



MEETING AGENDA

Project: I-380 / Wright Brothers Blvd. Diverging Diamond Interchange in Cedar Rapids, Iowa

Subject: 2022 AGC Informational and Constructability Meeting

Date: Monday October 24, 2022 – 1:00 PM to 3:00 PM

Location: DOT, Ames – 800 Lincoln Way, Large Materials Conference Room

Meeting materials and notes will be posted to the Contract’s homepage after November 4, 2022.

TOPIC	PRESENTER
1. (1:00) Greeting and Introductions	Charlie Purcell
2. High level project overview <ul style="list-style-type: none">• Project Location and extents• Tied projects• High Level Schedule	Linda Narigon
3. Utilities in interchange area <ul style="list-style-type: none">• Known Utilities• Proposed Utility relocation corridors	Linda Narigon
4. Project Overview and Staging <ul style="list-style-type: none">a. Mainline Overview<ul style="list-style-type: none">i. Stagingii. Major Bid Items Quantitiesiii. Signs Concept	Jason Holst



I-380 Widening and
Wright Brothers Blvd. Interchange
Constructability and Update



Greetings and Intros

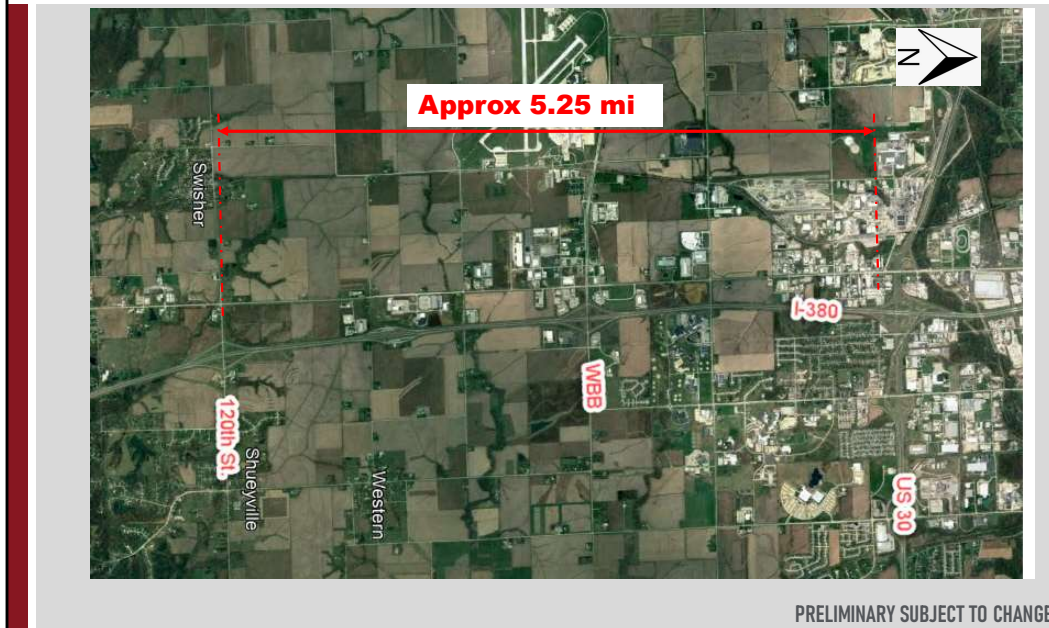
Welcome by Charlie Purcell.

- Welcome
- General project location and type of work.
 - 5.25 miles of mainline I-380 widening
 - Wright Brothers Boulevard interchange reconstruction
- Purpose of this meeting.
 - These meetings are very important to garner input from the construction industry to help ensure a successful project.
 - The main questions from the DOT will pertain to staging and the proposed construction schedule.
- This is an important project for the DOT and City, due to the increased traffic in the area.

Introductions of all attendees (refer to attendance list inserted at end of presentation).

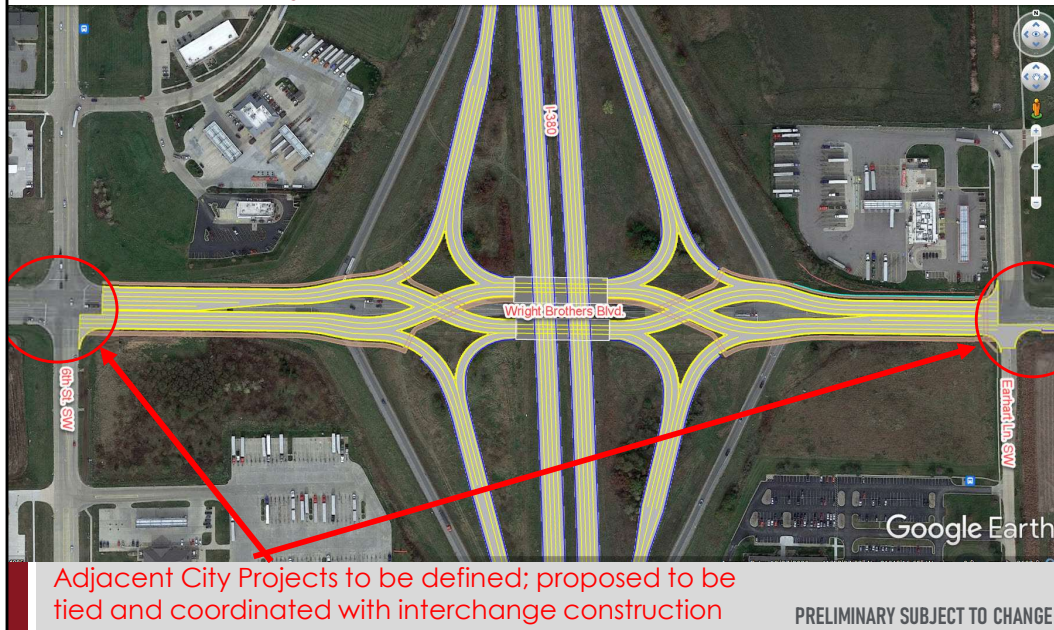
I-380 from N of 120th St. to near US 30

General Project Overview



Linda Narigon

1. Overview of DOT facilities and emergency information
2. High-level project overview:
 - Design Status – Preliminary and Subject to Change
 - 5.25 miles of I-380 mainline and the Wright Brothers Blvd interchange are planned to be combined in one contract
 - Side Road and ramps are PCC; Mainline I-380 is HMA (including full-depth widened section)
- Some handouts were provided to facilitate reference during the discussions. These are embedded with the meeting notes document.

I-380 from N of 120th St. to near US 30**General Project Overview**

1. Tied projects include adjacent City projects to better align the adjacent intersections. Being conceptualized; work limits are not yet determined.
2. Interchange information:
 - WBB interchange is changing from a Standard Diamond to a DDI. Mostly under staged traffic.
 - Two bridges, one on either side of the existing bridge. We will go over the proposed staging.
 - Pedestrian path and sidewalk through the interchange.
 - Retaining wall on the east side, between Wright Brothers Blvd and Pilot truck stop. This will be discussed.
 - Utility relocations are in coordination and will be discussed.

I-380 from N of 120th St. to near US 30

General Project Overview

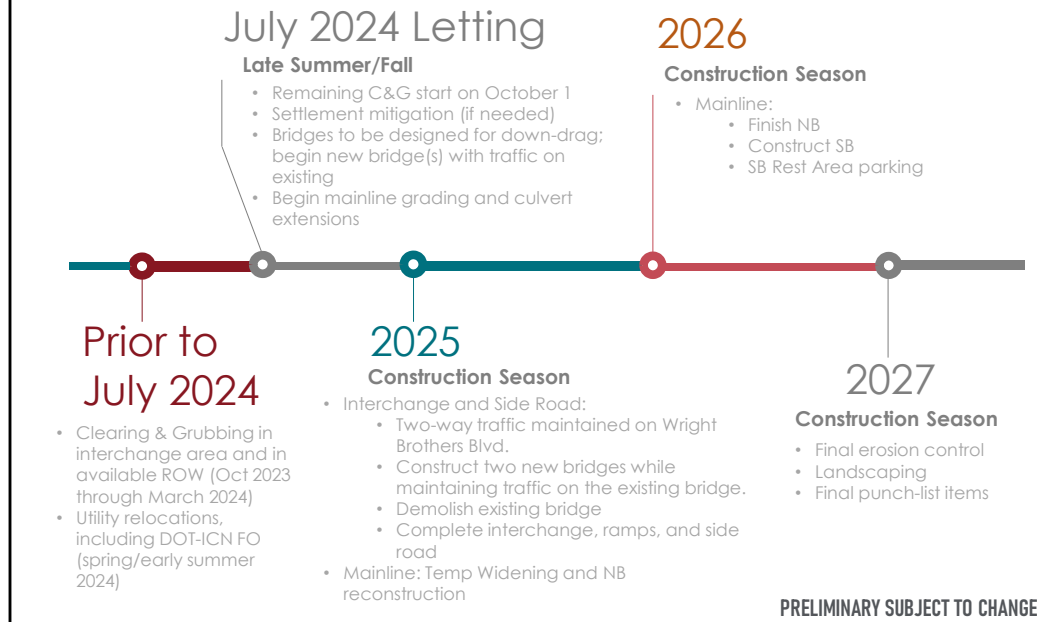


Adjacent SB Rest Area Parking/Pavement project proposed to be tied and coordinated with mainline widening

The SB Rest Area parking lot paving is proposed to be tied the mainline/interchange work. The closure of the SB Rest Area is to coordinate with the closure of SB I-380.

I-380 from N of 120th St. to near US 30

High Level Schedule



This is the high-level schedule.

- Utility relocations prior to the letting.
- Clearing and Grubbing project is planned in available ROW in the winter before the letting. This includes C&G within the interchange area to allow for immediate embankment work after mobilizing (otherwise will need to wait until October 1st).
 - Clarified later in the meeting; the initial C&G project will only be in areas of available ROW the winter prior to the July 2024 project letting. C&G in ROW that is acquired after the initial C&G project will need to wait until after October 1, 2024. This additional C&G would be along backslopes and adjacent properties and is not expected to affect the interchange construction schedule.
- July 2024 letting and begin embankment in the interchange area.
 - Note bridges are planned to be designed for downdrag due to settlement time needs and tight construction schedule. Mike Nop will discuss this later.
- Complete the interchange and side road (and ramps) in calendar 2025.
- Complete I-380 mainline work in calendar 2026.

I-380 from N of 120th St. to near US 30

Utilities

PRELIMINARY SUBJECT TO CHANGE

I-380 from N of 120th St. to near US 30

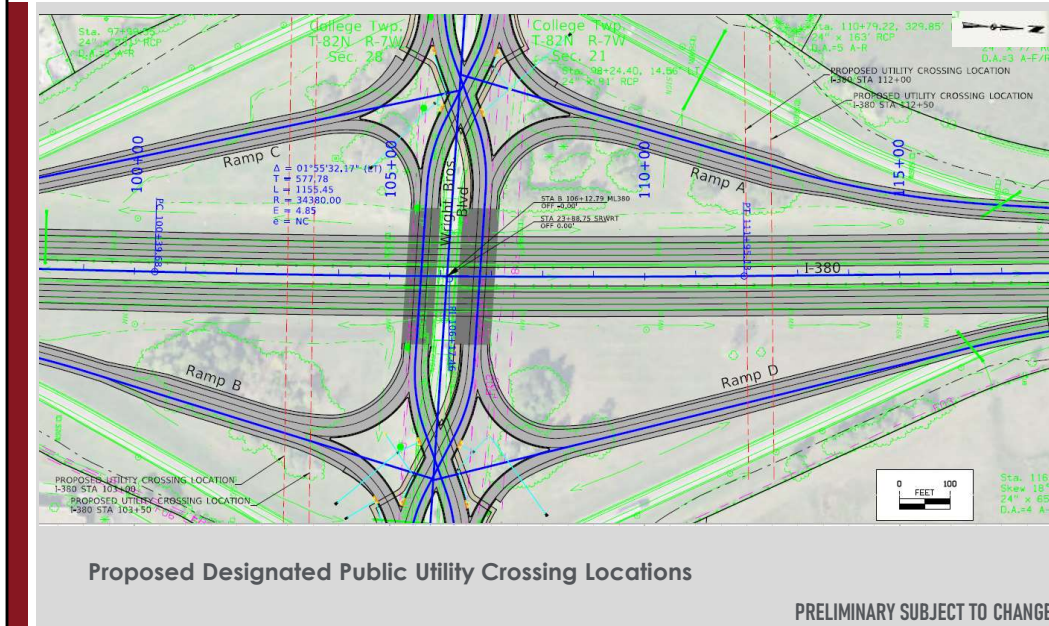
Utility Coordination – Overview of Utilities

- ITC – Overhead Electric transmission
- Alliant Energy – Electric distribution
- MidAmerican – Gas distribution
- Aureon – Fiber Optic
- IADOT/ ICN – Fiber Optic
- Lumen – Fiber Optic
- Windstream – Fiber Optic
- IMON- New installation request
- UPN – New installation request

PRELIMINARY SUBJECT TO CHANGE

These are the known utilities in the interchange area. There are some utilities elsewhere along the mainline work.

We are working to get the utilities relocated prior to the July 2024 letting. Relocations prior to the letting includes relocation of the DOT-ICN fiber line.

I-380 from N of 120th St. to near US 30**Utility Coordination – Proposed Crossing Corridors at interchange**

The red dashed lines indicate the boundaries of the proposed utility corridors for the relocated utilities. Fill and settlement information will be shown later in the meeting; some of the highest fill and settlement areas are over the south proposed relocation corridor, so this preliminary corridor location is in further review and discussion with the utilities.

The overhead transmission relocation is not yet determined and is anticipated to be at least 150 to 200 feet away from the south edge of the new south bridge.

