CHAMPAIGN-URBANA MASS TRANSIT DISTRICT

ILLINOIS TERMINAL EXPANSION STUDY

ARCHITECT / PLANNER:

RATIO

BUSINESS DISTRICT SERVICE CONSULTANT:

business districts, inc.

TRANSPORTATION CONSULTANT:

VHB Vanasse Hangen Brustlin, Inc.

APRIL 30, 2015

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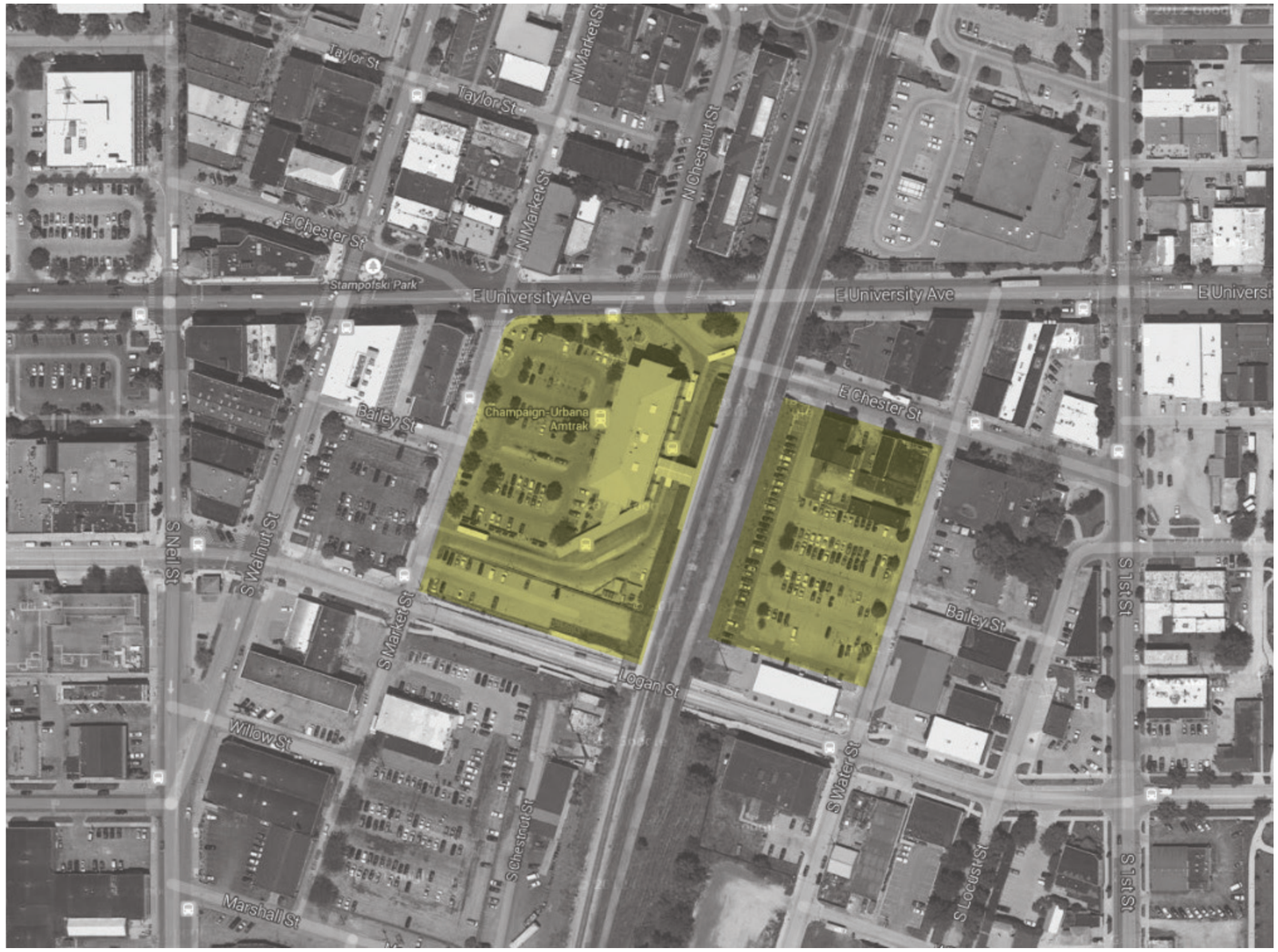


OVERALL GOALS + OBJECTIVES

- Determine viable options for expanding the existing multi-modal transportation facility.
- Optimize Illinois Terminal mobility services to the year 2035.
- Determine maximum development value, associated CUMTD properties, and surrounding properties including business development strategies to achieve said value.
- Produce financial projections for both the mobility programming and property development studies, including financial options.
- Produce a phased development strategy.

MARKET ANALYSIS

by Business Districts, Inc.

GOALS

- Consider viable options for expansion of Illinois Terminal Building.
- Examine market-related issues associated with expansion.
- Identify potential tenants who will provide supplemental income.

ANALYSIS AND PROCESS

- Demographics
- Income and Revenue Data
- Potential Tenants
  - Assessment factors
    - Visibility and access
    - Adjacencies
    - Natural growth in Downtown Champaign
    - Tenant history
    - Competitive environment
    - Site-specific challenges
  - Recommendations
    - \+ Expand existing tenancies
    - \+ Additional partnerships with ground-rail transportation
    - \+ Municipal and Not-For-Profits
    - – Traditional retails, food and beverage, office

Introduction

The Champaign-Urbana Mass Transit District (CUMTD) retained RATIO Architects and their contractor, Business Districts, Inc. (BDI) to consider viable options for the expansion of Illinois Terminal in downtown Champaign, Illinois. This summary report, prepared by BDI, examines the market-related issues associated with Terminal expansion and identifies potential tenants that represent the best opportunities for supplemental income to support the operations at the Terminal building.

Market Data

The demographics for Illinois Terminal appear below in Table 1, and Illinois Terminal's address is the center point for the market geographies displayed. The markets shown include both radii and drive times. The .5 mile and 1 mile radii generally represent more pedestrian accessible markets to Illinois Terminal, with the larger radii (3 mile and 5 mile) among those markets most important to commercial real estate brokers and developers. The shorter drive times serve as convenience markets, meaning area consumers will travel for 5 or 10 minutes to make a convenience, or routine, purchase. The 15-minute and 30-minute markets function as destination markets, or places where consumers would travel for to either make a purchase, or to do something specific, or of interest.

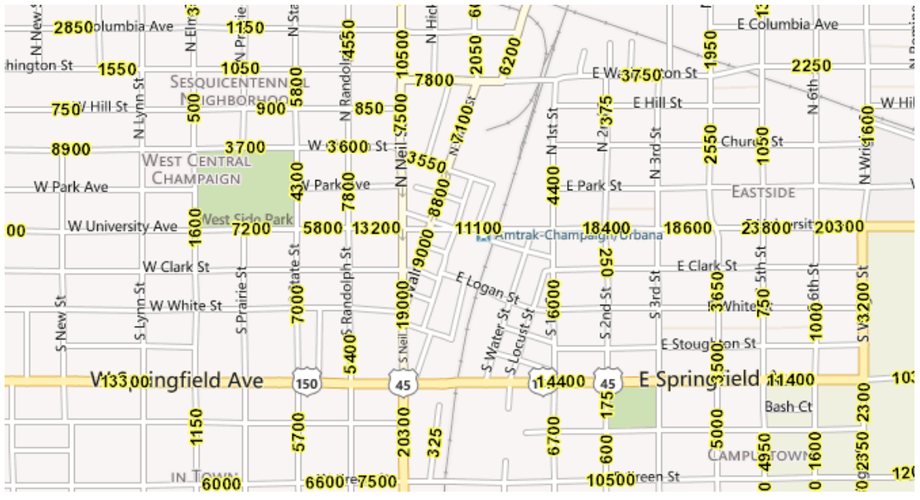
Table 1: Demographics for the Illinois Terminal

Preliminary Comparison Demographics Center Point: 45 E. University, Champaign, IL	Radii				Drive Times			
	.5 Mile	1 Mile	3 Mile	5 Mile	5 Minutes	10 Minutes	15 Minutes	30 Minutes
Total Population	5,768	31,215	105,159	143,172	45,116	112,900	149,139	207,083
Total Households	3,232	11,373	42,724	58,327	17,136	46,016	60,760	83,325
Median Age	24	22	24	26	22	25	27	29
Population Density (per Sq. Mi.)	7,681.77	7,237.72	3,310.34	1,399.53	5,889.27	2,395.19	1,047.89	242.33
% Owner Occupied Housing Units	10.40%	17.10%	37.10%	45.60%	24.80%	39.70%	46.80%	54.20%
Employees	6,587	15,640	64,584	75,591	30,473	69,843	77,512	91,162
Average Household Income	$30,942	$35,326	$54,273	$65,591	$41,274	$57,072	$66,395	$68,823
Median Household Income	$20,267	$21,076	$36,606	$45,586	$24,244	$39,137	$46,703	$52,532
Total Household Expenditures	$94,398,971	$348,107,111	$1,648,504,726	$2,467,311,468	$569,685,906	$1,827,843,364	$2,594,372,456	$3,731,530,343
Grocery	$9,604,841	$34,200,215	$156,224,688	$228,595,478	$55,208,897	$171,875,659	$240,034,717	$343,858,773
Drinking and Eating Places	$5,150,722	$19,031,828	$88,138,843	$131,649,638	$30,838,083	$97,833,145	$138,373,973	$197,589,239
Apparel	$3,973,550	$14,323,042	$61,017,562	$88,157,178	$22,904,149	$66,899,901	$92,178,388	$128,244,674
Race and Ethnicity								
Asian	15.00%	12.40%	12.90%	12.10%	13.50%	12.80%	11.70%	8.70%
Black	13.00%	13.00%	16.00%	15.00%	15.00%	15.70%	14.50%	12.10%
White	66.00%	68.50%	64.40%	66.70%	64.60%	65.00%	67.70%	73.80%
Other	5.70%	5.60%	6.30%	5.70%	6.40%	6.20%	5.70%	5.00%
Hispanic Ethnicity	6.90%	6.80%	6.70%	6.10%	7.50%	6.50%	5.90%	5.20%
Not of Hispanic Ethnicity	93.00%	93.10%	93.20%	93.80%	92.40%	93.40%	94.00%	94.70%

Overall, Illinois Terminal's markets mirror those of downtown Champaign. Average and median incomes are particularly low in the more proximate markets to the Terminal, reflecting the nearby University of Illinois student population. These incomes improve significantly as the markets broaden. Employee numbers in most markets are uniformly strong, reflecting the university's operations in Champaign and Urbana and the presence of other major regional employers. Consumer expenditures on key categories of goods present opportunities for area businesses to capture sales within those categories. Overall, these markets represent the basis for downtown Champaign's many revitalization successes over the last decade.

According to the CUMTD, their average daily boardings and alightings at Illinois Terminal are 1,814 and 1,655, respectively. Ridership has consistently grown about 5% annually. The CUMTD indicates that likely ridership growth, assuming expanded Terminal facilities, would be about 8% annually. Additional operators at Terminal facilities include Peoria Charter Coach, Burlington Trailways, Greyhound, and Amtrak. Average Daily Traffic counts (ADTs) are shown in Figure 1 below (Source: Illinois Department of Transportation):

Figure 1: Traffic Counts



The ADTs on University Avenue increase both to the east and the west of Illinois Terminal. As shown, the counts near Illinois Terminal are 11,100. As with the demographics, traffic in and near Illinois Terminal, whether transit or vehicular, are satisfactory for a downtown district.

Current Illinois Terminal Rental Income

As part of this summary process, BDI examined the current leases, footprints, and Terminal operating income data. The current revenues for operating Illinois Terminal's facility are shown below in Table 2. This actual and estimated data for the recent and current operating cycle was provided by the CUMTD. (An additional analysis is provided in Appendix 1, see page 14. This analysis excludes lease payments from Fasteners, Inc., the CUMTD tenant not physically located in Illinois Terminal.)

Table 2: Illinois Terminal Revenue Sources

Revenues	2012-2013 Actual	2013-2014 Estimates
Tenant Lease Payments	$424,922.37	$429,495.43
Other Rentals/Commission Income	$43,182.87	$45,835.36
State Operating Assistance	$661,958.95	$705,718.67
Total Revenues	$1,129,434.22	$1,181,049.46

Sources: CUMTD, BDI

As discussed with CUMTD staff, revenues and the Terminal's operating expenses are currently at breakeven. Staff's goal is to maintain this situation in an expanded Terminal. State operating assistance represents about 60% of overall revenues. Assuming this percentage level of assistance is sustained in the future, the remaining income sources can be structured to maintain the current 40% of revenues. With the addition of more services, such as ATMs or other rental options, in any expansion, this revenue stream can be maintained and potentially increased at similar dollar and percentage levels.

The estimated impact of state assistance on rents of the Ready School and the catering tenants (City View) is shown in Table 3.

Table 3: Estimated Base Rents

Tenant	SF	Rent PSF	Estimated Rent PSF
Ready School	16,625	$8.98	$22.44
City View Caterers	13,500	$6.47	$16.17

Sources: CUMTD, BDI

The base rents per square foot (PSF) for these tenants were calculated using the actual rent amount paid for 2012-2013 divided by their gross square occupied. The estimated rent figures represent the base rent amount needed to achieve the operating breakeven point without any state assistance. The likelihood of sustained state operating assistance at 60% will remain a key factor in projecting future breakeven operations. In addition, the catering operations currently pay about 27% less PSF than the Ready School. Balancing the value of the City View space as a community resource versus that space's ability to generate additional rents, assuming any Ready School expansion, will depend upon CUMTD's emerging view of its expansion options.

Potential Tenants: Assessment Factors

Several important factors were assessed in considering each potential use, including retailers and restaurants, in any expanded Terminal building. While Illinois Terminal's location has adequate market strength, successful commercial lessees, whether for an office, retail, or restaurant use, select lease space that suits their current and future operating needs. Residential renters and office users require security, nearby amenities, and access to parking for both resident and employee needs. Ultimately, the following six (6) factors were the basis for identifying the potential Illinois Terminal tenants described in this summary.

1. Lack of visibility and access. Retailers and restaurateurs require locations with high visibility and ready access for their customers. Traffic counts (ADTs) on University Avenue near the Terminal are 11,100, as shown in Figure 1. These counts increase traveling both east and west of the Terminal. While these counts are adequate in a downtown environment, multiple retail or restaurant businesses located within the Terminal building cannot be seen from the street and access to Terminal parking, assuming availability, remains difficult to access.

2. Lack of adjacencies. In addition to easy access and visibility, the presence of adjacent successful ground floor businesses enables neighboring businesses, whether service, retail, or restaurant, to share customers, enhance their visibility, and capture additional sales. Combined, Illinois Terminal's role as a transit center and few businesses located to the north, east, or west of Illinois Terminal isolate any businesses operating in a Terminal location.
3. Natural growth of downtown Champaign. Related to the lack of adjacencies, downtown's business growth and new residential development is occurring to the north and west of the Terminal. With the focus of downtown activity elsewhere, the location options for retail and restaurant tenants are increasingly distant from the Terminal building. In addition, potential office tenants will seek out locations in these same more distant blocks because of the amenities—retailers, restaurants, and nearby parking.
4. Past tenant history. According to CUMTD staff, the Subway location within Illinois Terminal has struggled to increase sales during the last decade. Given current rents and restaurant industry norms of rent at 6-8% of revenues, Illinois Terminal's Subway location has estimated revenues of $370,000. Generally, average revenues for similar types of restaurants exceed $450,000. The CUMTD also indicated that past retail tenants were unable to generate revenues in their ground floor locations.
5. Competitive environment. During the March project interviews, representatives of the area real estate community expressed concerns about the potential availability of below market lease space in an expanded Illinois Terminal. Given that recently constructed, market-rate lease space is vacant in other areas of downtown Champaign, competing with the public sector for ground floor and office tenants seemed inequitable.
6. Site-specific challenges for specific uses. Residential development, including local workforce housing, presents multiple routine operating challenges for CUMTD. Parking and security were noted. The cost of ongoing residential rental property management will represent a new and additional set of expenses for CUMTD's Terminal operations.

The market data, the above factors, and CUMTD's need to generate supplemental rental income to support Terminal operations indicate that certain potential tenants represent the best opportunities for Illinois Terminal expansion.

Potential Tenants

As detailed in the Market Data section of the report, potential tenant opportunities in traditional retail, food and beverage and traditional office were explored, and it was determined that none of these market sectors would have tenant opportunities for Illinois Terminal.
However, stakeholder interviews indicated potential tenant opportunities generating increased rental revenue to CUMTD in four categories:

1. An expanded Terminal would most likely generate opportunities for expanded existing tenancies or additional tenancies with both ground and rail transportation providers. While review of this sector was not part of BDI's deliverable, CUMTD will be able to provide RATIO with space requirements and lease revenue expectations.
2. Two existing tenants represent an opportunity for enhanced revenue for CUMTD:
    a. The Ready School would like to expand their existing footprint in the building and in the process negotiate a new and larger lease with CUMTD.
    b. Dish Catering is interested in negotiating a new lease with CUMTD. While Dish Catering's interest is not oriented to additional space, their interest is oriented to seeking more exclusivity in the existing space relative to the other catering tenants. They indicated they are willing to pay more for the exclusivity.
3. Potential municipal and not-for-profit tenants interested in a centralized/consolidated location with access to public transportation and a rent structure matching their budget. Such tenants would provide the revenue, which CUMTD requires, and in some cases, provide a symbiotic tenancy with the Ready School. Suggested tenants (by the City of Champaign) were:
    a. Champaign County Regional Planning Commission
    b. Housing Authority of Champaign County
    c. City of Champaign Township Offices
    d. A potential incubator for a Women and Minority Owned Business Development Program currently being developed
    e. Community Elements---a social service agency

4. “The Bike Project” is a bike rental/storage/repair shop with at least one location near the University of Illinois campus. This recommendation would represent another transportation mode in Illinois Terminal proximate to the growing downtown.

