REQUEST FOR PROPOSALS
RAPID CITY AREA METROPOLITAN PLANNING ORGANIZATION
LONG RANGE TRANSPORTATION PLAN UPDATE

The City of Rapid City in conjunction with the Rapid City Area Metropolitan Planning Organization (MPO) and the South Dakota Department of Transportation (SDDOT) is soliciting proposals from qualified consultants to prepare an update to the Long Range Transportation Plan for the Rapid City Area Metropolitan Planning Organization.

BACKGROUND

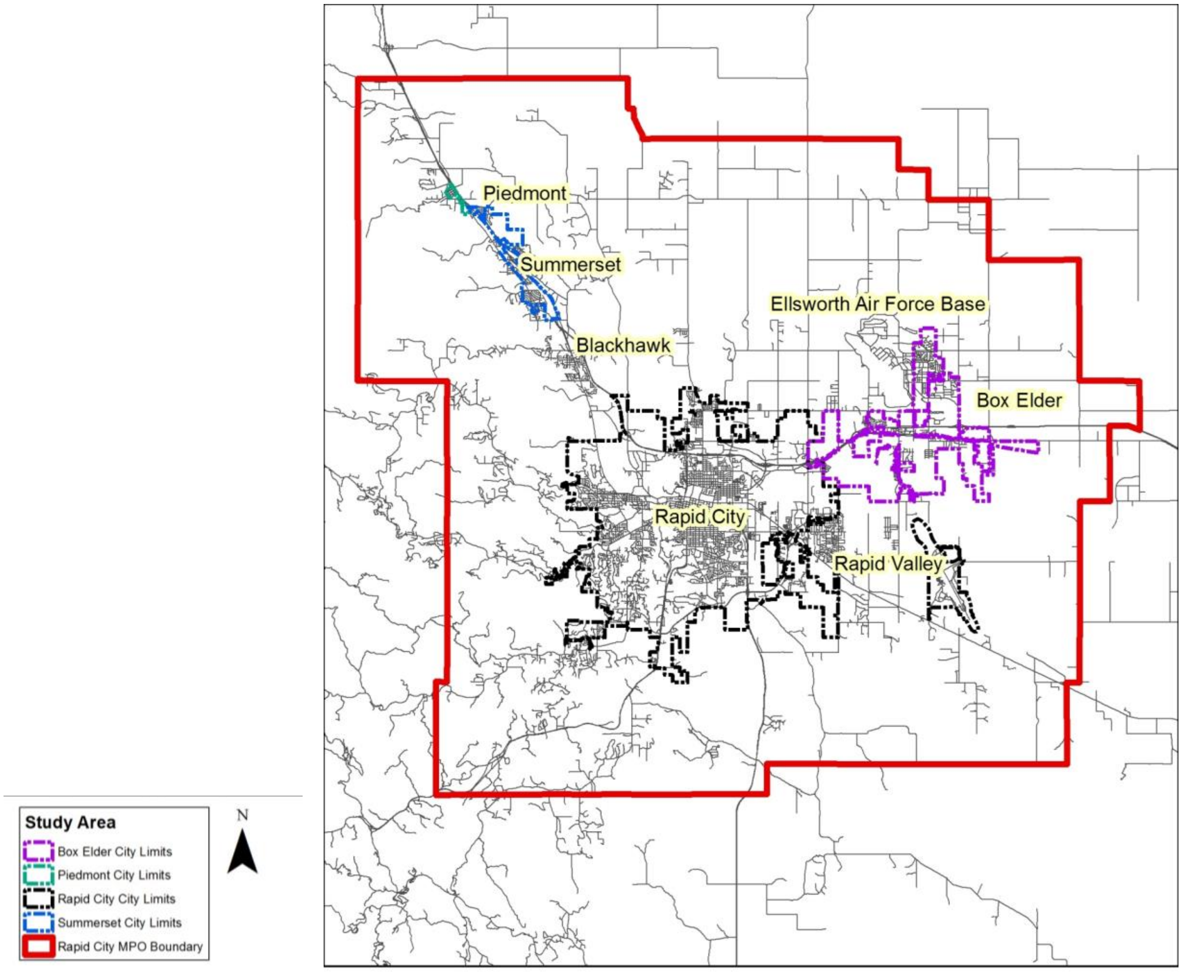
Every five years, the Metropolitan Planning Organization (MPO) updates its Long Range Transportation Plan (LRTP). The purpose of this plan update is to encourage and promote a safe and efficient transportation system to serve future year transportation demands. Results of the LRTP process are intended to serve the overall mobility needs of the area, while also being cost effective and consistent with state and local goals and objectives.

The Rapid City Area MPO is located in western South Dakota and includes the City of Rapid City, the City of Summerset, the City of Box Elder, the City of Piedmont, and portions of Pennington and Meade Counties. The MPO manages the transportation network and mobility needs for the defined MPO area and recognizes the inter-connectivity between network accessibility and land use development patterns. Prior decision making has focused on producing a multi-modal transportation network consisting of roads, transit service, bicycle/pedestrian facilities, and a regional airport. These modes of transportation provide a foundation for handling the flow of goods and services to and from the area, as well as establish a system for area residents to access jobs, shopping and recreational facilities.

This document presents the tasks and data requirements to identify and develop a list of transportation projects to meet anticipated future demand needs of the Rapid City Area through the year 2040. Major components of this update process include consistency with federal and state guidelines and significant attention to public participation, mapping, data development, and model validation. These components will establish a policy foundation for long range transportation decisions affecting the Rapid City Area and are described in more detail in the following list of tasks.

AREA OF STUDY

The area of study includes the Cities of Rapid City, Box Elder, Summerset, and Piedmont; Ellsworth Air Force Base; the unincorporated areas of Black Hawk and Rapid Valley; and the developing areas of Pennington County and Meade County. See the included map below for reference.



STATUTORY PLANNING FACTORS

The Rapid City Metropolitan Planning Area is designated by the Governor and the MPO Policy Board and encompasses the 20 year urbanized growth area, as defined in 23 CFR Part 450. As such, its transportation planning process is mandated to meet specific requirements for MPO transportation plans, as set forth in the CFR regulations. Consequently, it is essential that the transportation plans for the Rapid City Metropolitan Planning Area comply with state and federal programs. The CONSULTANT will ensure all requirements of 23 CFR Part 450 relating to the development of an LRTP are considered and addressed.

Eight planning factors are identified in the Moving Ahead for Progress in the 21st Century Act (MAP-21), and are as follows:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase the accessibility and mobility of people and for freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

6. Enhance the integration and connectivity of the transportation system, across and between modes, people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.

In addition, provisions in MAP-21 will be considered and incorporated to the extent possible into the LRTP. Specifically, addressing safety and performance-based planning will be a necessity. The LRTP should also be consistent with the South Dakota Department of Transportation's performance measures and targets, and the Strategic Highway Safety Plan. While the CONSULTANT will be developing performance based planning measures as part of the LRTP, it will be expected to provide an initial look at the process by which the MPO could implement such standards, and recommend a procedure for adoption of the same. Performance based planning standards and processes must be those specifically appropriate to the MPO (considering its size, resources, projected growth, proximity to other areas of urban concentration, etc.)

PROJECT DESCRIPTION

This Rapid City Metropolitan Planning Area Long Range Transportation Plan update will have two major components. The first component is to complete 25-year traffic forecasts for the Rapid City Metropolitan Planning Area to identify future transportation needs by updating and validating the travel demand forecast model. The second portion of the study will entail the development of goals, strategies, and performance measures to identify planning and prioritization elements within the LRTP and fiscally constrain those future needs.

The LRTP shall expand upon the transportation related goals and objectives included in Plan Rapid City, the Comprehensive Plan recently adopted by the City of Rapid City, the Pennington County Master Transportation Plan, the Meade County Transportation Plan, The Box Elder Strategic Transportation Plan (currently in development), and RapidTRIP 2035, the existing LRTP for the MPO.

The MPO is currently conducting studies to provide information to aid in the development of the LRTP. The Market Research Study will identify the needs and desires of users of the Rapid City Area transportation system, and will be used to guide the preparation of the LRTP update. The research study includes involvement of focus groups and surveys to determine the public's perception of the MPO area's current transportation system and recommendations on transportation policy. Some examples of issues being discussed include congestion, street and highway safety, bicycle and pedestrian travel, transit, freight, and underrepresented populations. In addition to the Market Research Study, a household transit survey and an onboard transit rider survey have been completed and will be available for use.

The Origin-Destination Study provides cellular phone data to identify the origins and destinations of travelers throughout the MPO area. Data will be available for both peak season and off-peak season periods. This data will be extremely helpful in the travel demand forecast model calibration effort.

The Box Elder Master Transportation Plan identifies transportation issues in the City of Box Elder, Ellsworth Air Force Base, and the surrounding area. It includes a Major Street Plan, a Bicycle and Pedestrian Plan, Land Use forecasts, and Roadway Design Standards.

These studies are expected to be completed before the initiation of the LRTP update.

SCOPE OF SERVICES REQUESTED

This Scope of Services is subdivided into separate tasks that outline the basic requirements of the LRTP update. Unless otherwise noted, the CONSULTANT is expected to fulfill each of the defined tasks and provide written documentation in the form of technical reports and/or memorandums. The tasks to complete the LRTP update are defined as follows:

TASK 1 – METHODS AND ASSUMPTIONS

The CONSULTANT shall facilitate a meeting to determine the assumptions to be used during the course of the study relating to the development of the LRTP and the update to the travel demand forecast model. Resulting from that meeting, the CONSULTANT shall develop a Methods and Assumptions Document in accordance with the *Methods and Assumptions Template for SDDOT Planning Studies*.

TASK 2 – STUDY ADVISORY TEAM MEETINGS

The CONSULTANT shall have a minimum of four (4) face to face meetings with the Study Advisory Team (SAT) for study coordination. The first meeting shall cover the project kickoff and the development of the Methods and Assumptions Document. Two (2) of these meetings are to be scheduled and held prior to each public meeting (can be held the same day) to gather the approval of the SAT on the information being presented. A fourth meeting should be held during the standards development phase of the study. Other meetings can be held as deemed necessary, and can be conducted via teleconference.

TASK 3 – WEBPAGE

The CONSULTANT team shall provide the MPO a webpage and a Facebook page dedicated to the study as it becomes available. The webpage and Facebook page will be organized in such a way that will help dispense information to the public regarding the status of the study, public meeting announcements, presentations, meeting summaries, and all reports. The webpage and Facebook page can be used to assist in data gathering through web surveys and for other public participation actions as deemed appropriate as long as adequate advertising can be provided. The pages will be active at least 10 days prior to the first public meeting and shall remain active for a period of at least six (6) months after completion of the study to allow public access to the final report.

TASK 4 – PUBLIC INVOLVEMENT

The CONSULTANT will develop a public involvement strategy for the long range transportation plan update. This strategy will be consistent with the MPO's *Public Involvement Plan* and an outreach program will be conducted to involve the elderly, persons with disabilities, minorities and low income community and other groups traditionally under-represented in the plan update process. Strategies to solicit input from the business, environmental and other communities of local significance will also be addressed.

4.1 Communication approaches to be used include the use of periodic newsletters, social media, and an Internet Web site. This site will be a direct link from the City of Rapid City's web site and will provide access to materials prepared during the plan update process. The CONSULTANT will develop and update the RapidTRIP 2040 website. The MPO will assume responsibility for the website upon completion of the study.

4.2 The CONSULTANT will work with the public, the MPO Advisory Committees and the MPO to develop a list of goals and objectives that will govern the development of the LRTP, including long-range and short-range strategies and actions consistent with state and local goals and objectives. The CONSULTANT will develop a process that will insure that the public has ample opportunity to provide input in developing the goals and objectives for the LRTP.

The CONSULTANT will develop draft goals and objectives that include a careful review of RapidTRIP 2035 goals and objectives adopted by the MPO. Efforts will be made to ensure that the goals and objectives of this update are consistent with other local and regional comprehensive plans.

The CONSULTANT will include performance based goals and targets consistent with MAP-21. This information will be provided to the public during the first series of public workshops. These workshops will be held at locations throughout the urbanized area.

4.3 The CONSULTANT will incorporate visualization techniques in the public participation process to describe various aspects of the long range transportation plan.

4.4 The consultant will compile data and prepare maps, graphs, or other visual aids for public presentations regarding the LRTP; and prepare agendas and conduct meetings for these presentations. The consultant will be required throughout the duration of the contract to attend necessary meetings to discuss the scope of work, negotiate the contract, and meet with the MPO and State study advisory team. The consultant shall attend a minimum of two public meetings in addition to the public workshops.

TASK 5 - DATA COLLECTION, MAPPING AND DATA DEVELOPMENT

The purpose of this task is to develop the maps, model networks and data files needed to validate and run the travel demand forecast model. Data inputs to the model include socioeconomic data in the form of ZDATA files and traffic counts.

5.1 DATA COLLECTION

CONSULTANT will collect datasets from the existing model and determine if they contain any usable information. CONSULTANT will collect, create, and/or compile datasets necessary to validate and calibrate the Rapid City Area travel demand forecast model. CONSULTANT will revise screenlines and cutlines as necessary. CONSULTANT will collect and utilize all necessary traffic count data. CONSULTANT will conduct a roadway inventory to develop a 2013 Highway System Network including facility type, number of travel lanes in each direction, presence of turn lanes, posted speed, functional classification and other information as necessary to update the existing travel demand forecast model. The roadway inventory will incorporate existing roadway inventory data for the state system from SDDOT and the City of Rapid City. The CONSULTANT will be responsible for the coding, reviewing, editing and debugging of the 2013 base year network.

5.1.1 The screenlines and cutlines developed for the previous Update will be revised as appropriate and used in the validation of the 2013 Base Year Model. The CONSULTANT will be responsible for the review and modification of the screenlines and cutlines.

5.1.2 The CONSULTANT is responsible for all traffic count data necessary to validate/calibrate the 2013 Base Year Model. Extensive traffic count data has been collected by the MPO, SDDOT, the City of Rapid City and other partner agencies. The data will be made available to the CONSULTANT. The CONSULTANT will review the traffic count data/locations for adequacy and shall adjust the counts to average weekday peak season counts. Seasonal adjustment factors for local roads developed by the MPO will be used where appropriate.