Mainline I-380

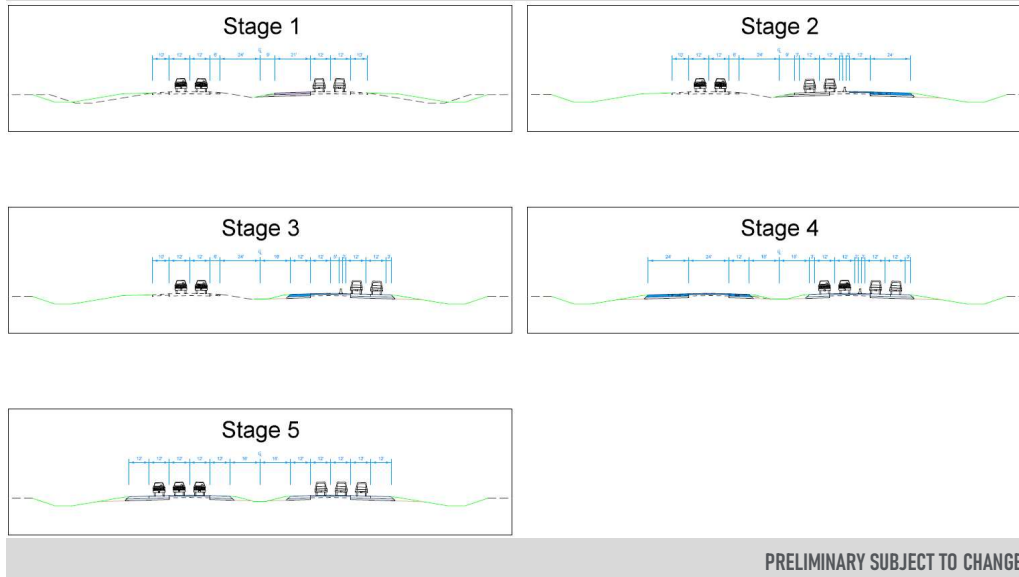
PRELIMINARY SUBJECT TO CHANGE

Jason Holst is filling in for the lead designer today.
Jason will go over the proposed staging and other preliminary roadway information.

I-380 from N of 120th St. to near US 30

Mainline Staging

Refer to Handout



PRELIMINARY SUBJECT TO CHANGE

Mainline I-380:

- Existing I-380 is 4-lane. The new section is a 6-lane section, plus auxiliary lanes in many locations.
- The existing pavement is Continuously-Reinforced-Concrete over an HMA base, with 7" to 9" HMA overlay. The plan for I-380 is to mill off all of the HMA overlay, widen with HMA, and then overlay all with HMA.
- Overview, maintenance of traffic.
 - Grading and culvert extensions at the Wright Brothers Blvd. interchange to be coordinated with the bridge work.
- SB Rest Area parking work (closure of SB rest area) coordinated with SB mainline closure Stage 4.
 - Rest area parking will be PCC. Coordination will be needed to get that contractor in and out of that area.

I-380 from N of 120th St. to near US 30
Mainline I-380 Major Bid Items Quantities

Item	Quantity	Unit
Roadway Mainline I-380		
Special Backfill	20,400	CY
EXCAVATION, CL 10, RDWY+BORROW DOT to Verify	450,000	CY
Detour Pavement	104,500	SY
Removal of Pavement	270,500	SY
Modified Subbase	101,300	CY
Pavement Scarification	143,200	SY
Hot Mix Asphalt Mixture Interlayer Base Course	12,080	TON
Hot Mix Asphalt Very High Traffic, Base Course	116,500	TON
Hot Mix Asphalt Very High Traffic, Intermediate Course	90,450	TON
Hot Mix Asphalt Very High Traffic, Surface Course	46,750	TON
TBR	100,000	LF

PRELIMINARY SUBJECT TO CHANGE

High level preliminary mainline major bid item quantities.

HMA construction for I-380 mainline.

Interchange ramps are part of the interchange; ramps and side road are PCC.

DOT will verify Excavation Class 10 quantity shown.

Post meeting clarification:

- 450k is the preliminary estimate of total cut (including topsoil stripping) along the mainline.
- There is significant waste estimated presently on the mainline I-380 portion (included in the 450k), so as a whole project with the interchange work, the current preliminary earthwork estimate is that we may have around 5,000 yd difference between the cut and the fill volumes (project wide, interchange plus mainline).

I-380 from N of 120th St. to near US 30

Mainline Drainage

Item	Quantity	Unit
Conc Roadway Pipe 24"	600	LF
Concrete Roadway Pipe 30" to 42"	600	LF
RCB Extensions	3	EA

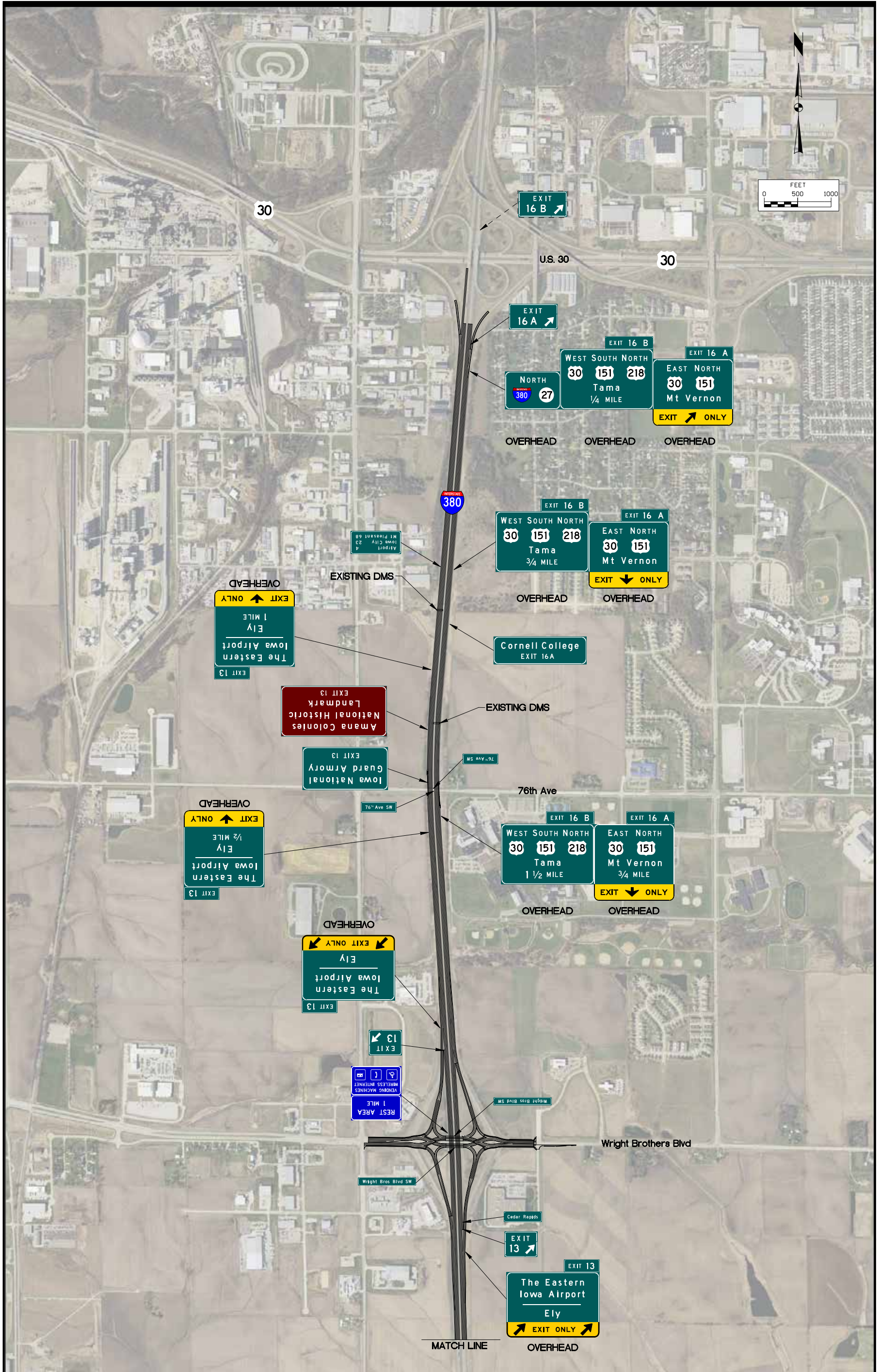
PRELIMINARY SUBJECT TO CHANGE

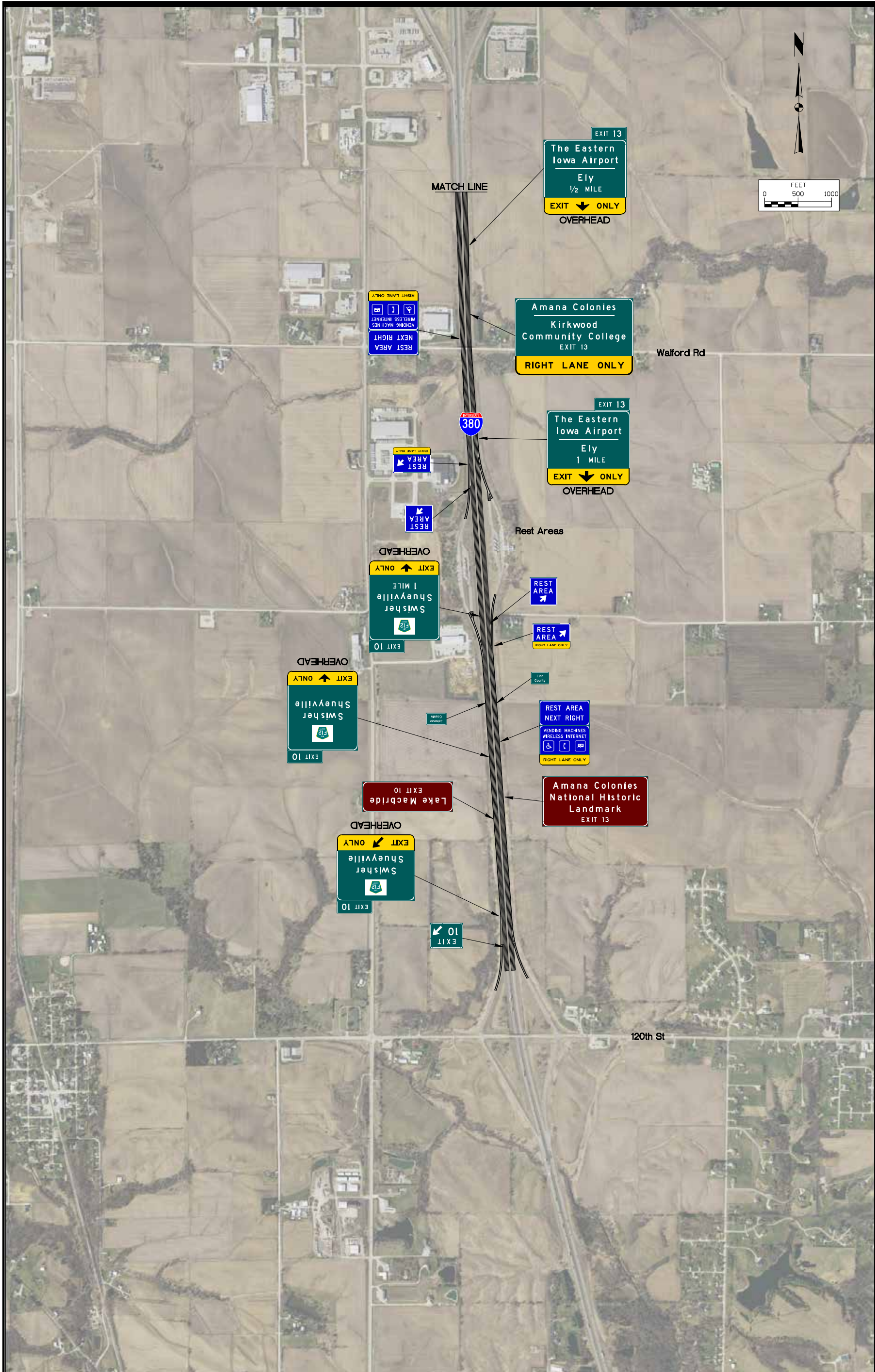
Project Overview – Signs

Signs

PRELIMINARY SUBJECT TO CHANGE

These are preliminary sign concepts from the interchange justification report. This is for mainline only. The sign concept for the interchange and side road are not yet determined.



