

City of El Paso

Capital Improvement Department



CITY OF EL PASO

Frontera Road Traffic Study & Recommended Treatments

Goal: No. 7: Enhance and Sustain El Paso's Infrastructure Network

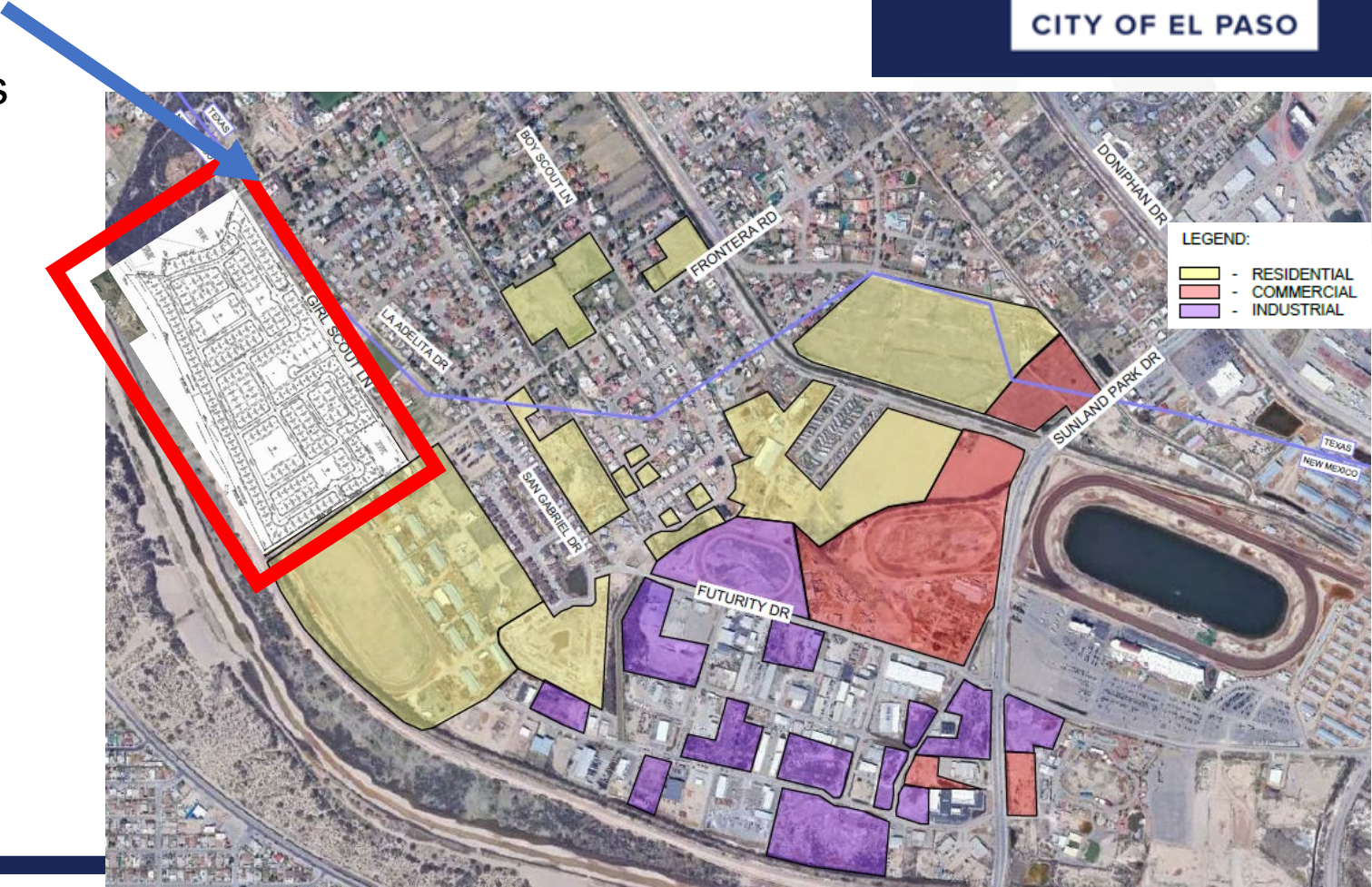
Tuesday, April 23, 2024



Background Information: Future Land Use Map – Full Build 2033



- Upcoming Single Family Development
 - Next 1-2 Years
 - 230 Single Family Homes
 - 2 Parks; 2 Ponding Area
 - 63 Total Acres
- Year 2033 – Full Build Out
 - Frontera Rd. & Doniphan Dr.
- Level of Service – ‘F’ (Failing)
 - No Treatments
- Level of Service – ‘C’ (Acceptable)
 - With Treatments



