



Bell Avenue Update

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ID 23-440



Functionality of Bell Avenue

Multi-Use & Functional

- Emergency Access
- Utilities
- Pedestrian-friendly
- Bike-friendly
- Large Trucks/Deliveries
- Vehicles - Local Traffic
- Vehicles - Thru Traffic
- Buses
- Operation/Maintenance

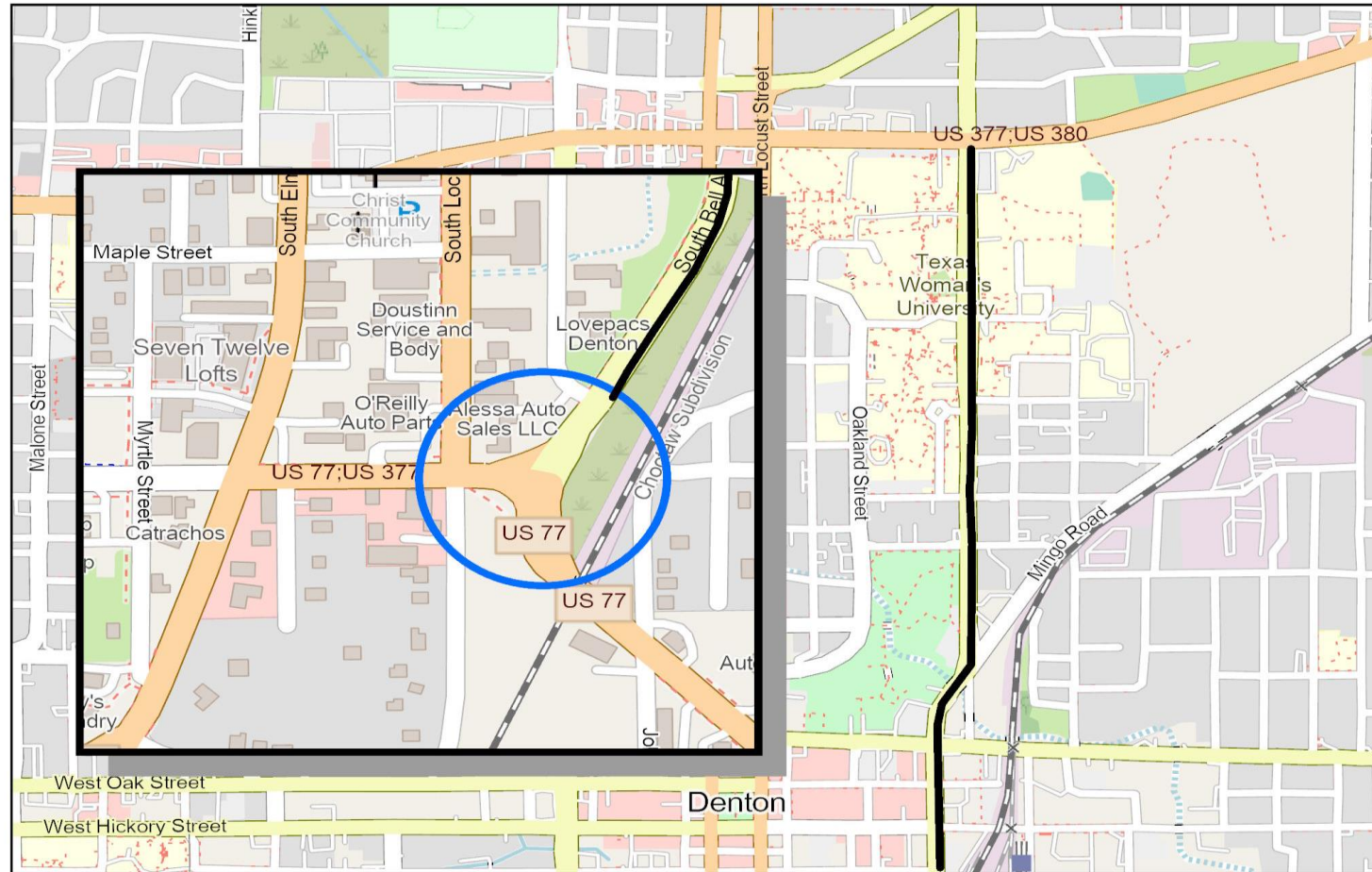
Safe Corridor

- Slow Traffic
- Visibility – Lighting
- Visibility – Sight distance
- Separate Uses
- Enforcement
- “No Vehicular Zones”

