

Town of Erie Municipal Airport Connection





Project Overview

- Data Collection
- Analyze additional locations for access road
- Provide recommendations on preferred location

Data Collection

Geotech

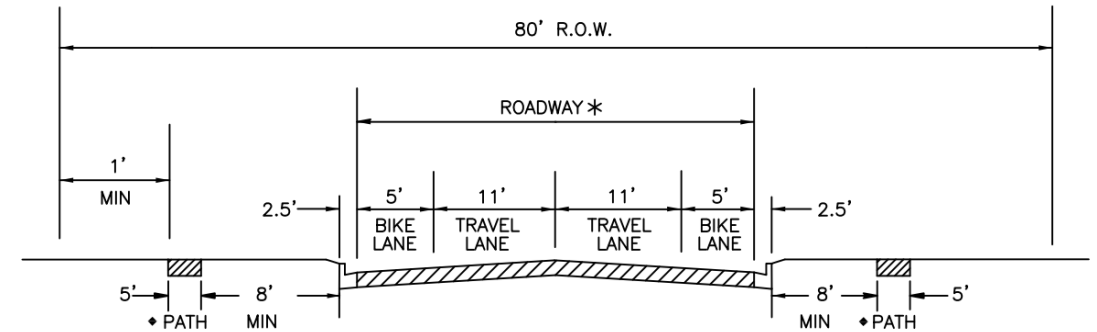
