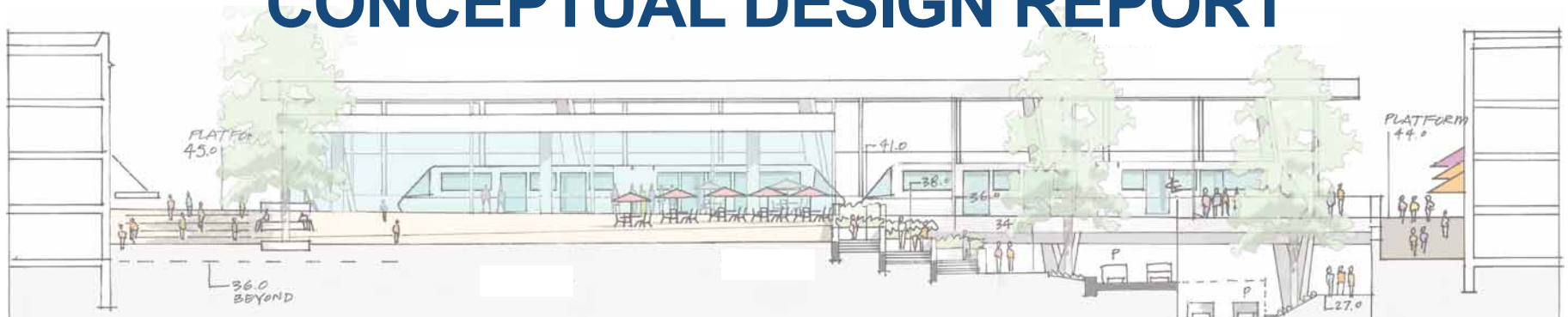


Public Discussion Draft

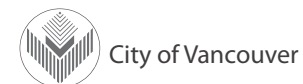
January 14, 2010

HAYDEN ISLAND LIGHT RAIL STATION

CONCEPTUAL DESIGN REPORT



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Hayden Island Station Area (Source: The Hayden Island Plan, City of Portland, 2009)

I. INTRODUCTION

PURPOSE OF THE REPORT

The Hayden Island Light Rail Transit (LRT) Station is an element of the multimodal Columbia River Crossing (CRC) project addressing congestion, safety and mobility problems on Interstate 5 (I-5) between Portland and Vancouver. The CRC project includes an extension of the existing MAX light rail line north from its current terminus at the Expo Center through downtown Vancouver to Clark College. There will be five new light rail stations, four in Vancouver and one elevated station in Portland on Hayden Island.

This report is intended to provide guidance to the CRC project, TriMet, and the City of Portland regarding the Hayden Island station design. In addition, the report documents the process and context in which the principles were created. Design principles identified here will be applied to the future station. The design principles were crafted to capture the community's values while remaining broad enough to apply to the station regardless of CRC project decisions that may affect the position of I-5, local road circulation, and land development patterns.

This report is divided into four sections. Section 1 discusses the purpose and structure of the report and lists the five design principles. Section 2 provides the planning context in which the design principles were developed, Section 3 outlines the planning process and stakeholders involved, and Section 4 describes the aspirations for the station and the resulting design principles that will guide its design.

Station Location

The general location of the station was identified as part of the Hayden Island Plan adopted by the City of Portland in August 2009. The station will be elevated and positioned adjacent to I-5, over or near Tomahawk Island Drive. Tomahawk Island Drive will be extended under I-5 to provide a third east and west connection for Hayden Island. The Hayden

STATION LOCATION - CONTEXT MAP



Island plan calls for retail development, a mixed-use station community, and a well-connected street system to be developed adjacent to the station.

PROJECT OBJECTIVES AND APPROACH

The approach for this Conceptual Design Report was to involve the public in an exploration of what could be accomplished at the Hayden Island LRT Station given the constraints and opportunities inherent in its location and planning context. Public input was essential to ensure that the new station reflects the desires of the community and key stakeholders.

A series of three interactive design workshops with the Portland Working Group (PWG) and the general public were held focusing on the light rail station design. The CRC staff, consultant team, and City of Portland provided context, a discussion of how design had been implemented in other places, and drawings and models of potential Hayden Island Station designs (three concepts) that the public and the PWG could review to identify preferences. The process and the PWG are discussed in detail in Section 3 of this report.

SUMMARY RESULTS

The following five design principles were created to guide the design of the future LRT station, regardless of other CRC project decisions.

Hayden Island Light Rail Station Design Principles

- Create a station environment that is safe, attractive, and inviting for transit users, visitors, and island residents
- Provide circulation paths that allow clear connections to or through the station area for users of all modes with varied abilities
- Develop a station area that embraces and engages its surroundings with transparency and activity
- Design a station that protects transit users from freeway noise and the natural elements, while providing light, views, and clear way-finding
- Design a station that includes features referencing historical or cultural values unique to Hayden Island



Photographs taken at the PWG meetings and community workshop (Source: CRC Project)

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II. PROJECT BACKGROUND

EXISTING CONDITIONS ON HAYDEN ISLAND

East Hayden Island is largely developed and includes a variety of residential, commercial, and industrial uses. The Hayden Island community has approximately 2,155 permanent residents and the number of residents increases in the summer when the roughly 5,000 boat owners moored at the island visit and take advantage of the marine amenities. Permanent residents live in a variety of housing types on Hayden Island that include floating homes, single-family residences, and condominiums.

There are approximately 238 businesses, employing 2,950 persons, on the island. The primary commercial/retail development is the Jantzen Beach SuperCenter, which contains approximately 875,000 square feet and 3,100 parking spaces on 80 acres, 68 acres of which is under single ownership. Hayden Island supports a large number of visitors to its marine-related and shopping facilities, and the island's permanent population is too small to support the retail and other services it desires.

Hayden Island has many large industrial facilities that include automobile auction and services; boat building, service, sales, and storage; public marinas; distribution warehouses; and a large cabinetmaking business. A multi-tenant commercial office building is located east of the interstate. The SuperCenter provides retail and restaurant amenities, and its owners have major redevelopment plans that will integrate the new light rail station into a transit-supportive development.

The island has one public park, which is approximately one acre in size. On the eastern tip of the island, there are several parcels of undeveloped land that are providing important natural habitat for both aquatic and terrestrial species.

Getting to Hayden Island by vehicle is only possible via I-5 through the existing Hayden Island interchange. This interchange is functionally

obsolete and is frequently the site of accidents. North Hayden Island Drive, North Tomahawk Island Drive, and North Center Avenue are the only public roads on the island. The rest are private streets and are maintained by the adjacent properties. Sidewalks vary in location, and there are no designated bike lanes. As a result, there is no consistent pedestrian or bicycle network and, where it does exist, it is circuitous, requiring out-of-direction travel for walking and cycling.

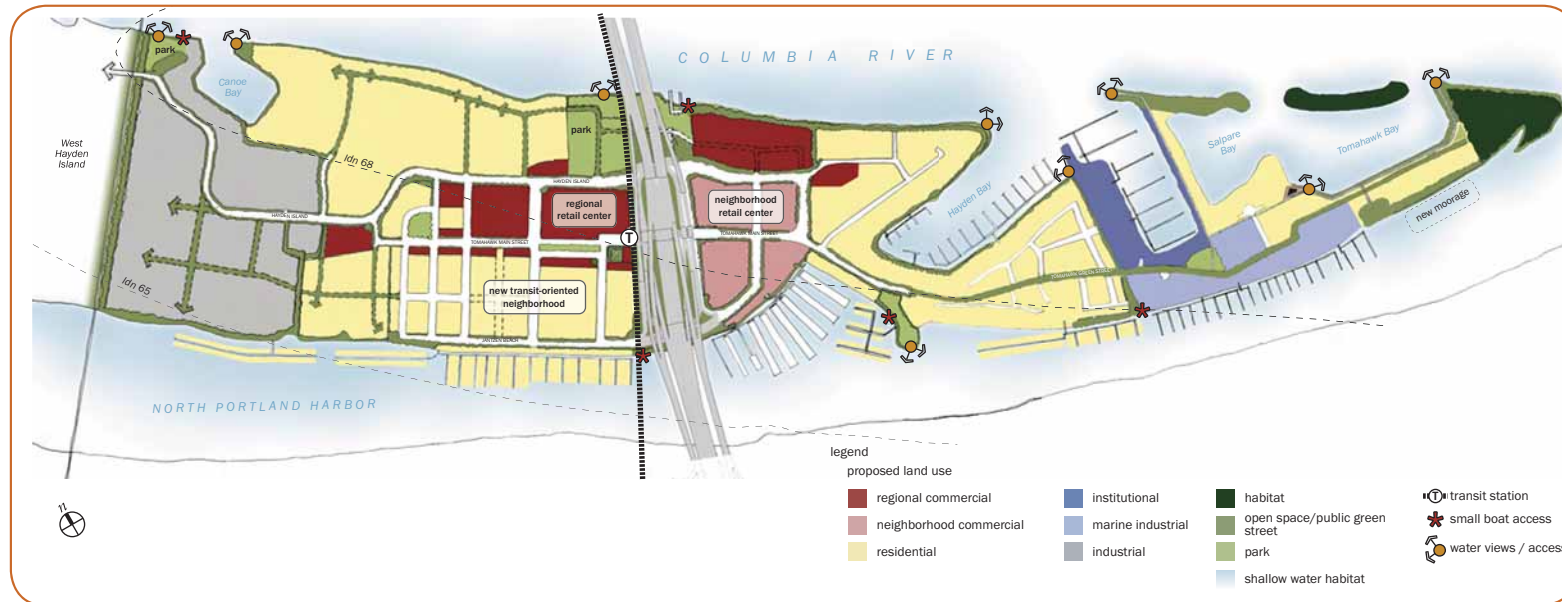
HAYDEN ISLAND PLAN

The Hayden Island Plan was a collaborative effort between the City of Portland and the community to improve accessibility, livability, and sustainability of Hayden Island over the next 35 years. Focusing on the portion of Hayden Island within the City of Portland (east of the Burlington Northern Railroad bridge), the plan contains goals, objectives, comprehensive plan and zoning changes, and an implementation

strategy to encourage:

- A more walkable residential community that protects the quality of the existing residential neighborhoods of both land-based and floating homes.
- A new neighborhood-serving business area east of I-5.
- New transit-oriented development adjacent to the proposed light rail station west of the interstate.
- Continued support for marine businesses, and enhanced marine and terrestrial habitats so important to the Columbia River environment.

