

System Planning Framework

The underlying approach to determining transportation needs is based on place making and providing mobility for people on streets. This approach relies on two basic tenets – a commitment to retain the mature urban environment within Minneapolis and a commitment to provide adequately sized systems of non-auto modes of travel. This is a departure from the regional norm of a supply-driven needs approach that defaults to expanding street capacity to accommodate estimated auto needs. The approach to the needs analysis is as follows:

1. Establish criteria for measuring transportation needs by mode. Two types of criteria are needed – (1) primary elements that identify the facilities needed by mode on the street system and (2) secondary elements that describe operational performance, where the desired level of operations informs the need for facilities.
2. Determine needs by mode on a citywide basis. This step establishes needs by mode on a system basis and on a corridor and a district basis
3. Integrate the needs by mode on a corridor basis and prioritize among modes to establish recommendations for meeting needs and making trade-offs on a corridor-by-corridor basis.

For the primary criteria elements, the Planning and Design Framework¹ provides a systematic approach for describing facilities criteria by mode and relating it to place types within Minneapolis. It is important to recognize that this Framework approach operates on two levels. The first provides system-level planning considerations to determine transportation needs by street type and place type. This level of the Framework is described in the attached material. The second identifies design elements that are appropriate for reinforcing the character and role of the *place* and the *street* through the design process – this level is the basis for the street design guidelines that are under development for later discussion.

The secondary elements of operational criteria or performance measures are most needed to determine transit enhancements needed for the Primary Transit Network (PTN)² and secondarily for vehicular traffic to establish maximums for traffic performance. The components are under development with the partner agencies.

Planning and Design Framework

The following elements are needed for the Framework:

1. Discrete definitions of street types that address the range of movement in Minneapolis, particularly on major streets
2. Differentiation of place types within Minneapolis to the extent that they affect the requirements for street design

¹ See August 8, 2005 Administrative Draft available at <http://www.ci.minneapolis.mn.us/public-works/trans-plan/TPProjects.asp#TopOfPage>

² See November 7, 2005 Draft available at the above cited web page.

Within the Framework, street types and place types are definitional elements that are used to identify differences. Their roles at the planning stage, while similar to their roles during the design stage, are broader in scope. The criteria used to ultimately differentiate design decisions also have to identify basic functional differences in the street network. At a planning level, the street types have to be sufficiently robust to address the range of movement types and the place types have to identify the geographic limits of areas where different transportation relationships are necessary. At a design level, both the street types and place types have to reflect discernable differences in design requirements. The type elements are addressed on the basis of quantifiable characteristics.

Street Types

Evaluation of the Minneapolis street network indicates that seven types of thoroughfares (excluding freeways) are adequate to address citywide transportation needs. The street types follow a naming convention that is in use for context-based design and beginning to be recognized within the urban design profession as unique identifiers. Table 1 contains a description of the suggested types with regard to basic characteristics. Table 2 shows provisions for different modes and design characteristics of these street types. The equivalent existing functional classification is shown for reference. The street types would take the place of functional class designations within the 10-year Action Plan. These types are proposed to handle the range of movement that currently occurs outside the freeway system in Minneapolis.

The definitions are intended to provide sufficient detail to facilitate a planning analysis. It is recognized that additional detail will need to be incorporated during the development of the design portion of the Framework to address how each street type responds to differences in urban form and dominant land use. It is expected that different design criteria will reflect how a street should be designed in a residential neighborhood versus an industrial district, even though each street may only have two travel lanes.

The intent of designating a Target Speed is to resolve differences between speed limit, operating speeds and design speed, primarily on low speed roadways (i.e., under 45 mph), where current practice tends to “overdesign” by use of design speeds that are usually selected to be higher than the desired operating speed to provide a factor of safety. The objective of using a Target Speed is to define a uniform operating environment that provides cues to the driver to observe the speed limit. Within the low speed regime, design speed and speed limit would be set to reflect the maximum desired operating speed. The Target Speed shown in Table 1 is linked to walkability and compatibility with fronting land use and urban form.

