Interstate Bridge Replacement Program

High Capacity Transit Review and Approach to Develop Alternatives

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Oregon Department of Transportation

Washington State Department of Transportation

Brendan Finn
Director, Urban Mobility Office
ODOT

Carley Francis
Regional Administrator
WSDOT

Presentation Structure

1. Review High Capacity Transit Alternatives Analysis from previous planning efforts
2. Review the draft approach to develop a range of alternatives for High Capacity Transit mode
3. Discussion and feedback

Key Guidance and Feedback Sought

Discussion items:

- Feedback from committee members on approach
- Are there specific expectations that should be taken into consideration as High Capacity Transit alternatives are developed and analyzed?

Bi-State Legislative Committee Engagement Points

August 2020

- Review High Capacity Transit alternatives analysis from previous planning efforts
- Provide feedback on approach to identify High Capacity Transit alternatives to be analyzed

Winter 2021

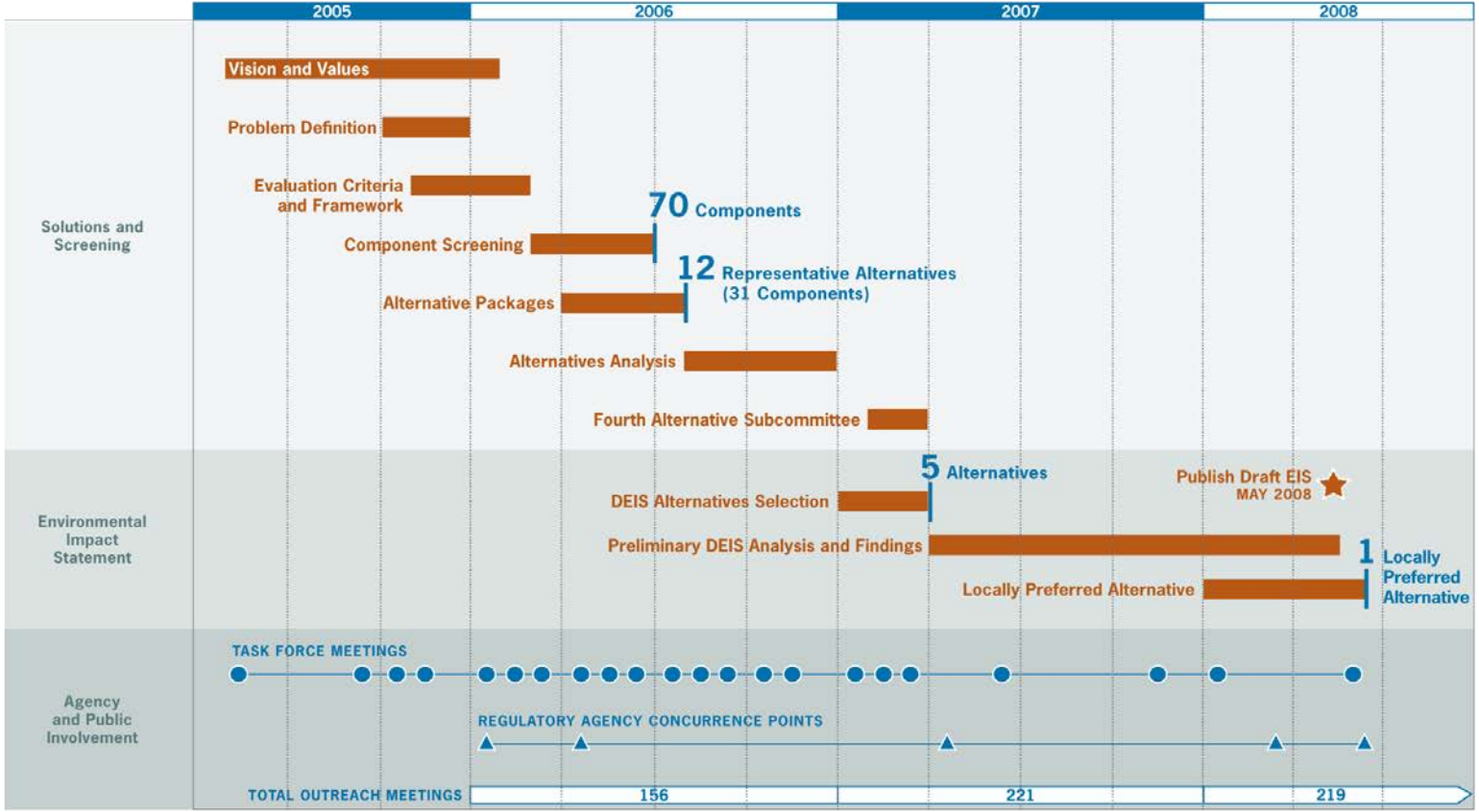
- Provide update and receive feedback on preliminary High Capacity Transit alternatives

