

July 27, 2017

Mr. Quincy Allen, P.E.  
Houston District Engineer  
Texas Department of Transportation  
P.O. Box 1386  
Houston, Texas 77251

Re: North Houston Highway Improvement Project – DEIS Review

Dear Mr. Allen,

We write to you as a coalition of Houston neighborhood, civic, parks, transportation, quality of life and historic preservation groups. All of our organizations have worked for many years to improve our city. And although we all fully recognize the need for thoughtful infrastructure and mobility improvements for our growing region, we share strong concerns that TxDOT's North Houston Highway Improvement Project is being designed in a manner that runs counter to our work and to what makes Houston great – our diverse neighborhoods, our parks, our connections to one another, and our bayous.

Our groups believe that this project must be evaluated in the context of Mayor Turner's drive for Complete Communities, particularly given the unfortunate legacy of highway projects that split communities, especially low-income neighborhoods. The project must serve Houston's current and future economic development needs – not just from the perspective of developed land which will permanently come off the tax rolls and be unavailable for commerce and industry – but also from the perspective of all those qualities which make our city a desirable place to live.

We understand from TxDOT's "purpose and need" statement that the I-45 expansion must be viewed in a regional context. Some of the traffic the project is estimated to carry will have its destination inside the City of Houston, but much of it will have regional destinations. For this reason, it is critical that TxDOT delivers a project that leaves Houston in a better position than before, and takes care to ensure that the I-45 expansion does not negatively impact the city in order to deliver benefits to surrounding areas.

We believe that while the I-45 expansion may offer regional mobility benefits, it must also be evaluated against the broader goal of intra-city and neighborhood mobility. To serve Houston's interests, at a minimum, the project should improve mobility across all transportation modes within the city, and it should improve mobility on surface streets for all modes of transportation, whether people or engine-powered.

Our concerns have grown as we have closely reviewed the Draft Environmental Impact Statement (DEIS) that TxDOT has made available for public comment. Many organizations within this coalition participated in the scoping process for the proposed project in 2015, as did the City of Houston. The DEIS does not reflect far too many of the scoping suggestions made by both the City and our

organizations during that public comment period. Furthermore, despite these suggestions, TxDOT has made very few commitments in response to those scoping comments.

The proposed rebuilding and rerouting of I-45 / I-10 at the expense of numerous neighborhoods, signature parks, and Houston's evolving linear park system represents the kind of single-purpose, massive highway project that most American cities are actively dismantling, not building. Projects such as this divide and often have the effect of destroying communities. This potential for division is not adequately addressed in the DEIS. At a time when Houston seeks to build complete communities, TxDOT takes a single-purpose approach to land use in Houston. Where the DEIS does disclose certain impacts, it transfers the necessary mitigation of these impacts to others. Furthermore, the DEIS does not adequately identify which other entities will be responsible for mitigation or the agreements reached with those third parties. Other than passing references to Metro and the Houston Bike Plan, it largely fails to put the Highway Improvement Project into a comprehensive transportation plan context. Consideration of integrating mass transit, local streets and pedestrian / bike routes, and new linear parks being built around the city are not contemplated in the DEIS.

We have set forth below general comments and examples of how this project does not meet Houston's transportation, neighborhood and quality of life needs. We have also attached a detailed list of the specific issues we urge TxDOT to address. In our comments, we have broadly characterized these deficiencies across several areas:

- Disproportionate impact to low-income communities
- Impact to economic development opportunities
- Impact to parks and recreation areas
- Poorly conceived highway/urban interfaces
- Noise impacts
- Air quality impacts
- Visual impacts
- Impacts on walkability and cycling
- Water quality and flooding impacts

**We understand the North Houston Highway Improvement Project's automotive benefits, but the project will have significant impacts on communities, multi-modal safety, and the environment that the DEIS does not adequately address. Given the substantive deficiencies in the DEIS, it should be supplemented and the public process kept open until such time as TxDOT fully addresses the impacts as summarized in this letter and its attached detailed comments.**

#### **Disproportionate Impact to Low-Income Communities**

The DEIS clearly states that the proposed project will have a "disproportionate impact on low-income and disadvantaged communities." A plain reading of the DEIS indicates that these impacts include visual, noise, air pollution, and the splitting of communities.

Executive Order 12898 requires that Federal agencies make achieving environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations and low-income populations. The Federal Highway Administration delegated to TxDOT their Federal

and NEPA compliance responsibilities; the document fails to explain how this responsibility is being fulfilled by TxDOT.

The DEIS makes clear that the project will displace dozens of single-family homes, many hundreds of multi-family housing units (many of which are public housing), thousands of jobs, houses of worship, schools and social services. These impacts will occur largely in low-income black and Hispanic communities. The project will exacerbate physical barriers between neighborhoods, and between neighborhoods and downtown, and again, most of these affected communities are low-income.

The proposed project further separates low-income neighborhoods from opportunities. For example, Polk Street's connection to downtown will be eliminated, despite its important role as a critical east-west connector between Downtown and routes to the East End and Third Ward for vehicles, pedestrians, and bicyclists.

On the segment between 610 and Beltway 8, which includes the edge of the historic Acres Homes neighborhood, TxDOT proposes widening I-45. Unlike higher income areas of town, or even in the areas between I-10 and 610, TxDOT does not propose to build the highway below grade.

The U.S. Census Bureau shows the largest share of people who bike, in large car-dependent cities like Houston, are in lower-income brackets. Given the immediate surrounding neighborhoods and the location of our Bayou Greenways, current and future bicycle infrastructure, bicycle connectivity is of paramount concern for these low-income communities (see below for more detail).

### **Impact to Economic Development Opportunities**

The proposed project will take significant amounts of private land currently on Houston's tax rolls and will eliminate the possibility of economic activity on a permanent basis. These include high value real estate in the EaDo area and many other acres of land across the city. TxDOT estimates an annual \$789,000 residential property tax loss, \$1.2 million business property tax loss, \$1.0 million other property tax loss, and \$5.2 million potential sales tax loss. These losses do not account for degradation of property values due to visual and noise impacts. Discounting these losses at the City of Houston's cost of capital of approximately 4%, the present value of these losses is on the order of \$200 million, again without accounting for the loss in value to adjacent properties due to noise and visual impacts.

The DEIS does not propose any mitigation strategy for these impacts, other than the possibility of platforms upon which to build parks costing hundreds of millions of dollars, paid for by unidentified third parties, that may enhance nearby property values.

### **Impact to Parks and Recreation Areas**

The DEIS simply ignores or dismisses the impact of the project on parks, recreation, and open space, and dramatically underestimates the impact to Houston's bayou parkland. Using TxDOT's May 2017 Schematic to estimate Bayou Greenway and parks impacts, Houston will lose approximately 27 acres of current open space. These impacts are not disclosed or contemplated in the DEIS. The following tables estimate the park and recreation area impacts of the proposed project.

	<b>Freeway to be Added</b>	<b>Freeway to be Removed</b>	<b>Net Total</b>
White Oak Bayou Greenway / Freed Park	22 ac	4 ac	18 ac
Little White Oak Bayou Greenway	13 ac	3 ac	10 ac
Buffalo Bayou Greenway / Downtown Parks	4 ac	5 ac	-1 ac
<b>Net Loss of Greenway</b>			<b>27 ac</b>

Detailed Breakdown of Park Impact (acreages are included in the above Greenway calculations)

	<b>Freeway to be Added</b>	<b>Freeway to be Removed</b>	<b>Net Total</b>
Freed Park	0.17 ac	-	0.17 ac
Linear Park	2.35 ac	0.01 ac	2.34 ac
Sam Houston Park	0.63 ac	-	0.63 ac
Sabine Promenade	0.13 ac	-	0.13 ac
<b>'Current' Parkland Impacted</b>			<b>3.27 ac</b>

Existing Trails (By Others) Lost by Freeway Expansion

	<b>Trail Removed</b>
Little White Oak Bayou Greenway	0.2 mi

As TxDOT points out in the DEIS, "Section 4(f) of the Department of Transportation Act of 1966 prohibits the Secretary of Transportation from approving any program or project that requires the "use" of 1) any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance as determined by federal, state, or local officials having jurisdiction thereof..." This project has considerable impact on such areas.

### **White Oak Bayou Greenway**

The White Oak Bayou Greenway is part of Bayou Greenways 2020, a \$220 million public/private investment by the City of Houston to provide continuous linear parks and recreation areas, with hike/bike trails, along 150 miles of Houston's major waterways. The White Oak Bayou Greenway extends over 15 miles from the city limits to UH Downtown where a federally funded TIGER project, currently under construction, is connecting White Oak Bayou Greenway to Buffalo Bayou Park. That TIGER project also includes neighborhood connections to Main St. and Leonel Castillo Community

Center, plus bikeways to the transit centers on Fulton. It represents the kind of complete community effort that Houston is working toward and for which federal funds are currently being deployed.

The 1,100 feet of White Oak Bayou Greenway from the current I-45 overpass at UH Downtown west to Hogg Park are completely open to the sky and the bayou except for small under crossings at the railroad bridge and Hogan Street. The linear park features wildflowers and a hike / bike trail maintained by the Houston Parks Board. It offers amazing views of downtown for most of its length. The impact to this visual resource and to the Greenway itself is not described in the DEIS. All that sense of open space will be significantly impacted by the North Houston Highway Improvement Project. The project will extend seven new highway over-passes above the Greenway's widest stretch. The new overpasses would create an overwhelming new visual and audible intrusion onto the landscape. Moreover, additional lanes parallel to the bayou encroach further into the south side of the Greenway to the point where they impose on the bayou itself.

The DEIS appears to suggest that if the project maintains just the hike/bike trail, no impact results. That ignores the impact to the Greenway and open space itself of which the hike/bike trail is just a component. The project eliminates that open space. While some freeway will be removed by the project, the Houston Parks Board estimates a net loss of 18 acres of open space effectively covered by the project in just the stretch between UH Downtown and Hogg Park. That open space will be lost forever. Because the DEIS fails to identify the impact, it fails to offer alternatives or mitigation to minimize that impact as required.

### **Little White Oak Bayou Greenway**

The project will remove and/or impair greenspace that now de facto serves the community as a place of respite and even as an active park with informal trails. Houston has active plans to take that acreage and make it a greenway park. The DEIS does not discuss this impact. The Final EIS should address acreage of open land lost on Little White Oak, both to be covered and impaired.