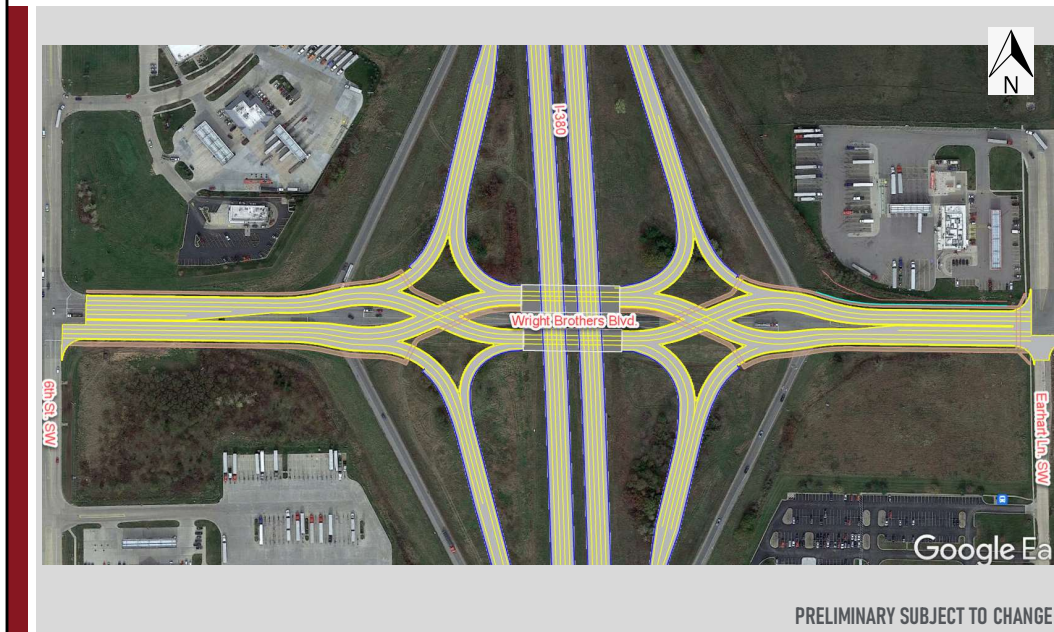


Wright Brothers Blvd. Interchange

PRELIMINARY SUBJECT TO CHANGE

I-380 from N of 120th St. to near US 30

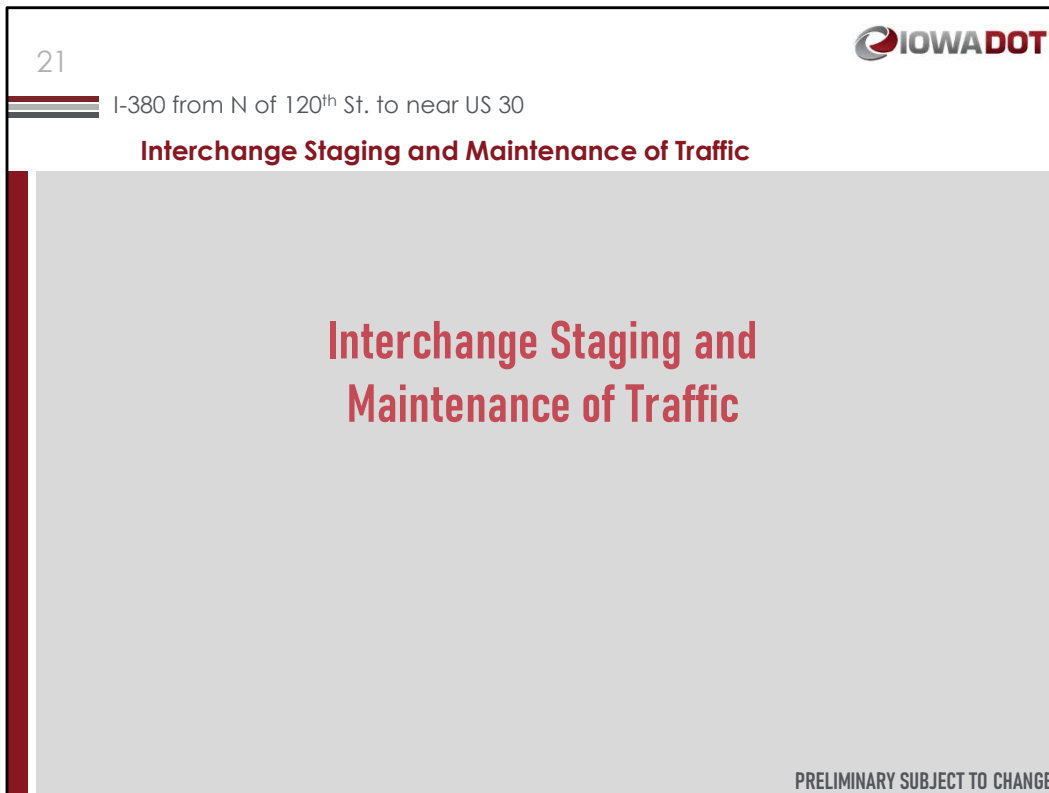
Questions



The base schedule goal is for the interchange to be open at the end of calendar 2025.

The existing bridge will remain in use for much of the traffic staging. The existing bridge is 2-lanes with 4-span concrete beams.

The new bridges will be 2-span.



Refer to the following staging figures (they were in the handout and are now embedded in this file).

Sideroad and ramps are proposed PCC construction.

Using “north bridge” and “south bridge” nomenclature since the lanes are switched around through the DDI (WB and EB nomenclature can get confusing).

What is presently shown as Stages 1A and 1B are assumed to occur in late summer/fall 2024.

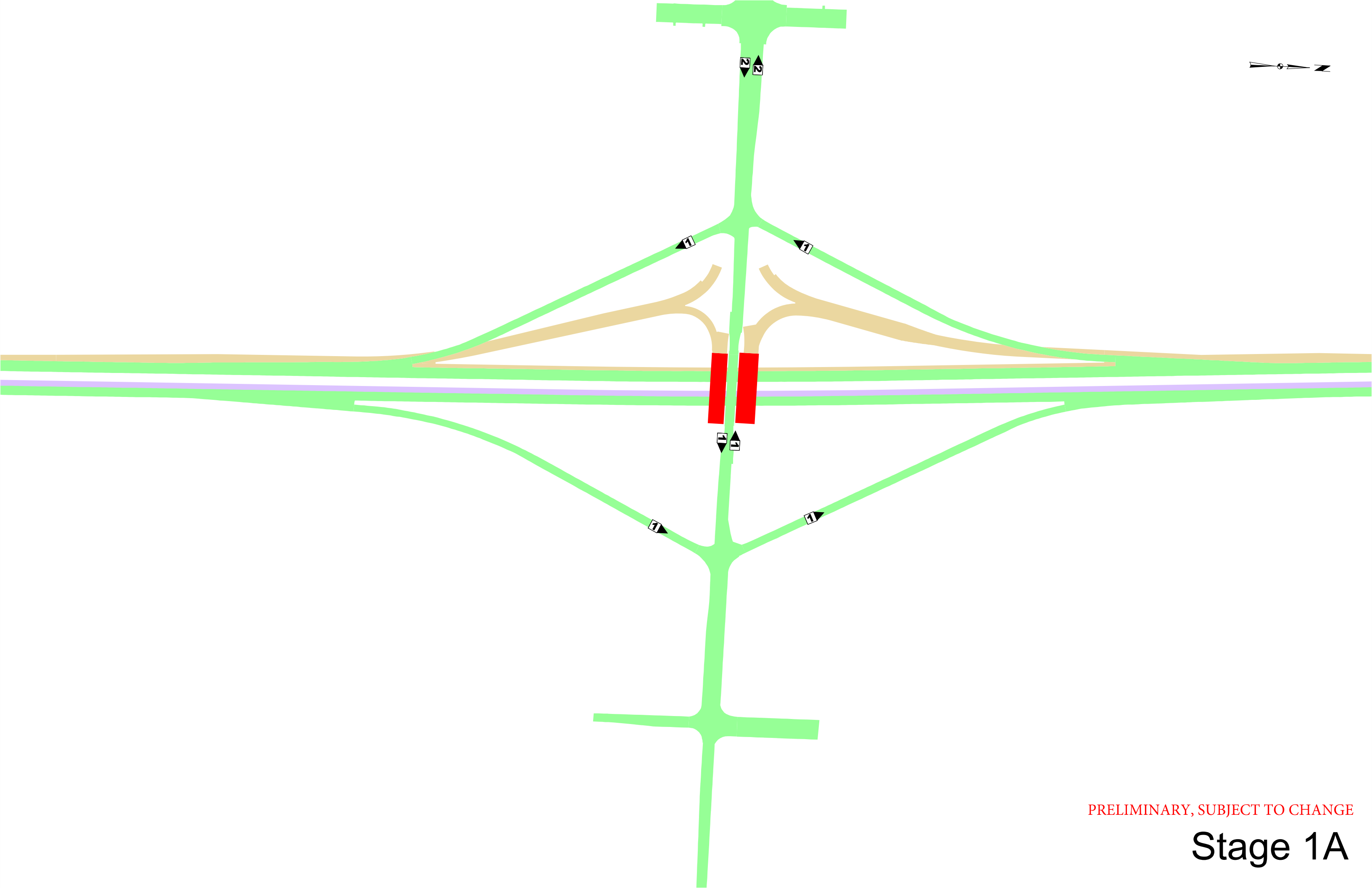
What is presently shown as Stages 2 and 3 are assumed to all occur in calendar 2025.

Overview of stages:

- Stage 1A and 1B: Note it is assumed the NB median widening is occurring at this time. Discuss if/how this impacts median pier construction (refer to later discussion with the median pier slide). Stage 1A shows starting work on both bridges, with traffic on the existing bridge.
- Stage 2: Note the light purple is the temp detour pavement for maintenance of traffic.
- Stage 2C: It is assumed the north bridge is completed in this stage so that traffic can be put on it in the next stage. Note the ramp terminals are no longer aligning and there is a vertical profile difference; it is desired for this stage and the next stage to be short duration due to non-aligned ramp terminals and associated complex traffic control.

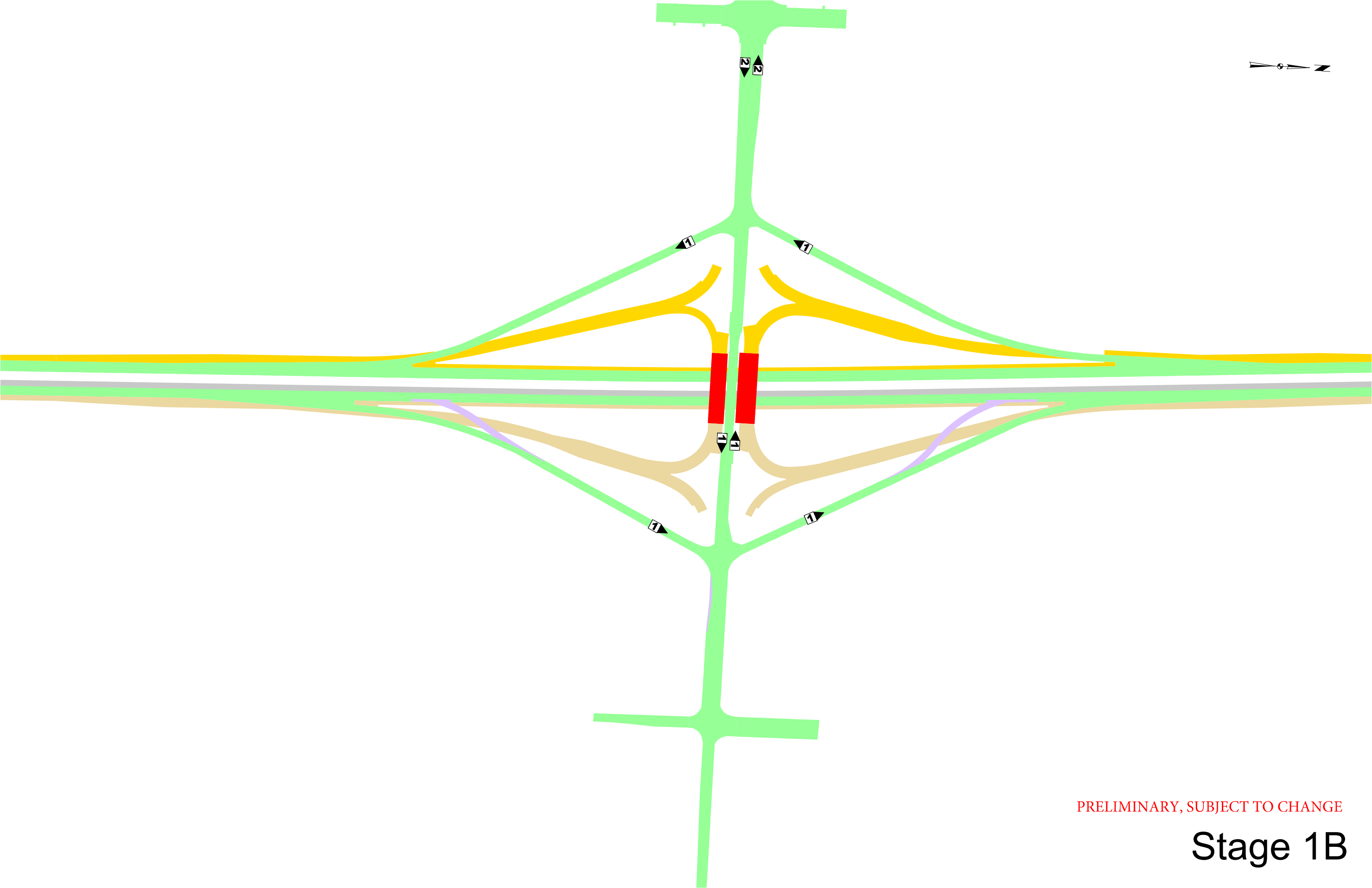
- Stage 3: Traffic is on the new north bridge. In Stage 3B the south bridge is completed. Temporary connections are constructed for the later SB I-380 closure. Anticipated allowable closure of SB on-ramp. The other three ramps are proposed to remain open through construction, due to need to maintain on-time airport access and because the NB on-ramp is a high-volume ramp.

The existing bridge is a couple feet lower than the new bridges. May desire to remove the existing bridge super-structure prior to placing the south bridge deck.?. Question: What is Stage 4? What comes next? Stage 4 would be the calendar 2026 SB mainline work. Does the existing bridge need to be demolished by the end of calendar 2025? Refer to demolition discussion in a later slide.



