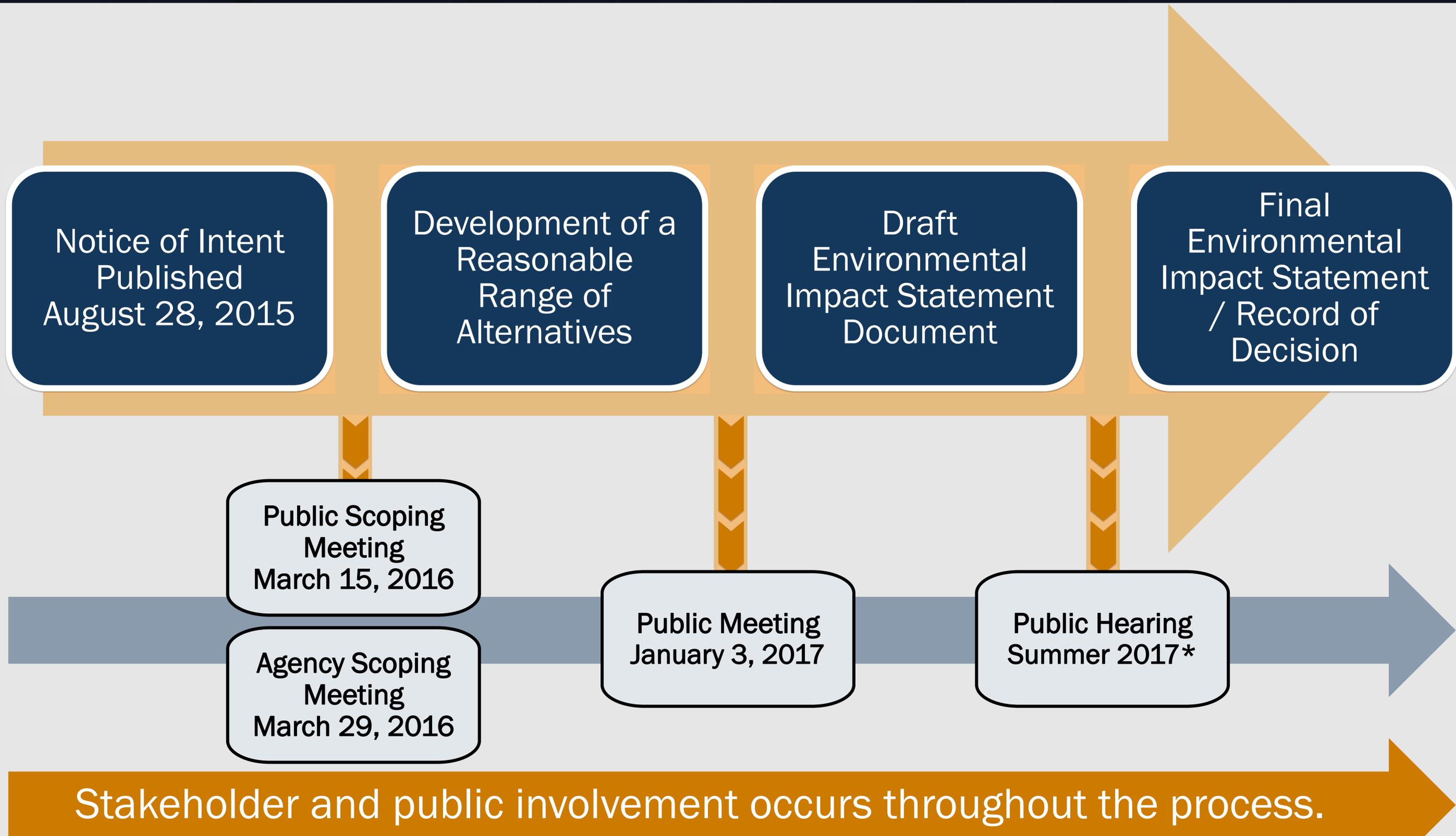




# SH 68 ENVIRONMENTAL AND PUBLIC INVOLVEMENT PROCESS



*\* Dates are preliminary and subject to change*



## PURPOSE

- Improve north-south mobility
- Increase travel capacity for local and regional traffic
- Provide an alternate north-south evacuation route during emergency events

## NEED

- Lack of sufficient north-south mobility for local and regional traffic and for additional emergency evacuation routes, which are the result of historical and continuing growth in the region's population as well as continued growth of traffic in the region



# SH 68 PROJECT COORDINATION PLAN



For information about the project, please visit:  
<http://www.txdot.gov/inside-txdot/projects/studies/pharr/sh68.html>  
or scan the QR code below with your smart phone or tablet.



TxDOT Pharr District Office  
600 W. IH-2  
Pharr, TX 78577  
Phone: (956) 702-6100

