

### Chicago Metropolitan Agency for Planning

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### MEMORANDUM

To:CMAQ Project Selection CommitteeFrom:Regional Transportation Operations CommitteeDate:June 30, 2011Re:Project Packages

"GO TO 2040 recommends that the region prioritize investments toward strategic enhancements and modernization of the transportation system. If carefully targeted, these types of projects will improve access, mobility, and the overall experience for all users." GO TO 2040 P 272

The MPO Policy Committee and CMAQ Project Selection Committee requested that the Regional Transportation Operations Coalition identify projects of particular significance in advancing the goals, objectives and action areas of the GO TO 2040 Comprehensive Regional Plan. Most of these projects were identified from among improvements submitted during the regular call for projects for the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. In addition, a program of operational improvements for broad implementation is suggested. It is anticipated that one or more regional indicators would be improved by the projects. The recommended projects will provide a coherent, identifiable achievement over the five-year time frame, i.e. a focused program.

The Regional Transportation Operations Coalition identified 4 key groups of projects:

**System Modernization and Intelligent Transportation Systems (ITS)** are projects which will improve the information available to highway system managers and to travelers. These projects advance the development of the region's Intelligent Transportation System (ITS) by adopting best practices in new technologies. GO TO 2040 supports advancing ITS projects of all types.

**Corridor Recommendations** are multiple projects which should be implemented together in specific arterial corridors to provide more focused and discernable benefits to specific roadways.

**Special Projects** are unique projects which the region's system operators identified as important for a variety of operational reasons.

**The Operations Program** consists of strategies and projects which the RTOC believes should be undertaken by the region, and supported by CMAQ or other funding, but which were not yet put forward as project applications.

# **System Modernization and Intelligent Transportation Systems (ITS)**

"Improvements related to Intelligent Transportation Systems (ITS) are also considered strategic enhancements and modernization. These include the use of real-time traveler information for both highway and transit, signal improvements such as interconnects or Transit Signal Priority (TSP) systems, traffic management centers, and many others. (...) GO TO 2040 supports continuing to advance ITS projects of all types, and recommends a continued role for CMAP in coordinating these efforts regionally. "GO TO 2040 p 272

This package of projects provides congestion relief by improving the system through better information and modernized operations. Better information allows better management of incidents, reducing incident delay, and allows the dissemination of better traveler information. Except for RTA's implementation of a regional system of Transit Signal Priority corridors, the projects in this package were selected from among traffic flow improvement proposals submitted through the call for CMAQ projects. This list of projects can be expanded by implementing more of the packages included in the region's ITS Plan and in the Regional ITS Architecture.

A few technologies deserve special mention.

- 1. Implementation of the roadside equipment needed for development of a regional Transit Signal Priority network results in a clear reduction in traffic congestion on the system's roadways.
- 2. Adaptive signal control proposals will improve the real-time capability of signal systems to be resilient in various traffic conditions. Adaptive control technologies typically include improved detection of traffic conditions and improved algorithms for managing traffic in congested conditions.
- 3. Several improvements in this package involve variable message signs (VMS) on arterial highways. Such VMS systems, often seen on the expressway system in the past, are now being deployed to provide better en-route travel information, often at key decision points.
- 4. Finally, the package includes better information systems for arterial roadways. Such systems can provide information to central traffic management centers; which can then coordinate traffic and incident response with other agencies and distribute information via web services or the Gateway Traveler Information System.

The following package includes 24 projects and totals approximately \$65,000,000 in federal funds.

