

DRAFT STAFF RECOMMENDATION REPORT

E: US 290 Area Major Thoroughfare Study

APPLICANT: Harris County Engineering Department

KEY MAP:
JURISDICTION: Harris County

LAMBERT:
DISTRICT/PRECINCT:

PROPOSAL:

Update of the major thoroughfare grid in the area bounded by the northern Harris County line, the western Harris County line, the Katy Freeway to south, and S.H. 99 (Grand Parkway) to the east.

Case No.	Street	Street Segment	Request Action	Request Justification / Summary
E-1	Hegar Rd	Stokes Rd/ Field Store Rd to north Waller County Line	DELETE / COORDINATE	DELETE Hegar Rd segment within Harris County/Houston ETJ to avoid two major bridge structures within a 1/2 mile; to ensure viable East/West connection, coordinate with Waller County on realignment of Hegar Rd between Kickapoo Rd and Field Store Rd in Waller County north of Spring Creek
E-2	Mayer Rd	west Waller County Line to Stokes Rd	REALIGN	REALIGN to remove +/-250 jog in existing paving
E-3	Kermier Rd	Waller Spring Creek Rd to Castle Rd / Waller County Line	DELETE	DELETE to avoid two major bridge structures within a 1/2 mile and to avoid currently proposed major intersection directly over Spring Creek; to ensure viable north-south connections along Spring Creek, prioritization of bridge crossings is necessary; coordinate with Waller County
E-4	Badtke Rd	FM 2920 to Waller County Line	DELETE	DELETE to avoid approx. +/-2,000' of physical constraints between Spring Creek floodway and HL&P easement
E-5	Castle Rd / Magnolia Rd	Kickapoo Rd to Kermier Rd	REALIGN	REALIGN to maintain current paving with +/- 1,660' intersection jog on Kickapoo Rd (remove reverse-curve alignment from the map)
E-6	Waller Spring Creek Rd / Owens Rd	FM 362 to City of Houston ETJ	WITHDRAWN	WITHDRAWN

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E-7	Waller Spring Creek Rd / Owens Rd	City of Houston ETJ to Kickapoo Rd	WITHDRAWN	WITHDRAWN
E-8	Cypress Hill Rd	Juergen Rd to Grant Rd	REALIGN	REALIGN to turn west and connect to Mueschke Rd south of Bauer Hockley Rd (within Tomball ISD property)
E-9	Binford Rd	Hempstead Hwy to Burton Cemetery Rd	DELETE	DELETE due to lack of railroad crossing for connection to Hempstead Hwy
E-10	Betka Rd	Warren Ranch Rd to Badtke Rd	REALIGN	REALIGN Betka Rd between Warren Ranch Rd and Badtke Rd, to tee into Badtke Rd further south for an increased distance from the US 290 interchange
E-11	Baethe Rd	Warren Ranch Rd to Badtke Rd	WITHDRAWN	WITHDRAWN
E-12	Betka Rd	Katy Hockley Rd to Becker Rd	ADDITION	ADDITION to connect Betka Rd realignment (see Amendment 7) with Mound Rd (see Amendment 8B), to enhance the east-west connectivity south of US 290
E-13	Mound Rd	Katy Hockley Rd to Becker Rd	REALIGN	REALIGN Mound Rd east of Katy Hockley Rd to create a T-intersection with Betka Rd (see Amendment 8A)
E-14	Binford Rd	Burton Cemetery Rd to Mound Rd / Roehen Rd	DELETE	DELETE roadway within the Little Mound Creek & Mound Creek floodway / floodplain areas
E-15	Binford Rd	Mound Rd / Roehen Rd to Jack Road (cross Waller County Line)	DELETE	DELETE where existing alignment traverses through +/-10,000 of Mound Creek floodway and floodplain and cannot be realigned due to physical constraints regarding creek and existing development
E-16	Smalley Rd	Mound Rd / Kickapoo Rd to Binford Rd (cross Waller County Line)	DELETE	DELETE where current alignment traverses across an existing neighborhood
E-17	Smalley Rd	Mound Rd / Kickapoo Rd to Warren Ranch Rd	DELETE	DELETE where existing alignment impacts environmentally sensitive area controlled by the Katy Prairie Conservancy
E-18	UNNAMED (Kermier Rd)	Mound Rd to Sharp Rd / West Rd	DELETE	DELETE where existing alignment traverses +/- 6 mile stretch through the Cypress Creek floodway / floodplain and environmentally sensitive area controlled by the Katy Prairie Conservancy
E-19	UNNAMED (Warren Ranch Rd / Pitts Rd)	Jack Rd to Longenbaugh Rd	DELETE	DELETE where existing alignment traverses the Cypress Creek floodway / floodplain and environmentally sensitive area controlled by