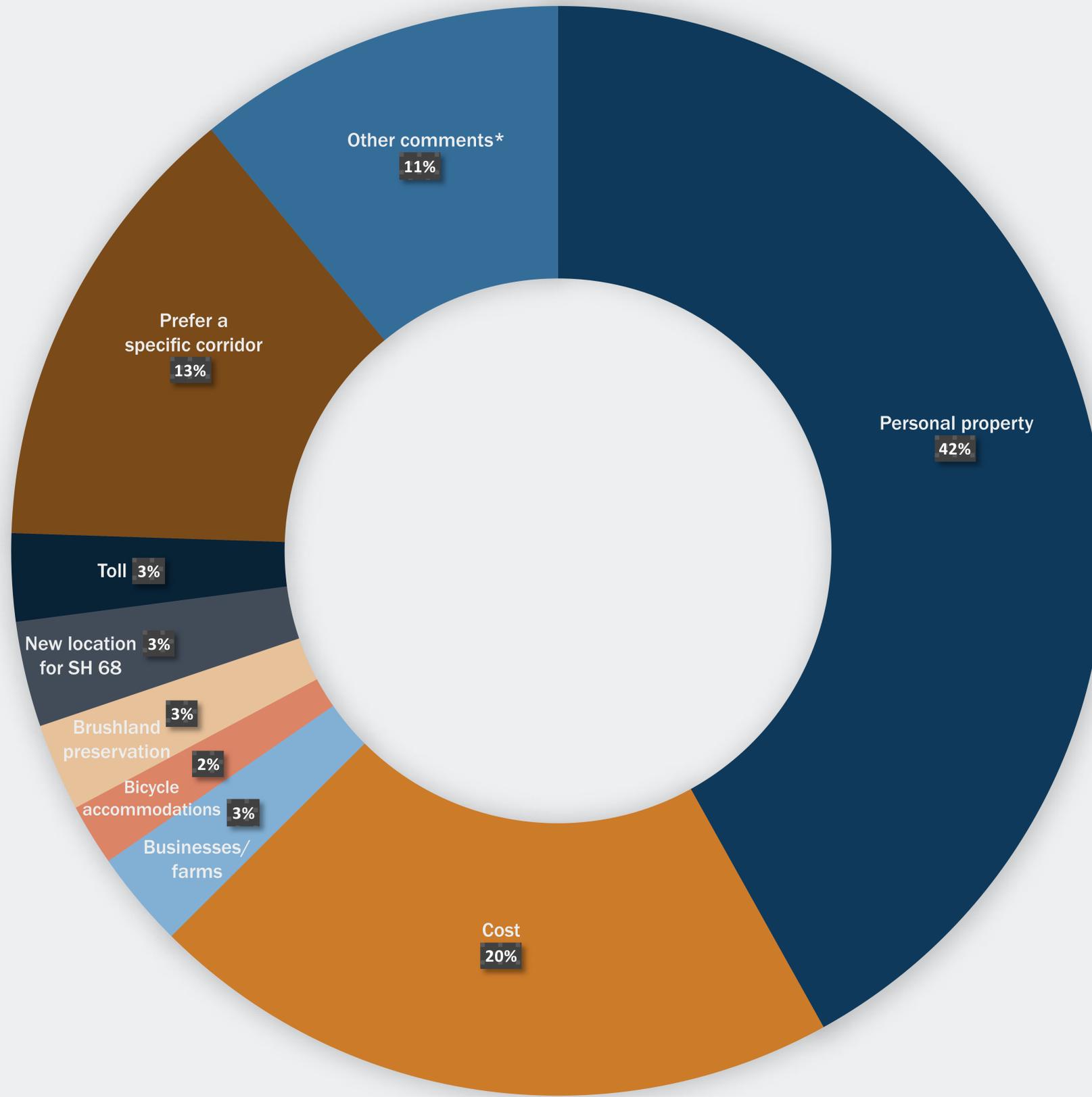
SH 68 Project Office  
4711 S. Alamo Rd., Suite 106  
Edinburg, TX 78542  
Phone: (956) 460-9299



# Public Scoping Meeting Comments By Category

**\*Other comments included:**

- Mark-Ups on exhibits
- Traffic-Related issues
- Future TxDOT plans
- Origin of State Highway 68 as a project
- Property for sale
- Other



# STUDY CORRIDORS AND RANGE OF ALTERNATIVES DEVELOPMENT

## Public Meeting September 2014

One 350-400' alternative.



2014 PSM

### Public Input

Added five 600' study corridors and expanded the study area.

## Public Scoping Meeting March 15, 2016

Six 600' study corridors and expanded study area.



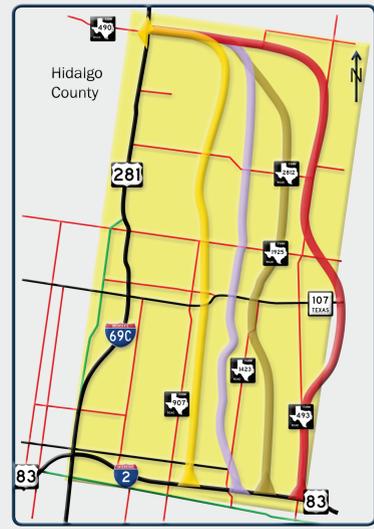
IH-69C/US 281 PSM  
FM 907 PSM  
2014 Modified PSM  
2014 PSM  
FM 1423 PSM  
FM 493 PSM

### Public Input

Added four 600' study corridors.

## Four Additional 600' Study Corridors

Four additional 600' study corridors were identified from the Public and Agency Scoping Meetings. A total of ten corridors were evaluated.



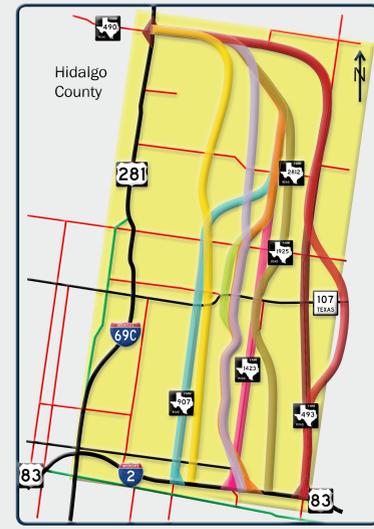
Tower Road  
2014 Modified 2  
FM 1423 Modified (Golie Rd.)  
FM 493 Modified

### Step 1

A total of ten corridors were evaluated.

Elimination of IH-69C/US 281 because it did not meet Purpose and Need.

## Nine Remaining 600' Study Corridors



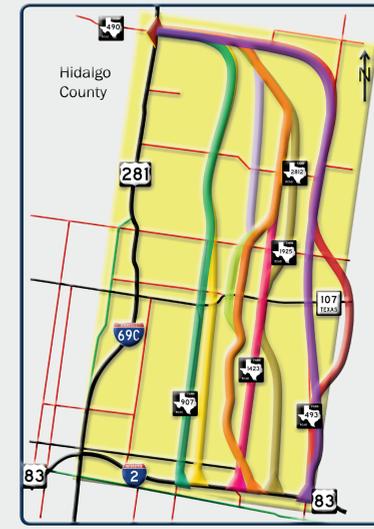
FM 907 PSM  
Tower Rd.  
2014 Modified PSM  
2014 PSM  
2014 Modified 2  
FM 1423 PSM  
FM 1423 Modified (Golie Rd.)  
FM 493 Modified  
FM 493 PSM

### Step 2

Evaluation process replaced two study corridors that could not avoid critical issues.

## Nine 600' Corridors

These are the nine study corridors after Step 2.



FM 907 Modified (replaced FM 907 PSM)  
Tower Rd.  
2014 Modified PSM  
2014 PSM  
2014 Modified 2  
FM 1423 PSM  
FM 1423 Modified (Golie Rd.)  
FM 493 Modified  
FM 493 Modified 2 (replaced FM 493 PSM)

### Step 3

Evaluation process refined the 600' study corridors to 350-400' alternatives. Six alternatives were eliminated.

