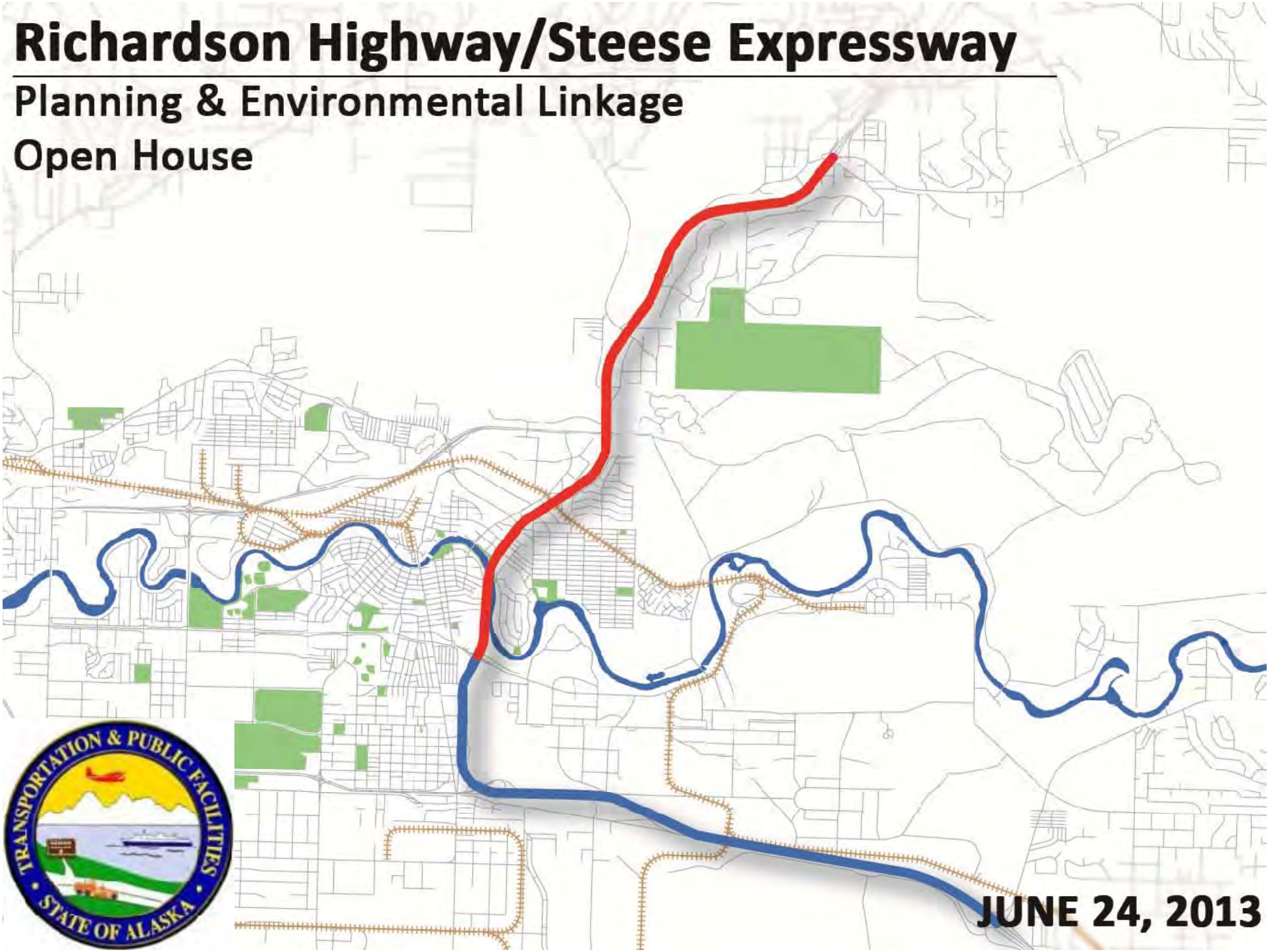
Richardson Highway/Steese Expressway

Planning & Environmental Linkage Open House



JUNE 24, 2013

AGENDA

- Safety minute
- Introductions
- PEL definition, goals, and process
- What has been completed so far?
- Conceptual improvements to mitigate congestion issues
- Gather input on presented concepts and ideas for new concepts

INTRODUCTIONS Project Team

DOT&PF

- Al Beck, P.E., Project Manager
- Chris Cavallo, Project Engineer
- Barry Hooper, Preliminary Design & Environmental Group Chief
- Hannah Blankenship, Publications Specialist

DOWL HKM

- Steve Noble, P.E., Project Manager
- Chris Grgich, P.E., Traffic Engineer
- Rachel Steer, Project Coordination

WHAT IS A PEL STUDY?

