



SHEPHERD AND DURHAM MAJOR INVESTMENT PROJECT HOUSTON, TX 2019 BUILD APPLICATION

PROJECT NAME

The Shepherd and Durham Major Investment Project

TYPE OF PROJECT

Road – Complete Streets

PROJECT LOCATION

The proposed project is located within in the City of Houston, Harris County, Texas within the 2nd and 18th Congressional Districts of Texas. (29°48'13.52"North 95°24'40.46"West)

PROJECT SPONSOR

The Memorial Heights Redevelopment Authority, a Political Subdivision of the City of Houston, Texas

PROJECT AREA

The proposed project is located within the Houston urbanized area.

2019 BUILD FUNDING REQUESTED

\$25,000,000 in BUILD funding to be matched by \$25,000,000 in local funding.

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I. PROJECT DESCRIPTION

The Shepherd and Durham Major Investment Project, located within the City of Houston, Texas, will reconstruct and improve two parallel urban principal arterial roadways (one-way couplets) of four-lanes each and six streets (of various width and classification) which connect them. The purpose of this project is to address regional priorities most related to safety, state of good repair, multimodal access, and stormwater mitigation. The project will replace and upgrade all public infrastructure within the existing public right-of-way to include the following components, organized by category. Ultimately, this project will create a true Complete Street with superior multimodal connectivity to the regional transit and shared use path system while providing stormwater management upgrades to the greatest degree practicable.

Roadway	Multimodal	Public Utilities
Access management (driveway consolidation and channelization)	Construct accessible sidewalks	Upgrade stormwater detention infrastructure to meet post-Hurricane Harvey standards
Modified intersection turning movements to reduce delay	Install high comfort bike facilities	Replace and upgrade sanitary lines
Removal of a travel lane (four to three lanes) from each one-way pair (road diet)	Install functional street trees for shade, roadway buffer	Replace and upgrade water lines
Reconstruction/rehabilitation of existing pavement, curb, and gutter	Install new, relocated, and repositioned transit stops	
New and visible mast arm signalization	Install signage and crosswalk striping for user safety including four (4) school crossings within the project limits	

Table 1: Project Scope Elements

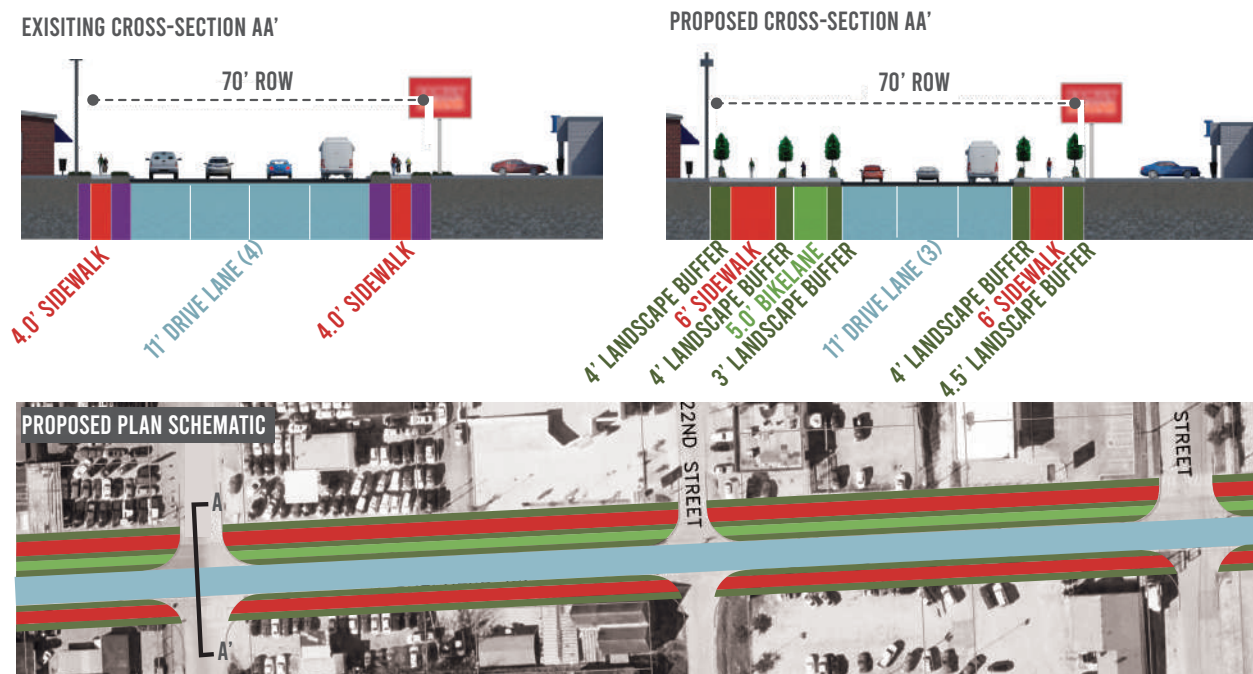


Fig 1: Existing and Proposed Street Schematic

RIGHT OF WAY

The project does not require right-of-way acquisition or dedication.

PHASING

This BUILD application is for the first phase of a three-phase project. The project limits for this BUILD application are from IH-610 to West 15th Street. The second phase is from south of West 15th Street to IH-10. The third phase is from south of IH-10 to Memorial Drive. The BUILD narrative focuses on the first phase unless otherwise noted. The benefit-cost analysis focuses exclusively on the first phase.

SAFETY

This corridor has an endemic safety issue evidenced by a crash rate approximately four times the Texas average for four lane, urban, divided roadways. The trend line for crash frequency has been consistent year-over-year without significant fluctuation. Traffic volumes are significant ranging between 19,000 and 30,000 ADT dependent upon corridor location. In April 2019, a crash along this corridor attracted regional and statewide attention when a person in a wheelchair and a pedestrian were both killed struggling to cross a four-lane section of Shepherd Drive.

Corridor Crash Rate	745
Statewide Average	193

Table 2: Crash Rate Per Million Vehicle Mile Traveled

The proposed solution to address these dangerous corridor conditions includes modernization of the roadway, pedestrian and bicycle facilities, the installation of access management treatments, modification of intersection geometry, and the removal of a travel lane. The estimated reduction of crash incidence for all users stemming from these improvements can be calculated as outlined in the Texas Department of Transportation (TxDOT) Highway Safety Improvement Program (HSIP).



Fig 3: Durham Crash
(Sightline related)



Fig 4: Shepherd Crash
(Access-management related)



Improvement Type	Improvement Explained
Modernization	Pavement markings, clear sight lines, access management, updated intersection signalization /signage, and appropriate “clear zone” areas will be applied to the project limits.
Sidewalks and Bike Facilities	Install ADA accessible sidewalks, ramps, and crossings and High Comfort bicycle facilities (e.g. separated from traffic).
Modified Intersection Density	Lengthen turn bays/lanes, and new turn lanes to improve traffic efficiency and reduce turning movement related crashes.
Removal of Travel Lane	Remove a travel lane to decrease crossing distance for all users, reduce the incidence of sideswipe crashes, and calm traffic.

Table 3: Safety Improvements

STATE OF GOOD REPAIR

This roadway has not been significantly rehabilitated since the 1950’s and has now outlived its useful life. The City of Houston has assigned the pavement condition, “impacting the ability to drive at posted speeds,” for portions of the roadway. This project will significantly improve the functionality of the roadway by reconstructing or installing concrete pavement, curbs, gutters, striping, and signalization. Furthermore, reconstruction will decrease maintenance and related user costs (travel delay, vehicle wear/tear) within the project limits.



Fig 6: Durham Condition



Fig 7: Shepherd Condition

MULTIMODAL ACCESS AND REGIONAL CONTEXT

This project presents an opportunity to build sub-regional and regional connections to adjacent systems (Table 4, Regional Context).

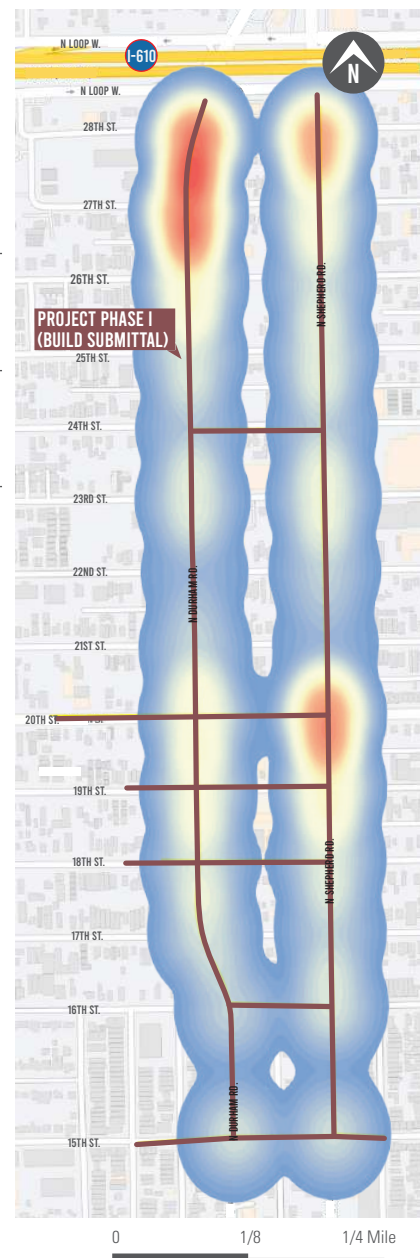


Fig 5: Crash Heat Map (Frequency)



Fig 8: Roadway Conditions

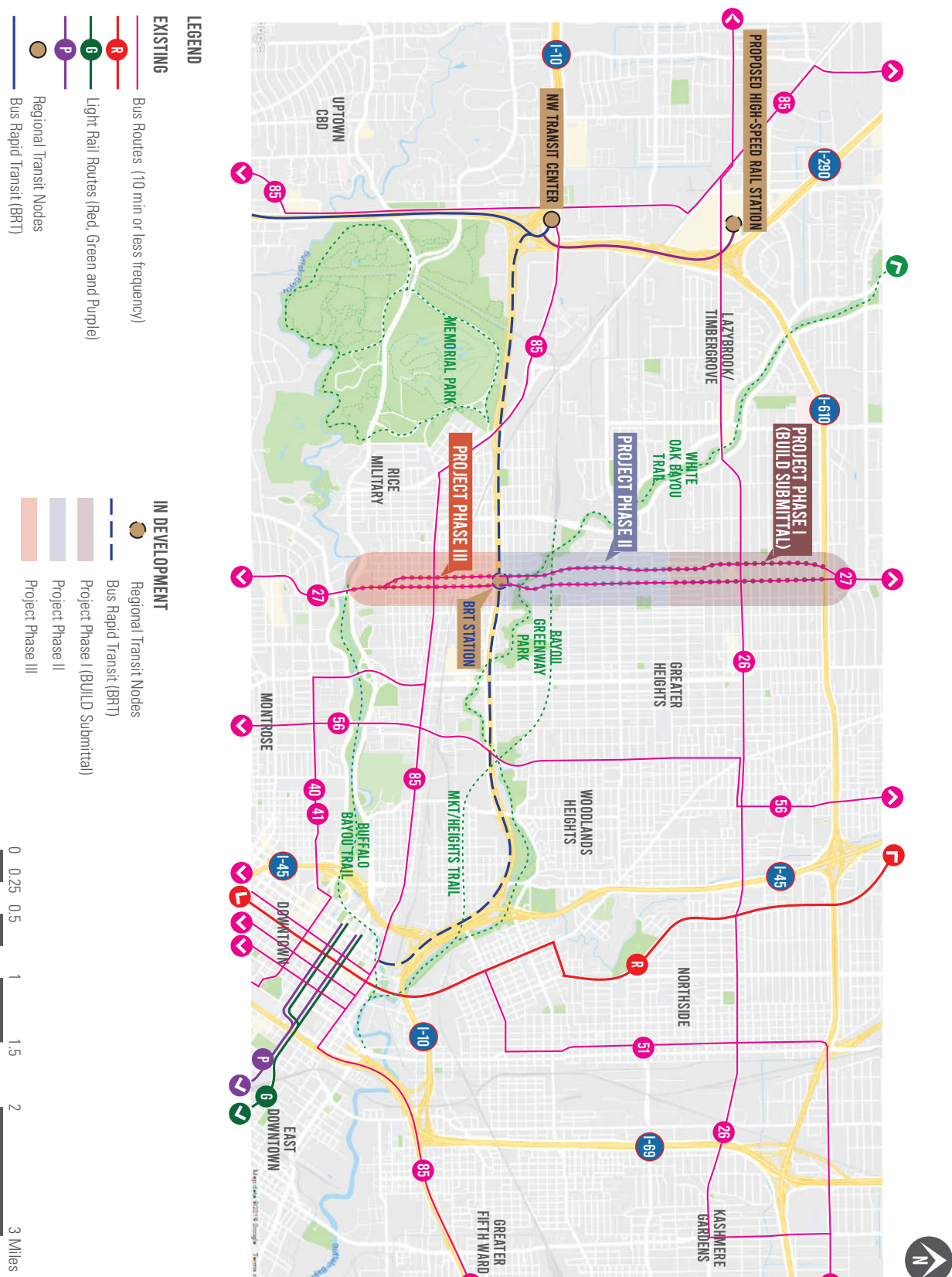


Fig 9: Shepherd and Durham Major Investment Project nexus to Regional Mobility Connections

FACILITY	CONNECTION TYPE	RELATION TO PROJECT
IH-610, IH-10	National Highway System (NHS) facility – general mobility	Improve travel time reliability for all auto and freight users by reducing crash incidence to and from this connection.
Regional Transit System	First/last mile connections to Houston and regional activity centers via fixed route and Bus Rapid Transit (BRT)	Improve first/last mile access (via sidewalks and bike facilities) to fixed-route and to the Inner-Katy BRT station being constructed at IH-10 and Shepherd Drive.
Statewide Transit System	Multimodal connectivity to high speed rail terminal	Building upon the above, improve first/last mile transit access to the Houston terminal for the under-development Houston-Dallas High Speed Rail.
Regional Trail Systems (Buffalo Bayou, MKT/Heights, White Oak)	Regional bikeways/pedestrian connections	Facilitate multimodal connections to regional trail systems which are located adjacent to project limits.