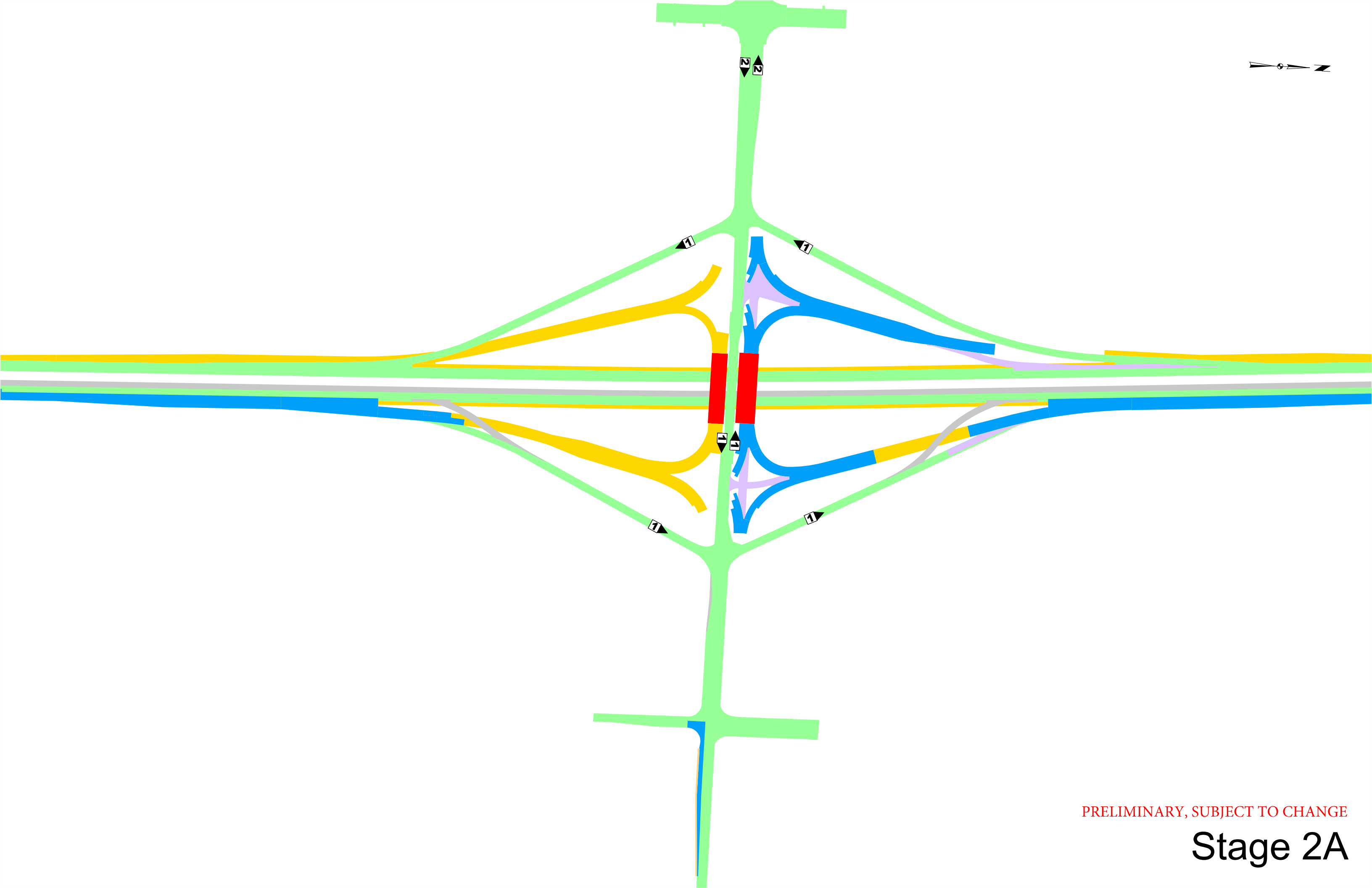
PRELIMINARY, SUBJECT TO CHANGE

Stage 1A



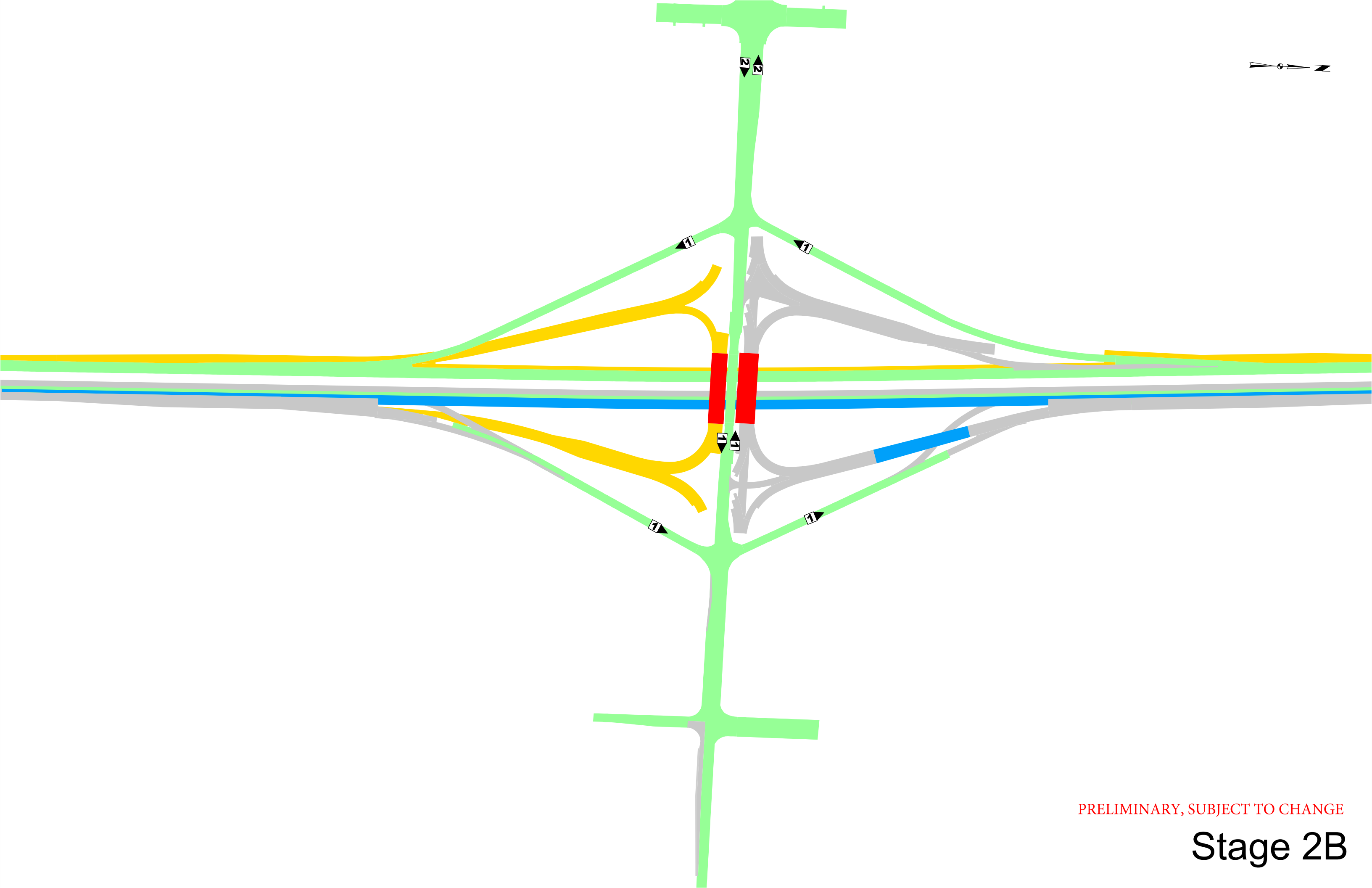
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Stage 1B