Peak Hour Level of Service Summary



Intersection	Proposed (2025)		Proposed w Treatments (2025)		Proposed +Treatments + Mitigation		FULL BUILD Proposed (2033)		Proposed w Treatments (2033)		Proposed + Treatments + Mitigation	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Doniphan at Sunland Park	F	F	F	F	C	D	F	F	F	F	D	F
	127.8	478.1	218.3	979.8	31.9	44.0	328.2	3665.2	635.6	3067.6	87.5	105.0
Doniphan at Frontera	C	B	C	B	B	B	F	E	C	C	B	C
	29.2	19.6	20.0	13.7	11.8	10.1	86.0	71.5	31.6	22.9	18.9	15.7
Sunland Park at Futurity	C	E	C	F	A	A	D	F	F	F	B	C
	15.7	48.6	20.7	70.7	8.7	7.7	33.4	222.1	76.1	375.0	12.2	33.8
Frontera at Girl Scout	A	A	A	A	A	A	A	A	A	A	A	A
	3.7	2.4	3.7	2.4	3.7	2.4	3.6	2.7	3.6	2.7	3.6	2.7



*LOS – Amount of delay each vehicle encounters at a given intersection

Recommended Treatments to Manage Full Build Out Scenario - 2033



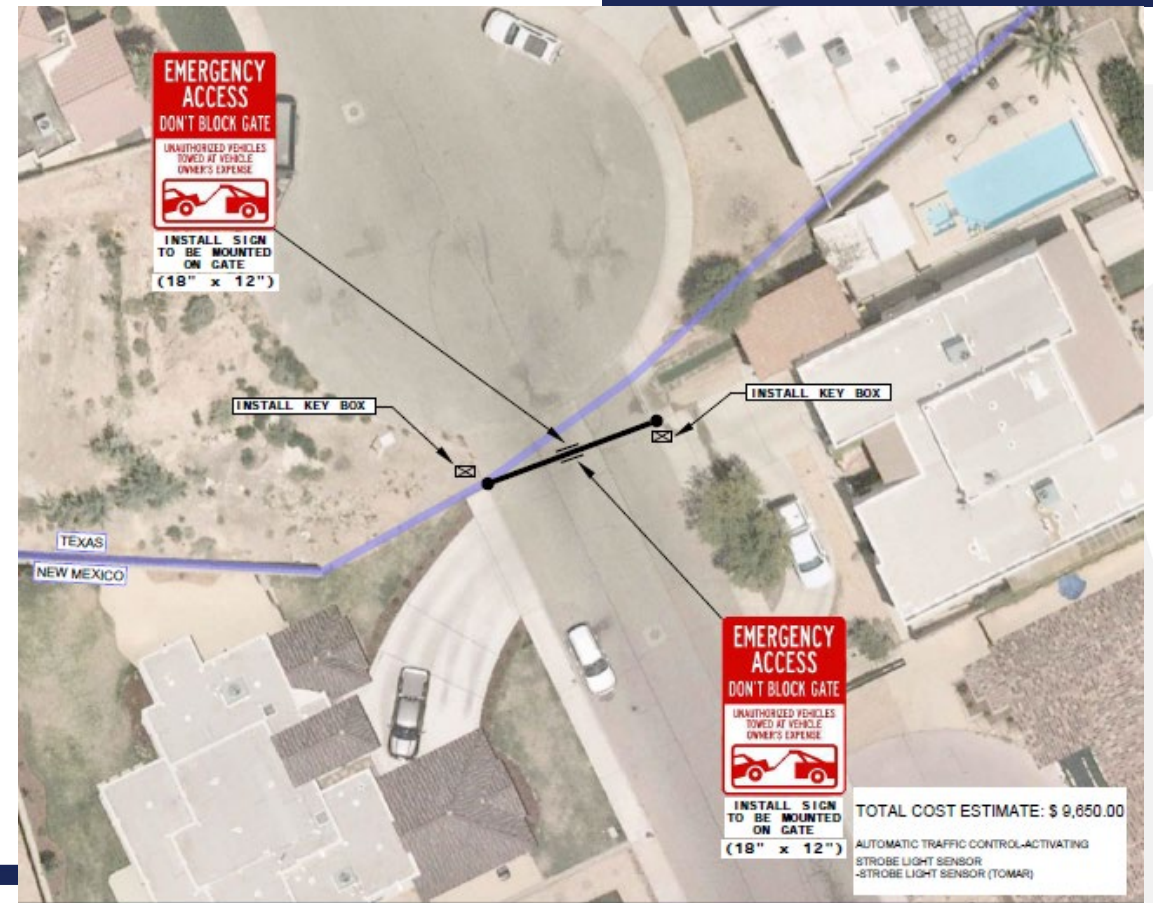
- (3) - Total | Emergency Access Gates
 - Gary Lane
 - Hacienda Roja Dr.
 - Boy Scout Lane
- (1) - Total | Diagonal Diverter
 - Frontera and La Adelita (TX) / San Gabriel (NM)
- Increases Level of Service – ‘C’
 - Acceptable
- Coordination/Analysis
 - Emergency Services
 - School Districts
 - Transit Agencies
- No significant issues identified.



