

**AGREEMENT BETWEEN  
THE CITY OF RAPID CITY, REPRESENTING THE RAPID CITY AREA  
METROPOLITAN PLANNING ORGANIZATION  
and  
TRANSYSTEMS CORPORATION CONSULTANTS  
FOR PROFESSIONAL SERVICES**

THIS AGREEMENT is made this \_\_\_\_\_ day of \_\_\_\_\_, 2001, by and between the City of Rapid City, representing the Rapid City Area Metropolitan Planning Organization (hereafter referred to as "CLIENT") and TRANSYSTEMS CORPORATION CONSULTANTS (hereafter referred to as "TRANSYSTEMS").

Whereas CLIENT intends to **complete a Travel Demand Forecasting Model Update, as more fully described in the Project Understanding section set forth on Exhibit A attached hereto and incorporated herein by this reference.**

Whereas CLIENT desires to engage TRANSYSTEMS to provide and perform certain professional services in connection the Project and TRANSYSTEMS desires to provide and perform said professional services, all on the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing and their mutual covenants hereinafter set forth, CLIENT and TRANSYSTEMS agree as follows:

**SECTION 1  
BASIC SERVICES OF TRANSYSTEMS**

**SECTION 1.1. Basic Services.** In connection with the Project, TRANSYSTEMS shall provide for CLIENT the professional services and perform, furnish or obtain from others the work and services described and referred to in Exhibit A, attached hereto and incorporated herein by reference (collectively the "Basic Services"). TRANSYSTEMS shall provide the Basic Services for CLIENT in all phases of the Project to which this Agreement applies, all as more particularly set forth in Exhibit A.

**SECTION 1.2. TRANSYSTEMS' Duties.** In addition to the general duties, obligations and responsibilities set forth elsewhere in this Agreement, the specific duties and responsibilities of TRANSYSTEMS in performing the Basic Services under this Agreement are set forth in Exhibit A.

## **SECTION 2 ADDITIONAL SERVICES OF TRANSYSTEMS**

**SECTION 2.1. Additional Services.** In connection with the Project, TRANSYSTEMS may be called on to perform, provide, furnish or obtain from others services or work which are not part of, or are in addition to, the Basic Services (“Additional Services”). If authorized in writing by CLIENT and agreed to by TRANSYSTEMS, TRANSYSTEMS shall perform, provide, furnish or obtain from others the agreed upon Additional Services. TRANSYSTEMS shall not be obligated to perform, provide, furnish or obtain any Additional Services without the prior written authorization of CLIENT. Except to the extent expressly provided otherwise in Exhibit A or as otherwise agreed in writing by the parties hereto, compensation to TRANSYSTEMS for Additional Services will be paid for by CLIENT as indicated in Section 5.

Additional Services may be any service or work not included as part of the Basic Services and may include, but are not limited to, services or work in connection with environmental or funding assistance, investigations not specifically required herein, services resulting from changes in the scope, extent or character of the project, providing renderings or computer models, services to develop alternate bids or sequencing of work, outside consultant services not specifically required herein, out-of-town travel, and preparing to serve or serving as a consultant or witness in any litigation, arbitration or other legal or administrative proceeding. “Basic Services” and “Additional Services” are sometimes collectively referred to herein as “Services”.

### **SECTION 2.2. Changes in the Services.**

**SECTION 2.2.1 Agreed Upon Changes in the Services.** It is the desire of the parties to keep changes in the Scope of Services at a minimum, but the parties recognize that such changes may become necessary and agree that CLIENT may initiate deletions, modifications or changes to the Services by advising TRANSYSTEMS in writing of the change believed to be necessary. As soon thereafter as practicable, TRANSYSTEMS shall prepare a cost estimate of the change and shall inform CLIENT of the adjustment in the compensation due TRANSYSTEMS under Section 5 hereof (“TRANSYSTEMS’ Compensation”) and/or the Completion Date set forth in Section 4 hereof, if any, applicable to such requested change. CLIENT shall then advise TRANSYSTEMS in writing of its approval or disapproval of the change. If CLIENT approves the change, a written contract amendment shall be executed by both parties and TRANSYSTEMS shall perform the Services as changed and the adjustment in TRANSYSTEMS’ Compensation and/or the Completion Date set forth in the executed contract amendment shall become effective. TRANSYSTEMS may initiate changes in the Services by advising CLIENT in writing that in its opinion a change is necessary. If CLIENT approves, it shall so advise TRANSYSTEMS and, thereafter, the change shall be handled as if initiated by CLIENT. If a change is not approved, or if a written contract amendment is not executed, by both CLIENT and TRANSYSTEMS, the change shall not become effective and TRANSYSTEMS shall not be obligated to perform the change.

### **SECTION 2.2.2 Constructive Changes and Other Additional Costs.**

In the event of (1) the CLIENT's addition to, modification or change of or deletion from the Services to be performed by TRANSYSTEMS (other than additions, modifications, changes or deletions handled through the provisions of Section 2.1 or Section 2.2.1 above); (2) a request for or approval from CLIENT of performance of Services in excess of TRANSYSTEMS' standard work day or work week or such shorter times as are provided by applicable collective bargaining agreements, or on a holiday customarily observed by TRANSYSTEMS; (3) the discovery of any subsurface or other conditions, which differ materially from those shown in or reasonably inferable from the documents or other information on which this Agreement is based and/or those ordinarily encountered and generally recognized as inherent in the locality of the Project; (4) a modification of applicable law by which TRANSYSTEMS is required to pay increased or additional taxes, government-regulated transportation costs, insurance or other amounts which are not required as of the date of this Agreement; (5) delay, suspension of, acceleration of or interference with, TRANSYSTEMS' performance of the Services by CLIENT or by any other person or entity including, but not limited to national, state or local governments; (6) wage, benefit or payroll tax increases due to governmental action or area agreements; (7) modification to or delay in furnishing design criteria or other information supplied by any person or entity, other than TRANSYSTEMS, if TRANSYSTEMS' performance of the Services under this Agreement depends upon such criteria or information; and/or (8) any other increase in TRANSYSTEMS' costs, or the time required for completion of the Services due to "Force Majeure Event" as set forth in Section 4 hereof, a change in applicable law or any other cause beyond TRANSYSTEMS' reasonable control, then the TRANSYSTEMS' Compensation and/or the Completion Date, if any, shall be equitably adjusted and TRANSYSTEMS shall be paid, and TRANSYSTEMS' Compensation shall be adjusted by, an amount equal to the additional costs to TRANSYSTEMS resulting therefrom.

## **SECTION 3 CLIENT'S RESPONSIBILITIES**

CLIENT shall do the following in a timely manner so as not to delay the performance of the Services by TRANSYSTEMS:

**SECTION 3.1. CLIENT Representative.** Designate a person to act as CLIENT's representative with respect to the Services to be rendered under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret, and define CLIENT'S policies and decisions with respect to TRANSYSTEMS' Services for the Project.

**SECTION 3.2. Project Information.** Provide all criteria, all available information pertinent to the Project, and full information as to CLIENT'S requirements for the Project. CLIENT agrees that TRANSYSTEMS shall be entitled to rely upon all such information and the accuracy thereof.

**SECTION 3.3. Project Access.** Arrange for access to and make all provisions for TRANSYSTEMS to enter upon public and private property as required for TRANSYSTEMS to perform services under this Agreement.

**SECTION 3.4. CLIENT Participation.** Examine all studies, reports, sketches, drawings, specification, proposals, and other documents presented by TRANSYSTEMS, obtain advice of an attorney, insurance counselor and other consultants as CLIENT deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of TRANSYSTEMS.

**SECTION 3.5. Notices.** Give prompt written notice to TRANSYSTEMS whenever CLIENT observes or other wise becomes aware of any development that affects the scope or timing of TRANSYSTEMS' Services, or any defect or non-conformance in the Services by TRANSYSTEMS (or its independent professional associates or consultants) or in the work of any contractor or other party performing or providing work or services in connection with the Project.

**SECTION 3.6. Additional Services.** When CLIENT deems it necessary or appropriate for Additional Services to be performed in connection with any phase of the Project, CLIENT shall furnish or direct TRANSYSTEMS to provide, Additional Services as stipulated in Section 2 of this Agreement or other services as required.