- One of 10 initiatives included in FHWA's "Every Day Counts" program to shorten project delivery time.
- An approach to transportation decision making that:
  - Considers environmental, community, and economic goals early in the planning stage;
  - Carries those considerations through project development, design, and construction;
  - Tries to identify "red flags."
- A seamless decision-making process that:
  - Minimizes duplication of effort;
  - Promotes environmental stewardship; and
  - Reduces delays in project implementation.

A VIABLE PEL STUDY MUST:

- Involve the public as well as interested state, local, tribal, and federal agencies;
- Document relevant decisions in a form that is identifiable and available for review during the NEPA scoping process; and
- Be accepted by the Federal Highway Administration (FHWA).

PEL KEY STEPS

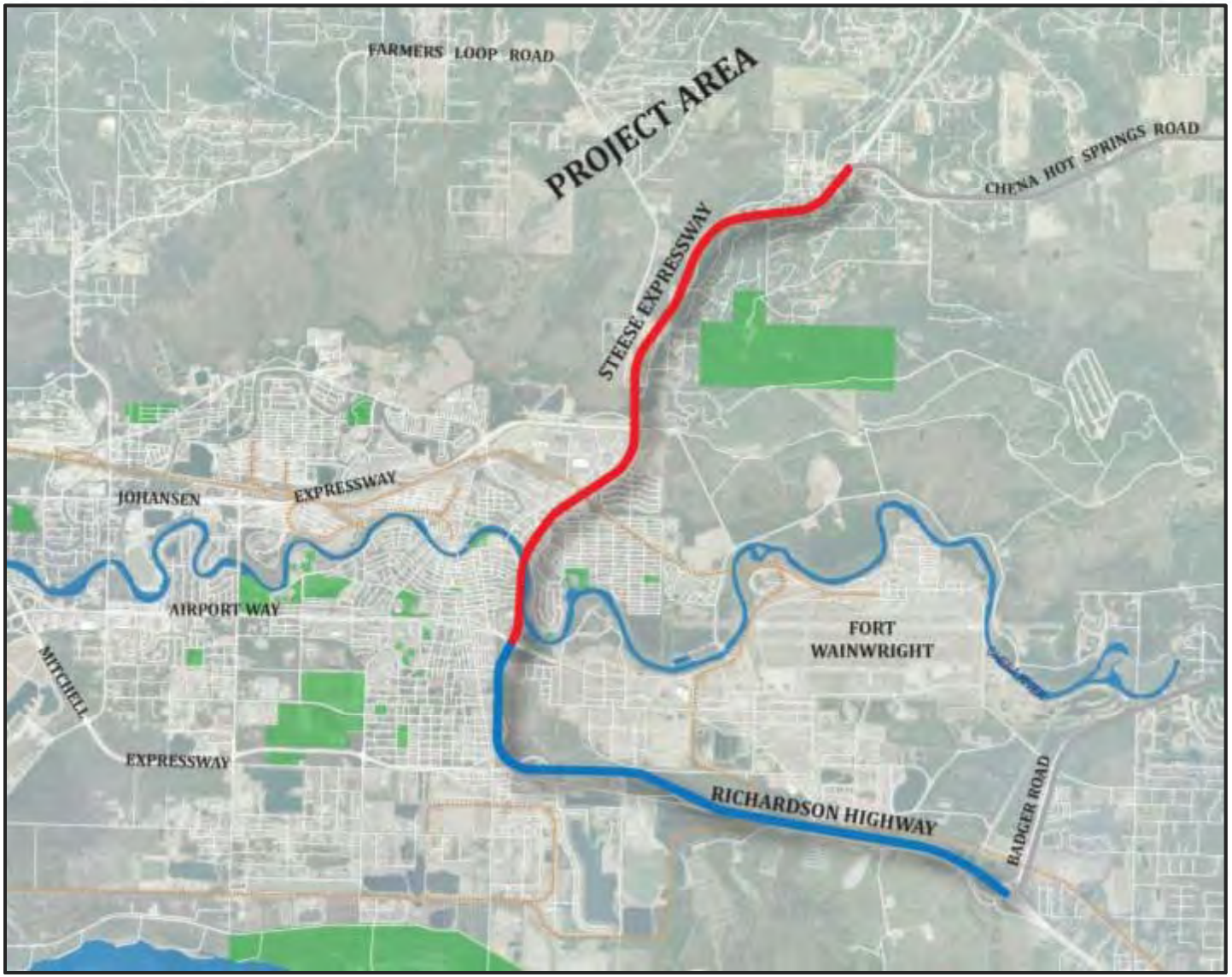
We are here

- Identify transportation deficiencies;
- Develop project concepts that consider:

-Feasibility	-Land use
-Logical termini	-Freight movement
-Cost	-ROW impacts
-Air quality	-Environmental impacts
-Multi-modal traffic	-and more…

- Identify direct, indirect, and cumulative impacts for the preliminary class of action determination; and
- Use this information and analysis in future project development.

PROJECT CORRIDOR



CORRIDOR CHARACTERISTICS

- High-volume principal arterials
- Traverse's some of the fastest growing areas in the FNSB
