team Meetings.

Participate in weekly team meetings (conference calls) to discuss design progress, technical issues, and other topics developed as the project progresses.

104 Coordination Meetings.

Participate in coordination meetings with the PMC, USACE, BNSF Railway, contractors or other organizations relevant to the project.

200 Field Survey

201 Survey Criteria and Standards Development.

Participate in the development of project survey criteria and standards with the design team to establish consistency across the team and to meet deliverable requirements of the project stakeholders including the NDDOT, Cass County, and USACE.

202 Landowner Notification.

Notify landowners prior to accessing property to conduct the field survey in accordance with Right-of-Entry agreements. Coordinate access with PMC and Owner.

203 Field Survey.

Collect survey data in accordance with the criteria developed in Task 201. Field survey will include establishing control, collecting topographic data of the existing ground and roadways, utilities, drainage features, and existing right of way.

204 Compile Data and Generate Base Map.

Download the survey data collected and generate a base map for development of project plan drawings.

205 Geotechnical Location Survey.

Stake the location of the planned soil borings and record the coordinates and elevation of the borings for inclusion in the geotechnical report and the project plans.

206 Pickup Survey.

After the final bridge alignment and elevation has been established, collect additional data from the site if needed.

207 Survey Control Report.

Develop a report documenting the survey control established for the bridge site and the standards used.

300 Roadway Design

301 Preliminary Roadway Design.

Perform preliminary roadway design functions and prepare preliminary roadway plans for review NDDOT, Cass County, and the PMC. The preliminary design will include the following:

- Traffic Operations
- Preliminary alignment and profile
- Settlement countermeasure concepts
- Existing and proposed typical sections
- Establish subgrade criteria
- Preliminary pavement/section design
- Roadway design report

302 Final Roadway Design and Plan Preparation.

Develop the final roadway design and final plans and conduct a Plans, Specifications and Estimate (PS&E) review meeting with NDDOT, Cass County, the local sponsors, and other interested parties and agencies. Develop a construction staging plan for the four bridges in Reach 3 and provide analysis and budgetary cost estimates. Conduct a realignment analysis of I-29 to evaluate construction staging issues and costs. Preparation of final roadway plans will consist of the following:

- Final alignment and grade
- Final typical section
- Traffic control/construction staging
- Utility relocations
- Drainage design
- Signing and pavement marking
- Guardrail design and plans
- Settlement countermeasures
- Roadway plan drawings
- Roadway plan notes and special provisions

Assemble and distribute plans for review.

Attend PS&E Review Meeting and provide written response to comments.

400 Bridge Aesthetics Concept Development and Coordination

401 Project Background Review and Initial Site Visit.

Review relevant preliminary bridge design documents and relevant base mapping available.

Review relevant planning studies and agency guidelines.

Review Draft Diversion Recreation and Use Plan. Identify aspects of the Recreation and Use Plan that could affect the design of bridges.

Prepare project area visit and existing conditions documentation. Assess the visual character of the proposed bridge sites and nearby surrounding community context through select photographs and sketches to serve as a basis for developing aesthetic design themes appropriate to the setting.

402 Bridge Aesthetics Concept Development and Coordination.

Develop three alternative aesthetic design themes for bridges and associated wing walls and retaining walls. Prepare appropriate graphics to communicate each theme for preliminary consideration by project stakeholders with the goal of selecting a preferred alternative(s) that can be applied to the entirety of the project to establish a distinct recognizable identity. The scale of the project may potentially warrant multiple complementary aesthetic treatments rather than just one uniform theme dependent upon further review.

Prepare comparative cost estimates for each alternative and compare to a "conventional" bridge theme.

Prepare bridge aesthetics design drawings. Coordinate with bridge engineering team members on technical aspects of the bridge designs. Prepare conceptual plan, elevation, and section drawings that illustrate different bridge types using the selected preferred alternative theme(s).

Prepare prototypical bridge aesthetics design models. Prepare conceptual 3D computer models using the Sketchup Program that illustrate prototypical conditions and select design details utilizing the selected preferred alternative theme(s).

Photo-realistic 3D bridge visualization. Develop one (1) photo-realistic 3D visualization graphic illustrating the incorporation of the preferred alternative design at a specific project location.

403 Bridge Aesthetics Technical Memorandum.

Develop a Bridge Aesthetics Technical Memorandum to serve as a guide for final design and as a record of the process by which aesthetic design decisions were made. Include an executive summary, narrative, design guidelines, meeting records, and a summary record of decisions matrix.

Bridge aesthetics narrative. Prepare a narrative that summarizes the basis for the selected preferred alternative theme(s) and intended application including (but not limited to: project background, site and community context, associated studies, alternative themes considered, bridge types, retaining wall types, and other design features.

Prepare bridge aesthetics design guidelines. Refine and format the graphic illustrations of the prototypical and bridge-specific studies prepared in task above that will serve as guidelines for the final design phase of each bridge.

Summary Record of Decisions Matrix. In simple matrix table format, list the selected bridge aesthetic options as a quick summary reference.

500 Preliminary Bridge Design

501 Develop Design Criteria.

Develop a Bridge Design Criteria Document detailing the governing design and construction specifications, the hydraulic and geometric criteria used to determine the bridge lengths and elevations, material strengths and properties, and specific design methodologies to be used for the major components of the bridges. Deliver the Bridge Design Criteria Document to PMC for distribution to to project stakeholders for review. Incorporate comments and produce a final document.

502 Bridge Length Determination.

Determine the final bridge length in accordance with the design criteria established for the bridge.

503 Conceptual Superstructure Design.

Perform preliminary design calculations to establish the preliminary designs for the girders, bridge deck, and traffic barriers. Evaluate two girder types for cost effectiveness comparison: prestressed concrete I-girders, and steel plate girders.

504 Conceptual Substructure Design.

Perform preliminary design calculations to establish the preliminary designs for the piers and abutments. Evaluate two foundation types for cost effectiveness comparison: driven piles and drilled reinforced concrete shafts.

505 Evaluate Use of Alternate Designs.

Prepare cost estimates for the various structure concepts developed in Tasks 403 and 404 to determine if there is potential for overall construction cost savings by bidding competing superstructure and/or substructure types.

506 Type, Size & Location Inspection (TS&L).

Conduct a TS&L Inspection with the bridge owners and other interested parties to confirm the site conditions and the suitability of the bridge concept. Complete and distribute TS&L report following the meeting.

507 Bridge Preliminary Design Report.

Prepare Bridge Preliminary Design Report(s) to document the conceptual designs studied, the structure site data, hydraulic and geotechnical criteria used as a basis for the design, a discussion of the span optimization process used, and a recommendation for bridge substructure and superstructure, along with a recommendation regarding the use of alternate designs.

510 Preliminary Channel Design.

Prepare a draft Preliminary Design Report (PDR) on the Diversion Channel design for 2,500 feet of channel, consistent with USACE Design Criteria and Engineer's analysis of specific project requirements. The PDR will be submitted to USACE for review. Respond to USACE and Owner comments and issue a final PDR.

600 Final Bridge Design Calculations

601 Design Kickoff Meeting.

Participate in a design kickoff meeting with the bridge owner and other interested parties to discuss the final design criteria, the submittal schedule, and agency review requirements.

602 Foundation/Substructure Design.

The substructure design will be either driven piles or drilled shafts. If alternate designs are to be bid, both types will be designed. The following elements are included in the substructure design:

- Finalize geotechnical criteria
- Foundation design (piling or drilled shafts)
- Pier column and cap design
- Abutment design
- Bearing design
- Scour countermeasures

603 Superstructure Design.

The superstructure design is based on designing prestressed concrete I-girders or steel plate girders as the structural system. If the preliminary design results in recommending alternate designs, both types will be designed. The following elements are included in the superstructure design:

- Deck design
- Girder design
- Camber and deflection calculations
- Pier and abutment diaphragms
- Traffic barriers
- Drainage system
- Expansion joints
- Utility supports (if applicable)

610 Final Channel Design.

Based on the final PDR, prepare final design drawings and specifications of the Diversion Channel, including a 90% cost estimate. Submit design to Owner and USACE for review. Respond to Owner and USACE comments and issue 90% design.

700 Bridge Plan Preparation

701 30% Plan Submittal.

- Bridge Layout
- Construction Staging
- Preliminary Foundation/Substructure
- Preliminary Superstructure
- Miscellaneous Sheets (Soil borings, framing plan, etc.)

Assemble and distribute plans.

Attend plan review meeting and provide written response to comments.

702 90% Plans.

- Bridge layout
- Construction staging
- Foundation/substructure
- Superstructure
- Miscellaneous sheets
- Aesthetic details
- Details
- Plan notes

- Quantity calculations
- Special Provisions

Assemble and distribute plans.

Attend PS&E Review Meeting and provide written response to comments.

710 Channel Plan Preparation.

Prepare plans and specifications for inclusion in construction documents.

800 Quality Assurance/Quality Control

801 Internal Design Review (IDR).

This review will consist of internal quality control checks and quality assurance reviews of the design calculations and the 30%, 90%, and final plan submittals.

802 Discipline Design Review (DDR).

This review will consist of cross review of the bridge plans, roadway plans, diversion channel plans, and the geotechnical report by the various disciplines involved in the project.

803 Rotational Team Review (RTR).

The design calculations and bridge plans for each bridge will be reviewed by designers from a team other than the team that designed the bridge to ensure consistency in design approach and compliance with NDDOT and Cass County standards across the overall team.

Deliverables

1. Project Schedule with milestone dates for key activities and monthly updates
2. Monthly Progress Reports
3. Survey Control Report
4. Roadway Design Report
5. Bridge Aesthetics Memorandum
6. Preliminary Bridge Design Report(s)
7. Final Roadway Plans
8. Channel Preliminary Design Report
9. 90% Channel Design
10. Final Channel Plan Submittal
11. 30% Bridge Plan Submittal
12. 90% Bridge Plan Submittal
13. Final Bridge Plan Submittal
14. 30% cost estimate
15. 90% cost estimate
16. Contract Documents (final plans and specifications)

Work not included in this Scope of Services

1. Environmental documentation and permitting
2. Utility Relocation Agreements
3. ROW Acquisition including Appraisals, Title Searches, Title Opinions, Deeds
4. Bid documents and bidding services

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 of the Agreement and in Exhibit B.

4. Times for Rendering Services

Phase	**Start Time**	**Completion Time**
Design of Work Package 4 Contract Documents (100% Plans and Specifications)	March 8, 2012	December 31, 2014~~3~~

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

i. Compensation for services identified under Subtasks 100 through 800 shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

ii. The total compensation for services identified under the Task Order for Subtasks 100 through 800 is not-to-exceed total amount as defined in the table below.

Subtask		**Current Budget ($)**	**Change ($)**	**Revised Budget ($)**
100	Project Management and Coordination	112,700	0	112,700
200	Field Survey	91,800	0	91,800
300	Roadway Design	425,900	0	425,900
400	Bridge Aesthetics Concept Development and Coordination	48,300	0	48,300
500-509	Preliminary Bridge Design	258,300	0	258,300
510	Preliminary Channel Design	112,900	0	112,900
600-609	Final Bridge Design Calculations	315,000	0	315,000
610	Final Channel Design	63,000	0	63,000
700-709	Bridge Plan Preparation	574,400	0	574,400
710	Channel Plan Preparation	162,000	0	162,000
800	Quality Assurance/Quality Control	284,000	0	284,000
TOTAL		**2,448,300**	**~~-~~0**	**2,448,300**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants:

   Barr Engineering Company
   Braun Intertec Corporation
   HDR, Inc.
   Kadrmas, Lee & Jackson
   Northern Technologies, Inc.
   SRF Consulting Group, Inc.

7. Other Modifications to Agreement: None

8. Attachments:

   None

9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is March 8, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
(701) 237-5065 Phone	(701) 241-5720 Phone
Fax	(701) 297-6020 Fax

This is Task Order No. 4, Amendment ~~43~~, consisting of 9 pages.

Task Order No. 4, Amendment ~~43~~

In accordance with Paragraph 1.01 of the Agreement Between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 4 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data

    A. Title: Design of Work Package 7 (CR-32 and CR-22)

    B. Description: As part of the Authority's Lands, Easements, Rights of Way, Relocations, and Disposal (LERRDs) work, design and prepare contract documents for the construction of the new County Road 32 (CR-32) and County Road 22 (CR-22) bridges which cross the diversion channel, road alignment and grade changes, local drainage facilities and structures, and 1000-feet of diversion channel (nominally 500-feet on either side of the centerline of the bridge).

    C. Background:

        i. Cass County Road 32 (CR-32), also known as 28th St. SE, is an aggregate surfaced county road serving commuter, farm to market, and rural residential needs. In the project location, the route of CR-32 is in an east–west direction, one and one-half miles west of a crossing of Interstate Highway 29, and three miles northwest of the City of Harwood. The diversion channel crosses CR-32 approximately seven miles upstream of the outlet to the Red River. In this location, the crossing is a high priority for design and construction in the early phases of the project. The segment of CR 32 between Sections 19 and 30 of Harwood Township will be impacted by construction of the diversion channel, necessitating construction of a new bridge in this location to accommodate traffic over the diversion channel.

        ii. Cass County Road 22 (CR-22), also known as 31st Street SE, is an aggregate surfaced county road serving commuter, farm to market, and rural residential needs. In the project location, the route of CR-22 is in an east-west direction approximately one mile south and two and one-half miles west of the City of Harwood. The diversion channel crosses CR-22 approximately eleven miles upstream of the outlet to the Red River. The segment of CR-22 between Sections 2 and 11 of Raymond Township will be impacted by construction of the diversion channel, necessitating construction of a new bridge in this location to accommodate traffic over the diversion channel.

        iii. The United States Army Corps of Engineers (USACE) will provide some design criteria for the bridges, to include length, waterway geometry, pier configuration, and clearance line elevation. In addition to bridge construction, approach roadways will need to be reconstructed to accommodate the raised elevation of the new structure and provide appropriate approach roadway grades and cross section.

2. Services of Engineer

    A. General

i. CR-32 Bridge. Prepare contract documents (Plans and Specifications) for the construction of the new CR-32 bridge, associated roads, local drainage facilities, and diversion channel. Design items include but are not limited to:

1. CR-32 bridge, approximately 520 feet long and per Cass County roadway bridge design requirements and USACE design criteria. Include any by-pass requirements in the design. Provide design improvements to upgrade 3.6 miles of Township roadway, to Cass County roadway standards, for use as by-pass route.
2. Local drainage and road raises as required.
3. 1000-feet of diversion channel per USACE design requirements.
4. Include a list and forms of permits required for construction of these facilities.

ii. CR-22 Bridge. Prepare contract documents (Plans and Specifications) for the construction of the new CR-22 bridge, associated roads, local drainage facilities, and diversion channel. Design items include but are not limited to:

1. CR-22 bridge, approximately 520 feet long and per Cass County roadway bridge design requirements and USACE design criteria. Include any by-pass requirements in the design. Provide design improvements to upgrade 1.4 miles of Township roadway, to Cass County roadway standards, for use as by-pass route.
2. Local drainage and road raises as required.
3. Coordinate design with the Lower Rush River inlet.
4. 1000-feet of diversion channel per USACE design requirements.
5. Include a list and forms of all permits required for construction of these facilities.

iii. Roadway and bridge design services will be prepared in accordance with applicable Cass County Standards, NDDOT Design Manual, NDDOT Cadd Standards, and AASHTO bridge and roadway design specifications, modified as required for this project. Plan drawings will be generated using MicroStation V8i. Survey will follow USACE standards and will be translated to Cass County standards under a future Task Order.

B. Scope of Work

100 Project Management and Coordination

101 Project Schedule.

Develop and maintain a project schedule. The schedule will include the establishment of milestone dates for the major work items. Review and adjust the schedule as necessary to incorporate changes in the work concept and progress to date.

102 Progress Reports (Monthly).

Provide written progress reports describing the work performed on each task. Provide progress reports concurrently with the monthly invoice.

103 Bridge Design Team Meetings.

Participate in weekly team meetings (conference calls) to discuss design progress, technical issues, and other topics developed as the project progresses.

104 Coordination Meetings.

Participate in coordination meetings with the PMC, USACE, BNSF Railway, contractors or other organizations relevant to the project.

200 Field Survey

201 Survey Criteria and Standards Development.

Participate in the development of project survey criteria and standards with the design team to establish consistency across the team and to meet deliverable requirements of the project stakeholders including the NDDOT, Cass County, and USACE.

202 Landowner Notification.

Notify landowners prior to accessing property to conduct the field survey in accordance with Right-of-Entry agreements. Coordinate access with PMC and Owner.

203 Field Survey.

Collect survey data in accordance with the criteria developed in Task 201. Field survey will include establishing control, collecting topographic data of the existing ground and roadways, utilities, drainage features, by-pass routes and existing right of way.

204 Compile Data and Generate Base Map.

Download the survey data collected and generate a base map for development of project plan drawings.

205 Geotechnical Location Survey.

Stake the location of the planned soil borings and record the coordinates and elevation of the borings for inclusion in the geotechnical report and the project plans.

206 Pickup Survey.

After the final bridge alignment and elevation has been established, collect additional data from the site if needed.

207 Survey Control Report.

Develop a report documenting the survey control established for the bridge site and the standards used.

300 Roadway Design

301 Preliminary Roadway Design.

Perform preliminary roadway design functions and prepare preliminary roadway plans for review Cass County and the PMC. The preliminary design will include the following:

- Traffic Operations
- Preliminary alignment and profile
- Settlement countermeasure concepts
- Existing and proposed typical sections
- Establish subgrade criteria
- Preliminary pavement/section design
- Roadway design report

302 Final Roadway Design and Plan Preparation.

Develop the final roadway design and final plans and conduct a Plans, Specifications and Estimate (PS&E) review meeting with Cass County, the local sponsors, and other interested parties and agencies. Preparation of final roadway plans will consist of the following:

- Final alignment and grade
- Final typical section
- Traffic control/construction staging
- Utility relocations
- Drainage design
- Signing and pavement marking
- Guardrail design and plans
- Settlement countermeasures
- Roadway plan drawings
- Roadway plan notes and special provisions

Assemble and distribute plans for review.

Attend PS&E Review Meeting and provide written response to comments.

400 Preliminary Bridge Design

401 Develop Design Criteria.

Develop a Bridge Design Criteria Document detailing the governing design and construction specifications, the hydraulic and geometric criteria used to determine the bridge lengths and elevations, material strengths and properties, and specific design methodologies to be used for the major components of the bridges. Deliver the Bridge Design Criteria Document to PMC for distribution to project stakeholders for review. Incorporate comments and produce a final document.

402 Bridge Length Determination.

Determine the final bridge length in accordance with the design criteria established for the bridge.

403 Conceptual Superstructure Design.

Perform preliminary design calculations to establish the preliminary designs for the girders, bridge deck, and traffic barriers. Evaluate two girder types for cost effectiveness comparison: prestressed concrete I-girders, and steel plate girders.

404 Conceptual Substructure Design.

Perform preliminary design calculations to establish the preliminary designs for the piers and abutments. Evaluate two foundation types for cost effectiveness comparison: driven piles and drilled reinforced concrete shafts.

405 Evaluate Use of Alternate Designs.

Prepare cost estimates for the various structure concepts developed in Tasks 403 and 404 to determine if there is potential for overall construction cost savings by bidding competing superstructure and/or substructure types.

406 Bridge Aesthetic Design Concepts.

Incorporate selected bridge aesthetic concepts and features developed in Task Order No. 3.

407 Type, Size & Location Inspection (TS&L).

Conduct a TS&L Inspection with the bridge owners and other interested parties to confirm the site conditions and the suitability of the bridge concept. Complete and distribute TS&L report following the meeting.

408 Bridge Preliminary Design Report.

Prepare a Bridge Preliminary Design Reports to document the conceptual designs studied, the structure site data, hydraulic and geotechnical criteria used as a basis for the design, a discussion of the span optimization process used, and a recommendation for bridge substructure and superstructure, along with a recommendation regarding the use of alternate designs.

410 Channel Preliminary Design.

Prepare a draft Preliminary Design Report (PDR) on the Diversion Channel design for 2,000 feet of channel, nominally 500 feet each side of each bridge centerline, consistent with USACE Design Criteria and Engineer's analysis of specific project requirements. The PDR will be submitted to USACE for review. Respond to USACE and Owner comments and issue a final PDR.

500 Final Bridge Design Calculations

501 Design Kickoff Meeting.

Participate in a design kickoff meeting with the bridge owner and other interested parties to discuss the final design criteria, the submittal schedule, and agency review requirements.

502 Foundation/Substructure Design.

The substructure design will be either driven piles or drilled shafts. If alternate designs are to be bid, both types will be designed. The following elements are included in the substructure design:

- Finalize geotechnical criteria
- Foundation design (piling or drilled shafts)
- Pier column and cap design
- Abutment design
- Bearing design
- Scour countermeasures

503 Superstructure Design.

The superstructure design is based on designing prestressed concrete I-girders or steel plate girders as the structural system. If the preliminary design results in recommending alternate designs, both types will be designed. The following elements are included in the superstructure design:

- Deck design
- Girder design
- Camber and deflection calculations
- Pier and abutment diaphragms
- Traffic barriers
- Drainage system
- Expansion joints
- Utility supports (if applicable)

510 Final Channel Design.

Based on the final PDR, prepare final design drawings and specifications of the Diversion Channel, including a 90% cost estimate. Submit design to Owner and USACE for review. Respond to Owner and USACE comments and issue 90% design.

600 Bridge Plan Preparation

601 30% Plan Submittal.

- Bridge Layout
- Construction Staging
- Preliminary Foundation/Substructure
- Preliminary Superstructure
- Miscellaneous Sheets (Soil borings, framing plan, etc.)

Assemble and distribute plans.

Attend plan review meeting and provide written response to comments.

602 90% Plans.

- Bridge layout
- Construction staging
- Foundation/substructure
- Superstructure
- Miscellaneous sheets
- Aesthetic details
- Details
- Plan notes
- Quantity calculations
- Special Provisions

Assemble and distribute plans.

Attend PS&E Review Meeting and provide written response to comments.

610 Channel Plan Preparation.

Prepare plans and specifications for inclusion in construction documents. Provide hydraulic analysis and designs for by-pass crossings of the Rush and Lower Rush Rivers. Coordinate design of Excavated Material Berms (EMB) with adjacent USACE diversion channel reach EMBs. Revise EMB layouts as needed to match USACE final EMB layouts

700 Quality Assurance/Quality Control

701 Internal Design Review (IDR).

This review will consist of internal quality control checks and quality assurance reviews of the design calculations and the 30%, 90%, and final plan submittals.

702 Discipline Design Review (DDR).

This review will consist of cross review of the bridge plans, roadway plans, diversion channel plans, and the geotechnical report by the various disciplines involved in the project.

703 Rotational Team Review (RTR).

The design calculations and bridge plans for each bridge will be reviewed by designers from a team other than the team that designed the bridge to ensure consistency in design approach and compliance with NDDOT and Cass County standards across the overall team.

Deliverables

1. Project Schedule with milestone dates for key activities and monthly updates
2. Monthly Progress Reports
3. Survey Control Report
4. Roadway Design Report
5. Preliminary Bridge Design Report(s)

6. Final Roadway Plans
7. Preliminary Channel Design Report
8. 90% Channel Design
9. Final Channel Plan Submittal
10. 30% Bridge Plan Submittal
11. 90% Bridge Plan Submittal
12. Final Bridge Plan Submittal
13. 30% cost estimate
14. 90% cost estimate
15. Contract Documents (final plans and specifications)

Work not included in this Scope of Services

1. Environmental documentation and permitting
2. Utility Relocation Agreements
3. ROW Acquisition including Appraisals, Title Searches, Title Opinions, Deeds
4. Bid documents and bidding services

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3. Owner's Responsibilities

   Owner shall have those responsibilities set forth in Article 2 of the Agreement and in Exhibit B.

4. Times for Rendering Services

Phase	Start Time	Completion Time
Design of Work Package 7 (100% Plans and Specifications)	March 8, 2012	~~December 31, 2013~~March 31, 2015

5. Payments to Engineer

   A. Owner shall pay Engineer for services rendered as follows:

      i. Compensation for services identified under Subtasks 100 through 700 shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

      ii. The total compensation for services identified under the Task Order for Subtasks 100 through 700 is not-to-exceed total amount as defined in the table below.

Subtask		Current Budget ($)	Change ($)	Revised Budget ($)
100	Project Management and Coordination	106,000	0	106,000
200	Field Survey	90,000	0	90,000
300	Roadway Design	144,000	0	144,000
400-409	Preliminary Bridge Design	245,000	0	245,000
410	Preliminary Channel Design	128,000	0	128,000
500-509	Final Bridge Design Calculations	184,000	0	184,000
510	Final Channel Design	66,000	0	66,000
600-609	Bridge Plan Preparation	247,000	0	247,000

Subtask		Current Budget ($)	Change ($)	Revised Budget ($)
610	Channel Plan Preparation	156,000	0	156,000
700	Quality Assurance/Quality Control	200,000	0	200,000
TOTAL		**1,566,000**	**0**	**1,566,000**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants:

   a. Barr Engineering Company
   b. Braun Intertec Corporation
   c. HDR, Inc.
   d. Kadrmas, Lee & Jackson
   e. Northern Technologies, Inc.
   f. SRF Consulting Group, Inc.

7. Other Modifications to Agreement: None

8. Attachments:

   None

9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is March 8, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
(701) 237-5065 Phone	(701) 241-5720 Phone
Fax	(701) 297-6020 Fax

This is Task Order No.6, Amendment ~~6~~5, consisting of 6 pages.

Task Order No. 6, Amendment 6~~5~~

In accordance with Paragraph 1.01 of the Agreement Between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 6 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data
    A. Title: Land Management Services
    B. Description: Perform land management services as requested during the pre- and early-acquisition period of the Diversion Project. Services are generally related to determination of design information, outreach communication with land owners affected by the project, and appraisals of properties requesting hardship purchase. Prepare and update the opinion of cost for the purchase of anticipated real property and easements for properties within proposed project.
        i. Prior to Amendment 4 of this Task Order, work under subtask 2.H (Draft Real Estate Opinion of Cost) was completed for the whole project, and work under subtasks 2.A through 2.G was previously done for the whole project (North Dakota and Minnesota). For Amendment 4 of this Task Order, as listed in the scope below, the Engineer will generally provide land management services in Minnesota for the Diversion Project.
    C. Background: The Owner selected three (3) firms to perform land acquisition services at the Board meeting on February 9, 2012. During the design phase of the project, and prior to execution of the Project Partnership Agreement, the services will generally be related to acquiring Right-of-Entry authorization for determination of information required for design documents, communications with land owners within the project boundaries, communication with the United States Army Corps of Engineers (USACE) Real Estate staff, preparation of appraisals for specific parcels, and early acquisition of properties.
        i. The Owner has assigned Cass County Joint Water Resource District (CCJWRD) to manage the negotiated acquisition of property in North Dakota for the Diversion Project, and the North Dakota land acquisition services of the three (3) selected firms are now contracted with the CCJWRD. For Amendment 4 of this Task Order, as listed in the scope below, the Engineer will generally provde land management services in Minnesota for the Diversion Project.
2. Services of Engineer
    A. Perform Right-of-Entry services in Minnesota as requested. Activities include:
        i. Maintain the existing GIS database of parcels originally prepared by the USACE. Develop and maintain an interactive web-based GIS database showing right-of-entry status of parcels.
        ii. Prepare exhibits as required for contact with land owners.

iii. Prepare right-of-entry agreements with land owners. Perform Title Research and exhibits as required for this process.

iv. Assign and manage contractors requiring access to properties for development of design related information.

v. Coordinate with legal support and Courts as required to gain right-of-entry for properties requiring court actions.

vi. Maintain communication with USACE real estate staff to coordinate right-of-entry activities.

B. Perform appraisals on properties in Minnesota as directed by the PMC. Prepare appraisals based on Federal land acquisition guidelines.

C. Attend up to five (5) meetings with Minnesota land owner groups affected by the diversion project as requested. Prepare handouts and presentations as required with the land owner groups.

D. Maintain communication with USACE real estate staff as required. Specific activities include weekly calls, exchange of database information including status of right-of-entry requests, and other periodic contacts.

E. Acquire Minnesota properties as directed by the PMC. Acquisition shall be in accordance with USACE guidelines as modified by Owner policy directives.

F. As directed by the PMC, coordinate with the activities of other firms contracted with the Owner to perform tasks on the land management process. Ulteig Engineering, Inc. and ProSource Technologies, Inc. will be working for the Owner on land management activities concurrently.

G. Prepare monthly report of Engineer activities and status of each active parcel.

H. Draft Real Estate Opinion of Cost. Activities include:

i. Retain appraisal firms to research recent comparable sales of lands similar to those found within the proposed project route by land use type and location. Compile research information by land use type and location in a sales data book. This information is for estimating purposes only, not for justification of appraisal services or purchase offers.

ii. Create a database of current properties located within the proposed project route based on the defined use and function.

1. Urban platted but unoccupied lots

a. Determine the number of lots to be acquired within the proposed project boundaries
b. Utilize Assessed Value times a factor to update potential costs
c. Start with a factor of 127% and verify based off professional judgement and recent sales information
d. No Appraisals will be completed

2. Urban housing by use

a. Verify the number of units to be acquired within the new project boundaries
b. Utilize Assessed Value times a factor plus relocation to update potential costs
c. Start with 127% and verify based off professional judgement and recent sales information
d. No Appraisals will be completed

3. Rural un-platted lands
    a. Determine acreage to be purchased within the proposed project boundaries
    b. Develop basic data book of recent sales to determine average value per acre of agricultural land to be used for cost update
4. Rural platted unoccupied lands
    a. Determine the number of lots to be acquired within the proposed project boundaries
    b. Utilize Assessed Value times a factor to update potential costs
    c. Start with 127% and verify based off professional judgement and recent sales information
    d. No Appraisals will be completed
5. Rural occupied homes and unoccupied structures ("farmsteads")
    a. Determine the number of farmsteads to be acquired within the proposed project boundaries and with impacts greater than 3 feet in staging area.
    b. Determine and apply an average cost per farmstead to be acquired based off of preliminary assessment of value
    c. Determine and apply an average cost per farmstead to be protected by levees or elevating for properties with impacts less than 3 feet in staging area.
6. Commercial properties
    a. Determine the number of businesses to be acquired within the proposed project boundaries.
    b. Determine values based off preliminary review by appraisal team for each property being acquired.
7. Permanent easements
    a. Prepare estimated range of flowage easements for land in the staging area.
        i. Option with stop gap insurance in place
        ii. Option without stop gap insurance in place
8. Temporary construction easements
    a. Use a fixed percentage of real estate purchase cost based on historical numbers within the region
9. Anticipated relocation costs by property use
    a. Use values based on recent hardship appraisals

iii. Update base maps with proposed project route to identify occupied farm sites and unoccupied structures.

iv. Research flowage easement compensation practices and payment structures.

v. Coordinate with other firms assisting on the cost update. Up to two (2) independent Appraisal firms may be developing portions of above scope under independent contracts with the Diversion Authority .

vi. Prepare Draft Real Estate Opinion of Cost and Draft Summary Report outlining procedures and methodologies used in developing the Draft Real Estate Opinion of Cost.

Deliverables:

i. Updated database of parcel status.

ii. Monthly report outlining land management activities performed and land acquisition status. Report costs for appraisals and property acquisition on a parcel basis. Identify appraisal and acquisition costs seperately.

iii. Draft Real-Estate Opinion of Cost

iv. Draft Summary Report

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Phase	**Start Time**	**Completion Time**
All Work	March 8, 2012	September 30, 2015~~4~~

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

i. Compensation for services identified under Subtasks A through G shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

ii. The total compensation for services identified under the Task Order for Subtasks A through H amount as defined in the table below.

iii. Estimated budgets for Subtask B, Perform Appraisals, and Subtask E, Property Acquisition, are based on an allowance.

a. Engineer will notify Owner when eighty percent (80%) of the budget on Subtask B, Perform Appraisals, and Subtask E, Property Acquisition, is expended.

b. Engineer will prepare and submit an amendment for additional compensation when ninety percent (90%) of budget on Subtask B, Perform Appraisals, and Subtask E, Property Acquisition, is expended.

c. Engineer will not perform work beyond one hundred percent (100%) of the budget for Subtask B, Perform Appraisals, and Subtask E, Property Acquisition, without Owner's authorization by an amendment to this Task Order.

Subtask	Current Budget ($)	Change ($)	Revised Budget ($)
A. Rights-of-Entry	410,000~~287,500~~	~~122,500~~0	410,000
B. Perform Appraisals (Allowance)	41,000~~50,000~~	~~-9,000~~0	41,000
C. Land Owner Meetings	6,000~~15,600~~	~~-9,600~~0	6,000
D., F., G. Management and Coordination	57,000~~50,000~~	~~7,000~~0	57,000
E. Property Acquisition (Allowance)	26,000~~45,000~~	~~-19,000~~0	26,000
H. Draft Real Estate Opinion of Cost	78,100~~90,000~~	~~-11,900~~0	78,100
TOTAL	**~~618,100538,100~~**	**~~80,000~~**	**618,100**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants:
7. Other Modifications to Agreement: None
8. Attachments: None
9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is March 8, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
(701) 237-5065 Phone	(701) 241-5720 Phone
Fax	(701) 297-6020 Fax

This is Task Order No. 7, Amendment ~~21~~, consisting of ~~555~~ pages.

Task Order No. 7, Amendment ~~21~~

In accordance with Paragraph 1.01 of the Agreement Between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 7 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

~~REPLACE Task Order No. 7, Amendment 0, in its entirety with the following:~~

1. Specific Project Data
    A. Title: RECREATION AND USE MASTER PLAN AND DESIGN
    B. Description: A draft Recreation and Use Master Plan has been developed. It includes overall concepts for the diversion corridor and specific recommendations for the northern portion (I-94 to the Outlet). Continue development of the Recreation and Use Master Plan for the Diversion Project, including preliminary and final design development for right and left bank Excavated Material Berm (EMB) grading.
    C. Background: The Diversion Project will be a major feature in the Fargo-Moorhead area. Although it will be a critical component for reducing the risk of catastrophic flood impacts in the area, it will actually be used only a small percent of the time. The beneficial use of the project features, when not actively used for flood mitigation, need to be determined.
2. Services of Engineer
    A. RECREATION AND USE MASTER PLAN – Revised Draft. Revise select components of the master plan document to reflect the most recent diversion design. Modification consist of the elimination of row crop agriculture on the left EMB, the narrowing of the EMB widths, the realignment of the diversion near I-94, and the consolidated CR 31/4 bridge. Master Plan revisions will include:
        I. Executive Summary, insert revised graphics and text from Section 6 and insert revised preliminary construction Cost Estimate from Section 7.
        II. Section 4 Diversion Channel Analysis, new graphic that depicts the most recent diversion design and associated text that explains the diversion modifications.
        III. Section 5 North Section Alternatives Considered. Change existing draft preferred alternative to preliminary preferred alternative and move to section 5.
        IV. Section 6 Preferred Alternative, Figures 6.2 – 6.6 and associated text.
        V. Section 7 Implementation, Table 7.3 (Preliminary Construction Cost Estimate).
        VI. Appendix A.14 Preliminary Cost Estimate Details.

        Revised Master Plan graphics for the preferred alternative will be provided to the Diversion Authority's Program Management Consultant for review.

A draft final Recreation and Use Master Plan will be developed that incorporates the revised graphics and text associated with the most recent diversion design and public input. The draft final Master Plan will be submitted to the Diversion Authority's Program Management Consultant for a final review.

B. UNDULATION DESIGN – Outlet to Maple River. Develop a design for an undulating surface, consistent with concepts in the draft Recreation and Use Plan, that can be incorporated into design documents. For each work package, at 35% design submittals, design teams will provide a digital terrain model (DTM) in a LandXML format showing a "base right bank EMB" based on geotechnical stability requirements, excavation volumes, and an approximate 50-50 split for placing excavated material on each side of the channel. The base EMB will include a top graded at a 2% slope to shed drainage away from the diversion channel. The design team will also provide a "maximum berm height" that the undulations may not exceed. Design the undulations based on the information provided, balancing overall earth work quantities. Develop a draft Microstation DGN file and Inroads DTM file in a LandXML format for the right bank EMB undulation design and submit for review. Include additional design information such as input to Specifications, construction notes, seeding options, and additional details and notes to convey the design intent.

   If requested by design team, modify DTM and provide Final DTM in a LandXML format. Review design team-developed drawings and provide comments. Provide guidance to the design teams at bridge locations for bench layout or at-grade trail crossing to be compatible with future trail systems.

   Deliverables:

   I. Draft DGNs, DTMs and design specifications and drawing notes for Diversion Channel Reaches: 1, 2, 3, 4, 5, and 6.

   II. Final DGNs, and DTMs and design specifications and drawing notes for Diversion Channel Reaches: 1, 2, 3, 4, 5, and 6.

      ~~II.~~1. Due to EMB design modifications, provide updated undulating berm designs for impacted channel reaches.

   III. Draft DGNs, DTMs and design specifications and drawing notes for Bridge Reaches: CR31/CR4 Bridge, I-29 and CR81 Bridges, BNSF Hillsboro RR Bridge, CR32 and CR22 Bridges, BNSF Prosper RR Bridge, and CR20 Bridge.

   IV. Final DGNs and DTMs and design specifications and drawing notes for Bridge Reaches: CR31/CR4 Bridge, I-29 and CR81 Bridges, BNSF Hillsboro RR Bridge, CR32 and CR22 Bridges, BNSF Prosper RR Bridge, and CR20 Bridge.

C. DESIGN SUPPORT for WP-42 (RED RIVER LEVEES) and WP-43 (O/H/B RING LEVEE) –WP-42 and WP-43 could provide benefits by incorporating improved aesthetics and recreational features, including plantings and trials.

   I. WP-42 - Provide consulting services to assist with the incorporation of aesthetic and recreational features into the project design. Coordinate with the adjacent City of Fargo projects.

   II. WP-43 - Provide design and consulting services to assist with the incorporation of aesthetic and recreational features into the project design. For WP – 43A and WP – 43C, coordinate with the City of Oxbow and the Oxbow Golf and Country Club projects.

   III. Deliverables:

      1. Concept drawings, specifications.

      2. Design review services.

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Subtask	Start Time	Completion Time
A. Recreation and Use Master Plan Volume One – Revised Draft	June 14, 2012	September 30, 2012

B. Undulation Design – Outlet to I-94:

Submit the draft undulation design 45 days prior to the FTR-DQC (for USACE Work Packages) or 45 days prior to the 30 percent submittal (for LERRDS Work Packages). Revise and resubmit final undulation design within 20 days of receipt of review comments.

