

Dallas to Houston High-Speed Rail

Final Environmental Impact Statement

ERRATA AND UPDATED INFORMATION

FRA has identified several statements in the Final Environmental Impact Statement (EIS) which require correction or clarification. In addition, FRA is providing new and/or updated information from the release of the Final EIS. This updated information and/or minor corrections to language within the Final EIS, are not considered significant, and do not change the analysis or conclusions of the Final EIS. This information does not trigger the need to prepare a supplement, per the requirements of the U.S. Council on Environmental Quality National Environmental Policy Act regulations (40 CFR 1502.9(c)(1)).

Location/Section in Final EIS	Page in Final EIS	Issue	Correction or Update
ES.2, Executive Summary, Description of Project and 2.2.1, Alternatives Considered, Technology	ES-3 and 2-1	Correction provided by TCRR on safety record for Tokaido Shinkansen HSR lines.	<p><i>Text is corrected as shown:</i></p> <p>The Project includes the deployment of an electric-powered HSR system based on Central Japan Railway Company's Tokaido Shinkansen system. Accident statistics are not available for systems operating technology comparable to the Project; however, Japan's Tokaido Shinkansen HSR, which operates a similar technology, has had no passenger fatalities resulting from a trainset accident, such as a derailment or collision, since the service began over 50 years ago.^{8,9} The technology has a proven safety record with only one <u>three</u> earthquake-related derailments since the service began, which resulted in no passenger injuries.</p> <p><small>⁸ The only injuries and/or fatalities reported in association with the Tokaido Shinkansen HSR system was <u>were related to another single passenger's</u> suicide by self-immolation on June 30, 2015. This instance is unrelated to the design, operation and overall safety of the system. BBC News Online, "Japan bullet train passenger 'self-immolation' fire kills two," June 30, 2015, accessed November 2019, https://www.bbc.com/news/world-asia-33322794.</small></p>
ES.4 Alternatives Analysis and 2.5.3 Initial Trainset Maintenance Facility Alternatives	ES-10 and 2-38	Clarification was added to better explain Dallas TMF location identification.	<p><i>Text is clarified as shown:</i></p> <p>TCRR proposed two locations for the TMF in Dallas County, the Dallas North TMF and Dallas South TMF. The Dallas North TMF site would be located north of IH-20 within the City of Dallas, about 7.5 miles from the Dallas Terminal Station. The Dallas South TMF site would be located north of Belt Line Road, approximately 12 miles from the Dallas Terminal Station. The Dallas South TMF would require an additional MOW facility between the TMF and the Dallas Terminal Station, while the Dallas North TMF site would not. For the Draft EIS, FRA evaluated these Dallas locations. However, TCRR's ongoing coordination with stakeholders indicated that the Dallas International Intermodal Terminal¹ and related developments in south Dallas have continued to progress since the release of the Draft EIS. Because of</p>

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			<p>these ongoing developments, TCRR identified the North location for the Dallas TMF, because it would better integrate with the City of Dallas infrastructure determined that the Dallas South TMF site was not a viable option for the Project, as indicated in Section 2.5.4, Engineering Refinements. Both the Dallas North and South TMF sites based on TCRR’s updated Project LOD are assessed in this Final EIS.</p> <p>_____</p> <p>³ The City of Dallas invested into the infrastructure of the International Inland Port of Dallas, which includes the Dallas International Intermodal Terminal and other public-private partnerships. https://www.dallasecodev.org/414/International-Inland-Port-of-Dallas</p>
<p>ES.6.2.3 General HSR Program Refinements and Optimizations and 2.5.4.1 Engineering Refinements between Draft and Final EIS</p>	<p>ES-14 and 2-44</p>	<p>Clarification was added to better explain Dallas TMF location identification.</p>	<p><i>Text is clarified as shown:</i></p> <p>Dallas TMF: The Draft EIS identified the Dallas South TMF site as the preferred location; however, following the publication of the Draft EIS the Dallas International Intermodal Terminal⁴ and related developments in south Dallas advanced and created conflicts with precluded the development of a TMF at the Dallas South TMF location. Therefore, TCRR identified the North location for the Dallas TMF, because it would better integrate with the City of Dallas infrastructure. Consequently, the Dallas North TMF is the only remaining viable location for the Dallas TMF.</p> <p>_____</p> <p>⁴ The City of Dallas invested into the infrastructure of the International Inland Port of Dallas, which includes the Dallas International Intermodal Terminal and other public-private partnerships. https://www.dallasecodev.org/414/International-Inland-Port-of-Dallas</p>
<p>1.0, Introduction</p>	<p>1-1</p>	<p>Clarification to complete text describing Tier II.</p>	<p><i>Text box is clarified as shown:</i></p> <p>Between 125 and 160 mph – Tier II trains are those operating in <u>shared ROW</u> at higher speed than 125 mph but not exceeding 160 mph.</p>
<p>1.1.3.2, Introduction, Surface Transportation Board</p>	<p>1-7</p>	<p>Updated information Surface Transportation Board decision on TCRR petition to reopen petition for exemption</p>	<p><i>As of the Final EIS, STB had not issued a ruling on TCRI and TCRR’s petition to reopen. STB’s most recent decision and the current status of the proceedings can be found online at www.stb.gov under docket number FD_36025. STB may use this EIS to support its compliance with NEPA should it undertake a major federal action relating to the Project.</i></p> <p><i>Updated information shown:</i></p>

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			<p>On July 16, 2020, the Surface Transportation Board (STB) issued a decision finding that the Dallas to Houston passenger rail line would be subject to STB jurisdiction, and denying TCRR's petition to exempt construction of the project from the STB's full application process under 49 U.S.C. § 10901. STB's decision states that TCRR would need to submit an application to obtain STB authority to construct and operate the project, and that TCRR would need to provide information on the financial feasibility of the project as part of that application.</p>
2.2.3.1, Alternatives Considered, Trainset Maintenance Facilities	2-13	Clarification was provided by TCRR regarding facilities.	<p><i>Text is clarified as shown:</i></p> <p>A <u>general overhaul facility</u> and a trainset <u>inspection</u> shed would be located at the TMF in Houston and an <u>inspection and maintenance</u> workshop would be located at the TMF in Dallas.</p>
2.2.3.2, Alternatives Considered, Maintenance of Way Facilities	2-13	Correction was provided by TCRR regarding facilities.	<p><i>Text is corrected as shown:</i></p> <p>In addition to the TMFs, there are seven <u>six typical</u> MOW facilities (five <u>four</u> standalone typical facilities and one <u>adjacent to</u> in each TMF) and a smaller MOW facility near Houston.</p>
2.2.4, Alternatives Considered, Traction Power Supply	2-15	Correction was provided by TCRR regarding facilities.	<p><i>Text is corrected as shown:</i></p> <p>These TPSSs would reduce the electric voltage from 138 kV to <u>30 kV (25 kV nominal)</u>.</p>
2.2.5, Alternatives Considered, Proposed HSR Operations and	2-17 and 3.1-18	Correction was provided by TCRR regarding operations.	<p><i>Text is corrected as shown:</i></p> <ul style="list-style-type: none"> Hours of operation from 5:30 AM to 11:30 PM. Daily maintenance and <u>MOW</u> fleet movement would occur when the HSR line would not be in operation

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3.1.2.1.2, General Organization for Analysis, Design and Operating Characteristics Assumptions			
3.7.6.2, Waters of the U.S., Mitigation Measures	3.7-50	Based on public comments on the Final EIS, WW-MM#1 was updated to clarify mitigation credit availability.	<p><i>Text regarding Greens Bayou – Harris (Segment 5) in Table 3.7-81 is clarified as shown:</i></p> <p><u>Greens Bayou Wetlands Mitigation Bank (GBWMB) is a Harris County-owned wetlands mitigation bank and credits are reserved for projects by Harris County. Credits would only be available for the Project with Harris County Commissioner’s Court approval.</u></p>
3.8.2, Floodplains, Regulatory Context	3.8-5 to 3.8-7	Dates of referenced floodplain development documents were incorrect in Table 3.8.2 and various footnotes.	<p><i>Cited source dates for Table 3.8-2 and referenced footnotes are corrected as shown:</i></p> <ul style="list-style-type: none"> • ³¹ City of Dallas, “Floodplain and Escarpment Zone Regulations Article V Division 51A-5.100,” Dallas, Texas: City of Dallas, n.d. City of Houston. “Rules and Regulations for Chapter 19, Guidelines Houston City Code: Floodplain,” City of Houston, February 1, 2009. • ³² Harris County, “Regulations of Harris County, Texas for Flood Plain Management,” January 1, 2018 <u>July 9, 2019.</u> • ³³ City of Houston, “Rules and Regulations for Chapter 19, Guidelines Houston City Code: Floodplain,” City of Houston, February 1, 2009 <u>September 1, 2018.</u> • ³⁶ Harris County, “Regulations of Harris County, Texas for Flood Plain Management,” January 1, 2018 <u>July 9, 2019.</u> • ³⁸ City of Houston, “Rules and Regulations for Chapter 19, Guidelines Houston City Code: Floodplain,” City of Houston, February 1, 2009 <u>September 1, 2018</u> and Harris County, “Regulations of Harris County, Texas for Flood Plain Management,” January 1, 2018 <u>July 9, 2019.</u>

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3.8.2, Floodplains, Regulatory Context	3.8-6	More recent floodplain development documents were available and guidance cited was outdated.	<p><i>Text is corrected as shown:</i></p> <p>The City of Houston requires that structures constructed in the SFHAs be elevated to at least the minimum flood protection <u>elevation or be floodproofed to the minimum flood protection elevation, measured at the lowest floor, which is equal to the base flood elevation plus 24 inches.</u> In Zone AO, structures shall have the lowest floor elevated above the highest adjacent grade at least two feet above the depth number specified in feet on the FIRM, at least three feet above the highest adjacent grade where no depth number is specified, or be completely floodproofed to or above that level.³⁶ the lowest floor shall be elevated at least 36 inches above the depth number in feet specified on the FIRM and in Zone A, where no depth number is specified, the lowest floor shall be elevated at least 6 feet above the highest adjacent grade (natural ground).</p>
3.8.2, Floodplains, Regulatory Context	3.8-7	More recent floodplain development documents were available and guidance cited was outdated.	<p><i>Text is corrected as shown:</i></p> <p><u>Within Harris County, the lowest horizontal sill, beam or member supporting a structure constructed within a floodway must be elevated to at least 36 inches above the 500-year flood elevation, structures shall be elevated on posts or pilings so that the entire structure is 36 inches above the 500-year flood elevation and fill may not be used to elevate the structure. Structures constructed within a floodway must be elevated to 18 inches or more above the base flood elevation.</u>³⁸</p>
3.8.2, Floodplains, Regulatory Context	3.8-8	More recent floodplain development documents were available and guidance cited was outdated.	<p><i>In Table 3.8-3, the Harris County Flood Control District Policy and Criteria Manual detention requirements are corrected as shown:</i></p> <p>Update Harris County Flood Control District Policy and Criteria Manual Row to “Design new detention facilities to detain the <u>Atlas 14, 50%, 10% and 1% exceedance probability, 24-hour storm events for existing proposed and ultimate project drainage areas and proposed watershed conditions</u>”</p>
3.8.6.1, Floodplains, Compliance Measures	3.8-29	Based on public comments on the Final EIS, FP-CM#3 was updated to clarify TCRR responsibilities.	<p><i>Text is updated as shown:</i></p> <p>FP-CM#3: Operational Floodplain Best Management Practices. During final design, TCRR shall incorporate permanent floodplain controls that may include swales, vegetative strips and soil stabilization measures in combination with detention ponds to reduce peak flow rates in compliance with current</p>

