

DRAFT: TECHNICAL MEMORANDUM
INTERMODAL TRANSIT CENTER SITE EVALUATION

CITY OF
MADISON, WI

SOUTH CAPITOL TRANSIT ORIENTED DEVELOPMENT (TOD)
DISTRICT PLANNING STUDY

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Prepared for:

CITY OF MADISON, WI

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SOUTH CAPITOL TRANSIT ORIENTED DEVELOPMENT (TOD) DISTRICT PLANNING STUDY

Executive Summary

This technical memorandum presents the findings of an intermodal transit center site evaluation in Madison, Wisconsin. This evaluation is part of the South Capitol Transit-Oriented Development (SCTOD) District Planning Study. Three candidate intermodal transit center locations were identified by the City. The benefits of each location are assessed based on the methodology and screening criteria developed in collaboration with the South Capitol Planning Committee and City Staff. The preferred intermodal transit center location should be one that improves the connectivity with other major metropolitan areas, facilitates intermodal connections for a variety of intra- and inter-city transportation modes, and is located so as to provide easy access to the major destinations. Based on the results of this site evaluation Kimley-Horn recommends that the City of Madison consider the site at West Washington Avenue and South Bedford Street as the preferred location and authorize the development of the conceptual site plan required in the SCTOD.

Alternatives Evaluated

Three potential intermodal transit center (ITC) locations evaluated are shown in **Figure 1** and enumerated below:

1. West Washington Avenue and South Bedford Street includes property owned by the University of Wisconsin, a manufacturing facility, a U-Haul facility, and a gas station with convenience store.
2. Brayton Lot is located on East Washington Avenue, north of East Main Street between South Butler Street and South Hancock Street and is owned by the City of Madison and used as a surface parking lot.
3. East Wilson Street and South Pinckney Street, currently the State's Department of Administration Building.



Methodology

Preliminary site requirements were established to provide a basis to evaluate the adequacy of the alternative sites. These requirements are:

- Building space requirements must include waiting, restrooms, dining, ticketing, and luggage handling areas
- Site requirements must accommodate six saw tooth-style bus bays to support up to 40 daily buses across six bus companies while allowing for additional development on and near the site in order to support the desired goals of the South Capitol Transit Oriented Development program.
- Interface requirements must provide effective transitions from one mode to another and have adequate pickup and drop-off areas, including covered areas to protect passengers and luggage from inclement weather.
- Secondary access requirements must support pedestrian and bicycle access, including the potential for bicycle storage or parking

City staff and the South Capitol District Planning Committee worked with the consultant team to develop site selection criteria. Key site selection criteria include the general location of the site, the ease of accessibility, size and configuration of the site relative to the goals of the South Capitol District, relative site development costs, context and urban design considerations, and potential impact to the economic development of the surrounding neighborhoods. The site selection criteria and relevant evaluation factors are further defined in **Table 1**.

The consultant team developed a methodology to evaluate the performance of each potential ITC location with respect to the identified site selection criteria and evaluation factors. The ability of each ITC location to satisfy the evaluation factors was assigned a ranking of good, fair, or poor based on a performance metric specific to each evaluation factor. The overall ability of each ITC location to satisfy the site selection criteria is based on the ranking of the related evaluation factors. A list of the site selection criteria, related evaluation factors, and performance metrics is provided in **Table 2**.

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Table 1: Site Selection Criteria

Site Selection Criteria	Evaluation Factors
<i>Location of site</i>	<ul style="list-style-type: none"> ○ Potential for the site to be used by intercity bus operators ○ Location of the site on or near established Metro bus routes to meet the needs of low income and transit dependent populations ○ Potential for the site to support and enhance future BRT routes ○ Proximity to existing railroad corridor ○ Proximity to existing bike paths ○ Proximity to users at the University ○ Proximity to Downtown core and convention sites
<i>Accessibility</i>	<ul style="list-style-type: none"> ○ Accessibility to regional roadway system ○ Accessibility for pedestrians, bicycles, buses, autos, taxis, ○ Impact of the future site operations on current circulation for buses, autos, pedestrians, and bicycles ○ Impact of special events on site accessibility
<i>Size and configuration of site elements relative to the established program goals</i>	<ul style="list-style-type: none"> ○ Terminal building ○ Bus operations ○ Parking(short-term/drop-off/taxi) ○ Bike facilities ○ Additional amenities ○ Potential to grow
<i>Context, urban design considerations</i>	<ul style="list-style-type: none"> ○ Compatibility with adjacent land uses ○ Potential for the intermodal center to add to the urban design of the neighborhood ○ Potential for site design or operations to adversely impact neighborhoods ○ Ability of the site to incorporate other complementary uses ○ Other potential development sites nearby ○ Public space ○ Visibility
<i>Cost (ease of land acquisition)</i>	<ul style="list-style-type: none"> ○ Potential for development partnership ○ Timing ○ Willing Seller