Little White Oak Bayou represents a prime opportunity to extend open space connectivity north from White Oak Bayou Greenway to Woodland and Moody Parks and beyond up to Halls Bayou and ultimately Acres Homes. This connection between Acres Homes and downtown would benefit many of the underserved communities directly impacted by the North Houston Highway Improvement Project. Through most of Segment 2 the project follows the course of the Little White Oak Bayou. The 20 lanes of the new I-45 will eliminate 10 acres of open space along Little White Oak Bayou. It is imperative that the project fully embrace the ecological values and open space potential offered by Little White Oak Bayou. The DEIS must be supplemented with specific design features to preserve this potential.

The DEIS suggests that lack of immediate funding for some of these related projects relieves the North Houston project from addressing or mitigating impacts it creates. That is not the point. The project has an obligation to fit within larger identified Houston land use initiatives, not become another single-purpose barrier to larger land use schemes. Attachment 1 contains specific segment by segment comments on these impacts.

### **Woodland, Sam Houston, and Other Parks**

The DEIS identifies less than an acre of impacts to City of Houston parks. It dismisses that impact as related to marginal greenspace rather than the “use of facilities”. The Houston Parks Board calculates the total loss of open space in City parks at 3.27 acres (see above). In a letter to the City of Houston’s Parks and Recreation Department dated February 24, 2017, TxDOT is seeking a “de minimis” certification from the City of Houston for these impacts. The City of Houston, to date, has not concurred with this conclusion. Our coalition would not support such a conclusion. As with the Bayou Greenways, the DEIS dismisses the impact to green space and open space as non-existent if the project does not impact other features of the park.

The DEIS ignores the noise and visual impact to all of these parks. Although currently below grade at Woodland Park, I-45’s constant din of freeway noise is already part of the fabric of a Woodland Park visit. With an added upper deck, above grade, the noise will be even more oppressive and incessant.

In recent years, the Sabine Promenade/Buffalo Bayou Park area has undergone a nearly \$90 million enhancement. TxDOT’s plan for this area is not appropriate since it encourages faster turn movements in a location where people should be driving slowly to be aware of people walking and biking. In addition, given the visibility of downtown from Buffalo Bayou, TxDOT’s freeway standards are not appropriate. Furthermore, nearby Sam Houston Park is one of Houston’s most important historical destinations, featuring the oldest building on its original construction site in Houston and the oldest surviving building in Harris County. Sam Houston Park is also a State Archaeological Landmark and contains four buildings designated as Registered Texas Historic Landmarks. One of these buildings is also registered under the NRHP. The DEIS fails to mention the visual and noise impact to this showcase of Houston’s heritage. The DEIS fails to disclose whether or not these properties are registered under the NRHP, and whether the Texas SHPO has or has not concurred with the effects of the project.

## **Deck Parks**

The DEIS makes reference to potential deck parks while clearly absolving the project from any responsibility in funding and creating the parks. Many of our organizations have been involved over the years in raising private and public funds to expand parks in Houston and provide other amenities. These deck parks discussed in the DEIS can only be designed if the capping greenspace is designed to account for the weight of the parks. These designs must be created and paid for as part of the highway project, or TxDOT’s suggestion of decking is meaningless.

It will be difficult to raise private and public money for deck parks if TxDOT is permitted to destroy the open spaces unlocked by the Bayou Greenways Initiative. The project exacerbates divides created in Houston by freeways by creating a massive trench with double freeway width on the east side of downtown. A proposed deck park there appears to be approximately 30 acres in area adjacent to the convention center. Klyde Warren Park is a great asset for Dallas but it is comparatively small at five acres and provides a limited connection over one freeway at a cost of over \$100,000,000. Projecting similar costs for Houston, a deck park would cost more than \$500 million. Without full funding, the deck park proposal has limited meaning and **attempts to shift the cost from the proponent of the project to the community impacted**. In doing so, it fails to mitigate the impact created by the project. Houston already has major fundraising initiatives before it to improve and expand its current park system. Diverting those efforts to cover up an expanded freeway expansion by the state would be very difficult, especially given the strong need to improve

parks across the city. Furthermore, by failing to analyze the impacts of the project “with and without deck,” TxDOT makes a full evaluation of the impacts of the project impossible to achieve.

**Because of these deficiencies in the DEIS, our organizations request that TxDOT conduct a Supplemental DEIS under applicable Federal law as carried out by TxDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated 12-16-2014, and executed by FHWA, in order to properly measure park and open space impacts, options, and to propose reasonable mitigation strategies.**

### **Poorly Conceived Highway/Urban Interfaces**

TxDOT does an enviable job of designing highways for efficient flow of traffic, a track record of which the Department is justifiably proud. Nevertheless, over the years TxDOT has done a very poor job of ensuring that its projects integrate with an urban context where traffic slows from 65 to 30 MPH. The cumulative result over the years has meant that in Houston freeways become barriers between neighborhoods, dump freeway traffic into residential areas with very serious impacts, eliminate pedestrian walkability, erect barriers to bicycle access, and create many unsafe conditions for motorists and non-motorists alike.

In its comments to TxDOT in May of 2015 as part of TxDOT’s scoping process, the City of Houston’s Planning Department pointed out that “The City of Houston has adopted a Complete Streets policy to ensure streets are constructed for all users of the system. The City also required the streets should be built using Context Sensitive Design guidelines as those recommended in the *ITE - Design Walkable Urban Thoroughfares: A Context Sensitive Approach* and *NACTO – Urban Street Design Guide*, and others.” Since the project location is within an urban area of the city, including Downtown, any future engineering design should meet these guidelines. Unfortunately, multiple streets have been shown with sweeping, large radius turns. Several of these match the existing roadway curb lines which may have been designed at a different time for different users. TxDOT should not ignore the opportunity to modernize its approach and correct these outdated designs as it expands I-45.

In its comments during the 2015 scoping process, the Houston Parks Board suggested that “the termination of the proposed spur at Allen Parkway should be designed in order to accommodate safe pedestrian crossings at that intersection and in a way that drivers are reminded that they are entering a park.” TxDOT has ignored this suggestion.

There is no indication that TxDOT intends to design the project’s highway-urban interfaces taking into account Houston’s Complete Streets policies. Section 7.3 of the DEIS includes no reference to these criteria or to the City’s scoping comment.

### **Noise Impacts**

The DEIS states that the I-45 expansion will have noise impacts. The brunt of these noise impacts will be borne by low-income communities like Acres Homes, Near Northside, Brooke Smith Addition, and the Fifth Ward.

Nevertheless, TxDOT avoids making any affirmative commitments to mitigate noise impact, and instead sets forth obtuse language about neighborhood choices that will enable TxDOT to avoid

sound walls in the future. The DEIS sets forth countless ways to avoid having to construct noise barriers. In some instances, TxDOT claims that abatement is reasonable when “there was more than 50 percent residential land use, otherwise abatement was not considered feasible and reasonable” – thus excluding any neighborhood with many empty lots. In other instances, TxDOT carves out another exemption by stating that “traffic noise barriers would be located along the outside of the frontage road/right-of-way where barriers could be continuous, without gaps for driveways or streets.” Note that TxDOT has not followed this practice in high-income areas like Bellaire. We request that TxDOT ensure that low-income areas and park users are afforded the same deference as other parts of town with populations that have higher household incomes.

The DEIS is silent with respect to noise impacts on parks and recreation areas, another reason why we believe that TxDOT should conduct a Supplemental DEIS to disclose the impact on parks and recreation areas. Failing to do so would violate the terms of its MOU with the FHWA that delegated Federal responsibility for analyzing such impacts under Section 4(f).

### **Air Quality Impacts**

The DEIS states that the project “would be included in the Statewide Transportation Improvement Program (STIP)/Transportation Improvement Program (TIP) and RTP, and the STIP/TIP and RTP would conform to the State Implementation Plan (SIP).” Purportedly, this inclusion would assure that the project is in compliance with air quality under the Clean Air Act (CAA) and environmental justice under Title VI of the Civil Rights Act of 1964 and Executive Order 12898. As TxDOT is well aware, air quality impacts are notoriously complex.

This group requests that TxDOT incorporate in its Final EIS all of the information gleaned from TCEQ studies of air quality impacts along Houston’s highways (see <http://www.houstonchronicle.com/news/houston-texas/texas/article/State-to-measure-air-pollution-along-freeways-4769770.php> for more information).

Our coalition is particularly interested in the incorporation of this air quality analysis given the close proximity of the project to low-income areas, schools, and churches, as well as the project’s many interfaces with Houston’s signature Sabine Promenade, Buffalo Bayou Park and White Oak Bayou.

### **Visual Impacts**

TxDOT adopts the assumption that “most viewers do not pay full attention to the I-45 corridor because the presence of the transportation infrastructure has become integrated into their routine” and that therefore “the sensitivity of the residential viewer ranges from low to moderate depending on the location of the viewer.” To our organizations, it is inconceivable that the visual impact of a highway expansion of this scope and magnitude, creating one of the largest highways in the United States, does not rise beyond the level of “low to moderate.”

The DEIS seems to imply that “most viewers” are residents or daily commuters that travel along I-45; it fails to recognize in this visual impact analysis that many users are from out of the region, and that tourists, visitors or newcomers to Houston would experience this visual effect for the first time.

In fact, the terrible appearance of I-45 has for many years been recognized by the business and civic communities of Houston as a major first-impression problem that negatively affects the city’s ability to attract visitors, events, and job relocations to Houston. I-45 as the main airport corridor gateway

is recognized as the most important viewshed in Houston from an economic development perspective, yet it's widely understood that businesses explicitly instruct potential new hires not be transported from the airport on I-45 because of its unsightly character. While TxDOT has utilized federal grants over the last number of years to add trees and landscaping along area freeways, TxDOT offers no plan here to integrate context-sensitive design elements to ensure that the I-45 project is a visual asset, not a concrete scar across the community.

A part of the impact, it must be said, has the potential to be positive in the corridor: the removal of a number of billboards. TxDOT makes no mention of how they are to be removed. The cost of removal must be entirely part of the project. TxDOT makes no mention of its plan at all in the DEIS, no mention of the number of billboards to be removed, when or how they are to be removed or the cost of removal. The full cost of total removal of the billboards must be included in the project and not be transferred to local government. Nor should the removed billboard structures be forced on other stretches of Houston freeway through relocation.

The DEIS states that "elevated lanes in the center of I-45 would create an additional visual barrier and potentially alter the existing visual conditions of the area." In another section of the DEIS, TxDOT claims that "the vividness of this landscape unit is moderately low. The areas containing Moody Park, Little White Oak Bayou, and the historic cemeteries provide a distinct viewshed within this landscape unit. The overall visual quality of this landscape unit is moderate."

