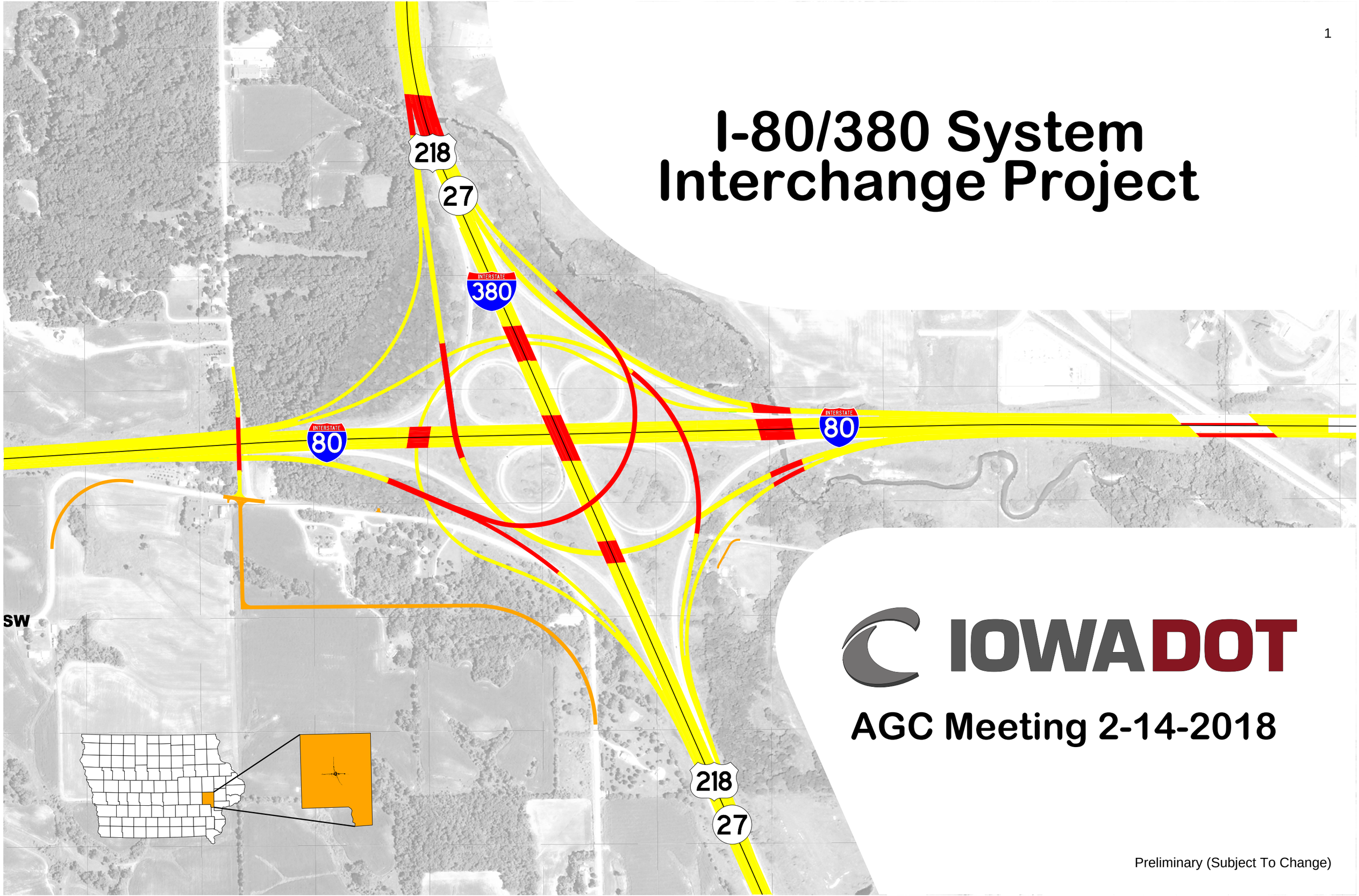
I-80/380 System Interchange Project



IOWA DOT

AGC Meeting 2-14-2018

Preliminary (Subject To Change)

Contents

- List of AGC Questions
- Fiscal Year Construction Overview
- Fiscal Year Construction Systems Interchange
- Construction Schedule
- Programming Estimate (Updated 2017)
- Current Traffic Volumes (2014)
- Staging Summary
- Critical Roadway Sections
- Drainage Culverts
- Bridge Summary
- I-380 Over I-80 Figures
- I-380 North Leg Bridges over RR & US 6
- Ramp H Flyover Bridge Over Existing Ramp A

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AGC Contractor Questions

Roadway Critical Sections

After RIGHT SLIDE #6

1) On the I-80 section showing the median Cut, is there enough room for placing temporary shoring for the median construction work?
    1. YES
    2. NO

After RIGHT SLIDE #8

2) On the I-80 section showing median fill, is there enough room for placing permanent (sheet pile or wire-mesh or fabric) walls for the median construction work?
    1. YES
    2. NO

I-380 Over I-80

After LEFT SLIDE #14

3) With the constraints given, do you think this median bridge pier is constructible?
    1. Yes, as is.
    2. Yes, with modified design.
    3. No

4) During the Pier Construction in the median of I-80 / I-380, how long will it take to construct the footing (piles and pours) with the access limitations shown? Note possible Night time closure limits of 9pm – 6am.
    1. Less than 2 Weeks
    2. 2-4 Weeks
    3. 5-6 Weeks
    4. More than 6 Weeks

After LEFT SLIDE #15

5) Based upon the Access shown for placing a 152-ft long concrete girder for the median bridge, What kind of crane could be used?
    1. Small Type Crane (100 ton) on existing bridge.
    2. Gantry Type Crane driven across existing bridges.
    3. Extra Large Crane (possibly too big for existing bridge)(200+ tons)

6) How many north span girders (152-ft long) could be placed per night in the median with the crane limitations shown?
    1. 2 girders
    2. 3 – 4 girders
    3. 5 or more Girders

After LEFT SLIDE #23

7) With the constraints given for access and girder placement, is this median bridge constructible?
    1. Yes, as is.
    2. Yes, with modified design
    3. No

I380 North Leg (RR and Hwy 6)

After LEFT SLIDE #28

8) The RR has indicated that they will limit access across and along the RR ROW due to safety concerns in this area. Can the median bridges be constructed with access from the I-380 median and existing bridges above?
    1. YES, with additional median shoring, etc.
    2. NO

After LEFT SLIDE #29

9) Will the Hwy 6 (130-ft) middle span girders require one or two cranes to pick and set?
    1. One
    2. Two

Ramp H Over Ramp A

After LEFT SLIDE #30

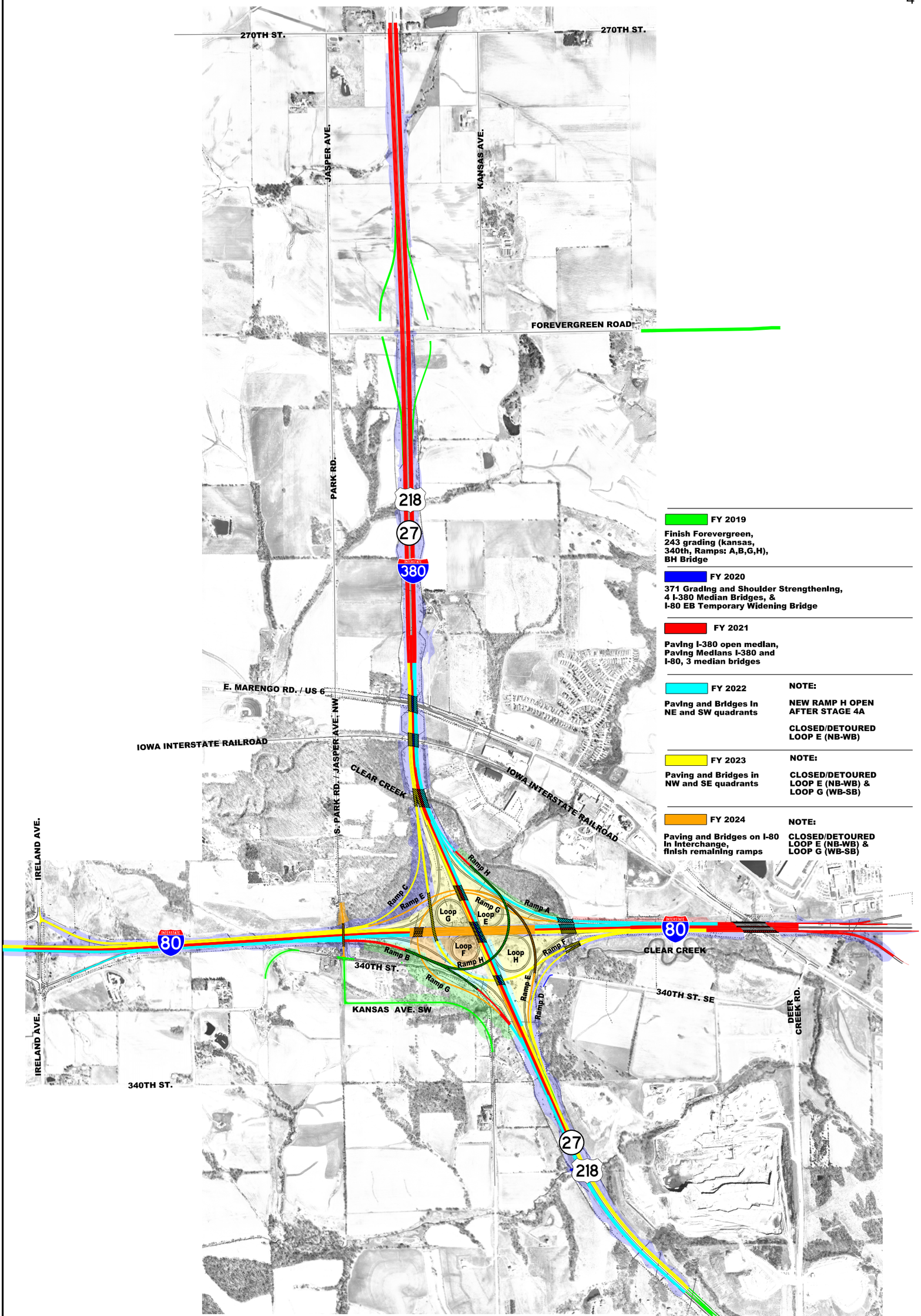
10) There is 20 ft of vertical clearance at the end of the pier cap. Is the area between the TBR and the Pier Cap (4.3 ft) enough to place formwork for the pier cap with Ramp A traffic below?
    1. YES
    2. NO

11) Is the 2.29 ft area between the temporary shoring and the pier footing enough room to build the footing, if all three of the other sides have no access issues?
    1. YES
    2. NO

I-80 Over RR & US 6

After LEFT SLIDE #31 – refer to the new Handout today (I-80 over RR & US 6)

12) Do the Locations of the Temporary Relocated MidAmerican Transmission Lines and Poles provide enough room for the Contractor's Access to the bridge widening shown in red.
    1. YES
    2. NO



FY 2019

Finish Forevergreen, 243 grading (kansas, 340th, Ramps: A,B,G,H), BH Bridge

FY 2020

371 Grading and Shoulder Strengthening, 4 I-380 Median Bridges, & I-80 EB Temporary Widening Bridge

FY 2021

Paving I-380 open median, Paving Medians I-380 and I-80, 3 median bridges

FY 2022

Paving and Bridges in NE and SW quadrants

NOTE:

NEW RAMP H OPEN AFTER STAGE 4A

CLOSED/DETOURED LOOP E (NB-WB)

FY 2023

Paving and Bridges in NW and SE quadrants

NOTE:

CLOSED/DETOURED LOOP E (NB-WB) & LOOP G (WB-SB)

FY 2024

Paving and Bridges on I-80 in Interchange, finish remaining ramps

NOTE:

CLOSED/DETOURED LOOP E (NB-WB) & LOOP G (WB-SB)

IOWADOT

UPDATED JANUARY 2015
2011 AERIAL

LEGEND

- FY 2019
- FY 2020
- FY 2021
- FY 2022
- FY 2023
- FY 2024

N

0 250 500
SCALE IN FEET

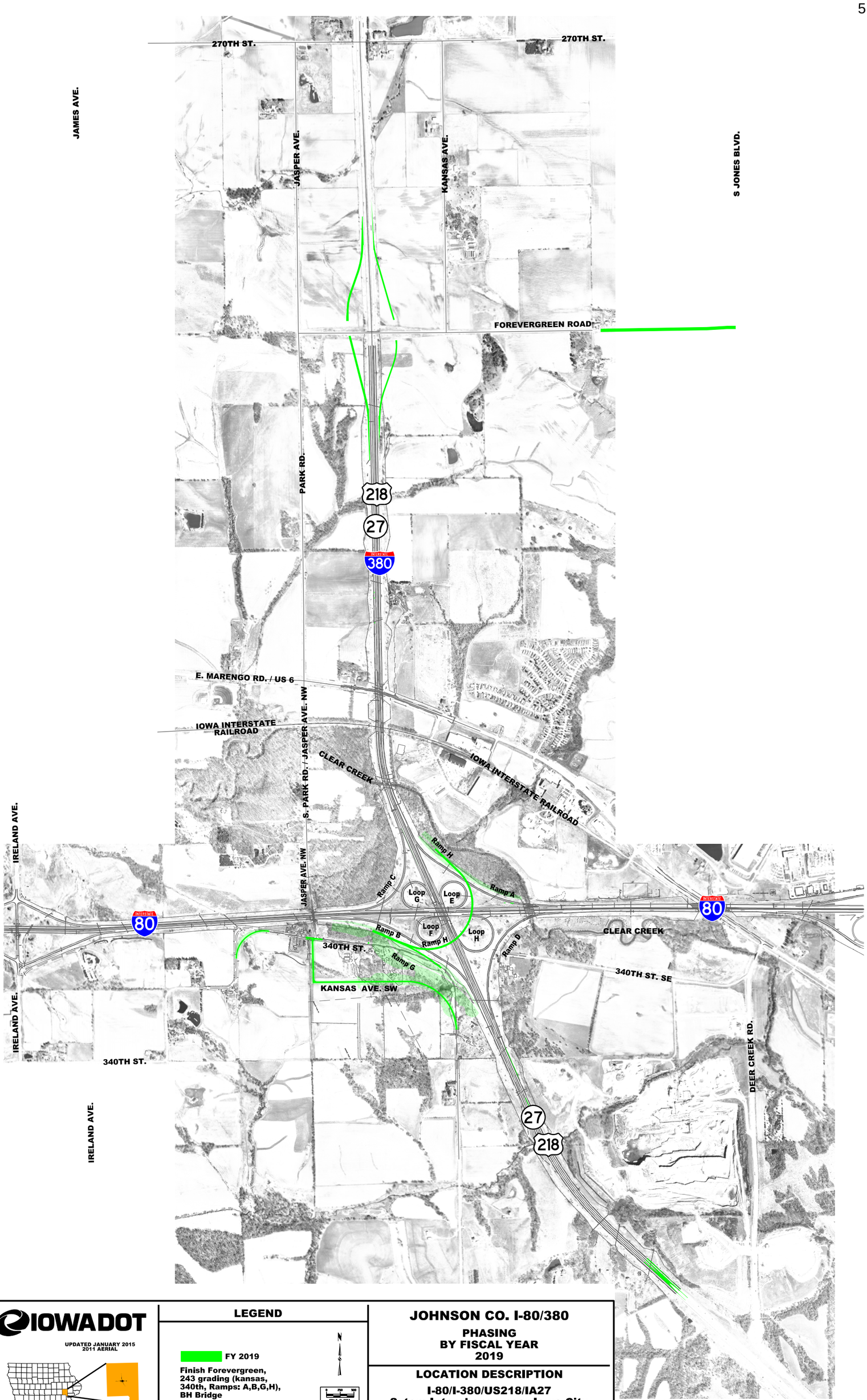
JOHNSON CO. I-80/380

PHASING BY FISCAL YEAR 2019-2024

LOCATION DESCRIPTION

I-80/I-380/US218/IA27
Sytem Interchange near Iowa City

Preliminary (Subject To Change)



IOWADOT

UPDATED JANUARY 2015
2011 AERIAL

LEGEND

FY 2019

Finish Forevergreen, 243 grading (kansas, 340th, Ramps: A,B,G,H), BH Bridge

N

0 250 500
SCALE IN FEET

JOHNSON CO. I-80/380

PHASING BY FISCAL YEAR 2019

LOCATION DESCRIPTION

I-80/I-380/US218/IA27
Sytem Interchange near Iowa City

Preliminary (Subject To Change)

IOWADOT

UPDATED JANUARY 2015
2011 AERIAL

LEGEND

FY 2020

371 Grading and Shoulder Strengthening, 4 I-380 Median Bridges, & I-80 EB Temporary Widening Bridge

N

0 250 500
SCALE IN FEET

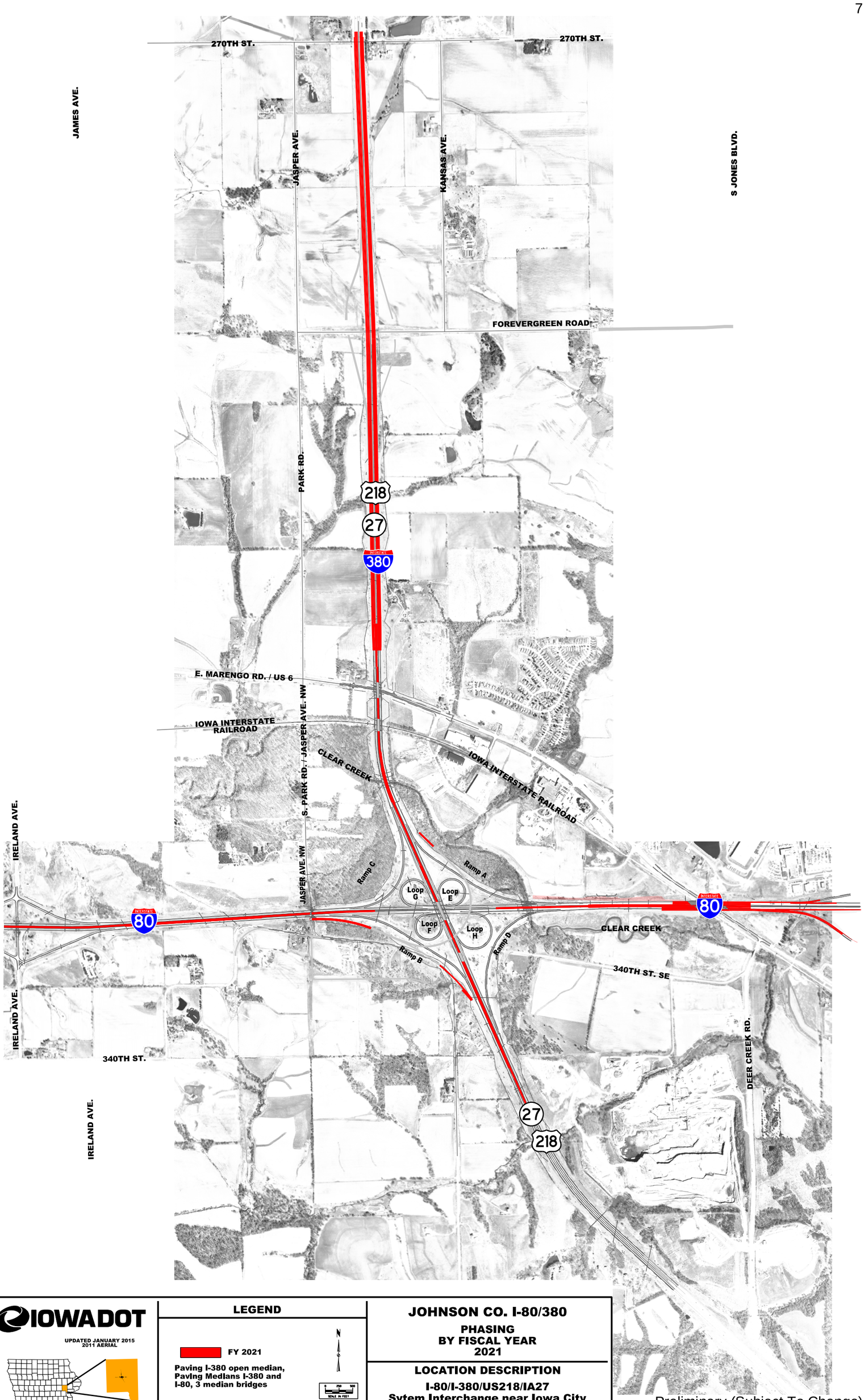
JOHNSON CO. I-80/380

PHASING BY FISCAL YEAR 2020

LOCATION DESCRIPTION

I-80/I-380/US218/IA27
Sytem Interchange near Iowa City

Preliminary (Subject To Change)



IOWADOT

UPDATED JANUARY 2015
2011 AERIAL

LEGEND

FY 2021

Paving I-380 open median, Paving Medians I-380 and I-80, 3 median bridges

N

0 250 500
SCALE IN FEET

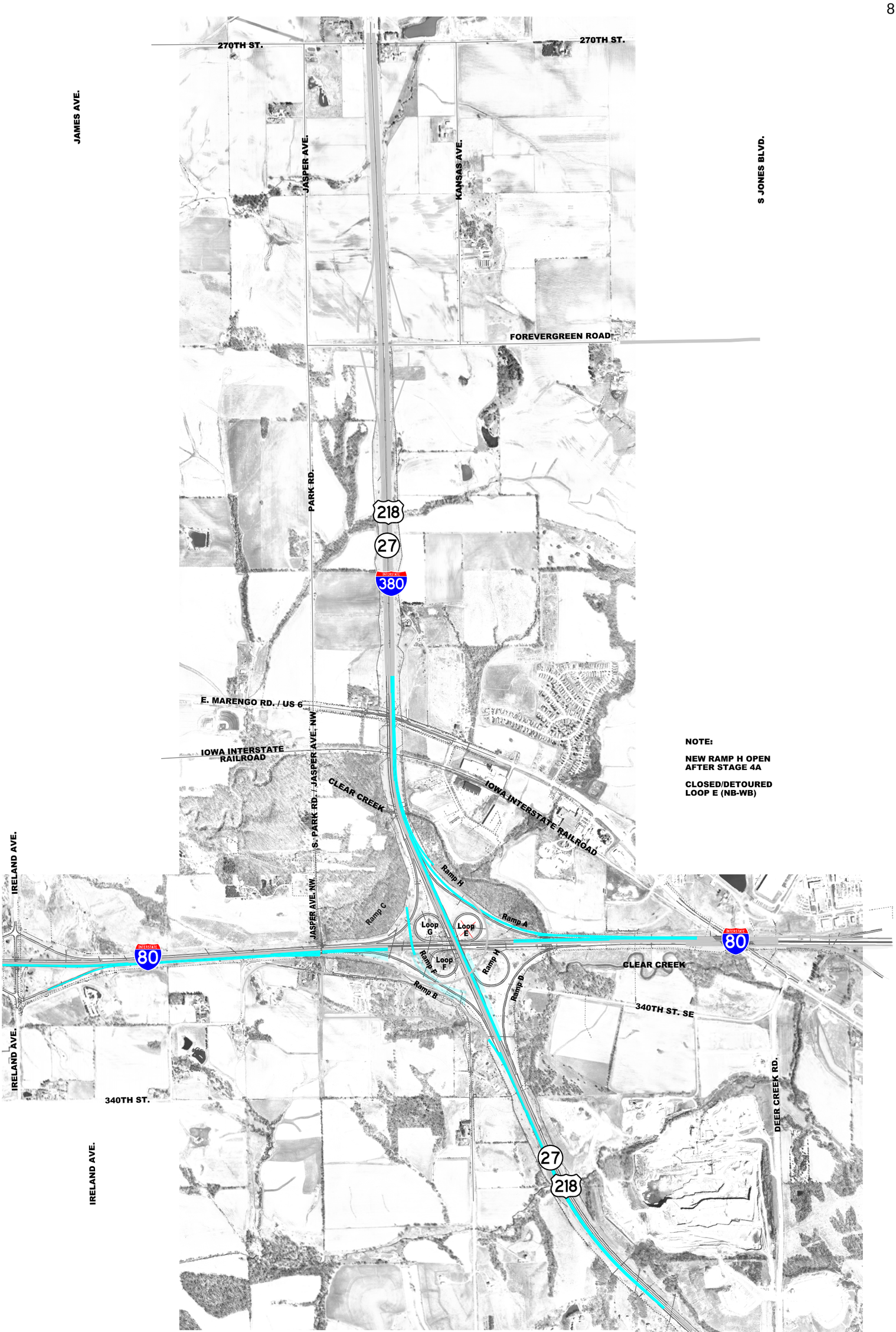
JOHNSON CO. I-80/380

PHASING BY FISCAL YEAR 2021

LOCATION DESCRIPTION

I-80/I-380/US218/IA27
Sytem Interchange near Iowa City

Preliminary (Subject To Change)



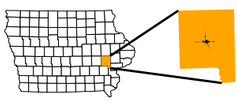
NOTE:

NEW RAMP H OPEN AFTER STAGE 4A

CLOSED/DETOURED LOOP E (NB-WB)

