# WELCOME TO THE MEETING!

Please Sign In

Pick Up Handouts

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View Exhibits

**Ask Questions** 

**Share Your Thoughts** 

Leave Your Comments

# Purpose of the 3rd Public Meeting

- 1. Present and gather your input on the
  - a. Alternatives Evaluation Process
  - b. Three Reasonable Alternatives
- 2. Discuss project with you and answer questions
- 3. Present the project timeline, history, and background
- 4. Explain the next steps
- 5. Receive your comments on the project
- 6. Encourage your continued involvement

# Project Team







Joint Lead Agency



















**Biological Resources** 

# North - Hardy Corridor Studies History

### North-Hardy Planning Studies - METRO, TxDOT, H-GAC

- 2003 North-Hardy Corridor Alternatives Analysis Report
  - \* Examined transit and highway alternatives
  - \* Recommended that transit alternatives be examined prior to detailed evaluation of highway alternatives
- 2004 North-Hardy Corridor Planning Studies Alternatives Analysis Report (Transit Component)
  - \* Findings used to develop a regional transit system plan that combines an aggressive bus service program with Advanced High CapacityTransit (light rail)
- 2005 North-Hardy Planning Studies Alternatives Analysis Report (Highway Component)
  - \* Recommended highway alternative from downtown Houston to Beltway 8 North is to add four managed lanes to the IH 45 / Hardy Toll Road Corridor
- 2011 TxDOT / FHWA Begin Environmental Document Preparation (Environmental Impact Statement) for North-Hardy Corridor Highway Component
  - \* IH 45 (N) from US 59 to BW 8 North
  - \* Hardy Toll Road Corridor from downtown to BW 8 North
  - \* Portions of IH 10, IH 610 & US 59 near the downtown Houston area

## What is an EIS?

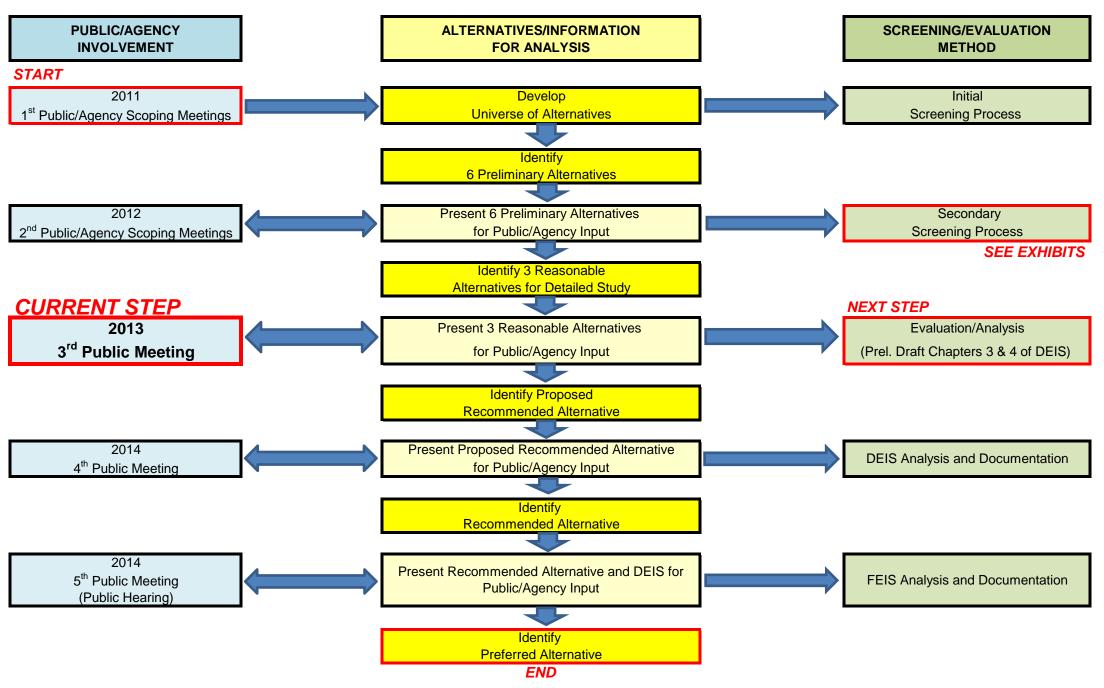
#### What is an Environmental Impact Statement (EIS)?