The Hayden Island Plan was initiated as a mitigation measure for the



Hayden Island Concept Plan Map (Source: The Hayden Island Plan, City of Portland, 2009)

development moratorium enacted by Portland City Council in September 2006, to address development on the island and at the I-5 interchange. Additionally, this plan is intended to provide guidance to the CRC project, which is developing designs for a new I-5 bridge and Hayden Island interchange, among other improvements along the I-5 corridor. A new light rail station will be constructed on the island along the new light rail line that will connect from the existing terminus at the Portland Expo Center and Vancouver, Washington.

The Portland City Council adopted the Hayden Island Plan and implementing ordinances on August 19, 2009. The Hayden Island Plan seeks to protect the interests of the island as well as ensure that the amount and type of development on Hayden Island will not overload the proposed freeway improvements. The adopted plan includes a vision statement that identifies Hayden Island as a gateway to Portland and to Oregon. The plan identifies the Hayden Island LRT Station as part of the gateway that is envisioned. The Hayden Island Plan also identifies a series of the goals and themes relevant to this process, which, as they relate to the Hayden Island LRT Station, are summarized below.

Island Community

The concept of the “Island Community” centers on the built and open space environments and uses the future transit station as a way to create a community identity and sense of place. The



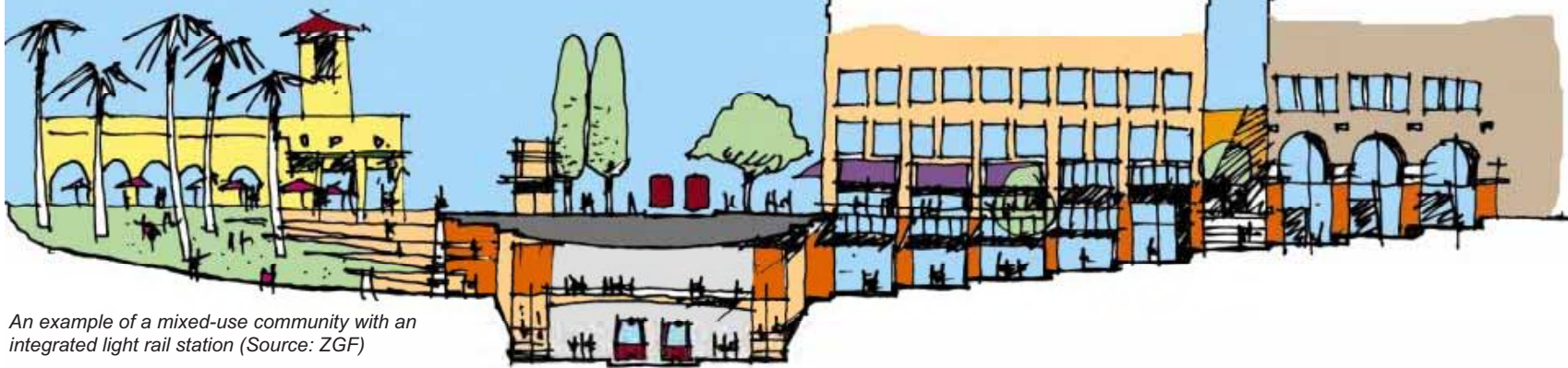
“Island Community” theme places special attention on creating a physical space and building form where multiple types of uses are located, but recognizes that existing uses are also integral to the success of the plan, including the existing residential communities, the marine commercial uses near Canoe Bay and Tomahawk Bay, and the industrial uses on the west end of the neighborhood.

Getting Around

A major issue for Hayden Island is mobility around the island and access to and from it. The community envisions a transportation system that provides for a neighborhood where residents can walk to a light rail station and a boat moorage; where streets accommodate all modes of transportation; and where residents and businesses benefit from access to the island that is provided by local access lanes and a new bridge over the Columbia River.

Environment and Open Space

The environment and availability of open space are important issues to Hayden Island residents. As these issues relate to the station area and its environment, residents would like more open spaces, trails, and gathering areas, which are currently very limited, and a “green philosophy” that applies to all private development and public infrastructure development on the island. The green philosophy would also be applied when looking at hardscape surfaces and runoff for the station and other infrastructure.



An example of a mixed-use community with an integrated light rail station (Source: ZGF)

New Transit-Oriented Development

A critical piece of the Hayden Island Plan is to modernize and improve the Jantzen Beach SuperCenter and incorporate long-term options for more dense mixed-use development. These plans include redeveloping the existing mall to include new retail outlets that are designed around an urban grid street pattern. This new street grid will provide a more walkable block pattern that will over time develop as a mixed-use, mid-rise center with residential, retail, and commercial uses. Redeveloping the shopping center in a fashion that supports transit-oriented development and incorporates the new light rail station creates an opportunity for a plaza and gateway, both physical and symbolic, to Hayden Island.

A New Center

The Hayden Island Plan envisions a new center around the light rail station that is a walkable, mixed-use community. This center concept relies to a large degree on the surrounding future development pattern, primarily on the Jantzen Beach SuperCenter site. However, the future street and bicycle and pedestrian system will also play key roles in how well the center serves its intended function. The light rail station will also serve a critical role in supporting the desire for redevelopment with a new, transit-oriented center, but it should be viewed in context, as one component within a larger system that shapes development.

New Local Street System

Given the unique characteristics of Hayden Island and the goals and themes of the Hayden Island Plan, the plan proposed a specialized local street network and set of street types. These street types respond to the general City of Portland policies regarding the development of a multimodal transportation system and are consistent with all modal classifications within the City's Transportation System Plan. The intent of the local street network and various street types is to provide logical circulation for all modes and suitable access to planned land uses. The local street network is intended to be compatible with the planned Columbia River Crossing.

As part of the Columbia River Crossing Project, a new east-west street connection would be added between North Jantzen Avenue and North Hayden Island Drive. This report refers to this new east-west street as Tomahawk Island Drive.

LOCALLY PREFERRED ALTERNATIVE

In July 2008, local project partners reached consensus on a replacement bridge with light rail to Clark College in Vancouver as the Locally Preferred Alternative (LPA). The LPA was chosen because it offers the best opportunity to meet project goals and serve community needs. Local project partners considered information in the Draft Environmental Impact Statement, a recommendation from the 39-member CRC Task Force and public comment when making their recommendation.

The CRC project is developing designs with input from the public. Over the next year, the project will be working on light rail route, station location and design; interchange design; pedestrian and bicycle facility design; and, financing. Additional analysis of the environmental and community effects will be included in a Final EIS, expected in 2010.

The LPA includes extension of the MAX Yellow Line from the Expo Center through downtown Vancouver to Clark College but does not specify transit alignment or station locations. In June 2009, the CRC Project Sponsors Council directed project staff to further analyze the project for potential refinements that could produce cost savings while maintaining the project's environmental, economic, transportation and safety benefits. In coordination with project partners, CRC staff prepared a recommendation that reduces the project's cost by \$650 million. One component of this refinement plan includes reusing the North Portland Harbor Bridge instead of rebuilding it. The design concepts in this report reflect both reusing or rebuilding the bridge over the North Portland Harbor.

These design issues have an impact on where the light rail station will be located and its elevation near the interchange. The design concepts contained within this report (Section 4) reflect the potential locations and elevation of the station.