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Table 2: Evaluation Factors and Performance Metrics

Site Selection Criteria	Evaluation Factors	Performance Metric
<i>Location of site</i>	Potential for the site to be used by intercity bus operators	<i>TBD</i>
	Location of the site on or near established Metro bus routes	<i># of routes within 1/4 mile radius</i>
	Potential for the site to support and enhance future BRT routes	<i>adjacent to or in proximity of proposed BRT routes</i>
	Proximity to users at the University, in the Downtown core, and at the Convention Center	<i># of Madison points of interest within 1/4 mile</i>
<i>Accessibility</i>	Accessibility to arterial/regional roadway system	<i>proximity to arterials</i>
	Accessibility for buses, autos, taxis, pedestrians, and bicycles	<i>entrance connections to multimodal facilities</i>
	Impact of the future site operations on current circulation for buses, autos, pedestrians, and bicycles	<i>removal of existing facilities, impact on traffic</i>
<i>Size and configuration of site elements relative to the established program goals</i>	Building	<i>space for 3,000 SF building</i>
	Bus Operations	<i>space for 6 sawtooth bus bays</i>
	Parking	<i>space for drop-off parking</i>
	Bike Facilities	<i>space for bike racks/lockers</i>
	Additional Amenities	<i>space for alternate land uses</i>
	Potential to grow	<i>space to expand within outlined parcel(s)</i>
<i>Context, urban design considerations</i>	Compatibility with adjacent land uses	<i>neighborhood</i>
	Potential for the intermodal center to add to the urban design of the neighborhood	<i>improved urban design</i>
	Potential for design or operations to adversely impact neighborhood	<i>traffic or scale</i>
	Visibility	<i>wayfinding and presence in community</i>
<i>Cost of development</i>	Potential for partnership	<i>Current owners of other developers</i>
	Ease of land acquisition	<i>in public ownership, willing seller, or potential for partnership</i>

Site Evaluation

The evaluation of the site selection criteria is presented below and includes:

- Location of the site
- Accessibility
- Size and configuration
- Context and urban design considerations
- Cost of development
- Potential for economic development

Location of the Site

The primary consideration is that the preferred ITC location should have the potential to be used by intercity bus operators. The facility is meant to be intermodal, but initially the primary user is envisioned to be inter-city buses that now primarily park haphazardly on the streets throughout the campus and at other pick-up and drop off locations in Madison. Other modes including Metro bus and potentially BRT and rail may use the site, either at the time of its opening or in the future, but if the inter-city bus operators choose not to use it or if there are not motivators for them to use it, then it will not meet its primary needs. This evaluation criterion then is of most importance.

Secondarily, the site should be located such that it will be fully functional with established Metro bus routes, should support and enhance any planned BRT routes, and should be accessible to users traveling to or from the University, the Downtown Core, and the Convention Center. The sites were evaluated based on the number of riders on the buses that pass by the site on a given week. Ridership during the University of Wisconsin class session was also considered. In addition, the proximity of the potential BRT to the nearest potential ITC location was categorized as adjacent (most favorable), within ¼ mile, or beyond ¼ mile (least favorable). The local transit access is summarized in **Tables 3**.

Table 3: Proximity to Metro Bus Routes			
Weekly Metro bus riders	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
<i>Trips when UW not in session</i>	529	1,049	1,166
<i>Additional UW trips</i>	<u>111</u>	<u>40</u>	<u>15</u>
<i>Total when UW in session</i>	640	1,089	1,181
Potential BRT	1/4 mile	adjacent	1/4 mile

Locations 2 and 3 have the greatest number of Metro bus riders passing by the site, but all three sites have good local transit access. Location 2 is on the proposed BRT line while Locations 1 and 3 are within a quarter mile of the potential BRT.

