

Kenilworth Bridge Design

JUNE 2015

EXISTING CONDITIONS

Freight Bridge: Wood piles.

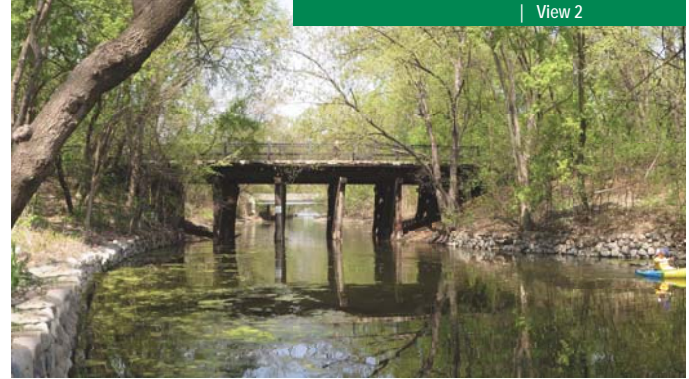
LRT Bridge: N/A

Trail Bridge: Wood Piles, decorative metal railings.

Existing Conditions | View 1



| View 2



CONCEPT 1 - ANGULAR STEEL

Freight Bridge: Precast concrete girders with faceted exposed sides supported by cast-in-place concrete beam and columns. Columns overlap outside face of girders and are canted away from abutments.

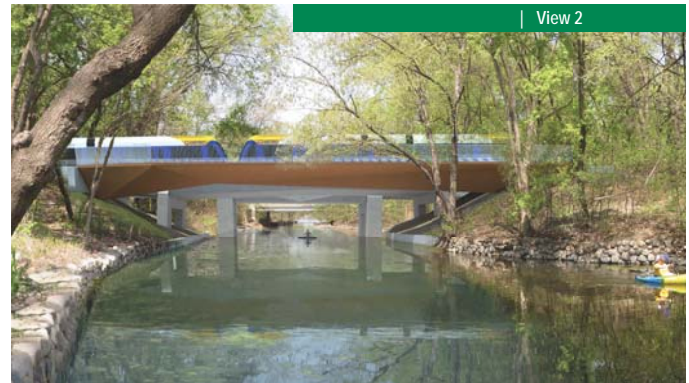
LRT Bridge: Post-tensioned concrete slab bridge with support beam integrated into columns to form angled piers. Sides of bridge superstructure are faceted to reduce scale.

Trail Bridge: Weathered steel bridge with offset center and projecting overlook near south end

CONCEPT 1 - Angular Steel | View 1



| View 2



CONCEPT 2 - ANGULAR STEEL WITH SKEW

Freight Bridge: Precast concrete girders with faceted exposed sides supported by cast-in-place concrete beam and columns. Columns overlap outside face of girders and are canted away from abutments.

LRT Bridge: Post-tensioned concrete slab bridge with support beam integrated into columns to form angled piers. Sides of bridge superstructure are faceted to reduce scale.

Trail Bridge: Weathered steel bridge with offset center and projecting overlook near south end. Skewed trail alignment at north end to increase gap between bridges.

CONCEPT 2 - Angular Steel with Skew | View 1



| View 2



CONCEPT 3 - ARCHED DECK

Freight Bridge: Precast concrete girders with arched profile supported by cast-in-place beam on elliptical paired piers.

LRT Bridge: Post-tensioned concrete slab bridge with arch profile and elliptical paired piers. Beams integrated into bridge structure.

Trail Bridge: Cast-in-place concrete bridge with arched bottom and flat top.

CONCEPT 3 - Arched Deck | View 1



| View 2



CONCEPT 4 - THIN TAPER

Freight Bridge: Precast concrete bridge with tapered edges supported by cast-in-place concrete beam on canted square column frame.

LRT Bridge: Post-tensioned concrete slab bridge deck with tapered edges supported by cast-in-place concrete beam on canted square column frame.

Trail Bridge: Cast-in-place concrete bridge with arched top and bottom; rising two feet to center of span.

