



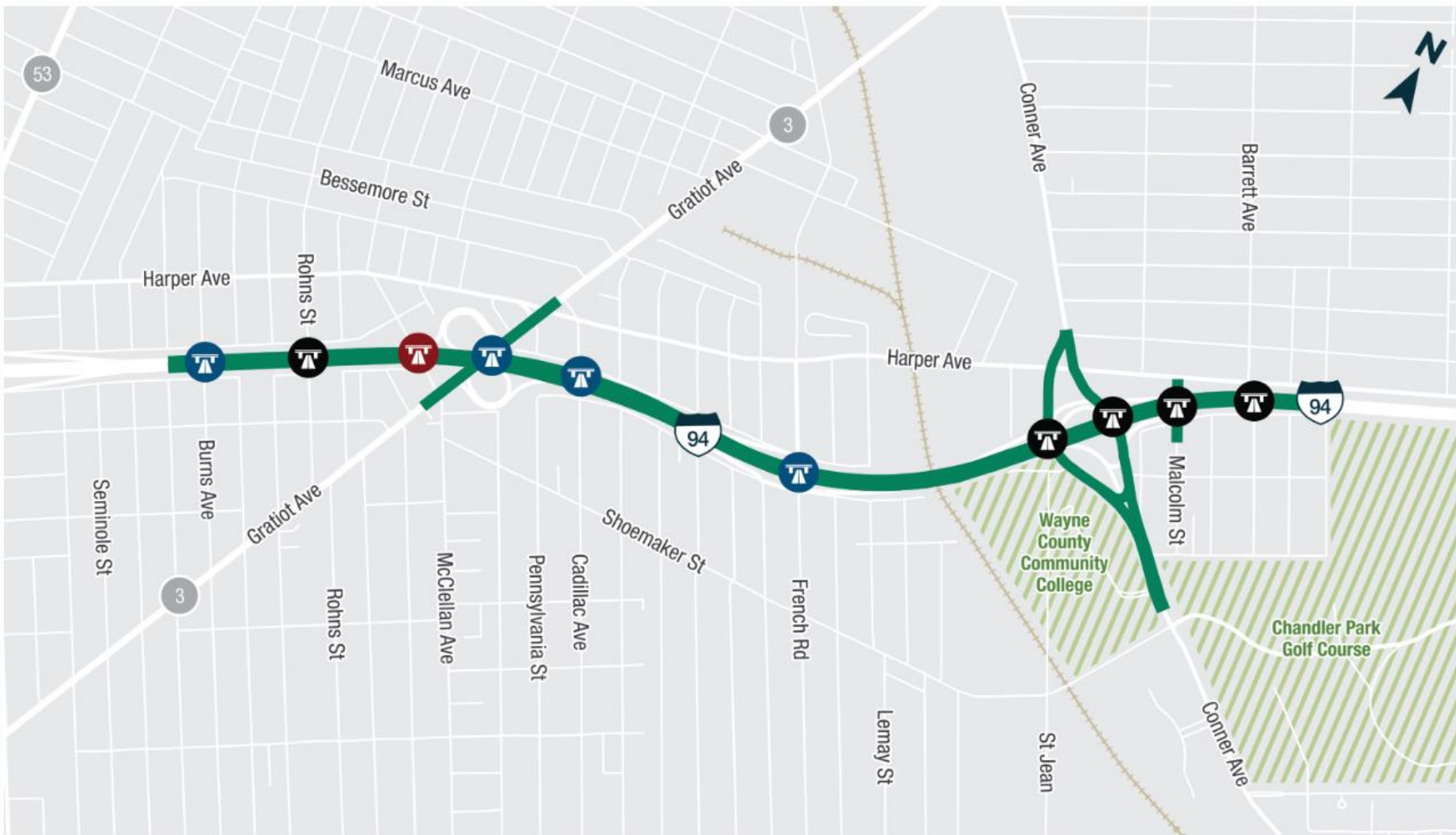
# I-94 MODERNIZATION PACKAGE 1

Drainage Tunnel & Iron Belle Trail Design Changes  
Public Community Meeting  
November 7, 2024



- **Introductions and Housekeeping**
- **Package 1 Drainage Tunnel Overview**
  - Project Details
  - Benefits and Impacts
  - Proposed Mitigation
- **Iron Belle Trail Design Change**
  - Overview
  - Options Evaluated
- **Q&A**

# I-94 MODERNIZATION | PACKAGE 1 DESIGN & CONSTRUCTION



← PACKAGE 1: BURNS AVENUE TO BARRETT AVENUE →

## ■ Package 1 Project Limits:

- I-94 from Burns Avenue to Barrett Avenue

## ■ Construction:

- 2026 – 2028: Drainage Tunnel
- 2028 – 2031: Freeway, Bridges, Interchanges, & Service Drives

### LEGEND

 I-94 PACKAGE 1 CONSTRUCTION LIMITS

 BRIDGE PREVIOUSLY RECONSTRUCTED TO REMAIN IN-PLACE

 PACKAGE 1 BRIDGE CONSTRUCTION

 PERMANENT BRIDGE REMOVAL



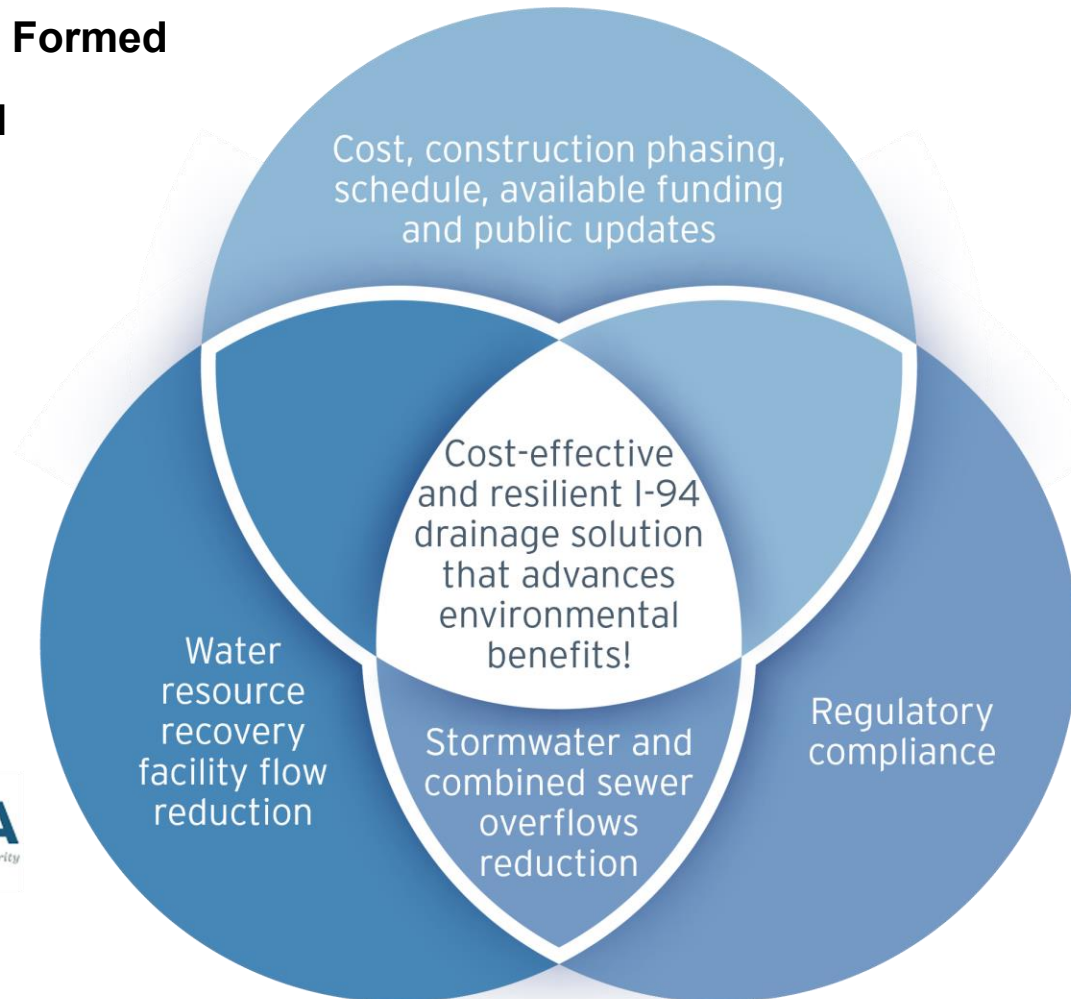
**I-94  
Modernization  
Project**

**Package 1 Drainage Tunnel  
Overview**

# I-94 DRAINAGE SOLUTION COLLABORATION



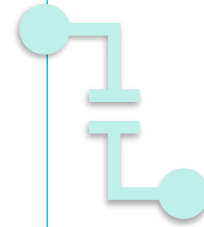
- 2019: Collaboration Began
- 2020: Drainage Committee Formed
- 2022: Agreement Executed



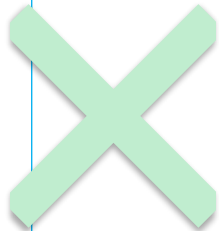
# DRAINAGE TUNNEL BENEFITS



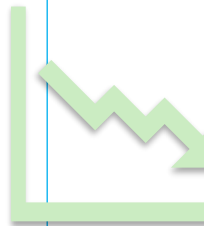
Tunnel will be designed to accommodate heavier storm events and **provide additional storage.**



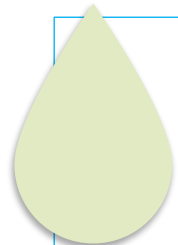
**Disconnect service drives** from the combined system and drain them to the I-94 tunnel.



