

# CMAP FY 2016-2020 CMAQ PROJECT APPLICATION TRANSIT PROJECTS

I. PROJECT IDENTIFICATION					
Project Sponsor <b>Chicago Transit Authority</b>			Contact Information – Name, Title, Agency, Address, Phone, e-mail (e-mail required)		
Other Agencies Participating In Project <b>Chicago Department of Transportation Regional Transportation Authority Office of Emergency Management and Communications</b>			<b>Laura Fedak 567 W. Lake Street Chgo, IL 60661 Phone 312-681-4108 Fax 312-681-4197 E-mail <a href="mailto:lfedak@transitchicago.com">lfedak@transitchicago.com</a></b>		
<input checked="" type="checkbox"/> <b>New Project</b>		<input type="checkbox"/> New Project			
<input type="checkbox"/> Existing CMAQ Project		<input type="checkbox"/> Existing CMAQ Project			
<input type="checkbox"/> Add CMAQ to Existing Project		<input type="checkbox"/> Add CMAQ to Existing Project			
<b>(Project Manager Robert Vance)</b>					
II. PROJECT LOCATION					
<ul style="list-style-type: none"> <li>• Projects not readily identified by location must provide a title on the last line of this section</li> <li>• Attach a map sufficient to accurately locate this project in a GIS system</li> </ul>					
Name Of Street Or Facility To Be Improved – <b>Ashland Avenue</b>			Marked Route # <b>#9 Ashland</b>		
Project Limits: North/West Reference Point/Cross St/Intersection - <b>Irving Park</b>			Marked Route #		Municipality & County <b>Chicago, Cook</b>
Project Limits: South East Reference Point/Cross St/Intersection - <b>Cermak Road</b>			Marked Route #		Municipality & County <b>Chicago, Cook</b>
Other Project Location Information Or Project Title: <b>Ashland Avenue Transit Signal Priority (TSP) and Signal Modernization – Cermak Road to Irving Park Road</b>					
III. PROJECT FINANCING & CMAQ FUNDING REQUEST					
Please review the <a href="#">instructions</a> .					
	Starting Federal Fiscal Year*	Total Phase Costs	(New) CMAQ Funds Requested	Other Federal Funds Including prior CMAQ awards	
				Fund Type	Fund Type
Engineering Phase 1		\$	\$		\$
Engineering Phase 2		\$	\$		\$
Right-Of-Way Acquisition		\$	\$		\$
Construction (Including Construction Engineering)	<b>2018</b>	\$ 12,000,000	\$9,600,000		\$
Engineering (For Implementation Projects)		\$	\$		\$
Implementation		\$	\$		\$
Alternatives Analysis		\$	\$		\$
*Phase must be accomplished within 3 years		<b>\$12,000,000</b>	<b>\$9,600,000</b>		
Total Project Costs					
Source Of Local Matching Funds		<b>Combination of CTA funds</b>			
If Soft Matching Funds Are Intended To Be Used, Please Contact CMAP Staff.					
Have the Matching Funds Been Secured? (Provide Details):		<b>Yes, matching funds will be provided through CTA Capital Funds</b>			

