

SOUTHWEST

Green Line LRT Extension



Corridor Management Committee

December 3, 2014



Today's Topics

- Section 106 Process: Kenilworth Channel Bridge Design Concepts
- Station Design Overview
- Executive Change Control Board Update
- Locally Requested Capital Investments (LRCIs) Update



Section 106 Process

Section 106 of the National Historic Preservation Act of 1966

- Requires Federal agencies to take into account the effects of their “undertakings” on historic properties
- Process independent from, but completed in coordination with, the National Environmental Policy Act (NEPA) and Section 4(f) of the Department of Transportation Act, as applicable

Section 106: Roles and Responsibilities

- MnDOT Cultural Resource Unit (CRU):
 - Acts on behalf of FTA for portions of Section 106 process
 - Defines Areas of Potential Effects (APE)
 - Determines whether historic properties are subject to potential adverse effects
- Metropolitan Council:
 - Local project sponsor and federal grantee
 - Responsible for certain parts of the Section 106 process including implementation of mitigation measures

Section 106: Roles and Responsibilities

- Consulting parties:
 - Provide input to FTA and MnDOT CRU
 - State Historic Preservation Office (SHPO) represents interests of state in consulting with Federal agencies about the effect of their undertakings on historic properties
 - Advisory Council on Historic Preservation (ACHP) oversees the work of Federal agencies in carrying out their responsibilities under Section 106
- Goal of consultation is to identify historic properties potentially affected by an undertaking, assess effects and seek ways to avoid, minimize or mitigate any adverse effects

Consulting Parties to Section 106

- City of Eden Prairie
- City of Minnetonka
- City of Hopkins
- City of St. Louis Park
- City of Minneapolis
- Minneapolis Park and Recreation Board
- Kenwood Isles Area Association
- Three Rivers Park District
- Minnesota State Historic Preservation Office

Kenilworth Channel Bridge Design Concepts

Information represented is based on field inventory and dimensions provided are approximate.



Burnham Road (No. 6)

- Water Crossing over channel
- Nearest to project crossing (~350')
- 50' +/- single-span, concrete beam
- 42' +/- bridge width
- Approximate clearance: 14'



Kenilworth Trail (No. 5)

- Water Crossing over channel
- Steel beams on wood piers, 95' span
- 50' +/- single-span, concrete beam
- 46' +/- bridge width
- Approximate clearance: 14'



W. Lake of the Isles Parkway (No. 4)

- Water Crossing over channel
- 52' +/- single-span arch, cast concrete and limestone
- 50' +/- bridge width
- Approximate clearance: 14'



W. Lake of the Isles Parkway (No. 3)

- Water Crossing over Lagoon
- 57' +/- single-span arch, cast concrete and limestone
- 52' +/- bridge width
- Approximate clearance: 14'



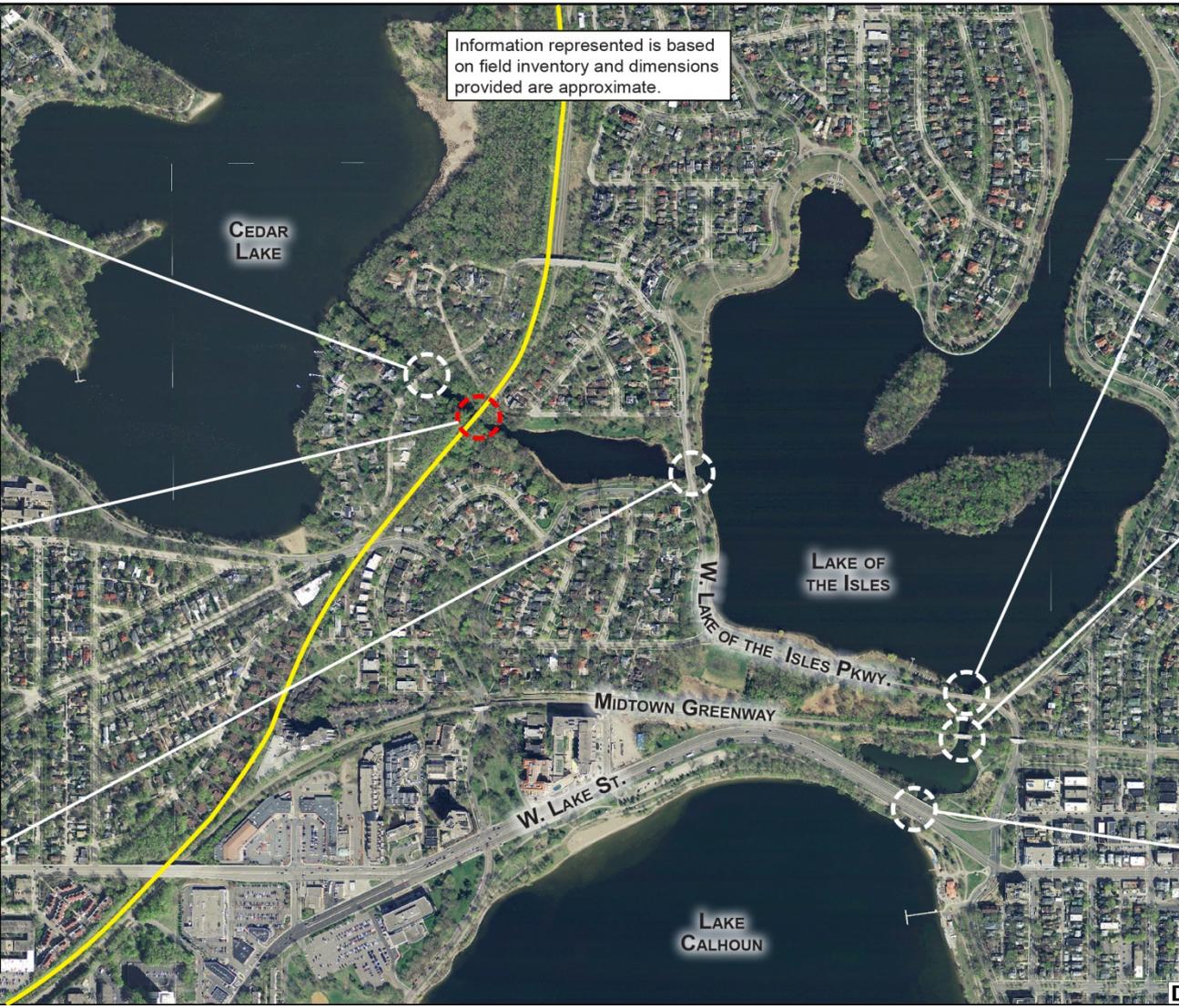
Midtown Greenway (No. 2)