**Eliminate three I-94 freeway drainage connections** to the combined sewer system.



**82% reduction** in I-94 peak flow (storm water) to the City's combined sewer system.



**Reduced Risk of Flooding**

- **MDOT is providing GLWA/DWSD up-to \$38 million in funding for:**
  - Implementation of Netting & Disinfection Treatment Facilities at three (3) combined sewer overflow points to the Detroit River.
  - Improving water quality in the Detroit River



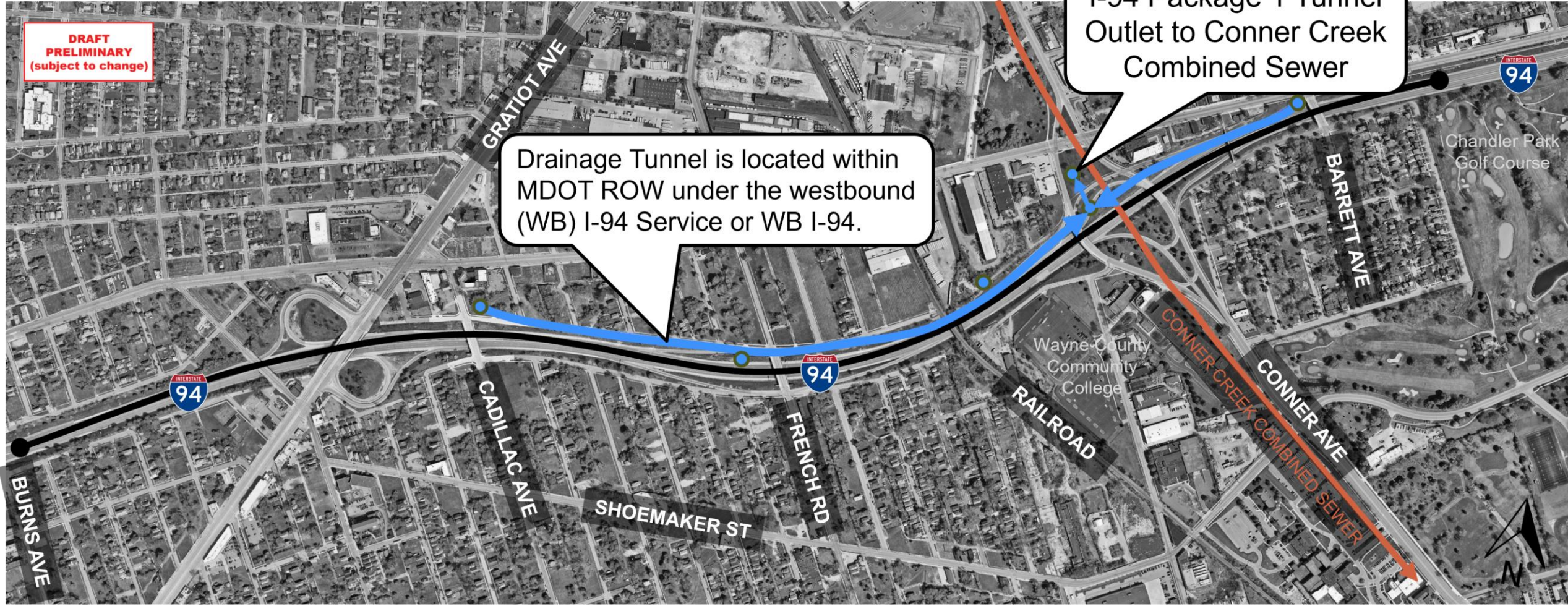
# PACKAGE 1 DRAINAGE TUNNEL OVERVIEW



**DRAFT  
PRELIMINARY  
(subject to change)**

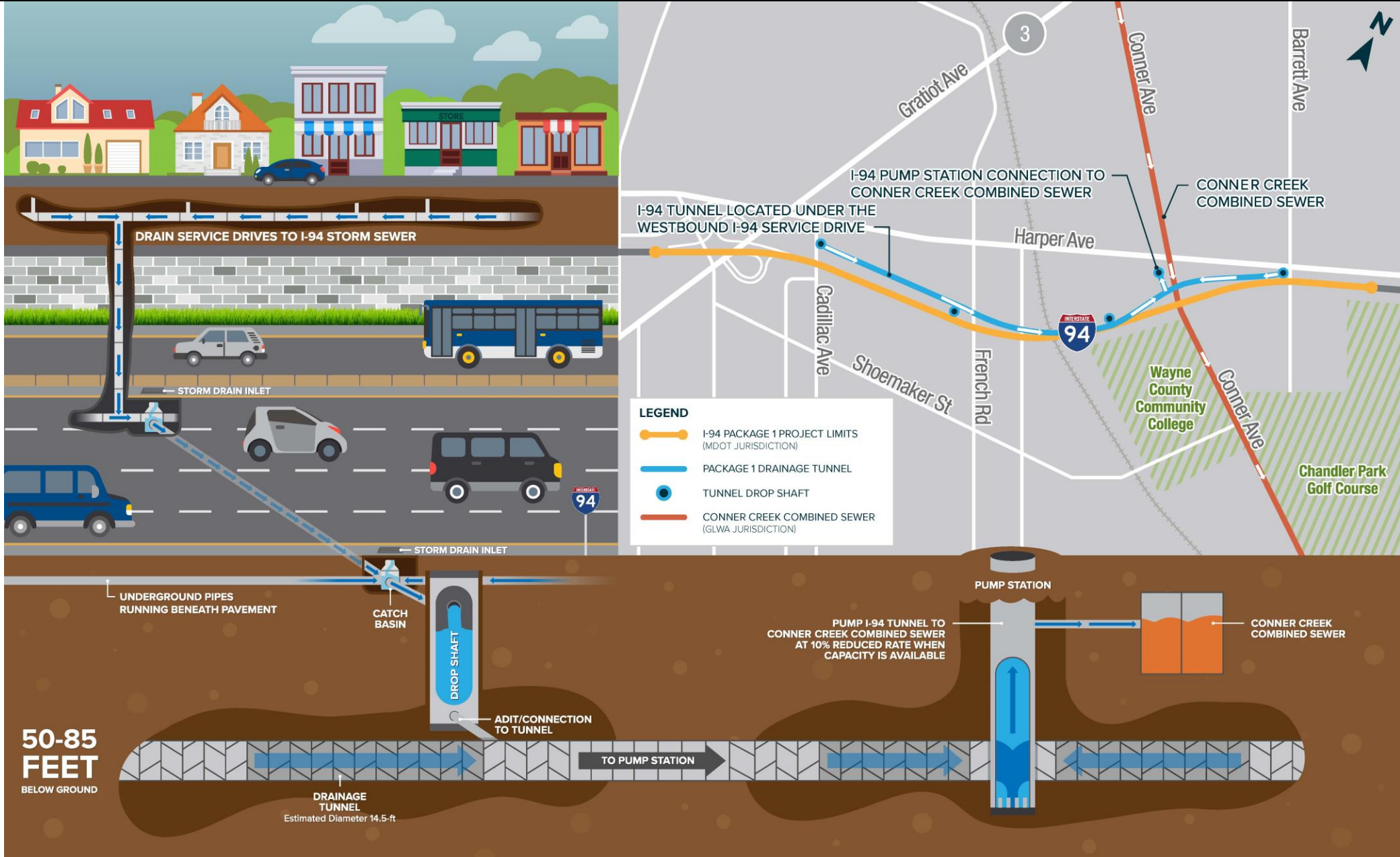
I-94 Package 1 Tunnel  
Outlet to Conner Creek  
Combined Sewer

Drainage Tunnel is located within  
MDOT ROW under the westbound  
(WB) I-94 Service or WB I-94.

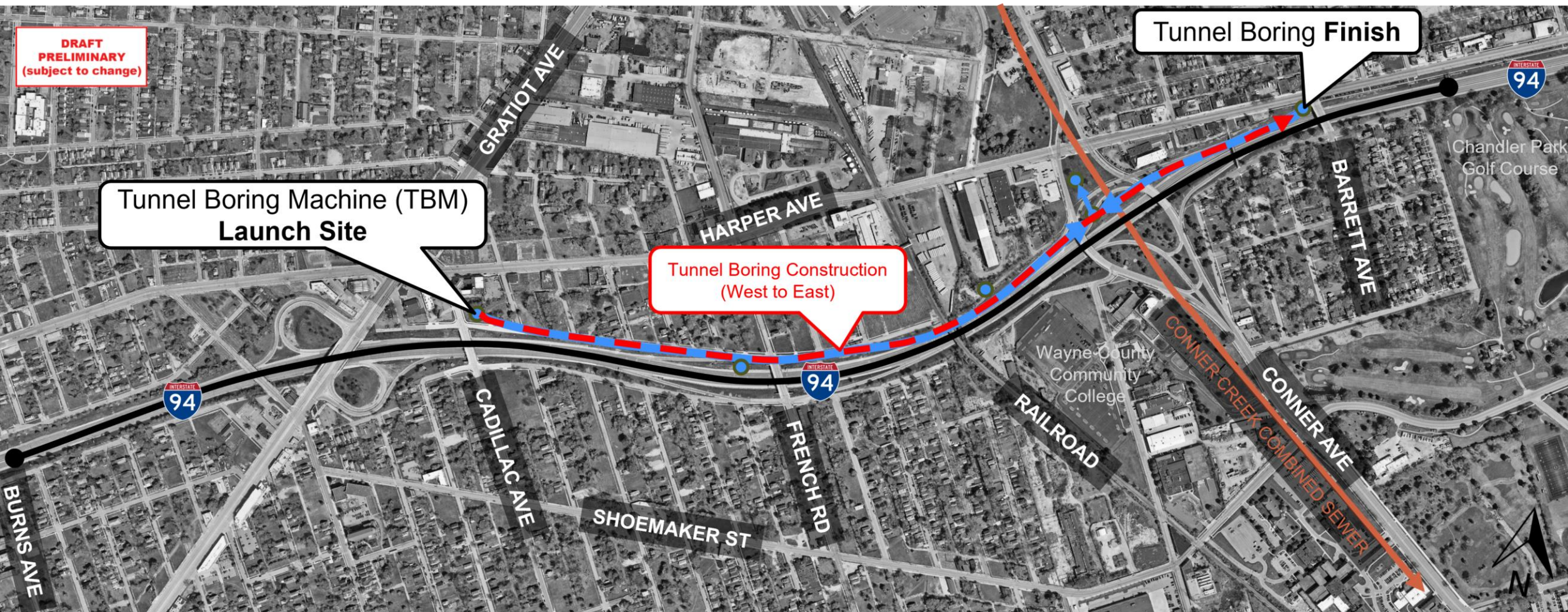


- PACKAGE 1 Project Limits
- PACKAGE 1 Drainage Tunnel (Est. Diameter = 14.5-ft)
- GLWA/DWSD Conner Creek Combined Sewer
- Tunnel Drop Shaft