The important issues associated with the tenant opportunities 2 through 4 are as follows:

The Ready School

The specific expansion requests are as follows:

1. Four (4) more classrooms accommodating forty (40) additional students.
2. Room for four (4) additional staff.
3. An expanded kitchen to accommodate an additional microwave and possibly an additional refrigerator.
4. An additional bathroom.
5. A multipurpose room with soundproofing and high ceilings.
6. Additional lockers along the additional walls.
7. Four (4) to five (5) reserved parking spaces for guests.

The Ready School represents a strong stream of future potential revenue as it is supported by school district tax dollars. The school districts are requesting an expanded footprint from the Ready School. The Ready School would like to move into a portion of the Dish Catering space, if the build out could be accommodated. However, they recognize that this is to be determined by CUMTD.

Dish Catering/City View

Dish Catering is looking for more exclusivity (i.e. kitchen space and dining space) primarily on the weekend. They are also looking for more parking availability primarily during the workweek. They maintain that the additional parking can be in the east or west lot, but weekday luncheon patrons would not be willing to walk from the City lots to the north or the parking deck to the northwest. They indicated they are willing to negotiate additional rent for the enhanced usage of the building and the parking. They are aware that CUMTD may prefer the flexibility of having a larger number of caterers rather than a smaller number.

Potential Not-for-Profit Tenants Suggested by the City of Champaign

It would take some time to discuss tenanting opportunities with the not-for-profits suggested by the City, given that Executive Directors, Boards, Commissions, and possibly the City Council would be involved in any discussions and potential lease negotiations. Specific space needs would need to be determined, each entity’s build out requirements assessed, and their ability to pay certain rents understood. To facilitate these discussions, it is probably important that CUMTD determine rent requirements in advance in order to meet its revenue objectives, with and without any build out assistance.

“The Bike Project”

This potential use was suggested by the City, based upon its current presence in Champaign and the growth of biking commuting in the downtown. While probably not a high revenue source, it could be accommodated on the exterior of the building (at a relatively low cost) away from transit operations and parking. This could represent a unique addition to Illinois Terminal as a transportation facility and in support of CUMTD’s mobility objectives.

Key Discussion Points for the Future

1. Evaluating each of the four (4) potential tenant categories for preference by CUMTD.
2. In particular, evaluate the relationship of strength of rental income vs. long-term strength of the tenant vs. the original vision of the building and tenants. This will be particularly important relative to the Ready School vs. Dish Catering. In terms of strength of revenue and long term strength of tenant it would appear that allowing Ready School to take some of the Dish Catering space (assuming it works from an architectural point of view) would make sense given the revenue goal of CUMTD. However, could Dish Catering sustain this reduction in space? Could additional space be added on a top floor? How would this work relative to the kitchen? Does expanded space for Dish Catering make long-term revenue and "tenant strength" sense? How would any of these changes impact the original vision for the building relating to the dramatic dining area on the top floor with the excellent vistas of the downtown?
3. What is the best process to assess the not-for-profit possibilities? Options could include a high-ranking City personnel working with a high-ranking CUMTD official relative to the agencies, or a broker working with CUMTD. In any event, this will require a specialized approach to produce the final opportunities that CUMTD desires on a timely basis.
4. CUMTD will need a predetermined asking lease rate range and a build out policy to solicit the final tenant mix. The Rental Rate section above suggests certain factors for consideration in establishing asking rents, based on BDI's analysis of the existing footprint and the existing leases. CUMTD has indicated that Terminal rents produce the cash flow that CUMTD requires to operate the building. However, this number should be re-examined for accuracy.
5. The City has indicated that they believe the timing is right for a potential workforce housing market rate rental project on the east lot owned by CUMTD. Three (3) points are important specific to this possibility: First, the TIF applicable to the east lot ends in 2022 (and it would most likely need to be extended); second, the completed Boneyard amenity near the east lot makes this site particularly attractive for a residential development; and third, the City is prepared to be flexible on the parking requirements for any proposed residential development. CUMTD will want to consider their timeline in evaluating this opportunity, representing an ambitious endeavor. Clearly, a partnership with the City and the subsequent recruitment of a developer would be necessary.
6. A Parking Plan is required:

    - The parking ramp to the south of the Terminal owned by CUMTD will be a prime area for transportation expansion, and parking will be lost.
    - The City is willing to lose some parking in the west lot to accommodate Terminal expansion.
    - The City will want to place green space at University and Market in the future that will also reduce parking spaces.
    - An apartment development in the east lot will absorb and require parking.
    - The Ready School has requested some designated parking spaces.
    - Dish Catering has requested weekly (Mon-Fri) parking spaces.

Two likely issues in any parking discussion will include: 1) Determining the willingness of the City to require City employees to vacate the east lot, and park in the new parking deck; 2) Assessing the ability of the lot just north of the downtown to absorb current daily parking in Illinois Terminal west lot. Completing this discussion will enable the development of parking scenarios in concert with the architectural scenarios. The option of building another parking deck may not be the most feasible at this time. Any workforce housing development may not be able to sustain any portion of the cost. Current high cost decks and related flat lots are not fully utilized. Finally, as downtown Champaign expands, it may be the time to discuss regular downtown employees having to walk more than one block in order to access public parking.

Conclusion

This summary report is intended to frame the market-related considerations specific to Illinois Terminal expansion and to preliminary identify those types of tenancies that will meet CUMTD objectives for its Terminal Operations.

Appendix 1: Illinois Terminal Tenant Rental Income Considerations

This data excludes the tenant lease payments for Fasteners, Inc. The charts in the Summary of Market-Related and Tenanting Issues include the Fasteners, Inc. lease payments, as CUMTD does.

Table 4: Illinois Terminal Revenue Sources Excluding Fasteners, Inc.

Revenues	2012-2013 Actual	% Of Total Revenues	2013-2014 Estimates	% Of Total Revenues
Tenant Lease Payments	$424,922.37	38.6%	$429,495.43	37.2%
Other Rentals Commission Income	$43,182.87	3.9%	$45,835.36	4.0%
State Operating Assistance	$661,958.95	60.1%	$705,718.67	61.2%
Total Revenues	$1,101,594.22		$1,153,209.46	

Sources: CUMTD, BDI

Observations:

- Income from tenant lease payments declining, as other Revenue sources increase.
- Should there be a target percentage or percentage range for Tenant Lease Payments?
- Given the expanded transportation facilities, how will those facilities increase in occupancy size? How will their Tenant Lease Payments increase?

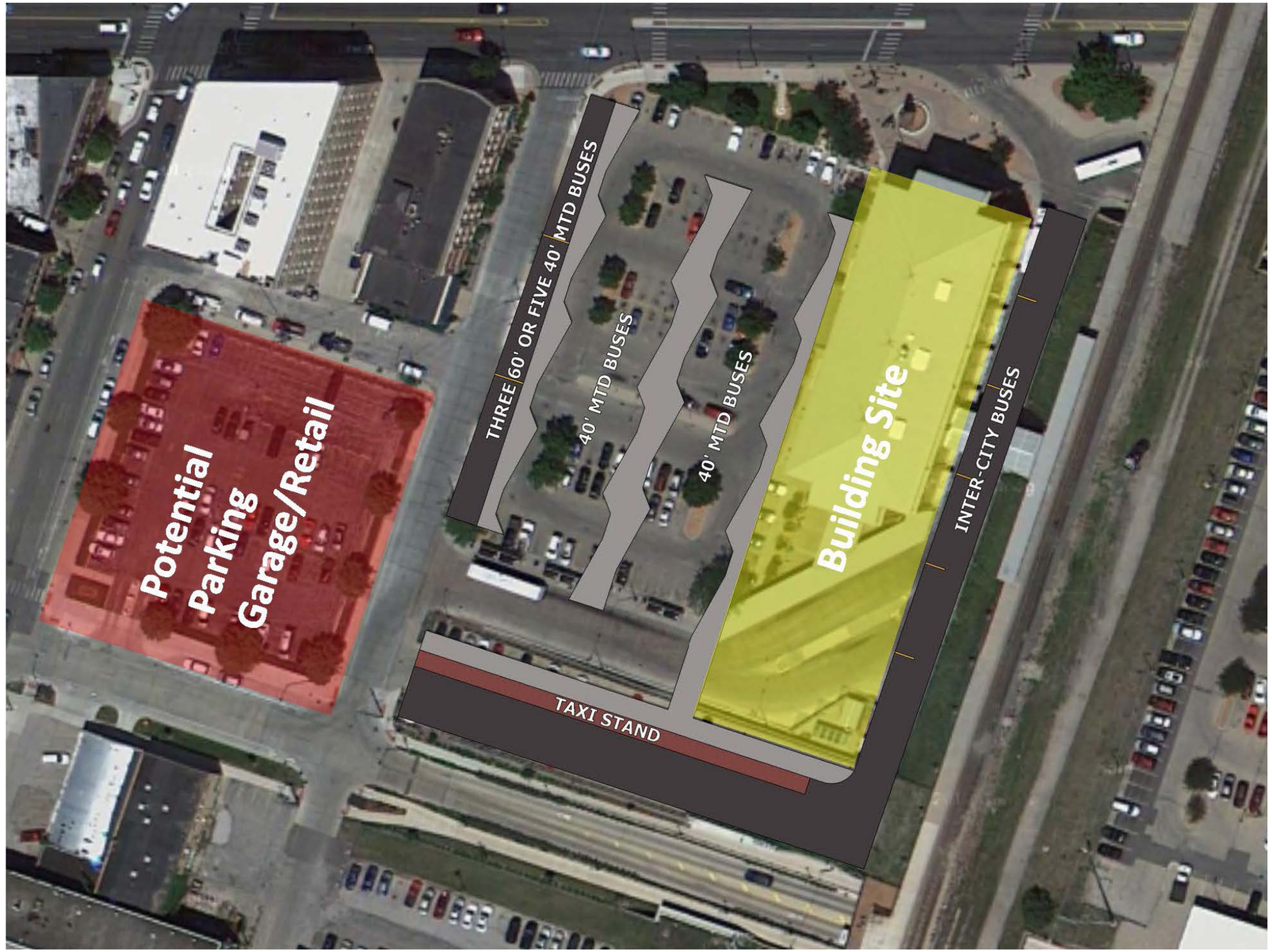
Table 5: Rent Estimates Excluding Fasteners, Inc.

Tenant	SF	Rent PSF	Required Rent PSF	2013-2014 Rent Estimates	% Of Total Revenues Above
Ready School	16,625	$8.98	$22.44	$149,223.43	12.9%
City View	13,500	$6.47	$16.17	$88,800.00	7.7%

Sources: CUMTD, BDI

Observations:

- On a Per Square Foot (PSF) basis, The City View operation's lease payments are 72% of those paid by The Ready School.
- The above rates exclude the utilities paid by CUMTD for the City View operation.



TRANSPORTATION ANALYSIS

by Vanasse Hangen Brustlin, Inc.

PREMISE

- Capacity is strained.
- Transit service could outgrow the facility.

ANALYSIS

- Review background documents.
  - Champaign Moving Forward Transportation Plan
  - Champaign Tomorrow 2011 Comprehensive Plan
  - Downtown Champaign Parking Plan
  - Choices 2035 Long Range Transportation Plan
- Review service providers
  - Greyhound
  - Burlington Trailways
  - Danville HTD JARC
  - Peoria Charter
  - C-CARTS
  - Taxis
  - CUMTD

REVIEW RIDERSHIP DATA

- Bus
- Rail (Amtrak)

RECOMMENDATION

- Local transit growth scenarios
- Assess transit growth over the next 25 years

POTENTIAL NEEDS

- Seven scenarios
  - Baseline = 16 city bus bays
  - Worst case = 26 city bus bays
  - Reality check = 20 city bus bays

1 Introduction

Illinois Terminal is the primary intermodal transportation hub for the Champaign-Urbana Region, serving the cities of Champaign and Urbana, as well as the University of Illinois at Urbana-Champaign (UIUC). The terminal is served by one local bus provider, the Champaign-Urbana Mass Transit District (CUMTD); five intercity bus providers, Greyhound (standard and express), Burlington Trailways, Peoria Charter, Danville Mass Transit JARC, and C-CARTS; and six daily Amtrak trains (three roundtrips). The terminal has a taxi stand served by approximately 38 taxi companies and enough bicycle parking for 70 bicycles. The terminal also contains additional space that is leased to tenants, which pays for all of the building operations costs.

When Illinois Terminal was opened in 1999, there were two intercity bus operators, Greyhound and Burlington Trailways. Since that time, Greyhound has introduced a new express service to Chicago from the terminal, and Peoria Charter, Danville Mass Transit, and C-CARTS have begun service from the Terminal. The CUMTD has added additional local routes, modified existing routes, and increased service frequency on several routes since 1999, with overall ridership up nearly 25%. In 2006, Amtrak added an additional roundtrip run each day due to increased demand, and there are plans to ultimately provide high-speed rail in excess of 125 mph from Chicago to Memphis, stopping at Illinois Terminal.

The capacity of the Terminal is currently strained, and it is anticipated that with additional downtown, university, and regional growth, the requisite transit service could outgrow the current facility.

2 Background Documents

CHAMPAIGN TOMORROW 2011 COMPREHENSIVE PLAN

The Champaign Tomorrow 2011 Comprehensive Plan establishes a vision that acts as an "umbrella" for more specific planning studies that are considered "elements" of the Comprehensive Plan. Some key "elements" include the Champaign Moving Forward Transportation Plan (2008) and the Downtown Plan (2006).

The 2011 Comprehensive Plan emphasizes building a "complete" community, a concept that is not new—the 2011 Comprehensive Plan points out that this concept was also emphasized in the 1950 Comprehensive Development Plan for Champaign-Urbana. The three focus areas are Complete Neighborhoods, Complete Public Infrastructure, and Complete Streets. These concepts stress the importance of safety, mobility, and accessibility. A Complete Neighborhood improves accessibility by clustering housing, schools, shops, and services. It also improves mobility by providing well-connected streets, sidewalks, and trails. Complete Streets improve safety and mobility by providing streets that safely accommodate all users: automobiles, pedestrians, bicyclists, and transit vehicles. Complete Public Facilities include the physical infrastructure—schools, water, sewer, power, police/fire, and transit—that must strategically grow as the city grows.

As Champaign grows as a "complete community," use of transit will become increasingly convenient. Opportunities for (re)development in downtown and midtown with higher density and traditional neighborhood design will create a greater sense of place, weaving together UIUC and downtown Champaign. Higher density, an increased mix of uses, and improved street-scale urban design are more easily served by transit and encourage walking and bicycling.

CHAMPAIGN MOVING FORWARD TRANSPORTATION PLAN

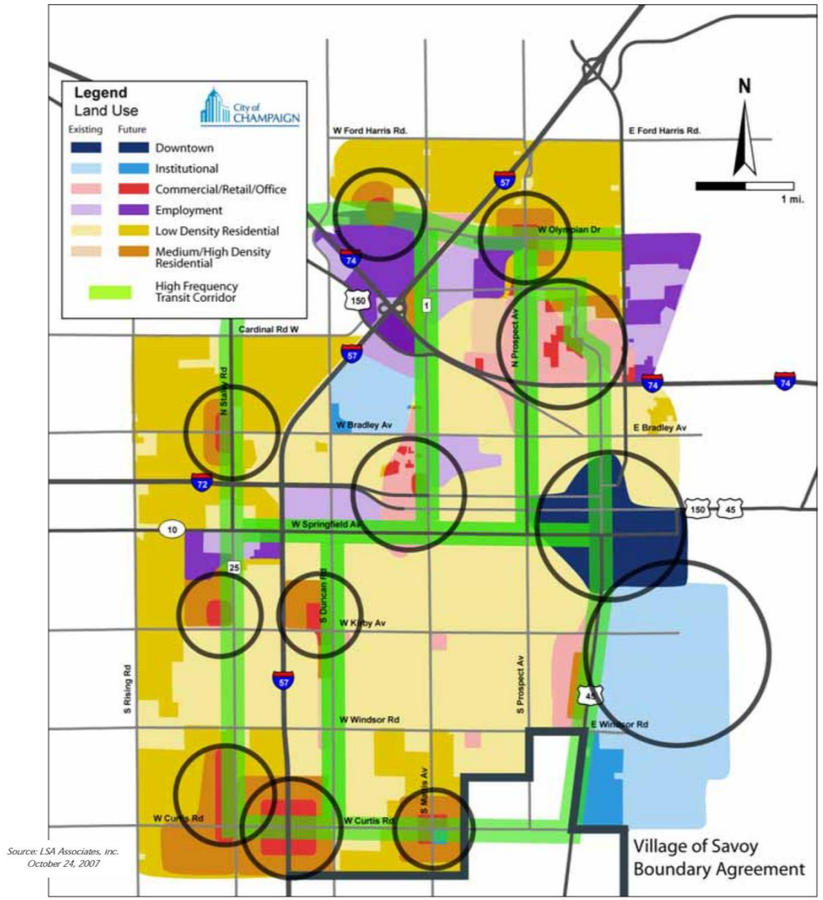
The Transportation Plan begins with a "Mobility Report Card" by mode. In many facets, the CUMTD transit service scores well, including coverage, with over 90% of the city within ¼ mile of a transit stop, and access to downtown and UIUC. The primarily hub and spoke type of system limits convenience throughout the rest of the city, with limited crosstown routes in many areas. Transit service scores poorly on the ability to expand easily into many areas of growth within the transit district that are associated with lower density development and homogeneous land uses. Pedestrian and bicycle systems, as well as multi-modal street systems, need improvement in most categories.

The City of Champaign's Transit Vision Plan is designed to provide high frequency transit service with supporting pedestrian and bicycle connections, linking neighborhoods and nodes with higher density development and a mix of uses, as shown on Figure 2. The targeted frequency is as follows:

- Established high density nodes and corridors - 6 or greater transit vehicles per hour
- Emerging nodes and corridors – 4 or greater transit vehicles per hour
- Starting nodes and corridors – 2 or greater transit vehicles per hour

Service expansion between nodes, other than downtown, would have little effect on capacity constraints at Illinois Terminal. Increased frequency of existing routes using Illinois Terminal would increase utilization of the Terminal, but for the most part would not require additional bus bays or waiting area space. The introduction of new routes serving Illinois Terminal may require additional bus bays and waiting area space, particularly if the limited pulse system is continued or expanded to multiple times throughout the day.

