

CITY OF HELENA, MT
REQUEST FOR QUALIFICATIONS (RFQ) NO. TSD-132 TO
HIRE A CONSULTANT TO CREATE AND MAINTAIN A
TRANSPORTATION NETWORK TRAVEL DEMAND MODEL AND
REPORT.

I. PROJECT OVERVIEW

The City of Helena is seeking statement of qualifications (SOQ) from firms for professional planning and engineering services pertaining to the development of a citywide travel demand planning model (TDPM), establishing an existing transportation network baseline, and providing a formal report on the status of the system.

II. AGREEMENT FOR SERVICES AND COMPENSATION

One respondent will be selected as the most qualified and offered an opportunity to negotiate an agreement with the City. If an appropriate agreement cannot be reached with the most qualified respondent, the second-ranked respondent may be invited to negotiate an agreement with the City, and so on.

A sample agreement is provided as Attachment “A” hereto, however, the City reserves the right to change any terms prior to entering into an agreement with the successful respondent.

Evaluation criteria will NOT include consideration of the proposed compensation schedule and respondents are NOT to submit compensation proposals as part of their responses.

Evaluation criteria WILL include consideration of the proposed compensation schedule and responders are required to submit a compensation proposal as part of their response.

III. SCOPE OF WORK, DELIVERABLES, AND TIMELINE

The scope of work for the project includes (in order of importance):

- A. Design and create a TDPM that will be used to analyze the impact of citywide plans, land use changes, and development projects on the City’s multimodal transportation system.
 - a. The TDFM must establish a level of service (LOS) baseline for the existing facilities, both local and state.
 - b. Prepare a transportation model to review level of surface standards (LOS) and project future LOS and assist in the development of concurrency standards.
 - c. The TDFM will enable the City and outside consultants to assess the individual and cumulative traffic impacts of proposed development projects within or adjacent to the City. The City desires a model that has the capacity to analyze how development projects impact multimodal LOS [and greenhouse gas (GHG) emissions].
- B. Review and synthesize material from various City and county sources including the Helena Area Long Range Transportation Plan to forecast traffic for at least twenty (20) years based on the adopted land use plans and city zoning to provide information on future growth location, timing and capacity needs.

- a. Identify improvement needs and recommend specific actions to bring locally owned transportation facilities into compliance with City LOS standards.
- b. Identify local system needs to meet future demand.
- c. Summarize findings and recommendations in a formal report.
- C. Revise traffic study guidelines in consultation with City staff. This should include an evaluation of the City’s current and proposed Traffic Impact Study (TIS) Guidelines to determine if there are any other revisions needed.
- D. Estimate for ongoing TDPM operations and management.
 - a. Provide an estimate for ongoing services to operate and maintain the TDPM, with regular assessment and modifications as needed, including: training of select City staff who may assist in long-term management, conducting public and private project-level model runs and preparing analysis as needed, and staying abreast of best practices and data and updating the model accordingly. Ongoing services will be contracted separately upon completion of this project.

The City anticipates preparation of the model to take one year or less once an agreement with the selected firm is executed.

IV. ATTACHMENTS

The following information is provided for informational purposes only:

Attachment “A” - City of Helena Draft Project Agreement

Attachment “B” - City of Helena Draft TIS Requirements

V. SOQ SUBMISSION REQUIREMENTS

- A. Submission must:
 - a. Be presented in a clear, comprehensive and concise manner;
 - b. Be no more than twelve (12) one-sided bound pages, excluding a cover and back page. All other information provided by respondents, including examples of work, brochures, photos, etc. shall be incorporated into and made a part of the SOQ;
 - c. Be easy to read using 1” margins and a minimum of 11-point font;
 - d. Contain the information required by this RFQ and address all required topics;
 - e. Acknowledgment that responder has reviewed any addenda issued for this RFQ; and
 - f. Be signed by an authorized agent.
- B. SOQ must include all of the following:
 - a. Cover Letter
 - i. The letter shall contain the RFQ title, the Respondent’s legal name, address, contact information and any proposed sub-consultants.
 - ii. A brief description of the respondent firm, including but not limited to, identification of the principals, the approximate number of employees, how long the firm has been in business, and how long the respondent has been engaged in similar types of work. Include information that demonstrates the respondent’s experience in completing projects similar to that which is required by this RFQ.