Background

- **Not recommending closure of Bell Avenue through TWU**
- More than 4 studies completed along Bell Avenue (including TWU and Intersection) over the last 10 years
- Changing corridor to be multimodal where applicable
- Eagle Drive will be reconstructed as part of the Locust Street/Elm Street Turnback (Summer 2024)

Bell Avenue Extents



Site Conditions

- Eagle Drive and Dallas Drive are TxDOT Roadways
- Locust Street Turnback to City of Denton
- Bell Avenue is City of Denton
- UPRR Crossing Dallas Drive
- Any Changes Requires TxDOT Review and Approval



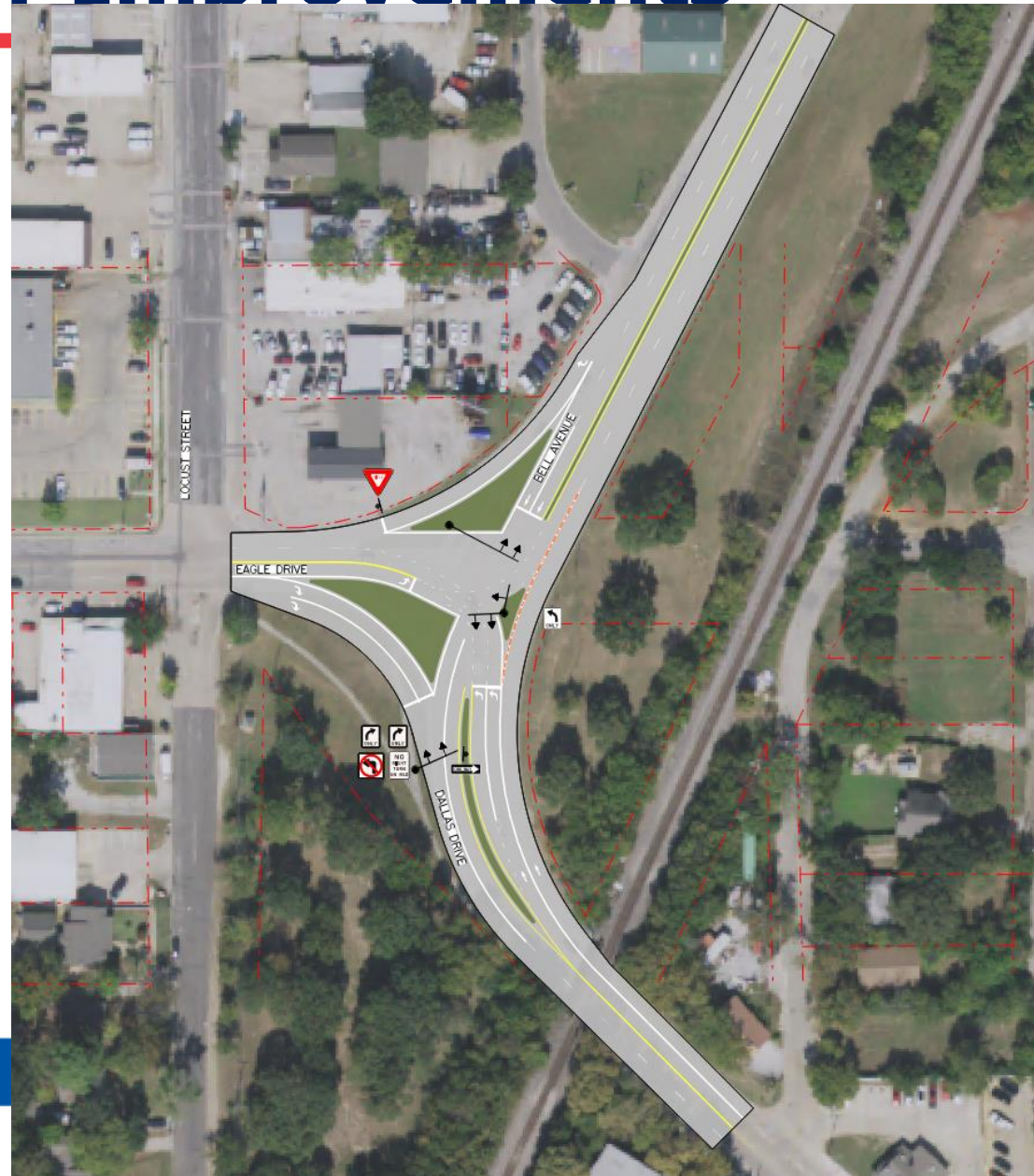
Option 1: Minor Improvements

- Adjust roadway striping:
 - Eliminate dual northbound lanes
 - Refresh existing striping
- Drivers decide to travel north or west before railroad bridge with updated signage
- Estimated cost ~\$100,000
- Provides more stacking for westbound traffic
- ~12 Crashes over last 5 years