IOWADOT

UPDATED JANUARY 2015
2011 AERIAL



LEGEND

FY 2022
Paving and Bridges In NW and SE quadrants

Loop Closed/Detoured

N

0 250 500
SCALE IN FEET

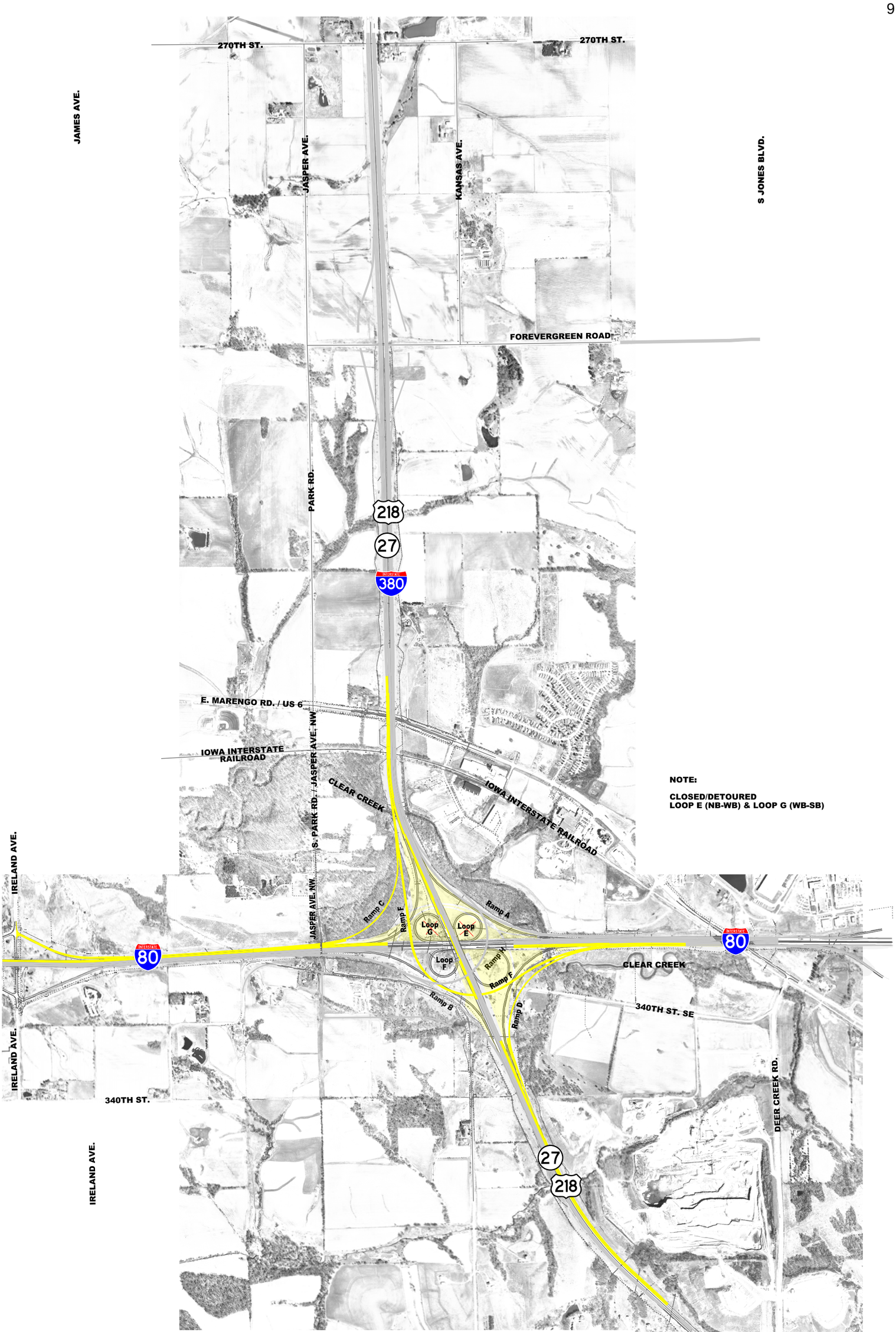
JOHNSON CO. I-80/380

PHASING BY FISCAL YEAR 2022

LOCATION DESCRIPTION

I-80/I-380/US218/IA27
Sytem Interchange near Iowa City

Preliminary (Subject To Change)



NOTE:

CLOSED/DETOURED
LOOP E (NB-WB) & LOOP G (WB-SB)

IOWADOT

UPDATED JANUARY 2015
2011 AERIAL

LEGEND

FY 2023
Paving and Bridges In NE and SW quadrants

Loop Closed/Detoured

N

0 250 500
SCALE IN FEET

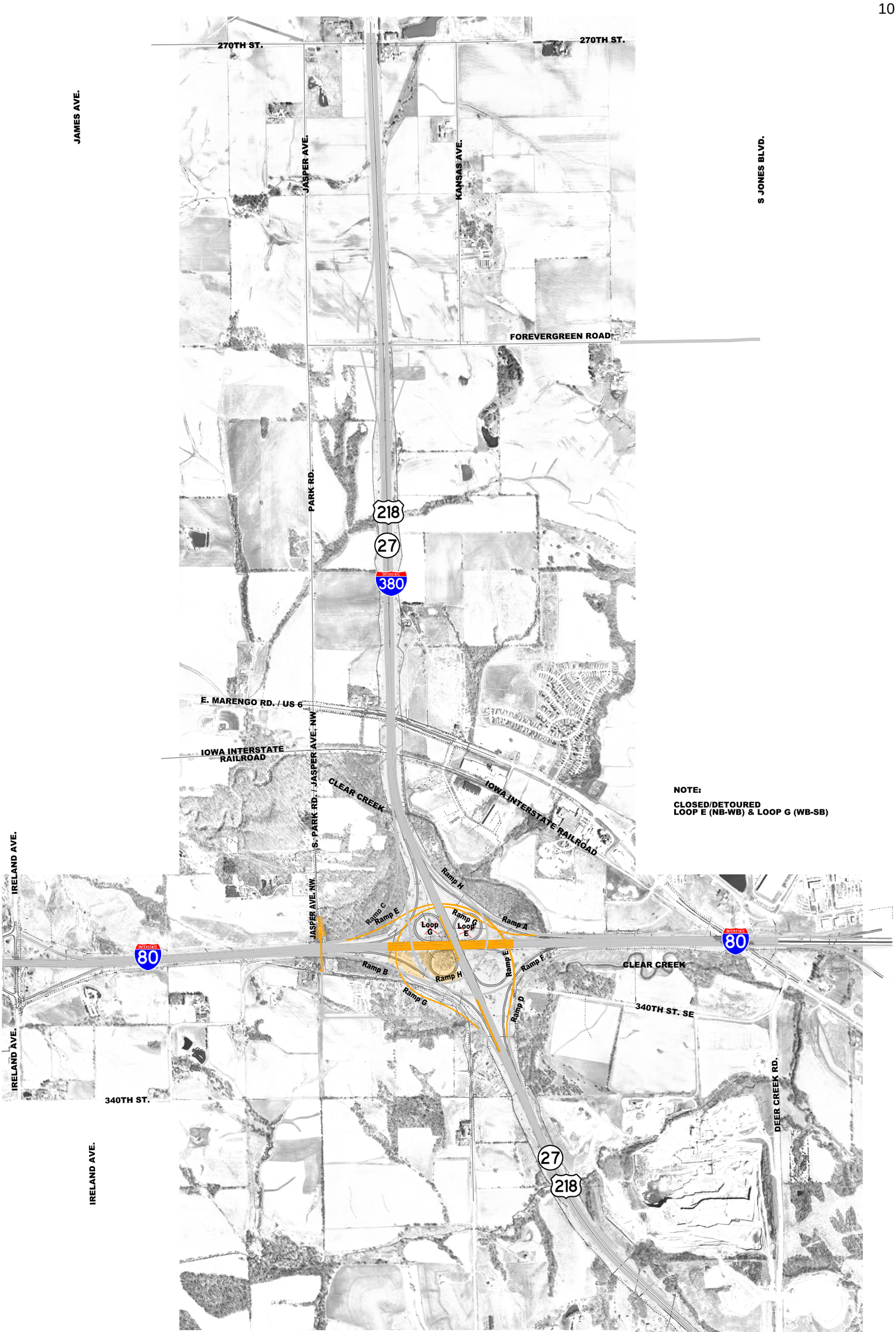
JOHNSON CO. I-80/380

PHASING BY FISCAL YEAR 2023

LOCATION DESCRIPTION

I-80/I-380/US218/IA27
Sytem Interchange near Iowa City

Preliminary (Subject To Change)



IOWADOT

UPDATED JANUARY 2015
2011 AERIAL

LEGEND

FY 2024

Paving and Bridges on I-80 in interchange, finish remaining ramps

Loop Closed/Detoured

N

0 250 500
SCALE IN FEET

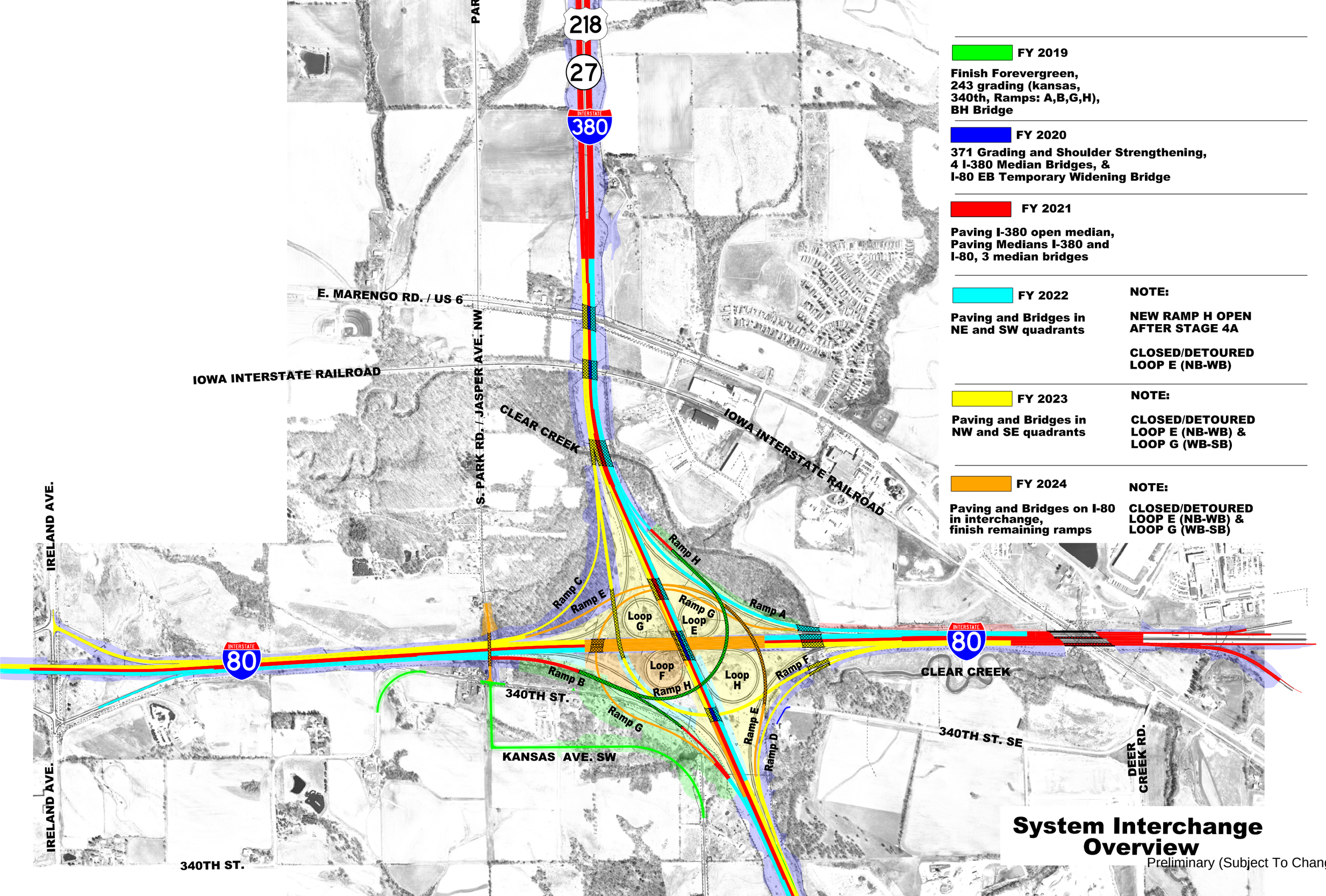
JOHNSON CO. I-80/380

PHASING BY FISCAL YEAR 2024

LOCATION DESCRIPTION

I-80/I-380/US218/IA27
Sytem Interchange near Iowa City

Preliminary (Subject To Change)



FY 2019

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FY 2020

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Paving I-380 open median, Paving Medians I-380 and I-80, 3 median bridges

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Paving and Bridges in NE and SW quadrants

NOTE:

NEW RAMP H OPEN AFTER STAGE 4A

CLOSED/DETOURED LOOP E (NB-WB)

FY 2023

Paving and Bridges in NW and SE quadrants

NOTE:

CLOSED/DETOURED LOOP E (NB-WB) & LOOP G (WB-SB)

FY 2024

Paving and Bridges on I-80 in interchange, finish remaining ramps

NOTE:

CLOSED/DETOURED LOOP E (NB-WB) & LOOP G (WB-SB)

System Interchange Overview

Preliminary (Subject To Change)

CONSTRUCTION SCHEDULE

TASK NAME	DURATION (DAYS)	START	FINISH	2018				2019				2020				2021				2022				2023				2024			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
FY 2019	909	7/18/18	10/2/20			27 MONTHS																									
FY 2020	586	6/19/19	11/20/20							17 MONTHS																					
FY 2021	586	6/17/20	11/19/21											17 MONTHS																	
FY 2022	838	6/16/21	6/30/23															24 MONTHS													
FY 2023	869	6/22/22	8/2/24																			26 MONTHS									
FY 2024	546	7/19/23	11/15/24																							16 MONTHS					

PROGRAMMING ESTIMATE

Year	Stage	Cost (1)				Earthwork (3)			Pavement (4)		Subbase Material (4)	
		Bridge	Road	Misc. (2)	Total	Class 10	Waste	Contractor Furnished (5)	Permanent	Temporary	Granular Subbase	Special Backfill
2019	1	$31,229,000	$6,483,000	$769,000	$38,481,000	550,000 CY	150,000 CY	--	--	--	--	--
2020	2	$9,318,000	$31,345,640	$2,654,000	$43,317,640	1,100,000 CY	--	60,000 CY	--	94,000 SY	--	18,000 CY
2021	3	$14,134,000	$47,102,990	$3,579,000	$64,815,990	30,000 CY	--	8,000 CY	204,000 SY	2,000 SY	220,000 SY	72,000 CY
2022	4	$39,964,000	$23,622,000	$2,298,000	$65,884,000	200,000 CY	--	70,000 CY	147,000 SY	22,000 SY	154,000 SY	51,000 CY
2023	5	$27,494,000	$23,690,100	$2,804,000	$53,988,100	70,000 CY	270,000 CY	--	162,000 SY	7,000 SY	170,000 SY	57,000 CY
2024	6	$28,032,000	$16,773,000	$1,495,000	$46,300,000	28,000 CY	150,000 CY	--	71,000 SY	--	75,000 SY	25,000 CY

(1) Does not include other project costs such as: ROW, utility relocations, wetland/stream mitigation, transit/traffic operations mitigation (highway helper, towing program, express bus...), etc.

(2) Misc Includes : Erosion Control, Lighting, Signing.

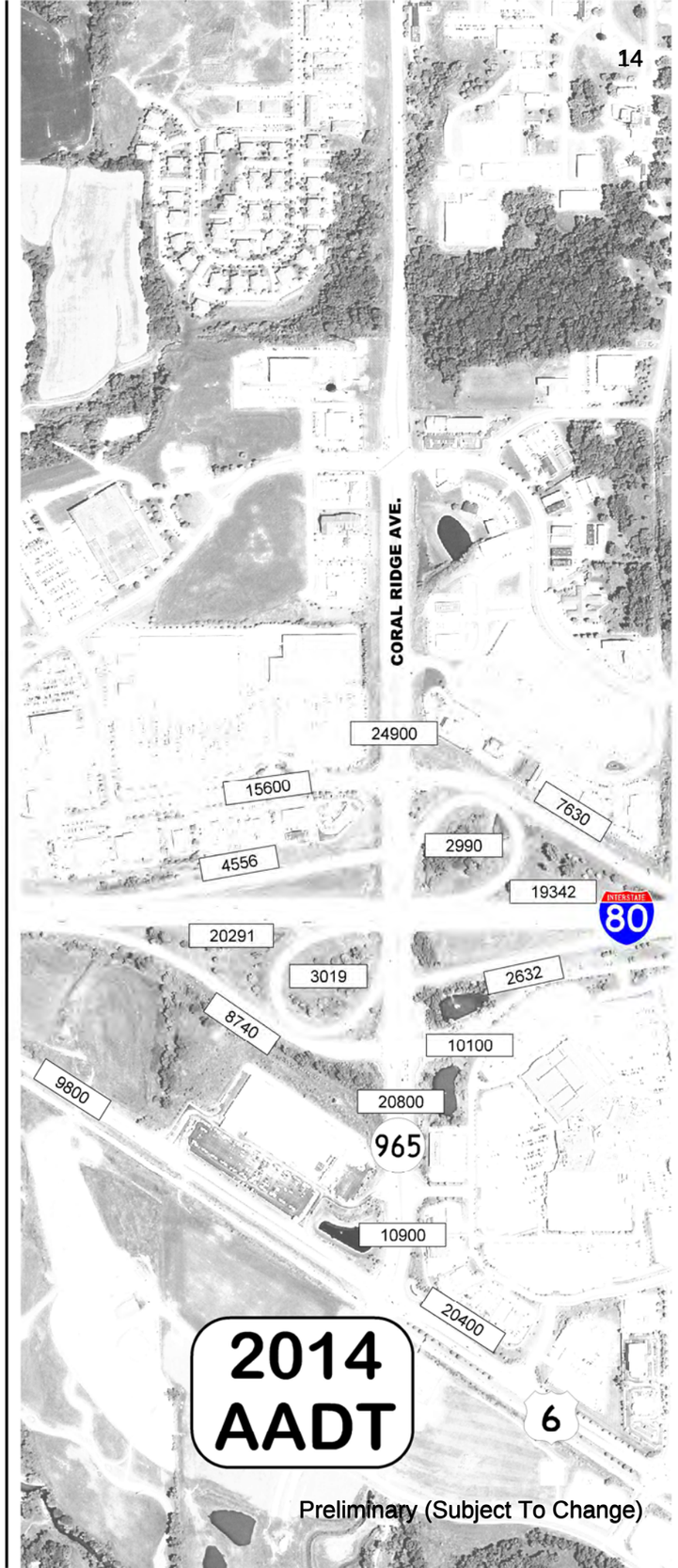
(3) Preliminary Quantities; Staged Balance to be determined.

(4) Pavement and Subbase Type and Thickness to be determined.

(5) Contractor Furnished Topsoil will be Required.

5800
IRELAND AVE.
719
2397
14993
INTERSTATE 80
15152
437
2286
IRELAND AVE.
2000

6
240
218
27
25010
24895
JASPER PARK RD
9000
6
IOWA INTERSTATE RAILROAD
INTERSTATE 380
12500
3600
3400
2802
17390
INTERSTATE 80
26888
INTERSTATE 80
29031
17438
11953
2910
5000
340TH ST
60
KANSAS AVE
2450
140
17402
15192
218
27


CORAL RIDGE AVE.
24900
15600
7630
4556
2990
19342
INTERSTATE 80
20291
3019
2632
8740
10100
9800
20800
965
10900
20400
6
2014 AADT
Preliminary (Subject To Change)

Staging Notes for I-80/380 Systems Interchange

Staging Concept:

The initial stage of the project will construct as much work as possible without impacting traffic. Work impacting traffic will be completed on opposite quadrants (northeast and southwest quadrants; northwest and southeast quadrants) of the interchange at the same time. This reduces the overall construction time and maximizes the area available for the contractor to work.

Staging Considerations:

1. Grade differential:
    a. I-80 west of I-380 approximately 6' lower than existing at maximum point
    b. I-80 east of I-380 approximately 7.5' higher than existing at maximum point
    c. I-380 south of I-80 approximately 1' higher than existing at maximum point
    d. I-380 north of I-80 approximately 7' higher than existing at maximum point
2. Vertical clearances:
    a. Proposed Ramp F bridge over existing Ramp C (14.49' of clearance). Mitigated with runaround detour. Stage 4
3. Horizontal clearances:
    a. Existing Park Rd. bridge is not long enough to span proposed I-80. Median piers interfere with staging of I-80 traffic in median. Requires Park Rd. to be closed. Stage 1 – Stage 4
    b. Construction on eastbound I-80 limits traffic to two lanes on the bridge over Clear Creek which will impact eastbound mainline and Loop F traffic. We are proposing to temporarily widen this structure in 2020 to allow 3 lanes eastbound which will reduce impacts to eastbound traffic for 2021-2023.

Detour Routes:

1. Ireland Ave eastbound entrance ramp (closed for ramp reconstruction): Stage 4
    a. North on Ireland Ave. to eastbound US 6. Eastbound US 6 to northbound IA965. Northbound IA965 to eastbound and westbound I-80. Duration: 2 Months
2. Loop E (eliminates weaving on westbound I-80 and northbound I-380): Stage 4B- Final
    a. North on I-380 to Forevergreen Rd. West on Forevergreen Rd. to southbound I-380. Southbound I-380 to Ramp C to westbound I-80. Duration 2.5 years.
3. Loop G (eliminates weaving on eastbound I-80 and southbound I-380): Stage 5 - Final
    a. West on I-80 to Ireland Ave. South on Ireland Ave. to I-80 eastbound. I-80 Eastbound to Ramp B. Ramp B to southbound I-380. Duration 1.5 years.
4. Ireland Ave. westbound exit, Ramp C, Loop F and Loop H:
    a. These will be detoured at various times for tie in work. The duration for each detour is anticipated to be 1 weekend. Detour routes to be formalized.

Other items:

1. The large vertical grade changes on I-80 and I-380 as well as bridge construction on I-380 and interference from the existing loops prevent Ramp F from being constructed earlier than shown. Ramp F cannot go over I-380 due to interference with Ramp E and Ramp H.
2. Proposed Ramp E bridge median piers interfere with staging of I-80 traffic in median. Requires waiting until end of Stage 3 to begin construction.
3. Ramp G cannot be completed until the bridges on I-80 are complete. Requires waiting until the beginning of Stage 4 for construction.
4. Weaving sections at loops on I-80 and I-380 create safety and operational issues. This has been mitigated by detouring Loop E for 2.5 years and detouring Loop G for 1.5 years.
5. There is an MSE wall on the West end of the ramp E bridge to be built in 2021

Preliminary Staging Details

Stage1 (FY2019):

- General:
  - Traffic:
    - Keep on existing lanes
    - Shift Ramp A traffic to detour pavement
    - Shift Ramp B traffic to detour pavement
  - Roadway Construction:
    - Grade southwest quadrant not affecting traffic
    - Grade portion of Ramp A
    - Grade for Ramp B and H bridge
    - Grade and granular surface relocated Kansas Ave. and 340th St.
    - Grade for Ramp A
    - Temporary widening on existing Ramp A and Ramp B
  - Bridge Construction:
    - Begin work on Ramp B and H bridge

Stage2 (FY2020):

- General
  - Traffic:
    - Keep on existing lanes
    - Forevergreen Road interchange is complete and open. (Not part of this project)
  - Roadway Construction:
    - Grade all that does not impact existing mainlines and ramps
    - Shoulder strengthening on outside of I-80, I-380 and US 218
    - Shoulder strengthening on the median of I-380
    - Construct median crossover on I-80 west of Ireland Ave crossing
    - Construct median crossover on I-380 south of system interchange
  - Bridge Construction:
    - Widen existing eastbound I-80 bridge over Clear Creek
    - I-380 Median bridges over future Ramp F, I-80, IAIS Railroad, and US 6

Stage 3 (FY 2021)

- General
  - Traffic:
    - Shift onto shoulder strengthened areas
    - Stage shifting of I-80 at bridge over US 6
  - Roadway Construction:
    - Construction median and median storm sewer on I-80 and I-380
    - Pave portions of Ramp B and H graded in Stage 1Pave median on I-80
    - Construct median crossover on I-80 west of I-380 crossing
    - Pave median on I-380
    - Construct median crossover north of US 6
    - Pave northbound and southbound I-380 north of the I-380 bridge over US 6
    - Construct temporary detour at Ramp H entrance with I-380
  - Bridge Construction:
    - Finish Ramp B and Ramp H bridge
    - I-80 and I-380 median bridges over Clear Creek
    - Stage construct widening of I-80 bridge over US 6
    - Finish I-380 Median bridges including bridges over Clear Creek and over future Ramp E

Stage 4 (FY 2022)

- I-80
  - Traffic:
    - Shift eastbound I-80 traffic into median west of I-380 and detour Loop E.
    - Ireland Ave eastbound entrance ramp will be closed and detoured
    - Shift westbound I-80 traffic into median east of I-380
    - Shift traffic on to newly constructed Ramp H and Ramp B
  - Roadway Construction:
    - New eastbound lanes west of I-380
    - Stage construct Ireland Ave entrance to I-80 eastbound to minimize closure
    - New westbound lanes east of I-380
  - Bridge Construction:
    - New bridges for westbound lanes
- US 218 and I-380
  - Traffic:
    - Phase 1: Shift southbound US 218 into newly constructed median south of I-80 to construct southbound lanes
    - Phase 2: Shift southbound US 218 into newly constructed southbound lanes
    - Phase 2: Shift northbound US 218 into newly constructed median south of I-80 to construct northbound bridges
    - Phase 3: Shift northbound US 218 into newly constructed northbound lanes
    - I-380 traffic north of the I-380 bridge over US 6 will be in their respective lanes
  - Roadway Construction:
    - Reconstruct southbound US 218 south of I-80
    - Construct new northbound lanes on I-380
  - Bridge Construction:
    - Construct northbound bridges on I-380