- b. RFQ Response
 - i. Response should succinctly outline the professional services to be provided in connection with each task;
 - ii. Indicate the time and materials necessary to complete each task;
 - iii. Indicate the methods to collect data and produce work;
 - iv. Where necessary, candidates may expand and provide details to demonstrate the ability to complete the described work in a timely manner.
 - v. Include approach to communicating with the City.
 - vi. Public Participation
 - 1. If this project includes a public participation requirement, describe proposed public participation process.
 - vii. Suggestions
 - 1. This RFQ provides an overview of the project and the defined tasks. Candidates are urged to be particularly attentive and define any missing foreseen tasks necessary to complete the work described.
- c. Statement of Qualifications (SOQ)
 - i. The SOQ should demonstrate that the respondent and its agents possess the experience, education, training and credentials with type of work described in each defined task.
 - ii. The SOQ should also include respondent's experience performing similar tasks for municipalities of similar size.
 - iii. The City seeks to review only the credentials of those key personnel who will actually render services in relation to the work described. For their statement of qualifications, respondents may use U.S. Standard Form 330 found here: <https://www.gsa.gov/system/files/SF330-21.pdf>
- d. Project schedule
 - i. Provide anticipated project schedule indicating the assumed start dates and end dates for each defined task, and include a description of how this project will fit with the firm's current workload.
- e. References
 - i. A minimum of three (3) recent professional references who can provide information regarding the respondent's ability to perform the services described herein. References must include the name of the person to be contacted, phone number, email, and the very brief statement of the type of project the respondent completed for the reference.

VI. EVALUATION CRITERIA

Proposals will be evaluated by a selection committee, on the basis of the following parameters:

- A. Demonstrates qualifications;
- B. Demonstrates work experience;
- C. Comprehension of the goals and objectives for each of the defined tasks;
- D. SOQ quality and attention to instructions;
 - a. Ability to listen to, understand and follow the needs and requirements of the City.
- E. The methods and means necessary to complete the defined tasks;
- F. Ability to efficiently complete tasks within the allocated time and budget;
 - a. Ability to begin work tasks immediately upon contract award;

b. The preliminary schedule depicts how the team will meet the desired deadlines;

	Criteria	Points
1	Qualifications	20
2	Experience	20
3	Comprehension	10
4	Presentation Quality	20
5	Means	20
6	Schedule	10
	TOTAL	100

The selection committee may select one or more respondents submitting proposals as finalists. Finalists may be interviewed to further establish qualifications. If the selection committee determines that interviews are appropriate, the finalists will be contacted to schedule the interviews.

VII. SOLICITATION SCHEDULE

Request for Qualifications Released	May 28, 2024
SOQ Packets Due – Close date	June 13, 2024
Service Provider Selection and Negotiation	June 20, 2024
Agreement Approval	TBD
Work to Begin	July 2024

VIII. CONTACT:

The city contact for the purposes of this RFQ is:

Mark Young
 Transportation Engineer
 3001 E Lyndale Avenue, Helena, MT 59601
 (406) 447-8099
MYoung@helenamt.gov

IX. QUESTIONS AND INQUIRIES

All inquiries, questions, or requests for interpretation, correction, or clarification must be submitted in writing to the city contact listed above. Whenever responses to inquiries would constitute a modification or addition to the original RFP, the reply will be made in the form of an addendum to this RFP, a copy of which will be posted on the city's website.

X. SUBMITTAL INSTRUCTIONS

Proposals must be submitted in a sealed envelope clearly marked on the outside with the RFQ number and project name: (TSD-132).

Two (2) hard copies and one electronic copy (PDF format) of the SOQ must be submitted to:

City of Helena
Attn: Mark Young
3001 E Lyndale Avenue
Helena, MT 59601

PROPOSALS MUST BE RECEIVED NO LATER THAN: June 13,2024, at Noon (12:00 p.m.) (MST). Faxed, emailed or other electronically transmitted Proposals will not be considered.

Proposals may be withdrawn either personally or by written request at any time prior to the due date stated above for receiving proposals. No SOQ may be withdrawn or modified after the due date and time, unless and until the award of the agreement is delayed for a period exceeding ninety (90) days.

The cost of preparing responses to this solicitation shall be borne by the respondents and shall not be reimbursed by the City of Helena.

XI. RESERVATION OF RIGHTS BY THE CITY

The City reserves the right to reject any or all SOQ, readvertise, to waive any irregularities in the SOQ, and to accept the SOQ that best benefits the City. The City reserves the right to reject any and all responses deemed unqualified, unsatisfactory, or inappropriate.

XII. PUBLIC RECORDS DISCLOSURE

All proposals become the property of the City of Helena and may be subject to release to the public pursuant to Mont. Const. art. II, § 9 and Mont. Code Ann.§ 2-6-1001 *et. seq.*

XIII. LOBBYING

Respondents are prohibited from lobbying the City Commission, the Mayor, or members of the selection committee relative to the respondent's SOQ or response to this RFQ.

Attachment A
Draft Project Agreement

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT is made and entered into by and between the **CITY OF HELENA, MONTANA**, a municipal corporation organized and existing under the laws of the State of Montana, 316 North Park Avenue, Helena, Montana 59623, hereinafter referred to as “City,” and **INSERT CONTRACTOR BUSINESS LEGAL NAME., insert Contractor Address.** hereinafter referred to as “Service Provider,” collectively referred to as “Parties.”

RECITALS

1. This is an agreement for professional, technical, architectural, engineering, land surveying, or legal services.
2. Pursuant to § 7-5-4301(2), MCA, these types of agreements are exempt from the §§ 7-5-4302 through 7-5-4304, § 7-5-4306, and §7-5-4307, MCA, including bidding requirements.

