

REQUEST FOR PROPOSALS

TRAVEL DEMAND MODEL IMPROVEMENTS



ISSUE DATE:	January 2, 2020
PROJECT BUDGET:	\$50,000
RESPOND BY:	12:00 pm (Central), February 21, 2020 <i>Late proposals will not be accepted</i>
DELIVER TO:	Brian Gibson, PTP APO Executive Director Saint Cloud Area Planning Organization (APO) 1040 County Road 4 Saint Cloud, MN 56303
DIRECT QUESTIONS TO:	Brian Gibson gibson@stcloudapo.org

TRAVEL DEMAND MODEL IMPROVEMENTS

DESCRIPTION

Like most metropolitan planning organizations, the APO maintains a regional travel demand model in order to forecast future traffic volumes given certain changes in the roadway network and/or changes in regional social-demographic characteristics. The APO's travel demand model is based in CUBE software from Citilabs.

The APO recently completed its Federally-required Metropolitan Transportation Plan which entailed both re-calibrating the travel demand model to base-year 2015 and producing year 2045 traffic forecasts. During the process of developing the MTP, APO staff asked the consultant who calibrated the model and developed the future traffic forecasts (SRF Consulting Group) to keep a list of issues where they felt the model was out-of-date or could be improved. Please see the full calibration and potential model improvements report in Exhibit A.

In addition, while the calibrated model did meet validation and reasonableness checks, APO staff wants to push the model to exceed minimum validation criteria. Multi-million-dollar investment decisions are made based (at least in part) on model results. APO staff feels strongly that the model needs to be extremely reliable and credible. The APO is interested in updates to its travel demand model that have proven or demonstrated value in improving model accuracy, streamlining or making easier the model development, specification, or operation process, or improving the presentation of model results.

Interested parties are invited to submit proposals detailing the model improvements they would complete as part of this effort. Specifically, proposals should respond to the recommendations of the memo in Exhibit A, and make additional recommendations (if any) that the prospective consultant believes are valuable, cost-effective, and worthwhile.

The APO will provide the current model files upon request for your examination to assist in preparing a proposal.

PROCUREMENT EXCLUSION

Interested parties are advised that APO procurement policies state, in part: *"Contractors that develop or draft independent cost estimates, specifications, requirements, statements of work, invitations for bids or requests for proposals shall be excluded from competing for such procurements."*

Because SRF Consulting Group was instrumental in identifying the scope and details of some of the existing issues with the model, they are excluded from competing for this procurement.

UPDATES AND NOTES

What follows is an update on some of the potential model improvements identified in the calibration and model improvements memo (Exhibit A):

Roadway/Transit Networks – APO staff are currently working in GIS to adjust roadway links to match actual roadway alignments. Prospective consultants should assume that a new roadway network that overlays modeled links with actual roadway alignments will be available to them.

Trip Generation and Trip Distribution – The APO now has access to regional Streetlight Data which may be useful in

validating and/or adjusting trip rates and trip distributions within the model, especially the significant number of external work-related trips.

Regional Travel Survey – The APO has preliminarily budgeted funds for a regional household travel survey for 2021. Responders should assume that the travel survey will occur in 2021. As such, responders may wish to explain in their proposals how the results of that travel survey would be incorporated into the model, and, further, may wish to suggest specific questions or other data that they would recommend be gathered as part of that survey in order to best inform and improve the regional travel demand model.

GOALS

The goals of this effort are to:

1. Improve the accuracy and descriptive capabilities of the calibrated APO travel demand model when representing existing traffic conditions; and
2. Improve the sensitivity and analytical capabilities of the APO's travel demand model.

DELIVERABLE(S)

The final deliverable of this effort is a CUBE-based travel demand model of the Saint Cloud metropolitan area that is updated and improved in comparison to the current travel demand model.

Depending upon the responder's choices when outlining their methodology for addressing the goals of this effort, interim deliverables may be necessary or desirable.

STUDY BUDGET AND TIMELINE

The total project budget is \$50,000.

Federal funding assistance provided by the Federal Highway Administration and Federal Transit Administration for this project is expected to be \$40,000. The budget includes \$40,000 federal Consolidated Planning Grant (CPG) funds (CFDA 20.205) and \$10,000 local funds. Consultants should consider \$50,000 to be the maximum amount for the study.

It is anticipated that work described in this RFP will begin April 10, 2020 and be completed by no later than December 31, 2020. (See Evaluation and Selection Timeline beginning on page 6).

PROPOSAL CONTENT

Responders are asked to describe in detail

1. how they intend to achieve the goals and deliverables of this study, including specific tasks, expected outcomes, and both interim and final deliverables;
2. the qualifications and experience of staff who will work on this project; and
3. their firm's qualifications and experience related to the overall goals of the study.

Proposed staff hours must be broken down by person(s) assigned to each task/subtask. Overhead rate and expense, cost plus fixed fee, and any direct non-salary expense must be itemized and shown separately from individual staff hourly billing rates and expenses. Hour detail by task and assigned staff person must be provided in the proposal document in table format with assumed costs. See "Sample Price Plan" (Exhibit B) for an example. Cost is a factor in the proposal evaluation (20%).

The Proposal shall be submitted on 8.5" x 11" paper in no less than 10-point font, and shall not exceed **15 pages** in length, including cover letter and all exhibits and appendices (not including required certifications and affidavits). Graphic illustrations may be included on 11" x 17" paper if necessary. Pursuant to Section 6002 of the Solid Waste Disposal Act, all proposal materials shall be bound in a single submission by a single staple in the top left corner. Plastic, laminated, or other non-recyclable binders, covers, section dividers, etc. are prohibited. Paper shall have a minimum of 30% post-consumer fiber.

The following will be considered minimum contents of the proposal and must be submitted in the order listed:

1. Responder's company name, business address, the contact person's name, telephone number, fax number and email address.
2. A general overview of the study objectives, goals, proposed tasks and deliverables to show or demonstrate the Responder's understanding of the study.
3. A description of the proposed study approach and methodology to be utilized, deliverables to be provided by the Responder, and a description of the proposed management techniques.
4. A detailed description of the Responder's background and experience with similar work. This should include examples of similar work indicating the Responder's level of involvement in the study, and the key personnel involved with the study.

5. A list of the key personnel who will be assigned to the study and their area of responsibility. Provide statements for each of the key personnel detailing their training, work experience and qualifications relevant to the proposed work. No change in personnel assigned to the study will be permitted without the written approval of the APO.
6. A work plan identifying the major tasks to be accomplished. The work plan must present the Responder's approach, task breakdown, and deliverable due dates.
7. A price plan including the hourly rates and fringe rates for all key personnel who will perform the tasks outlined above, as well as the agency's indirect rate.
8. Three references from clients within the past three years for whom the Consultant has performed similar work. Ideally, the references will have worked with the key personnel assigned to this study.
9. Completed forms and documents required under any other section of this RFP.

PROPOSAL SUBMITTAL

All proposals must be sent to:

*Brian Gibson, PTP
Executive Director
St. Cloud Area Planning Organization
1040 County Road 4
St. Cloud, MN 56303*

All responses must be received no later than 12:00 pm Central time on February 21, 2020.

If proposals are mailed, submit the original and four copies of the proposal. A principal member of the firm must sign the original proposal in [blue](#) ink.

Proposals may be emailed to gibson@stcloudapo.org. However, by doing so, responders are indicating their understanding that the APO will print the proposal as it is received on standard 8.5" x 11" paper and makes no guarantees that large format maps, graphics, or other formatting issues will be printed as intended. **Fax responses will not be considered.**

PROPOSAL EVALUATION

A "Best Value Selection" method will be used to review proposals submitted in response to this RFP. Qualifications are included as part of the evaluation point system.

Representatives of the APO will evaluate all proposals received by the deadline. A 100-point scale will be used to create the final evaluation and selection. The factors and weighting on which proposals will be judged are:

1. Specialized expertise, capabilities and technical competence, as demonstrated by the Responder's expressed project understanding, proposed project approach and methodology, project work plan, and project management techniques (35 points max.);
2. Project background and experience, as demonstrated by the Responder's ability, familiarity and experience with handling similar projects, and the qualifications and related experience of key staff members (20 points max.);
3. The Responder's record of past performance, including quality of work, ability to control costs, and

ability to meet schedules (15 points max.);

4. The availability of personnel and other specialized resources to perform the work within the specified time limit (10 points max.); and
5. Total price & hours compared to other proposals (20 points max.).

Proposals will be evaluated and award may be made based on original proposals. APO holds the right to award without negotiation. If negotiations are determined to be necessary, successful firms determined to be in the "Competitive Range" will be notified by March 3, 2020 for further negotiations.

The evaluation team will base their determination of which proposal represents the "best value" on an analysis of the tradeoff of qualitative technical factors and price or cost factors. The selection committee may determine that negotiations with the next highest ranked proposer are warranted if negotiations with the preferred proposer do not satisfactorily meet the needs of this project.

REQUEST FOR CLARIFICATION

In the event the APO believes that additional clarification of a proposal is needed in order to make a determination regarding the proposal, APO shall submit a request for clarification by email to the Responder. The Responder will have two working days to respond via email to provide the additional requested information.

PROPOSAL QUESTIONS

No interpretation of the meaning of the RFP will be made to any Responder verbally. Responders are encouraged to promptly notify APO of any

apparent major inconsistencies, problems or ambiguities in this RFP. Any questions regarding this RFP must be submitted by email only to:

*Brian Gibson, PTP
APO Executive Director
gibson@stcloudapo.org*

All proposal questions and responses will be posted on the St. Cloud Area Planning Organization website: <https://stcloudapo.org/current-plans/current-upwp/travel-demand-model-updates-and-improvements/>.

No other project personnel are allowed to discuss the RFP before the proposal submission deadline. Contact regarding this RFP with any personnel not listed above could result in disqualification.

To be given consideration, all questions regarding this RFP must be received no later than 12:00 pm Central time on January 31, 2020.

GENERAL INFORMATION

Responders must adhere to all terms of this RFP. Late proposals will not be considered. All costs incurred in responding to this RFP will be borne by the Responder.

APO NOT OBLIGATED TO COMPLETE PROJECT

This RFP does not obligate the St. Cloud Area Planning Organization (APO) to award a Contract or complete the project, and APO reserves the right to cancel the solicitation if it is considered to be in its best interest.

DISPOSITION OF RESPONSES

All materials submitted in response to this RFP will become property of APO and will

become public record after the evaluation process is completed and an award decision made. If the responder submits information in response to this RFP that it believes to be trade secret materials, as defined by the Minnesota Government Data Practices Act, Minnesota Statutes §13.37, the responder must:

- Clearly mark all trade secret materials in its response at the time the response is submitted,
- Include a statement with its response justifying the trade secret designation for each item, and
- Defend any action seeking release of the materials it believes to be trade secret, and indemnify and hold harmless APO, its agents and employees, from any judgments or damages awarded against the APO in favor of the party requesting the materials, and any and all costs connected with that defense. This indemnification survives the APO's award of a Contract. In submitting a response to this RFP, the responder agrees that this indemnification survives as long as the trade secret materials are in possession of APO. APO is required to keep all the basic documents related to its Contracts, including responses to RFPs for a minimum of seven years.

APO will **not** consider the prices submitted by the responder to be proprietary or trade secret materials.

- Patent Rights: The Common Grant Rules require provisions consistent with Dept. of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms," 37 CFR Part 401.

- Rights to Data: When FHWA provides Federal assistance to support the costs of a research, development, demonstration, or a special studies project, FHWA generally seeks sufficient rights in the data developed so that the resulting data can be made available to any FHWA recipient, sub-recipient, third party contractor, or third party subcontractor.

