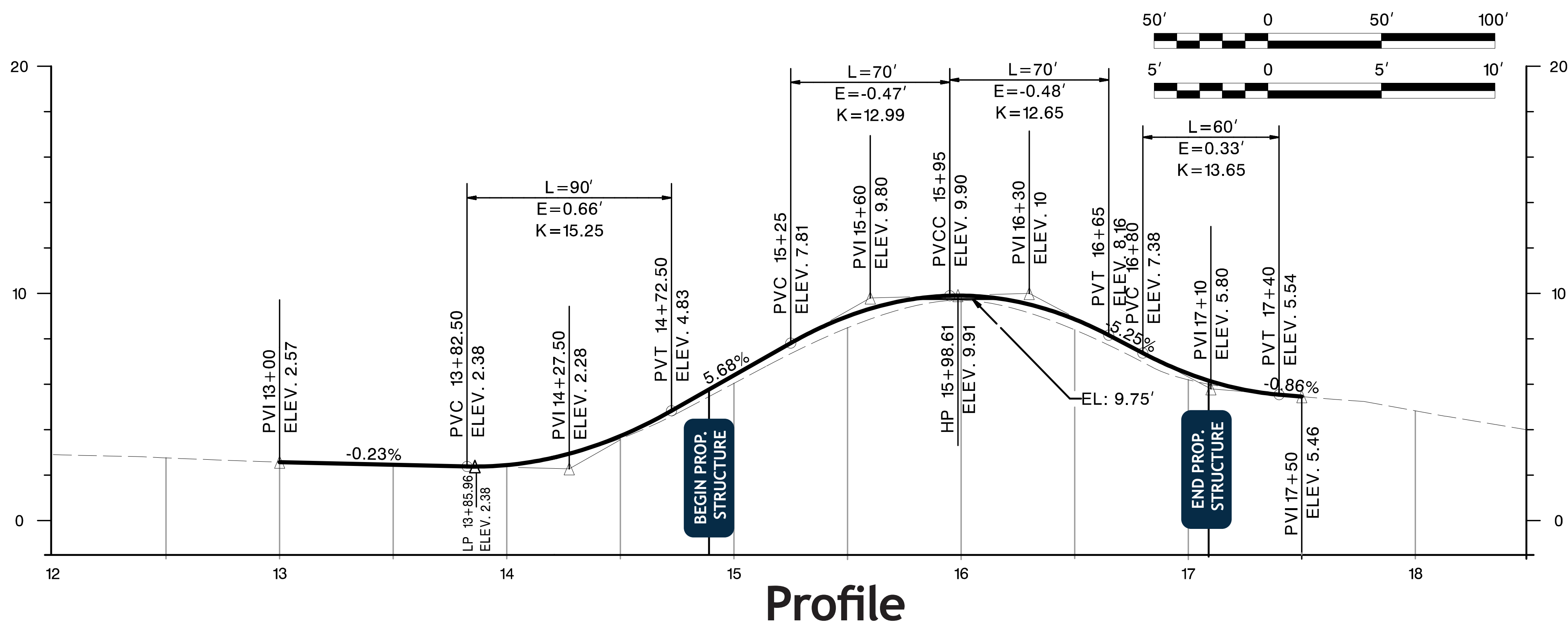
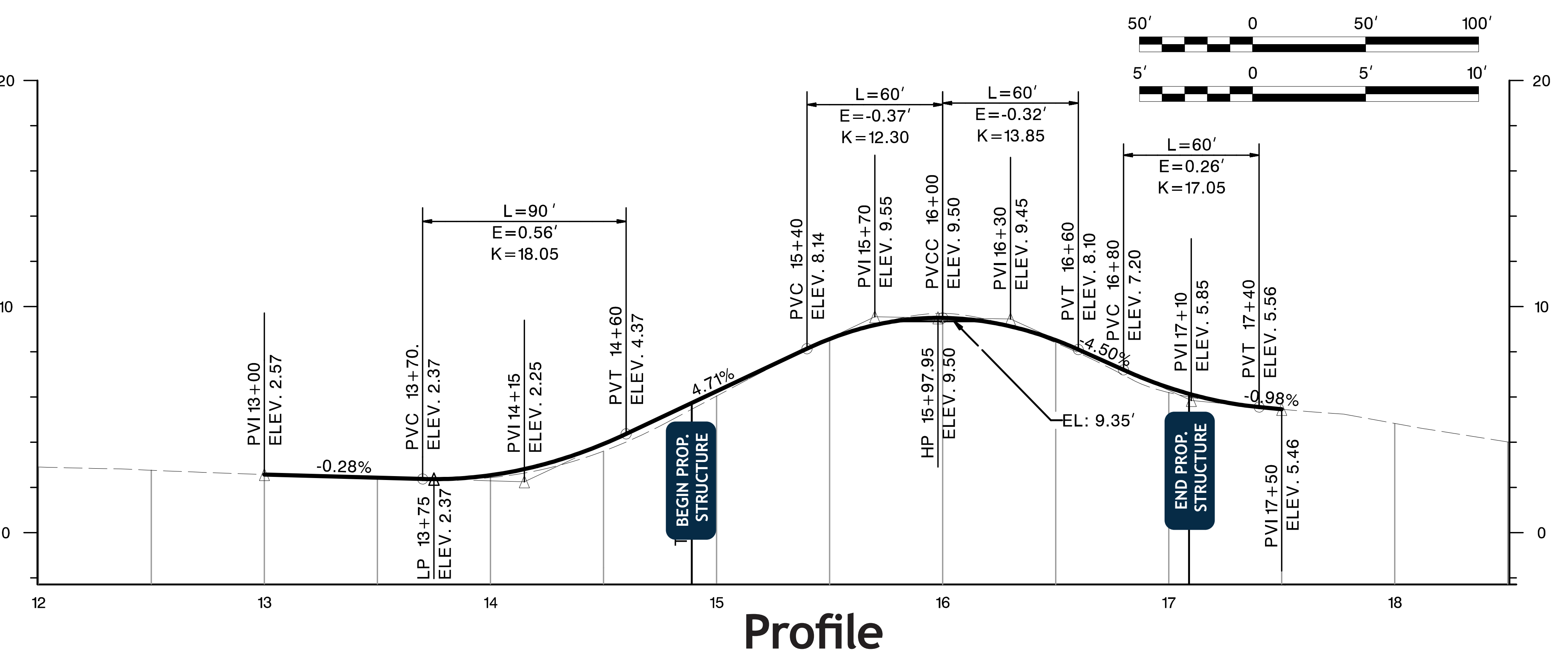


