

MEMORANDUM

TO: Programs, Projects and Operations Subcommittee

SUBJECT: Big Papio Channel Gabion Repair Project (105th and Pacific Street)

DATE: May 3, 2011

FROM: Martin P. Cleveland

In summer 2010, the referenced area experienced a number of high water events that overtopped the gabion wall system that serves as a channel erosion resistant boundary. These gabions were installed in 2002 as part of the Big Papio Channel Project, to ensure that possible channel erosion did not destabilize an adjacent steep slope that is 50 ft. above creek level and contains a row of houses.

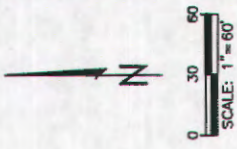
Thiele Geotech Inc. was hired by Management to evaluate the gabion system and provide recommendations for a possible solution and their March 23, 2011 report is enclosed. As a result of the Thiele report, it has been concluded that the repair project may be fairly extensive and require some specialized structural design for possible sheet pile wall.

At the April 14, 2011 Board meeting the General Manager was authorized to execute a professional engineering agreement for the Big Papio Channel Gabion Repair Project with Lamp Rynearson and Associates (LRA). Unfortunately, the LRA and District attorneys could not agree on a liability clause in the agreement. LRA had requested a clause that stated "Engineer is not liable for any problems or damages related to global stability". It was concluded that a contract with LRA was not possible due to the liability exclusion.

District staff contacted HDR Engineering to see if they would be willing to provide engineering services for the referenced project without a liability exclusion clause. HDR did agree to participate in the project design and a proposed contract is enclosed.


Management recommends that the District waive its consultant selection procedures and hire HDR Engineering for these engineering services due to the time sensitive nature of the gabion failure, upcoming high water season and need of design to secure FEMA cost share funding. FEMA has verbally indicated that this repair may be eligible for 75% construction cost share, if the project design meets their expectations of a permanent solution.

- **It is Management's recommendation that the Subcommittee recommend to the Board that the District waive its consultant selection procedures and the General Manager be authorized to execute a professional engineering services agreement for the Big Papio Channel Gabion Repair Project with HDR Engineering with a maximum not to exceed cost of \$110,322 subject to charges deemed necessary the General Manager, and approval as to form by District legal counsel.**



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SHEET: R1	
DATE: 3/23/11	JOB NO: 10548.00
DB: MDS	CB: DJT



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**BIG PAPIO CHANNEL
 105th & PACIFIC STREET**
 OMAHA, NEBRASKA

SITE PLAN

REVISIONS:



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March 23, 2011

Mr. Martin Cleveland
Papio Missouri River NRD
8901 South 154th Street
Omaha, Nebraska 68138-3621

**RE: BIG PAPILLION CREEK CHANNEL, 105TH & PACIFIC STREET
TG# 10548.00**

Dear Martin:

This letter presents our review and recommendations related to the apparent slope movements along the Big Papillion Creek channel between Pacific Street and 105th Street. This study is based on previous work in the area, review of construction drawings for a 2002 flood control project, a survey provided by the NRD, and on observations of the site and surrounding area. Station references in this study refer to the 2002 construction drawings. Note that the baseline for these drawings is on a bench on the north bank of the creek, and the lengths along the south bank are somewhat longer than the actual stations due to the offset on the outside of the bend.

The area of concern is along the south bank of the creek and is located roughly 300 feet downstream from Pacific Street (see Photo #1). The general vicinity is depicted on the Site Plan (sheet R1). The south bank slopes up approximately 50 feet above the creek level to a row of residential lots. The slope in this area has a history of instability, with a series of failures occurring between 1986 and 1993. The slope has been relatively stable since 1993, and a large stand of trees currently anchors the slope. The grade of the slope varies from 3H:1V to limited areas as steep as 1H:1V, with an overall average slope estimated at 2½H:1V. Previous evaluation of this slope determined that some sloughing was likely in the steeper areas, but that the overall slope would remain stable as long as the creek did not cut back into the bank and steepen the grade.

In 2002, improvements were made to the channel in this general area. As part of that work, gabions were installed along the south creek bank in this area to control erosion. This effort was not intended to increase the stability of the adjacent slope, but to avoid a change in the channel location that would destabilize the slope. The configuration of the gabions is shown on the attached Miscellaneous Details (sheet D-6) from the 2002 record drawings. The gabions were stacked 2 high, or roughly 6 feet from top to bottom. The bottom layer was installed perpendicular to the channel to create a base width of 9 feet. The top layer was set back 2 feet from the edge of the bottom layer and was installed parallel to the channel. The top of the gabions were set at roughly elevation 1014. The bottom of the gabions were set at the approximate water line, or elevation 1008, and were set on a 12 inch thick layer of crushed aggregate wrapped in a geotextile filter.

Some movements were noted by the adjacent property owner at the toe of the embankment during the summer of 2010. The condition worsened through the fall, and it appears that some ongoing movement

has occurred into the spring of 2011. Observations of the site indicate that the creek bank is slipping toward the creek. A significant fissure has opened in the area south of the bank at the base of the steep slope. This fissure or gap in the soil is 8 to 10 feet at the widest point (see Photo #2). The slope above the slip does not appear to have shifted. Consequently, we conclude that the slip mechanism is localized to the creek bank, and is not caused by a larger slope failure. However, based on previous investigation, failure and erosion of the channel bank will likely affect the stability of the slope.

Based on our observations, it appears that the mechanism causing the bank failure is erosion of the foundation below the gabions (see Photo #3). It is apparent that the gabions in the affected area have rotated and tipped downward into the channel (see Photo #4). We plotted the survey data along the creek bank to profile the upper and lower gabion baskets. The attached Gabion Profile (sheet R2) depicts the current profile of the outside edge of the top and bottom gabions. The original design elevation of the gabions is also depicted. The outside edge of the baskets have dropped roughly 3 feet from the downstream end at Sta 524+60 to approximately Sta 525+80, a distance of 130 feet or so. The Cross Sections (sheet R3) depict the approximate current configuration of the gabions in the vicinity of the slip.

The bank slide was ultimately caused by erosion on the outside bend of the channel. Repair of this area will need to improve the erosion protection to prevent recurrence. The least costly option would be to excavate the slip area and to anchor the bank with rip-rap. We are concerned over the long-term effectiveness of this solution, and it is likely that frequent repairs will be necessary with this type of solution. An improved gabion structure would likely be more durable. A reconfigured gabion system would need to extend deeper, at least to the current bottom of the channel at elevation 1004. This would likely require installing a cofferdam and dewatering the work area during installation. A more effective but more costly solution would involve installing steel sheet piles along the affected area. We would expect some scour to occur along a vertical structure on the outside of a bend, so it is likely that the free-standing height of the sheets would exceed the current 10 feet from bottom of channel to top of bank. A height of 12 to 14 feet may not be possible to stand in a cantilever configuration, so a tied back bulkhead system may be necessary. This type of sheeted wall can be configured using helical anchors extending under the slope. If the sheet piles can be protected with an effective rip-rap buttress to minimize future undercutting, it may be possible to eliminate the tiebacks and install the sheets in a cantilever configuration. Although a sheet pile retention system is the most costly, it would be the most effective long-term solution to control erosion and eventual instability of the slope.

Note that similar erosion has been occurring upstream from the area that has slipped, and some additional failures are likely over the coming years. The solution to the current bank failure should consider extending the repair upstream for some distance.

Please contact me if you have any questions.

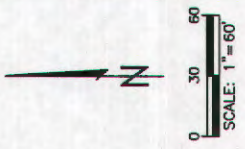
Respectfully,
Thiele Geotech, Inc.



Daniel J. Thiele, P.E.

Enclosures

P:\10548.00\LETTER.DOCX



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REVISIONS:	SITE PLAN	BIG PAPIO CHANNEL 105th & PACIFIC STREET OMAHA, NEBRASKA	 Thiele Geotech Inc. GEOTECHNICAL ■ MATERIAL ■ ENVIRONMENTAL ■ ENGINEERING	SHEET: R1
				DATE: 3/23/11 JOB NO: 10548.00 DB: MDS CB: DJT



PHOTO NUMBER 1

Overview of slide at base of slope
10552 Forest Drive residence visible at top of slope (center)



PHOTO NUMBER 2

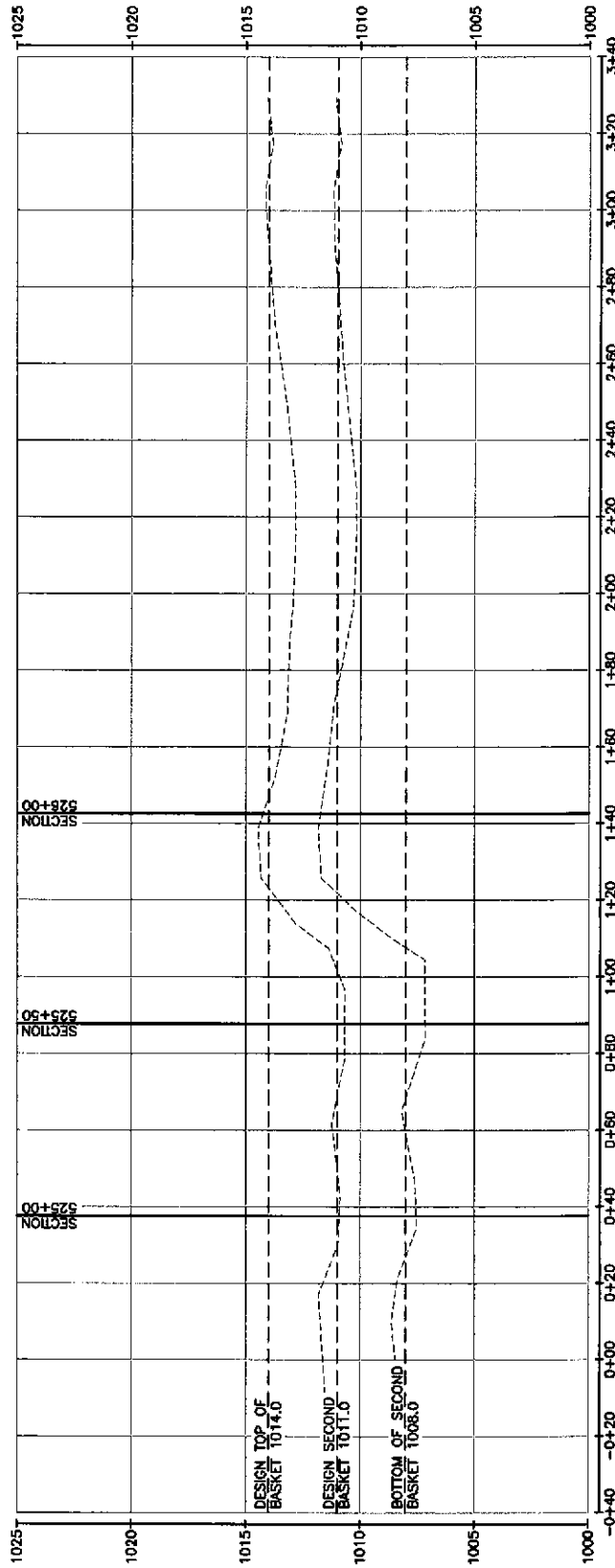
Fissure behind slide area
roughly 8 to 10 feet wide



