

**Mopac Trail (Hwy 50 to Chalco Hills)
Ad-Hoc Consultant Selection Subcommittee Meeting
December 12, 2006
6:30 p.m.
Agenda**

Mopac Trail (Hwy 50 to Chalco Hills) Ad Hoc Consultant Selection Subcommittee:

Rich Jansen, Chairperson
John Conley
Rick Kolowski
Dorothy Lanphier
John Schwoppe

Staff Liaison: Gerry Bowen *
Marlin Petermann

1. Meeting Called to Order – Chairperson Jansen
2. Notification of Open Meetings Act Posting and Announcement of Meeting Procedure –
Chairperson John Conley
3. Quorum Call
4. Adoption of Agenda
5. Proof of Publication of Meeting Notice
6. Review and Recommendation on Contract with Lamp Rynearson & Associates for Mopac
Trail (Hwy 50 to Chalco Hills) – Gerry Bowen
7. Adjourn

Agenda Item 6.

Memo to: Mopac Trail (Highway 50 to Chalco Hills)
Ad Hoc Consultant Selection Subcommittee Meeting

Rich Jansen, Chairperson	Rick Kolowski
John Conley	John Schwope
Dorothy Lanphier	Marlin Petermann

Date: December 5, 2006

From: Gerry Bowen

As you may recall, Lamp Rynearson & Associates, Inc. (LRA) proposed an alternative route for the trail during their interview. The new route (see attached map) start at Highway 50 and proceed west along Schramm Road to 168th Street, cross I-80 on the existing bridge, follow 168th Street north to the Chalco Hills property, proceed northeasterly along the eastern boundary of the park, pass beneath Hwy. 370 and connect to the existing park trail. The scope of services was based upon this new route.

The preliminary cost estimate for the new route is approximately \$1,293,165 (see attached).

The draft scope of services, cost estimate, and contract for professional design services with LRA for the Mopac Trail (Highway 50 to Chalco Hills) Project is attached. The proposal calls for schematic, preliminary, and final design of the project, including geotechnical and wetland consultant fees, at an estimated cost of \$145,648.00. This includes analyzing the intended route's positives and negatives, and then selecting the final route of the trail. The final design will be based upon the route decided in the preliminary design phase. Schematic design is scheduled (see attached schedule) to be completed by February 15, 2007, preliminary design completed by May 15, 2007, and final design completed by August 1, 2007.

LRA further estimates the cost of construction administration, including geotechnical testing of materials, at \$132,721.81. It is anticipated that the project will be ready for bidding late in 2007, with construction to be mainly in the spring and summer of 2008. This construction schedule anticipates receiving approval for funding from the NDOR Transportation Enhancement Select Committee.

The maximum amount of all fees associated with the contract is estimated to be \$278,369.81.

- **Management recommends that the Subcommittee recommend to the Board that the General Manager be authorized to execute a professional services contract with Lamp Rynearson and Associates, Inc. for the Mopac Trail (Highway 50 to Chalco Hills) Project, with a maximum fee of \$278,369.81, subject to minor changes deemed necessary by the General Manager, and accepted as to form by District Legal Counsel.**

Mopac Trail (Hwy. 50 to Chalco Hills)

