

# STATION 4

# LEVELLING AND SCREENING

NORTH DUSABLE LAKE SHORE DRIVE (NDLSD) PHASE I STUDY





**LEVEL 1 SCREENING TABLE**

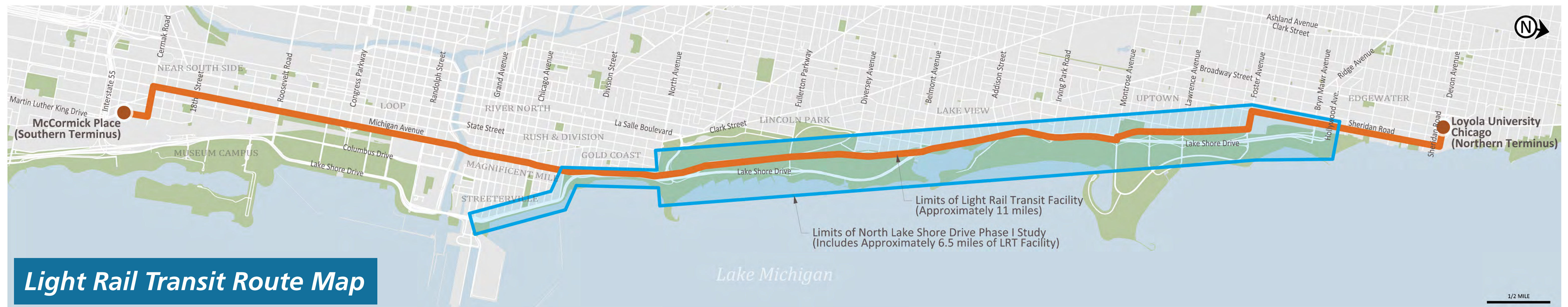
RANGE OF ALTERNATIVES CATEGORY	INITIAL RANGE OF ALTERNATIVES	RECOMMENDED FOR DISMISSAL (LEVEL 1 SCREENING)	RECOMMENDED TO BE CARRIED FORWARD TO LEVEL 2 SCREENING
No-Action	No-Action	N/A	N/A
Context Tailored Treatments	Corridor Modernization		Corridor Modernization
	Compressed Roadway		Compressed Roadway
	Frontage Drive		Frontage Drive
Transitways	Bus on Left - Dedicated Transitway		Bus on Left - Dedicated Transitway
	Bus on Right - Shoulder/Weaving Zones		Bus on Right - Shoulder/Weaving Zones
	Dedicated Transitway - Off Alignment		Dedicated Transitway - Off Alignment
	Light Rail Transit	Light Rail Transit	
Managed Lanes	High Occupancy Vehicle Lane		High Occupancy Vehicle Lane
	High Occupancy Toll Lane		High Occupancy Toll Lane
	Express Toll Lane		Express Toll Lane
	Bus Only Lane		Bus Only Lane
	Express Reversible Lanes		Express Reversible Lanes
	Toll Lanes		Toll Lanes
Tunnels and Causeways	Submerged Express Tunnel in Lake	Submerged Express Tunnel in Lake	
	Land Based Express Tunnel	Land Based Express Tunnel	
	Causeway in Lake	Causeway in Lake	

# LEVEL 1 SCREENING - MAJOR FLAW ANALYSIS SUMMARY

## Light Rail Transit Alternative

- » Alignment along lakeshore would require passengers to board or transfer to/from E-W bus routes at or beyond the urban edge
- » Viability would be compromised by inability to directly serve destinations inland from NDLSD
- » No clear transit mobility improvements compared to existing or improved NDLSD express bus services
- » Would require specialized vehicles, maintenance shop and storage yard
- » Substantially greater capital cost (>\$5B) compared to other alternatives with similar benefits
- » **Does not meet project Purpose & Need**

