

Contract for Professional Architectural and Engineering Services
Project Work Order 09-15 Grand Avenue – Zimmerman Trail to Shiloh Road

In consideration of the mutual promises herein, City of Billings and HDR Engineering, Inc. agree as follows. This Contract consists of:

- Part I, consisting of 15 Sections of Special Provisions;
- Part II, consisting of 11 Sections of General Provisions;
- Appendix A consisting of 13 pages (Basic Services of Contractor);
- Appendix B consisting of 1page (Methods and Times of Payment);
- Appendix C consisting of 1page (Additional Services of Contractor);
- Appendix D consisting of 1page (Schedule of Professional Fees);
- Appendix E consisting of 1page (Project Schedule);
- Appendix F consisting of 1page (Certificate(s) of Insurance); and

PART I
SPECIAL PROVISIONS

Section 1. Definitions.

In this Contract:

- A. "Administrator" means the City Engineer of the Engineering Division of the Public Works Department or his designee.
- B. "Billings" means the City of Billings.
- C. "Contractor" means HDR Engineering, Inc.

Section 2. Scope of Services.

- A. The Contractor shall perform professional services in accordance with Appendix A, which is attached hereto and incorporated in this Section by reference.
- B. Billings shall pay the Contractor in accordance with the Schedule of Professional Fees attached as Appendix D and incorporated herein by reference for services actually performed under this Contract.

- C. Billings shall not allow any claim for services other than those described in this Section. However, the Contractor may provide, at its own expense, any other services that are consistent with this Contract.

Section 3. Time for Performance.

- A. This Contract becomes effective when signed on behalf of Billings.
- B. The Contractor shall commence performance of the Work described in Section 2 on receipt of written Notice to Proceed and complete that performance in accordance with the schedule set forth in Appendix E.
- C. This Contract shall terminate at midnight on January 1, 2011.

Section 4. Compensation; Method of Payment.

- A. Subject to the Consultant's satisfactory performance, Billings shall pay the Consultant no more than Two Hundred and Four Thousand Six Hundred and Sixty-Nine DOLLARS (\$204,669.00) in accordance with this Section.
- B. Billings shall pay the Consultant in accordance with the progress payment schedule attached hereto as Appendix B and incorporated herein by reference.
- C. Each month, or at the conclusion of each phase of the Work for which payment is due, as negotiated on a per-task basis, the Contractor shall present a bill to the Administrator describing the Work for which it seeks payment and documenting expenses and fees to the satisfaction of the Administrator. If any payment is withheld because the Contractor's performance is unsatisfactory, the Administrator must, within ten (10) days of the payment denial, notify the Contractor of the payment denial and set forth, with reasonable specificity, what was unsatisfactory and why. Billings will pay Contractor within 30 days of receiving an acceptable invoice.

Section 5. Termination of the Contractor's Services.

The Contractor's services under Section 2 of this Part may be terminated:

- A. By mutual consent of the parties.
- B. For the convenience of Billings, provided that Billings notifies the Contractor in writing of its intent to terminate under this paragraph at least 10 days prior to the effective date of the termination.
- C. For cause, by either party where the other party fails in any material way to perform its obligations under this Contract. Termination under this Subsection is subject to the condition that the terminating party notifies the other party of its intent to terminate, stating with reasonable specificity the grounds therefor, and the other party fails to cure the default within 30 days after receiving the notice.

Section 6. Duties Upon Termination

- A. If Billings terminates the Contractor's services for convenience, Billings shall pay the Contractor for its actual costs reasonably incurred in performing before termination and Billings shall pay for services rendered prior to termination. Payment under this Subsection shall never exceed the total compensation

allowable under Section 4 of this Part. All finished and unfinished documents and materials prepared by the Contractor shall become the property of Billings.

- B. If the Contractor's services are terminated for cause, Billings shall pay the Contractor the reasonable value of the services satisfactorily rendered prior to termination, less any damages suffered by Billings because of the Contractor's failure to perform satisfactorily. The reasonable value of the services rendered shall never exceed ninety percent (90%) of the total compensation allowable under Section 4 of this Part. Any finished or unfinished documents or materials prepared by the Contractor under this Contract shall become the property of Billings at its option.
- C. If the Contractor receives payments exceeding the amount to which it is entitled under Subsections A or B of this Section, he shall remit the excess to the Administrator within 30 days of receiving notice to do so.
- D. The Contractor shall not be entitled to any compensation under this Section until the Contractor has delivered to the Administrator all documents, records, Work product, materials and equipment owned by Billings and requested by the Administrator.
- E. If the Contractor's services are terminated for whatever reason the Contractor shall not claim any compensation under this Contract, other than that allowed under this Section.
- F. If a final audit has not been performed before the Contractor's services are terminated, Billings may recover any payments for costs disallowed as a result of the final audit.
- G. Except as provided in this Section, termination of the Contractor's services under Section 5 of this Part does not affect any other right or obligation of a party under this Contract.

Section 7. Insurance.

