



Comparing Burnsville Station Options & DCRRA Goals

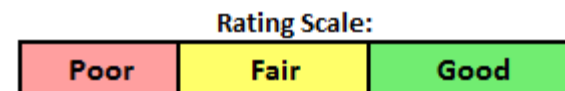
October 20, 2015

Responses to DCRRA questions

- 2013 Purpose & Need revised document
- Lakeville P & R will reach capacity in early 2020s
 - + 250 spaces would satisfy demand through 2045
- Cost participation for two phases
 - \$3 million total for the two phases
 - 1.88% of the total project cost, 18.8% of the 10% local share
- Existing ridership
 - 14,165 weekday riders on I-35W routes, Lakeville -> Downtown
 - 59% of riders from Dakota County
 - 53% on MVTA, 6% on Metro Transit
- Incorporate Phase II materials into all future tours

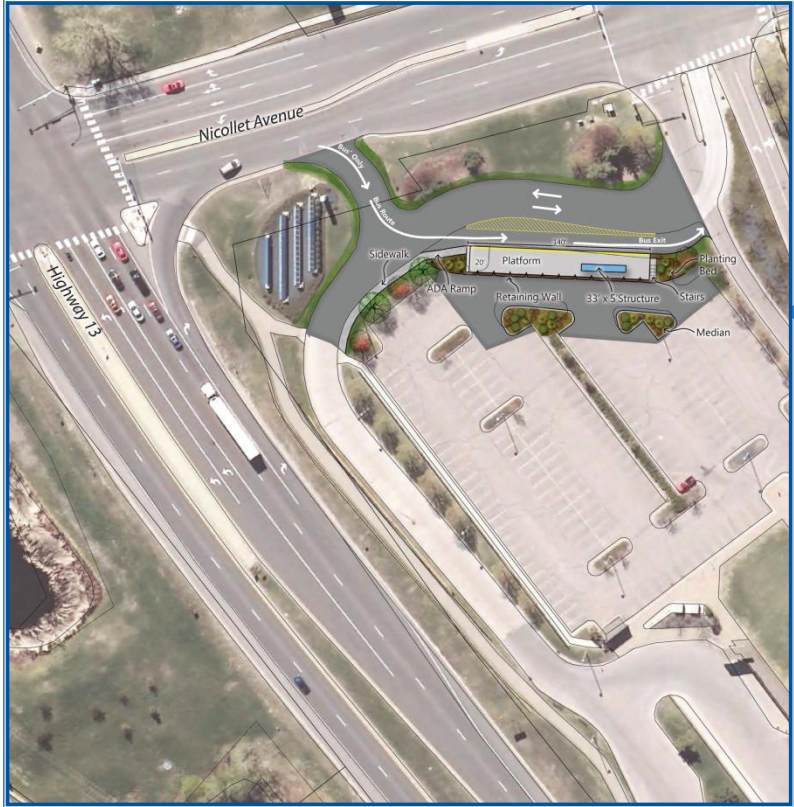
Adopted DCRRA Goals & Objectives

- Extend to Lakeville in Phase I, or ensure that the future extension of the Orange Line to Lakeville is compatible with Phase I
- Improve mobility and mitigate congestion in the corridor
- Provide infrastructure and service that are cost effective
- Maximize effectiveness of stations:
 - Maximize ridership and ridership potential
 - Locate in areas with desirable origins & destinations
 - Safe and efficient connections to express and local service
 - Provide safe, convenient, quality facilities for riders
- Maximize the quality of Orange Line service:
 - Minimize travel time
 - Avoid off route delays
 - Provide connections to the I-494 corridor
 - Avoid redundancy of services



Burnsville Transit Station

Cost: \$0.8 million (Phase I only)