Bridge Type Alternatives



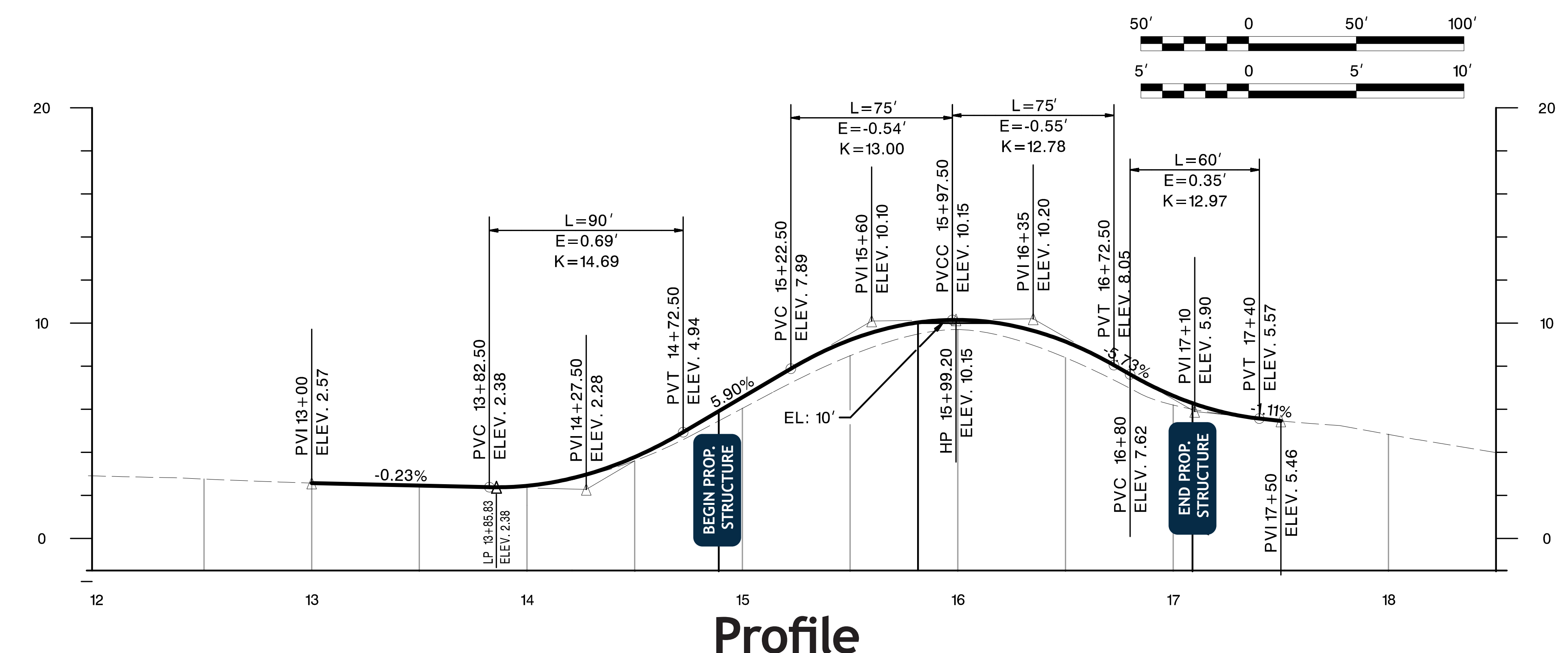
Rendering

- 25" Structure Depth
 - Lane Closure Duration = 4-5 Months
 - Units Include Concrete Riding Surface
- Alternative 3**
Steel Stringer and Concrete Deck Modular Superstructure Units