CMAQ ID	Sponsor	Facility	Total	Federal	Description	Program Year
SI09123545	Aurora	Eola Rd from E New York St to Wolf's Crossing Rd	\$1,834,500	\$1,467,600	Signal interconnect and modernization of 9 signals	2013-2014
SI01123520	CDOT	Ashland Av from Roosevelt Rd to Cermak Rd/Blue Island Av	\$2,300,000	\$1,880,000	7 signals on Ashland; cameras, 1 VMS	2013-2015
SI01123522	CDOT	IL 19/Irving Park Rd from Western Av to US 41/Lake Shore Dr	\$1,160,000	\$948,000	Upgrade signal interconnect to Adaptive Signal Control 13 intersections	2012-2014
SI01123523	CDOT	US 41/Lakeshore Dr and Columbus Dr from Monroe Dr to US 41/Waldron Dr (1600 S)	\$1,180,000	\$944,000	Upgrade signal interconnect to Adaptive Signal Control 11 intersections	2012
SI01123519	CDOT	Cermak Rd from Ashland Av to MLK Jr Dr	\$3,275,000	\$2,080,000	15 signals on Cermak; cameras	2012-2013
SI01123521	CDOT	Ashland Av from Devon Av/Clark St to Fullerton Av/Ashland Av	\$5,225,000	\$3,920,000	29 signals on Ashland. Includes cameras and VMS	2012-2014
OT01123611	CDOT	Arterial VMS Traveler Information System, Phase I	\$1,641,000	\$1,313,200	Up to 15 permanent and 15 portable variable message signs.	2012-2014
OT01123612	CDOT	Arterial Detection System Improvements	\$1,219,000	\$975,200	Installation of various technologies to collect real-time travel performance data at 130 Chicago arterial street locations. The data will be integrated with the Gateway and provided to the public.	2012-2016
SI08123515	DuPage County DOT	DuPage Co Central Signal System - Phase I	\$895,000	\$716,000	Phase 1 North DuPage area. 55 intersections. Includes video	2012-2013
SI08123516	DuPage County DOT	DuPage Co Central Signal System - Phase II	\$846,000	\$676,800	Phase 2 North DuPage area. Expand to 77 signals. Includes video.	2013-2014

SI08123517	DuPage County DOT	DuPage County Central Signal System - Phase III	\$1,325,000	\$980,000	Phase 3 North DuPage area. Expand to 108 signals. Includes video	2014-2015
SI10123560	Grayslake	Lake St from Washington St to Belvidere Rd	\$675,180	\$540,140	Interconnect to other signal systems and connect to PASSAGE; VIDEO	2014-2015
SI09123533	Kane County DOT	CH 37/Stearns Rd from Randall Rd to Kane/DuPage County Line	\$2,235,750	\$1,788,600	Adaptive signal control, road weather information system, dms, cctv, and traffic data collectors	2013-2014
SI10123526	Lake County DOT	IL 120/Belvidere Rd from IL 134/Main St to US 45	\$2,394,140	\$1,915,310	3 signal modernized and interconnect willconnect to PASSAGE; VIDEO	2014-2015
SI10123525	Lake County DOT	US 12/Rand Rd from IL 176 Ramps to Milller Rd	\$2,330,200	\$1,864,160	Interconnect to other signal systems along U.S. Rte 12 and upgrade other signals. Also connect to PASSAGE; VIDEO	2014-2015
SI10123531	Lake County DOT	Sheridan Rd from Wadsworth Rd to Grand Av	\$3,852,290	\$3,081,830	Interconnect to other signal systems along IL 137 and signal modernization. Also connect to PASSAGE; VIDEO	2013-2014
SI10123524	Lake County DOT	IL 83 from IL 173 to Millstone Dr	\$2,017,480	\$1,613,990	Interconnect to other signal systems along IL 83 and connect to PASSAGE; VIDEO	2013-2014
DE10123576	Lake County DOT	Aptakisic Rd Adaptive Traffic Control	\$488,270	\$390,610	Adaptive Signal Control on Aptakisic Rd between Brandywyn Ln. to Parkway Dr.	2012-2013
DE10123580	Lake County DOT	Gilmer/Hawley/IL176 Adaptive Traffic Control	\$1,291,380	\$1,033,110	Adaptive Signal Control on Gilmer Rd between Freemont Center Rd and Midlothian Rd	2012-2013
SI10123527	Lake County DOT	Cedar Lake Rd from Rollins Rd to S Rosedale Ct	\$930,070	\$744,060	Interconnect to other signal systems along Cedar Lake Rd and connected to PASSAGE. 1 signal modernized. VIDEO	2012-2013