Table 4: Regional Context

STORMWATER MITIGATION

Approximately 1,300 structures within ½ mile of the project limits flooded during Hurricane Harvey in 2017¹.

In addition to this, the project corridors and surrounding roadways were, at times, inundated with stormwater that prevented safe travel and emergency response. To prepare for future flood events, the region has committed itself to preparedness through changes in development guidelines and the passage of a \$2.5 billion bond package for regional stormwater improvements. As recently as June 14, 2019, the State of Texas passed legislation to create a \$1.7 billion program to further fund stormwater mitigation. This BUILD submittal will work in conjunction with several other adjacent and downstream regional flood mitigation projects along White Oak Bayou and Turkey Gulley to prepare for future severe weather events.

Functionally, this project will provide more stormwater capacity with expanded conveyance and in-line detention. This will allow compliance with post-Hurricane Harvey stormwater requirements and will decrease localized flooding in the surrounding community along White Oak Bayou and the Turkey Gully tributary. Figure 10 depicts how the project area relates to the surrounding drainage shed and how conveyance will flow to White Oak Bayou. Refer to Section IV.1.D of this application for information on regional detention benefits.

PROJECT HISTORY AND PATH FORWARD

2014 : This project was first conceptualized in the 2014 City of Houston Heights Mobility Plan² where it was first proposed re-purposing one travel lane from Shepherd and Durham Drives based on a preliminary traffic analysis. The plan recommended converting the outside travel lane for dedicated high-frequency transit use and wide (6-foot plus) sidewalks.

¹ <https://houstonrecovers.org/numbers/>

² https://houstontx.gov/planning/transportation/docs_pdfs/Heights_Northside/Chapter6_BalancedApproach_CorridorSheets.pdf

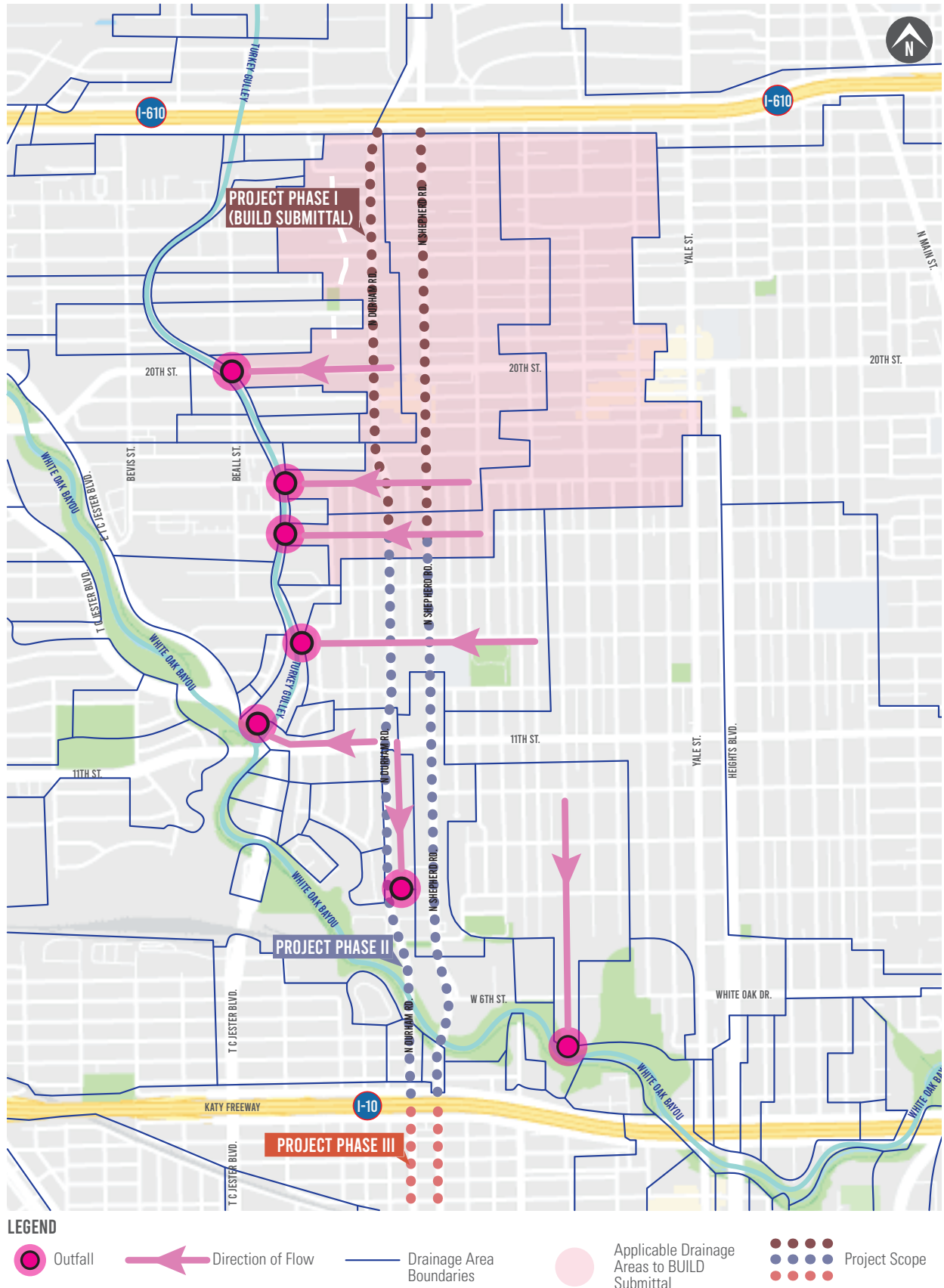


Fig 10: Shepherd and Durham Major Investment Project Drainage Areas

2015 : The City of Houston began work on a comprehensive bicycle plan³, that identified corridors that would be candidates for future bicycle facilities. In this plan, Shepherd and Durham drives were both designated for High Comfort bicycle facilities. Though not formally adopted until 2017, the recommendation to establish bicycle facilities along this project corridor was reached early in the process. Bike Houston, the city's bicycle advocacy group, noted that the Shepherd and Durham corridors were the most desired bicycle facilities within Houston.

Also, in 2015, the City of Houston expanded the boundaries of the Memorial Heights Redevelopment Authority (MHRA), a political subdivision of the City and infrastructure implementation vehicle, to include the limits of this project.

2016: The MHRA evaluated the capital improvements proposed for the project corridor in relation to other mobility projects within the area. The evaluation⁴ led to a finding that, of the potential MHRA projects, improvements to the Shepherd and Durham corridor would yield the greatest benefit to the City of Houston and the Houston-Galveston region. This evaluation also identified that timely implementation of the project would require discretionary federal or state funding, due to the cost of the project and City of Houston and MHRA budget constraints.

2017: The MHRA and the City began to refine engineering recommendations for the Shepherd and Durham corridors from IH-610 to Memorial Drive. The MHRA focused on Phases One and Two and the City of Houston focused on Phase Three which resulted in the following:

- Complete a traffic study⁵ that modeled that the removal of a travel lane. Findings showed that removal would not adversely impact level of service (traffic flow) as existing users predominantly use the outside lanes as turn lanes and not as through lanes. As such, the facility could be modified to accommodate improved turning movements and reduce the through-lanes to maintain and in some cases improve the existing level of service.
- Finalize recommendation that a travel lane should be removed and converted into a bicycle facility, for consistency with the Bicycle Plan.
- Complete an environmental site assessment (hazardous materials) report ⁶ and preliminary National Environmental Policy Act (NEPA) research⁷.
- Complete topographic and boundary surveys, and right-of-way analysis.
- Outreach to individual property owners.
- Initiate 30% design.

2018: Following Hurricane Harvey in 2017, the Houston-Galveston region made stormwater management and drainage a priority moving forward. The corridor is in close proximity to Turkey Gulley and White Oak Bayou, both major waterways that facilitate drainage to Galveston Bay. Because of this proximity, stakeholders designed the project to accommodate new National Oceanic and Atmospheric Administration (NOAA) rainfall standards for a 100- or 1,000-year rain event. Thirty percent design incorporates additional scope items related to drainage.

The MHRA held a "town hall" style public meeting was held on May 2, 2018 to specifically discuss this project⁸

3 <http://houstonbikeplan.org/documents/>

4 <https://www.dropbox.com/s/ldixsv67dbnrnlh/5%20CH%202%20Short-term%20Projects.pdf?dl=0>

5 <https://www.dropbox.com/s/vjn7pysbhcxoqkn/Traffic%20Study%2012112017-compressed.pdf?dl=0>

6 https://www.dropbox.com/s/98l73bhokhwe1le/%28N-T05000-0005-3%29_%28CaI_18%29_%28ESA%20I_RPT_for_Shepherd_%26_Durham_Reconstruction_IH-610_to_Larkin_TIRZ%205%29Rvds-compressed.pdf?dl=0

7 <https://www.dropbox.com/s/udzseit0gte08st/9%20Appendix%20A.pdf?dl=0>

8 https://www.dropbox.com/s/5ms3btlat21ahl/Shepherd%20Durham%20Public%20Meeting%20Summary_Reduced.pdf?dl=0



Fig 11: Public Meeting for Shepherd and Durham Reconstruction

2019: Houston-Galveston Regional Council (H-GAC) added the project to the 2045 Regional Transportation Plan⁹. Following this, project partners coordinated to craft an implementation strategy:

- Phase I – Submit a BUILD application and matched with MHRA funds
- Phase II – Future regional application (H-GAC) matched by MHRA funds
- Phase III – Future City of Houston Capital Improvement Program allocation

II. PROJECT LOCATION

This project is located within the City of Houston, Texas, and the Houston Urbanized Area (UZA). The project limits are within Texas House Districts 2 and 18. The geographic limits of this project include Shepherd and Durham Drives from the eastbound frontage road of IH-610 to 15th Street and include the intersections at 15th Street, Shepherd, and Durham). The project limits also include the following connecting streets and termini.

Street	Terminus A	Terminus B
W 15 th St	Prince St.	Dorothy St.
W 16 th St	Durham Dr.	Shepherd Dr.
W 18 th St	Approximately 375 feet west of Durham Dr.	Shepherd Dr.
W 19 th St	Approximately 375 feet west of Durham Dr.	Shepherd Dr.
W 20 th St	Approximately 375 feet west of Durham Dr.	Shepherd Dr.
W 24 th St	Durham Dr.	Shepherd Dr.

Table 5: Cross-Street Connections

As illustrated in Table 4, Regional Context, and Figure 9, this project has several connections to existing and funded transportation infrastructure including connectivity to other NHS facilities, regional and future statewide transit systems, and the regional trail system. In addition to these connections, the project's principal roadways themselves are classified as NHS routes, principal arterials, and/or critical urban freight corridors¹⁰. This project is also a component of the adopted H-GAC 2045 Regional Transportation Plan.



Fig 12: Project Phases

⁹ <http://2045rtp.com/documents/plan/Appendix-D-Fiscal-Constraint-and-Project-Listing.pdf> (Page 134)

¹⁰ https://www.txdot.gov/apps/statewide_mapping/StatewidePlanningMap.html

Classifications, Connections, and Designations	Yes / No
On National Highway System?	Yes
Classified as Principal Arterials?	Yes
Classified as Critical Urban Freight Corridors?	Yes
Consistency with Regional Plan?	Yes
Connections to other NHS Corridors?	Yes
Connections to Regional Transit?	Yes
Future Connections to Statewide Transit?	Yes
Connection to Regional Trail Systems?	Yes

Table 6: Classifications, Connections and Designations



Fig 13: Access and Drainage Issues

III. GRANT FUNDS AND SOURCES/USES OF PROJECT FUNDS

The MHRA is requesting \$25 million from the 2019 BUILD Program, out of a total eligible project cost of \$50 million. **All funds being requested through the BUILD program are being requested for construction phase activities.** Project design and other project development activities are being completed outside of the federal BUILD program using local dollars.

Appendix B, Funding Commitments, includes a Resolution of Support and Funding Commitment and the approved FY2020 MHRA budget which demonstrates the \$25 million commitment to this project.

PHASE I: BUILD PROJECT BUDGET, BY MAJOR CONSTRUCTION ACTIVITY

Division	Non-Fed (\$)	Non-Fed (%)	BUILD (\$)	BUILD (%)	Other Fed (\$)	Other Fed (%)	Total
General Items	\$2,349,530	50%	\$2,349,530	50%	\$ 0	0%	\$4,699,060
Water Line Items	\$905,575	50%	\$905,575	50%	\$ 0	0%	\$1,811,150
Sanitary Sewer Items	\$856,620	50%	\$856,620	50%	\$ 0	0%	\$1,713,240
Storm Sewer Items	\$6,044,075	50%	\$6,044,075	50%	\$ 0	0%	\$12,088,150
Paving Items	\$6,645,325	50%	\$6,645,325	50%	\$ 0	0%	\$13,290,650
Subtotal	\$16,801,125	50%	\$16,801,125	50%	\$ 0	0%	\$33,602,250
Contingency (30%)*	\$5,040,338	50%	\$5,040,338	50%	\$ 0	0%	\$10,080,675
CM/CA/MTS**	\$3,158,538	50%	\$3,158,538	50%	\$ 0	0%	\$6,317,075
Grand Total	\$25,000,000	50%	\$25,000,000	50%	\$ 0	0%	\$50,000,000
FOR INFORMATION ONLY - PHASE II: ESTIMATED BUDGET ALLOCATION***							
Lumpsum Capital Cost	\$17,300,000	35%	\$0	0%	\$32,700,000	65%	\$50,000,000
FOR INFORMATION ONLY - PHASE III: ESTIMATED BUDGET ALLOCATION****							
Lumpsum Capital Cost	\$40,000,000	100%	\$0	0%	\$0	0%	\$50,000,000

Table 7: BUILD Project Budget

* Contingency is allocated at 30% of the construction cost to account for inflation, unforeseen conditions, and the project risks and associated mitigation strategies documented in this application.

