

Memorandum

To: WPRB-5 Regional Detention Structure Ad-Hoc Consultant Selection Subcommittee
From: Amanda Grint, Water Resources Engineer
Date: December 30, 2008 Updated: January 5, 2009
Re: Contract for Engineering Services with HDR Engineering, Inc.

On December 4, 2008, the Subcommittee interviewed and selected HDR Engineering, Inc. (HDR) with which to negotiate a professional services contract for the planning, permitting, design and construction of WPRB-5 (West Papillion Regional Basin Number 5). Since that time, District staff and representatives from HDR have worked together to prepare the enclosed agreement, detailed scope, and schedule for your review and consideration. Due to the complexity of this project, work tasks are planned to be divided in to three phases. Phase 1 is presented in the attached detailed scope and provides the feasibility and preliminary design of WPRB5. Scope and fees for Phase 2, final design and land rights acquisition, and Phase 3, construction administration, will be presented at a later date.

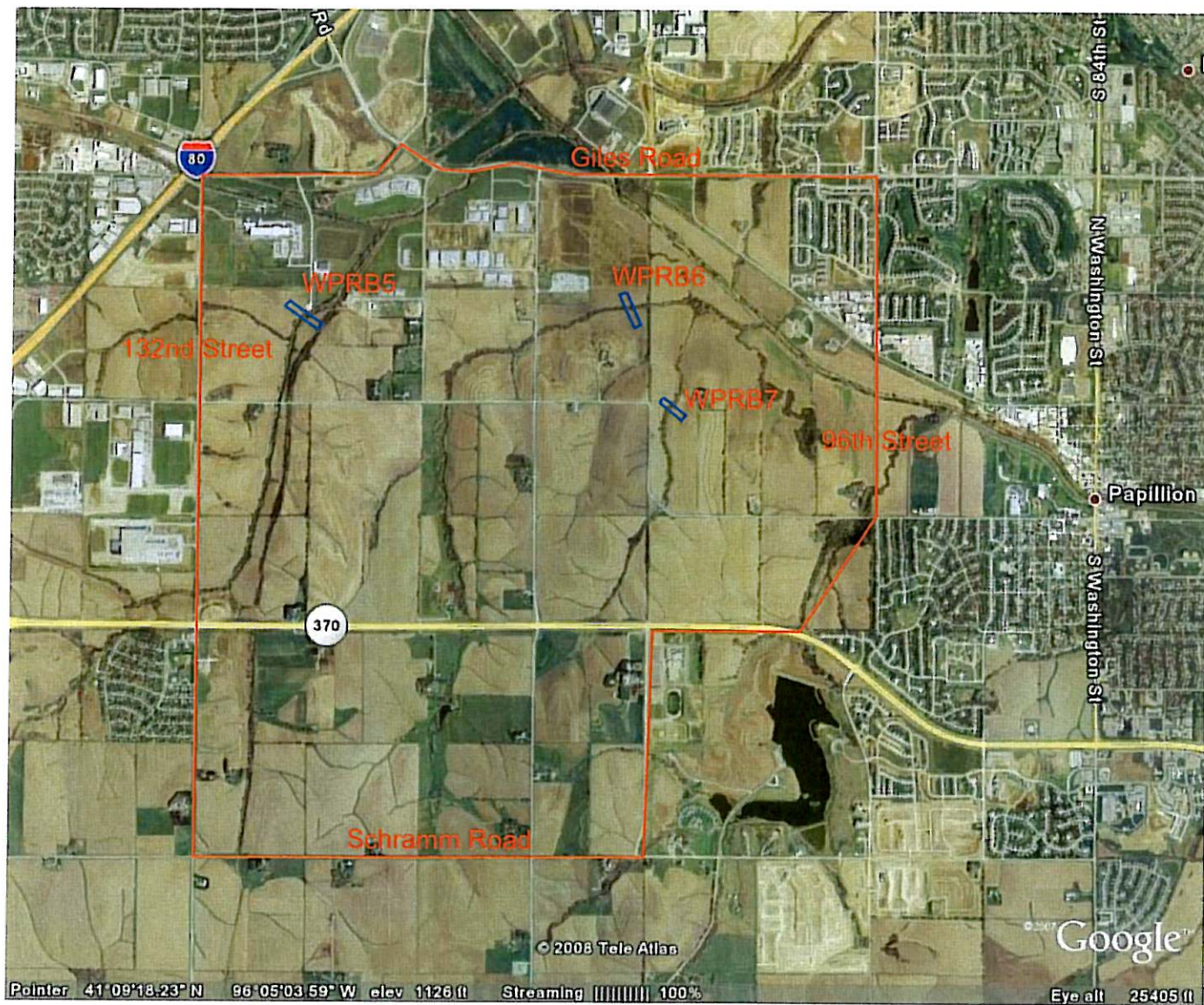
A summary of the tasks for Phase 1 is as follows:

- Project Management will include project scheduling, quarterly updates that can be posted to the PMNRD website, and progress meetings.
- Planning studies including a land use sub-area master plan, transportation analysis, and a community based watershed plan will be conducted by HDR and Lamp Rynearson. This task includes a site tour, public involvement, a visioning workshop, and a master planning workshop.
- HDR will prepare and assist in obtaining a Section 404 Permit to the US Army Corps of Engineers.
- HDR will develop hydrologic model to evaluate and optimize dam alternatives for WPRB5.
- Geotechnical Investigation needed for the dam, spillway, borrow areas, will be performed by the subconsultant, Thiele Geotech. Following the investigation, geotechnical design of the dam embankment will be performed by HDR.
- HDR will define and prepare preliminary plans at approximately a 30% level. Included in this task is an opinion of probable construction costs.
- HDR along with subconsultant, Lamp Rynearson, will prepare an overall right-of-way map and legal descriptions necessary for property acquisition.
- HDR will provide technical assistance and exhibits necessary for grant funding applications such as NDEQ Section 319 Funding, Nebraska Game and Parks Sport Fisheries, etc.

As District staff and the City of Papillion discussed the tasks necessary for planning land uses and transportation systems around WPRB-5, it became clear that it would be of benefit to each party to expand the land use planning effort to include the WPRB-6 and WPRB-7 areas in to a master plan. The proposed planning effort, called the sub-area master plan, would then extend from 96th Street to 132nd Street and Giles to Schram Road. See attached map. Approximately \$58,590 of fee from the Phase 1 scope is specifically for land use planning and of that approximately \$38,600 would be necessary for planning just the WPRB5 area. An interlocal agreement will be drafted between the City of Papillion and the District where the City will contribute the additional \$19,990 to expand the land use planning efforts to include the sub-area master plan.

In conclusion, HDR would provide the professional services noted above for Phase 1 of the WPRB-5 project, Feasibility and Preliminary Design, on an hourly basis not to exceed the amount of \$529,000.

Management recommends that the Subcommittee recommend to the Board that the General Manager be authorized to execute the enclosed Professional Services Agreement between the District and HDR Engineering, Inc. for Phase 1 Services in an amount not to exceed \$529,000, and further that the General Manager be authorized to execute an Interlocal Agreement with the City of Papillion in the amount of \$19,990. All are subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.



This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

STANDARD FORM OF 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)

This Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (No. C-700, 2002 Edition) of the Engineers Joint Contract Documents Committee. 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, No. E-001, 2002 Edition.

Issued and Published Jointly by



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STANDARD FORM OF AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES

THIS IS AN AGREEMENT effective as of _____, 2009 ("Effective Date") between

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

HDR Engineering, Inc. ("Engineer").

Owner intends to design and construct a flood control facility designated as WP RB5. The project will be completed in phases. Phase I includes feasibility and preliminary design of the facility. Phase II includes final design and bidding assistance. Phase III is construction contract administration.

("Project").

Owner and Engineer 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 shall begin rendering services as of the Effective Date of the Agreement.

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 to the recovery of direct damages 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 may withhold only that portion so contested, and must pay the undisputed portion. ~~Owner shall promptly notify Engineer of the disputed item and request either clarification or that remedial action be taken. 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 of the Agreement 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 pay such invoiced new taxes, fees, and charges; such payment 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, since 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 wishes greater assurance as to probable Construction Cost, Owner shall employ an independent cost estimator as provided in Exhibit B.

5.02 ~~Reserved Designing to Construction Cost Limit~~

~~A. If a Construction Cost Limit is established between Owner and Engineer, such Construction Cost Limit and a statement of Engineer's rights and responsibilities with respect thereto will be specifically set forth in Exhibit F, "Construction Cost Limit," to this Agreement.~~

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. 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. Owner shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct any such deficiencies in technical accuracy without additional compensation except to the extent such corrective action is directly attributable to deficiencies in Owner-furnished information.

C. 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. 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. Engineer and Owner shall comply with applicable Laws and Regulations and Owner-mandated standards that Owner has provided to Engineer in writing. This Agreement is based on these requirements as of its Effective Date. Changes to these requirements after the Effective Date of this Agreement may be the basis for modifications to Owner's responsibilities or to Engineer's scope of services, times of performance, and compensation.

G. 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.

H. 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 (No. C-700, 2002 Edition) unless both parties mutually agree to use other General Conditions by specific reference in Exhibit J.

I. Engineer shall not at any time 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 the Contractor's work in progress, nor for any

failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work.

J. 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.

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 employees and its Consultants) at the Site or otherwise furnishing or performing any Work; or for any decision made on interpretations or clarifications of the Contract Documents given by Owner without consultation and advice of Engineer.

6.02 Design without Construction Phase Services

A. If Engineer's Basic Services under this Agreement do not include Project observation, or review of the Contractor's performance, or any other Construction Phase services, then (1) Engineer's services under this Agreement shall be deemed complete no later than the end of the Bidding or Negotiating Phase; (2) Engineer shall have no design or shop drawing review obligations during construction; (3) Owner assumes all responsibility for the application and interpretation of the Contract Documents, contract administration, construction observation and review, and all other necessary Construction Phase engineering and professional services; and (4) Owner waives any claims against the Engineer that may be connected in any way thereto.

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. A party 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 license to use the Documents on the Project, extensions of the Project, and other projects of Owner, 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 or on any other project 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 Engineer's Consultants; (3) Owner shall indemnify and hold harmless Engineer and Engineer's Consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification without written verification, completion, or adaptation by Engineer; (4) such limited license to Owner shall not create any rights in third parties.

F. If Engineer at Owner's request verifies or adapts the Documents for extensions of the Project or for any other project, 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 Engineer's Consultants to be listed as additional insureds on any general liability or property insurance policies carried by Owner which are applicable to the Project.

C. Owner shall require Contractor to purchase and maintain general liability and other insurance in accordance with the requirements of paragraph 5.04 of the "Standard General Conditions of the Construction Contract," (No. C-700, 2002 Edition) as prepared by the Engineers Joint Contract Documents Committee and to cause Engineer and Engineer's 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 Engineer's 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 or additional insureds thereunder.

F. 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.

By Owner: Owner may suspend the Project upon seven days written notice to Engineer.

By Engineer: If Engineer's services are substantially delayed through no fault of Engineer, Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement.

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.

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. Upon payment due for services performed prior to the effective date of termination, Engineer shall deliver or otherwise make available to Owner all documents, data, drawings, specifications, reports, estimates, summaries, notes, and other information and materials as may have been produced or accumulated by Engineer in performing this Agreement.

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 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 in which the Project is located.

6.07 *Successors, Assigns, and Beneficiaries*

A. Owner and Engineer each is hereby bound and the partners, 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 partners, 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, Contractor's 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 an undisclosed Constituent of Concern, 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 consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Constituents of Concern; and (2) warrants that the Site is in full compliance with applicable Laws and Regulations.

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 "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, partners, agents, consultants, and employees 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) 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, partners, employees, or Consultants. The indemnification provision of the preceding sentence is subject to and limited by the

provisions agreed to by Owner and Engineer in Exhibit I, "Allocation of Risks," if any.

B. *Indemnification by Owner.* To the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer, Engineer's officers, directors, 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) 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 Owner or Owner's officers, directors, partners, agents, consultants, or employees, or others retained by or under contract to the Owner with respect to this Agreement or to the Project.

C. *Environmental Indemnification.* In addition to the indemnity provided under paragraph 6.10.B of this Agreement, and to the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer and its officers, directors, 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 (i) 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 (ii) 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, 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, who 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 or in the exhibits; in the following provisions; or in the "Standard General Conditions of the Construction Contract," prepared by the Engineers Joint Contract Documents Committee (No. C-700, 2002 Edition):

1. *Additional Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 2, of this Agreement.

2. *Basic Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 1, of this Agreement.

3. *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, rights-of-way, or compensation for damages to properties, or Owner's costs for legal, accounting, insurance counseling or auditing services, or interest and financing charges incurred in connection with 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.

4. *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.

5. *Consultants*--Individuals or entities having a contract with Engineer to furnish services with respect to this Project as Engineer's independent professional associates, consultants, subcontractors, or vendors.

6. *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.

7. *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.

8. *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.

9. *Reimbursable Expenses*--The expenses incurred directly by Engineer in connection with the performing or furnishing of Basic and Additional Services for the Project.

10. *Resident Project Representative*--The authorized representative of Engineer, if any, assigned to assist Engineer at the Site during the Construction Phase. The Resident Project Representative will be Engineer's agent or employee and under Engineer's supervision. As used herein, the term Resident Project Representative includes any assistants 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.

11. *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.

12. *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.

ARTICLE 8 - EXHIBITS AND SPECIAL PROVISIONS

8.01 Exhibits Included

A. Exhibit A, "Engineer's Services," consisting of _____ pages.

B. Exhibit B, "Owner's Responsibilities," consisting of 2 pages.

C. Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses," consisting of pages.

D. Exhibit D, "~~Duties, Responsibilities and Limitations of Authority of Resident Project Representative,~~" consisting of pages. Reserved.

E. Exhibit E, "~~Notice of Acceptability of Work,~~" consisting of pages. Reserved.

F. Exhibit F, "~~Construction Cost Limit,~~" consisting of pages. Reserved.

G. Exhibit G, "Insurance," consisting of 1 pages.

H. Exhibit H, "Dispute Resolution," consisting of 1 pages.

I. Exhibit I, "Allocation of Risks," consisting of 1 pages.

J. Exhibit J, "~~Special Provisions,~~" consisting of pages. Reserved.

K. Exhibit K, "~~Amendment to Standard Form of Agreement,~~" consisting of pages. Reserved.

8.02 Total Agreement

A. This Agreement (consisting of pages 1 to 10 inclusive, 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 individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of each respective party.

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

By: _____

Title: _____

Date Signed: _____

Address for giving notices:

—8901 S. 154th Street

—Omaha, NE 68138-3621

Designated Representative (see paragraph 8.03.A):

—John Winkler

Title: —General Manager

Phone Number: —402-444-6222

Facsimile Number: —402-895-6543

E-Mail Address: —jwinkler@papiionrd.org

Engineer:

—HDR ENGINEERING, INC.

By: _____

Title: _____

Date Signed: _____

Engineer License or Certificate No. _____
State of: _____

Address for giving notices:

—8404 Indian Hills Drive

—Omaha, NE 68114

Designated Representative (see paragraph 8.03.A):

—Matthew Tondl, P.E.

Title: —Senior Vice President

Phone Number: —402-399-1070

Facsimile Number: —402-399-1111

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

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Engineer's Services

Article 1 of the Agreement is amended and supplemented to include the following agreement of the parties. Engineer shall provide Basic and Additional Services as set forth below.

