



**SOUTHWEST**  
transitway

green means go.

## **Southwest LRT**

### **Technical Memorandum No. 8A**

# **RIGHT OF WAY (ROW)**

PRELIMINARY  
FOR REVIEW ONLY

September 9, 2009





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## 1.0 INTRODUCTION

Factors that typically contribute substantially to the cost and or feasibility of the proposed project include the extent of property acquisition and displacements of residents or commercial occupancy. The purpose of this project memorandum is to evaluate the property acquisition requirements for each LRT alternative.

## 2.0 RIGHT-OF-WAY ACQUISITION

Preliminary right-of-way acquisitions were identified in order to develop a conceptual right-of-way cost estimate for each LRT alternative. Actual property acquisitions will not be determined until the project progresses forward into Preliminary Engineering and Final Design.

The extent of the proposed acquisitions and relocations were identified using the conceptual engineering plans and approximate right-of-way (ROW) requirements for construction limits. Where a property parcel is intersected by the proposed LRT alternative and its potential construction limits, further analysis was conducted to determine if the property needs to be acquired entirely (full take) or if only a portion of the property needs to be acquired for the project (partial take).

To eliminate redundancy, the LRT alternatives were evaluated by segment. For evaluation purposes the segments were combined into the respective alternative for final acquisition and cost comparison. Refer to Table 1 below for the segments that comprise each LRT alternative and the stations included on each segment.

*Table 1 - LRT Alternatives and Segments*

LRT Alternatives	Segments
LRT 1A	Segment 1, Segment 4, Segment A
LRT 3A	Segment 3, Segment 4, Segment A
LRT 3C-1 (Nicollet Mall)	Segment 3, Segment 4, Segment C-1 (Nicollet Mall)
LRT 3C-2 (11 <sup>th</sup> /12 <sup>th</sup> Street)	Segment 3, Segment 4, Segment C-2 (11 <sup>th</sup> /12 <sup>th</sup> Streets via Nicollet Avenue Tunnel)
	Segment 3, Segment 4, Segment C-2A (11 <sup>th</sup> /12 <sup>th</sup> Streets via Blaisdell Ave Tunnel Option)
	Segment 3, Segment 4, Segment C-2B (11 <sup>th</sup> /12 <sup>th</sup> Streets 1 <sup>st</sup> Ave Tunnel Option)

### 2.1 Assumptions

LRT 3C (11<sup>th</sup>/12<sup>th</sup> Street) includes two alternate route options for tunneling between the Midtown Corridor (28th Street Station) and Franklin Avenue instead of under Nicollet Avenue. Option C-2A would tunnel under Blaisdell Avenue and Option C-2B would tunnel under 1<sup>st</sup> Avenue South. For the tunnel sections, no additional property acquisition is required; all temporary construction activities would be conducted within the public ROW once the alignment is underground. There are no conceptual engineering design profiles for the Sub-alternative optional routes, therefore property acquisition is estimated based on approximate property impacts created by transitioning into a tunnel from the Midtown Corridor to Blaisdell Avenue or 1<sup>st</sup> Avenue to the extent as shown on the conceptual engineering plans for the transition into the tunnel under Nicollet Avenue. In all cases the proposed re-alignment of 29th Street is assumed.

## 2.2 Criteria and Measurement

Using GIS the proposed LRT alternative segments were mapped onto aerial photographs with Hennepin County land parcel data. Where an LRT alignment deviated from existing HCRRA owned property parcels were selected to create a data subset. Once the potential parcels impacted by each LRT alternative were identified, the approximate impacts were calculated by measuring the potential area needed to construct the guideway through each parcel.

To determine if the required acquisition is a full or partial taking of the property following criteria were applied:

