PW041409-09

REQUEST AUTHORIZATION FOR MAYOR AND FINANCE OFFICER TO SIGN PROFESSIONAL SERVICES AGREEMENT

Date: 03/25/09

		Proje	ect No. ST08	-1511		CIP#:	50142
Con	nsultant: Kadrn	nas Lee & Ja	ickson				
		\$1,794,247			Original Completion Date:		
Add	lendum No:						
Ame	endment Descrip	ion:					
				\$1,794,24	.00 Current Completion Date:	<u> </u>	
	New Co	ntract Amou	nt:	\$1,794,247	New Completion Date:		
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	Amount	Dept.	Line Item	Fund	Comments	•	
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_	\$225,000.00	933	4223	602			
_	\$1,300,000.00	8910	4223	505			
_	\$224,247.00	8911	4223	505			
	\$1,794,247.00	Total					
Original Contract Amount: \$1,794,247 Original Contract Date: Original Completion Date: Addendum No: Amendment Description: Current Contract Amount: \$1,794,247.00 Current Completion Date: Change Requested: New Contract Amount: \$1,794,247.00 New Completion Date: Funding Source This Request: Amount Dept. Line Item Fund Comments \$45,000.00 833 4223 604 \$225,000.00 933 4223 602 \$1,300,000.00 8910 4223 505 \$224,247.00 8911 4223 505							
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AGREEMENT

FOR PROFESSIONAL ENGINEERING SERVICES

This is an Agreement, which shall become a contract, effective on _______, between the City of Rapid City, South Dakota, herein after referred to as the OWNER; whose address is; 300 Sixth Street, Rapid City, South Dakota 57701-2724, and Kadrmas, Lee & Jackson, Inc., herein after referred to as the ENGINEER; whose address is; 330 Knollwood Drive, Rapid City, South Dakota 57709-3416.

The ENGINEER herein agrees to provide professional engineering services to the OWNER for the East Boulevard / East North Street Reconstruction Project, ST08-1511 CIP #50142, herein defined as the East Boulevard / East North Street Reconstruction Project , consisting of the following exhibits to include Scope of Services and Task Cost Projections.

Project Engineering Design Phases

Year	Phase	Phase Description	Exhibit	Estimated Fee
2009	2A	Preliminary Project Design (35%)	A	\$1,244,713
2010	2B	Project Design (85%) – Entire Project	В	
2010	2C	Final Design & Bidding – Construction Segment 1		
2012	2D	Final Design & Bidding – Construction Segment 2	_ C	\$ 549,534
2014	2E	Final Design & Bidding – Construction Segment 3		
2016	2F	Final Design & Bidding – Construction Segment 4		

Final Design and Bidding fees have been established based on four equivalent construction segments requiring the same level of design and construction effort. Actual Final Design and Bidding fees may be adjusted based on the actual construction limits of each segment established and agreed upon by the OWNER and the Engineer during Phase 2B. A separate Notice to Proceed will be issued at a later date by the Rapid City Public Works Engineering Services Division for each of the project Design Phases 2C-2F.

Construction Engineering and Administration Services may be negotiated at the end of each Final Design Phase and amended to this Agreement. Actual construction time periods will be established during the Final Design and Bidding Phase of each Segment. A separate Notice to Proceed may be issued at a later date by the Rapid City Public Works Engineering Services Division for each of the project Construction Phases.

PAYMENT

ENGINEER will perform the necessary services for the OWNER as defined above and in the attached exhibits. ENGINEER will invoice OWNER at the ENGINEERS direct labor costs plus overhead and expenses. The above listed estimated fees for the corresponding work phases shall be considered in this agreement as a maximum not to exceed in the total amount of \$1,794,247. The estimated Task and Fee Schedules for each phase is included as an exhibit.

Payment will be based upon the actual number of hours spent on the project, as documented by the ENGINEER and approved by the OWNER.

OWNER shall pay ENGINEER the actual costs (except where specifically provided otherwise) of all Reimbursable Expenses approved by the OWNER.

Any changes to the scope of work defined above and in attached exhibits, which may require additional

Agree - I rev. 1/06 engineering services or other, specialized services, beyond the "in-house" capability of the ENGINEER, which may require additional hours of work or fee, shall be approved by the OWNER in advance of doing the work or providing the service.

Payment shall be made upon the OWNER'S receipt of billing statement from the ENGINEER.

SITE ACCESS AND RIGHT OF ENTRY

OWNER will grant or obtain all necessary access and right of entry to properties involved in this contract to ENGINEER. OWNER further understands that some site damage may occur as vehicles and equipment enter and leave the site. ENGINEER shall have provisions within the construction documents, which require all parties to use caution and care to minimize damage in and around the site as well as on all access roads. The contractor under the contract documents will reclaim all areas damaged to a condition equal to that prior to construction.

CONTRACT TERMINATION / CANCELLATION OF WORK

This agreement may be terminated by either party in the event that either party fails to fulfill it's obligations as defined herein, through no fault of the terminating party, provided that the other party is given not less than 10 calendar days written notice of intent to terminate and an opportunity for consultation with the terminating party prior to termination.

If termination for default is requested by the OWNER, any payment due to the ENGINEER at the time of termination may be adjusted to cover any additional costs to the OWNER because of the ENGINEER'S default.

If termination for default is requested by the ENGINEER, the equitable adjustment shall include payment to the ENGINEER for services performed and expenses incurred up to the date of termination, in addition to termination settlement costs reasonable costs and expenses incurred by the ENGINEER from commitment, which were made prior to the date of termination notice.

The OWNER may, without being in default under this agreement, cancel all or any portion of the services provided under this agreement, after giving the ENGINEER twenty (20) calendar days of advance written notice. In the event of such cancellation, the OWNER shall pay the ENGINEER all compensation earned up to the effective date of cancellation, as well as all reasonable costs and expenses incurred while winding down services and canceling performance of services under this agreement, including those related to commitments which had become firm prior to the date of the termination notice.

ENGINEER shall submit all completed work up to the Cancellation or Termination date of the Agreement.

PROPOSED PROJECT SCHEDULE

- Notice to Proceed ~ Phase 2A & 2B 85% Design: (City)
- Draft Preliminary Project Design Report: (KL&J)
- Preliminary Design Report Comments: (City)
- Environmental Document Approved (CATEX/FONSI): (City)
- Final Preliminary Project Design Report: (KL&J)
- 35% Plan Submittal: (KL&J)
- 35% Plan review comments: (City)
- Final Design Report and 65% Plan Submittal: (KL&J)
- 65% Plan review comments: (City)
- 85% Plan Submittal: (KL&J)
- 85% Plan review comments: (City)
- Notice to Proceed for Design Phase 2C: (City)
- Easement and ROW Acquisition (KL&J/City)

April 7, 2009

September 15, 2009

October 13, 2009

October 13, 2009

November 10, 2009

November 24, 2009

January 5, 2010

February 15, 2010

March 15, 2010

April 16, 2010

May 14, 2010

May 14, 2010

May - June, 2010

PROPOSED PROJECT SCHEDULE (cont.)

•	95% Plan Submittal ~ Segment 1: (KL&J)	June 18, 2010
•	95% Plan review comments ~ Segment 1: (City)	June 29, 2010
•	Final Plans & Bid Package Submittal ~ Segment 1 (KL&J)	July 8, 2010
•	Bid Date ~ Segment 1 (CITY)	September 16, 2010
•	Final Design - Phase 2D ~ Segment 2	April – July 2012
•	Final Design – Phase 2E ~ Segment 3	April - July 2014
•	Final Design - Phase 2F ~ Segment 4	April - July 2016

The project schedule will be reviewed upon the completion of each Phase and adjusted as agreed upon by the OWNER and the ENGINEER. Additional time will be granted the ENGINEER in each Phase for delays caused beyond the ENGINEER'S control.

INSURANCE

ENGINEER'S liability to the OWNER for injury or damage to persons or property arising out of work performed for the OWNER and for which legal liability may be found to rest upon ENGINEER, other than professional errors and omissions, will be limited to ENGINEER'S general liability insurance coverage which ENGINEER maintains in limits of at least \$1,000,000.

ENGINEER and sub-consultants shall maintain workmen's unemployment compensation coverage, as well as public liability and property damage insurance, in amounts deemed adequate by ENGINEER. Certificates of insurance coverage shall be provided to OWNER upon written request.

MISCELLANEOUS PROVISIONS

The ENGINEER shall be held harmless by OWNER, or any other person, for use of any plans or drawings not signed by ENGINEER, or for use of plans or drawings on any project other than the one set forth in this Agreement. The ENGINEER shall not be held responsible for any changes not specifically approved by the ENGINEER, which are made on the plans, reports or specifications, by the OWNER or other person.

The ENGINEER shall be held harmless from delays caused by strikes, lockouts, accidents, acts of God, labor shortages, failure of the OWNER to furnish information or approve or disapprove the ENGINEER'S work, faulty performance by the OWNER or his agents, other contractor's, sub-consultant's or governmental agencies. In the case of such delays, the time for completion of the engineering work shall be extended accordingly.

The ENGINEER'S undertaking hereunder shall not relieve the OWNER of OWNER'S obligation to perform the defined work in conformity with the documents prepared, in a standard, industry accepted manner; shall not make the ENGINEER an insurer of the OWNER'S or any other sub-consultant's performance; and shall not impose upon the ENGINEER any obligation to see that the work is performed in a safe manner.

APPLICABLE LAWS

The laws of the State of South Dakota shall govern this agreement.

ACCEPTANCE

OWNER'S acceptance of this proposal as indicated by signature below will constitute an Agreement be-

tween OWNER and ENGINEER and be ENGINEER'S authority to proceed with the work. OWNER agrees that there are no understandings or agreements except as herein expressly stated. This agreement has been prepared in duplicate and both OWNER and ENGINEER will receive a signed copy with original signatures.

ENGINEER:

MARK ANDERSON, P.E.

TRANSPORTATION PRACTICE AREA LEADER KADRMAS, LEE & JACKSON, INC.

RODNEY A. SENN, P.E.

RAPID CITY OFFICE MANAGER KADRMAS, LEE & JACKSON, INC. OWNER:

ALAN HANKS MAYOR CITY OF RAPID CITY, SOUTH DAKOTA

JAMES F. PRESTON
FINANCE OFFICER
CITY OF RAPID CITY, SOUTH DAKOTA

EXHIBIT A

KADRMAS, LEE & JACKSON, INC.
SCOPE OF SERVICES – PHASE 2A
PRELIMINARY PROJECT DESIGN REPORT AND PRELIMINARY PLANS (35%)
EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION
ST. JOSEPH STREET TO CAMBELL STREET
RAPID CITY, SOUTH DAKOTA
Project Number ST08-1511 / CIP No. 50142
March 23, 2009

I PURPOSE

Kadrmas, Lee & Jackson, Inc. (KL&J) will provide the preliminary engineering documentation services (Phase 2A) for the East Boulevard/East North Street Reconstruction Project. The purpose of this exhibit is to describe the scope of work and responsibilities required in this phase of the project, including preliminary engineering, project design report, and 35% preliminary design plans for the proposed project. The following scope of work and corresponding fee summary is based upon the preparation of a Project Design Report and Preliminary Plans at the 35% Design Level. The City of Rapid City Engineering Services Division will either provide or coordinate, under separate agreement, all required environmental documentation necessary for Federal and State approval.

II OBJECTIVE

The general objective of this phase is to provide documentation necessary for the City of Rapid City to reach a consensus on the proposed improvements along the East Boulevard and East North Street project corridor. Alternatives would include a no action alternative and build alternatives with various street and utility options to be analyzed. These alternatives and options are discussed in greater detail in the following sections of this document.