**SECTION 3.7. Licenses, Permits, etc.** Provide TRANSYSTEMS with any necessary governmental allocations or priorities, obtain all permits and licenses required to be taken out in the name of CLIENT which are necessary for the performance of the Services and, except where such permits, processes or licenses are by the terms of Exhibit A the responsibility of TRANSYSTEMS, obtain any permits, processes and other licenses which are required for the Project or the Services;

**SECTION 3.8. Other Duties.** Perform any other duties, obligations or responsibilities of the CLIENT set forth elsewhere in this Agreement, including, but not limited to, the obligation to make the payments called for under Section 5 hereof and perform any responsibilities and duties of the Client which may identified on **Exhibit A**, if any.

**SECTION 3.9. Taxes.** Pay for and be responsible for all taxes incurred in connection with the Project, regardless of whether such taxes are assessed against CLIENT, TRANSYSTEMS or others.

**SECTION 3.10. Costs.** Bear all costs incident to compliance with the requirements of this Section 3.

## **SECTION 4 PERIODS OF SERVICE, COMPLETION DATE, FORCE MAJEURE**

**SECTION 4.1. Period of Service.** The provisions of this Section 4 and the various rates of compensation for TRANSYSTEMS' Services provided for elsewhere in this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project. TRANSYSTEMS' obligation to render Basic Services hereunder will extend for a period which may reasonably be required for the Project including any Additional Services, extra or changed work and required extensions thereto.

**SECTION 4.2. Completion Date.** It is estimated, but not guaranteed, that the Basic Services will be completed on or about July 1, 2002 (the "Completion Date"). If the Completion Date is exceeded through no fault of TRANSYSTEMS, all rates, measures and compensation provided herein shall be subject to equitable adjustment. The Completion Date (and TRANSYSTEMS' obligation to complete the Basic Services by such date) is subject to reasonable extensions for the performance of Additional Services, Constructive Changes or other extra work and is subject to reasonable extensions for a Force Majeure Event.

**SECTION 4.3. Force Majeure.** For purposes hereof, a "Force Majeure Event" shall mean the occurrence of a failure or delay due to circumstances beyond TRANSYSTEMS' control including, without limitation, acts of God, acts of a public enemy, fires, floods, earthquakes, wars, civil disturbances, sabotage, accidents, insurrection, blockages, embargoes, storms, explosions, catastrophes, epidemics, damage to the Project, lack of access to Project, unavailable utilities and power, water, labor disputes, CLIENT's failure to timely perform its obligations under this Agreement or other causes beyond TRANSYSTEMS' control.

## **SECTION 5 TRANSYSTEMS' COMPENSATION**

**SECTION 5.1. Compensation for Services and Expenses of TRANSYSTEMS in connection with Basic Services**

**SECTION 5.1.1 For Basic Services.** As compensation for the performance of the Basic Services rendered by TRANSYSTEMS under Section 1, CLIENT shall pay TRANSYSTEMS, in accordance with the provisions of Section 5.4, **an amount not-to-exceed \$99,955, as follows:**

**SECTION 5.1.2 For Reimbursable Expenses in connection with Basic Services.** In addition to payments provided for in paragraph 5.1.1, CLIENT shall pay TRANSYSTEMS for all "Reimbursable Expenses" incurred by TRANSYSTEMS in connection with the Basic Services at the actual costs (except where specifically provided otherwise) of all Reimbursable Expenses approved by CLIENT. For purposes of this Agreement, "Reimbursable Expenses" are those costs and expenses incurred by TRANSYSTEMS in connection with the performance of the Services under this

Agreement, including, but not limited to, the costs and expenses incurred by TRANSYSTEMS for travel, reproduction, mailing costs, computer time, supplies and materials, taxes, transportation, telephone or communications, independent professional associates and consultants and subconsultants.

**SECTION 5.2. Compensation for Services and Expenses of TRANSYSTEMS in connection with Additional Services**

**SECTION 5.2.1 For Additional Services.** As compensation for the performance of the Additional Services rendered by TRANSYSTEMS under Section 2, CLIENT shall pay TRANSYSTEMS, in accordance with the provisions of Section 5.4.

**SECTION 5.2.2 For Reimbursable Expenses in connection with Additional Services.** In addition to payments provided for in paragraph 5.2.1., CLIENT shall pay TRANSYSTEMS for all Reimbursable Expenses incurred in connection with all Additional Services at the Basic Services at the actual costs (except where specifically provided otherwise) of all Reimbursable Expenses approved by CLIENT. For purposes hereof, "Reimbursable Expenses" are those costs and expenses incurred by TRANSYSTEMS in connection with the performance of the Services under this Agreement, including, but not limited to, the costs and expenses incurred by TRANSYSTEMS for travel, reproduction, mailing costs, computer time, supplies and materials, taxes, transportation, telephone or communications, independent professional associates and consultants and subconsultants.

**SECTION 5.3. TRANSYSTEMS' Schedule of Rates and Expenses.** The rates and expense provisions shall be the rates and expense provisions in effect from the date of this Agreement until December 31 of this year. TRANSYSTEMS will revise the salary and overhead rates annually and will submit the revised rates to CLIENT in December of each year that this Agreement is in effect and such revised rates shall automatically become effective with regard to this Agreement and the Services performed under this Agreement on January 1st of the next calendar year.

**SECTION 5.3.1 Direct Labor Costs and Overhead.** Direct labor costs and overhead shall be paid at a rate equal to TRANSYSTEMS salary cost times a factor of 2.53 for all Basic Services rendered on the project. Salary costs for anticipated project personnel are included in Exhibit A.

**SECTION 5.3.2 Fixed Fee.** A fixed fee of \$12,092 shall be paid on a prorated share based on the amount of work completed upon each billing.

**SECTION 5.3.3 Reimbursable Expenses.** CLIENT shall pay TRANSYSTEMS the actual costs (except where specifically provided otherwise) of all Reimbursable Expenses approved by CLIENT. For purposes hereof, "Reimbursable Expenses" are those costs and expenses incurred by TRANSYSTEMS in connection with the performance of the Services under this Agreement, including, but not limited to, the costs and expenses incurred by TRANSYSTEMS for travel, reproduction, mailing costs, computer time, supplies and materials, taxes, transportation,

telephone or communications, independent professional associates and consultants and subconsultants

**SECTION 5.4. Monthly Invoices.** TRANSYSTEMS shall submit monthly statements for Basic and Additional Services rendered and for Reimbursable Expenses incurred. The statements will be based upon the amount of time spent and costs and expenses incurred by TRANSYSTEMS during the period covered by each such statement. CLIENT shall make prompt monthly payments in response to TRANSYSTEMS' monthly statements.

**SECTION 5.5. Other Provisions Concerning Payments.**

**SECTION 5.5.1 Interest, Suspension of Services.** If CLIENT fails to make any payment due TRANSYSTEMS for services and expenses within thirty (30) days after receipt of TRANSYSTEMS' statement therefore, TRANSYSTEMS shall be entitled interest on the unpaid amounts due TRANSYSTEMS at the lesser of: i) 1.5 % per month; or, ii) the highest rate of interest allowed under applicable law. The entire unpaid balance due TRANSYSTEMS shall bear said rate of interest from the thirtieth day after CLIENT's receipt of TRANSYSTEMS' statement, until the entire unpaid balance has been paid to TRANSYSTEMS. In addition to being entitled to interest, TRANSYSTEMS may, after giving seven (7) days written notice to CLIENT, suspend services under this Agreement until TRANSYSTEMS has been paid in full all amounts due for Services, expenses, and charges.