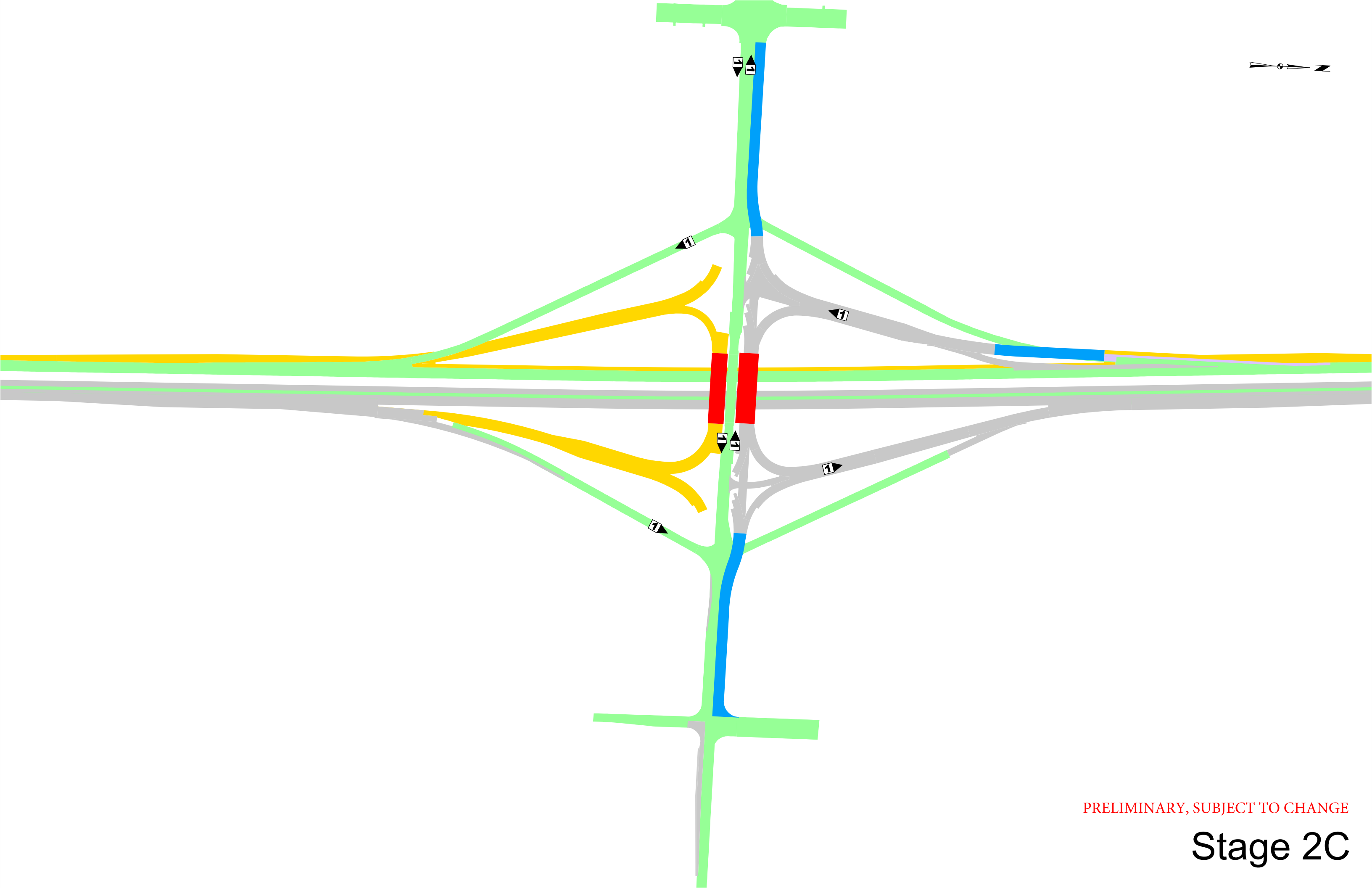
PRELIMINARY, SUBJECT TO CHANGE

Stage 2A



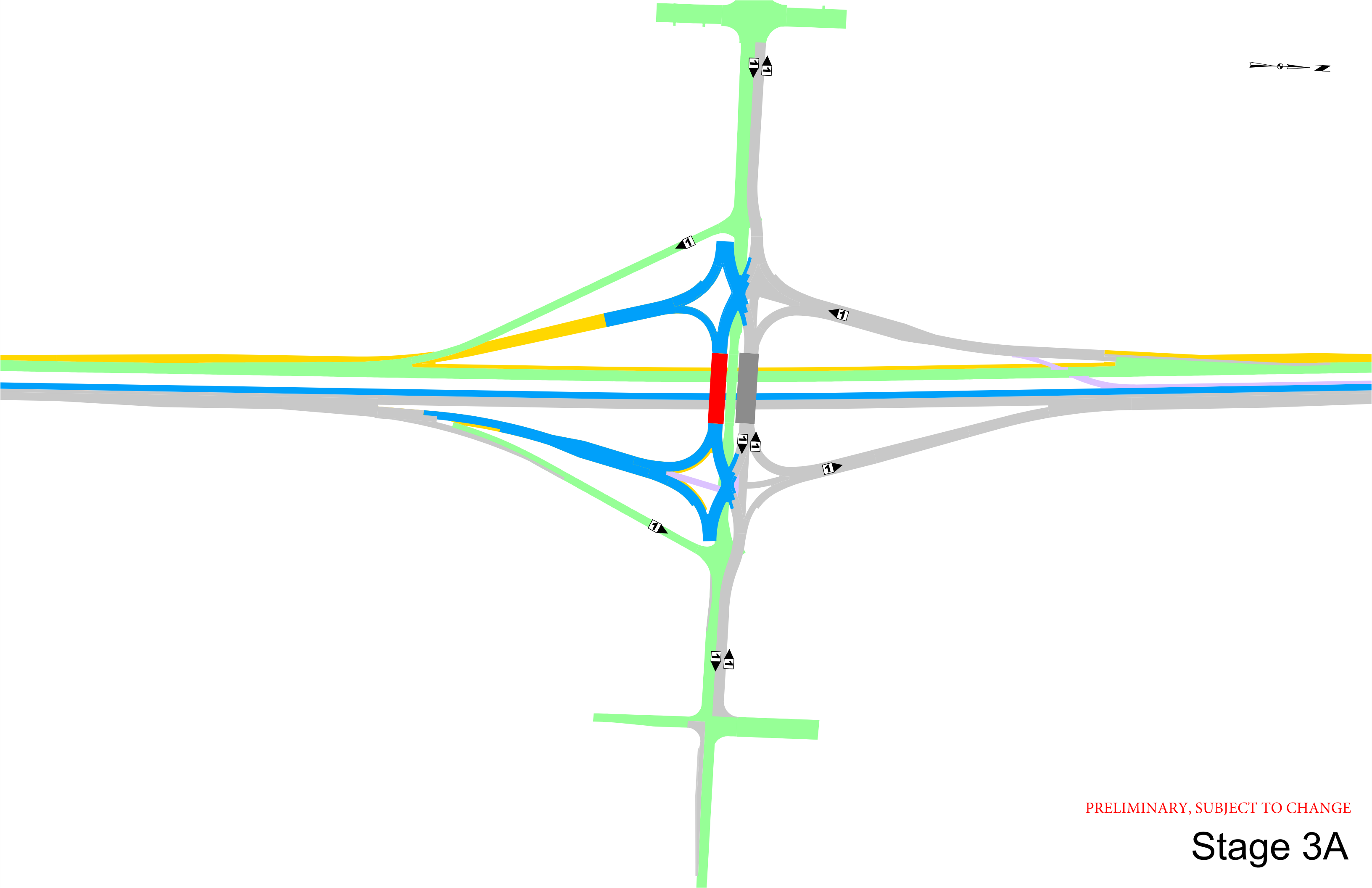
PRELIMINARY, SUBJECT TO CHANGE

Stage 2B



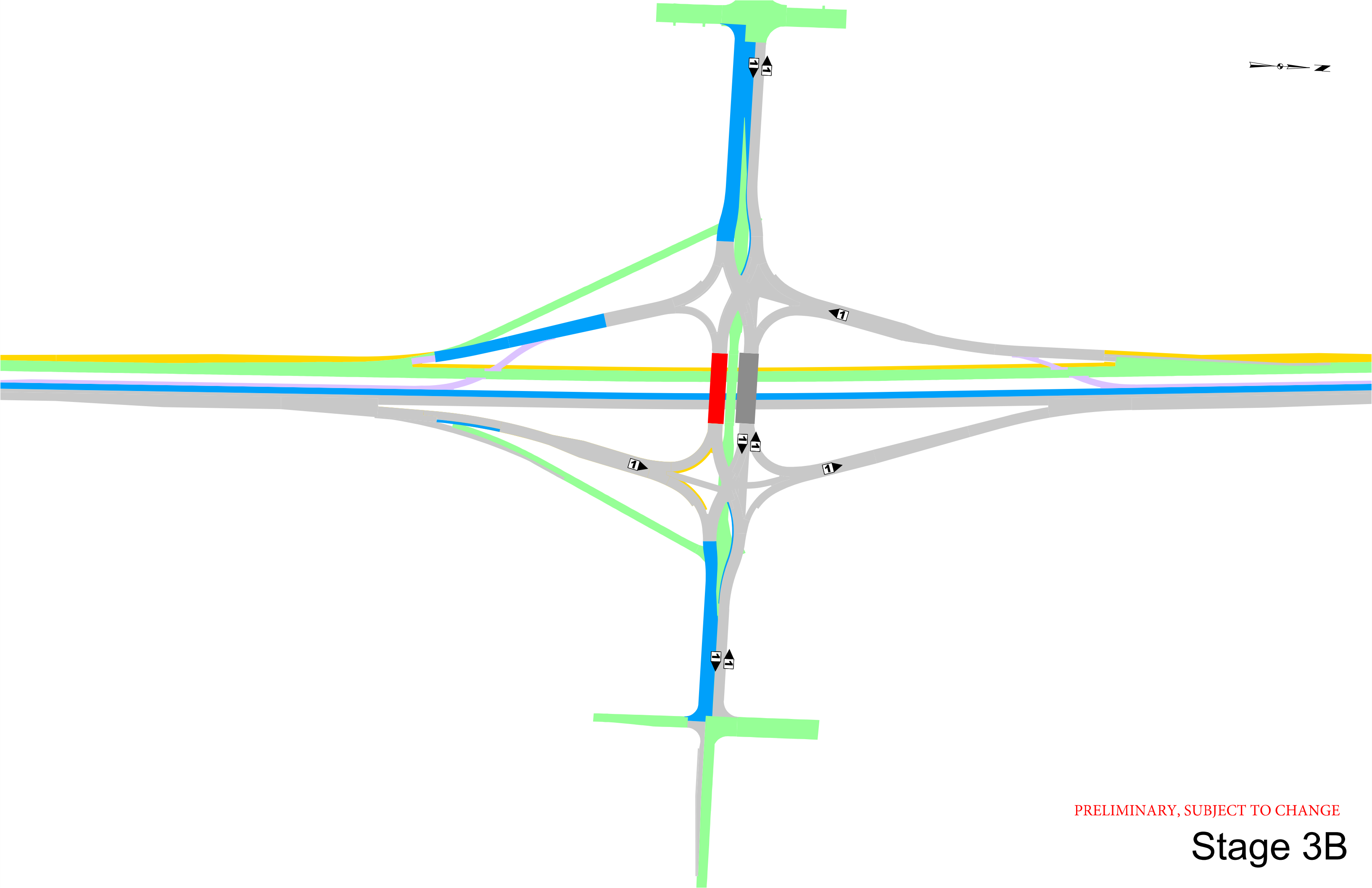
PRELIMINARY, SUBJECT TO CHANGE

Stage 2C



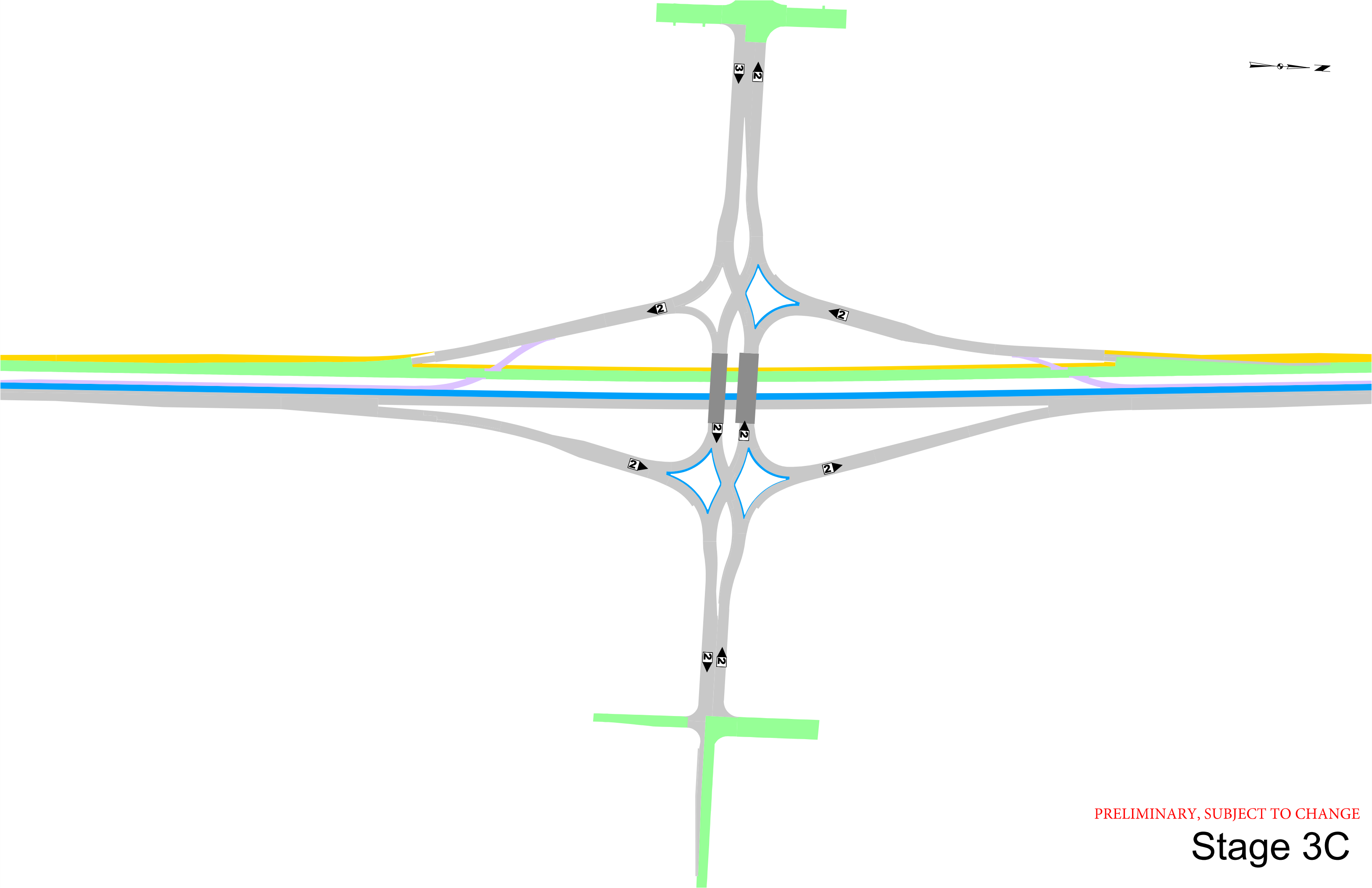
PRELIMINARY, SUBJECT TO CHANGE

Stage 3A



PRELIMINARY, SUBJECT TO CHANGE

Stage 3B



PRELIMINARY, SUBJECT TO CHANGE

Stage 3C

I-380 from N of 120th St. to near US 30

Interchange –Bridge Information

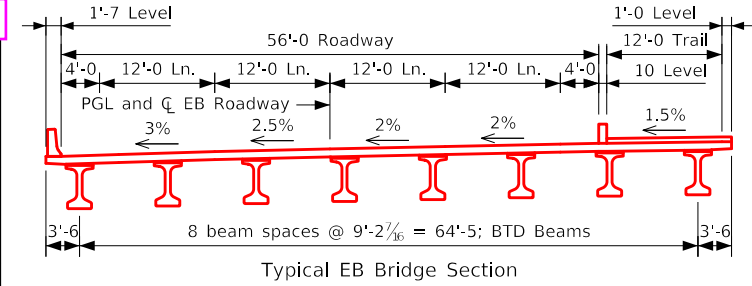
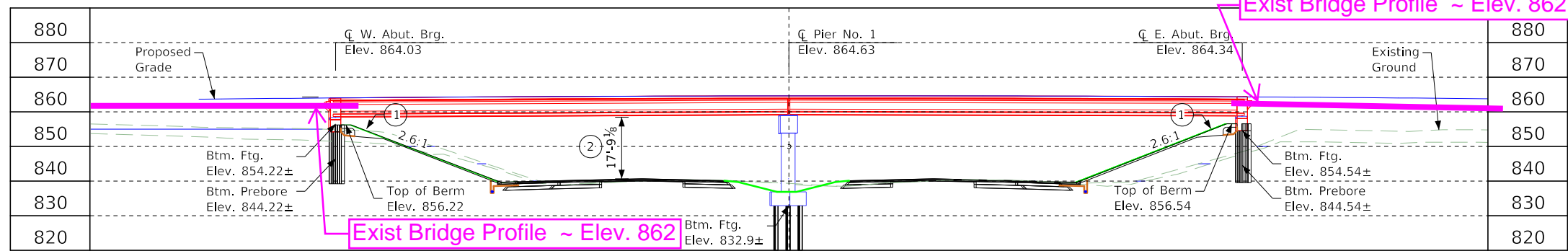
Bridge TS&Ls

PRELIMINARY SUBJECT TO CHANGE

Overview, maintenance of traffic, and discussion of durations based on preliminary quantities (reference schedule, fill charts, etc.)

Anticipated closure of SW ramp.

Control Point: FENO 101; N 8020978.61, E 20497313.39, Elev. 838.21, FENO TYPE MONUMENT FLUSH WITH THE GROUND. 23 FT FROM LUM TO THE SOUTHWEST. 20 FT FROM MH LID TO THE SOUTHEAST. 57 FT FROM TRAFFIC SIGNAL POST TO THE EAST-SOUTHEAST.

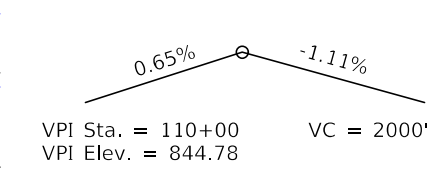


General Notes
This design is for the replacement of the existing 254'-6 x 32' PPCB Bridge, Design No. 0668, FHWA No. 600530, Maint. No. 5713.0380

Design Notes
TL-4 bridge railing proposed
Pier type - frame pier - 4'-0 width assumed
Collision requirements shall be evaluated during final design
Bridge aesthetics to be incorporated during final design

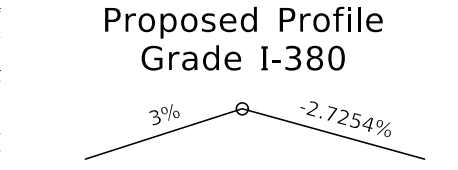
Plan Notes
2-Span grading shown (see EW203, 5' offset)
Top of bridge deck equal to profile grade

Location
EB Wright Bro. Blvd. Over I-380
In City of Cedar Rapids
T-82N R-7W
Sections 21 & 28
College Township
Linn County
FHWA No. 600531
Latitude 41.890837°
Longitude -91.670920°



I-380 Traffic Est.

2019 AADT	67,600	V.P.D.
2050 AADT	140,600	V.P.D.
2050 DHV	12,270	V.P.H.
Trucks	17	%
Total Design ESALS	---	



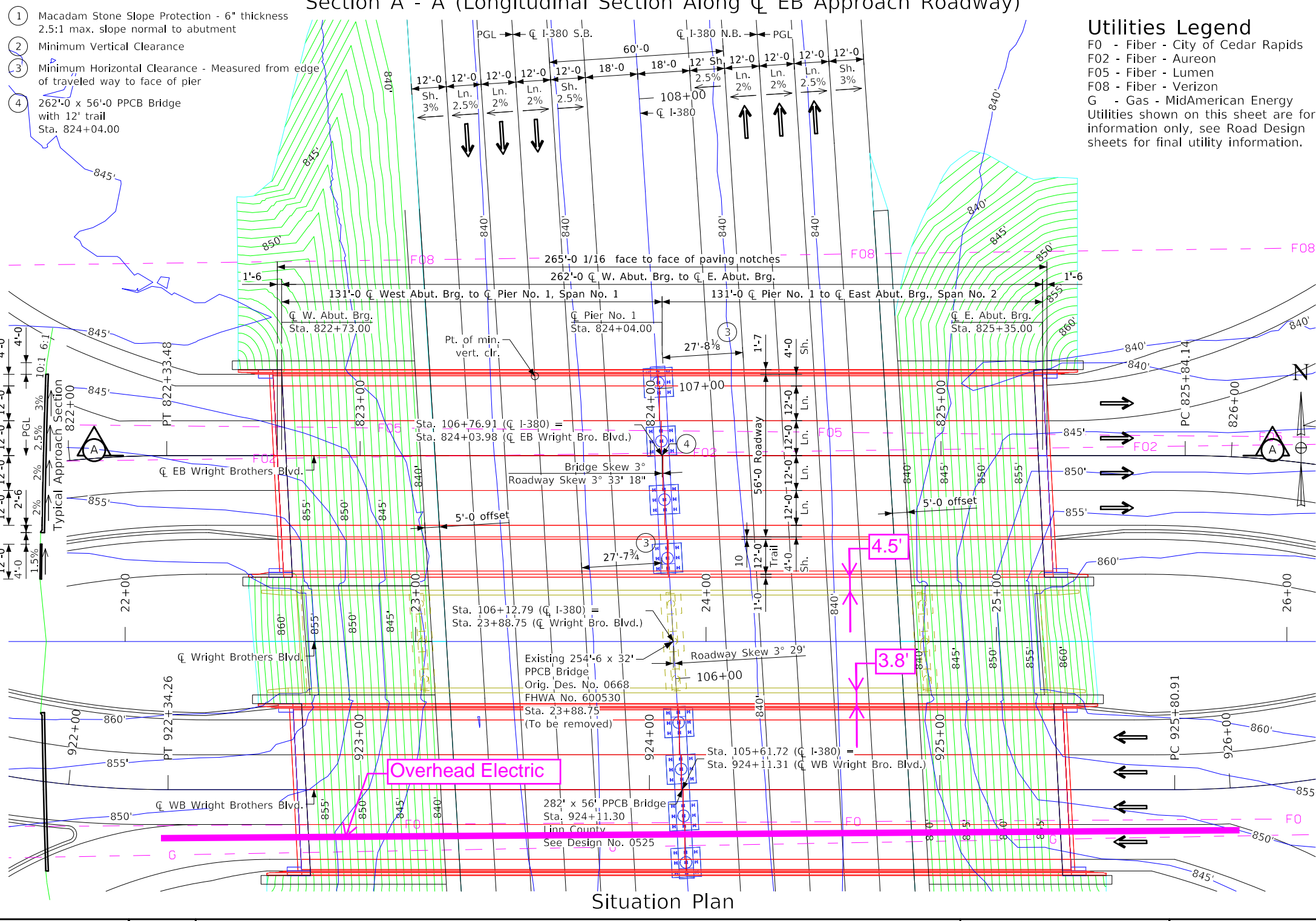
Curve Data ML I-380

PI Sta.	106+17.46
Δ	01°55'32.17" (LT)
T	577.78
L	1155.45
E	4.85
R	34380.00
PC Sta.	100+39.68
PT Sta.	111+95.13

