

PARKS HIGHWAY
Alternative Corridor PEL Study

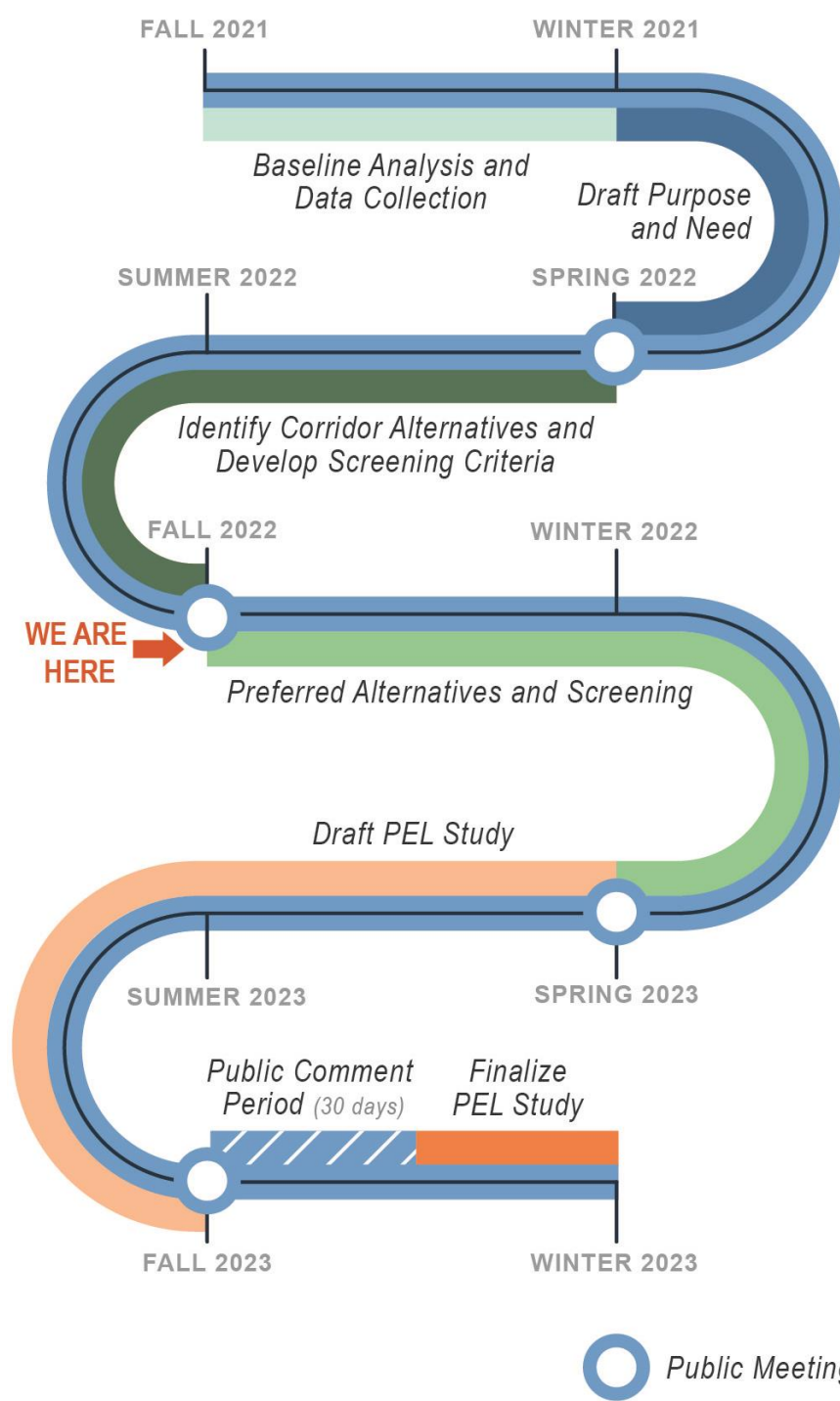
STAKEHOLDER ADVISORY COMMITTEE
MEETING #2



November 10, 2022

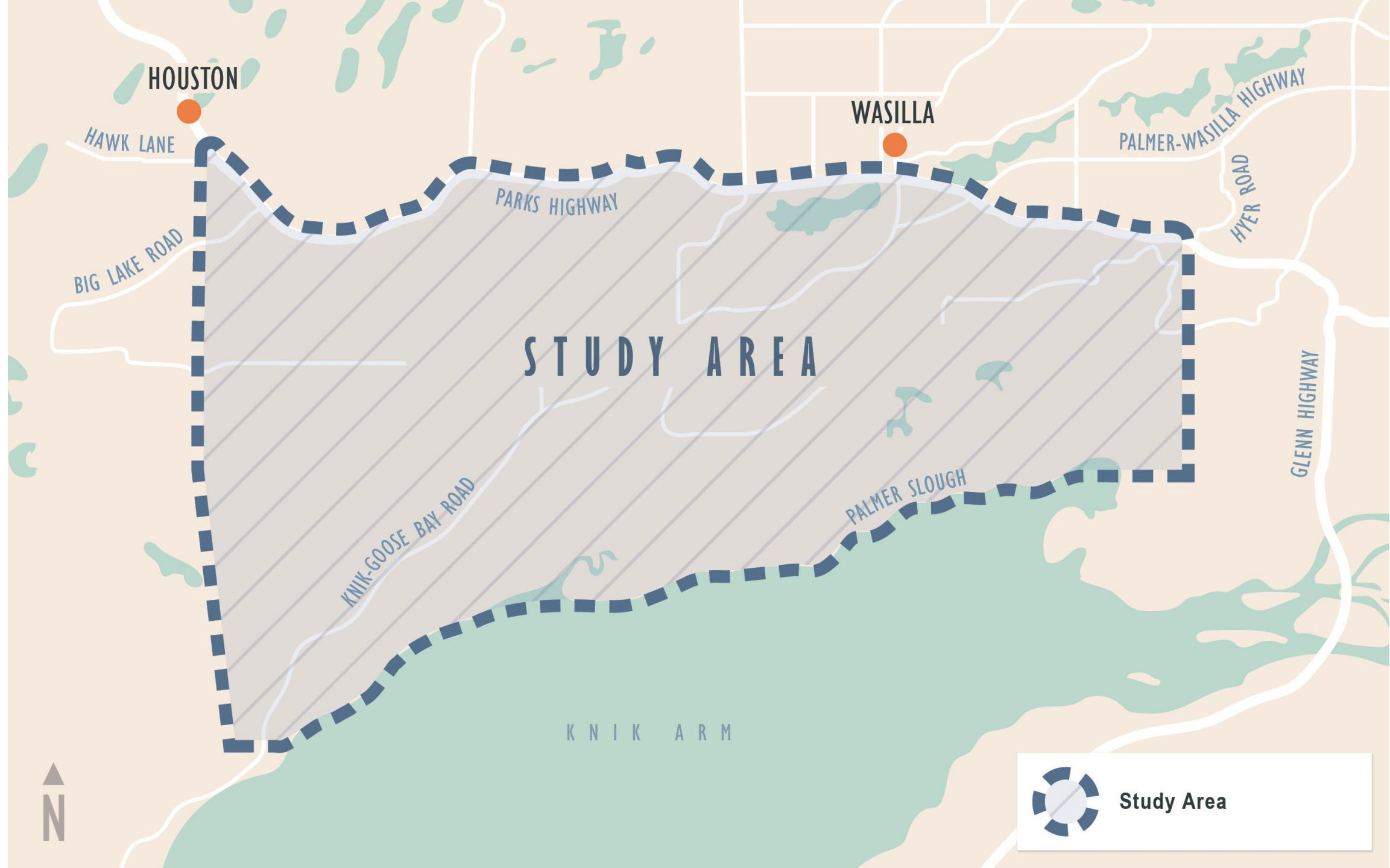
AGENDA

- Welcome, Introductions and PEL Study Schedule
- PEL Process Refresher
- Purpose and Need Statement
- Preliminary Alternatives & Discussion
- Alternative Screening Criteria & Evaluation Discussion
- Wrap up and Next Steps



PRELIMINARY SCHEDULE

PEL STUDY AREA





PEL PROCESS & BENEFITS

PEL PROCESS

PLANNING

ENVIRONMENT



Data &
Analysis Tools



Public/Stakeholder
Involvement



Purpose & Need



Alternatives
Development &
Evaluation



Identify Recommended
Alternative(s) & Define
Projects to Implement



PEL BENEFITS

The benefits of stronger linkages between transportation planning and NEPA/project development processes can include:

- ➔ *Improved project delivery timelines*
- ➔ *Stronger agency and public relationships*
- ➔ *Earlier identification of key environmental resources*
- ➔ *Better funding and project development information for programming funds*
- ➔ *Build project with better outcomes*
- ➔ *Flexible approach that allows more holistic development of transportation improvement strategies*



PURPOSE & NEED STATEMENT

PURPOSE & NEED STATEMENT

Purpose

The purpose of the Parks Highway Alternative Corridor PEL study is to improve regional and local transportation through the Wasilla area of the Matanuska-Susitna Borough by identifying an alternative highway corridor that will improve safety for all transportation modes, reduce existing and future traffic congestion, and increase mobility. The study will seek to improve transportation for non-motorized users, respond to community values, and support or enhance economic, social, environmental and energy conditions.