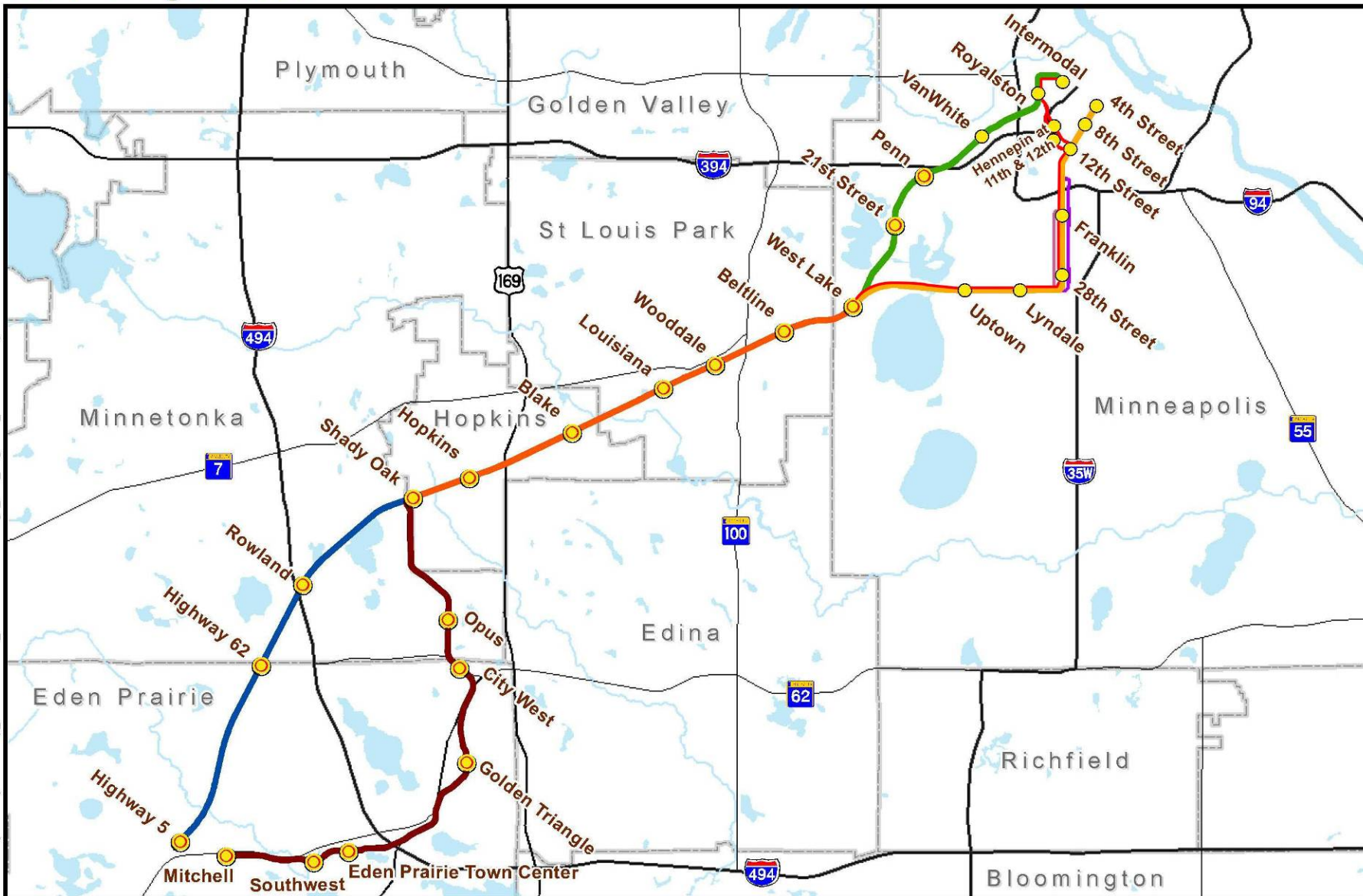
1. If the property, or a portion of the property required, is vacant (unimproved property) and the required right of way consumes 50 percent or less of the net lot area property, the taking is assumed to be partial take.
2. If the property is improved and the required right of way requires less than 10 percent of the net lot area, the taking is assumed to be a partial take.
3. If the property is improved and the required right of way requires 10 percent or more of the net lot area, the taking is assumed to be a full take.
4. If the property is improved and the required right of way required right of way encroaches into a structure the taking is assumed to be a full take.

No property acquisition is anticipated for Segment 1 because it is presently owned by the HCRRA and the LRT alignment and construction limits along this segment are within existing ROW.

The property acquisition data is organized in tables by LRT Segment. Refer to Figure 1 on the following page for a map of the segments.

# LRT Segments

Figure 1 - LRT Segment Map



Map Document: (\\mspe-gis-file\GIS\Proj\Hennepin\87130\map\_docs\mxd\TECH\_MEMO\TechMemo2\Fig3\_TM2\_Segments\_20090817.mxd) 8/17/2009 cseers

 **LPA Report**

Legend	
	Station
	Park & Ride Station
	Segment 1
	Segment 3
	Segment 4
	Segment A
	Segment C-1 (Nicollet Mall)
	Segment C-2 (11th/12th Street)
	Segment C-2A (Blaisdell Avenue)
	Segment C-2B (1st Avenue)

Refer to Table 2 below for a list of properties and their take designation by LRT alternative segment. Acreage estimates are strictly preliminary estimates and are rounded to the nearest tenth of an acre because some acquisitions are too small to represent otherwise.