Figure 2 - Champaign Transit Vision Plan



Note: High Frequency Transit Corridors will be phased in over time based on land development mix, density and travel demand.

CHAMPAIGN DOWNTOWN PLAN

The Champaign Downtown Plan was adopted in 2006, with a vision for the future of land use, transportation, and urban design in downtown Champaign. A guiding principle of the transportation component is improving overall multimodal mobility, with a focus on pedestrian safety and walkability. This includes improving street design to reduce travel speeds and improve pedestrian safety, strengthening transit and pedestrian connections, encouraging use of modes other than automobiles, and managing the supply of parking with a focus on parking structures rather than surface lots.

One of the key strategies is to encourage more downtown employees to use transit, thereby decreasing the demand for parking, improving traffic circulation, and improving safety for pedestrians and bicyclists. The report mentions that the low cost of parking and limited knowledge of the CUMTD operations and routes could be limiting current transit use. Potential options include more direct routes to downtown from certain locations, employer subsidized transit passes, and other incentives for those who choose not to drive to work.

One of the other strategies for addressing multimodal mobility in downtown is promoting and encouraging bicycle use by increasing bike lanes, trails, parking, and lockers, as well as promotion of bicycling events. Another strategy is to develop taxi stands and strengthen and promote the taxi cab system. This would provide more visibility for an additional transportation option in the downtown area. To help strengthen the connection between downtown and the UIUC campus, the study also recommends a direct transit route between downtown and the university.

DOWNTOWN CHAMPAIGN PARKING PLAN

The Downtown Champaign Parking Plan was approved by city council in March of 2009. The plan provides guiding principles and actions based on four focus areas, one of which is "Supporting alternatives to driving and parking downtown." The three guiding principles of this focus area are to reduce parking demand through promotion of alternative transportation, improve accessibility to downtown by transit, bicycling, and walking, and encourage alternative access to downtown through incentives. The action items of this focus area are:

- Coordination with CUMTD to strengthen downtown as a hub, but also make it more of a destination
- Create a taxi cab stand near the central core of downtown
- Promote car-sharing (Zipcar) through initial revenue guarantees
- Allow parking permit sharing and designate spaces for carpooling
- Provide additional bicycle parking, particularly covered and secure parking
- Designate more motorcycle and scooter parking in downtown

CHOICES 2035 LONG RANGE TRANSPORTATION PLAN

The 2035 LRTP was completed in December, 2009. One element of the vision for 2035 calls for an increase in alternative modes of transportation, i.e. modes other than personal vehicles. The plan recognizes obstacles that must be overcome to fulfill this concept:

- Obstacle: convenience and time savings of automobiles
    - Solutions: more high capacity and express routes, higher frequency
- Obstacle: increasing suburban style development
    - Solutions: local land use policies and incentives for higher density

- Obstacle: public transit system must keep pace with projected growth
    - Solutions: secure necessary local funding to expand high capacity routes as density increases
- Obstacle: can be difficult to accommodate alternative transportation modes in existing road right of way
    - Solutions: expand right of way, add facilities to roadways during construction or reconstruction to create Complete Streets

The plan stresses the importance of having the CUMTD service area be coterminous with the urbanized area boundary to ensure service for all residents. The CUMTD aims to tie together future high-density, mixed-use clusters, called Mobility Enhanced Development (MED) areas, using bus rapid transit (BRT) corridors.

The transit measures of effectiveness in the LRTP include CUMTD ridership, number of routes, coverage of residential parcels, number of bus shelters, and number of hybrid buses.

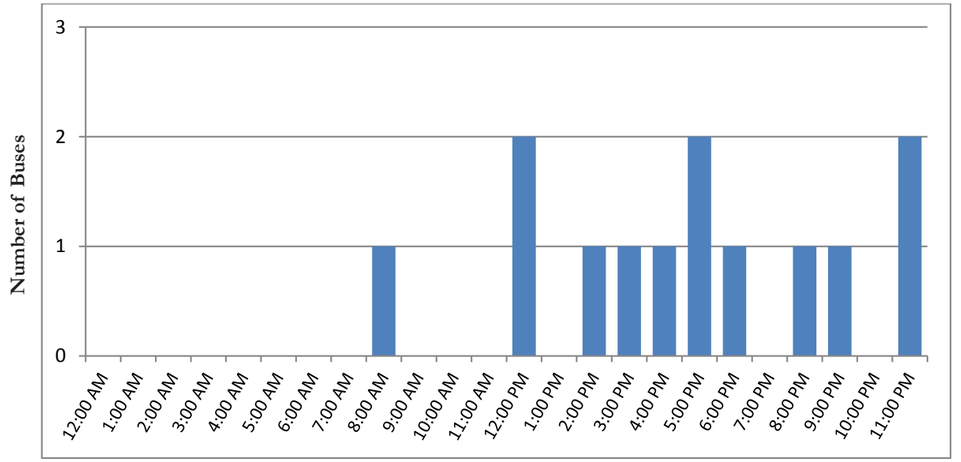
3 Current Service Providers

In additional to the local bus transit provider, the Champaign-Urbana Mass Transit District (CUMTD), Illinois Terminal is served by five intercity bus providers—Greyhound (standard and express), Burlington Trailways, Peoria Charter, Danville Mass Transit JARC, and C-CARTS — and six daily Amtrak trains (three roundtrips). The Terminal also has a taxi stand that accommodates 8 taxis and is served by approximately 38 taxi companies and enough bicycle parking for 70 bicycles. When the terminal opened in 1999, the only intercity providers serving the Terminal were Burlington Trailways, Greyhound standard service, and four daily Amtrak trains.

GREYHOUND

Greyhound operates on a seasonal schedule, with the highest service frequency in the summer. During the summer, Greyhound operates 13 daily buses at Illinois Terminal with standard service to Memphis, and standard and express services to St. Louis and Chicago. Twice during the day, two Greyhound buses dwell concurrently at the Terminal, requiring two bus bays. Dwell times at the Terminal are typically 5-15 minutes. Greyhound sells their own tickets and, in addition, they sell Burlington Trailways tickets. At this time, Greyhound does not anticipate a significant future change in routes or frequency of buses at the Terminal.

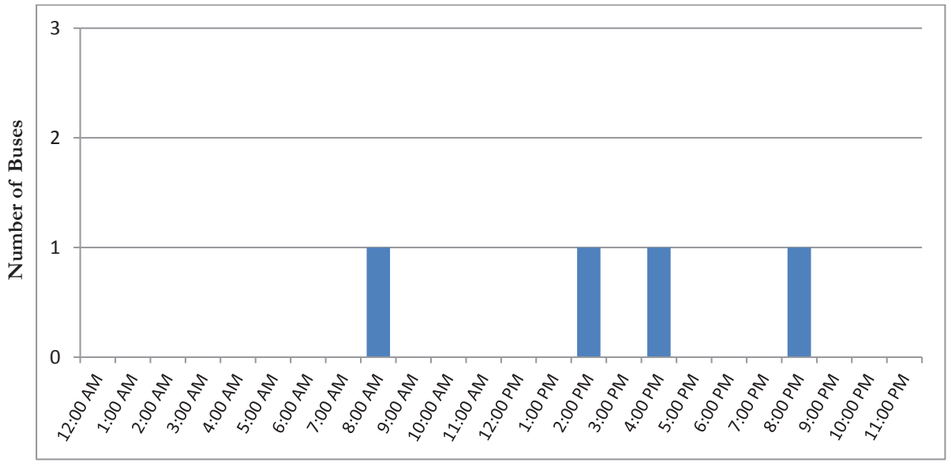
Figure 3 - Greyhound Buses at Illinois Terminal



BURLINGTON TRAILWAYS

Burlington Trailways operates 4 daily buses at Illinois Terminal with service from Indianapolis to Denver, serving many towns and cities along the way. Dwell times at the Terminal vary from 5-25 minutes. With at most one bus at the Terminal at any given time, Burlington Trailways requires only one bus bay. At this time, Burlington Trailways does not anticipate a significant future change in routes or frequency of buses at the Terminal.

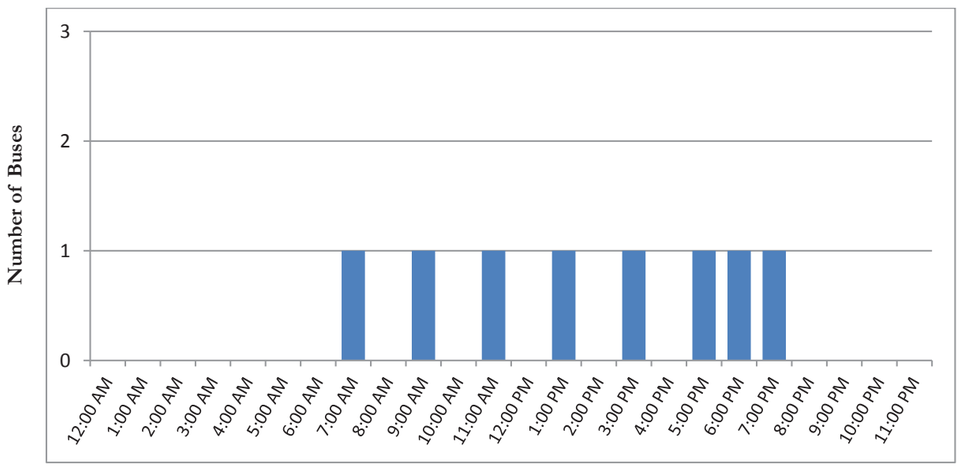
Figure 4 - Burlington Trailways Buses at Illinois Terminal



DANVILLE MTD JARC

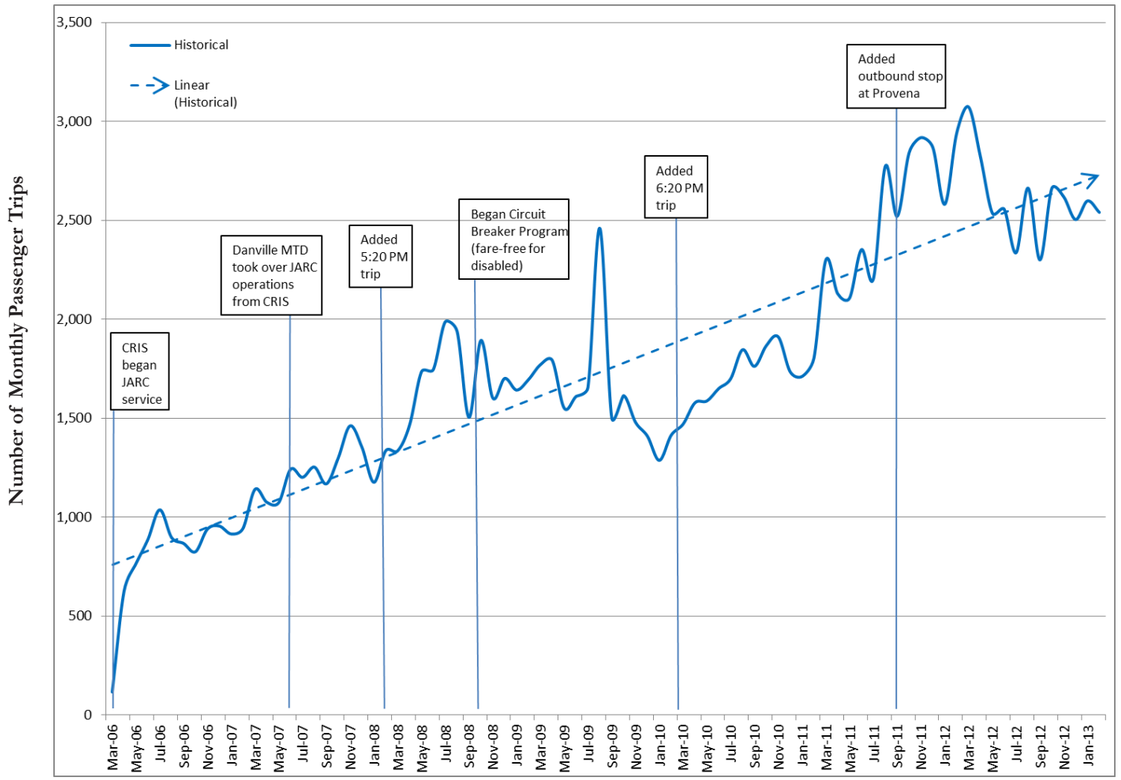
Danville MTD operates 8 daily buses as part of their JARC service between Danville and Illinois Terminal, with several Urbana stops en route. Dwell times at the Terminal are 15 minutes for each bus run. With at most one bus at the Terminal at any given time, Danville JARC requires only one bus bay. Danville MTD officials expressed concern with congestion at Platform D requiring JARC buses to be relocated to the parking lot/taxi stand, which doesn't accommodate ramp deployment and requires passengers to walk through the parking lot to board and alight. Furthermore, it can be confusing to passengers looking for the bus. Officials also noted that the CUMTD ticket counter is not open for passengers to buy a ticket for the first A.M. and the last two P.M. JARC trips, which can significantly inconvenience passengers.

Figure 5 - Danville JARC Buses at Illinois Terminal



Since inception in 2006, the JARC service has grown from under 1,000 monthly trips to over 2,500 today, as shown on Figure 6. About half of these passenger trips are boarding/alighting at Illinois Terminal. While growth is expected to continue, much of it can be accommodated with the existing service level. Thus, Danville MTD does not anticipate a significant future change in routes or frequency of buses at the Terminal.

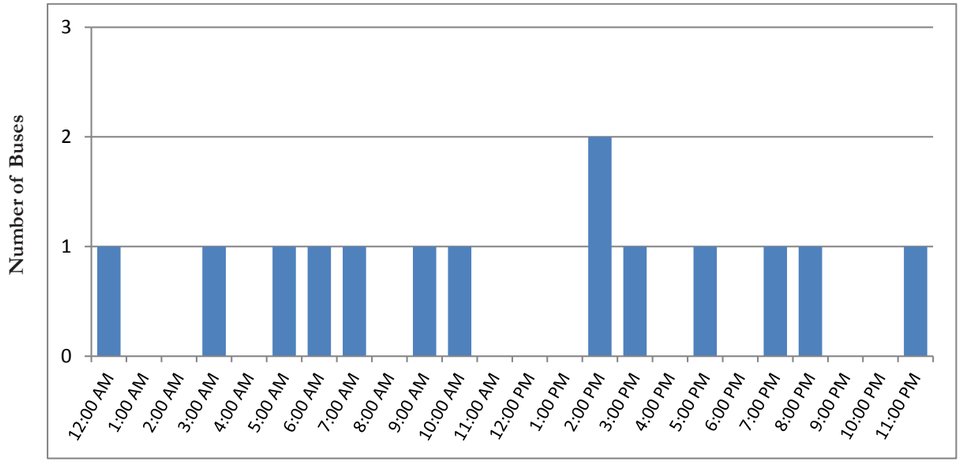
Figure 6 - Danville JARC Historical Ridership



PEORIA CHARTER

Peoria Charter operates two routes, with 14 daily buses at Illinois Terminal, with service to Normal, Peoria, and Chicago. Dwell times at the Terminal are typically 5-15 minutes. Once per day, two Peoria Charter buses dwell concurrently at the Terminal, requiring two bus bays. While growth is expected to continue, much of it can be accommodated with the existing service level. With the exception of one or two additional Friday buses to Chicago, Peoria Charter does not anticipate a significant future change in routes or frequency of buses at the Terminal.

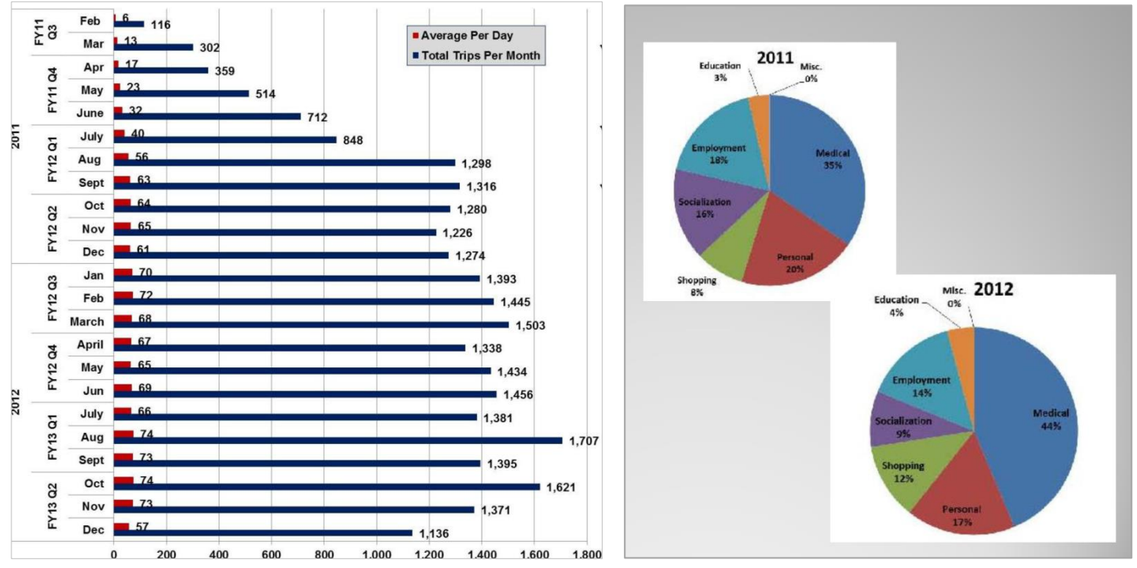
Figure 7 – Peoria Charter Buses at Illinois Terminal



C-CARTS RURAL MTD

C-CARTS provides transit to the rural general public in Champaign County. C-CARTS has no fixed-routes, and instead provides demand response service to, from, and within rural areas of Champaign County that are not covered by the CUMTD. Service is provided by calling to schedule a ride at least 48 hours in advance. C-CARTS primarily serves medical trips, but overall ridership has been increasing steadily over the past two years. In 2012, they averaged over 1,400 trips per month compared to around 800 in 2011, though most of these trips do not begin or end at Illinois Terminal. C-CARTS officials expect ridership to continue to grow in the future. The C-CARTS fleet is mostly 14 and 12-passenger buses, which would allow one bus bay to accommodate two vehicles. At this time, C-CARTS does not anticipate a significant future change in frequency of buses/vans at the Terminal.