PART 1 – BASIC SERVICES

HDR Engineering, Inc. was selected by the P-MRNRD to provide planning, permitting, preliminary and final design and construction contract administration services for WP RB5. WP RB-5 is a proposed regional detention basin to be located on an unnamed tributary to West Papillion Creek located in Sarpy County and is located near 126th and Cornhusker Road in Papillion, Nebraska. The contributing drainage area at the proposed retention basin is approximately 5.2 square miles. The drainage area of WP RB-5 is primarily agricultural land with minimal development.

To more concisely respond to project requirements, a phased approach is proposed. In Phase I, a feasibility study and preliminary design will be conducted. After the preliminary details of the project have been determined through Phase I, the Phase II scope of services, generally including preparing final design documents and providing bidding assistance will be developed and associated fees negotiated. Following completion of Phase II, the Phase III scope of services detailing construction contract administration services will be developed and associated fees negotiated.

A1.01 Study and Report Phase Feasibility and Preliminary Design Phase

This Scope of Services is to document Phase I professional services to the Papio-Missouri River NRD (P-MRNRD) for a feasibility study and preliminary design of WP RB-5 (Project).

The Phase I scope of work is segmented into 8 task series:

- Task Series 100 – Project Management
- Task Series 200 – Planning Studies
- Task Series 300 – USACE Section 404 Permit
- Task Series 400 – Dam Alternatives
- Task Series 500 – Geotechnical Investigation and Evaluation
- Task Series 600 – Conceptual Design Elements
- Task Series 700 – Right-of-Way Services
- Task Series 800 – Technical Assistance on Grant Funding

The HDR Team proposes to provide the following professional services over an anticipated twelve (12) – month project period from the time of contract authorization.

TASK SERIES 100 – PROJECT MANAGEMENT

Task Objective: Develop effective project communication; confirm that Project elements are being completed. Discover and disseminate project information to improve quality and efficiency.

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 report, project close out activities and other administrative activities.

Task 120 Coordination Meetings. Coordination meetings will be conducted with P-MRNRD during the Project. A kick-off meeting is included in Task 210.

120.1 P-MRNRD Coordination Meetings. Meet with P-MRNRD personnel to review and

discuss Project progress. Assume a total of 15 meetings.
120.2 Board/Subcommittee Presentation. Conduct 1 presentation to the P-MRNRD Board/Subcommittee to provide the results of the study. A PowerPoint presentation will be prepared. One preparation meeting for the presentation is assumed.

Task 130 Quarterly Updates. The HDR Team will create an electronic quarterly 2-page update on the Project to be posted on the P-MRNRD's and/or City of Papillion's websites. Original material will be developed by HDR.

Task Deliverables:

- Monthly invoices and progress reports
- PowerPoint presentation for P-MRNRD Board/Subcommittee Presentation
- Quarterly updates

Key Understandings:

- The duration of the project is 12 months.
- Meetings will be held at the offices of the P-MRNRD and attended by 3 HDR professionals.
- Fifteen (15) coordination meetings are assumed.
- One (1) P-MRNRD Board/Subcommittee meeting presentation is assumed.

TASK 200 PLANNING STUDIES

Task Objective: The objective of this task is the development of a land use sub-area master plan and a community-based watershed plan. The extents of the land use sub-area master plan is 96th Street on the east, 132nd Street on the west, Giles Road on the north, and Schramm Road on the south (Land Use Planning Sub-Area). Upon completion, it is intended that the sub-area master plan would be incorporated into the City of Papillion's Comprehensive Master Plan. This sub-area master plan will include details relating to current and future land use and mobility features. The transportation study area is assumed to be the area bounded by Schramm Road to the south, 144th Street to the west, Giles Road to the north, and 96th Street to the east (Transportation Study Area). The community-based watershed plan will be developed for the WP RB-5 drainage area (Water Quality Study Area) consistent with EPAs nonpoint source management program.

HDR Activities:

Task 210 Kick-off Meeting and Site Tour

- 210.1 Kick-off Meeting. The purpose of this meeting is to discuss project details, review the project scope and identify potential Project stakeholders to be involved in the study. This meeting will be attended by P-MRNRD, City of Papillion, and Sarpy County staff. HDR will request and inventory pertinent information or data requirements for the Project.
- 210.2 Site Tour. Following the Kick-off Meeting, P-MRNRD will lead the HDR Team, as well as key stakeholders, on a tour of the Study Area. The purpose of this tour is to help familiarize participants with the project area, identify pertinent community features (both liked and disliked), discuss opportunities, and photo document key features for future reference.

Task 220 Data Collection and Analysis. HDR will collect, organize, and analyze the background data and supporting materials necessary to create maps with the overall goal of identifying potential opportunities, constraints, and future sub-area master plan directions.

220.1 Data Collection. Information and data required for the master plan will be collected during this phase. Successful acquisition of appropriate information during the early stages of the project will facilitate all later phases of the project. This information may include:

- Current comprehensive plans for the local jurisdictions
- Current development ordinances – Zoning and Subdivision
- Zoning and Land use (existing and future) maps
- Pedestrian/bicycle trail plans/studies
- Planned bridge reconstructions identified in Sarpy County 1 and 6-year roadway improvement plan.

- Existing or on-going transportation studies (MAPA Beltway Study)
 - MAPA Long-Range Transportation Plan
 - Current MAPA traffic data and TransCAD travel demand models
 - Historic and current traffic count data, as well as the existing and future year demand models.
 - Sewer master plan for Sarpy County
 - TMDLs for Papillion Creek reservoirs
 - Nutrient loadings based on literature values, agricultural management practices, nutrient and pesticide application and water quality data. Include water quality data on Walnut Creek and Wehrspann.
 - Runoff inflow data for similar sized reservoirs located within the Papillion Creek Watershed
- 220.2 Base Map Creation. HDR will create base maps depicting the data and conditions researched. These digital maps will be prepared at appropriate scales for use on this Project.
- 220.3 Data Analysis. Working with the data and maps generated, HDR will analyze these materials and draw conclusions pertinent to current and future conditions (urban design, land use, zoning, infrastructure, traffic, etc.) in the Land Use Planning Sub-area. The analysis will identify potential opportunities, constraints, and future master plan directions.

Task 230 Public Involvement.

- 230.1 Planning Committees. P-MRNRD and City of Papillion will create with HDR input, two separate committees: Land Use Steering Committee and Watershed Advisory Committee, consisting of representatives from various stakeholder groups. The Land Use Steering Committee will focus on assisting in the creation of a sub-area master plan, including land uses, transportation network, trails, and recreation. The Watershed Advisory Committee will be concerned with environmental issues, water quality and watershed management strategies. Both committees are to be engaged and provide guidance throughout the Project.
- The Land Use Steering Committee will consist of members that include representation from jurisdictional agency and public stakeholder groups such as key property owners, the City of Papillion, the City of LaVista, and Sarpy County staff and elected representatives. The Watershed Advisory Committee will consist of stakeholders such as landowners and business leaders. P-MRNRD and City of Papillion will contact potential committee members for participation.
- 230.1.1 Committee Membership. Assist P-MRNRD and City of Papillion in developing a list of agencies to be included in the Committees. P-MRNRD and City of Papillion to contact potential participants.
- 230.1.2 Land Use Steering Committee Communication and Meetings. Following the formation of the Land Use Steering Committee, an initial meeting will be held to clearly define the project scope and goals, as well as the Steering Committee's role in the process. Continuous communication with the Steering Committee will be maintained and two (2) meetings total with the Steering Committee are planned during the project.
- 230.1.3 Watershed Advisory Committee Communication and Meetings. An initial list of potential participants will be developed with assistance from P-MRNRD. Additional potential participants will be identified in the Visioning Workshop (Subtask 230.3). Following formation of the Watershed Advisory Committee, an initial meeting will be held to clearly define the project scope and goals, as well as the Steering Committee's role in the process. Continuous communication with the Advisory Committee will be maintained and total of three (3) separate meetings are planned through the duration of the project.
- 230.2 Specific Interviews. HDR will conduct a series of one-on-one interviews (over the course of two days) with members of the Land Use Steering Committee and other key

stakeholders.

230.2.1 Meeting Preparation and Invitations. P-MRNRD and City of Papillion to create and maintain stakeholder mailing list. HDR to prepare a letter invitation for specific one-on-one interviews and to announce the visioning workshop.

230.2.2 Interviews and Summary. Interview questions will be developed in consultation with the P-MRNRD and City of Papillion. There will be a maximum of twenty (20) total interviews.

230.3 Visioning Workshop. Working in collaboration with the P-MRNRD, City of Papillion, stakeholders, and committees, HDR will conduct a workshop that will inform the public about the development of a sub-area master plan and community-based watershed plan and to allow participants to describe their "vision" for the area to other workshop participants. HDR staff will facilitate the iterative visioning process to define the consensus-based visions for the project area, information.

230.3.1 Workshop Materials. Create agenda, PowerPoint presentation, and associated materials for the visioning workshop. P-MRNRD to provide copies of any handout materials. Display boards will not be created.

230.3.2 Workshop Attendance. Attend workshop and document public input. P-MRNRD and City of Papillion to be responsible for arranging and handling the workshop logistics.

230.3.3 Visioning Summary. Results of the visioning workshop will be compiled and summarized. This summary will serve as a guide for the master planning workshops.

Task 240 Master Planning Workshop. A three-day planning and design workshop will be held in an accessible public venue to gather public input. The workshop will be an intensive, collaborative exercise in which HDR Team staff will work together with the community participants to address the complex planning and design issues associated with the project area. The workshop will focus on developing a conceptual sub-area master plan for the land use planning sub-area and a community-based watershed plan for the water quality study area. The workshop will be structured to best reflect and build upon the results of the previous data collection and analysis, visioning process, and local market indicators.

240.1 Planning Workshop. Specific areas of focus during the workshop will include the emphasis on the land use sub-area master plan and the community-based watershed plan. It is anticipated that the land use master and community based watershed planning workshops will be held simultaneously in the same location to allow coordination of the groups' efforts and facilitate the development of an integrated plan.

240.1.1 Land Use Plan. The land use master plan will focus on land use and mobility.

- The land use master plan will investigate the mix and mass of land uses and how they relate to the regional detention basins and adjacent land-uses. Included within the land-use component will be a variety of uses, including parks, open-space, and recreation networks.

- HDR will evaluate a mobility network including pedestrian, transit, bicycles, automobiles and the network of trails and roadways to support them. Close attention will be spent on connectivity between the transportation study area and adjacent development.

240.1.2 Watershed Plan. Development of alternative watershed strategies for nonpoint source pollution control to achieve the goals and objectives formulated in the visioning workshop. Alternatives include best management practices, low impact development standards, and other features to be incorporated into the community-based watershed plan.

240.2 Workshop Refinement. Taking the materials generated during the planning workshops, HDR will refine these into a draft conceptual sub-area master plan and draft community-based watershed plan. These draft conceptual plans will be developed in collaboration with the P-MRNRD, key stakeholders, the Land-Use Steering Committee, Technical Advisory Committee, and Watershed Advisory Committee.

Task 250 Transportation System Evaluation. The transportation system analysis and plan development is an integral part of the land use master planning effort. The tasks below will be conducted concurrently with the land use master planning effort, and are in addition to the transportation components of the workshop described in Task 240.

- 250.1 Transportation Coordination Meetings. Coordinate with MAPA, NDOR, City of Papillion, City of LaVista, and Sarpy County to discuss project impacts to existing and proposed infrastructure. Two (2) meetings are included in this scope of services.
- 250.2 Existing Traffic Patterns Evaluation. Existing traffic demands will be characterized with traffic volume counts and corresponding planning-level of service for segments in the existing transportation network within the Transportation Study Area. It is assumed that daily (ADT) volumes and peak hour traffic volume counts will be made available from MAPA, NDOR and/or the city agencies.
- 250.3 Daily Traffic Forecast Development. Future (year 2035) ADT traffic forecasts will be developed for the study area with the regional detention basins and land use planning assumptions. This will require use of the MAPA 2035 TransCAD travel demand model and adjustments to the socioeconomic data input based on assumptions in the study area.
- 250.4 Traffic Impact Analysis. Assess roadway volumes and evaluate the level of service impacts.
 - 250.4.1 Roadway Link Level of Service Analysis. Roadway link volumes will be evaluated based on ADT's to determine if the number of basic roadway lanes meets the future demand.
- 250.5 Transportation Infrastructure Needs. Determine the roadway network improvements and propose mitigation measures.
 - 250.5.1 Network Improvements. Determine roadway network improvements necessary to mitigate traffic demand with reservoir pools and proposed land use including closure to Cornhusker Road. Network improvements will be documented using the daily ADT forecasts.
 - 250.5.2 Transportation Documentation. Documentation and illustration of the future transportation needs to local roads, Highway 370, and 132nd St.

Task 260 Land Use Sub-Area Plan. Prepare land use sub-area master plan document. The sub-area master plan document will include the land use sub-area master plan map, sub-area mobility (transportation) map, and supporting documentation, analyses, and criteria that serve as the basis of the sub-area master plan.

- 260.1 Draft Land Use Sub-Area Master Plan. Document the land use and mobility, planning effort in a draft plan. A short presentation of the plan will be made to the Land Use Steering Committee and the plan provided to the Committee for comment. Comments will be directed to the City of Papillion for consideration.
- 260.2 Final Land Use Sub-Area Master Plan. The City of Papillion and P-MRNRD will provide final summary of comments on the Draft Land Use Sub-Area Master Plan. HDR will revise draft land use plan and incorporate review comments from P-MRNRD and city of Papillion.

Task 270 Community-Based Watershed Management Plan. The purpose of this task is to prepare a community-based watershed management plan for the Drainage Area for WP RB-5 which focuses on nonpoint source water quality management. This plan is to follow the guidelines adapted by NDEQ as it administers the Nebraska Nonpoint Source Pollution Management Program authorized under Section 319 of the Clean Water Act as administered by USEPA. The development of this plan will be closely coordinated with NDEQ.

In the development of a community-based watershed plan, a series of public meetings are conducted to gather and disseminate information to the public. Several of these meetings will be collaborated with the Subtask 230.3 Visioning Workshop and Task 240 Master Planning Workshop.

At the Visioning Workshop information will be presented on the community-based watershed plan process. In addition, public input on resource concerns will be gathered. Finally, a vision for the WP RB5 project area will be developed through public input that defines the objectives of the project and a prioritized list of concerns that could inhibit meeting those objectives.

At the Master Planning Workshop alternatives will be developed through iterative public interaction in conjunction with the land use master planning efforts. It is anticipated that initial assessments of an alternative's effectiveness in meeting the defined objectives will be made during the workshop and a more thorough evaluation to support that assessment completed following the workshop as the alternatives are integrated into the community-based watershed plan.

