



AGS Feasibility Study Update

STAC Meeting
April 12, 2013

From December Update...

- ✓ Technology Feasible? **Yes**
- Alignment & Land Use Feasible?
- Funding & Governance Feasible?
- Is AGS Feasible?

Alignment Evaluation

| Alignment | Design Speed | Max Grade | Total Tunnels | Longest Tunnel |
|-----------------------|--------------|-----------|---------------|----------------|
| High Speed Maglev | 150 mph | 7% | 40 miles | 5 miles |
| High Speed Rail | 150 mph | 3% | 65 miles | 20 miles |
| Hybrid Maglev | 100–120 mph | 7% | 20–40 miles | 5 miles |
| I-70 Maglev Alignment | 60–80 mph | 7% | 1.5 miles | 1.3 miles |

Alignment Evaluation – Next Steps

- ▶ Refine alignments based on March Meetings
- ▶ Develop speed profiles for each alignment
- ▶ Provide speed profiles as ridership model inputs
- ▶ Environmental screening/evaluation
- ▶ Complete cost estimates

Land Use, Stations, & Local Transit

- ▶ Summit County, Monday, March 11
- ▶ Jefferson County, Tuesday, March 12
- ▶ Clear Creek County, Thursday, March 14
- ▶ Eagle County, Monday, March 25



Station Evaluation Criteria

- ▶ Land Use Development Potential
 - Land availability
 - Infrastructure capacity (water, power, etc)
- ▶ Transportation Access & Capacity
- ▶ Transit Distribution
- ▶ Community & Regional Support
- ▶ Environmental Constraints
- ▶ Ridership Capture

Station Locations Under Evaluation

▶ Jefferson County

- Golden near US 6 / C-470 / I-70 / Colfax
- Colorado Mills Mall
- Morrison Development Site
- SH 58 / I-70 (alignment alternative)

▶ Clear Creek County

- Idaho Springs
- Empire Junction
- Georgetown

Station Locations Under Evaluation

- ▶ Summit County
 - Silverthorne
 - Lake Hill
 - Frisco
 - *Keystone*
 - *Breckenridge*
 - *Copper Mountain*



Station Locations Under Evaluation

- ▶ Eagle County
 - Vail
 - Avon
 - Eagle County Regional Airport



ADVANCED GUIDEWAY SYSTEM (AGS) FEASIBILITY STUDY

Land Use / Stations Next Steps

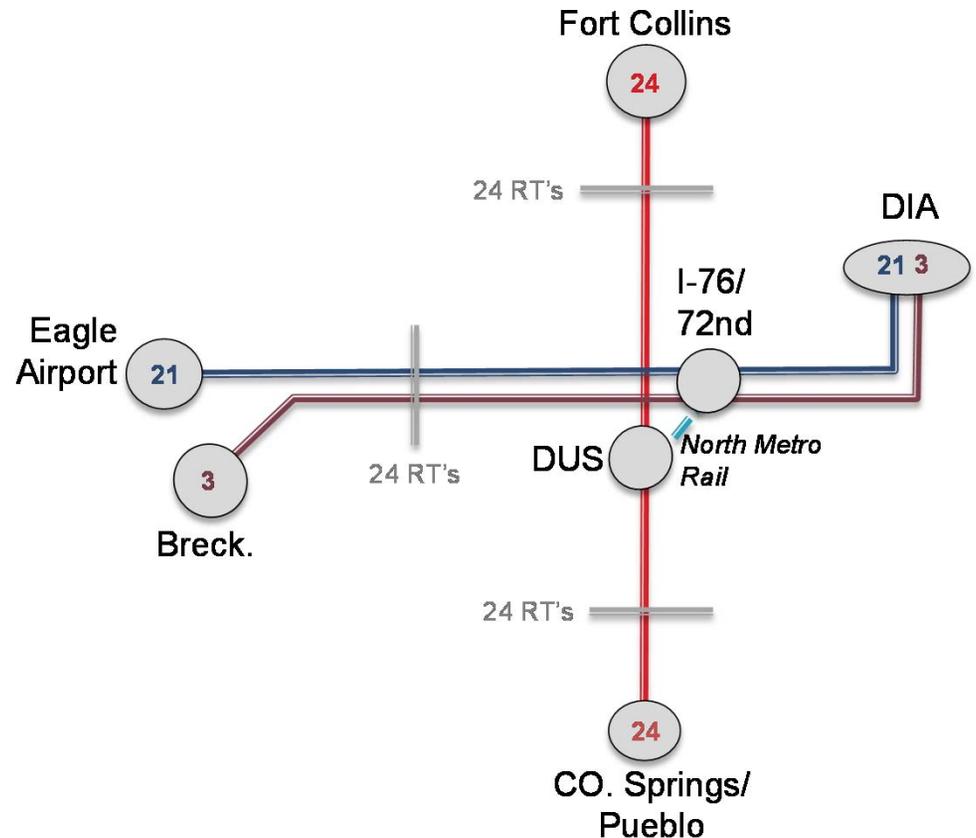
- ▶ Compare station locations to ridership
- ▶ Estimate parking needs at stations
- ▶ Round 3 County–hosted meetings in June