## January 3, 2017 Public Meeting

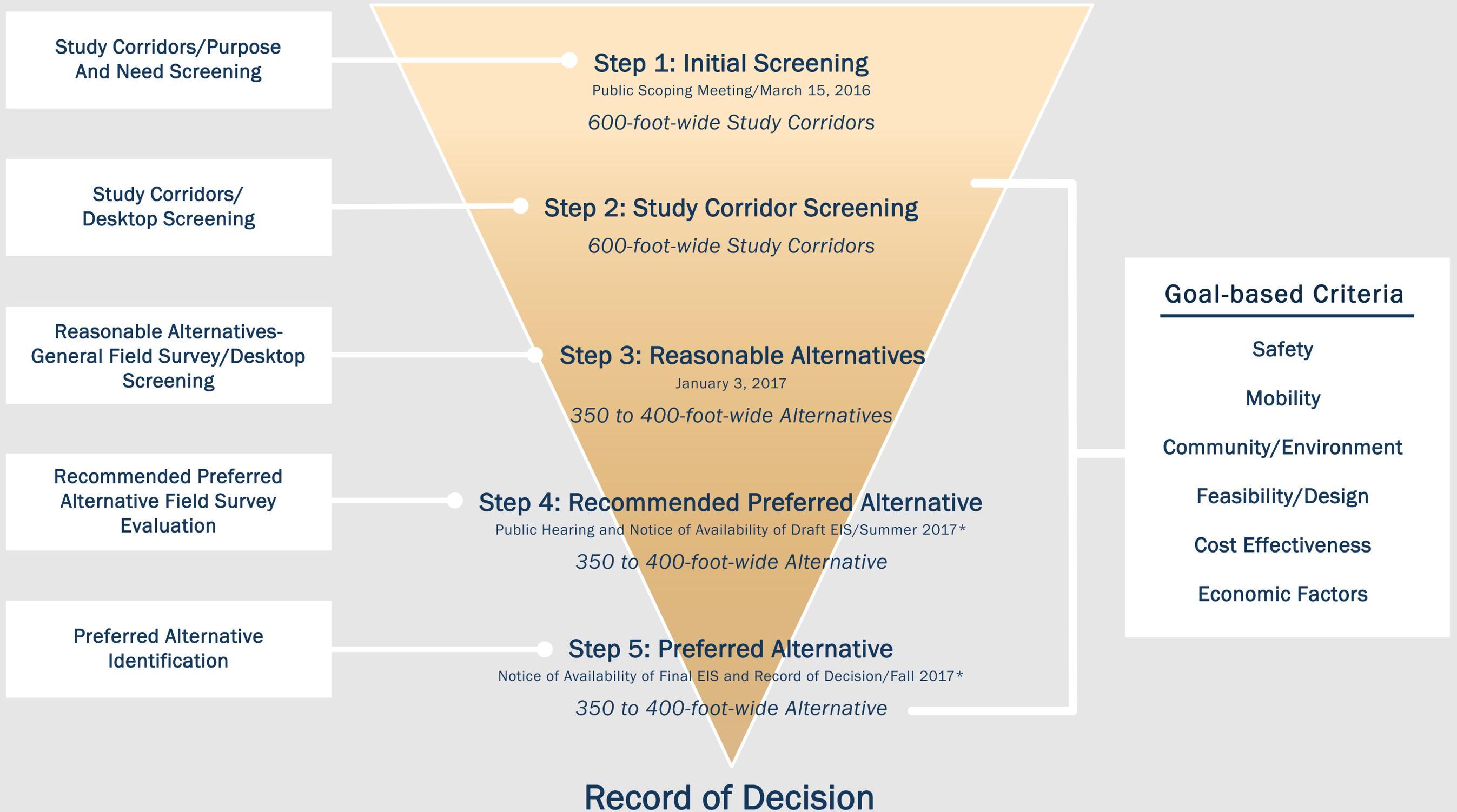
These are the three reasonable alternatives recommended for further analysis.