Project Area Map Depicting the Locally Preferred Alternative (Source: CRC Project)

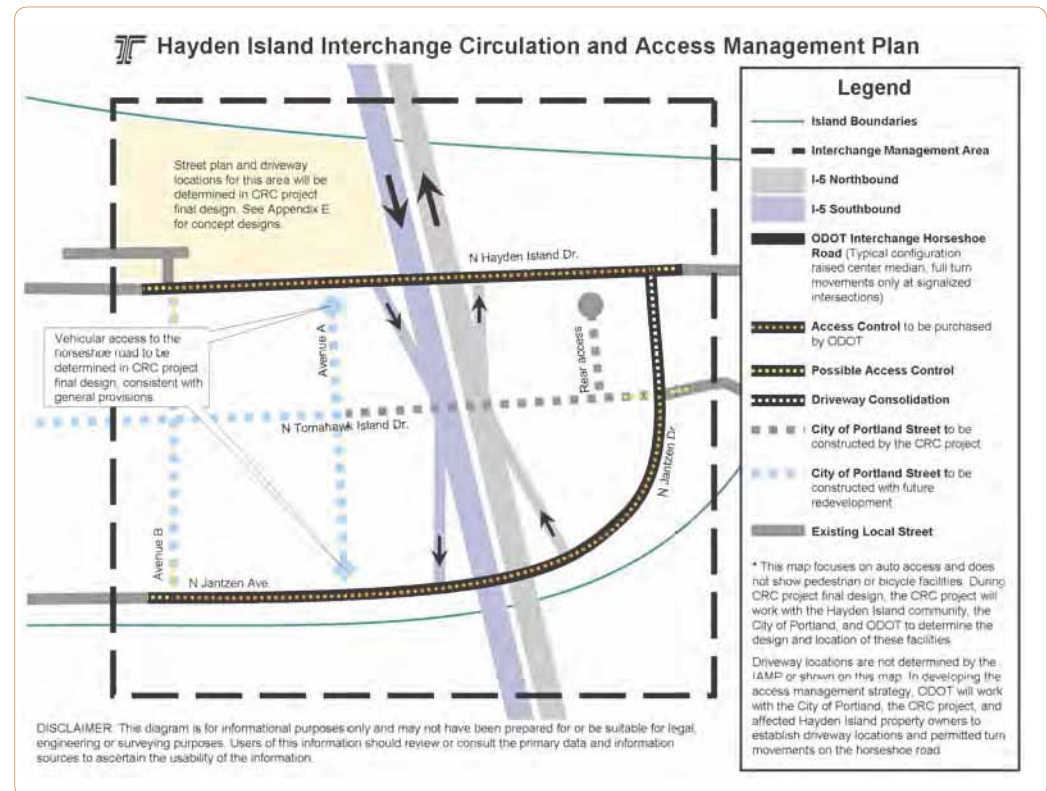
THE HAYDEN ISLAND INTERCHANGE AREA MANAGEMENT PLAN

The Oregon Department of Transportation (ODOT) is currently developing the Hayden Island Interchange Area Management Plan (IAMP) in conjunction with the CRC and the City of Portland. The purpose of an IAMP is to ensure safe and efficient operations between connecting roadways, to protect the function of the interchange, and to minimize the need for future major interchange improvements. It is required by law for any new or significantly reconstructed interchange (OAR 734-051-0155.6). Because new interchanges are very costly, state and local governments, as well as citizens, have an interest in ensuring that interchanges function as intended for as long a period as possible, while still supporting the planned land uses.

The goals of the Hayden Island IAMP are to:

- Ensure safe and efficient operations of I-5 and Hayden Island local streets in the long term.
- Balance the needs of the Hayden Island community with the needs of the traveling public.
- Create safe accesses for local businesses and property owners that are as convenient as possible.
- Support the vision laid out in the City of Portland's Hayden Island Plan.
- Consider current land uses and the potential for future development.
- Keep traffic moving smoothly on roads that connect the different parts of the interchange.

A public open house was held in October 2009 and another open house will be held in Spring 2010. ODOT will continue reviewing the input gathered from these and events work with CRC and the City of Portland to develop the Draft Hayden Island IAMP. This plan may affect connections to North Jantzen Avenue and North Hayden Island Drive.



Circulation and access management being considered (Source: CRC Project)

III. STAKEHOLDER INPUT

This section discusses stakeholder input and the process for arriving at the Hayden Island LRT Station design principles.

PORTLAND WORKING GROUP

In order to ensure that the CRC project meets the expectations and needs of the community, the CRC team with the City of Portland TriMet have established an advisory committee called the Portland Working Group (PWG). The PWG helps ensure that community perspective is incorporated into design and planning for the extension of the MAX Yellow light rail line from the Expo Center to Vancouver. The group makes recommendations related to station area planning, business and community outreach, and construction impact mitigation for the Oregon portion of the project. The group started in 2009 and will meet through the preliminary engineering phase of the project.

The PWG is charged with:

1. Advising CRC project and jurisdictional partners during the Final EIS and Preliminary Engineering (PE) phases of the project on transit-related issues for the Oregon portion of the project.
2. Acknowledging the basic assumptions in the CRC project LPA adopted in July 2008 and the City of Portland's Hayden Island Plan, and working collaboratively toward maximizing the regional benefits and minimizing the impacts of the project as it moves forward.
3. Serving as a sounding board for project staff and decision makers on preliminary design issues (for example, station area planning) by:
 - a) Studying and discussing designs developed by staff.
 - b) Providing feedback to project staff based on community priorities.



PWG meeting (Source: CRC Project)



Stakeholders at the community workshop considered circulation for people using mobility devices (Source: CRC Project)

4. Providing a strong communication link between the project and representative stakeholders by:
 - a) Serving as a project liaison: conveying project-related information to and from respective communities and interest groups.
 - b) Identifying stakeholders and helping facilitate contact with those groups and individuals.
 - c) Regularly receiving public testimony regarding the project at each PWG meeting.

There are 12 members of the PWG as of December 2009 they included:

- Richard Carhart, Hayden Island Neighborhood Network (HiNooN)
- Pam Ferguson, Hayden Island Manufactured Home Owners and Renters Association
- Brad Howton, Columbia Crossings
- Bill Jackson, Safeway Corporation
- Sam Judd, Jantzen Beach SuperCenter
- Steve Kayfes, Kenton Neighborhood Association
- Tom Kelly, Member-at-Large
- Charlie Kuffner, Pedestrian Advocate
- Colin MacLaren, Friends of Portland International Raceway
- Barbara Nelson, Jantzen Beach Moorage, Inc.
- Deborah Robertson, Bridgeton Neighborhood Association
- Walter Valenta, Waterside Condo



Community workshop (Source: CRC Project)



PWG meeting (Source: CRC Project)

Members of the PWG provide in-depth knowledge of the local community. They are community leaders, many of whom were involved in the development of the Hayden Island Plan and/or served on other CRC advisory groups.

MEETINGS AND COMMUNITY WORKSHOP

Two interactive PWG meetings and a community workshop were held to garner public input regarding the Hayden Island LRT Station design. The CRC staff, consultant team, and City of Portland provided context, a discussion of how designs had been implemented at other stations, and drawings and three-dimensional models of three potential Hayden Island LRT Station designs for the PWG and the public to react to. The process was iterative, with changes made to concepts based on input along the way.

PWG Meeting 1

The first PWG meeting was held on September 9, 2009, to provide the groundwork for station planning and to get the PWG's direction to take to the public workshop. The meeting included:

- An overview of station design context (planning, regulatory, and CRC project context).
- A discussion of station design elements and examples of how other stations have addressed them.
- A framework for thinking about the station facing the community, embracing the community, intersecting with the community and other transportation modes, and providing a gateway to the community.
- PWG recommendations for improving station concepts.

Based on input from the PWG, the consultant team's urban designers

revised the two preliminary station concepts and added a third concept design.

Community Workshop

The PWG hosted a community workshop on September 30, 2009, with approximately 50 people attending. The CRC project's architects and urban designers worked with the PWG and public to develop preferences for the six station design elements illustrated by the three Hayden Island station concepts. The six station design elements explored were:

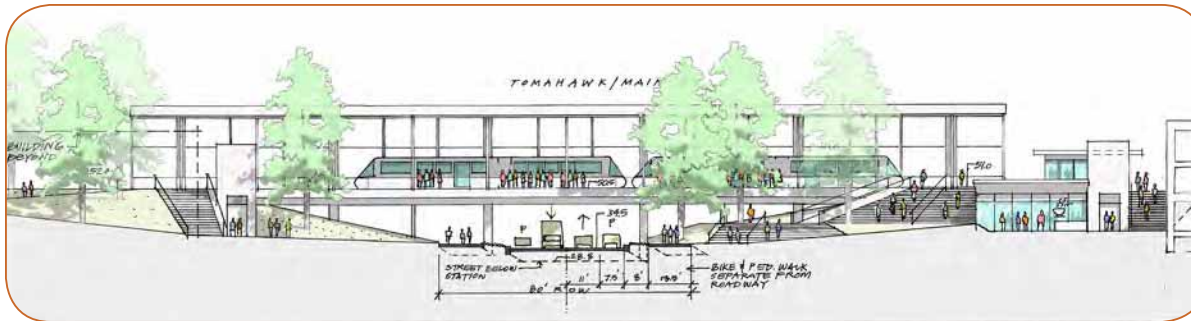
1. Station position and type
2. Height and vertical circulation
3. Pedestrian and bicycle connectivity
4. Relationship to adjacent streets and development
5. Station architecture and gateway treatments
6. Safety and security

Next, the group broke into four groups to review the three design concepts: (1) Elevated, (2) Gateway, and (3) Plaza. PWG members facilitated discussion of the likes and dislikes related to how the three concepts performed in general and what was successful or lacking in how a concept incorporated each design element.

