

**Environmental Assessment  
Determinations and Compliance Findings for HUD-assisted Projects  
24 CFR Part 58**

**Project Information**

**Project Name:** Baytown - Market St - Street-Drainage Improvements - DR

**Responsible Entity:** City of Baytown

**Grant Recipient** (if different than Responsible Entity):

**Application:** 1028

**State/Local Identifier:** 25-143-004-F340

**Preparer:** Todd Cave, Cave Consulting, Inc.

**Certifying Officer Name and Title:** Jason E. Reynolds, City Manager

**Grant Recipient** (if different than Responsible Entity):

**Consultant** (if applicable): Public Management, Inc.

**Direct Comments to:**

Baytown City Hall

2401 Market Street

Baytown, TX 77522

Phone: 281-422-8281

Email: mayor@baytown.org

**Project Location:**

Market Street is located within the city limits of Baytown, Texas and Precinct 2 of Harris County, Texas. The roadway is in the southwestern area of Baytown and this project runs from Bayway Drive to W. Sterling Avenue. It is designated as a major and minor arterial with the split occurring at SH 146. It currently serves two existing high schools, a community college, the Sterling library, six places of worship, community center, four park areas, a wetlands education center, existing trails and an elementary school.

The project locations are as follows:

- Along Market Street, from Bayway Drive to West Sterling Avenue.

**Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:****Street and Drainage Facilities:**

A 5' sidewalk will be placed along the north side of the road and a 12' shared use path will be placed along the south side of the roadway. Four signalized intersections will also be removed and replaced with roundabouts. The two main areas of focus for drainage improvements were determined to be Channel 0101-0000 crossing and the intersection of Market Street and Minnesota Street.

At HCFCD Outfall Channel 0101-00 00, the existing roadway is below the 100-year flood elevation. The proposed roadway is being raised approximately 7' in this area to have it above the 100-year flood elevation.

For the intersection with Minnesota Street, the drainage storm sewer system is being upgraded by increasing the size of the storm sewer lines. With the drainage improvements, the project will not cause any adverse impact to the receiving drainage systems.

**Federal Involvement:** HUD**State Involvement:**

The project occurs on land or property owned by a political subdivision of the State of Texas:  
Name of Owner: City of Baytown

**Ground Disturbance:**

- The entire right-of-way, which is approximately 30 acres.
- Maximum Depth: 2' below the surface that is disturbed and then where the storm sewer is placed it will be deeper depending on the size of the pipe.

**Historic Properties: Structures:**

The project area or area of potential effects does not include buildings, structures, or designed landscape features (such as parks or cemeteries) that are 45 years of age or older.

The project area, or area of potential effects (APE), is adjacent to a property or properties that are listed or eligible for listing in the National Register of Historic Places. However, no adverse effects on historic properties are anticipated.

There are no buildings, structures, and/or landscape features within the project area or area of potential effect that are 45 years of age or older.

**Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:**

The purpose of this project is to reconstruct the 2.35 miles of roadway from the existing 4 lanes to a 2-lane concrete curb and gutter roadway with raised medians.

**Existing Conditions and Trends [24 CFR 58.40(a)]:**

The project area is located along Market Street within the City of Baytown, Texas. The roadway provides primary access to numerous public facilities and community destinations, including two high schools, an elementary school, a community college, the Sterling Library, six places of worship, a community center, four public park areas, a wetlands education center, and existing pedestrian trails.

Market Street is currently subject to recurring ponding issues during storm events, resulting in reduced roadway accessibility and localized flooding concerns. The roadway elevation is below the 100-year flood level in several locations, which contributes to periodic overtopping and restricted mobility during extreme weather.

Traffic flow along Market Street is further affected by multiple signalized intersections that contribute to congestion and delays within the corridor. Overall, the existing condition of Market Street presents challenges related to drainage, roadway elevation, and traffic efficiency, impacting both local residents and visitors accessing the schools, parks, and community facilities within the project area.

The project will provide significant benefits to the two drainage areas described above. The increase in storm sewer size will reduce the amount of ponding in Market Street near Minnesota Street. At Channel 0101-00-00, the raising of the roadway above the 100-year flood elevation will allow for residents and emergency personnel to access and evacuate the area during flooding events.

The proposed improvements are not expected to affect population growth.

**Funding Information**

<b>Grant Number</b>	<b>HUD Program</b>	<b>Funding Amount</b>	<b>City Funds</b>	<b>County Funds</b>	<b>Total</b>
25-143-004 -F340	CDBG-DR	\$15,000,000.00	\$4,415,485.32	\$3,701,043.53	\$23,116,462,10

**Estimated Total HUD Funded Amount:** \$15,000,000.00

**Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]:**

Project forecast cost \$23,116,462,1 and will be paid for with \$15,000,000.00 in HUD CDBG-DR grant funds administered by the General Land Office, \$4,415,485.32 (City of Baytown local funds) and \$3,701,043.53 in Harris County local funds.

**Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities**

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6</b>		
<b>Airport Hazards</b>  24 CFR Part 51 Subpart D	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	According to Google Maps and a Military Bases Map the project is not within 2,500 feet of a civilian airport or within 15,000 feet of a military airport.  No impact/effect anticipated and review is in compliance with 24 CFR Part 51 Subpart D. (see Airport Hazards)
<b>Coastal Barrier Resources</b>  Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	According to the GLO Coastal Barrier Map, the project is not located within a coastal barrier area.  No impact/effect anticipated and review is in compliance with the Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]. (See Coastal Barriers)

<p><b>Flood Insurance</b></p> <p>Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>	<p>Yes    No</p> <p><input type="checkbox"/>    X</p>	<p>The project is located in a FFRMS floodplain. See Floodplain Management.</p> <p>According to the FEMA Community Status Book Report, the City of Baytown is participating in the National Flood Insurance Program. Further, flood insurance is not required for this project.</p> <p>No impact/effect anticipated and review is in compliance with the Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]. (See Flood Insurance and Floodplain Management)</p>
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**STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5**

<p><b>Clean Air</b></p> <p>Clean Air Act, as amended, particularly section 176(c) &amp; (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to the EPA Texas County Nonattainment/Maintenance Status, Harris County is considered a Non-Attainment area for 1-hour and 8-hour ozone.</p> <p>However, the project conforms to the Finding on Air Quality General Conformity Review Summary Projects which was issued on 10/7/25.</p> <p>No impact/effect anticipated and review is in compliance with the Clean Air Act, as amended, particularly section 176(c) &amp; (d); 40 CFR Parts 6, 51, 93. (See Clean Air)</p>
<p><b>Coastal Zone Management</b></p> <p>Coastal Zone Management Act, sections 307(c) &amp; (d)</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to the GLO, the project is located within a Coastal Management Zone. However, the GLO Coastal Management Program does not currently have any listed federal financial assistance activities so a federal consistency review is not required.</p> <p>No further action is required.</p> <p>No impact/effect anticipated and review is in compliance with the Coastal Zone Management Act, sections 307(c) &amp; (d). (See Coastal Zone Management)</p>