- A full disclosure document detailing the environmental review process through which the transportation project was developed
- Includes the consideration of a range of reasonable alternatives
- Analyzes the potential impacts resulting from the alternatives
- Demonstrates compliance with other applicable environmental laws and executive orders
- The EIS process is completed in the following ordered steps
  - o Notice of Intent (NOI)
  - o Draft EIS document (DEIS)
  - o Final EIS document (FEIS)
  - o Record of Decision (ROD)
- The National Environmental Policy Act of 1969, as amended, requires
  Federal agencies to prepare Environmental Impact Statements
  (EISs) for major Federal actions that will significantly affect
  the quality of the human environment

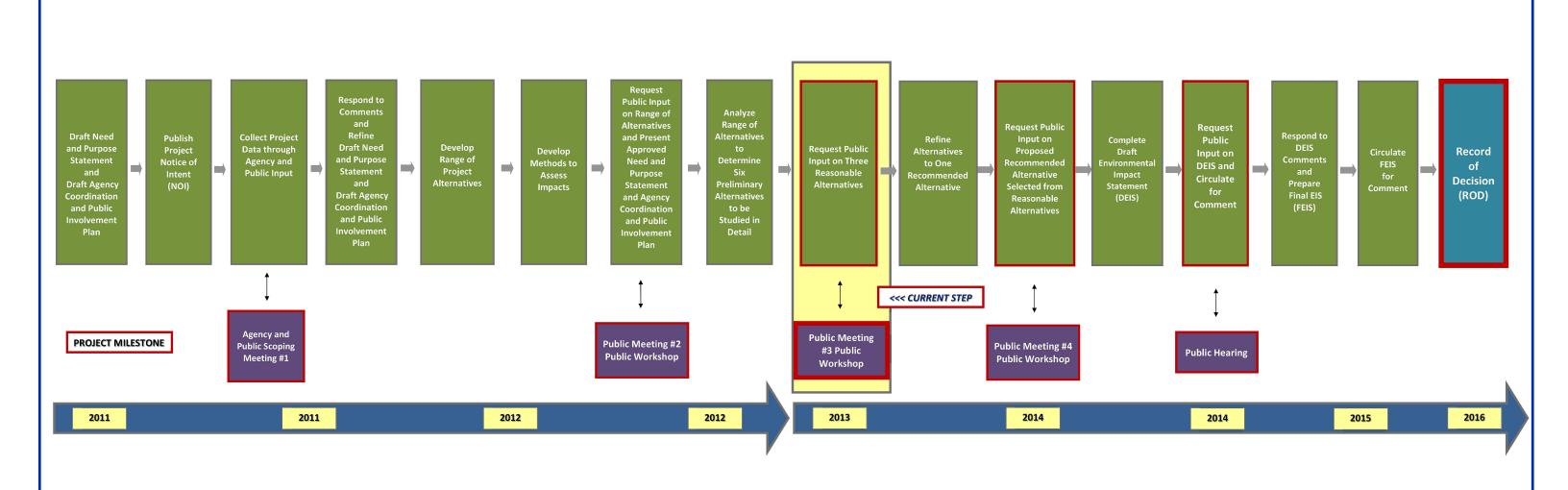
#### What is the National Environmental Policy Act (NEPA)?