**SECTION 5.5.2 Payments after Termination by CLIENT.** In the event of termination by CLIENT under paragraph 7.1 upon the completion of any phase of the Basic Services, payments due TRANSYSTEMS for all Services rendered and expenses incurred through such phase shall constitute total payment for such Basic Services. In the event of such termination by CLIENT during any phase of the Basic Services, TRANSYSTEMS will be paid for Services rendered and expenses incurred during that phase through the date of termination on the basis of TRANSYSTEMS' Schedule of Rates and Expenses. In the event of any such termination (whether at the completion of a phase or otherwise), TRANSYSTEMS shall also be reimbursed for the charges of independent professional associates and consultants employed by TRANSYSTEMS to render Basic Services or Additional Services and all reasonable demobilization costs incurred by TRANSYSTEMS, including any cancellation charges by independent professional associates, consultants and others performing or furnishing Services on the Project through TRANSYSTEMS, and TRANSYSTEMS shall be paid for all Additional Services performed and unpaid Reimbursable Expenses incurred through the date of the termination.

**SECTION 5.5.3 Payments after Termination by TRANSYSTEMS.** In the event of termination by TRANSYSTEMS under paragraph 7.1, TRANSYSTEMS will be paid for all Services rendered and expenses incurred during that phase through the date of termination on the basis of TRANSYSTEMS' Schedule of Rates and Expenses. In addition, TRANSYSTEMS shall also be reimbursed for the charges of independent professional associates and consultants employed by TRANSYSTEMS to render Basic Services or Additional Services and all reasonable demobilization costs incurred by TRANSYSTEMS, including any cancellation charges by independent professional

associates, consultants and others performing or furnishing Services on the Project through TRANSYSTEMS, and TRANSYSTEMS shall be paid for all Additional Services performed and unpaid Reimbursable Expenses incurred through the date of the termination.

**SECTION 5.5.4 Records.** Records of TRANSYSTEMS' salary costs pertinent to TRANSYSTEMS' compensation under this Agreement will be kept in accordance with generally accepted accounting practices. If Client desires to have copies of such records, copies will be made available to CLIENT upon Client's request prior to final payment for TRANSYSTEMS' services. TRANSYSTEMS shall be reimbursed the cost of any such copies by CLIENT.

**SECTION 5.5.5 Cost Factors.** Whenever a factor is applied to salary costs or other expenses in determining compensation payable to TRANSYSTEMS that factor will be adjusted periodically and equitably to reflect changes in the various elements that comprise such factor. All such adjustments will be in accordance with generally accepted accounting practices as applied on a consistent basis by TRANSYSTEMS and consistent with TRANSYSTEMS' overall compensation practices and procedures.

## **SECTION 6 OPINIONS OF COST AND SCHEDULE**

**SECTION 6.1. Opinions of Cost and Schedule.** Since TRANSYSTEMS has no control over the cost of labor, materials, equipment or services furnished by others, or over the resources provided by others to meet construction or other Project schedules, or over the methods of others in determining prices, or over competitive bidding or market conditions, TRANSYSTEMS' opinions of probable costs (including probable Total Project Costs and Construction Cost) and of Project schedules shall be made on the basis of TRANSYSTEMS' experience and qualifications and represent TRANSYSTEMS' best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but TRANSYSTEMS cannot and does not guarantee that proposals, bids or actual Project costs (including Total Project Costs or Construction Costs) will not vary from opinions of probable cost prepared by TRANSYSTEMS or that actual schedules will not vary from the projected schedules prepared by TRANSYSTEMS.

## **SECTION 7 GENERAL CONSIDERATIONS**

**SECTION 7.1. Termination.** The obligation to provide further services under this Agreement may be terminated by either party upon thirty (30) days written notice to the other party in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.



**SECTION 7.2. Reuse of Documents.** All documents, drawings, sketches, studies, analysis, information, schedules, estimates, reports and other items prepared or furnished by TRANSYSTEMS (or TRANSYSTEMS' independent professional associates and consultants) pursuant to this Agreement, including, but not limited to Drawings and Specifications, are instruments of service in respect of the Project and TRANSYSTEMS shall retain an ownership and property interest therein whether or not the Project is completed. Provided, however, that such documents, drawings, sketches, studies, analysis, information, schedules, estimates, reports and other items are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the Project or on any other project. Any reuse without written verification or adaptation by TRANSYSTEMS for the specific purpose intended will be at CLIENT's sole risk and without liability or legal exposure to TRANSYSTEMS, or to TRANSYSTEMS' independent professional associates or consultants, and CLIENT does hereby, to the fullest extent permitted by law, indemnify and hold harmless TRANSYSTEMS, TRANSYSTEMS' officers, employees and agents and TRANSYSTEMS' independent professional associates and consultants from all claims, suits, demands, damages, liabilities, losses, expenses and costs, including but not limited to reasonable attorney's fees and other costs of defense, arising out of or resulting therefrom. The provisions of this Section 7.2 shall survive the termination of this Agreement.

**SECTION 7.3. Use of Electronic Media.** Original drawings of the information contained on the electronic media are available, and their use is recommended. Use of the electronic media at the CLIENT's election shall be at the sole risk of the CLIENT and without liability or legal exposure to TRANSYSTEMS, and CLIENT does hereby, to the fullest extent permitted by law, indemnify and hold harmless TRANSYSTEMS, TRANSYSTEMS' officers, employees and agents and TRANSYSTEMS' independent professional associates and consultants from and against any and all claims suits, demands, damages, liabilities, losses, expenses and costs, including but not limited to reasonable attorney's fees and other costs of defense, arising out of or resulting from any use, misuse, alteration, or modification of TRANSYSTEMS' instruments of professional service delivered to the CLIENT in electronic media form.

**SECTION 7.4. Standard of Practice, Warranties.** Services performed by the TRANSYSTEMS under this Agreement will be conducted in a manner consistent with the level of care, diligence and skill ordinarily possessed and exercised by members of the profession currently practicing in the same locality under similar conditions. Except as expressly set forth above, no other representations, expressed or implied, and no warranty or guarantee is included in this Agreement, or in any document, drawing, sketch, study, analysis, schedule, estimate, report, opinion, specification and other item prepared or furnished by TRANSYSTEMS (or TRANSYSTEMS' independent professional associates and consultants) pursuant to this Agreement.

**SECTION 7.5. Limitation of Responsibility, Job Site Safety/Techniques.** TRANSYSTEMS shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, nor for safety precautions and programs (including, but not limited to, any shoring, bracing, scaffolding or other safety systems or programs) in connection with the Project or any contractor, subcontractor, vendor or other Project participant, not under contract to TRANSYSTEMS (collectively the "Other Project Parties"). In addition, TRANSYSTEMS shall not be

responsible for: i) the failure of any of the Other Project Parties to fulfill their respective contractual responsibilities and obligations to CLIENT or to comply with federal, state or local laws, rules, regulations or codes; ii) for the schedules of any of the Other Project Parties or the failure of any of the Other Project Parties to carry out their work in accordance with their respective agreements. TRANSYSTEMS shall not have control over or charge of and shall not be responsible for acts or omissions of the Other Project Parties, or their agents or employees, or of any other persons performing portions of the work on the Project.

**SECTION 7.6. Insurance.**

**SECTION 7.6.1 TRANSYSTEMS Insurance.** TRANSYSTEMS shall maintain throughout the duration of this Agreement insurance in the following amounts and will, upon request of the CLIENT furnish a copy of certification thereof:

- (a) Worker's Compensation and Employer's Liability
  - Worker's Compensation Statutory
  - Employer's Liability \$500,000/\$500,000/\$500,000
  
- (b) Comprehensive Automobile Liability
  - \$1,000,000 combined single limit Bodily Injury and Property Damage
  
- (c) Comprehensive General Liability
  - \$1,000,000 - per occurrence
  - \$2,000,000 - annual aggregate
  - \$2,000,000 - product / completed operations per occurrence
  - \$1,000,000 - personal injury / advertising liability
  
- (d) Umbrella/Excess Liability
  - \$1,000,000 - per occurrence
  - \$1,000,000 - annual aggregate
  
- (e) Professional Liability Insurance in an amount of \$1,000,000 per claim and annual aggregate

**Section 7.6.2 CLIENT Insurance.** If, pursuant to the provisions of Exhibit B, CLIENT is required to obtain certain insurance coverages, CLIENT agrees to obtain and maintain throughout the duration of this Agreement (or, as applicable, cause its contractors to obtain and maintain) such insurance in the coverages and the amounts specified on Exhibit B. CLIENT will furnish TRANSYSTEMS with a copy of certification of such insurance. TRANSYSTEMS' interests shall be covered under any such insurance coverage.