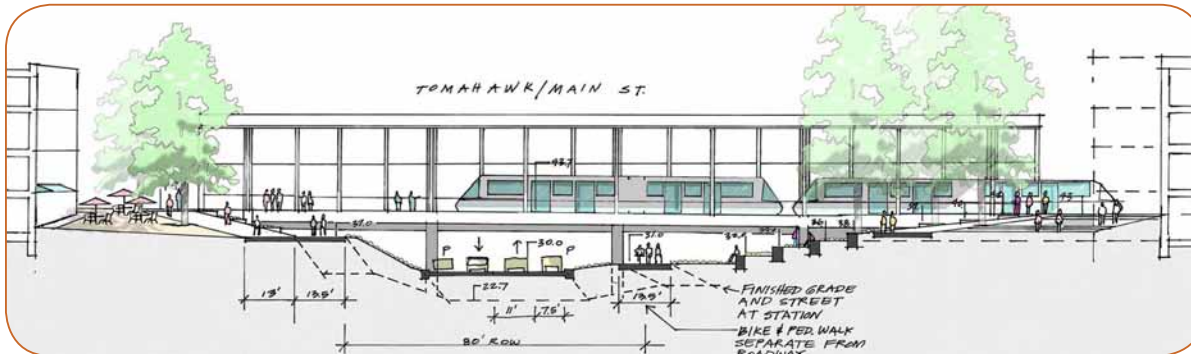
PWG Meeting 2

The PWG reconvened on October 14, 2009, to synthesize its aspirations with those heard at the community workshop. Grounded in context and having explored different potential scenarios, the group provided design principles for the station as outlined in Section 4 of this report.

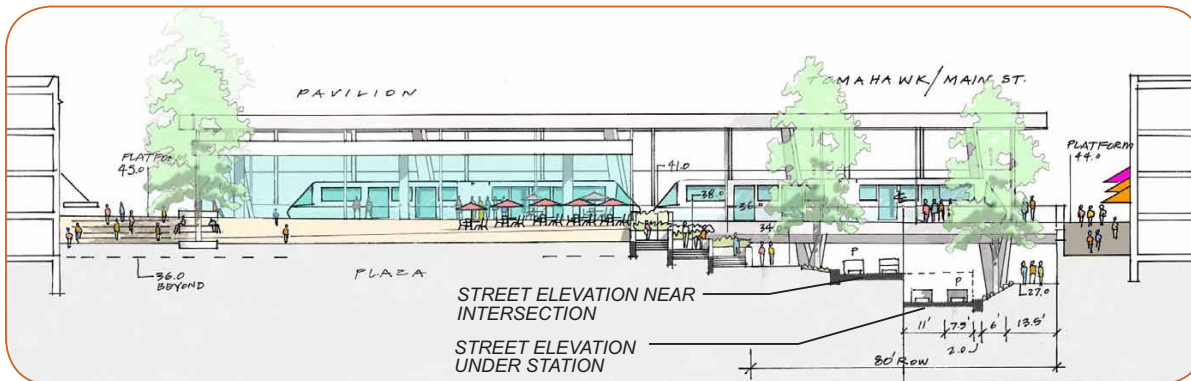
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Concept 1: The Elevated Station (Source: ZGF)



Concept 2: The Gateway (Source: ZGF)



Concept 3: The Plaza (Source: ZGF)

IV. DESIGN PRINCIPLES

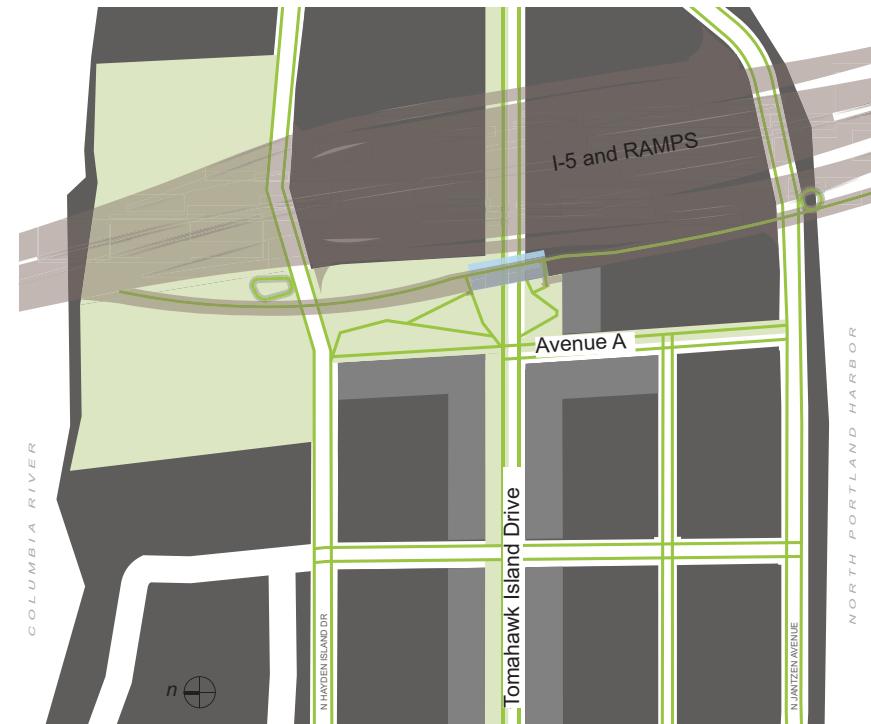
PRELIMINARY CONCEPTS

The PWG helped to develop three potential design concepts to illustrate ideas that could be incorporated into the station design when it is constructed. One concept, the Elevated Station Concept, incorporates the Hayden Island interchange if it is constructed with new North Portland Harbor bridges, while the Plaza and Gateway concepts incorporate the existing North Portland Harbor bridge that would remain in place and at the same elevation. Any of the concepts could incorporate either side or center platforms. All of these designs are meant to complement the existing Hayden Island Plan and its proposed street and multimodal connections.

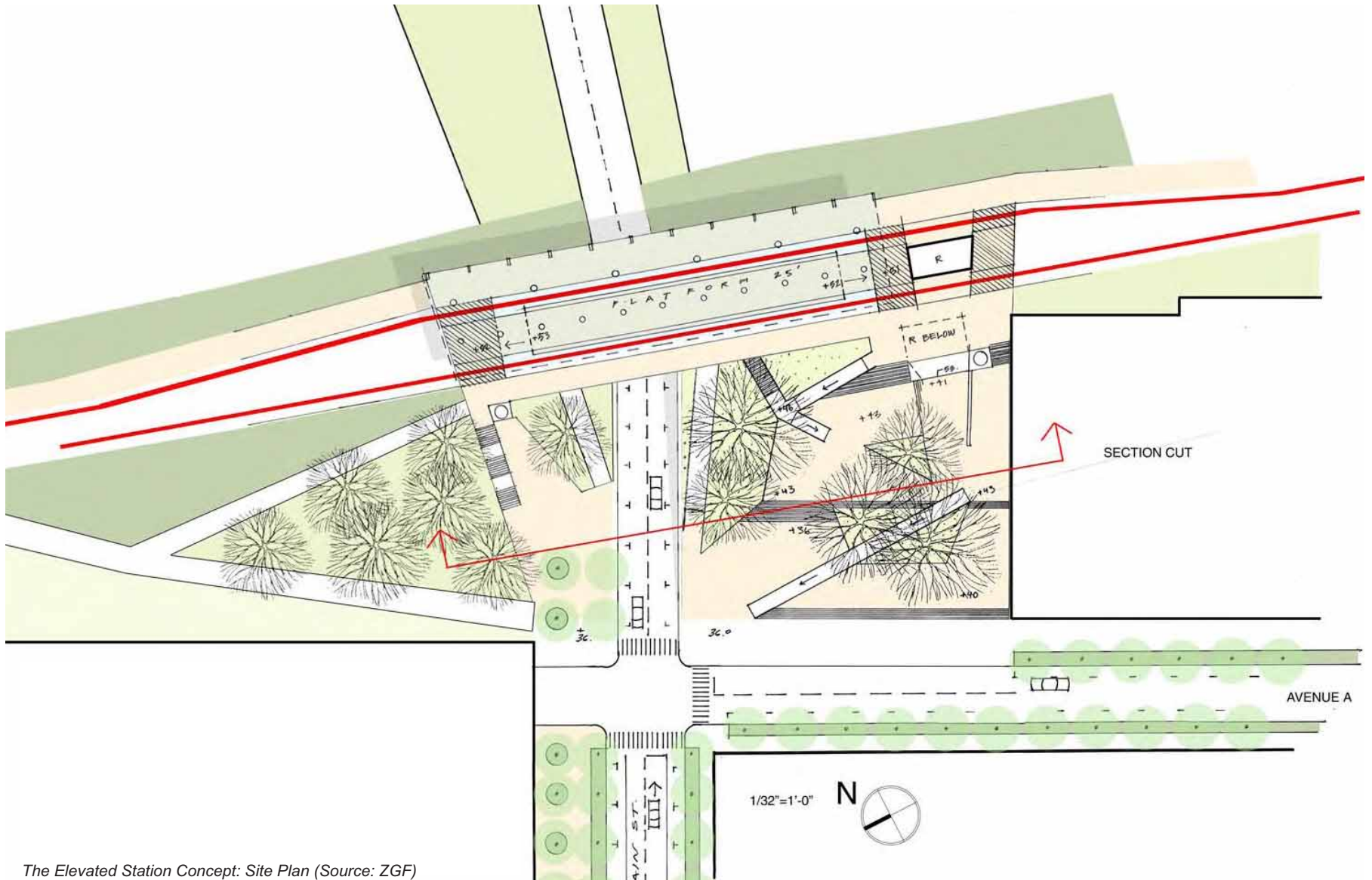
Concept 1: The Elevated Station Concept

The Elevated Station Concept was designed to respond to the LPA, which places the light rail station on the west side of I-5, approximately 124 feet east of the intersection of Tomahawk Island Drive and Avenue A. The station would be approximately 18 feet higher than Avenue A. In this concept, the station would be centered over Tomahawk Island Drive. Vertical circulation would be provided via a tiered plaza on the south side of Tomahawk Island Drive and a landscaped ramp running north toward North Hayden Island Drive, then switching back toward the intersection of Tomahawk Island Drive and Avenue A. Elevators and stairs would also provide access to both sides of Tomahawk Island Drive.