Apparently because the quality of these park and historic cemetery landscapes is "moderate" in TxDOT's estimation, additional impact does not merit further attention. By this logic, because Houston's scenic beauty is relatively limited, further impacts are entirely acceptable.

TxDOT fails to consider the visual impact of the I-45 expansion on historic structures in Sam Houston Park. TxDOT's DEIS has no information with respect to how the new highway will be lit and how that lighting scheme will affect adjacent low-income neighborhoods, making an evaluation of such impacts impossible at this stage. In terms of impacts on other historic resources, the project segment between 610 and I-10 impacts several historic neighborhoods. Three designated historic districts are located along I-45 south of North Main Street. The project's effect on the National Register-listed Near Northside Historic District on the east side of I-45 must be addressed as part of the review process along with potential impacts on two city-designated historic districts on the west side of I-45: Germantown and Woodland Heights. Both of the city-designated districts are potentially eligible for listing in the National Register. The Brooke Smith Addition on the west side of I-45 and the north side of North Main Street is also potentially eligible for listing in the NRHP. The project's potential impact on historic resources in the First Ward, on the west side of I-45 south of I-10, should also be considered, particularly the National Register-listed Jefferson Davis Hospital (1925).

TxDOT's visual impact analysis concludes by saying that "because significant adverse impacts are not anticipated, this resource is not anticipated to be analyzed further in the detailed cumulative impacts analysis."

Our group disagrees with TxDOT's DEIS conclusions on visual impact, and requests that in the Final EIS, TxDOT include detailed visual simulations from the roadway, from all the perspectives of affected parks and recreation areas, neighborhoods, cemeteries, and historic structures. These analyses should include information on daytime and nighttime visual impacts. Tree and landscape plantings impact the visual nature of the freeways and air quality, runoff, and water quality. TxDOT should

address how landscape and tree planning, Green Ribbon and other funds will be used within this project, and should address whether special actions being taken to accumulate the required expenditures as mitigation within this specific project or whether or not the funds will be spent throughout the region.

### **Impacts on Walkability, Cycling and Other Transportation Modes**

In scoping comments prior to the preparation of the DEIS, both the City of Houston's Planning Department and the Houston Parks Board commented on the dangers of "the proposed 15' shared use lane along frontage roads due to safety concerns arising from the speed differential between bicycles and other vehicles in these environments. Bicycle accommodations should be provided in the form of a 10' shared use path or protected bike lane." TxDOT ignored this comment in the DEIS; we can find no evidence of an analysis performed on this important safety issue.

The City of Houston requested that TxDOT ensure all bridges across the freeway and street crossings under the freeway provide for a minimum 6' unobstructed sidewalk, and that NACTO criteria are incorporated in all highway/surface street intersections. There is no indication in the DEIS that such criteria will be incorporated into the project, and we can find no reference to an analysis performed on this important accessibility issue.

For example, as the City of Houston noted in 2015, many intersections in Segment 1 are proposed with suburban intersection design considerations. This segment falls within an urban area and all intersections should be designed to improve pedestrian and bicycle accessibility. To this end, an intersection design that incorporates a free flow right turn lane with a pedestrian island creates an unsafe environment for pedestrians since many drivers do not yield to pedestrians at such intersections. There is no indication that TxDOT has incorporated ideas like this in the DEIS.

As another example, a wider freeway through the Near North Side will create a significant community impact further dividing the Woodland Heights and Near Northside communities. Eliminating North Street removes a very practical, low volume, multi-purpose crossing of the current I-45. A deck park may help mitigate the further divide and loss of connectivity resulting from the project, but only if the deck and park are fully funded by the project, and the park is not separated from the community by the high-speed access roads set forth in the DEIS (see above for general discussion of Deck Parks).

As the site of many fatal accidents in Houston, access roads should be designed to be safe. Twelve foot lanes, three one-way lanes, and high design speeds, mixed with entering and exiting traffic, does not make for a safe road. The DEIS does not explain why high speed designs and high volumes are required on these roads. The Final EIS should explain why TxDOT has made these trade-offs of faster highway access at the expense of public safety.

### **Flooding Impacts and Water Quality Impacts**

The DEIS recognizes that "potential impacts on surface water quality from the proposed project would be primarily related to storm water discharges into streams and drainageways that traverse" the project. Unfortunately, the DEIS analysis of water quality impacts falls into the same trap as the visual impact analysis. The latter suggests that because Houston is generally unsightly, making it a bit less attractive is not of great consequence. The water quality analysis basically says that Houston's bayous are hopelessly polluted, so a bit more pollution is not impactful.

The DEIS recognizes that Buffalo Bayou, Little White Oak and White Oak Bayou are classified by TCEQ as “impaired streams”, and that “the discharge of storm water runoff into these drainage features” (i.e., in our parlance, bayous), would be unavoidable. Further, it argues that because White Oak, Buffalo and Little White Oak are impaired, TxDOT has a lesser burden to protect existing water quality. Because these streams are impaired, TxDOT should have a greater obligation not to harm them further—especially since TxDOT itself is already contributing to the problem with its current practice of dumping freeway water directly into Houston’s bayous.

Any Houstonian who has walked along a bayou underneath a freeway in Houston knows exactly what this means – **every time it rains, or even when it’s windy, tons of trash are dropped into our waterways, and flow into Galveston Bay, an important estuary for the greater region.**

TxDOT’s DEIS sets forth that it will meet stormwater discharge requirements during construction. Nowhere is it clear how TxDOT will prevent the flow of the thousands of tons of trash that are transported from freeways to bayous during Houston’s frequent “gullywashers”.

Needless to say, the project will produce much more impervious surface with the potential to increase flooding and accelerate pollutants into the natural waterways. The DEIS should more clearly define creative strategies to minimize those potential impacts. Those strategies may include wet bottom detention basins that can filter water and roadside drainage filters to capture trash at its source. That work could be further expanded to include recreation and additional water quality functions.

Waterways affected by the project are already listed as impaired waters. We ask that TXDOT model the runoff and stormwater discharges into Buffalo, White Oak, Halls and Little White Oak Bayous in order to meet state requirements that prohibit the addition of any pollutant load into impaired waters and focus instead on improving those waters through the additional application of more rigorous best management practices for stormwater and runoff. Similarly, please further adopt and disclose the best management practices and plans that will be adopted, including source controls, to avoid further discharge of trash into these waterways.

Some of TxDOT’s more recent flood control structures have made good strides in integrating the landscape with detention. Others have not. The detention basins planned on either side of Little White Oak Bayou, south of Patton, require thoughtful planning so that water edges are accessible to wildlife, and pedestrian and bicycle trails connect both to the existing bike trail going north along Little White Oak Bayou from Cavalcade and to Moody Park to the southeast. The detention basin recently constructed in the Heights stands out as an example of lost opportunity, where despite extensive community involvement, citizen input and repeated requests from local City Council members, TxDOT built a detention pond with a single use that is completely isolated from the surrounding community – this in one of the highest land value areas of the City of Houston.

Despite requests to this effect during the scoping period in 2015, TxDOT has rejected the possibility of wet bottom detention areas unless someone else maintains them. We request that TxDOT further explain in the Final EIS why it should not have the responsibility for doing everything possible to deliver into Houston’s bayous cleaner water from the highways it maintains and owns.

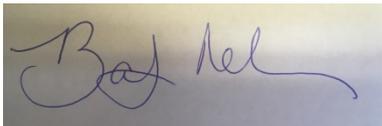
**Conclusion**

The I-45 Expansion Project is a once-in-two-generations project that needs to be executed very carefully to avoid the serious impacts to the community at large that the current plan represents. Without a truly comprehensive review of the project, the DEIS fails in its fundamental purpose to inform the design and decision making process required before creating such a serious impact on the City of Houston.

We urge TxDOT to go back and take the hard look required under NEPA and review required by Section 4(f) to more fully address the issues outlined here. The undersigned organizations stand ready to work directly with TxDOT on the North Houston Highway Improvement Project to produce the best possible result for the greater Houston area, but that work can only proceed from a planning document that fully acknowledges the impacts of the project and seeks to identify ways to improve it.

Thank you for your careful consideration of these issues.

Sincerely,



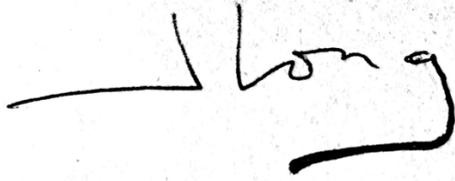
Bakeyah Nelson  
Executive Director  
Air Alliance Houston



Mary Lawler  
Executive Director  
Avenue CDC



Bruce R. Dodson  
Executive Director  
Bayou City Waterkeeper



John Long  
Executive Director  
BikeHouston



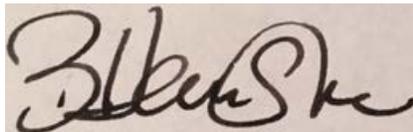
Anne Olson  
President  
Buffalo Bayou Partnership



Kevin Moore  
President  
Eastwood Civic Association



Eileen Lawal  
Chair  
Freedmen's Town Preservation Committee



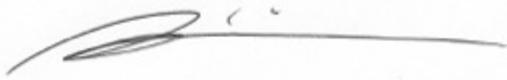
Becky Houston  
President  
Friends of Woodland Park



Bob Stokes  
Executive Director  
Galveston Bay Foundation



Wendy Parker  
Chairman  
Germantown Historic District



Mark Williamson  
President  
Greater Heights Super Neighborhood 15



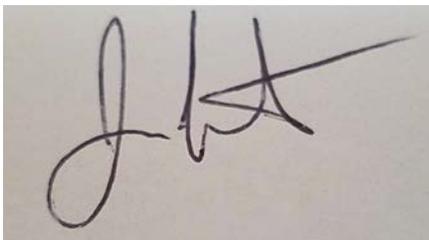
Alice Collette  
Executive Director  
Heritage Society



Doreen Stoller  
President  
Hermann Park Conservancy



Beth White  
CEO  
Houston Parks Board



Jim Weston  
Chair  
I-45 Coalition

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Richard Petty  
LINK Houston

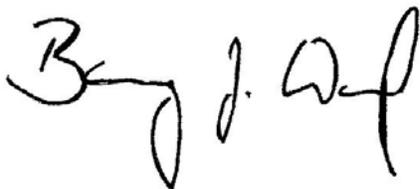


Andrew Gallagher  
President  
Montie Beach Civic Club

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Kathleen O'Reilly  
President  
Museum Park Super Neighborhood 66