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			applicable floodplain permit requirements. <u>TCRR shall maintain permanent floodplain features located within the TCRR right-of-way (ROW).</u>
3.11.5.2.10, Transportation, Harris County	3.11-94	Based on public comments on the Final EIS, clarification was added to define estimated Amtrak ridership.	<p><i>Text is clarified as shown:</i></p> <p>Amtrak estimates that approximately 1,100 to 1,200 passengers <u>per year</u> would be served by the transfer service by the year 2026. This estimate increases to 4,400 by the year 2035.¹ Refer to Section 2.2.5.1, Alternatives Considered, Amtrak Through-Ticketing Agreement, and TCRR’s August 21, 2019, STB filing, for more information about the proposed Amtrak transfer service between the Houston Terminal Station and Houston’s Amtrak station.</p> <hr/> <p>¹ TCRR, Petitioners’ Response to the Surface Transportation Board’s Request for Additional Information, August 21, 2019, https://www.stb.gov/Filings/all.nsf/d6ef3e0bc7fe3c6085256fe1004f61cb/9624ee8dee0f382f8525845e003b1120/\$FILE/248366.pdf.</p>
3.11.6.2, Transportation, Mitigation Measures	3.11-97	Based on public comments on the Final EIS TR-MM#2 was updated to clarify TCRR responsibilities.	<p><i>Text is clarified as shown:</i></p> <p>TR-MM#2: <u>Intersection Infrastructure Improvements.</u> <u>TCRR shall ensure that final design for civil site work and infrastructure improvements (e.g., utilities, viaduct, roadway, intersections and drainage) is in accordance with the most current applicable specifications and design guidelines of the applicable regulatory authority (city, county, and/or TxDOT standards). For those cases where the local jurisdictions have no design guidelines, TCRR shall use TxDOT design criteria.</u></p> <p>Prior to construction and operation, TCRR will perform a full TIA that complies with the City of Dallas, City of Houston, or TxDOT TIA guidelines, as determined applicable through consultation with City of Dallas, City of Houston and TxDOT. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included previously in 3.11.5.2, Environmental Consequences; however, the actual location and extent of intersection improvements will be subject to the TIA process. TCRR shall implement intersection improvements as required by the applicable TIA process.</p>

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3.12.5.2.4, Rail Car Assessment	3.12-4	Table 3.12-3 included typos and incorrect conversions between metric to standard units. Addition clarification of information contained in Appendix F, FCE.	<p><i>Table 3.12-3 is corrected as shown:</i></p> <table border="1" data-bbox="793 418 1843 1317"> <thead> <tr> <th colspan="2" data-bbox="793 418 1843 467">Table 3.12-3: Vehicle ADA Compliant Specifications</th> </tr> <tr> <th data-bbox="793 467 1010 529">Vehicle Specifications</th> <th data-bbox="1010 467 1843 529">Measurement/Specifications</th> </tr> </thead> <tbody> <tr> <td data-bbox="793 529 1010 597">Doorways and illumination</td> <td data-bbox="1010 529 1843 597">32.3 inches (820813 mm) wide; 2-foot candles illumination on door threshold</td> </tr> <tr> <td data-bbox="793 597 1010 634">Train car vestibules</td> <td data-bbox="1010 597 1843 634">42 inches (1,067 mm) wide</td> </tr> <tr> <td data-bbox="793 634 1010 824">Seating</td> <td data-bbox="1010 634 1843 824"> <ul style="list-style-type: none"> • 1 wheelchair location per train car that is 3248 inches by 6330 inches (8131219 mm by 16762 mm) • 1 regular coach transfer seat with pivoting armrest • 1 wheelchair storage location • Located near a window • Accessible call button </td> </tr> <tr> <td data-bbox="793 824 1010 894">Interior-passageways</td> <td data-bbox="1010 824 1843 894">3432 inches (820813mm)</td> </tr> <tr> <td data-bbox="793 894 1010 1317">Restrooms</td> <td data-bbox="1010 894 1843 1317"> <ul style="list-style-type: none"> • 3736.5 inches (928 mm) door width (<u>preliminary, based on current N700 restroom</u>) • 35 inches by 60 inches (889 mm by 1,524 mm) clear floor area <ul style="list-style-type: none"> ○ Permanently installed fixtures may overlap this area a maximum of 6 inches (152 mm), if the lowest portion of the fixture is a minimum of 9 inches (229 mm) above the floor, and ○ Permanently installed fixtures may overlap this area a maximum of 19 inches (483 mm), if the lowest portion of the fixture is a minimum of 29 inches (737 mm) above the floor. • Water closet shall be 17 inches (432 mm) to 19 inches (229483 mm) measured to the top of the toilet seat. • Grab bar, 24 inches (610 mm), located behind water closet • Horizontal grab bar, 40 inches (1,016 mm), on at least one side wall • Flush valves, 4044 inches (1,0161,118 mm) above the floor </td> </tr> </tbody> </table> <p data-bbox="806 1321 1398 1344">Source: U.S. Department of Justice Transportation 49 C.F.R. 38, 2010</p>	Table 3.12-3: Vehicle ADA Compliant Specifications		Vehicle Specifications	Measurement/Specifications	Doorways and illumination	32.3 inches (820 813 mm) wide; 2-foot candles illumination on door threshold	Train car vestibules	42 inches (1,067 mm) wide	Seating	<ul style="list-style-type: none"> • 1 wheelchair location per train car that is 3248 inches by 6330 inches (8131219 mm by 16762 mm) • 1 regular coach transfer seat with pivoting armrest • 1 wheelchair storage location • Located near a window • Accessible call button 	Interior-passageways	3432 inches (820 813mm)	Restrooms	<ul style="list-style-type: none"> • 3736.5 inches (928 mm) door width (<u>preliminary, based on current N700 restroom</u>) • 35 inches by 60 inches (889 mm by 1,524 mm) clear floor area <ul style="list-style-type: none"> ○ Permanently installed fixtures may overlap this area a maximum of 6 inches (152 mm), if the lowest portion of the fixture is a minimum of 9 inches (229 mm) above the floor, and ○ Permanently installed fixtures may overlap this area a maximum of 19 inches (483 mm), if the lowest portion of the fixture is a minimum of 29 inches (737 mm) above the floor. • Water closet shall be 17 inches (432 mm) to 19 inches (229483 mm) measured to the top of the toilet seat. • Grab bar, 24 inches (610 mm), located behind water closet • Horizontal grab bar, 40 inches (1,016 mm), on at least one side wall • Flush valves, 4044 inches (1,0161,118 mm) above the floor
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3.16.6.1, Safety and Security, Compliance Measures	3.16-45	SS-CM#3 was clarified for consistency.	<p><i>Text is clarified as shown:</i></p> <p>SS-CM#3: Inspection, Testing, and Maintenance. FRA proposes in the NPRM In its rulemaking petition, TCRR proposed minimum standards and schedules for inspection, testing, and maintenance of vehicles, track and other critical infrastructure required for the prevention of mechanical failures. Upon approval of the Inspection, Testing and Maintenance Program by FRA, TCRR proposes to <u>will</u> be responsible for performing the specified inspections, tests and maintenance tasks at the identified intervals.</p>																
4.4.3, Indirect Effects and Cumulative Impacts, Past, Present and Reasonably Foreseeable Actions	4-23 to 4-25	Based on public comments on the Final EIS, clarifications were incorporated into reasonably foreseeable actions within Table 4-7.	<p><i>HoustonMETRO project information in Table 4-7 has been updated.</i></p> <table border="1" data-bbox="793 662 1927 1112"> <thead> <tr> <th data-bbox="793 662 1003 695">County</th> <th data-bbox="1003 662 1927 695">Project Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="793 695 1003 751">Harris County</td> <td data-bbox="1003 695 1927 751">Southeast Rail Extension – 2.3 mile southeast rail extension from Lincoln to Ridge Gate Parkway</td> </tr> <tr> <td data-bbox="793 751 1003 784">Harris County</td> <td data-bbox="1003 751 1927 784">Inner Katy Corridor Extension – Construction of 7 miles of high capacity transit</td> </tr> <tr> <td data-bbox="793 784 1003 849">Harris County</td> <td data-bbox="1003 784 1927 849">Uptown-Galleria Line Extension to Hempstead Intermodal Terminal (Houston Terminal Station) – construction of 0.5 mile of high capacity transit</td> </tr> <tr> <td data-bbox="793 849 1003 930">Harris County</td> <td data-bbox="1003 849 1927 930">US 290/Hempstead Corridor Commuter Rail – the Gulf Coast Rail District has prepared feasibility reports, study materials and workshop materials to determine the feasibility of a 44-mile corridor to operate commuter rail.</td> </tr> <tr> <td data-bbox="793 930 1003 995">Harris County</td> <td data-bbox="1003 930 1927 995">HoustonMETRO University Line – 10 miles of light rail BRT east from the <u>Westchase Park and Ride Transit Center</u> to the <u>Tidwell Eastwood</u> Transit Center</td> </tr> <tr> <td data-bbox="793 995 1003 1060">Harris County</td> <td data-bbox="1003 995 1927 1060">Uptown (Post Oak) Boulevard – 4.5-mile BRT project on Post Oak Boulevard operating from Westpark to the Northwest Transit Center</td> </tr> <tr> <td data-bbox="793 1060 1003 1112">Harris County</td> <td data-bbox="1003 1060 1927 1112">East End Line or Green Line <u>Extension</u> –light rail line traveling from Magnolia to <u>Hobby Airport</u> and also <u>Downtown Houston to City of Houston Courthouse</u>.</td> </tr> </tbody> </table>	County	Project Description	Harris County	Southeast Rail Extension – 2.3 mile southeast rail extension from Lincoln to Ridge Gate Parkway	Harris County	Inner Katy Corridor Extension – Construction of 7 miles of high capacity transit	Harris County	Uptown-Galleria Line Extension to Hempstead Intermodal Terminal (Houston Terminal Station) – construction of 0.5 mile of high capacity transit	Harris County	US 290/Hempstead Corridor Commuter Rail – the Gulf Coast Rail District has prepared feasibility reports, study materials and workshop materials to determine the feasibility of a 44-mile corridor to operate commuter rail.	Harris County	HoustonMETRO University Line – 10 miles of light rail BRT east from the <u>Westchase Park and Ride Transit Center</u> to the <u>Tidwell Eastwood</u> Transit Center	Harris County	Uptown (Post Oak) Boulevard – 4.5-mile BRT project on Post Oak Boulevard operating from Westpark to the Northwest Transit Center	Harris County	East End Line or Green Line <u>Extension</u> –light rail line traveling from Magnolia to <u>Hobby Airport</u> and also <u>Downtown Houston to City of Houston Courthouse</u> .
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4.4.3, Indirect Effects and Cumulative Impacts, Past, Present and Reasonably	4-25	Clarification was added to better explain the inclusion of projects within the tables.	<p><i>Additional clarifying text is shown:</i></p> <p><u>Reasonably foreseeable projects include those future events, that although uncertain, are probable.</u> FRA reviewed of adopted plans and programs (see Section 3.13.2, Land Use, Regulatory Context of the Final EIS), solicited data during Project scoping, and coordinated with stakeholders and local agencies (see Section 9.3, Public and Agency Involvement of the Final EIS) to identify reasonably foreseeable projects for consideration in the EIS for the purposes of impact analysis and cumulative impact analysis. Those projects FRA identified as reasonably foreseeable are included in Tables 4-7 and 4-8 of the Final EIS.</p>																