KL&J will prepare a Project Design Report with the specific objective of documenting the requirements for each project alternative. KL&J will evaluate the alternatives and make recommendations as to the best selection of alternatives. The documentation will be developed in compliance with applicable State and Federal regulations. The City of Rapid City will provide the project environmental documentation including but not limited to permitting requirements, environmental impacts and mitigation, historic and architectural preservation, and section 4(f) & 6(f) evaluation in order to provide the SDDOT and FHWA with sufficient information for State & Federal approval of the proposed project improvements. KL&J will provide the City Engineering Services Division with electronic copies of project design report exhibits so they can also be used as part of the project's environmental documentation being completed by others.

III SERVICES TO BE PERFORMED BY KL&J

101100 Project Management & Coordination

Project Management/Administration

KL&J has identified the project manager as Ross Eberle for the East Boulevard/East North Street Reconstruction Project. The project management tasks include planning, organizing, and managing resources to successfully meet the project's objectives and goals.

The KL&J project manager will develop a project plan and a project team; define project goals and objectives; specify tasks and resources; and create budgets and timelines. The project manager handles all day to day activities and coordination for all actions throughout the duration of the project.

The KL&J project manager will handle all the billing reports, invoices, and track the project's budget.

Project Schedule

KL&J will submit a schedule for Phase 2A to the City of Rapid City. The schedule will include the establishment of milestone dates for the major work items. The schedule will be reviewed and adjusted as necessary to incorporate changes in the work concept and progress to date.

KL&J Team Meetings

Team meetings will be held on a bi-weekly basis and led by the project manager in order to effectively meet the project's time schedule. The project manager will allocate resources on all activities from conception to completion of the project. The objective of the team meetings is to ensure that all tasks are completed in order to meet the project milestones and also to discuss possible issues that have surfaced throughout the project's process.

Monthly Progress Meetings

The project manager will coordinate and administer monthly progress meetings with the City Engineering Services Division, additional identified City representatives and the KL&J project team. These meetings will summarize the work performed in the current period, work to be completed in the next period, summarize project decisions, and identify potential out of scope work activities. KL&J will identify "action items" and responsibility assignments and send a meeting agenda to the City project manager and the KL&J project team prior to meetings. KL&J will prepare and distribute minutes of each monthly meeting to attendees.

Project Coordination

KL&J will manage the project and provide overall coordination of the work completed by the planning and design team, including internal team meetings and subconsultant coordination.

One of the most critical components of project management is the communication between the client and the project team. Essentially, the project manager is the liaison between the City of Rapid City and the KL&J team.

It is the project manager's responsibility to notify the client of any issues, problems, or concerns regarding the project; the delegation of all activities to the project team; and handling all sub consultant coordination.

In addition, it is the project manager's responsibility to provide coordination with federal, state, and local agencies; city/county commissions; utility companies; the public; property and landowners; regulatory agencies; stakeholders' advisory committees as applicable. If necessary to meet with any of the above mentioned entities, the project manager will handle all the proper coordination and develop necessary material for the meetings.

The KL&J project team will meet with representatives from the City of Rapid City at the monthly progress meetings to discuss design and planning issues, scheduling, progress and upcoming work.

QC/QA

KL&J team will prepare and implement the QC/QA plan for the preliminary engineering phase to ensure proper reviews have been completed for the project development.

Field Review Meeting

KL&J team will lead a project field review with representatives from the City of Rapid City, SDDOT, and FHWA upon preparation of the draft project design report. A field review packet will be provided in advance to participants attending the field review. Preliminary project information will be discussed at the field review to confirm the scope of work and identify potential concerns and alternative solutions. A written summary will be prepared and distributed following the field review.

101120 Pick-Up Survey and Base Maps

A preliminary topographic survey was completed under a separate contract. This item is to include any additional survey that might be required as part of the preliminary engineering. KL&J will download the field survey data and generate AutoCAD base maps for plan drawings. The drawings will be created using the City of Rapid City CADD Standards.

As per the Preliminary Engineering and Scoping Report the topographic survey will be extended from Cambell Street to the east side of Century Road in order to perform utility analysis and design through this segment of East North Street.

Additional preliminary topographic survey is needed for the design and analysis of the storm sewer improvement alternatives to be considered, which section 101122 provides more detail.

It is anticipated that additional pick-up surveys will be required at intersections to facilitate analysis and design of the recommendations provided in the Traffic Operations Study.

101121 Project Design Report – Existing Conditions

Data Collection

In Phase I KL&J collected various plans, reports, data and materials relevant to engineering concerns within the study area that are necessary in preparing the Preliminary Project Design Report. Additional coordination with the City, Private and Public Utilities, and other stake holders is necessary during Phase 2A to obtain data in areas where the project limits have expanded.

Report - Existing Conditions

KL&J will collect and evaluate data pertinent to the existing conditions in the project area. This information will be used in the Project Design Report to help identify the project purpose and need and to develop alternatives. The existing conditions section will focus on the following:

	•		•	
- .	Construction History			Existing Structures
-	Functional & Funding			Existing Structures
	Classification		•	Right-of-Way
			-	Access Control
	Geometrics		_	Lighting
-	Existing Typical Section			
_ :	Pavement Condition		·	Utilities
			_	Parking
• .	Traffic Operations			
_	Safety Review	+ 1,	·	Sidewalks & Trails
			. •	Transit Facilities
•	Drainage		· •	Streetscape Features

101122 Engineering Technical Design Reports/Memorandums

Geotechnical Analysis & Report (Sub-consultant)

KL&J will coordinate with American Engineering Testing, Inc. (AET) of Rapid City to prepare a geotechnical evaluation of the project areas determining existing pavement and soil conditions to be used for the pavement design and underground utility design. The geotechnical evaluation will follow the guidelines provided in the "Draft" City of Rapid City Infrastructure Design Criteria Manual 2008 Edition.

The geotechnical evaluation limits will begin at Quincy Street on the south end of East Boulevard, and end on the west side at the intersection of East North Street and Cambell Street.

A total of 20 Standard Penetration Test Borings (SPT) will be obtained along the project corridor to depths of ten to twenty feet below existing grades. Proposed utilities are anticipated to be placed at a depth of 10 feet or less below current surface grades.

Please refer to "EXHIBIT A-1" (AET sub-contract agreement and supplement) for additional details regarding the geotechnical scope of services.

KL&J will coordinate with the South Dakota Department of Environmental & Natural Resources Brownfield Program to establish a work plan if brownfield sites are found to be located within the limits of the proposed project improvements.

Pavement Design Memorandum

Based upon the geotechnical information, a pavement design memorandum will be completed in accordance with Section 2.14 of the "Draft" City of Rapid City Infrastructure Design Criteria 2008 edition and AASHTO standards. The pavement design analysis will include a life cycle cost analysis for Asphalt Pavement versus Portland Cement Concrete Pavement. The design ESAL values will be calculated based upon the future traffic projections from the July 2008 Traffic Operation Study completed for this project.

A draft pavement design memorandum will be prepared and submitted to the City of Rapid City for review. The City will be responsible for coordination with the SDDOT. Review comments will be incorporated into the final pavement design memorandum. Three copies of the final pavement design memorandum will be submitted to the City of Rapid City. KL&J will retain one copy of the memorandum in the project design file records. The pavement design memorandum will also be included in the Project Design Report.

Draft Storm Drainage Report

KL&J will evaluate the existing storm drainage system and prepare a Draft Storm Drain Evaluation Report for the project. The following is a summary of the items to be included in the report:

Drainage Basin Analysis

Analyze the drainage basin area east of Cambell Street and north of East North Street and recommend improvements to the East North Street storm sewer system.

Box Culvert

The Knollwood Drainage Basin Design Plan identifies a major box culvert crossing that needs to be installed across East North Street. The analysis and design limits of Phase 2A will extend south to Denver Street and north to Watertown Street. Analysis and design limits could be extended upon City request and approval of a written amendment to the original scope of services. Coordination with FMG Inc. will be necessary for the planning of this structure. The entire analysis area will require additional topographic survey.

East North Storm Sewer

Analyze storm sewer needs along East North Street including overland flow routes north of East North Street and recommend solutions to intercept flows prior to the flow impacting this arterial street.

East Boulevard, North of Rapid Creek

Analyze storm sewer needs for the basin impacting East Boulevard north of Rapid Creek. The analysis would consider on-street storm sewer and storm inlet needs. The analysis would consider the existing storm sewer draining from the north, under the railroad right-of-way then along the west side of East Boulevard to Rapid Creek. Analysis and topographic survey of the old lowa Storm Drainage Ditch will be completed under this task.

Drainage North of DM&E RR

Present outfall alternatives for the drainage area located north of the DM&E railroad right-of-way and east of East Boulevard North to reduce the occurrence of localized flooding in the area of the underpass. Additional topographic survey will be required in this task.

East Boulevard, South of Rapid Creek

Analyze the drainage area impacting the East Boulevard drainage system which is located south of Rapid Creek. Utilizing the Downtown Drainage Basin Design Plan, KL&J will analyze the existing storm sewer system and determine flow conveyance capacity at strategic locations along the route. Recommended improvements within the project construction limits resulting from the analysis will be incorporated into the East Boulevard design.

SWQ Enhancements

Develop a Storm Water Quality (SWQ) enhancement plan for the project and recommend locations deemed feasible for transmission and treatment of storm water as per the City of Rapid City Stormwater Quality Manual. No detention pond design or topographic survey will be completed in Phase 2A. The additional topographic survey and design will be completed in Design Phase (Phase 2B).

Draft Water System Report

KL&J will evaluate the existing water distribution system and prepare a Draft Water Distribution Report for the project. The following is a summary of the items to be included in the report:

Project Kickoff Meeting

A Project Kickoff meeting (in-person) will be conducted to define the level of analysis and review existing data. This meeting would provide guidance in defining the proposed transmission pipeline options as recommended in the City of Rapid City Utility System master Plan prepared by Burns and McDonnell.

<u>Preliminary Sizing of Proposed Transmission Main Improvements – East North and East Boulevard</u>

Size the proposed transmission pipeline improvements along East North Street and East Boulevard utilizing recommendations from the recently completed Utility System Master Plan as prepared by Burns and McDonnell.

- a) Update transmission and water main layout for the area to be evaluated for this analysis. It is understood that the City prefers the following pipeline solutions as recommended in the Utility System Master Plan or an equivalent capacity:
 - 1). 24" on East Boulevard
 - 2). 20" on East North

b) As per City request, KLJ will evaluate scenarios for water main and transmission pipeline options for proposed project. Under the above conditions, the following pipeline configurations will be considered:

East Boulevard

Scenario 1: Large transmission main (on one side of street) and parallel service main (on opposite side of street)

Scenario 2: Two equivalent sized parallel mains

Scenario 3: One 24" main as recommended in the Utility System Master Plan.

East North Street

Scenario 1: Large transmission main (on one side of street) and parallel service main (on opposite side of street)

Scenario 2: Two equivalent sized parallel mains

Scenario 3: One 20" main as recommended in the Utility System Master Plan.

In addition, evaluations will take into consideration and provide recommendations for main connections at Waterloo Street, Maple Avenue, LaCrosse Street and Cambell Street.

KL&J will not complete any hydraulic modeling. The City has instructed KL&J to use and reference the Hydraulic Modeling Study recently completed by Burns and McDonnell. Preliminary sizing and evaluation will only consider the pipe configurations listed above. KL&J's evaluation will compare velocities, capacity and costs for the above listed scenarios.