Minimum Vertical Clearance
Overhead Station = 823+60.18, 27.33' Lt.
Overhead Elevation = 863.81
Depth of Superstructure = 5.375'
Underpass Station = 107+06.94, 42.00' Lt.
Underpass Elevation 840.68
Minimum Vertical Clearance = 17.76'

Preliminary - subject to change

Design For 3° Skew RA
262'-0 x 56'-0 Pretensioned Prestress. Concrete Beam Bridge w/ 12' Trail
131'-0 End Spans BTD Beams
Situation Plan - EB Bridge
STA. 824+04.00 (C EB Wright Brothers) Turn-in Date: August 2022
Linn County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 0425 Des. Sheet No. 01 of 02 FHWA No. 600531



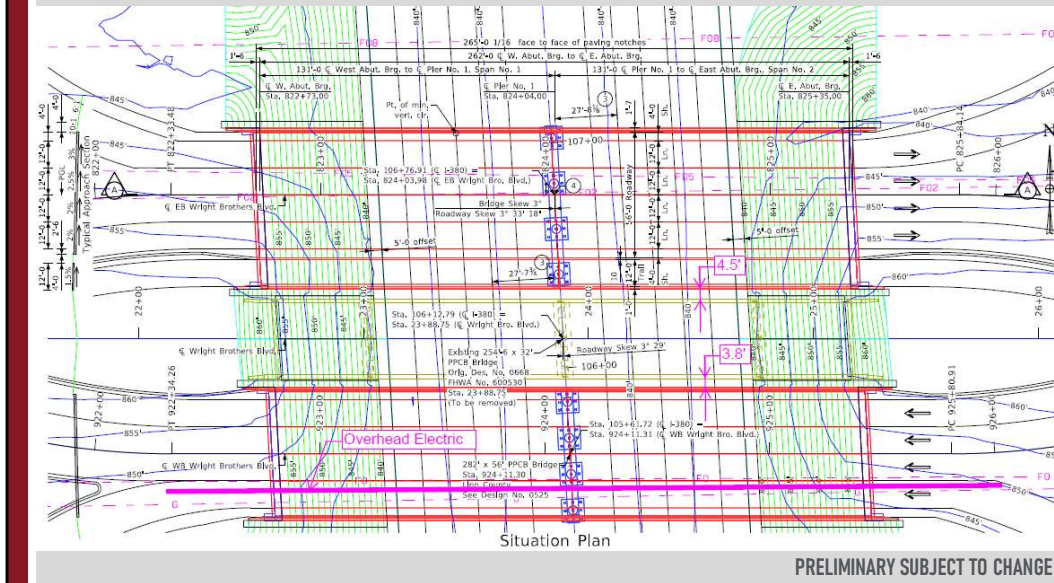
- 1 Macadam Stone Slope Protection - 6" thickness
2.5:1 max. slope normal to abutment
- 2 Minimum Vertical Clearance
- 3 Minimum Horizontal Clearance - Measured from edge of traveled way to face of pier
- 4 262'-0 x 56'-0 PPCB Bridge with 12' trail
Sta. 824+04.00

Utilities Legend
F0 - Fiber - City of Cedar Rapids
F02 - Fiber - Aureon
F05 - Fiber - Lumen
F08 - Fiber - Verizon
G - Gas - MidAmerican Energy
Utilities shown on this sheet are for information only, see Road Design sheets for final utility information.

I-380 from N of 120th St. to near US 30

Interchange Bridge TS&Ls

Refer to Handout

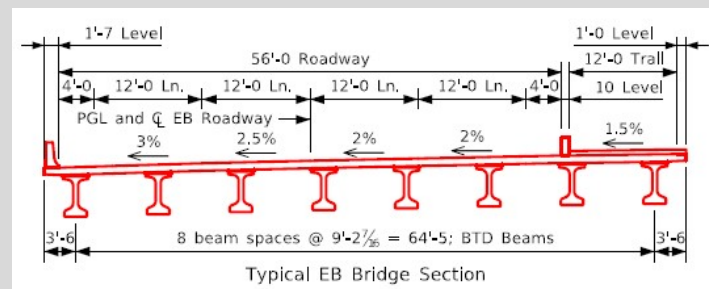
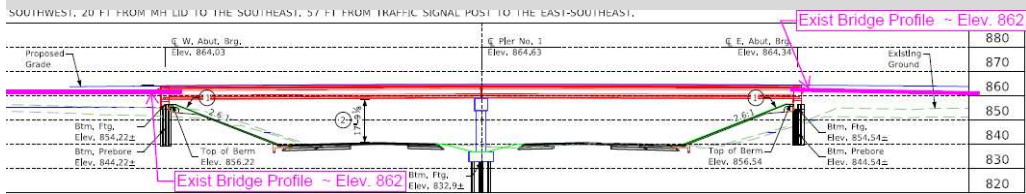


Distances between Existing bridge and new bridges are shown.

I-380 from N of 120th St. to near US 30

Interchange Bridge TS&Ls

Refer to Handout



PRELIMINARY SUBJECT TO CHANGE

Elevation of existing adjacent bridge is about 2 feet lower than the new bridges.

This is not in final bridge design yet.

Contractors indicated that having different cross slopes (break points in the slope) in the transverse bridge deck cross-section is not an issue so long as the cross-slope profile is constant (no transitions along the full length of the bridge).

Post meeting clarification: The bridges are planned to have a constant cross-slope profile (along the length of the bridges). Cross-slope transitions will happen between the bridges and the ramp terminal cross-over points.

The preliminary TS&L illustrates frame piers, but the aesthetic renderings indicate wall piers. These bridges will probably have wall piers.

All steel piling. The existing piles were driven to bedrock. Existing pier piles are about 30' long and the existing abutment piles are about 50' long. We anticipate similar lengths to bedrock for the new structures.

I-380 from N of 120th St. to near US 30
Interchange Major Bid Items Quantities (not including City projects)

Item	Quantity	Unit
Roadway (449) Side Road and Ramps:		
Embankment in place Request to provide per quadrant for bridge approaches	144,280	CY
Excavation Class 10, Rdwy+Borrow	106,150	CY
Retaining Wall	3,550	SF
Modified Subbase	18,270	CY
Paved Shld, PCC, 10.5"	5,800	SY
Std/S-F PCC Pav't, CL C CL 3, 10.5"	44,150	SY
Detour Pav't	3,000	SY
Removal of Pav't	34,580	SY
Trail, PCC, 6"	3,120	SY
Drainage	TBD	
Traffic Control (staged under traffic), IWZ	TBD	
Signing	TBD	

ITEMS ON THIS PAGE
PRELIMINARY
SUBJECT TO CHANGE

Prelim high-level main bid item quantities for the interchange, side road, and ramps.

Call out PCC construction.

This does not include adjacent City Wright Brothers Blvd. projects that are under concept by the City.

Request from contractors to provide Embankment quantities for bridge approaches per quadrant (Information added to notes under embankment fill slide 35).

Post meeting clarification: There is significant waste estimated presently on the mainline I-380 portion, so as a whole project with the interchange work, the current preliminary earthwork estimate is that we may have around 5,000 yd difference between the overall cut and the fill volumes (project wide, interchange plus mainline). Contractor borrow may be needed to begin early embankment in the interchange are. DOT designers are evaluating the potential earthwork needs.

I-380 from N of 120th St. to near US 30

Interchange Bridge Major Bid Items Quantities

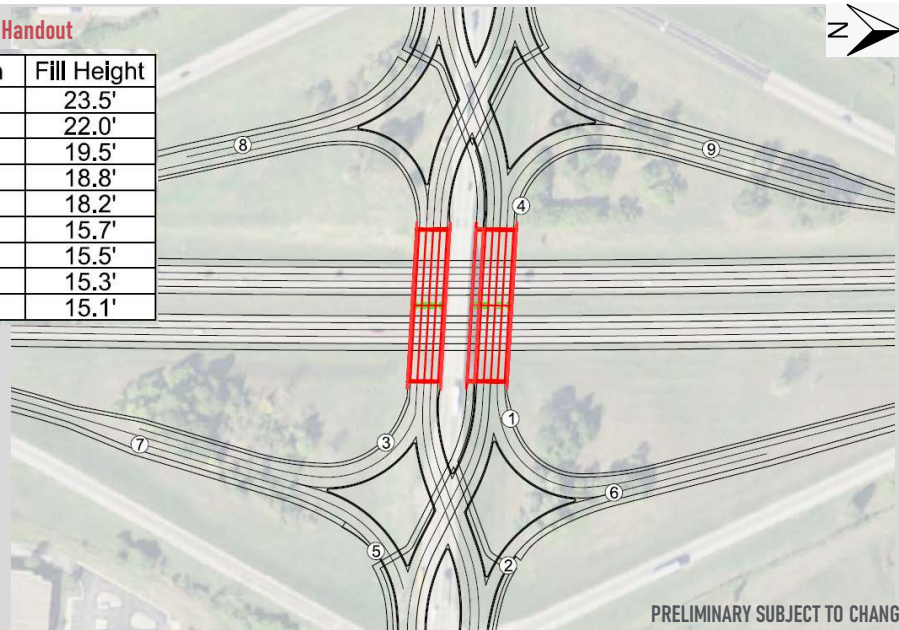
Item	Quantity	Unit
Bridge		
EB Bridge	17,700	SF
WB Bridge	21,400	SF
Macadam Stone protection and armoring	110	SY
Excavation Class 20	230	CY
Concrete Barrier Rail / possible Aesthetic	430	LF
Approach Pavement	1,000	SY
Conc Barrier, Reinf	110	LF
Bridge Removal	1	EA
Aesthetic Bridge Treatments		
Lighting , Signals, ITS		

PRELIMINARY SUBJECT TO CHANGE

I-380 from N of 120th St. to near US 30**Greatest Fill and Preliminary Estimate of Settlement**

Refer to Handout

Location	Fill Height
1	23.5'
2	22.0'
3	19.5'
4	18.8'
5	18.2'
6	15.7'
7	15.5'
8	15.3'
9	15.1'



Noted fill heights near bridges are 19 to 24 feet.

The proposed bridges and adjacent embankment are a couple feet higher than the existing bridge and existing embankment.

Question: bridge approach embankment full quantities per quadrant?

Response added post-meeting. Preliminary bridge berm grading estimates:

The "Fill" quantities are if all contractor furnish. The "Fill + 30%" are if all Class 10 from elsewhere on the project (assuming 30% shrink).

NW Quadrant: Cut – 40 CY
 Fill – 6,862 CY
 Fill + 30% – 8,921 CY

NE Quadrant: Cut – 30 CY
 Fill – 7,856 CY
 Fill + 30% – 10,213 CY

SW Quadrant: Cut – 50 CY
 Fill – 4,507 CY
 Fill + 30% – 5,859 CY

SE Quadrant: Cut – 60 CY

Fill – 5,877 CY

Fill + 30% – 7,640 CY

I-380 from N of 120th St. to near US 30

Greatest Fill and Preliminary Estimate of Settlement

Refer to Handout

Table 1: Abutment Settlement Summary

Approx. Station	Approx. Maximum Fill Height (feet)	Estimated Settlement (inches)		
		Embankment Soil	Foundation Soil	Total
822+50/922+50	15 to 20	1-1/2 to 2-1/2	2-1/2 to 3	4 to 5-1/2
825+50/925+50	20 to 25	2-1/2 to 4-1/2	3 to 4	5-1/2 to 8-1/2

Table 2: Anticipated Paving and Pile Driving Delays

Approx	Estimated Paving Delay (days)*	Estimated Delay for Pile Installation (days)**
822+50/922+50	30 to 45	90 to 120
825+50/925+50	45 to 60	120 to 150

Preliminary findings based on preliminary data, subject to change

*Delay to achieve less than 1-inch of remaining estimated settlement.

**Delay to achieve less than 0.4-inch of remaining estimated settlement.

PRELIMINARY SUBJECT TO CHANGE

Additional information regarding the estimated fill heights and settlement are shown on the next couple pages followed by images illustrating the locations of the preliminary settlement information.

