Surface Transportation Block Grant Program
Project Scoring Guide

Capital Region Metropolitan Planning Organization

http://www.crpc-la.org

Revised 06/20/17

Table of Contents

1. Safety Improvements

Maximum 15 Points

If the project is designed to address significant safety issues, it can receive up to 15 points in this category as shown in the table below.

S.No	Question	Input	Points	Comments
1	Crash Rate	Crash Data, AADT, Length of the Segment, No. of Lanes	10	
2	Have there been any fatalities on this on this roadway segment(s)>?	Yes or No?	5	Yes = 5 and No = 0
Total points for safety improvements			**15**	

1. Procedure for scoring using Crash Rate

Crash rates can be an effective tool to measure the relative safety at a particular location. The combination of crash frequency (crashes per year) and vehicle exposure (traffic volumes or miles traveled) results in a crash rate. Crash rates are expressed as "crashes per Million Entering Vehicles" (MEV) for intersection locations and as "crashes per Million Vehicle Miles Traveled" (MVMT) for roadway segments.

This crash rate analysis method can be a useful tool when determining how a roadway location compares to the average of those contained in the database.

Intersection Crash Rate Worksheet Standard Procedures:

1) Open the Crash Rate Worksheet file. Click on the “Intersection Form” tab. Layout of the worksheet is shown below.

2) Specify the City/Town and District in which the subject intersection is located. The date of the volume count data that is used in the project report should be listed as well. Use the most appropriate date should there be multiple years of data utilized. Finally, check the box that corresponds to the type of existing traffic control at the intersection.

3) Identify the major street at the subject intersection, along with each of the corresponding minor streets intersecting it. If there is more than one major street, label it as such.

4) Sketch out a diagram of the intersection, carefully labeling each approach with street names and segment number. Identify north with an arrow in the box provided.

5) Note the sum of the seasonally adjusted peak hour turn movements by approach for the traffic entering the intersection. It is preferable to use the PM Peak hour volume, however, AM Peak is acceptable if it is the only data available. Circle “AM” or “PM” to indicate the time period referenced. Sum all approaches to obtain the “Total Peak Hourly Approach

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : _____ COUNT DATE : _____

PARISH : _____ UNSIGNALIZED : _____ SIGNALIZED : _____

~ INTERSECTION DATA ~

MAJOR STREET : _____

MINOR STREET(S) : _____

_____

_____

_____

INTERSECTION DIAGRAM
(Label Approaches)

North

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :						
PEAK HOURLY VOLUMES (AM/PM) :						

" K " FACTOR : _____ INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : _____

TOTAL # OF CRASHES : _____ # OF YEARS : _____ AVERAGE # OF CRASHES PER YEAR (**A**) : _____

CRASH RATE CALCULATION : _____ RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : _____

Project Title & Date: _____

Volume." (If using the electronic spreadsheet, this field is automatically calculated in the grey box).

6) Note the sum of the seasonally adjusted peak hour turn movements by approach for the traffic entering the intersection. It is preferable to use the PM Peak hour volume, however, AM Peak is acceptable if it is the only data available. Circle "AM" or "PM" to indicate the time period referenced. Sum all approaches to obtain the "Total Peak Hourly Approach Volume." (If using the electronic spreadsheet, this field is automatically calculated in the grey box).

7) Compute the "K" Factor for the intersection or dominant roadway, by reviewing the ATR counts collected. Use the same time period, preferably the PM Peak hour that was used in determining the peak hourly approach volumes. A default value of **0.09** can be assumed for insufficient ATR data. Mark the "K" Factor in the box provided.

8) Calculate the intersection ADT (known as "V") by summing the approach volumes and dividing by the "K" Factor. The result is a measure of the total daily approach volume for the subject intersection. (If using the electronic spreadsheet, this field is automatically calculated in the gray box).

9) Review the crash records data obtained from LADOTD and/or the State/Local police to determine the quantity of crashes occurring at the intersection over the time period analyzed (5 year time period preferred, 3 year minimum). The crashes, to be considered valid, should occur at the intersection, or within the immediate vicinity. Calculate the average number of crashes by year at the intersection by dividing the total number of crashes by the length of the study period. (If using the electronic spreadsheet, this field is automatically calculated in the grey box).

10) The formula for calculating the crash rate for an intersection is presented below. The "Rate" (R) is expressed in crashes per **M**illion **E**ntering **V**ehicles (MEV), which is standard to the Traffic Engineering profession.

