



Juan Tabo Hills Traffic Study

Public Meeting

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discipline | intensity | collaboration | shared ownership | solutions

Introductions

City of Albuquerque

- Councilor Renee Grout
- Rachel Miller– Council District 9 Policy Analyst
- Tom Menicucci – Council Assoc. Director of Capital and Community Projects
- Jennifer Morrow– DMD Deputy Director
- Paula Dodge-Kwan – DMD Engineering Manager
- Tim Brown, PE, PTOE – DMD Traffic Engineering Manager

Wilson & Company

- Audra Gallegos, PE
- Lorenzo Cornejo, EI



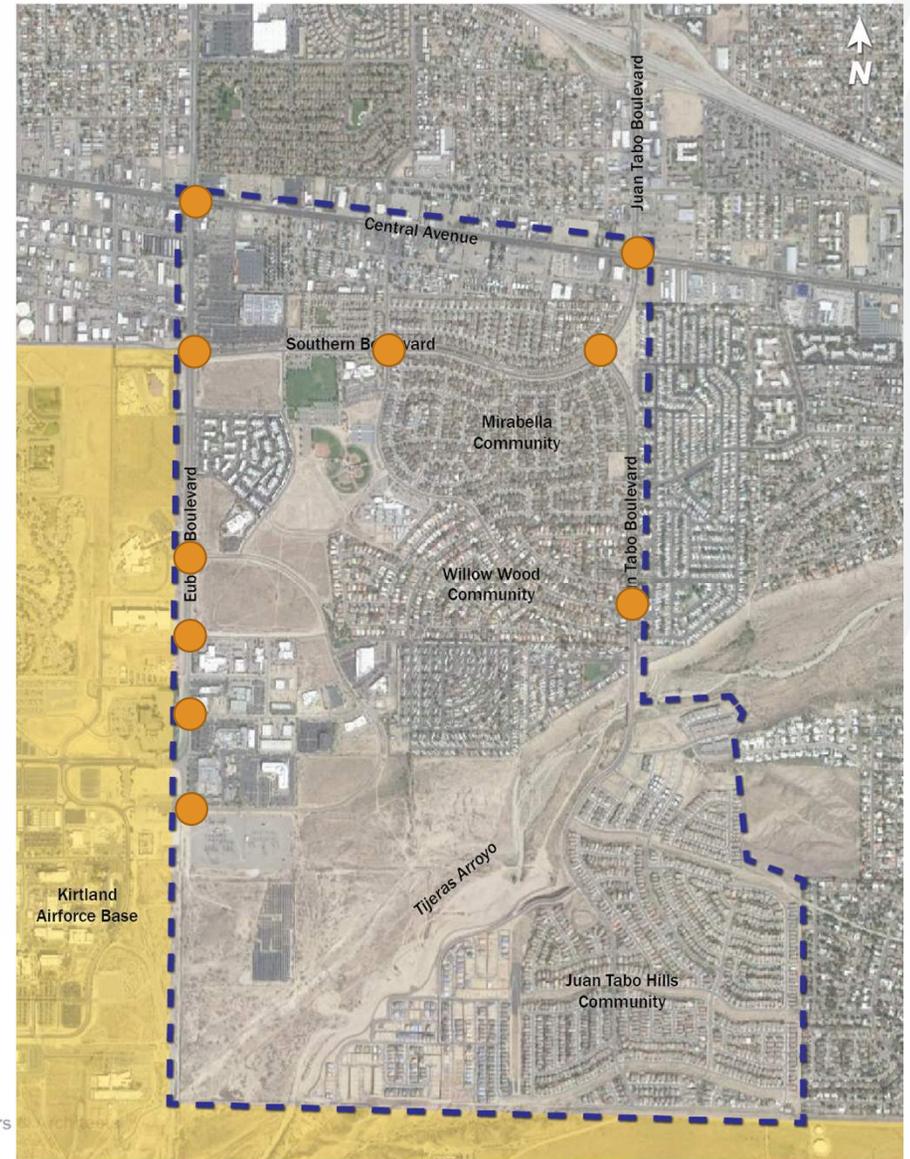
Project Background

- *Juan Tabo Connectivity Study* – completed in 2021
 - Final recommendations included to analyze the existing infrastructure
- This study analyzes the existing traffic operations



Study Limits

- Study Limits: KAFB to the west and south, Juan Tabo Boulevard to the east, and Central Avenue to the north
- Intersection analysis includes:
 1. Eubank Boulevard and Central Avenue
 2. Eubank Boulevard and Southern Boulevard
 3. Eubank Boulevard and Innovation Parkway North
 4. Eubank Boulevard and Gibson Avenue
 5. Eubank Boulevard and Research Road
 6. Eubank Boulevard and Innovation Parkway South
 7. Elizabeth Street and Southern Boulevard
 8. Juan Tabo Boulevard and Southern Boulevard
 9. Juan Tabo Boulevard and Central Avenue
 10. Juan Tabo Boulevard and Herman Roser Avenue