PHOTO NUMBER 3
View showing bank exposed below gabions
(upstream of slide)



PHOTO NUMBER 4
Upstream end where tipping begins
approximate Sta 525+65 (left side) to Sta 526+00 (right side)



ELEVATION SCALES:
HORIZ. 1"=30'
VERT. 1"=5'

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BIG PAPIO CHANNEL
105th & PACIFIC STREET
OMAHA, NEBRASKA

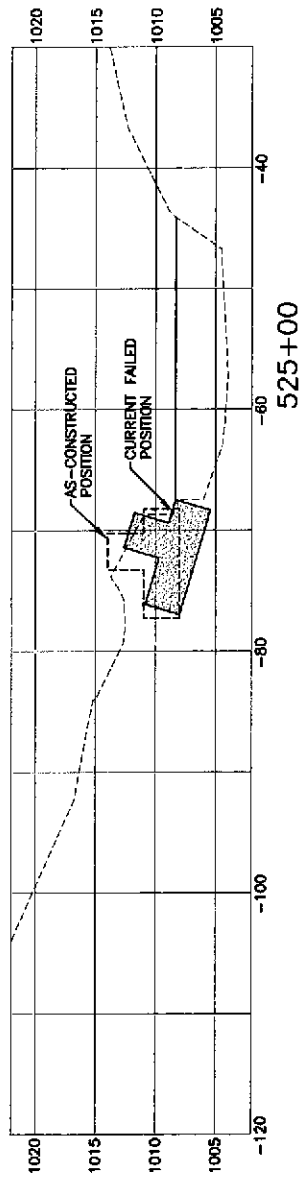
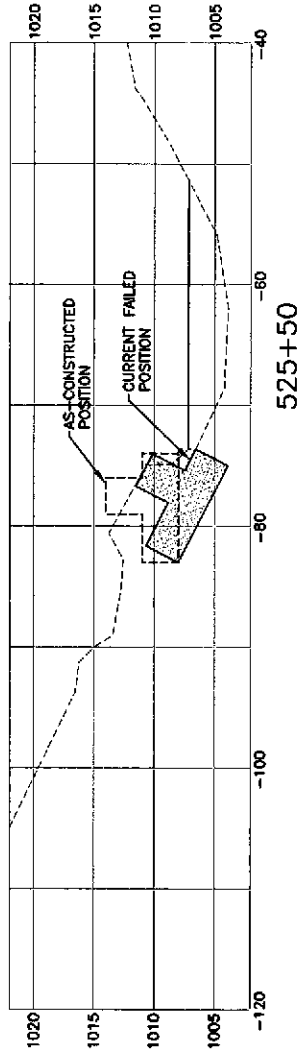
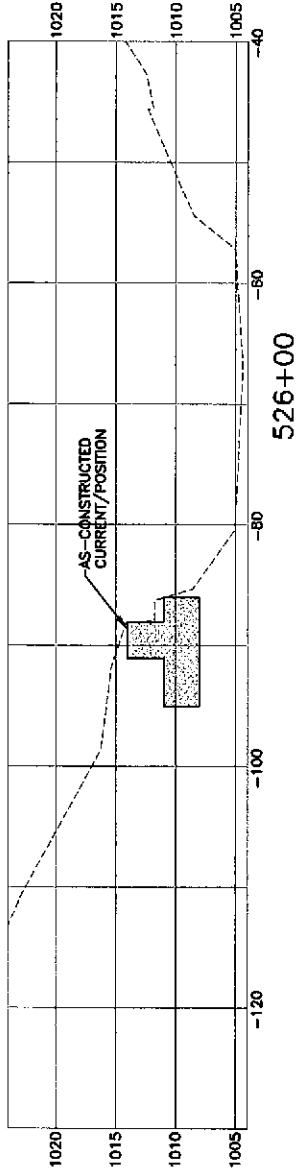
GABION PROFILE

REVISIONS:

SHEET: **R2**

DATE: 3/23/11
JOB NO: 10548.00

DWG: MDS
CB: DJT



ELEVATION SCALES:
HORIZ. - 1" = 10'
VERT. - 1" = 10'

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REVISIONS:

BIG PAPIO CHANNEL **105th & PACIFIC STREET**

OMAHA, NEBRASKA

CROSS SECTIONS



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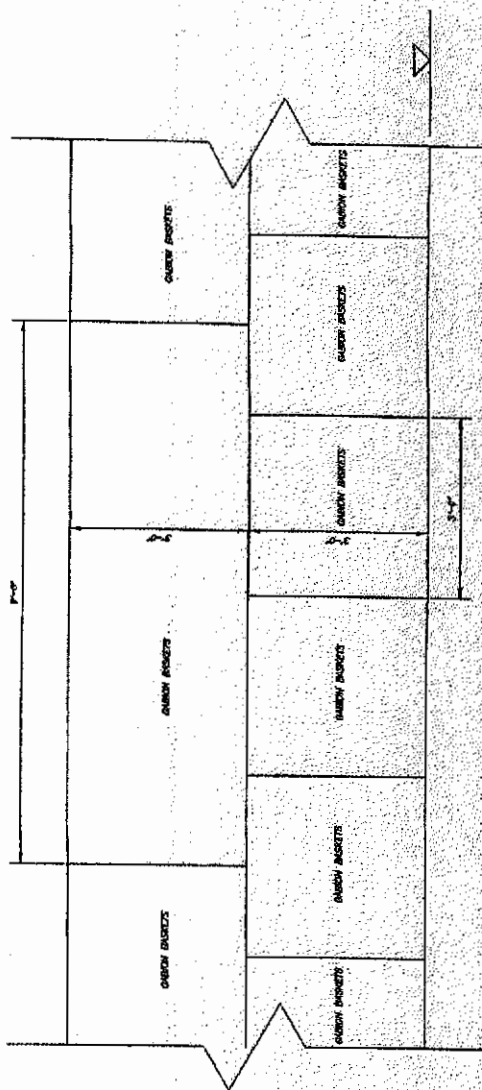
SHEET: **R3**

DATE:	JOB NO:
3/23/11	10548.00
DR: MDS	CB: DJT

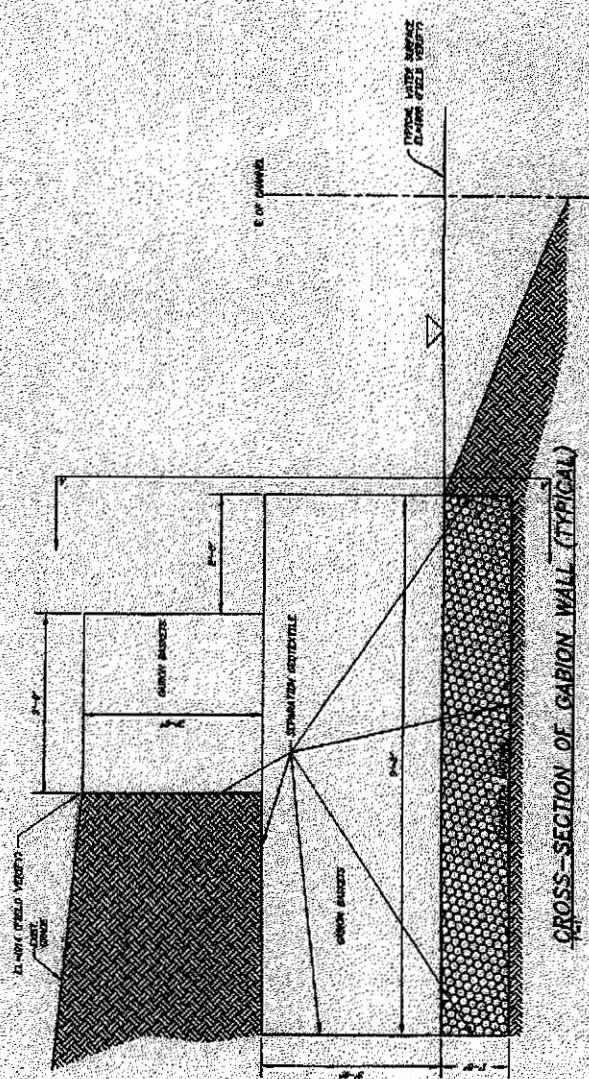
RODOLFO

WAS REPORTED TO BE IN TAMPA MANY YEARS BEFORE HE ARRIVED IN MIAMI. HE WAS REPORTED TO HAVE BEEN IN TAMPA FOR SEVERAL YEARS BEFORE HE ARRIVED IN MIAMI. HE WAS REPORTED TO HAVE BEEN IN TAMPA FOR SEVERAL YEARS BEFORE HE ARRIVED IN MIAMI.

- [illegible]



ELEVATION OF GABION WALL (TYPICAL) SECTION A-A



CROSS-SECTION OF GABION WALL (TYPICAL)

This Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the other. For guidance on the completion and use of this Agreement, see EJCDC User's Guide to the Owner-Engineer Agreement, EJCDC E-001, 2009 Edition.

AGREEMENT
BETWEEN OWNER AND ENGINEER
FOR
PROFESSIONAL SERVICES

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE



and

As Modified by the Parties Hereto (all changes shown in redline/strike-out format)

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

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**ENGINEERS JOINT CONTRACT
DOCUMENTS COMMITTEE**

**AGREEMENT
BETWEEN OWNER AND ENGINEER
FOR
PROFESSIONAL SERVICES**

THIS IS AN AGREEMENT effective as of _____, 2011 ("Effective Date") between

Papio-Missouri Natural Resources District ("P-MRNRD") ("Owner") and

HDR Engineering, Inc. ("HDR") ("Engineer").

Owner's Project, of which Engineer's services under this Agreement are a part, is generally identified as follows:
a low flow channel re-stabilization along the Big Papillion Creek between 105th and Pacific Streets in Douglas
County, NE ("Project").

Engineer's services under this Agreement are generally identified as follows:
design and construction administration to re-stabilize the low flow channel within a previously stabilized reach
along the Big Papillion Creek between 105th and Pacific Streets.

Owner and Engineer further agree as follows:

ARTICLE 1 – SERVICES OF ENGINEER

1.01 Scope

- A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

ARTICLE 2 – OWNER'S RESPONSIBILITIES

2.01 General

- A. Owner shall have the responsibilities set forth herein and in Exhibit B.
- B. Owner shall pay Engineer as set forth in Exhibit C.
- C. Owner shall be responsible for, and Engineer may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by Owner to Engineer pursuant to this Agreement. Engineer may use such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement.