Rendering

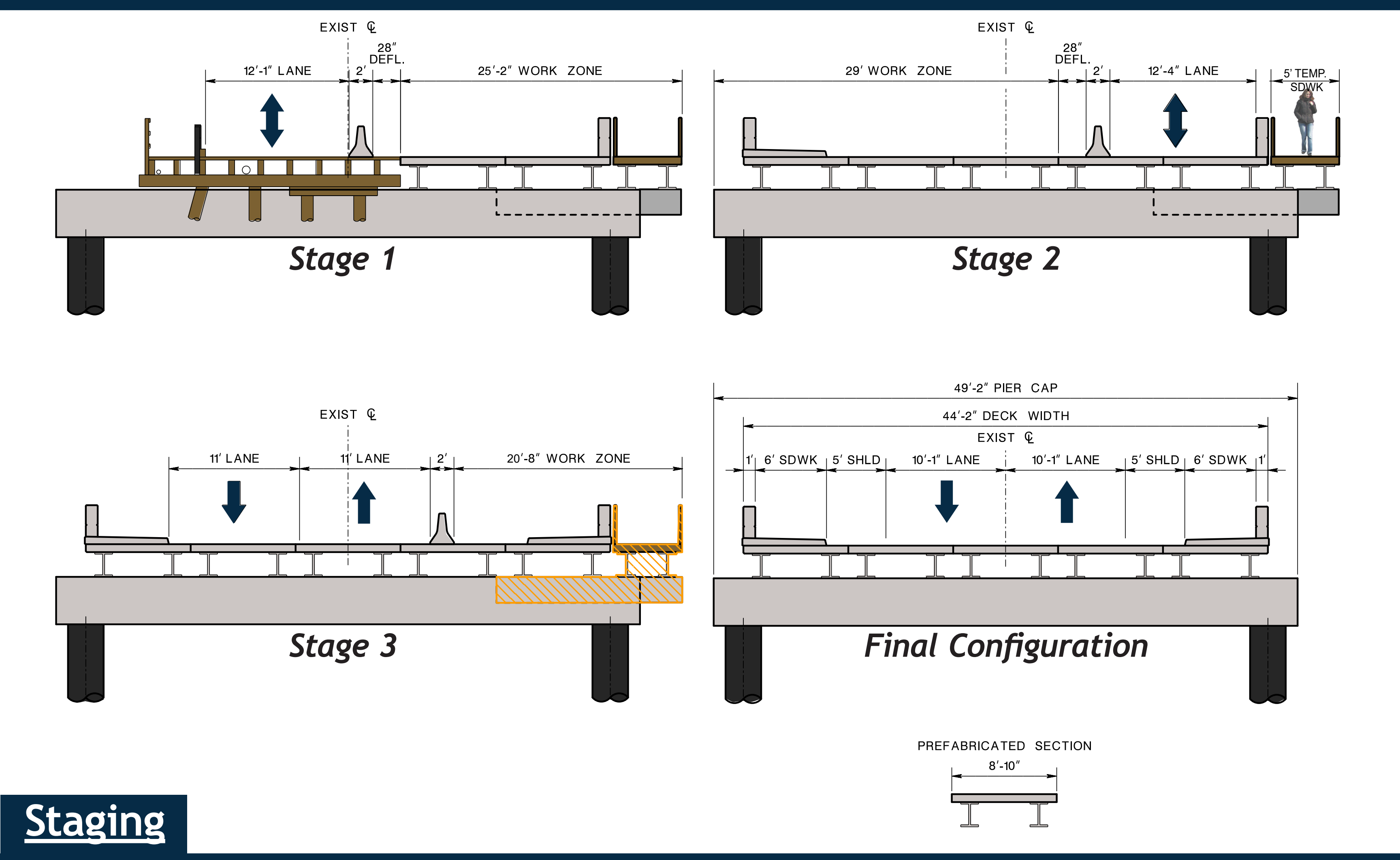
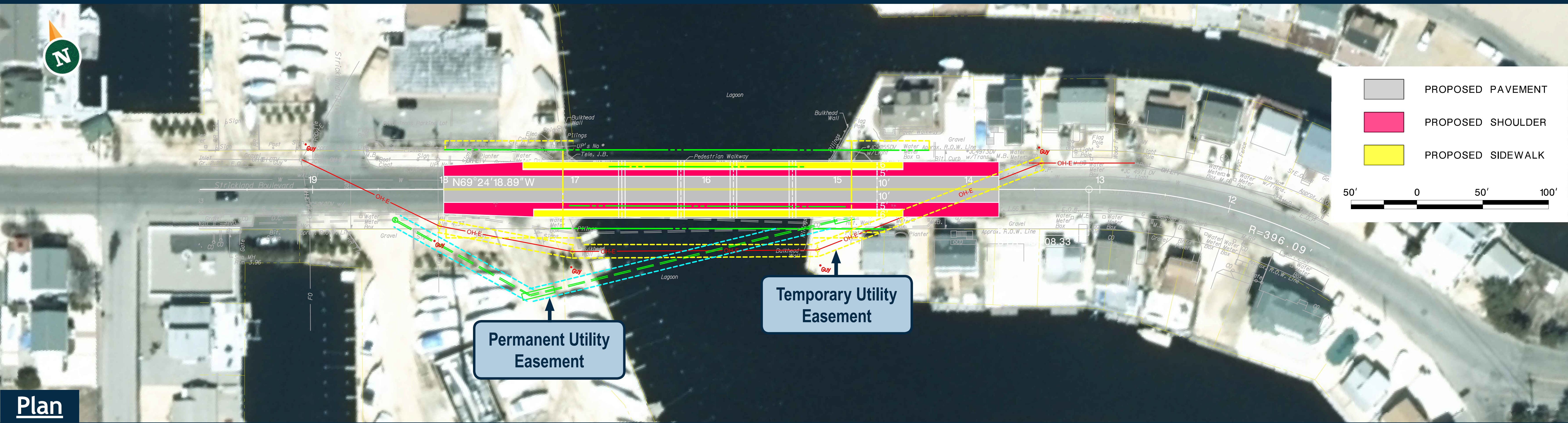
- 20" Structure Depth
 - Lane Closure Duration = 7-8 Months
 - Separate Deck Pour Required
- Alternative 4**
Precast Concrete Voided Slabs



