



# **Corridor Prioritization Tool** (CPT)

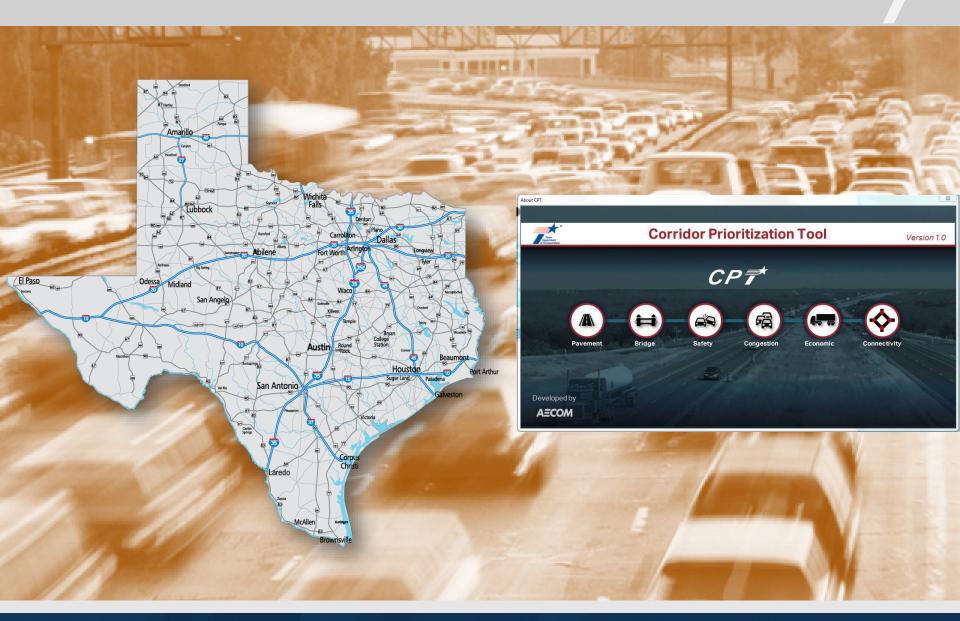
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Director, Transportation Planning and Programming, TXDOT

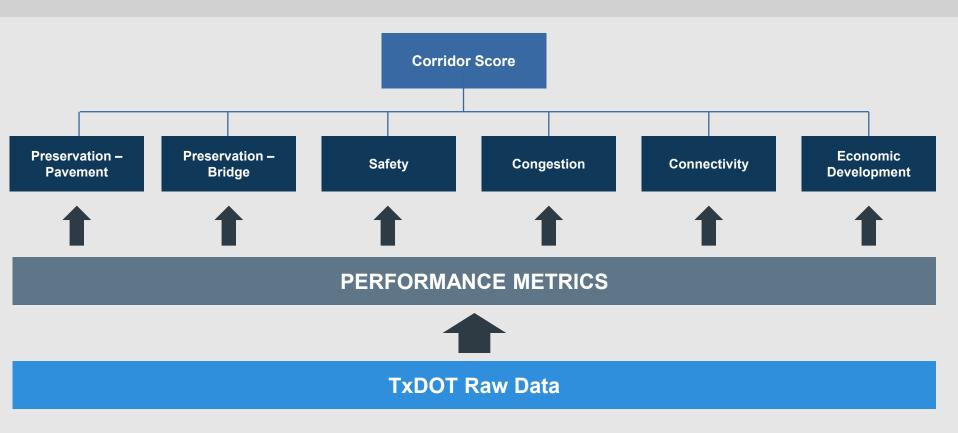
**Transportation Research Board** 



## **Prioritization of Corridor Studies by System-wide Need**



### **System-wide Performance Measure Scoring**



- Numeric scores allow comparison of multiple corridors
- Weighting factors allow varying focus areas
- Trackable over time as data are updated