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				the Katy Prairie Conservancy
E-20	UNNAMED (Badtke Rd)	Mound Rd to Sharp Rd / West Rd	DELETE	DELETE where existing alignment traverses the Cypress Creek floodway / floodplain and environmentally sensitive area controlled by the Katy Prairie Conservancy
E-21	Louetta Rd	Badtke Rd to Katy Hockley Rd	DELETE	DELETE where existing alignment traverses environmentally sensitive area controlled by Katy Prairie Conservancy
E-22	Jack Rd	Binford Road to Kermier Rd (cross Waller County Line)	REALIGN	REALIGN to minimize the impact of physical constraints created by the existing floodway / floodplain
E-23	UNNAMED	Binford Road to Kermier Rd (cross Waller County Line)	DELETE	DELETE where existing alignment traverses through the Cypress Creek floodway / floodplain and environmentally sensitive area controlled by the Katy Prairie Conservancy
E-25	UNNAMED (Hebert Rd)	Existing Hebert Road to Katy Hockley Rd (cross Waller County Line)	DELETE	DELETE where existing alignment traverses through the Cypress Creek floodway / floodplain and environmentally sensitive area controlled by the Katy Prairie Conservancy (see Amendment 25)
E-26	Kickapoo Rd / Mound Rd	Sharp Rd to Hebert Rd	REALIGN	REALIGN to intersect existing Hebert Rd / Sharp Rd at a right angle in coordination with Waller County; coordinate with Waller County to delete segments traversing the Cypress Creek floodway / floodplain and environmentally sensitive area controlled by the Katy Prairie Conservancy
E-27	Sharp Rd	Tuckerton Rd / Sharp Rd to West Rd / Sharp Rd	ADDITION	ADDITION of existing Sharp Rd paving segment as Minor Collector (see Amendment 50)
E-28	West Rd / Sharp Rd	Pitts Rd to Katy Hockley Rd	REALIGN	REALIGN segment to connect to Pitts Rd further south, at proposed intersection with Longenbaugh Rd / Morrison Rd (see Amendments 51 and 52)
E-29	Pitts Rd	Longenbaugh Rd to Hwy 529	REALIGN	REALIGN to straighten proposed intersection with West Rd. (See Amendment 50 and 52)
E-30	Longenbaugh Rd	Katy Hockley Rd to Pitts Rd	REALIGN	REALIGN to straighten intersection with Pitts Rd in conjunction with Amendment 50 and 51
E-31	Bartlett Rd	West Rd / Sharp Rd to Longenbaugh Rd	DELETE	DELETE due to 1/2 mile of existing physical constraints due to the existing floodway / floodplain
E-32	West Rd / Sharp Rd	Pitts Rd to Kickapoo Road / Schlipf Road (cross Waller County Line)	DELETE	DELETE where existing alignment traverses the Cypress Creek floodway / floodplain and environmentally sensitive area controlled by the Katy Prairie Conservancy

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E-33	Porter Rd	Sharp Rd / Tuckerton Rd to West Rd	DELETE	DELETE where current alignment bisects proposed and existing detention basins within John Paul's Landing Park
E-34	Porter Rd	West Rd to Longenbaugh Rd	DELETE	DELETE where current alignment bisects +/- 5000' of floodway / floodplain and overflow and requires a major creek crossing that would mainly serve undevelopable land
E-35	Beckendorff Rd	Katy Hockley Cut- Off Rd to Porter Rd	DELETE	DELETE due to 1/2 mile of existing physical constraints due to the existing floodway / floodplain.
E-36	Jack Rd	Grand Parkway to Mason Rd	DELETE	DELETE segment that intersects with the Grand Parkway that lacks an existing or future interchange or grade separation.
E-37	Fairfield Place	Louetta Rd to Jack Rd	DELETE	DELETE remainder segment in conjunction with Amendment 29
E-38	Field Store Road	Castle Rd to Waller Spring Creek Rd	WITHDRAWN	WITHDRAWN

APPLICANT'S JUSTIFICATION and HISTORY:

The US 290 Area Major Thoroughfare Study area is located in the northwest region of the Greater Houston Metropolitan Area. The greater study area is roughly 400 square miles of largely undeveloped tracts spanning three counties (Harris, Montgomery, and Waller) and is comprised of approximately 256,000 total acres. This area is generally between the northern Harris County Line, the western Harris County line, the Katy Freeway to south, and S.H. 99 (Grand Parkway) to the east. The core study area, which is the focus of the Study, is located only within Harris County and is limited by FM 529 on the south.

The Houston Major Thoroughfare and Freeway Plan (MTFP) was originally adopted in 1942. The original street network prescribed a one-mile grid system of major thoroughfares and the overall Houston MTFP has undergone many refinements in the areas that have since developed. The study area was incorporated into the Houston MTFP in 1966; however, due to limited development in this region, the thoroughfare network in the study area has not been adjusted since it was initially established. Development activity on the fringes of the study area is increasing, which has prompted the need for a comprehensive regional study of the thoroughfares within the area.

The US 290 Area Major Thoroughfare Study represents the most significant proposed amendment to the City of Houston's Major Thoroughfare and Freeway Plan since the area was included in Houston's ETJ in 1966, fifty years ago. A collection of thirty-three segments within Harris County and the City of Houston's ETJ are proposed to be amended to reflect the findings of the US 290 Area Major Thoroughfare Study. These findings are described in detail in the final study report, which can be found on Harris County's website at:

<http://www.eng.hctx.net/US290-Area>.