**SECTION 7.7. Liability and Indemnification.**

**SECTION 7.7.1 General.** Having considered the potential liabilities that may exist during the performance of the Services, the benefits of the Project, and TRANSYSTEMS' Compensation for the performance of the Services, and in consideration of the promises contained in this Agreement, CLIENT and TRANSYSTEMS agree to allocate and limit such liabilities in accordance with the provisions of this Section 7.7.

**SECTION 7.7.2 TRANSYSTEMS Indemnification.** In addition to its other indemnification obligations under this Agreement, TRANSYSTEMS hereby agrees to indemnify and hold harmless the CLIENT and any of its officers or employees from all loss, damage, cost or expense arising out of (and to the extent caused by):

1. TRANSYSTEMS' negligent performance of Services under this Agreement;
2. Claims, suits or actions of every kind and description when such suits or actions are caused by negligent acts, errors or omissions of TRANSYSTEMS, its employees or subcontractors; or
3. Injury or damages received or sustained by any party because of the negligent acts, errors or omissions of TRANSYSTEMS, its employees or subcontractors.

In the event losses, damages, costs or expenses are caused by the joint or concurrent negligence of TRANSYSTEMS and CLIENT, such losses, damages, costs and expenses shall be borne by each party in proportion to its own negligence.

**SECTION 7.7.3 CLIENT Indemnification.** In addition to its other indemnification obligations under this Agreement, CLIENT hereby agrees to indemnify and hold harmless TRANSYSTEMS and any of its officers or employees from all loss, damage, cost or expense arising out of (and to the extent caused by):

1. CLIENT's negligent acts, errors or omissions of CLIENT, its employees or contractors; or
2. Injury or damages received or sustained by any party because of the negligent acts, errors or omissions of CLIENT, its employees or contractors.

In the event losses, damages, costs or expenses are caused by the joint or concurrent negligence of TRANSYSTEMS and CLIENT, such losses, damages, costs and expenses shall be borne by each party in proportion to its own negligence.

**SECTION 7.7.4 Contractors Indemnification.** CLIENT agrees to cause each of its other contractors on the Project to include an indemnification provision in CLIENT's contract with each such contractor that indemnifies and holds harmless TRANSYSTEMS and any of its officers or employees from all loss, damage, cost or expense to the extent caused by such contractors (or its employees or subcontractors) negligence or willful misconduct.

**SECTION 7.7.5 Employee Claims.** TRANSYSTEMS shall indemnify CLIENT against any loss, damage, cost or expense arising out of claims by TRANSYSTEMS' employees (unless such claim arises out of or as a result of the negligence of CLIENT, its employees, agents or contractors). CLIENT shall indemnify TRANSYSTEMS against any loss, damage, cost or expense arising out of claims by CLIENT'S employees (unless such claim arises out of or as a result of the negligence of TRANSYSTEMS, it's employees, agents or subcontractors).

**SECTION 7.7.6 Consequential Damages.** To the fullest extent permitted by law, TRANSYSTEMS shall not, in any event, be liable to CLIENT for any special, indirect, incidental or consequential damages, including, but not limited to, damages from delay, distribution, loss of product, loss of use, loss of profits or revenue or increased cost of operation, the cost of capital or the cost of purchased or replacement equipment, systems or power.

**SECTION 7.7.7 Limitation of Liability.** To the fullest extent permitted by law, TRANSYSTEMS' total liability to CLIENT for all claims, losses, damages and expenses resulting or arising in any way from the performance of the Services (including TRANSYSTEMS' indemnity obligations hereunder) shall not exceed the total compensation received by TRANSYSTEMS under this Agreement or the limits of any professional liability insurance maintained by TRANSYSTEMS, whichever is less.

**SECTION 7.7.8 Survival.** The terms and conditions of this Section 7.7 shall survive the termination of this Agreement and/or the completion of the Services.

**SECTION 7.8 Proprietary and Patent Rights.** TRANSYSTEMS and CLIENT agree that if patentable discoveries or inventions should result from the study conducted under this Agreement, the provisions of Exhibit B, which is incorporated herein by reference, shall apply.

**SECTION 7.9 Nondiscrimination / ADA.** TRANSYSTEMS and all Subconsultants agree to comply with the requirements of Title 49, CFR Part 21 and the Title VI of the Civil Rights Act of 1964, the latter identified as Exhibit C attached hereto and hereby, by this reference, made a part of this Agreement. TRANSYSTEMS agrees to provide services in compliance with the Americans With Disabilities Act of 1990.

**SECTION 7.10 Personnel Employment.** TRANSYSTEMS warrants that is has not employed or retained any company or person, other than a bona fide employee working solely for TRANSYSTEMS, to solicit or secure this Agreement, and that he has not aid or agreed to pay any company or person, other than a bona fide employee working solely for TRANSYSTEMS, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the CLIENT shall have the right to annul this Agreement without liability, or, in it discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

## **SECTION 8 SPECIAL PROVISIONS, EXHIBITS AND SCHEDULES**

**SECTION 8.1. Special Provisions.** This Agreement is subject to no special provisions.

**SECTION 8.2. Contract Documents.** This Agreement consists of this contract document and the following Exhibits and Schedules, which are attached to and made a part of this Agreement:

Exhibit A - Project Description and Basic Services Scope of Work

Exhibit B – Proprietary and Patent Rights

Exhibit C - Consultant Assurance With Regard To The Civil Rights At Of 1964 and U.S. Department Of Commerce Regulations, 15 C.F.R., Part 8

**SECTION 8.3. Entire Agreement.** This Agreement together with the Exhibits and Schedules identified above constitute the entire agreement between CLIENT and TRANSYSTEMS and supersede all prior written or oral understandings. This Agreement and said Exhibits and Schedules may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

**SECTION 8.4. Hazardous Materials.** Unless otherwise provided in this Agreement, TRANSYSTEMS shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials in any form at the Project site. However, TRANSYSTEMS shall report to CLIENT the presence and location of any hazardous material which it notices or which an engineer of similar skill and experience should have noticed.

**SECTION 8.5. Attorneys Fees.** In the event that either party hereto employs an attorney to enforce any provision of this Agreement or to collect damages for default or breach of this Agreement, or pursue claims in litigation or arbitration, the prevailing party in any such action shall be entitled to recover from the other such attorneys' fees and costs of collection as the prevailing party may expend or incur with respect thereto. In the event that a settlement is reached between the parties before a final decision in any such litigation or arbitration, then neither party shall be entitled to recover its attorneys fees or costs from the other and neither party shall be responsible for the other party's attorney's fees or costs, unless otherwise agreed by the parties.

**SECTION 8.6. Disputes.** In the event a dispute arises between TRANSYSTEMS and CLIENT regarding the application or interpretation of any provision of this Agreement, or quality of Services by TRANSYSTEMS, the aggrieved party shall promptly notify the other party to this Agreement of the dispute, but in no event more than 20 days after such dispute arises. If the parties fail to resolve the dispute within 20 days after receipt of such notice, each party shall, within five days thereafter, proceed to non-binding mediation, with each party to bear its own costs and attorneys' fees (except as otherwise provided in Section 8.5 above) and the parties shall share equally in the cost of the mediator. In the event that the mediation is unsuccessful, the aggrieved party may elect to litigate its dispute with the other party. All disputes shall be governed by the laws of the State of Missouri and the jurisdiction and venue for litigation between the parties shall be solely and exclusively in Jackson County, Missouri, or the United States District Court for the Western District of Missouri.

**SECTION 8.7. Independent Contractor.** TRANSYSTEMS shall be an independent contractor with respect to the Services to be performed hereunder. Neither TRANSYSTEMS, nor its independent professional associates, consultants or subcontractors, nor the employees of any of the foregoing, shall be deemed to be the servants, employees or agents of CLIENT.