Environmental

Utilities

Drone Imagery

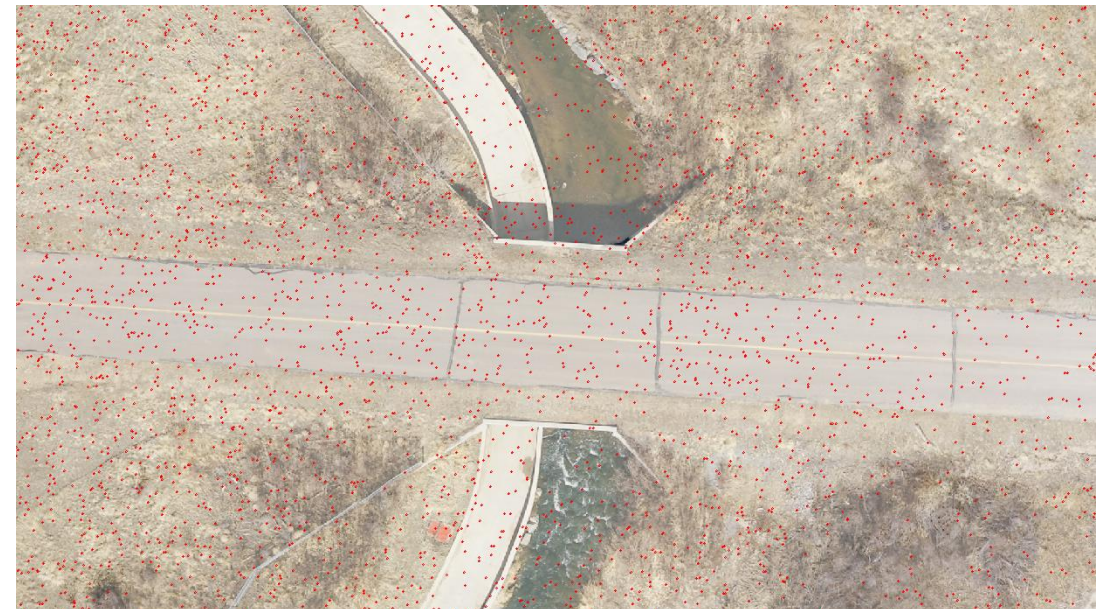
Bridge/Hydraulics Criteria

Roadway Criteria



COLLECTOR WITHOUT PARKING OR MEDIAN

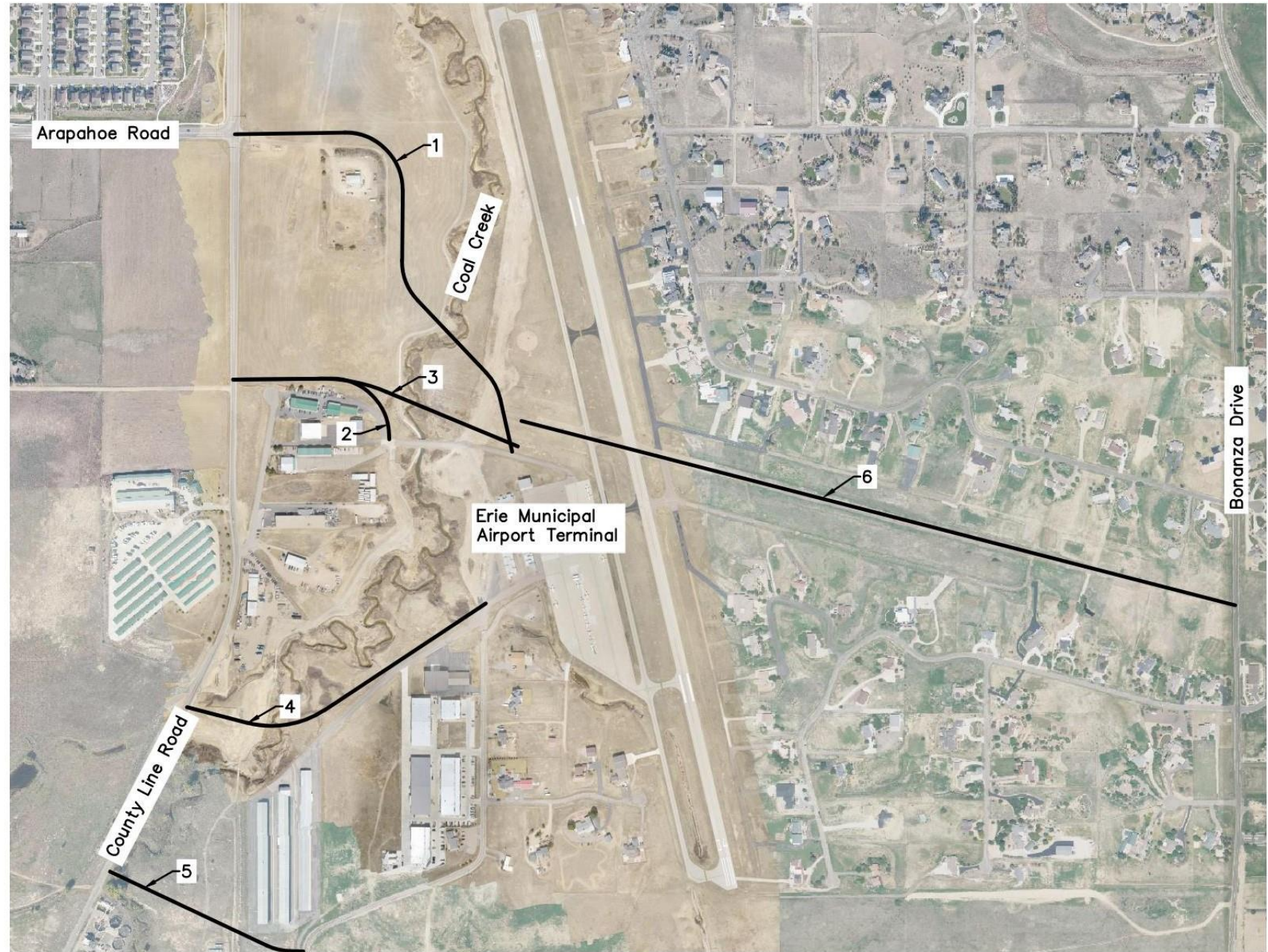
Town of Erie Collector Standard Detail (ST3)