SI10123528	Lake	Waukegan Rd from	\$2,096,120	\$1,676,900	Inconnect to other	2013-2014
	County	Casimir Pulaski Dr to			signal systems along	
	DOT	Norman Dr South			IL 43 and be	
					connected to	
					PASSAGE. 3 signals	
					modernized. VIDEO	
SI10123818	Lake	Sunset Av, Glen	\$2,953,970	\$2,363,180	Signal interconnect	2014-2015
	County	Flora Av, Jackson St,			for 5 roads and	
	DOT	10th St and 14th St			signal modernization	
					at two intersections.	
					Also connect to	
					PASSAGE; VIDEO	
SI04123542	Oak Park	Village of Oak Par	\$130,400	\$104,320	replacement of	2012
		Traffic Signal			system software and	
		Management System			network server for	
					Traffic management	
					system; includes E-2,	
					so C in 2012 is	
					unlikely	
TI13123796	RTA	Regional Transit	\$40,000,000	32,000,000	Eng and construction	2012 -2016
		Signal Priority			requested FFY 2012	
		Integration Plan, Five				
		Year Implementation:				
		Priority Corridors				
Total			\$82,295,750	\$65,017,010		24 Projects

## **Corridor Recommendations**

"GO TO 2040 recommends that the region prioritize investments toward strategic enhancements and modernization of the transportation system. If carefully targeted, these types of projects will improve access, mobility, and the overall experience for all users." GO TO 2040 p. 272

GO TO 2040 specifically recommends implementing roadway improvements, including projects that add lanes to arterials or other streets, addition of turn lanes, access management programs, intersection improvements, new or improved interchanges, and new or improved bridges. The following package of projects consists of targeted arterial improvements where a number of investments in a specific corridor are under consideration, often by different jurisdictions. When taken together, a group of projects can substantially improve the operation of an entire corridor, as Strategic Regional Arterial (SRA) improvements were initially intended. Several such packages were identified.

The RTOC further recommends that if these corridor improvements are recommended by the CMAQ project selection committee (PSC), the PSC will consider a policy of requesting that implementers specifically consider accommodations for intersection far-side bus stops to improve both transit and intersection operations.

The following package includes 39 projects and totals approximately \$65,000,000 in federal funds.

Identified Corridors	Project Cost	Federal Request	# of Projects
Lake-Cook/Dundee Corridor	\$24,103,000	\$18,328,000	10
Fabyan Parkway/IL 38 Corridor	\$20,185,000	\$15,273,300	6
US 14/Barrington Road Corridor	\$20,031,200	\$11,865,000	5
IL 47 Corridor	\$6,600,000	\$5,280,000	3
US 6 Corridor	\$4,400,000	\$3,520,000	2
IL 59/US 20 Corridor	\$4,280,000	\$3,424,000	5
55th Street Corridor	\$3,885,000	\$3,108,000	3
Butterfield/Roosevelt Corridor	\$4,368,900	\$2,452,220	3
Harlem Avenue Corridor	\$1,700,000	\$1,360,000	2
Total Corridor Recommendations	\$89,553,100	\$64,610,520	39

### **Recommended Arterial Corridors**

### Lake-Cook/ Dundee Corridor



## Lake-Cook/ Dundee Corridor (Continued)

CMAQ ID	Sponsor	Location	Total	Federal	Description	Program Year
П02123454	IDOT	IL 68/Dundee Rd at Landwehr Rd	\$720,000	\$576,000	Additional turn lanes.	2015-2016
II02123470	IDOT	IL68/Dundee Rd at Pfingsten Rd	\$1,000,000	\$800,000	Additional turn lanes.	2015-2016
II10123783	Cook County Highway Department	Lake Cook Rd at Buffalo Grove Rd	\$7,030,000	\$5,113,000	Additional turn lanes and widening.Traffic signal modernization and integration into Lake County Passage.Funding for construction only.	2016
Ш10123765	Cook County Highway Department	Lake Cook Rd at Weiland Rd	\$5,231,000	\$4,185,000	Additional turn lanes and widening.Traffic signal modernization and integration into Lake County Passage.Funding for construction only.	2015
Ш10123764	Cook County Highway Department	Lake Cook Rd at IL 83/McHenry Rd	\$4,272,000	\$2,974,000	Additional turn lanes and widening.Traffic signal modernization and integration into Lake County Passage.Funding for construction only.	2016
Corridor Total			\$24,103,000	\$18,328,000		10 Projects