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Foreseeable Actions			<p>Based on FRA’s informed judgement, criteria for those reasonably foreseeable projects detailed in Tables 4-7 and 4-8 of the Final EIS include:</p> <ul style="list-style-type: none"> • Highway, transit, rail, and/or Texas Parks and Wildlife Department (TPWD) projects on the 2019-2022 Texas Statewide Transportation Improvement Program (STIP) • Projects included in local and/or regional comprehensive plans • Planned developments of private residential subdivisions, office parks, and/or commercial centers with approval for dedicated zoning or platting from the local jurisdiction (county or municipality) <p>Projects that do not meet these criteria, including non-programmed long-range transportation projects, are considered “speculative” and not reasonably foreseeable.</p>															
3.11.3.1, Transportation, Local Framework	3.11-2	The State of Texas Statewide Transportation Improvement Program (STIP) was inadvertently omitted from Table 3.11-1.	<p><i>Text is added to Table 3-11.1:</i></p> <table border="1" data-bbox="793 764 1913 992"> <thead> <tr> <th data-bbox="793 764 1152 797">Plan or Policy</th> <th data-bbox="1152 764 1913 797">Summary</th> </tr> </thead> <tbody> <tr> <td colspan="2" data-bbox="793 797 1913 829">TEXAS</td> </tr> <tr> <td data-bbox="793 829 1152 992"><u>State of Texas (TxDOT) 2019-2022 District Statewide Transportation Improvement Program</u></td> <td data-bbox="1152 829 1913 992"><u>The STIP is the state's four-year capital improvement program that includes the MPO and Rural TIPs, and contains all phases of transportation projects to be built during the four-year period</u></td> </tr> </tbody> </table>	Plan or Policy	Summary	TEXAS		<u>State of Texas (TxDOT) 2019-2022 District Statewide Transportation Improvement Program</u>	<u>The STIP is the state's four-year capital improvement program that includes the MPO and Rural TIPs, and contains all phases of transportation projects to be built during the four-year period</u>									
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4.4.3, Indirect Effects and Cumulative Impacts, Past, Present and Reasonably Foreseeable Actions	4-26 to 4-29	Based on public comments on the Final EIS, the ongoing HoustonMETRO project was reviewed and included into Table 4-8.	<p><i>Text is added to Table 4-8:</i></p> <table border="1" data-bbox="793 1089 1927 1416"> <thead> <tr> <th data-bbox="793 1089 926 1206">County</th> <th data-bbox="926 1089 1178 1206">Description</th> <th data-bbox="1178 1089 1350 1206">Status</th> <th data-bbox="1350 1089 1541 1206">Overlap with planned Project construction Schedule?</th> <th data-bbox="1541 1089 1927 1206">Impacts</th> </tr> </thead> <tbody> <tr> <td colspan="5" data-bbox="793 1206 1927 1239">Surface Roadway</td> </tr> <tr> <td data-bbox="793 1239 926 1416"><u>Harris County</u></td> <td data-bbox="926 1239 1178 1416"><u>Northwest Transit Center Expansion from 12 to 21 bays, bus platforms and parking</u></td> <td data-bbox="1178 1239 1350 1416"><u>Construction ongoing</u></td> <td data-bbox="1350 1239 1541 1416"><u>No</u></td> <td data-bbox="1541 1239 1927 1416"> <ul style="list-style-type: none"> • <u>Located within existing ROW</u> • <u>New traffic patterns and bus routes</u> • <u>Beneficial pedestrian transit impacts, including additional parking</u> </td> </tr> </tbody> </table>	County	Description	Status	Overlap with planned Project construction Schedule?	Impacts	Surface Roadway					<u>Harris County</u>	<u>Northwest Transit Center Expansion from 12 to 21 bays, bus platforms and parking</u>	<u>Construction ongoing</u>	<u>No</u>	<ul style="list-style-type: none"> • <u>Located within existing ROW</u> • <u>New traffic patterns and bus routes</u> • <u>Beneficial pedestrian transit impacts, including additional parking</u>
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Appendix C, Public and Agency Involvement Correspondence	170 to 171	Pages of the Environmental Justice outreach materials were missing a complete legend and data.	Refer to Attachment 1 (Dallas Terminal Area Map) and Attachment 2 (Dallas to Houston HSR Alternatives and Segment) of this document for a complete version of the boards presented at the listening session held at St. Philips Center in Dallas, TX on October 23, 2018.																		
Appendix E, Air Quality Technical Memorandum	51	<p>Incorrect citation included within text of technical memorandum and on Table E3.2-7.</p> <p>Note: Table 3.11-26 in Section 3.11.5.2, Transportation, Build Alternatives of the Final EIS also depicted the same data as Table E3.2-7, but with the correct cited source.</p>	<p><i>Preceding text and Table E3.2-7, in Appendix E, Air Quality Technical Memorandum, citation of source material corrected as shown (no changes to Table Data):</i></p> <p>Although TCRR provided updated ridership estimates of 6.4M in 2029 and 9.9M in 2040 in the 2019 TCRR FCE Report, the original ridership estimates used in the Draft EIS of 4.4M in 2026 and 7.2M in 2040 have been carried forward by FRA in the Final EIS to conduct conservative analyses in the Final EIS. The 2017 TCRR FDCE Report assumed an annual ridership of 7,200,000 passengers for the 2040 FSL, and the 2019 TCRR FCE Report contained an estimate of existing and projected travel mode share of people traveling between Dallas and Houston from a planning forecast report provided for the project (see Appendix J, Ridership Demand Forecasting Methodology Assessment Technical Memorandum). These assumptions are displayed in the calculations shown below. The estimated 2017 mode share represents the existing percentage of passengers expected to use either cars, airplanes, or bus to make the Dallas-Houston trip, in the absence of the HSR project. This mode share and the annual ridership were used to calculate the number of passengers that would be using cars to travel between Houston and Dallas on IH-45.</p> <table border="1" data-bbox="793 1084 1934 1284"> <thead> <tr> <th colspan="3">Table E3.2-7: Existing and Projected Mode Share of People Traveling Between Dallas and Houston</th> </tr> <tr> <th>Trip Type</th> <th>2017 Market</th> <th>2029 Market</th> </tr> </thead> <tbody> <tr> <td>Car</td> <td>94%</td> <td>69%</td> </tr> <tr> <td>HSR</td> <td>-</td> <td>29%</td> </tr> <tr> <td>Air</td> <td>5.6%</td> <td>2%</td> </tr> <tr> <td>Bus</td> <td>0.4%</td> <td>0.0%</td> </tr> </tbody> </table> <p>Source: TCRR, Memorandum, Station Area Guidance for EIS Documentation January 14, 2016 TCRR, 2019 (see Appendix J, Ridership Demand Forecasting Methodology Assessment Technical Memorandum)</p>	Table E3.2-7: Existing and Projected Mode Share of People Traveling Between Dallas and Houston			Trip Type	2017 Market	2029 Market	Car	94%	69%	HSR	-	29%	Air	5.6%	2%	Bus	0.4%	0.0%
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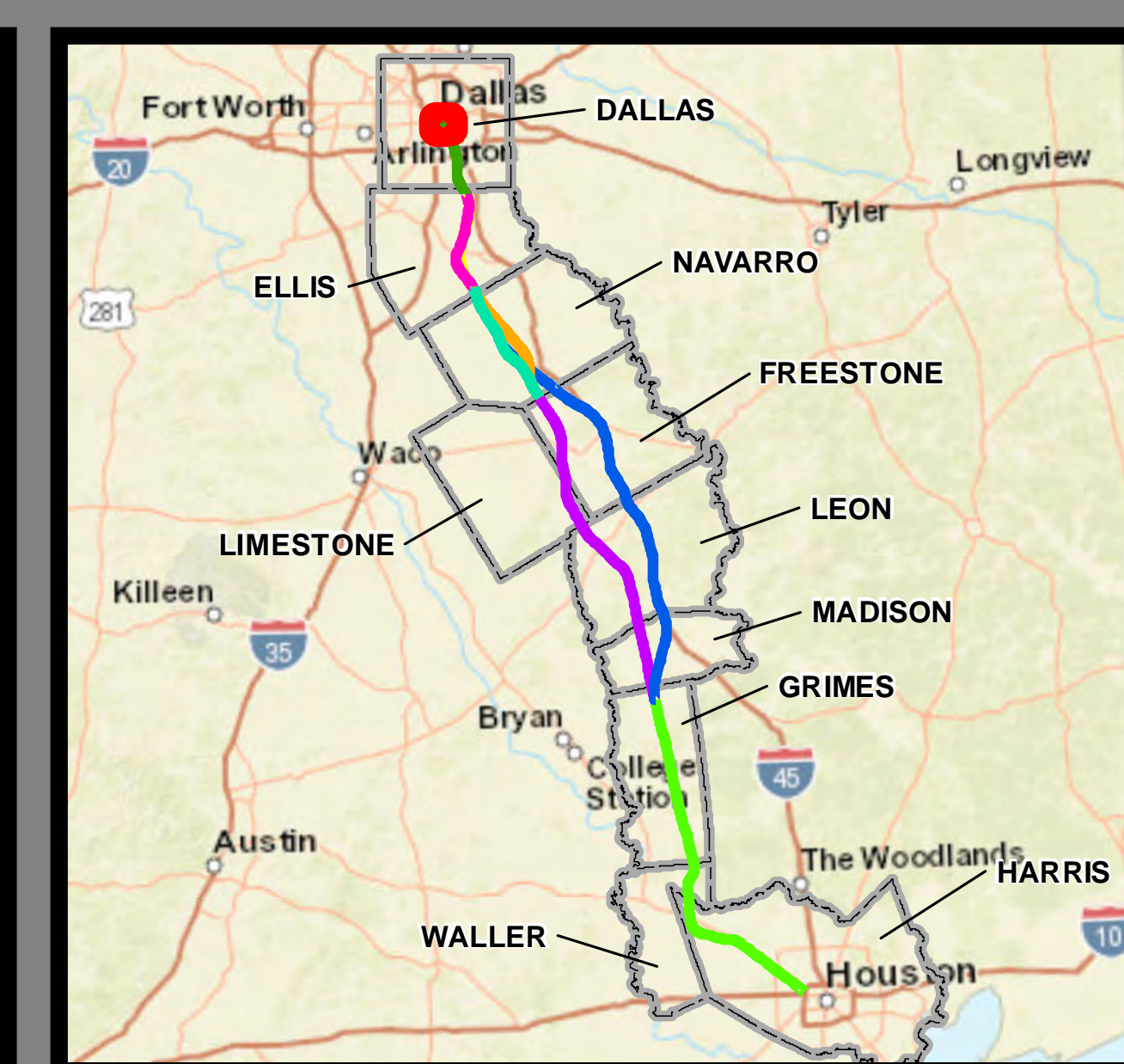
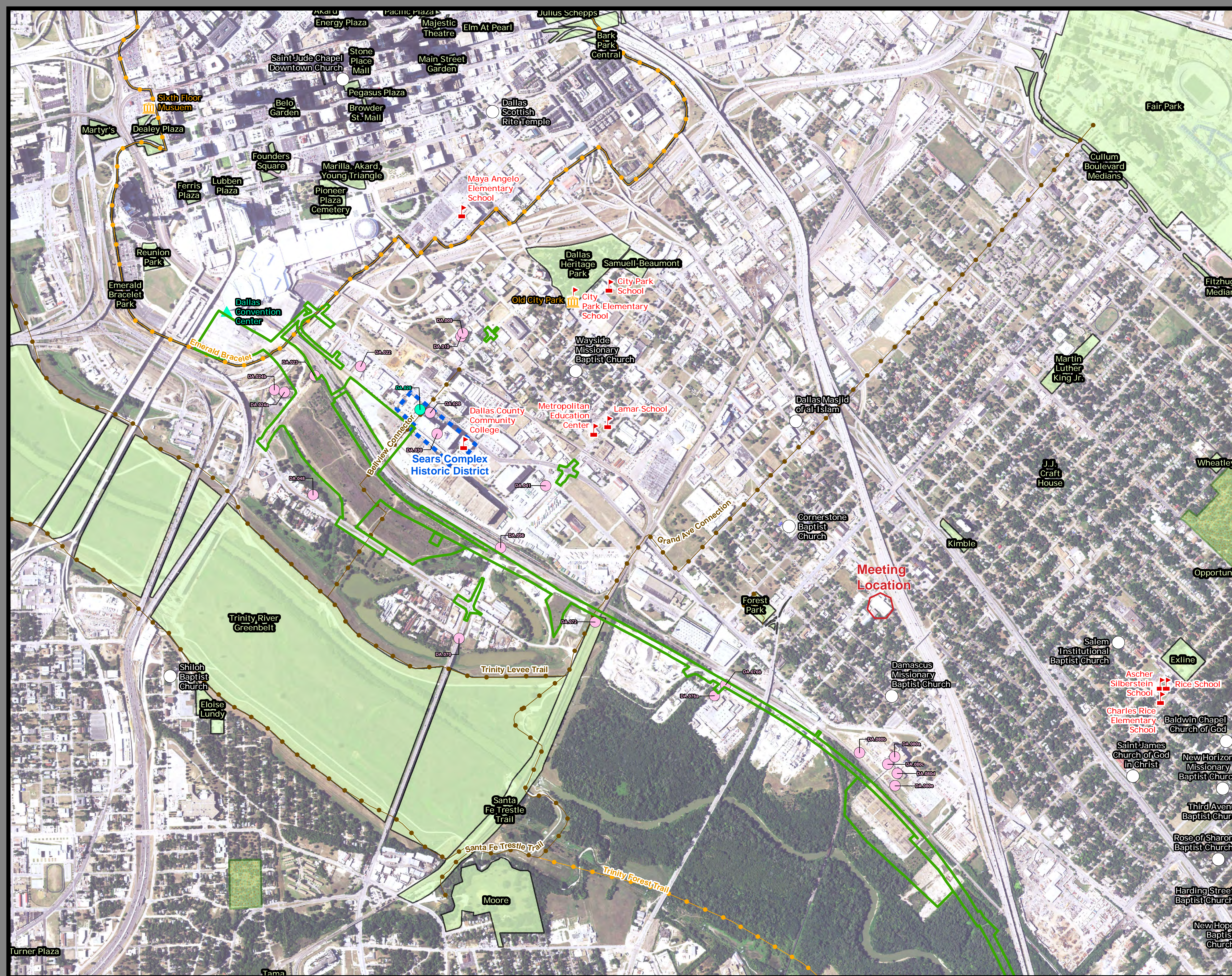
Location/Section in Final EIS	Page in Final EIS	Issue	Correction or Update
Appendix H, Response to Draft EIS Comments, Section 1.3.2, Standard Responses to Comments	32	Incorrect title and reference in Standard Response BA-10	<p><i>Text is corrected as shown:</i></p> <p>In the EIS, TR-CM#4, Railroad-Cross <u>ROW Barriers</u>, identifies where the HSR System would run parallel to freight railroads and would require crash barriers."</p>
Appendix H, Response to Draft EIS Comments, Section 1.3.2, Standard Responses to Comments	89	Standard Response TR-5 inadvertently omitted information.	<p><i>Text is corrected as shown:</i></p> <p><u>Section 3.11.6, Avoidance, Minimization, and Mitigation</u> identifies the measures that TCRR will implement to avoid and reduce transportation impacts. As noted in TR-MM#3: Transit Coordination, prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) <u>to manage construction schedules to correspond with freight and transit operations. TCRR shall also coordinate directly with all transit agencies for connections to and from the proposed station sites, including scheduling and facility improvements/design. It is reasonable to anticipate that Houston METRO would adjust bus service to provide better access to the Houston Terminal Station. Additionally, prior to construction, TCRR shall develop a traffic control plan that details the sequences of construction, the detour plan temporary signing, striping of pavement marking and contract provisions, as outlined in TR-MM#1: Traffic Control Plan.</u></p>
Appendix H, Response to Draft EIS Comments, Section 2.3, Local Agency, Municipality, or Official	386 to 376	Correspondence included in Local Agency, Municipality, or Official omitted signature	Refer to Attachment 3 of this document for a signed copy of FRA's response dated May 22, 2020 to Dallas County Commissioner, District 3, comment. Commissioner Price was also mailed the signed letter on May 22, 2020.
Appendix H, Response to	1	Clarification was needed to confirm	<i>Text is clarified as shown:</i>