Drone Elevation Points

Location Analysis

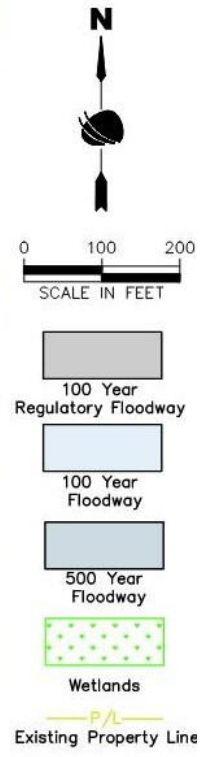
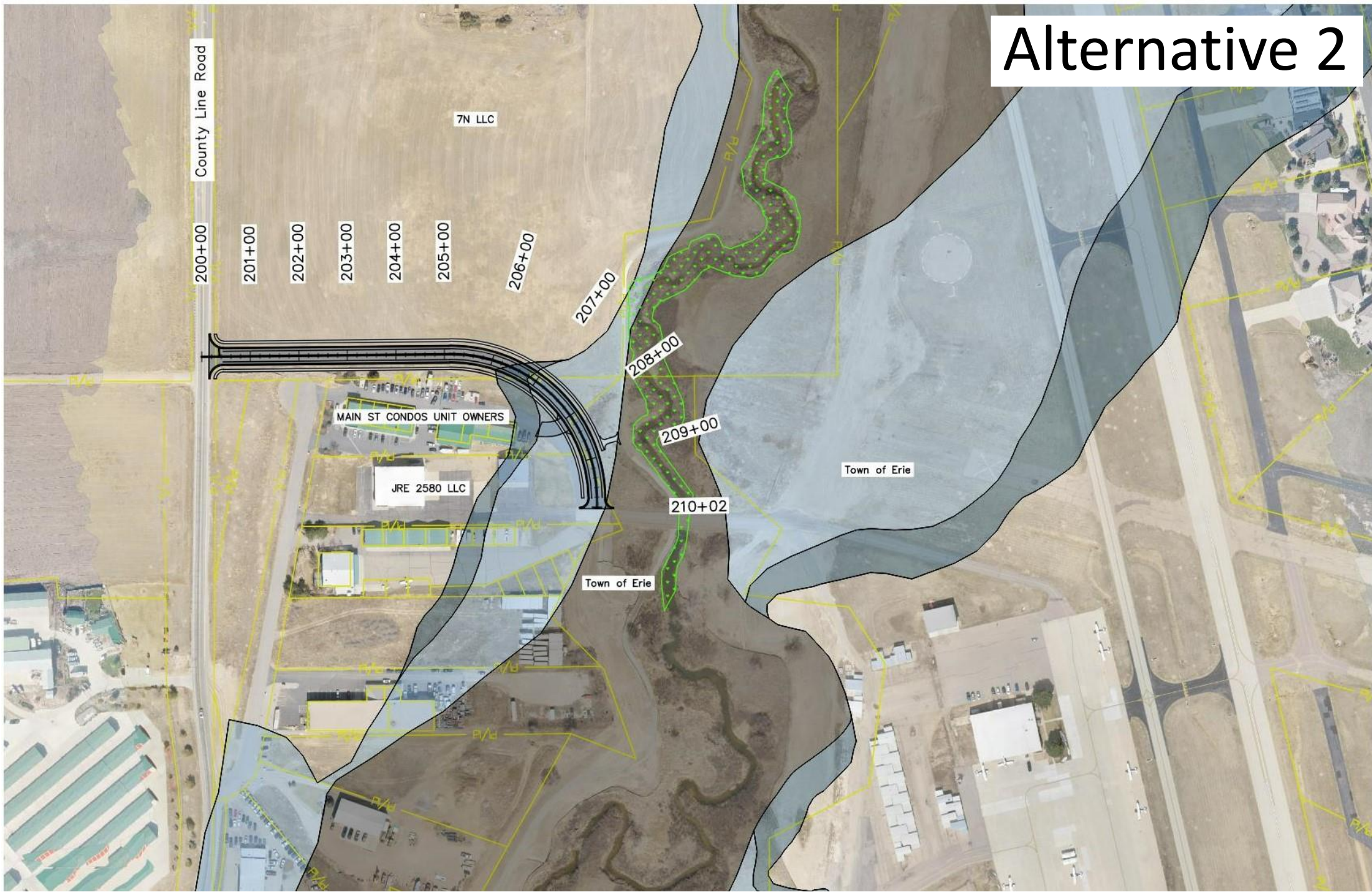
- 6 initial alternatives identified
- 3 alternatives analyzed in detail
 - Alternative 1 – Arapahoe Road
 - Alternative 2 – Coal Creek Existing Crossing
 - Alternative 3 – North of Cul-de-sac