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<b>IV. PROJECT EMISSIONS BENEFIT DATA</b>		
Project Type (Check One): <input type="checkbox"/> Facility Improvement <input checked="" type="checkbox"/> <b>Service And Equipment</b> <input type="checkbox"/> Access to Transit		
Auto Trips Eliminated Per Day (Round Trips): <b>196</b>		
Length Of Auto Trips Eliminated (One-Way Miles To The Nearest Tenth): <b>1075.4</b>		
Auto Trips Diverted Per Day (Round Trips):		
Line-Haul Length Of Diverted Trips (One-Way Miles To The Nearest Tenth):		
Project Life (Years): <b>10</b>		
Provide basis for parameters used to estimate benefits (e.g., new ridership, auto occupancy, trip length. See instructions):		
See calculations sheet for details.		
Route #9 Ashland - Avg Daily boardings (Cermak to Irving Park): 12,709 (6,355 round trips)		
Travel time elasticity factor: -0.4 (TCRP Report 118 Bus Rapid Transit Practitioner's Guide, p.3-19; Exhibit 3-19)		
% Change in travel time: -10% (TCRP Report 165 Transit Capacity and Quality of Service Manual 3rd edition, p.6-44)		
Estimated round-trip Ridership increase: $6,355 \times (1.4) \times (-0.1) = 254$		
Auto trips diverted, assuming 1.3 passengers per vehicle: $254/1.3 = 196$		
Average trip length for #9 customers: 2.55 miles		
Trip length, including walk distance of 0.2 mile per trip: 2.75		
One-way length of diverted trips: $196 \times 2 \times 2.75 = 1,075.4$		
<b>SERVICE IMPROVEMENTS</b>		
On-Time Performance Route to be Improved: <b>61%</b> System-Wide: _____		
Reliability Enhancements (Check All that Apply):		
<b>Rail</b> <input type="checkbox"/> New Vehicles <input type="checkbox"/> Upgraded Switches <input type="checkbox"/> Upgraded Power Supply <input type="checkbox"/> Positive Train Control <input type="checkbox"/> Station Consolidation <input type="checkbox"/> Track Improvements <input type="checkbox"/> Reduction of Freight/Vehicle/Pedestrian Interference	<b>Bus</b> <input type="checkbox"/> New Vehicles <input type="checkbox"/> Queue Jump/Bypass Lanes <input type="checkbox"/> Off-board Fare Collection <input type="checkbox"/> Reduced Stops/Express Service <input type="checkbox"/> New Dispatching/Decision Support Systems <input type="checkbox"/> Passenger Vehicle Movement Restrictions	<input checked="" type="checkbox"/> <b>Transit signal priority</b> <input type="checkbox"/> Multi-Door Boarding with Off-board Fare Collection <input type="checkbox"/> Bus-on-Shoulders <input type="checkbox"/> Managed Lanes <input type="checkbox"/> Dedicated Bus Way <input type="checkbox"/> Far-side Stops <input type="checkbox"/> Bus Stop Upgrades <input type="checkbox"/> Near Level Boarding
<b>FACILITIES/CAPITAL IMPROVEMENTS</b>		
Existing Asset Condition (1-5 scale used by RTA): <b>N/A</b>		
Description and Location of Service (For Equipment Purchases):		
The project will upgrade the traffic signal system on Ashland Avenue between Cermak Road and Irving Park Road. The attached maps show the existing signalized intersections in the corridor (46 locations). Additional work may be required on adjacent intersections that require signal coordination with Ashland Avenue (e.g. Armitage/Elston, Ogden/Madison and Ogden/Monroe).		
Net Number Of New Vehicle Parking Spaces: <b>0</b> Net Number Of New Bicycle Parking Spaces: <b>0</b>		

## V. PROGRAM MANAGEMENT INFORMATION

Is right-of-way acquisition required for this project?  Yes  No

If so, has right-of-way been acquired?  Yes  No

N.A  Not Begun  **Engineering Underway (provide details below)**  Engineering Completed - Date completion is anticipated: **2018**

Engineering Status:

CTA completed preliminary engineering for the entire corridor as part of the Regional TSP Implementation Program. CDOT developed partial design plans for a signal interconnect project on Ashland Avenue. Final design is anticipated to be complete in 2018.

Estimated Completion Year/Start Of Service: **2020**

## VI. PROJECT DESCRIPTION

The project will construct a traffic signal interconnect and communication network required to implement transit signal priority (TSP) on Ashland Avenue between Cermak Road and Irving Park Road. The network is anticipated to be a combination of wireless and fiber optic communications that will connect the intersections to the City of Chicago centralized traffic management software. The network will facilitate communication between the transit vehicles and the intersections and will allow for data collection and system management.

In addition, the project will modernize traffic signal equipment to accommodate regional TSP standards. Construction will include the associated civil and electrical work at the intersections and along the corridor, such as installation of conduit, wiring, foundations, poles and sidewalk reconstruction.

The Ashland Avenue corridor was identified in the 2012 - 2016 CMAQ-Funded TSP Corridors:

<http://www.rtams.org/rtams/transitSignalPriority.jsp>

The full Ashland TSP corridor runs between 95<sup>th</sup> Street and Irving Park Road. The segment between 95<sup>th</sup> and Cermak Road is planned to be funded and implemented through the Regional Transit Signal Priority Implementation Program. Due to the condition of the existing traffic control system north of Cermak, additional construction funding is required to implement TSP on the full corridor and maximize the transit benefits.