Location/Section in Final EIS	Page in Final EIS	Issue	Correction or Update
Draft EIS Comments, Section 5, Individual Comments and Responses		that FRA reviewed and responded to exhibits associated with comments submitted on the Draft EIS.	This section provides all comments that FRA received during the public comment period (December 22, 2017 to March 9, 2018) and FRA’s responses. Both standard and unique responses are provided. For standard responses, refer to Table H-4 in Appendix H, Section 1.3.2, Standard Responses to Comments. Comments are presented as submitted, including spelling. <u>FRA reviewed and took into account exhibits and attachments to public comments submitted during the public comment period. FRA’s responses to those materials are included in Table H-12, but the exhibits and attachments have not been reproduced in Appendix H.</u> Personal information (email, physical address, phone numbers, etc.) has been removed from public comments and replaced with [...].
Appendix H, Response to Draft EIS Comments, Section 5, Individual Comments and Responses	1950 to 1955	Due to a formatting error during final production of the appendix, in Table H-12, a portion of the Thompson Hine, LLC comment dated 3/9/2018 was inadvertently omitted from the comment table.	Refer to Attachment 4 of this document for the full text of the 3/9/2018 comment submitted via website by Thompson Hines, LLC. This omission during production does not affect FRA’s response, as FRA considered the full comment, including exhibits not reproduced in Appendix H of the Final EIS.

ATTACHMENTS

- Attachment 1 - Dallas Terminal Area Map
- Attachment 2 - Dallas to Houston HSR Alternatives and Segment
- Attachment 3 – FRA’s letter to Dallas County Commissioner, District 3, dated May 22, 2020
- Attachment 4 - Thompson Hines, LLC comment submitted via website on 3/9/2018

Dallas Terminal Area Map



Dallas to Houston High-Speed Rail Project

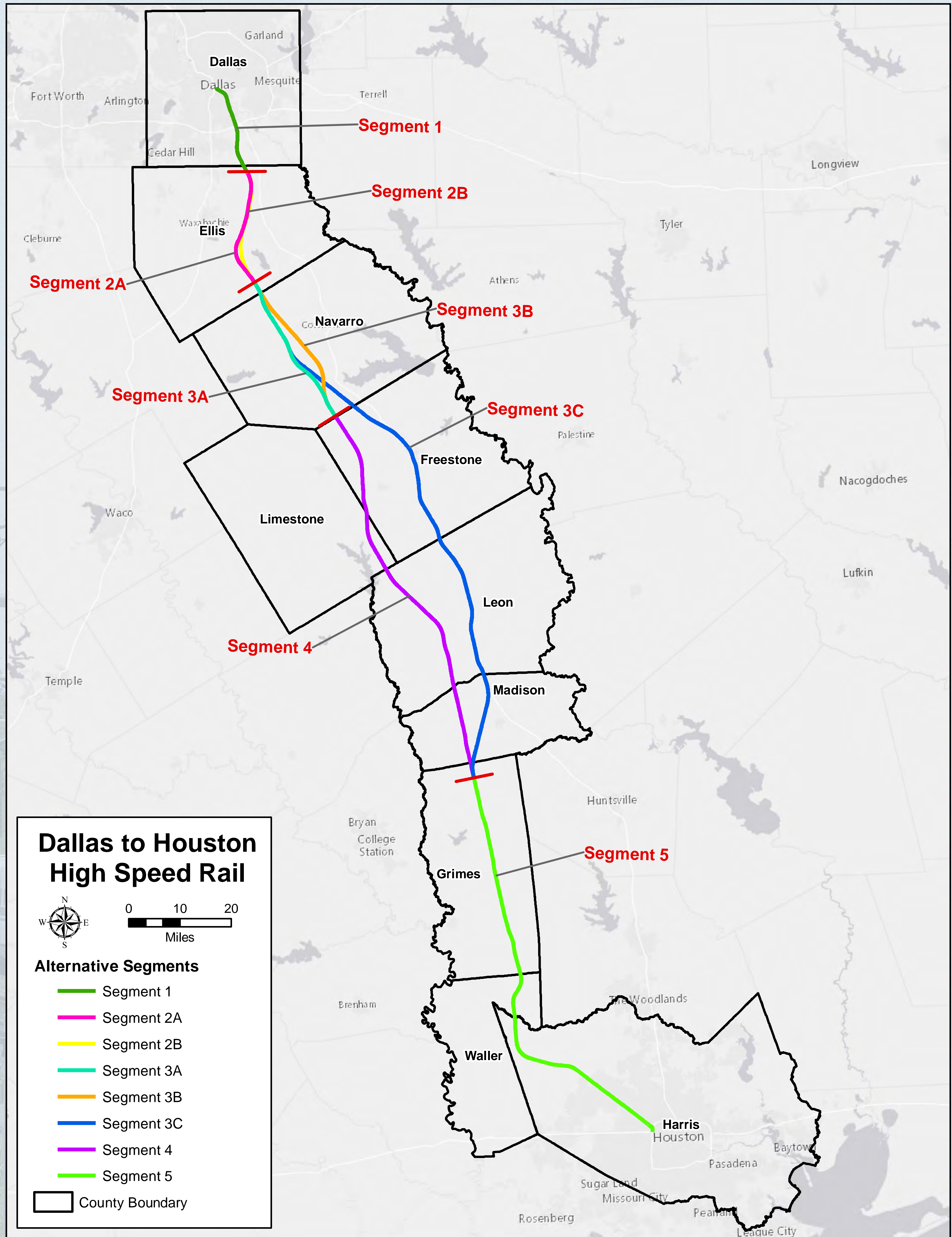
Legend

Track Configuration	Impact Location
— Viaduct	● Noise - Moderate
— Embankment	● Noise - Severe
— Cut	
Limits of Disturbance	Historic Resources
Segment 1	● Cemetery
Segment 2A	● Historic Resource
Segment 2B	★ Historic Texas Cemetery
Segment 3A	● NRHP Eligible
Segment 3B	● NRHP Listed
Segment 3C	● Official Texas Historic Marker
Segment 4	● Potentially NRHP Eligible
Segment 5	● Registered Texas Historic Landmark
▲ Community Center	● NRHP Eligible
H Hospital	Trail
M Museum	— Existing
○ Place of Worship	— Proposed
◆ Recreation Site	— On Street Trails
▬ School	— Approximate Location of El Camino Trail
▬ Cemetery Boundary	▬ Historic Resources Area of Potential Effect
	▬ Park
	▬ Airstrip
	▬ County Boundary

Data Sources: NCTCOG 2014, H-GAC, TPWD 2015, City of Dallas 2015, USGS GNIS, Texas Historical Commission February 2016, State Historic Preservation Office, US Census 2014, NPS 2016
Aerial Imagery: USDA NAIP 2014



Dallas to Houston HSR Alternatives and Segments





U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

John Wiley Price
Dallas County Commissioner
District 3
411 Elm Street, 2nd Floor
Dallas, Texas 75202

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Commissioner Price:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from you provided on January 11, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Comment 1: *While I am an advocate for this project and thus type of technology being implemented in the State of Texas and in district which I represent, I am not in favor of the proposed Train Maintenance Facility located north of Pleasant Run Road. The construction of this proposed train maintenance facility and the connecting at grade rail spur will result in the reconstruction of the federal funded improvements that are currently being designed by Dallas County for this section of Pleasant Run Rd.....Dallas County's Pleasant Run Rd project is expected to be complete in 2020....*

Response 1: The Draft EIS outlined that approximately 2,700 feet of Pleasant Run Road would be reconstructed over the Project. However, TCRR refined the concept design between the release of the Draft EIS and the Final EIS, and the Project will now be on viaduct at this location. Additionally, the Preferred Alternative, Build Alternative A, does not include a train maintenance of way facility near Pleasant Run Road. The maintenance of way facility in the Final EIS would be located approximately 4.1 miles north of Pleasant

Run Road, near the intersection of IH-45 and IH-20. Updated Project maps can be found in **Appendix G: TCRR Conceptual Engineering Plans and Details**.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

Delta Troy Interests, Ltd. (“Delta Troy”) hereby submits these Comments to the Federal Railroad Administration (“FRA”) in response to the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement (“DEIS”) issued by the FRA in December 2017.¹ As described herein, the analysis in the DEIS fails to comply with regulatory requirements, exhibits flawed reasoning, ignores key issues, relies upon a poor alignment preference, and otherwise includes numerous significant errors. Delta Troy respectfully requests that the FRA require the consideration of other alignments and the preparation of a replacement DEIS or a Supplemental Draft Environmental Impact Statement (“SDEIS”). A new DEIS or a SDEIS would also allow previously-ignored resources and requirements to be addressed in a new environmental analysis.