- A. The Contractor shall maintain in good standing the insurance described in Subsection B of this Section. Before rendering any services under this Contract, the Contractor shall furnish the Administrator with proof of insurance in accordance with Subsection B of this Section.
- B. The Contractor shall provide the following insurance:
 - 1. Workers' compensation and employer's liability coverage as required by Montana law.
 - 2. Commercial general liability, including contractual and personal injury coverage's -- \$1,500,000 per occurrence.
 - 3. Commercial automobile liability -- \$500,000 per accident.
 - 4. Professional liability in the amount of \$1,500,000 per claim.
- C. Each policy of insurance required by this Section shall provide for no less than 30 days' advance notice to Billings prior to cancellation.
- D. Billings SHALL be listed as an additional insured on all policies except Professional Liability and Worker's Compensation Policies. In addition, all policies except Professional Liability and Worker's Compensation shall contain a waiver of subrogation against Billings.

Section 8. Assignments.

Unless otherwise allowed by this Contract or in writing by the Administrator, any assignment by the Contractor of its interest in any part of this Contract or any delegation of duties under this Contract shall be void, and an attempt by the Contractor to assign any part of its interest or delegate duties under this Contract shall give Billings the right immediately to terminate this Contract without any liability for Work performed.

Section 9. Ownership; Publication, Reproduction and Use of Material.

- A. Except as otherwise provided herein, all data, documents and materials produced by the Contractor under this Contract shall be the property of Billings, which shall retain the exclusive right to publish, disclose, distribute and otherwise use, in whole or in part, any such data, documents, or other materials. Exclusive rights shall not be attributed to portions of such materials presently in the public domain or which are not subject to copyright. Contractor shall retain rights to pre-existing proprietary property including but not limited to interactive models. The Contractor shall have the right to include photographic or artistic representations of the design and construction of the Project among the Contractor's promotional and professional materials. The Contractor's materials shall not include Billings' confidential or proprietary information regardless of whether Billings has previously advised the Contractor in writing of the specific information considered by Billings to be confidential and proprietary.
- B. Equipment purchased by the Contractor with Contract funds: See Appendix A, Section 3. Scope of Work.
- C. Should Billings elect to reuse Work products provided under this Contract for other than the original project and/or purpose, Billings will indemnify and hold harmless the Contractor from any and all claims, demands and causes of action of any kind or character arising as a result of reusing the documents developed under this contract. Additionally, any reuse of design drawings or specifications provided under this Contract must be limited to conceptual or preliminary use for adaptation, and the original Contractor's or subcontractor's signature, professional seals and dates removed. Such reuse of drawings and specifications, which require professional seals and dates removed, will be signed, sealed, and dated by the professional who is in direct supervisory control and responsible for adaptation.

Section 10. Notices.

Any notice required pertaining to the subject matter of this Contract shall be either sent via facsimile (FAX), e-mail, or mailed by prepaid first class registered or certified mail, return receipt requested to the following addresses:

Billings: City Engineer (Debi Meling, PE)
City of Billings
Public Works/Engineering
2224 Montana Avenue
Billings, Montana 59101

FAX: (406) 237-6291

Contractor: Geoffrey T. Parkins, PE
HDR Engineering, Inc.
2913 Millennium Circle
Billings, MT 59102-7444

FAX: (406) 652-2758

Notices are effective upon the earlier of receipt, proof of good transmission (facsimiles only), or 5 days after proof of proper posting.

Section 11. Contract Budget.

In connection with its performance under this Contract, the Contractor shall not make expenditures other than as provided in line items in the Contract budget.

Section 12. Force Majeure.

- A. Any failure to perform by either party due to force majeure shall not be deemed a violation or breach hereof.
- B. As used in this Contract, force majeure is an act or event of substantial magnitude, beyond the control of the delayed party, which delays the completion of this Contract, including without limitation:
 - 1. Any interruption, suspension or interference resulting solely from the act of Billings or neglect of Billings not otherwise governed by the terms of this Contract.
 - 2. Strikes or Work stoppages.
 - 3. Any interruption, suspension or interference with the project caused by acts of God, or acts of a public enemy, wars, blockades, insurrections, riots, arrests or restraints of governments and people, civil disturbances or similar occurrences.
 - 4. Order of court, administrative agencies or governmental officers other than Billings.

Section 13. Financial Management System.

The Contractor shall establish and maintain a financial management system that:

- A. Provides accurate, current, and complete disclosure of all financial transactions relating to the Contract;
- B. Maintains separate accounts by source of funds for all revenues and expenditures and identifies the source and application of funds for the Contractor's performance under this Contract, including information pertaining to subcontracts, obligations, unobligated balances, assets, liabilities, outlays and income;
- C. Effectively controls and accounts for all municipal funds and Contract property;
- D. Compares actual expenditures with budgeted amounts and relates financial information to performance or productivity data including unit cost information where applicable;
- E. Allocates administrative costs to direct service delivery units;
- F. Minimizes the time between receipt of funds from Billings and their disbursement by the Contractor;
- G. Provides accounting records supported by source documentation; and

H. Provides a systematic method assuring the timely and appropriate resolution of audit findings and recommendations.

Section 14. Funding Requirements.

In the event that any funding source for this Contract should impose additional requirements upon Billings for the use of those funds, the Contractor agrees to abide by those additional requirements immediately upon receipt of written notice thereof from Billings.

Section 15. Subcontracts.

The Contractor may enter into subcontracts for the purchase of goods and services necessary for the performance of this Contract, provided:

- A. Every subcontract shall be reduced to writing and contain a precise description of the services or goods to be provided and the nature of the consideration paid therefor.
- B. Every subcontract under which the Contractor delegates the provision of services shall be subject to review and approval by the Administrator before it is executed by the Contractor.
- C. Every subcontract in an amount exceeding \$1,000 shall require reasonable access to business records of the subcontractor relating to the purchase of goods or services pursuant to the subcontract.

