

1 Copy to KDOT (To Accompany KDOT 1302 Form) Lawrence City
1 Copy for City
1 Copy for Consultant

Project No. 23 U-2117-01

PROPOSAL FOR ENGINEERING SERVICES
(Normal Minimum Fee for such Participation, \$30,000)
Cost Plus a Net Fee

The Consulting Engineering Firm of Wilson & Company, Inc. Engineers & Architects
With principal offices located at 8735 Rosehill Road, Suite 200; Lenexa, Kansas; 66215
Hereinafter referred to as the CONSULTANT has reviewed the information transmitted by Lawrence, hereinafter referred to as the "LPA" (Local Public Authority). Based on this information, the Consultant submits the following Proposal:

1. The LPA has requested a Proposal for preliminary engineering and plan preparation (engineering services) from the Consultant for the following proposed construction improvements:

Grading: 1.00 Miles

Bridges: 0.08 Miles

Surfacing: 1.00 Miles

on 31st Street located between Haskell Avenue and O'Connell Road in the City of Lawrence, Douglas County, Kansas and designated by the above noted project number. The subject construction improvements, however, are hereinafter referred to as the Project.

2. The LPA has stated that it desires federal participation in the cost of the engineering services, as well as the construction cost of the Project.
3. The LPA desires the engineering services provided by the Consultant to be in accordance with regulations prescribed by the Federal Highway Administration (FHWA) and the Secretary of Transportation of the State of Kansas, hereinafter referred to as the Secretary. The Scope of Engineering Services can be defined as follows:

Phase I – Part A: Identification of preferred alignment design and plan preparation for Grading, Bridges and Surfacing for the above described project through Concept Plan only.

Phase I – Part B: Design and plan preparation for Grading, Bridges and Surfacing for the above described project through Field Check Plans only. This work includes the Field Survey and Geotechnical investigations. This Phase will be negotiated under a supplemental agreement after acceptance of the Phase I – Part A work in complete. A

separate Notice to Proceed by the City of Lawrence, Kansas will be provided before beginning this Phase of the work.

Phase II: Design and plan preparation for Grading, Bridges and Surfacing for the above described project including Special Specifications for Final Plans. This Phase will be initiated under a separate Notice to Proceed if approved by the City of Lawrence, Kansas. The City of Lawrence reserves the right to terminate the project at completion of Field Check stage (Phase I - Part B.)

Phase III: The review and recommendations for approval of all shop drawings and drawings for falsework as may be required, except for items designed by others.

Phase IV: The construction engineering necessary to insure proper construction of the project that will include the contract administration, surveys and materials testing.

4. The engineering services performed by the Consultant for Phase I, II and III* will include, but not necessarily be limited to, the following as indicated thusly (+):

<u>Survey</u>			
(+)	Topographical Survey	(+)	Geological Survey
()	Relocation Survey	()	Bridge Soundings
(+)	Normal Field Survey	(+)	R/W Survey
<u>Plans, Specifications & Estimates</u>			
	1) Road		2) Bridges
(+)	Balanced Grading Plan	(+)	Grading Maps
(+)	Pavement Design	(+)	Bridge Layout Cost
(+)	Culvert Design	(+)	Cost Completion
(+)	R/W Descriptions	(+)	Bridge (Superstructure)
(+)	R/W Strip Map	(+)	Bridge (Substructure)
(+)	Surfacing Plans	(+)	Detailed Bridge Plans
(+)	Storm Sewers	(+)	Special Provisions
(+)	Special Provisions	()	*Review Shop Drawings
(+)	Construction Cost Estimate	()	*Review Falsework Drawings
()	R/W Staking	(+)	Construction Cost Estimate
(+)	Traffic Control Plan		
()	Other _____		
()	Other phases if involved: \ _____		

5. The proposed Project will be constructed on said route to equal or exceed the Secretary's approved design guidelines for the following:

- (a) AADT 23,000 (2028)
- (b) Minimum Design Speed of 40 MPH
- (c) Other _____

6. The Consultant will perform the following engineering services:

- (a) Prepare detailed plans and construction drawings in accordance with design criteria which conform to KDOT's Secondary Road Plan and utilize applicable drafting details, design guidelines, etc. from KDOT's Design Manual for highways and structures equivalent to the class of highway covered by the Project and/or to such design criteria as may be approved by the Secretary.
- (b) Prepare revised detailed plans, as requested by representatives of the LPA or the Secretary, made necessary by field check and/or office check review recommendations, errors, omissions, or negligence of the Consultant, at any time prior to the completion and final acceptance of the construction contracts covering the Project. Such revised plans may be made by the Secretary or LPA at the Consultant's expense.
- (c) Prepare the plans for the Project for such parts or sections, and in such order of completion, as designated by the LPA.
- (d) Make the necessary field surveys to determine horizontal and vertical alignment for the proposed project.
- (e) Prepare and furnish one set of prints (white background) of preliminary construction plans for field check and review to the LPA and two (2) sets to the Secretary. These plans shall, at a minimum, show the horizontal and vertical alignment, typical sections, contour information, construction layouts and size of bridges, size and location of drainage structures, intersection details, construction limits, existing and new right-of-way limits, property owners, utility locations and ownership, and be included on the appropriate following sheets: Title, Typical Section, Surfacing, Plan-Profile, Cross Sections, Contour Map and Bridge Layout, Traffic Control Plan, and such other special sheets as the Consultant deems necessary.
- (f) Field check the project with representatives of the LPA and Secretary.
- (g) Complete the plans in pencil, incorporating any changes which may have been agreed to during the field check, and include such plans estimates of quantities, special provisions, supplemental specifications and an updated estimate of cost.
- (h) Submit one complete set of prints (white background) of the plans to the Secretary for office check review along with copies of special provisions, supplemental specifications and the updated cost estimate. A similar set of prints and copies will be furnished to the LPA.
- (i) Prepare final plan tracings (one set of final plans on mylar or linen in ink, with the exception of cross sections which will be on paper in pencil), and updated cost estimate based on final plan quantities, and necessary special provisions and necessary supplemental specifications.

- (j) Submit one set of prints of the final plan tracings and copies of the updated construction cost estimate, special provisions, and supplemental specifications to the LPA and one set of prints and copies to the Secretary.
- (k) Furnish the reproducible final tracings that do not contain so-called “stick up” notes or other additives to the Secretary. Upon request furnish one copy of all design calculations to the Secretary.
- (l) Prepare a right-of-way strip map and furnish the LPA with the original and one print of the strip map. (This item is optional but is included if so noted on Page 2 of the Proposal.)
- (m) Prepare plats and descriptions of right-of-way required and furnish to the LPA. (This item is optional but is included if so noted on Page 2 of this Proposal.)
- (n) Furnish Phase I – Part A conceptual plans to the LPA within 140 calendar days after issuance by the Secretary of the Notice to Proceed with the work, exclusive of time required for reviews by the approving parties and delays beyond the Consultant’s control.
- (o) Furnish Phase I – Part B preliminary plans to the LPA sufficiently complete for the LPA’s use in preparing descriptions for rights-of-way required in connection with the Project within 238 calendar days after issuance by the Secretary of the Notice to Proceed with the work, exclusive of time required for reviews by the approving parties and delays beyond the Consultant’s control.
- (p) Furnish final and complete construction plans to the LPA and the Secretary for approval within 112 calendar days after issuance by the Secretary of the Notice to Proceed with the work, exclusive of time required for reviews by the approving parties and delays beyond the Consultant’s control.
- (q) Prepare and furnish the Secretary with supplemental specifications covering all special fabrication or construction features not covered by the standard specifications of KDOT, except for items designed by others.
- (r) Review and recommend for approval all shop drawings and falsework drawings, as may be required for the Project, if indicated in the scope of engineering services on Page 2 of this Proposal.
- (s) Have available at the Consultant’s office located at 8735 Rosehill Road, Suite 200
Lenexa, Kansas 66215 for review by the LPA, the Secretary and the FHWA’s personnel, all plans being prepared and supporting information.
- (t) Provide all plans, drawings and documents pertaining to the Project to the LPA, prepared in accordance with the Secretary’s standard practice. All such plans, drawings and documents shall become the property of the LPA upon the

completion thereof in accordance with the terms of this Proposal, without restrictions as to their future use.

