FNL

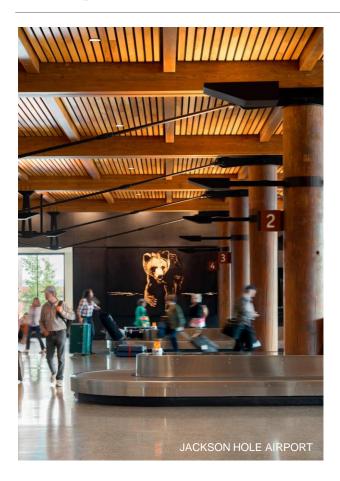
NEW TERMINAL

PLANNING AND DESIGN
STAKEHOLDER CHARRETTE 4: DESIGN REVIEW
NORTHERN COLORAD
REGIONAL AIRPORT





AGENDA



- 1. Today's Charrette 4 Objectives and Schedule Review
- 2. Outcomes and Summaries Review
 - A. Charrette 1-3: Concept Design
- 3. 15% Concept Design Pricing Recap
- 4. Site Pricing and Value Engineering Options
 - A. VE Site Plan Cost Estimates
 - B. VE Site Plan Options
- 5. Architectural Pricing and Value Engineering Options
 - A. 15% Concept Design Cost Estimate
 - B. VE Terminal Plan and Exterior Options
 - C. VE Cost Summary
- 6. Closing Thoughts and Next Steps



CHARRETTE 4 OBJECTIVES

During the Work Session Stakeholders will receive a review of the 15% Conceptual Pricing Set and Value Engineering Process. Stakeholders will provide feedback on three cost models and floor plans. The design team is seeking direction from the Stakeholders on which design option to move forward with.

Outcomes

- Obtain Feedback From Stakeholders About:
 - Cost Model and Value Engineering Options
 - Phase 1 Floor Plan
 - Architectural Concept Review
 - Design Direction to Proceed with for Schematic Design



CHARRETTE SCHEDULE

CHARRETTE 1

- Today January 21, 2021
- Establish goals and priorities
- Stakeholder Collaboration

CHARRETTE 2

- February 11, 2021
- Sustainability Visioning
- Design Team Only

CHARRETTE 3

- March 11, 2021
- Presenting 3 design concepts
- Stakeholder Input



CHARRETTE 4

- June 17, 2021
- Reviewing 15% Concept Design/ Value Engineering Options
- Stakeholder Input



CURRENT DESIGN ASSUMPTIONS

SIZE: 25,000-30,000 SF

BUDGET: \$14M FOR TERMINAL CONSTRUCTION

SCHEDULE: COMPLETED BY JULY 2024

GATES: 2 - SERVING A320 AIRCRAFT

GOAL: COMMERCIAL AIR TRAVEL

LEED: STRIVING FOR GOLD



CHARRETTE 1 & 2 OBJECTIVES

Based on the conversations during the charrette, the following critical priorities were identified.



CRITICAL PRIORITIES – OPERATIONAL & FUNCTIONAL

- EXPANDABLE & ADAPTABLE
- DELIVER ON SCHEDULE
- PASSENGER EASE
- MAXIMIZING VIEWS TO MOUNTAINS
- MAXIMIZING INTERIOR DAYLIGHTING

- MARKETABLE TO AIRLINES
- DELIVER ON BUDGET
- ENERGY EFFICIENT
- DURABLE & EASY TO MAINTAIN

CHARRETTE 1 & 2 OBJECTIVES

Based on the conversations during the charrette, the highlighted goals were identified.



GOALS – OVERALL PROJECT ASPIRATIONS

- **GATEWAY TO THE REGION**
- COMMUNITY FOCUSED
- CREATE A SENSE OF ARRIVING IN NORTHERN COLORADO FOR VISITORS & CREATE A SENSE OF ARRIVING AT HOME FOR RESIDENCE. • WORLD CLASS FACILITY
- FAMILY FRIENDLY
- SUSTAINABLE
 - FLEXIBLE FOR GROWTH
 - ICONIC & REGIONALLY BASED ARCHITECTURE

WHAT WORDS WOULD YOU LIKE TO USE TO DESCRIBE THE NEW TERMINAL?



