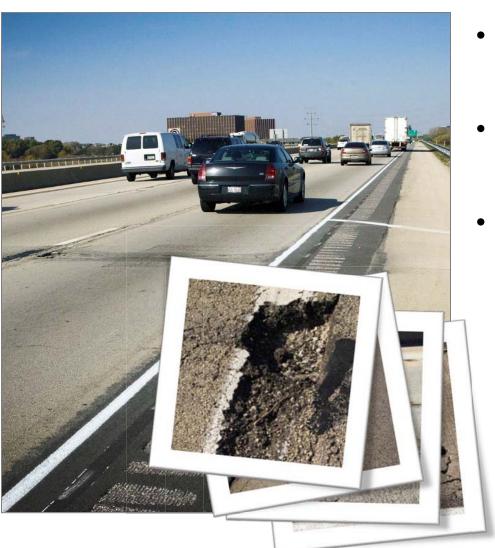


#### **Pavement Conditions**

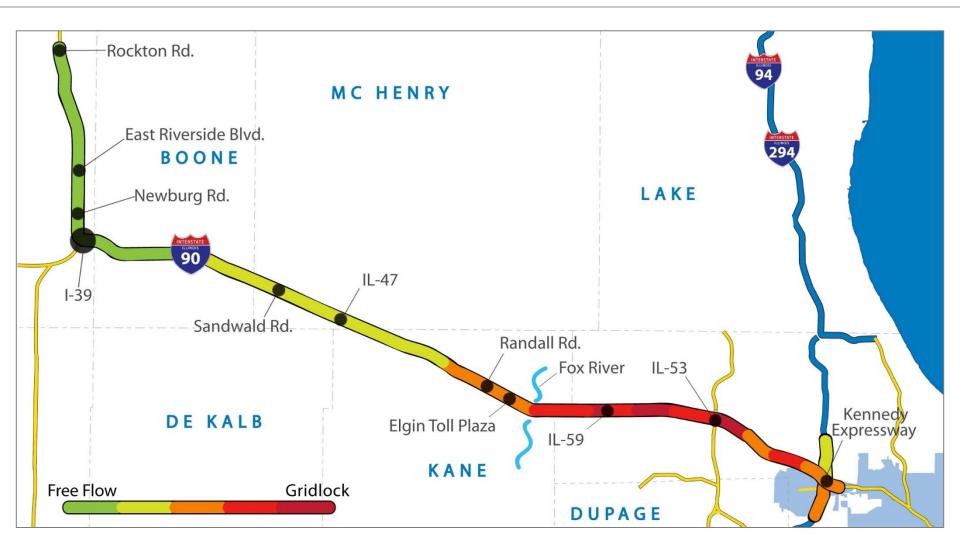




- Remaining Service of Life measured annually
- 50-year old I-90 pavement nearing end of useful life
- Latest annual report estimates
   over 80% of I-90 will require
   major repairs by end of 2010

## 2010 I-90 Level of Service Analysis





## **Current Congestion-Relief Program**



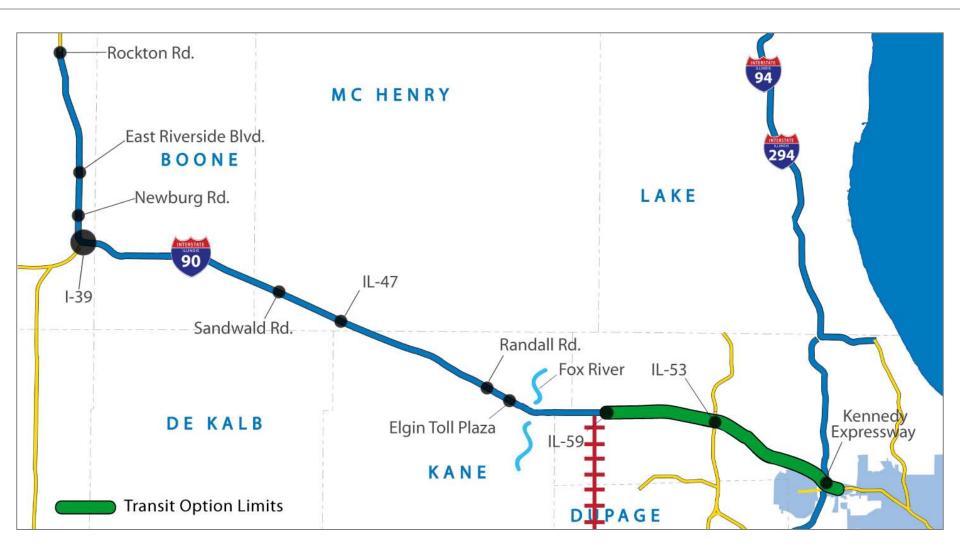
## The following projects are funded under the current Congestion-Relief Program:

	Construction Period	2010 Dollars	CRP Budget	
Rehabilitat	e & Resurface			
Kennedy Expressway to IL-53	2011	\$54.5 M	\$57.2 M	
IL-53 to Elgin Toll Plaza	2011	\$92.0 M	\$96.6 M	
Elgin Toll Plaza to Sandwald Rd.	2015	\$37.4 M	\$47.7 M	
Sandwald Rd. to Newburg Rd.	2015	\$110.0 M	\$140.4 M	
	TOTAL	\$293.9 M	\$341.9 M	
Reconstruct/Add Lane				
Design Only	2015-2016	\$119.0 M	\$151.9 M	
	GRAND TOTAL	\$412.9 M	\$493.8 M	

Note: Intermittent pavement repairs will be required as needed between 2010-2016. These costs are not shown and are included in the systemwide funds.

## **Study Limits**





# **Express Bus Service with Stations Cross Sections**

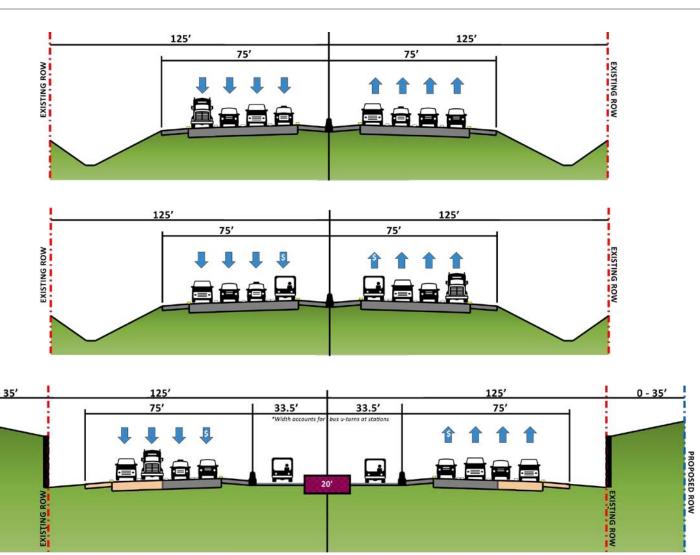


MASTER PLAN
Options 2 or 3
Reconstruct & Widen

EBS BEWTEEN STATIONS
Options 4 or 7
Reconstruct & Widen + EBS

EBS AT STATIONS
Options 4 or 7
Reconstruct & Widen + EBS

PROPOSED ROW



#### **STAR Line Cross Sections**

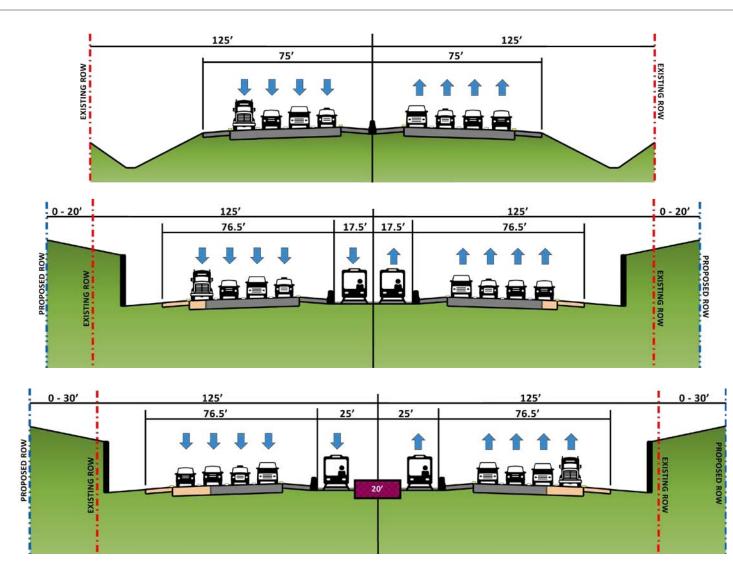


MASTER PLAN
Options 2 or 3
Reconstruct & Widen

STAR BETWEEN STATIONS
Options 5 or 6

Reconstruct & Widen + STAR

STAR AT STATIONS
Options 5 or 6
Reconstruct & Widen + STAR



## **Express Bus Service with Stations**





## **Express Bus Service with Stations**





#### **Evaluation Criteria**





- Construction and repair costs
- Additional costs to account for transit options
- Impact on User/Customer
- Additional Capital Needs
- Implementation Timeframe

