MILES HOCHSTEIN

The Westmoreland neighborhood is within walking distance of Bybee Boulevard station.

CORRIDOR CONCEPTS: NEIGHBORHOODS/RECREATION SEGMENT

This segment extends from SE Steele Street to Highway 224 and includes the Bybee Boulevard and Tacoma Street stations as well as the Tillamook Branch alignment (Fig. 35). The segment is largely characterized by the open green space of the Eastmoreland Golf Course, Westmoreland Park and Reed College campus, the majestic trees that line a significant portion of McLoughlin Boulevard and the Springwater Corridor. There are wetlands and floodplains that will be impacted by the project and will require mitigation.

There is some development potential around the Tacoma Street station, but overall there are few development opportunities in this segment. The residential neighborhoods in this segment are lower-density and in most cases are separated from the stations by either industrial lands or expansive recreation spaces.

Note: An overview of the future Harold Street station can be found on page 88.

FIGURE 35: *Neighborhoods/Recreation Segment map*

STATION AREA DESIGN CONCEPTS: NEIGHBORHOODS/RECREATION SEGMENT

BYBEE BOULEVARD STATION AREA

Neighborhood Context, Opportunities and Challenges

The Bybee Boulevard station area is largely characterized by the verdant landscape created by the Westmoreland Park, Eastmoreland Golf Course, Crystal Springs Rhododendron Garden and the mature trees that line McLoughlin Boulevard through this segment.

Reed College, which enrolls approximately 1,500 students and employs more than 400 faculty and staff each year, is in the heart of the Eastmoreland and Reed neighborhoods and approximately a half-mile northeast of the station. The Willamette River, Oaks Bottom Wildlife Refuge and the Springwater Corridor are just more than half a mile due west of the station.

McLoughlin Boulevard is a heavy arterial that runs parallel to the UPRR trackway and creates a hard edge to the neighborhoods that limits connectivity. However, Bybee Boulevard provides an important east-west link between the neighborhoods, institutions and surrounding recreational amenities. Existing bike lanes on Bybee Boulevard, SE 28th Avenue and SE Woodstock Avenue provide good bike connections between the station and the Eastmoreland and Reed neighborhoods. Furthermore, this station provides good light rail-bus transfer opportunities (Fig. 36).

Design considerations that enhance the safety of transit patrons at this station are essential given that the platform is below the Bybee Boulevard overpass and in the UPRR right-of-way. Station visibility, the provision of amenities like bike storage and lighting, and connections to the bridge above are all critical to making the station a success.

URBAN DESIGN VISION

The Bybee Boulevard station is integrated into and serves the surrounding neighborhoods. It provides access to Westmoreland Park and is surrounded by greenery and parkland, providing an easy escape from the urban landscape. The station is visible from both Bybee and McLoughlin boulevards, and station amenities provided on both the overpass and the station platform enhance safety and provide convenience. Exemplary bicycle parking facilities encourage transfers between modes, and quality lighting of the elevators and upper platforms provides a nighttime character and a visible presence in the neighborhood. The alignment has preserved the majestic rows of trees that line McLoughlin Boulevard.

Current Design Direction

The light rail alignment through this area runs between McLoughlin Boulevard and the active freight rail line (UPRR) (Fig. 40). The station platform will be in a center island configuration immediately north of the Bybee Boulevard overpass, which will have stair and elevator access down to the station (Figs. 37, 38 and 39).

The station design will provide strong lighting and open sightlines, and clearly delineate areas where passengers need valid fares to enhance the safety of the station. At the platform level there are clear