# Fabyan Parkway / IL 38 Corridor

	II09123782 II09	2 123812	1109123	3781	813 108123491 08123450	
CMAQID	Smannan	Location	Total	Fadoral	Decription	Brogram Voor
II09123782	Kane County DOT	CH 8/Fabyan Pkwy at CH 84/Kaneville Rd	\$1,603,800	\$1,283,100	Description   Additional turn lanes   and traffic signal   installation.Signals   will be part of a signal   interconnect.	2013-2016
II09123812	Kane County DOT	Fabyan Pkwy. At Wenmoth Rd.	\$2,422,800	\$1,938,200	Additional turn lanes. Unsignalized intersection	2013-2016
П09123781	Kane County DOT	CH 8/Fabyan Pkwy at CH 77/Kirk Rd	\$5,958,400	\$4,767,000	Additional turn lanes and signal modernization	2013-2016
П08123813	DuPage County DOT	Fabyan Pky/Washington St. at Roosevelt Rd.	\$9,000,000	\$6,325,000	Additional turn and through lanes. Extend existing turn lanes	2012-2014
II08123491	IDOT	IL 59 at IL 38 (north ramps)	\$800,000	\$640,000	Additional turn lanes. Ramp widening	2014-2015
II08123450	IDOT	IL 59 at IL 38 (south ramps)	\$400,000	\$320,000	Additional turn lanes. Ramp widening	2015
Corridor Total			\$20,185,000	\$15,273,300		6 Projects

# US 14 / Barrington Road Corridor

94	45		CMAQ ID	Sponsor	Location	Total	Federal	Description	Program Year
	× I				Hart Rd. at US			Additional turn	
	1119123814			Lake County	14/W Northwest			lanes and signal	
			II10123814	DOT	Hwy	\$9,531,200	\$3,465,000	modernization	2012-2015
		ר ר			IL 68/E Dundee				
-		-			Rd at S Barrington			Additional turn	
			II03123505	IDOT	Rd	\$720,000	\$576,000	lanes.	2014-2015
					IL 62/Algonquin				
					Rd at Barrington			Additional turn	
			II03123469	IDOT	Rd	\$600,000	\$480,000	lanes.	2015-2016
		03123505						Widening of	
								Barrington Rd	
~								from a 3-lane cross	
1		100						section to 5-lane	
1	1031234	469						cross section along	
		$\sim$						3300 ft between IL	
								Rte 62 and	
	BE03123	3473						Mudhank	
	L I							Rd.Barringon Rd is	
		_						generally a 5-lane	
		-			Barrington Rd			cross section in	
					from IL			this area with the	
		1L 72 (h			62/Algonquin Rd			exception of this	
			BE03123473	IDOT	to Mudhank Rd	\$8,700,000	\$6,960,000	segment.	2015 - 2016
					Barrington Rd at			Additional turn	
	1031035	03	II03123503	IDOT	Bode Rd	\$480,000	\$384,000	lanes.	2014-2015
	1001200								
1	-	1	Corridor Total			\$20,031,200	\$11,865,000		5 Projects

## IL 47 Corridor

	CMAQ ID	Sponsor	Location	Total	Federal	Description	Program Year
109123468	II09123468	IDOT	IL47/72/Higgins Rd at US 20	\$1,950,000	\$1,560,000	Additional turn lanes and signal modernization.	2012-2013
1109/23478	II09123478	IDOT	IL 47/72 at US 20	\$1,450,000	\$1,160,000	Additional turn lanes and signal modernization.	2012-2013
	II09123461	IDOT	IL 47 at Plato Rd	\$3,200,000	\$2,560,000	Roundabout	2013-2014
	Corridor Total			\$6,600,000	\$5,280,000		3 Projects
1109123461							

