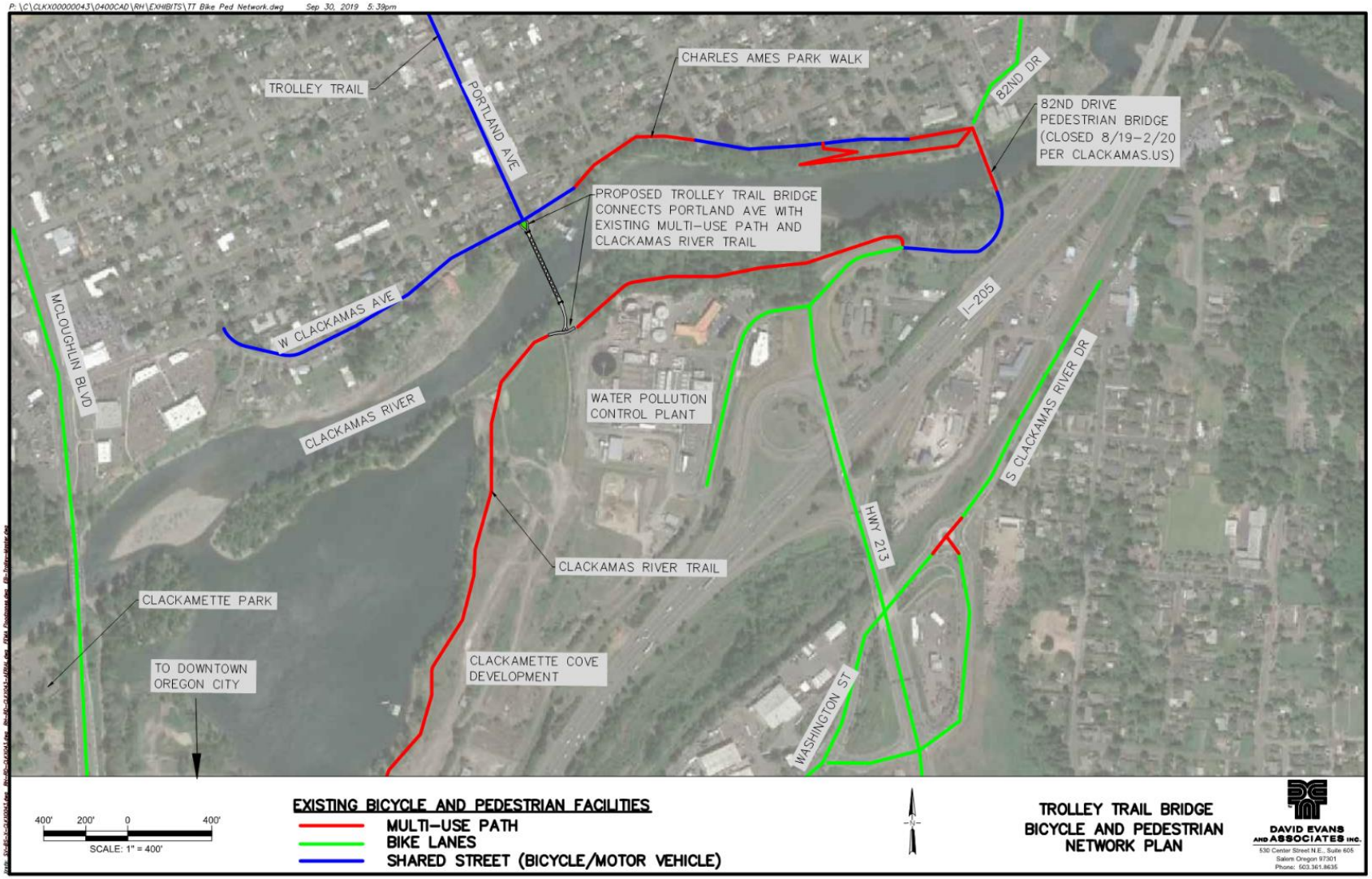
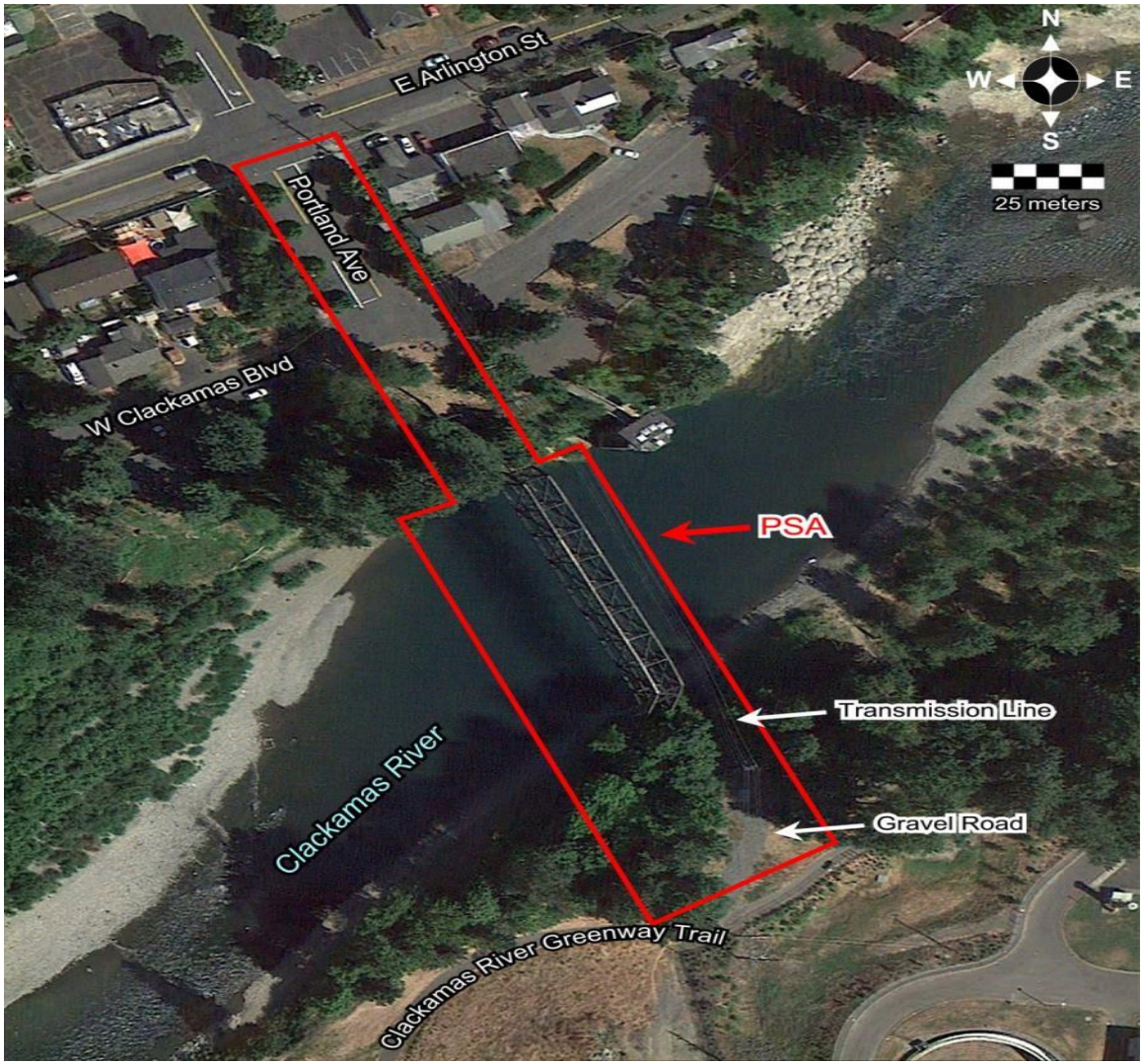
Trolley Trail Bridge: Gladstone to Oregon City Feasibility Study