Chalco Hills
Recreation Area

168th Street

Highway 370

Interstate 80

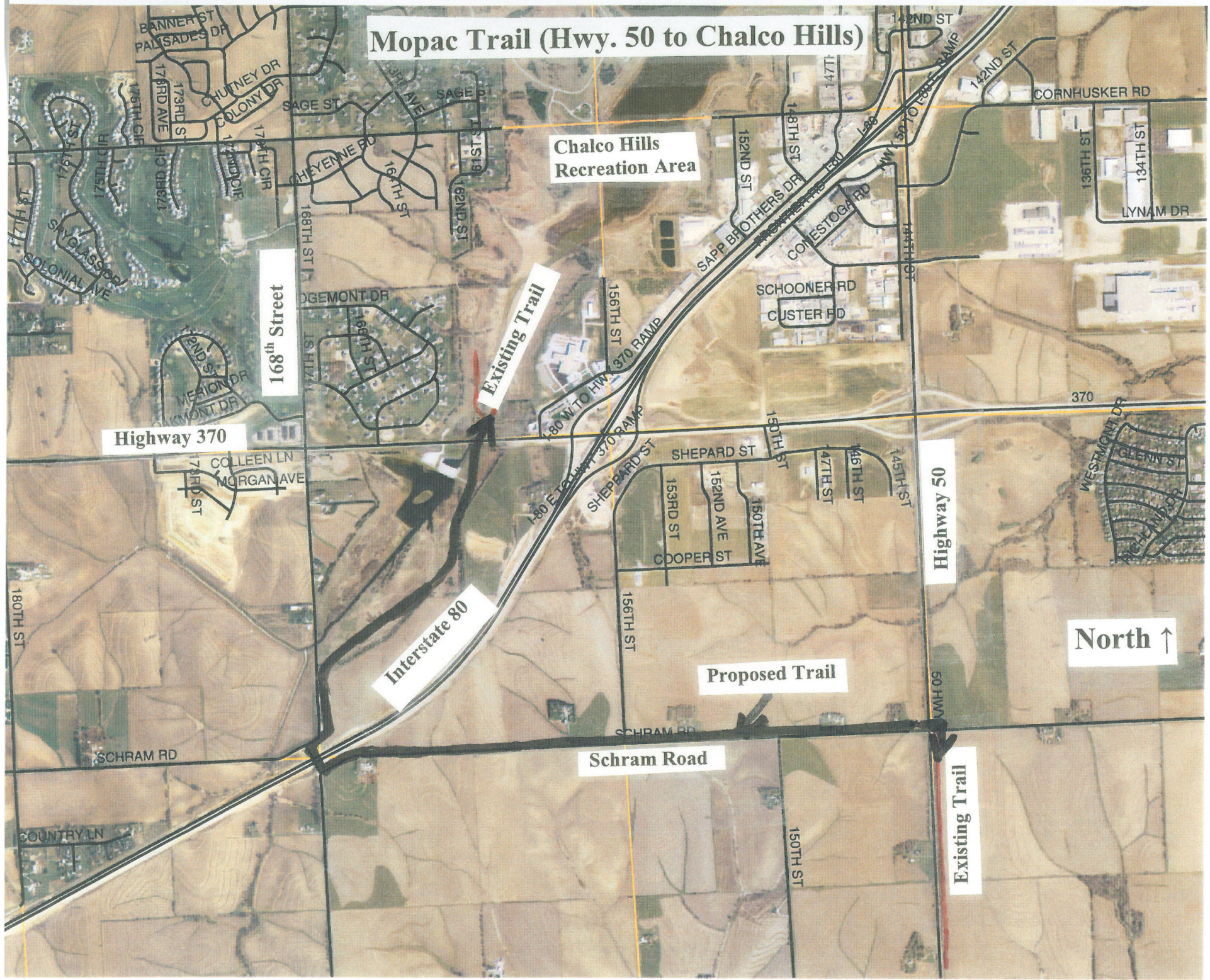
Proposed Trail

Schram Road

Highway 50

North ↑

Existing Trail



Project Name

Project #

Version 2.0

Assumptions/Comments: CONCRETE AND LIMESTONE CHIP TRAIL

Bld Item Description		Approximate Quantity	Unit	Unit Price	Total
		1	LS	\$10,000.00	\$10,000.00
1.	MOBILIZATION	1	LS	\$10,000.00	\$10,000.00
2.	CLEARING AND GRUBBING GENERAL	8,000	LF	\$2.00	\$16,000.00
3.	REMOVE EXISTING BARBED WIRE FENCE	15,000	CY	\$3.00	\$45,000.00
4.	EARTHWORK (EXCAVATION)	15,000	CY	\$3.00	\$45,000.00
5.	EARTHWORK (EMBANKMENT)	10,000	CY	\$3.00	\$30,000.00
6.	DAM EARTHWORK	1	LS	\$5,000.00	\$5,000.00
7.	PRIMARY SPILLWAY	26,000	SY	\$1.50	\$37,500.00
8.	SUBGRADE PREP	1	LS	\$25,000.00	\$25,000.00
9.	LANDSCAPING	78,400	SF	\$3.60	\$277,900.00
10.	CONSTRUCT 6" CONCRETE TRAIL - 10' WIDE	105,600	SF	\$1.50	\$158,400.00
11.	CONSTRUCT LIMESTONE CHIP TRAIL - 10' WIDE	9,360	LF	\$0.25	\$2,337.50
12.	PERMANENT PAINTED PAVEMENT MARKING - 4" YELLOW	15	EA	\$150.00	\$2,250.00
13.	CONSTRUCT MUTCD SIGNS	6,000	LF	\$8.50	\$52,000.00
14.	CONSTRUCT BARBED WIRE FENCE	150	LF	\$55.00	\$8,250.00
15.	EXTEND CULVERT DRAINAGE PIPE - VARIOUS SIZES	3,000	SF	\$30.00	\$90,000.00
16.	CONSTRUCT MODULAR BLOCK RETAINING WALL	5	AC	\$2,500.00	\$12,500.00
17.	SEEDING - TYPE "A"	1	EA	\$150,000.00	\$150,000.00
18.	INSTALL TRAFFIC SIGNAL WITH PEDESTRIAN PUSH BUTTON	1	EA	\$30,000.00	\$30,000.00
19.	RETROFIT EXISTING SIGNAL WITH PEDESTRIAN PUSH BUTTON	100	TON	\$50.00	\$5,000.00
20.	CONSTRUCT ROCK RIP-RAP - TYPE "A"	1,000	LF	\$2.00	\$2,000.00
21.	CONSTRUCT SILT FENCE	21,000	SY	\$2.00	\$42,000.00
22.	CONSTRUCT EROSION CONTROL BLANKET	14,000	SY	\$1.00	\$14,000.00
23.	FABRIC UNDER LIMESTONE TRAIL	1	LS	\$7,500.00	\$7,500.00
24.	BARRICADES				\$1,077,637.50
	Sub-Total				\$2,155,527.50
	Contingencies (20%)				\$431,105.50
	Estimated Construction Costs:				\$2,586,633.00

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

Issued and Published Jointly by



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
a practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN COUNCIL OF ENGINEERING COMPANIES

AMERICAN SOCIETY OF CIVIL ENGINEERS

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.

National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400

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**STANDARD FORM OF AGREEMENT
BETWEEN OWNER AND ENGINEER
FOR
PROFESSIONAL SERVICES**

THIS IS AN AGREEMENT effective as of December , 2006 (‘‘Effective Date’’) between
 6

Papio Missouri River Natural Resources District (‘‘Owner’’) and
Lamp, Rynearson & Associates, Inc. (‘‘Engineer’’).

Owner intends to Design and Construct MOPAC Trail (Hwy 50 to Chalco Hills)

MOPAC Trail (Hwy 50 to Chalco Hills) (‘‘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~~ upon 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~~ 60 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) computed from said the thirtieth day after the date of Engineer's invoice; 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.

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 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), with revisions by the Engineer, unless both parties mutually agree to use other General Conditions by specific reference in Exhibit J. Copies of the Engineer revised document are available for review.

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 paragraphs 5.04, 5.05 and 5.06 of the "Standard General Conditions of the Construction Contract," (No. C-700, 2002 Edition) as prepared by the Engineers Joint Contract Documents Committee and the Supplementary Conditions prepared by the Engineer 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.

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, 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.

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 2 pages.

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

C. Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses," consisting of 2 pages.

D. Exhibit D, "Duties, Responsibilities and Limitations of Authority of Resident Project Representative," consisting of 4 pages.

E. Exhibit E, "Notice of Acceptability of Work," consisting of 2 pages.

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

G. Exhibit G, "Insurance," consisting of 2 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.~~

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

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:

Engineer:

Papio Missouri River Natural Resources District

Lamp, Rynearson & Associates, Inc.