PART II GENERAL CONTRACT PROVISIONS

Section 1. Relationship of Parties.

The Contractor shall perform its obligations hereunder as an independent Contractor of Billings. Billings may administer the Contract and monitor the Contractor's compliance with its obligations hereunder. Billings shall not supervise or direct the Contractor other than as provided in this Section.

Section 2. Nondiscrimination.

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, age, sex, or marital status or who is a "qualified individual with a disability" (as that phrase is defined in the Americans With Disabilities Act of 1990). The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, or mental or physical impairment/disability. Such action shall include, without limitation, employment, upgrading, demotion or transfer, recruitment or recruiting advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The Contractor agrees to post, in conspicuous places available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- B. The Contractor shall state, in all solicitations or advertisements for employees to Work on Contract jobs, that all qualified applicants will receive equal consideration for employment without regard to race, color, religion, national origin, ancestry, age, sex or marital status, or mental or physical impairment/disability.
- C. The Contractor shall comply with any and all reporting requirements that may apply to it which the City of Billings may establish by regulation.
- D. The Contractor shall include the provisions of Subsections A through C of this Section in every subcontract or purchase order under this Contract, so as to be binding upon every such subcontractor or vendor of the Contractor under this Contract.
- E. The Contractor shall comply with all applicable federal, state, and city laws concerning the prohibition of discrimination.

Section 3. Permits, Laws, and Taxes.

The Contractor shall acquire and maintain in good standing all permits, licenses and other entitlements necessary to its performance under this Contract. All actions taken by the Contractor under this Contract shall comply with all applicable statutes, ordinances, rules and regulations. The Contractor shall pay all taxes pertaining to its performance under this Contract.

Section 4. Nonwaiver.

The failure of either party at any time to enforce a provision of this Contract shall in no way constitute a waiver of the provision, nor in any way affect the validity of this Contract or any part hereof, or the right of such party thereafter to enforce each and every provision hereof.

Section 5. Amendment.

- A. This Contract shall only be amended, modified or changed by a writing, executed by authorized representatives of the parties, with the same formality as this Contract was executed.
- B. For the purposes of any amendment modification or change to the terms and conditions of this Contract, the only authorized representatives of the parties are:

Contractor: Geoffrey T. Parkins, William E Barnhart II, or Authorized Signatory
(Project Manager, Vice President)

Billings: City Council or Authorized Designee

- C. Any attempt to amend, modify, or change this Contract by either an unauthorized representative or unauthorized means shall be void.

Section 6. Jurisdiction; Choice of Law.

Any civil action rising from this Contract shall be brought in the District Court for the Thirteenth Judicial District of the State of Montana, Billings. The law of the State of Montana shall govern the rights and obligations of the parties under this Contract.

Section 7. Severability.

Any provision of this Contract decreed invalid by a court of competent jurisdiction shall not invalidate the remaining provisions of the Contract.

Section 8. Integration.

This instrument and all appendices and amendments hereto embody the entire agreement of the parties. There are no promises, terms, conditions or obligations other than those contained herein; and this Contract shall supersede all previous communications, representations or agreements, either oral or written, between the parties hereto.

Section 9. Liability.

The Contractor shall indemnify, defend, save, and hold Billings harmless from any and all claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses including reasonable attorneys' fees and costs, arising from any wrongful or negligent act, error or omission of the Contractor or any agent, employee or subcontractor as a result of the Contractor's or any subcontractor's performance pursuant to this Contract.

- A. The Contractor shall not indemnify, defend, save and hold Billings harmless from claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses or attorneys' fees and costs arising from wrongful or negligent acts, error or omission solely of Billings occurring during the course of or as a result of the performance of the Contract.
- B. Where claims, lawsuits or liability, including attorneys' fees and costs arise from wrongful or negligent act of both Billings and the Contractor, the Contractor shall indemnify, defend, save, and hold Billings harmless from only that portion of claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses including attorneys' fees and costs, which result from the Contractor's or any subcontractor's wrongful or negligent acts occurring as a result from the Contractor's performance pursuant to this Contract.

Section 10. Inspection and Retention of Records.

The Contractor shall, at any time during normal business hours and as often as Billings may deem necessary, make available to Billings, for examination, all of its records with respect to all matters covered by this Contract for a period ending three years after the date the Contractor is to complete performance in accordance with Section 2 of the Special Provisions. Upon request, and within a reasonable time, the Contractor shall submit such other information and reports relating to its activities under this Contract, to Billings, in such form and at such times as Billings may reasonably require. The Contractor shall permit Billings to audit, examine and make copies of such records, and to make audits of all invoices, materials, payrolls, records of personnel, and other data relating to all matters covered by this Contract. Billings may, at its option, permit the Contractor to submit its records to Billings in lieu of the retention requirements of this Section.

Section 11. Availability of Funds.

Payments under this Contract may require funds from future appropriations. If sufficient funds are not appropriated for payments required under this Contract, this Contract shall terminate without penalty to Billings; and Billings shall not be obligated to make payments under this Contract beyond those which have previously been appropriated.

IN WITNESS WHEREOF, the parties have executed this Contract on the date and at the place shown below.