Anne Culver  
President  
Scenic Houston



Barry Ward  
Executive Director  
Trees for Houston

[Signature on file]

Kathy Vossler

President

Washington Avenue/Memorial Park Super Neighborhood 22



Robert S. Lee

Vice President

White Oak Bayou Association



Tyson Greer

President

Woodland Heights Civic Association

CC:

Local Representatives & Officials

Sylvester Turner, Mayor of the City of Houston

Mike Knox, Houston City Council, At-Large Council Member, Place 1

David Robinson, Houston City Council, At-Large Council Member, Place 2

Michael Kubosh, Houston City Council, At-Large Council Member, Place 3

Amanda Edwards, Houston City Council, At-Large Council Member, Place 4

Jack Christie, Houston City Council, At-Large Council Member, Place 5

Brenda Stardig, Houston City Council, Council Member, District A

Jerry Davis, Houston City Council, Council Member, District B

Ellen Cohen, Houston City Council, Council Member, District C

Dwight Boykins, Houston City Council, Council Member, District D

Dave Martin, Houston City Council, Council Member, District E

Steve Le, Houston City Council, Council Member, District F

Greg Travis, Houston City Council, Council Member, District G

Karla Cisneros , Houston City Council, Council Member, District H

Robert Gallegos, Houston City Council, Council Member, District I

Mike Laster, Houston City Council, Council Member, District J

Larry Green, Houston City Council, Council Member, District K

Ed Emmett, Harris County Judge

Rodney Ellis, Harris County Commissioner, Precinct 1

Jack Morman, Harris County Commissioner, Precinct 2  
R. Jack Cagle, Harris County Commissioner, Precinct 4

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Borris L. Miles, Texas State Senator, District 13  
Sylvia R. Garcia, Texas State Senator, District 6

Senfronia Thompson, Texas State Representative, District 141  
Armando Walle, Texas State Representative, District 140  
Jarvis Johnson, Texas State Representative, District 139  
Harold V. Dutton Jr., Texas State Representative, District 142  
Jessica Farrar, Texas State Representative, District 148  
Carol Alvarado, Texas State Representative, District 145  
Sarah Davis, Texas State Representative, District 134  
Garnet Coleman, Texas State Representative, District 147

Tryon D. Lewis, Chair, Texas Department of Transportation Commission  
Jeff Austin III, Commissioner, Texas Department of Transportation Commission  
J. Bruce Bugg, Jr., Commissioner, Texas Department of Transportation Commission  
Laura Ryan, Commissioner, Texas Department of Transportation Commission  
Victor Vandergriff, Commissioner, Texas Department of Transportation Commission

### Federal Representatives & Officials

John Cornyn, U.S. Senator for the State of Texas  
Ted Cruz, U.S. Senator for the State of Texas  
Sheila Jackson Lee, U.S. Representative for the 18<sup>th</sup> District of Texas  
Ted Poe, U.S. Representative for the 2<sup>nd</sup> District of Texas  
Gene Green, U.S. Representative for the 29<sup>th</sup> District of Texas  
Al Green, U.S. Representative for the 9<sup>th</sup> District of Texas

# **ATTACHMENT**

**1**

## **CONNECTIVITY AND MULTIMODAL CONSIDERATION**

The City of Houston adopted a Complete Streets policy in 2013 to ensure streets are constructed for all users of the system. The City also requires that streets should be built using a Context Sensitive Design guidelines as those recommended in the Institute of Transportation Engineers (ITE) - Design Walkable Urban Thoroughfares: A Context Sensitive Approach and National Association of City Transportation Officials (NACTO) – Urban Street Design Guide and others. Since the project location is within the urban core of the City, the design on the proposed project should meet these guidelines.

The existing freeway infrastructure built in the 1960's separated communities, impacted neighborhoods and had a significant impact on the City of Houston. The NHHIP should improve connectivity between communities in and around Downtown; not reduce it. Where possible, strong connections should be maintained and new ones should be added to the existing street network. Reducing street connectivity in areas in the urban core of Houston should be avoided or mitigated wherever possible. Connectivity should be considered not only for vehicular traffic, but for all modes of transportation; inclusive of people on foot, people on bicycles, transit users, and for freight.

Based on the schematic exhibits it's not clear if local street network operations have been analyzed at the same level of detail as freeway operations. While the freeway operations are critical for regional circulation, the local circulation is critical for the City of Houston and for the adjoining communities impacted by this project. Improving connectivity, by providing multiple routes where people can travel, is critical to avoid relocating congestion from freeways to local streets.

The NHHIP project should be built to reflect the infrastructure needs for the next 50 years. This can only be achieved if multimodal consideration of transit and freight are integrated into the proposed design. Houston is a multi-centric city. Activity centers are located throughout the region and integrating two-way high capacity transit into the design benefits the overall region. The proposed MaX Lanes concept could be designed and operated to ensure that reliable and frequent high capacity transit could be operated to connect all regional activity centers. The existing HOT lanes operations do not allow for reliable transit operations resulting in significant increase in single occupancy trips in our region.

The U.S. Census Bureau shows that the largest share of people who bike, in large car dependent cities like Houston, are in lower-income brackets. Given the immediate surrounding neighborhoods and the location of our bayou greenways, current and future bicycle infrastructure, bicycle connectivity is of paramount concern. Providing for high-comfort bikeway connectivity across and along the proposed project is essential to the changing demographics in our region. It is also needed to address the additional barrier between neighborhoods, especially the increased barrier between lower social-economic neighborhoods and the Central Business District. In areas where vehicular connectivity may be removed, options should be evaluated to preserve pedestrian and bicycle connectivity.

The proposed schematic drawing does not identify sidewalks along sections of the proposed project. In general, sidewalks should be identified along all frontage roads and public streets on the schematics in

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all typical sections. All bridges should have wide sidewalks for safe crossing. Ensuring access to pedestrian and ADA accessibility along all public streets is critical.

We look forward to coordinating with TxDOT on the proposed deck structure across the freeway; however, it is also important to have safe connectivity and accessibility to these areas across the proposed frontage road. The deck structure should also be coordinated with the City and other adjoining entities to ensure appropriate design and infrastructure for proposed improvements over these decks.

**SEGMENT 1**

- Consider extension and direct connection from I-45 MaX lanes to Greens Road to serve Greenspoint area. This will help with redevelopment of the area and support potential METRO Limited Stop Downtown to Airport Route (e.g., Downtown> Shepherd> Greenspoint> IAH)
- Ensure Halls Bayou Crossing north of W. Mt. Houston is designed to allow trail crossings under freeway and frontage roads.
- Connections on Crosstimbers, Victoria/Lyerly, Tidwell Rd., Cortlandt/E Witcher, Rosamond, W Parker Road, Rittenhouse, etc. should be designed with high comfort intersections for bicyclists and pedestrians. These are vital connection for the Independence Heights, Garden Oaks, Oak Forest and Acres Homes areas to safely reach either Little White Oak Bayou or the Red Line into downtown.
- The HOV ramp from Airline Drive providing access to Independence Heights and Northside Community is being removed. Provide alternative access for the communities to managed lanes.
- Provide local street connection between Veterans Memorial and I-45 southbound frontage road along the METRO T-Ramp.
- Little White Oak Bayou extends north of I-610 to Crosstimbers in Independence Heights and ultimately to Acres Homes. See Segment 2 comments and apply to Segment 1. Also, design any detention basins along this section of the bayou to be accessible green space.

**SEGMENT 2**

- Clarify end of streets like North Street, Woodland Street and Farwood Street on the east side of I-45. Ensure connectivity to the Frontage Road for some, if not all streets.
- Consider extending IH-610 Segment east to allow Helmers Street connection across the freeway. Helmers would be a very useful north-south connection, potentially as a residential minor collector, as it is continuous from Fulton Street on the South to Berry Street on the north, a distance of almost 3 miles. Right now, only north-south connections through here are Fulton and Irvington and Fulton has Red Line impacts. Extension of Helmer may allow for safe pedestrian and bicycle connectivity between neighborhoods across IH-610.
- Assess the option to bring pedestrian and bicycle trail underneath freight railroad north of Stoke Street. If pedestrian and bicycle connection cannot be provided under the freight rail line, integrate pedestrian and bicycle facility into frontage road design to cross rail ROW and provide connection to Stokes Street.

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- The removal of North Street Bridge creates greater access issues between Heights and Northside possibly leading to more traffic congestion. Provide pedestrian and bicycle connection along I-45 and Little White Oak Bayou to mitigate the removal of the North Street bridge.
- Little White Oak Bayou: This bayou section is an important piece of the expanding high comfort bicycle network that provides connectivity from outside the N Loop 610, under I-45 away from traffic, and into downtown making further east and west connections through Buffalo Bayou. Acknowledgement of this bayou as a necessary connector for bicyclists, pedestrians, and naturalists is unaddressed in this design and crossings (Hogan/Crockett, Houston, Quitman/White Oak Dr., Main St, Patton, Cottage etc.) allowing full access to Little White Oak Bayou need to be maintained and carefully designed with high comfort bicycle and pedestrian crossings. Surrounding neighborhoods are historically under-served and connections via bicycle and on foot are measurably significant. The project should replace the existing culvert north of Patton Street with a bridge span designed to allow trails on both sides of the bayou. At I-610, a safe route along the bayou should be included (could suggest replacing this culvert, also or high comfort bike lane at signalized frontage road intersections). The new trail should connect to the existing bike trail along Little White Oak Bayou between Enid and Calvacade, on the west side of I-45 and to a new park at the retention pond areas on the east side of I-45 (where Love's Truck stop is currently), and on to Moody Park/Woodland Park/White Oak Bayou trail. Mitigate for loss of green space along the bayou in this area and replace the existing trail with an equivalent trail.
- Deck Park over I-45 near North Main - The original I-45 construction bisected one community into two. This has become a permanent separation resulting in different community cultures on either side of the freeway. There are constant efforts to reunite the communities but the swath of freeway that separates them remains a physical barrier. Create a deck park over the freeway near North Main. This will be a physical reattachment point, reuniting the divided communities. Address the accessibility issue to the proposed Deck Park location near Main Street with the proposed multilane frontage roads and U-turn ramps.
- Justify the need for 1 lane northbound frontage road from Quitman Street widening to 4-lanes near Main Street. Ensure pedestrian and bicycle accessibility along the proposed frontage road.
- The proposed design has significant impact on the adjoining neighborhoods. Address the additional barrier between neighborhoods, especially the increased barrier between the Northside neighborhood and the Central Business District. See Segment 3 comment about a Fulton-North San Jacinto Street connection.
- Connectivity in and out of Northside neighborhoods needs to be addressed in a way that it becomes improved not worse by new design.