Existing Conditions

Existing Conditions Photos

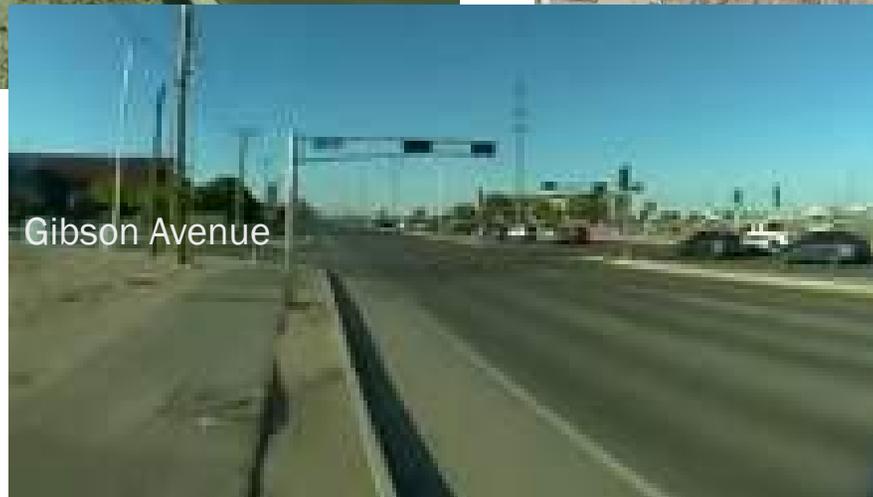


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Existing Conditions Photos



Observed Queue from KAFB Gate



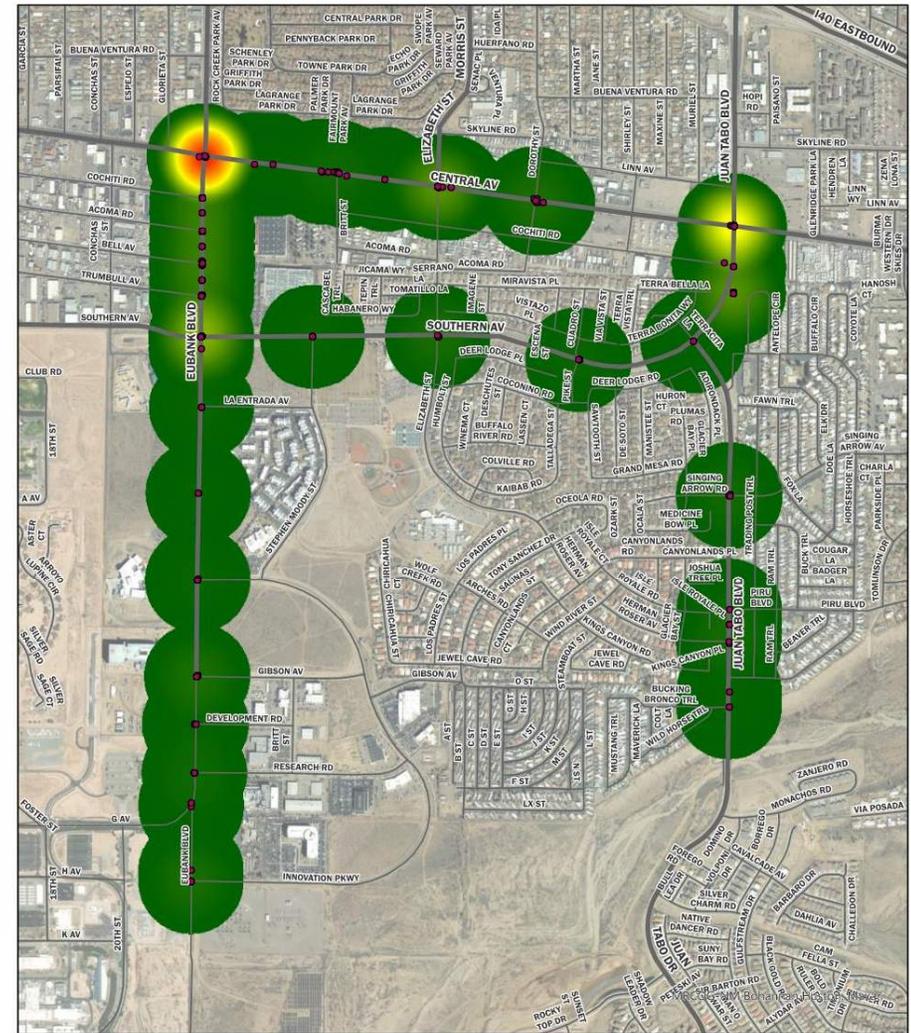
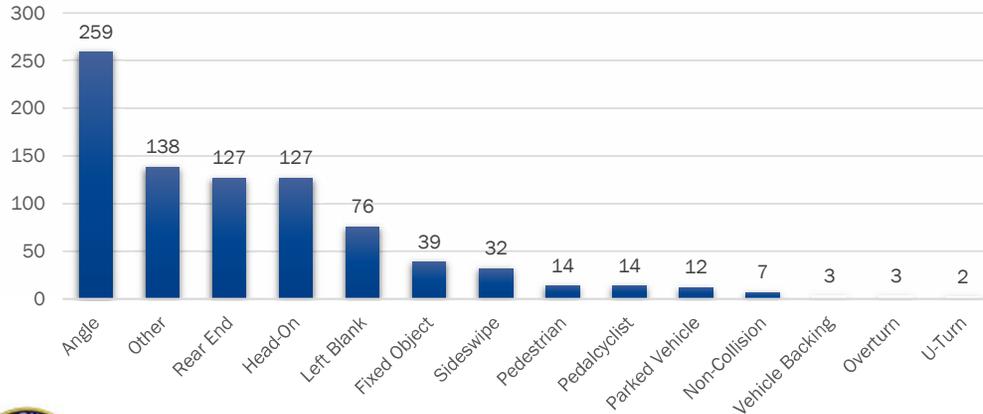
Crash Data

- Crash data from 2016 to 2020

Year	Crash Severity			Total
	Fatal	Injury	PDO*	
2016-2020	6 (0.7%)	258 (30.2%)	589 (69.1%)	853 (100%)