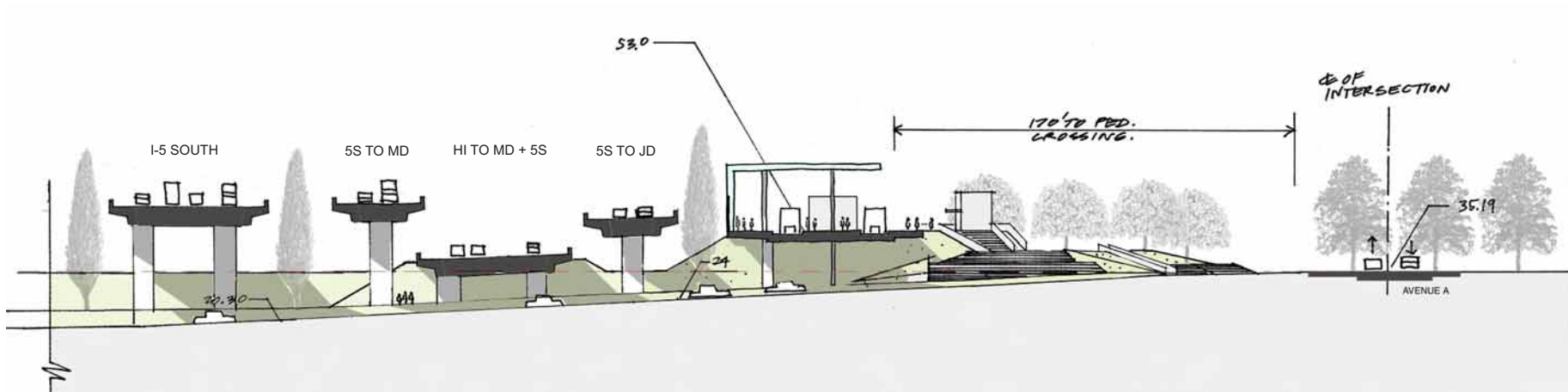
Of the three concepts, this concept least affected the elevation of Tomahawk Island Drive, because the North Portland Harbor bridge would be rebuilt as part of the LPA at a higher elevation than then it is today, resulting in higher elevations of the new on-off-ramps to the island. If the North Portland Harbor bridge is reconstructed as proposed, the lowest portion of Tomahawk Island Drive would be constructed approximately 14 feet below the existing grade to provide adequate clearance for the on-off-ramps on Hayden Island.



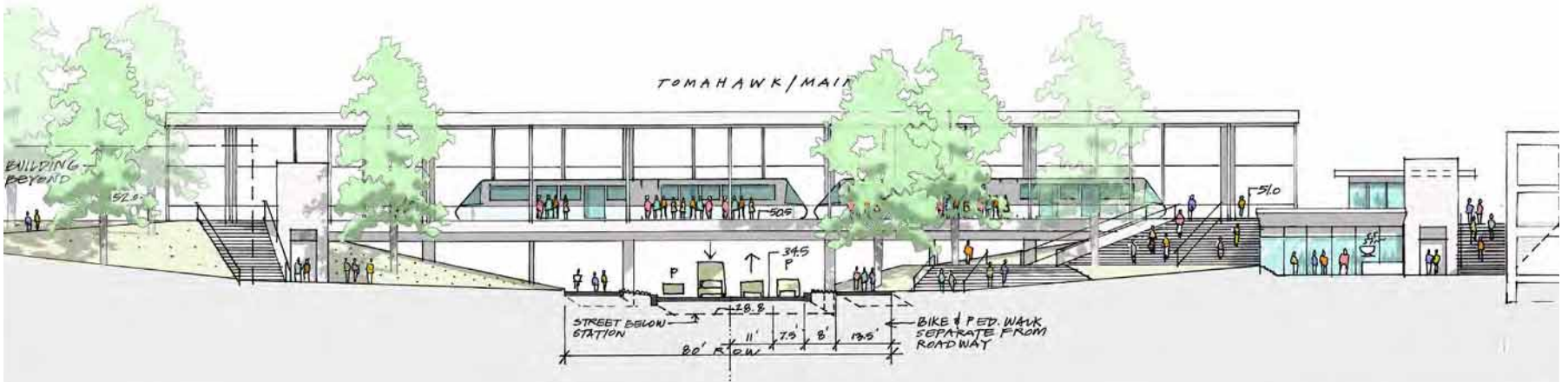
The Elevated Station Concept: Hayden Island Study Area. LPA freeway and LRT station are approximately 124 feet from Avenue A. (Source: ZGF)



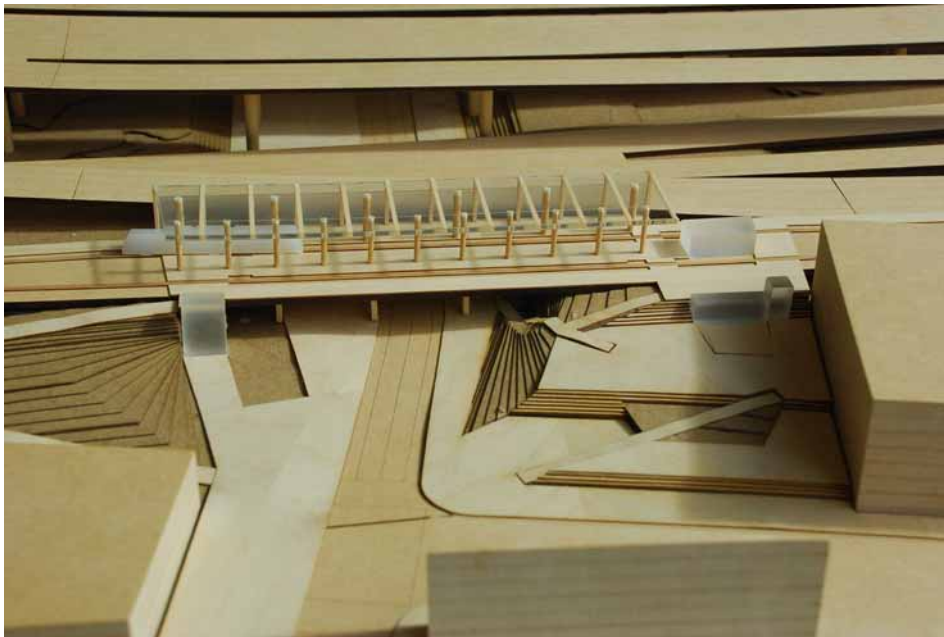
The Elevated Station Concept: Site Plan (Source: ZGF)



The Elevated Station Concept: Section of Tomahawk Island Drive looking south (Source: ZGF)



The Elevated Station Concept: Section looking east (Source: ZGF)



The Elevated Station Concept Model looking east (Source: ZGF)



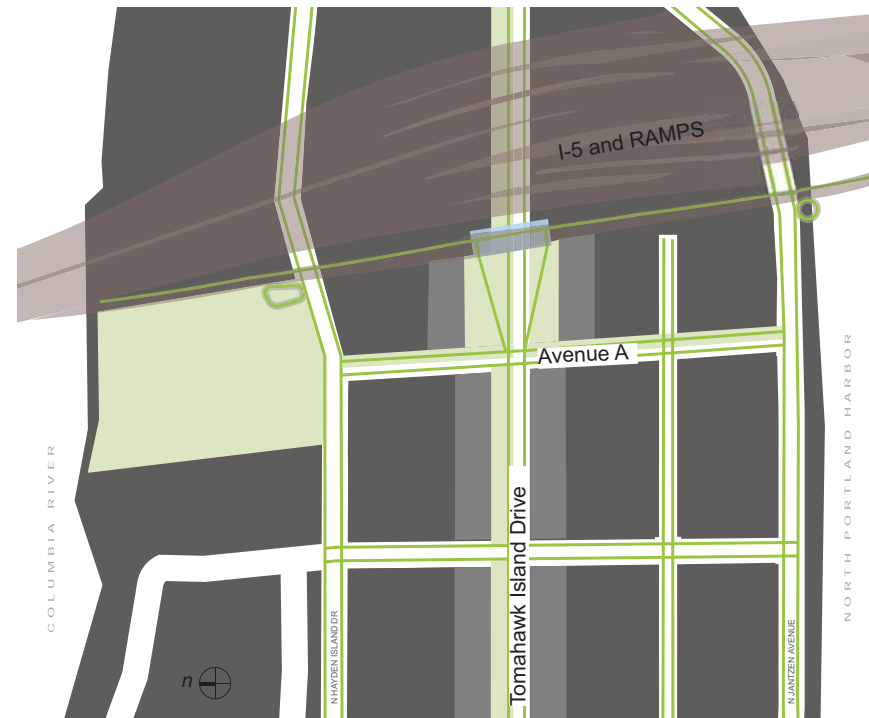
The Elevated Station Concept Model looking northeast (Source: ZGF)