Map of Area and Potential Connections



Project Study Area



Existing Area (North Side of River)

View to North of Portland Ave

View of North Bank

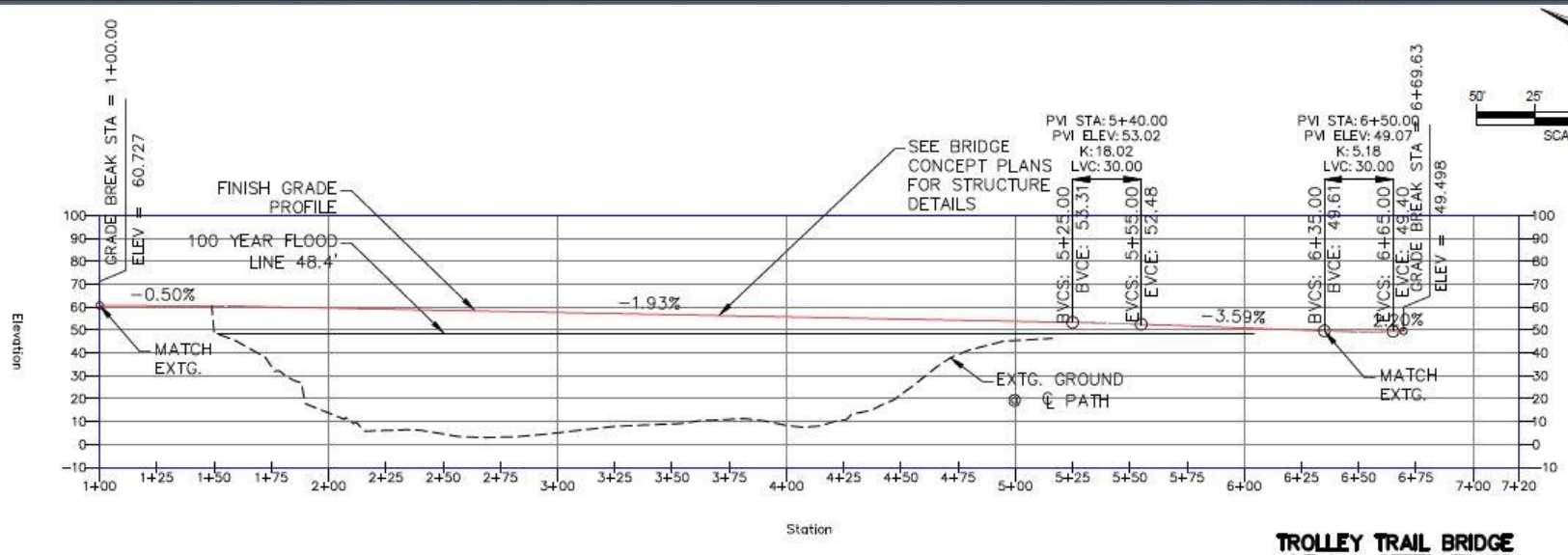
Existing Area (South Side of River)