*PDO - Property Damage Only

Crash Type



Multimodal Facilities

- Existing facilities
- Proposed facilities from MRCOG Long Range Bikeway System

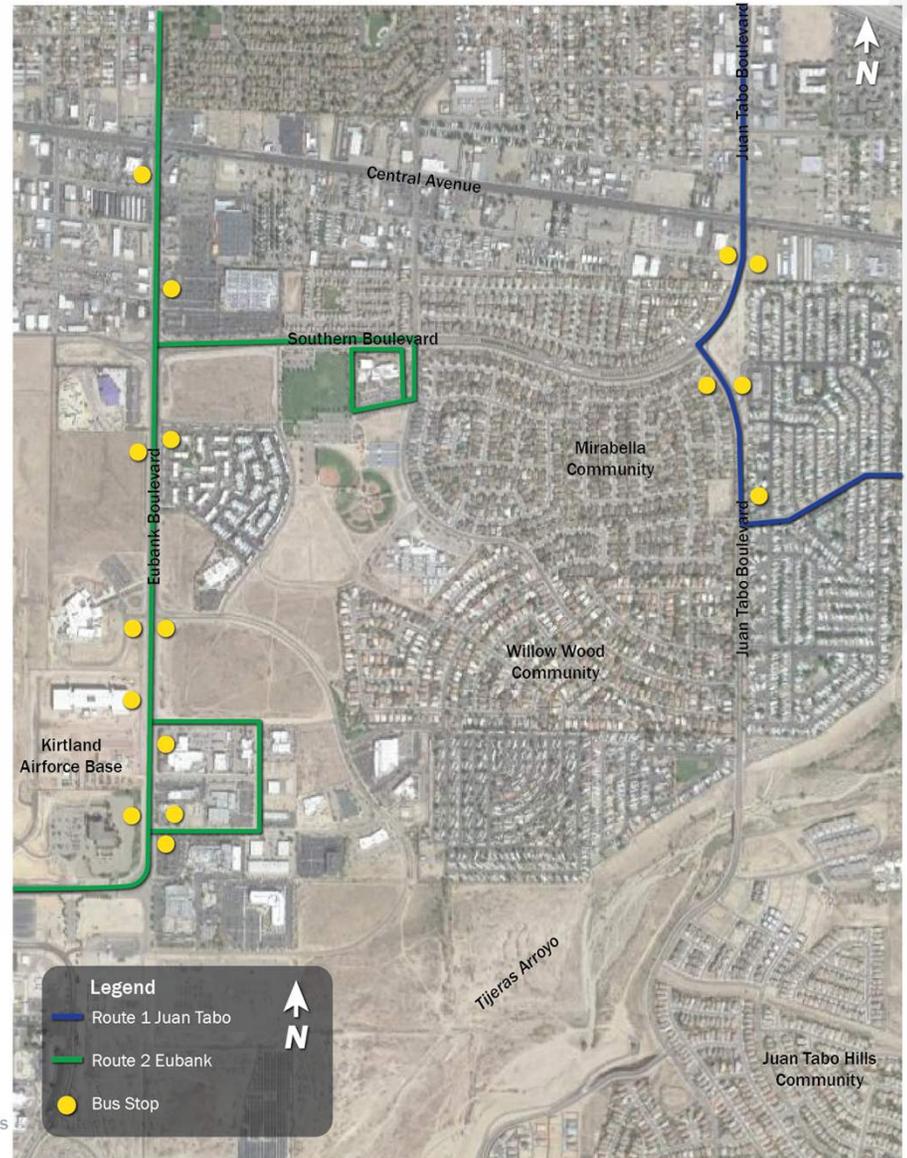


Wilson & Company, Inc., Engineers

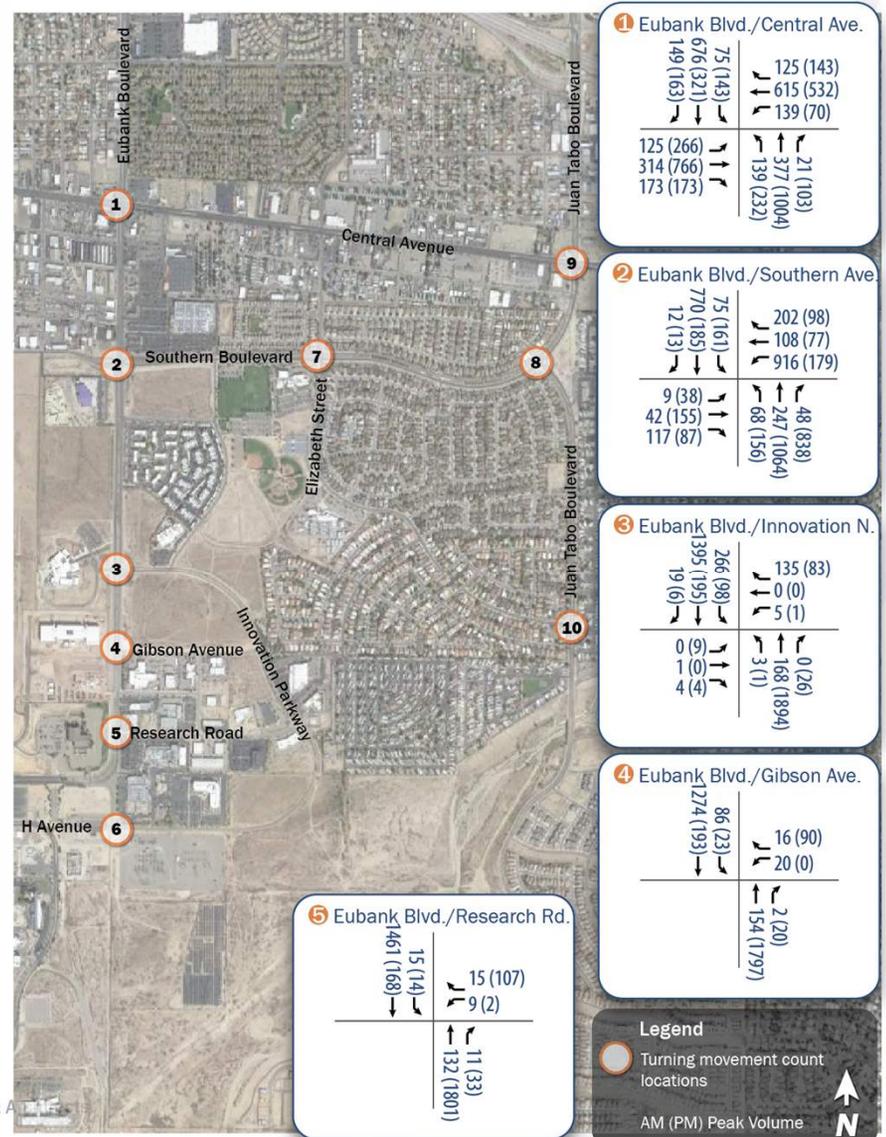


Transit

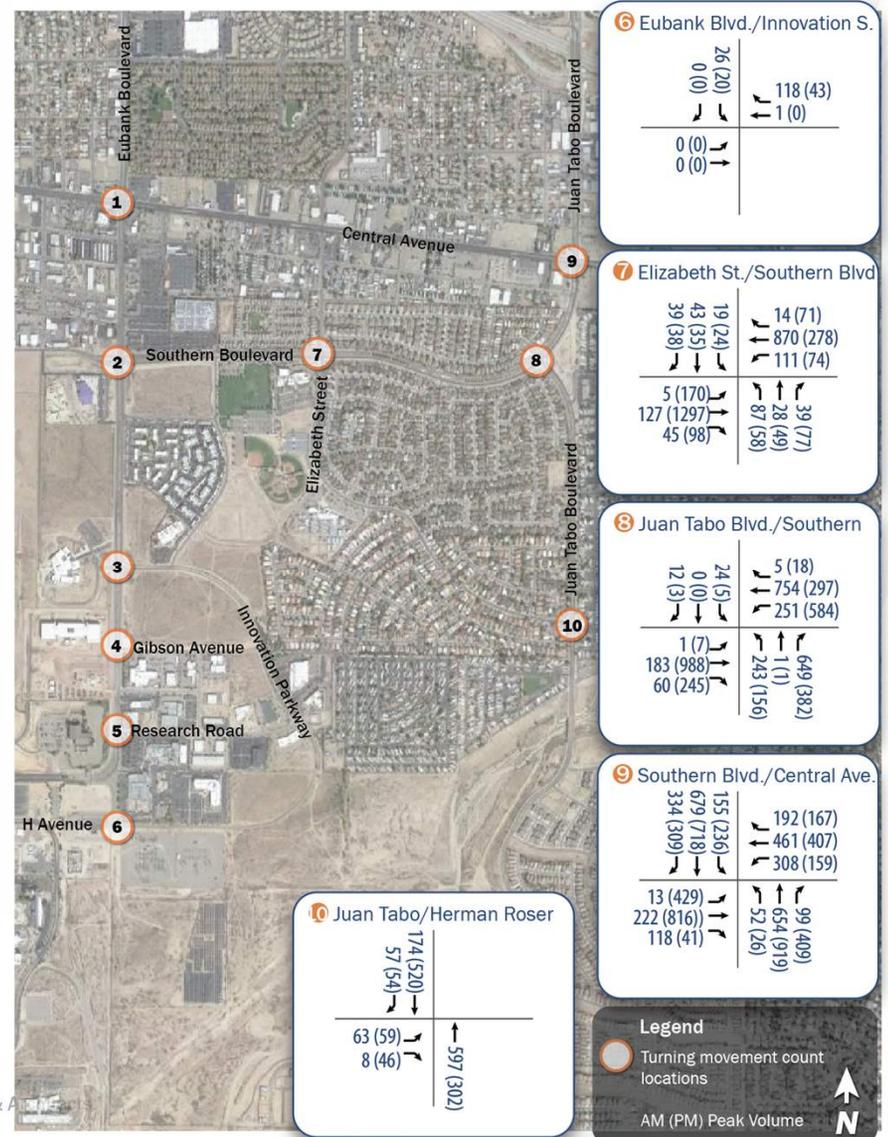
- ABQ Ride routes and bus stops



Existing Turning Movement Count Volumes



Existing Turning Movement Count Volumes



Pedestrian/Bicyclist Volume

ID	Intersection	Pedestrian 13-hr Volume				Bicyclist 13-hr Volume			
		North	East	South	West	North	East	South	West
1	Eubank / Central	26	148	45	36	0	3	0	0
2	Eubank / Southern	4	33	13	6	6	7	5	16
3	Eubank / Innovation North	0	5	3	0	4	1	8	0
4	Eubank / Gibson	5	28	5	0	11	5	15	0
5	Eubank / Research	0	21	1	0	0	12	59	0
6	Eubank / Innovation South	0	0	0	0	7	15	0	0
7	Elizabeth / Southern	10	23	34	37	6	3	6	10
8	Juan Tabo / Southern	26	2	10	11	0	2	3	6
9	Juan Tabo / Central	42	20	44	96	0	0	0	0
10	Juan Tabo / Herman Roser	4	0	2	33	6	6	0	15

Note: Counts were conducted for a 13-hr period from 6:00 AM to 7:00 PM

Tube Count Data

Counter No.	Location	Direction	Volume (veh/day)	ADT (veh/day)	Posted Speed (mph)	85th-Percentile Speed (mph)
1	Eubank Boulevard - south of Southern Boulevard	NB	10,961	20,522	40	53.0
		SB	9,561			55.0
2	Southern Boulevard - east of Eubank Boulevard	EB	7,923	15,400	35	44.0
		WB	7,477			45.0
3	Juan Tabo Boulevard - south of Southern Boulevard	NB	7,304	13,549	35	44.0
		SB	6,245			44.0
4	Juan Tabo Boulevard - south of the bridge	NB	4,183	8,423	35	49.0
		SB	4,240			46.0

Traffic Operations

Intersection Delay and Level of Service Criteria

Level of Service	Unsignalized Delay per Vehicle (sec)	Signalized Delay per Vehicle (sec)	Definition
A	0 ≤ 10	≤ 10	Free-flow operations, minimal delay