## **US 6 Corridor**

II1212	3488	II12123460		1112	123488 II1	2123460
CMAQ ID	Sponsor	Location	Total	Federal	Description	Program Year
II12123488	IDOT	US 6/Southwest Hwy at Gougar Rd	\$1,200,000	\$960,000	Additional turn lanes and traffic signal installation	2013-2014
II12123460	IDOT	US 6/Southwest Hwy at Parker Rd	\$3,200,000	\$2,560,000	Roundabout	2013-2014
Corridor Total			\$4,400,000	\$3,520,000		2 Projects

### IL 59 / US 20 Corridor



### 55<sup>th</sup> Street Corridor

11081	II08123822 SI08 2351 23821	IL 83 (Elmhurst, Bu			II08123822 SI081235 I08123821	14
CMAQ ID	Sponsor	Location	Total	Federal	Description	Program Year
II08123821	DuPage County DOT	55th St. at Main St.	\$1,780,000	\$1,424,000	Additional turn lanes	2012-2015
					and signal	
					modernization	
II08123822	DuPage County DOT	55th St. at Fairview	\$1,175,000	\$940,000	Additional turn lanes	2012-2015
		Ave.			and signal	
					modernization	
SI08123514	DuPage County DOT	CH35/55th St from	\$930,000	\$744,000	run fiber and upgrade	2014-2015
		Dunham Rd to			5 signals	
		Clarendon Hills Rd			-	
Corridor Total			\$3,885,000	\$3,108,000		3 Projects

### **Butterfield / Roosevelt Corridor**



### Harlem Avenue Corridor



## **Special Projects**

Special projects were recommended by the RTOC for a variety of reasons, noted for each project. There are 9 special projects totaling approximately \$48 million.

CMAQ ID	Sponsor	Location	Total	Federal	Description	Program Year			
BP09123715	City of Elgin	Fox River Trail over Fox River	\$2,377,000	\$1,902,000	Construction of a bike path and bicycle/pedestrian bridge. May include a biosolids transfer line.	2012 - 2015			
Reason: This project has is expected to include a biosolids pipeline that will reduce the need for truck trips between two separate facilities of the Fox River Water Reclamation District									
II08123820	DuPage County DOT	75th St. at Cass Ave and Plainfield Rd.	\$15,045,000	\$10,100,000	Additional turn lanes and signal modernization	2012-2013			
Reason: DuPage Count indicates that 75 <sup>th</sup> at Ca extending access manag	ty has invested significan ss, and 75th at Plainfield ement treatments.	t resources in 75th Street ( are "bottleneck intersectio	because it is an SRA and ons" where throughput oj	provides access to I-355, <sup>f</sup> the corridor can be great	IL59, IL 53, and IL 83. 2 ly improved by providing	A review of the corridor g turn lanes and			
II07123506	IDOT	IL 394 at Sauk Trail	\$810,000	\$648,000	Additional turn lanes.	2012-2013			
Reason: This location is at the end of the limited access system and is a dangerous location. Sauk Trail east of IL 394 connects to US 30, which goes into Indiana. Both routes are regionally significant.									
II12123489	IDOT	US 30/Lincoln Hwy at I-55 Ramps	\$1,000,000	\$800,000	Additional turn lanes on ramps. Construction only	2014			
Reason: Ramps back up highway and Interstate	o onto mainline expresswo route.	ay. Both routes are region	ally significant. IDOT a	recognizes multiple cycle	waits, and queuing that	affects both marked US			