2014 PSM  
2014 Modified 2  
FM 1423 PSM

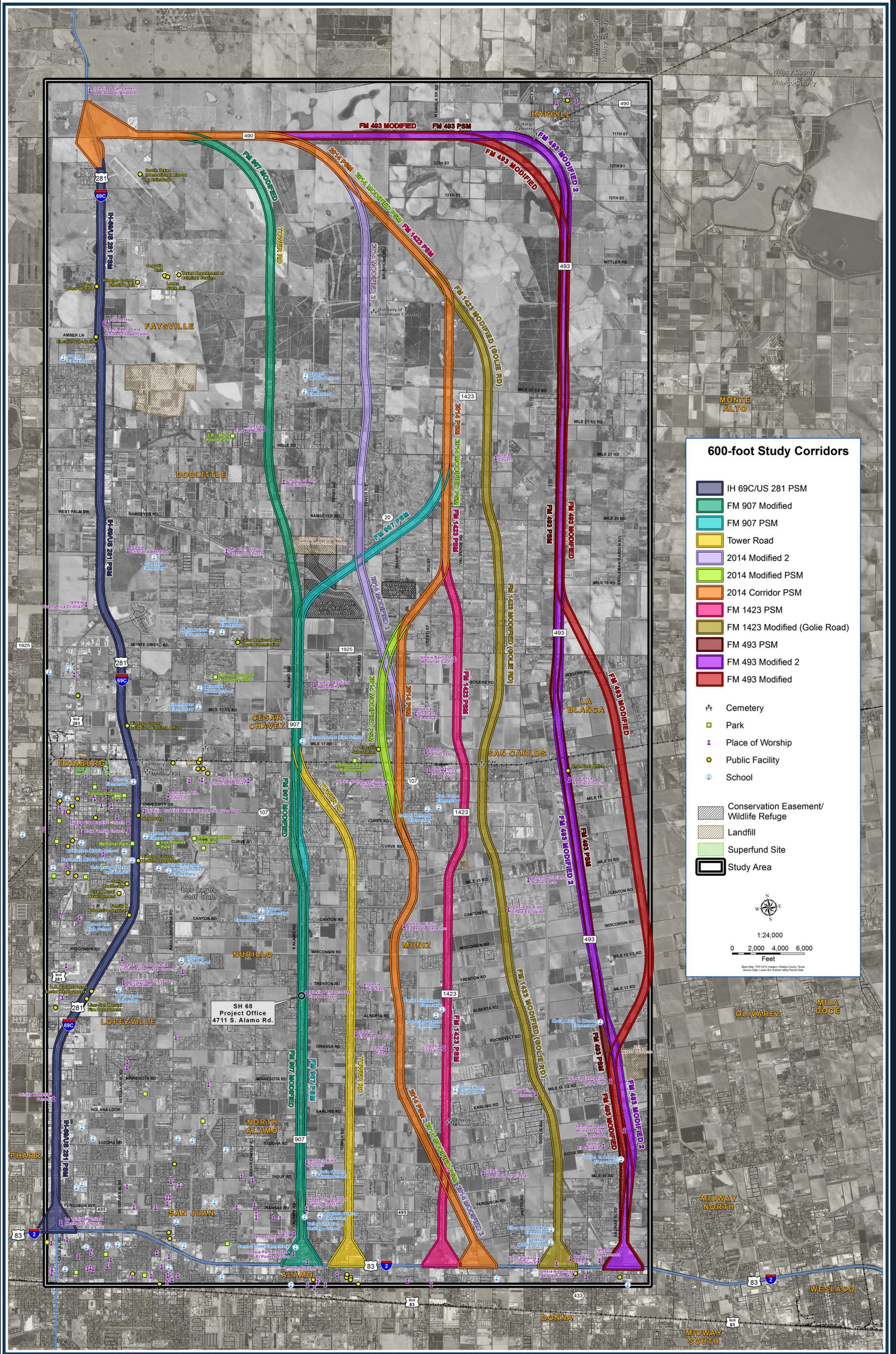
PSM = Public Scoping Meeting

## Full Range of Alternatives



\* Dates are preliminary and subject to change

# SH 68 600-foot Study Corridors





# SH 68 ALTERNATIVES ANALYSIS

## Step 1 – Screen Against Purpose and Need (600-foot Corridors)

Meets Purpose and Need?	Full Range of Corridors												
	NO BUILD	IH-69C/US 281	FM 907 PSM	FM 907 MOD	Tower Rd	2014 PSM	2014 MOD PSM	2014 MOD 2	FM 1423 PSM	FM 1423 MOD (Golie Rd)	FM 493 PSM	FM 493 MOD 2	FM 493 MOD
Improve north-south mobility	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Increase capacity for local and regional traffic	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Provide an alternate north-south evacuation route during emergency events	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

**Step 1: Initial Screening**  
Evaluate study corridors against the Purpose and Need

- IH-69C/US 281 study corridor does not meet the purpose and need for an alternate north-south evacuation route. Therefore, the IH-69C/US 281 study corridor was removed from further evaluation.
- The No Build Option does not meet the purpose and need, and was carried forward for comparison per NEPA requirements.

PSM = Public Scoping Meeting  
MOD = Modified





# SH 68 ALTERNATIVES ANALYSIS

## Step 2 – Screen Against Critical Issues (600-foot Corridors)

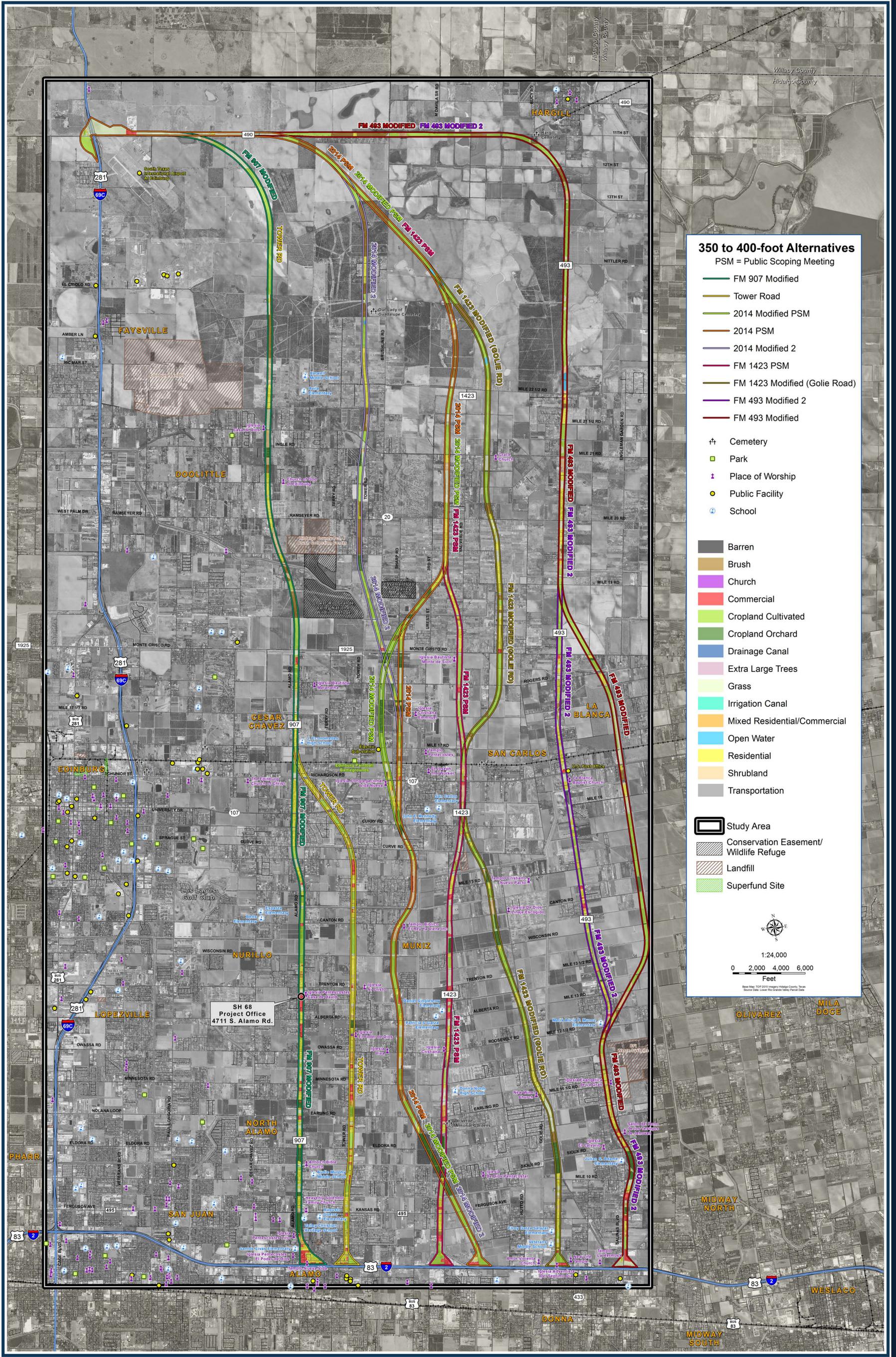
*The nine circled 600-foot corridors advanced to Step 3.*