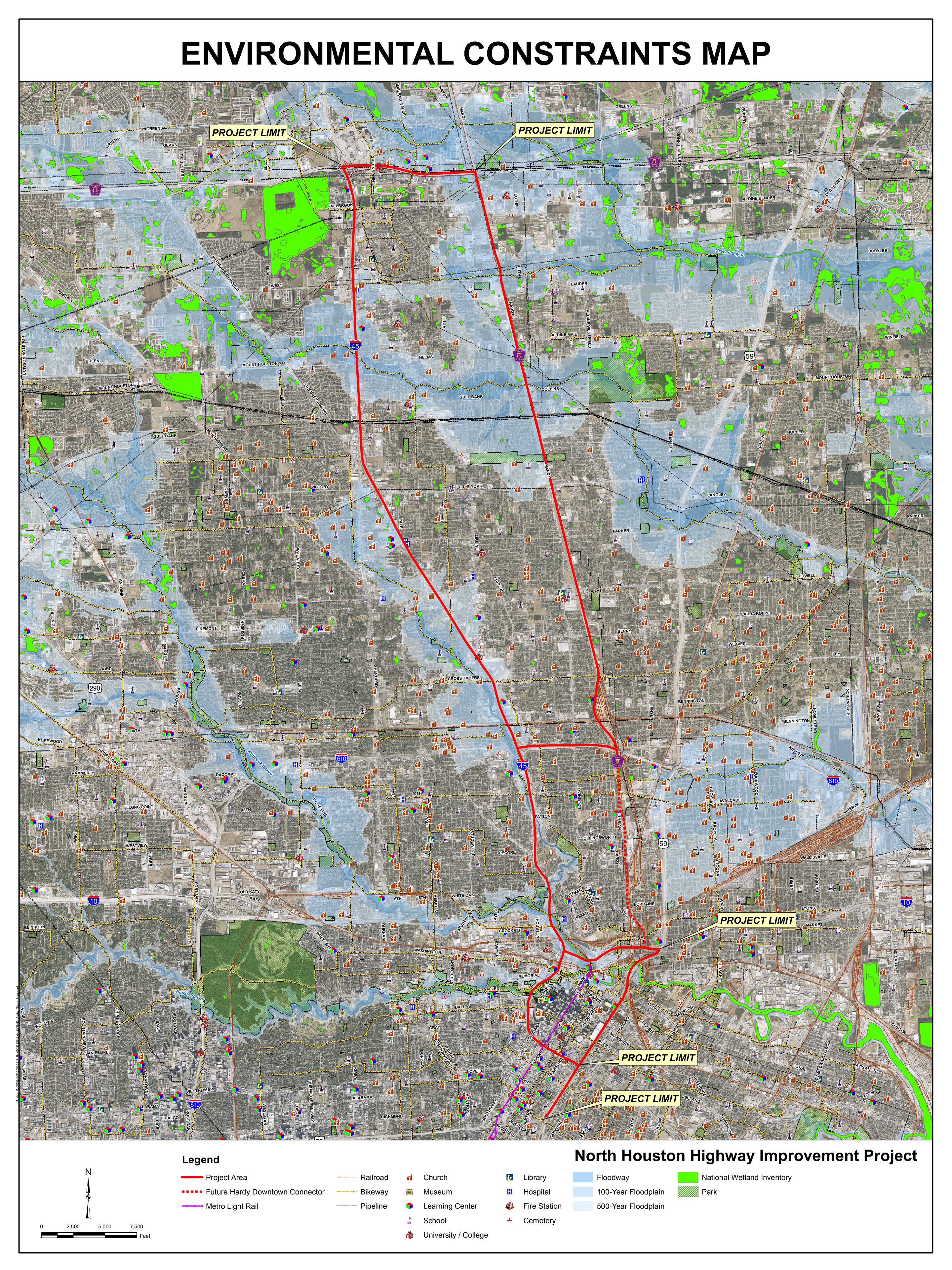
- An environmental review process that considers multiple alternatives as possible ways to complete a project
- Includes alternative alignments and variations of multi-modal configurations, such as railway and roadway combinations
- Considers the no-build or no-action alternative, which would be to do nothing
  - o Provides a baseline to which we can compare the build alternatives
  - o Analyzes what would occur if nothing was done to address the needs of the project area
- Alternatives are identified, analyzed, evaluated, and documented, with regard to the impact each would have on the natural, built and social environment.
- Potential impact information, along with engineering schematic design, is used to determine the best possible alternative for the community and those who use the facility