Burnsville Transit Station

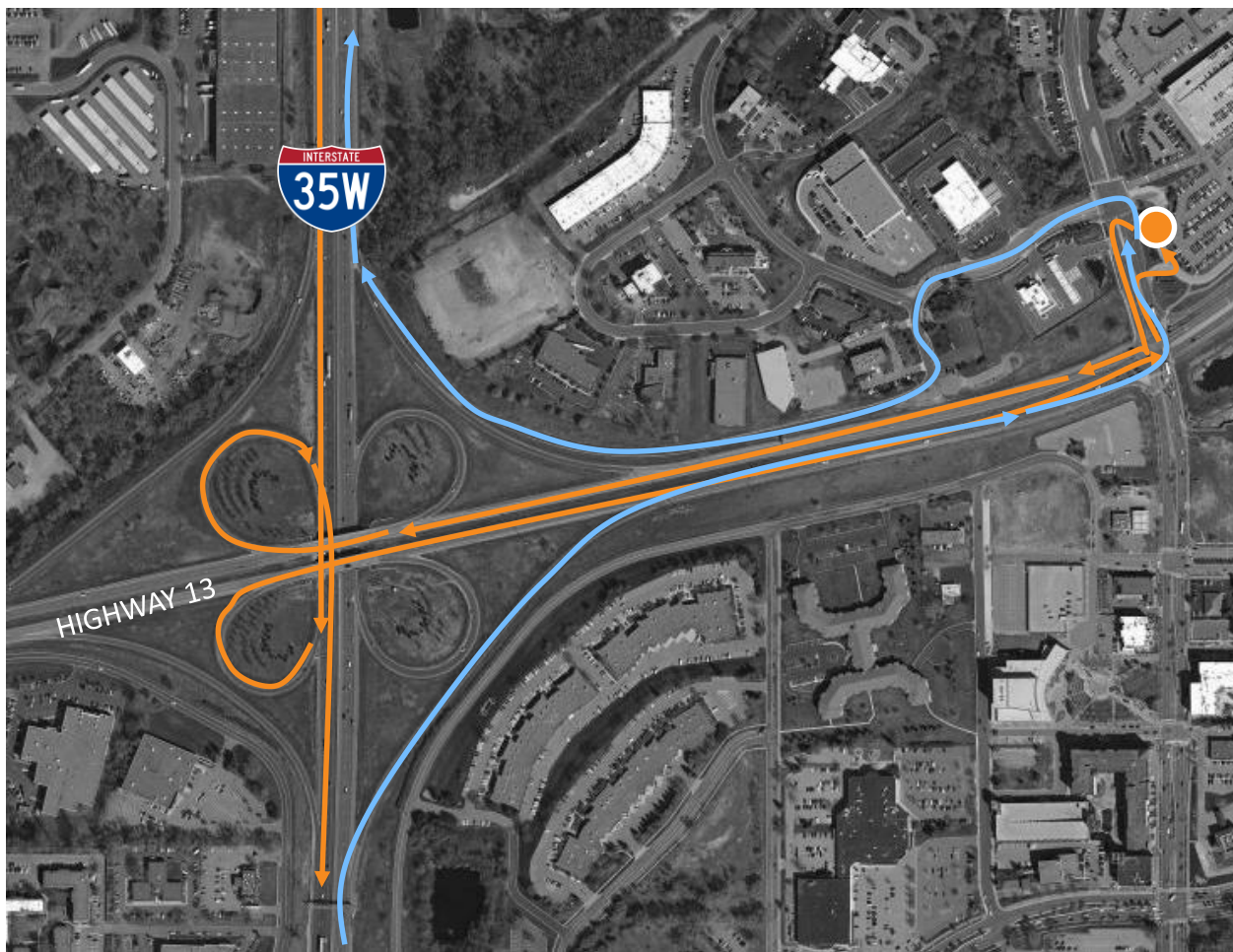
Cost: \$0.8 million (Phase I only)

- High ridership
- Lower initial cost
- Local & express route connections (421, 426, 460, 465, 444)
- Connection to Jefferson Lines
- Potential for delay
- Added cost & delay with future extension
 - Redesign & reconstruction costs (additional parking & platform)
 - Additional left-turn delay with extension

Burnsville Transit Station (BTS)