** CM = construction management, CA = construction administration, MTS = material testing services

*** Allocation amongst categories is an estimate and is subject to change dependent upon allocation of regional federal funds and other funding pursuit efforts.

**** Project phase budget and allocation amongst categories is an estimate and is subject to change

IV. SELECTION CRITERIA

This section provides an overview of the proposed project and how it relates to the primary and secondary selection criteria. Due to space limitations, not all methodologies and/or benefits are fully described in the selection criteria. A detailed description of these benefits is included in Appendix A: Technical Memorandum Benefit/Cost Analysis Shepherd and Durham Major Investment Project

From a high-level perspective, the table below demonstrates that this project is in alignment with the goals and performance measures established within the 2019 H-GAC's 2045 Regional Transportation Plan and the 2019 BUILD program primary selection criteria.

RTP Goals	Performance Measures	Project Alignment
IMPROVE SAFETY	Reduce Vehicle, Bicycle, Pedestrian, Fatalities and Serious Injuries	Analysis projects a crash reduction of 42 to 50% for certain types of vehicular crashes, 67% for pedestrian crashes, and 38% for bicycle crashes.
	Pavement & Bridge Condition Transit Asset Management	Will rehabilitate failing roadway and pedestrian realm, upgrade undersized stormwater lines, and replace failing public utilities (waste/water). Will provide a 50 year useful life design standard for all improvements. Will meet accessibility standards. Improvements include transit shelters, stops, and accessibility amenities which will upgrade the existing transit assets along the corridor.
ACHIEVE AND MAINTAIN A STATE OF GOOD REPAIR	Increase Reliability Expand Multimodal Network Incident Response	Will reduce crash frequency/severity which is a top factor in determining time travel reliability (TTR). Will accommodate bicycles, pedestrians, and facilitate maximum connectivity to fixed route/fixed guideway transit. Facilitates improved connections to regional shared use path system. Improvements in TTR will aid incident response times. Stormwater improvements will reduce roadway ponding improving mobility for all users during storm/hurricane/evacuation events.
		Improvements to overall TTR will benefit freight TTR. Corridor is designated as a regional critical urban freight corridor which provides connectivity between two other major NHS facilities (LP 610, IH-10).

RTP Goals Performance Measures

Project Alignment

STRENGTHEN REGIONAL ECONOMIC
COMPETITIVENESS

Increase Truck Travel Time
Reliability
Increase Multi-Occupant
Vehicle Use

Will increase multi-occupant vehicle use by improving accessibility to public transportation for bicyclists and pedestrians. Project will also relocate transit stops/shelters to far side of intersections to reduce delay.

The corridor is a high frequency fixed route corridor which intersects with a future fixed guideway station which ultimately provides local connectivity to two major CBDs - Uptown Houston and Downtown Houston. The system is also a connection to the future High Speed Rail termini.

CONSERVE AND PROTECT NATURAL
AND CULTURAL RESOURCES

Emission Reductions
Reduce Impacts Requiring
Mitigation

Project will reduce emissions through mode shift to pedestrian, bicycle, and transit activity. Analysis demonstrates new pedestrian and bicycle "daily users" as a result of this project.

Project is a Categorical Exclusion (CE) with no right-of-way impacts. The project is environmentally a net positive through addressing regional stormwater detention needs, increasing alternative mode utilization, and facilitating better connections to regional trail systems.

Table 8: 2045 RTP Goal Alignment with Shepherd and Durham Major Investment Project



Fig 14: Existing Conditions

1. PRIMARY SELECTION CRITERIA

A. SAFETY

Area	Yes / No
Positive impacts on number, rate, and consequences of crash incidents	Yes
Eliminate grade crossings	No
Prevent unintended release of hazmat	Yes

Table 9: Consistency with NOFO Section E 1(a) (Criteria, Safety)

POSITIVE IMPACTS ON THE NUMBER, RATE, AND CONSEQUENCES OF CRASH INCIDENTS

This project yields the greatest benefits (monetary, societal, and otherwise) in the area of safety due by reducing the high rate of crash incidences along the corridor. Between 2012 and 2018, there have been 918 crashes within the project limits. Of those, 1 has resulted in a fatality; 14 have been severe resulting in incapacitating injuries; 5 crashes involved pedestrians; and 11 involved bicyclists.

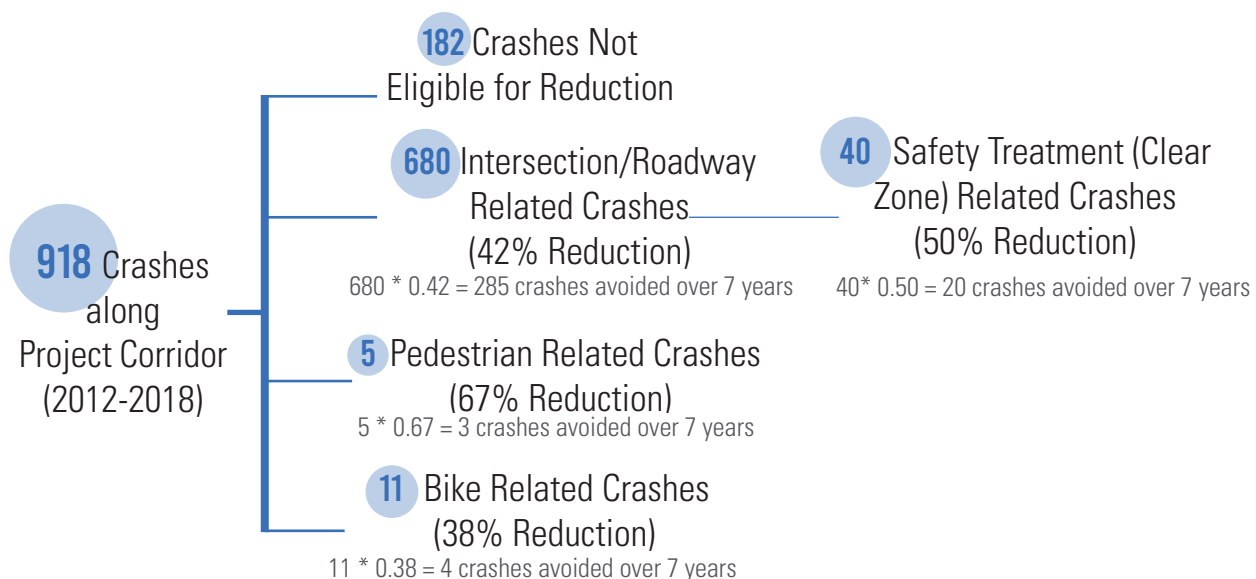


Fig 15: Crash Statistics

Not included in this crash data are two pedestrian related fatalities that occurred within the Phase 2 project limits, at approximately 10th St. and Shepherd Dr.¹¹ Although not within the BUILD project limits, the crash is worth referencing because it demonstrates again the inherent dangerous conditions of this corridor. The proposed improvements include sidewalks, ADA ramps, roadway modernization, intersection improvements, and the reduction of a vehicular travel lane, and could have mitigated or prevented that crash.

Per the TxDOT HSIP strategies, this project will reduce the number of fatalities and the number and severity of injuries by improving the roadway and pedestrian facilities and building new bicycle facilities.

In consultation with TxDOT, roadway safety benefits have been estimated for several project scope elements.

¹¹ <https://www.click2houston.com/news/pedestrians-killed-another-injured-after-being-struck-by-vehicle-in-the-heights-police-say>

The applied methodology is a “micro-strategy” and provides a single HSIP crash reduction factor for multiple HSIP codes. In this analysis, the individual codes for improvements to traffic signals, the addition of dedicated left turn lanes, and the lengthening of left turn lanes are combined to produce a single reduction factor. Based on HSIP criteria, these improvements are estimated to reduce crashes by 42%. Of 918 crashes included in the dataset, 680 crashes would have been impacted by the proposed improvements. The application of the 42% reduction factor would yield an overall crash reduction of 285 over the 7-year period.

A second HSIP factor has been used to estimate changes to clear-zone crashes, or roadside crashes involving fixed objects. The HSIP factor estimates a 50% reduction. Of the 918 crashes in the data set, 40 crashes would have been impacted by the proposed improvements. The application of the 50% reduction factor would yield an overall crash reduction of 20 over the 7-year period.

A micro-strategy was also created for project pedestrian improvements, including pedestrian signals, crosswalks, and new sidewalks. Based on HSIP criteria, these factors are expected to reduce crashes by 67%. Of the 918 crashes in the data set, 5 crashes involved pedestrians. This project would result in a reduction of approximately 3 pedestrian crashes over the 7-year period. The HSIP does not include a crash reduction factor for bicycle improvements. However, the Transportation Research Board has estimated a 38% reduction in crashes based on an eight-year study of separated bicycle lanes over 17 different locations.¹² If applied to this project’s analysis, the proposed bicycle improvements would result in 4 fewer bicycle crashes over a 7-year period.

Across projects, the planning industry standardizes the negative consequences of crashes and benefits of safety improvements using the value of a statistical life, e.g. the more serious the crash, the higher the societal cost. Using 2017\$, this project is estimated to generate \$89.1 million in safety benefits over the 20-year planning horizon (2024-2043). This significant safety benefit demonstrates the dangerous conditions that currently exist along the corridor.

ELIMINATE GRADE CROSSINGS

This project limits do not encompass any highway, rail or other grade crossings and therefore this criteria does not apply to the project.

PREVENT THE UNINTENDED RELEASE OF HAZARDOUS MATERIALS

The project corridor is located just south of IH-610, just north of IH-10, is a major north-south connector between the two. Both Shepherd and Durham Drives are designated as critical urban freight corridors by the regional MPO. It is also located almost equidistant between two of the major business districts (Downtown Houston and Uptown Houston.) TxDOT datasets indicate that the 24-hour truck traffic percentage is approximately 10% of the daily load.¹³ As demonstrated, the proposed improvements will reduce the crash incidence and thereby mitigate the potential for the unintended release of hazardous materials caused by a freight-related crash. Based on the previous analysis and number of crashes reduced, it can be assumed that 30.5 of the crashes eligible for reduction over the 7-year analysis period involved freight (10% of total vehicular crashes reduced). It is estimated by the USDOT that hazardous materials are carried in about 7 percent of all trucks.¹⁴

This means that 2 of the crashes eligible for reduction could have carried hazardous materials.

12 Rothenberg, H., Goodman, D., & Sundstrom, C. (2016). Separated Bike Lane Crash Analysis. Transportation Research Board 95th Annual Meeting. Washington: Transportation Research Board

13 https://www.txdot.gov/apps/statewide_mapping/StatewidePlanningMap.html, Future Traffic & Percent Truck

14 <https://www.airseaccontainers.com/blog/how-common-are-shipping-hazmat-spills/>

B. STATE OF GOOD REPAIR

Area	Yes / No
Consistent with plans	Yes
Conditions threaten network efficiency	Yes
Appropriate capitalization and uses asset management	Yes
Has sustainable on-going revenue source	Yes
Reduces life-cycle costs	Yes
Supports border security functions	No (N/A)
SOGR plan in place	Yes

Table 10 :Consistency with NOFO Section E 1(b) (Criteria, SOGR)

The roadway pavement within the project area is currently in very poor condition. City of Houston pavement condition scores are as low as the 20's and 30's out of 100 points, which are defined as "impacting the ability to drive at posted speeds."

This conditional assessment extends to the curb line, sidewalks, transit stops, and ADA ramps along the facility. For the most part, these infrastructure components, based on a windshield survey, are poor or missing.

Additionally, the sub-surface public utilities (water, wastewater, and stormwater) are old, undersized, and need to be replaced. Stormwater management infrastructure does not meet current standards; it requires upgrades to comply with local/regional standards and to manage future severe flood events. It will be more efficient and cost-effective to coordinate the reconstruction of public utilities with roadway reconstruction since they are predominantly located under the pavement.

This project will contribute to the SOGR on the NHS and the freight network by replacing all public infrastructure (right-of-way line to right-of-way line) within the project limits. This will result in new, 50-year life pavement, concrete sidewalks, bicycle facilities, upgraded accessibility to transit stops, ADA ramps, stormwater management infrastructure, water, and wastewater lines. Where span-wire signalization exists (at W. 20th St.) it will be upgraded to a mast-arm mounted standard to improve resiliency and reduce outages during high wind and hurricane events.

CONSISTENCY WITH PLANS

These improvements are consistent the 2045 RTP to achieve and maintain a SOGR and will improve the City of Houston pavement condition index (PCI) score for the project roadways. These improvements are consistent with City goals and objectives to provide ample, efficient, and well-maintained infrastructure.¹⁵

¹⁵ http://www.houstontx.gov/planhouston/sites/default/files/plans/Final_Plan_Houston.pdf?



Fig 16: Roadway Ponding

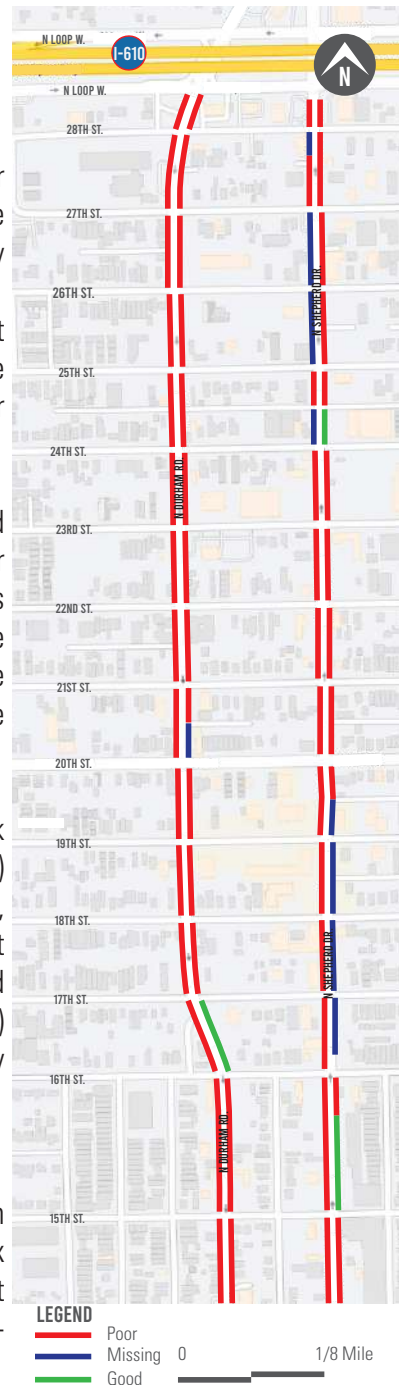


Fig 17: Sidewalk Inventory

CONDITIONS THREATEN NETWORK EFFICIENCY

If left unimproved, the infrastructure within the project area limits will degrade to a point where the movement of people and goods will be disrupted and economic development will deteriorate.

