4

Transportation

ASSESSMENT OF EXISTING CONDITIONS

Streets & Vehicular Traffic

Traffic

The Marshall Court corridor is just north of the busiest road in Dane County, aside from the US Highway and Interstate systems. With an estimated 51,250 vehicles per day (VPD), University Avenue is the main conduit of car and bus traffic to the University and Downtown from the west side of Madison, the City of Middleton, and the Village of Shorewood Hills. Regent Street, with just over 30,000 VPD near the Park Street intersection, is the only other route to the University and Downtown from the west. The importance and visibility that the University Avenue corridor brings to the Marshall Court area is substantial.

University Bay Drive, and the eastern edge of the area, also carries a significant amount of traffic — approximately 14,350 VPD just south of Marshall Court (traffic counts are 2006 City of Madison numbers). The amount of traffic on University Bay Drive is high for a two-lane urban road. Cars queuing to turn left onto University Bay Drive from University Avenue frequently back up beyond the 400-foot turn lane that has been provided, causing congestion on University Avenue. Given the continuing growth of the UW Hospital and the many associated educational and office facilities on campus, this issue will likely worsen in the coming years. The UW's commitment to limiting parking and offering free bus passes will mitigate the issue somewhat, but University Bay Drive and Highland Avenue will still face increasing congestion.

The University Bay Drive / Marshall Court intersection, which is just 270 feet from University Avenue and 200 feet from the rail line, suffers from the heavy traffic on University Bay Drive, which can make it difficult to enter and exit, especially during peak hours. The only other access to Marshall Court is on the western edge. This intersection with University Avenue is unsignalized, making left turns onto University Avenue and from University Avenue difficult. At certain times of day, left turns onto University are prohibited.

Strand Associates performed a traffic study for Marshall Court, which was completed shortly before this Neighborhood Plan. The study analyzed current level of service (LOS) conditions and projected future conditions based upon two redevelopment scenarios for the corridor. Potential improvements discussed in that report are integrated into the recommendations portion of this section.

The most poorly rated movements in the area are left turns from University Bay Drive onto University Avenue and left and right turns off of Marshall Court onto University Bay Drive. Please see the Strand Associates report for a complete discussion of current conditions.

Road Conditions and Layout

University Bay Drive was resurfaced in 2007, and should be sufficient for the near future. Beyond that, the Village may wish to coordinate with the University on any reconfiguration/expansion options (see Recommendations section for further discussion).

The Marshall Court roadbed is in fair condition. The configuration of Marshall Court, with varying ROW widths, 90-degree angled parking of varying depth, intermittent sidewalks (primarily at the western end), and frequent driveways all make the street a candidate for redesign and reconstruction, which could eliminate most of the confusion and conflicts inherent in the current layout.

University Avenue south of Marshall Court is currently scheduled for much needed pavement joint repair in 2009-2010. University Avenue/ Campus Drive east of University Bay Drive is scheduled for reconstruction in 2012, according to the Madison Area Metropolitan Planning Organization's (MPO) 2008-2012 Transportation Improvement Program.

Parking

Parking in the Marshall Court planning area is currently a mix of 90-degree on-street parking and off-street private parking in small surface lots. The planned redevelopment at 800 University Bay Drive will increase parking at that site, while simultaneously moving all parking underground. Aside from the small scattered lots along Marshall Court, the largest concentrations of parking in the planning area are: the Unitarian Meeting House parking lot, the University Station parking lots, the Post Farm Park parking lot, and the linear parking lot just north of the railroad tracks.

The linear parking lot along the railroad tracks contains approximately 160 parking spaces. The parcels have four different owners; the owners all own buildings along the south side of Marshall Court. Given the spaces that accompany most of the buildings on Marshall Court and the on-street parking, the area as a whole actually appears to be over-parked for the current amount of office space. Weekday site visits have shown ample available parking on Marshall Court, in the