**SEGMENT 3**

**SOUTH: US 59/I-69**

- Ensure proposed design does not prohibit future two-way high capacity transit on I-69/US 59 with focus on Spur 527. Direct or expedited connections from the existing HOV/HOT to Wheeler

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TC should also be explored.

- With the proposed reconfiguration of I-69 at Wheeler Transit Station, there is an opportunity to improve multi-modal circulation, access to the transit center and plan for future capacity needs with the University Corridor and US 90A transit connections. Coordinate with City and METRO to ensure this area is designed to maximize future transit and development opportunities. The Deck Park Cap at this location provides an opportunity for public and private investment to develop a Transit Oriented Development. TxDOT should actively engage in the development and implementation of the Wheeler Area Park Cap and related street and transit connections.
- Evaluate options to maintain Blodgett connection from San Jacinto to Main St. This is very useful connection and very helpful to the bus operations at the Transit Center. With the redesign of the San Jacinto on-ramp to east side of street, this should be achievable.
- IH-69 exit to Main Street near Wheeler TC should be designed to allow improved pedestrian and bicycle connectivity and safe crossings as identified in Houston Bike Plan/METRO Bike & Ride studies.
- Ensure all bridges, including Montrose, La Branch, Austin and Almeda bridges are wide enough for safe pedestrian and bicycle crossings.
- The proposed project allows for separated pedestrian and bicycle facility along the south side of US 59 between Graustark and Main Street and the Center Point utility corridor. This would safely connect the Montrose and Boulevard Oaks neighborhoods to the Wheeler Transit Center. Evaluate feasibility of grade separated trail extension below Montrose bridge since midblock crossing at the bridge may be challenging.
- Links to Downtown should support high-quality, fast, reliable connections to major activity centers.
- As currently proposed, the primary access to and egress from the SH 288 Managed Lanes or Toll Lanes would be provided on Chenevert Street south of Elgin, adjacent to the Houston High School for International Studies and Baldwin Park. This configuration is suboptimal for everyone involved. Drivers using the Managed Lanes will more likely be destined for Downtown than Midtown, or might be trying access another freeway to continue. Either way, ending up on Chenevert Street will introduce unnecessary delay and confusion. Presence of the existing freeway ramps disrupt the neighborhood fabric and introduce unsafe vehicle speeds in a residential area. The proposed design would set this problem in concrete for another 50 years. Like other managed lanes connections, the SH 288 Managed/Toll Lanes could just be connected to the SH 288 main lanes near Alabama. The other option would be reconfigured the ramps to connect to Hamilton and Chartress that serve as the frontage road along this section of the freeway. Doing so would make access much more intuitive, improving the chances of success for the Managed Lane project. It would also give drivers headed toward Downtown or other connecting freeways a more convenient route for doing so than Midtown surface streets.
- As part of the removal of the ramps from the neighborhood, the grid of local streets be reconnected including Francis Street, Chenevert Street, and Holman Street. Re-gridding the streets would create surplus land for redevelopment to mitigate the impact of the project on adjacent neighborhoods. Connecting Holman Street through to Hamilton Street would obviate the need for the freeway-style ramps connecting to Chenevert Street south of Holman Street.

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Removing them would be more consistent with the context of the neighborhood while improving safety, reducing right-of-way acquisition, and creating more surplus right-of-way.

**EAST: I-69, I-45, SH 288**

- Connectivity on the east side has historically been limited and the project should ensure that this issue is appropriately addressed. There is no proposed street that provides direct two-way east-west access between Downtown and the East Downtown / East End area along the stretch between IH- 45 South to IH-10, a distance of nearly 2 miles. Even those streets that cross the proposed IH- 45/IH-69 trench require switching to an adjacent street through several turns to continue east/west.
- The loss of connections such as Polk, Leeland/Bell and Runnels are significant. Include Runnels to McKee or Canal to Ruiz connection. The loss of Runnels cuts off the area of the East End north of the West Belt Subdivision rail line and Buffalo Bayou and limits access to Downtown to just the Franklin/Navigation underpass. Other option for residents is to backtrack to Harrisburg, which doesn't connect to downtown that well due to the street network, stadiums and large parking lots in the area. One of these proposed connections would be significant improvement.
- Evaluate options for northbound exit from US 59 main lanes to Runnels Street.
- Evaluate options for extending Canal Streets across I69/US 59/I-45 between Downtown and Second Ward.
- Existing two-way connection of Nance Street to Jensen is being replaced by one-way frontage road along Rothwell. Identify another two-way connection between Jensen and Nance Street. This is especially important since the westbound frontage road along I-10, which is not proposed to be extended across I-69.
- Maintain Jensen Street exit from IH 10 eastbound or provide other alternatives to maintain connectivity without at-grade rail crossings.
- Identify option for ingress and egress from I-69 near the Buffalo Bayou areas to improve access to and from Downtown, East Downtown, East End, and 5<sup>th</sup> Ward.
- Proposed design still has limited connectivity to the 5<sup>th</sup> ward areas north of Buffalo Bayou. The exit ramp for Jensen previously proposed has been removed. Provide alternate access from 5<sup>th</sup> Ward to mitigate any loss of access. Evaluate options to extend Bringhurst across I-10 to enhance connectivity across I-10. Providing an additional crossing of IH-10 between Gregg St and Hirsch St would be very beneficial, given the potential Midway East River development of the KBR site and Lovett Homes development on MDI superfund site in the East End.
- Evaluate options to maintain Polk Street Connection across I-69 / I-45  
Coordinate with the City, adjoining management entities to evaluate design options to bring I-45 Main Lane ramps and I-45 to I-69 N ramps down below grade between Polk and Rusk. Maintain critical Polk Street connection (Adjust Polk alignment and grades as needed). This proposal eliminates crossings for Dallas, Lamar, McKinney (similar to today).
  - This change would reduce the size of the proposed Park Cap by several blocks (from 10+ blocks to 7) to a more manageable size. For reference, Klyde Warren is about 5 acres, the east side park cap as proposed is nearly 30 acres.
  - The potential park area as currently conceived is as big as 15 Market Square Parks or 2.5 Discovery Greens. That is a lot of park space to program and maintain. Some of the space should be envisioned with the potential to be developed with walkable one to two story buildings, potentially as a home for the businesses displaced in East

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Downtown. Freeway support structure should be designed with this in mind. For example you could relocate all the bars and restaurant along St. Emanuel demoed by the freeway widening to location on top of the cap creating an instant destination linking the convention center and stadiums. Would be similar to the bar/meeting space that is on top of Klyde Warren and provide revenue to support maintenance.

- Polk Street pedestrian and bicycle connection is a critical connection to Downtown. The Lamar Street separated bike lane is proposed to be extended along Polk Street to connect East Downtown and other East End neighborhoods to Downtown, Main Street Rail and Buffalo Bayou as part of TIGER Grant. In any scenario, maintaining this pedestrian-bicycle connection is vital for residents and businesses in the area.
- The loss of Downtown to East End/East Downtown connectivity at Polk and Runnels also impacts METRO service from the East End to Downtown. Routes 40, 41, 48 will need to find separate routes for eastbound and westbound trips. This will increase complexity, impact reliability for customers, and potentially incur service costs for METRO. Keeping Polk open would mitigate some of these issues and is recommended.
- Proposed Lamar St at St. Emanuel intersection is difficult to see on the schematic but seems awkward with difficult geometry. Keeping Polk open (with related ramp changes) would address connectivity issues and eliminate need for this funky design.
- Connect Leeland to a Leeland/Bell one-way pair as it is currently. This will require redesign of the freeway off-ramp connected to Bell, which seems achievable. If Polk connection is eliminated, TxDOT should identify funds for grade separation of Leeland at the West Belt Subdivision rail lines so that major east west connection exists without barrier between Eastwood and downtown.
- Maintain Walker Street crossing between St. Emanuel and Hamilton as an extension of Columbia Tap trail to west side of SB frontage road (instead of as a street crossing) then bring trail south to Polk St. along the back of the convention center.
- Ensure Buffalo Bayou trails can connect to East End/Fifth Ward though detention area and freeway crossings. This is critical connection for the East End and must be excellent.
- Consider making more bridges and related traffic control two-way (e.g., Leeland, Commerce). This should be paired with consideration of more two-way streets in downtown. At the proposed box/beam structure behind the GRB, Rusk, Capital, Leeland, and Commerce Street connectivity travel is diminished between downtown and southeast Houston.
- Southeast Houston is a historically under resourced area and an area that relies on bikes to safely travel throughout the city. Crossings at these points need to be designed with wide sidewalks and high comfort bike lanes complete with physical barriers, green paint, signage, and a continuation of the Bike Plan's programmed projects to build these streets out as dedicated on-street bicycle lanes. In addition, consider sustaining the connection on Polk Street as it connects to the Harrisburg and Columbia Tap trails.

**NORTH: I-45, I-10**

- This realigned segment of I-10 and I-45 has significant impact on existing businesses and could benefit by improving the connectivity in this area, which is already hampered by freight rail lines and the Bayou. Coordinate with the City and UPRR on the potential to realign the freight main along the passenger main to remove existing freight crossings through Downtown.

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- Integrate connection to link area north of UPRR on the north side of the post office site to Downtown. This could potentially be incorporated into Downtown Connector, Bagby, Washington Avenue extension design.
- Plan for the extension of San Jacinto Street to Fulton including potential grade separation at the UP Passenger Main crossing which is hugely impactful to drivers and transit in this area. This extension could help mitigate the impacts along the north side of Downtown.
- Provide improved version of existing pedestrian and bicycle bridge crossings of freeway east of Elysian and link to a new north-south trail connecting to Near Northside.
- The schematic drawings do not define street network under the freeway segment of IH-10 north of Downtown. This area is designated "Excess ROW" and has significant potential to transform the warehouse district area. Coordinate with the City and Downtown District on the alignment of roadway network to ensure circulation in this area.
- Consider abandoning Conti Street between McKee and Frontage Road. Space could be abandoned and reallocated to development space. Also evaluate the option to clean up transition from Lyons to McKee to make smoother and more legible. McKee and Hardy streets provide pedestrian bicycle connectivity between Buffalo Bayou and the Northside neighborhood. Ensure bridges across I-10 are designed to incorporate safe and high comfort bike facilities.
- Links to Downtown should support high-quality, fast, reliable connections to major activity centers or the northwest transit center. The loss of the existing downtown connector tied into Franklin, should be re-evaluated to see if it could be better used as part of high capacity transit network or as an alignment for a light rail extension.
- Coordinate with City, METRO and TCP to explore High Capacity Transit connection to northwest Transit Center and proposed High Speed Trail Terminal. The existing I-10 corridor west of Segment 3 could be planned to include the extension of METRO's purple and green light rail lines. The current North Houston Highway Improvement Project plans do not consider this connectivity, and in fact, would preclude it, since the plans call for the demolition of the HOV ramp.