Treatments Needed to Manage Full Build Out Scenario - 2033



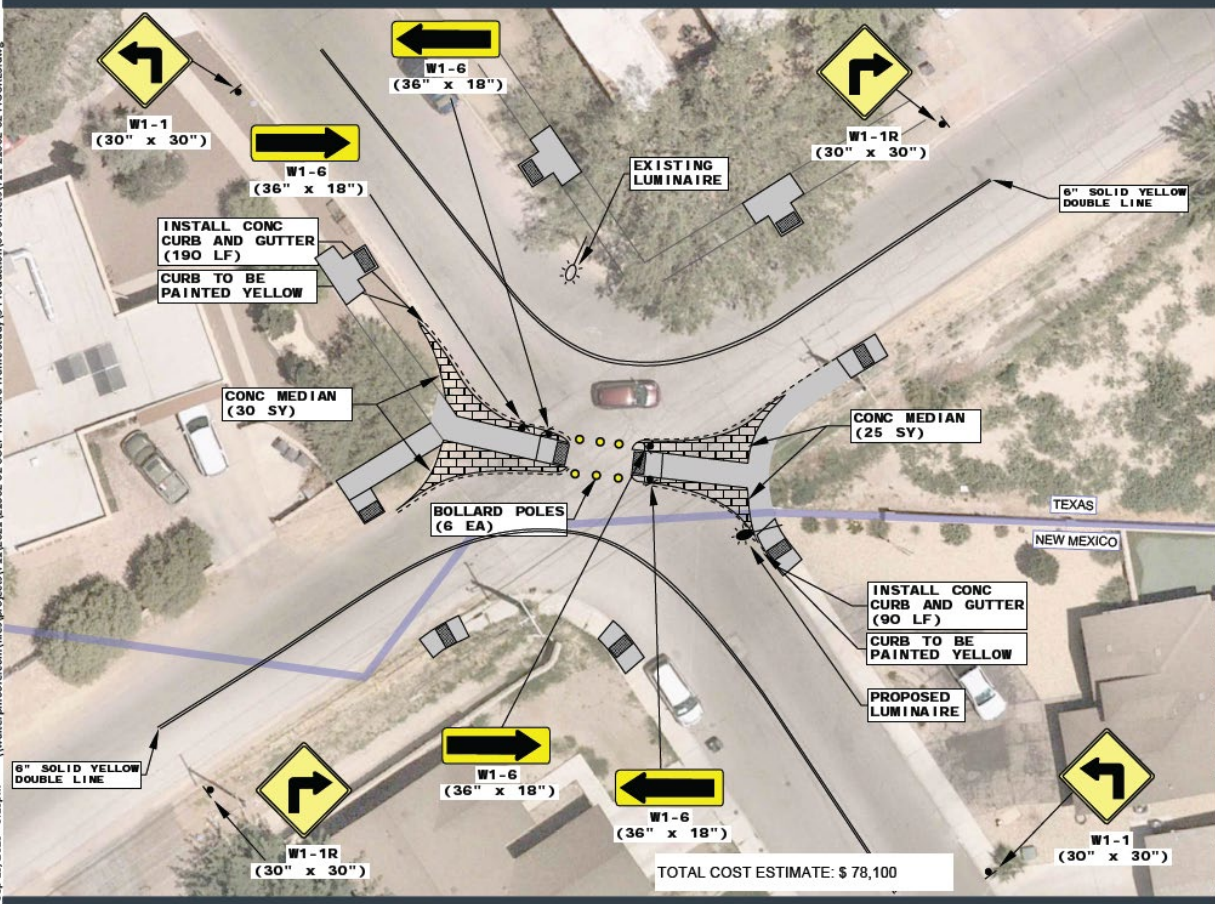
- (3) - Options
 - Manually Operated Gate
 - +/- \$5,710 (gate only)
 - High Security Padlock
 - Rapid Access Key Box
 - **Automatic Traffic Control**
 - \$14,000-\$23,800
 - **Strobe Light Sensor**
 - Key Switch Operated
 - +/- \$9,720 (gate only)
 - Override Key Switch
 - Electronically Controlled Gate