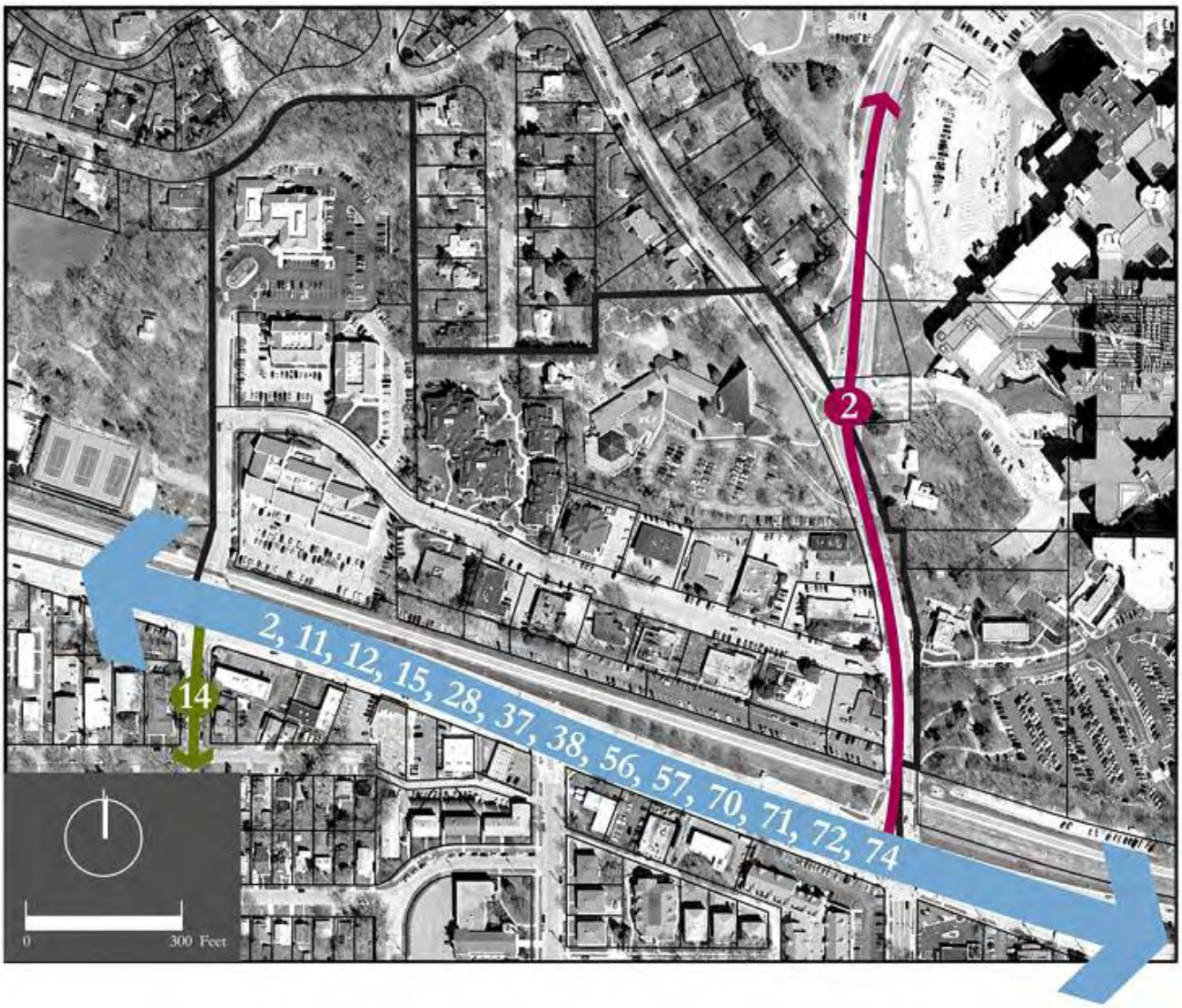
parking lot along the railroad tracks, in most of the individual parking lots, and at the University Station retail. The most congested area was the UW Clinic and the two office buildings adjacent to it. The UW runs employee shuttles from the hospital parking lots to the clinic.

Parking issues within the area seem to be more of a result of overflow from the hospitals than any imbalance within the Marshall Court area itself. Marshall Court street parking is 2-hour parking, and seems to be well-enforced.

Buses

14 Madison Metro weekday bus routes run along University Avenue south of Marshall Court, with a westbound "pull-out" stop along the north side of University Avenue. One route — the #2 — turns from University Avenue onto University Bay Drive. The #2 route runs from the north transfer point near the Aberg Avenue/Packers Avenue interchange, through Downtown Madison and the University, out to the west transfer point at Whitney Way and Tokay Boulevard. The frequent bus service to the area is a major benefit and, if linked with TDM measures in redevelopments, could serve to help increase density along Marshall Court while keeping traffic increases in check. See map 4.1 for bus routes that are adjacent to the planning area.

Map 4.1: Bus routes in the planning area.



Bicycles

Shorewood's bicycle system utilizes dedicated paths, shoulder bike lanes on roads, and designated bike routes on residential side streets. There are no bike routes though the Marshall Court planning area, though there is a path through Post Farm Park. The University of Wisconsin recently extended a bike path connection to the planning area. Right now, Marshall Court is the "missing link" of a University Avenue path from Spring Harbor Drive in Madison, all the way to Camp Randall Stadium and the University Avenue bike lanes that run through the UW Campus.

No bicycle system projects are shown in Shorewood Hills on the Madison Area MPO's 2008-2012 listing of major bicycle/pedestrian improvements. Designation in the MPO's Transportation Improvement Program is an important step to getting funding assistance through state and federal sources, including grant programs.

The University recently completed a bicycle path that ends at University Bay Drive.