South River Bank

South Landing Area Near Transmission Line

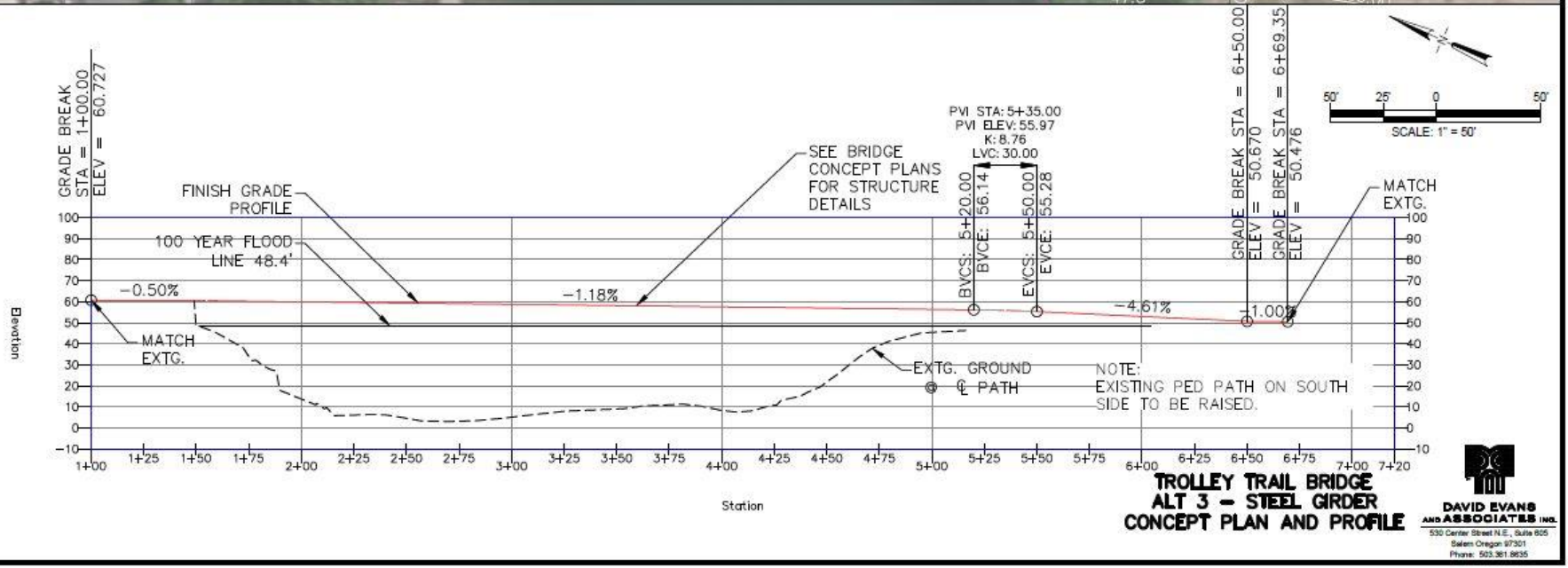
Study Tasks

- Geotechnical Study and Investigation
- River and Storm water hydraulics
- Archaeological Resources
- Historical Resources
- Environmental Resources
  - Wetlands
  - Biological Resources
  - Permitting Requirements and Strategy (Federal, State and Local Permits)
- Hazardous Material Preliminary Corridor Study
- U.S. Coast Guard Coordination
- Multi-Use Path Connections and Bridge Concept Alternatives



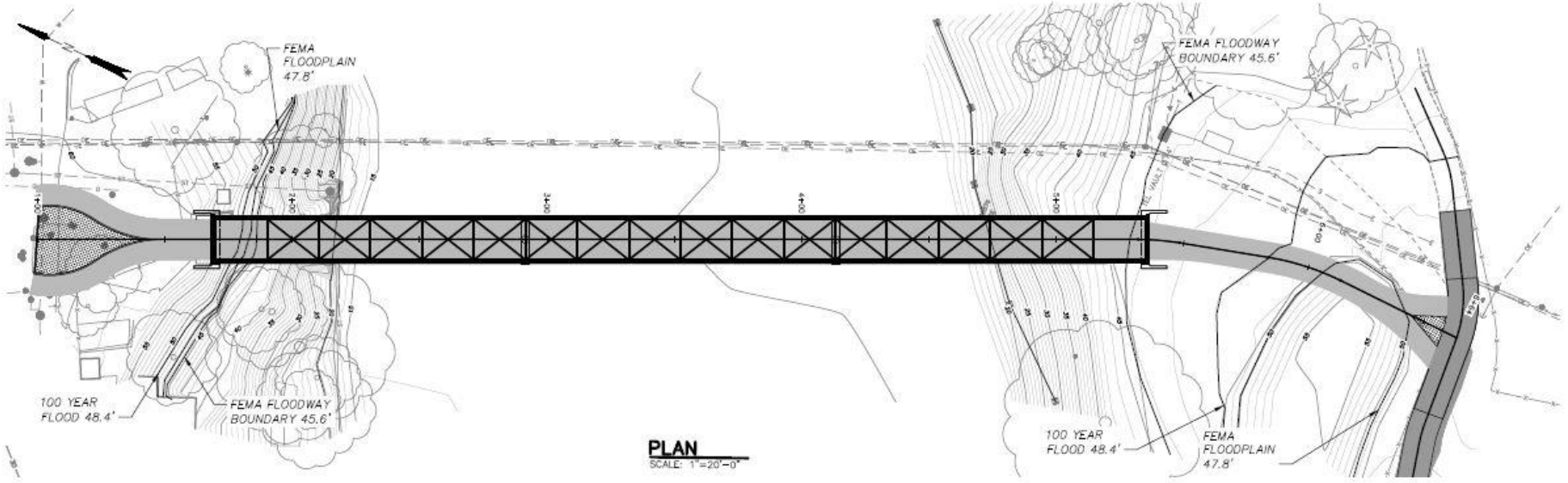
TROLLEY TRAIL BRIDGE
ALT 1 – STEEL TRUSS
CONCEPT PLAN AND PROFILE

DAVID EVANS AND ASSOCIATES INC.
530 Center Street N.E., Suite 605
Salem Oregon 97301
Phone: 503.361.8635