*Dismissed based on Major Flaws at Public Meeting #3 in July 2017*



## LEVEL 1 SCREENING - MAJOR FLAW ANALYSIS SUMMARY

### Convert NDLSD to a Local Street with At-Grade Intersections and Stoplights

- » The capacity of a 4 to 6-lane roadway with at-grade intersections ranges between 32,000 and 48,000 vehicles per day, far less than the 70,000 to 160,000 vehicles per day currently using NDLSD
- » Such a large reduction in NDLSD capacity would significantly increase diverted and cut-through traffic on neighborhood streets
- » Even with a dedicated bus lane, transit on a local NDLSD would operate more slowly and less reliably due to traffic signals
- » Displaced traffic would also negatively impact streets with CTA bus routes along and well inland from NDLSD
- » **Does not meet project Purpose & Need**

*Dismissed based on Major Flaws at Public Meeting #3 in July 2017*



**Four-Lane Local Street with Bus-Only Lanes and Quarter-mile Signals**

### Reduce Overall Travel Lanes on NDLSD

- » Lane reductions south of Irving Park Road would displace traffic onto neighborhood streets and reduce traffic safety
- » However, there is currently more roadway capacity than needed north of Irving Park Road
- » Three lanes in each direction north of Irving Park Road will be sufficient to accommodate existing and future demand

