

**AGREEMENT
FOR PROFESSIONAL SERVICES**

Arterial Street Safety Study

THIS AGREEMENT made on this _____ day of November 2010 between the City of Rapid City, 300 Sixth Street, Rapid City, South Dakota 57701, hereinafter referred to as OWNER, and Felsburg Holt & Ullevig, 6300 South Syracuse Way, Suite, Centennial, CO 80111, hereinafter referred to as CONSULTANT. This project will encompass the preparation the Arterial Street Safety Study for the Rapid City Area Metropolitan Planning Organization.

OWNER and CONSULTANT in consideration of their mutual covenants herein agree in respect of the performance of transportation planning services by CONSULTANT and the payment for those services by OWNER as set forth below.

SECTION 1 - BASIC SERVICES TO CONSULTANT

1.1 General

CONSULTANT shall provide to OWNER transportation planning services in all phases of the Project to which this Agreement applies as hereinafter provided. These services will include serving as OWNER'S professional transportation planning services representative for the Project, providing professional transportation planning consultation and advice and furnishing selected transportation planning services.

1.2 Scope of Work

The Basic Services Scope of Work is described in detail in Exhibit A and shall include data collection and review, traffic forecasting, analysis of traffic operations, development of alternative route alignments and public involvement process.

SECTION 2 - ADDITIONAL SERVICES OF CONSULTANT

2.1 Services Requiring Authorization in Advance

If authorized in writing by OWNER, CONSULTANT shall furnish or obtain from others Additional Services of the types listed in paragraphs 2.1.1 through 2.1.7, inclusive. These services are not included as part of Basic Services except to the extent provided otherwise in Exhibit A; these will be paid for by OWNER as indicated in Section 5.

- 2.1.1 Services resulting from significant changes in the general scope, extent or character of the Project including, but not limited to, changes in size, complexity, or method of financing; and revising previously accepted studies, reports or design documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the preparation of such studies, reports or documents.
- 2.1.2 Investigations and studies involving, but not limited to, detailed consideration of operations, maintenance and overhead expenses; providing value engineering during the course of design; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing and assisting

OWNER in obtaining process licensing; detailed quantity surveys of material, equipment and labor; and audits or inventories required in connection with construction performed by OWNER.

- 2.1.3 Furnishing services of independent professional associates and consultants for other than Basic Services (which include, but are not limited to, customary civil, structural, mechanical and electrical engineering and customary architectural design incidental thereto).
- 2.1.4 Services during out-of-town travel required of CONSULTANT other than visits to the site, attendance at OWNER'S office as required by Section 1, or other services as detailed in Exhibit A.
- 2.1.5 Providing any type of property surveys or related engineering services needed for the transfer of interests in real property and field surveys for design purposes and providing other special field surveys.
- 2.1.6 Preparing to serve or serving as consultant or witness for OWNER in any litigation, arbitration or other legal or administrative proceeding involving the Project (except for assistance in consultations which is included as part of Basic Services).
- 2.1.7 Additional services in connection with the Project, excluding services which are to be furnished by OWNER in accordance with Article 3, and services not otherwise provided for in this Agreement.

SECTION 3 - OWNER'S RESPONSIBILITIES

OWNER shall do the following in a timely manner so as not to delay the services of CONSULTANT:

- 3.1 The Growth Management Director or their designee shall act as OWNER'S representative with respect to the services to be rendered under this Agreement. The Growth Management Director shall have complete authority to transmit instructions, receive information, interpret and define OWNER'S policies and decisions with respect to CONSULTANT'S services for the Project.
- 3.2 Assist CONSULTANT by placing at CONSULTANT'S disposal all available information pertinent to the Project including previous reports and any other data relative to the Project.
- 3.3 Examine all studies, reports, sketches, drawings, proposals and other documents presented by CONSULTANT, obtain advice of an attorney, insurance counselor and other consultants as OWNER deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of CONSULTANT.
- 3.4 Give prompt written notice to CONSULTANT whenever OWNER observes or otherwise becomes aware of any development that affects the scope or timing of CONSULTANT'S services.
- 3.5 Furnish or direct CONSULTANT to provide Additional Services as stipulated in paragraph 2.1 of this Agreement or other services as required.

SECTION 4 - PERIOD OF SERVICE

- 4.1 The CONSULTANT'S period of service shall complete the scope of work stated in Exhibit A by December 31, 2011, provided a written "Notice to Proceed" is issued by October 15, 2010. The CONSULTANT'S services shall be provided in general accordance with the schedule as defined in Exhibit B.