AGREEMENT

In consideration of the mutual covenants and agreements herein contained, the receipt and sufficiency whereof being hereby acknowledged, the parties hereto agree as follows:

1. **Purpose:**
To develop a citywide travel demand planning model (TDPM), establish an existing transportation network baseline, and providing a formal report on the status of the system.
2. **Effective Date and Term:** This Agreement is effective upon execution by both parties and will terminate on: **6/30/2025**. Any extension of the term of this Agreement must be set forth in writing and signed by both parties.
3. **Scope of Services:** Service Provider will perform the work and provide the services in accordance with the specifications and requirements as follows:
 - a. Design and create a TDPM that will be used to analyze the impact of citywide plans, land use changes, and development projects on the City’s multimodal transportation system.
 - i. The TDFM must establish a level of service (LOS) baseline for the existing facilities, both local and state.
 - ii. Prepare a transportation model to review level of surface standards (LOS) and project future LOS and assist in the development of concurrency standards.

- iii. The TDFM will enable the City and outside consultants to assess the individual and cumulative traffic impacts of proposed development projects within or adjacent to the City. The City desires a model that has the capacity to analyze how development projects impact multimodal LOS [and greenhouse gas (GHG) emissions].
 - b. Review and synthesize material from various City and county sources including the Helena Area Long Range Transportation Plan to forecast traffic for at least twenty (20) years based on the adopted land use plans and city zoning to provide information on future growth location, timing and capacity needs.
 - i. Identify improvement needs and recommend specific actions to bring locally owned transportation facilities into compliance with City LOS standards.
 - ii. Identify local system needs to meet future demand.
 - iii. Summarize findings and recommendations in a formal report.
 - c. Revise traffic study guidelines in consultation with City staff. This should include an evaluation of the City's current and proposed Traffic Impact Study (TIS) Guidelines to determine if there are any other revisions needed.
 - d. Estimate for ongoing TDPM operations and management.
 - i. Provide an estimate for ongoing services to operate and maintain the TDPM, with regular assessment and modifications as needed, including: training of select City staff who may assist in long-term management, conducting public and private project-level model runs and preparing analysis as needed, and staying abreast of best practices and data and updating the model accordingly. Ongoing services will be contracted separately upon completion of this project.

Any alteration or deviation from the above described work that involves extra costs will be permitted only upon written request by the City to Service Provider and will become an extra charge over and above the contract amount. The parties must agree upon any extra charges in writing.

4. **Payment (check one):**

City agrees to pay Service Provider **insert \$ amount in WORD**. Dollars (**insert \$ amount in NUMBERS**) for performance of this Agreement. Any alteration or deviation from the described work that involves extra costs will be executed only upon written request by the City to Service Provider and will become an extra charge over and above the contract amount. The parties must agree upon any extra charges in writing.

City agrees to pay the Service Provider according to the following fee schedule with the total amount due under this Agreement not to exceed [insert \\$ amount in WORDS](#). Dollars ([insert \\$ amount in NUMBERS](#)):

[Insert Fee Schedule HERE.](#)

5. Receipt of Payment (check one)

To receive payment, Service Provider must submit a record of expenditures incurred for the performance and completion of this Agreement in the form acceptable to the City. The City may request supporting documentation to verify any expenditure prior to making payment. For any services delivered under this Agreement, the City may request inspection to assure said services meet City specifications prior to tendering payment.

30 Days After Receipt of Invoice, Verification, and Inspection: The City has thirty (30) days to make payment after the later of the date of delivery of services, the City's receipt of a properly executed invoice, or the successful passage of a City-requested inspection.

Payment will be according to following schedule:

[Insert a DETAILED payment schedule here if you agree to anything other than payment 30 days after invoice. Ex. dates of installment payments, if any completion conditions must be made prior to receipt of next installment, % due upfront, etc.](#)

6. **Professional Services:** Service Provider agrees that the services provided will conform to the Agreement requirements, including all descriptions, specifications, and attachments made part of this Agreement. Service Provider agrees that all services will be performed in a good workman-like, professional manner, and according to all applicable industry standards. City's acceptance of any non-conforming services does not relieve the Service Provider from its obligation under this paragraph and does not waive any remedy available to the City. In addition to the remedies available to the City under this Agreement, at law or in equity, the City may require prompt correction, at Service Provider's expense, of any services failing to meet the standard of care contained in this paragraph.

7. **Independent Contractor Status:** The parties agree that Service Provider is an independent contractor for purposes of this Agreement and is not to be considered an employee of the City for any purpose. Service Provider is not subject to the terms and provisions of the City's personnel policies handbook and may not be considered a City employee for workers' compensation or any other purpose. Service Provider is not

authorized to represent the City or otherwise bind the City in any dealings between Service Provider and any third parties.

Service Provider must comply with the provisions of the Montana Workers' Compensation Act. Proof of compliance must be in the form of workers' compensation insurance, an independent Service Provider's exemption, or documentation of corporate officer status. This insurance/exemption must be valid for the entire term of this Agreement and any renewal. Upon expiration, Service Provider must send a proof of renewal to the City.