# LEVEL 1 SCREENING - MAJOR FLAW ANALYSIS SUMMARY

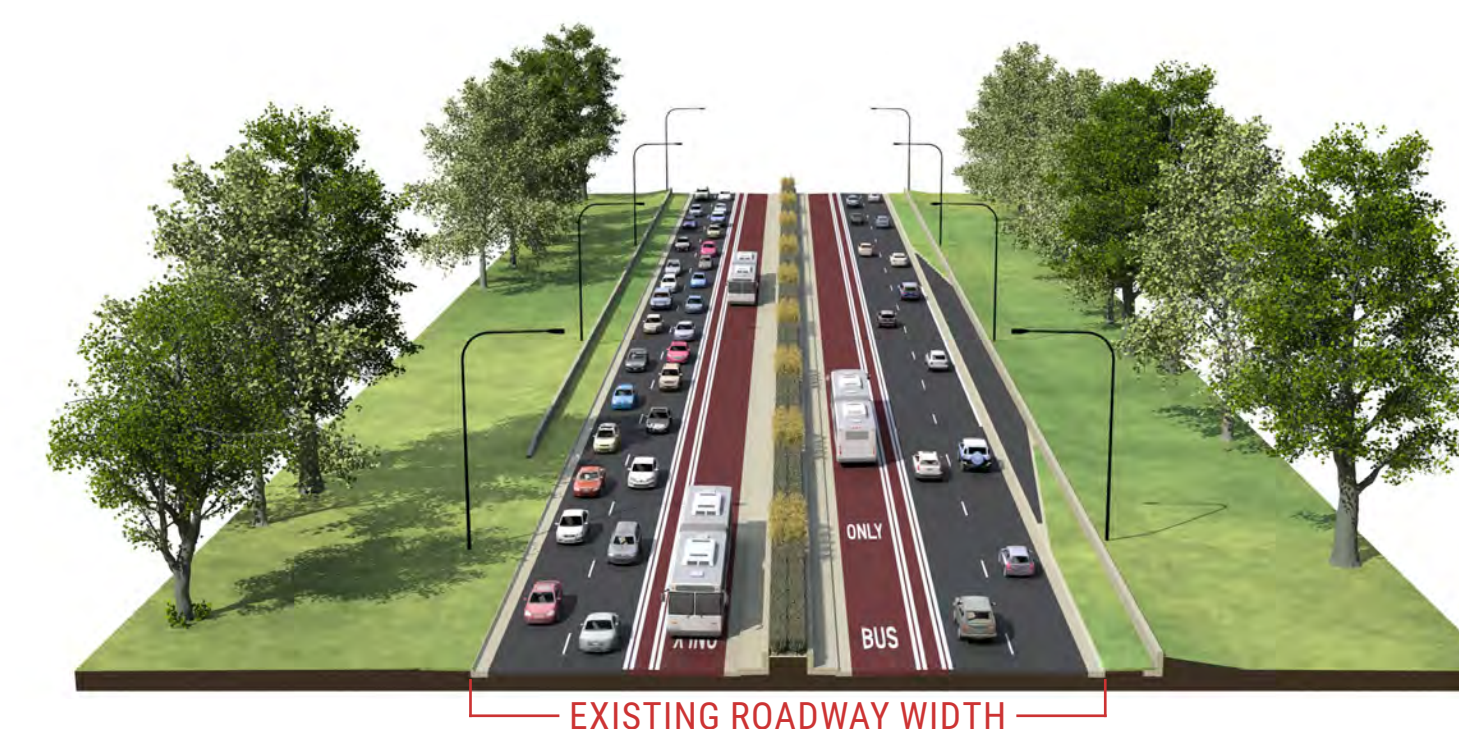
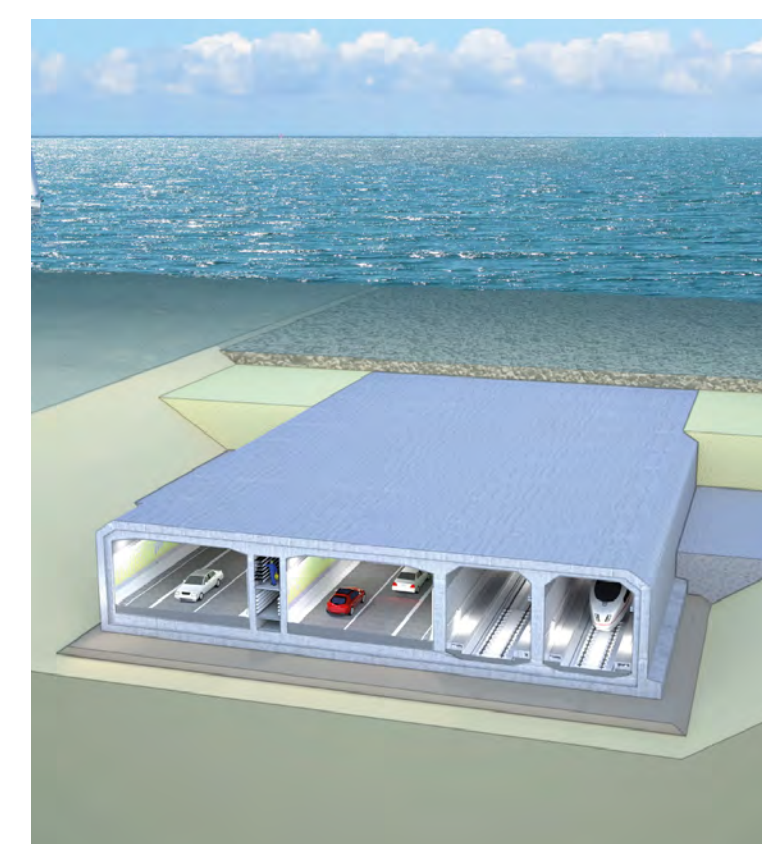
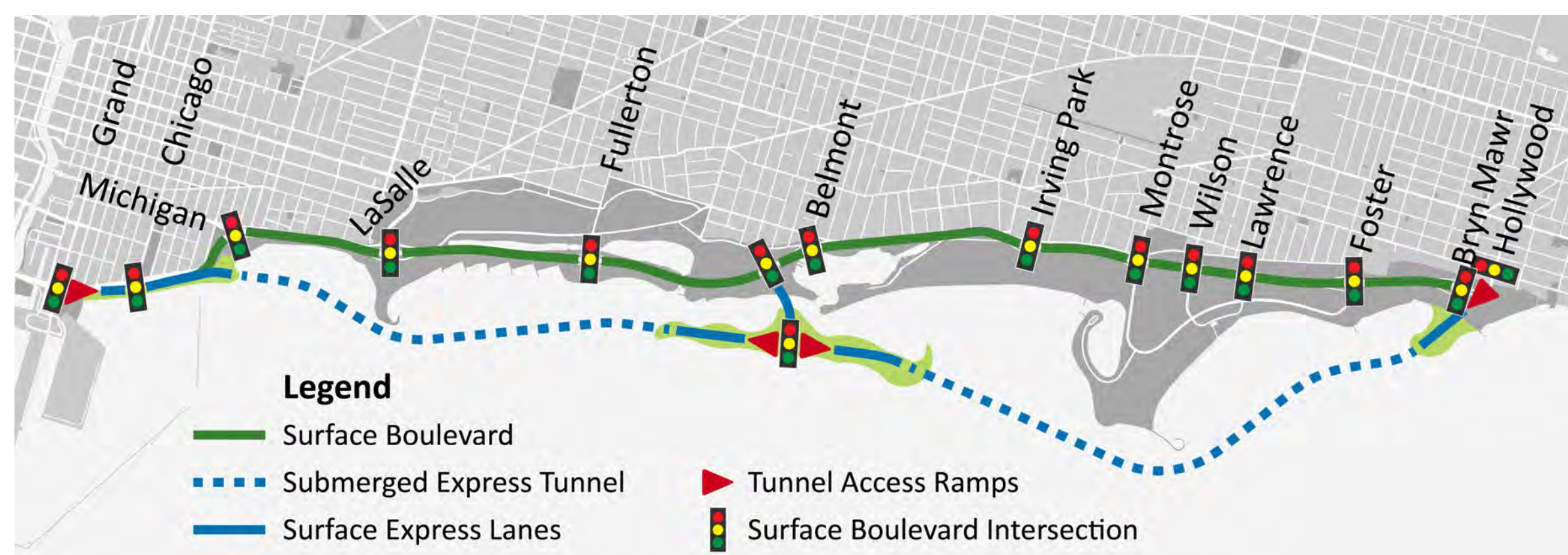
## Submerged Express Tunnel Alternative