### **Optional Approaches**



1 Reconstruct Later

- Reconstruct Later +
  STAR Line Reserve ROW
- 2 Reconstruct & Widen Later
- Reconstruct & Widen Now + EBS Reserve ROW with HOT

- Reconstruct & Widen Now
- Reconstruct West of STAR Line Now, East of IL-59 later
- Reconstruct & Widen Later + EBS Reserve ROW with HOT
- 9 Do Nothing
- Reconstruct & Widen Later + STAR Line Reserve ROW

#### **Evaluation Criteria Definitions**



- Construction
- Repairs
- Other
- Additional Transit Cost
- User Cost
- Revenue

# 1 Reconstruct Later



- Description
  - Intermittent pavement repairs and resurfacing from 2010 through 2016
  - Reconstruction from 2017 to 2022

• Total Construction Cost: \$ 1,867

• Total User Cost: \$ 372

Total Revenue: \$ (32)

• Total Cost: \$ 2,239

• **Total Net Cost:** \$ 2,271

• Total Capital Cost: \$ 1,867





















#### Reconstruct & Widen Later



#### Description

- Intermittent pavement repairs and resurfacing from 2010 through 2016
- Reconstruction and widening from 2017 to 2022

• Total Construction Cost: \$ 2,477

• Total User Cost: \$ 233

• Total Revenue: \$ 43

• Total Cost: \$ 2,711

• **Total Net Cost:** \$ 2,667

• Total Capital Cost: \$ 2,477



2

















#### Reconstruct & Widen Now



#### Description

- Intermittent pavement repairs in 2010
- Reconstruction and widening from 2011 to 2016
- Total Construction Cost: \$ 1,863
- Total User Cost: \$ 150
- Total Revenue: \$ 124
- Total Cost: \$ 2,013
- **Total Net Cost:** \$ 1,889
- Total Capital Cost: \$ 1,863























# Reconstruct & Widen Later + EBS Reserve ROW with HOT



#### Description

- Intermittent pavement repairs and resurfacing from 2010 to 2016
- Reconstruction and widening from 2017 to 2022
- Adds Express Bus Service with stations (EBS) reserved ROW and High Occupancy Toll (HOT) Lanes 2017 to 2019

•	Total C	onstruction Cost	: <b>:</b> \$	2,4	177
---	---------	------------------	---------------	-----	-----

- Total Other Cost: \$ 786
- Total User Cost: \$ 233
- Total Revenue: \$ 45
- Total Cost: \$ 3,496
- Additional Transit Cost: \$ 525
- **Total Net Cost:** \$ 3,451
- Total Capital Cost: \$ 3,788

