**Remaining Corridors**

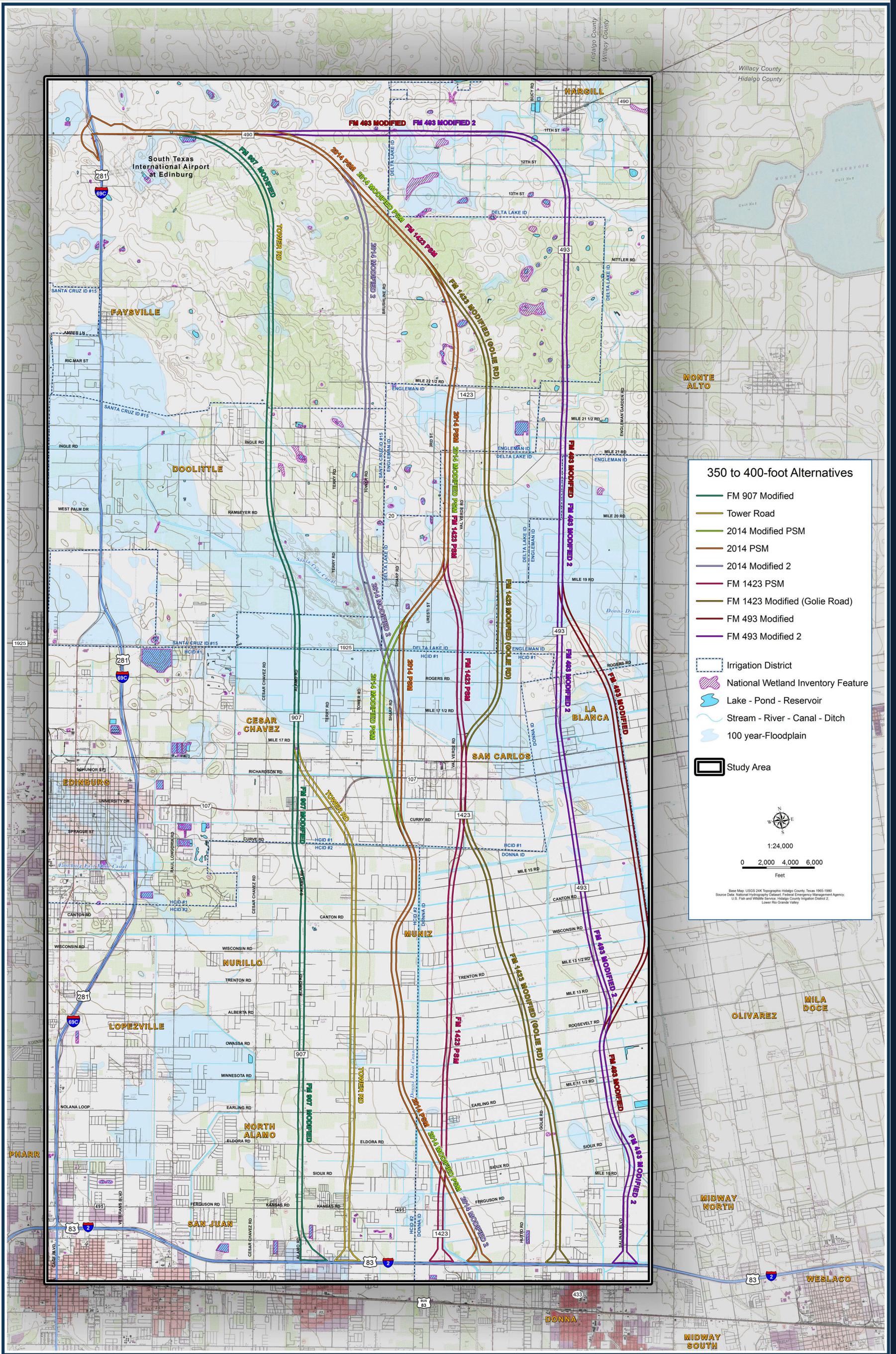
Critical Issues Avoided?	NO BUILD	FM 907 PSM	FM 907 MOD	Tower Rd	2014 PSM	2014 MOD PSM	2014 MOD 2	FM 1423 PSM	FM 1423 MOD (Golie Rd)	FM 493 PSM	FM 493 MOD 2	FM 493 MOD
Airport	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Public Parks/NRHP Historic Properties	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cemetery	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Church	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial	No	Yes	Yes
HazMat, including Landfills	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jail Complex	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
National Wildlife Refuge	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Public facilities, including Schools	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
State Antiquities Landmarks	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Design Criteria	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

PSM = Public Scoping Meeting  
MOD = Modified





# SH 68 350 to 400-foot Alternatives in Relation to Water Resources



**350 to 400-foot Alternatives**

- FM 907 Modified
- Tower Road
- 2014 Modified PSM
- 2014 PSM
- 2014 Modified 2
- FM 1423 PSM
- FM 1423 Modified (Golie Road)
- FM 493 Modified
- FM 493 Modified 2

- Irrigation District
- National Wetland Inventory Feature
- Lake - Pond - Reservoir
- Stream - River - Canal - Ditch
- 100 year-Floodplain
- Study Area

1:24,000

0 2,000 4,000 6,000  
Feet

Base Map: USGS 24K Topographic Hidalgo County, Texas 1995-1999  
Source Data: National Hydrography Dataset; Federal Emergency Management Agency, U.S. Fish and Wildlife Service; Hidalgo County Irrigation District 2, Lower Rio Grande Valley



# SH 68 ALTERNATIVES ANALYSIS

## Step 3 – Alternatives Evaluation Matrix – Summary

Public comments are currently being solicited regarding these three circled reasonable alternatives.

Goals	NO BUILD	IH-69C/ US 281	FM 907 PSM	FM 907 MOD	Tower Road	2014 PSM	2014 MOD PSM	2014 MOD 2	FM 1423 PSM	FM 1423 MOD (Golie Rd)	FM 493 PSM	FM 493 MOD 2	FM 493 MOD		
Safety		Dropped in Step 1 because it did not meet Purpose and Need	Dropped in Step 2 due to Critical Issues								Dropped in Step 2 due to Critical Issues				
Mobility															
Community/ Environment															
Feasibility/ Design															
Cost Effectiveness															
Economic Factors															
	More Desirable					Neutral						Less Desirable			Dropped