OVERALL GOALS	
Cost effective infrastructure and service	
Improve mobility, mitigate congestion on I-35W	high ridership, park & ride
MAXIMIZE THE QUALITY OF SERVICE	
Minimize travel time	
Avoid off route delays	left turn delay
Provide connections to the I-494 corridor	
Avoid redundancy of services	existing station
MAXIMIZE EFFECTIVENESS OF STATIONS	
Maximize ridership and ridership potential	many transfer options
Access to desirable origins and destinations	north of Highway 13
Safe, efficient local & express route connections	local & express
Safe, convenient, quality facilities for riders	existing station
COMPATIBILITY WITH FUTURE PLANS	
Phase I compatibility with future extension	platform & routing issues

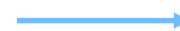
Burnsville Transit Station – Phase II



Northbound:
 AM: 7.0 minutes
 PM: 6.3 minutes

Southbound:
 AM: 6.8 minutes
 PM: 5.9 minutes

Northbound

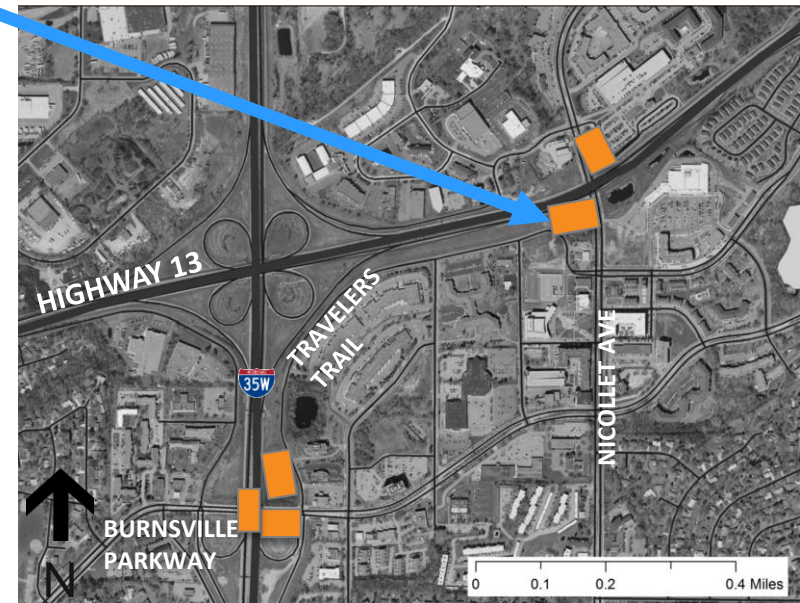


Southbound



Travelers Trail

Cost: \$1.2 million



Travelers Trail

Cost: \$1.2 million

- High ridership
- Good pedestrian access
- Ample park & ride (400 spaces)
- Local & express route connections (426, 465, 444)
- Direct access to desirable origins & destinations
- Platform & routing compatible with future extension – no change needed
- Off of I-35W, but direct routing reduces overall trip time to major destinations

Travelers Trail (TT)

OVERALL GOALS	
Cost effective infrastructure and service	high ridership, low cost
Improve mobility, mitigate congestion on I-35W	high ridership, park & ride
MAXIMIZE THE QUALITY OF SERVICE	
Minimize travel time	
Avoid off route delays	no signal delay
Provide connections to the I-494 corridor	
Avoid redundancy of services	
MAXIMIZE EFFECTIVENESS OF STATIONS	
Maximize ridership and ridership potential	high ridership location
Access to desirable origins and destinations	easy access to Heart of the City
Safe, efficient local & express route connections	
Safe, convenient, quality facilities for riders	convenient
COMPATIBILITY WITH FUTURE PLANS	
Phase I compatibility with future extension	