PURPOSE & NEED STATEMENT

Through a collaborative process that balances multiple viewpoints of stakeholders, agencies, and the public, and working within regulatory requirements, DOT&PF determined that a successful solution should address the following needs:

- *Improve safety in the corridor for vehicles, pedestrians, and bicyclists*
- *Decrease fatal and serious injury crashes*
- *Reduce existing traffic congestion and intersection delay on Parks Highway*
- *Add roadway capacity to meet projected transportation demand in the corridor*
- *Improve the roadway network to better separate local, regional, and through trips*
- *Improve efficiency for freight transport*
- *Improve multi-modal access and flexibility for all users*
- *Improve the durability of roadway improvements and ease maintenance operations*

PURPOSE & NEED STATEMENT

Improvements should also meet these additional goals:

- *Improve the efficiency of the local and regional transportation system for all its users*
- *Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse*
- *Improve existing natural environmental conditions when possible and avoid/minimize/mitigate adverse impacts to the natural environment*
- *Contribute to the improvement of the economy, social fabric, and quality of life along the Parks Highway corridor and in the greater Wasilla area*
- *Satisfy applicable federal, state, and local plans, policies, and regulations*



QUESTIONS, COMMENTS?



PRELIMINARY ALTERNATIVES & DISCUSSION

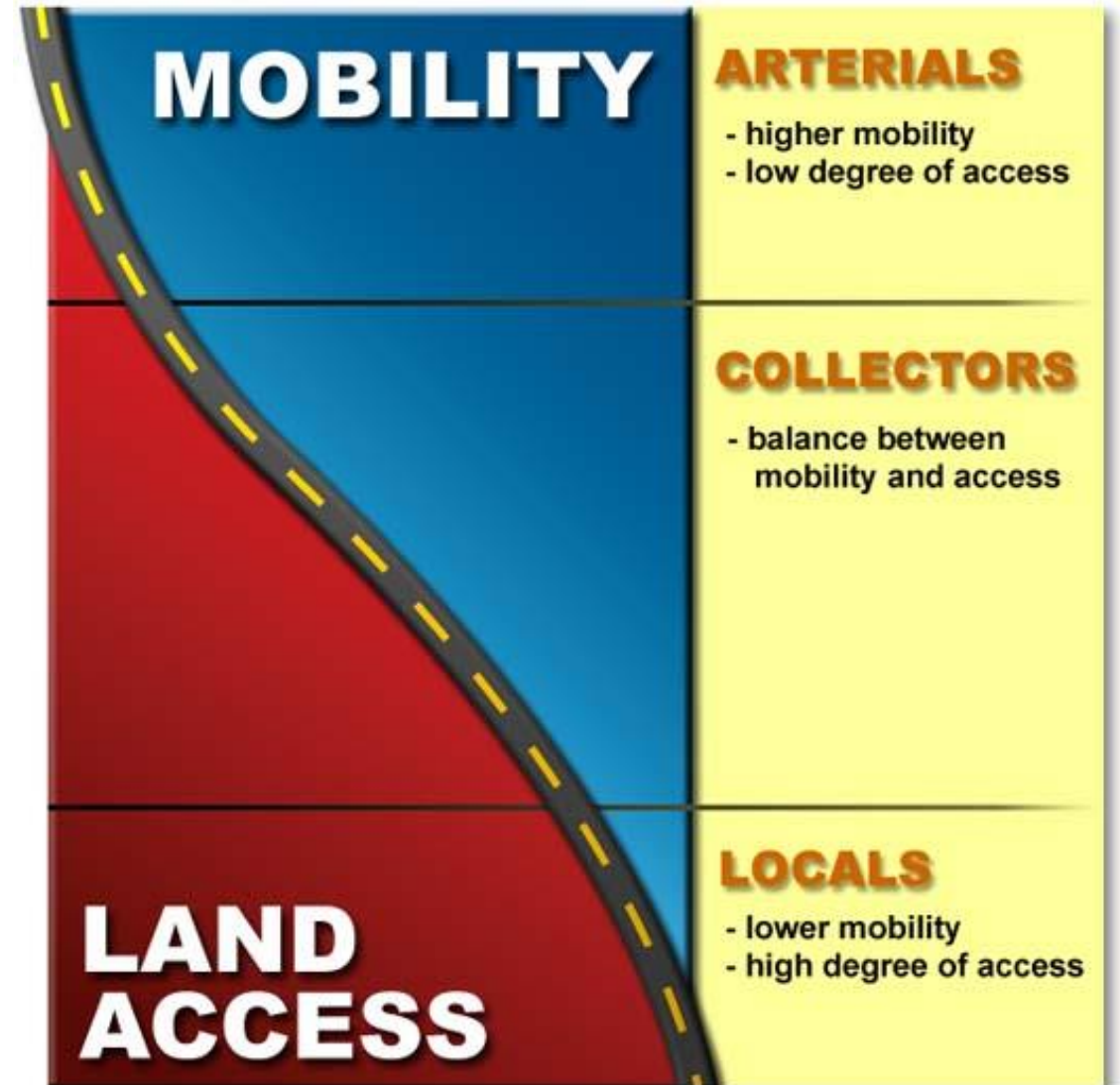
CORRIDOR FUNDAMENTALS

- Functional classification and hierarchy
- Controlled access
- Review of functional classification of select roads in the project area
- Design criteria and standards
- Corridor cross section
- Interchanges

FUNCTIONAL CLASSIFICATION

Three basic classes of roadways:

- **Arterial:** These roads provide high mobility so traffic can move from one place to another quickly.
- **Collector:** These roads link arterials with local roads and serve the mobility and access duties.
- **Local:** These roads provide access to business, property and homes.



Source: DOT&PF Transportation Information Group,
<https://dot.alaska.gov/stwdplng/fclass/whatisfclass.shtml>

DESIGN CRITERIA SOURCES

- 2018 Alaska Highway Preconstruction Manual (HPCM)
- 2011 AASHTO A Policy of Geometric Design of Highways and Streets (Green Book)

PROJECT DESIGN CRITERIA Page 1 of 3

Project Name: Parks Highway Alternative Corridor Federal Project No.: 0A41039

State Project No.: CFHWY0042 Terrain: Rolling

Functional Classification: Interstate, Urban Principal Arterial

Freeway - George Parks Highway

Present ADT (2019): 14,000 Mid-Design ADT (2040): _____ Design ADT (2055): _____

DIV (%): 100 Trucks (%): 6 Directional Split (%/%) 50/50

Pavement Design Year: 2055 Pavement Design ESAL: _____

Design Turning Vehicle: WB-1090

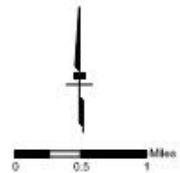
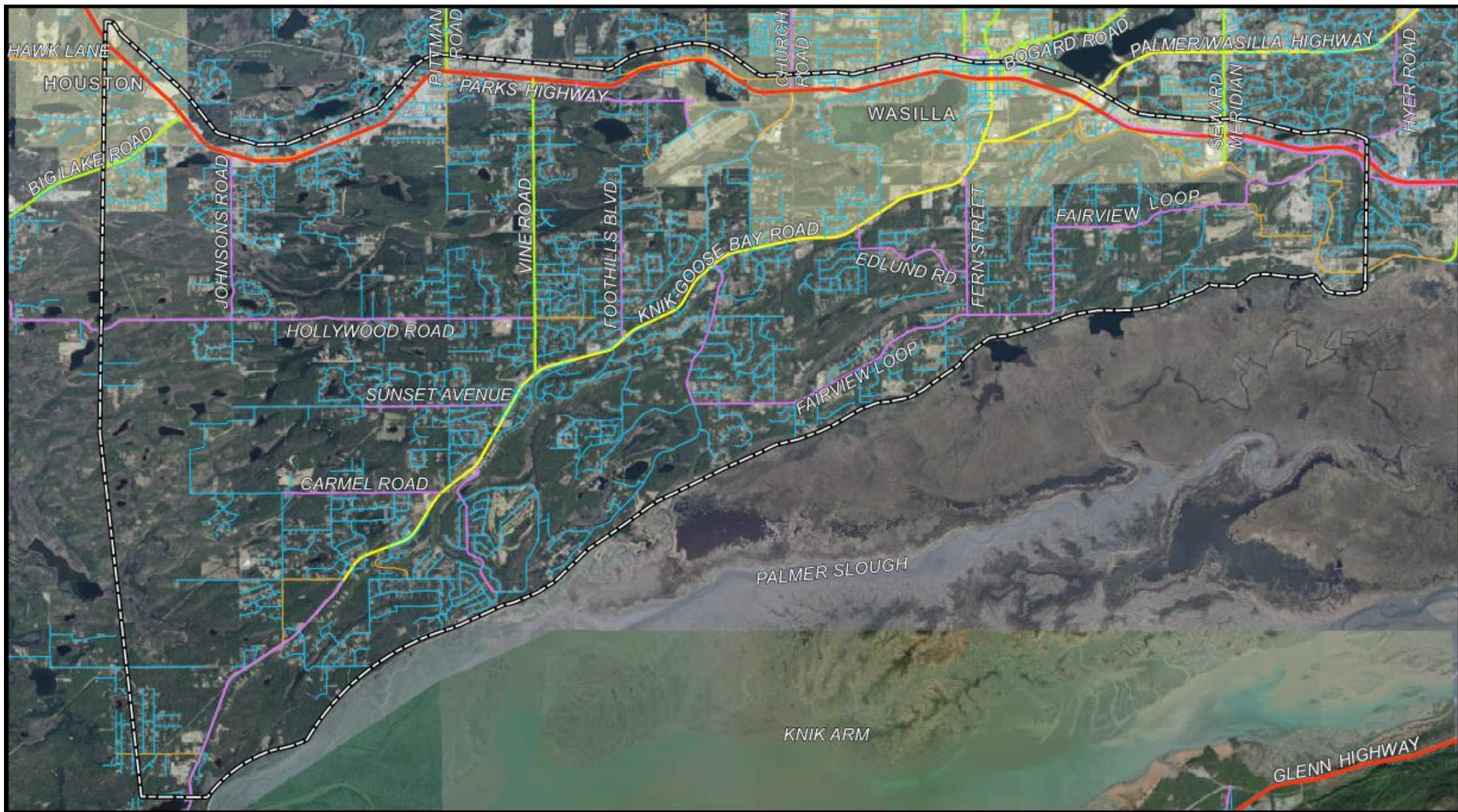
Project Type: New Construction/Reconstruction NHS: Non-NHS:

FHWA 10 CONTROLLING DESIGN CRITERIA		SOURCE	STANDARD	AS PROPOSED	EXCEPTION ¹
Design Speed ¹	Travel	GB Section 8.2.1, p. 8-2			
	Auxiliary	GB Section 8.2.4, p. 8-2	70 mph	70 mph	No
Shoulder Width	Outside	GB Section 9.7.1, p. 9-124	12 ft	12 ft	No
	Inside	GB Section 8.2.4, p. 8-3	10-12 ft	12 ft	No
	Auxiliary	GB Section 8.2.4, p. 8-3	10-12 ft	12 ft	No
Horizontal Curve Radius, min		GB Section 9.7.1, p. 9-124	4-8 ft	10 ft	No
Superelevation Rate, e, max		GB Section 3.3.3, Table 3-7, p. 3-32	6-12 ft	6 ft	No
Stopping Sight Distance (SDD), min		GB Section 8.2.6, p. 8-3 & HPCM Section 1160.5.6, p. 1160-22	2040 ft	2040 ft	No
Grade	Min. ²	GB Section 3.4.6, Table 3-34, p. 3-155	6%	6%	No
	Max.	GB, Section 3.4.2, p. 3-155	730 ft	730 ft	No
Cross Slope		GB, Section 8.2.7, Table 8-1, p. 8-4	0.5%	0.5%	No
		GB Section 8.2.4, p. 8-2	4%	0.5%	No
Vertical Clearance	Bridge	HPCM Section 11300, Table 1130-1, p. 1130-5	1.5-2%	4%	No
	Overhead Utilities	HPCM Section 1130, Table 1130-1, p. 1130-5	16.5 ft	2%	No
Design Loading Structural Capacity ¹		GB Section 8.2.8, p. 8-4	20.5 ft	16.5 ft	No
		HL 93	20.5 ft	20.5 ft	No
		HL-93			No

¹On low speed roadways (<50 mph) on the NHS, only Design Speed and Design Loading Structural Capacity require a Design Waiver. For projects off the NHS, all criteria require a Design Waiver.

²Exception; all other criteria require a Design Waiver. For any waiver, minimum grade is not one of the FHWA 10 Controlling Design Criteria and will require a Design Waiver for any waiver.

FUNCTIONAL CLASSIFICATION



**PROJECT AREA ROAD
FUNCTIONAL CLASSIFICATION**

SEC 1 - 11, 16 - 19, T 16N, R 2W; SEC 1-2, 13, 24 T 16N, R 3W;
 SEC 7, 17 - 20, T 17N, R 1E; SEC 6-24, 26-32 T 17N, R 1W;
 SEC 1, 7-36, T 17N, R 2W; SEC 1, 12-13, 23-26, 35-36, T 17N, R 3W