Analysis of Non-conforming Services

Service records from City Utility Maintenance Division along with utility locations in the field were obtained in Phase 1 to identify known non-conforming services within the project area. It is anticipated that additional non-conforming utility services may be identified through the Phase II Public Involvement Process. The information will be used for planning alternative routes for new water mains and services to eliminate the identified non-conforming services.

Preparation of a Draft Report

Prepare a draft report including maps and figures related to the project corridors water system. Meet with the City to review draft preliminary report to discuss comments provided by the City and provide clarification. Prepare final preliminary report to be provided to the City. Incorporate City review comments into final preliminary report, compile and submit three copies of final report to the City.

Draft Sanitary System Report

KL&J will evaluate the existing sanitary sewer system and prepare a Draft Sanitary Sewer Evaluation Report for the project. The following is a summary of the analysis to be included in the report:

Review current & future flows of Trunk Sewers @ East Boulevard/Omaha Intersection

Review current and future flows in the dual trunk lines crossing at the intersection of East Boulevard and Omaha Street, as well as planning for the ultimate sewer infrastructure through the immediate project limits. This includes:

- Obtain existing flow data as well as future flow projections from the City of Rapid City Sewer Master Plan;
- Identifying potential routing and main sizing for a future trunk line up and downstream of the immediate project from approximately 1st Street downstream to Steele Avenue.
- Identify the optimal location for the future trunk line crossing within the project corridor and determination of what infrastructure is to be included in the current project.

Non-Conforming Service Areas

Present alternatives for nonconforming sewer service connections in block four of Simmons Addition.

East Boulevard / East St. Louis Street sewer main replacement Evaluate replacement or possible rerouting alternatives for the sewer main crossing on East Boulevard at East St. Louis.

Service Area (Basin) Study above MH A-31-3-48

Complete a service area study for the area served above Manhole A-31-3-48 located on LaCrosse north of Denver St. KL&J will evaluate flows vs. pipe capacity at the crossings of East North and recommend improvement alternatives with in the East North Street Corridor.

Coordination with Rapid City Utility Maintenance (UM)

KL&J will coordinate with UM and have them install flow meters and provide data at locations determined necessary to aid in project design efforts.

Preliminary Lighting Design Memorandum

The existing lighting system will be analyzed to determine if it meets AASHTO recommended minimum illuminance and maximum uniformity (average/minimum) levels using a computer generated lighting analysis. The lighting system will be analyzed using Visual Professional Edition software developed by Acuity Brands Lighting, Inc. using the illuminance method of calculation. If the existing lighting system does not meet the current design standards or needs to be replaced because of the proposed roadway alternatives, a proposed lighting design will be recommended. The lighting analysis will include appropriate mounting heights, mast arm lengths, placement configurations, fixture wattages and light distribution types to maximize lighting efficiency. KL&J will prepare a technical memorandum summarizing the lighting analysis and recommended improvements to be carried forward into design. KL&J will provide preliminary cost estimates for the recommended improvements.

Preliminary Traffic Signal Design Memorandum

The existing traffic control system will be evaluated to determine what improvements or modifications may be necessary to accommodate the projected traffic. A previously prepared Traffic Operations Study will provide the basis for determining the extent of design, operational and construction traffic signal modifications that are consistent with the MUTCD, SDDOT and City of Rapid City Design Standards. The Preliminary Traffic Signal Design Memorandum will identify any modifications or new improvements that may be required including any new hardware where none exists today, modified hardware such as new signal faces, pedestrian signals, signal standard locations, mast arm lengths, signing revisions, vehicle detection systems, feed point modifications, signal controller components and communication systems, updating timing plans in signal controllers, emergency vehicle pre-emption systems, pull boxes and pavement markings, etc.. KL&J will also review and analyze accident reports to identify street and approach issues. KL&J will work with the City's Traffic Operations Engineer to confirm accuracy of information provided in the projects Traffic Operations Study.

101123 Preliminary Project Design Report - Proposed Improvements

Preliminary Horizontal Alignment

The proposed horizontal alignment of East Boulevard and East North Street is proposed to replicate the existing horizontal alignment which will be the only street alignment studied for this project. Several options to the geometric configuration of East Boulevard side streets between the Rapid Creek Bridge and East Philadelphia Street will be evaluated as discussed later in the section.

Preliminary Vertical Alignment

The proposed vertical alignment of the street will closely match existing. KL&J will prepare one vertical alignment that will best fit the existing adjacent properties and accommodate the proposed improvements.

Preliminary Intersection Geometry

The Traffic Operations Report completed in Phase I recommended several intersection improvements along the project corridor. Based upon those recommendations, KL&J will prepare preliminary intersection layouts to identify any R/W and utility impacts. There are a total of six intersections that were identified in the traffic operations study for improved geometry. These intersections include Spruce Street, LaCrosse Street, Waterloo Street, Milwaukee Street, Maple Avenue, East Boulevard/East Philadelphia Street, and East New York Street. A maximum of sixteen alternatives will be prepared for all of these intersection locations to evaluate intersection geometry.

Typical Section/Alternative Analysis

KL&J will prepare typical sections and evaluate alternatives for each segment of roadway to be studied in the Preliminary Engineering Report. The alternatives for each roadway segment are defined below:

St. Joseph Street to DME Railroad Crossing: Lane widths and lane geometry will remain unchanged on this segment of roadway. Two alternatives would be evaluated for this segment of the project: complete reconstruction and pavement patching/repairs. Both alternatives will include pedestrian facility and landscaping improvements.

DME Railroad Crossing to Rapid Creek Bridge: Lane widths and lane geometry will remain unchanged on this segment of roadway. No street reconstruction alternatives will be evaluated; however a field review with City of Rapid City representatives will be coordinated by KL&J to determine appropriate street repair strategies for this segment. In addition recommendation will be provided for utility, pedestrian facility and landscaping improvements.

Rapid Creek Bridge to East Philadelphia Street: A maximum of eight alternatives will be analyzed for this segment of roadway. The alternatives studied will consider a roadway with a combination of the following features; raised median, flush median, side streets, no side streets, landscaping and ditches for storm water quality enhancement. In addition recommendations will be provided for a pedestrian facility and landscaping improvements.

East Philadelphia Street to Herman Street: Lane widths and lane geometry will remain unchanged on this segment of roadway. In addition recommendation will be provided for pedestrian facility and landscaping improvements.

Herman Street to North Cambell Street: A maximum of three alternatives will be analyzed for this segment of roadway. The alternatives studied will evaluate lane widths, pedestrian facilities as they relate to the existing right-of-way width. The City of Rapid City Engineering Services Division instructed KL&J to eliminate on street parking at a scoping review meeting held on October 27, 2008. Therefore on street parking will not be analyzed as a build option as per the City's request.

Cross Sections/Preliminary Earthwork Calculations

KL&J will create cross sections and perform preliminary earthwork computations to estimate excavation quantities and borrow requirements, if necessary.

Construction Work Phasing/Traffic Control

KL&J will work with the city of Rapid City to prepare a traffic control plan which will accommodate the necessary sequencing and staging of the work. The traffic control plan will be developed to meet Manual on Uniform Traffic Control Devices (MUTCD), City of Rapid City and SDDOT requirements. Concepts will be provided in Phase 2A and the Design will be completed in subsequent phases.

Access Control

KL&J will prepare an access control plan that will evaluate driveway locations and provide recommendations on relocation of the existing driveways and/or elimination of driveways. Existing frontage roads and access control along East Boulevard between St. Louis Street and Philadelphia Street will be included in the evaluation. Section 2.16 of the "Draft" City of Rapid City Infrastructure Design Criteria Manual will be used to prepare the access control plan.

Pedestrian/Bicycle Facilities

KL&J will analyze the feasibility of incorporating a shared-use path or bike lane into the project. Section 2.15 of the "Draft" City of Rapid City Infrastructure Design Criteria Manual will be used as a guide during the analysis. KL&J with coordinate and discuss Pedestrian/Bicycle Facility alternatives and cost sharing opportunities with the City of Rapid City Growth Management, Public Works and Parks & Recreations offices. The City Engineering Services Division informed KL&J that the City's Growth Management Department has been coordinating with the School of Mines to plan and fund possible pedestrian and landscape improvements along the East Boulevard project corridor. KL&J will encourage the City's Growth Management Department and the School of Mines to participate in project meetings related to pedestrian facilities or landscaping concepts.

Streetscape/Landscape Architecture

KL&J team will prepare landscape architecture concepts and cost estimates for harmonizing proposed improvements with adjacent development. The following information will be utilized for developing a streetscape plan:

- 1993 East Boulevard Corridor Study
- "Street Tree" concept used along East Boulevard
- Coordinate landscaping with the Kansas City Street Project Concepts between Omaha and Quincy Streets
- Coordinate landscaping with the Omaha Street Landscape theme
- Coordinate with the City of Rapid City Growth Management, Public Works and Parks & Recreations offices

Project Construction Phases and Cost Estimates

It is anticipated that the project design and construction of the East Boulevard / East North Street project corridor will be separated into four phases. KL&J will prepare a preliminary construction phasing schedule with preliminary construction cost estimates in present dollars and add an allowance for inflation based on the construction year for each of the build alternatives. A preliminary cost estimate for R/W and/or easements will be included in this section. The City of Rapid City will provide KL&J with budgetary information to assist with preparing cost estimates and phasing schedules.

Utility Coordination

KL&J will conduct a utility coordination meeting with the private utility companies that have facilities located adjacent to the project corridor. KL&J will continue to work with utility companies to explore the concept and feasibility of a common use utility trench along the project corridor. Cost estimates will be generated for the City's budget of private utility relocation expenses that may occur.

Draft Project Design Report - Preparation, Distribution, Review

KL&J will prepare and submit five copies of the draft report to the City of Rapid City for review. The Project Design Report will be a compilation and summary of the work completed in Tasks 101120 through 101123. Reports from project meetings, survey, roadway design, traffic operations, geotechnical report, draft storm water report, draft sanitary sewer report, draft water report, pavement design memorandum, preliminary lighting design memorandum, preliminary traffic signal design memorandum, and preliminary cost estimation will be referenced as part of the report. Following is a draft outline of the Preliminary Project Design Report:

- Executive Summary/Client Decision Document
- Introduction
- Existing Conditions
- Proposed Improvements/Alternatives
- Preliminary Cost Estimates
- Summary & Recommendations

Revisions to the Draft Project Design Report

The City project manager will provide KL&J with a summary of all City Staff, SDDOT and FHWA review comments. KL&J will address each comment individually. Any revisions resulting from the comments will be summarized in the Executive Summary to be included in the final project design report. This task will be completed in Phase 2B.

Prepare & Submit Final Preliminary Project Design Report

Input and comments from review of the draft report will be incorporated into the Final Project Design Report. KL&J will submit one electronic copy and five hard copies of the Final Project Design Report to the City of Rapid City. The City of Rapid City will be responsible for distribution to other project stakeholders. This task will be complete in Phase 2B.

101124 Public Involvement

Project Scoping/Mailing List

KL&J in cooperation with the City will identify and compile a mailing list of affected, potentially affected, or interested parties who will be solicited for input regarding the project. KL&J will prepare and distribute, upon review and approval, a scoping questionnaire to affected or potentially affected parties with a possible interest in the project's planning at the beginning of the Phase II engineering services. The questionnaire will be used as a means of scoping issues pertinent to the project. The questionnaire will include a self addressed stamped envelope to encourage responses.

News Media

Notice of one Public Informational Meeting will be advertised in the area newspaper approximately fifteen (15) days prior to the meeting. A press release will be issued approximately seven (7) days prior to the meeting.