Spring 2021

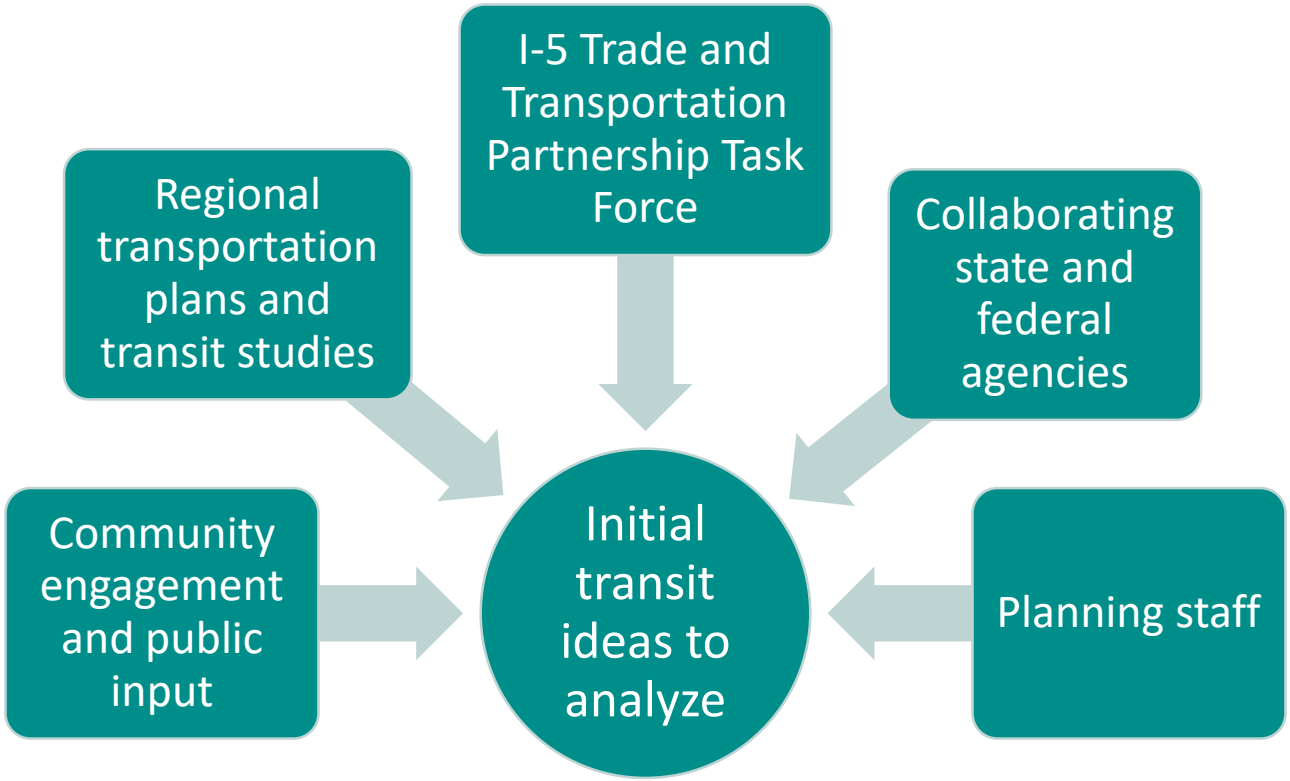
- Provide guidance and direction on range of alternatives to be analyzed in the Supplemental DEIS

Review High Capacity Transit Alternatives Analysis from previous planning efforts

Project Development



Identification of Transit Ideas



Initial Transit Ideas Screened

- Express Bus in General Purpose Lanes
- Express Bus in Managed Lanes
- Bus Rapid Transit – Lite
- Bus Rapid Transit– Full
- Light Rail Transit
- High Speed Rail
- Monorail System
- Magnetic Levitation Railway
- Commuter Rail on BNSF Tracks
- Heavy Rail
- Streetcar
- Ferry Service
- Personal Rapid Transit
- People Mover/Automated Guideway Transit (AGT)