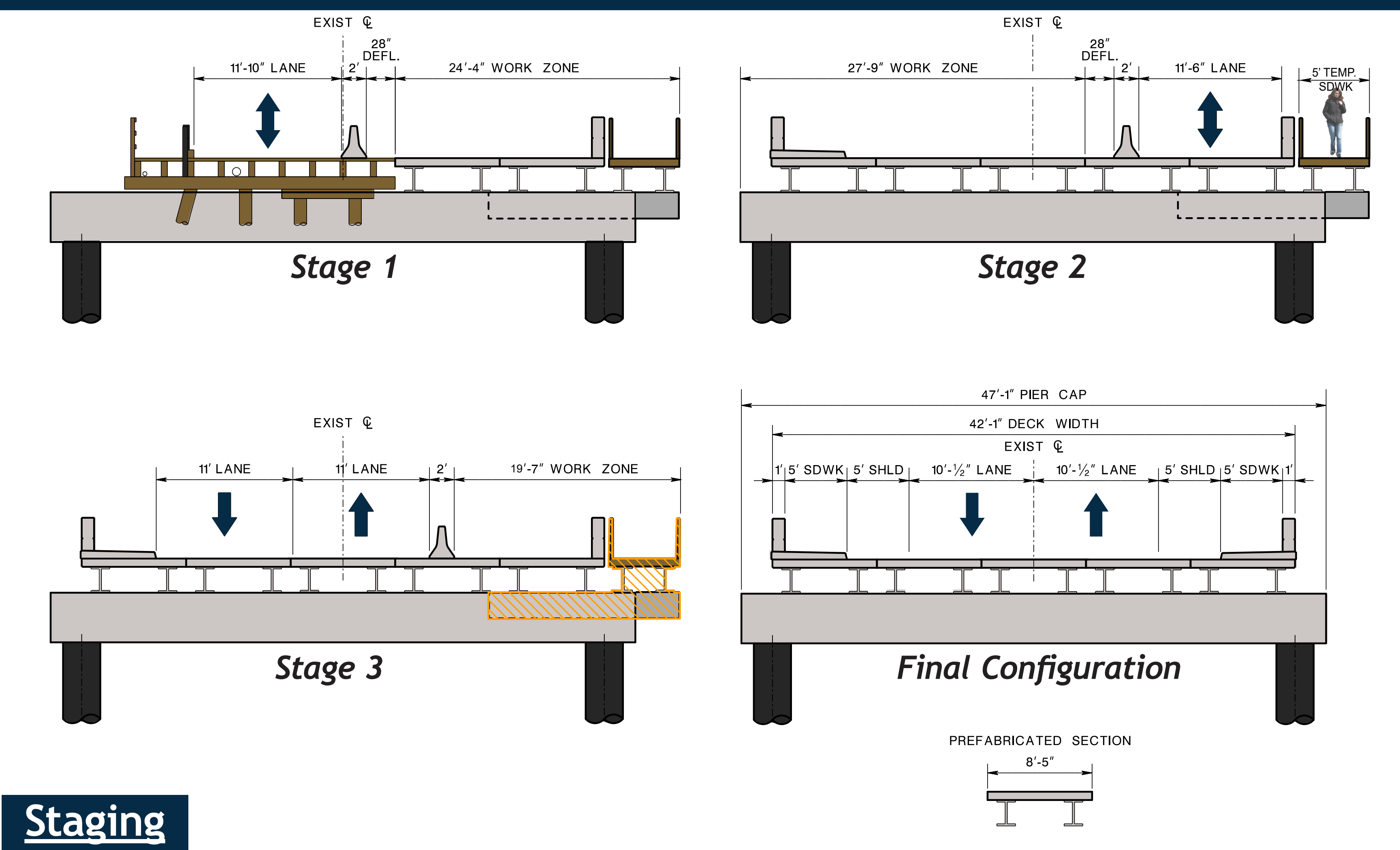
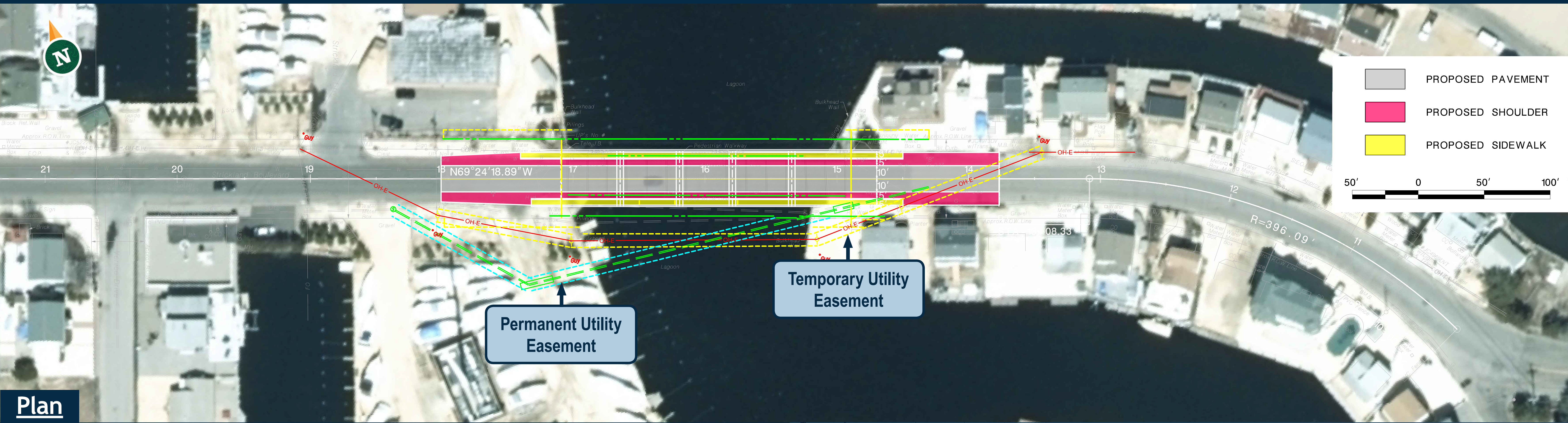
Rendering