- Water Crossing over Lagoon
- 89' +/- two-span, concrete beam
- 26' +/- bridge width
- Approximate clearance: 14'
- Trail both sides



West Lake Street (No. 1)

- Water Crossing over Lagoon
- 61' +/- single-span arch, cast concrete and granite facing
- 115' +/- bridge width
- Approximate clearance: 14'
- Trail and walk on East side



DRAFT-WORK IN PROCESS

Highlights of Input Received

- Maximize natural light between bridges
- Importance of channel embankments
 - Vegetation restoration and bank walls
 - Bridge abutments and retaining wall
- Create more space for skiers and kayakers
- Natural materials, dark colors
- Utilitarian, non-ornamental
- Re-interpretation of existing bridge
- Modern construction techniques

Bridge Concepts

- Design investigation in coordination with Section 106 process
- Three separate design firms as part PEC-East team
- Tested with structural engineering
- Idea stage

Functional Requirements

- Two bridges
 - Freight rail: 20 ft - 4 in width
 - LRT/trail: 53 ft - 4 in width
- Track alignments maintained as designed in PE
- Vertical clearance of 14 ft: water to bridge beam
- Horizontal clearance of 20-25 ft: pier to pier

Aesthetic Design Considerations

- Space for embankments between abutments and water
- Symmetry
- Consistency of elevations
 - Curbs
 - Railings and fencing
- Theodore Wirth's Vision