Responses to this RFP will not be open for public review until APO decides to pursue a Contract and that Contract is executed.

DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOAL.

Small businesses, minority-owned businesses, and women-owned businesses are encouraged to respond to this solicitation. Larger firms are encouraged to sub-contract with small, minority-owned, and women-owned businesses when economically feasible.

The MnDOT Office of Civil Rights has assigned a **Race and Gender Neutral** DBE goal to this procurement. Bidders are directed to read Exhibit C and Section F of Exhibit D.

The DBE Special Provisions (Exhibit C) explain how to comply with the DBE requirements. In particular, see text regarding documents that a bidder must submit with its bid proposal. The form required in the bid can be found on the last page of Exhibit C.

EXCLUDED PARTIES LISTING SYSTEM.

Before entering into a third party contract or subcontract, the APO shall check the Excluded Parties Listing System (EPLS) at www.sam.gov to ensure the selected

vendor or contractor has not been excluded from doing business with the federal government or its grantees. The APO shall document that the EPLS has been checked.

PROPOSAL PROTEST PROCEDURE

1. A formal letter of protest must be received at the APO Office to the attention of the Brian Gibson, Executive Director, within ten (10) business days of the date of the award notification letter. The letter must state specifically the reason for the protest and include any documentation needed to substantiate the claim(s).
2. St. Cloud APO will have ten (10) business days from the date of receipt of the protest letter in which to make a written response. The St. Cloud APO may extend the period for purposes of investigating the protest, if it is warranted, by notifying the complainant in writing of their intentions within the above mentioned response time.
3. If the complainant, after receiving the final written response from the St. Cloud APO, is not satisfied that the reason for protest has been sufficiently resolved, he/she may file a request for an appeal to be heard by the St. Cloud APO. Such request must be written and received within the (10) business days from the date of the St. Cloud APO response letter. The letter shall be made to the attention of Brian Gibson, Executive Director, who will schedule the hearing for the next available St. Cloud APO Board meeting, and inform the

complainant in writing of said date and time.

4. St. Cloud APO will not receive any service or product described in the PROPOSAL document from the

successful Proposal until the protest has been resolved. Complainants do have the right to protest directly to FHWA if they choose.

EVALUATION AND SELECTION TIMELINE

It is anticipated that the evaluation and selection will be completed according to the following schedule:

January 2, 2020	RFP posted
January 31, 2020	Deadline for questions <u>by email only</u>
February 4, 2020	Deadline for APO responses to questions to be posted at http://www.stcloudapo.org/apo-documents.html
February 21, 2020	Deadline for RFP submittals
February 28, 2020	Evaluation and scoring of RFP submittals
March 3, 2020	Notification of Awardee <u>OR</u> of Firms in "Competitive Range"
March 13, 2020	Contract Negotiations with Awardee <u>OR</u> Negotiations with Firms in "Competitive Range"
March 27, 2020	MnDOT contract approval deadline
April 9, 2020	APO Board approves contract
April 10, 2020	Notice to proceed (pending execution of Contract documents)
December 31, 2020	Deadline for all work on this contract to be completed



Memorandum

SRF No. 11430

To: Brian Gibson, Executive Director
St. Cloud Area Planning Organization

From: Steve Wilson, Principal
Krista Anderson, Engineer

Date: January 3, 2019

Subject: Travel Demand Model Update

Introduction

This memorandum describes the process used to recalibrate and validate the St. Cloud Area Planning Organization's travel demand model to year 2015.

The St. Cloud Area Planning Organization (APO) maintains a travel demand model to support its long range regional planning efforts and to provide guidance to planning and design of major roadway projects in the region. The APO is developing its year 2045 transportation plan, which necessitates updating the model to existing (year 2015) conditions within acceptable industry standards.

The recalibration of the current APO travel demand model (TDM) focused on cost-effective modifications to the trip generation and trip distribution components of the existing model structure using existing datasets in addition to professional judgement. These modifications were carried through the trip assignment step of the TDM and a set of validation measures were prepared to demonstrate the reasonableness of the model output is within acceptable margin-of-error guidelines recommended under the Federal Highway Administration's *Travel Model Validation and Reasonability Checking Manual*.

Model Structure

The flow of the APO's TDM is depicted in Figure 1 below. The current APO model is a simplified "four-step" model. The non-included model step, mode choice, is combined with the trip generation step to produce vehicle trips rather than separate estimates of person trips and transit market shares. This is a common simplification in small-to-midsize urban area models, where the transit market share is small and the resources available to develop transit models are limited.

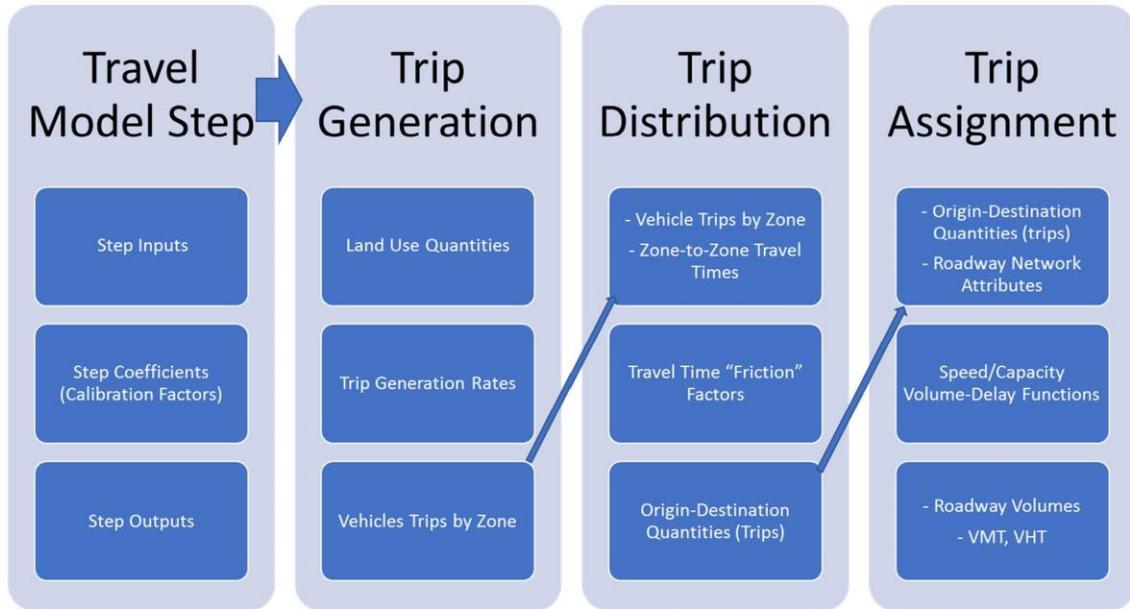
Primary inputs to the model include a land use file with land uses and quantities for the trip generation program, and a network file of significant roadways and roadway characteristics.

www.srfconsulting.com

1 Carlson Parkway North, Suite 150 | Minneapolis, MN 55447-4453 | 763.475.0010 Fax: 1.866.440.6364

An Equal Opportunity Employer

Figure 1: St. Cloud APO “Simplified” Travel Demand Model Flow



Transportation Analysis Zones and Land Uses

The current land use-based trip generation program includes 13 land use categories plus an estimator for trips oriented to and from the APO region. The land use categories included in the TDM are shown in Table 1.

Land uses are grouped and summed within model Transportation Analysis Zones (TAZ) provided by the APO. Within the St. Cloud TDM extent, there are 261 TAZs, with an additional 30 TAZs representing “external stations” at the edge of the region. The TAZ structure is depicted in Figure 2. For analysis purposes, the TAZs were assigned to 13 districts, which are also depicted in Figure 3. Zone and district boundaries, and base year inputs have been compiled in a unified GIS file provided as part of the model.

Table 1: Travel Demand Model Land Use Categories

Land Use	Units	Abbreviation
Single Family Residential	Dwelling Units	SFR
Medium/High Density Residential	Dwelling Units	MHR
Office	1,000 Square Feet	OFFICE
Industry	1,000 Square Feet	IND
Low Industry	1,000 Square Feet	LIND
Low Retail	1,000 Square Feet	LRET
Medium Retail	1,000 Square Feet	MedRET
High Retail	1,000 Square Feet	HighRET
Hotel/Motel	Rooms	HOT
School	Enrollment	SCH
Parks	Acres	PARK
Hospital	Beds	HOSP
College	Students	COLL
Existing Traffic Count	Vehicles per Day	ADT

Figure 2: St. Cloud APO Travel Demand Model Transportation Analysis Zones (TAZ)