SEWARD MERIDIAN, ALASKA



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

DOT&PF PROJECT NO. CFHWY00421/0A41039
 PARKS HIGHWAY ALTERNATIVE PEL STUDY

MATANUSKA-SUSITNA BOROUGH, ALASKA

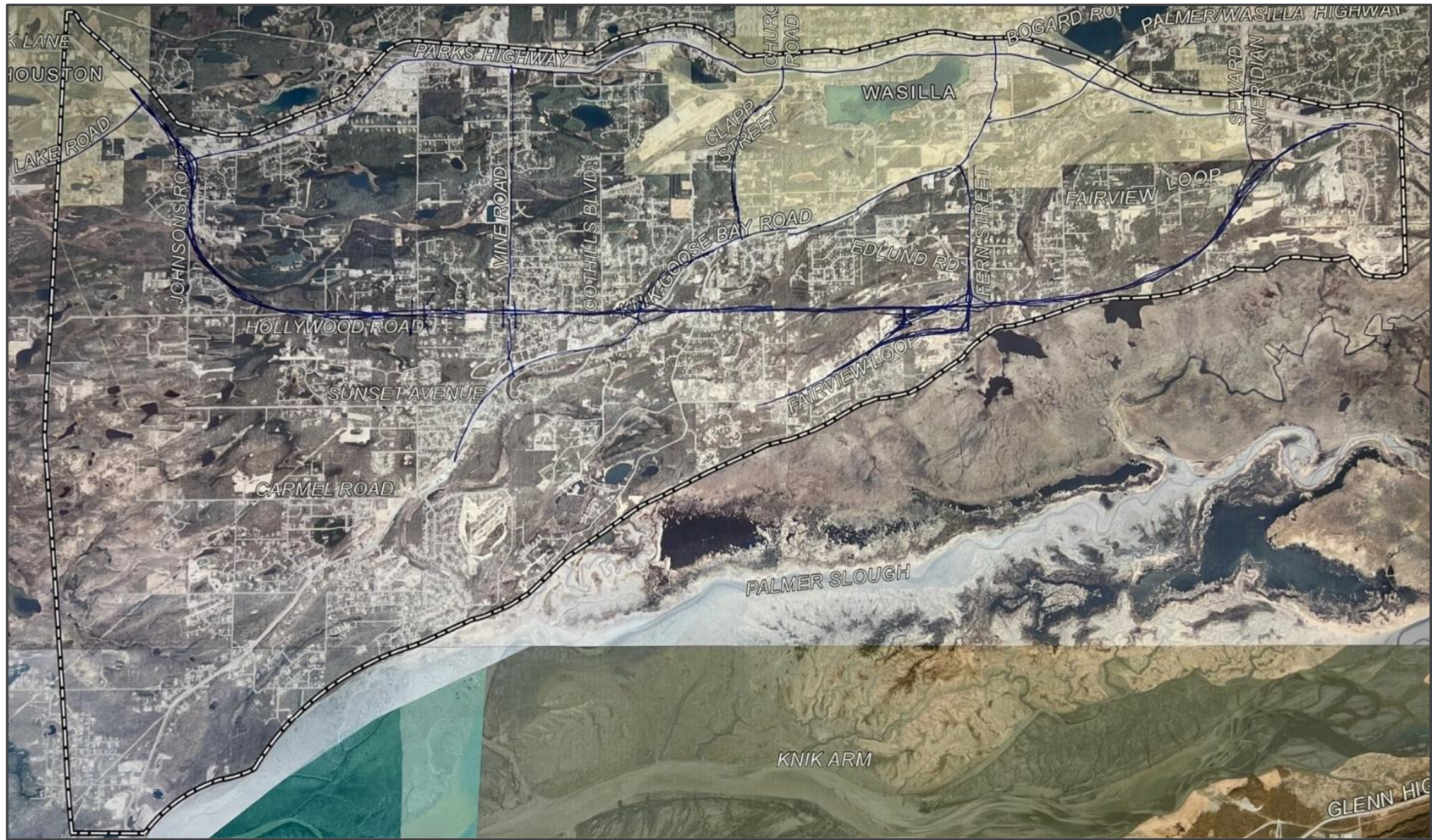
APRIL 25, 2022

FIGURE 1

EXAMPLES: SKETCH PLANNING SESSION



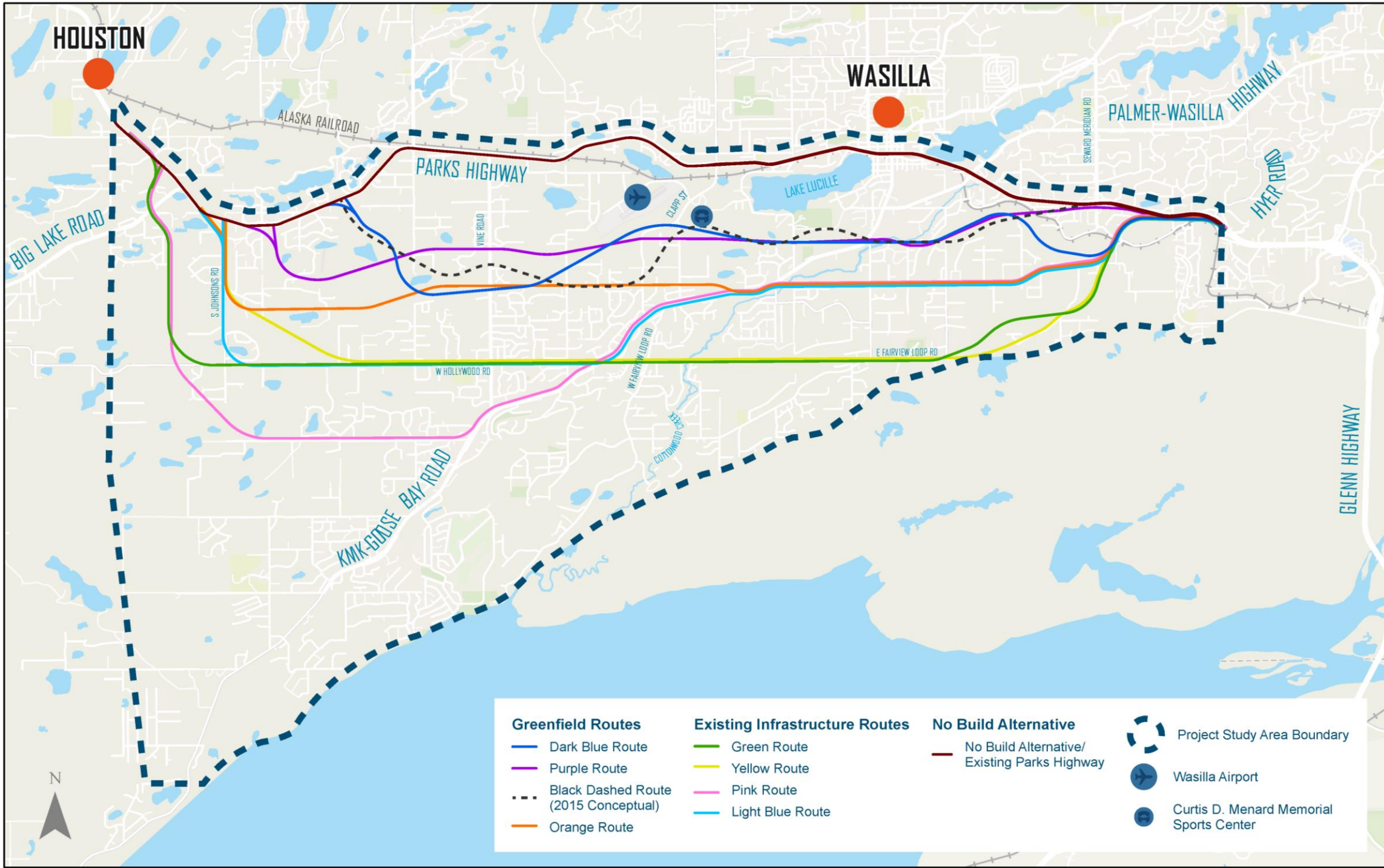
EXAMPLES: SKETCH PLANNING SESSION



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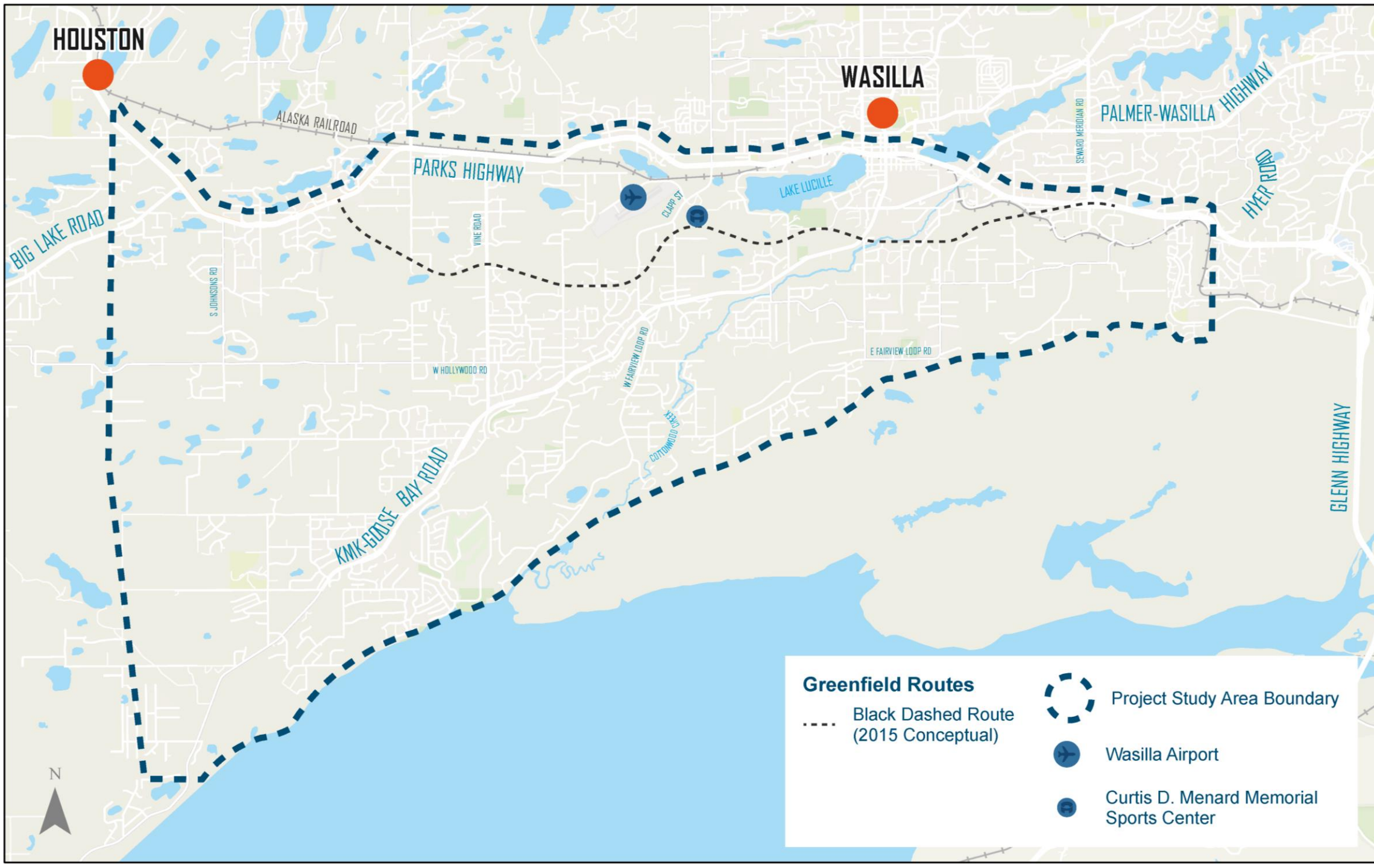
PRELIMINARY ALTERNATIVES



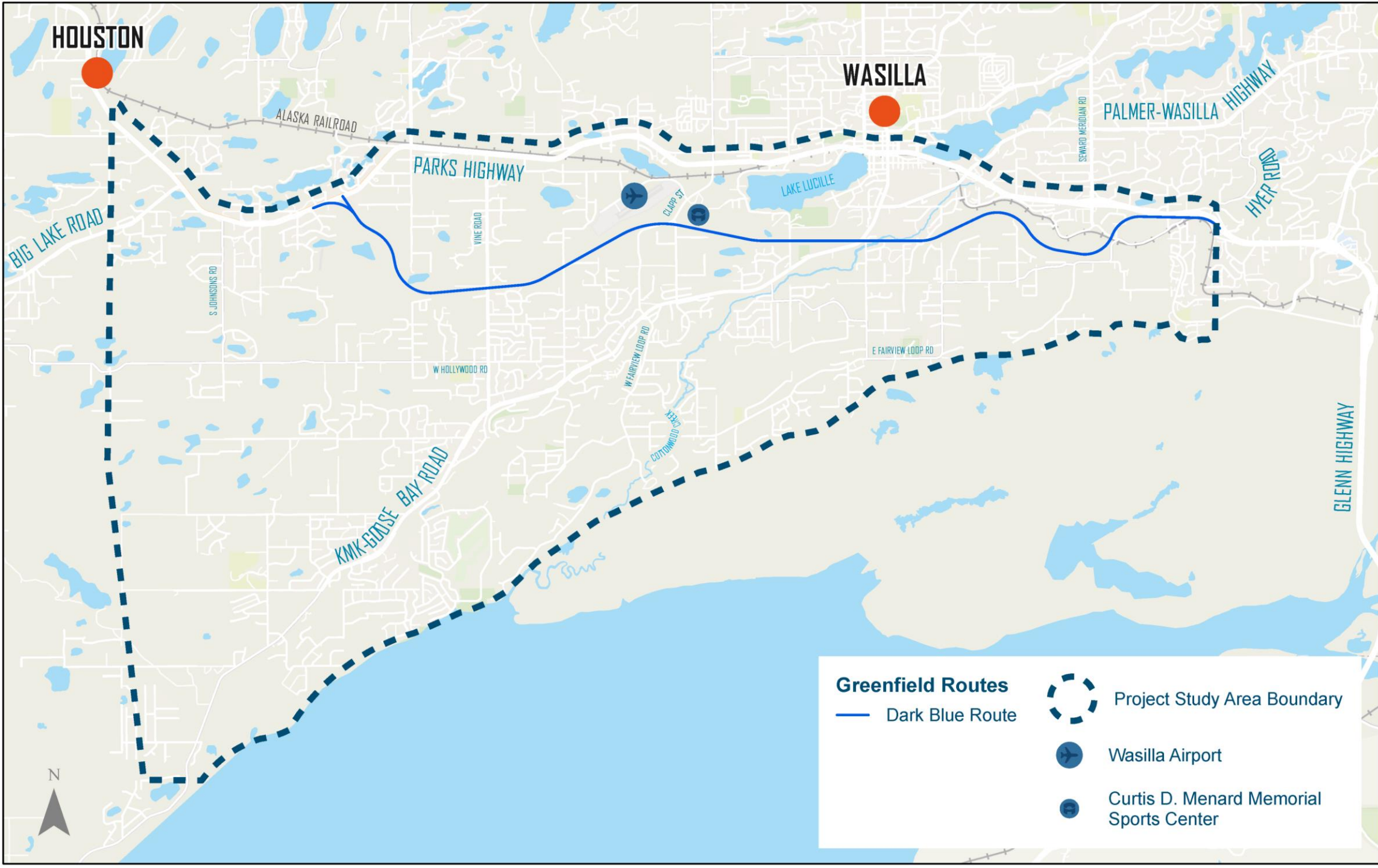
PRELIMINARY ALTERNATIVES: GREENFIELD ROUTES