# PACKAGE 1 DRAINAGE TUNNEL OVERVIEW GRAPHIC



# PACKAGE 1 DRAINAGE TUNNEL OVERVIEW CONT.



- PACKAGE 1 Project Limits
- ==== PACKAGE 1 Drainage Tunnel (Est. Diameter = 14.5-ft)
- GLWA/DWSD Conner Creek Combined Sewer
- Tunnel Drop Shaft

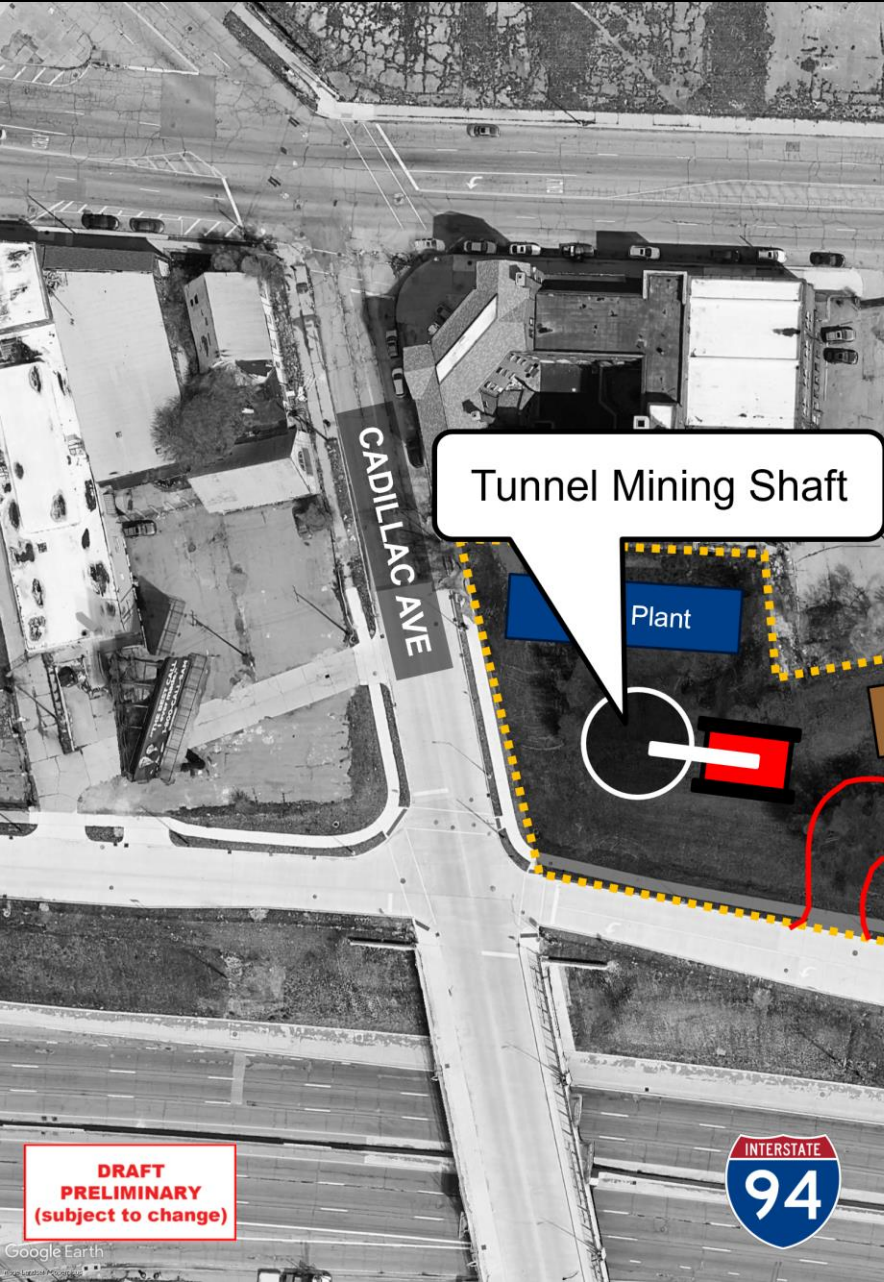
# I-94 TUNNEL LAUNCH/MINING SITE CONCEPT



**DRAFT  
PRELIMINARY  
(subject to change)**



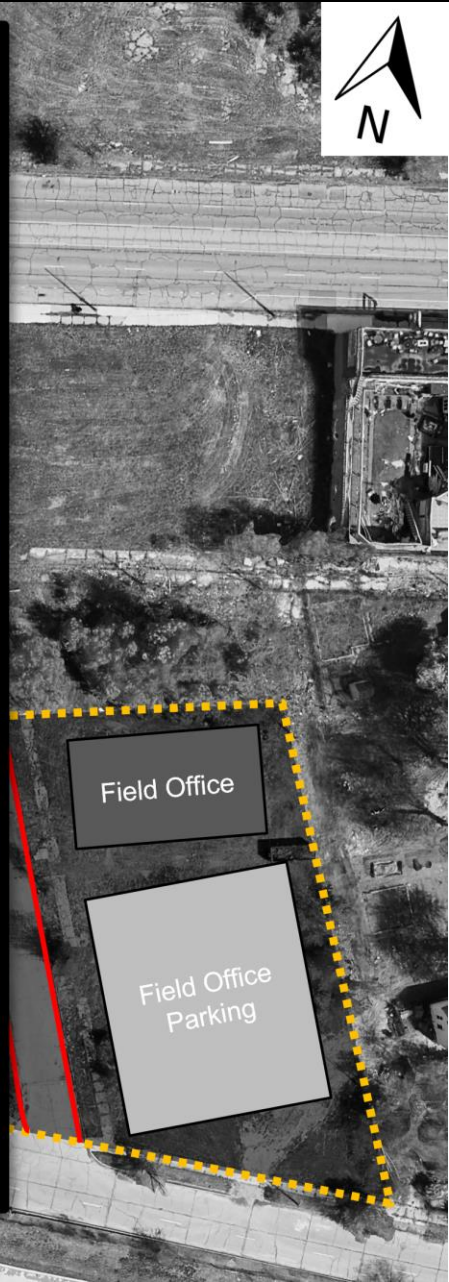
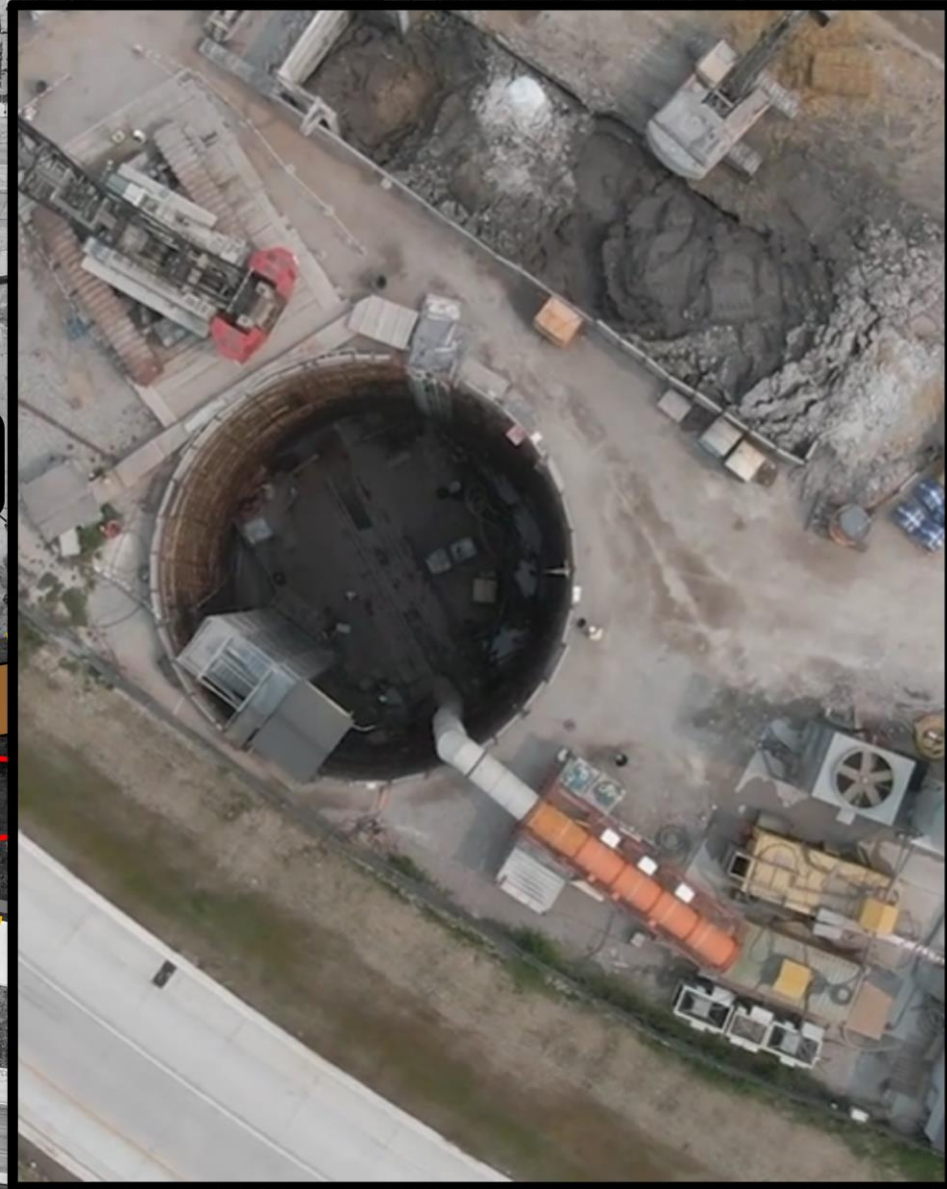
# I-94 TUNNEL LAUNCH/MINING SITE CONCEPT (1)