Kenilworth Channel Bridge Design Concepts

Existing Conditions



Existing Conditions



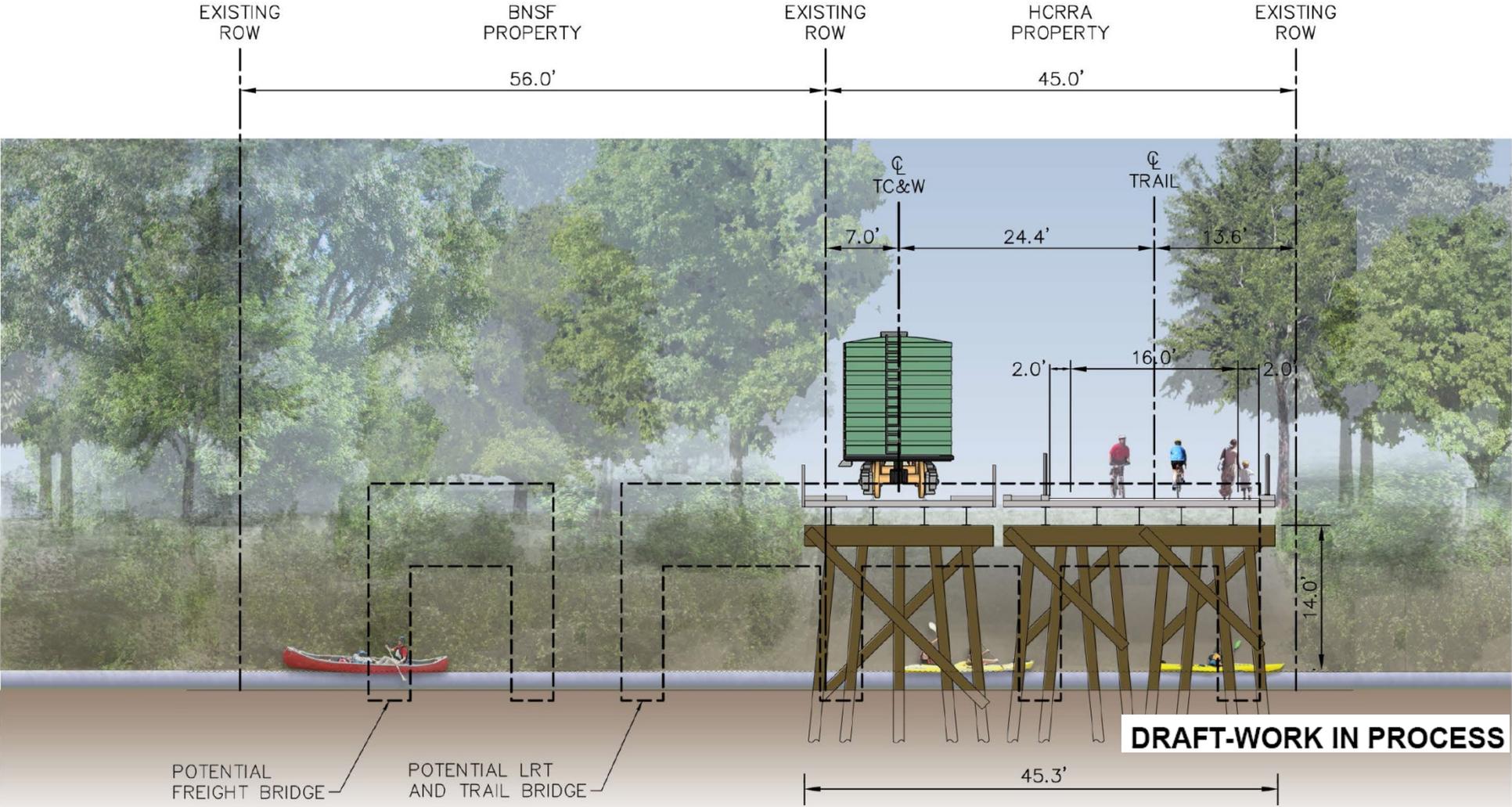
Existing Conditions



Existing Conditions

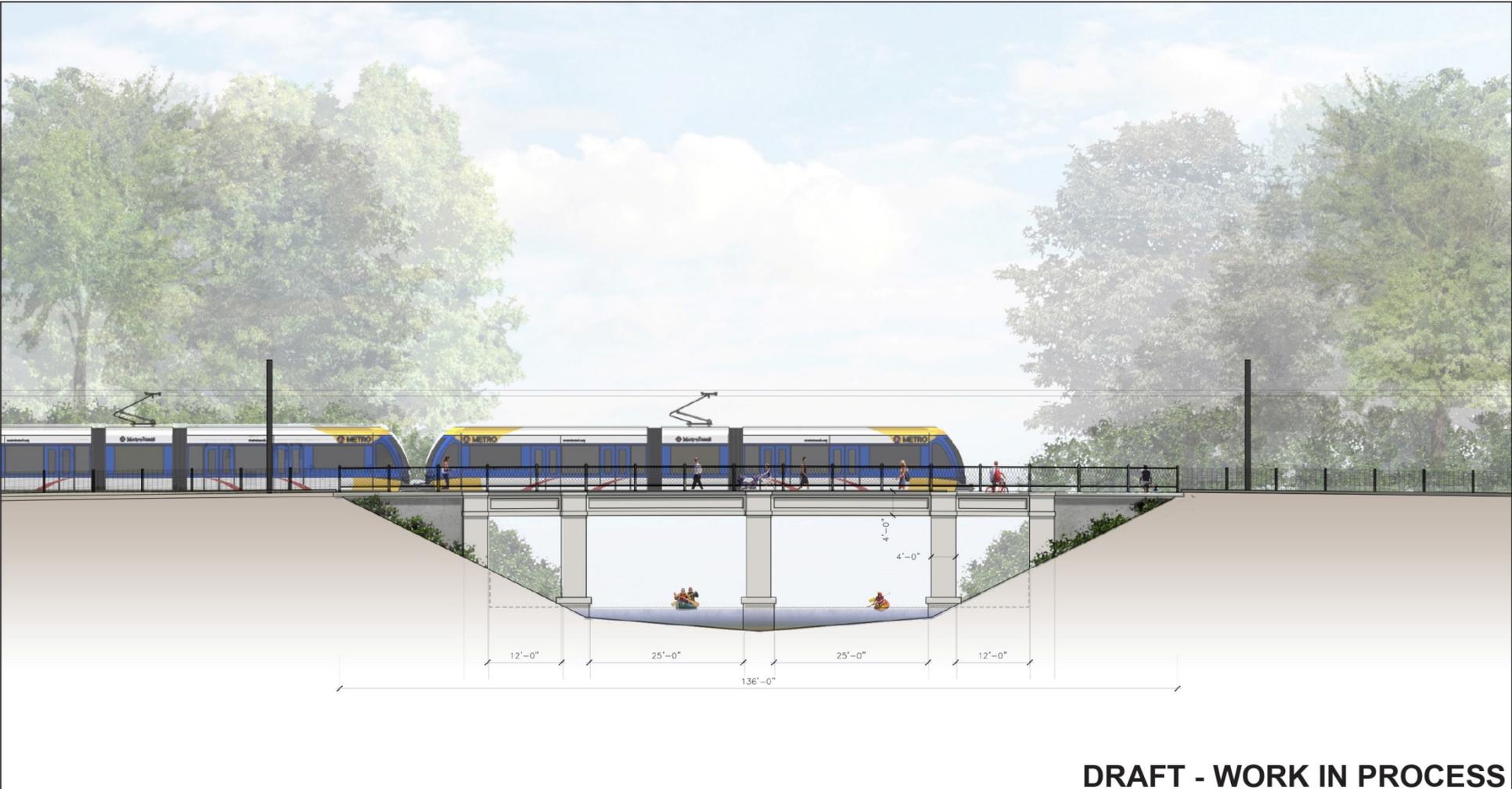


Bridge Crossing Footprint



Arched Pier Concept

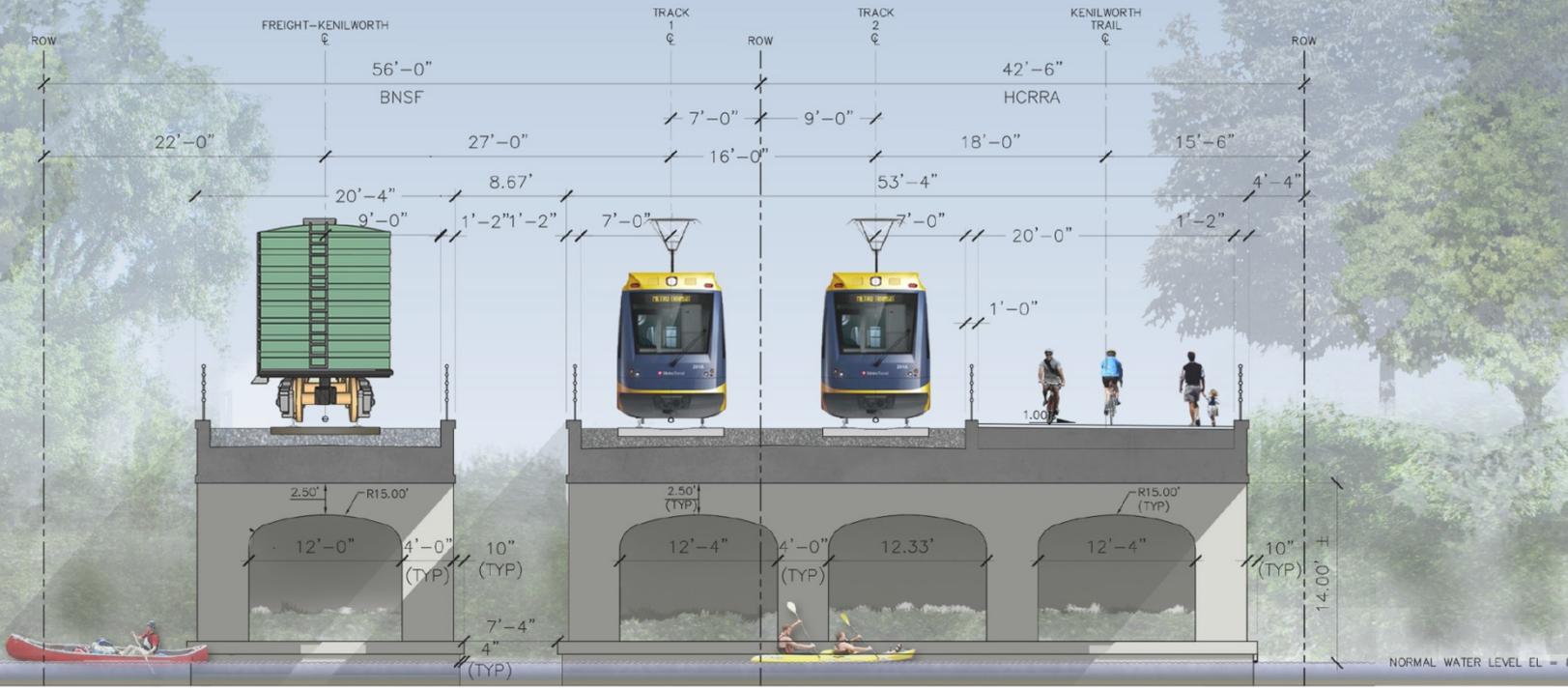