5.1.3 A revised highway network shall be developed by the CONSULTANT for the 2013 Base Year as necessary. The structure of this network will be consistent with the highway network for the previous update. This network must also include double digit coding to allow for more accurate facility type representation. The revised model network will incorporate changes to networks since the last plan update and add the highway network for the portions of Pennington County and Meade County that have been added to the MPO boundaries since the last update.

5.2 MAPPING

The CONSULTANT will be required to provide hard copy maps and digital copies of the data collected to MPO staff to facilitate the review and revision of the data prior to its use during model validation and calibration. Maps and data may include the study area boundary, the principal street system, traffic analysis zones (TAZ), the highway system network maps (link/node plots) and data files, the transit system network maps and data files and other such maps that will be used as working instruments.

All shapefiles are to be delivered to the MPO by the CONSULTANT in TransCAD format (version 6.0 or later) and in ESRI ArcMap shapefile format (Version 10.1 or later). Network maps will be in line format with all roadway and/or transit network attributes and shall be used on the City of Rapid City's Street Centerline File unless an alternative road dataset is agreed upon by MPO staff.

5.2.1 A new Traffic Analysis Zone (TAZ) Map will be developed for the Update. This task will be prepared by the CONSULTANT and provided to the MPO staff for review prior to model validation.

5.2.2 A Highway System Network Map shall be developed by the CONSULTANT for the 2013 Base Year Network and include double-digit coding for more specific facility and area type designations. The CONSULTANT will provide draft Highway System Network maps and data to MPO staff for review prior to model validation.

52.3 The development of all maps will be documented by the CONSULTANT

5.3 DATA DEVELOPMENT

The socioeconomic data developed for the Year 2040 Update will be prepared by MPO staff. Base year data (2013) will be developed by using information obtained from the 2010 Census, USA employment data, Chamber of Commerce Employment Statistics and Property Appraiser records where necessary.

The scope of services for this plan update will test and evaluate one future land use scenario. This scenario represents the most realistic forecast of where people will live and work in the MPO Area in the Year 2040 based upon currently adopted comprehensive plans.

The CONSULTANT will assist MPO staff in review of this data, perform necessary edit checks and make any corrections as may be required. Additionally, the CONSULTANT will deliver all ZDATA in TransCAD format (version 6.0 or later) and in ESRI ArcMap format (Version 10.1 or later) for the TAZ and boundary maps.

The CONSULTANT will obtain data relating to travel demand for airports, intermodal facilities, recreation areas, significant commercial activity centers and freight distribution facilities. The intent is to accumulate sufficient data suitable for analyzing the adequacy of "access" to such facilities. MPO staff and the CONSULTANT will coordinate the development of this list with the MPO member agencies.

The CONSULTANT will insure that all data is based upon the latest available estimates and assumptions for population, land use, travel, employment, congestion and economic activity.

5.3.1 **ZDATA1:** Population and household data for each model TAZ will be obtained from the following sources by MPO staff:

A. Base year (2013) population and housing data for each TAZ will be obtained from the 2010 U.S. Census and other sources where available for the following:

1. Population and the number of single-family and multi-family units;
2. Auto availability;
3. Percentage of vacant single-family and multi-family units; and
4. Population and number of single-family and multi-family units occupied by non-permanent residents.

This information will be cross referenced with 2013 Property Appraisers' parcel records.

B. Future year population forecasts will be developed by MPO staff and used as control totals for future population and provide a basis for estimating other socioeconomic factors, such as housing and employment.

C. The number of hotel/motel units will be obtained by MPO staff.

D. In the absence of local data, the Year 2010 Census data will be used for the percentage of vacant single-family and multi-family dwelling units (DUs).

5.3.2 **ZDATA2:** Base Year (2013) employment data will be developed by MPO staff for each TAZ, classified by type (service, commercial, industrial). This data will be verified using Property Appraiser records. Employment data will be cross referenced with the Chamber of Commerce's large employers database for consistency (as it relates to size and location).

A. Base Year (2013) public school enrollment will be obtained from the Pennington and Meade County School Boards.

5.3.3 **ZDATA3:** The CONSULTANT shall develop data for airports, universities, regional shopping malls, military installations, etc., which function as special generators. The identification of the special generators shall be initiated under this task in coordination with the MPO.

5.3.4 **ZDATA 4 and EETRIPS files** developed for the previous update will be reviewed and updated. The CONSULTANT will be responsible for updating the ZDATA4 and EETRIPS files based on the data obtained from the Origin-Destination Study.

5.4 DESIGNATION OF SCREENLINES

The screenlines and outlines developed for the previous Update will be revised as appropriate and used in the validation of the 2013 Base Year Model. The CONSULTANT will be responsible for the review and modification of the screenlines and outlines with approval by the SAT.

5.5 TRAFFIC COUNT DATA

The CONSULTANT is responsible for all traffic count data necessary to validate/calibrate the 2013 Base Year Model. Extensive traffic count data has been collected by the MPO and SDDOT and will be made available to the CONSULTANT. The CONSULTANT will review the traffic count data/locations for adequacy and shall adjust the counts to average weekday peak season counts. Seasonal adjustment factors for local roads developed by the MPO will be used where appropriate.

5.6 HIGHWAY NETWORKS

A highway network shall be developed by the CONSULTANT for the 2013 Base Year. This network will be compatible with TransCAD and the ArcMap GIS format. The structure of this network will be consistent with the highway network for the previous update. This network must also include double digit coding to allow for more accurate facility type representation and true shape format for graphical representation. The revised model network will incorporate changes to networks since the last plan update.

5.7 DATA PROJECTIONS

MPO staff will develop and project the socioeconomic data files (ZDATA1, ZDATA2) for the

Year 2040. The CONSULTANT will be responsible for developing the ZDATA4 and EETRIPS Files for the Year 2040. MPO staff will also participate in this effort. In addition, representatives from other member agencies will also be invited to participate in developing this information.

TASK 6 – DATA REVIEW AND VERIFICATION

The primary purpose of this task is to review the model inputs and outputs to ensure that the data sets are adequate for planning purposes.

6.1 REVIEW ZDATA INPUTS

The CONSULTANT shall review the ZDATA to verify that it is in the standardized model format, is accurate, logical and properly coded. This review shall include the use of LUCHECK or similar software programs, as well as random manual checks. All errors and or deviations shall be corrected and documented by the CONSULTANT. MPO staff will be notified of all errors/corrections/changes.

6.1.1 The TAZ structure shall be analyzed by the CONSULTANT based on the number of productions and attractions generated. The necessary changes shall be made by *the* CONSULTANT to ensure a homogeneous TAZ structure in which zones are compatible as to the number of trips generated. The socio-economic data will also be checked for statistical validity and ratio comparisons.

6.1.2 The CONSULTANT shall incorporate special generators identified in Task 3.3.3 and ensure compatibility with all other socioeconomic data.

6.1.3 The CONSULTANT shall make all necessary changes related to the adjustments made to TAZ boundaries, including all the ZDATA Files and all the Network Files. All activities under this task shall be coordinated with the MPO, SDDOT, and City of Rapid City.

6.2 REVIEW 2013 HIGHWAY NETWORK

The CONSULTANT shall review the Highway Network for coding errors in facility types, area types, number of lanes and coordinates.

6.2.1 The review of the Highway Network shall also include the review of all turn prohibitors.

6.2.2 The CONSULTANT shall review the network to determine whether links should be added or deleted to obtain a better assignment and a better reflection of the actual travel pattern.

6.2.3 The CONSULTANT shall review the coding of Interstate facilities to ensure that directional links, ramp systems and interchanges are correctly coded.

6.2.4 Double digit coding will be used for area and facility type identification on all links.

6.2.5 All necessary corrections shall be made by the CONSULTANT and fully documented.

6.3 REVIEW 2013 TRAFFIC COUNT

The CONSULTANT shall review all traffic counts for accuracy and consistency. All traffic counts shall represent peak season weekday traffic and shall be reviewed by the SAT prior to model input.

The CONSULTANT will review the location and number of counts available to ensure that screenlines, cutlines and cordon lines are fully represented. The CONSULTANT will also review the number of counts available within each cell matrix for each facility and area type for the purpose of validation/calibration.

6.4 REVIEW TRIP GENERATION RATE

The CONSULTANT shall review trip rates (input files) in the study area for multi-family and single-family dwelling units in the Model.

The CONSULTANT shall review the trip rate on the total number of productions and attractions in the area. All ZDATA Files shall be double checked if the output of the generation step falls beyond the acceptable range of ten thousand trips per TAZ.

As previously referenced, the Origin-Destination Study is currently underway. Once this information is available, it will be used to help calculate trip rates and travel statistics specific to the Rapid City Area MPO.

6.5 REVIEW TRIP LENGTH DISTRIBUTION

The CONSULTANT shall review the trip length distribution curves for each trip purpose.

6.6 REVIEW AUTO OCCUPANCY RATES

The CONSULTANT shall compare the model auto occupancy rates to results of the 2010 U.S. Census and revise where necessary.

TASK 7 – MODEL UPDATE AND VALIDATION

The purpose of this task is to update, validate and calibrate the 2013 Base Year Model with year 2013 traffic counts. The CONSULTANT shall use the Rapid City Area MPO model, which includes the City of Rapid City, City of Box Elder, City of Piedmont, City of Summerset, and portions of Pennington and Meade Counties. The end product of this task will be a validated travel demand forecast model capable of forecasting and evaluating future travel demand for alternative highway networks using TransCAD. The entire validation process will be documented. Documentation will include flow charts and a step-by-step procedural guide for the complete model set and will identify all parameters specific to the travel demand forecast models. Details will be provided describing key decisions and conclusions from each step of the process, including trip generation, trip distribution, mode-split and traffic assignment to completion. The acceptable or tolerable range/limits for the various parameters generated in the model validation procedures that follow will be those established by the SDDOT and Federal Highway Administration. The CONSULTANT will provide all associated files in a format compatible with TransCAD.

7.1 VALIDATE EXTERNAL TRIPS

The CONSULTANT shall review and, if necessary, update the ZDATA4 and EETRIPS files developed for the Year 2040 Update.

- **7.1.1** The CONSULTANT shall perform a Base Year assignment using Year 2013 ZDATA4 and EETRIPS Files. Results of this model run will be reviewed by the CONSULTANT to compare the volume/count ratio on the cordon line capturing the links connecting to the external stations to actual counts.
- **7.1.2** The CONSULTANT shall compare the projected 2040 volumes at the external stations with the growth rates of the adjacent counties, as well as the historical growth rate at the count stations. Adjustments to the ZDATA4 and EETRIPS files will be made as necessary.

7.2 VALIDATE THE TRIP GENERATION MODEL

The CONSULTANT shall review and, if necessary, update the input files developed for the Year 2040 Update. All revisions will be documented in the accompanying technical memorandum.

7.2.1 Based on the results of the distribution and assignment process, the CONSULTANT shall identify the special generators. The output of the Trip Generation Model will be analyzed at the TAZ level, as well as at the regional level.

At the TAZ level, the CONSULTANT shall review the total number of productions and attractions generated by the Year 2040 Model and review and refine the Standard Trips Generation Model, to ensure a proper zone size and trip range per zone.

7.2.2 At the regional level, the CONSULTANT shall conduct an analysis to ensure a direct correlation between land use and the relative number of productions and attractions. The total number of unadjusted attractions relative to the total number of adjusted attractions (productions) shall be compared with the Institute of Transportation Engineers (ITE) ratios and other national ratios, as will the percentage of total trips, by purpose, of the total number of trips produced.

7.2.3 The statistical information provided as part of the Trip Generation Model output, such as total permanent population, total number of employees, number of dwelling units, truck generation by class etc. shall be checked against Census information and other local data. In addition, all ratios such as number of persons per dwelling unit will be checked against national ratios. Any major deviations from the above mentioned totals and/or ratios shall be traced back to the ZDATA1 and/or ZDATA2 File(s) and researched, corrected and/or documented in the Technical Memorandum.

7.3 VALIDATE THE TRIP DISTRIBUTION MODEL

The CONSULTANT shall validate the trip distribution model. This process will be documented and will identify major revisions to model input files necessary to meet the identified minimum thresholds.

7.3.1 The CONSULTANT shall review and document the percentage of intrazonal trips and ensure that no trip purpose exceeds the five percent (5%) threshold. If there are purposes that exceed this threshold, the CONSULTANT shall analyze the trip distribution patterns at the District and TAZ Levels.

7.3.2 The CONSULTANT shall summarize the output of the Distribution Model at the District Level in order to identify the origin-destination pairs. This summary shall be checked for consistency with the land use in each planning district.

7.3.3 The CONSULTANT shall review the assigned volumes on the links adjacent to special generators and check them against existing counts. Based on the magnitude of difference, the assignment will be iteratively adjusted by adding or subtracting trips from the special generator in the ZDATA3 File. The accepted method to code the ZDATA3 File is described in TASK B, Review and Refinement of Standard Trip Generation Model.

7.3.4 Once the ZDATA3 File is adjusted, the CONSULTANT shall check the volume/count ratio on all screenlines, cut lines and cordon lines. In addition, the volume/count ratios within all matrices will be checked for all facility and area types.

The CONSULTANT will then make all necessary adjustments to all network and/or data files to obtain a proper distribution.

7.4 VALIDATE THE HIGHWAY ASSIGNMENT MODEL

7.4.1 The CONSULTANT shall validate the highway assignment model. The CONSULTANT shall be responsible for all necessary corrections to be made to the data and network files in order to obtain a proper highway assignment.

7.4.2 The CONSULTANT shall check the highway assignment against the actual ground counts throughout the highway network and check the accuracy of the highway assignment against the volume/count ratios grouped by facility type, area type, vehicle miles traveled and vehicle hours traveled.
The CONSULTANT will refer to the existing documentation for allowable percentage of deviation of assignment versus count and compare to model results. If necessary, corrections to the appropriate files will be made to obtain a proper assignment.

7.4.3 The CONSULTANT shall run color coded plots listing the volume/count ratios by link to be reviewed for errors. The plots shall be color coded in four (4) groups as follows: less than 0.50, 0.51 to 0.85, 0.86 to 1.0, and over 1.0. If discrepancies are found in a particular district and/or along certain corridors, the network shall be checked for errors such as loadings of centroid connectors, possible errors in the Turn Prohibitor File, ZDATA File errors, etc. The CONSULTANT shall make all necessary corrections to obtain a proper assignment,

7.5 FINAL MODEL VALIDATION

7.5.1 The CONSULTANT shall perform a highway only run using the base year network and the socioeconomic dataset for Year 2040.