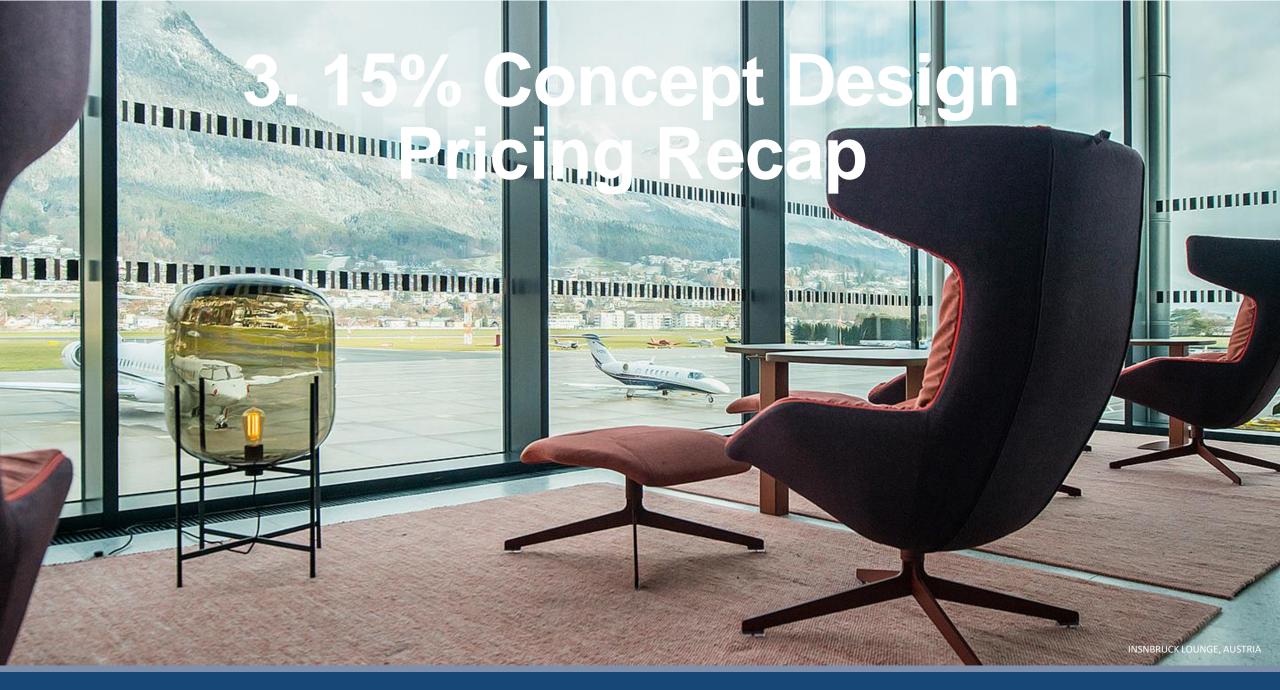
WORDS TO AVOID

- ANXIETY
- STRESSFUL

SUSTAINABILITY GUIDING PRINCIPLES FNL AIRPORT TERMINAL PROJECT

Guiding Principles, synthesized from owner, stakeholder, and project team visions and goals, foster collaboration as all project stakeholders work to achieve the collective vision

- Demonstrate how to achieve economic, social, and environmental health and sustainability
- Create a welcoming, home-like atmosphere while capturing the sense of place and spirit of Colorado
- Demonstrate to Northern Colorado the promise of buildings powered by clean and efficient energy
- Showcase Northern Colorado's cultural heritage and widely recognized focus on the creative arts
- Reflect and Embody Colorado's climate, natural materials, and majesty
- Showcase Northern Colorado's emphasis on education, research, and innovation



CONCEPT - NOCO'S LIVING ROOM

"IT'S MORE THAN A TERMINAL, IT'S A PLACE TO GATHER."













CONCEPT MOOD BOARD











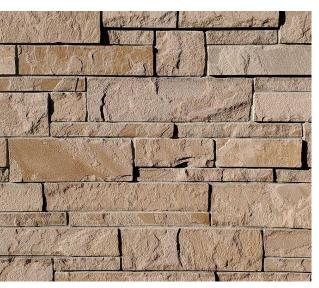








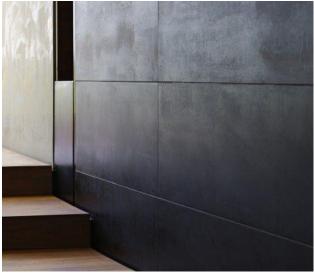
CONCEPT MATERIAL PALETTE



LOCAL SANDSTONE



OXIDIZED COPPER CLADDING



BLACKENED STEEL PANELING



WOOD SOFFITING

OPTIONAL ACCENTS:

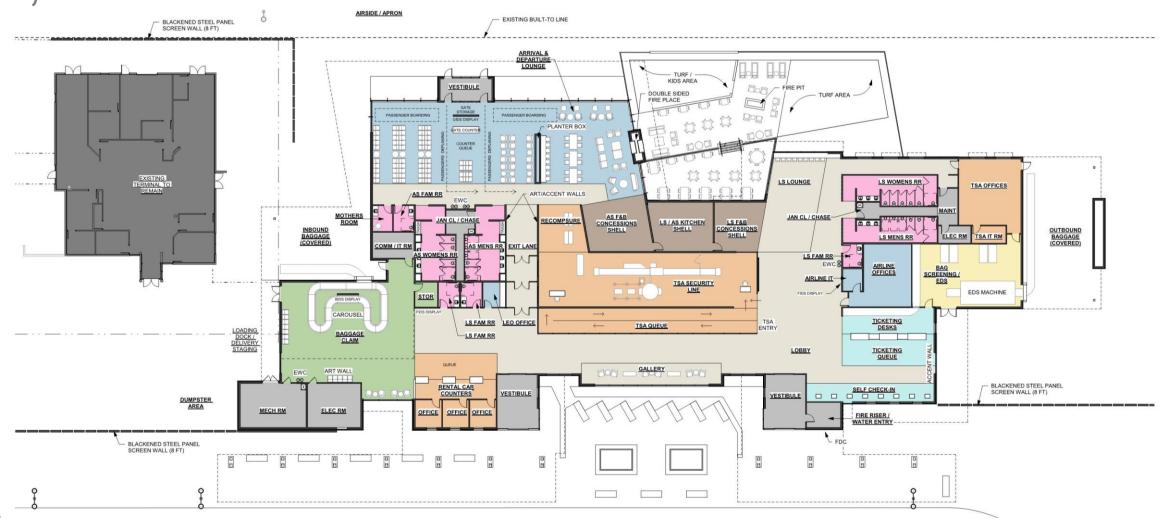


CORTEN STEEL

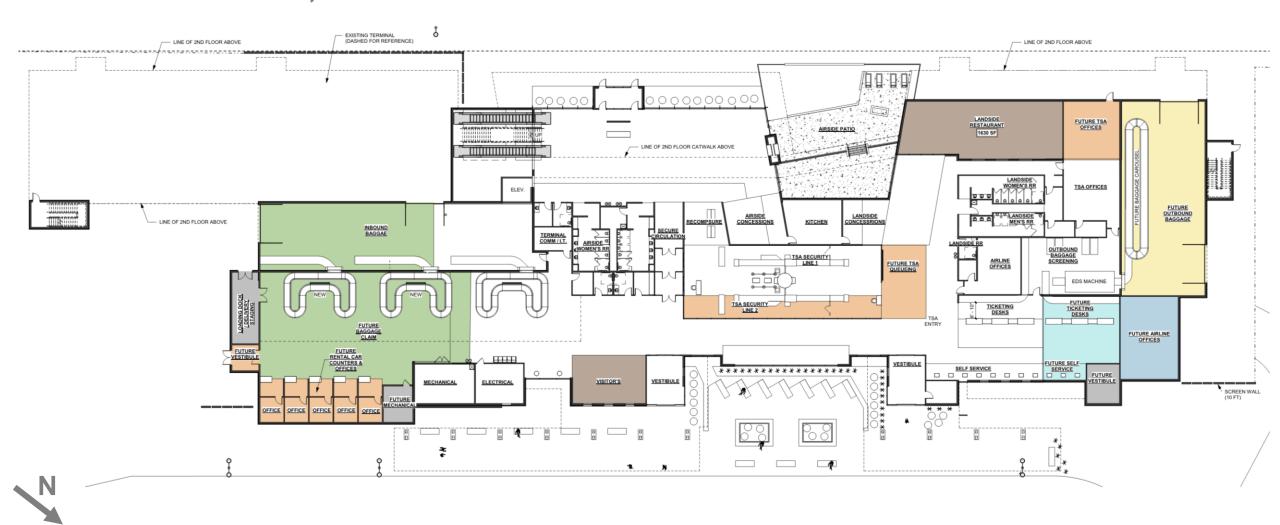


BEETLE KILL SIDING

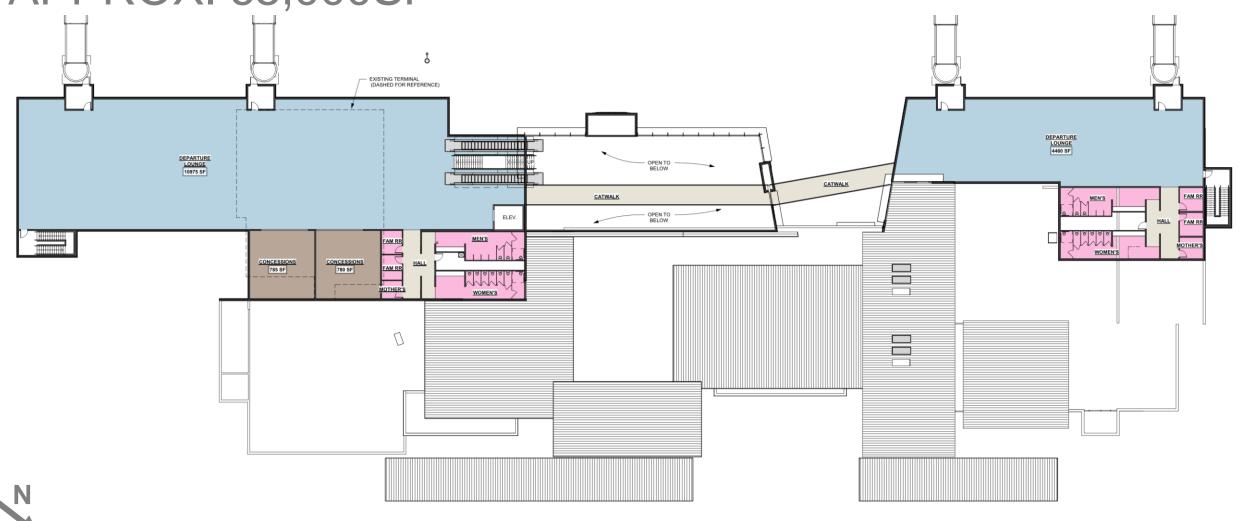
15% CONCEPTUAL FLOOR PLAN – PHASE 1 26,350SF



15% CONCEPTUAL FLOOR PLAN – FULL BUILD OUT APPROX. 65,000SF



15% CONCEPTUAL FLOOR PLAN – FULL BUILD OUT APPROX. 65,000SF



15% CONCEPT DESIGN: EXTERIOR VIEWS



AERIAL OF EAST SIDE

15% CONCEPT DESIGN: EXTERIOR VIEWS



NORTHEAST - LANDSIDE



SOUTHEAST - LANDSIDE

15% CONCEPT DESIGN: EXTERIOR VIEWS



NORTHWEST - AIRSIDE



SOUTHWEST - AIRSIDE

15% CONCEPT DESIGN PRICING



ROSS5D Project Analysis

June 11, 2021

Submitted Date

DEN10027 - Northern Colorado Regional Airport New Terminal 3 - 15% Conceptual Design Cost Estimate