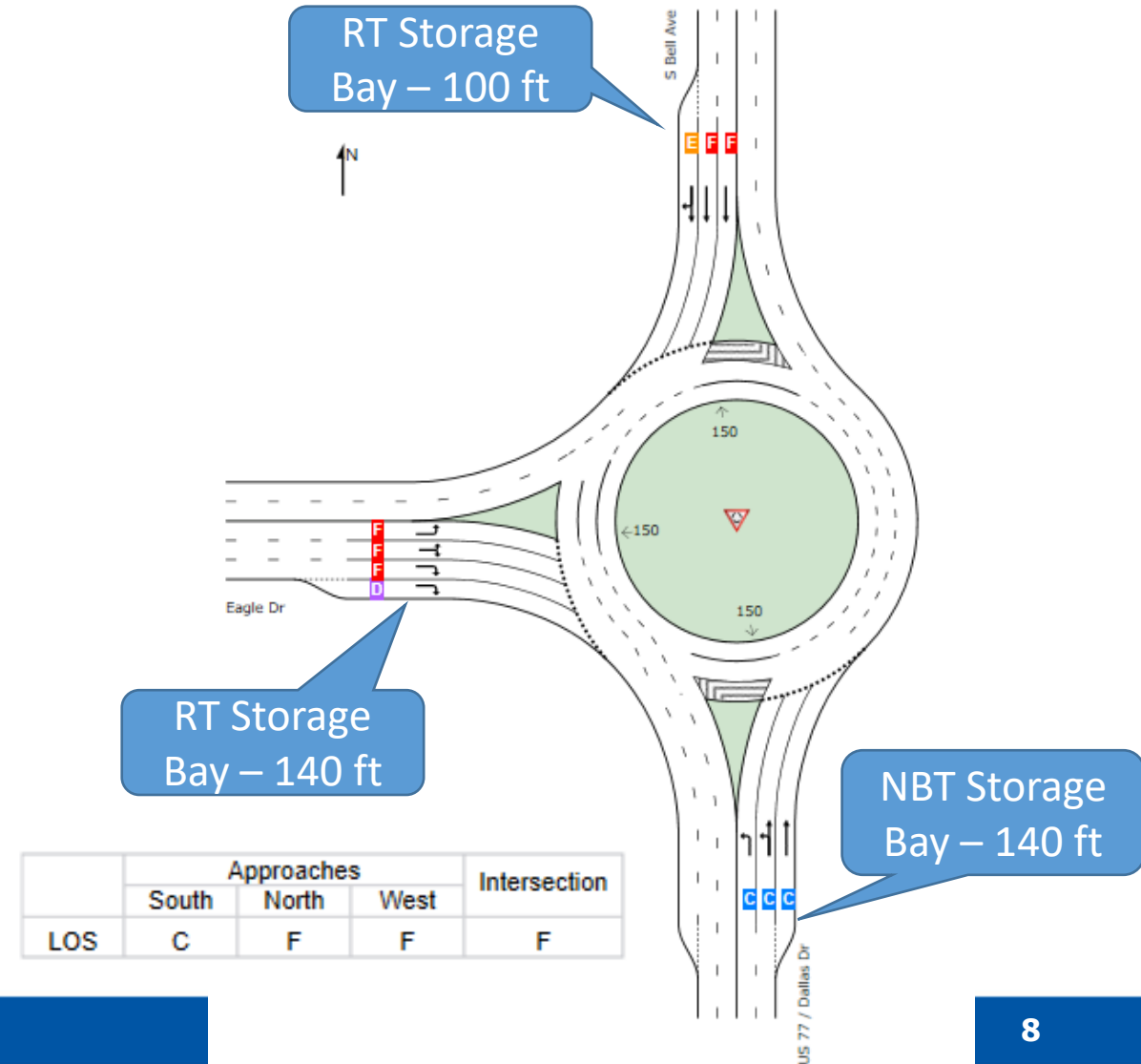
Option 2: Possible Major Improvements

- Reconfigure intersection
 - Dual southbound right turns
 - Dual northbound left turns
- Drivers decide to travel north or west before railroad bridge
- Estimated cost ~\$5 Million
- Provides more stacking for westbound traffic
- Will include multimodal function in design
- Staff Recommends Option 2