8. **Hold Harmless and Indemnification:** To the fullest extent permitted by law, Service Provider agrees to indemnify and hold the City harmless against claims, demands, suits, damages, losses, and expenses, including reasonable defense attorney fees, to the extent caused by the negligence or willful misconduct of the Service Provider or Service Provider's agents or employees.
9. **Liquidated Damages:** Service Provider is not liable for any liquidated damages.
10. **Insurance:** Service Provider will provide City with proof of Service Provider's liability insurance issued by a reliable company or companies for personal injury and property damage, in an amount not less than \$1.0 million per occurrence and \$2.0 million aggregate per year for bodily injury, personal injury, and property damage. The Service Provider must also provide proof of professional liability insurance in an amount no less than \$1,000,000 per claim and \$2,000,000 annual aggregate.

The insurance must be in a form suitable to City and must name the City as an additional insured as to commercial general liability. Service Provider must immediately notify the City of any changes to the Service Provider's insurance policy during the term of this Agreement.

The Service Provider's insurance coverage shall be primary insurance with respect to City, its elected and appointed officials, officers, agents, employees, and volunteers. Any insurance or self-insurance maintained by the City, its elected and appointed officials, officers, agents, employees, and volunteers shall be in excess of the Service Provider's insurance and shall not contribute with it.

11. **No Assignment, Transfer, Delegation, or Subcontracting:** Service Provider may not assign, transfer, delegate, or subcontract this Agreement or any of its rights, duties, or obligations hereunder without prior express written consent of the City.
12. **Compliance with Laws:** Service Provider agrees to comply with all applicable federal, state and local laws, ordinances, rules and regulations, including the safety rules, codes,

and provisions of the Montana Safety Act in Title 50, Chapter 71, Montana Code Annotated. Service Provider agrees to purchase a City business license if Service Provider does not currently have one.

13. **Nondiscrimination**: Service Provider agrees that Service Provider will not discriminate based on any protected class in any of its activities or provision of services regardless of whether or not those activities or services are provided in connection with this Agreement. Service Provider agrees that all hiring of persons in connection with this Agreement will be on the basis of merit and qualification and will not discriminate on the basis of race, creed, religion, color, national origin, age, physical or mental disability, marital status, sex, pregnancy, childbirth or medical condition related to pregnancy or childbirth, sexual orientation or expression, political beliefs or affiliation, genetic information, veteran status, culture, social origin or condition, or ancestry.
14. **Website Privacy Policy**: Service Provider agrees to comply with and follow the City's Website Privacy Policy in order to ensure the data security and data quality of personally identifiable information that is collected during the course and scope of this project.
15. **Records Access and Retention**: Service Provider agrees to create and retain records supporting the services rendered in connection with this Agreement. Service Provider agrees, to the extent permitted by law, to provide the City, or the City's authorized agent, access to any such records at the City's request. The City may terminate this Agreement without incurring liability if the Service Provider refuses to allow access to records as provided in this section. Service Provider agrees to retain any records concerning this Agreement for eight (8) years after the Agreement termination date. The obligation to maintain records required by this section survives the termination or the expiration of this Agreement.
16. **Ownership and Publication of Materials**: If any reports, information, data, or other materials are prepared by the Service Provider pursuant to this Agreement these reports, information, data, or other materials become the property of the City. The City has the exclusive and unrestricted authority to release, publish or otherwise use, in whole or part, information relating thereto. Any re-use of these materials by the City without written verification or adaptation by the Service Provider for the specific purpose intended will be at the City's sole risk and without liability or legal exposure to the Service Provider. No material produced in whole or in part under this Agreement may be copyrighted or patented in the United States or in any other country without the prior written approval of the City.
17. **Notice Protocol**: Any notice or demand required or permitted to be given under the terms of this Agreement must be in writing. Written notice shall be deemed given when hand-delivered, or when mailed by first class mail, postage prepaid, to the addresses specified in

this section, or by e-mail with confirmation of delivery.

The City's liaison for purposes associated with this Agreement is:

Name: Mark Young
Address: 3001 E Lyndale Avenue, Helena, MT 59601
Phone: (406) 447-8099
E-Mail: MYoung@helenamt.gov

The Service Provider's liaison for purposes associated with this Agreement is:

Name: [Insert Name and Title.](#)
Address: [Insert Mailing Address.](#)
Phone: [Insert Phone number.](#)
E-Mail: [Insert Email Address.](#)

If either party changes address or contact person, it must notify the other party in writing at the address provided in this section.