**SECTION 8.8. Representations and Remedies.** TRANSYSTEMS makes no representations, covenants, warranties or guarantees, express or implied, other than those expressly set forth herein. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY EXCLUDED. The parties' rights, liabilities, responsibilities and remedies with respect to the Services, whether in contract or otherwise, shall be exclusively those expressly set forth in this Agreement.

**SECTION 8.9. Assignment, Subcontractors.** This Agreement shall not be assignable by either party without the prior written consent of the other party hereto, except that it may be assigned without such consent to the successor of either party, or to a person, firm or corporation acquiring all or substantially all of the business assets of such party or to a wholly owned subsidiary of either party, but such assignment shall not relieve the assigning party of any of its obligations under this Agreement. No assignment of this Agreement shall be valid until this Agreement shall have been assumed by the assignee. This Agreement shall be binding upon and shall inure to the benefit of the TRANSYSTEMS' and CLIENT's respective successors and assigns. Nothing in this Section 8.9 shall prevent or be deemed to prevent TRANSYSTEMS from employing, contracting with or engaging independent professional associates, consultants and other subcontractors to perform or assist in the performance of the Services.

**SECTION 8.10. Notices.** All notices or communications pertaining to this Agreement shall be in writing and shall be sufficient when mailed or delivered to the address specified below:

If to CLIENT:

City of Rapid City

Planning Department  
300 Sixth Street  
Rapid City, SD 57701-2724\_\_\_\_\_

Attention: Mr. Kip Harrington\_\_\_\_\_

If to TRANSYSTEMS:

TranSystems Corporation Consultants  
207 North Broadway, Suite MZ-9  
Billings, MT 59101\_\_\_\_\_

Attention: Mr. Charles Strum\_\_\_\_\_

Nothing in this Section 8.10 shall be construed to restrict the transmission of routine communications between representatives of CLIENT and TRANSYSTEMS.

#### **SECTION 8.11. Interpretation.**

(a) This Agreement shall be governed by and interpreted in accordance with the laws of Missouri.

(b) Headings and titles of sections, paragraphs and other subparts of this Agreement are for convenience of reference only and shall not be considered in interpreting the text of this Agreement. Modifications or amendments to this Agreement must be in writing and executed by duly authorized representatives of each party.

(c) Unless specifically stated to the contrary therein, indemnities against, releases from and limitations on liability expressed in this Agreement shall apply even in the event of the fault, negligence or strict liability of the party indemnified or released or whose liability is limited and shall extend to the officers, directors, employees, agents, licensors and related entities of such party.

(d) In the event that any portion or all of this Agreement is held to be void or unenforceable, the parties agree to negotiate in good faith to reach an equitable agreement which shall effect the intent of the parties as set forth in this Agreement.

(e) The parties agree to look solely to each other with respect to the performance of this Agreement and the Services to be provided hereunder. This Agreement and each and every provision hereof is for the exclusive benefit of CLIENT and TRANSYSTEMS and not for the benefit of any third party, and no third party shall be entitled to rely upon or enforce the terms of this Agreement, or to be a third party beneficiary thereof.

(f) No failure by either party to insist on performance of any term, condition, or instruction, or to exercise any right or privilege included in this Agreement, and no waiver of any breach shall constitute a waiver of any other or subsequent term, condition, instruction, breach, right or privilege.

(g) The parties acknowledge and agree that the terms and conditions of this Agreement, including but not limited to those relating to allocations and assumptions of, releases from, exclusions against and limitations of liability, have been freely and fairly negotiated. Each party acknowledges that in executing this Agreement they have relied solely on their own judgment, belief, and knowledge, and such advice as they may have received from their own counsel, and they have not been influenced by any representation or statements made by any other party or its counsel. No provision in this Agreement is to be interpreted for or against any party because that party or its counsel drafted such provision.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the \_\_\_\_\_ day of \_\_\_\_\_ 2001.

**CITY OF RAPID CITY, ADMINISTRATOR OF THE RAPID CITY AREA MPO  
MAYOR OF RAPID CITY**

By: \_\_\_\_\_  
Printed Name: Jerry Munson  
Title: Mayor of Rapid City

Attest: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: Finance Officer

**TRANSYSTEMS CORPORATION CONSULTANTS**

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

<p><b>Approved By: CITY ATTORNEY'S OFFICE</b></p> <p>Initials: _____ Attorney Date</p>
--



## CERTIFICATION OF CONSULTANT

I hereby certify that I am the Principal, and duly authorized representative of the firm TranSystems Corporation Consultants, whose address is 207 N Broadway, Suite MZ-9, Billings, MT 50101, and that neither I nor the above firm I here represent has:

1. Employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or our consultants) to solicit or secure this contract.
2. Agree, as an expressed or implied condition for obtaining this contract, to employ or retain the service of any firm or person in connection with carrying out the contract; except as here expressly stated (if any);

I acknowledge that this certificate is to be furnished to the State Department of Transportation and the Federal Highway Administration, U.S. Department of Transportation, in connection with this contract involving participation of Federal-aid highway funds, and is subject to applicable State and Federal laws, (both criminal and civil).

\_\_\_\_\_

Date

\_\_\_\_\_

Charles B. Strum, P.E., Vice President  
TranSystems Corporation Consultants

**CERTIFICATION FOR GRANTS, LOANS ,AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal 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 any federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member or Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all sub awards at all tiers (including sub grants, and contracts and subcontracts under grants, sub grants, loans, and cooperative agreements) which exceed \$100,000, and that all such sub recipients shall certify and disclose accordingly.

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

TranSystems Corporation Consultants

By: \_\_\_\_\_  
Charles B. Strum, P.E.,  
Vice President

ATTEST: \_\_\_\_\_

DATED: \_\_\_\_\_

## Exhibit A

### Rapid City Travel Demand Model Update Basic Services Scope of Work

---

#### Project Understanding

This Travel Demand Forecasting Model Update is intended to provide a travel demand model tool to the City and MPO that can integrate travel demand forecasting with the geographic information system currently being implemented using Arc/INFO.

This model update will provide the opportunity to make a comprehensive examination of the modeling processes used in the Rapid City Urbanized Area and determine the most appropriate improvements. More than just a conversion of the existing TModel2 data and procedures to the new TransCAD platform, this model update will take advantage of the opportunity to review existing model assumptions and parameters for continued relevance. It will be an opportunity to explore alternative methods of addressing transit and non-motorized travel demand, an opportunity to explore new methodologies for trip generation, trip distribution and assignment. We also anticipate the model developed through this project will model “peak season” conditions rather than annual average conditions. The development of a peak season model acknowledges conditions present in Rapid City where the transportation systems in the urban area receives heavy summer tourist demand for substantial portions of the year.

Overall, this project will be a combined effort of several jurisdictions requiring efficient and continuing communications. We will establish a Working Group to enable the project to progress in an open process with input and evaluations from a variety of jurisdictions, including the Rapid City Area MPO, the City of Rapid City, the South Dakota Department of Transportation, and the Federal Highway Administration. Model development will also occur in a “teaching environment” to enable City and MPO staff to understand model operating procedures and input/output manipulation.

This project will have two major components:

1. Conversion of the existing TModel2 to TransCAD (including calibration/validation and development of a future year 2025 data set), and
2. Recommendations of additional travel demand-related studies to further enhance travel demand modeling in the Rapid City urban area.

Each of these components will be carefully documented to provide a record of model development and procedures utilized. Model development documentation will also serve as a valuable “users guide” for future modeling efforts. The documentation will also provide recommendations for potential future model modifications and additional studies that may be beyond the scope of this project.

## **Project Approach**

The TranSystems team will work with City, State, Federal and MPO staff to develop a specific Working Group of all affected and cooperating agencies. This group will have direct oversight and provide technical guidance for the project. We anticipate periodic meetings with the Working Group to present and discuss study progress, results and recommendations. We will present results of the study analysis and model development in periodic Working Papers, a Draft Final Report and the Final Report. We will provide technical working papers periodically for review and comment, to allow regular, ongoing input and guidance to the project. We are proposing a closely integrated team of planning and engineering staff for this project.