ARTICLE 3 – SCHEDULE FOR RENDERING SERVICES

3.01 *Commencement*

- A. Engineer is authorized to begin rendering services as of the Effective Date.

3.02 *Time for Completion*

- A. Engineer shall complete its obligations within a reasonable time. Specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided in Exhibit A, and are hereby agreed to be reasonable.
- B. If, through no fault of Engineer, such periods of time or dates are changed, or the orderly and continuous progress of Engineer's services is impaired, or Engineer's services are delayed or suspended, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.
- C. If Owner authorizes changes in the scope, extent, or character of the Project, then the time for completion of Engineer'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 Engineer's performance of its services.
- E. If Engineer fails, through its own fault, to complete the performance required in this Agreement 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.

ARTICLE 4 – INVOICES AND PAYMENTS

4.01 *Invoices*

- A. *Preparation and Submittal of Invoices:* Engineer shall prepare invoices in accordance with its standard invoicing practices and the terms of Exhibit C. Engineer shall submit its invoices to Owner 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 Engineer and then to principal.
- B. *Failure to Pay:* If Owner fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice, then:
 - 1. amounts due Engineer 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. Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Owner has paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Engineer for any such suspension.

C. *Disputed Invoices*: If Owner contests an invoice, Owner shall promptly advise Engineer of the specific basis for doing so, may withhold only that portion so contested, and must pay the undisputed portion. After a disputed item has been settled, Engineer shall include the disputed item on a subsequent regularly scheduled invoice or on a special invoice for the disputed item only.

D. *Legislative Actions*: If after the Effective Date any governmental entity takes a legislative action that imposes taxes, fees, or charges on Engineer's services or compensation under this Agreement, then the Engineer may invoice such new taxes, fees, or charges as a Reimbursable Expense to which a factor of 1.0 shall be applied. Owner shall reimburse Engineer for the cost of such invoiced new taxes, fees, and charges; such reimbursement shall be in addition to the compensation to which Engineer is entitled under the terms of Exhibit C.

ARTICLE 5 – OPINIONS OF COST

5.01 *Opinions of Probable Construction Cost*

A. Engineer's opinions of probable Construction Cost are to be made on the basis of Engineer's experience and qualifications and represent Engineer's best judgment as an experienced and qualified professional generally familiar with the construction industry. However, because Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Engineer cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Engineer. If Owner requires greater assurance as to probable Construction Cost, Owner must employ an independent cost estimator as provided in Exhibit B.

5.02 *Reserved*

5.03 *Opinions of Total Project Costs*

A. The services, if any, of Engineer with respect to Total Project Costs shall be limited to assisting the Owner in collating the various cost categories which comprise Total Project Costs. Engineer assumes no responsibility for the accuracy of any opinions of Total Project Costs.

ARTICLE 6 – GENERAL CONSIDERATIONS

6.01 *Standards of Performance*

A. *Standard of Care*: The standard of care for all professional engineering and related services performed or furnished by Engineer 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. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with Engineer's services.

B. *Technical Accuracy*: Owner shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct deficiencies in technical accuracy without additional compensation, unless such corrective action is directly attributable to deficiencies in Owner-furnished information.

C. *Consultants:* Engineer may employ such Consultants as Engineer 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, Engineer 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:*

1. Engineer and Owner shall comply with applicable Laws and regulations.
2. Prior to the Effective Date, Owner provided to Engineer in writing any and all policies and procedures of Owner applicable to Engineer's performance of services under this Agreement, provided to Engineer in writing. Engineer shall comply with such policies and procedures, subject to the standard of care set forth in Paragraph 6.01.A, and to the extent compliance is not inconsistent with professional practice requirements.
3. This Agreement is based on Laws and Regulations and Owner-provided written policies and procedures as of the Effective Date. 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 Engineer's scope of services, times of performance, or compensation.

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

G. The general conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (EJCDC C-700, 2007 Edition).

H. Engineer shall not at any time supervise, direct, control, or have authority over any contractor work, nor shall Engineer have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at the Site, nor for any failure of a contractor to comply with Laws and Regulations applicable to such contractor's furnishing and performing of its work.

I. Engineer neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.

J. Engineer shall not provide or have any responsibility for surety bonding or insurance-related advice, recommendations, counseling, or research, or enforcement of construction insurance or surety bonding requirements.

K. Engineer shall not be responsible for the acts or omissions of any Contractor, Subcontractor, or Supplier, or of any of their agents or employees or of any other persons (except Engineer's own agents, employees, and Consultants) at the Site or otherwise furnishing or performing any Work; or for any decision made regarding the Contract Documents, or any application, interpretation, or clarification, of the Contract Documents, other than those made by Engineer.

L. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's and Owner's safety programs of which Engineer has been informed in writing.

6.02 *Design Without Construction Phase Services*

A. Engineer shall be responsible only for those Construction Phase services expressly required of Engineer in Exhibit A, Paragraph A1.05. With the exception of such expressly required services, Engineer shall have no design, Shop Drawing review, or other obligations during construction and Owner assumes all responsibility for the application and interpretation of the Contract Documents, review and response to Contractor claims, contract administration, processing Change Orders, revisions to the Contract Documents during construction, construction surety bonding and insurance requirements, construction observation and review, review of payment applications, and all other necessary Construction Phase engineering and professional services. Owner waives all claims against the Engineer that may be connected in any way to Construction Phase engineering or professional services except for those services that are expressly required of Engineer in Exhibit A, Paragraph A1.05.

6.03 *Use of Documents*

A. All Documents are instruments of service in respect to this Project, and Engineer shall retain an ownership and property interest therein (including the copyright and the right of reuse at the discretion of the Engineer) whether or not the Project is completed. Owner shall not rely in any way on any Document unless it is in printed form, signed or sealed by the Engineer or one of its Consultants.

B. Either party to this Agreement may rely that 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, are the items that the other party intended to send. Files in electronic media format of text, data, graphics, or other types that are furnished by one party to the other are furnished only for convenience, not reliance by the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

C. 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.

D. 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.

E. Owner may make and retain copies of Documents for information and reference in connection with use on the Project by Owner. Engineer grants Owner a limited license to use the Documents on the Project, extensions of the Project, and for related uses of the Owner, subject to receipt by Engineer of full payment for all services relating to preparation of the Documents and subject to the following limitations: (1) Owner acknowledges that such Documents are not intended or represented to be suitable for use on the Project unless completed by Engineer, or for use or reuse by Owner or others on extensions of the Project, on any other project, or for any other use or purpose, without written verification or adaptation by Engineer; (2) any such use or reuse, or any modification of the Documents, without written verification, completion, or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Engineer or to its officers, directors, members, partners, agents, employees, and Consultants; (3) Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification of the Documents without written verification, completion, or adaptation by Engineer; and (4) such limited license to Owner shall not create any rights in third parties.

F. If Engineer at Owner's request verifies the suitability of the Documents, completes them, or adapts them for extensions of the 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.

6.04 *Insurance*

A. Engineer shall procure and maintain insurance as set forth in Exhibit G, "Insurance." Engineer shall cause Owner to be listed as an additional insured on any applicable general liability insurance policy carried by Engineer.

B. Owner shall procure and maintain insurance as set forth in Exhibit G, "Insurance." Owner shall cause Engineer and its Consultants to be listed as additional insureds on any general liability policies and as loss payees on any property insurance policies carried by Owner which are applicable to the Project.

C. Owner shall require Contractor 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 Engineer's interests in the Project. Owner shall require Contractor to cause Engineer and its Consultants to be listed as additional insureds with respect to such liability and other insurance purchased and maintained by Contractor for the Project.

D. Owner and Engineer 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 Engineer's services and at renewals thereafter during the life of the Agreement.

E. All policies of property insurance relating to the Project shall contain provisions to the effect that Engineer's and its 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 Engineer 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 30 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. At any time, Owner may request that Engineer 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 if commercially available, Engineer 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, and Exhibit G will be supplemented to incorporate these requirements.

6.05 *Suspension and Termination*

A. *Suspension:*

1. By Owner: Owner may suspend the Project for up to 90 days upon seven days written notice to Engineer.
2. By Engineer: Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement if Engineer's performance has been substantially delayed through no fault of Engineer.

B. *Termination:* The obligation to provide further services under this Agreement 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 hereof through no fault of the terminating party.
 - b. By Engineer:
 - 1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional; or
 - 2) upon seven days written notice if the Engineer's services for the Project are delayed or suspended for more than 90 days for reasons beyond Engineer's control.
 - 3) Engineer shall have no liability to Owner on account of such termination.
 - c. Notwithstanding the foregoing, this Agreement will not terminate under Paragraph 6.05.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 Engineer's receipt of notice from Owner.
- b. By Engineer effective upon Owner's receipt of notice from Engineer. This option shall be available to Engineer only in the event any of the owners of the lands identified in Exhibit L, attached hereto and incorporated herein by reference, fail or refuse to voluntarily execute a Supplemental Permanent Easement that includes a waiver of claims against Owner, Engineer and Contractor in the form as contained in the Supplemental Permanent Easement form attached hereto as Exhibit M and incorporated herein by this reference.

C. *Effective Date of Termination:* The terminating party under Paragraph 6.05.B may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer 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 Project materials in orderly files.

D. *Payments Upon Termination:*

1. In the event of any termination under Paragraph 6.05, Engineer 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. Upon making such payment, Owner shall have the limited right to the use of Documents, at Owner's sole risk, subject to the provisions of Paragraph 6.03.E.
2. In the event of termination by Owner for convenience or by Engineer for cause, Engineer shall be entitled, in addition to invoicing for those items identified in Paragraph 6.05.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 Engineer's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit C.

6.06 *Controlling Law*

A. This Agreement is to be governed by the law of the state or jurisdiction in which the Project is located.

6.07 *Successors, Assigns, and Beneficiaries*

A. Owner and Engineer are hereby bound and the successors, executors, administrators, and legal representatives of Owner and Engineer (and to the extent permitted by Paragraph 6.07.B the assigns 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 Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, claims arising out of this Agreement or 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.

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 Engineer 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 and Engineer and not for the benefit of any other party.
3. Owner agrees that the substance of the provisions of this Paragraph 6.07.C shall appear in the Contract Documents.

6.08 *Dispute Resolution*

A. Owner and Engineer agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to invoking the procedures of Exhibit H or other provisions of this Agreement, or exercising their rights under law.

B. If the parties fail to resolve a dispute through negotiation under Paragraph 6.08.A, then either or both may invoke the procedures of Exhibit H. If Exhibit H is not included, or if no dispute resolution method is specified in Exhibit H, then the parties may exercise their rights under law.