7.5.2 The CONSULTANT shall summarize the output of the generation and distribution steps by district and compare them with the Base Year 2013 socio-economic data. Screenline projections, Base Year counts and historical growth rates will be compared.

4.5.3 The CONSULTANT shall review all of the model output data with the SAT pointing out any inconsistencies or errors in the socioeconomic data at each step of the calibration and validation of the model.

TASK 8 – YEAR 2040 TRANSPORTATION NEEDS PLAN AND FISCALLY CONSTRAINED PLAN

The purpose of this task is to develop a long range transportation plan that identifies the transportation system modifications required to meet future year mobility demands. This will be accomplished through the development of a Year 2040 Needs Plan that identifies highway modifications.

A Year 2040 Fiscally Constrained Plan will also be developed by ranking projects within a fiscally constrained plan. Those projects for which financial resources cannot be identified shall be included in a list of unfunded transportation needs. This plan builds upon the Needs assessment to select a list of projects that can be funded with available revenue sources.

Both the Year 2040 Needs Plan and the Year 2040 Fiscally Constrained Plan will include narrative descriptions of the "major" and more significant projects in the Plan. Any preliminary engineering studies and NEPA phases shall also be included in the LRTP.

8.1 NETWORK CODING, EDITING AND DEBUGGING

The CONSULTANT will be responsible for the coding, review, editing and debugging of all networks leading to an adopted Year 2040 Fiscally Constrained Plan. These networks will include the Year 2018 Existing Plus Committed Network and the Year 2040 Needs Plans and the Year 2040 Fiscally Constrained Plan.

8.2 DEVELOPMENT OF THE YEAR 2018 EXISTING PLUS COMMITTED NETWORK

8.2.1 The Year 2018 Existing Plus Committed (E+C) Network will be developed by the CONSULTANT by coding all projects listed for construction by the Year 2018 in the MPO Transportation Improvement Program (TIP) to the Base Year Networks.

8.2.2 The CONSULTANT shall also review the Rapid City Transit Development Plan for transit related ridership and operational information.

8.2.3 Only projects for which federal, state, local or private funding for construction, or for the acquisition of right-of-way (and assumed to be completed and open to traffic in 2018), will be identified and included in the E+C Network.

8.2.4 The CONSULTANT shall make an "all or nothing" assignment to the Year 2018 E+C Network and include a Year 2040 Trip Table to determine the deficiencies on the highway and transit networks that will occur by the Year 2040.

8.3 DEVELOPMENT OF THE YEAR 2040 NEEDS PLAN

8.3.1 The CONSULTANT will use the following information to develop the Year 2040 Needs Plan:

A. the South Dakota Strategic Highway Plan
B. Pennington County and Meade County Transportation Plans
C. Rapid City Transit Development Plan
D. Box Elder Strategic Transportation Plan
E. Rapid City Area Bicycle and Pedestrian Master Plan
F. Plan Rapid City
G. 2010 SDDOT Decennial Interstate Corridor Study
H. I-90 Exit 59 (La Crosse Street) Interchange Options Study
I. SDDOT LRTP
J. Coordinated Public Transit-Human Services Transportation Plan
K. Meade County High Meadows Road Access, Traffic Analysis, and Route Alignment Study: and,
L. Other studies as available

8.3.2 A Preliminary Needs Plan will be developed by running 2040 ZDATA with the 2018 Existing Plus Committed Network and identifying facilities with a volume/capacity (v/c) ratio of 0.9 or greater. The CONSULTANT and SAT will review the facilities identified during this task. At the option of the SAT, the CONSULTANT will use NCHRP-255 to smooth and adjust the travel demand outputs for identified facilities as necessary. Strategies and needs addressing transit, bicycle and pedestrian travel, freight, and performance based planning and performance measures as required by MAP-21 shall also be included.

8.3.3 A Constrained Needs Plan will be developed by identifying facilities in the Preliminary Needs Plan which cannot be improved for any of the following reasons:

A. The impact widening of the road would have on the community;
B. The geography or development of the area causes a project to be too difficult or expensive;
C. The road is already as wide as allowed by state or local policies;
D. The potential impact to a designated historic district, subject to mitigation strategies; or
E. The potential impact on environmentally sensitive lands, subject to mitigation strategies.

Constrained facilities will be eliminated from the Needs Plan (for consideration of highway modifications only) prior to development of subsequent alternatives.

8.3.4 A network will be created that includes highway related modifications that expand the grid network of roads.

8.3.5 The CONSULTANT shall coordinate the development of the Needs Plan process, including selection of the final Year 2040 Needs Plan, with the SAT. The criteria by which the alternative needs plans will be evaluated shall include:

A. Requirements of MAP-21 and appropriate rules issued by FHWA and FTA.
B. The Goals and Objectives established for this Study**.**

8.3.6 The analysis of the Needs Plan will include sufficient information to understand the composition of the identified need. The CONSULTANT will develop cost estimates for Needs Plan projects that include all costs (operations, maintenance, capacity expansion, etc.) in year of expenditure dollars. The CONSULTANT will use South Dakota Department of Transportation adopted estimates of inflation to adjust costs from present day costs to year of expenditure costs.

8.3.7 Presentation materials, including graphics and support documentation for the Year 2040 Needs Plan Alternatives, will be prepared by the CONSULTANT and presented to the Citizens Advisory Committee (CAC), the Technical Coordinating Committee (TCC), and the Executive Policy Committee (EPC).

8.3.8 A proposed Year 2040 Needs Plan will be developed by the SAT to take to a public meeting/open house.

8.3.9 The CONSULTANT, in cooperation with MPO Staff, shall present the proposed Year 2040 Needs Plan at the MPO public meeting/open house and include a discussion of the process by which the plan was developed.

The CONSULTANT shall prepare presentation materials that will include graphics, visual aids and handout materials.

8.3.10 The Needs Plan will be screened for environmental issues. The process includes the development of a GIS shape file by the CONSULTANT that contains the line-work for the proposed roadway projects. These projects would be major capacity improvements, new alignments including recommended changes to the adopted Major Street Plan, major interchange modifications, bridge replacements, and projects identified as regionally significant. In addition to the creation of an ArcMap shapefile, a spread sheet will be prepared by the CONSULTANT with the project identification number, roadway name and beginning and end points (locations).

This data will be used as a first level environmental screening for Needs Plan projects. When a list of Needs Plan projects that will be likely candidates for the Fiscally Constrained Plan is available a meeting will be held with the resource agencies to gather input on the proposed plan.

8.4 RANKING OF PROJECTS AND PROGRAMS IN THE YEAR 2040 NEEDS PLAN

8.4.1 The CONSULTANT shall develop a methodology to rank projects and programs in the Year 2040 Needs Plan and shall coordinate the ranking process with the SAT. All projects and programs included in the adopted Year 2040 Needs Plan will be ranked based on the following criteria:

A. Existing level of service;
B. Performance Measures and targets:
C. Safety rankings that consider historic crash data including bicycle and pedestrian data, ability to manage traffic as an incoming emergency evacuation route from coastal counties and compatibility to non-motorized travel;
D. Consistency with the LRTP goals and objectives established through the public involvement process;
E. Forecast travel demand for the Year 2040;

F. Cost estimates (in base year dollars) and the scheduled availability of funding; and

G. Assessment of the distribution of social, cultural and environmental benefits and adverse impacts of proposed long range transportation plan projects on various socioeconomic groups.

8.4.2 The CONSULTANT shall prepare and distribute a list of the project rankings to the SAT for comment and the MPO for review and approval. The list will include project rank, as well as the ranking factors, for each proposed project. Any modifications by the MPO will be incorporated into the Adopted Year 2040 Needs Plan.

8.5 DEVELOPMENT OF THE YEAR 2040 FISCALLY CONSTRAINED PLAN

Upon the approval of the Year 2040 Needs Plan by the MPO, the proposed Year 2040 Fiscally Constrained Plan will be developed based on the financial resources and the cost analysis. The CONSULTANT will use evaluation criteria established earlier as a basis for ranking projects to be considered in the Fiscally Constrained Plan.

The CONSULTANT will include an estimate of the cost of all projects and all phases, in year of expenditure dollars. The CONSULTANT will also clearly state in the proposed Year 2040 Fiscally Constrained Plan the costs of operating and maintaining the existing and future transportation system. According to FHWA and SDDOT guidelines, the Year 2040 Fiscally Constrained Plan will be the final plan presented to the MPO for adoption.

8.6 FINANCIAL RESOURCES

The CONSULTANT will be responsible for the accumulation and aggregation of information regarding existing and projected funding sources for modifications outlined in the Year 2040 Needs Plan that will be used in the development of the Year 2040 Fiscally Constrained Plan. The CONSULTANT shall develop estimates of funds that will be available to support Year 2040 Fiscally Constrained Plan implementation with the SDDOT.

8.6.1 IDENTIFY AND PROJECT AVAILABLE RESOURCES

Historical financial information relative to the funding of transportation services within the study area will be obtained from appropriate federal, state, and local agencies. Based on this historical information and the planning data forecast prepared in the development of the ZDATA, potential financial resources will be forecasted for the Year 2040. The CONSULTANT will report future revenues by funding category. Included in this information, will be financial information from the latest adopted MPO Transportation Improvement Program.

8.6.2 IDENTIFY SYSTEM OPERATIONS, MAINTENANCE AND CAPITAL COSTS

The CONSULTANT will confirm revenues and costs related to system operations and maintenance activities covered in the long range transportation plan. The financial plan will contain system-level estimates of costs and revenue sources that are reasonably expected to be available to operate and maintain highways and public transportation.

8.6.3 IDENTIFY NEW PROJECT FUNDING SOURCES

The funding available for new projects is the difference between the funds reasonably expected to be available for transportation modifications minus the funds required to construct committed projects and those funds required to operate and maintain the transportation system. This difference will be the funding available to develop the Year 2040 Fiscally Constrained Plan.

8.6.4 IDENTIFY AND PROJECT POTENTIAL FUNDING SOURCES

Alternative funding sources such as bonds, transit fares, tolls, special taxing districts, impact fees and local option gas tax shall also be investigated and will be included in the final report by the CONSULTANT as potential funding sources for projects not included in the Year 2040 Fiscally Constrained Plan. All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified.

Should any of these alternatives sources be recommended to fund projects in the Year 2040 Fiscally Constrained Plan, strategies to ensure the availability and commitment of these sources will be included as part of the recommendation. These "strategies" must include a plan of action describing the steps necessary to enact the sources. The analysis will discuss past successes or failures to secure similar funding sources.

TASK 9 – REPORTS AND MEETINGS

The consultant will provide local and state representatives with fifteen (15) copies of the draft Long Range Transportation Plan prior to completion of final draft reports. The draft will include an executive summary, preliminary findings and recommendations, and any other information developed as part of the study. The consultant shall review and become familiar with the requirements of the Federal Highway Administration which pertain to metropolitan transportation planning and federal aid road projects; and, include all necessary items in the report to satisfy those requirements.

The consultant will provide originals of revised draft reports throughout the public meeting and comment process. Staff of the Rapid City Area Metropolitan Planning Organization will cover the reproduction of documents during first and second draft reviews. The consultant will provide fifteen (15) final reports of the analysis for submittal to the South Dakota Department of Transportation, Federal Highway Administration, and local governments for use in the planning process.

The consultant shall be required to present the draft and final reports of the Long Range Transportation Plan Update to the Rapid City Council, the Citizen's Advisory Committee, the Technical Coordinating Committee, and the Executive Policy Committee.

TASK 10 – DELIVERABLES

The consultant shall provide the following items to the MPO contact person:

- Study Updates in word processing format (Microsoft® Word) or as Portable Document Format (Adobe® .pdf) of the study's progression due November 14, 2014, January 16, 2015, March 13, 2015, and May15, 2015. If the study completion date needs to be extended, study updates will be expected around the 15th of every other month beginning on July 15, 2015 until submittal of the draft final report.
- A GIS shapefile (ESRI ArcMap® *.shp, version 10.1 or higher) and a TransCAD geographic file (version 6.0 or higher) of the final Major Street Plan in State Plane coordinate system (NAD 1983, South Dakota South) compatible with the City of Box Elder's and Meade and Pennington Counties' existing coordinate system.
- An electronic copy, in word processing format (Microsoft® Word) and Portable Document Format (Adobe® .pdf), of the draft final report and executive summary.
- Fifteen (15) printed copies of the final report and executive summary
- An electronic copy, in word processing format (Microsoft® Word) as and Portable Document Format (Adobe® .pdf), of the complete final report and the complete executive summary.
- Copies of any pertinent working papers and electronic files created during the project.

Schedule of Proposal

Proposals shall be governed by the following estimated schedule:

July 28, 2014 – Written proposals due at Rapid City Community Planning and Development Services

August 13, 2014 – Interviews of selected respondents at the City-School Administration Center

August 19, 2014 – Selection of consultant and initiation of contract negotiations

Period of Performance

Detailed scheduling of the project will be negotiated during the contract negotiations by the selected consultant and the City.

The date for initiation of the contract as well as the overall contract performance period will be negotiated with the selected consultant based on the tentative time schedule listed below.

Notice to Proceed – **September 9, 2014**

Proposed Fiscally Constrained Plan**- March 9, 2015**

Draft Report to SAT for Review **– May 1, 2015**

Final Draft Report to SAT for Review – **June 19, 2015**

Final Report to MPO**- August 3, 2015**

Complete Study – **September 15, 2015**

Final payment and retainage will not be made to the consultant until the Final Report is accepted by the City and Rapid City Area Metropolitan Planning Organization.

GENERAL INSTRUCTIONS

FUNDS AVAILABLE

The available funding amount for the Rapid City Area Metropolitan Planning Organization Long Range Transportation Plan Update is **$133,000.**

INQUIRIES

Please direct questions to:

Kip Harrington, Planner III
Rapid City Community Planning and Development Services
300 Sixth Street
Rapid City, SD 57701
(605) 394-4120

SIGNATURE REQUIREMENTS

Proposals must be signed by a duly authorized official of the proposer. Consortia, joint ventures, or teams submitting proposals, although permitted and encouraged, will not be considered responsive unless it is established that all contractual responsibility rests solely with one contractor or one legal entity which shall not be a subsidiary or affiliate with limited resources. Each proposal should indicate the entity responsible for execution on behalf of the proposal team.

