Site Location Criteria

This final chapter of the plan provides criteria for planning, design, and implementation of a park-and-ride facility. The criteria are designed to inform and enable regional transit planners and local officials to work more collaboratively in the selection and approval of sites that maximize transit efficiency while serving the greatest number of customers. Suitable park-and-ride facility sites are selected through a mutual recognition, understanding and balancing of competing interests for the public good.

Park-and-Ride facilities are also subject to regional transit standards, identified in Appendix G of the 2030 Transportation Policy Plan. These standards are required for new facilities, but are generally flexible for park-and-ride facilities.

5.1: Facility Planning Phases

Planning a park-and-ride facility generally has three major phases of planning. These include

1. Determining facility need and system integration
2. Market Area Analysis
3. Site selection and design considerations

Each phase listed above also has several criteria for consideration by local officials and transit planners. Not all criteria are created equal; each phase has essential and preferred criteria. The inability of a potential site to meet an essential criterion is not a fatal flaw, but may indicate the site is less than ideal. If a candidate site fails to meet several essential criteria the chances of a successful project are low, and other sites should be considered.

In addition, there are several preferred criteria. These should be considered a bonus feature that can be used to distinguish two or more otherwise equally suitable sites.
Figure 5-1: Facility Planning Phases

### Facility Need & System Integration
- Loss of existing park-and-ride facility
- Existing facilities near, at, or over capacity with anticipated ongoing growth
- New market area for expansion of transit services
- Transitway facilities

### Market Area Analysis
- Review existing conditions
- Determine potential market area
- Estimate existing and future demand
- Analyze effects of facility and service competition or reinforcement
- Refine demand estimates

### Site Selection and Design Criteria

#### Type of Land Provision
- Public Rights-of-way
- Joint-use Opportunity
- Private Land

#### Essential Criteria
- Serve lower-density areas with less than full transit service coverage
- Located on major travel corridor to a major regional activity center
- Convenient access to regional highway system
- Convenient vehicle access
- Minimum capacity/anticipated demand
- Local area factors

#### Preferred Criteria
- Congested travel corridor
- Upstream of major traffic congestion
- Transit advantages
- Transit travel time to major activity center
- Good visibility from primary roadway(s)
- Located on inbound side of primary roadway access
- Future expansion potential
- Surface (preferred) or structured
- Transit center synergy
5.2: Facility Need and System Integration

The need for a new facility may be driven by several factors. Typical reasons are described below:

Loss of an existing park-and-ride facility (loss can be realized or anticipated)

In certain instances, it is necessary to replace an existing facility. For example, an existing facility may be located on public right-of-way needed for roadway expansion or re-alignment. Another common example is a joint-use facility without a permanent or long-term lease arrangement whose lease is terminated by the landowner. Still other facilities may be replaced to streamline service in a corridor, serving customers faster with more conveniently located facilities (this strategy is typically pursued only to replace leased facilities). A recent example is the Maple Grove Parkway facility, under construction to replace a leased (and over capacity) facility at a nearby Wal-Mart.

Existing facilities near, at, or over capacity with anticipated ongoing growth

These facilities tend to be along major transportation corridors, and are typically approached through expansion of the existing facility or by siting and constructing a new location. Facility expansion at the current site should be explored first, since the location is a proven location and likely represents a significant public investment. If expansion is not feasible, a new facility may be sought to augment or replace the crowded facility. This requires careful analysis of service levels and user origins, further described in the market area analysis section of this chapter. Recent facility expansions include expansions of the Apple Valley Transit Station or ramp construction at I-394 and County Road 73. A recent new location built to alleviate capacity shortfall is Guardian Angels Church in Oakdale. This facility involves a long term lease and parking expansion that relieved the crowded Woodbury Theatre Park-and-Ride.

Figure 5-2: The I-394 & County Road 73 facility was expanded in 2006-2007 to meet growing demand
New market area for expansion of transit services

A new primary market area typically occurs in high population growth areas not directly served by transit or without facilities. These areas tend to be along major transportation corridors. Recent examples include new facilities and new express services from Lakeville or Forest Lake. When planning expansion into new market areas, it is critically important to consider user origins and service levels at downstream facilities. Transit users gravitate to higher levels of service; if a new facility does not have demand to support independent, robust transit service potential users will bypass the new facility to existing park-and-rides with a higher level of service. Service planning and operating resources are also of special concern when planning new facilities.