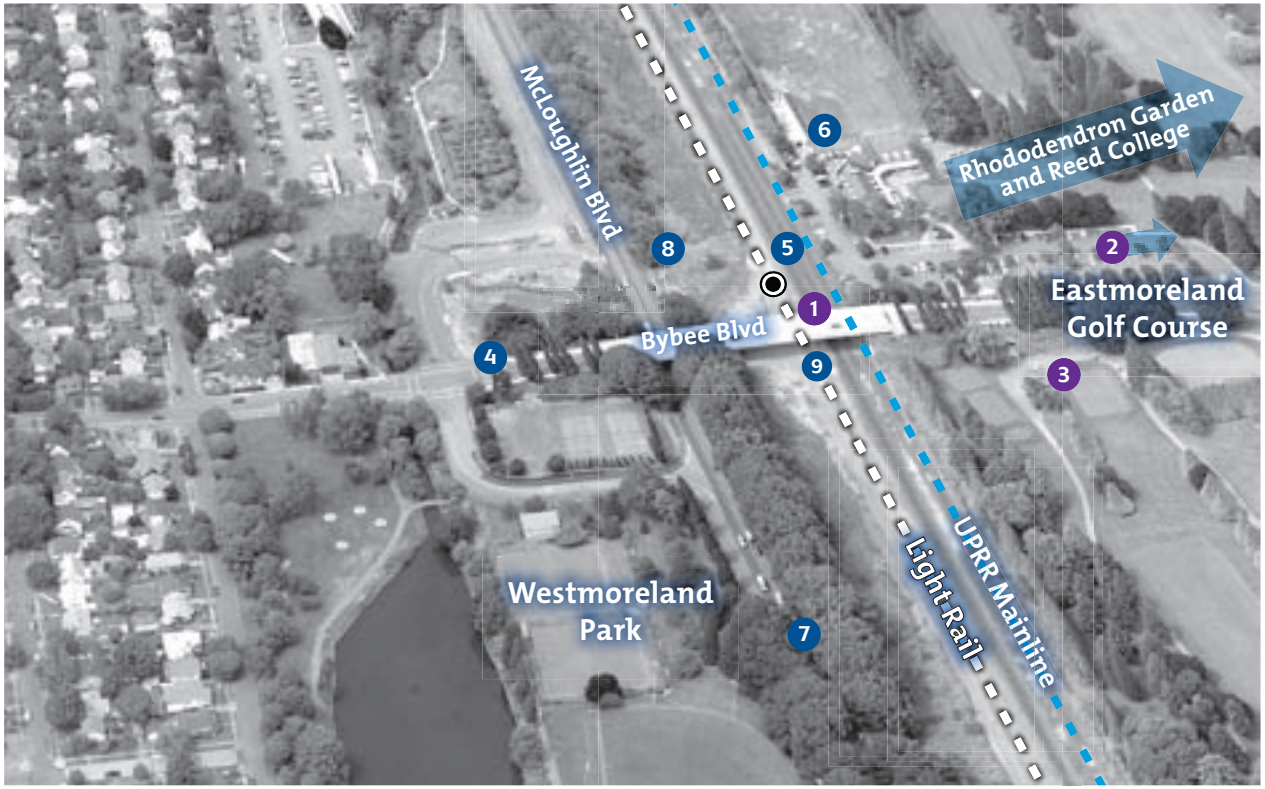

FIGURE 36: *Bybee station area—Opportunities and Challenges*

BYBEE BOULEVARD STATION AREA

Neighborhood Context:

The Bybee Boulevard station area is largely characterized by the verdant landscape created by Westmoreland Park, Eastmoreland Golf Course, Crystal Springs Rhododendron Garden and the rows of mature trees that align McLoughlin Boulevard, with Reed College approximately a half-mile northeast of the station in the heart of the Eastmoreland and neighborhoods.

Opportunities

1. Provide convenient westbound bus transfers
2. Connect station to Reed College campus/ Eastmoreland neighborhood using existing bicycle network and accommodate bike transfers at station
3. Provide access to Westmoreland Park/golf course

Challenges

4. Accommodate distance between station and eastbound bus transfers
5. Provide safe and secure station despite relatively isolated location
6. Mitigate floodplain and wetland impacts and coordinate with the City of Portland and other regulatory agencies
7. Must preserve mature trees along McLoughlin Blvd
8. Station area has little transit-oriented development potential
9. Provide enough bike parking facilities to meet demand

sightlines underneath Bybee Boulevard to the south side elevator and stairway. Operator line of sight has also been incorporated into the layout. And train arrival information will be available on a TransitTracker at the Bybee Boulevard overpass so that patrons have the option of waiting for trains where they will be more visible to pedestrians and drivers.

The project includes a bridge span over Crystal Springs Creek to accommodate restoration efforts in the watershed. Floodplain mitigation for the project's fill within the 100-year floodplain of Crystal Springs Creek will establish an equal amount of floodplain capacity south of the bridge at SE Bybee. Impacts to wetlands near Crystal Springs Creek will be mitigated through partial funding of the City of Portland's Westmoreland Park Restoration Project.

A gated enclosure for long-term bicycle parking along with stair and elevator access to the platform will support connections by bicycle. Bus planning efforts are currently underway to provide convenient transfers to bus lines serving this station.

A substation will be located within the Oregon Department of Transportation property on the west side of McLoughlin Boulevard.