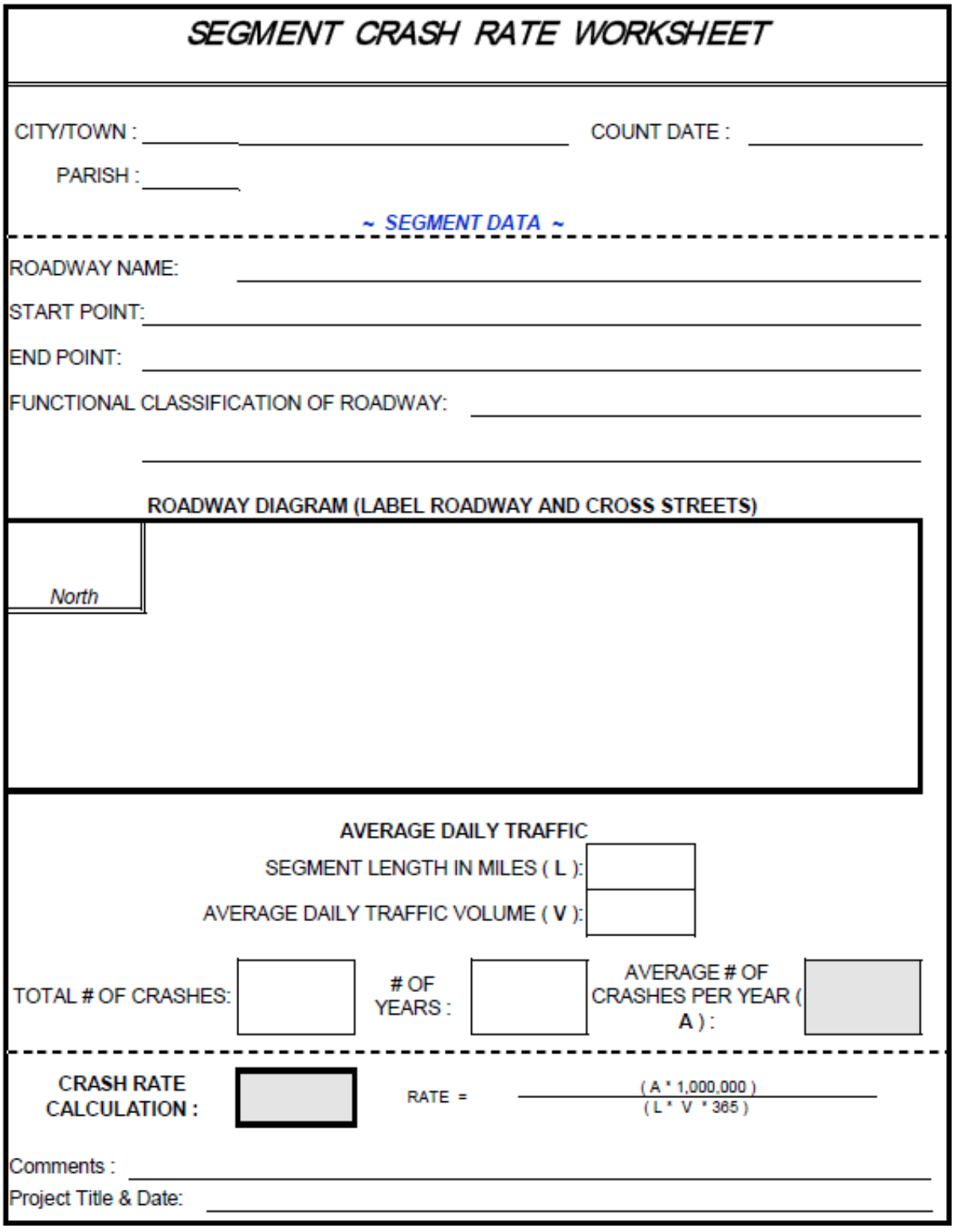
$$R = \frac{A \times 1{,}000{,}000}{V * 365}$$

Where:

A = Average number of crashes at the study location per year
V = Intersection ADT (total daily approach volume)

Roadway Segment Crash Rate Worksheet Standard Procedures:

1) Open the Crash Rate Worksheet file. Click on the "Segment Form" tab. Layout of the worksheet is shown below.



SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : _____ COUNT DATE : _____

PARISH : _____

~ SEGMENT DATA ~

ROADWAY NAME: _____

START POINT: _____

END POINT: _____

FUNCTIONAL CLASSIFICATION OF ROADWAY: _____

_____

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)

North

AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (L):

AVERAGE DAILY TRAFFIC VOLUME (V):

TOTAL # OF CRASHES: | # OF YEARS : | AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION :

RATE = (A * 1,000,000) / (L * V * 365)

Comments : _____

Project Title & Date: _____

2) Specify the City/Town(s) and District(s) in which the roadway is located. The date of the ATR count data that is used in the project report should be listed as well. Should there be multiple years of count data, use the most appropriate date.

3) Identify the roadway name as well as the start and end point of the roadway being analyzed (start and end points can be noted by cross streets or mile markers). Also identify the functional classification of the roadway. Complete additional crash rate worksheets for segments of the same roadway with different roadway characteristics, including but not limited to: functional classifications, land use, horizontal/vertical geometry, number of lanes, traffic volumes, crash patterns, etc.

4) Sketch a stick diagram of the roadway, carefully labeling the roadway and any cross streets with street names. Identify north with an arrow in the box provided.

5) Note the length of the segment (L) in terms of miles.

6) Note the average daily traffic volume (both directions) (V).

7) Review the crash records data obtained from the LADOTD and/or the State/Local police to determine the quantity of crashes occurring along the project roadway over the time period analyzed (5 year time period preferred, 3 year minimum) and enter this on the form. Enter in the total number of years analyzed. Calculate the average number of crashes along the segment by dividing the total number of crashes by the length of the study period in years (If using the electronic spreadsheet, this field is automatically calculated in the grey box).

8) The formula for calculating the crash rate for a roadway segment is presented below. The "Rate" (R) is expressed in crashes per **M**illion **V**ehicle **M**iles **T**raveled (MVMT), which is standard to the Traffic Engineering profession.

$$R = \frac{A \times 1{,}000{,}000}{L^* V * 365}$$

Where:

A = Average number of crashes along the study roadway per year
L = Length of roadway segment in miles
V = Average Daily Traffic Volume along the roadway

The submitted crash rate will be used to score the project. The score is calculated on the sliding scale based on the range between 0 and 5 to rank projects with crash rate falling between 2 and 15 in the equitable proportion.

CRASH RATE	**RANK**
10 or higher	**10**
:	**:**
:	**:**
2 or lower	**0**

1) If the crash rate is 15 or higher the proposed project will receive 10-points
2) If the crash rate is 2 or lower, it will receive 0-points
3) If the crash rate is between 2 and 15 it will be evaluated and rated in a score to be rounded in third decimal place using following formula.