- 28" Structure Depth
 - Lane Closure Duration = 4-5 Months
 - Units Include Concrete Riding Surface
- Alternative 5**
Concrete NEXT Beam Superstructure Units

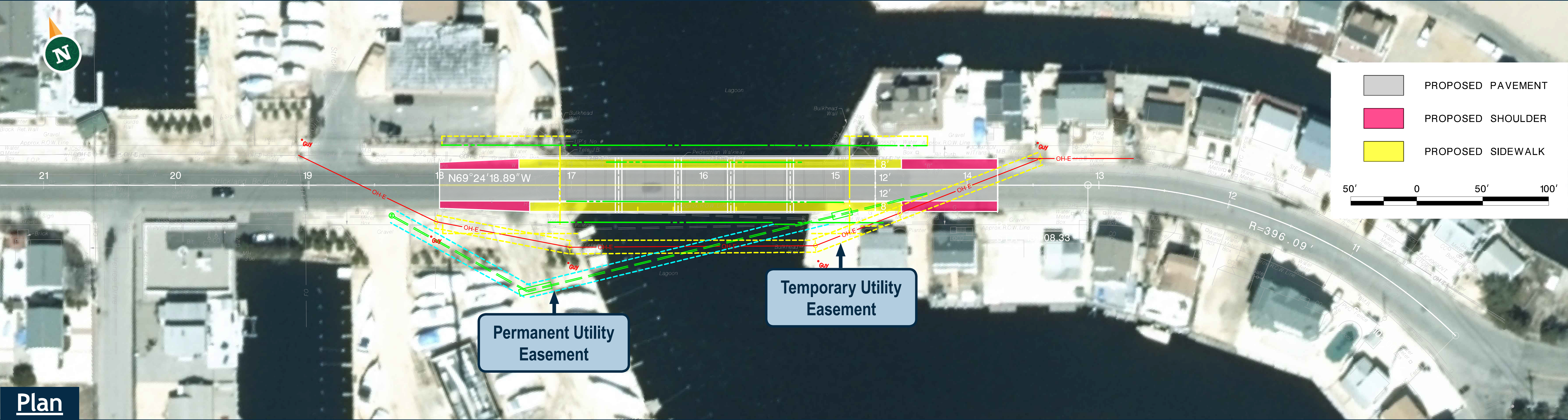
Typical Section Alternative A



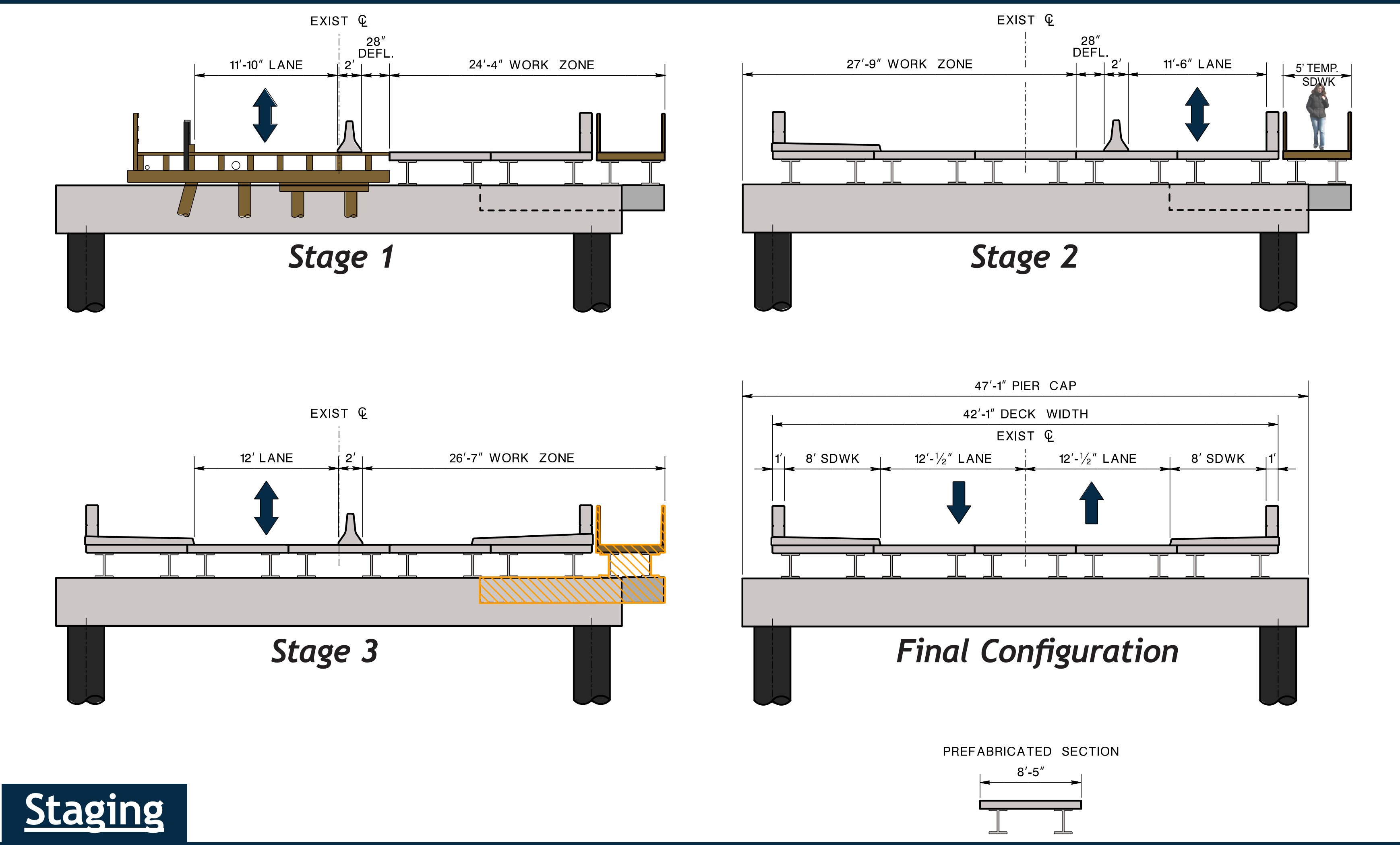
Typical Section Alternative B



Typical Section Alternative C



Plan



Staging



Rendering

Comparison of Alternatives

Bridge Alternatives		1 - No Build ¹	2 - Rehabilitation ²	3 - Steel Stringer and Concrete Deck Modular Superstructure Units			4 - Precast Concrete Voids Slabs			5 - Concrete NEXT Beam Superstructure Units			7 - Wood Structure ³ (Wood Superstructure Only)		
Typical Section			No Change	3A 44' Bridge 30' Roadway	3B 42' Bridge 30' Roadway	3C 42' Bridge 24' Roadway	4A 44' Bridge 40' Roadway	4B 42' Bridge 30' Roadway	4C 42' Bridge 24' Roadway	5A 44' Bridge 30' Roadway	5B 52' Bridge 30' Roadway	5C 52' Bridge 25' Roadway	7A 44' Bridge 30' Roadway	7B 42' Bridge 30' Roadway	7C 42' Bridge 24' Roadway
Satisfies Purpose & Need	Y/N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
Geometrics															
	Structure Depth	Inches		25"	25"	25"	20"	20"	20"	28"	28"	28"	No Change	No Change	No Change
	Bridge Width	Feet		44'	42'	42'	44'	42'	42'	44'	42'	42'	44'	42'	42'
	Roadway Width	Feet		30'	30'	24'	30'	30'	24'	30'	30'	24'	30'	30'	24'
	Lane Width	Feet		10'	10'	12'	10'	10'	12'	10'	10'	12'	10'	10'	12'
	Shoulder Width	Feet		5'	5'	No Shoulder 8' Multi-Use Path	5'	5'	No Shoulder 8' Multi-Use Path	5'	5'	No Shoulder 8' Multi-Use Path	5'	5'	No Shoulder 8' Multi-Use Path
	Sidewalk Width	Feet		6'	5'		6'	5'		6'	5'		6'	5'	
Accessibility															
	Improves Pedestrian Access	Y/N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Improves Bicycle Access	Y/N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Improves Sight Distance	Y/N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Right of Way Impacts															
Temporary Construction Easements Block 1946.01 Lot 1 = Marina NW Block 1946.02 Lot 57&57.01 = Marina SW Block 919.01 Lot 17 = 267 Strickland Blvd (267 SE) Block 919.02 Lot 18 = 268 Strickland Blvd (268 NE)	Square Feet	N/A	Marina NW - 227 268 NE - 134	Marina SW - 710 Marina NW - 658 268 NE - 472 267 SE - 307	Marina SW - 620 Marina NW - 575 268 NE - 400 267 SE - 270	Marina SW - 620 Marina NW - 575 268 NE - 400 267 SE - 270	Marina SW - 710 Marina NW - 658 268 NE - 472 267 SE - 307	Marina SW - 620 Marina NW - 575 268 NE - 400 267 SE - 270	Marina SW - 620 Marina NW - 575 268 NE - 400 267 SE - 270	Marina SW - 710 Marina NW - 658 268 NE - 472 267 SE - 307	Marina SW - 620 Marina NW - 575 268 NE - 400 267 SE - 270	Marina SW - 620 Marina NW - 575 268 NE - 400 267 SE - 270	Marina SW - 710 Marina NW - 658 268 NE - 472 267 SE - 307	Marina SW - 620 Marina NW - 575 268 NE - 400 267 SE - 270	Marina SW - 620 Marina NW - 575 268 NE - 400 267 SE - 270