SECTION 5 - PAYMENTS TO CONSULTANT

5.1 Methods of Payment for Services and Expenses of CONSULTANT

- 5.1.1 *For Basic Services.* OWNER shall pay CONSULTANT for Basic Services rendered under Section 1 as detailed in Attached Exhibit A in an amount not-to-exceed **Eighty One Thousand and Nine Hundred Dollars (\$81,900), including reimbursable expenses**, as detailed in attached Exhibit D "Cost Estimate".

5.1.1.1 *Direct Labor Costs and Overhead.* Direct labor costs and overhead shall be paid at a rate equal to CONSULTANT'S salary cost time the allowable overhead rate as determined by audit, in accordance with 48 CFR Part 31 as shown on attached Exhibit C "Billing Rates" for all Basic Services rendered on the Project.

5.1.1.2 The approval and acceptance of the billing rates as detailed in attached Exhibit "C" will be contingent upon CONSULTANT providing the required cost breakdowns to verify that costs are in compliance with 48 CFR Part 31 and 23 CFR Part 172.

5.1.1.3 OWNER shall pay CONSULTANT the actual costs (except where specifically provided otherwise) of all Reimbursable Expenses approved by OWNER. The term Reimbursable Expenses has the meaning assigned to it in paragraph 5.4 in accordance with 48 CFR Part 31.

- 5.1.2 *For Additional Services.* OWNER shall pay CONSULTANT for Additional Services rendered under Section 2 as follows:

5.1.2.1 General. For additional services of CONSULTANT'S principals and employees engaged directly on the Project and rendered pursuant to paragraph 2.1 on the same basis as outlined in paragraphs 5.1.1.1, 5.1.1.2 and 5.1.1.3.

5.2 Times of Payments

- 5.2.1 CONSULTANT shall submit monthly statements for Basic and Additional Services rendered and for Reimbursable Expenses incurred. OWNER shall make prompt monthly payments in response to CONSULTANT'S monthly statements.

For these services the OWNER shall make prompt monthly payments to the CONSULTANT based on monthly billings submitted by the CONSULTANT up to 90% of the maximum fee for each Task as shown on Exhibit D, "Cost Estimate". The remaining 10% shall be due upon approval of the Final Report for the Project as accepted by OWNER.

5.3 Other Provisions Concerning Payments

- 5.3.1 If OWNER fails to make any payment due CONSULTANT for services and expenses within forty-five (45) days after receipt of CONSULTANT'S statement the CONSULTANT may, after giving seven (7) days written notice to OWNER, suspend services under this Agreement until CONSULTANT has been paid in full all amounts due for services, expenses and charges.
- 5.3.2 In the event of termination by OWNER upon completion of any phase of Basic Services, progress payments due CONSULTANT for services rendered through such phase shall constitute total payment for such services. In the event of such termination by OWNER during any phase of the Basic Services, CONSULTANT also will be reimbursed for the charges of independent professional associates and consultants employed by CONSULTANT to render Basic Services incurred through such phase. In the event of any such termination, CONSULTANT will be paid for unpaid Reimbursable Expenses previously incurred.
- 5.3.3 The employees of CONSULTANT, professional associates and consultants, whose time is directly assignable to the program shall keep and sign a time record showing the element of the Project, date and hours worked, title of position and compensation rate.
- 5.3.4 *Records.* The CONSULTANT shall maintain an accurate cost keeping system as to all costs incurred in connection with the subject of this Agreement and shall produce for examination books of accounts, bills, invoices and other vouchers or certified copies thereunder if originals be lost at such reasonable time and place as may be designated by the OWNER and shall permit extracts and copies thereof to be made during the contract period and for three years after the date of final payment to CONSULTANT.

All personnel employed by CONSULTANT shall maintain time records for time spent performing work on study described in this Agreement for a period of three years from the conclusion of the study. Time records and payroll records for said personnel shall be similarly retained by CONSULTANT for a period of three years from the conclusion of the study.

Upon reasonable notice, the CONSULTANT will allow OWNER auditors to audit all records of the CONSULTANT related to this Agreement. These records shall be clearly identified and readily accessible. All records shall be kept for a period of three (3) years after final payment under Agreement is made and all other pending matters are closed.