Public Informational Meeting #1 - Open House

KL&J will prepare for and conduct a Public Informational Meeting after receiving responses to the project scoping questionnaire and towards the end of the Phase 2A engineering services. The purpose of the Public Informational Meeting is to introduce the project to the public and gain public input on the project. The format for the meeting will be open house. Preparation for the meeting will include any or all of the following: visual displays, public handouts, exhibits, and plan drawings. KL&J will coordinate with the City Engineering Services Division to arrange for Public Meeting to be held at the City School Administrative Center (CSAC). Input from the meeting will be incorporated into the Final Project Design Report.

101125 Public Involvement – Reimbursables

News Media

Newspaper legal notices and press releases for the Public Informational Meeting.

Printing Visual Aids

Visual aids for public meeting, and a project management presentation.

101300 Preliminary Right of Way Work

Develop Preliminary Right of Way Limits

KL&J will identify preliminary right-of-way (ROW) and easement acquisition needs (include acquisition needs to build improvements recommended in Traffic Operations Study). Existing ROW encroachments will be inventoried, and recommendations will be provided for encroachments that may be permitted to remain. Additional survey will be required in areas needing additional ROW or easements. KL&J will preliminary size and determine extent of such ROW or easements needs. KL&J will also compile the contact information of impacted property owners. Assessed property values from the Rapid Map GIS System will be used to estimate right-of-way and easement costs.

101400 35% Design & Plan Submittal

With the recommendations and City approval of the Draft Engineering Reports and the Preliminary Technical Memorandums as described previously in this scope of work, KL&J will prepare preliminary plan and profile sheets at the 35% review level for the project area. The preliminary plans will be developed according to the SDDOT Drafting Standards and the Plan Sheet Section Method. The preliminary design and plan submittal to the City of Rapid City Engineering Services Division will include design information and drafting standards for the following:

Title Sheet & Section Title Sheets

Section B: Grading Plans

- Typical Sections
 - o Existing
 - o Proposed
- Plan and Profile Sheets
 - Horizontal Alignment existing & proposed
 - o Vertical Alignment existing & proposed
 - o R/W Drawn and Dimensioned existing & proposed
 - Construction Limits

- Curb and Gutter Layout Sheets
 - o Curb & Gutter Locations/ADA Ramps
 - o Intersections (Truck Turning Movements)
 - Access Control/Driveway Locations
- Storm Sewer Layout Sheets
 - o Inlet Locations
 - o Manhole Locations
 - o Pipe Sizes, Type and Locations
 - o Pipe Grade Line
 - o Existing Utilities

Section C: Traffic Control Plans

- Traffic Control Layout Sheets
 - o General Phasing Layout
 - o Phasing Typical Section

Section M: Pavement Marking Plans

Pavement Marking Layout Sheets

Section X: Cross Sections

Cross Section Sheets – existing & proposed

Water Piping Systems & Sanitary Sewer

- Water Piping Systems
 - o Pipe Sizes, Type and Locations
 - Hydrant and Valve Locations
 - o Pipe Grade Line
 - Existing Utilities
- Sanitary Sewer
 - o Pipe Sizes, Type and Locations
 - Manhole Locations
 - o Pipe Grade Line
 - o Existing Utilities

Preliminary Opinion of Project Construction Cost

- Project Major Items
- Storm Sewer Design SDDOT vs. Rapid City
- Cost estimated to be separated according to funding source
- City to provide KL&J with funding source agreements

The City of Rapid City project manager will be responsible for summarizing all City and other review comments into one document and submitting them to the KL&J project manager. KL&J will update the 35% plans with the City review comments under Phase 2B Engineering Services.

IV. DELIVERABLES PROVIDED BY KL&J IN PHASE 2A ENGINEERING SERVICES CONTRACT

- 1. Project schedule with milestone dates for key activities. The schedule will be reviewed monthly and updated as approved by the City Engineering Services Division
- 2. Direct mail notices, news releases, exhibits, materials and reports for Field Review and Public Information Meetings
- 3. Monthly Progress Meeting Minutes
- 4. Minutes or reports of other planning meetings
- 5. Preliminary cost estimates for the alternates studied by KL&J. City project manager will provide KL&J with breakdown of DOT eligible / non-eligible items.
- 6. Draft Project Design Report
 - a) Geotechnical Evaluation & Recommendation (AET Subconsultant)
 - b) Pavement Thickness Design & Memorandum
 - c) Preliminary Storm Drainage Report
 - d) Preliminary Water System Report
 - e) Preliminary Sanitary Sewer System Report
 - f) Original reports will contain all original responses for scoping letters and any sheets with original signatures.
 - g) Preliminary right of way limits
 - h) Preliminary estimate to complete appraisals for budgeting purposes
 - i) Preliminary Plans as specified above. Preliminary plan submittal will not include detailed design of signals, lighting, electrical work and storm water quality enhancement/treatment locations.
 - j) Wetland Delineation and Coordination with CITY

V. WORK TO BE EXCLUDED FROM PHASE 2A KL&J ENGINEERING SERVICES CONTRACT

- 1. All Environmental Analysis and Documentation unless added by supplemental agreement
- 2. Noise Analysis
- 3. Section 4(f) or 6(f) Evaluation
- 4. Cultural and Architectural Resource Survey and Report
- 5. Wetland or any other Mitigation Plan
- 6. Section 404 Permit Evaluation
- 7. Threatened & Endangered Species Survey, Biological & Botanical Surveys
- 8. Obtaining Necessary Permits and/or Mitigation Measures. Permits and mitigation identified in Phase 2A will be administered by the City of Rapid City.
- 9. Utility Relocation Agreements
- 10. Water Quality Monitoring & Water Supply System Hydraulic Modeling
- 11. Right of way plats, access agreements, and encroachment permits. Issues identified in Phase 2A will be incorporated into the final design phase of each segment of work.
- 12. R/W Acquisition Including Appraisals, Title Searches, Title Opinions, Deeds. Issues identified in Phase 2A will be incorporated into the final design phase of each segment of work.
- 13. Detailed Lighting & Traffic Signal/Signing Design or Layouts for the Preliminary Plan submittal. This task will be incorporated into the final design for the appropriate segments.
- 14. Detailed Design of Storm Water Quality Enhancement/Treatment locations for the Preliminary Plan submittal. This task will be incorporated into the final design for the appropriate street segments.

VI. TIME LIMITATIONS

Phase 2A Engineering Services is anticipated to be completed in approximately 7 months from the date of Notice to Proceed. KL&J will prepare a detailed project design schedule for Phase 2A engineering services and submit it to the City for review once the City and KL&J enter into an agreement for the Phase 2A Engineering Services.

Following is a preliminary summary of anticipated major Phase 2A project milestone dates:

•	Notice to Proceed: (City)	April 7, 2009
	Submit Preliminary Project Design Report: (KL&J)	September 15, 2009
•	Preliminary Project Design Report Comments: (City)	October 13, 2009
	Environmental Document Approved (CATEX/FONSI): (City)	October 13, 2009
•	35% Plan Submittal: (KL&J)	November 24, 2009
•	Receive 35% Plan review comments: (City)	January 5, 2010

Project schedule to be adjusted due to delays caused beyond the control of KL&J.

If the execution of this contract for Phase 2A engineering services extends beyond May 1, 2010 for reasons out of the control of KL&J, KL&J reserves the right to renegotiate the fee for Phase 2A remaining work.

EXHIBIT B

KADRMAS, LEE & JACKSON, INC.
SCOPE OF SERVICES ~ PHASE 2B
PROJECT DESIGN AND 85% PRELIMINARY PLANS
EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION
ST. JOSEPH STREET TO CAMBELL STREET
RAPID CITY, SOUTH DAKOTA
Project Number ST08-1511 / CIP No. 50142
April 6, 2009

PHASE 2B – 85% DESIGN SERVICES:

This task consists of all services necessary to take project from Phase 2A Preliminary Design Services through the 85% Design Level Services, and includes the following itemized services.

- 2.1 Address City comments from the Phase 2A City review(s) and finalize Project Design Report, including any schedule modifications that may be required or advised.
- 2.2 Arrange and conduct a public meeting to review the proposed scope and extent of the work with the neighborhood and the general public. Notice shall be mailed at least to all property owners adjacent to the area of the work, as well as to others thought to be directly impacted by the work, as determined by the City, and a public service announcement of the meeting issued to the media. The Consultant shall tabulate all public comments and concerns received at meetings or through other communications and provide written recommendations for staff review regarding possible inclusion or exclusion of such requests.
 - It is anticipated that the work under this activity would be coordinated with the survey and questionnaire described in Phase 2A.
- 2.3 ROW and easement(s) acquisition: obtain property owner contact information, perform necessary field survey work to identify property boundaries, prepare easement and ROW exhibits as necessary, conduct property owner meetings for easement and ROW acquisition, assist owner with documentation of acquisition meetings and file with City. All ROW/Easement acquisitions shall be done in accordance with SDDOT/FHWA Criteria and Standard SDDOT Forms shall be used
- 2.4 Determine removal limits with approval of City of Rapid City project manager.
- 2.5 Coordinate with the geotechnical engineer to complete these services, and provide a geotechnical report to be included in the Project Design Report and project plans or specifications,
- 2.6 Incorporate ADA compliance items, for example fillet, driveway and sidewalk improvements.

- 2.7 Provide Erosion and Sediment Control Plans, and include the appropriate bid items in the bidder's proposal if more than one acre is disturbed. If less than one acre is disturbed, the contractor shall provide a Erosion and Sediment Control Plan and a bid item for "Erosion and Sediment Control Plan" shall be included in the bidders' proposal.
- 2.8 Complete the, "Flood Management Project Water Quality Impact Assessment Checklist Form", attachment three and incorporate applicable measures within the construction documents as necessary.
- 2.9 Provide five (5) copies of the finalized Project Design Report to the City project manager.
- 2.10 Provide five (5) copies of the 65% and 85% Design submittal to the City project manager for review. The submittal shall consist of complete plans and updated opinion of probable construction cost. All project plans shall be <u>drafted</u> in compliance <u>with SDDOT</u>
 <u>Standard Format Section Method</u>. Project plans shall have a separate schedule in the Estimate of Quantity Sheet for work items not covered under the STATE/CITY cost share agreement. The City project manager will determine the work items not covered under the agreement and will provide this information to the Engineer as part of the Phase 2A review comments.
- 2.11 Address City comments from the 65%.
- 2.12 Provide five (5) copies of the 85% Design submittal to the City project manager for review.
- 2.13 Provide City with electronic copy of Project Design Report exhibits to aid them in preparing the projects Environmental Documentation.

EXHIBIT C

KADRMAS, LEE & JACKSON, INC.
SCOPE OF SERVICES ~ PHASE 2C, 2D, 2E & 2F
FINAL DESIGN & BIDDING SERVICES
EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION
ST. JOSEPH STREET TO CAMBELL STREET
RAPID CITY, SOUTH DAKOTA
Project Number ST08-1511 / CIP No. 50142
March 23, 2009

PHASE 2C - FINAL DESIGN AND BIDDING SERVICES:

This task consists of all services necessary to take project from Phase 2B 85% Design Services through the Final Design and Bidding Services, and includes the following itemized services.