Net Cost

\$12,908,807

On Costs

\$3,726,842

Estimated Total Cost

\$16,635,649

Total Budget (if available)

\$14,000,000

Variance to Budget

18.8%

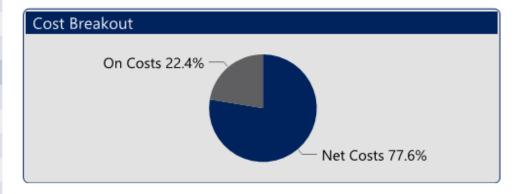
Current GFA

26,755 SF

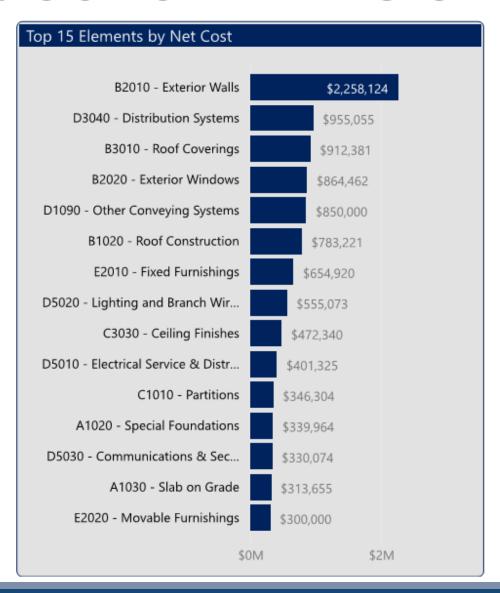
Total Cost per GFA (SF)

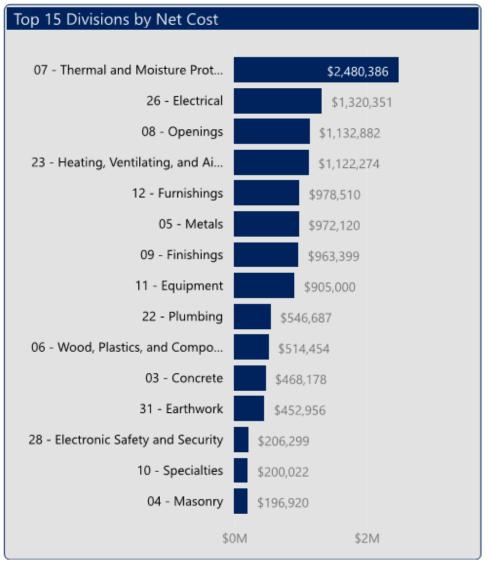
\$621.78

Parent Category	Estimated Cost	
☐ Net Costs	\$12,908,807	
Building	\$11,859,294	
FF&E	\$300,000	
Site	\$749,513	
☐ On Costs	\$3,726,842	
General Conditions & General Requirements -	- \$774,529	
Insurances & Bonds - 2%	\$273,667	
Overhead & Profit - 3%	\$418,711	
Estimating Contingency - 5%	\$718,786	
Construction Contingency - 3%	\$452,835	
Cost Escalation (Q1 2023) - 7%	\$1,088,314	
Total	\$16,635,649	



15% CONCEPT DESIGN PRICING





15% CONCEPT DESIGN PRICING SHORTFALL

ınding Availability		
\$16,865,798		
\$2,459,621		
\$19,325,419		

Item	15% Estimate
Design Fee	\$1,542,321
Construction Mgmt Fee	\$1,000,000
CMAR PreCon Fee	\$300,000
Owner's Contingency	\$650,000
Site - Civil / Landscaping	\$3,610,911
Terminal Building (incl BHS)	\$16,635,649
Total Terminal / Site Cost	\$23,738,881
Apron Improvement Cost	\$3,011,046
Total Project Cost	\$26,749,927
Site VE Savings	
Building VE Savings	
Total VE Savings	
Building Area (interior)	26,350 SF
Building Area Reduction	
Building Cost/SF	\$ 631 SF
Shortfall vs. Funding	-\$7,424,508

<u>Preliminary Airport Staff estimate</u>				
\$	\$	1,500,000	terminal design (underway)	
\$	5	3,000,000	airside improvements being constructed in 2021 (underway)	
\$	\$	2,500,000	landside improvements including a new loop road and reconstruction of the Earhart	
\$	\$	2,000,000	parking lot reconstruction	
\$	5	14,000,000	terminal construction (includes TSA & baggage systems)	
\$	\$	250,000	furniture, fixtures, & equipment (except TSA & baggage systems)	
\$	à	750,000	construction management	
\$	\$	24,000,000	Total cost	