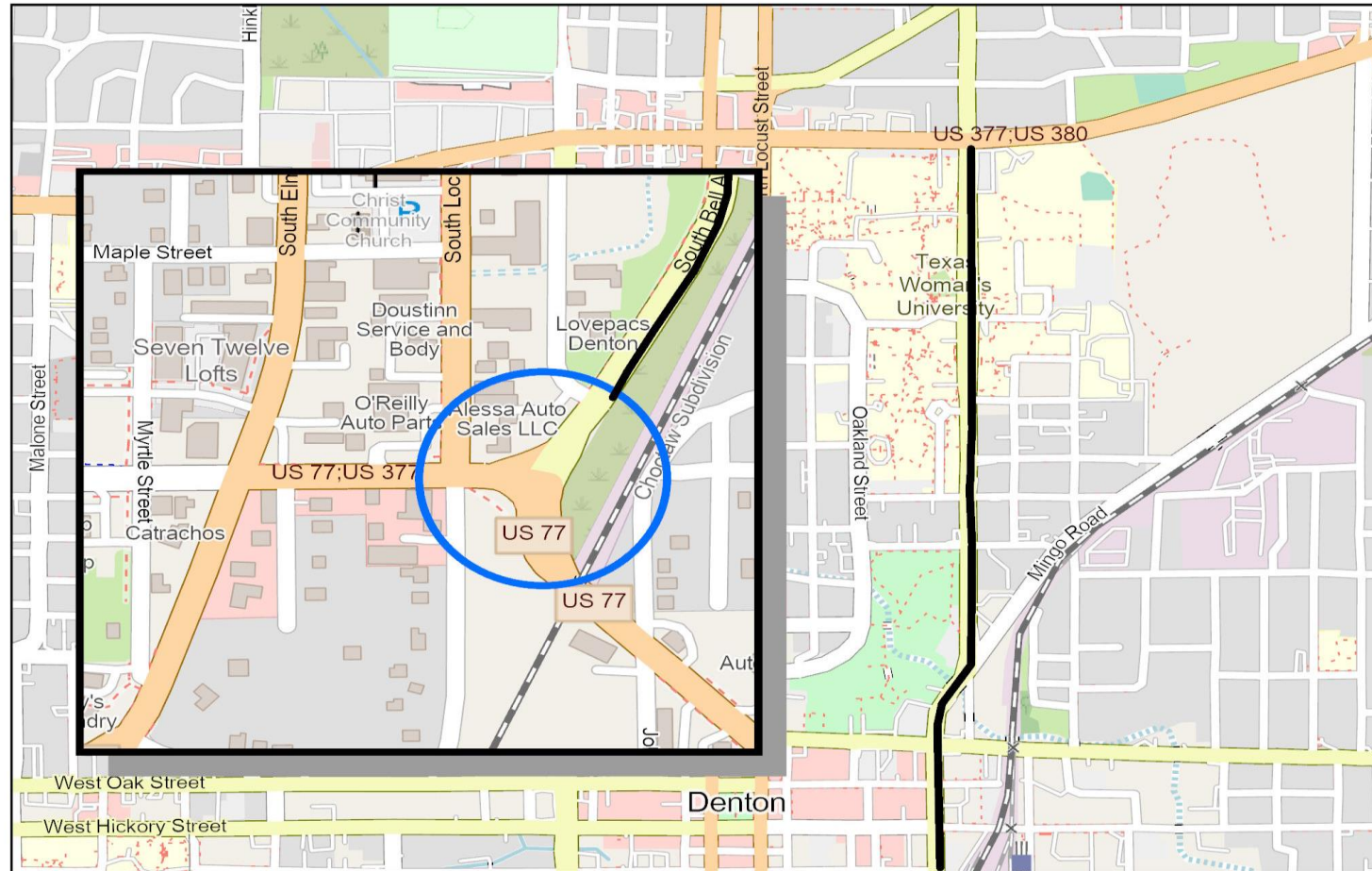


Option 3: Roundabout

- Future Build Analysis – 2050 PM peak hour
- Volumes calculated based on 3% growth rate (GR) between 2023 – 2043 (Per 2040 Comp Plan) and 2% GR after 2043 based on TxDOT TP&P methodology
- 3-Lane Roundabout
- Intersection Level of Service (LOS) F – **Not Acceptable**
- ~1500 ft queue length along Eagle Drive
- Additional right-of-way required
- Does not accommodate Bike/Ped Mobility