- 2.14 Address City comments from the 85%.
- 2.15 Provide three (3) copies of the 95% Design Services submittal to both the City and DOT. The submittal shall consist of complete plans, specifications, contract documents, and opinion of probable construction cost to the City of Rapid City's project manager for review. The 95% Design Services submittal will be made to the City when the consultant believes the plans, specifications, contract documents, and opinion of probable construction cost are fully complete and suitable for bidding and construction.
- 2.16 Provide and make submittals for review by the Rapid City Planning Commission per SDCL §11-6-19 submittal, if required. Provide supplemental data or information, attend Planning Commission meetings as necessary to present the project, and respond to any questions or concerns related to the review.
- 2.17 Address 95% Design Submittal comments from City staff and DOT staff, as necessary. The City project manager will review and compile all City staff and DOT staff comments and resolve any conflicting comments prior to submitting review comments to the Engineer.
- 2.18 Provide Final Design Submittal, including complete contract documents including plans and specifications for a unit price construction contract. Coordinate with Utilities according to SDCL (New House Bill 1121).
- 2.19 Provide project layout to include approximate lot lines (front and side) and addresses of all properties (adjacent to construction, or alternatively, in service area).
- 2.20 Provide detailed traffic control plan in compliance with MUTCD and showing all streets, alleys, pedestrian and bike facilities that may be impacted by the construction of this project. Show all existing signage, pavement markings, etc. All work zones, road closures, and lane closures shall be indicated on the plan. An electronic version of an aerial photo will be provided for the selected consultant's use.

- 2.21 Coordinate directly with utility companies' engineering divisions to ensure that all existing utilities are completely and accurately identified and located in the field; that pertinent information regarding depth, material, size, etc. are noted on the plans; and that conflicts requiring relocation of utilities or special construction techniques are fully specified in the contract documents. Preliminary plans shall be provided to the pertinent utilities for comment at the time they are complete. The consultant shall conduct a specific private utility coordination meeting with the affected utility companies approximately two to three weeks thereafter.
- 2.22 If desiring exceptions from City requirements or specifications, it is the Consultant's responsibility to request and secure exceptions. Failure by the City to comment on a nonconforming item during a review does not constitute the granting of an exception.
- 2.23 Provide detailed specifications supplementing the <u>City of Rapid City and SDDOT</u>

 <u>Standard Specifications</u>, as necessary. Typically project drawing specific issues should be indicated as a General Note on the drawings. Material types and material specific items would be included as a detailed specification.
- 2.24 City to prepare any and all permits with exhibits required as identified though the environmental review process. City to provide engineer with required exhibits and permitting data for incorporation into bidding package.
- 2.25 City to identify environmental and cultural permits that will be required by the Contractor. City will identify during the projects environmental review process all permit costs and indicate if any permit costs are paid for directly by the owner or if it is a Contractor cost. Typically all permit costs are the Contractor's obligation. City will provide engineer with a list of all environmental and cultural permits required for the project and identify who is responsible for costs. KL&J will identify other permits the contractor will be required to obtain and include this information in the projects plan documents.
- 2.26 Prepare final "Engineer's Estimate" of probable construction cost for the project.
- 2.27 Deliver the following:
 - Provide five (5) copies of bid documents including complete plans, specifications, contract documents, and Engineer's Estimate of probable construction cost to the City of Rapid City's project manager for City distribution.
 - Provide complete plans on CD compatible with AutoCAD Release 2006 to 2008 format.
 - o Provide all topographic, control, and design points in the .dwg file and in tabular format, both on CD and on hard copy printout.
 - Provide complete specifications and contract documents on CD in Microsoft Word XP or previous versions.
 - Provide a unit price cost estimate on CD in Microsoft Excel XP or previous version on the City of Rapid City "Engineer's Estimate" form.
 - o Provide Engineer's Estimate of probable construction costs as a component of this submittal.

- All submittals for the City portion of the project (drawings and specifications) believed by the Engineer of Record to be a final, shall contain a Certification Statement of Conformance with City Standards which shall read, "I (insert Engineer of Record's name) certify that I have read and understand the provisions contained in the City of Rapid City Standard Specifications for Public Works Construction, current edition and the City of Rapid City's adopted Design Criteria Manuals. The drawings and specifications contained here within, to the best of my knowledge, were prepared in accordance with these documents or a properly executed exception to the Standard Specifications and/or Infrastructure Design Criteria Manual has been secured". This statement shall appear on the title sheet of the drawings and on the first page of the project manual after the cover sheet. The "Certification Statement of Conformance with City Specifications" shall be signed and dated by the Engineer of Record.
- 2.29 The Consultant shall submit two (2) sets of 95% plans and specifications to the Department of Environment and Natural Resources for approval, and shall address any comments or corrections required.
- 2.30 Submit sufficient information to the City of Rapid City project manager for completion of City Advertising Authority form.
- 2.31 City or SDDOT will issue the bid documents including plans and specifications to bidders. Consultant shall provide five (5) copies of plans (11" x 17") and specifications to the City of Rapid City (refer to "Deliverable" above in Task 2, Item 2.23). Maintain a plan holders list.
- 2.32 Arrange and conduct a Pre-bid Conference. City will arrange location for the Conference. Record attendance and minutes. Distribute copies to all attendees. (An example meeting agenda is shown in Exhibit H)
- 2.33 Issue addenda to the bid documents as required.
- 2.34 Attend the bid opening (at CSAC).
- 2.35 Attend Public Works Committee and Council Meetings as required.
- 2.36 Prepare the Bid Tab in City of Rapid City Microsoft Excel project book format and submit electronic Bid Tab and a printed hard copy to Engineering Services within one (1) working day of the bid opening.
- 2.37 Present award recommendation to City of Rapid City project manager.
- 2.38 Prepare Notice of Award letter for City of Rapid City project manager signature and distribution to contractor for execution.
- 2.39 Prepare contracts and submit to contractor for execution.
- 2.40 Review construction contract documents and other submittals (e.g. bonds) from the contractor and submit to City of Rapid City project manager for distribution to City Attorney's for approval and signatures of the Mayor and Finance Officer.

EXHIBIT D

KADRMAS, LEE & JACKSON, INC.
SCOPE OF SERVICES ~ ALL PHASES
PROJECT TEAM, MEETINGS AND SUBMITTAL SUMMARY
EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION
ST. JOSEPH STREET TO CAMBELL STREET
RAPID CITY, SOUTH DAKOTA
Project Number ST08-1511 / CIP No. 50142
April 6, 2009

PROJECT TEAM, MEETINGS, AND SUBMITTALS SUMMARY

- 5.1 Project team members will include:
 - The Consultant
 - City Engineering Services staff
 - Operations Division staff
 - > Utility Maintenance Division (Service area and O&M related issues)
 - > Street Division
 - Water Division
 - > Transit Division
 - Other Departments
- 5.2 Meetings requiring the Consultant's participation will likely include, but may not be limited to the following:
 - Public meetings, Phase 2A-F
 - Property owners meeting, Phase 2A-F
 - Private Utility coordination meeting, Phase 2A-F
 - Final Plans, Specifications, and Contract Documents review, Phase 2C-F (This submittal is made when the consultant believes the plans, specifications, contract documents, and opinion of probable construction cost documents are complete).
 - Prebid Conference, Phase 2C-F
 - Bid Opening, Phase 2C-F
 - Planning Commission, Public Works or Legal & Finance Committees, and City Council Meetings as required, All Phases

5.3 Submittals include:

- Final Project Design Report, Phase 2B including meeting minutes
- Final (100% complete) plans, specifications, contract documents, and opinion of probable construction cost Contract Documents Review, Phase 2C-F including meeting minutes
- Public meeting minutes, Phase 2A-F
- Property owners meeting minutes, if applicable, Phase 2A-F
- Final submittal of bid documents including complete plans, specifications, contract documents, and Engineer's Estimate of probable construction cost, Phase 2C-F
- Pre-bid conference meeting minutes, Phase 2C-F
- Bid Tabulation and award recommendation, Phase 2C-F

The Consultant shall allow 20 working days for City review of the Preliminary Plans and Project Design Report submittals, and the final Contract Document submittal including plans; specifications; contract documents; and opinion of probable construction cost.

EXHIBIT E

FLOOD MANAGEMENT PROJECT WATER QUALITY IMPACT ASSESSMENT CHECKLIST FORM

Sec	tion	I.		•
	1.	Project Title:		
	2.	CIP & Project Number:		
	3.			
	4.			
	5.	Description of Project:		
	•			
Doe (Ba	es pro	oject increase storm water runoff volume or flov or a no determination can be found in Section V	w rate to MS4 outfalls? YES NO	
		oject include new or expanded storm water dete		
If Y Ass	ES i essm	is checked in one or both of the above questions nent Evaluation Criteria for Proposed Flood Mar	s; then proceed to Section II (Water Quality Impact	
				e in the second
If N not	O is requ	checked in both of the above questions, then Wired; then proceed to Section III Determination.	Vater Quality Best Management Practices (WQ BMI	P) is/are

Section II.

Water Quality Impact Assessment Evaluation Criteria for Proposed Flood Management Projects (New and Retrofits).

(To be completed by City Engineer's appointed representative.)

		Yes	No	N/A
1.	Is the geologic unit or soil unstable, or would it become unstable as a result of the			
	installation of WQ BMP(s), and potentially result in on- or off-site landslide, lateral	Ī		
	spreading, subsidence, liquefaction, or collapse?			
2.	Will the installation of WQ BMP(s) result in the probable relocation of existing extensive underground utilities?			
3.	Would the installation of a WQ BMP(s) to a flood management structure compromise the stability of the structure?			
4.	Are land transactions necessary for the WQ BMP(s) where the asking price exceeds the fair market value which will require eminent domain to be implemented?			
		Yes	No	N/A
5.	Will the installation of WQ BMP(s) be hindered by no land availability?			
6.	Would the installation of a WQ BMP(s) to a flood management structure compromise the stability of the structure?			
7.	Would the installation of a WQ BMP(s) to include the Water Quality Capture Volume (WQCV) to a flood management structure cause the potential of loss of life?			
8.	Would the installation of a WQ BMP(s), to include the WQCV to a flood management structure, cause significant damage to nearby properties or structures?			
9.	Are significant health and safety concerns identified with proposed WQ BMP(s)	 -		
10	Is there significant formal public opposition to proposed WQ BMP(s)?	 		

Signature:		Date:	
		 Date.	