- (u) Provide traffic control signing on or along any street or highway where the Consultant has crews working. The size, shape, color and placement of all signs shall comply with the Manual on Uniform Traffic Control Devices for Streets and Highways as approved by the American Association of State Highway and Transportation Officials and the Department of Transportation, FHWA.
7. In addition to the engineering services the Consultant will assume the following obligations:
- (a) Furnish two (2) copies of each proper billing to the LPA.
 - (b) Accept compensation for the performance of services herein described in such amounts and at such intervals as indicated in Paragraphs 20, 21, 22, and 23.
 - (c) Provide engineering services for Phase III and extra work in addition to those set forth above, or for changes in plans due to changes in criteria, for a mutually agreed actual cost plus a net fee. Any payments authorized under this section must be approved by the Secretary. In the event the scope of the Project changes to a point where, with the Secretary's concurrence, the Consultant and the LPA mutually agree that a supplemental agreement to the executed Agreement is necessary to provide for authorized extras, all payments for work performed to that date shall be due and payable within ninety (90) days after the date of the supplemental agreement, provided, however, that a proper billing has been received from the Consultant.
 - (d) Prepare an estimated schedule for performance of engineering services identified in Paragraph 20 of this Proposal (may be bar chart or other acceptable method) and report to the LPA (Secretary upon request) actual progress at monthly intervals or at a mutually agreeable interval approved by the LPA and Secretary.
 - (e) Make all documents and accounting records pertaining to the work covered by the executed Agreement available at the Consultant's office to representatives of the LPA, the Secretary and the FHWA or any authorized representative of the Federal Government for audit for a period of three (3) years after the date of final payment.
 - (f) Accept full responsibility for payment of Unemployment Insurance, Worker's Compensation and Social Security as well as income tax deductions and any other taxes or payroll deductions required by State and Federal Law for the Consultant's employees engaged in work authorized by the executed Agreement.
 - (g) Become familiar with, and shall at all times observe and comply with, all applicable federal, state, and local laws, ordinances and regulations.

- (h) Be responsible for any and all damages to property to persons arising out of an error, omission and/or negligent act in the Consultant's performance of services under the executed Agreement.
 - (i) To save the LPA, the Secretary and their authorized representatives harmless from any and all costs, liabilities, expenses, suits, judgments and damages to persons or property caused by the Consultant, its agents, employees or subcontractors which may result from negligent acts, errors, mistakes or omissions from the Consultant's operation in connection with the services to be performed hereunder.
 - (j) To warrant the Consultant has not employed or retained any company or person, other than a bona fide employee working solely for the Consultant, to solicit or secure selection by the LPA, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the Consultant, any fee, commission, percentage, brokerage fee, gift, or any other consideration contingent upon or resulting from the award or making of the executed Agreement. For breach or violation of this warranty, the Secretary shall have the right to annul the Agreement without liability, or in his or her discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
- 8. The services to be performed by the Consultant under the terms of this Proposal are personal and cannot be assigned, sublet, or transferred without written consent of the LPA and the Secretary.
 - 9. The right is reserved by the LPA with the approval of the Secretary to terminate all or part of the executed Agreement at any time upon written notice to the Consultant. Such notice shall be sent not less than ten (10) days in advance of the termination date stated in the notice.
 - 10. The Consultant may terminate the executed Agreement, in the event of substantial failure of other parties to perform in accordance with the terms hereof, upon ten (10) days written notice in advance of the effective date of such termination received by all parties of this Agreement.
 - 11. In the event the executed Agreement is terminated by the LPA and the Secretary without fault on the part of the Consultant, the Consultant shall be paid for the work performed or services rendered under the Basis of Payment. Determined for the Agreement.
 - 12. In the event the services of the Consultant are terminated by the LPA and the Secretary for fault including, but not limited to: unreasonable delays in performance; failure to respond to LPA or the Secretary's requests; and/or unsatisfactory performance on the part of the Consultant, the Consultant shall be paid the reasonable value of the services performed or rendered and delivered to the Secretary up to the time of termination. The value of the services performed, rendered and delivered will be determined by the LPA and the Secretary. In the case of any dispute as to payment arising under the executed Agreement pertinent information will be submitted to a Review Committee for

resolution. The Review Committee will be comprised of a maximum of two (2) representatives from each of the Agreement parties.

13. In the event of the death of any member or partner of the Consultant's firm, the surviving member shall complete the services, unless otherwise mutually agreed upon by the LPA and the Secretary and the survivors, in which case the Consultant shall be paid as set forth in Paragraph 12.
14. The Consultant shall not sublet or assign all or any part of the services noted in this Proposal without the prior written approval of the LPA and the Secretary. Consent by the LPA and the Secretary to assign, sublet or otherwise dispose of any portion of the executed Agreement shall not be construed to relieve the Consultant of any responsibility for the fulfillment of the Agreement.
15. The Consultant will not, without written permission from the Secretary, engage the services of any person or persons in the employment of the LPA or the Secretary for any work required by the terms of this Proposal.
16. The Consultant and subcontractors will be available for audit at the Secretary's discretion. Accounting methods, cost documentation, and books of said parties will be maintained in accordance with generally accepted accounting principles and will conform to the appropriate provisions of 48 Code of Federal Regulations (CFR) Chapter 1, Part 31 et seq.
17. Overhead rates will be submitted to the Secretary by the Consultant for audit within seventy-five (75) days after completion of the Consultant's fiscal year. The Consultant will assemble work papers for audit at their normal place of business. Overhead rates will be audited on a yearly basis following the first audit as may be required.
18. The Consultant, the LPA and the Secretary may arrange for such conferences as may be deemed necessary or desirable and the work in progress may be viewed at the Consultant's offices.
19. That an extension of time shall be granted the Consultant for delays recognized by the LPA and Secretary as unavoidable; PROVIDED, such extension of time shall be requested by the Consultant in writing, stating the reasons therefore.
20. The fee proposed by the Consultant for engineering services for Phases I and II shall be tabulated as follows:

(a) SURVEYS

For Phase I – Part A surveys, and for bridge soundings, as noted by the tabulation of survey services on Page 2 of this Proposal, compensation shall be made on the basis of the Consultant's actual cost plus a net fee amount of \$ 0.00. The actual costs shall be incurred in conformity with the cost principles established in the Federal-Aid Policy Guide and Title 48 Code of Federal Regulations (CFR)

Chapter 1, Part 31 et seq. The upper limit of compensation for work detailed in the section shall be \$ 35,575.00.

For Phase I – Part B and Phase II surveys, and for bridge soundings, as noted by the tabulation of survey services on Page 2 of this Proposal, compensation shall be made on the basis of the Consultant’s actual cost plus a net fee amount of \$ NA. The actual costs shall be incurred in conformity with the cost principles established in the Federal-Aid Policy Guide and Title 48 Code of Federal Regulations (CFR) Chapter 1, Part 31 et seq. The upper limit of compensation for work detailed in the section shall be \$ NA.

(b) BRIDGE PLANS, SPECIFICATIONS AND ESTIMATE

Bridges: An amount for bridge construction plans as follows:

New Design		Adapted Super & New Substructure		Adapted Super & Substructure	
Net Fee	Upper Limit	Net Fee	Upper Limit	Net Fee	Upper Limit
Bridge #1:	<u>1,303.36</u>	<u>13,158.24</u>			

For Phase I – Part A bridge engineering work, including bridge fees noted above, tabulated on Page 2 of this Proposal, compensation shall be made on the basis of the Consultant’s actual cost plus a net fee amount of \$ 1,303.36. The actual costs shall be incurred in conformity with the cost principles established in the Federal-Aid Policy Guide and Title 48 Code of Federal Regulations (CFR) Chapter 1, Part 31 et seq. The upper limit of compensation for work detailed in the section shall be \$ 13,158.24.

For Phase I – Part B and Phase II bridge engineering work, including bridge construction plan fees noted above, tabulated on Page 2 of this Proposal, compensation shall be made on the basis of the Consultant’s actual cost plus a net fee amount of \$ NA. The actual costs shall be incurred in conformity with the cost principles established in the Federal-Aid Policy Guide and Title 48 Code of Federal Regulations (CFR) Chapter 1, Part 31 et seq. The upper limit of compensation for work detailed in the section shall be \$ NA.

(c) ROAD PLANS, SPECIFICATIONS AND ESTIMATES

Road: For Phase I – Part A conceptual plans as noted in the tabulation of road engineering services on Page 2 of this Proposal, including culverts and surfacing, but not including bridges, compensation shall be made on the basis of the Consultant’s actual cost plus a net fee amount of \$11,905.76. The actual costs shall be incurred in conformity with the cost principles established in the Federal-Aid Policy Guide and Title 48 Code of Federal Regulations (CFR) Chapter 1, Part

31 et seq. The upper limit of compensation for work detailed in the section shall be \$170,596.76.

Road: For preliminary plans for right-of-way and for construction road plans, and right-of-way descriptions and staking as noted in the tabulation of road engineering services on Page 2 of this Proposal, including culverts and surfacing, but not including bridges, compensation shall be made on the basis of the Consultant's actual cost plus a net fee amount of \$ NA . The actual costs shall be incurred in conformity with the cost principles established in the Federal-Aid Policy Guide and Title 48 Code of Federal Regulations (CFR) Chapter 1, Part 31 et seq. The upper limit of compensation for work detailed in the section shall be \$ NA .