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STAFF RECOMMENDATION

P&D staff recommends the approval of all of the applicant's amendment requests, with the exception of the following two amendments:

E-5: Castle Road/Magnolia Road

Staff Recommendation:

- DISAPPROVE applicants request to realign Castel Road/ Magnolia Road at Kickapoo Road to create two T-intersections along Kickapoo Road.
- APPROVE the addition of Magerstadt Road as a two-lane, 60-foot ROW Minor Collector (MN-2-60) between proposed major thoroughfares Castle Road/Magnolia Road and Kickapoo Road.

The applicant is requesting an amendment for Castle Road/Magnolia Road which would realign with the Magnolia Road Major Thoroughfare to create a "T" intersection with Kickapoo Road, instead of connecting to major thoroughfares Castle Road at Kickapoo Road, as it currently does in the 2015 MTFP. A number of north south thoroughfares are proposed to be deleted due to the wide floodway and floodplain along Spring Creek. With the proposed amendment to realign Mayer Road/Hegar Road to avoid a crossing with Spring Creek (E-1) to the north of this amendment, the additional request of a realignment of Castle Road/Magnolia Road would leave a large gap between continuous east-west Major Thoroughfares in this section of Harris County and Waller County. Continuous east-west connectivity is already limited in the area due to existing creeks and waterways and the diagonal alignment of US 290.

For this amendment, staff recommends denying the applicants request and approving the proposed alternative, thus maintaining the current Castle Road/Magnolia Road Major Thoroughfare alignment and adds a new Minor Collector (MN-2-60) along existing Magerstadt Road between Castle Road/Magnolia Road and Kickapoo Road.

E-8: Cypress Hill Road

Staff Recommendation:

DISAPPROVE applicants request to realign Cypress Hill Road between Jurgen Road and Grant Road.

There is currently a 1.8 mile gap between north-south major thoroughfares in the area around the proposed Cypress Hill Road amendment. Due to existing development, there is limited opportunity for local street circulation in the area. Realigning the current north-south Cypress Hill Road Major Collector to extend west before it reaches the proposed Grant Road Major Thoroughfare will eliminate the opportunity for a continuous north-south connection. Therefore staff recommends denying the applicants request for Cypress Hill Road.

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Justification:

The proposed amendment package, based on Harris County's US-290 Area Major Thoroughfare Study, removes a number of major thoroughfares in the study area and realigns others in an effort to minimize impact to existing conservation lands and waterways, while also maintaining a thoroughfare grid network to provide the necessary east-west and north-south mobility in this section of Harris County. Harris County's proposal in the Katy Prairie Conservancy area west of the Grand Parkway utilizes existing roadways and provides direct connections to existing interchanges at the Grand Parkway. The removal of a number of east-west and north-south major thoroughfares through KPC's conservation lands creates a thoroughfare grid that is comparable to the thoroughfare grids found in other important park and reservoir lands within the City of Houston and Harris County, including Addicks and Barker Reservoirs.

It is staff's analysis, that the alternative plan created based on KPC's public comments, which would delete additional Major Thoroughfares and convert existing roads on KPC's properties to Minor Collectors, is too drastic of a change to the major thoroughfare grid at the present time. The deletion of thoroughfare segments along east-west Mound Road, Sharp Road, and West Road/Morrison Road would open up a 9.1 mile gap between continuous east-west major thoroughfares Baethe Road to the north of KPC and FM 529 to the south of KPC. (It is 9.5 miles on SH 6 between IH 10 and US 290.) In the same way, the deletion of north-south Kickapoo Road/Mound Road would open up a 5.9 mile gap between continuous north-south major thoroughfares Mathis Road to the west of KPC and Katy Hockley Road to the east of KPC. (It is 6.3 miles on Sam Houston Tollway between IH 10 to US 290.) At the present time, staff trusts that the extent of the additional deletions in the proposed alternative could potentially have a far greater impact on future mobility and development patterns in the surrounding areas. Waller County is in the process of conducting a Mobility Study that would provide the City and Harris County a better understanding of the County mobility needs in the future. One outcome of that study could require the City to reevaluate the thoroughfare network in this part of Harris County. Any additional deletions and alterations to the major thoroughfare network in the general expanding KPC area should be analyzed once the City and counties have better understandings of regional drainage, development and transportation needs while taking into consideration potential impacts on the KPC properties. Amendments could also be considered in the future, based on future shifts and changes in development patterns and/or changes to KPC's conservation properties holdings.

Therefore, staff recommends the approval of the MTFP amendment package requested by the applicant based on the US 290 Area Major Thoroughfare Study, with the exception of the Castle Road/Magnolia Road amendment (E-5) and the Cypress Hill Road amendment (E-8).

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STAFF ANALYSIS:

Potential Alternatives:

Katy Prairie Alternative

P&D staff received comments from the Katy Prairie Conservancy (KPC) on certain MTFP amendment requests submitted by Harris County as part of the US 290 Area Major Thoroughfare Study. KPC is concerned about proposed major thoroughfares which intersect their conservation properties in the area immediately west of the Grand Parkway. See the proposed Harris County thoroughfare deletions in **Exhibit 1** and the proposed Harris County thoroughfare grid in **Exhibit 2** below.