- 5.3.5 *Inspection of Work.* The CONSULTANT shall, with reasonable notice, afford OWNER or representatives of OWNER reasonable facilities for review and inspection of the work in this Agreement. OWNER shall have access to CONSULTANT'S premises and to all books, records, correspondence, instructions, receipts, vouchers and memoranda of every description pertaining to this Agreement.
- 5.3.6 *Audits.* The CONSULTANT shall, with reasonable notice, afford representatives of the OWNER reasonable facilities for examination and audits of the cost account records; shall make such returns and reports to a representative as he may require; shall produce and exhibit such books, accounts, documents and property as he may determine necessary to inspect and shall, in all things, aid him in the performance of

his duties.

- 5.3.7 Payment shall be made subject to audit by duly authorized representatives of the OWNER. Payment as required in 49 CFR 26.29:

The CONSULTANT shall pay subcontractors or suppliers within 15 days of receiving payment for work that is submitted for progress payment by the OWNER. If the CONSULTANT withholds payment beyond this time period, written justification by the CONSULTANT shall be submitted to the OWNER upon request. If it is determined that a subcontractor or supplier has not received payment due without just cause, the OWNER may withhold future estimated payments and/or may direct the CONSULTANT to make such payment to the subcontractor or supplier. Prompt payment deviations will be subject to price adjustments.

- 5.3.8 In the event the service to the contract is terminated by the OWNER for fault on the part of the CONSULTANT, the agreement shall be null and void, and, the OWNER shall be entitled to recover payments made to the CONSULTANT on the work which is the cause of the at-fault termination. The CONSULTANT shall be paid only for work satisfactorily performed and delivered to the OWNER up to the date of termination. After audit of the CONSULTANT'S actual costs to the date of termination and after determination by the OWNER of the amount of work satisfactorily performed, the OWNER shall determine the amount to be paid the CONSULTANT.

5.4 Definitions

- 5.4.1 Reimbursable Expenses means the actual expenses incurred by CONSULTANT or CONSULTANT'S independent professional associates or consultants directly in connection with the Project, including expenses for: transportation and subsistence incidental thereto; reproduction of reports, graphics, and similar Project related items; and if authorized in advance by OWNER, overtime work requiring higher than regular rates. In addition, if authorized in advance by OWNER, Reimbursable Expenses will also include expenses incurred for computer time and other highly specialized equipment, including an appropriate charge for previously established programs and expenses of photographic production techniques times a factor of 1.0 as determined in accordance with CONSULTANT'S normal accounting practices. All costs must be accumulated and segregated in accordance with Consultant's normal business practice and FAR Part 31

5.5 Ownership of Data

Documents and all products of this Agreement are to be the property of the OWNER. Any reuse of documents for extensions of the Project or other projects shall be at the OWNER's sole risk and liability.

5.6 Publication and Release of Information

The CONSULTANT shall not copyright material developed under this Agreement without written authorization from the OWNER. The OWNER reserves a royalty-free non-exclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, the work for government purposes.

5.7 Acquisition of Property or Equipment

The acquisition of property or equipment will be in accordance with 49 CFR 18.32.

5.8 Independent Consulting and Subcontracting

While performing services hereunder, CONSULTANT is an independent contractor and not an officer, agent, or employee of the City of Rapid City.

Any employee of the CONSULTANT engaged in the performance of services required under the agreement shall not be considered an employee of the OWNER, and any and all claims that may or might arise under the Worker's Compensation Act of the State of South Dakota on behalf of said employees or other persons while so engaged and any and all claims made by any third party as a consequence of any act or omission of the part of the work or service provided or to be rendered herein by the CONSULTANT shall in no way be the obligation or responsibility of the OWNER.

CONSULTANT shall perform all work except specialized services. Specialized services are considered to be those items not ordinarily furnished by CONSULTANT which must be obtained for proper execution of this Agreement. Specialized services required by the study, if any, will be provided pursuant to Section 2 of this Agreement.

Neither this Agreement nor any interest therein shall be assigned, sublet or transferred unless written permission to do so is granted by the OWNER. Subcontracts are to contain all the required provisions of the prime contract as required by 49 CFR Part 18, definitions.

5.9 Personnel Employment

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this agreement, and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gifts, or any other considerations, contingent upon or resulting from the award of making of this Agreement. For breach or violation of this warranty, the OWNER shall have the right to annul this Agreement without liability or, in its discretion to deduct from the agreement price or consideration, or otherwise recover, the full amount of such fees, commission, percentage, brokerage fee, gift or contingent fee.

5.10 Nondiscrimination/ADA

The CONSULTANT agrees to comply with the requirements of Title 49, CFR Part 21 and Title VI of the Civil Rights Act of 1964. The CONSULTANT agrees to submit upon request quarterly Title VI (Civil Rights) State of Contractor reports to the State. The CONSULTANT agrees to provide services in compliance with the Americans With Disabilities Act of 1990.