Tunnel Mining Shaft

Plant

CADILLAC AVE



Field Office

Field Office  
Parking

**DRAFT  
PRELIMINARY  
(subject to change)**



# I-94 TUNNEL LAUNCH/MINING SITE CONCEPT (2)



**DRAFT  
PRELIMINARY  
(subject to change)**



# I-94 TUNNEL LAUNCH/MINING SITE CONCEPT (3)



Grout Plant

Grout Plant

Shop

Equipment Storage

Parking

WB I-94 Service Drive

CADILLAC AVE



**DRAFT  
PRELIMINARY  
(subject to change)**



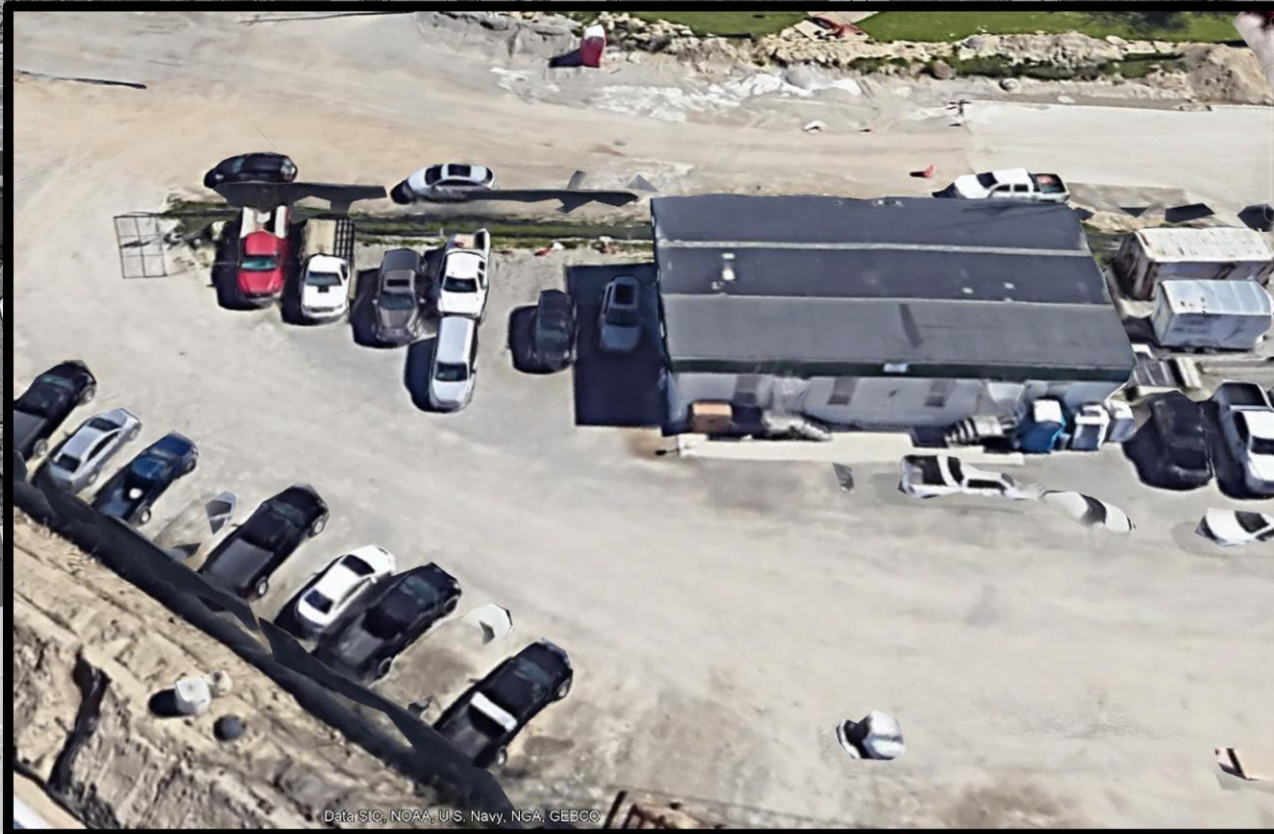
# I-94 TUNNEL LAUNCH/MINING SITE CONCEPT (4)



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PRELIMINARY  
(subject to change)**



# I-94 TUNNEL LAUNCH/MINING SITE CONCEPT (5)



Field Office & Parking

Field Office

Field Office Parking

Track & Utility Storage

Storage Containers

Shop

Equipment Storage

WB I-94 Service Drive

CADILLAC AVE



**DRAFT  
PRELIMINARY  
(subject to change)**



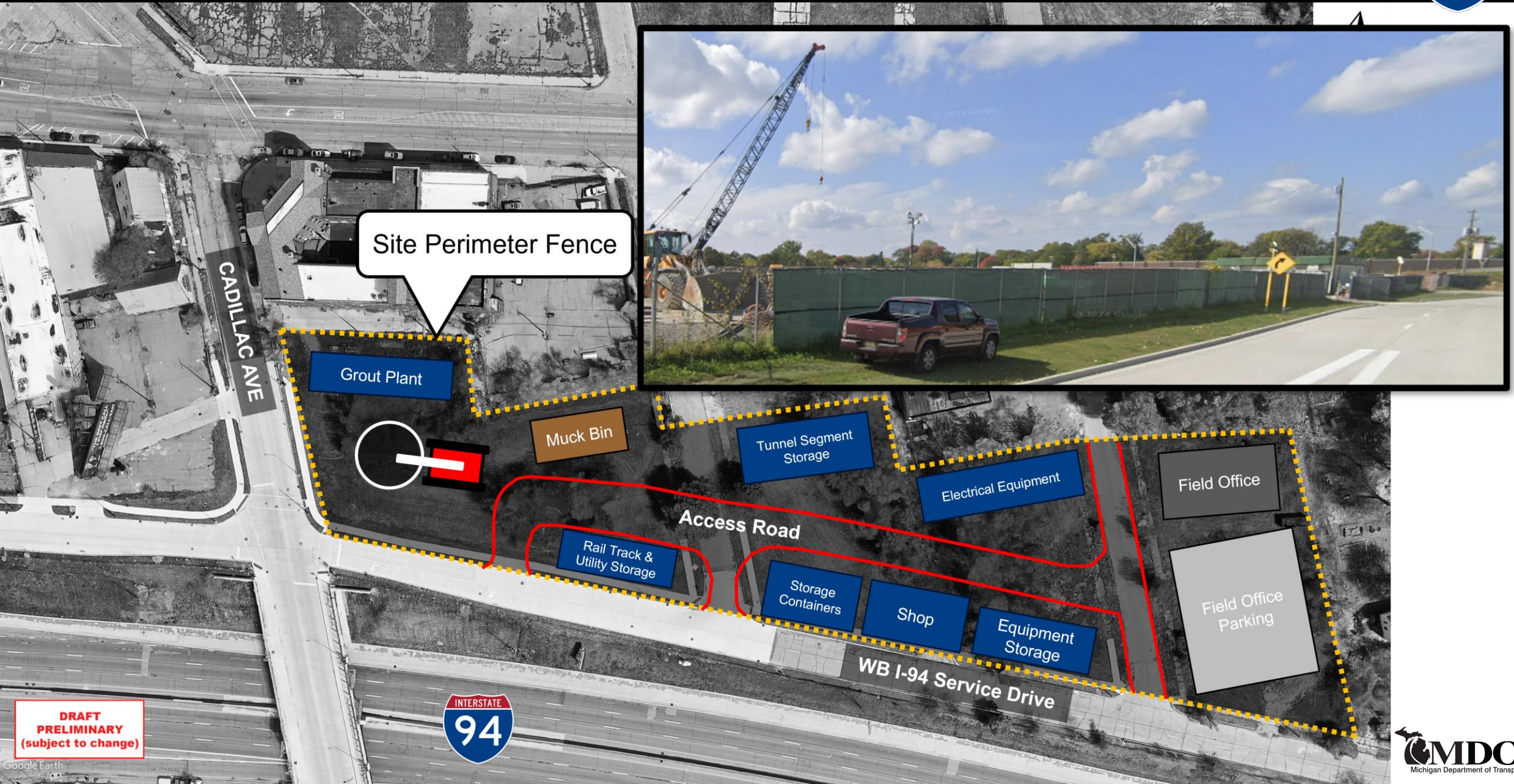
# I-94 TUNNEL LAUNCH/MINING SITE CONCEPT (6)