<p><b>Contamination and Toxic Substances</b></p> <p>24 CFR Part 50.3(i) &amp; 58.5(i)(2)</p>	<p>Yes    No</p> <p>X      <input type="checkbox"/></p>	<p><u>Phase I Environmental Site Assessment (ESA):</u></p> <p>According to a Phase I ESA completed on the project site, the following was concluded:</p> <p>The results of this assessment have revealed the following current RECs associated with the project area:</p> <ul style="list-style-type: none"> <li>● Map Key 16 – an off-site REC to the east of the proposed location of the Market St. / W. Main St. roundabout</li> <li>● Map Key 36 – an off-site REC to the north of the proposed location of the Market St. / S. Airhart Dr. roundabout</li> <li>● Map Key 37 – an off-site REC to the northeast of the proposed location of the Market St. / W. Texas Ave. roundabout</li> <li>● GB-7 and GB-7A – an on-site REC at the proposed location of the Market St. / W. Main St. roundabout</li> </ul> <p>The results of this assessment have revealed the following de minimis conditions associated with the project area:</p> <ul style="list-style-type: none"> <li>● None</li> </ul> <p>The following data gaps were encountered during the completion of this study:</p> <ul style="list-style-type: none"> <li>● None</li> </ul> <p><u>It is recommended that a Phase II ESA be performed</u> in the vicinity of sites down-gradient from the aforementioned Map Key sites within the proposed roundabout locations at Market St. / S. Airhart Dr., Market St. / W. Main St., and Market St. / Decker Dr.</p>
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		<p><u>Phase II Environmental Site Assessment (ESA):</u> According to a Phase II ESA completed on the project site, the following was concluded:</p> <p>Based on the soil sample analyses conducted, total petroleum hydrocarbons (TPH) were detected in the soil at borehole EB-8 between 10 and 16 feet bgs, but levels did not exceed Texas Risk Reduction Program (TRRP) Tier 1 Residential or Commercial Protective Concentration Limits (PCLs) for soil contamination.</p> <p>Volatile organic compounds (VOCs) detected in all soil samples did not exceed TRRP Tier 1 Residential or Commercial PCLs for soil contamination. Volatile Organic Compounds (VOCs) were detected in groundwater at boreholes EB-1, EB-4, EB-5, EB-6, and EB-8; however, levels did not exceed TRRP residential PCL limits for Class 3 groundwater. With the exception of borehole EB-6; in which detected levels of Toluene (1.0 mg/L) in groundwater meets, but does not exceed TRRP Tier 1 Residential and Commercial PCLs for ingestible groundwater.</p> <p>Class 3 groundwater resources are not considered usable as drinking water sources and are not subject to groundwater ingestion PCLs. The TCEQ defines Class 3 groundwater units as producing less than 150 gallons per day from a four-inch diameter well or equivalent and/or exceeding a total dissolved solids concentration of 10,000 mg/L (TCEQ 2010).</p>
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		<p>Class 3 groundwater units must also not be within a half-mile of an existing well used to supply drinking water to a public water system, which can contribute COCs to the groundwater production zone of such public water supply well based on the chemical properties of the COCs, the hydrogeology, and the construction of the well. All boreholes drilled during this study met the TCEQ criteria for Class 3 groundwater units. All soil and water samples were below applicable Commercial/Industrial PCLs. <u>There were no exceedances of applicable PCLs for any COCs in the soil or groundwater samples; therefore, no further investigations are recommended for all sites.</u></p> <p>An odor of hydrocarbons and elevated PID readings were detected at borehole EB-3 (site GB-7 and GB-7A on site REC) and EB-8 (Map Key 37 LPST site). Furthermore, elevated concentrations of multiple COCs were detected at EB-2, EB-3, EB-4, EB-5, EB-6, and EB-8, indicating that a petroleum product release occurred proximal to these locations. <u>None of the samples from these boreholes exceeded applicable TRRP concentrations for commercial sites; however, precautions should be taken when work is performed at these sites. Qualified personnel should monitor conditions near this release and implement appropriate safety precautions such as worker PPE or explosive vapor monitoring as necessary.</u></p> <p>Mitigation:</p> <ul style="list-style-type: none"><li>• Qualified personnel should monitor conditions near this release and implement appropriate safety precautions such as worker PPE or explosive vapor monitoring as necessary.</li></ul>
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		<p>No Impacts anticipated.</p> <p>Review is in compliance with 24 CFR Part 50.3(i) &amp; 58.5(i)(2) .</p> <p>(See Contamination and Toxic Substances)</p>
<p><b>Endangered Species</b></p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p>X <input type="checkbox"/></p>	<p><u>Waters of the US Delineation and Habitat Assessment Report</u></p> <p>According to a Waters of the US Delineation and Habitat Assessment Report for the project area, the following was concluded:</p> <p>The Endangered Species Act of 1973 affords protection to federally listed threatened or endangered species from “take.” In the Endangered Species Act, “take” is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Before going into the field, CMEC biologists reviewed the USFWS IPaC tool for a list of federally listed threatened or endangered species that have the potential to occur within the project area (USFWS 2021) (Attachment G). Five federally listed threatened and endangered species were identified as potentially occurring within the project area or the surrounding vicinity. CMEC biologists assessed the project area to determine if potentially suitable habitat occurred for federally listed species. Table 3 shows the results of the IPaC review and habitat evaluation. Vegetation observed during the site visit is described in Section 3.1 above. No suitable habitat for federally listed threatened or endangered species was identified in the project area during the February 8, 2021 site visit. No designated critical habitat is mapped within the project area.</p>