Temporary Overhead Utility Easements Block 1946.02 Lot 57&57.01 = Marina SW Block 919.01 Lot 17 = 267 Strickland Blvd (267 SE)	Square Feet	N/A	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485	Marina NW - 1000 268 NE - 485
Permanent Sanitary Sewer Utility Easements Block 1946.02 Lot 57&57.01 = Marina SW Block 919.01 Lot 17 = 267 Strickland Blvd (267 SE)	Square Feet	N/A	0	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20	Marina SW - 1575 267 SE - 20
	Full Property Acquisition	# Impacted	N/A	0	0	0	0	0	0	0	0	0	0	0	0
	Partial Property Acquisition	# Impacted	N/A	0	0	0	0	0	0	0	0	0	0	0	0
	Access Impacts During Construction	# Impacted	N/A	0	6	6	6	6	6	6	6	6	6	6	6
	Tidelands	Square Feet	N/A	N	11,630 SF	11,390 SF	11,630 SF	11,390 SF	11,390 SF	11,630 SF	11,390 SF	11,390 SF	11,630 SF	11,390 SF	11,390 SF
Environmental Impacts/Permits Required															
	CAFRA/Waterfront Development/Combined Coastal	Y/N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	US Army Corps of Engineers	Y/N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	US Coast Guard	Y/N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Contaminated Materials ⁴	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N
	Socio-Economic Impacts ⁵	Y/N	N	N	N	N	N	N	N	N	N	N	N	N	N
Construction Duration and Cost															
	Provides 100-Year Service Life	Y/N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
	Accelerates Bridge Construction	Y/N	N/A	N/A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Construction Duration	months	N/A	9	15-18	15-18	18-21	18-21	18-21	15-18	15-18	15-18	15-18	15-18	15-18
	Duration of Lane Closures	months	N/A	2-3	4-5	4-5	7-8	7-8	7-8	4-5	4-5	4-5	4-5	4-5	4-5
	Construction Cost	\$	\$0.00	\$500,000	\$9,687,000	\$9,557,000	\$9,603,000	\$9,940,000	\$9,718,000	\$9,844,000	\$10,133,000	\$9,978,000	\$10,025,000	\$8,747,000	\$8,745,000
	Life Cycle Cost (75 Years)	\$		N/A	\$3,170,000	\$3,050,000	\$3,090,000	\$3,380,000	\$3,160,000	\$3,280,000	\$3,500,000	\$3,360,000	\$3,400,000	\$4,830,000	\$4,810,000
	Utility Relocation Cost	\$	\$0.00	\$0.00	\$310,000.00	\$310,000.00	\$310,000.00	\$310,000.00	\$310,000.00	\$310,000.00	\$310,000.00	\$310,000.00	\$310,000.00	\$310,000.00	\$310,000.00
	Right of Way Cost	\$	\$0.00	\$0.00	\$313,620	\$296,700	\$296,700	\$313,620	\$296,700	\$296,700	\$313,620	\$296,700	\$296,700	\$313,620	\$296,700
	Total Cost	\$	\$0.00	\$500,000.00	\$13,480,620.00	\$13,213,700.00	\$13,299,700.00	\$13,943,620.00	\$13,484,700.00	\$13,730,700.00	\$14,256,620.00	\$13,944,700.00	\$14,031,700.00	\$14,200,620.00	\$14,167,700.00