   Formula: Rating Points **=** ***Crash Rate*** x F1 – F2, where F1= 1.25, F2= 2.5

   The example of calculations is as follows:

   If crash rate of a proposed project is 8, what is a rating point for this proposed project?

   $$\frac{8}{} \times 1.25 - 2.25 = 7.182$$

   The project receives 7.5 rating points with crash rate of 8.

The documentation to be submitted for the crash rate evaluation measure is:

1) The crash records data obtained from the LADOTD and/or the State/Local police department to determine the quantity of crashes occurring along the project roadway over the time period analyzed (5 year time period preferred, 3 year minimum).
2) The copy of crash rate worksheets

2. Reduce Congestion

Maximum 10 Points

Projects that seek to improve travel time can receive up to 10 points in this category.

				Project Category						
S.No	Question	Input	Points	1	2	3.0	4.1	4.2	4.3	Comments
1	Existing PM Peak Travel Time Index	Free flow and average Speed data available on CRPC's Travel Time Database Website	5	Y	Y	Y	Y	Y	N/A	
2	Volume to Capacity Ratio	ADT/Forecasted Volume	5	Y	Y	Y	Y	Y	N/A	
3	Number of person hours (SOV) removed from the roadway per year		10	N	N	N	N	N	Y	
Total Points by Category				**10**	**10**	**10**	**10**	**10**	**10**	

Project Categories

1. Regional Projects, Small Member Government Projects (SMGP) Set Aside
2. Preventive Maintenance
3. Capacity Expansion

4.1 Arterial Itersections, 4.2 System Management and Integration, 4.3 Alternative Transportation

1. Procedure for scoring using Average Travel Time Index (TTI)

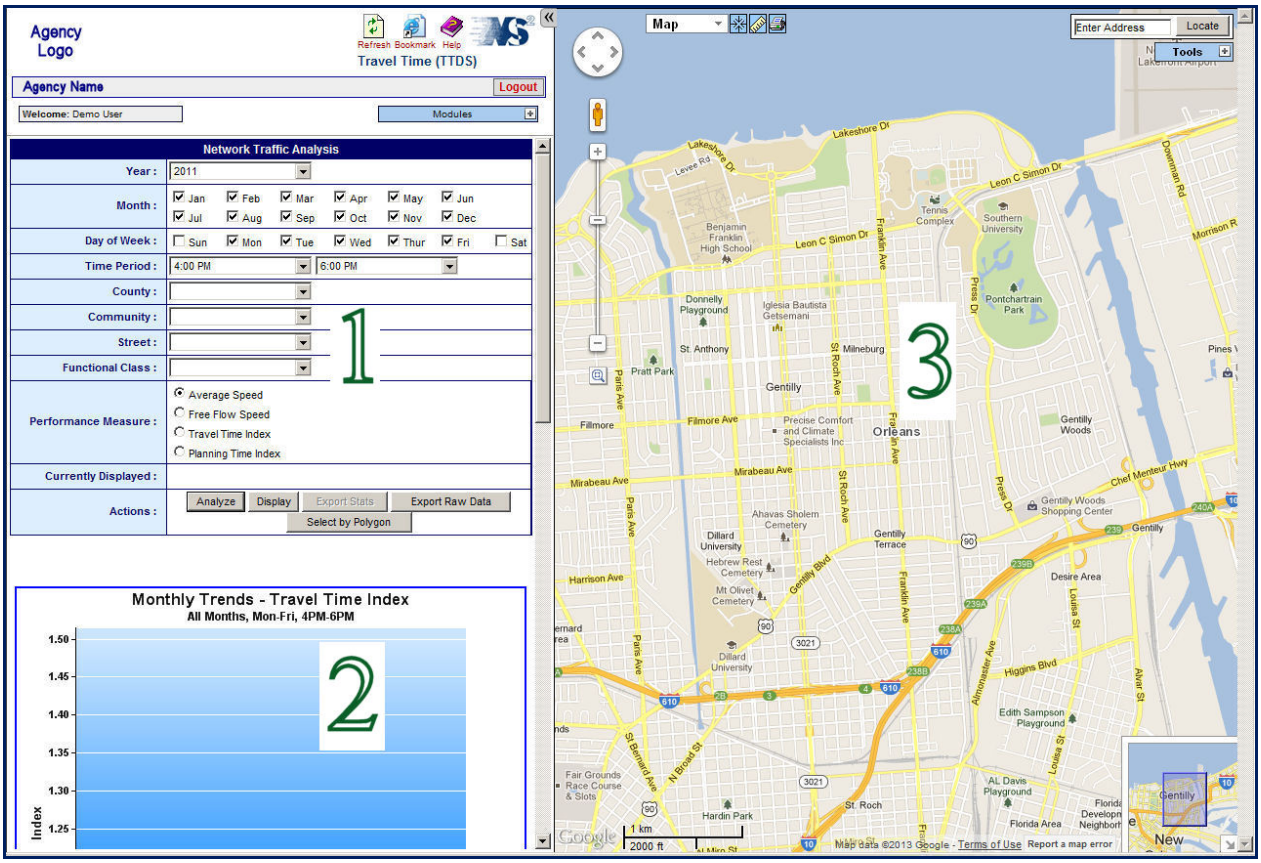
(Using CRPC Travel Time Database System at Website http://crpc.ms2cloud.com/tdms.ui/ttds/dashboard?loc=Crpc)

Existing Street Segment Projects

Travel time/speed studies are an excellent first step in addressing traffic congestion and the increased delays, frustration, accidents, and pollution for concerned projects. The average speed data for the propose project segment can be obtained from CRPC's travel time database management system website (http://crpc.ms2cloud.com/tdms.ui/ttds/dashboard?loc=Crpc). CRPC staff will provide assistance to the entities that needs help in navigating the website and getting the required data.