PSM = Public Scoping Meeting  
MOD = Modified





# SH 68 350 to 400-foot Alternatives Analysis

## Step 3

More Desirable

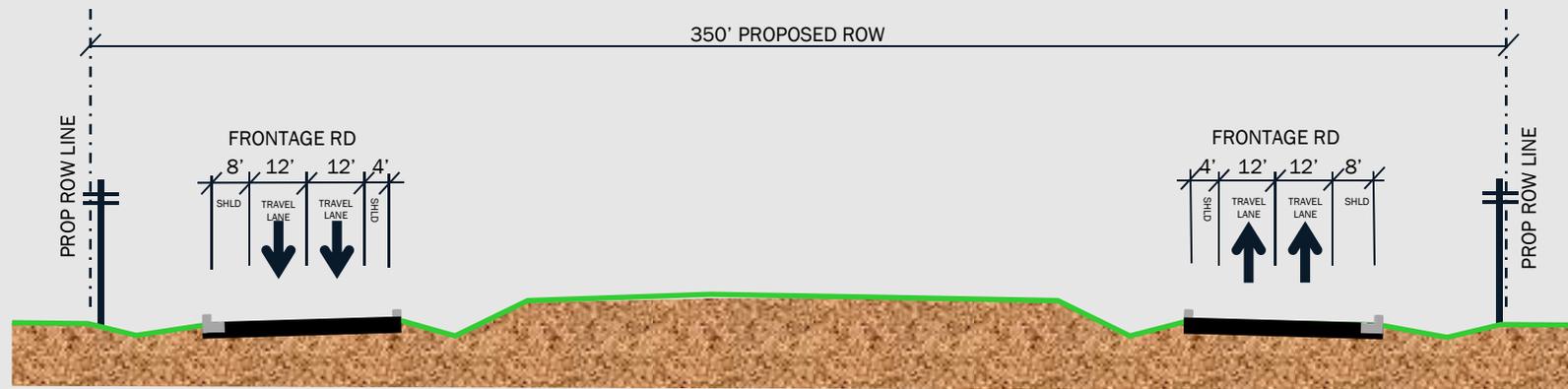


Neutral



Less Desirable

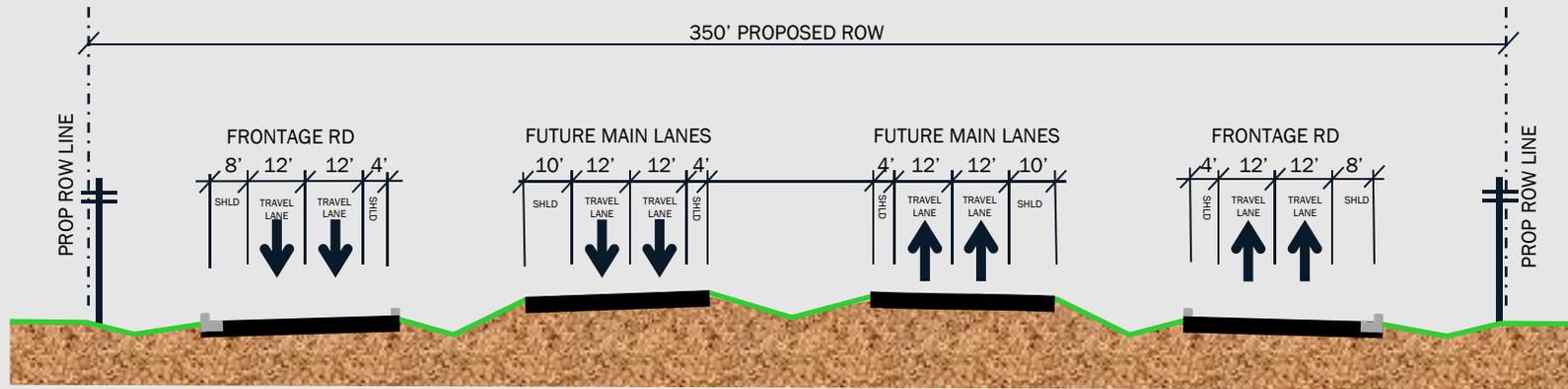
Criteria By Goal	Measure	Notes / Description of Data Collected	No-Build Option	FM 907 Modified	Tower Rd	2014 PSM	2014 Modified PSM	2014 Modified 2	FM 1423 PSM	FM 1423 Modified (Gollee Rd)	FM 493 Modified 2	FM 493 Modified	
Length of Alternative	Miles		0	19.8	20	22.4	22.5	21.7	21.6	22.4	24.9	25.2	
Area of Alternative	Acres		0	1,011	1,001	1,076	1,091	1,057	1,061	1,071	1,188	1,207	
<b>Safety Goal</b>													
Provides alternate corridor for larger/heavier vehicles	Yes/No	Qualitative assessment of the alternatives to provide larger/heavier vehicles an alternate corridor for travel. Corridors in proximity to adjacent collectors/arterials would attract heavy/large truck traffic from existing facilities onto SH 68. Build corridors will be designed to current TxDOT / AASHTO 70 mph specifications to better accommodate larger/heavier vehicles.	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Provides bicycle and pedestrian accommodations	Yes/No	Qualitative assessment of Bike/Ped accommodation effectiveness. Build corridors will be designed to accommodate bicycles and pedestrians.	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Minimizes safety impacts along IH-2	Proposed SH 68 system interchange location at IH-2	Qualitative assessment of potential safety impacts to IH-2 resulting from integration of proposed SH 68 direct connector ramps and existing IH-2 ramps. AASHTO's A Policy on Design Standards Interstate System and FHWA's Interstate System Access Informational Guide were used as references. System interchange spacing of 2 or more miles between existing state route interchanges and proposed SH 68 locations was considered more desirable. One mile spacing was considered absolute minimum.	2	3	1	3	3	3	3	2	3	3	
Enhances safety/reduces crashes within the study area	Provides grade separations at major crossings	Qualitative assessment based on the potential number of grade separators/interchanges that could be provided at major collectors or larger functionally classified roads. Functional classification of roads based on HCMPO Functional Classification Map approved October 2014.	1	3	3	3	3	3	3	2	2	2	
<b>Mobility Goal</b>													
Provides additional capacity and improves mobility within the study area	Yes/No	Qualitative assessment of effectiveness to attract vehicular traffic from existing on-system N/S collectors/arterials to SH 68.	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Enhances system connectivity	Connectivity to existing and proposed regional facilities	Qualitative assessment of the proposed corridors to provide effective connectivity to other major regional existing and planned transportation improvements within the study area.	1	3	2	3	2	2	1	3	3	2	
Enhances modal connectivity	Connectivity to existing and proposed regional facilities	Qualitative assessment of the proposed corridors to provide connectivity between airport, ports of entry, transit and bicycle/pedestrian facilities for existing and planned facilities.	1	2	2	2	2	2	2	2	3	3	
Improves transportation system reliability within the study area	Yes/No	Qualitative assessment of the proposed corridor to provide alternative route other than IH-69C/US 281 in case of an incident on IH-69C/US 281.	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
<b>Community and Environmental Goal</b>													
<b>Human Environment</b>													
Minimize impacts to residential parcels/property	# parcels	A residential property would be counted as "impacted" if the property is within the potentially proposed ROW. Residential property as identified via Hidalgo County Central Appraisal District (CAD) data, windshield surveys and aerial imagery.	0	343	413	177	167	192	173	204	325	197	
Minimize impacts to residential structures	# structures	Residential structures as identified via aerial imagery on residential parcels. A residential structure would be counted as "impacted" if the structure is within the potentially proposed ROW.	0	390	450	143	141	145	217	175	317	170	
Minimize impacts to schools	# schools	Based on mapped information and windshield surveys	0	0	0	0	0	0	0	0	0	0	
Avoid impacts to cemeteries	# cemeteries	Public and private cemeteries, as identified by maps and research	0	0	0	0	0	0	0	0	0	0	
Minimize impacts to faith-based organizations	# churches	Based on mapped information and windshield surveys	0	2	2	0	1	0	0	2	0	0	
Minimize impacts to Public Facilities/Public Services	# facilities/services	Based on mapped information and windshield surveys	0	0	0	0	0	0	0	0	0	0	
Minimize impacts to commercial properties	# properties	A commercial property would be counted as "impacted" if the property is within the potentially proposed ROW. Commercial properties identified based on CAD data (parcels) and windshield survey.	0	63	50	13	14	13	30	22	32	20	
Minimize impacts to commercial structures	# structures	A commercial structure would be identified as "impacted" if the structure is within the potentially proposed ROW. Commercial structures identified based on windshield survey and aerial imagery.	0	69	57	16	12	16	45	17	32	23	
Minimize impacts to civic centers	# civic centers	Based on mapped information and windshield surveys	0	0	1	0	0	0	0	0	0	0	
Minimize impacts to croplands/orchards	acres of croplands/orchards	Based on Landuse/Landcover data.	0	270	277	480	491	451	342	473	409	505	
Avoid impacts to parks and recreational facilities	# parks	Based on mapped information and windshield surveys	0	0	0	0	0	0	0	0	0	0	
Minimize impacts to oil/gas wells	# wells	Wells identified based on Railroad Commission data and USGS maps	0	1	1	1	1	0	0	0	1	0	
Minimize Oil and Gas Pipeline Crossings	# pipeline crossings	Oil and Gas Pipelines identified based on Railroad Commission data and USGS maps.	0	21	21	27	34	22	18	13	16	16	
Minimize impacts to existing utility infrastructure	# sites or crossings	Includes minor utility stations and major transmission power lines, as identified through maps and windshield surveys	0	6	6	6	7	6	6	6	5	5	
Minimize irrigation canal crossings	# of irrigation canal crossings	Based on mapped information and windshield surveys	0	6	9	9	10	10	13	11	22	15	