Initial dates for each work package are as follows:

WP-01 – Reach 1 Draft and Final Submittals	June 14, 2012	October 4, 2012
WP-02 – CR31/CR4 Bridge Draft and Final Submittals	June 14, 2012	October 29, 2012
WP-03 – Reach 2 Draft and Final Submittals	June 14, 2012	March 22, 2013
WP-04 – (Reach 3) I-29 and CR81 Bridges Draft and Final Submittals	June 14, 2012	October 29, 2012
WP-05 – (Reach 3) BNSF Hillsboro RR Bridge Draft and Final Submittals	June 14, 2012	September 30, 2014
WP-06 – Reach 4 Draft and Final Submittals	June 14, 2012	September 30, ~~2014~~2015
WP-07 – CR32 and CR22 Bridges Draft and Final Submittals	June 14, 2012	September 30, ~~2014~~2015
WP-08 – Reach 5 Draft and Final Submittals	June 14, 2012	September 30, ~~2014~~2015
WP-09 – BNSF Prosper RR Bridge Draft and Final Design Submittals	June 14, 2012	September 30, ~~2014~~2015
WP-10A – Reach 6 Draft and Final Submittals	June 14, 2012	September 30, ~~2014~~2015
WP-11 – CR20 Bridge Draft and Final Submittals	June 14, 2012	September 30, ~~2014~~2015
C. Design Support	September 12, 2013	September 30, ~~2014~~2015

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

I. Compensation for services identified shall be in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement. The total compensation for services identified under the Task Order is not-to-exceed amount as defined in the table below.

Subtask	Current Budget ($)	Change -($)	Revised Budget ($)
A. Recreation and Use Master Plan – Revised Draft	25,000	0	25,000
B. Undulation Design – Outlet to I-94	~~215~~12~~85~~,000	~~-30~~16,000	~~285~~201,000 ~~301,000~~
C. Design Support	30,000	0~~30,000~~	30,000
TOTAL	**~~$ -~~240,000**	**16,000~~0~~**	**256,000~~240~~ ~~256,000~~**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants:
   A. Barr Engineering Company
   B. SRF Consulting Group, Inc.
7. Other Modifications to Agreement: None
8. Attachments: None
9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is June 14, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
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Fax	(701) 297-6020 Fax

This is Task Order No. 9, Amendment 1~~0~~, consisting of 19 pages.

Task Order No. 9, Amendment 1~~0~~

In accordance with Paragraph 1.01 of the Agreement between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 9 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data

   A. Title: HYDROLOGY AND HYDRAULIC MODELING

   B. Description: Provide hydrology and hydrologic modeling services in order to advance design components of the Diversion Channel. Specific modeling subtasks include: modeling of Diversion inlets to determine design flows, modeling to evaluate hydraulic impacts of various Diversion Channel sizes, extending model geometry of the Rush and Lower Rush Rivers, providing technical assistance and support for the physical modeling of the Maple and Sheyenne River aqueduct structures, and on-call services as requested.

2. Services of Engineer

   A. HMS DIVERSION INLET MODELING:

   The objective of this subtask is to develop an HMS model for each Diversion inlet subbasin using synthetic rainfall events, and to obtain parameters for an estimate of discharge-frequency using a methodology coordinated with the U.S. Army Corps of Engineers..

   I. Discharge frequency curve at Amenia.

   II. Adopted discharge frequencies at the inlet location after the initial HMS simulations.

   Scope:

   I. Model Diversion inlet inflows for 1.3-, 1.5-, and 2-yr rain events. Inlets to be modeled are:

      1. Diversion Inlet
      2. Local Drain 1
      3. Drain 50
      4. Drain 21C
      5. Local Drain 2
      6. Local Drain 3
      7. Local Drain 4
      8. Drain 14 (new location)
      9. Original Drain 14
      10. Local Drain 5
      11. Maple River
      12. Lower Rush River
      13. Local Drain 6
      14. Rush River

15. Drain 30
16. Drain 29
17. Drain 13

II. Calibrate model to match each subbasin's adopted discharge-frequency to obtain HMS hydrographs for each inlet to the Diversion.

III. Obtain the following parameters: Clark's Tc, R, R/(Tc+R), CN, slopes, and drainage area. Parameters to be used to estimate Diversion inlet discharge-frequency using the NRCS method for small subbasins, as per the ND Hydrology Guide.

Deliverables:

I. HMS hydrographs at each inlet to the Diversion in a separate DSSVue file.

II. List of parameters used or determined such as: precipitation, Clark's Tc, R, R/(Tc+R), CN, slopes, and drainage area.

III. Schematic showing drainage area for each inlet, with the Diversion alignment.

IV. Brief report describing method, assumptions, parameters used, maps, and results.

B. UPDATES TO THE RUSH/LOWER RUSH:

The objective of this subtask is to produce working HEC-RAS models using updated HEC-HMS hydrology for local peak flows in the Rush and Lower Rush areas for use in project design.

Scope:

I. Red River Peak Flood - Modified Rush River hydrographs from the existing conditions model will be input into the Phase 6 LPP model, which initially will be conducted for the 100-year flood event.

II. Rush River and Red River Peak Flood - The updated hydrographs from the HEC-HMS models developed for existing conditions will be run for the Red River Peak 10 and 100-year flood events in the Phase 6 LPP model.

III. RAS Mapper will be used to map the floodplain outside of the diversion channel for the peak tributary event on the Rush and Lower Rush Rivers.

Deliverables: Updated existing conditions and with-project HEC-RAS unsteady models.

C. EVALUATION OF CHANNEL SIZE:

The objective of this subtask is to evaluate various Diversion Channel width sizes to determine hydraulic impacts based on channel size.

Scope for Diversion Channel from the Outlet to the Maple River:

I. Evaluate alternatives using the criteria below to assess the size of the Diversion Channel and conduct a Screening Analysis using the HEC-RAS steady state software with the objective of determining the most favorable alternatives:

1. Bottom width of the main Diversion Channel.
2. Channel bottom elevation of the Diversion Channel.
3. Considerations of the water surface profile in the Diversion Channel with respect to existing ground elevations.
4. Modification of the Hydraulic Structure at the Maple River.
5. Other criteria can be applied at a later time if it is determined that optimizing the Diversion Channel is justified with this initial evaluation.

6. The 100 and 500-year events for the Red River peak flood event will be analyzed.

7. Peak discharge values from the current Phase 6 unsteady model will be used, which is also being applied to the bridge analysis (MFR-001) currently being updated by the USACE.

II. Conduct an Impact Analysis using the HEC-RAS unsteady state software for the most favorable alternatives identified in Task 1.

1. The 100 and 500-year events for the Red River peak flood event will be analyzed using the latest Phase 6 unsteady flow model.

2. River impacts will focus only on the Red River upstream, downstream, and throughout Fargo-Moorhead. Impacts will be compared to those determined in Phase 4 and Phase 5, which may require that the gate operations may be modified to obtain similar impacts.

3. Additional impacts can be further evaluated at a later time if it is determined that optimizing the Diversion Channel is justified with this initial evaluation.

III. Develop a preliminary cost estimate for the most favorable alternative identified for optimizing the Diversion Channel.

2. Quantify the cost savings based on unit-cost savings using the Feasibility Study unit prices, focusing primarily on costs associated with earth work and at the Maple River Hydraulic Structure.

3. Additional cost detail can be further evaluated at a later time if it is determined that optimizing the Diversion Channel is justified with this initial evaluation.

IV. Prepare a Technical Memorandum (TM) summarizing whether the size of the Diversion Channel warrants additional and more detailed study.

V. Evaluate the Diversion Channel upstream of the Maple River to determine the most cost effective channel size. Work includes:

1. Develop the existing ground profiles along the right and left banks of the Diversion Channel upstream of the Maple River aqueduct.

2. Update the 1% and 0.2% chance flood event profiles in the Diversion. Determine the minimum bottom width such that the 1% chance flood event is generally below existing ground. Conduct sensitivity analysis to evaluate water surface profiles and comparing to the original bridge MFR flows and Phase 7.1 flows.

3. Calculate flood inundation flow rates at the Red and Wild Rice River control structures to establish an extreme event flow rate in the Diversion Channel.

4. Evaluation project operations during extreme events, and determine how diversion channel size upstream of the Maple River aqueduct affects the Inflow Design Flood (IDF) event and the corresponding staging area.

~~IV.~~5. Provide opinion of optimal channel width based on capital, operational, and maintenance costs along with project operation goals.

Deliverables:

I. Draft report.

II. Final report.

D. EXTEND RAS GEOMETRY OF THE RUSH/LOWER RUSH

The objective of this subtask is to account for break-out flows between the Rush and Lower Rush Rivers by extending the RAS model geometry of the Rush and Lower Rush Rivers upstream to the beach ridge of Glacial Lake Agassiz.

Scope:

I. Extend existing conditions Rush River HEC-RAS model approximately 10 miles upstream from Amenia and add model detail between the Rush and Lower Rush Rivers to incorporate breakout discharges.

Deliverables:

I. Updated existing conditions and with-project HEC-RAS unsteady models.

E. PHYSICAL MODELING ASSISTANCE:

Provide ongoing assistance to the Diversion Authority during the transition for Feasibility Study to Preliminary Engineering and Design (PED) in support of the Maple and Sheyenne River aqueduct structures.

Scope:

I. Participate in USACE design team meetings, Local Sponsor/Local Consultants Technical Team (LSLCTT) meetings, and workshops as requested.

II. Provide technical assistance for physical modeling of hydraulic structures.

III. Provide hydrology information, as requested, to USACE.

IV. Provide additional assistance as requested.

Deliverables: Meeting minutes.

F. ON-CALL SERVICES**:**

Respond to requests for services from PMC for tasks not identified to date. Requests will be provided by PMC in writing. Work will not be performed by Engineer without authorization by PMC or Owner.

Deliverables: On-call service deliverables as requested.

I. EXTREME RAINFALL EVENTS – Complete the work originally authorized in AWD-00016 and deliver the final report. The scope of work specified in AWD-00016 was:

1. Develop a Technical Memorandum (TM) that determines whether or not a meander belt width of 200 feet is sufficient to allow establish a low-flow channel that is in dynamic equilibrium, and if so, provide sufficient information and criteria for others to design the four (4) low-flow channel reaches:

    a. Diversion Outlet to Lower Rush

    b. Lower Rush to Drain 14

    c. Drain 14 to Drain 21C

    d. Drain 21C to Diversion Inlet

    The focus of this meander belt width analysis is on the reach Diversion Outlet to Lower Rush. Meander belt width for other reaches will be confirmed in subsequent analyses.

    The Final Feasibility Report includes a grade control feature across the entire width of the main section of the diversion channel every 5,000 feet along the

length of the diversion. The use of grade control to set some constraints on the low-flow channel migration rates within the meander belt width should be considered as part of this study. The distance between grade control features can be modified if warranted. Discuss, and if appropriate, recommend other methods to limit meander belt width.

The following data will be provided by the Diversion Authority at the commencement of the work effort:

a. Soil test data to include Atterberg limits and gradations, boring log plates, boring location diagrams, and boring profile plates

b. Sediment grain size distribution and sediment transport (both as bedload and in suspension) data that has been collected recently by the US Geological Survey and West Consultants, including low and high flow events, for streams near the proposed diversion, including the Rush, Lower Rush, Maple and Sheyenne rivers

c. Current, and if available, also historical cross sections for streams near the proposed diversion, including the Rush, Lower Rush, Maple and Sheyenne rivers

d. Required diversion profile information along the centerline of the diversion

e. Typical cross-sections for the low-flow channel and main section of the diversion channel for the four reaches referred to above (i.e., 1) Mouth to Lower Rush, 2) Lower Rush to Drain 14, 3) Drain 14 to Drain 21C, and 4) Drain 21C to Diversion Inlet)

f. Current, and if available, also historical general slope and sinuosity information for streams near the proposed diversion, including the Rush, Lower Rush, Maple and Sheyenne rivers

g. Current, and if available, also historical digitized information (GIS format) on planform alignments for streams near the proposed diversion, including the Rush, Lower Rush, Maple and Sheyenne rivers

h. Stage (water depth)-discharge, flow velocity-discharge, discharge-duration and discharge-frequency information for the four reaches referred to above (i.e., 1) Mouth to Lower Rush, 2) Lower Rush to Drain 14, 3) Drain 14 to Drain 21C, and 4) Drain 21C to Diversion Inlet)

i. Typical flood hydrographs for the four reaches referred to above (i.e., 1) Mouth to Lower Rush, 2) Lower Rush to Drain 14, 3) Drain 14 to Drain 21C, and 4) Drain 21C to Diversion Inlet)

j. Compilation of frequency and duration of operation, typical cross sections, slopes, erosion protection measures, and sedimentation records for the two existing diversions on the Sheyenne River (Horace to West Fargo, and West Fargo)

Deliverables:

1. Prepare a first Draft Technical Memorandum to include:

- Outline approach for meander belt width analysis
- Brief literature review on constructed meandering channels
- Preliminary summary of data available
- Initial thoughts on feasibility of meander belt width concept

2. Prepare a second Draft Technical Memorandum to include:

   - Description of approach for meander belt width analysis
   - Processing of data for input in meander belt width analysis
   - Meander belt width analysis
   - Stabilization alternatives, including grade-control measures, non-structural measures (e.g., vegetation), widening of main diversion channel in certain reaches, among other considerations, to ensure low-flow channel migration occurs within prescribed meander belt width
   - Determination of need for rock toe protection along the entire length of the inner diversion toe to prevent erosion
   - Suggestions for future field investigations
   - Recommended design criteria for Final Design

3. Consult with Professor Gary Parker (University of Illinois at Urbana-Champaign) during development of the meander belt width analysis and recommendations.

4. Develop a brief, graphics-rich, PowerPoint presentation of the background and results. This presentation must be suitable for a non-technical audience.

5. Determine timing of tributary contributions to the low flow channel by reviewing and comparing the Phase 1 HEC-HMS model results for the Rush and Lower Rush Rivers, and Drains 14 and 21C for the 2-year and 5-year 24-hour rainfall events. Compare model results to low flow channel hydrology developed by USACE.

6. Prepare a Technical Memorandum presenting summarizing results.

II. EXTREME EVENT EVALUATIONS

1. Evaluate the following for extreme (103,000 cfs and Probable Maximum Flood [PMF]) events

   a. Adequacy of aqueduct openings

   b. Lowering the left EMB to reduce the amount of flow in the Diversion Channel

   c. Head differential across raised road in the staging area

   d. For VE-13 Option D, sloping the Diversion Channel from the Wild Rice River toward the Diversion Inlet

III. TRIBUTARY PEAK MODEL RUNS TO SUPPORT THE MAPLE RIVER AQUEDUCT PHYSICAL MODEL

Background: To provide 10-, 50-, 100-, and 500-year tributary peak hydrographs in the current version of the unsteady RAS model to obtain the best available tributary peak flow information for the Maple River physical modeling effort. These updated tributary peak model runs will aid in the effort of determining the flow combinations to be modeled during maple River physical modeling effort.

Scope: Perform model runs for the 10-, 50-, 100-, and 500-year tributary peak hydrographs to support the USACE's physical and numeric modeling of the Maple River Aqueduct Structure. Provide modeling results to USACE.

IV. ADDITIONAL ASSISTANCE FOR THE MAPLE RIVER AQUEDUCT PHYSICAL MODEL

Scope: Additional assistance includes participating in bi-weekly conference calls, providing additional technical information and support from Feasibility Study team to

USACE's physical modeling team, and attending a four-day value-based design charrette.

V. UNSTEADY HEC-RAS MODELING OF EXISTING PMF INFLOWS

Background: The existing Probably Maximum Flood (PMF) was developed almost 30 years ago (1984) and is based on simple hydrologic routing that likely does not account for the full effects of floodplain storage and cross-basin flow that occurs upstream of Fargo-Moorhead. USACE has updated the unsteady HEC-RAS model upstream of the unsteady HEC-RAS model currently being used for the FMMFRM project so that it has the extents and connections necessary to model the PMF event. The portion of the FMMFRM unsteady HEC-RAS model from Abercrombie, ND (the upstream extents of the unsteady HEC-RAS model being used for the FMMFRM study) through Fargo-Moorhead has been added to the upstream model to create the unsteady HEC-RAS model required for this PMF analysis. To avoid confusion, the unsteady HEC-RAS model being used for the PMF analysis will be referred to as the "Upstream" model, while the unsteady HEC-RAS model generally being used for most of the FMMFRM study will be referred to as the "FMMFRM" model.

To get an idea of how much the PMF might change, the Corps and the Project Sponsor previously decided that it would be useful to investigate routing the existing PMF inflows using the Upstream model. The Corps has set up the Upstream model with the proper inflows.

Scope:

a) Perform a technical review of the model

b) Address the instability issues related to running the model with very large inflows

c) Produce final model runs using the 1984 hydrology that provide the PMF at the Fargo gage.

Deliverables:

a) Draft unsteady HEC-RAS models.
b) Draft technical memorandum (hard copy and electronic).
c) Final unsteady HEC-RAS input and output files for the PMF event.
d) Final technical memorandum.

Phase 2 - Numerical Modeling Scope:

a) Set Up Unsteady HEC-RAS Model for New PMF Inflows
USACE has developed a number of new inflow locations for the unsteady HEC-RAS model that are associated with HMS output hydrographs. These inflow locations have been provided separately in an HEC-RAS unsteady flow data file. Develop a draft unsteady HEC-RAS model with updated inflow locations. If requested, modify names of certain reaches and storage areas to be consistent with the final unsteady HEC-RAS model used for the PMF flow routing.

Deliverables:

i. Draft unsteady HEC-RAS model with updated inflow locations.

b) Unsteady HEC-RAS Modeling of New PMF Inflows
Using the updated unsteady HEC-RAS model with the updated inflow locations, model two sets of hydrographs representing two different runoff scenarios. USACE will provide the two sets of inflow hydrographs. Evaluate the inflow locations and the magnitude and shape of the hydrographs for reasonableness and model

stability. Modify as required, in consultation with USACE, to allow the model to run successfully.

Once any model instabilities have been addressed and the model runs are complete, evaluate, in consultation with USACE, the hydrographs at the Fargo gage location to determine whether additional sets of hydrographs representing other runoff scenarios are required to determine the PMF at the Fargo gage location (to be performed under subtask c).

Deliverables:

i. Preliminary unsteady HEC-RAS models.
ii. Draft Technical Memorandum. Prepare a Technical Memorandum that summarizes the work effort and the resulting hydrograph at the Fargo gage location.

c) Additional Unsteady HEC-RAS Modeling of New PMF Inflows (if authorized).
If additional sets of hydrographs need to be developed to determine the PMF at the Fargo gage location, as determined in subtask b, USACE will provide one to four additional sets of hydrographs to be modeled with HEC-RAS. Prepare update of draft Technical Memorandum prepared in subtask b.

Deliverables:

i. Preliminary unsteady HEC-RAS.
ii. Second draft Technical Memorandum.

d) Final Technical Memorandum.
Upon review of the model results and draft Technical Memorandum by USACE, finalize the HEC-RAS models and prepare a Final Technical Memorandum, addressing comments provided by USACE.

Deliverables:

i. Final unsteady HEC-RAS input and output files for the PMF event.
ii. Final Technical Memorandum.

VI. UPDATE HEC-RAS MODEL

a) Update the HEC-RAS model geometry for the revised western alignment from the Maple River to the Sheyenne River and the proposed upstream staging area ring levees.
b) Provide on-going hydrology and hydraulic modeling services as requested in order to keep HEC-RAS model consistent with project features.

VII. CONNECTING CHANNEL AND 20-YEAR EXISTING CONDITIONS

Scope:

a) Connecting Channel Geometry: Update the HEC-RAS model geometry to incorporate the geometry of the connecting channel between the Wild Rice and Red Rivers. Complete the 10-yr, 20-yr, and 50-yr model runs to determine the proper model modifications and to determine the impacts of the updated geometry. If the modifications affect the 50-yr model results, complete the 100-yr, 500-yr, SPF, and PMF model runs to determine the impact of the updated geometry. If the modifications do not affect the 50-yr model results, the updated 100-yr, 500-yr, SPF, and PMF model runs will be made under a future authorization.

Develop flooded outline polygons and depth grids for the 10-yr, 20-yr, 50-yr, 100-yr, 500-yr, SPF, and PMF events.

b) 20-year Existing Conditions Modeling: Develop 20-year Existing Conditions models and provide floodplain mapping for the Staging Area.

Deliverables:

a) Preliminary unsteady HEC-RAS models.
b) Final unsteady HEC-RAS input and output files.
c) 20-year existing conditions model results.

VIII. MAPLE RIVER AQUEDUCT FLOW ANALYSIS

a) Conduct modeling of Maple River flows across the proposed Maple River Aqueduct and into the Risk Reduction Area.
    i. Use the latest HEC-RAS model for the FMMFRM Project and the best available topographic data.
    ii. The study area is the area within the Risk Reduction Area that is affected by the flow coming across the Maple River Aqueduct.
    iii. Account for coincident flows on the Sheyenne River and other local drains and ditches.
    iv. Select Maple River design flows such that insurable structures in the Risk Reduction Area, and within the expected future 1% Maple River floodplain, are minimally affected by the Maple River design flows and the coincident flows on the Sheyenne River and the other local drains and ditches in the Risk Reduction Area.
b) Establish Maple River design flows across the Maple River Aqueduct for the 1% and 0.2% flood events.
c) Recommend a maximum Maple River flow across the Maple River Aqueduct for the Standard Project Flood (SPF) event.

Deliverables:

a) Preliminary unsteady HEC-RAS models.
b) Final unsteady HEC-RAS input and output files.
c) 20-year existing conditions model results.
d) Final Technical Memorandum.

IX. UPDATE HEC-RAS MODELS – MAPLE RIVER AQUEDUCT AND REACH 6 BRIDGE

a) Modify the unsteady-flow HEC-RAS model to reflect the lateral structure and spillway changes recommended by the Maple River aqueduct study team.
b) Update the flow profile information (1% and 0.2% chance events, and 103,000 cfs event) needed for the bridge design effort, using the current Phase 7 unsteady-flow HEC-RAS model as the source of the geometry for the steady-flow HEC-RAS model. Continue to use the bridge design criteria provided in MFR-005 (General Bridge Re-Assessment for the Diversion from Inlet to Outlet) to determine the low-chord elevation and hydraulic opening of bridges in the Diversion Channel.
~~b)~~c) Update the HEC-RAS model geometry: (i) to be consistent with survey and topography dates collected, (ii) to reflect proposed changes to the Maple River natural channel, (iii) to reflect the proposed revised location of the spillway into the diversion channel; perform QA/QC of model changes; and evaluate revised model performance for various flood events using the HEC-RAS unsteady flow model.

Deliverables:

a) Draft Technical Memorandum.
b) Final Technical Memorandum.

X. WATER MONITORING GAGE SURVEYING

a) Prepare and provide maps and coordinates of installation locations for 10 HOBO gages to USGS installation teams.
b) After HOBO gages are installed, survey the elevations of the installed gages and provide survey data to USGS.

Deliverables:

a) Maps and coordinates of installation locations for 10 HOBO gages.
b) Surveyed elevations of 10 HOBO gages.

G. BASIN-WIDE RETENTION SUPPORT

I. Objective: Assist Owner in supporting retention projects by others in the region.

II. Background: The Diversion Board has authorized up to $25 million for Basin-wide Retention Projects that are compatible with, and provide benefits for, the Diversion Project. An initial study is underway by the Red River Basin Commission (RRBC).

This subtask is not creditable by USACE.

III. Scope:

a. Assist Owner with developing a method of evaluating existing, planned, or potential regional retention projects' potential benefits to the Diversion Project. Scope to include up to two (2) site evaluations.

b. Provide technical assistance to the RRBC in its study "Halstad Upstream Retention (HUR) Modeling – Phase 1".

IV. Deliverables

a. As requested.

H. PHASING PLAN INTERIM MODELING

I. Objective: Incorporate the Phase 1 and Phase 2 project features into the hydraulic model, evaluate project benefits, and determine interim measures needed for a phased project.

II. Background: The original project execution plan assumed unconstrained funding, an approximate 8 year project schedule, and project design and construction starting on the downstream (north) end of the project and progressing sequentially upstream. Currently, it is anticipated that Federal funding will be constrained and, therefore, a phased plan was developed to allow the project to proceed with limited Federal funding and provide benefits as early as practical. This results in a three phased project. Phase 1 includes the Diversion Channel from the Outlet to downstream of the Maple River and associated bridges, in-town levees, and the Oxbow-Hickson-Bakke area levee. Phase 2 includes the Red River and Wild Rice River control structures, the Staging Area embankment, overflow embankment, tie-back levee, the Diversion Inlet structure, staging area land, associated bridges and transportation improvements, and associated mitigation projects. Phase 3 includes the Diversion Channel from the Maple River to the Diversion Inlet structure, associated bridges, the Maple River Aqueduct, the Sheyenne River Aqueduct, and associated mitigation projects.

There may be a lag of several years between completion of Phases 1 and 2, and the completion of Phase 3, and, therefore, modeling and evaluation is needed to 1) determine project benefits and 2) the need for and extent of temporary measures between phases of the project.

III. Scope: Perform 100-year and 500-year modeling evaluations of Phase 1 and Phase 2 project components, quantify interim benefits, and determine what interim measures are needed until completion of Phase 3.

IV. Deliverables:

a. Draft Technical Memorandum.

b. Final Technical Memorandum.

I. PHASE 7.1 MODEL UPDATE

I. Task 1 - Update the Red River peak flow model geometry. Complete modeling for the Red River peak flood events, including the 10-, 2-, 1-, 0.2-percent chance events and the 103kcfs and PMF flood events for both existing conditions and with-project conditions. Geometry updates include:

a. Update storage connections for the existing and with-project model in the area west of the diversion between the Maple River and the Sheyenne River. to better reflect floodplain impacts and diversion side inlet sizing.

b. Revise the Wild Rice River Control Structure and embankment alignment (combine bridges).

c. Analyze the removal of the connecting channel between the Wild Rice River and Red River. Replace with storage areas.

d. Analyze Hwy 81/Hwy 75/Red River Control Structure Bridge/Culvert Sensitivity at the tie back levee.

e. Change the channel size from the Wild Rice River to the Diversion Inlet based on cross section volume of the southern embankment.

f. Account for staging area levees including the proposed Oxbow/Hickson/Bakke and Comstock levees.

g. Verify the eastern staging area tieback is modeled as being used in storage. Add detail to check if culverts are adequate to convey water west to the Red River Control Structure.

h. Revise Maple River south bank near the Maple River Aqueduct. Set elevation to 901.0.

i. Investigate diversion gate operations for events larger than the 0.2% chance event.

j. Update the Drain 14 inlet at the diversion.

k. Extend the Red River model from Grand Forks, ND to Drayton, ND.

II. Task 2 – Update tributary peak flow models with geometry developed in Task 1. Complete modeling for the 10-, 2-, 1-, 0.2-percent chance flood events for both existing conditions and with-project conditions.

III. Task 3 - Conduct a higher volume sensitivity analysis using the Red River peak flow geometry from Task 1 and the high volume hydrology developed as part of the Phase 5 unsteady modeling effort. Complete evaluations for the 1- and 0.2-percent chance flood events for both existing conditions and with-project conditions. The main objective of this task is to determine how the diversion system would operate with higher volumes and if the higher volumes would affect the staging area elevation. No mapping is required; however, calculate impacts and compare to Phase 7.0. For comparison purposes, match Phase 7.1 downstream impacts, flows through town, and diversion flows to the targeted values from Phase 7.0. The variable parameter will be

the staging area elevation. Prepare a technical memorandum to summarize the sensitivity analysis.

IV. Task 4 – QA/QC of Phase 7.1 modeling.

V. Task 5 – Complete additional modeling and mapping tasks as part of the Phase 7.0 modeling effort. These items include details such as:

a. Update geometry to include the City of Fargo Comprehensive Flood Protection Plan.

b. Additional mapping for existing and project conditions.

c. Development of Tributary Peak models.

d. Add detail to Interstate 94 near the Red River and also to Drain 27 area.

e. Update weir coefficients, culverts, initial elevations, and cross section duplication.

f. Diversion centerline alignment rectification due to Microstation and GIS formats.

g. Add Excavated Material Berms into project geometry.

h. Add designed bridges for Reaches 1 through 5 into the geometry.

i. Update HEC-RAS unsteady flow model geometry to reflect most current layout of the Maple River Aqueduct and Spillway being used by the physical modeling team. The Maple River overbank berms near the structure will also be updated. Using the latest project designs, update the layouts and inlet structure geometry for the Rush and Lower Rush Rivers, as well as Drain 30.

a. Update HEC-RAS unsteady flow existing conditions and project conditions for the 10-, 50-, 100-, and 500-year Red River peak events. No diversion gate optimizations will be conducted, as this will be completed as part of the Phase 8 model updates.

b. Update HEC-RAS unsteady flow existing conditions and project conditions for the 10-, 50-, 100-, and 500-year Tributary peak events. No diversion gate optimizations will be conducted, as this will be completed as part of the Phase 8 model updates.

VI. Deliverables:

a. Updated phase 7.1 model for the Red River peak flood events, including the 10-, 2-, 1-, 0.2-percent chance events and the 103kcfs and PMF flood events for both existing conditions and with-project conditions.

b. Updated phase 7.1 tributary peak flow models with geometry developed in Task 1, for the 10-, 2-, 1-, 0.2-percent chance flood events for both existing conditions and with-project conditions.

c. Higher volume sensitivity analysis:

d. Updated phase 7.0 model.

J. UPDATE PMF WITH REVISED DISTRIBUTION OF SNOWMELT RUNOFF:

I. Background:

a. Initial results from the current PMF study for the USGS Gage at Fargo, ND indicate that the peak flow is about 25% higher than what was determined during the 1985 study. Comparisons with the 1985 study indicate that the Wild Rice, North Dakota basin requires further investigation. Contributing drainage area for the PMF also requires further investigation. Two HMS model runs (two storm centerings) are available from the USACE St. Paul District for each of the eight sub-basins that are included in the PMF study. The HMS models that were used in the initial PMF work

were modified from the Phase 1 HMS final product by peaking unit hydrograph parameters for each subbasin, re-incorporating the entire drainage area, and extending several storage outflow relationships that were exceeded with the magnitude of discharges generated from the PMF simulations.

b. It has been proposed that GIS can be used in conjunction with the HMS models to better estimate the amount of runoff occurring during a PMF event. The GIS/HMS effort would determine areas that contribute runoff, areas that do not contribute runoff, and areas that partially contribute runoff for the events investigated.

II. Scope:

a. Discuss the GIS/HMS effort with USACE before proceeding with this work.
b. Update the USACA-provided HMS model runs in conjunction with the GIS/HMS-based runoff-determination effort. Determine the order of HMS model simulations and account for the breakout flows between the various models. Coordinate between the HMS model simulations and RES-SIM with USACE. Save Reservoir inflows for Traverse and Orwell in DSS and submit to USACE for simulation. Forward the regulated flow DSS records for inclusion into the RAS Model.
c. Upon completion of the update to the Wild Rice River basin HMS model by USACE,, perform final model runs. Perform work that can be accomplished in advance to prepare for the final HMS models runs.
d. Use the HMS results as input for an updated unsteady HEC-RAS model run for each storm centering. Complete the existing scope of work [can we cite a Paragraph here?] for the PMF study using the updated unsteady HEC-RAS model runs.
e. Prepare a report section documenting the GIS/HMS-based runoff-determination effort and comparing the 1985 PMF study to this current study, including input assumptions. Incorporate this draft report section into the overall current PMF study report.

III. Deliverables

a. Updated runoff grids resulting from the GIS/HMS-based runoff-determination effort.
b. Draft report .
c. Updated HMS models (16 models: 2 storms centering for 8 sub-basins.)
d. Updated unsteady HEC-RAS models (2 models, one for each storm centering).

K. PHASE 8 MODEL UPDATE

I. Background:

a. The Phase 8 modeling will incorporate higher volume hydrology developed by the USACE. It will also include the development of the 20-year event model and investigate additional model updates in the staging area based on culvert connections, connecting channel investigations, and tieback embankment alignment adjustments. The downstream model limit will be Drayton, ND.

b. The most recent independent QA/QC review of the FM Diversion project unsteady HEC-RAS model occurred during the Phase 4 modeling (February 28, 2011). Subsequent model updates included peer reviews by modelers, but did not included a full independent review.

II. Scope:

a. Update geometry in the upstream staging area based on culvert details and the local drainage plan (currently under development).

b. Update synthetic model hydrology for the 10, 50-, 100-, and 500-year flood events and develop new 20-year hydrology using new higher volume hydrographs developed by the USACE for the peak Red River flood event. Local inflow development will utilize the Phase 1 HEC-HMS models.

c. Update the existing conditions tributary peak unsteady model using updated hydrology developed by the USACE for the 10-, 50-, 100-, and 500-year flood events and new 20-year hydrology.

d. Conduct QA/QC review of the Phase 8 Existing conditions models for the RRN and tributary peak conditions.

e. Conduct with-project modeling for the 10-, 20-, 50-, 100-, and 500-year events for the RRN peak flood event.

f. Conduct with-project modeling for the 10-, 20-, 50-, 100-, and 500-year events for the tributary peak flood events.

g. Conduct QA/QC of the Phase 8 with-project model runs.

h. Prepare floodplain mapping for the 10-, 20-, 50-, 100-, and 500-year events for existing conditions and with-project for both the RRN and tributary peak flood events.

i. Prepare draft and final Technical Memorandums summarizing Phase 8 modeling results.

j. Conduct an independent QA/QC review of the unsteady HEC-RAS model.

    i. Part 1 – Conduct an independent QA/QC review of the Phase 7.1 unsteady HEC-RAS model geometry and general assumptions. Include a kick-off review meeting, a review of the technical memorandums and previous District Quality Control (DQC) and Agency Technical Review (ATR) reviews developed for the model updates subsequent to Phase 4, and a review of geometry files through Phase 7.1 of the model. Commence review following completion of the Phase 7.1 update.

    ii. Upon completion of the Phase 7.1 model review, provide recommendations for additional QC review of the Phase 8 model updates.

    iii. Document the review findings and recommendations in Technical Memorandum.

    iv. Document the review findings and recommendations in Technical Memorandum.

k. Incorporate geometry and general assumptions QA/QC recommendations into the HEC-RAS model

    i. Review all comments and discus with USACE and review team, and determine which model recommendations should be incorporated into the HEC-RAS model.

    ii. Make revisions in HEC-RAS Model Geometry for Red (from Enloe to Perley), Wild Rice, Sheyenne and Maple Rivers: Update model to HEC-RAS 5.0, convert horizontal projection to Albers Equal Area. Update bridge modeling approaches, ineffective flow limits, bank stations, blocked obstructions, roughness parameters, river junction cross-section geometry, address ineffective flow at bridges and two inconsistencies between EX and WP models. Verify volume continuity.

iii. Re-calibrate model using 2006, 2009, 2010, 2011 historic events (adjust parameters).

l. Provide additional assistance to USACE for the Hickson Hydrology Update. These modeling tasks include assessing modeling parameters, development of a baseline storage-discharge relationships, comparison modeling downstream of the Otter Tail Diversion, historic flow record checks, and revise model calculation at bridges and inline structures.

III. Deliverables:

a. Updated phase 8 model for the Red River peak flood events, including the 10-, 20-, 50-, 100-, and 500-year events for both existing conditions and with-project conditions.

b. Updated phase 8 models for the tributary peak flood events, including the 10-, 20-, 50-, 100-, and 500-year events for both existing conditions and with-project conditions.

c. Floodplain maps for the 10-, 20-, 50-, 100-, and 500-year events for existing conditions and with-project for both the RRN and tributary peak flood events.

d. Draft and Final Phase 8 Technical Memorandum.

e. Draft and Final QA/QC Technical Memorandum, Kick-off meeting minutes, and Quality Review Form (QRF) summarizing review comments for the Phase 7.1 QC review.

L. UPDATE THE BALANCED HYDROGRAPHS AT HICKSON, ND

I. Background:

a. The USACE, St. Paul District, requested assistance to update the Red River of the North (RRN) balanced hydrographs at the USGS gage at Hickson, ND. This effort is required prior to starting the Phase 8 model update, and involves working with both the hydrologic (HEC-ResSIM) and hydraulic (unsteady HEC-RAS) routing models to determine the proper ungaged inflow hydrographs and hydrologic modeling parameters such that similar results are obtained from the two methods.

II. Scope:

a. Hydrologic Model Development: Use the unsteady HEC-RAS model to determine peak flows at Hickson and Abercrombie ND and identify breakout flow locations.

b. Initial Storage Outflow Curve Development: Develop storage outflow curves for the hydrologic model reaches determined in above task, and identify bankfull discharges for each routing reach.

c. Quality Control Check on Unregulated Record Generated by Hydrologic Model: Run five test historic, unregulated events through the unsteady HEC-RAS model to check the validity of the unregulated record being developed by the hydrologic modeler.

d. Routed Synthetic-Event Unregulated Hydrographs and Report: Using information developed in previous tasks, provide the resulting unregulated hydrographs at Fargo, ND and Wahpeton, ND, which are produced in concert with the 10-yr, 50-yr, 100-yr, 200-yr, 500-yr synthetic events at Hickson, ND.

e. Fine Tune the Regulated Synthetic Event Analysis: Run the five HEC-RAS models (10-yr, 50-yr, 100-yr, 200-yr, 500-yr synthetic events) for regulated conditions using

the outflow hydrographs from the reservoirs developed by USACE using the hydrologic model.

f. Final Technical Memorandum: Develop an overall Technical Memorandum summarizing the work accomplished for Tasks 1-5.

III. Deliverables:

a. Breakout Flow and Hydrologic Routing Reach Report

b. Upstream Input Test Hydrographs and Routed Test Hydrographs at Critical Locations

c. Storage Outflow Curves and bankfull discharges for each routing reach

d. Routed Historic Hydrographs

e. Routed Synthetic-Event Regulated Hydrographs and Report

f. Final Technical Memorandum

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Subtask	**Start Time**	**Completion Time**
A. HMS Diversion Inlet Model	April 1, 2012	July 31, 2012
B. Updates to Rush/Lower Rush	March 8, 2012	May 31, 2012
C. Evaluation of channel size	March 8, 2012	~~May 31, 2012~~September 30, 2015
D. Extend RAS geometry of Rush/Lower Rush	March 8, 2012	May 31, 2012
E. Physical Modeling Assistance	April 26, 2012	September 30, ~~2012~~ 2015
F. On-Call Services	June 14, 2012	September 30, ~~2014~~2015
F.I Extreme Rainfall Events	September 13, 2012	November 30, 2012
F.II. Extreme Event Evaluations	September 13, 2012	November 30, 2012
F.III. Tributary Peak HEC-RAS Model Runs	September 14, 2012	December 31, 2012
F.IV. Additional Assistance for the Maple River Aqueduct Physical Model	September 14, 2012	September 30, ~~2014~~2015
F.V. Unsteady HEC-RAS Modeling of Existing PMF Inflows	November 8, 2012	January 31, 2013
F.V. Phase 2 Numerical Modeling	February 14, 2013	September 30, 2013
F.VI. Update HEC-RAS Model	December 13, 2012	January 31, 2014
F.VII. Connecting Channel and 20-year Existing Conditions	December 18, 2012	September 30, 2013
F.VIII. Maple River Aqueduct Flow Analysis	March 14, 2013	September 30, 2013
F.IX. Update HEC-RAS Models – Maple River Aqueduct & Reach 6 Bridge	April 18, 2013	September 30, ~~2013~~2015
F.X. Water Monitoring Gage Survey	April 9, 2013	May 31, 2013

Subtask		Start Time	Completion Time
G.	Basin-Wide Retention Support	December 13, 2012	September 30, ~~2014~~2015
H.	Phasing Plan Interim Modeling	April 24, 2013	September 30, ~~2014~~2015
I.	Phase 7.1 Model Update	July 11, 2013	April 30, 2014
J.	Update PMF Study with Revised Distribution of Snowmelt Runoff	July 11, 2013	December 31, 2013
K.	Phase 8 Model Update	September 12, 2013	September 30, ~~2014~~2015
L.	Update the Balanced Hydrographs at Hickson, ND	October 10, 2013	September 30, 2014

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

I. Compensation for services in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

II. The total compensation for services identified under the Task Order is not-to-exceed the amount as defined in the table below.