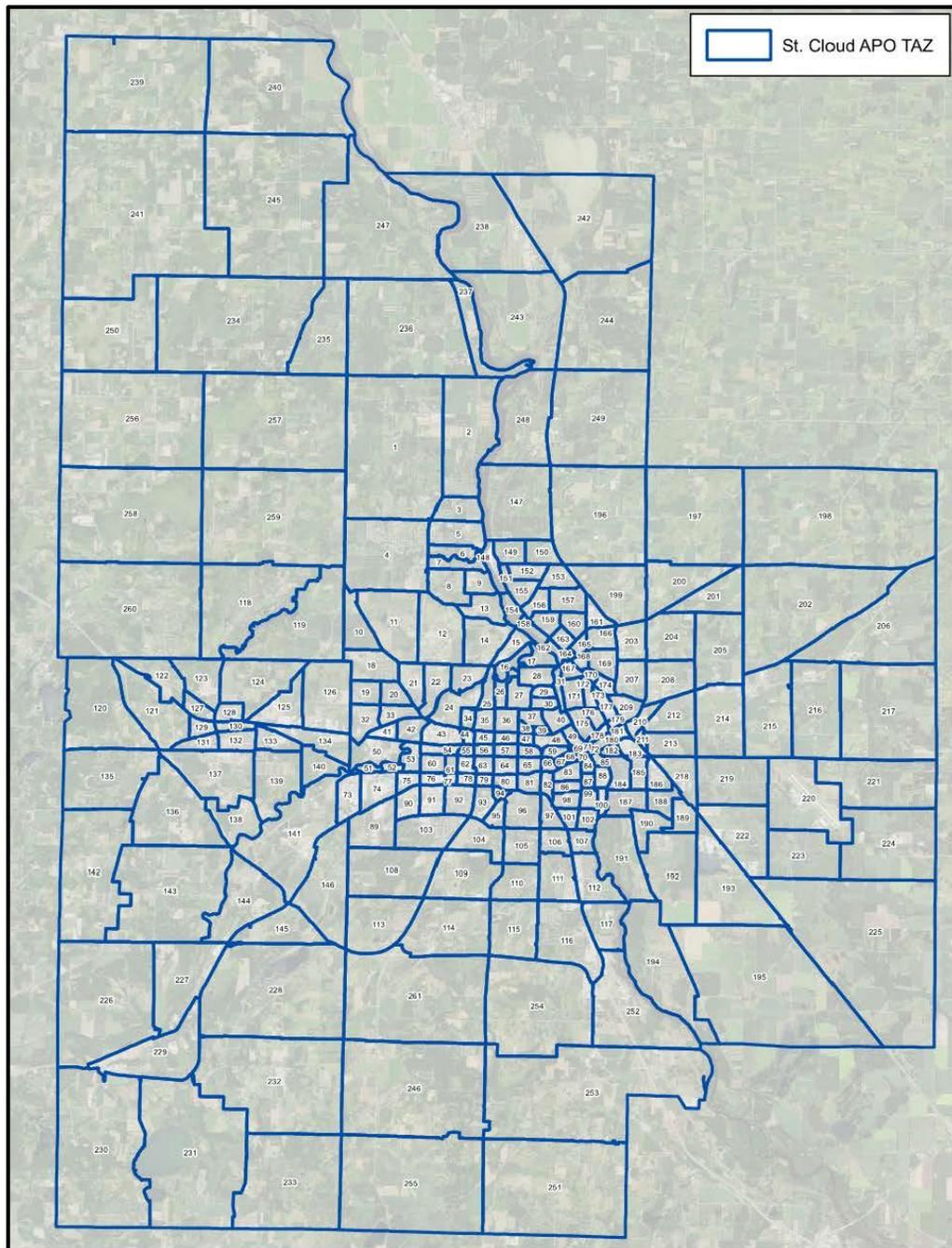
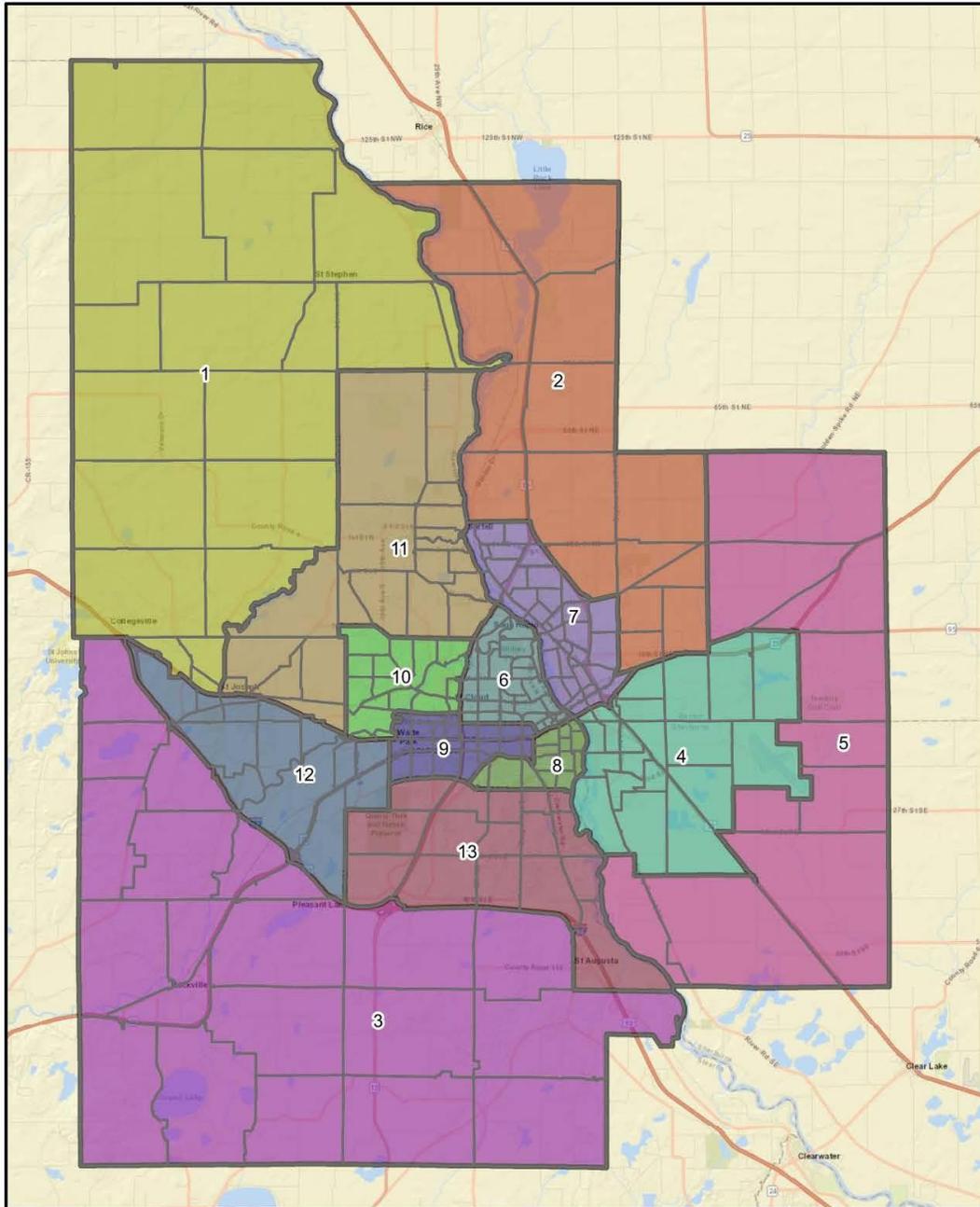


Figure 3: St. Cloud APO Travel Demand Model Transportation Analysis Zones (TAZ)



Network

The APO travel model highway network is depicted in Table 4. The existing roadway network was reviewed for accuracy. The APO model network includes several link attributes, which were reviewed and updated as necessary.

Table 2: Roadway Network Model Attributes

Link Attribute	Description
Distance	Roadway Assignment group classification of links (see Table 3) distance, used in estimating travel distance and travel time
Asgngrp	Placeholder descriptor in network (not used)
Linkgrp1	Placeholder descriptor in network (not used)
Linkgrp2	Placeholder descriptor in network (not used)
Linkgrp3	Placeholder descriptor in network (not used)
User	Placeholder descriptor in network (not used)
Ff_Speed	Free-flow speed (mph)
Capacity	Daily one-way capacity
Currvol	Current Volume (APO or MnDOT sources)

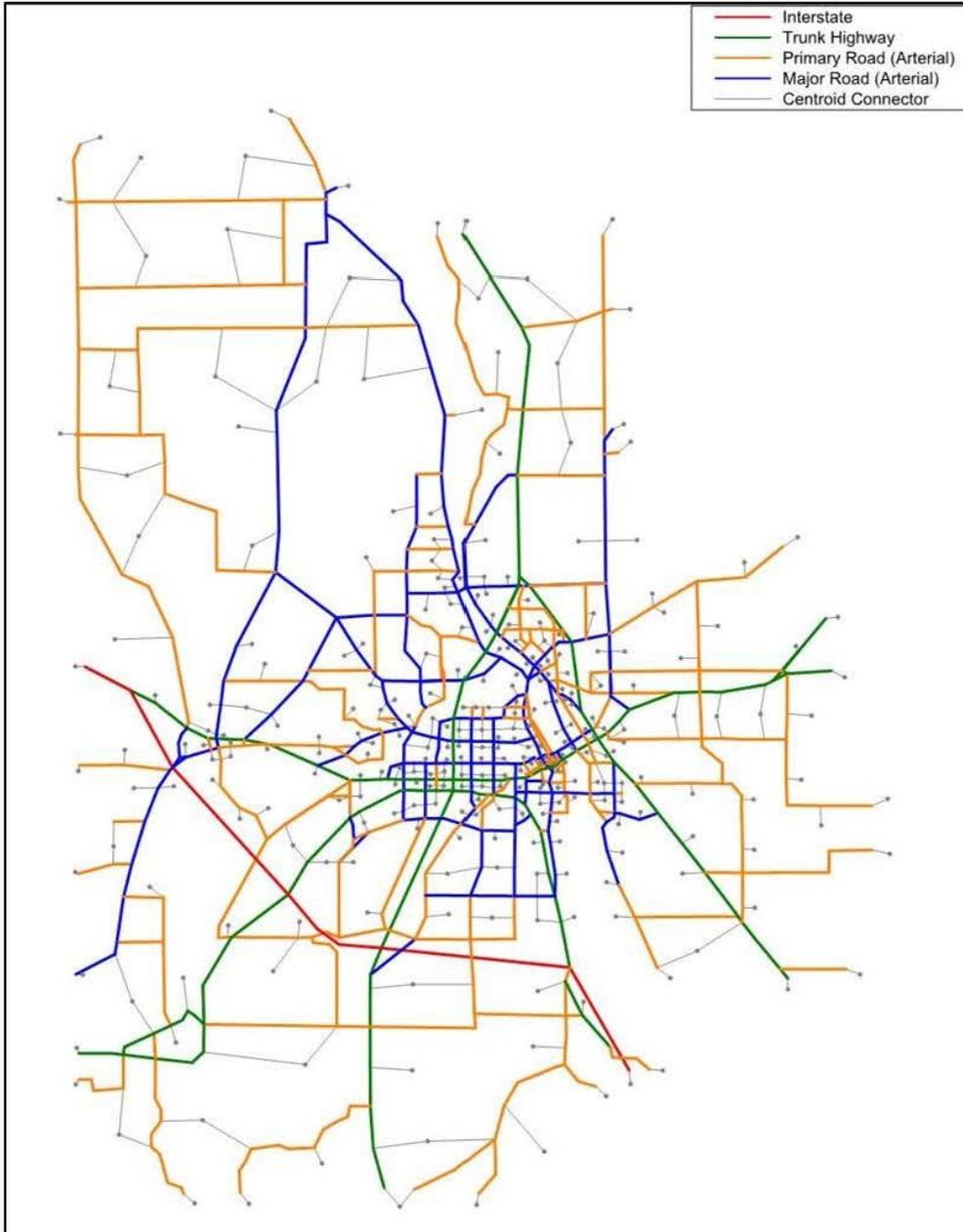
One attribute was added depicting eight screenlines used for model validation and reporting.

Four of the attributes included in the current model network are unused variables carried over from the previous TRANPLAN model network: Linkgrp1, Linkgrp2, Linkgrp3 and User. Future use of these variables and other network attributes is discussed in a subsequent section. Table 3 shows the current key attribute ranges for the demand model.

Table 3: Roadway Link Classifications

Assignment Group	Description	Free Flow Speed			Daily Capacity		
		Average	Low	High	Average	Low	High
1	Interstate	66.4	65	75	24,000	24,000	24,000
2	Trunk Highway	45.7	12	70	10,720	5,000	18,000
3	Primary Road (Arterial)	36	23	60	7,546	4,000	11,500
4	Major Road (Arterial)	37.1	6	63	5,329	3,750	11,500
6	Centroid Connector	15	6	15	-	-	-
7	External Station Centroid Connector	15	6	15	-	-	-

Figure 4: St. Cloud APO Travel Demand Model Roadway Network



Trip Generation

The current land use-based trip generation program includes 13 land use categories plus an estimator for trips oriented to and from the APO region. Standard travel demand modeling nomenclature considers trips to be “produced” at the household end (or trip origin if neither end is at the home) and attracted to the non-household end of the trip.

Many of the trip generation rates were originally developed using Institute of Transportation Engineers (ITE) estimates that have since been updated by ITE. The model’s trip generation rates were reviewed, and it was determined that most of the rates fall within the typical ITE range. Three land uses (office, medium-density retail, and high-density retail) use trip generation rates consistent with ITEs. The trip generation rates for office and medium-density retail are logarithmic with an effective trip generation rate of 13.18 and 63.32 per 1,000 square feet, respectively. High-density trip generation is specific to the Crossroads shopping center, and has an effective rate of 33.95 trips per 1,000 square feet. Trip generation rates by land use category are depicted in Table 4.