The elevator glass presents an opportunity for a decorative etched or fritted design, and an illuminated wayfinding sculpture is planned for the bus loading area on the bridge deck. Artwork in this location may reflect habitat restoration efforts along Crystal Springs Creek.

The light rail project's floodplain and wetland mitigation efforts will coordinate with the Westmoreland Park Restoration Project

Outstanding Issues

- Final bus stop locations and configurations, including possible bus pullouts or in-street stop at station landing
- Potential auto pullout to support transit drop-off and pick-up
- Maintenance access location
- Strategies to maximize station visibility and rider safety
- Location of bike storage facilities

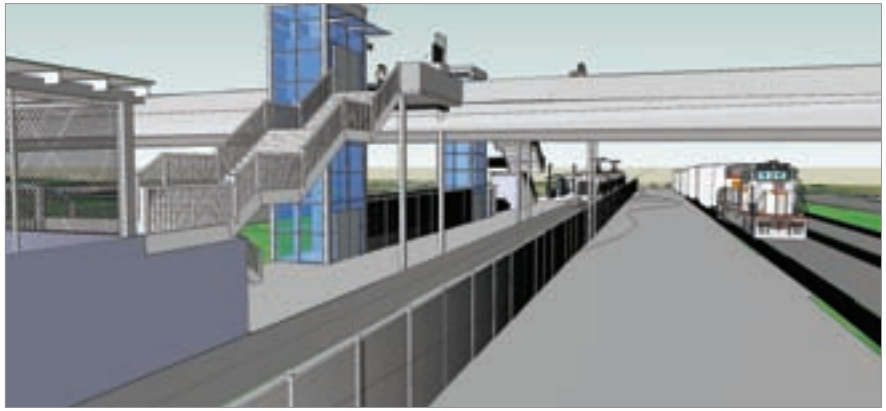

FIGURE 37: *Bybee Boulevard station illustration view from the south*

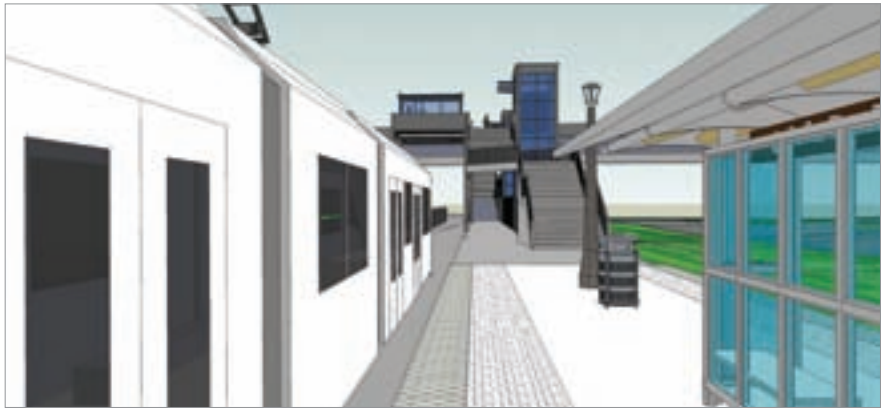

FIGURE 38: *Bybee Boulevard station illustration view from the north*

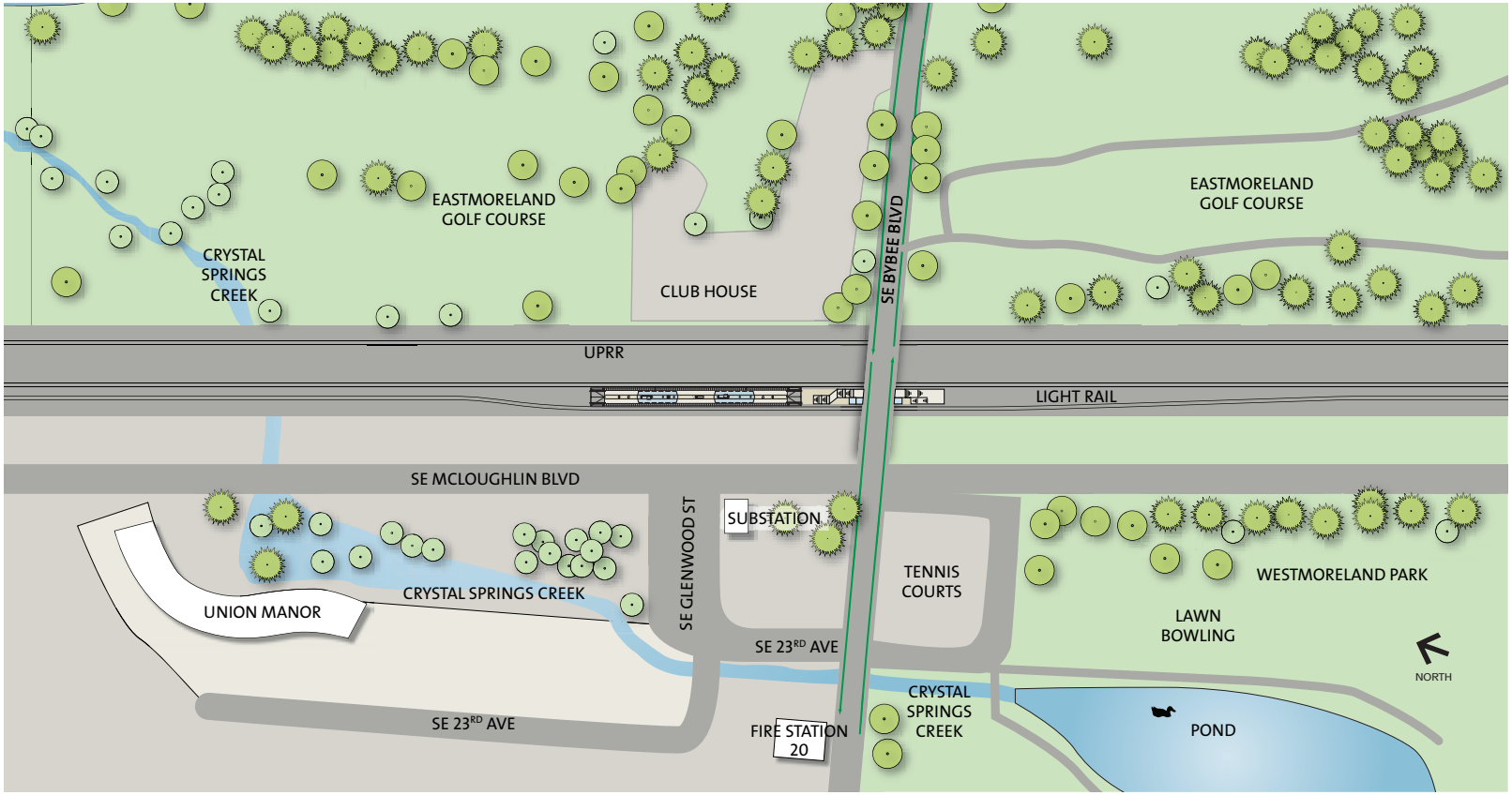

FIGURE 39: *Bybee Boulevard station area plan*

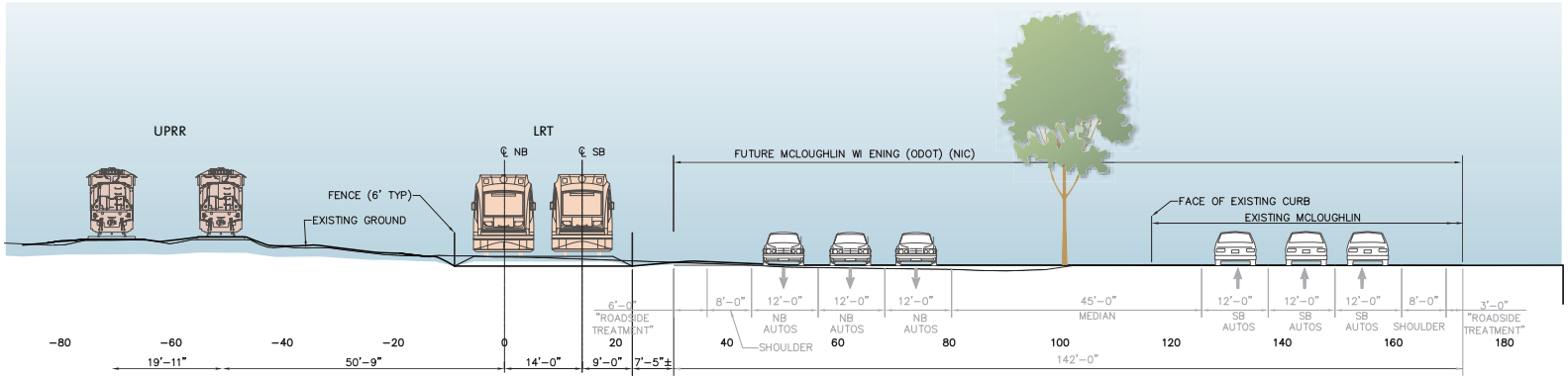

FIGURE 40: *Cross section of light rail alignment and future proposed widening of SE McLoughlin Boulevard*