#### **ALTERNATIVES SCREENING PROCESS**



## Environmental Impact Statement (EIS) Process and Timeline





	EVALUATION CRITERIA																																				
												Secon	dary Scre	ening Pr	ocess of	Prelimin	ary Altern	atives																			
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						(a)	en le		Neuti	utral)													FI	ooding		Wildlife	Wetlands	Streams		1	,	1	,				
Segment 1 BW8 to I-610	Alternative Type	Description	Meets Need and Purpose and Project Goals (Yes/No)	Signature Project Potential (Yes/No)  Constructability (Undesirable/Desirable/Neutral)	Functionality Requirements (Undesirable/Desirable/Neutra	Operations and Maintenance (Undestrable/Destrable/Neutro	Arong New Mariageo Larie radiiliy(Undesirable/Desirable) Travel Demand - A <i>long 1-4</i> 5 (Undesirable/Desirable/Neutral)	0 1	Vehicle Hours Traveled - Along Study Area Freeway System (Undesirable/Desirable	Vehicle Hours Traveled - Along Downtown Street System (Undesirable/Desirable/Ne	Volume-to-Capacity Ratio - Along 1-45 (Undesirable/Desirable/Neutral)	Community Parks (Yes/No)	Cemeteries (Yes/No)	Commercial (acres)	Residential (acres)	Industrial (acres)	Public Use Areas (acres)	Other (acres)	Total Additional ROW (acres)	National Register of Historic Places (number)	Recorded Archeological Sites (Yes/No)	Archeological High Probability Areas (acres)	Floodway (acres)	100-Year Floodplain (acres)	Detention Basins (acres)	Threatened & Endangered Species Habitat (Yes/No)	Wetlands (acres)	Streams (linear feet)	Noise Impacts (number)	Residential Parcel Impacts (number)	Commercial Parcel Impacts (number)	Churches (number)	Schools (number)	acts (Undesirable/Des	Adverse Changes in Community Cohesion (Parks, Schools, Churches - Yes/No)	Environmental Justice (Yes/No)	Superfund Sites (number)
Alternative 1	Existing	No Build Scenario (Project Not Constructed)	NA I	NA NA	NA N	IA NA	. NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	NA	NA
Alternative 3 Option 1	Widen existing with elevated managed lanes	Addition of direct connector from I-45 to Hardy Toll Road that includes four (4) managed lanes; also includes widening of Hardy Toll Toad to provide one additional lane inbound and outbound	Yes I	No U	N N	N U	N	N	N	NA	N	Yes	No	23	6	2	2	1	55	0	No	No	<1	<1	0	No	0	0	197	0	30	1	1	U	Yes Y	Yes	0
Alternative 3 Option 2	Widen existing with elevated managed lanes	Addition of direct connector from I-45 to Hardy Toll Road that includes four (4) managed lanes; also includes widening of Hardy Toll Toad to provide one additional lane inbound and outbound	Yes I	No U	N N	N U	N	N	N	NA	N	Yes	No	25	6	2	1	1	54	0	No	No	<1	15	0	No	0	0	197	0	17	1	1	U	Yes Y	Yes	0
Alternative 3 Option 3	Widen existing with elevated managed lanes	Addition of direct connector from I-45 to Hardy Toll Road that includes four (4) managed lanes; also includes widening of Hardy Toll Toad to provide one additional lane inbound and outbound	Yes 1	No U	N N	4 U	N	N	N	NA	N	Yes	No	20	6	2	1	1	51	0	No	No	<1	6	0	No	0	0	197	0	45	1	1	U,	Yes Y	Yes	0
Alternative 4		Twelve (12) lane section - includes eight (8) general purpose lanes and four (4) managed lanes; additional ROW will be acquired on the west side of I-45	Yes 1	No D	D [	D D	D	D	D	NA	D	No	No	166	12	<1	5	2	187	0	No	No	6	73	0	No	<1	0	102	55	212	0	0	U	No Y	Yes	0
Alternative 5	Widen existing	Twelve (12) lane section - includes eight (8) general purpose lanes and four (4) managed lanes; additional ROW will be acquired on the east side of I-45	Yes I	No D	D [	D D	D	D	D	NA	D	No	No	168	11	<1	13	2	196	0	No	No	3	47	0	No	0	0	146	87	223	1	1	U,	Yes Y	Yes	0
Alternative 6	Widen existing	Twelve (12) lane section - includes eight (8) general purpose lanes and four (4) managed lanes; additional ROW will be acquired on both sides of I-45	Yes I	No D	D [	D D	D	D	D	NA	D	No	No	161	9	<1	8	2	184	0	No	No	2	59	0	No	0	0	98	62	285	1	1	U,	Yes Y	Yes	0
Alternative 7	Elevated managed lanes	Twelve (12) lane section - includes eight (8) general purpose lanes and four (4) elevated managed lanes on a single structure at center	Yes I	No D	D [	D D	D	D	D	NA	D	No	No	115	8	<1	5	2	136	0	No	No	0	0	0	No	0	0	92	56	275	1	1	U,	Yes Y	Yes	0
Alternative 8	Elevated managed lanes	Twelve (12) lane section - includes eight (8) general purpose lanes and four (4) elevated managed lanes on two separate structures on left and right sides of the centerline	Yes I	No D	D [	D D	D	D	D	NA	D	No	No	206	13	<1	9	2	234	0	No	No	0	0	0	No	<1	0	121	86	267	1	1	U,	Yes Y	Yes	0