TROLLEY TRAIL BRIDGE
ALT 3 – STEEL GIRDER
CONCEPT PLAN AND PROFILE

DAVID EVANS AND ASSOCIATES INC.
530 Center Street N.E., Suite 805
Salem Oregon 97301
Phone: 503.361.8635



PLAN
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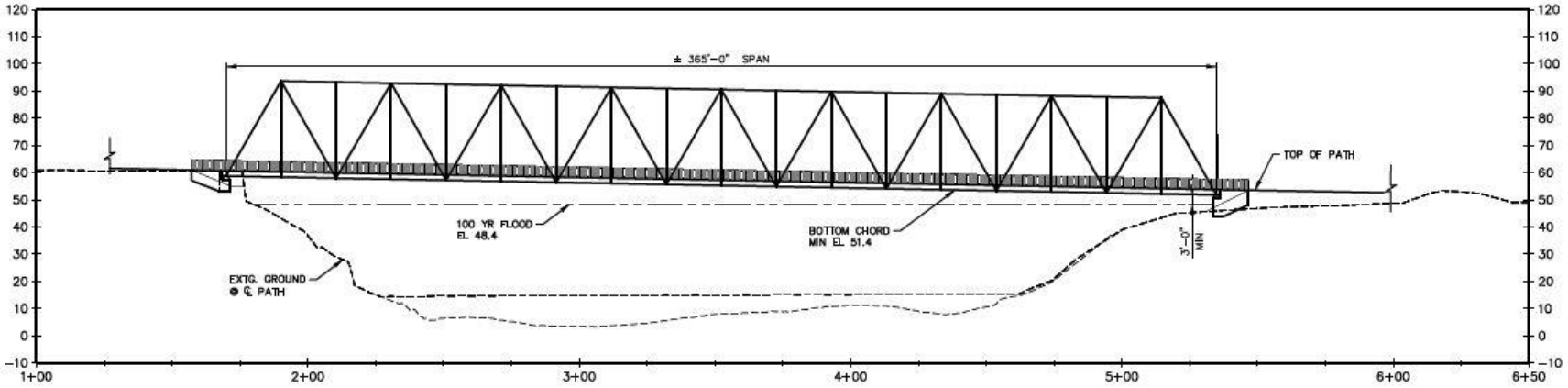

ELEVATION
SCALE: 1"=20'-0"

ALTERNATIVE 1
TROLLEY TRAIL BRIDGE
STEEL TRUSS

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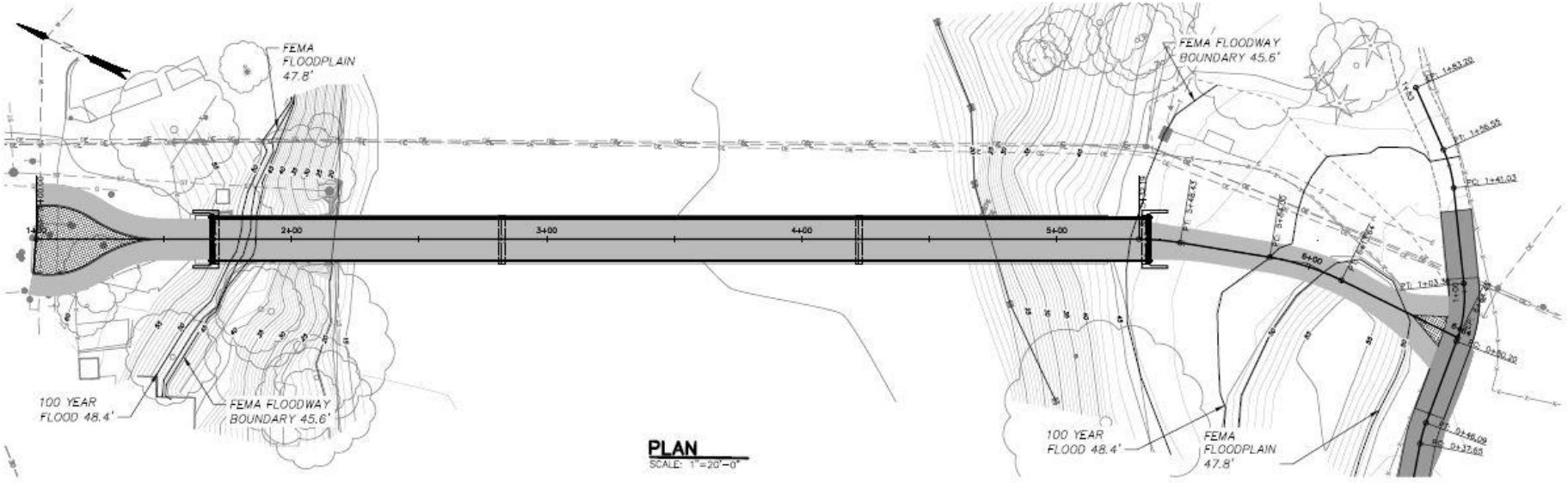
AND ASSOCIATES INC.
530 Center Street N.E., Suite 605
Salem Oregon 97301
Phone: 503.361.8635