The TTDS home page is divided into three sections:

1. Network Traffic Analysis
2. Graphs and Data Tables
3. Google Map Window



Network Traffic Analysis Section

The Network Traffic Analysis Section contains the various search filters used to select locations, the date, and the time period that the travel time data was collected.

You can select which performance measurement to display graphically on the adjacent Google Map window or you can export statistics or data to a .csv file containing the location and travel time raw data, or the travel time statistics based upon the links selected.

Graphs and Tables Section

The graphs and tables section display graphs of the travel time index and the planning time index based upon the entire set of travel time data.

Google Maps Section

The Google Maps section allows you to:

- Zoom into and out of the Google Map.
- Pan the Google Map Up, Down, Left, or Right.
- Zoom into the map with the Zoom Box button.

- Search for a street or city using the Locate field and button.
- Change the Map style to these choices:
    - Map – Standard Google Map view.
    - Satellite – Aerial view.
    - GIS Layer Only – Shows the custom GIS overlay without the street or aerial view.
- Use the Street View tool to bring up a Street View Window of the selected location.
- Measure Distance with the Ruler Tool
- Print the Map with the Print Button
- The Tools section allows you to display the traffic analysis links and stats, and the travel pattern links. You can also bring up the color coded criteria for the various ranks of travel time, planning time, speeds.
- Use the minimap to quickly move to a different section of the map.

To make an evaluation and scoring process in the same base for all projects, when doing the travel time/speed studies with this web tool, it is recommended to use the following parameters.

Year: Latest year the data is available for

Month: All the months

Day of Week: Tuesday, Wednesday, and Thursday

Time Period: 4:00 PM - 6:00 PM (PM Peak)

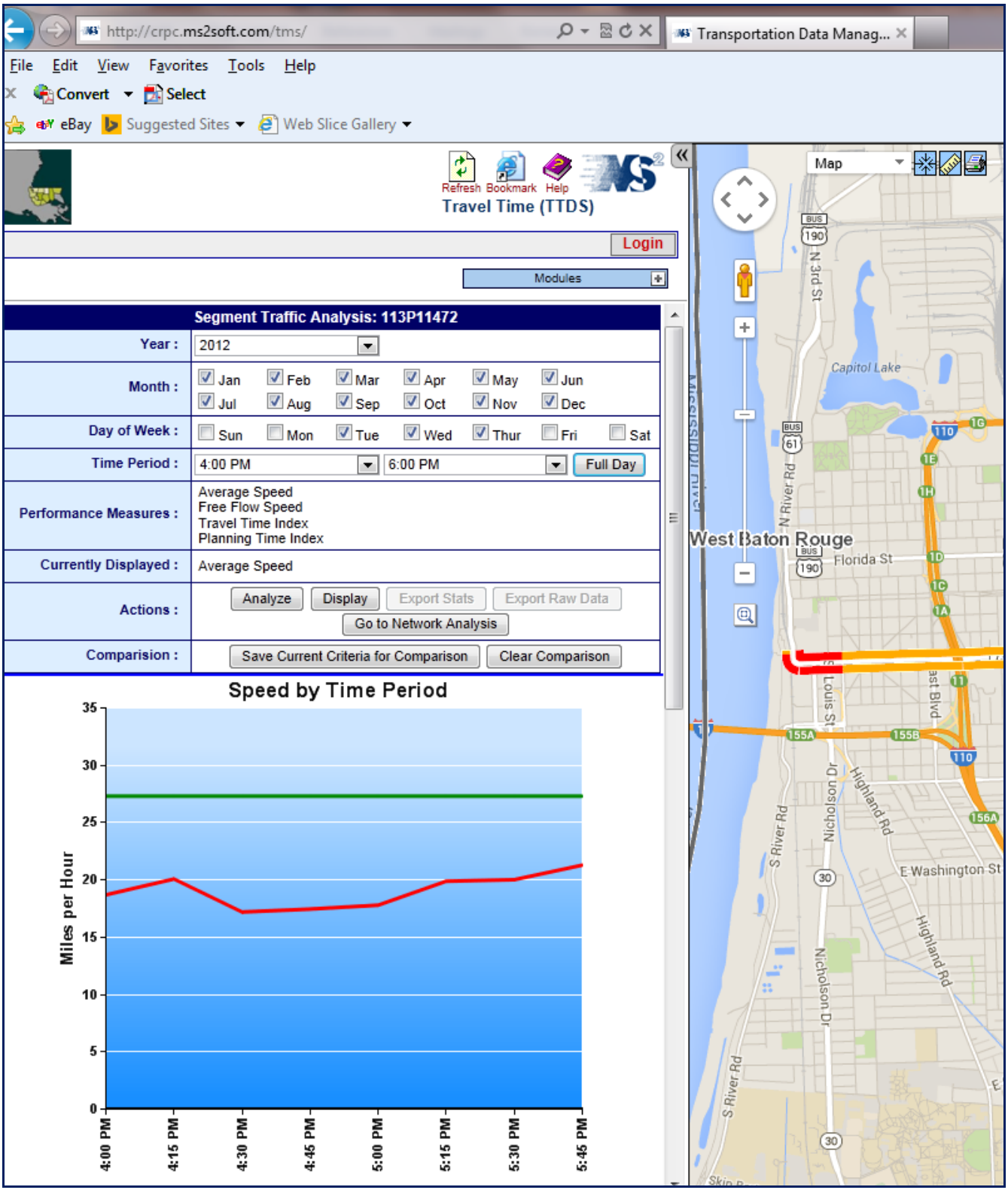
New Street Segment Projects

The TTI index of the roadway segment that is connected to this new alignment can be used to rate this project. If the new alignment connects to more than one existing roadway, the highest TTI value can be used to rate this project.