Pedestrians

Pedestrian circulation through the area is poor. The only portion of Marshall Court that currently has a sidewalk is a 700 foot stretch along the northern side, in front of Shackleton Square and the University Station office complex. Even that section is not contiguous –- there is a gap between the Shackleton Square section, which is on private property, and the University Station section, which is in the public ROW. The path through Post Farm Park empties out onto Marshall Court, with no sidewalk or path connectors. Sidewalks along University Bay Drive south of Marshall Court have little or no terrace area; north of Marshall Court there is no sidewalk along the east side of University Bay Drive.

Sidewalk sections are short and discontinuous in the Doctor's Park area.

Rail

A Wisconsin & Southern rail line runs along the entire southern edge of the planning area. The line is used for freight, and generally has light traffic; most trains use the tracks at night.

The County's Transport 2020 planning process has recommended using the tracks for a commuter rail route from Middleton to Sun Prairie. The current map shows 3 stops in Shorewood Hills: directly north of the Midvale Boulevard terminus, at Shorewood Boulevard, and in the vicinity of the VA Hospital, which is immediately adjacent to the planning area. Federal funding assistance has been applied for to construct the system. A Regional Transit Authority (RTA), with an as yet undetermined funding mechanism, would need to be

authorized by the state to operate the system. The long-term timetable has commuter rail service starting in 2014-2015, assuming federal funding is acquired, RTAs are enabled by the state, and voters approve a referendum.

PUBLIC WORKSHOP #1 RESULTS

During the circulation portion of the first public workshop, participants were asked to fill out a survey ranking potential improvements to the circulation system and the issues that should take priority. They then participated in a mapping exercise to graphically portray problem areas and potential improvements. The potential improvement ranking average is as follows: (1= most important):

1. Better pedestrian connections/sidewalk improvements
2. Alternative transportation modes (generally)
3. More bike facilities
4. Bus service improvements
5. More parking facilities for cars
6. More street capacity to relieve vehicle traffic

Issues that raised the most concern are:

1. Pedestrian connectivity
2. Pedestrian safety
3. Vehicle traffic (in general)
4. Mobility – University Bay Drive
5. Bicyclist safety
6. Mobility – University Avenue
7. Speeding
8. Mobility – Marshall Court
9. Parking
10. Road/Sidewalk upkeep
11. Bus system ease of use

(Mobility was defined as the ease of movement onto and along a given corridor.)

Participants were also asked to examine various sections of proposed Marshall Court configurations, and rate the components in order of desirability:

1. Bike path along rail line
2. Street trees on both sides of street
3. Parking on both sides of street
4. Parking on one side of street
5. Bike lane on one side of street
6. Street trees on one side of street
7. No on-street parking
8. Bike lane on both sides of street
9. No bike lanes/paths

The concept of a bike path along the rail line received a top rating from *every* person at the meeting.

During the mapping exercise, participants identified unsafe areas, needed pedestrian and bike connections, and other transportation improvements.

Unsafe areas that were identified include the four intersections in the planning area: University Avenue and Marshall Court in front of University Station, University Ave and University Bay Drive, University Bay Drive and Marshall Court, and University Bay Drive and Highland Ave. Participants also identified entrances to parking lots as unsafe, particularly the entrance to the frontage parking off of University Bay Drive near University Ave., and the Unitarian Meeting House parking lot. Both sides of Marshall Court were noted as unsafe pedestrian areas because of the discontinuous or absent sidewalks and conflicts with parked cars. Pedestrian crossing areas were also identified as hazardous on Marshall Court connecting from the park, at Highland Avenue and University Bay Drive, and crossing University Avenue.

Needed pedestrian connections were mapped from the residences on Cornell Court south to Marshall Court and University Station. Better connections across University Bay Drive and University Avenue were identified, as well as a continuous route along Marshall Court and an east-west connection along the tracks.

Desired bike connections were mapped from Cornell Court south to Marshall Court and west to the park, and east-west along the tracks.

Other transportation improvements include a commuter train depot on the east side of the University Avenue and University Bay Drive intersection, and additional bus stops with "pull-outs" along University Bay Drive and University Avenue. An additional right turn lane was also mapped from University Bay Drive onto University Avenue. One group suggested that Marshall Court be changed from a through street into a dead end, so that access from the west would dead end in front of Shackleton Square, and an additional intersection in line with Franklin Ave would provide access to the businesses between Shackleton Square and University Bay Drive.

GOALS & OBJECTIVES

Goal No. 1: Provide enhanced safety and connectivity for pedestrian and bicycle traffic.

Objective No. 1: Implement the desired Marshall Court street section, with a consistent right-of-way width and sidewalk location.

One of the most frequent comments on the Doctor's Park area was the dangerous nature of the street. The 90-degree parking, combined with the lack of sidewalk connections, forces people to walk in the street. Bikes, pedestrians, and cars must all use the same roadway. The confusing nature of the varying parking and street width configurations makes the area even more dangerous.