- Vital links connecting North Pole and Fairbanks to the National Highway System

TRAFFIC ANALYSIS

- Started with FMATS 2035 MTP
- Built on previous studies
- Created regional model
- Calibrated the model to current conditions (land use, traffic network changes, etc.)
- Identified near-term (2015), mid-term (2030), and long-term (2040) operational deficiencies

MULTI-MODAL CONSIDERATIONS

- Richardson/Steese are obvious corridors for parallel multi-modal access, but are often barriers for cross movements—particularly where controlled access exists.
- No new counts for non-motorized movements were conducted in this project.
- Desire for additional non-motorized access in the corridor is noted in previous projects.
- Each project/concept will require a more detailed evaluation of multi-modal access and compatibility with the Fairbanks Non-Motorized Transportation Plan (NMTP).

TRAFFIC ENGINEERING REPORT

- Draft version released February 2013
- Included:
  - Six study zones
  - Traffic volume estimates for:
    - 2015
    - 2030
    - 2040
  - Intersection and segment capacity analysis
  - Deficiency identification

ZONE 1 — Chena Hot Springs Road Interchange

IDENTIFIED ISSUES—ZONE 1

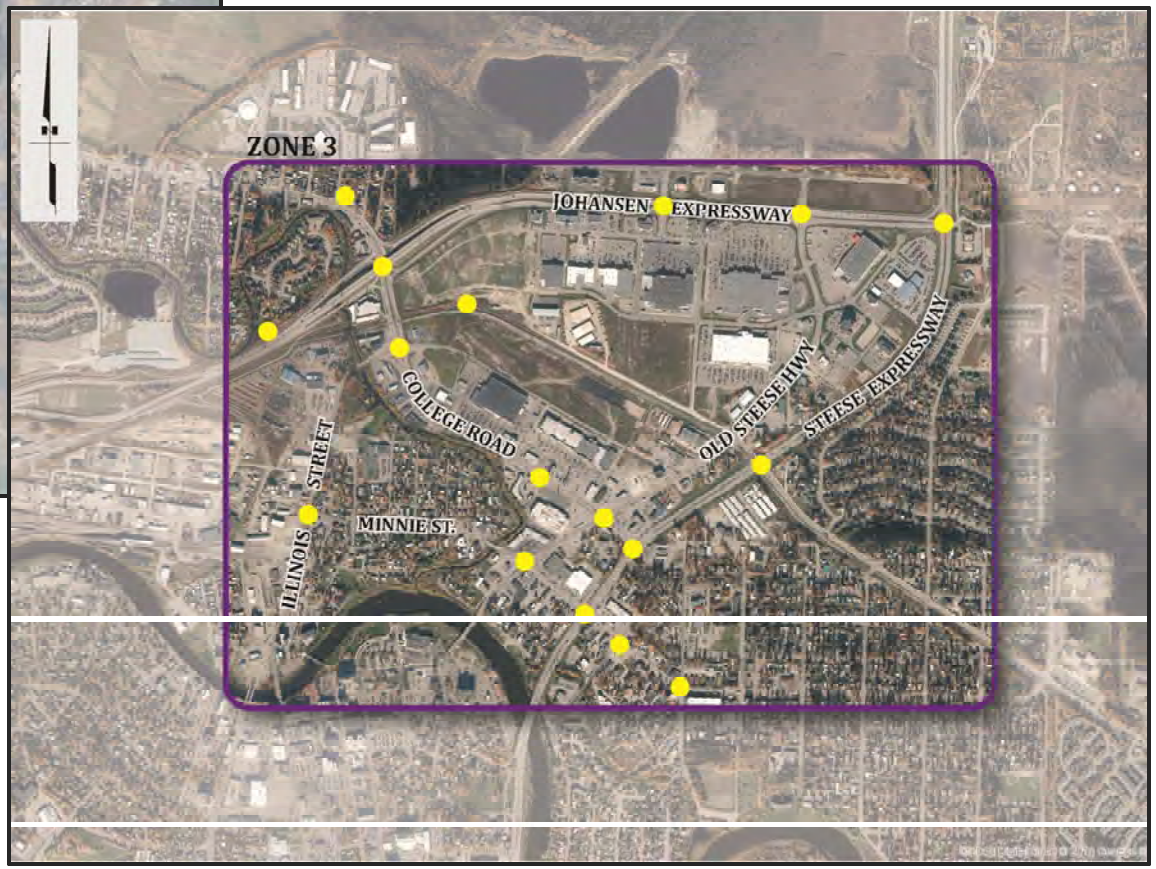
- **Chena Hot Springs Road Interchange**
  - Proposed single lane roundabouts reach capacity by 2030
  - Heavy westbound to southbound traffic demand