Bell Avenue Extents



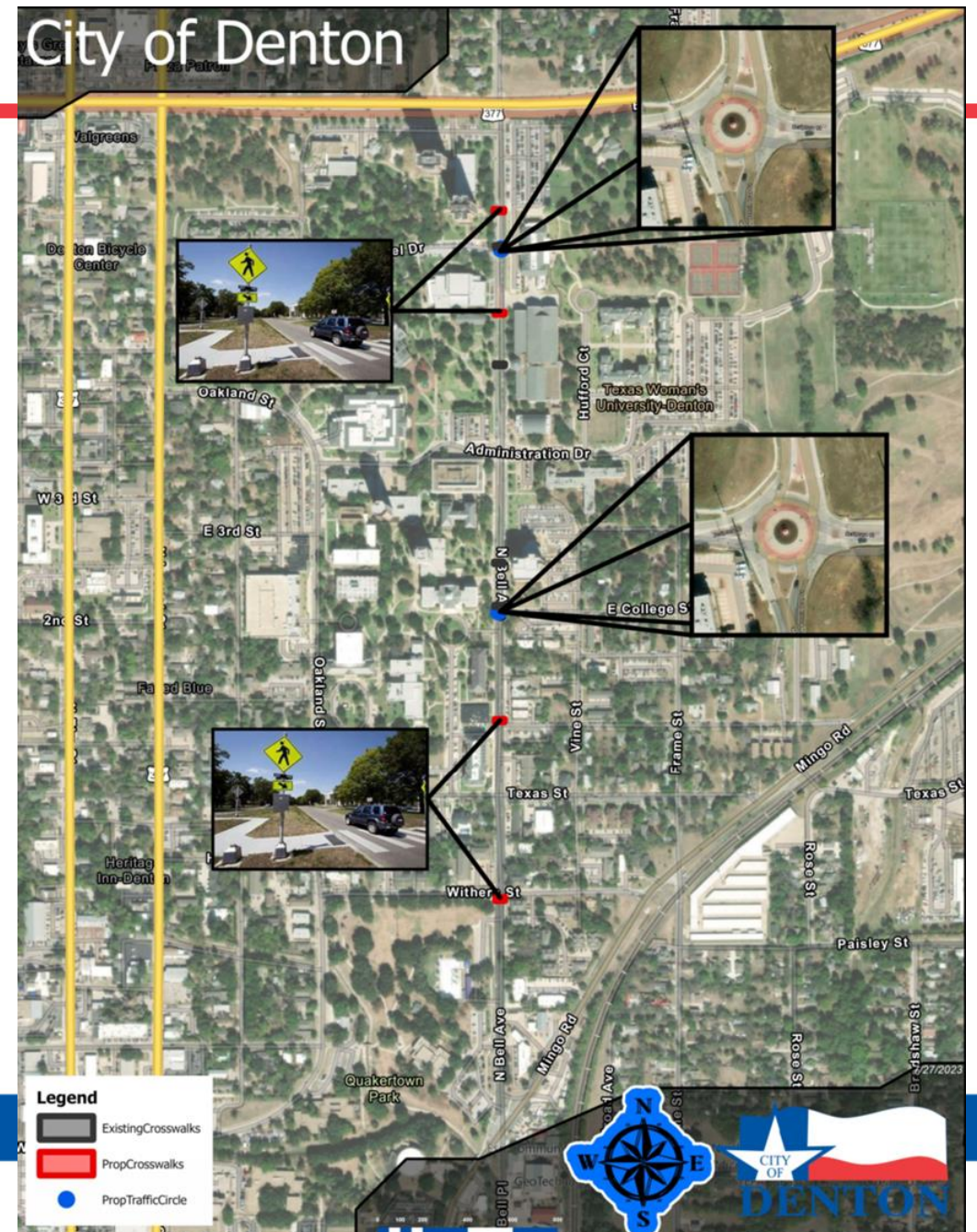
Hybrid 3-lane

CONCEPTS

- ❑ 3-lane with raised medians and turn lanes where applicable and possible roundabouts along the beginning and end of the TWU corridor

BENEFITS

- ❑ More Aesthetically Pleasing
- ❑ Calming Benefit
- ❑ TWU landmarks at entrance and exit
- ❑ Road function remains consistent
- ❑ Pedestrian/Bike Connectivity
- ❑ Use at Mid-Block Crossings for Visual Que of/for Peds
- ❑ Safer crossings for Ped/Bikes
- ❑ Recovers some landscaping
- ❑ Helps replace trees
- ❑ Maintenance (TWU partnership)



Staff Recommendations and Next Steps

- Bell/Eagle Intersection Traffic Analysis
 - Staff recommends advancing design for Option 2: Major Improvements
 - Coordination and approval with TxDOT during design and implementation
 - Continued monitoring of improvements for future adjustments if necessary
- Bell Avenue Corridor from US 380 to Mingo
 - Staff recommends advancing the design for Hybrid 3-Lane
 - Coordination with TWU during design and implementation
- Funding to be considered in a future CIP
 - Design FY 23/24
 - Construction FY 24/25



Questions?

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