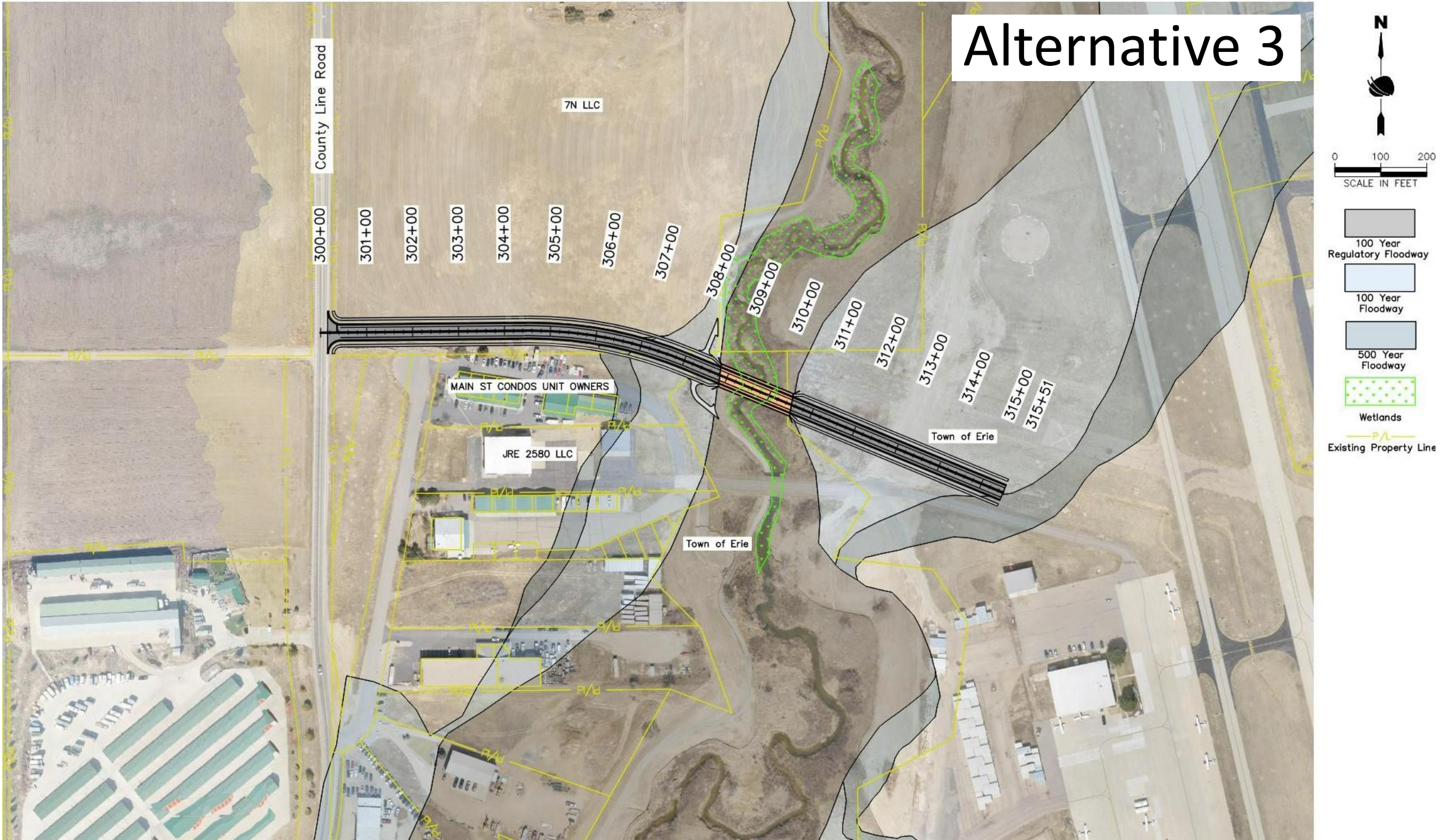
Alternatives Evaluation Matrix

Town of Erie Municipal Airport Connection Evaluation				
Criteria	Measure	Alternative 1: Arapahoe Road	Alternative 2: Coal Creek Existing Crossing	Alternative 3: North of Culdesac
Property Impacts	Area Effected (SF)	101,000	70,000	65,000
	Number of Private Parcels Effected	2	3	2
Coal Creek Impacts	Width of 100 Year Floodplain at Crossing (Ft)	260	260	180
	Structure Estimated Length (Ft)	240	Existing	170
	Structural/Hydraulic Impacts	Moderate Impacts	100 Year Overtop	Moderate Impacts
	Environmental Impacts	Moderate Impacts	Minor Impacts	Moderate Impacts
Airport Operations	Compatability with Existing Operations	Good	Fair	Good
	Compatability with Future Operations	Good	Poor	Good
Traffic & Engineering Factors	Ease of Use and Connectivity	Good	Fair	Good
	Intersection Operations	Good	Fair	Good
	Utility Impacts	Moderate Impacts	Minor Impacts	Minor Impacts
Constructability & Cost	Schedule	Minor Impacts	Moderate Impacts	Minor Impacts
	Construction Impacts	Minor Impacts	Moderate Impacts	Minor Impacts
	Total Project Estimated Cost (Million)	8.01	1.17	5.19