Similarly, the proximity of the potential ITC locations to various destinations in Madison, including the University of Wisconsin, the Downtown Core, and the Convention Center sites (Monona Terrace, and the Alliant Energy Center) was categorized as adjacent (most favorable), within ¼ mile, beyond ¼ mile, or beyond 2 miles (least favorable) and is summarized in **Table 4**.

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Table 4: Proximity to Destinations in Madison			
Destinations	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
University of Wisconsin	Adjacent	¼ mile - 2 miles	¼ mile - 2 miles
Downtown Core	¼ mile - 2 miles	< ¼ mile	< ¼ mile
Convention Center Sites			
<i>Monona Terrace</i>	¼ mile - 2 miles	¼ mile - 2 miles	< ¼ mile
<i>Alliant Energy Center</i>	>2 miles	>2 miles	>2 miles

Location 1 is adjacent to the University of Wisconsin making it attractive for the student population as well as residents and visitors attending special events at the Kohl Center. Locations 2 and 3 are proximate to the Downtown Core and Location 3 is also adjacent to Monona Terrace Convention Center.

A summary of the evaluation criteria related to location of the site is shown in **Table 5**.

Table 5: Location of the Site				
Criteria	Performance Metric	Intermodal Transit Center Potential Locations		
		1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
<i>Potential for the site to be used by intercity bus operators</i>	<i>Conversations with operators</i>	●	○	○
<i>Location of the site on or near established Metro bus routes</i>	<i># of routes within 1/4 mile radius</i>	●	●	●
<i>Potential for the site to support and enhance future BRT routes</i>	<i>adjacent to or in proximity of proposed BRT routes</i>	●	●	●
<i>Proximity of users at the University, in the Downtown core and at the Convention center</i>	<i># of Madison points of interest within 1/4 mile</i>	●	●	●
Scores		2	1	1

● = Good (1), ● = FAIR (0), ○ = POOR (-1)

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Accessibility

The preferred ITC location should have high accessibility to the regional roadway system, should be accessible to pedestrians, bicyclists, taxis, automobiles and should accommodate future site operations and circulation requirements. The proximity of the potential ITC locations and the bike routes and regional roadways was categorized as adjacent (most favorable) or within ¼ mile (least favorable), and is summarized in **Tables 6** and **7**. The accessibility for other modes is summarized in **Table 7**.

Table 6: Proximity to Regional Roadways			
Type of Roadway	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
<i>Principal Arterial</i>	1/4 mile	Adjacent	1/4 mile
<i>Minor Arterial</i>	Adjacent	1/4 mile	1/4 mile

Table 7: Accessibility for Other Modes			
Secondary Use	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
<i>Pedestrian</i>	Sidewalks along North Bedford, West Mifflin, and West Washington Streets	Sidewalks along perimeter; crosswalks at every corner	Sidewalks along crosswalk at corner of East Wilson and South Pinckney
<i>Bicyclists</i>	On-street bike route on North Bedford; 500 ft from SW Commuter Path	No facilities along access points	No facilities along access points
<i>Taxi</i>	Parking lanes along W Washington Avenue, North Bedford Street and south side of West Mifflin St	Parking Lanes around perimeter of site	Parking lane on both sides of East Wilson No Parking on South Pinckney
<i>Automobile</i>	Entrances on West Washington, West Mifflin, and North Bedford	Current entrances on South Butler Street and East Main Street	Automobile access on Wilson Boulevard but will interfere with on-street bus bays

Location 1 is adjacent to West Washington Avenue, a minor arterial, and is less than ¼ mile to Route 151. Location 2 is adjacent to East Washington Avenue, and therefore provides direct access from a major arterial.

Location 1 provides the best accessibility to bicycle facilities with on-street bike routes along N Bedford Street, adjacent to the site. It is also proximate to the Southwest Commuter Path.

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Location 3 is adjacent to Wilson Street which currently is a one-way street. There is no direct access to an arterial roadway. The existing rail line also creates a barrier for access to John Nolen Drive (Route 151). It will require on-street bus bays, eliminating existing parking facilities. Buses, taxis, and drop-off queuing along Wilson Street may cause congestion and conflicts between all modes of transportation. Additionally, because Pinckney Street serves as an egress for the Monona Terrace Convention Center, queuing from buses/taxis/drop-off and pick-up vehicles may interfere with exiting vehicles during special events. These constraints would remain under the proposed two-way Wilson Street scenario, which would add additional turning movements in a constrained area.