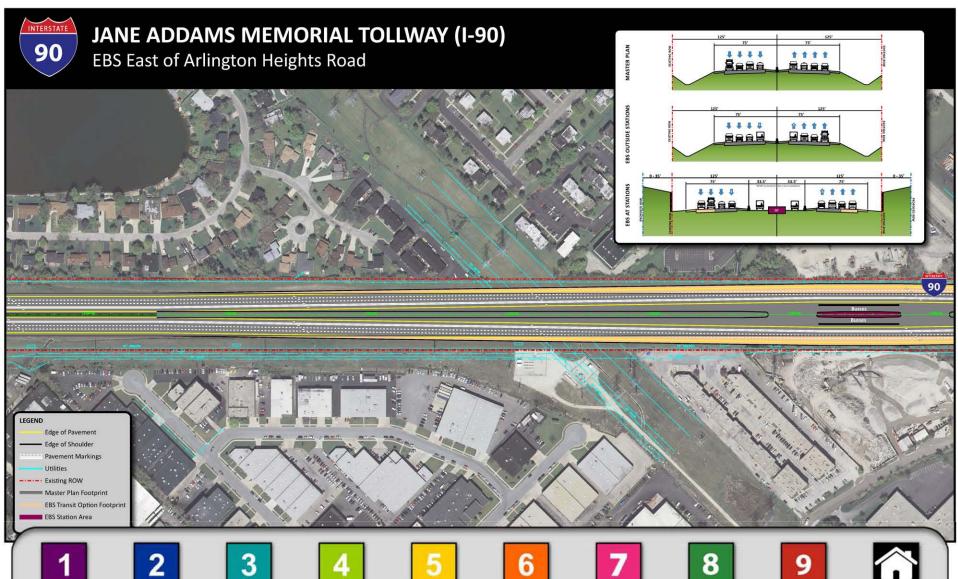






### **Express Bus Service with Stations**

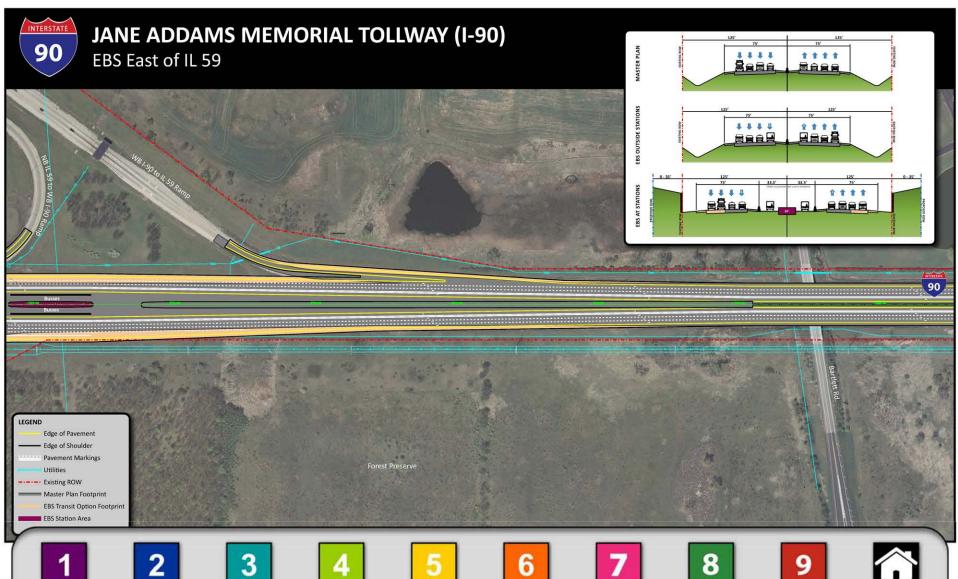






## **Express Bus Service with Stations**





# Reconstruct & Widen Later + STAR Line Reserve ROW



#### Description

- Intermittent pavement repairs and resurfacing from 2010 to 2016
- Reconstruction and widening from 2017 to 2022
- Reserve ROW for Metra's planned STAR Line commuter rail system in the median of I-90

•	Total	<b>Construction Cost:</b>	\$ 2,477
---	-------	---------------------------	----------

- Total Other Cost: \$ 979
- Total User Cost: \$ 233
- Total Revenue: \$ 45
- Total Cost: \$ 3,690
- Additional Transit Cost: \$ 1,100
- **Total Net Cost:** \$ 3,645
- Total Capital Cost: \$4,556



