



MEMORANDUM

To: Interested Parties

From: CMAP Staff

Date: June 3, 2015

Re: Review of the FFY 2016-2020 CMAQ Project Applications related to Transit Improvements

As part of the FFY 2016-2020 Congestion Mitigation and Air Quality Improvement program development process, CMAP staff is seeking feedback from mode-specific “focus groups” on CMAQ applications submitted and on the project rankings developed by staff, including the air quality rankings. The feedback can include input on technical aspects of the projects, particularly whether there are any “fatal flaws,” as well as qualitative information not captured in the project rankings. Meetings are being held with the Regional Transportation Operations Coalition (highway projects, May 28) and Bicycle and Pedestrian Task Force (bicycle projects, June 10).

Since CMAP staff is meeting individually with the transit agencies, it seemed less critical to hold a Transit Focus Group meeting. However, staff is still interested in any additional information that can be used to refine the staff-recommended program for the Project Selection Committee to consider on June 25th.

To aid in reviewing the applications, several pieces of information are being provided.

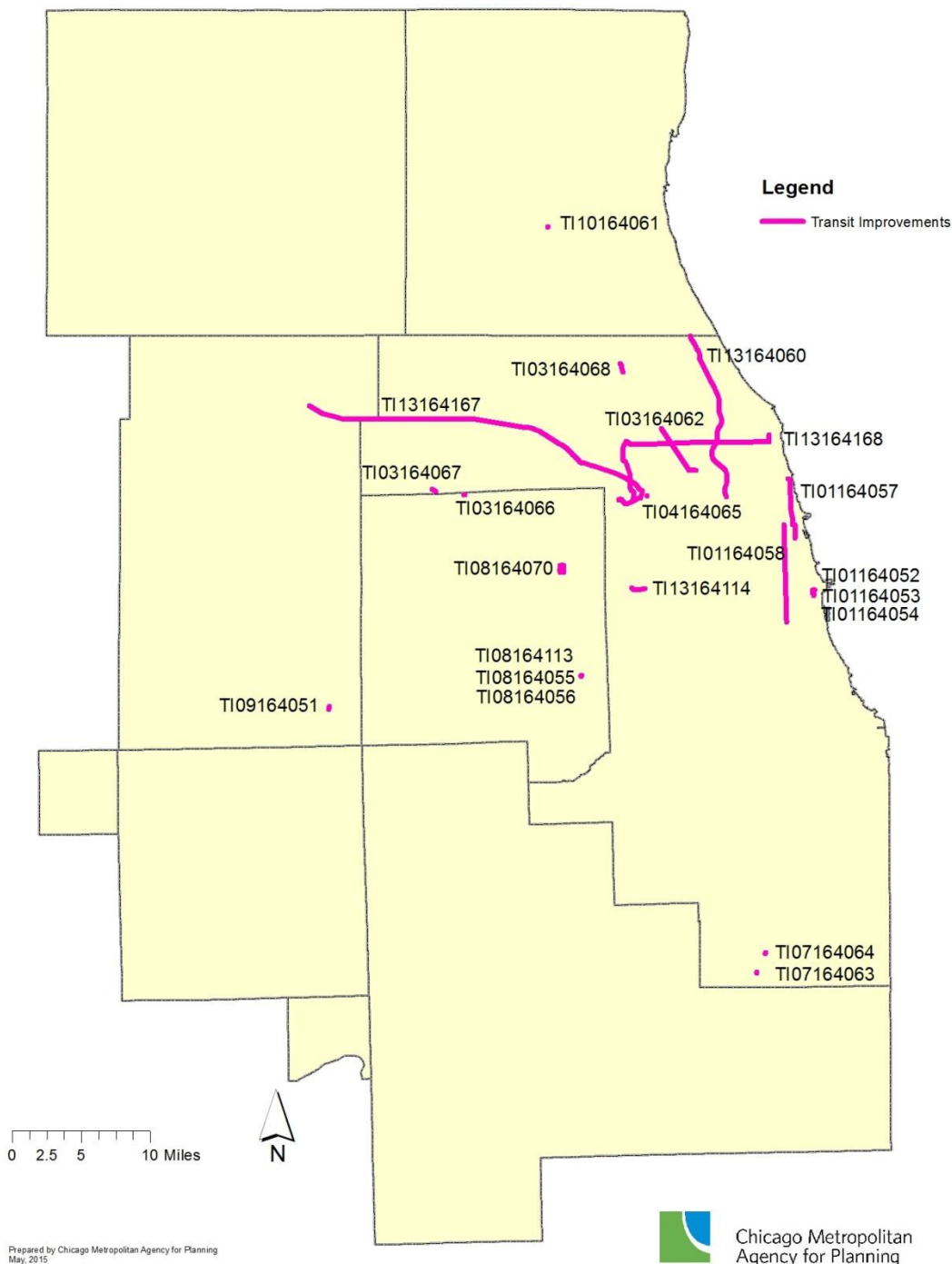
1. A description of the CMAQ project ranking methodology
2. A descriptive summary of the projects and rankings sorted by cost per kilogram of volatile organic compounds eliminated.