(d) REVIEW OF SHOP AND FALSEWORK DRAWINGS

For compensation of Phase III as noted in the tabulation of engineering services on Page 2 of this Proposal, compensation shall be made on the basis of the Consultant's actual cost plus a net fee amount of \$ N/A conformance with the cost principles established in the Federal-Aid Policy Guide and Title 48 Code of Federal Regulations (CFR) Chapter 1, Part 31 et seq. The upper limit of compensation for work shall be \$ N/A .

(e) Total compensation for Phase I – Part A shall not exceed \$219,330.00.

21. (a) During the progress of work covered by the executed Agreement, partial payments for Phase I and II may be made to the Consultant from the LPA within thirty (30) days of receipt of proper billing, but at intervals of not less than one calendar month. Progress billing shall be supported by a progress schedule acceptable (for Phase I normally payments may be made at the completion of surveys, field check plans, plans for office check review and final work as per the terms of the Agreement) to the LPA and Secretary, which includes a statement of the percentage of work completed and the actual costs incurred during the billing period. Accumulated partial payments shall not exceed Ninety-five Percent (95%) of the total fees earned, prior to approval and acceptance of completed work on the appropriate phase by the LPA, Secretary and the FHWA. Partial payments due shall be defined as the accumulated total fees less the total of pervious payments times Ninety-five Percent (95%).
- (b) The voucher for final payment for Phase I due under provisions of the executed Agreement may be submitted after the acceptance and approval of the work by the LPA for the Project's Construction contracts.
- (c) The voucher for final payment from the LPA for Phase II due under provisions of the executed Agreement may be submitted after the acceptance and approval of the work by the LPA and the Secretary.

22. In the event that a construction contract has not been awarded for any project segment within six (6) months from the date of approval of construction plans, the voucher for final payment of Phase I may be submitted without further delay.
23. The final payments for Phase I and II due under provisions of the executed Agreement shall be made within ninety (90) days after completion of a final audit of the Consultant by representatives of the Secretary.
24. The Consultant may request payment for Phase III by the terms of a supplemental Agreement (if necessary and executed) and for authorized extra work as provided in Paragraph 7(c), and such payments shall be in addition to and exclusive of fees stipulated in Paragraph 20.

25. Other

Respectfully submitted,



CONSULTANT

Associate Vice President

TITLE

February 4, 2008

DATE

Exhibits:

1. Supporting Data Sheet for Estimate of Preliminary Engineering Fee
2. Exhibit A – Detailed Scope of Services and Fee Development Worksheets

**SUPPORTING DATA SHEET FOR
ESTIMATE OF PRELIMINARY ENGINEERING FEE**

PHASE I - PART A PROJECT FEE

PROJECT NUMBER:		23 U-2117-01		CITY:	Lawrence, Douglas County, Kansas		
LOCATION:		31st Street Improvements					
WORK ITEM:		Preliminary Engineering		DATE:	January 18, 2008		
1. DIRECT PAYROLL							
EMPLOYEE CLASSIFICATION / TITLE				RATE	EST. HOURS	AMOUNT	TOTAL
P7	Senior Project Manager			\$ 63.90	153.0	\$ 9,776.70	
P7	Senior QA Manager			\$ 63.90	83.0	\$ 5,303.70	
P4	Project Engineer			\$ 37.80	310.0	\$ 11,718.00	
PD2	Roadway CADD Technician			\$ 26.10	312.0	\$ 8,143.20	
P6	Senior Bridge Engineer			\$ 51.10	32.0	\$ 1,635.20	
P4	Bridge Engineer			\$ 37.80	40.0	\$ 1,512.00	
PD1	Bridge CADD Designer			\$ 33.60	40.0	\$ 1,344.00	
P5T	Senior Planner/ Engineer			\$ 56.90	90.0	\$ 5,121.00	
P2T	Junior Planner/ Engineer			\$ 30.10	32.0	\$ 963.20	
SUBTOTAL LINE 1					1,092.0		\$ 45,517.00
2. SALARY RELATED AND GENERAL OVERHEAD (163.82%)							\$ 74,565.95
3. SUBTOTAL (LINES 1 & 2)							\$ 120,082.95
4. NET FEE							\$ 13,209.12
5. DIRECT EXPENSES (TRAVEL, MATERIAL, SUB-CONSULTANT, ETC.)							
ITEM				QUAN.	UNIT	UNIT PRICE	AMOUNT
Letter Copy				528	Each	\$ 0.10	\$ 52.80
11" x 17" Copy				660	Each	\$ 0.20	\$ 132.00
B&W Wide Format				258	Sq Ft	\$ 0.25	\$ 64.50
Color Wide Format				72	Sq Ft	\$ 0.75	\$ 54.00
Project Miles				1,380	Mile	\$ 0.65	\$ 897.00
Postage/Shipping				158	Unit	\$ 1.00	\$ 157.63
Patti Banks Associates (Landscape, Aesthetics)				36,210	Unit	\$ 1.00	\$ 36,210.00
Peridian Group (Survey, Drainage, Water Quality)				48,470	Unit	\$ 1.00	\$ 48,470.00
SUBTOTAL LINE 5							\$86,037.93
TOTAL (LINES 3, 4 & 5)							\$219,330.00

EXHIBIT A
CONSULTANT'S SCOPE OF SERVICES
January 18, 2008 (rev.)

Project Understanding

This project consists of the development of Concept Plans for the following project. The 31st Street corridor between Haskell Avenue and O'Connell Road is currently designated as a principal arterial roadway according to the City's Transportation 2030 Plan and a minor arterial on the KDOT Functional Classification map. However, the City has indicated that the Consultant needs to review alternative typical sections and alignments that provide for traffic safety, meets the City minimum design requirements, and provides for citizen input.

This portion of 31st Street is a unique corridor. Only a small portion of the corridor is paved east of Haskell Avenue to access the existing commercial and light industrial properties. According to the County's GIS database, there is existing right-of-way dedicated along the section line from Haskell Avenue to O'Connell Road. However, it should be noted that the widths are inconsistent, varying from 120-feet (60-feet either side of the section line) to only 40-feet wide (north side of the section line only). The adjoining properties are zoned agricultural, single family, commercial and light industrial. Presently, the single family homes and residential subdivisions do not have direct access onto 31st Street. Only the commercial and light industrial properties have direct access. Another unique feature is the City lake (Mary's Lake), City park (Prairie Park), and an active construction debris landfill located adjacent to the section line.

These proposed roadway improvements will extend the 31st Street corridor an additional mile and provide access from Iowa Street to O'Connell Road. The projected traffic counts provided in a previous study indicate that these improvements will provide a reduction in traffic on 23rd Street. The projected average daily traffic (ADT) varies depending upon the construction of the South Lawrence Trafficway (SLT). According to the previous traffic study, without the SLT, the total ADT is 23,100 vehicles per day. With the SLT, the total ADT is 13,900 vehicles per day.

There is a desire within the City staff to minimize the potential impacts to the corridor. For example, a reduced design speed has been proposed to allow the vertical design to better fit the terrain. In this same consideration to minimize impacts, previous studies have shown a curvilinear alignment. Also, the typical section could be modified to minimize grading, provide aesthetic enhancement to the corridor, and provide traffic calming elements if applicable. In addition, the City has expressed a desire to investigate best management practices (BMPs) for treating the storm water runoff if possible. Many other design features and/or design options will need to be researched and presented for evaluation by the design team for use in the concept plan phase.

Scope of Services

The overall purpose of this Concept Plan Phase is to develop a project "footprint" that meets the capacity needs of the corridor, provides a safe roadway, and incorporates other "soft design" issues where practical. The study will also provide the City with budgeting information for use in the funds planning. The use of a Context Sensitive Solutions approach will be used to develop and review the alignment and typical section options.

The proposed improvements are 1-mile +/- of arterial roadway within a yet to be determined alignment footprint. The proposed improvements include sidewalks, trails, streetlights, bridge

crossing, storm drainage, stormwater quality elements, landscaping, animal crossing considerations, auxiliary lanes where needed, extension of the existing water distribution main, coordination with the proposed sanitary sewer improvements, and utility coordination.