**WEST: Downtown Connector, Pierce Elevated**

While the planned project will remove the I-45 main lanes from the west side of downtown, the planned "downtown connectors," their ramps and related surface streets will have significant impacts on Buffalo Bayou, Sam Houston Park, Fourth Ward and Midtown. With the assistance of the Downtown District, community representatives from the surrounding area have achieved consensus on modifications we are asking TxDOT to make to its plans from Buffalo Bayou to Pierce Street during its FEIS phase:

**Buffalo Bayou and Sam Houston Park**

Sam Houston Park is Houston's most historic park, and Buffalo Bayou is Houston's greatest natural resource. The project should protect and even benefit both important civic assets.

- Configure NB cloverleaf and SB ramps to and from Allen Parkway to allow for a cleaner bridge design over Allen Parkway and Buffalo Bayou.
- The design of both bridges over Buffalo Bayou (elevated connectors and surface street) should minimize bridge piers and be carefully coordinated with design features of the park and bayou.

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- Our groups are inclined to support a proposal for a “signature bridge” over the park and Buffalo Bayou (pending design details)

Downtown Connectors South of Buffalo Bayou

In many areas, the project is converting overhead freeway lanes to below-grade except here where a freeway underpass is being replaced with an overpass at West Dallas.

- With “low profile” bridge structures (thin slabs) and minimal re-grading, current standards can be met and still allow the elevated connectors to pass over Allen Parkway and then go below West Dallas as the I-45 main lanes do today.
- Continue the downtown connectors below grade south of Andrews.
- Include a direct pedestrian connection and gateway at Andrews Street from downtown to Fourth Ward.
- Shift all roadways within the existing right-of-way to open up more space on the Fourth Ward side for a linear green space and high-comfort trail (see below).
- Include the possibility of a small cap park on the north side of Andrews as part of the Fourth Ward Gateway.

Surface Streets

Reconnecting with Complete Streets communities that were split apart by the freeway is a critical component of the project scope.

- Provide direct connections from Walker and McKinney to Houston Avenue (terminate two-way north-south surface street at this direct connection on north side of bayou).
- Eliminate the Walker Street roadway to Allen Parkway that bisects Sam Houston Park.
- Reduce the two-way surface street north of Allen Parkway by one lane in each direction.
- Reduce Heiner Street to two lanes (three lanes once the Bagby ramp merges with Heiner Street) to accommodate the green space and high-comfort trail (see below)
- Extend the NB Pease Street to West Dallas over the depressed downtown connectors to access Allen Parkway.
- As an Option to #5, consider extending the two-way surface street north of Allen Parkway along Heiner Street to St. Joseph Parkway to improve the legibility of the street network.

Multi-Modal Trails and Green Space

Multi-modal connections between the area’s high-density urban populations and Buffalo Bayou is a critical component of the project scope.

- Along the west side of the right-of-way from Pierce to Allen Parkway, provide a high-comfort multi-modal trail from Midtown, south downtown and Fourth Ward to Buffalo Bayou.
- It is critical that the at-grade Allen Parkway crossing be designed for pedestrian and cycling safety.
- Provide a safe connection at Andrews Street from this high-comfort trail into the green space between the downtown connectors and then to Pierce Street (and possibly the Pierce Sky Park).
- Preserve the option for the Pierce Sky Park from Andrews Street to Pierce Street, including a transition to the high-comfort trail accessing Buffalo Bayou.
- Include gateways to Fourth Ward/Freedmen’s Town at Andrews Street and West Dallas Street.

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### Other comments

- Review need/potential to maintain IH-10 HOV Connector near Amtrak Station coordinating with Metro's upcoming planning to address express transit connectivity from downtown to NW transit center. Maintenance as a transit only facility could have significant value. If the existing IH-10 Connector is removed as currently proposed, Washington Avenue should be connected to the Post Office site. Ideally the connector could be maintained and designed to allow the Washington Avenue connection, and incorporate a transit stop to serve post office redevelopment.
- Coordinate with the City of Houston, and adjoining communities and management districts on the opportunity to along the Pierce Elevated between Downtown and Midtown to ensure the preservation of multimodal opportunities to connect East Downtown, to Buffalo Bayou Park.

### DESIGN

This project represents a once in a lifetime opportunity, and the details which impact how people safely get around need to be fully thought out. This requires careful planning and a greater level of detail than has been provided by the current schematics. Focus on well thought out design of safe intersections, sidewalks and bikeways, transit stops, frontage roads, and connections have the potential to greatly enhance mobility options. Failure to do so would be a huge detriment to the project. Elements like wide outside lanes for bicyclists, which are likely to be eliminated as guidance from the next AASHTO bikeway design guide, should not be included in this project. The design needs to be forward looking and incorporate best practices for safe multimodal streets. Transit, including how the NHHIP can be designed to support faster transit trips between major activity centers and destinations, should be much more prominently considered in the plan. This should include rail expansion opportunities as well as the potential for an optimized express bus network.

Ensure bridge widths throughout the project include sufficient space for quality sidewalks and high comfort bikeways as called for in City of Houston standards and guidelines, and not be designed to match existing cross-section or old standards. Ensure all bridges across the freeway and street crossings under the freeway provide for a minimum 6' unobstructed sidewalks. Where appropriate wider sidewalks should be provided since there is limited buffer between the vehicular lanes and the pedestrian.

All lanes on city streets and frontage roads should comply with City of Houston's 11' lane standards and encourage appropriate travel speeds and safe travel. Having different lane width for different roads create inconsistent driver experience. 12' lanes are freeway lane standards and not local streets. They encourage excessive speeds through urban area where higher speeds are out of context and unsafe. It is also recommended that the local street network and the frontage road be designed with target/design speed not to exceed 30 mph, especially in the urban areas.

Define which intersections are proposed with traffic signals and all-way stop control. It is impossible to truly assess whether the design supports safe walkability, bikeability, and transit use without this information. Traffic control recommendations should be developed with multi-modal safety and connections in mind.

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Entire design should be reviewed to ensure optimized bus stop locations have been considered. Stops (and access to stops) must be designed to ADA and METRO standards with room for shelters to support high quality transit experience.

Of the bicycle features proposed, a clear design criterion with the safety of bicyclists in mind is not apparent. The City of Houston has committed to building only high comfort bicycle lanes and facilities through the recently adopted Bike Plan. A high comfort bicycle lane minimizes people's interaction with high volume, high speed traffic, and requires more separation and protection as these traffic characteristics increase. Design standards for bicyclists and pedestrians need to be set to reflect the Houston Bike Plan's high comfort commitment.

Design bikeways for people of All Ages and Abilities in line with the high-comfort bikeway guidelines set out in Houston Bike Plan. Protected bikeways or side paths set behind the curb should be designed for all bike connections. Bike lanes should be 6' wide minimum. 14' wide outside lanes designed as shared bicycle facilities are unacceptable and should not be included in this project. Intersections should be designed for safe crossing to accommodate bikeways and sidewalks.

Along frontage roads, the bikeways constructed in this project need to sustain a high level of comfort for both motorists and cyclists to create a clear and safe space for both parties to travel with no room for misinterpretation.

The proposed bicycle lanes along the outside of the frontage roads do not provide adequate protection for cyclists and create more opportunity for bicycle/motorist collisions. Instead, it is recommended any bikeway associated with these roadways be completely separated from vehicular traffic, be positioned behind the outermost curb, be at least 6 feet wide and separated from pedestrian traffic.

An intersection is the most likely place for a vehicle-bicycle collision. A protected intersection (or Dutch Junction) for bicyclists and pedestrians is recommended and makes travel considerably safer for all parties. This design includes small islands as buffers from right-turning motorists. Green paint is then used to direct the cyclist from one protected lane to the next in a circular fashion moving counter-clockwise. College Station, TX has already completed a similar design and the protected intersection in the Energy Corridor in Houston is planned to be implemented in the fall. It is recommended that TxDOT use such safer intersection design treatments and consider design guidance from NACTO in the design of intersections.

Multiple streets have been shown with sweeping, large radius turns. Several of these match the existing roadway curb lines which may have been designed at a different time for different uses. This project should take the opportunity to minimize these issues, especially in areas where large numbers of people walking can be expected around Downtown and Buffalo Bayou. Sweeping right turns, not limited to Sabine Street and the IH-69 exit to Main Street, need to be avoided. This design makes it difficult for both the motorist and the cyclist to anticipate a potential collision.

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It is not clear if local street network and intersections have been analyzed in any way. Given the impact of the project on adjoining communities and the City, coordinate with the City and included this analysis in the plan and FEIS analysis. If not, it is a serious oversight to understand the proposed plan impacts.

In general, creating excess unproductive space should be avoided in street design (e.g., small triangles of isolated land) unless there is clear plan to address the use of the space (e.g. public art projects).

Consider all detention areas and how to make these attractive and usable green spaces.

The City of Houston has adopted a Complete Streets policy to ensure streets are constructed for all users of the system. The City's Infrastructure Design Manual also requires streets should be built using a Context Sensitive Design guidelines as those recommended in the ITE - Design Walkable Urban Thoroughfares: A Context Sensitive Approach and NACTO – Urban Street Design Guide, and others. Since the project location is within the dense urban core of the Houston, especially Segments 1 and 2 any future engineering design should meet these guidelines. Segment 3 should be designed to General Urban context guidelines.

While the freeways are designed to FHWA and AASHTO design guidelines; all frontage roads, adjoining local streets and intersection should be designed consistent with the City's Context Sensitive design guidelines.

It is important to ensure that all freeway overpasses are designed with lighting to ensure safety of all user of the roadway. Coordinate with the City, adjacent community, and management entities for identify opportunity for peacemaking improvements under the freeway.