		<p>CMEC's biologists found no suitable habitat in the project area for any of the federally listed threatened or endangered species.</p> <ul style="list-style-type: none"><li>● Piping Plover(Charadrius melodus)</li><li>● Rufa Red Knot (Calidris canutus rufa)</li><li>● Whooping Crane (Grus americana)</li><li>● Eastern Black Rail (Laterallusjamaicensis)</li><li>● Yellow-billed cuckoo (Coccyzus americanus)</li><li>● West Indian manatee (Trichehus manatus)</li></ul> <p>The proposed project would not likely result in impacts to species protected by the Endangered Species Act, and no consultation with USFWS is warranted.</p> <p><u>Market Street Improvement Project</u> <u>Threatened &amp; Endangered Species Habitat Assessment Memo:</u> Federally Listed Threatened &amp; Endangered Species:</p> <p><u>Suitable habitat for one protected species was identified within the Project Area.</u> This species is the federally proposed endangered tricolored bat. Potential impacts and recommendations for further investigations or consultation regarding this species are presented in more detail below.</p>
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	<p>Tricolored Bat (TCB)</p> <p>The Project Area contains potentially suitable habitat for the federally proposed endangered tricolored bat. This species may roost underneath bridges and underpasses in late winter to early spring. Two bridges associated with Goose Creek and SH 146 are present within the Project Area. Additionally, tricolored bats may forage and roost in trees along Goose Creek.</p> <p>However, <u>the small size and heavily urbanized nature of the ROW makes expected impact to be potentially affect but not likely to adversely affect the tricolored bat.</u></p> <p>Currently, there is no regulatory protection for this species as it is only proposed for listing. However, <u>if the species is listed during the project's duration, potential impacts and avoidance strategies should be reevaluated to ensure compliance with updated BMPs.</u> Due to the lack of regulatory protections, <u>no further actions are recommended at this time.</u></p> <p>Bald Eagles and Migratory Birds</p> <p>Stantec did not identify active avian or raptor nests within the Project Area during the field survey. However, the Project is subject to regulations under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). The MBTA promulgates regulations protecting migratory birds and their nests or eggs from intentional "take" which includes activities such as to pursue, shoot, poison, wound, kill, capture, trap, molest, or disturb. As of April 11, 2025 legal opinion M-37085, the USFWS has resumed implementing the MBTA as not applying to the accidental or incidental taking of migratory birds. The bald eagle (<i>Haliaeetus leucocephalus</i>) and golden eagle (<i>Aquila chrysaetos</i>) are federally protected by both the MBTA and the BGEPA.</p>
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		<p>The BGEPA protects eagle parts (including nests, eggs, and features) from incidental take as well as their active or inactive nests.</p> <p>The Project Area lacks potentially suitable habitat for threatened or endangered avian species identified by USFWS IPaC as having the potential occur within the Project Area, therefore <u>no further work is required at this time.</u></p> <hr/> <p><u>Habitat Memo:</u> According to the project biologist (Habitat Memo), the overpass over SH 146 is mentioned in the photolog and provides suitable habitat for tricolored bats. Any construction activities that impact the overpass may displace the bats from potential roosts under it is the reason for the impact determination. The area is located in the Year-Round Active Range Zone 2 for tricolored bats, meaning they are a year-round resident and there's not a season where they wouldn't be in the area. The SH 146 overpass provides suitable habitat for TCB which could be displaced by the construction underneath.</p> <p>Therefore, <u>this project has the potential to affect but not adversely affect the TCB. Visual inspection of the underpass should be conducted closer to construction to determine presence/probable absence of TCB. Currently, the tricolored bat is only proposed for listing so they don't have any federal protections so consultation with USFWS is not needed at this time. But if the species were to be listed during the project then they would need to do a USFWS consultation.</u></p> <hr/>
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		<p>TPWD</p> <p><u>General Construction BMP</u></p> <ul style="list-style-type: none"><li>• The development and communication of Environmental Awareness Training is recommended for any staff or contractors working at the project site. This training should address the general value of natural resources, the basic identification of any sensitive natural resources potentially occurring within the project area, and proper implementation of any BMP or protocols to minimize negative impacts during project development.</li><li>• Existing facilities should be used whenever possible for laydown areas and other temporary workspace. This may include recently cleared or similarly disturbed sites that are not fully developed. By utilizing previously disturbed or otherwise impacted sites, adverse impacts to better quality habitats are minimized and there is a reduced risk for direct negative impacts on fish or wildlife.</li><li>• Any open trenches or excavation areas should be covered overnight and inspected every morning to ensure no wildlife species have been trapped. Trenches left open for more than two daylight hours should be inspected for the presence of trapped wildlife prior to backfilling. If trenches and excavation areas cannot be backfilled the day of initial excavation, then escape ramps should be installed at least every 90 meters (approximately 295 feet). Escape ramps can be short lateral trenches or wooden planks sloping to the surface at an angle less than 45 degrees (1:1).</li></ul>
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		<ul style="list-style-type: none"><li>● Traditional plastic or polymer mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife and should be avoided. Using erosion control methods such as no-till drilling, hydromulching, or hydroseeding reduces the risk to wildlife. If erosion control blankets or mats will be used, the selected product should contain either no netting or only loosely woven, natural fiber netting. A mesh design that allows the threads to move, and the mesh openings to expand, greatly reduces the hazard to wildlife.</li><li>● Sediment control fence should be judiciously used and placed to exclude wildlife from the construction area. The exclusion fence should be buried at least six inches and be at least 24 inches high. The exclusion fence should be maintained during active construction and only be removed after the construction is completed.</li><li>● Because snakes are generally perceived as a threat and killed when encountered, and since the project area contains suitable habitat for the multiple species of snake, please consider the following and incorporated it into any Environmental Awareness Training for the project:<ul style="list-style-type: none"><li>● Advise project staff and contractors to avoid injury or harm to any wildlife, including snakes, encountered during clearing and construction. Personnel should avoid contact with snakes if encountered and allow all native snakes to safely leave the premises.</li></ul></li></ul>
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|  |  | <ul style="list-style-type: none"><li>● Injury to humans usually occurs when the snake becomes agitated following harassment or when someone attempts to handle a recently dead venomous snake</li><li>● that still contains its bite reflex.</li></ul> |
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Vegetation Removal and Revegetation