I-380 from N of 120th St. to near US 30

Greatest Fill and Preliminary Estimate of Settlement

Refer to Handout

Table 3. Bridge Approach and Ramps Settlement Summary

Approx. Station	Alignment**	Approx. Maximum Fill Height (feet)	Estimated Embankment Soil Settlement (inches)	Estimated Foundation Soil Settlement (inches)	Total Settlement (inches)	Estimated Paving Delay* (Days)
819+00 to 820+00	WRT EB	12 to 13	1-1/2 to 2	1-1/2 to 2-1/2	3 to 4-1/2	30 to 45
919+00 to 920+00	WRT WB	13 to 15	1-1/2 to 2	1-1/2 to 2-1/2	3 to 4-1/2	30 to 45
821+00 to 822+00	WRT EB	15 to 19	2 to 2-1/2	2-1/2 to 3-1/2	4-1/2 to 6	30 to 45
921+00 to 922+00	WRT WB	13 to 17	1-1/2 to 2-1/2	2 to 3	3-1/2 to 5-1/2	30 to 45
826+00 to 827+50	WRT EB	20 to 23	2-1/2 to 4	3 to 4	5-1/2 to 8	45 to 60
926+00 to 927+50	WRT WB	15 to 20	2 to 2-1/2	3 to 4	5 to 6-1/2	45 to 60
828+50 to 829+00	WRT EB	15 to 20	2 to 2-1/2	2 to 3	4 to 5-1/2	30 to 45
928+50 to 929+00	WRT WB	22	3-1/2 to 4	2 to 3	5-1/2 to 7	30 to 45
1108+50 to 1110+50	Ramp A	15	1-1/2 to 2	2-1/2 to 3-1/2	4 to 5-1/2	30 to 45
1110+50 to 1111+00	Ramp A	11 to 15	1-1/2 to 2	2 to 3	3-1/2 to 5	30 to 45
2100+00 to 2101+50	Ramp B	12 to 15	1-1/2 to 2	1-1/2 to 2-1/2	3 to 4-1/2	30 to 45
2102+00 to 2104+00	Ramp B	11 to 13	1-1/2 to 2	2 to 2-1/2	3-1/2 to 4-1/2	30 to 45
3102+50 to 3103+50	Ramp C	15	1-1/2 to 2	2 to 2-1/2	3-1/2 to 4-1/2	30 to 45
4108+00 to 4110+00	Ramp D	11 to 18	1-1/2 to 2-1/2	2 to 3	3-1/2 to 5-1/2	30 to 45

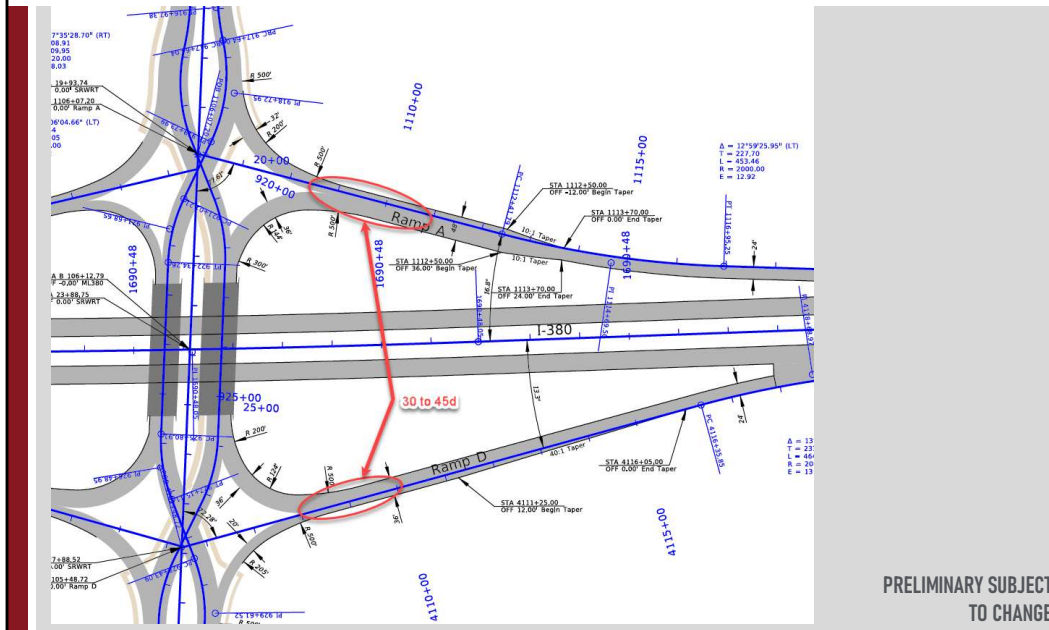
*Delay to achieve less than 1-inch of remaining estimated settlement

**WRT EB – Wright Brothers Boulevard East Bound/ WRT WB – Wright Brothers Boulevard West Bound

PRELIMINARY SUBJECT TO CHANGE

I-380 from N of 120th St. to near US 30

Greatest Fill and Preliminary Estimate of Settlement

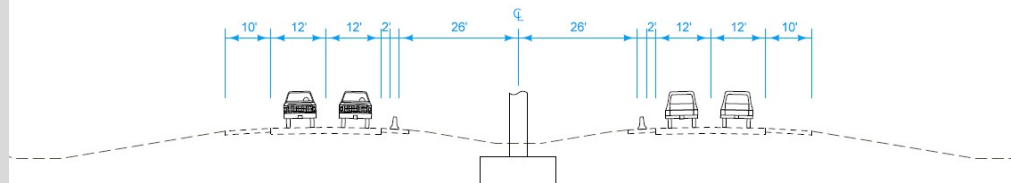


Question regarding the delay time for pile driving of 120 to 150 days, shown on an earlier slide. Could this delay the start of bridge construction and the ability to get the interchange done in calendar 2025? DOT noted the plan to design to mitigate for this with pile designed for pre-bore and for downdrag; there should be no waiting time needed for settlement for starting the bridge construction.

I-380 from N of 120th St. to near US 30

Pier Construction in I-380 Median

Refer to Handout



PRELIMINARY SUBJECT TO CHANGE

Bridge Pier construction and access. Pier construction to be coordinated with mainline widening.

Assume ITC-overhead power is relocated prior to letting, so that south side embankment work could begin in late summer/fall 2024.

Footing and pier widths are not yet determined; this is not in final design yet.

Question if piers will be Mass Concrete. DOT noted they might not need to be. There is a request for Bridge Design to work to keep the piers from being Mass Concrete if possible, to help with the construction schedule.

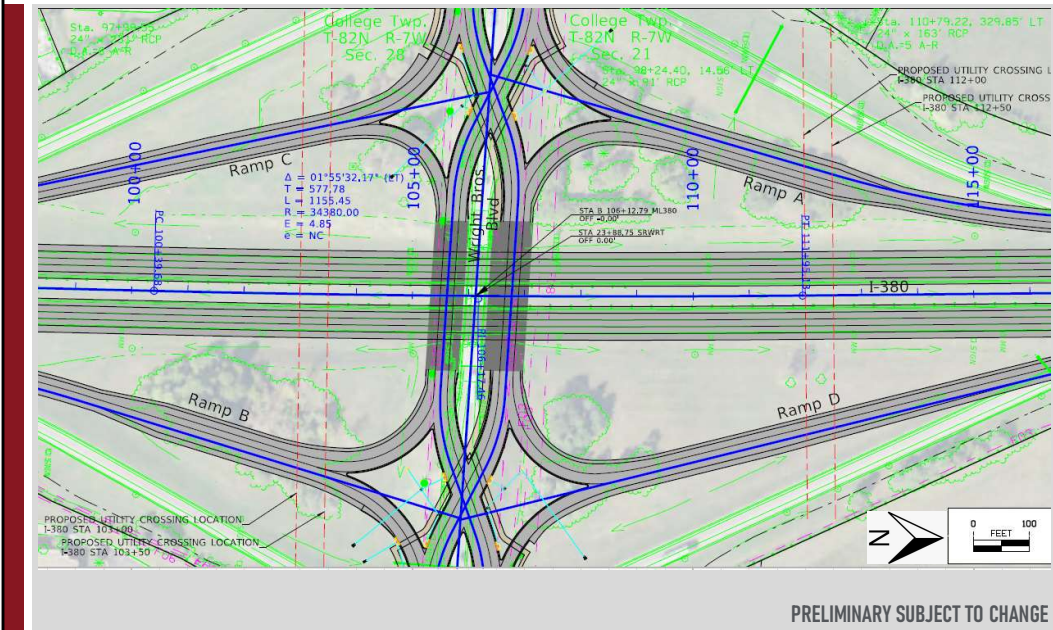
Contractor comments:

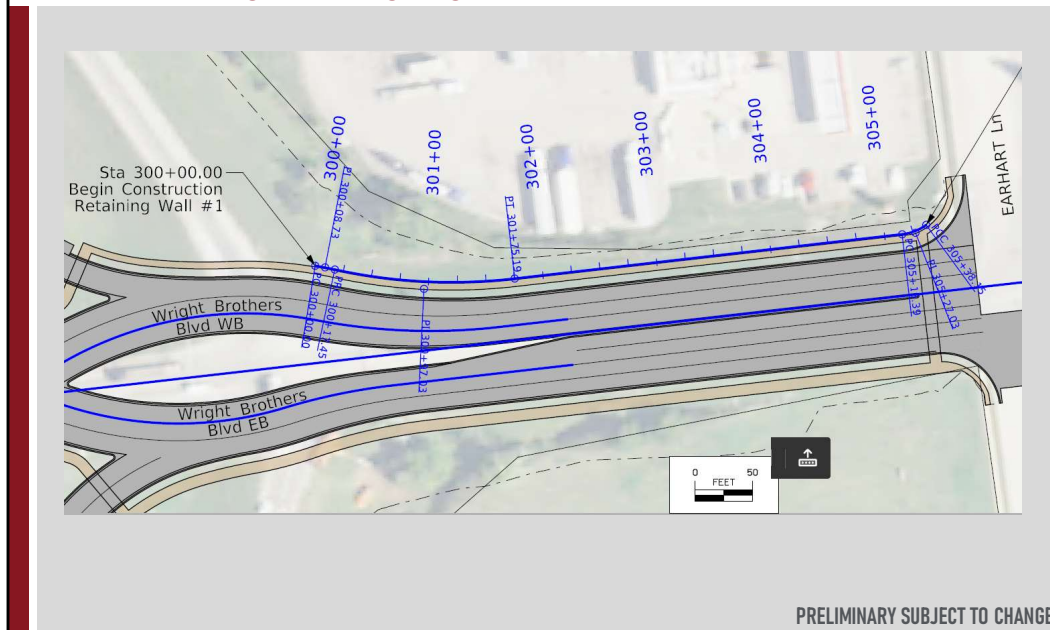
- Construction of the median piers and new bridges will require a full-size large crane in the median. A smaller crane might work in the median if frame piers are used and if the piers are constructed in smaller sections, but that increases the construction time and could affect aesthetics and finished work.
- For room to work in the median, it was suggested that mainline I-380 traffic should be pushed out at least on one side and preferably on both sides. Minimum width estimate for a large crane is 50' back of counter-weight to hook (need more than that for moving and working). The pier forms will be large.
- I-380 median grading and paving work in this area will need to wait until after the piers are constructed.

The existing bridge is 4-span and is still in use during construction of the new piers; DOT verify traffic staging with respect to existing piers, and look to shift I-380 mainline traffic out away from the median, and to not begin NB median work during the pier construction phase.

I-380 from N of 120th St. to near US 30

Reference Figure for Pier Construction in I-380 Median



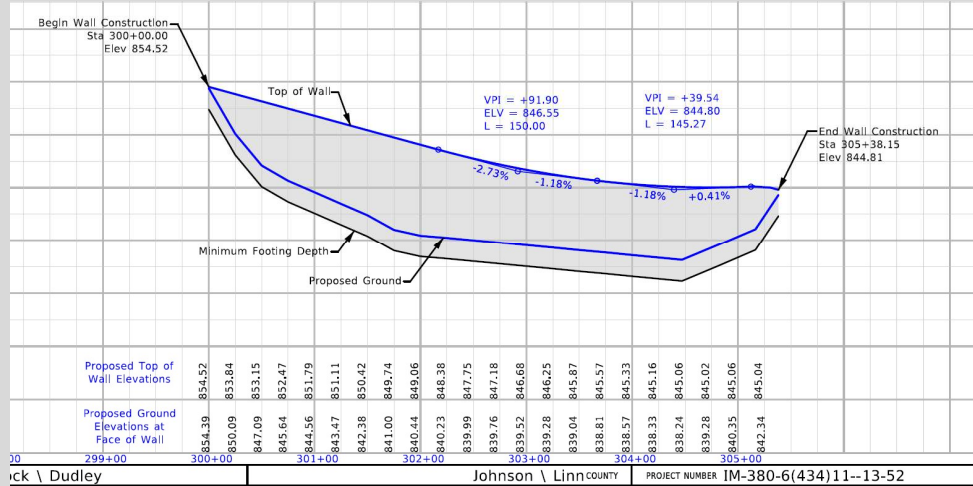
I-380 from N of 120th St. to near US 30**Retaining wall along Wright Brothers Blvd.**

Possible need for intermediate foundation improvements under the wall (due to adjacent wet ditch conditions)

This area may pond and hold water during and after rain events

I-380 from N of 120th St. to near US 30

Retaining wall along Wright Brothers Blvd.



Johnson \ Linn COUNTY PROJECT NUMBER IM-380-6(434)11--13-52

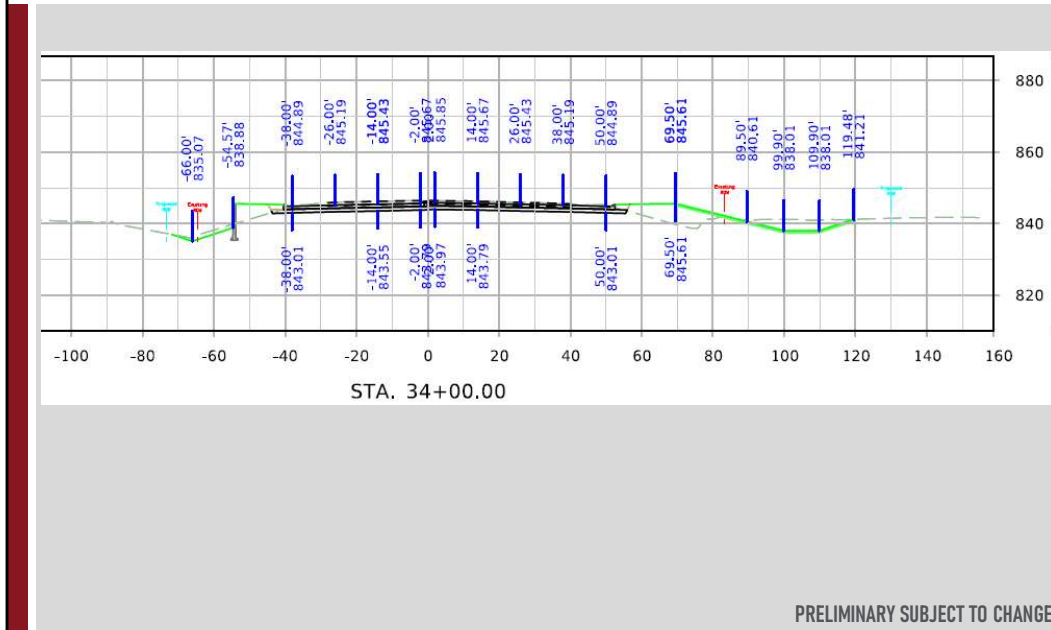
PRELIMINARY SUBJECT TO CHANGE

Possible need for intermediate foundation improvements under the wall (due to adjacent wet ditch conditions)

This area may pond and hold water during and after rain events

I-380 from N of 120th St. to near US 30

Retaining wall along Wright Brothers Blvd.