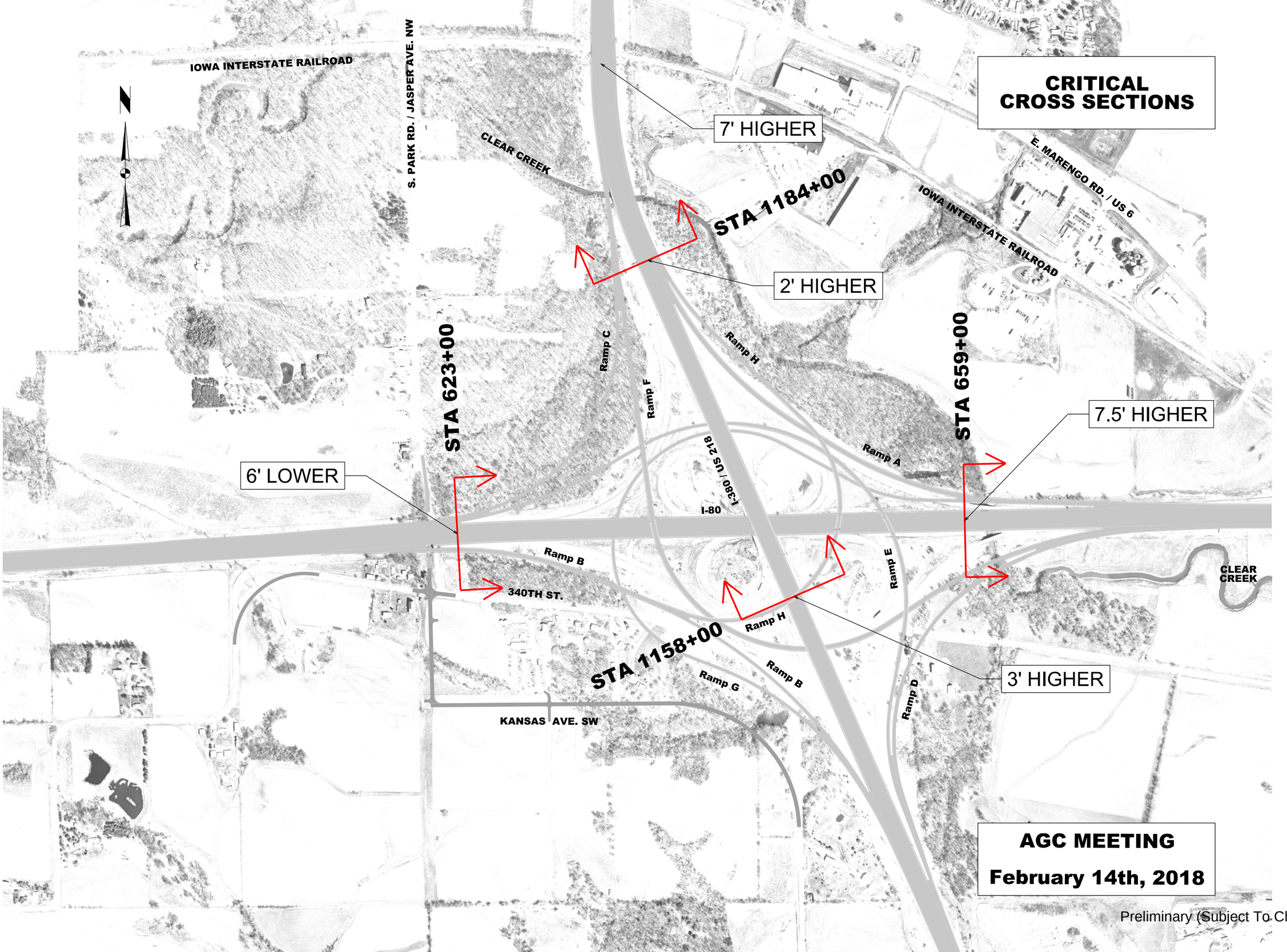
- Ramps
  - Traffic:
    - Detour Loop E to Forevergreen Road interchange
    - Close Loop H and open new Ramp B and Ramp H
    - Open Ramp A and B to traffic upon construction completion
  - Roadway Construction:
    - Stage construct Ramp A to maintain traffic.
    - Complete Ramp A and B exit and entrance gores
  - Bridge Construction:
    - Ramp A bridge over Clear Creek
    - Begin piers and abutments of Ramp F bridge over I-80

Stage 5 (FY2023)

- I-80
  - Traffic:
    - Shift westbound I-80 traffic into median west of I-380
    - Shift eastbound I-80 traffic into median east of I-380
  - Roadway Construction:
    - New westbound lanes west of I-380
    - Stage construct the Ireland Ave exit to maintain traffic on exit
    - New eastbound lanes east of I-380
  - Bridge Construction:
    - Construct eastbound bridge over Clear Creek Bridge
- US 218 and I-380
  - Traffic:
    - Shift northbound US 218 traffic onto the southbound lanes south of I-80 to construct northbound lanes
    - Shift southbound I-380 traffic into median from I-80 to I-380 bridge over US 6
    - I-380 traffic north of the I-380 bridge over US 6 will be in their respective lanes
  - Roadway Construction:
    - Reconstruct northbound US 218 south of I-80
    - Construct new southbound lanes on I-380
  - Bridge Construction:
    - New southbound lanes on I-380
- Ramps/Side Roads
  - Traffic:
    - Maintain Loop E detour
    - Detour Loop G to Ireland Ave. interchange
    - Open Ramp C, D and F to traffic upon completion
  - Roadway Construction:
    - Pave Ramps C, D, and F
  - Bridge Construction:
    - Begin construction of Ramp E bridge over Ramp G and I-80
    - Finish Ramp F bridge over I-80
    - Construct Ramp D and F bridges over Clear Creek
    - Begin construction piers and abutments of Park Road bridge over I-80

Stage 6 (FY2024)

- I-80
  - Traffic:
    - Phase 1: Shift westbound I-80 traffic into eastbound lanes at the I-380 crossing
    - Phase 2: Shift eastbound and westbound I-80 traffic into westbound lanes at the I-380 crossing
    - Phase 3: Shift to normal lanes
  - Roadway Construction:
    - Phase 1: Construct westbound I-80 at the I-380 crossing
    - Phase 2: Construct eastbound I-80 at the I-380 crossing
    - Phase 3: Construct median barrier
  - Bridge Construction:
    - Phase 1: Construct new westbound bridge over Ramp G
    - Phase 2: Construct new eastbound bridge over Ramp G
- US 218 and I-380
  - Traffic:
    - Phase 1: Shift southbound I-380 to the median at the I-80 crossing
    - Phase 2: Shift to normal lanes
  - Roadway Construction:
    - Phase 2: Construct median barrier
  - Bridge Construction:
    - Phase 1: Southbound I-380 bridge over I-80
- Ramps/Side Roads
  - Traffic:
    - Phase 1: Maintain Loop E and Loop G detour.
    - Phase 2: Open Ramp E to traffic
    - Phase 3: Open Ramp G to traffic
  - Roadway Construction:
    - Pave Ramps E and G
    - Grade and Pave Park Road
  - Bridge Construction:
    - Finish construction of Ramp E bridge over Ramp G and I-80
    - Finish Park Road bridge over I-80



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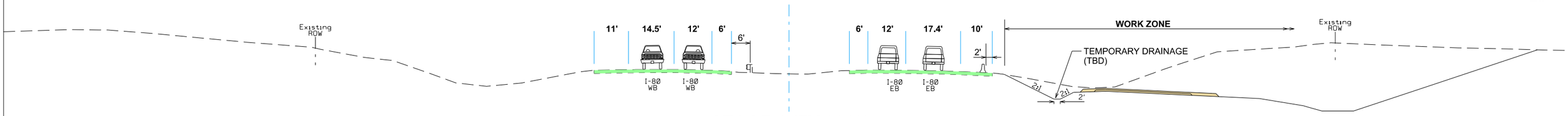
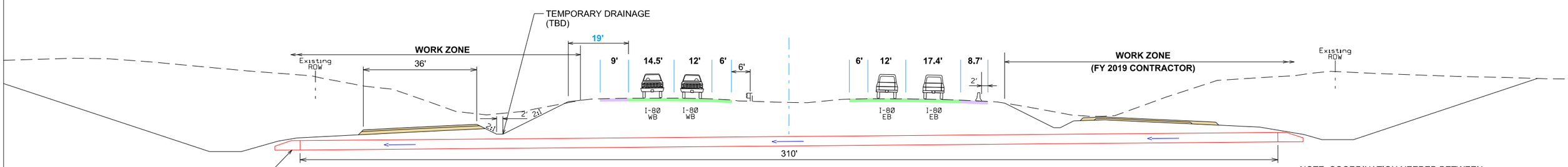
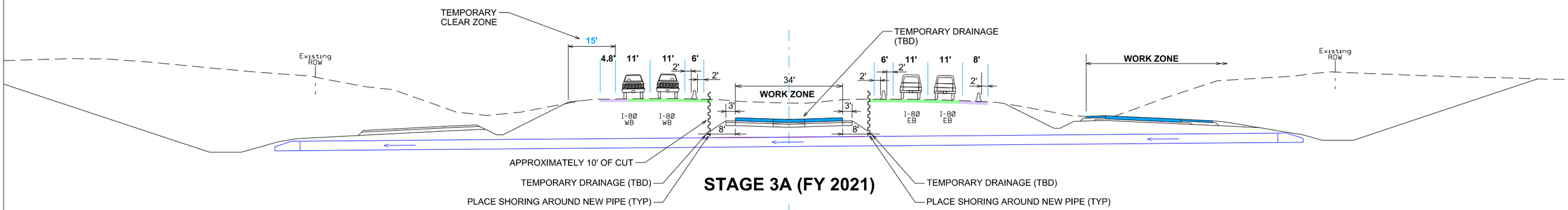


STAGE 1 (FY 2019)

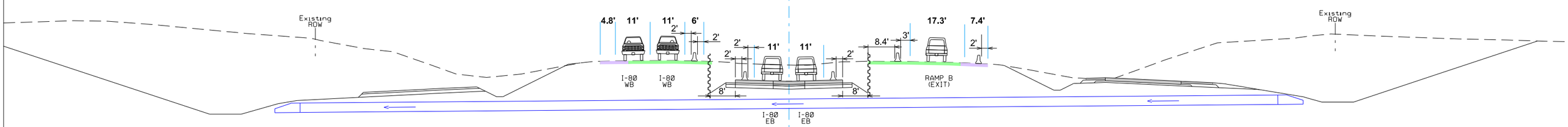


NOTE: COORDINATION NEEDED BETWEEN CONTRACTORS FOR PIPE CONSTRUCTION

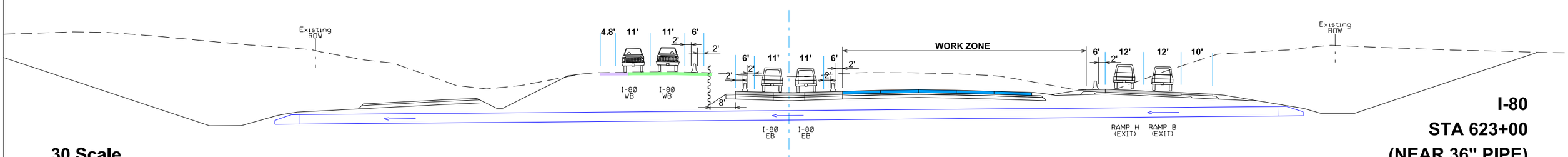
STAGE 2 (FY 2020)



STAGE 3A (FY 2021)



STAGE 4A (FY 2022)

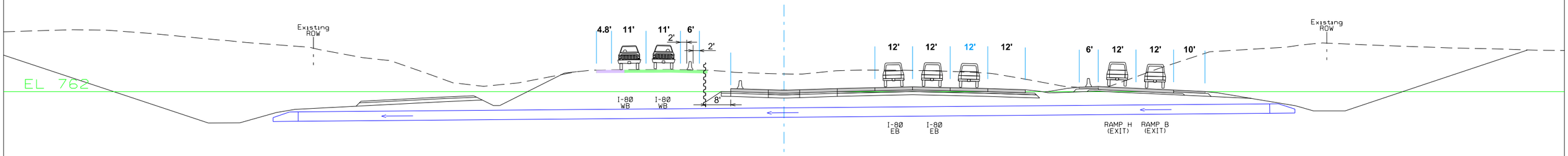


STAGE 4C (FY 2022)

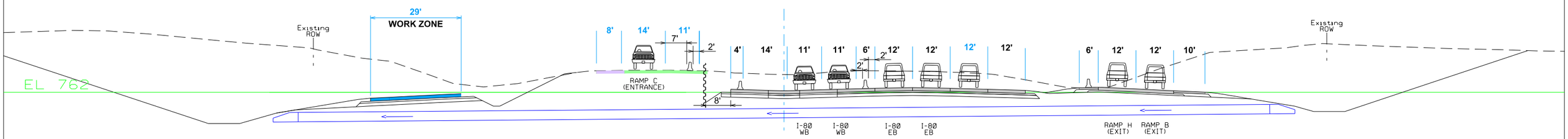
30 Scale

I-80
STA 623+00
(NEAR 36" PIPE)

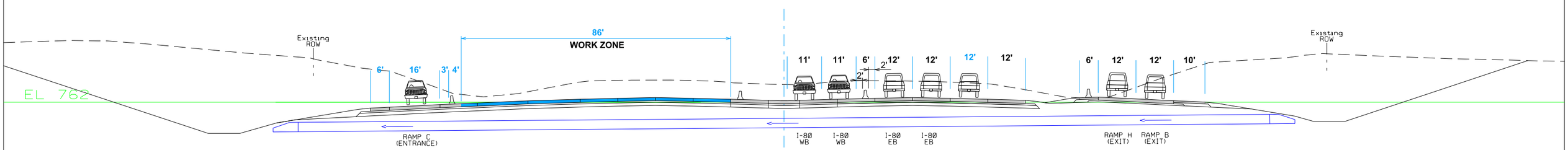
Preliminary (Subject To Change)



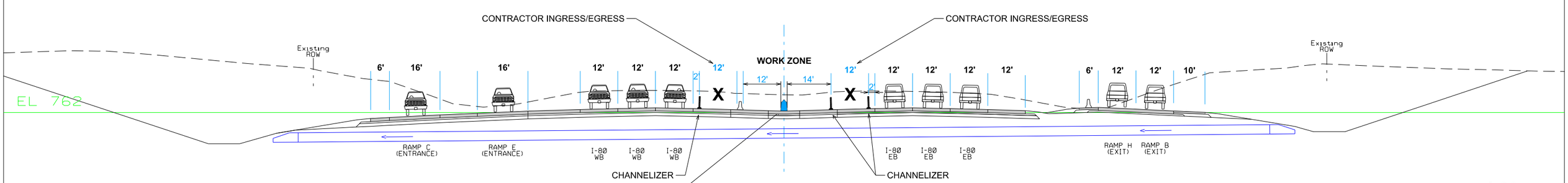
STAGE 4D (FY 2022)



STAGE 5B (FY 2023)



STAGE 5D (FY 2023)

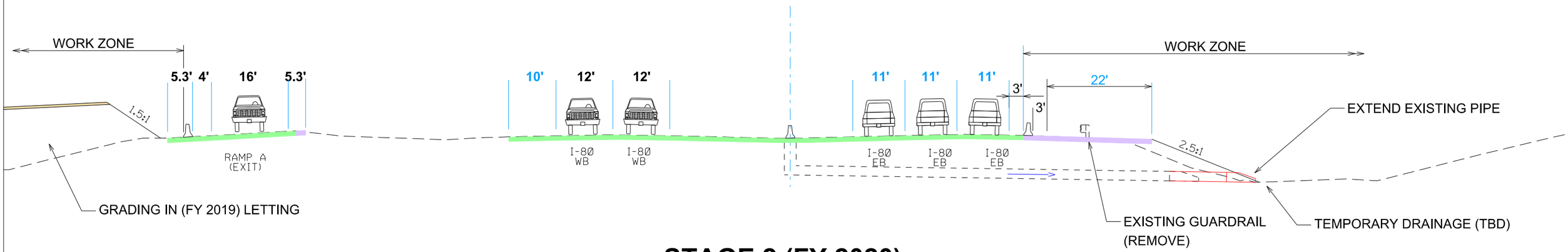


STAGE 6C (FY 2024)

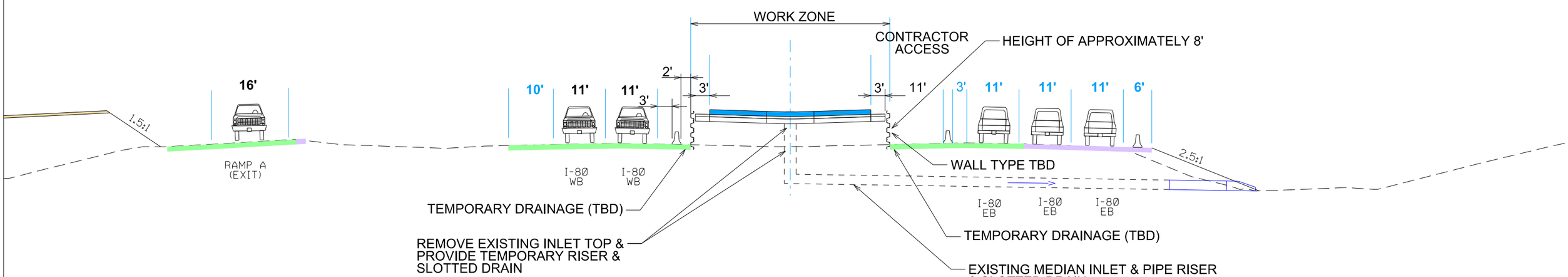
30 Scale

I-80
STA 623+00
(NEAR 36" PIPE)

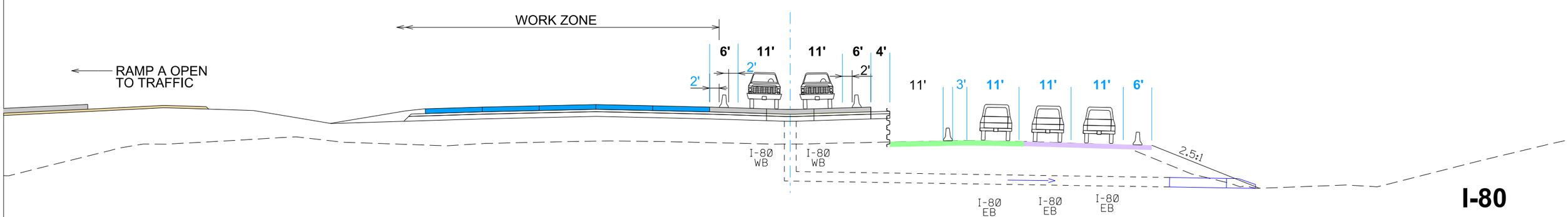
Preliminary (Subject To Change)



STAGE 2 (FY 2020)



STAGE 3A (FY 2021)



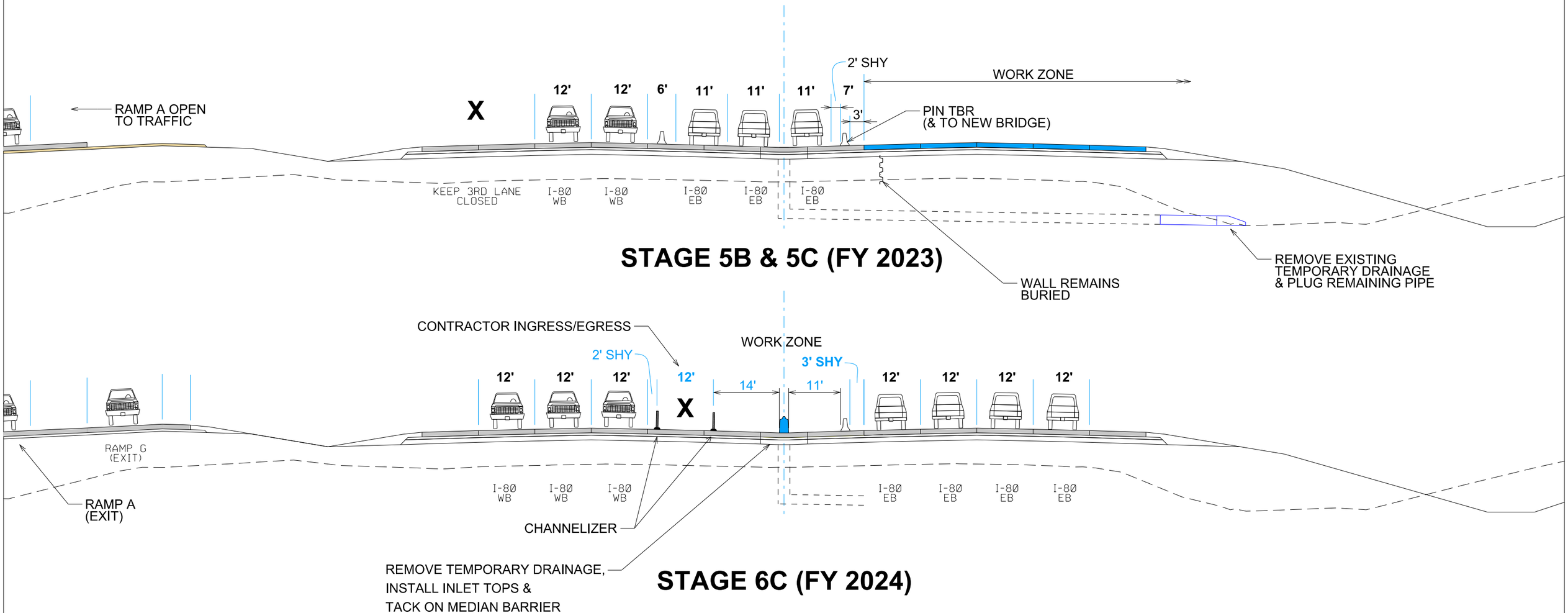
20 Scale

STAGE 4D (FY 2022)

I-80

STA 659+00

Preliminary (Subject To Change)

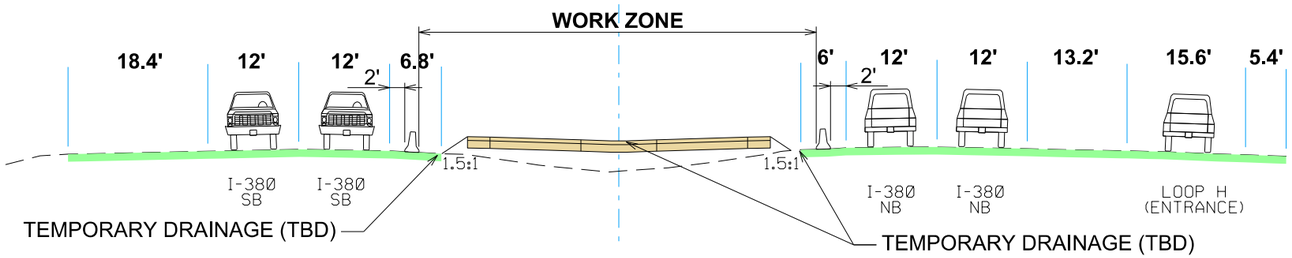


20 Scale

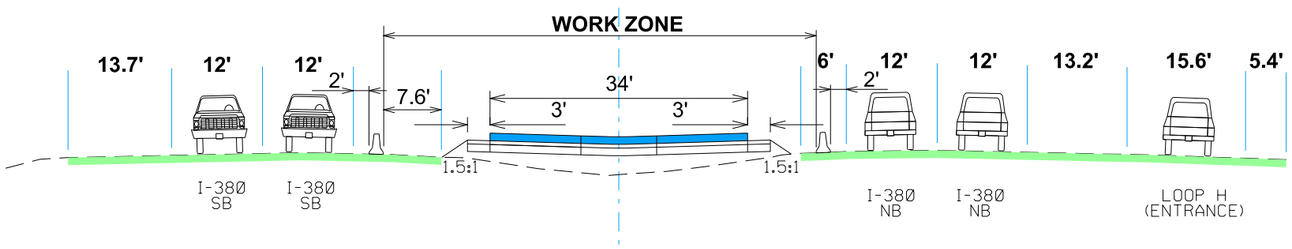
I-80

STA 659+00

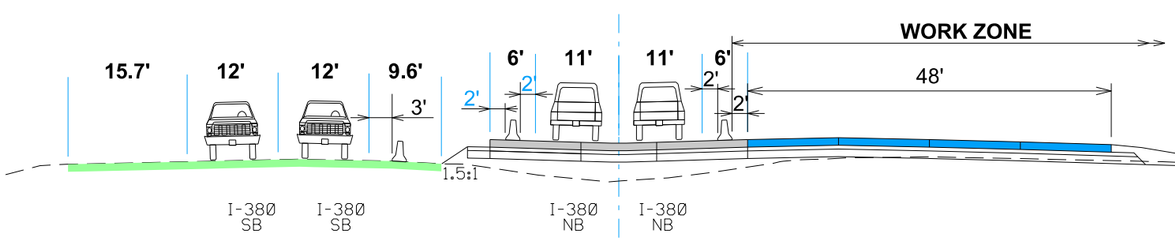
Preliminary (Subject To Change)



STAGE 1 & 2 (FY 2019 & FY 2020)



STAGE 3A (FY 2021)