B	> 10 ≤ 15	> 10 - 20	Stable flow, slight delays
C	> 15 ≤ 25	> 20 - 35	Stable flow, acceptable delay
D	> 25 ≤ 35	> 35 - 55	Approaching unstable flow, long delay
E	> 35 ≤ 50	> 55 - 80	Unstable flow, intolerable delay
F	> 50	> 80	Forced flow, congestion

City of Albuquerque Development Process Manual Desired Level of Service

TABLE 7.5.88 Desired LOS by Location and Corridor Type

Functional Classification & Roadway Type	ABC Comp Plan Center Type						
	Transit Station Area	Downtown	Urban Center	Activity Center	Village Center	Employment Center	Outside Center
Premium Transit	E-F	E-F	E-F	E-F	E-F	E-F	E-F
Major Transit	E	E-F	E	E	D-E	D-E	D-E
Multi-modal	E	E	E	E	D-E	D-E	D-E
Commuter	E	E	D-E	D-E	D-E	D-E	D
Other Arterial	E	E	E	D-E	D-E	D-E	D
Minor Arterial	E	E	D-E	D-E	D-E	D	D
Collector	E	D-E	D	D	C-D	C-D	C-D



Existing and 2032 No-Build Analysis Summary Matrix

Intersection	Alternatives AM (PM) Intersection LOS results	
	Existing 2022	No-Build 2032
1. Eubank Boulevard and Central Avenue	C (C)	C (D)
2. Eubank Boulevard and Southern Boulevard	D (B)	F (B)
3. Eubank Boulevard and Innovation Parkway *	E (F) (EB approach)	F (+) (EB approach)
	B (E) (WB approach)	B (+) (WB approach)
4. Eubank Boulevard and Gibson Avenue	A (A)	A (A)
5. Eubank Boulevard and Research Road *	B (E) (WB approach)	B (F) (WB approach)
	A (A) (EB/WB approach)	B (A) (EB approach)
6. Eubank Boulevard and Innovation Parkway/H Avenue *		A (A) (WB approach)
7. Elizabeth Street and Southern Boulevard	B (B)	B (C)
8. Juan Tabo Boulevard and Southern Boulevard	B (B)	B (C)
9. Juan Tabo Boulevard and Central Avenue	C (E)	C (F)
10. Juan Tabo Boulevard and Herman Roser Avenue *	B (C) (EB approach)	C (C) (EB approach)

* For all unsignalized intersections, the worst approach LOS is provided.