City of Billings

Contractor

City Council or Designee

Date: _____

Name: William E Barnhart II

Title: Vice President

Date: _____

ATTEST:

IRS Tax ID # 47-0680568

Cari Martin
City Clerk

APPROVED AS TO FORM:

Date: _____

By _____

BRENT BROOKS, City Attorney

STATE OF MONTANA)
)ss.
COUNTY OF YELLOWSTONE)

On this ____ day of _____, 2009, before me, the undersigned, a Notary Public for the State of Montana, personally appeared _____, known to me to be the _____ of _____, and acknowledged to me that they executed the foregoing instrument on behalf of said corporation having first been authorized to do so.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year first above written.

Notary Public for the State of Montana
Residing at Billings, Montana
My Commission Expires: _____

Note: Final contract documents will require the Contractor's signature to be notarized.

Appendix A

Basic Services of Consultant

Section 1. Consultant's Rights and Duties.

- A. To furnish all labor, materials, equipment, supplies, and incidentals necessary to conduct and complete the Consultant's portion of the project as defined in the scope of work and to prepare and deliver to Billings all plans, specifications, bid documents, and other material as designated herein.
- B. Ascertain such information as may have a bearing on the work from local units of government, utility companies, and private organizations and shall be authorized to procure information from other authorities besides Billings, but shall keep Billings advised as to the extent of these contacts and the results thereof.
- C. Prepare and present such information as may be pertinent and necessary in order for Billings to pass critical judgment on the features of the work. The Consultant shall make changes, amendments or revisions in the detail of the work as may be required by Billings. When alternates are being considered, Billings shall have the right of selection.
- D. Consultant's work shall be in accordance with the standards of sound engineering and present City, State, and National standards and policies currently in use.
- E. Conform to the requirements of the Montana Code Annotated Title 18 "Public Contracts" and more particularly Sections 18-2-121 and 18-2-122, and all other codes of the State of Montana applicable to providing professional services including codes and standards nationally recognized.
- F. The Consultant shall certify with the submission of final plans that the plans are in conformance with applicable sections of Title 69, Chapter 4, Part 5, of the Montana Code Annotated as pertaining to existing utilities.
- G. To perform professional services in connection with the project and will serve as Billings' representative in those phases of the project to which this agreement applies.
- H. Where Federal funds are involved, the necessary provisions to meet all requirements will be complied with and documents secured and placed in the bidding documents.
- I. Submit an estimated progress schedule as to time and costs at the beginning of the work, and monthly progress reports thereafter until complete. The reports will include any problems, potential problems, and delays as foreseen by the Consultant. Reports will be submitted in a timely manner to permit prompt resolution of problems.

- J. Contract administration duties will include review of contractor certified payrolls for wage rate compliance. Discrepancies in certified payrolls will be resolved with the Contractor. A signed Consultant's Payroll Check Sheet (included in the Standard Modifications to MPWSS) will be submitted as proof of this review with one copy of each payroll.
- K. Name a Task Director who shall be the liaison between Billings and the Consultant. For this project the Task Director designated for the Consultant is Geoffrey Parkins.

Section 2. Billings Rights and Duties.

- A. To furnish all labor, materials, equipment, supplies, and incidentals necessary to conduct and complete Billings' portion of the project as designated in the scope of work.
- B. Name a Task Director who shall be the liaison between the Consultant and Billings. For this project, the Task Director designated is Debi Meling, PE, City Engineer.

Section 3. Scope of Work.

I. Introduction

During the term of this AGREEMENT, HDR Engineering, Inc. (CONSULTANT) shall perform professional services for the City of Billings (CITY) in association with the W.O. 09-15 Grand Avenue – Zimmerman to Shiloh Improvement project. This document shall be used to plan, conduct, and complete the work on the project.

The work under this AGREEMENT consists of developing final plans and quantities for W.O. 09-15. The work also includes all preliminary field work, investigations, and design work required to develop the final plans. The work to be completed under this AGREEMENT is more fully described as follows, and the scope of services and budget developed for this AGREEMENT are based on the project RFP and subsequent discussion between the CITY and CONSULTANT.

II. General Project Information

W.O. 09-15 Grand Avenue – Zimmerman to Shiloh

The CITY proposes to design a five-lane section for Grand Avenue from Zimmerman Trail to Shiloh Road. Grand Avenue is classified by the City as a principal arterial street. The roadway is currently comprised of two westbound lanes; one eastbound lane, and left turn pockets and segments of raised median between Shiloh Road and Yellowstone Valley Memorial Park. The roadway then transitions to one lane in each direction between Yellowstone Valley Memorial Park and Zimmerman Trail. East of Zimmerman Trail the roadway again transitions from one lane in each direction to two westbound lanes; one eastbound lane, and left turn pockets. The current proposal is to design improvements to Grand Avenue in anticipation of continued commercial development along the road, while planning for access control along the corridor. It is anticipated that the improvements will be constructed in phases by commercial developers under private contracts as development occurs along the corridor.

During the term of this AGREEMENT, HDR Engineering, Inc. (CONSULTANT) together with Morrison-Maierle, Inc. (SUBCONSULTANT), and Terracon Consultants, Inc. (SUBCONSULTANT) shall perform professional services for the CITY in connection with the W.O. 09-15 project. Currently planned work items include:

- Traffic engineering investigations
- Public outreach
- Surveying
- Geophysical investigation and geotechnical engineering
- Plans preparation

Detailed scopes of services for Morrison-Maierle and Terracon are included as attachments to this document.