Figure 8 - C-CARTS (formerly CRIS) Historical Ridership and Breakout of Trip Purpose



TAXIS

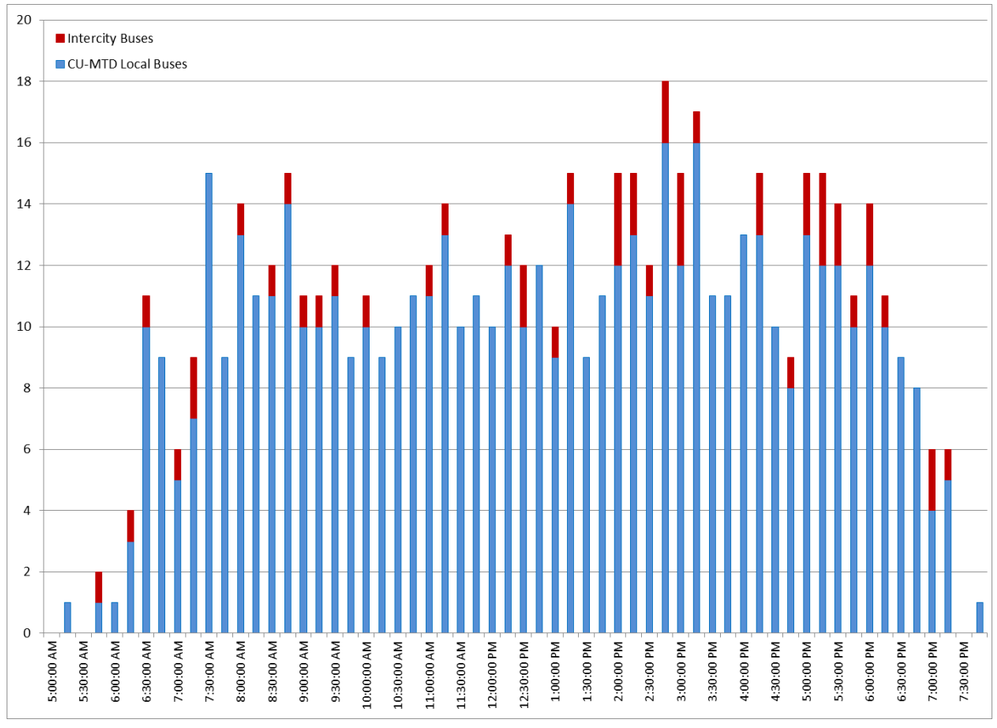
The Terminal has a taxi stand that accommodates 8 taxis, and there are currently 38 taxi companies in the region that use the Terminal. Most are single-vehicle, owner-operator companies. They are not required to obtain a separate permit to use the Terminal; however, Illinois Terminal Security has the right to prohibit or regulate use through intergovernmental agreements. At present, Champaign and Urbana place minimal regulations on those who wish to be registered as a taxi operator, providing little incentive to use newer vehicles that may be safer and more environmentally friendly. Neither taxi companies nor the cities of Champaign or Urbana keep track of the number of taxi trips. Taxis aren't metered and their rates aren't regulated, though the taxi companies are required to file their rates with the cities.

CUMTD

The current CUMTD route structure is not a true hub-and-spoke system; thus, Illinois Terminal is the terminus of most, but not all routes. At present, CUMTD operates 11 routes and 16 route segments that serve Illinois Terminal. Five of the 11 routes continue beyond Illinois Terminal and are each considered two route segments for this analysis, as there is bidirectional service from the Terminal. Three of these routes, the Green, Orange, and Yellow routes, include a "Hopper" service that follow similar but shortened routes and have higher frequency service than the standard route. Dwell times at the Terminal for all routes are typically less than 5 minutes. The Champaign-Urbana metropolitan area is somewhat unique in terms of transit service, as there is not one activity center, but three: Downtown Champaign, Downtown Urbana, and the University of Illinois. This is why the current route structure has not been developed as a true hub and spoke system with pulse service, though there are three universal

transfers at Illinois Terminal at 6:35 a.m., 7:40 a.m., and 11:11 p.m. As shown on Figure 9, there are other times during the day where frequency is high enough that nearly every route arrives within a 15-minute window. Despite the somewhat polycentric nature of the region, the route structure still retains downtown as the primary hub. Illinois Terminal is also close to the geographic, population, and employment centers of the metropolitan region, and will be increasingly so as much of the growth is expected to the north and west. Thus, downtown Champaign and Illinois Terminal may become an increasingly important hub for the CUMTD system, and pulse service could be utilized more throughout the day.

Figure 9 - Total Local and Intercity Buses at Illinois Terminal During the Day



Comparison to Peer Cities

Table 6 compares service characteristics of CUMTD with peer cities in Illinois and similarly sized college towns. Champaign-Urbana is already the most transit-intensive Illinois city in terms of buses operated per capita and second only to Chicago in terms of hours of transit service per capita. It also compares favorably to similarly sized college towns, with only Chapel Hill, NC more transit intensive. Person-for-person, Chapel Hill operates 46% more vehicles and 9% more hours of service.

Table 6 - CUMTD Peer Comparison of Operating Statistics

				FY 10 (NTD 2010 datasets)				FY10 derived data		
	City	Agency	2010 City Population	Vehicle revenue miles	Annual unlinked trips	Revenue hours	VOMS	VOMS per million capita (city population)	Revenue hours per capita (city population)	Notes
Smallest	Danville	City of Danville/Danville Mass Transit	33,027	530,460	530,090	28,853	10	303	0.9	
	Bourbonnais	River Valley Metro Mass Transit District	62,063	843,960	722,052	63,660	12	193	1.0	Bourbonnais, Bradley, and Kankakee
	Decatur	Decatur Public Transit System	76,122	959,851	1,245,094	68,211	19	250	0.9	
	Normal	Bloomington-Normal Public Transit System	129,107	1,371,209	1,227,183	92,860	22	170	0.7	Bloomington and Normal
	Columbia, MO	Columbia Transit	108,500	652,158	2,172,676	67,561	24	221	0.6	
	Charlottesville, VA	Charlottesville Area Transit	43,475	930,077	2,195,455	86,105	25	575	2.0	
	Rockford	Rockford Mass Transit District	152,871	1,285,234	1,522,489	94,250	27	177	0.6	
	Wilmington, NC	Cape Fear Public Transportation Authority	106,476	1,324,417	1,352,235	108,579	29	272	1.0	
	Lawrence, KS	Lawrence Transit	87,643	917,900	2,862,331	88,088	40	456	1.0	
	Moline	Rock Island County Metropolitan Mass Transit District	103,803	2,163,935	3,159,433	166,632	43	414	1.6	Moline, East Moline, and Rock Island
	Peoria	Greater Peoria Mass Transit District	138,409	1,862,027	2,736,116	106,235	47	340	0.8	Peoria and East Peoria
	Springfield	Springfield Mass Transit District	116,250	1,267,440	1,607,197	101,848	48	413	0.9	
	Granite City	Madison County Transit District	269,282	3,287,398	2,061,241	186,873	68	253	0.7	Madison County
	Chapel Hill, NC	Chapel Hill Transit	76,815	1,860,517	7,490,567	167,218	79	1,028	2.2	Chapel Hill and Carrboro
	Urbana	Champaign-Urbana Mass Transit District	122,305	2,802,644	10,010,951	243,313	86	703	2.0	Champaign and Urbana
largest	Chicago	Chicago Transit Authority	2,695,598	56,821,006	306,023,976	5,955,896	1,707	633	2.2	Region is served by rail.
						Difference between CU and Chapel Hill		**46%**	**9%**	

VOMS = Vehicles Operated in Maximum Service
These data are for fixed-route service ('bus' in National Transit Database) only.
Agencies are listed from smallest to largest, based on VOMS and revenue-hours.

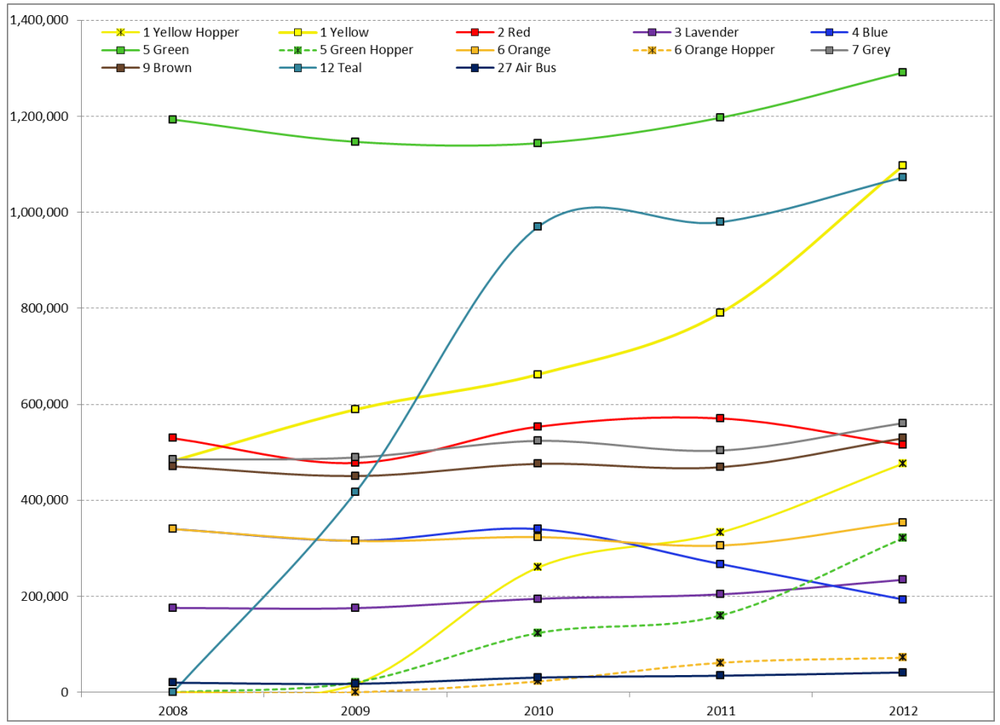
Sources:
2010 City Population: U.S. Census Bureau 2010
The City population will not necessarily correspond exactly to the service area population, but is reasonable approximation for the purposes of this table.
FY 10 NTD transit statistics: Florida Transit Information System - Integrated National Transit Database Analysis System

Historical Ridership

Total CUMTD ridership has steadily grown since 1999, when Illinois Terminal opened, from 8.6 million annual passengers to over 11 million annual passengers in 2012. Ridership in 2013 is expected to exceed 12 million passengers. Furthermore, the percentage of CUMTD trips on routes that served Illinois Terminal has grown from 38% in 2008 to 53% in 2012. Some of this percentage increase can be attributed to the route "makeover" that occurred in 2009, which folded many of the University of Illinois routes into routes that serve the greater community and Illinois Terminal. However, this trend is likely to continue and is further evidence of the importance of Illinois Terminal as a regional hub. The 2008 to 2012 ridership is shown on Figure 10 for the entire CUMTD system as well as for the routes serving Illinois Terminal.

Figure 10 - CUMTD Total Ridership and Ridership on Routes Serving Illinois Terminal

Figure 11 - Annual Ridership by Route for Routes Serving Illinois Terminal



Annual Ridership by Route

As previously mentioned, some of the growth in ridership for routes serving Illinois Terminal can be attributed to the route "makeover" that occurred in 2009. However, systemwide ridership and ridership of routes serving Illinois Terminal continue to grow. The Green, Teal, Yellow, Grey, Brown, Red, and Yellow Hopper Routes each have annual ridership in excess of 400,000 trips and are, for the most part, experiencing growth trends. The Yellow and Yellow Hopper Routes combined account for nearly 14% of systemwide ridership, and the Green and Green Hopper Routes combined account for nearly 15% of systemwide ridership—combined this is nearly a third of total system ridership. According to CUMTD officials, the Green Route will be expanded in the near future to better serve west Champaign, and service frequency will be improved to 15-minutes throughout the day on weekdays. The CUMTD has been using 60-foot articulated buses for many years on high-ridership routes, and as routes are expanded and ridership grows, articulated buses may be utilized for more routes; however, most of their growth they anticipate accommodating through higher frequency of service rather than larger buses.

Daily Volume at Illinois Terminal

The average hourly weekday boardings and alightings at Illinois Terminal for CUMTD in April 2013 are shown below on Figure . The highest number of boardings and alightings occurred between 2:00 P.M. and 3:00 P.M., with over 300 boarding passengers during this hour. Transfers account for about 6% of riders at the Terminal.

Figure 12 - Average Hourly Weekday Boardings & Alightings at Illinois Terminal in April 2013

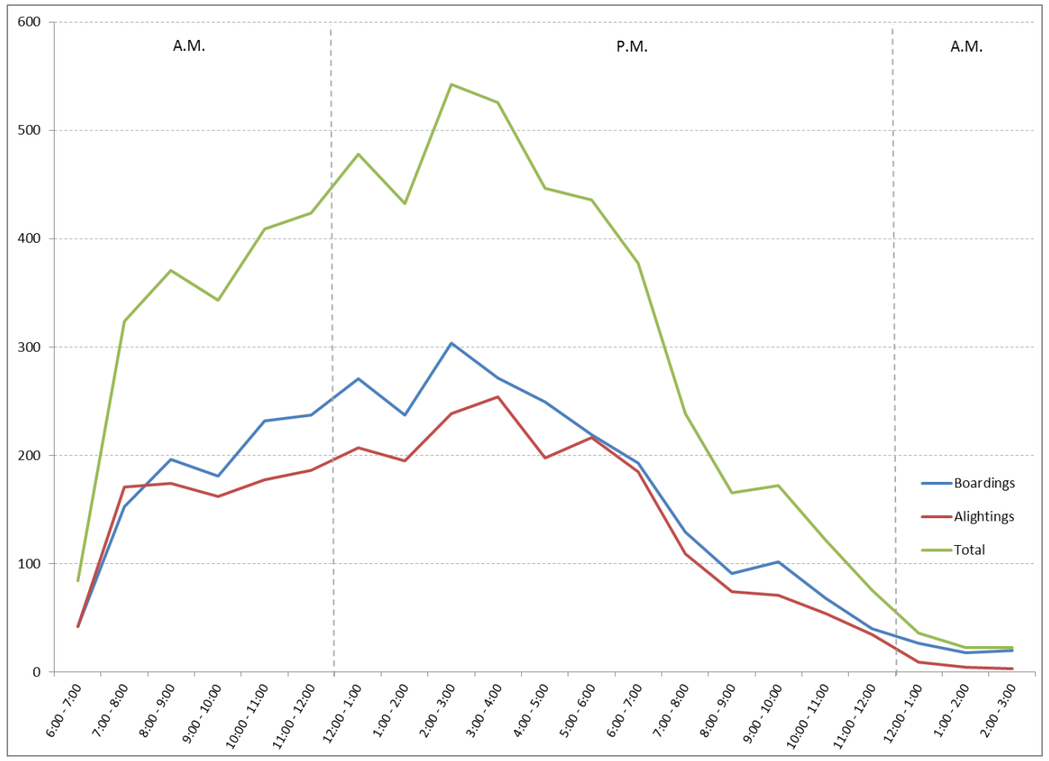
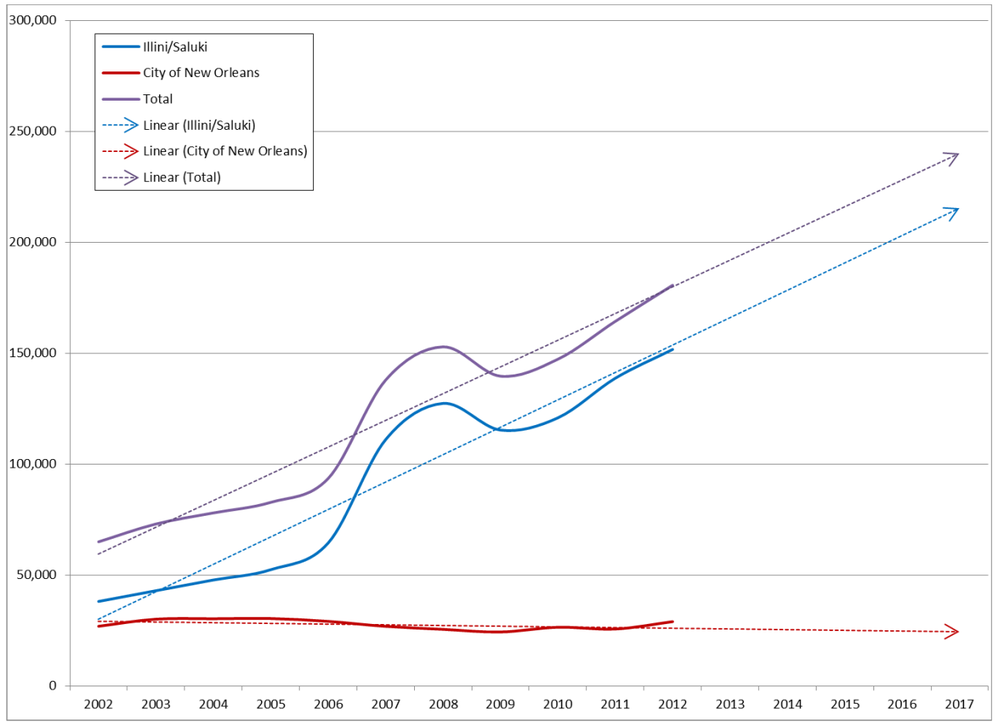


Figure 13 - Annual Amtrak Ridership



AMTRAK

Amtrak currently operates six daily trains at Illinois Terminal—two roundtrip local trains between Chicago and Carbondale, and one roundtrip long-distance train between Chicago and New Orleans, as shown on Figure 13. Amtrak ridership has nearly tripled at Illinois Terminal over the past 10 years, with approximately 181,000 Amtrak passengers in 2012. If growth continues on a linear trend, ridership will grow to nearly half a million annual passengers over the next 25 years. High-speed rail will be the most significant factor in determining growth over the next 25 years, and could increase ridership to over 2 million annual passengers, according to estimates from the Midwest Network High Speed Rail Study (see page 30 in Section 5).