+ Intersection delay and LOS was not defined by the HCM for TWSC, therefore not shown in the result table.





Proposed Alternatives

Turn Lane Warrants

- Based on City of Albuquerque Development Process Manual and intersection operations
- Add turn lanes to increase capacity at intersections

TABLE 7.4.67 Turn Lane Warrants

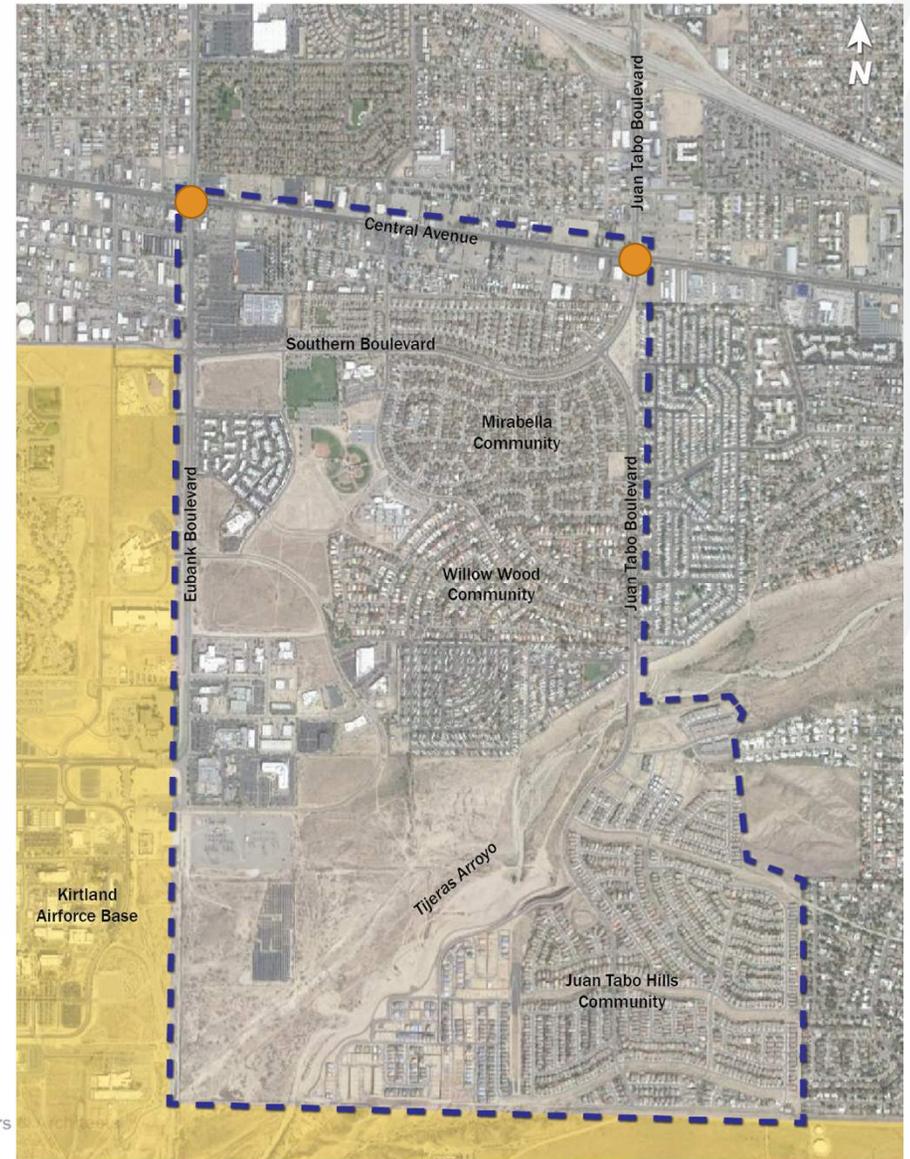
Left Turn		Right Turn	
Design Speed (MPH)	Turning Volume per Hour	Design Speed (MPH)	Turning Volume per Hour
25	50	25	60
30-40	40	30-40	50
45	30	45	45



Turn Lane Warrants

Analyzed the following intersections:

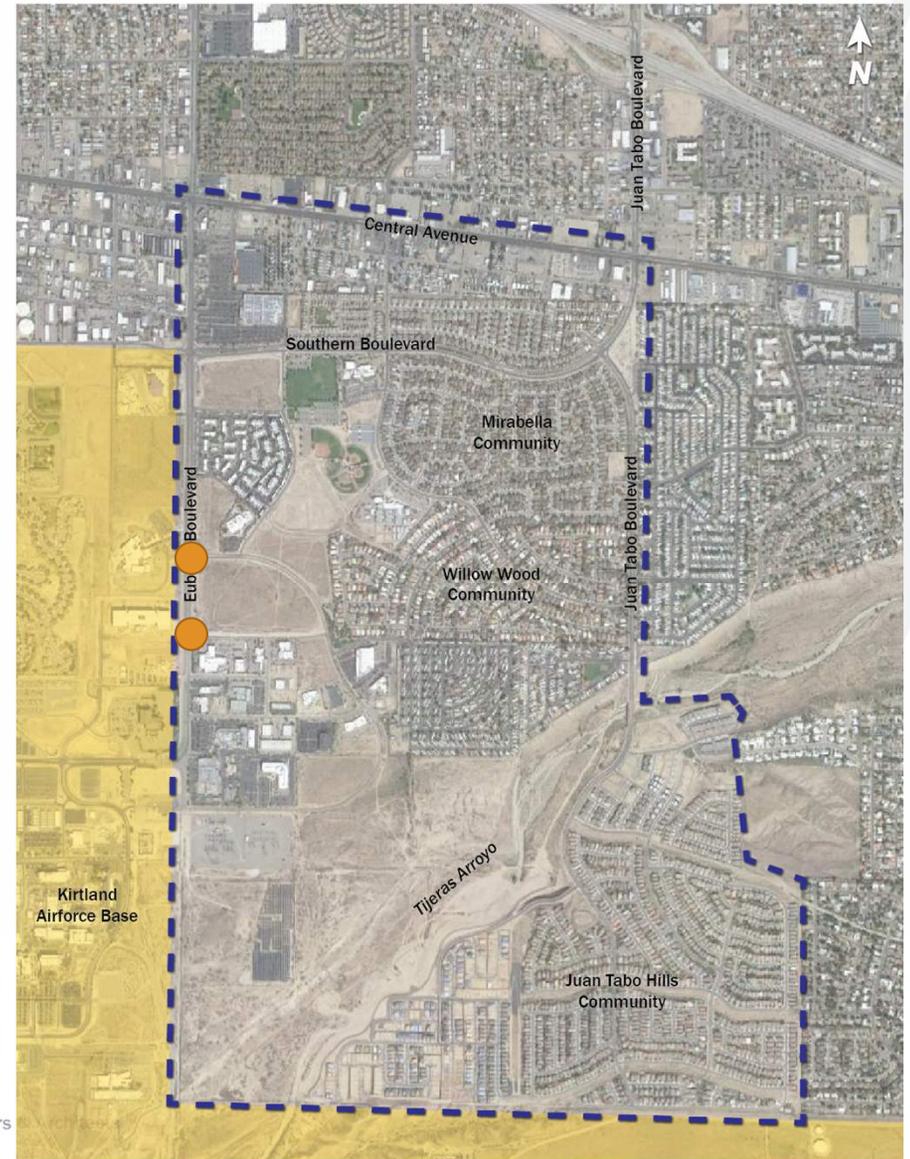
- Eubank Boulevard and Central Avenue
 - NB right-turn lane warranted
 - 2032 LOS C (D) to C (C)
- Juan Tabo Boulevard and Central Avenue
 - NB right-turn lane warranted
 - 2 EB left-turn lanes
 - 2032 LOS C (F) to C (D)