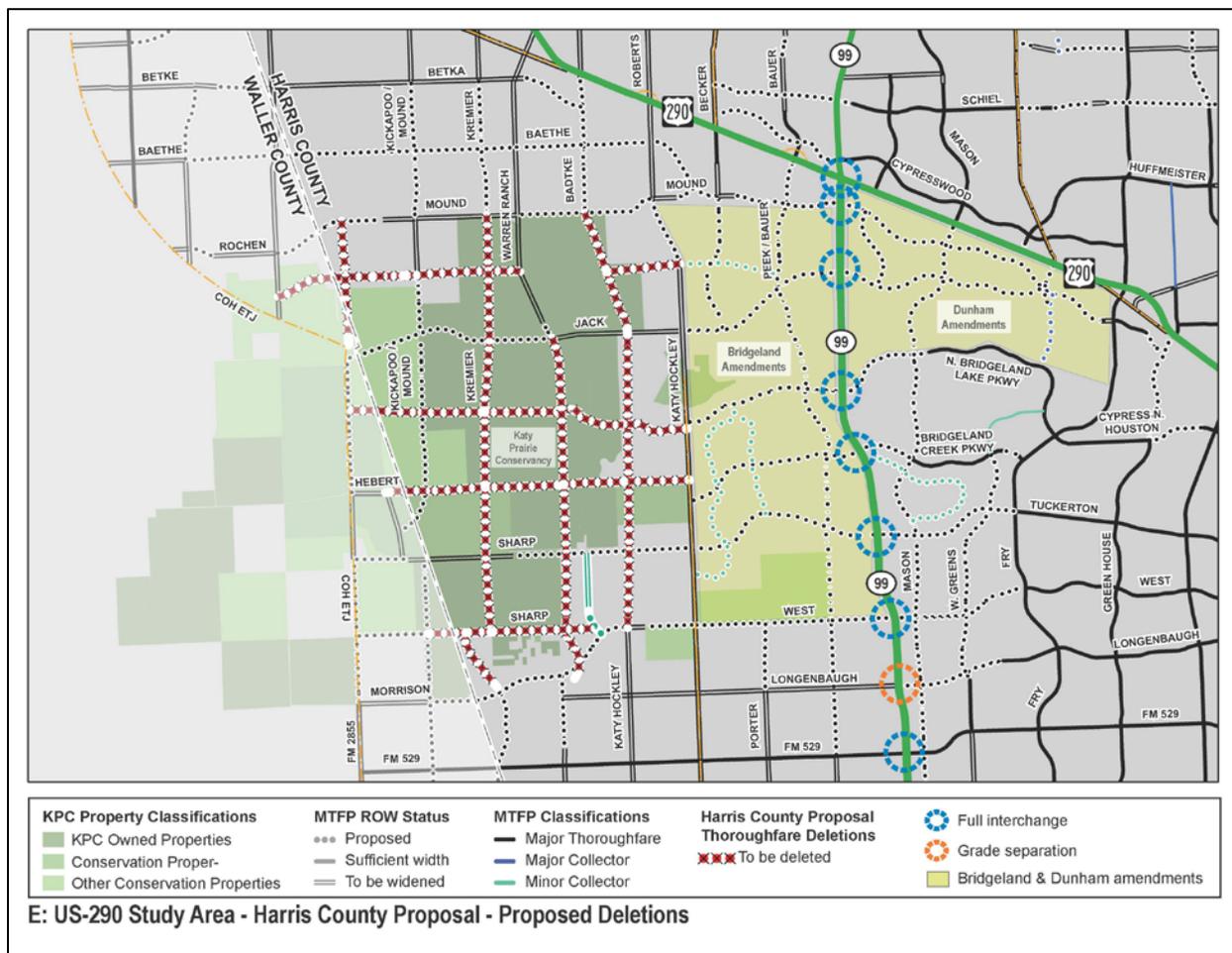


Exhibit 1

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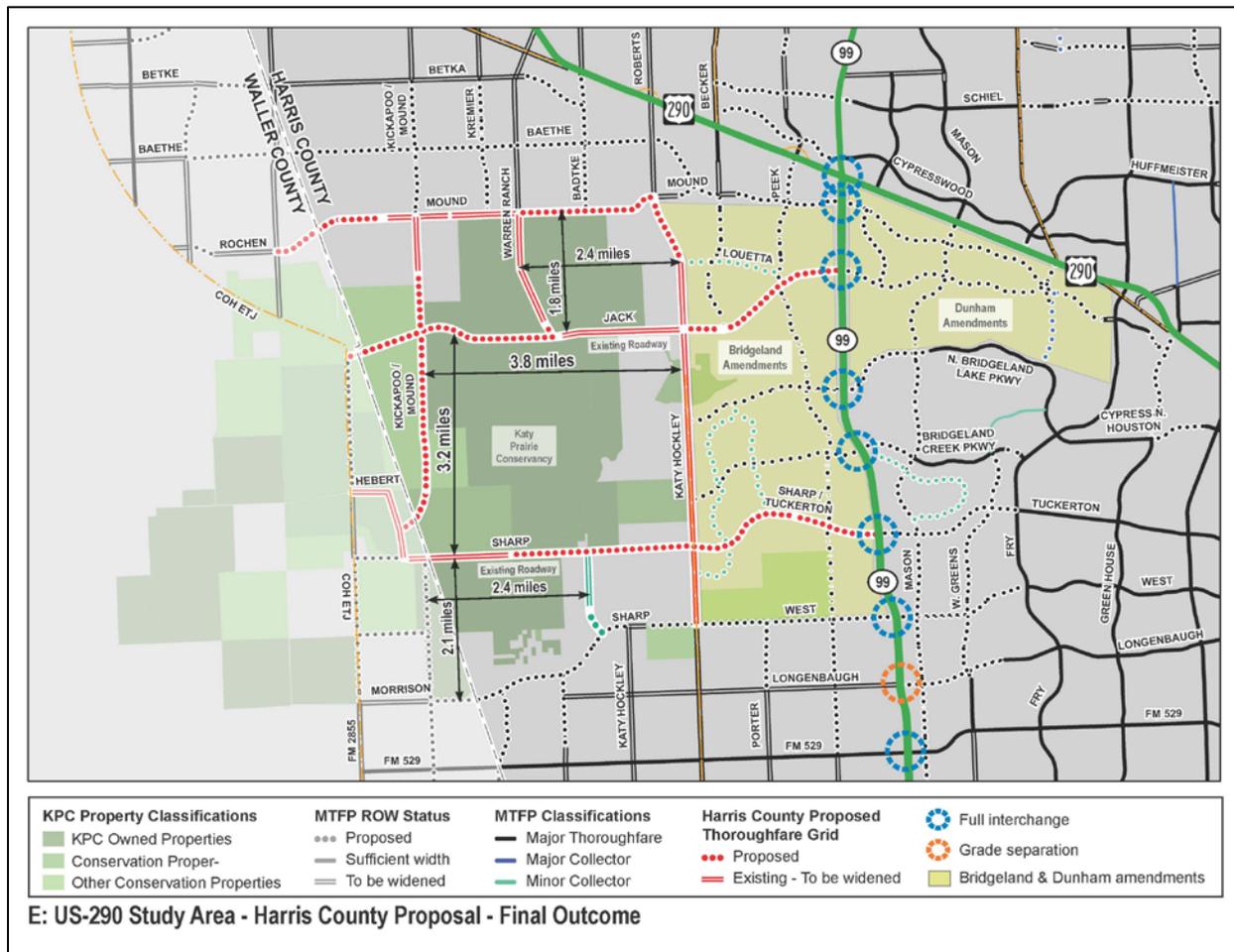


Exhibit 2

Based on KPC's comments, P&D had added an alternative reflecting this request with the Harris County amendment area. This "Katy Prairie Conservancy Alternative" eliminates the majority of existing major thoroughfare alignments in the KPC property area bounded by Mound Road to the north, Longenbaugh Road to the south, Katy Hockley Road to the east, and the Harris County boundary line to the west. Key existing roadways left that provide circulation in the area are proposed to be classified as Minor Collectors, to maintain existing circulation to and through the KPC properties. **Exhibit 3** shows Harris County's proposed thoroughfare deletions in orange and the additional thoroughfare deletions proposed by KPC in red, with the remaining teal lines being existing roads to be classified as Minor Collectors. **Exhibit 4** shows the final outcome of the proposed alternative.