CMAQ ID	Sponsor	Location	Total	Federal	Description	Program Year				
II11123459	IDOT	IL 173 at Wilmot Rd	\$3,200,000	\$2,560,000	Roundabout	2013-2014				
Reason: is an existing all-way stop control which backs up significantly in peak hours. Both routes are regionally significant and Wilmot goes into Wisconsin.										
II06123451	IDOT	Pulaski Rd at 115th St	\$1,050,000	\$840,000	Additional turn lanes and signal modernization	2015-2016				
Reason: Turning traffic	Reason: Turning traffic on 115 <sup>th</sup> Street backs up, interfering with CTA bus 53A South Pulaski which must also make the left turn									
BE10123791	Lake County DOT	CH A22/Washington St at CN/Metra Crossing	\$21,174,000	\$16,939,000	Construct a grade separation between Washington St. and the CN/Metra railroad tracks. Phase 1 and 2 engineering and right-of-way acquisition complete.	2013				
Reason: The project in 2030). The CN RR car vehicles and creates sev	volves depressing Washin ries approximately 50 tra ere traffic delays.	ngton Street at the CN Ra iins per day, both freight d	ilroad. Washington and commuter. The	Street has an ADT of ap at-grade railroad crossir	pproximately 16,300 vehicles ( 1g results in a traffic bottleneck	18,000 is estimated for that affects emergency				
BP03123695	Village of Elk Grove Village	Overpass at IL 72 Higgins Road in Busse Woods (Elk Grove Village).	\$4,925,000	\$3,495,000	Bicycle overpass at IL 72	2011 - 2015				
Reason: Substantial co grade separation here w	nflicts exist between ped oould reduce danger for a	estrians and bicyclists and ll users.	l motorists at this lo	cation. Delay from this	s conflict backs up onto I-290 n	nainline. Therefore a				
П12123794	Will County Department of Highways	CH 16/Bell Rd at CH 37/143rd St	\$12,980,000	\$10,384,000	Additional through and turn lanes. Construction only	2015				
Reason: This location ranks at the top of Will County's list of high crash locations. This location is consistently ranked as one of Will County's most congested intersections, and with the new interchange with the I-355 extension just over 4 miles to the west, this area has seen a substantial increase in traffic volumes. This project is the first of four projects that will improve the Bell Road Corridor (an SRA Route) to SRA standards.										
Total			\$62,561,000	\$47,668,000	9 Proj	ects				

### **Operations Program**

The region's CMAQ program did not receive project submittals addressing freeway congestion. The following four priority areas should be used as a basis for operations program development over the next several years. Note that if the I-55 Bus on Shoulders Demonstration Project<sup>1</sup> is successfully completed, the Regional Bus on Shoulders program may also be included as a priority.

#### Top Priority: FY 2012 CMAQ Program Development: Data Integration: Public Safety Answering Point (PSAP)/ Traffic Management Center (TMC) Integration

"The PSAP often serves as the point of origin for Traffic Incident Management (TIM)-related information exchange and communication since it receives and processes 911 calls and other requests for assistance, and serves as the main dispatch center for law enforcement, fire, and emergency medical services. Computer Aided Dispatch (CAD) is the PSAP's primary information system and most common means used to manage and dispatch multiple response vehicles from the PSAP. When a PSAP operator/dispatcher receives a call for service, the information is entered into the CAD system.

A growing number of jurisdictions are integrating PSAP CAD systems into Traffic Management Center operations to facilitate the real-time exchange of incident data." http://ops.fhwa.dot.gov/eto\_tim\_pse/publications/timhandbook/chap4.htm

Our region's response to incidents and the resulting congestion and safety hazards will be improved with a better flow of information to traffic management centers about incidents as they occur. This is a complicated undertaking which will require significant investments in building relationships with the PSAP operators and system operators, detailed study of how the desired information flow can be accomplished, and actual implementation of the information system.

#### **Project Tasks**

Identify key stakeholders, (PSAPS that cover the majority of the calls in the region and the TMCs), evaluate data systems used in the each of the PSAP and TM centers, identify appropriate data items to share, identify desired data flows and data formats to implement integration, develop an implementation plan, implement the data flows.

<sup>&</sup>lt;sup>1</sup> Included in the transit focus group package, TI13123716.