Roundabouts

Analyzed the following intersections:

- Eubank Boulevard and Innovation Parkway
 - EB LOS F (+) to B (E)
 - WB LOS B (+) to B (C)
- Eubank Boulevard and Gibson Avenue
 - LOS A (A) to B (C)
 - Does not consider KAFB Gate queue



Continuous Green T-Intersection (CGT)

- Channelized left-turn movement from the minor street
- Continuous through movement on the major street
- Similar to NM 528 and High Resort in Rio Rancho



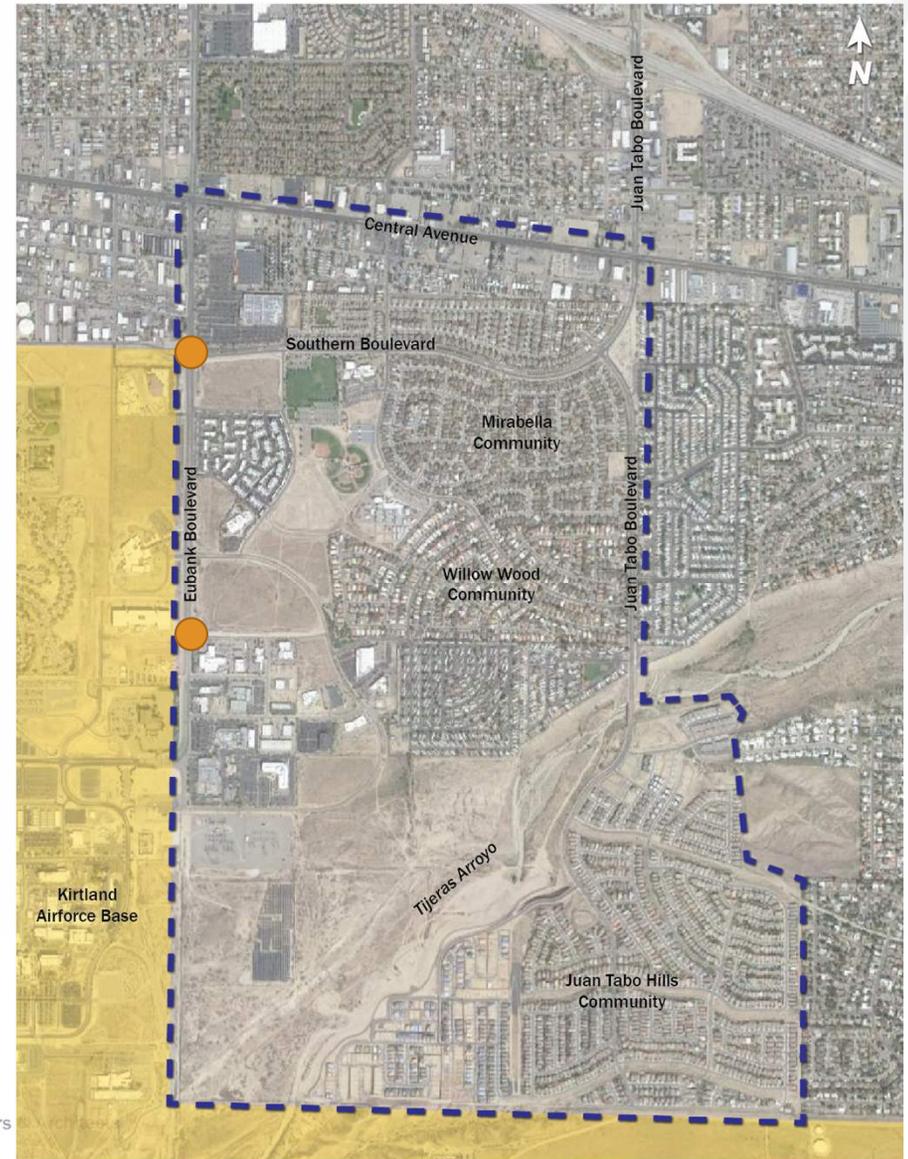
Source: VDOT



CGT Analysis

Analyzed the following intersections:

- Eubank Boulevard and Southern Boulevard
 - Eliminates west leg of intersection
 - LOS F (B) to B (C)
- Eubank Boulevard and Gibson Avenue
 - LOS A (A) to LOS A (A)
 - Does not consider KAFB Gate queue



Continuous Flow Intersection (CFI)

- Allows through movements of approach to occur at the same time along the minor street
- The displaced left-turns are on the major street
- Similar to NM 528 and US 550