Arched Pier Concept



DRAFT - WORK IN PROCESS

Arched Pier Concept

DRAFT - WORK IN PROCESS



Arched Pier Concept



DRAFT - WORK IN PROCESS

Thin Deck Concept

Thin Deck Concept

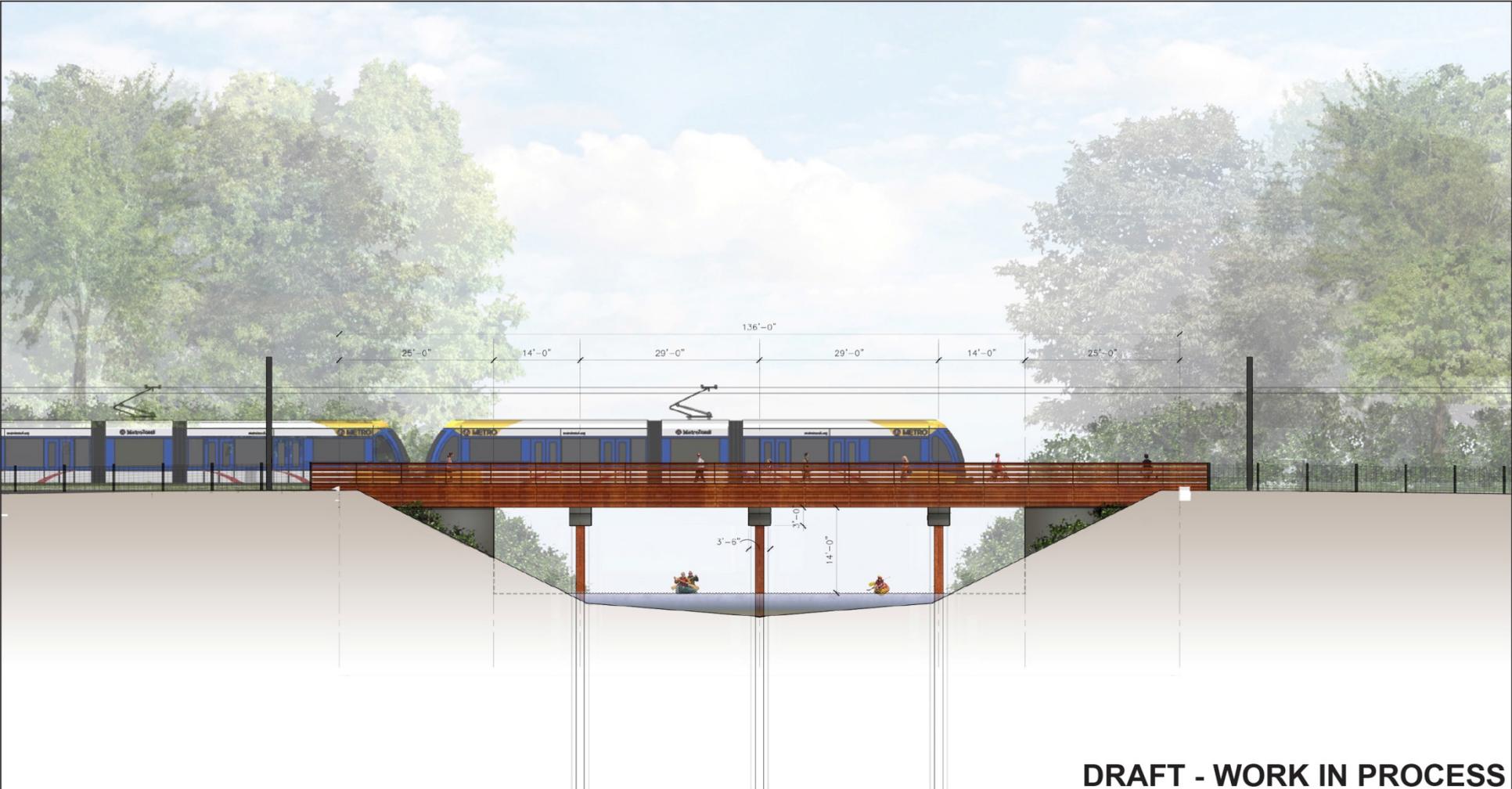


Thin Deck Concept



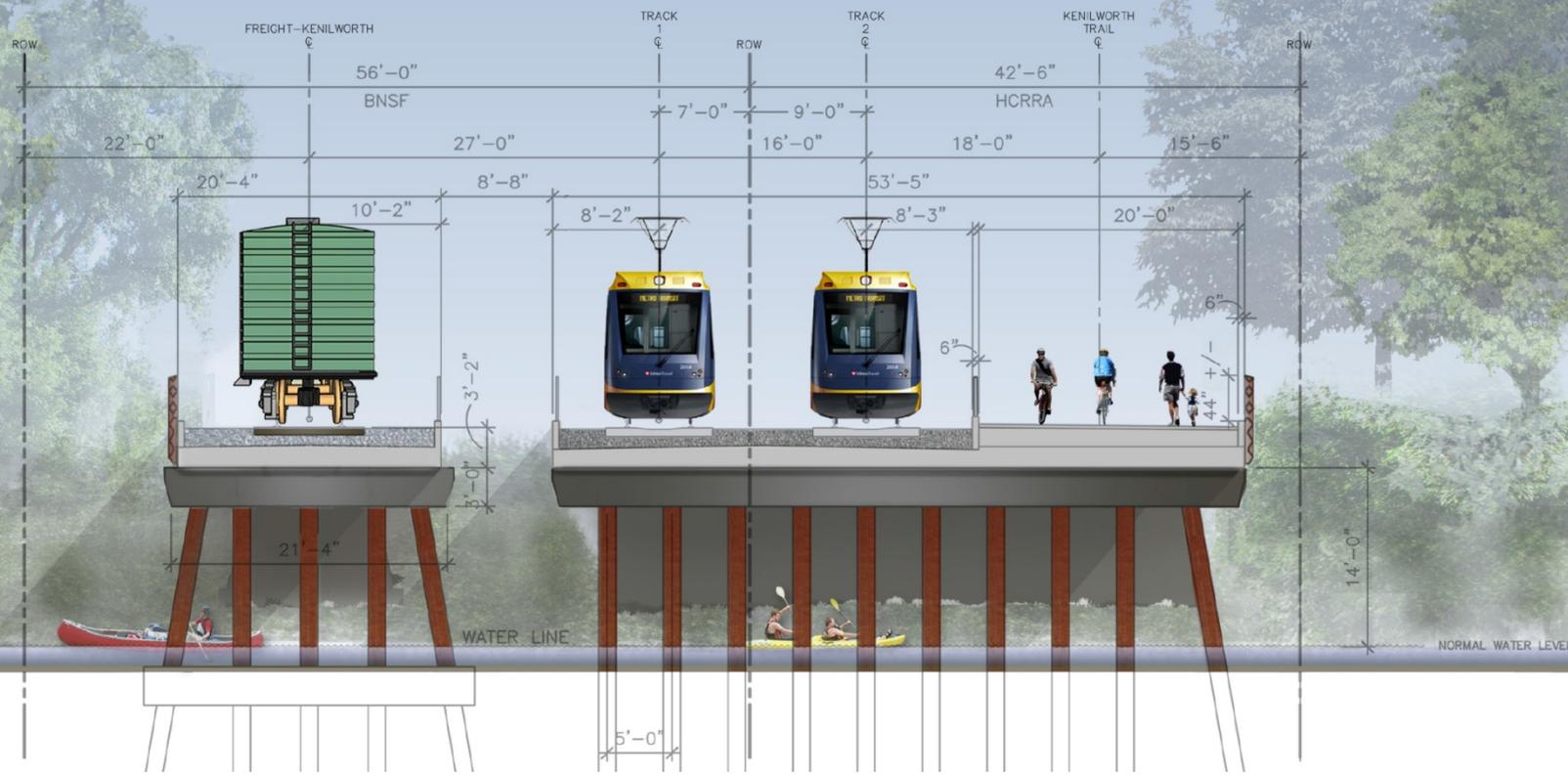
Steel Pier Concept

Steel Pier Concept



Steel Pier Concept

DRAFT - WORK IN PROCESS



Steel Pier Concept



DRAFT - WORK IN PROCESS

Next Steps

- Comments from consulting parties due mid-Dec 2014
- Public Involvement: Q2 2015
 - Advanced design
 - Kenilworth Channel LRT bridge
 - Public art
 - Station design
 - Kenilworth Landscape Design