6.09 *Environmental Condition of Site*

A. Owner has disclosed to Engineer 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.

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

C. If Engineer encounters or learns of an undisclosed Constituent of Concern at the Site, then Engineer shall notify (1) Owner and (2) appropriate governmental officials if Engineer reasonably concludes that doing so is required by applicable Laws or Regulations.

D. It is acknowledged by both parties that Engineer's scope of services does not include any services related to Constituents of Concern. If Engineer 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 Engineer may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until Owner: (1) retains appropriate specialist consultants or contractors 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.

E. If the presence at the Site of undisclosed Constituents of Concern adversely affects the performance of Engineer's services under this Agreement, then the Engineer shall have the option of (1) accepting an equitable adjustment in its compensation or in the time of completion, or both; or (2) terminating this Agreement for cause on 30 days notice.

F. Owner acknowledges that Engineer is performing professional services for Owner and that Engineer 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.

6.10 *Indemnification and Mutual Waiver*

A. *Indemnification by Engineer:* To the fullest extent permitted by law, Engineer shall indemnify and hold harmless Owner, and Owner's officers, directors, members, partners, agents, consultants, and employees from reasonable claims, costs, losses, and damages arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Engineer or Engineer's officers, directors, members, partners, agents, employees, or Consultants. **This indemnification provision is subject to and limited by the provisions, if any, agreed to by Owner and Engineer in Exhibit I, "Limitations of Liability."**

B. *Indemnification by Owner:* Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants as required by Laws and Regulations and to the extent (if any) required in Exhibit I, Limitations of Liability.

C. *Environmental Indemnification:* To the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals, and all court, arbitration, or other dispute resolution costs) caused by, arising out of, relating to, or resulting from a Constituent of Concern at, on, or under the Site, provided that (1) any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (2) nothing in this paragraph shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.

D. *Percentage Share of Negligence:* To the fullest extent permitted by law, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of Owner, Engineer, and all other negligent entities and individuals.

E. *Mutual Waiver:* To the fullest extent permitted by law, Owner and Engineer 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.

6.11 *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 Engineer, 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. One or more waivers by either party of any provision, term, condition or covenant shall not be constructed as a waiver of a subsequent breach of the same by the other party.

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.

ARTICLE 7 – DEFINITIONS

7.01 *Defined Terms*

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

1. *Additional Services* – The services to be performed for or furnished to Owner by Engineer in accordance with Part 2 of Exhibit A of this Agreement.
2. *Agreement* – This written contract for professional services between Owner and Engineer, including all exhibits identified in Paragraph 8.01 and any duly executed amendments.
3. *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.
4. *Basic Services* – The services to be performed for or furnished to Owner by Engineer in accordance with Part 1 of Exhibit A of this Agreement.
5. *Construction Contract* – The entire and integrated written agreement between Owner and Contractor concerning the Work.
6. *Construction Cost* – The cost to Owner of those portions of the entire 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 the Project; or the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement. Construction Cost is one of the items comprising Total Project Costs.

7. *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.
8. *Consultants* – Individuals or entities having a contract with Engineer to furnish services with respect to this Project as Engineer's independent professional associates and consultants; subcontractors; or vendors.
9. *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.
10. *Contractor* – The entity or individual with which Owner has entered into a Construction Contract.
11. *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.
12. *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 Contractor. Shop Drawings are not Drawings as so defined.
13. *Effective Date* – The date indicated in this Agreement on which it becomes effective, but if no such date is indicated, the date on which this Agreement is signed and delivered by the last of the parties to sign and deliver.
14. *Engineer* – The individual or entity named as such in this Agreement.
15. *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.
16. *Laws and Regulations; Laws or Regulations* – Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

17. *Owner* – The individual or entity with which Engineer has entered into this Agreement and for which the Engineer'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.
18. *PCBs* – Polychlorinated biphenyls.
19. *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 oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-hazardous waste and crude oils.
20. *Project* – The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
21. *Radioactive Material* – 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.
22. *Record Drawings* – Drawings depicting the completed Project, prepared by Engineer as an Additional Service and based solely on Contractor's record copy of all Drawings, Specifications, addenda, change orders, work change directives, field orders, and written interpretations and clarifications, as delivered to Engineer and annotated by Contractor to show changes made during construction.
23. *Reimbursable Expenses* – The expenses incurred directly by Engineer in connection with the performing or furnishing of Basic and Additional Services for the Project.
24. *Resident Project Representative* – The authorized representative of Engineer assigned to assist Engineer at the Site during the Construction Phase. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative agreed to by Owner. The duties and responsibilities of the Resident Project Representative, if any, are as set forth in Exhibit D.
25. *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.
26. *Shop Drawings* – All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
27. *Site* – Lands or areas to be indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
28. *Specifications* – That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.
29. *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 the Site.

30. *Substantial Completion* – The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
31. *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.
32. *Total Project Costs* – The sum of the Construction Cost, allowances for contingencies, and the total costs of services of Engineer or other design professionals and consultants, together with such other Project-related costs that Owner furnishes for inclusion, including but not limited to cost of land, rights-of-way, compensation for damages to properties, Owner’s costs for legal, accounting, insurance counseling and auditing services, interest and financing charges incurred in connection with the Project, and the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement.
33. *Work* – The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. 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 the Contract Documents.

ARTICLE 8 – EXHIBITS AND SPECIAL PROVISIONS

8.01 *Exhibits Included:*

- A. Exhibit A, Engineer’s Services.
- B. Exhibit B, Owner’s Responsibilities.
- C. Exhibit C, Payments to Engineer for Services and Reimbursable Expenses.
- D. Exhibit D, Duties, Responsibilities and Limitations of Authority of Resident Project Representative.
- E. Exhibit E, Notice of Acceptability of Work.
- F. Exhibit F, Construction Cost Limit. Reserved.
- G. Exhibit G, Insurance.
- H. Exhibit H, Dispute Resolution.
- I. Exhibit I, Limitations of Liability.
- J. Exhibit J, Amendment to Owner-Engineer Agreement.
- K. Exhibit K, Legal Descriptions of Mandatory Easement Areas

L. Exhibit L, Supplemental Permanent Easement Form

8.02 *Total Agreement:*

A. This Agreement, (together with the exhibits identified above) constitutes the entire agreement between Owner and Engineer 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 of Exhibit K to this Agreement.

8.03 *Designated Representatives:*

A. With the execution of this Agreement, Engineer and Owner shall designate specific individuals to act as Engineer's and Owner's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of Owner under this Agreement. Such an individual shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of the respective party whom the individual represents.

8.04 *Engineer's Certifications:*

A. Engineer 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 any thing 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:

PAPIO-MISSOURI RIVER NATURAL
RESOURCES DISTRICT

Engineer:

HDR ENGINEERING, INC

By: John Winkler

By: Matthew Tondl, PE

Title: General Manager

Title: Senior Vice President

Date

Date Signed: _____

Signed: _____

Engineer License or Firm's Certificate No. #CA0443

State of: Nebraska

Address for giving notices:

8901 S. 154th Street

Address for giving notices:

8404 Indian Hills Drive

Omaha, NE 68114

Omaha, NE 68114

Designated Representative (Paragraph 8.03.A):

John Winkler

Designated Representative (Paragraph 8.03.A):

Matthew Tondl, P.E.

Title: General Manager

Title: Senior Vice President

Phone Number: 402-444-6222

Phone Number: 402-399-1070

Facsimile Number: 402-895-6543

Facsimile Number: 402-399-1111

E-Mail Address: jwinkler@papionrd.org

E-Mail Address: Matt.Tondl@hdrinc.com

This is **EXHIBIT A**, consisting of 12 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated _____, 2011.

Engineer's Services

Article 1 of the Agreement is supplemented to include the following agreement of the parties.

Engineer shall provide Basic and Additional Services as set forth below.

PART 1 – BASIC SERVICES

For Papio-Missouri River Natural Resources District
Big Papillion Creek 105th & Pacific Streets
Low Flow Channel Re-Stabilization
Douglas County, NE



ENGINEERING PROPOSAL

BACKGROUND AND BASIS OF PROPOSAL

The purpose of this effort is to evaluate, design, and provide construction administration for a portion of the Big Papillion Creek between 105th and Pacific Street in a reach previously stabilized with gabions. The design is to re-stabilize the low flow portion of the channel where gabions have been placed. Stabilization of the upper slope is not included as a part of this work.

SCOPE OF SERVICES – 105th & Pacific Streets – Low Flow Channel Re-Stabilization

The objective of this Project is to provide professional services to the P-MRNRD. The scope of work is segmented into four (4) task series:

- Task Series 100 – Project Management
- Task Series 200 – Re-Stabilization Design
- Task Series 300 – Bidding Assistance
- Task Series 400 – Construction Contract Administration

The HDR Team proposes to provide the following professional services.

TASK SERIES 100 – PROJECT MANAGEMENT

Task Objectives: Coordinate work effort, administer contract, and provide quality control.

HDR Activities: **Task 110 Project Management.** Conduct general project management tasks. Includes development of project initiation forms including the development of a project guide, monthly invoicing, monthly progress reports, project close out activities and other administration project activities.

Task 120 Meetings. Conduct coordinating meetings to discuss Project tasks and present findings.

Subtask 120.1 Coordination Meetings. A kick-off meeting and three coordination meeting are planned.

Subtask 120.2 Landowner Meetings. Conduct meeting with landowners to discuss project purpose and alternatives. A total of two meetings are planned.

Task Deliverables:

Key Understandings:

- Monthly invoices and progress reports
- Coordination Meetings will be held at the offices of the P-MRNRD.
- Landowners meetings will be near the Project site.

TASK SERIES 200 – DESIGN OF LOW FLOW CHANNEL RE-STABILIZATION

Task Objectives: HDR will evaluate the stabilization failure along the existing gabion protected left bank of the Big Papillion Creek, collect data, preliminary and final design and Section 404 permitting.

HDR Activities: **Task 210 Data Collection and Review.** Collect and review existing information and conduct a site visit.

Subtask 210.1 Data Collection and Review. Collect and review existing information including as-built drawings for the 105th Street and Pacific Street bridges

Subtask 210.2 Site Visit. Conduct a site visit to evaluate existing conditions and site constraints.

Task 220 Geotechnical Investigation. Conduct subsurface investigation and laboratory testing on samples taken.

Subtask 220.1 Drilling Program. Advance one boring on the north bank with a truck mounted drill rig and one boring on the south bank by hand auger. The borings will be sampled at intervals of 5 feet or less and a descriptive log of the test borings will be prepared. Cohesive soil samples will be tested for strength using a pocket penetrometer.