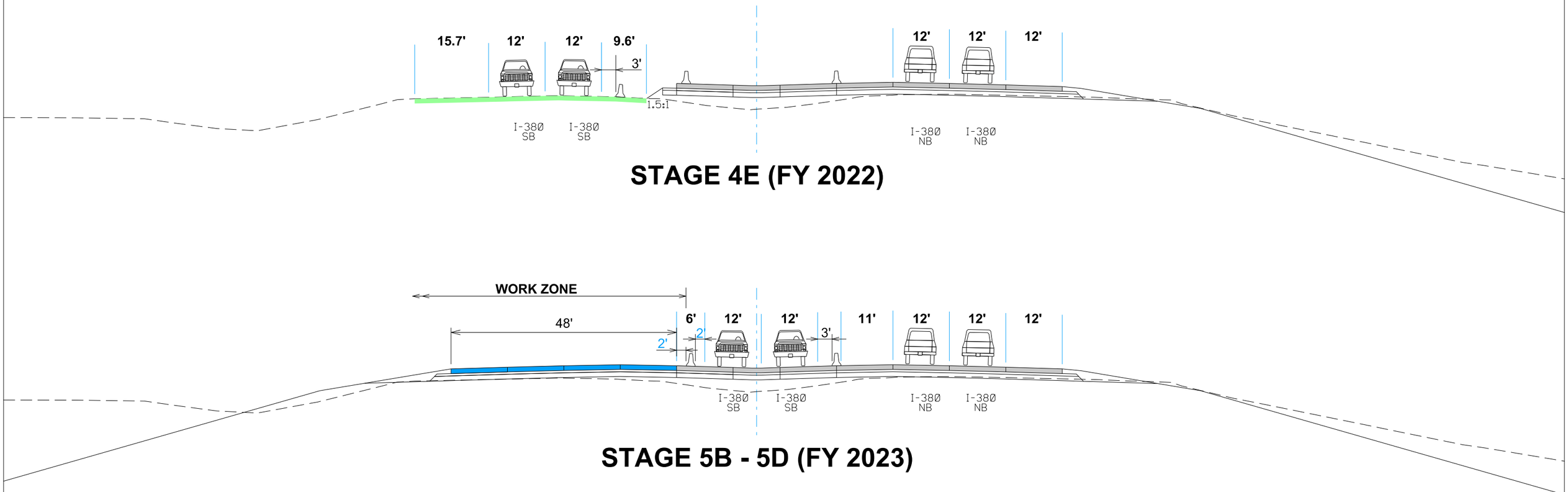


STAGE 4B (FY 2022)

20 Scale

I-380 / US218
STA 1158+00

Preliminary (Subject To Change)



STAGE 4E (FY 2022)

STAGE 5B - 5D (FY 2023)

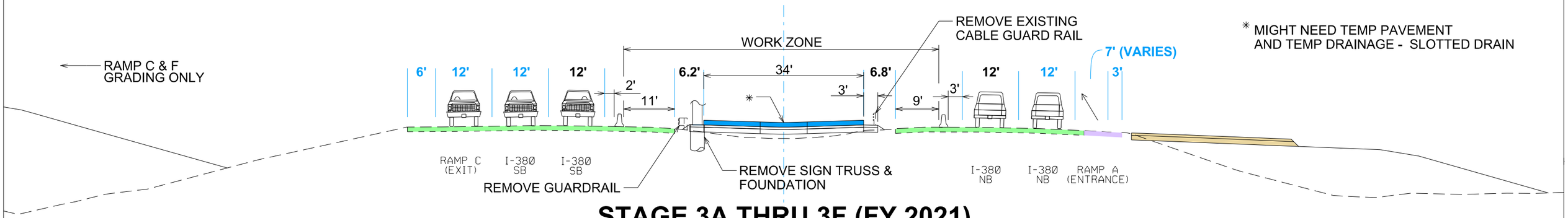
STAGE 6B - 6C (FY 2024)

20 Scale

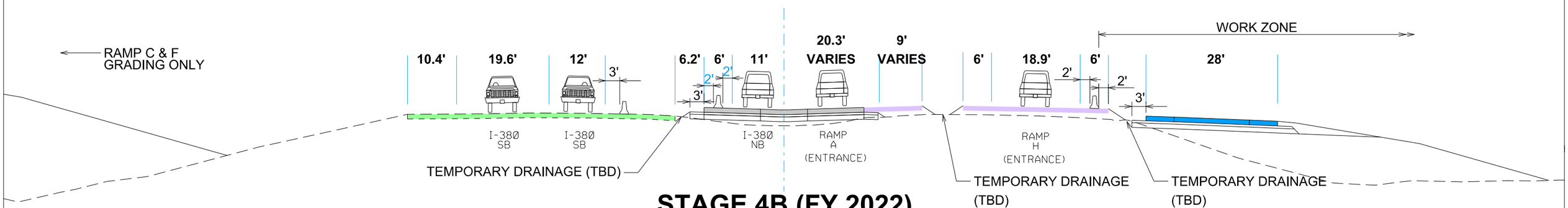
I-380 / US218
STA 1158+00

Preliminary (Subject To Change)

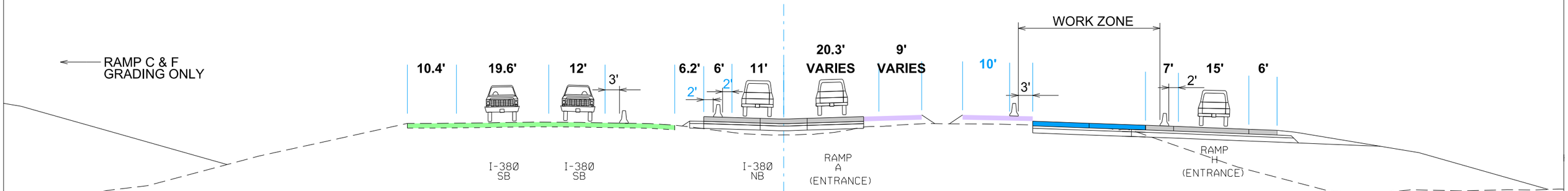
STAGE 2 (FY 2020)



STAGE 3A THRU 3F (FY 2021)



STAGE 4B (FY 2022)



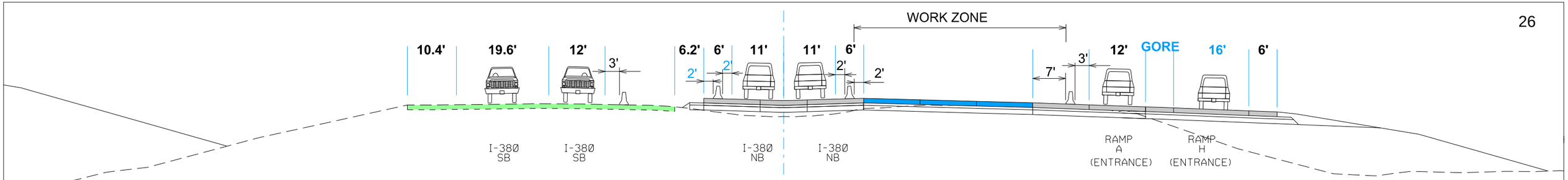
STAGE 4C (FY 2022)

20 Scale

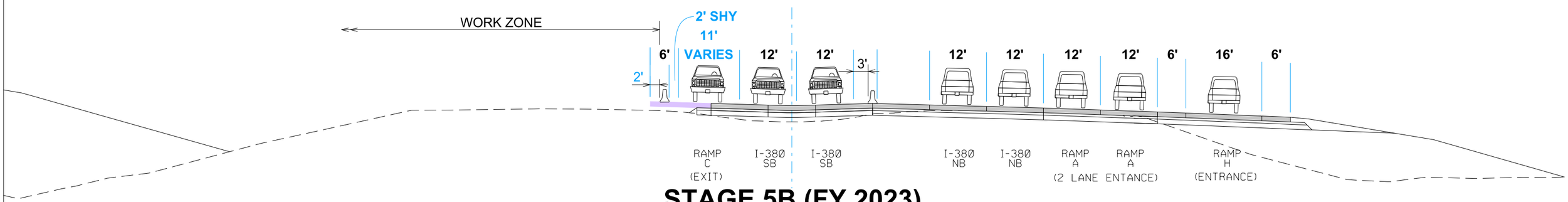
I-380 / US218

STA 1184+00

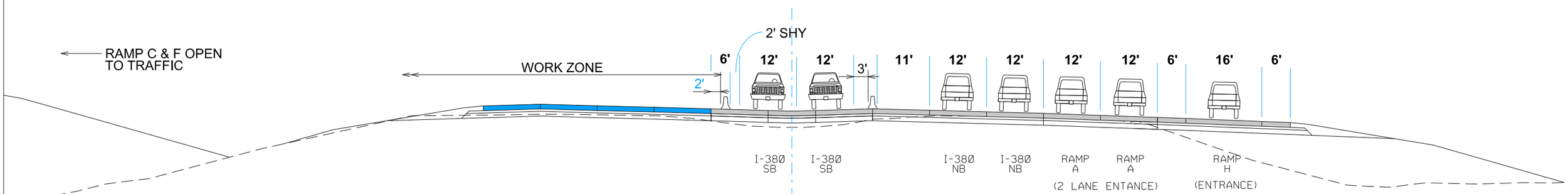
Preliminary (Subject To Change)



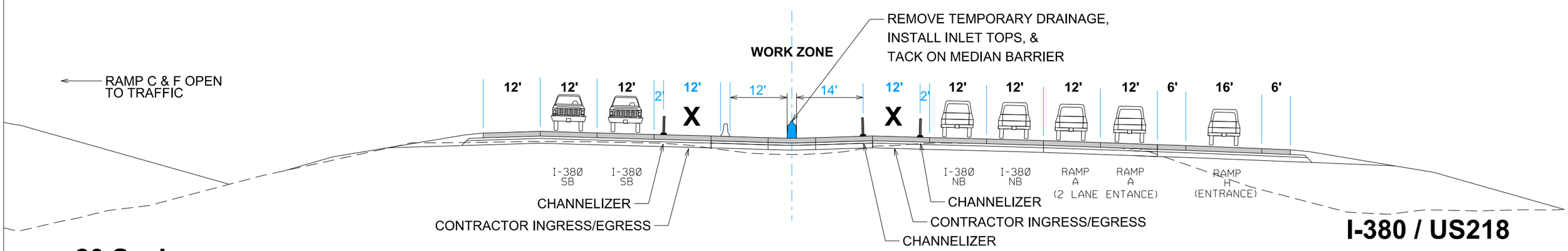
STAGE 4D (FY 2022)



STAGE 5B (FY 2023)



STAGE 5D (FY 2023)



STAGE 6B & 6C (FY 2024)

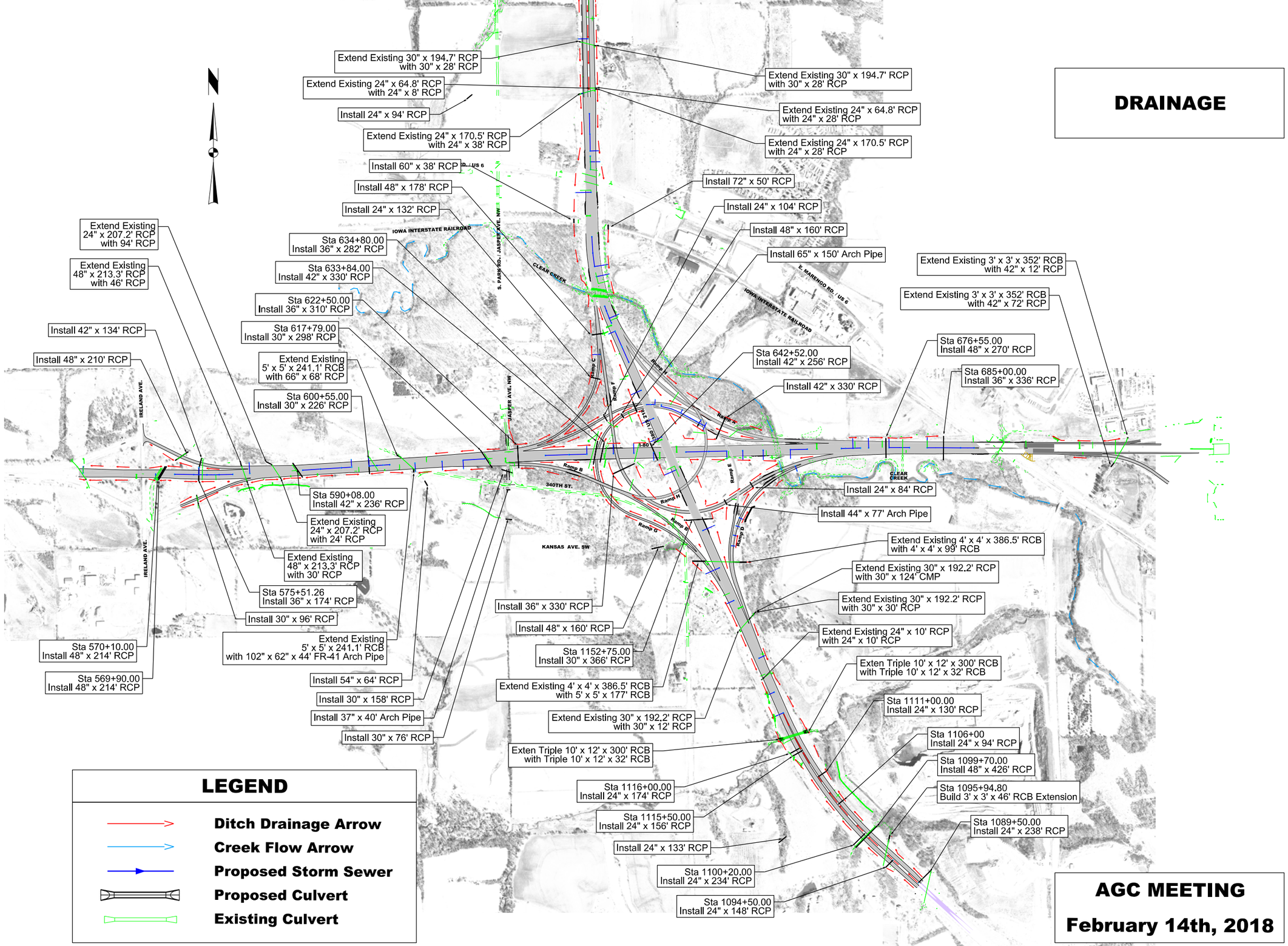
20 Scale

I-380 / US218

STA 1184+00

Preliminary (Subject To Change)

DRAINAGE



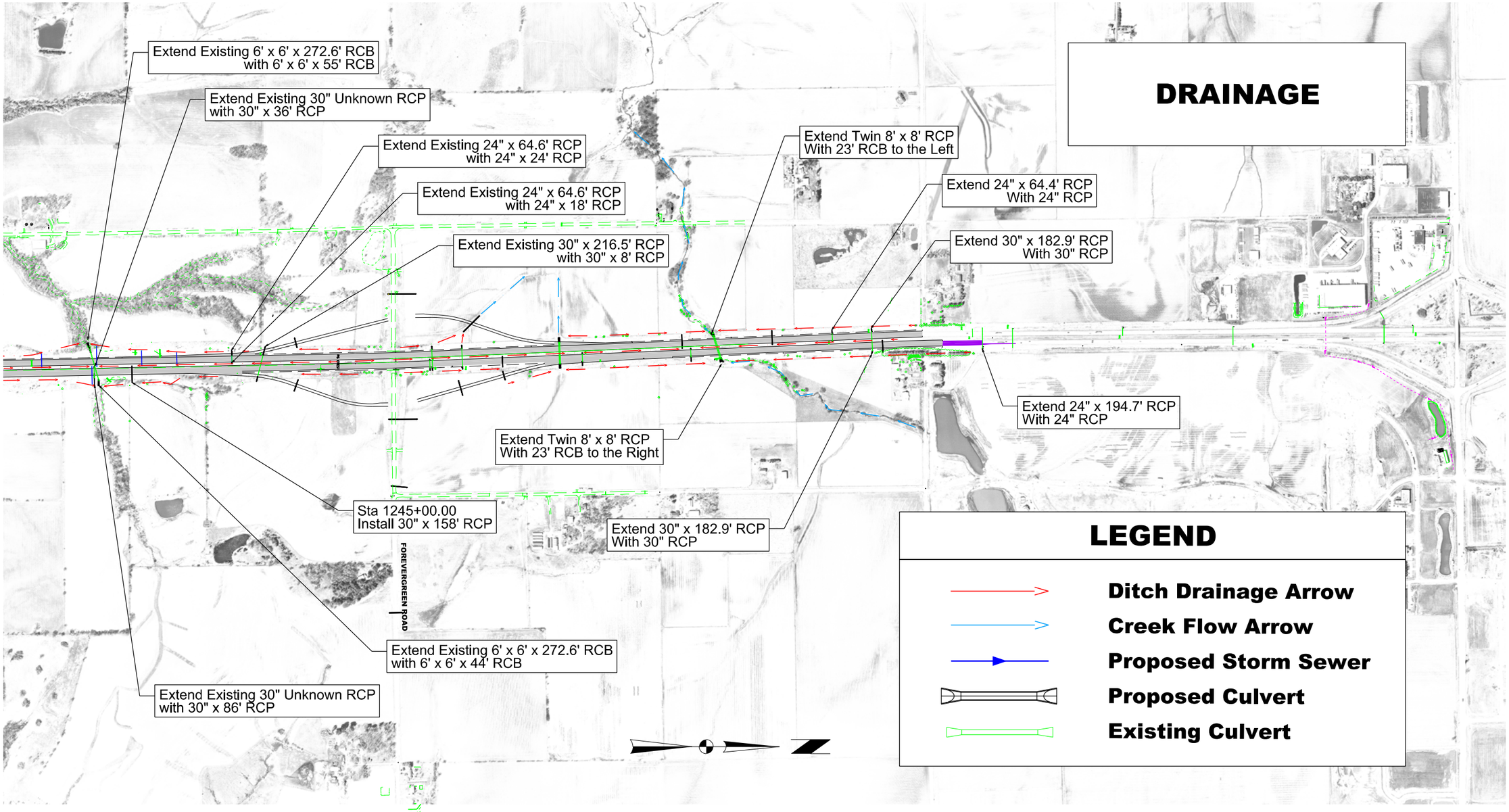
LEGEND

- Ditch Drainage Arrow
- Creek Flow Arrow
- Proposed Storm Sewer
- Proposed Culvert
- Existing Culvert

AGC MEETING

February 14th, 2018

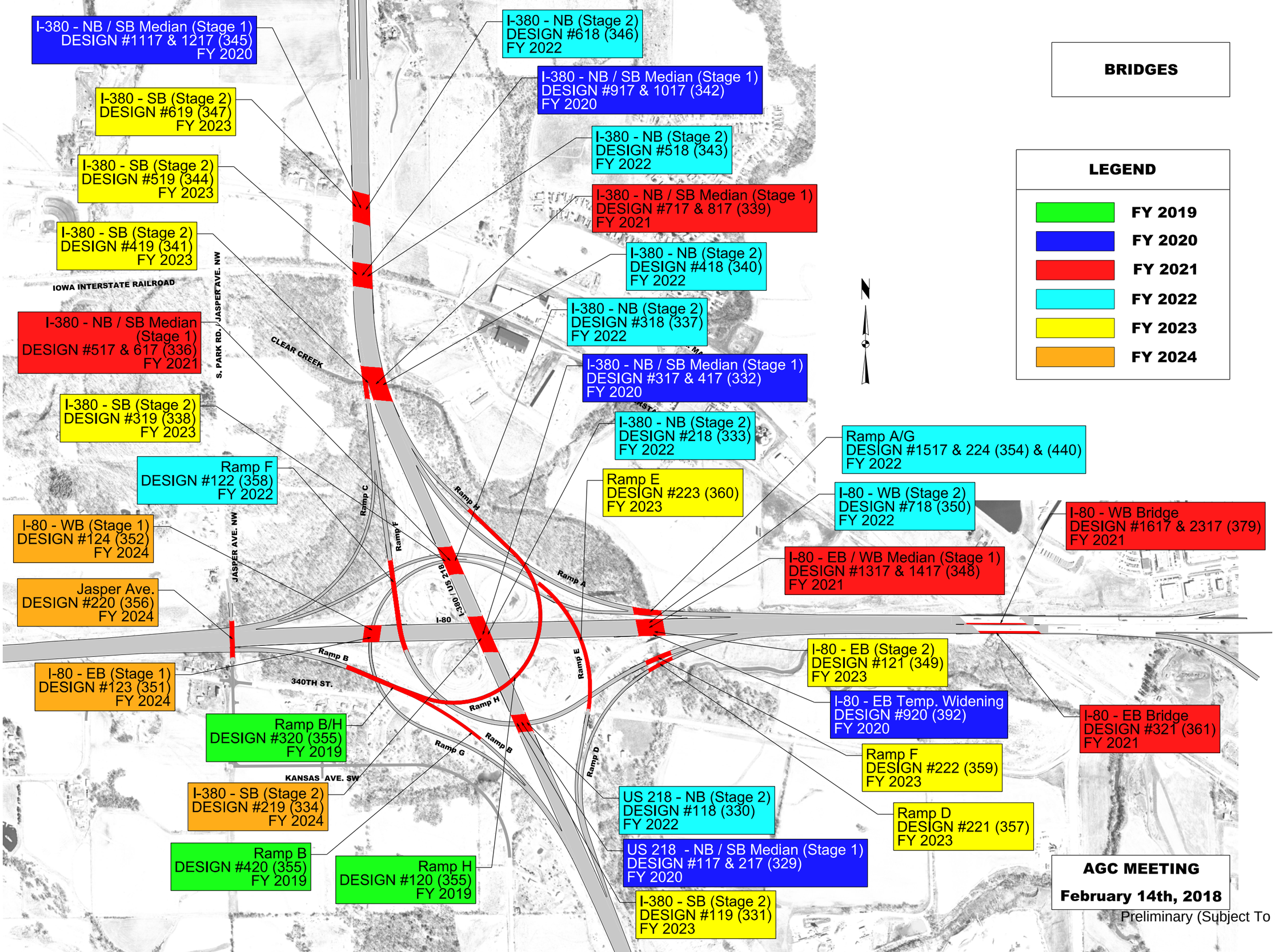
Preliminary (Subject To Change)



AGC MEETING

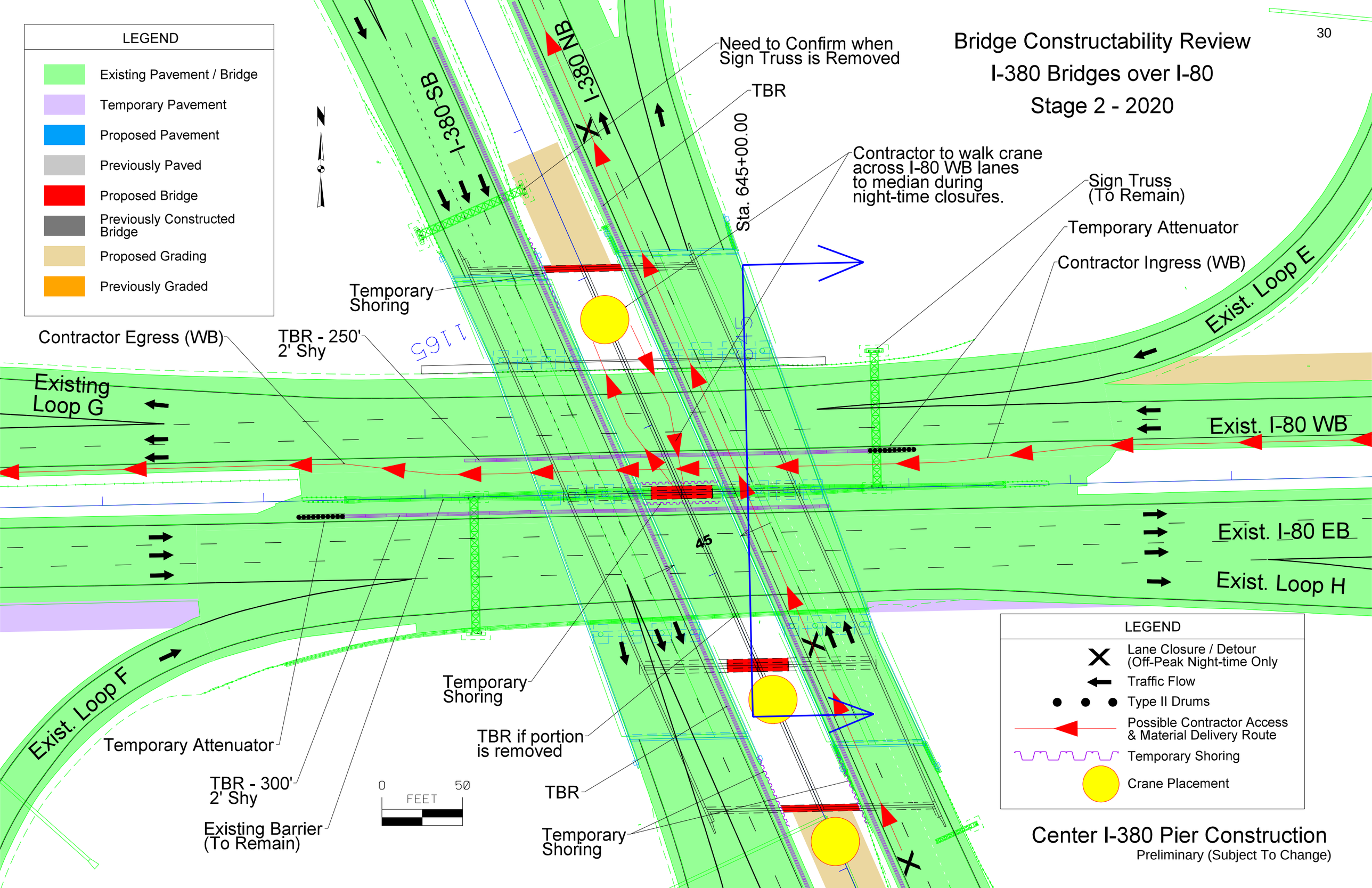
February 14th, 2018

Preliminary (Subject To Change)