III. Estimated budget for Subtask F. On-Call Services, and G. Basin-Wide Retention Support, is based on an allowance.

1. Engineer will notify Owner when eighty percent (80%) of the budget on Subtask F. On-Call Services, and G. Basin-Wide Retention Support, is expended.

2. Engineer will prepare and submit an amendment for additional compensation when ninety percent (90%) of budget on Subtask F. On-Call Services, and G. Basin-Wide Retention Support, is expended.

3. Engineer will not perform work beyond one hundred percent (100%) of the budget for Subtask F. On-Call Services, and G. Basin-Wide Retention Support, without Owner's authorization by an amendment to this Task Order.

Subtask	Current Budget ($)	Change ($)	Revised Budget ($)
A. HMS Diversion Inlet Modeling	22,121	0	22,121
B. Updates to Rush/Lower Rush	16,401	0	16,401
C. Evaluation of Channel Size	27,605	~~0~~110,000	~~27~~137,605
D. Extend RAS Geometry of Rush/Lower Rush	17,714	0	17,714
E. Physical Modeling Assistance	10,500	0	10,500
F. ON-CALL SERVICES (ALLOWANCE)	94,900	~~0~~ 50,000	~~94~~44,900
F.I. Extreme Rainfall Events	7,500	0	7,500
F.II. Extreme Event Evaluations	26,600	0	26,600
F.III Tributary Peak Model Runs to	20,000	0	20,000

Subtask	Current Budget ($)	Change ($)	Revised Budget ($)
Support the Maple River Aqueduct Physical Model			
F.IV Additional Assistance for the Maple River Aqueduct Physical Model	79,000	~~050~~25,000	~~79,000~~104,000
F.V Unsteady HEC-RAS Modeling of Existing PMF Inflows	50,000	0	50,000
F.V Phase 2 Numeric Modeling	60,000	0	60,000
F.VI Update HEC-RAS Model	36,000	0	36,000
F.VII Connecting Channel and 20-year Existing Conditions	9,000	0	9,000
F.VIII Maple River Aqueduct Flow Analysis	15,000	0	15,000
F.IX Update HEC-RAS Models – Maple River Aqueduct & Reach 6 Bridge	15,000	~~0~~25,000	40,000~~15,000~~
F.X Water Monitoring Gage Survey	5,000	0	5,000
G. Basin-Wide Retention Support	55,000	0	55,000
H. Phasing Plan Interim Modeling	90,000	0	90,000
I. Phase 7.1 Model Update	165,000~~140,000~~	~~25,000~~0	165,000
J. Update PMF Study with Revised Distribution of Snowmelt Runoff	80,000	0	80,000
K. Phase 8 Model Update	331,000	~~0~~263,000	594,000~~331,000~~
L. Update the Balanced Hydrographs at Hickson, ND	105,000	0	105,000
TOTAL	**1,338,341~~1,313,341~~**	**~~25,0000~~373,000**	**~~1,338,341~~1,711,341**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants: None
7. Other Modifications to Agreement: None
8. Attachments: None
9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is June 14, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South, PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
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This is Task Order No. 10, Amendment ~~54~~, consisting of 5 *pages.*

Task Order No. 10, Amendment 54

In accordance with Paragraph 1.01 of the Agreement Between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 10 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data

   A. Title: UTILITIES DESIGN and IDENTIFICATION - OUTLET to I-94 (NORTH), I-94 to STAGING AREA (SOUTH), and RED RIVER LEVEES project areas.

   B. Description: Provide utility relocation plans, utility relocation services, utility relocation designs when required, utility relocation support services, relocation determination and performance specifications, for the relocation of utilities from the Diversion Outlet at the Red River (Station 0+00) through (Station 901+00) at I-94 (NORTH), from I-94 (Station 901+00) through the Diversion Inlet, Embankments, and Staging Area (SOUTH), and the RED RIVER LEVEES project area.

   C. Background: Various utilities such as power lines, communication lines, gas lines, and water lines have been identified and located within the proposed Diversion Channel footprint, embankments, Staging Area, and Red River levee project area, or will cross the Diversion Channel, and there may be additional utilities that have not yet been identified. These utilities will have to be relocated or abandoned prior to construction of the Diversion Channel, embankments, Staging Area, Red River Levees, and appurtenant structures. Some utilities will be relocated by contractors under contract with the Diversion Authority, while others will be relocated by the utility owner.

      Currently identified utilities in the North Section include:

      I. Overhead power (9), buried power (4).

      II. Buried fiber optic (4), buried copper wire (7).

      III. Buried natural gas (2).

      IV. Buried water (8).

      Anticipated utilities in the South Section include:

      I. Overhead power, buried power.

      II. Buried fiber optic, buried copper wire.

      III. Buried natural gas.

      IV. Buried water.

      V. Buried wastewater.

Anticipated utilities in the Red River Levee project area include:

I. Overhead power, buried power.

II. Buried fiber optic, buried copper wire.

2. Services of Engineer

A. UTILITY RELOCATION PLAN:

I. Identify and field locate utilities from the Maple River to I-94.

II. Obtain copies of filed easements from the Maple River to I-94.

III. Work with impacted utility owners and provide utility relocation plans for impacted utilities from the Outlet to I-94.

IV. Comply with requirements in the Fargo-Moorhead Metro Area Flood Risk Management Utility Relocation Requirements, (MFR No. 010, CEMVP-PM-B).

V. Identify and field locate utilities from I-94 to the Staging Area.

VI. Obtain copies of filed easements from I-94 to the Staging Area.

VII. Meet with or contact impacted utility owners and develop preliminary utility relocation plans or approaches for impacted utilities from I-94 to the Staging Area.

VIII. Develop preliminary utility relocation plans or approaches for impacted utilities in the 2nd Street/downtown Fargo area of the Red River Levees project.

IX. Develop an estimated schedule or time frame and cost for each utility.

Deliverables:

I. Preliminary Utility Relocation Plans (North, South, and Red River Levees).

II. Final Utility Relocation Plans (North).

B. UTILITY RELOCATION SERVICES FOR SPECIFIC UTILITY OWNERS (NORTH):

I. Work with impacted utility owners to develop utility relocation documents for impacted utilities.

II. Provide performance specifications for utilities to be relocated by utility owners.

III. Assist with negotiations of relocation agreements with the utility owners.

C. RELOCATION DESIGN:

I. Develop utility relocation design documents (technical specifications and drawings) for utilities to be relocated under contract to the Diversion Authority.

1. WP-43 (OHB Ring Levee) – Construction of the OHB Ring Levee requires relocation of existing utilities that cross the levee. Provide relocation design documents for two (2) City of Fargo sanitary sewer force mains. Include design documents in WP-43D (Road Raises and Interior drainage) design package and include in ATR submittal to USACE.

Deliverables:

I. Utility relocation design documents.

D. RELOCATION SUPPORT SERVICES (NORTH):

I. If requested by Owner or PMC, review relocation documents prepared by utility companies.

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Subtask	Start Time	Completion Time
NORTH		
Utility Relocation Plan	06/14/12	08/31/12
Utility Relocation Services for Specific Utility Owners	06/14/12	9/30/154
Relocation Design	07/02/12	9/30/154
Relocation Support Services	07/16/12	9/30/154
SOUTH		
Utility Relocation Plan[1]	02/14/13	9/30/154
RED RIVER LEVEES		
2nd Street/Downtown Area Utility Relocation Plan	04/24/13	96/30/154

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

I. Compensation for services identified under Subtasks A through D shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

II. The total compensation for services identified under the Task Order, for Subtasks A through D is not-to-exceed amount as defined in the table below.

III. Estimated budget for Subtask C, Relocation Design, is based on an allowance.

1. Engineer will notify Owner when eighty percent (80%) of the budget on Subtask C, Relocation Design, is expended.

2. Engineer will prepare and submit an amendment for additional compensation when ninety percent (90%) of budget on Subtask C, Relocation Design, is expended.

3. Engineer will not perform work beyond one hundred percent (100%) of the budget for Subtask C, Relocation Design, without Owner's authorization by an amendment to this Task Order.

[1] Schedule is subject to Diversion Authority obtaining rights of entry.

Subtask	Current Budget ($)	Change ($)	Revised Budget ($)
NORTH			
A. Utility Relocation Plan	37,000	0	37,000
B. Utility Relocation Services for Specific Utility Owners	22,000	0	22,000
C. Relocation Design (Allowance)	30,000	0	30,000
D. Relocation Support Services	5,000	0	5,000
SOUTH			
Utility Relocation Plan	194,0000	0	194,000
RED RIVER LEVEES			
A. Utility Relocation Plan	50,000	0	50,000
TOTAL	**338,000**	**0**	**338,000**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants: None
7. Other Modifications to Agreement: None
8. Attachments: None
9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is June 14, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
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This is Task Order No. 11, Amendment ~~21~~, consisting of 8 pages.

Task Order No. 11, Amendment ~~21~~

In accordance with Paragraph 1.01 of the Agreement between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 11 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data
    A. Title: Design of Work Package 11 (Reach 6 and CR-20 Bridge)
    B. Description: As part of the Owner's Lands, Easements, Rights of Way, Relocations, and Disposal (LERRDs) work, design and prepare contract documents for the construction of Reach 6 and the new County Road 20 (CR-20) bridge, grade changes, local drainage facilities and structures, and 2700 feet of diversion channel, and coordination with the BNSF Prosper Railroad Bridge to be designed by others.
    C. Background: The draft Red River Diversion Master Transportation Plan provides for one (1) bridge perpendicular to the diversion channel, CR-20 in Reach 6. Approach roadways will need to be reconstructed to accommodate the raised elevation of the new structure and provide appropriate approach roadway grades and cross section. This road is an aggregate surfaced road, serving farm to market and rural residential needs. United States Army Corps of Engineers (USACE) will provide some design criteria for the bridge, including length, channel geometry, pier configuration, and clearance line elevation. USACE will provide diversion channel design criteria. USACE has contracted with BNFS Railway Company (BNFS) to design the BNSF Prosper Railroad Bridge.
2. Services of Engineer
    A. General
        i. Design of Work Package 11 Contract Documents: Prepare contract documents (Plans and Specifications) for the construction of Reach 6 and the new CR-20 bridge, associated roads, local drainage facilities, and diversion channel. Design items include, but are not limited to:
            1. CR-20 bridge, approximately 520 feet long and per Cass County roadway bridge design requirements and USACE design criteria.
            2. 2700 feet of diversion channel per USACE design requirements.
            3. Include a list and forms of permits required for construction of these facilities.
        ii. Coordination with design of the BNSF Prosper Railroad Bridge.
        iii. Roadway and bridge design services will be prepared in accordance with applicable Cass County Standards, NDDOT Design Manual, NDDOT Cadd Standards, and AASHTO bridge and roadway design specifications, modified as required for this project. Plan drawings

will be generated using MicroStation V8i. Survey will follow USACE standards and will be translated to Cass County standards under a future Task Order.

B. Scope of Work

100 Project Management and Coordination

101 Project Schedule.

Develop and maintain a project schedule. The schedule will include the establishment of milestone dates for the major work items. Review and adjust the schedule as necessary to incorporate changes in the work concept and progress to date.

102 Progress Reports (Monthly).

Provide written progress reports describing the work performed on each task. Provide progress reports concurrently with the monthly invoice.

103 Bridge Design Team Meetings.

Participate in weekly team meetings (conference calls) to discuss design progress, technical issues, and other topics developed as the project progresses.

104 Coordination Meetings.

Participate in coordination meetings with the PMC, USACE, BNSF Railway, contractors or other organizations relevant to the project.

200 Field Survey

201 Survey Criteria and Standards Development.

Use project survey criteria and standards to meet deliverable requirements of the project stakeholders including the NDDOT, Cass County, and USACE.

202 Landowner Notification.

Notify landowners prior to accessing property to conduct the field survey in accordance with Right-of-Entry agreements. Coordinate access with PMC and Owner.

203 Field Survey.

Collect survey data in accordance with the criteria developed in Task 201. Field survey will include establishing control, collecting topographic data of the existing ground and roadways, utilities, drainage features, and existing right of way.

204 Compile Data and Generate Base Map.

Download the survey data collected and generate a base map for development of project plan drawings.

205 Geotechnical Location Survey.

Stake the location of the planned soil borings and record the coordinates and elevation of the borings for inclusion in the geotechnical report and the project plans.

206 Pickup Survey.

After the final bridge alignment and elevation has been established, collect additional data from the site if needed.

207 Survey Control Report.

Develop a report documenting the survey control established for the bridge site and the standards used.

300 Roadway Design

301 Preliminary Roadway Design.

Perform preliminary roadway design functions and prepare preliminary roadway plans for review Cass County and the PMC. The preliminary design will include the following:

- Traffic Operations
- Preliminary alignment and profile
- Settlement countermeasure concepts
- Existing and proposed typical sections
- Establish subgrade criteria
- Preliminary pavement/section design
- Roadway design report

302 Final Roadway Design and Plan Preparation.

Develop the final roadway design and final plans and conduct a Plans, Specifications and Estimate (PS&E) review meeting with Cass County, the local sponsors, and other interested parties and agencies. Preparation of final roadway plans will consist of the following:

- Final alignment and grade
- Final typical section
- Traffic control/construction staging
- Utility relocations
- Drainage design
- Signing and pavement marking
- Guardrail design and plans
- Settlement countermeasures
- Roadway plan drawings
- Roadway plan notes and special provisions

Assemble and distribute plans for review.

Attend a PS&E Review Meeting and provide written response to comments.

400 Preliminary Bridge Design

401 Develop Design Criteria.

Develop a Bridge Design Criteria Document detailing the governing design and construction specifications, the hydraulic and geometric criteria used to determine the bridge length and elevation, material strengths and properties, and specific design methodologies to be used for the major components of the bridge. Deliver the Bridge Design Criteria Document to the PMC for distribution to project stakeholders for review. Incorporate comments and produce a final document.

402 Bridge Length Determination.

Determine the final bridge length in accordance with the design criteria established for the bridge.

403 Superstructure Design.

Perform preliminary design calculations to establish the preliminary designs for the girders, bridge deck, and traffic barriers. Per evaluations in previous task orders, base design on prestressed concrete I-girders.

404 Substructure Design.

Perform preliminary design calculations to establish the preliminary designs for the piers and abutments. Per evaluations in previous task orders, base design on driven.

405 Evaluate Use of Alternate Designs.

Not used.

406 Bridge Aesthetic Design Concepts.

Incorporate bridge aesthetic concepts and features developed in Task Order No. 3.

407 Type, Size & Location Inspection (TS&L).

Conduct a TS&L Inspection with the bridge owners and other interested parties to confirm the site conditions and the suitability of the bridge concept. Complete and distribute TS&L report following the meeting.

408 Bridge Preliminary Design Report.

Prepare a Bridge Preliminary Design Report to document the conceptual designs studied, the structure site data, hydraulic and geotechnical criteria used as a basis for the design, a discussion of the span optimization process used, and a recommendation for bridge substructure and superstructure, along with a recommendation regarding the use of alternate designs.

410 Channel Preliminary Design.

Prepare a draft Preliminary Design Report (PDR) on the Diversion Channel design for 2,700 feet of channel, consistent with USACE Design Criteria and Engineer's analysis of specific project requirements. The PDR will be submitted to USACE for review. Respond to USACE and Owner comments and issue a final PDR.

500 Final Bridge Design Calculations

501 Design Kickoff Meeting.

Participate in a design kickoff meeting with the bridge owner and other interested parties to discuss the final design criteria, the submittal schedule, and agency review requirements.

502 Foundation/Substructure Design.

The substructure design will be either driven piles. The following elements are included in the substructure design:

- Finalize geotechnical criteria
- Foundation design
- Pier column and cap design
- Abutment design
- Bearing design
- Scour countermeasures

503 Superstructure Design.

The superstructure design is based on designing prestressed concrete I-girders as the structural system. The following elements are included in the superstructure design:

- Deck design
- Girder design
- Camber and deflection calculations
- Pier and abutment diaphragms
- Traffic barriers
- Drainage system
- Expansion joints
- Utility supports (if applicable)

510 Final Channel Design.

Based on the final PDR, prepare final design drawings and specifications of the Diversion Channel, including a 90% cost estimate. Submit design to Owner and USACE for review. Respond to Owner and USACE comments and issue 90% design.

600 Bridge Plan Preparation

601 30% Plan Submittal.

- Bridge Layout
- Construction Staging
- Preliminary Foundation/Substructure
- Preliminary Superstructure
- Miscellaneous Sheets (Soil borings, framing plan, etc.)

Assemble and distribute plans.

Attend review meeting and provide written response to comments.

602 90% Plans.

- Bridge layout
- Construction staging
- Foundation/substructure
- Superstructure
- Miscellaneous sheets
- Aesthetic details
- Details
- Plan notes
- Quantity calculations
- Special Provisions

Assemble and distribute plans.

Attend PS&E Review Meeting and provide written response to comments.

610 Channel Plan Preparation.

Prepare plans and specifications for inclusion in construction documents.

700 Quality Assurance/Quality Control

701 Internal Design Review (IDR).

This review will consist of internal quality control checks and quality assurance reviews of the design calculations and the 30%, 90%, and final plan submittals.

702 Discipline Design Review (DDR).

This review will consist of cross review of the bridge plans, roadway plans, diversion channel plans, and the geotechnical report by the various disciplines involved in the project.

703 Rotational Team Review (RTR).

The design calculations and bridge plans for each bridge will be reviewed by designers from a team other than the team that designed the bridge to ensure consistency in design approach and compliance with NDDOT and Cass County standards across the overall team.

Deliverables

1. Project Schedule with milestone dates for key activities and monthly updates
2. Monthly Progress Reports
3. Survey Control Report
4. Roadway Design Report
5. Preliminary Bridge Design Report
6. Final Roadway Plans
7. Channel Preliminary Design Report
8. 90% Channel Design
9. Final Channel Plan Submittal
10. 30% Bridge Plan Submittal
11. 90% Bridge Plan Submittal
12. Final Bridge Plan Submittal
13. 30% cost estimate
14. 90% cost estimate
15. Contract Documents (final plans and specifications)

Work not included in this Scope of Services

1. Environmental documentation and permitting
2. Utility Relocation Agreements
3. ROW Acquisition including Appraisals, Title Searches, Title Opinions, Deeds
4. Bid documents and bidding services

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3. Owner's Responsibilities

   Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Phase	Start Time	Completion Time
Design of Work Package 11 (Reach 6 and CR-20 Bridge) Contract Documents (100 % Plans and Specifications)	October 1, 2012	~~June 30, 2014~~March 31, 2015

5. Payments to Engineer

   A. Owner shall pay Engineer for services rendered as follows:

      i. Compensation for services identified under Subtasks 100 through 700 shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

ii. The total compensation for services identified under the Task Order, for Subtasks 100 through 700 is not-to-exceed $771,000 as defined in the table below.

Subtask		Assumed Distribution ($)
100	Project Management and Coordination	34,000
200	Field Survey	15,000
300	Roadway Design	140,000
400-409	Preliminary Bridge Design	82,000
410	Preliminary Channel Design	58,000
500-509	Final Bridge Design Calculations	101,000
510	Final Channel Design	34,000
600-609	Bridge Plan Preparation	150,000
610	Channel Plan Preparation	45,000
700	Quality Assurance/Quality Control	112,000
TOTAL		**771,000**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants:

C. Barr Engineering Company
D. Braun Intertec Corporation
E. HDR, Inc.
F. Kadrmas, Lee & Jackson
G. Northern Technologies, Inc.
H. SRF Consulting Group, Inc.

7. Other Modifications to Agreement: None

8. Attachments: None

9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is September 13, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
(701) 237-5065 Phone	(701) 241-5720 Phone
Fax	(701) 297-6020 Fax

This is Task Order No. 13, Amendment ~~65~~, consisting of 16 pages.

Task Order No. 13, Amendment ~~5~~6

In accordance with Paragraph 1.01 of the Agreement between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 13 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data
    A. Title: Levee Design and Design Support
    B. Description: As part of Work-in-Kind (WIK), provide assistance to USACE, in design and design support activities, for design of levees along the Red River to support increased flow through the protected area and for levees in the upstream staging area. Provide Lands, Easements, Rights-of-Way, Relocations, and Disposal areas (LERRDs) assistance to Owner to support the levee designs.
    C. Background:
        i. Red River Levees: At the November 8, 2012 Diversion Board meeting, the Board requested the US Army Corps of Engineers (USACE) add levees along the Red River to allow increased flow through the protected area. This task order allows HMG to provide design and design support to USACE for these Red River levees.
            1. Phase 1 – Screening of alternatives and selecting final alignment scope to include: Development of Alternatives, Public Involvement, Surveying, Geotechnical Exploration and Testing, Preliminary Geotechnical Analysis, Preliminary Hydrologic and Hydraulic Analysis, Preliminary Internal Flood Control Analysis, Preliminary Utility Investigation, Preliminary Levee and Structural Design, Transportation Evaluation, Preliminary Environmental Studies, Preliminary Report and Drawings, and Project Management.
            2. Phase 2 – Detailed Plans and Specifications: Based on the alternative selected in Phase 1, conduct a Value Engineering (VE) evaluation of the proposed project and prepare plans and specifications for 65 and 95 percent submittals, and prepare a cost estimate based on the 95 percent design submittal. Notice To Proceed (NTP) will be subject to the completion and signing of the USACE Supplemental Environmental Assessment (EA).
        ii. Upstream Staging Area Levees/Ring Dikes: At the November 8, 2012 Diversion Board meeting, the Board passed AWD-00020 Recommended Board of Authority Position for Post-Feasibility Alternatives Analysis VE-13A vs. VE-13C, which authorized HMG to begin conceptual design and site investigations of potential levees for the Oxbow.
2. Services of Engineer
    A. General
        i. Red River Levees. Prepare Preliminary Design Report (PDR) and drawings for the construction of levees through town. The work will be done in 2 phases: Phase 1 will

include screening of alternatives, preliminary design, and selecting final alignments. Phase 2 will include detailed plans and specifications.

ii. Support for Upstream Stage Area Levees. Provide, as requested, assistance to USACE for design of ring levees and non-structural improvements in the Upstream Staging Area.

1. Provide detailed designs for four of the Oxbow/Hickson/Bakke ring levee Work Packages (WP-43A, WP-43C, WP-43D, and WP-43E).

B. Scope of Work

i. Red River Levees – Work will be done in 2 phases:

1. Phase 1 - Screening of Alternatives, Selection of Alignment, and Preliminary Design for the area in Fargo, ND along the Red River between the existing railroad embankment near 5th Avenue North and the north end of the existing 4th Street levee (near 2nd Street South). Work will include:

a. Development of Alternatives – Develop up to three (3) protection alignment concepts and conceptual level cost estimates. Participate in an alignment selection meeting.

b. Public involvement – Meet with affected property owners (5 anticipated), participate in two (2) public meetings, and respond to calls after public meetings. Prepare visualizations of alignment alternatives(s).

c. Surveying – Conduct topographic survey of project corridor including elevations, utilities, landscaping, buildings, and streets.

d. Geotechnical Exploration and Testing – Determine location of borings, right-of-entry requests, conduct borings, field and laboratory testing, to determine surface and subsurface geological conditions.

e. Preliminary Geotechnical Analysis – Conduct preliminary stability analysis on alignment alternatives and report of findings.

f. Preliminary Hydrologic and Hydraulic Analysis - Conduct HEC-RAS modeling to complete preliminary evaluation of Red River stage impacts due to proposed project.

g. Preliminary Internal Flood Control Analysis – Conduct SWMM model update for existing conditions and proposed conditions with project (including consideration of interior ponding), review of historical precipitation and stream flow, simulation of low river gravity outlet condition, simulation of high river pumped outlet condition, and determine preliminary pump sizing and additional internal storage needs.

h. Preliminary Utility Investigation – Determine preliminary utility relocation requirements, conduct utility coordination meeting, and document utility relocation requirements and issues.

i. Preliminary Levee Design Structural Design – Develop preliminary design of levee protection system, preliminary estimate of embankment and borrow requirements, and prepare a narrative of design criteria.

j. Preliminary Structural Design – Develop preliminary design for proposed floodwalls and closures, pump stations, and miscellaneous drainage structures. Prepare a narrative with descriptions of features, design considerations, and criteria assumptions.

k. Transportation Evaluation – Develop initial evaluation of transportation impacts, and participate in two (2) coordination meetings with City of Fargo staff and two (2) coordination meetings with railroad staff. Develop up to five (5) alternatives for the 2nd Street road alignment to accommodate flood protection alternatives.

l. Preliminary Environmental Studies – Complete Phase 1 Environmental Site Assessment report for six (6) properties.

m. Preliminary Design Report and Drawings – Prepare Preliminary Design Report (PDR) with cost estimates and preliminary project plans for selected alignment. Prepare artists renderings of selected plan.

n. Project Management – Document coordination and review, schedule and resource management, budgeting, and project team coordination.

o. Landscape Architecture/Master Planning- Provide landscape architecture and master planning services for the Red River Levees.

    i. Provide landscape architecture services for the 2nd St. Corridor from NP Ave. to 4th Ave. Coordinate with the city of Fargo City Hall Project throughout the design phase of the City Hall Project.

    ii. Provide master planning services from Mickelson to the 4th St. Levee.

2. Phase 2 – Detailed Plans and Specifications: Complete detailed project engineering and design and provide plans and technical specifications (Division 2 and higher) for the selected alternative from Phase 1. Include required surveying, environmental studies, permitting, removals and demolition, geotechnical and hydraulic analyses, internal flood control and pumping, levee systems, floodwalls, closures, traffic evaluations, road realignments and signal changes, public and private utility relocations, landscaping, drawings and specifications, internal QA/QC, design documentation, operation and maintenance plan, and project management and coordination. Major milestone deliverables include:

    a. 65 Percent Design Submittal – evaluate and incorporate accepted VE proposals into the design documents, advance the detailed design to 65 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, USACE Consistency, Agency Technical Review (ATR) and USACE Independent External Peer Review (IEPR) review teams.

    b. 95 Percent Design Submittal – evaluate and incorporate 65 percent review comments into the design documents, advance the detailed design to 95 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, and USACE Consistency and ATR review teams.

    c. Cost Estimate – prepare a cost estimate for the project based on the 95 percent submittal documents.

d. Operation and Maintenance Plan – prepare draft O&M Plan for review by the Diversion Authority, PMC, and USACE. Incorporate review comments and prepare final O&M Plan.

e. Bid Document Development – incorporate 95 percent review comments into the design documents and assist the PMC with development of bid documents.

f. Additional design work to accommodate requested project changes:

i. Increase 2nd Street N pump station size and pumping capacity to 75,000 gpm and add formed pump suction inlets.

ii. Coordinate electrical design for connection to new back-up power generator on New City Hall site.

iii. Add forty feet of floodwall to the pump station construction package.

iv. Use USACE specifications in lieu of City of Fargo Specifications for the pump station.

v. Coordinate pump station and floodwall architectural and design and aesthetics with the New City Hall project.

vi. Provide Computational Fluid Dynamics (CFD) modeling for the pump station wetwell and pump inlet design.

~~i.~~

3. Value Engineering Study (VES)

a. Facilitate a VES in accordance with USACE guidelines (up to 3 days) with staff from the Diversion Authority, Program Management Consultant (PMC), and USACE. Prepare and distribute materials and documents, facilitate the workshop, and prepare a VES report.

4. 4th Street Levee Pump Station Replacement

a. Background: At the November 8, 2012 Diversion Board meeting, the Board requested the USACE add levees long the Red River to allow increased flow through the protected area. To allow 35 feet through town, the 4th Street levee requires certification. In order to meet certification criteria, the stormwater pump stations on the north end of the levee must be replaced.

b. Detailed Plans and Specifications: Provide design services and prepare detailed plans as described below.

i. Complete detailed project engineering and design and provide plans and technical specifications (Division 2 and higher) for the 4th Street Levee Pump Station. Include required surveying, Section 408 permit (if required), removals and demolition, geotechnical and hydraulic analyses, internal flood control and pumping, levee systems, closures, traffic evaluations, service road realignments, public and private utility relocations, landscaping, drawings and specifications, internal QA/QC, design documentation, operation and maintenance plan, and project management and coordination. Major milestone deliverables include:

1. 35 Percent Design Submittal – prepare preliminary design submittal and submit the design report and preliminary plans for review by the Owner, PMC, and USACE Consistency and ATR review teams.
2. 95 Percent Design Submittal – evaluate and incorporate 35 percent review comments into the design documents, advance the detailed design to 95 percent and submit the design report, plans and specifications for review by the Owner, PMC, and USACE Consistency and ATR review teams.
3. Pre-Purchase Specifications - prepare up to 3 pre-purchase specifications, if requested, for:
    a. Gates
    b. Pumps
    c. Electrical Panels
4. Cost Estimate – prepare a cost estimate for the project based on the 35 percent and 95 percent submittal documents.
5. Operation and Maintenance Plan – prepare draft O&M Plan for review by the Owner, PMC, and USACE. Incorporate review comments and prepare final O&M Plan.
6. Bid Document Development – incorporate 95 percent review comments into the design documents and assist the PMC with development of bid documents.

c. Additional design work to accommodate requested project changes:

i. Increase capacity of the back-up power generator to accommodate power for adjacent sanitary sewer lift station.

ii. Modify the pump station and generator building design including: addition/modification of transoms and lintels, lower pump station slab, deletion of fuel storage, addition of louvers, removal of windows and parapets, and modification of brick veneer.

~~c.~~d. Deliverables:

i. Detailed Plans and Specifications
    1. 35 Percent Design Submittal
    2. 95 Percent Design Submittal

ii. Pre-Purchase Specifications
iii. 35 Percent Cost Estimate
iv. 95 Percent Cost Estimate
v. Operation and Maintenance Plan
    1. Draft Plan
    2. Final Plan

~~d.~~e. Work not included in this Scope of Services:

i. Environmental permitting
ii. Utility Relocation Agreements
iii. ROW Acquisition including Appraisals, Title Searches, Title Opinions, Deeds
iv. Bid documents and bidding services

ii. Upstream Staging Area Ring Levees:

1. Provide support as defined below and as requested in writing. Types of requests may include:

a. Respond to information requests by affected residences and develop information for presentations or public meetings.

b. Conduct a geotechnical site visit(s) of the levee site(s) to observe surface features and, if requested, conduct subsurface investigations.

c. Determine existing utilities and utility relocation requirements.

d. Begin conceptual design of the levees and/or floodwalls and floodgates, interior layout (which may include street layout, storm water sewer, storage, and lift station sizing, house relocation planning, and golf course layout), and external infrastructure (road raises for egress).

2. Oxbow/Hickson/Bakke – Ring Levee Evaluation:

a. Prepare a proposed ring levee system to reduce flood risk to Oxbow/Hickson/Bakke, ND during operation of the Diversion Project and staging of water. Show the location of a potential ring levee, develop height required for rink levee, and evaluate access during periods of Diversion operation.

b. The ring levee will impact the golf course and clubhouse. Provide conceptual design services for re-design of the golf course and clubhouse.

i. Provide an updated conceptual design of golf course and clubhouse based on update levee alignment to accommodate a total of 80 replacement residential lots.

c. Initial Survey and Geotechnical Activities for Levee Design:

i. Work with USACE to develop a geotechnical investigation plan for the alternative Levee alignments for approval.

ii. Stake the location of approved borings and record the coordinates and elevations of the borings.

iii. Conduct laboratory testing on boring samples provide by the USACE for the OHB ring levee alternative alignments and Wild Rice River mirco-siting evaluation. Laboratory testing to include the following: Atterburg Limits, Water Content, Hydrometer and Sieve analysis, Proctor Density, Triaxial Compression-unconsolidated/undrained, Triaxial Compression-consolidated/undrained, Torsional Ring Shear, Consolidation Reporting P-e, and TWT Extrusion and Description. Approximately 580 laboratory tests are planned.

iv. Obtain and comply with right of entry (ROE) and right of way (ROE) requirements for each property entered.

The construction of the Oxbow/Hickson/Bakke (O/H/B) ring levee and associated work is phased. The work has been divided into five (5) Work Packages, which include: three (3) levee design packages, an interior drainage and road raise package, and a demolition and utility relocations package. One of the levee design packages (WP-43B) will be completed by the USACE. The remaining 4 design packages (WP-43A, WP-43C, WP-43D and WP-43E) will be completed in this scope of work. See Figure 1, attached.

Assumptions for WP-43A, WP-43C, WP-43D and WP-43E include:

- No additional surveys required (included in WP- 43B).
- Soil exploration, laboratory testing, and instrumentation costs included under WP-43B. Geotechnical design of the levee is required. Groundwater evaluation is required to determine impacts to existing septic systems, sewer systems and basements.
- No staging area water hydrologic and hydraulic (H&H) modeling required (included in WP- 43B). H&H for local drainage and interior drainage is required.
- Include design of levee, vegetation free zone, and ditching (input from WP-43B and WP-43D). CR-81 road raise will be in WP-43D. Retention basin/pump station design will be in WP-43D. Utility relocation design and demolition design will be in WP-43E.
- Coordination between designers for WP-43B, WP-43C, WP-43D, and WP-43E is required, along with review of design submittals from WP-43B.
- Develop design, plans, ROW drawings, technical specs, Design Documentation Report (DDR), cost estimate, and engineering considerations.
- Preliminary Engineering Report (PER) -35% review includes internal review, Sponsor review, and USACE Consistency and ATR review.
- Draft Technical Report (DTR) -65% review includes internal review, Sponsor review, USACE Consistency, ATR, and USACE IEPR. IEPR will be accomplished by the Natural Resources Conservation Service (NRCS)
- Final Technical Report (FTR) -95% review includes internal review, Sponsor review, and USACE ATR.
- Final Technical Certification (Bid Documents). Provide final documents for closeout of remaining comments and technical signoff. There will not be a review associated with this submittal.
- Bid set will include final Plans and Specifications.
- Assume limited work effort during the bid period consisting of: responding to bidders' questions and preparing amendments.
- Provide final contract award CD of all work items.
- Weekly coordination meetings will be held and will include: tech lead, geotech, cost/specs, and H&H designers. Assume the meetings for

WP-43A and WP-43C, WP-43D, and WP-43E will be combined into one weekly meeting.

- Provide right of way drawings for the WP-43B portion of the levee.

d. WP-43A – Levee Section from Riverbend Road to CR81 (southeast): Design approximately 7,300 lineal feet (lf) of levee, interior buffer zone, and interior drainage swale (if required – based on interior drainage developed in WP-43D), including geotechnical design, civil design, permitting, cost estimates, and preparation of drawings and technical specifications; coordinate design of interior levee buffer zone (drainage swale, snow drop area, and tree screen) and recreational features with O/H/B community and developer/golf course designer; determine affect of levee and exterior impounded water on existing septic systems, sewer systems, and basements. Coordinate with design of Retention Basin (WP-43D). Coordinate with design of road raise of CR-81 (design WP-43D). To be constructed with interior drainage stormwater pump station (WP-43D).

   i. Deliverables:

      1. 35 Percent Design Submittal – prepare preliminary design submittal and submit the design report and preliminary plans for review by the Diversion Authority, PMC, and USACE Consistency and ATR review teams.

      2. 65 Percent Design Submittal – evaluate and incorporate accepted VE proposals into the design documents, advance the detailed design to 65 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, and USACE Consistency, ATR & IEPR review teams.

      3. 95 Percent Design Submittal – evaluate and incorporate 65 percent review comments into the design documents, advance the detailed design to 95 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, and USACE Consistency, ATR & IEPR review teams.

      4. Cost Estimate – prepare cost estimates for the project based on the 35 percent and 95 percent submittal documents.

      5. Bid Document Development – incorporate 95 percent review comments into the design documents and assist the PMC with development of bid documents.

e. WP-43C - Levee Section from CR-81 (northeast) to Riverbend Road: Design approximately 5,000 lf of levee, including geotechnical design, civil design, permitting, cost estimates, and preparation of drawings and technical specifications; coordinate design of interior levee drainage with interior drainage design as part of WP-43D; coordinate

design of interior levee slope and recreational features with O/H/B community and golf course designer. Removal/demolition of existing structures and utility cut, cap and removal will be designed under WP-43E.

i. Deliverables:

1. 35 Percent Design Submittal – prepare preliminary design submittal and submit the design report and preliminary plans for review by the Diversion Authority, PMC, and USACE Consistency and ATR review teams.

2. 65 Percent Design Submittal – evaluate and incorporate accepted VE proposals into the design documents, advance the detailed design to 65 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, and USACE Consistency, ATR and IEPR review teams.

3. 95 Percent Design Submittal – evaluate and incorporate 65 percent review comments into the design documents, advance the detailed design to 95 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, and USACE Consistency and ATR review teams.

4. Cost Estimate – prepare cost estimates for the project based on the 35 percent and 95 percent submittal documents.

5. Bid Document Development – incorporate 95 percent review comments into the design documents and assist the PMC with development of bid documents.

f. WP-43D –Interior Drainage and CR-81 Road Raises: Design interior drainage system for the O/H/B communities, including both new drainage infrastructure and required rehabilitation or upgrades to existing drainage infrastructure; design stormwater retention pond and new stormwater pump station, including surveying, H&H to determine ditch cross sections and slopes, culvert sizes and slopes, geotechnical, structural, electrical, architectural, civil, permitting, cost estimates, and preparation of drawings and technical specifications. Design road raises of CR-81, including geotechnical, geology, civil, cost estimates, and preparation of drawings and technical specifications, coordinate with levee design teams.

i. Deliverables:

1. 35 Percent Design Submittal – prepare preliminary design submittal and submit the design report and preliminary plans for review by the Diversion Authority, PMC, and USACE Consistency and ATR review teams.

2. 65 Percent Design Submittal – evaluate and incorporate accepted VE proposals into the design documents, advance the detailed design to 65 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, and USACE Consistency, ATR and IEPR review teams.

3. 95 Percent Design Submittal – evaluate and incorporate 65 percent review comments into the design documents, advance the detailed design to 95 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, and USACE Consistency and ATR review teams.

4. Cost Estimate – prepare cost estimates for the project based on the 35 percent and 95 percent submittal documents.

5. Operation and Maintenance Plan – prepare draft O&M Plan for review by Diversion Authority, PMC, and USACE. Incorporate review comments and prepare final O&M Plan.