By: _____

By: _____

Title: _____

Title: _____

Date

Date Signed: _____

Signed: _____

Engineer License or Certificate No. CA0130E

State of: Nebraska

Address for giving notices:

Address for giving notices:

Lamp, Rynearson & Associates, Inc.

14710 W Dodge Road, Ste 100

Omaha, NE 68154-2027

Designated Representative (see paragraph 8.03.A):

Designated Representative (see paragraph 8.03.A):

Title: _____

Title: _____

Phone Number: _____

Phone Number: 402-496-2498

Facsimile Number: _____

Facsimile Number: 402-496-2730

E-Mail Address: _____

E-Mail Address: _____

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

This is **EXHIBIT A**, consisting of 9 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated December 6, 2006.

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

A1.01 Study and Report Phase

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, containing 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 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: ~~See Exhibit C.~~
7. Furnish ~~_____~~ review copies of the Report and any other deliverables to Owner within 30 calendar days of authorization to begin services and review it with Owner. Within 20 calendar days of receipt, Owner shall submit to Engineer any comments regarding the Report and any other deliverables. ~~See Attached Exhibit B Schedule.~~
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 20 calendar days of receipt of Owner's comments. ~~See Exhibit C.~~

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. See Exhibit C.~~
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. See Attached Exhibit B Schedule.~~

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.

A1.03 Final Design Phase

A. After acceptance by Owner of 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:

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 10 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 2 final copies of the Bidding Documents, a revised opinion of probable Construction Cost, and any other deliverables to Owner within 10 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 1. 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).

A1.05 Construction Phase

A. Upon successful completion of the Bidding and Negotiating Phase, and upon written authorization from Owner, Engineer shall:

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 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.

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 2 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated December 6, 2006.

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.
7. Title Searches.

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, Contractor raises, or Engineer reasonably requests.
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: _____.~~

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

This is **EXHIBIT C**, consisting of 2 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated December 6, 2006.

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: See Attached Manhour Estimate and Cost Summaries.

- a. ~~Study and Report Phase~~ \$ _____
- b. ~~Preliminary Design Phase~~ \$ _____
- e. ~~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

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 April 1) 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 1.15. ~~Which is included in rates used.~~

D. The Reimbursable Expenses Schedule will be adjusted annually (as of April 1) 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 1.0.

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 a maximum, not to exceed amount. 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 the maximum, not to exceed 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. If owner deems appropriate, Owner shall either agree by amendment 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 D**, consisting of 4 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated December 6, 2006.

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.

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

This is **EXHIBIT E**, consisting of 2 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated December 6, 2006.

NOTICE OF ACCEPTABILITY OF WORK

PROJECT:

OWNER:

OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION:

EFFECTIVE DATE OF THE CONSTRUCTION AGREEMENT:

CONSTRUCTION CONTRACT DATE:

ENGINEER: Lamp, Rynearson & Associates, Inc.

To:

OWNER

And To:

CONTRACTOR

From: Lamp, Rynearson & Associates, Inc.

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.

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

This is **EXHIBIT G**, consisting of 2 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated December 6, 2006.

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:

1. By Engineer:

- | | |
|---|--------------------|
| a. Workers' Compensation: | Statutory |
| b. Employer's Liability -- | |
| 1) Each Accident: | <u>\$100,000</u> |
| 2) Disease, Policy Limit: | <u>\$500,000</u> |
| 3) Disease, Each Employee: | <u>\$100,000</u> |
| c. General Liability -- | |
| 1) Each Occurrence (Bodily Injury and Property Damage): | <u>\$1,000,000</u> |
| 2) General Aggregate: | <u>\$2,000,000</u> |
| d. Excess or Umbrella Liability -- | |
| 1) Each Occurrence: | <u>\$1,000,000</u> |
| 2) General Aggregate: | <u>\$1,000,000</u> |
| e. Automobile Liability -- | |
| 1) Combined Single Limit (Bodily Injury and Property Damage): Each Accident | <u>\$1,000,000</u> |
| f. Professional Liability -- | |
| 1) Each Claim Made | <u>\$1,000,000</u> |
| 2) Annual Aggregate | <u>\$1,000,000</u> |

2. By Owner:

- | | |
|----------------------------|------------------|
| a. Workers' Compensation: | Statutory |
| b. Employer's Liability -- | |
| 1) Each Accident | <u>\$100,000</u> |
| 2) Disease, Policy Limit | <u>\$500,000</u> |
| 3) Disease, Each Employee | <u>\$100,000</u> |

c. General Liability --		
1) General Aggregate:		<u>\$2,000,000</u>
2) Each Occurrence (Bodily Injury and Property Damage):		<u>\$1,000,000</u>
d. Excess Umbrella Liability --		
1) Each Occurrence:		<u>\$1,000,000</u>
2) General Aggregate:		<u>\$1,000,000</u>
e. Automobile Liability --		
1) Combined Single Limit (Bodily Injury and Property Damage):		
Each Accident		<u>\$1,000,000</u>

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. Lamp, Rynearson & Associates, Inc.
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 1 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated December 6, 2006.

Dispute Resolution

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

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~~ a mediator approved by both Engineer and Owner and experienced in resolving disputes arising from the performance of engineering services. 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.

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

This is **EXHIBIT I**, consisting of 1 page, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated December 6, 2006.

Allocation of Risks

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

6.11.B Limitation of Engineer's Liability

1. *Engineer's Liability Limited to the Amount of \$100,000.* 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 \$100,000.