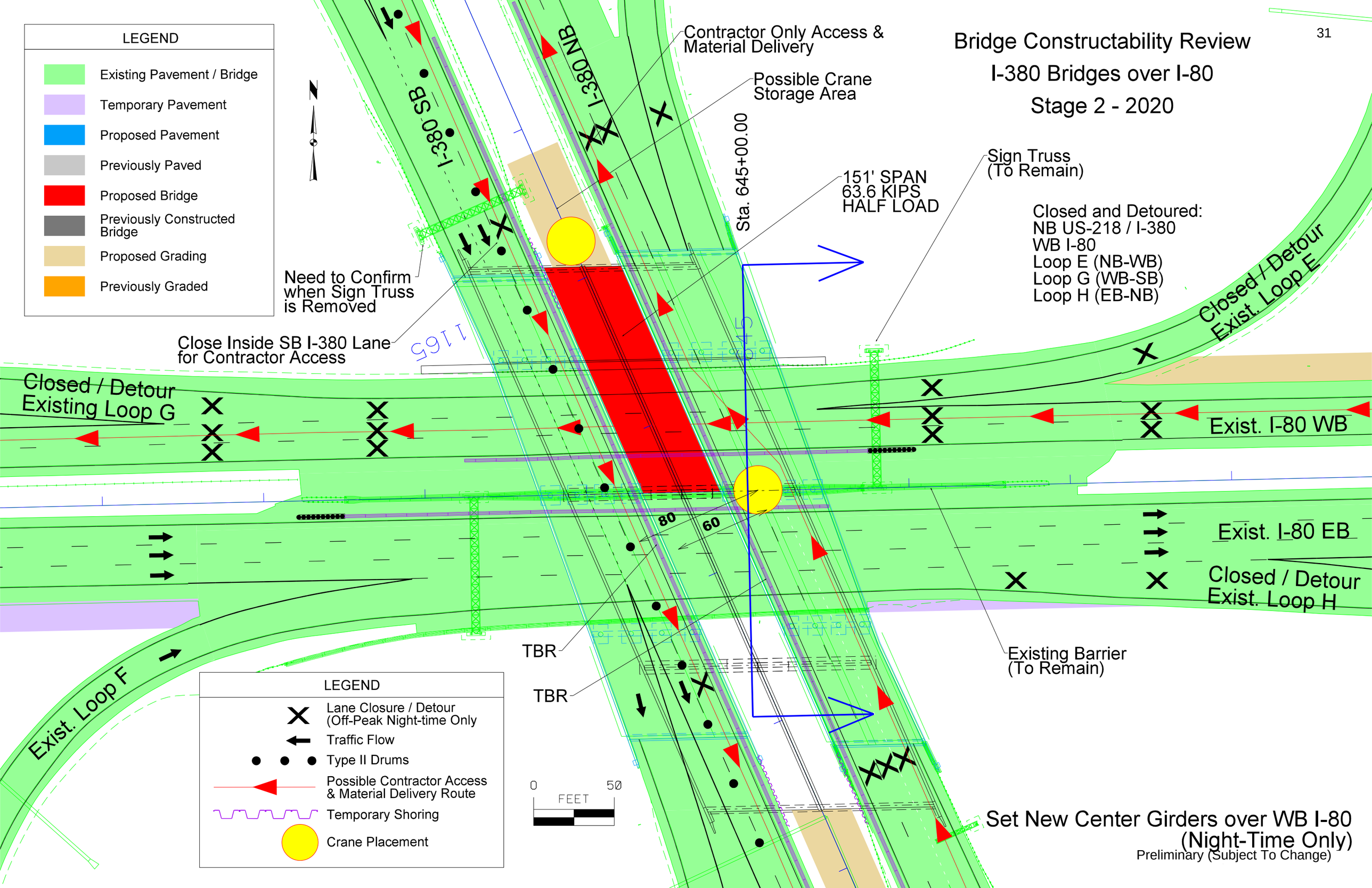
Preliminary (Subject To Change)

Bridge Constructability Review
I-380 Bridges over I-80
Stage 2 - 2020

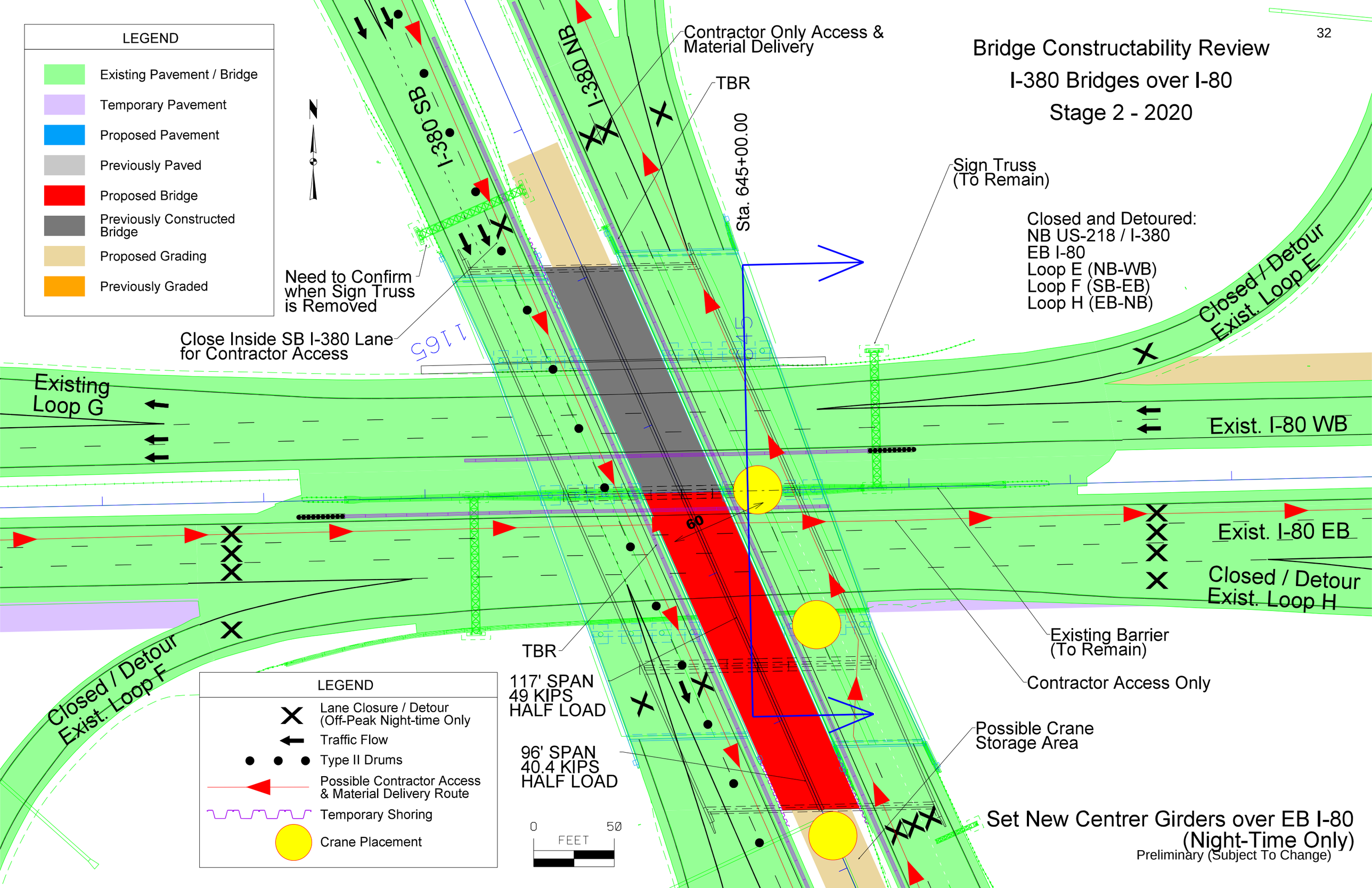


Center I-380 Pier Construction
Preliminary (Subject To Change)

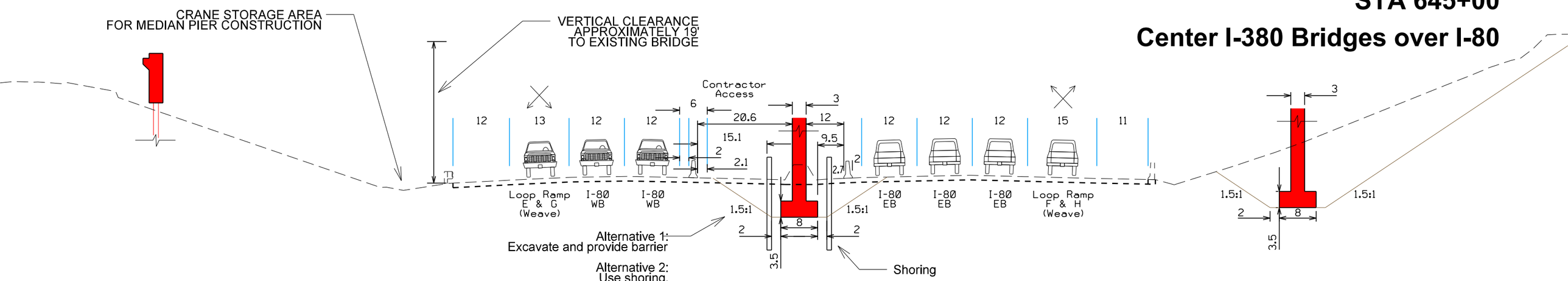
Bridge Constructability Review
I-380 Bridges over I-80
Stage 2 - 2020



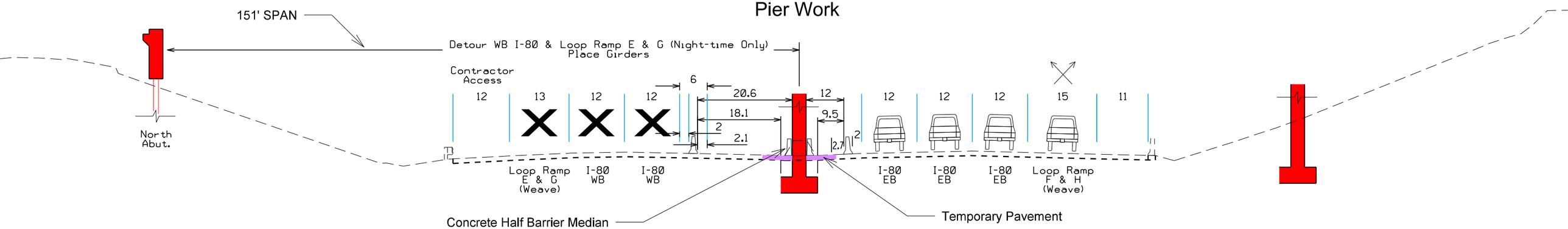
Bridge Constructability Review
I-380 Bridges over I-80
Stage 2 - 2020



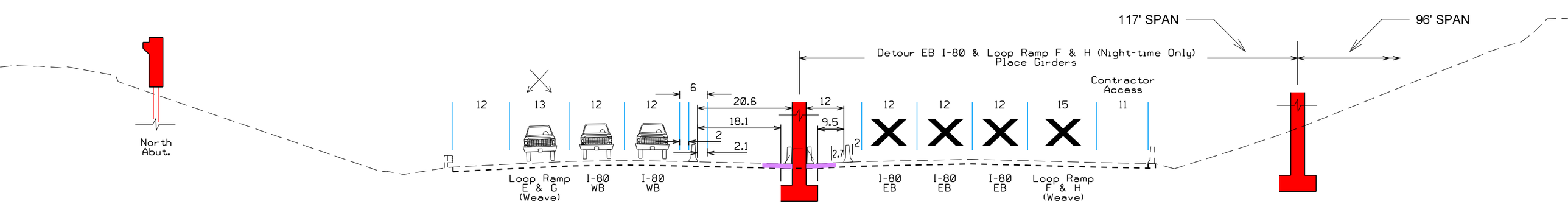
STA 645+00
Center I-380 Bridges over I-80



Stage 2 - FY 2020
Pier Work



Stage 2 - FY 2020
Girder Placement over WB I-80



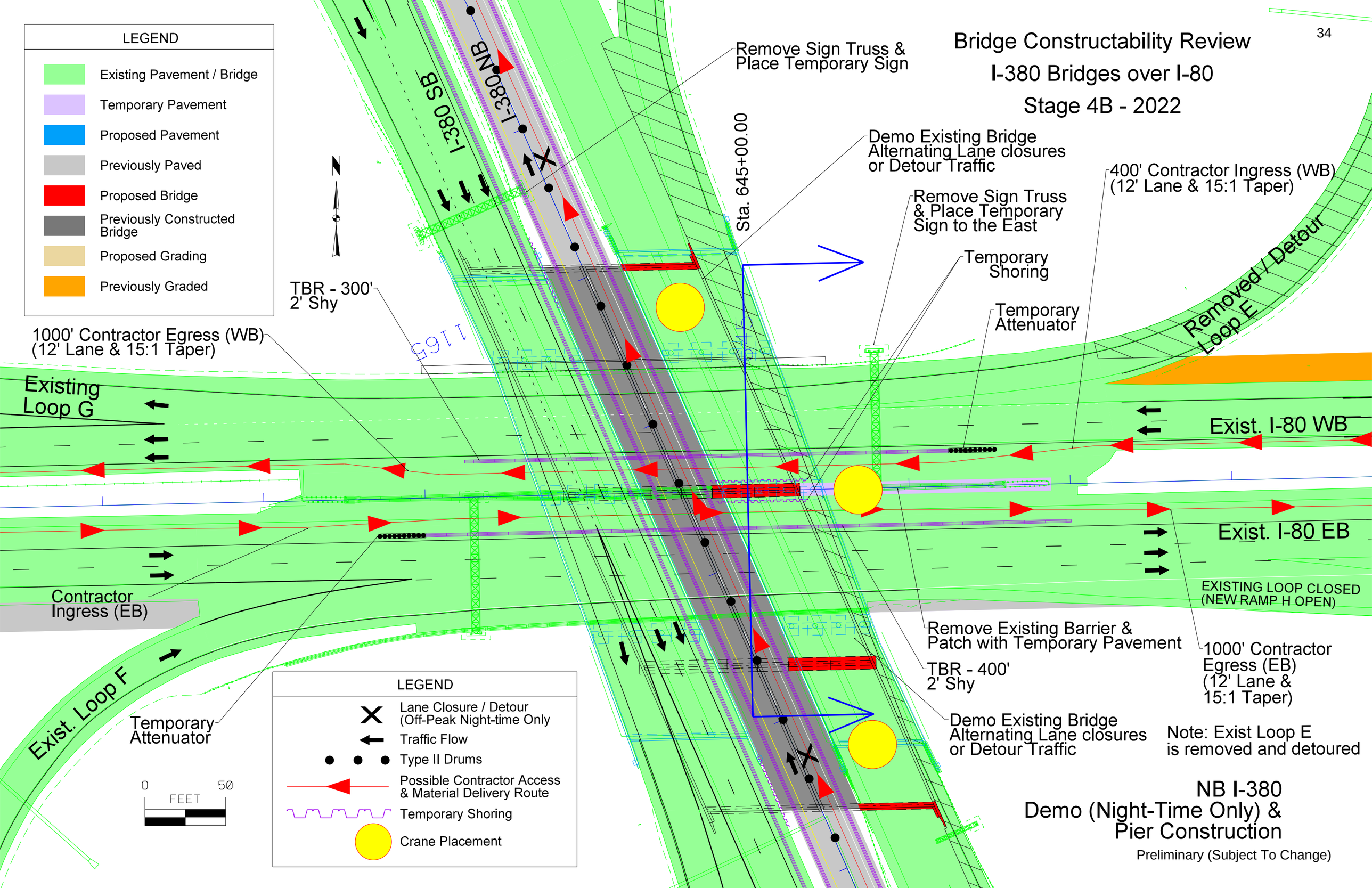
Stage 2 - FY 2020
Girder Placement over EB I-80

20 Scale

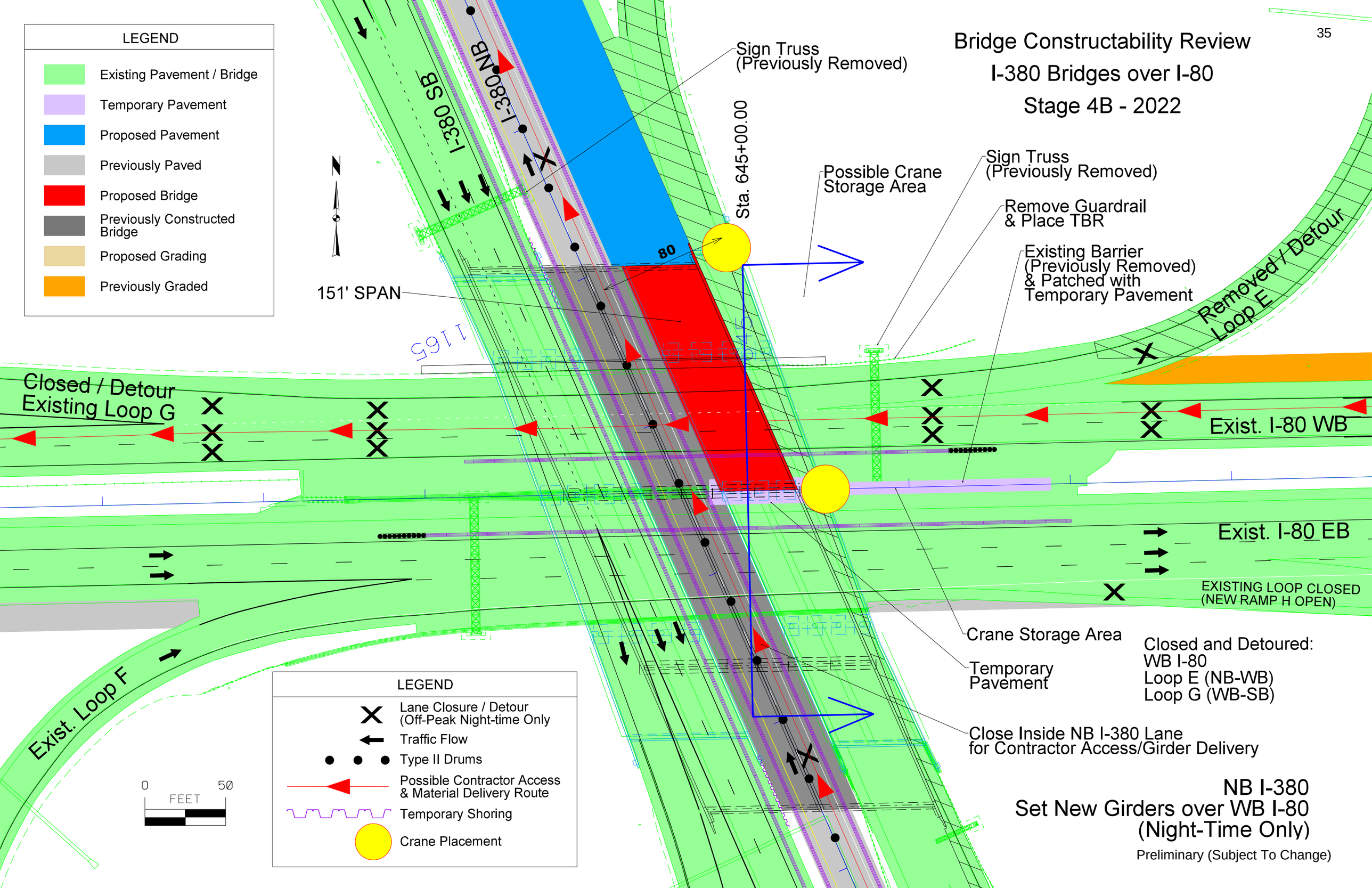
Constructability Review
I-380 over I-80 Bridges

Preliminary (Subject To Change)

Bridge Constructability Review
I-380 Bridges over I-80
Stage 4B - 2022



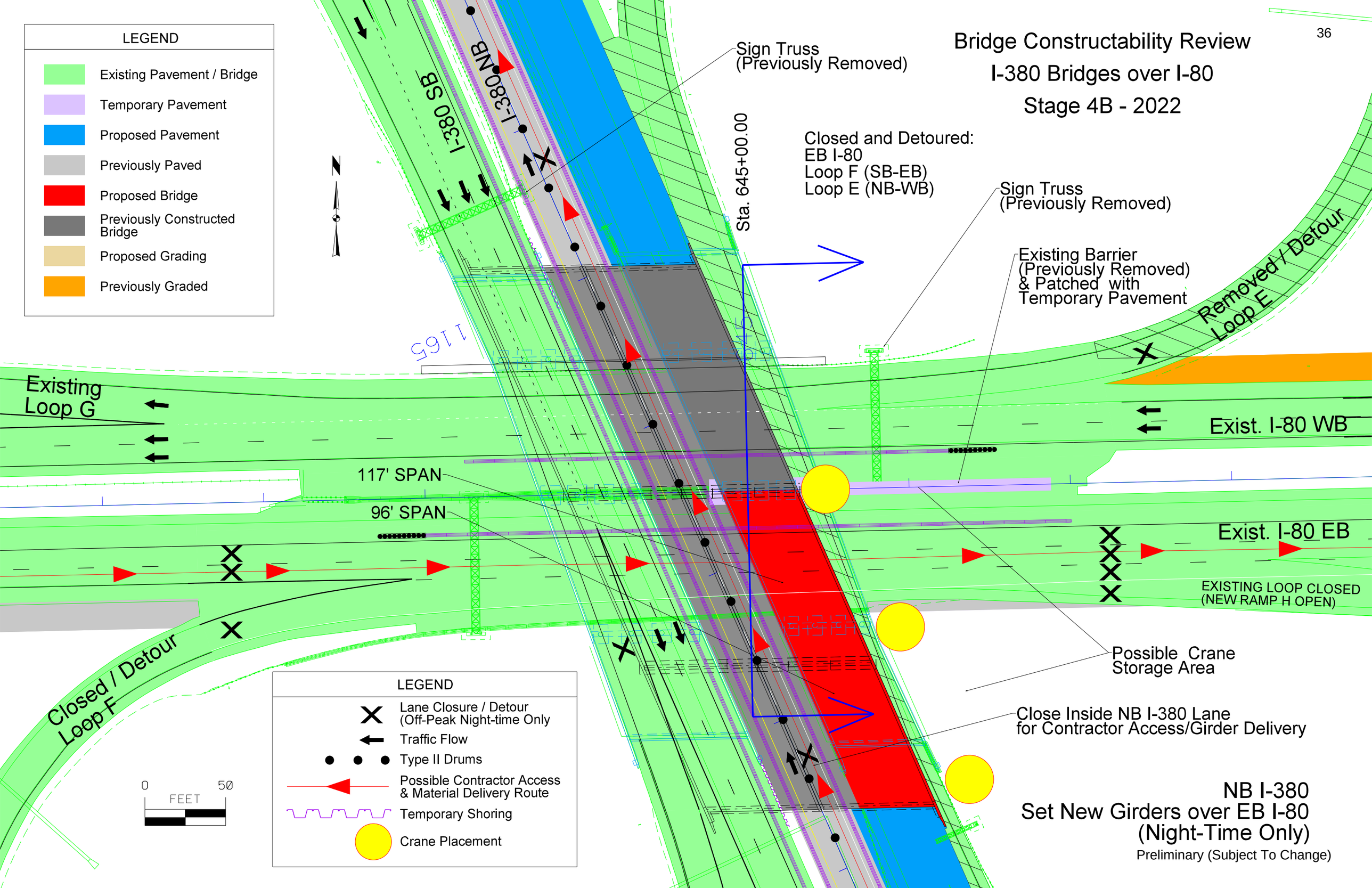
Bridge Constructability Review
I-380 Bridges over I-80
Stage 4B - 2022



NB I-380
Set New Girders over WB I-80
(Night-Time Only)

Preliminary (Subject To Change)

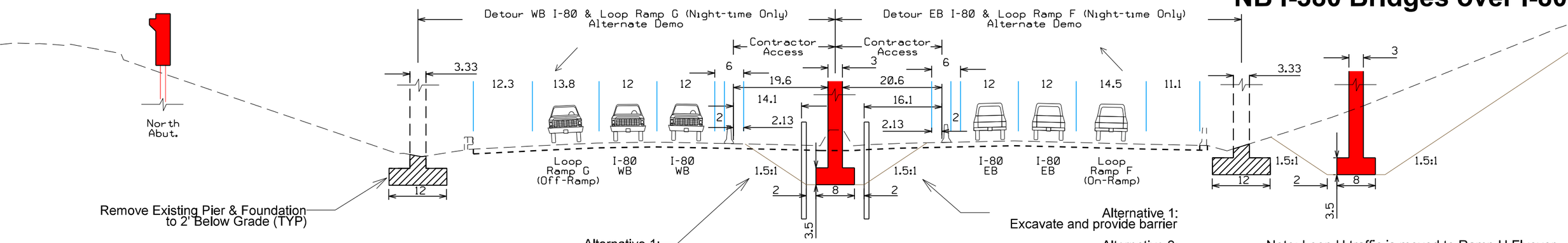
Bridge Constructability Review
I-380 Bridges over I-80
Stage 4B - 2022



NB I-380
Set New Girders over EB I-80
(Night-Time Only)

Preliminary (Subject To Change)

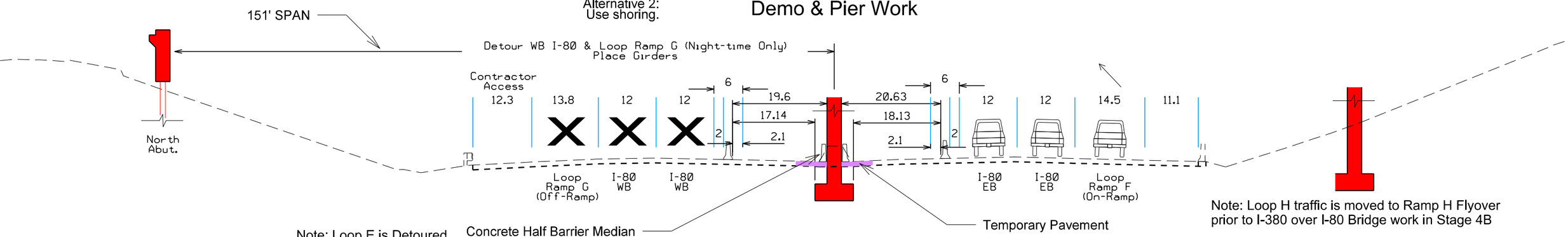
STA 645+00
NB I-380 Bridges over I-80



Note: Loop E is Detoured

Note: Loop H traffic is moved to Ramp H Flyover prior to I-380 over I-80 Bridge work in Stage 4B