To view a full project application, visit the [CMAQ/TAP Program Development](#) webpage and find the applications sorted by project type and then CMAQ project ID. Feedback should be given to staff in writing by sending an email to Doug Ferguson, dferguson@cmap.illinois.gov.

Overview of FFY 16-20 Transit Projects

For this CMAQ cycle, 118 applications were received. Of these, 25 are transit-focused (12 Access to Transit, 7 Transit Facility, 4 Transit Service and Equipment, and 2 "Other"), coming to approximately \$358 million. The locations of the projects that can be mapped can be seen in the map in Figure 1.

Figure 1. Locations of FFY 16-20 CMAQ transit projects



CMAQ Project Ranking Process

The primary consideration for CMAQ projects is the cost-effectiveness of their air emissions reductions. Additional criteria are also taken into consideration when evaluating projects for potential funding. These are referred to as Transportation Impact Criteria and are scored on a 30-point scale by project type category. The Transportation Impact Criteria and their weights are as follows:

Project type	Transportation Impact Criteria and Weights		
Highway	Reliability 15	Safety 5	On CMP network 10
Transit	Ridership 15	Reliability (transit service) or asset condition (transit facilities) 15	
Bicycle	Safety & attractiveness 10	Transit accessibility 10	Facility connectivity 10
Direct Emissions Reduction	Benefits sensitive population 20	Annual health benefits 5	Improves public fleets 5

Projects are given additional consideration equal to another 10 points if they meet certain Regional Priorities:

1. Project is a component of a GO TO 2040 major capital project.
2. Project is for parking management, including parking pricing.
3. The zoning and urban design requirements in the area around a proposed transit project are supportive of transit.

Air Quality Cost-Effectiveness

The cost-effectiveness of emissions reductions for transit improvements is based on estimated transit ridership increase and corresponding auto travel emissions reduction. CMAP staff estimates of ridership changes are based on sponsor information adjusted for consistency, industry best practice, and input from CMAP modeling.

While transit projects used predefined transportation impact criteria for a portion of evaluation, “Other” projects, including Pace’s Rideshare and Van Pool applications, are only evaluated on cost effectiveness of emissions reductions.

All cost-effectiveness values are annualized by multiplying by the capital recovery factor assuming a 3% discount rate. An air quality cost-effectiveness score is generated by taking 60 as the maximum (90 for projects classified as “other”) and scaling the project scores so that a middle score of 30 corresponds to the median cost-effectiveness of the projects submitted.

Scoring for Transit Projects

Ridership Increase

Increasing ridership is one of the key indicators in GO TO 2040, and it also helps to indicate the overall benefits of a transit project. With a maximum score of 15, projects are scored on their ability to increase transit ridership, as follows:

Increased ridership	Score
<254	3
255 - 436	6
437 - 1,002	9
1,002 - 1,829	12
>1,830	15

Travel Time Reliability

The travel time reliability score is composed of a quantitative measure of on-time performance (OTP) on the particular route with a qualitative evaluation of the project's impact on reliability. The travel time reliability criterion **only applies to transit service and equipment**. It takes a maximum of 15, with 7.5 points coming from the quantitative measure.

On-time performance	Score
< 60%	7.5
60% - 70%	6.0
70% - 80%	4.5
80% - 90%	3.0
>90%	0

The qualitative element of the score is based on the presence of the reliability-enhancing features in the table below. Projects can receive up to 7.5 points in this area.