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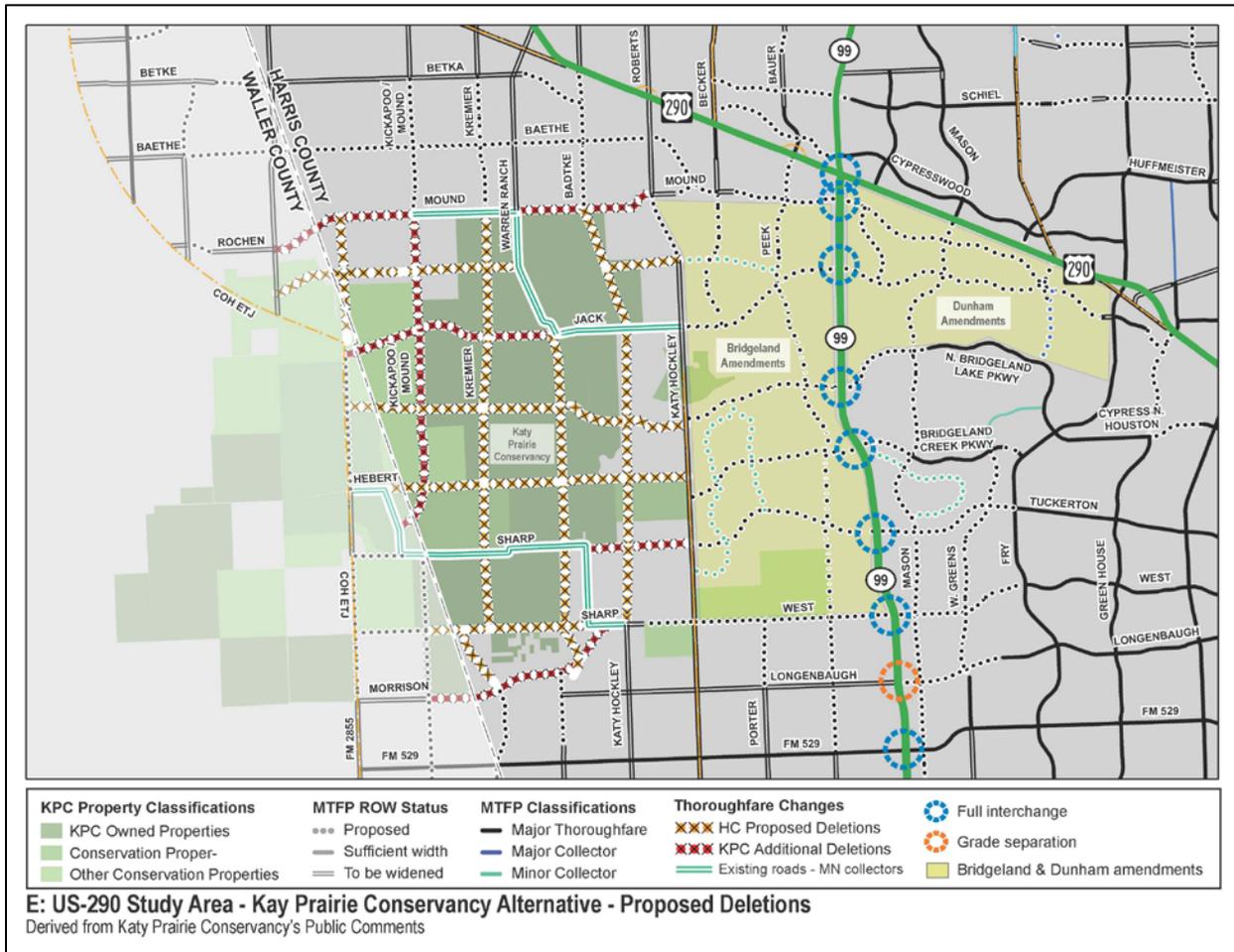


Exhibit 3

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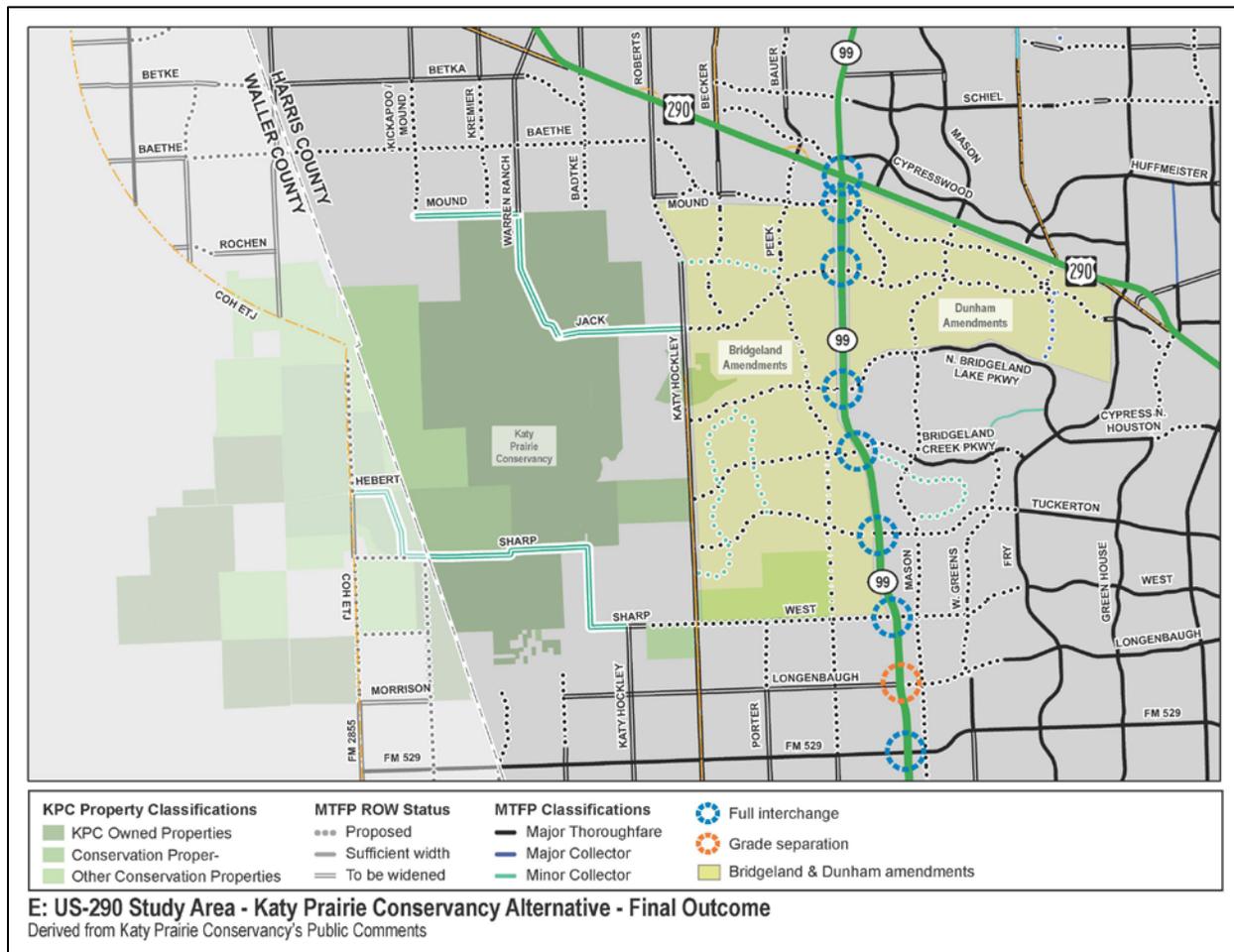