6. Bid Document Development – incorporate 95 percent review comments into the design documents and assist the PMC with development of bid documents.

7. Provide a separate bid package for the pump station and gatewell pre-consolidation construction package.

~~6.~~8. Provide an above ground building for the stormwater pump station.

g. WP-43E – Demolition and Utility Relocations: Develop demolition plan for WP-43C Levee area (CR-81 (northeast) to Riverbend Road, including utility identification, identification of structures to be sold or demolished in place, environmental Phase 1, permitting, and required remediation. Design utilities to be cut, capped, and removed, and utilities to be relocated (coordinate with developer of new City of Oxbow infrastructure), including cost estimates, and drawings and technical specifications. Review adequacy of existing wastewater pump station and forcemain for the 38 additional residential units.

i. Deliverables:

1. 35 Percent Design Submittal – prepare preliminary design submittal and submit the design report and

preliminary plans for review by the Diversion Authority, PMC, and USACE Consistency and ATR review teams.

2. 65 Percent Design Submittal – evaluate and incorporate accepted VE proposals into the design documents, advance the detailed design to 65 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, and USACE Consistency, ATR and IEPR review teams.
3. 95 Percent Design Submittal – evaluate and incorporate 65 percent review comments into the design documents, advance the detailed design to 95 percent and submit the design report, plans and specifications for review by the Diversion Authority, PMC, and USACE Consistency and ATR review teams.
4. Cost Estimate – prepare cost estimates for the project based on the 35 percent and 95 percent submittal documents.
5. Bid Document Development – incorporate 95 percent review comments into the design documents and assist the PMC with development of bid documents.

h. VES or Value Based Design Charrette (VBDC) – facilitate a VES or VBDC in accordance with USACE guidelines (up to 3 days) with staff from the Diversion Authority, PMC, and USACE. Prepare and distribute materials and documents, facilitate the workshop, and prepare a VES report.

i. Coordinate and lead VES or VBDC of the five (5) O/H/B levee design packages (WP-43A through WP-43E).

3. Comstock – Ring Levee Evaluation:

a. Prepare a proposed ring levee system to reduce flood risk to Comstock, MN during operation of the Diversion Project and staging of water. Show the location of a potential ring levee, develop height required for rink levee, and evaluate access during periods of Diversion operation.

4. Christine – Ring Levee Evaluation:

a. Prepare a proposed ring levee system to reduce flood risk to Christine, ND during operation of the Diversion Project and staging of water. Show the location of a potential ring levee, develop height required for rink levee, and evaluate access during periods of Diversion operation.

5. Wolverton – Ring Levee Evaluation:

a. Prepare a proposed ring levee system to reduce flood risk to Wolverton, MN during operation of the Diversion Project and staging of water. Show the location of a potential ring levee, develop height

required for rink levee, and evaluate access during periods of Diversion operation.

6. Staging Area – Non-Structural Improvement Evaluation:
    a. Identify individual residential properties within the staging area and evaluate the potential benefit from non-structural improvements to reduce flood risk to residential structures during operation of the Diversion Project and staging of water. Show the location of potential improvements and evaluate access during periods of Diversion operation.
        i. Provide mapping of residential structures and farmsteads impacted by the Staging Area for the 100-year event, and include estimated depth of impact for the structures with and without the project.
        ii. Where technically feasible, provide concept for non-structural improvements and estimate cost of improvements.
        iii. Develop database of impacted properties that includes relevant project information (such as depth of impact with and without project, etc.)
        iv. Assist in preparation, provide meeting materials, and attend one-on-one meetings with impacted landowners.
7. Assist with preparation of materials for public meetings.

iii. Provide land surveying services for In Town Levee and OHB Ring Levee projects. The surveying is required to create Right of Way descriptions and certificates of survey for 34 partial takes for the OHB Ring Levee and 17 certificates for the In Town Levee project.

~~iii.~~iv. Deliverables

1. Red River Levees – Phase 1
    a. Project Schedule with milestone dates for key activities and monthly updates
    b. Monthly Progress Reports and meeting minutes
    c. Alignment selection TM
    d. Geotechnical TM, including:
        - Geotechnical field and laboratory findings
        - Geotechnical stability analysis
        - Survey data
        - Geotechnical field logs
    e. Hydrologic and Hydraulic analysis TM
    f. Transportation TM
    g. Phase 1 Environmental Site Assessment reports
    h. Preliminary Design Report, including:
        - Preliminary pump sizing and storage needs
        - Utility relocation requirements and issues
        - Preliminary Levee design
        - Preliminary Structural design
        - Cost Estimate
        - Preliminary Drawings

i. Landscape concepts and plans for the 2nd St. Corridor from NP Ave. to 4th Ave.
j. Master Plan from Mickelson to 4th St. Levee.

2. Red River Levees - Phase 2

a. 65 Percent Design Submittal
b. 95 Percent Design Submittal
c. Cost Estimates
d. Operation and Maintenance Plan
    i. Draft Plan
    ii. Final Plan

3. Red River Levees – VES reports

4. Support for Upstream Staging Area Levees

a. Oxbow/Hickson/Bakke TM
b. WP-43A
    i. 35 Percent Design Submittal
    ii. 65 Percent Design Submittal
    iii. 95 Percent Design Submittal
    iv. Cost Estimates
c. WP-43C
    i. 35 Percent Design Submittal
    ii. 65 Percent Design Submittal
    iii. 95 Percent Design Submittal
    iv. Cost Estimates
d. WP-43D
    i. 35 Percent Design Submittal
    ii. 65 Percent Design Submittal
    iii. 95 Percent Design Submittal
    iv. Cost Estimates
    v. Operation and Maintenance Plan
        1. Draft Plan
        2. Final Plan
e. WP-43E
    i. 35 Percent Design Submittal
    ii. 65 Percent Design Submittal
    iii. 95 Percent Design Submittal
    iv. Cost Estimates
f. VES or VBDC reports
g. Comstock TM
h. Christine TM
i. Wolverton TM
j. Staging Area Non-Structural Improvements TM

~~iv.~~v. Work not included in this Scope of Services

1. Environmental permitting
2. Utility Relocation Agreements
3. ROW Acquisition including Appraisals, Title Searches, Title Opinions, Deeds
4. Bid documents and bidding services

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Subtask	Start Time	Completion Time
2.B.i Red River Levees – Phase 1	November 8, 2012	September 30, 2013
2.B.ii Upstream Staging Area Ring Levees	November 8, 2012	September 30, 2013
Amendment 1 all work	December 13, 2012	September 30, 2013
2.B.ii.2.d WP-43A Bid Documents	August 8, 2013	May 4, 2014
Amendment 2 other work	August 8, 2013	May 31, 2015
Amendment 3 all work	November 14, 2013	September 30, 2014
Amendment 4 all work	February 13, 2014	September 30, 2014
Amendment 5 all work	May 8, 2014	September 30, 2014
Amendment 6 all work	August 14, 2014	September 30, 2015

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

i. Compensation for services shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

ii. The total compensation for services identified under the Task Order for Subtasks 2.B.i through 2.B.ii is not-to-exceed amount as defined in the table below.

iii. Estimated budget for Subtask 2.B.ii, Upstream Staging Area Levees/Ring Dikes, is based on an allowance.

1. Engineer will notify Owner when eighty percent (80%) of the budget on Subtask 2.B.ii, Upstream Staging Area Levees/Ring Dikes, is expended.

2. Engineer will prepare and submit an amendment for additional compensation when ninety percent (90%) of budget on Subtask 2.B.ii, Upstream Staging Area Levees/Ring Dikes, is expended.

3. Engineer will not perform work beyond one hundred percent (100%) of the budget for Subtask 2.B.ii, Upstream Staging Area Levees/Ring Dikes, without Owner's authorization by an amendment to this Task Order.

Subtask	Current Budget ($)	Change ($)	Revised Budget ($)
2.B.i.1 Red River Levees – Phase 1 Design	490,000~~435,000~~	~~55,0000~~	490,000
2.B.i.1.o.i Landscape Architecture/Master Planning - 2nd St. Corridor from NP Ave. to 4th Ave.	35,000	0	35,000
2.B.i.1.o.ii Master Planning Services - Mickelson to the 4th St. Levee	100,000	0	100,000
2.B.i.2 Red River Levees – Phase 2 Design	2,000,000	~~0~~340,000	2,~~000~~340,000
2.B.i.3 Red River Levees – VES	30,000	0	30,000
2.B.i.4 4th Street Levee Pump Station Replacement	600,000	0	600,000

Subtask	Current Budget ($)	Change ($)	Revised Budget ($)
2.B.ii Upstream Staging Area Ring Levees (Allowance)	425,000	~~0~~15,000	~~425,000~~440,000
2.B.ii.2.d WP-43A Design	275,000	0	275,000
2.B.ii.2.e WP-43C Design	190,000	0	190,000
2.B.ii.2.f WP-43D Design	1,020,000	~~0~~142,000	1,~~020~~162,000
2.B.ii.2.g WP-43E Design	260,000	0	260,000
2.B.ii.2.h O/H/B Ring Levee – VES	30,000	0	30,000
2.B.iii Right of Way Surveying	0	52,000	52,000
TOTAL	**5,455,000~~5,400,000~~**	**~~55,0000~~549,000**	**~~5,455~~6,004,000**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants:

   a. Braun Intertec Corporation
   b. Northern Technologies, Inc.
   c. Robert Trent Jones II, LLC

7. Other Modifications to Agreement: None

8. Attachments: ~~Figure 1~~None

9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is November 8, 2012.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
(701) 237-5065 Phone	(701) 241-5720 Phone
Fax	(701) 297-6020 Fax

This is Task Order No. 14, Amendment ~~21~~, consisting of 6 pages.

Task Order No. 14, Amendment ~~1~~ 2

In accordance with Paragraph 1.01 of the Agreement between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 14 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data

   A. Title: TRANSPORTATION AND LOCAL DRAINAGE MASTER PLANS SOUTH

   B. Description:

      Transportation Master Plan South – Develop a Transportation Master Plan for the southern section (I-94 to the Staging Area) to accommodate required access and roadway transportation for local farm access; emergency service access; school bus routing; local traffic routing; construction equipment and haul routing; and Interstate highway car and truck traffic.

      Local Drainage Plan South – Determine the requirements for local drainage along the Diversion Channel and structures, embankments, and Staging Area draw down, and develop a plan to incorporate the requirements into the project.

      I-29 South Conceptual Design of Interchange – Develop a conceptual design of the south interchange of I-29 and the Diversion Channel.

   C. Background:

      Transportation Master Plan South – The southern portion of the Diversion Channel, Embankment, and Staging Area will cross or affect numerous townships, county, and state roads, disrupting established transportation routes.

      Local Drainage Plan South – Local drainage in the Red River Valley is important to farm and land owners. Local drainage is accomplished with surface and sub-surface field drains, legal county drains, and other features. The Diversion Project will impact many of these existing local drainage ways. If provisions for drainage are not properly accommodated, localized flooding, impacts to crop land and local residences will occur. It is important for the Diversion Project to incorporate plans for re-establishing and/or improving local drainage, as well as handling drainage during the period of construction activities. Identifying the requirements for draining the Staging Area after operation of the Diversion is critical.

      I-29 South Conceptual Design of Interchange – I-29 is a concrete surfaced divided highway with separate roadways carrying northbound and southbound traffic. County Road 16 is a paved 2 lane road running east/west of the I-29 bridges. VE 13-A resulted in relocating the Diversion Embankment to just south of CR 16, which will require relocation of the existing interchange. The new interchange and I-29 bridges must accommodate CR 16, the Embankment, and the Wild Rice River, as well as the Staging Area.

2. Services of Engineer

A. TRANSPORTATION MASTER PLAN SOUTH:

1) Develop a Transportation Master Plan consisting of planning level analysis and recommendations for accommodating the following specific transportation related issues.
   a. Determine reasonable, reliable, and safe roadways to residents and towns for emergency service vehicles including ambulance, fire protection, and Sheriff. Provide analysis of changes in emergency response time to various areas.
   b. Determine reasonable, reliable, and safe roadways for pick-up and drop-off of school children from each resident to the assigned schools.
   c. Determine local farm related transportation routes to accommodate the equipment used by local farming operations.
   d. Identify construction haul routes, including required upgrades to roads and bridges to load ratings, required to transport construction equipment.
   e. Determine road location modifications and specific bridge locations for roadways affected by the Diversion Channel or appurtenant structures. Include upgrade requirements for existing roads and bridges when required to implement the plan.
2) Some of the specific requirements of the plan include:
   a. Review local, state (North Dakota and Minnesota), and federal requirements; coordinate with, and obtain acceptance by these authorities when such approval is required; prepare feasibility level cost estimates for work required to implement the plan, include estimates for planning, design, and construction.
   b. Provide maps of plan suitable for use at public meetings.
   c. Provide input to PMC's Program Schedule.
3) The following five (5) layered approach will be for this master plan:
   a. Obtain average daily traffic counts produced by the North Dakota Department of Transportation and the Minnesota Department of Transportation to identify existing travel patterns and roadway utilization
   b. Research construction history to document current roadway conditions and estimate potential future infrastructure needs
   c. Meet with local school officials to establish existing school bus routes
   d. Meet with local emergency service providers to establish existing response routes
   e. Meet with local officials to establish existing truck haul routes and farm equipment transportation routes
4) Prepare a map for the layers of data collection and analysis. Determine the most essential roadways. Present this data for public and agency comments, responses, and discussion. Following agency and public comments, prepare a transportation master plan, including:
   a. Various maps highlighting the data collected and analyzed
   b. A prioritized list of bridge crossings
      i. Cost estimates for each bridge
   c. A functional classification map, establishing:
      i. Priority routes and roadway modification requirements
      ii. Truck haul and farm equipment transportation routes
   d. A roadway improvement strategy, based upon the functional classification map, proposed bridge crossing locations and existing roadway sections, with corresponding cost estimates

e. Vehicle miles travelled and vehicle hours travelled comparisons for daily commuters, emergency service vehicles and school bus drivers

Deliverables:

1) Transportation Master Plan
2) Maps

B. LOCAL DRAINAGE PLAN SOUTH:

Develop a local drainage plan for the Diversion Project from the Maple River to the Staging Area:

1) Develop geographical mapping of elevations along the eastern and western sides of the Diversion Channel, Embankment and Tie-back Levees, and Staging Area to an extent required to define drainage affected by construction and operation.
   a. Identify mapping extents, including areas necessary for drainage.
   b. Create/compile DEM of extents.
2) Identify the existing local drainage features along the proposed Diversion Channel, Embankment and Tie-back Levees, and Staging Area.
   a. Review feasibility report on outside drainage drop structures.
   b. Establish design event(s) and goals with Diversion Authority and USACE.
   c. Delineate local drainage areas including surface and subsurface drainage features.
   d. Use HEC-RAS models to determine areas impacted by floodwater transfer between sub-watersheds.
   e. Identify upstream structures along individual drainage paths.
   f. Identify areas in which design event within Diversion is above existing ground.
   g. Determine coincident diversion flow/elevation for outside peak for tailwater rating curve.
3) Identify plans for connecting existing local drainage into the Diversion Channel where appropriate. The connections could be through penetrations into the Diversion Channel or through tie-back drains.
   a. Use typical structure types developed in Local Drainage Plan – North.
   b. Develop summary tables of Diversion Channel inlets.
4) Evaluate the need for gated or non-gated drainage connections, as well as the location and/or frequency of drainage connections. Include preliminary sizing and alignments for local drainage improvements, considering the land requirements. In some instances, modifications to the routing and connections to other drainage features may be proposed.
   a. Determine appropriate drainage alignments and sizing (into or away from Diversion Channel)
   b. Determine approximate land requirements for drainage design
5) Determine maintenance requirements for the local drainage improvements.
   a. Develop maintenance requirements and potential maintenance schedule for local drainage improvements unique to the south section of the project.
6) Develop a plan for maintaining local drainage during construction of the Diversion Channel, Embankment, and Tie-back Levees.
   a. Determine probable construction plan
   b. Evaluate how construction will temporarily block local drainage

c. Develop plan for maintaining drainage during construction
d. Develop plan for maintaining potential flood flows during construction

7) Develop a brief graphics-rich PowerPoint presentation of the plan suitable for a non-technical audience. Prepare a TM presenting the results of the evaluation and the recommended alternative.
   a. Prepare draft TM including figures/graphics.
   b. Resolve Comments/Document Resolutions.
   c. Prepare final TM.
   d. Develop PowerPoint including graphics for non-technical audience.

Deliverables:

1) Technical Memorandum – Local Drainage Plan South
2) PowerPoint Presentation

C. I-29 SOUTH CONCEPTUAL DESIGN OF INTERCHANGE:

Conceptual design of the I-29 and CR-16 interchange, associated road raises, local drainage facilities, and Embankment and Wild Rice River Crossing.

1) Coordinate with NDDOT
   a. Meet with Fargo District to review project concepts
   b. Meet with Central Office to review design criteria
2) Develop up to three (3) alternative geometries
3) Develop preliminary geotechnical stability using existing borings
4) Review constructability of alternatives, including feasibility of staged construction
5) Review proposed alternatives with North Dakota Department of Transportation and Diversion Authority staff and select a recommended alternative.
6) Develop estimated costs of the new alternatives.
7) Document the feasibility of proposed geometry or alternative layouts in a Technical Memorandum.
   a. Draft Technical Memo and PowerPoint presentation
   b. Final Technical Memo

3. Owner's Responsibilities
Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Subtask	**Start Time**	**Completion Time**
A. Transportation Master Plan South	02/14/13	9/30/2015~~6/30/14~~
B. Local Drainage Plan South	02/14/13	9/30/2015~~6/30/14~~
C. I-29 South Conceptual Design of Interchange	02/14/13	9/30/2015~~6/30/14~~

5. Payments to Engineer
    A. Owner shall pay Engineer for services rendered as follows:
        I. Compensation for services identified under Subtasks A through E shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.
        II. The total compensation for services identified under the Task Order, for Subtasks A through C is not-to-exceed $ 605,000 as defined in the table below.

Subtask	Assumed Distribution ($)
A. Transportation Master Plan South	105,000
B. Local Drainage Plan South	350,000
C. I-29 South Conceptual Design of Interchange	150,000
TOTAL	**605,000**

    B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.
6. Consultants: None
7. Other Modifications to Agreement: None
8. Attachments: None
9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is February 14, 2013.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South , PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
(701) 237-5065 Phone	(701) 241-5720 Phone
Fax	(701) 297-6020 Fax

This is Task Order No. 15~~1~~, Amendment ~~0~~1, consisting of 4 pages.

Task Order No. 15, Amendment 1

In accordance with Paragraph 1.01 of the Agreement between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 15 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data

   A. Title: DRAFT OPERATIONS PLAN

   B. Description: Provide modeling and engineering services in order to develop a project Draft Operations Plan. The Draft Operations Plan development will utilize the Phase 7.1 unsteady HEC-RAS model that extends to Drayton, ND.

   C. Background: A project Operations Plan, developed by USACE, is required prior to operation of the project. A Draft Operations Plan will inform the design of project features and address interim operation of the project. The Draft Operations Plan development will require iterative model runs to simulate the range of flooding conditions anticipated throughout the life of the project and determine the interim operation plan(s) for the project.

2. Services of Engineer

   A. Team meetings with Diversion Authority, PMC, and USACE:

      1) Participation in periodic Operations Plan Development team meetings.

   Deliverables:

      1) Meeting notes

   B. Draft Operations Plan:

      1) Review the 2013 flood stream gage monitoring plan and identify key input locations for the FM Diversion modeling/operations.
      2) Review the Manitoba Floodway and Sheyenne River Diversion Operations Plans.
      3) Develop calibration model runs for the 1997, 2006, 2009, 2010, 2011, and 2013 spring flood events using the latest Phase 7.1 (and Phase 8 when available) existing condition model geometry.
      4) Model with-project operation for the 1997, 2006, 2009, 2010, 2011, and 2013 spring flood events with the latest Phase 7.1 (and Phase 8 when available) with project geometry. Project operation must be based on actual gage information and reasonable "real-time" estimates of ungaged inflow.
      5) Develop a draft Technical Memorandum summarizing key HEC-RAS model input locations and the Draft Operations Plan matrix which will serve as the framework for the operations plan (Draft Operations Plan).

i. Submit for review to Local Sponsors, PMC, and USACE. Incorporate review comments.

Deliverables:

1) Draft Operations Plan

2) Model runs for the 1997, 2006, 2009, 2010, 2011, 2013 spring flood events using the latest model geometries

C. Operations Plan Development Iterations:

1) Iteration 1
   i. Perform with-project model runs for the 1997, 2006, 2009, 2010, 2011, and 2013 historic flood events and the 10, 20-, 50-, 100-, and 500-year synthetic flood events based on the draft operations plan.
   ii. Perform QA/QC reviews of the Iteration 1 Historic model runs.
   iii. Refine the Draft Operations Plan based on Iteration 1 modeling.
2) Iteration 2
   i. Perform with-project model runs for the 1997, 2006, 2009, 2010, 2011, and 2013 historic flood events and the 10, 20-, 50-, 100-, and 500-year synthetic flood events based on the Iteration 1 operations plan
   ii. Perform QA/QC reviews of the Iteration 2 Historic model runs.
   iii. Refine the iteration 1 Operations Plan based on Iteration 2 modeling.
3) Iteration 3
   i. Perform with-project model runs for the 1997, 2006, 2009, 2010, 2011, and 2013 historic flood events and the 10, 20-, 50-, 100-, and 500-year synthetic flood events based on the Iteration 2 operations plan
   ii. Perform QA/QC reviews of the Iteration 3 Historic model runs.
   iii. Refine the iteration 2 Operations Plan based on Iteration 3 modeling.
4) Develop a Final Technical Memorandum summarizing operation plan. The technical memorandum shall include operation scenarios for the 6 historic events and 5 synthetic flood events.
   i. Submit for review to Diversion Authority, PMC, and USACE. Incorporate review comments.

Deliverables:

1) Final Draft Operations Plan

2) Model runs for the 1997, 2006, 2009, 2010, 2011, 2013 spring flood events using the latest model geometries.

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 and in Exhibit B.

4. Times for Rendering Services

Subtask	**Start Time**	**Completion Time**
2.A - 2.C Draft Operations Plan	September 12, 2013	September 30, 20154

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

I. Compensation for services identified under Subtasks 2.A through 2.C shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

II. The total compensation for services identified under the Task Order, for Subtasks 2.A through 2.C is not to exceed the amount defined in the table below.

Subtask	Assumed Distribution ($)
2.A - 2.C Draft Operations Plan	500,000
TOTAL	**500,000**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants: None
7. Other Modifications to Agreement: None
8. Attachments: None
9. Documents Incorporated By Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is September 12, 2013.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South , PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
(701) 237-5065 Phone	(701) 241-5720 Phone
Fax	(701) 297-6020 Fax

This is Task Order No. 16, Amendment ~~10~~, consisting of ~~54~~ pages.

Task Order No. 16, Amendment ~~10~~

In accordance with Paragraph 1.01 of the Agreement between Fargo-Moorhead Flood Diversion Authority ("Owner") and Houston-Moore Group, LLC (HMG) ("Engineer") for Professional Services – Task Order Edition, dated March 8, 2012 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 16 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude ENGINEER from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data

   A. Title: **Permit Submittal Preparation and Other Related Services**

   B. Scope of Services: The scope of work for this Task Order includes permitting for the Fargo-Moorhead Area Diversion Project (Project). The anticipated major permit submittals for the Project shall be as requested by Owner, and may include, but are not limited to:

      B.1. Major Permits:

         B.1.a. 404 Individual Permit

            i. WP-43 Oxbow/Hickson/Bakke Levees

            ii. Remainder of Project for North Dakota and Minnesota

         B.1.b. 401 Certification for North Dakota and Minnesota

         B.1.c. Floodplain Permitting

      B.2. Other Permits:

         B.2.a. Identify other permits required for Work Packages 42 and 43

      B.3. The following items are not included in Engineer's Scope of Services:

         B.3.a. Permit submittal fees

2. Services of Engineer

   A. **Subtask A - Permitting Schedule**

      A.1. Develop a schedule for acquiring permits. Consult with regulatory agencies, as approved by Owner. The schedule will include a listing of activities and information needs associated with permit submittal preparation, target dates to submit permit submittals, regulatory agency review times, and anticipated permit issuance dates.

      Deliverables:

      - Permitting Schedule

B. **Subtask B - Allowance for Permit Submittal Preparation and Acquisition Support**

Objective: The objective of this subtask is to prepare permit submittals in accordance with the associated schedule and to coordinate with regulatory agencies throughout the permit processing period from initial permit submittal through permit issuance.

B.1. **Permit Submittal Preparation:** The deliverables listed below are the permits anticipated. The following description of potential permits is assumed as the basis for Engineer's permitting effort. The deliverables listed are subject to change. The scope of work and budget presented in this Task Order are for permit submittals listed below as required.

B.1.a. **404 Permitting Submittal Preparation and Processing**

B.1.a.1 Prepare the permit submittal based on the information obtained from the Final Environmental Impact Statement (FEIS), Supplemental Environmental Assessment (EA), supporting National Environmental Policy Act (NEPA) documentation, and submit to the Corps. Interaction with the Corps will continue throughout their consultation with other agencies and until the issuance of the permit.

B.1.a.2 Meet periodically with the Omaha District Corps in Fargo, ND or at their District offices in Bismarck, ND.

B.1.a.3 Provide meeting follow-up, responding to Corps' questions and providing additional information, as required.

B.1.a.4 Provide follow-on coordination with the Corps prior to the date of permit submittal delivery.

- Gather and format appropriate FEIS information needed to complete the 404 Permit.
- Gather and format information from other (non-EIS) sources for incorporation into the permit submittal, including the addresses of adjacent property owners and a listing of other certifications and required approvals.

B.1.b. **401 Water Quality Certification Submittal Preparation and Processing**

B.1.b.1 The 401 Water Quality Certification is required for North Dakota and Minnesota approval and authorization of the Corps 404 Permit.

B.1.b.2 Prepare the 401 Water Quality Certifications, along with associated items as requested.

B.1.c. **Floodplain Permitting**

B.1.c.1 Coordinate with the local floodplain administrators to discuss the project and potential effects to floodplains.

B.1.c.2 Prepare documentation associated with floodplain permitting, as required.

B.1.d. **Additional Permits**

B.1.d.1 In general, the major requirements for agency review to acquire permits are a permit submittal and design drawings.

B.1.d.2 Prepare the permit submittals under this Task Order.

B.1.d.3 The development of Final Design drawings that are required to be submitted with the permit submittal will occur under other Task Orders.

Deliverables:

- 404 Permit Submittal
- 401 Water Quality Certification Submittal
- Floodplain Permit

B.2. **Permit Acquisition Support Services:** Provide the following general permit acquisition support services as requested by Owner.

B.2.a. Engage in meetings, other communication, and coordination with regulatory agencies as needed to provide information or clarification required to facilitate a timely processing of permit submittal.

B.2.b. Provide responses to regulatory agency comments or questions regarding submittal.

C. **Subtask C - On-Call Services**

Objective: This subtask includes additional services not included in defined scopes.

C.1. **On-Call Services:**

C.1.a. Respond to requests for services from Owner for tasks not included in defined scopes.

Deliverables:

- On-Call Services as requested.

3. Owner's Responsibilities

A. Owner shall have those responsibilities set form in Article 2 and in Exhibit B.

4. Times for Rendering Services

Subtask	Start Time	Completion Time
All Work	October 10, 2013	September 30, 2015~~4~~

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

A.1. Compensation for services identified under Subtasks listed below shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Appendix 2 of Exhibit C of the Agreement.

A.2. The total compensation for services identified under the Task Order for Subtasks is not to exceed the amount defined in the table below.

Subtasks	Assumed Distribution ($)
2.A Permitting Schedules	15,000
2.B Allowance for Permit Submittal Preparation and Acquisition Support	140,000
2.C On-Call Services	50,000
Total	**205,000**

B. The terms of payment are set forth in Article 4 of the Agreement and in Exhibit C.

6. Consultants: None

7. Other Modifications to Agreement: None

8. Attachments: None

9. Documents Incorporated by Reference: None

10. Terms and Conditions: Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is October 10, 2013.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Darrell Vanyo Name
President Title	Chairman, Flood Diversion Board of Authority Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Keith Berndt Name
Sr. Project Manager Title	Cass County Administrator Title
925 10th Avenue East West Fargo, ND 58078 Address	211 9th Street South , PO Box 2806 Fargo, ND 58108-2806 Address
cgthielman@houstoneng.com E-Mail Address	berndtk@casscountynd.gov E-Mail Address
(701) 237-5065 Phone	(701) 241-5720 Phone
Fax	(701) 297-6020 Fax

CASS COUNTY
GOVERNMENT

August 8, 2014

Item 9b.

Darrel Vanyo, Chairperson
Diversion Board of Authority
211 9th Street South
Fargo ND 58103

Re: Loan Drawdown Requests

Dear Chairman Vanyo:

We completed the loan application procedure with U. S. Bank for $50 million and as part of the closing an initial drawdown of loan funds was done for $60,200. As part of the Intergovernmental Agreement between Cass County and the City of Fargo, drawdown requests have to be approved by the Diversion Authority Finance Committee. We did not follow that procedure for the initial fund draw due to the timing and immediacy of the need to make the initial draw. As part of the Finance Committee agenda for August 13, 2014, there will be a suggested motion to retroactively authorize that draw request.

The Finance Committee will also consider a second draw at the August 13th meeting. I am recommending a fund draw for $20 million to cover expenses as we wrap up work in Oxbow that has already been bid and is under construction. A partial list of known expenses is as follows:

Projected Cash Needs		$ 19,313,000.00
Ohnstad Twichell	Loan Legal Fees	$ 30,000.00
Nixon Peabody	Loan Legal Fees	$ 30,000.00
Cass County Joint Bd	Land Purch	$ 953,000.00
Oxbow City	Infrastructure	$ 12,000,000.00
Cass County Joint Bd	Oxbow Diking	$ 2,800,000.00
Cass County Joint Bd	Oxbow Homes	$ 3,500,000.00

This is not a complete list of projected cash needs as there will be other real estate purchases as well as normal ongoing engineering and management costs; however, a $20 million draw will cover expenses for a few months. Kent Costin and I have discussed the procedures for use of the borrowed funds. We first would use borrowed funds to pay for expenses until the draw amount is exhausted allowing both the city and the county sales tax funds to accumulate for a few months. The city would continue to pay the bills for the Diversion Authority and bill the county as they have in the past; the difference is the entire bill would be paid from the loan proceeds instead of the city and county each covering their portion.

Sincerely,

Michael Montplaisir, Chairman
Finance Committee - Diversion Board of Authority

Auditor

Michael Montplaisir, CPA
701-241-5601

Treasurer

Charlotte Sandvik
701-241-5611

Director of Equalization

Frank Klein
701-241-5616

Box 2806
211 Ninth Street South
Fargo, North Dakota 58103

Fax 701-241-5728

www.casscountynd.gov

SUGGESTED MOTION:
Move to approve a draw request for loan funds from U.S. Bank in the amount of $60,200 to cover the expected legal and closing costs of obtaining the loan.

SUGGESTED MOTION:
Move to authorize the Cass County Auditor to initiate a draw request for loan funds from U.S. Bank in the amount of $20 million to pay construction and other expenses of the Diversion Board of Authority.

Finance Committee Bills for August 2014

Item 9c.

Dorsey & Whitney LLP	Legal services through June 30, 2014	$147,160.00
Erik Johnson & Associates, LTD	LEERDS & Legal Fees	$13,356.05
Cass County JointWater Resource District	Access issues/DPAC/Ring levee work	$409,799.56
Ohnstad Twichell, P.C.	Legal services (bond counsel)	$30,000.00
Nixon Peabody LLP	Legal services (bond counsel)	$30,000.00
Gray Pannell & Woodward LLP	Legal services (bond counsel)	$10,000.00
Erik Johnson & Associates, LTD	Legal services (bond counsel)	$1,555.00
Public Financial Management	Financial advisory services (bond counsel)	$26,460.00
Total Bills Received in July		**$668,330.61**

DORSEY
DORSEY & WHITNEY LLP

MINNEAPOLIS OFFICE
612-340-2600

(Tax Identification No. 41-0223337)

STATEMENT OF ACCOUNT FOR PROFESSIONAL SERVICES

Fargo-Moorhead Flood Diversion Bd of Authority
c/o Erik R. Johnson & Associates, Ltd.
Attn: Erik Johnson
505 Broadway, Suite 206
Fargo, ND 58102

July 8, 2014
Invoice No. 1955380

RECEIVED
BY DATE 7-11-14

Client-Matter No.: 491379-00001
Red River Diversion Project

For Legal Services Rendered Through June 30, 2014

INVOICE TOTAL

Total For Current Legal Fees	$144,739.00
Total For Current Disbursements and Service Charges	$2,421.00
Total For Current Invoice	**$147,160.00**
Summary of Account	
*Prior Balance Due	$71,138.70 pd 7/11/14
Total Amount Due	$218,298.70

*If payment has been submitted for prior balance due, please disregard.

790-7930-429-33-25 PJ- V00101

For your convenience, please remit payment to the address below or we offer the option of remitting payment electronically by wire transfer. If you have any questions regarding this information, please contact the lawyer you are working with on this project or Dorsey's Accounts Receivable Department at 1-800-861-0760. Thank you.

Mailing Instructions:
Dorsey & Whitney LLP
P.O. Box 1680
Minneapolis, MN 55480-1680

Wire Instructions:
U.S. Bank National Association
800 Nicollet Mall
Minneapolis, MN 55402

ABA Routing Number: 091000022
Account Number: 1602-3010-8500
Swift Code: USBKUS44IMT

Please make reference to the invoice number

Service charges are based on rates established by Dorsey & Whitney. A schedule of those rates has been provided and is available upon request. Disbursements and service charges, which either have not been received or processed, will appear on a later statement.

ALL INVOICES ARE DUE 30 DAYS FROM DATE OF INVOICE UNLESS OTHERWISE EXPRESSLY AGREED BY DORSEY & WHITNEY

03053

CITY OF Fargo

Office of the City Attorney

City Attorney
Erik R. Johnson

Assistant City Attorneys
Nancy J. Morris
Jason T. Loos

July 21, 2014

Kent Costin
Finance Director
City of Fargo
200 North Third Street
Fargo, ND 58102

Re: Red River Diversion Project

Dear Kent:

I am enclosing a Summary Invoice dated July 8, 2014 from the Dorsey & Whitney Firm in Minneapolis for their professional services rendered through June 30, 2014 on the Red River Diversion Project. If you have any questions, please feel free to contact me. Please remit payment directly to Dorsey Whitney.

Sincerely,

Erik R. Johnson

ERJ/jmf
Enclosure
cc: Pat Zavoral

Erik R. Johnson & Associates, Ltd
Attorneys at Law
Erik R. Johnson - Nancy J. Morris - Jason T. Loos
505 Broadway - Suite 206
Fargo, ND 58102
(701) 280-1901

City of Fargo -- Auditor's Office
Attn: Kent Costin
200 North 3rd Street
Fargo, ND 58102

Invoice

Date	7/25/2014

Description	Qty	Rate	Amount
Metro Flood Project -- LEERDS:			
Erik Johnson - 6/26 thru 7/25/2014: itemization attached	2.1	195.50	410.55
Nancy J Morris - 6/26 thru 7/25/2014: itemization attached	25.5	170.00	4,335.00
We appreciate your business.	**TOTAL:**		**$4,745.55**

July 25, 2014

Client: City of Fargo
Job: Metro Flood - LEERDS

Atty	DATE	DESCRIPTION	TIME
E	7/9/2014	Telephone conference with Bruce Spiller re: interim agreement for acquisition/relocation of Oxbow Golf and Country Club	0.4
E	7/10/2014	Conference with Spiller and conference with David Hauff; communication with Dick Draper	1.3
E	7/24/2014	Telephone conference with David Hauff re: Oxbow Gold and Country Club and conference with Spiller	0.4
		Total Time - ERJ	2.1
		Hourly Rate $	195.50
		Total Fees - ERJ $	410.55
N	6/30/2014	Correspond w/ Nathan & Luke Andrud re: El Zagal acquisition	2
N	7/1/2014	Correspond w/ April about El Zagal relocation issues	0.8
N	7/7/2014	ROW acquisition conference	2
N	7/9/2014	Phone call w/ Nathan re: El Zagal, research lease; Correspondence re: El Zagal, phone call re: El Zagal	1
N	7/10/2014	Phone call w/ Nathan & Shawn about El Zagal	1.2
N	7/11/2014	Meeting w/ Erik & call to Chris McShane re: El Zagal; Phone call w/ Chris McShane, Dirk Draper & Shawn about acquisitions	2.3
N	7/14/2014	Review of FPS approval & correspondence; acquisition & permits	1
N	7/15/2014	Correspondence w/ Chris McShane & Shawn Bondly re: acquisitions; phone call w/ Chris McShane re: acquisitions	0.8
N	7/16/2014	Correspondence re: El Zagal acquisition; Phone call w/ Chris McShane re: appraisals & ownership fee status	0.8
N	7/17/2014	Correspondence w/ Chris McShane re: El Zagal acquisition status; Review Hardship application	1.3
N	7/21/2014	Review El Zagal Purchase Agreement & correspond w/ Chris McShane re: acquisition status; ROW & FPS appraisal review	3.7
N	7/22/2014	Hardship - review documents and policy; meeting w/ Erik; Hardship review committee	2.1
N	7/23/2014	Review correspondence, Purchase Agreement & Lease; phone call w/ S. Bondly; correspondence re: PA & levee	1.5
N	7/24/2014	Correspond w/ Luke Andrud re: TCE; review docs, correspond w/ S. Bondly; phone call w/ Dirk Draper & Eric Dodds	3
N	7/25/2014	Temp easement communications & correspondence re: TCE & appraisal status	2
		Total Time	25.50
		Hourly Rate $	170.00
		Total Fees - NJM $	4335.00

Erik R. Johnson & Associates, Ltd
Attorneys at Law
Erik R. Johnson - Nancy J. Morris - Jason T. Loos
505 Broadway - Suite 206
Fargo, ND 58102
(701) 280-1901

City of Fargo -- Auditor's Office
Attn: Kent Costin
200 North 3rd Street
Fargo, ND 58102

Invoice

Date	7/25/2014

Description	Qty	Rate	Amount
Metro Flood Project -- General matters: Erik Johnson - 6/26 thru 7/25/2014: itemization attached Nancy J Morris - 6/26 thru 7/25/2014: itemization attached	39 5.8	195.50 170.00	7,624.50 986.00
We appreciate your business.	**TOTAL:**		**$8,610.50**

July 25, 2014

Client: City of Fargo
Job: Metro Flood - General Legal

Atty	DATE	DESCRIPTION	TIME
E	6/26/2014	Meeting with Grubb to discuss PPP	1.5
E	6/27/2014	Conference call with Judge Tunheim and follow up with Cattanach and Drysdale	1.2
E	6/27/2014	Review Oxbow city MOU with Diversion Authority and communicate with Cattanach and Drysdale	0.5
E	6/30/2014	Conference with Bob and Mike and review agreements by Diversion Authority	0.7
E	6/30/2014	Review agreements by Diversion Authority	0.5
E	7/3/2014	Prepare for meeting with Cattanach and Lindgren; telephone conference with Bob and Jay; attend administrative advisory meeting; conference with pat Zavoral; email with Bob and Jay	2.4
E	7/7/2014	P3 matters; conference with Bob Cattanach, Jay Lindgren and tour re: P3 matters; joined by Pat Zavoral for further discussion	3.5
E	7/8/2014	Attend P3 conference call and followup call; draft language for Tom Waters; call with Paul Tietz as followup	2.7
E	7/8/2014	Conference with Metro Flood legal group	1
E	7/8/2014	Telephone conference with Paul Tietz to prepare for conference call re: P3 with Tom Waters and Hecker tomorrow; telephone conference with Tom Waters and Paul	1.5
E	7/8/2014	Read scoring appendix A of OMB Cir A-11; email Tietz	0.8
E	7/9/2014	Telephone conference with Cattanach, then Pat Zavoral on line and then Paul Tietz	1.7
E	7/9/2014	Conference call with tom Waters, Pat Zavoral, Paul Tietz and others; conference call re: Corps with Waters group and followup conference	2.5
E	7/9/2014	Conference with Tietz re: OMB presentation matters	0.7
E	7/10/2014	P3 matters; email and communication; attend Diversion Authority meeting; email communication with Mike Drysdale re: meaning of authorization	2.7
E	7/11/2014	Communication with Dorsey re: information on authorization meaning	1
E	7/11/2014	Communication re: Oxbow Golf and Country Club	0.5
E	7/14/2014	Communication with Cattanach and Drysdale	0.4
E	7/21/2014	Communication	0.5
E	7/22/2014	Emails with Waters	0.2
E	7/22/2014	Telephone conference with Cattanach and Drysdale re: MN DNR lawsuit; follow up communication; review brief of DNR; calls with Pat Zavoral and Darrell Vanyo	1.7
E	7/23/2014	Telephonce conference with Vanyo re: MN DNR filing, etc.	0.4
E	7/23/2014	Miscellaneous calls and emails re: P3	0.2
E	7/23/2014	Telephone conference with Cattanach re: post-hearing briefing	0.7
E	7/24/2014	Prerpare for P3	0.4
E	7/24/2014	P3 meeting at Radisson and followup meetings	6
E	7/25/2014	Meeting re: P3 at City Hall with Pat Zavoral, Waters, Nicholson, etc.	2.8
E	7/25/2014	Telephone conference with Cattanach and communication to Spiller	0.3
		Total Time - ERJ	39
		Hourly Rate - ERJ $	195.50
		Total Fees - ERJ $	7624.50

July 25, 2014

Client: City of Fargo

Job: Metro Flood - General Legal

Atty	DATE	DESCRIPTION	TIME
N	7/2/2014	Review Administrative Advisory agenda & correspond w/ Bruce S.	0.2
N	7/8/2014	Correspondence re: ROE w/ Cass Rural Water; Legal meeting	1.6
N	7/11/2014	Oxbow CC discussion & permit discussion	1.2
N	7/17/2014	Administrative meeting	2
N	7/23/2014	Review correspondence re: DNR & brief	0.8
		Total Time - NJM	5.80
		Hourly Rate - NJM $	170.00
		Total Fees - NJM $	986.00

CASS COUNTY GOVERNMENT

Cass County
Joint Water
Resource
District

July 25, 2014

RECEIVED
JUL 28 2014
CASS COUNTY COMMISSION

Diversion Authority
P.O. Box 2806
Fargo, ND 58108-2806

Greetings:

RE: Fargo-Moorhead Area Diversion
Access and Diversion Project Assessment Committee (DPAC)
Oxbow-Hickson-Bakke Ring Levee

Enclosed please find copies of bills totaling $409,799.56 regarding the above referenced project. Of that amount, $171,758.07 is related to work on access issues, $47,364.89 is for DPAC work and $190,676.60 is for work on the Oxbow-Hickson-Bakke Ring Levee. At this time, we respectfully request 100% reimbursement as per the Joint Powers Agreement between the City of Fargo, Cass County and Cass County Joint Water Resource District dated July 7, 2014.