Subtask 220.2 Laboratory Testing. Perform laboratory tests on the samples obtained during drilling. Conduct the following tests:

- 10 Atterberg limits
- 10 sieve analysis with hydrometer
- 20 Density and moisture
- 4 UU triaxial
- 4 unconfined compressive strength

Task 230 Conceptual Evaluation. Evaluate a maximum of two alternatives to re-stabilize the toe of the slope.

Subtask 230.1 Stability Evaluation. Conduct a stability evaluation to re-stabilize the toe of the slope. This work does not include an evaluation to stabilize the upper slope.

Subtask 230.2 Scour Assessment. Estimate the potential from scour based on the most current hydraulic model of the Papillion Creek.

Subtask 230.3 Conceptual Evaluation Technical Memorandum. Prepare a TM summarizing the results of the drilling and laboratory testing, stability evaluation, and scour assessment. TM to include documentation to provide landowners with information on the purpose of the design.

Task 240 Permitting. Coordinate with regulatory agencies and prepare documentation.

Subtask 240.1 Agency Coordination. Conduct a pre-notification meeting with USACE to discuss compliance with Section 404 of the Clean Water Act. Contact Nebraska State Historical Preservation Office and document if any cultural resources have been found within the project area. Contact City of Omaha Floodplain Administrator to confirm submittal requirements.

Subtask 240.2 Section 404 Documentation. Prepare Pre-Construction Notification for authorization under the Nationwide Permit Program for Section 404 compliance and for joint 401 Water Quality Certification.

Conduct a wetland delineation and associated documentation.

Subtask 240.3 City of Omaha Floodplain Development Permit Application. This project is in the Big Papillion Creek delineated floodplain. Prepare a City of Omaha Floodplain

Development Permit Application. It is anticipated the proposed design will comply with No-rise criteria and a Letter of Map Revision will not be required.

Task 250 Design. Conduct preliminary and final design.

Subtask 250.1 Preliminary Design. Prepare preliminary design drawings. Drawings in AutoCAD, Version 2010 format. A preliminary list of sheets may include:

- Cover Sheet
- Site Plan (1 sheet)
- Typical Sections/Typical Details

Subtask 250.2 Final Design. Prepare final design drawings and technical specifications. Specifications will be based on EJCDC technical specifications. Prepare opinion of approximate construction cost.

Deliverables:

- Section 404 Coordination Letter and/or Pre-Construction Notification
- City of Omaha Floodplain Development Permit Application.
- Conceptual Design Memorandum
- Preliminary Design Documents (drawings, technical specifications, opinion of approximate construction cost)

Key Understandings:

- The design is to re-stabilize the low flow portion of the channel where gabions have been placed. Stabilization of the upper slope is not included as a part of this work. Any modifications to the design concept after work has been completed resulting from unforeseen conditions or requirements will be considered Additional Services.
- Hydrologic or hydraulic modeling is not included in this scope of services. The HEC-RAS model prepared by USACE for the remapping of the Big Papillion Creek will be obtained and channel hydraulic parameters will be used to assess scour. If hydrologic/hydraulic modeling is required, it can be provided as Additional Services.
- P-MRNRD to provide access to/across private property for site visits and geotechnical investigation.
- It is assumed that the construction and staging areas are located within P-MRNRD right-of-way. If land acquisition is required, it can be provided as Additional Services.
- Thiele Geotech, as a subconsultant to HDR, will provide subsurface investigation and laboratory testing.
- An evaluation of potential contamination on or near the site is not included, but can be provided as Additional Services.
- P-MRNRD to provide topographic survey data. If additional survey is necessary, HDR will identify the additional information required and provide to P-MRNRD.
- It is assumed that the existing Regional General Permit (NE 1998-11497) cannot be used for authorization.
- It is assumed that the pre-existing work is an authorized and serviceable structure. Therefore, Nationwide Permit #3 (Maintenance) would be applicable. However, a coordination meeting with USACE would determine if the project qualifies for coverage under a Nationwide Permit #3. No wetland mitigation or stream functional assessment is assumed.
- It is assumed that no cultural resources are present at the site and only consultation with SHPO will be required.
- It is assumed that a wetland delineation will be performed due to the visibility of the Project and for full disclosure of existing conditions.
- It is assumed that a City of Omaha's Post Construction Stormwater Management Plan permit is not required.
- P-MRNRD is exempt from city and county zoning and building regulations including floodplain permitting regulations. Relevant submissions to the City should state that they are for information only.

- It is assumed that the total area disturbed by grading is less than 1 acre and will not require an NPDES permit or City of Omaha grading permit.
- It is assumed the proposed design will reestablish channel cross-sections to conditions that existed when the floodplain was delineated and no additional hydraulic modeling will be required.
- P-MRNRD will provide front end bidding documents. HDR to provide the technical specifications.
- P-MRNRD will be responsible for the preparation and submittal of the FEMA grant. HDR to provide technical information.
- All deliverables will be electronic. No hard copies will be printed.
- Schedule is based on obtaining permits in a timely fashion. If obtaining permits are delayed, bidding and construction will be delayed.

TASK SERIES 300 – BIDDING ASSISTANCE

Task Objectives: Assist P-MRNRD in preparing the invitation for bids, attend the pre-bid meeting provide replies to prospective bidder inquiries, attend the bid opening, assist with review of the bids received, and prepare a recommended action for board consideration.

HDR Activities: **Task 310 Bid Modifications.** Receive and respond to questions from plan holders concerning interpretations of the bidding procedure. HDR to provide technical interpretations on the design. Inquiries that can be addressed by referring to information in the Bidding Documents will be recorded in telephone conversation records. Address inquiries that require a modification of the Bidding Documents by preparing an addendum item. HDR to prepare appropriate addenda for P-MRNRD distribution.

Task 320 Pre-Bid Meeting. Attend pre-bid meeting with prospective bidders. Prepare agenda and minutes for the pre-bid portion of the meeting. Address inquiries that require a modification of the Bidding Documents by preparing an addendum item.

Task 330 Bid Opening. Attend the Bid Opening to assist in the initial screening of bids regarding Bidder's use of required Bid Forms, inclusion of Bid Security and inclusion of other qualifying information to accompany the Bid. Tabulate bids. Evaluate bids and prepare a letter of recommendation.

Task Deliverables:

- Electronic copy of addenda(um) to be distributed by P-MRNRD to all plan holders.
- Pre-bid meeting agenda and minutes
- Tabulation of bids and letter of recommendation of award

Key Understandings:

- P-MRNRD will be the contact agency in the bidding documents for questions and will coordinate with HDR on responses.
- P-MRNRD is responsible for bid solicitation, document distribution (including addendum) and bid opening.
- P-MRNRD is responsible for advertising the project and payment of any fees.

TASK SERIES 400 – CONSTRUCTION ADMINISTRATION

Task Objectives: Provide full-time on-site observation and document construction activities.

HDR Activities: **Task 410 Preconstruction Meeting.** HDR will assist P-MRNRD with organizing and holding a preconstruction meeting. This meeting will be attended by representatives from HDR, P-MRNRD, Contractor, and other interested parties. The main purpose of this meeting will be to establish lines of communication, discuss areas of responsibility, establish operational constraints, and to discuss and clarify items.

Task 420 Shop Drawing Review. HDR to review shop drawings and samples for compliance with contract documents.

Task 430 Full-Time Observation. HDR to conduct full-time on-site observation of work in progress to determine if work is generally proceeding in accordance with the Contract Documents. Anticipated duration of construction is 30 working days from contractor mobilization. The level of construction observation effort included in this scope equates to 300 hours (10-hour days for 30 days) for a full-time resident project representative (RPR) for the anticipated duration. Reasonable variations in work days and schedules are anticipated, but no protracted overtime, work stoppages or extended work schedules are anticipated. If the construction schedule exceeds the estimated effort, all parties agree that the contract will be adjusted.

The following activities are to be conducted:

- HDR to provide clarifications and interpretations of Contract Documents to Contractor.
- HDR to assist in negotiating change orders.
- HDR to maintain files for correspondence, shop drawings and samples, change orders and other project related documents.
- HDR to maintain log book to record working days; weather conditions; weekly activities; decisions; and general observations.
- HDR to review and verify applications for payment with Contractor. HDR will provide a recommendation and forward payment application to P-MRNRD.
- HDR to conduct a substantial completion inspection and submit a list of observed items requiring completion or correction. After items on list have been completed or corrected, HDR to issue Certificate of Substantial Completion.
- HDR to conduct a final inspection and submit a list of observed items requiring completion or correction. After items on list have been completed or corrected, HDR to review final payment application.

Task 440 Construction Closeout. HDR to compile construction documentation and prepare record drawing, which will be the final record drawings, corrected to reflect field conditions observed and changes documented by the contractor during the construction period.

Task Deliverables:

- Construction documentation
- Record drawings

Key Understandings:

- LRA as a subconsultant will provide construction staking. It is assumed that a total of four trips will be required by the survey crew. Re-staking required as a result of Contractor's actions will be considered Additional Services.
- Landowner inquiries made during the course of construction will be documented in the field diary.

The Contractor will be responsible for marking up a set of prints as changes are identified. Upon completion of construction, the marked-up drawings will be used in making "record" revisions to the original drawings.

A. Engineer shall:

1. *General Administration of Construction Contract:* Consult with Owner and act as Owner's representative as provided in the Construction Contract. The extent and limitations of the duties, responsibilities, and authority of Engineer as assigned in the Construction Contract shall not be modified, except as Engineer may otherwise agree in writing. All of Owner's instructions to Contractor will be issued through Engineer, which shall have authority to act on behalf of Owner in dealings with Contractor to the extent provided in this Agreement and the Construction Contract except as otherwise provided in writing.
2. *Resident Project Representative (RPR):* Provide the services of an RPR at the Site to assist the Engineer and to provide more extensive observation of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth in Exhibit D. The furnishing of such RPR's services will not limit, extend, or modify Engineer's responsibilities or authority except as expressly set forth in Exhibit D.
3. *Selecting Independent Testing Laboratory:* DELETED.
4. *Pre-Construction Conference:* Participate in a Pre-Construction Conference prior to commencement of Work at the Site.
5. *Schedules:* Receive, review, and determine the acceptability of any and all schedules that Contractor is required to submit to Engineer, including the Progress Schedule, Schedule of Submittals, and Schedule of Values.
6. *Baselines and Benchmarks:* As appropriate, establish baselines and benchmarks for locating the Work which in Engineer's judgment are necessary to enable Contractor to proceed.
7. *Visits to Site and Observation of Construction:* In connection with observations of Contractor's Work while it is in progress:
 - a. Make visits to the Site at intervals appropriate to the various stages of construction, as Engineer deems necessary, to observe as an experienced and qualified design professional the progress of Contractor's executed Work. Such visits and observations by Engineer, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of Contractor's Work in progress or to involve detailed inspections of Contractor's Work in progress beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment, as assisted by the Resident Project Representative, if any. Based on information obtained during such visits and observations, Engineer will determine in general if the Work is proceeding in accordance with the Contract Documents, and Engineer shall keep Owner informed of the progress of the Work.
 - b. The purpose of Engineer's visits to, and representation by the Resident Project Representative, if any, at the Site, will be to enable Engineer to better carry out the duties and responsibilities assigned to and undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that Contractor has implemented and maintained the integrity of the

design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Engineer shall not, during such visits or as a result of such observations of Contractor's Work in progress, supervise, direct, or have control over Contractor's Work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to Contractor's Work, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work. Accordingly, Engineer neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish or perform the Work in accordance with the Contract Documents.