MINIMUM SERVICES OF THE CONSULTANT

The following shall be the basic services and products provided by the consultant.

A. The consultant agrees to attend and conduct a minimum of two public meetings during the study period. The consultant shall be responsible for all public hearing notices, graphics, slides, and handouts, including executive summaries for distribution to the general public.

B. The consultant agrees to attend and make presentations at the following meetings:
Presentation of the draft Long Range Transportation Plan to the Citizen's Advisory Committee, the Technical Coordinating Committee, and the Executive Policy Committee at dates and times to be determined.

C. The consultant agrees to prepare a brief synopsis of public comment as part of the final document(s). Official minutes of public meetings and committee meetings are the responsibility of the consultant and shall be included as part of the final document(s).

D. The consultant agrees to attend and make presentations at the following meetings: Presentation of the Final Draft Long Range Transportation Plan to the Citizen's Advisory Committee, the Technical Coordinating Committee, and the Executive Policy Committee at dates and times to be determined

E. The consultant agrees to prepare draft documents, make revisions as required, and prepare final document(s) which will include the completion of tasks under the "**SCOPE OF SERVICES REQUESTED"** in addition to graphics, charts, tables, and an executive summary. The consultant will respond in a timely manner to any comments that result from the State/Federal/Public review, and will provide one copy of all responses. A minimum of fifteen (15) final reports of the Long Range Transportation Plan will be prepared and submitted for staff and officials within the State Department of Transportation, the Federal Highway Administration, and the Rapid City Area Metropolitan Planning Organization. Originals will also be supplied to the City in print-ready digital format.

PROPOSAL DEADLINE:

Proposals are to be submitted to:

Kip Harrington, Planner III
Rapid City Area Metropolitan Planning Organization
300 Sixth Street
Rapid City, SD 57701

Proposals must be received no later than **4:00 pm on July 28, 2014**. The deadline is firm. Extensions will not be granted. The consultant must submit nine (9) copies of their proposal to this RFP, as well as a digital version of their proposal in word processing format (Microsoft® Word) or as Portable Document Format (Adobe® .pdf).

Proposals must remain valid for at least 90 days after the deadline. The MPO will not acknowledge receipt of proposals unless a stamped, self-addressed post card is included in the proposal package.

Anticipated Start Date:

September 9, 2014

Anticipated End Date:

September 15, 2015

PROPOSAL GUIDELINES AND REQUIREMENTS:

Each proposer must demonstrate in their proposal that they have the professional capabilities needed to accomplish this study. The proposal should contain all information relevant to indicate the consultant team's abilities to successfully complete this study and give the study advisory team a better understanding of the consultant team's qualifications.

At a minimum, the proposal should contain the following:

- Statement of Study Approach: Describe the approach the consultant proposes to accomplish the study.

- Proposed Study Team Members: Provide a written description of the consultant team composition, including disciplines, primary role in regards to the study, and relevant experience. The information provided must clearly indicate the consultant team's point of contact, the team leader for the study (if different) and the responsible party in each firm who will be providing the required professional experience.

  Provide a table showing the number of person-hours (not percentages of time) that will be devoted to each task by consultant team members. List the names of principal investigators and other key professionals who will be involved. Support personnel may be identified by classification. If subcontracting is necessary, include subcontractors' key personnel and support staff in the table. Clearly identify subcontractors' involvement.

  Describe current commitments to other work in sufficient detail to permit assessment of each consultant team member's ability to meet the proposal's commitments. Include a statement that the level of effort proposed for principal and professional members of the study team will not be changed without written consent of RCMPO.

- Individual Experience: Provide a description of the background of key members of the consultant team and their specific participation in previous projects that would directly relate to the work planned to be done for this study. This may be done in descriptive text or in resume format.

- Study Schedule: Provide a graphic or text calendar to define the proposed study schedule for tasks and set milestone dates.

- Budget: Show the estimated cost for the entire study by RCMPO fiscal year. RCMPO's fiscal years run from January 1 through December 31. A sample budget is shown below.

Item	FY2013			FY2014			Total
Salaries	Rate	Total Estimat Hour	Total Estimated Cost	Rate	Total Estimat Hour	Total Estimated Cost	
Name - Title or	$20.0	90	$1,800.0	$20.6	12	$2,575.0	
Name - Title or	$18.0	45	$810.0	$18.5	50	$927.0	
Name - Title or	$25.0	20	$500.0	$25.7	20	$515.0	
Name - Title or	$15.0	10	$150.0	$15.4	10	$154.5	
Name - Title or	$11.5	5	$57.5	$11.8	15	$177.6	
Subtotal			$3,317.5			$4,349.1	$7,666.6
Fringe Benefits[1]			$829.0			$1,087.0	$1,916.0
Overhead / Indirect Costs			$2,654.0			$3,479.0	$6,133.0
Fixed Fee			$680.0			$892.0	$1,572.0
In-State Travel			$1,250.0			$2,500.0	$3,750.0
Out-of-State Travel			$0.0			$0.0	$0.0
Equipment Purchase[2]			$0.0			$0.0	$0.0
Expendable Supplies[3]			$350.0			$710.0	$1,060.0
Subcontracts			$0.0			$0.0	$0.0
Computer Time[3]			$0.0			$700.0	$700.00
Report Publication[3]			$0.0			$1,200.0	$1,200.0
TOTAL			$9,080.5			$14,917.1	$23,997.6

Notes: 1. May be included with Overhead / Indirect Costs, Must be in accordance with 48CFR Part 31
2. Must be in accordance with 49CFR Part 1B
3. Only if normally treated as a direct cost

If the proposal includes effort by subcontractors, a similar budget table should be included for each subcontractor.

Out-of-state travel, which is defined as travel between the consultant's base and destinations other than South Dakota, must be identified separately. All travel between the consultant's home base and South Dakota should be recorded as in-state travel.

Indirect costs listed in the budget must be substantiated if and when the proposal is selected. Prior to the first contract payment, the successful proposer must submit documentation supporting the bases and rates used to calculate indirect costs by the prime contractor and each of the subcontractors. Examples of indirect cost schedule formats can be found in Chapter 9 of the *AASHTO Uniform Audit & Accounting Guide* located at: http://audit.transportation.org/.

Total funding should not exceed the amount indicated as "Funds Available" on the Request for Proposal. This amount represents what RCMPO feels the study merits and what level of funding should be necessary to complete the work. Proposers should set the scope and depth of study accordingly. Because of budget constraints, additional funding is highly unlikely. No budget expansions should be anticipated.

The proposed budget shall be submitted in a sealed envelope, and opened only if the proposer is selected to perform the project by the Study Advisory Team. Unopened envelopes will be returned to the unselected proposers.

PROPOSAL EVALUATION:

Proposals will be evaluated by the Study Advisory Team. Selection will be made by the advisory team in consideration of:

- the proposer's demonstrated understanding of the issues;
- the merit of the proposed approach to the study;
- the probability of success in the achieving the study's objectives;
- the proposer's record of accomplishments in related areas;
- the adequacy of the proposer's staff and facilities;

The RCMPO will afford equal opportunity to all those who submit proposals and will not discriminate in its selection of consultants on the grounds of race, sex, color, physical handicap or national origin.

Proposers will be notified of the results of the selection process in writing no later than September 9, 2014.

OWNERSHIP OF PROPOSALS:

All proposals submitted become the property of the Rapid City Area Metropolitan Planning Organization. The MPO has the right to use all information presented in any proposal, unless it is annotated as being proprietary. The MPO considers all information contained in proposals as privileged and reserves the right to maintain its confidentiality. Selection or rejection of a proposal does not affect these rights. The MPO reserves the right to reject any and all proposals submitted. The MPO may, under certain conditions, negotiate with the proposer to address specific weaknesses in a submitted proposal.

The MPO is not responsible for any costs incurred by proposers, including proposal preparation, prior to execution of a contract.

Questions should be submitted to:

Kip Harrington, Planner III
Rapid City Area Metropolitan Planning Organization
300 Sixth Street
Rapid City, SD 57701
Phone (605) 394-4120
Email kip.harrington@rcgov.org

ADDENDA AND SUPPLEMENTS TO RFP

In the event that it becomes necessary to revise any part of this RFP or if additional information is necessary to enable the proposer to make adequate interpretation of the provisions of this Request for Proposal, a supplement to the RFP will be provided to each proposer.

REJECTION RIGHTS

The City of Rapid City and the Rapid City Area Metropolitan Planning Organization retain the right to reject all proposals and to re-solicit if deemed to be in their best interests.

Selection is also dependent upon the negotiation of a mutually acceptable contract with the successful proposer.

COST OF PROPOSAL PREPARATION

No reimbursement will be made by the City of Rapid City or any other party to this agreement for any costs incurred prior to a formal notice to proceed under a contract.

PROPOSALS TO BE IN EFFECT

Each proposal shall state it is valid for a period of not less than ninety (90) days from the date of receipt.

PROHIBITED INTEREST

No member, officer, employee of the City or State, or member of its governing body or of a local public body having jurisdiction within the City's service area, during his or her tenure or one year thereafter, shall have any interest, direct or indirect, in any resultant contract or the proceeds thereof.

TAXES

The contract amount submitted by the consultant should take into consideration the fact that all sponsoring entities associated with the proposed project are exempt from all state taxation, including state sales tax.

SELECTION PROCESS

A study team will review responses to this Request for Proposal that meet the requirements enumerated and are received prior to the designated closing date.

Upon review of qualified proposers, the committee will designate the most qualified firms as finalists based on professional qualifications, costs and financial data. The selected finalists will appear for an oral presentation and evaluation by the committee which then will select a firm. The selected consultant will be notified and contract negotiations will commence. Upon the completion of negotiations, the City of Rapid City, the Rapid City Area Metropolitan Planning Organization and the South Dakota Department of Transportation must approve the contract before any work can begin. Federal funding will be utilized in this study and thus the consultant will be subject to all of the federal contracting requirements which are incurred as a result.

Selection Criteria are attached as Exhibit A.

PROJECT APPROACH

The proposer should identify the study process utilized on other significant projects of similar scope and magnitude as well as the process envisioned for this project. The specific procedures and methods proposed for coordinating the requirements of the Federal Highway Administration, the South Dakota Department of Transportation, the City of Rapid City, and the Rapid City Area Metropolitan Planning Organization shall be detailed in the proposal.

QUALIFICATIONS, COSTS AND FINANCIAL DATA

Those firms submitting proposals will be evaluated according to the qualification of the firm in terms of experience, the ability to perform and manage the work, the ability to work within a schedule, and within a fixed budget. The firm is asked to submit a description of prior work that is related to the scope of work previously described. Particular emphasis will be placed on the qualifications of the firm's key staff, such as the project manager and all staff involved in the project.

The contract for the scope of work will be based on a fee schedule with a not-to-exceed amount. Project fee and cost estimates are not considered binding evaluation criteria. Each firm submitting a proposal must provide a time and cost estimate for each phase of the study based on the services enumerated and the assumed project time frame.

GENERAL EXPERTISE REQUIRED

The services envisioned within this Request for Proposal includes all of the transportation planning, civil engineering and traffic engineering disciplines necessary for the completion of the project desired.

MISCELLANEOUS

All previously mentioned information will be made available to the selected consultant, as well as, the latest available traffic counts, the Rapid City Major Street Plan, and any other maps or documents pertinent to the development of this document.
The City of Rapid City, the Rapid City Area Metropolitan Planning Organization and the South Dakota Department of Transportation retain the right to amend the contract with the successful proposer to include other possible areas of concern with this project.

NON-DISCRIMINATION/AMERICANS WITH DISABILITIES ACT

The successful consultant shall comply with the requirements of Title 49 CFR Part 21 and Title VI of the Civil Rights Act of 1964. The successful consultant shall submit upon request quarterly Title VI (civil rights) State of Contractor reports to the South Dakota Department of Transportation. The successful Consultant shall provide services in compliance with the Americans with Disabilities Act of 1990.

CONTRACT PROVISIONS AND ASSURANCES

Federal funds received by the Rapid City Area Metropolitan Planning Organization will be used as a component of the overall funding of this project. Accordingly, the selected consultant will be required to comply with all applicable Federal regulations and contracting provisions required by the Federal funding authority, including 49 CFR Part 31 - Allowable Costs, Civil Rights, Minority Business Enterprise, and other applicable assurance provisions. Additionally, the contract must be in compliance with state and local requirements applicable to such contracts.

SUMMARY

All plans, calculations, maps, digital files, reports, correspondence, minutes of meetings, and related data generated for the study will be included in the final documents submitted to the Rapid City Area Metropolitan Planning Organization.