If you have any questions, please feel free to contact us. Thank you.

Sincerely,

CASS COUNTY JOINT WATER RESOURCE DISTRICT

Carol Harbeke Lewis
Secretary-Treasurer

Enclosures

Carol Harbeke Lewis
Secretary-Treasurer

1201 Main Avenue West
West Fargo, ND 58078-1301

701-298-2381
FAX 701-298-2397
wrd@co.cass.nd.us
casscountygov.com

FARGO-MOORHEAD METROPOLITAN FEASIBILITY STUDY COST SHARE INVOICES

7/25/2014

Invoice Paid	Invoice Date	Invoice No.	Project No.	Amount	Vendor	Description
5/8/2014	4/30/2014	127529	100007	4,136.00	Ohnstad Twichell, P.C.	Legal
5/8/2014	4/30/2014	127544	130007	12,555.00	Ohnstad Twichell, P.C.	Legal
6/12/2014	5/27/2014	128109	100007	1,600.00	Ohnstad Twichell, P.C.	Legal
6/12/2014	5/27/2014	128123	130007	6,968.95	Ohnstad Twichell, P.C.	Legal
6/27/2014	6/24/2014	128591	100007	2,630.62	Ohnstad Twichell, P.C.	Legal
6/27/2014	6/24/2014	128594	130007	11,775.92	Ohnstad Twichell, P.C.	Legal
5/8/2014	4/25/2014			255.00	Erik R. Johnson & Associates, LTD	Legal
6/12/2014	5/25/2014			420.00	Erik R. Johnson & Associates, LTD	Legal
7/8/2014	6/25/2014	2081		30.00	Erik R. Johnson & Associates, LTD	Legal
5/22/2014	5/14/2014	38114013400	479407	48,545.34	CH2M Hill Engineers, Inc.	Engineering
7/8/2014	7/1/2014	38114017059-A	479407	32,724.83	CH2M Hill Engineers, Inc.	Engineering
5/22/2014	5/9/2014	44536	R12.00049	4,529.84	Ulteig Engineering	Engineering
6/17/2014	6/9/2014	45309	R12.00049	9,865.23	Ulteig Engineering	Engineering
7/21/2014	7/10/2014	46158	R12.00049	28,949.34	Ulteig Engineering	Engineering
5/22/2014	5/21/2014			500.00	Heiden Family LLLP	Phase II Testing
5/22/2014	5/21/2014			3,500.00	Carol B Brooks Irrevocable Third Party SNT	Phase II Testing
5/22/2014	5/21/2014			2,500.00	Gerald and Candace Henke	Phase II Testing
6/27/2014	6/27/2014			250.00	Park East Apartments LLC	Phase II Testing
			Total	**171,768.07**		

DIVERSION PROJECT ASSESSMENT DISTRICT (DPAC) INVOICES

Invoice Paid	Invoice Date	Invoice No.	Project No.	Amount	Vendor	Description
5/8/2014	4/30/2014	127535	120007	459.00	Ohnstad Twichell, P.C.	Legal
6/27/2014	6/24/2014	128593	120007	10,521.12	Ohnstad Twichell, P.C.	Legal
5/22/2014	4/30/2014	38285	P11473-2012-000	7,044.40	AE2S	Engineering
6/27/2014	5/31/2014	38684	P11473-2012-000	11,298.05	AE2S	Engineering
7/21/2014	6/30/2014	18042	P11473-2012-000	18,042.32	AE2S	Engineering
			Total	**47,364.89**		

OXBOW-HICKSON-BAKKE RING LEVEE INVOICES

Invoice Paid	Invoice Date	Invoice No.	Project No.	Amount	Vendor	Description
6/27/2014	6/24/2014	128596	140007	6,287.72	Ohnstad Twichell, P.C.	Legal
6/12/2014	5/27/2014	128139	140007	13,106.03	Ohnstad Twichell, P.C.	Legal
7/8/2014	7/1/2014	38114017059-B	479407	85,000.00	CH2M Hill Engineers, Inc.	Engineering
6/23/2014	4/30/2014	15235	2830-00	22,635.33	ProSource Technologies, LLC	Acquisition/Relocation
6/27/2014	5/31/2014	15321	2830-00	37,293.23	ProSource Technologies, LLC	Acquisition/Relocation
4/24/2014	3/31/2014	15117	2830-00	19,579.80	ProSource Technologies, LLC	Acquisition/Relocation
5/9/2014	5/5/2014		63315	5,809.35	Cass County Electric Cooperative	Utilities
5/22/2014	5/5/2014		1108711	45.12	Cass County Electric Cooperative	Service to 333 Schnell Drive
6/12/2014	6/5/2014		1108711	66.51	Cass County Electric Cooperative	Service to 333 Schnell Drive
7/21/2014	7/7/2014		1108711	103.51	Cass County Electric Cooperative	Service to 333 Schnell Drive
6/27/2014	6/27/2014			250.00	Joel & Camille Settlemeyer	Phase II Testing
6/27/2014	6/27/2014			250.00	Fercho Family Farms LLLP	Phase II Testing
6/27/2014	6/27/2014			250.00	Curtis & Karen Erickson	Phase II Testing
			Total	**190,676.60**		
			Grand Total	**409,799.56**		

14-64-01 JTS (6)
TEMPORARY SALES TAX BOND OF 2014

DATE: July 30, 2014

OHNSTAD TWICHELL, P.C.
ATTORNEYS AT LAW

ALERUS BANK BUILDING
901 - 13TH AVENUE EAST
P.O. BOX 458
WEST FARGO, ND 58078-0458
(701) 282-3249

STATEMENT OF ACCOUNT

AMOUNT REMITTED $_____

CASS COUNTY
PO BOX 2806
FARGO ND 58108-2806

Please detach. Return upper portion with your payment.
Payments received after the statement date will be reflected on next month's statement. Thank you.

PROFESSIONAL SERVICES RENDERED

For legal services rendered as bond counsel regarding $50,000,000 Maximum Principal Amount Tax-Exempt Direct-Funded Loan.	$30,000.00
TOTAL	$30,000.00

14-64-01 JTS (6)
TEMPORARY SALES TAX BOND OF 2014

COST ADVANCES BY US FOR YOUR ACCOUNT, FOR WHICH WE HAVE NOT BEEN BILLED, WILL APPEAR ON YOUR NEXT STATEMENT.

FEDERAL I.D. NO. 16-0764720

NIXON PEABODY LLP

Attorneys at Law

437 MADISON AVENUE
NEW YORK, NEW YORK 10022-7001
(212) 940-3000
Fax: (212) 940-3111

July 31, 2014

Cass County
P.O. Box 2806
Fargo, North Dakota 58108
Attention: Cass County Auditor

FOR **LEGAL SERVICES RENDERED AND DISBURSEMENTS INCURRED** as counsel to U.S. Bank National Association (the "Bank") in connection with the preparation, execution and delivery of, among other documents, the Loan Agreement, dated as of July 1, 2014 (the "Agreement"), between the Cass County, North Dakota (the "County") and the Bank, pursuant to which Agreement the Bank will agree to make available up to $50,000,000 to the County.

TOTAL FEES AND DISBURSEMENTS.....$30,000.00

WIRE INSTRUCTIONS
TO
NIXON PEABODY LLP
(NEW YORK OFFICE)

Bank:	**JP Morgan Chase Bank N.A.** **Rochester, NY 14643**
A/C Name:	**Nixon Peabody LLP**
A/C Number:	**938761475**
ABA Number:	**021-000021 (Routing Number)**
Swift Code:	**CHASUS33 (if needed)**
Client/Matter Number:	**046672/000037**
Invoice Number:	**9585926**

GRAY PANNELL & WOODWARD LLP
Attorneys at Law

P.O. Box 8050 (31412)
24 Drayton Street, Suite 1000
Savannah, Georgia 31401
(912) 443-4040

One Buckhead Plaza
3060 Peachtree Road, N.W., Suite 730
Atlanta, Georgia 30305
(678) 705-6280

gpwlawfirm.com

#12345-13

August 11, 2014

Kent Costin, Finance Director
City of Fargo
200 Third Street North
Fargo, North Dakota 58102

RE: $50,000,000 CASS COUNTY, NORTH DAKOTA
TAX-EXEMPT DIRECT-FUNDED LOAN

FOR PROFESSIONAL SERVICES RENDERED as special counsel to the City of Fargo, North Dakota, in connection with the authorization, execution, and delivery of an intergovernmental agreement by and between the City of Fargo and Cass County in connection with the above referenced loan from U.S. Bank, National Association to Cass County, including preparation of resolutions, reviewing loan and closing documents, rendering our legal opinion, and participation in conference calls, including all disbursements, as follows:

Total Amount Due $10,000.00

Please remit payment to:

Gray Pannell & Woodward LLP
24 Drayton Street, Suite 1000
Savannah, Georgia 31412

August 11, 2014

Kent A. Costin
Finance Director
200 North 3rd Street
Fargo, ND 58102

INVOICE

RE: $50,000,000 Cass County Loan/U.S. Bank – Metro Flood Project interim financing

Legal services provided by Erik R. Johnson & Associates, Ltd. as co-bond counsel in connection with the preparation of documents and the authorization and sale of the $50,000,000 interim loan by U.S. Bank, N.A. to Cass County, North Dakota, which included a pledge of city sales tax revenues for repayment.

June 26 thru July 25th, 2014 (ERJ)	6.8 hrs	$1329.40	
July 26th thru present	1.2 hrs	$ 225.60	
Total			$1555.00

Sincerely,

Erik R. Johnson

We appreciate your business! Please make check payable to Erik R. Johnson & Associates, Ltd.

Two Logan Square
Suite 1600
18th & Arch Streets
Philadelphia, PA
19103 2770

215 567-6100
215-557-1493 fax
www.pfm.com

PFM
Public Financial Management

Fargo-Moorhead Flood Diversion B of A
Mr. Michael Montplaisir
County Auditor
211 9th Street South
Fargo, ND 58103-1833

August 12, 2014

INVOICE: PFM-157455-0-0
SEQ.: 003-000-000

RE: For Financial Advisory Services provided to Fargo-Moorhead Flood Diversion Board of Authority in connection with the Direct Bank Loan.

INVOICE

Description	Total
Financial Advisory Fee	$26,460.00
Total Professional Fees	$26,460.00
Amount Due	**$26,460.00**

** PLEASE NOTE OUR REMITTANCE AND BANKING INFORMATION HAS CHANGED EFFECTIVE 6/1/2014**

Remittance Address:
Public Financial Management Inc.
PO Box 62920
Baltimore, Maryland 21264-2920

EFT Instructions:
M&T Bank
ABA (for Wires): 022000046
ABA (for ACH) : 031302955
Account#: 9856661229

INVOICE TERMS: UPON RECEIPT

Client ID: 02743.001

FM Diversion Authority
Fiscal Accountability Report Design Phase (Fund 790)
As of 7/31/2014

		2011	2012	2013	2014	Cumulative Totals
Revenues						
City of Fargo		443,138	7,652,681	7,072,961	8,831,604	24,000,384
Cass County		443,138	7,652,681	7,072,961	8,831,604	24,000,384
State Water Commission		-	-	3,782,215	(2,637,945)	1,144,270
Other Agencies		98,475	1,700,595	1,571,769	1,962,579	5,333,418
Lease/Rental Payments		-	-	17,358	136,845	154,203
Asset Sales		-	-	-	616,774	616,774
Miscellaneous		-	-	1,705	326	2,031
Total Revenues		**984,750**	**17,005,957**	**19,518,970**	**17,741,786**	**55,251,464**
Expenditures						
7905	Army Corp Payments	-	-	875,000	1,050,000	1,925,000
7910	WIK - Administration	107,301	331,321	77,614	88,569	604,804
7915	WIK - Project Design	149,632	5,366,147	3,220,859	3,866,877	12,603,515
7920	WIK - Project Management	679,037	7,223,650	4,695,477	1,603,162	14,201,326
7925	WIK - Recreation	-	163,223	-	-	163,223
7930	LERRDS - North Dakota	48,664	3,843,620	2,763,404	10,433,334	17,089,022
7931	LERRDS - Minnesota	-	27,996	289,387	10,650	328,032
7940	WIK Mitigation - North Dakota	-	-	-	587,180	587,180
7941	WIK Mitigation - Minnesota	-		-	-	-
7950	Construction - North Dakota	-	-	-	-	-
7951	Construction - Minnesota	-	-	-	-	-
7952	Construction - O/H/B	-	-	-	109,272	109,272
7955	Construction Management	-	-	-	-	-
7990	Project Financing	-	50,000	70,000	3,040	123,040
7995	Project Eligible - Off Formula Costs	-	-	-	-	-
7999	Non Federal Participating Costs	116	-	-	-	116
0000	Advance to City of Oxbow	-	-	7,527,231	630	7,527,861
Total Expenditures		**984,750**	**17,005,957**	**19,518,970**	**17,752,713**	**55,262,391**

FM Diversion Authority
FY 2014 Summary Budget Report (In Thousands)
July, 2014

	FY 2014 Approved Budget	Current Month	Fiscal Year To Date	% Expended	Outstanding Encumbrances	Remaining Budget Balance
Revenue Sources						
City of Fargo	19,530	968	12,857			6,673
Cass County	19,530	968	12,857			6,673
State of ND - 50% Match	-	343	1,059			(1,059)
State of ND - 100% Match	26,600	-	85			26,515
State of Minnesota	-	-	-			-
Other Agencies	4,340	215	2,857			1,483
Financing Proceeds	-	-	-			-
Sale of Assets	-	207	617			(617)
Property Income	-	5	146			(146)
Miscellaneous	-	-	2			(2)
Total Revenue Sources	**70,000**	**2,705**	**30,479**			**39,521**
Funds Appropriated						
Army Corp Local Share	-	-	1,575		525	(2,100)
Management Oversight	2,300	263	3,077	134%	675	(1,452)
Technical Activities	7,900	666	5,785	73%	6,992	(4,878)
Land Acquisitions	37,700	1,091	19,353	51%	3,012	15,335
Construction	18,700	109	109	1%	13,438	5,153
Mitigation	-	587	587		-	(587)
Other Costs	3,400	1	3	0%	30	3,367
Total Appropriations	**70,000**	**2,716**	**30,490**	**44%**	**24,672**	**14,838**

FM Diversion Authority
Summary of Cash Disbursements
July 2014

Account Number	Check Date	Check Number	Vendor Name	Transaction Amount	Description 1	Project Number	Project Description
790-7910-429.33-20	7/31/2014	JB07140024	CITY OF FARGO	$ 480.00	FISCAL SERVICES	V00102	General & Admin. WIK
			Total WIK - General & Admin. - Accounting Services	480.00			
790-7910-429.33-25	7/9/2014	250546	OXBOW, CITY OF	9,686.58	REQ NO 14 OXBOW MOU	V02407	OXBOW MOU-LEGAL SERVICES
	7/23/2014	250824	DORSEY & WHITNEY LLP	675.00	LEGAL SVCS THRU 6/30/14	V00101	Dorsey Whitney Legal
	7/16/2014	250674	ERIK R JOHNSON & ASSOCIATES	9,174.90	METRO FLOOD PROJECT	V00102	General & Admin. WIK
			Total WIK - General & Admin. - Legal Services	19,536.48			
790-7915-429.33-05	7/9/2014	250546	OXBOW, CITY OF	7,660.50	OHB LEVEE PROJECT	V02401	OXBOW MOU-PROJ MGMT ADMIN
	7/23/2014	250891	OXBOW, CITY OF	11,311.22	OHB LEVEE PROJECT	V02401	OXBOW MOU-PROJ MGMT ADMIN
	7/23/2014	250891	OXBOW, CITY OF	2,390.26	OHB LEVEE PROJECT	V02402	OXBOW MOU-PRELIM ENGINRNG
	7/23/2014	250891	OXBOW, CITY OF	8,040.00	OHB LEVEE PROJECT	V02405	OXBOW MOU-DESN/CONST ENG
	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	5,557.03	APRIL DIVERSION COSTS	V01607	RECREATION/USE MASTER PLN
	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	14,930.09	APRIL DIVERSION COSTS	V01608	WORK-IN-KIND (WIK)
	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	15,101.44	APRIL DIVERSION COSTS	V01609	HYDROLOGY/HYDRAULIC MODEL
	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	484,374.12	APRIL DIVERSION COSTS	V01613	LEVEE DESIGN & SUPPORT
	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	20,788.74	APRIL DIVERSION COSTS	V01614	TRANS/DRAINAGE MASTER PLN
	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	40,852.85	APRIL DIVERSION COSTS	V01615	DRAFT OPERATIONS PLAN
	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	7,878.00	APRIL DIVERSION COSTS	V01616	PERMIT SUBMITTAL PREP
	7/9/2014	250589	URS CORPORATION	47,333.42	5/17-6/13/14	V01003	CULTURAL RESOURCES INVEST
			Total WIK - Project Design - Engineering Services	666,217.67			
790-7920-429.33-05	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	62,530.04	APRIL DIVERSION COSTS	V01601	HMG - PROJECT MANAGEMENT
			Total WIK Construction Mgmt. - Engineering Services	62,530.04			
790-7920-429.33-79	7/23/2014	250814	CH2M HILL ENGINEERS INC	180,000.00	JUL 2014	V00204	CH2M Hill-9.1.13-9.13.14
			Total WIK Construction Mgmt. - Construction Management	180,000.00			
790-7930-429.33-05	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	2,138.33	APRIL DIVERSION COSTS	V01602	CR-31 BRIDGE DESIGN
	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	430.50	APRIL DIVERSION COSTS	V01604	CR-32 & CR-22 BRIDGE DSGN
	7/16/2014	250694	HOUSTON-MOORE GROUP LLC	24,240.55	APRIL DIVERSION COSTS	V01611	REACH 6 & CR20 BRIDGE
			Total LERRDS - North Dakota - Engineering Services	26,809.38			

FM Diversion Authority
Summary of Cash Disbursements
July 2014

Account Number	Check Date	Check Number	Vendor Name	Transaction Amount	Description 1	Project Number	Project Description
790-7930-429.33-25	7/16/2014	250668	DORSEY & WHITNEY LLP	71,138.70	RED RIVER DIVERSION PROJ	V00101	Dorsey Whitney Legal
	7/16/2014	250674	ERIK R JOHNSON & ASSOCIATES	1,632.00	MEFRO FLOOD PROJECT	V00103	General & Admin. LERRDS
			Total LERRDS - North Dakota - Legal Services	72,770.70			
790-7930-429.38-95	7/16/2014	250715	KOCHMANN, CARTER	35.00	MOWING-333 SCHNELL DR	V01701	ND LAND PURCHASES
	7/16/2014	250715	KOCHMANN, CARTER	35.00	MOWING-333 SCHNELL DR	V01701	ND LAND PURCHASES
	7/16/2014	250715	KOCHMANN, CARTER	35.00	MOWING-333 SCHNELL DR	V01701	ND LAND PURCHASES
			Total LERRDS - North Dakota - Mowing Services	105.00			
790-7930-429-71-30	7/22/2014	WIRE	Cass County Joint WRD	989,706.03	Hoglund Land Purchase	V01701	ND Land Purchases
			Total - Land Purchases	989,706.03			
790-7931-429.34-65	7/16/2014	250744	OHNSTAD TWICHELL PC	1,203.00	DIVERSION COSTS	V01301	City of Moorhead ROE
			Total LERRDS - Minnesota - Right of Entry Requests	1,203.00			
790-7940-429.38-99	7/11/2014	250630	DUCKS UNLIMITED	587,180.00	17.27 ACRES-WETLAND MITGA	V02408	OXBOU MOU-WETLAND CREDITS
			Total Mitigation - North Dakota - Other Services	587,180.00			
790-7952-429.73-53	7/23/2014	250891	OXBOW, CITY OF	109,271.60	DAKOTA UNDERGROUND PROJ	V02409	OXBOW MOU-CONST RPLM AREA
			Total O/H/B Construction - Dams/Reservoirs/Diversion	109,271.60			
790-7990-429.33-25	7/9/2014	250464	ERIK R JOHNSON & ASSOCIATES	586.50	METRO FLOOD PROJECT	V00102	General & Admin. WIK
			Total Project Financing - Legal Services	586.50			
			Total Disbursed for Period	**$2,716,396.40**			

FM Diversion Authority
Outstanding Contracts
As of July 31, 2014

Project Number	Division	PO No.	Vendor No.	P.O. Date	Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance
V00101	7910	F12217	9367	12/31/2011	DORSEY & WHITNEY LLP	$ 52,102.12	$ 52,102.12	$ -
V00101	7910	146629	9367	1/18/2012	DORSEY & WHITNEY LLP	52,679.63	52,679.63	-
V00101	7910	F12289	9367	2/21/2012	DORSEY & WHITNEY LLP	58,693.38	58,693.38	-
V00101	7910	F12293	9367	2/21/2012	DORSEY & WHITNEY LLP	1,600.00	1,600.00	-
V00101	7910	156087	9367	10/15/2012	DORSEY & WHITNEY LLP	86,960.88	86,960.88	-
V00101	7910	157021	9367	11/9/2012	DORSEY & WHITNEY LLP	27,111.94	27,111.94	-
V00101	7910	157608	9367	11/29/2012	DORSEY & WHITNEY LLP	9,138.50	9,138.50	-
V00101	7910	159215	9367	1/14/2013	DORSEY & WHITNEY LLP	15,177.50	15,177.50	-
V00101	7910	160364	9367	2/20/2013	DORSEY & WHITNEY LLP	20,559.60	20,559.60	-
V00101	7910	161130	9367	3/18/2013	DORSEY & WHITNEY LLP	10,442.50	10,442.50	-
V00101	7910	163408	9367	6/12/2013	DORSEY & WHITNEY LLP	21,936.50	21,936.50	-
V00101	7910	164302	9367	7/17/2013	DORSEY & WHITNEY LLP	35,507.00	35,507.00	-
V00101	7910	164852	9367	8/12/2013	DORSEY & WHITNEY LLP	4,353.75	4,353.75	-
V00101	7930	165352	9367	9/5/2013	DORSEY & WHITNEY LLP	21,732.00	21,732.00	-
V00101	7930	165933	9367	9/30/2013	DORSEY & WHITNEY LLP	19,416.00	19,416.00	-
V00101	7930	166666	9367	10/31/2013	DORSEY & WHITNEY LLP	21,699.00	21,699.00	-
V00101	7930	167420	9367	12/6/2013	DORSEY & WHITNEY LLP	45,518.80	45,518.80	-
V00101	7930	167892	9367	12/27/2013	DORSEY & WHITNEY LLP	75,307.63	75,307.63	-
V00101	7930	168263	9367	1/15/2014	DORSEY & WHITNEY LLP	66,721.77	66,721.77	-
V00101	7930	169387	9367	3/5/2014	DORSEY & WHITNEY LLP	95,270.80	95,270.80	-
V00101	7930	169824	9367	3/27/2014	DORSEY & WHITNEY LLP	42,590.28	42,590.28	-
V00101	7930	170590	9367	5/2/2014	DORSEY & WHITNEY LLP	43,650.00	43,650.00	-
V00101	7930	171265	9367	6/5/2014	DORSEY & WHITNEY LLP	141,096.34	141,096.34	-
V00101	7930	171515	9367	6/19/2014	DORSEY & WHITNEY LLP	71,138.70	71,138.70	-
V00101	7910	172162	9367	7/18/2014	DORSEY & WHITNEY LLP	675.00	675.00	-
V00101	7930	172306	9367	7/28/2014	DORSEY & WHITNEY LLP	147,160.00	-	147,160.00
V00102	7910	F11738	20660	11/15/2011	GALLAGHER BENEFIT SERVICES INC	250.00	250.00	-

FM Diversion Authority
Outstanding Contracts
As of July 31, 2014

Project Number	Division	PO No.	Vendor No.	P.O. Date	Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance
V00102	7910	F11749	646	11/15/2011	FORUM COMMUNICATIONS (ADVERT)	494.24	494.24	-
V00102	7910	F11750	646	11/15/2011	FORUM COMMUNICATIONS (ADVERT)	345.97	345.97	-
V00102	7910	F11751	646	11/15/2011	FORUM COMMUNICATIONS (ADVERT)	296.56	296.56	-
V00102	7910	F11752	646	11/15/2011	FORUM COMMUNICATIONS (ADVERT)	17.05	17.05	-
V00102	7999	PCARD	18009	12/20/2011	GOOGLE LOVEINTHEOVEN	116.00	116.00	-
V00102	7910	F12082	647	12/31/2011	FORUM COMMUNICATIONS (LEGALS)	2,224.20	2,224.20	-
V00102	7910	F12079	8645	12/31/2011	SEIGEL COMMUNICATIONS SERVICE	1,490.00	1,490.00	-
V00102	7910	F12218	13981	12/31/2011	NORTH DAKOTA TELEPHONE CO	81.20	81.20	-
V00102	7910	AJ	COF	2/1/2012	CITY OF FARGO	1,300.00	1,300.00	-
V00102	7910	F12256	20829	2/14/2012	BROKERAGE PRINTING	153.85	153.85	-
V00102	7910	F12256	20829	2/14/2012	BROKERAGE PRINTING	202.10	202.10	-
V00102	7910	F12595	1772	4/16/2012	WARNER & CO	4,975.00	4,975.00	-
V00102	7910	AJ	COF	5/25/2012	CITY OF FARGO	1,850.00	1,850.00	-
V00102	7910	151789	16872	6/15/2012	ERIK R JOHNSON & ASSOCIATES	673.20	673.20	-
V00102	7910	151876	16872	6/19/2012	ERIK R JOHNSON & ASSOCIATES	1,309.00	1,309.00	-
V00102	7910	AJ	COF	6/25/2012	CITY OF FARGO	340.00	340.00	-
V00102	7910	152528	1286	7/10/2012	OHNSTAD TWICHELL PC	1,903.50	1,903.50	-
V00102	7910	AJ	COF	7/27/2012	CITY OF FARGO	240.00	240.00	-
V00102	7910	153237	1286	7/31/2012	OHNSTAD TWICHELL PC	728.50	728.50	-
V00102	7910	153670	13981	8/9/2012	NORTH DAKOTA TELEPHONE CO	71.60	71.60	-
V00102	7910	154211	13981	8/23/2012	NORTH DAKOTA TELEPHONE CO	90.60	90.60	-
V00102	7910	AJ	COF	8/30/2012	CITY OF FARGO	280.00	280.00	-
V00102	7910	AJ	COF	9/26/2012	CITY OF FARGO	320.00	320.00	-
V00102	7910	155381	13981	9/27/2012	NORTH DAKOTA TELEPHONE CO	87.40	87.40	-
V00102	7910	AJ	COF	10/30/2012	CITY OF FARGO	410.00	410.00	-
V00102	7910	AJ	COF	11/28/2012	CITY OF FARGO	220.00	220.00	-
V00102	7910	157670	16872	11/30/2012	ERIK R JOHNSON & ASSOCIATES	16,826.60	16,826.60	-

FM Diversion Authority
Outstanding Contracts
As of July 31, 2014

Project Number	Division	PO No.	Vendor No.	P.O. Date	Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance
V00102	7910	158387	13981	12/20/2012	NORTH DAKOTA TELEPHONE CO	76.20	76.20	-
V00102	7910	AJ	COF	12/27/2012	CITY OF FARGO	260.00	260.00	-
V00102	7910	159214	16872	1/14/2013	ERIK R JOHNSON & ASSOCIATES	26,922.05	26,922.05	-
V00102	7910	AJ	COF	1/29/2013	CITY OF FARGO	160.00	160.00	-
V00102	7910	AJ	COF	1/29/2013	CITY OF FARGO	180.00	180.00	-
V00102	7910	159926	12961	2/5/2013	FEDERAL EXPRESS CORPORATION	71.89	71.89	-
V00102	7910	160367	16872	2/20/2013	ERIK R JOHNSON & ASSOCIATES	7,606.58	7,606.58	-
V00102	7910	160461	1772	2/25/2013	WARNER & CO	4,975.00	4,975.00	-
V00102	7910	AJ	COF	2/27/2013	CITY OF FARGO	260.00	260.00	-
V00102	7910	161131	16872	3/18/2013	ERIK R JOHNSON & ASSOCIATES	4,769.78	4,769.78	-
V00102	7910	AJ	COF	3/27/2013	CITY OF FARGO	200.00	200.00	-
V00102	7910	161699	16872	4/8/2013	ERIK R JOHNSON & ASSOCIATES	2,366.41	2,366.41	-
V00102	7910	161972	13981	4/17/2013	NORTH DAKOTA TELEPHONE CO	49.20	49.20	-
V00102	7910	162044	14216	4/19/2013	BRIGGS & MORGAN PA	1,616.36	1,616.36	-
V00102	7910	162074	21621	4/22/2013	PFM PUBLIC FINANCIAL MANAGEMEN	120,000.00	120,000.00	-
V00102	7910	AJ	COF	4/26/2013	CITY OF FARGO	460.00	460.00	-
V00102	7910	162703	16872	5/14/2013	ERIK R JOHNSON & ASSOCIATES	3,219.38	3,219.38	-
V00102	7910	163136	13981	5/30/2013	NORTH DAKOTA TELEPHONE CO	95.00	95.00	-
V00102	7910	AJ	COF	5/31/2013	CITY OF FARGO	340.00	340.00	-
V00102	7910	163409	16872	6/12/2013	ERIK R JOHNSON & ASSOCIATES	7,161.68	7,161.68	-
V00102	7910	163410	14216	6/12/2013	BRIGGS & MORGAN PA	11,111.20	11,111.20	-
V00102	7910	AJ	COF	6/30/2013	CITY OF FARGO	260.00	260.00	-
V00102	7910	163969	13981	7/8/2013	NORTH DAKOTA TELEPHONE CO	39.40	39.40	-
V00102	7910	164303	16872	7/17/2013	ERIK R JOHNSON & ASSOCIATES	3,498.60	3,498.60	-
V00102	7910	AJ	COF	7/29/2013	CITY OF FARGO	220.00	220.00	-
V00102	7910	164736	20829	8/7/2013	BROKERAGE PRINTING	117.38	117.38	-
V00102	7910	164853	16872	8/12/2013	ERIK R JOHNSON & ASSOCIATES	5,829.31	5,829.31	-

FM Diversion Authority
Outstanding Contracts
As of July 31, 2014

Project Number	Division	PO No.	Vendor No.	P.O. Date	Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance
V00102	7910	165165	13981	8/23/2013	NORTH DAKOTA TELEPHONE CO	34.20	34.20	-
V00102	7910	AJ	COF	8/31/2013	CITY OF FARGO	1,020.00	1,020.00	-
V00102	7910	165353	16872	9/5/2013	ERIK R JOHNSON & ASSOCIATES	5,511.83	5,511.83	-
V00102	7910	AJ	COF	9/25/2013	CITY OF FARGO	400.00	400.00	-
V00102	7910	166296	16872	10/16/2013	ERIK R JOHNSON & ASSOCIATES	4,513.51	4,513.51	-
V00102	7910	AJ	COF	10/28/2013	CITY OF FARGO	620.00	620.00	-
V00102	7910	PCARD	646	11/1/2013	FORUM COMMUNICATIONS (ADVERT)	589.95	589.95	-
V00102	7910	166903	16872	11/12/2013	ERIK R JOHNSON & ASSOCIATES	3,468.00	3,468.00	-
V00102	7910	AJ	COF	11/27/2013	CITY OF FARGO	300.00	300.00	-
V00102	7910	167497	16872	12/10/2013	ERIK R JOHNSON & ASSOCIATES	3,590.36	3,590.36	-
V00102	7910	AJ	COF	12/27/2013	CITY OF FARGO	1,000.00	1,000.00	-
V00102	7910	168179	16872	1/10/2014	ERIK R JOHNSON & ASSOCIATES	2,118.54	2,118.54	-
V00102	7910	AJ	COF	2/3/2014	CITY OF FARGO	600.00	600.00	-
V00102	7910	168777	16872	2/6/2014	ERIK R JOHNSON & ASSOCIATES	4,760.85	4,760.85	-
V00102	7910	168778	16872	2/6/2014	ERIK R JOHNSON & ASSOCIATES	1,739.95	1,739.95	-
V00102	7910	169295	1772	2/28/2014	WARNER & CO	4,975.00	4,975.00	-
V00102	7910	AJ	COF	3/3/2014	CITY OF FARGO	800.00	800.00	-
V00102	7910	169389	16872	3/5/2014	ERIK R JOHNSON & ASSOCIATES	3,844.55	3,844.55	-
V00102	7910	169682	13981	3/20/2014	NORTH DAKOTA TELEPHONE CO	53.60	53.60	-
V00102	7910	AJ	COF	3/31/2014	CITY OF FARGO	380.00	380.00	-
V00102	7910	170009	16872	4/4/2014	ERIK R JOHNSON & ASSOCIATES	1,982.20	1,982.20	-
V00102	7990	170012	1286	4/4/2014	OHNSTAD TWICHELL PC	754.00	754.00	-
V00102	7910	AJ	COF	4/30/2014	CITY OF FARGO	780.00	780.00	-
V00102	7910	170593	13981	5/2/2014	NORTH DAKOTA TELEPHONE CO	63.20	63.20	-
V00102	7990	170733	1286	5/9/2014	OHNSTAD TWICHELL PC	702.00	702.00	-
V00102	7910	170750	16872	5/9/2014	ERIK R JOHNSON & ASSOCIATES	10,632.93	10,632.93	-
V00102	7910	F16271	16872	5/19/2014	ERIK R JOHNSON & ASSOCIATES	664.70	664.70	-