Minimize impacts to colonias	# colonias	Count of colonias crossed by the potentially proposed ROW. Mapped Colonia locations obtained from the Secretary of State's Office.	0	3	8	0	0	0	2	1	11	3	
Minimize impacts to minority areas	Percentage of census blocks with minority population greater or equal to 50% out of the total blocks impacted by alternative.	Based on 2010 census data.	0	79	77	67	69	76	75	69	72	67	
Minimize impacts to low-income areas	Percentage of census block groups with low income populations greater or equal to 50% out of the total blocks impacted by alternative.	Based on 2010-2014 American Community Survey 5 year estimates.	0	12	6	13	13	13	12	15	18	21	
Minimize traffic noise impacts	# potential receivers	Potential noise impacts identified based on proximity of sensitive noise receivers to residential, church, school, and park properties	0	312	353	179	157	191	232	156	266	225	
Minimize impacts to landfills	# sites	Based on hazardous materials database search results	0	0	0	0	0	0	0	0	0	0	
Minimize Impacts to Superfund Sites	# sites	Based on hazardous materials database search results	0	0	0	0	0	0	0	0	0	0	
<b>Cultural Resources</b>													
State Antiquities Landmarks (SAL)	# sites	Based on review of THC online historic sites atlas.	0	0	0	0	0	0	0	0	0	0	
Minimize Historical canal crossings	# crossings	# of historical canal crossings	0	3	6	8	9	8	13	10	19	12	
Minimize crossing of NHRP-Listed Irrigation District	# crossings	Based on review of THC online historic sites atlas irrigation district	0	1	1	1	1	1	0	0	0	0	
Minimize impacts to NHRP-Listed sites (Non-Irrigation Districts)	# sites	Based on review of THC online historic sites atlas non-irrigation district	0	0	0	0	0	0	0	0	0	0	
Minimize impacts to recorded archeological sites	# sites	Measure based on background research and review of the Texas Historical Commission's (THC) online historic sites atlas and the restricted-access online Texas Archeological Sites Atlas, as well as records from the Texas Archeological Research Laboratory	0	2	2	0	0	1	0	0	0	0	
Minimize impacts to potential historic age resources	# of parcels with a historic-age structure	Measure based on review of CAD data, pre 1975	0	40	33	14	21	18	20	23	33	22	
<b>Natural Environment</b>													
Critical Habitat for Threatened and Endangered Species	Yes/No	Based on USFWS Critical Habitat Mapper	0	0	0	0	0	0	0	0	0	0	
Avoid impacts to National Wildlife Refuge	Yes/No	Based on USFWS LRGV-NWR property map	0	0	0	0	0	0	0	0	0	0	
Minimize impacts to brushland habitat	Acres	Based on Landuse/Landcover data.	0	80	80	89	93	120	83	87	73	77	
Minimize impacts to floodplains	acres of floodplain	Based on most recent FEMA flood maps	0	148	145	149	144	140	161	195	231	350	
Minimize impacts to potential waters of the US	# crossings	Based on interpretation of USGS topographic maps.	0	0	0	0	0	0	0	0	0	0	
Minimize impacts to National Wetland Inventory Features	Acres	Based on USFWS NWI data	0	0.9	0.9	0.3	0.3	0.3	0.3	1.1	0.3	0.3	
Minimize impacts to prime farmland soils	acres of prime farmland soils	Based on information from NRCS	0	922	922	1054	1068	1033	1038	1066	1165	1185	
<b>Feasibility / Design Goal</b>													
Maximizes Driver Expectancy	Qualitative Index	Qualitative assessment of how common and consistent to accepted standards the operational design is to a driver	2	3	2	3	3	3	3	3	3	3	
Avoids potential air space clearance conflicts	Qualitative Index	Qualitative assessment of potential air space clearance conflicts within the study area	3	3	3	3	3	3	3	3	3	3	
Optimizes overall design	Qualitative Index	Provides optimal design criteria for mainlanes	2	3	3	3	3	3	3	3	3	3	
		Provides optimal alignment for interchange configuration	2	3	2	3	2	2	3	3	3	2	
		Provides optimal design criteria for frontage roads	2	3	3	3	2	3	2	2	3	2	
		Provides optimal design criteria adjacent and across irrigation canals	2	3	3	2	2	2	2	2	2	1	
		Provides optimal design criteria to accommodate major utilities	2	3	3	3	2	3	3	3	2	3	3
Optimizes constructability	Qualitative Index	Construction complexity for mainlanes	3	3	3	3	3	3	2	2	2	2	
		Construction complexity for interchanges	3	3	2	3	2	2	2	3	3	2	
		Construction complexity for frontage roads	3	2	2	3	2	2	2	2	2	2	
		Construction complexity for major utility corridors	3	3	3	3	2	2	2	2	2	3	
		Construction complexity adjacent and across irrigation canals	3	3	3	2	2	2	2	2	1	2	1
		Construction complexity for cross roads/T intersections	3	3	3	3	3	3	3	3	2	2	2
Expedite Phase 1 implementation	Duration	ROW acquisition/# of parcels/utility adjustments/construction time	3	1	1	3	3	3	2	3	1	2	
<b>Cost Effectiveness</b>													
Minimize construction cost	Cost estimate in millions	Construction and mitigation cost estimates for the alternatives were developed at a level consistent with conceptual level of analysis and includes "rule-of-thumb" cost contingency factors. Cost estimate included significant construction elements such as: structures, retaining wall, pavement structure and cut and fill quantities.		506	506	539	537	514	556	527	618	655	
Minimize right of way cost	Cost estimate in millions	Based on Hidalgo County Appraisal District Market Values as of September 2016		99	96	62	62	61	69	76	86	74	
Minimize relocation cost	Cost estimate in millions	Based on 150% of right-of-way costs		148	144	93	93	92	104	114	128	110	
Minimize utility displacement cost	Cost estimate in millions	Based on 7% of construction costs plus an additional escalation of 5% for areas of complex utility impacts		33	35	30	30	29	36	29	49	44	
Minimize maintenance and operational costs	Annualized life cycle cost estimate in millions	6% of Construction Costs		27	27	28	28	27	29	28	33	35	
Minimize total cost	Cost estimate in millions	Cumulative of Identified Costs		812	808	753	751	723	795	773	914	918	
<b>Economic Factors</b>													
Maximize opportunity for economic development through adjacent access	Miles	Length of frontage road adjacent to developable property		23	21	31	30	33	29	32	27	24	
Minimize amount of lost tax revenue	Cost estimate in millions	Quantitative assessment of the value of existing landuse taxable revenue converted to transportation use. Lost tax revenue based on the 2016 HCAD estimated tax.		2.8	2.9	1.0	0.9	1.0	1.6	1.2	1.9	1.2	