5.11 Claims

To the extent authorized by law, the CONSULTANT shall indemnify and hold harmless the OWNER, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses and reasonable attorney fees to the extent such claims are caused by any negligent performance of professional services by, the CONSULTANT, its employees, agents, subcontractors or assignees.

It is further agreed that any and all employees of either party, while engaged in the performance of any work or services, shall not be considered employees of the other party, and that any and all claims that may or might arise under the Worker's Compensation Act of the State of South Dakota on behalf of said employees, while so engaged on any of the work

or services provided to be rendered herein, shall in no way be the obligation or responsibility of the other party.

5.12 Acceptance and Modification

This Agreement together with the Exhibits and schedules identified above constitute the entire agreement between OWNER and CONSULTANT and supersede all prior written or oral understandings. This Agreement and said Exhibits and schedules may only be amended, supplemented, modified or canceled after consultation with, and approval in writing by, the parties to this Agreement.

5.13 Termination or Abandonment

The CONSULTANT and the OWNER share the right to terminate this Agreement upon giving thirty (30) days written notice of such cancellation to the other party. If this Agreement is terminated under this paragraph, CONSULTANT shall deliver to OWNER all work product produced up to the time of termination. OWNER shall reimburse CONSULTANT for all work completed to the date of termination.

In the event the CONSULTANT breaches any of the terms or conditions hereof, this Agreement may be terminated by the OWNER at any time with ten (10) days written notice and an opportunity to cure. If termination for such a default is effected by the OWNER, any payments due to CONSULTANT at the time of termination may be adjusted to cover any additional costs to the OWNER because of CONSULTANT'S default. Upon termination the OWNER may take over the work and may award another party an agreement to complete the work under this Agreement. If after the OWNER terminates for a default by CONSULTANT it is determined that CONSULTANT was not at fault, then the CONSULTANT shall be paid for eligible services rendered and expenses incurred up to the date of termination.

SECTION 6 – GOVERNING LAW

This agreement and any dispute arising out of this agreement shall be governed by the laws of the State of South Dakota.

6.1 Forum Selection

Any dispute arising out of this contract shall be litigated in the Circuit Court for the 7th Judicial Circuit, Rapid City, South Dakota.

6.2 Compliance Provision

The CONSULTANT shall comply with all federal, state and local laws, together with all ordinances and regulations applicable to the work and will be solely responsible for obtaining current information on such requirements. The CONSULTANT shall procure all licenses, permits or other rights necessary for the fulfillment of its obligation under the Agreement.

SECTION 7 – MERGER CLAUSE

This written agreement including Exhibit A Scope of Work, Exhibit B Schedule, Exhibit C Billing Rates and Exhibit D Cost Estimate constitute the entire agreement of the parties. No other promises or consideration are a part of this agreement.

SECTION 8 – COMPLIANCE WITH CLEAN AIR ACT

Consultant stipulates that any facility to be utilized in the performance of this contract, under the Clean Air Act, as amended, Executive Order 11738, and regulations in implementation thereof is not listed on the U.S. Environmental Protection Agency List of Violating Facilities pursuant to 40 CFR 15.20 and that the OWNER and the State Department of Transportation shall be promptly notified of the receipt by the CONSULTANT of any communication from the Director, Office of Federal Activities, EPA, indication that a facility to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

SECTION 9 – CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

CONSULTANT certifies, by signing this agreement that neither it nor its Principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

SECTION 10 – INSURANCE AND REPORTING

Before the CONSULTANT begins providing service, the CONSULTANT will be required to furnish the OWNER the following certificates of insurance and assure that the insurance is in effect for the life of the contract:

- A. Commercial General Liability Insurance: CONSULTANT shall maintain occurrence based commercial general liability insurance or equivalent form with a limit of not less than \$1,000,000.00 for each occurrence. If such insurance contains a general aggregate limit it shall apply separately to this Agreement or be no less than two times the occurrence limit.
- B. Professional Liability Insurance or Miscellaneous Professional Liability Insurance: CONSULTANT agrees to procure and maintain professional liability insurance or miscellaneous professional liability Insurance with a limit not less than \$1,000,000.00.

The insurance provided for general liability and errors and omissions shall be adequate for the liability presented, and shall be written by an admitted carrier in the State of South Dakota.