18. **Default:** If either party to this Agreement defaults in the performance of any term or condition of this Agreement, the other party may give the defaulting party notice of the default. The notice shall specify the action required to correct the default and a period of time, not less than thirty (30) days, within which to correct the default. If the default is not corrected within the time specified in the notice, the party not in default may terminate this Agreement without further obligation under this Agreement, other than obligations incurred or accrued up to the date of termination. The non-defaulting party may also bring suit for damages, specific performance, and any other remedy available by law.
19. **Termination for City's Convenience:** City may terminate this Agreement at any time by giving Service Provider thirty (30) days' written notice if, in the sole opinion and discretion of the City, this Agreement is no longer in the best interest of the City or if funding for this Agreement becomes unavailable. Except for the prorated amount owing to the Service Provider for the services already provided as of the date of termination, City is not liable to Service Provider for any damages arising from termination of this Agreement pursuant to this section.
20. **Termination in Writing:** Notice to terminate must be in writing and made in accordance with the provision in the "Notice Protocol" section of this Agreement.
21. **Remedies Non-Exclusive:** Any remedies available under this Agreement are cumulative and non-exclusive. Use of one remedy does not preclude use of the others.

22. **Failure to Enforce Not a Waiver:** City’s failure, at any time, to enforce or to seek strict compliance with any provision of this Agreement or to exercise any right or remedy arising from the breach thereof does not constitute a waiver of that provision or remedy or of any other provision of this Agreement or available remedy.
23. **Full Integration:** This Agreement, together with its exhibits, if any, embodies the entire understanding between the parties relating to the subject matter contained herein and supersedes any prior statements, understandings, promises, or representations made by either party or their agents. No agent or representative of either party has authority to make any representations, statements, warranties, or agreements not herein expressed.

The following exhibits are made part of this Agreement by reference:

[List any Exhibits attached here or write “None.”](#)

24. **Amendments in Writing:** All amendments to this Agreement must be in writing and executed by all parties to this Agreement.
25. **Governing Law and Venue:** This Agreement and any extensions hereof shall be governed and construed in accordance with the laws of the State of Montana. If a dispute arises, the proper venue for the hearing of the case is the District Court of the First Judicial District of the State of Montana, in and for the County of Lewis and Clark.
26. **Headings:** The section headings contained in this Agreement are for reference purposes only and do not affect the meaning or interpretation of the Agreement.
27. **Severability:** If any term or provision of this Agreement is held to be illegal, void or in conflict with any Montana law, the validity of the remaining terms and conditions shall not be affected. The rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular term, condition, or provision held to be invalid.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the dates stated below.

FOR THE CITY OF HELENA MONTANA

Signed: _____
By: **Tim Burton, City Manager**

Dated: _____

FOR THE SERVICE PROVIDER

Signed: _____
By: [Insert Name.](#), [Insert Title.](#)

Dated: _____

APPROVED AS TO FORM:

Signed: _____
By: **Rebecca Dockter, City Attorney**

Dated: _____

Attachment B
Draft TIS Requirements



PURPOSE

The City of Helena requires traffic impact studies (TIS) to assess transportation impacts associated with public or private development projects and provide consistency with City of Helena Growth Policy (HGP), Lewis and Clark County Growth Policy (LCGP), Helena Area Transit Development Plan (HATDP) and Greater Helena Area Long Range Transportation Plan – 2014 Update (GHALRTP) criteria. The data collection required for these studies shall be the responsibility of the owner/developer/consultant.

GENERAL REQUIREMENTS AND THRESHOLDS FOR TRAFFIC STUDIES

Level I Study - Less than 10 total PM peak hour trips to an intersection or access

Level II Study - 11 to 30 total PM peak hour trips to an intersection or access

Level III Study - Greater than 30 PM total peak hour trips to an intersection or access

Topic	Level I	Level II	Level III
I. Introduction	✓	✓	✓
II. Executive Summary		✓	✓
III. Proposed Development	✓	✓	✓
IV. Existing Conditions	✓	✓	✓
V. Traffic Forecasts			✓
VI. Traffic Analysis	✓	✓	✓
VII. Other Items to Address			✓
VIII. Mitigation Alternatives		✓	✓
IX. Recommendations and Conclusions		✓	✓
X. Appendices		✓	✓

Specific safety or capacity issues associated with a site, staff may request those be addressed, regardless of the number of site trips generated.

An outline of City of Helena requirements for a traffic study is provided on the following page. A proposal establishing the scope of the traffic study shall be submitted for review to the City Engineer based on guidelines in this document. Prior to or concurrent with the scope proposal, the applicant shall submit a preliminary trip generation and trip distribution analysis.

OUTSIDE AGENCIES AND JURISDICTIONS

There are streets within or adjacent to the City limits that are under the jurisdiction of MDT and/or Lewis and Clark County. Where development will impact their facilities, MDT and/or Lewis and Clark County may have additional requirements for a traffic study. Prior to approval of a final traffic study scope, a meeting with all impacted agencies is required to verify that the proposed scope addresses each agency's concerns.