Diagonal Diverter at Frontera Rd.



- \$125,145
 - Bollards/Curb and Gutter
 - Concrete Median
 - Signage/Lighting



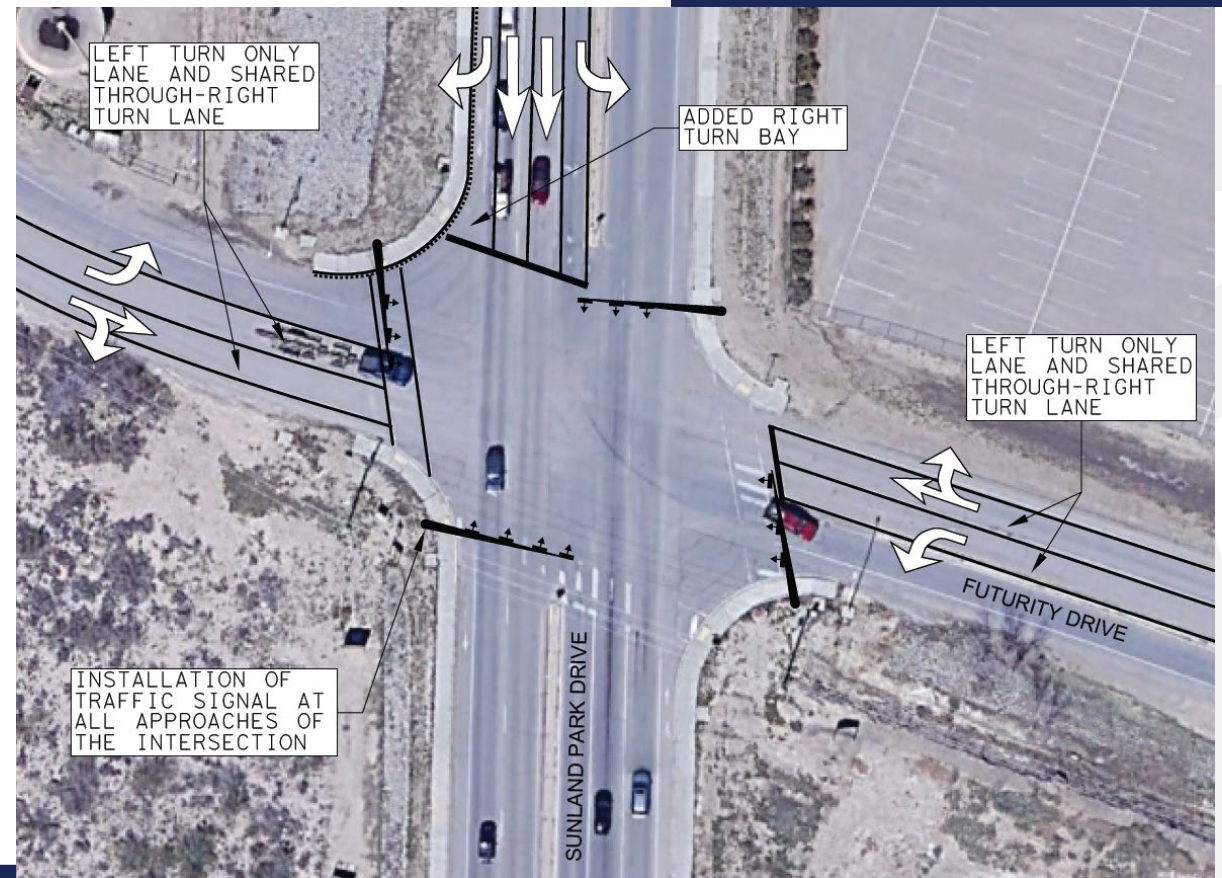
Other Mitigation Efforts

- Doniphan at Frontera Road
 - Recommended right turn bay along Frontera Road at the intersection
 - Level of Service – “C” with proposed treatments and mitigation



Other Mitigation Efforts

- Sunland Park Dr. and Futurity
 - Convert to signalized intersection by 2025, add southbound right turn bay by 2033.
 - Level of Service – “C” with proposed treatments and mitigations
- Doniphan at Sunland Park
 - Re-configure lane assignments
 - Addition of right turn bay
 - Additional left turn
 - Signal Optimization and re-phasing
 - Level of Service – “F” with proposed treatments and mitigations



Estimated Cost & Schedule

- Design – 4 Months
- Procurement – 6 Months
- Construction – 4 to 6 Months



Opinion of Probable Construction Cost
FRONTERA TRAFFIC STUDY



Description	Project Cost		
	2024	2025	2026
Emergency Access Gate - Gary Ln	\$ 19,956.69	\$ 20,954.53	\$ 22,002.25
Emergency Access Gate - La Hacienda	\$ 13,294.58	\$ 13,959.30	\$ 14,657.27
Emergency Access Gate - Boy Scout Ln	\$ 22,733.99	\$ 23,870.69	\$ 25,064.22
Diagonal Diverter Frontera Rd At La Adelita Dr + Pedestrian Improvements (Disconnected)	\$ 119,186.56	\$ 125,145.89	\$ 131,403.18
Total Construction Cost	\$ 175,171.82	\$ 183,930.41	\$ 193,126.93