4 Local Transit Growth Scenarios

INTRODUCTION

This section of the report assesses how local transit service in the Champaign-Urbana metropolitan area might grow over the next 25 years. This is a key input for deciding the number of bus bays and amount of building space that should be provided for CUMTD transit services.

Looking far into the future is important, because experience at Illinois Terminal and other transit centers around the nation has consistently shown that a specification in line with today's needs, or even with the needs identified in short-range plans, will lead to an undersized design. It is usually better and more cost-effective to plan ahead, particularly in an area that is redeveloping and where expansion opportunities may close off in the future. Space can be reserved for future needs, even if it is not fully constructed at the outset.

ISSUES

Transit Service Growth is Realistic

As described in Section 3, based on historical ridership, it is reasonable to expect transit service in the Champaign-Urbana metropolitan area to grow over the next 25 years. Furthermore, there is a long-term growth trend in both population and employment, and the projections from the 2035 LRTP and 2040 Draft LRTP show this trend is expected to continue. Within the region, current planning policies recognize transit's overall importance (not just to transit-dependent populations), and include goals to increase the use and effectiveness of transit.

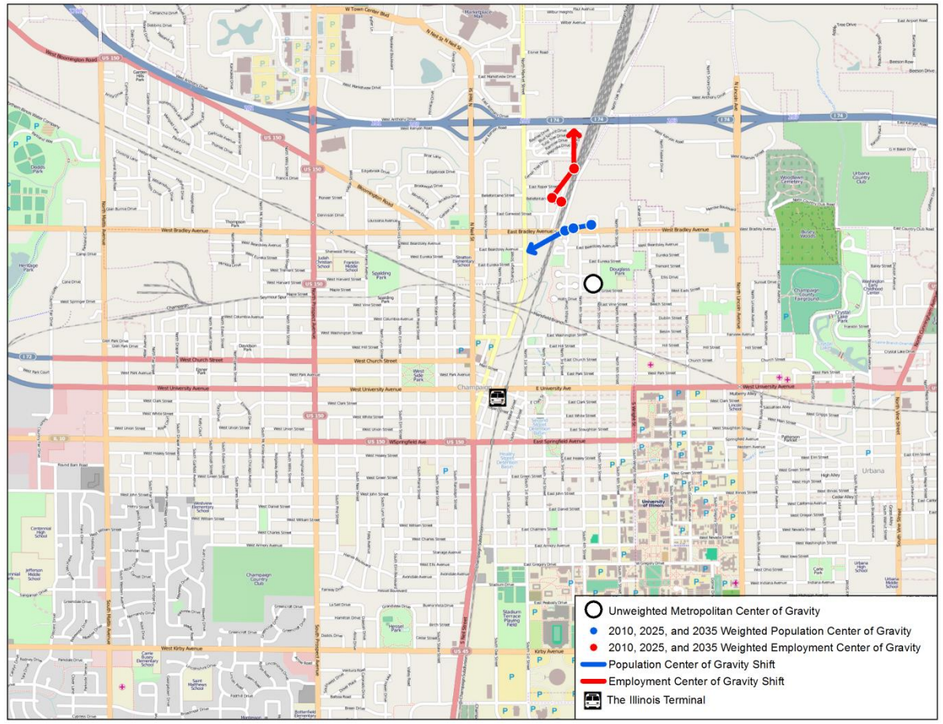
Impact of Illinois Terminal Itself

Increased transit service and/or increased ridership are sometimes associated with the expansion of a multi-modal center. The relationship is complex, and often mutually reinforcing. Sometimes a multi-modal center and transit expansion are implemented together in an expansionary period. In other cases, an expanded multi-modal center improves the quality and visibility of an otherwise unchanged transit service, leading to increased ridership and boosting stakeholders' interest in transit expansion. There is no simple cause-effect rule. For these reasons, the potential growth of local transit will not be assessed in terms of the impact of Illinois Terminal *itself*.

Future Importance of Downtown Champaign

The Champaign-Urbana metropolitan area is somewhat unique in terms of transit service, as there is not one activity center, but three: Downtown Champaign, Downtown Urbana, and the University of Illinois. This is why the current route structure has not been developed as a true hub and spoke system with pulse service. However, the route structure also retains downtown as the primary transfer point. Illinois Terminal is close to the geographic, population, and employment centers of the metropolitan region, as shown on Figure 14.

Figure 14 - Geographic, Population, and Employment Centers



ANALYSIS OF CUMTD SERVICE AND EXPANSION

Table lists a range of scenarios for potential transit service growth. The following text explains the scenarios and how they led to the final 'target' number of bus bays for a 25-year horizon (year 2038). For this analysis, the figures for the number of routes and bus bays refer to CUMTD buses on fixed-route services. Paratransit vans, intercity buses, and other services are not part of this analysis, although they are part of the full specification given in Section 5.

The scenarios are grouped into two categories:

- Those which apply a percentage growth rate to the current number of routes.
- Those which 'guesstimate' where routes or coverage areas might realistically be added in the future.

Table 7 - Transit Growth Scenarios

	Scenario	Description	Number of Routes	CU-MTD bus bays needed*	Notes
	-	**Existing**	16	14	
	1	**Existing routes all "pulse" at Terminal**	16	16	
Scenarios based on growth rates	2	**Existing routes + straight-line growth** Reflecting 23**%** metro area population growth forecast by 2038 based on historical population growth.	20	20	= Baseline x 123%
	3	**Existing routes + straight-line growth** Reflecting 24% ridership growth forecast by 2038 based on historical transit ridership growth.	20	20	= Baseline x 124%
	4	**Existing routes + straight-line growth** Reflecting 26% metro area population growth forecast by 2038 based on 2035 LRTP population growth projections.	20	20	= Baseline x 126%
	5	**Scenario 4 + increased density of transit** Additional 27**%** transit growth, representing 'transit density' similar to Chapel Hill (see separate table).	26	26	= Baseline x 126% x 127%
Scenarios based on hypo-thetical future routes	6	**Existing + new local + new regional routes** Ten hypothetical new routes.	26	26	
	7	**Existing + new local + new regional routes** Ten hypothetical new routes. Only 5 use Terminal or require bay.	26	21	
Notes: Except where otherwise specified, all scenarios assume growth is met by additional routes which join the downtown pulse and therefore require additional bays. This is a 'worst-case' scenario.					

Known Factors

Illinois Terminal currently has 11 bus bays (including one island bay) and uses the curb along Market Street for additional space. The seven bays at Platforms A, B, and C are covered, the three at Platform D have shelters, and the island bay is uncovered.

The current CUMTD route structure is not a true hub-and-spoke system; thus, Illinois Terminal is not the terminus of some routes. At present, CUMTD operates 11 routes and 16 route segments that serve Illinois Terminal. Five of the 11 routes continue beyond Illinois Terminal and are each considered two route segments for this analysis, as there is bidirectional service from the Terminal. The 6:35 A.M. pulse at Illinois Terminal includes 10 of 16 route segments, and the 11:11 P.M. pulse includes 6 of 7 route segments. Thus, if all route segments were to pulse from Illinois Terminal, 16 bus bays would be required, which will be called **Scenario 1**. This represents the baseline from which the other scenarios were developed. While it may not be necessary to pulse all routes serving Illinois Terminal, it is still reasonable to treat 16 bays as the baseline. The current system is somewhat poor in directly connecting peripheral areas of the transit district. This may be addressed in the future through additional crosstown routes, or by increasing route frequency in conjunction with regular use of the pulse, to reduce the "penalty" of a required transfer.

The CUMTD has short-term aspirations to expand the frequency and span of service for several routes serving Illinois Terminal. However, existing routes, even with enhanced service, will likely not be sufficient for the next 25 years.

Scenarios Based on Growth Rates

The next set of scenarios assumes that transit service expands in proportion to the metropolitan area's growth. For the purpose of these scenarios, it is assumed that the growth consists entirely of new routes. In reality, it would likely be a combination of new or modified routes (including some not serving Illinois Terminal or not "pulsing"), more riders per bus, and improved headways, so these scenarios represent a "worst-case" situation (that is, the highest demand for bus bays).

In **Scenario 2,** transit service grows in line with the historical population growth rate from 2000 to 2010, an increase of 23% in the Champaign-Urbana Metropolitan Area over the next 25 years. This growth rate, applied to the base case of 16 bays, would require 20 bays.

In **Scenario 3,** transit ridership grows in line with the historical ridership growth over the past 15 years. Transit has grown at a very similar annual rate to population, and this rate would predict growth in ridership of 24% over the next 25 years, also projecting a need for 20 bays.

In **Scenario 4,** transit service grows in line with the forecast 26% population growth from the 2035 regional travel demand model data for the Champaign County Regional Planning Commission (CCRPC). This growth rate, applied to the base case of 16 bays, would require 20 bays.

However, transit service would not necessarily grow directly in line with population growth. It might grow faster than population growth, because:

- Larger urban areas tend to have higher levels of transit per person than smaller ones. In Champaign-Urbana's case, the anticipated redevelopment of some city neighborhoods at higher densities would also probably lead to a higher intensity of transit ridership.
- Employment is projected to grow at a much higher rate than population in the region
- National and global changes in energy costs, infrastructure funding or other transportation policies may lead to some (perhaps many) urban car trips switching to transit.

Alternatively, transit service might lag behind population growth. If growth is dominated by suburban-style subdivisions and dispersed edge-of-city employment centers, this would diminish the opportunities for effective transit service and ridership, compared to older, denser neighborhoods and concentrated employment areas.

As shown in Table 6, Champaign-Urbana is already the most transit-intensive city in Illinois in terms of buses operated per capita and second only to Chicago in terms of hours of transit service per capita. It also compares favorably to similarly sized college towns, with only Chapel Hill, NC more transit intensive. Person-for-person, Chapel Hill operates 46% more vehicles and 9% more hours of service (say, 27% on average for the following scenario).

In **Scenario 5,** transit service grows in line with the forecast 26% growth in the CCRPC region's population by 2038 (as in Scenario 4), and then grows by an additional 27% to represent an increase in transit intensity to a level comparable with Chapel Hill. In this scenario, the CUMTD

would need 26 bus bays. As described above, all of these scenarios have assumed that growth is met entirely with new routes that all meet at Illinois Terminal together; this is a worst-case situation, representing highest demand for bus bays.

Scenarios Based on Hypothetical Future Routes

The 2040 Long Range Transportation Plan (LRTP) is currently under development. The Champaign County Regional Planning Commission (CCRPC) supplied the consulting team with draft projections for future population and employment from the 2040 LRTP study.

The 25-year population and employment growth, normalized by area are shown on Figure and Figure , respectively. It's clear the expectation is that population and employment growth will expand outward from Champaign and Urbana. Based on conversations with CUMTD officials, many of these locations will be served by extending existing routes, adding additional routes with perimeter transfer points, or creating park-and-ride lots, none of which would affect Illinois Terminal.

As the urbanized area expands and Champaign, Urbana, and UIUC employment draws people from the urban area and beyond, CUMTD's service area will likely expand too. **Scenario 6** reflects this trend, based on transit nodes from the Champaign Transit Vision Plan as well as areas where the highest growth per square mile is projected from the Draft 2040 LRTP. Figure and Figure shows the locations of routes that might be implemented as a result of this growth.

The routes are:

- Five commuter/express (or all-day routes with perimeter transfers) serving:
    - Mahomet
    - Seymour/Bondville
    - Tolono
    - St. Joseph/Ogden
    - Ludlow/Rantoul/Thomasboro
- Five local all-day routes serving:
    - Savoy and areas southeast, including Philo
    - Southwest of the Champaign city limits
    - Northwest of the Champaign city limits
    - North Urbana (and locations in between)
    - Southeast Urbana and beyond

It should be emphasized that these route locations have been generated for the purposes of this study and (except where stated) do not represent any actual plans. Again, while many of these routes may not affect Illinois Terminal, for the sake of this study, Scenario 6 adds these 10 routes to the base case of 16 bays, for a total of 26 bays if all the new routes met at Illinois Terminal on a pulse schedule.

All the scenarios so far have assumed that new routes would require their own new bus bays. This will not necessarily be true, and the final scenario addresses this. **Scenario 7** assumes that some of the new routes may not pulse (they will be timed to arrive at Illinois Terminal outside the pulse period) or may utilize transfers at points other than Illinois Terminal. There are currently three universal transfer times (or pulses) per day at Illinois Terminal, and it stands to reason that some new routes may run "off-pulse." This is common in cities with intensive services or with a mixture of local and regional services. In this scenario, the local all-day routes pulse together (for fastest transfers on shorter trips), and the five commuter express buses arrive off-pulse or these areas are served through perimeter transfer points, a likely scenario based on discussions with CUMTD officials. This scenario would require 21 bus bays.

Figure 15 - Potential Transit Routes (Population Growth)

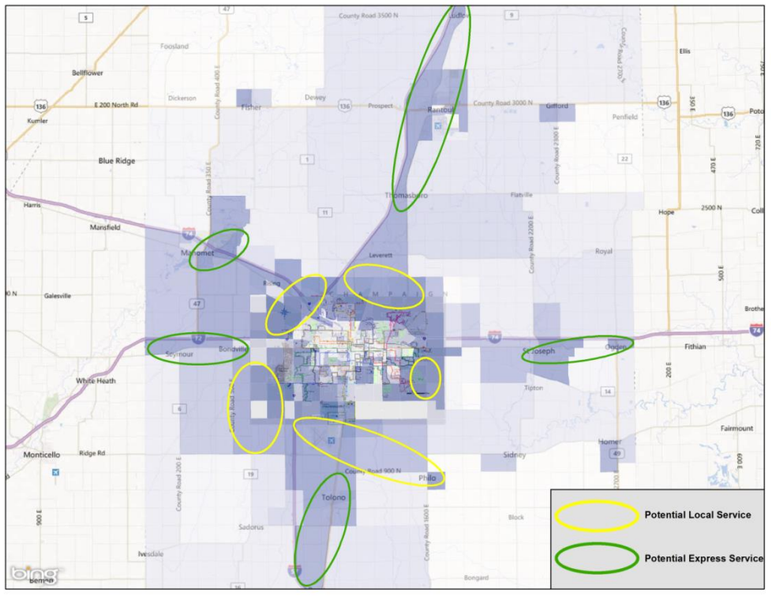
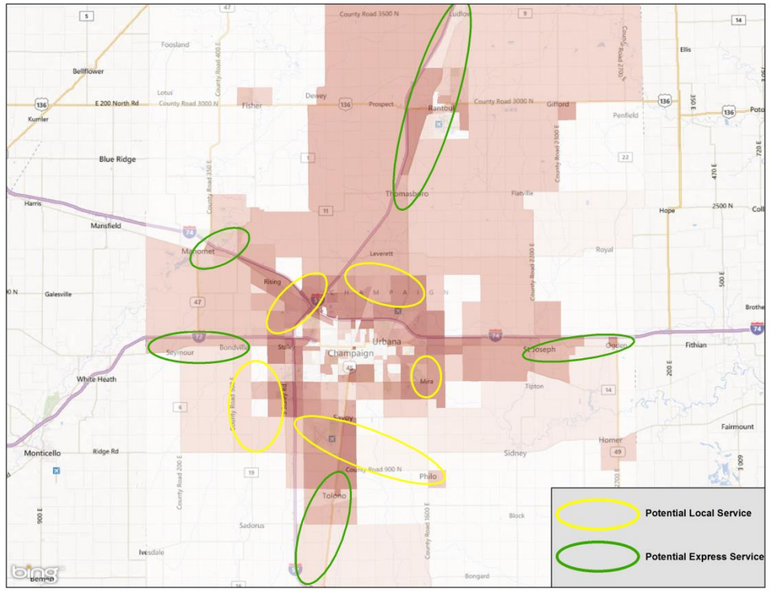


Figure 16 - Potential Transit Routes (Employment Growth)



Reality-Check Against Comparable Cities

The base case suggests that the CUMTD could use 16 bays for pulse service of the current routes. The most intensive scenario for the future suggests that 26 bus bays may be needed for local CUMTD routes. The 2035 LRTP includes the "number of routes" as one measure of effectiveness; however, it is unlikely that all growth will be accommodated by the addition of new routes, that all new routes will serve Illinois Terminal, or that all routes will need to operate "on-pulse." The scenarios suggest that 20 bays is a realistic best guess for the number of bays that might be required over the long term (next 25 years).

As a reality-check, this can be compared to other cities' transit centers, as provided in Table 6. The four peer cities in Illinois with comparable populations have centers with 8-21 bays. In the case of Springfield, they are not operating at maximum capacity, nor are they constrained by infrastructure capacity as the bus bays are all on-street. In the case of Rockford, they have 20 bus bays, with five spare bays at the current maximum pulse. Peoria currently utilizes all 19 bus bays in their transit center. While Champaign-Urbana is on the smaller end of these peers in terms of population, the CUMTD is the highest in terms of transit intensity, as shown in Table 8. Thus, 20 bus bays for local CUMTD buses seems reasonable.

Table 8 - Peer Transit Center Capacity and Utilization

City	City Population	Routes Serving Downtown	Local Bus bays in transit center	Current maximum pulse	Transity Intensity (VOMS)	All Services pulse together?
Peoria	138,409	19	19	19	47	Yes. Existing center is full.
Rockford	152,871	16	20	15	27	Yes. Certain times of day.
Bloomington-Normal	129,107	10	8	N/A	22	No.
Springfield	116,250	19	21 on street	19	48	Yes.
Champaign-Urbana	122,305	16	11	14	86	No. Most pulse once per day.

Ideally, all buses should be accommodated off-street, within Illinois Terminal site. However, site factors may make this difficult in some cases, and at peak times some buses could be accommodated at adjoining street curbs if necessary. In particular, this may be reasonable for routes that don't terminate at Illinois Terminal and may have shorter dwell times.

The estimate of 20 required bus bays is for city buses only. Additional spaces required for intercity buses are addressed in Section 5.