## **Process Automation for Corridor Prioritization**

Pavement
Bridge
Safety
Congestion
Economic Development
Connectivity

**TxDOT Data** 

Raw	Input

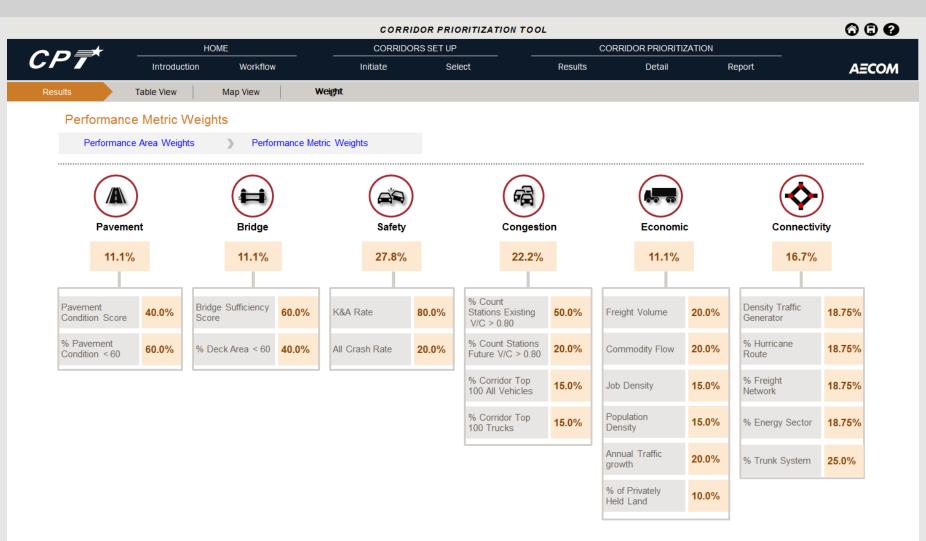
Criteria	Performance Measure	Raw Value
	Pavement	
1	Pavement Condition Score	89.8
2	% Pavement with Pavement Condition Score < 60	5.7%
3	Bridge	
3	Bridge Sufficiency Score	92.8
4	% Deck Area on Bridges with Suff Rating < 60	0.0%
	Safety	
5	K&A crash rate for entire corridor	3.5
6	Total crash rate for entire corridor	55.3
	Congestion	
7	% Count Stations with Existing V/C > 0.80	0.0%
8	% Count Stations with Future V/C > 0.80	18.5%
9	Texas Transp Institute hot spot list for all	0.0%
10	Texas Transp Institute hot spot list for trucks	0.0%
	Economic Development	
11	Daily Freight Volumes	9,300
12	Commodity Flow	142M
13	Existing employment	157
14	Existing population	349
15	Projected annual traffic growth rate	3.8%
16	% of Privately held land	99.2%
	Connectivity	
17	Provides access to existing multi-modal facilities or major traffic generators	0.44
18	Part of hurricane evacuation route	100%
19	Part of National Freight Network or TxDOT Primary Freight Network	100%
	Data Extraction Tool	

#### Score

Criteria	Performance Measure	Score
	Pavement	
1	Pavement Condition Score	5.1
2	% Pavement with Pavement Condition Score < 60	5.7
	Bridge	
3	Bridge Sufficiency Score	1.0
4	% Deck Area on Bridges with Suff Rating < 60	0.0
	Safety	
5	K&A crash rate for entire corridor	3.9
6	Total crash rate for entire corridor	1.3
	Congestion	
7	% Count Stations with Existing V/C > 0.80	0.0
8	% Count Stations with Future V/C > 0.80	2.3
9	Texas Transp Institute hot spot list for all	0.0
10	Texas Transp Institute hot spot list for trucks	0.0
	Economic Development	
11	Daily Freight Volumes	4.8
12	Commodity Flow	4.0
12	Existing employment	4.5
14	Existing population	5.6
14	Projected annual traffic growth rate	6.3
16	% of Privately held land	9.2
10		5.2
	Connectivity	
17	Provides access to existing multi-modal facilities or major traffic generators	2.5
18	Part of hurricane evacuation route	10.0
19	Part of National Freight Network or TxDOT Primary Freight Network	10.0
20	Part of Energy Sector Route	9.6

**Corridor Prioritization Tool (CPT)** 

## **Corridor Prioritization – Performance Weights**



\*Performance Metric Weights are set and used consistently in scoring calculations.

## **Sample Corridor Prioritization Results - Overall**

		н	DME	CORRI	CORRIDORS SET UP		CORRIDOR PRIORITIZATION			
	CPT	Introduction	Workflow	Initiate	Select		Results	Detail	Report	_
	Results	Table View	Map View	Weight	Map Display Option :	Fast Mode	Switch to Full Mod	le >>		
X	Zoom To State	Previous > Next	🚫 Update Map				XIII		La	t: 27.534°;
	Select a metric :	Overall	•			X	Amarillo	Okiah	Tulsa	ort Smith
Rank	Corridor	Description	Score	All	bu Santa Fe querque	1		Oklah		Ail
1	IH0635_0_37_S	I-20 to SR 121	72.66				1744	Lawton	man	Ařk
2		Hillsboro to Denton	65.81		New Mexico		Childres	and and		7
3	IH0610_0_38_S	I-10 to I-10	65.73					Wichita	the faith and the	
4	IH0410_0_53_S	I-35 to I-35	62.16			Hup	book	Vichita Falls	TAL	
5	IH0820_0_36_S	I-20 to I-20	58.20			2-4	That	ALA	XXX ->	
6			55.72			K	Y-Y-Y	LADD		Hanta
7		San Antonio to Austin	55.25	i i i	as t	1Z	Abilene	XXXXX	RIV X	veport
8		Pinehurst to Galveston	54.47	Ciu	Tuces	-7-20	X X Y	VI DY	KANG	Ser .
9			54.08		lad Juarez	I I	IND	Browneydod		X
10	 SH0004_558_583		53.93		mand	Odessa	Star Son Tond	HAL	ATACK	all the total
11		Amarillo to Stateline	53.38	3.1	A Pase	X	San Angelo	12 tot	C SCA	ATT
12		State Highway 78	53.06			$\langle 2 \rangle$	XIT	X V Austin		Beauwadpt .
13			52.81	3		1 th		PAL		TTO
14		Stateline to Stateline	52.60		Y		A Tra	f TSPA	SU DOM	
15		State Highway 123	52.02	( ) ( )		1	Nº 1	L'and Ref	Noakum	7
16	US0077_297_337	Red Oak to Hillsboro	51.82	Cuauh	hihuahua		Piedrasar	edo XX	* Y	
17	US0180_417_555	Anson to Weatherford	51.71		témoc Delicias		Negras	1 A	Christi	
18		State Highway 80	50.68			Coahu do Zona			3	
19		Hillsboro to Denton	50.66	egón	Hidalgo	de Zarag		KAH	<u>1</u>	
20		Stateline to Dallas	49.89	13	undel Rarral			1 m		
21			49.79	250 km	inst		Monclova	Pharr		
22		TX North Border to Stephe	nville <b>49.01</b>	125 mi	<u>-</u>					
23	 SH0048_558_580		49.01	Sinaloa			Nu	evo Reynosa	Matamoros	© OpenStreetM
					Overall Prioritization Sc	ore				
					Highest Priority	Eleva Prior		Average Priority	Moderate Priority	Lowest Priority