The relationship to functional class and state aid designation are also important policy considerations since state and federal funding within the region is allocated on the basis of these two systems of roadways.

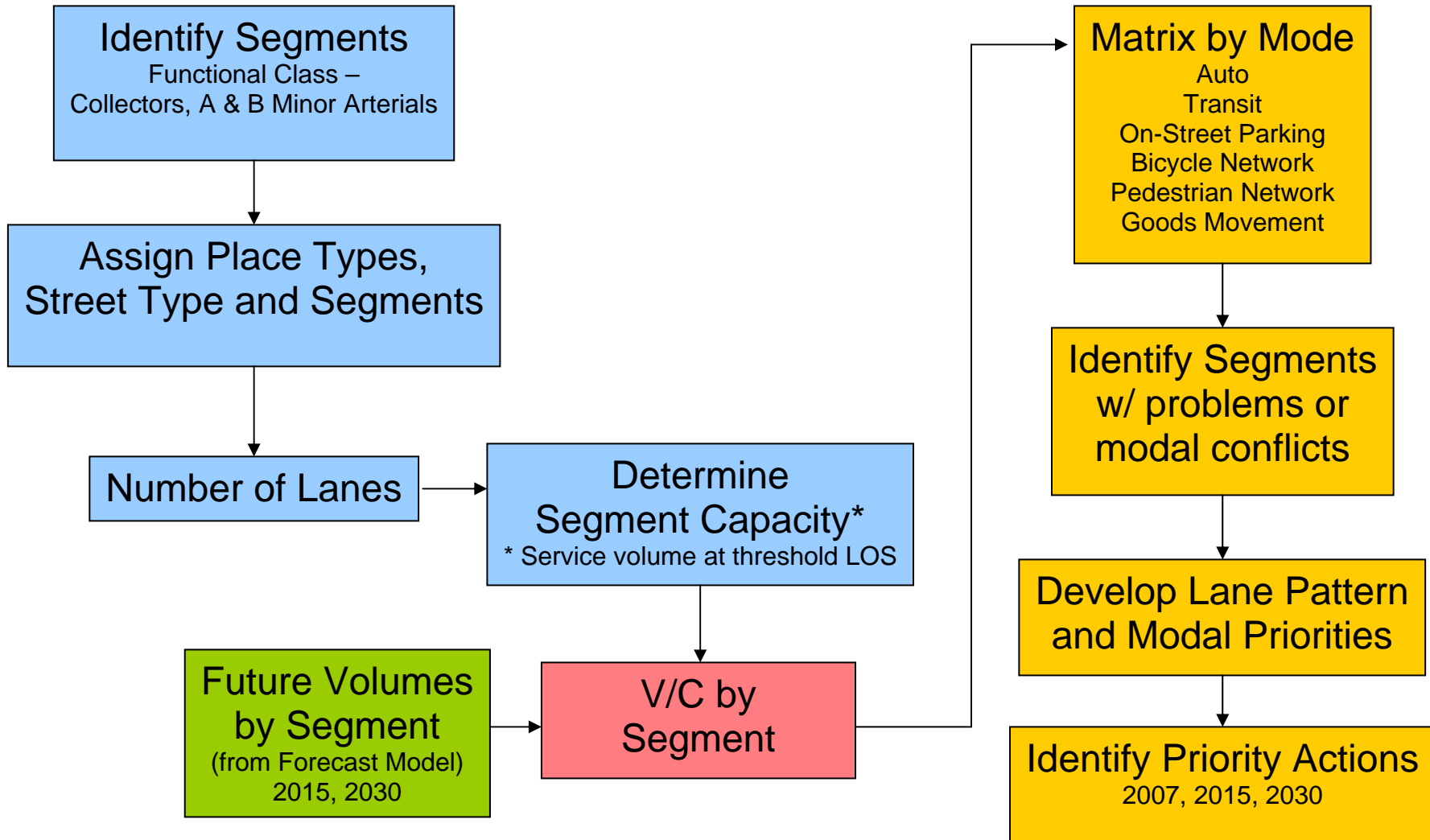
Place Types

The Place types suggested for the Framework are based on the land use patterns developed in *The Minneapolis Plan*. Six place types are suggested –*Activity Centers, Commercial Corridors, Community Corridors, Neighborhood Commercial Nodes, Neighborhoods* and *Districts*. Table 3 summarizes the characteristics of the Place types from *The Minneapolis Plan* and provides a frame of reference for each.