I. Summary of Argument.

The ability of citizens to meaningfully participate in the processes of government is enshrined in Constitutional due process rights, and it is one of the core tenets of American democracy. Additionally, federal government agencies are required by the National Environmental Policy Act (“NEPA”) to thoughtfully take into account all relevant information in considering the environmental impacts of their decisions. Unfortunately, both of these bedrock principles have been lacking in the development and substance of the DEIS.

The DEIS consists of 5,647 pages, yet only two-and-a-half months have been allowed for comment. The insufficiency of the comment period, and the need for more time, have already been described by Delta Troy in a Request for Extension of Time that was filed on January 30, 2018. This request is attached as Exhibit 1 and incorporated herein. Even with this shortened time period, it is clear that the proposed TCR project would have a dramatic and negative impact on Delta Troy and the planned Georgetown Oaks community. See Section VI.

Moreover, the substance of the DEIS fails to meet several regulatory requirements. The DEIS fails to take into account numerous local government planning documents, such as the City of Houston Major Thoroughfare and Freeway Plan, and fails to address the conflicts between the proposed TCR project and such land use planning documents. See Section IV.A. The DEIS also fails to take into account reasonably foreseeable actions in the immediate area, like the Georgetown Oaks community, and the cumulative impacts of such actions in conjunction with the proposed TCR project. See Section IV.B. In reliance on the so-called Utility Corridor, the DEIS is misleading at best because the Utility Corridor has been justified as already significantly disturbed by an overhead transmission line and a Union Pacific Railroad rail line – but this is not true for the HC-4 Alternative across Delta Troy’s property. See Section V. The DEIS fails to adequately consider a number of other environmental impacts from the preferred alternative, as described in Section VII. A particularly relevant impact largely ignored by the DEIS is the need to address Hurricane Harvey, which caused over 100 deaths in the U.S. and approximately \$125 billion in damage – mostly in the Houston area and southeastern Texas.

The FRA should discard use of the Utility Corridor in the southern part of the TCR line and, instead, consider entering Houston via the BNSF Corridor, the I-45 Corridor, or some other route. See Section V. If the FRA continues to use the Utility Corridor with the HC-4 Alternative (which it should not, as described in these Comments), extensive additional mitigation is necessary due to the severe impacts on the Georgetown Oaks community site. See Section VIII.

The above-described omissions from the DEIS have seriously compromised the public commenting process. By failing to include all relevant information, the DEIS hampers the ability of citizens to meaningfully participate.² The pernicious impact of this failure is all the more pronounced due to the shortened time frame for comments. Delta Troy urges the FRA to order a replacement DEIS or, at a minimum, a Supplemental DEIS so that the deficiencies described herein can be addressed. When an agency is presented with information that its earlier environmental findings are incorrect, a supplemental analysis is warranted.³

II. Identity and Interest of Delta Troy.

Delta Troy owns approximately 993 acres of land (the “Property”) in the extraterritorial jurisdiction of the City of Houston in northwestern Harris County, Texas. The Property was purchased by C.N. Papadopoulos in 1982 and conveyed to Delta Troy in 2002. The Property adjoins the north and south sides of U.S. Highway 290, a major highway between Houston and the City of Austin. It is currently leased for farming. However, as development has extended westward along the U.S. 290 corridor toward the Property, it became apparent several years ago that the highest and best use of the Property is a mixed-use development incorporating a variety of commercial and residential uses. Recognizing this, for many years Delta Troy has been proceeding with plans for the Georgetown Oaks master planned community on the Property.⁴ The proposed TCR project would occur directly on and through the Georgetown Oaks community site.

III. Georgetown Oaks.

In 2006, Delta Troy engaged a land planning consultant to begin preparing development plans for the site it owns in northwestern Harris County, and Delta Troy has expended years of effort to move the project forward. See, e.g., Exhibit 2. The Georgetown Oaks community is to have a mixture of residential and non-residential uses. See, e.g., Exhibit 3. The residential land uses include traditional single family, multifamily, and townhome parcels, while the non-residential uses include commercial tracts, a church site, and an elementary school. Delta Troy has successfully obtained numerous governmental approvals for the Georgetown Oaks project over the last decade. In 2007, a General Plan for Georgetown Oaks was submitted and approved by the City of Houston Planning Commission. See Exhibits 4 and 5. The General Plan shows specific platted streets, drainage areas, land use patterns, and related aspects of the Community. These elements must

comply with Chapter 42, the land development ordinance of the City of Houston. Although Georgetown Oaks is not within the city limits of Houston, it is within the Extra-Territorial Jurisdiction (“ETJ”) of Houston, meaning that land development must comply with Chapter 42.

In 2011, Delta Troy was able to secure the enactment of legislation forming Harris County Municipal Utility District No. 524, which encompasses the Georgetown Oaks site and will facilitate its development by allowing the issuance of bonds to finance the construction of roads, utilities, and other infrastructure. Creation of this Municipal Utility District (“MUD”) required passage of legislation through the Texas General Assembly.⁶ MUD 524 was established for the Georgetown Oaks site as a result of House Bill 709 and Senate Bill 475, which were signed by the Governor on June 17, 2011.⁷ A MUD is a political subdivision of the State of Texas that is authorized to provide water, sewage, drainage, and other utility-related services within the defined MUD boundaries.

Delta Troy has continued to work toward development of the Georgetown Oaks site over the past few years, with further refinements and details added to the project. Most recently, the updated Georgetown Oaks plan was filed with the Houston Planning Commission in October 2016, with approval granted in May 2017.⁸ The approval did not include any conditions regarding the proposed TCR rail project; in fact, the “Platting Approval Conditions” do not even mention the TCR proposal. A wide variety of other planning efforts have occurred. For example, officials from Delta Troy have discussed the need for frontage roads along U.S. 290 with the Texas Department of Transportation (“TXDOT”) for several years.⁹ Delta Troy has also met with the Gulf Coast Freight Rail District (“GCFRD”) regarding rail station planning for a possible commuter rail line on the nearby Union Pacific Railroad (“UPRR”) rail line. The GCFRD added a possible station location at “Waller East” in response to the interest expressed by Delta Troy.¹⁰

Plans for the development of the Georgetown Oaks community have been publicly available for several years. The General Plans were publicly filed with the City of Houston Planning Commission, and that same Commission issued approvals for the General Plans. The establishment of MUD 524 required legislation, the Governor’s signature, and statutory revisions under Texas law. As a result of these efforts, Delta Troy is ready and able to proceed with the implementation of its development plans for the Property, but it has been unable to do so due to the significant uncertainty associated with TCR’s proposed rail line.

IV. The DEIS Violates Several Regulatory Requirements.

A. The DEIS Violates 40 CFR §§ 1502.16(c) and 1506.2(d) Because It Fails to Take Into Account Relevant Regional and Local Land Use Plans.

The TCR proposal does not exist in vacuum. There are numerous ongoing planning and coordination efforts in the many counties and cities traversed by the proposed Build Alternative A preferred by the FRA, which includes the HC-4 Alternative in northwestern Harris County.¹¹ Unfortunately, the DEIS ignores many of the important ongoing and previous planning and coordination efforts that apply to land use along the preferred corridor and fails to discuss the likely conflicts between the proposed TCR project and such regional and local planning efforts. To address these deficiencies, a replacement DEIS or Supplemental DEIS is necessary so that the TCR proposal fully complies with 40 CFR § 1502.16(c), which requires “discussion of...[p]ossible conflicts between the proposed action and the objectives of Federal, regional, State, and local...land use plans, policies and controls for the area concerned.” The creation of a new DEIS or a Supplemental DEIS will also enable compliance with § 1506.2(d), which requires environmental impact statements to “discuss any inconsistency of a proposed action with any approved State or local plan and laws....Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.” As described below, several plans were ignored or inadequately addressed in the DEIS.

1. Major Thoroughfare and Freeway Plan of the City of Houston.

The DEIS fails to acknowledge or address the Major Thoroughfare and Freeway Plans (“MTFP”) for several counties and areas, including the MTFP of the City of Houston. The MTFP for Houston functions as the official plan of the Houston Planning Commission; it is revised and updated on a yearly basis. “The Planning Commission has the authority and has assumed the responsibility of creating and maintaining a MTFP applicable within the City of Houston’s jurisdiction for the guidance of the development of the street and highway network for this area.”¹² The City of Houston states that, in compiling the Plan, “the City listens to developers and neighborhoods about such issues as congestion, mobility and future development plans.”¹³ A professional land planner in the Houston area stated that the Houston MTFP is one of the two key documents that “set[s] the requirements for all new developments.”¹⁴ The DEIS’s failure to consider the Houston MTFP is odd because the Ellis County Thoroughfare Plan was addressed.¹⁵ It is claimed in the DEIS that consideration was given to “regional and local transportation plans and policies that guide transportation planning, funding and project implementation” (DEIS at 3.11-2), but the failure to even mention the Houston MTFP shows the erroneous nature of this claim. MTFP documents are official local government planning documents. As such, the DEIS should have addressed them as required by 40 CFR §§ 1502.16(c) and 1506.2(d). See, e.g., Openlands v. United States DOT, 124 F. Supp.3d 796, 808-810 (N.D. Ill. 2015) (the court concluded that the EIS for a new expressway was arbitrary and capricious because the agencies did not address the inconsistency between the Illinois and Indiana metropolitan planning organizations’ long-range plans and the proposed expressway).

This omission in the DEIS is all the more glaring because no high-speed rail line is envisioned through or anywhere near the Delta Troy property in either the City of Houston MTFP or the nearby Waller County MTFP.¹⁶ The City of Houston MTFP also

envisions widening or altering many roads in northwestern Harris County which would be crossed by the proposed TCR line, including Castle Road and Hempstead Road (Old Highway 290).¹⁷ Consequently, the DEIS is inadequate because it fails to address the proposed project's conflict and inconsistency with the City of Houston MTFP. The Government-Approved Plans for the Georgetown Oaks Site. As described above, plans for the Georgetown Oaks development have been publicly available since at least 2007. See Section III. These plans have been filed with and approved by the Houston Planning Commission. A new state law created a Municipal Utility District for Georgetown Oaks in 2011. However, the DEIS does not mention, address, or even acknowledge Georgetown Oaks and, crucially, the proposed TCR project conflicts greatly with the already- approved Georgetown Oaks community. See, e.g., Sections VI and VIII below. The DEIS should have addressed these conflicts as required by 40 CFR §§ 1502.16(c) and 1506.2(d).