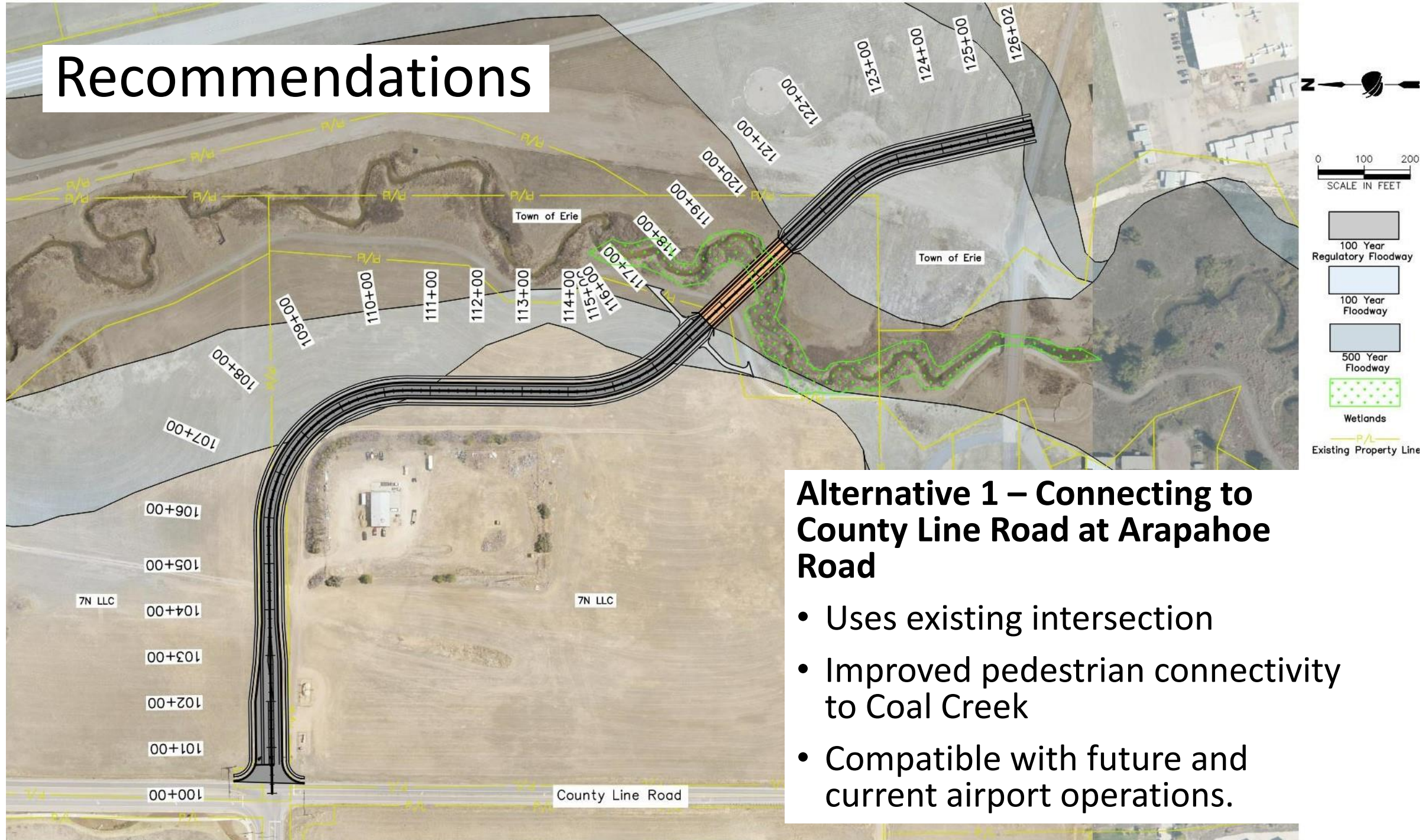
Alternative 2



Alternative 3



Recommendations



Recommended Alternative Cost Estimate



Town of Erie Municipal Airport Connection Alternative 1 (Arapahoe Road) Conceptual Estimate July 14, 2022

ITEM	UNIT	QUANTITY	UNIT PRICE	COST
Roadway Items				
Clearing and Grubbing	LS	1	\$20,000.00	\$20,000
Aggregate Base Course (ABC)	CY	3,027	\$65.00	\$197,000
Curb & Gutter (Type 2-IIB)	LF	4,729	\$48.00	\$227,000
Hot Mix Asphalt (HMA)	TON	4,059	\$115.00	\$467,000
Concrete Sidewalk	SY	2,915	\$80.00	\$233,000
Structure Items				
New Bridge Structure	LS	1	\$2,350,000.00	\$2,350,000
Subtotal (Roadway & Structure):				\$3,494,000
Major Items				
Embankment	LS	1	3.00%	\$104,820
Erosion Control	LS	1	2.00%	\$69,880
Removals, Resets, Adjustments	LS	1	2.00%	\$69,880
Drainage Items	LS	1	5.00%	\$174,700
Signing, Striping & Signals	LS	1	6.00%	\$209,640
Construction Traffic Control	LS	1	4.00%	\$139,760
Seeding & Channel Restoration	LS	1	5.00%	\$174,700
Landscape & Bridge Aesthetics	LS	1	6.00%	\$209,640
Mobilization	LS	1	7.00%	\$244,580
Lighting	LS	1	2.00%	\$69,880
Utilities	LS	1	5.00%	\$174,700
Subtotal (Major Items):				\$1,642,180
Subtotal Before Contingencies:				\$5,136,180
Contingencies:				25% \$1,284,045
TOTAL COST OF CONSTRUCTION BID ITEMS				\$6,420,225

OTHER COSTS

Design (10%)	\$642,023
Construction Management (10%)	\$642,023
Land Acquisition (\$3 per SF)	\$303,000

TOTAL PROJECT COST

Note: Cost estimate does not include parking lot improvements near airport terminal. Alternatives 1 and 3 would likely necessitate some enhanced parking at the terminal since existing parking lot is located to the south of the terminal.

Escalation to 2023 (5%)	\$8,407,633.50
Escalation to 2024 (5%)	\$8,828,015.18
Escalation to 2025 (5%)	\$9,269,415.93
Escalation to 2026 (5%)	\$9,732,886.73

\$8,007,270

Q&A