Narrowing Ideas

15

initial ideas screened

5

ideas for evaluation

Transit ideas were narrowed to 5 options for additional analysis

- Initial screening was based on the ability to meet the Purpose and Need
- *Does the option improve transit performance within the bridge influence area?*

Transit Ideas Dismissed

- Streetcar
- High Speed Rail
- Ferry Service
- Monorail System
- Magnetic Levitation Railway
- Commuter Rail using BNSF Tracks
- Heavy Rail
- Personal Rapid Transit
- People Mover / Automated Guideway Transit (AGT)

Reasons for Removal

The transit ideas removed failed initial screening for one or more of the following reasons:

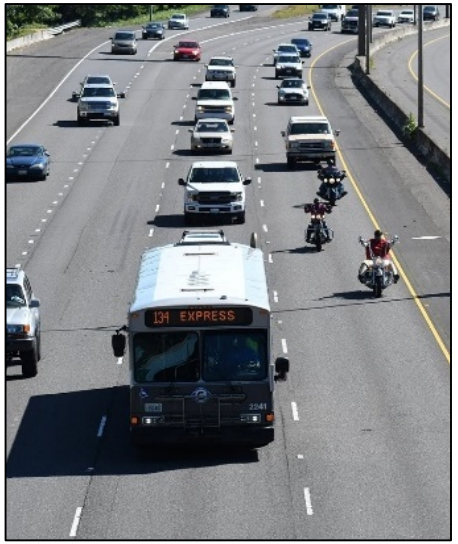
- Does not meet Purpose and Need:
    - *Must improve transit performance within the bridge influence area*
- Unproven technologies
- Better for longer city-to-city travel
- Incompatibility with existing transit systems and investments
- Inefficient service - requires multiple transfers to complete trips

Transit Modes Evaluated

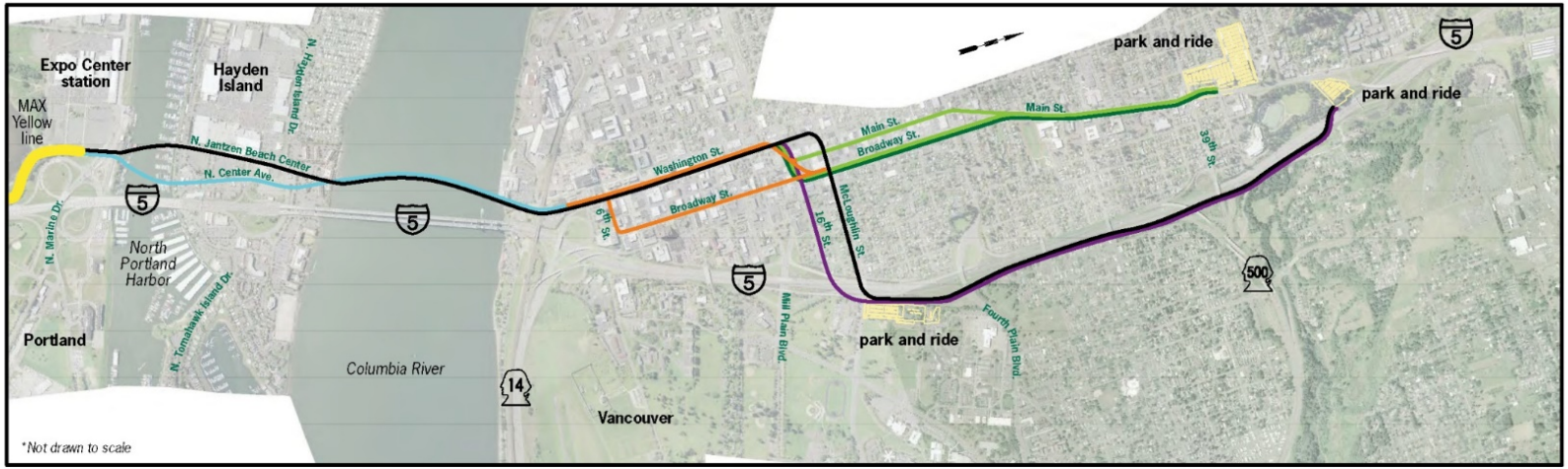
Transit ideas that passed initial screening for further analysis:

- Express buses in I-5 general purpose lanes
- Express buses in I-5 managed lanes
- Bus Rapid Transit LITE (BRT-LITE)
- Bus Rapid Transit (BRT)
- Light Rail Transit (LRT)

Transit Alternatives Analyzed in DEIS

HCT Mode	+	Express Bus
Bus Rapid Transit with complementary express bus service		
Light Rail Transit with complementary express bus service		

Transit Alignment Choices



LEGEND

HAYDEN ISLAND TO DOWNTOWN VANCOUVER

Along I-5, Replacement Downstream Bridge
Travel along I-5 near N. Center Avenue to connect with new bridge west of existing bridge.

N. Jantzen Beach Center, Replacement Downstream Bridge (Representative Alignment)
Travel beside Jantzen Beach SuperCenter to connect with new bridge west of existing bridge.

DOWNTOWN VANCOUVER TO 16TH STREET/MCLOUGHLIN

Broadway-Washington
Northbound transit on Broadway and Southbound transit on Washington.

Washington Two-way (Representative Alignment)
Northbound and southbound transit on Washington Street.

NORTH OF DOWNTOWN VANCOUVER

Broadway Two-way North
On Broadway Street from McLoughlin to Main Street. Continues on Main Street to park and ride at 39th Street.

Broadway-Main
Northbound transit on Broadway Street and southbound transit on Main Street from McLoughlin to 29th Street. Two-way on Main Street from 29th Street to park and ride at 39th Street.

16th St., Along I-5
Two-way transit travels on 16th Street to eastside of I-5. Travels from Clark College, along I-5, to park and ride near Kiggins Bowl.

McLoughlin, Along I-5 (Representative Alignment)
Two-way transit travels on McLoughlin to east side of I-5. Travels from Clark College along I-5 to park and ride near Kiggins Bowl.

High Capacity Transit Mode Choice

Bus Rapid Transit

- Longer buses carry up to 91 people
- Dedicated bus lanes across the bridge and within BIA avoid congestion
- Stations have platforms, shelters and ticket vending machines

Light Rail

- Two-car trains carry up to 266 people
- Tracks designated for light rail use only
- Stations have platforms, shelters and ticket vending machines

Comparing Modes - Bus Rapid Transit

PROS:

- Significantly increases transit use
- Any bus can use the exclusive guideway
- Lower capital cost HCT alternative
- Supports local and regional transportation plans in OR and WA

CONS:

- Highest HCT operating cost
- Bus access to downtown Portland is constrained
- Requires a transfer to LRT
- Decreased reliability due to operations in I-5 lanes south of the bridge

Comparing Modes – Light Rail Transit

PROS:

- Significantly increases transit use
- Highest passenger capacity
- Highest travel time reliability
- Takes advantage of existing LRT infrastructure
- One-seat ride from Vancouver to Portland
- Lowest HCT operating cost
- Best supports local and regional plans

CONS:

- Highest capital cost of HCT alternates
- Less flexibility than bus modes

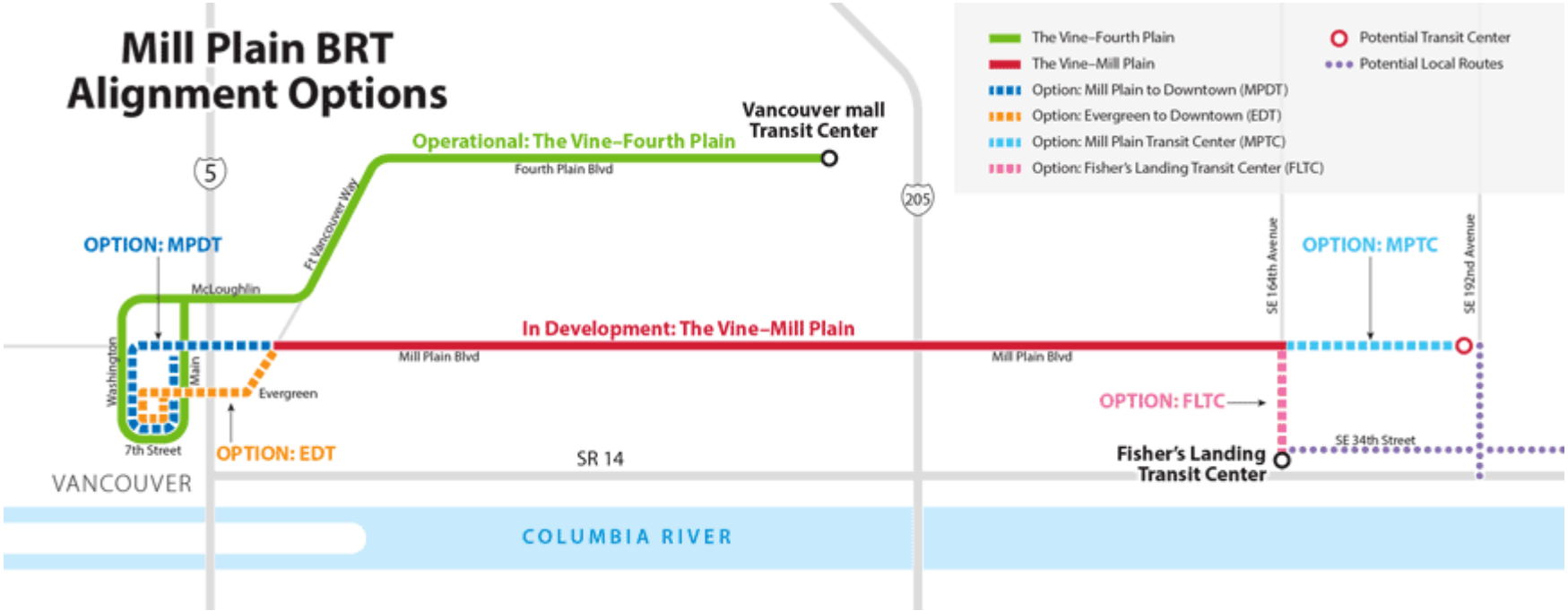
Locally Preferred Alternative

- Replacement I-5 bridge
  - 3 through lanes & up to 3 auxiliary lanes
- Light rail transit to Clark College
- Highway and pedestrian/bike improvements

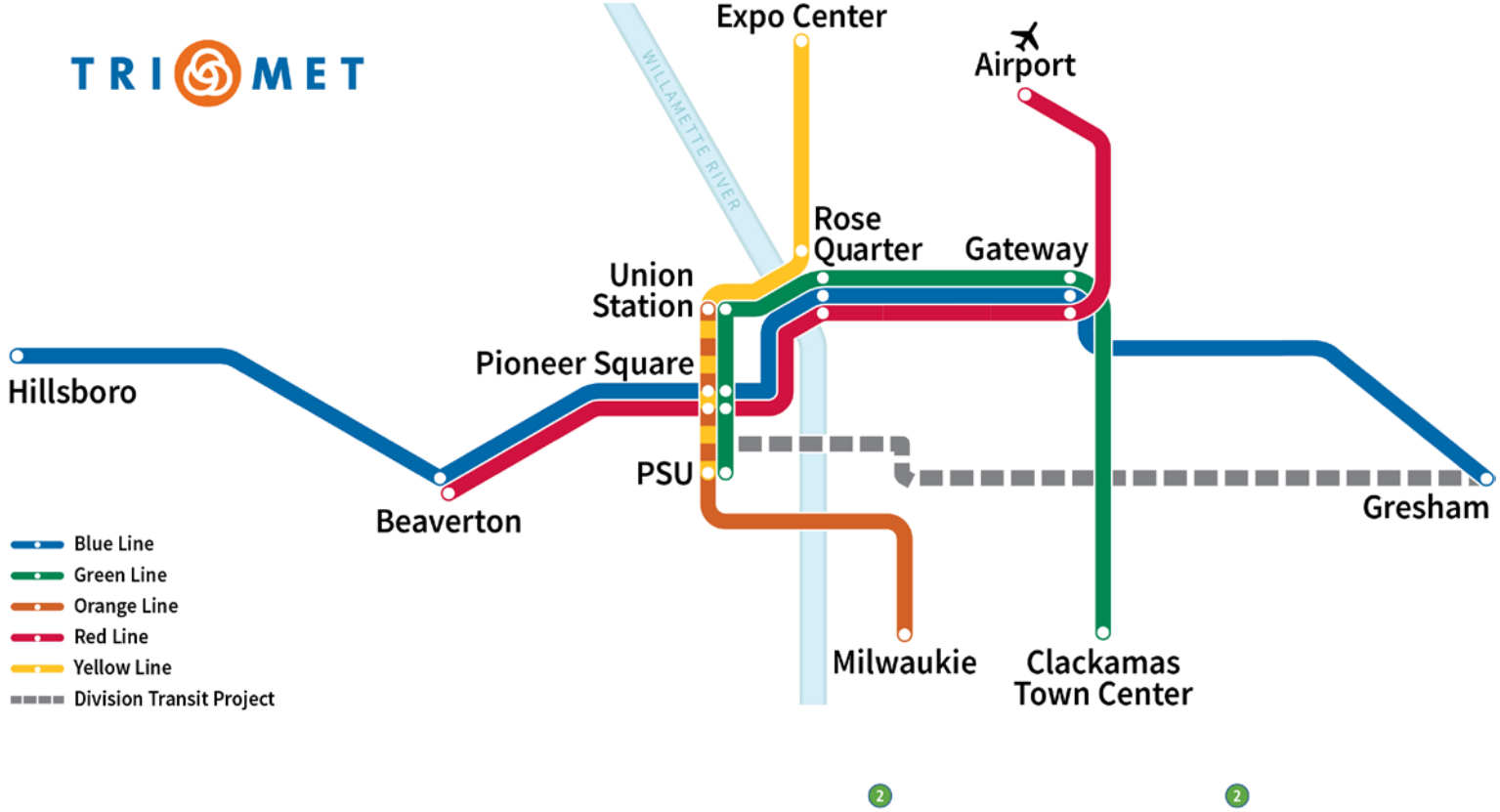
- *Adopted by the CRC Task Force by a 37-2 vote on June 24, 2008*
- *Endorsed by project stakeholders: ODOT, WSDOT, RTC, Metro, C-TRAN, TriMet*