- 270.1 NDEQ Coordination Meetings. Coordinate with NDEQ on community-based plan. Meetings will be held to address project issues during the development of the plan. Three (3) meetings with NDEQ are included in this scope of services.
- 270.2 Technical Advisory Team. Identify subject matter specialists from various agencies which may include NRCS, NDEQ, county extension, Sarpy County and City of Papillion staff.
 - 270.2.1 Membership. Assist P-MRNRD in developing a list of agencies to be included in a Technical Advisory Team. P-MRNRD to contact agencies to participate.
 - 270.2.2 Meetings. Conduct 3 meetings with Technical Advisory Team to discuss methodology to evaluate resource concerns and provide technical input on resource concerns and watershed strategies.
- 270.3 Resource Inventory. Compile information on natural and human resources within the Drainage Basin to provide a quantitative explanation of the Drainage Basin.
- 270.4 Water Quality Evaluation. The purpose of the water quality evaluation is to assess the watershed plans ability to develop a sustainable resource that meets the priorities and goals identified in the planning process.
 - 270.4.1 Reservoir Hydrologic Budget. Determine watershed yield based on average annual values for rainfall, evaporation, groundwater/seepage, and inflow. Inflow will be based on analyzing inflow records from other Papillion Creek reservoirs.
 - 270.4.2 Sediment Loading. Determine at-reservoir sediment yield from upland erosion and channel bank sources using RUSLE, AGNPS or other appropriate estimating technique.
 - 270.4.3 Nutrient Loading. Use literature values for nutrient runoff coefficients loading based on existing and future land use conditions. Develop nutrient budget for drainage area using Iowa DNR's technique of using the three load estimates (Loading Function Method, EPA Export Coefficient Method, and WILMS Export Coefficient Method)
 - 270.4.4 Reservoir Response Modeling. Determine reservoir's eutrophication response to nutrient loading in terms of Carlson's Trophic State Index through the use of Eleven Lake Equations in IDNR's Lake Phosphorus Spreadsheet.
 - 270.4.5 Reservoir Water Quality Evaluation. Evaluate the model to determine if the reservoir will met the Title 117 water quality standards with respect to the anticipated designated use of the water body as well as the community's water quality goals.
 - 270.4.6 BMP Evaluation. Evaluate proposed BMPs based on literature values for removal effectiveness.
- 270.5 Alternatives. Watershed management alternatives to achieve the goals of the community will be developed through public input during the planning workshop, as well as input from the Technical Advisory Committee, Watershed Advisory Committee, P-MRNRD, and the City of Papillion. Following the planning workshop, the alternatives will be integrated into a watershed plan and the plan's effectiveness to meet the goals assessed. The results of the alternative evaluation will be presented and discussed with the Technical Advisory Committee and Watershed Advisory Committee.

- 270.6 Draft Community-Based Watershed Management Plan. Prepare a draft watershed plan.
- 270.7 Public Draft Plan Meeting. Conduct a final public meeting to present alternatives.
 - 270.7.1 Meeting Invitations. Prepare letter invitation and invitation flyer.
 - 270.7.2 Meeting Materials. Create agenda and PowerPoint presentation for the public meeting. Display boards will not be created.
 - 270.7.3 Meeting Attendance. Attend meeting and document public comments.
- 270.8 Final Community-Based Watershed Management Plan. Prepare a final community-based watershed plan.

Task Deliverables:

- Draft and Final Land Use Sub-Area Master Plan
- Draft and Final Community-Based Watershed Plan for WP RB-5

Key Understandings:

- P-MRNRD to arrange location for planning kick-off meeting. Steering Committee meetings, one-on-one interviews, visioning workshops, and master planning workshop. It is assumed there will be no fee for meeting place. P-MRNRD to cover fee if required.
- P-MRNRD will provide transportation for Study Area Tour
- P-MRNRD will invite participants to one-on-one interviews, visioning workshop, and master planning workshop.
- Conceptual recreational area plans depicting the extent of public land will be developed for each regional detention basin based on a permanent pool at each site.
- HDR's scope of services is limited to the development of the Sub-Area Plan as described herein and does not include incorporation of the Sub-Area Plan into the overall Comprehensive Master Plan or activities associated with ultimate approval and adoption by the City.
- Coordination meetings will be attended by two HDR representatives.
- ADT will be basis of traffic analyses; peak hour analyses will not be included.
- Existing traffic data for local roads will be obtained from Sarpy County, City of Papillion and City of LaVista. New traffic counts will not be obtained as part of this scope of services.
- Opinions of the likelihood of meeting water quality goals will be formed on the evaluation of available input data and the results from the models and methodology employed.
- Water quality analysis will provide an estimate of in-reservoir water quality with one set of proposed water quality improvement measures in place. If additional water quality measures are necessary to further improve water quality, those measures can be identified, quantified, and analyzed as an additional service.
- Water quality modeling is limited to nutrients (phosphorus). No bacteria, no toxics or metals, or mercury evaluation is proposed.

TASK 300 USACE SECTION 404 PERMIT

Task Objective: Secure necessary Section 404 approvals for WP RB-5 in accordance with the Clean Water Act.

Activities: Task 310 Data Collection and Evaluation. Environmental data collected for the project area proposed for WP RB-5 include:

- Data on recorded archaeological and historic/architectural sites (coordinated through the Nebraska State Historical Society, State Historic Preservation Office).
- Data on threatened or endangered species known locations (coordinated through the USFWS and Nebraska Game and Parks Commission)
- Soil survey data
- National Wetland Inventory (NWI) mapping
- Surface water quality impaired streams inventory from NDEQ

Task 320 USACE/Agency Coordination. Coordinate with USACE and other Federal, state and local agencies.

- 320.1 Pre-application Meeting. Conduct a pre-application meeting with USACE and other Federal, state and local resource agencies (as coordinated with USACE) to obtain input on the project. Conduct site tour. Prepare meeting notes.

- 320.2 Agency Scoping. Prepare background document describing the project and requesting information on impacts to their resources to obtain input from federal/state agencies, tribes, and special interest groups. Prepare contact mailing list of agencies and send background document along with invitation to a scoping meeting. Prepare for and facilitate an agency scoping meeting. Prepare meeting notes.
- 320.3 USACE Project Coordination. Meet with USACE at key points during permit development. This would include after development of purpose and need, 404(b)(1) screening criteria, initial screening, and draft stage of the 404(b)(1) showing document. A total of 3 meetings are assumed.
- 320.4 Agency Coordination. Coordinate as needed with other agencies on project specific issues.

Task 330 Section 404 Individual Permit. HDR will seek project approval under an individual Section 404 permit from the USACE, however, will evaluate the potential for the project to qualify for Nationwide Permit #43. Regional conditions for permits that have channel impacts require an analysis to determine that no other practicable alternatives are available. To address this need, either under Nationwide Permit #43 or through an Individual Permit, a Section 404(b)(1) Showing Document will be prepared.

330.1 Section 404(b)(1) Showing Document. Based on initial identification of permitting issues, HDR will develop a 404(b)(1) Showing Document for the Project. This document will include an alternatives analysis to identify potential alternatives that are practicable according to the 404(b)(1) Guidelines. HDR will coordinate the development of the Section 404(b)(1) Showing Document with USACE.

330.1.1 Project Need and Purpose. HDR will identify the need for the project and the primary and secondary purposes of the Project. This will be done in a manner to best justify the location of the project while limiting the alternatives analysis to the minimum required by the USACE.

330.1.2 Screening Criteria. Establish the screening criteria to evaluate alternatives for the project. The screening criteria will establish the practicability of the alternatives as described in Subpart B §230.10 (a) of the Guidelines. A practicable alternative is considered "available and capable of being done after taking into consideration cost, existing technology, and logistics while also fulfilling the basic purpose of the proposed activity".

330.1.3 Range of Alternatives. In addition to the proposed alternative (as defined and established in Task Series 400), alternatives may include:

- Low impact development strategies
- Multiple small detention basins
- Levees and Channel improvements
- Floodplain acquisition
- Dry regional detention basin

330.1.4 Alternative Screening. Apply screening criteria to each of the alternatives for determination of alternative practicability.

330.1.5 Factual Determinations. Apply Section 230.11(a)-(h) to evaluate the potential short- or long-term effects of the practicable alternatives on the aquatic environment. Indirect and cumulative impacts will be considered.

330.1.6 LEDPA Finding. Summarize the findings of the project and identify the least damaging practicable alternative for which the P-MRNRD is applying for.

330.2 Wetlands and Waters of the U.S. Survey. The HDR Team will identify wetlands and jurisdictional waters of the U.S. on WP RB-5 project lands.

330.2.1 Wetland Determination. A wetland determination will be performed using NWI mapping and NRCS aerial photography with site verification to preliminarily identify potential wetland impacts to aid in initial determination of impacts.

330.2.2 Wetland Delineation. Investigate the study area for the presence of Clean Water Act jurisdictional waters (including wetlands). Delineate and characterize the type, size, and location of waters of U.S. A formal wetland delineation [in accordance with the USACE 1987 Wetland Delineation Manual] shall be

provided for areas within the normal pool area and limits of construction of the structure(s).

330.3 Cultural Resources (Section 106) Compliance. The Section 404 permit requires Section 106 compliance. This will be achieved through a record search of previously documented cultural resources identified within the Project area and a Phase I cultural resources survey (pedestrian survey) of the areas of ground disturbance as well as inundated areas.

330.4 Section 401 Water Quality Certification. Submit Section 401 Water Quality Certification application to the State of Nebraska.

Task 340 Environmental Mitigation Concept Design. HDR will coordinate with USACE to incorporate wetland, channel mitigation and tree mitigation concepts required to obtain the Section 404 permit. It is assumed that wetland, channel, and tree mitigation will be on-site. The concept plans will depict the type, size and location of the mitigated resource.

Task 350 Section 404 Application Preparation. HDR will prepare and submit a Preconstruction Notification (PCN) application based on coordination and meetings with the USACE, the 404(b)(1) showing document, and mitigation concept design.

Task 360 Section 404 Iterative Comment/Response. HDR to respond to USACE and public comments during review of the Section 404 application. HDR will assist P-MRRND in responding to USACE and public comments during the permitting process. Responding to USACE comments is an iterative process and the level of effort to address comments is unknown. Level of effort estimated in responding to USACE and public comments purposes of this scope and fee development is limited to 20 hours of a senior professional and 40 hours of a mid-level professional.

Task Deliverables:

- Project Background Document
- Pre-application meeting agenda and minutes
- Section 404(b)(1) Showing Document
- Phase I Cultural Resources Survey and Report
- Section 404 Permit Application

Key Understandings:

- Right of entry with landowners to conduct cultural resources and wetland surveys will be coordinated by P-MRRND.
- Rob Bozell, as a subconsultant to HDR, will conduct the cultural resources work.
- Cumulative effects of environmental and social resource concerns of the project will be assessed in relation to other past, present and reasonably foreseeable projects within the study area of the project.
- The cumulative impacts section assumes that WB BP-6 and 7 are proposed, but not constructed. Therefore, these project are not considered reasonably foreseeable and will not be included in the cumulative effects analysis.
- Total of 5 flood control alternatives in addition to the proposed alternative will be evaluated
- Scope and fee are based on assumption that project will not require and Environmental Impact Statement (EIS).
- No threatened or endangered species surveys will be required.
- Any wetland, stream, or tree impacts will be mitigated on-site.
- Responding to USACE comments is limited to 20 hours of a senior professional and 40 hours of a mid-level professional.

TASK 400 DAM ALTERNATIVES

Task Objective: Develop hydrologic model for use in evaluating and optimizing dam features for WP RB-5. Impacts of varying pool levels will also be determined.

Activities: Task 410 Data Collection and Evaluation.

410.1 Data Collection. Data to be evaluated includes:

- SPT Report
- LiDAR data for West Papillion Creek Subwatershed flown by Horizons in 2004.
- Photographic mapping for Sarpy County flown by Horizons in 2007-08.

410.2 Stage-Storage Data Verification. Verify the stage-area-storage relationship for the dam and reservoir using HDR's hydrologic model from the 2006 Unnamed South Papillion Creek Tributary Detention Evaluation and LiDAR topographic mapping. Evaluate impact of grading changes to stage-storage data for the main dam and reservoir and any wetland and channel mitigations.

Task 420 Hydrologic Model Development. HEC-HMS will be used to route design hydrographs through the proposed regional detention basins and water quality basins. The calibrated model prepared during the West Papillion Flood Hazard Update and used for the 2006 Unnamed South Papillion Creek Tributary Detention Evaluation will serve as the basis for model development. The principal spillway hydrograph, auxiliary spillway hydrograph, and freeboard hydrographs will be determined per NRCS Technical Release No. 60 (TR-60) for high hazard structures. In addition, 10-, 50-, 100-, and 500-yr hydrographs will be defined. One storm-centering will be used in the hydrologic analysis.

420.1 Site-Specific PMP. Define the probable maximum precipitation event as defined by the December 2008 Study entitled "Site-Specific Probable Maximum Precipitation (PMP) Study for Nebraska". Determine a revised auxiliary spillway and freeboard hydrographs.

420.2 HEC-HMS Model Update. Key hydrologic parameters such as land use and percent impervious areas will be updated to future conditions that correspond to anticipated future development conditions and coordinated with the conceptual land use plan for WP RB-5.

Task 430 Dam Sizing/Pool Alternatives Alternatives for normal and flood pool levels, top of dam, and associated dam features to accomplish those levels will be evaluated.

430.1 Pool Alternatives. Define two (2) unique alternatives of normal and flood pool elevations, and top of dam elevations for WP RB-5. It is anticipated that these alternatives will include:

- 1) maximum feasible pool size without significant impacts to NE Hwy 370 and 132nd Street; and
- 2) minimum pool size that would maintain a viable habitat for fish and other aquatic species and provide 100-year sediment storage capacity.

430.2 Dam Features for Alternatives. Principal and auxiliary spillway configurations will be developed to achieve pool elevations established by the alternatives developed in Subtask 430.1. To achieve these pool levels, variations in spillway design, such as fuseplugs or two-stage spillways will be investigated. Rating curves for principal and auxiliary spillways will be developed for use in reservoir routing.

430.3 Reservoir Routing. HEC-HMS model will be used to route hydrographs through WP RB-5 for each of the alternatives identified in Subtask 430.1. Top of dam elevations will be established through these routings based on NRCS TR-60 and State of Nebraska Dam Safety criteria.

430.4 Reservoir Sustainability. Data on watershed yield developed in Task 270 will be used to assess sustainability of the alternatives regarding water availability.

430.5 Reservoir Sedimentation. Data on watershed sediment yield developed in Task 270 will be used to estimate delivery rate and life cycle.

430.6 Impact Evaluation. Infrastructure impacts for each design hydrograph will be determined for each alternative. Potential mitigation measures for impacted infrastructure (levees, relocations, etc.) will be investigated.

Task 440 Water Quality Basins. Potential locations for water quality basins upstream of the reservoir will be identified and screened. Potential sites will be assessed based on sediment storage provided, residence time for water quality enhancement, portion of watershed afforded treatment by the site, and compatibility with surrounding infrastructure and land use.

- 440.1 Potential Water Quality Sites Identification. Identify potential locations for water quality basins upstream of WP RB-5. Possible sites include 1) west of 132nd Street and along NE Hwy. 370; 2) south of NE Hwy. 370 and along 132nd Street and 3) south of Cornhusker Road and along 132nd Street. A maximum of 3 locations will be evaluated.
- 440.2 Stage-Storage Data. Stage-area curves will be developed for each water quality basin from the LiDAR data.
- 440.3 Water Quality Sites Selection. Using the estimated reservoir sedimentation rate and life cycle analysis performed in Task 430.5, determine which of the potential water quality sites are necessary.
- 440.4 Water Quality Basin Sizing. Size and develop rating curves for the principal and auxiliary spillways.
- 440.5 Maintenance Intervals. Compute the trap efficiencies of the proposed sediment basins to quantify sediment deposition in cubic yards and percentage of basin volume. Using this information, establish the required maintenance intervals for removal of sediment from the proposed water quality basins.