Criterion	Linkage Factors
Movement of People	Major commute corridor which connects two interstate highways (IH-610, IH-10). High prevalence of potholes, sinkholes, and other roadway damage currently. Failure to rehabilitate will result in continued repair/patch activities which result in frequent and unexpected delay, worsening travel time reliability. Poor infrastructure also generates user cost from vehicle damage (tires, rims, undercarriage).
Movement of Goods	Designated freight corridor which connects two interstate highways. High prevalence of potholes, sinkholes, and other roadway damage currently. Failure to rehabilitate will result in continued repair/patch activities which result in frequent and unexpected delay, worsening travel time reliability. Poor infrastructure also generates user cost from vehicle damage (tires, rims, undercarriage).
Economic Development	Tied to movement of goods at a regional and national level. At a regional level, approximately 10% of vehicle loads carry freight. At a local level, the corridor is experiencing significant residential densification and commercial growth. Continued degradation of infrastructure could discourage continued investment in those areas.

Table 11 : Conditions of Network Efficiency

APPROPRIATE CAPITALIZATION AND ASSET MANAGEMENT

The project is designed to meet a 50-year useful life, which is consistent with the City of Houston Infrastructure Design Manual (IDM). This will ensure appropriate capitalization up-front and an asset management approach that optimizes long-term cost structures.¹⁶ Furthermore, the MHRA has committed and has funds available to provide the local match commitment and ensure appropriate capitalization. See Appendix B.

SUSTAINABLE ON-GOING REVENUE SOURCE

The City of Houston street and drainage fund will provide a reliable revenue stream for on-going operations and maintenance. Based on a projected maintenance curve, specific and dedicated maintenance will not be required until 2044, and at that time, will cost only ~ \$4,000/year (\$2019.)

REDUCES LIFE-CYCLE COSTS

A life-cycle cost analysis (LCCA) evaluates the cost impact of replacing the roadway compared to repairing the existing facility, or, the most cost effective option among different competing alternatives. In this case, the repair versus replace scenario is being evaluated for the roadway pavement due to the high amount of upkeep required to meet the demand associated with heavy travel loads. In addition to the pavement itself, an analysis has been performed to review the maintenance benefit associated with the introduction of accessible pedestrian-transit-bicycle improvements. This benefit is predicated on trip conversion from automobile trips to alternative mode trips. Finally, a useful life benefit has been calculated which calculates the residual useful life remaining within the project after the “benefit horizon” ends as the project will have a 50-year useful life and the benefit horizon is only 20-years.



Fig 18: Shepherd Sinkhole

¹⁶ https://edocs.publicworks.houstontx.gov/documents/design_manuals/idm.pdf

When calculated, the LCCA cost savings generated from the implementation of this project are approximately \$12.9M in \$2017. This indicates that over the planning horizon, replacement is a cost-effective strategy. This analysis is presented in greater detail in the Benefit-Cost Analysis Appendix.

SUPPORTS BORDER SECURITY FUNCTIONS

This project is not functionally related to border security functions.

STATE OF GOOD REPAIR PLANNING

This project will be maintained in accordance with the City's general maintenance program for streets and drainage (which include the bicycle/pedestrian components) and will help reduce maintenance costs on the corridor over its useful life.

C. ECONOMIC COMPETITIVENESS

Area	Yes / No
Rural or Opportunity Zone	No
Decrease transportation costs and improve access to employment	Yes
Improve movement of workers/goods	Yes
Increase economic productivity	Yes
Long-term job creation / economic opportunity	Yes
Efficient and reliable freight movement	Yes

Table 12 : Consistency with NOFO Section E 1(c) (Criteria, econ)

The safety conditions and SOGR of the project corridor negatively impact travel time reliability, multimodal access (pedestrian, bicycle, transit), and stormwater management. Consequently, these impacts also generate negative externalities related to access to jobs, the movement of goods and people, and the economic development potential of the surrounding areas. The proposed project will reduce or eliminate these negative externalities.

DECREASE TRANSPORTATION COSTS AND IMPROVE ACCESS TO JOBS

The proposed improvements will increase people's access to transit, sidewalk, and bike facilities and create a new major north-south alternative mode corridor with connectivity to various regional networks. Two of the largest employment centers in the region, Downtown Houston (180,000 employees) and Uptown Houston (50,000 employees), are both approximately 6 miles from the project limits (by auto, transit, bike, or pedestrian-oriented route). Within ½ mile of the project limits, there are 7,832 workers who commute to work daily.¹⁷ Within 3 miles of the project, there are 93,876 individuals who commute to work daily. The project creates an opportunity to mode-shift almost 1,500 auto trips to alternative modes. This analysis is presented in greater detail in the Benefit-Cost Analysis Appendix.

New Daily Trips (Opening Year)

Pedestrian Trips	1,070
Bicycle Trips	335
Transit Trips	85

¹⁷ ESRI Business Analyst – ACS Population Summary

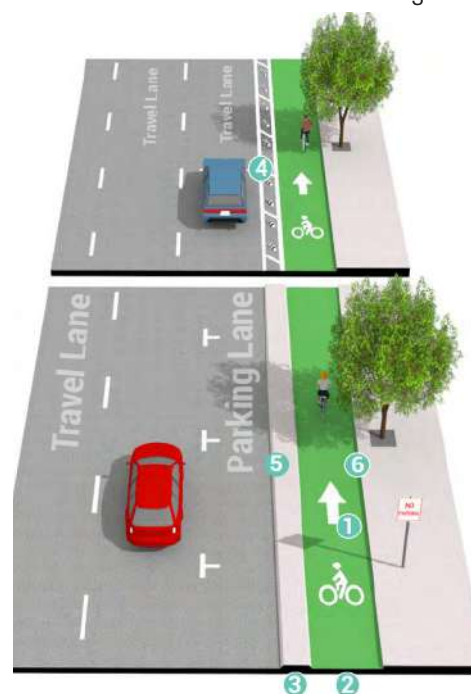


Fig 19: Bike Lane Options as per City of Houston Design Manual

This mode shift will also reduce transportation costs associated with automobile operation, upkeep and maintenance. Based on this trip conversion, the total 2017\$ benefit for this factor over the planning horizon is approximately \$4.3 million.

IMPROVE MOVEMENT OF WORKERS/GOODS

The project will improve travel time reliability for auto and freight trips (~10% freight on these corridors) by reducing crash incidences. This benefit will be derived from the safety improvements referenced in Section IV 1.) A. As referenced above, this project will also improve the long-term cost efficiency for workers through trip conversion.

INCREASE ECONOMIC PRODUCTIVITY

Since approximately 2010, the project area has seen a significant commercial and residential densification. This development has occurred in spite of failing roadway infrastructure, poor stormwater conveyance, a lack of sidewalks, and other challenges. However, it is not guaranteed that development will continue to occur. With growing densification and activities, concerns over corridor safety and the ability to accommodate increased activity are heightened. This project will improve the infrastructure to a standard required by the intensity land uses. It will encourage the re-development of properties leading to higher and better land uses for surrounding the project limits and resulting increases to property tax revenues for public use.

LONG-TERM JOB CREATION / ECONOMIC OPPORTUNITY

Smart Growth America¹⁸ completed a 2015 report entitled “Safer Streets, Stronger Economies.” Based on a before-and-after analysis, this report found that, compared to existing conditions, Complete Streets projects resulted in: (1) greater employment along the project corridors, (2) increased business expansion, (3) increased property values, and (4) increased private investment. It is believed that the proposed project will yield the similar impacts in the Shepherd-Durham corridor area based on the potential for increased commercial and retail development, recent growth trends, and the existing safety and state of good repair challenges impeding corridor potential. Economic benefits will occur in synergy with accessibility/connectivity improvements and time travel reliability improvements for freight. In addition to the long-term economic benefits, there are short-term local and regional job creation benefits generated from BUILD-funded construction phase activities.

EFFICIENT AND RELIABLE FREIGHT MOVEMENT

As referenced in previous sections, the travel time reliability benefits of the project will extend to about 10% of freight traffic that uses the project corridors.

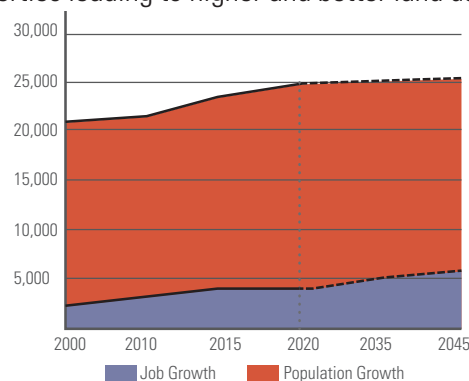


Fig 20: Project Area Growth Projections

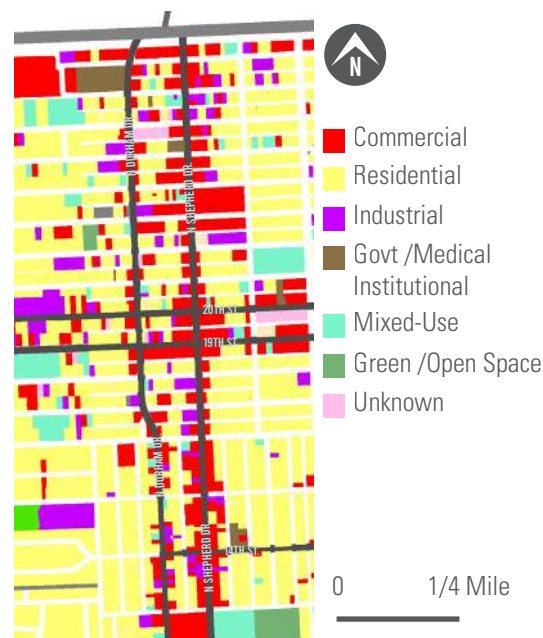


Fig 21: Land Use map of Project Corridor

¹⁸ <https://smartgrowthamerica.org/app/uploads/2016/08/safer-streets-stronger-economies.pdf>

D. ENVIRONMENTAL SUSTAINABILITY

Area	Yes / No
Reduce energy use and air or water pollution	Yes
Avoid adverse environmental impacts to air or water quality	Yes
Provide environmental benefits	Yes

Table 13 : Consistency with NOFO Section E 1(d) (Criteria, env)

The Environmental Protection Agency (EPA) has classified the Houston-Galveston-Brazoria area in severe non-attainment of the eight-hour ozone standard: air quality does not meet federal standards. The investment in mobility infrastructure will reduce automobile use and vehicle delay and consequently improve the air quality, all important factors to the region's future growth and resiliency.

REDUCE ENERGY USE AND AIR OR WATER POLLUTION

As noted in Section C, this project will result in a mode shift from auto to pedestrian, bicycle and transit modes by improving accessibility and connections. Benefits related to vehicle emissions and gasoline savings are summarized below. The analysis is presented in greater detail in the Benefit-Cost Analysis Appendix.

Factor	Units	Total Reduction
Volatile Organic Compounds	Short Tons	2.4
Nitrogen Oxides	Short Tons	1.4
Carbon Dioxide	Short Tons	80.9
Gasoline	U.S. Gallons	230,158

Table 14 : Reduced Energy Indicators

AVOID ADVERSE ENVIRONMENTAL IMPACTS TO AIR OR WATER QUALITY

A preliminary National Environmental Policy Act (NEPA) assessment was completed for this project in 2016.¹⁹ The review followed the standard NEPA process in order to flag any potential adverse impacts generated by the project early in the development process. At that time, no impacts were identified as they relate to air, water, or other areas of concern. However, the report did identify the potential for hazardous materials due to historical land uses adjacent to the project area. In response to this finding, a Phase I Environmental Site Assessment was completed. The Phase I findings recommended no need for a Phase II evaluation and the establishment of a soil and groundwater management plan during construction phase activities.²⁰ Additionally, this project does not require any right-of-way acquisition. Based on the work completed, it is anticipated that this project will be receive as a categorical exclusion (CE).

PROVIDE ENVIRONMENTAL BENEFITS

The project will encourage mode shift, improve air quality, install street trees every 30 feet (per City of Houston standards), and mitigate damages from stormwater through the introduction of in-line detention to minimize flooding in, around, and downstream of the project area. The image below provides a depiction of how the localized in-line detention will relate to regional detention benefit. This illustrates how all stormwater in Harris County eventually empties into Galveston Bay. In this case, the stormwater will be collected from the local drainage areas, be stored within the in-line detention along the project limits, flow into White Oak Bayou,²¹ flow into Buffalo Bayou,²² and eventually into Galveston Bay.²³ This means that in-line detention within the project limits will reduce water surface elevations throughout the regional bayou system. This results in

19 <https://www.dropbox.com/s/udzseit0gte08st/9%20Appendix%20A.pdf?dl=0>

20 See reference 6.

21 <https://www.hcfc.org/projects-studies/white-oak-bayou/>

22 <https://www.hcfc.org/projects-studies/buffalo-bayou/>

23 <https://www.hcfc.org/projects-studies/san-jacinto-galveston-bay/>

a regional stormwater mitigation benefit.

In summary, this project will provide environmental benefits consistent with BUILD guidance.