IDENTIFIED REASONABLE ALTERNATIVE

DESIRABLE

UNDESIRABLE

NEUTRAL

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SEGMENT 2 I-610 to I-10	Alternative Type	Description	Meets Need and Purpose and Project Goals (Yes/No) Signature Project Potential (Yes/No)	Constructability (Undesirable/Desirable/Neutral)	Functionality Requirements (Undesirable/Desirable/Neutral)	Operations and Maintenance (Undesirable/Desirable/Neutral)	Managed Lane Utilization - Along New Managed Lane Facility (Undesirable/Desirable	Travel Demand - Along 1-45 (Undesirable/Desirable/Neutral)	9 Hou	Vehicle Hours Traveled - Along Study Area Freeway System (Undesirable/Desirable	Vehicle Hours Traveled - Along Downtown Street System (Undesirable/Desirable/Ne	Volume-to-Capacity Ratio - Along I-45 (Undesirable/Desirable/Neutral)	Community Parks (Yes/No)	Cemeteries (Yes/No)	Commercial (acres)	Residential (acres)	Industrial (acres)	Public Use Areas (acres)	Other (acres)	Total Additional ROW (acres)	National Register of Historic Places (number)	Recorded Archeological Sites (Yes/No)	Archeological High Probability Areas (acres)	Floodway (acres)	100-Year Floodplain (acres)	Detention Basins (acres)	Threatened & Endangered Species Habitat (Yes/No)	Wetlands (acres)	Streams (linear feet)	Noise Impacts (number)	Residential Parcel Impacts (number)	Commercial Parcel Impacts (number)	urches (n	Schools (number) Visual Impacts (Undesirable/Desirable/Neutral)	Adverse Changes in Community Cohesion (Parks, Schools, Churches - Yes/No)	Environmental Justice (Yes/No)	Superfund Sites (number)
Alternative 1	Existing Configuration	No Build Scenario (Project Not Constructed)	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA N	NA NA	A NA	NA	NA
Alternative 3	Widen Existing	Twelve (12) lane section; includes ten (10) general purpose lanes and two (2) reversible, special purpose lanes	Yes No	D	U	N	U	U	U	U	NA	U	No	No	6	2	0	0	<1	9	0	No	No	<1	4	0	No	0	0	215	25	19	0	0 U	No	Yes	0
Alternative 10	Widen Existing	Twelve (12) lane section; includes eight (8) general purpose lanes and four (4) managed lanes	Yes Yes	D	N	N	D	D	D	D	NA	D	No	No	6	2	0	0	<1	9	0	No	No	<1	4	0	No	0	0	215	25	19	0	0 U	No	Yes	0
Alternative 11	Widen Existing with Elevated Managed Lanes	Twelve (12) lane section; includes eight (8) general purpose lanes and four (4) elevated managed lanes on a single structure at the center of the roadway	Yes No	D	N	D	D	D	D	D	NA	D	No	No	6	2	0	0	<1	9	0	No	No	<1	4	0	No	0	0	215	25	19	0	0 U	No	Yes	0
Alternative 12		Twelve (12) lane section; includes eight (8) general purpose lanes and four (4) elevated managed lanes on a double decker structure at the center of the roadway	Yes No	D	N	N	D	D	D	D	NA	D	No	No	6	2	0	0	<1	9	0	No	No	<1	4	0	No	0	0	214	25	19	0	0 U	No	Yes	0
Alternative 14	Add Tunnel to Existing	Tunneled roadway underneath I-45; includes four (4) managed lanes	Yes No	U	U	U	D	D	D	D	NA	D	No	No	9	3	0	0	<1	14	0	No	Yes	<1	4	0	No	0	0	0	37	31	0	0 D	No	Yes	0
Alternative 15	Add Direct Connector	Addition of direct connectors along the I-610 corridor from I-45 to Hardy Toll Road; includes four (4) managed lanes; this alternative also includes widening of Hardy Toll Road to provide one additional lane inbound and outbound	Yes No	N	N	D	U	N	N	N	NA	N	No	No	7	4	0	<1	<1	14	0	No	No	<1	4	0	No	0	0	224	38	32	0	0 U	No	Yes	2