Basic Services and Costs – Exhibit C

I. Schematic Design

Meet with NRD

- Discuss and agree on the trail route
- Discuss project costs
- Discuss project schedule

Walk the site with the NRD

- Walk trail on NRD and USACOE property to determine best alignment
- Drive trail along Schram Road to determine which side of the road to place the trail

Meet with Sarpy County/City of Papillion

- Discuss trail on 168th Street bridge
- Discuss trail along Schram Road

Meet with NDOR

- Discuss trail construction in NDOR right-of-way
- Discuss N-370 crossing
- Discuss N-50 crossing
- Discuss signal modifications at N-370 crossing
- Discuss signal installation at N-50 crossing
- Discuss permit requirements

Meet with USACOE

- Discuss work in area to south of N-370
- Discuss construction on COE property
- Discuss requirements for easements
- Discuss earthen dam design, permits, design requirements, mitigations...
- Discuss schedule of submittals and the review process

Trail layout

- Following the field research with the NRD and based upon conversations with the above entities, prepare plans of the approximate horizontal and vertical alignment of the trail
- Included in this task are rough horizontal and vertical alignments based upon the site visit and conversations with agencies

Grade stabilization structure layout

- Prepare a plan of the approximate location of the earthen dam
- Prepare a section of the dam
- Prepare preliminary contours

Trail cross-sections

- Prepare rough typical sections for both the concrete and limestone chip trail sections
- Based on GIS information, prepare cross-sections of the trail
- Revise cross-sections as needed to fit existing terrain
- Determine rough cut and fill quantities

Easement estimate

- Based on the rough cross-sections, establish rough limits-of-construction
- Based upon the limits, layout rough temporary and permanent easements
- Determine areas of easements
- Estimate costs of easements

Drainage improvements

- Estimate the locations requiring drainage improvements
- Estimate the sizes of the culverts
- Estimate the approximate lengths of the culverts
- Estimate inlets and outlet structures
- Estimate end treatments

Quantities

- Estimate quantities for all known construction items including trail earthwork, concrete trail, limestone chip trail, culverts, structures, fencing, earthen dam earthwork, dam structures, signal modifications, new signal, temporary and permanent easements, seeding, signage, retaining walls, silt fence, barricades and all other construction items.

Costs

- Estimates the costs associated with the above construction items.

Submit to PMRNRD for review

- Plot plans, profiles, cross-sections, easements, typical sections and all other plans
- Print quantity and cost estimates
- Print any narrative necessary including meeting minutes, design criteria or assumptions

Meet with NRD to review

- Attend a meeting at the NRD's office to review the schematic design
- Review the plans and note any changes needed
- Review the project costs and the project budget
- Make modifications to the project as needed to adjust it to fit the budget

II. Preliminary Design

Data collection

- Prepare plans and send to all the utilities with a letter asking for their facilities in the area
- Mark up plans based on information received from utility companies
- Send plans back to utility companies for review and comment

NDOR information

- Obtain information from NDOR on their facilities that will be affected by the project:
 - N-370 geometry at Sapp Bros. Drive
 - Signal plans at Sapp Bros. Drive
 - Signal timings
 - N-50 geometry at Schram Road
 - Trail geometry at Schram Road

- Requirements for constructing a trail on NDOR right-of-way
- Permits required

Sarpy County information

- Obtain information from the County on their facilities that will be affected by the project:
 - 168th Street bridge over I-80
 - Requirements for constructing a trail in County right-of-way
 - Permits required
 - 168th Street geometry on both ends of the bridge

Trail layout

- Based upon conversations with the County and NDOR and based upon comments received during the schematic design review with the PMRNRD, prepare plans of the horizontal and vertical alignment of the trail. Use existing GIS-level information for this preliminary task.
- Work to keep the vertical alignment as near to existing grade as possible except when to do so will violate AASHTO criteria for bike trail design.
- Maintain AASHTO-acceptable horizontal curvature throughout the length of the trail
- Modify alignments as needed to minimize easement requirements, culvert lengths, property impacts, slopes and drainage concerns
- Prepare details of the trail alignment at N-370 and N-50 intersections

Survey

- Establish control points
- Complete a boundary survey for the extent of the project
- Complete a detailed topographic survey of certain areas of the project including the area around the earthen dam, both highway crossing areas, the area near the existing dam and parking lot on the south side of N-370 and near the 168th Street bridge over I-80
- Do periodic cross-section checks along the trail route on Schram Road to verify the accuracy of the GIS information
- Complete a topographic survey along the approved trail route through the USACOE property south of N-370
- Draft all surveys and prepare as a background for the development of the design documents

Typical Sections

- Prepare typical sections for both surface type of the trail including surface thicknesses, slopes, subgrade preparation, shoulder widths and slopes and cut and fill sections

Cross Sections

- Run cross-sections of the entire trail
- Plot and review cross sections and compare with plans
- Revise cross-sections as needed to fit existing terrain
- Determine limits-of-construction and adjust sections as needed
- Determine cut and fill quantities

Drainage

- Based on the trail horizontal and vertical alignment, determine the locations of culverts and drainage structures
- Determine the drainage areas contributing to each culvert
- Calculate Manning's "n" values for each basin

- Determine the time of concentration and subsequent intensity rate for each culvert
- Calculate the 10-year flow to each culvert
- Size the culverts and culvert extensions
- Determine the need for entrance or exit treatments
- Determine the need for exit erosion control structures
- Determine pipe lengths
- Calculate excavation quantities

Grade Stabilization Structure

- Layout structure keeping in mind that the structure can not reduce the storage for Wehrspann
- Calculate runoff hydrograph for range of storm frequencies (10, 50, 100 yr)
- Route runoff through the reservoir, revise plan and size spillways
- Prepare hydrology study and short report
- Prepare grading layout with contours of new structure
- Determine preliminary cut and fill quantities
- Coordinate design with geotech firm
- Prepare preliminary plans for structure construction including cross section of the structure and layout and details of the principal spillway structure and geometry of auxiliary spillway
- Meet and coordinate with the USACOE and the NeDNR
- Meet and coordinate with the PMRNRD
- Tree mitigation plan
- Determine easement requirements

Signal Plans

- N-370
 - Design the improvements needed to provide a pedestrian signal at the existing signal located at N-370 and Sapp Bros. Drive
 - Obtain as-builts from the NDOR of the existing signal
 - Prepare schematic plans and quantities of the improvements
 - Meet with and coordinate the design with the NDOR
 - Meet with and coordinate the design with Sarpy County
 - Prepare preliminary plans based on NDOR comments
 - Obtain permits from the NDOR
 - Submit preliminary plans to the NDOR for review
- N-50
 - Design the improvements needed to provide a pedestrian signal at N-50 and Schram Road
 - Obtain utility information from the various utilities
 - Obtain as-builts from the NDOR of N-50
 - Prepare schematic plans and quantities of the improvements
 - Meet with and coordinate the design with the NDOR
 - Meet with and coordinate the design with Sarpy County
 - Prepare preliminary plans based on NDOR comments
 - Obtain permits from the NDOR
 - Submit preliminary plans to the NDOR for review