<i>Rail</i>	Score
New Vehicles	1.25
Upgraded Switches	1.25
Upgraded Power Supply	1.25
Positive Train Control	1.25
Station Consolidation	1.25
Track Improvements	2.50
Reduction of Freight/Vehicle/Pedestrian Interference	3.75
<i>Bus</i>	
New Vehicles	1.25
Queue Jump/Bypass Lanes	1.25

Off-board Fare Collection	1.25
Reduced Stops/Express Service	1.50
New Dispatching/Decision Support Systems	1.25
Passenger Vehicle Movement Restrictions	1.25
Transit signal priority	3.00
Multi-Door Boarding with Off-board Fare Collection	2.50
Bus-on-Shoulders	4.00
Managed Lanes	5.00
Dedicated Bus Way	7.50
Far-side Stops	1.25
Bus Stop Upgrades	1.25
Near Level Boarding	2.00

For new service, an upgrade to conventional fixed route service takes a score based on the OTP of the local service on the route plus a qualitative score based on the reliability-enhancing features of the project.

Existing Asset Condition

Other things being equal, it is more important to fund a transit facility or purchase new equipment where these assets are in worse condition. On the project application form, sponsors will need to provide the condition of the asset they are improving from the RTA asset inventory. Condition is rated based on a 1 – 5 scale. This criterion **only applies to transit facilities**. Entirely new facilities and assets that score ≥ 2.5 on FTA’s five-level condition rating scale will receive a score of 0.

Rating Scale	Narrative Description	Score
≥ 2.5	State of Good Repair	0
2.4	Marginal	1
2.3	Marginal	2
2.2	Marginal	3
2.1	Marginal	4
2.0	Marginal	5
1.9	Worn	6
1.8	Worn	7
1.7	Worn	8
1.6	Worn	9
1.5	Worn	10
1.4	Worn	11
1.3	Worn	12
1.2	Worn	13
1.1	Worn	14
1.0	Worn	15

Transit-Supportive Land Use

One of the Regional Priorities is to promote transit investments in areas where zoning and urban design requirements are transit-supportive. This is scored as follows:

Max Score	Criteria																		
7	<p>Up to 4.5 points will be awarded based on the permitted density for residential and non-residential land uses within one-half mile of the transit station. If more than one residential or non-residential classification is zoned within the station area, points will be assigned to the classification with the highest permitted density.</p> <p>Points will be assessed based on both residential <i>and</i> non-residential densities. If the two categories yield different point totals, the average of the two point totals will be awarded.</p> <p>Permitted Densities:</p> <table border="1"> <thead> <tr> <th>Residential (DU/buildable acre)</th> <th>Non-Residential (FAR)</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>< 6</td> <td>≤ 1.0</td> <td>0</td> </tr> <tr> <td>> 6 and ≤ 10</td> <td>> 1.0 and ≤ 2.0</td> <td>1.0</td> </tr> <tr> <td>> 10 and ≤ 16</td> <td>> 2.0 and ≤ 3.0</td> <td>2.0</td> </tr> <tr> <td>> 16 and ≤ 24</td> <td>> 3.0 and ≤ 4.0</td> <td>3.0</td> </tr> <tr> <td>> 24</td> <td>> 4.0</td> <td>4.5</td> </tr> </tbody> </table> <p style="text-align: center;">AND</p> <p>Up to 2.5 points will be awarded based on innovative parking requirements, which supports denser development by increasing space available for other uses (one point for each strategy implemented):</p> <ul style="list-style-type: none"> • Reduced minimum parking requirements • Enacted maximum parking requirements • Shared parking permitted • In-lieu parking fees permitted • Enacted bicycle parking requirements • Off-street parking is required behind or underneath buildings • Off-street parking is permitted off-site 	Residential (DU/buildable acre)	Non-Residential (FAR)	Points	< 6	≤ 1.0	0	> 6 and ≤ 10	> 1.0 and ≤ 2.0	1.0	> 10 and ≤ 16	> 2.0 and ≤ 3.0	2.0	> 16 and ≤ 24	> 3.0 and ≤ 4.0	3.0	> 24	> 4.0	4.5
Residential (DU/buildable acre)	Non-Residential (FAR)	Points																	
< 6	≤ 1.0	0																	
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> 16 and ≤ 24	> 3.0 and ≤ 4.0	3.0																	
> 24	> 4.0	4.5																	
3.0	<p>Up to 3 points will be awarded for the presence of mixed-use zoning within one-half mile of transit project (1 point for each strategy implemented):</p> <ul style="list-style-type: none"> • Zoning allows vertical mixing of uses (e.g., residential units above ground-level retail or office). • Zoning allows pedestrian-friendly diverse land uses (e.g., drugstores, groceries, dry cleaning, banks, restaurants, gyms, hardware stores, libraries, 																		

etc.).