FM Diversion Authority
Outstanding Contracts
As of July 31, 2014

Project Number	Division	PO No.	Vendor No.	P.O. Date	Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance
V00102	7910	171024	13981	5/27/2014	NORTH DAKOTA TELEPHONE CO	126.80	126.80	-
V00102	7910	AJ	COF	5/29/2014	CITY OF FARGO	620.00	620.00	-
V00102	7910	171189	16872	6/3/2014	ERIK R JOHNSON & ASSOCIATES	8,637.70	8,637.70	-
V00102	7990	171267	16872	6/5/2014	ERIK R JOHNSON & ASSOCIATES	332.35	332.35	-
V00102	7910	AJ	COF	6/30/2014	CITY OF FARGO	320.00	320.00	-
V00102	7990	171897	16872	7/8/2014	ERIK R JOHNSON & ASSOCIATES	586.50	586.50	-
V00102	7910	171899	16872	7/8/2014	ERIK R JOHNSON & ASSOCIATES	9,174.90	9,174.90	-
V00102	7990	172378	1286	7/31/2014	OHNSTAD TWICHELL PC	30,000.00	-	30,000.00
V00102	7910	AJ	COF	7/31/2014	CITY OF FARGO	480.00	480.00	-
V00103	7930	166296	16872	10/16/2013	ERIK R JOHNSON & ASSOCIATES	3,317.55	3,317.55	-
V00103	7930	166903	16872	11/12/2013	ERIK R JOHNSON & ASSOCIATES	1,856.40	1,856.40	-
V00103	7930	167497	16872	12/10/2013	ERIK R JOHNSON & ASSOCIATES	3,063.83	3,063.83	-
V00103	7930	168180	16872	1/10/2014	ERIK R JOHNSON & ASSOCIATES	4,019.61	4,019.61	-
V00103	7930	168776	16872	2/6/2014	ERIK R JOHNSON & ASSOCIATES	51.00	51.00	-
V00103	7930	169388	16872	3/5/2014	ERIK R JOHNSON & ASSOCIATES	1,043.80	1,043.80	-
V00103	7930	170008	16872	4/4/2014	ERIK R JOHNSON & ASSOCIATES	3,064.25	3,064.25	-
V00103	7930	170751	16872	5/9/2014	ERIK R JOHNSON & ASSOCIATES	3,625.25	3,625.25	-
V00103	7930	171188	16872	6/3/2014	ERIK R JOHNSON & ASSOCIATES	1,564.00	1,564.00	-
V00103	7930	171898	16872	7/8/2014	ERIK R JOHNSON & ASSOCIATES	1,632.00	1,632.00	-
V00201	7920	144170	20663	11/18/2011	CH2M HILL ENGINEERS INC	1,908,938.41	1,908,938.41	-
V00202	7920	148611	20663	3/15/2012	CH2M HILL ENGINEERS INC	3,422,306.58	3,422,306.58	-
V00203	7920	154940	20663	9/17/2012	CH2M HILL ENGINEERS INC	4,789,574.02	4,789,574.02	-
V00204	7920	166165	20663	10/10/2013	CH2M HILL ENGINEERS INC	2,160,000.00	1,980,000.00	180,000.00
V00301	7910	143936	11604	11/16/2011	ADVANCED ENGINEERING INC	50,000.00	50,000.00	-
V00401	7920	143937	165	11/16/2011	BRAUN INTERTEC CORP	54,060.00	43,620.00	10,440.00
V00501	7915	143938	165	11/16/2011	BRAUN INTERTEC CORP	36,150.00	34,009.00	2,141.00
V00601	7915	144975	20729	12/13/2011	IN SITU ENGINEERING	54,800.00	47,973.00	6,827.00

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Project Number	Division	PO No.	Vendor No.	P.O. Date	Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance
V00701	7915	144866	20723	12/9/2011	MINNESOTA DNR	1,492,718.00	944,770.00	547,948.00
V00801	7915	146973	801	1/27/2012	HOUSTON ENGINEERING INC	92,424.03	92,424.03	-
V00802	7915	146974	801	1/27/2012	HOUSTON ENGINEERING INC	70,742.30	70,742.30	-
V00803	7915	146975	801	1/27/2012	HOUSTON ENGINEERING INC	47,124.46	47,124.46	-
V00804	7925	148054	801	2/29/2012	HOUSTON ENGINEERING INC	163,222.91	163,222.91	-
V00805	7915	148058	801	2/29/2012	HOUSTON ENGINEERING INC	94,786.00	94,786.00	-
V00806	7915	148078	801	2/29/2012	HOUSTON ENGINEERING INC	108,369.87	108,369.87	-
V00901	7915	146976	1118	1/27/2012	MOORE ENGINEERING INC	92,291.55	92,291.55	-
V00902	7915	146977	1118	1/27/2012	MOORE ENGINEERING INC	135,231.99	135,231.99	-
V00903	7915	146978	1118	1/27/2012	MOORE ENGINEERING INC	142,924.27	142,924.27	-
V00904	7930	148055	1118	2/29/2012	MOORE ENGINEERING INC	78,760.62	78,760.62	-
V00905	7930	148056	1118	2/29/2012	MOORE ENGINEERING INC	32,727.08	32,727.08	-
V00906	7915	148057	1118	2/29/2012	MOORE ENGINEERING INC	8,326.50	8,326.50	-
V00907	7915	148077	1118	2/29/2012	MOORE ENGINEERING INC	164,867.66	164,867.66	-
V01002	7915	148086	17791	2/29/2012	URS CORPORATION	480,488.42	480,488.42	-
V01003	7915	163308	17791	6/6/2013	URS CORPORATION	1,021,000.00	325,246.65	695,753.35
V01101	7905	AJ	CORP	6/19/2013	ARMY CORP OF ENGINEERS	350,000.00	350,000.00	-
V01101	7905	AJ	CORP	8/13/2013	ARMY CORP OF ENGINEERS	2,100,000.00	1,575,000.00	525,000.00
V01201	7930	F12069	19734	12/31/2011	CASS COUNTY JOINT WATER RESOUR	16,708.86	16,708.86	-
V01201	7930	F12069	19734	12/31/2011	CASS COUNTY JOINT WATER RESOUR	22,452.50	22,452.50	-
V01201	7930	149405	19734	4/10/2012	CASS COUNTY JOINT WATER RESOUR	20,652.04	20,652.04	-
V01201	7930	149405	19734	4/10/2012	CASS COUNTY JOINT WATER RESOUR	62,467.05	62,467.05	-
V01201	7930	156814	19734	11/5/2012	CASS COUNTY JOINT WATER RESOUR	48,138.28	48,138.28	-
V01201	7930	156814	19734	11/5/2012	CASS COUNTY JOINT WATER RESOUR	23,113.23	23,113.23	-
V01201	7930	156814	19734	11/5/2012	CASS COUNTY JOINT WATER RESOUR	8,250.00	8,250.00	-
V01201	7930	157055	19734	11/9/2012	CASS COUNTY JOINT WATER RESOUR	55,312.46	55,312.46	-
V01201	7930	157055	19734	11/9/2012	CASS COUNTY JOINT WATER RESOUR	26,500.00	26,500.00	-

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Project Number	Division	PO No.	Vendor No.	P.O. Date	Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance
V01201	7930	157055	19734	11/9/2012	CASS COUNTY JOINT WATER RESOUR	13,500.00	13,500.00	-
V01201	7930	160369	19734	2/20/2013	CASS COUNTY JOINT WATER RESOUR	24,990.57	24,990.57	-
V01201	7930	161700	19734	4/8/2013	CASS COUNTY JOINT WATER RESOUR	52,735.94	52,735.94	-
V01201	7930	164075	19734	7/10/2013	CASS COUNTY JOINT WATER RESOUR	65,419.85	65,419.85	-
V01201	7930	166046	19734	10/3/2013	CASS COUNTY JOINT WATER RESOUR	145,998.06	145,998.06	-
V01201	7930	168966	19734	2/14/2014	CASS COUNTY JOINT WATER RESOUR	152,036.11	152,036.11	-
V01201	7930	170636	19734	5/6/2014	CASS COUNTY JOINT WATER RESOUR	247,825.05	247,825.05	-
V01201	7930	172334	19734	7/29/2014	CASS COUNTY JOINT WATER RESOUR	171,758.07	-	171,758.07
V01202	7930	166046	19734	10/3/2013	CASS COUNTY JOINT WATER RESOUR	84,505.69	84,505.69	-
V01202	7930	168966	19734	2/14/2014	CASS COUNTY JOINT WATER RESOUR	67,919.99	67,919.99	-
V01202	7930	170636	19734	5/6/2014	CASS COUNTY JOINT WATER RESOUR	38,509.60	38,509.60	-
V01202	7930	172334	19734	7/29/2014	CASS COUNTY JOINT WATER RESOUR	47,364.89	-	47,364.89
V01203	7952	172334	19734	7/29/2014	CASS COUNTY JOINT WATER RESOUR	190,461.46	-	190,461.46
V01301	7915	147745	1118	2/17/2012	MOORE ENGINEERING INC	5,558.50	5,558.50	-
V01301	7931	F12593	1286	4/16/2012	OHNSTAD TWICHELL PC	1,408.00	1,408.00	-
V01301	7931	149869	1118	4/23/2012	MOORE ENGINEERING INC	1,780.00	1,780.00	-
V01301	7931	150230	1286	5/3/2012	OHNSTAD TWICHELL PC	2,029.50	2,029.50	-
V01301	7931	150961	1286	5/23/2012	OHNSTAD TWICHELL PC	220.50	220.50	-
V01301	7931	151790	1122	6/15/2012	MOORHEAD, CITY OF	15,062.90	15,062.90	-
V01301	7931	152058	1286	6/27/2012	OHNSTAD TWICHELL PC	410.00	410.00	-
V01301	7931	154504	1286	9/4/2012	OHNSTAD TWICHELL PC	1,373.50	1,373.50	-
V01301	7931	154505	1286	9/4/2012	OHNSTAD TWICHELL PC	676.50	676.50	-
V01301	7931	156088	1286	10/15/2012	OHNSTAD TWICHELL PC	1,102.50	1,102.50	-
V01301	7931	157054	1286	11/9/2012	OHNSTAD TWICHELL PC	2,685.00	2,685.00	-
V01301	7931	159216	1286	1/14/2013	OHNSTAD TWICHELL PC	1,247.16	1,247.16	-
V01301	7931	160365	1286	2/20/2013	OHNSTAD TWICHELL PC	1,148.00	1,148.00	-
V01301	7931	160797	1286	3/7/2013	OHNSTAD TWICHELL PC	738.00	738.00	-

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V01301	7931	161824	1286	4/11/2013	OHNSTAD TWICHELL PC	471.50	471.50	-
V01301	7931	162447	1286	5/6/2013	OHNSTAD TWICHELL PC	102.50	102.50	-
V01301	7931	163135	1286	5/30/2013	OHNSTAD TWICHELL PC	164.00	164.00	-
V01301	7931	164693	1286	8/5/2013	OHNSTAD TWICHELL PC	266.50	266.50	-
V01301	7931	165314	1286	9/3/2013	OHNSTAD TWICHELL PC	61.50	61.50	-
V01301	7931	PCARD	339	11/1/2013	OHNSTAD TWICHELL PC	246.00	246.00	-
V01301	7931	166799	1286	11/6/2013	OHNSTAD TWICHELL PC	-	-	-
V01301	7931	167297	1286	12/2/2013	OHNSTAD TWICHELL PC	410.00	410.00	-
V01301	7931	PCARD	351	12/4/2013	OHNSTAD TWICHELL PC	102.50	102.50	-
V01301	7931	167973	1286	1/2/2014	OHNSTAD TWICHELL PC	-	-	-
V01301	7931	PCARD	370	2/3/2014	OHNSTAD TWICHELL PC	225.50	225.50	-
V01301	7931	168719	1286	2/5/2014	OHNSTAD TWICHELL PC	205.00	205.00	-
V01301	7931	169390	1286	3/5/2014	OHNSTAD TWICHELL PC	963.50	963.50	-
V01301	7931	170011	1286	4/4/2014	OHNSTAD TWICHELL PC	1,951.50	1,951.50	-
V01301	7931	170734	1286	5/9/2014	OHNSTAD TWICHELL PC	2,772.00	2,772.00	-
V01301	7931	171266	1286	6/5/2014	OHNSTAD TWICHELL PC	1,619.50	1,619.50	-
V01301	7931	171900	1286	7/8/2014	OHNSTAD TWICHELL PC	1,203.00	1,203.00	-
V01501	7915	150960	19581	5/23/2012	GEOKON INC	33,815.36	33,815.36	-
V01601	7920	151232	21007	5/31/2012	HOUSTON-MOORE GROUP LLC	2,487,675.00	2,095,157.46	392,517.54
V01602	7930	151233	21007	5/31/2012	HOUSTON-MOORE GROUP LLC	891,000.00	882,036.70	8,963.30
V01603	7915	151234	21007	5/31/2012	HOUSTON-MOORE GROUP LLC	2,448,300.00	2,448,034.90	265.10
V01604	7930	151235	21007	5/31/2012	HOUSTON-MOORE GROUP LLC	1,566,000.00	1,532,584.30	33,415.70
V01605	7915	151236	21007	5/31/2012	HOUSTON-MOORE GROUP LLC	845,983.45	845,983.45	-
V01606	7930	151237	21007	5/31/2012	HOUSTON-MOORE GROUP LLC	618,103.00	536,897.48	81,205.52
V01607	7915	152022	21007	6/25/2012	HOUSTON-MOORE GROUP LLC	240,000.00	233,589.51	6,410.49
V01608	7915	152023	21007	6/25/2012	HOUSTON-MOORE GROUP LLC	856,675.00	540,367.17	316,307.83
V01609	7915	152024	21007	6/25/2012	HOUSTON-MOORE GROUP LLC	1,338,341.00	885,248.18	453,092.82

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V01610	7930	152025	21007	6/25/2012	HOUSTON-MOORE GROUP LLC	338,000.00	88,499.25	249,500.75
V01611	7930	155529	21007	10/2/2012	HOUSTON-MOORE GROUP LLC	771,000.00	460,199.97	310,800.03
V01612	7930	155530	21007	10/2/2012	HOUSTON-MOORE GROUP LLC	665,000.00	-	665,000.00
V01613	7915	157599	21007	11/29/2012	HOUSTON-MOORE GROUP LLC	5,455,000.00	2,469,758.98	2,985,241.02
V01614	7915	160644	21007	3/1/2013	HOUSTON-MOORE GROUP LLC	605,000.00	553,082.59	51,917.41
V01615	7915	165854	21007	9/25/2013	HOUSTON-MOORE GROUP LLC	500,000.00	193,469.20	306,530.80
V01616	7915	167178	21007	11/22/2013	HOUSTON-MOORE GROUP LLC	205,000.00	33,152.06	171,847.94
V01701	7930	155627	7198	10/3/2012	NORTHERN TITLE CO	484,016.00	484,016.00	-
V01701	7930	159217	201	1/14/2013	CASS COUNTY TREASURER	84,832.36	84,832.36	-
V01701	7930	167423	201	12/6/2013	CASS COUNTY TREASURER	83,421.43	83,421.43	-
V01701	7930	AJ	JB01140008	1/23/2014	CASS COUNTY JOINT WATER RESOUR	1,636,230.00	1,636,230.00	-
V01701	7930	AJ	JB01140007	1/23/2014	CASS COUNTY JOINT WATER RESOUR	959,840.00	959,840.00	-
V01701	7930	168966	19734	2/14/2014	CASS COUNTY JOINT WATER RESOUR	420.40	420.40	-
V01701	7930	AJ	JB02140005	2/18/2014	CASS COUNTY JOINT WATER RESOUR	3,458,980.70	3,458,980.70	-
V01701	7930	AJ	JB02140005	2/18/2014	CASS COUNTY JOINT WATER RESOUR	49,545.36	49,545.36	-
V01701	7930	AJ	JB04140005	4/17/2014	CASS COUNTY JOINT WATER RESOUR	941,582.83	941,582.83	-
V01701	7930	170636	19734	5/6/2014	CASS COUNTY JOINT WATER RESOUR	204.25	204.25	-
V01701	7930	AJ	JB05140004	5/9/2014	CASS COUNTY JOINT WATER RESOUR	943,560.05	943,560.05	-
V01701	7930	171921	22401	7/9/2014	KOCHMANN, CARTER	105.00	105.00	-
V01701	7930	AJ	JB07140012	7/22/2014	CASS COUNTY JOINT WATER RESOUR	989,706.03	989,706.03	-
V01701	7930	172334	19734	7/29/2014	CASS COUNTY JOINT WATER RESOUR	215.14	-	215.14
V01701	7930	AJ			CASS COUNTY JOINT WATER RESOUR	953,000.00	-	953,000.00
V01702	7930	157394	20529	11/21/2012	KENNELLY & OKEEFFE	216,401.85	216,401.85	-
V01702	7930	157470	20529	11/26/2012	KENNELLY & OKEEFFE	342,601.87	342,601.87	-
V01702	7930	F13677	11046	11/26/2012	RED RIVER TITLE SERVICES INC	250.00	250.00	-
V01702	7930	F13678	11046	11/26/2012	RED RIVER TITLE SERVICES INC	170.00	170.00	-
V01702	7930	158252	21423	12/18/2012	HUBER, STEVE	1,056.43	1,056.43	-

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V01702	7930	159217	201	1/14/2013	CASS COUNTY TREASURER	6,825.95	6,825.95	-
V01702	7930	164432	20529	7/24/2013	KENNELLY & OKEEFFE	375,581.20	375,581.20	-
V01702	7930	165248	21845	8/29/2013	MCKINZIE METRO APPRAISAL	3,200.00	3,200.00	-
V01702	7930	167423	201	12/6/2013	CASS COUNTY TREASURER	7,045.72	7,045.72	-
V01702	7930	168720	20529	2/5/2014	KENNELLY & OKEEFFE	512,970.73	512,970.73	-
V01801	7930	155531	1714	10/2/2012	ULTEIG ENGINEERS INC	100,000.00	-	100,000.00
V01901	7930	155469	21258	10/1/2012	PROSOURCE TECHNOLOGIES, INC	100,000.00	8,324.94	91,675.06
V02001	7930	157598	10078	11/29/2012	COLDWELL BANKER	4,346.77	4,346.77	-
V02001	7930	158046	10078	12/12/2012	COLDWELL BANKER	8,000.00	8,000.00	-
V02001	7930	160366	10078	2/20/2013	COLDWELL BANKER	2,600.00	2,600.00	-
V02001	7930	161153	10078	3/18/2013	COLDWELL BANKER	1,000.00	1,000.00	-
V02001	7930	164785	10078	8/8/2013	COLDWELL BANKER	11,000.00	11,000.00	-
V02001	7930	167177	10078	11/22/2013	COLDWELL BANKER	4,500.00	4,500.00	-
V02001	7930	169174	10078	2/25/2014	COLDWELL BANKER	1,619.25	1,619.25	-
V02101	7930	157607	12775	11/29/2012	RED RIVER BASIN COMMISSION	500,000.00	447,747.40	52,252.60
V02201	7915	163309	18968	6/6/2013	US GEOLOGICAL SURVEY	46,920.00	46,920.00	-
V02302	7931	166597	20529	10/30/2013	KENNELLY & OKEEFFE	281,554.91	281,554.91	-
V02302	7931	166725	3841	11/4/2013	DAWSON INSURANCE AGENCY	1,867.81	1,867.81	-
V02302	7931	166975	11046	11/14/2013	RED RIVER TITLE SERVICES INC	255.00	255.00	-
V02302	7931	167042	21974	11/18/2013	RED RIVER VALLEY COOPERATIVE A	332.06	332.06	-
V02302	7931	167421	17677	12/6/2013	FERRELLGAS	496.00	496.00	-
V02302	7931	167422	296	12/6/2013	CURTS LOCK & KEY SERVICE INC	138.10	138.10	-
V02302	7931	167501	12673	12/10/2013	DONS PLUMBING	240.00	240.00	-
V02302	7931	167633	13109	12/16/2013	TRIO ENVIRONMENTAL CONSULTING	747.60	747.60	-
V02302	7931	167750	21974	12/19/2013	RED RIVER VALLEY COOPERATIVE A	44.60	44.60	-
V02302	7931	168368	21974	1/17/2014	RED RIVER VALLEY COOPERATIVE A	50.99	50.99	-
V02302	7931	169117	21974	2/21/2014	RED RIVER VALLEY COOPERATIVE A	41.93	41.93	-

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Project Number	Division	PO No.	Vendor No.	P.O. Date	Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance
V02302	7931	169683	21974	3/20/2014	RED RIVER VALLEY COOPERATIVE A	39.93	39.93	-
V02302	7931	170010	4029	4/4/2014	CLAY COUNTY AUDITOR	1,550.00	1,550.00	-
V02302	7931	170347	21974	4/22/2014	RED RIVER VALLEY COOPERATIVE A	27.45	27.45	-
V02401	7915	167179	16980	11/22/2013	OXBOW, CITY OF	371,123.00	178,614.92	192,508.08
V02402	7915	167180	16980	11/22/2013	OXBOW, CITY OF	154,046.00	147,138.04	6,907.96
V02403	7915	167828	16980	12/23/2013	OXBOW, CITY OF	86,603.46	85,630.57	972.89
V02404	0000	AJ	22024	12/16/2013	COMMERCIAL TITLE LLC	3,869,270.00	3,869,270.00	-
V02404	0000	F15616	22024	12/17/2013	COMMERCIAL TITLE LLC	271.00	271.00	-
V02404	0000	F15620	196	12/19/2013	CASS COUNTY RECORDER	68.00	68.00	-
V02404	0000	F15617	2265	12/19/2013	TITLE COMPANY	3,641,500.00	3,641,500.00	-
V02404	0000	F15619	22035	12/19/2013	INNOVATIVE ABSTRACT & TITLE CO	15,921.53	15,921.53	-
V02404	0000	F15639	20529	12/23/2013	KENNELLY & OKEEFFE	200.00	200.00	-
V02404	0000	F16036	11046	3/17/2014	RED RIVER TITLE SERVICES INC	105.00	105.00	-
V02404	0000	F16037	11046	3/17/2014	RED RIVER TITLE SERVICES INC	525.00	525.00	-
V02405	7915	169391	16980	3/5/2014	OXBOW, CITY OF	1,607,984.00	812,032.00	795,952.00
V02406	7915	169910	16980	4/2/2014	OXBOW, CITY OF	687,750.00	236,250.00	451,500.00
V02407	7910	170297	16980	4/17/2014	OXBOW, CITY OF	18,520.53	18,520.53	-
V02407	7910	170298	16980	4/17/2014	OXBOW, CITY OF	9,714.88	9,714.88	-
V02407	7910	171896	16980	7/8/2014	OXBOW, CITY OF	9,686.58	9,686.58	-
V02408	7940	171995	22404	7/11/2014	DUCKS UNLIMITED	587,180.00	587,180.00	-
V02409	7952	172163	16980	7/18/2014	OXBOW, CITY OF	10,719,900.90	109,271.60	10,610,629.30
V02410	7920	172379	16980	7/31/2014	OXBOW, CITY OF	7,083.33	-	7,083.33
V02411	7952	172380	19734	7/31/2014	CASS COUNTY JOINT WATER RESOUR	2,821,659.23	-	2,821,659.23
						$ 79,934,616.80	**$ 55,262,391.19**	**$ 24,672,225.61**

FM Diversion Authority
Cumulative Vendor Payments Since Inception
As of July 31, 2014

Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance	Purpose
HOUSTON-MOORE GROUP LLC	$ 19,831,077.45	$ 13,798,061.20	$ 6,033,016.25	Engineering Services
CASS COUNTY JOINT WATER RESOUR	14,341,563.69	10,157,104.90	4,184,458.79	Land Purchases, O/H/B Ring Levee, DPAC, & ROE
OXBOW, CITY OF	13,672,412.68	1,606,859.12	12,065,553.56	City of Oxbow - MOU
CH2M HILL ENGINEERS INC	12,280,819.01	12,100,819.01	180,000.00	Project Management
COMMERCIAL TITLE LLC	3,869,541.00	3,869,541.00	-	Oxbow MOU - Advance for Land Purchase
TITLE COMPANY	3,641,500.00	3,641,500.00	-	Oxbow MOU - Advance for Land Purchase
ARMY CORP OF ENGINEERS	2,450,000.00	1,925,000.00	525,000.00	Local Share
KENNELLY & OKEEFFE	1,729,310.56	1,729,310.56	-	Home Buyouts
URS CORPORATION	1,501,488.42	805,735.07	695,753.35	Engineering Services
MINNESOTA DNR	1,492,718.00	944,770.00	547,948.00	EIS Scoping
DORSEY & WHITNEY LLP	1,188,239.62	1,041,079.62	147,160.00	Legal Services
MOORE ENGINEERING INC	662,468.17	662,468.17	-	Engineering Services
DUCKS UNLIMITED	587,180.00	587,180.00	-	Wetland Mitigation Credits
HOUSTON ENGINEERING INC	576,669.57	576,669.57	-	Engineering Services
RED RIVER BASIN COMMISSION	500,000.00	447,747.40	52,252.60	Engineering Services
NORTHERN TITLE CO	484,016.00	484,016.00	-	Land Purchases
CASS COUNTY TREASURER	182,125.46	182,125.46	-	Property Tax
ERIK R JOHNSON & ASSOCIATES	164,979.15	164,979.15	-	Legal Services
PFM PUBLIC FINANCIAL MANAGEMEN	120,000.00	120,000.00	-	Financial Advisor
PROSOURCE TECHNOLOGIES, INC	100,000.00	8,324.94	91,675.06	Engineering Services
ULTEIG ENGINEERS INC	100,000.00	-	100,000.00	Engineering Services
BRAUN INTERTEC CORP	90,210.00	77,629.00	12,581.00	Quality Testing
OHNSTAD TWICHELL PC	57,891.16	27,891.16	30,000.00	ROE and Bonding Legal Fees
IN SITU ENGINEERING	54,800.00	47,973.00	6,827.00	Quality Testing
ADVANCED ENGINEERING INC	50,000.00	50,000.00	-	Public Outreach
US GEOLOGICAL SURVEY	46,920.00	46,920.00	-	Stage Gages
GEOKON INC	33,815.36	33,815.36	-	Vibrating Wire Piezometer Equipment
COLDWELL BANKER	33,066.02	33,066.02	-	Property Management Services
INNOVATIVE ABSTRACT & TITLE CO	15,921.53	15,921.53	-	Oxbow MOU - Advance for Land Purchase
MOORHEAD, CITY OF	15,062.90	15,062.90	-	ROE Legal Fees
WARNER & CO	14,925.00	14,925.00	-	General Liability Insurance
CITY OF FARGO	14,620.00	14,620.00	-	Accounting Services
BRIGGS & MORGAN PA	12,727.56	12,727.56	-	Legal Services
MCKINZIE METRO APPRAISAL	3,200.00	3,200.00	-	Appraisal Services
FORUM COMMUNICATIONS (LEGALS)	2,224.20	2,224.20	-	Advertising Services
DAWSON INSURANCE AGENCY	1,867.81	1,867.81	-	Property Insurance - Home Buyouts
FORUM COMMUNICATIONS (ADVERT)	1,743.77	1,743.77	-	Advertising Services
CLAY COUNTY AUDITOR	1,550.00	1,550.00	-	Property Tax
SEIGEL COMMUNICATIONS SERVICE	1,490.00	1,490.00	-	Public Outreach
RED RIVER TITLE SERVICES INC	1,305.00	1,305.00	-	Abstract Updates

FM Diversion Authority
Cumulative Vendor Payments Since Inception
As of July 31, 2014

Vendor Name	Approved Contract/Invoice Amount	Liquidated	Outstanding Encumbrance	Purpose
HUBER, STEVE	1,056.43	1,056.43	-	Home Buyouts
NORTH DAKOTA TELEPHONE CO	868.40	868.40	-	Communication
TRIO ENVIRONMENTAL CONSULTING	747.60	747.60	-	Asbestos and LBP Testing - Home Buyouts
RED RIVER VALLEY COOPERATIVE A	536.96	536.96	-	Electricity - Home Buyouts
FERRELLGAS	496.00	496.00	-	Propane - Home Buyouts
BROKERAGE PRINTING	473.33	473.33	-	Custom Printed Forms
GALLAGHER BENEFIT SERVICES INC	250.00	250.00	-	Job Description Review
DONS PLUMBING	240.00	240.00	-	Winterize - Home Buyouts
CURTS LOCK & KEY SERVICE INC	138.10	138.10	-	Service Call - Home Buyouts
GOOGLE LOVEINTHEOVEN	116.00	116.00	-	Meeting Incidentals
KOCHMANN, CARTER	105.00	105.00	-	Lawn Mowing Services
FEDERAL EXPRESS CORPORATION	71.89	71.89	-	Postage
CASS COUNTY RECORDER	68.00	68.00	-	Oxbow MOU - Advance for Land Purchase
Grand Total	**$ 79,934,616.80**	**$ 55,262,391.19**	**$ 24,672,225.61**	

FM Diversion Authority
Lands Expense - Life To Date
As of July 31, 2014

Property Address	Purchase Date	Purchase Price	Appraisal	Abstract	Tax Payment	Property Management Expense	Property Management Income	Sale Proceeds	Total
Hayden Heights Land, West Fargo ND	10/12/2012	484,016.00	-	-	166,874.29	-	-	(240,166.11)	410,724.18
105 Oxbow Drive, Oxbow ND	11/28/2012	216,401.85	-	250.00	4,993.72	13,695.77	(18,680.72)	(181,249.54)	35,411.08
744 Riverbend, Oxbow ND	12/3/2012	343,658.30	-	170.00	7,296.43	16,560.03	(24,117.16)	-	343,567.60
121 Oxbow Drive, Oxbow ND	7/31/2013	375,581.20	3,200.00	-	1,581.52	19,519.02	-	(186,918.33)	212,963.41
333 Schnell Drive, Oxbow ND	9/20/2013	104,087.79	-	-	1,379.50	729.65	-	-	106,196.94
387 170th Ave SW, Moorhead MN	11/1/2013	281,554.91	-	255.00	1,550.00	2,547.18	-	(8,440.00)	277,467.09
SE 1/4 11-140-50 (Raymond Twp) - Ueland	1/20/2014	959,840.00	-	-	-	-	(13,543.73)	-	946,296.27
2 Tracts in the E 1/2-2-137-49 - Sorby/Maier	1/24/2014	1,636,230.00	-	-	-	-	(28,882.99)	-	1,607,347.01
346 Schnell Dr, Oxbow ND	2/13/2014	512,970.73	-	-	-	8,056.84	(4,500.00)	-	516,527.57
3 Tracts NW1/4 1-140-50, NW1/4 11-140-50, & S1/2 25-141-50 - Rust	2/18/2014	3,458,980.70	-	-	-	-	(59,830.86)	-	3,399,149.84
11-140-50 NE1/4 (Raymond Twp) - Diekrager	4/15/2014	991,128.19	-	-	-	-	(15,654.86)	-	975,473.33
NW 1/4 36-141-50 - Monson	5/7/2014	943,560.05	-	-	-	-	(12,089.61)	-	931,470.44
SW 1/4-11-140-50 - Hoglund	7/21/2014	989,706.03	-	-	-	-	(2,668.42)	-	987,037.61
	Total	11,297,715.75	3,200.00	675.00	183,675.46	61,108.49	(179,968.35)	(616,773.98)	10,749,632.37

FM Diversion Authority
State Water Commission Funds Reimbursement Worksheet
Fargo Flood Control Project Costs

Time Period for This Request: July 1, 2014 - July 31, 2014

Drawdown Request No: 3		
Requested Amount:	**$**	**342,762**
Total Funds Expended This Period:	$	685,524
SB 2020 Matching Requirements		50%
Total Funds Requested at 50% Match	$	342,762
Total Funds Requested:	**$**	**342,762**

STATE AID SUMMARY:		
Summary of State Funds Appropriated		
Appropriations from 2009 Legislative Session	$	45,000,000
Appropriations from 2011 Legislative Session		30,000,000
Appropriations from 2013 Legislative Session		100,000,000
Total State Funds Appropriated	$	175,000,000
Less: Payment #1 through #29 - City of Fargo		(46,756,338)
Less: Payment #1 - Cass County		(136,039)
Less: Payment #1 - FM Diversion Authority		(18,600)
Less: Payment #2 - FM Diversion Authority - REVISED		(782,908)
Less: Payment #3 - FM Diversion Authority		(342,762)
Total Funds Reimbursed	$	(48,036,647)
Total State Fund Balances Remaining	**$**	**126,963,353**

LOCAL MATCHING FUNDS SUMMARY:		
Matching Funds Expended To Date - City of Fargo	$	45,401,622
Matching Funds Expended To Date - Cass County		291,500
Matching Funds Expended To Date - FM Diversion Authority		85,488
Total Matching Funds Expended To Date	$	45,778,610
Less: Match Used on Payment #1 through #29 - City of Fargo		(35,451,291)
Less: Match used on Payment #1 - Cass County		(136,039)
Less: Match Used on Payment #1 - FM Diversion Authority		(18,600)
Less: Match Used on Payment #2 - FM Diversion Authority		(66,888)
Balance of Local Matching Funds Available	**$**	**10,105,792**

Task Order No. 5
Diversion Board of Authority
Fargo-Moorhead Area Diversion Project

In accordance with Article 1 of the *STANDARD MASTER AGREEMENT FOR PROFESSIONAL SERVICES* ("Agreement"), between the Diversion Board of Authority ("OWNER") and CH2M HILL ENGINEERS, INC. ("ENGINEER"), dated March 8, 2012, OWNER and ENGINEER agree to the scope of services, work schedule, and cost budget as follows:

Task Order Title: Pre-Project Partnership Agreement (PPA) Program, Technical, Legislative Support, Project Implementation, Public Outreach, and Land Support Services

Description: Pre-PPA Program, Technical, Legislative Support, Project Implementation, Public Outreach, and Land Support Services are required to support the OWNER prior to certain Federal actions, including Appropriation of Federal Funds and execution of project implementation agreements, including a PPA. This task authorizes ENGINEER to provide staff for this support at a specified level of effort (LOE) described in the scope.

Scope of Services:

Pre-PPA Program, Technical, Legislative Support, Project Implementation, Public Outreach, and Land Support Services

Objectives: Provide Pre-PPA Program, Technical, Legislative Support, Project Implementation, Public Outreach, and Land Support Services support for the Fargo-Moorhead Area Diversion Project (Project) for the period specified in this Task Order. The anticipated Project major activities to be supported during this time are:

- In-Town Levees Design and Construction
- Oxbow/Hickson/Bakke Levees Design, and Construction
- Land Acquisition in Minnesota
- Utility Relocations in Reaches 1, 2, and 3
- Cultural Mitigation in Reach 1
- Phase 2 Area Studies (no detailed design)
- Development of an Operating Plan
- Business Leaders Outreach
- Legislative (NDSWC and 2015 session) Reporting and Communication
- Impacted landowner Outreach in Minnesota and North Dakota
- PPA and other USACE agreements
- MN Environmental Impact Statement

ENGINEER has identified staff to support the anticipated activities. Positions to be staffed during this period on a part-time basis (and proposed individuals), are as follows: Principal-In-Charge (Martin Nicholson), Project Manager and Technical Lead (Bruce Spiller), U.S. Army Corps of Engineers (USACE) Liaison (Tom Waters), Project Engineers (John Glatzmaier), Public Outreach (Eric Dodds, Rocky Schneider, Daron Selvig), Land (Eric Dodds, Dirk Draper), Project Controls Specialist (Don Giovannetti), Scheduler (Kylie Camson), and Project Assistant(s). During the course of the execution of this Task Order, there may be additional personnel assigned to the Task Order on an as-needed basis, and there may be changes in the staff listed above.

Subtask 5.A-Program Services

Program Services will be led by the Subtask Manager. General responsibilities for this subtask include the following:

1. Participate in scheduled Admin Advisory meetings and participate in calls and meetings with the Board Chair to assist OWNER's staff in planning, organizing, and directing activities required to implement the Task Order. Attend Board meetings. Prepare agendas and read-ahead materials for Admin Advisory Staff meetings, and Board and Committee meetings.
2. Participate in Joint Leadership structure meetings, including the Joint Program Management Board (conference call), and the Executive Leadership Council (in-person meetings). Prepare agendas and read-ahead materials for Joint Program Management Board and Executive Leadership Council meetings.
3. Provide assistance and input when requested on OWNER's governance, policy and USACE coordination actions.

Subtask 5.B-Technical Support Services

Technical Support Services will be led by the Task and Subtask Manager (Bruce Spiller). General responsibilities for this subtask include the following:

1. Manage and coordinate technical activities of Houston-Moore Group (HMG) and URS.
2. Coordinate OWNER-led technical activities with USACE.
3. Coordinate and facilitate Technical Advisory Team (TAC) and Local Consultant/Local Sponsor Technical Team (LSLCTT) meetings.
4. Provide review of HMG and USACE studies, reports, and designs for general consistency with OWNER's Project objectives.
5. Provide technical support for the preparation of the Environmental Impact Statement (EIS) by the Minnesota Department of Natural Resources.
6. Update and maintain the cost-loaded schedule and Project budget.
7. Maintain a website for storage of Project technical documents (functionality limited to document storage and retrieval).

Subtask 5.C-Legislative Support Services

Support OWNER's legislative engagement efforts to obtain Congressional Appropriations. Anticipated level of effort for this subtask includes monthly conference calls with ENGINEER's staff in Washington, D.C., Tom Waters, and Martin Nicholson. Coordinate and participate in OWNER's bi-annual visits to Washington, D.C., provide limited lobbying assistance from ENGINEER's Washington, D.C. staff, and coordinate national activities with the local government affairs team.

Subtask 5.D-Project Implementation Support

Support OWNER's efforts to develop a project implementation strategy utilizing a Public Private Partnership (PPP) or other delivery model (phased implementation) applicable to the diversion project. A sub-consultant, Ernst and Young Infrastructure Advisors, will be retained to assist with this subtask.

Efforts under this subtask include coordination with the OWNER and the USACE and its consultants to explore and further develop the concepts for a PPP implementable under the USACE PPP Pilot Program. General information on the characteristics, risks, advantages and disadvantages, and market-based financial implications of a PPP implementation model compared to other delivery options (e.g. phased or split delivery) will be provided.

The anticipated level of effort for this subtask includes bi-monthly conference calls with OWNER and USACE leadership and staff, and attendance at 4 meetings/workshops with the OWNER or USACE and its consultants. Development of a detailed financial model, financial advice, and procurement activities to secure an alternative financing transaction to implement the project are not included in this subtask.

Subtask 5.E-Public Outreach Support Services

Public Outreach Support Services will be led by the Subtask Manager (Eric Dodds). General responsibilities for this subtask include the following:

1. Assist OWNER in managing its Public Outreach program. Such assistance is anticipated to include:
    - Monitoring and managing outreach services;
    - Coordination and communication with OWNER representatives;
    - Attend and facilitate monthly Outreach Committee meetings;
    - Organize, attend, and facilitate bi-weekly Outreach Working Group meetings;
    - Coordination with other Diversion Committees (TAC, Lands, Finance, DPAC, etc.) as necessary for outreach coordination;
    - Attend and participate in Administrative Advisory Team meetings to provide updates and coordination for outreach activities;
    - Attend and participate in Diversion Authority Board meetings to provide updates and coordination for outreach activities; and
    - Participate in regular conference calls with Diversion Authority chairman.
2. Assist OWNER with public outreach, involvement, and image. Such assistance is anticipated to include:
    - Coordinate and facilitate public meetings;
    - Organize materials for and/or present at meetings with individuals or agencies;
    - Produce and update maps and other documents for distribution to the public;
    - Prepare and present Project information to civic and business groups;
    - Coordinate with the USACE (and other agencies) on outreach efforts;
    - Deliver answers to the public, media, opposition, and others interested in the Project;
    - Assist in providing quarterly updates to commissions/councils, including individual meetings with local elected officials; and
    - Prepare official correspondence for OWNER, including press releases, news alerts, and talking points for OWNER.
3. Coordinate with Business Leaders Flood Taskforce, including monthly coordination with the business group staffs and quarterly meetings and presentations with the task force.
4. Perform media tracking and analysis, including daily monitoring of media and notification to project stakeholders, and production of a bi-weekly media tracking and analysis report.
5. Legislative outreach and engagement services, including:
    - Assist with pre-legislative session activities and support legislative session activities;
    - Assist with legislative reporting requirements to ND state budget section and other interim legislative committees;
    - Attend legislative interim committee meetings regarding the Project;
    - Assist in routine reporting to the ND State Water Commission;
    - Facilitate meetings and engagement with elected leaders or their representatives;
    - Monitor positions held by elected leaders on the Diversion Project; and
    - Prepare communications or information for OWNER to provide to elected leaders.