Steel Truss Example: Previous Trolley Trail Bridge



PLAN
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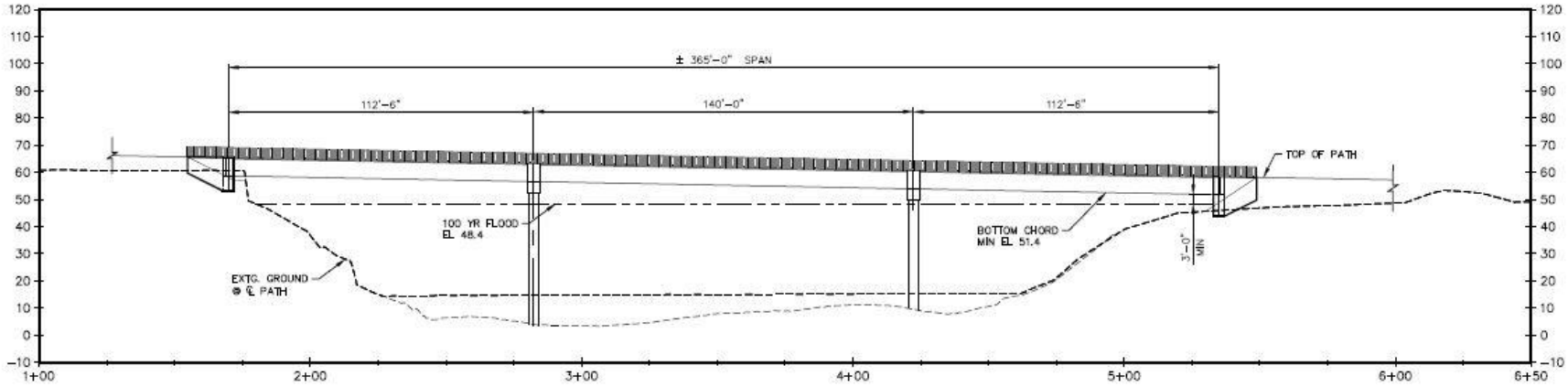

ELEVATION
SCALE: 1"=20'-0"

ALTERNATIVE 2
TROLLEY TRAIL BRIDGE
PRESTRESSED GIRDER

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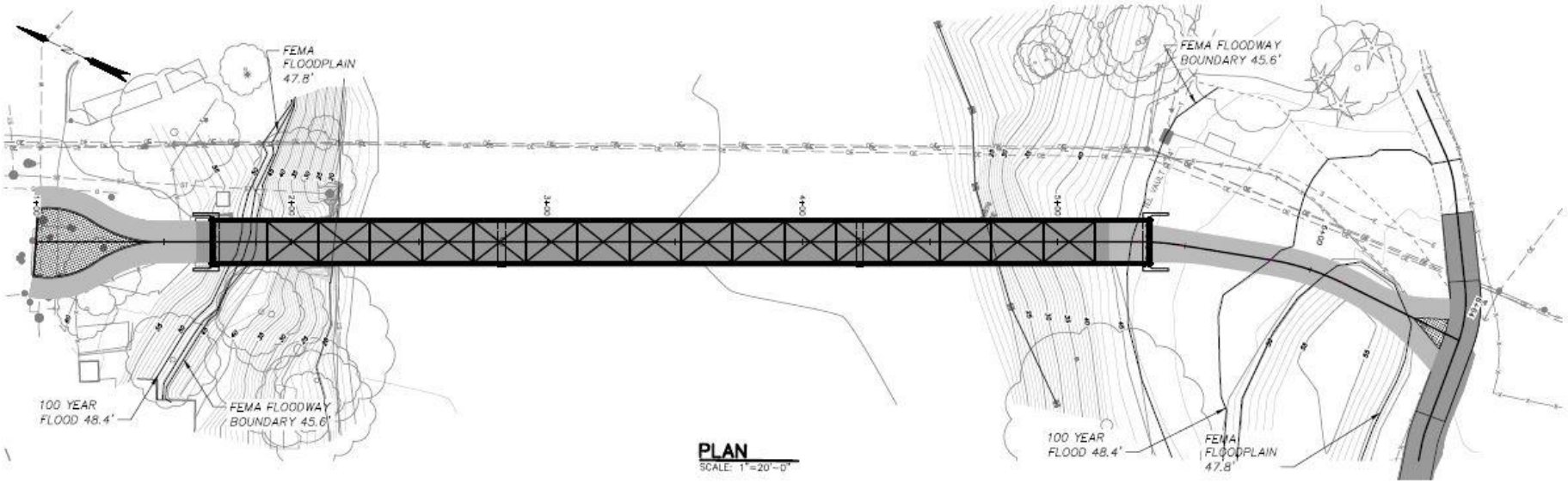
AND ASSOCIATES INC.
530 Center Street N.E., Suite 505
Salem Oregon 97301
Phone: 503.361.8638

