The evaluation criteria table was filled out to compare the relief route options (including the no build option) and NEW Option 5A to each other.

	US 281 Blanco Relief Route Study - Evaluation Criteria Table											
	Evaluation Parameter	Description	Units	Existing US 281 (2023) North - ~US 290 South - ~FM 473	No Build (2045) North - ~US 290 South- ~FM 473	Relief Route Option 1 West (Turquoise) Shown at Community Workshop #1 (Nov. 2023)	Relief Route Option 2 West (Orange) Shown at Community Workshop #1 (Nov. 2023)	Relief Route Option 3 East (Yellow) Shown at Community Workshop #1 (Nov. 2023)	Relief Route Option 4 East (Green) Shown at Community Workshop #1 (Nov. 2023)	Relief Route Option 5 East (Blue) Shown at Community Workshop #1 (Nov. 2023)	NEW Relief Route Option 5A East (Lime Green)	Relief Route Option 6 East (Purple) Shown at Community Workshop #1 (Nov. 2023)
Safety	Intersection and driveway safety	Reduction in intersection and driveway crashes (all severities)	% of crashes reduced	N/A	N/A	8%	8%	23%	19%	25%	23%	14%
	Roadway safety	Reduction in total crashes (all severities)	% of crashes reduced	N/A	N/A	15%	21%	38%	35%	33%	25%	4%
		Reduction in bike/ped crashes	% of crashes reduced	N/A	N/A	29%	29%	48%	48%	45%	51%	37%
		Reduction in fatalities and injury crashes	% of crashes reduced	N/A	N/A	-5%	16%	32%	26%	21%	16%	-16%
	Driver behavior	Separating pass-through and local traffic. Percentage of drivers that would use the relief route instead of existing US 281.	% of traffic diversion	N/A	N/A	37%	37%	54%	51%	57%	55%	45%
Congestion Mitigation	Passenger vehicle congestion	Reduction in travel time between forecast and existing (average throughout the year)	% change from No Build	N/A	N/A	19%	22%	28%	26%	32%	30%	25%
	Freight congestion	Reduction in travel time between forecast and existing (average throughout the year)	% change from No Build	N/A	N/A	19%	21%	25%	23%	27%	27%	23%
	Travel time reliability	Forecasted travel time (seasonal averages for Summer and Spring)	minutes of travel	17 min	21 min	17 min	16 min	15 min	16 min	14 min	15 min	16 min
	Motor vehicle level of service (US 281 Relief Route Options)	Level of service defines how well vehicle traffic flows along a road. A - Free flow, with low volumes and high speeds. B - Reasonably free flow, but speeds beginning to be restricted by traffic conditions. C - Stable flow, but most drivers are restricted in the freedom to select their own speeds. D - Approaching unstable flow; drivers have little freedom to select their own speeds. E - Unstable flow; may be short stoppages. F - Forced or breakdown flow; unacceptable congestion; stop-and-go.	level of service	B	D	B	B	B	B	B	B	B
	How would building a relief route impact travel on existing US 281 through Blanco? Motor vehicle average delay (existing US 281 through downtown Blanco under each US 281 Relief Route Option)	Average delay (seconds) The amount of time, on average, that a driver would need to wait at each traffic signal (RM 32, Blanco Ave, 4th Street) on existing US 281 if a relief route was constructed.	seconds of delay	28 sec	108 sec	61 sec	61 sec	41 sec	43 sec	39 sec	40 sec	47 sec
		Level of service defines how well vehicle traffic flows along a road. A - Free flow, with low volumes and high speeds. B - Reasonably free flow, but speeds beginning to be restricted by traffic conditions. C - Stable flow, but most drivers are restricted in the freedom to select their own speeds. D - Approaching unstable flow; drivers have little freedom to select their own speeds. E - Unstable flow; may be short stoppages. F - Forced or breakdown flow; unacceptable congestion; stop-and-go.	level of service	C	F	E	E	D	D	D	D	D