Table 4: Trip Generation Rates by Land Use/Trip Purpose

	Production			Attractions		
	Home-based Work	Home-based Other	Non-home Based	Home-based Work	Home-based Other	Non-home Based
SFR	2.42	5.25	0.71	0.00	1.01	0.71
MHR	1.45	3.17	0.43	0.00	0.61	0.43
OFFICE	-	-	-	-	-	-
IND	0.00	0.00	1.68	2.80	0.84	1.68
LIND	0.00	0.00	0.96	1.60	0.48	0.96
LRET	0.00	0.00	14.25	3.33	15.68	14.25
MedRET	-	-	-	-	-	-
HighRET	-	-	-	-	-	-
HOT	0.00	0.00	2.61	0.61	2.87	2.61
SCH	0.00	0.00	3.10	0.07	0.34	0.31
PARK	0.00	0.00	3.00	0.70	3.30	3.00
HOSP	0.00	0.00	2.35	1.77	5.30	2.35
COLL	0.00	0.00	0.47	0.24	1.19	0.47
ADT	0.30	0.40	0.10	0.06	0.07	0.06

Previously, the trip generation step of the TDM was done outside of the model catalog. SRF updated the TDM to include the trip generation program within the CUBE model catalog.

Trip Distribution

To begin the trip distribution review, existing year (2015) zonal estimates were compared to the observed trip length frequency distribution (TLFD) curves. Data from the 2006-2010 U.S. Census Transportation Planning Package (CTPP) was used to develop home-based work (HBW) trip distribution patterns and TLFD curves. The CTPP 5-year data was used to calculate the average trip

times between St. Cloud zones and the TLFDD was compared to the trip length frequency from the current model. The frequency distribution was then used as a friction factor input to the TDM to develop the origin-destination tables (calibrated using CTPP frequency distribution). The 2015 trip distribution for all trip purposes is shown in Figure 5, and average trip length by purpose is shown in Table 5. Trip lengths apply only to the portion of trips within the APO model area.

Figure 5: 2015 Trip Distribution Average Trip Lengths

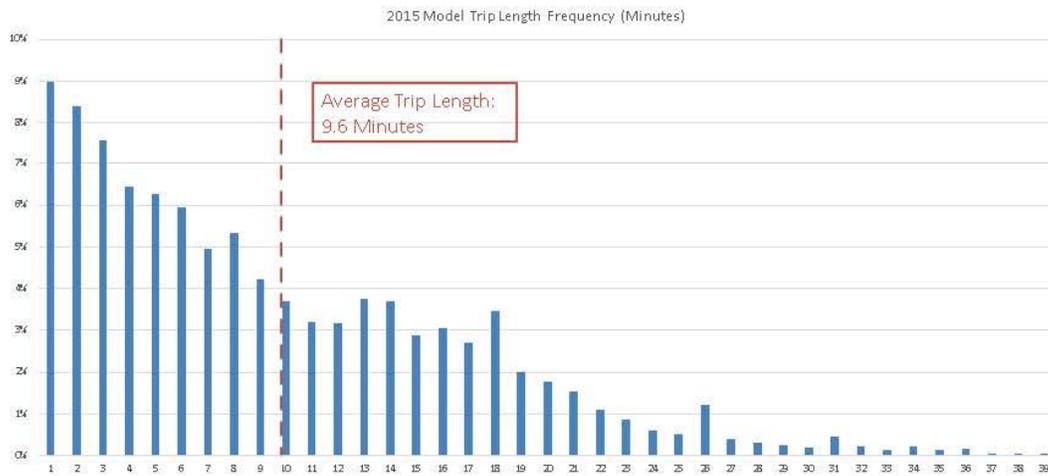


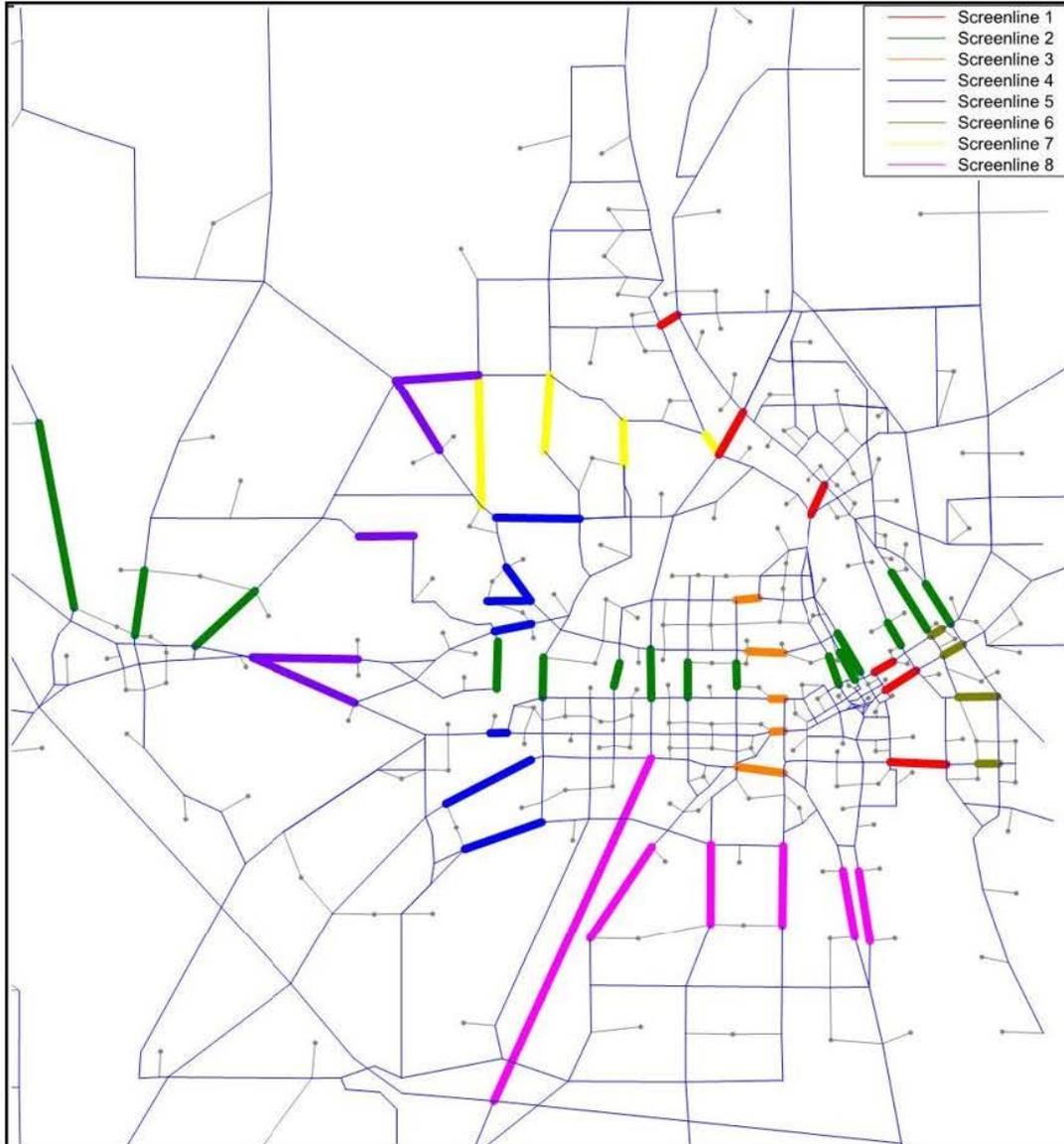
Table 5: Average Trip Length by Trip Purpose

Trip Purpose	Average Trip Length (minutes)
Home-Based Work	24.6
Home-Based Other	17.3
Non Home-Based	10.9

Trip Assignment

Trip assignment was calibrated and validated based on link specific comparisons to traffic counts. Screenlines and cutlines (not crossing entire urban area) were used to tabulate the magnitude of traffic flow in general corridors. This analysis was used to assist in the validation of the trip distribution and assignment steps of the TDM. The screenlines are shown in Figure 6.

Figure 6: APO Model Screenlines/Cutlines



Validation of Existing Model

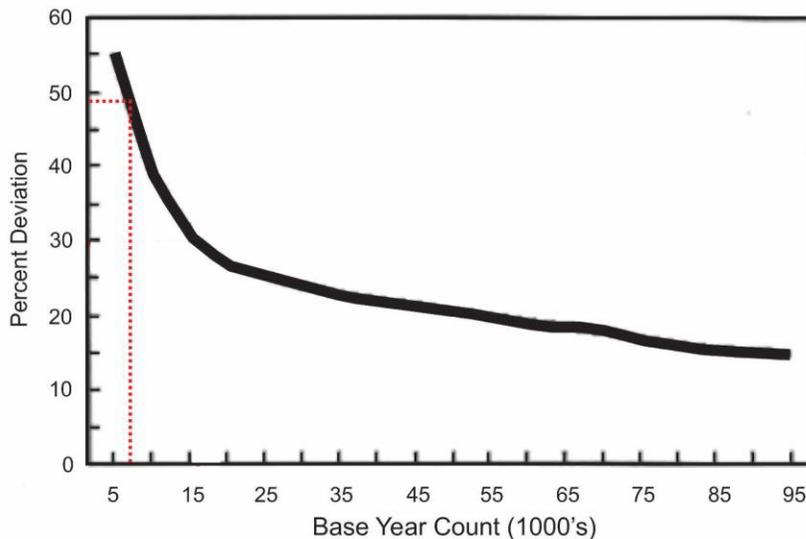
For this study, model validation is defined as the degree to which the travel demand model replicates known ground counts. Based on Federal Highway Administration guidance, link Root Mean Square Error (RMSE) gauges this degree of validation. Existing MnDOT traffic counts were provided by the APO. In addition, district level trip and vehicle miles travelled (VMT) analyses were performed to better understand model validation.

Validation Results

Link Root Mean Squared Error (RMSE): Analysts frequently use a restrictive error measure called Root Mean Squared Error (RMSE), which compares the average modeled volume to the average count volumes and does not allow an exceedingly high volume to be averaged and offset against an exceedingly low volume. Furthermore, error on higher volume facilities is weighted more heavily compared to lower volume facilities.

For the St. Cloud TDM, a RMSE of 37 percent was achieved with an average count volume of 8,100 vehicles per day. As shown in Figure 7, this RMSE value is reasonable given the standard tolerates higher percentage errors with low numeric differences (a result of typical count deviations on low-volume roads and the low impact of those deviations on forecast lane requirements). Model performance for low volume roads is affected by the resources available to refine the geographic size of model zones, the roadway geometrics and traffic control parameters in the model.

Figure 7: Maximum Desirable Error for Link Volumes



Source: *Model Validation and Reasonability Checking Manual Second Edition (FHWA, 2010)*

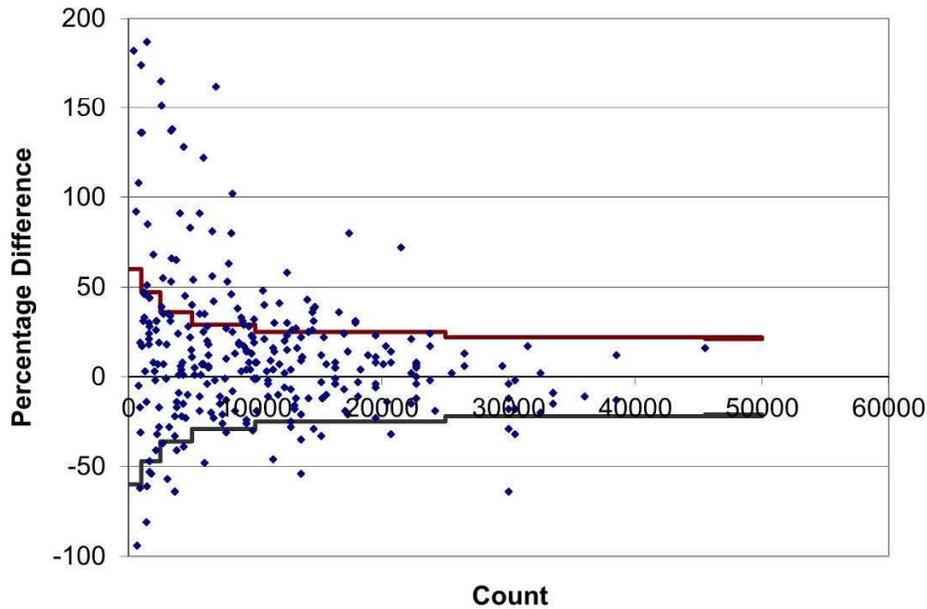
Link Deviation from Count: Differences between modeled volumes and ground counts are expected in a model. The significance of any difference depends on whether the difference affects roadway requirements (such as the number of lanes) and accounts for variance in traffic counts. For this analysis, the model attained a 37 percent RMSE, which will necessitate applying an industry-standard post-model adjustment process. As shown in Figure 8, high volume roadways had the best fit; some roadways, particularly low volume roadways, exceeded the desirable deviation. Link variation from ground counts by volume group is shown in Table 6. Note that low volume/high deviation links are most commonly areas where not all of the local roadways are represented in the roadway network, which concentrates traffic onto the roadways that are included in the roadway network.