Concept 2: The Gateway Concept

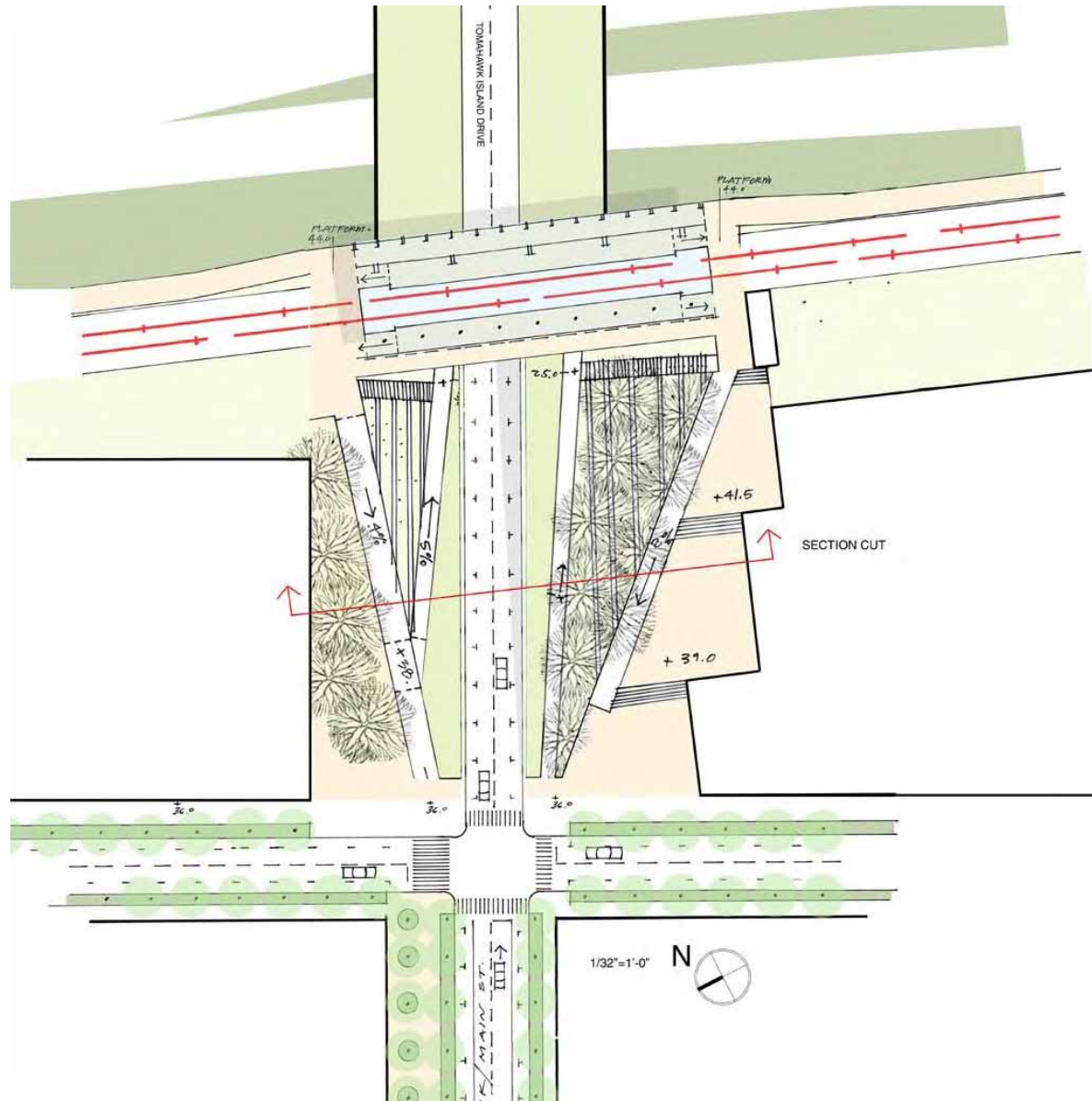
The CRC designers were asked by the Project Sponsors Council to find ways to reduce the overall cost of the CRC while maintaining project benefits and meeting community needs. As a cost cutting measure, a Revised Package (RP) of improvements was created. The RP includes using the existing North Portland Harbor bridge as opposed to reconstructing them as proposed under the LPA. The result is a lower structure over Hayden Island and a more easterly location for the Hayden Island interchange and transit station. The Gateway Concept was designed to respond to the RP highway option, which places the light rail station about 300 feet from the intersection of Tomahawk Island Drive and Avenue A, as opposed to approximately 124 feet from the intersection under the Elevated Station Concept.

The station would be approximately nine feet higher than Avenue A, which is lower than the proposed height of the station under the Elevated Station Concept, primarily because the interchange is also lower. In this concept, the station is centered over Tomahawk Island Drive. Vertical circulation would be provided by roughly symmetrical landscaped walkways, on both sides of Tomahawk Island Drive, which provide a gateway visual effect and a gradual approach to the station for users. Elevators would not be necessary, and stairs and sloped walkways would provide access to both sides of Tomahawk Island Drive. Stairs would be designed to accommodate people gathering and sitting on the landscaped areas, but would not provide the same type of open areas shown in the Elevated Station or Plaza concepts.

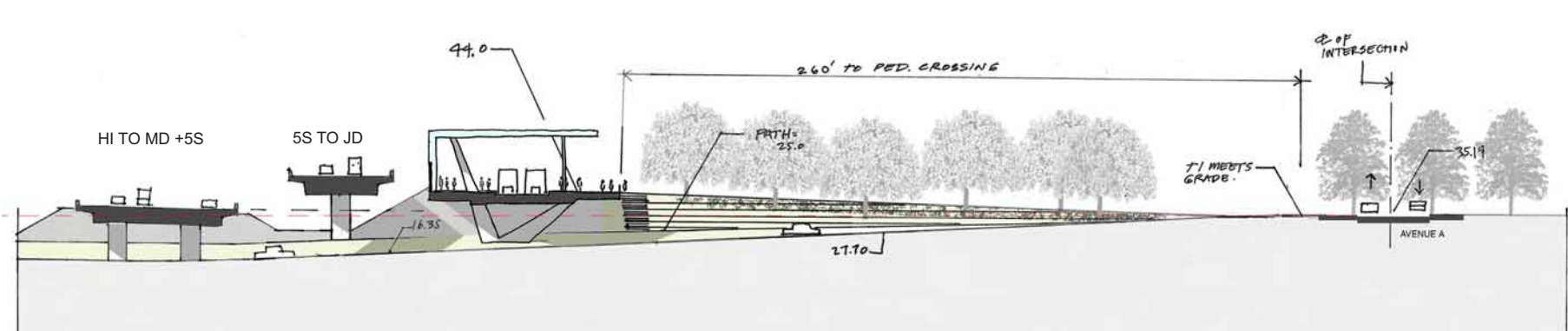
Tomahawk Island Drive would be constructed at approximately 22 feet below the existing grade, which is approximately 8 feet lower than under the Elevated Station Concept because of the reduced height of the I-5 structures.



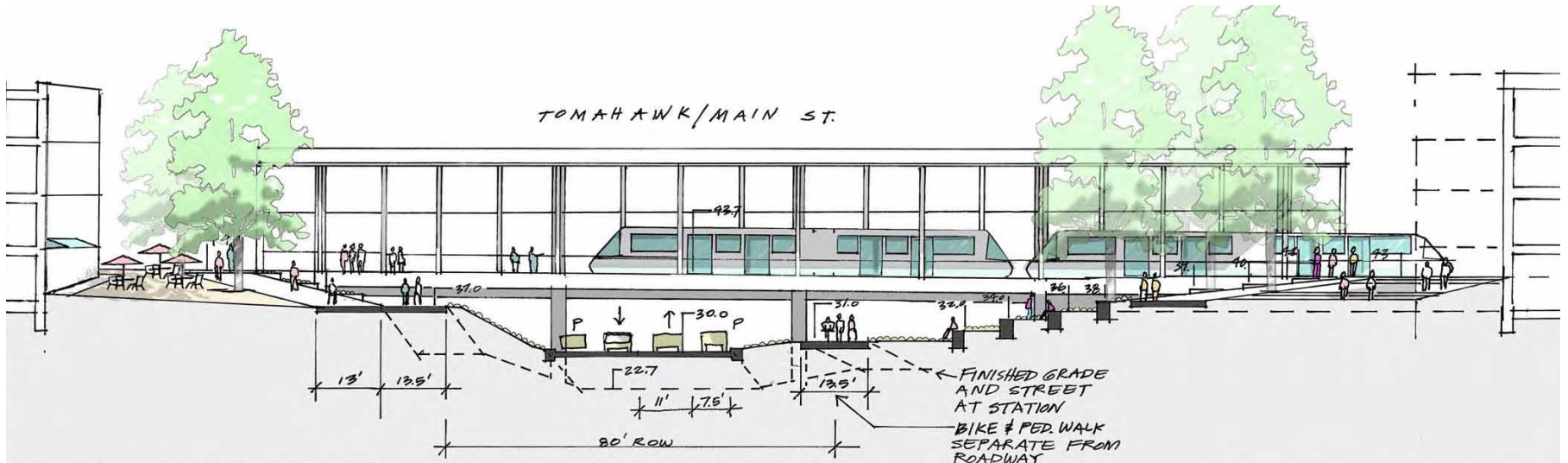
The Gateway Concept: Hayden Island Study Area. Refinement package with freeway and ramps moved east. The LRT station is approximately 300 feet from Avenue A. (Source: ZGF)