Design (25%)	\$ 43,792.95	\$ 45,982.60	\$ 48,281.73
Environmental	\$ 21,000.00	\$ 22,050.00	\$ 23,152.50
Inspection (9%)	\$ 15,765.46	\$ 16,553.74	\$ 17,381.42
Contract Compliance (2%)	\$ 3,503.44	\$ 3,678.61	\$ 3,862.54
Testing (4%)	\$ 7,006.87	\$ 7,357.22	\$ 7,725.08
Project Engineering (4%)	\$ 7,006.87	\$ 7,357.22	\$ 7,725.08
Project Contingency (20%)	\$ 35,034.36	\$ 36,786.08	\$ 38,625.39
Total Project Cost	\$ 308,281.78	\$ 323,695.87	\$ 339,880.66

Requested Action

- Direct staff to identify a funding source for design and construction of recommended improvements up to \$325,000.



MISSION



Deliver exceptional services to support a high quality of life and place for our community.

VISION



Develop a vibrant regional economy, safe and beautiful neighborhoods and exceptional recreational, cultural and educational opportunities powered by a high performing government.



VALUES

Integrity, **R**espect, **E**xcellence,
Accountability, **P**eople

MISIÓN



Brindar servicios excepcionales para respaldar una vida y un lugar de alta calidad para nuestra comunidad

VISIÓN



Desarrollar una economía regional vibrante, vecindarios seguros y hermosos y oportunidades recreativas, culturales y educativas excepcionales impulsadas por un gobierno de alto desempeño



VALORES

Integridad, Respeto, Excelencia,
Responsabilidad, Personas