EXHIBIT A
Request For Proposals
Consultant Evaluation Forms

PROPOSAL EVALUATION FORM (25 Total Points Possible)

Project Name: ______________________________ **Interviewer:** ______________________________

Firm Name: ______________________________ **Date:** ______________________________

PROPOSAL EVALUATION CRITERIA	Scoring (Circle One)
P1: Firm's Project Team - 25% of total **The evaluator should consider the following information when scoring this category:** **A.** Size of the contract as compared to the size or ability of the firm and its' associate firms and consultants as one team to handle the project; **B.** The education, experience, and qualifications of the personnel within the submitting firm; and by attachment that of its' associate firm(s), if any. These are the Key Designers, Construction Inspectors, and Sub-consultants. Should include professional registrations, education, certifications, and other pertinent qualifications of the indicated individuals; **C.** Name, experience and past performance of person(s) to be assigned as project manager(s) and will have direct contact with City staff. These typically are the Design Project Manager and Construction Administration Project Manager. These are in addition to those indicated in item B. above; **D.** Names of firm's key staff to be assigned to project with description of each person's experience and how it relates to this project's specific requirements; **E.** Ability to expand the firm's capabilities by working with other consultants or branch offices (if required).	1 2 3 4 5 6 7 8 9 10
P2: Firm's Experience with Similar Projects and Other Relevant Agencies within the Past 5 Years – 20% of total **The evaluator should consider the following information when scoring this category:** **A.** A summary of similar work that has been done in-house over the past five years; as it pertains to municipal engineering, operations, maintenance, replacement, planning, design surveying, construction staking, construction administration, GIS, finance, economics, and other; P6 **B.** Prior experience with other relevant agencies for the past five years such as other municipalities, South Dakota DOT, South Dakota DENR, and others.	1 2 3 4 5 6 7 8 9 10
P3: Firm's Experience and Familiarity with Rapid City Design Criteria and Standards – 20% of total **The evaluator should consider the following information when scoring this category:** If the firm's familiarity with the City's design criteria and standards and City bidding, contracting methodology, and construction administration processes is limited then the firm's familiarity with other municipalities' and agencies' shall be considered. **A.** Firm's staff's direct experience (in-house capability) with this type of project **B.** Firm's familiarity with City design criteria and standards. **C.** Other information to consider would be the firm's experience, knowledge, and understanding of City bidding and contracting methodology and City construction administration processes and the firm's experience with other City Departments and Divisions.	1 2 3 4 5 6 7 8 9 10

1 = Fails to meet the expectations of the reviewer in this category
10 = Fully meets the expectation of the reviewer in this category

P4: Firm's Management Procedures – 20% of total **The evaluator should consider the following information when scoring this category:** **A.** Firm's organizational structure must be clearly defined with personnel qualifications and where actual work will be done; **B.** A statement regarding whether any litigation is pending or underway regarding activities of the firm or its principals within the last five years and the circumstances of the litigation; **C.** A current certificate of insurance, including errors and omissions, executed by the insurance carrier's authorized agent; **D.** Firm's Management Procedures; Past performance meeting budgets & schedules, including methodology and procedures used to accomplish this objective. Successful QA/QC processes, and accuracy of construction cost estimates. The firm's history in meeting project design budgets, construction budgets, and schedules. The firm's ability to provide accurate construction cost estimates throughout the design process (preliminary submittal through bid opening). The firm's QA/QC methodology and procedures including personnel responsible for QA/QC. The firm's methodology, procedures and ability to meet project schedules.	1 2 3 4 5 6 7 8 9 10
P5: Office Location – 10% of total **The evaluator should consider the following information when scoring this category:** Indicate the office location of the project manager, key designers, sub-consultants, and construction staff for the project?	1 2 3 4 5 6 7 8 9 10
P6: Quality of Proposal – 5% of total **The evaluator should consider the following information when scoring this category.** Proposal should be clear, concise, well written, well organized, utilize correct spelling, proper grammar, exemplify the characteristics of a professional document, and address the "Proposal Evaluation Criteria".	1 2 3 4 5 6 7 8 9 10

INTERVIEW EVALUATION FORM (75 Total Points Possible)

Project Name: ____________________________ **Interviewer:** _______________________________

Firm Name: ____________________________ **Date:** _____________________________________

INTERVIEW EVALUATION CRITERIA	Scoring (Circle One)
I1: Project Approach and Demonstration of Project Understanding and Issues – 45% of total **The evaluator should consider the following information when scoring this category:** **A.** Familiarization and understanding of the project and project issues including potential alternatives; **B.** Approach toward project design and construction administration; **C.** Experience with key project elements; **D.** Project components including constructability, project phasing and sequencing; **E.** Innovative design and construction administration techniques and methods; **F.** Approach toward public involvement as it pertains to easement/ROW negotiations, public meetings, and dealing with individuals. Approach toward dealing with other governmental entities and City Departments & Divisions; **G.** Understanding of the project schedule and critical milestones; **H.** Identification or recognition of potential project pitfalls and challenges.	1 2 3 4 5 6 7 8 9 10
I2: Past Design and Construction Administration Performance – 20% of total **The evaluator should consider the following information when scoring this category:** **If the firm's prior assignments with the City are limited then the firm's prior assignments with other municipalities' and agencies shall be considered.** **A. Design -** has the firm's prior work products demonstrated the following: **a.** Ability to meet design budgets; **b.** Ability to meet design timelines/milestones/completion dates; **c.** Ability to produce complete and understandable submittal documents; **d.** Ability to stay within scope; **e.** Ability to obtain easements and ROW; **f.** Ability to produce accurate construction cost estimates; **g.** Effectiveness in working with the public; **h.** Past work products (drawings and specifications) have limited review comments and red lines; **i.** Adhered to City design criteria and standards and produced documents that are legible and organized. **B. Construction** - has the firm's prior work products demonstrated the following: **a.** Past work products (drawings and specifications) have limited unnecessary construction change orders? **b.** Effectiveness in working with the public; **c.** Ability to produce accurate and timely contractor pay applications; **d.** Ability to effectively coordinating with the contractor; **e.** Ability to verify contract obligations (Final Inspection compliance with drawings and specifications); **f.** Ability to successfully coordinate and verify startups for electrical and mechanical types of facilities; **g.** Ability to produce complete and understandable drawings and specifications; **h.** Ability to verify that shop drawings, product literature, and submittals comply with City specifications, drawings, and supplemental provisions **i.** Ability to produce accurate, detailed, quality construction deliverables (construction diaries, quantity books, and construction documentation including photos, as-built drawings, etc); **j.** Ability to produce drawings and specifications that minimize field orders; **k.** Ability to produce drawings and specifications that minimize Contractor questions and uncertainties; **l.** Ability to mitigate construction problems from escalating; **m.** Ability to effectively keep the City's PM apprised of construction issues and potential project cost savings and increases;	1 2 3 4 5 6 7 8 9 10

I3: Past Performance of Quality Control and Quality Assurance (QA/QC) – 15% of total **The evaluator should consider the following information when scoring this category:** **<u>A.</u>** Completeness of submittals, drawings and specifications; **<u>B.</u>** Minimizing the number and frequency of design errors; **<u>C.</u>** Project Constructability - Successfully addressed project constructability, sequencing, and phasing; **<u>D.</u>** Clarity - the contractor easily understands the intent of the project and what is being conveyed in the drawings and specifications; **<u>E.</u>** Expectations - the project meets the owner's objectives and intent for the project; **<u>F.</u>** Quality - past deliverables are of high quality (adherence to City design criteria and standards as well as general document legibility and organization).	1 2 3 4 5 6 7 8 9 10
I4: The Firm's Project Team and Task Assignment Summary – 15% of total **The evaluator should consider the following information when scoring this category:** **<u>A.</u>** If a consortium of individuals or firms, amount and type of work to be done in respective offices and how quality and schedule of work will be controlled by assigned project manager(s); **<u>B.</u>** Name, experience and past performance of person(s) to be assigned as project manager(s) and to have direct contact with City staff (Design and Construction); **<u>C.</u>** Names of firm's staff to be assigned to project tasks with description of each person's experience and how it relates to this project's specific requirements. The firm shall indicate the project team members assigned to each task identified in the RFP draft scope of services. The firm shall provide the proposed billing rates for each team member proposed to be working on the project for design and construction services.	1 2 3 4 5 6 7 8 9 10
I5: Quality of Interview – 5% of total The evaluator should consider the following information when scoring this category. The firm's interview should be articulate, clear, concise, and organized. The firm should communicate project issues, ideas, alternatives, and address the "Interview Evaluation Criteria".	1 2 3 4 5 6 7 8 9 10

1 = Fails to meet the expectations of the reviewer in this category
10 = Fully meets the expectation of the reviewer in this category

Attachment B

Sample Agreement

For PROFESSIONAL SERVICES
Rapid City Area Metropolitan Planning Organization
Long Range Transportation Plan Update

THIS AGREEMENT made on this _____ day of __________, 2014 between the City of Rapid City, 300 Sixth Street, Rapid City, South Dakota 57701, hereinafter referred to as OWNER, and __________(Consultant)_________________, hereinafter referred to as CONSULTANT. This project will encompass the preparation of the Rapid City Area Metropolitan Planning Organization Long Range Transportation Plan Update for the City of Rapid City.

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

SECTION 1 - BASIC SERVICES TO CONSULTANT

1.1 General

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

1.2 Scope of Work

The Basic Services Scope of Work is described in detail in Exhibit A and shall include structure and schedule of comprehensive transportation planning public participation activities by assembling and analyzing available data, synthesizing information gained into a "Long Range Transportation Plan Update" document formatted for easy reading and viewing on screens, and making updates to the existing travel demand model.

SECTION 2 - ADDITIONAL SERVICES OF CONSULTANT

2.1 Services Requiring Authorization in Advance

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

2.1.1 Services resulting from significant changes in the general scope, extent or character of the Project including, but not limited to, changes in size, complexity, or method of financing; and revising previously accepted studies, reports or design documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the preparation of such studies, reports or documents.

2.1.2 Investigations and studies involving, but not limited to, detailed consideration of operations, maintenance and overhead expenses; providing value engineering during the course of design; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing and assisting OWNER in obtaining process licensing; detailed quantity surveys of material, equipment and labor; and audits or inventories required in connection with construction performed by OWNER.

2.1.3 Furnishing services of independent professional associates and consultants for other than Basic Services (which include, but are not limited to, customary civil, structural, mechanical and electrical engineering and customary architectural design incidental thereto).

2.1.4 Services during out-of-town travel required of CONSULTANT other than visits to the site, attendance at OWNER'S office as required by Section 1, or other services as detailed in Exhibit A.

2.1.5 Providing any type of property surveys or related engineering services needed for the transfer of interests in real property and field surveys for design purposes and providing other special field surveys.

2.1.6 Preparing to serve or serving as consultant or witness for OWNER in any litigation, arbitration or other legal or administrative proceeding involving the Project (except for assistance in consultations which is included as part of Basic Services).

2.1.7 Additional services in connection with the Project, excluding services which are to be furnished by OWNER in accordance with Article 3, and services not otherwise provided for in this Agreement.

SECTION 3 - OWNER'S RESPONSIBILITIES

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

3.1 The Community Planning and Development Services Director or their designee shall act as OWNER'S representative with respect to the services to be rendered under this Agreement. The Community Planning and Development Services Director shall have complete authority to transmit instructions, receive information, interpret and define OWNER'S policies and decisions with respect to CONSULTANT'S services for the Project.

3.2 Assist CONSULTANT by placing at CONSULTANT'S disposal all available information pertinent to the Project including previous reports and any other data relative to the Project.

3.3 Examine all studies, reports, sketches, drawings, proposals and other documents presented by CONSULTANT, obtain advice of an attorney, insurance counselor and other consultants as OWNER deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of CONSULTANT.

3.4 Give prompt written notice to CONSULTANT whenever OWNER observes or otherwise becomes aware of any development that affects the scope or timing of CONSULTANT'S services.

3.5 Furnish or direct CONSULTANT to provide Additional Services as stipulated in paragraph 2.1 of this Agreement or other services as required.

SECTION 4 - PERIOD OF SERVICE

4.1 The CONSULTANT'S period of service shall complete the scope of work stated in Exhibit A by September 15, 2015, provided a written "Notice to Proceed" is issued by September 9, 2014. The CONSULTANT'S services shall be provided in general accordance with the schedule as defined in Exhibit B.

SECTION 5 - PAYMENTS TO CONSULTANT

5.1 Methods of Payment for Services and Expenses of CONSULTANT

5.1.1 *For Basic Services*. OWNER shall pay CONSULTANT for Basic Services rendered under Section 1 as detailed in Attached Exhibit A in an amount not-to-exceed **________________________________), including reimbursable expenses,** as detailed in attached Exhibit D "Cost Estimate".

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

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

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

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

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

5.2 Times of Payments

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

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

5.3 Other Provisions Concerning Payments

5.3.1 If OWNER fails to make any payment due CONSULTANT for services and expenses within forty-five (45) days after receipt of CONSULTANT'S statement the CONSULTANT may, after giving seven (7) days written notice to OWNER, suspend services under this Agreement until CONSULTANT has been paid in full all amounts due for services, expenses and charges.

5.3.2 In the event of termination by OWNER upon completion of any phase of Basic Services, progress payments due CONSULTANT for services rendered through such phase shall constitute total payment for such services. In the event of such termination by OWNER during any phase of the Basic Services, CONSULTANT also will be reimbursed for the charges of independent professional associates and consultants employed by CONSULTANT to render Basic Services incurred through such phase. In the event of any such termination, CONSULTANT will be paid for unpaid Reimbursable Expenses previously incurred.

5.3.3 The employees of CONSULTANT, professional associates and consultants, whose time is directly assignable to the program shall keep and sign a time record showing the element of the Project, date and hours worked, title of position and compensation rate.

5.3.4 *Records*. The CONSULTANT shall maintain an accurate cost keeping system as to all costs incurred in connection with the subject to this Agreement and shall produce for examination books of accounts, bills, invoices and other vouchers or certified copies there under if originals be lost at such reasonable time and place as may be designated by the OWNER and shall permit extracts and copies thereof to be made during the contract period and for three years after the date of final payment to CONSULTANT.

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

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

5.3.5 *Inspection of Work*. The CONSULTANT shall, with reasonable notice, afford OWNER or representative of OWNER reasonable facilities for review and inspection of the work in this Agreement. OWNER shall have access to CONSULTANT'S premises and to all books, records, correspondence, instructions, receipts, vouchers and memoranda of every description pertaining to this Agreement.

5.3.6 *Audits.* The CONSULTANT shall, with reasonable notice, afford representatives of the OWNER reasonable facilities for examination and audits of the cost account records; shall make such returns and reports to a representative as he may require; shall produce and exhibit such books, accounts, documents and property as he may determine necessary to inspect and shall, in all things, aid him in the performance of his duties.

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

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

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

5.4 Definitions

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

5.5 Ownership of Data

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

5.6 Publication and Release of Information

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

5.7 Acquisition of Property or Equipment

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

5.8 Independent Consulting and Subcontracting

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

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

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

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

5.9 Personnel Employment

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

5.10 Nondiscrimination/ADA

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

5.11 Claims

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

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

It is further agreed that any and all employees of either party, while engaged in the performance of any work or services, shall not be considered employees of the other party, and that any and all claims that may or might arise under the Worker's Compensation Act of the State of South Dakota on behalf of said employees, while so engaged on any of the work or services provided to be rendered herein, shall in no way be the obligation or responsibility of the other party.

5.12 Acceptance and Modification

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

5.13 Termination or Abandonment

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

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

SECTION 6 – GOVERNING LAW

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

6.1 Forum Selection

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

6.2 Compliance Provision

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

SECTION 7 – MERGER CLAUSE

This written agreement which includes the Request for Proposals and associated exhibits, to include Exhibit A Scope of Work, Exhibit B Schedule, Exhibit C Billing Rates, Exhibit D Cost Estimate and Appendix A constitute the entire agreement of the parties. No other promises or consideration are a part of this agreement.