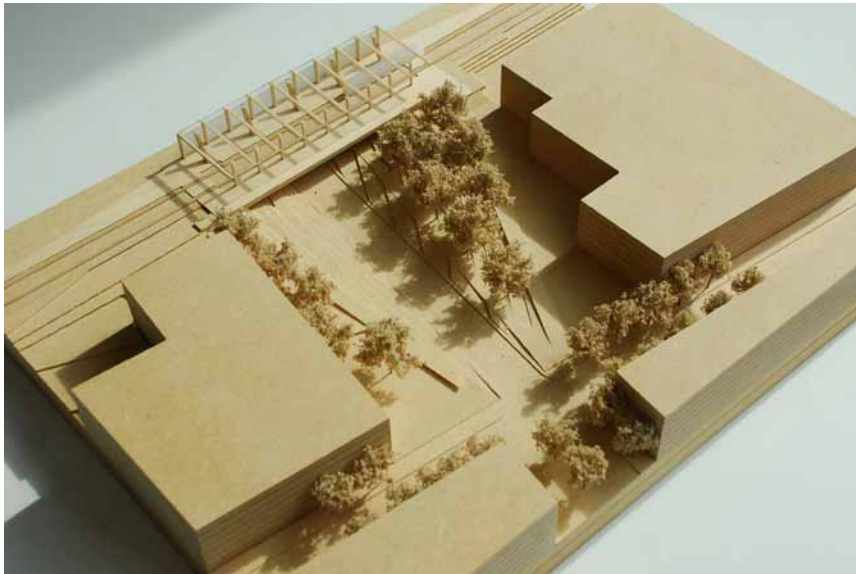
The Gateway Concept: Site Plan (Source: ZGF)



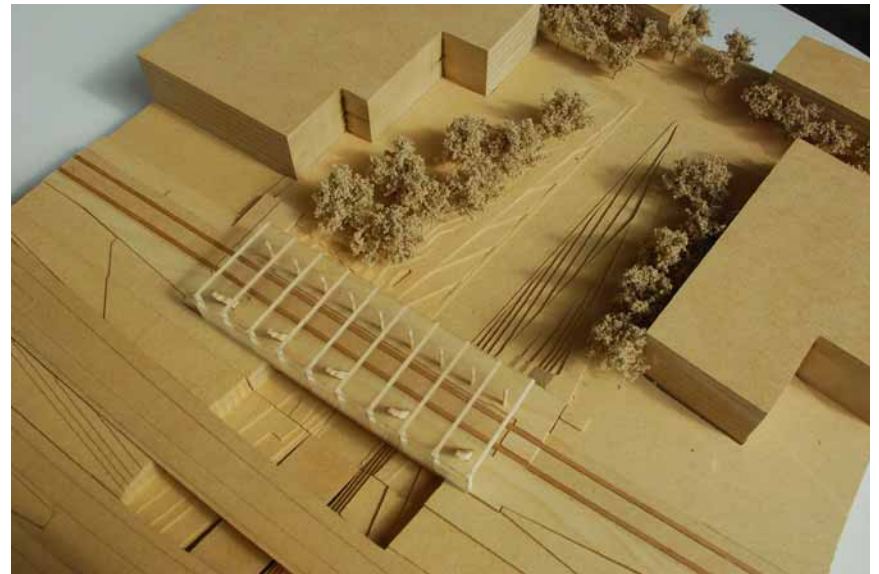
The Gateway Concept: Section of Tomahawk Island Drive looking south (Source: ZGF)



The Gateway Concept: Section looking east (Source: ZGF)



The Gateway Concept Model looking southeast (Source: ZGF)



The Gateway Concept Model looking west (Source: ZGF)

Concept 3: The Plaza Concept

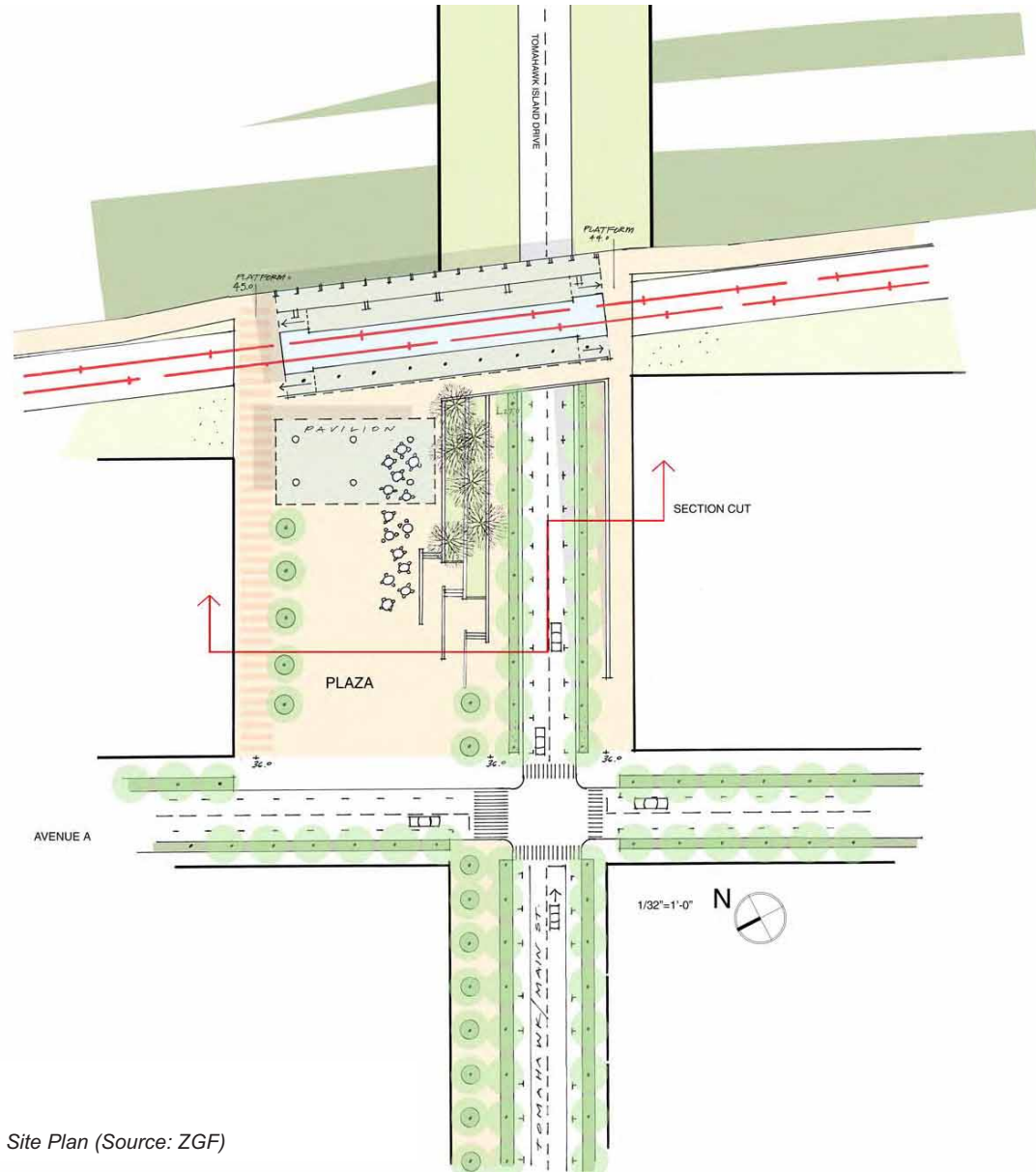
The Plaza Concept was designed to respond to the same circumstances as the Gateway Concept, which assumes that the RP is the approved package of improvements. As with the Gateway Concept, the Plaza Concept places the new light rail station approximately 300 feet to the east of the intersection of Tomahawk Island Drive and Avenue A, and the light rail station would be approximately nine feet higher than Avenue A.

The key differences between this concept and the Gateway Concept are that the station would be placed just north of Tomahawk Island Drive as opposed to centered over the road. This offset location allows the northern end of the station to frame a lightly sloping plaza that would be bordered by adjacent development on the northern edge that would focus on retail and would have the potential for a light pavilion. The southern end of the station ramps down to the southern sidewalk of Tomahawk Island Drive. Unlike the other two options, which use both sides of Tomahawk Island Drive more equally, this option focuses activity on the north side of the street, where the plaza is located. Access is provided on the south side of the road, but more as a means to reach the plaza and the station platform.

Vertical circulation is similar to the Gateway Concept, where access would be provided via a ramp from Avenue A to the southern end of the station, as well as by the sloping plaza. Elevators would not be necessary, but stairs and sloped walkways would provide access to both sides of Tomahawk Island Drive. In the current design, the station is configured with side platforms, but it could also accommodate a center platform.