The CONSULTANT will perform the work tasks identified in Section IV of this document. The work authorized is limited to this AGREEMENT. Work on subsequent phases may be authorized by supplement to this AGREEMENT, after negotiation of scope and budget.

III. Design Criteria

The CITY will designate the basic premises and criteria for plan development. Contract documents and plans, to the extent feasible, shall be developed in accordance with the latest edition and amendments of the following publications as of the date of the signing of this AGREEMENT of the following documents. Modification of plans required due to changes in design standards or requirements after work has begun may result in Extra Work.

Measurements will be in English units.

- Design Standard: City of Billings/Montana Public Works Standard Specifications (MPWSS)
- Horizontal Datum: NAD 83 (99) Montana State Plane coordinates (GPS survey)
- Vertical Datum: NAVD 88 (GPS survey)

Design Standards Publications:

- City of Billings Standard Modifications to the MPWSS, 5th Edition, dated March 1, 2006
- City of Billings Stormwater Management Manual, 6th Ed., February 2003
- City of Billings Design Standards for Bikeways & Trails – May 2004
- MPWSS, 5th Ed., March 2003
- AASHTO Policy on Geometric Design of Highways and Streets (“Green Book”), 2004
- AASHTO Guide for the Development of Bicycle Facilities, 1999
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, July 2004
- Manual of Uniform Traffic Control Devices (MUTCD), 2003 Edition
- Highway Capacity Manual 2000
- Montana Department of Transportation Traffic Engineering Manual

IV. Detailed Scope of Services

TASK SERIES 100 – ADMINISTRATION

The purpose of this task series is to provide overall direction and control for the project. The CONSULTANT's project manager shall be responsible for administering the communication plan, including creation and updates of the project schedule, implementation of quality control measures, project reporting, project documentation, and overall performance of the project. Activities include the following:

Task 101 – Project Management

The CONSULTANT shall administer the project and coordinate with the City of Billings to facilitate efficient progress and timely completion. Elements of work for this task include:

- Develop HDR project guide and QA/QC plan
- Manage project activities, subconsultant agreements, and project budget and schedule
- Perform management and business reviews
- Prepare and submit monthly invoice and progress report to CITY project manager.

Task 102 – Meetings

The CONSULTANT project manager, in addition to attending specific meetings as described in other tasks, shall attend the following meetings:

<u>Meetings</u>	<u>Purpose/Frequency</u>	<u>Preparation/Documentation</u>
CITY and CONSULTANT team Project Kickoff Meeting	Initial meeting to discuss project goals/ expectations and determine strategy and data needs for all team members.	Summarize action items, strategies, and decisions made.
Plan Review meetings	To discuss CITY review of 60% and 90% plan submittals (Assumes two, four-hour meetings)	Summarize decisions made, and assign tasks/action items.
CONSULTANT internal team meetings	Coordinate team's progress/effort, status of deliverables (Assumes three, one-hour meetings)	Summarize decisions made, and assign tasks/action items.

Assumptions: The CONSULTANT assumes two staff will attend the Project Kickoff meeting. Also, representatives from the SUBCONSULTANTS will attend this meeting.

Plan review meetings are assumed to be held at the City of Billings Public Works offices and will be attended by two members of the CONSULTANT staff.

Task 103 – Public Involvement

The CONSULTANT shall assist the CITY with stakeholder outreach by attending meetings with the individual landowners adjoining the Grand – Zimmerman to Shiloh project area. The intent of these meetings will be to gain information from the landowners regarding the potential for or planned development of their parcels.

Assumptions: The CONSULTANT assumes that one (1) CONSULTANT staff member will attend two (2) meetings with each of the four identified landowners (Yegen, Cardwell Ranch, Michelotti, and Zimmerman). It is assumed that the meetings will take place during the surveying phase and after the 60% design submittal.

Task Series 100 Deliverables

- Monthly Progress Reports/Invoices
- Project and public outreach meeting minutes

TASK SERIES 200 – SURVEYS

The purpose of this task series is to perform the initial fieldwork and acquire the information necessary to complete the design-related work for these projects. Activities include the following:

- Surveying. These services will be provided by Morrison-Maierle, Inc., as a SUBCONSULTANT to the CONSULTANT. A detailed scope of services is attached to this document; and
- Geotechnical investigations and analyses. These services will be provided by Terracon Consultants, Inc., as a SUBCONSULTANT to the CONSULTANT. A detailed scope of services is attached to this document.

TASK SERIES 300 – PRELIMINARY DESIGN

The purpose of this task series is to perform the required traffic engineering activities for these projects and develop preliminary construction plans. Activities include the following:

Task 301 – Illumination Analysis

The CONSULTANT shall conduct an illumination analysis to determine the type of illumination to be designed for the Grand Avenue – Zimmerman to Shiloh project. Under this task the CONSULTANT shall evaluate three types of illumination (High-Pressure Sodium, Light Emitting Diodes, and Induction), and this evaluation shall consist of an analysis using AGI32 software and then developing life-cycle costs for each illumination type. The CONSULTANT shall prepare a technical memorandum presenting the results of the analysis and a recommendation on which illumination type to use on this project.

Task 302 – Signal Warrant Analyses

The CONSULTANT shall perform a traffic signal warrant analysis for the Grand and 38th intersection. The warrant analysis will use forecasted traffic volumes for the opening year and five years after the opening year. The CITY and the CONSULTANT will work together to reach agreement on the approach methodology that will be used for the study in order to ensure the final products of the study meet the needs of the City and stakeholders.