Station Design Approach

Station Design Approach

- Technical Project Advisory Committee (TPAC) received Station Design 101 presentation followed by Green Line station tour in September 2014
- SPO has been meeting to discuss station design with city and county staff and receiving initial input

TPAC touring Fairview Station



TPAC touring Prospect Park Station



SWLRT Station Design Goals

- Provide architectural consistency with the Green Line
- Tie the SWLRT corridor together with a corridor-wide design approach
- Control construction and maintenance costs and learn from past projects
- Acknowledge the different communities and station sites along the SWLRT corridor

Station Design Approach

- Identify 4 station types
 - Assign each station to 1 of 4 unique station types
- Identify station characteristics based on
 - TSAAP/Investment Framework Document
 - Project partner comments through IRT process
 - Public comments
 - SPO station site observations

Station Context



Established Corridor



New Corridor

Station Context



Business Park



Activity Center



Natural Landscape



Neighborhood



Corporate Campus



Downtown Neighborhood

Four Station Types

- Landscape Station
- Neighborhood Station
- Town Square Station
- Landmark Station

Understated



Bold

Station Prototypes

Landscape



Neighborhood



Town Square



Landmark



Station Prototype Design Overview

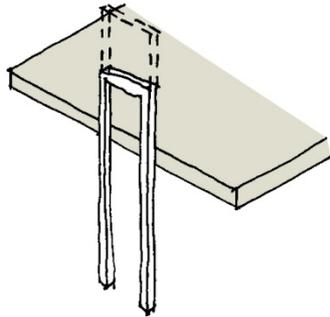
Use Station Elements from the Green Line



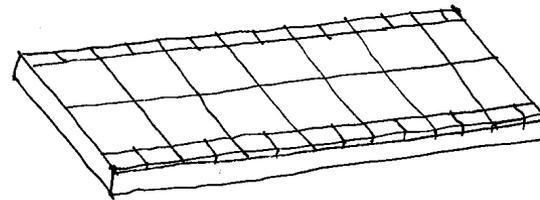
Green Line Dale Street Station

Station Elements

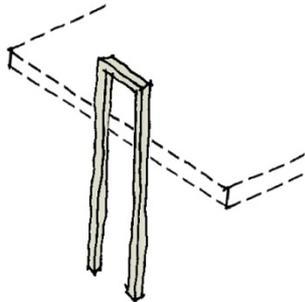
- Used in unique ways to form station types:



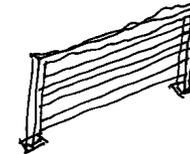
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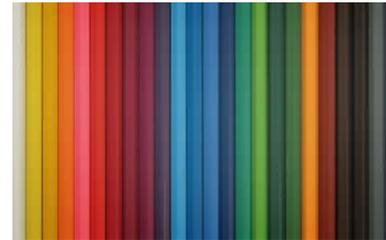
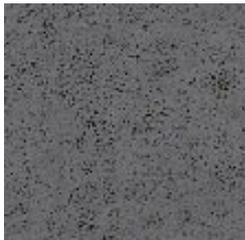
Platform