5 Functional Requirements and Space Needs

INTRODUCTION

The space needs are simply estimates for planning purposes. At a later stage of design, more detailed estimates would be needed. The more detailed estimates would reflect the site layout, as well as taking specific account of building codes and the requirements of the Americans with Disabilities Act (ADA).

KEY DESIGN GOALS

The key design goals for Illinois Terminal are:

- Keep all transportation services together, under one roof, for maximum rider convenience as well as maximum cost-effectiveness.
- Allow for expansion of rail service in the future.
- Allow for phased expansion from short-term to long-term needs. In particular, growth in local transit service level is expected within the next 25 years.
- Provide a level and quality of service that reflects a growing, forward-thinking city and downtown (as opposed to a suburban or small-town feel).
- Minimize vehicle-pedestrian conflicts, as well as conflicts between buses and cars. Car, bus, and pedestrian circulation and site entrances should be kept separate.
- Provide a site layout and phasing that will allow for safe and convenient connections to adjoining parcels as redevelopment opportunities arise. Ongoing efforts should be made to coordinate with redevelopment efforts for mutual benefit, such as shared parking or mixed-use space.
- Illinois Terminal should be an important, attractive and safe public facility. It should be seen as part of the community and as part of the urban environment. It should contribute to the area's streetscape, activity levels and sense of place. The ideal design would reflect this in its layout, its architecture, and its connections to adjoining uses.

TRANSPORTATION REQUIREMENTS

CUMTD

Waiting Area:

To calculate the required space for the CUMTD bus waiting area, it is assumed that transit will grow at the historical growth rate. Using a peak of 304 passenger boardings per hour (from April, 2013 data provided by CUMTD) results in space needed for roughly 140 passengers, given growth over the next 25 years. This assumes that 80% of future ridership will be on routes serving Illinois Terminal, ridership growth is 24% from 2013 to 2038, and the average wait time is 15 minutes, given frequency of CUMTD routes will typically be 30 minutes or better, with the wait time averaging half the frequency.

Based on the Transit Capacity and Quality of Service Manual (TCRP Report #100), greater than 13 square feet per person should be reserved for each waiting passenger for standing areas. With some mix of seating, we recommend a minimum of 15 square feet per person, or 2,100 square feet of waiting area.

Bus Bays:

As Section 4 described, the target is for 20 bus bays (of which some should be able to accommodate articulated buses), plus additional space for paratransit vans and intercity buses.

The recommended number of bus bays is therefore:

- 17 sawtooth bays for 40-foot buses,
- three sawtooth or linear bays for 60-foot articulated buses (making a total of 20 buses),

The *minimum initial* provision should be:

- 15 sawtooth bays for 40-foot buses (for the existing pulse of 13 routes using 40-foot buses, plus two additional routes that currently serve Illinois Terminal off-pulse)
- one sawtooth bay for 60-foot articulated bus (12 Teal Route)

Intercity Bus

Waiting Area:

Using a peak of six simultaneous buses, each with 15 boarding passengers results in 90 waiting passengers. Again, based on the Transit Capacity and Quality of Service Manual (TCRP Report #100), with some mix of seating, we recommend a minimum of 15 square feet per person, or 1,400 square feet of waiting area.

Bus Bays:

There are six intercity/regional bus agencies serving Illinois Terminal, many of which have multiple routes. At present, no more than four of these routes simultaneously arrive at the terminal. The agencies have indicated that having a consistent bus bay location is important to their riders, and as ridership and bus frequency increase, this will be increasingly important. For circulation within the Terminal, it is also desirable to separate local MTD buses from intercity buses. Therefore, it is recommended that six sawtooth or linear curb bays for 40-foot buses be constructed.

Taxis

Based on expected growth in local bus, intercity bus, and rail ridership over the next 25 years, a taxi stand should be designed to accommodate at least 12 taxis. Consistent with the Downtown Champaign Parking Plan, the taxi stand could be coordinated with the City of Champaign off-site near the Terminal.

Bicycle Parking

There are currently 70 bicycle parking spaces, which are well utilized. Additional bicycle parking should be constructed, including some bike lockers and/or covered bike parking, to accommodate increasing year-round demand. Six bike lockers are currently available for rent at Illinois Terminal, yet they are rarely used.

Amtrak

If growth continues on a linear trend, ridership will grow to nearly half a million annual passengers over the next 25 years. The Midwest Network High Speed Rail Study considered Chicago to St. Louis through Champaign to be the primary high speed rail alignment for this segment. The study projected that Champaign would serve over 2 million annual passengers, mostly to and from Chicago, with an estimated one-hour travel time between the two cities—less than half the time it takes by automobile. The study assumed half-hour peak service and 25 daily trains, each 200 meters long with seating for 500 passengers, average speeds of over 125 miles per hour and peak speeds up to 220 miles per hour. High-speed rail would replace all local service, except southbound service to Carbondale.

If ridership more than doubles to half a million passengers, the number of daily trains would also increase, requiring two tracks at Illinois Terminal to accommodate northbound and southbound passenger trains, as well as freight. If high-speed rail is implemented over the next 25 years, three tracks may be needed to accommodate roughly 25 daily high-speed trains, local trains serving Carbondale and points south, as well as freight. Due to uncertainty regarding the timeline of high-speed rail, two tracks should be constructed first, though the right-of-way preserved and platforms designed should allow for the possibility of three tracks with platform access at Illinois Terminal.

Based on Amtrak Station Program and Planning Standards and Guidelines, 480,000 annual passengers equates to 128 peak hour one-way traffic, requiring between 1,950 and 2,250 square feet of space for a waiting area and between 65 and 100 seats. These are minimum waiting area recommendations; many Amtrak stations with comparable ridership have much larger waiting areas. If ridership with high-speed rail increases to 2 million annual passengers, a waiting area would need to accommodate over 500 peak hour one-way passengers, with over 8,000 square feet of space and at least 270 seats. Again, due to uncertainty regarding the timeline of high-speed rail, a minimum of 8,000 square feet should be reserved for a passenger waiting area and constructed incrementally. With over 2 million annual passengers, a comfortable waiting area would likely need to be larger. The reserved space could be part of the space leased to tenants until ridership warrants expansion of the waiting area.

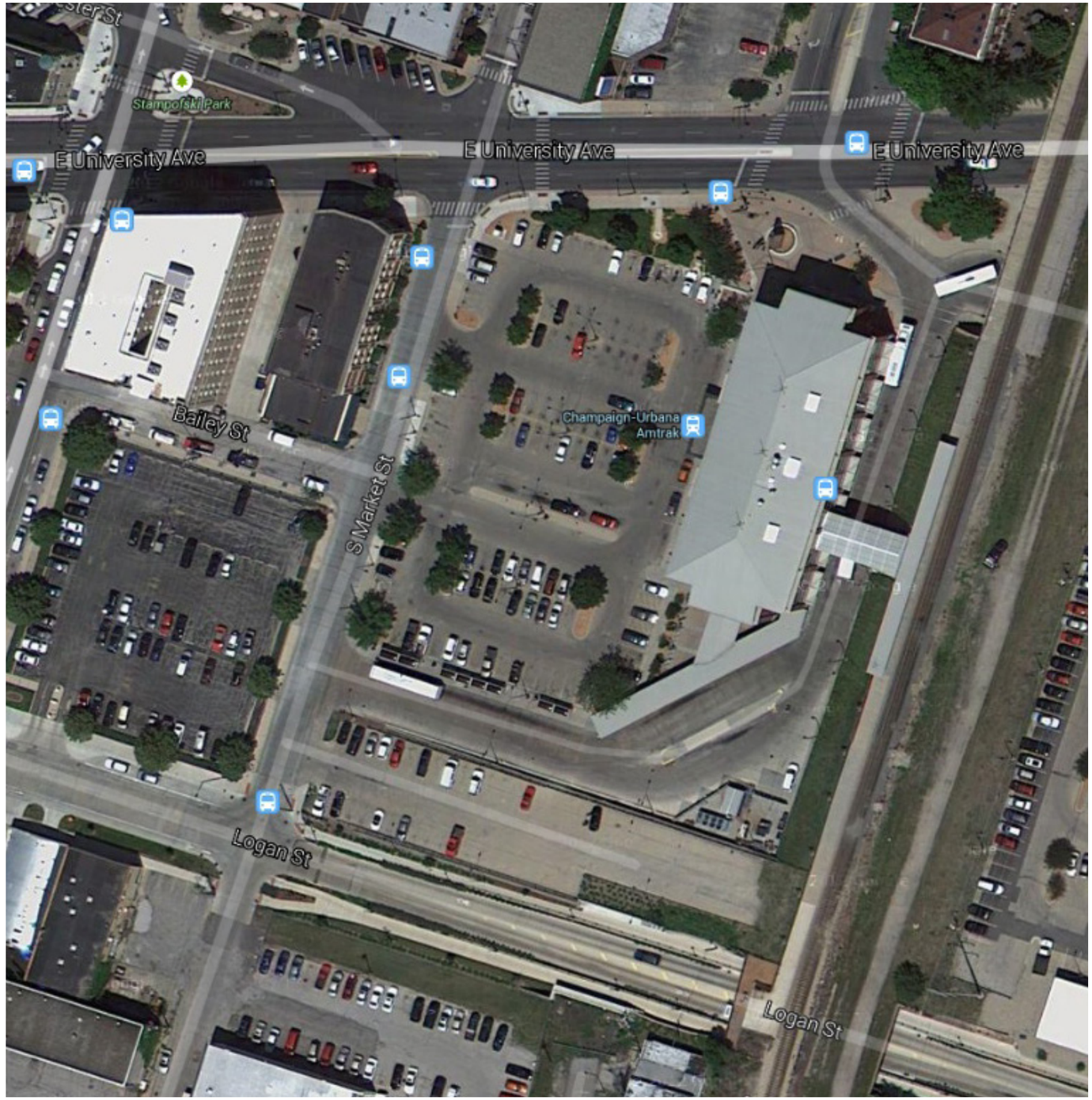
6 Conclusion

The CUMTD has added additional local routes, modified existing routes, and increased service frequency on several routes since Illinois Terminal opened in 1999, with overall ridership up nearly 25% since that time. The number of intercity bus operators at the terminal has tripled and Amtrak ridership has tripled, with Amtrak adding an additional roundtrip run each day due to increased demand. There are plans to ultimately provide high-speed rail in excess of 125 mph from Chicago to Memphis, stopping at Illinois Terminal.

The capacity of the terminal is currently strained, and with additional downtown, university, and regional growth, expanded bus and rail transit services will easily outgrow the current facility. Based on background research and analysis detailed in this report, it's recommended that 26 bus bays, a taxi stand for 12 taxis, and a total combined waiting area of 5,500 to 11,500 square feet be included in the expanded Illinois Terminal design. The current facility and estimates of future needs are summarized in Table 9.

Table 9 – Summary of Existing Services/Infrastructure and Future Needs

Agency	Existing Service	Existing Infrastructure	Future Needs	Future Needs for Waiting Areas	Notes on Future Needs
CUMTD	16 route segments use terminal throughout the day. Currently a maximum of 14 simultaneously at terminal.	11 total on-site parallel curbside bus bays (including island), with additional space on S Market St and space opposite bays used for buses during pulse. This includes 3 also used for regional bus services.	20 sawtooth bus bays	2,100 square feet	Provide adequate space for 16 current route segments plus 5 additional routes to arrive simultaneously for "pulse"
Greyhound	13 buses per day. Maximum of 2 simultaneously.	Platform D has 3 bus bays which are shared among regional agencies and are included in the total 11 bus bays at the terminal.	6 sawtooth bus bays.	1,400 square feet	Regional agencies expressed interest in having a consistent bay for their customers, which would require 6 bays. Any excess of 6 simulataneous buses could be accomodated by sharing CUMTD bus bays.
Burlington Trailways	4 buses per day				
Peoria Charter	14 buses per day. Maximum of 2 simultaneously.				
Megabus	4 buses per day				
Danville JARC	8 buses per day				
C-CARTS	Use 14, 12, and 6 passenger buses/vans. Frequency and time of demand response trips varies from day to day.				
Taxis	38 local taxi companies. No separate permit required to use the terminal	8 parallel parking spaces	A waiting area as well as a pickup/dropoff lane for 12 taxi vehicles.	N/A	Consistent with Downtown Champaign Parking Plan, taxi stand could be coordinated with the City of Champaign off-site somewhere nearby
Amtrak	6 trains per day. Two of the trains arrive 11 minutes apart.	One track with 700' platform. Track owned by Canadian Nation, which has a railyard just to the north of the terminal	Two tracks with separate or shared 700' platform	2,000 or 8,000 square feet, depending on high-speed rail service	Two tracks would accommodate local rail service at the terminal. If high-speed rail is implemented over the next 25 years, three tracks may be needed to accommodate roughly 25 daily high-speed trains, local trains serving Carbondale and points south, as well as freight. Due to uncertainty regarding the timeline of high-speed rail, two tracks should be first constructed, though the right-of-way preserved and platform design should allow for the possibility of three tracks with platform access.



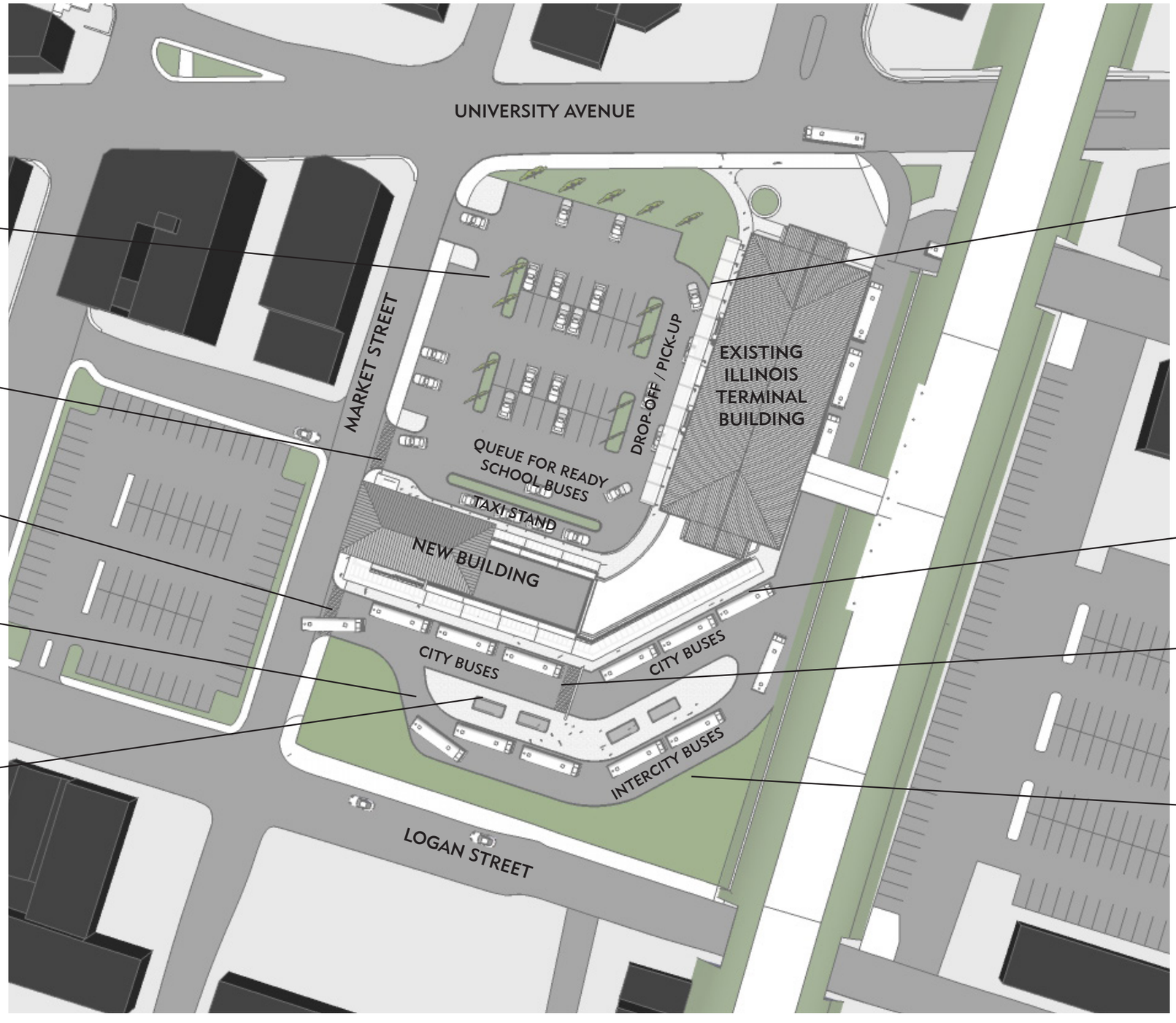
PLANNING LEVEL TRAFFIC ANALYSIS

by Vanasse Hangen Brustlin, Inc.

Illinois Terminal is located in downtown Champaign in a block that is roughly bounded by University Ave to the north, Neil/Walnut Streets to the west, Logan Street to the south, and the railroad to the east. As shown in Figure 1: Traffic Counts, the existing traffic volumes on these streets range from a low 11,100 vehicles per day (University Ave.) to a high of 19,000 vehicles per day on Neil Street just south of the merge of the one-way street pairs of Neil and Walnut Streets.

Both University Avenue and Neil Street south of the Terminal are four-lane urban streets. The one-way pair of Neil and Walnut Streets each have two travel lanes and on-street parking. There are signalized intersections at University and Neil, University and Walnut, and at the entrance to Illinois Terminal from University Avenue. From observations and a planning level analysis of both the existing traffic volumes and the available street capacities, it appears that the streets all operate at an acceptable level of service, well below the capacity of the streets and intersections. Therefore, there is available street capacity to handle an increase in activity at Illinois Terminal in the near term. In addition to existing traffic patterns, the 2035 Long Range Transportation Plan (LRTP) was reviewed to identify and predict future traffic congestion that is projected for the streets serving Illinois Terminal. This plan identifies both East and West University Avenue in the vicinity of the Terminal as having projected levels of congestion that are either near congested or congested without any improvements to the existing transportation system. With the recommended improvements contained in the 2035 Long Range Transportation Plan, the levels of congestion are projected to decrease to a level where only a few locations on University Avenue are projected to have levels of traffic near congestion but no locations where congestion is projected.