- Zoning excludes car-dependent land uses (e.g., drive-through stores, strip malls, etc.).

Communities that have implemented form-based codes may require additional qualitative analysis from CMAP staff to ensure their zoning meets the above standards.

Project Rankings and Analysis – Transit Improvements

CMAQ ID	Project	Project Summary	Project Total Cost	CMAQ Requested Funds	Air Quality		Transportation Impact Criteria								Regional Priority					Composite Priority Index ¹
					Annualized \$ per Kg VOC Eliminated	Cost Effectiveness Score	Ridership Increase	Ridership Score	OnTime Performance	OTP Index	Qualitative Reliability	Travel Time Reliability Score	RTA Asset Inventory Condition	Asset Condition Score	Major Capital Project	Permitted Density Score	Innovative Parking	Mixed-Use Zoning Score	Transit Supportive Land Use	
TI04164065	Rosemont - Rosemont CTA Station Pedestrian Crossing	This project would create a crosswalk near the CTA Rosemont Blue line station and bus depot between I-90 and I-190.	\$720,008	\$527,206	\$510	56.0	60	3	N/A	N/A	N/A	0	N/A	0	0	4.5	0	1	4	63.0
OT13164106	Pace - Dynamic Rideshare	The Pace Rideshare Program would administer a real-time ridesharing pilot project to an employment cluster area containing about 1,000 multimodal travelers. The primary goal is to use open seats in existing rideshare groups. Real-time or dynamic ridesharing is a form of carpooling/vanpooling that provides service by the single, one way trip level rather than a grouping of trips made on a regular basis at a fixed time or set schedule.	\$877,000	\$877,000	\$510	84.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	84.0
TI09164051	Aurora - Aurora Transportation Center (ATC) Enhancements	This project would make several changes to the Aurora Transportation Center. <ul style="list-style-type: none"> • Reconfigure existing parking lot for ADA access and bike parking • Relocate Pace bus staging area – add 74 parking spaces • Pedestrian bridge over Fox River, connecting to additional parking and bicycle facility • Additional parking lot on west side of river (715 spots) • New traffic signals with interconnect to facilitate Pace relocation 	\$14,585,612	\$8,625,982	\$858	53.4	527	9	N/A	N/A	N/A	0	N/A	0	0	3	0	2	5	67.4
OT13164107	Pace - Vanpools	The purchase of 813 vans to support the continued operation and expansion of Pace's vanpool program, advantage program and employer shuttle program.	\$26,016,000	\$26,016,000	\$1,066	78.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	78.0
TI13164114	RTA - Access to Transit Group	This application includes various projects in 12 communities: 1. Bellwood - Pedestrian improvements along St. Charles Rd.; 2. Chicago Ridge - Pedestrian improvements around Chicago Ridge Metra station; 3. Cicero - Ten bus shelters at high ridership stops; 4. Evanston - Bike racks at Main St. Metra and CTA rail stations; 5. Lake Villa - Sidewalk improvements on streets near Metra station; 6. Midlothian - Sidewalk improvements around 147th Metra Station; 7. Montgomery - Sidewalk and crosswalk construction on Montgomery and Douglas Roads; 8. Mount Prospect - 34 Covered bicycle racks for Mount Prospect Metra station; 9. Oak Forest - Sidewalks and wayfinding near Oak Forest Metra station; 10. Richton Park - Sidewalk and crossing improvements adjacent to Richton Park Metra; 11. Skokie - ADA ramp and bicycle shelter at Oakton and Dempster stations; 12. University Park - New sidewalk connections in residential neighborhood.	\$5,175,210	\$4,140,168	\$1,545	48.7	488	9	N/A	N/A	N/A	0	N/A	0	0	3.3	1	1.7	6	63.7