The importance of the approved plans for Georgetown Oaks and other similar developments was described by a professional land planner in the Houston area, who stated that the lack of zoning in Houston means that "the existing plans and ordinances which govern the city's development [are] all the more significant."¹⁸ This land planner also noted that the DEIS failed to mention numerous developments that, like Georgetown Oaks, have received approvals and are planned for the nearby area.¹⁹

2. The West Houston Plan 2050.

The DEIS fails to acknowledge or address the West Houston Plan 2050.²⁰ This plan was created by the West Houston Association ("WHA"), a group of property owners, major employers, community interests, and other stakeholders that have worked for 37 years to "to collectively address the problems and potentials associated with a rapidly growing area with major employment and residential growth virtually assured for the next ten years."²¹ The WHA represents "a unique attempt by Houston's major land developers, financial interests, and large corporations to bring order and rational planning to the rapidly developing suburban areas on the west side of the City of Houston."²²

The West Houston Plan 2050 is not a legally binding, official government planning document, but it is relevant for revealing the future envisioned by stakeholders in the area. Crucially, the West Houston Plan 2050 does not anticipate or foresee any new rail development along or near the "preferred" corridor described in the DEIS. However, it does envision other types of land development in the area.²³ To comply with 40 CFR §§ 1502.16(c) and 1506.2(d), the DEIS should have addressed the proposed TCR project's conflict and inconsistency with the West Houston Plan 2050.

3. The 2040 Houston-Galveston Regional Transportation Plan.

The DEIS mentions the 2040 Houston-Galveston Regional Transportation Plan ("RTP"), but does so in a selective and misleading manner. The 2040 Houston-Galveston RTP is created by the Houston-Galveston Area Council ("H-GAC").²⁴ H-GAC does not have regulatory authority, but it is "the regional organization through which local governments consider issues and cooperate in solving area wide problems."²⁵

The DEIS refers to the 2040 Houston-Galveston RTP and repeatedly to the H-GAC.²⁶ Thus, the DEIS acknowledges the importance and relevance of the 2040 Houston-Galveston RTP. Among other things, the DEIS cites to the treatment of intercity rail in the 2040 Houston- Galveston RTP as support for the TCR proposal.²⁷ Specifically, the DEIS asserts that the "No Build Alternative" would fail to meet the intercity rail component of the 2040 Houston- Galveston RTP.²⁸

Crucially, however, the DEIS fails to recognize, acknowledge, or account for the Downtown Houston Station proposed in the 2040 Houston-Galveston RTP for Dallas-Houston intercity rail service.²⁹ Thus, the DEIS is misleading because it cites to the 2040 Houston- Galveston RTP as support for the TCR Dallas-Houston intercity rail proposal, but fails to address the Downtown Houston Station location in this same planning document. Consequently, the DEIS violates 40 CFR § 1506.2(d), which requires discussion of conflicts between the proposal and planning documents. See, e.g., Openlands, 124 F. Supp.3d 796, 808-809.

B. The DEIS Violates 40 CFR § 1508.7 and Related Requirements Because It Fails to Take Into Account the Reasonably Foreseeable Development of the Georgetown Oaks Community.

The significant environmental impacts that would result from the TCR project cannot be viewed in isolation. Governing regulations and applicable court decisions require consideration of the "cumulative" impact of the proposed TCR project in conjunction with other reasonably foreseeable projects in the area.³⁰ "An EIS....must....assess the impact the proposed project will have in conjunction with other projects in the same and surrounding areas....and must include past, present, and reasonably foreseeable future actions of any agency or person."³¹

As described above, Delta Troy has expended significant time, money, and effort for over a decade to develop its plans for the Georgetown Oaks site and obtain necessary government approvals. The Georgetown Oaks plans have been publicly available for several years. The Houston area has been growing rapidly for many decades, and is expected to continue to do so. The DEIS itself estimates an increase of almost one million in the Harris County population between 2010 and 2040. See DEIS at 3.14-13. The 2040 Houston-Galveston RTP, cited repeatedly in the DEIS, anticipates significant growth in the northwestern region of the Houston area over the next few decades.³²

Given the westward growth of the Houston area and Delta Troy's effort and government approval to develop the Georgetown Oaks community, the Georgetown Oaks development is "reasonably foreseeable" under 40 CFR § 1508.7 and related regulations.³³ According to one land planner in the Houston area, there are numerous approved developments, such as

Georgetown Oaks, that are planned for the area of the TCR rail line but were ignored in the DEIS.³⁴ The DEIS should have considered the cumulative impact from the TCR proposal in conjunction with the development of the Georgetown Oaks site.³⁵ The failure to do so “is a significant oversight.”³⁶

The DEIS asserts that “research” was conducted to determine the existence of other past, present, and reasonably foreseeable actions,³⁷ but the failure to consider or even mention the Georgetown Oaks plan reveals that this research was wholly inadequate. Indeed, it appears as if the DEIS focused almost entirely on public and quasi-public future road and transportation actions, wholly ignoring private land developments like Georgetown Oaks.³⁸ The fact that the Georgetown Oaks development may never require NEPA analysis at any stage is no reason to ignore it for cumulative effects purposes.³⁹ The failure of the DEIS to consider the Georgetown Oaks project is surprising given that one of the seminal “cumulative effects” court decisions regarding NEPA in Texas found that “a tax zone with development incentives” and the granting of permits for a “large housing development” constituted reasonably foreseeable actions that should have been considered.⁴⁰ The DEIS is also faulty because it excluded consideration of most environmental resources (water quality, noise and vibration, hazardous materials, floodplains, etc.) from its already-inadequate cumulative impacts analysis. As described on pages 4-13 to 4-17, the DEIS only considered 9 of the 23 environmental resources in its cumulative impacts analysis.⁴¹ This limited review exacerbates the related failure to consider the Georgetown Oaks project as a “reasonably foreseeable” action. The DEIS should have included Georgetown Oaks in its cumulative impacts analysis, and this analysis would then have been required to expand the scope of the cumulative impacts analysis to include additional environmental resources, including noise and vibration, floodplains, and aesthetic and visual.

C. The DEIS Fails to Sufficiently Acknowledge the Incompleteness of Field Surveys.

TCR is aware that Delta Troy exists. TCR requested permission to enter onto Delta Troy property to conduct surveying, but Delta Troy declined to provide the permission. Delta Troy is aware that many other landowners similarly declined to permit TCR entrance onto their property. Because of this lack of access, the DEIS relied repeatedly on inadequate field surveys for its conclusions.⁴² Only occasionally did the DEIS acknowledge or subtly hint that it was unable to conduct adequate field surveys due to a lack of access. Regarding hazardous materials, the DEIS conceded that the “field reconnaissance did not meet Phase I Environmental Site Assessment (ESA) standards since entire corridor was not visually surveyed for hazardous material sites, which is a deviation from standard TXDOT hazardous material identification process.”⁴³ Similarly, the DEIS acknowledged the limited field survey for endangered species.⁴⁴ The failure of the DEIS to acknowledge the lack of relevant information in other aspects of the environmental review means the DEIS does not fully evaluate the impacts of the proposed TCR project, thereby rendering the DEIS faulty under 40 CFR § 1502.22.

V. The DEIS is Misleading at Best Because the Utility Corridor Has Been Justified as Already Significantly Disturbed by an Overhead Transmission Line and a UPRR Rail Line – But This is Not True for the HC-4 Alternative Across Delta Troy’s Property. The Utility Corridor has been presented and justified on the basis that the land contained therein is already substantially disturbed. This is incorrect for the HC-4 Alternative across Delta Troy’s property. Moreover, the DEIS fails to include any alternatives to the Utility Corridor in the southern one-third of the entire proposed TCR route. This failure to consider reasonable alternatives not only violates regulatory requirements found at 40 CFR §§ 1502.2 and 1502.14, but also prevents commenting parties such as Delta Troy from being able to meaningfully participate in the development of the Final EIS. If there are no alternatives for all of Harris County, all of Waller County, and 90% of Grimes County, why would the citizens of those counties expend the effort to participate? Their Constitutional due process rights have already been taken from them, with the TCR alignment for one-third of the route apparently chosen before the DEIS was even issued.

Unfortunately, the environmental review process has not seriously considered the “No Build Alternative” as a meaningful option in this case as required under NEPA. The FRA’s role is to issue railroad safety rules, including a Rule of Particular Applicability for the high-speed operations proposed by TCR.⁴⁵ Given what FRA has said, it appears unlikely that the FRA would not issue safety rules to govern any future TCR operations. Indeed, the FRA introduced the DEIS by stating that it would either (1) “issue a Rule of Particular Applicability,” (2) “impose requirements or conditions by order(s) or waiver(s),” or (3) “take other regulatory action(s) to ensure the Project is operated safely.”⁴⁶ Rightly or wrongly, the FRA did not consider rejection of the TCR proposal as a plausible option. Given this set of circumstances, the FRA must propose, and allow comment upon, true alternative routes for the citizens of Harris and Waller Counties (and 90% of Grimes County).

In 2015, the Corridor Alternatives Analysis Technical Report claimed that the “Utility Corridor would follow the Centerpoint Energy and Oncor Electric Delivery high-voltage electrical transmission lines (345 to 500 kilovolts (kV)).”⁴⁷ This is not true. The Technical Report later contended that, entering Houston, the Utility Corridor “would follow and use the UPRR Eureka Subdivision into downtown Houston.” This is also not true. The Georgetown Oaks community site is bisected by the proposed TCR route, yet this route is not following either the high-voltage electric transmission line or the UPRR line in passing through the middle of Delta Troy’s property.⁴⁸ Moreover, the location proposed by TCR for the Houston Station is in the northwestern part of the city, not downtown. See DEIS at ES-4 and ES-30.

The misleading justifications for the Utility Corridor reveal the great need for alternative routings to be considered in this part of Harris County, yet no such alternatives were considered in the DEIS. As mentioned above, there is only a single “alternative” in the DEIS for the southern one-third of the entire TCR project route.

Delta Troy is not alone in being gravely concerned about the sequence of events that led to this exclusive focus on the Utility Corridor – which only provides one “alternative” throughout the entire southern one-third of the proposed TCR route. The President of the Waller

County Sub-Regional Planning Commission expressed serious frustration with the premature focus on the Utility Corridor before detailed environmental impacts analysis.⁴⁹

Several years ago, the FRA considered other possible corridors, including the UPRR Corridor, the BNSF Corridor, and the I-45 Corridor.⁵⁰ However, long before the DEIS was issued, the FRA eliminated these corridors for various reasons. The reasons supposedly supporting elimination of the UPRR Corridor are clearly not insurmountable, however, because the preferred “Utility Corridor” itself relies upon a UPRR rail line for part of its length.⁵¹

The FRA’s single-minded focus on the Utility Corridor is all the more problematic given that the FRA did not consider various permutations and combinations of the Utility Corridor, the BNSF Corridor, the UPRR Corridor, and the I-45 Corridor. These corridors cross each other multiple times,⁵² yet the FRA only considered one curious combination corridor – the “Utility Corridor with I-45 Alignment.” This combination would have required a significant length of “greenfield” track to connect the two corridors.⁵³ This combination would have used the I-45 Corridor in the north and the Utility Corridor in the south.