Assumptions:

- The CITY will provide 48-hour tube counts for all approaches of the Grand and 38th intersection. The count data will include vehicle classifications for each intersection approach leg.
- The CONSULTANT will perform turning movement counts for both the AM and PM peak periods for the Grand and 38th intersection.
- Three out of eight MUTCD warrant standards shall be used in the analysis. The three warrant standards are:
 - 1A Eight-Hour Vehicular Volume: Condition A – Minimum Vehicular Volume
 - 1B Eight-Hour Vehicular Volume: Condition B – Interruption of Conditions

- Four-Hour Vehicular Volume
- Peak Hour
- MUTCD's Crash Experience warrant will only be used if the CITY has 3 years of crash data at these intersections. The CITY may request the CONSULTANT to conduct a Crash Experience warrant analysis at an additional cost.
- The HCS+ Warrants software will be used for checking warrants 1A, 1B, 2, and 3.

Task 303 – Access Management Plan

The CONSULTANT shall work with the CITY to develop an access management plan for Grand Avenue. The plan will include recommendations for median openings, distances between major intersections, and design features to accommodate potential u-turn movements. The CONSULTANT shall prepare a technical memorandum for the access management plan.

Task 304 – 60% Design Plans Development

The CONSULTANT shall develop separate 60% preliminary design level plans, which will include:

- Roadway improvements for Grand Avenue from the new Grand and Shiloh roundabout to the Grand and Zimmerman Trail intersection;
- Development of a 10-foot multi-use path along Grand Avenue;
- Traffic signal design for the Grand and 38th intersection, if warranted;
- Street illumination design along Grand Avenue;
- Preparing a Stormwater Management Report and roadway storm drainage design;

Assumptions:

- Assume actuated signal design for any signalized intersections. Assume time-based coordination if coordination is justified. Yellow and all red intervals will be calculated using ITE formulas.
- Landscaping design is not included in this project.
- The CITY will provide design vehicle information.

Task 305 – 60% QA/QC Review

The CONSULTANT shall conduct an internal quality control review on all deliverables for the Preliminary Design. Review comments will be incorporated prior to submittal to the CITY.

Task Series 300 Deliverables

- Illumination analysis technical memorandum
- Access Management Plan technical memorandum
- Signal Warrant Analyses results
- 60% Design Level Plans and Construction Cost Estimate
- Stormwater Management Report

TASK SERIES 400 – FINAL DESIGN

The purpose of this task series is to finalize the project design and prepare construction-ready plans, specifications, and estimates. Activities include the following:

Task 401 – 90% Plans

The 90% Plans submittal will incorporate all CITY comments from the 60% design review. Enough information will be provided on these plans for the CITY to complete a comprehensive review of the project. Preparation of Contract Specification is not included.

Task 402 – 90% QA/QC

The CONSULTANT shall conduct an internal quality control review on all deliverables for the 90% Plans. Review comments will be incorporated prior to submittal to the CITY.

Task 403 – 100% Plans

The 100% Plan submittal will incorporate all CITY comments from the 90% design review. This task will produce a final plans package. Preparation of Contract Specification is not included.

Task 404 – 100% QA/QC

The CONSULTANT shall conduct a final internal quality control review on all deliverables for the 100% Plans. Review comments will be incorporated prior to final submittal to the CITY.

Task 405 – Design Package Preparation

The CONSULTANT shall prepare up to three packages containing projected quantities for construction phases to be completed by commercial developers under private construction contracts.

Task Series 400 Deliverables

- 90% Plans package
- 100% Plans package
- Phased Construction Quantities

TASK SERIES 500 – BID PHASE

There are no tasks in this scope of work for construction engineering. Bid Phase services may be discussed at a later date with the CITY and added as supplemental work as necessary.

TASK SERIES 600 – CONSTRUCTION ENGINEERING

There are no tasks in this scope of work for construction engineering. Construction services may be discussed at a later date with the CITY and added as supplemental work as necessary.

Morrison-Maierle, Inc.

Scope of Services for Survey work Grand Ave Design Survey:

Meetings and Coordination:

Includes Scoping, cost estimate, meetings for Coordination of project.

Field:

Horizontal and Vertical control:

NAD 83 (99) Montana State Plane coordinates International feet conversion, NAVD 88 vertical datum. Tie into the MDT control traverse along The Shiloh Road Corridor for continuity. Extend control to project site and space control points to accurately collect data for the topographic and land line survey. Anticipate a RTK GPS Survey for Horizontal Position of control points. The Vertical component will be established by differential leveling through the control points.

Property Controlling Corner Survey:

Research Plats, Certified corner records, field search and tie property controlling corners and property corners if found. Section and ¼ Section corners in Grand Ave.

One Call utility Locates:

Contact one call center and describe project limits for utility locates. Meet with the field locator onsite. Locate the horizontal position of all utilities as marked on the ground.

Surface Topo:

Utilize Total Station (Robotic or conventional) and GPS to collect field data of the design corridor, approximately 60 feet each side of the section line. Field locate all physical features that may be affected by the design and future ROW taking for this project.

Ditch Topo Details:

Currently the south side of the project is irrigated with a ditch parallel to Grand Ave. The North side has a ditch in front of the old Zimmerman residence. Ditch details will be included if they fall within the Topo corridor and if outside the corridor enough profile of the bottom of the ditch as it enters or exits the corridor.