6. Maintain and support a public website (www.fmdiversion.com) that provides information about the Diversion Project.
7. Prepare and distribute monthly "Diversion Dialogue" E-newsletter, and:
    - Maintain and update an editorial calendar for the newsletter;
    - Maintain and update the distribution list for the newsletter;
    - Prepare draft articles for distribution and review; and
    - Finalize and public articles to the monthly electronic newsletter.

Subtask 5.F-Lands Support Services

Lands Support Services will be led by the Subtask Manager. General responsibilities for this subtask include the following:

1. Assist OWNER in managing its land acquisition program in Minnesota. Such assistance is expected to include:
    - Coordinate with entities designated by OWNER in these acquisitions;
    - Provide routine reporting of acquisition program status and actions to stakeholders and committees; and Manage hardship and opportunistic acquisitions.

Obligations of OWNER:

OWNER's responsibilities shall be as shown in Article 5 of the Agreement and Attachment A to this Task Order No. 5.

Times for Rendering Services:

Start: August 30, 2014
End: February 27, 2015

Payments to ENGINEER:

For Method of Payment:

The total compensation for services identified in this Task Order is not to exceed $1,860,000 based on the following assumed distribution:

Period of Performance	Unit	($/unit)	Budget ($)
Six (6) Months	Lump Sum per month	310,000	1,860,000
TOTAL			**1,860,000**

Other Modifications to Agreement: None

Attachments: OWNER's Responsibilities

Documents Incorporated By Reference: Standard Master Agreement for Professional Services between the OWNER and ENGINEER executed March 8, 2012, and any attachments and executed amendments.

Approval and Acceptance of this Task Order, including the attachments listed above, shall incorporate this document as part of the Agreement. ENGINEER is authorized to begin performance as stated herein.

The Effective Date of this Task Order is August 30, 2014.

This Amendment and the services covered by this Amendment will be performed in accordance with the Provisions and any attachments or schedules of the Agreement. This Amendment will become a part of the referenced Agreement when executed by both parties.

Diversion Board of Authority		**CH2M HILL ENGINEERS, INC.**	
Signature	_____	Signature	_____
Name	Darrell Vanyo	Name	Thomas J. Helgeson
Title	Chairman	Title	Vice President and Area Manager
Date	_____	Date	_____

Attachment A
OWNER's Responsibilities

1. Track and report funding status.
2. Track WIKS/LERRDs crediting and report to USACE.
3. Assist with communications on agricultural mitigations to landowners, agencies, and elected leaders.
4. Designate OWNER's staff lead to coordinate each ongoing cross-functional (technical, outreach, land, policy) action such as Oxbow/Hickson/Bakke levee, staging area mitigation planning, and phased construction planning.
5. Review, process, and pay OWNER-held agreements and task orders.
6. Designate OWNER's staff lead to coordinate Authority governance activities such as JPA extensions, FY15 OWNER Budget development, Construction MOU negotiations, Project Partnership Agreement negotiation, Work-in Kind requests and future Design Agreement amendments.
7. Lead and facilitate Admin Advisory Staff meetings; monthly Board and Committee meetings; and Joint Program Management Board and Executive Leadership Council meetings.

US Army Corps
of Engineers
St. Paul District

Monthly Update

August 14, 2014

Since the last Diversion Authority meeting, the following project-related activities were worked on.

1. Continued coordination and supply of requested data to the MN DNR in support of their EIS process.
    a. Attend regular teleconferences
    b. Providing requested information to MN DNR.

2. Continuing the Maple River Physical Model work. Open house held on July 24th was a success. Approximately 180 attended.

3. Design continues on the Wild Rice Dam fish passage package for removal. 95% design provided for Sponsor review.

4. Design work continues on Reach 5. 95% design provided for Sponsor review.

5. Conducted individual cemetery site visits on July 21-22.

6. Meet with Moorhead's City Council on July 21.

7. Holding weekly Oxbow/Hickson/Bakke (OHB) Levee coordination meetings.

8. Reviewing In-Town Levee 65% and 95% designs.

Matt Lueker, U of M Lab, placing paper in the physical model

Public Outreach Committee Report
For Diversion Authority – August 14, 2014

- USACE Open House for the Maple River Aqueduct Physical Model :
  - Coordinated with the Corps to have Diversion Authority representatives attend the open house in Rosemount, MN on July 24. Efforts are underway to provide another opportunity for those who are interested in attending, but were unable to make the previous event.
- Cemetery Mitigation
  - The Outreach Team has been working with the Corps as part of a taskforce to address the need to mitigate the impact from the diversion operating on cemeteries and to ensure that proper mitigation is developed with input from local cemetery officials.
- ND Legislative Coordination
  - The Diversion Authority continues to report to the ND State Water Commission on a regular basis at its regular meetings.
  - Several meetings have been held with local legislators to keep them abreast of the latest project updates in preparation for continued funding requests as the legislative session starts up again in early 2015.
- Business Leaders Flood Taskforce
  - The Outreach Team continues to work closely with the Business Leaders Flood Taskforce and has been assisting them in providing their memberships in Minnesota and North Dakota with information about the project.
- OHB Ring Levee
  - There continues to be a lot of questions about all aspects of the OHB ring levee. One in particular appears to be a suggestion that there is a flood impact on the State of Minnesota from the ring levee itself. A FAQ has been developed and has been shared that shows the issue has been studied and that there is NO appreciable impact on the river level as a result of the project.
- Online and Media Presence
  - E-Newsletter Update: The newsletter publication list continues to grow and the click-through rate on the articles is strong. In addition to members of the public who have signed up, the newsletter is distributed to legislators from both North Dakota and Minnesota.
  - FMDiversion.com continues to be utilized as a resource for a growing number of visitors and hosts all Diversion meeting agendas, minutes, and supplemental information. As construction increases, look for changes to the website in the coming months to provide the public with up-to-date information on construction-related activities and other features.

FLOOD DIVERSION AUTHORITY

DRAFT

REQUEST FOR QUALIFICATIONS

Fargo-Moorhead Area Flood Diversion Project

Ag Risk Economic Evaluation for Temporary Water Retention Easement Values and Crop Insurance

Publish Date: August 18, 2014

Due Date: September 8, 2014

Ag Risk Economic Evaluation for Temporary Water Retention Easement Values and Crop Insurance for the FM Area Flood Diversion Project

Introduction

The Fargo-Moorhead (FM) Area Flood Diversion Project includes a 20,000 cubic feet per second, 36-mile long, 1,500 foot-wide diversion channel with 32,500 acres of upstream staging. This plan was chosen after years of diligent study, public input and joint cooperation between the City of Fargo; the City of Moorhead; Cass County, North Dakota; Clay County, Minnesota; the Joint Cass Water Resource District; and the Buffalo-Red River Watershed District. The FM Area Diversion Project would reduce a 100-year flood event from 42.4 feet to 35 feet at the Fargo gage. For reference, the 2009 flood of record peaked at 40.8 feet. Though not designed to prevent a 500-year flood event, the FM Area Diversion Project would give the area a chance by reducing the river level in Fargo from 46.7 feet to 40 feet during a 500-year event.

The Project includes 150,000 acre-feet of upstream staging. The staging area would only be used for flood events exceeding a 10-year event, or a 35-foot event in Fargo. The project impacts, including the impacts associated with the staging area will require mitigation. For lands in the staging area, the mitigation plan outlined in the Feasibility Study prepared by the US Army Corps of Engineers (USACE) requires purchase of a flowage easement. The flowage easement proposed by USACE would be a one-time payment made to the property owner at the time the easement is obtained. The flowage easement payment is intended as full compensation for loss in market value due to the imposition of the easement of all affected land impacts.

The Diversion Authority has also considered providing additional mitigation for farmlands and producers through development of a crop insurance product for producers in the staging area. The general crop insurance concept is that the Diversion Authority would offer a supplemental crop insurance product when the federal crop insurance program does not apply, which could occur when the project operates. The intent is that a crop insurance program would complement the flowage easements to collectively mitigate agricultural risks associated with the project. A table summarizing the agricultural risk mitigation concepts is presented below.

	Mitigation Method	
Agricultural Impacts	USACE Model	Proposed Diversion Authority Model
X	Flowage Easement	Flowage Easement
Y	Flowage Easement	Flowage Easement
Z	Flowage Easement	Crop Insurance

Specific information related to the use of the staging area is included in the Appendix of this document. In general, flood events greater than the 10-year event will require the use of some portion of the staging area land. The water will gradually flow into portions of the staging area, starting at the northern boundary of the retention area, and proceeding south. The staging area will drain back into the Red River of the

North and the Diversion channel, receding from South to North, once the available capacity is low enough to avoid downstream impacts.

Detailed Information

Included in the Appendix to this RFQ is information related to project design and operation. Significant additional information can be obtained from www.fmdiversion.com.

Information in the Appendix includes:

- PPT Slides of General Project Information, including historical flows in the Red River of the North
- Maps of staging area for 10, 25, 50, 100, and 500-year flood events with and without the Project.
- Data sheets for Federal Crop Insurance Program

A video demonstrating use of the retention area during various flood events is provided at:

http://www.youtube.com/watch?v=-BJ4w7MuNhQ&feature=youtube

Other technical information related the project, including existing conditions LIDAR survey data and hydraulic model output shape files will be available to the selected consultant.

It should be noted that the USACE and Diversion Authority representatives are developing an Operations Plan for the Project. The Operations Plan will identify additional details associated with how the Project will operate at differing flows and river stages such as when the gates operate, when the staging area will be utilized, etc. The Operations Plan will not be available for this ag risk evaluation. As such, the results of this study will be preliminary in nature and will be used to assist in additional decision making by the Diversion Authority related to mitigating agricultural risks associated with the Project.

Role of the Authority

The Authority consists of nine board members from the stakeholder entities and has committed certain internal resources to the Project. In addition, the Authority has retained the services of a Program Management Consultant (PMC), CH2M HILL, whose team members include AE2S. The consulting assignment proposer will be contracted to the Authority, but will receive day-to-day direction from, and report to, the PMC.

Scope of Services for Consulting Assignment

The Authority is requesting an economic analyst, appraiser, or actuary to conduct a Consulting Assignment involving a before and after appraisal of farmland in the staging area to determine if an Authority provided supplemental crop insurance product would change the cost/value of a flowage easement. The selected economic analyst, appraiser, or actuary will need to:

- conduct a "before project" appraisal of the current land value;
- conduct an "after project" appraisal without an assumed supplemental crop insurance product offered by the Authority;
- conduct an "after project" appraisal with an assumed supplemental crop insurance product offered by the Authority;
- use at least three properties in various locations within the staging area (the Diversion Authority will provide access to the properties).

Factors including frequency and duration of project operation, current value of agricultural land, quantification of potential impacts, affect on market value of land from floodwater retention, and others should be considered in determination of the flowage easement value. The selected consultant shall work with the Diversion Authority to define and document economic inputs for this study.

The results of this Consulting Assignment will be included in a report showing analysis and results. The consultant shall prepare and submit a draft version of the report for review prior to finalizing the results. Any appraisal values and other results will be benchmarked to nominal values as the true values of flowage easments are not relevant until the actual easaements are obtained.

For this assignment, it is assumed that the Diversion Authority led crop insurance product would mirror existing federal crop insurance programs.

Required Submittal Content

Statement of Qualifications must include:

- Primary contact name, address, phone and fax number, and email address
- Resumes of key personnel conducting study
- Experience of key personnel in performing similar work
- References for past work
- Proposed study approach
- Schedule for completion of the study, draft study results due no later than November 17th, 2014
- Estimated cost to complete the study
- Key milestones of the study process.
    - The milestones should include steps such as kickoff meeting, completion of draft of study, meeting to review draft, final report submittal, and presentation of final report.

Submission Requirements

All responses to the detailed RFQ must be received no later than **September 8, 2014 by 3:00 PM CST.** Please state **"Ag Risk Economic Evaluation Statement of Qualifications"** and the **name of the Respondent** on the outside of the sealed response package.

Respondents should provide six (6) copies of their submittal. In addition, please provide an Adobe Acrobat® PDF formatted electronic copy on a CD or jump drive.

Submittals shall be delivered to and questions regarding this RFQ shall be directed to:

Eric Dodds
AE2S
3170 43rd St S Ste 100
Fargo, ND 58104
T: 701-364-9111
eric.dodds@ae2s.com

Guarantees and Insurance

Commercial General Liability insurance policy is required. Respondent shall agree to hold the Authority harmless against any and all expenses, demands, claims or losses of any kind that may be sustained by the Authority occasioned by Respondent's own negligence or intentional acts, and shall further secure and maintain Commercial General Liability Insurance in an amount not less than $500,000, and shall provide to the Authority a certificate of insurance indicating acceptance by its insurer of its obligation to defend and hold the Authority harmless.

The Respondent's liability and indemnification obligations are not limited by any insurance coverage Respondent maintains.

Acknowledge ability to meet the guarantee and insurance requirements.

Selection Process and Evaluation Criteria

A selection committee consisting of the Diversion Authority staff representatives and a PMC representative will evaluate and rank the submissions. Selection criteria include:

1. Experience providing services of similar nature
2. Ability and experience of key personnel assigned to this Project
3. Proposed approach to conduct the study
4. Staffing availability; current and anticipated workload
5. Fee schedule

The schedule for selection is as follows:

1.	Issue RFQ	August 18, 2014
2.	Written Questions from proposers due	August 25, 2014
3.	Answers provided	September 1, 2014
4.	Statements of Qualifications due	September 8, 2014
5.	Selection	September 12, 2014
6.	Draft Study Results	December 1, 2014

Contract negotiations with the top rated Respondent will commence immediately following selection.

Contract Terms and Conditions

Contract terms and conditions will be negotiated following selection.

Opportunity for Local Businesses

The Authority intends that well qualified local proposers are afforded the maximum practical opportunity to participate in all phases of the Project. The Authority will give preference to local proposers when possible without compromising the Project schedule, quality of work, or successful completion.

Acceptance or Rejection of Proposals

The Authority reserves the right, in its absolute discretion, to waive any deficiencies in, and accept or reject any and all Proposals submitted. The Authority is not responsible for the cost of preparation of the submission or interview.

Appendix

Fargo-Moorhead Area Diversion Project

Supporting Materials for Ag Risk Economic Evaluation for Temporary Water Retention Easement Values and Crop Insurance

August XX, 2014

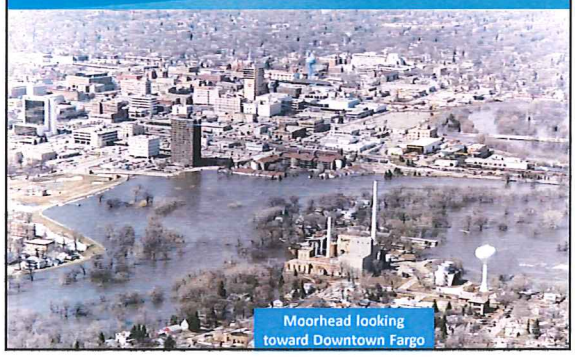
Red River Flooding History

- Red River Flood Stage = 18 feet on the Fargo gage at 13th Ave. S.
  - Exceeded in 50 of the past 111 years
  - Exceeded 20 of the last 21 years
- Catastrophic damages have been prevented by emergency measures
  - 8 of the 16 "major" floods on record have occurred since 2000
- 2009 was the flood of record
  - Stage of 40.8 feet
  - 2-percent chance (50 year) event
  - Emergency measures cost approximately $70M

2009 Flood Expedited Feasibility Study

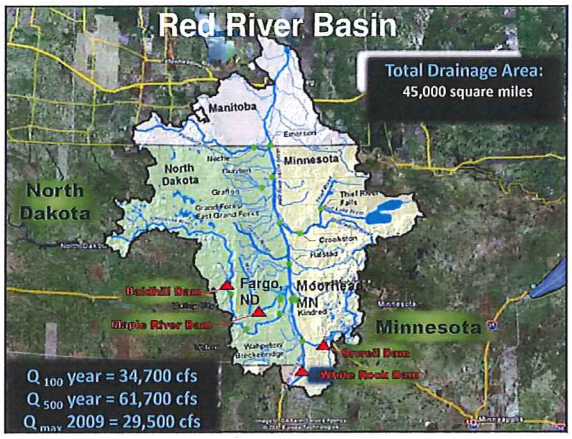
Flood History Summary

Water Everywhere

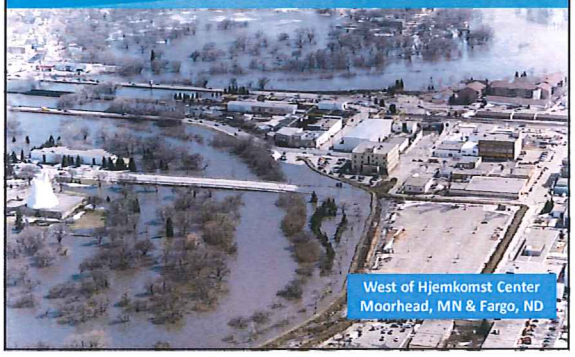


Moorhead looking toward Downtown Fargo

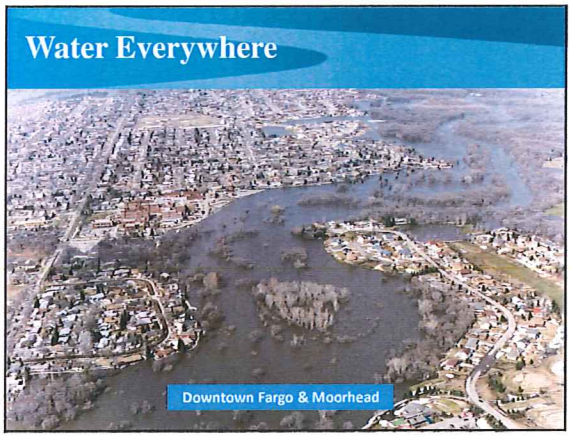
Red River Basin

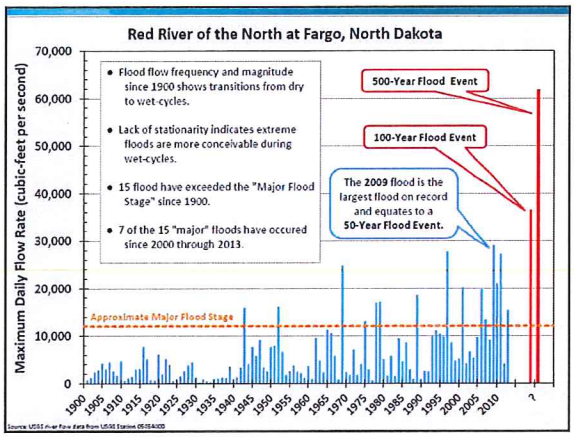


Water Everywhere



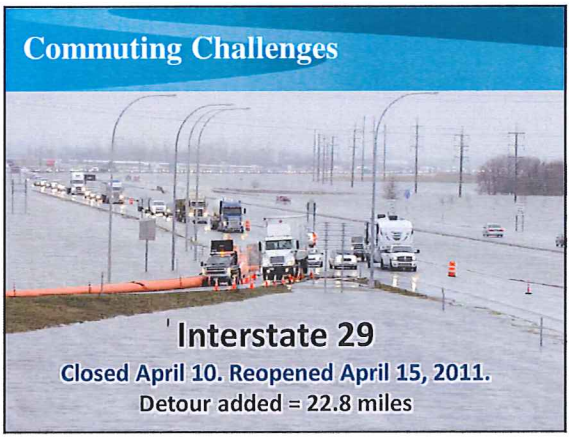
West of Hjemkomst Center Moorhead, MN & Fargo, ND

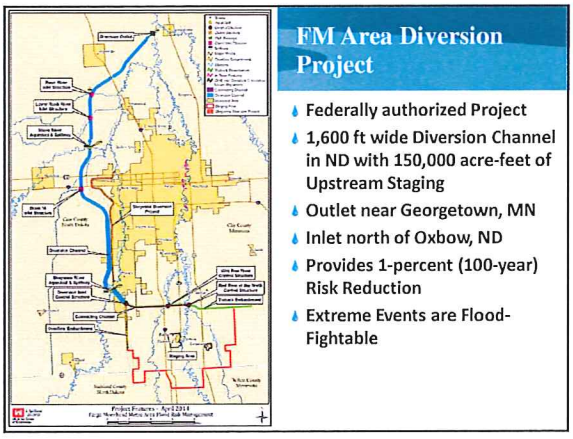

Water Everywhere
Downtown Fargo & Moorhead


Red River of the North at Fargo, North Dakota
Maximum Daily Flow Rate (cubic-feet per second)
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
• Flood flow frequency and magnitude since 1900 shows transitions from dry to wet-cycles.
• Lack of stationarity indicates extreme floods are more conceivable during wet-cycles.
• 15 flood have exceeded the "Major Flood Stage" since 1900.
• 7 of the 15 "major" floods have occured since 2000 through 2013.
500-Year Flood Event
100-Year Flood Event
The 2009 flood is the largest flood on record and equates to a 50-Year Flood Event.
Approximate Major Flood Stage
1900 1905 1910 1915 1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 ?

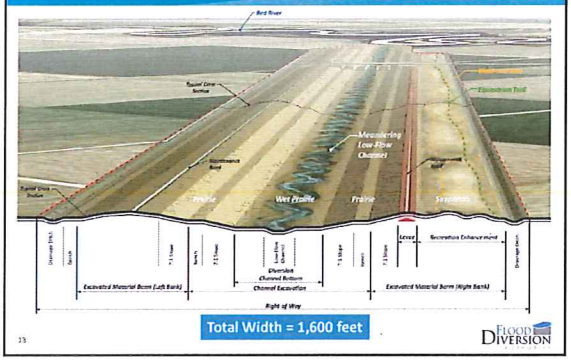

Water Everywhere
South of Fargo-Moorhead


Flood Diversion
Diversion Project Features


Commuting Challenges
Interstate 29
Closed April 10. Reopened April 15, 2011.
Detour added = 22.8 miles


FM Area Diversion Project
Federally authorized Project
1,600 ft wide Diversion Channel in ND with 150,000 acre-feet of Upstream Staging
Outlet near Georgetown, MN
Inlet north of Oxbow, ND
Provides 1-percent (100-year) Risk Reduction
Extreme Events are Flood-Fightable

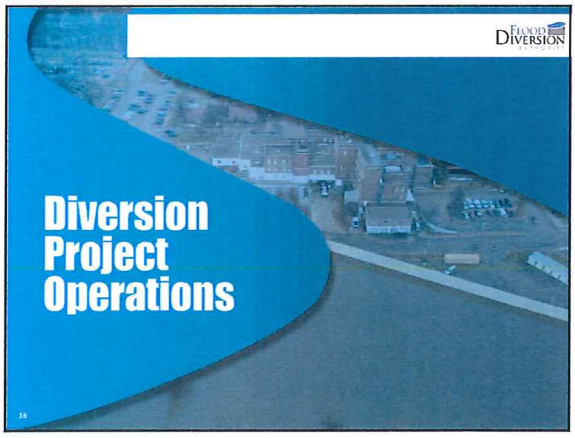
Diversion Channel Cross Section (Reach 1)



Total Width = 1,600 feet

13

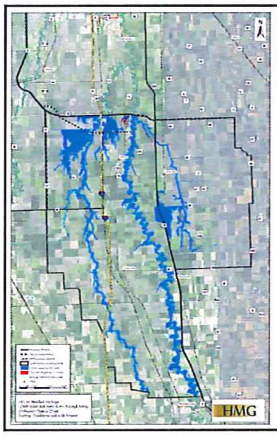
Diversion Project Operations



16

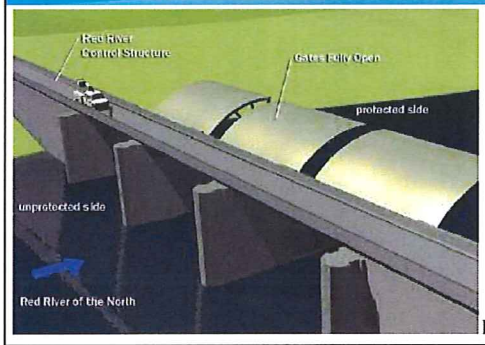
Conceptual Maple River Aqueduct Structure Illustration

10-Year Flood Operation



- No Project Operation Under 10-Year Flood Event
- 10-Year Flood Event = 35' at Fargo Gage

Red River & Wild Rice River Control Structures



Upstream Impacts – 1% (100-year) Event

- Defined area
  - 32,600 ac with Project
  - 15,600 ac existing flooding
  - 17,000 ac additional flooding
- Ability to mitigate for impacts
- Virtually eliminated all downstream impacts

19

Flowage Easements

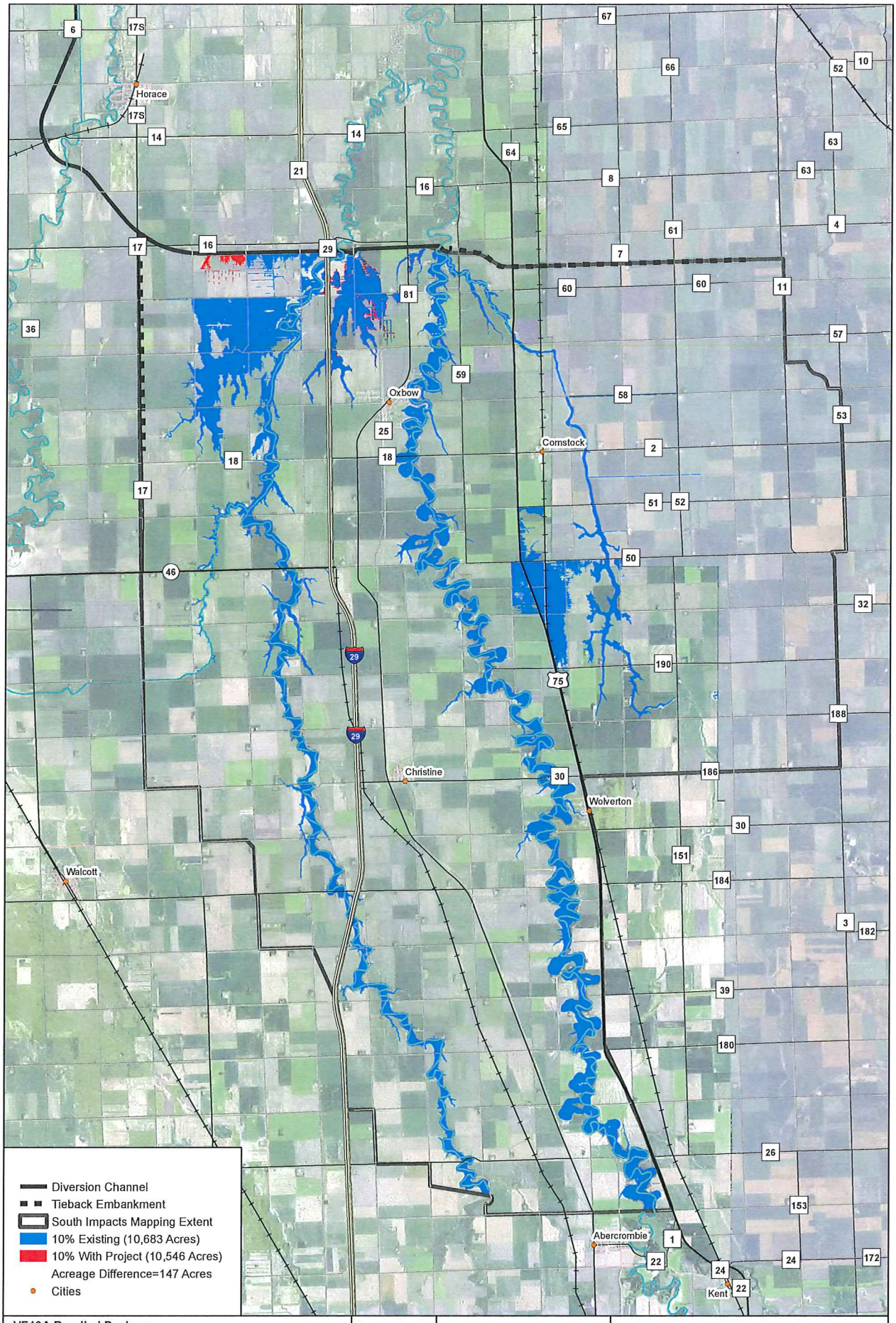
- Provides the legal ability to inundate property as part of the operation of the Project.
- Will follow Federal/USACE process and will be determined by a 'before and after' appraisal.
- Appraiser may consider future impacts including delayed planting, yield loss, debris, and limitations to future land use, resulting from operation of the Project.
- Flowage easements will allow for farming to continue on properties, however development will be limited.
- The Feasibility Study estimated Ag flowage easements at 25 percent of land costs, on average.

20 Flood Diversion

Crop Insurance

- Federal crop insurance will apply if a crop can be planted before the established late planting dates.
- Intent to provide a supplemental risk policy that provides equivalent insurance coverage to federal crop insurance programs.
- Risk policy will be based on federal crop insurance programs administered by the Risk Management Agency (RMA)/USDA.
- Assume a self insurance program with contracted independent insurance provider to administer the coverage and damage adjustment process.
- There is a 90 percent chance that the staging area will not be used in any given year.

21 Flood Diversion



VE13A Bundled Package
(With gates and more flows through town)
10-Percent Chance Event Existing
Conditions and with Project (Phase 7.0)

Created By: enelson Date Created: 7/31/2014 Date Exported: 7/31/2014 Image: 2012 County NAIP
Elevation Data: IWI LiDAR Horizontal Datum: NAD 1983 BLM Zone 14N ftUS Vertical Datum: North American 1983
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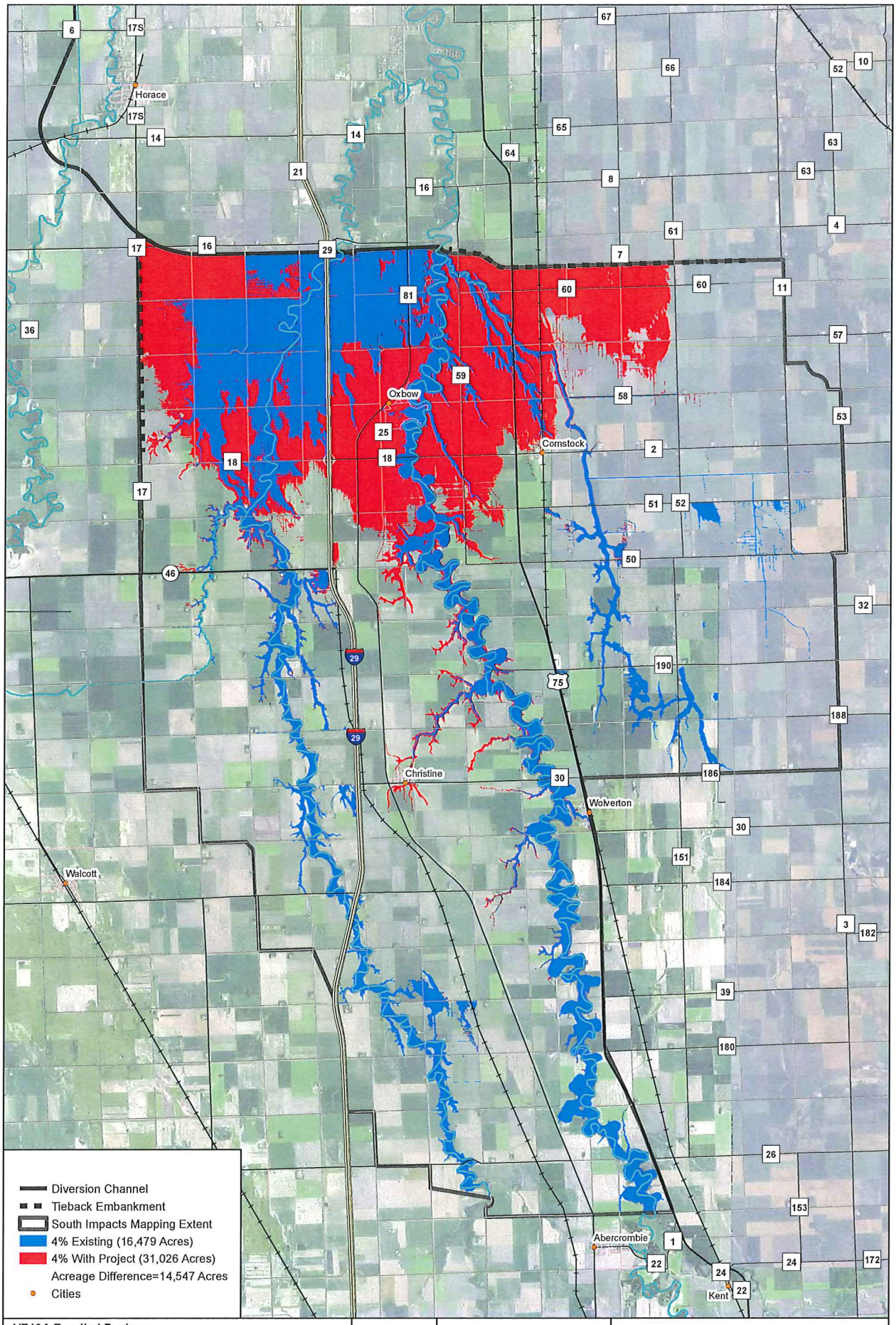
N W E S

0 0.5 1 2
Miles

HMG



VE13A Bundled Package
(With gates and more flows through town)
4-Percent Chance Event Existing
Conditions and with Project (Phase 7.0)

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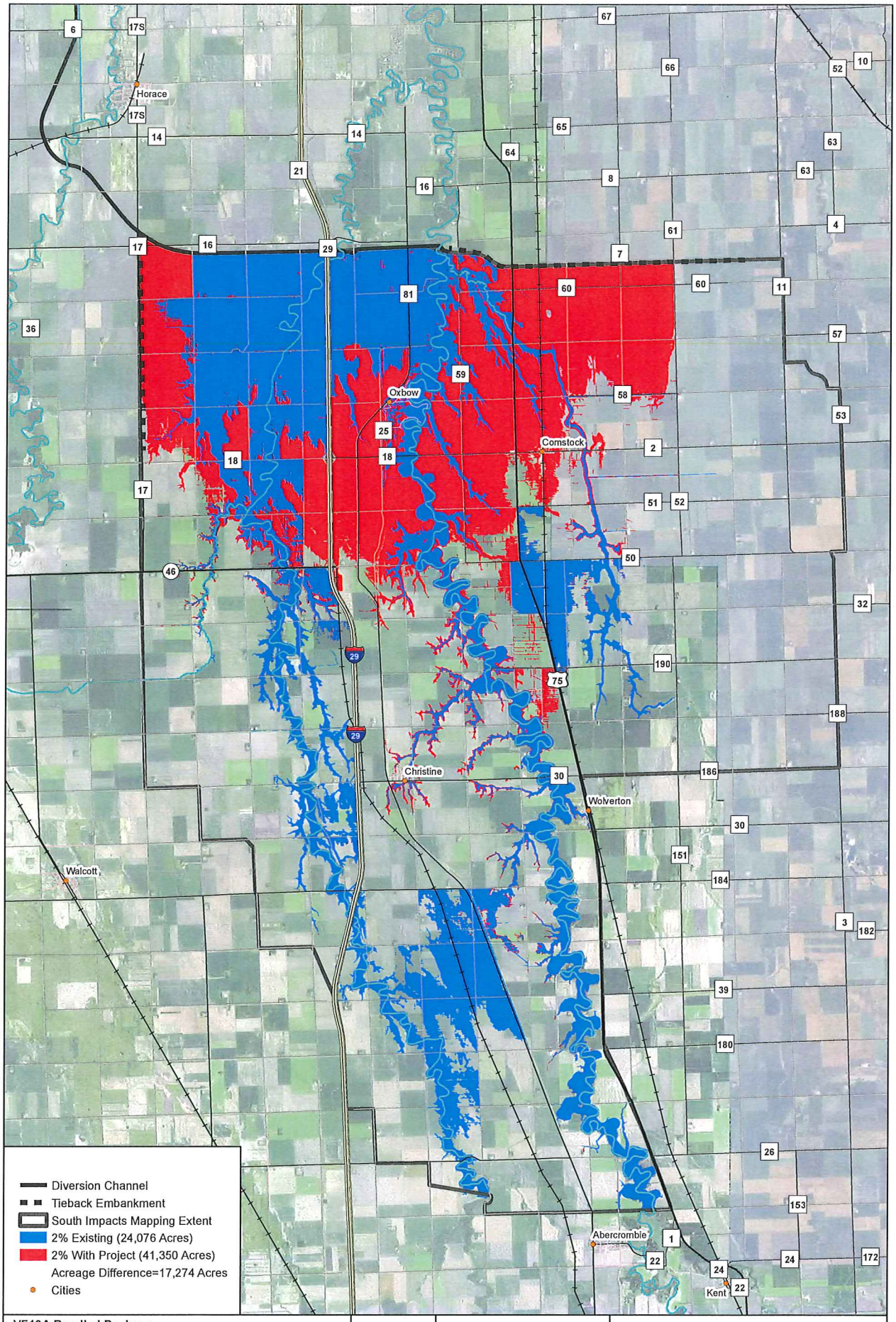
N W E S

0 0.5 1 2
Miles

HMG



VE13A Bundled Package
(With gates and more flows through town)
2-Percent Chance Event Existing
Conditions and with Project (Phase 7.0)