Task 450 Draft Report Section. Prepare preliminary and final draft of dam alternatives section of the feasibility report.

- 450.1 Preliminary Draft Report Section. Document analysis in a preliminary draft dam alternative section of the feasibility report.
- 450.2 Final Draft Report Section. Document analysis in a final draft dam alternative section of the feasibility report. Incorporate review comments.

Task Deliverables:

- Draft and final dam alternatives section of feasibility report.

Key Understandings:

- The hydrologic analysis will be performed using the existing calibrated HEC-HMS model developed for the West Papillion Creek Flood Hazard Update.
- The probable maximum precipitation event will be defined by the December 2008 Study entitled "Site-Specific Probable Maximum Precipitation (PMP) Study for Nebraska".
- A maximum of two (2) dam sizing/pool alternatives will be evaluated.
- A maximum of three (3) water quality basins will be evaluated for trapping sediment.

TASK 500 GEOTECHNICAL INVESTIGATION AND EVALUATION

Task Objective: Conduct subsurface geotechnical investigation and conduct geotechnical evaluation of embankment. It is intended that the geotechnical design elements will be advanced to approximately the 90% level in this Phase.

Activities:

Task 510 Data Collection and Analysis. Data to be evaluated includes:

- Available geotechnical data from NE Hwy. 370 and Walnut Creek Dam.

Task 520 Subsurface Investigation Plan. HDR to conduct a geotechnical investigation to evaluate the subsurface conditions along the main dam centerline, the principal spillway, auxiliary spillway and borrow areas. HDR to prepare a boring plan showing the location of the borings and a laboratory testing program assigning tests to specific samples. Four (4) of the borings will be maintained as observation wells.

- Along centerline of embankment - 8 borings at 150-foot intervals advanced into non-yielding material (glacial till or bedrock, assumed 75 feet below grade).
- Along principal spillway - 2 borings to 50 feet near upstream and downstream toes of dam and 1 boring at centerlines of principal spillway and dam alignment to 50 feet
- Auxiliary spillway - 3 borings advanced into non-yielding material (assumed 50 feet).
- Borrow areas - 3 borings to 25 feet in reservoir area

Testing requirements include:

- Atterberg Limits (silts and clays, per D 4318). A total of 40 tests are assumed.

- Grain size analyses with hydrometer (sands, silts and sands per D 422). A total of 40 tests are assumed.
- Moisture/Density tests (tube and bag samples, per D 2166, D 698). A total of 80 tests are assumed.
- Proctor compaction test. A total of 3 tests are assumed.
- Unconfined Compressive Strength tests (tube samples, per D 2166). A total of 12 tests are assumed.
- Triaxial compression tests (UU and CU-bar) (tube samples, per D 2850). A total of 6 UU and 6 CU-bar tests are assumed.
- Consolidation tests (tube samples, per D 2435). A total of 6 tests are assumed.
- Pin-hole dispersion tests. A total of 6 tests are assumed.

Task 530 Subsurface Investigation Exploration. Thiele Geotech to conduct field drilling and sampling, conduct laboratory tests and prepare geotechnical material data report. Geotechnical data report includes boring logs and laboratory test data. LRA will survey top of boring hole elevations.

Task 540 Preliminary Geotechnical Design and Analysis.

Preliminary geotechnical design will be performed. The design includes:

- Review field and lab data.
- Prepare geologic cross-sections
- Select design foundation section and shear strengths
- Select trial embankment sections (with internal drainage, if needed)
- Run slope stability analyses for end of construction case
- Run seepage analyses (does not include reservoir water balance)
- Evaluate foundation underseepage
- Evaluate seepage through the embankment
- Run slope stability analyses for rapid drawdown, steady state seepage and earthquake cases
- Run settlement analyses along:
 - Embankment centerline
 - Principal spillway (vertical and horizontal joint extensibility)

Task 550 Final Geotechnical Design and Analysis. Final geotechnical design will be performed. The design includes:

- Specify final embankment section
- Specify, size, and locate the chimney drain, horizontal blanket drain and drain outlets, if needed
- Refine upstream slope geometry, if needed
- Evaluate principal spillway alignment, stability and settlement
- Evaluate auxiliary spillway stability
- Evaluate slope stability of embankment closure section

Task 560 Geotechnical Investigation and Evaluation Documentation. Prepare geotechnical evaluation report documenting the results of the geotechnical investigation and design.

- 560.1 Draft Geotechnical Investigation and Design Report. Document geotechnical evaluation.
- 560.2 Final Geotechnical Investigation and Design Report. Incorporate review comments and revise geotechnical report.

Task Deliverables:

- Draft and Final Geotechnical Investigation and Design Reports

Key Understandings:

- Thiele Geotech, as a subconsultant to HDR, will conduct field investigation tasks.
- LRA, as a subconsultant to HDR, will survey top of boring hole elevations.
- Geotechnical investigation and design will be completed to approximately to a 90 percent level.

- The final geotechnical report will be ready for inclusion in the NDNR dam safety permit application. Preparation of NDNR dam safety permit is not included in this Phase I scope of services and will be prepared in Phase II.
- Instrumentation and upstream face slope protection will be evaluated during Phase II.
- It is intended that the subsurface investigation in Phase I be adequate for completion of design. Should additional subsurface information be required to complete design, it will be documented and included in Phase II services.

TASK 600 CONCEPTUAL DESIGN ELEMENTS

Task Objective: To define major design elements and prepare set of drawings to approximately a 30% level.

Activities: **Task 610 Data Collection and Evaluation.**

- 610.1 **Data Collection.** Collect necessary data. Data to be evaluated includes:
- Existing GIS mapping including aerials, topographic, and parcels
 - Private and public utilities existing and proposed data located impacted by the Project including: communication lines, sanitary sewer lines, OPPD power lines, gas lines, and fiber-optic lines.
- 610.2 **Topographic Survey.** Conduct a topographic survey of the proposed detention basin footprint based on the conceptual design report (Unnamed South Papillion Creek Tributary Detention Evaluation, HDR, Feb, 2006) and create a topographic map. Include a limited topographic survey (approx. 200 feet upstream and downstream of the existing drainage structure centerline) of 3 potential water quality basins along 132nd Street and NE Hwy. 370.
- 610.3 **Topographic Base Map.** Topographic survey will be supplemented with LiDAR topographic data.

Task 620 Utility Coordination and Design

- 620.1 **Utility Confirmation.** A letter will be prepared requesting public and private utilities for information of each respective utility within the WP RB-5 area.
- 620.2 **Utility Coordination.** Conduct a meeting with private and public utilities to discuss the project and the impact to its utility. Follow-up meeting with phone calls.
- 620.3 **Utility Infrastructure Coverages.** Create GIS coverages for utility information.
- 620.4 **Sanitary Sewer Conceptual Design.** Define the type, size, and location of a relocated sanitary sewer line.

Task 630 In-Lake Fisheries/Recreation Area Conceptual Design.

- 630.1 **In-Lake Fisheries/Recreation Design.** Coordinate with Nebraska Game and Parks on in-lake fisheries and recreation design elements. Recreation design in this phase is limited to locating lake access points (docks), fishing piers, etc to the extent necessary to pursue potential grant funding.
- 630.2 **In-Lake Fisheries Conceptual Design.** Define the in-lake fisheries features and typical sections.

Task 640 Drawing Production - Develop conceptual design of retention basin WP RB-5 and associated water quality basins. A preliminary drawing list of sheets include:

- Title Sheet (1 sheet)
- General Notes, Legend, Abbreviations, Hydrologic/Hydraulic Data (1 sheet)
- Topographic Maps of Reservoir Areas (1 sheet)
- Plan View of Main Structure Site (1 sheet)
- Plan View of Water Quality Basins (2 sheets)
- Profile of Principal Spillway (1 sheet)
- Main Dam Grading Plan and Embankment Drain Plan (1"= 50', 2 sheets)
- Main Dam Drain Details (e.g. embankment drain detail and toe drain detail, 1 sheet)
- In-Reservoir Fish Habitat (1 sheet)
- Sanitary Sewer Relocation Plan and Profile (3 Sheets)
- Structural Details (e.g. riser, stilling basin, 3 sheets)

- Miscellaneous Details (1 sheet)

Task 650 Conceptual Opinion of Probable Construction Costs. Develop conceptual level opinion of probable construction costs for the construction of WP RB-5. Included in the cost estimate will be dam construction costs and infrastructure relocation costs.

Task 660 Feasibility Report Preparation. Prepare feasibility report for the construction elements section of the report.

660.1 Draft Feasibility Report. Document technical analysis in a feasibility report.

660.2 Final Feasibility Report. Revise draft feasibility report. Incorporate review comments.

Task Deliverables:

- Conceptual Design Drawings
- Draft and Final Feasibility Report

Key Understandings:

- Preliminary design will be for one (1) recommended alternative
- Appropriate utility companies will be invited to a group meeting. Individual coordination, either via telephone or meetings, may be necessary. It is assumed that no more than one additional day of meetings will be required.
- Utility meetings will be attended by 2 HDR representatives.
- Two representatives from HDR will conduct follow-up meetings.
- Technical specifications will not be prepared during Phase I.
- Design of relocated sanitary sewer is limited to changes in alignment. No pump stations will be designed in Phase I.
- No roadway or bridge design will be conducted in Phase I.
- One (1) electronic copy and one (1) hard copy of Draft and Final Draft Feasibility Reports will be provided to P-MRNRD.
- P-MRNRD will be responsible for report reproduction.

TASK 700 RIGHT-OF-WAY ASSISTANCE

Task Objective: To prepare right-of-way (ROW) legal descriptions.

Task 710 Coordination and Consultation. Coordinate with City of Papillion, Sarpy County, and NDOR to define the ROW requirements, discuss the maximum pool design and the impacts on City of Papillion, Sarpy County, and NDOR facilities. A total of 2 meetings are assumed.

Task 720 Acquisition and ROW Plan Development. This task includes refining the preliminary acquisition/boundary plans, final acquisition/boundary survey and final ROW plans for up to 15 parcels.

720.1 Preliminary Acquisition/P-MRNRD Boundary Plans Refinement. This subtask includes the development of preliminary ROW map plans based on dimensional control provided by recorded subdivision plats and other recorded surveys and documentation at the Sarpy County Surveyor's office, Sarpy County Register of Deeds Office, and topographic survey. Items depicted on these plans include: limits of maximum pool based on the top of proposed dam elevation and other construction outside this limit to aid P-MRNRD personnel with appraisals along with acquisition and easement negotiations.

720.2 Final Acquisition/Property Owner Boundary Survey. Perform property boundary surveys to create final legal descriptions and areas for properties to be acquired by fee title or easement, as required for the project. Compile parcels into a rights map of the Project area.

Task Deliverables:

- Preliminary and final ROW plans for fee title and easements
- Property surveys and legal descriptions
- Land rights map of Project area

Key Understandings:

- P-MRNRD will provide all title documentation for the properties affected by this project
- P-MRNRD is responsible for securing appraisals along with acquisition and easement negotiations.
- Permanent monuments will be set on the perimeter of the acquisition properties as required by State of Nebraska statute once the final location has been determined.
- It is assumed that the number of revisions to the preliminary and final ROW boundary is limited to 1 per parcel
- The fee estimate for this task is based on boundary surveys and preparation of final legal documentation for up to 15 parcels at a rate of \$2000/parcel.
- Permit applications will be prepared in Phase II activities.
- Database search report obtained from Environmental Data Resources (EDR) on regulated material sites (which includes, but is not limited to: underground storage tanks, leaking underground storage tanks RCRA sites, CERCLA sites, landfills, spills, hazardous material information reporting system (HMIRS), and TSCA sites) by P-MRNRD

TASK 800 TECHNICAL ASSISTANCE ON GRANT APPLICATION

Task Objective: Provide technical information to P-MRNRD on grant funding applications.

Activities: **Task 810 Funding Opportunities Identification.** Identify and summarize potential funding opportunities for P-MRNRD to evaluation as potential outside sources of project funding.

Task 820 Technical Assistance. Provide technical information to P-MRNRD in support of the preparation of grant applications. For purposes of developing the fee estimate, the grant applications are assumed to include Nebraska Game and Parks's Sport Fisheries and Motor Boat Access Grant Funding, Nebraska Environmental Trust funding, and NDEQ Section 319 Funding.

Task Deliverables:

- One-page list of possible funding opportunities
- Supporting technical information

Key Understandings:

- One-page list of possible funding opportunities

A. Engineer shall:

1. Consult with Owner to define and clarify Owner's requirements for the Project and available data.
2. Advise Owner of any need for Owner to provide data or services of the types described in Exhibit B which are not part of Engineer's Basic Services.
3. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction to approve the portions of the Project designed or specified by Engineer, including but not limited to mitigating measures identified in the environmental assessment.
4. Identify and evaluate ~~[insert specific number or list here]~~ alternate solutions available to Owner and, after consultation with Owner, recommend to Owner those solutions which in Engineer's judgment meet Owner's requirements for the Project.
5. Prepare a report (the "Report") which will, as appropriate, contain schematic layouts, sketches, and conceptual design criteria with appropriate exhibits to indicate the agreed-to requirements, considerations involved, and those alternate solutions available to Owner which Engineer recommends. For each recommended solution Engineer will provide the following, which will be separately itemized: opinion of probable Construction Cost; proposed allowances for contingencies; the estimated total costs of design, professional, and related services to be provided by

[illegible]

Engineer and its Consultants; and, on the basis of information furnished by Owner, a summary of allowances for other items and services included within the definition of Total Project Costs.

6. ~~Perform or provide the following additional Study and Report Phase tasks or deliverables: [here list any such tasks or deliverables]~~

7. ~~Furnish _____ review copies of the Report and any other deliverables to Owner within _____ calendar days of authorization to begin services and review it with Owner. Within _____ calendar days of receipt, Owner shall submit to Engineer any comments regarding the Report and any other deliverables.~~

8. ~~Revise the Report and any other deliverables in response to Owner's comments, as appropriate, and furnish _____ copies of the revised Report and any other deliverables to the Owner within _____ calendar days of receipt of Owner's comments.~~

~~B. Engineer's services under the Study and Report Phase will be considered complete on the date when the revised Report and any other deliverables have been delivered to Owner.~~

A1.02 Preliminary Design Phase

~~A. After acceptance by Owner of the Report and any other deliverables, selection by Owner of a recommended solution and indication of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner, and upon written authorization from Owner, Engineer shall:~~

~~1. Prepare Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, outline specifications, and written descriptions of the Project.~~

~~2. Provide necessary field surveys and topographic and utility mapping for design purposes. Utility mapping will be based upon information obtained from utility owners.~~

~~3. Advise Owner if additional reports, data, information, or services of the types described in Exhibit B are necessary and assist Owner in obtaining such reports, data, information, or services.~~

~~4. Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost, and assist Owner in collating the various cost categories which comprise Total Project Costs.~~

~~5. Perform or provide the following additional Preliminary Design Phase tasks or deliverables: [here list any such tasks or deliverables]~~

~~6. Furnish _____ review copies of the Preliminary Design Phase documents and any other deliverables to Owner within _____ calendar days of authorization to proceed with this phase, and review them with Owner. Within _____ calendar days of receipt, Owner shall submit to Engineer any comments regarding the Preliminary Design Phase documents and any other deliverables.~~

~~7. Revise the Preliminary Design Phase documents and any other deliverables in response to Owner's comments, as appropriate, and furnish to Owner _____ copies of the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables within _____ calendar days after receipt of Owner's comments.~~

~~B. Engineer's services under the Preliminary Design Phase will be considered complete on the date when the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables have been delivered to Owner.~~

A1.023 Final Design Phase II – Final Design and Bidding Assistance

A. After acceptance by Owner of Phase I the Preliminary Design Phase documents, revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, and any other deliverables subject to any Owner directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and upon written authorization from Owner, Engineer shall prepare scope of services and fee estimate for Phase II:

1. Prepare final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor. If appropriate, Specifications shall conform to the 16 division format of the Construction Specifications Institute.