Office

Control diagram:

Draft Control diagram and descriptions for plan sheet.

Land line drafting:

Calculate position of land lines from record drawings and coordinates of field tied property controlling corners. Bring into surface topo ground model.

Data Processing of Field survey:

Process field topo shots to show 3D break lines and spot elevations in ACAD format. Data will be passed to HDR to develop Ground model by InRoads software.

Pick up Surveys:

The details of Grand Ave. Roundabout will be picked up after Construction is completed. During the course of design additional scope creep or demands of the design require additional information to be picked up or surveyed. This item is difficult to quantify but always happens therefore a token time element is estimated for this line item.

If scope changes dramatically then additional scope and cost estimates will be prepared before continuing to work on the project.

Morrison-Maierle, Inc.
 Grand Ave Design Survey
 Zimmerman trail to Grand Ave

TASK DESCRIPTION	SURVEY MGR	2/MAN CREW	PLS	PLS1	CAD TECH	INST TECH
	\$119.18	\$161.51	\$92.08	\$75.61	\$81.70	\$70

Establish Control		16				
Research properties					8	
Topo Surface		16	32			
Locate property boundaries			8		8	
utility one call			2			
Locate utility marks			12			
Reference Section Corners if any			5			
Control diagram					8	
Groundmodel Drafting					24	
Pick up surveys			16		8	
QA and QC	8					

TRAVEL
 MOBILIZATION

							MAN HRS
TOTAL LABOR HOURS	8	32	75	0	56	0	203
TOTAL LABOR COST	953.44	5168.32	6906	0	4575.2	0	\$17,603

DIRECT COSTS

PER DIEM	0 DAYS	\$30.00	DAY	\$0
MOTEL	0 DAYS	\$120.00	DAY	\$0
1 SUPPLIES	0 UNITS	\$10	UNIT	\$0
1 TRUCK ROUND TRIP	0 MILES	\$0.67	MILE	\$0
1 TRUCK	8 DAYS	\$32.00	DAY	\$256
1 TECHNOLOGY CHARGE	203 HRS	\$4.00	HR	\$812
ATV	DAYS	\$25.00	DAY	\$0
TRAVEL ALLOWANCE	MILES	\$0.70	MILE	\$0
1 GPS	2 DAYS	\$280.00	DAY	\$560
1 TOTAL STATION	6 DAYS	\$55.00	DAY	\$330
				\$1,958

TOTAL PROJECT EST. \$19,561



August 10, 2009

Mr. Geoff Parkins, P.E.
HDR Engineering, Inc.
2313 Millennium Circle
Billings, Montana 59102

**Re: Proposal for Geotechnical Services
Grand Avenue Widening & Reconstruction
Shiloh Road to Zimmerman Trail
Billings, Montana
Terracon Proposal No. D2609183**

Dear Mr. Parkins:

Terracon Consultants, Inc. (Terracon) appreciates the opportunity to submit this proposal to perform a geotechnical exploration for the above-referenced project. This proposal outlines our understanding of the scope of services to be performed by Terracon for this project and provides the fee for our services.

A. PROJECT INFORMATION

Based on the information provided, the proposed project consists of widening and reconstruction of approximately 0.8 miles of Grand Avenue from Shiloh Road to Zimmerman Trail in Billings, Montana. We anticipated construction to also include new curb and gutter along with new storm drain. At this time, traffic information has not been provided.

B. SCOPE OF SERVICES

The purpose of the geotechnical engineering services will be to better evaluate the subsurface soil and groundwater conditions and to determine geotechnical design criteria for the design and development of the proposed reconstruction of Grand Avenue. The services to be provided by Terracon are stated in the following paragraphs.

Field Program – We propose a total of seven (7) Standard Penetration Test (SPT) soil borings be drilled for the proposed project. The borings will be drilled at approximate intervals of 750 feet in alternating lanes to depths of approximately 10 to 15 feet below existing grades.

Due to the volume of daily traffic on this road, traffic control in accordance with MDT *Guidelines for Work Zone Safety* will be required and will consist of lane closure using flaggers and channelizing devices.



Terracon Consultants, Inc. 2110 Overland Avenue, Suite 124 Billings, Montana 59102

P [406] 656 3072 F [406] 656 3578 terracon.com

Geotechnical



Environmental



Construction Materials



Facilities

During drilling, samples will be collected at appropriate intervals for the project requirements and subsurface conditions encountered. Once the samples have been collected and classified in the field, they will be prepared and placed in appropriate sample containers for transport to our laboratory. Once drilling is complete, the bore holes will be backfilled with the auger cuttings and patched with asphalt patch.

Our fee is based on the site being accessible, weather permitting, to a standard two-wheel drive truck-mounted drill rig; additional costs may result if this is not the case. It does not include services associated with site clearing, wet ground conditions, or location of underground utilities beyond contacting a "one-call" locate service. If such conditions are known to exist on the site, Terracon should be notified so that we may adjust our scope of services and fee, if necessary.

Understanding the proposed subsurface exploration will be performed using a heavy, truck-mounted boring rig, it is possible that damage to the site such as tire ruts or disturbed vegetation will be sustained. This type of damage is considered reasonable and normal for the work being performed. Reasonable efforts will be made to reduce the site damage.