- C. Business Automobile Liability Insurance: CONSULTANT shall maintain business automobile liability insurance or equivalent form with a limit of not less than \$500,000.00 for each accident. Such insurance shall include coverage for owned, hired and non-owned vehicles.
- D. Worker's Compensation Insurance: CONSULTANT shall procure and maintain workers' compensation and employers' liability insurance as required by South Dakota law.

Before beginning work under this Agreement, the CONSULTANT shall furnish the OWNER with properly executed Certificates of Insurance which shall clearly evidence all insurance required in this Agreement and which provide that such insurance may not be canceled, except on 30 days' prior written notice to the OWNER. The CONSULTANT shall furnish copies of insurance policies if requested by the OWNER.

SECTION 11 - REPORTING

CONSULTANT agrees to report to the OWNER any event encountered in the course of performance of this Agreement which results in injury to any person or property, or which may otherwise subject CONSULTANT, or the OWNER or its officers, agents or employees to liability. CONSULTANT shall report any such event to the OWNER immediately upon discovery.

CONSULTANT'S obligation under this section shall only be to report the occurrence of any event to the OWNER and to make any other report provided for by their duties or applicable law. CONSULTANT'S obligation to report shall not require disclosure of any information subject to privilege or confidentiality under law (e.g., attorney-client communications). Reporting to the OWNER under this section shall not excuse or satisfy any obligation of CONSULTANT to report any event to law enforcement or other entities under the requirements of any applicable law.

SECTION 12 – DISCLOSURE TO REPORT LOBBYING

CONTRACTOR certifies, to the best of CONTRACTOR'S knowledge and belief, that: No Federal appropriated funds have been paid or will be paid, by or on CONTRACTOR'S behalf, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement. If any funds other than Federal appropriated funds have been paid or will be paid to any of the above mentioned parties, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

CONTRACTOR shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

SECTION 13 - SEVERABILITY PROVISION

In the event that any court of competent jurisdiction shall hold any provision of this Agreement unenforceable or invalid, such holding shall not invalidate or render unenforceable any other provision hereof.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement by their duly authorized officers on the day, month and year first written above.

OWNER:

CONSULTANT:

BY: _____
Alan Hanks, Mayor
Date: _____

BY: _____
Felsburg Holt & Ullevig,
6300 South Syracuse Way
Centennial, CO 80111
Date: _____

BY: _____
Finance Officer

APPROVED AS TO FORM

Mike Schad 9/8/10
Mike Schad DATE
Assistant City Attorney

STATE OF SOUTH DAKOTA

COUNTY OF PENNINGTON

On this ____ day of _____, 201__, before me, a Notary Public, personally appeared _____, known to me to be the Mayor of the City of Rapid City, and acknowledge to me that he did sign the foregoing document as such officer and for the purposes therein stated.

Notary Public

My Commission Expires:

(SEAL)

STATE OF _____

COUNTY OF _____

On this ____ day of _____, 201__, before me, a Notary Public, personally appeared _____, known to me to be a Principal of _____, and acknowledge to me that he did sign the foregoing document as such officer and for the purposes therein stated.

Notary Public

My Commission Expires:

(SEAL)

Address for Giving Notices:
City of Rapid City
Growth Management Department
300 Sixth Street
Rapid City, South Dakota 57701

Address for Giving Notices:
Felsburg Holt & Ullevig
6300 South Syracuse Way, Suite 600
Centennial, CO 80111

EXHIBIT A – SCOPE OF WORK – RAPID CITY ARTERIAL SAFETY STUDY

SCOPE OF WORK

Task 0.0 – Begin Project: Coordinate with staff to confirm project goals and streets for review

- 0.1 Meet with Study Team of staff from Rapid City Public Works and Growth Management Departments, SDDOT and Rapid City Area MPO Committee representatives. Confirm Arterials to be reviewed and project goals and objectives.
- 0.2 Create spreadsheet with street segments to be reviewed and beginning and ending coordinates. The arterial segments will be categorized based on the number of through lanes and/or traffic volumes. For example, all 4-lane arterials could be one classification for arterial segments.