Landscaping

- Discuss with the PMRNRD their ideas for landscaping on the trail
- Determine possible areas for benches
- Design preliminary layouts for these areas

- Design preliminary landscape features for the trail

Estimates

- Prepare preliminary quantity and cost estimates for all construction items

Submit preliminary plans to the PMRNRD for review

- Plot and print all plan sheets
- Summarize quantities and cost estimates

Meet with NRD to Review

III. Final Design

Trail layout

- Based upon comments received during the preliminary design review with the PMRNRD, revise and prepare final plans of the horizontal and vertical alignment of the trail.
- Maintain AASHTO-acceptable horizontal curvature throughout the length of the trail
- Modify alignments as needed to minimize easement requirements, culvert lengths, property impacts, slopes and drainage concerns
- Revise details of the trail alignment at N-370 and N-50 intersections

Typical Sections

- Revise and prepare final typical sections for both surface types of the trail including surface thicknesses, slopes, subgrade preparation, shoulder widths and slopes and cut and fill sections

Cross Sections

- Based upon the revised alignments, run new cross-sections of the entire trail
- Plot and review the cross sections and compare with the plans
- Revise cross-sections as needed to fit existing terrain
- Determine limits-of-construction and adjust sections as needed
- Determine cut and fill quantities

Drainage

- Based on the revised trail horizontal and vertical alignment, refine the locations of culverts and drainage structures
- If needed, revise the drainage areas contributing to each culvert
- Calculate new Manning's "n" values for each basin, if needed
- Recalculate the time of concentration and subsequent intensity rate for each culvert
- Determine the 10-year flow to each culvert
- Size the final culverts and final culvert extensions
- Reanalyze the need for entrance or exit treatments
- Reanalyze the need for exit erosion control structures
- Check and verify the pipe lengths
- Calculate excavation quantities

Details

- Prepare details for the following items:

- Signage
- Striping
- Fencing
- Bridge modifications
- Drainage structures
- Drainage contours
- Spillways and other features
- Seeding
- Plantings
- Tables
- Signals
- Curbs and other paving items
- Signals

Grade Stabilization Structure

- Based upon review meetings and comments received from the NeDNR, the USACOE and the PMRNRD, prepare final layout plans for the structure
- Revise the runoff hydrograph as needed for range of storm frequencies (10, 50, 100 yr)
- Route runoff through the reservoir, revise the plan and resize the spillways as needed
- Revise the hydrology study and short report
- Prepare the final grading layout with contours of new structure
- Determine final cut and fill quantities
- Coordinate design with geotech firm
- Prepare final plans for structure including cross sections of the structure and layout and details of the principal spillway structure and geometry of auxiliary spillway
- Meet and coordinate the final design with the USACOE and the NeDNR
- Meet and coordinate with the PMRNRD
- Finalize the tree mitigation plan
- Determine final easement requirements for the structure

Signal Plans

- N-370
 - Based upon comments received from the NDOR, revise the design of the pedestrian signal at N-370 and Sapp Bros. Drive
 - Prepare final plans and quantities of the improvements
 - Continue to obtain permits from the NDOR
 - Submit final plans to the NDOR for review
- N-50
 - Based upon comments received from the NDOR, revise the design of the pedestrian signal at N-50 and Schram Road
 - Prepare final plans and quantities of the improvements
 - Continue to obtain permits from the NDOR
 - Submit final plans to the NDOR for review

Permits

- County permits
- 404 permit
- NPDES
- NDOR

Landscaping

- Design final layouts for bench areas
- Prepare final landscaping plans features for the trail

Easements

- Read title searches on all abutting parcels to the project
- Prepare a base map
- Prepare easement documents on private lands

Specifications

- Prepare final special provisions to supplement the City of Omaha or NDOR standard specifications. These specials may include:
 - Concrete trail surfacing
 - Limestone chip trail surfacing
 - Pedestrian signals
 - Components related to the grade stabilization structure
 - Pavement striping
 - Signage
 - Drainage items
 - Bridge modifications
 - Erosion control measures
 - Seeding
 - Tables and benches
 - Landscaping items

Estimates

- Prepare final quantity and cost estimates for all construction items

Submit final plans to the PMRNRD for review

- Plot and print all plan sheets
- Print spec books
- Summarize quantities and cost estimates

Meet with NRD to Review

IV. PS&E Design

Based upon comments received from the review of the final plans by the PMRNRD and the NDOR, make final revisions to the plans including:

- Trail alignment
- Typical sections
- Cross-sections
- Details
- Drainage items
- Grade stabilization structure and related structures and details
- Signal plans
- Erosion control plans
- Landscaping plans
- Easements
- Special provisions
- Quantity and cost estimates

Prepare final bid documents

- Prepare final sets of plans and special provisions to submit to the NDOR for review and comment.
- Prepare front-end documents required for the specifications. These documents may include:
 - Notice to Contractors
 - Instructions to Bidders
 - Bid form
 - Bid bond form
 - Agreement
 - Contract bond and other required sections
- Assemble set per NDOR requirements
- Coordinate plans and specials with the NDOR's consultant

Submit PS&E plans to the PMRNRD and to the NDOR for review

- Plot and print all plan sheets
- Print spec books
- Summarize quantities and cost estimates

Meet with NRD to Review

Meet with NDOR's consultant to review

V. PS&E Revisions and Meetings

Final plan modifications

- Based upon comments received from the NDOR and PMRNRD's reviews, make appropriate revisions to the plans and specifications.
- Submit final plans and specifications to the NDOR for final review and approval prior to advertising for bids.