TACOMA STREET/SPRINGWATER CORRIDOR STATION AREA AND PARK & RIDE

Neighborhood Context, Opportunities and Challenges

This station area is mostly comprised of industrial and commercial uses, with residences nearby. The Eastmoreland Golf Course and neighborhood extend north of the station, the Westmoreland and Sellwood neighborhoods sit across McLoughlin Boulevard to the west, and the Ardenwald-Johnson Creek neighborhood extends to the east. Johnson Creek flows through the area and runs just north of the station platform. The Tacoma overpass connects the Ardenwald-Johnson Creek and Sellwood neighborhoods with access over the railway and McLoughlin Boulevard. The Park & Ride facility is located just north of the boundary between the cities of Portland (Multnomah County) and Milwaukie (Clackamas County).

The Springwater Corridor runs east-west through this area just south of the Park & Ride structure. This is a regional trail that provides access to multiple neighborhoods, parks and employment centers within an easy 3-mile ride from the station in both directions. This project leverages existing bicycle and pedestrian connections and presents opportunities to improve connections to these active transportation facilities and recreational amenities.

Mitigation for traffic impacts to the Johnson Creek Boulevard and McLoughlin Boulevard on/off ramps will be key challenges that must be addressed by the project. Fill within the Johnson Creek floodplain will be mitigated for through removal of an equal volume within the floodplain (Fig. 41).

URBAN DESIGN VISION

The Tacoma Street station is a catalyst for continuing restoration of Johnson Creek and for redevelopment of surrounding private parcels. Enhanced pedestrian and bicycle connections along Tacoma Street, Johnson Creek Boulevard, Umatilla Street and the Springwater Corridor connect the Sellwood and Ardenwald-Johnson Creek neighborhoods to the station. The high quality design and lighting of the Park & Ride structure provide a lantern-like effect and visual interest in the area.

Commuters who may otherwise drive into downtown Portland instead park at the station and ride light rail. The station is part of a transit hub with streetcar service connecting back to Southwest Portland and the SW Macadam corridor. Private development within walking distance of the station complements the station and brings more people to the area.

Development opportunities: The Pendleton Woolen Mills site adjacent to the Park & Ride structure is currently underutilized and has potential for redevelopment or active re-use of the existing building.

Current Design Direction

The light rail alignment through this area runs between McLoughlin Boulevard and the active freight rail line (UPRR). It will run over the ramp to/from northbound McLoughlin Boulevard, under the Tacoma overpass, and over Johnson Creek to the station and Park & Ride facility (Fig. 42).

