

NORTH HOUSTON HIGHWAY IMPROVEMENT PROJECT - UNIVERSE OF ALTERNATIVES SUMMARY

NORTH HOUSTON HIGHWAY IMPROVEMENT PROJECT - UNIVERSE OF ALTERNATIVES (SEGMENT 1 - BELTWAY 8 TO IH 610)				
ALTERNATIVE NO.	ALTERNATIVE TYPE	DESCRIPTION	PREVIOUS STUDY/REPORT	COMMENTS
1	EXISTING CONFIGURATION	NO BUILD	N/A	NO BUILD SCENARIO
2	TSM UPGRADES	TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PROJECTS	N/A	UPGRADE FACILITY WITH PLANNED TSM PROJECTS
3	WIDEN EXISTING WITH ELEVATED MANAGED LANES	ADDITION OF DIRECT CONNECTOR FROM IH 45 TO HARDY TOLL ROAD THAT INCLUDES FOUR (4) MANAGED LANES. ALSO INCLUDES WIDENING OF HARDY TOLL ROAD TO PROVIDE ONE ADDITIONAL LANE INBOUND AND OUTBOUND.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
4	WIDEN EXISTING	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) MANAGED LANES. ADDITIONAL ROW WILL BE ACQUIRED ON WEST SIDE OF IH 45.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY 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 EAST SIDE OF IH 45.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY 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 IH 45.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY 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.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
8	ELEVATED MANAGED LANES	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) ELEVATED MANAGED LANES ON TWO (2) SEPARATE STRUCTURES ON LEFT AND RIGHT SIDES OF CENTERLINE.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE

NORTH HOUSTON HIGHWAY IMPROVEMENT PROJECT - UNIVERSE OF ALTERNATIVES (SEGMENT 2 - IH 610 TO IH 10)				
ALTERNATIVE NO.	ALTERNATIVE TYPE	DESCRIPTION	PREVIOUS STUDY/REPORT	COMMENTS
1	EXISTING CONFIGURATION	NO BUILD	N/A	NO BUILD SCENARIO
2	TSM UPGRADES	TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PROJECTS	N/A	UPGRADE FACILITY WITH PLANNED TSM PROJECTS
3	WIDEN EXISTING	TWELVE (12) LANE SECTION - INCLUDES TEN (10) GENERAL PURPOSE LANES AND TWO (2) REVERSIBLE, SPECIAL PURPOSE LANES.	NORTH-HARDY PLANNING STUDY (2005)	SELECTED AS PRELIMINARY ALTERNATIVE
4	WIDEN EXISTING	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) MANAGED LANES.	NORTH-HARDY PLANNING STUDY (2005)	NOT SELECTED; DOES NOT PROVIDE SUFFICIENT SHOULDER WIDTHS FOR IH 45 MAINLANES
5	ELEVATED HOT LANES	TWELVE (12) LANE SECTION - INCLUDES TEN (10) GENERAL PURPOSE LANES AND TWO (2) ELEVATED HOT LANES.	NORTH-HARDY PLANNING STUDY (2005)	NOT SELECTED; PROVIDES TWO (2) ADDITIONAL HOT LANES AND TWO (2) GENERAL PURPOSE LANES ON IH 45. THE IH 45/HARDY CORRIDOR TRAFFIC STUDY RECOMMENDS FOUR (4) ADDITIONAL MANAGED LANES WITHIN THE PROJECT LIMITS. DOES NOT MEET NEED AND PURPOSE FOR PROJECT
6	WIDEN EXISTING	TWELVE (12) LANE SECTION - INCLUDES TEN (10) GENERAL PURPOSE LANES AND TWO (2) NON-BARRIER SEPARATED HOT LANES.	NORTH-HARDY PLANNING STUDY (2005)	NOT SELECTED; PROVIDES TWO (2) ADDITIONAL HOT LANES AND TWO (2) GENERAL PURPOSE LANES ON IH 45. THE IH 45/HARDY CORRIDOR TRAFFIC STUDY RECOMMENDS FOUR (4) ADDITIONAL MANAGED LANES WITHIN THE PROJECT LIMITS. DOES NOT MEET NEED AND PURPOSE FOR PROJECT
7	WIDEN EXISTING	TEN (10) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND TWO (2) BARRIER SEPARATED HOT LANES.	NORTH-HARDY PLANNING STUDY (2005)	NOT SELECTED; ONLY PROVIDES TWO (2) ADDITIONAL LANES ON IH 45. THE IH 45/HARDY CORRIDOR TRAFFIC STUDY RECOMMENDS FOUR (4) ADDITIONAL LANES WITHIN THE PROJECT LIMITS. IN ADDITION, THIS ALTERNATIVE DOES NOT PROVIDE SUFFICIENT SHOULDER WIDTHS FOR THE IH 45 CORRIDOR. DOES NOT MEET NEED AND PURPOSE FOR PROJECT.
8	WIDEN EXISTING	TEN (10) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND TWO (2) NON-BARRIER SEPARATED HOT LANES.	NORTH-HARDY PLANNING STUDY (2005)	NOT SELECTED; ONLY PROVIDES TWO (2) ADDITIONAL LANES ON IH 45. THE IH 45/HARDY CORRIDOR TRAFFIC STUDY RECOMMENDS FOUR (4) ADDITIONAL MANAGED LANES WITHIN THE PROJECT LIMITS. DOES NOT MEET NEED AND PURPOSE FOR PROJECT.
9	WIDEN EXISTING	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND TWO (2) REVERSIBLE MANAGED LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	NOT SELECTED; ONLY PROVIDES TWO (2) ADDITIONAL REVERSIBLE LANES ON IH 45. THE IH 45/HARDY CORRIDOR TRAFFIC STUDY RECOMMENDS FOUR (4) ADDITIONAL MANAGED LANES WITHIN THE PROJECT LIMITS. DOES NOT MEET NEED AND PURPOSE FOR PROJECT.
10	WIDEN EXISTING	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) MANAGED LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY 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 CENTER.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
12	WIDEN EXISTING WITH ELEVATED MANAGED LANES	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) ELEVATED MANAGED LANES ON DOUBLE DECKER STRUCTURE AT CENTER.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
13	WIDEN EXISTING WITH ELEVATED MANAGED LANES	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) ELEVATED MANAGED LANES ON TWO (2) SEPARATE STRUCTURES ON LEFT AND RIGHT SIDES OF CENTERLINE.	IH 45N ALTERNATIVES ANALYSIS (2012)	NOT SELECTED; PROXIMITY OF ELEVATED STRUCTURES TO EXISTING RESIDENTIAL PROPERTIES
14	ADD TUNNEL TO EXISTING	TUNNELED ROADWAY UNDERNEATH IH 45. INCLUDES FOUR (4) MANAGED LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
15	ADD DIRECT CONNECTOR	ADDITION OF DIRECT CONNECTORS ALONG IH 610 CORRIDOR FROM IH 45 TO HARDY TOLL RD. INCLUDES FOUR (4) MANAGED LANES. THIS ALTERNATIVE ALSO INCLUDES WIDENING OF HARDY TOLL ROAD TO PROVIDE ONE ADDITIONAL LANE INBOUND AND OUTBOUND.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE

NORTH HOUSTON HIGHWAY IMPROVEMENT PROJECT - UNIVERSE OF ALTERNATIVES (SEGMENT 3 - DOWNTOWN LOOP SYSTEM)				
ALTERNATIVE NO.	ALTERNATIVE TYPE	DESCRIPTION	PREVIOUS STUDY/REPORT	COMMENTS
1	EXISTING CONFIGURATION	NO BUILD	N/A	NO BUILD SCENARIO
2	TSM UPGRADES	TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PROJECTS	N/A	UPGRADE FACILITY WITH PLANNED TSM PROJECTS
3	CONVERT DOWNTOWN LOOP TO ONE WAY LOOP	CONVERT EXISTING DOWNTOWN LOOP ROADWAY NETWORK TO A ONE-WAY LOOP.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
4	ADD TUNNEL TO EXISTING	TUNNELED ROADWAY UNDERNEATH LA BRANCH ST AND TERMINATES AT THE US 59/SH 288 INTERCHANGE. INCLUDES FOUR (4) MANAGED LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
5	ADD TUNNEL TO EXISTING	TUNNELED ROADWAY UNDERNEATH IH 45, THEN CONTINUES UNDERNEATH BAGBY ST AND TERMINATES AT SPUR 527. INCLUDES FOUR (4) MANAGED LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
6	ADD TUNNEL TO EXISTING	TUNNELED ROADWAY UNDERNEATH IH 45, THEN CONTINUES TO JEFFERSON ST AND TERMINATES AT IH 45 SOUTH OF THE IH 45/US 59 INTERCHANGE. INCLUDES FOUR (4) MANAGED LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
7	ADD TUNNEL TO EXISTING	TUNNELED ROADWAY UNDERNEATH HOUSTON AVE AND SPLITS TO JEFFERSON ST AND BAGBY ST. TUNNEL TERMINATES AT IH 45 SOUTH OF THE IH 45/US 59 INTERCHANGE AND SPUR 527. INCLUDES FOUR (4) MANAGED LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE
8	ELEVATED MANAGED LANES	ELEVATED ROADWAY ALONG HOUSTON AVE AND TERMINATES AT IH 45 NEAR ALLEN PARKWAY. INCLUDES FOUR (4) MANAGED LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	NOT SELECTED; PROXIMITY OF ELEVATED STRUCTURES TO EXISTING RESIDENTIAL PROPERTIES
9	ADD TUNNEL TO EXISTING	UTILIZES EXISTING IH 10 HOV BRIDGE INTO DOWNTOWN AND THEN BECOMES TUNNELED ROADWAY UNDERNEATH IH 45 AND JEFFERSON ST AND TERMINATES AT IH 45 SOUTH OF THE IH 45/US 59 INTERCHANGE. INCLUDES FOUR (4) MANAGED LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	NOT SELECTED; LOW DEMAND FOR THIS ROUTE PER TRAVEL DEMAND MODEL
10	WIDEN EXISTING	EIGHT (8) LANE SECTION FROM IH-10 TO IH 45/US 59 INTERCHANGE INCLUDES EIGHT (8) GENERAL PURPOSE LANES.	IH 45N ALTERNATIVES ANALYSIS (2012)	SELECTED AS PRELIMINARY ALTERNATIVE

 SELECTED AS PRELIMINARY ALTERNATIVES