4. SITE PRICING AND VALUE ENGINEERING OPTIONS

PHOTO BY VFLA

PHOTOS OF THE SITE









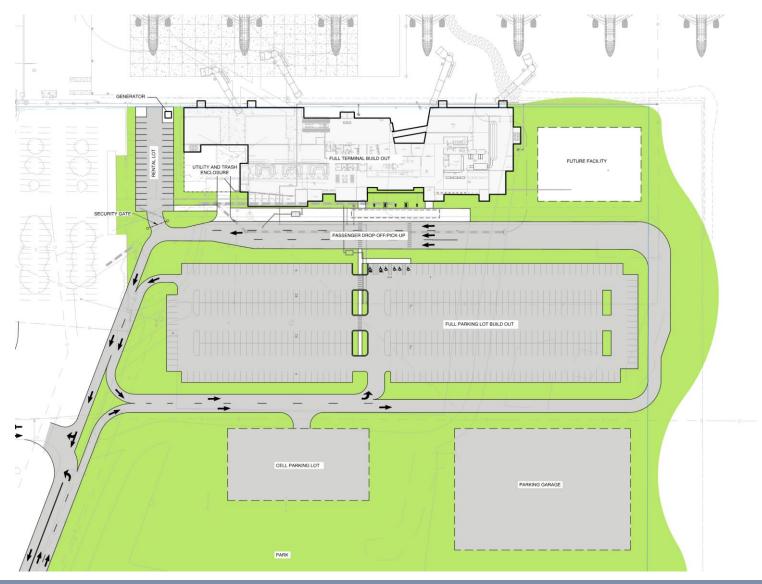
UPDATED ANTICIPATED PROJECT BOUNDARY



15% CONCEPT DESIGN: LOOP ROAD - PHASE 1



15% CONCEPT DESIGN: LOOP ROAD – COMPLETE



SITE/PARKING LOT - VE OPTIONS

PARKING LOT CONSTRUCTION COST OPTIONS

- OPTION 1 CRACK SEAL & SEAL COAT EXISTING PARKING LOT
 - DIBBLE COST ESTIMATE: \$2,622,146
 - SHOWN AS BASIS OF DESIGN FOR ALL ARCHITECTURAL BUILDING OPTIONS

POTENTIAL SITE ADDS

- OPTION 2 PARKING RECONSTRUCTION WITH LIME TREATED SUBGRADE: + \$451,108
 TOTAL = \$3,073,254
- OPTION 3 PARKING RECONSTRUCTION WITH 3FT OVER-EXCAVATION: + \$660,833 TOTAL = \$3,282,979
- FULL BUILD-OUT OF LOOP ROAD: + \$810,000
- EXTEND IMPROVEMENTS ON EARHART: + \$247,556