Task 1.0 – Gather Data: Assemble street network and crash data to enable analysis

- 1.1 Retrieve Arterial crash data from City files and South Dakota Crash Records in GIS form (see Task 1.3 for description of process for data collection and arterial segmentation). Consult City crash records (kept at City offices) to spot-check consistency of GIS information.
- 1.2 Assemble daily traffic volumes for all street segments. Traffic volumes would be obtained from the most current database of Rapid City counts and available SDDOT information.
- 1.3 The following describes the methodology to be used to collect crash data from the Rapid City GIS database and divide the arterial roadways into segments. This is an example of the methodology that can be used; the team will confirm its appropriateness for the project during Task 0.2:
 - a. Arterial roadway segments selected for review will be isolated from the larger roadway network using GIS.
 - b. Using methodology supported by other published studies, major intersection locations will be isolated and buffered by an influence area length along each approach. Attributed intersection data is readily available from SDDOT if not available through the City. These buffers will be used to associate crashes to the major intersections, and will match the buffers used by City Staff to create intersection safety analyses.
 - c. Arterial roadway segments will be buffered by 25 feet and these buffers will be used to associate crashes to street segments.
 - d. Intersection buffers will be erased from the arterial buffers, leaving only the crashes associated with arterial segments.
 - e. Crash data will be selected out for crashes occurring within the street segment buffers.
 - f. A spatial join function will be used to associate the number of crashes for each unique arterial roadway segment. The spatial join, buffering, and location based selection will be performed in ArcGIS 9.3.1.
 - g. Data for arterial segments will be summarized and used in the critical crash rate calculations discussed in Task 2.0.

Task 2.0 – Safety Analysis: Identify street segments needing improvement; develop two improvement concepts for ten most critical street segments

- 2.1 First, individual crash rates will be calculated for each arterial segment defined during Task 0.2. Then, the citywide average crash rate for each defined category of arterial segment will be calculated. Critical crash rates for each individual arterial segment will then be calculated by using the citywide averages and available data from comparable

areas. A separate critical crash rate will be calculated for both the total number of crashes and the total of only injury/fatal crashes. This will assure that locations with a high proportion of severe crashes but a low number of total crashes are not overlooked during the screening process.

- 2.2 Identify links exceeding the critical crash rate. Rank these sites based on the “critical crash ratio” for each site; the actual crash rate at the site divided by its critical rate. The top ten critical ratio sites would be moved forward for additional analysis. For each of the top ten sites:
- 2.3 Pull crash reports from City of Rapid City database for top ten sites. All reports remain at the City offices, so all crash report work will be done at the City.
- 2.4 Prepare and review crash type diagrams. Compare the percentages of each crash type occurring at these sites with statistical diagnostic percentages based on the citywide typical crash type norms developed for similar sites within Rapid City.
- 2.5 Based on breakdown of crash types occurring along arterial segments, recommend corrective actions.
- 2.6 Conduct up to ten field visits to key locations to assess feasibility of potential corrective actions.
- 2.7 Provide conceptual drawings of improvements, anticipated to include two per segment. A total of 20 drawings would be prepared as conceptual sketches overlaid on aerial photography.

Task 3.0 – Project Oversight/Review: Work with staff and standing committees

- 3.1 Form Study Team comprised of Rapid City Public Works and Growth Management Staff, SDDOT and perhaps Rapid City MPO representatives. Present study materials to Study Team every two months, address comments in work materials and reports. A total of five such meetings are anticipated over the course of the project.
- 3.2 Conduct regular coordination telephone conversations and email exchanges with City Traffic Staff to coordinate street segment analysis prepared by consultant team with intersection analysis conducted by the City.
- 3.3 Provide graphics and information support for a public meeting to be held during the project to gather input. The meeting would be conducted by Rapid City Staff and would not be attended by consultant team members.
- 3.4 Present draft study report and final study report to MPO Committees
- 3.5 Present draft study report to City Council

Task 4.0 – Documentation: Prepare documentation of study activity and recommendations

- 4.1 Provide Study Team summaries every two months
- 4.2 Draft and Final Study Report, with intersection information and text provided by Rapid City Staff and street segment information provided by consultant team

Task 5.0 – Project Administration: Prepare project guide, QA/QC, track project progress and monthly invoicing

Task 6.0 – Implementation Steps: Develop prioritized list of safety projects

- 6.1 Develop preliminary cost estimates for improvement concept
- 6.2 Estimate potential crash reduction associated with each improvement using Accident Modifications Factors found in *Report 617 Accident Modification Factors for Traffic Engineering and ITS Improvements*
- 6.3 Prioritize improvements based on generalized benefit-cost ratio