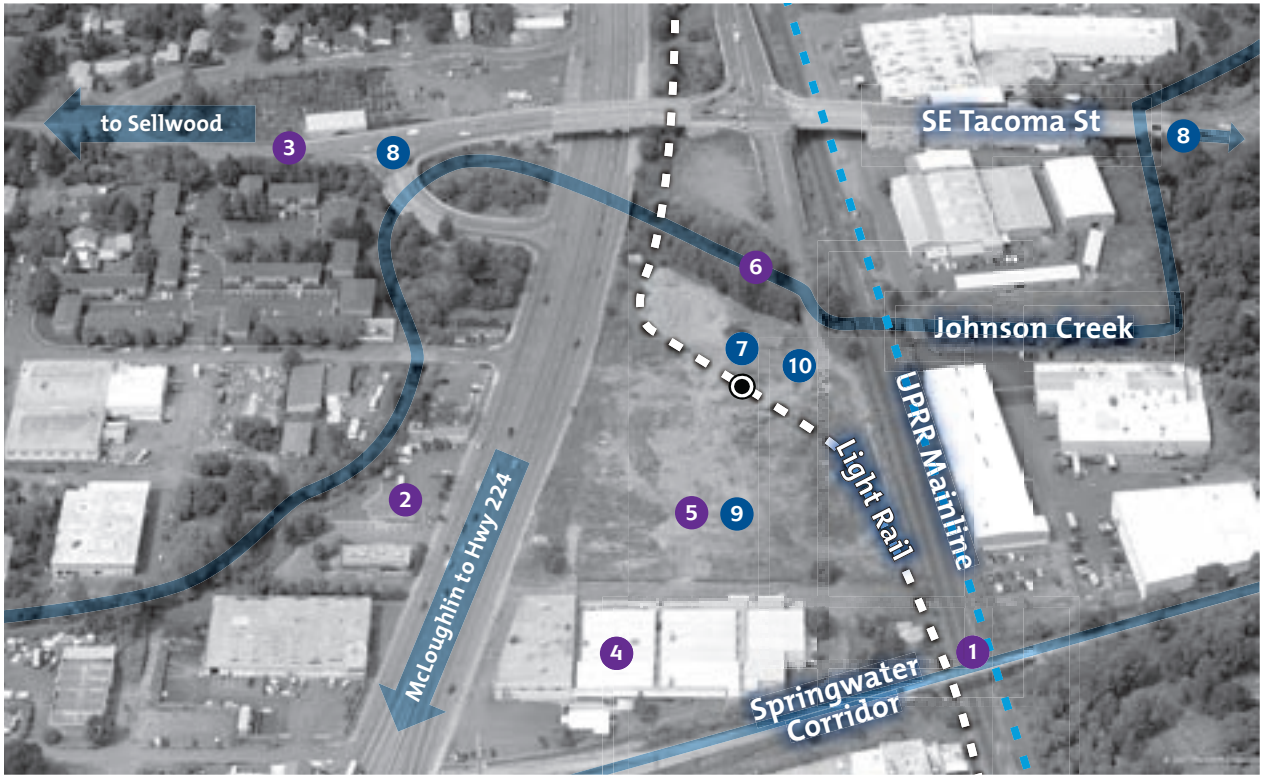

FIGURE 41: *Tacoma station area—Opportunities and Challenges*

TACOMA STREET/SPRINGWATER CORRIDOR STATION AREA

Neighborhood Context:

This station area is mostly comprised of industrial/commercial uses, although Johnson Creek runs just north of the station platform, while the Eastmoreland Golf Course and residential neighborhood extend north of the station area, the Ardenwald-Johnson Creek residential neighborhood extends to the east and the Sellwood and Westmoreland neighborhoods lie to the west across McLoughlin Boulevard.

Opportunities

1. Connect to the Springwater Corridor trail
2. Stimulate investment and redevelopment of property west of McLoughlin Blvd
3. Link to future streetcar on Tacoma Blvd
4. Support the redevelopment of the adjacent Pendleton site
5. Design an architecturally distinct parking structure
6. Restore and celebrate Johnson Creek

Challenges

7. Isolated station location between Union Pacific Railroad and McLoughlin Blvd.
8. Mitigration of traffic impacts on Johnson Creek Boulevard and for McLoughlin Boulevard on/off ramps
9. Scale and aesthetics of a large parking structure
10. Site is partially located within the Johnson Creek floodplain