Table 6: Link Deviation by Volume Group*

Volume Group	Links With Counts	Sum of Model Volume	Sum of Existing Volume	Total Deviation from Count	RMSE
0 - 2,499	244	415,344	304,105	40%	129.6%
2500 - 4,999	89	421,853	326,536	32%	77.7%
5,000- 9,999	125	1,090,001	924,100	18%	43.7%
10,000- 19,999	113	1,733,375	1,620,000	7%	25.4%
20,000- 29,999	54	1,293,862	1,257,200	3%	16.7%
30,000 - 40,000	24	707,368	786,000	-10%	19.2%
>40,000	1	52,620	45,500	16%	16.0%
Total	650	5,714,423	5,263,441	9%	37.0%

* Links with counts

Figure 8: Model Performance for Segments with Counts



Q:\Projects\11430\ModelRun\StCloud_TDM_SRF_Rev_112414\Base\Validation\Validation_20181107.xlsx

11/8/2018 10:24 AM

In addition to calculating the link deviation by volume group, screenlines were also used to evaluate model validation. Model performance across the screenlines is shown in Table 7. Three screenlines exceed desirable deviation as defined in Figure 7. Screenline 1 (measuring Mississippi River crossings) is slightly higher than the desired maximum (projected), but the nearby Screenline 6 paralleling TH 10 and Lincoln Avenue shows a high deviation of 39 percent and appears to be affected by zone sizes and centroid connections. A large portion of the deviation in Screenline 8 is the result of the existing model’s treatment of the heavily access-controlled Highway 15 relative to its classification. Systematic remedies for these differences are addressed in the following section.

Table 7: Screenline Validation

Screenline	Sum of Model Volume	Sum of Existing Volume	Total Deviation from Count	RMSE
1	121,326	104,300	16%	25.5%
2	132,501	132,150	0.3%	29.1%
3	78,464	84,800	-7%	17.1%
4	46,394	49,350	-6%	43.9%
5	37,373	33,300	12%	39.9%
6	60,872	43,900	39%	51.5%
7	29,621	28,400	4%	36.2%
8	80,164	54,700	47%	69.5%

Potential Model Improvements

SRF previously reviewed the APO's TDM in 2014 and developed a memo documenting suggested model or modeling process improvements. These recommendations are repeated where appropriate. However, this section is more focused on structure changes, in the model, data inputs, and calibration.

Overall Model Structure

Continued use of Citilabs CUBE software for the APO model platform is recommended. The software is widely used by the other Metropolitan Planning Organizations in North Dakota, Minnesota and Wisconsin which increases the opportunities to efficiently collaborate and increases the availability of the APO model to non-national consulting firms. CUBE also provides the advantages of both user-friendly interfaces and option, as well as the ability to make incremental improvements to the model itself. For example, an option truck modeling process was recently added within the Duluth-Superior model.

Zone and District Structure

In the near-term, the APO should work with the State of Minnesota and others as part of the Census Participant Statistical Areas Program (PSAP). The 2020 Census is expected to discontinue a number of the small area geography estimates. The impact of this can be reduced by well-defined relationships between TAZs and other census geographies that are being continued. See <https://ctpp.transportation.org/policy-change-on-small-geography/psap-update-on-small-geography-delineation-criteria-oct-24-2018/> and similar sources of information for additional detail.

Formal adoption and use of district-level aggregations of model TAZs can provide useful summary of model inputs and outputs, Districts identified in this analysis have been included as part of the GIS information provided in this update.

Zonal geodatabases make processing of input information such as land use data, census or other demographic information more efficient.

Roadway/Transit Networks

Perhaps the most significant improvement that could be made in the APO model would be an update of the travel model roadway network. The current model uses a "link-and-node" vestige of the old travel model that dates to the TRANPLAN software over 20 years old. With advances in both the CUBE software and geographic information systems (GIS) a more efficient and integrated roadway network is achieved:

- Within CUBE, the network can be built directly from a GIS geodatabase. Any available (or model-developed) roadway or other attribute can be directly incorporated to the network

- The model can/should be based on MnDOT's updated linear referencing system, which provides access to much of the potential data
- The GIS-based network enhances quality control, review and display of both input and output networks
- GIS-based maps are more efficiently processed for reporting purpose
- Version control of roadway network alternatives is better maintained

In addition to the roadway system, if the APO is considering adding transit modeling, the agency in conjunction with the transit agency should consider adding GTFS (General Transit Feed Specification, <https://developers.google.com/transit/gtfs/>) to its transit GIS. This would not only provide enhanced online transit information but could be directly imported to the travel demand model GIS.

Regardless of the use of GIS, the APO's network updates should include more systematic and rule-based criteria for estimating speeds and capacities, to reflect general speeds, access spacing, intersection geometrics, etc. The current model relies significantly on manual adjustments to speeds to achieve reasonable volumes.

Trip Generation

Trip generation rates used in the model fall within generally accepted practice for small-medium MPO models as noted previously. However, there are areas where the MPO model would benefit from improvements or updates.

If the APO is considering implementing a mode choice model, the APO should convert the trip generation to a person-trip based model. This can be done applying a variety of conversion factors to the current vehicle trip-based trip generation.

One area where significant improvement could be made would be the use of a special generator treatment of the St. Cloud State University area. The university, with 15,000 students, is a large traffic generator with unique travel characteristics.

A second area where the APO model exhibits atypical behavior is external trips model. The last comprehensive internal/external travel survey in the St. Cloud was in 1997 and trip patterns are likely to have changed significantly.

For example, based on analysis of U.S. Census data, the APO study area contains 76,000 jobs, with 45 percent of the workers commuting in from outside of the model area. Conversely, 30 percent of the 60,000 employed labor force in the region commutes to jobs outside the region. These strong extra-regional flows would alter the typical work trip production and attraction rates in the travel demand model.

New methods in travel behavior data collection have improved the ease (though not always cost) of collecting travel behavior data. The current household travel survey in the Twin Cities area is using nearly exclusively cellphone-based data collection, with additional online options available. Such a survey would be used for area-specific trip generation (frequency, purpose and demographic), trip distribution, mode and roadway assignment information.

Similarly, new methods of “big data” analytics, such as INRIX, Airsage and Streetlight Analytics provide opportunities to estimate overall trip generation from an area, which can be used to approximate trip rates.

Trip Distribution

The above-mentioned “big data” travel flow data sources can also provide a good source of calibration data for trip distribution, although trip purposes can generally only be estimated without a true household survey with trip purpose-specific trips.

The APO should consider the viability of an agency user seat under MnDOT’s recent purchase of Streetlight Analytics data. This data can be used for origin-destination information, although the trip production/attraction capabilities are limited to estimations of the direction of the trip movements.

Finally, the current APO model does not use K-factors. While it is generally best not to use them there are situations, including major river crossings, where K-factors are valid.

Mode Choice

APO staff has expressed interest in incorporating mode choice into the APO’s TDM. The mode choice step in the TDM determines the mode which is used for each trip prior to trip assignment. This can include walk, SOV, HOV, local bus, express bus, LRT, CRT, and CRT.

Properly calibrated mode choice models require a comprehensive transit on-board survey, those general approximations can be made using borrowed sources of data, and a more simplified zone-based transit mode share approximation can be used.

Time-of-Day Assignment

The TDM assigns trips at the daily level. Assigning trips based on larger time periods (i.e. daily) assumes that there is no variation in travel times and paths within that time period, for example losing the impact of peak hour congestion within a broader peak period.

The APO should consider converting the TDM to peak hour (or peak period) assignment to better replicate actual travel conditions.

Advanced Traffic Assignment Practice

Currently, the APO’s TDM uses a static, daily, capacity constrained assignment. This assignment type is the most commonly used method in local TDMs. However, it limits the ability to use the model for many potential transportation system performance measures such as speed. In particular, peak intersection delay is difficult to model in traditional link-based daily assignment. Modeled volume-capacity ratio may exceed realistic levels and underestimate delay.

One option would be to better reflect the link or node capacities using appropriate capacity modifications, which may include capacity and volume-delay adjustments for roadway function, access spacing and type.

CUBE software program also supports junction-based assignment, which incorporates it does require the additional coding of intersection movements and controls within the model.

Dynamic Traffic Assignment (DTA) models address period aggregation assignment problems by simulating individual vehicles over time. There are several advantages of the DTA methodology, including:

- Peak-impacted travel routing
- Intersection control modeling
- Individual vehicle simulation
- Better realism in modeled speeds, flows, and paths
- Better visualization capabilities for analysis and presentation

A drawback for DTA is integration with a travel demand model greatly complicates the modeling process and would require greater training and expertise for the APO staff. Additionally, a variety of competing DTA products exist, resulting in a shortage of experience with any given product.

H:\Projects\11000\11430\TS\StCloud_APO_TDM_Update_Documentation.docx

EXHIBIT B – SAMPLE PRICE PLAN

Task	Professional Hours				Cost
	Alex A.	Bill B.	Carrie C.	Totals	
Hourly Rates	\$55	\$45	\$35		
Task 1 (hrs.)					
Task 1.1 (hrs.)	2	12	35	49	\$1,875.00
Task 1.2 (hrs.)	0	6	12	18	\$690.00
TASK 1 SUBTOTAL	2	18	47	67	\$2,565.00
Task 2 (hrs.)					
Task 2.1 (hrs.)	6	24	8	38	\$1,690.00
Task 2.2 (hrs.)	2	16	12	30	\$1,250.00
TASK 2 SUBTOTAL	8	40	20	68	\$2,940.00
Labor Sub-Total (Hrs.)	10	58	67	135	
Labor Cost	\$550.00	\$2,610.00	\$2,345.00		\$5,505.00
Overhead				145%	\$7,982.25
Fixed-Fee				12%	\$1,618.47
Travel					\$725.00
Printing and Mailing					\$200.00
TOTAL COST					\$16,030.72

**If sub-contractors are used, each sub-contractor should include a similar price plan for their respective task(s).*

EXHIBIT C – D.B.E. SPECIAL PROVISIONS

RACE AND GENDER NEUTRAL DBE GOAL

POLICY STATEMENT

It is the policy of the Minnesota Department of Transportation (Mn/DOT) that DBEs, as defined in 49 C.F.R. Part 26, and other small businesses shall have the maximum feasible opportunity to participate in contracts financed in whole or in parts with federal funds. Consistent with this policy and Title VI of 1964 Civil Rights Act, Mn/DOT will not allow any person or business to be excluded from participation in, denied the benefits of, or otherwise be discriminated against in connection with the award and performance of any U.S. Department of Transportation (DOT) assisted contract because of sex, race, color, or national origin. Mn/DOT has established a Disadvantaged Business Enterprise (DBE) program in accordance with the regulations of the DOT, 49 C.F.R. Part 26 to implement this policy.