SECTION 8 – COMPLIANCE WITH CLEAN AIR ACT

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

SECTION 9 – NON-DISCRIMINATION/AMERICANS WITH DISABILITIES ACT

The Metropolitan Planning Organization will comply with the requirements of Title 49, CFR Part 21 and Title VI of the Civil Rights Act of 1964, the latter identified as Appendix A, attached to and made a part of this Agreement. The Metropolitan Planning Organization will submit, upon request, quarterly Title VI (Civil Rights) State of Contractor reports to the STATE. The Metropolitan Planning Organization will provide services in compliance with the Americans With Disabilities Act of 1990, and any amendments.

SECTION 10 – CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

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

SECTION 11 – INSURANCE AND REPORTING

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

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

B. Professional Liability Insurance or Miscellaneous Professional Liability Insurance: CONSULTANT agrees to procure and maintain professional liability insurance or miscellaneous professional liability Insurance with a limit not less than $1,000,000.00.

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

C. Business Automobile Liability Insurance: CONSULTANT shall maintain business automobile liability insurance or equivalent form with a limit of not less than $500,000.00 for each accident. Such insurance shall include coverage for owned, hired and non-owned vehicles.

D. Worker's Compensation Insurance: CONSULTANT shall procure and maintain workers' compensation and employers' liability insurance as required by South Dakota law.

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

SECTION 12- REPORTING

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

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

SECTION 13 – DISCLOSURE TO REPORT LOBBYING

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

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

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

SECTION 14 - SEVERABILITY PROVISION

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

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

OWNER:

________________________ ____

Finance Officer Date Mayor Date

APPROVED AS TO FORM

____

Carla Cushman Date
Assistant City Attorney

STATE OF SOUTH DAKOTA

COUNTY OF PENNINGTON

On this ____ day of _________, 2014, before me, a Notary Public, personally appeared Sam Kooiker, Mayor of the City of Rapid City, and acknowledged to me that he did sign the foregoing document as such officer and for the purposes therein stated.

____
Notary Public

My Commission Expires:

____

(SEAL)

CONSULTANT:

BY:______________________________

STATE OF SOUTH DAKOTA

COUNTY OF PENNINGTON

On this _____ day of ______, 2014, before me, a Notary Public, personally appeared _______________, known to me to be a Principal of ____________________, and acknowledge to me that he did sign the foregoing document as such officer and for the purposes therein stated.

____
Notary Public

My Commission Expires:

____
(SEAL)

Address for Giving Notices:
City of Rapid City
Community Planning and Development Services
300 Sixth Street
Rapid City, South Dakota 57701

Professional Services Agreement
Scope of Services
Rapid City Origin and Destination Study

The study needs to include, but not be limited to, the following tasks:

TASK 1 – METHODS AND ASSUMPTIONS
The CONSULTANT shall facilitate a meeting to determine the assumptions to be used during the course of the study relating to the development of the LRTP and the update to the travel demand forecast model. Resulting from that meeting, the CONSULTANT shall develop a Methods and Assumptions Document in accordance with the *Methods and Assumptions Template for SDDOT Planning Studies*.

TASK 2 – STUDY ADVISORY TEAM MEETINGS
The CONSULTANT shall have a minimum of four (4) face to face meetings with the Study Advisory Team (SAT) for study coordination. The first meeting shall cover the project kickoff and the development of the Methods and Assumptions Document. Two (2) of these meetings are to be scheduled and held prior to each public meeting (can be held the same day) to gather the approval of the SAT on the information being presented. A fourth meeting should be held during the standards development phase of the study. Other meetings can be held as deemed necessary, and can be conducted via teleconference.

TASK 3 – WEBPAGE
The CONSULTANT team shall provide the MPO a webpage and a Facebook page dedicated to the study as it becomes available. The webpage and Facebook page will be organized in such a way that will help dispense information to the public regarding the status of the study, public meeting announcements, presentations, meeting summaries, and all reports. The webpage and Facebook page can be used to assist in data gathering through web surveys and for other public participation actions as deemed appropriate as long as adequate advertising can be provided. The pages will be active at least 10 days prior to the first public meeting and shall remain active for a period of at least six (6) months after completion of the study to allow public access to the final report.

TASK 4 – PUBLIC INVOLVEMENT
The CONSULTANT will develop a public involvement strategy for the long range transportation plan update. This strategy will be consistent with the MPO's *Public Involvement Plan* and an outreach program will be conducted to involve the elderly, persons with disabilities, minorities and low income community and other groups traditionally under-represented in the plan update process. Strategies to solicit input from the business, environmental and other communities of local significance will also be addressed.

4.1 Communication approaches to be used include the use of periodic newsletters, social media, and an Internet Web site. This site will be a direct link from the City of Rapid City's web site and will provide access to materials prepared during the plan update process. The CONSULTANT will develop and update the RapidTRIP 2040 website. The MPO will assume responsibility for the website upon completion of the study.

4.2 The CONSULTANT will work with the public, the MPO Advisory Committees and the MPO to develop a list of goals and objectives that will govern the development of the LRTP, including long-range and short-range strategies and actions consistent with state and local goals and objectives. The CONSULTANT will develop a process that will insure that the public has ample opportunity to provide input in developing the goals and objectives for the LRTP.

The CONSULTANT will develop draft goals and objectives that include a careful review of RapidTRIP 2035 goals and objectives adopted by the MPO. Efforts will be made to ensure that the goals and objectives of this update are consistent with other local and regional comprehensive plans.

The CONSULTANT will include performance based goals and targets consistent with MAP-21. This information will be provided to the public during the first series of public workshops. These workshops will be held at locations throughout the urbanized area.

4.3 The CONSULTANT will incorporate visualization techniques in the public participation process to describe various aspects of the long range transportation plan.

4.4 The consultant will compile data and prepare maps, graphs, or other visual aids for public presentations regarding the LRTP; and prepare agendas and conduct meetings for these presentations. The consultant will be required throughout the duration of the contract to attend necessary meetings to discuss the scope of work, negotiate the contract, and meet with the MPO and State study advisory team. The consultant shall attend a minimum of two public meetings in addition to the public workshops.

TASK 5 - DATA COLLECTION, MAPPING AND DATA DEVELOPMENT

The purpose of this task is to develop the maps, model networks and data files needed to validate and run the travel demand forecast model. Data inputs to the model include socioeconomic data in the form of ZDATA files and traffic counts.

5.1 DATA COLLECTION

CONSULTANT will collect datasets from the existing model and determine if they contain any usable information. CONSULTANT will collect, create, and/or compile datasets necessary to validate and calibrate the Rapid City Area travel demand forecast model. CONSULTANT will revise screenlines and cutlines as necessary. CONSULTANT will collect and utilize all necessary traffic count data. CONSULTANT will conduct a roadway inventory to develop a 2013 Highway System Network including facility type, number of travel lanes in each direction, presence of turn lanes, posted speed, functional classification and other information as necessary to update the existing travel demand forecast model. The roadway inventory will incorporate existing roadway inventory data for the state system from SDDOT and the City of Rapid City. The CONSULTANT will be responsible for the coding, reviewing, editing and debugging of the 2013 base year network.

5.1.1 The screenlines and cutlines developed for the previous Update will be revised as appropriate and used in the validation of the 2013 Base Year Model. The CONSULTANT will be responsible for the review and modification of the screenlines and cutlines.

5.1.2 The CONSULTANT is responsible for all traffic count data necessary to validate/calibrate the 2013 Base Year Model. Extensive traffic count data has been collected by the MPO, SDDOT, the City of Rapid City and other partner agencies. The data will be made available to the CONSULTANT. The CONSULTANT will review the traffic count data/locations for adequacy and shall adjust the counts to average weekday peak season counts. Seasonal adjustment factors for local roads developed by the MPO will be used where appropriate.

5.1.3 A revised highway network shall be developed by the CONSULTANT for the 2013 Base Year as necessary. The structure of this network will be consistent with the highway network for the previous update. This network must also include double digit coding to allow for more accurate facility type representation. The revised model network will incorporate changes to networks since the last plan update and add the highway network for the portions of Pennington County and Meade County that have been added to the MPO boundaries since the last update.

5.2 MAPPING

The CONSULTANT will be required to provide hard copy maps and digital copies of the data collected to MPO staff to facilitate the review and revision of the data prior to its use during model validation and calibration. Maps and data may include the study area boundary, the principal street system, traffic analysis zones (TAZ), the highway system network maps (link/node plots) and data files, the transit system network maps and data files and other such maps that will be used as working instruments.

All shapefiles are to be delivered to the MPO by the CONSULTANT in TransCAD format (version 6.0 or later) and in ESRI ArcMap shapefile format (Version 10.1 or later). Network maps will be in line format with all roadway and/or transit network attributes and shall be used on the City of Rapid City's Street Centerline File unless an alternative road dataset is agreed upon by MPO staff.

5.2.1 A new Traffic Analysis Zone (TAZ) Map will be developed for the Update. This task will be prepared by the CONSULTANT and provided to the MPO staff for review prior to model validation.

5.2.2 A Highway System Network Map shall be developed by the CONSULTANT for the 2013 Base Year Network and include double-digit coding for more specific facility and area type designations. The CONSULTANT will provide draft Highway System Network maps and data to MPO staff for review prior to model validation.

52.3 The development of all maps will be documented by the CONSULTANT

5.3 DATA DEVELOPMENT

The socioeconomic data developed for the Year 2040 Update will be prepared by MPO staff. Base year data (2013) will be developed by using information obtained from the 2010 Census, USA employment data, Chamber of Commerce Employment Statistics and Property Appraiser records where necessary.

The scope of services for this plan update will test and evaluate one future land use scenario. This scenario represents the most realistic forecast of where people will live and work in the MPO Area in the Year 2040 based upon currently adopted comprehensive plans.

The CONSULTANT will assist MPO staff in review of this data, perform necessary edit checks and make any corrections as may be required. Additionally, the CONSULTANT will deliver all ZDATA in TransCAD format (version 6.0 or later) and in ESRI ArcMap format (Version 10.1 or later) for the TAZ and boundary maps.

The CONSULTANT will obtain data relating to travel demand for airports, intermodal facilities, recreation areas, significant commercial activity centers and freight distribution facilities. The intent is to accumulate sufficient data suitable for analyzing the adequacy of "access" to such facilities. MPO staff and the CONSULTANT will coordinate the development of this list with the MPO member agencies.

The CONSULTANT will insure that all data is based upon the latest available estimates and assumptions for population, land use, travel, employment, congestion and economic activity.

5.3.1 **ZDATA1:** Population and household data for each model TAZ will be obtained from the following sources by MPO staff:

A. Base year (2013) population and housing data for each TAZ will be obtained from the 2010 U.S. Census and other sources where available for the following:

5. Population and the number of single-family and multi-family units;
6. Auto availability;
7. Percentage of vacant single-family and multi-family units; and
8. Population and number of single-family and multi-family units occupied by non-permanent residents.

This information will be cross referenced with 2013 Property Appraisers' parcel records.

E. Future year population forecasts will be developed by MPO staff and used as control totals for future population and provide a basis for estimating other socioeconomic factors, such as housing and employment.

F. The number of hotel/motel units will be obtained by MPO staff.

G. In the absence of local data, the Year 2010 Census data will be used for the percentage of vacant single-family and multi-family dwelling units (DUs).

5.3.2 **ZDATA2:** Base Year (2013) employment data will be developed by MPO staff for each TAZ, classified by type (service, commercial, industrial). This data will be verified using Property Appraiser records. Employment data will be cross referenced with the Chamber of Commerce's large employers database for consistency (as it relates to size and location).

B. Base Year (2013) public school enrollment will be obtained from the Pennington and Meade County School Boards.

5.3.3 **ZDATA3:** The CONSULTANT shall develop data for airports, universities, regional shopping malls, military installations, etc., which function as special generators. The identification of the special generators shall be initiated under this task in coordination with the MPO.

5.3.4 **ZDATA 4 and EETRIPS files** developed for the previous update will be reviewed and updated. The CONSULTANT will be responsible for updating the ZDATA4 and EETRIPS files based on the data obtained from the Origin-Destination Study.

5.4 DESIGNATION OF SCREENLINES

The screenlines and outlines developed for the previous Update will be revised as appropriate and used in the validation of the 2013 Base Year Model. The CONSULTANT will be responsible for the review and modification of the screenlines and outlines with approval by the SAT.

5.5 TRAFFIC COUNT DATA

The CONSULTANT is responsible for all traffic count data necessary to validate/calibrate the 2013 Base Year Model. Extensive traffic count data has been collected by the MPO and SDDOT and will be made available to the CONSULTANT. The CONSULTANT will review the traffic count data/locations for adequacy and shall adjust the counts to average weekday peak season counts. Seasonal adjustment factors for local roads developed by the MPO will be used where appropriate.

5.6 HIGHWAY NETWORKS

A highway network shall be developed by the CONSULTANT for the 2013 Base Year. This network will be compatible with TransCAD and the ArcMap GIS format. The structure of this network will be consistent with the highway network for the previous update. This network must also include double digit coding to allow for more accurate facility type representation and true shape format for graphical representation. The revised model network will incorporate changes to networks since the last plan update.

5.7 DATA PROJECTIONS

MPO staff will develop and project the socioeconomic data files (ZDATA1, ZDATA2) for the Year 2040. The CONSULTANT will be responsible for developing the ZDATA4 and EETRIPS Files for the Year 2040. MPO staff will also participate in this effort. In addition, representatives from other member agencies will also be invited to participate in developing this information.

TASK 6 – DATA REVIEW AND VERIFICATION

The primary purpose of this task is to review the model inputs and outputs to ensure that the data sets are adequate for planning purposes.

6.1 REVIEW ZDATA INPUTS

The CONSULTANT shall review the ZDATA to verify that it is in the standardized model format, is accurate, logical and properly coded. This review shall include the use of LUCHECK or similar software programs, as well as random manual checks. All errors and or deviations shall be corrected and documented by the CONSULTANT. MPO staff will be notified of all errors/corrections/changes.

6.1.1 The TAZ structure shall be analyzed by the CONSULTANT based on the number of productions and attractions generated. The necessary changes shall be made by *the* CONSULTANT to ensure a homogeneous TAZ structure in which zones are compatible as to the number of trips generated. The socio-economic data will also be checked for statistical validity and ratio comparisons.