Section III.	
Determination. (To be completed by Project Manager.)	
Initial Select one of the following options:	
I find that the proposed Storm Water Flood Management Project does not meet the established criteria in Section this evaluation so no negative WQ impacts are anticipated. Therefore, project design will not require addition water quality improvements.	ed Storm Water Flood Management Project does not meet the established criteria in Section I of negative WQ impacts are anticipated. Therefore, project design will not require additional ovements. ed Storm Water Flood Management Project may have negative water quality impacts but the established through the following existing or approved Post Construction Water Quality et design will not require additional water quality improvements. ed Storm Water Flood Management Project may have negative water quality impacts. I have due to project limitations identified in Section II, the City will not be able to design this project the Stormwater Quality Manual. The findings/justifications for a variance to these design a Section IV below. Alternative Water Quality BMPs are described in Section V below. partial variance from incorporating water quality improvements. ed Storm Water Flood Management Project may have negative water quality impacts. I have the to project limitations identified in Section II, that the City will not be able to feasibly design quality improvements into this project. The findings/justifications for a variance to these disted in Section IV below. Therefore, I grant a full variance from incorporating water
I find that the proposed Storm Water Flood Management Project may have negative water quality impacts but the storm water discharges shall be routed through the following existing or approved Post Construction Water Qualit BMP	у
Therefore, the project design will not require additional water quality improvements.	
I find that the proposed Storm Water Flood Management Project may have negative water quality impacts. I have also determined that due to project limitations identified in Section II, the City will not be able to design this project fully comply with the Stormwater Quality Manual. The findings/justifications for a variance to these design standards are listed in Section IV below. Alternative Water Quality BMPs are described in Section V below. Therefore, I grant a partial variance from incorporating water quality improvements.	ect
I find that the proposed Storm Water Flood Management Project may have negative water quality impacts. I have also determined that due to project limitations identified in Section II, that the City will not be able to feasibly des and incorporate water quality improvements into this project. The findings/justifications for a variance to these design standards are listed in Section IV below. Therefore, I grant a full variance from incorporating water quality improvements.	ign
radio de la composición de la destación La composición de la	
I find that the proposed Storm Water Flood Management Project may have negative water quality impacts. I have also determined that the project can be designated and constructed to include water quality improvements. Therefore, the project will be designed in accordance with the Rapid City Stormwater Quality Manual to incorporate water quality improvements.	ter Flood Management Project may have negative water quality impacts. I have a climitations identified in Section II, the City will not be able to design this project or Quality Manual. The findings/justifications for a variance to these design elow. Alternative Water Quality improvements. The Flood Management Project may have negative water quality impacts. I have a climitations identified in Section II, the City will not be able to design this project or Quality Manual. The findings/justifications for a variance to these design elow. Alternative Water Quality BMPs are described in Section V below. In the findings water quality improvements. The Flood Management Project may have negative water quality impacts. I have a limitations identified in Section II, that the City will not be able to feasibly design overments into this project. The findings/justifications for a variance to these on IV below. Therefore, I grant a full variance from incorporating water are Flood Management Project may have negative water quality impacts. I have a be designated and constructed to include water quality improvements. There Flood Management Project may have negative water quality impacts. I have a be designated and constructed to include water quality improvements.
	ay have negative water quality impacts but the ag or approved Post Construction Water Quality quality improvements. ay have negative water quality impacts. I have II, the City will not be able to design this project /justifications for a variance to these design / BMPs are described in Section V below. quality improvements. ay have negative water quality impacts. I have II, that the City will not be able to feasibly design findings/justifications for a variance to these t a full variance from incorporating water ay have negative water quality impacts. I have to include water quality impacts. I have include water quality impacts. I have to include water quality improvements.
Signature: Date:	

Section IV.

(To be completed by City Engineer's Appointed Re	•
Porous Landscape Detention BMPs could not be but	ailt to the standard in the Stormwater Quality Manual.
· · · · · · · · · · · · · · · · · · ·	
	standard in the Stormwater Quality Manual.
Inlet DMDs (Water Overlies Cotal D. 1.)	
inlet BMPs (water Quality Catch Basins) could not	be built to the standard in the Stormwater Quality Manual.
Other DMBs sould not be built to the standard to	
· · · · · · · · · · · · · · · · · · ·	e Stormwater Quality Manual.

(To be completed by City Engine	er's Appointed Representative.)	
•		
Section VI.		-
MS4 Outfalls.	Management Project will not increase Storm Water Volume	e or Flow Rates to
MS4 Outfalls. (To be completed by City Engined)	er's Appointed Representative.)	
MS4 Outfalls. (To be completed by City Engined)	er's Appointed Representative.)	·
MS4 Outfalls. (To be completed by City Engine)	er's Appointed Representative.)	·
MS4 Outfalls. (To be completed by City Engined)	er's Appointed Representative.)	·
MS4 Outfalls. (To be completed by City Engined)	er's Appointed Representative.)	·
MS4 Outfalls. (To be completed by City Engine)	er's Appointed Representative.)	·
MS4 Outfalls. (To be completed by City Engine)	er's Appointed Representative.)	·
MS4 Outfalls. (To be completed by City Engine)	er's Appointed Representative.)	·
MS4 Outfalls. (To be completed by City Engine)	er's Appointed Representative.)	·

EXHIBIT F

Pre-Bid Conference Agenda

PREBID CONFERENCE (PROJECT NAME) (DATE AND TIME)

PROJECT NAME: PROJECT NO. / CIP NO.: PROJECT MANAGER:

394-4154

DESCRIPTION:

DISCUSSION ITEMS

- 1. Welcome and Introductions
- 2. Addendums
- 3. Contract Document
 - A. Section 1

Bid guarantee (certified check, cashier's check, or draft for 5% of bid, or a Bid Bond for 10% of the bid.

- B. Section 2
 - 2.1 Substitute Bid Schedule allowed. Amounts to nearest \$0.01 not to \$0.001.
 - 2.12 Standard Specifications 2007 version
 - 2.15 Basis of Payment Partial Payments or Single Payment
 - 2.16 Payment for Materials On-Site On-Site defined as contractor yard or supplier yard that is secure and the inspector has been able to verify and inspect the materials.
- C. Section 3 Insurance Requirements Construction and Warranty
- D. Section 4 Bidder's Proposal

Notes to Bid Schedule and Special Bid Conditions

- Milestones
- Liquidated Damages
- E. Other
- F. Detailed Specifications Define as discussed

Project Number: ST08-1511

Rapid City CIP Number 50142

EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION

QUINCY STREET TO CAMBELL STREET

KL&J Project No. 10407111										
		Per Diem		DIRECT		PER DIEM		DIRECT		TASK
		(person/days)	├-	LABOR	├	\$130.00	۲	EXPENSES	-	COST
Phase	Project Assignment									
	Labor Code	Hardhers						1446	13	
	TASK	ing this term								
101100	Project Management & Coordination		L		<u> </u>		_		_	·
	Project Management / Administration		\$	15,403.00	\$		\$		\$	15,403.0
	Project Schedule		\$	4,896.00	\$		\$		5	4,896.0
<u> </u>	Project Meetings		5	14,184.00	\$		s	-	s	14,184.0
	QC/QA		\$	4,290.00	\$		\$		s	4,290.0
	Field Review Meeting	2	s	7,848.00	s	260.00	\$	1,400.00	\$	9,508.0
•	Subtotal	2	\$	46,621.00	s	260.00	\$	1,400.00	\$	48,281.0
101120	Pick-Up Survey and Base Map updates				Π					
	Miscellaneous Surveys		\$	5,088.00	s		\$		s	5,088.0
	Base Map updates		\$	2,772.00	\$	_	\$		\$	2,772.0
	Subtotal	0		7.860.00	s		s		s	7,860.0
101121	Report - Existing Conditions		Ť	1,000.00	Ť		Ť		Ť	7,000.0
	Data Collection		\$	6,160.00	\$		-		-	6 460 0
	Existing Conditions		_			-	\$		\$	6,160.0
			5	6,084.00	\$		\$		S	6,084.0
404400	Subtotal Preliminary Engineering Technical Design	0	\$	12,244.00	\$	-	\$		\$	12,244.0
101122	Reports/Memorandums		-		-					
	~ Geotechnical Report & Analysis Coordination		\$	5,241.00	\$		\$		\$	5,241.0
	~ Pavement Design Memorandum		\$	5,428.00	\$		s		\$	5,428.0
	~ Storm Drainage Report	·	\$		\$		\$		\$	
	Knollwood Drainage Basin Model		\$		\$		\$	-	\$	
	Create SWMM and CUHP models from Drainage Plan data					·	_			
	Modify for changes in land use since 1994		\$	7,508.00	\$		\$		\$	7,508.0
	Box culvert - Pine/Watertown intersection to		\$	2,176.00	\$	-	\$	-	\$	2,176.0
	Denver/Spruce		\$		\$		\$		S	
	Box Culvert analysis		\$	7,674.00	\$	-	\$		\$	7,674.0
····	Coordination with FMG downstream design		\$	1,350.00	\$		\$		\$	1,350.0
	Localized Flooding		\$	-	\$		\$		\$	
	Review Cambell / East North Street Intersection Are	а	\$	366.00	\$	÷	\$		\$	366.0
	Drainage east of East North Street		\$	-	\$		\$		\$	
	Analyze overland flow routes		\$	366.00	\$	<u> </u>	\$	-	\$	366.0
	East North Street		\$		\$	-	\$		s	
	Analysis of existing storm sewer systems		\$	5,860.00	\$	-	\$		\$	5,860.0
	Evaluate locations for water quality BMP's		\$	2,544.00	\$		\$	- 1	\$	2,544.0
	E. Blvd north of Rapid Creek		s		\$	_	\$		5	
	Analysis of Existing Storm Sewer Systems		\$	4,364.00	\$		\$	-	5	4,364.0
	Evaluate locations for water quality BMP's		s		s		\$	_	<u> </u>	4,104.00
	Evaluate effectiveness of potential BMP's		s	5,652.00	\$		5		s	5,652.0
	Old lowa Ditch		<u>s</u>	5,052.00	5		<u>\$</u>		<u> </u>	3,032.0
	Analysis of Ditch for storm drainage		<u>s</u>	2 274 00						0.074.5
			_	2,371.00	\$		<u>s</u>		\$	2,371.00
	DM&E Railroad to Rapid Creek		<u>\$</u>		\$	 -	\$		\$	
	Analysis of existing storm sewer systems		\$	3,296.00	\$		\$		\$	3,296.00
	Knollwood Drainage Basins 131 & 132		\$		<u>s</u>		\$		\$	<u> </u>
	Analysis of existing storm sewer systems		\$	4,280.00	\$		\$	-	\$	4,280.00

Project Number: ST08-1511 Rapid City CIP Number 50142 EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION QUINCY STREET TO CAMBELL STREET

	KL&J Project	No. 1040711	1				,	·	
		Per Diem (person/days)		DIRECT LABOR	1	DIEM	DIRECT EXPENSES		TASK COST
		(personnusys)	H	DABOR	31.	0.00	EXPENSES	├─	COSI
Phase	Project Assignment						1		
	Labor Code					400			Faring.
	TASK		1000		Mar (a)			100	
	Evaluate Potential SWQ Enhancement Locations		\$		\$		\$ -	\$	
	Soccer field complex area		\$	9,320.00	\$	<u> </u>	\$ -	\$	9,320.00
	East of LaCrosse Street		\$	2,444.00	\$		\$ -	\$	2,444.00
	Four quadrants around the Rapid Creek Bridge		\$	7,130.00	\$		\$ -	\$	7,130.00
	Grass boulevards between Rapid Creek and E. Philadelphia St.		\$	2,936.00	\$		\$ -	\$	2,936.00
	Wetland Delineation Report	1	5	3,235.00	\$	130.00	\$ 700.00	\$	4,065.00
	Wetland Coordination for Env. Documentation		s	1,395.00	\$		·\$ -	\$	1,395.00
	Draft Storm Drainage Report		ş	8,911.00	\$		\$ -	\$	8,911.00
	Final Storm Drainage Report		s	-	\$	-	\$ -	\$	-
	Meetings		\$		\$	_	\$ -	\$	
	Preliminary Client Review	1	\$	2,574.00	\$	130.00	s -	\$	2,704.00
	Final Review		\$		\$		\$ -	\$	
	~ Water System Report		\$	_	\$		s -	\$	-
	Project Kickoff Meeting		\$	-	\$		s -	s	
	Review and confirm study/service areas		\$	1,716.00	\$	-	s -	\$	1,716.00
	Review current Water Distribution Master Plan		\$		\$		s -	\$	
	Client Coordination		\$	1,580.00	\$	-	\$ -	\$	1,580.00
	Analysis of Pipeline Improvements		\$	-	s		s -	\$	<u> </u>
	Client meeting to review analysis		\$	858.00	\$		\$ -	\$	858.00
	Client meeting to review future system improvemen	ts	\$	858.00	\$	-	\$ -	\$	858.00
	Analysis of non-conforming service areas		\$:	\$		\$	\$	-
	Prepare alternatives(2) to eliminate non-conformance	e	5	8,290.00	\$	-	s -	\$	8,290.00
	Draft Water System Report		\$		\$	_	\$	s	_
	Preparation		\$	8,028.00	\$		s -	\$	8,028.00
	Client review meeting		\$	2,632.00	\$		\$ -	\$	2,632.00
	Final Water System Report		\$	-	\$		s -	\$.	
	Incorporate review comments		\$		\$		\$ -	s	
	Final Preparation and disbursement		\$		\$		s -	\$	
	~ Sanitary System Report		\$		\$		\$ -	s	_
	Analyze options for future Trunk Sewer Corridor @ E. Blvd/Omaha Intersection		\$		s	_	s -	s	
	Review Burns & McDonnell master plan		\$	2,700.00	s	-	s -	8	2,700.00
	Identify potential routing between 1st and Steele		\$	6,288.00			s -	\$	6,288.00
	Identify and evaluate location for future trunk line street crossings		\$	5,124.00	s	_	s -	s	5,124.00
	Evaluate non-conforming services in project area		s	-	5		\$ -	\$	
	Field verification of services		s	2,730.00	\$	-	s -	s	2,730.00
	Prepare alternatives to eliminate non-conformance services.		s	6,890.00	\$	-	s -	s	6,890.00
	E. Blvd. / E. St. Louis street sewer main replacement		\$	_	\$	-	s -	5	
	Verification of size and condition		\$	1,580.00	s	-	\$ -	s	1,580.00
	Analysis and capacity design of new main		\$	4,074.00	\$	-	s -	5	4,074.00
	Analyze alternative relocation routes		\$	3,830.00		~	s -	s	3,830.00