The first four place types encompass the major range of urban form that is outside residential neighborhoods or employment districts and through which Boulevards, Avenues and Connector Streets run. Neighborhoods and districts are included as place holders for the larger single use portions of the city that are residential or employment in nature. Activity Centers include locales like Downtown (which *The Minneapolis Plan* defines as a separate district), Uptown and the University of Minnesota campus areas. Neighborhood commercial nodes are identified in *The Minneapolis Plan* by intersection. For the Framework, the extent of neighborhood commercial nodes is taken to be one block either side of the intersection on both streets. Further evaluation of existing nodes may suggest a different pattern.

Planning Process

The system planning process as illustrated in the previous material focused on the intersection of place types and street types as the basis for identifying transportation needs. As we move from that more conceptual approach to address the steps necessary to integrate the place analysis and the modal analysis, a more sequential process emerges, as illustrated in the flow chart on the following page.



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Table 1. Street Types

v3 - 1/9/06

Proposed Street Types	Description	Equivalent Functional Class	Through Traffic Lanes	Target Operating Speed
Commuter Street	High capacity; carries through traffic, serves longer trips and provides limited access to land	Principal or A Minor Arterial	4-6	35 mph
Commercial Street Commerce Street	Medium capacity; supports retail and service commercial land uses on a corridor basis	A and B Minor Arterials	4	30 mph
Community Street	Low to medium capacity; connects neighborhoods with each other, neighborhoods with commercial corridors and other districts, districts with each other; serves as the main street of a neighborhood commercial node.	B Minor Arterials and Collectors	2	25-30 mph
Downtown Street	Medium capacity; provides access to abutting properties in downtown	A and B Minor Arterials, Collectors, and Locals	2-4	25-30 mph
Parkway	Low-capacity thoroughfare designed to provide circulation adjacent to and through parkland	Locals	2	25 mph
Neighborhood Street Industrial Street	Low capacity; serves abutting property in residential neighborhoods or single use (industrial/employment) districts	Locals	1-2 in residential areas*; 2-3 in districts**	20-25 mph
Alley	Property and parking access	Locals	1-2	5 mph

Notes

* One lane streets are two-way yield streets with parking on one or both sides and one wide travel lane

** Three lane streets are two-way streets with one travel lane in each direction and a center left turn lane

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Table 2. Street Types – Modal Characteristics

v2 - 1/4/06

Street Type	Transit	Connection to Freeway System	Pedestrian Facilities	Bicycle Facilities	Freight	Building Orientation	Driveway Access	Median	Curb Parking	Turn Lanes
Boulevard	PTN	Yes	Detached Walks	Parallel paths	Regional truck routes	Set back from street	Limited to none; access from side or rear via alleys; from front via access lanes	Yes	No	Yes
Avenue	PTN and Local routes	Yes	Sidewalks; tree grates	Bike lanes	Local truck routes	back of walk or build-to line	Limited to none; access from side or rear via alleys	Optional	Yes	Optional
Connector Street	Local routes	Provisional	Sidewalks; tree grates in commercial nodes; planting strip in residential areas	Bike lanes	Local deliveries	back of walk or build-to line in commercial nodes; set back in residential areas	Limited; allowable where access from side or rear not feasible	No	Yes	Optional
Downtown Street	PTN and Local routes	Yes	Sidewalks; tree grates	Bike lanes	Local delivery	Back of walk Plazas encouraged	Yes	No	Yes	Optional
Parkway Street	Limited	No	Wide planting strips with detached walks	Parallel paths	No	No	No	Optional	Recessed in bays	Optional
Street	Limited	No	Planting strip; detached walk	Shared	Local deliveries	Set back from street	Yes	No	Yes; optional in districts	No
Alley	No	No	Shared	Shared	Local deliveries	No	Yes	No	No	No