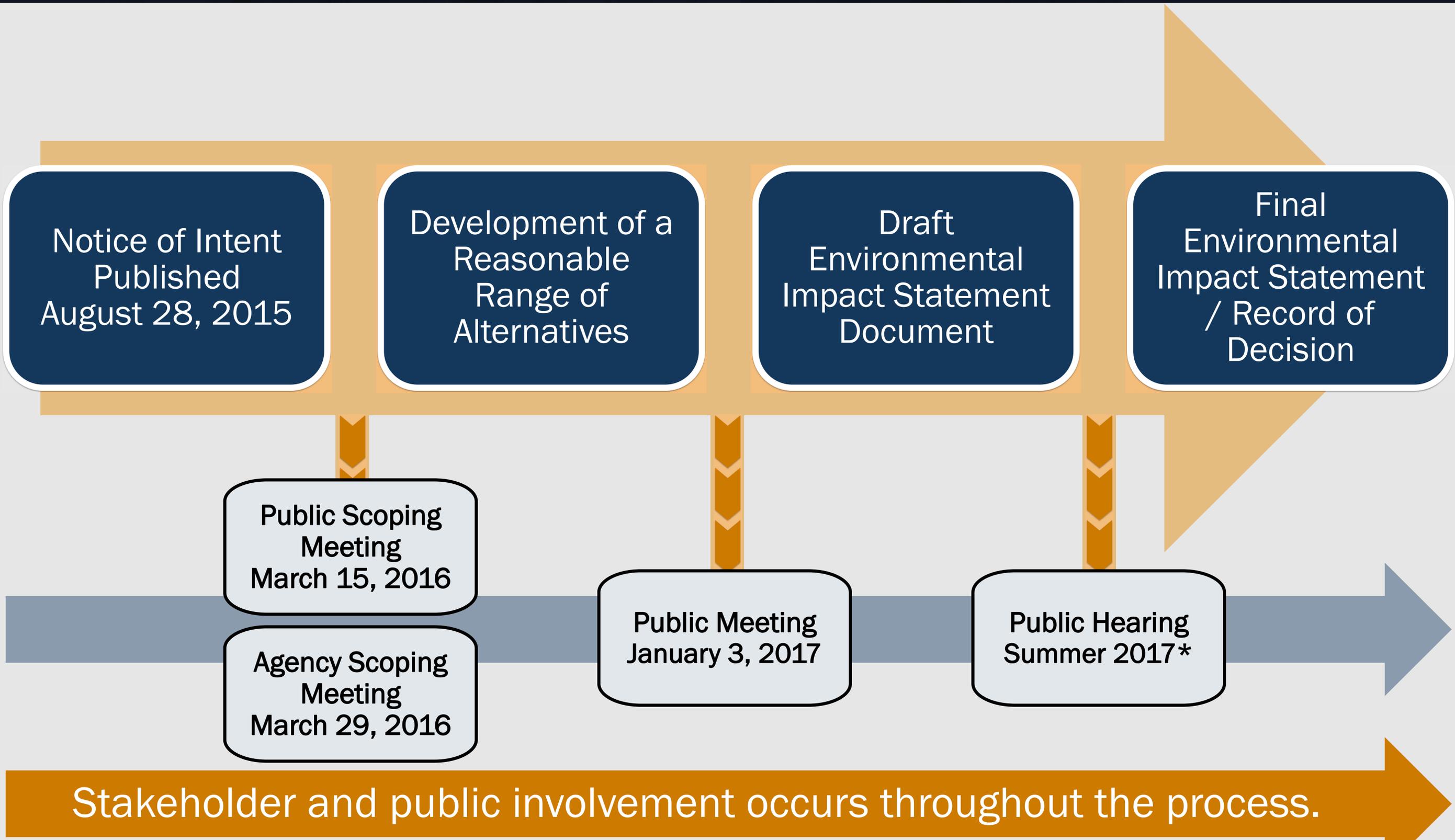
**Phase I – IH-2/US 83 to FM 1925 (Monte Cristo)**

**Phase II – FM 1925 (Monte Cristo) to IH-69C/US 281**

# SH 68 TYPICAL SECTION ULTIMATE FACILITY



# SH 68 NEXT STEPS



\* Dates are preliminary and subject to change