#### **Second Priority:**

#### Incident Management Programs, including arterial incident management

- "Incidents are estimated to cause more than 50 percent of total delay experienced by motorists in all urban areas. Of this, 25 percent is caused by traffic incidents such as crashes, stalled vehicles, roadway debris, and spilled cargo.
- Secondary crashes are estimated to cause 18 percent of all fatalities on freeways.
- In 2002, approximately 50 percent of all police, Emergency Medical Services (EMS) personnel, and firefighter fatalities occurred as a result of transportation incidents (either accidental or "struck-by" incidents or crashes in pursuit or other line-of-duty activities).
- Between 1997 and 2006, 17 percent of the accidental law enforcement deaths were the result of "struck-by" motor vehicle incidents occurring during activities such as traffic stops, roadblocks, directing traffic and assisting motorists."

http://ops.fhwa.dot.gov/eto\_tim\_pse/publications/timhandbook/chap1.htm#sec1-4

This project includes further integrating incident data, and coordination among responding agencies. Best practices have been developed and may be a resource for highway operations and incident response personnel. Many of these practices are focused on preventing secondary incidents in the course of daily highway operations.

Among the areas of most concern are those related to handling highway fatalities. These tragedies require a response by a medical examiner or coroner (depending on the jurisdiction), in support of a death investigation. These may take hours and result in further incidents, including additional fatalities. RTOC wishes to pursue resolution of the interests of all stakeholders in these situations. This may require closer coordination or even new legislation regarding facility closures.

#### **Project Tasks**

Identify stakeholders, both system operators and responding agencies. Analyze incident data to help describe the problem using measurable criteria. Elicit stakeholder input to identify specific incident practice issues which should be addressed within this process. Develop solutions to the identified issues. Develop implementation plan and begin implementation.

Third Priority: Traveler Information (Variable Message Signs (VMS), Web sites, Highway Advisory Radio (HAR), etc.) System Monitoring (Signal-Based Detectors, Closed Circuit Television CCTV, Mid-block Detection, Third Party Sources) Traffic Management

Investing in additional traffic monitoring equipment and information distribution technologies allows the region to collect more and betterquality data to provide timely and accurate information to roadway users. Drivers can use it to make better travel decisions and the same data supports better decisions by transportation system managers.

Following are the FHWA Research and Innovative Technology Administration 2007 ITS Deployment Statistics for our region:

	Centerline	VMS	Miles	Miles	Miles Covered	Miles under	Intersections
	Miles		Covered by	Covered by	by Incident	Electronic	under
			HAR	CCTV	Detection	Surveillance	Electronic
					Algorithms		Surveillance
Freeway	676	86	24%	30%	59%	55%	
Arterial	4,696	25	18%	8%	11%		42%

ITS Deployment Tracking Database

http://www.itsdeployment.its.dot.gov/summarymetro.asp?MetroArea=Chicago,%20Gary,%20Lake%20County&Year=2007

#### **Project Tasks**

Inventory locations of existing VMS equipment and identify gaps where additional equipment should be installed. Identify locations on parallel highways or arterials that approach freeways where VMS should be installed to provide expressway information. Develop requirements and an implementation plan for installing equipment at these locations. Facilitate the process for system operators to identify key arterials that should be monitored and provide traveler information. Longer corridors will be multi-jurisdictional. Develop requirements and implementation plans for monitoring and providing information for the arterial corridors.

#### Fourth Priority: Arterial On-Street Parking Management

On street parking has a significant impact on capacity and traffic flow, contributing to slower speeds and congestion. A balance must be maintained between the need for on-street parking to serve local land uses and the need of system operators to keep traffic flowing efficiently and smoothly. The region's roadway operators have identified on-street parking locations and policies as an issue that should be addressed in a more consistent manner regionwide.

#### **Project Tasks**

Develop accurate datasets of information about on-street parking to support analysis. Assemble system operators to identify locations where on-street parking and traffic operations are in significant conflict. Assemble a group of stakeholders including operators, municipalities and private interests to develop strategies for alleviating the conflict. Conduct analysis to measure the traffic impacts and economic impacts of adjusted or new on-street parking strategies. Pursue implementation of the strategies.