Meetings

- Besides the meetings noted in the above narrative, attend the following meetings during the course of the design process:
 - PMRNRD Board meetings (1)
 - PMRNRD subcommittee meetings (2)
 - NDOR consultant (1)
 - PMRNRD staff progress meetings (4)

I. Construction Administration

Preconstruction Conference

- Prepare meeting agenda
- Meet with contractor, NRD and others to discuss the construction
- Prepare minutes of the meeting
- Review schedule, materials, process etc.

Shop Drawing Review

- Review, stamp, sign and comment on shop drawings
- Drawings may include:
 - Benches
 - Signage
 - Concrete mix
 - Limestone chip gradation
 - Signals

- Fencing
- Erosion matting

Change Orders

- Discuss changes and determine if a C.O. is required
- Prepare change orders and any plan or spec. revisions as required
- Review with NRD
- Route to contractor, owner etc. for review and signature

Weekly Progress Meetings (15)

- Prepare meeting agenda
- Attend and run weekly progress meetings
- Prepare minutes of the meeting

Construct Grade Stabilization Structure

- Coordinate staking, observation of construction and measure quantities for this construction item

Rough Grading of Trail

- Coordinate staking, observation of construction and measure quantities for this construction item

Culvert Construction

- Coordinate staking, observation of construction and measure quantities for this construction item

Concrete Trail Construction

- Coordinate staking, observation of construction and measure quantities for this construction item

Rock Trail Construction

- Coordinate staking, observation of construction and measure quantities for this construction item

Backfill and Fine Grading

- Coordinate staking, observation of construction and measure quantities for this construction item

Seeding and Matting

- Coordinate staking, observation of construction and measure quantities for this construction item

Cross Walk Signals

- Coordinate staking, observation of construction and measure quantities for this construction item

Signage

- Coordinate staking, observation of construction and measure quantities for this construction item

Amenities

- Coordinate staking, observation of construction and measure quantities for this construction item

Punch List

- Meet in the field with the contractor, his subs and the NRD
- Prepare a punch list of the items to be completed
- Following the contractors completion of the punch list, review the work to verify

Project Finalization

- Work with the contractor to prepare a final pay estimate
- Send the pay estimate to the contractor for his concurrence and signature
- Route the pay estimate to the NRD, NDOR as needed

Progress Estimates

- Measure all in-place quantities
- Work with the contractor to prepare the pay estimates
- Send the pay estimate to the contractor for his concurrence and signature
- Route the pay estimate to the NRD, NDOR as needed

Construction Administration

- Day-to-day activities related to this project

Construction Record Drawings

- Obtain marked-up plans from the contractor and his subs
- Order "as-built" survey of culverts, structures and other items
- Prepare record drawings based on field notes, mark-ups and "as-built" surveys
- Review, correct and sign CRD's
- Provide a set of signed CRD's to NRD and an electronic copy of the plans

Staking

- The hours shown are the hours needed to complete the office and on-site field work to provide construction staking of the following items:
 - Limits of Construction
 - Construct grade stabilization structure
 - Slope Staking of grading
 - Culverts
 - Concrete Trail
 - Rock Trail
 - Cross Walk Signals
 - Signage
 - Amenities

MOPAC Trail
 Papio Missouri River Natural Resources District
 December 6, 2006

Lamp, Rynearson & Associates

Design

Cost Summary

Classification	Hours	Rate	Total
Principal (Brett)	26	\$49.76	\$1,293.85
Project Manager (Scott A.)	155.5	\$37.02	\$5,756.46
Project Engineer (Joel)	101	\$33.38	\$3,371.16
Project Engineer (John H.)	110	\$37.93	\$4,172.23
Project Engineer (Matt K.)	99	\$29.74	\$2,943.93
Senior Land Surveyor (Frank)	10	\$31.86	\$318.61
2 Man Crew w/ Instrument	8	\$46.43	\$371.40
GPS Staking Crew	24	\$50.37	\$1,208.88
GPS Boundary Crew	12	\$59.17	\$710.04
L.S. (Robert)	48	\$31.86	\$1,529.31
L.A. (Larry B.)	43	\$37.93	\$1,630.96
Junior Engineer (Graham)	353	\$19.42	\$6,855.20
Designer (Aaron J.)	545	\$21.24	\$11,576.04
Clerical (Sharyn)	65.5	\$16.08	\$1,053.37
Total Raw Labor Costs	1600		\$42,791.45
Overhead (180.33%)			\$77,165.82
Total Labor Costs			\$119,957.27
Fixed Fee (12%)			\$14,394.87
Total Labor + Fee			\$134,352.14
Reimbursable Expenses			\$1,945.86
Wetlands Sub-Consultant (Terracon)			\$5,000.00
Geotech Sub-Consultant (Thiele)			\$4,350.00
Total Estimated Design Costs			\$145,648.00

MOPAC Trail
Papio Missouri River Natural Resources District
December 6, 2006

Lamp, Rynearson & Associates

Design

Direct Expenses

	Quan.	Unit Cost	Cost
Mileage/Travel	845	\$0.56	\$473.20
Faxes	150	\$0.25	\$37.50
Specification Books	25	\$10.00	\$250.00
Construction Plans	25	\$20.00	\$500.00
Plotted Sheets- Bond	600	\$0.42	\$252.00
Plotted Sheets- Mylar	36	\$2.31	\$83.16
Copies	500	\$0.20	\$100.00
Postage & Delivery	1	\$250.00	\$250.00
Total Reimbursable Expenses			\$1,945.86

MOPAC Trail
Papio Missouri River Natural Resources District
December 6, 2006

Lamp, Rynearson & Associates
Design
Manhour Estimate

Princ.	P.M.	P.E.	P.E.	P.E.	P.E.	J.E.	Sen. L.S.	Surv.	Surv.	Surv.	L.S.	LA	Design.	Cler.	Total
Brett	Scott A.	Joel B.	John H.	Matt K.	Graham	Frank	2 w/ Inst.	GPS/Topo.	GPS Bndy.	Robert P.	Larry B.	Aaron J.	Sharyn		
I	Schematic Design														
		3				3									6
		4				4									8
		2				2									4
		2				2									4
		2				2									4
3	4					12							12		31
	1	6				1							6		14
						6							6		12
						2							2		4
						2					2		2		7
	1					4							4		9
0.5	1					4							4		9.5
0.5	1					4							4		9.5
	1					1							1	1	4
3	3					3									9
7	26	6	0	0	0	52	0	0	0	0	2	0	41	1	135