8. *Defective Work:* Reject Work if, on the basis of Engineer's observations, Engineer believes that such Work (a) is defective under the standards set forth in the Contract Documents, (b) will not produce a completed Project that conforms to the Contract Documents, or (c) will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. However, neither Engineer's authority to reject Work nor Engineer's decision to exercise or not exercise such authority shall give rise to a duty or responsibility of the Engineer to Contractors, Subcontractors, material and equipment suppliers, their agents or employees, or any other person(s) or entities performing any of the Work, including but not limited to any duty or responsibility for Contractors' or Subcontractors' safety precautions and programs incident to the Work.
9. *Clarifications and Interpretations; Field Orders:* Issue necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of Contractor's work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. Subject to any limitations in the Contract Documents, Engineer may issue field orders authorizing minor variations in the Work from the requirements of the Contract Documents.
10. *Change Orders and Work Change Directives:* Recommend change orders and work change directives to Owner, as appropriate, and prepare change orders and work change directives as required.
11. *Shop Drawings and Samples:* Review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which Contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's submittal schedule that Engineer has accepted.
12. *Substitutes and "or-equal":* Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor, but subject to the provisions of Paragraph A2.02.A.2 of this Exhibit A.
13. *Inspections and Tests:* Require such special inspections or tests of Contractor's work as deemed reasonably necessary, and receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Contract Documents. Engineer's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. Engineer shall be entitled to rely on the results of such tests.

14. *Disagreements between Owner and Contractor:* Render formal written decisions on all duly submitted issues relating to the acceptability of Contractor's work or the interpretation of the requirements of the Contract Documents pertaining to the execution, performance, or progress of Contractor's Work; review each duly submitted Claim by Owner or Contractor, and in writing either deny such Claim in whole or in part, approve such Claim, or decline to resolve such Claim if Engineer in its discretion concludes that to do so would be inappropriate. In rendering such decisions, Engineer shall be fair and not show partiality to Owner or Contractor and shall not be liable in connection with any decision rendered in good faith in such capacity.
15. *Applications for Payment:* Based on Engineer's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:
- a. Determine the amounts that Engineer recommends Contractor be paid. Such recommendations of payment will be in writing and will constitute Engineer's representation to Owner, based on such observations and review, that, to the best of Engineer's knowledge, information and belief, Contractor's Work has progressed to the point indicated, the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe Contractor's Work. In the case of unit price work, Engineer's recommendations of payment will include final determinations of quantities and classifications of Contractor's Work (subject to any subsequent adjustments allowed by the Contract Documents).
 - b. By recommending any payment, Engineer shall not thereby be deemed to have represented that observations made by Engineer to check the quality or quantity of Contractor's Work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment including final payment will impose on Engineer responsibility to supervise, direct, or control Contractor's Work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on Engineer to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any portion of the Work in progress, materials, or equipment has passed to Owner free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid.
16. *Contractor's Completion Documents:* Receive, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Contract Documents, certificates of inspection, tests and approvals, Shop Drawings, Samples and other data approved as provided under Paragraph A1.05.A.11, and transmit the annotated record documents which are to be assembled by Contractor in accordance with the Contract Documents to obtain final payment. The extent of such review by Engineer will be limited as provided in Paragraph A1.05.A.11.

17. *Substantial Completion:* Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, in company with Owner and Contractor, visit the Project to determine if the Work is substantially complete. If after considering any objections of Owner, Engineer considers the Work substantially complete, Engineer shall deliver a certificate of Substantial Completion to Owner and Contractor.

18. *Additional Tasks:* DELETED.

19. *Final Notice of Acceptability of the Work:* Conduct a final visit to the Project to determine if the completed Work of Contractor is acceptable so that Engineer may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, Engineer shall also provide a notice in the form attached hereto as Exhibit E (the "Notice of Acceptability of Work") that the Work is acceptable (subject to the provisions of Paragraph A1.05.A.15.b) to the best of Engineer's knowledge, information, and belief and based on the extent of the services provided by Engineer under this Agreement.

B. *Duration of Construction Phase:* DELETED.

C. *Limitation of Responsibilities:* Engineer shall not be responsible for the acts or omissions of any Contractor, Subcontractor or Supplier, or other individuals or entities performing or furnishing any of the Work, for safety or security at the Site, or for safety precautions and programs incident to Contractor's Work, during the Construction Phase or otherwise. Engineer shall not be responsible for the failure of any Contractor to perform or furnish the Work in accordance with the Contract Documents.

PART 2 – ADDITIONAL SERVICES

A2.01 *Additional Services Requiring Owner's Written Authorization*

- A. If authorized in writing by Owner, Engineer shall furnish or obtain from others Additional Services of the types listed below.
1. Preparation of applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans, or advances in connection with the Project; preparation or review of environmental assessments and impact statements; review and evaluation of the effects on the design requirements for the Project of any such statements and documents prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.
 2. Services to make measured drawings of or to investigate existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by Owner or others.
 3. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by Engineer or its design requirements including, but not limited to, changes in size, complexity, Owner's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date or are due to any other causes beyond Engineer's control.
 4. Services resulting from Owner's request to evaluate additional alternative solutions beyond those identified.
 5. Services required as a result of Owner's providing incomplete or incorrect Project information to Engineer.
 6. Providing renderings or models for Owner's use.
 7. Undertaking investigations and studies including, but not limited to, detailed consideration of operations, maintenance, and overhead expenses; the preparation of financial feasibility and cash flow studies, rate schedules, and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing, and assisting Owner in obtaining process licensing; detailed quantity surveys of materials, equipment, and labor; and audits or inventories required in connection with construction performed by Owner.
 8. Furnishing services of Consultants for other than Basic Services.
 9. Services during out-of-town travel required of Engineer other than for visits to the Site or Owner's office.
 10. Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructibility review requested by Owner; and performing or furnishing services required to revise studies, reports, Drawings, Specifications, or other Bidding Documents as a result of such review processes.
 11. Preparing additional Bidding Documents or Contract Documents for alternate bids or prices requested by Owner for the Work or a portion thereof.

12. Assistance in connection with Bid protests, rebidding, or renegotiating contracts for construction, materials, equipment, or services.
13. Providing construction surveys and staking to enable Contractor to perform its work other than as required under Paragraph A1.05.A.6, and any type of property surveys or related engineering services needed for the transfer of interests in real property; and providing other special field surveys.
14. Providing Construction Phase services beyond the original date for completion and readiness for final payment of Contractor.
15. Providing assistance in responding to the presence of any Constituent of Concern at the Site, in compliance with current Laws and Regulations.
16. Preparing Record Drawings showing appropriate record information based on Project annotated record documents received from Contractor, and furnishing such Record Drawings to Owner.
17. Preparation of operation and maintenance manuals.
18. Preparing to serve or serving as a consultant or witness for Owner in any litigation, arbitration, or other dispute resolution process related to the Project.
19. Providing more extensive services required to enable Engineer to issue notices or certifications requested by Owner.
20. Assistance in connection with the adjusting of Project equipment and systems.
21. Assistance to Owner in training Owner's staff to operate and maintain Project equipment and systems.
22. Assistance to Owner in developing procedures for (a) control of the operation and maintenance of Project equipment and systems, and (b) related record-keeping.
23. Overtime work requiring higher than regular rates.
25. Other services performed or furnished by Engineer not otherwise provided for in this Agreement.

A2.02 *Additional Services Not Requiring Owner's Written Authorization*

- A. Engineer shall advise Owner in advance that Engineer is will immediately commence to perform or furnish the Additional Services of the types listed below. For such Additional Services, Engineer need not request or obtain specific advance written authorization from Owner. Engineer shall cease performing or furnishing such Additional Services upon receipt of written notice from Owner.
 1. Services in connection with work change directives and change orders to reflect changes requested by Owner.
 2. Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or-equal" items; services after the award of the Construction Contract in evaluating and determining the acceptability of a proposed "or equal" or substitution which is found to be inappropriate for the Project; evaluation and determination of an

excessive number of proposed "or equals" or substitutions, whether proposed before or after award of the Construction Contract.

3. Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of materials, equipment, or energy shortages.
4. Additional or extended services during construction made necessary by (1) emergencies or acts of God endangering the Work (advance notice not required), (2) the presence at the Site of any Constituent of Concern or items of historical or cultural significance, (3) Work damaged by fire or other cause during construction, (4) a significant amount of defective, neglected, or delayed work by Contractor, (5) acceleration of the progress schedule involving services beyond normal working hours, or (6) default by Contractor.
5. Services in connection with any partial utilization of any part of the Work by Owner prior to Substantial Completion.
6. Evaluating an unreasonable claim or an excessive number of claims submitted by Contractor or others in connection with the Work.
7. Reviewing a Shop Drawing more than three times, as a result of repeated inadequate submissions by Contractor.
8. While at the Site, compliance by Engineer and its staff with those terms of Owner's or Contractor's safety program provided to Engineer subsequent to the Effective Date that exceed those normally required of engineering personnel by federal, state, or local safety authorities for similar construction sites.

ATTACHMENT B
 CAPITO MISSOURI RIVER NATURAL RESOURCES DISTRICT
 BIG PAPER CREEK FLOW CHANNEL RE-STABILIZATION SCHEDULE

TASKS		MAY '10	JUN	JUL	AUG	SEPT	OCT
TASK SERIES 100 - PROJECT MANAGEMENT							
Task 110	Project Management						
Task 120	Meetings						
Subtask 120.1	Coordination Meetings (3 meetings)						
Subtask 120.2	Landowner Meetings (2 meetings)						
TASK SERIES 200 - DESIGN OF FLOW CHANNEL RE-STABILIZATION							
Task 210	Data Collection and Review						
Subtask 201.1	Data Collection						
Subtask 210.2	Site Visit						
Task 220	Geotechnical Investigation						
Subtask 220.1	Drilling Program						
Subtask 220.2	Laboratory Testing						
Task 230	Conceptual Evaluation						
Subtask 230.1	Stability Evaluation						
Subtask 230.2	Scour Assessment						
Subtask 230.3	Conceptual Evaluation TM						
Task 240	Permitting						
Subtask 240.1	Agency Coordination						
Subtask 240.2	Section 404 Documentation						
Subtask 240.3	Floodplain Permit						
Task 250	Design						
Subtask 250.1	Preliminary Design						
Subtask 250.2	Final Design						
TASK SERIES 300 - BIDDING AND CONTRACT ADMINISTRATION							
Task 310	Bid Modifications						
Task 320	Pre-Bid Meeting						
Task 330	Bid Opening						
Task 410	Preconstruction Meeting						
Task 420	Shop Drawing Review						
Task 430	Full-Time Observation						
Task 440	Construction Closeout						

Owner's Responsibilities

Article 2 of the Agreement is supplemented to include the following agreement of the parties.