TI08164113	Clarendon Hills - Burlington Av Metra Station Bicycle Parking Shelter	A replacement bike shelter for the Clarendon Hills Metra station.	\$58,700	\$44,160	\$1,991	45.9	8	3	N/A	N/A	N/A	0	N/A	0	0	3	1	0	4	52.9
TI01164059	CTA - Bus Slow Zone Elimination Program	This project would fund a variety of improvements expected to result in faster, more reliable run times based on identified bus slow spots on 5 high ridership CTA routes.	\$24,958,580	\$20,000,000	\$2,857	40.8	2,633	15	61%	6	7.5	13.5	N/A	N/A	0	4.5	2.5	2	9	78.3
TI13164060	IDOT - Edens Expressway/I-94 Bus on Shoulder	Infrastructure and maintenance for Bus on Shoulder on the Edens Expressway. Will serve two existing Pace routes (626, 620) and one new route (618).	\$13,856,689	\$9,992,195	\$3,389	38.0	1,300	12	75%	4.5	5.5	10	N/A	N/A	0	1	0	0	1	61.0
TI03164067	Streamwood - US20 Sidewalk to Hanover Park Metra Station	Improved pedestrian crossing at the Hanover Park Metra station/Pace stop and extended the sidewalk on the south side of the street improving access for a large employer.	\$430,000	\$324,000	\$3,433	37.8	29	3	N/A	N/A	N/A	0	N/A	0	0	0	0	0	0	40.8
TI03164066	Schaumburg - Schaumburg Metra Station Bike Racks and Lockers	Double the number of free bike lockers available at the Schaumburg Metra station from 20 to 40.	\$52,500	\$42,000	\$3,900	35.5	5	3	N/A	N/A	N/A	0	N/A	0	0	4.5	2	0	6.5	45.0
TI10164061	Mundelein - McKinley Av Commuter Bridge over CN RR at Mundelein Metra Station	This project would construct a bridge over the Metra tracks connecting residence to the Metra station and Mundelein's new town center. It would also provide bike access to the North Shore Path.	\$4,600,000	\$1,680,000	\$5,087	30.2	15	3	N/A	N/A	N/A	0	N/A	0	0	3	2.5	2	7.5	40.7
TI13164168	Pace - Pulse Dempster Line	Station construction, real time information markers, and 18 branded vehicles for use on 15 mile Dempster Arterial Bus Rapid Transit Line.	\$26,455,000	\$19,152,000	\$5,738	27.7	530	9	71%	4.5	7.5	12	N/A	N/A	0	3.75	0	2	5.75	54.5
TI01164058	CTA - Ashland Av Transit Signal Priority and Signal Modernization-Irving Park Rd to Cermak Rd	Transit signal priority for Ashland bus. Projects 10% reduction in travel time resulting in 4% increase in ridership. Regional Transit Signal Priority Implementation Program is funding TSP south of Cermak. This application is for TSP on Ashland from Cermak to Irving Park Road.	\$12,000,000	\$9,600,000	\$6,479	25.1	255	6	61%	6	3	9	N/A	N/A	0	4.5	2.5	2	9	49.1
TI03164068	Wheeling - Milwaukee Ave at Hintz Rd Sidewalks	New sidewalk along Milwaukee Ave. industrial area near Executive Airport.	\$436,770	\$325,576	\$8,192	19.9	10	3	N/A	N/A	N/A	0	N/A	0	0	2	1	0	3	25.9
TI13164167	Pace - I-90 Corridor Transit Access Improvement Project	Operations and marketing funding for second and third year of express bus and demand response within I-90 corridor between Elgin and Rosemont.	\$24,650,380	\$19,720,304	\$8,679	18.6	2,235	15	65%	6	7.5	13.5	N/A	N/A	10	1	0	0		57.1

1-Calculated by adding the scores for Cost Effectiveness, Transportation Impact Criteria and Regional Priority.