- » Primarily serves longer end-to-end travel through corridor (<30% of NDLSD trips)
- » Surface boulevard with at-grade intersections would carry majority of NDLSD traffic flow, resulting in reduced overall mobility
- » Concentrates E-W access to tunnel at three locations resulting in impacts to local streets
- » Requires extensive ventilation system to purge auto exhaust and smoke from traffic emergencies via multi-story ventilation buildings at each tunnel portal
- » Large capital cost (>\$9B) compared to other alternatives with similar benefits and would require user fees
- » **Does not meet project Purpose & Need**

## Land-Based Express Tunnel Alternative

- » Would require wider transportation footprint on surface boulevard at tunnel access locations to provide ramps to and from tunnel
- » Replacement of existing junctions with at-grade intersections on surface boulevard will increase congestion and reduce mobility for autos and buses that travel through surface boulevard intersections
- » Requires extensive ventilation system to purge auto exhaust and smoke from traffic emergencies via 7 pairs of ventilation fan buildings with exhaust stacks along tunnel route
- » Large capital cost (>\$5B) compared to other alternatives with similar benefits and would require user fees
- » **Does not meet project Purpose & Need**

*Dismissed based on Major Flaws at Public Meeting #3 in July 2017*



Surface Boulevard with Tolled Express Tunnel



Cut and Cover Tolled Express Tunnel



**LEVEL 2 SCREENING TABLE**

RANGE OF ALTERNATIVES CATEGORY	RANGE OF ALTERNATIVES	RECOMMENDED FOR DISMISSAL (LEVEL 2 SCREENING)	RECOMMENDED TO BE CARRIED FORWARD TO LEVEL 3 SCREENING
No-Action	No-Action	N/A	N/A
Context Tailored Treatments (CTT)	Corridor Modernization		Top Performing CTT with Transit Advantages / <b>The Essential</b>
	Compressed Roadway		
	Frontage Drive		
Transitways	Transit Advantages at Junctions		
	Bus on Shoulder - Right	Bus on Shoulder - Right	
	Dedicated Transitway - Left		Dedicated Transitway - Left / <b>The Addition</b>
	Dedicated Transitway - Off Alignment	Dedicated Transitway - Off Alignment	
Managed Lanes	3+1 Bus Only Lane		3+1 Bus Only Lane / <b>The Exchange</b>
	3+1 Managed Lane		3+1 Managed Lane / <b>The Flex</b>
	2+2 Managed Lanes		2+2 Managed Lanes / <b>The Double Flex</b>
	3+2 Reversible Managed Lanes	3+2 Reversible Managed Lanes	
	4+1 Contraflow Bus Only Lane	4+1 Contraflow Bus Only Lane	