Intersection Projects

The PM peak period average speed for the intersection approach with the lowest value can be used for scoring intersection projects

A sample measurement of project speed and travel time performance is attached in the below:


http://crpc.ms2soft.com/tms/
Transportation Data Manag...
File Edit View Favorites Tools Help
Convert Select
eBay Suggested Sites Web Slice Gallery
Refresh Bookmark Help
Travel Time (TTDS)
Login
Modules
Segment Traffic Analysis: 113P11472
Year : 2012
Month : Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Day of Week : Sun Mon Tue Wed Thur Fri Sat
Time Period : 4:00 PM 6:00 PM Full Day
Performance Measures : Average Speed, Free Flow Speed, Travel Time Index, Planning Time Index
Currently Displayed : Average Speed
Actions : Analyze Display Export Stats Export Raw Data Go to Network Analysis
Comparision : Save Current Criteria for Comparison Clear Comparison
Speed by Time Period
Miles per Hour
35 30 25 20 15 10 5 0
4:00 PM 4:15 PM 4:30 PM 4:45 PM 5:00 PM 5:15 PM 5:30 PM 5:45 PM
Map
West Baton Rouge
Capitol Lake
Florida St
N 3rd St
N River Rd
S River Rd
Nicholson Dr
Highland Rd
E Washington St
Louis St
Mississippi River

Traffic Analysis 113P11472							
TMC	Dir	Time Period	Length (miles)	Average Speed (mph)	Free Flow Speed (mph)	Travel Time Index	Planning Time Index
113P11472	POS	4:00 PM - 4:15 PM	0.49	18.69	27.30	1.46	2.20
113P11472	POS	4:15 PM - 4:30 PM	0.49	20.08	27.30	1.36	2.44
113P11472	POS	4:30 PM - 4:45 PM	0.49	17.19	27.30	1.59	2.44
113P11472	POS	4:45 PM - 5:00 PM	0.49	17.45	27.30	1.56	2.94
113P11472	POS	5:00 PM - 5:15 PM	0.49	17.79	27.30	1.53	3.14
113P11472	POS	5:15 PM - 5:30 PM	0.49	19.88	27.30	1.37	2.44
113P11472	POS	5:30 PM - 5:45 PM	0.49	20.02	27.30	1.36	2.94
113P11472	POS	5:45 PM - 6:00 PM	0.49	21.28	27.30	1.28	2.58
Average				19.05			

The Average Travel Time Index (TTI) resulting from the analysis will be used to score the projects. The TTI is the indicator of traffic congestion. It is the ratio of Free Flow Speed (FFS) to Average Speed (AS) indicating how much more time to travel on the proposed roadway segment for improvement. The score is calculated on the sliding scale based on the range between 0 and 5 to rank projects with Average Travel Time Index (TTI) falling between 1.15 and 2 in the equitable proportion.

TTI	RANK
2 or Higher	**5**
:	**:**
:	**:**
1.15 or Lower	**0**

1) If a proposed project has an Ave. TTI equal or higher than 2, it will be given 5-points
2) If a proposed project has an Ave. TTI equal or lower than 1.15, it will be given 0-points
3) If a proposed project has the TTI between 1.15 and 2, it will be evaluated and rated in a score to be rounded in third decimal place using following formula.

   Formula: Rating Points = F1 x Ave. TTI - F2, where F1=5.882, F2=6.765

   The example of calculations is as follows:

   If average TTI for a proposed project = **1.41**, what is a rating point for this Ave. Travel Time Index (TTI)?

   5.882 x 1.41 - 6.765 = 1.53

   The project receives 1.53 rating points for average TTI at 1.41.

Documents to be submitted for the evaluation and score-point calculation include:

For segment projects:

1) Graphs and Data Tables from study
2) The existing number of lanes of proposed street segment projects
3) A Copy of Google Map Window

2. Procedure for scoring using Volume/Capacity Ratio

Existing Street Segment Projects

The degree of traffic congestion on a roadway segment should be measured based on PM peak hour volume/capacity ratio using the defined roadway capacities (vphpl) under level of service C. The table of roadway capacities (vphpl) under level of service C for volume/capacity ratio of street segment projects is based on the capacities used in the CRPC travel demand model and listed in the next page for all street segment projects.

It is preferable to use the PM Peak hour volume, however, the AM Peak is acceptable if it is the only data available. For a project if the ADT is the only data available, a default factor of 0.09 can be used in determining the peak hour volume (vphpl) by multiplying ADT with 0.09 and dividing the number of lanes. For transit projects, use the average V/C ratio per mile for the applicable facilities served by the transit routes.

The score is calculated on the sliding scale based on the range between 0 and 5 to rank projects with V/C ratio falling between 0.43 and 1.70 in the equitable proportion.

V/C RATIO	**RANK**
1.70 or higher	**5**
:	**:**
:	**:**
0.43 or lower	**0**

1) If a proposed project has a V/C ratio higher than 1.70, it will be given a 5-point
2) If a proposed project has a V/C ratio lower than 0.43, it will be given a 0-point
3) If a proposed project has a V/C ratio lower than 1.70and higher than .43, it will be evaluated and rated in a score to be rounded in the third decimal place.

   Formula: Rating Points **=** ***V/C Ratio*** x F1 – F2, where F1=3.937, F2=1.692

   The example of calculations is as follows:

If the proposed project V/C ratio = ***1.19***, what is a rating point for this V/C ratio?

1.19 x 3.937– 1.692= 2.993

The project receives 2.993 rating points for V/C ratio of 1.19.