A proposed street configuration is shown on pages 36 and 37. The configuration recommends a 64 foot right-of-way, with a 5-foot sidewalk on both sides of the street, an 8-foot terrace on both sides of the street, an 8-foot on-street parking lane on both sides of the street, and 11-foot travel lanes in both directions. This improvement should be paid for through Tax Increment Financing.

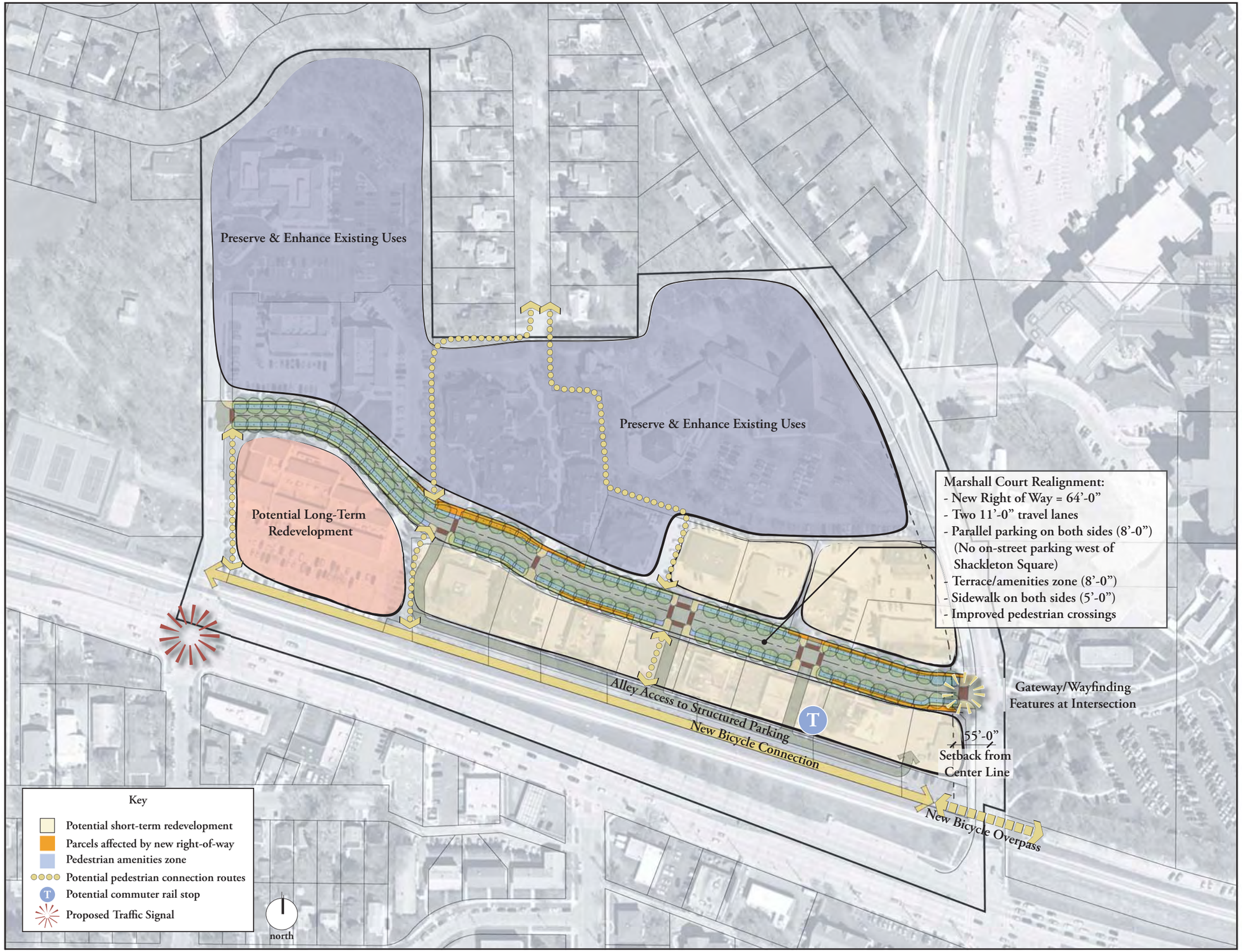
Objective No. 2: Provide additional pedestrian connections from residential areas to destinations within the neighborhood.

Two related comments were brought up in the neighborhood workshops: Shackleton Square residents were frustrated with pedestrians cutting through the middle of their condominium development, and neighborhood residents to the north were frustrated with the lack of public sidewalk alternatives to reach Marshall Court. Cutting through Shackleton Square will remain popular as long as the only alternative is a half-mile detour via University Bay Drive. Residents of both areas would seem to benefit from an easement for a public sidewalk. Please see Map 4.2 for a map of potential connections from Cornell Court to Marshall Court.