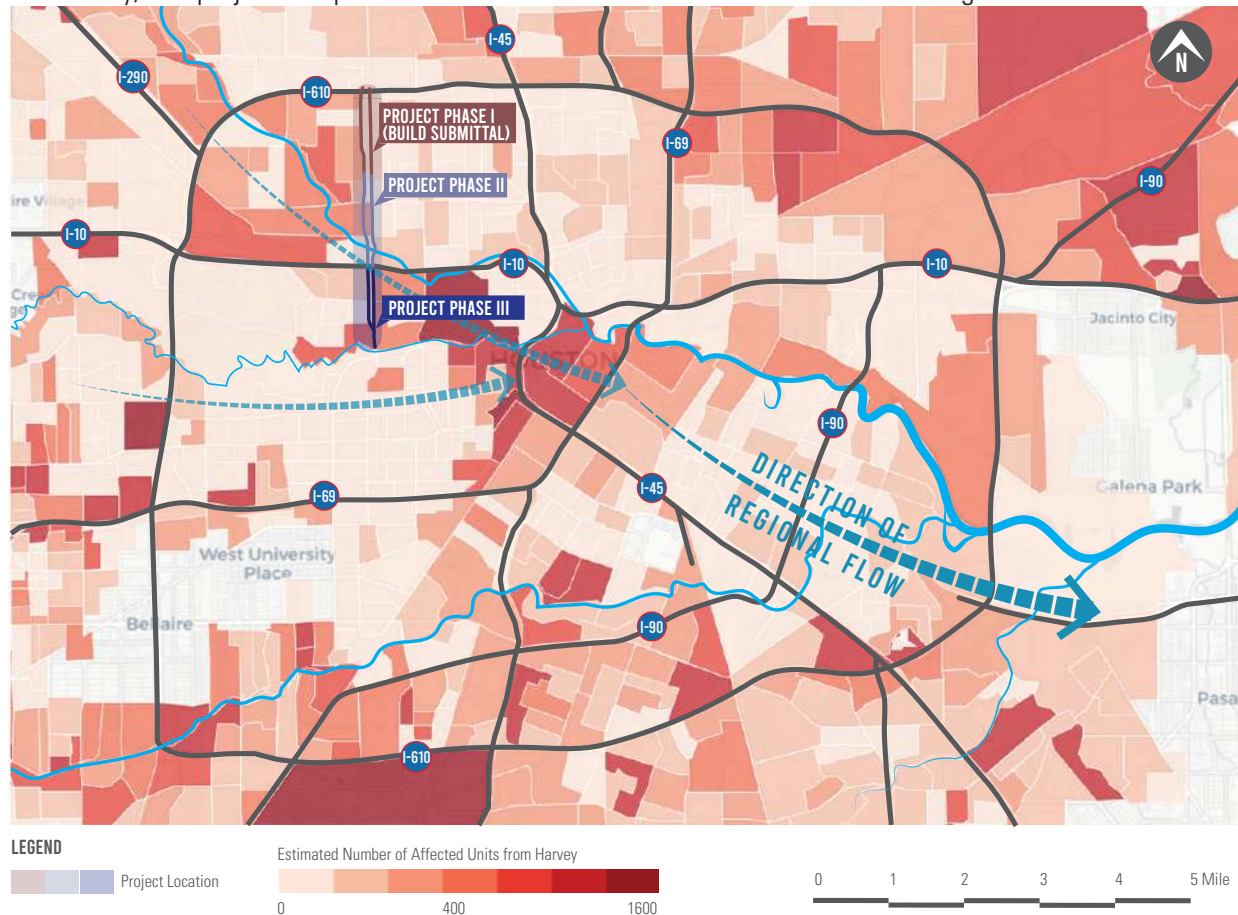


Fig 22: Regional Flooding Map

E. QUALITY OF LIFE

Area	Yes / No
Increase Transportation Choice	Yes
Expands Access to Essential Services	Yes
Improves Connectivity to Critical Destinations	Yes

Table 15: Consistency with NOFO Section E 1(e) (Criteria, Quality of Life)

INCREASES TRANSPORTATION CHOICE

As documented in Sections C and D, this project will increase transportation choice by providing sidewalks, bicycle facilities, and access to transit (fixed route, BRT, and high-speed rail.) Estimates on mode shifts are documented in Section C.

EXPANDS ACCESS TO ESSENTIAL SERVICES

By increasing access to multimodal transportation options, this project will expand access to essential services, which are generally clustered in the Texas Medical Center and Downtown Houston. Other services not located in these areas, such as the Social Security Administration Office located in south Houston, can be directly accessed from the project area by the fixed route bus system.

IMPROVES CONNECTIVITY TO CRITICAL DESTINATIONS

By increasing transportation options, the project will increase connectivity and accessibility to healthcare, employment, public, and other essential services. These services are clustered in Downtown Houston, the Texas Medical Center, and Uptown Houston. Downtown and Uptown Houston are approximately 6 miles from the project corridor; the Texas Medical Center is approximately 7 miles. This project will facilitate bicycle and first/last mile transit connections to these destinations.

Essential Service Area	Select Multimodal Options from Project Limits
Downtown Houston	(Transit) 027 TMC to Inner-Katy BRT
	(Transit) 027 TMC to Inner-Katy BRT
	(Transit) 026 Kashmere to Red Line
	(Bike/Ped) Corridor to White Oak Bayou Trail to Buffalo Bayou
Uptown Houston	(Transit) 027 TMC to Inner-Katy BRT
	(Transit) 027 TMC to Westheimer
	(Bike/Ped) Corridor to Buffalo Bayou / MKT to Local Network
Texas Medical Center	(Transit) 027 TMC
	(Transit) 026 Kashmere to Red Line
	(Bike/Ped) Corridor to White Oak Bayou Trail to Local Network

Table 16: Multimodal Options from Project Limits



Fig 23: Bicycle Connection to Buffalo Bayou

2. SECONDARY SELECTION CRITERIA

A. INNOVATION

Area	Yes / No
Innovative Technologies	Yes
Innovative Project Delivery	Yes
Innovative Financing	Yes

Table 17: Consistency with NOFO Section E 2(a) (Criteria, Innovation)



Fig 24: Houston Transtar System

INNOVATIVE TECHNOLOGIES

This project will be integrated with the Houston Transtar system,²⁴ which represents a unique partnership among the City of Houston, Harris County, METRO, and TxDOT to best monitor and communicate traffic conditions including roadway congestion, construction and other system obstructions, emergency information, and hazard mitigation. While not unique to this project, its integration with Transtar is consistent with the innovative approach the region has taken to address congestion, safety, and general mobility challenges.

INNOVATIVE PROJECT DELIVERY

The State of Texas and the TxDOT have entered into a program which provides NEPA designation authority to TxDOT as it relates to compliance with all applicable federal environmental laws, regulations, policies, and guidance.²⁵ This makes TxDOT responsible for all decisions made through the NEPA process. Throughout the state, and in the Houston-region, this policy change has led to faster environmental reviews and approval timelines. The project, which is anticipated to receive a categorical exclusion, will be subject to this process to expedite environmental approval timelines.

INNOVATIVE FINANCING

Related to Innovative Project Delivery, this project is will use “value capture” through a Tax Increment Reinvestment Zone, or TIRZ, to fulfill local project funding obligations. This TIRZ was created by the City of Houston and is administered by a political subdivision of the City, the Memorial Heights Redevelopment Authority, to plan, design, and deliver infrastructure in a streamlined, targeted, and expeditious manner. The MHRA’s project plan and Capital Improvement Program define this project as a priority and has a committed expense as it relates to the BUILD program and the potential allocation of future funding.

B. PARTNERSHIP

Area	Yes / No
Public / Private Sector Collaboration	Yes

Table 18 : Consistency with NOFO Section E 2(b) (Criteria, Partnership)

PUBLIC/PRIVATE SECTOR COLLABORATION

The project developments reflects the involvement of a broad range of both public and private collaborators. Letters of support and positive collaboration are attached as Appendix C, and summarised on the following page. Coordination has extended to local special interest groups related to air quality, parks, transportation equity, and advocacy. Project partners met with area and corridor business owners individually to discuss the project. Several private interests have documented their support for this project, including development and manufacturing interests, and retailers. TxDOT and the H-GAC (the combined agency for Houston-Galveston MPO and Council of Governments) have been briefed on this project thoroughly beginning in 2017 and extending through present date. The project has been added to the 2045 Regional Transportation Plan which itself included a robust public process²⁶ and supplemented a specific public meeting specifically for this project.

²⁴ <https://traffic.houstontranstar.org/layers/>

²⁵ <https://www.txdot.gov/inside-txdot/division/environmental/nepa-assignment.html>

²⁶ <http://2045rtp.com/documents.aspx>

SUPPORT LETTER LIST

MEMBERS OF CONGRESS

Senator Cornyn
Representative Babin
Representative Crenshaw (Direct Mail)
Representative Fletcher
Representative Jackson-Lee
Representative Olson
Representative Weber

LOCAL/REGIONAL SUPPORT

Mayor Turner
Councilmember Cohen
Councilmember Edwards
Councilmember Robinson
County Judge Hidalgo
County Commissioner Cagle
County Commissioner Ellis
Senator Whitmire
Representative Farrar
Houston-Galveston Area Council
Houston Metropolitan Transit Authority of Harris County

ADVOCACY GROUPS

Houston Air Alliance
Transportation Advocacy Group
Bike Houston

LOCAL ORGANIZATIONS

Citizens Transportation Coalition
Cottage Grove Civic Association
Friends of Woodland Park
Greater Heights super Neighborhood Council
Greater Houston Coalition of Complete Streets
Houston Heights Association
Houston Parks Board
LINK Houston
Scenic Houston
Shady Acres Civic Club
Shepherd Forest Civic Club
White Oak Bayou Association

AREA BUSINESS OWNERS

Radom Capital
Revive Development
Virgata Properties
Wile Interests

V. PROJECT READINESS

A. TECHNICAL FEASIBILITY

This project has been advanced to an approximate 30% level of design with the purposeful intent to get the project to a point where it is “ready” for discretionary funding support but not too far along to where the application of federal dollars or requirements will become prohibitive to project implementation. This means that the project has completed the following benchmarks:

Advance planning ²⁷	Utilities analysis and engineering ²⁸
Phase I / II Environmental Site Assessments ²⁹	Transit provider coordination
Advance NEPA documentation ³⁰	Topographic/boundary survey
Project schematic development ³¹	Cost estimation ³²
Traffic engineering ³³	Right-of-way evaluation
Cross-section alternatives analysis ³⁴	Public outreach/engagement ³⁵

This work has culminated in the information within this application along with project cross-section layouts, schematic, and cost estimates.

From a technical standard of practice, the project is consistent in scope and complexity with other MHRA and COH projects, though larger than most others taken on as a singular project (hence the request for federal support). The project will completely reconstruct all public infrastructure from property line to property line, including all surface elements and all public sub-surface utilities (water, wastewater, and sanitary). The surface elements will transform Shepherd-Durham into a Complete Street via the introduction of sidewalks, high comfort bicycle facilities, the removal of a vehicular travel lane, and the modernization of the facility in all other aspects.

Improvements include: 6-FT+ pedestrian sidewalks; ADA ramps; a high comfort bicycle facility (traffic/pedestrian separated); clear zone buffers for pedestrians and bicyclists; three, 11-foot drive lanes (down from 4); improved turning radii and sight lines; dedicated left turn lane at W. 20th St.; driveway consolidation and directional driveway management; mast arm signalization where not currently present; reconstruct curb and gutter; install street trees every 30-feet per City of Houston standards; relocate transit stops and shelters to the far side of intersections; install new shelters for high frequency bus stops and in coordination with Houston METRO; upgrade storm sewer infrastructure to meet City of Houston code requirements for 2- and 100-year storm events. Also, the project will upgrade sanitary sewer and water lines to meet standards and accommodate existing and future economic development. Above and below ground private utilities will be relocated as necessary per existing franchise agreements.

The project cost estimate incorporates all these scope elements. A 30% contingency is being applied to accommodate for inflation and the unpredictable and rising costs related to steel and concrete, especially in the Houston-Galveston region.

²⁷ See references 2 and 4.

²⁸ <https://www.dropbox.com/s/pfs991rp7yg2as8/N-2016T-0004.pdf?dl=0>

²⁹ See reference 6.

³⁰ See reference 7.

³¹ See figure 1.

³² See table 7.

³³ See reference 5.

B. PROJECT SCHEDULE

This schedule can be accommodated in an expeditious manner because several tasks have been completed, to include inclusion of the project in the regional transportation plan, significant progress on environmental work, no right-of-way acquisition, completed survey, and consultant procurement.

Funds will be obligated³⁴ via an executed grant agreement by the third quarter of 2020, approximately one year in advance of the September 30, 2021 deadline. The project can begin construction in the second quarter of 2022. It is anticipated that the construction duration for this project is approximately 24 months. This will mean that construction will be complete by the second quarter of 2024, well in advance of the September 30, 2026 deadline.

SHEPHERD AND DURHAM MAJOR INVESTMENT PROJECT DEVELOPMENT AND IMPLEMENTATION TIMELINE

Project Phase	2020-I	2020-II	2020-III	2020-IV	2021-I	2021-II	2021-III	2021-IV	2022-I	2022-II
BUILD Decision by USDOT	●									
TIP/STIP Amendments		●								
Executed Grant Agreement			●							
Procure Consultants	Task Completed									
Design Kick Off	Task Completed									
Survey	Task Completed									
Design Concept	Task Completed									
Phase I / II Environmental	Task Completed									
Finalize 30%	●	●	●							
60%				●	●					
90%						●	●			
95%/100%								●	●	
NEPA			●	●	●	●				
Utility Coordination/ Relocation						●	●	●	●	
ROW Acquisition	Not Applicable									
Letting										●

Table 19 : Shepherd and Durham Major Investment Project Development and Implementation Timeline

C. REQUIRED APPROVALS

As previously documented, a hazardous material review and a preliminary NEPA analysis based on standard TxDOT/USDOT criteria have been completed for the project. It will qualify as a C(22) categorical exclusion consistent with the definition in 23 U.S.C. 101, since it will take occur within the existing operational right-of-way.³⁵ The formal NEPA process with TxDOT has not begun yet but can be completed in 1-year or less based on previous regional experience with the TxDOT delegated NEPA authority process. The project schedule denotes the NEPA process beginning when a funding agreement is completed.