Project Number: ST08-1511

Rapid City CIP Number 50142 EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION QUINCY STREET TO CAMBELL STREET

angreenistis in	KL&J Project	No. 1040711	1				_			
		Per Diem (person/days)		DIRECT LABOR	1	PER DIEM \$130.00		DIRECT EXPENSES		TASK COST
Phase	Project Assignment	,,,,,		0.001		<u> </u>		LAT ENGLO		
	Labor Code TASK				4					
	Service Area (Basin) Study above MH A-31-3-48			DATA PARAMANTA	343					
	Determine existing flows in Basin		s s		\$		\$		\$	· <u>-</u>
	Field verification of basin structures		<u>s</u>	6,058.00 3,764.00	 		\$ \$		\$	6,058.0
	Verify pipe capacity		s	1,580.00	_		\$		\$	3,764.0
	Review sewer video of main street crossing along the project limits		s	1,684.00	Γ	<u>-</u> _	\$	· · ·	\$	1,580.00
	Evaluate and determine future flows into basin network		8	2,312.00			s	-	5	2,312.00
<u> </u>	Provide recommended improvements and routes		s	4,616.00	\$	-	s	-	\$	4,616.0
* *	Draft Sanitary System Report		\$		\$	_	\$	-	\$	
	Preparation		s	7,859.00	\$		s	_	5	7,859.0
	Client review meeting	1	s	2,072.00	\$	130.00	\$	700.00	\$	2,902.0
	Final Sanitary System Report		s	-	\$		\$		\$	
	Incorporate review comments		\$	-	\$		\$		\$	
	Final Preparation and disbursement		\$	-	5		\$		s	
	~Preliminary Lighting Design Memorandum		\$	10,860.00	\$	<u>- · </u>	\$		\$	10,860.0
	~Preliminary Traffic Signal Design Memorandum		\$	11,142.00	5		s	_	\$	11,142.00
·····	Subtotal	. 3	\$	209,650.00	\$	390.00	5	1,400.00	\$	211,440.00
101123	Draft Project Design Report - Proposed Improvements		1.				l			
	Preliminary Horizontal Alignment		\$	18,522.00	<u> </u>		\$		5	18,522.00
	Preliminary Vertical Alignment		\$	9,616.00	s		5		\$	9,616.00
	Preliminary Intersection Geometry		s	12,988.00	\$		\$		\$	12,988.00
	Typical Sections		s	12,696.00	\$	· _	s	_	\$	12,696.00
,	Cross Sections/Preliminary Earthwork Calculations		\$		\$	_	\$	-	\$	9,532.00
	Construction Phasing/Traffic Control		s		<u>*</u> \$		\$	_	\$	6,652.00
	Access Control		\$		\$	_	5		s	11,814.00
	Pedestrian/Bicycle Facilities		5	10,088.00	\$	_	\$		\$	10,088.00
	Streetscape/Landscape Architecture		\$		<u> </u>	-	\$		\$	7,672.00
	Construction Cost Estimates		s	i	\$.	_	\$	_	<u> </u>	7,008.00
	Utility Coordination		\$	——————————————————————————————————————	\$	_	s	-	\$	6,110.00
	Draft Project Design Report - Prep, Dist, Review	. 2	<u> </u>		\$	260.00	s	1,400,00	s	19,617.00
	Revisions to the Draft Report		\$	_	\$	-	\$		5	-
	Prepare & Submit Final Project Design Report		\$	_	5	-	\$		<u> </u>	
	Subtotal	2	\$	130,655.00	\$	260,00	\$	1,400.00	\$	132,315.00
101124	Public Involvement									
	Mailing List		s	1,820.00	\$	-	\$		\$	1,820.00
	Project Scoping		\$	7,804.00	\$		\$	-	s	7,804.00
	News Media		\$	1,025.00	\$	-	s	-	5	1,025.00
	PIM #1Open House Meeting	2	5	10,800.00	s	260.00	\$	1,600.00	\$	12,660.00
	Subtotal	2	\$	21,449.00	\$	260.00	ş	1,600.00	\$	23,309.00
101300	Preliminary Right of Way Work									
	Preliminary Right-of-Way Limits		\$	8,602.00	s		s		\$	8,602.00
	Subtotal	0	\$	8,602.00	\$		\$		\$	8,602.00

Project Number: ST08-1511

Rapid City CIP Number 50142 EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION **QUINCY STREET TO CAMBELL STREET**

RAPID CITY, SOUTH DAKOTA KL&J Project No. 10407111

Phase	Project Assignment	Per Diem (person/days)		DIRECT LABOR	1 '	ER DIEM \$130.00		DIRECT EXPENSES		TASK COST
	Labor Code						39			CERNIC
404400	TASK									
101400	35% Design & Plan Submittal	ļ	<u> </u>		_		<u> </u>		_	-
· · ·	Title Sheet & Section Title Sheets	<u> </u>	\$	1,230.00	\$	<u> </u>	\$		\$	1,230.00
 	Section B: Grading Plans		\$		\$	-	5		s	-
<u> </u>	Typical Sections		\$	6,644.00	s		s	-	\$	6,644.00
	Plan and Profile Sheets		\$	13,430.00	\$		\$	-	\$	13,430.00
	Curb and Gutter Layout Sheets		\$	19,244.00	\$	-	\$	_	\$	19,244.00
	Storm Sewer Layout Sheets	2	5	-	\$	260.00	5		\$	260.00
	Box Culvert		\$	7,200.00	5		5	-	5	7,200.00
	East North Street Storm Sewer System		s	21,756.00	s		5		5	21,756.00
	East Boulevard Storm Sewer System North of Rapid Creek		s	17,088.00		· <u>-</u>	s	_	s	17,088.00
	East Boulevard Storm Sewer System South of Rapid Creek		\$	10,196.00	s	_	s		5	10,196.00
	SDDOT Design & Rapid City Design Standards		s	1,580.00	\$	_	\$	_	\$	1,580.00
	Section C: Construction Traffic Control Plans		\$	6,418.00	\$	-	s	_	s	6,418.00
	Section M: Pavement Marking Plans		5	6,838.00	s	_	s	_	s	6,838,00
	Section X: Cross Sections		\$	6,838.00		_	5		s	6,838.00
	Water Piping System - Plan & Profile	2	s		<u> </u>	260.00	s	-	s	17,924.00
	Sanitary Sewer - Plan & Profile	. 2	\$	18,893.00	<u> </u>	260.00	s		<u> </u>	19,153.00
	Update Preliminary Cost Estimates		s	2,116.00	<u> </u>	200.00	s		5	2,118.00
, in 1	Subtotal	6	5		\$	780.00	s		5	157,917.00
			Š	594,218.00	~	1,950,00	s s	5,800.00		101,011.00
			*	JJ7,2 10.00		.,330.00	j	5,000.00		

Summary of Costs:

Direct Labor, Overhead & Profit

Direct Expenses 5,800.00 Subcontractors 21,590.00 Per Diem 1,950.00 Total Estimated Engineering Costs 623,558.00

EXHIBIT B-1 ~ TASK COST PROJECTIONS PROJECT DESIGN REPORT & 85% PLAN DEVELOPMENT -Entire Project (PHASE 2B)

Project Number: ST08-1511

Rapid City CIP Number 50142 EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION QUINCY STREET TO CAMBELL STREET

RAPID CITY, SOUTH DAKOTA

KL&J Project	No.	1040711	i
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	r.ca, rige.	Per Diem	Ī	DIRECT		PER DIEM		DIRECT		TASK
Phase	Project Assignment	(Protectionality)	\dagger	LABOR	\vdash	\$130.00	╁	EXPENSES	-	COST
	Labor Code					ana ana an		Y66144486.42.5		Militaria de Caracteria de
	TASK									
101100	Project Management & Coordination				Γ		Γ			
	Project Management / Administration		s	5,554.00	s	-	s	_	5	5,554,00
	Project Schedule		\$	612.00	s	-	s		s	612.00
	Project Meetings		s	8,494.00	\$		s		s	8,494.00
	QC/QA		\$	4,290.00	_		s		\$	4,290.00
	Field Review Meeting	2	\$	1,716.00	\$	260.00	s	1,400.00	s	3,376.00
	Subtotal	2	Ť	20,666.00	s	260.00	\$	1,400,00	\$	22,326.00
101120	Pick-Up Survey and Base Map Updates		İ	, , , , , , , , , , , , , , , , , , , ,	_		Ť	1,450.50	Ť	
4 - 4	Miscellaneous Surveys		5	3,636.00	\$		5		\$	3,636.00
	Base Map updates		s	3,660.00	-		5		s	3,660.00
	Storm Water Topo Survey for BMP Design Locations		s	10,956.00	s		\$		\$	
	Subtotal	0	-	\$18,252.00	-	\$0.00	-	\$0.00	9	10,956.00 \$18,252.00
101122	Preliminary Engineering Technical Design Reports/Memorandums			¥10,202.00		30.00		\$0.00		\$10,252.00
	~ Storm Drainage Report		5		s	_	s		\$	
	Final Storm Drainage Report		\$	3,610.00	5	_	\$	-	5	3,610.00
	Meetings		s	- 0,010.00	\$		5		\$	3,610.00
	Final Review		s	2,208.00	\$		\$		<u>\$</u> \$	2 200 00
,	~ Water System Report		\$	2,200.00	5		\$		\$	2,208.00
	Final Water System Report		s		<u>\$</u>		\$		<u>s</u> s	
	Incorporate review comments		5	6,896.00	s		\$		<u>s</u>	
	Final Preparation and disbursement		\$		\$		\$		5	6,896.00
	~ Sanitary System Report		\$	1,430,00	\$ \$		s		_	1,490.00
	Final Sanitary System Report		S		\$		<u>\$</u> \$		\$	
7 m	Incorporate review comments		\$	3,375.00	<u>\$</u> \$			 	\$	-
	Final Preparation and disbursement	-	\$		\$		\$ \$		\$	3,375.00
1.2	~Final Lighting Design Memorandum		\$		<u>s</u> s				5_	1,925.00
Trape Tuest	~Final Traffic Signal Design Memorandum				-		\$		5	3,322.00
			\$		\$		\$		\$	4,054.00
	Subtotal	0	\$	26,880.00	\$	1	\$		\$	26,880.00