Concept Plan Phase

I. Project Initiation

- I.1. Kick-off Meeting: Wilson & Company, Inc. (WCI), Patti Banks Associates (PBA), and Peridian Group (PG) will attend a project kick-off meeting with the City staff and the project design team at City Hall. The City departments requested to attend this meeting include, but are not limited to Engineering, Water Services (Water and Sewer representatives), Planning, Traffic, and Parks and Recreation. It is anticipated that this meeting will be approximately three (3) hours. WCI will prepare the meeting minutes. The agenda will include:
 - a. Discuss current design standards that could be used for the project.
 - b. Discuss existing water and sewer facilities, future needs, and project design requirements.
 - c. Discuss and obtain a copy of the City's traffic model.
 - d. Discuss the landfill requirements, permits, and reclamation plans that may be on file with the City.
 - e. Discuss any proposed development projects that could affect the project.
 - f. Discuss roundabout design, access management, and other traffic issues.
 - g. Discuss future improvements to their facilities (including Mary's Lake, Prairie Park, Prairie Park Nature Center, and off-site improvements that may affect the project corridor) in order to understand future needs.
 - h. Review the proposed project schedule.
 - i. Discuss any other specific project issues that will need to be resolved prior to the first public meeting.
 - j. Establish the dates of the bi-weekly team meetings.
- I.2. Prepare Project Work Plan (PWP): WCI will prepare a Project Work Plan (PWP) that cover the methodology used for the project, the community outreach program, and other pertinent information that will affect the development of the alignment options and schedule. Other members of the Consultant Team will assist in the preparation of this document.

II. Data Gathering and Site Inventory:

- II.1. WCI will assemble the City's GIS mapping for use by the project design team. The information provided by the City should include the following minimum items for the area within the City and the County:
 - a. Highways, Streets, Plats, Parcels, Water Bodies, Contours, 3D points.
 - b. Bike Paths, Zoning, Appraisal Land Use.
 - c. Major Watersheds.
 - d. Waterlines.
 - e. Storm Pipe, Channels, Streams, Culverts.
 - f. Sanitary sewer manholes, Force Mains, Gravity Mains.
 - g. Aerial photography.Since the GIS mapping is not provided in a TIN format, the 3D elevation data will need to be input into the contours for future use in creating profiles and cross sections for the various alignment options selected during the Context Sensitive Solutions process.

- II.2. WCI will submit a Utility Location Report to each of the utility companies identified by the Kansas One-Call and the City. The report will also have a general location map attached to acquaint them with the proposed project.
- II.3. PG will obtain preliminary field survey information.
 - II.3.A. PG will set the horizontal and vertical control to be used for the project. The datum shall be tied to the City's GIS mapping.
 - II.3.B. PG will contact Kansas One-Call to obtain a list of utility companies noted to have facilities within the project area. The list will be reviewed by the City and WCI.
 - II.3.C. PG will locate eleven (11) government corners. In the event that a corner cannot be recovered or verified, PG will contact the Douglas County Surveyor for assistance in determining the final corner location. Resolution of the monument location(s) is considered additional services.
 - II.3.D. PG will field locate the utilities that have been marked by Kansas One-Call.
 - II.3.E. PG will obtain current topographic measurements of: 1) 200' in each cardinal direction from the center of the Haskell Ave./31st St. intersection; and 2) 200' North, 200' East, and 1500' South of the O'Connell Rd./31st St. intersection.
- II.4. WCI will input the utility locations information from the PG field locates into the City's GIS base mapping.
- II.5. WCI and PG will coordinate a meeting with the utility companies in the project area to verify the location of their services, collect any information regarding company contacts, and discuss any proposed modifications to their existing facilities. The Utility Location report will be reviewed during this meeting.
- II.6. WCI will input new or revised location of the existing utilities based on the utility coordination meeting into the City's GIS base mapping.
- II.7. The Consultant team will review the City's Master Plan for future land development recommendations within one mile of the corridor.
- II.8. The consultant team will review the City's Bicycle Facilities Map for existing and future bike lanes, bike routes and recreational paths.
- II.9. The Consultant team will review the City's Transportation 2030 report.
- II.10. Upload the City's transportation model and verify.
 - II.10.A. Land use assumptions for use in this evaluation.
 - II.10.B. Traffic assumptions for use in this evaluation.
 - II.10.C. Develop future year peak-hour turning movement counts.
- II.11. PBA will contact local agencies (Lawrence Parks and Recreation, University of Kansas, Haskell Indian Nations University) to compile a list of plant materials for future use in the development of the landscaping enhancements. These plant materials may include species that have ethno-botanical interest, native species, and/or low maintenance species. This plant palette will be utilized for roadside planting, bare ground restoration, and BMP's.
- II.12. WCI, PBA, PG, and City staff will walk through the project corridor to review terrain, catalog unique corridor features, and take site photographs for future use in the Context Sensitive Solutions process. PG will provide a method of mapping the unique corridor features and photographs.

III. Public Outreach Program

- III.1. Community Steering Committee (CSC) Meetings: The City will develop a list of people from various organizations (could include the neighboring homeowners associations, businesses, Save the Wetlands, Wetlands Preservation Organization, Sierra Club, Audubon Society, Haskell Indian Nations University, Baker University, Kansas University, Lawrence Bicycle Club, Lawrence School District, and the Lawrence Bicycle Advisory Committee) to serve on the committee.

- a. The City will organize and schedule a total of six (6) CSC meetings (assume meetings will be three hours in length). The purpose of the CSC is to discuss the issues and vision for the project. The vision will include key guiding principles that will be used during the development of the conceptual and preferred alignment alternative for 31st Street.
- b. The City will prepare any necessary display boards, handout materials for the CSC meetings.
- c. The City will prepare any necessary display boards for the CSC meetings.
- d. The City will prepare any necessary support materials including welcome boards, sign-in sheets, agendas, and name tags for the CSC meetings.
- e. The City will identify, locate, and reserve the facilities for the CSC meetings.
- f. The City will create and distribute the CSC meeting notifications.
- g. The City will lead the meetings.
- h. The City will document the goals, concerns, requirements, and options developed during the meeting. The focus should be on project expectations from all perspectives.
- i. The City will prepare the minutes of the CSC meeting.

III.1.A. WCI and PBA will submit electronic prints of the current project strip map, typical sections, and cross sections from the project design files for the City's use in preparing the meeting displays.

III.1.B. WCI (2 people) and PBA (1 person) will attend the six (6) CSC meetings.

III.2. Public Information Meetings:

III.2.A. Public Meeting No. 1: The focus of this meeting will be refining the issues, vision, and guiding principles related to the concept study phase. The City will be responsible for preparing, printing and disseminating the press releases and public notifications for the public meeting. The City will prepare any necessary display boards, handout materials for the public meeting.

III.2.A.a. WCI and PBA will submit electronic prints of the current project strip map, typical sections, and cross sections from the project design files for the City's use in preparing the meeting displays.

III.2.A.b. WCI (3 people) and PBA (1 person) will attend the public meeting.

III.2.B. Public Meeting No. 2: The focus of this meeting will be on the preferred alignment alternative. The City will be responsible for preparing, printing and disseminating the press releases and public notifications for the public meeting. The City will prepare any necessary display boards, handout materials for the public meeting.

III.2.B.a. WCI and PBA will submit electronic prints of the current project strip map, typical sections, and cross sections from the project design files for the City's use in preparing the meeting displays.

III.2.B.b. WCI (3 people) and PBA (1 person) will attend the public meeting.

IV. Evaluate Alternatives

IV.1. Post CSC Meeting: The Consultant Team will evaluate each of the two (2) alignment alternatives and review the specific decision parameters to aid in group decision-making. This will include issues related to land disturbance, constructability, cost,

environmental (natural and cultural resources) and landowner impact, among the other factors developed by the CSC.

- IV.1.A. WCI will develop a maximum of two (2) typical sections for the proposed improvements as developed in CSC meetings.
- IV.1.B. WCI will develop a maximum of two (2) alignment alternatives for the proposed improvements as developed in the CSC meetings.
- IV.1.C. WCI will develop and expound on the two (2) alternative designs.
 - IV.1.C.a. Prepare GEOPAK criteria file for use in the analysis of the alternative designs.
 - IV.1.C.b. Prepare sheet borders for plan view, profile view, and cross sections.
 - IV.1.C.c. Design vertical alignment(s) using AASHTO criteria for the approved design speed(s).
 - IV.1.C.d. Design horizontal alignment(s) using AASHTO criteria for the approved design speed(s).
- IV.1.D. WCI will review the access locations for the existing commercial properties. WCI will build a SIMTRAFFIC model in SYNCHRO to evaluate potential access options.
 - IV.1.D.a. Use existing street sidestreet access onto 31st Street.
 - IV.1.D.b. Review other circulation / access options.
 - IV.1.D.c. Review access during construction options.
- IV.1.E. WCI will review additional access opportunities for existing residential subdivisions. WCI will test and evaluate the additional access opportunities using SYNCHRO with SIMTRAFFIC for Mary's Lake Subdivision and Prairie Park Addition No. 3 Subdivision.
- IV.1.F. PG will prepare the hydrologic and hydraulic computations for the three (3) major stream crossings that will be encountered between Haskell Avenue and O'Connell Road for the two (2) alignment options.
 - IV.1.F.a. Define drainage areas using City's GIS base mapping.
 - IV.1.F.b. Calculate the design flow rates for the required storm events per the City's criteria.
 - IV.1.F.c. Evaluate crossroad structure options.
- IV.1.G. WCI will review and evaluate various bridge type and size options for the major crossing downstream of Mary's Lake.
- IV.1.H. WCI will review and design the underground storm drainage system for the roadway (underground or roadside ditches).
- IV.1.I. WCI will coordinate with the City to evaluate the bridge aesthetics.
- IV.1.J. PG will review, evaluate, and locate potential water quality features.
 - IV.1.J.a. PG will further evaluate the feasibility of the proposed BMP's and will prepare conceptual layouts and schematic designs.
 - IV.1.J.b. PG will review the plant palette and a schematic planting plan developed in Section II with PBA.
 - IV.1.J.c. PBA will review the plant palette developed in Section II and determine a palette to be used for BMP's. One (1) conceptual planting plan will be prepared for each BMP type. It is assumed that a maximum of four (4) BMP types will be developed.
- IV.1.K. PG will develop a concept plan showing future development options for properties that might be divided due to alignment alternatives.
- IV.1.L. PBA will develop concepts for landscape and hardscape design based upon the Engineer's roadway alignment and typical section. This will include plan, sketches, and sections to illustrate the design intent for the road corridor and

intersections or roundabouts. Other areas may include park frontage, bridge embankments, etc.