B2.01 In addition to other responsibilities of Owner as set forth in this Agreement, Owner shall at its expense:

- A. Provide Engineer with all criteria and full information as to Owner's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which Owner will require to be included in the Drawings and Specifications; and furnish copies of Owner's standard forms, conditions, and related documents for Engineer to include in the Bidding Documents, when applicable.
- B. Furnish to Engineer any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.
- C. Following Engineer's assessment of initially-available Project information and data and upon Engineer's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable Engineer to complete its Basic and Additional Services. Such additional information or data would generally include the following:
 - 1. Property descriptions.
 - 2. Zoning, deed, and other land use restrictions.
 - 3. Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.
 - 4. 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.
 - 5. Environmental assessments, audits, investigations, and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas.
 - 6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.
- D. Give prompt written notice to Engineer 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 Engineer's services, or any defect or nonconformance in Engineer's services, the Work, or in the performance of any Contractor.
- E. Authorize Engineer to provide Additional Services as set forth in Part 2 of Exhibit A of the Agreement as required.
- F. Arrange for safe access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform services under the Agreement.

- G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by Engineer (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. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by Engineer and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.
- I. Recognizing and acknowledging that Engineer's services and expertise do not include the following services, provide, as required for the Project:
 - 1. Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
 - 2. Legal services with regard to issues pertaining to the Project as Owner requires, Contractor raises, or Engineer reasonably requests, including but not limited to the review of Contract Documents supplied by Engineer.
 - 3. Such auditing services as Owner requires to ascertain how or for what purpose Contractor has used the moneys paid.
- J. Place and pay for advertisement for Bids in appropriate publications.
- K. Advise Engineer of the identity and scope of services of any independent consultants employed by Owner to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructibility review.
- L. Furnish to Engineer data as to Owner's anticipated costs for services to be provided by others (including, but not limited to, accounting, bond and financial, independent cost estimating, insurance counseling, and legal advice) for Owner so that Engineer may assist Owner in collating the various cost categories which comprise Total Project Costs.
- M. If Owner designates a construction manager or an individual or entity other than, or in addition to, Engineer to represent Owner at the Site, define and set forth as an attachment to this Exhibit B the duties, responsibilities, and limitations of authority of such other party and the relation thereof to the duties, responsibilities, and authority of Engineer.
- N. If more than one prime contract is to be awarded for the Work designed or specified by Engineer, designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of Engineer as an attachment to this Exhibit B that is to be mutually agreed upon and made a part of this Agreement before such services begin.
- O. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment visits to the Project.
- P. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of samples, materials, and equipment required by the Contract Documents, or to evaluate the performance of materials, equipment, and facilities of Owner, prior to their incorporation into the Work with appropriate professional interpretation thereof.

- Q. Provide Engineer with the findings and reports generated by the entities providing services to Owner pursuant to this paragraph.
- R. Inform Engineer in writing of any specific requirements of safety or security programs that are applicable to Engineer, as a visitor to the Site.

This is **EXHIBIT C**, consisting of _____ pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2011.

Payments to Engineer for Services and Reimbursable Expenses
COMPENSATION: Basic Services – Direct Labor Costs Times a Factor

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

ARTICLE 2 – OWNER'S RESPONSIBILITIES

C2.01 Compensation for Basic Services – Direct Labor Costs Times a Factor Method of Payment

- A. Owner shall pay Engineer for Basic Services set forth in Exhibit A, except for services of Engineer's Resident Project Representative, if any, as follows:
1. An amount equal to Engineer's Direct Labor Costs times a factor of 3.15 for the services of Engineer's personnel engaged on the Project, plus Reimbursable Expenses, provided however, and notwithstanding anything to the contrary contained in this Agreement, the total amount of money due to ENGINEER for such services and for Reimbursable Expenses and Engineer's Consultant's charges shall not exceed the amount of \$110,322 unless an additional payment for the services, expenses, or charges resulting in such excess is authorized in writing by Owner in advance of such services, expenses or charges being furnished, expended, or incurred, the amount of \$110,322 being intended by the parties as the maximum amount of money to be due to the Engineer under this Agreement.
 2. Engineer's Reimbursable Expenses Schedule is attached to this Exhibit C as Appendix 1.
 3. The total estimated compensation for Engineer's services included as noted in Paragraph C2.01.A.3, incorporates all labor, overhead, profit, Reimbursable Expenses, and Engineer's Consultant's charges.
 4. The portion of the amounts billed for Engineer's services which are related to services rendered on a Direct Labor Costs times a Factor basis will be billed based on the applicable Direct Labor Costs for the cumulative hours charged to the Project by Engineer's principals and employees multiplied by the above-designated factor, plus Reimbursable Expenses and Engineer's Consultant's charges incurred during the billing period.
 5. Direct Labor Costs means salaries and wages paid to employees but does not include payroll-related costs or benefits.
 6. The Direct Labor Costs and the factor applied to Direct Labor Costs will be adjusted annually to reflect equitable changes to the compensation payable to Engineer.

C2.02 Compensation for Reimbursable Expenses

- A. Owner shall pay Engineer for all Reimbursable Expenses at the rates set forth in Appendix 1 to this Exhibit C.

- B. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; providing and maintaining field office facilities including furnishings and utilities; toll telephone calls and mobile phone charges; reproduction of reports, Drawings, Specifications, Bidding Documents, and similar Project-related items in addition to those required under Exhibit A. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for the use of highly specialized equipment.
- C. The amounts payable to Engineer for Reimbursable Expenses will be the Project-related internal expenses actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to the Project, the latter multiplied by a factor of 10%. The expense multiplier will not be accessed on the technology fee.
- D. The Reimbursable Expenses Schedule will be adjusted annually to reflect equitable changes in the compensation payable to Engineer.

C2.03 *Other Provisions Concerning Payment*

- A. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer times a factor of 3.15.
- B. *Factors:* The external Reimbursable Expenses and Engineer's Consultant's factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.
- C. *Estimated Compensation Amounts:*
 - 1. Engineer's estimate of the amounts that will become payable for specified services are binding on the parties, and are the maximum amount payable to Engineer under the Agreement.
 - 2. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of its records available to Owner at cost.

COMPENSATION

Additional Services – Direct Labor Costs Times a Factor

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

C2.05 *Compensation for Additional Services – Direct Labor Costs Times a Factor Method of Payment*

D. Owner shall pay Engineer for Additional Services as follows:

1. *General:* For services of Engineer's personnel engaged directly on the Project pursuant to Paragraph A2.01 or A2.02 of Exhibit A of the Agreement, except for services as a consultant or witness under Paragraph A2.01.A.20, (which if needed shall be separately negotiated based on the nature of the required consultation or testimony) an amount equal to Engineer's Direct Labor Costs times a factor of 3.15, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.

E. *Compensation for Reimbursable Expenses:*

1. For those Reimbursable Expenses that are not accounted for in the compensation for Basic Services under Paragraph C2.01 and are directly related to the provision of Additional Services, Owner shall pay Engineer at the rates set forth in Appendix 1 to this Exhibit C.
2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; providing and maintaining field office facilities including furnishings and utilities; toll telephone calls and mobile phone charges; reproduction of reports, Drawings, Specifications, Bidding Documents, and similar Project-related items in addition to those required under Exhibit A. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for and the use of highly specialized equipment.
3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be the Additional Services-related internal expenses actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to such Additional Services, the latter multiplied by a factor of 10%. The expense multiplier will not be accessed on the technology fee.
4. The Reimbursable Expenses Schedule will be adjusted annually to reflect equitable changes in the compensation payable to Engineer.

F. *Other Provisions Concerning Payment for Additional Services:*

1. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer times a factor of 3.15.
2. *Factors:* The external Reimbursable Expenses and Engineer's Consultant's factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.
3. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner at cost.

This is **Appendix 1 to EXHIBIT C**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated , 2011.

Reimbursable Expenses Schedule

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

8"x11" Copies/Impressions	\$ 0.05/page (single sided black/white)
8"x11" Copies/Impressions	\$ 0.45/page (single sided color)
11"x17" Copies/Impressions	\$ 0.09/page (single sided black/white)
11"x17" Copies/Impressions	\$ 0.90/page (single sided color)
Reproducible Copies (Paper)	\$ 0.135/sq. ft.
Mileage (auto)	\$ 0.51/mile (federal allowable rate)
Field Truck Monthly Charge	\$ 525/month
Field Truck Fuel	at cost
Long Distance Phone Calls	at cost
Meals and Lodging	at cost
Technology Fee	\$ 3.70/direct labor hour

ATTACHMENT "A"
PAPIO - MISSOURI RIVER NATURAL RESOURCES DISTRICT
BIG PAPILLION CREEK LOW FLOW CHANNEL RE-STABILIZATION BETWEEN 10TH AND PACIFIC STREETS
FEE ESTIMATE