**SEGMENT 1**

- Evaluate how the Airline, Victoria Drive and Northbound I-45 Intersection would operate safely and legibly to people traveling through any mode of travel. Existing configuration should be improved to ensure safety for all users of the roadway.
- Clarify plan for Werner Street in northeast corner of Tidwell intersection with I-45.
- All intersection should also be designed with special care for safe, comfortable crossings for pedestrians. Most arterials crossing I-45 are on METRO's bus network, have significant nearby boardings and will require safe crossings to serve stops for people traveling in both directions. Additionally, development adjacent to I-45 should be safely accessible for people walking. In particular, the intersection of Shepherd and I-45 is directly adjacent to the N. Shepherd Park & Ride. This intersection should be assessed to ensure that is safely traversable by people walking.
- N. Shepherd Transit Center would be logical extension for METRO Red Line. We encourage consideration of how that connection could be made and to consider that in design so as to not preclude options. For example, consider making West Little York and Parker crossing spans wide enough as these would be potential point for light rail to cross I-45 to reach N. Shepherd.
- Most intersections in Segment 1 are proposed with suburban intersection design considerations. This segment falls within an urban area and all intersections should be designed to improve pedestrian and bicycle accessibility. To this end, an intersection design that incorporates a free

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flow right turn lane with a pedestrian island creates an unsafe environment for pedestrians since many drivers do not yield to pedestrians at such intersections. Additionally, several intersections have dedicated right turn lanes. Ensure the traffic counts warrant dedicated right turns. 5-6 lane/multi-lane frontage roads are daunting for pedestrians to cross. Coordinate with City of Houston on all intersection designs.

- Ensure adequate clearance across Halls Bayou to allow for adequate natural drainage conveyance, and a pedestrian and bicycle trail along the bayou.
- Provide dedicated left turn lane at the proposed Blue Bell Interchange.
- Justify the need for 5-lane frontage road for portion I-45 between West Road Blue Bell Road, a minor collector street.

**SEGMENT 2**

- The proposed extension of frontage roads under IH-610 at I-45 interchange are beneficial. These roadways and intersections should be designed to also allow safe pedestrian and bicycle crossings as there is not another crossing for approximately ½ mile in either direction. The large radius turn lanes are not typically supportive of safe, comfortable crossings at these locations.
- Entire design should be reviewed to ensure optimized bus stop locations have been considered and stops (and access to stops) would be designed to ADA and METRO standards to support high quality transit experience. For Segment 2, this is most critical for the Cavalcade St. bridge crossing and the operation of the existing 44 Acres Homes which travels on a section of Main St and Houston Avenue impacted by the NHHIP project
- Justify the need for proposed multi-lane frontage road along northbound I-45 between Quitman and N. Main. A single lane north of Quitman is expanded to 4 lanes at N. Main Street creating significant impact on adjacent properties. Additionally, this creates a design that encourages high speed adjacent to the proposed park deck.
- Add safe pedestrian crossings, and bike lanes, to cross, and continue east, on Calvacade (has existing bike lanes), Patton, and Cottage St-Searle Dr. These are to have access to the red line train stops at Calvacade and Moody Park, as well as shops, the MD Anderson YMCA, the new park (see below), and neighbors
- Add shade trees along sidewalks and bike lanes on Calvacade, Patton, and Cottage St – Searle Dr.
- Ensure a location to post a Welcome to Brook Smith/Montie Beach sign at the I-45 and N. Main intersection
- Ensure the design maintains safe multi-modal accessibility across the I-45 and I-610 interchange.
- Reconfigure the design of the local network to the new frontage road along I-610 and I-45 on the northeast side of the interchange. Create two-way T-intersection instead of the proposed one way connection to Reid Road. Evaluate the option to extend Melbourne Street to I-45 northbound frontage road

**SEGMENT 3**

**SOUTH: US 59/ I-69**

- Ensure Wheeler Bridge is designed to accommodate University Corridor LRT, 4-lanes vehicular and pedestrian accommodations. Current proposal does not take into account the proposed high capacity transit along Wheeler Street.
- Consider widening Alameda bridge to allow simple buffer buildings (See example of I-670 in Columbus, OH). This would reduce view of freeway and make a more seamless commercial corridor experience on this important roadway.
- Justify why Caroline Street warrant 4-lanes with dedicated left turn lane at Wheeler Street. Maintain the current 4-lane configuration with wide median across I-69 to maintain the existing character of Caroline Street.
- Area south of Baldwin Park should be redesigned to more of a neighborhood context without sweeping high speed curves in streets. For example, Francis Street could be designed as a T-Intersection with Chenevert. This would allow block between Chenevert, Francis, Jackson and Stewart to be reassembled at full city block. This could be used for green space or redevelopment opportunities given the impact of the proposed project.
- Proposed access from Chenevert to the extension of Hamilton Street can be designed as a 2 lane local street and limit impacts on adjacent properties and would be a context sensitive design solution.
- Where frontage roads are proposed, such as between Midtown and Museum Park or between Downtown and the East End, it would be helpful to know which intersections would be proposed for signalization or all-way stop control. This will greatly impact people's ability to safely cross at these locations, especially those walking or biking. It would likely be beneficial if all of these are considered for either a signal or all-way stop control.
- Ensure Wheeler Transit Center can function effectively for all users with this project. Current Schematic does not show exit point for Transit Center driveway. This project presents opportunity to rethink operations.
- The design of the street network near Wheeler Transit Center should be optimized to maximize TOD opportunity. Main goal would be to minimize train/roadway conflicts (e.g., train does not cross streets in the middle of intersections) while maximizing transit operations and TOD potential. Design should be developed to accommodate future two-way express bus service on I-69/US 59 with particular focus on Spur 527. Direct or expedited HOV connections to Wheeler TC should also be explored.

**EAST: I-69, I-45, SH 288**

- Tuam Street is a local street and does not warrant 4 lane redesign as 2 lanes with left turn lane and dedicated bike lanes.
- Re-evaluate the need for 5 lanes on McGowen Street. Two lanes with dedicated left turn lane and bike lanes may be adequate based on the existing and projected capacity.

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- Revise the design of Hamilton and McGowen Street to remove free flowing right turn lane.
- Propose Chartres Street at McGowen Street should be redesigned to limit ROW taking from the new residential development in Third Ward.
- Redesign Webster Street and Hamilton Street intersection as a T -intersection to improve pedestrian accessibility along Hamilton .
- Light new bridges along I-69 in a manner similar to those in Montrose along I-69.
- The project appears to take out HPD's South Central command station. How is this impact being mitigated and have alternate location been identified to relocate the facility in the area?
- Include bike lanes and wide sidewalks on Elgin, Tuam and McGowen bridges. Light new bridges in a manner similar to those in Montrose along I-69.
- Southbound Hamilton at McGowen and northbound Chartres at Elgin should be designed without sweeping right turn lane
- When reconstructing Green/Purple crossing of I-69/I-45 trench between East End and downtown, design larger radii turns to support faster train operation speeds. Improve signal operations for rail crossing at St. Emanuel and design Hamilton crossing to work effectively. Coordinate with the City of Houston and METRO and potential for dedicated transit lanes on Capital and Rusk as well as rail connection through proposed cap park.
- Ensure potential bottle necks are evaluated in the design process
  - Could I-45 to I-69N to I-10 ramp be separated to eliminate some of the likely weaving though that section? I-45 N to I-69 N connection could occur in vicinity of Runnels. This has potential to reduce weaving through that area overall.
  - I-69 S south of merges seven southbound lanes (2 from Hamilton/Webster, 4 from I-69 S main lanes, 1 from I-45N) in 6 lanes, which drop to 4 lanes once two lanes are peeled off to local streets on south end of midtown. This seems like it will end up as a major bottle next similar to existing I-69 NB at the Spur. Don't really have a solution but seems like it will be challenge at day one of opening.
- In the area, north of Minute Maid Park, the operations of the proposed southbound frontage road and existing Hamilton appears problematic. Having two parallel one-way street traveling the same direction and located 100' apart seems like a recipe for conflicting queues and confusing operation for motorists both on these streets and crossing them. There is significant potential for wrong way turns from crossing streets as drivers are used to the alternative pattern of one-way street Downtown. Consider consolidation of these streets or revisions to ramp access to Downtown.
- Ensure underpass at Commerce/Navigation proposed by GCFRD can be constructed with acceptable and safe grades/visibility for all modes of traffic.
- The intersection of Franklin and St. Emanuel frontage road seems poorly thought out given existing grades, typical travel speeds, and sight distance, should the full underpass mentioned above not come to fruition.
- Ensure rail underpasses are built with drainage improvement to avoid flooding.
- Ensure at grade crossing of railroads is avoided in the proposed design for enhance freight and vehicular circulation and safety.

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- Design the proposed detention basin north of Runnels as a wet bottom basin that is publicly accessible gateway feature from the bayou trail system.
- Include landscaping and noise mitigation along widened freeway adjacent to Fifth Ward, East Downtown, East Downtown, Downtown, First Ward, Third Ward and Midtown.

### **NORTH: I-45, I-10**

- Reconstruct Hogan, Quitman, McKee and Hardy bridges with safe pedestrian and bike friendly crossings and sidewalks.
- Ensure the design of Providence and Rothwell accommodates pedestrian and bicycle users.

### **WEST: Downtown Connector, Pierce Elevated**

- Sabine Street at Allen Parkway should be shown as T-intersection without sweeping right turn design. These are not appropriate for the context, given walking and biking crossings and desired travel speeds along Buffalo Bayou Park.
- The removal of the existing freeway and the proposed configuration of Downtown Connector will have significant impact on Buffalo Bayou Park and Sam Houston Park. Coordinate on design and identifying opportunities to enhance the parks, with City of Houston, Buffalo Bayou Park, Downtown District and HCFCD is critical to minimize impact on our parks, bayous and its users.
- Minimize the number of piers supporting the downtown connector bridges over Buffalo Bayou.
- Realignment of I-45 along Pierce Elevated creates a unique opportunity to connect adjoining neighborhoods like East Downtown, Third Ward, Midtown, Downtown, and Fourth Ward with a unique urban space. We encourage the City, Midtown District, Downtown District, and other adjacent neighborhoods to develop the best solution that would meet the goals of the City and our neighborhoods. We look forward to these partners to work with TxDOT over the next few years to discuss options along this corridor since this is the last phase of the NHHIP Segment 3 project.
- Design and locate the downtown connectors to preserve the option of retaining some of the existing freeway bridge structures, similar to the Pierce Sky Park concept, where possible.
- Evaluate the opportunity to create a deck park or green belt extension between W. Gray and St. Joseph to allow for the opportunity to extend greenway along the Pierce Elevated, connecting Buffalo Bayou, Midtown and Downtown to Third Ward and East Downtown.