EXHIBIT B – PROJECT SCHEDULE RAPID CITY ARTERIAL SAFETY STUDY

PROJECT SCHEDULE

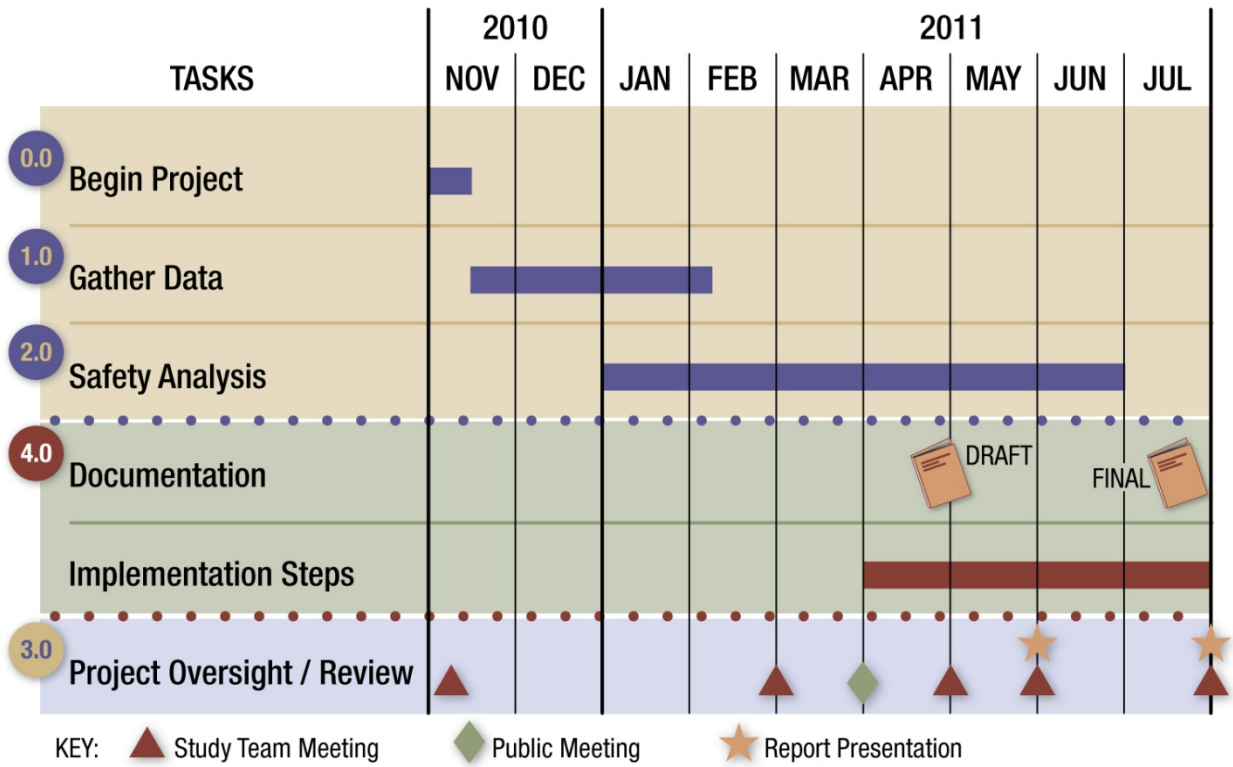


EXHIBIT C – BILLING RATES – RAPID CITY ARTERIAL SAFETY STUDY

Exhibit C

Billing Rates

Felsburg Holt & Ullevig

Staff	Position	Salary Rate (\$/hr)	Overhead (166.67%)	Salary plus Overhead
Elliot Sulsky	Principal	\$ 66.11	\$ 110.19	\$ 176.30
Lyle DeVries	Project Manager	\$ 55.53	\$ 92.55	\$ 148.08
Evan Kirby	Sr. Env. Scientist	\$ 51.29	\$ 85.49	\$ 136.78
Larry Lang	Engineer V	\$ 44.96	\$ 74.93	\$ 119.89
Ryan Germeroth	Engineer II	\$ 32.53	\$ 54.21	\$ 86.74
Brian Wiltshire	Engineer III	\$ 37.82	\$ 63.03	\$ 100.85
Steven Marfitano	Engineer	\$ 29.88	\$ 49.79	\$ 79.67
Zach Topoleski	Designer IV	\$ 33.27	\$ 55.46	\$ 88.73
Cathie Jopes-Garver	Administrative	\$ 31.90	\$ 53.17	\$ 85.07

Dream Design, Intl.