#### Fifth Priority: Speed Harmonization

Variable speed limits might harmonize speed reductions for crashes, roadwork, and other congestion, improving traffic flow and safety. Having a steady, controlled reduction in speeds approaching congestion or an incident may maximize highway capacity, since highway capacity is reduced at very low speeds (< 30 mph). Missouri is implementing speed harmonization through the use of advisory speeds in highway segments approaching congestion, construction, and other incidents.

#### Example of implementation:

The Missouri Department of Transportation uses variable advisory speeds along I-270/I-255. When congestion starts building along stretches of I-270, MoDOT uses changeable speed signs to vary the advisory speed on the road. Variable Advisory Speeds along I-270/I-255 could range from 60 mph during extremely light traffic, to as low as 10 mph during extreme congestion. This would also include congestion due to crashes, work zones or weather conditions. If the advisory speed posted is less than 60 mph, the speed will flash continuously.

#### - http://www.modot.mo.gov/stlouis/links/VariableSpeedLimits.htm

#### Why it works:

If traffic slows down as it approaches a congested area and all the drivers stay at a constant speed, traffic will pass through the congested area faster. Imagine the highway as a funnel. Now, imagine the traffic which has to travel along the highway during a certain time as a container of rice. If you pour all the rice into the funnel at the same time, it gets congested at the bottom of the funnel and takes some time to work through the funnel. Now, if you slowly pour the rice into the funnel – keeping it at a steady pace – the rice moves through the funnel evenly and doesn't cause congestion. In fact, even though the rice is entering the funnel slower, all the rice gets through the funnel (to its destination) faster.

Note: this metaphor is posted at http://www.modot.mo.gov/stlouis/links/VariableSpeedLimits.htm and explains the concept of variable speeds. It is based on an idea from Paul Haase of Sammamish, Washington, in response to a challenge by Washington State Department of Transportation Secretary Doug MacDonald.

#### **Project Tasks**

Assemble stakeholders to guide this process. Develop priority list of corridors/locations where this technology should be implemented. Develop implementation plan and implement.



## Chicago Metropolitan Agency for Planning

312 454 0400 www.cmap.illinois.gov

### MEMORANDUM

To:CMAQ Project Selection CommitteeFrom:Regional Transportation Operations CommitteeDate:June 30, 2011Re:Projects which are Not Recommended

RTOC identified projects which they recommended not implementing, as opposed to being neutral.

CMAQ ID	Sponsor	Facility	Description	Notes
II03123787	Barrington	North Commuter	New signalized entrance to	Implementation of this project
		Parking Lot	US Rte 14 from commuter	results in substandard signal
		Access Dr and	lot	spacing.
		US 14		
II11123737	Cary	Cary-Algonquin	Need project to find best	Implementing the CMAQ
		Rd at Silver Lake	approach for intersection	project would create a new
		Rd	improvement. Initial	problem at US 14 / Cary-
			analysis removing stop	Algonquin Road which does not
			control and turning	have capacity for additional
			movements.	traffic.
II12123710	Diamond	IL 131 and Will	Phase 1 and 2 engineering	This project does not improve
		Rd.	underway. CMAQ will be	operations and IDOT has not
			used for traffic signal	approved a new traffic signal at
			controls. Only used for	this location.
			constr.	
II09123774	Elgin	S McLean Blv at	Bigger Project: SPUI. This	This project is already
		US 20	CMAQ project request: temp	underway.
			signals and signal	
			modernization.	
II09123779	Elgin	Longcommon	Additional acceleration lane	Studies are underway at this
		Pkwy at US 20		location. Appropriate solution
				has not yet been identified.
II07123758	Olympia	Vollmer Rd at	single lane roundabout	This location contains a newly
	Fields	Kedzie Av		rebuilt signal. Three legs are
				under the jurisdiction of Cook
				County.
TI13123832	Pace	Regional Bus on	Location undefined	This should wait for completion
		Shoulder		of the demonstration project
		Program		currently underway.
II03123696	Schaumbu	IL 62/Algonquin	Additional through and turn	Too near existing signals.
	rg	Rd from	lanes. Ped actuation signal	
		Meacham Rd to	and ADA requirements	
		Thoreau Dr		