The FRA never explained why it failed to consider the opposite – the Utility Corridor in the north and the I-45 Corridor in the south – even though such a route would have required a “greenfield” track of similar length. More glaring is the omission of a Utility-BNSF combination. The Utility Corridor crosses the BNSF Corridor in Grimes County, yet the FRA did not consider a combination of the Utility Corridor in the north and the BNSF Corridor in the south.

All these curious decisions show the great need for further analysis of meaningful alternatives for the entire TCR route at the Draft EIS stage, including the location for the Houston Station. See, e.g., 40 CFR § 1502.14. The FRA has stated that it is open to revisiting the preferred route and that it has “not identified a preferred alternative for the Houston Terminal Station at this time.” See DEIS at ES-32 and 2-21. Selection of another

route and a Houston Station location should be done in tandem, because an alternate route into Houston would facilitate use of a downtown Houston Station rather than the ill-conceived northwest Houston site proposed in the DEIS. See Section VII.D.

VI. The Proposed TCR Project Would Have a Dramatic and Negative Impact on Delta Troy and the Georgetown Oaks Community.

The TCR project would devastate the planned Georgetown Oaks community by bisecting the site. As proposed in the DEIS, the HC-4 Alternative would permanently scar a significant portion of the community land, cause closure of or prevent development of approved roadways, create visual blight, depress property values, cause water retention problems, harm the job creation that would otherwise occur, and otherwise compromise if not prevent the other public goods that would come from the community. The DEIS recognizes that placing the TCR outside existing transportation infrastructure “would cause greater impacts to residential and commercial properties.”⁵⁴ However, the DEIS failed to implement this understanding with respect to its preference for the HC-4 Alternative through the Georgetown Oaks community site, because this routing does not follow any transportation infrastructure in bisecting Georgetown Oaks.

The DEIS naively suggests that “[l]inear projects” like the TCR proposal “have a narrow footprint and typically do not substantially change the pattern, intensity and character of land use.”⁵⁵ The DEIS also stated that “[m]any of the reasons for decreased property values around other transportation projects, such as noise and vibration impacts, would not apply to the electrified HSR design.”⁵⁶ These facile suggestions ignore the inevitable severe impacts from 200 mile-per-hour trains running throughout the day on a thirty-foot high viaduct. “Simple, conclusory statements of ‘no impact’ are not enough to fulfill an agency’s duty under NEPA.” Foundation on Economic Trends v. Heckler, 756 F.2d 143, 154 (D.C. Cir. 1985).

Many of the negative impacts on Georgetown Oaks are encompassed in the mitigation discussion in Section VIII below. A summary of the negative impacts is also provided in the attached Exhibits 14 and 15. None of these issues have been addressed in the DEIS – which completely ignored Georgetown Oaks – and, therefore, the DEIS fails to comply with NEPA as described in 40 CFR §§ 1502.16(c), 1506.2(d), and 1508.7. Delta Troy would like to highlight a few of the more notable negative impacts below:

A. Socioeconomics and Community Facilities.

The DEIS is deficient in that it ignores the damaging effects of the proposed rail line on economic development in the area. As mentioned above, the Georgetown Oaks community is planned and approved, but implementation has been complicated and delayed due to the uncertainty caused by the TCR proposal. See Section III. The DEIS disregards this economic harm. In fact, the DEIS claims the TCR will aid economic development,⁵⁷ yet the DEIS does not address the deleterious effects of the proposed rail project on the jobs and economic development that would otherwise occur as a result of the Georgetown Oaks community. Delta Troy obtained a professional opinion regarding the number of jobs that would be supported on-site at Georgetown Oaks at full build-out. Dr. Randall Jackson estimated that the Georgetown Oaks community could directly support over 16,000 jobs at full build-out, nearly 9,000 on the community parcel south of U.S. 290 and slightly over 7,000 north of U.S. 290.⁵⁸ If the TCR proposal is constructed across Delta Troy’s property, job creation at Georgetown Oaks would inevitably be noticeably decreased from this estimated level due to the taking of a significant portion of the Georgetown Oaks southern parcel, the other harms from the rail line, and the reduction in adjacent property values that would result.

Property values would be reduced due to a variety of reasons, including noise, visual blight, blocked roads, and inaccessibility. One Houston-area land planner cautioned that noise, vibration, and closed roads “will likely limit what land uses will want to be located near the rail” and, consequently, “there are no compatible land uses other than those directly serving the maintenance or support of the rail itself.”⁵⁹ The DEIS acknowledges that “transportation infrastructure can create a localized barrier between a residential community and social or community resources.”⁶⁰ However, the DEIS fails to apply this understanding to the Georgetown Oaks community.

The Georgetown Oaks site is in the Waller School District, which has less financial resources than its neighbor to the east, the Cy-Fair ISD. Many schools in the Waller district need extensive rooftop replacement, and the Georgetown Oaks development would have added substantially to the finances available to the Waller School District. In contrast, the proposed TCR project would prevent full realization of the Georgetown Oaks plan, depress property values, and substantially reduce expected finances available to local public schools. The DEIS recognizes that the proposed TCR project could have tax base implications, but improperly limits the analysis to station areas only.⁶¹

B. Floodplains.

The DEIS is deficient in that it ignores the dramatic changes that are occurring in southeastern Texas as a result of Hurricane Harvey. This catastrophic event caused over 100 deaths and approximately \$125 billion in damage – most of that in southeastern Texas. A Japanese-led business enterprise may not realize how life-changing Hurricane Harvey was for people in the Houston area and throughout southeastern Texas. In the aftermath of Hurricane Harvey, federal, state, and local government officials are studying the flooding that occurred during Hurricane Harvey in an attempt to develop measures to prevent such flooding events in the future. New water detention and flooding prevention laws, regulations, and policies will likely be dramatically different from those in effect today. Until the Army Corps of Engineers and other government agencies decide upon and implement these new laws and regulations, the DEIS is premature and based on a stale legal framework. The FRA should require a revised DEIS, or a Supplemental DEIS, once these new legal standards are announced. Hurricane Harvey made landfall in Texas in late August 2017, almost four months before the DEIS was issued. However, the DEIS makes no mention of Hurricane Harvey. Given that the devastation of Hurricane Harvey was well-known several months before the DEIS was issued, the DEIS should have, at a minimum, acknowledged that the effects and regulatory fallout from Harvey was not addressed in the DEIS. Governing regulations require the DEIS to state when relevant information about “reasonably foreseeable significant adverse impacts” is “incomplete or unavailable.” See 40 CFR § 1502.22(b). For the purposes of this regulation, an impact is “reasonably foreseeable” if it has “catastrophic consequences, even if...[the] probability of occurrence is low.” 40 CFR § 1502.22(b)(1). Under this regulation, the DEIS should have mentioned Hurricane Harvey. Not only does the DEIS fail to mention Hurricane Harvey, but the “Floodplains” section of the DEIS does not mention hurricanes at all.⁶² The failure to address Hurricane Harvey and hurricane-caused flooding warrants, at a minimum, a Supplemental DEIS. Under governing regulations, FRA must prepare a “supplement[]” to the “draft environmental impact statement[]” because Hurricane Harvey is a “significant new circumstance[] or information relevant to environmental concerns and bearing on the proposed action or its impacts.” See 40 CFR § 1502.9(c)(1)(ii). As one federal court said less than two months ago, “preparation of an SEIS [Supplemental Environmental Impact Statement] is required where there is new information relevant to environmental concerns that was not previously considered.”⁶³ The FRA should require a new DEIS, or a Supplemental DEIS, to address Hurricane Harvey and the altered legal framework that is now being developed.

C. Construction Staging Area.

TCR has proposed that a large construction staging area should be located on the Georgetown Oaks community site.⁶⁴ This construction staging area will cause extensive interference with the Georgetown Oaks community. The proposed staging area is currently undisturbed land, used only for farming. As such, it is inappropriate for staging under TCR’s own guidelines. See, e.g., DEIS at 3.6-69 (TCR claimed it would use “previously disturbed areas for staging”). TCR also asserted that “adverse effects on floodplains...would be minimized by siting the majority of construction staging and access areas...outside of floodplains.” See DEIS at 3.8-23. Again, this is not true for the Georgetown Oaks site, where the staging area is proposed to be on top of the water detention for Georgetown Oaks. See Exhibit 3. Drainage and detention should not be taken lightly by TCR or the FRA in the Houston area because the consequences can be catastrophic, as Harvey and other recent flooding events have shown (like the Tax Day Flood in 2016 and the Memorial Day Flood in 2015).

As approved by the City of Houston Planning Commission, Delta Troy has planned for water detention to occur on a significant portion of the community site that TCR wants to use for construction staging. Compare Exhibits 8, 9, and 10; with DEIS, Appendix G, Volume 2-1 (page 75) and Volume 4-1 (page 38).

The DEIS fails to mention or address this conflict between the approved Georgetown Oaks plans and the proposed TCR project, thereby violating 40 CFR §§ 1502.16(c) and 1506.2(d). More broadly, the conflict will delay, complicate, and otherwise harm the development of the Georgetown Oaks site, including all the public benefits that will come from that development. See Section VI.A. Delta Troy will be forced to curtail development until TCR relinquishes control of the construction staging area, which would likely be many years, because the staging area will prevent adequate water detention at Georgetown Oaks.

The DEIS admits that staging areas would utilize “impervious cover” and “would increase stormwater runoff peak flow rates and total runoff volumes during a rainfall event.” DEIS at 3.8-26. The DEIS also admits that staging areas could cause the introduction of invasive species. DEIS at 3.6-49. Consequently, the construction staging area at Georgetown Oaks would cause untold harm to the development process there and also to any parts of the community that are already developed.

VII. The DEIS Fails to Adequately Consider a Wide Range of Other Impacts.

Despite its flaws, the DEIS makes clear in its 5,647 pages that the high speed rail project proposed by TCR would have grave environmental consequences. Even a cursory review of the DEIS Executive Summary reveals the following serious environmental impacts:

1. “Sedimentation and stormwater runoff from construction may also contain bacteria, nutrients, particles and other constituents attached to sediment or carried separately by stormwater which contribute to pollutant loading. Increased pollutant loading in runoff may impact surface water and groundwater quality.” Page ES-10.
 2. “[P]ermanent physical impacts would occur to groundwater wells during construction, including public water system wells, where the HSR would cross the location of the wells.” Page ES-10.
 3. “Operational impacts would result from stormwater runoff and operation activities, such as maintenance of culverts or bridges, fueling and train maintenance activities and obtaining water supplies for the operational facilities and trains.” Page ES-10.
 4. “Operation of the Build Alternatives would have permanent impacts on surface water quality including impaired stream segments.” Page ES-10.
 5. “The Build Alternatives would severely impact 15 (Build Alternatives C and F) to 19 (Build Alternatives B and E) residential sensitive receivers.” Page ES-11.
 6. “All Build Alternatives would result in temporary and permanent impacts to vegetation, direct loss of wildlife habitat, increases in habitat fragmentation and impediments to the movement of wildlife across the landscape.” Page ES-13.
 7. “[T]he permanent footprint and construction of access roads, stations, facilities, and where the Build Alternatives would be constructed on embankment or fill would prohibit the flow of water and result in a permanent impact.” Page ES-14.
 8. “HSR track and supporting facilities (e.g., permanent roads, parking areas, access/maintenance areas, terminals and non-vegetated embankments) would result in permanent impacts to floodplains.” Page ES-15.
 9. “Due to the size and expected electrical demand of the Build Alternatives, it is likely that statewide electricity reserves and electrical transmission capacity would be affected.” Page ES-17.
 10. “The Brazos Valley Station would be out of scale and not compatible with its surrounding landscape. Page ES-17.
 11. “Build Alternative F would have the fewest permanent impacts to roadways at 147, and Build Alternative B would have the most at 246.” Page ES-19.
 12. “[B]etween 3,145 and 4,394 acres....of special-status farmland would be permanently converted to transportation use.” Page ES-20.
 13. “The rural counties within the Study Area contain special-status farmland. These lands are a vital part of the Texas landscape and their potential conversion to non-agricultural uses represents a fundamental change that would be irreversible.” Page 3.13-43.
 14. “The impacts to children’s health and safety would occur at five schools adjacent to construction laydown areas contained within the LOD of the Build Alternatives.” Page ES-22.
 15. “Road closures, detours and localized automobile congestion caused by construction could increase the response time for law enforcement, fire and emergency services personnel and school buses.” Page ES-24.
- In the remainder of this Section, Delta Troy will describe a variety of other environmental impacts that were insufficiently addressed in the DEIS.