Princ.	P.M.	P.E.	P.E.	P.E.	J.E.	Sen. L.S.	Surv.	Surv.	L.S.	LA	Design.	Cler.	Total
Brett	Scott A.	Joel B.	John H.	Matt K.	Graham	Frank	2 w/ Inst.	GPS/Topo.	Robert P.	Larry B.	Aaron J.	Sharyn	
II Preliminary Design (60%)													
Data Collection													
						1						1	2
						1						1	2
						1						1	2
						1						1	2
Trail layout													
		1				8						12	21
		1				6						12	19
						4						8	12
		1				2						2	5
		1				4						8	13
		0.5				2						4	8.5
		0.5				2						4	8.5
Survey													
						1	8	24				22	55
						8							16
						1							5
Typical sections													
		0.5				1						1	2.5
		0.5				1						1	2.5
Cross-sections													
		0.5				4						4	8.5
		0.5				4						4	8.5
		0.5				4						4	8.5
		0.5				2						2	4.5
Drainage													
		1				12						2	15
						12						2	14
		1				12						6	19
					18							6	24
						8						6	14

Princ.	P.M.	P.E.	P.E.	P.E.	J.E.	Sen. L.S.	Surv.	Surv.	Surv.	L.S.	LA	Design.	Cler.	Total
Brett	Scott A.	Joel B.	John H.	Matt K.	Graham	Frank	GPS/Inst.	GPS/Topo.	GPS Bndy.	Robert P.	Larry B.	Aaron J.	Sharyn	
Grade Stabilization Structure														
		12												4
		4												4
		4												4
		4										2		6
		4										4		8
	1	4			2						6	6		19
			16									16		32
	1	4												5
	1	12										8		21
	8	8	4									2		22
	1	16										2		19
Signal Plans														
Ped on N-370 at Sapp Bros. Dr.														
	1				4	1								6
					1							1		2
	1				4	1						8		14
Ped on N-50 at Schram Road														
	1				8	1								10
					2							1		3
	1				8	1						28		38
Permits														
	8					6							3	17
	1				4							4	1	10
	6				8	8							3	25
Landscaping														
	1													7
	1										16	6		23
Estimates														
	1	1		1	1	3					1	3		11
	1	1		1	1	1					1	3		9
	1				1							2	2	6
	3	3			3									9
	5	49	72	40	41	123	10	8	24	12	0	28	211	636

Princ.	P.M.	P.E.	P.E.	P.E.	P.E.	J.E.	Sen. L.S.	Surv.	Surv.	Surv.	L.S.	LA	Design.	Clor.	Total
Brett	Scott A.	Joel B.	John H.	Matt K.	Graham	Frank	2 w/ Inst.	GPS/Topo.	GPS Bndy.	Robert P.	Larry B.	Aaron J.	Sharyn		
Pad on N-50 at Schram Road															
		2				2							2	1	7
		1				1							1	1	4
				8		8									8
				10		10							16		26
				4		4							4	1	9
															0
Permits															
		4				4								1	9
		2				2								1	5
		4				4								1	11
Landscaping															
		0.5										1	2		3.5
											4	2			6
Easements															
											4				4
											6		6		12
		1									24		20		45
Specifications															
		0.5				1								1	2.5
		0.5				1								1	2.5
				1										1	2
			4											1	5
				1										0.5	1.5
				1										0.5	1.5
						1								0.5	1.5
		1												1	2
						1								0.5	1.5
						1								0.5	1.5
Estimates															
		1	1	2	1	1	2					1	3		12
		1	1	2	1	1	2					1	3		12
		1				2							2		5
		3	3			3								1	10
		5	38.5	12	64	51	70	0	0	0	34	7	181	21.5	484
Total III Final Design (90%)															

Princ.	P.M.	P.E.	P.E.	P.E.	P.E.	J.E.	Sen. L.S.	Surv.	Surv.	GPS/Topo.	Surv.	L.S.	LA	Design.	Cler.	Total
Brett	Scott A.	Joel B.	John H.	Matt K.	Graham	Frank	2 w/ Inst.	GPS/Topo.	GPS Bndy.	Robert P.	Larry B.	Aaron J.	Sharyn			
IV PS & E Design																
						6								12		18
						1								4		5
						2								12		14
		4				4								4		12
		2				2								12		16
				4										4		8
						6								12		18
	2					6								2		12
											4			6		10
	1									12				8		21
	1	1	1	1	1	4					2			6		16
	1	1	1	1	1	4					1			6		16
	1					6								6		13
	1					4									2	7
						1								1		2
	4					4								2		10
						1								1		3
						1								1		3
	3					3										6
4	12	6	5	6	55	0	0	0	0	12	7	93	10			210

Princ.	P.M.	P.E.	P.E.	P.E.	P.E.	J.E.	Sen. L.S.	Surv.	Surv.	GPS/Topo.	Surv.	L.S.	LA	Design.	Cler.	Total
V PS & E Revisions/Meetings																
						16							1	16		38
						2									4	6
						2									4	6
3	3					3										9
	6					6									1	13
	4					4									1	9
	12	3				12									2	29
3	26	5	1	1	45	0	0	0	0	0	1	16	12			110

Princ.	P.M.	P.E.	P.E.	P.E.	P.E.	J.E.	Sen. L.S.	Surv.	Surv.	Surv.	L.S.	LA	Design.	Cler.	Total
Brett	Scott A.	Joel B.	John H.	Matt K.	Graham	Frank	2 w/ Inst.	GPS/Topo.	GPS Bndy.	Robert P.	Larry B.	Aaron J.	Sharyn		

VI Bidding Phase															
Print plans and specifications (assume 15 sets)															4
Send Plans to bidders															1
Answer questions during bidding	1	2				4							2		9
Prepare addendum		1				1							1	1	4
Attend bid opening	1	1				1									3
Tabulate bids						1									2
Recommend bidder						1									1
Total Bidding Phase	2	4	0	0	0	8	0	0	0	0	0	0	3	8	25