- Black Dashed Route (2015 Conceptual Planning Report Recommendation)
- Dark Blue Route
- Purple Route
- Orange Route (combination)

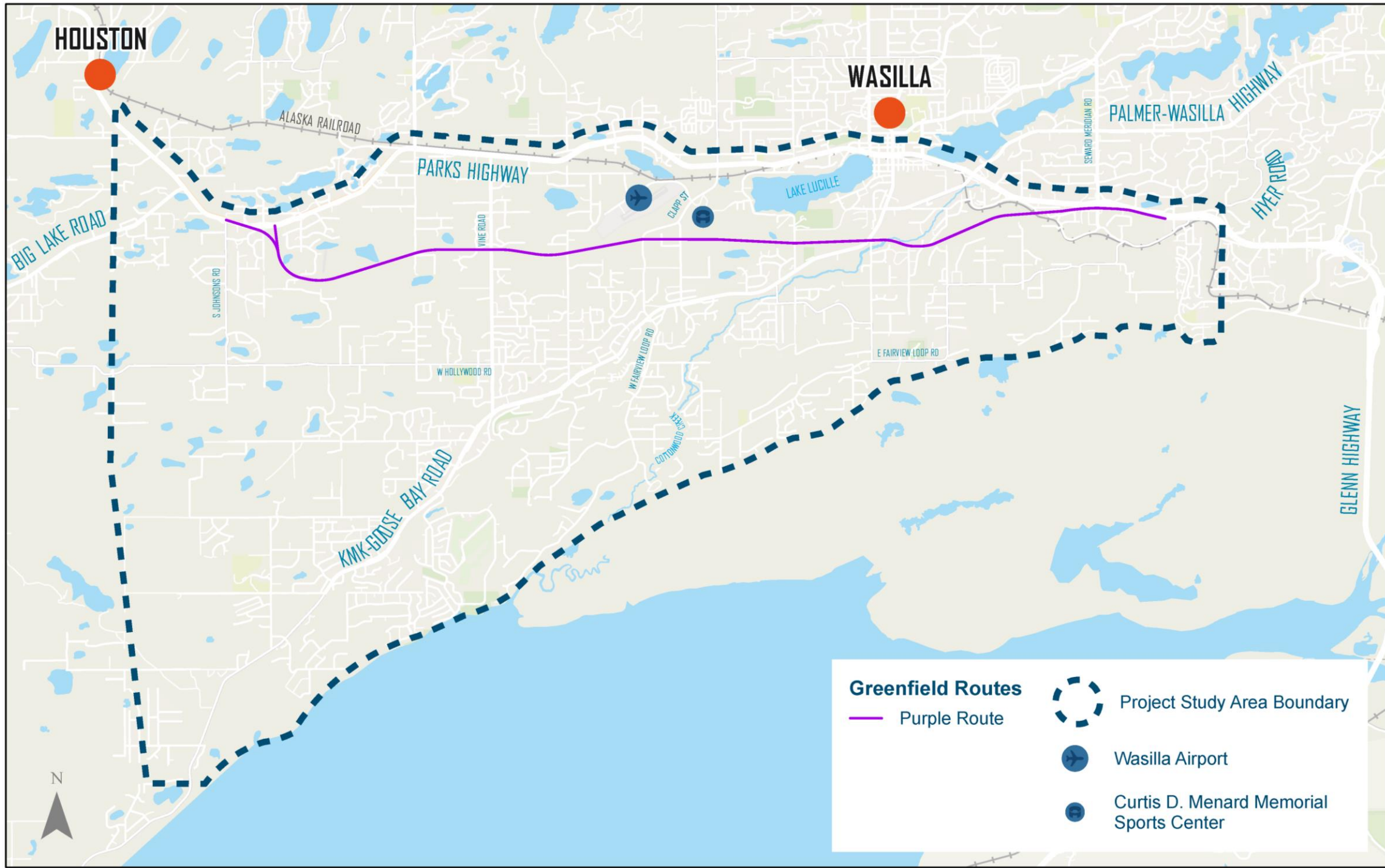
PRELIMINARY ALTERNATIVES: GREENFIELD ROUTES — BLACK DASHED



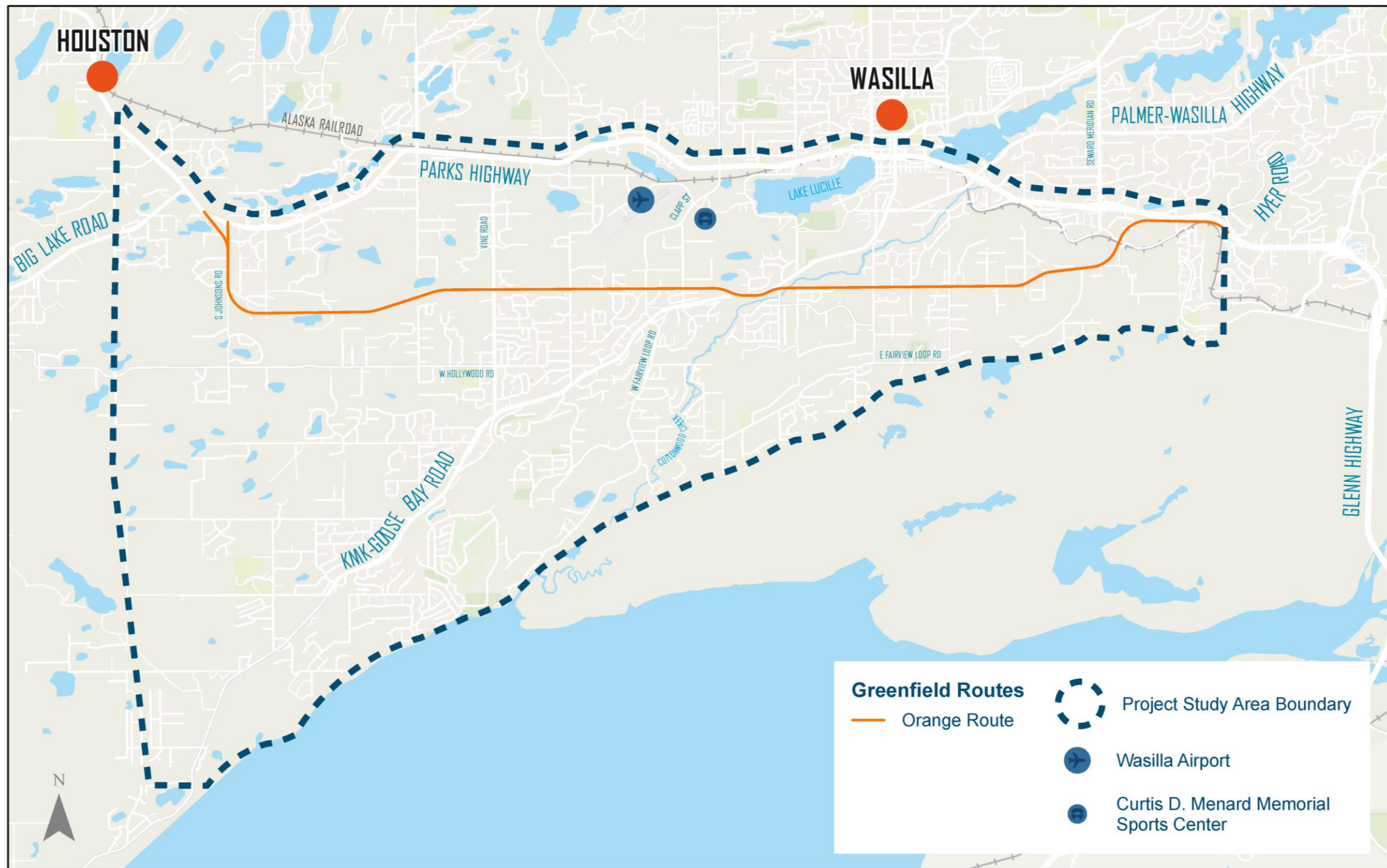
PRELIMINARY ALTERNATIVES: GREENFIELD ROUTES — DARK BLUE



PRELIMINARY ALTERNATIVES: GREENFIELD ROUTES — PURPLE



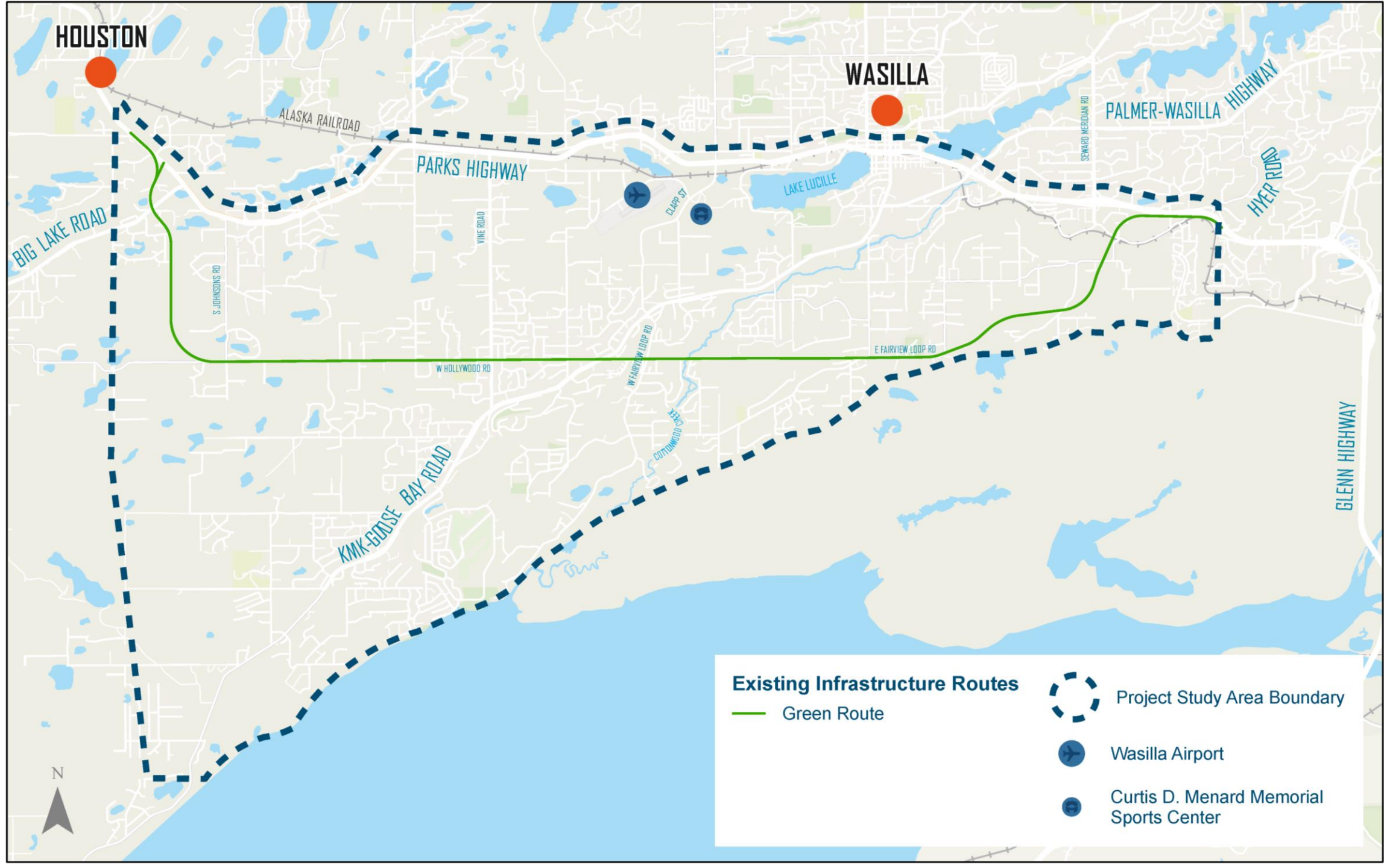
PRELIMINARY ALTERNATIVES: GREENFIELD ROUTES — ORANGE



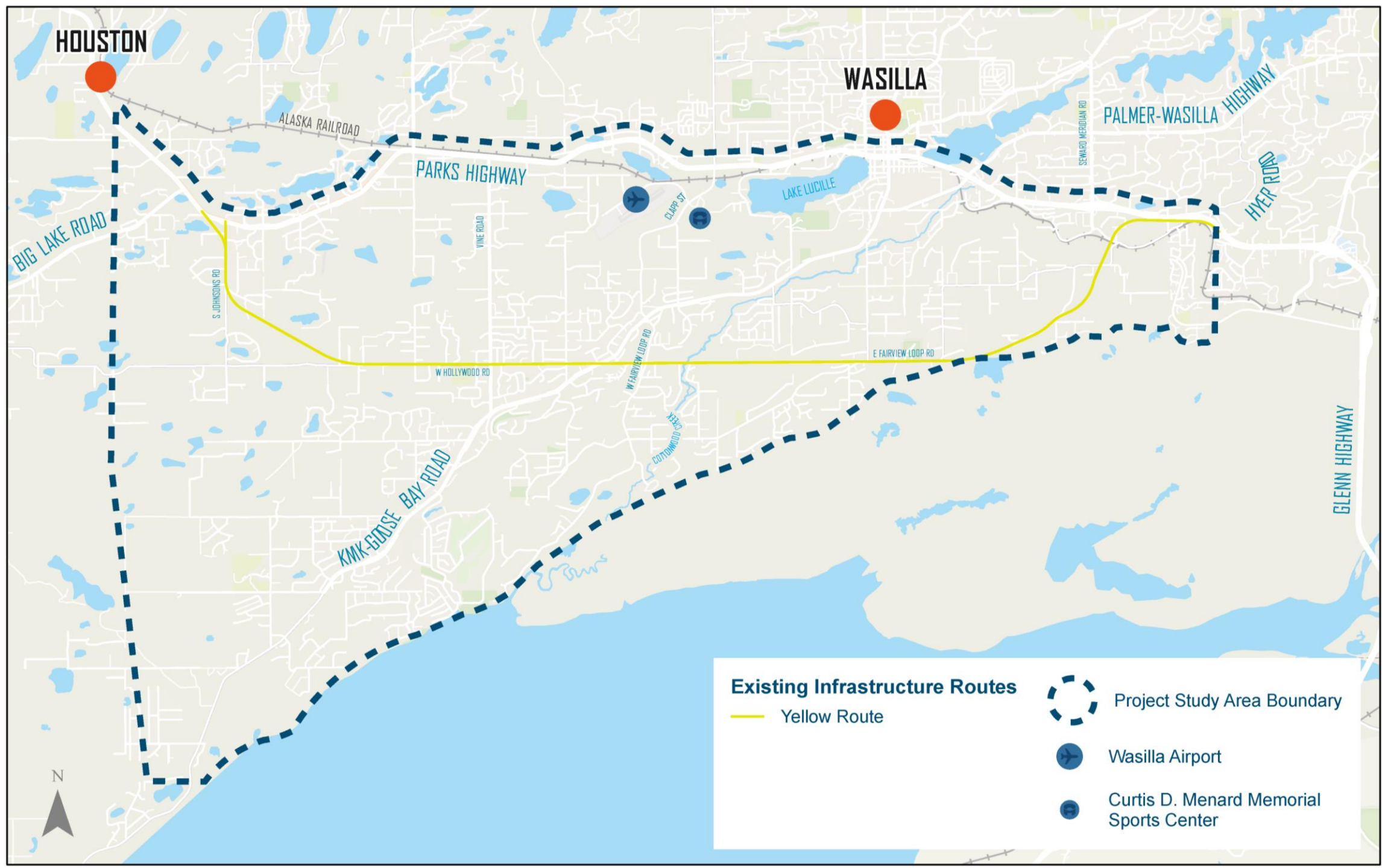
PRELIMINARY ALTERNATIVES: EXISTING INFRASTRUCTURE ROUTES

- Green Route
- Yellow Route
- Pink Route
- Light Blue Route

PRELIMINARY ALTERNATIVES: EXISTING INFRASTRUCTURE ROUTES — GREEN