EXHIBIT B-1 ~ TASK COST PROJECTIONS PROJECT DESIGN REPORT & 85% PLAN DEVELOPMENT -Entire Project (PHASE 2B)

Project Number: ST08-1511

Rapid City CIP Number 50142 EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION **QUINCY STREET TO CAMBELL STREET**

Phase	Project Assignment	Per Diem (person/days)		DIRECT LABOR	PER DIEM \$130.00	DIRECT EXPENSES	TASK COST
	Labor Code		1%	2.545.1488.246	Grigoside segundos	Bake und dispensionels	Tro Contino torcar a privin
	TASK						
101123	Final Project Design Report - Proposed Improvements						
·	Revisions to the Draft Report		\$	9,528.00	s -	\$ -	\$ 9,528.00
	Prepare & Submit Final Project Design Report		\$	3,326.00	\$ -	s -	\$ 3,326.00
	Subtotai	0	\$	12,854.00	\$ -	\$ -	\$ 12,854.00
101124	Public Involvement		Г				
<u> </u>	Mailing List		5	-	s -	s -	\$ -
	Public Relations		\$	4,624.00	\$ -	\$ -	\$ 4,624.00
	News Media		\$	1,025.00	\$· -	\$ -	\$ 1,025.00
	PIM #2		\$	5,274.00	\$ -	\$ -	\$ 5,274.00
	Subtotal	. 0	\$	10,923.00	\$ -	\$ -	\$ 10,923.00
101300	Right of Way Work						
	Permanent ROW Boundary Surveys		\$	18,150.00	s -	s -	\$ 18,150,00
	Permanent ROW Plats & Exhibits		\$	14,865.00	\$ -	\$ -	\$ 14,865.00
	Temporary ROW Exhibits		\$	26,940.00	\$ -	\$ -	\$ 26,940.00
	Property Owner ROW Meetings		\$	52,829.00	s -	s -	\$ 52,829.00
	Subtotal	0	5	112,784.00	s -	s -	\$ 112,784.00

EXHIBIT B-1 ~ TASK COST PROJECTIONS PROJECT DESIGN REPORT & 85% PLAN DEVELOPMENT -Entire Project (PHASE 2B)

Project Number: ST08-1511

Rapid City CIP Number 50142

EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION QUINCY STREET TO CAMBELL STREET

RAPID CITY, SOUTH DAKOTA KL&J Project No. 10407111

		Per Diem (person/days)		DIRECT		PER DIEM \$130.00		DIRECT EXPENSES		TASK
Phase	Project Assignment		T		7	-	+	ZM ZMOZO	+	0051
	Labor Code	等製料數法	1 11	Sastana Tanàna		aran un		Math Ration		en dine area a
104400	TASK			is a strong						
101400	85% Design & Plan Submittal		L		\perp		T		Τ	
	Title Sheet & Section Title Sheets		\$	2,826.00	\$]:	ş -	s	2,826.0
	Section B: Grading Plans		5		\$	-	7		s	-
	Typical Sections		\$	13,194.00	\$	-	1	-	s	13,194.00
	Plan and Profile Sheets		\$	24,714.00	s		1		s	24,714.00
·	Curb and Gutter Layout Sheets		\$	37,372.00	s		1		s	37,372.00
	Sidewalk and Driveway Layout Sheets		s	35,542.00	+-		1		s	
	Storm Sewer Layout Sheets	* .	5	44,830.00	┪		s		5	35,542.00
·	Box Culvert		5		s		s		\vdash	44,830.00
	East North Street Storm Sewer System		s		\$		5		\$	-
	East Boulevard Storm Sewer System North of Rapid Creek		\$				Ť		\$	
	East Boulevard Storm Sewer System South of Rapid Creek		Γ		\$	<u> </u>	\$		\$	
,	SDDOT Design & Rapid City Design Standards		\$	-	\$	-	\$	<u> </u>	\$	
	Section C: Construction Traffic Control Plans		\$	12,012.00	s s		S S		s	
	Section D: Erosion and Sediment Control Plans		s	19,254.00	5	 -	 `		\$	12,012.00
	Section F: Surfacing Plans		s				\$		\$	19,254.00
	Section L: Signal and Lighting Plans		\$	19,194.00		-	\$		\$	19,194.00
	Section M: Pavement Marking Plans		<u>*</u> \$	64,858.00	\$	-	\$		\$_	64,858.00
	Section S: Permanent Signing Plans		5		\$		\$		S	11,724.00
	Section X: Cross Sections				5		\$		\$	16,856.00
	Water Piping System Plans		\$		\$	 _	\$		\$	11,724.00
	Sanitary Sewer System Plans		\$		\$		5		\$	25,630.00
	65% Plan Submittal & Review		\$		\$		\$		\$	13,248.00
	Incorporate 65% Review Comments		\$		\$	130.00	\$	700.00	\$	6,920.00
	Detailed Drawings and Special Items		\$	18,456.00	\$		\$		\$	18,456.00
	Plan Notes		\$	18,074.00	\$		\$		\$	18,074.00
-	Update Preliminary Cost Estimates		\$	15,528.00	\$		\$		\$	15,528.00
	85% Plan Review		\$	1,208.00	\$		\$		\$	1,208.00
		2 5	\$	2,312.00	\$	260.00	\$	1,400.00	\$	3,972.00
	Subtotal Subtotal	3 9	\$	414,646.00	\$	390.00	\$	2,100.00	\$	417,136.00
		l la	5	617,005.00	5	650.00	\$	3,500.00		2448566

Summary of Costs:

Direct Labor, Overhead & Profit

\$ 617,005.00

Direct Expenses 3,500.00 Subcontractors

Per Diem 650.00

Total Estimated Engineering Costs 621,155.00

Revised 3/23/2009

EXHIBIT C-1 ~ TASK COST PROJECTIONS FINAL PLAN DEVELOPMENT - Segment 1, 2, 3 or 4 (PHASE 2C)

Project Number: ST08-1511

Rapid City CIP Number 50142 EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION **QUINCY STREET TO CAMBELL STREET**

RAPID CITY, SOUTH DAKOTA

	KL&J Project	No. 1040711	1				<u></u>
		Per Diem (person/days)		DIRECT	PER DIEM \$130,00	DIRECT EXPENSES	TASK
Phase	.Project Assignment	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			77.27.2		
	Labor Code						
	TASK	TO MAKE					
101100	Project Management & Coordination						
	Project Management / Administration		\$	3,164.00	s -	\$ -	\$ 3,164.
	Project Schedule		\$	612.00	\$ -	\$ -	\$ 612.
	Project Meetings		\$	3,164.00	\$ -	\$ -	\$ 3,164.
	QC/QA		\$	1,716.00	\$ -	\$ -	\$ 1,716.
	Field Review Meeting		\$	1,716.00	s -	\$ -	\$ 1,716.
	Subtotal	0	s	10,372.00	\$ -	s -	\$ 10,372.
101124	Public Involvement						
	Mailing List		\$	_	\$ -	\$ -	\$ -
	Public Relations		\$	3,640.00	<u> </u>	\$ -	\$ 3,640.
	News Media		\$	1,025.00		s -	
	PIM #3		\$			· · · · · · · · · · · · · · · · · · ·	
				4,122.00		\$ -	\$ 4,122.
404400	Subtotal	0	\$	8,787.00	\$ -	\$ -	\$ 8,787.
101400	Final Design & Plan Submittal						
	Title Sheet & Section Title Sheets		\$	654.00		\$ -	\$ 654.
	Section B: Grading Plans		\$	-	\$ -	\$ -	\$ -
	Typical Sections		\$	1,784.00	\$ -	\$ -	\$ 1,784.
 .	Plan and Profile Sheets	·	\$	6,715.00	\$ -	\$ -	\$ 6,715.
	Curb and Gutter Layout Sheets		\$	8,182.00	\$ -	\$ -	\$ 8,182.
· .	Sidewalk and Driveway Layout Sheets		\$	8,182.00	\$ -	\$ -	\$ 8,182.
	Storm Sewer Layout Sheets	:	\$	8,182.00	\$ -	\$ -	\$ 8,182.
	Box Culvert		\$		\$ -	\$ -	\$ -
	East North Street Storm Sewer System		\$		\$ -	\$ -	\$ -
	East Boulevard Storm Sewer System North of						
	Rapid Creek East Boulevard Storm Sewer System South of		\$	<u> </u>	\$	\$ -	\$ -
	Rapid Creek		s		\$ -	s -	\$ -
	Construction Cost Summary comparing SDDOT		Ť				
	Design & Rapid City Design Standards		\$	-	\$ -	\$ -	\$ -
	Section C: Construction Traffic Control Plans		\$	6,222.00	\$ -	\$ -	\$ 6,222.0
	Section D: Erosion and Sediment Control Plans		\$	5,090.00	\$ -	\$ -	\$ 5,090.0
	Section F: Surfacing Plans		\$	4,986.00	\$ -	\$ -	\$ 4,986.
	Section L: Signal and Lighting Plans		s	9,438.00	\$ -	s -	\$ 9,438.0
	Section M: Pavement Marking Plans		\$	2,370.00	\$ -	\$ -	\$ 2,370.0
	Section S: Permanent Signing Plans		\$	10,704.00		\$ -	\$ 10,704.6
	Section X: Cross Sections		\$	1,486.00		\$ -	\$ 1,486.0
	Water Piping System Plans		\$	3,322.00		\$ -	\$ 3,322.0
*	Sanitary Sewer System Plans		\$	1,486.00		\$ -	
	95% Plan Submittal & Review		5				
				4,969.00			\$ 4,969.0
	Incorporate 95% Review Comments		\$	3,720.00		\$ -	\$ 3,720.0
-	Detailed Drawings and Special Items		\$	2,726.00	\$ -	\$ -	\$ 2,726.0

EXHIBIT C-1 ~ TASK COST PROJECTIONS FINAL PLAN DEVELOPMENT - Segment 1, 2, 3 or 4 (PHASE 2C)

Project Number: ST08-1511

Rapid City CIP Number 50142

EAST BOULEVARD/EAST NORTH STREET RECONSTRUCTION QUINCY STREET TO CAMBELL STREET

RAPID CITY, SOUTH DAKOTA

KL&J Project No. 10407111

		Per Diem (person/days)		DIRECT LABOR	PER DIEM \$130,00	DIRECT EXPENSES	TASK COST
Phase	Project Assignment Labor Code		dd dais				
	TASK						
	Plan Notes		\$	1,784.00		\$ -	\$ 1,784.00
	Final Cost Estimates		\$	1,208.00	\$ -	\$ -	\$ 1,208.00
	Bidding Services (City Task 3)		\$	9,318.00	\$ -	\$ -	\$ 9,318.00
	Subtotal		\$	102,528.00	\$ -	\$ -	\$ 102,528.00
			\$	121,687.00		\$ -	

Summary of Costs:

Direct Labor, Overhead & Profi Phase 2C \$
Phase 2D \$

Phase 2E \$ 142,357.00 Phase 2F \$ 153,873.00

121,687.00

131,617.00

 Direct Expenses
 \$

 Subcontractors
 \$

 Per Diem
 \$

 Total Estimated Engineering Costs
 \$ 549,534.00

Lee & Jackson
Engineers Surveyors
Plumners

Revised 3/23/2009