Travelers Trail – Phase II



Northbound travel time:
 AM: 5.5 minutes
 PM: 4.7 minutes

Southbound travel time:
 AM: 5.1 minutes
 PM: 5.9 minutes

Northbound

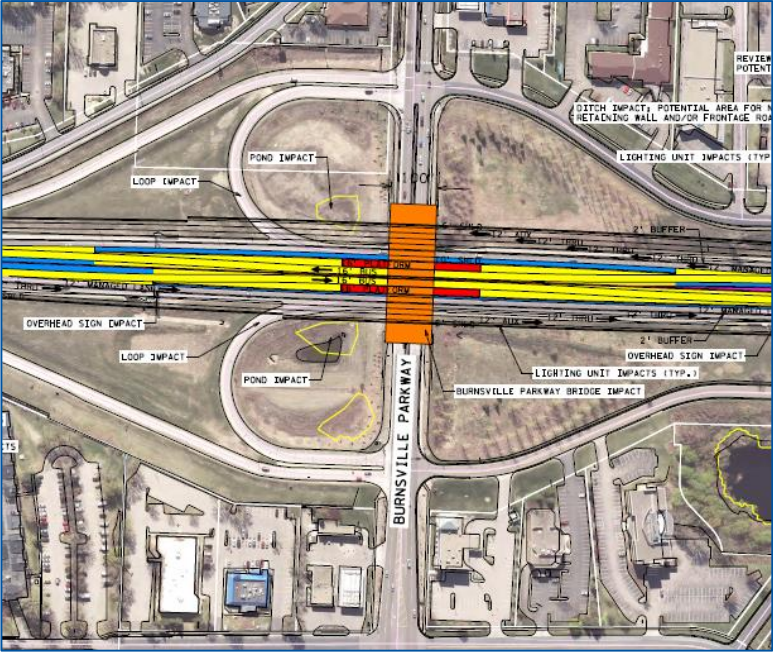


Southbound



Burnsville Parkway Online Station

Cost: \$60 million
(+ roadway, bridge, and park & ride)



Burnsville Parkway Online Station

Cost: \$60 million (+ roadway, bridge, and park & ride)

**Burnsville Parkway
Online Station**

- Fast travel time
- Platform & routing compatible with future extension – no change needed
- Very high cost: 60x the cost of other options
- Low ridership
- Poor access to destinations and connections
- No express route connections, only transfer is route 444
- Layover/turnaround not feasible in Phase I
- Additional offline layover/driver facilities still required
- Next possible turnaround location at CR 42, adding about 3.3 miles to the trip

OVERALL GOALS	
Cost effective infrastructure and service	60x the cost of other options
Improve mobility, mitigate congestion on I-35W	low ridership, no park & ride
MAXIMIZE THE QUALITY OF SERVICE	
Minimize travel time	on I-35W
Avoid off route delays	route delays for layover
Provide connections to the I-494 corridor	
Avoid redundancy of services	
MAXIMIZE EFFECTIVENESS OF STATIONS	
Maximize ridership and ridership potential	low ridership
Access to desirable origins and destinations	few nearby destinations
Safe, efficient local & express route connections	no express or local
Safe, convenient, quality facilities for riders	unsafe (freeway), inconvenient
COMPATIBILITY WITH FUTURE PLANS	
Phase I compatibility with future extension	

Burnsville Pkwy Online – Phase II



Northbound travel time:

AM: 2 – 12 minutes (typical traffic)

PM: 2 minutes

Southbound travel time:

AM: 2 minutes

PM: 2 minutes

Travel times estimated but not field tested

Northbound

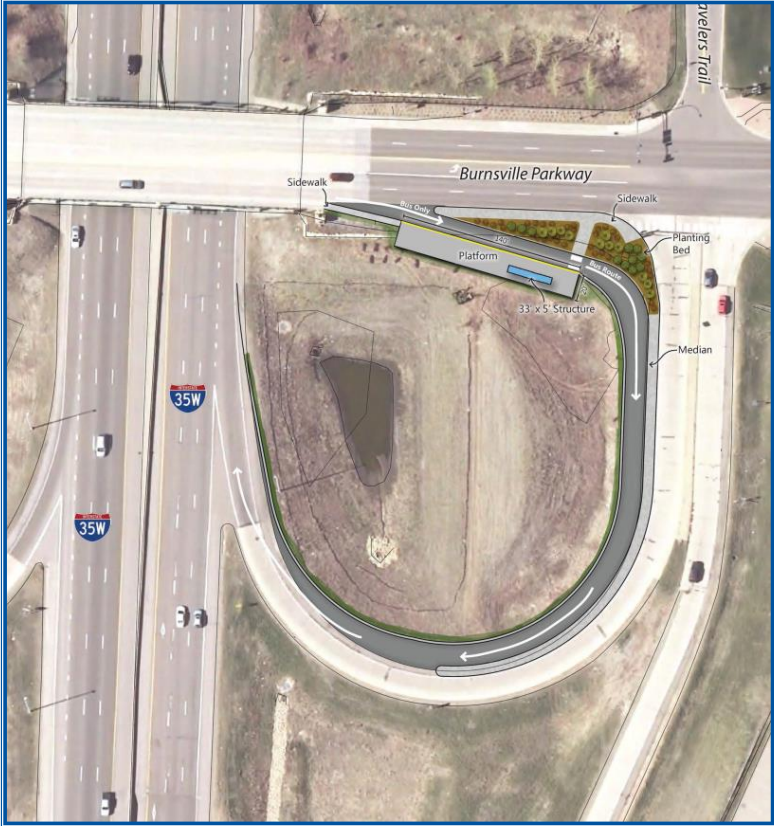


Southbound



Burnsville Parkway Station A

Cost: \$0.8 million



Burnsville Parkway Station A

Cost: \$0.8 million

- Minimizes travel time
- Avoids off route delay
- Low ridership
- Poor pedestrian access & inconvenient location
- Incompatible with Lakeville extension
- No express route connections, only transfer is route 444

Burnsville Parkway Station A

OVERALL GOALS	
Cost effective infrastructure and service	
Improve mobility, mitigate congestion on I-35W	low ridership, no park & ride
MAXIMIZE THE QUALITY OF SERVICE	
Minimize travel time	inline with I-35W
Avoid off route delays	
Provide connections to the I-494 corridor	
Avoid redundancy of services	
MAXIMIZE EFFECTIVENESS OF STATIONS	
Maximize ridership and ridership potential	low ridership
Access to desirable origins and destinations	poor pedestrian access
Safe, efficient local & express route connections	no express
Safe, convenient, quality facilities for riders	unsafe & inconvenient
COMPATIBILITY WITH FUTURE PLANS	
Phase I compatibility with future extension	no possible routing for extension

Burnsville Parkway Station A – Phase II



- No space in freeway ramp to turn northbound bus around
- Northbound routing forced onto TT, left turn on Nicollet (signal delay), & left turn on Highway 13 (signal delay)
- Continuing southbound not possible if serving this station

Northbound



Southbound



15



Burnsville Parkway Station B

Cost: \$1.2 – \$2 million



Burnsville Parkway Station B

Cost: \$1.2 – \$2 million

- Low ridership
- No express route connections, only transfer is route 444
- Circuitous routing and signal delay without adding access to destinations

Burnsville Parkway Station B

OVERALL GOALS	
Cost effective infrastructure and service	
Improve mobility, mitigate congestion on I-35W	low ridership, no park & ride
MAXIMIZE THE QUALITY OF SERVICE	
Minimize travel time	circuitous routing
Avoid off route delays	
Provide connections to the I-494 corridor	
Avoid redundancy of services	
MAXIMIZE EFFECTIVENESS OF STATIONS	
Maximize ridership and ridership potential	low ridership
Access to desirable origins and destinations	
Safe, efficient local & express route connections	no express
Safe, convenient, quality facilities for riders	
COMPATIBILITY WITH FUTURE PLANS	
Phase I compatibility with future extension	

Burnsville Parkway Station B – Phase II



Northbound travel time:

AM: 5.2 minutes

PM: 3.2 minutes

Southbound travel time:

AM: 3.5 minutes

PM: 4.3 minutes

Northbound



Southbound

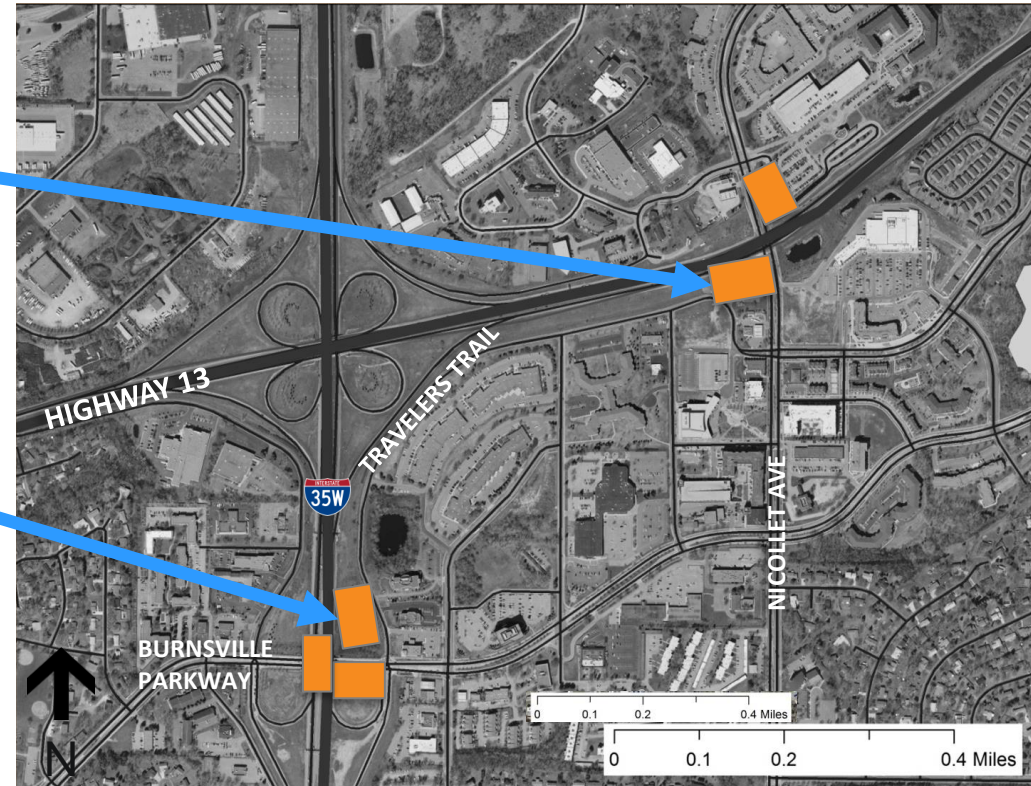


18



Travelers Trail + Burnsville Parkway Proposal

Cost: \$1.7 million



Travelers Trail + Burnsville Parkway Proposal

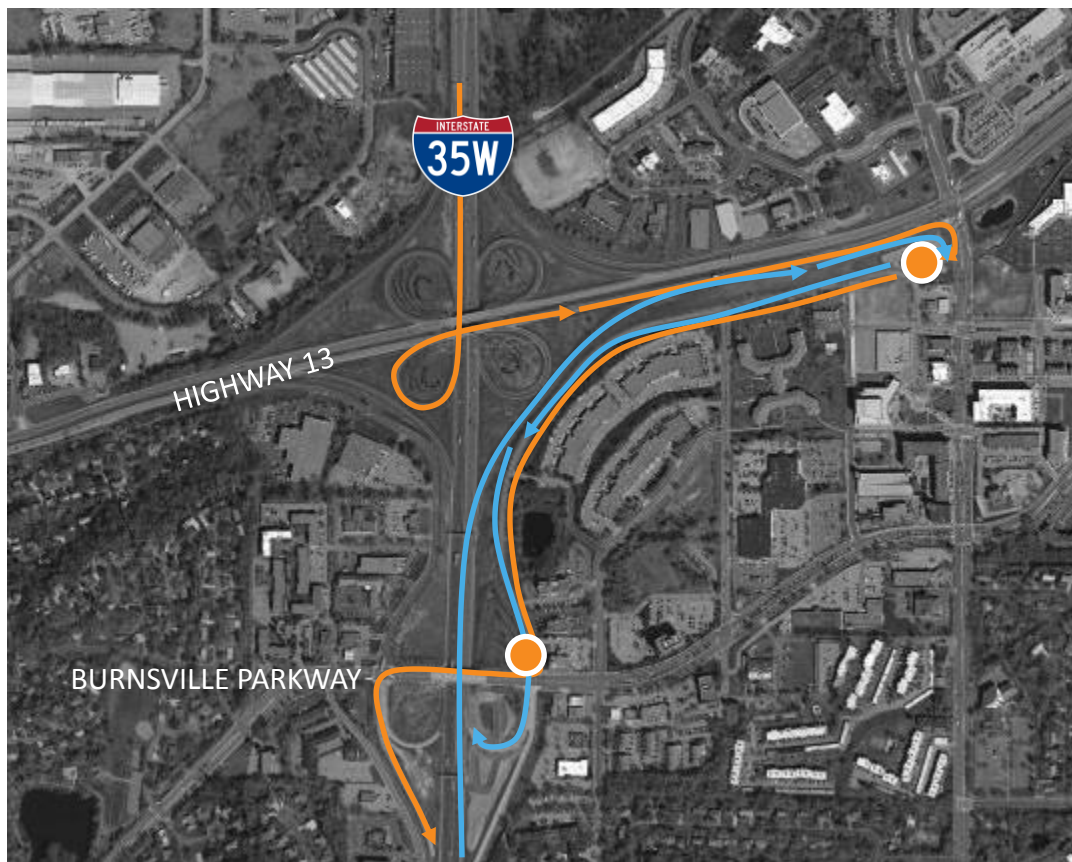
Cost: \$1.7 million

Travelers Trail + Burnsville Parkway

- Highest ridership option
- Access to Heart of the City & Burnsville Parkway
- Platform & routing compatible with future extension – no change needed
- Redundancy of service
- Local & express route connections (426, 465, 444)
- Less cost efficient than other station options

OVERALL GOALS	
Cost effective infrastructure and service	increased cost from TT option
Improve mobility, mitigate congestion on I-35W	high ridership, park & ride
MAXIMIZE THE QUALITY OF SERVICE	
Minimize travel time	
Avoid off route delays	no signal delay
Provide connections to the I-494 corridor	
Avoid redundancy of services	two station platforms in 1-mile radius
MAXIMIZE EFFECTIVENESS OF STATIONS	
Maximize ridership and ridership potential	highest ridership option
Access to desirable origins and destinations	access to HoC & B.Pkwy