*Table 2 - Property Acquisition by Segment*

Segment	Land Use Designation	Full Take (Acres)	Partial Take (Acres)	Total Acres by Land Use Designation	Total Take (Acres) Per Segment
1	-	-	-	-	0
3	Commercial/Industrial	26.0	13.8	39.8	42.8
3	Residential	-	3.0	3.0	
4	Industrial/Railroad	28.3	0.1	28.4	28.4
A	Commercial/Industrial/Utility	3.6	9.3	12.9	12.9
C-1/C-2	Commercial/Industrial	3.6	less than 1/10 <sup>th</sup> of an Acre	3.6	3.6
C-1/C-2	Residential	-	less than 1/100 <sup>th</sup> of an Acre	less than 1/100 <sup>th</sup> of an Acre	
Options under LRT 3C-2(11 <sup>th</sup> /12 <sup>th</sup> Street) to travel under either Blaisdell Avenue (C2-A) or 1 <sup>st</sup> Avenue (C-2B) would require the acreage noted above plus the additional acreage shown below for options C-2A and C-2B					
C-2A	Commercial	1.4	-	1.4	1.8
C-2A	Residential	.4	-	.4	
C-2B	Commercial	1.8	-	1.8	1.8
These calculations are estimates based on the methodology presented in this Technical Memorandum, a detailed Right-of-way analysis will be conducted in the Draft Environmental Impact Statement (DEIS) phase of the project.					

As a segment of the LRT 3C-2 (11<sup>th</sup>/12<sup>th</sup> Street) alignment, Segment C-2 has three tunneling options to travel under Nicollet Avenue (as Segment C-1 from LRT 3C-1 (Nicollet Mall) travels), or alternately to tunnel under either Blaisdell Avenue or First Avenue.

Segment C-2 via a tunnel under Nicollet Avenue would require the same acquisition as Segment C-1 (Nicollet Mall) with the addition of one parcel near 12<sup>th</sup> Street and Royalston Avenue, which would have impacts to an existing structure. However, that parcel is owned by the City of Minneapolis and is not included in the acquisition cost. Additional property would be required for the options to tunnel under Blaisdell Avenue or First Avenue. The additional property takes required for options C-2A (Blaisdell Avenue) and C-2B (1<sup>st</sup> Avenue) are identified included in Table 2.



### 3.0 REAL PROPERTY ACQUISITION COSTS

Federal and state laws require that property owners be paid fair market value for their land and buildings, and that they be assisted in finding replacement business sites or dwellings. For displaced residents the Uniform Relocations and Real Property Assistance Act of 1970, as amended, requires that replacement housing must be “decent, safe and sanitary,” and be functionally equivalent in the number of rooms and living space, location, and general improvements. Replacement dwellings must meet all minimum federal housing requirements and conform to state and local occupancy codes. Relocation assistance will follow the guidelines set forth in Title 49, Part 24 of the Code of Federal Regulations (CFR Part 24 and FTA Circular 5010.1C dated October 1, 1998 as amended). Relocation benefits may be available to businesses and non-profit organizations that may be displaced. Payments may be made for:

- Moving costs
- Tangible personal property loss as a result of relocation or discontinuance of operations
- Reestablishment expenses
- Costs incurred in finding a replacement site

#### 3.1 Assumptions

The intent of the process is to develop an “order of magnitude” cost for each LRT alternative utilizing constant values so they can be compared equally. For the purposes of this effort real estate cost estimates were generated for the screening of the various LRT alternatives. Values below are based on the Estimated Market Value (EMV) total from Hennepin County (2008).

If the property required is currently in the public ROW or owned by a municipality (i.e. MnDOT, City of Minneapolis, City of Minnetonka, Hennepin County etc.) it is not included as an acquisition cost because of opportunities for land grants, donations or swaps in such cases. Acquisition and relocation costs were divided into two categories; residential and commercial. Commercial land values were generally assigned to properties designated industrial land uses as well as utility and Rail Road property.

#### 3.2 Criteria and Measurement

In Estimating Acquisition and Relocation Cost, the following values were applied:

##### Partial Takes

- Residential: \$15 / square foot (SF)
- Commercial Corner, Less than 10 acres: \$30 / SF
- Commercial Interior, Less than 10 acres: \$25 / SF
- Commercial Over 10 Acres: \$20 / SF

- Commercial Rear: \$20 / SF

Full Takes

- For commercial property the acquisition cost is assumed to be 175 percent of the full cash value per the Hennepin County Assessor Estimated Market Value (EMV) Total.
- For residential property the acquisition cost is assumed to be 150 percent of the full cash value per the Hennepin County Assessor EMV Total.

Relocation Costs (applicable to full takes only)

- Commercial property relocation costs are assumed to equal 25 percent of the adjusted acquisition cost.
- Relocation cost for single family residential properties equals 15 percent of adjusted acquisition cost.
- Relocation costs for multi family residential properties equal \$50,000 per unit.