A. Floodplains.

Drainage and detention are critical issues for the Houston area due to the significant rainfall, flat landscape, and impermeable soils. As described above, not only did the DEIS fail to address Hurricane Harvey, but it also did not even mention hurricanes in general in the Floodplains section. See Section VI.B above. All relevant agencies have been forced to reconsider their standards in the aftermath of Hurricane Harvey, and there will inevitably be an impact on future development and drainage requirements in the Houston region from these revised standards. One land planner in the Houston area cautioned that, as a result of the coming regulatory changes:

the information and plans for this [TCR] project’s drainage and detention should be reevaluated and the permit application to the US Army Corps of Engineers delayed until further notice, until such a time in which the planned detention basins and culvert crossings are further analyzed and adequately sized to meet drainage requirements based on post-Harvey conditions.⁶⁵

As proposed in the DEIS, the TCR project might require a larger physical footprint on the ground than currently envisioned “in order to prevent downstream impacts and provide adequate project drainage and detention volumes based on post-Harvey

requirements.”⁶⁶ Of course, a larger footprint would increase most if not all environmental impacts from the rail corridor, including but not limited to traffic impacts, road closings, economic harm, depressed land values, aesthetics and scenic resources, and natural resources.

B. Noise and Vibration.

The DEIS made some effort to address the impact of noise and vibration on sensitive land uses in the area of the proposed TCR rail line. See DEIS at 3.4-5. However, Delta Troy’s land planner found this analysis “inadequate for a project of this magnitude” because it failed to take into account planned future land uses.⁶⁷ This is another instance of the DEIS failing to comply with the requirements to address local land use plans and the cumulative effects of reasonably foreseeable actions. See Sections IV.A and IV.B above.

C. Land Use.

Concerns for roadway connectivity are inadequate in the DEIS according to Delta Troy’s land planner, who found that the DEIS failed to address Major Thoroughfare Plans (such as the Houston MTFP), the General Plans of master planned communities, or any road crossings for future roads (even if approved). See Exhibit 12 at pages 4-5. This land planner noted that the road closures proposed in the DEIS could greatly complicate local transportation for persons living or working near the rail corridor. See Exhibit 12 at page 5.

D. The Houston Station Location is Poorly Conceived.

The proposed TCR project would include a rail station in northwestern Houston, approximately seven miles from the central business district in downtown. See DEIS at ES-4 and ES-30. Many TCR passengers could be expected to be business, convention, or leisure travelers heading to downtown’s collection of skyscrapers, office buildings, and hotels. From this perspective, a downtown station would be ideal. In contrast, the northwest Houston location specified in the DEIS is bounded on two sides by interstate highways, and otherwise is a low-rise area of light manufacturing, warehouses, a few small office buildings, a few apartments, and single family homes. It can be expected that virtually all passengers arriving at a northwest Houston station location would need to travel several miles further to reach their final destination.

Consequently, the northwest Houston location would cause traffic problems and related environmental impacts as the transportation needs of arriving and departing passengers clog adjacent roads. From this perspective, too, the downtown location would be much better – downtown Houston is the core of Houston’s growing light rail transit system, which could be used by both arriving and departing passengers. There is no light rail line that serves northwestern Houston or anywhere near the proposed northwest Houston station site.

E. New Floodplain Regulations May Be Imminent.

The City of Houston is voting on new flood control regulations on March 21, 2018.⁶⁸ If new regulations are adopted, the DEIS analysis of flooding and water detention issues will be stale. A new analysis and round of comments would be warranted if new regulations are issued.

VIII. Significant Additional Mitigation is Necessary if the Preferred Alternative is Implemented.

If the FRA continues to use the Utility Corridor with the HC-4 Alternative (which it should not, as described in these Comments), extensive additional mitigation is necessary due to the severe impacts on the Georgetown Oaks community site. The DEIS is inadequate because it fails to describe reasonable means to mitigate adverse environmental impacts of the proposed project, as required by 40 CFR § 1502.16(b). The additional necessary mitigation includes:

A. The TCR Line Should Be Located in a Tunnel Under Georgetown Oaks.

The proposed TCR project would cause major, permanent, and irreversible damage to property owned by Delta Troy and the already-approved Georgetown Oaks community. See Sections III and VI above. Major benefits that would be expected from Georgetown Oaks would be significantly curtailed due to the TCR project as proposed in the DEIS. See Section VI.A.

Fortunately, much of the damage of the current TCR route could be avoided, and many of the benefits of Georgetown Oaks would still be realized, if the TCR project were placed in a tunnel underneath the Georgetown Oaks community. Such a tunnel would need to be designed and

sited in such a way so that road crossings, utility crossings, and reasonable land development could occur on the ground surface above the tunnel. Use of an appropriately-designed tunnel would alleviate several of Delta Troy’s concerns, and would render moot some of the other mitigation requests in this Section VIII. A tunnel would also allow TCR to avoid conflicts with the adjacent crossings of major transportation thoroughfares, namely U.S. 290, Hempstead Road, and the UPRR rail line. Delta Troy urges the FRA to require TCR to use a tunnel for the section of the HC-4 Alternative across the Georgetown Oaks community location.

B. Road Crossings Are Necessary.

The TCR line across the Delta Troy property is currently proposed as an overhead viaduct.⁶⁹ Delta Troy should be permitted to develop at least four east-west roads that would cross under or over the viaduct between U.S. 290 in the north and Hempstead Road in the south. TCR should be required to work with Delta Troy regarding these grade-separated crossings, and TCR should be required to pay for the cost of such crossings.

C. The East-West TCR Access Road South of U.S. 290 Should Be Prohibited.

TCR should be prevented from building the proposed east-west access road that would connect Binford Road to the TCR rail line on the south side of U.S. 290. See DEIS, Project Footprint, Segment 5, Sheet 491. This proposed access road would prevent direct connection from the east side of the Georgetown Oaks community to any frontage road along U.S. 290. There is an entirely separate TCR access road planned on the north side of U.S. 290; therefore, elimination of the access road on the south side of U.S. 290 would not prevent TCR from being able to reach the rail line in the immediate area. The Texas DOT has allowed developers in other locations to construct frontage roads on their adjacent properties and access the main roadway at approved ramp locations. The proposed TCR project would eliminate this possibility for Delta Troy due to the TCR access road along the southern edge of U.S. 290 just east of Binford Road.

D. TCR Should Design its Bridge Over U.S. 290 to Enable Future Frontage Roads.

Although frontage roads exist along U.S. 290 for most of its route in the vicinity of Georgetown Oaks, they do not exist for a short distance east of Binford Road. This is the exact site of Georgetown Oaks. As development proceeds at Georgetown Oaks, frontage roads will be particularly valuable for facilitating the flow of traffic between U.S. 290 and the many homes, offices, businesses, and other destinations in Georgetown Oaks. As described above, the Texas DOT has permitted developers to add frontage roads to U.S. 290. Therefore, TCR should be required to design its bridge over U.S. 290 so that sufficient room exists under the bridge for a future frontage road on the north and south sides of U.S. 290.⁷⁰

E. TCR Should Not Be Permitted to Close Local Roads.

TCR should be prevented from closing local roads, both existing and planned, in the area of the Delta Troy property. As mentioned above, the TCR rail line is proposed as a viaduct in the area of Delta Troy's property; however, it is unclear whether TCR intends to prevent all east-west grade-separated crossings of this viaduct (presumably underneath) by local roads. The DEIS indicates that the viaduct could be as low as four feet off the ground, and also that the "ROW would be fully access-controlled."⁷¹ If grade-separated road crossings are prohibited, and road closings are anticipated, significant negative traffic impacts will be felt in the vicinity of the Georgetown Oaks community as land development continues in the area.⁷² Moreover, road closings would also complicate evacuation of the area in the event of a hurricane or similar event. The FRA should prohibit TCR from closing existing and planned roads in the area.

F. TCR Should Be Required to Augment its Flooding Prevention and Water Detention Measures.

Flooding and drainage issues are a significant concern in the Houston area due to the high average precipitation, the regular appearance of hurricanes, and the flat landscape. Even though TCR proposes a viaduct across the Delta Troy property, the proposed project would exacerbate flooding and water detention in the area due to the footprint of the viaduct, including access roads, and the construction process itself. Furthermore, the TCR project would eviscerate or complicate planned flooding control measures already included in the Georgetown Oaks plan.

See Exhibit 3. The FRA should require TCR to develop flooding control measures and water detention to replace the planned measures that would be lost at Georgetown Oaks due to the TCR project. The measures required of TCR should be developed in light of the planned Georgetown Oaks project.

G. Utility Crossings Are Necessary.

The Georgetown Oaks community will need normal utilities like water lines, sewer lines, electricity, natural gas, storm water control, etc. The DEIS asserts that the proposed TCR right-of-way "would be fully access-controlled."⁷³ It is unclear if this means that TCR intends to prevent utility crossings of the right-of-way; if so, this would cause extensive additional expense for Delta Troy in duplicating utilities in the Georgetown Oaks community on both sides of the TCR right-of-way. The FRA should require TCR to permit and facilitate utility crossings of the right-of-way, including future utilities for the Georgetown Oaks community.

H. Noise Abatement Should Be Required.

Abatement of noise from adjacent transportation corridors is an important part of the Georgetown Oaks design. Delta Troy has already explored needed noise abatement from U.S. 290 for the Georgetown Oaks community, and the DEIS itself recognizes the need for noise and vibration protection measures.⁷⁴ However, the proposed TCR project would involve a tall viaduct through the Georgetown Oaks site, thereby creating the need for an expensive noise abatement wall through the center of the Georgetown Oaks community. The FRA should require TCR to install noise abatement measures through the Georgetown Oaks community.

I. Construction Staging Should Be Prohibited At Georgetown Oaks.

As described in Section VI.C, TCR has proposed a construction staging area on the Georgetown Oaks community site in contravention of the selection principles for such staging areas. This staging area would have significant impacts to the natural environment and Georgetown Oaks. Any contamination to the land at this location could permanently jeopardize the already-approved development of the Georgetown Oaks community. The FRA should require TCR to relocate this staging area to a different portion of the rail corridor, not on the Georgetown Oaks community property.

J. Vegetation Screening Should Be Required.

The TCR rail line would be visually damaging for the Georgetown Oaks community. TCR should be required to install vegetation screening for the line through Georgetown Oaks.

IX. Conclusion.

Delta Troy respectfully requests that the FRA require a new DEIS or, at a minimum, a Supplemental DEIS so that the deficiencies in the DEIS can be remedied. Delta Troy also urges the FRA to discard the Utility Corridor, with the HC-4 Alternative, for the southern part of the TCR route. As the TCR approaches Houston, an alternative routing should be utilized, such as the BNSF Corridor or the I-45 Corridor.