³⁴ <https://www.fhwa.dot.gov/policy/olsp/fundingfederalaid/04.cfm>

³⁵ <https://www.law.cornell.edu/cfr/text/23/771.117>

Reviews, approvals, and permits will likely be required by:

The City of Houston (parent agency of the project sponsor). Related to geometric design requirements and floodplain management office approvals as the project is in and adjacent to flood zone AE. The project is being designed to meet all local and regional stormwater requirements.

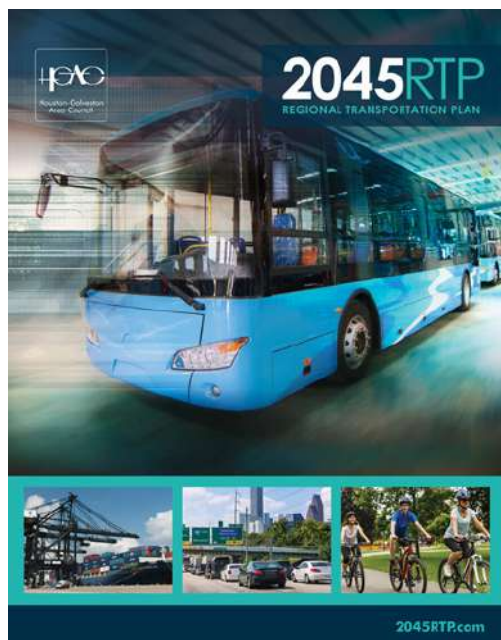
State Historic Preservation Office (SHPO). There is one national register property (David A. Carden House) located within the project limits. There will be no estimated impacts to this property.

FHWA/TxDOT. Required approvals related to AASHTO design standards and associated design requirements. No other third-party approvals will be required.

This project has been coordinated with the TxDOT District Office on several occasions. These discussions related to the project design, required approvals, and feasibility. TxDOT did not indicate any significant impediments to implementation at that time. These meetings occurred in December 2017 and December 2018.³⁶

A public meeting was held in May 2018 to discuss the project, its design, and its compatibility with the public.³⁷ Comments received were in alignment with the project goals and objectives. Several specific comments were evaluated for their potential to be incorporated into the project design. This includes evaluation of re-designing both Shepherd and Durham as 2-way streets. The traffic analysis completed indicated that a 2-way conversion would create geometric challenges and would negatively impact traffic flow.

This project is included within the 2045 RTP, which is the adopted long-range plan for the regional MPO.³⁸ The project is not included in the TIP and the STIP since no federal funds are currently programmed. When funded, the MPO will place the project in the TIP and STIP documents. Section IV 2, B, has detailed information regarding public and private support for this project.



³⁶ <https://www.dropbox.com/sh/3cnzge31s15kn9x/AAEx70sJFHZsS47yBZYBDyKa?dl=0>

³⁷ See reference 8.

³⁸ Reference 9.

D. ASSESSMENT OF PROJECT RISKS AND MITIGATION STRATEGIES

This project does not have any risks which would ultimately prevent implementation or fulfillment of a grant agreement. However, there are project components which could result in cost increases if not managed effectively. These risks are as follows:

Risk	Mitigation Strategy
Hazardous material presence	The project corridor is classified as a potentially petroleum contaminated area (PPCA). This means that contaminants will need to be monitored and mitigated during construction. A detailed soil and groundwater management plan (SGMP) will need to be developed during the final phases of detail design in order to estimate the quantity and type of hazardous materials which will need to be tested and disposed of properly. Costs related to these activities are captured within the project contingency.
Changing Land Uses and Design	The corridor is experiencing rapid change and redevelopment. This activity will need to be monitored during the design process so that access management, bicycle, and pedestrian components can successfully integrate with private redevelopment and related needs. This can be achieved via a robust and on-going stakeholder engagement campaign. This is a planned component of the design effort.
Utility Conflicts	Coordination with private utility carriers will need to be completed at every design phase (30%, 60%, 90%, and 95%) to ensure that conflicts are identified early on, can be designed to, and that adjustments can occur in a timely manner. This project will utilize a utility management plan which includes in-person meetings at each plan delivery milestone.

Table 20 : Evaluating Risks

VI. BENEFIT-COST ANALYSIS SUMMARY

The proposed Project will provide a variety of societal benefits to the national, state and local transportation system.

The no-build scenario will result in the following:

- The Corridors will likely remain unsafe. The four-lane configuration of both roads, poor access management, and failing infrastructure makes the project area unsafe for all users. Poor sight lines, failing pavement, a lack of multi-modal facilities, and an outdated design which encourages speeding (posted limit of 35 mph) have resulted in a crash rate more than four times the statewide rate for motorists, pedestrians, and bicyclists in the region. There are four school crossings within the project limits, which exemplify the need for non-motorized user safety.
- The Corridors will continue to be in disrepair: This roadway has not received any significant amount of rehabilitation since the 1950s and has now outlived its useful life. Portions of the corridor have been assigned a pavement condition score by the City of Houston which is defined as “impacting the ability to drive at posted speeds.” The utility lines and sewer are also are outdated within the Project limits.

- Alternative modes are fully not supported nor will be in the future. It is common to see bicyclists navigating four lanes of traffic, transit users walking along dirt paths, and young families pushing strollers over curbs to access public places. The large grocery store at 23rd and Shepherd has already stimulated additional multimodal activity, as witnessed with field visits. The alternative mode demand in this area is enhanced by high frequency METRO routes, the proximity of the White Oak Bayou Trail system, and the Heights Hike and Bike Trail. This activity is hindered by existing conditions that feature no bike accommodations, dirt paths, broken and inconsistent sidewalks, missing curbs, and non-ADA compliant infrastructure.

- The Corridors will remain insufficient to handle traffic growth. The corridor currently experiences congestion at the intersection of 20th due to a lack of optimized turning movements. Delay is also experienced due to extremely poor access management along the corridor. The majority of driveways are not delineated, and many businesses operate parking within what is currently the public right-of-way, creating delay during ingress/egress.

- Existing infrastructure does not support economic growth. The project area is undergoing significant densification and redevelopment, with area American Community Survey (ACS) and Travel Demand Model data depicting annual growth rates of ~1.4% for residential and ~1.2% for commercial uses. This growth is resulting in increases in activity for all modes. The current infrastructure does not support the integration of all modes at the level of activity demonstrated today, let alone in the future. Furthermore, upgrades to infrastructure are projected to enhance local and regional economic activity, per the supplementary data provided.

Moving forward with the Build Scenario will result in 14 monetized societal benefits and several other non-monetized benefits which are documented fully in Appendix A and summarized in Table 22.

Each benefit's baseline (no-build) and build methodology and calculations are contained within the attached technical memorandum, supported by the BCA Excel Workbook included in this grant submission. The benefits are quantified and monetized for the BCA ratio of 2.397 \$2017 real dollars and 1.076 discounted at 7%. The 2017 real dollar Net Present Value (NPV) is 66,792,017 and 2,511,642 discounted at 7%.

Scenario	\$2017 Real Dollars (No Discount)	7% Discount (2017\$)
Benefits	\$114,613,973	\$35,385,949
Costs	\$47,594,456	\$32,874,306
BCA	2.397	1.076
NPV	\$66,792,017	\$2,511,642

Table 21 : BCA Summary

The summary matrix below contains a high-level summary of the BCA.

Benefit	Current Status/ Baseline and Problem to be Addressed	Change to Baseline or Alternatives	Types of Impacts	\$2017 Monetized Benefit	7% Discount Rate
	The current asset has 0% remaining useful life	Replace all infrastructure within public right of way	Extend useful life	\$27,439,300	\$4,724,924
	Ongoing expensive maintenance	No maintenance required of new facility through the planning horizon	Maintenance cost savings	\$9,117,166	\$3,061,407
	Increased traffic and access management	Slight increase in intersection delay & access management improvements	Travel time increase	-\$2,506,805	-\$871,803
	Outdated design, speeding, disproportionally higher crash rates	Significant safety improvement resulting in 42% to 50% reduction in certain types of vehicle crashes, 67% reduction in pedestrian crashes and 38% reduction in bike related crashes.	Reduced crashes resulting in reduced fatalities and injuries	\$72,589,996	\$25,656,791
	Limits do not accommodate biking and limit the demand for additional bike users	Protected bike lines will induce bike demand	Health benefits derived from modal shift from auto to bike	\$791,419	\$279,341
	Limits do not biking and limits the demand for additional bike users	Protected bike lines will induce bike demand	Recreational benefits derived from modal shift from auto to bike	\$3,990,809	\$1,408,604
	Limits do not accommodate walking and bicycling. Transit access is lacking. Conditions limits the demand for additional pedestrian, bike and transit users.	Protected bike lanes will induce bike demand Sidewalks will induce pedestrian demand Transit amenities will induce transit demand	Reduced auto cost benefits derived from modal shift from auto to bike, walk and transit	\$3,175,547	\$1,120,847

Benefit	Current Status/ Baseline and Problem to be Addressed	Change to Baseline or Alternatives	Types of Impacts	\$2017 Monetized Benefit	7% Discount Rate
	Limits do not accommodate walking and bicycling. Transit access is lacking. Conditions limit the demand for additional pedestrian, bike and transit users.	Protected bike lanes will induce bike demand Sidewalks will induce pedestrian demand Transit accessibility will induce transit demand	Reduced auto cost benefits derived from modal shift from auto to bike, walk and transit	\$16,542	\$5,839
Totals				\$114,613,973	\$35,385,949

Table 22 : Executive BCA Matrix

United States Senate

WASHINGTON, DC 20510-4305

July 2, 2019

The Honorable Elaine Chao
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590

Dear Secretary Chao:

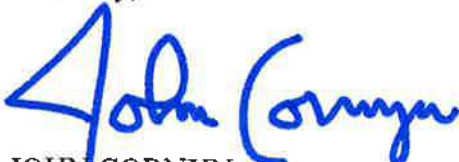
I am writing to express my support for the Better Utilizing Investment to Leverage Development application submitted to the Department of Transportation by the City of Houston (the City) and the Memorial Heights Redevelopment Authority (MHRA).

As you and your staff review the proposal, I trust you will give full consideration to the many strengths of this application. As you may know, from 2015-2017, the Durham and Shepherd Drives corridor that spans between White Oak Bayou to North Interstate 610 West had almost 700 car accidents, three times the statewide average. The corridor has a high number of sink holes and pot holes, no bike access or ADA accessibility, and countless missing and broken sidewalks, all of which contribute to an unsafe and inefficient transit corridor. This grant, if awarded, would enable the City and MHRA to rehabilitate the existing roadway, providing safety improvements to reduce the high incidence of fatal crashes. These improvements would provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project will provide stormwater mitigation benefits which will work in synergy with those being implemented throughout the Houston regional drainage system.

I would appreciate your efforts to ensure that I am kept informed of the progress of this application. Please contact Andrea McGee (Andrea_McGee@cornyn.senate.gov), my Grants Coordinator, with any developments regarding this proposal as soon as they are available.

Thank you for your assistance and consideration.

Sincerely,



JOHN CORNYN
United States Senator

Congress of the United States
Washington, DC 20515

July 2, 2019

The Honorable Elaine L. Chao
Secretary of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Re: Shepherd and Durham Major Investment Project (2019 BUILD Grant Application)

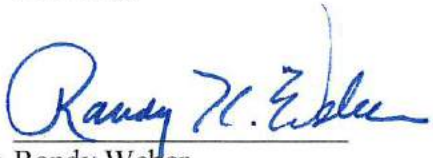
Dear Secretary Chao:

We write to express support for the City of Houston and the Memorial Heights Redevelopment Authority in their application through the U.S. Department of Transportation (USDOT) BUILD Program to reconstruct Shepherd and Durham Drives.

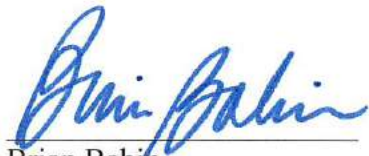
Though this project is outside of our respective congressional districts, it provides regional benefits by strengthening regional economic competitiveness, aiding regional stormwater mitigation efforts, and improving access to fixed-route, fixed-guideway public transportation. Given the broader connectivity associated with this particular arterial route, the project is regionally significant.

We appreciate your thoughtful consideration of this application. Thank you for any assistance that you and the USDOT might provide.

Sincerely,



Randy Weber
Member of Congress



Brian Babin
Member of Congress



Lizzie Fletcher
Member of Congress



Pete Olson
Member of Congress

SHEILA JACKSON LEE
18TH DISTRICT, TEXAS
COMMITTEES:

JUDICIARY
SUBCOMMITTEES:
Chair
Crime, Terrorism, Homeland Security and
Investigations
Immigration and Border Security

HOMELAND SECURITY
SUBCOMMITTEES:
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Counterterrorism and Intelligence

BUDGET COMMITTEE

Congress of the United States
House of Representatives
Washington, DC 20515

STEERING AND POLICY COMMITTEE

HELSINKI COMMISSION MEMBER

VICE CHAIR
CONGRESSIONAL PROGRESSIVE
CAUCUS

CHIEF DEPUTY WHIP
DEMOCRATIC CAUCUS

FOUNDER AND CO-CHAIR
CONGRESSIONAL CHILDREN'S
CAUCUS

June 24, 2019

The Honorable Elanie L. Chao
Secretary
U. S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: Shephard and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao:

Thank you for your service to our nation. I am writing in support of the City of Houston and Memorial Heights Redevelopment Authority's BUILD Program application to reconstruct Shepherd and Durham Drives.

The BUILD Program grant would rehabilitate the existing roadway, provide safety improvements to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project complements the Harris County Flood Control District and the improvements being implemented to help increase our region's capacity to handle extreme rain events such as Hurricane Harvey.

The reconstruction of Shepherd and Durham are critical components of the transportation infrastructure for the City of Houston, the Houston Galveston Region, and the State of Texas. Thank you for your consideration of their application and project. If you have questions, please contact my Chief of Staff, Glenn Rushing, at 202-225-3816 or at glenn.rushing@mail.house.gov.