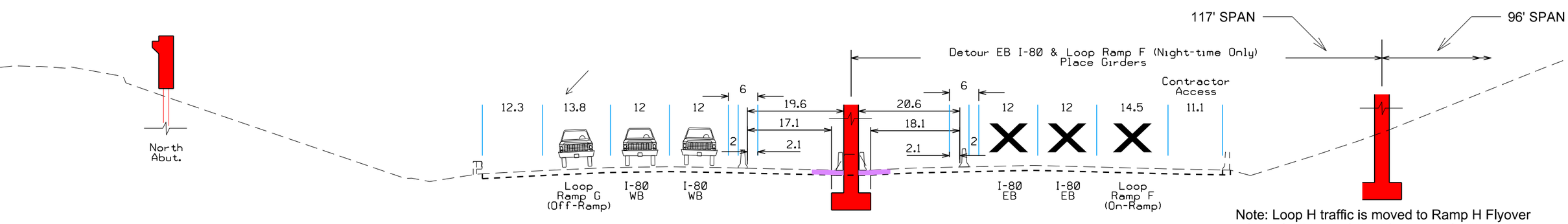
Stage 4B - FY 2022
Demo & Pier Work



Note: Loop E is Detoured

Note: Loop H traffic is moved to Ramp H Flyover prior to I-380 over I-80 Bridge work in Stage 4B

Stage 4B - FY 2022
Girder Placement over WB I-80



Note: Loop E is Detoured

Note: Loop H traffic is moved to Ramp H Flyover prior to I-380 over I-80 Bridge work in Stage 4B

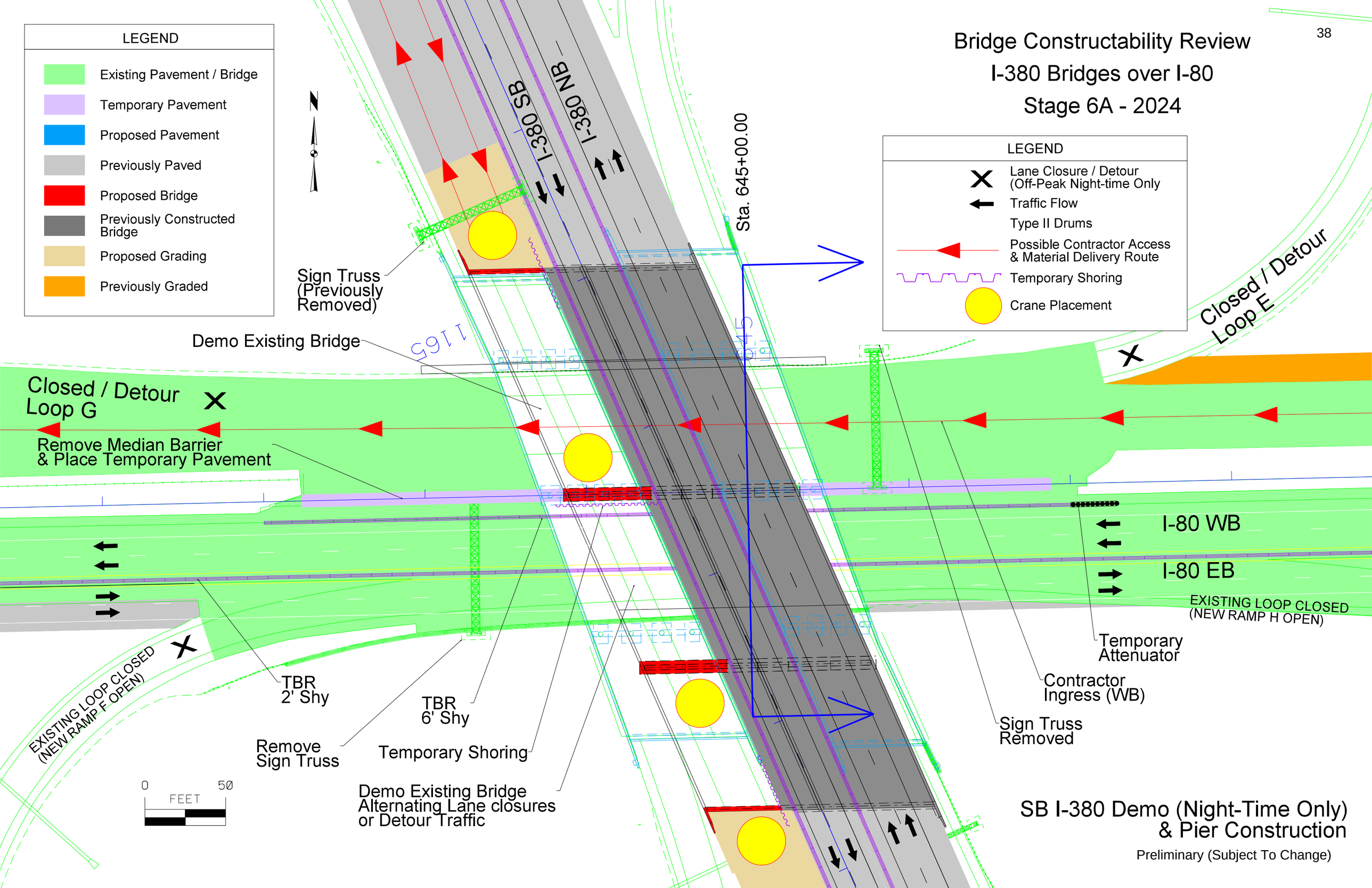
Stage 4B - FY 2022
Girder Placement over EB I-80

20 Scale

Constructability Review
I-380 over I-80 Bridges

Preliminary (Subject To Change)

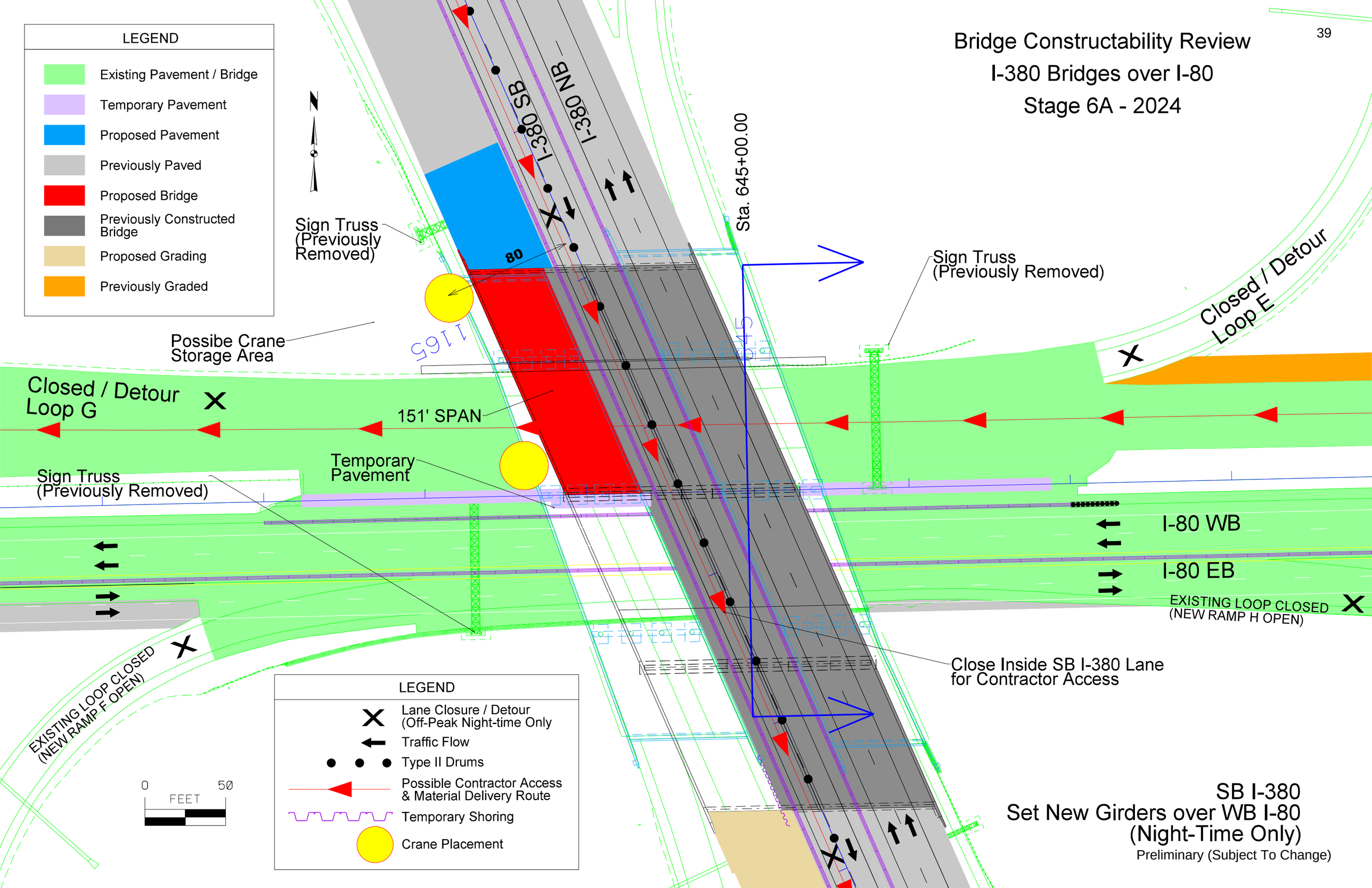
Bridge Constructability Review
I-380 Bridges over I-80
Stage 6A - 2024



SB I-380 Demo (Night-Time Only) & Pier Construction

Preliminary (Subject To Change)

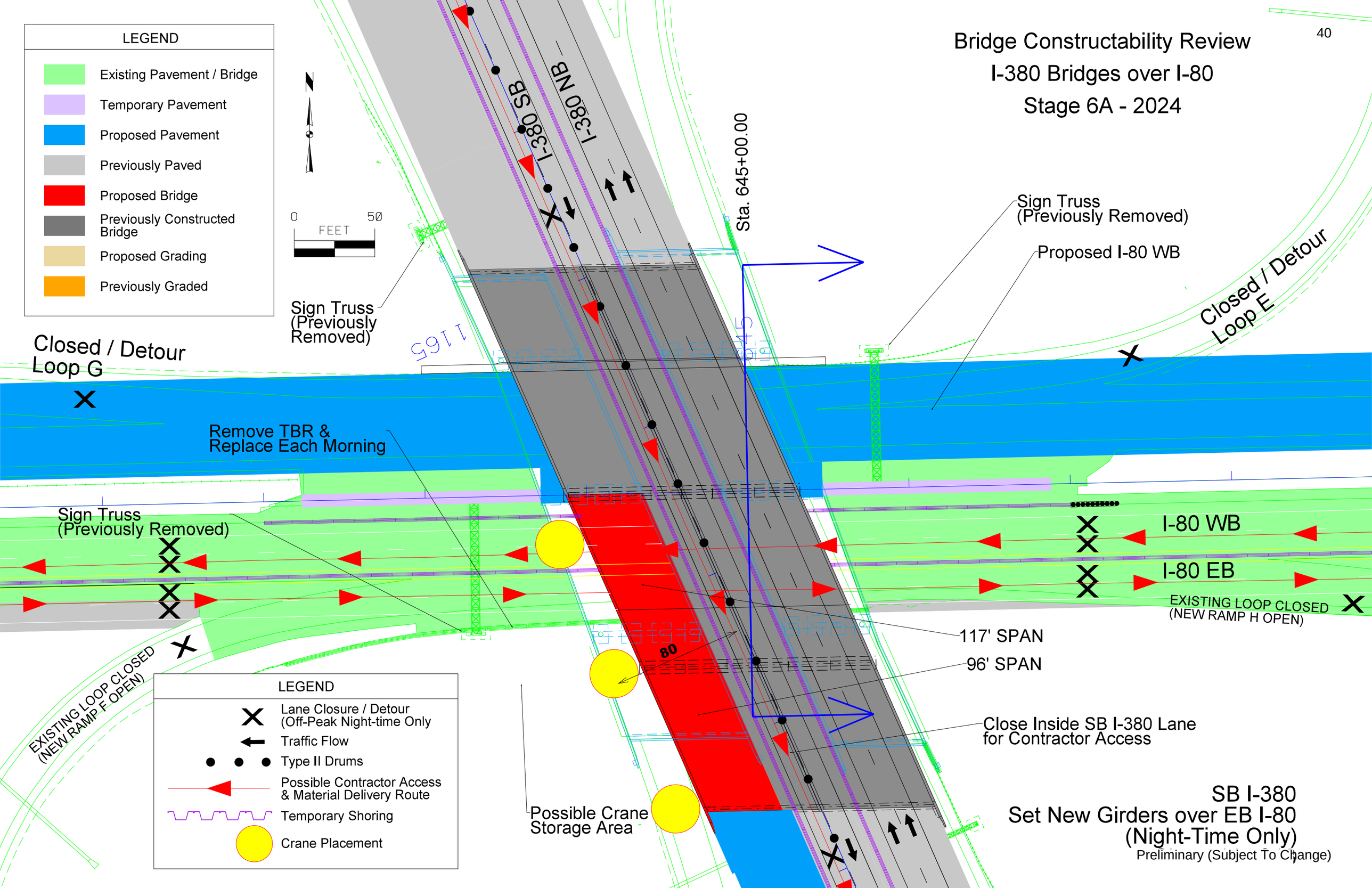
Bridge Constructability Review
I-380 Bridges over I-80
Stage 6A - 2024



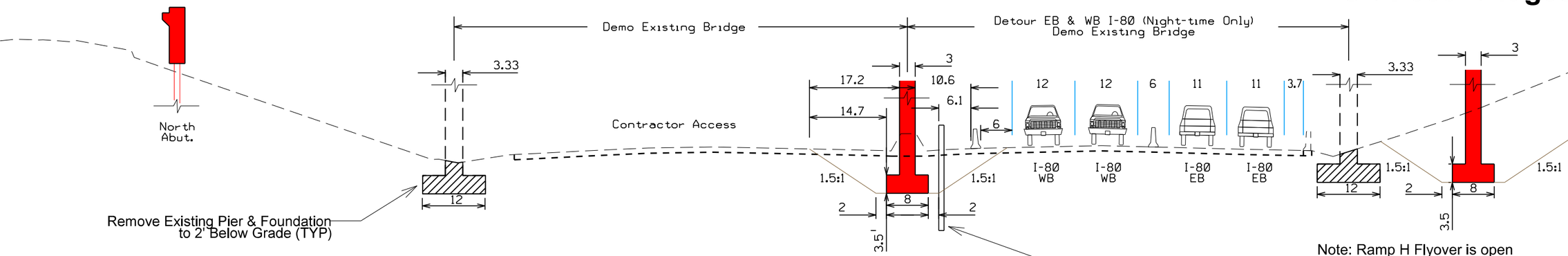
SB I-380
Set New Girders over WB I-80
(Night-Time Only)

Preliminary (Subject To Change)

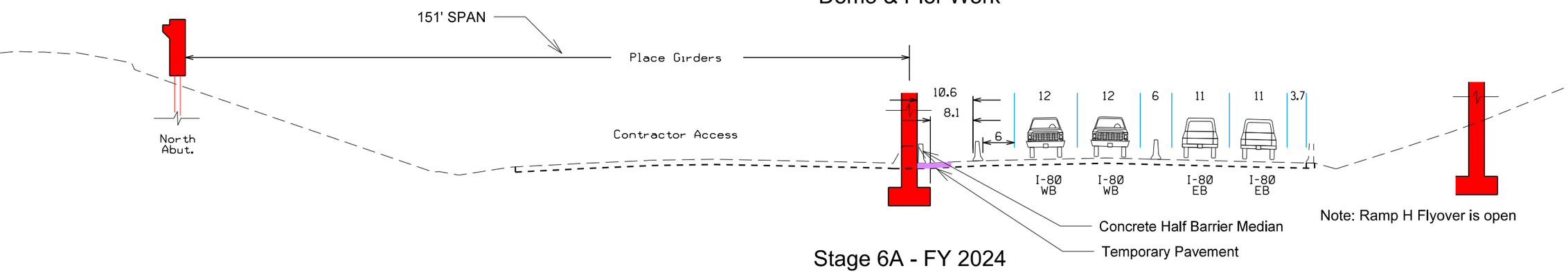
Bridge Constructability Review
I-380 Bridges over I-80
Stage 6A - 2024



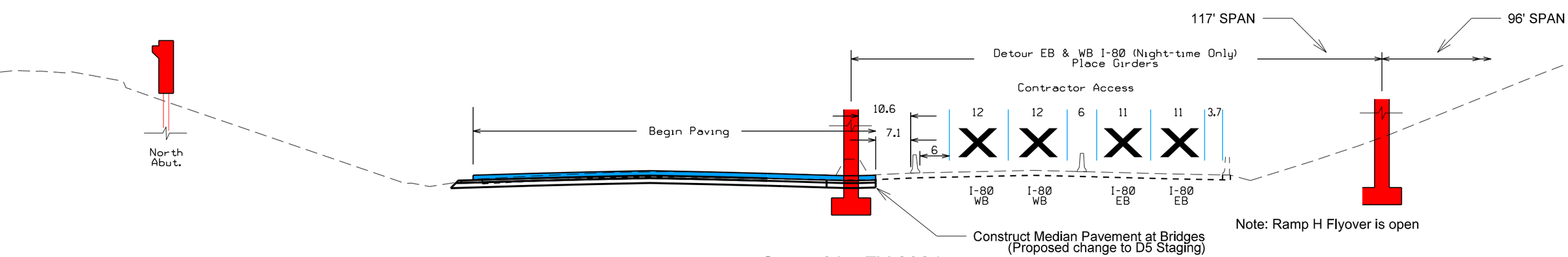
STA 645+00
SB I-380 Bridges over I-80



Stage 6A - FY 2024
Demo & Pier Work



Stage 6A - FY 2024
Girder Placement over WB I-80

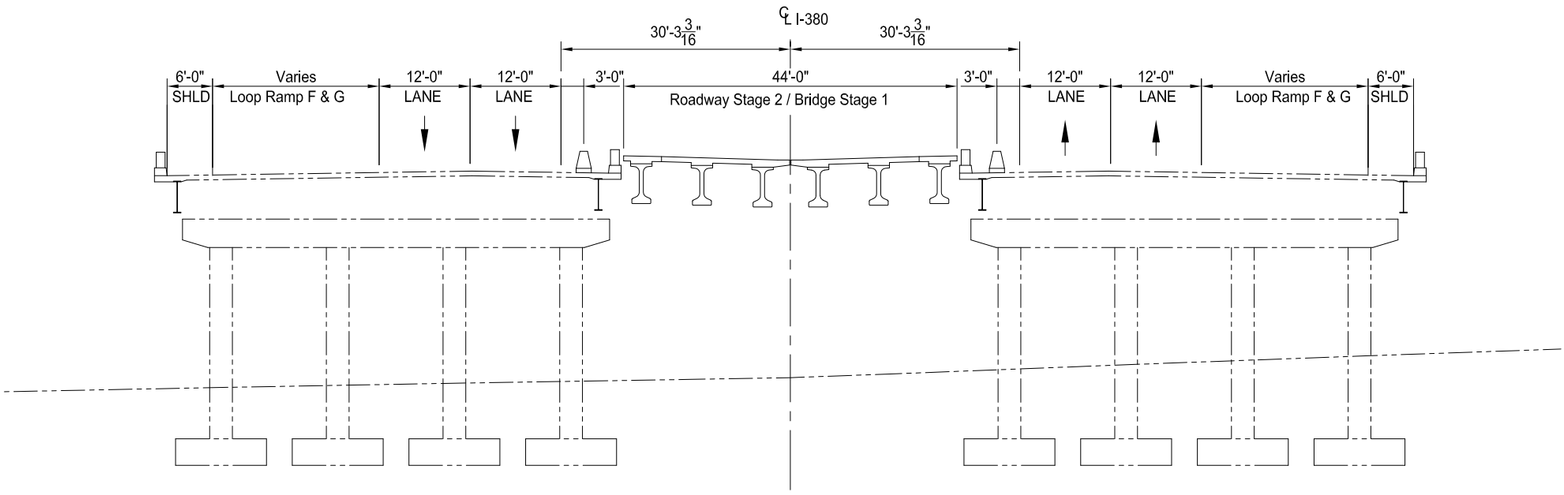


Stage 6A - FY 2024
Girder Placement over EB I-80

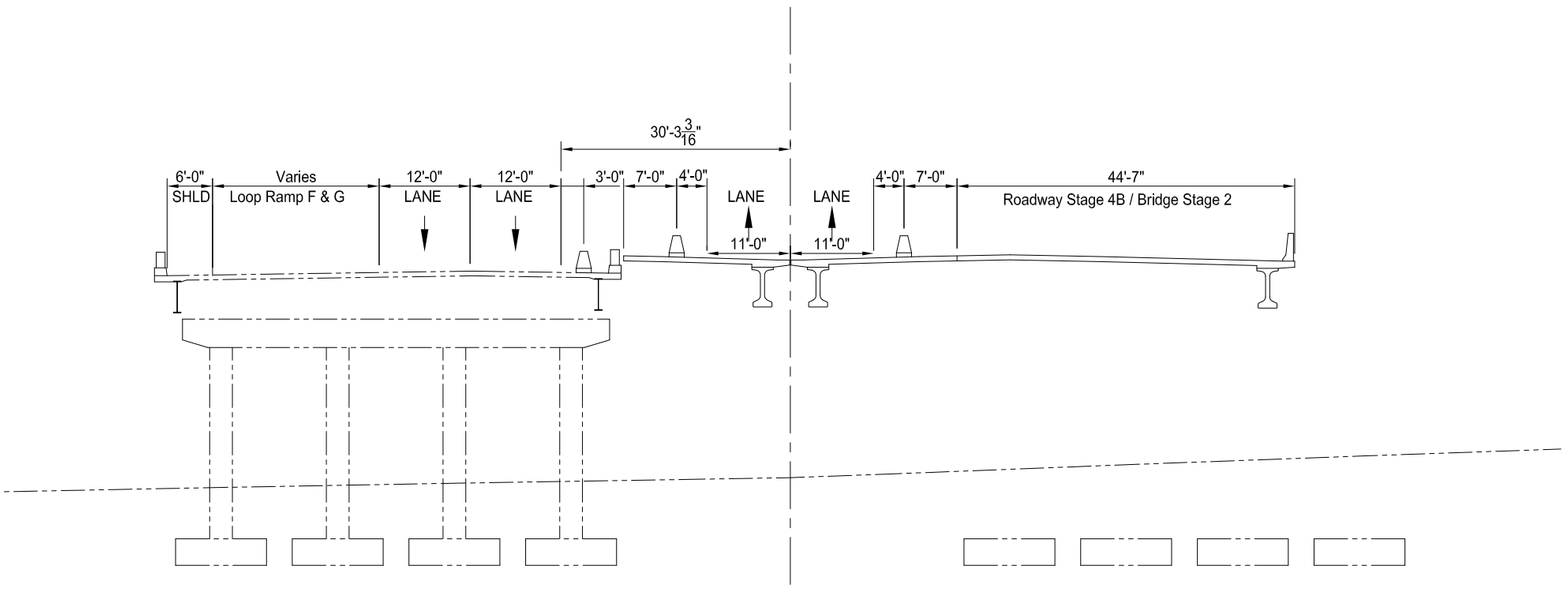
20 Scale

Constructability Review
I-380 over I-80 Bridges

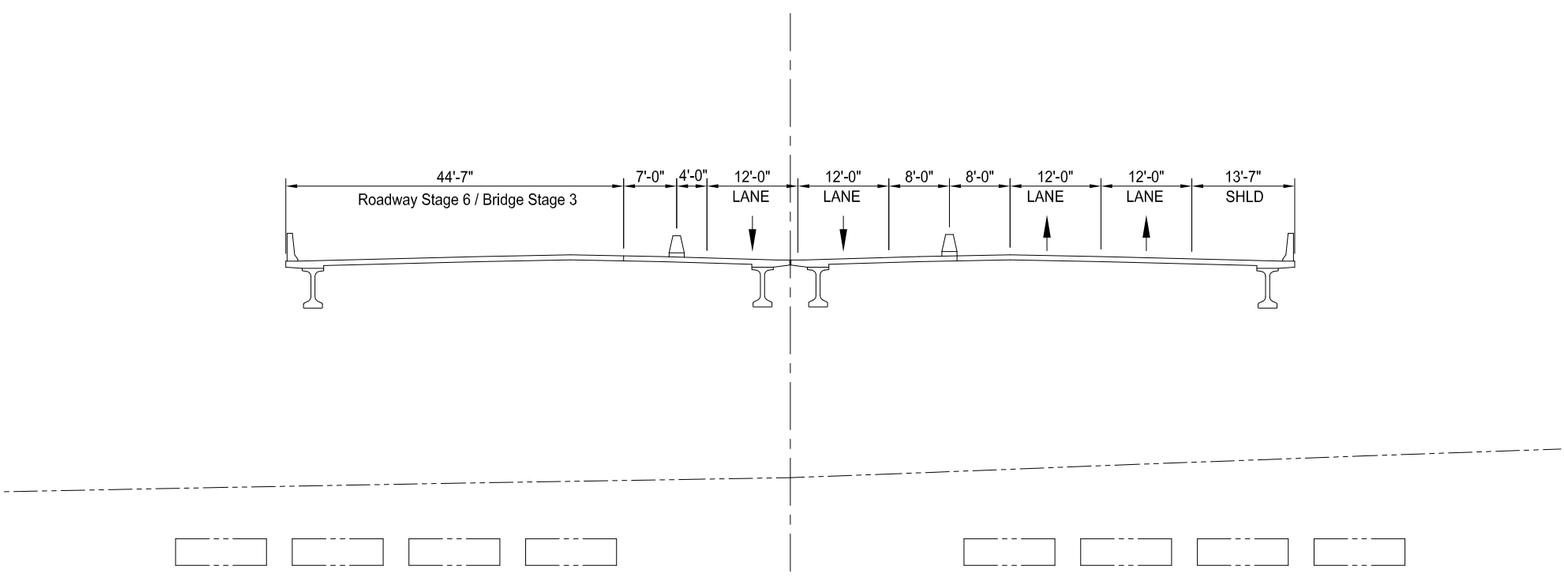
Preliminary (Subject To Change)