## **Sample Corridor Prioritization Results - Details**

t		НОМЕ		CORRIDORS SET UP		CORRIDOR PRIORITIZATION				
C		Introduction	Workflow	kflow Initiate Select Results De		Detail	Report	AECOM		
Re	sults	Table View Ma	p View	Weight						
	Select a metric :		Overall		Recalculate		To To	op 10% 30%+ fro	m Average Above	Average
_										
					Pavement	Bridge	Safety	Congestion	Economic	Connectivity
				Weight	11.1%	11.1%	27.8%	22.2%	11.1%	16.7%
Rank	Corridor	Description	n	Overall Score	Pavement Score	Bridge Score	Safety Score	Congestion Score	Economic Score	Connectivity Score
				score (0-100)	score (0-10)	score (0-10)	score (0-10)	score (0-10)	score (0-10)	score (0-10)
1	IH0635_0_37_S	I-20 to SR 1	21	72.66	8.15	2.51	8.53	10.00	7.77	3.76
2	H0035E_371_468_9	Hillsboro to De	enton	65.81	9.51	4.97	5.32	8.42	7.97	4.43
3	IH0610_0_38_S	I-10 to I-10	0	65.73	4.52	7.22	4.52	10.00	7.67	5.63
4	IH0410_0_53_S	I-35 to I-3	5	62.16	3.10	2.08	9.55	6.05	7.76	4.67
5	IH0820_0_36_S	I-20 to I-20	0	58.2 <mark>0</mark>	1.61	1.69	9.53	7.03	6.14	3.37
6	SH0352_588_602_S	State Highway	/ 352	55.72	10.00	6.00	9.68	.40	4.98	2.78
7	IH0035_155_250_S	San Antonio to	Austin	55.2 <sup>5</sup>	2.34	2.02	5.22	9.15	6.90	4.75
8	SH0087_478_585_S	Pinehurst to Gal	lveston	54.47	9.13	6.00	9.83	.30	3.96	3.17
9	US0087_696_840_S	San Antonio to Po	rt Lavaca	<b>54.</b> 08	8.04	9.22	6.80	1.17	4.89	4.80
10	SH0004_558_583_S	State Highwa	ay 4	53.93	6.06	6.00	10.00	.70	3.84	4.16
11	US0060_322_458_S	Amarillo to Sta	iteline	53.38	10.00	4.46	10.00	.03	3.32	3.46
12	SH0078_196_287_S	State Highway	y 78	53.06	10.00	7.10	8.98	.54	5.26	1.24
13	SH0003_476_508_S	State Highwa	ау З	52.81	4.03	9.30	8.23	.88	4.82	4.68
14	US0062_16_149_S	Stateline to Sta	iteline	52.60	8.02	6.00	10.00	.12	4.47	2.41
15	SH0123_466_538_S	State Highway	/ 123	52.02	10.00	10.00	6.34	.52	4.19	3.83
16	US0077_297_337_S	Red Oak to Hill	sboro	<b>51.</b> 82	1.06	8.93	10.00	1.41	6.79	1.35
17	US0180_417_555_S	Anson to Weath	nerford	<b>51.</b> 71	7.55	10.00	8.76	.00	2.78	2.87
18	SH0080_461_550_S	State Highway	y 80	<b>50.</b> 68	10.00	10.00	5.68	.91	4.40	3.45
19	IH0035W_0_86_S	Hillsboro to De	enton	<b>50.</b> 66	1.35	2.30	7.61	4.86	6.74	4.31
20	US0075_193_271_S	Stateline to Da	allas	49.89	9.53	3.04	.72	8.83	8.37	3.00
	1 1									



## THANK YOU! Please Travel Safely.



September 16, 2019