Structure

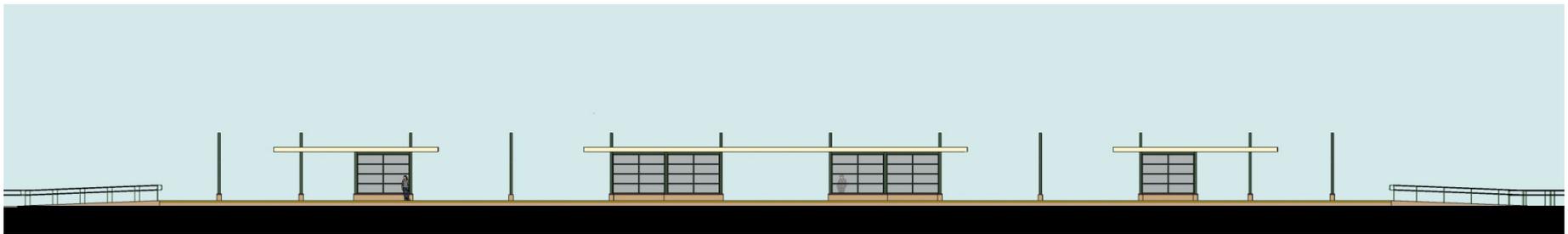


Railings

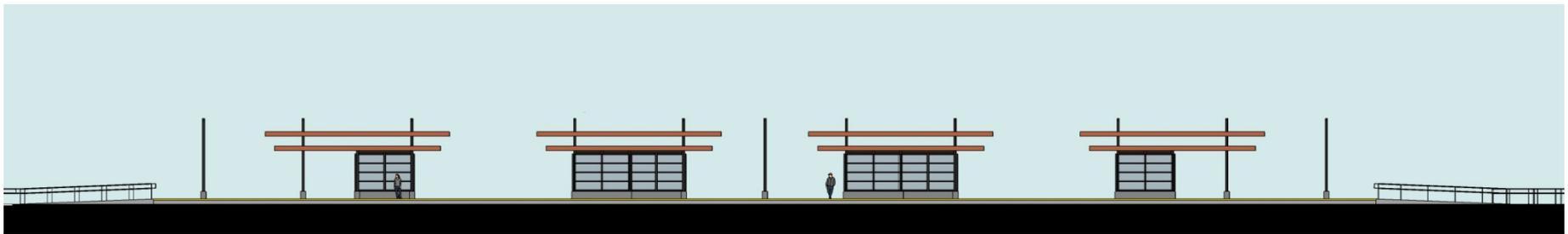


**Materials
and Color**

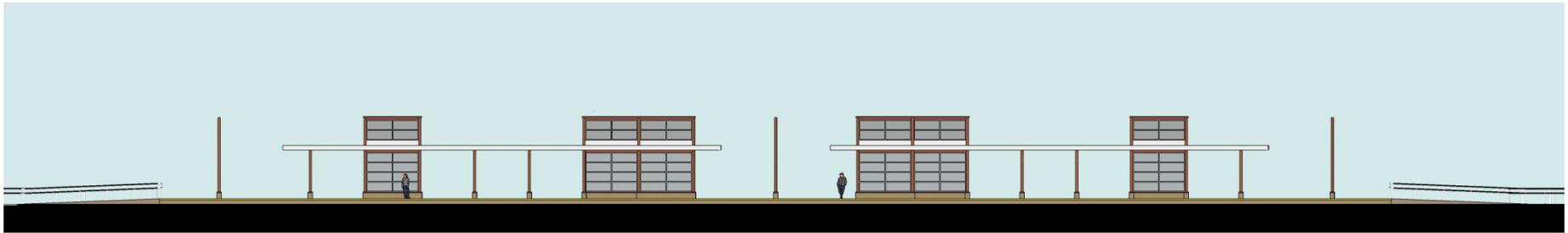
Landscape Station Prototype



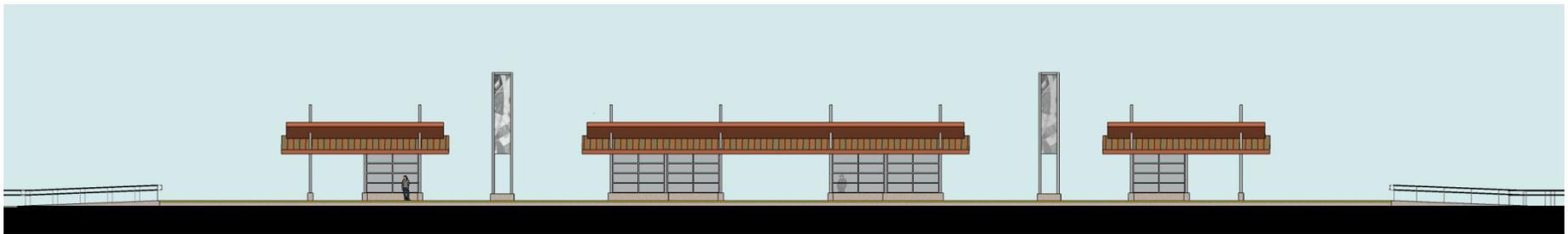
Neighborhood Station Prototype



Town Square Station Prototype

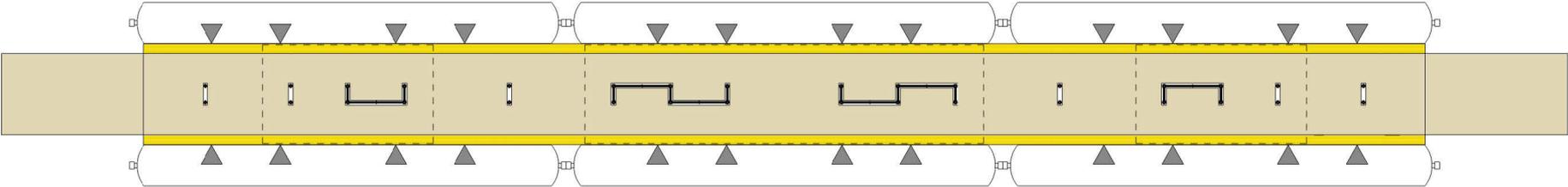


Landmark Station Prototype



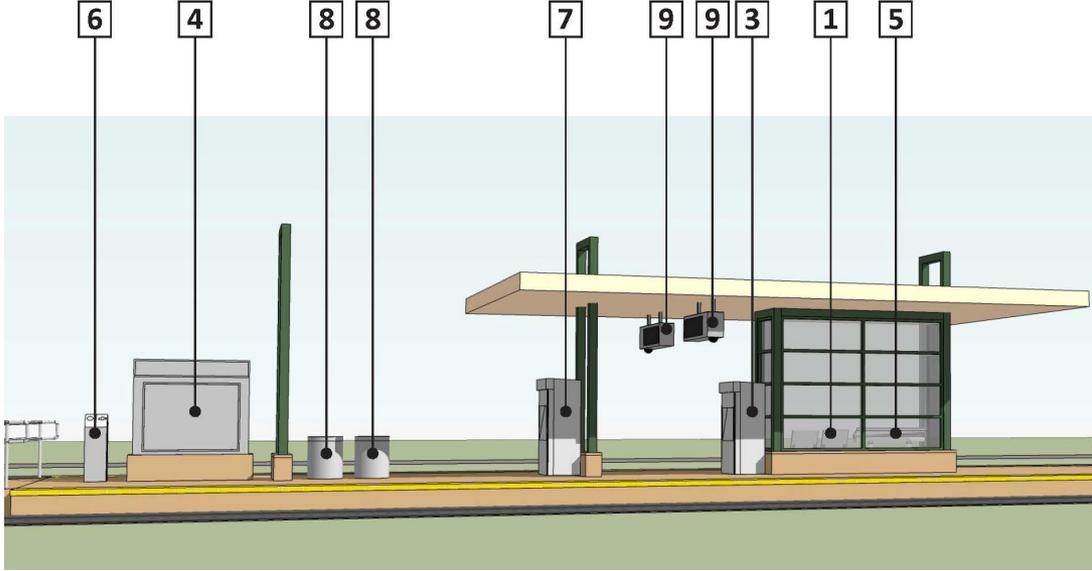
Station Design Consistency

Station Floor Plan



Equipment

- 1. Bench
- 2. Communication/Elec. Cabinet (*not shown*)
- 3. Future Ticket Vending Machine
- 4. Information Kiosk
- 5. Leaning Rail
- 6. Stored Value Validator
- 7. Ticket Vending Machine
- 8. Trash/Recycling Receptacle
- 9. Variable Message Sign & Security Camera