- Reduce the amount of vegetation proposed for clearing if possible and minimize clearing of native vegetation to the greatest extent practicable.
- During the development of any Revegetation Plan, specify site-appropriate native species. Wherever possible, focus on native plant species that provide wildlife cover, food (e.g., fruit, mast, pollen), and breeding habitat.
- Colonization by invasive species, particularly invasive grasses and weeds, should be actively prevented.
- Online databases provided by the Lady Bird Johnson Wildflower Center and the Native Plant Society of Texas are excellent publicly available resources for identifying regionally adapted native species appropriate for landscaping and revegetation.

		<p><u>Terrestrial Wildlife</u> Federal Law: Migratory Bird Treaty Act and State Law: Chapter 64, Birds</p> <ul style="list-style-type: none"><li>• To minimize project impacts on nesting birds, vegetation clearing should be scheduled outside of the general bird nesting season of March 15th to September 15th. If disturbing vegetation during the bird nesting season is unavoidable, the area proposed for disturbance should be surveyed to ensure that no nests with eggs or young will be disturbed by construction. Nest surveys should be conducted not more than five days prior to clearing activities to minimize the risk of new nests being established between the survey date and the commencement of land clearing. Generally, a 100-foot radius buffer of vegetation is recommended around active nests until the eggs have hatched and the young have fledged. In Texas, raptor nesting typically occurs in late winter through early spring. If active raptor nests are observed, construction activities should be excluded from a minimum zone of 100 meters (approximately 328 feet) surrounding the nest. This buffer should be maintained February 1st through July 15th.</li><li>• Minimizing overall tree removal, protection of hibernacula, avoiding tree removal during pupping, and avoiding tree removal during winter torpor are recommended conservation practices for the tricolored bat. During pupping and when temperatures below 40 degrees Fahrenheit induce torpor, the bats are less able to escape from tree clearing and are susceptible to mortality.</li></ul>
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		<p><u>Water Resources and Aquatic Species</u></p> <p>Sidewalk and trail design components of the project design should include the following:</p> <ul style="list-style-type: none"><li>● 100-foot buffer on each side of perennial streams,</li><li>● 50-foot buffer on each side of intermittent streams and wetlands, and</li><li>● 25-foot buffer on each side of ephemeral streams.</li></ul> <p>All waterways and associated floodplains, riparian corridors, springs and seeps, and wetlands, regardless of their jurisdictional status, provide valuable wildlife habitat and should be protected to the maximum extent possible.</p> <ul style="list-style-type: none"><li>● Target phasing work within this specific area of the project during spring through fall (March through October).</li><li>● Provide environmental awareness training to employees and contractors. Training should include identification of AST and enough basic life history for the species that trainees understand where the AST is most likely to be encountered. If needed- procedures for handling/holding/releasing AST. The need for directly interacting with AST could be prevented by implementing the exclusion barrier described below, or by a “stop work” procedure. TPWD will provide support for needed training, if desired.</li></ul>
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		<ul style="list-style-type: none"><li>• In projects where the area of construction will be limited to a discrete work area that extends below the OHWM, an exclusion barrier should be used to encircle the construction zone. The interior space within the barrier should be “cleared” by a qualified and TPWD-permitted employee or contractor prior to work commencing. The barrier must be able to exclude AST from entering the area that would be impacted by construction but not impede the flow of water through the channel. TPWD suggests an exclusion barrier intended for deployment below the OHWM be constructed of metal hog panels (or similar) and metal t-posts. Ensure the exclusion function is maintained for the duration of project work (e.g., if the fence is accidentally pushed over, reinstall it correctly).</li><li>• If an AST is observed within the work area and no permitted biological monitor or subpermittee is present, the AST should be allowed to safely leave the site on its own before work begins. If an AST is observed and there is a permitted biological monitor or sub-permittee present, this person may gently encourage the AST to move out of the work area. Under no circumstances should AST or other wildlife be harmed or harassed. If an alligator snapping turtle is incidentally captured or observed, please contact TPWD Houston Wildlife Office (for data collection). The turtle may still be encouraged to move out of harm’s way by project personnel- note the location to which it moves and provide that to TPWD staff.</li></ul>
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		<ul style="list-style-type: none"><li>● Only permitted individuals should handle or transport alligator snapping turtles. (TPWD Scientific Research Permit “SRP”)</li></ul> <p>Other species of aquatic turtles, various species of frogs and toads, and semi-aquatic snakes are also likely present within the project areas and could be directly harmed during construction. To avoid and minimize impacts on all native wildlife, please consider the following:</p> <ul style="list-style-type: none"><li>● Exclusion fences and related protocols outlined above for both General Construction and AST BMP may also be used to avoid harming wildlife.</li><li>● If other species of aquatic turtles are observed, please follow similar procedures outlined above for the AST to exclude them from the work area so they are not crushed by equipment or by the placement of fill. The AST is the only species for which handling would require a permit; all other turtle species can be legally handled and relocated out of harm’s way.</li><li>● Species such as sliders or river cooters may be safely moved by using both hands to grasp the turtle firmly around the rear 1/3 of its body. These species may also be encouraged to move away from the site by gently prodding with the toe of a boot. Gently encouraging a turtle to move away from the work area, using readily available materials such as a shovel or wooden survey stake, is advised for common snapping turtles and softshell turtles.</li></ul>
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- All relocations should be the minimum distance required to ensure the animal's safety. Do not take the animal more than 200 yards from the initial site of observation.