GENERAL OUTLINE FOR TRAFFIC IMPACT STUDY

- I. Introduction
 - A. Cover page (All Levels)
 - B. General project description (**All Levels**)
 - C. Assumptions (Level II and III studies)
- II. Executive summary (Level II and III studies)
- III. Proposed development (**All levels**)
 - A. Trip Generation and Distribution
 - B. Development Phasing/Schedule
 - C. Access locations, configuration, and sight distance
 - D. Site Circulation and Parking
 - E. Study Area
- IV. Existing conditions (**All Levels**)
 - A. Existing street network and street classifications
 - B. Existing traffic volumes and turn movements
 - C. Existing LOS and V/C
 - D. Pedestrian and Bicycle facilities (safety/compliance/connectivity/etc.)
 - E. Existing transit routes and facilities
 - F. Crash History
- V. Traffic forecasts (Level III studies)
 - A. Study scenarios

Non-site traffic

 - B. Site generated traffic
- VI. Traffic analysis (**All Levels**)
 - A. Site Access
 - B. Site Circulation and Parking
 - C. Intersections (LOS and V/C)

Capacity Analysis of Roadway Segment

 - D. Warrants, Turn Lanes, Traffic Signals
 - E. Queuing and Storage
 - F. Sight Distance

Traffic Calming

 - G. Safety analysis/Crash History analysis (may be combined with *Section IV F*)
- VII. Other items to address (**Level III studies**)
 - A. Applicable MDT Criteria
 - B. GHALRTP identified improvements within the study area
 - C. Any known improvement projects within the study area (City, County, State)
- VIII. Mitigation alternatives (**Level III studies**)
- IX. Recommendations and conclusions (**Level II and III studies**)
- X. Appendices (Level II and III studies)

I. INTRODUCTION

- A. Cover page shall include project name, address or location and study consultant. Level II and Level III TIS shall be stamped by a professional engineer registered in the state of Montana.
- B. The general description should include any existing and proposed site uses including square footage/acreage; current/proposed zoning and/or any proposed zoning changes. Project phasing, proposed or future, shall be identified. The description of uses shall reflect the uses allowed by City of Helena zoning regulations. In addition to the general site description, the surrounding land uses, and zoning need to be documented. A map showing the site and surrounding area is required.
- C. Any assumptions used shall be documented completely with the appropriate justification also documented. Examples of assumptions include but are not limited to trip generation rates, independent variables, study area, trip distribution, any modal splits, worst case scenario, etc.

II. EXECUTIVE SUMMARY

The executive summary provides a clear and concise one- or two-page summary which shall include but is not limited to existing deficiencies, major section findings, mitigation alternatives to address existing deficiencies and those issues resulting from development and preferred alternatives.

III. PROPOSED DEVELOPMENT

- A. ITE trip rates are typically used by the City to project traffic. Trip rates and code(s) for the development need to be provided based on the latest version of the ITE Trip Generation Manual and reflect uses identified in the City of Helena zoning regulations. The City of Helena Community Development Department has made available local generation rates that can be used to project traffic. The gross daily trips, in addition to any adjustments for internal site, pass-by, or diverted link trips, shall be documented. Upon approval from the Transportation Engineer, trip generation studies from a similar site may be used instead of the ITE manual. If the development does not fit within an ITE category, alternative trip generation methodology may be required including a separate trip generation study of similar sites. Daily AM and PM peak trip generation shall be provided based on Peak Hour of Generator or Peak Hour of Adjacent Street, whichever is more conservative if the difference in the average rates is greater than or equal to 0.5 and both are available a.
- B. Trip distribution for the proposed development shall be addressed both in a narrative and as a diagram in the TIS. Assumptions for the trip distribution shall be included and based on existing count information or a logical explanation of

expected origins and destinations based on the proposed uses. In some instances, it may be appropriate to use origin and destination information upon Transportation Engineer's approval.

- C. Timelines for completion of phases is required including years for any subsequent phases. The year of opening should be based on a realistic schedule of when all public improvements and building construction will be complete and ready to occupy. The applicant may provide trip generation and distribution information for each phase and for build-out of the project. Mitigation for impacts shall be done consistent with an approved phasing plan if mitigation based on phasing is clearly identified in the TIS.
- D. Specific access locations shall be identified in the TIS. The location of access points shall consider the classification and design standards of the adjacent street, applicable access control requirements, sight distance, number of lanes, vehicle storage and queuing, signage and striping, on-site circulation needs and pedestrian and bicycle facilities. Analysis of access points needs to include existing and proposed driveway locations.
- E. On-site circulation and parking facilities shall be explained in adequate detail to document any impacts to adjacent public streets and development sites and compliance with applicable City code and development standards. Particular attention should be provided for applicable delivery, loading and drive-thru facilities.
- F. The TIS shall cover the entire area of influence from the proposed development including any intersections or accesses receiving 20 or more trips per day, access points within 150-feet of any major street and any other item that needs to be considered such as nearby school zones or transportation projects. A map and description/justification of the study area shall be provided.

IV. EXISTING CONDITIONS

- A. A description and map of existing conditions in the study area shall include but is not limited to: street classifications, speed limits, ROW and pavement widths, bike lanes, median strips, sidewalks, lane configurations, intersections, traffic control, bicycle, and pedestrian facilities, schools, and transit routes. Also identify any known capacity or functional deficiencies (review the GHALRTP and any relevant area or corridor studies).