6.1.2 The CONSULTANT shall incorporate special generators identified in Task 3.3.3 and ensure compatibility with all other socioeconomic data.

6.1.3 The CONSULTANT shall make all necessary changes related to the adjustments made to TAZ boundaries, including all the ZDATA Files and all the Network Files. All activities under this task shall be coordinated with the MPO, SDDOT, and City of Rapid City.

6.2 REVIEW 2013 HIGHWAY NETWORK

The CONSULTANT shall review the Highway Network for coding errors in facility types, area types, number of lanes and coordinates.

6.2.1 The review of the Highway Network shall also include the review of all turn prohibitors.

6.2.2 The CONSULTANT shall review the network to determine whether links should be added or deleted to obtain a better assignment and a better reflection of the actual travel pattern.

6.2.3 The CONSULTANT shall review the coding of Interstate facilities to ensure that directional links, ramp systems and interchanges are correctly coded.

6.2.4 Double digit coding will be used for area and facility type identification on all links.

6.2.5 All necessary corrections shall be made by the CONSULTANT and fully documented.

6.3 REVIEW 2013 TRAFFIC COUNT

The CONSULTANT shall review all traffic counts for accuracy and consistency. All traffic counts shall represent peak season weekday traffic and shall be reviewed by the SAT prior to model input.

The CONSULTANT will review the location and number of counts available to ensure that screenlines, cutlines and cordon lines are fully represented. The CONSULTANT will also review the number of counts available within each cell matrix for each facility and area type for the purpose of validation/calibration.

6.4 REVIEW TRIP GENERATION RATE

The CONSULTANT shall review trip rates (input files) in the study area for multi-family and single-family dwelling units in the Model.

The CONSULTANT shall review the trip rate on the total number of productions and attractions in the area. All ZDATA Files shall be double checked if the output of the generation step falls beyond the acceptable range of ten thousand trips per TAZ.

As previously referenced, the Origin-Destination Study is currently underway. Once this information is available, it will be used to help calculate trip rates and travel statistics specific to the Rapid City Area MPO.

6.5 REVIEW TRIP LENGTH DISTRIBUTION

The CONSULTANT shall review the trip length distribution curves for each trip purpose.

6.6 REVIEW AUTO OCCUPANCY RATES

The CONSULTANT shall compare the model auto occupancy rates to results of the 2010 U.S. Census and revise where necessary.

TASK 7 – MODEL UPDATE AND VALIDATION

The purpose of this task is to update, validate and calibrate the 2013 Base Year Model with year 2013 traffic counts. The CONSULTANT shall use the Rapid City Area MPO model, which includes the City of Rapid City, City of Box Elder, City of Piedmont, City of Summerset, and portions of Pennington and Meade Counties. The end product of this task will be a validated travel demand forecast model capable of forecasting and evaluating future travel demand for alternative highway networks using TransCAD. The entire validation process will be documented. Documentation will include flow charts and a step-by-step procedural guide for the complete model set and will identify all parameters specific to the travel demand forecast models. Details will be provided describing key decisions and conclusions from each step of the process, including trip generation, trip distribution, mode-split and traffic assignment to completion. The acceptable or tolerable range/limits for the various parameters generated in the model validation procedures that follow will be those established by the SDDOT and Federal Highway Administration. The CONSULTANT will provide all associated files in a format compatible with TransCAD.

7.1 VALIDATE EXTERNAL TRIPS

The CONSULTANT shall review and, if necessary, update the ZDATA4 and EETRIPS files developed for the Year 2040 Update.

7.1.1 The CONSULTANT shall perform a Base Year assignment using Year 2013 ZDATA4 and EETRIPS Files. Results of this model run will be reviewed by the CONSULTANT to compare the volume/count ratio on the cordon line capturing the links connecting to the external stations to actual counts.

7.1.2 The CONSULTANT shall compare the projected 2040 volumes at the external stations with the growth rates of the adjacent counties, as well as the historical growth rate at the count stations. Adjustments to the ZDATA4 and EETRIPS files will be made as necessary.

7.2 VALIDATE THE TRIP GENERATION MODEL

The CONSULTANT shall review and, if necessary, update the input files developed for the Year 2040 Update. All revisions will be documented in the accompanying technical memorandum.

7.2.1 Based on the results of the distribution and assignment process, the CONSULTANT shall identify the special generators. The output of the Trip Generation Model will be analyzed at the TAZ level, as well as at the regional level.

At the TAZ level, the CONSULTANT shall review the total number of productions and attractions generated by the Year 2040 Model and review and refine the Standard Trips Generation Model, to ensure a proper zone size and trip range per zone.

7.2.2 At the regional level, the CONSULTANT shall conduct an analysis to ensure a direct correlation between land use and the relative number of productions and attractions. The total number of unadjusted attractions relative to the total number of adjusted attractions (productions) shall be compared with the Institute of Transportation Engineers (ITE) ratios and other national ratios, as will the percentage of total trips, by purpose, of the total number of trips produced.

7.2.3 The statistical information provided as part of the Trip Generation Model output, such as total permanent population, total number of employees, number of dwelling units, truck generation by class etc. shall be checked against Census information and other local data. In addition, all ratios such as number of persons per dwelling unit will be checked against national ratios. Any major deviations from the above mentioned totals and/or ratios shall be traced back to the ZDATA1 and/or ZDATA2 File(s) and researched, corrected and/or documented in the Technical Memorandum.

7.3 VALIDATE THE TRIP DISTRIBUTION MODEL

The CONSULTANT shall validate the trip distribution model. This process will be documented and will identify major revisions to model input files necessary to meet the identified minimum thresholds.

7.3.1 The CONSULTANT shall review and document the percentage of intrazonal trips and ensure that no trip purpose exceeds the five percent (5%) threshold. If there are purposes that exceed this threshold, the CONSULTANT shall analyze the trip distribution patterns at the District and TAZ Levels.

7.3.2 The CONSULTANT shall summarize the output of the Distribution Model at the District Level in order to identify the origin-destination pairs. This summary shall be checked for consistency with the land use in each planning district.

7.3.3 The CONSULTANT shall review the assigned volumes on the links adjacent to special generators and check them against existing counts. Based on the magnitude of difference, the assignment will be iteratively adjusted by adding or subtracting trips from the special generator in the ZDATA3 File. The accepted method to code the ZDATA3 File is described in TASK B, Review and Refinement of Standard Trip Generation Model.

7.3.4 Once the ZDATA3 File is adjusted, the CONSULTANT shall check the volume/count ratio on all screenlines, cut lines and cordon lines. In addition, the volume/count ratios within all matrices will be checked for all facility and area types.

The CONSULTANT will then make all necessary adjustments to all network and/or data files to obtain a proper distribution.

7.4 VALIDATE THE HIGHWAY ASSIGNMENT MODEL

7.4.1 The CONSULTANT shall validate the highway assignment model. The CONSULTANT shall be responsible for all necessary corrections to be made to the data and network files in order to obtain a proper highway assignment.

7.4.2 The CONSULTANT shall check the highway assignment against the actual ground counts throughout the highway network and check the accuracy of the highway assignment against the volume/count ratios grouped by facility type, area type, vehicle miles traveled and vehicle hours traveled.
The CONSULTANT will refer to the existing documentation for allowable percentage of deviation of assignment versus count and compare to model results. If necessary, corrections to the appropriate files will be made to obtain a proper assignment.

7.4.3 The CONSULTANT shall run color coded plots listing the volume/count ratios by link to be reviewed for errors. The plots shall be color coded in four (4) groups as follows: less than 0.50, 0.51 to 0.85, 0.86 to 1.0, and over 1.0. If discrepancies are found in a particular district and/or along certain corridors, the network shall be checked for errors such as loadings of centroid connectors, possible errors in the Turn Prohibitor File, ZDATA File errors, etc. The CONSULTANT shall make all necessary corrections to obtain a proper assignment,

7.5 FINAL MODEL VALIDATION

7.5.1 The CONSULTANT shall perform a highway only run using the base year network and the socioeconomic dataset for Year 2040.

7.5.2 The CONSULTANT shall summarize the output of the generation and distribution steps by district and compare them with the Base Year 2013 socio-economic data. Screenline projections, Base Year counts and historical growth rates will be compared.

4.5.3 The CONSULTANT shall review all of the model output data with the SAT pointing out any inconsistencies or errors in the socioeconomic data at each step of the calibration and validation of the model.

TASK 8 – YEAR 2040 TRANSPORTATION NEEDS PLAN AND FISCALLY CONSTRAINED PLAN

The purpose of this task is to develop a long range transportation plan that identifies the transportation system modifications required to meet future year mobility demands. This will be accomplished through the development of a Year 2040 Needs Plan that identifies highway modifications.

A Year 2040 Fiscally Constrained Plan will also be developed by ranking projects within a fiscally constrained plan. Those projects for which financial resources cannot be identified shall be included in a list of unfunded transportation needs. This plan builds upon the Needs assessment to select a list of projects that can be funded with available revenue sources.

Both the Year 2040 Needs Plan and the Year 2040 Fiscally Constrained Plan will include narrative descriptions of the "major" and more significant projects in the Plan. Any preliminary engineering studies and NEPA phases shall also be included in the LRTP.

8.1 NETWORK CODING, EDITING AND DEBUGGING

The CONSULTANT will be responsible for the coding, review, editing and debugging of all networks leading to an adopted Year 2040 Fiscally Constrained Plan. These networks will include the Year 2018 Existing Plus Committed Network and the Year 2040 Needs Plans and the Year 2040 Fiscally Constrained Plan.

8.2 DEVELOPMENT OF THE YEAR 2018 EXISTING PLUS COMMITTED NETWORK

8.2.1 The Year 2018 Existing Plus Committed (E+C) Network will be developed by the CONSULTANT by coding all projects listed for construction by the Year 2018 in the MPO Transportation Improvement Program (TIP) to the Base Year Networks.

8.2.2 The CONSULTANT shall also review the Rapid City Transit Development Plan for transit related ridership and operational information.

8.2.3 Only projects for which federal, state, local or private funding for construction, or for the acquisition of right-of-way (and assumed to be completed and open to traffic in 2018), will be identified and included in the E+C Network.

8.2.4 The CONSULTANT shall make an "all or nothing" assignment to the Year 2018 E+C Network and include a Year 2040 Trip Table to determine the deficiencies on the highway and transit networks that will occur by the Year 2040.

8.3 DEVELOPMENT OF THE YEAR 2040 NEEDS PLAN

8.3.1 The CONSULTANT will use the following information to develop the Year 2040 Needs Plan:

M. the South Dakota Strategic Highway Plan
N. Pennington County and Meade County Transportation Plans
O. Rapid City Transit Development Plan
P. Box Elder Strategic Transportation Plan
Q. Rapid City Area Bicycle and Pedestrian Master Plan
R. Plan Rapid City
S. 2010 SDDOT Decennial Interstate Corridor Study
T. I-90 Exit 59 (La Crosse Street) Interchange Options Study
U. SDDOT LRTP
V. Coordinated Public Transit-Human Services Transportation Plan
W. Meade County High Meadows Road Access, Traffic Analysis, and Route Alignment Study: and,
X. Other studies as available

8.3.2 A Preliminary Needs Plan will be developed by running 2040 ZDATA with the 2018 Existing Plus Committed Network and identifying facilities with a volume/capacity (v/c) ratio of 0.9 or greater. The CONSULTANT and SAT will review the facilities identified during this task. At the option of the SAT, the CONSULTANT will use NCHRP-255 to smooth and adjust the travel demand outputs for identified facilities as necessary. Strategies and needs addressing transit, bicycle and pedestrian travel, freight, and performance based planning and performance measures as required by MAP-21 shall also be included.

8.3.3 A Constrained Needs Plan will be developed by identifying facilities in the Preliminary Needs Plan which cannot be improved for any of the following reasons:

F. The impact widening of the road would have on the community;
G. The geography or development of the area causes a project to be too difficult or expensive;
H. The road is already as wide as allowed by state or local policies;
I. The potential impact to a designated historic district, subject to mitigation strategies; or
J. The potential impact on environmentally sensitive lands, subject to mitigation strategies.

Constrained facilities will be eliminated from the Needs Plan (for consideration of highway modifications only) prior to development of subsequent alternatives.

8.3.4 A network will be created that includes highway related modifications that expand the grid network of roads.

8.3.5 The CONSULTANT shall coordinate the development of the Needs Plan process, including selection of the final Year 2040 Needs Plan, with the SAT. The criteria by which the alternative needs plans will be evaluated shall include:

C. Requirements of MAP-21 and appropriate rules issued by FHWA and FTA.
D. The Goals and Objectives established for this Study.

8.3.6 The analysis of the Needs Plan will include sufficient information to understand the composition of the identified need. The CONSULTANT will develop cost estimates for Needs Plan projects that include all costs (operations, maintenance, capacity expansion, etc.) in year of expenditure dollars. The CONSULTANT will use South Dakota Department of Transportation adopted estimates of inflation to adjust costs from present day costs to year of expenditure costs.

8.3.7 Presentation materials, including graphics and support documentation for the Year 2040 Needs Plan Alternatives, will be prepared by the CONSULTANT and presented to the Citizens Advisory Committee (CAC), the Technical Coordinating Committee (TCC), and the Executive Policy Committee (EPC).

8.3.8 A proposed Year 2040 Needs Plan will be developed by the SAT to take to a public meeting/open house.

8.3.9 The CONSULTANT, in cooperation with MPO Staff, shall present the proposed Year 2040 Needs Plan at the MPO public meeting/open house and include a discussion of the process by which the plan was developed.
The CONSULTANT shall prepare presentation materials that will include graphics, visual aids and handout materials.

8.3.10 The Needs Plan will be screened for environmental issues. The process includes the development of a GIS shape file by the CONSULTANT that contains the line-work for the proposed roadway projects. These projects would be major capacity improvements, new alignments including recommended changes to the adopted Major Street Plan, major interchange modifications, bridge replacements, and projects identified as regionally significant. In addition to the creation of an ArcMap shapefile, a spread sheet will be prepared by the CONSULTANT with the project identification number, roadway name and beginning and end points (locations).

This data will be used as a first level environmental screening for Needs Plan projects. When a list of Needs Plan projects that will be likely candidates for the Fiscally Constrained Plan is available a meeting will be held with the resource agencies to gather input on the proposed plan.