CONTRACT ASSURANCE

The Contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out all the applicable requirements of 49 C.F.R. Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as Mn/DOT deems appropriate.

Furthermore, Title VI of the Civil Rights Act of 1964 assures that no person or group of persons may, on the grounds of race, color, national origin, sex, age, handicap or

disability, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any and all programs or activities administered by Mn/DOT. For further information regarding Title VI, please contact the Office of Civil Rights, 395 John Ireland Blvd., MS 170, St. Paul, MN 55155-1899. Our telephone number is: (651) 366-3073.

The above information is applicable to every contractor including every tier of subcontractors, supplier or service providers on this project. It is the responsibility of the prime contractor, subcontractors, suppliers and service providers to ensure equal opportunity for all firms to participate on this project.

DBE GOAL

A **Race and Gender Neutral** DBE goal has been assigned to this procurement. While no numeric DBE goal is assigned, the Contractor, sub-recipient or subcontractor should make every reasonable effort to solicit DBE firms to participate as subcontractors, service providers and suppliers on this project.

ADDITIONAL SUBCONTRACTORS, SUPPLIERS AND SERVICE PROVIDERS

Whenever an additional subcontractor, supplier or service provider is selected, and this information has not been previously reported to the Mn/DOT Office of Civil Rights, the Contractor or its designated OCR Officer shall promptly provide Mn/DOT OCR office with the following information regarding the subcontract:

-
1. The name of the subcontractor, supplier, or service provider;
 2. The total dollar amount of the subcontract;
 3. The specific work items covered by the subcontract;
 4. Estimated quantities of each work item; and
 5. Individual unit prices (if applicable).

SUBMITTAL OF DOCUMENTATION

Upon award of the contract, the Contractor shall submit on the attached Bidders List, a complete list of all subcontractors, service providers, suppliers and consultants that submitted bids, and shall indicate the

successful quotes that will be used on the contract.

Additionally, during the life of the contract, the Contractor shall submit progress payment reports on the attached Contractor Payment Form regarding the payments made to its subcontractors, suppliers, service providers and sub-consultants. In accordance with federal regulations and Minnesota's Prompt Payment law, Contractors are required to pay their subcontractors within ten (10) days of receiving progress payments from Mn/DOT. Contractors are also required to submit to the Project Engineer and the Mn/DOT OCR the Contractor Payment Forms no later than ten (10) days after receiving payment from Mn/DOT.



MINNESOTA DEPARTMENT OF TRANSPORTATION
OFFICE OF CIVIL RIGHTS

BIDDER'S LIST
(Consultant Contracts)

State Project #: _____

Prime Contractor _____

Contract Amount _____

Goal _____

Total DBE Commitment _____ (_____ %)

List all comparative quotes of participants performing on the project and participants that bid, including DBEs and non-DBEs. Include Sub-consultants (or Subcontractors, Suppliers & Service providers).

1. Name, Contact Name and Phone number of Contractor *	Check (✓) Firms That Will Be Used	Description of Work	Subcontract Dollar Amount
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

* Please indicate with an asterisk (*) or check mark (✓) which sub-consultants (or subcontractors, suppliers and service providers) you will be using on the project.

(Make additional copies of this form as necessary)

EXHIBIT D – FEDERAL CONTRACT CLAUSES

REQUIRED CONTRACT CLAUSES

The Contractor agrees to comply with the following requirements, and agrees to pass through these requirements to its subcontractors and third party contractors, as applicable.

A. ACCESS TO RECORDS AND REPORTS 2 CFR §200.336

ACCESS TO RECORDS - The following access to records requirements apply to this Contract:

The Contractor will maintain all books, documents, papers, accounting records, and other evidence pertaining to cost incurred in connection with work and services performed under this contract. The Contractor must make such materials available at its office at all reasonable times during the term of this contract, and for six years from the date of final payment under this contract, for inspection by the Saint Cloud APO. Copies of such materials will be furnished to the Saint Cloud APO upon one week notice during the term of this contract and for six years from the date of final payment under this contract.

B. NO GOVERNMENT OBLIGATION TO THIRD PARTIES

NO OBLIGATION BY THE STATE OR FEDERAL GOVERNMENT - (1) The Saint Cloud APO and Contractor acknowledge and agree that, notwithstanding any concurrence by the State or Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the State or Federal Government, the State or Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Saint Cloud APO, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract. (2) The Contractor agrees to include the above clause in each subcontract financed in whole or in part with State or Federal assistance provided by FHWA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

C. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS

PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS - (1) The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FHWA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

(2) The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FHWA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to the provisions.

All invoices submitted to the Saint Cloud APO for payment shall include the following certification signed by the Contractor's Project Manager:

"I certify to the best of my knowledge the belief that this request for payment is true, complete, and accurate, and the expenditures are for the purposes and objectives set forth in the project contract. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me and my employer to criminal or civil penalties for fraud, false statements, false claims, or otherwise."

D. CIVIL RIGHTS REQUIREMENTS

29 U.S.C. §623, 42 U.S.C. §2000; 42 U.S.C. §6102, 42 U.S.C. §12112; 42 U.S.C. §12132, 49 U.S.C. §5332; 29 CFR PART 1630, 41 CFR PARTS 60 ET SEQ.

CIVIL RIGHTS - The following requirements apply to the underlying contract:

(1) Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FHWA may issue.

(2) Equal Employment Opportunity - The following equal employment opportunity requirements apply to the underlying contract:

(a) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and

selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FHWA may issue.

(b) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § § 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FHWA may issue.

(c) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FHWA may issue.

(3) The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FHWA, modified only if necessary to identify the affected parties.

E. BREACHES AND DISPUTE RESOLUTION

DISPUTES - Disputes arising in the performance of this contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of (Recipient)'s [title of employee]. This decision shall be final and conclusive unless within [ten (10)] days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the [title of employee]. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the [title of employee] shall be binding upon the Contractor and the Contractor shall abide by the decision.

PERFORMANCE DURING DISPUTE - Unless otherwise directed by the Saint Cloud APO, Contractor shall continue performance under this Contract while matters in dispute are being resolved.

CLAIMS FOR DAMAGES - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

REMEDIES - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the Saint Cloud APO and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State of Minnesota.

RIGHTS AND REMEDIES - The duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the Saint Cloud APO or Contractor shall constitute a

waiver of any right or duty afforded any of them under the contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

**F. DISADVANTAGED BUSINESS ENTERPRISE (DBE)
49 CFR PART 26**

- a. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs*. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. A separate contract goal of **Race and Gender Neutral** has been established for this procurement.
- b. Responders are directed to read the DBE Special Provisions, as posted at <http://www.dot.state.mn.us/consult/index.html> under the Prof/Tech Notices section and attached as Appendix B. The DBE Special Provisions explains how to comply with the DBE requirements. In particular, see language regarding document(s) that a responder must submit with its proposal. The form required in the proposal can be found on page C-3 of this document. To view a listing of certified DBE's, please contact the Mn/DOT Office of Civil Rights at 651-366-3073, TTY 651-282-5799, or visit their website at <http://www.dot.state.mn.us/civilrights>.
- c. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as Saint Cloud APO deems appropriate. Each subcontract the Contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).
- d. The Contractor will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.
- e. The Contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the Contractor's receipt of payment for that work from the Saint Cloud APO. In addition, [the contractor may not hold retainage from its subcontractors.] [is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed.] [is required to return any retainage payments to those subcontractors within 30 days after incremental acceptance of the subcontractor's work by the Saint Cloud APO and contractor's receipt of the partial retainage payment related to the subcontractor's work.]
- f. The Contractor must promptly notify Saint Cloud APO, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The Contractor may not

terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of Saint Cloud APO.

G. PROCUREMENT OF RECOVERED MATERIALS
2 CFR §200.322

PROCUREMENT OF RECOVERED MATERIALS - The following requirements apply to the underlying contract:

The Saint Cloud APO and the Contractor must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only item designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the items exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000.

H. DISCLAIMER

DISCLAIMER – For contracts funded with federal funds, all final documents produced under this contract shall include the following statement on the title page:

"The preparation of this report has been funded in part by the U.S. Department of Transportation, Federal Highway Administration, and Federal Transit Administration. The contents of this document reflect the views of the authors who are responsible for the facts or accuracy of the data presented therein. The contents do not necessarily reflect the official views or policies of the U.S. Department of Transportation. This report does not constitute a standard, specification, or regulation."

For contracts funded with federal and state funds, all final documents produced under this contract shall include the following statement on the title page:

"The preparation of this report has been funded in part by the U.S. Department of Transportation, Federal Highway Administration, and Federal Transit Administration, and the Minnesota Department of Transportation. The contents of this document reflect the views of the authors who are responsible for the facts or accuracy of the data presented therein. The contents do not necessarily reflect the official views or policies of the U.S. Department of Transportation or the Minnesota Department of Transportation. This report does not constitute a standard, specification, or regulation."

I. TERMINATION FOR CAUSE AND FOR CONVENIENCE
2 CFR PART 200, APPENDIX II(B)

TERMINATION OF AGREEMENT - Either the Contractor or Saint Cloud APO may, by giving written notice specifying the effective date which shall not be less than thirty (30) days from the date such notice is given, terminate this Agreement in whole or in part. In the event of termination, all property and finished or unfinished documents and other writing prepared by the Contractor under this Agreement shall be delivered to Saint Cloud APO and Contractor shall be entitled to compensation for time expended and expenses incurred to the date of termination.

J. FEDERAL CHANGES

FEDERAL CHANGES – Contractor shall at all times comply with all applicable State and Federal regulations, policies, procedures and directives. Contractor’s failure to so comply shall constitute a material breach of this contract.

K. LOBBYING

LOBBYING – Contracts for **more than \$100,000** must require the contractor and any subcontractor(s) to file a lobbying certification. The funding threshold is based on the total contract award (i.e., prime and any subs).

L. REMEDIES

2 CFR PART 200, APPENDIX II(A)

REMEDIES - Contracts for **more than \$150,000** must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

M. CLEAN AIR AND CLEAN WATER

42 U.S.C. 7401 – 7671Q.; 33 U.S.C. 1251-1387

CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT - Contracts for **more than \$150,000** must contain a provision that requires the Contractor to agree to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act and the Federal Water Pollution Control Act as amended. Violations must be reported to the FHWA and the Regional Office of the Environmental Protection Agency (EPA).

OTHER REQUIRED CONTRACT CLAUSES

The Contractor agrees to comply with the following additional requirements.

N. CONDITIONS OF PAYMENT

All services provided by the Contractor under this contract must be performed to the satisfaction of the Saint Cloud APO and in accordance with all applicable federal, state, and local laws, ordinances, rules, and regulations. The Consultant will not receive payment for work found by the Saint Cloud APO to be unsatisfactory or performed in violation of federal, state, or local law.

O. ASSURANCES – NON-CONSTRUCTION PROGRAMS

Contractor certifies that it complies with all the applicable clauses identified in SF-424B, Assurances – Non-Construction Programs, as provided at <https://www.grants.gov/forms/sf-424-family.html>.