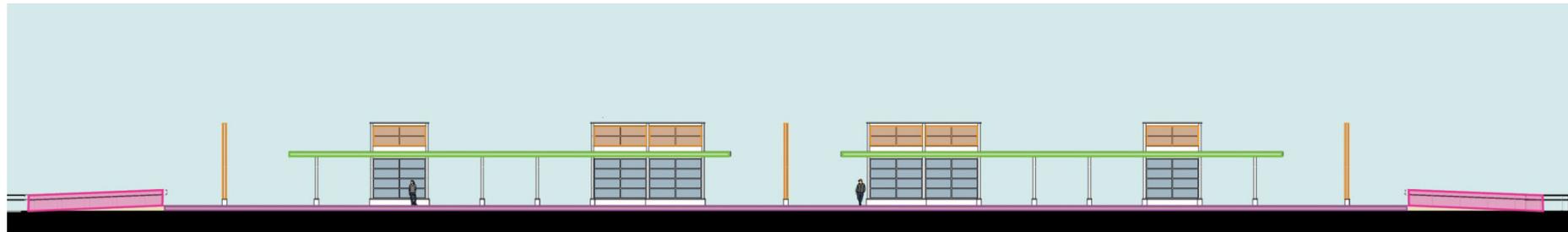
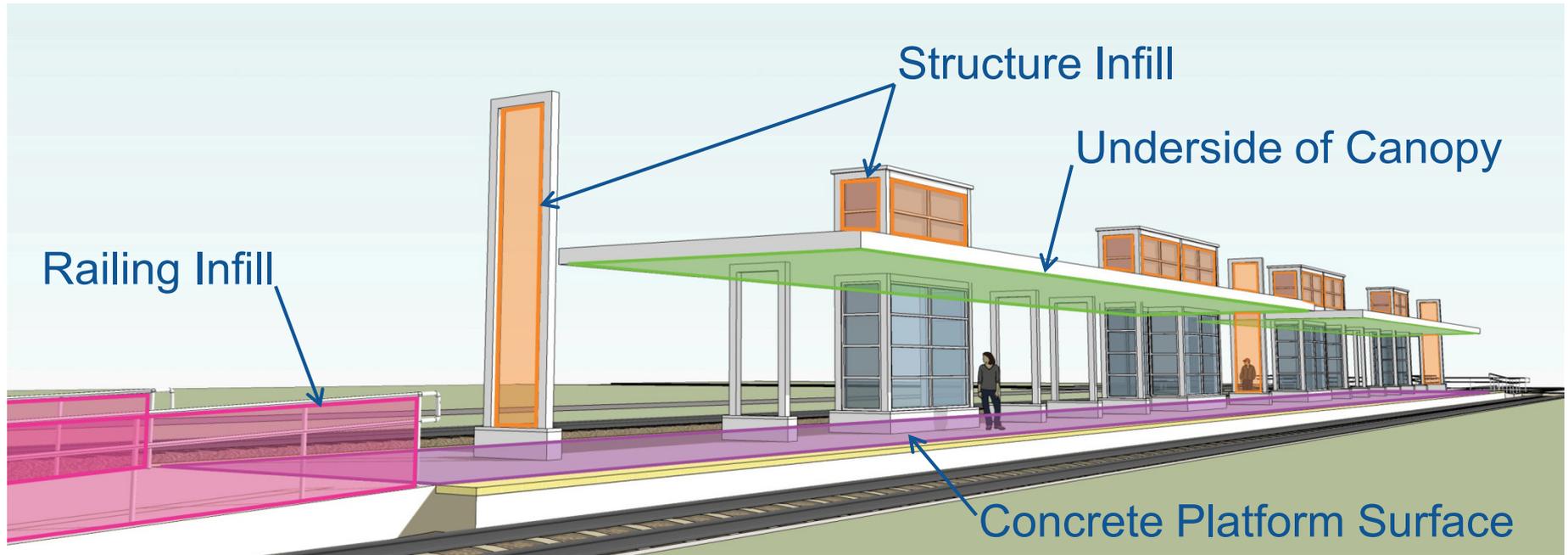
Station Design Flexibility

- 4 station types based on setting
- Adjustments to station types based on site specific conditions
- Additional use of station elements for wayfinding
- Color, texture and pattern
- Integrated Public Art
 - On-platform
 - Off-platform

Next Steps: Station Design

- Adjust station prototypes based on city and county staff input in early 2015 once Advanced Design Consultants on are board
- Seek public input on station types in Q1 – Q2 2015
- Start the Integrated Public Art process in Q2 2015

Integrated Public Art Opportunities



Next Steps: Integrated Public Art

- Anticipate:
 - Advertising RFP in December 2014
 - Issuing Notice-to-Proceed to selected Artists in Q2 2015
 - Hiring 6 to 8 artists or artist teams for artwork at the 17 stations and OMF
 - Forming 1 Station Art Committee (SAC) per city to provide input in Q2 2015

Executive Change Control Board Update

Executive Change Control Board Update

- Call for Board Members
- First meeting: Dec 18
 - Review the mandate of the ECCB
 - First reading of the bylaws
 - Contingency 101
 - Review Locally Requested Capital Investments

Locally Requested Capital Investments (LRCIs) Update

More Information

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