MITIGATION IDEAS — ZONE 1

- Convert single lane roundabouts to dual lane roundabouts
- Provide two westbound travel lanes
- Northbound right-turn slip ramp
- Consider pedestrian improvements to develop connectivity across the Steese Expressway

ZONE 2 — Farmers Loop Road Interchange
ZONE 3 — Johansen Expressway Commercial District

Zone 2



Zone 3

IDENTIFIED ISSUES — ZONES 2 & 3

- **Farmers Loop to Johansen Expressway**
  - Heavy travel demand
  - Signal timing and spacing along Johansen Expressway limits flow
  - Lack of local-level infrastructure between Johansen Expressway and Farmers Loop
- **College Road corridor**
  - Signal timing uncoordinated

MITIGATION IDEAS — ZONES 2&3

- New Steese/Johansen interchange
- New connection from Old Steese to Farmers Loop
- Realign Old Steese north of Farmers Loop
- New collector network improvements
- Add southbound third lane to Steese Expressway
- Spot intersection improvements
- Signal coordination and re-timing
- Non-motorized traffic improvements

MITIGATION IDEA — ZONE 3

ZONE 4 – Central Business District/Airport Way

IDENTIFIED ISSUES — Zone 4

- Airport Way/Steese Expressway
  - Very high directional demand (southbound critical)
  - High turning movement demand on Steese Expressway
  - Lack of auxiliary lanes limits signal efficiency
  - Main access Fort Wainwright gate

- Airport Way/Cushman Street
  - Shared through/turning lanes are inefficient
- Airport Way/Barnette Street
  - High eastbound through demand
  - Conflicting left-turns on permitted-only movements failing

MITIGATION IDEAS — ZONE 4

- Add third southbound travel lane to Steese Expressway (Zones 3 & 4)
- New Airport Way/Steese Expressway interchange
- Spot intersection improvements
- Signal coordination and re-timing
- Non-motorized traffic improvements

ZONE 5 — Old Richardson Highway Industrial District

IDENTIFIED ISSUES — ZONE 5

- **Old Richardson Highway westbound/ Richardson Highway eastbound**
  - **Safety and capacity concerns at the stop controlled crossing of the westbound off ramp with the eastbound freeway**
  - **Concerns about at-grade railroad crossing**

MITIGATION IDEAS — ZONE 5

- Construct overpass for Old Richardson off-ramp
- Non-motorized traffic movements
- Consider railroad overpass

ZONE 6 – Badger Road Interchange

ZONE 6 – Badger Road Interchange

- Signal timing improvements
- Non-motorized traffic movements

NEXT STEPS

- Public open house #1 — We are here
- Refine concepts and environmental analysis
- Public open house #2 (late summer/early fall)
- Final concepts (November 2013)

QUESTIONS/COMMENTS

Submit Your Comments

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