Approach to develop HCT alternatives

Changes in Transit System – C-TRAN Vine BRT



Changes in Transit System – TriMet Expansion



Foundation for Alternatives Analysis

Key early discussions that will set the foundation for criteria against which alternatives will be measured include:

- **Purpose and Need** - explains what must be addressed from a transportation perspective
- **Vision and Values** - identifies specific regional values and goals related to potential transportation improvements that will be used to screen alternatives

Conceptual HCT Alternative Development Approach

High Capacity Transit alternatives will be developed and analyzed with guidance from bi-state legislative committee members, advisory groups, and the public

- Program work will utilize:
  - Transparent, data-driven process with extensive opportunities for meaningful community engagement
  - Previous planning work that supports efficient decision-making to the extent feasible and within current context

Conceptual HCT Alternative Development Approach

Develop range of alternatives → Conduct modelling/ forecasting → Analyze impacts for DEIS → Screen HCT alternatives → Select HCT mode → Next steps

Determine range of High Capacity Transit alternatives that meet Purpose and Need

- Consider changes in regional transit system and future system plans
- Identify new technologies since previous alternatives analysis
- Identify potential alignment options, station locations, terminus, park and rides necessary to serve transit markets

Conceptual HCT Alternative Development Approach

Conduct modelling for alternatives identified to determine:

- Traffic forecasting
- Anticipated transit ridership

Conceptual HCT Alternative Development Approach

Identify and analyze the potential impacts for each alternative as part of the Supplemental DEIS:

- *Environmental*
- *Right of way*
- *Neighborhood/community impacts*
- *Financial – Operational/capital costs…*
    - *Analyze potential transit funding sources (ie: FTA Small Starts/New Starts)*

Conceptual HCT Alternative Development Approach

Evaluate each alternative with screening criteria developed using the program Vision & Values:

- Identify quantifiable performance measures
- Collect data to analyze range of alternatives based on screening criteria

Conceptual HCT Alternative Development Approach

Select HCT mode that best meets the IBR Purpose and Need / Vision and Values:

- HCT mode will be selected with guidance from bi-state legislative committee and advisory groups using a transparent, data-driven process that includes extensive community engagement
- Selected HCT mode will be further analyzed and documented in Supplemental FEIS and Record of Decision

Conceptual HCT Alternative Development Approach

After the preferred High Capacity Transit alternative is identified, additional work will include:

- Advance development to final design
- Proceed with process to secure funding for transit

DISCUSSION:

- Feedback on approach
- Are there specific expectations that should be taken into consideration as High Capacity Transit alternatives are developed and analyzed?

Questions?