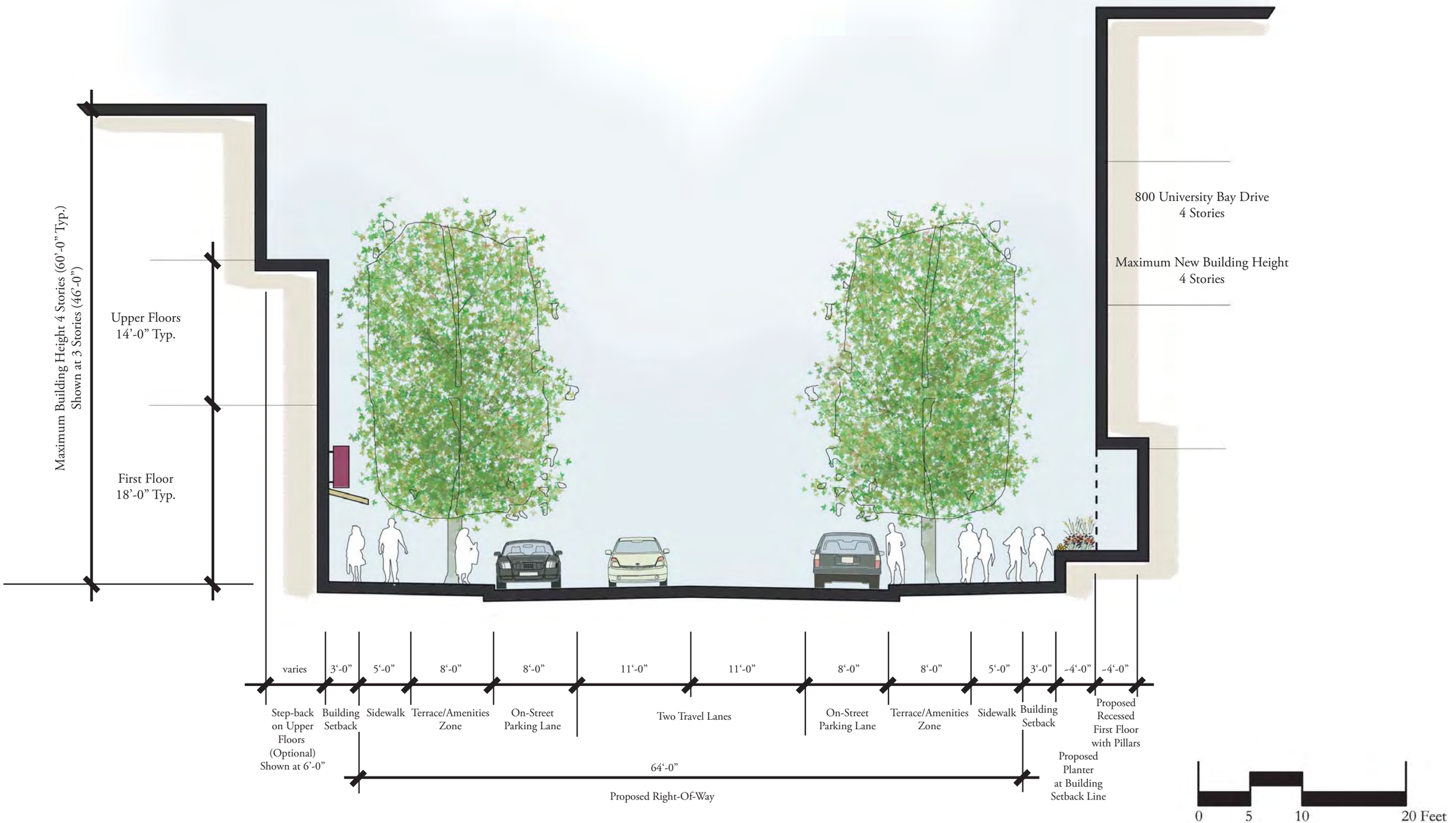
Other connections should be provided as redevelopment occurs. There should be at least 2 mid-block connections to any bicycle path that is built along the railroad. One such connection should run along the eastern edge of the University Station retail to connect with the Shackleton Square easement. Connectivity between redeveloped buildings and a new bike path along the railroad should be encouraged as part of design review.

Objective No. 3: Provide a designated bicycle route through the neighborhood area.

Results from the neighborhood workshop indicate strong support for continuing the bike path along the rail line and minimal support for on-street bike lanes on Marshall Court. The concept includes an overpass of University Bay Drive, which has the highest traffic counts of any street north of University Avenue between Allen Boulevard in Middleton and Park Street on the UW Campus.