- IV.1.L.a. A theme will first be developed that will help to define the character of design enhancements. Both landscape and hardscape design elements will evolve from this theme.
- IV.1.L.b. Landscape design may include plant materials such as street trees, shrubs, perennials, turf and other accent plantings.
- IV.1.L.c. Hardscape design will focus on the use of sustainable and low maintenance materials and may include specialty pavements, retaining walls, trail amenities, site furnishings, and/or architectural or artistic elements. Only the design intent will be developed for these elements. Engineering will not be performed.
- IV.1.L.d. Up to three (3) concepts will be developed for the roadway and intersections or roundabouts.
- IV.1.L.e. Potential crosswalk design features will be reviewed and aesthetic recommendations made.
- IV.1.M. PBA will develop concepts for bicycle and pedestrian facilities based upon the Engineer's roadway alignment and typical section. This will include plans, sketches and sections to illustrate the design intent for proposed trails.
 - IV.1.M.a. Existing and proposed bicycle and pedestrian connectivity in the project area will be studied. This will include review of the Bicycle Facilities Map, the Burroughs Creek Trail system and the Haskell Rails-Trails.
 - IV.1.M.b. AASHTO and ADA design standards will be reviewed for compliance where appropriate.
 - IV.1.M.c. Trails will be developed that serve critical links in addition to the roadway trail. These may include connections to Mary's Lake and Prairie Park Nature Center.
 - IV.1.M.d. Trails within the project area will allow for future connections to the Haskell Rail-Trail, the Haskell-Baker Wetlands, Broken Arrow Park, the South Lawrence Trafficway trail, Haskell Indian Nations University and other public facilities as determined through the public outreach.
 - IV.1.M.e. Facilities will include concepts for the trail and associated amenities such as trailheads, rest areas, and site furnishings.
 - IV.1.M.f. Where drainage is encountered, PBA and WCI will consider bridges, low-water crossings, or culverts.
 - IV.1.M.g. Up to two (2) trail alignments will be developed for each trail segment.
 - IV.1.M.h. Existing park and trail signage will be utilized for the roadway trail. New park and trail signage will not be developed.
- IV.1.N. WCI will review, evaluate and model the traffic for the two (2) typical sections using the City's transportation model and the corridor SYNCHRO with SIMTRAFFIC model built for a more detailed level evaluation. The models will be evaluated for level of service (LOS) both with and without the future SLT.
- IV.1.O. WCI will review and model the option for roundabouts using RODEL at Haskell Avenue and O'Connell Road.
- IV.1.P. WCI will review and evaluate the impacts to the proposed water distribution main along the project corridor.
- IV.1.Q. WCI will prepare cross sections at 100-foot intervals, including street intersections, major crossroad structures, major utility crossings, and other

- specific points of interest along the project corridor for the two (2) alignment options.
- IV.1.R. WCI, PG and PBA will prepare an opinion of probable construction cost estimates for the two (2) alignment options.
 - IV.2. Post Public Meeting No. 1
 - IV.2.A. WCI, PG and PBA will revise drawings of the preferred alternative alignment based on information received from the CSC meetings and Public Meeting No. 1.
 - IV.2.B. WCI, PG, and PBA will prepare decision matrix spreadsheet used in Workshop No. 1 to determine the preferred alignment option. The Consultant Team will also provide evaluations discussing the advantages and disadvantages for each based on the project guidelines and vision identified by the CSC.
 - IV.2.C. WCI, PG and PBA will review the information obtained in Workshop No. 1. A checklist of modifications, revisions will be prepared from the public input. The checklist of plan revisions will be approved by the CSC prior to beginning plan modifications for the alignment alternatives.
 - IV.2.D. WCI, PG and PBA will update the opinion of probable construction costs for the alignment alternatives.
 - IV.3. Preferred Alignment
 - IV.3.A. WCI, PG and PBA will prepare drawings of the preferred alternative alignment to be used in the design of the Field Check Plans. The Consultant Team will also modify / revise the advantages and disadvantages based on the project guidelines and vision discussed in Public Meeting No. 2.
 - IV.3.B. WCI, PG and PBA will prepare a report discussing the preferred alignment alternative, the design criteria used to develop the plans, address any variances from the City's standard design criteria.
 - IV.3.C. WCI, PG and PBA will prepare an opinion of probable construction costs for the preferred alignment alternative.
 - IV.3.D. WCI will prepare a submittal package to the City. This package will be a color print of the project strip map for the preferred alignment option, including cross sections. The purpose of the package is for delivery to KDOT for their use in discussing a preliminary environmental review with the FHWA to determine if an EIS may be warranted.
 - V. Regular Meetings:
 - V.1. WCI, PG, PBA, and City staff will attend bi-weekly meetings (no more than 10 meetings) at WCI's office (5 meetings), Lawrence City Hall (5 meetings), or conference call review plan and report development, discuss design issues, and obtain information to complete the plans and report.
 - V.2. WCI will attend one (1) City Commission workshop to provide information and answer questions regarding the preferred alignment option.

City Responsibilities

1. The City will send letters, prepared by WCI, to each of the property owners along the project corridor to inform them that surveyors will need to have access to their property for the purpose of obtaining property line and topographic information.
2. The City will obtain copies of all section reference ties from the consulting firms and utility companies working on other projects in the area.

3. The City will provide the current standard design criteria for the design of roadways and storm drainage systems to the Consultant.
4. The City will provide the electronic files from the GIS system to be used by the Consultant to develop the base mapping.
5. The City will provide the current standard details to the Consultant for use in the project.
6. The City will provide the Consultant with copies of all plats adjacent to the project in *.tif format or hard copy as available.
7. The City will provide the Consultant with copies of all drainage and infrastructure plans, reports, studies, etc. along the project area.
8. The City will provide names and contact information for each utility company.
9. The City will provide any recent bid tabs to assist in the development of the opinion of probable costs.
10. The City will develop a list of people from various organizations (could include the neighboring homeowners associations, businesses, Save the Wetlands, Wetlands Preservation Organization, Sierra Club, Audubon Society, Haskell Indian Nations University, Baker University, Kansas University, Lawrence Bicycle Club, Lawrence School District, and the Lawrence Bicycle Advisory Committee) to serve on a Community Steering Committee (CSC).
 - a. The City will organize and schedule a total of six (6) CSC meetings (assume meetings will be three hours in length). The purpose of the CSC is to discuss the issues and vision for the project. The vision will include key guiding principles that will be used during the development of the conceptual and preferred alignment alternative for 31st Street.
 - b. The City will prepare any necessary display boards for the CSC meetings.
 - c. The City will prepare any necessary support materials including welcome boards, sign-in sheets, agendas, and name tags for the CSC meetings.
 - d. The City will identify, locate, and reserve the facilities for the CSC meetings.
 - e. The City will create and distribute the CSC meeting notifications.
 - f. The City will lead the meetings.
 - g. The City will document the goals, concerns, requirements, and options developed during the meeting. The focus should be on project expectations from all perspectives.
 - h. The City will prepare the minutes of the CSC meeting.
11. Public Meeting No. 1: The focus of this meeting will be to present the issues, vision, and guiding principles related to the concept study phase that were developed in the meeting(s) with the CSC.
 - a. The City will organize and schedule the public meeting (assume the public meeting will be three hours in length).
 - b. The City will prepare any necessary display boards for the public meeting.
 - c. The City will prepare any necessary support materials including welcome boards, sign-in sheets, agendas, and name tags for the public meeting.
 - d. The City will identify, locate, and reserve the facility for the public meeting.
 - e. The City will create and distribute the public meeting notification.
 - f. The City will be responsible for preparing, printing and disseminating the press releases and public notifications for the public meeting.
 - g. The City will provide a general presentation of the meeting purpose and discuss current information gathered by the consultant team and discussed in the CSC meeting(s).
 - h. The City will prepare the minutes of the public meeting.
12. Public Meeting No. 2: The focus of this meeting will be on the preferred alignment alternative.
 - a. The City will organize and schedule the public meeting (assume the public meeting will be three hours in length).