Transitway Facilities

A fourth category includes transitway implementation. Some transitway stations have associated park-and-ride facilities. The demand and site location process for these facilities is typically an outcome of an alternatives analysis and detailed ongoing planning. Site location criteria included in this document apply to transitways, though rail transitways may have unique access characteristics. Park-and-ride facilities may be implemented prior to full development of the transitway investment, but only if the project is a promising standalone facility. Service to the park-and-ride must be justified on its own merits, or the park-and-ride facility’s construction should only be implemented alongside transitway service. Specific care must be applied to ensure compliance with federal rules.

Suggested Facilities Require Evaluation

Not all candidate park-and-ride sites arise from a site selection process generated by a triggering event as described above. Transit agencies receive numerous leads on potential park-and-ride arrangements each year. Some of these opportunities are worth pursuing in lieu of other planned facilities in the corridor, but must be carefully vetted for system and corridor compatibility, as well as site selection and design criteria described in this chapter. Many leads on potential park-and-ride facilities are found to be incompatible with one or more essential criteria.

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1 The 2030 Transportation Policy Plan includes express buses with transit advantages in the definition of transitways. This section describes transitways with individualized corridor analysis/planning and increased capital investment beyond typical transit advantages.
5.3: Market Area Analysis

With the potential need for a facility identified (or a suggested site identified), a number of steps are required to ensure a facility is a successful addition to the region’s transit system. The first and most important step is to conduct a market area analysis.

Park-and-Ride locations must be validated using the Regional Park-and-Ride Demand Estimation Methodology in this plan update, particularly if the location is beyond those areas identified by corridor in this plan. The map and tables included in this plan [Appendix A and B, respectively] may be updated with more recent data or adopted local Comprehensive Plan data. Park-and-Ride mode split calculations also may be refined, but primarily to rectify potential data irregularities and not as an argument for amplified mode split and facility usage.

The general process for a market area analysis starts from an identified facility need or directly from a proposed site, and should follow these steps:

**Step 1: Review Existing Conditions**

This involves review and documentation of existing park-and-ride user origins, existing service levels, and existing facilities and usage. Corridor transit service plans, highway plans, and local comprehensive plans should also be reviewed for contraindications.

**Step 2: Determine Potential Market Area**

Based on the results of step 1, assign TAZs to delineate a proposed market area for the new facility using the TAZ map developed for this plan [Appendix A]. This should follow a “watershed” analysis based on existing user origins and destinations, and be informed by professional judgment of service levels in the area.

**Step 3: Estimate Existing and Future Demand**

Using tables developed for this plan [Appendix B], identify existing demand and medium- and long-term park-and-ride demand for the proposed facility.
Step 4: Analyze Effects of Facility and Service Competition or Reinforcement

When implementing a new facility, the influence of other nearby facility(s) and service(s) should be evaluated. Facilities placed along local or walk-up routes, or those closer than four to five miles apart within the same corridor have strong potential for competition.

Park-and-rides should not compete with local or walk-up express transit service within the same area, but in limited instances a park-and-ride may support existing walk-up routes or may be part of a service restructuring. The facility must improve and complement existing services.

Consideration of transit service levels is paramount to this evaluation. Customers tend to favor service levels over proximity—many transit users will drive farther to have additional bus trips/frequency or increased span of service (such as midday or later evening trips), even bypassing facilities closer to their home origin.

Step 5: Refine Demand Estimates

Based on the competitive effects of nearby facilities and services, discount competitive effects to reach the estimated demand for the proposed facility. For example, the new facility’s market capture would not likely be 100% of the TAZs’ total park-and-ride demand if a neighboring large, high frequency park-and-ride continued to offer comparatively high service levels. Similarly, if planned bus routes serve both facilities, transit planners should expect continued utilization of the innermost facility.
5.4: Site Selection and Design Criteria

Type of Land Provision

If a park-and-ride project is compatible with planned system and regional services, and a market area analysis shows a promising, complementary facility, the site selection process may begin. There are three dominant types of land ownership used for park-and-ride facilities. These include public rights-of-way, joint-use sites, and private land.

Public Rights-of-Way

The selection of public right-of-way should be driven by two factors: availability and land acquisition cost. Surplus or excess public right-of-way is sometimes available along major roadways. These parcels are often not suitable for commercial land development. Public rights-of-way tend to have lower acquisition cost than private land.

Joint-Use Opportunity

Park-and-ride use is primarily a weekday daytime activity. During evenings and weekends, parking may go underutilized. Joint-use opportunities may allow for complementary uses of parking. In addition, a retail center may also provide convenience and amenity to transit users. Historically, joint use opportunities have arisen with parks, churches, movie theaters, and retail establishments. Except for interim facilities (e.g. relievers), joint use facility development should be driven by two factors: complementary use and long-term or permanent lease arrangement. Joint-use opportunities are most applicable in corridors with little available land or at locations where large shared-use facilities are desired and reasonable.