Data Reporting and the Texas Natural Diversity Database

- The TXNDD is updated continuously based on new, updated and undigitized records; therefore, the most recent TXNDD data should be requested on a regular basis. For questions regarding a record or to request the most recent data, please contact TexasNatural.DiversityDatabase@tpwd.texas.gov.
- To aid in the scientific knowledge of a species' status and current range, TPWD encourages and appreciates reporting encounters of protected and rare species to the TXNDD. Instructions for sharing data are found here [https://tpwd.texas.gov/huntwild/wild/wildlife\\_diversity/txnnd/submit.phtml](https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txnnd/submit.phtml)
- An additional method for reporting observations of species is through the iNaturalist community application where plant and animal observations are uploaded from a smartphone. The observer then selects to add the observation to specific TPWD Texas Nature Tracker Projects appropriate for the taxa observed, including Herps of Texas, Birds of Texas, Texas Eagle Nests, Texas Whooper Watch, Mammals of Texas, and Rare Plants of Texas.

	<p><u>Alligator Snapping Turtle (AST)</u></p> <p>Texas Parks and Wildlife Department (TPWD) understands the project proponent / applicant is interested in avoiding and minimizing impacts to the alligator snapping turtle (AST), a state listed threatened species that has also been proposed for listing under the Endangered Species Act. TPWD has developed the following voluntary beneficial management practices (BMP) to achieve the avoidance/minimization objective.</p> <p>To meet the objective of avoidance and minimization of impacts to AST, the project proponent/ applicant must implement these recommended BMP as appropriate to the individual project.</p> <p>TPWD has also developed and provided an associated flowchart to aid in determining the most appropriate suite of BMP based on project location, duration, and other relevant factors.</p> <p>Please continue to coordinate with TPWD whenever necessary for clarification on BMP implementation, or as indicated by the flowchart.</p> <p><u>Aquatic Resources</u></p> <p>Texas Parks and Wildlife Code (PWC) section 1.011 grants Texas Parks and Wildlife (TPWD) authority to regulate and conserve aquatic animal life of public waters. Title 31, chapter 57, subchapter B, section 57.157 of the Texas Administrative Code (TAC) regulates take of mussels and clams, and section 12.301 of the PWC identifies liability for wildlife taken in violation of PWC or a regulation adopted under PWC.</p>
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		<p>Intermittent streams and smaller perennial streams provide important habitat for fish by providing spawning and nursery habitat as well as providing invertebrate, detritus, and other organic matter to downstream food webs. Fish also serve as hosts for mussel larvae and are essential in completing the mussel life cycle. Because the waters of the project area may provide important habitat for fishes, mussels, and other aquatic organisms, avoiding impacts to stream habitat during construction is encouraged.</p> <p>Healthy and intact riparian zones are an integral component to stream health. Riparian zones reduce sedimentation by stabilizing sediment. Sediments within the water can reduce the capacity of downstream reservoirs, clog fish gills, bury mussels and their preferred habitats, and reduce instream habitat, creating homogenized flat, sandy topography that benefits few species. Healthy riparian zones also contribute to instream structural habitat by providing woody debris, including very large woody debris that provides refugia for the alligator snapping turtle (<i>Macrochelys temminckii</i>, AST). Tree canopy cover from the riparian zone moderates and cools water temperature, supporting more fish and mussel species than sunny, warm water. Allochthonous nutrient input from riparian plant leaf litter contribute large amounts of energy into stream systems and form the basis of healthy, diverse, and robust food webs and aquatic communities.</p> <p>Dewatering, maintenance, and construction-related activities in rivers, creeks, streams, lakes, sloughs, reservoirs, bays, estuaries, stilling basins, and other flood control structures may negatively impact fish, shellfish, and other aquatic resources.</p>
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	<p>TPWD is the state agency with primary responsibility for protecting the state's fish and wildlife resources. The PWC authorizes the department to investigate fish kills and any type of pollution that may cause loss of fish or wildlife resources, estimate the monetary value of lost resources, and seek restitution or restoration from the party responsible for the fish kill or pollution through suit in county or district court. If dewatering activities and other project-related activities cause mortality to fish and wildlife species, then the responsible party would be subject to investigation by the TPWD KAST and will be liable for the value of the lost resources under the authority of PWC sections 12.0011(b)(1) and 12.301.