PRELIMINARY ALTERNATIVES: EXISTING INFRASTRUCTURE ROUTES — YELLOW



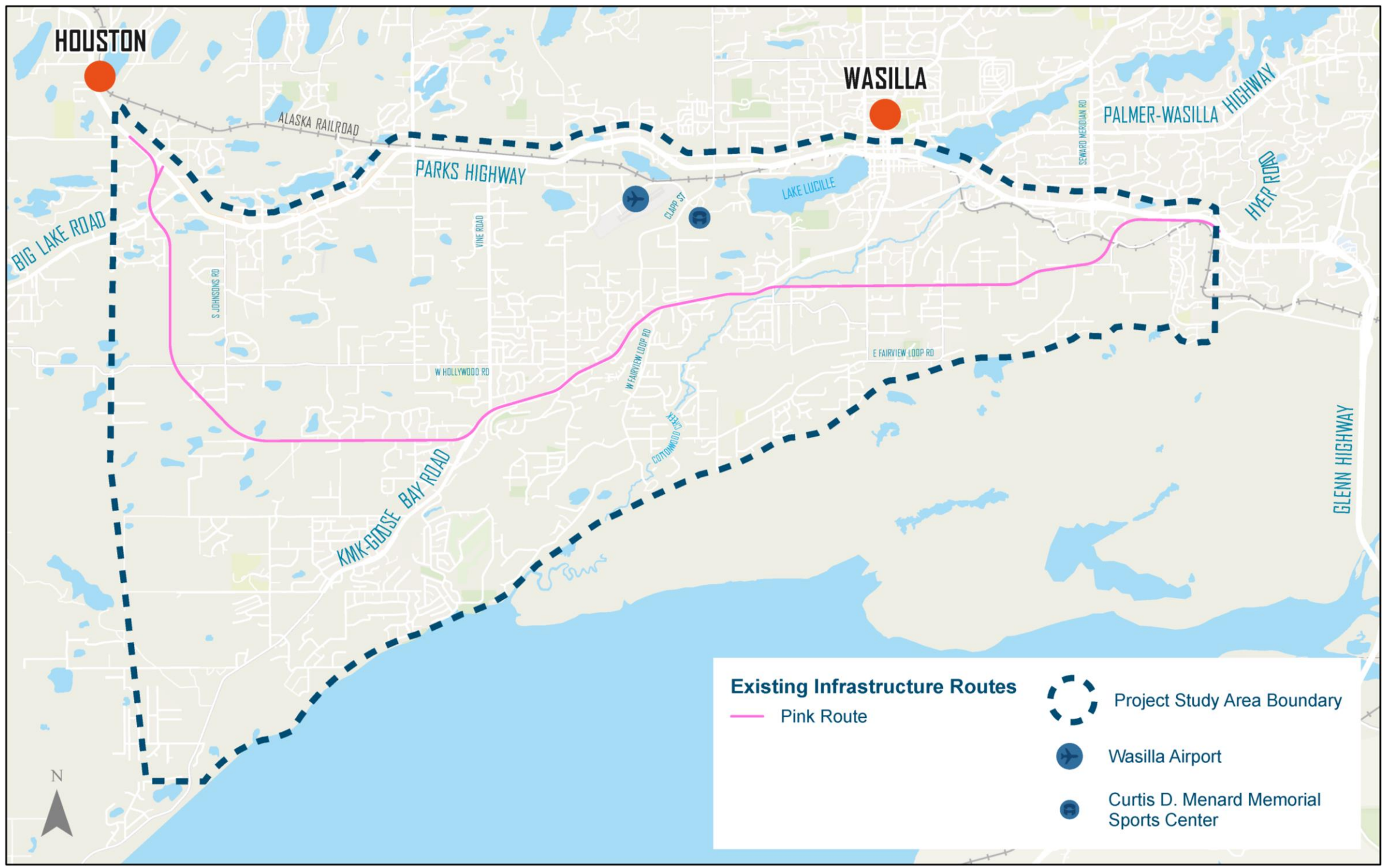
Existing Infrastructure Routes

- Yellow Route

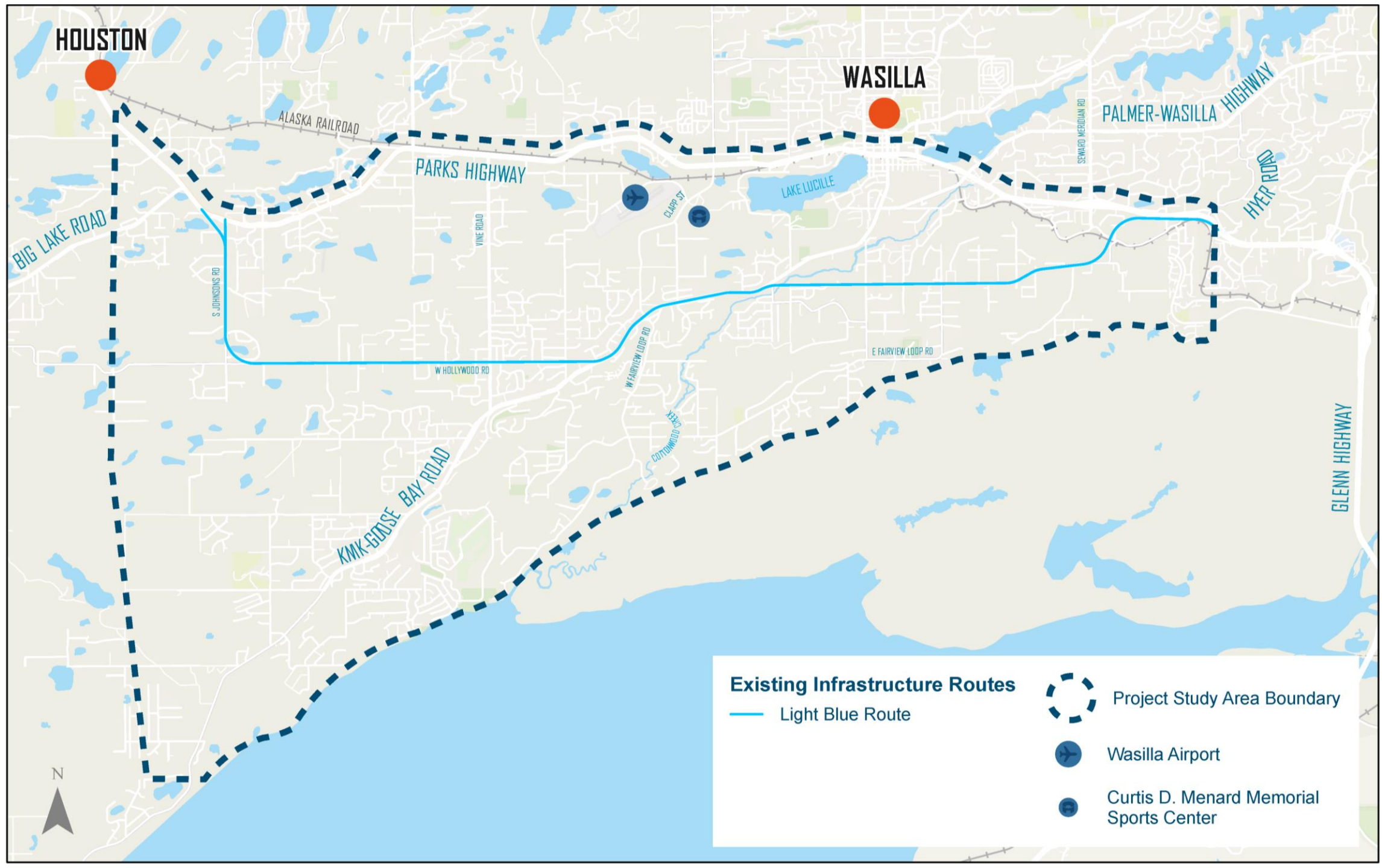
Project Study Area Boundary

- Wasilla Airport
- Curtis D. Menard Memorial Sports Center

PRELIMINARY ALTERNATIVES: EXISTING INFRASTRUCTURE ROUTES — PINK



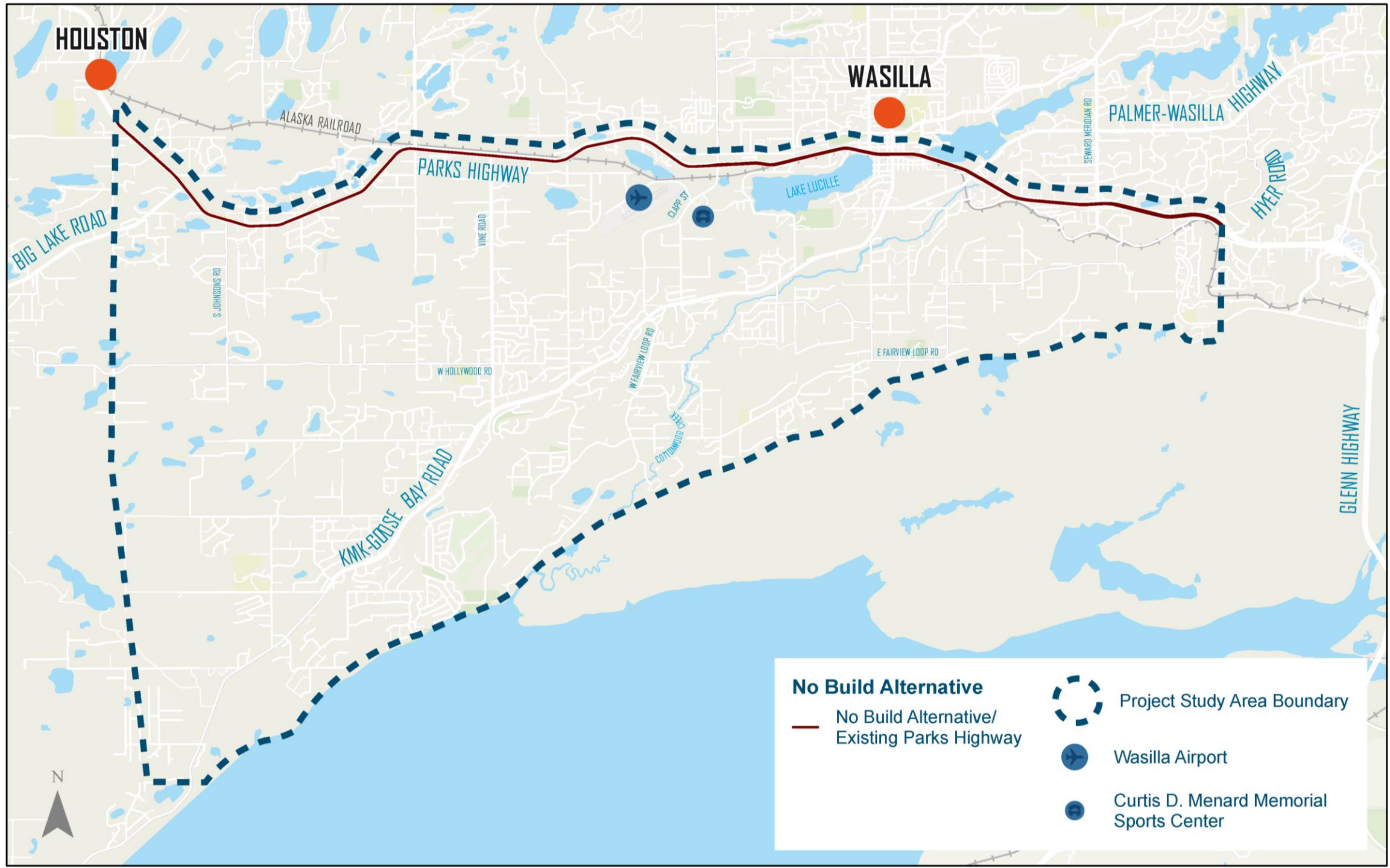
PRELIMINARY ALTERNATIVES: EXISTING INFRASTRUCTURE ROUTES — LIGHT BLUE



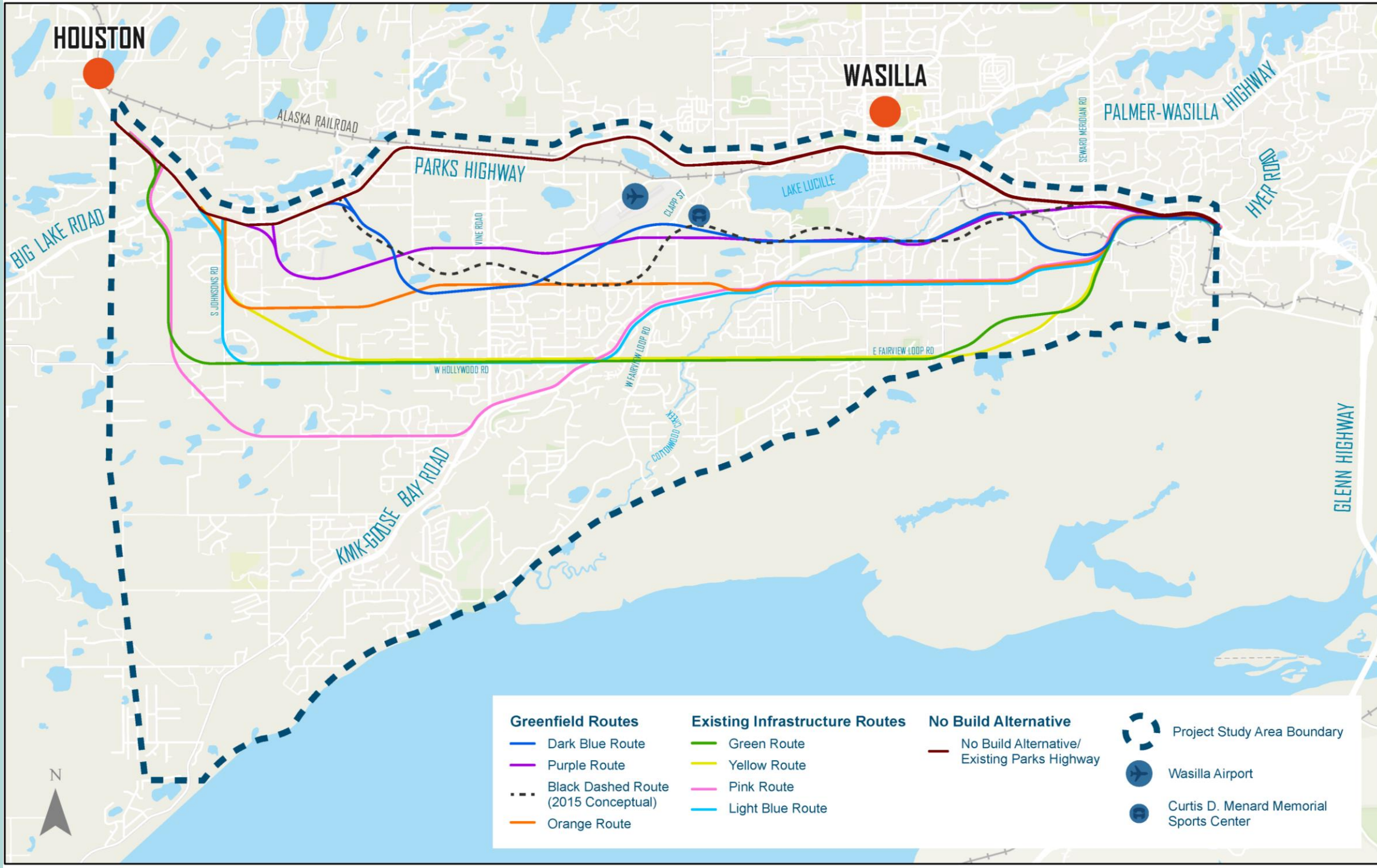
Existing Infrastructure Routes

- Light Blue Route
- Project Study Area Boundary
- Wasilla Airport
- Curtis D. Menard Memorial Sports Center

WIDEN EXISTING PARKS HIGHWAY ALTERNATIVE / NO BUILD ALTERNATIVE