Private Land

The selection of private land should be driven by two factors: zoning compatibility and land acquisition cost. A site for a park-and-ride facility needs to be compatible to the surrounding land uses. The acquisition of land for a park-and-ride facility must not be cost-prohibitive.
Essential Criteria

Each site should have the following characteristics, though a deficiency on one criteria may not necessarily be a fatal flaw for continued project development:

**Serving Lower-Density Areas with Less than Full Transit Service Coverage**
Park-and-ride facilities are typically located in lower density developing areas, as designated in the Regional Development Framework. However, facilities may be implemented in more urbanized areas if they support or bolster (and do not undermine) existing walk-up express transit services. Park-and-rides are discouraged in center cities, except in rare or atypical circumstances.

**Located on a Major Travel Corridor to a Major Regional Activity Center**
Facilities should be located in areas with high levels of travel demand at major activity center(s). Currently, park-and-ride demand focuses on downtown Minneapolis, with additional demand to downtown St. Paul and the University of Minnesota.

**Convenient Access to Regional Highway System**
Facilities should be located within ½ mile of the nearest interchange (or intersection) accessing the regional highway system (usually principal arterial).
Convenient Vehicle Access

Facilities should be located to optimize vehicle travel (transit and personal) into and out of the facility. In addition, connections to external bicycle and pedestrian networks should be included as design elements to provide equivalent access.

Minimum Capacity/ Anticipated Demand

Facilities should be sized to accommodate a minimum of three exclusive, peak-period, express bus trips. This translates to a need for at least 150 spaces, though specific sizes may depend on site factors and corridor service design. A small facility should not be located near a large facility, as increased service at the large facility will likely outcompete the smaller facility for nearby users.

Local Area Factors

There are three groups of local area factors that need to be acknowledged, considered and satisfied for local consent of a potential park-and-ride site: community or land use compatibility, environmental constraints and economic implications.
Preferred Criteria

Site selection may also be informed by how the site location offers the following characteristics:

**Congested Travel Corridor**

Facilities should be located in congested travel corridors. Express and park-and-ride investments focus on adding person throughput to congested corridors. Therefore, facilities concentrated along and/or serving congested metropolitan highway corridors are the highest priority for implementation.

**Upstream of Major Traffic Congestion**

Facilities should be located in advance of areas experiencing major traffic congestion. Diverting vehicles off the roadways prior to congestion is attractive for transit users; diverted inbound users also do not contribute to congestion en route to a park-and-ride.

**Transit Advantages**

The primary travel corridor, on which the facility is located, should be equipped with continuous transit advantages, such as bus-only shoulders or HOV/HOT lanes in the congested segments of the corridor.

Direct, seamless access for transit vehicles between (to and from) the facility and the adjacent primary travel corridor, on which the facility is located, is desired for transit travel time savings, such as a ramp-meter bypass.

**Transit Travel Time to Major Activity Center**

For optimal transit service efficiency, transit travel time from the park-and-ride facility to a major activity center should be minimized. A single bus and driver can serve multiple peak-period trips if the travel time is low, which increases system efficiency and attractiveness. This is currently limited to about 45 minutes. Distance will differ by corridor due to congestion levels and availability of transit advantages.
Good Visibility from Primary Roadway(s)

Facilities should be oriented to ensure good visibility among potential users. Anchor facilities, those located on the end of a travel corridor, should be visible from the adjacent highway (i.e., interstate) while intermediate facilities, those located between an anchor facility and a major activity center, should be visible from the cross-roadway (i.e., county road).

Located on inbound side of primary roadway access

Access and egress to the facility should be located on the right side of the roadway in terms of the inbound direction to the primary activity center (destination). This allows the arriving commuter to make a right turn into the facility with minimum delay. Access to the facility from feeder arterials, rather than the primary one, is preferable. This location advantages morning commute times, which are typically more critical to attract and retain transit customers.

Future Expansion Potential

Expanding successful sites is often easier and faster than building entirely new facilities. A market area analysis may inform an initial land purchase that accommodates future demand, but balances current needs and resources against uncertain usage projections.

Surface (Preferred) or Structured

Surface lots should be constructed where reasonably feasible. Structured ramps could be constructed in areas with high land acquisition costs, high potential park-and-ride demand or where a complementary, shared parking joint-use venture is feasible. A thorough economic analysis should be conducted when evaluating construction of a parking structure, including initial capital costs and ongoing maintenance costs.

Transit Center Synergy

If there is a need for a transit center, one should be accommodated as part of the site selection process.