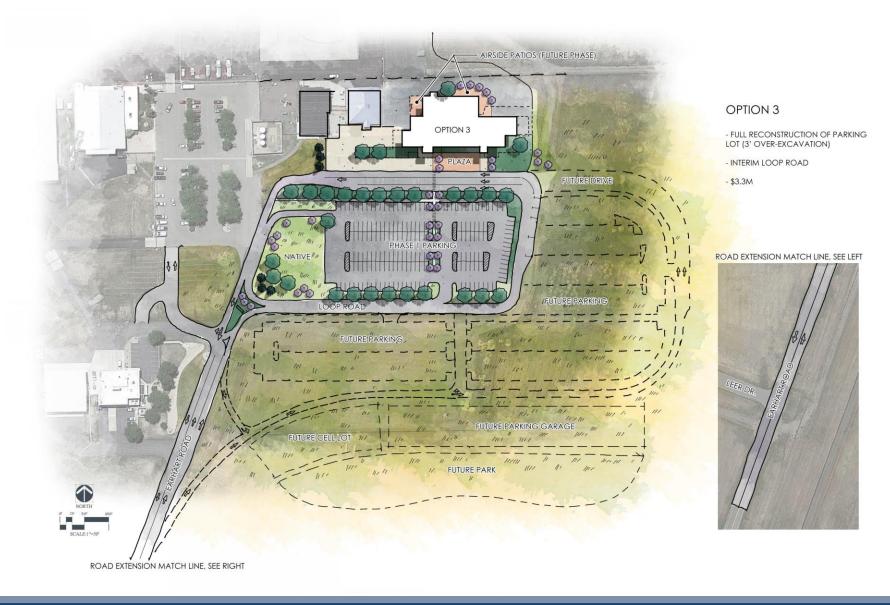
SITE PLAN - VE OPTION 1



SITE PLAN - VE OPTION 2

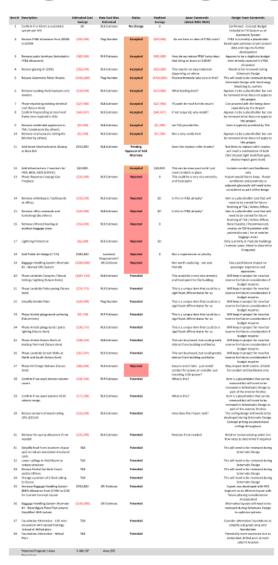


SITE PLAN - VE OPTION 3





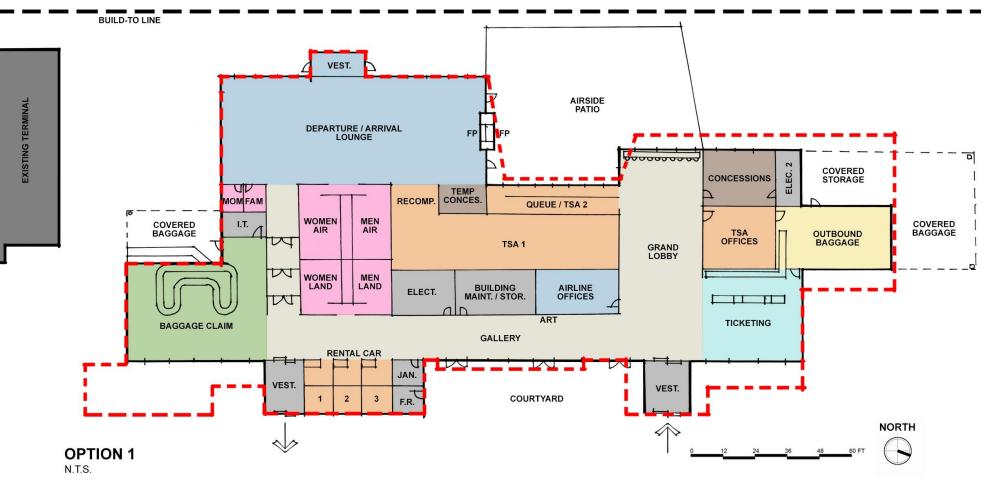
ARCHITECTURAL VALUE ENGINEERING



WHAT IS VALUE ENGINEERING?

- DETAILED ANALYSIS OF THE RLB 15% CONCEPT DESIGN COST ESTIMATE FOR ACCURACY
- IDENTIFIED OPPORTUNITIES TO REDUCE COST AND SCOPE
- REVIEWED DESIGN FLOOR PLANS OPTIONS AND PROGRAM ELEMENT PHASING WITH THE AIRPORT / DESIGN TEAM TO EVALUATE COST SAVING OPPORTUNITIES

ARCHITECTURAL VALUE ENGINEERING OPTION 1 23,500 SF



VE Inclusions:

- Reduced FF&E Allowance
- Reduced Glazing Area (10%)
- Reduced Automatic Roller Shades
- Removed Loading Dock Bumpers / Leveler
- Removed non-applicable finishes
- Deferred repainting of Existing Terminal roof
- Reduced overall square footage by 2,850 SF from 15% Concept Design

Pro's

- Most Like Conceptual 15% Set
- Concessions have mountain views
- Maintains Grand Lobby Space
- TSA Queuing has mountain views
- Maintains Airside Patio
- Combined Restrooms

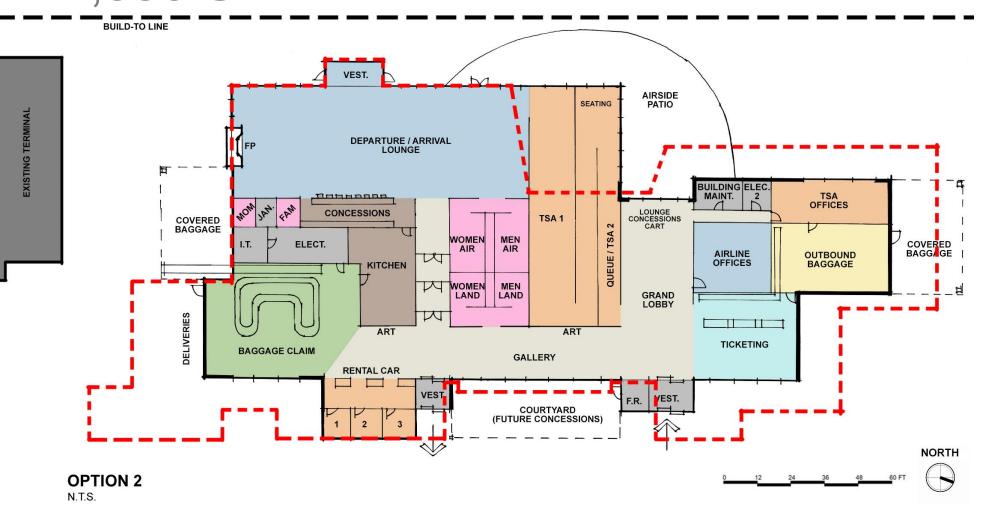
Con's

- Requires Largest Loan Amount
- Limited Airside Concessions





ARCHITECTURAL VALUE ENGINEERING OPTION 2 22,350 SF



VE Inclusions:

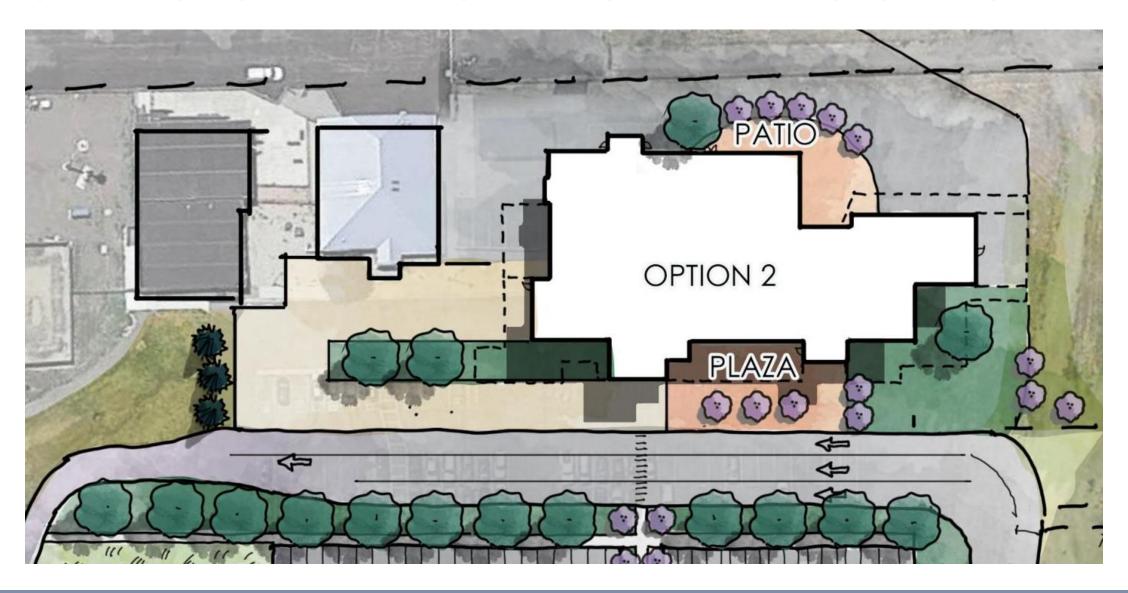
- Same reductions as Option 1
- Reduced overall square footage by 4,000 SF from 15% Concept Design