IDENTIFIED REASONABLE ALTERNATIVE
DESIRABLE
UNDESIRABLE
INELITRAL

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									-			a)						L	and Us	se			(	Cultu	ral Resour	ces			Natu	ural Res	sources		Noise		s	ocioe	conor	nics		HazMat
			Need and Purpose and Project Goals (Yes/No)	ure Project Potential (Yes/No)	uctability (Undesirable/Desirable/Neutral)	onality Requirements (Undesirable/Desirable/Neutral)	ions and Maintenance (Undesirable/Desirable/Neutral)	ged Lane Utilization -	aged Lane racility	1-45 (Undesirable/Desirable/Neutral) 9 Hours Traveled -	1-45 (Undesirable/Desirable/Neutral)	Study Area Freeway System (Undesirable/Desirable/Neutra	э Hours Traveled - Downtown Street System (Undesirable/Desirable/Neutral)	e-to-Capacity Ratio - I-45 (Undesirable/Desirable/Neutral)	unity Parks (Yes/No)	eries (Yes/No)	ercial (acres)	intial (acres)	ial (acres)	Use Areas (acres)	(acres)	Additional ROW (acres)	al Register of Historic Places (number)		ied Archeological Sites (Yes/No)	ological High Probability Areas (acres)	vay (acres)	iar Floodplain (acres)	(20,100)	aned & Endangered Species Habitat (Yes/No)	ds (acres)	Streams (linear feet)	Impacts (number)	intial Parcel Impacts (number)	ercial Parcel Impacts (number)	ies (number)	Is (number) Imnacts (Indestrable/Destrable/Neutral)		mental Justice (Yes	ind Sites (number)
SEGMENT 2			Meets	Signatu	onstri	unctio	perat	Janag	ravel	long ehicle	long	long	ehicle Iong I	Volume A <i>long I</i>	Commi	emet	Commo	Reside	dustr	Public	Other (	otal A	Nation	: I	Record	Archeo	oodw	00-Ye		reate	Vetlan	tream	oise I	eside	ommo	hurch	chool	Advers	Environ	uperfi
I-610 to I-10 Alternative 1	Alternative Type Existing Configuration	No Build Scenario (Project Not Constructed)	NA NA		NA	NA NA	NA	NA NA	N/	4   > A   N	NA I	NA	> ∢ NA	> ∢ NA	NA	NA	NA NA	NA	NA NA	NA	NA NA	NA			NA NA	NA NA	NA NA	NA N	A	NA NA	NA NA	NA	NA	NA NA		NA N	NA N			
Alternative 3	Convert Downtown Loop to One Way Loop	Convert existing downtown loop roadway network to a one-way loop	Yes	No	N	U	N	NA	N/	A	U	D	U	D	No	No	7	<1	2	1	3	17	0	)	Yes	No	<1	1 (	)	No	0	0	526	8	47	0	0 L	J No	Yes	s 2
Alternative 5	Add Tunnel to Existing	Tunneled roadway underneath I-45, continues underneath Bagby Street and ends at Spur 527; includes four (4) managed lanes	Yes	No	U	N	U	NA	N/	A	U	N	N	U	No	No	0	0	0	0	0	0	0	)	No	Yes	0	0 (	)	No	0	0	0	1	0	0	0 [	) No	Yes	s 0
Alternative 6	Add Tunnel to Existing	Tunneled roadway underneath I-45, continues to Jefferson Street and ends at I-45, south of the I-45/US 59 interchange; includes four (4) managed lanes	Yes	No	U	U	U	NA	, N	А	U	D	N	D	No	No	<1	<1	0	0	<1	<1	O	)	No	Yes	0	0 (	)	No	0	0	0	0	10	0	0 [	) No	Yes	s 1
Alternative 10	Widen Existing	Eight (8) lane section from I-10 to I-45/US 59 interchange; includes eight (8) general purpose lanes	Yes	No	N	N	N	NA	N/	A	N	D	N	N	Yes	No	22	8	0	12	17	9	0	)	No	No	2	2 (	)	No	<1	166	518	4	18	0	0 4	J No	Yes	s 0
Alternative 11	Realignment of I-	Realign I-45 Northbound and Southbound lanes to the east and place along US 59, existing I-45 North to be converted into a parkway/boulevard for downtown access		Yes	U	N	N	NA	. N	A	D	D	U	D	No	No	<1	1	0	<1	<1	2	0	)	No	Yes	0	0 (	)	No	0	0	519	7	45	0	0 [	) No	Yes	s 0
Alternative 12	Loop to One Way	Realign I-45 Northbound lanes to the east and place along US 59, while maintaining two-directional flow on both I-10 and US 59	Yes	No	D	N	N	NA	N/	A	N	D	D	D	No	No	<1	<1	0	0	<1	<1	0	)	No	Yes	0	0 (	)	No	0	0	518	5	28	0	0 N	l No	Yes	s 0

IDENTIFIED REASONABLE ALTERNA
DESIRABLE
UNDESIRABLE
INFLITRAL