EXHIBIT E – REQUIRED AFFIDAVITS AND CERTIFICATIONS

- AFFIDAVIT OF NONCOLLUSION (SEE PAGE E-4)
- CONFLICT OF INTEREST CHECKLIST AND DISCLOSURE FORM (SEE PAGE E-5)
- AFFIRMATIVE ACTION CERTIFICATION (SEE PAGE E-9)
- IMMIGRATION STATUS CERTIFICATION (SEE PAGE E-11)
- CERTIFICATION OF RESTRICTION ON LOBBYING (SEE PAGE E-13)
- ASSURANCES FOR NON-CONSTRUCTION PROGRAMS (SEE PAGE E-14)
- CERTIFICATE OF LIABILITY INSURANCE (SEE PAGE E-18)

DESCRIPTION OF REQUIRED FORMS

AFFIDAVIT OF NONCOLLUSION

Responders must complete the "Affidavit of Noncollusion" found in this Appendix and include it with the response. The successful responder will be required to submit acceptable evidence of compliance with workers' compensation insurance coverage requirements prior to execution of the Contract. The successful responder will be required to submit pre-award audit information and comply with audit standards.

ORGANIZATIONAL CONFLICTS OF INTEREST

The responder warrants that, to the best of its knowledge and belief, and except as otherwise disclosed, there are no relevant facts or circumstances, which could give rise to organizational conflicts of interest. An organizational conflict of interest exists when, because of existing or planned activities or because of relationships with other persons, a vendor is unable or potentially unable to render impartial assistance or advice to Saint Cloud APO, or the successful responder's objectivity in performing the Contract work is or might be otherwise impaired, or the successful

responder has an unfair competitive advantage. The responder agrees that, if after award, an organizational conflict of interest is discovered, an immediate and full disclosure in writing must be made to Saint Cloud APO, which must include a description of the action, which the successful responder has taken or proposes to take to avoid or mitigate such conflicts.

If an organization conflict of interest is determined to exist, Saint Cloud APO may, at their discretion, cancel the Contract. In the event the responder was aware of an organizational conflict of interest prior to the award of the Contract and did not disclose the conflict to the contracting officer, Saint Cloud APO may terminate the Contract for default. The provisions of this clause must be included in all subcontracts for work to be performed similar to the service provided by the prime contractor, and the terms "contract," "contractor," and "contracting officer" modified appropriately to preserve Saint Cloud APO's rights. Responders must complete the "Conflict of Interest Checklist and Disclosure Form" and submit it along with the response, but not as a part of the response.

AFFIRMATIVE ACTION DATA

For all Contracts estimated to be **in excess of \$100,000**, responders are required to complete the "Affirmative Action Certification" page and include it with the response.

IMMIGRATION STATUS CERTIFICATION

By order of the Governor (Governor's Executive Order 08-01), vendors and subcontractors MUST certify compliance with the Immigration Reform and Control Act of 1986 (8 U.S.C. 1101 et seq.) and certify use of the *E-Verify* system established by the Department of Homeland Security. *E-Verify* program information can be found at <http://www.dhs.gov/ximgtn/programs>.

If any response to a solicitation is or could be **in excess of \$50,000**, vendors and subcontractors must certify compliance with items 1 and 2 of the Immigration Status Certification by completing the required form and submitting it with their proposal.

In addition, prior to the delivery of the product or initiation of services, vendors must obtain this certification from all subcontractors who will participate in the performance of the contract. All subcontractor certifications must be kept on file with the contract vendor and made available to the state upon request.

RESTRICTIONS ON LOBBYING

Contractors that apply or bid for an award of **\$100,000 or more** must complete the required certification that it will not and has not used Federally appropriated funds to pay any person or organization for influencing an officer or employee of any agency, a member of Congress, officer or

employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. 1352. The Contractor must disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. The responder must submit the required form with their proposal.

Pursuant to Minnesota Statutes §10A.06, no person may act as or employ a lobbyist for compensation that is dependent upon the result or outcome of any legislation or administrative action.

STANDARD OF PERFORMANCE, INSURANCE AND INDEMNITY

All services to be performed by Contractor hereunder shall be performed in a skilled, professional and non-negligent manner. Contractor shall obtain and maintain at his/her/its cost and expense:

- 1. Comprehensive general liability insurance** that covers the consultant services performed by Contractor for Saint Cloud APO with a combined single limit of liability of at least One Million Dollars (\$1,000,000.00).
- 2. Errors and omissions or equivalent insurance** that covers the contractor services performed by Contractor for Saint Cloud APO with a combined single limit of liability of at least One Million Dollars (\$1,000,000.00).
- 3. Worker's compensation insurance** covering Contractor (if an individual) and all of Contractor's employees with coverages and limits of coverage required by law.

Contractor shall indemnify and hold harmless Saint Cloud APO from and against all errors, omissions and/or negligent acts causing claims, damages, liabilities and damages arising out of the performance of his/her/its services hereunder.

Contractor certifies that Contractor is in compliance with all applicable worker's compensation laws, rules and regulations. Neither Contractor (if an individual) nor Contractor's employees and agents will be considered Saint Cloud APO employees. Any claims that may arise under any worker's compensation laws on behalf of any employee of Contractor and any claims made by any third party as a consequence of any act or omission on the part of Contractor or any employee of Contractor are in no way Saint Cloud APO's obligation or responsibility. By signing this Agreement, Contractor certifies that Contractor is in compliance with these laws and regulations.

Contractor shall deliver to Saint Cloud APO, concurrent with the execution of this Agreement, one or more certificate(s) of insurance evidencing that Consultant has the insurance required by this Agreement in full force and effect.

Saint Cloud APO shall be named as an additional insured under such policy(ies). The insurer will provide at least thirty (30) days prior written notice to Saint Cloud APO, without fail, of any cancellation, non-renewal, or modification of any the policy(ies) or coverage evidenced by said certificate(s) for any cause, except for nonpayment of premium. The insurer will provide at least ten (10) days prior written notice to Saint Cloud APO, without fail, of any cancellation of any of the policy(ies) or coverage evidenced by said certificate(s) for nonpayment of premium. Contractor

shall provide Saint Cloud APO with appropriate endorsements to its policy(ies) reflecting the status of Saint Cloud APO as an additional insured and requiring that the foregoing required notice of cancellation, material alteration or non-renewal be provided Saint Cloud APO by the insurance company providing such insurance policy to Contractor.

The Contractor shall require any subcontractor permitted by Saint Cloud APO under Section 3 hereof to perform work for Contractor on the Project to have in full force and effect the insurance coverage required of the Contractor under this Agreement before any subcontractor(s) begin(s) work on the Project. Contractor shall require any such subcontractor to provide to Contractor a Certificate of Insurance evidencing that such subcontractor has the insurance required by this Agreement in full force and effect. The Contractor and Saint Cloud APO shall be named as additional insureds under such policies. The insurer will provide 30-day written notice to Saint Cloud APO and Contractor, without fail, of any cancellation, non-renewal, or modification of the policy(ies) or coverage evidenced by said certificate(s) for any cause, except for nonpayment of premium. The insurer will provide at least ten (10) days prior written notice to Saint Cloud APO, without fail, of any cancellation of any of the policy(ies) or coverage evidenced by said certificate(s) for nonpayment of premium. Saint Cloud APO shall also be provided with appropriate endorsements to its policy(ies) reflecting the status of Saint Cloud APO as an additional insured and requiring that the foregoing required notice of cancellation, material alteration or non-renewal be provided Saint Cloud APO by the insurance company providing such insurance policy(ies).

AFFIDAVIT OF NONCOLLUSION

I swear (or affirm) under the penalty of perjury:

1. That I am the Responder (if the Responder is an individual), a partner in the company (if the Responder is a partnership), or an officer or employee of the responding corporation having authority to sign on its behalf (if the Responder is a corporation);
2. That the attached proposal submitted in response to the _____ Request for Proposals has been arrived at by the Responder independently and has been submitted without collusion with and without any agreement, understanding or planned common course of action with, any other Responder of materials, supplies, equipment or services described in the Request for Proposal, designed to limit fair and open competition;
3. That the contents of the proposal have not been communicated by the Responder or its employees or agents to any person not an employee or agent of the Responder and will not be communicated to any such persons prior to the official opening of the proposals; and
4. That I am fully informed regarding the accuracy of the statements made in this affidavit.

Responder's Firm Name: _____

Authorized Signature: _____

Date: _____

Subscribed and sworn to me this: _____ day of _____

Notary Public: _____

My commission expires: _____

CONFLICT OF INTEREST CHECKLIST AND DISCLOSURE FORM

PURPOSE OF THIS CHECKLIST. This checklist is provided to assist proposers in screening for potential organizational conflicts of interest. The checklist is for the internal use of proposers and does not need to be submitted, however, the Disclosure of Potential Conflict of Interest form should be submitted in a separate envelope along with your proposal.

DEFINITION OF "PROPOSER". As used herein, the word "Proposer" includes both the prime contractor and all proposed subcontractors.

CHECKLIST IS NOT EXCLUSIVE. Please note that this checklist serves as a guide only, and that there may be additional potential conflict situations not covered by this checklist. If a proposer determines a potential conflict of interest exists that is not covered by this checklist, that potential conflict must still be disclosed.

USE OF THE DISCLOSURE FORM. A proposer must complete the attached disclosure form and submit it with their Proposal. If a proposer determines a potential conflict of interest exists, it must disclose the potential conflict to Saint Cloud APO; however, such a disclosure will not necessarily disqualify a proposer from being awarded a Contract. To avoid any unfair "taint" of the selection process, the disclosure form should be provided separate from the bound proposal, and it will not be provided to selection committee members. Saint Cloud APO personnel will review the disclosure and the appropriateness of the proposed mitigation measures to determine if the proposer may be awarded the contract notwithstanding the potential conflict. By statute, resolution of conflict of interest issues is ultimately at the sole discretion of Saint Cloud APO.

MATERIAL REPRESENTATION. The proposer is required to submit the attached disclosure form either declaring, to the best of its knowledge and belief, either that no potential conflict exists, or identifying potential conflicts and proposing remedial measures to ameliorate such conflict. The proposer must also update conflict information if such information changes after the submission of the proposal. Information provided on the form will constitute a material representation as to the award of this Contract. Saint Cloud APO reserve the right to cancel or amend the resulting contract if the successful proposer failed to disclose a potential conflict, which it knew or should have known about, or if the proposer provided information on the disclosure form that is materially false or misleading.

APPROACH TO REVIEWING POTENTIAL CONFLICTS. Saint Cloud APO recognizes that proposer's must maintain business relations with other public and private sector entities in order to continue as viable businesses. Saint Cloud APO will take this reality into account as it evaluates the appropriateness of proposed measures to mitigate potential conflicts. It is not Saint Cloud APO's intent to disqualify proposers based merely on the existence of a business relationship with another entity, but rather only when such relationship causes a conflict that potentially impairs the proposer's ability to provide objective advice to Saint Cloud APO. Saint Cloud APO would seek to disqualify proposers only in those cases where a potential conflict cannot be adequately mitigated. Nevertheless, Saint Cloud APO must follow statutory guidance on Organizational Conflicts of Interest.

STATUTORY GUIDANCE. Minnesota Statutes §16C.02, subd. 10 (a) places limits on state agencies ability to contract with entities having an “Organizational Conflict of Interest”. For purposes of this checklist and disclosure requirement, the term “Vendor” includes “Proposer” as defined above. Pursuant to such statute, “Organizational Conflict of Interest” means that because of existing or planned activities or because of relationships with other persons: (1) the vendor is unable or potentially unable to render impartial assistance or advice to the state; (2) the vendor’s objectivity in performing the contract work is or might otherwise be impaired; or (3) the vendor has an unfair advantage.