<u>Pro's</u>

- Maintains Grand Lobby Space
- Airside Concessions with Landside kitchen access
- Re-oriented TSA security lanes to allow for mountain views
- Combined Restrooms
- Requires less loan amount

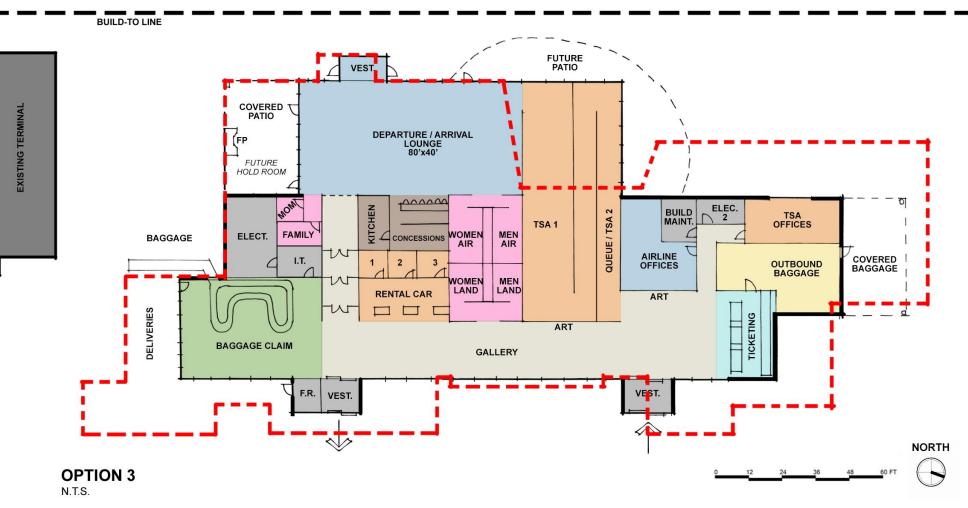
Con's

- Still requires loan
- Smaller Grand Lobby and Gallery Space
- No Airside Concessions
 Smaller Baggage Claim





ARCHITECTURAL VALUE ENGINEERING OPTION 3 20,000 SF



VE Inclusions:

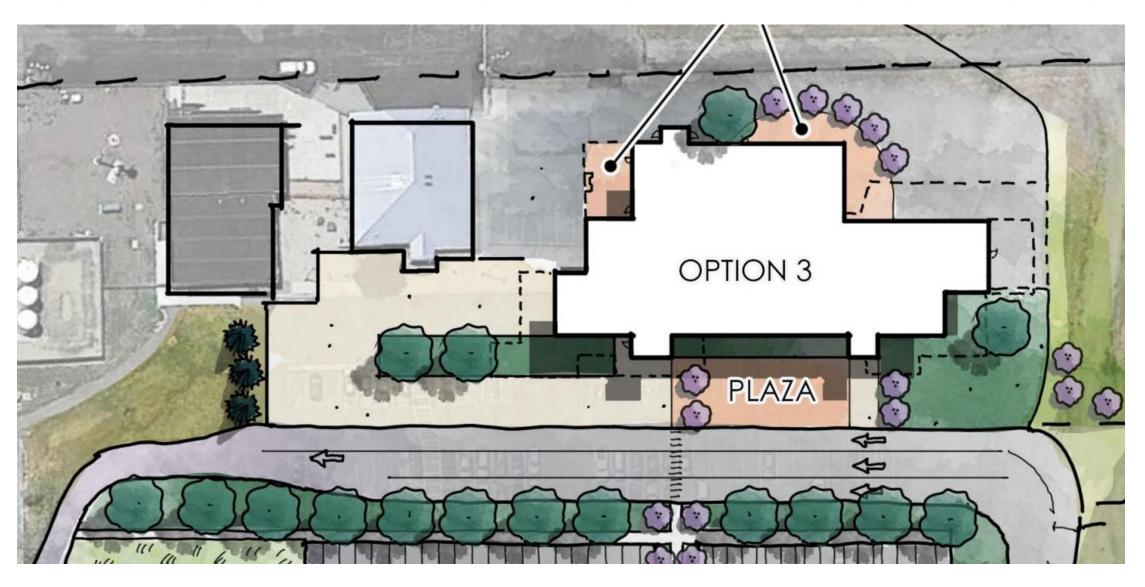
- Same reductions as Option 1
- Reduced overall square footage by 6,350 SF from 15% Concept Design