2. Provide technical criteria, written descriptions, and design data for Owner's use in filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design of the Project; assist Owner in consultations with such authorities; and revise the Drawings and Specifications in response to directives from such authorities.

3. Advise Owner of any adjustments to the opinion of probable Construction Cost known to Engineer.

4. Perform or provide the following additional Final Design Phase tasks or deliverables: [here list any such tasks or deliverables]

5. Prepare and furnish Bidding Documents for review by Owner, its legal counsel, and other advisors, and assist Owner in the preparation of other related documents. Within _____ days of receipt, Owner shall submit to Engineer any comments and, subject to the provisions of paragraph 6.01.G, instructions for revisions.

6. Revise the Bidding Documents in accordance with comments and instructions from the Owner, as appropriate, and submit _____ final copies of the Bidding Documents, a revised opinion of probable Construction Cost, and any other deliverables to Owner within _____ calendar days after receipt of Owner's comments and instructions.

B. Engineer's services under the Final Design Phase will be considered complete on the date when the submittals required by paragraph A1.03.A.6 have been delivered to Owner.

C. In the event that the Work designed or specified by Engineer is to be performed or furnished under more than one prime contract, or if Engineer's services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast tracking), Owner and Engineer shall, prior to commencement of the Final Design Phase, develop a schedule for performance of Engineer's services during the Final Design, Bidding or Negotiating, Construction, and Post-Construction Phases in order to sequence and coordinate properly such services as are applicable to the work under such separate prime contracts. This schedule is to be prepared and included in or become an amendment to Exhibit A whether or not the work under such contracts is to proceed concurrently.

D. The number of prime contracts for Work designed or specified by Engineer upon which the Engineer's compensation has been established under this Agreement is _____. If more prime contracts are awarded, Engineer shall be entitled to an equitable increase in its compensation under this Agreement.

A1.04 Bidding or Negotiating Phase

A. After acceptance by Owner of the Bidding Documents and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon written authorization by Owner to proceed, Engineer shall:

1. Assist Owner in advertising for and obtaining bids or proposals for the Work and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, attend pre-Bid conferences, if any, and receive and process contractor deposits or charges for the Bidding Documents.

2. Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents.

3. ~~Provide information or assistance needed by Owner in the course of any negotiations with prospective contractors.~~

4. ~~Consult with Owner as to the acceptability of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors for those portions of the Work as to which such acceptability is required by the Bidding Documents.~~

5. ~~Perform or provide the following additional Bidding or Negotiating Phase tasks or deliverables: [here list any such tasks or deliverables]~~

6. ~~Attend the Bid opening, prepare Bid tabulation sheets, and assist Owner in evaluating Bids or proposals and in assembling and awarding contracts for the Work.~~

B. ~~The Bidding or Negotiating Phase will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective contractors (except as may be required if Exhibit F is a part of this Agreement).~~

A1.035 ~~Construction Phase III – Construction Contract Administration~~

A. ~~Upon successful completion of Phase II services the Bidding and Negotiating Phase, and upon written authorization from Owner, Engineer shall develop scope of services and fee estimate for Phase III.:~~

1. ~~General Administration of Construction Contract. Consult with Owner and act as Owner's representative as provided in the General Conditions. The extent and limitations of the duties, responsibilities, and authority of Engineer as assigned in the General Conditions 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 General Conditions 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. [If Engineer will not be providing the services of an RPR, then delete this paragraph 2 by inserting the word "DELETED" after the paragraph title, and do not include Exhibit D.]~~

3. ~~Selecting Independent Testing Laboratory. Assist Owner in the selection of an independent testing laboratory to perform the services identified in Exhibit B, paragraph B2.01.0.~~

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 and quality 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 on 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 and perform the Work in accordance with the Contract Documents.

8. Defective Work. Recommend to Owner that Engineer will have the authority to reject Contractor's Work be rejected while it is in progress if, on the basis of Engineer's observations, Engineer believes that such Work will not produce a completed Project that conforms generally to the Contract Documents or that it will threaten the integrity of the design concept of the completed Project as a functioning whole as indicated in 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. 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 quality of such 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 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, conduct an inspection 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. Perform or provide the following additional Construction Phase tasks or deliverables: [here list any such tasks or deliverables].~~

~~19. Final Notice of Acceptability of the Work. Conduct a final inspection 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. The Construction Phase will commence with the execution of the first construction Contract for the Project or any part thereof and will terminate upon written recommendation by Engineer for final payment to Contractors. If the Project involves more than one prime contract as indicated in paragraph A1.03.C, Construction Phase services may be rendered at different times in respect to the separate contracts. Subject to the provisions of Article 3, Engineer shall be entitled to an equitable increase in compensation if Construction Phase services are required after the original date for final completion of the Work as set forth in the construction Contract.~~

~~C. Limitation of Responsibilities. Engineer shall not be responsible for the acts or omissions of any Contractor, or of any subcontractors, suppliers, or other individuals or entities performing or furnishing any of the Work. Engineer shall not be responsible for the failure of any Contractor to perform or furnish the Work in accordance with the Contract Documents.~~

A1.06 Post Construction Phase

A. Upon written authorization from Owner, Engineer, during the Post Construction Phase, shall:

1. Provide assistance in connection with the adjusting of Project equipment and systems;
2. Assist Owner in training Owner's staff to operate and maintain Project equipment and systems;
3. Assist Owner in developing procedures for control of the operation and maintenance of, and record keeping for Project equipment and systems;
4. Together with Owner, visit the Project to observe any apparent defects in the Work, assist Owner in consultations and discussions with Contractor concerning correction of any such defects, and make recommendations as to replacement or correction of Defective Work, if present;
5. Perform or provide the following additional Post Construction Phase tasks or deliverables: _____;
6. In company with Owner or Owner's representative, provide an inspection of the Project within one month before the end of the Correction Period to ascertain whether any portion of the Work is subject to correction;

B. The Post Construction Phase services may commence during the Construction Phase and, if not otherwise modified in this Exhibit A, will terminate at the end of the Construction Contract's correction period.

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 of this Agreement or are due to any other causes beyond Engineer's control.
4. Services resulting from Owner's request to evaluate additional Study and Report Phase alternative solutions beyond those identified in paragraph A1.01.A.4.
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 feasibility studies, cash flow and economic evaluations, 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 Engineer's Consultants for other than Basic Services.
9. Services attributable to more prime construction contracts than specified in paragraph A1.03.C.
10. Services during out-of-town travel required of Engineer other than for visits to the Site or Owner's office.
11. 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.
12. Preparing additional Bidding Documents or Contract Documents for alternate bids or prices requested by Owner for the Work or a portion thereof.
13. Determining the acceptability of substitute materials and equipment proposed during the Bidding or Negotiating Phase when substitution prior to the award of contracts is allowed by the Bidding Documents.
14. Assistance in connection with Bid protests, rebidding, or renegotiating contracts for construction, materials, equipment, or services, except when such assistance is required by Exhibit F.
15. Providing construction surveys and staking to enable Contractor to perform its work other than as required under paragraph A1.05.A.5, 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.
16. Providing Construction Phase services beyond the original date for final completion of the Work.
17. Providing assistance in responding to the presence of any Constituent of Concern at the Site, in compliance with current Laws and Regulations.
18. Preparing and furnishing to Owner Record Drawings showing appropriate record information based on Project annotated record documents received from Contractor.
19. Preparation of operation and maintenance manuals.
20. 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.

21. Providing more extensive services required to enable Engineer to issue notices or certifications requested by Owner.

22. 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 that Engineer is commencing 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; and services after the award of the Construction Contract in evaluating and determining the acceptability of a substitution which is found to be inappropriate for the Project or an excessive number of substitutions.
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, (2) the presence at the Site of any Constituent of Concern, (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 (other than Basic Services during the Post-Construction Phase) 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. Services during the Construction Phase rendered after the date stated in A1.05.B.

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Owner's Responsibilities

Article 2 of the Agreement is amended and 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 in or relating to existing surface or subsurface structures at or contiguous to 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. 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 or deems appropriate, 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.
4. Placement and payment for advertisement for Bids in appropriate publications.

J. 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.

K. 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.

L. 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.

M. 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.

N. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment inspections.

O. 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.

P. Provide Engineer with the findings and reports generated by the entities providing services to Owner pursuant to this paragraph.

~~Q. Perform or provide the following additional services: _____.~~

COMPENSATION DECISION GUIDE
FOR USE WITH EXHIBIT C TO EJCDC E-500, 2002 EDITION

1. Compensation for Basic Services (not including Resident Project Representative and Post-Construction Services)

Decision Question: Which method of compensation is to be used?

	Lump Sum	Standard Hourly Rates	Percent of Construction Costs	Direct Labor Costs Times a Factor	Direct Labor Costs plus Overhead Plus a Fixed Fee	Salary Costs Times a Factor
Use These Sheets	Sheet C-2	Sheets C-3 and C-4	Sheets C-5 and C-6	Sheets C-7 and C-8	Sheets C-9 and C-10	Sheets C-11 and C-12
Use This Appendix	N/A	Appendices 1 (C-24) and 2 (C-25)	N/A	Appendix 1 (C-24)	Appendix 1 (C-24)	Appendix 1 (C-24)

2. Compensation for Resident Project Representative and Post-Construction Basic Services

Decision Question: Which method of compensation is to be used?

	Lump Sum	Standard Hourly Rates	Percent of Construction Costs	Direct Labor Costs Times a Factor	Salary Costs Times a Factor
Use These Sheets	Sheet C-13	Sheets C-14 and C-15	Sheet C-16	Sheets C-17 and C-18	Sheets C-19 and C-20
Use This Appendix	N/A	Appendices 1 (C-24) and 2 (C-25)	N/A	Appendix 1 (C-24)	Appendix 1 (C-24)

3. Compensation for Additional Services

Decision Question: Which method of compensation is to be used?

	Standard Hourly Rates	Direct Labor Costs Times a Factor	Salary Costs Times a Factor
Use These Sheets	Sheet C-21	Sheet C-22	Sheet C-23
Use This Appendix	Appendices 1 (C-24) and 2 (C-25)	Appendix 1 (C-24)	Appendix 1 (C-24)

Example: If Basic Services (other than RPR and Post-Construction) will be compensated using Lump Sum, RPR/Post-Construction services using Direct Labor Times a Factor, and Additional Services using Standard Hourly Rates, then use only Sheets C-2, C-17, C-18, C-21, Appendix 1 (Sheet C-24), and Appendix 2 (Sheet C-25) to form Exhibit C.

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Payments to Engineer for Services and Reimbursable Expenses

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

ARTICLE 2—Owner's Responsibilities

~~C2.01—Compensation For Basic Services (other than Resident Project Representative and Post-Construction) — Lump Sum
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 and Post-Construction Phase services, if any, as follows:~~

~~1. A Lump Sum amount of \$_____ based on the following assumed distribution of compensation:~~

- ~~a. Study and Report Phase _____ \$_____~~
- ~~b. Preliminary Design Phase _____ \$_____~~
- ~~c. Final Design Phase _____ \$_____~~
- ~~d. Bidding and Negotiating Phase _____ \$_____~~
- ~~e. Construction Phase _____ \$_____~~

~~2. Engineer may alter the distribution of compensation between individual phases noted herein to be consistent
with services actually rendered, but shall not exceed the total Lump Sum amount unless approved in writing by the
Owner.~~

~~3. The Lump Sum includes compensation for Engineer's services and services of Engineer's Consultants, if
any. Appropriate amounts have been incorporated in the Lump Sum to account for labor, overhead, profit, and
Reimbursable Expenses.~~

~~4. The portion of the Lump Sum amount billed for Engineer's services will be based upon Engineer's estimate
of the proportion of the total services actually completed during the billing period to the Lump Sum.~~

~~C2.02 [Not used]~~

~~C2.03 [Not used]~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Payments to Engineer for Services and Reimbursable Expenses

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

ARTICLE 2 — Owner's Responsibilities

C2.01 — Compensation For Basic Services (other than Resident Project Representative and Post-Construction) — Standard Hourly Rates 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 and Post-Construction Phase services, if any, as follows:

1. An amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus Reimbursable Expenses and Engineer's Consultant's charges, if any.

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

3. The total compensation for services under paragraph C2.01 is estimated to be \$ _____ based on the following assumed distribution of compensation:

- a. Study and Report Phase _____ \$ _____
- b. Preliminary Design Phase _____ \$ _____
- c. Final Design Phase _____ \$ _____
- d. Bidding or Negotiating Phase _____ \$ _____
- e. Construction Phase _____ \$ _____

4. Engineer may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by Owner.

5. The total estimated compensation for Engineer's services included in the breakdown by phases as noted in paragraph C2.01.A.3 incorporates all labor, overhead, profit, Reimbursable Expenses and Engineer's Consultant's charges.

6. The amounts billed for Engineer's services under paragraph C2.01 will be based on the cumulative hours charged to the Project during the billing period by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and Engineer's Consultant's charges.

7. The Standard Hourly Rates and Reimbursable Expenses Schedule will be adjusted annually (as of _____) to reflect equitable changes in 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; obtaining bids or proposals from Contractor(s); 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; and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other 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 ____.~~

~~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 ____.~~

~~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 only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.~~

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

~~D. 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.~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Payments to Engineer for Services and Reimbursable Expenses

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

ARTICLE 2 — Owner's Responsibilities

C2.01 — Compensation For Basic Services (other than Resident Project Representative and Post Construction) — Percentage of Construction Cost 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 and Post Construction Phase services, if any, as follows:

1. ~~General.~~ An amount equal to _____ percent of the Construction Cost. This amount includes compensation for Engineer's Services and services of Engineer's Consultants, if any. The percentage of Construction Cost noted herein accounts for labor, overhead, profit, and Reimbursable Expenses.