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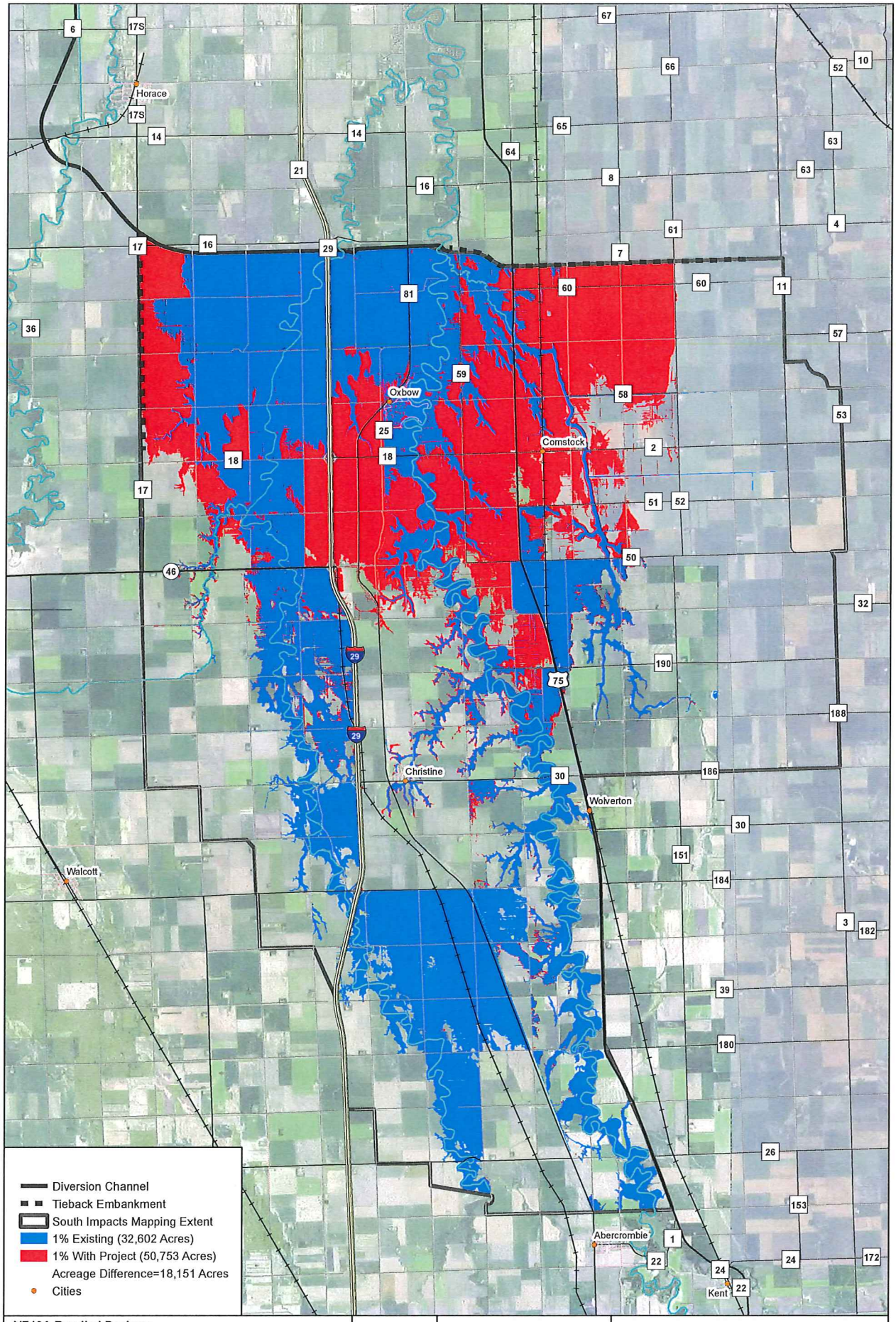

VE13A Bundled Package
(With gates and more flows through town)
1-Percent Chance Event Existing
Conditions and with Project (Phase 7.0)

Created By: enelson Date Created: 7/31/2014 Date Exported: 7/31/2014 Image: 2012 County NAIP
Elevation Data: IVM LiDAR Horizontal Datum: NAD 1983 BLM Zone 14N ftUS Vertical Datum: North American 1983
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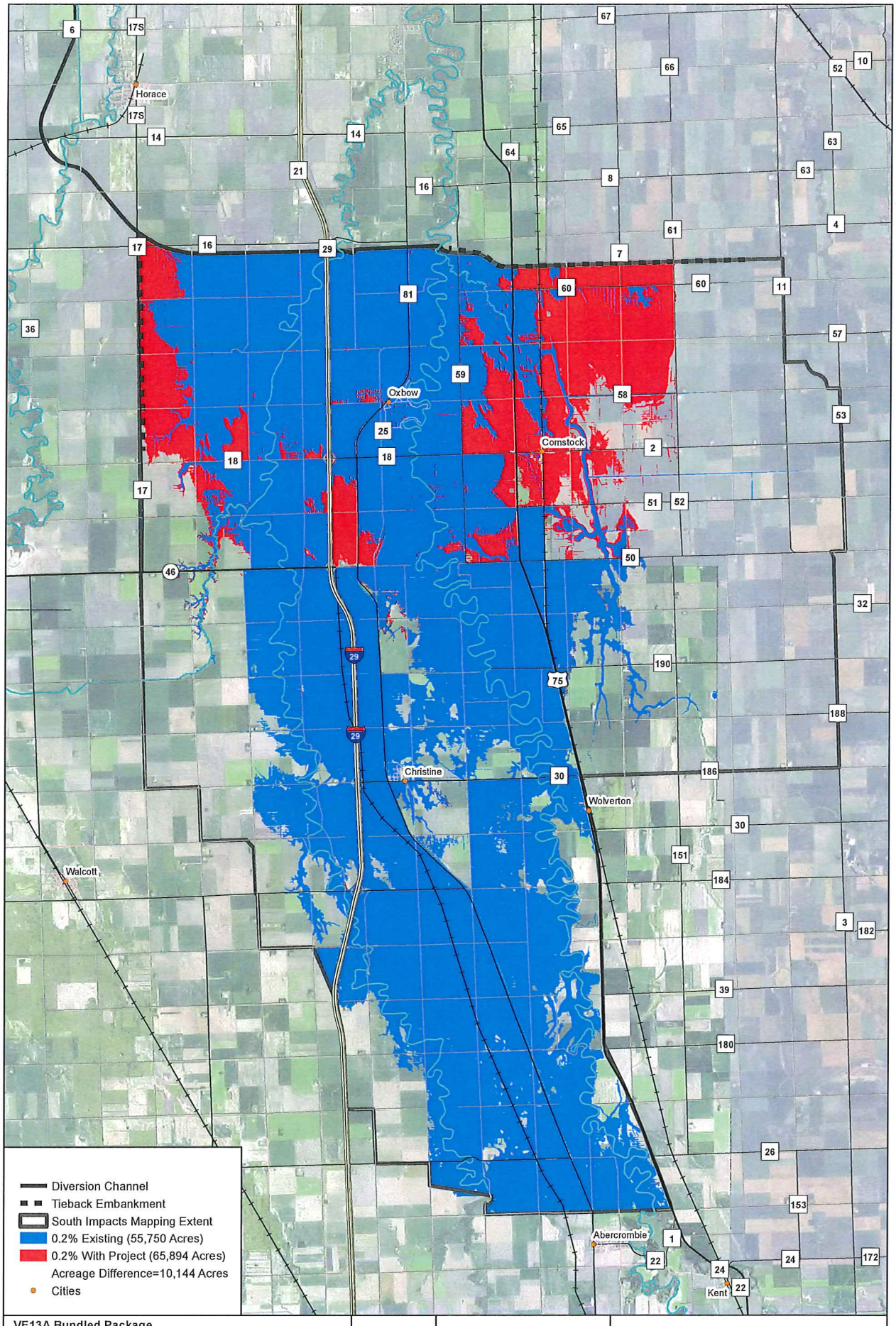

VE13A Bundled Package
(With gates and more flows through town)
0.2-Percent Chance Event Existing
Conditions and with Project (Phase 7.0)

Created By: enelson Date Created: 7/31/2014 Date Exported: 7/31/2014 Image: 2012 County NAIP
Elevation Data: IWI LiDAR Horizontal Datum: NAD 1983 BLM Zone 14N flUS Vertical Datum: North American 1983
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HMG

United States Department of Agriculture

Risk Management Agency

Billings Regional Office

3490 Gabel Road
Suite 100
Billings, MT 59102

Tel: 406-657-6447
Fax: 406-657-6573

April 5, 2011

Rodger Olson
15141 52st. SE.
Leonard, ND 58052

Dear Mr. Olson,

I received your March 31st letter regarding the City of Fargo's diversion study for the Red River. In your letter you stated that ultimately the project will divert and stage water up stream on to agriculture land adjacent to the river. Also, farmers in the affected area are questioning if they would qualify for insurance coverage on this acreage and what the limitations might be.

The Common Crop Insurance Policy Basic Provisions states the following in Section 12, Causes of Loss:
Insurance is provided only to protect against **unavoidable, naturally occurring events**. A list of the covered naturally occurring events is contained in the applicable Crop Provisions. All other causes of loss, including but not limited to the following, are NOT covered:

(a) Any act by any person that affects the yield, quality or price of the insured crop (e.g., chemical drift, fire, terrorism, etc.);
(b) Failure to follow recognized good farming practices for the insured crop;
(c) Water that is contained by or within structures that are designed to contain a specific amount of water, such as dams, locks or reservoir projects, etc., on any acreage when such water stays within the designed limit (however, if the producer planted on acreage that was above the designated staged elevation and additional moisture causes flooding of acreage above that level, any damage to such acreage would be covered as an insurable cause of loss).

The same Basic Provisions state in the definition of Prevented Planting - Failure to plant the insured crop by the final planting date designated in the Special Provisions for the insured crop in the county, or within any applicable late planting period, **due to an insured cause of loss that is general to the surrounding area** and that prevents other producers from planting acreage with similar characteristics. Failure to plant because of uninsured causes such as lack of proper equipment or labor to plant acreage, or use of a particular production method, is not considered prevented planting.

The Basic Provisions in Section 17, Prevented Planting also state "However, if it is possible for you to plant on or prior to the final planting date when other producers in the area are planting and you fail to plant, no prevented planting payment will be made……" Therefore, if the producer is delayed planting due to the water diversion while other producers are planting and when the land is finally dry enough to plant is then prevented from planting due to normal rain; **no prevented planting coverage is available on this**

acreage. Since the delay in timely planting the acreage by the final planting date would not be an unavoidable, naturally occurring event, prevented planting coverage is not available.

However, if the acreage that contains diverted water can still be timely planted to an insurable crop according to University recommended good farming practices, **insurance coverage will attach**. If the crop is planted after the end of the final planting date and in the late planting period the following reductions apply:

The production guarantee or amount of insurance for each acre planted to the insured crop during the late planting period will be reduced by 1 percent per day for each day planted after the final planting date.

(b) Acreage planted after the late planting period (or after the final planting date for crops that do not have a late planting period) may be insured as follows:

(1) The production guarantee or amount of insurance for each acre planted will be determined by multiplying the production guarantee or amount of insurance that is provided for acreage of the insured crop that is timely planted by the prevented planting coverage level percentage you elected, or that is contained in the Crop Provisions if you did not elect a prevented planting coverage level percentage;

(2) Planting on such acreage must have been prevented by the final planting date (or during the late planting period, if applicable) **by an insurable cause** occurring within the insurance period for prevented planting coverage; and

(3) All production from insured acreage as specified in this section will be included as production to count for the unit.

I hope this information is helpful in responding to producer concerns that might arise from this situation; if you have any additional questions, please contact our office.

Sincerely,

Doug Hagel
Director

2011 CROP INSURANCE FACT SHEET RELATED TO WATER CONTAINMENT AND DIVERSION PROJECTS

THIS FACT SHEET POINTS OUT CERTAIN FEATURES OF CROP INSURANCE AND IS NOT INTENDED TO BE COMPREHENSIVE. THE INFORMATION BELOW NEITHER MODIFIES NOR REPLACES TERMS AND CONDITIONS OF THE BASIC PROVISIONS, CROP PROVISIONS, OR COUNTY ACTUARIAL DOCUMENTS. Producers should always consult with their crop Insurance agent for further clarification.

- Section 508(a)(1) of the Federal Crop Insurance Act states in relevant part: "To qualify for coverage under a plan of insurance, the losses of the insured commodity must be due to drought, flood, or other natural disaster (as determined by the Secretary).

- Crop insurance is provided for losses due to unavoidable, naturally occurring events. This language is found in Section 12 of the Basic Provisions of the Common Crop Insurance Policy (11-BR).

- Causes of loss that are not covered are shown in Section 12(a)-(f) of the Basic Provisions. Section 12 (a)-(c) are shown below:

  Insurance is provided only to protect against unavoidable, naturally occurring events. A list of the covered naturally occurring events is contained in the applicable Crop Provisions. All other causes of loss, including but not limited to the following, are NOT covered:
  (a) Any act by any person that affects the yield, quality or price of the insured crop (e.g., chemical drift, fire, terrorism, etc.);
  (b) Failure to follow recognized good farming practices for the insured crop;
  (c) Water that is contained by or within structures that are designed to contain a specific amount of water, such as dams, locks or reservoir projects, etc., on any acreage when such water stays within the designed limit (however, if the producer planted on acreage that was above the designated staged elevation and additional moisture causes flooding of acreage above that level, any damage would be covered as an insurable cause of loss).

Therefore, a circumstance where land that is not planted or that is flooded solely due to a water containment or diversion project that otherwise would not have flooded or was not flooded by a naturally occurring event may not be an insurable loss. Flooding issues that may arise regarding compliance with applicable policy provisions and the insurability of crop losses will be reviewed and assessed by the Risk Management Agency.

- Section 1 of the Basic Provisions contains definitions, including prevented planting which states:
  - Prevented planting - Failure to plant the insured crop by the final planting date designated in the Special Provisions for the insured crop in the county, or within any applicable late planting period, due to an insured cause of loss that is general to the surrounding area and that prevents other producers from planting acreage with similar characteristics. Failure to plant because of uninsured causes such as lack of proper equipment or labor to plant acreage, or use of a particular production method, is not considered prevented planting.

- Section 17{d)2 of the Basic Provisions also states in relevant part, "However, if it is possible for you to plant on or prior to the final planting date when other producers in the area are planting and you fail to plant, no prevented planting payment will be made....."

If the acreage impacted by stored or diverted water can still be timely planted to an insurable crop according to recommended good farming practices (as determined by agricultural experts for the area, as defined in section 1 of the Basic Provisions), insurance coverage will attach. If the crop is planted after the end of the final planting date and in the late planting period the following reductions apply in accordance with section 16 of the Basic Provisions:

- o The production guarantee or amount of insurance for each acre planted to the insured crop during the late planting period will be reduced by 1 percent per day for each day planted after the final planting date.
- o Acreage planted after the late planting period (or after the final planting date for crops that do not have a late planting period) may be insured as follows:
  The production guarantee or amount of insurance for each acre planted will be determined by multiplying the production guarantee or amount of insurance that is provided for acreage of the insured crop that is timely planted by the prevented planting coverage level percentage you elected, or that is contained in the Crop Provisions if you did not elect a prevented planting coverage level percentage;
  Planting on such acreage must have been prevented by the final planting date (or during the late planting period, if applicable) **by an insurable cause** occurring within the insurance period for prevented planting coverage; and
  All production from insured acreage as specified in this section will be included as production to count for the unit.
- o The Late Planting Period (LPP) extends 25 days past the final planting date for most crops. Canola has a 15 day LPP.
- o Forage Seeding does not have either Late Planting or Prevented Planting coverage available.

Final Planting Dates – The following final planting dates are applicable for crops in Clay and Wilkin Counties of Minnesota and Cass and Richland Counties of North Dakota:

Clay County, Minnesota
May 31 -Barley, Canola, Corn Grain, Forage Seeding, Oats, Sugar Beets, and Wheat
June 5 – Corn Silage
June 10 – Flax, Dry Beans, Potatoes, Soybeans, and Sunflowers

Wilkin County, Minnesota
5/31 - Barley, Canola, Corn Grain, Flax, Forage Seeding, Oats, Sugar Beets, and Wheat
June 5 -Corn Silage
June 10 – Dry Beans, Potatoes, Soybeans, and Sunflowers

Cass County, North Dakota
May 15 – Canola
May 20 – Dry Peas
May 31 -Barley, Corn Grain, Forage Seeding, Oats, Sugar Beets, and Wheat
June 5- Corn Silage
June 10- Dry Beans, Flax, Potatoes, Soybeans, and Sunflowers

Richland County, North Dakota
May 15 – Canola
May 20 – Dry Peas
May 31 -Barley, Corn Grain, Forage Seeding, Oats, Sugar Beets, and Wheat
June 5- Corn Silage
June 10- Dry Beans, Flax, Potatoes, Soybeans, and Sunflowers

2011 CROP INSURANCE SPEAKING POINTS FOR WATER CONTAINMENT AND DIVERSION PROJECTS

•:• Crop insurance is provided for losses due to unavoidable, naturally occurring events.

•:• Acreage flooded by water contained by or within structures such as dams, locks or reservoir projects is not considered to be an insurable cause of loss if the water stays *within* the designed limit.

•:• Flood damage to acreage located *above* the design limit is considered to be an insurable cause of loss.

•:• Insurance coverage will attach to acreage impacted by stored or diverted water if the acreage can be timely planted to an insurable crop using good farming practices. Any subsequent loss must be from an insurable cause of loss occurring within the insurance period.

•:• Contact your local crop insurance agent to determine final plant dates, late plant and prevented planting procedure for your specific crop/county.

Land Management Summary

August 14, 2014

Acquisitions Completed Through July 31, 2014

Property Type	Complete	
	Properties	Acreage
Single-Family Residential	6	27
Subset: Medical Hardship	*5*	*27*
Agricultural	13	1,238
Commercial	--	--
Multi-Family Residential	--	--
Public	--	--
Other	--	--

Acquisition Budget Through June 30, 2014

Fiscal Year	No. Properties Acquired	Lands Budget ($000)	Lands Expenses ($000)	Remaining Budget ($000)
FY13	4	$28,000	$1,628	n/a
FY14	15	$37,700	$19,353	$18,347

Other News

- Received approval from USACE on 8 residential and 1 agricultrual appraisal as well as the Oxbow Country Club Fargo Public Schools Property appraisals.
- Planning to submit additional residential appraisals in Oxbow to USACE for review in coming weeks.
- Numerous appraisals underway for properties for the Oxbow Ring Levee and for the In-Town Levee.
- Prioritization of acquisitions is ongoing.
- CH2M HILL prepared Task Orders for acquiring properties for Rush to Outlet Work Packages (WP-01 to WP-7, includes 58 properties) and 10 properties associated with the El Zagal Project.
- El Zagal Project property appraisals have been initiated due to timing with previous City Project.

FLOOD DIVERSION AUTHORITY

CASS COUNTY GOVERNMENT

Land Management Summary

August 14, 2014

Appraisals Complete or In Negotiation (sorted by closing date)

Street Address	USACE Orig ID No.	Type	Activity[1]	Land Acq Firm/ Appraiser	Est.Closing Date
Agricultural property *314ac – S11, T140, R50; S14, T140, R50*	898, 901	Agricultural	Purchase Agrmt Signed	Direct negotiations	July 21 and Sep 1
Agricultural property *160ac – S2, T140, R50*	885, tbd	Agricultural	Purchase Agrmt Signed	Direct negotiations	Nov 2014, Jan 2105
Agricultural property *45ac – S25, T138, R50*	1201	Agricultural	In Negotiation	Direct negotiations	
Agricultural property *124ac – S13, T137, R49*	1931, 1936	Agricultural	In Negotiation	Ulteig/Bock	
130 Oxbow Drive (9 parcels for golf course)	2313, 2354, 9631, 9632, 9633, 9652, 9653, 9764, 9766	Commercial	In Negotiation	Ulteig/Mueller	
748 Riverbend Rd	9591	Residential	In Negotiation	ProSource/Hraba	
752 Riverbend Road	9592	Residential	In Negotiation	ProSource/Hraba	
City of Fargo - School District 1	9777	Commercial	Appraisal Approved	HMG/Britton	
350 Schnell Drive	9649	Residential	Appraisal Approved	ProSource/Hraba	
345 Schnell Drive	9663	Residential	Appraisal Approved	ProSource/Hraba	
349 Schnell Drive	9664	Residential	Appraisal Approved	ProSource/Hraba	
353 Schnell Drive	9665	Residential	Appraisal Approved	ProSource/Hraba	
357 Schnell Drive	9666	Residential	Appraisal Approved	ProSource/Hraba	
361 Schnell Drive	9667	Residential	Appraisal Approved	ProSource/Hraba	
Agricultural property *266ac – S23, T137, R49; S24, T137, R49*	1975, 1985	Agricultural	Appraisal in Review	Ulteig/Bock	
Agricultural property *140ac – S23, T137, R49; S24, T137, R49*	1979, 1987	Agricultural	Appraisal in Review	Ulteig/Bock	
Agricultural property *283ac – S24, T137, R49*	1986, 1988, tbd	Agricultural	Appraisal in Review	Ulteig/Bock	
Feder Realty Co.	9776	Commercial	Appraisail in Review	HMG/Britton	
Northland Hospitality, LLC	9785	Commercial	Appraisal in Review	HMG/Britton	

[1] Activity sequence: 1) Appraisal in Review; 2) In Negotiation; 3) Purchase Agreement Signed

[2] PP-Purchase Price, includes relocation costs unless noted; AV-Appraised Value. Does NOT include outstanding special assessment or tax balances. Final amount paid will be based on the closing statements for each property.

FLOOD DIVERSION AUTHORITY

CASS COUNTY GOVERNMENT

Land Management Summary

August 14, 2014

Appraisals in Progress (sorted by Activity, then Original ID Number)

Street Address	USACE Orig ID No.	Type	Activity[1]	Land Acq Firm/ Appraiser
Agricultural property *157ac – S10, T141, R49; S10, T141, R49*	547, 548	Agricultural	Appraisal Initiated	Ulteig/Bock
5302 174 ½ Ave SE	1898	Residential	Appraisal Initiated	HMG/Britton
Agricultural property *214ac – S13, T137, R49; S14, T137, R49*	1930, 1940, 1941	Agricultural	Appraisal Initiated	Ulteig/Bock
17495 52nd St SE, Hickson	1989	Residential	Appraisal Initiated	ProSource/Hraba
1318 Elm Street, Fargo	9200	Residential	Appraisal Initiated	HMG/Britton
1322 Elm Street, Fargo	9201	Residential	Appraisal Initiated	HMG/Britton
1326 Elm Street, Fargo	9202	Residential	Appraisal Initiated	HMG/Britton
1330 Elm Street, Fargo	9203	Residential	Appraisal Initiated	HMG/Britton
1333 Oak Street, Fargo	9204	Residential	Appraisal Initiated	HMG/Britton
1341 Oak Street, Fargo	9205	Residential	Appraisal Initiated	HMG/Britton
Ciry of Fargo Park District	9206, 9207, 9208	Commercial	Appraisal Initiated	HMG/Britton
1429 3rd Street N, Fargo	9209	Commercial	Appraisal Initiated	HMG/Britton
City of Fargo - Park District	9212	Commercial	Appraisal Initiated	HMG/Britton
Professional Associates LLC	9213	Commercial	Appraisal Initiated	HMG/Britton
Mid America Steel	9215, 9216, 9217, 9218, 9783	Commercial	Appraisal Initiated	HMG/Britton
BNSF	9259, 9779, 9780	Commercial	Appraisal Initiated	HMG/Britton
Rural Address (Church) *Permanent easement*	9465	Comm	Appraisal Initiated	ProSource/Hraba
Rural Address (Individual) *Permanent easement*	9581	Residential	Appraisal Initiated	ProSource/Hraba
326 Schnell Drive	9641	Residential	Appraisal Initiated	ProSource/Hraba
328 Schnell Drive	9642	Residential	Appraisal Initiated	ProSource/Hraba
334 Schnell Drive	9645	Residential	Appraisal Initiated	ProSource/Hraba
336 Schnell Drive	9646	Residential	Appraisal Initiated	ProSource/Hraba
338 Schnell Drive	9647	Residential	Appraisal Initiated	ProSource/Hraba
354 Schnell Drive	9650	Residential	Appraisal Initiated	ProSource/Hraba
358 Schnell Drive	9651	Residential	Appraisal Initiated	ProSource/Hraba

FLOOD DIVERSION AUTHORITY

CASS COUNTY GOVERNMENT

Land Management Summary

August 14, 2014

Street Address	USACE Orig ID No.	Type	Activity[1]	Land Acq Firm/ Appraiser
313 Schnell Drive	9655	Residential	Appraisal Initiated	ProSource/Hraba
317 Schnell Drive	9656	Residential	Appraisal Initiated	ProSource/Hraba
321 Schnell Drive	9657	Residential	Appraisal Initiated	ProSource/Hraba
325 Schnell Drive	9658	Residential	Appraisal Initiated	ProSource/Hraba
329 Schnell Drive	9659	Residential	Appraisal Initiated	ProSource/Hraba
337 Schnell Drive	9661	Residential	Appraisal Initiated	ProSource/Hraba
341 Schnell Drive	9662	Residential	Appraisal Initiated	ProSource/Hraba
365 Schnell Drive	9668	Residential	Appraisal Initiated	ProSource/Hraba
City of Fargo	9768	Commercial	Appraisal Initiated	HMG/Britton
City of Fargo - Housing Authority	9769	Commercial	Appraisal Initiated	HMG/Britton
Case Plaza LLC	9770	Commercial	Appraisal Initiated	HMG/Britton
City of Fargo - Park District	9771, 9781, 9784	Commercial	Appraisal Initiated	HMG/Britton
City of Fargo	9772	Commercial	Appraisal Initiated	HMG/Britton
Park East Apartments, LLC	9782	Commercial	Appraisal Initiated	HMG/Britton
5059 Makenzie Cir, Horace (owner of 3 other parcels)	2150, 9669, 9672	Residential	Owner notified	ProSource/Hraba
843 Riverbend Road	9502	Residential	Owner notified	ProSource/Hraba
839 Riverbend Road	9503	Residential	Owner notified	ProSource/Hraba
833 Riverbend Road	9504	Residential	Owner notified	ProSource/Hraba
829 Riverbend Road	9505	Residential	Owner notified	ProSource/Hraba
821 Riverbend Road	9506	Residential	Owner notified	ProSource/Hraba
817 Riverbend Road	9507	Residential	Owner notified	ProSource/Hraba
813 Riverbend Road	9508	Residential	Owner notified	ProSource/Hraba
809 Riverbend Road	9509	Residential	Owner notified	ProSource/Hraba
805 Riverbend Road	9510	Residential	Owner notified	ProSource/Hraba
749 Riverbend Road	9511	Residential	Owner notified	ProSource/Hraba
724 Riverbend Road	9587	Residential	Owner notified	ProSource/Hraba
808 Riverbend Road (2 parcels at this address)	9593, 9594	Residential	Owner notified	ProSource/Hraba
810 Riverbend Road	9595	Residential	Owner notified	ProSource/Hraba
816 Riverbend Road	9596	Residential	Owner notified	ProSource/Hraba

FLOOD DIVERSION AUTHORITY

CASS COUNTY GOVERNMENT

Land Management Summary

August 14, 2014

Street Address	USACE Orig ID No.	Type	Activity[1]	Land Acq Firm/ Appraiser
828 Riverbend Road	9599	Residential	Owner notified	ProSource/Hraba
840 Riverbend Road	9600	Residential	Owner notified	ProSource/Hraba
844 Riverbend Road	9601	Residential	Owner notified	ProSource/Hraba
848 Riverbend Road	9602	Residential	Owner notified	ProSource/Hraba
852 Riverbend Road (owner of 3 other parcels)	9603	Residential	Owner notified	ProSource/Hraba
856 Riverbend Road (owner at 852 Riverbend)	9604	Residential	Owner notified	ProSource/Hraba
860 Riverbend Road (owner at 852 Riverbend)	9605	Residential	Owner notified	ProSource/Hraba
864 Riverbend Road (owner at 852 Riverbend)	9606	Residential	Owner notified	ProSource/Hraba
872 Riverbend Road	9607	Residential	Owner notified	ProSource/Hraba
869 Riverbend Road	9608	Residential	Owner notified	ProSource/Hraba
873 Riverbend Road	9609	Residential	Owner notified	ProSource/Hraba
477 Oxbow Drive	9614	Residential	Owner notified	ProSource/Hraba
473 Oxbow Drive	9615	Residential	Owner notified	ProSource/Hraba
469 Oxbow Drive	9616	Residential	Owner notified	ProSource/Hraba
465 Oxbow Drive	9617	Residential	Owner notified	ProSource/Hraba
461 Oxbow Drive	9618	Residential	Owner notified	ProSource/Hraba
457 Oxbow Drive	9619	Residential	Owner notified	ProSource/Hraba
455 Oxbow Drive	9620	Residential	Owner notified	ProSource/Hraba
425 Oxbow Drive	9628	Residential	Owner notified	ProSource/Hraba
330 Schnell Drive	9643	Residential	Owner notified	ProSource/Hraba
332 Schnell Drive	9644	Residential	Owner notified	ProSource/Hraba
309 Schnell Drive (owner of 2 other parcels)	9654	Residential	Owner notified	ProSource/Hraba
Rural address (owner at 5059 Makenzie?)	9670, 9671	Residential	Owner notified	ProSource/Hraba

[1] Activity stages: 1) Owner notified; 2) Appraisal Initiated; 3) Appraisal in review

[2] PP-Purchase Price; AV-Appraised Value; includes relocation costs. Does NOT include outstanding special assessment or tax balances. Final amount paid will be based on the closing statements for each property.

Task Order No. 5
Diversion Board of Authority
Fargo-Moorhead Area Diversion Project

In accordance with Article 1 of the *STANDARD MASTER AGREEMENT FOR PROFESSIONAL SERVICES* ("Agreement"), between the Diversion Board of Authority ("OWNER") and CH2M HILL ENGINEERS, INC. ("ENGINEER"), dated March 8, 2012, OWNER and ENGINEER agree to the scope of services, work schedule, and cost budget as follows:

Task Order Title: Pre-Project Partnership Agreement (PPA) Program, Technical, Legislative Support, Project Implementation, Public Outreach, and Land Support Services

Description: Pre-PPA Program, Technical, Legislative Support, Project Implementation, Public Outreach, and Land Support Services are required to support the OWNER prior to certain Federal actions, including Appropriation of Federal Funds and execution of project implementation agreements, including a PPA. This task authorizes ENGINEER to provide staff for this support at a specified level of effort (LOE) described in the scope.

Scope of Services:

Pre-PPA Program, Technical, Legislative Support, Project Implementation, Public Outreach, and Land Support Services

Objectives: Provide Pre-PPA Program, Technical, Legislative Support, Project Implementation, Public Outreach, and Land Support Services support for the Fargo-Moorhead Area Diversion Project (Project) for the period specified in this Task Order. The anticipated Project major activities to be supported during this time are:

- In-Town Levees Design and Construction
- Oxbow/Hickson/Bakke Levees Design, and Construction
- Land Acquisition in Minnesota
- Utility Relocations in Reaches 1, 2, and 3
- Cultural Mitigation in Reach 1
- Phase 2 Area Studies (no detailed design)
- Development of an Operating Plan
- Business Leaders Outreach
- Legislative (NDSWC and 2015 session) Reporting and Communication
- Impacted landowner Outreach in Minnesota and North Dakota
- PPA and other USACE agreements
- MN Environmental Impact Statement

ENGINEER has identified staff to support the anticipated activities. Positions to be staffed during this period on a part-time basis (and proposed individuals), are as follows: Principal-In-Charge (Martin Nicholson), Project Manager and Technical Lead (Bruce Spiller), U.S. Army Corps of Engineers (USACE) Liaison (Tom Waters), Project Engineers (John Glatzmaier), Public Outreach (Eric Dodds, Rocky Schneider, Daron Selvig), Land (Eric Dodds, Dirk Draper), Project Controls Specialist (Don Giovannetti), Scheduler (Kylie Camson), and Project Assistant(s). During the course of the execution of this Task Order, there may be additional personnel assigned to the Task Order on an as-needed basis, and there may be changes in the staff listed above.

Subtask 5.A-Program Services

Program Services will be led by the Subtask Manager. General responsibilities for this subtask include the following:

1. Participate in scheduled Admin Advisory meetings and participate in calls and meetings with the Board Chair to assist OWNER's staff in planning, organizing, and directing activities required to implement the Task Order. Attend Board meetings. Prepare agendas and read-ahead materials for Admin Advisory Staff meetings, and Board and Committee meetings.
2. Participate in Joint Leadership structure meetings, including the Joint Program Management Board (conference call), and the Executive Leadership Council (in-person meetings). Prepare agendas and read-ahead materials for Joint Program Management Board and Executive Leadership Council meetings.
3. Provide assistance and input when requested on OWNER's governance, policy and USACE coordination actions.

Subtask 5.B-Technical Support Services

Technical Support Services will be led by the Task and Subtask Manager (Bruce Spiller). General responsibilities for this subtask include the following:

1. Manage and coordinate technical activities of Houston-Moore Group (HMG) and URS.
2. Coordinate OWNER-led technical activities with USACE.
3. Coordinate and facilitate Technical Advisory Team (TAC) and Local Consultant/Local Sponsor Technical Team (LSLCTT) meetings.
4. Provide review of HMG and USACE studies, reports, and designs for general consistency with OWNER's Project objectives.
5. Provide technical support for the preparation of the Environmental Impact Statement (EIS) by the Minnesota Department of Natural Resources.
6. Update and maintain the cost-loaded schedule and Project budget.
7. Maintain a website for storage of Project technical documents (functionality limited to document storage and retrieval).

Subtask 5.C-Legislative Support Services

Support OWNER's legislative engagement efforts to obtain Congressional Appropriations. Anticipated level of effort for this subtask includes monthly conference calls with ENGINEER's staff in Washington, D.C., Tom Waters, and Martin Nicholson. Coordinate and participate in OWNER's bi-annual visits to Washington, D.C., provide limited lobbying assistance from ENGINEER's Washington, D.C. staff, and coordinate national activities with the local government affairs team.

Subtask 5.D-Project Implementation Support

Support OWNER's efforts to develop a project implementation strategy utilizing a Public Private Partnership (PPP) or other delivery model (phased implementation) applicable to the diversion project. A sub-consultant, Ernst and Young Infrastructure Advisors, will be retained to assist with this subtask.

Efforts under this subtask include coordination with the OWNER and the USACE and its consultants to explore and further develop the concepts for a PPP implementable under the USACE PPP Pilot Program. General information on the characteristics, risks, advantages and disadvantages, and market-based financial implications of a PPP implementation model compared to other delivery options (e.g. phased or split delivery) will be provided.

The anticipated level of effort for this subtask includes bi-monthly conference calls with OWNER and USACE leadership and staff, and attendance at 4 meetings/workshops with the OWNER or USACE and its consultants. Development of a detailed financial model, financial advice, and procurement activities to secure an alternative financing transaction to implement the project are not included in this subtask.

Subtask 5.E-Public Outreach Support Services

Public Outreach Support Services will be led by the Subtask Manager (Eric Dodds). General responsibilities for this subtask include the following:

1. Assist OWNER in managing its Public Outreach program. Such assistance is anticipated to include:
    - Monitoring and managing outreach services;
    - Coordination and communication with OWNER representatives;
    - Attend and facilitate monthly Outreach Committee meetings;
    - Organize, attend, and facilitate bi-weekly Outreach Working Group meetings;
    - Coordination with other Diversion Committees (TAC, Lands, Finance, DPAC, etc.) as necessary for outreach coordination;
    - Attend and participate in Administrative Advisory Team meetings to provide updates and coordination for outreach activities;
    - Attend and participate in Diversion Authority Board meetings to provide updates and coordination for outreach activities; and
    - Participate in regular conference calls with Diversion Authority chairman.
2. Assist OWNER with public outreach, involvement, and image. Such assistance is anticipated to include:
    - Coordinate and facilitate public meetings;
    - Organize materials for and/or present at meetings with individuals or agencies;
    - Produce and update maps and other documents for distribution to the public;
    - Prepare and present Project information to civic and business groups;
    - Coordinate with the USACE (and other agencies) on outreach efforts;
    - Deliver answers to the public, media, opposition, and others interested in the Project;
    - Assist in providing quarterly updates to commissions/councils, including individual meetings with local elected officials; and
    - Prepare official correspondence for OWNER, including press releases, news alerts, and talking points for OWNER.
3. Coordinate with Business Leaders Flood Taskforce, including monthly coordination with the business group staffs and quarterly meetings and presentations with the task force.
4. Perform media tracking and analysis, including daily monitoring of media and notification to project stakeholders, and production of a bi-weekly media tracking and analysis report.
5. Legislative outreach and engagement services, including:
    - Assist with pre-legislative session activities and support legislative session activities;
    - Assist with legislative reporting requirements to ND state budget section and other interim legislative committees;
    - Attend legislative interim committee meetings regarding the Project;
    - Assist in routine reporting to the ND State Water Commission;
    - Facilitate meetings and engagement with elected leaders or their representatives;
    - Monitor positions held by elected leaders on the Diversion Project; and
    - Prepare communications or information for OWNER to provide to elected leaders.

6. Maintain and support a public website (www.fmdiversion.com) that provides information about the Diversion Project.
7. Prepare and distribute monthly "Diversion Dialogue" E-newsletter, and:
    - Maintain and update an editorial calendar for the newsletter;
    - Maintain and update the distribution list for the newsletter;
    - Prepare draft articles for distribution and review; and
    - Finalize and public articles to the monthly electronic newsletter.

Subtask 5.F-Lands Support Services

Lands Support Services will be led by the Subtask Manager. General responsibilities for this subtask include the following:

1. Assist OWNER in managing its land acquisition program in Minnesota. Such assistance is expected to include:
    - Coordinate with entities designated by OWNER in these acquisitions;
    - Provide routine reporting of acquisition program status and actions to stakeholders and committees; and Manage hardship and opportunistic acquisitions.

Obligations of OWNER:

OWNER's responsibilities shall be as shown in Article 5 of the Agreement and Attachment A to this Task Order No. 5.

Times for Rendering Services:

Start: August 30, 2014
End: February 27, 2015

Payments to ENGINEER:

For Method of Payment:

The total compensation for services identified in this Task Order is not to exceed $1,860,000 based on the following assumed distribution:

Period of Performance	Unit	($/unit)	Budget ($)
Six (6) Months	Lump Sum per month	310,000	1,860,000
TOTAL			**1,860,000**

Other Modifications to Agreement: None

Attachments: OWNER's Responsibilities

Documents Incorporated By Reference: Standard Master Agreement for Professional Services between the OWNER and ENGINEER executed March 8, 2012, and any attachments and executed amendments.

Approval and Acceptance of this Task Order, including the attachments listed above, shall incorporate this document as part of the Agreement. ENGINEER is authorized to begin performance as stated herein.

The Effective Date of this Task Order is August 30, 2014.

This Amendment and the services covered by this Amendment will be performed in accordance with the Provisions and any attachments or schedules of the Agreement. This Amendment will become a part of the referenced Agreement when executed by both parties.

Diversion Board of Authority		**CH2M HILL ENGINEERS, INC.**	
Signature		Signature	
Name	Darrell Vanyo	Name	Thomas J. Helgeson
Title	Chairman	Title	Vice President and Area Manager
Date		Date	

Attachment A
OWNER's Responsibilities

1. Track and report funding status.
2. Track WIKS/LERRDs crediting and report to USACE.
3. Assist with communications on agricultural mitigations to landowners, agencies, and elected leaders.
4. Designate OWNER's staff lead to coordinate each ongoing cross-functional (technical, outreach, land, policy) action such as Oxbow/Hickson/Bakke levee, staging area mitigation planning, and phased construction planning.
5. Review, process, and pay OWNER-held agreements and task orders.
6. Designate OWNER's staff lead to coordinate Authority governance activities such as JPA extensions, FY15 OWNER Budget development, Construction MOU negotiations, Project Partnership Agreement negotiation, Work-in Kind requests and future Design Agreement amendments.
7. Lead and facilitate Admin Advisory Staff meetings; monthly Board and Committee meetings; and Joint Program Management Board and Executive Leadership Council meetings.