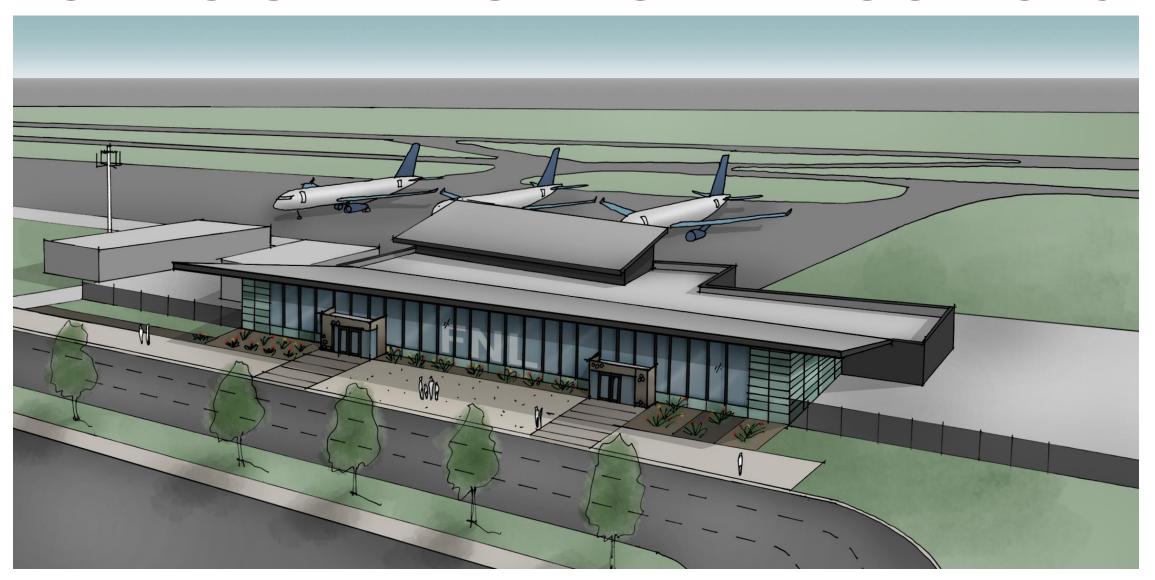
Pro's

- Meets budget
- Maintains Airside Concessions
- Simplest structural framing system
- Streamlined architecture
- Additional east face glazing to maximize exposure and natural light
- TSA Security with mountain views

Con's

- Removal of mountain views from Grand Lobby
- Smallest floor plan option
- Reduced Airside Concessions
- Ticketing orientation would need remodel when expanded
- No airside patio in first phase





VALUE ENGINEERING COST SUMMARY

Project Funding Availability		
Cares Act Funding	\$16,865,798	
FAA AIP 40	\$2,459,621	
Total Funding	\$19,325,419	

Item	15% Estimate	VE-1	VE-2	VE-3
Design Fee	\$1,542,321	\$1,542,321	\$1,542,321	\$1,542,321
Construction Mgmt Fee	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
CMAR PreCon Fee	\$300,000	\$300,000	\$300,000	\$300,000
Owner's Contingency	\$650,000	\$600,000	\$600,000	\$600,000
Site - Civil / Landscaping	\$3,610,911	\$2,622,146	\$2,622,146	\$2,622,146
Terminal Building (incl BHS)	\$16,635,649	\$14,828,649	\$12,514,649	\$9,164,649
Total Terminal / Site Cost	\$23,738,881	\$20,893,116	\$18,579,116	\$15,229,116
Apron Improvement Cost	\$3,011,046	\$3,011,046	\$3,011,046	\$3,011,046
Total Project Cost	\$26,749,927	\$23,904,162	\$21,590,162	\$18,240,162
Site VE Savings		-\$988,765	-\$988,765	-\$988,765
Building VE Savings		-\$1,807,000	-\$2,314,000	-\$3,350,000
Total VE Savings		-\$2,795,765	-\$3,302,765	-\$4,338,765
Building Area (interior)	26,350 SF	23,500 SF	22,350 SF	20,000 SF
Building Area Reduction		2,850 SF	4,000 SF	6,350 SF
Building Cost/SF	\$ 631 SF		\$ 560 SF	\$ 458 SF
Shortfall vs. Funding	-\$7,424,508	-\$4,578,743	-\$2,264,743	\$1,085,257
Potential Loan	\$5,000,000	\$5,000,000	\$2,500,000	\$0
Delta with Loan	-\$2,424,508	\$421,257	\$235,257	\$1,085,257

Potential Project Adds:	
Geothermal System	+ \$950,000
Electrochromic Glass	+ \$150,000
Site Option 2	+ \$451,108
Site Option 3	+ \$660,833
Full Build-out of Loop Road	+ \$810,000
Extend Improvements on Earhart	+ \$247,556

VE COMPARISONS

15% CONCEPTUAL DESIGN



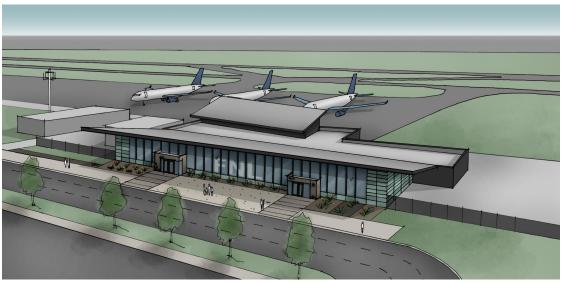
OPTION 1



OPTION 2



OPTION 3





DESIGN SCHEDULE