- b. The City will prepare any necessary display boards for the public meeting.
- c. The City will prepare any necessary support materials including welcome boards, sign-in sheets, agendas, and name tags for the public meeting.
- d. The City will identify, locate, and reserve the facility for the public meeting.
- e. The City will create and distribute the public meeting notification.
- f. The City will be responsible for preparing, printing and disseminating the press releases and public notifications for the public meeting.
- g. The City will provide a general presentation of the meeting purpose and discuss current information gathered by the consultant team and discussed in the CSC meeting(s).
- h. The City will prepare the minutes of the public meeting.
- 13. The City will be responsible for preparing, printing and disseminating the press releases and public notifications for the two (2) public meetings.
- 14. The City will develop a project mailing list of ≤ 1000 community and advocacy groups, property owners, interested residents, agencies, local officials, state elected officials.
- 15. The City will update the project mailing list monthly throughout the project by incorporating contact information for new stakeholders coming to the project through stakeholder outreach activities.
- 16. The City will produce any media releases that provide updates on significant project milestones in coordination with the City's Communications Department as appropriate.
- 17. The City will distribute the media releases to regional print, broadcast and internet media outlets.
- 18. The City will provide preliminary ownership information for all properties along the proposed alignments.

Items Not Included in the Scope of Services

- 1. The Consultant will not be completing a property survey, nor will he be responsible for setting new property corners if they are missing.
- 2. In the event that a section corner cannot be recovered or verified, the Consultant shall contact the County Surveyor for assistance in determining the final corner location. Expected assistance from the County Surveyor shall be resetting of the monument in accordance with State Statutes. The final determination of the section position shall be provided to Consultant.
- 3. Any modifications or additions of undeveloped properties affecting the base mapping within the project corridor will be additional services.
- 4. Preparation of a Phase I environmental investigation is not included as part of this project.
- 5. Preparation of a Cultural Resources Survey is not included as part of this project.
- 6. Any work requested by the City that is not included in the basic services will be classified as supplemental services. Supplementary services shall include, but are not limited to the following:
 - a. Changes in the scope, extent, or character of the project.
- 7. Updating, revising and/or supplementing the MARC model are not included within this scope of services. It is anticipated that MARC will provide the City with the design year traffic volumes.
- 8. Potholing for utilities.
- 9. Determination of the condition of existing utilities.
- 10. Determination of the height of overhead utilities.
- 11. Entry within confined spaces such as sanitary and storm sewer structures.
- 12. Location of utility services to buildings.

13. It is assumed that hand written and typed minutes are acceptable. Providing a written transcript of the public meeting which may require providing a court reporter is not included as part of this project.
14. Costs associated with rental of a facility for hosting the public meeting.
15. Level of Service (LOS) calculations for storm water quality/ management.
16. HEC-HMS and/ or HEC-RAS modeling for the three (3) major stream crossings.
17. Environmental clearance review to provide environmental planning and field data to support a Categorical Exclusion clearance that KDOT will author. This includes all environmental mapping, studies, and a summary of data in support of the Categorical Exclusion.

Miscellaneous Notes:

1. Project will be prepared in English units.
2. It is assumed that this project will be able to obtain a Categorical Exclusion (CE) status. Preparation of an Environmental Impact Statement (EIS), Environmental Assessment (EA), or Finding of No Significant Impact (FONSI) is considered as additional services.
3. All proposed retaining walls will consist of cast-in-place reinforced concrete footing supporting a cast-in-place reinforced concrete stem.
4. Architectural design features will be incorporated into the retaining wall improvements. The architectural design features used will be limited to use of form liner surface treatments on non-critical, exposed concrete surfaces.



Proj.: 31st Street Improvements
By: EL Johnson
Date: January 18, 2008
Client: City of Lawrence, Kansas
Notes: Concept Alignment Design

EXHIBIT A
FEE ESTIMATE WORKSHEET

By: EL Johnson Date: January 18, 2008 Client: City of Lawrence, Kansas Notes: Concept Alignment Design			ESTIMATED MANHOURS									TOTAL HOURS	LABOR EFFORT	EXPENSE EFFORT	TOTAL FEE	
WCI TASK CODE	TASK I.D.	WCI DEPT WCI CLASS TITLE	8140 P7	8145 P7	8145 P4	8145 PD2	8145 P6	8145 P4	8145 PD1	8132 P5T	8132 P2T					
		Senior Project Manager	Senior QA Manager	Project Engineer	Roadway CADD Technician	Senior Bridge Engineer	Bridge Engineer	Bridge CADD Designer	Senior Planner/ Engineer	Junior Planner/ Engineer						
CADD USAGE LABOR COST			0% \$63.90	0% \$63.90	0% \$37.80	0% \$26.10	0% \$51.10	0% \$37.80	0% \$33.60	0% \$56.90	0% \$30.10		(\$)	(\$)	(\$)	
I	PROJECT INITIATION															
I	1	WCI, PG, PBA, City attend kick-off meeting		8						8			24	\$ 4,327.01	\$ 2,000.50	\$ 6,327.51
I	2	WCI prepare Project Work Plan		8									8	\$ 1,497.00	\$ 34.63	\$ 1,531.63
Subtotal				16	8	0	0	0	0	8	0	32	\$ 5,824.01	\$ 2,035.13	\$ 7,859.14	
II	DATA GATHERING AND SITE INVENTORY															
II	1	WCI assemble base mapping for City GIS data			4	2							6	\$ 595.64	\$ 4.50	\$ 600.14
II	2	WCI submit Utility Location Report to utility companies			1	4							5	\$ 416.42	\$ 17.00	\$ 433.42
II	3.A	Field Survey: PG set horizontal and vertical control												\$ -	\$ 7,550.00	\$ 7,550.00
II	3.B	Field Survey: PG contact Kansas One Call for utility locations												\$ -	\$ 720.00	\$ 720.00
II	3.C	Field Survey: PG locate 11 section corners												\$ -	\$ 4,690.00	\$ 4,690.00
II	3.D	Field Survey: PG field locate utilities marked in the field												\$ -	\$ 3,070.00	\$ 3,070.00
II	3.E	PG obtain specific current topographic measurements												\$ -	\$ 3,485.00	\$ 3,485.00
II	4	WCI input utility location information into base mapping			1	4							5	\$ 416.42	\$ -	\$ 416.42
II	5	WCI, PG meet with utility companies		4	4								8	\$ 1,191.27	\$ 1,199.50	\$ 2,390.77
II	6	WCI input new, revised utility information on base mapping			1	4							5	\$ 416.42	\$ 3.20	\$ 419.62
II	7	Review Lawrence Master Plan for future land development								4			4	\$ 666.50	\$ -	\$ 666.50
II	8	Review City's Bicycle Facilities Map												\$ -	\$ 190.00	\$ 190.00
II	9	Review Lawrence Transportation 2030 report		2	2					2			6	\$ 928.89	\$ -	\$ 928.89
II	10	Upload Lawrence transportation model and verify								4	4		8	\$ 1,019.08	\$ -	\$ 1,019.08
II	11	PBA contact local agencies to compile plant materials list		2									2	\$ 374.25	\$ 1,920.00	\$ 2,294.25
II	12	Walk project corridor to review, catalog, photograph		4	4					4			12	\$ 2,163.50	\$ 1,828.25	\$ 3,991.75
Subtotal				12	4	13	14	0	0	0	14	4	61	\$ 8,188.40	\$ 24,677.45	\$ 32,865.85
III	PUBLIC OUTREACH PROGRAM															
III	1.A	CSC: WCI and PBA prepare, submit electronic files for City		2		6	24						32	\$ 2,872.76	\$ 2,400.00	\$ 5,272.76
III	1.B	CSC: WCI and PBA attend six (6) meetings		30	30								60	\$ 11,227.49	\$ 3,393.00	\$ 14,620.49
III	2.A	Public Meeting 1: WCI and PBA submit electronic files to City				1	4						5	\$ 416.42	\$ 900.00	\$ 1,316.42
III	2.B	Public Meeting 1: WCI and PBA attend meeting		6	6					6			18	\$ 3,245.26	\$ 660.50	\$ 3,905.76
III	3.A	Public Meeting 2: WCI and PBA submit electronic files to City				1	4						5	\$ 416.42	\$ 900.00	\$ 1,316.42
III	3.B	Public Meeting 2: WCI and PBA attend meeting		6	6					6			18	\$ 3,245.26	\$ 660.50	\$ 3,905.76
Subtotal				44	42	8	32	0	0	0	12	0	138	\$ 21,423.60	\$ 8,914.00	\$ 30,337.60
IV	EVALUATE ALTERNATIVES															
IV	1.A	WCI develop two (2) typical section options		1		4				1			6	\$ 796.53	\$ 0.80	\$ 797.33
IV	1.B	WCI develop two (2) alignment alternatives		8	2	8				1			19	\$ 2,923.42	\$ 24.00	\$ 2,947.42
IV	1.C.a	WCI prepare Geopak criteria file				4							4	\$ 442.77	\$ -	\$ 442.77
IV	1.C.b	WCI prepare sheet borders for plan, profile, X-sections					4						4	\$ 305.73	\$ 0.80	\$ 306.53
IV	1.C.c	WCI design vertical alignments		2	2	30	30						64	\$ 6,362.25	\$ 70.25	\$ 6,432.50
IV	1.C.d	WCI design horizontal alignments		2	2	30	30						64	\$ 6,362.25	\$ 5.80	\$ 6,368.05
IV	1.D.a	WCI review existing commercial access locations		4		16	8			4			32	\$ 3,797.55	\$ -	\$ 3,797.55
IV	1.D.b	WCI review other commercial circulation, access options		2		10	14			4			30	\$ 3,217.73	\$ 68.65	\$ 3,286.38
IV	1.D.c	WCI review commercial access during construction options				10	6			4			20	\$ 2,232.03	\$ 0.40	\$ 2,232.43
IV	1.E	WCI review residential access options		1		4	16			4			25	\$ 2,519.30	\$ 0.80	\$ 2,520.10
IV	1.F.a	PG define drainage areas using City's GIS base mapping				1							1	\$ 110.69	\$ 1,200.00	\$ 1,310.69
IV	1.F.b	PG calculate the design flow rates for required storm events		1		1							2	\$ 297.82	\$ 2,360.00	\$ 2,657.82
IV	1.F.c	PG evaluate crossroad structure options		2		4							6	\$ 817.02	\$ 4,000.00	\$ 4,817.02
IV	1.G	WCI review, evaluate various bridge type, size options		1		2		24	40	40			107	\$ 12,363.42	\$ 6.20	\$ 12,369.62
IV	1.H	WCI review, design underground storm drainage system		1	1	24	24						50	\$ 4,865.25	\$ 6.40	\$ 4,871.65
IV	1.I	WCI coordinate, evaluate bridge aesthetics needs				2		8					10	\$ 1,418.52	\$ -	\$ 1,418.52