In order to determine a more precise level of traffic congestion resulting from the expansion of Illinois Terminal, a detailed traffic analysis is recommended, an analysis that is beyond the scope of this planning study. However, for planning purposes, the existing street system serving Illinois Terminal has available capacity for some level of expansion of the Terminal's activities.



REVISED PARKING LOT LAYOUT FOR GREATER EFFICIENCY

MODIFIED LOT ENTRY/ EXIT TO ALIGN WITH STREET INTERSECTION

SINGLE EXIT TO REDUCE TRAFFIC CONFLICTS

BUSES MERGE TO A SINGLE LANE

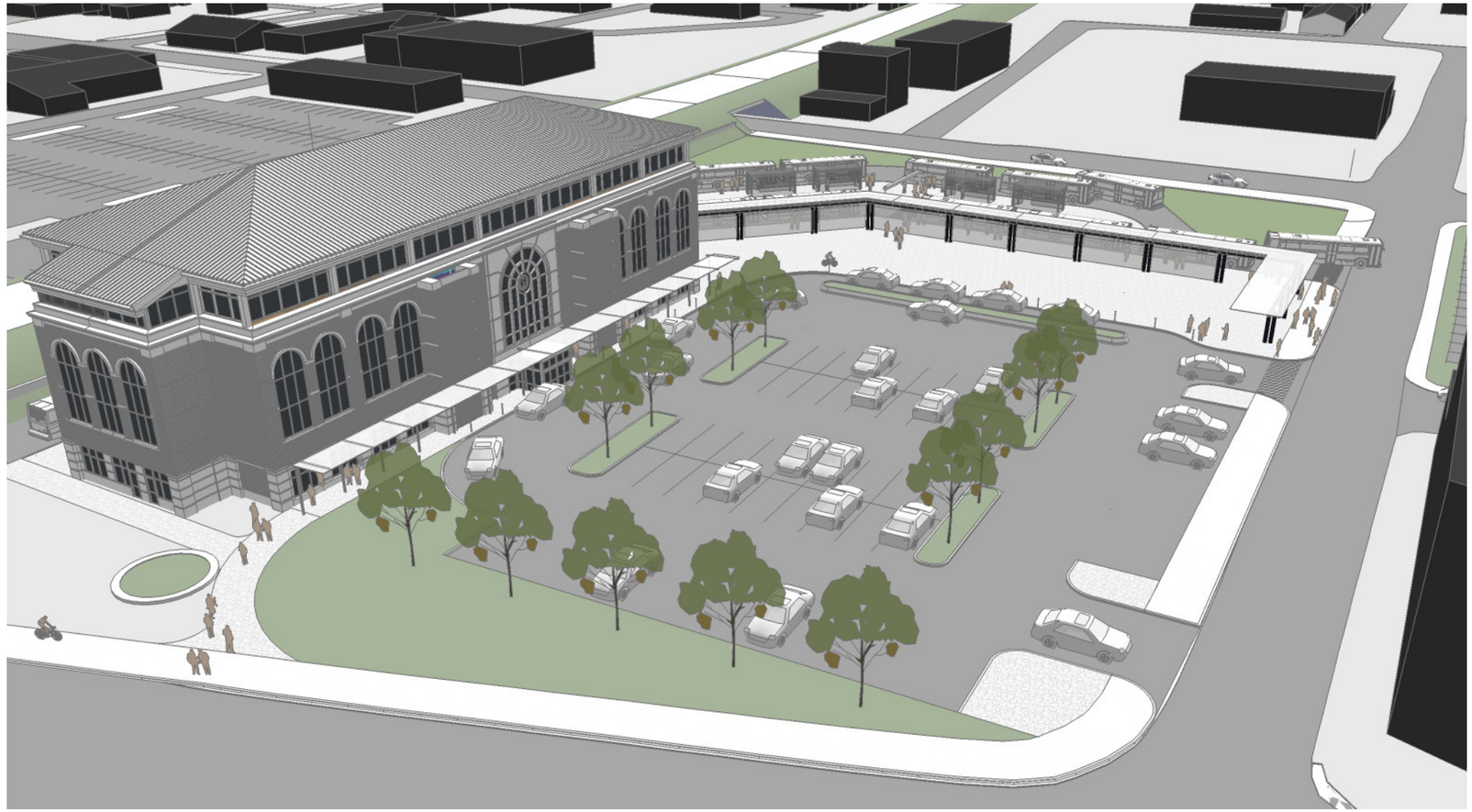
ISLAND WITH BUS SHELTERS

NEW CANOPY THAT RUNS LENGTH OF BUILDING

CONTROLLED ACCESS TO BUSES

CROSSWALK WITH AN OVERHEAD SIGNAL

RETAINING WALL



PHASED DEVELOPMENT

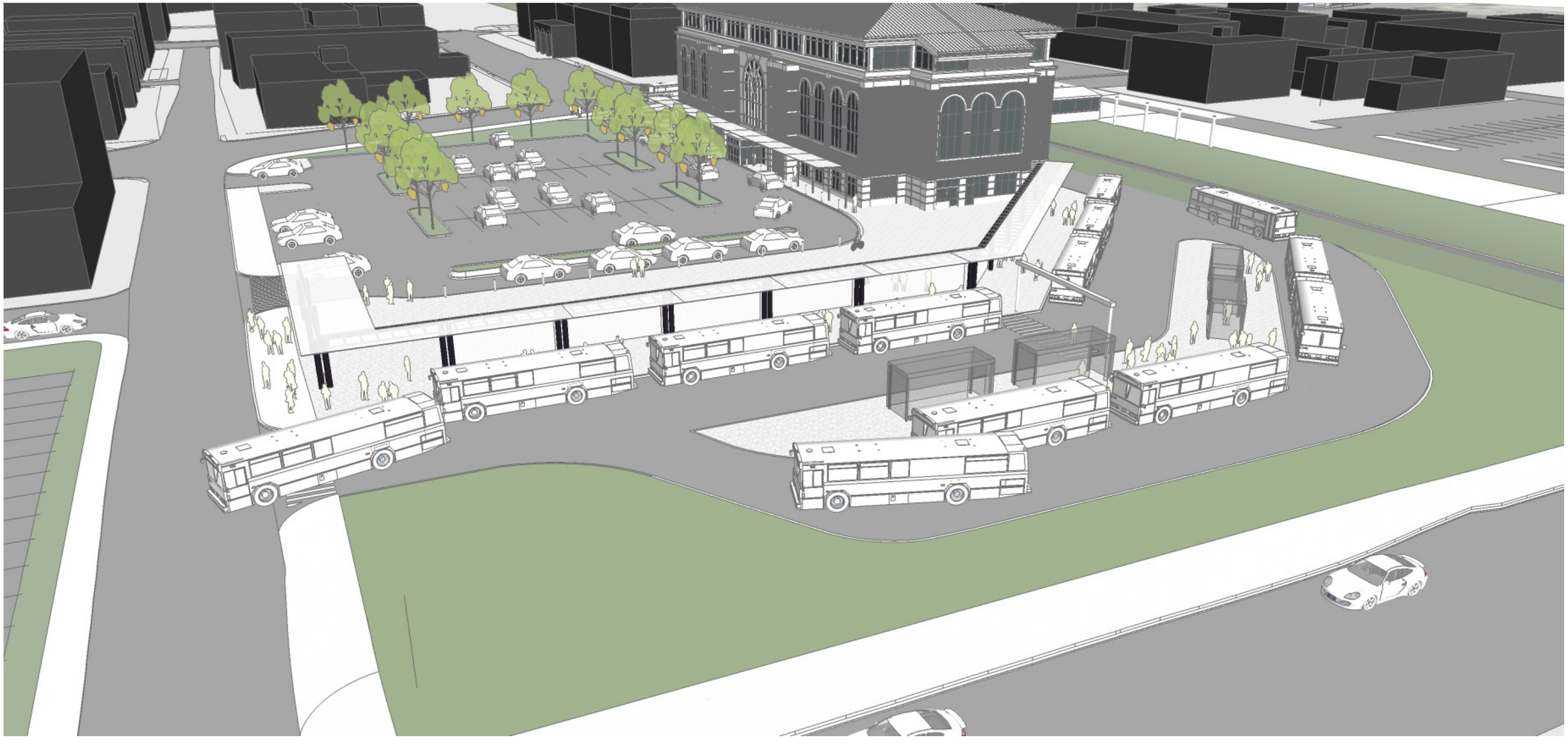
by RATIO

PHASE 1

- Site modifications
    - Modify walks to direct pedestrians to building entry points.
    - Revise existing parking lot to:
        Increase parking efficiency
        Create taxi / school bus queuing lane
        Alight entry/exit with intersection of Market and Bailey Streets.
    - Revise south paved areas to:
        Create a designated island with bus shelters for intercity buses.
        Control access to intercity bus island by collecting pedestrians at a single crosswalk with an overhead signal.
    - Merge buses to a single exit onto Market Street to reduce traffic conflicts.

- Replace existing portico at Illinois Terminal building main entry with a continuous canopy running full length of east facade.

- Construct extension of covered/protected waiting space and increase CUMTD bus queuing space.



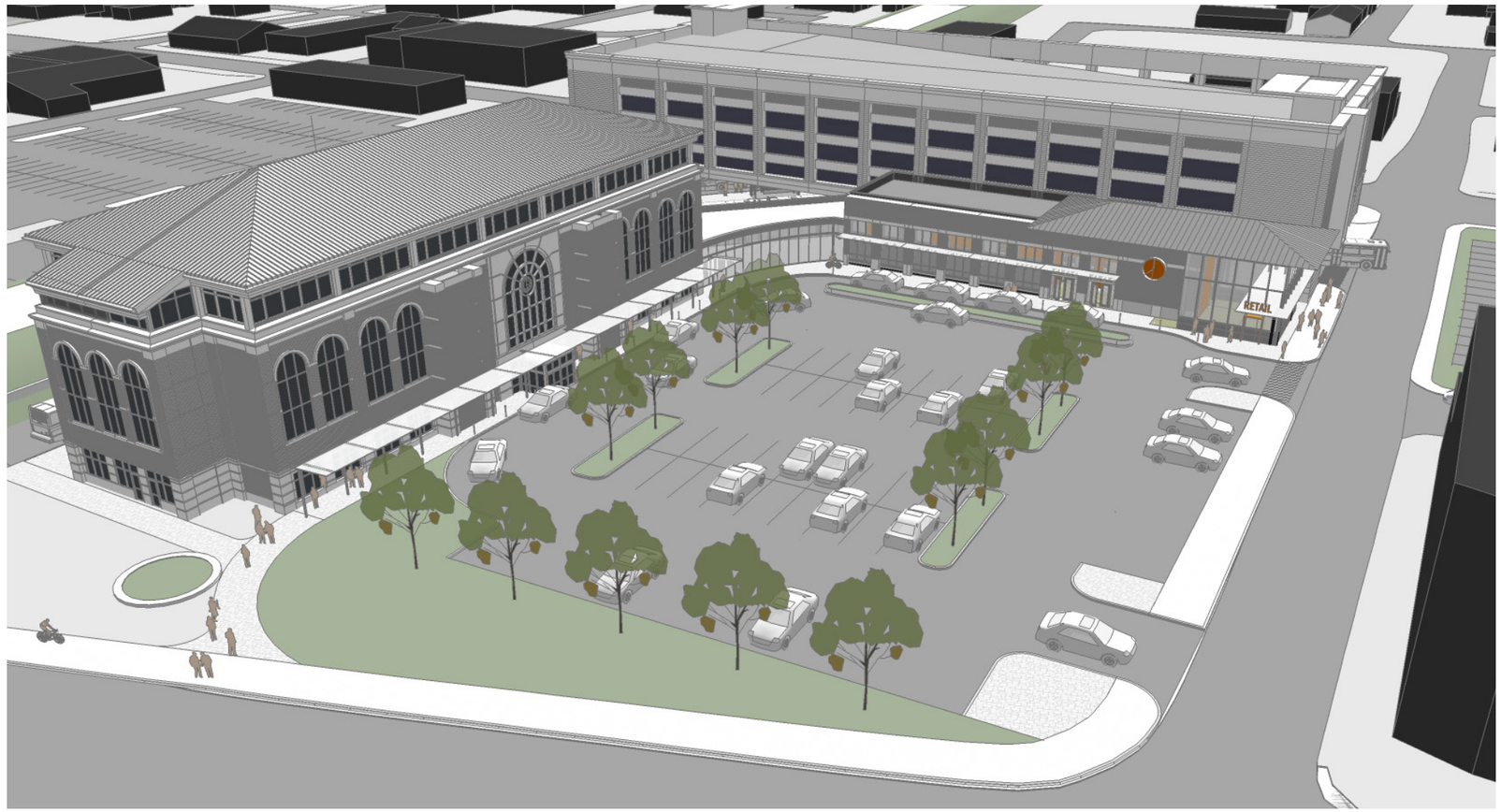
PHASED DEVELOPMENT

by RATIO

PHASE 2

- Construct a two-, three-, or four-story building.
    - Transit and retail functions at ground level
    - Leasable space on upper levels
- Construct a connection between existing Illinois Terminal building and the new building for circulation and conditioned waiting space.

6,000 GSF per floor x 2 floors = 12,000 GSF
or
6,000 GSF per floor x 3 floors = 18,000 GSF
or
6,000 GSF per floor x 4 floors = 24,000 GSF



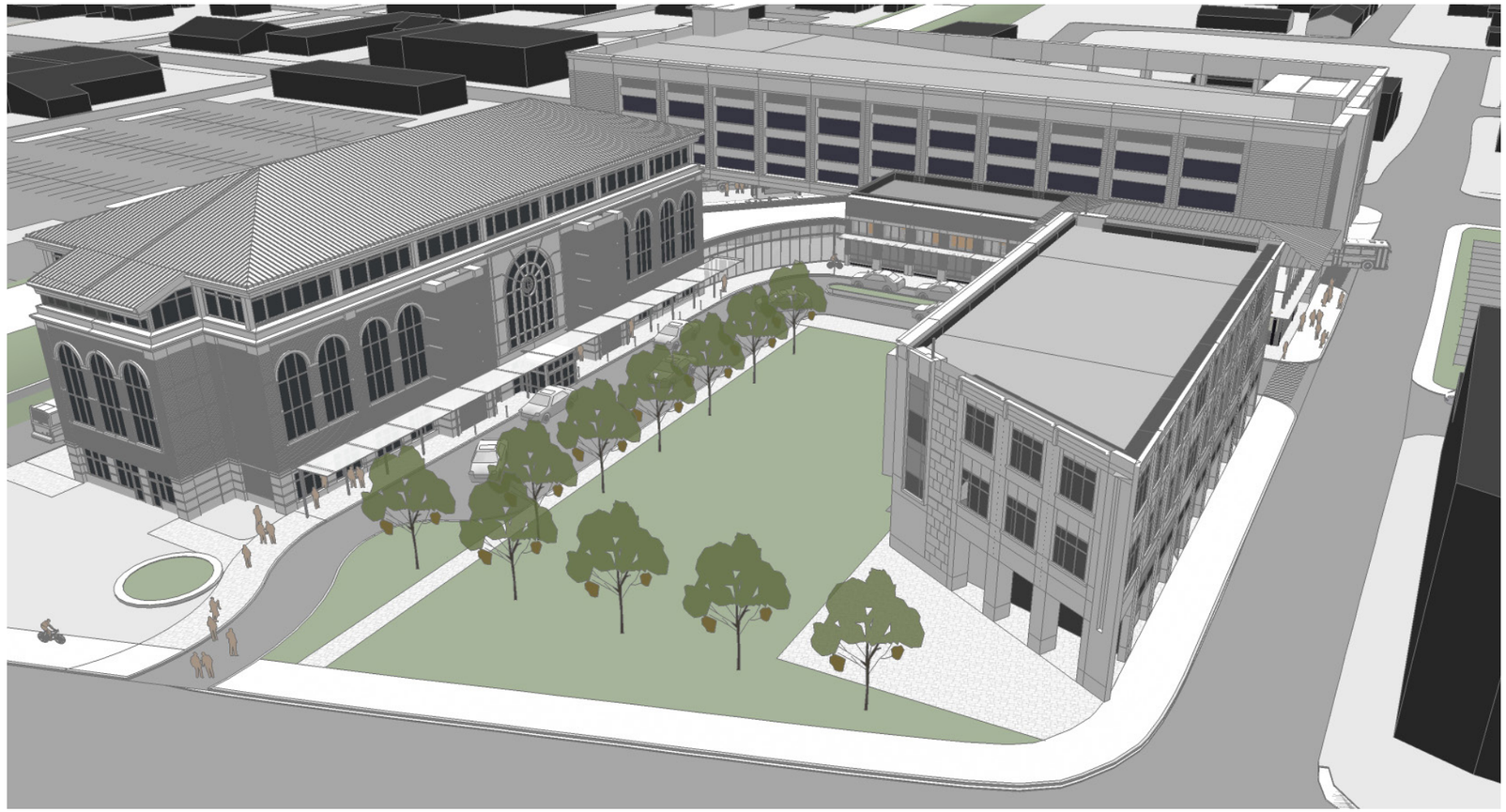
PHASED DEVELOPMENT

by RATIO

PHASE 3

- Construct three-level parking structure with stair towers.
- Create connections between parking structure and Phase 2 Building.
- No parking at ground level to allow for transit functions.

~290 feet x ~120 feet = 34,800 GSF per floor



PHASED DEVELOPMENT

by RATIO

PHASE 4

• Work with City of Champaign to convert existing parking lot to a civic park / plaza.

• Construct a four-story residential building.
  • Lobby and vertical circulation at north and south ends.
  • Leasable retail at ground floor.