</p> <p>The TAC requires the department to actively seek full restitution for and/or restoration of fish and wildlife resources unlawfully taken because of human activities. The restitution value of lost resources can be significant, in particular for species classified as threatened or endangered. As of 2023, restitution for each individual AST is \$5,280.50. PWC makes it a criminal offense to kill any fish or wildlife resources classified as threatened or endangered. When construction or maintenance related activities within water resources are anticipated to occur, coordinate with TPWD Kills and Spills Team (KAST) to develop a plan to avoid impacts to aquatic resources such as mussels and, in some instances, relocate aquatic resources outside of the project area. The coordination process should include the development of a written Aquatic Resources Relocation Plan (ARRP) to control and limit the impacts of construction, operation, or maintenance related projects on aquatic resources. An ARRP for project can be submitted to the correct staff listed at</p>
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		<p><a href="https://tpwd.texas.gov/landwater/water/environmentconcerns/kills_and_spills/regions/">https://tpwd.texas.gov/landwater/water/environmentconcerns/kills_and_spills/regions/</a>.</p> <p>Any relocations conducted as part of an ARRPP must be conducted in conjunction with the Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters and an ARRPP. The ARRPP should be completed and approved by the department 30 days prior to dewatering and/or resource relocation and submitted with the application for a no-cost Permit to Introduce Fish, Shellfish, or Aquatic Plants into Public Waters. Project proponents must receive formal approval of the ARRPP by TPWD prior to initiating dewatering, maintenance, or construction related activities.</p> <p><u>Parks and Wildlife Code, Section 68.015</u> PWC regulates state listed threatened and endangered animal species. The capture, trap, take, or killing of state-listed threatened and endangered animal species is unlawful unless expressly authorized under a permit issued by USFWS or TPWD. A copy of TPWD Protection of State Listed Species Guidelines, which includes a list of penalties for take of species, can be found online using the TPWD website. For purposes of relocation, surveys, monitoring, and research, State-listed species may only be handled by persons with the appropriate authorization obtained through the TPWD Wildlife Permits Program. For more information on this authorization, please contact the Wildlife Permits Office at (512) 389-4647.</p> <p>The state threatened AST could be negatively impacted by various projects impacting its habitat. This species, in addition to being listed as state threatened in Texas, has been proposed for listing as threatened under the Endangered Species Act.</p>
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	<p>The AST is the largest freshwater turtle in North America and inhabits both lentic and lotic systems within the southeastern United States. Perennial water is required by the alligator snapping turtle and this species is most often found within the deep-water portions of rivers, canals, oxbows, and swamps. This species prefers muddy substrates with vegetation sufficient as to provide adequate structure for shelter, protection from large flood events, and thermoregulation. Individual turtles are known to make movements of several river-miles. Nesting occurs in the spring, when female turtles will lay a single clutch of eggs on dry land not far from a water source. Nest sites typically include river berms, high banks, and artificial spoil mounds. Hatchling turtles emerge in the late summer.</p> <p>While AST can coexist with some degree of channel modification, negative effects of these activities include the removal of important habitat features (e.g., large woody debris), alteration of hydrology, and/or disruption of nesting sites.</p> <p>Construction activities and heavy machinery may adversely affect smaller, low-mobility species, particularly amphibians, reptiles, and small mammals. The AST is more at risk for being impacted by construction activities than some other state-listed species due to their limited mobility and the occurrence of suitable habitat within the project area.</p>
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Habitat Quality Definitions and Summary Practices:

High Quality Habitat: Characterized by natural or quasi-natural channel profile, extant developed riparian zone, and either never historically modified or modification occurred greater than 30 years before present.

- TPWD recommends avoiding work in these areas if possible. TPWD recommends necessary work in these areas occur in late summer and early fall (July through October). Conducting work during the warmer months will maximize the ability of AST to escape impacts on their own and minimize impact to nesting areas during nesting season. If an AST is encountered, follow the procedure below.

Medium Quality Habitat: Characterized by natural or quasi-natural channel profile, some degree of riparian zone, and any modification has occurred between 30 and 15 years before present.