Roadway Capacities (VPHPL) under Level of Service C for Volume/Capacity Ratio of Street Segment Project

Controlled Access Facility	***VPHPL***
RURAL	1207
URBAN	1207
OTHER FREEWAYS	1065

Non-Controlled Access Facility	***VPHPL***
URBAN PRINCIPAL ARTERIAL DIVIDED	323
URBAN PRINCIPAL ARTERIAL UNDIVIDED	301
URBAN PRINCIPAL ARTERIAL CTL	323
URBAN MINOR ARTERIAL DIVIDED	323
URBAN MINOR ARTERIAL UNDIVIDED	301
URBAN MINOR ARTERIAL CTL	323
URBAN COLLECTOR DIVIDED	258
URBAN COLLECTOR UNDIVIDED	237
URBAN COLLECTOR CTL	258

New Street Segment Projects

If the proposed project is for add a new roadway alignment, the volume and capacity estimated by the travel demand volume can be used to rate this project. MPO staff can run the model and provide the data to the entity.

Intersection Projects

The degree of PM peak hour traffic congestion at an intersection should be measured based on the latest edition of the *Highway Capacity Manual* or other recognized computer program for calculations of volume/capacity using the defined roadway capacities under level of service C.

It is preferable to use the PM Peak hour volume, however, the AM Peak is acceptable if it is the only data available. For a project if the ADT is the only count available, a default factor of 0.09 can be used in determining the peak hour volume (vphpl) by multiplying ADT with 0.09 and dividing the number of lanes. For transit projects, use the average V/C ratio per mile for the applicable facilities served by the transit routes.

The score is calculated on the sliding scale based on the range between 0 and 5 to rank projects with V/C ratio falling between 0.43 and 1.70 in the equitable proportion.

V/C RATIODEFINITION	RANK
1.70or higher	**5**
:	**:**
:	**:**
0.43or lower	**0**

1) If a proposed project has a V/C ratio higher than 1.70, it will be given a 5-point
2) If a proposed project has a V/C ratio lower than 0.43, it will be given a 0-point
3) If a proposed project has a V/C ratio lower than 1.70 and higher than .43, it will be evaluated and rated in a score to be rounded in third decimal place.

   Formula: Rating Points **=** ***V/C Ratio*** x F1 – F2, where F1=3.937, F2=1.692

   The example of calculations is as follows:

   If the proposed project V/C ratio = ***1.19***, what is a rating point for this V/C ratio?

   1.19 x 3.937 – 1.692 = 2.993

   The project receives 2.993 rating points for V/C ratio of 1.19.

Documents to be submitted for the V/C ratio evaluation and score-point calculation include:

For segment projects:

1) PM peak hour volume (or AM's if no PM's, or, the 24-hour ADTs if both PM and AM are not available.
2) The existing number of lanes of proposed street segment projects
3) V/C ratio

For intersection projects:

1) PM peak hour turning movement volumes counted for the project
2) Geometry of the intersection: number of lanes and lane widths in feet for individual lanes.
3) A copy intersection study by consulting firm or in house showing the PM peak hour V/C ratio at an intersection using the latest edition of the *Highway Capacity Manual (HCS)* or other recognized computer program such as Synchro or CorSim
4) Adjustment factors: grade, percentage of heavy vehicles, parking, number of buses which stop at the intersection per hour, peak hour factor, number of pedestrians, pedestrian buttons, and traffic arrival types as described in the *Highway Capacity Manual*.
5) Signal settings: green/yellow/red times in seconds.
6) Signal phase plan.

For entities which do not have access to the *Highway Capacity Manual* or software for determining the V/C ratio for intersection projects, CRPC staff can provide technical assistance if the required data for intersection is submitted in its entirety with sufficient lead time.

3. Procedure for scoring using Alternative Transportation

Alternative Transportation is for project improvements other than for single occupant vehicle (SOV) use, such as pedestrian ways and trails, public transportation systems, multi-modal facilities, and carpool/vanpool, and other multiple-occupancy vehicle programs. The various modes of travel within the community function best when people and goods can easily move from one mode of travel to another.

The project sponsor should provide a narrative to describe how project has the ability to improve travel within a roadway system by redistributing travel in the street network so one or more congested components of the transportation system are relieved, provide an estimate of the increase in transit ridership and the number of person hours removed from the roadway per year. This is to include both the ridership on the specific project or activity as well as overall system ridership. The projects will be scored based on the number of person hours removed from the roadway per year.

HOURS REMOVED PER YEAR	RANK
40,000 hrs or higher	**10**
:	**:**
:	**:**
20,000 hrs or lower	**0**

1) If a proposed project will remove more than 40,000 hours from the roadway per year, it will receive a 5-point
2) If a proposed project will remove less than 20,000 hours from the roadway per year, it will receive a 0-point
3) If a proposed project will remove hours from roadway between 20,000 and 40,000 it will be evaluated and rated in a score to be rounded in third decimal place using following formula.

Formula: Rating Points **=** ***Hours Removed/Yr*** x F1 – F2, where F1=0.0005, F2=10

The example of calculations is as follows:

If a proposed project will remove 27500hrs/yr from roadway, what is a rating point for this proposed project?

$$\frac{27500}{} \times 0.005 - 10 = 3.75$$

The project receives 3.75 rating points for removing 27500 hrs yearly from roadway system.

Documents to be submitted for the evaluation and score-point calculation include:

1. A copy of project study showing an estimate of the increase in transit ridership and the number of person hours removed from the roadway per year due to the proposed project.
2. A copy of project study document describing how project has the ability to improve travel within a roadway system by redistributing travel in the street network so one or more congested components of the transportation system are relieved.

3. Preventive Maintenance

Maximum 10 Points

If the main purpose of the proposed project is to maintain existing facilities, it may receive up to 10 points in this category.