## **Project Scope of Work**

### Task 100 – Data Collection

Data required to develop the TransCAD travel demand model for Rapid City includes the following:

- Existing TModel2 data and control files
- Model base year (2000) traffic count data, including daily traffic and peak hour traffic volume.
- Land use data for model base year and forecast year, including population, occupied households by type (single family or multi-family), employment by type (retail, service, military, school, etc.), school enrollment and temporary housing data (hotels/motels).
- Roadway data for all roads included in the model base year network, to include functional classification, number of lanes, free-flow speeds, permitted flow directions (one-way or two-way), and intersection turn prohibitions.
- Roadway data for planned facilities and improvements to existing facilities.

TranSystems will develop written requests for data necessary for project execution. We anticipate that roadway data will be made available as Arc/Info Ungenerate or Export E00 files and that land use data will be available as ASCII files or other file type compatible with Microsoft applications. We also understand that employment data may be supplied in terms of square feet of a particular type of employment rather than the number of employees. For this case, TranSystems will utilize conversion factors supplied by the City to calculate the number of employees from the square footage data. We understand that Traffic Analysis Zone (TAZ) boundary files are available as ArcView Shape files, or will be provided as AutoCAD DXF format files.

TranSystems acknowledges it has received electronic files and hard copy documentation for the existing TModel2 travel demand model.

## Task 200 – Data Review & TModel2 Evaluation

The project will begin with a comprehensive evaluation of the existing TModel2 travel demand model. We anticipate examining all related model documentation and control/data files to gain a working understanding of the operation of, and philosophy behind the existing model. Specific evaluations of existing model procedures will include the following:

- Evaluation of existing TAZ structure to examine coordination with census blocks, block groups and tracts as well as City neighborhood structure. TAZ structure will also be evaluated considering current and planned growth of the Rapid City urban area to ensure adequate coverage and appropriate level of detail.
- Evaluation of Trip Generation procedures (methods) and input data requirements. Considered will be the ability of City/MPO staff to easily update land use data and/or utilize data available from other sources (US Census, Bureau of Labor, etc.). Also considered will be the number of trip purposes modeled and how to model/classify tourist trips present during the peak season. Methods of estimating zonal productions and attractions will be explored, including cross-classification, regression and ITE attraction rate methods.
- Traffic Assignment procedures currently employed and similar procedures available within the TransCAD platform, including the desirability of including turn penalties to model delay or turn prohibitions at intersections.

Based on our examination of the existing model, we will develop alternatives for improvements to the model procedures. We anticipate potential improvements may impact areas of Trip Generation, Trip Distribution, Mode Split and Traffic Assignment modules. Opportunities for improvements or enhancements to travel demand modeling in Rapid City will be detailed in a Working Paper that will clearly document the existing procedure and the proposed alternative(s). The working paper will detail the implications of alternatives, including changing data requirements or operational procedures. Opportunities to integrate model data requirements with the on-going GIS system implementation will be fully explored.

Conversion of model operational or data requirements will not proceed until concurrence is received from the project working group.

Deliverable:

- Model Evaluation and Recommendations Working Paper
- Working Group consensus for new model development

## Task 300 – Data Conversion

Once the working group has reached consensus on modeling procedures and operational philosophy, we will initiate conversion of the TModel2 data to a format compatible with the TransCAD platform and the Arc/INFO system maintained by the City/MPO. The conversion will proceed with the objective of developing a calibrated/validated base-year (year 2000) time-of-day regional model. The conversion process may be as simple as using existing model procedures and data in the TransCAD platform, or may be as complex as developing entirely new data sets and developing entirely new model procedures.

*Demographic Land Use Data:* Conversion of demographic data will first consider any changes to the existing TAZ structure boundaries. Changes to TAZ structure boundaries will require re-distributing and updating the 1995 data available from the TModel2, or will require development of completely new year-2000 data (anticipated model base year). We anticipate that the City/MPO will develop and provide land use data for base year and future year conditions for the selected TAZ structure.

The GIS land use file will begin with the TAZ boundary file for the current model provided by the City/MPO. TranSystems will make changes to the boundary file as recommended and agreed by the Working Group and prepare the file for acceptance of land use data. TranSystems will join land use demographic data to TransCAD boundary file and format for use with the travel demand model.

*Street Network Data:* Conversion of the TModel2 network directly to TransCAD is not supported. We anticipate receiving GIS-centerline files from the City/MPO for use with developing the model network. We understand the City/MPO will deliver street centerline files complete with basic data necessary for development of the model network (functional class, number of lanes, speeds, etc.). TranSystems will work with the City/MPO by providing guidance for development of centerline data.

TranSystems anticipates the need to perform a thorough check on the street centerline files to ensure data coverage accuracy and link connectivity. We will develop summary tables and graphics to show data features and anticipate forwarding these elements to the City/MPO for concurrence. We also anticipate developing centerline coverage and data input for planned future streets and improvements.

Based on the network coverage utilized for the existing TModel2, TranSystems will code centerline files to indicate which streets will be utilized for the model network for both existing and future conditions modeling. We anticipate establishing a data field for this network identifier and providing the data to enable "extraction" of a network from the completed street centerline file.

TranSystems will also establish TAZ centroid connectors within the street centerline file to enable loading of TAZ generated trips to the model network. Unless the TAZ or network structure is changed during the course of the review of those elements, centroid connector locations used in the TModel2 will be used for the TransCAD model as well.

*Model Procedures:* Some procedures and processes currently utilized in the TModel2 may not have a direct conversion in the TransCAD platform, or it may be determined that TModel2 procedures should be updated or revised with development of the TransCAD model. "Conversion" of model operating procedures will primarily involve developing TransCAD routines to implement operational decisions reached in Task 200 and documented in the Task 200 Working Paper.

Model procedures will be developed to create a time-of-day model to model discrete periods of an average day separately. As opposed to a daily model, a time-of-day

model allows modeling of street and intersection congestion more accurately than a daily model. We anticipate three periods will be utilized:

- AM Peak Period
- PM Peak Period
- Off Peak Period

We anticipate performing Trip Generation on a daily basis, then factoring daily trips to create time-of-day trip tables. The factoring process will discretely estimate the fraction of trip origins and destinations for each trip purpose for each time-of-day period.

It is anticipated that the time-of-day factoring and Auto Occupancy will be performed separately for each trip purpose.

Trip Distribution, Mode Split and Traffic Assignment functions will also be performed for three discrete time-of-day periods. To obtain data for an all-day period, the discrete time-of-day model results will typically be added together (to determine average daily traffic volume, for instance).

Deliverable: Working Paper to report results of model data conversion and network preparation. Also included will be documentation of model procedure development.

#### Task 400 – Base Year Model Development

The goal of this task is to develop a calibrated/validated base year (year 2000) model. Calibration/validation procedures will examine travel demands not only on individual roadway segments, but also across screen lines representing travel corridors. Network assignment results will be calibrated to acceptable accuracy standards defined by NCHRP Report 255, including calibration of external trips (how the model interacts with the rest of the world). Primary calibration will consider a comparison of assigned link volumes to counted link volumes. In the absence of travel survey data, we anticipate calibrating trip-making parameters to similar parameters of the existing TModel2 (trip length frequency distribution, vehicle miles of travel, etc.).

During the base year model development process, we anticipate leading a working session with the City/MPO working group to illustrate model operation and analysis of results. This working session will be conducted in a “teaching” format intended to provide City/MPO staff with a working knowledge of model operation and analysis. This working session will also include a review of model data development and model procedure execution.

Deliverable:

- Working Paper detailing calibration of base year model with summary tables and graphics and complete documentation of model procedures and all inputs.

## Task 500 – Future Year Model Development

Although development of portions of the future year 2025 model can begin early in the project, only when an accurate base year model has been developed will development of the future year 2025 model begin in earnest. Before the model procedures, variables and parameters have been calibrated, only land use data and roadway network elements of the future year model be developed.

Once base year model development and calibration has been completed, the future land use data and future transportation network (planned improvements) will be utilized to perform modeling of future conditions. TranSystems, in conjunction with the City/MPO Working Group will consider model procedures and associated factors/variables for continued applicability to future conditions and make adjustments where deemed appropriate.