Exhibit 4

E-5: Castle Road/Magnolia Road:

In addition to the proposed alternative based on KPC's comments, P&D is also proposing an alternative for the E-5 Castle Road/Magnolia Road MTFP amendment. Major Thoroughfare Castle Road is proposed to align with Major Thoroughfare Magnolia Road in Waller County. The proposed alternative maintains the current major thoroughfare alignment for Castle Road/Magnolia Road, and classifies existing Margerstadt Road as a Minor Collector (MN-2-60). The proposed alternative will preserve 60' ROW along existing Margerstadt Road, while maintaining east west regional circulation provided by major thoroughfare Castle Road/Magnolia Road across Spring Creek without an offset interaction at Kickapoo Road. See **Exhibit 5** below.

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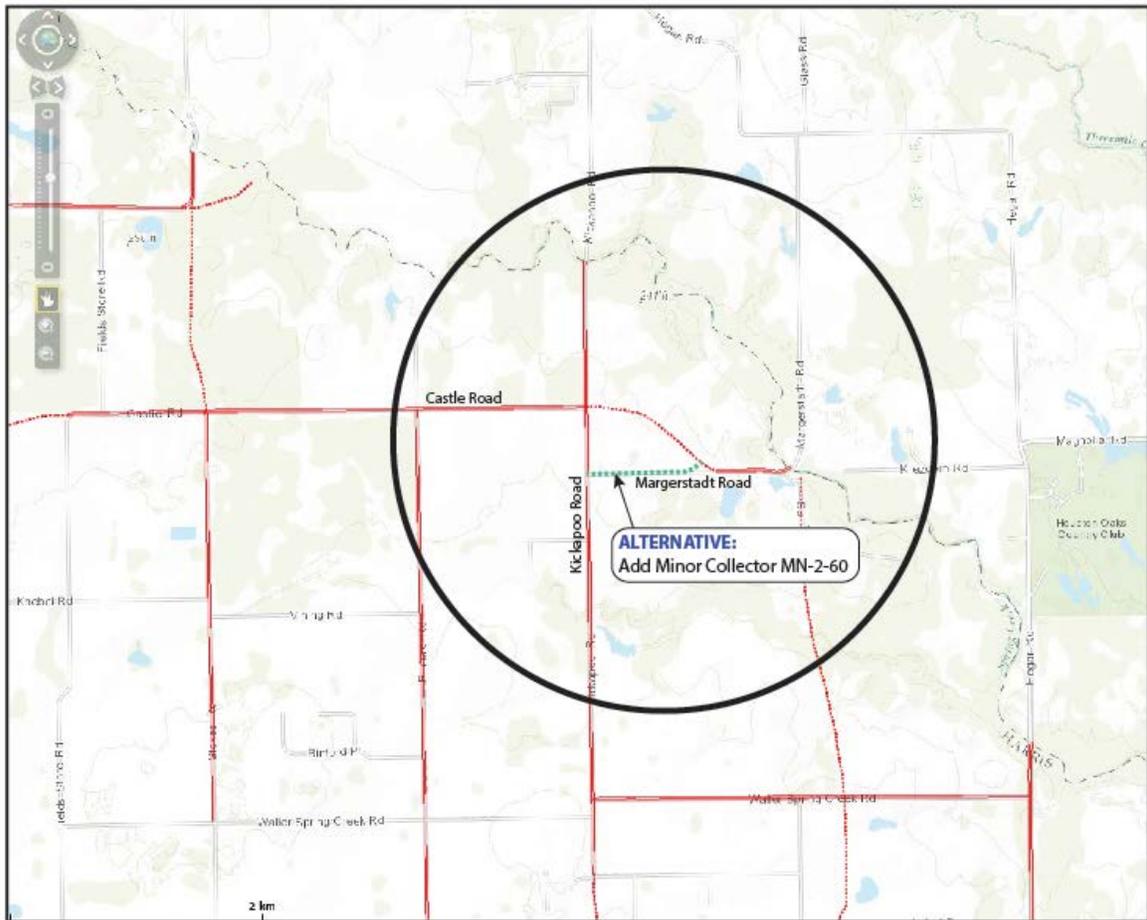
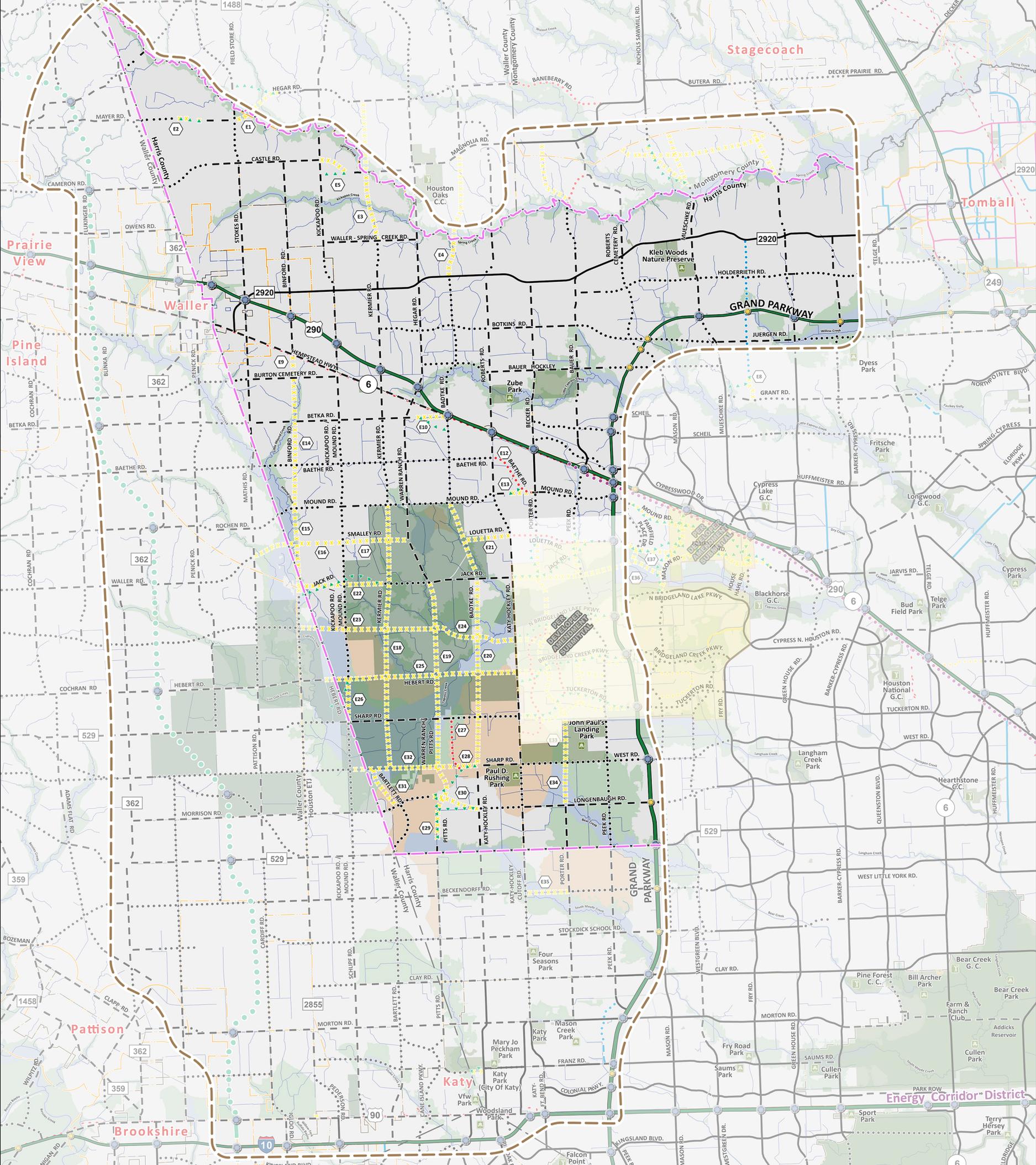


Exhibit 5



US 290 AREA MAJOR THOROUGHFARE STUDY

Core Study Area Boundary	100 Year Floodplain	Proposed Deletion	Full Interchange
Study Area Boundary	Floodway	Proposed Addition	Grade Separation
County Line	Over Flow	Proposed Realignment	Existing Thoroughfare To Be Widened
City Limits	Parks/Open Space	Existing Railroad	Existing Thoroughfare To Be Widened
ETJ	Katy Prairie Conservancy	Proposed Hemstead Tollway	Existing Minor Collector To Be Widened
Parks		Proposed Thoroughfare	Existing Minor Collector To Be Widened
		Proposed 36A Freeway	Proposed Minor Collector

MAP: PROPOSED AMENDMENTS

PREPARED BY BGE CONSULTANTS ASSOCIATES

DATE: 10/20/2011

SCALE: 1" = 1/2 MILE