S.No	Asset	Measure	Points
1	Pavement	Surface Condition or Pavement Condition Index	10
		Or	
2	Bridge	Latest Available Bridge Suffiency Rating (BSR)	10
		Or	
3	Other Assets	Asset Condition (Bad, Fair, Good, Excellent)	10

1. Procedure for scoring Pavement Preservation Projects

Surface condition of the pavement is generally used as the indicator of the overall condition of the road. One of the most widely utilized approaches to quantify pavement surface condition is the Pavement Condition Index (PCI). The PCI index values could be obtained from CRPC's Regional Pavement System.

The submitted PCI index of project will be evaluated for scoring process. The score is calculated on the sliding scale based on the range between 10 and 0 to rank projects with PCI Index values falling between 65 and 100 in the equitable proportion,.

DEFINITION	RANK
PCI Index 65% or lower	**10**
:	:
:	:
PCI Index of 100%	**0**

1) If the PCI Index is 65% or lower the proposed project will receive 10 points
2) If the PCI Index is 100%, it will receive 0 points
3) If the PCI Index is between 65 and 100 it will be evaluated and rated in a score to be rounded in third decimal place using following formula.

   Formula: Rating Points = F1 - ***PCI Index*** x F2, where F1= 28.571, F2= 0.28571

   The example of calculations is as follows:

If PCI Index of a proposed project is 75%, what is a rating point for this proposed project?

28.571 - ***75*** x 0.28571 = 7.143

The project receives 7.143 rating points with PCI Index of 75%.

In the event PCI Index values are not available, the projects will be evaluated based on the surface condition descriptions described below:

Poor (10 Points): Surface condition of the roadway has severely deteriorated. Severe cracking and/or rutting is spread throughout the roadway segment.
Fair (7 Points): Pavement shows signs of surface deterioration; inferior ride quality; may be barely tolerable for high speed traffic; extensive patching, joint failures, etc.
Good (3 Points): Roadway pavement is predominantly smooth, few signs of surface deterioration, minor rutting and/or cracking.
Excellent (0 Points): Roadway has new or sufficiently new pavements which are smooth and free of cracks and patches.

2. Procedure for scoring Bridge Rehabilitation Projects

The FHWA requires inspections to be performed at least once every 24 months on all publicly owned bridges and culverts (located on public roads) longer than 20 feet. The results of these biennial inspections, along with other non-inspection related bridge data, are recorded in the FHWA's National Bridge Inventory (NBI) database to determine a sufficiency rating. The sufficiency rating indicates the bridge's capability to remain in service and is used as a basis for establishing eligibility and priority for replacement or rehabilitation with federal funding. It is formulated to a 0-100 scale. A bridge with a sufficiency rating greater than 80 is ineligible. A rating between 80 and 50 meets the requirements for federal rehabilitation funds, and below 50 qualifies the bridge for federal replacement funds.

The score is calculated on the sliding scale based on the range between 10 and 0 to rank projects with Bridge Sufficiency Rating (BSR) values falling between 50 and 81 in the equitable proportion,.

DEFINITION	**RANK**
BSR 50	**10**
:	**:**
:	**:**
BSR 81	**0**

1) If the BSR is 50 or lower the proposed project will receive 10 points

2) If the BSR is 81 or higher, it will receive 0 points
3) If the PCI Index is between 65 and 100 it will be evaluated and rated in a score to be rounded in third decimal place using following formula.

Formula: Rating Points = F1 - ***BSR*** x F2, where F1= 26.129, F2= 0.324

The example of calculations is as follows:

If BSR of a proposed project is 60, what is a rating point for this proposed project?

26.129 - ***60*** x 0.324 = 6.774

The project receives 6.774 rating points with BSR of 60.

C. Other Projects

Projects that preserve/maintain other transportation related assets such as ITS devices, Signal Systems, etc. are score based on the following conditions:

Asset Condition	**Score/Points**
1. Poor: Not Operative / Needs Major Work	10
2. Fair: Operative / Needs Minor Work	7
3. Good: Operative / Satisfactory	3
4. Excellent: Totally Operative / New	0

4. Support Land Use and Economic Development

Maximum 10 Points

If the proposed project supports land use and growth, it may receive up to 10 points in this category.

S.No	Question	Points
1	Project is identified in the entity's Comprehensive/Master Plan	5
2	Project supports existing or future residential, commercial, or industrial growth	5
Total Points for Support Landuse and Economic Development		**10**

5. Increase Connections

Maximum 10 Points

If the proposed project increases connectivity of the street and other transportation networks, it may receive up to 10 points in this category.

S.No	Question	Network Type	Points	Comments
1	The connectivity of the streets network and circulation system is measured through the ease by which people and goods can move to their desired destinations. Connectivity relates not only to the ease of movement of people and goods within the community, but also to external destinations – regional, national and international. What network is the connectivity improved for by the project?	New Roadway Segment (People)	2	
		New Bicycle Lanes/Path	2	
		New Pedestrian Paths/Sidewalks	2	
		New Roadway Network (Desginated Freight Route)	2	
		New Mass Transit Network	2	
Total Points for Increase Connections			**10**	

6. Improve Access

Maximum 10 Points

If the proposed project increases access, it may receive up to 10 points in this category.

S.No	Question	Access Management Strategy	Points	Comments
1	Improving access involves control and management of the entrance and exit points to a transportation facility for people and freight. Increasing the number of access points does not necessarily improve access. Improved access is based on a balance between the number of access points and the efficient movement of traffic through the transportation facility. Examples of ways in which access could be improved are: a reduction in the number of driveways that enter a major arterial; or, development of a hierarchical master street plan that designs roads based on use.	Reduce/Optimize number of driveways per mile	2	A project can get a maximum of 10 points if it increases connectivity of at least five of the mentioned items. Not all access management strategies are listed here. Each additional strategy can earn up to 2 points)
		Reduce/Optimize number of signals per mile	2	
		Raised Median/Median Treatments	2	
		Inter-parcel access	2	
		Eliminate Left Turns (Michigan-U turns, J turns, etc.)	2	
		Accel/Decel lanes	2	
		Other (Auxillary Lanes, Frontage Roads etc.)	2	
Total Points for Increase Access			**10**	

7. Increase Multi-Modal Options and Energy Conservation

Maximum 10 Points

If the project induces the interaction between two or more modes of transportation, it may receive up to 10 points in this category.