We also anticipate developing a post-processing procedure to adjust future model assignments prior to reporting. This post-processing procedure will utilize procedures detailed in NCHRP 255 in a spreadsheet format to adjust assigned volumes based on observed counts on a screen line or individual link basis. Post-processing is recommended since models are generally good at a corridor or regional basis, but can give less reliable results on an individual link bases. Post-processing allows for adjustment of raw model assignments prior to releasing projections for use with other planning applications or to general public.

Deliverable:

- Working Paper documenting operation of the travel demand model for future conditions and operation of post-processing applications.
- Plots and tables of future traffic projections with sample thematic maps showing capabilities of TransCAD for displaying model results and system parameters.

## Task 600 – Model Delivery & Maintenance

TranSystems will develop procedures and establish a system to enable the City/MPO to maintain GIS-system data for street systems and land use data to ensure on-going updates to these critical databases remain compatible with modeling needs. Procedures will ensure ease and accuracy of maintenance of model-related data with on-going maintenance and updates to the City/MPO GIS system.

Following development of the travel demand model, TranSystems will format model files and procedures for delivery to the City/MPO. Individual Working Papers will be combined to form documentation of model development and an operations manual for model execution. All model procedures and data requirements/formats will be detailed in the documentation. Base year model calibration/validation results will also be documented.

A draft of the final model development/operations document will be submitted to the City/MPO Working Group for review. We anticipate delivering up to ten (10) copies of the draft document to the City/MPO for distribution to all review parties. The City/MPO will collect and combine review comments from all review agencies and submit changes



to TranSystems. Upon receipt and incorporation of review comments into the draft document, a final draft will be submitted to the City/MPO for a final check prior to publication. TranSystems anticipates delivering ten (10) copies plus a camera-ready original of the final document to the City/MPO.

TranSystems will write all model and related data files to CD for delivery with the final model documentation. We also will provide an electronic file of the final report in both Adobe Acrobat (.PDF) and MSWord (.DOC) format on the CD.

### Task 700 – Travel Demand Related Studies

Travel demand related studies can be extremely useful for developing accurate models specifically “tuned” to a particular community. Origin-destination studies, travel time studies, auto occupancy studies, and volume studies are all useful to assist with validation of travel demand models.

Based on our assessment of the existing model and results of the TransCAD model, we will formulate recommendations regarding the need for additional study data. An examination of model results will be performed to assess areas of significant error or areas where assumptions were required to obtain acceptable model results. This examination will be used to formulate an opinion about the need for additional data, and to develop recommendations for specific studies needed to obtain desired data.

The assessment of need for travel demand related studies would begin with the compilation of a matrix of the “universe” of potential studies and the use of resulting study data. This matrix will be paired with the list of additional desired data developed from a review of the model development process to determine the most likely candidate studies for consideration in Rapid City.

Candidate studies will be evaluated in relation to the Rapid City area needs to estimate the cost and magnitude of each particular study, and the expected benefit should a particular study be conducted. A recommendation will be formulated based on the evaluation and documented in a separate Technical Memorandum presented to the Working Group.

Deliverable:

- Technical Memorandum documenting potential travel demand related studies and detailing studies recommended for the Rapid City area.
- Working Group consensus on study recommendation.

### Project Schedule

TranSystems has examined the scope of work for this project and has developed a schedule for completion that shows completion of base year model, future year model, travel demand study recommendation and project documentation within a period of 12 months from receipt of notice to proceed.

### Meetings & Presentations

Development of the Rapid City travel demand model will require several project meetings and/or meetings with the proposed Working Group. We also anticipate that presentations to City Council will be required as well. We anticipate the need to conduct four (4) Working Group meetings throughout the course of the project. Working Group meeting dates will be set at least three (3) weeks in advance through agreement between TranSystems and the City/MPO. The City/MPO will provide notification to coordinating agencies (FHWA, SDDOT, etc.) and will arrange for meeting locations. Agendas for Working Group meetings will be prepared by TranSystems and, once approved by the City/MPO, will be distributed to the Working Group at least one week in advance of the meeting.

TranSystems also anticipates the need for four (4) additional meetings in Rapid City for project coordination and/or presentations to City Council and/or County Commissioners. These meetings will also be scheduled at least three (3) weeks in advance with meeting facilities provided by the City/MPO. Any equipment required for council/commissioner presentations (overhead projectors, computer projectors, etc.) will be furnished by the City/MPO unless otherwise agreed at the time a meeting agenda and location are set.

#### [Task 800 – Additional Travel Demand Modeling \(Additional Services\)](#)

Following development of a calibrated/validated base year model, and development of a future year model, TranSystems will be available to assist Rapid City with execution of the model for various projects and purposes. The models will be able to ascertain transportation system impacts of various land use growth scenarios, street network development scenarios or significant changes to mode split (transit service) or auto occupancy (HOV lane development).

The modeling assistance provided by TranSystems during this period will also be structured in a “teaching environment” where the City/MPO can learn model operations and develop proficiency with various scenario model operations. In addition to operation of the model(s), TranSystems will provide hands-on assistance and guidance with procedures previously established to enable easy maintenance of model data sets.

TranSystems will separately evaluate each modeling “task” request from the City/MPO and will formulate a task-specific scope of work and fee estimate for approval prior to task execution. We estimate additional travel demand modeling activities can be accomplished for a fee of \$95/hour.

#### Deliverable:

- Additional travel demand modeling will be documented with individual Technical Memorandums for each task. The technical memorandums will discuss model task purpose and results.
- TransCAD data files produced as a result of additional travel demand modeling tasks will be written to CD and delivered with the task documentation (Technical Memorandum).

**RAPID CITY TRAVEL DEMAND MODEL UPDATE**

Manhour Estimate - 5/1/01, CBS

Task Item	Chuck Strum	Jeff McKerrow	John Dobies	Technician	Clerical	Total Hours	TranSystems' Labor (Cost)	Subconsultant Expenses	Direct Expenses (Reimb.)	Direct Expenses (Non-Reimb.)
<b>Task 100 - Data Collection</b>										
Data Collection - Existing Travel Demand Model and GIS Database	12	2		4		18	\$611		\$350	
<b>Task 200 - Data Review &amp; TModel Evaluation</b>										
Review Data Collected - Identify Additional Data Needs	12	8		8		28	\$841			
Evaluation of Existing Model Procedures & Data	24	24				48	\$1,603			
Develop Modeling Procedure Alternatives	8	16	2			26	\$828			
Coordination with MPO, City and SDDOT (1 meeting)	12	12	2			26	\$886		\$1,350	
Working Paper - Model Evaluation and Recommendations	12	8		8	2	30	\$871		\$100	
<b>Task 300 - Data Conversion</b>										
Convert/Format Demographic Data	4	8		8		20	\$516			
Develop/Convert Trip Generation Procedures	8	12				20	\$639			
Develop/Convert Trip Distribution Procedures	8	12				20	\$639			
Develop/Convert Mode Split Procedures	4	4	12			20	\$771			
Develop/Refine Model Network	14	16		8		38	\$1,132			
Working Paper - Data Conversion/Network Preparation/Procedure Development	14	8	2	8	2	34	\$1,036		\$100	
<b>400 - Base Year Model Development/Calibration</b>										
Implement Model Procedures - Execute Base Year Model	12	18		8		38	\$1,103			
Calibrate/Validate Base Year Model	40	32	2			74	\$2,546			
Coordination with MPO, City and SDDOT (1 meeting)	16			4		20	\$721		\$350	
Working Paper - Calibration of Base Year Model	24	12	2	8	4	50	\$1,576		\$100	
<b>Task 500 - Future Year Model Development &amp; Reporting</b>										
Convert/Format Future Year Demographic Data	4	4		12		20	\$483			
Develop Future Roadway Network	12	4	2	8		26	\$820			
Develop Model Post-processing & Reporting Procedures & Graphics	16	14	2	12	2	46	\$1,346			
Execute/Report Future Model Results	8	8		8	2	26	\$708			
Coordination with MPO, City and SDDOT (1 meeting)	14	12				26	\$883		\$1,350	
Working Paper - Future Model Results and Post Processing Procedure	16	12		8	2	38	\$1,138		\$100	
<b>Task 600 - Model Delivery &amp; Maintenance</b>										
Develop GIS System Data Maintenance Procedures	12	12		8		32	\$946			
Format Model Files for Delivery	4	4		12		20	\$483			
Develop Draft Model Development Report & Operations Manual	24	12	4	8	2	50	\$1,630		\$250	
Develop Final Model Development Report & Operations Manual	8	6		6	2	22	\$620		\$250	
<b>Task 700 - Travel Demand Related Studies</b>										
Assess New Model for Additional Data Needs	8	12	2			22	\$723			
Develop/Evaluate Potential Travel Demand Related Studies	4	16	2			22	\$866			
Coordination with MPO, City and SDDOT (1 meeting)	12	12		4		28	\$874		\$1,350	
Technical Memorandum - Recommended Additional Travel Demand Studies	8	4	1	6	2	21	\$609		\$100	
<b>Miscellaneous</b>										
Miscellaneous Client/Agency Meetings (4)	48	12		12	2	74	\$2,507		\$1,500	
Project Management & Accounting	24				12	36	\$1,153			
						0	\$0			
						0	\$0			
<b>SUB-TOTAL</b>	<b>446</b>	<b>336</b>	<b>35</b>	<b>168</b>	<b>34</b>	<b>1019</b>	<b>\$31,908</b>	<b>\$0</b>	<b>\$7,250</b>	<b>\$0</b>