2. ~~As a basis for payment to Engineer, Construction Cost will be based on one or more of the following determinations with precedence in the order listed for Work designed or specified by Engineer:~~

a. ~~For Work designed or specified and incorporated in the completed Project, the actual final cost of the work performed by Contractor and paid by Owner.~~

b. ~~For Work designed or specified but not constructed, the lowest bona fide Bid received from a qualified bidder for such Work; or, if the Work is not bid, the lowest bona fide negotiated proposal for such Work.~~

c. ~~For Work designed or specified but not constructed upon which no such Bid or proposal is received, Engineer's most recent opinion of probable Construction Cost.~~

d. ~~Labor furnished by Owner for the Project will be included in the Construction Cost at current market rates including a reasonable allowance for overhead and profit. Materials and equipment furnished by Owner will be included at current market prices.~~

e. ~~No deduction is to be made from Engineer's compensation on account of any penalty, liquidated damages, or other amounts withheld from payments to Contractor(s).~~

3. ~~Progress payments:~~

a. ~~The portion of the amounts billed for Engineer's services which is on account of the Percentage of Construction Cost will be based upon Engineer's estimate of the proportion of the total services actually completed during the billing period to the Percentage of Construction Cost.~~

b. ~~Upon conclusion of each phase of Basic Services, Owner shall pay such additional amount, if any, as may be necessary to bring total compensation paid during such phase on account of the percentage of Construction Cost to the following estimated percentages of total compensation payable on account of the percentage of Construction Cost for all phases of Basic Services:~~

Study and Report Phase	_____ %
Preliminary Design Phase	_____ %
Final Design Phase	_____ %
Bidding or Negotiating Phase	_____ %
Construction Phase	_____ %
	100%

~~e. Engineer may alter the distribution of compensation between individual phases of the work noted herein but shall not exceed the total percent fee unless approved in writing by the Owner.~~

~~C2.02 [Not used]~~

~~C2.03 [Not used]~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Payments to Engineer for Services and Reimbursable Expenses

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

ARTICLE 2 -- Owner's Responsibilities

C2.01 Compensation For Basic Services (other than Resident Project Representative and Post-Construction) – 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 and Post-Construction Phase services, 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 employees 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 estimated to be \$_____, and Engineer's Consultant's charges, if any, estimated to be \$_____, 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 \$529,000 being intended by the parties as the maximum amount of money be due to the Engineer under this Agreement.

2. The fee schedule is attached to this Exhibit C as Appendix 1

3. Engineer's Reimbursable Expenses Schedule is attached to this Exhibit C as Appendix 42.

3. The total compensation for services under paragraph C2.01 is estimated to be \$_____ based on the following assumed distribution of compensation:

a. Study and Report Phase	\$_____
b. Preliminary Design Phase	\$_____
c. Final Design Phase	\$_____
d. Bidding or Negotiating Phase	\$_____
e. Construction Phase	\$_____

4. Engineer may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total compensation amount unless approved in writing by Owner.

5. The total estimated compensation for Engineer's services included in the breakdown by phases as noted in paragraph C2.01.A.3, incorporates all labor, overhead, profit, Reimbursable Expenses, and Engineer's Consultant's charges.

6. 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.

7. Direct Labor Costs means salaries and wages paid to employees but does not include payroll related costs or benefits.

8. The Direct Labor Costs and the factor applied to Direct Labor Costs will be adjusted annually (as of _____) 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 4-2 to this Exhibit C.

B. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); 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, and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other 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, plus 10% the latter multiplied by a factor of _____.

~~D. The Reimbursable Expenses Schedule will be adjusted annually (as of _____) 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, plus 10% times a factor of _____.

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 only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.

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

D. 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.

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Payments to Engineer for Services and Reimbursable Expenses

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

ARTICLE 2 — Owner's Responsibilities

~~C2.01 Compensation For Basic Services (other than Resident Project Representative and Post-Construction) — Direct Labor Costs Plus Overhead Plus a Fixed Fee 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 and Post-Construction Phase services, if any, as follows:~~

~~1. An amount equal to Engineer's Direct Labor Costs plus overhead for the services of Engineer's employees engaged directly on the Project, plus Reimbursable Expenses estimated to be \$_____, plus Engineer's Consultant's charges, if any, estimated to be \$_____, plus a fixed fee of \$_____.~~

~~2. Engineer's Reimbursable Expenses Schedule is attached to this Exhibit C as Appendix 1.~~

~~3. The total compensation for services under paragraph C2.01 is estimated to be \$_____ based on the following assumed distribution of compensation:~~

- ~~a. Study and Report Phase _____ \$_____~~
- ~~b. Preliminary Design Phase _____ \$_____~~
- ~~c. Final Design Phase _____ \$_____~~
- ~~d. Bidding or Negotiating Phase _____ \$_____~~
- ~~e. Construction Phase _____ \$_____~~

~~4. Engineer may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total compensation amount unless approved in writing by Owner.~~

~~5. The total estimated compensation for Engineer's services, included in the breakdown by phases as noted in paragraph C2.01 A.3, incorporates all labor, overhead, profit, Reimbursable Expenses, and Engineer's Consultant's charges.~~

~~6. The portion of the amounts billed for Engineer's services will be based on the applicable Direct Labor Costs for the cumulative hours charged to the Project during the billing period by Engineer's employees plus overhead, Reimbursable Expenses, Engineer's Consultant's charges, and the proportionate portion of the fixed fee.~~

~~7. Direct Labor Costs means salaries and wages paid to employees but does not include payroll-related costs or benefits.~~

~~8. Overhead includes the cost of customary and statutory benefits including, but not limited to, social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation, and holiday pay applicable thereto; the cost of general and administrative overhead which includes salaries and wages of employees engaged in business operations not directly chargeable to projects, plus non-Project operating costs, including but not limited to, business taxes, legal, rent, utilities, office supplies, insurance, and other~~

Page _____ of _____ Pages
Exhibit C- Basic Services (other than RPR and Post-Construction) — Direct Labor Costs Plus Overhead Plus a Fixed Fee Factor
Method of Payment

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operating costs. Overhead shall be computed as a percentage of Direct Labor Costs. Fixed fee is the lump sum amount paid to Engineer by Owner as margin or profit and will only be adjusted by an amendment to this agreement.

9. ~~Direct Labor Costs and Overhead applied to Direct Labor Costs will be adjusted annually (as of _____) to reflect equitable changes in 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; obtaining bids or proposals from Contractor(s); 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, and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other 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 _____.~~

D. ~~The Reimbursable Expenses Schedule will be adjusted annually (as of _____) 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 _____.~~

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 only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.~~

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

D. ~~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.~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

~~Payments to Engineer for Services and Reimbursable Expenses~~

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

~~ARTICLE 2 — Owner's Responsibilities~~

~~C2.01 Compensation For Basic Services (other than Resident Project Representative and Post Construction) — Salary 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, and Post Construction Phase services, if any, as follows:~~

~~1. An amount equal to Engineer's Salary Costs times a factor of _____ for all Basic Services by principals and employees engaged directly on the Project, plus Reimbursable Expenses, estimated to be \$_____, and Engineer's Consultant's charges, if any, estimated to be \$_____.~~

~~2. Engineer's Reimbursable Expenses Schedule is attached to this Exhibit C as Appendix 1.~~

~~3. The total compensation for services under paragraph C2.01 is estimated to be \$_____ based on the following assumed distribution of compensation:~~

- ~~a. Study and Report Phase _____ \$_____~~
- ~~b. Preliminary Design Phase _____ \$_____~~
- ~~c. Final Design Phase _____ \$_____~~
- ~~d. Bidding or Negotiating Phase _____ \$_____~~
- ~~e. Construction Phase _____ \$_____~~

~~4. Engineer may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total compensation amount unless approved in writing by Owner.~~

~~5. The total compensation for Engineer's services, included in the breakdown by phases as noted in paragraph C2.01.A.3, incorporates all labor, overhead, profit, Reimbursable Expenses, and Engineer's Consultant's charges.~~

~~6. The portion of the amounts billed for Engineer's services will be based on the applicable Salary Costs for the cumulative hours charged to the Project incurred during the billing period by Engineer's principals and employees multiplied by the above designated factor, plus Reimbursable Expenses and Engineer's Consultant's charges.~~

~~7. Salary Costs means salaries and wages paid to Engineer's employees plus the cost of customary and statutory benefits including, but not limited to, social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation, and holiday pay applicable thereto.~~

~~8. The Salary Costs and the factor applied to Salary Costs will be adjusted annually (as of _____) to reflect equitable changes in 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 I to this Exhibit C.~~

~~B. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); 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; and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other 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 _____.~~

~~D. The Reimbursable Expenses Schedule will be adjusted annually (as of _____) 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 _____.~~

~~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 only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.~~

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

~~D. 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.~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

~~C2.04 Compensation For Resident Project Representative and Post-Construction Basic Services—Lump Sum Method of Payment~~

~~A. Owner shall pay Engineer for Resident Project Representative and Post-Construction Basic Services as follows:~~

~~1. Resident Project Representative Services. For services of Engineer's Resident Project Representative, if any, under paragraph A1.05 of Exhibit A, the Lump Sum amount of \$ _____. The Lump Sum includes compensation for the Resident Project Representative's services, and for the services of any direct assistants to the Resident Project Representative. Appropriate amounts have been incorporated in the Lump Sum to account for labor, overhead, profit, and Reimbursable Expenses related to the Resident Project Representative's Services.~~

~~2. Post-Construction Phase Services. For Post-Construction Phase Services under paragraph A1.06 of Exhibit A, a Lump Sum amount of \$ _____. The Lump Sum includes compensation for Engineer's post-construction services and such services of Engineer's Consultants, if any. Appropriate amounts have been incorporated in the Lump Sum to account for labor, overhead, profit, and Reimbursable Expenses related to Post-Construction Phase Services.~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

~~C2.04 Compensation For Resident Project Representative and Post-Construction Basic Services—Standard Hourly Rates Method of Payment~~

~~A. Owner shall pay Engineer for Resident Project Representative and Post-Construction Basic Services as follows:~~

~~1. Resident Project Representative Services. For services of Engineer's Resident Project Representative, if any, under paragraph A1.05A of Exhibit A, an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all Resident Project Representative services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any. The total compensation under this paragraph is estimated to be \$_____ based upon Contract Times as set forth herein.~~

~~2. Post-Construction Phase Services. For Post-Construction Phase services under paragraph A1.06 of Exhibit A, an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any. The total compensation under this paragraph is estimated to be \$_____.~~

~~B. Compensation For Reimbursable Expenses~~

~~1. For those Reimbursable Expenses that are not accounted for in the compensation for Basic Services under paragraph C2.04, and are directly related to the provision of Resident Project Representative or Post-Construction Basic 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; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; subsistence and transportation of Resident Project Representative and assistants; 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, and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other highly specialized equipment.~~

~~3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be those internal expenses related to the Resident Project Representative or Post-Construction Basic Services that are actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to such services, the latter multiplied by a factor of _____.~~

~~4. The Reimbursable Expenses Schedule will be adjusted annually (as of _____) to reflect equitable changes in the compensation payable to Engineer.~~

~~C. Other Provisions Concerning Payment Under this Paragraph C2.04~~

~~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 _____.~~

~~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. ~~Estimated Compensation Amounts~~

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

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

4. ~~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.~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

~~C2.04 Compensation For Resident Project Representative and Post-Construction Basic Services — Percentage of Construction Cost Method of Payment~~

~~A. Owner shall pay Engineer for:~~

~~1. Resident Project Representative Services. For services of Engineer's Resident Project Representative, if any, under paragraph A1.05 of Exhibit A of the Agreement, an amount equal to _____ percent of the Construction Cost. This amount includes compensation for Resident Project Representative's services, and those of any assistants to the Resident Project Representative. The percentage of Construction Cost noted herein accounts for labor, overhead, profit, and Reimbursable Expenses.~~

~~2. Post-Construction Phase Services. For Post-Construction Phase services under paragraph A1.06 of Exhibit A, an amount equal to _____ percent of the Construction Cost. This amount includes compensation for Engineer's Services and services of Engineer's Consultants, if any. The percentage of Construction Cost noted herein accounts for labor, overhead, profit, and Reimbursable Expenses.~~

~~3. As a basis for payment to Engineer, Construction Cost will be based on one or more of the following determinations with precedence in the order listed for Work designed or specified by Engineer.~~

~~a. For Work designed or specified and incorporated in the completed Project, the actual final cost of the work performed by Contractor and paid by Owner.~~

~~b. For Work designed or specified but not constructed, the lowest bona fide Bid received from a qualified bidder for such Work; or, if the Work is not Bid, the lowest bona fide negotiated proposal for such Work.~~

~~c. For Work designed or specified but not constructed upon which no such Bid or proposal is received, Engineer's most recent opinion of probable Construction Cost.~~

~~d. Labor furnished by Owner for the Project will be included in the Construction Cost at current market rates including a reasonable allowance for overhead and profit. Materials and equipment furnished by Owner will be included at current market prices.~~

~~e. No deduction is to be made from Engineer's compensation on account of any penalty, liquidated damages, or other amounts withheld from payments to Contractor(s).~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

~~C2.04 Compensation For Resident Project Representative and Post-Construction Basic Services — Direct Labor Costs Times a Factor Method of Payment~~

~~A. Owner shall pay Engineer for:~~

~~1. Resident Project Representative Services. For services of Engineer's Resident Project Representative, if any, under paragraph A1.05.A.2.a of Exhibit A of the Agreement, an amount equal to Engineer's Direct Labor Costs times a factor of _____ for the services of Engineer's employees engaged directly in resident Project representation, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any. The total compensation under this paragraph is estimated to be \$_____, based upon Contract Times as set forth herein.~~

~~2. Post-Construction Phase Services. For Post-Construction Phase services under paragraph A1.06 of Exhibit A, an amount equal to the Engineer's Direct Labor Costs times a factor of _____ for the services of Engineer's employees engaged directly on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any in the Post-Construction Phase. The total compensation under this paragraph is estimated to be \$_____.~~

~~B. 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 Resident Project Representative or Post-Construction Basic Services, Owner shall pay Engineer at the rates set forth in Appendix I to this Exhibit C.~~

~~2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; subsistence and transportation of Resident Project Representative and assistants; 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; and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other highly specialized equipment.~~

~~3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be those internal expenses related to the Resident Project Representative or Post-Construction Basic Services that are actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to such services, the latter multiplied by a factor of _____.~~

~~4. The Reimbursable Expenses Schedule will be adjusted annually (as of _____) to reflect equitable changes in the compensation payable to Engineer.~~

~~C. Other Provisions Concerning Payment Under this Paragraph C2.04~~

~~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 _____.~~

~~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. Estimated Compensation Amounts~~

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

Page ____ of ____ Pages

Exhibit C – Compensation for Resident Project Representative and Post-Construction Basic Services –
Direct Labor Costs Times a Factor Method of Payment

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

4. ~~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.~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

~~C2.04 Compensation For Resident Project Representative and Post-Construction Basic Services—Salary Costs Times a Factor Method of Payment~~

~~A. Owner shall pay Engineer for:~~

~~1. Resident Project Representative Services. For services of Engineer's Resident Project Representative, if any, under paragraph A1.05 of Exhibit A, an amount equal to the Engineer's Salary Costs times a factor of _____ for services of Engineer's employees engaged directly in resident Project representation, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any. The total compensation under this paragraph is estimated to be \$_____, based upon Contract Times as set forth herein.~~

~~2. Post-Construction Phase Services. For Post-Construction Phase services under paragraph A1.06 of Exhibit A, an amount equal to the Engineer's Salary Costs times a factor of _____ for services of Engineer's employees engaged directly on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any in the Post-Construction Phase. The total compensation under this paragraph is estimated to be \$_____.~~

~~B. 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 Resident Project Representative or Post-Construction Basic Services, Owner shall pay Engineer at the rates set forth in Appendix I to this Exhibit C.~~

~~2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; subsistence and transportation of Resident Project Representative and assistants; 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, and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other highly specialized equipment.~~

~~3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be those internal expenses related to the Resident Project Representative or Post-Construction Basic Services that are actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to such services, the latter multiplied by a factor of _____.~~

~~4. The Reimbursable Expenses Schedule will be adjusted annually (as of _____) to reflect equitable changes in the compensation payable to Engineer.~~

~~C. Other Provisions Concerning Payment Under this Paragraph C2.04~~

~~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 _____.~~

~~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. Estimated Compensation Amounts~~

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

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

~~4. 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.~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

C2.05 Compensation For Additional Services—Standard Hourly Rates Method of Payment

A. Owner shall pay Engineer for Additional Services, if any, as follows:

1. ~~General.~~ For services of Engineer's employees engaged directly on the Project pursuant to paragraph A2.01 or A2.02 of Exhibit A, except for services as a consultant or witness under paragraph A2.01.A.20, an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all Additional Services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.