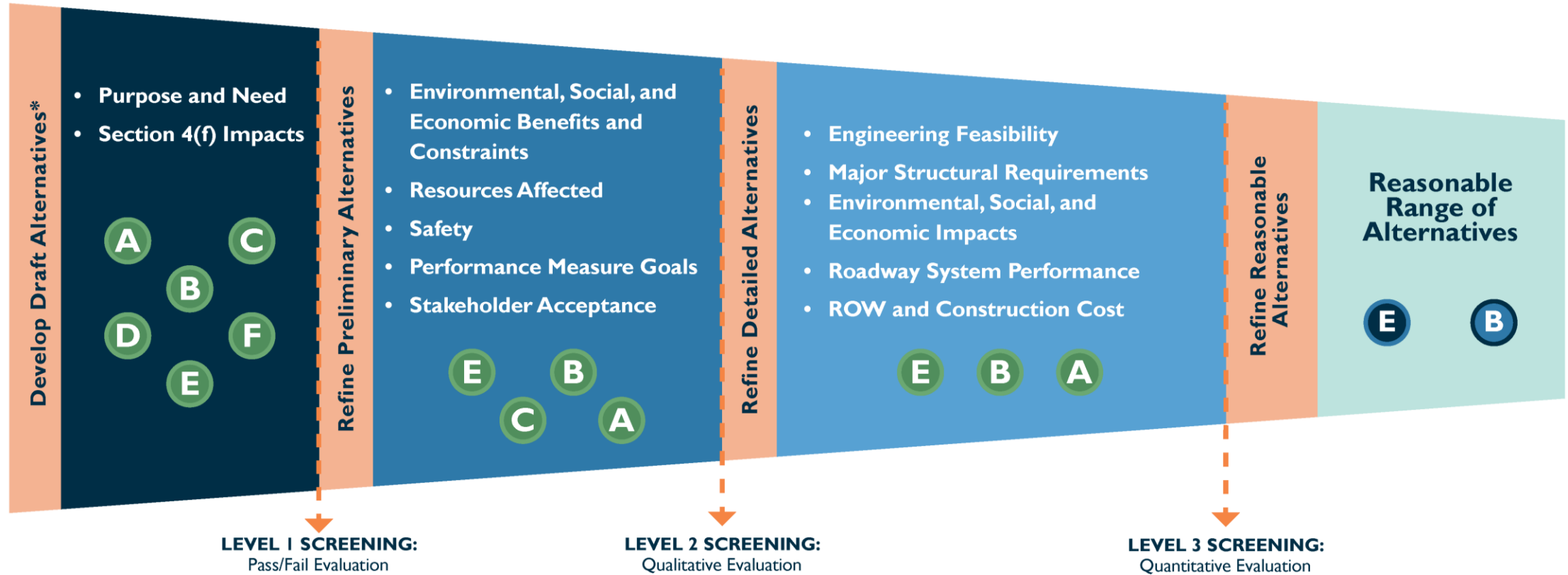
DISCUSSION





ALTERNATIVE SCREENING CRITERIA & EVALUATION DISCUSSION

ALTERNATIVE SCREENING CRITERIA & EVALUATION



Purpose & Need and Regulatory Requirements

ALTERNATIVE SCREENING CRITERIA & EVALUATION

Criteria	Measure
Safety	Rate of fatalities per 100 million VMT
	Rate of serious injuries per 100 million VMT
	Number of nonmotorized fatalities and serious injuries annually
Mobility	Average PM peak period (mph)
	Level of travel time reliability index (LOTTR)
	Truck travel time reliability index (TTTR)
	Percent of person-miles traveled that are reliable
Pavement Condition	Percent pavement area in good/poor condition
Environment	Section 4(f) & 6(f) impacts
	Area of wetlands impacted
	Potential noise impacts on nearby residential properties
	Potential for wildlife mortality; impact on wildlife movement
Community Support	Level of community support for alternative
Cost	Capital cost, maintenance cost

JOIN US IN PERSON OR ONLINE!

OPEN HOUSE NO. 2

Thursday, December 8, 2022

4:30 – 6:30 PM

Wasilla Public Library, Multi-Purpose Room
500 N Crusey Street, Wasilla, AK

Online Open House

Available on the project website
www.parkshighwayalternative.com
on December 8, 2022



Come and learn more about the PEL study progress, preliminary corridor alternatives, and alternative screening and evaluation process.

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