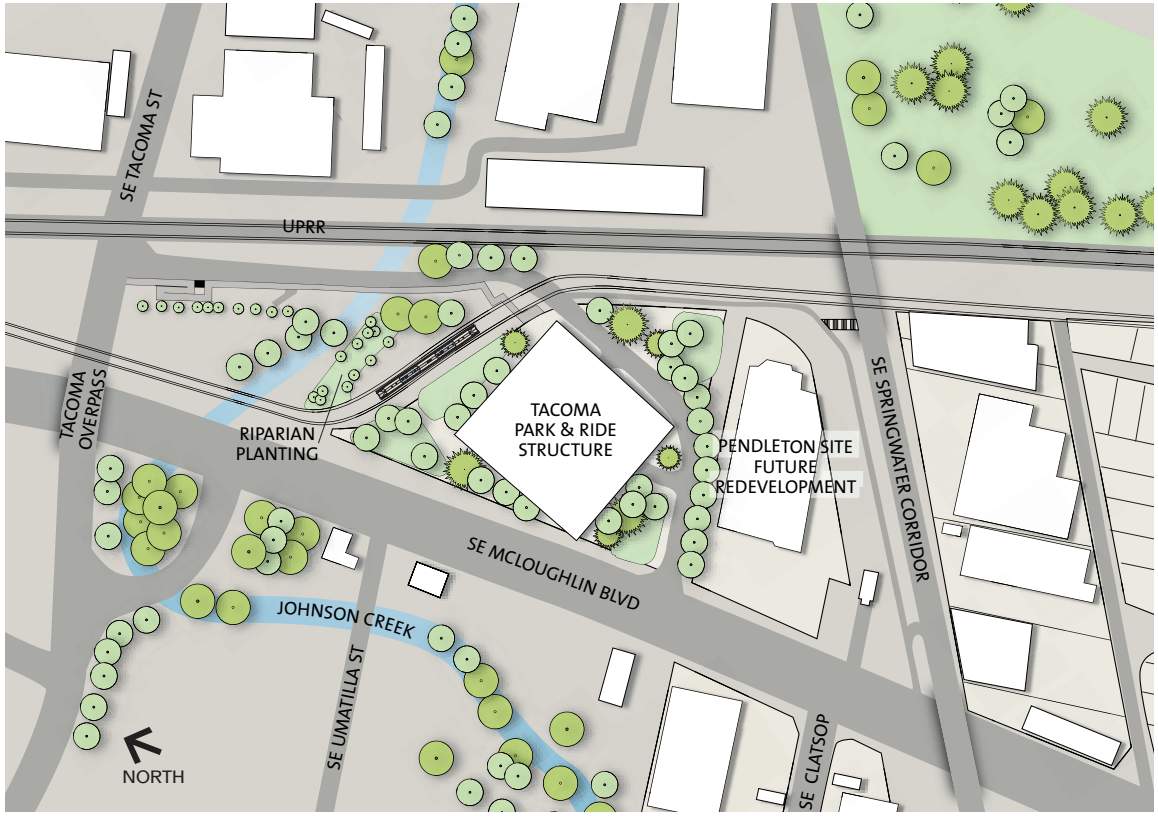

FIGURE 42: *Tacoma Street station area plan*

The design and feel of this station is about protecting and appreciating Johnson Creek (Fig. 43). Water quality impacts of the creek crossing will be assessed and minimized through storm water management design. The creek area will be enhanced with riparian vegetation that can be viewed from the station platform, which is angled parallel to the creek. This station presents an art opportunity to celebrate and strengthen the connection to the creek.

The Park & Ride is currently planned to accommodate 800 vehicles. In response to community feedback, the initial capacity of the garage has been reduced from the original 1,000 spaces for the opening year. However, the facility will include structural improvements that would allow up to 200 additional spaces to be added in future years, if necessary. After the PMLR line opens, TriMet will monitor use of the facility, and consult community stakeholders if an expansion is needed. Should additional spaces be needed, all federal and local environmental, traffic and other regulations would be addressed.

The Park & Ride will be oriented to face the creek and maximize sight lines from the station platform to McLoughlin Boulevard and will include water quality features that meet the City of Portland's storm water management and Johnson Creek Basin Plan District

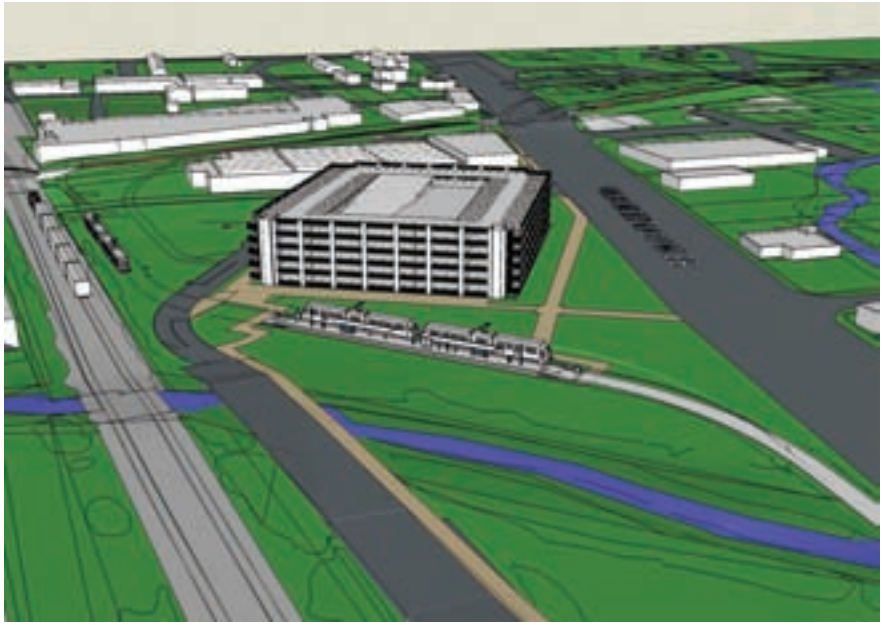

FIGURE 43: *Illustration of the Tacoma Street station and Park & Ride garage, as viewed from the northeast*

requirements. The light rail project is also being coordinated with the Johnson Creek Restoration Plan

The station is designed to encourage bicycle use. The project will include a new multi-use path connection to the Springwater Corridor, including a new stairway with a bike gutter to facilitate bicycle access. A sculptural storm water feature is planned to help activate the connection. TriMet is committed to placing more bicycle parking than required by code and is considering concepts that could add more than 100 bicycle parking spaces at the Park & Ride and Tacoma Street station.