A summary of the evaluation criteria related to site accessibility is shown in **Table 8**.

Table 8: Site Accessibility				
Site Selection Criteria	Performance Metric	Intermodal Transit Center Potential Locations		
		West Washington & North Bedford	Brayton Lot	East Wilson & South Pinckney
Accessibility to regional roadways	proximity to arterials	●	●	○
Site accessibility for buses	Access from adjacent streets	◐	●	○
Site accessibility for pedestrians, bicycles, taxis and autos	entrance connections to multimodal facilities	●	◐	◐
Impact of the future site operations on current circulation for buses, autos, pedestrians and bicycles	removal of existing facilities, impact on traffic	●	●	○
Scores		3	3	-3

● = Good (1), ◐ = FAIR (0), ○ = POOR (-1)

Size and Configuration

The preferred ITC location should optimize space to deliver efficient operations between the terminal buildings, bus facilities, parking areas, and bike facilities, and while also supporting additional amenities with the potential for future growth. A summary of the size and configuration characteristics of the potential sites is provided in **Table 9**.

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Table 9: Size and Configuration			
Criteria	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
<i>Size of Current Lot</i>	Includes several parcels	~ 87,450 SF	~ 21,250 SF footprint
<i>Terminal Building</i>	Could reuse an existing building, adequate room for new structure	Adequate room for building	Would utilize existing floors of the building
<i>Bus Operations</i>	Adequate space for six off-street bus bays on one or more of the parcels	Adequate space for six off-street bus bays	On-street bus bays, utilize 12' parking lanes
<i>Drop-Off Parking</i>	Adequate space for off-street drop-off and pick-up parking	Adequate space for off-street drop-off and pick-up parking	On-street queuing along Wilson will be difficult with bus bays
<i>Taxi Stands</i>	Adequate space for off-street taxi queuing	Adequate space for off-street taxi queuing	On-street queuing along Wilson will be difficult with bus bays staged on-street

As Figure 2 shows, the West Washington and Bedford site is made up of several publicly and privately held parcels. Generally, the parcels can be defined as follows:

- A. The corner parcel is the U-Haul parcel and is the site of their truck and trailer rental facility. It is privately owned and considered a financially successful business.
- B. The parcel at the corner of Bedford and Mifflin is privately owned container manufacturing facility. It is the subject of redevelopment plans that could include an intermodal facility.
- C. The parcel behind the school board building and east of the Kohl Center is publicly owned, one portion by the University of Wisconsin and the other by the school board. The University is considering redevelopment of their portion for additional art related buildings and structured parking.
- D. The remaining parcel on West Washington is adjacent to the railroad and includes a gas station, convenience store and historic railroad station building.



Figure 2: West Washington Parcels

A summary of the evaluation criteria related to size and configuration of the potential sites is provided in **Table 9**.

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Table 10: Size and Configuration				
Criteria	Performance Metric	Intermodal Transit Center Potential Locations		
		West Washington & North Bedford	Brayton Lot	East Wilson & South Pinckney
<i>Building</i>	<i>space for 3,000 SF building</i>	●	●	●
<i>Bus operations</i>	<i>space for 6 sawtooth bus bays</i>	●	●	◐
<i>Parking</i>	<i>space for drop-off parking</i>	●	●	○
<i>Bike facilities</i>	<i>space for bike racks/lockers</i>	●	●	◐
<i>Additional amenities</i>	<i>space for alternate land uses</i>	●	●	◐
<i>Potential to grow</i>	<i>space to expand within outlined parcel(s)</i>	●	◐	○
Scores:		6	5	0

● = Good (1), ◐ = FAIR (0), ○ = POOR (-1)

If the city is able to acquire both parcels for Location 1, there is adequate space for the station, bus bays, drop-off parking, taxi queuing, and bicycle facilities.

As the size and configuration of the ITC site is considered on the Washington and Bedford site the evaluation is being done without specifically identifying which parcels will be impacted.

Location 2 has a large parcel with space for all secondary amenities. Location 3 limits automobile access and may create congestion with on-street queuing and bicycle facilities would have to be retrofitted into the existing building to prevent interference with existing pedestrian walkways.