B. 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; obtaining bids or proposals from Contractor(s); 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, and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other 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 _____.

4. The Reimbursable Expenses Schedule will be adjusted annually (as of _____) to reflect equitable changes in the compensation payable to Engineer.

C. 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 _____.

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.

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

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

1. *General.* For services of Engineer's employees 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, 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.

B. 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~~2 to this Exhibit C.

2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); 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, and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other 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, plus 10% the latter multiplied by a factor of _____.

~~4. The Reimbursable Expenses Schedule will be adjusted annually (as of _____) to reflect equitable changes in the compensation payable to Engineer.~~

C. 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, plus 10% times a factor of _____.

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.

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

~~C2.05—Compensation For Additional Services—Salary Costs Times a Factor Method of Payment~~

~~A. Owner shall pay Engineer for Additional Services as follows:~~

~~1.—General. For services of Engineer's employees engaged directly on the Project pursuant to paragraph A2.01 or A2.02 of Exhibit A, except for services as a consultant or witness under paragraph A2.01.A.20, an amount equal to the cumulative hours charged to the Project by each Engineer's employees times the Engineer's applicable Salary Costs times a factor of _____, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.~~

~~B.—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 I to this Exhibit C.~~

~~2.—Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); 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, and, if authorized in advance by Owner, overtime work requiring higher than regular rates. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for computer time and the use of other 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 Additional Services, the latter multiplied by a factor of _____.~~

~~4.—The Reimbursable Expenses Schedule will be adjusted annually (as of _____) to reflect equitable changes in the compensation payable to Engineer.~~

~~C.—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 _____.~~

~~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.~~

EXHIBIT "C" - APPENDIX 1
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT
FEASIBILITY AND PRELIMINARY DESIGN OF WP RB-6
FEE ESTIMATE

HDR Engineering, Inc. Estimated Hours/Costs														Sub-Consultant Estimated Costs				Est. Total Cost			
TASKS														Expenses				HDR		Total Sub-Consultant	
TASIS														Task, Fee, Printing, Travel, Misc.				Totals		Thurs, Overhead, Resources, R. Conversion	
Task Series	Task	Project Manager	Specialist	Senior Staff	Mid-Level	Junior	Tech Support	Clinical	Total Hours	Total Labor Cost	Task Fee	Printing	Travel	Misc.	Thurs	Overhead	Resources	R. Conversion	Total Sub-Consultant		
TASK SERIES 300 - WACRE REC TDC 404 PERMIT																					
Task 310 Data Collection and Evaluation																					
Subtask 310.1	Pre-Application Meeting	4	8		12	18	0	4	38	\$4,832	\$121					\$264	\$3,188		\$3,144		
Subtask 310.2	WACRE 404 Application	2	12		18	18	0	4	54	\$7,072	\$200					\$329	\$7,193		\$7,193		
Subtask 310.3	Agency Coordination	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.4	Agency Correspondence	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.5	Section 404 Individual Permit	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.6	Section 404(1) Easement Document	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.7	Prepaid Head and Pledge	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.8	Stream Channel	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.9	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.10	Final Design	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.11	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.12	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.13	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.14	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.15	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.16	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.17	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.18	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.19	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.20	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.21	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.22	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.23	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.24	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.25	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.26	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.27	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.28	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.29	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.30	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.31	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.32	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.33	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.34	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.35	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.36	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.37	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.38	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.39	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.40	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.41	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.42	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.43	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.44	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.45	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.46	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.47	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.48	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.49	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.50	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.51	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.52	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.53	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.54	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.55	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.56	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.57	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.58	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.59	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.60	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.61	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.62	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.63	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.64	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.65	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.66	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.67	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.68	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.69	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.70	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.71	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.72	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.73	WACRE 404 Application	4	16		18	18	0	4	60	\$7,710	\$222					\$340	\$8,052		\$8,052		
Subtask 310.74	WACRE 404 Application	4	16		18	18															

EXHIBIT "C" - APPENDIX 1
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT
FEASIBILITY AND PRELIMINARY DESIGN OF WP RB-6
FEE ESTIMATE

HDR Engineering, Inc. Estimated Hours/Costs															Sub-Consultant Estimated Costs				Est. Total Cost		
TASKS		Project Manager	Specialist	Senior Staff	Mid-Level	Junior	Tech Support	Civilian	Total Hours	Total Labor Cost	Tech. Fee	Printing	Travel	Misc.	Total Expenses [1]	HDR Totals	LRA	Thruout Geotech	Reveal Cultural Resources	R. Dunsmuir	Total Sub-Consultant [2]
TASK SERIES 600 - CONCEPTUAL DESIGN ELEMENTS																					
601 Collection and Evaluation																					
TASK 610.1	Geographic Base Map					8			18	\$1,348	\$50				\$183	\$2,038					\$0
Subtask 610.1	Geographic Base Map					8			18	\$1,348	\$50				\$183	\$2,038					\$0
TASK 610.2	Utility Corridors and Design								12	\$1,400	\$44				\$44	\$1,484					\$0
Subtask 610.2	Utility Corridors																				\$0
Subtask 610.3	Utility Infrastructure Coverages	4				4			8	\$924	\$30				\$30	\$954					\$0
Subtask 610.4	Sandary Sewer General/Design				12	12			24	\$2,448	\$104				\$104	\$2,552					\$0
Subtask 610.5	In-Lake Fishery/Recreation Area Conceptual Design				12	12	24		48	\$3,792	\$160				\$160	\$3,952					\$0
TASK 620.1	In-Lake Fishery/Recreation Coordination								14	\$2,056	\$50				\$50	\$2,106					\$0
TASK 620.2	In-Lake Fishery/Recreation Conceptual Design	4			24	16			44	\$3,040	\$140				\$140	\$3,180					\$0
TASK 620.3	Feasibility Study/Recreation				24	16	120		160	\$11,856	\$533				\$533	\$12,389					\$0
TASK 630	Feasibility Study/Recreation	4				16	8		28	\$4,048	\$133				\$133	\$4,181					\$0
Subtask 630.1	Feasibility Study/Recreation																				\$0
Subtask 630.2	Feasibility Study/Recreation	4			12	24			40	\$7,124	\$222				\$222	\$7,346					\$0
Subtask 630.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 640	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 640.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 640.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 640.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 650	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 650.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 650.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 650.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 660	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 660.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 660.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 660.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 670	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 670.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 670.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 670.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 680	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 680.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 680.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 680.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 690	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 690.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 690.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 690.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 700	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 700.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 700.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 700.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 710	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 710.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 710.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 710.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 720	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 720.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 720.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 720.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 730	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 730.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 730.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 730.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 740	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 740.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 740.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 740.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 750	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 750.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 750.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 750.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 760	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 760.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 760.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 760.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 770	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 770.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 770.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 770.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 780	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 780.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 780.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 780.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 790	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 790.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 790.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 790.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 800	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 800.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 800.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 800.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 810	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 810.1	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 810.2	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
Subtask 810.3	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104				\$104	\$3,408					\$0
TASK 820	Feasibility Study/Recreation	20			12	4			26	\$3,304	\$104	</									

This is **Appendix 24** to **EXHIBIT C**, consisting of _____ pages,
referred to in and part of the Agreement between Owner and
Engineer for Professional Services dated _____.

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/black and white	\$0.06/page
8"x11" Copies/Color	\$0.34/page
11"x17" Copies/ Black and White	\$0.12/page
11"x17" Copies/Color	\$0.75/page
Plan sheets, Black and White	\$0.135/sq ft.
Plan sheets, Color	\$0.70/sq ft.
Presentation Boards (plot and mount)	\$150.00 each
Mileage	\$0.55/mile
Technology Fee	\$3.70/direct labor hour
Film and film processing	cost
Report Binders with Custom Index Tabs	\$15.00/each
Fax	\$_____/page
8"x11" Copies/Impressions	_____/page
Blue-Print Copies	_____/sq. ft.
Reproducible Copies (Mylar)	_____/sq. ft.
Reproducible Copies (Paper)	_____/sq. ft.
Mileage (auto)	_____/mile
Field Truck Daily Charge	_____/day
Mileage (Field Truck)	_____/mile
Field Survey Equipment	_____/day
Confined Space Equipment	_____/day plus expenses
Resident Project Representative Equipment	_____/month
Computer CPU Charge	_____/hour
Specialized Software	_____/hour
Personal Computer Charge	_____/hour
CAD Charge	_____/hour
CAE Terminal Charge	_____/hour
VCR and Monitor Charge	_____/day, \$_____/week, or \$_____/month
Video Camcorder	_____/day, plus \$_____/tape
Electrical Meters Charge	_____/week, or \$_____/month
Flow Meter Charge	_____/week, or \$_____/month
Rain Gauge	_____/week, or \$_____/month
Sampler Charge	_____/week, or \$_____/month
Dissolved Oxygen Tester Charge	_____/week
Fluorometer	_____/week
Laboratory Pilot Testing Charge	_____/week, or \$_____/month
Soil Gas Kit	_____/day
Submersible Pump	_____/day
Water Level Meter	_____/day, or \$_____/month
Soil Sampling	_____/sample
Groundwater Sampling	_____/sample
Health and Safety Level D	_____/day
Health and Safety Level C	_____/day
Electronic Media Charge	_____/hour
Long Distance Phone Calls	at cost
Mobile Phone	_____/day

Page ____ of ____ Pages

Exhibit C – Appendix 1 – Reimbursable Expenses Schedule

EJCDC E-500 Standard Form of Agreement Between Owner and Engineer for Professional Services.

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| ~~Meals and Lodging~~ at cost

Page ____ of ____ Pages

Exhibit C – Appendix 1 -- Reimbursable Expenses Schedule

EJCDC E-500 Standard Form of Agreement Between Owner and Engineer for Professional Services.
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This is ~~Appendix 2 to EXHIBIT C~~, consisting of _____ pages,
referred to in and part of the ~~Agreement between Owner and~~
~~Engineer for Professional Services~~ dated _____.

Standard Hourly Rates Schedule

A. Standard Hourly Rates

~~1. Standard Hourly Rates are set forth in this Appendix 2 to this Exhibit C and include salaries and wages paid to personnel in each billing class plus the cost of customary and statutory benefits, general and administrative overhead, non-project operating costs, and operating margin or profit.~~

~~2. The Standard Hourly Rates will be adjusted annually (as of _____) to reflect equitable changes in the compensation payable to Engineer.~~

~~3. The Standard Hourly Rates apply only as specified in Article C2.~~

B. Schedule

~~Hourly rates for services performed on or after the date of the Agreement are:~~

Billing Class 9 Senior Associate	_____	\$ _____/hour
Billing Class 8 Staff Manager	_____	_____/hour
Billing Class 7 Professional VI	_____	_____/hour
Billing Class 6 Professional V	_____	_____/hour
Billing Class 5 Professional IV	_____	_____/hour
Billing Class 4 Professional III	_____	_____/hour
Billing Class 3 Professional II	_____	_____/hour
Billing Class 2 Technician II	_____	_____/hour
Billing Class 1 Technician I	_____	_____/hour
Principal	_____	_____/hour
Support Staff	_____	_____/hour

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Note to User: Delete this Exhibit D if Engineer will not be providing Resident Project Representative Services under paragraph A1.05

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

Paragraph 1.01.A of the Agreement is amended and supplemented to include the following agreement of the parties:

D1.01—Resident Project Representative

A. Engineer shall furnish a Resident Project Representative ("RPR"), assistants, and other field staff to assist Engineer in observing progress and quality of the Work. The RPR, assistants, and other field staff under this Exhibit D may provide full-time representation or may provide representation to a lesser degree.

B. Through such additional observations of Contractor's work in progress and field checks of materials and equipment by the RPR and assistants, Engineer shall endeavor to provide further protection for Owner against defects and deficiencies in the Work. However, 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 the Contractor's Work nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to the Contractor's work in progress, for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's performing and furnishing the Work, or responsibility of construction for Contractor's failure to furnish and perform the Work in accordance with the Contract Documents. In addition, the specific terms set forth in section A.1.05 of Exhibit A of the Agreement are applicable.

C. The duties and responsibilities of the RPR are as follows:

1. *General:* RPR is Engineer's agent 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, keeping Owner advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner 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 superintendent, 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 Startups:~~

- ~~a. Consult with Engineer in advance of scheduled major inspections, tests, and systems startups of important phases of the Work.~~
- ~~b. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.~~
- ~~c. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.~~
- ~~d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to Engineer.~~

~~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 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 Specifications 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 a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.~~

~~b. Participate in a final inspection 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.~~

~~D. 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 the Agreement or the Contract Documents.~~
- ~~3. Undertake any of the responsibilities of Contractor, subcontractors, suppliers, or Contractor's superintendent.~~
- ~~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 unless such advice or directions are specifically required by the Contract Documents.~~
- ~~5. Advise on, issue directions regarding, or assume control over 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.~~

RESERVED

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

NOTICE OF ACCEPTABILITY OF WORK

PROJECT: _____

OWNER: _____

OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION: _____

EFFECTIVE DATE OF THE CONSTRUCTION AGREEMENT: _____

CONSTRUCTION CONTRACT DATE: _____

ENGINEER: _____

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 on the reverse side of this Notice.

By: _____

Title: _____

Dated: _____

—(Reverse side of Notice)

CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK

—The Notice of Acceptability of Work ("Notice") on the front side of this sheet is expressly made subject to the following terms and conditions to which all persons 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 date hereof.
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 on the front side of 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 on the front side of 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.

RESERVED

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

~~Construction Cost Limit - RESERVED~~

Paragraph 5.02 of the Agreement is amended and supplemented to include the following agreement of the parties:

~~5.02 - Relating to Construction Cost Limit~~

~~A. Owner and Engineer hereby agree to a Construction Cost limit in the amount of Dollars (\$_____).~~

~~B. Rebidding or negotiating contingency of _____ percent will be added to any Construction Cost limit established.~~

~~C. The acceptance by Owner at any time during Basic Services of a revised opinion of probable Construction Cost in excess of the then established Construction Cost limit will constitute a corresponding increase in the Construction Cost limit.~~

~~D. Engineer will be permitted to determine what types and quality of materials, equipment and component systems are to be included in the Drawings and Specifications. Engineer may make reasonable adjustments in the scope, extent and character of the Project to the extent consistent with the Project requirements and sound engineering practices, to bring the Project within the Construction Cost limit.~~

~~E. If the Bidding or Negotiating Phase has not commenced within three months after completion of the Final Design Phase, or if industry-wide prices are changed because of unusual or anticipated events affecting the general level of prices or times of delivery in the construction industry, the established Construction Cost limit will not be binding on Engineer. In such cases, Owner shall consent to an adjustment in the Construction Cost limit commensurate with any applicable change in the general level of prices in the construction industry between the date of completion of the Final Design Phase and the date on which proposals or bids are sought.~~

~~F. If the lowest bona fide proposal or Bid exceeds the established Construction Cost limit, Owner shall (1) give written approval to increase such Construction Cost limit, or (2) authorize negotiating or rebidding the Project within a reasonable time, or (3) cooperate in revising the Project's scope, extent, or character to the extent consistent with the Project's requirements and with sound engineering practices. In the case of (3), Engineer shall modify the Contract Documents as necessary to bring the Construction Cost within the Construction Cost Limit. Owner shall pay Engineer's cost to provide such modification services, including the costs of the services of Engineer's Consultants, all overhead expenses reasonably related thereto, and Reimbursable Expenses, but without profit to Engineer on account of such services. The providing of such services will be the limit of Engineer's responsibility in this regard and, having done so, Engineer shall be entitled to payment for services and expenses in accordance with this Agreement and will not otherwise be liable for damages attributable to the lowest bona fide proposal or Bid exceeding the established Construction Cost limit.~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Insurance

Paragraph 6.05 of the Agreement is amended and supplemented to include the following agreement of the parties.