Prestressed Concrete Girder Example: Molalla River (Feyrer Park Rd) Bridge



PLAN
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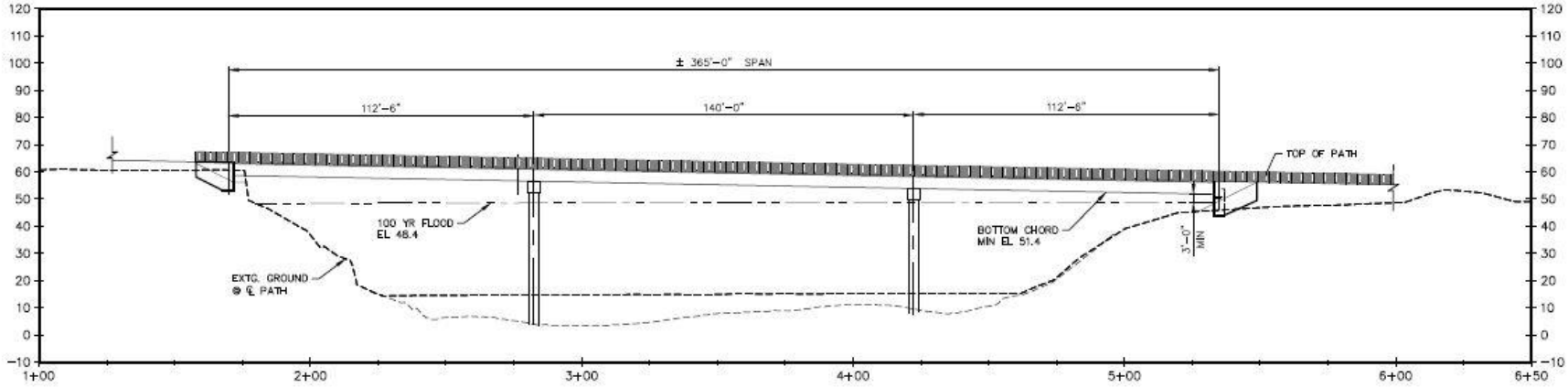
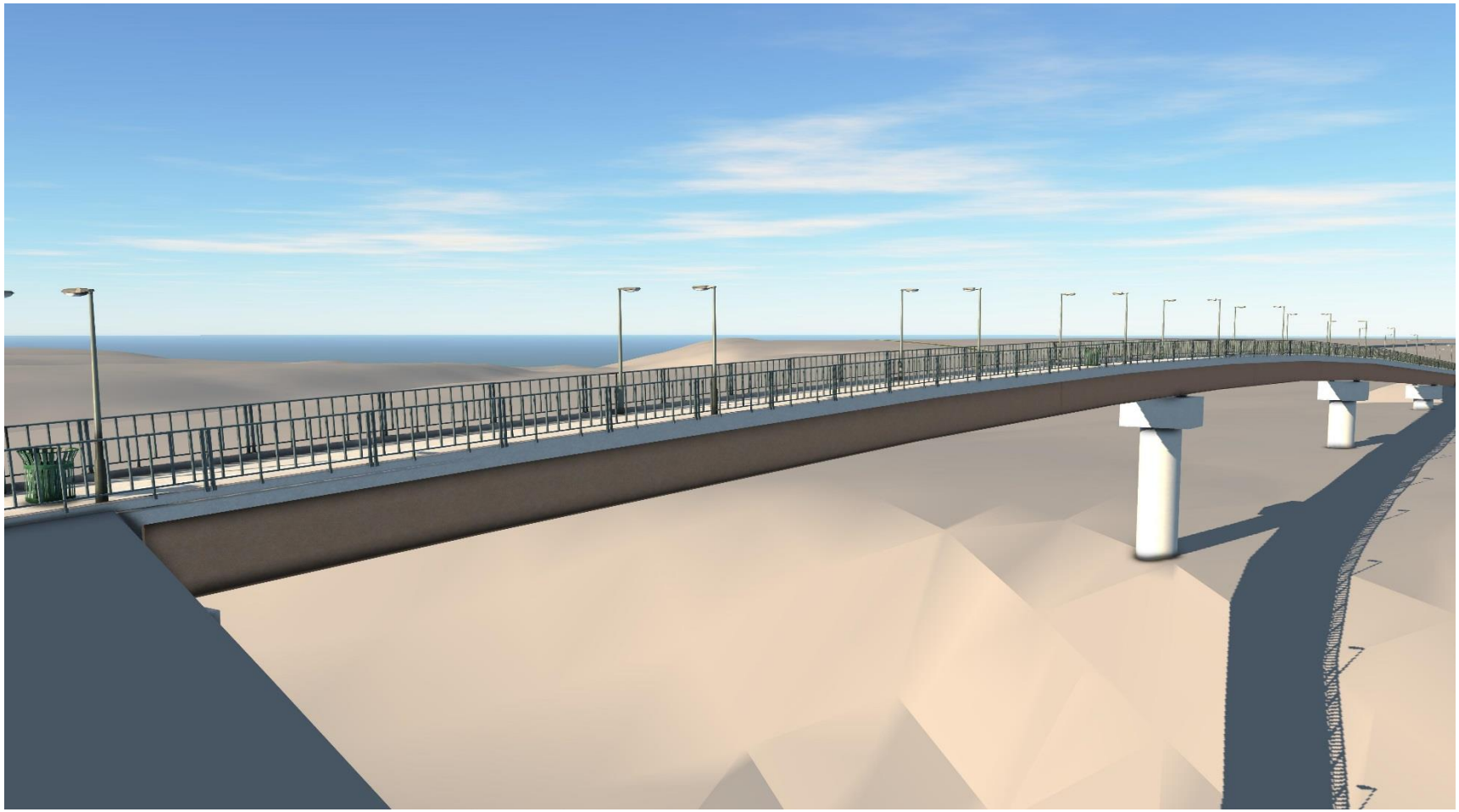