Context and Urban Design Considerations

This evaluation criterion evaluates how the proposed ITC locations relate to the surrounding neighborhood. The specific criteria relate to compatibility with adjacent land uses and the potential for the intermodal center to add to the urban design of the neighborhood or to adversely impact it. Also considered is the site's visibility as a recognizable attraction in the community for wayfinding but also for promoting intermodal travel.

A summary of the evaluation criteria related to context and urban design is found in **Table 11**.

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Table 11: Context and Urban Design Considerations			
Criteria	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
<i>Compatibility with adjacent land uses</i>	●	●	●
<i>Potential for the intermodal center to add to the urban design of the neighborhood</i>	●	●	●
<i>Potential for adverse neighborhood impacts</i>	●	●	○
<i>Visibility</i>	●	●	●
Scores	2	3	1

● = Good (1), ● = FAIR (0), ○ = POOR (-1)

Cost of Development

It is assumed in this evaluation that the costs of actually constructing the sites are comparable. The West Washington Avenue and Brayton Lot sites are generally ready for construction of a facility. The East Wilson Street site would require significant remodeling of the Department of Administration building rendering the magnitude of construction costs comparable to the other two sites. The other elements of cost are related to the potential to partner with property owners or others to minimize the city's investment and the ease of acquiring the property rights to construct the facility.

Table 12: Cost of Development			
Criteria	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
<i>Potential for partnership</i>	University and private property owner have expressed interest in developing their parcels	Owned by Madison	Government building, easier to coordinate than privately owned property
<i>Ease of acquisition</i>	Potentially willing sellers on some of the parcels	Owned by Madison	Potentially willing to convert lower levels to transit center facilities

The evaluation of relative development costs is found in **Table 13**.

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Table 13: Cost of Development			
Criteria	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
<i>Potential for partnership</i>	●	◐	◐
<i>Ease of acquisition</i>	◐	●	◐
Scores	1	1	0

● = Good (1), ◐ = FAIR (0), ○ = POOR (-1)

Potential for Economic Development

Creation of an intermodal transit center, especially if it is accompanied by other multi-use development has the potential to be an incentive to economic development. Ranking was accomplished considering the size and configuration of the site and the development potential of the surrounding parcels.

The summary of the evaluation criteria related to potential for economic development is shown in **Table 14**.

Table 14: Potential for economic development			
Criteria	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
<i>Economic development opportunities</i>	●	◐	○
Scores	1	0	-1

● = Good (1), ◐ = FAIR (0), ○ = POOR (-1)

Evaluation Summary

A summary of the results of the evaluation of site selection criteria is provided in **Table 15**. The evaluation summary qualitatively ranks each site as good, fair, or poor with respect to the evaluation factors and relevant performance metrics. A numerical score of 1, 0, or -1 is assigned to these rankings. At the end of the table a site selection score is tallied representing the ability of each individual site to meet the site selection criteria.

Table 15: Total Summary

Site Selection Criteria	Intermodal Transit Center Potential Locations		
	1 West Washington & North Bedford	2 Brayton Lot	3 East Wilson & South Pinckney
Location of the Site	2	1	1
Accessibility	3	3	-3
Size and configuration	6	5	0
Context and urban design considerations	2	3	1
Cost of ease and acquisition	1	1	0
Potential for Economic Development	1	0	-1
Total Scores	15	13	-2

Conclusion

The potential intermodal transit center locations were evaluated against a number of criteria including connectivity with other major metropolitan areas, facilitates intermodal connections for a variety of intra- and inter-city transportation modes, and is located so as to provide easy access to the major destinations. The results of this site evaluation as summarized in **Table 15**.

The West Washington Avenue site and the Brayton Lot are very comparable sites. They scored relatively evenly across each of the criteria. However, the primary consideration is that the preferred ITC location should have the potential to be used by intercity bus operators. The facility is meant to be intermodal, but the primary user is envisioned to be inter-city buses. If the inter-city bus operators choose not to use it then it will not meet its primary needs. The West Washington Avenue site has a greater potential for the operators to use it because of its proximity to the University of Wisconsin campus.

Therefore, Kimley-Horn recommends that the city consider the site at West Washington Avenue and South Bedford Street as the preferred location and authorize the development of the conceptual site plan required in the SCTOD.