G6.05 Insurance

A. The limits of liability for the insurance required by paragraph 6.05.A and 6.05.B of the Agreement are as follows:

The ENGINEER shall purchase, and maintain until the expiration of two years after completion of the Project policies of insurance with the following minimum requirements:

- a) Workmen's Compensation and Employers Liability
 - i) Workers' Compensation: statutory minimum
 - ii) Longshore and Harbor Workers' Compensation Act endorsement and Admiralty Law endorsements (required if the work involves maritime operations).
 - iii) Employer's Liability: \$250,000.00 per accident.
- b) Professional malpractice
 - i) \$1,000,000.00 each claim
 - ii) \$2,000,000.00 aggregate
- c) Commercial General Liability – ISO Occurrence Form
 - i) \$1,000,000.00 each occurrence
 - ii) \$2,000,000.00 general aggregate
 - iii) \$2,000,000.00 products – completed operations aggregate
 - iv) \$1,000,000.00 personal & advertising injury
 - v) \$300,000.00 fire damage
 - vi) \$5,000.00 medical expense
- d) Business Auto Liability - Owned, Non-Owned & Hired vehicles \$1,000,000.00 combined single limit
- e) General Provisions:
 - i) All policies shall provide 30 days written notice to the OWNER prior to termination or material change by endorsement in the coverage provided.
 - ii) The OWNER reserves the right to approve the ENGINEER'S insurers.
 - iii) Workers Compensation and Commercial General Liability policies shall be endorsed to provide Waiver of Subrogation in favor of the OWNER.
 - iv) The Commercial General Liability policy shall be endorsed to include the OWNER as Additional Insured (form CG 20 10) and shall be endorsed to have any annual aggregate apply on a per-project basis.

1. By Engineer:

a. Workers' Compensation: _____ Statutory

b. Employer's Liability—

1) Each Accident: _____ \$ _____
2) Disease, Policy Limit: _____ \$ _____
3) Disease, Each Employee: _____ \$ _____

e. General Liability—

1) Each Occurrence (Bodily Injury and
Property Damage): _____ \$ _____
2) General Aggregate: _____ \$ _____

d. Excess or Umbrella Liability
1) Each Occurrence: \$
2) General Aggregate: \$

e. Automobile Liability
1) Bodily Injury:
a) Each Accident \$
2) Property Damage:
a) Each Accident \$

/or/

1) Combined Single Limit
(Bodily Injury and Property Damage):
Each Accident \$

f. Professional Liability
1) Each Claim Made \$
2) Annual Aggregate \$

g. Other (specify):
\$

2. By Owner:

a. Workers' Compensation: Statutory

b. Employer's Liability
1) Each Accident \$
2) Disease, Policy Limit \$
3) Disease, Each Employee \$

c. General Liability
1) General Aggregate: \$
2) Each Occurrence (Bodily Injury and
Property Damage): \$

d. Excess Umbrella Liability
1) Each Occurrence: \$
2) General Aggregate: \$

e. Automobile Liability
1) Bodily Injury:
a) Each Accident \$
2) Property Damage:
a) Each Accident \$

/or/

1) Combined Single Limit

(Bodily Injury and Property Damage):
Each Accident _____ \$ _____

f. Other (specify):

_____ \$ _____

~~B. Additional Insureds~~

~~1. The following persons or entities are to be listed on Owner's general liability and property policies of insurance as additional insureds, as provided in paragraph 6.05.B:~~

~~a. _____
Engineer~~

~~b. _____
Engineer's Consultant~~

~~c. _____
Engineer's Consultant~~

~~2. During the term of this Agreement the Engineer shall notify Owner of any other Consultant to be listed as an additional insured on Owner's general liability and property policies of insurance.~~

~~3. The Owner shall be listed on Engineer's general liability policy as provided in paragraph 6.05.A.~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Dispute Resolution

Paragraph 6.09 of the Agreement is amended and supplemented to include the following agreement of the parties:

[NOTE: Select one of the two alternatives provided]

H6.09 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 [insert name of mediator, or mediation service to be determined]. If such mediation is unsuccessful in resolving a Dispute, then (a) the parties may mutually agree to a dispute resolution of their choice, or (b) either party may seek to have the Dispute resolved by a court of competent jurisdiction.

[or]

~~A. Arbitration. All Disputes between Owner and Engineer shall be settled by arbitration in accordance with the [here insert the name of a specified arbitration service or organization] rules effective at the Effective Date of the Agreement, subject to the conditions stated below. This agreement to arbitrate and any other agreement or consent to arbitrate entered into in accordance with this paragraph H6.09.A will be specifically enforceable under prevailing law of any court having jurisdiction.~~

~~1. Notice of the demand for arbitration must be filed in writing with the other party to the Agreement and with the [specified arbitration service or organization]. The demand must be made within a reasonable time after the Dispute has arisen. In no event may the demand for arbitration be made after the date when institution of legal or equitable proceedings based on such Dispute would be barred by the applicable statute of limitations.~~

~~2. All demands for arbitration and all answering statements thereto which include any monetary claims must contain a statement that the total sum or value in controversy as alleged by the party making such demand or answering statement is not more than \$____ (exclusive of interest and costs). The arbitrators will not have jurisdiction, power, or authority to consider, or make findings (except in denial of their own jurisdiction) concerning any Dispute if the amount in controversy in such Dispute is more than \$____ (exclusive of interest and costs), or to render a monetary award in response thereto against any party which totals more than \$____ (exclusive of interest and costs). Disputes that are not subject to arbitration under this paragraph may be resolved in any court of competent jurisdiction.~~

~~3. The award rendered by the arbitrators shall be in writing, and shall include: (i) a precise breakdown of the award; and (ii) a written explanation of the award specifically citing the Agreement provisions deemed applicable and relied on in making the award.~~

~~4. The award rendered by the arbitrators will be consistent with the Agreement of the parties and final, and judgment may be entered upon it in any court having jurisdiction thereof, and will not be subject to appeal or modification.~~

~~5. If a Dispute in question between Owner and Engineer involves the work of a Contractor, subcontractor, or consultants to the Owner or Engineer (each a "Joinable Party"), either Owner or Engineer may join each Joinable Party as a party to the arbitration between Owner and Engineer hereunder, and Engineer or Owner, as appropriate, shall include in each contract with each such Joinable Party a specific provision whereby such Joinable Party consents to~~

being joined in an arbitration between Owner and Engineer involving the work of such Joinable Party. Nothing in this paragraph 16.09.A.5 nor in the provision of such contract consenting to joinder shall create any claim, right, or cause of action in favor of the Joinable Party and against Owner or Engineer that does not otherwise exist.

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Allocation of Risks

Paragraph 6.11 of the Agreement is amended and supplemented to include the following agreement of the parties:

16.11.B Limitation of Engineer's Liability

~~[NOTE: Select one of the three alternatives listed below for 16.11.B.1.]~~

~~1. *Engineer's Liability Limited to Amount of Engineer's Compensation.* To the fullest extent permitted by law, and notwithstanding any other provision of this Agreement, the total liability, in the aggregate, of Engineer and Engineer's officers, directors, partners, employees, agents, and Engineer's Consultants, and any of them, to Owner and anyone claiming by, through, or under Owner for any and all claims, losses, costs, or damages whatsoever arising out of, resulting from or in any way related to the Project or the Agreement from any cause or causes, including but not limited to the negligence, professional errors or omissions, strict liability or breach of contract, or warranty express or implied of Engineer or Engineer's officers, directors, partners, employees, agents, or Engineer's Consultants, or any of them, shall not exceed the total compensation received by Engineer under this Agreement.~~

~~[or]~~

~~1. *Engineer's Liability Limited to Amount of Insurance Proceeds.* Engineer shall procure and maintain insurance as required by and set forth in Exhibit G to this Agreement. Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, the total liability, in the aggregate, of Engineer and Engineer's officers, directors, partners, employees, agents, and Engineer's Consultants, and any of them, to Owner and anyone claiming by, through, or under Owner for any and all claims, losses, costs, or damages whatsoever arising out of, resulting from or in any way related to the Project or the Agreement from any cause or causes, including but not limited to the negligence, professional errors or omissions, strict liability or breach of contract, or warranty express or implied, of Engineer or Engineer's officers, directors, partners, employees, agents, or Engineer's Consultants, or any of them (hereafter "Owner's Claims"), shall not exceed the total insurance proceeds paid on behalf of or to Engineer by Engineer's insurers in settlement or satisfaction of Owner's Claims under the terms and conditions of Engineer's insurance policies applicable thereto (excluding fees, costs and expenses of investigation, claims adjustment, defense, and appeal). If no such insurance coverage is provided with respect to Owner's Claims, then the total liability, in the aggregate, of Engineer and Engineer's officers, directors, partners, employees, agents, and Engineer's Consultants, and any of them to Owner and anyone claiming by, through, or under Owner for any and all such uninsured Owner's claims shall not exceed \$_____.~~

~~[or]~~

~~1. *Engineer's Liability Limited to the Amount of \$_____.* Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, the total liability, in the aggregate, of Engineer and Engineer's officers, directors, partners, employees, agents, and Engineer's Consultants, and any of them, to Owner and anyone claiming by, through, or under Owner for any and all claims, losses, costs, or damages whatsoever arising out of, resulting from or in any way related to the Project or the Agreement from any cause or causes, including but not limited to the negligence, professional errors or omissions, strict liability or breach of contract, or warranty express or implied of Engineer or Engineer's officers, directors, partners, employees, agents, or Engineer's Consultants, or any of them, shall not exceed the total amount of \$_____.~~

~~{NOTE: If appropriate and desired, include 16.11.B.2 below}~~

12. 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 6.11.E the Engineer and Engineer's officers, directors, partners, employees, agents, and Engineer's Consultants, or any of them, 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, or warranties, express or implied, of Engineer or Engineer's officers, directors, partners, employees, agents, or Engineer's Consultants, or any of them, ~~and including but not limited to:~~

~~{NOTE: list here particular types of damages that may be of special concern because of the nature of the project or specific circumstances, e.g., cost of replacement power, loss of use of equipment or of the facility, loss of profits or revenue, loss of financing, regulatory fines, etc. If the parties prefer to leave the language general, then end the sentence after the phrase "or any of them."}~~

~~{NOTE: the above exclusion of consequential and other damages can be converted to a limitation on the amount of such damages, following the format of paragraph 16.11.B.1 above, by providing that "Engineer's total liability for such damages shall not exceed \$_____"}
\$_____~~

~~{NOTE: If appropriate and desired, include 16.11.B.3 below}~~

~~{NOTE: The foregoing provisions may be included as a supplement to paragraph 6.11.E, which contains a mutual waiver of damages applicable to the benefit of both Owner and Engineer.}~~

3. Agreement Not to Claim for Cost of Certain Change Orders. Owner recognizes and expects that certain Change Orders may be required to be issued as the result in whole or part of imprecision, incompleteness, errors, omissions, ambiguities, or inconsistencies in the Drawings, Specifications, and other design documentation furnished by Engineer or in the other professional services performed or furnished by Engineer under this Agreement ("Covered Change Orders"). Accordingly, Owner agrees not to sue and otherwise to make no claim directly or indirectly against Engineer on the basis of professional negligence, breach of contract, or otherwise with respect to the costs of approved Covered Change Orders unless the costs of such approved Covered Change Orders exceed _____% of Construction Cost, and then only for an amount in excess of such percentage. Any responsibility of Engineer for the costs of Covered Change Orders in excess of such percentage will be determined on the basis of applicable contractual obligations and professional liability standards. For purposes of this paragraph, the cost of Covered Change Orders will not include any costs that Owner would have incurred if the Covered Change Order work had been included originally without any imprecision, incompleteness, error, omission, ambiguity, or inconsistency in the Contract Documents and without any other error or omission of Engineer related thereto. Nothing in this provision creates a presumption that, or changes the professional liability standard for determining if, Engineer is liable for the cost of Covered Change Orders in excess of the percentage of Construction Cost stated above or for any other Change Order. Wherever used in this paragraph, the term Engineer includes Engineer's officers, directors, partners, employees, agents, and Engineer's Consultants.

~~{NOTE: The parties may wish to consider the additional limitation contained in the following sentence.}~~

~~{Owner further agrees not to sue and otherwise to make no claim directly or indirectly against Engineer with respect to any Covered Change Order not in excess of such percentage stated above, and Owner agrees to hold Engineer harmless from and against any suit or claim made by the Contractor relating to any such Covered Change Order.}~~

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

Special Provisions

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

SUGGESTED FORMAT
(for use with E-500, 2002 Edition)

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

~~AMENDMENT TO OWNER-ENGINEER AGREEMENT~~

~~1. Background Data:~~

- a. ~~Effective Date of Owner-Engineer Agreement:~~ _____
- b. ~~Owner:~~ _____
- c. ~~Engineer:~~ _____
- d. ~~Project:~~ _____

~~2. Nature of Amendment [Check those that are applicable and delete those that are inapplicable.]~~

- ~~_____ Additional Services to be performed by Engineer~~
~~_____ Modifications to Services of Engineer~~
~~_____ Modifications to Responsibilities of Owner~~
~~_____ Modifications to Payment to Engineer~~
~~_____ Modifications to Time(s) for rendering Services~~
~~_____ Modifications to other terms and conditions of the Agreement~~

~~3. Description of Modifications~~

~~Attachment 1, "Modifications"~~

~~[List other Attachments, if any]~~

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

OWNER:

ENGINEER:

By: _____

Title: _____

Date Signed: _____

By: _____

Title: _____

Date Signed: _____

This is Attachment 1, consisting of _____ pages, to Amendment No. _____, dated _____,
_____.

Modifications

~~Include the following paragraphs that are appropriate and delete those not applicable to this amendment. Refer to paragraph numbers used in the Agreement or a previous amendment for clarity with respect to the modifications to be made. Use paragraph numbers in this document for ease of reference herein and in future correspondence or amendments.~~

- ~~1. _____ Engineer shall perform the following Additional Services:~~
- ~~2. _____ The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows:~~
- ~~3. _____ The responsibilities of Owner are modified as follows:~~
- ~~4. _____ For the Additional Services or the modifications to services set forth above, Owner shall pay Engineer the following additional or modified compensation:~~
- ~~5. _____ The schedule for rendering services is modified as follows:~~
- ~~6. _____ Other portions of the Agreement (including previous amendments, if any) are modified as follows:~~