ROADWAY STAGE 2 (2020)



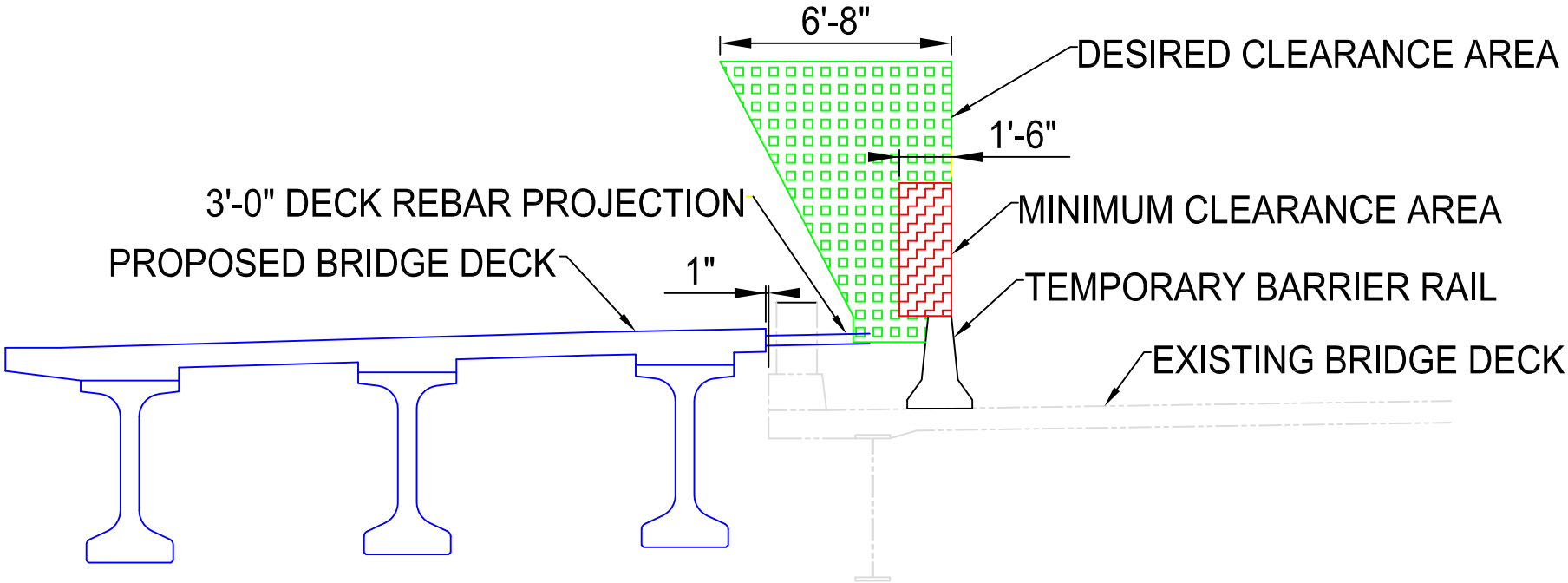
ROADWAY STAGE 4B (2022)



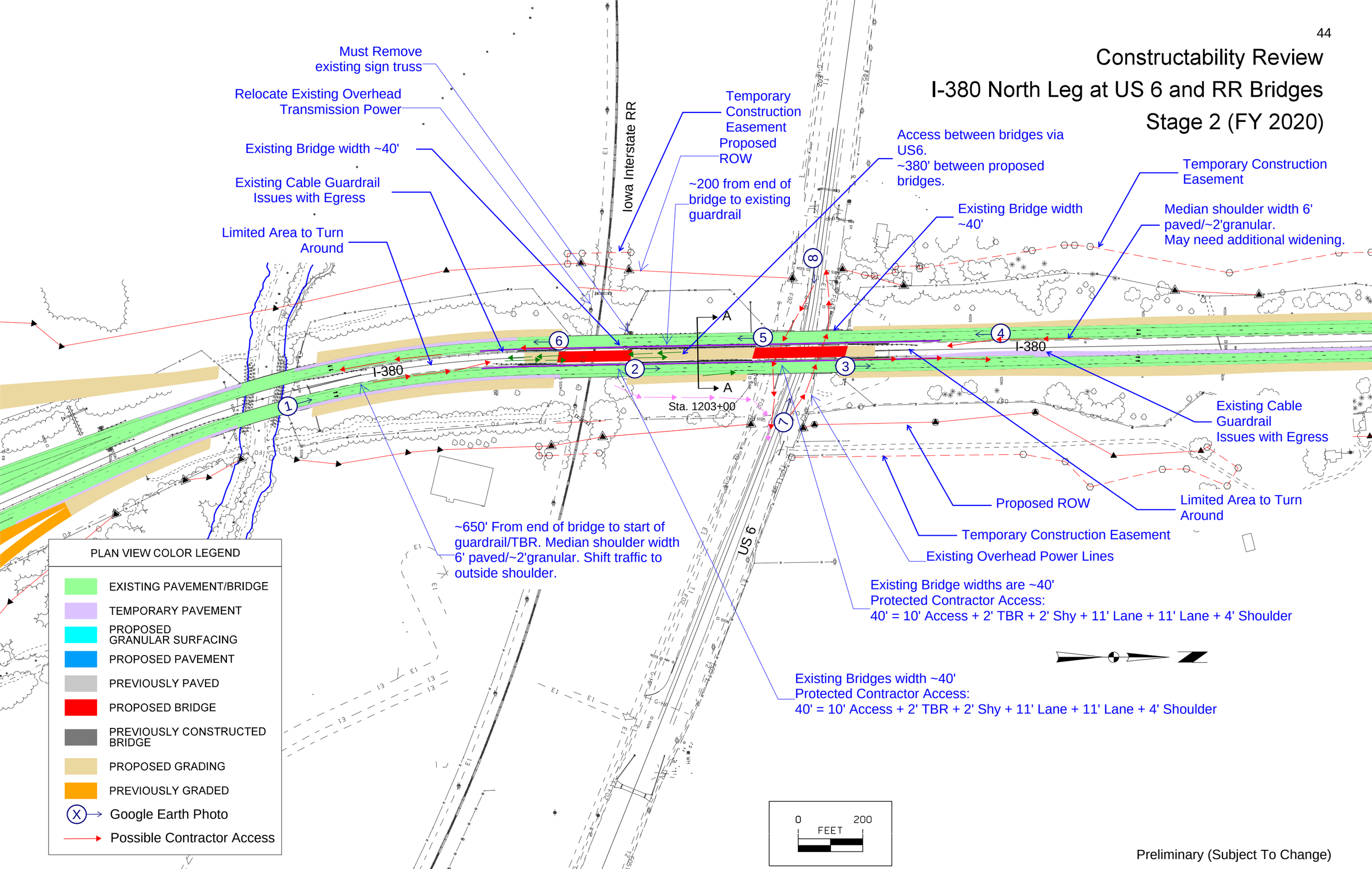
ROADWAY STAGE 6 (2024)

I-380 Bridge Cross Section
STA 1163+54.25

Preliminary (Subject To Change)

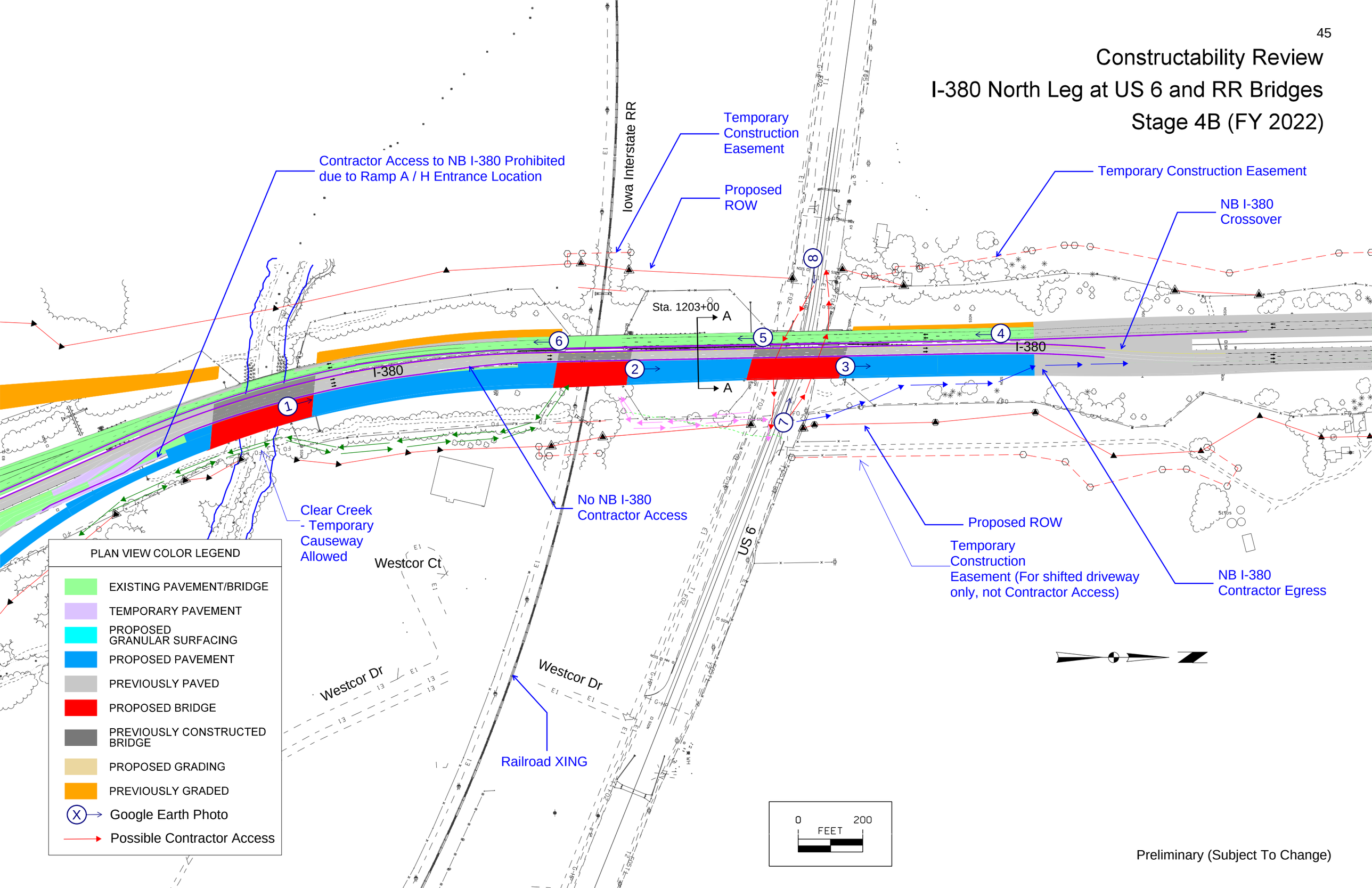

6'-8"
DESIRED CLEARANCE AREA
1'-6"
3'-0" DECK REBAR PROJECTION
MINIMUM CLEARANCE AREA
PROPOSED BRIDGE DECK
1"
TEMPORARY BARRIER RAIL
EXISTING BRIDGE DECK

Constructability Review
I-380 North Leg at US 6 and RR Bridges
Stage 2 (FY 2020)



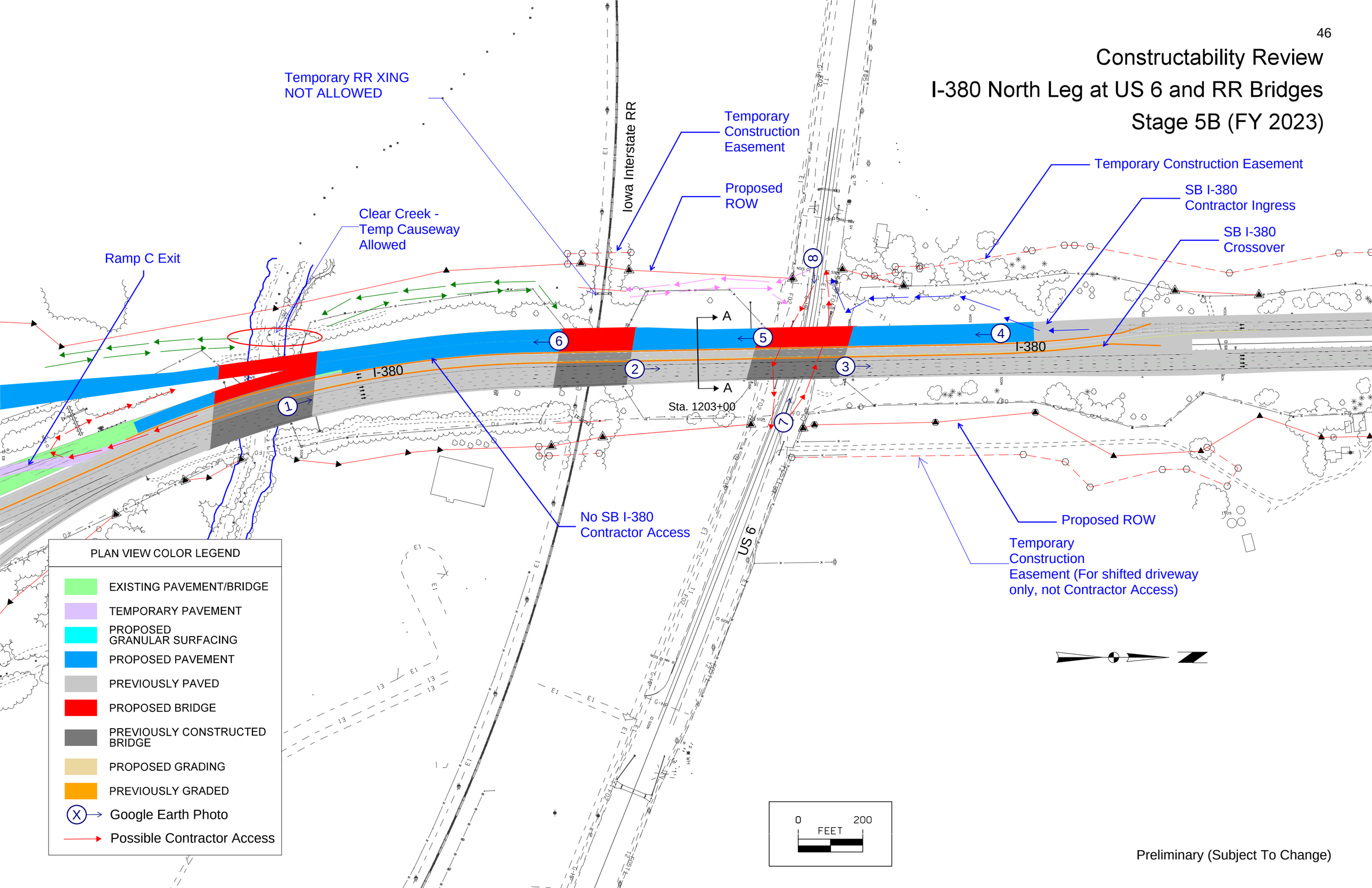
Preliminary (Subject To Change)

Constructability Review
I-380 North Leg at US 6 and RR Bridges
Stage 4B (FY 2022)



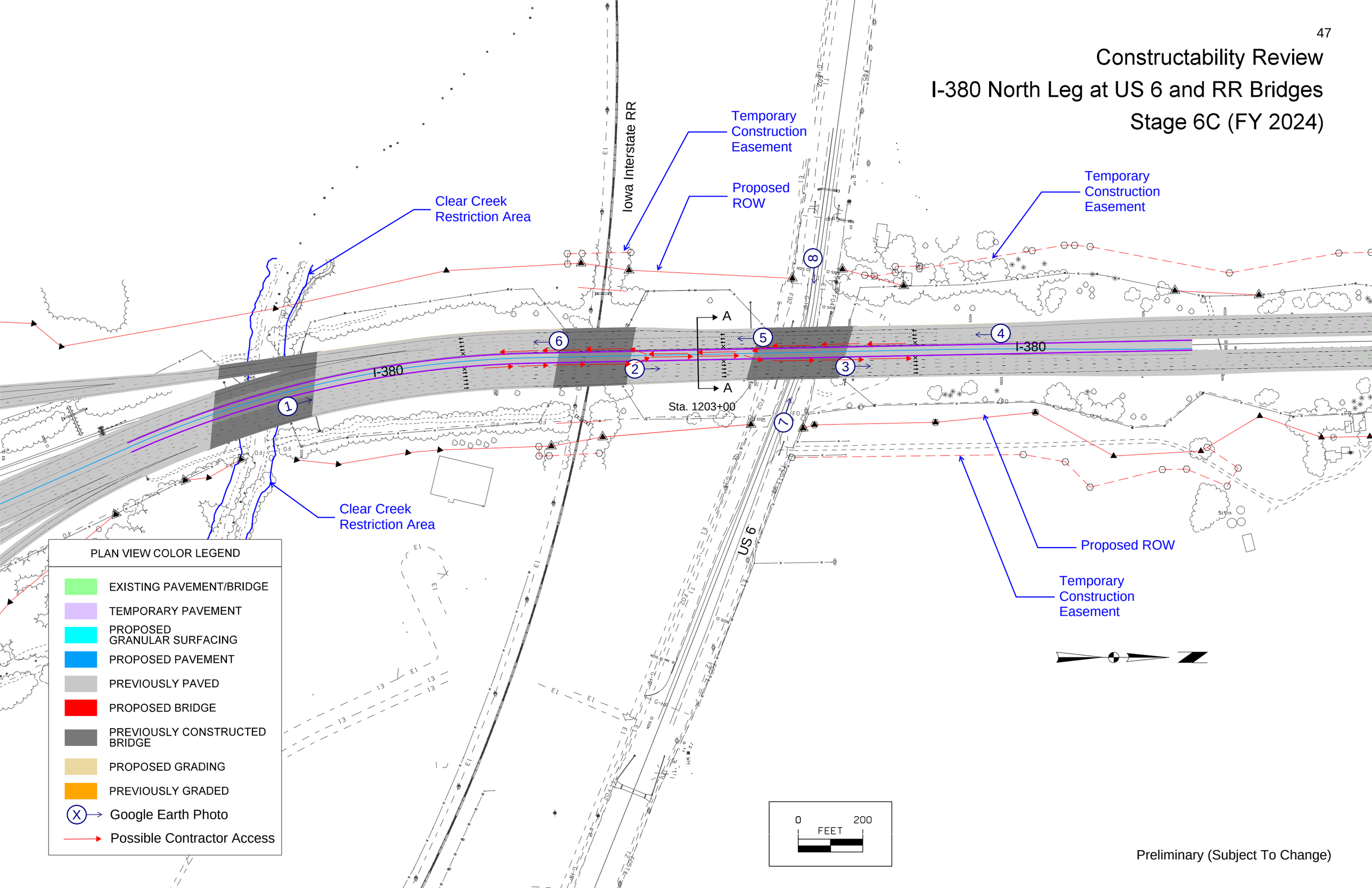
Preliminary (Subject To Change)

Constructability Review
I-380 North Leg at US 6 and RR Bridges
Stage 5B (FY 2023)

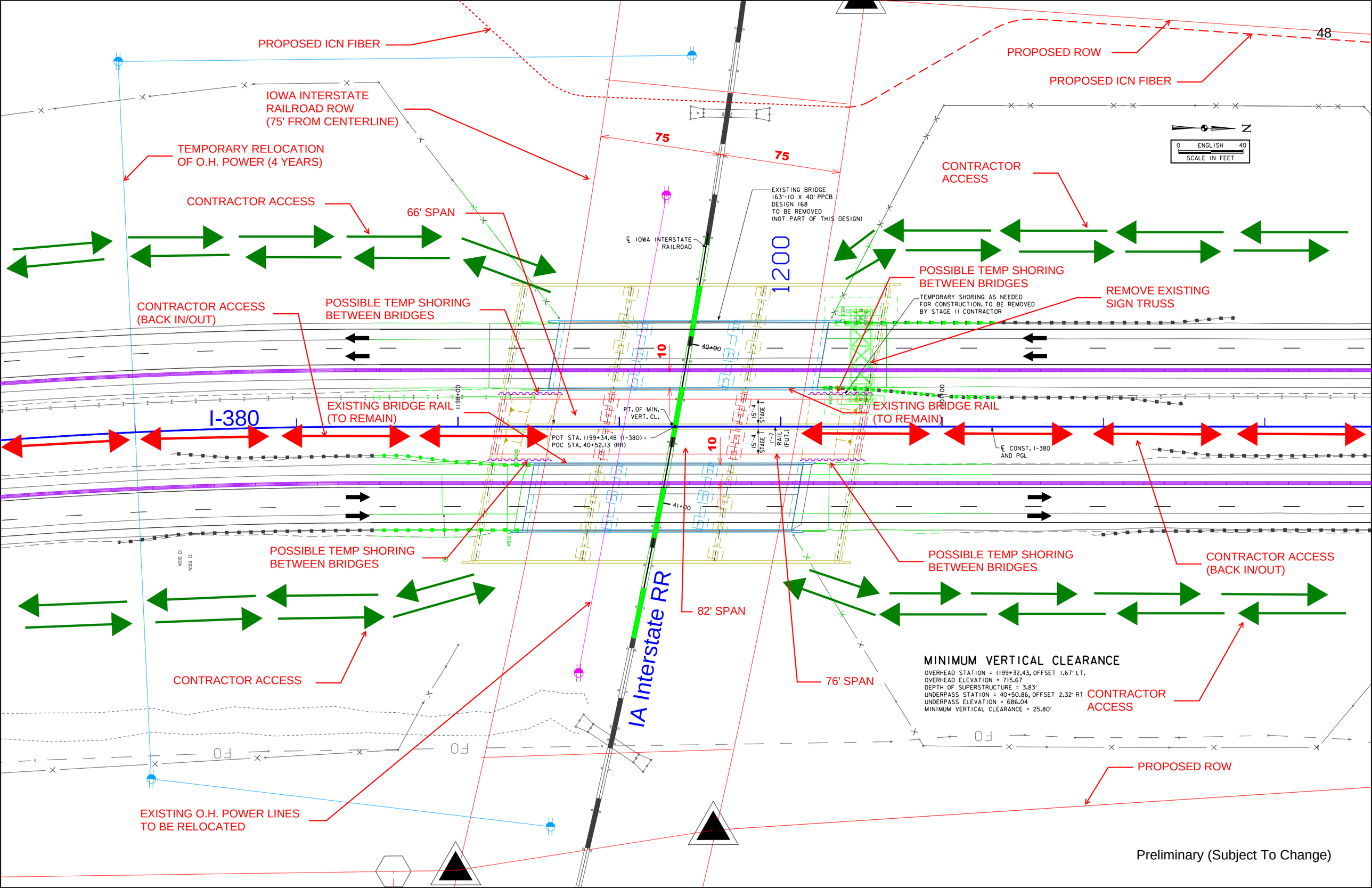


Preliminary (Subject To Change)

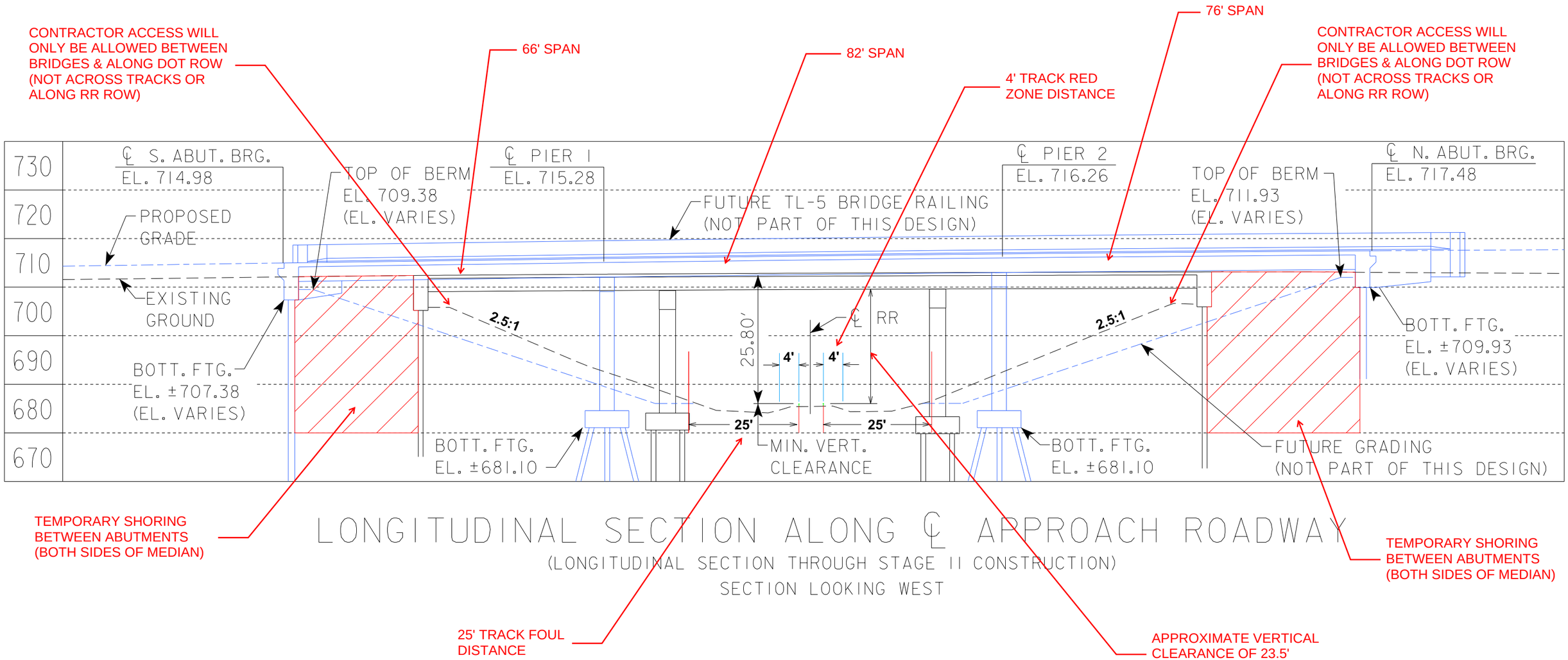
Constructability Review
I-380 North Leg at US 6 and RR Bridges
Stage 6C (FY 2024)