## **PARKS AND OPEN SPACE**

The proposed project has a significant impact on parks, open space and recreation areas in the Houston Region. The project should identify opportunities to limit this impact and mitigate any impact proposed.

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**SEGMENT 1**

- Coordinate with City of Houston and Houston Parks Board for opportunities to develop opportunities for parks and open space along Little White Oak Bayou between I-610 and East Parker Road and Shepherd. Develop the detention basin between I-610 and Crosstimbers as a wet bottom basin and publicly-accessible green space tied the bikeway along the bayou. Install a trash mitigation system that will collect both heavy debris and floating debris.
- Coordinate with City of Houston and Houston Parks Board for opportunities to develop opportunities for parks and open space along Halls Bayou along I-45.

**SEGMENT 2**

- Little White Oak Bayou represents a prime opportunity to extend open space connectivity north from White Oak Bayou Greenway to Woodlands Park, Moody Parks and beyond up to Halls Bayou. It also connects neighborhoods like Near Northside, Independence Heights and Acres Homes. This connection between Acres Homes and downtown would benefit many of the underserved communities directly impacted by the North Houston Highway Improvement Project. Through most of Segment 2 the project follows the course of the Little White Oak Bayou. It is imperative that the project fully embrace the ecological values and open space potential offered by Little White Oak Bayou.
- Improved greenspace and pedestrian accessibility to Woodland Park along Little White Oak Bayou east of I-45.
- In 1914 Woodland Park was a 26 acre park in a neighborhood which included the two communities of Woodland Heights and Near Northside. In 1959, TxDOT acquired one third of the park (8.5 acres) to construct I-45 just to the north of downtown. The remaining 17.5 acres of I-45 Woodland Park is now situated entirely to the west of I-45 within the Woodland Heights. Because of I-45, Near Northside residents no longer have access to this park except via the North Street Bridge. Improve greenspace along Little White Oak Bayou east of I-45, with hike and bike trails connecting to Moody Park. This will provide Near Northside residents with access to greenspace and Little White Oak Bayou.
- Connectivity from Woodland Park to the Little White Oak Bayou east of I-45. This could be through an improved channel conduit under I-45 that would provide a safe walking and biking path along the bayou connecting Woodland Park on the west of I-45 to the hike and bike path along Little White Oak Bayou on the east side of I-45.
- Connectivity of public parks, HPARD's "String of Pearls", can be achieved by connecting Woodland Park to Moody Park along Little White Oak Bayou. Coordinate with City of Houston and Houston Parks Board for opportunities to develop opportunities for parks and open space along Little White Oak.

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**SEGMENT 3**

- The White Oak Bayou Greenway is part of Bayou Greenways 2020, a \$220 million public/ private investment by the City of Houston to provide continuous linear parks and recreation areas, with hike/bike trails, along 150 miles of Houston’s major waterways. The White Oak Bayou Greenway extends over 15 miles from the city limits to UH Downtown where a federally funded TIGER project, currently under construction, is connecting White Oak Bayou Greenway to Buffalo Bayou Park. The DEIS does not reflect the impact on White Oak Bayou greenway which clearly serves an open space and recreation area with the project. TxDOT should address this issue and work with the stakeholders to mitigate the impact on the White Oak Bayou Greenway.
- Sam Houston Park is one of Houston’s most important historical destinations, featuring some of the oldest structures in the city. The proposed one-way connection from Walker/McKinney loop street should be removed since it separates Sam Houston Park from Buffalo Bayou. This roadway cuts through the original Sam Houston Park, which originally extended to Buffalo Bayou. This is also the primary biking and jogging route from downtown to the bayou and creates a very dangerous crossing point on a heavily-used route.
- Sabine Promenade/Buffalo Bayou Park area has undergone a nearly \$90 million enhancement. TxDOT’s should design roadways in a context sensitive manner to ensure accessibility and safety of people walking and biking.
- Lighting improvement is needed under the ramps at Lyons Avenue and Gregg Street. These Improvements should be coordinated by TIRZ 18 and the Houston Arts Alliance.

**COORDINATION & PROCESS**

This project will be transformative, for the region and City TxDOT closely coordinates with the City of Houston, METRO and other entities such as Management Districts, TIRZs to make the project as strong as possible. This means thinking beyond the direct right-of-way of the project to understand opportunities and impacts on street, bikeway, greenway, and transit networks. It also means working to tie communities together, not separating them further with ever wider freeways serving as barriers.

The project impact facilities managed by multiple agencies, entities and organization. While TxDOT has engaged these organizations on planning level concepts, additional coordination warranted ensuring the design drawings and details are coordinate with these agencies, entities and organization. Develop a process for coordination to ensure major issues are resolved early in the design phase of the project. This could be achieved through workshop for design level discussion and decision for the proposed project.

Several stakeholders have submitted recommendations that have potential to significantly improve connectivity but have not been reflected in current plans. Plans state that these are “subject to change”. Clarify to the public the process to consider these changes.

Ensure coordination with the City and other organization to ensure safe pedestrian bicycle access for trails along Buffalo Bayou and White Oak Bayou.

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Ensure coordination with local business being impacted during the construction phase of the projects to identify opportunities to limit impact to businesses.

**ECONOMIC DEVELOPMENT**

A project of this magnitude has significant impact on potential development, both positively and negatively. It will also impact the City's tax base through acquisition of valuable land in the City's urban core. The design should be optimized to support high quality development opportunities that are beneficial to the City of Houston and the surrounding communities. To pretend this is solely a mobility project and to overlook the development impacts would be huge missed opportunity. TxDOT and its partners should work to identify and incorporate development opportunities into the project in the initial design, especially in areas where the project eliminates significant existing tax base.

Segment 1 has significant impact, approximately 212 acres, proposed widening of the project. TxDOT should identify other options and meaningfully engage the neighborhoods to limit this impact on the community.

**NOISE & ENVIRONMENTAL**

In general noise and environmental impacts should be mitigated proactively as a part of the project. Plan should designate where noise walls are proposed to mitigate neighborhood impacts. Reduce road noise with grooved pavement and slower speed limits especially in the densely-populated and historic areas.

Roadway alignments and the project scope should allow for street trees and pedestrian realm designed to urban standards. Add landscaping along freeway lanes and frontage roads plus noise walls to mitigate for increased traffic from wider freeway. Develop a landscape plan and coordinate with the City and stakeholders along the corridor to reduce visual impacts along the corridor.

The NHHIP project will have a significant impact on Houston neighborhoods and businesses. Provide a landscape plan for the project where landscape screening will be provided along the project to screen the freeway and also help mitigate the air quality and noise impact from the freeway while improving aesthetics.

Waterways affected by the project are already listed as impaired waters. TxDOT should model the runoff and stormwater discharges into Buffalo Bayou, White Oak and, Halls and Little White Oak in order to meet state requirements that prohibit the addition of any pollutant load into impaired waters and focus instead on improving those waters through the additional application of more rigorous best management practices for stormwater and runoff. Similarly, TxDOT should adopt and disclose the best management practices and plans that will be adopted, including source controls, to avoid further discharge of trash into these waterways.

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**SEGMENT 1**

- All alternatives would result in traffic noise impacts. The current DEIS does not adequately address mitigation.

**SEGMENT 2**

- Ensure all neighborhoods with noise impacts, irrespective of existing conditions, are mitigated appropriately with options such as noise/sound wall including the southeast corner of I-610 and I-45 adjacent to Delaney Street.
- Provide for noise mitigation along the eastern border of Woodland Park. There is constant din of freeway noise is part of the fabric of a Woodland Park visit. With an added upper deck, above grade, the noise will be even more oppressive and incessant. Provide state-of-the-art sound mitigation with an additional shielding of tall trees and vegetation.
- The TxDOT plan proposes to increase the amount of flow of Little White Oak Bayou under I-45 via a larger culvert or channel will result in hydrologic changes within the LWOB channel in Woodland Park. Increased water flow upstream, at the I-45 culvert, will add increased flooding pressure and erosion downstream within the park.
- Erosion can be mitigated with careful planting of appropriate vegetation particularly along the steep banks of the Little White Oak Bayou channel to prevent collapse and further instability due to increased flood water pressure.
- Little White Oak Bayou continues to be one of the top 10 polluted waterways in the greater Houston area. The bayou suffers from freeway pollution from both run-off and litter. It makes a small meander on the east side of I-45. Current TxDOT plans include detention basins on the east side of the freeway along the Little White Oak Bayou channel. Currently most of the channel is not accessible and is tremendously polluted with dissolved pollutants, heavy trash within the channel, and floating debris of cups and plastic bags, much of this coming from the freeway.
- Create detention ponds that are open and unfenced, planted with native plants which filter dissolved pollutants from freeway run-off.
- Install a trash mitigation system that will collect both heavy debris and floating debris. There are several locations along Little White Oak Bayou where this could be installed and maintained. Ideally it would be located upstream of both Moody Park and Woodland Park.

**SEGMENT 3**

- The proposed realignment of the freeway near Hardy Yards will have significantly larger noise and visual impact on the Hardy Yards area. The current DEIS does not adequately address mitigation along this area.
- Include landscaping and noise mitigation along widened freeway adjacent to Third Ward and Midtown.
- Impacts of run-off on Buffalo Bayou west and northeast of downtown. Provide wet bottom detention where detention is being proposed along this section.

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- Ensure detention ponds that are open and unfenced, planted with native plants which filter dissolved pollutants from freeway run-off.
- Install a trash mitigation system that will collect both heavy debris and floating debris.

**HISTORIC**

The project segment between 610 and I-10 impacts several historic neighborhoods. Three designated historic districts are located along I-45 south of North Main Street. The project's affect on the National Register-listed Near Northside Historic District on the east side of I-45 must be addressed as part of the review process along with potential impacts on two city-designated historic districts on the west side of I-45: Germantown and Woodland Heights. Both of the city-designated districts are potentially eligible for listing in the National Register. The Brooke Smith Addition on the west side of I-45 and the north side North Main Street is also potentially eligible for listing in the NRHP. The project's potential impact on historic resources in the First Ward, on the west side of I-45 south of I-10, should also be considered, particularly the National Register-listed Jefferson Davis Hospital (1925).