TASKS	Project Manager	Sr Engr/ Technical	Labor				Total Labor Cost	Tech. Fee	Printing	Expenses			Subconsultants (LRA, Donovan, Thiele)	Est. Total Cost
			Technical	Technical Support	Civil	Hours				Travel	Misc.	Total Expenses		
TASK SERIES 100.4 PROJECT MANAGEMENT														
Task 110 Project Management	30					10	\$6,290	\$148				\$148		\$6,438
Task 120 Meetings														
Subtask 120.1 Coordination Meetings (3 meetings)	12	8			3	23	\$3,922	\$85		\$42	\$55	\$182		\$4,104
Subtask 120.2 Landowner Meetings (2 meetings)	8	4	4		2	18	\$2,872	\$67		\$28	\$55	\$150		\$3,022
Estimated Task Hours Subtotal	80	12	4	0	15	81								
Estimated Task Cost Subtotal	\$8,860	\$2,268	\$608	\$0	\$1,470		\$13,084	\$300	\$0	\$70	\$110	\$480	\$0	\$13,564
TASK SERIES 200 DESIGN OF LOW FLOW CHANNEL RE-STABILIZATION														
Task 210 Data Collection and Review														
Subtask 201.1 Data Collection		4	4			8	\$1,280	\$30				\$30		\$1,290
Subtask 210.2 Site Visit	2	2	2			6	\$984	\$22		\$11		\$33		\$1,017
Task 220 Geotechnical Investigation														
Subtask 220.1 Drilling Program	2	2	4			8	\$1,238	\$30		\$11		\$41	\$5,600	\$6,879
Subtask 220.2 Laboratory Testing		2	2			4	\$630	\$15				\$15		\$645
Task 230 Conceptual Evaluation														
Subtask 230.1 Stability Evaluation		6	20			26	\$3,668	\$96				\$96		\$3,764
Subtask 230.2 Scour Assessment		4	16			20	\$2,784	\$74				\$74		\$2,858
Subtask 230.3 Conceptual Evaluation TM	2	16	16	8	2	44	\$6,246	\$163				\$163		\$6,409
Task 240 Permitting														
Subtask 240.1 Agency Coordination			4	4	2	10	\$1,032	\$37				\$37		\$1,069
Subtask 240.2 Section 404 Documentation	2		6	36	2	46	\$4,264	\$170		\$11		\$181		\$4,445
Subtask 240.3 Floodplain Permit Design		2		8		10	\$1,032	\$37		\$11		\$48		\$1,080
Task 250 Preliminary Design														
Subtask 250.1 Preliminary Design	8	10	24	60	8	110	\$12,048	\$407	\$110		\$110	\$827	\$1,000	\$13,675
Subtask 250.2 Final Design	4	2	4	8	2	20	\$2,444	\$74				\$74		\$2,518
Estimated Task Hours Subtotal	20	80	102	124	18	312								
Estimated Task Cost Subtotal	\$3,640	\$9,400	\$12,564	\$10,168	\$1,868		\$37,630	\$1,164	\$170	\$48	\$110	\$1,419	\$0,600	\$45,849
TASK SERIES 300 BIDDING ASSISTANCE														
Task 310 Bid Modifications		2	16	4	2	24	\$2,932	\$89		\$55		\$144		\$3,076
Task 320 Pre-Bid Meeting	4	2				6	\$1,084	\$22	\$11	\$14		\$47		\$1,131
Task 330 Bid Opening	2		2		2	6	\$604	\$22		\$14		\$38		\$640
Estimated Task Hours Subtotal	6	4	18	4	4	36								
Estimated Task Cost Subtotal	\$1,082	\$752	\$2,288	\$328	\$392		\$4,820	\$133	\$68	\$28	\$0	\$227	\$0	\$5,047
TASK SERIES 400 RECONSTRUCTION OR TRACT ADMINISTRATION														
Task 410 Preconstruction Meeting	4	2	8		2	16	\$2,296	\$59	\$11	\$14	\$110	\$184		\$2,490
Task 420 Shop Drawing Review		4	4	4	2	14	\$1,784	\$52				\$52		\$1,836
Task 430 Full-Time Observation	8	12	12	300		332	\$29,786	\$1,228		\$1,079	\$110	\$2,418	\$5,000	\$37,214
Task 440 Construction Closeout	4	2	8	24	2	40	\$4,264	\$148	\$170			\$288		\$4,522
Estimated Task Hours Subtotal	16	20	32	318	6	402								
Estimated Task Cost Subtotal	\$2,432	\$3,760	\$4,064	\$28,896	\$588		\$38,140	\$1,487	\$121	\$1,093	\$220	\$2,922	\$5,000	\$48,062
TOTAL COST	132	114	142	468	11	667	\$10,974	\$3,078	\$337	\$1,138	\$370	\$3,922	\$11,000	\$17,722

Reimbursable Expenses Markup (excludes Tech. Fee) 10%

This is **EXHIBIT D**, consisting of 4 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated , 2011.

Duties, Responsibilities, and Limitations of Authority of Resident Project Representative

Article 1 of the Agreement is supplemented to include the following agreement of the parties:

D1.01 Resident Project Representative

- B. Engineer shall furnish a Resident Project Representative ("RPR") to assist Engineer in observing progress and quality of the Work. The RPR may provide full time representation or may provide representation to a lesser degree.
- C. Through RPR's observations of Contractor's work in progress and field checks of materials and equipment, Engineer shall endeavor to provide further protection for Owner against defects and deficiencies in the Work. However, Engineer shall not, during such RPR field checks or as a result of such RPR observations of Contractor's work in progress, supervise, direct, or have control over Contractor's Work, nor shall Engineer (including the RPR) have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, for security or safety at the Site, for safety precautions and programs incident to any contractor's work in progress, or for any failure of a contractor to comply with Laws and Regulations applicable to such contractor's performing and furnishing of its work. The Engineer (including RPR) neither guarantee the performances of any contractor nor assumes responsibility for Contractor's failure to furnish and perform the Work in accordance with the Contract Documents. In addition, the specific terms set forth in Paragraph A1.05 of Exhibit A of the Agreement are applicable.
- D. The duties and responsibilities of the RPR are as follows:
 - 1. *General:* RPR is Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Contractor's work in progress shall in general be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
 - 2. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.
 - 3. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
 - 4. *Liaison:*
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the intent of the Contract Documents.

- b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
- 5. *Interpretation of Contract Documents:* Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
- 6. *Shop Drawings and Samples:*
 - a. Record date of receipt of Samples and approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
- 7. *Modifications:* Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
- 8. *Review of Work and Rejection of Defective Work:*
 - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection, or approval.
- 9. *Inspections, Tests, and System Start-ups: DELETED*
- 10. *Records:*
 - a. Maintain at the Site orderly files for correspondence, reports of job conferences, reproductions of original Contract Documents including all change orders, field orders, work change directives, addenda, additional Drawings issued subsequent to the execution of the Construction Contract, Engineer's clarifications and interpretations of the Contract Documents, progress reports, Shop Drawing and Sample submittals received from and delivered to Contractor, and other Project-related documents.
 - b. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, weather conditions, data relative to questions of change orders, field orders, work change directives, or changed conditions, Site visitors, daily activities, decisions, observations in

general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.

- c. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- d. Maintain records for use in preparing Project documentation.
- e. Upon completion of the Work, furnish original set of all RPR Project documentation to Engineer.

11. *Reports:*

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed change orders, work change directives, and field orders. Obtain backup material from Contractor.
- c. Furnish to Engineer and Owner copies of all inspection, test, and system start-up reports.
- d. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Constituent of Concern.

12. *Payment Requests:* Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

14. *Completion:*

- a. Participate in visits to the Project to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
- b. Participate in a final visit to the Project in the company of Engineer, Owner, and Contractor, and prepare a final list of items to be completed and deficiencies to be remedied.
- c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work (Exhibit E).

E. Resident Project Representative shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Exceed limitations of Engineer's authority as set forth in this Agreement.
3. Undertake any of the responsibilities of Contractor, Subcontractors or Suppliers.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept shop drawing or sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

This is **EXHIBIT E**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated ____, 2011.

NOTICE OF ACCEPTABILITY OF WORK

PROJECT:

OWNER:

CONTRACTOR:

OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION:

EFFECTIVE DATE OF THE CONSTRUCTION CONTRACT:

ENGINEER:

NOTICE DATE:

To:

Owner

And To:

Contractor

From:

Engineer

The Engineer hereby gives notice to the above Owner and Contractor that the completed Work furnished and performed by Contractor under the above Contract is acceptable, expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services dated ____, ____, and the terms and conditions set forth in this Notice.

By: _____

Title: _____

Dated: _____

CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK

The Notice of Acceptability of Work ("Notice") is expressly made subject to the following terms and conditions to which all those who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the professional judgment of Engineer.
3. This Notice is given as to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's work) under Engineer's Agreement with Owner and under the Construction Contract referred to in this Notice, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement and Construction Contract.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract referred to in this Notice, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents.

This is **EXHIBIT F**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2011.

Reserved

This is **EXHIBIT G**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated , **2011**.

Insurance

Paragraph 6.04 of the Agreement is supplemented to include the following agreement of the parties.

G6.04 Insurance

A. The limits of liability for the insurance required by Paragraph 6.04.A and 6.04.B of the Agreement are as follows:

1. By Engineer:

- | | |
|--|--------------|
| 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): | \$ 1,000,000 |
| 2) General Aggregate: | \$ 1,000,000 |
| d. Excess or Umbrella Liability -- | |
| 1) Each Occurrence: | \$ 1,000,000 |
| 2) General Aggregate: | \$ 1,000,000 |
| e. Automobile Liability --Combined Single Limit (Bodily Injury and Property Damage): | |
| Each Accident | \$ 1,000,000 |
| f. Professional Liability -- | |
| 1) Each Claim Made | \$ 1,000,000 |
| 2) Annual Aggregate | \$ 1,000,000 |

2. The Owner shall be listed on Engineer's general liability policy as provided in Paragraph 6.04.A.

This is **EXHIBIT H**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated , 2011.

Dispute Resolution

Paragraph 6.08 of the Agreement is amended and supplemented to include the following agreement of the parties:

H6.08 Dispute Resolution

- A. *Mediation:* Owner and Engineer agree that they shall first submit any and all unsettled claims, counterclaims, disputes, and other matters in question between them arising out of or relating to this Agreement or the breach thereof ("Disputes") to mediation by the American Arbitration Association. Owner and Engineer agree to participate in the mediation process in good faith. The process shall be conducted on a confidential basis, and shall be completed within 120 days. If such mediation is unsuccessful in resolving a Dispute, then (1) the parties may mutually agree to a dispute resolution of their choice, or (2) either party may seek to have the Dispute resolved by a court of competent jurisdiction.

This is **EXHIBIT I**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated , 2011.

Limitations of Liability

Paragraph 6.10 of the Agreement is supplemented to include the following agreement of the parties:

A. Limitation of Engineer's Liability

1. *Exclusion of Special, Incidental, Indirect, and Consequential Damages:* To the fullest extent permitted by law, and notwithstanding any other provision in the Agreement, consistent with the terms of Paragraph 6.10, the Engineer and Engineer's officers, directors, members, partners, agents, Consultants, and employees shall not be liable to Owner or anyone claiming by, through, or under Owner for any special, incidental, indirect, or consequential damages whatsoever arising out of, resulting from, or in any way related to the Project or the Agreement from any cause or causes, including but not limited to any such damages caused by the negligence, professional errors or omissions, strict liability, breach of contract, indemnity obligations, or warranty express or implied of Engineer or Engineer's officers, directors, members, partners, agents, employees, or Consultants.

This is **EXHIBIT K**, consisting of x page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2011.

Legal Descriptions of Mandatory Easement Areas

To be coordinated between P-MRNRD and HDR legal counsels.

This is **EXHIBIT L**, consisting of x page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2011.

Supplemental Permanent Easement Form

To be coordinated between P-MRNRD and HDR legal counsels.