Preliminary (Subject To Change)



Preliminary (Subject To Change)



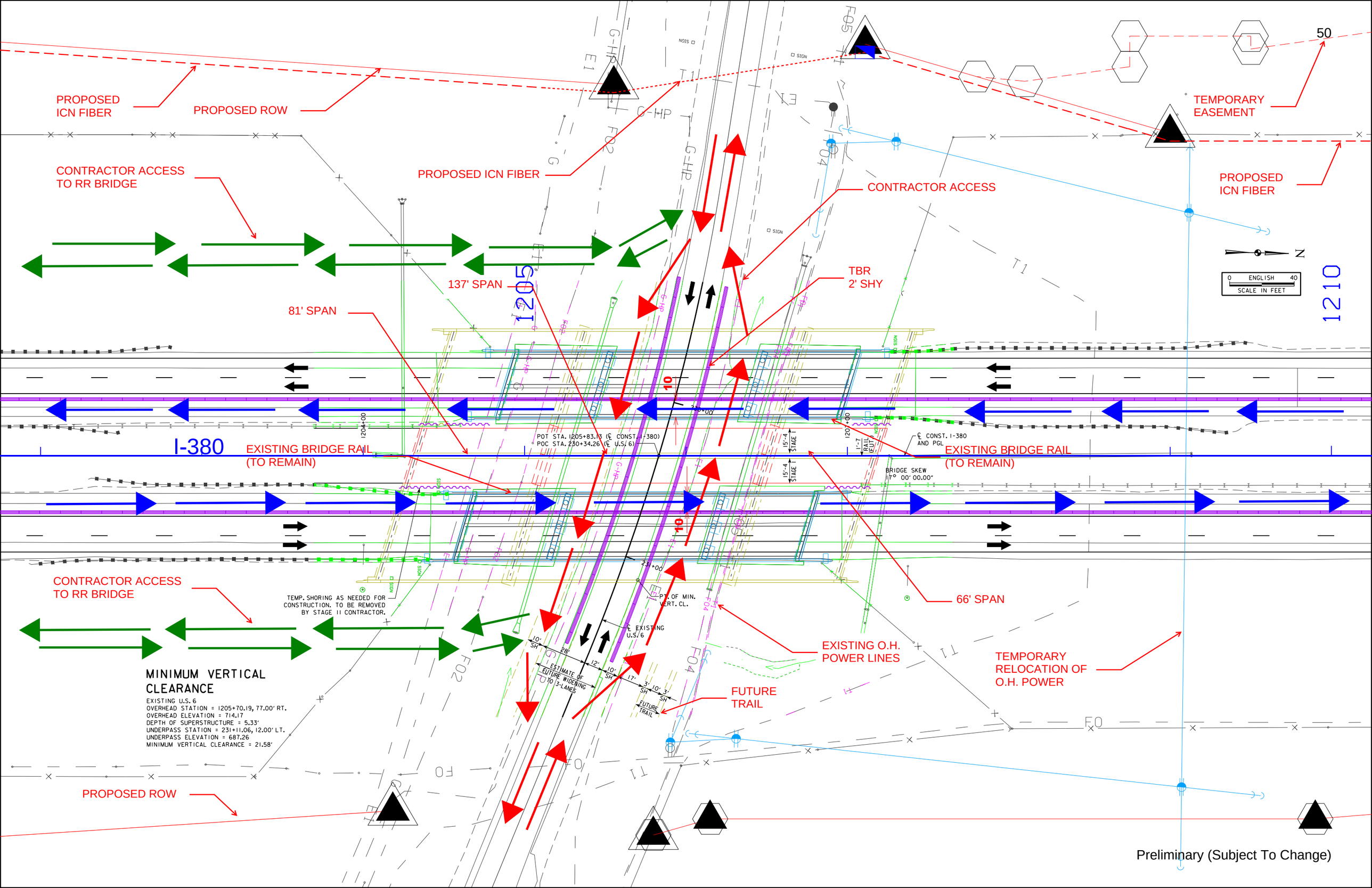
LONGITUDINAL SECTION ALONG ℄ APPROACH ROADWAY

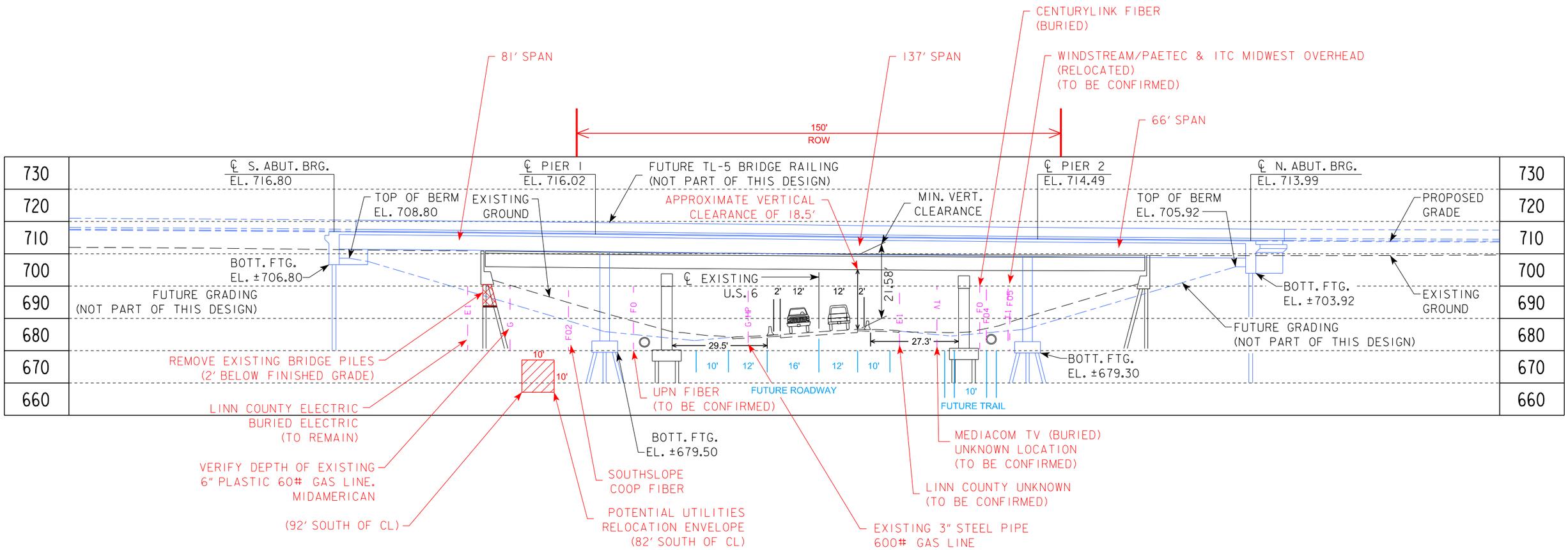
(LONGITUDINAL SECTION THROUGH STAGE II CONSTRUCTION)

SECTION LOOKING WEST

20 SCALE

Preliminary (Subject To Change)


PROPOSED ICN FIBER
PROPOSED ROW
PROPOSED ICN FIBER
CONTRACTOR ACCESS TO RR BRIDGE
CONTRACTOR ACCESS
TEMPORARY EASEMENT
50
PROPOSED ICN FIBER
137' SPAN
81' SPAN
TBR
2' SHY
1205
1210
N
0 ENGLISH 40
SCALE IN FEET
I-380
EXISTING BRIDGE RAIL (TO REMAIN)
EXISTING BRIDGE RAIL (TO REMAIN)
POT STA. 1205+83.3 (℄ CONST. I-380)
POC STA. 230+34.26 (℄ U.S. 6)
℄ CONST. I-380 AND PGL
BRIDGE SKEW 17° 00' 00.00"
15'-4 STAGE I
66' SPAN
CONTRACTOR ACCESS TO RR BRIDGE
TEMP. SHORING AS NEEDED FOR CONSTRUCTION. TO BE REMOVED BY STAGE II CONTRACTOR.
PT. OF MIN. VERT. CL.
℄ EXISTING U.S. 6
ESTIMATE OF FUTURE WIDENING TO 3-LANES
FUTURE TRAIL
EXISTING O.H. POWER LINES
TEMPORARY RELOCATION OF O.H. POWER
MINIMUM VERTICAL CLEARANCE
EXISTING U.S. 6
OVERHEAD STATION = 1205+70.19, 77.00' RT.
OVERHEAD ELEVATION = 714.17
DEPTH OF SUPERSTRUCTURE = 5.33'
UNDERPASS STATION = 231+11.06, 12.00' LT.
UNDERPASS ELEVATION = 687.26
MINIMUM VERTICAL CLEARANCE = 21.58'
PROPOSED ROW
Preliminary (Subject To Change)



NOTE: TOP OF BRIDGE DECK AT CENTERLINE ROADWAY IS +0.24' ABOVE THE PROFILE GRADE TO ACCOUNT FOR CROSS SLOPE.

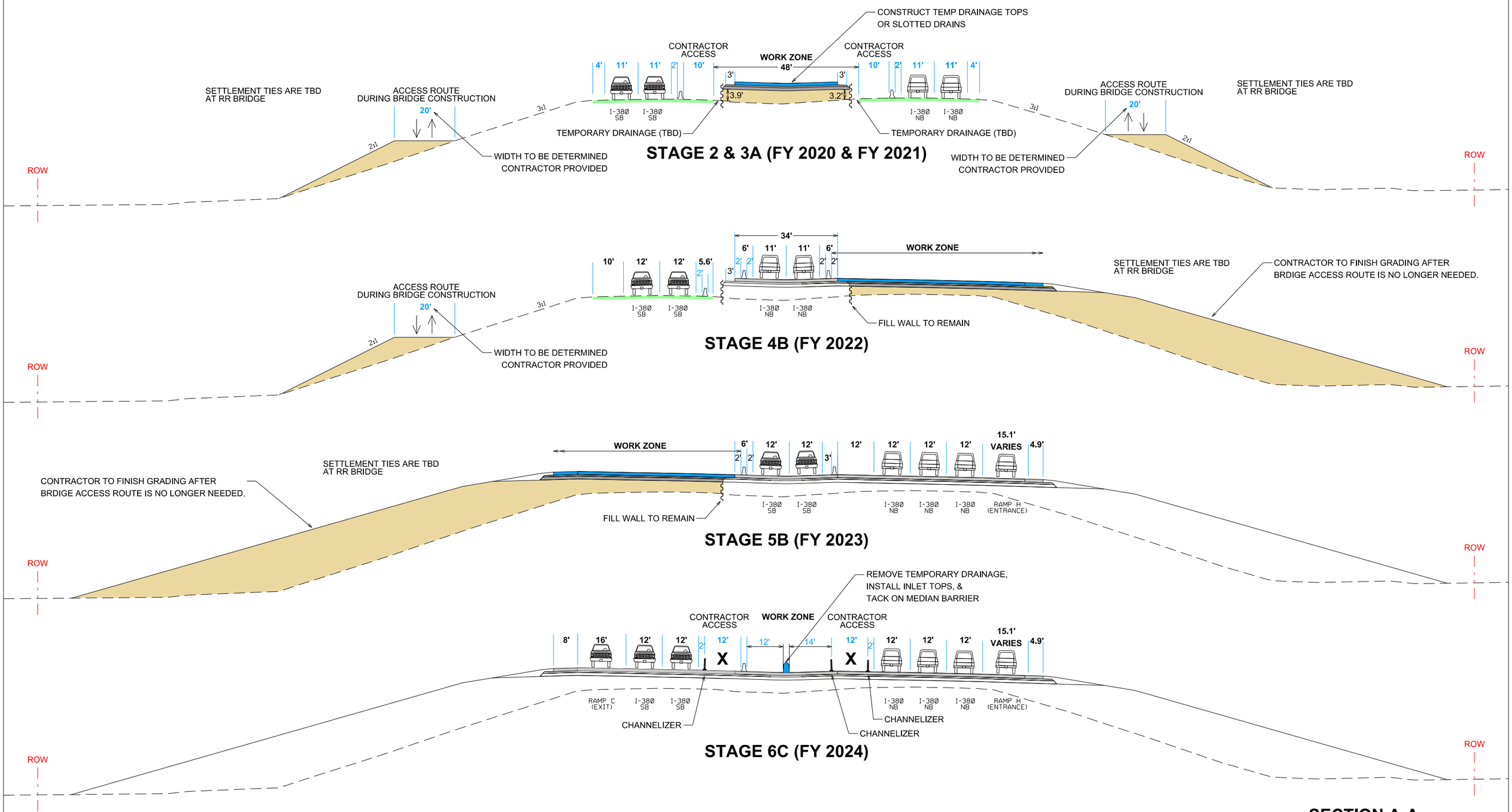
I-380 OVER US-6
LONGITUDINAL SECTION ALONG ℄ APPROACH ROADWAY

(LONGITUDINAL SECTION THROUGH FUTURE STAGE II CONSTRUCTION)

SECTION LOOKING WEST

30 SCALE

Preliminary (Subject To Change)



SECTION A-A
STA. 1203+00

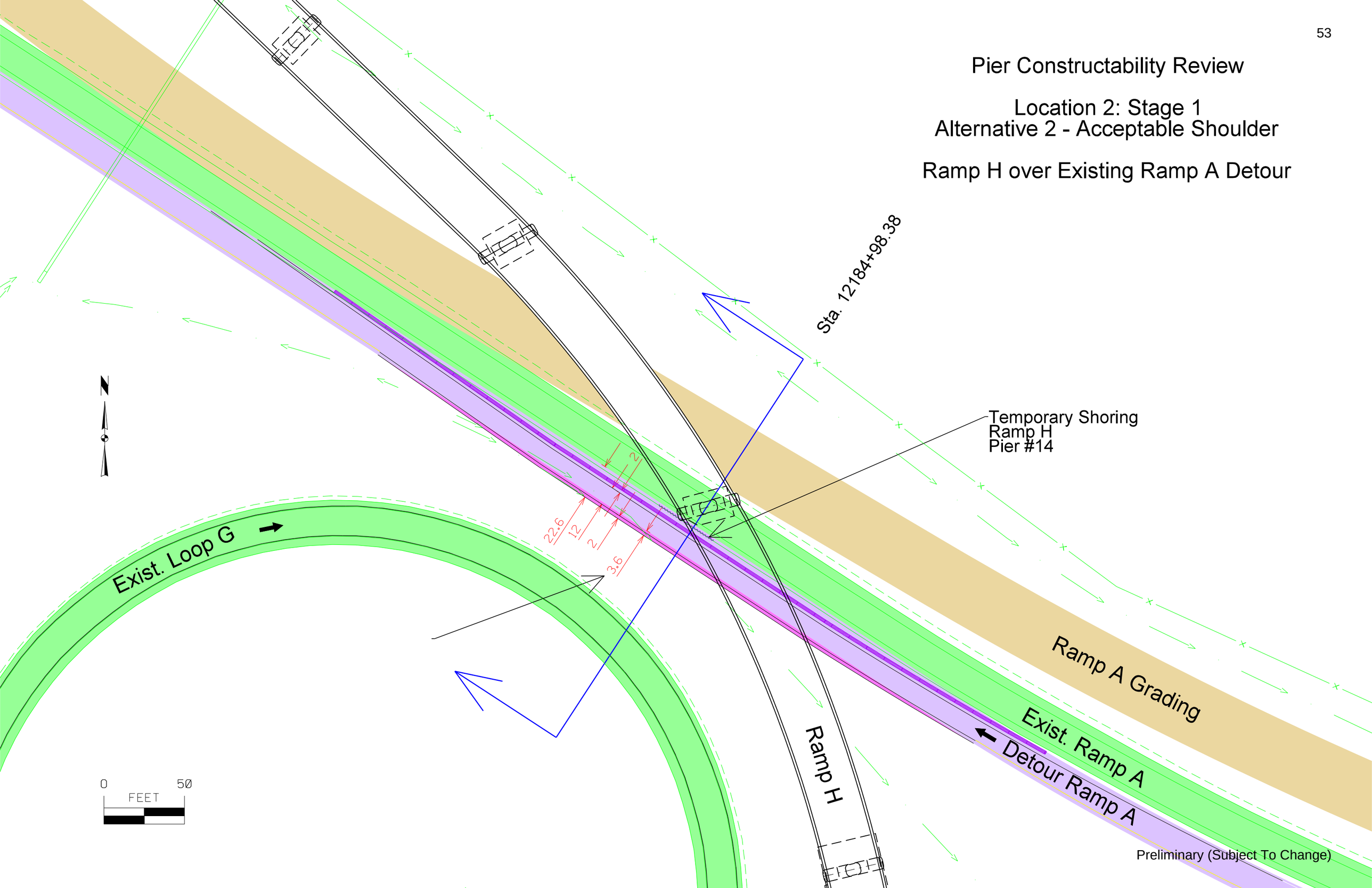
30 SCALE

Preliminary (Subject To Change)

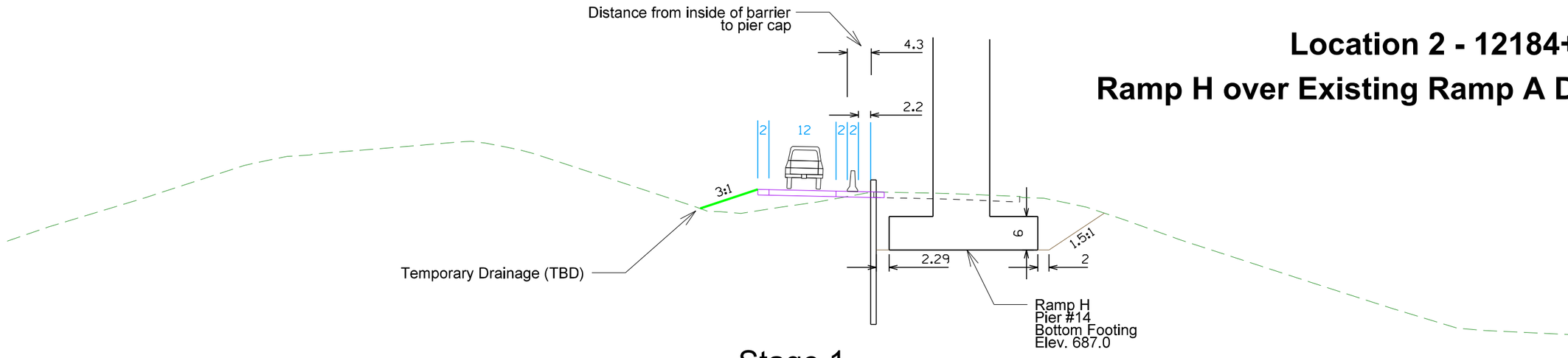
Pier Constructability Review

Location 2: Stage 1
Alternative 2 - Acceptable Shoulder

Ramp H over Existing Ramp A Detour

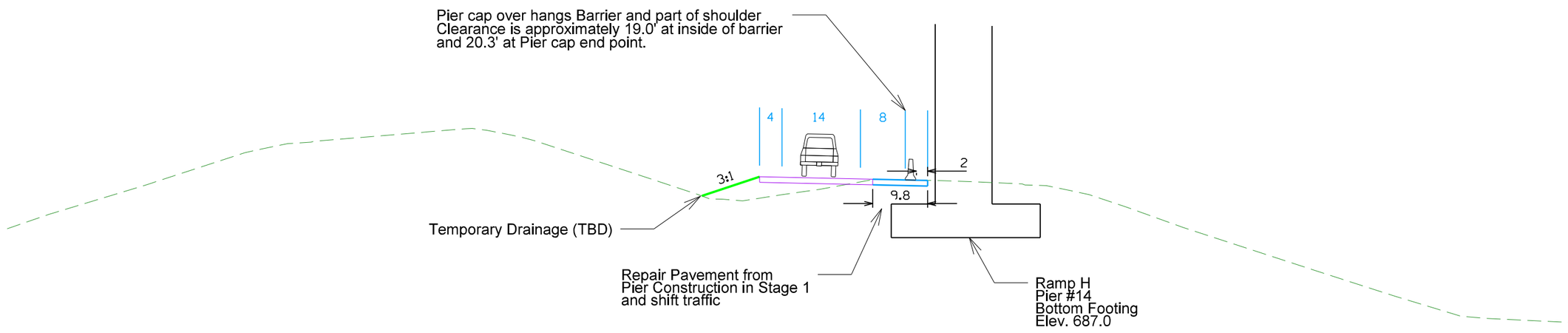


Location 2 - 12184+98.38
Ramp H over Existing Ramp A Detour



Stage 1

Alternative 2 - Acceptable Shoulder



Stage 2

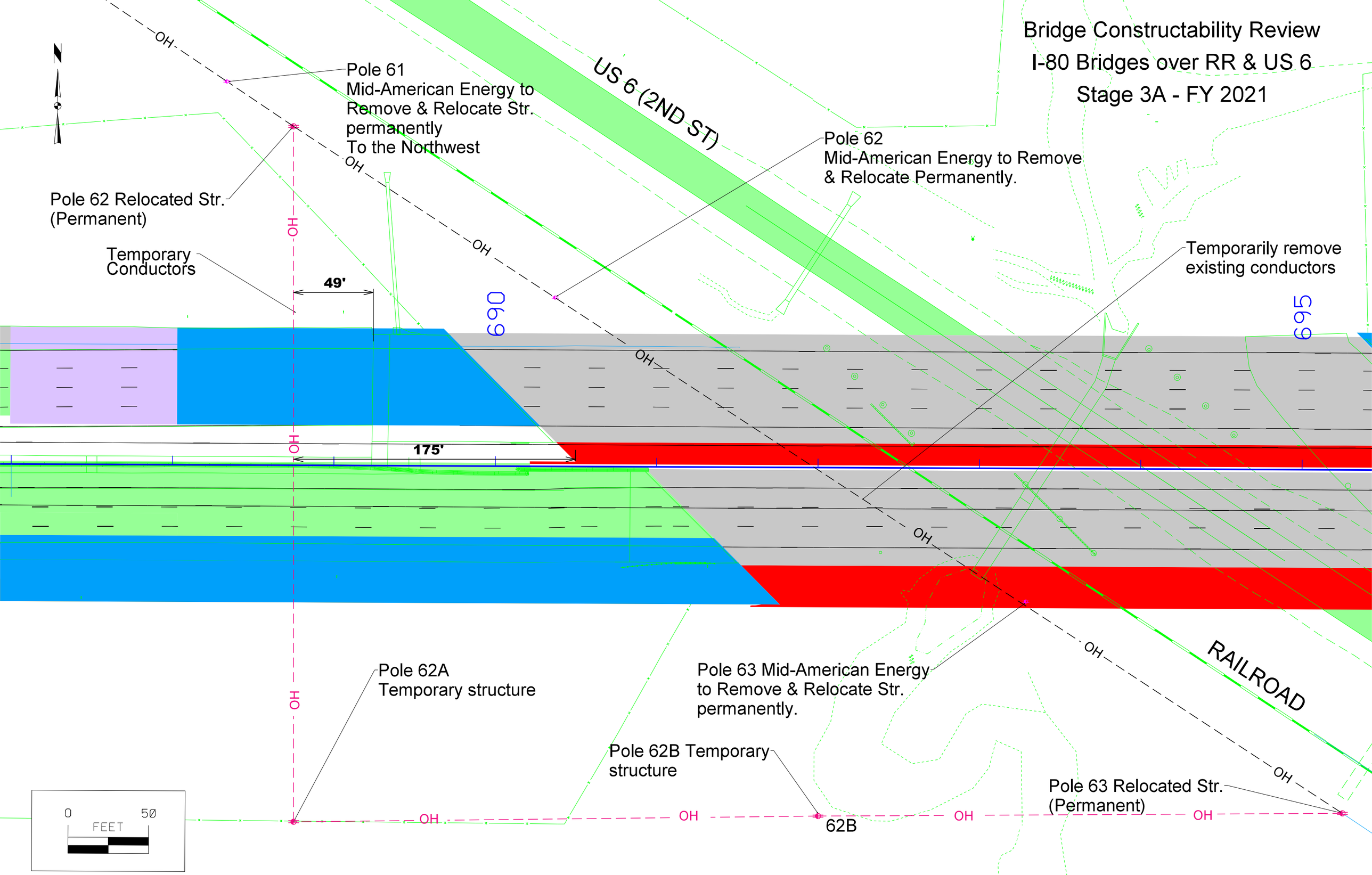
Alternative 3 - Shift from Acceptable Shoulder

(Removed in Stage 4D)

Pier Constructability Review

20 Scale

Preliminary (Subject To Change)


Bridge Constructability Review
I-80 Bridges over RR & US 6
Stage 3A - FY 2021
US 6 (2ND ST)
Pole 61
Mid-American Energy to
Remove & Relocate Str.
permanently
To the Northwest
Pole 62
Mid-American Energy to Remove
& Relocate Permanently.
Pole 62 Relocated Str.
(Permanent)
Temporary
Conductors
Temporarily remove
existing conductors
49'
175'
690
695
OH
Pole 62A
Temporary structure
Pole 63 Mid-American Energy
to Remove & Relocate Str.
permanently.
Pole 62B Temporary
structure
62B
Pole 63 Relocated Str.
(Permanent)
RAILROAD
0
50
FEET