Administrative Costs

- An administrative cost of \$15,000 per parcel acquired is added to the total cost of acquisition. This cost is intended to cover such costs as appraisals, title reports, surveys, legal descriptions, negotiations, legal fees and filings.

Segment C-2 from the LRT 3C-2 (11th/12th Street) alignment would have the same acquisition and relocation costs as Segment C-1 from the LRT 3C-1 (Nicollet Avenue) alignment. The C-2A (Blaisdell Avenue) and C-2B (1st Avenue) would have additional costs associated with full takes as shown in the tables below.

Refer to Table 3 below for a summary of the acquisition and relocation costs by LRT segment. Values are rounded to the nearest hundred thousand by segment. A summary evaluation by LRT alternative is presented in conclusion of Section 4 in Table 6.

*Table 3 - Property Acquisition and Relocation Costs*

Total Acquisition and Relocation Costs (Including Administration)			
Segment	Full Takes Total (\$)	Partial Take Total (\$)	Total Cost
Segment 1	\$0	\$0	0
Segment 3	\$32,300,000	\$23,100,000	\$55,400,000
Segment 4	\$27,400,000	\$100,000	\$27,500,000
Segment A	\$2,900,000	\$600,000	\$3,500,000
Segment C-1	\$13,800,000	\$100,000	\$13,800,000
Segment C-2	\$13,800,000	\$100,000	\$13,800,000
Segment C-2A	\$17,300,000	\$0	\$17,300,000
Segment C-2B	\$18,400,000	\$0	\$18,400,000

*Note: Values are based on the Estimated Market Value (EMV) total from Hennepin County (September, 2008).*

## 4.0 PARK AND RIDE FACILITIES

Two park and ride facilities are included for all of the LRT alternatives at the Shady Oak Road Station and the Louisiana Avenue Station. Table 4 below illustrates the required acreage for parking at the park and ride locations for each LRT alternative.

*Table 4 - Park and Ride Space Requirements*

LRT Alternative	Shady Oak Road Station	Louisiana Avenue Station
LRT 1A	2.6 Acres	0.5 Acres
LRT 3A	2.9 Acres	0.5 Acres
LRT 3C-1 (Nicollet Mall)	2.8 Acres	0.5 Acres
LRT 3C-2 (11 <sup>th</sup> /12 <sup>th</sup> Street)	2.8 Acres	0.5 Acres

### 4.1 Assumptions

The extent of the proposed acquisitions and relocations required for the park and ride station were identified by mapping the proposed station locations and property parcels. Parcels adjacent to the Shady Oak Road Station and the Louisiana Avenue Station were identified and selected based on their size and cost. Refer to the table below for the acquisition requirements and related costs.

### 4.2 Evaluation

Refer to Table 5 below for the acquisition requirements and related costs. Values are rounded to the nearest hundred thousand by segment.

*Table 5 - Park and Ride Acquisition and Cost*

Station	Full Takes (Acres)	Partial Takes (Acres)	Total Cost (\$)
Shady Oak Road Station	3.3	-	\$6,200,000
Louisiana Avenue Station	0.9	-	\$600,000
		TOTAL	\$6,800,000

*Note: Values are based on the Estimated Market Value (EMV) total from Hennepin County (September, 2008).*

The park and ride acquisitions impact each LRT alternative equally resulting four additional full take properties for each LRT alternative.

## 5.0 SUMMARY EVALUATION

Based on the results of the analysis the total acreage required for property acquisition and total cost for each LRT segment was used to determine an estimate for each LRT alternative. Total costs, including acquisition, relocation, and administration costs were used to calculate the estimated cost for property acquisition. Refer to Table 6 for the final summary of costs and acreage per LRT Alternative. Acreage values are rounded to the nearest tenth and dollar values are rounded to the nearest 10 million by each LRT alignment.

*Table 6 - Summary Acquisition Costs by LRT Alternative*

LRT Alternative	Partial Takes (Acres)	Full Takes (Acres)	Total Cost (\$2008)
LRT 1A	10	40	\$40,000,000
LRT 3A	30	60	\$90,000,000
LRT 3C-1 (Nicollet Mall)	20	60	\$100,000,000
LRT 3C-2 (11 <sup>th</sup> /12 <sup>th</sup> Street)	20	60	\$100,000,000
LRT 3C-2A (11 <sup>th</sup> /12 <sup>th</sup> Street) Blaisdell Option	20	60	\$110,000,000
LRT 3C-2B (11 <sup>th</sup> /12 <sup>th</sup> Street) 1 <sup>st</sup> Avenue Option	20	60	\$110,000,000

*Note: Total cost is based on property values in the Estimated Market Value (EMV) total from Hennepin County (September, 2008).*