



IV – RIDERSHIP FORECASTS

Ridership forecasts were developed for the proposed transit service. The results summarized here were obtained from the Metropolitan Council's regional travel forecasting model. This model was developed in 1994 using inputs from a Travel Behavior Inventory conducted in the region in 1990 and methodology acceptable to the Federal Transit Administration (FTA).

The assignment of trips was done using outputs from the Regional Model with no factoring of subjective customer preference for LRT. Differences in estimates of ridership for busway or LRT are accounted for by quantitative assumptions of service elements such as longer dwell time for buses loading passengers as well as slower rates of acceleration/deceleration for buses. Although some transit professionals believe that customer preference for LRT is not accurately reflected in travel forecasting methodology, no adjustments were made to the modeling results in keeping with acceptable FTA standards.

Intensified development defined as an increase of 12 percent households, 10 percent population, and 10 percent employment was assumed to occur by 2020 within a four-block radius of the proposed station areas.

TRANSIT MODES

The scenarios for which ridership forecasts were prepared are as follows:

- Busway Scenarios
 - Existing development for the year 2010
 - Existing development for the year 2020
 - Intensified development for the year 2020
- LRT Scenario
 - Intensified development for the year 2020

For both the busway and LRT scenarios, three alignments were identified and forecasts were prepared. The alignments are as follows and are depicted in Figure 5, Chapter 1:

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- **29th Street Corridor** – This alignment assumes service from West Lake Street to Hiawatha Avenue connecting to existing north-south bus routes, as well as the proposed Hiawatha LRT service. The service would run on exclusive right-of-way, much of it grade-separated.
- **29th Street and Southwest Corridors** – This alignment assumes service from 5th Avenue in Hopkins to Hiawatha Avenue. The service would run on exclusive right-of-way, assuming at-grade service through portions of the Southwest Corridor.
- **Southwest Corridor to Minneapolis CBD** – This alignment assumes service from 5th Avenue in Hopkins to the Minneapolis Central Business District. A direct downtown connection would be provided on either exclusive right-of-way, a major arterial street or a local street.

TRANSIT SERVICE ASSUMPTIONS

The following transportation system changes were assumed for both busway and LRT service scenarios:

Feeder Routes – Feeder bus routes for the 29th Street Corridor are assumed to consist of existing north-south bus routes that cross the corridor. Feeder bus routes for the Southwest Corridor are as shown in Figure 7 and assumed to be existing bus routes reconfigured to connect with the proposed transit stations.

Lake Street Service – Lake Street is currently served by Metro Transit Route 21. It was assumed in the model that this service would remain in place, but that service frequency would drop from its current frequency of 7 1/2 minutes to 10 minutes.

Park-and-Ride Lots – Three new park-and-ride lots were assumed to be located just east of 5th Avenue in Hopkins, at Louisiana Avenue and at Beltline Boulevard.

Hiawatha LRT Connection – It was assumed that a connection to the proposed Hiawatha LRT line would be provided at the Hiawatha-Lake Street station. This connection was assumed for both busway and LRT.

Hours of Service – Identical hours of service were assumed for both busway and LRT. For the 29th Street Corridor and for the 29th Street and Southwest Corridors, service was assumed to begin at 6:00 a.m. and end at 10:00 p.m. Service for the Southwest Corridor to Minneapolis CBD alignment was assumed to begin at 4:00 a.m. and end at 1:00 a.m.