Notes

- A. Temporary Bridge Dismissed for the following:
Impacts Johnson Road and Marina
Boat Traffic from lagoon between Strickland and Johnson will be height restricted while temporary bridge is in place.
Greater cost, environmental impact, and disturbance area.
Contaminated material impacts at marina.
- B. Full Closure Dismissed:
Island Access/Emergency services not provided during closure.
Specialty contractor required for slide-in construction.
- C. Off-line replacement dismissed:
Requires complete acquisition of two residences.
Signiant impacts to marina.
Significant environmental impacts.
- D. Duration of lane closures dependent upon structure type.
- E. Although Sidewalk on one-side only reduces project footprint, this alternative dismissed since it cannot be constructed using staged replacement.

Project Purpose

The purpose of the Chadwick Beach Island Bridge Project is to restore the structural, geometric, and operational integrity of the bridge in compliance with current design standards and to provide a safe, efficient, and reliable crossing for all modes of transportation.

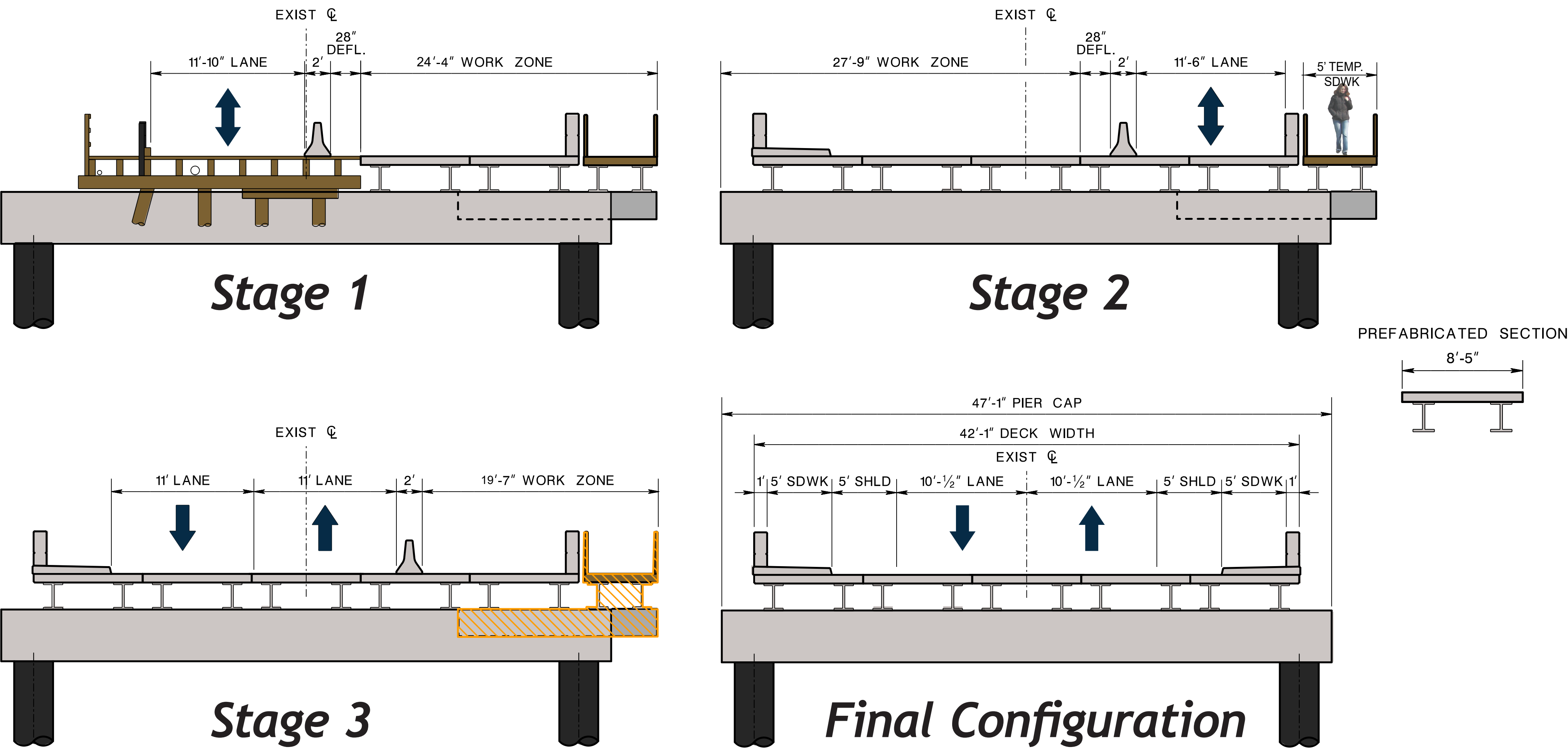
Project Goals and Objectives

- Maintain island access to the greatest extent practical and minimize impacts to residents by optimizing the construction duration.
- Avoid or minimize impacts to vehicular and marine traffic, pedestrians and bicyclists during construction.
- Strive to provide vertical underclearance to allow fireboat access beneath the bridge.
- Avoid or minimize social, economic and environmental impacts.
- Enhance bicycle and pedestrian compatibility in this recreational community.
- Consider the context of the project area and identify aesthetic enhancements.

Preliminary Preferred Alternative (PPA)

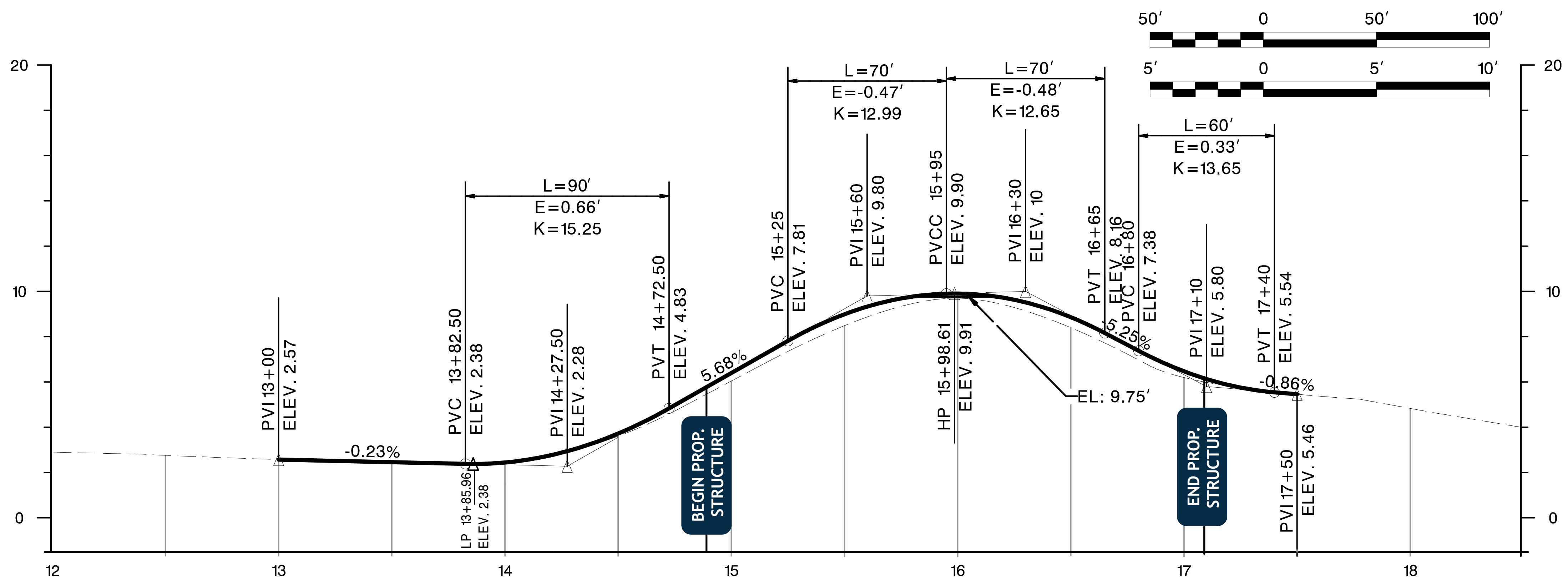


Plan



Rendering

Typical Sections



Profile



Rendering

- 25" Structure Depth • Lane Closure Duration = 4-5 Months
- Units Include Concrete Riding Surface

Bridge Type
Steel Stringer and Concrete Deck
Modular Superstructure Units