Proj.: 31st Street Improvements
By: EL Johnson
Date: January 18, 2008
Client: City of Lawrence, Kansas
Notes: Concept Alignment Design

EXHIBIT A
FEE ESTIMATE WORKSHEET

By: EL Johnson Date: January 18, 2008 Client: City of Lawrence, Kansas Notes: Concept Alignment Design			ESTIMATED MANHOURS									TOTAL HOURS	LABOR EFFORT	EXPENSE EFFORT	TOTAL FEE
WCI TASK CODE	TASK I.D.	WCI DEPT WCI CLASS TITLE	8140 P7	8145 P7	8145 P4	8145 PD2	8145 P6	8145 P4	8145 PD1	8132 P5T	8132 P2T				
		Senior Project Manager	Senior QA Manager	Project Engineer	Roadway CADD Technician	Senior Bridge Engineer	Bridge Engineer	Bridge CADD Designer	Senior Planner/ Engineer	Junior Planner/ Engineer					
CADD USAGE LABOR COST			0% \$63.90	0% \$63.90	0% \$37.80	0% \$26.10	0% \$51.10	0% \$37.80	0% \$33.60	0% \$56.90	0% \$30.10		(\$)	(\$)	(\$)
IV	1.J.a	PG review, evaluate feasibility of proposed BMP's	1									1	\$ 187.12	\$ 2,960.00	\$ 3,147.12
IV	1.J.b	PG review planting palette and schematic plan			1							1	\$ 110.69	\$ 880.00	\$ 990.69
IV	1.J.c	PBA develop one conceptual planting plan for each BMP			4							4	\$ 442.77	\$ 2,385.00	\$ 2,827.77
IV	1.K	PG develop concept plan for development of split properties		1		4						5	\$ 492.85	\$ 2,280.00	\$ 2,772.85
IV	1.L.a	PBA develop a aesthetics theme for project		1								1	\$ 187.12	\$ 350.00	\$ 537.12
IV	1.L.b	PBA review landscape plant materials			1							1	\$ 110.69	\$ 1,415.00	\$ 1,525.69
IV	1.L.c	PBA review hardscape materials			1							1	\$ 110.69	\$ 1,390.00	\$ 1,500.69
IV	1.L.d	PBA develop three landscape concepts at intersections	1		1							2	\$ 297.82	\$ 2,580.00	\$ 2,877.82
IV	1.L.e	PBA review potential crosswalk design features			1							1	\$ 110.69	\$ 805.00	\$ 915.69
IV	1.M	PBA develop bicycle, pedestrian facilities for alignment options	1		1							2	\$ 297.82	\$ 5,160.00	\$ 5,457.82
IV	1.N	WCI review, evaluate, model traffic for design sections								12	16	28	\$ 3,409.83	\$ 1.60	\$ 3,411.43
IV	1.O	WCI review, model rounadabouts at Haskell and O'Connell			4	8				8	8	28	\$ 3,092.39	\$ 1.80	\$ 3,094.19
IV	1.P	WCI review, evaluate impacts to water distribution system	1		8	4						13	\$ 1,378.40	\$ 3.60	\$ 1,382.00
IV	1.Q	WCI prepare cross sections for alignment, section options	4	1	24	40						69	\$ 6,649.52	\$ 34.40	\$ 6,683.92
IV	1.R	WCI, PG, PBA prepare opinion of probable construction costs	1		8	8				2		19	\$ 2,017.38	\$ 2,320.80	\$ 4,338.18
IV	2.A	WCI, PG, PBA revise alignment alternative drawings	2	1	24	40						67	\$ 6,275.27	\$ 4,370.25	\$ 10,645.52
IV	2.B	WCI, PG, PBA prepare decision matrix to review alignments	8	2	8					2		20	\$ 3,090.05	\$ 942.40	\$ 4,032.45
IV	2.C	WCI, PG, PBA prepare checklist of modifications per public input	2	1	6					2		11	\$ 1,558.79	\$ 750.80	\$ 2,309.59
IV	2.D	WCI, PG, PBA update opinions of probable construction costs	1		4	4						9	\$ 935.62	\$ 1,410.40	\$ 2,346.02
IV	3.A	WCI, PG, PBA prepare drawings of preferred alignment	2	1	8	24						35	\$ 3,281.27	\$ 5,146.00	\$ 8,427.27
IV	3.B	WCI, PG, PBA prepare alignment report; design variances	8	1	10					2	4	25	\$ 3,476.89	\$ 2,980.00	\$ 6,456.89
IV	3.C	WCI, PG, PBA prepare opinion of probable construction costs	1		4							5	\$ 629.90	\$ 1,410.40	\$ 2,040.30
IV	3.D	WCI prepare strip map, cross sections for KDOT/ FHWA.			1	2						3	\$ 263.56	\$ 46.80	\$ 310.36
Subtotal			58	16	269	266	32	40	40	46	28	795	\$ 87,239.44	\$ 47,368.35	\$ 134,607.79
V	REGULAR MEETINGS														
V	1	WCI, PG, PBA, City attend 10 bi-weekly meetings	20	10	20					10		60	\$ 9,493.88	\$ 2,961.50	\$ 12,455.38
V	2	WCI attend City Commission workshop (1 meeting)	3	3								6	\$ 1,122.75	\$ 81.50	\$ 1,204.25
Subtotal			23	13	20	0	0	0	0	10	0	66	\$ 10,616.63	\$ 3,043.00	\$ 13,659.63
TOTALS (Hours)			153	83	310	312	32	40	40	90	32	1092	\$ 133,292.07	\$ 86,037.93	\$ 219,330.00



Proj.: 31st Street Improvements
By: EL Johnson
Date: January 18, 2008
Client: City of Lawrence, Kansas
Notes: Concept Alignment Design

EXHIBIT A
FEE ESTIMATE WORKSHEET - EXPENSES

WCI TASK CODE	TASK I.D.	WORK TASK DESCRIPTION	WCI DEPT	8145	8145	8145	8145	8145	8145	SUB1	SUB2	EXPENSE EFFORT (\$)
			UNIT CODE	3010	3030	4050	4060	7010	9010	Patti Banks	Peridian Group	
			UNIT BILL RATE	Letter Copy	11" x 17" Copy	B&W Wide Format	Color Wide Format	Project Miles	Postage/Shipp ing	Associates		
				Each \$0.10	Each \$0.20	Sq Ft \$0.25	Sq Ft \$0.75	Mile \$0.65	Unit \$1.00	Unit \$1.00	Unit \$1.00	
I		PROJECT INITIATION										
I	1	WCI, PG, PBA, City attend kick-off meeting						70.00		810.00	1145.00	\$ 2,000.50
I	2	WCI prepare Project Work Plan		150.00					19.63			\$ 34.63
		Subtotal		150.00	0.00	0.00	0.00	70.00	19.63	810.00	1145.00	\$ 2,035.13