Total Hours	26	155.5	101	110	99	353	10	8	24	12	48	43	545	65.5	1600
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MOPAC Trail
Papio Missouri River Natural Resources District
December 6, 2006

Lamp, Rynearson & Associates
Construction Administration
Cost Summary

Classification	Hours	Rate	Total
Principal (Brett)	39	\$51.75	\$2,018.40
Project Manager (Scott A.)	17	\$38.50	\$654.50
Project Engineer (Joel)	12	\$34.71	\$416.56
Project Engineer (Matt K.)	4	\$30.93	\$123.70
Senior Land Surveyor (Frank)	31	\$33.14	\$1,027.19
GPS Staking Crew	162	\$52.38	\$8,486.37
Junior Engineer (Graham)	42	\$20.20	\$848.26
Designer (Aaron J.)	12	\$22.09	\$265.08
Clerical (Sharyn)	9	\$16.73	\$150.53
Construction Admin. (Joe)	345	\$24.93	\$8,600.92
Construction Obser. (Steve W)	722	\$18.62	\$13,442.75
Survey Technician (Jarod)	25	\$20.20	\$504.92
Total Raw Labor Costs	1420		\$36,539.17
Overhead (180.33%)			\$65,891.08
Total Labor Costs			\$102,430.25
Fixed Fee (12%)			\$12,291.63
Total Labor + Fee			\$114,721.88
Reimbursable Expenses			\$2,929.00
Geotech Sub-Consultant (Thiele)			\$15,071.00
Total Estimated Construction Admin. Costs			\$132,721.88

MOPAC Trail
Papio Missouri River Natural Resources District
December 6, 2006

Lamp, Ryneanson & Associates
Construction Administration

Direct Expenses

	Quan.	Unit Cost	Cost
Mileage/Travel	3000	\$0.56	\$1,680.00
Faxes	50	\$0.25	\$12.50
Construction Plans	10	\$20.00	\$200.00
Specification Books	10	\$10.00	\$100.00
Plotted Sheets- Bond	660	\$0.42	\$277.20
Plotted Sheets- Mylar	30	\$2.31	\$69.30
Survey and Photo Supplies	1	\$500.00	\$500.00
Copies	200	\$0.20	\$40.00
Postage & Delivery	1	\$50.00	\$50.00
Total Reimbursable Expenses			\$2,929.00

MOPAC Trail
Papio Missouri River Natural Resources District
December 6, 2006

Lamp, Ryneason & Associates
Construction Administration
Manhour Estimate

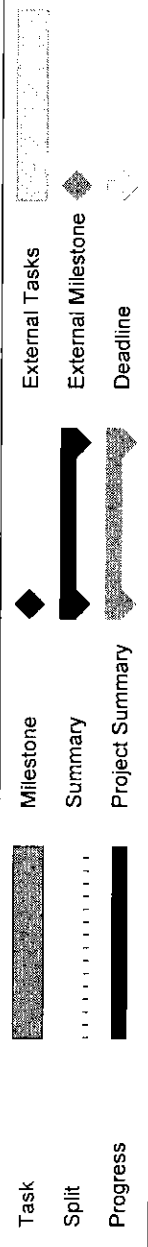
I	Construction Administration	Work. Days	% of Observati on	Princ.	P.M.	P.E.	P.E.	J.E.	Sen. L.S.	Surv.	Design.	Cler.	CA	CO	T	Total
				Brett	Scott A.	Joel B.	Matt K.	Graham	Frank	GPS/Topo	Aaron J.	Sharyn	Joe M	Steve W	Jarod	
	Preconstruction Conference			2	2			2	2			1	3	2		14
	Shop Drawing Review				2		4	8				1	0	0		15
	Change Orders				1			8			8	1	4	2		24
	Weekly Progress Meetings 15			23	7								30	15		75
	Construct Grade Stabilization Structure	10	100%	1		12							30	100		143
	Rough Grading of Trail	15	75%										34	113		147
	Culvert Construction	5	100%										15	50		65
	Concrete Trail Construction	15	100%										45	150		195
	Rock Trail Construction	10	100%										30	100		130
	Backfill and Fine Grading	5	50%										8	25		33
	Seeding and Matting	5	50%										8	25		33
	Cross Walk Signals	10	50%										15	50		65
	Signage	3	50%										5	15		20
	Amenities	5	75%										11	38		49
	Punch List	5	50%	2								1	8	25		36
	Project Finalization	2	50%	1								1	3	10		15
	Progress Estimates											4	6			10
	Construction Administration			10	5			20					90			125
	Construction Record Drawings							4			4			2		10
	Staking															0
	Limits of Grading								3	20					3	26
	Construct Grade Stabilization Structure								4	20					4	28

	Work. Days		% of Observation											Total
	Princ.	P.M.	P.E.	P.E.	J.E.	Sen. L.S.	Surv.	Design.	Cler.	CA	CO	T		
Slope Staking	Brett	Scott A.	Joel B.	Matt K.	Graham	Frank	GPS/Topo	Aaron J.	Sharyn	Joe M	Steve W	Jarod	6	53
Culverts						3	15						4	22
Concrete Trail						4	35						2	41
Rock Trail						4	20						2	26
Cross Walk Signals						1	4						1	6
Signage						1	2						1	4
Trail Markers														
Amenities						2	6						2	10
Total	39	17	12	4	42	31	162	12	9	345	722	25	1420	

MOPAC Trail
Papio Missouri River Natural Resources District
Preliminary Design Schedule

Lamp, Rynearson & Associates

ID	Task Name	Start	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter												
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug		
1	Schematic Design	Tue 1/2/07																						
2	Preliminary Design	Thu 3/1/07																						
3	Final Design	Fri 6/1/07																						
4	PS&E Design	Wed 8/15/07																						
5	PS&E Revisions	Mon 9/17/07																						
6	Bidding	Thu 10/11/07																						
7	Construction	Tue 4/1/08																						



Project: MoPac Trail Design
 Date: Mon 12/4/06