CONCEPT 4 - Thin Taper | View 1



| View 2

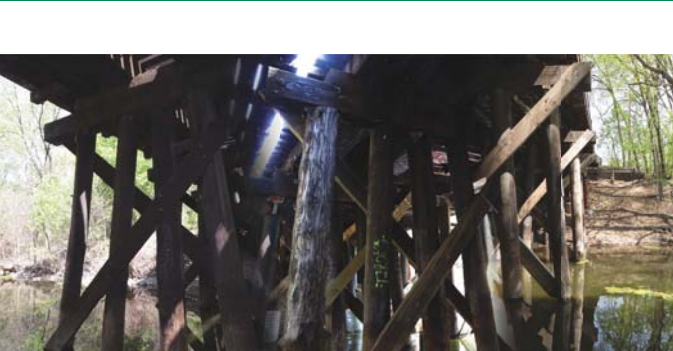


WORK IN PROCESS

Existing Conditions | View 3



Existing Conditions | View 4 (under)



Existing Conditions | Diagram



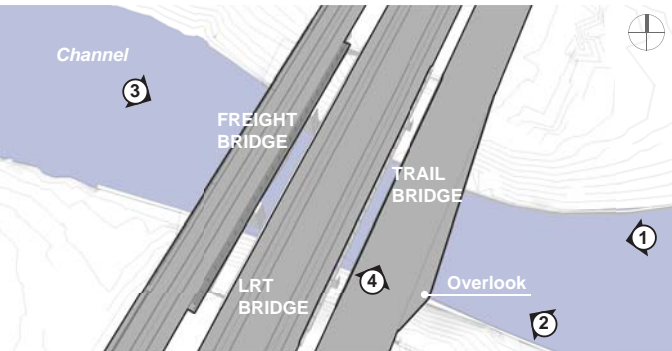
CONCEPT 1 - Angular Steel | View 3



CONCEPT 1 - Angular Steel | View 4 (under)



CONCEPT 1 - Angular Steel | Diagram



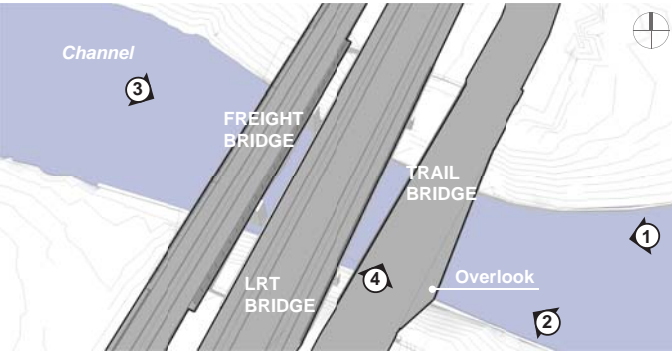
CONCEPT 2 - Angular Steel with Skew | View 3



CONCEPT 2 - Angular Steel with Skew | View 4 (under)



CONCEPT 2 - Angular Steel with Skew | Diagram



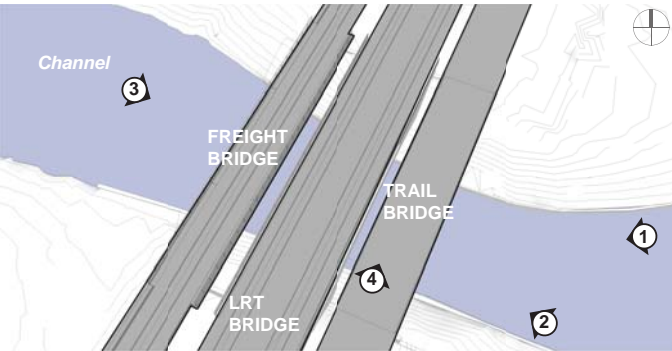
CONCEPT 3 - Arched Deck | View 3



CONCEPT 3 - Arched Deck | View 4 (under)



CONCEPT 3 - Arched Deck | Diagram



CONCEPT 4 - Thin Taper | View 3



CONCEPT 4 - Thin Taper | View 4 (under)



CONCEPT 4 - Thin Taper | Diagram