II		DATA GATHERING AND SITE INVENTORY										
II	1	WCI assemble base mapping for City GIS data			18.00							\$ 4.50
II	2	WCI submit Utility Location Report to utility companies	40.00	20.00					9.00			\$ 17.00
II	3.A	Field Survey: PG set horizontal and vertical control									7550.00	\$ 7,550.00
II	3.B	Field Survey: PG contact Kansas One Call for utility locations									720.00	\$ 720.00
II	3.C	Field Survey: PG locate 11 section corners									4690.00	\$ 4,690.00
II	3.D	Field Survey: PG field locate utilities marked in the field									3070.00	\$ 3,070.00
II	3.E	PG obtain specific current topographic measurements									3485.00	\$ 3,485.00
II	4	WCI input utility location information into base mapping										\$ -
II	5	WCI, PG meet with utility companies						70.00	9.00		1145.00	\$ 1,199.50
II	6	WCI input new, revised utility information on base mapping		16.00								\$ 3.20
II	7	Review Lawrence Master Plan for future land development										\$ -
II	8	Review City's Bicycle Facilities Map								190.00		\$ 190.00
II	9	Review Lawrence Transportation 2030 report										\$ -
II	10	Upload Lawrence transportation model and verify										\$ -
II	11	PBA contact local agencies to compile plant materials list								1920.00		\$ 1,920.00
II	12	Walk project corridor to review, catalog, photograph			80.00			65.00		730.00	1040.00	\$ 1,828.25
		Subtotal	40.00	116.00	18.00	0.00	135.00	18.00	2840.00	21700.00		\$ 24,677.45

III		PUBLIC OUTREACH PROGRAM										
III	1.A	CSC: WCI and PBA prepare, submit electronic files for City								2400.00		\$ 2,400.00
III	1.B	CSC: WCI and PBA attend six (6) meetings						420.00		3120.00		\$ 3,393.00
III	2.A	Public Meeting 1: WCI and PBA submit electronic files to City								900.00		\$ 900.00
III	2.B	Public Meeting 1: WCI and PBA attend meeting						70.00		615.00		\$ 660.50
III	3.A	Public Meeting 2: WCI and PBA submit electronic files to City								900.00		\$ 900.00
III	3.B	Public Meeting 2: WCI and PBA attend meeting						70.00		615.00		\$ 660.50
		Subtotal	0.00	0.00	0.00	0.00	560.00	0.00	8550.00	0.00		\$ 8,914.00

IV		EVALUATE ALTERNATIVES										
IV	1.A	WCI develop two (2) typical section options		4.00								\$ 0.80
IV	1.B	WCI develop two (2) alignment alternatives			96.00							\$ 24.00
IV	1.C.a	WCI prepare Geopak criteria file										\$ -
IV	1.C.b	WCI prepare sheet borders for plan, profile, X-sections		4.00								\$ 0.80
IV	1.C.c	WCI design vertical alignments	4.00	18.00				65.00	24.00			\$ 70.25
IV	1.C.d	WCI design horizontal alignments	4.00	27.00								\$ 5.80
IV	1.D.a	WCI review existing commercial access locations										\$ -
IV	1.D.b	WCI review other commercial circulation, access options	8.00	8.00				65.00	24.00			\$ 68.65



Proj.: 31st Street Improvements
By: EL Johnson
Date: January 18, 2008
Client: City of Lawrence, Kansas
Notes: Concept Alignment Design

EXHIBIT A
FEE ESTIMATE WORKSHEET - EXPENSES

By: EL Johnson Date: January 18, 2008 Client: City of Lawrence, Kansas Notes: Concept Alignment Design			ESTIMATED EXPENSES								EXPENSE EFFORT (\$)	
			8145 3010	8145 3030	8145 4050	8145 4060	8145 7010	8145 9010	SUB1 Patti Banks Associates	SUB2 Peridian Group		
			Letter Copy	11" x 17" Copy	B&W Wide Format	Color Wide Format	Project Miles	Postage/Shipp ing				
WCI TASK CODE	TASK I.D.	WORK TASK DESCRIPTION	UNIT BILL RATE	Each \$0.10	Each \$0.20	Sq Ft \$0.25	Sq Ft \$0.75	Mile \$0.65	Unit \$1.00	Unit \$1.00	Unit \$1.00	
IV	1.D.c	WCI review commercial access during construction options			2.00							\$ 0.40
IV	1.E	WCI review residential access options			4.00							\$ 0.80
IV	1.F.a	PG define drainage areas using City's GIS base mapping									1200.00	\$ 1,200.00
IV	1.F.b	PG calcuate the design flow rates for required storm events									2360.00	\$ 2,360.00
IV	1.F.c	PG evaluate crossroad structure options									4000.00	\$ 4,000.00
IV	1.G	WCI review, evaluate various bridge type, size options		8.00	27.00							\$ 6.20
IV	1.H	WCI review, design underground storm drainage system		10.00	27.00							\$ 6.40
IV	1.I	WCI coordinate, evaluate bridge aesthetics needs										\$ -
IV	1.J.a	PG review, evaluate feasibility of proposed BMP's									2960.00	\$ 2,960.00
IV	1.J.b	PG review planting palette and schematic plan									880.00	\$ 880.00
IV	1.J.c	PBA develop one conceptual planting plan for each BMP							2385.00			\$ 2,385.00
IV	1.K	PG develop concept plan for development of split properties									2280.00	\$ 2,280.00
IV	1.L.a	PBA develop a aesthetics theme for project							350.00			\$ 350.00
IV	1.L.b	PBA review landscape plant materials							1415.00			\$ 1,415.00
IV	1.L.c	PBA review hardscape materials							1390.00			\$ 1,390.00
IV	1.L.d	PBA develop three landscape concepts at intersections							2580.00			\$ 2,580.00
IV	1.L.e	PBA review potential crosswalk design features							805.00			\$ 805.00
IV	1.M	PBA develop bicycle, pedestrian facilities for alignment options							5160.00			\$ 5,160.00
IV	1.N	WCI review, evaluate, model traffic for design sections		16.00								\$ 1.60
IV	1.O	WCI review, model rounadabouts at Haskell and O'Connell			9.00							\$ 1.80
IV	1.P	WCI review, evaluate impacts to water distribution system			18.00							\$ 3.60
IV	1.Q	WCI prepare cross sections for alignment, section options			172.00							\$ 34.40
IV	1.R	WCI, PG, PBA prepare opinion of probable construction costs		8.00						1440.00	880.00	\$ 2,320.80
IV	2.A	WCI, PG, PBA revise alignment alternative drawings				96.00		65.00	24.00	3000.00	1280.00	\$ 4,370.25
IV	2.B	WCI, PG, PBA prepare decision matrix to review alignments		24.00						380.00	560.00	\$ 942.40
IV	2.C	WCI, PG, PBA prepare checklist of modifications per public input		8.00						190.00	560.00	\$ 750.80
IV	2.D	WCI, PG. PBA update opinions of probable construction costs		4.00						530.00	880.00	\$ 1,410.40
IV	3.A	WCI, PG, PBA prepare drawings of preferred alignment				48.00			24.00	2390.00	2720.00	\$ 5,146.00
IV	3.B	WCI, PG, PBA prepare alignment report; design variances		240.00	80.00					380.00	2560.00	\$ 2,980.00
IV	3.C	WCI, PG, PBA prepare opinion of probable construction costs		4.00						530.00	880.00	\$ 1,410.40
IV	3.D	WCI prepare strip map, cross sections for KDOT/ FHWA.			24.00		24.00		24.00			\$ 46.80
Subtotal				338.00	424.00	240.00	24.00	195.00	120.00	22925.00	24000.00	\$ 47,368.35
V	REGULAR MEETINGS											
V	1	WCI, PG, PBA, City attend 10 bi-weekly meetings			120.00			350.00		1085.00	1625.00	\$ 2,961.50
V	2	WCI attend City Commission workshop (1 meeting)					48.00	70.00				\$ 81.50
Subtotal				0.00	120.00	0.00	48.00	420.00	0.00	1085.00	1625.00	\$ 3,043.00
TOTALS (# of units)				528.00	660.00	258.00	72.00	1380.00	157.63	36210.00	48470.00	\$ 86,037.93
TOTALS (\$ - Effort)				\$52.80	\$132.00	\$64.50	\$54.00	\$897.00	\$157.63	\$36,210.00	\$48,470.00	\$86,037.93