Laboratory Testing – The samples will be tested in our laboratory to determine characteristics considered appropriate by our personnel for this project. At this time, laboratory testing is expected to consist of moisture content analysis, Atterberg limits, grain size distribution, moisture/density relationship, California Bearing Ratio (CBR), water soluble sulfate, ph and resistivity. Testing will be performed under the direction of an engineer and/or geologist.

Engineering Report – The results of our field and laboratory programs will be evaluated by a Professional Engineer licensed in the State of Montana. Based on the results of our evaluation, an engineering report will be prepared that details the results of the testing performed, provides logs of the borings, and a diagram of the site/boring layout. The report will provide recommendations and information that address the following to include:

- Soil and groundwater conditions
- Pavement design
- Utility trench recommendations
- General earthwork requirements

Schedule – We can generally begin the field exploration program within about one to two weeks after receipt of written authorization to proceed, if site and weather conditions permit. It is anticipated that the field work can be completed in one day. Laboratory testing will require approximately one week. We estimate the final geotechnical report can be completed within about one to two weeks after the lab work is completed. Preliminary recommendations, if required, can be provided once the field work has been completed.

C. COMPENSATION

For the scope of geotechnical services outlined in this proposal that includes drilling, laboratory testing, and an engineering report, the lump sum total fee would be \$5,475.00.

The fee for this project assumes a single drill rig mobilization to the site and assumes the boring locations are accessible to Terracon's two-wheel drive, truck-mounted drill rig. In the event the work locations are not accessible, costs incurred for tow trucks and/or remobilizations will be billed to the client.

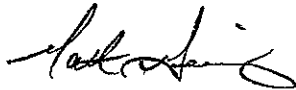
Should conditions be encountered which require additional services, we will contact you prior to initiating such work, discuss the situation, and negotiate additional costs beyond those proposed herein. We will not proceed without your authorization.

D. CLOSURE

We understand you will provide your standard agreement to cover these services. This proposal is valid only if authorized within sixty (60) days from the listed proposal date.

We appreciate the opportunity to provide this proposal and look forward to the opportunity of working with you.

Sincerely,
Terracon Consultants, Inc.



Matt Geering, E.I.
Staff Geotechnical Engineer



Dan Nebel, P.G.
Principal

Appendix B

Methods and Times of Payment

Section 1. Payments for Basic Services.

Billings shall authorize payment to the Consultant for services performed under Appendix A of this Agreement. Partial payment shall be due the Consultant upon receipt of the Consultant's pay estimate, said estimate being proportioned to the work completed by the Consultant.

Partial payment shall be made to the Consultant upon receipt of the Consultant's pay estimate, said estimate being proportioned to the work completed by the Consultant. The final payment shall be made only after acceptance of final documents by Billings, and determination that the scope of work has been satisfactorily completed.

- A. For services rendered prior to construction, Appendix A, the Consultant shall be paid based upon actual time accrued, but not to exceed \$204,669.00.
- B. Final payment shall be the above stated basic fee less all previous payments.

Section 2. Payments for Extra Services when Authorized by Billings.

Requests made or conditions identified by interested groups at the agency or public meetings, which are beyond the scope and intent of this study shall be paid for on a negotiated price.

Section 3. Corrections.

Costs of Billings work that is required for corrections to the Consultant's work which requires redoing by Billings shall be deducted from any payments due the Consultant, if the Consultant fails to make the required corrections.

Section 4. Fee Increases

For contracts and services that are expected to require more than one (1) year to complete, the above stated basic services payments may be reviewed and adjusted annually by mutual agreement of the parties, based upon documented evidence that the Consultant's costs have increased for all comparable clients.

Appendix C

Additional Services of Consultant

Extra Services of the Consultant will be paid only with written prior authorization by Billings.

- A. Field and laboratory testing of materials and reports.
- B. Requests made or conditions identified by interested groups at the agency or public meetings, which are beyond the scope and intent of this study.
- C. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by CONSULTANT or its design requirements including, but not limited to, changes in size, complexity, OWNER's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date of this Agreement or are due to any other causes beyond CONSULTANT's control.
- D. Services required as a result of OWNER's providing incomplete or incorrect Project information .
- E. Providing renderings or models for OWNER's use.
- F. Furnishing services of CONSULTANT's Consultants for other than Basic Services.
- G. Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructibility review requested by OWNER; and performing or furnishing services required to revise studies, reports, Drawings, Specifications, or other Bidding Documents as a result of such review processes.
- H. Preparing to serve or serving as a consultant or witness for OWNER in any litigation, arbitration or other dispute resolution process related to the Project.
- I. Other services performed or furnished by CONSULTANT not otherwise provided for in this Agreement.

Appendix D

Schedule of Professional Fees

Not used on this Contract.

Appendix E

Project Schedule

Based on a notice to proceed by Billings date no later than January 1, 2010, the completion date for the Consultant's work through final design shall be:

- A. 60% Submittal June 1, 2010
- B. 90% Submittal September, 2010
- C. Final Design Submittal November 1, 2010

Delays affecting the completion of the work within the time specified of more than ninety (90) days, not attributable to or caused by the Parties hereto, may be considered as cause for the renegotiation or termination of this Contract.

If the Consultant is behind on this Contract due to no fault of Billings, then the Consultant hereby acknowledges the right of Billings to withhold future Contracts to the Consultant in addition to any other remedy until this Contract is brought back on schedule or otherwise resolved.

Appendix F
Certificate(s) of Insurance

(Attach Certificate(s) of Insurance)