A traffic analysis of the Tacoma/Johnson Creek Boulevard corridor between SE 17th and SE 45th avenues studied the impacts of the Park & Ride facility. The analysis indicates that based on the current level of service, a traffic signal is already needed at SE 32nd Avenue; a new Park & Ride will heighten that need. Neighborhood groups have expressed a desire for traffic calming measures but not the traffic signal. Many standard traffic calming tools are difficult to implement here, in part because Johnson Creek Boulevard is an emergency response route. Traffic mitigation options are being evaluated through a public process that includes consultation with the Ardenwald-Johnson Creek Neighborhood Association, the Sellwood-Moreland Improvement League and the Oregon Department of Transportation. Results of the traffic study will be published in the Final Environmental Impact Statement.

During Preliminary Engineering, the project explored the potential to incorporate other uses in the Park & Ride facility, and redevelop the adjacent Pendleton Woolen Mills property. The analysis discouraged including retail space in the Park & Ride, but identified redevelopment potential for the Pendleton site. The Park & Ride is being designed and situated to support the redevelopment potential of the Pendleton property.

Currently the project design does not anticipate direct impact to the combined sewer overflow line that runs underneath the Tacoma site. TriMet and the City of Portland's Bureau of Environmental Services are coordinating the project scope.

Outstanding Issues

- Final size, design and character of Park & Ride facility, particularly with respect to height, lighting, pedestrian access, personal safety, visibility, art and green building techniques and best practices
- Traffic mitigations to be completed by the project
- Discouragement of illegal pedestrian crossing of McLoughlin Boulevard

TILLAMOOK BRANCH ALIGNMENT (SPRINGWATER CORRIDOR TO HWY 224)

Neighborhood Context, Opportunities and Challenges

This segment of the alignment runs adjacent to the UPRR through an industrial area from the Springwater Corridor to Highway 224. The Ardenwald-Johnson Creek residential neighborhood extends to the east and has views of the alignment—in particular, the elevated portion of the alignment.

The project requires right-of-way acquisitions of industrial properties along this segment of the alignment, and active relocation support is essential to keep jobs in the corridor. Rail access to industrial uses must also be maintained.

Current Design Direction

This segment of the alignment does not include a station. The trackway runs on an elevated structure that begins south of the Springwater Corridor and crosses over the railroad tracks and lands north of Mailwell Drive (Fig. 44). The elevated structure is necessary to transition the light rail tracks from the west side of the UPRR main line tracks to the east side of the Tillamook Branch alignment in order to minimize property impacts in downtown Milwaukie and serve the Milwaukie station. Lighting is not needed and will not be included on the structure. The project will maintain existing freight access for properties within the industrial area.

During Preliminary Engineering, project staff worked closely with the project partners and area residents to discuss the impacts of the elevated structure on the surrounding neighborhoods. Ardenwald residents expressed a desire to minimize the visual, noise and vibration impacts of the structure. As a result, the project team redesigned the structure to shorten the portion that will be elevated.

URBAN DESIGN VISION

The trackway and structures in this area run through the seam that separates Milwaukie's North Industrial area from the western edge of the Ardenwald neighborhood. This portion of the alignment is elevated and is designed to respect the views and privacy of adjacent neighbors. It is as minimal as possible in scale, especially at the track level and above, with slender and clean lines that largely preserve views of the hills west of the Willamette River. Below the trackway level, graffiti-proofing measures ensure that the walls and columns of the structure will not become surfaces that visually blight the area. Access to industrial properties is maintained, with automobile and track crossings made safer by the project.

The structure was also shifted 25 feet to the west to accommodate the Union Pacific safety requirements. The project team will continue to consult with the Ardenwald community as the design is refined and will strive to minimize the profile of the structure.

Outstanding Issues

- Final design of the structure and visual impacts to neighbors in the Ardenwald neighborhood
- Bell noise from the new SE Mailwell Street light rail crossing
- Mitigation of visual impacts to Rockvorst Street residents in regards to the retaining walls of the structure

FIGURE 44: *Tillamook Branch overcrossing photo simulation, as viewed looking west from SE Roswell Street*