Map 4.2: Recommended Marshall Court Layout



DOCTORS PARK NEIGHBORHOOD PLANNING

4.3: Proposed Marshall Court Cross Section

VIERBICHER ASSOCIATES Committed to Quality Service Since 1976

DOCTORS PARK NEIGHBORHOOD PLANNING

4.4: Proposed Conditions – Facing West Along Marshall Court

VIERBICHER ASSOCIATES Committed to Quality Service Since 1976

DOCTORS PARK NEIGHBORHOOD PLANNING

4.5: Proposed Conditions- Facing Southwest Along Marshall Court

VIERBICHER ASSOCIATES Committed to Quality Service Since 1976

DOCTORS PARK NEIGHBORHOOD PLANNING

4.6: Proposed Conditions- Facing East Along Marshall Court

VIERBICHER ASSOCIATES Committed to Quality Service Since 1976

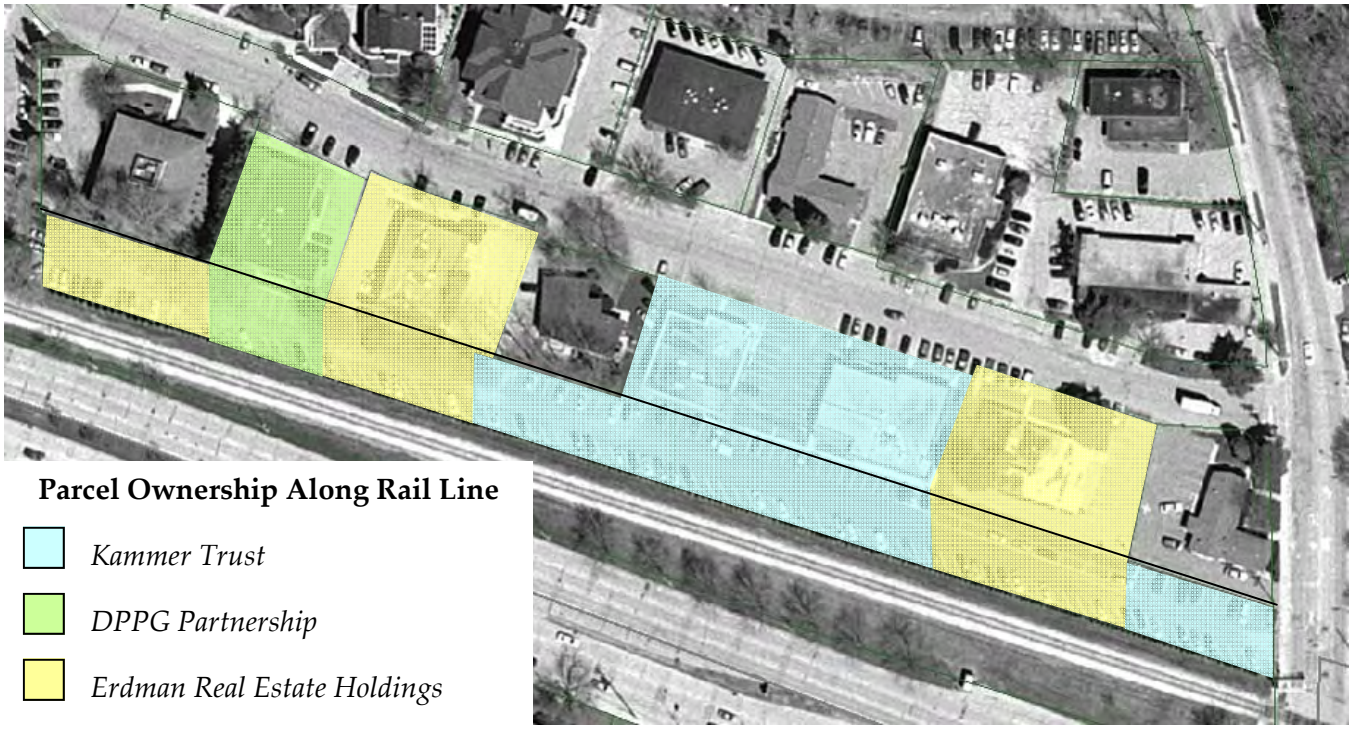
The Village may need to acquire property or easements along the rail line in order to build the path. TID funds could be used for the expense. The mixed ownership of all of the parcels along the railroad tracks will make acquiring the land difficult.

There will also be concern about providing sufficient parking for adjacent buildings between installation of a bike path and redevelopment of buildings. A phased approach may be required, whereby the Village acquires the property to extend the bike path, but retains some parking along the north side to accommodate existing businesses. The Madison Area MPO should be informed of the Village's plans so that they can be added to the regional bike plan, which would make the projects more likely to receive grant assistance.

A design for the bike path and potential overpass will need to be finalized at a later date. The design may be integrated with future development along the corridor.

Goal No. 2: Promote strategies and improvements aimed at mitigating existing and future traffic congestion.