**DRAFT  
PRELIMINARY  
(subject to change)**



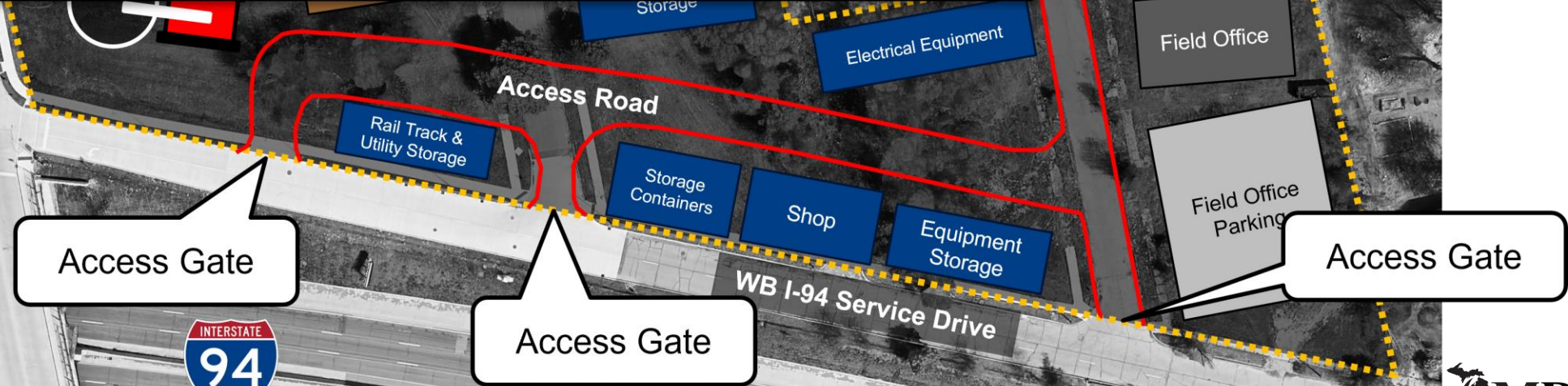
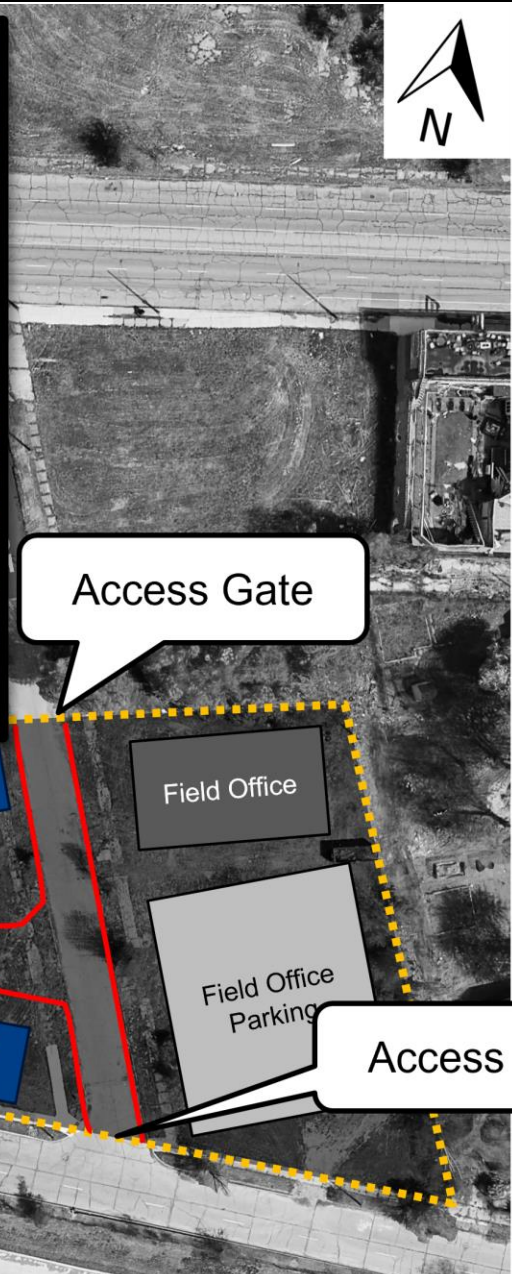
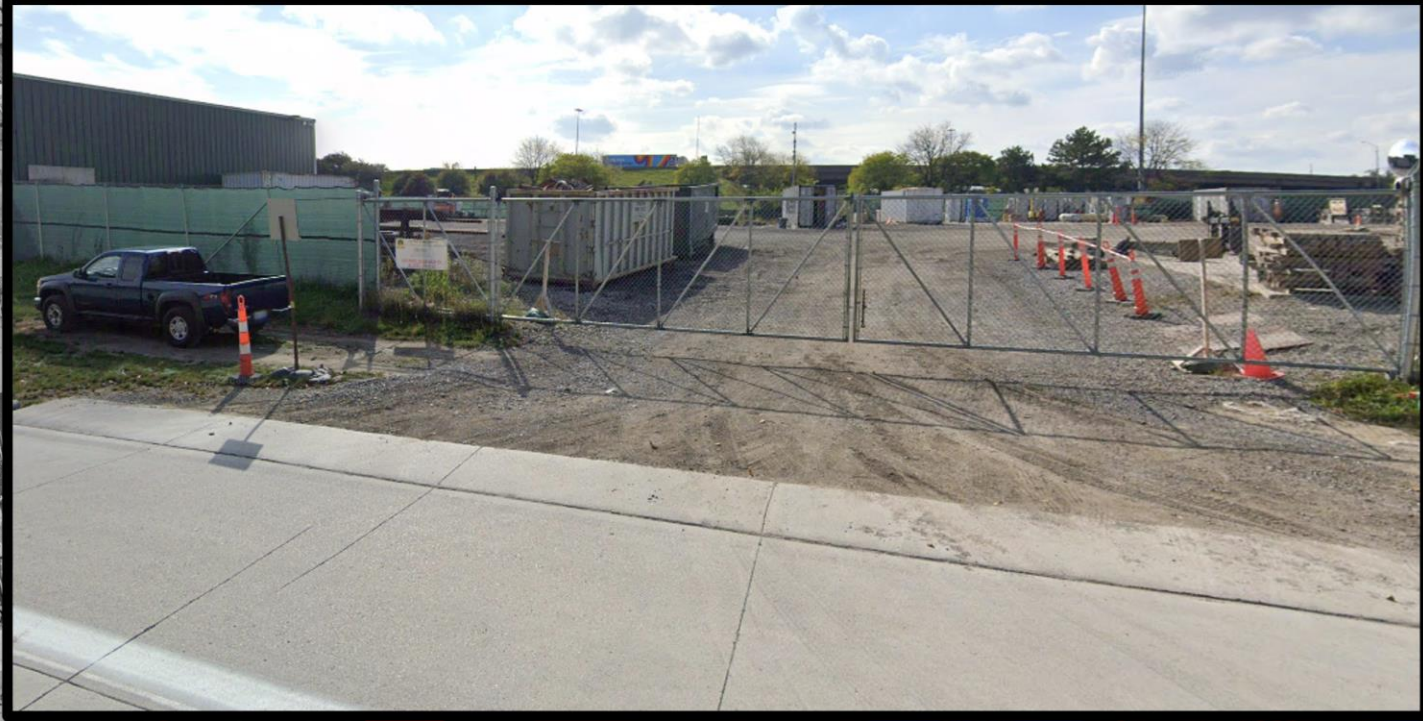
# I-94 TUNNEL LAUNCH/MINING SITE CONCEPT (7)



**DRAFT  
PRELIMINARY  
(subject to change)**



# I-94 TUNNEL LAUNCH/MINING SITE CONCEPT (8)



**DRAFT  
PRELIMINARY  
(subject to change)**



# POTENTIAL TUNNEL CONSTRUCTION IMPACTS



**Right-of-Way (ROW):** Permanent property for the launch shaft and temporary easements for construction of other shafts.



**Tunnel Construction:** Trucking, noise, dust, and visual.



**Temporary Roadway and Sidewalk Closures**



**Access to Transit:** Access to bus stops and temporary transit route impacts.



**Environmental Considerations:** Tree and shrub removals for construction and air quality.

# PROPOSED MITIGATION MEASURES



## Right of Way



The I-94 Project Team selected the location of the **tunnel launch site** as it is **vacant land with no buildings** and is owned by the Detroit Land Bank Authority.

## Temporary Roadway & Sidewalk Closures



**Conduct community meetings** at the start of each construction season.

MDOT will **address sidewalk and roadway conditions** along detour routes.

MDOT will **ensure pedestrian detours are accessible** and compliant with the Americans with Disabilities Act (ADA).

## Access to Transit



Do not allow access from the tunnel construction site to Cadillac Avenue to **avoid impacting existing bus stops**.

**Keep sidewalks on Cadillac Avenue open** to maintain access to DDOT bus stops for Routes 11 and 67.

# PROPOSED MITIGATION MEASURES CONT.



## Dust Control



Place a layer of **stone** in the construction site for dust control.

Utilize **water trucks** to reduce **dust** at the construction site.

Conduct routine **street sweeping** to reduce dust and dirt from the construction site on City streets.

## Environmental



MDOT has a 3:1 tree replacement policy, **three trees will be planted for every tree removed.**

MDOT has a 4:1 shrub replacement policy, **four shrubs will be planted for every shrub removed.**

MDOT will perform a Project Area Contamination Survey, **any contaminated material disturbed by construction will be disposed of at a licensed landfill.**

## Light Pollution



MDOT will require the contractor to **direct lighting into the construction site** and not point lighting towards residential areas.