- B. Traffic counts shall be taken Tuesday, Wednesday, or Thursday when Helena School District and Helena College is in regular session. Developments with unusual peak hours, an analysis of the peak hour of the traffic generator is also required. For example, schools require analysis of the peak hour during the commencement and let-out for the school day. Depending on the school type there may be significant student or parent traffic. Counts taken during vacations, or any other time when school is not in session will not be accepted. Another area in Helena that requires special consideration is the State Capital area or routes leading to the Capital. Traffic counts shall be adjusted to levels consistent to that of what is observed during a Legislative session. Banquet or church facilities may also need special consideration. Recent counts (within one year) from a governmental agency such as the City or MDT may be used with prior approval. Counts shall accurately reflect the existing intersection or access conditions, including turning movements and bicycle and pedestrian counts and movements. Classification of counts shall be required to identify truck traffic. Cite reference sources and document the date, time of day and location of counts. Please notify the appropriate jurisdiction or utility prior to mounting traffic counting devices on infrastructure. Identify and justify the methods used to quantify non-site generated trips.
- C. Existing Level of Service (LOS) based on delay and volume to capacity ratio (V/C) shall be provided for each intersection identified for analysis in the traffic study scope. Intersections which are impacted with at least 20 trips from the proposed site during the AM or PM peak hours, or have trip volumes increase by at least 10% and are within expected routes of travel are typically reviewed. Where there are other facilities, such as a school, in the vicinity that have a peak hour outside the typical AM or PM peak, those shall be studied. The Transportation Engineer will make the final determination of the study area. Highway Capacity Manual methodology shall be used for the analysis, which needs to include performance measures for average intersection, worst case, and critical movements. Location maps shall be used to identify the locations of the intersection and LOS. More information is provided in *Section VI Traffic Analysis*.
- D. A summary of existing pedestrian and bicycle facilities shall be provided to document how the development will be served and any connectivity deficiencies to existing facilities. Missing or deficient sections of sidewalks or curb ramps (including ADA best practices requirements) within or adjacent to the site shall be identified.
- E. Transit routes serving the site and/or the distance to the closest transit stop or shelter should be documented.

- F. Crash history shall be analyzed to document any existing safety conditions that may be aggravated or impacted by the development or development mitigation. The minimum history is typically latest five years.

V. TRAFFIC FORECASTS

Any modal split should be addressed for Sections B and C including documentation and justification. Documentation shall include reference to any standards or prior studies. Any modal split shall be approved prior to initiation of the TIS.

- A. The study scenarios for traffic forecasts and analysis should include the following:
- Existing conditions
 - Existing plus proposed development (each applicable phase and build out)
 - 20-year horizon (typical) plus development (Mitigation design life 20-years).

Since improvements are designed for a minimum life of 20-years, analysis of any mitigation for a 20-year horizon is prudent. Variations to the planning horizon may be allowed on a case-by-case basis, depending on the size of the development and the potential need for mitigation. The planning horizon noted in the GHALRTP is 20-years. Growth rates used in the GHALRTP are approximately 0.94% per year (p. 52). Past AADT's may be used for growth rates.

For land use actions such as a zone change, conditional use permit, annexation or subdivision, the traffic forecasts and analysis shall include the reasonable worst-case scenario of the area subject to the land use action, i.e., the total acres and max density. A proposed development plan, typically, doesn't provide the worst-case scenario. Per development regulations, a full range of development potential (min. to max.) under current vs. proposed land use designations shall be addressed in the analysis. Reasonable worst-case analysis must have justification and should be based on maximum viable development.

- B. Non-site traffic includes existing traffic plus proposed or approved development in the area not accounted for in existing traffic counts. If other traffic studies for surrounding developments are used to estimate non-site traffic, those sources must be adequately documented. Trips need to be adjusted for each scenario based on the approved growth factor. Any assumptions for trip generation must be documented.
- C. ITE trip generation rates are generally used as noted in Section III A above and adjusted by approved growth rates. Explanation of trip distribution and assignment should include any assumptions. Provide a diagram noting percentages and trip numbers from both the proposed development and non-site trips. Directional distribution for both the AM and PM peak hours should be

included. Trip distributions under different scenarios should be adjusted based on any anticipated improvements or new street connections associated with the development or identified within the planning horizon in the GHALRTP or Comprehensive Capital Improvement Program (CCIP). For example, new streets in a phased subdivision may impact the distribution, or a planned CCIP project that occurs five years out could change the distribution between the build out and 20-year scenarios.

VI. TRAFFIC ANALYSIS

- A. Traffic analysis including vision clearance/sight distance, proximity to intersections, turn lanes, queuing, existing access spacing and conflicts with pedestrians or bicycles shall be provided for all proposed site accesses. Criteria for minimum access spacing and the number of access points are outlined in the Engineering and Design Standards, development regulations and City Code. Interior site circulation, emergency vehicle and truck traffic shall also be considered in the analysis of access locations.
- B. Impacts to site circulation from queuing such as drive through facilities, geometric considerations for emergency vehicular access and trucks needs to be addressed. Any change from the City's Engineering and Design Standards or City Code must be identified.
- C. Intersection analysis, including LOS and V/C, shall be provided for any intersection significantly impacted by the proposal. An intersection is considered significantly impacted as described in *Section IV.C*, or if the intersection is suspected of operating at LOS D or lower in the build year with build year background traffic. An analysis is required for each study scenario, including each cumulative sequence of phasing through the build-out condition. The analysis needs to clearly show the LOS and V/C of the intersection with and without the development.