Objective No. 1: Increase safety and capacity at intersections within and adjacent to the neighborhood. One of the most crucial components of allowing redevelopment to occur along Marshall Court is installation of a traffic signal at Marshall Court and University Avenue. The traffic study performed by Strand Associates indicates that a signal is the most critical improvement that can be made in relieving current congestion and allowing for an increase in density along the Marshall Court corridor. Without the signal, continuing densification along the lines of the 800 University Bay Drive project will become increasingly difficult as more pressure is put on the already overburdened Marshall Court/ University Bay Drive intersection. Redevelopment would be stifled because it rarely makes financial sense to redevelop property at the same or lower density. Discussions with the City of Madison suggest that a full signal at the intersection is unlikely, however, study of a partial signal (one that allows some but not all



turning movements) at the intersection of University Avenue and Marshall Court/Ridge Street is recommended.

Another potential improvement discussed in the Strand Associates traffic study is the addition of a median on University Bay Drive to prevent left turns from and onto Marshall Court. Cars would need to continue up University Bay Drive and make a U-turn at Highland Avenue. The Highland Avenue intersection would need to be reconfigured to accommodate this change in circulation. The reconfiguration could take the form of a four-way stop or installation of a roundabout. The roundabout would require substantial grading work, and the four-way stop would result in a reduction in efficiency. Coupled with the addition of a Marshall Court/ University Avenue traffic signal, such a change to the circulation would likely shift some traffic west, away from University Bay Drive.

The Village, in conjunction with the City of Madison, may also want to consider a dual left turn lane from University Avenue onto University Bay Drive when University Avenue is reconstructed. There appears to be sufficient excess ROW to the north along that section of University Avenue to accommodate such an adjustment without losing the bus "pull out" area. Such an adjustment would require extending the northbound section of University Bay Drive that is two lanes to Highland Avenue in order to receive the turns from an expanded University Avenue turning lane.

Discussions with City of Madison staff suggest that the Village should continue efforts to coordinate improvements for all travel modes. In particular, improvements for southbound University Bay Drive motor vehicle traffic combined with improved pedestrian and bicycle accommodations at the intersection of University Avenue and University Bay Drive should be further investigated. Such improvements could include a second southbound lane from the University Bay Drive/Highland Avenue intersection to University Avenue.

There was some discussion at the neighborhood workshop of creating a cul-de-sac in the middle of Marshall Court, essentially "dead ending" the street so there would be no cut-through traffic. This option, while it prevents through-traffic, would only increase congestion by limiting connectivity. It would also make the street less attractive for redevelopment by reducing accessibility. The City of Madison would be less likely to approve of a traffic signal at the western edge of the corridor if such a measure were taken.

Another idea put forth at the neighborhood workshop was extending North Franklin Avenue through to Marshall Court, and potentially closing the current Marshall Court intersection with University Drive on the west. This option would also likely increase congestion by forcing University Station and UW Clinic customers to drive past Shackleton Square to exit onto University Avenue. Retail at University Station would be adversely impacted, and the Village would also have to acquire and demolish two buildings in order to route the street onto Marshall Court. The new connection would move more traffic closer to the already congested University Bay Drive intersection, and no traffic signal would be possible at the new intersection because of its proximity to University Bay Drive. In addition, new rail crossings are difficult to acquire, even if an existing crossing is shut down.

Objective No. 2: Require redevelopment proposals to reimburse the village for a traffic impact analysis (TIA) that identifies potential impacts of development on traffic circulation patterns. Development should not create traffic that cannot be handled by existing or anticipated transportation systems.

Each redevelopment project should provide information to the Village on its traffic impacts

on the area. The Strand Associates traffic analysis for the Marshall Court area can be used as a baseline for existing conditions. It can also be used to determine how much of the predicted future conditions are "used up" by a given development. Redevelopment along Marshall Court should be balanced, so that one development does not use traffic capacity that is disproportionate to its size. The Village will craft formal TIA guidelines so developers know what issues must be addressed when a TIA is performed. TIAs should include strategies to reduce the peak-hour impact of proposed developments.

Objective No. 3: Encourage the use of mass transit and other non-vehicle oriented transportation methods.

Facilities such as showers and covered bike parking should be incorporated into buildings as redevelopment occurs to make it more likely for people to bicycle to work. Pedestrian amenities should be provided along Marshall Court to make the street more appealing. Connections to University Avenue should be improved with terraces, additional sidewalks, and widening of current sidewalks. Mid-block connections to a new bike trail should be provided.

The Village should consider mandating the use of Transportation Demand Management (TDM) techniques in redevelopment projects. Such techniques could include free bus passes for employees, paying a bonus to employees who do not drive to work, and encouraging carpooling.

Locating a shared car (perhaps in conjunction with the Community Car program) in the area could allow more people to take mass transit or bike to work by giving them an option for mid-day errands.