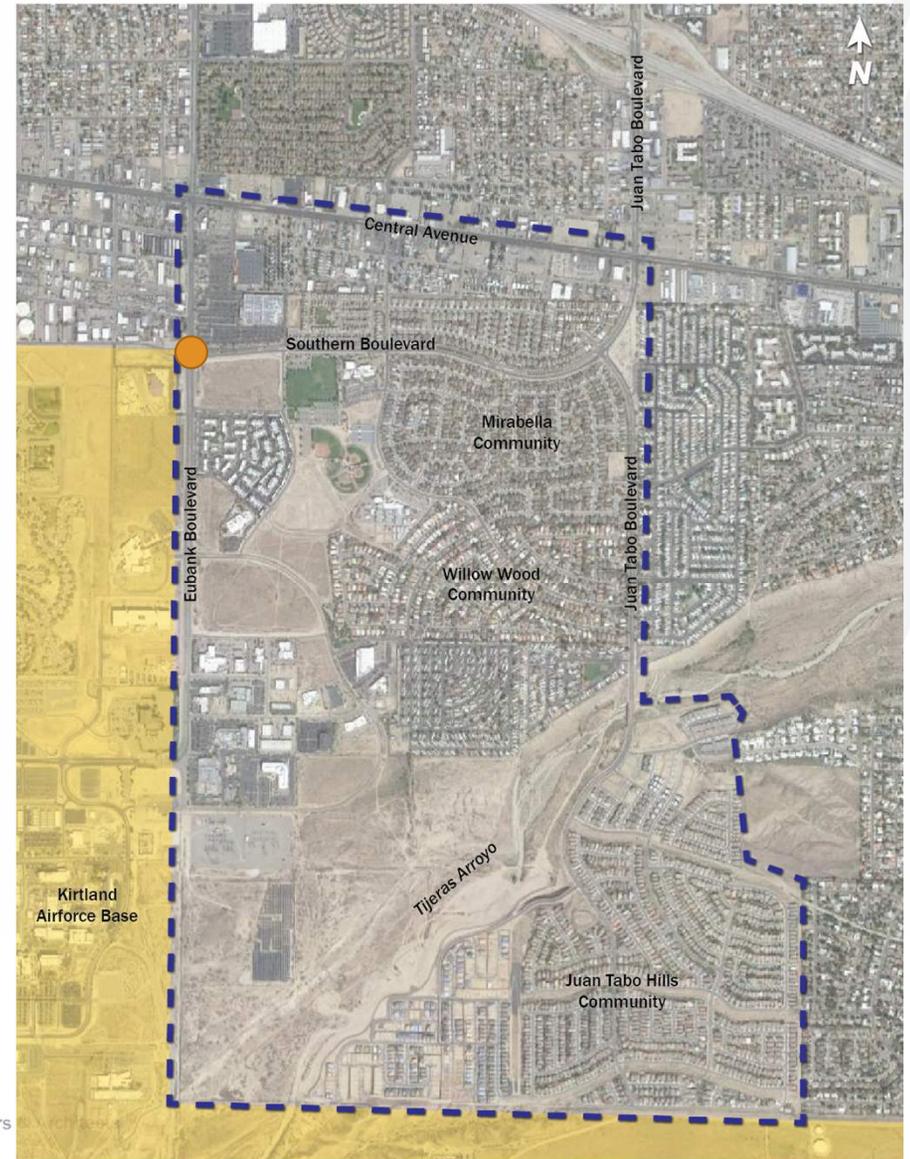
Source: NMDOT



CFI Analysis

Analyzed the following intersections:

- Eubank Boulevard and Southern Boulevard
 - LOS F (B) to LOS C (A)



Intersection Crossing Enhancements

- Remove channelized right turn lanes
- Adding other multimodal enhancements
- Updated signal timing