Leasable retail = ~2,000 GSF
Residential = ~5,700 GSF per floor
Assume 8 units per floor x 3 floors =
24 units @ 700 GSF/unit

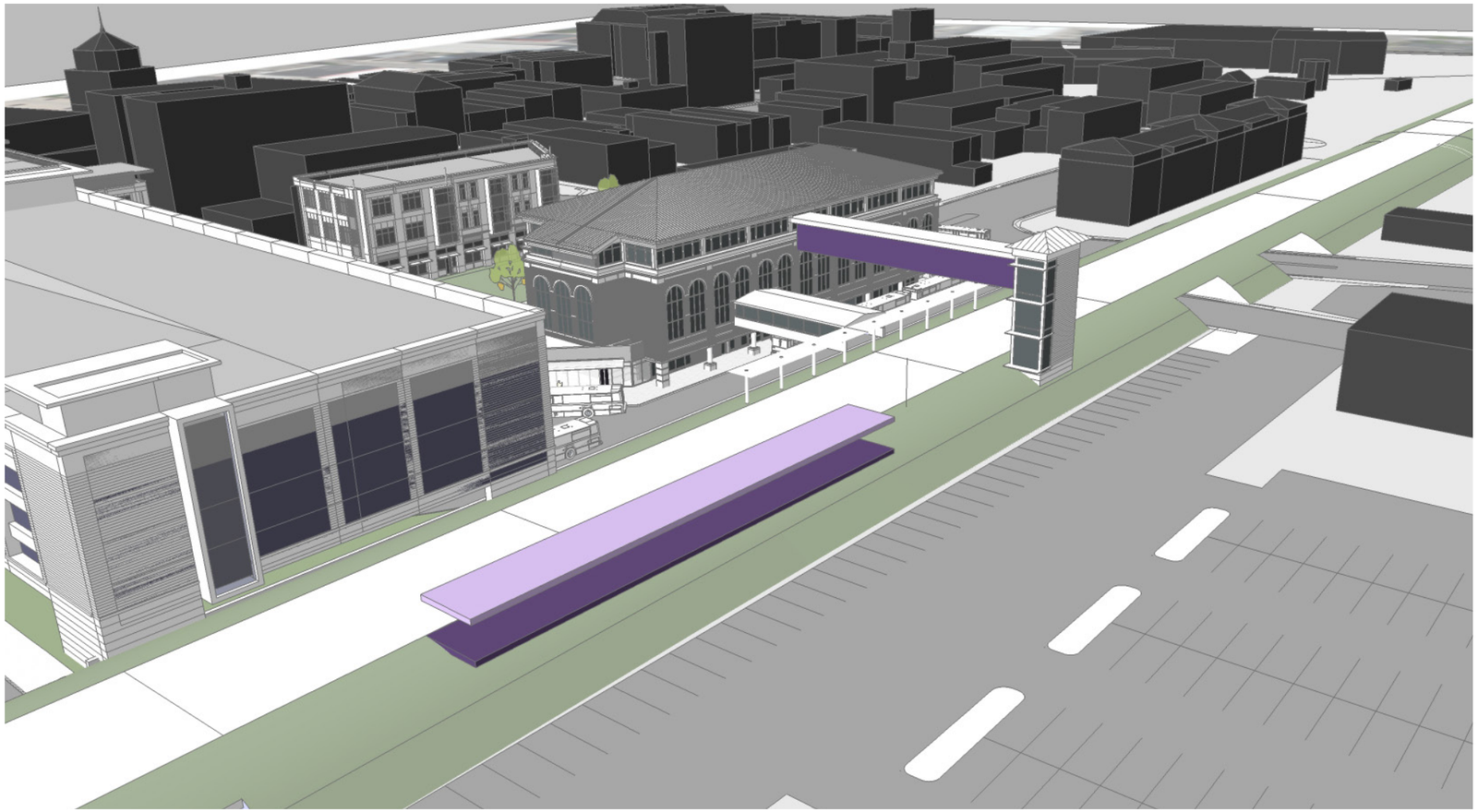
PHASED DEVELOPMENT

by RATIO

PHASE 5

• Work with Christie Clinic to construct a four-story building or building.
    • Leasable retail or transit functions at ground level.
    • Leasable office or residential at upper levels.

Leasable Retail = 5,000 GSF per building = 10,000 GSF
Leasable Office or Residential = 8,000 GSF per floor



PHASED DEVELOPMENT

by RATIO

HIGH SPEED RAIL PHASE

- Construct a pedestrian overpass over the railroad tracks and platform
    - Stair and elevator tower at east side.
    - New platform on east side in anticipation of, or concurrent with, high speed rail service.
    - Streamline entry and exit points to facilitate ticketless drop-off and pick-up at east side of tracks.

Basic Assumptions

1. Site utilities for each Phase are included from the building to a point where they would logically connect to mains or services that would feed them. No work is included inside the new or existing buildings unless specifically noted.
2. The work for each Phase is described as if it were a stand-alone project unless specifically noted. Work is described as if it were being built today with assumptions about utilities serving this site based on current conditions.
3. Existing site is nearly 100% impervious so storm water run-off essentially remains the same for all Phases. It is assumed that this site is included in the planning of the City's 2nd Street detention basin and will not require on-site detention. The existing on-site storm sewers maybe adequate at this time, but at some time in the future, we assume that additional storm sewers, connected directly to the municipal sewers on Logan Street, will be required.
4. Sanitary services will need to be connected to the 12" municipal main on Logan Street rather than the 6" on Market Street.
5. Water services will need to be connected to the 12" municipal main on Logan Street rather than the 6" in Market Street or the 8" in University Avenue.
6. Data, phone, cable would come thru City fiber beginning at the fiber manhole on the north side of the site. If alternate methods of voice/data/cable are used, the cost might be less.
7. Natural gas will come from utility company mains on Logan Street.
8. Electrical services will be underground from locations not clearly known at this time. We have allowed distances for possible routes that would be likely.
9. Existing site lighting is largely provided by City owned street lights. As the Phases progress, City owned street lights will be removed and new site lighting, fed from the buildings and structures, will be added.

Phase 1

Storm sewers – Add new underground storm drains to receive storm water from the new canopy and shelter roofs. Replace a portion of the existing underground storm sewers to accommodate the new foot print of the canopy. New storm drains would discharge into existing 15" underground on-site storm sewer with existing outfall located on Market Street.
Street lights/lighting and electrical power – Remove three (3) existing City owned street lights and provide new lighting on, and under, the new canopy and shelters. Electrical power for lighting and CUMTD information screens will be fed from the existing Illinois Terminal Building.
Data/Telecom – Feed CUMTD Information screens with data interface from the existing building and existing CUMTD bus scheduling/tracking system in the Illinois Terminal Building.
Area Heating – Add gas fired infra-red area heaters to the exterior bus waiting areas. Extend natural gas piping from the existing Illinois Terminal Building
Miscellaneous – Temporarily support and protect existing underground utilities including, but not limited to, cable TV, electrical power, and street lighting circuits during the construction period of this phase.

Phase 2

Storm sewers – Add new underground storm sewers to receive storm water from building roof drains or gutter and downspout systems. Replace a portion of the existing 15" underground storm sewers to accommodate the new foot print of the building. The capacity of the existing on-site underground storm sewers should be adequate to receive the building storm water; however subsequent phase will likely require separate connectors to municipal storm water mains on Logan Street. Capacity to serve Phase 4 in the future would be incorporated into these sewers. Modification to the northeast parking lot will require adjustments to the existing storm sewer catch basins.
Sanitary sewer – Add a new sanitary sewer service extending south to the existing 12" municipal main on Logan Street. Capacity to serve Phase 4 in the future would be incorporated into this sewer. The existing sanitary sewer on Market Street is assumed to be inadequate for this phase.
Natural Gas – Add a new underground natural gas service extending south to the existing Gas Company main on Logan Street. Capacity to serve Phase 4 in the future would be incorporated into this service by the Gas Company.
Domestic Water Service and Fire Service - Add new 2" domestic water service and 6" Fire service extending south to the existing 12" municipal main located on Logan Street. Capacity to serve Phase 4 in the future would be incorporated into these services.
Street lights/lighting and electrical power – Remove two (2) existing City Street owned lights and provide site lighting from the new building. Arrange for a new street light controller, to be owned by the City, to re-feed existing street lights along Logan Street and Chestnut Street. Provide new site lighting, fed from Phase 2 building electrical service to serve the existing northeast parking lot. This work assumes a "land swap", or some other arrangement, between the City and the CUMTD will be in place. Primary electrical power to the building will be underground feeders to a pad mounted transformer, at grade; with secondary power feeders underground into the building.
Data/Telecom – Add fiber-optic cable from the ITV3 manhole located on the north side of the site, underground through the parking lot, to the building. Telephone and cable TV, if separate from the fiber trunk, will be accommodated by underground services to the building from the nearest available source.

Phase 3

Storm sewers – Add a new 18", or larger, underground storm sewer to receive storm water from garage floor/trench drains. Route all site drainage south, to the 96" municipal storm sewer, on the south side of Logan. A new storm receiving structure will need to be built to make the final connection to the 96" sewer. Remove the existing underground storm sewers to accommodate the new foot print of the building.
Sanitary sewer – Tap the sanitary sewer service, provided with Phase 2, to serve the sanitary sewer requirements for this building.
Natural gas will probably not be required for this phase.
Domestic Water Service and Fire Service - Tap the domestic water service, provided with Phase 2, to serve the domestic water requirements for this structure. This parking structure will probably only require a dry stand-pipe fire protection system and therefore no underground fire service will be needed.
Street lights/lighting and power – Remove seven (7) existing City owned street lights and provide site lighting from the new building. Primary electrical power to the building will be underground feeders to a pad mounted transformer, at grade; with secondary power feeders underground into the building.
Data/Telecom – Tap fiber-optic cable inside the Phase 2 building. Telephone and cable TV, if separate from the fiber trunk, would also be tapped from sources within the Phase 2 building.
Miscellaneous – The existing air conditioning chiller, associated thermal storage system, and the emergency power generator, serving the Illinois Terminal Building, are presently located within the footprint of the Phase 3 parking structure. Relocate this equipment outside the new structure footprint, or in a suitable location within the parking structure. Protect equipment during construction and keep operation of all equipment continuous throughout construction of Phase 3.

Phase 4

Storm sewer – Extend the underground storm sewers provided as a part of Phase 2, and re-routed in Phase 3, to receive storm water from this building.
Sanitary sewer – Add a new sanitary sewer service extending south to the existing 12" municipal main on Logan Street.
Natural gas – Extend the natural gas service provided with Phase 2 to serve the natural gas requirements for this building.
Domestic Water Service and Fire Service - Extend the domestic water service, and the fire service, provided with Phase 2, to serve the domestic water and fire service requirements for this building.
Electrical power – Primary electrical power to the building will be underground feeders to a pad mounted transformer, at grade; with secondary power feeders underground into the building.
There are existing overhead primary feeders on poles, beginning north of University Avenue, running along the west sidewalk of this property, turning west along Bailey Street, and crossing Walnut Street. These feed multiple services to buildings in this area. These primary feeders will be too close to the Phase 4 building and will have to be relocated. This report will assume that the feeders will be relocated below grade, north of University Avenue and continue south within Market Street and re-emerge onto the pole at the southwest corner of Market and Bailey. Due to the complexity of this relocation, this is a "best guess" scenario. Actual configuration of this relocation could be greatly affected by factors beyond the scope of this report.
Data/Telecom – Add fiber-optic cable from the ITV3 manhole located on the north side of the site, underground through the parking lot, to the building. Telephone and cable TV, if separate from the fiber trunk, will be underground services to the building from the nearest available source.

Phase 5

Storm sewer – Add new underground storm sewers to receive storm water from building roof drains or gutter and downspout systems. Route the new sewer south to the 72" municipal storm sewer on Logan Street.
Sanitary sewer – Add a new sanitary sewer service extending south to the existing 12" municipal main on Logan Street.
Natural gas – Add a new underground natural gas service extending south to the existing Gas Company main on Logan Street.
Domestic Water Service and Fire Service - Add new 2" domestic water service and 6" Fire service extending south to the existing 12" municipal main located on Logan Street.
Electrical power – Primary electrical power to the building will be underground feeders to a pad mounted transformer, at grade; with secondary power feeders underground into the building. Existing pole mounted parking lot lights will be removed.
Data/Telecom – Add fiber-optic cable from the ITV3 manhole located on the north side University Avenue, underground through the alley between the Inman and the Illinois Traction Building, to the building. Telephone and cable TV, if separate from the fiber trunk, will be underground services to the building from the nearest available source.

OPINION OF PROBABLE CONSTRUCTION COST

CSI Division	Discipline	Description of Work	PHASE 1 Quantity	Unit	Unit Cost	Total	PHASE 2 Quantity	Unit	Unit Cost	Total	PHASE 3 Quantity	Unit	Unit Cost	Total	PHASE 4 Quantity	Unit	Unit Cost	Total	PHASE 5 Quantity	Unit	Unit Cost	Total	PHASE 6 (High Speed Rail) Quantity	Unit	Unit Cost	Total
02 00 00	**EXISTING CONDITIONS - Demolition**																									
		Phase 1 - Demo existing portico		Allowance		$10,000																				
		Phase 2 - Demo bus waiting space (roof and Plexiglas walls).						Allowance		$50,000																
		Phase 3 - Demo bus canopy and parking										Allowance		$100,000												
03 00 00	**NEW CONSTRUCTION - BUILDING** ***(Includes General and MEP/FP costs)***																									
		Phase 1 - Construct new bus waiting space (roof and Plexiglas walls) and construct 2 new stand-alone bus shelters.	6,000	sf	$125	$750,000																				
		Phase 1 - Construct new canopy at west side of existing bldg	2,500	sf	$100	$250,000																				
		Phase 2 - Construct new building (assume four stories)					24,000	sf	$250	$6,000,000																
		Phase 2 - Construct connection between Terminal bldg and new bldg (Assume 12'x160').					2,400	sf	$100	$240,000																
		Phase 3 - Construct new 3-level parking garage with connections to Phase 2 building (Assume 300 spaces total, 100/level, none at 1st floor, but account for space)									400	space	$15,000	$6,000,000												
		Phase 4 - Construct new four-story building at corner of Market and University													22,800	sf	$250	$5,700,000								
		Phase 5 - Construct 2 new four-story buildings																	80,000	sf	$250	$20,000,000				
		Phase 6 - Construct new HSR stair/elevator tower and 300' elevated platform																					Based upon recent experience at Normal			$4,500,000
32 00 00	**EXTERIOR IMPROVEMENTS**																									
		Phase 1 - Existing pavement removal, tree removal, earthwork/grading/topsoil, new concrete walk, bituminous pavement, new curb and gutter, pavement markings, understory/border planting, trees, lawn (sod), overhead crossing signal.	96,000	sf		$735,000																				
		Phase 2						Allowance		$50,000																
		Phase 3										Allowance		$75,000												
		Phase 4 - Existing pavement removal, tree removal, earthwork/grading/topsoil, new concrete walk, bituminous pavement, new curb and gutter, pavement markings, understory/border planting, trees, lawn (sod).													26,000	sf		$228,150								
		Phase 5																		Allowance		$250,000				
		Phase 6 (HSR)																						Allowance		$50,000
33 00 00	**UTILITIES** ***(Provided by Clark Dietz)***		Lump Sum			$100,000	Lump Sum			$150,000	Lump Sum			$260,000	Lump Sum			$515,000	Lump Sum			$165,000				
		Subtotal				**$1,845,000**	**Subtotal**			**$6,490,000**	**Subtotal**			**$6,435,000**	**Subtotal**			**$6,443,150**	**Subtotal**			**$20,415,000**	**Subtotal**			**$4,550,000**
01 00 00	**GENERAL REQUIREMENTS** *(Assume 10% of construction costs)*					$184,500				$649,000				$643,500				$644,315				$2,041,500				$455,000
		Construction Total				**$2,029,500**	**Constr Total**			**$7,139,000**	**Constr Total**			**$7,078,500**	**Constr Total**			**$7,087,465**	**Constr Total**			**$22,456,500**	**Constr Total**			**$5,005,000**
		Design Contingency		5%		$101,475		5%		$356,950		5%		$353,925		5%		$354,373		5%		$1,122,825		5%		$250,250
		Bid Contingency		5%		$101,475		5%		$356,950		5%		$353,925		5%		$354,373		5%		$1,122,825		5%		$250,250
		Construction Contingency		5%		$101,475		5%		$356,950		5%		$353,925		5%		$354,373		5%		$1,122,825		5%		$250,250
		Total Contingency				$304,425	Total Contingency			$1,070,850	Total Contingency			$1,061,775	Total Contingency			$1,063,120	Total Contingency			$3,368,475	Total Contingency			$750,750
		Construction Total Plus Contingencies				**$2,333,925**				**$7,560,850**				**$7,496,775**				**$7,506,270**				**$23,783,475**				**$5,300,750**
		Escalation (Assume 2017 bid date)		7.0%		$163,375		7.0%		$529,260		7.0%		$524,774		7.0%		$525,439		7.0%		$1,664,843		7.0%		$371,053
		TOTAL CONSTRUCTION COST				**$2,497,300**				**$8,090,110**				**$8,021,549**				**$8,031,709**				**$25,448,318**				**$5,671,803**
	OWNER'S COSTS ***(estimated @ 20%)***					**$499,460**				**$1,618,022**				**$1,604,310**				**$1,606,342**				**$5,089,664**				**$1,134,361**
		Total Project Cost				**$2,996,760**				**$9,708,131**				**$9,625,859**				**$9,638,050**				**$30,537,982**				**$6,806,163**

ASSUMPTIONS:

Estimate assumes that construction work will be competitively bid.
Estimate is escalated assuming a 2017 bid window.

INCLUSIONS:

Estimate includes General Conditions, Overhead, Profit, and Bond (roughly 10%).
Estimate includes labor costs per Champaign County Prevailing Wage.

EXCLUSIONS:

Estimate excludes land purchase.
Estimate excludes environmental and hazardous materials testing.
Estimate excludes construction phasing costs and relocation/moving costs..
Estimate excludes construction management fees.
Estimate excludes LEED registration and associated third party commissioning.
Estimate excludes system integrity costs (i.e. utilities on/off).
Estimate excludes copiers, printers, computers, phones, etc.
Estimate excludes door security systems and associated programming.
Estimate excludes Audio/Visual design, components, installation, and programming.

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