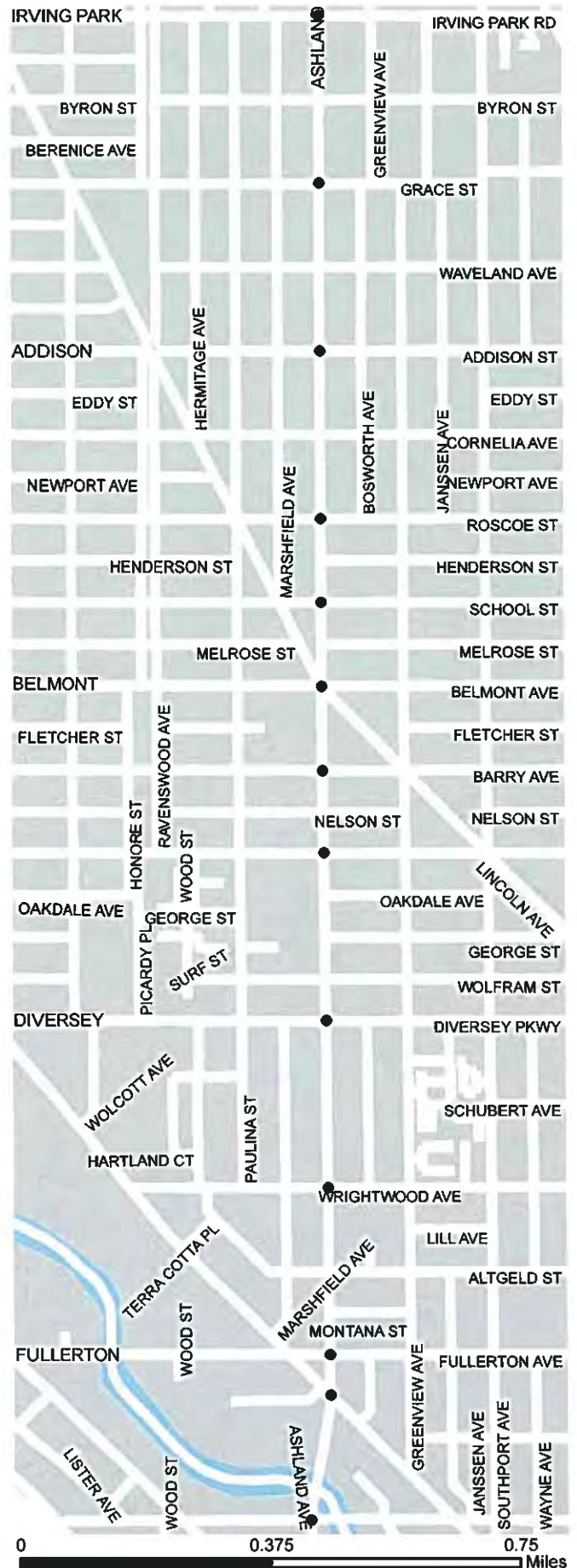
	Value	Assumptions	Source
Average daily Boardings Cermak to Irving Park October 2013	12,709	Customers boarding in each direction experience travel time improvements all day	CTA Ridership by Stop
Round Trips	6,355	Customers board in opposite direction for return trip	Calculation
Travel time elasticity factor	-0.4	Typical travel time savings elasticity	TCRP Report 118 Bus Rapid Transit Practitioner's Guide, p.3-19; Exhibit 3- 19
% Change in Travel time	-10%	Typical travel time savings % as a result of TSP	TCRP Report 165 Transit Capacity and Quality of Service Manual 3rd edition, p.6-44
Ridership % Increase	4%	Travel time elasticity * pct. Time savings	Calculation
Estimated Ridership increase	254	Round trips * ridership increase	Calculation
Auto Trips Diverted	196	Assume 1.3 occupants per vehicle	
Average Trip length (mi) AM Peak Weekday	2.55	Trip length for Route #9	CTA
Average Trip length (mi) Including walk	2.75	0.1 miles on each end of all one way trips (0.2 miles total per trip)	2014 Customer Satisfaction Survey
Auto Trips Eliminated Per Day (Round Trips):	196	See above	Calculation
Length Of Auto Trips Eliminated (One-Way Miles To The Nearest Tenth):	1,075.4	Avg trip length * round trips * 2	Calculation