		Average delay (% change) Percent change in time (average) when compared to No Build that a driver would need to wait at each traffic signal (RM 32, Blanco Ave, 4th Street) on existing US 281 if a relief route was constructed.	% change from No Build	N/A	N/A	44%	44%	62%	61%	63%	62%	57%

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	US 281 Blanco Relief Route Study - Evaluation Criteria Table											
	Evaluation Parameter	**Description**	**Units**	**Existing US 281 (2023)** **North - ~US 290** **South - ~FM 473**	**No Build (2045)** **North - ~US 290** **South- ~FM 473**	**Relief Route Option 1 West (Turquoise)** **Shown at Community Workshop #1 (Nov. 2023)**	**Relief Route Option 2 West (Orange)** **Shown at Community Workshop #1 (Nov. 2023)**	**Relief Route Option 3 East (Yellow)** **Shown at Community Workshop #1 (Nov. 2023)**	**Relief Route Option 4 East (Green)** **Shown at Community Workshop #1 (Nov. 2023)**	**Relief Route Option 5 East (Blue)** **Shown at Community Workshop #1 (Nov. 2023)**	**NEW Relief Route Option 5A East (Lime Green)**	**Relief Route Option 6 East (Purple)** **Shown at Community Workshop #1 (Nov. 2023)**
Statewide Connectivity	Compliance with the: Texas Highway Trunk System National Highway System Strategic Highway Network National Highway Freight Network	The Texas Highway Trunk System is a network for rural highways to: improve rural mobility; connect major activity centers; provide access to ports of entry into Texas; and connect with principal highways from adjacent states. The National Highway System consists of roadways important to the nation's economy, defense, and mobility. The Strategic Highway Network is a system of roads deemed necessary for emergency mobilization and peacetime movement of heavy armor, fuel, ammunition, repair parts, food, and other commodities to support U.S. military operations. National Highway Freight Network is the highway portion of the U.S. freight transportation system.	yes/no	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Access to network	Potential secondary impacts related to impacting access to other network links	Low/Medium/High	No Change	No Change	High 5 Connections	High 5 Connections	Low 3 Connections	Low 2 Connections	Low 3 Connections	Medium 4 Connections	Low 2 Connections
Economic Development	Population	Population projections	# of people	1,618	1,877	1,255	1,189	886	877	889	920	1,015
	Number of potential east-west connections	Evaluate the number of TxDOT network road that could be connected to the relief route based on its potential alignment	# of connections	N/A	N/A	1 RM 1623	1 RM 1623	2 RM 32, RM 165	2 RM 32, RM 165	2 RM 32, RM 165	2 RM 32, RM 165	2 RM 32 & RM 165
	Land open to development/redevelopment (if frontage roads were included along the relief route)	Acres of land not developed between the new alignment and the city limits	range of acres	N/A	N/A	5,514	936	242	685	1,567	3,412	9,666
	Estimated economic impact	Traffic estimated to be pulled away from town	annual average daily traffic (AADT)	N/A	N/A	8,133	8,220	11,920	11,313	12,684	12,252	9,897
	Local access	Evaluate the number of local roads that could be connected to the relief route/frontage roads based on its potential alignment	# of potential connections to local streets (off-system)	N/A	N/A	4	4	1	Possibly 1	1 (Possibly 2)	2	1
	Parcels within 1,000 feet of ROW	Add commercial, residential, agricultural, vacant, utility	number of parcels	N/A	N/A	62 Residential Parcels (58%) 43 Commercial Parcels (40%) 1 Church Parcel 1 N/A	129 Residential Parcels (93%) 8 Commercial Parcels (6%) 1 Church Parcel	28 Residential Parcels (64%) 15 Commercial Parcels (34%) 1 Governmental Parcel (2%)	32 Residential Parcels (82%) 6 Commercial Parcels (15%) 1 Church Parcel (3%)	39 Residential Parcels (72%) 13 Commercial Parcels (24%) 1 Church Parcel (2%) 1 N/A Parcel (2%)	46 Residential Parcels (69%) 20 Commercial Parcels (30%) 1 Governmental Parcel (1%)	57 Residential Parcels (69%) 20 Commercial Parcels (24%) 6 N/A Parcels (7%)