Intersection analysis needs to balance signal timing based on the traffic demand. Assumed and proposed signal timing needs to be documented and suggested timing improvements identified. The intersection average LOS, V/C, critical movements, and worst movements should be identified. Evaluation of the intersections needs to document the expected queue lengths and available vehicle storage. Deficiencies in existing storage and lane configuration need to be identified. This would include but not limited to lane widths and curb radii where truck traffic is expected.

- D. Applicable warrants for turn lanes and traffic signals should be identified. Where it is expected that a signal may be needed based on a failing level of service, applicable warrants shall be evaluated to justify the need for a signal.
- E. Queuing analysis should include both the average queue length and the 95th percentile queue length. The 95th percentile shall be used for design and for determining the required storage. Conflicts with queued vehicles should be addressed, such as, street or driveway accesses, adjacent vehicle lanes, RR tracks, etc.
- F. Sight Distance for new intersections, streets and access points needs to meet the requirements of the City's Sight Distance Triangle (City Code 7-3-7). Deficiencies in site distance with the proposed development plan shall be identified and discussed. This should also address sight distance to crosswalks and traffic control devices such as proposed signals, stop signs and road signs. The tree planting plan must be reviewed for conflicts with proposed traffic control devices/signs.
- G. Analysis should be consistent with City of Helena Engineering and Design Standards – Traffic Calming Section 5.4. There may or may not be a need for traffic calming with the development. The minimum thresholds of vehicle counts and speeds should be identified to determine if traffic calming is consistent with City policy and would provide a significant benefit. Potential locations and types of traffic calming should be evaluated.
- H. This Section may be combined with *Section IV F*. Current crash data for the past five years, and any other safety issues, should be identified and evaluated within the study area for potential impacts to the study scenarios. Crash history shall be analyzed to document if there are any existing safety conditions that may be impacted or aggravated by the development or development mitigation.

Graphics including tables, lane configurations and turning movements should be included to supplement and summarize the traffic analysis.

In summary, the traffic analysis should encompass the evaluation of intersection and access LOS, queuing, traffic signals, additional travel lanes, turn lanes, intersection functional areas, access control, bicycle movements, pedestrian movements, signal coordination, transit facilities, acceleration and deceleration lanes, merge lanes, weaving sections, future extension of transportation facilities through surrounding properties, etc.

VII. OTHER ITEMS TO ADDRESS

Other items that should be addressed include: nearby school zones, pending improvements from either nearby developments or nearby State, County, and City identified improvement projects or project identified in the GHALRTP or CCIP.

VIII. MITIGATION ALTERNATIVES

Possible mitigation identified in the above analysis sections should be discussed here. If the TIS identifies safety concerns as a whole or per movement of a LOS of “D” or less, improvements and funding strategies shall be considered concurrent with a development proposal. Mitigation should be addressed for each phase of a development. Any ROW required for mitigation also needs to be identified.

Adequate capacity should be provided and maintained on arterial and collector streets to accommodate intersection LOS standards and to avoid traffic diversion to local streets. The LOS standards shall be:

- V/C less than 0.85
- LOS D or better during morning (7:00-9:00 am) and evening (4:00-6:00pm) peak hours of operation for all intersections with arterial or collector streets
- LOS C for all other times of the day

Examples of mitigation to be addressed include, but are not limited to:

- Site access lane configuration, access restrictions / right in, right out
- Center turn lanes / dedicated turn lanes
- Additional vehicular lanes / left turn lanes / revised lane configurations
- Queuing lengths and storage capacity
- Geometric changes such as vertical or horizontal curves
- Speed limit investigations
- Bike lanes, ADA facilities, sidewalks, and multi-use paths
- Traffic control devices and signage
- Traffic signals, signal timing, phasing and coordination
- Traffic calming
- Transit facilities

IX. RECOMMENDATIONS AND CONCLUSIONS

This should be a list of recommendations by the Engineer and include key findings of the study. Any required improvements must be identified. When a phasing plan is proposed, improvements should be clearly identified by phase and the expected year for completion of mitigation and non-construction years. Additionally, any improvements that are not required of the development, but recommended to mitigate traffic issues in the study area, should be identified for City consideration and transportation planning purposes.

X. APPENDICES

Appendices to the TIS should include but are not limited to:

- Definitions, applicable references, and standards
- Traffic count data (including other traffic studies cited or used)
- Maps
- Warrant worksheets
- Signal progression worksheets, where applicable
- Analysis software printouts

Software analysis printouts shall be clearly labeled with consistent background/phasing nomenclature and applicable time period. Printout lane numbers, geometries and vehicular volumes shall all be consistent with other sections of the TIS and the land use application