Total Direct Labor:	\$31,908
Total Direct Expenses (Reimb.):	\$7,250
Total Direct Expenses (Non-Reimb.):	\$0
Subconsultant Exp:	\$0
<b>PROJECT COST TOTAL:</b>	<b>\$39,158</b>
Overhead Labor (2.55):	\$48,705
Profit on Labor (15%):	\$12,092
<b>PROJECT CONTRACT TOTAL:</b>	<b>\$99,955</b>

## **EXHIBIT B**

### **PROPRIETARY AND PATENT RIGHTS**

1. TRANSYSTEMS agrees to disclose each subject invention to the CLIENT within a reasonable time after it becomes known to TRANSYSTEMS personnel responsible for the administration of patent matters, and that the CLIENT may receive title to any subject invention not disclosed to it within such time.
2. TRANSYSTEMS agrees to make a written election within two years after disclosure to the CLIENT (or such additional time as may be approved by the CLIENT) whether TRANSYSTEMS will retain title to a subject invention: provided, that in any case where publication, on sale, or public use, has initiated the one year statutory period in which valid patent protection can still be obtained in the United States, the period for election may be shortened by the CLIENT to a date that is not more than sixty days prior to the end of the statutory period: and provided further, that the CLIENT may receive title to any subject invention in which TRANSYSTEMS does not elect to retain rights or fails to elect rights within such times.
3. When TRANSYSTEMS elects rights in a subject invention, it agrees to file a patent application prior to any statutory bar date that may occur under 35 USCS Section 1 et seq. due to publication, on sale, or public use, and shall thereafter file corresponding patent applications in other countries in which it wishes to retain title within reasonable times, and that the CLIENT may receive title to any subject inventions in the United States or other countries in which TRANSYSTEMS has not filed patent applications on the subject invention within such times.
4. With respect to any invention in which TRANSYSTEMS elects rights, the CLIENT and the United States Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the CLIENT or the United States Government any subject invention throughout the world: provided, that the funding agreement may provide for such additional rights; including the right to assign or have assigned foreign patent rights in the subject invention, as are determined by the CLIENT or United States Government as necessary for meeting the obligations of the United States under any treaty, international agreement, arrangement of cooperation, memorandum of understanding, or similar arrangement, including military agreement relating to weapons development and production.
5. The CLIENT retains the right to require periodic reporting on the utilization or efforts at obtaining utilization that are being made by TRANSYSTEMS or his licensees or assignees: provided, that any such information as well as any information on utilization or efforts at obtaining utilization obtained as art of the proceeding under 35 USCS Section 203 shall be treated by the CLIENT as commercial and financial information obtained from a person and privileged and confidential and not subject to disclosure under 5 USCS Section 552.

6. TRANSYSTEMS agrees that in the event a United States patent application is filed by or on its behalf or by any assignee of TRANSYSTEMS there shall be included within such application and any patent issuing thereon, a statement specifying that the invention was made with CLIENT support and that the CLIENT has certain rights in the invention.
7. In the case TRANSYSTEMS is a nonprofit organization, (A) TRANSYSTEMS agrees to prohibit the assignment of rights to a subject invention in the United States without the approval of the CLIENT, except where such assignment is made to an organization which has as one of its primary functions the management of inventions (provided that such assignee shall be subject to the same provisions as TRANSYSTEMS); (B) TRANSYSTEMS shall share royalties with the inventor; (C) except with respect to a funding agreement for the operation of a Government-owned-contractor-operated facility, that the balance of any royalties or income earned by TRANSYSTEMS with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, shall be utilized for the support of scientific research or education; (D) that, except where it proves infeasible after a reasonable inquiry, in the licensing of subject inventions shall be given to small business firms; and (E) with respect to funding agreement for the operation of a Government-owned-contractor-operated facility, (i) that after payment of patenting costs, licensing costs, payments to inventors, and other expenses incidental to the administration of subject inventions, 100 percent of the balance of any royalties or income earned and retained by TRANSYSTEMS during any fiscal year up to an amount equal to 5 percent of the annual budget of the facility, shall be used by TRANSYSTEMS for scientific research, development, and education consistent with the research and development mission and objectives of the facility; provided that if said balance exceeds 5 percent of the annual budget of the facility, the 75 percent of such excess shall be paid to the CLIENT and the remaining 25 percent shall be used for the same purposes as described above in this clause (D); and (ii) that, to the extent it provides the most effective technology transfer, the licensing of subject inventions shall be administered by TRANSYSTEMS employees on location at the facility.
8. The requirements of 35 USCS Sections 203 and 204 apply to this research.
9. If TRANSYSTEMS does not elect to retain title to a subject invention in cases subject to this section, the CLIENT may consider and after consultation with TRANSYSTEMS grant requests for retention of rights by the inventor subject to the provisions of 35 USCS Section 202 and regulations promulgated hereunder.

## EXHIBIT C

### CONSULTANT ASSURANCE WITH REGARD TO THE CIVIL RIGHTS ACT OF 1964 AND U.S. DEPARTMENT OF COMMERCE REGULATIONS, 15 C.F.R., PART 8

During the performance of the Agreement, Contractor and any subcontractors, for themselves, their assignees and successors in interest (hereinafter referred to as the "Contractor"), agree as follows:

**Compliance with Regulations:** The Contractor will comply with the regulations of the Department of Commerce relative to nondiscrimination in federally assisted programs of the Department of Commerce (Title 15, Code of Federal Regulations, Part 8, hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of this contract.

**Nondiscrimination:** The Contractor, with regard to the work performed by it after award and prior to completion of the contract work, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractor, including procurement of materials and leases of equipment. The Contractor will not participate either directly or indirectly in the discrimination prohibited by Section 8.4 of the Regulations, including employment practices when the contract covers a program set forth in the Appendix A-II of the Regulations.

**Solicitations for Subcontractor, Including Procurement 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 procurement of materials and 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, or national origin.

**Information and Reports:** The Contractor will provide all information and reports required by the Regulations or orders and instructions issued pursuant thereto, and will permit access to its books, records, determined by the State Department of Transportation or Federal Highway Administration to be pertinent to ascertain compliance with such regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refused to furnish this information, the Contractor shall so certify to the State Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

**Sanctions for Noncompliance:** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, the State 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, withholding of payments to the Contractor under the contract until the Contractor complies, and/or cancellation, termination or suspension of the contract, in whole or in part.

**Incorporation of Provisions:** The Contractor will include the provisions of paragraph (1) through (6) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, order or instructions issues pursuant hereto. The Contractor will take such action with respect to any subcontract or procurement as the State Department of Transportation or Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance; provided however, that, in the event a contractor becomes involve in, or is threatened with, litigation with a subcontractor or suppliers as a result of such direction, the Contractor may request the State to enter into such litigation to protect the interests of the State, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.