Feasibility, Design and Engineering	Bridges	Bridges crossing 100-Year floodplain. *Some Relief Route Options are outside the limits of the mapped FEMA floodplain	# of bridges	4	4	6	4	2*	3	5*	4*	5*
	Vertical considerations	Ability to accommodate large trucks (how flat or steep is the road)	slope/grade (%)	Existing grade along US 281 maximum of 5.0%. Exceeds proposed maximum grade of 4%.	Existing grade along US 281 maximum of 5.0%. Exceeds proposed maximum grade of 4%.	Existing grade on the proposed route exceeded 12%. Proposed maxium grade is 4%.	Existing grade on the proposed route exceeded 12%. Proposed maxium grade is 4%.	Existing grade on the proposed route exceeded 7.7%. Proposed maxium grade is 4%.	Existing grade on the proposed route exceeded 5.45%. Proposed maxium grade is 4%.	Existing grade on the proposed route exceeded 5.38%. Proposed maxium grade is 4%.	Existing grade on the proposed route exceeded 20.7%. Proposed maxium grade is 4%.	Existing grade on the proposed route exceeded 15.8%. Proposed maxium grade is 4%.
	Horizontal considerations	Ability to allow for free flow speed (how curved or twisty is the road)	curve radius (feet) cross slope (%)	Minimum radius of 501.3'. Smaller radius than minimum proposed radius of 2040'.	Minimum radius of 501.3'. Smaller radius than minimum proposed radius of 2040'.	Min. Radius used 3000'. 2.25% Proposed Cross Slope	Min. Radius used 3819'. 2.25% Proposed Cross Slope	Min. Radius used 3890'. 2.25% Proposed Cross Slope	Min. Radius used 3890'. 2.25% Proposed Cross Slope	Min. Radius used 3390'. 2.25% Proposed Cross Slope	Min. Radius used 6500'. 2.25% Proposed Cross Slope	Min. Radius used 4000'. 2.25% Proposed Cross Slope
	Grade separations	Potential number of grade separations needed based on connection points, streams, oil/gas pipeline easements	# of potential grade separations	N/A	N/A	1	1	1	2	2	2	2
	Length	Overall length of relief route option	miles	N/A	N/A	10.40	5.85	4.12	4.69	5.99	7.70	9.75

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	US 281 Blanco Relief Route Study - Evaluation Criteria Table											
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Environmental & Community Resources	Right of way	Amount of new right of way needed	acres	N/A	N/A	492	273	187	211	267	374	464
	Parcels affected	Total parcels	# of parcels	N/A	N/A	61	69	13	19	26	36	47
	Displacements	Total displacements	# of structures	N/A	N/A	25	15	3	5	8	0	3
	Conservation easements	Known conservation easements	# of acres	0	0	52.3 ac conservation easement provided in response to public request	1 ac. Blanco State Park	0	0	0	0	20 ac. Cor-Jul Ranch
	Vegetation Type	Forest	acres by vegetation type	12	12	113	77	55	47	51	85	207
		Shrub/Scrub		67	67	351	158	108	131	189	234	210
		Grassland/Herbaceous		1	1	13	6	11	9	2	21	30
	Potential golden-cheeked warbler habitat	Suitable habitat impacted (type/age/height of trees, contiguous wooded areas, canopy cover, etc.)	acres	0	0	72	15	0	0	6	14	31
	Cemeteries	Number of cemeteries affected	# of cemeteries	0	0	0	0	0	0	0	0	0
	Historic properties	Number of historic properties affected	# of historic properties	0	0	0	0	0	0	0	0	0
	Archeological resources	Relative likelihood for National Register of Historic Places-eligible prehistoric archeological sites to be preserved in the near surface (less than three feet) or at deeper levels in the mapped areas. High potential - PALM Class 7-9	High potential (acres)	26	26	95	77	51	68	93	150	143