MDOT will **require fencing with visual shielding** to minimize visual impacts from construction and site lighting.

- **MDOT Evaluating Design-Build Delivery for the Tunnel**
  - Brings contractor on early
  - Introduce contractors to the community during design
  - Higher quality project outcomes
  - Collaboration drives innovation
  - Faster, more cost-effective project delivery



# MITIGATION OPTIONS | ACCESS TO TRANSIT



Tunnel Construction Site



PACKAGE 1 Drainage Tunnel  
(Est. Diameter = 14.5-ft)



DDOT Bus Route 6



DDOT Bus Route 11



DDOT Bus Route 67

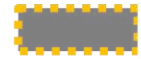


DDOT Bus Stop

# MITIGATION OPTIONS | CONSTRUCTION TRUCK ROUTE OPTIONS



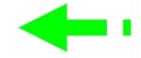
PACKAGE 1 Project Limits



Tunnel Construction Site



PACKAGE 1 Drainage Tunnel  
(Est. Diameter = 14.5-ft)



Potential Truck Routes

# MITIGATION OPTIONS | CONSTRUCTION TRUCK ROUTE OPTIONS CONT.



Truck Route Exiting the Site

Truck Route to the Site

No Residential on Bewick St

**DRAFT  
PRELIMINARY  
(subject to change)**





**Example 1: Site Perimeter Shielded Fence**

- Safety
- Visual Barrier



**Example 2: Site Security Access Gate**

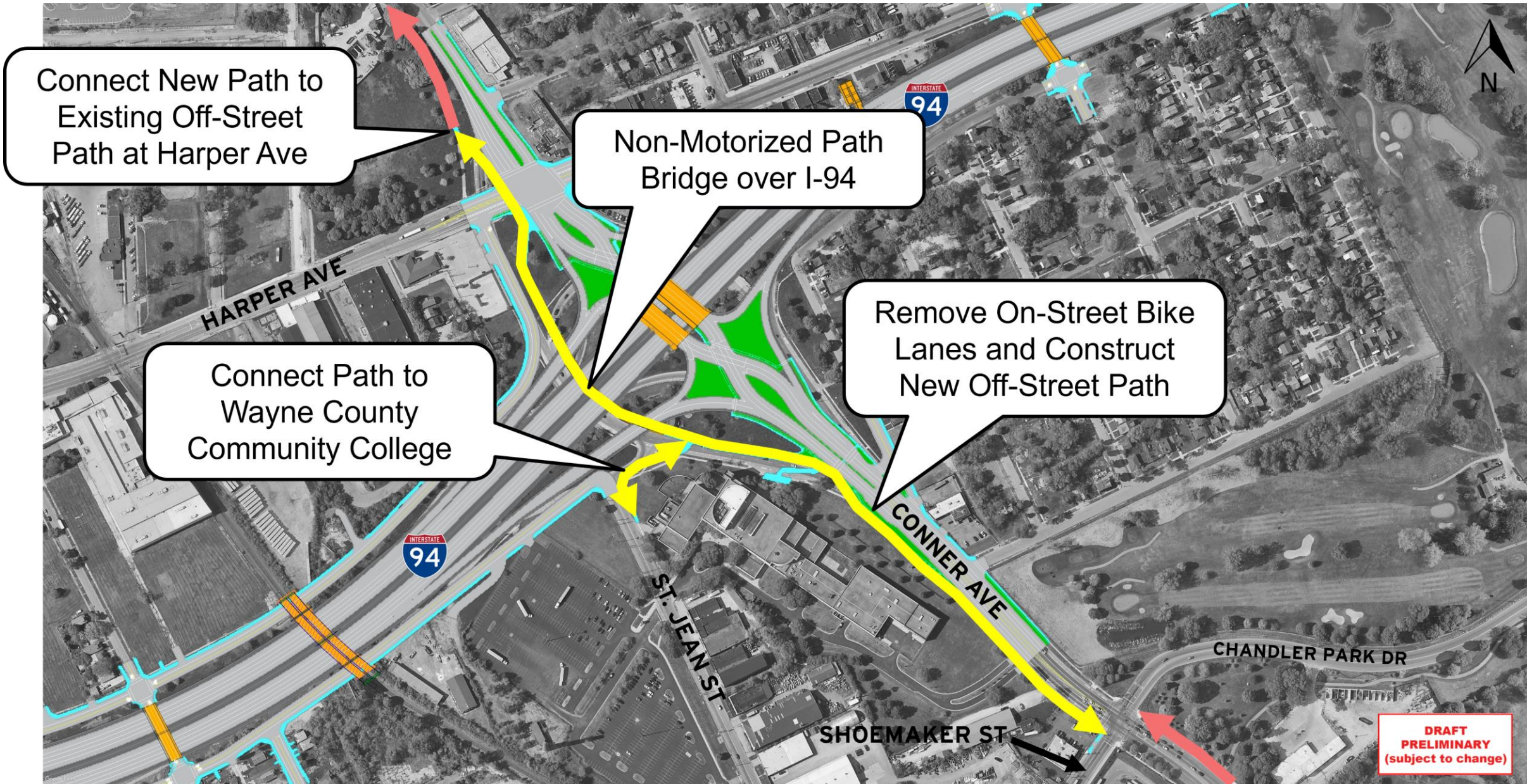
- Controlled Access
- Safety & Security



**I-94  
Modernization  
Project**

**IRON BELLE TRAIL  
Proposed Design Change**

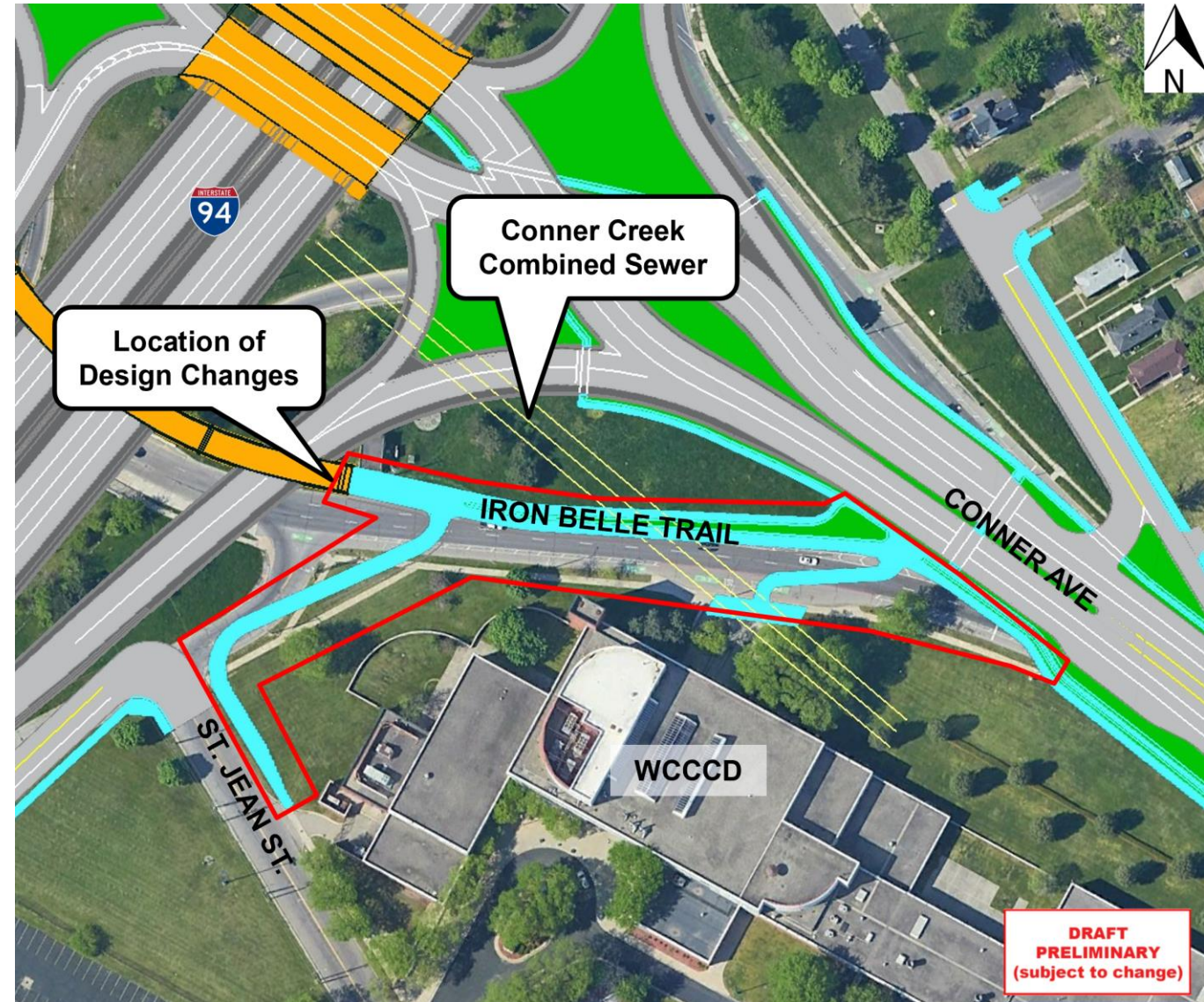
# APPROVED CONCEPTUAL DESIGN



# IRON BELLE TRAIL DESIGN CHANGE REQUIRED



- **WHAT:** Design changes required to the Iron Belle Trail landing south of I-94
- **WHY:** Reduce additional fill and weight on-top of the city's Conner Creek combined sewer
- Three (3) Design Change Options Evaluated