The Plaza Concept: Hayden Island Study Area. Refinement package with freeway and ramps moved east. The LRT station is approximately 300 feet from Avenue A. (Source: ZGF)



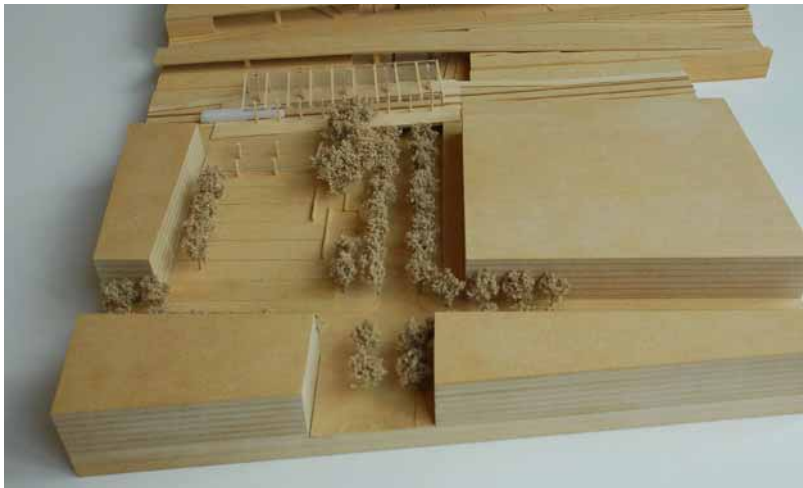
The Plaza Concept: Site Plan (Source: ZGF)



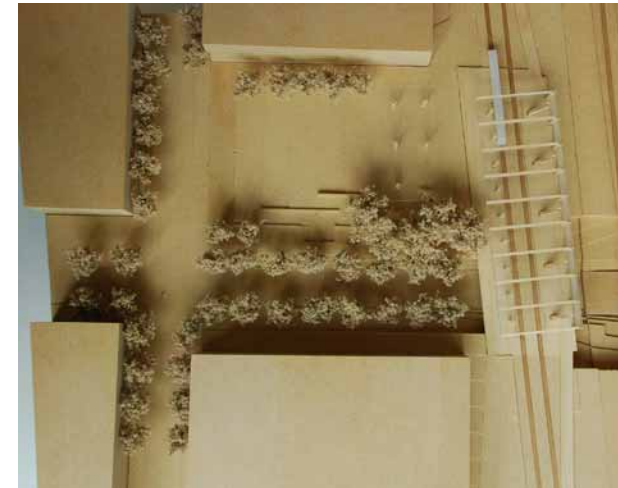
The Plaza Concept: Section of Tomahawk Island Drive looking south (Source: ZGF)



The Plaza Concept: Section looking east. (See red section line on page 25 for Tomahawk Island Drive elevations.) (Source: ZGF)



Plaza Concept Model looking east (Source: ZGF)



Aerial view of Plaza Concept Model looking north (Source: ZGF)

DESIGN ELEMENTS

The project team worked with the PWG to develop a series of design principles to guide the design of the future light rail station. Input from the community workshop and PWG was organized by the six design elements affecting the design and operation of the station, and how the station relates to the larger urban design of Hayden Island. Aspirations take the input and articulate how an ideal station might implement the design element given the input collected throughout this process.

Station Position and Type

Input

The community workshop attendees and the PWG all agreed that they like how the Plaza Concept functions and the potential connections it provides. However, there was less agreement about where the platform should be located. Some groups preferred the platform to be located to the north, as shown in the Plaza Option, while others liked the visual impact of a center-positioned station over Tomahawk Island Drive, as shown in the Gateway and Elevated concepts. Most people prefer the Center Platform because of its potential for clear way-finding.

Aspiration

The station is integrated into the surrounding development pattern and is an active location. The station also provides direct, easy access for all modes of travel. Connections are provided on both sides of the station, encouraging retail uses that support the transit users.

Height and Vertical Circulation

Input

The PWG and the public prefer a lower platform like that shown in the Plaza Concept because it provides better pedestrian and Americans with



An example of an elevated station that is accessible from both sides of the street, provides transparency, and protects riders from the rain and wind (Source: ZGF)



An example of a gently sloping public space that fosters a sense of place, provides gathering spaces, and enhances visual and physical connectivity (Source: ZGF)

Disabilities Act (ADA) access. Access with either the Plaza or Gateway concepts can be provided via stairs and ramps and would not require elevators. If an elevated structure is unavoidable, the PWG would like to have a combination of an elevated station with a plaza as a gathering space.

Aspiration

The station is constructed at gently sloping grades that maximize connectivity to the surrounding area and provide gathering points. Redundant, easily accessible elevators/escalators and stairs to ensure accessibility, resting, and passing areas are provided. Transit users have clearly demarcated areas on the platform to catch the train.



An example of maximizing accessibility and integrating the station with surrounding development (Source: David Evans and Associates)

Pedestrian and Bike Connectivity

Input

Height and grade of the station are concerns for the island community, who prefer that grades be kept to a minimum. If the station is elevated, they would like redundant systems (i.e., elevator and escalator) to ensure there is easy access to the station. Several people also stressed the need for clear and accessible way-finding to the platform and station area, and stressed that pedestrian and through bicycle traffic should be separated as much as possible and sheltered bike parking should be provided for protection against the elements.

Aspiration

Bicycle and pedestrian paths are clearly marked and provide easy way-finding to the station and to regional trail connections. Multi-use trails are separated from areas where people are waiting to catch the train.



Pedestrian, bicycle, and transit connections support ridership and make the system accessible to many users (Source: City of Bellevue)



An example of a station that provides clear pedestrian connections, demarcates pedestrian areas, and relates to the adjacent street (Source: David Evans and Associates)



Examples of kiss-and-ride signage and use of bike lanes to promote clear and accessible mobility choices to the transit station (Sources: Flickr Mike_fj40 and David Evans and Associates)



An example of a station that provides adjacent development and enhances safety by having active uses around the clock (Source: ZGF)

Relationship to Adjacent Streets and Development

Input

The PWG strongly voiced a desire for a designated area for shuttle and kiss-and-ride parking near the station. Much of the existing residential development is not located near the station and many of the residents who might use the station are elderly. Strong connections should also be available that link the station to the surrounding area and local street grid, creating spaces that are inviting to people and increase potential development opportunities. If possible, including retail on or near the platform area should be encouraged to help activate the area and deter negative activities.

Aspiration

The station environment becomes a place, not just a platform to catch the train. Some retail is provided on or near the platform. The station also provides a context for adjacent development that provides services to support transit users. The adjacent streets provide exceptional connectivity for all modes of travel and have drop-off and pick-up spots near the station.

Station Architecture and Gateway Treatments

Input

There is considerable support for a plaza for use as an active space with a management entity to schedule events and uses. The platform itself should be sheltered from the elements and highway noise and potentially incorporate the westward views. There was also a strong desire to acknowledge the history of the island in some fashion. The connections from the station to the local street system are important, but some felt that the Gateway Concept could limit how well those connections might be made.

Aspiration

The station is sheltered from the elements and noise from the freeway, but solar access is maintained by siting the station to take advantage of the sun and providing design guidelines for surrounding buildings to minimize shading. The station is designed with materials that are resistant to graffiti and vandalism, and a program is established to keep the station clean and in good repair. The station design references what is special about Hayden Island, such as its history.

Safety and Security

Input

The PWG frequently mentioned safety and security as important issues, specifically defining ways to reduce vandalism and minimize areas where people can hide. If an elevator is needed



An example of a station that creates a gateway and sense of arrival (Source: ZGF)



An example of how materials, landscaping, and architecture reflect community history. Orenco Station takes its name from the "Oregon Nursery Company," the original landowner. Vegetation and art play a significant role at the station and surrounding developments (Source: David Evans and Associates)

at the station, it should be transparent in order to allow sight in and out.

Aspiration

Ideally, the station is clean, well lit, and does not provide hiding places. There is also a security station located at the station that improves safety and reduces undesirable behavior.



An example of a transparent elevator and an open architecture promoting visibility (Source: ZGF)



The presence of law enforcement or security personnel discourages loitering and vandalism at stations, increases the level of surveillance and security, and helps reduce fare evasion (Source: David Evans and Associates)



Simulation of potential station elements (Source: ZGF)

RECOMMENDED DESIGN PRINCIPLES FOR THE TRANSIT STATION

The input provided on the six design elements from the community workshop and PWG provided a context to develop a series of design principles to help guide the station design, regardless of which package of interchange improvements the CRC Project Sponsors Council recommends. The recommended design principles are:

- **Create a station environment that is safe, attractive, and inviting for transit users, visitors, and island residents.**
- **Provide circulation paths that allow clear connections to or through the station area for users of all modes with varied abilities.**
- **Develop a station area that embraces and engages its surroundings with transparency and activity.**
- **Design a station that protects transit users from freeway noise and the natural elements, while providing light, views, and clear way-finding.**
- **Design a station that includes features referencing historical or cultural values unique to Hayden Island.**

As the project is further developed and more information about the transit station and interchange design is available, the design principles should be revisited periodically to ensure that they are being implemented as originally planned, or revised to reflect new information.