2











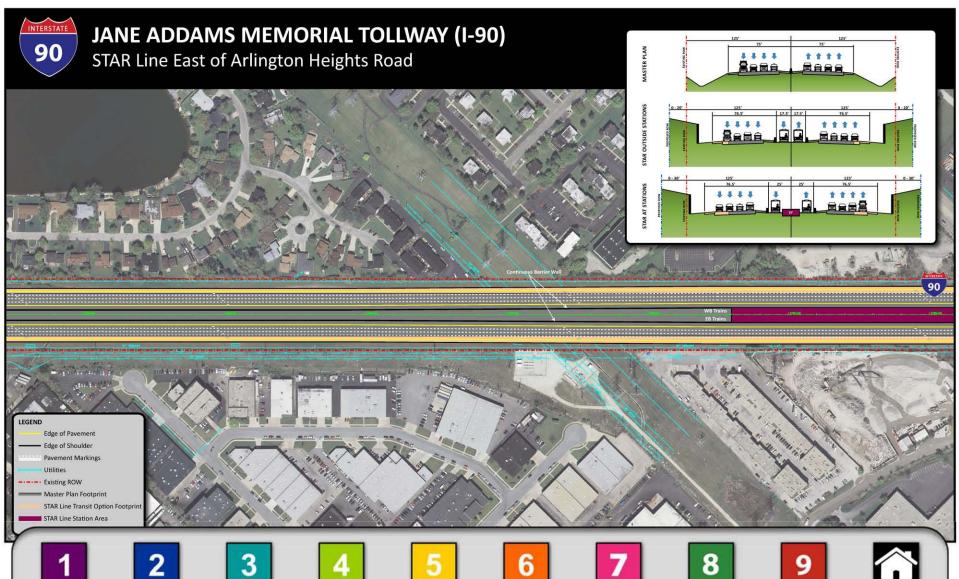






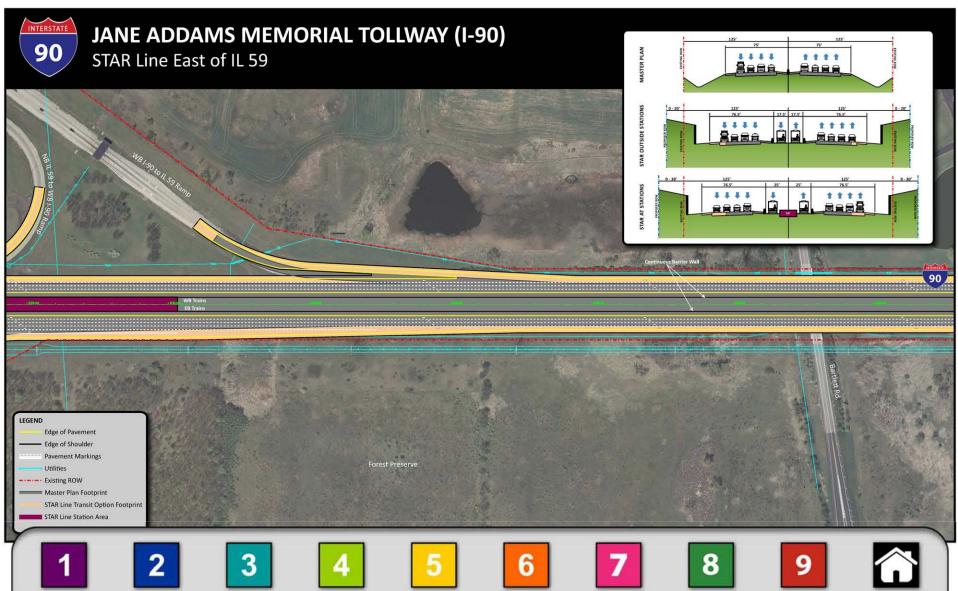
### **STAR Line Cross Sections**





### **STAR Line Cross Sections**





# Reconstruct Later + STAR Line Reserve ROW



#### Description

- Intermittent pavement repairs and resurfacing from 2010 to 2016
- Reconstruct (no widening) from 2017 to 2022
- Reserve ROW for Metra's planned STAR Line commuter rail system in the median on I-90

•	Total	Construction Cost:	\$ 2.055
---	-------	--------------------	----------

- Total Other Cost: \$ 979
- Total User Cost: \$ 372
- Total Revenue: \$ (32)
- Total Cost: \$ 3,406
- Additional Transit Cost: \$ 1,100
- **Total Net Cost:** \$ 3,438
- Total Capital Cost: \$4,134





















# Reconstruct & Widen Now + EBS Reserve ROW with HOT



#### Description

- Intermittent Pavement Repairs in 2010
- Reconstruction & Widening from 2011 to 2013
- Add Express Bus Service with stations (EBS)reserved Right of Way (ROW) and High Occupancy Toll (HOT) Lanes 2011 to 2013

•	<b>Total Construction Cost:</b>	\$ 1,863
---	---------------------------------	----------

- Total Other Cost: \$ 667
- Total User Cost: \$ 150
- Total Revenue: \$ 124
- Total Cost: \$ 2,680
- Additional Transit Cost: \$ 1,100
- **Total Net Cost:** \$ 2,556
- Total Capital Cost: \$ 3,055



2



















# Reconstruct West of STAR Line Now, East of IL-59 Later



#### Description

- Intermittent pavement repairs in 2010
- Reconstruct and widen (I-39 to IL-59) and resurface (IL-59 to Kennedy Expressway) from 2011 to 2014
- Reconstruct and widen (IL-59 to Kennedy Expressway) from 2017 to 2019

• Total Construction Cost: \$ 1,959

• Total User Cost: \$ 194

• Total Revenue: \$ 77

• Total Cost: \$ 2,153

• **Total Net Cost:** \$ 2,076

• Total Capital Cost: \$ 1,959



2

















## 9 Do Nothing



- Description
  - Continuous annual repairs and resurfacing until the system fails
  - No added capacity or congestion relief
  - Deteriorating levels of service and average speed

• Total Construction Cost: \$ 2,011

• Total User Cost: \$ 372

• Total Revenue: \$ (43)

• Total Cost: \$ 2,383

• **Total Net Cost:** \$ 2,426

• Total Capital Cost: \$ 2,011





















### **Total Cost without User Cost**

Illinois Tollway

\*Does not include additional cost for transit