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PRELIMINARY  
(subject to change)**



**I-94  
Modernization  
Project**

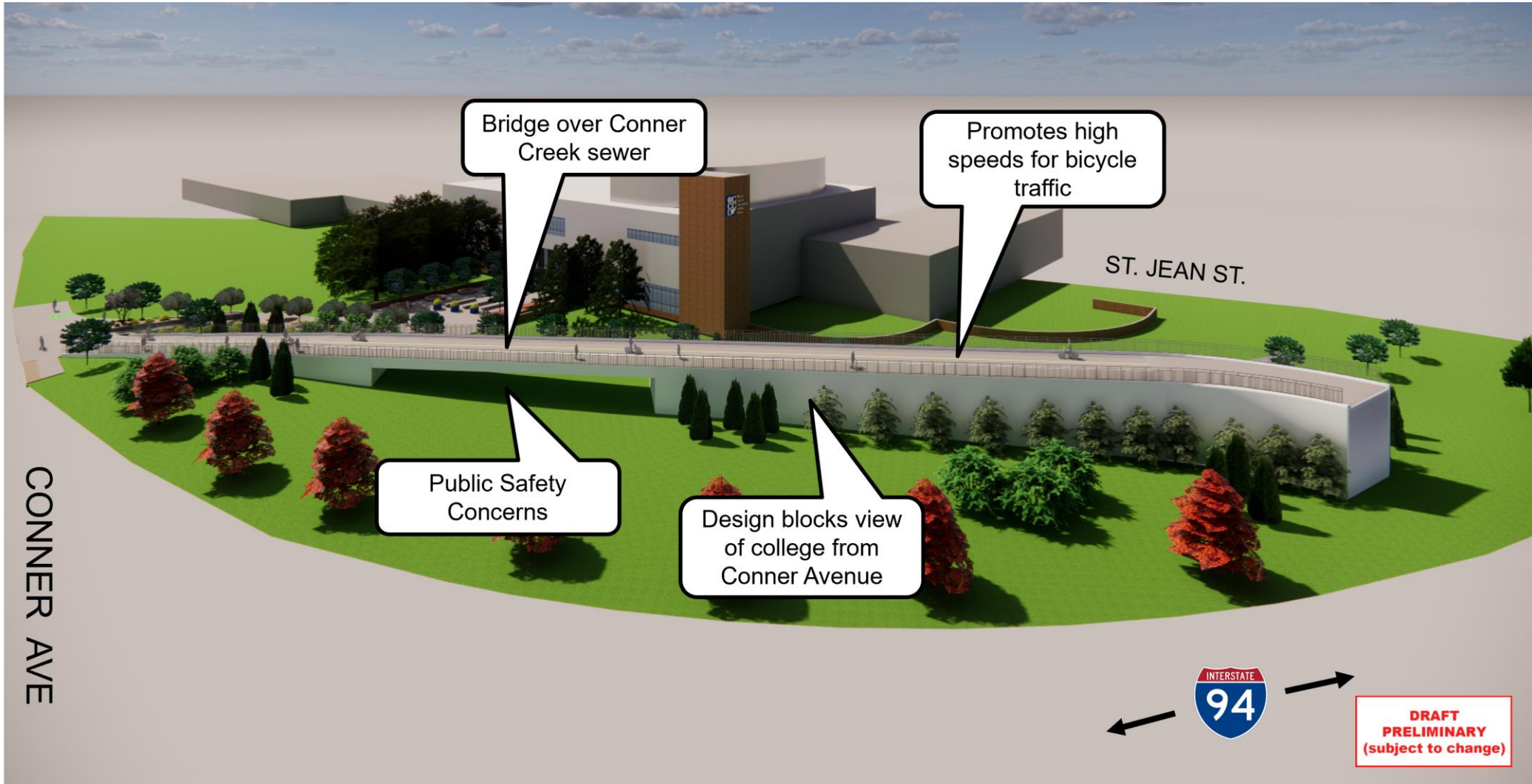
**IRON BELLE TRAIL DESIGN  
CHANGE**

**Option 1: Original Design + Bridge Over Sewer**

# 1. IRON BELLE TRAIL | OPTION 1 (ORIGINAL DESIGN + BRIDGE OVER SEWER)



## OPTION 1 (ORIGINAL DESIGN + BRIDGE OVER SEWER)



## 2. IRON BELLE TRAIL | OPTION 1 (ORIGINAL DESIGN + BRIDGE OVER SEWER)



### OPTION 1 (ORIGINAL DESIGN + BRIDGE OVER SEWER)

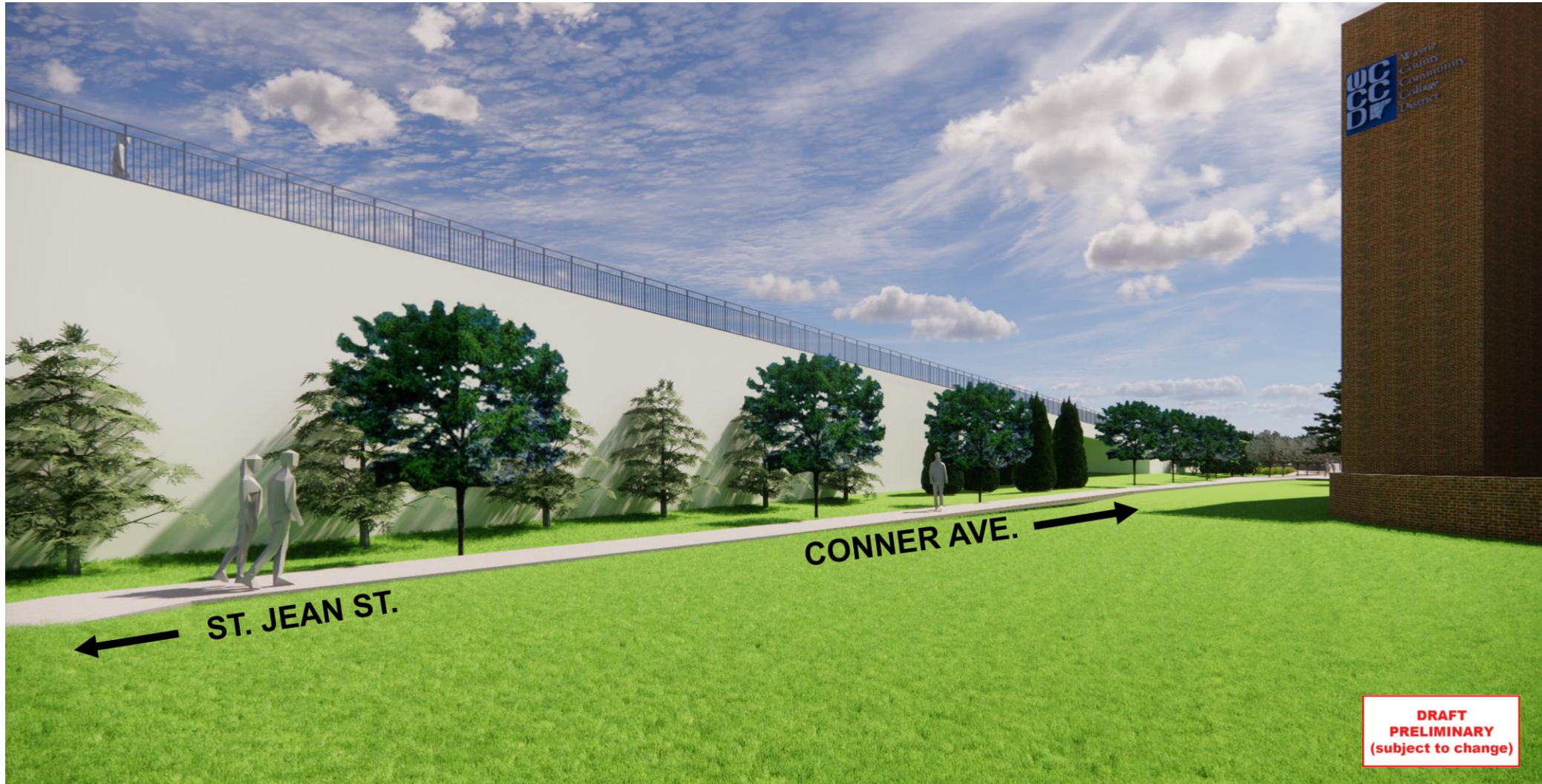


**DRAFT  
PRELIMINARY  
(subject to change)**

### 3. IRON BELLE TRAIL | OPTION 1 (ORIGINAL DESIGN + BRIDGE OVER SEWER)



#### OPTION 1 (ORIGINAL DESIGN + BRIDGE OVER SEWER)





**I-94**  
**Modernization**  
**Project**

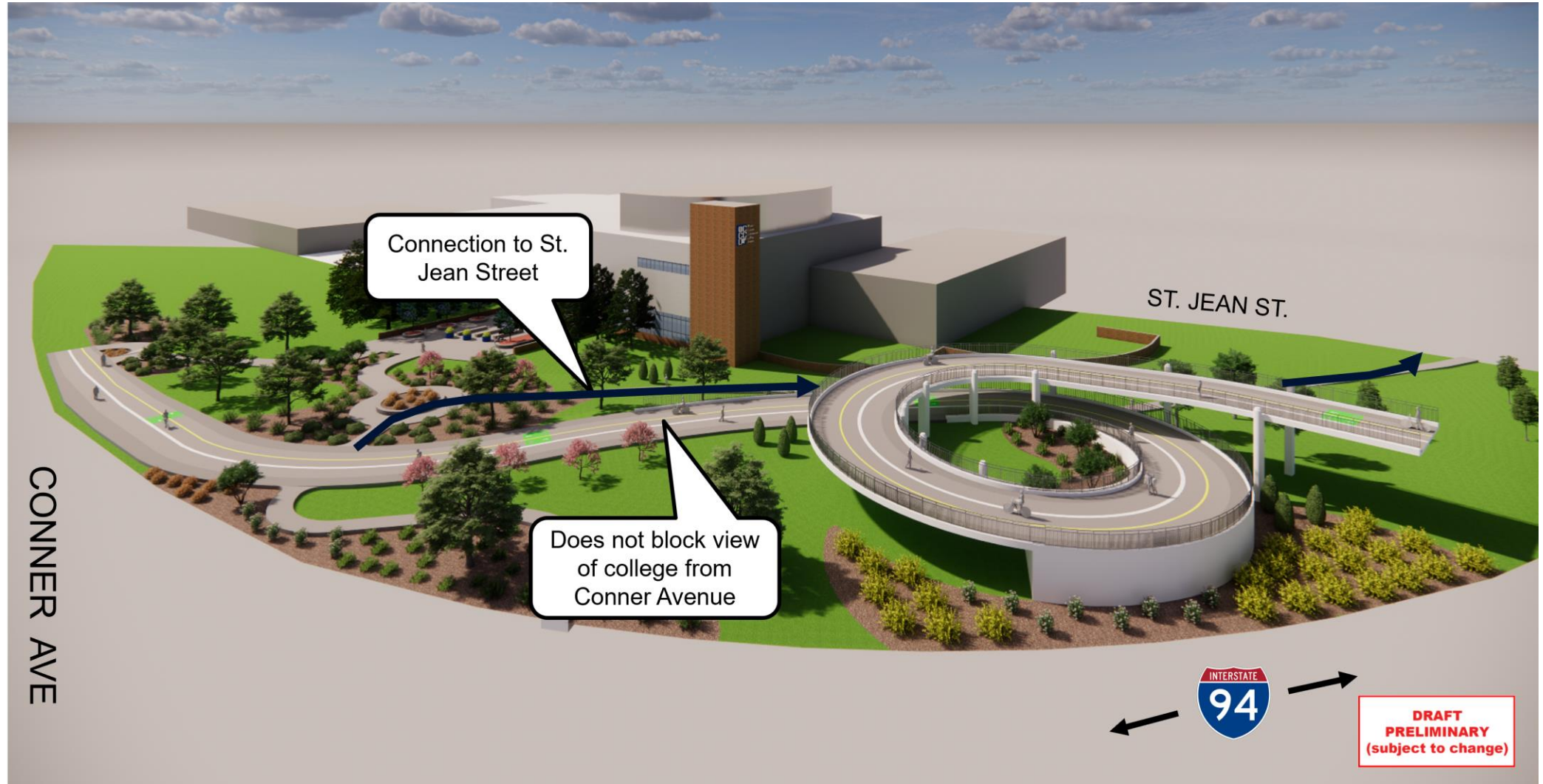
**IRON BELLE TRAIL DESIGN**  
**CHANGE**

**Option 2: Helix Design**

# 1. IRON BELLE TRAIL | OPTION 2 (HELIX DESIGN)



## OPTION 2 (HELIX DESIGN)



# 2. IRON BELLE TRAIL | OPTION 2 (HELIX DESIGN)



## OPTION 2 (HELIX DESIGN)



# 3. IRON BELLE TRAIL | OPTION 2 (HELIX DESIGN)



## OPTION 2 (HELIX DESIGN)



**DRAFT  
PRELIMINARY  
(subject to change)**

# 4. IRON BELLE TRAIL | OPTION 2 (HELIX DESIGN)



## OPTION 2 (HELIX DESIGN)



# 5. IRON BELLE TRAIL | OPTION 2 (HELIX DESIGN)



## OPTION 2 (HELIX DESIGN)





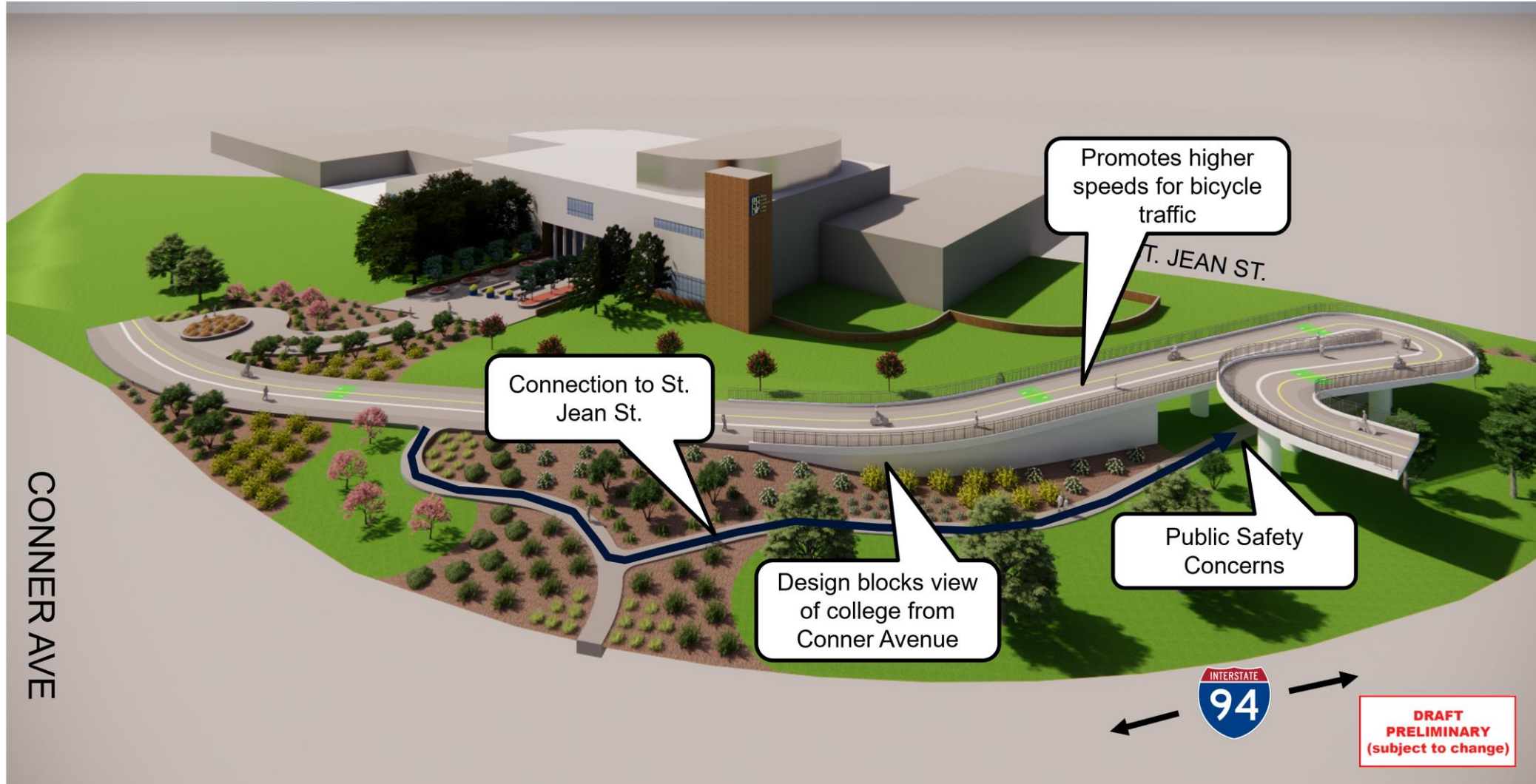
**I-94**  
**Modernization**  
**Project**

**IRON BELLE TRAIL DESIGN**  
**CHANGE**  
**Option 3: S-Curve Design**

# 1. IRON BELLE TRAIL | OPTION 3 (S-CURVE DESIGN)



## OPTION 3 (S-CURVE DESIGN)



# 2. IRON BELLE TRAIL | OPTION 3 (S-CURVE DESIGN)



## OPTION 3 (S-CURVE DESIGN)



**DRAFT  
PRELIMINARY  