Safe, efficient local & express route connections	all local & some express
Safe, convenient, quality facilities for riders	
COMPATIBILITY WITH FUTURE PLANS	
Phase I compatibility with future extension	

Travelers Trail + Burnsville Parkway – Phase II



Northbound travel time:

AM: 5.5 minutes

PM: 5.0 minutes

Southbound travel time:

AM: 5.1 minutes

PM: 6.2 minutes

Northbound



Southbound



Cost and Ridership Summary

	Burnsville Transit Station	Travelers Trail	Burnsville Parkway A	Burnsville Parkway B	Online Station	2 station Option
Cost	\$0.8m	\$1.2m	\$0.8m	\$1.2m - \$2.0m	\$60m+	\$1.7m
Ridership estimates	900 – 1,000	900 – 1,000	200*	200*	200*	1,000 - 1,100*
Phase I travel time (min)	4.9 – 6.0	5.5 – 5.6	3.1 – 3.2	4.3 – 4.7	n/a	5.5 – 5.9
Phase II travel time (min)	NB: 6.3 – 7.0 SB: 5.9 – 6.8	NB: 4.7 – 5.5 SB: 5.1 – 5.9	n/a	NB: 3.2 – 5.2 SB: 3.5 – 4.3	NB: 2 – 12 SB: 2	NB: 5.0 – 5.5 SB: 5.1 – 6.2
Compatible w/Phase I?	Yes	Yes	Yes	Yes	No	Yes
Compatible w/Phase II?	No	Yes	No	Yes	Yes	Yes

**No detailed forecasting available. Rough estimate for this location is 50-200 riders per day (all trips walk or transfer from route 444).*