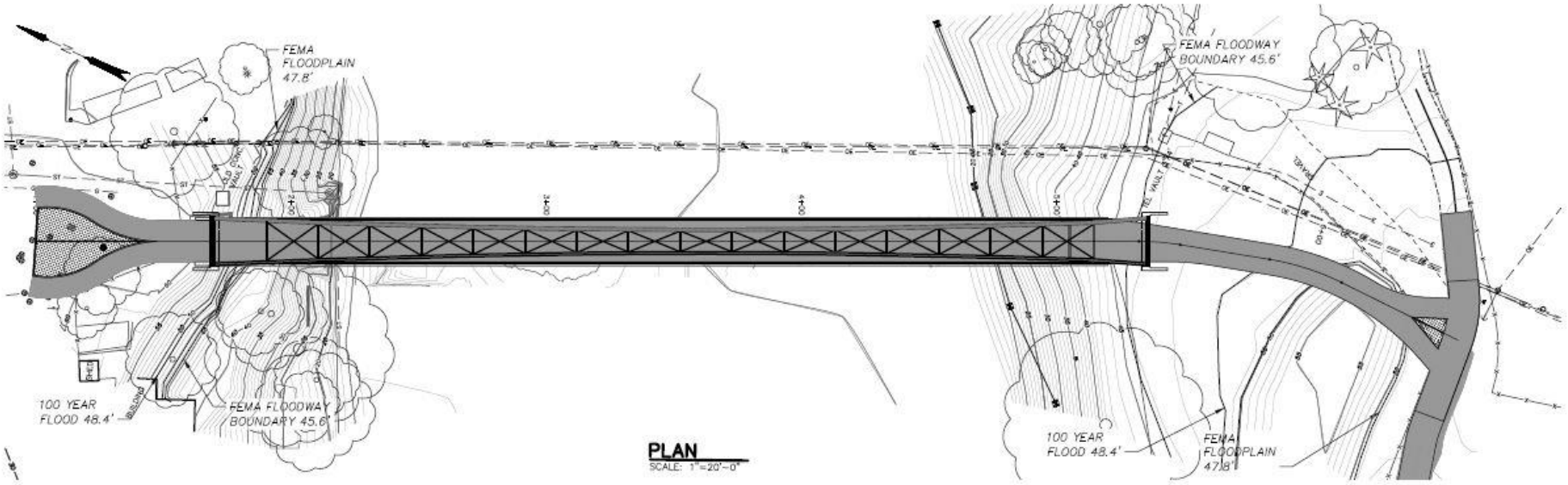
ELEVATION
SCALE: 1"=20'-0"

ALTERNATIVE 3
TROLLEY TRAIL BRIDGE
STEEL GIRDER

DAVID EVANS AND ASSOCIATES INC.
530 Center Street N.E., Suite 505
Salem Oregon 97301
Phone: 503.361.8655

Steel Girder Example: Rendering of Pedestrian Bridge





PLAN
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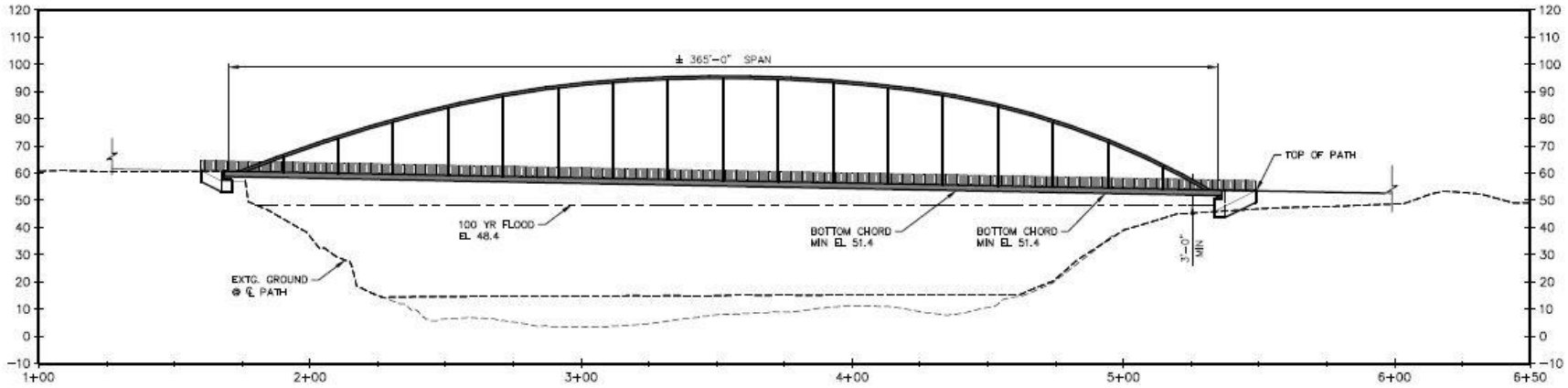

ELEVATION
SCALE: 1"=20'-0"