Very truly yours,



Sheila Jackson Lee
Member of Congress

WASHINGTON OFFICE:
2079 Rayburn Office Building
Washington, DC 20515
(202) 225-3816

DISTRICT OFFICE:
1919 Smith Street, Suite 1180
Houston, TX 77002
(713) 655-0050

HEIGHTS OFFICE:
420 West 19th Street
Houston, TX 77008
(713) 861-4070

FIFTH WARD OFFICE:
4300 Lyons Ave., Suite 200
Houston, TX 77020
(713) 227-7740



CITY OF HOUSTON

Sylvester Turner

Mayor

P.O. Box 1562
Houston, Texas 77251-1562

Telephone – Dial 311
www.houstontx.gov

July 11, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: The City of Houston's 2019 BUILD Submission

Dear Secretary Chao:

On behalf of the City of Houston, Texas, I am enthusiastic to support an application submission for the 2019 Better Utilizing Investments to Leverage Development (BUILD) program. The Shepherd and Durham Major Investment Phase I Project, submitted via the Memorial Heights Redevelopment Authority which is a political subdivision and project development arm of the City, proposes to reconstruct two priority principal arterials to achieve municipal objectives for safety, state of good repair, travel time, economic development, flood mitigation, and quality of life.

This project is a priority for Houston for several reasons of which I will share a few with you:

- Economic growth in the City is manifesting itself along this corridor and is exemplified through new multi-family projects, a regionally significant grocer, and a variety of other neighborhood friendly commercial development. Once serving primarily as a pass-through for vehicular traffic, the Shepherd and Durham pair is becoming a critical transportation asset for people of all ages and abilities using all modes of transportation. A reconstructed street designed to the latest standards for access management and safety will ease congestion, reduce crashes, encourage active transportation and continue to be a catalyst to attract investment and spur economic development.
- The corridor spans and connects major waterways and their tributaries. The project's drainage components will help to further Houston's flood mitigation objectives and will help to protect homes, businesses, and other regional assets damaged or destroyed in the wake of Hurricane Harvey.

Page 2

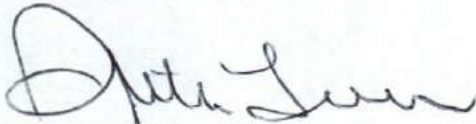
July 11, 2019

City of Houston's 2019 BUILD Submission

For these reasons and more, I am hopeful the USDOT will agree that this project is essential to the City of Houston and to our great region. To validate our commitment to the project, the Redevelopment Authority will cover all costs related to project development and will be providing a 50% match commitment towards construction activities, made available through tax increment financing.

On behalf of the City of Houston, thank you for consideration of this funding request.

Sincerely,

A handwritten signature in dark ink, appearing to read "Sylvester Turner". The signature is fluid and cursive, with a large initial "S" and a long, sweeping underline.

Sylvester Turner
Mayor



ELLEN R. COHEN
Houston City Council Member, District C

Committee Assignments:

Quality of Life: Committee Chair

Public Safety and
Homeland Security

Ethics, Elections and
Council Governance

Budget and Fiscal Affairs

July 15, 2019

To: Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project - 2019 Build

Dear Secretary Chao,

As the Mayor Pro Tem for the City of Houston and the Council Member representing District C, I am pleased to offer my support for the City of Houston and the Memorial Heights Redevelopment Authority in the pursuit of funding through the United States Department of Transportation BUILD Program to reconstruct Shepherd and Durham Drives.

The project would rehabilitate the existing roadway, provide safety improvements to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project will provide storm water mitigation benefits which will work in synergy with those being implemented throughout our regional drainage network.

I am a strong advocate of efforts to improve and enhance transportation facilities within my District. The reconstruction of Shepherd and Durham are critical components of the transportation infrastructure for the City of Houston and within the Houston-Galveston region.

Please feel free to contact my office with any questions at (832) 393-3004 or DistrictC@houstontx.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ellen R. Cohen".

Ellen R. Cohen
City of Houston Mayor Pro Tem
Council Member, District C



AMANDA K. EDWARDS
Houston City Council Member, At-Large 4

Committee Assignments:

Budget and Fiscal Affairs,
Vice Chair

July 1, 2019

Economic Development

Ethics, Elections and
Council Governance

Transportation Technology
and Infrastructure

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Dear Secretary Chao:

As an At-Large Council Member for the City of Houston and a member of the Houston-Galveston Area Council Transportation Policy Council, I am pleased to offer my support for the City of Houston and the Memorial Heights Redevelopment Authority in the pursuit of funding through the United States Department of Transportation BUILD Program to reconstruct Shepherd and Durham Drives.

The project would rehabilitate the existing roadway, provide safety improvements to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project will provide stormwater mitigation benefits which will work in synergy with those being implemented throughout our regional drainage network.

I am an advocate of efforts to improve and enhance transportation facilities within the City. The reconstruction of Shepherd and Durham are critical components of the transportation infrastructure for the City of Houston and within the Houston-Galveston region.

Thank you for your consideration of this important project.

Sincerely,

Amanda K. Edwards
Council Member
At-Large, Position 4



David W. Robinson

Houston City Council Member, At-Large 2

Committees

Chair, Transportation, Technology & Infrastructure
Vice-Chair, Quality of Life
Vice-Chair, Regulation and Neighborhood Affairs
Budget and Fiscal Affairs

Ethics, Elections and Council Governance
Housing and Community Affairs
Houston First Board Member, Ex-Officio
H-GAC Transportation Policy Council

July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao:

I am writing to express my strong support for the City of Houston and the Memorial Heights Redevelopment Authority in pursuit of funding through the United States Department of Transportation BUILD Program to reconstruct Shepherd and Durham Drives.

As an at-large city council member and first vice chair of the Houston-Galveston Area Council Transportation Policy Council, I support the benefits this project will bring to both the City of Houston and the broader region, including safety improvements, multi-modal connectivity, and flood mitigation. The Shepherd and Durham Project would rehabilitate the existing roadway to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, and accommodate bicyclists and pedestrians. Furthermore, this project will provide stormwater mitigation benefits which will work in synergy with our regional drainage network.

The reconstruction of Shepherd and Durham is a critical component of the transportation infrastructure for the City of Houston and within the greater Houston-Galveston region. Thank you for your consideration of this important project, and please let me know if I can be of further assistance.

Gratefully,

David W. Robinson
Council Member
At-Large Position 2

City Hall Annex 900 Bagby, 1ST Floor
Phone 832.393.3013

900 Bagby First Floor, Houston, Texas, 77002
Fax 832.393.3336

AtLarge2@houstontx.gov
www.houstontx.gov



LINA HIDALGO

July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

RE: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao:

On behalf of Harris County, I am writing to express support for the City of Houston and the Memorial Heights Redevelopment Authority in their funding application for the Shepherd and Durham Major Investment Project.

The grant, if awarded, would rehabilitate the existing roadway, provide safety improvements to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project would work synergistically with the Harris County Flood Control District to help increase our region's capacity to handle extreme rain events such as Hurricane Harvey.

The reconstruction of Shepherd and Durham are critical components of the transportation infrastructure for Harris County, the City of Houston, the Houston-Galveston Region, and ultimately, the State of Texas.

Thank you for your consideration of this project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Lina Hidalgo", is written over a horizontal line.

Lina Hidalgo
Harris County Judge



R. Jack Cagle, Commissioner
Harris County Precinct 4
1001 Preston, Suite 950
Houston, Texas 77002
713-274-4000
www.hcp4.net

July 15, 2019

Secretary Elaine L. Chao
United State Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

RE: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao:

On behalf of Harris County Precinct 4, I am writing to express my support for the City of Houston and the Memorial Heights Redevelopment Authority in their application through the United States Department of Transportation BUILD Program to reconstruct Shepherd and Durham Drives.

The grant, if awarded, would rehabilitate the existing roadway, provide safety improvements to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project will work synergistically with the Harris County Flood Control District and the improvements being implemented to help increase our region's capacity to handle extreme rain events such as Hurricane Harvey.

The reconstruction of Shepherd and Durham are critical components of the transportation infrastructure for the City of Houston, the Houston-Galveston Region and ultimately, the State of Texas.

Thank you for your consideration of this project.

Sincerely,



R. Jack Cagle
County Commissioner
Harris County Precinct 4



RODNEY ELLIS
Commissioner

June 27, 2019

The Honorable Elaine L. Chao
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao:

I am writing to express my support for the City of Houston and the Memorial Heights Redevelopment Authority in their application through the United States Department of Transportation BUILD Program to reconstruct Shepherd and Durham Drives.

The grant, if awarded, would rehabilitate the existing roadway, provide safety improvements to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project will work synergistically with the Harris County Flood Control District and the improvements being implemented to help increase our region's capacity to handle extreme rain events such as Hurricane Harvey.

The reconstruction of Shepherd and Durham are critical components of the transportation infrastructure for the City of Houston, the Houston-Galveston Region, and ultimately, the State of Texas.

Thank you for your consideration of this project.

Sincerely,


Harris County Commissioner

Cc:
Mayor Sylvester Turner, COH
Ann Lents, Memorial Heights Redevelopment Authority Chair



The Senate of The State of Texas

SENATE COMMITTEES:

Criminal Justice, Chair
Business & Commerce
Finance

Senator John Whitmire

Dean of the Texas Senate

DISTRICT OFFICE:
803 Yale Street
Houston, Texas 77007
(713) 864-8701
FAX: (713) 864-5287

CAPITOL OFFICE:
P.O. Box 12068
Austin, Texas 78711
(512) 463-0115
FAX: (512) 475-3737
Dial 711 for Relay Calls

June 24, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao:

On behalf Texas State Senate District 15, I am writing to express my support for the City of Houston and the Memorial Heights Redevelopment Authority in their application through the United States Department of Transportation BUILD Program to reconstruct Shepherd and Durham Drives.

The grant, if awarded, would rehabilitate the existing roadway, provide safety improvements to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project will work synergistically with the Harris County Flood Control District and the improvements being implemented to help increase our region's capacity to handle extreme rain events such as Hurricane Harvey.

The reconstruction of Shepherd and Durham are critical components of the transportation infrastructure for the City of Houston, the Houston-Galveston Region, and ultimately, the State of Texas.

Thank you for your consideration of this project.

Sincerely,

A handwritten signature in cursive script that reads "John Whitmire".
John Whitmire



HOUSE OF REPRESENTATIVES

P.O. Box 2910
AUSTIN, TEXAS 78768-2910
(512) 463-0620
(512) 463-0894 FAX



JESSICA FARRAR
DISTRICT 148

P.O. Box 30099
HOUSTON, TEXAS 77249
(713) 691-6912
(713) 691-3363 FAX

JESSICA.FARRAR@HOUSE.TEXAS.GOV

COMMITTEES:

JUDICIARY & CIVIL JURISPRUDENCE
VICE-CHAIR

NATURAL RESOURCES

July 2, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

Thank you for the opportunity to write a letter of support for the City of Houston and the Memorial Heights Redevelopment Authority in their funding application for the Shepherd and Durham Major Investment Project.

The grant, if awarded, would rehabilitate the existing roadway, provide safety improvements to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project will work synergistically with the Harris County Flood Control District and the improvements being implemented to help increase our region's capacity to handle extreme rain events such as Hurricane Harvey.

The reconstruction of Shepherd and Durham are critical components of the transportation infrastructure for the City of Houston, the Houston-Galveston Region, and ultimately, the State of Texas.

Thank you for your consideration of this project.

Respectfully,

A handwritten signature in black ink that reads "Jessica Farrar".

Jessica Farrar
State Representative, District 148



Houston-Galveston Area Council

July 10, 2019

The Honorable Elaine L. Chao
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

SUBJECT: Letter of Support for the *Shepherd and Durham Major Investment Project*, 2019 BUILD application

Dear Secretary Chao,

The Houston-Galveston Area Council (H-GAC) is pleased to express its support for the *Shepherd and Durham Major Investment Project* 2019 BUILD Discretionary Grant Program application as submitted by the Memorial Heights Redevelopment Authority. It is anticipated this major investment project will result in significant contributions to improving safety, state of good repair, economic competitiveness, environmental sustainability and quality of life for citizens in the greater Houston region.

This project is consistent with the goals and performance measures established in the 2045 Regional Transportation Plan as well as the 2019 BUILD Program selection criteria. Currently, the project is listed in the 2045 Regional Transportation Plan, as it will create a safer environment for persons of all ages and abilities. If selected for a BUILD grant award, the *Shepherd and Durham Major Investment Project* will also be incorporated into the 2019-2022 Transportation Improvement Program.

As the designated Metropolitan Planning Organization for the region, the Houston-Galveston Area Council supports this application and hopes the project is awarded the requested funds. Securing BUILD Program funding would augment the region's ability to achieve progress toward performance management for a safer, more reliable multimodal transportation system with a focus on pavement and transit assets in the Houston region.

Sincerely,

A handwritten signature in black ink, reading "Alan Clark".

Alan Clark
Director of Transportation

cc: Jim Webb, The Goodman Corp.
Sherry Weesner, Memorial Heights Redevelopment Authority
Maureen Crocker, City of Houston
Chuck Wemple, H-GAC
Adam Beckom, H-GAC

Mission Statement

"Provide safe, clean, reliable, accessible and friendly public transportation services to our region."

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Sanjay Ramabhadran
(Ram)

President & Chief Executive Officer

Thomas C. Lambert

June 28, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

On behalf of the Metropolitan Transit Authority of Harris County (METRO), I am pleased to support the city of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding, they plan to reconstruct Shepherd Drive and Durham Drive to enhance safety, improve transit access, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These improvements, and their benefits will benefit the city of Houston and the greater Houston region by reallocating space within the existing right of way for all users.

This project will play an important role in improving overall access to the proposed Inner Katy Bus Rapid Transit (BRT) project and the station at Shepherd/Durham in METRO's draft long-range plan, 'METRONext.' The Inner Katy BRT project would provide east-west connectivity between the high-speed rail terminus, the Northwest Transit Center, Uptown Houston and downtown Houston. Additionally, the project will facilitate increased accessibility to both the current 26 Long Point/Cavalcade and 27 Shepherd high-ridership bus routes that bisect these corridors. The 26 Long Point/Cavalcade route is proposed to become an optimized BOOST corridor in the METRONext plan, which means design elements would be used to enhance speed and accessibility. Enhancing multi-modal accessibility along these corridors will benefit the proposed improvements in METRONext.