	Water	FEMA mapped Floodplain within right of way	acres	8	8	20	21	15	21	24	Unmapped	Unmapped
		Water wells within right of way (potentially displaced wells)	# of wells	0	0	2	0	0	0	0	0	2
		Potential wetlands within right of way	acres	3	3	7	4	3	3	4	6	6
		Length of stream crossing within right of way	linear feet	5,087	5,087	10,181	3,378	2,357	1,935	3,709	9,919	8,907
		Stream crossings within right of way	# of crossings	23	23	17	8	6	4	10	20	15
	Oil/gas pipelines	Pipeline crossings within right of way	# of crossings	2	2	2	2	2	1	2	2	2
		Length of pipeline within right of way	feet	264	264	940	843	955	824	824	801	800
	Traffic noise	Consider how adjacent properties could be impacted by traffic noise levels	N/A	N/A	N/A	The community feedback we have received indicates that traffic noise is a topic of concern. As part of the evaluation of potential relief route options, we used predictive noise modeling to estimate noise levels (high-level noise contours). We found that noise receivers outside the assumed right-of-way for a relief route would not experience a noise level of 66 dB or above. A quantitative traffic noise analysis in accordance with 23 CFR 772 will be conducted as part of the schematic and environmental project development phase on the relief route option that meets TxDOT's mission and reflects community values.					
	Prime and other important farmland	Farmland within right of way	acres	0	0	91	55	32	33	61	118	134
	Parkland	Section 6(f) protected parkland within right of way	acres	0	0	0	1	0	0	0	0	0
		Section 4(f) protected parkland right of way	acres	0	0	0	1	0	0	0	0	0

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Preliminary Costs	Estimated construction cost	construction cost/mile	dollars	N/A	N/A	$ 8,294,076	$ 8,095,205	$ 8,095,205	$ 8,095,205	$ 8,095,205	$ 8,095,205	$ 8,294,076
		total planning level cost	dollars	N/A	N/A	$ 86,258,390	$ 47,356,949	$ 33,352,245	$ 37,966,511	$ 48,490,278	$ 62,333,079	$ 80,867,241
	Estimated right of way cost	right of way acquisition cost	dollars	N/A	N/A	$ 53,612,559	$ 29,688,318	$ 20,324,303	$ 22,959,049	$ 29,111,268	$ 39,180,031	$ 50,575,959
Other Topics	International Dark Sky Community	An International Dark Sky Community is a community that has shown exceptional dedication to the preservation of the night sky through the implementation and enforcement of a quality outdoor lighting ordinance, dark sky education, and citizen support of dark skies.	N/A	N/A	N/A	Dark-Sky lighting is a design approach that preserves and protects the nighttime environment by using properly-shielded outdoor lighting equipment that reduces light pollution outside of right of way. Although the lighting specifications under consideration for a US 281 Relief Route may not meet International Dark-Sky standards, TxDOT would consider partnering with the City of Blanco and Blanco County to add lighting features that would preserve the natural look of the night skies. A relief route must include lighting on ramps and at intersections to ensure safety and security. Lighting options are still being evaluated, but might include low-level, LED lighting that focuses lighting downward, prevents glare, and preserves the nighttime aesthetic of the community.						
	Water demand/supply	Consider how water demand/supply could be impacted by a relief route.	N/A	N/A	N/A	The community feedback we have received indicates that current and future water supply in the Blanco area is a topic that is a priority for many people. As we continue to consider a possible US 281 relief route several questions about location and access will need to be considered that could indirectly influence water demand.						