ALTERNATIVE 4
TROLLEY TRAIL BRIDGE
STEEL ARCH

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AND ASSOCIATES INC.
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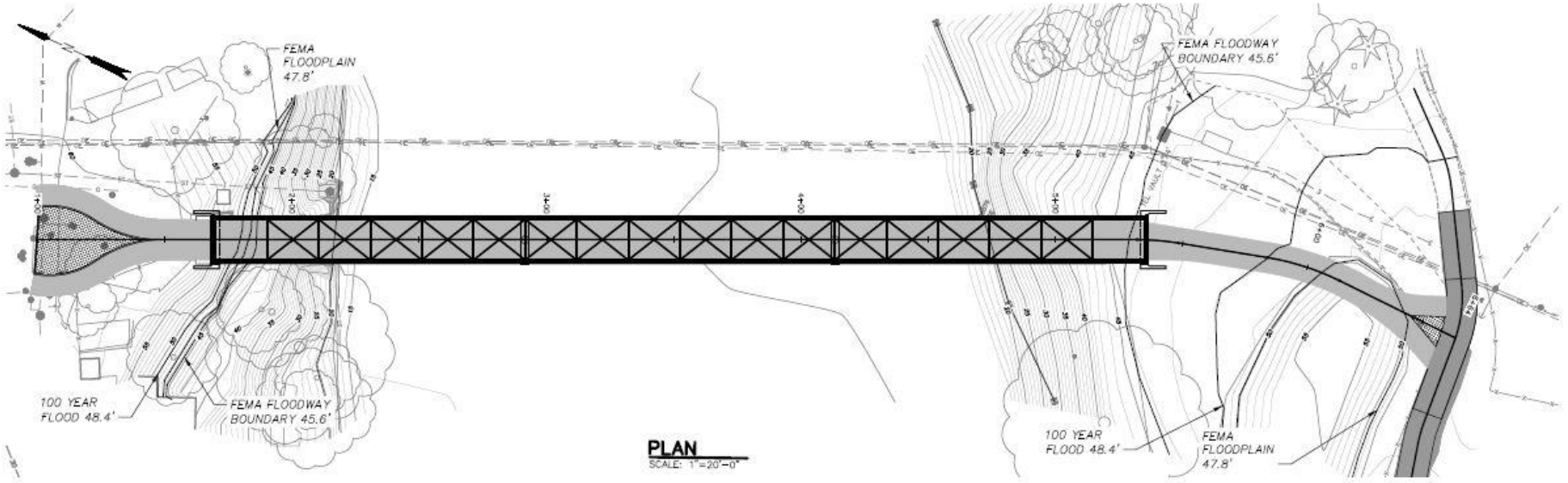
Salem Oregon 97301
Phone: 503.361.8635

Steel Arch Example: Springwater Trail Arch Bridge

(photo courtesy of Robert Cortright)



PLAN
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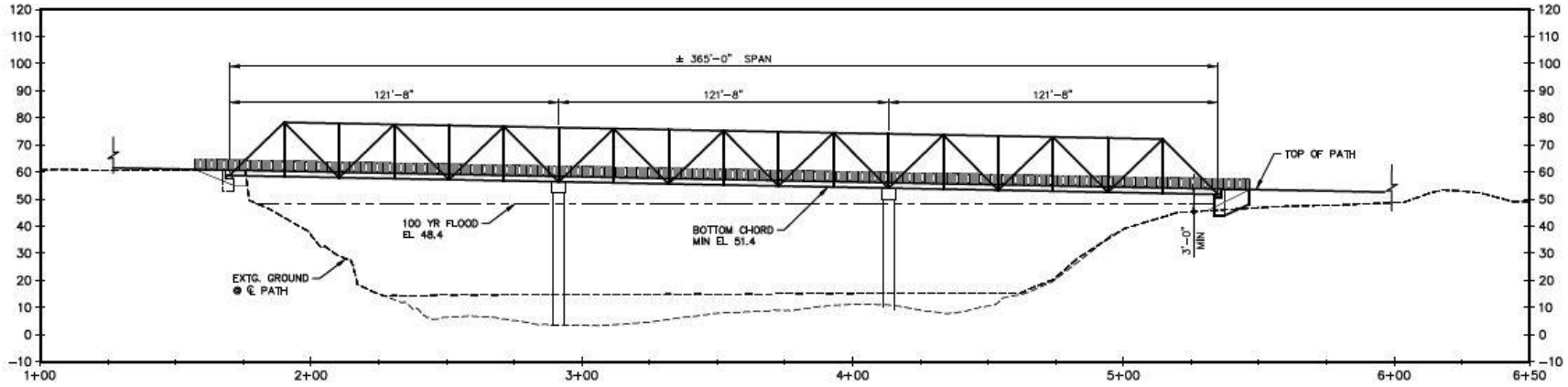

ELEVATION
SCALE: 1"=20'-0"

ALTERNATIVE 5
TROLLEY TRAIL BRIDGE
STEEL TRUSS

DAVID EVANS
AND ASSOCIATES INC.
530 Center Street N.E., Suite 605
Salem Oregon 97301
Phone: 503.361.8535

Steel Truss Example:
Fanno Creek Greenway Trail Bridge

Comparison of Alternatives

Structure Alternative	Permitting	Aesthetics	Geometrics (Grade)	Right of Way Need	Total Project Cost (Conceptual Est. Subject to Change)
Alt. 1 - Single Span Steel Truss	Good	Good	Good	Lower	$4.3 million
Alt. 2 - 3-Span P/S Concrete Girder	Average	Below Average	Below Average	Higher	$2.8 million
Alt. 3 - 3-Span Steel Girder	Average	Average	Average	Average	$2.9 million
Alt. 4 – Single Span Tied Steel Arch	Good	Excellent	Good	Lower	$7.5 million
Alt. 5 – 3-Span Steel Truss	Average	Good	Good	Lower	$3.5 million

Next Steps and Questions?

- Complete the study reports and Design Concept Alternative Report by end of 2019
- Future applications for grant funding (RRFA Application or T2020)

- Questions?

- Presentation will be posted to: https://www.clackamas.us/engineering/planningprojects.html