ADDITIONAL GUIDANCE FOR PROFESSIONALS LICENSED BY THE MINNESOTA BOARD OF ENGINEERING. The Minnesota Board of Engineering has established conflict of interest rules applicable to those professionals licensed by the Board (see Minnesota Rules part 1805.0300) Subpart 1 of the rule provides “A licensee shall avoid accepting a commission where duty to the client or the public would conflict with the personal interest of the licensee or the interest of another client. Prior to accepting such employment, the licensee shall disclose to a prospective client such facts as may give rise to a conflict of interest”.

AN ORGANIZATIONAL CONFLICT OF INTEREST MAY EXIST IN ANY OF THE FOLLOWING CASES:

- ❑ The proposer, or its principals, own real property in a location where there may be a positive or adverse impact on the value of such property based on the recommendations, designs, appraisals, or other deliverables required by this Contract.
- ❑ The proposer is providing services to another governmental or private entity and the proposer knows or has reason to believe, that entity’s interests are, or may be, adverse to the state’s interests with respect to the specific project covered by this contract. **Comment:** the mere existence of a business relationship with another entity would not ordinarily need to be disclosed. Rather, this focuses on the nature of services commissioned by the other entity. For example, it would not be appropriate to propose on a Saint Cloud APO project if a local government has also retained the proposer for the purpose of persuading Saint Cloud APO to stop or alter the project plans.
- ❑ The Contract is for right-of-way acquisition services or related services (e.g. geotechnical exploration) and the proposer has an existing business relationship with a governmental or private entity that owns property to be acquired pursuant to the Contract.
- ❑ The proposer is providing real estate or design services to a private entity, including but not limited to developers, whom the proposer knows or has good reason to believe, own or are planning to purchase property affected by the project covered by this Contract, when the value or potential uses of such property may be affected by the proposer’s performance of work pursuant to this Contract. “Property affected by the project” includes property that is in, adjacent to, or in reasonable proximity to current or potential right-of-way for the project. The value or potential uses of the private entity’s property may be affected by the proposer’s work pursuant to the Contract when such work involves providing recommendations for right-of-way acquisition, access control, and the design or location of frontage roads and

interchanges. **Comment:** this provision does not presume proposers know or have a duty to inquire as to all of the business objectives of their clients. Rather, it seeks the disclosure of information regarding cases where the proposer has reason to believe that its performance of work under this contract may materially affect the value or viability of a project it is performing for the other entity.

- ❑ The proposer has a business arrangement with a current Saint Cloud APO employee or immediate family member of such employee, including promised future employment of such person, or a subcontracting arrangement with such person, when such arrangement is contingent on the proposer being awarded this Contract. This item does not apply to pre-existing employment of current or former Saint Cloud APO employees, or their immediate family members. **Comment:** this provision is not intended to supersede any Saint Cloud APO policies applicable to its own employees accepting outside employment. This provision is intended to focus on identifying situations where promises of employment have been made contingent on the outcome of this particular procurement. It is intended to avoid a situation where a proposer may have unfair access to “inside” information.
- ❑ The proposer has, in previous work for the state, been given access to “data” relevant to this procurement or this project that is classified as “private” or “nonpublic” under the Minnesota Government Data Practices Act, and such data potentially provides the proposer with an unfair advantage in preparing a proposal for this project. **Comment:** this provision will not, for example, necessarily disqualify a proposer who performed some preliminary work from obtaining a final design Contract, especially when the results of such previous work are public data available to all other proposers. Rather, it attempts to avoid an “unfair advantage” when such information cannot be provided to other potential proposers. Definitions of “government data”, “public data”, “non-public data” and “private data” can be found in Minnesota Statutes Chapter 13.
- ❑ The proposer has, in previous work for the state, helped create the “ground rules” for this solicitation by performing work such as: writing this solicitation, or preparing evaluation criteria or evaluation guides for this solicitation.
- ❑ The proposer, or any of its principals, because of any current or planned business arrangement, investment interest, or ownership interest in any other business, may be unable to provide objective advice to the state.

DISCLOSURE OF POTENTIAL CONFLICT OF INTEREST

Having had the opportunity to review the Organizational Conflict of Interest Checklist, the proposer hereby indicates that it has, to the best of its knowledge and belief:

____ Determined that no potential organizational conflict of interest exists.

____ Determined a potential organizational conflict of interest as follows:

Describe nature of potential conflict:

Describe measures proposed to mitigate the potential conflict:

Signature

Date

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure form with APO personnel.

Name

Phone

AFFIRMATIVE ACTION CERTIFICATION

If your response to this solicitation is or could be in excess of \$100,000, complete the information requested below to determine whether you are subject to the Minnesota Human Rights Act (Minnesota Statutes 363A.36) certification requirement, and to provide documentation of compliance if necessary. It is your sole responsibility to provide this information and—if required—to apply for Human Rights certification prior to the due date and time of the bid or proposal and to obtain Human Rights certification prior to the execution of the contract. The State of Minnesota is under no obligation to delay proceeding with a contract until a company receives Human Rights certification.

BOX A – For companies which have employed more than 40 full-time employees within Minnesota on any single working day during the previous 12 months. All other companies proceed to BOX B.

Your response will be rejected unless your business:

Has a current Certification of Compliance issued by the Minnesota Department of Human Rights (MDHR) -or- Has submitted an affirmative action plan to the MDHR, which the Department received prior to the date and time the responses are due.

Check one of the following statements if you have employed more than 40 full-time employees in Minnesota on any single working day during the previous 12 months:

- We have a current Certificate of Compliance issued by the MDHR. **Proceed to Box C. Include a copy of you Certification with your response**
- We do not have a current Certificate of Compliance; However, we submitted an Affirmative Action Plan to the MDHR for approval, which the Department received on _____(date). If the date is the same as the response due date, indicate the time your plan was received: _____(time). **Proceed to Box C.**
- We do not have a Certification of Compliance, nor has the MDHR received an Affirmative Action Plan from our company. We acknowledge that our response will be rejected. Proceed to Box C. Contact the MDHR for assistance. (See below for contact information)

Please note: Certificates of Compliance must be issued by the MDHR. Affirmative Action Plans must be approved by the Federal government, a county or a municipality must still be received, reviewed and approved by the MDHR before a Certification can be issued.

BOX B – For those companies not described in BOX A

Check below

- We have not employed more than 40 full-time employees on any single working day in Minnesota within the previous 12 months. **Proceed to BOX C.**

BOX C – For all companies

By signing this statement, you certify that the information provided is accurate and that you are authorized to sign on behalf of the responder. You also certify that you are in compliance with federal affirmative action requirements that may apply to your company. (These requirements are generally triggered only by participating as a prime or subcontractor on federal projects or contracts. Contractors are alerted to these requirements by the federal government.)

Name of Company: _____ Date: _____

Authorized Signature: _____ Phone: _____

Printed Name: _____ Title: _____

For assistance with this form, contact:

Minnesota Department of Human Rights, Compliance Services Section

Mail: 190 East 5th Street, Suite 700
Saint Paul, Minnesota 55101

Email: employerinfo@therightsplace.net

Web: www.humanrights.state.mn.us

TC Metro: (651) 296-5663

Toll Free: 800-657-3704

Fax: (651) 296-9042

TTY: (651) 296-1283

IMMIGRATION STATUS CERTIFICATION

By order of the Governor (Governor's Executive Order 08-01), vendors and subcontractors MUST certify compliance with the Immigration Reform and Control Act of 1986 (8 U.S.C. 1101 et seq.) and certify use of the *E-Verify* system established by the Department of Homeland Security.

E-Verify program information can be found at <http://www.dhs.gov/ximgtn/programs>.

If any response to a solicitation is or could be in excess of \$50,000, vendors and subcontractors must certify compliance with items 1 and 2 below. In addition, prior to the delivery of the product or initiation of services, vendors MUST obtain this certification from all subcontractors who will participate in the performance of the Contract. All subcontractor certifications must be kept on file with the Contract vendor and made available to the state upon request.

1. The company shown below is in compliance with the Immigration Reform and Control Act of 1986 in relation to all employees performing work in the United States and does not knowingly employ persons in violation of the United States immigration laws. The company shown below will obtain this certification from all subcontractors who will participate in the performance of this Contract and maintain subcontractor certifications for inspection by the state if such inspection is requested; and
2. By the date of the delivery of the product and/or performance of services, the company shown below will have implemented or will be in the process of implementing the *E-Verify* program for all newly hired employees in the United States who will perform work on behalf of the State of Minnesota.

I certify that the company shown below is in compliance with items 1 and 2 above and that I am authorized to sign on its behalf.

Name of Company: _____ Date: _____

Authorized Signature: _____ Phone: _____

Printed Name: _____ Title: _____

If the Contract vendor and/or the subcontractors are not in compliance with the Immigration Reform and Control Act, or knowingly employ persons in violation of the United

States immigration laws, or have not begun or implemented the *E-Verify* program for all newly hired employees in support of the Contract, the state reserves the right to determine what action it may take. This action could include, but would not be limited to cancellation of the Contract, and/or suspending or debarring the Contract vendor from state purchasing.

For assistance with the E-Verify Program

Contact the National Customer Service Center (NCSC) at **1-800-375-5283** (TTY 1-800-767-1833).

For assistance with this form, contact:

Mail: 112 Administration Building, 50 Sherburne Avenue, St. Paul, Minnesota 55155

E-Mail: MMDHelp.Line@state.mn.us

Telephone: 651-296-2600

Persons with a hearing or speech disability may contact us by dialing 711 or 1-800-627-3529

CERTIFICATION OF RESTRICTION ON LOBBYING

In accordance with Section 1352 of Title 31, United States Code, it is the policy of the bidder/company named below that:

1. No Federal or state appropriated funds have been paid or will be paid by or on behalf of the bidder/company, to any person for influencing or attempting to influence an officer or employee of any Federal or state agency, or a member of Congress or the state legislature in connection with the awarding of any Federal or state contract, the making of any Federal or state grant, the making of any Federal or state loan, extension, continuation, renewal, amendment, or modification of any Federal or state 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 of 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 bidder/company shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subgrants and contracts and subcontracts under grants, subgrants, loans, and cooperative agreement), **which exceeds \$100,000**, and that all such subrecipients shall certify and disclose accordingly.
4. 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 failure.

Name of Bidder / Company Name: _____

Type or print name: _____

Signature of authorized representative: _____

Date ___ / ___ / ___

Title of authorized official: _____

ASSURANCES FOR NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to:
 - a. Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin;

-
- b. Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681- 1683, and 1685-1686), which prohibits discrimination on the basis of sex;
 - c. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps;
 - d. the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age;
 - e. the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse;
 - f. the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism;
 - g. §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records;
 - h. Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing;
 - i. any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and,
 - j. the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
 8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
 9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction sub-agreements.
 10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.

-
11. Will comply with environmental standards which may be prescribed pursuant to the following:
 - a. institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514;
 - b. notification of violating facilities pursuant to EO 11738;
 - c. protection of wetlands pursuant to EO 11990;
 - d. evaluation of flood hazards in floodplains in accordance with EO 11988;
 - e. assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.);
 - f. conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.);
 - g. protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and,
 - h. protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
 12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
 13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
 14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
 15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
 16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
 17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
 18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

19. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or sub-awards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
APPLICANT ORGANIZATION	DATE SUBMITTED