Objective No. 4: Limit the amount of parking provided with new buildings; provided parking should be to serve Marshall Court businesses only.

An obvious way to reduce traffic growth is to limit parking. The University has already implemented that strategy for the west campus area. Increased density will bring more parking — redevelopment should not be stifled by an unrealistically low ceiling. The Village should allow parking for redevelopment along Marshall Court to be less than the Village's current standard of one space per 300 square feet of office/retail space, one space per 100 square feet of restaurant space, two spaces per two (or more) bedroom unit, and 1.25 spaces per one bedroom or efficiency.

The 800 University Bay Drive redevelopment project was allowed as a PUD with 193 parking spaces instead of the 249 that are required under ordinance, a reduction of 23%. Parking is provided at one space per 386 square feet for that project.

The Strand Associates traffic study recommends that the Village consider stipulating that traffic analyses for redevelopment assume that 15% of trips will occur via transit, walking, or bicycle. The 15% ratio is the same ratio used in traffic analyses for the Hilldale and Hill Farms redevelopment plans. Such an assumption would lessen the pressure to provide unneeded parking.

The Marshall Court area should not provide overflow or rental parking to hospital users. Doing so increases traffic for an already congested area with little benefit to businesses along the street.

Objective No. 5: Limit the number of curb cuts onto Marshall Court.

Marshall Court currently has an overabundance of curb cuts, which increase road conflicts, decrease pedestrian safety, and lessen the

potential for on-street parking. Curb cuts should be reduced as part of redevelopment projects. The 800 University Bay Drive project can again be used as an example — five curb cuts were replaced with one, which was placed as far away as possible from the Marshall Court/University Bay Drive intersection.

Consolidation of parcels and shared entrances between adjoining developments would both help in reducing the number of curb cuts. The Village could also consider developing an alley to the north of a future bike path to serve all parcels on the south side of Marshall Court. An alley would also be beneficial by allowing an entrance to structured parking at a lower grade than the street level of Marshall Court. Any potential alley should outlet onto Marshall Court — not at the current outlet onto University Bay Drive near its intersection with University Avenue. This layout is shown on the map on page 36. The two eastern alley connection locations are conceptual.

Objective No. 6: Redevelopment projects should provide off-street loading areas.
Off-street loading areas should be integrated with redevelopment proposals so that traffic and parking on Marshall Court is not obstructed by deliveries to buildings.

Goal No. 3: Encourage cooperation on parking issues between property owners and between the Village and developers.

Objective No. 1: Encourage cooperation and shared parking between uses and businesses.
Shared parking arrangements can reduce the overall demand for parking by allowing businesses to use off-site parking during their peak hours. Offices require parking during regular business hours of 8 to 5 pm on weekdays; restaurants and retail typically demand more parking on evenings and weekends. Shared parking arrangements between property owners can provide adequate parking for the area by maximizing the amount of time spaces are in use.

Objective No. 2: Consider creation of a parking utility or association to enable additional public parking in the area in conjunction with redevelopment projects.
Creation of a Village parking utility or a private parking association could be a way to coordinate and integrate some public parking with development projects and to facilitate cooperation between developers on parking. The legal and funding mechanisms of this option would need further investigation.

RECOMMENDATIONS SUMMARY & CONCLUSION

Transportation, more than any other section in this Plan, will require multijurisdictional cooperation. The nature of the area requires the Village, the University, and the City of Madison to cooperate when considering transportation upgrades. The County and MPO should be included in some discussions as well to maximize the chance that all the suggested improvements are successfully implemented. Transportation recommendations are as follows:

- Implement the desired Marshall Court cross-section.
- Improve pedestrian and bicycle connections to the Marshall Court area, especially from the neighborhood to the north (Cornell Court).
- Provide a designated bike path along the railroad tracks, with an overpass of University Bay Drive.
- Integrate off-street loading areas into redevelopment proposals.
- Work with the City of Madison to install a traffic light at University Avenue and Marshall Court.
- Consider a median along the center of University Bay Drive to prevent left turns, with a U-turn area at Highland Avenue.

- Consider a dual left-turn lane onto University Bay from University Avenue when University Avenue is reconstructed.
- Consider University Bay Drive / University Avenue intersection improvements to both enhance motor vehicle capacity and pedestrian and bicycle safety.
- Require a traffic analysis as part of redevelopment proposals.
- Encourage the use of bikes and transit within the area (this may take the form of requiring certain items, such as shower facilities for bikers, to be included as part of redevelopment projects).
- Contact the Metropolitan Planning Organization (MPO) to ensure Village bike path and University Bay Drive overpass plans are reflected in MPO planning documents.
- Limit parking in new buildings — current Village minimums should be waived for the area.
- Reduce curb cuts on Marshall Court by providing alley access to parcels south of Marshall Court.
- Encourage shared parking between businesses/properties.
- Consider creating a parking authority or association.