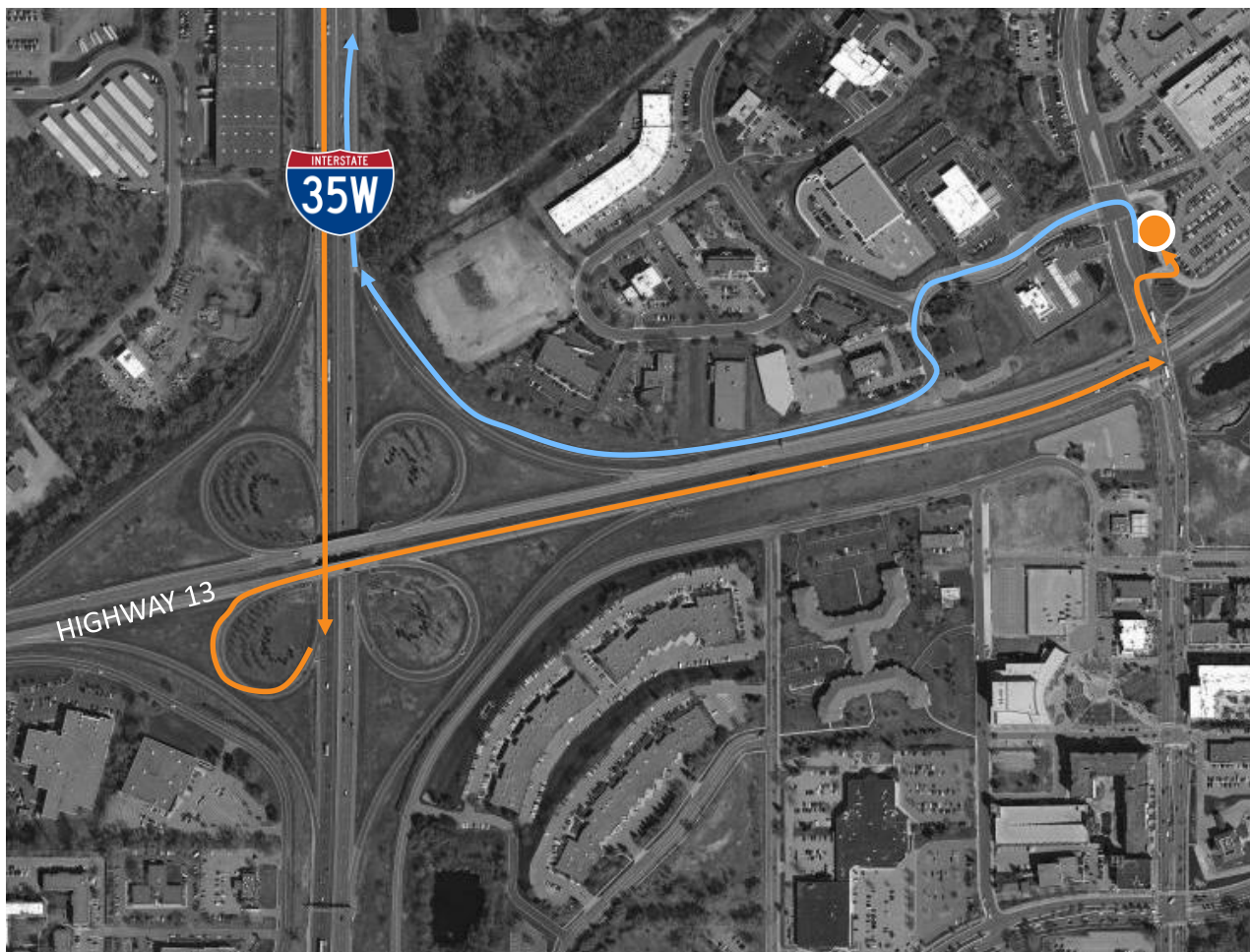


For additional Orange Line information:

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Burnsville Transit Station – Phase I



Roundtrip AM travel time:
6.0 minutes

Roundtrip PM travel time :
4.9 minutes

Northbound



Southbound



Travelers Trail – Phase I



Roundtrip AM travel time:
5.5 minutes

Roundtrip PM travel time:
5.6 minutes

Northbound



Southbound



Burnsville Pkwy Online – Phase I



- No space in freeway station to turn bus around
- Next exit for turning bus around is at County Road 42
- Adds 5+ minutes to the trip

Northbound



Southbound



26

Burnsville Parkway Station A – Phase I



AM travel time:
3.1 minutes

PM travel time:
3.2 minutes

Northbound



Southbound



Burnsville Parkway Station B – Phase I



AM travel time:
4.3 minutes

PM travel time:
4.7 minutes

Northbound



Southbound



Travelers Trail + Burnsville Parkway – Phase I



AM travel time:
5.5 minutes

PM travel time:
5.9 minutes