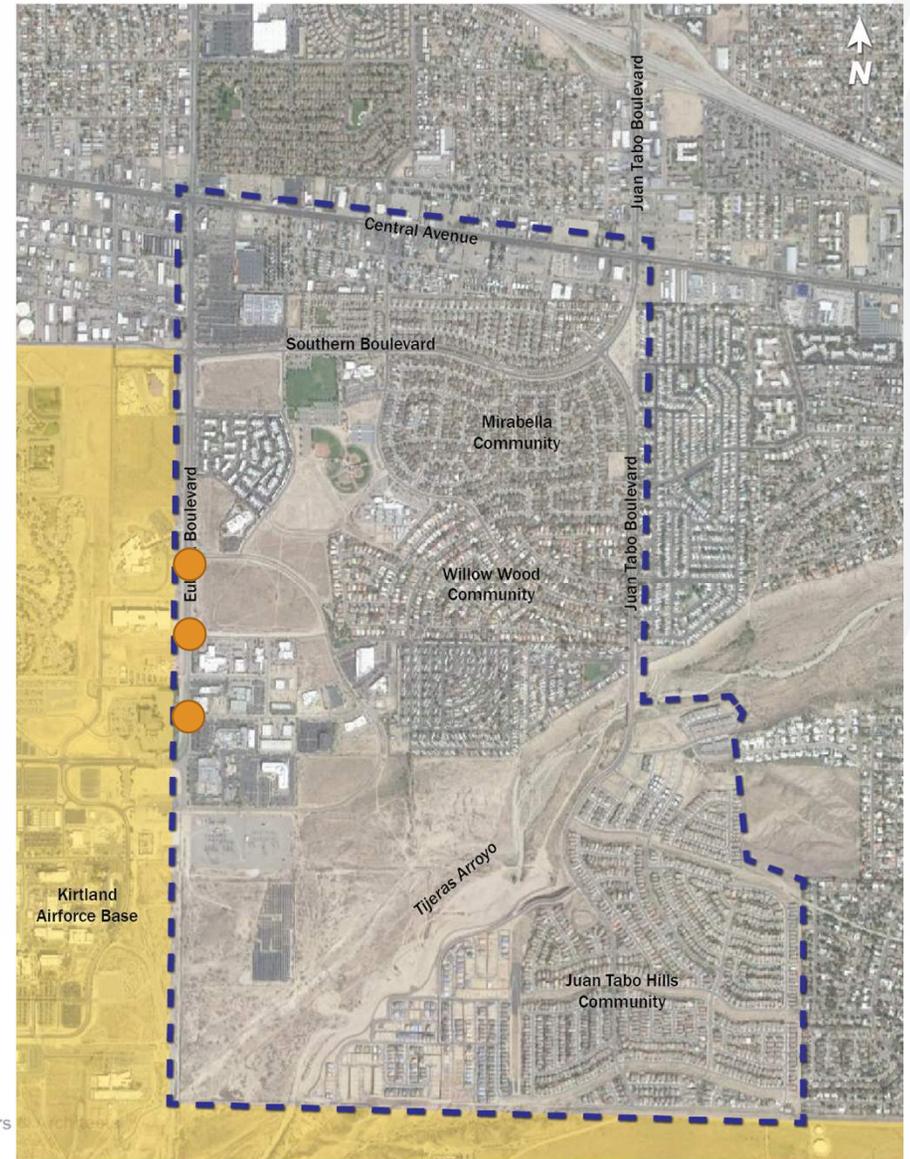
Source: Google Earth



Access Management

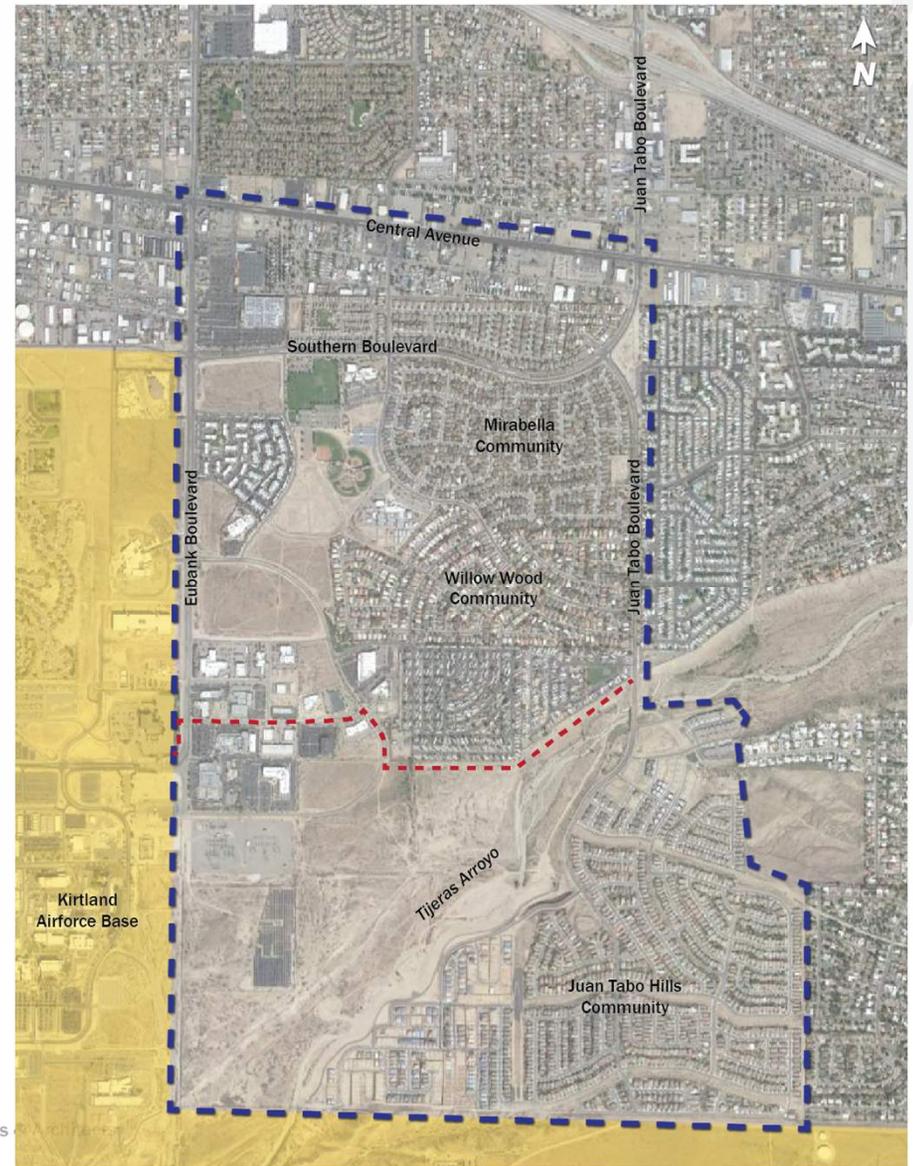
Analyzed the following intersections:

- Remove signal at Gibson Avenue and Eubank Boulevard.
- Signalize Innovation Parkway and Eubank Boulevard.
- Make Eubank Boulevard and Research Road right-in/right-out/left-in.



Multimodal

- Juan Tabo Connectivity Study had a recommendation to construct a multiuse path north of the Tijeras Arroyo to connect Juan Tabo Boulevard to Innovation Parkway.
- Connect to Research Road and place midblock crossing at Eubank Boulevard.



Crossing Treatment

			Recommended Crossing Designs			Complementary Treatments		
Number of Crossing Lanes	Speed Limit	ADT Per Crossing Stage	Crosswalk Markings and Signage	RRFB	PHB	Stop or Yield Lines	In-Street Crossing Sign	Raised Crosswalk
Three Lanes	≤ 30 mph	<9,000	X	X	X	X	X	X
		9,000 to 15,000	X	X	X	X	X	
		>15,000	X	X	X	X	X	
	35 mph	<9,000	X	X	X	X		
		9,000 to 15,000		X	X	X		
		>15,000			X	X		
	≥ 40 mph	<9,000			X	X		
		9,000 to 15,000			X	X		
		>15,000			X	X		
Four or More Lanes	≤ 30 mph	<9,000	X	X	X	X		
		9,000 to 15,000		X	X	X		
		>15,000		X	X	X		
	35 mph	<9,000		X	X	X		
		9,000 to 15,000		X	X	X		
		>15,000			X	X		
	≥ 40 mph	<9,000			X	X		
		9,000 to 15,000			X	X		
		>15,000			X	X		



Traffic Calming

- City of Albuquerque Neighborhood Traffic Management Program (NTMP)
- Limited countermeasures for emergency routes
- Traffic calming measures that could be considered:
 - Police enforcement
 - Radar speed trailer
 - Permanent radar speed sign





Public Input

Questions/Comments

- Provide comments tonight
- Email comments to audra.gallegos@wilsonco.com
- Deadline for comments: October 4, 2022
- Webpage
 - Reports, materials, and updates will be posted





Thank you!