8.4 RANKING OF PROJECTS AND PROGRAMS IN THE YEAR 2040 NEEDS PLAN

8.4.1 The CONSULTANT shall develop a methodology to rank projects and programs in the Year 2040 Needs Plan and shall coordinate the ranking process with the SAT. All projects and programs included in the adopted Year 2040 Needs Plan will be ranked based on the following criteria:

F. Existing level of service;
G. Performance Measures and targets:
H. Safety rankings that consider historic crash data including bicycle and pedestrian data, ability to manage traffic as an incoming emergency evacuation route from coastal counties and compatibility to non-motorized travel;
I. Consistency with the LRTP goals and objectives established through the public involvement process;
J. Forecast travel demand for the Year 2040;

H. Cost estimates (in base year dollars) and the scheduled availability of funding; and

I. Assessment of the distribution of social, cultural and environmental benefits and adverse impacts of proposed long range transportation plan projects on various socioeconomic groups.

8.4.2 The CONSULTANT shall prepare and distribute a list of the project rankings to the SAT for comment and the MPO for review and approval. The list will include project rank, as well as the ranking factors, for each proposed project. Any modifications by the MPO will be incorporated into the Adopted Year 2040 Needs Plan.

8.5 DEVELOPMENT OF THE YEAR 2040 FISCALLY CONSTRAINED PLAN

Upon the approval of the Year 2040 Needs Plan by the MPO, the proposed Year 2040 Fiscally Constrained Plan will be developed based on the financial resources and the cost analysis. The CONSULTANT will use evaluation criteria established earlier as a basis for ranking projects to be considered in the Fiscally Constrained Plan.

The CONSULTANT will include an estimate of the cost of all projects and all phases, in year of expenditure dollars. The CONSULTANT will also clearly state in the proposed Year 2040 Fiscally Constrained Plan the costs of operating and maintaining the existing and future transportation system. According to FHWA and SDDOT guidelines, the Year 2040 Fiscally Constrained Plan will be the final plan presented to the MPO for adoption.

8.6 FINANCIAL RESOURCES

The CONSULTANT will be responsible for the accumulation and aggregation of information regarding existing and projected funding sources for modifications outlined in the Year 2040 Needs Plan that will be used in the development of the Year 2040 Fiscally Constrained Plan. The CONSULTANT shall develop estimates of funds that will be available to support Year 2040 Fiscally Constrained Plan implementation with the SDDOT.

8.6.1 IDENTIFY AND PROJECT AVAILABLE RESOURCES
Historical financial information relative to the funding of transportation services within the study area will be obtained from appropriate federal, state, and local agencies. Based on this historical information and the planning data forecast prepared in the development of the ZDATA, potential financial resources will be forecasted for the Year 2040. The CONSULTANT will report future revenues by funding category. Included in this information, will be financial information from the latest adopted MPO Transportation Improvement Program.

8.6.2 IDENTIFY SYSTEM OPERATIONS, MAINTENANCE AND CAPITAL COSTS
The CONSULTANT will confirm revenues and costs related to system operations and maintenance activities covered in the long range transportation plan. The financial plan will contain system-level estimates of costs and revenue sources that are reasonably expected to be available to operate and maintain highways and public transportation.

8.6.3 IDENTIFY NEW PROJECT FUNDING SOURCES
The funding available for new projects is the difference between the funds reasonably expected to be available for transportation modifications minus the funds required to construct committed projects and those funds required to operate and maintain the transportation system. This difference will be the funding available to develop the Year 2040 Fiscally Constrained Plan.

8.6.4 IDENTIFY AND PROJECT POTENTIAL FUNDING SOURCES
Alternative funding sources such as bonds, transit fares, tolls, special taxing districts, impact fees and local option gas tax shall also be investigated and will be included in the final report by the CONSULTANT as potential funding sources

for projects not included in the Year 2040 Fiscally Constrained Plan. All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified.

Should any of these alternatives sources be recommended to fund projects in the Year 2040 Fiscally Constrained Plan, strategies to ensure the availability and commitment of these sources will be included as part of the recommendation. These "strategies" must include a plan of action describing the steps necessary to enact the sources. The analysis will discuss past successes or failures to secure similar funding sources.

TASK 9 – REPORTS AND MEETINGS

The consultant will provide local and state representatives with fifteen (15) copies of the draft Long Range Transportation Plan prior to completion of final draft reports. The draft will include an executive summary, preliminary findings and recommendations, and any other information developed as part of the study. The consultant shall review and become familiar with the requirements of the Federal Highway Administration which pertain to metropolitan transportation planning and federal aid road projects; and, include all necessary items in the report to satisfy those requirements.

The consultant will provide originals of revised draft reports throughout the public meeting and comment process. Staff of the Rapid City Area Metropolitan Planning Organization will cover the reproduction of documents during first and second draft reviews. The consultant will provide fifteen (15) final reports of the analysis for submittal to the South Dakota Department of Transportation, Federal Highway Administration, and local governments for use in the planning process.

The consultant shall be required to present the draft and final reports of the Long Range Transportation Plan Update to the Rapid City Council, the Citizen's Advisory Committee, the Technical Coordinating Committee, and the Executive Policy Committee.

TASK 10 – DELIVERABLES

The consultant shall provide the following items to the MPO contact person:

- Study Updates in word processing format (Microsoft® Word) or as Portable Document Format (Adobe® .pdf) of the study's progression due November 14, 2014, January 16, 2015, March 13, 2015, and May15, 2015. If the study completion date needs to be extended, study updates will be expected around the 15th of every other month beginning on July 15, 2015 until submittal of the draft final report.
- A GIS shapefile (ESRI ArcMap® *.shp, version 10.1 or higher) and a TransCAD geographic file (version 6.0 or higher) of the final Major Street Plan in State Plane coordinate system (NAD 1983, South Dakota South) compatible with the City of Box Elder's and Meade and Pennington Counties' existing coordinate system.
- An electronic copy, in word processing format (Microsoft® Word) and Portable Document Format (Adobe® .pdf), of the draft final report and executive summary.
- Fifteen (15) printed copies of the final report and executive summary
- An electronic copy, in word processing format (Microsoft® Word) as and Portable Document Format (Adobe® .pdf), of the complete final report and the complete executive summary.
- Copies of any pertinent working papers and electronic files created during the project.

Professional Services Agreement
Assurances

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

(1) Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended (hereinafter referred to as the “Regulations”), incorporated by reference and made a part of this contract.

(2) Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, religion, national origin, sex, age or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

(3) Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor’s obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, religion, national original, sex, age or disability.

(4) Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the South Dakota Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the South Dakota Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain this information.

(5) Sanctions for Noncompliance: In the event of the contractor’s noncompliance with the nondiscrimination provisions of this contract, the South Dakota Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including but not limited to:

(a) withholding of payments to the contractor under the contract until the contractor complies, and/or
(b) cancellation, termination or suspension of the contract, in whole or in part.

(6) Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives pursuant thereto.

The contractor shall take such action with respect to any subcontract or procurement as the South Dakota Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for non-compliance. Provided, however, that, in the event of a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the South Dakota Department of Transportation to enter into such litigation to protect the interest of the State, and, in addition, the contractor may request the United States to enter such litigation to protect the interests of the United States.

Professional Services Agreement
Debarment

CERTIFICATION FOR DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

The CONSULTANT certifies to the best of its knowledge and belief that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;

2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statement, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental agency(federal, state or local) with commission of any of the offenses listed in paragraph (2) of this certification; and

4. Have not within a three-year period preceding this application had one or more public transactions (federal, state or local) terminated for cause or default.

The CONSULTANT certifies that if it becomes aware of any later information that contradicts the statements of paragraph (1) through (4) above, it will promptly inform the City of Rapid City.

Attachment C

Methods and Assumptions Process

METHODS & ASSUMPTIONS PROCESS TEMPLATE

FOR PLANNING STUDIES WITHIN A MPO

THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

IN CONJUNCTION WITH

THE FEDERAL HIGHWAY ADMINISTRATION

May 29, 2012

Methods and Assumptions Process Template for Planning Studies within a MPO

The Methods and Assumptions (M&A) process is the formalized practice of developing and recording the data criteria, data assumptions, data collection procedures, data analysis methodologies, and data measures of effectiveness that will be needed in a federally funded planning study. This process only pertains to planning studies utilizing Federal Statewide Planning & Research (SPR) and/or MPO Planning (PL) funds where the SDDOT has oversight.

The M&A process is to be dynamic, and should be revisited when changed conditions warrant. The process should result in the highest level of success for SDDOT and MPO planning studies by providing for an early agreement on details and documentation of the processes, dates, and decisions made by the study analysis team.

The process consists of two steps:

1. The Methods & Assumptions Meeting
2. The Methods & Assumptions Document

Methods and Assumptions Meeting

A Methods and Assumptions meeting is to be held near the beginning of the study, usually after the study's kick-off meeting. The meeting shall be held prior to beginning any traffic analysis and preferably prior to any traffic data collection by consultant forces. The meeting is to be organized by the consultant (or the responsible agency if being done in-house) and attended by at least one member from the Study Advisory Team representing a signatory agency to the Methods and Assumptions document.
The meeting shall discuss the proposed traffic analysis tool(s) and approach to be used, the study area, time period(s) for analysis, traffic data availability and collection need, planning design year, opening date (if known), travel demand forecasts, baseline conditions, planning design year conditions, measures of effectiveness, and model calibration confidence level.

If the study involves the creation of an Interchange Justification Report (IJR) and/or Interchange Modification Justification Report (IMJR), the meeting should also discuss how much detail will need to be included in each of FHWA's eight policy points for Interstate access modification.

Methods and Assumptions Document

The Methods and Assumptions document will be developed as a summation of the Methods and Assumptions Meeting and also serves as a historical record of the process, dates, and decisions made by the study team at that meeting.

The following information should be part of a Methods and Assumptions Document. The document shall provide sufficient detail and clarified with graphics, tables, maps, analyses, and supporting documentation when necessary. The document shall meet the satisfaction of all signatory parties. The consultant team shall not proceed with any study activities beyond data collection until receipt of a fully signed Methods and Assumptions Document.

1. Methods and Assumptions Cover Page

The Cover Page shall at a minimum contain the Study Title, the Author(s)'s Name and Firm(s), and the date of the Methods and Assumptions meeting.

If the Methods and Assumptions document needs to be amended, the cover page should, in addition to above, show the amendment number and the amendment date for each amendment.

2. Stakeholder Acceptance Page

The page following the cover page of the Methods and Assumptions document shall be the Signature Acceptance page. It should state at the beginning of the page:

"The undersigned parties concur with the Methods and Assumptions for the <Title of Study> as presented in this document."

MPO:	SDDOT:
________________ Signature	________________ Signature
________________ Title	________________ Title
________________ Date	________________ Date

FHWA:

____
Signature

____
Title

____
Date

If the Methods and Assumptions document needs to be amended, the stakeholder acceptance page shall include another set of signature blocks led by the statement:

"The undersigned parties concur with Amendment <#> to this document."

The following notes, if agreed by the Methods and Assumptions meeting participants, may go at the bottom of the signature page:

(1) Participation on the Study Advisory Team and/or signing of this document does not constitute approval of the <Title of Study>'s Final Report or conclusions.

(2) All members of the Study Advisory Team will accept this document as a guide and reference as the study progresses through the various stages of development. If there are any agreed upon changes to the assumptions in this document a revision will be created, endorsed and signed by all the signatories.

3. Introduction and Project Description

The document should begin with a description of the study and include:

- Background Information,
- Location,
- Need for Study,
- Study Schedule,
- Facilities that will be affected by the study,
- Previous Studies,
- Study Advisory Team members,

This section should also define the complexity of the study.

4. Study Area

The study area defined by the Study Advisory Team in the Request for Proposal document shall be discussed and verified at the Methods and Assumptions meeting. The Methods and Assumptions document will clarify the study area boundaries on a map and include a written description of affected interchanges, intersections and streets. The document shall identify specific intersections and interchanges within the study area that will be analyzed and to what level.

5. Analysis Years/Periods

Design / Operational analysis should be included for existing conditions (base year), any interim periods (as defined by the Study Advisory Team), and the planning design year (should be at least a planning horizon of 20 years) for design periods including AM and PM peak periods and any other special periods (such as special events) if relevant. The years shall be discussed and documented. For studies with a known project construction year (such as an IJR / IMJR study), the planning design year shall be a minimum of 20 years from the project construction year.

6. Data Collection

The data believed to be necessary for successful completion of the study should be discussed at the Methods and assumptions meeting. The Methods and Assumptions document will:

- Describe what existing data is readily available and the source(s) of the data.
- Document and justify what data will need to be collected.
- Document and justify when the data will be collected.
- Document and justify the methods of data collection to be used.

7. Traffic Operations Analysis

Describe what software and version will be used for analysis or modeling of traffic operations. The most recently released version of any software as of the date of the Methods and Assumptions document's creation should be used.

Document what analysis variables will need to be collected and verified and which analysis variables will use data defaults. Document and justify the value of the data default to be used.

8. Travel Forecast

Document what regional traffic model or trend line analysis will be used to take into account historical/projected growth rate, describe the methodology and process to be used in developing the forecast and the calibration/validation efforts that will be used (including benchmarks). Also, describe if these models are in the process of being updated at the time of publication of the methods and assumptions document. Document the assumptions that may be required if any of the regional models are in transition.

9. Safety Issues

Describe the time frame from which the crash data will be analyzed and deemed relevant to the report. And, identify other safety risks to be explored during the study.

10. Selection of Measures of Effectiveness (MOE)

Document which metrics will be goals for the study to accomplish. Target levels for each MOE used should be recorded.

If applicable, it should be noted which metrics and/or goals are to be for the entire study area and which metrics are for specific corridors and/or intersections.

11. FHWA Interstate Access Modification Policy Points

For when the study involves and/or results in an Interchange Justification Report (IJR) and/or Interchange Modification Justification Report (IMJR), a section should document the amount of detail the study will address for each of the eight (8) FHWA policy points regarding modifications to Interstate access.

12. Deviations/Justifications

Briefly discuss any potential known deviations from standards, why they may be necessary and the possible justifications that may be applied.

13. Conclusion

State why and how what is proposed will satisfy the study need.

14. Appendices

Include all supporting documentation, maps, and memos associated with the Methods and Assumptions meeting and/or document.