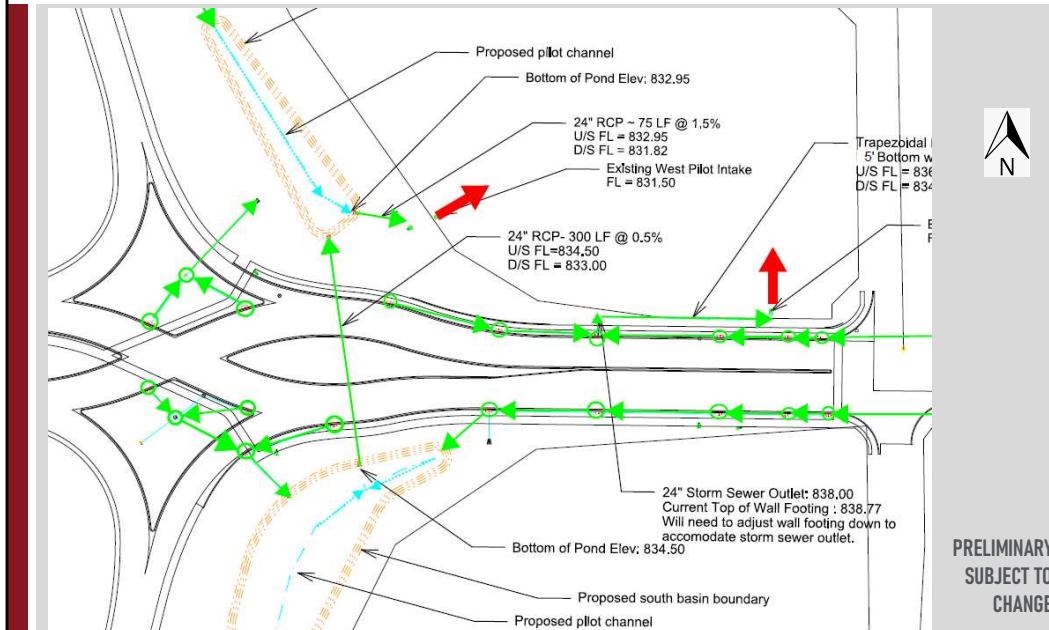


Possible need for intermediate foundation improvements under the wall (due to adjacent wet ditch conditions)

This area may pond and hold water during and after rain events

I-380 from N of 120th St. to near US 30

Interchange Area Prelim Drainage



Preliminary drainage design is in progress. Illustrated are preliminary thoughts on the east side on I-380 in the interchange area. The red arrows indicate existing storm sewer drainage with limited capacity; there is not much option to pump-out water from the ditch or retaining wall working area during rain events, unless pumping to the proposed detention areas illustrated here as “ponds” (note these are being designed to slow-down storm water, but not to pond water for more than a couple hours after a rain event).

I-380 from N of 120th St. to near US 30

Bridge Aesthetics – preliminary concept renderings



PRELIMINARY SUBJECT TO CHANGE

Preliminary concept aesthetics.

I-380 from N of 120th St. to near US 30

Bridge Aesthetics - preliminary concept renderings



PRELIMINARY SUBJECT TO CHANGE

Preliminary concept aesthetics.

I-380 from N of 120th St. to near US 30

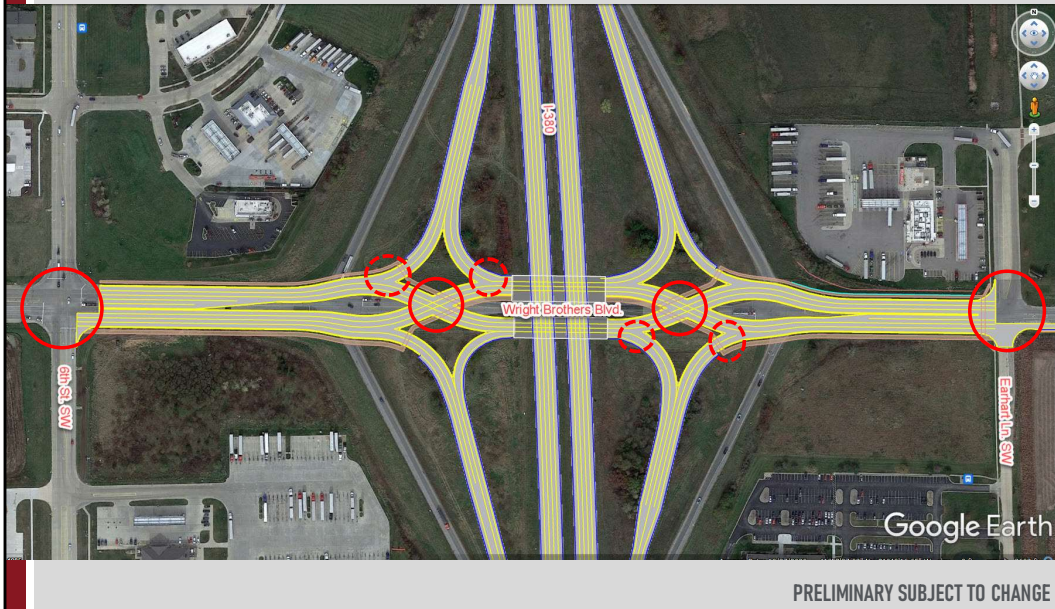
Bridge Aesthetics - preliminary concept renderings



Preliminary concept aesthetics.

It was noted that inset pavers add complexity and time to forming and construction.

Project Overview – Signals



Signals in interchange and at side road intersections.

The dashed circles indicate potential signals, yet to be determined (could possibly be yield signs for opening day)

I-380 from N of 120th St. to near US 30

Schedule

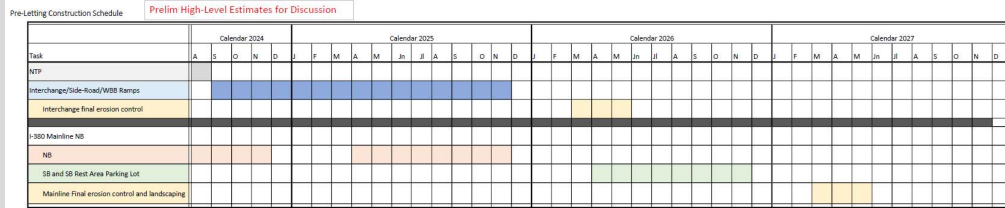
SCHEDULE

PRELIMINARY SUBJECT TO CHANGE

I-380 from N of 120th St. to near US 30

GANTT Chart (Interchange and Side Road construction schedule)

Refer to Handout



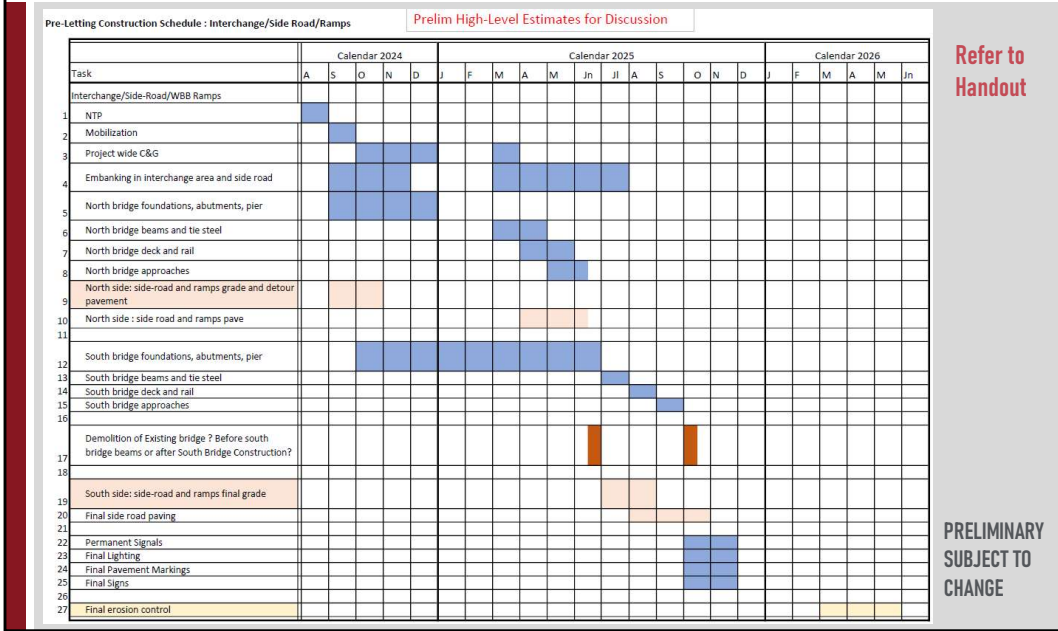
PRELIMINARY SUBJECT TO CHANGE

High-level overall schedule.

- July 2024 letting
- Interchange completed by end of calendar 2025
- Mainline completed by end of calendar 2026

I-380 from N of 120th St. to near US 30

GANTT Chart : Interchange and Side Road construction schedule



Draft schedule shows north bridge completed by mid-June 2025, with traffic on the new bridge before July 2025.

Questions / Discussion

Questions:

1. Thoughts on Wright Brothers Blvd. staging relative to bridge construction and demolition?
2. Contractor access challenges?

Discussion

PRELIMINARY SUBJECT TO CHANGE

Questions and Discussion:

- The existing bridge is 2' lower than the new bridges. It was noted this bridge will be difficult to remove. Possibly the existing bridge super-structure could be removed before the new south bridge super-structure is constructed (after traffic is moved to the new north bridge)? The old bridge sub-structure (piers and abutments) could be removed later? The south bridge pier will need to be done early to facilitate the mainline I-380 construction schedule.
- Could the bridge demo be done after the interchange is open, without affecting any opening bonus (i.e. during the winter of 2025/2026 or in early calendar 2026)? The existing bridge will be difficult to get out and having more time to do this work would be beneficial.
 - DOT will evaluate.
- To help facilitate bridge demo, consider delaying the NB 380 pavement surface course work until after bridge demolition. Consider doing all the I-380 surface course work, for both NB and SB, in calendar 2026.
 - DOT will evaluate options.
- Need full access to 380 median at the start of the project in order to build median footings/piers. Additional room is requested for pier construction; consider pushing traffic out, away from the median, during median pier construction.

- There may be advantage to building both new piers at the same time; all median bridge work first. Then this area will be open for mainline work.
- Consider overnight full interstate closures for bridge demo. 20-minute rolling closures will not work well for the demo work. For bridge demo work, anticipate 2-weeks of night closures or one full weekend closure (DOT noted the weekend full-closure option will likely not be allowed).
 - Road design to evaluate and visit with District on traffic control for night-time full interstate closures for bridge demo work. Crossing traffic over the interchange with DDI intersections may be tricky and some temp pavement may need to remain in the interchange area to facilitate on-site detours during demolition. Evaluate other detour options.
- The window to finish the WBB roadway and bridge berm grading is short. Access and traffic control are a challenge. It will be tough to get around in the interchange area due to the high volume traffic.
- Has surcharge been considered if needed to help meet the settlement/schedule?
 - Not yet.
- Do we know what ground improvements will be needed in the interchange area?
 - Not yet. DOT anticipates ground improvements may be required under the MSE retaining wall due to the long-term wet conditions in that area. Determination of wick-drains and other potential ground improvements in the interchange area have not yet been made.
- Regarding schedule question, it was noted that the recent I-80/1st Ave DDI project letting has a two-year construction schedule, whereas this interchange is just a bit over 1-years. A couple contractors noted the feeling that in general, this proposed interchange schedule appears doable based on what is known so far, especially if demolition of the existing bridge is allowed to occur in winter 2025/2026 or in 2026, and with the assumptions noted (utilities relocated before the letting, ability to move I-380 traffic away from the median pier construction, no delay to pile driving, etc.).

I-380 from N of 120th St. to near US 30

Questions



PRELIMINARY SUBJECT TO CHANGE



THANK YOU FOR YOUR TIME AND ATTENTION



Linda Narigon, Iowa DOT Project Manager
linda.Narigon@iowadot.us

I-380 from N of 120th St. to near US 30

Meeting Attendees

Ron Otto – AGC

Linda Narigon – DOT Project Management

Jason Holst – DOT Road Design

Mike Nop – DOT Bridge

Andy Stone – United Contractors

Tyler Wilson – FHWA

Adam Kos – CJ Moyna

Danielle Alvarez – DOT Construction

Jesse Tibodeau – DOT Assistant District Engineer

Jim Schnoebelen – DOT District Engineer

Brian Jacob – Cramer and Associates

Nick Jorgensen – Cramer and Associates

Steve Streb – Streb Construction

Charlie Purcell – DOT Highway Development Division

Joel Gryp – LL Pelling

Brett Finnegan – LL Pelling

Troy Mertens – Streb Construction

Mitch Dillavou – DOT Highway Construction Division

Curtis Carter – DOT Construction

Tyler Gustafson – PCI

Jordan Muller – PCI

Jim Ellis – DOT Prelim Bridge

Stacy Ryan – DOT Contracts

Mark Dunn – DOT Contracts

Deanna Maifield – DOT Project Management

Others attending from the public:

Dan Smith – HR Green

Megan Anderson – HR Green