N/A-Not applicable to project type

N/D - no data provided

CMAQ ID	Project	Project Summary	Project Total Cost	CMAQ Requested Funds	Air Quality		Transportation Impact Criteria							Regional Priority					Composite Priority Index ¹	
					Annualized \$ per Kg VOC Eliminated	Cost Effectiveness Score	Ridership Increase	Ridership Score	OnTime Performance	OTP Index	Qualitative Reliability	Travel Time Reliability Score	RTA Asset Inventory Condition	Asset Condition Score	Major Capital Project	Permitted Density Score	Innovative Parking	Mixed-Use Zoning Score		Transit Supportive Land Use
TI01164054	CDOT - Washington Station Reconstruction - CTA Blue Line	Reconstruction of station to remove capacity constraints, improve appearance, enhance operations. Last refurbished in 1982. Will improve ADA access, increase turnstiles 20%, and improve connection to Red Line. New electrical, communication, backup power, and security systems.	\$81,500,000	\$4,900,000	\$8,728	18.5	532	9	N/A	N/A	N/A	N/A	2.5	0	0	4.5	2.5	3	10	37.5
TI01164052	CDOT - Monroe Station Reconstruction CTA Red Line	This project is a modernization of the Monroe station. Work would make station ADA accessible, increase turnstile capacity 20%, and update décor. Lighting, backup power, security, and communication systems would be replaced. 6 Bike spaces.	\$77,500,000	\$5,000,000	\$8,967	17.9	503	9	N/A	N/A	N/A	N/A	2.1	4	0	4.5	2.5	3	10	40.9
TI08164056	Clarendon Hills - Prospect Ave Access to Metra Improvements	This portion of the project would reconfigure Prospect Ave. to have a raised median, bike lane, and pedestrian fencing.	\$842,100	\$578,080	\$9,102	17.6	5	3	N/A	N/A	N/A	N/A	N/A	0	0	3	1	0	4	24.6
TI08164055	Clarendon Hills - Burlington Av Metra Warming Station	One of several applications for Clarendon Hills. This portion includes a Metra warming station, reconfigured parking, and sidewalk/cross walk improvements.	\$958,750	\$671,400	\$10,362	14.9	5	3	N/A	N/A	N/A	N/A	N/A	0	0	3	1	0	4	21.9
TI01164053	CDOT - State/Lake Reconstruction - CTA Loop Elevated	Total reconstruction of station will improve appearance, ADA access, platform width, and turnstile capacity 43%. New security system, communication, signage, lighting, and backup power. Remove column from roadway and increase roadway vertical clearance.	\$97,600,000	\$92,000,000	\$12,239	11.5	464	9	N/A	N/A	N/A	N/A	1	15	0	4.5	2.5	3	10	45.5
TI01164057	CTA - Red and Purple Line Modernization-Phase One	Phase one of RPM, includes the Belmont Bypass and signal improvements allowing for faster, more comfortable, and more frequent service.	\$570,000,000	\$125,000,000	\$15,434	7.5	2,400	15	N/A	N/A	N/A	N/A	1.6	9	10	4.5	2.5	2		41.5
TI07164063	Park Forest - 211th St Metra Station Area Access Improvements	This project would provide a variety of parking lot and sidewalk improvements to the Metra station. Underutilized parking lot would shrink to make room for development and a pedestrian path. Improvements would include parking lot resurfacing, pedestrian lighting, ADA access, bike racks, underpass bird screening, and landscaping.	\$2,269,300	\$113,520	\$15,658	7.3	17	3	N/A	N/A	N/A	0	N/A	0	0	1	0	0	1	11.3
TI08164070	Villa Park - North Side Sidewalk Improvements	This project would construct sidewalks in a residential neighborhood.	\$1,212,925	\$861,140	\$17,307	5.8	5	3	N/A	N/A	N/A	0	N/A	0	0	0	0	0	0	8.8
TI07164064	Richton Park - Richton Park Station Commuter Parking Deck	Funding would construct a parking structure as part of a long term plan for reorienting development toward transit.	\$9,757,000	\$7,320,000	\$39,494	0.3	23	3	N/A	N/A	N/A	0	N/A	0	0	1	1	2	5.5	8.8
TI03164062	Niles - Access to Milwaukee Av and Oakton St Bus Service	First of a five phase sidewalk improvement project in Niles. The Phase 1 improvements are primarily on residential side streets.	\$1,275,000	\$848,000	\$45,074	0.1	7	3	N/A	N/A	N/A	0	N/A	0	0	3	0	0	3	6.1

1-Calculated by adding the scores for Cost Effectiveness, Transportation Impact Criteria and Regional Priority.
N/A-Not applicable to project type
N/D - no data provided