(subject to change)**

# 3. IRON BELLE TRAIL | OPTION 3 (S-CURVE DESIGN)



## OPTION 3 (S-CURVE DESIGN)



# 4. IRON BELLE TRAIL | OPTION 3 (S-CURVE DESIGN)



## OPTION 3 (S-CURVE DESIGN)



**DRAFT  
PRELIMINARY  
(subject to change)**

# SUMMARY OF IRON BELLE TRAIL DESIGN CHANGE OPTIONS



## 1. Original Design + Bridge Over Sewer



**Blocks view of the college** from Conner Avenue.

**Sidewalk connection to St. Jean Street is less open** as it is between the retaining wall and college building.

Trail **acts as a barrier** between the college and Conner Avenue.

Enables **high-speed bicycle traffic** creating safety concerns.

## 2. Helix Design



**Does not block view of college** from Conner Avenue.

Provides **best connection to St. Jean Street** that is more open and does not cross below structures.

Helix design enables **lower-speed bicycle traffic** improving safety

## 3. S-Curve Design



**Partially blocks view of college** from Conner Avenue.

Bridge over sidewalk connection to St. Jean Street creates **public safety and security concerns**.

Design enables higher bicycle speeds than the Helix design, but less than the current design.



**I-94  
Modernization  
Project**

**QUESTIONS?**



**Contact information:**

**Adam Wayne, PE**

**MDOT Senior Project Manager**

**Email: [waynea1@michigan.gov](mailto:waynea1@michigan.gov)**

**Submit Comments to our website:**

**[i94detroit.org/contact-us/](http://i94detroit.org/contact-us/)**