Operating Scenarios

- ▶ 18 Hour operating plan
 - 24 trains/day = Base Plan
 - 12 hours @ 60-minute frequency
 - 6 hours @ 30-minute frequency
 - 36 trains / day = High Capacity Plan
 - 12 hours @ 60-minute frequency
 - 6 hours @ 15-minute frequency to meet 2035 design capacity of 4,900 pphpd

Key Modeling / Operating Policy Questions Being Tested

- ▶ Proximity to downtown Denver
 - Denver Union Station
 - Stockshow / Denver Coliseum
 - I-76 / 72nd Station = North Metro Line Connection
- ▶ Alignments to DIA
 - Through Denver
 - Beltway Around



Goals for the RFFI

- ▶ I-70 Corridor provide input to RFFI
- ▶ Ask the right questions
- ▶ Get good feedback from transit industry P3 / Concessionaire leaders
- ▶ Scenarios may be a way to dialogue with industry leaders...Are there others?

Approach to the RFFI

- ▶ Use the best available information on the project...alignments, technology, stations, etc.
- ▶ Provide realistic funding expectations
- ▶ Keep it straightforward to obtain as much relevant input / feedback as possible

Background Information for the RFFI

- ▶ Base project information (MOS)
- ▶ Ridership results & fare recovery estimates
- ▶ AGS Team to provide alignments & cost estimates
- ▶ Preliminary funding assumptions & recommendations from Task Force
- ▶ Level of local support from governments, & the business community
- ▶ Level of recreation, restaurant, hospitality industry support

Example RFFI Questions

- ▶ Recommendations on governance structure
- ▶ Recommended delivery structure: (DBFMO, DBF + M&O separate, other)?
- ▶ AGS technology selection preferences?
- ▶ Public vs. private sector risk allocation?
- ▶ Fare box risk to cover O&M expenses?
- ▶ Recommended term for a concession?
- ▶ Concession concept preference: AGS alone, AGS with managed lanes, other?

Minimum Operating Segment

- ▶ 50 miles (C-470/I-70 to Summit County)
- ▶ \$100 Million per mile
- ▶ \$5 Billion to fund & finance
 - Testing how much risk PPP/P3 willing to take
 - Testing what things are acceptable risk for P3
 - “Down payment” vs “Mortgage Payment”
- ▶ Preliminary range: \$300 to \$400 M / yr availability payment for 30 years needed

RFFI Preliminary Schedule Overview

(Dates are approximate and may be adjusted as needed)

- 4/8/13 Input from Funding/Financing Task Force
- 4/10/13 Brief PLT and obtain input
- 4/11/13 Brief I-70 Coalition and request input
- 4/19/13 Financial sections drafted
- 4/30/13 Cost & ridership added...First Full Draft
- 5/3/13 Comments to Draft Due
- 5/8/13 PLT Final Review
- 5/17/13 Release RFFI
- 5/31/13 Q & A from responding teams complete
- 6/28/13 Responses to RFFI Due

Summary of Next Steps

- ▶ May: Balancing of Various Components
 - Capital Costs
 - Operations & Maintenance Costs
 - Ridership Results
 - Release RFFI

- ▶ June
 - Receive responses to RFFI & Evaluate
 - Station location & parking assessment

- ▶ July – September
 - Feasibility Determination
 - Project Reporting & Finalization