# Ashland Avenue

Proposed Signal Interconnet & Modernization

Armitage Avenue to Irving Park Road



## Legend

- Existing Signalized Intersection

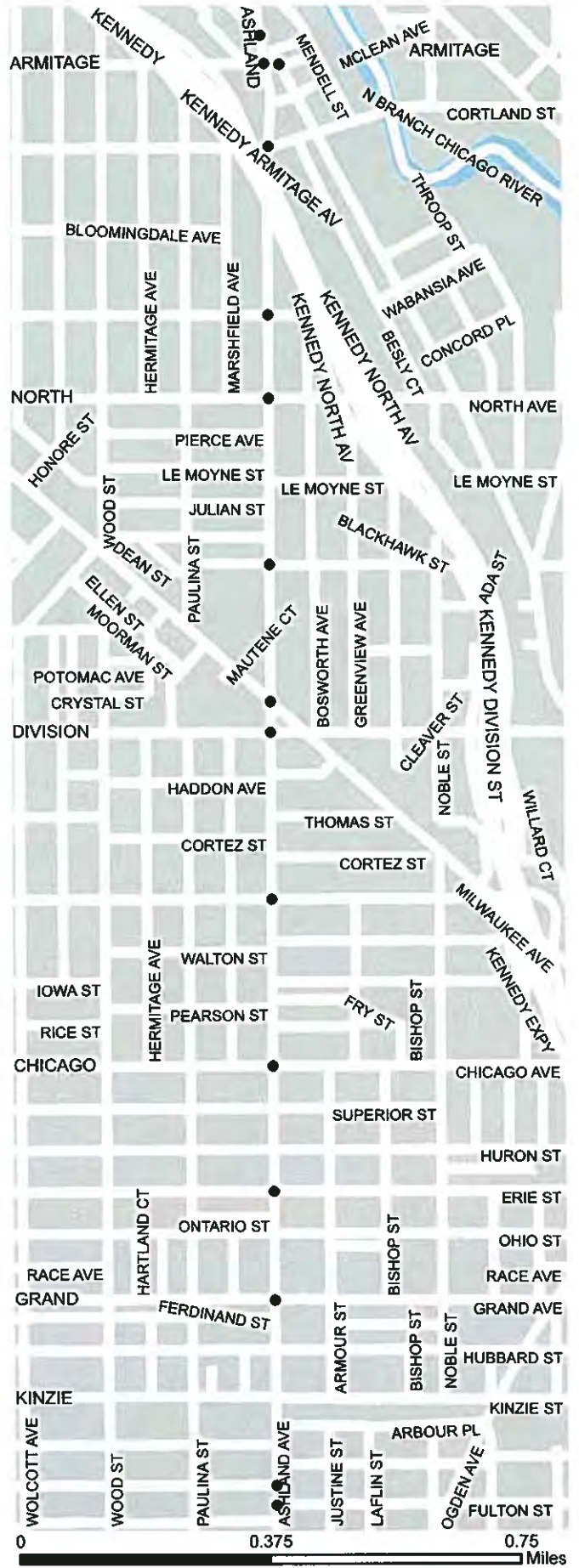





# Ashland Avenue

Proposed Signal Interconnect & Modernization

Lake Street to Armitage Avenue



## Legend

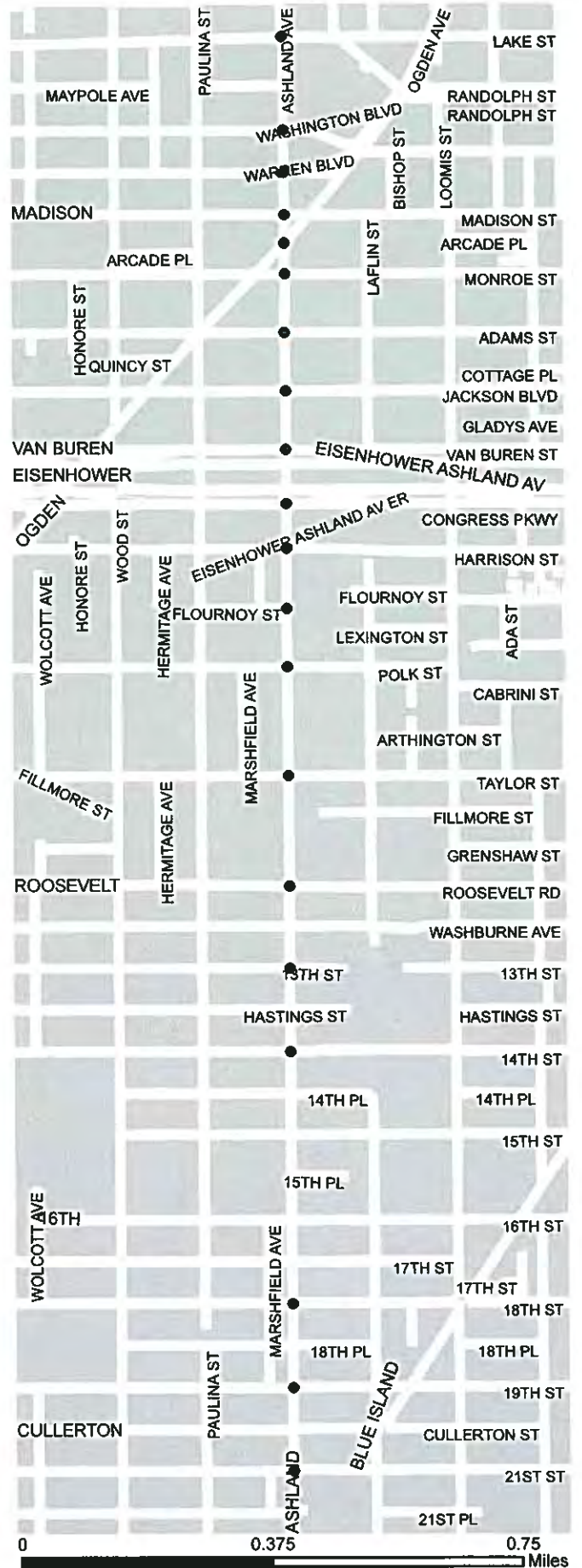
- Existing Signalized Intersection
- 



# Ashland Avenue

Proposed Signal Interconnet & Modernization

21st Street to Lake Street



### Legend

- Existing Signalized Intersection