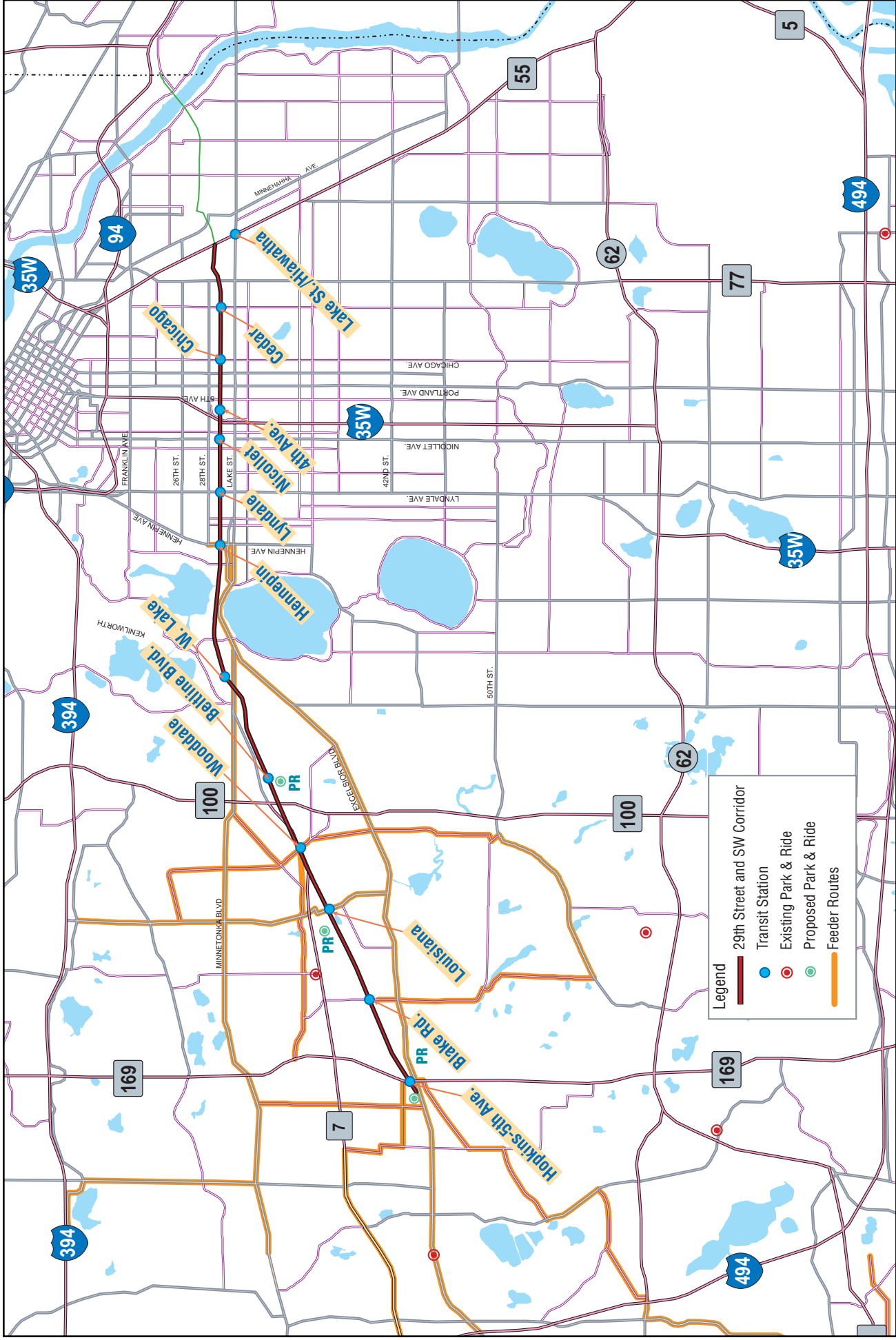


FIGURE 7

SOUTHWEST CORRIDOR FEEDER ROUTE ASSUMPTIONS

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Service Frequencies – Identical service frequencies were assumed for the busway and LRT scenarios. These frequencies were assumed for the purpose of forecasting ridership. Operational frequencies may be different and are established by actual passenger demand.

- **29th Street Corridor** – 10-minute peak and 15-minute off-peak.
- **29th Street and Southwest Corridors** – 20-minute peak and 30-minute off-peak for Southwest Corridor and 10-minute peak and 15-minute off-peak for service on the 29th Street Corridor.
- **Southwest Corridor to Minneapolis CBD** – 10-minute peak and 15-minute off-peak.

Travel Time – Busway and LRT travel times are dependent on four factors: maximum speed (dependent on grade separation and adjacent street speeds); dwell time (station pickup/drop-off time, 30 seconds LRT, 45 seconds bus); traffic signals (assumed at 85 percent preemption); acceleration/deceleration rates (LRT assumed 25 percent faster rate).

Terminal-to-terminal travel times for the busway and LRT alignment alternatives are shown in Table 7. LRT is assumed to be somewhat faster due to shorter dwell times and slightly better acceleration/deceleration.

Table 7 – Transitway Travel Times

Alternative	29th Street Corridor	29th Street and Southwest Corridors	Southwest Corridor to Minneapolis CBD
Busway	15 minutes	25 minutes	26 minutes
LRT	14 minutes	23 minutes	24 minutes

FORECASTING RESULTS

Table 8 summarizes the forecasting results. Busway ridership figures are shown for the year 2010 with existing development intensities and for the year 2020 with both existing and intensified development. LRT ridership is shown for the year 2020 with intensified development. New transit riders are summarized in Table 9. A new rider is defined as someone who did not previously use transit and not as someone diverted from another transit mode or route.

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Table 8 – Daily Ridership Forecasts

Alternative	29th Street Corridor (W. Lake – Hiawatha)	29th Street and Southwest Corridors (Hopkins – Hiawatha)	Southwest Corridor to Minneapolis CBD (Hopkins-Mpls.. CBD)
2010 Busway (standard land use)	6,800	10,300	14,000
2020 Busway (standard land use)	7,100	11,200	15,700
2020 Busway (intensified land use)	7,300	11,500	16,000
2020 LRT (intensified land use)	7,700	12,100	16,500

Table 9 – Net New Transit Riders (2020)

Alternative	29th Street Corridor (W. Lake – Hiawatha)	29th Street and Southwest Corridors (Hopkins – Hiawatha)	Southwest Corridor to Minneapolis CBD (Hopkins – Mpls.. CBD)
Busway	730	1,780	4,000
LRT	1,130	2,380	4,500