Evaluation Criteria	Points	Comments
*Project **directly** connects to facilities (Park and Ride Lots, Airports,Parks etc.) where exchange of people between two or more transportation modes (Walk, Bike, Car, Transit, Air, Rail) occur.*		
Project supports exchage of people among four or more modes	5	
Project supports exchage of people among three modes	3	
Project supports exchage of people bewteen two modes	1	
project supports only one mode	0	
*Project **directly** connects to facilities where exchange of goods between two or more transportation modes (Truck, Rail, Water, Air) occur.*		
Project supports exchage of goods among four modes	5	
Project supports exchage of goods among three modes	3	
Project supports exchage of goods berween two modes	1	
Project supports one or no frieght mode	0	
Total Points	**10**	

8. Protect Environment/Improve Quality of Life

Maximum 10 Points

If the main purpose of the proposed project has design components that protects environment and/or improves quality of life, it may receive up to 10 points in this category.

Evaluation Criteria	Points	Comments
If main purpose of project is alternative mode		
Main purpose of project is transit facility/hardware improvement, pedestrian or bicycle components	**10**	
If main purpose of project is not alternative mode, but it does include complementary features		
Project allows for safe bus operations on a transit route(*i.e.* , turning radii, bus stop pad, etc…)	**2**	A project can get a maximum of 10 points if it has of at least five of the design considerations. Not all the strategies are listed here. Each additional strategy that is included can earn up to 2 points)
Project includes pedestrian components (bumpouts, sidewalks, ramps etc…)	**2**	
Project includes provisions for bicycles (wide shoulders, dedicated lanes, paths/trails)	**2**	
Project includes cross walk upgrades (signalized crossings, lighting, high visibility markings etc.)	**2**	
Project includes barriers seperating vehicle/person conflicts	**2**	
Project promotes/increases access to schools, parks, government buildings, public libraries, hospitals, transit and other major destinations	**2**	
Total points	**10**	

9. Cost Sharing

Maximum 5 Points

The (STP Urban Mobility/Rehabilitation) funding category requires a mandatory 20% local match. A project can be awarded up to 5 points if it has more than 20% local match.

Local Match	Points
> 50%	5
40.1% - 50.0%	4
30.1% - 40.0%	3
25.1% - 30.0%	2
20.1% - 25.0%	1
<= 20 %	0
Total Points	**5**

10. Project Readiness

Maximum 5 Points

This criterion determines project readiness and also readiness and the year in which a project or phase of a project will be programmed in the TIP. Factors such as environmental problems, design delays, right-of-way acquisition, utility relocation, etc. could influence the readiness of a project:

Evaluation Criteria	Points	Comments
Environmental?		
EIS is not Required (CE or PCE)	**5**	
EIS likely to be required	**-5**	
Or *Right-of-Way (ROW)?*		
(ROW Cost/Total Construction Cost) = 0	**5**	
(ROW Cost/Total Construction Cost) <= 0.19	**3**	
(ROW Cost/Total Construction Cost) 0.2 to 0.39	**2**	
(ROW Cost/Total Construction Cost) 0.4 to 0.59	**1**	
(ROW Cost/Total Construction Cost) 0.6 to 0.79	**0**	
(ROW Cost/Total Construction Cost) >= 0.8	**-5**	
Or *Utility Relocation (UTIL)?*		
(UTIL Cost/Total Construction Cost) = 0	**5**	
(UTIL Cost/Total Construction Cost) <= 0.19	**3**	
(UTIL Cost/Total Construction Cost) 0.2 to 0.39	**2**	
(UTIL Cost/Total Construction Cost) 0.4 to 0.59	**1**	
(UTIL Cost/Total Construction Cost) 0.6 to 0.79	**0**	
(UTIL Cost/Total Construction Cost) >= 0.8	**-5**	

Existing Projects

Evaluation Criteria	Points	Comments
Entity has received clearance for letting from LADOTD's Right-of-Way section and has a valid NEPA clearance (less than 3 years old); Non-construction eligible activity	**5**	
Enitity has submitted final plans and updated cost estimate to LADOTD	**4**	
Entity has submitted right-of-way plans and easements to LADOTD and either has received environmental clearance or received letter from LADOTD stating that all the required NEPA studies are complete and 60% final plans are within the study footprint	**3**	
Entity submitted plan-in-hand plans to LADOTD	**2**	
Project has been programmed	**1**	

11. Project Implementation

Maximum 5 Points

This criterion rewards the entity for efficiently implementing projects or project phases in a particular category that were previously programmed in the TIP. The goal of this criterion is to encourage the entities to submit projects with realistic timelines and costs, and also to help implement the projects in a timely manner. **All the entities will receive 5 points for the first iteration of project call using this new methodology.** Subsequent, to the first iteration, the efficiency in implementation of the projects or project phases that were selected and programmed during all the prior project calls will determine the points an entity earns for this criterion. ***A project or phase of work that is delayed at no fault of the entity shall not be included in the scoring process.***

Percent of project phases that were authorized as planned for projects that were selected during earlier STBG project calls beginning with the first call utilizing this new methodology.

Percent Projects	Points	Comments
90.1 - 100%	5	
80.1% - 90.0%	4	
70.1% - 80.0%	3	
60.1% - 70.0%	2	
50.1% - 60.0%	1	
<= 50 %	0	
Total Points	**5**	