If chosen for this funding opportunity, METRO looks forward to further coordination led by the city of Houston and the Memorial Heights Redevelopment Authority throughout development process. Thank you for your consideration.

Sincerely,



Thomas C. Lambert
President & Chief Executive Officer

cc: Roberto Treviño, PE- EVP, Planning, Engineering & Construction
Clint B. Harbert, AICP - Vice President, System & Capital Planning



July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590
Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

On behalf of our organization, Air Alliance Houston, I would like to express support for the City of Houston and the Memorial Heights Redevelopment Authority in their application for discretionary funding through the 2019 BUILD program. With this funding, they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. Reducing mobile source emissions through improving multimodal transport options is one of the core missions of our organization; these projects have the potential to vastly improve air quality, safety, and congestion issues.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at (713) 528-3779

Respectfully,

A handwritten signature in black ink, appearing to read "Bakeyah S. Nelson", is written over a light gray rectangular background.

Bakeyah S. Nelson, Ph.D.
Executive Director
Air Alliance Houston



Transportation Advocacy Group
2925 Richmond Avenue, Suite 1200
Houston, TX 77098
832.459.5116
info@taghouston.org
taghouston.org

July 15, 2019

Advisory Council

Ed Emmett
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Andrea French

**Manager, Operations &
Programs**

Esmeralda Tamayo

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

Transportation Advocacy Group (TAG) is pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at 832-459-5116.

Sincerely,

A handwritten signature in blue ink that reads 'Carol Abel Lewis'.

Dr. Carol Lewis
TAG-Houston Region
Board -Co Chair

A handwritten signature in blue ink that reads 'Jeff P. Collins'.

Jeff Collins
TAG-Houston Region
Board Co-Chair



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TRANSFORMING OUR CITY BY CREATING SAFE BIKEWAYS TO IMPROVE THE QUALITY OF LIFE OF ALL HOUSTONIANS®

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Clark Martinson
Executive Director
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Advocacy Director
Inge Ford
Education Director
Bowen Roberts
Volunteer Coordinator

July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As the Executive Director for the Bike Houston, I am pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program.

With this funding they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These improvements, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at (713) 824-6808.

Sincerely,

Clark Martinson
Executive Director
Bike Houston

EIN:
71-0874114



PO BOX 66532, HOUSTON TX 77266-6532

July 10, 2019

Honorable Elaine L. Chao
Secretary, United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As members of the Citizens' Transportation Coalition, we are pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. Citizens' Transportation Coalition (CTC) is an independent, all volunteer, multi-modal transportation advocacy organization. CTC has previously analyzed and commented in detail on the planning, construction design and benefits of the project. With this funding the City and Memorial Heights Redevelopment Authority plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure.

Shepherd and Durham are very important cross-town streets serving Houston and connecting to three interstate highways. The Shepherd/Durham corridor is needlessly dangerous. The past few months have seen two pedestrian deaths on Shepherd Drive near 10th Street. This significant existing corridor has not received the maintenance and attention that is required to improve safety and facilitate the drainage of stormwater. The planned pedestrian improvements will allow for greater usage of the METRO bus system by making the "first and last mile" of each trip safer and more comfortable for bus riders. These projects, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your consideration. If you have any questions or concerns, please feel free to contact me at 832-724-8753.

Sincerely,

A handwritten signature in cursive script, reading "Dexter R. Handy". The ink is dark and the signature is fluid, with a long horizontal stroke at the end.

DEXTER R. HANDY, Lt Colonel USAF (Retired)
Chair, Citizens' Transportation Coalition (CTC)

Contributors: Letha Allen, Advocacy Chair and Board Member; Carol Caul, CTC
Member/Advisor; Dexter Handy, Chair, CTC

July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As the Interim President of the Cottage Grove Civic Association I am pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at (713) 553-3171.

Sincerely,

Drew Wiley
Interim President
Cottage Grove Civic Association



Friends of Woodland Park, Inc.
P.O. Box 71
Houston, TX 77001

A 501c3 Non-Profit Charitable Organization
www.friendsofwoodlandpark.org

2018 Lone Star Legacy Park

July 1, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As the Secretary of the Friends of Woodland Park, I am pleased to confirm our support of the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade storm water infrastructure. These projects, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact Mr. Pat Rutledge, Director/Treasurer, at (713) 542-7388.

Sincerely,

Louise I. Moss, Secretary

Cc : Jim Webb, AICP
jwebb@thegoodmancorp.com
The Goodman Corporation

Sherry Weesner
Sherry@memorialheightstirz5.com
Memorial Heights Redevelopment Authority/TIRZ 5

Board Members: Beth Fischer • Becky Houston • Louise Moss • Pat Rutledge • Mark Sternfels

OUR MISSION

The Friends of Woodland Park, Inc. (FWP) is dedicated to preserving the park's natural habitat along with its unique historical significance to the City of Houston, and to providing for the enjoyment and education of all who visit.



Greater Heights

Super Neighborhood Council

July 8, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

RE: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao:

As the President of the Greater Heights Super Neighborhood Council, I am pleased to state that the Council supports the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham in order to improve safety, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects, and their benefits, are very important to the Greater Heights, to the City of Houston, and to the region.

The Shepherd/Durham corridor infrastructure and traffic flow plan are in dire need of updating to support the redevelopment that is starting to transform these streets from a depressing sea of abandoned used car lots to a vibrant mix of businesses, restaurants, and residential facilities. The sidewalks, where they exist, are ill equipped to support the increasing pedestrian use of these streets; the often-patched streets and the aging infrastructure below them are likewise unsuited to the pressures being placed upon them.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at 713-864-4230.

Sincerely,

Mark Williamson, President
Greater Heights Super Neighborhood Council

July 1, 2019

Secretary Elaine L. Chao

United States Department of Transportation

1200 New Jersey Avenue, SE

Washington, DC 20590

RE: Shepherd and Durham Major Investment Project – 2019 Build

Dear Secretary Chao:

I am writing to express my support for the City of Houston and the Memorial Heights Redevelopment Authority in their application through the United States Department of Transportation Build Program to reconstruct Shepherd and Durham Drives.

As you and your staff review the proposal, I trust you will give major consideration to the many strengths of this application. The grant, if awarded, would rehabilitate the existing roadway, provide safety improvements to reduce the high incidence of fatal crashes, provide transit connectivity to the regional system, introduce consistent and accessible pedestrian walkways, and accommodate bicyclists through the introduction of dedicated bike facilities. Furthermore, this project will provide stormwater mitigation benefits which will work in synergy with those being implemented throughout the Houston regional drainage system.

The reconstruction of Shepherd and Durham are critical components of the transportation infrastructure for the City of Houston, the Houston-Galveston region, and ultimately, the State of Texas.

I would appreciate your efforts to ensure that I am kept informed of the progress of this application.

Thank you for your assistance and consideration.

Sincerely,

A handwritten signature in black ink that reads "Steve Ashy". The signature is fluid and cursive, with the first name "Steve" and last name "Ashy" clearly legible.

Steve Ashy

Greater Houston Coalition of Complete Streets



Houston Heights Association, Inc.

107 W. 12th Street
Houston, TX 77009
www.houstonheights.org
713-861-4002

July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

The Houston Heights Association is pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding, they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These improvements, and their benefits, are extremely important to the residents of the Houston Heights, the City of Houston and the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact us at (713) 861-4002.

Sincerely,

Kevin Chenevert
President
Houston Heights Association

Emily Guyre
Executive Director
Houston Heights Association



HOUSTON PARKS BOARD

PARKS BY YOU

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Beth White
President & CEO

July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As the President and CEO for the Houston Parks Board, I am pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These improvements, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

The Houston Parks Board has been working to improve hike and bike connectivity throughout Houston through our Bayou Greenways 2020 (BG2020) Program. This project will improve access for pedestrians and cyclists to the Heights Hike and Bike Trail, and therefore to the White Oak Bayou Greenway and the rest of the BG2020 system.

Therefore, we are happy to support the project as it that will contribute to greater hike and bike connectivity in the Houston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at (713) 942-8500.

Thank you,

Beth White
President and CEO

LINK HOUSTON

June 27, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

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Oni K. Blair

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As the Executive Director of LINK Houston, I am pleased to express support for the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program.

LINK Houston is a non-profit organization with a mission to advocate for a robust and equitable transportation network so that all people can reach opportunity. The Shepherd and Durham Major Investment Project provides roadway improvements for a diverse group of people who live, work, and/or enjoy the Shepherd-Durham area of Houston.

The City of Houston and the Memorial Heights Redevelopment Authority's efforts, when funded, will reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at (832) 581-5723.

Sincerely,

Oni K. Blair



Executive Director
LINK Houston





July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590
Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

Scenic Houston is pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at 713-629-0481.

Sincerely,

A handwritten signature in black ink that reads "Anne Culver". The signature is fluid and cursive, with the first name "Anne" and last name "Culver" clearly distinguishable.

Anne Culver
President and CEO

July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

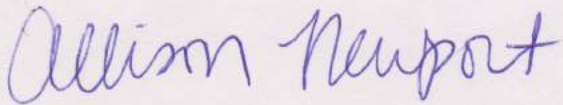
Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As the President of the Shady Acres Civic Club, I am pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at 713-818-7816

Sincerely,



Allison Newport
President
Shady Acres Civic Club



July 2, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

RE: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As a resident of Shepherd Forest, I am pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham in order to improve safety, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects, and their benefits, are very important to Shepherd Forest, City of Houston and the entire Houston-Galveston region.

Currently, the corridor contains missing sidewalks, crumbling curbs, and substandard drainage infrastructure. The reconstruction of these roads will provide safety, mobility, drainage, and aesthetic benefits. Additionally, street improvements are likely to result in improved economic conditions in the vicinity of the project.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at (713) 569-2750.

Sincerely,

Payton Arens
Shepherd Forest Resident



July 18, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As the President of the White Oak Bayou Association, I am pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at (765) 426-1743

Sincerely,

A handwritten signature in black ink, appearing to read "Th. Gall".

Thomas Gall
President
White Oak Bayou Association

RADOM CAPITAL LLC

June 19, 2019

Secretary Elaine Chao
United States Department of Transportation
1200 New Jersey Ave. SE

RE: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Ms. Chao,

As a real estate developer and property owner along the Shepherd/Durham corridor, I wanted to express my support for the grant applications being submitted by the Memorial Heights Redevelopment Authority and the City of Houston. These corridors, critical connectors for the northern and southern limits of the City of Houston, are an embarrassment to our City and to our region in terms of pedestrian access, the condition of the roadway, and safety.

As you may know, neither road has any semblance of a sidewalk system. This is becoming increasingly problematic as pedestrian activity has ramped up due to the explosion of adjacent development. The roadway itself is in the same or worse shape, with large potholes developing frequently. Finally, I see, on a near weekly basis, severe crashes at all points along the corridor. These are occurring because of poor sight lines and vehicles attempting to cut across all four lanes of traffic without sufficient time to do so. Based on the presentations made by the Memorial Heights Redevelopment Authority, I am convinced that their proposed improvements will help to solve or mitigate all of these issues.

Thank you for the opportunity to provide this letter. I hope that these projects merit funding through this process.

Sincerely,

Sincerely Yours,



Steve A. Radom
Managing Principal
Radom Capital LLC





July 15, 2019

The Honorable Elaine L. Chao
Secretary of the United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Madam Secretary Chao:

As the Principal of REVIVE Development, I am pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding, they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects and their benefits are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at (713) 357-5800.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Danna", with a long, horizontal flourish extending to the right.

Bryan J. Danna
Principal

cc: File

July 15, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

As the owner of the property at 1801 N Shepherd where Superica and La Lucha, two iconic Houston eateries are located, I am pleased to support the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program. With this funding they plan to reconstruct Shepherd and Durham Drives to improve safety, increase transit connectivity, provide pedestrian accommodations, install bike lanes, and upgrade stormwater infrastructure. These projects, and their benefits, are extremely important to the City of Houston and to the entire Houston-Galveston region.

Thank you for your attention in this matter. If you have any questions or concerns, please feel free to contact me at (713) 478-7828.

Sincerely,

A handwritten signature in black ink, appearing to read 'Scot Luther', with a stylized, cursive script.

Scot Luther
Founding Partner
Virgata Property Company

WILE INTERESTS

June 27, 2019

Secretary Elaine L. Chao
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Shepherd and Durham Major Investment Project – 2019 BUILD

Dear Secretary Chao,

I am a property owner on Shepherd Drive. As a property owner and as an individual, I am 1000% in support of the efforts of the City of Houston and the Memorial Heights Redevelopment Authority in their pursuit of discretionary funding through the 2019 BUILD program.

I feel that this project is a "No Brainer".

It 1) addresses congestion and flooding/stormwater management issues, 2) facilitates economic development and regional multimodal connectivity, - and 3) *enhances pedestrian safety*.

Moreover, it accomplishes these goals without requiring significant additional rights-of-way, without creating adverse environmental impacts, and without major implementation issues.

Additionally, this project is "smart 21st Century planning". It isn't the traditional "fix" of simply adding more pavement and more lanes for cars, trucks and buses or simply synchronizing traffic lights. Rather, this plan acknowledges that pedestrians and bicyclists are a part of the transportation equation, and it makes a real commitment to them.

(Tragically, I should add that, in just the last 90 days, there have been two pedestrian fatalities on this stretch of roadway!)

Additionally, the timing is perfect for this project. Done properly, this project will be a catalyst to accelerate the redevelopment in the area and to shape it in a way that maximizes its benefits for all stakeholders.

These are the reasons why I am so supportive of this project and why I feel that IT SHOULD BE IMPLEMENTED AS SOON AS POSSIBLE.

Thank you for your commitment to our city and our region. If you have any questions or would like additional information, please contact me at 713-337-3350.

Sincerely,



Randolph L. Wile
President