Staff	Position	Salary Rate (\$/hr)	Overhead (198.6%)	Salary plus Overhead
Hani Shafai	Principal	\$ 37.02	\$ 73.51	\$ 110.53
Terry Cash	Project Manager	\$ 35.70	\$ 70.89	\$ 106.59
Jack Hattervig	Project Coordinator	\$ 26.13	\$ 51.88	\$ 78.01
Renee Catron-Blair	Clerical	\$ 27.03	\$ 53.67	\$ 80.70

EXHIBIT D – COST WORKSHEET – RAPID CITY ARTERIAL SAFETY STUDY

Project Budget - Rapid City Arterial Safety Review and Recommendation																	
Work Hours and Cost Estimate	FHU Personnel:									DDI Personnel:					Total Hrs	Total Direct Labor Cost	
	Principal (EMS)	Project Manager (LED)	Sr. Env. Scientist (EK)	Engineer V (LCL)	Engineer II (RDG)	Engineer III (BW)	Engineer (SM)	Designer IV (ZT)	Administrative (CG)	Principal (HS)	Project Manager (TC)	Project Coordinator (JH)	Clerical (RCB)				
TASK	Direct Rates:	\$60.10	\$50.48	\$46.63	\$40.87	\$29.57	\$34.38	\$27.16	\$30.25	\$29.00	\$33.65	\$32.45	\$23.75	\$24.57			
0.0 Begin Project																	
0.1 Meet with Study Team			12			12					2	2			28		
0.2 Compile Spreadsheet of Arterials						12		8							20		
Task Sub-total	0	12	0	0	24	0	8	0	0	0	2	2	0	0	48	\$ 1,665	
1.0 Gather Data																	
1.1 Retrieve GIS crash data and spot check with reports			28		4		4					2	4		42		
1.2 Assemble traffic volume information							16								16		
Task Sub-total	0	0	28	0	4	0	20	0	0	0	0	2	4	0	58	\$ 2,127	
2.0 Safety Analysis																	
2.1 Calculate critical crash rates		8	8		12		12								40		
2.2 Identify top ten sites		8			8		4								20		
For each of the top ten sites:															n/a		
2.3 Pull crash reports at city offices					8							4	12		24		
2.4 Develop crash diagrams		8			8		8								24		
2.5 Recommend corrective actions		4			12		8					2			26		
2.6 Conduct field visits					4							16			20		
2.7 Provide conceptual drawings		12	8	12	16	56	8	24							136		
Task Sub-total	0	40	16	12	68	56	40	24	0	0	0	22	12	0	290	\$ 10,003	
3.0 Project Oversight/Review																	
3.1 Hold five Study team progress meetings		48			12						6	10	8	2	86		
3.2 Rapid City coordination		2			8										10		
3.3 Provide materials for public meeting		2	2		4			4							12		
3.4 Present draft study and final study report to MPO Committees		16			4										20		
3.5 Present draft study report to City Council		8													8		
Task Sub-total	0	76	2	0	28	0	0	4	0	0	6	10	8	2	136	\$ 5,644	
4.0 Documentation																	
4.1 Provide Study Team summaries every two months		4			6										10		
4.2 Draft and Final Study Report	4	12			32			20	8						76		
Task Sub-total	4	16	0	0	38	0	0	20	8	0	0	0	0	0	86	\$ 3,009	
5.0 Project Administration:																	
5.1 Prepare project guide, QA/QC, track project progress and invoicing	4	24													28		
Task Sub-total	4	24	0	0	0	0	0	0	0	0	0	0	0	0	28	\$ 1,452	
6.0 Implementation Steps																	
6.1 Develop preliminary cost estimates				8		12									20		
6.2 Estimate crash reduction					16										16		
6.3 Prioritize Improvements	4	4			4										12		
Task Sub-total	4	4	0	8	20	12	0	0	0	0	0	0	0	0	48	\$ 1,773	
Total Hours	12	172	46	20	182	68	68	48	8	8	36	24	2		694		
Total Direct Labor Budget	\$ 721	\$ 8,683	\$ 2,145	\$ 817	\$ 5,382	\$ 2,338	\$ 1,847	\$ 1,452	\$ 232	\$ 269	\$ 1,168	\$ 570	\$ 49		\$ 25,673		
Other Direct Costs:																	
															Travel & Subsistence	\$ 4,500	
															Copying/Reproduction	\$ 1,069	
															Postage/Mailing	\$ 200	
															Miscellaneous	\$ 100	
															Total ODC:	\$ 5,869	
															FHU	DDI	
															Direct Labor	\$ 23,617	\$ 2,057
															Overhead	\$ 39,362	\$ 4,084
															Profit	\$ 6,298	\$ 614
															Total	\$ 69,276	\$ 6,755
															Other Direct Costs (from above):	\$ 5,869	
															Project Total:	\$ 81,900	