Notes

Detached Walks - sidewalks separated from the street by a planting strip

Parallel paths - shared bicycle/pedestrian facilities adjacent to streets, but separated by wide planting areas

Shared means that the pavement surface is shared by the modes indicated

Table 3. Place Type Characteristics

v3 - 1/4/06

Place Type	Identifying Characteristics	Form	Building Placement	Frontage Types	Typical Building Height	Type of Public Open Space
Activity Centers	<p>Generally have a diversity of uses that draw traffic from citywide and regional destinations, but do not generally support automobile uses</p> <p>Are complimented by medium and high density, residential uses, and also accommodate retail and commercial services, entertainment uses, educational campuses, or other large-scale cultural or public facilities</p> <p>Have significant pedestrian and transit orientation</p> <p>Have uses that are active all day long and into the evening</p> <p>A mix of uses occurs within structures and within the larger boundaries of activity centers</p>	<p>Have a traditional urban form (building siting and massing)</p> <p>Have a unique urban character that distinguishes them from other commercial uses as well as the traffic the area generates</p>	<p>Small or no setbacks</p> <p>Building oriented to street, placed at front property line</p>	<p>Stoops, dooryards, forecourts</p> <p>Storefronts</p> <p>Arcaded walkways</p>	4+ story	Parks, Plazas and squares
Commercial Corridors	<p>Serve a mix of uses, with commercial uses dominating</p> <p>Includes some auto-oriented and/or drive through facilities</p> <p>Light industrial uses may also be found along these streets</p> <p>Low density residential is uncommon</p> <p>A mix of uses occurs within some of the structures</p>	<p>Buildings that front onto commercial corridors generally retain a traditional urban form in their siting, massing and relationship to the street</p>	<p>Shallow to medium front and side yard setback</p> <p>Commercial with parking in front</p>	<p>Porches, fences</p> <p>Landscaped buffer areas</p> <p>Parking lots</p>	3 to 5 story	Parks, plazas, and squares
Community Corridors	<p>Connect more than two neighborhoods</p> <p>Located generally on minor arterials, with some exceptions</p> <p>Do not support auto oriented shopping centers</p> <p>Commercial uses are generally small scale retail sales and services serving the immediate neighborhood</p> <p>Linked to neighborhood-commercial nodes (see below)</p>	<p>Land use and building form exhibit traditional commercial and residential form and massing</p>	<p>Small or no setbacks</p> <p>Building oriented to street</p>	<p>Stoops, dooryards</p> <p>Storefronts</p> <p>Arcaded walkways</p>	2 to 3 story	Parks, greenbelts
Neighborhood Commercial Nodes	<p>Provide at least three retail or service uses to residents of surrounding neighborhoods.</p> <p>Oriented to pedestrian traffic, with few automobile-oriented uses</p> <p>Have between 10,000 to 100,000 square feet of retail or service floor area</p> <p>Serve a trade market area ranging from 2,000 to 12,000 people</p> <p>Generally appear at the intersections of community corridors</p> <p>Commercial uses are typically focused close to a single intersection. Nodes can also be more dispersed or cover more territory</p> <p>At nodes, a mix of uses can occur within structures and on a lot by lot basis</p>	<p>Generally have a historical commercial function and form</p>	<p>Small or no setbacks</p> <p>Buildings oriented to street</p>	<p>Stoops, dooryards, forecourts</p> <p>Storefronts, arcaded walkways</p>	2 to 3 story	Parks, greenbelts
Residential Neighborhood	Residential areas.	Varies	Varies	Varies	1+ Story	Parks
Industrial/Employment District	Industrial or employment areas	Varies	Varies	Varies	1+ Story	Parks

Notes

Definitions and names are derived from the *Minneapolis Plan*