- TPWD recommends work in medium priority areas during spring through fall (March through October).

Low Quality Habitat: Characterized by extensively modified channel profile and lack of riparian zone with very recent (15 or fewer years before present) modification (including maintenance of trapezoidal channel, bank armoring, and similar structures)- especially those channels that exhibit extensive armoring and/or very low to intermittent flow.

- TPWD believes work in these areas could occur at any time of year with minimal risk to AST. If an AST is encountered, follow the handling procedure below.

	<p>When there is a confluence of a lower quality habitat with a higher quality habitat, default practices within the overall project area should be appropriate for the higher quality habitat.</p> <p><u>Project Duration Definitions:</u>  TPWD considers any project for which construction (including any site restoration) will be completed within 3 months to be a short-duration project.</p> <p>TPWD considers any project with construction activities extending beyond a 3-month period to be a long-duration project.</p> <p>If multiple projects/work locations are sited within one mile of each other, they should be treated as a single project when determining project duration.</p> <p>If each work location has one mile or greater of unimpacted habitat between project termini, treat each work location as an independent project when determining project duration.</p> <p><u>AST Conservation Measures and Practices</u>  Pre-construction:</p> <ul style="list-style-type: none"> <li>● Provide environmental awareness training to employees and contractors. Training should include basic life history and identification of AST, as well as the practices below related to procedures for handling/holding/releasing AST. TPWD will provide support for this training, if desired.</li> <li>● In projects where the area of construction will be limited to a single work area that is below the OHWM, TPWD recommends that an exclusion barrier be used to encircle the construction zone. The interior space within the barrier</li> </ul>
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		<p>should be “cleared” by a qualified and permitted employee or contractor prior to work commencing. The barrier must be able to exclude AST from entering the area that would be impacted by construction but not impede the flow of water through the channel. TPWD suggests an exclusion barrier intended for use below the OHWM and for the exclusion of AST to be constructed of metal hog panels (or similar) and metal t-posts.</p> <ul style="list-style-type: none"><li>• For projects restricted to areas above the OHWM, TPWD recommends that an easily visible barrier be erected to define the project area and to alert project personnel to NOT enter the bank/channel areas where AST could be present and at risk of injury. TPWD suggests a barrier intended for personnel management be established using typical orange construction fencing.</li><li>• For intensive projects that will impact the entire channel, TPWD recommends that prior to construction, the area of construction and at least 0.5 river mile ahead of contiguous construction be trapped for AST. Individuals that are captured should be housed in a designated holding site.</li></ul> <p>Once construction has concluded the translocated AST can be recaptured and returned to the site of initial capture. Any holding site will need to be inspected and cleared by TPWD. TPWD biologists will work with project proponents to identify a suitable holding site and will assist in determining the logistical details of translocation and repatriation on a project-by-project basis.</p>
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		<p><u>Active Construction:</u></p> <ul style="list-style-type: none"><li>• During construction, trucks and equipment should use existing bridge or culvert structures to cross creeks, and equipment staging areas should be located in previously disturbed areas outside of riparian corridors.</li><li>• Minimize clearing of mature trees in the riparian zone. Canopy cover provides shade to the waterway, allowing for thermoregulation of alligator snapping turtle. Also, natural debris (leaves, sticks, logs) provides nutrient input which supports aquatic food webs.</li><li>• Avoid impacts to logs, cutbanks, rootballs, or other similar structures as AST use these for shelter. If impacts are unavoidable, TPWD recommends replacing the in-water structure within the waterway to the maximum extent feasible. Replaced structures should be situated in a manner consistent with pre-construction conditions (e.g., diameter of logs, distance from the riverbank). If these preferred features (cutbanks, pools, natural bottoms) are destroyed during construction, TPWD recommends the reestablishment of these features within the channel postconstruction.</li><li>• TPWD recommends avoiding terrestrial construction activities (construction above the OHWM) during the breeding and nesting season of this species (May 1 through June 30). AST breed in spring and early summer and then the eggs incubate through the spring and summer months. AST typically nest on sandy banks with largely open canopy cover.</li></ul>
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		<p>Generally, nests are established within approximately 200 feet of the water's edge with many nests established within 12 feet of the water's edge. Females may be encountered on land during nesting; TPWD recommends avoiding disturbance to the nesting females as well as any deposited eggs if encountered.</p> <ul style="list-style-type: none"><li>● TPWD recommends necessary work in areas of appropriate aquatic habitat (construction below the OHWM) for this species occur in late summer and early fall (July through October). Conducting work during the warmer months will maximize the ability of alligator snapping turtle to escape impacts on their own.</li><li>● For construction activities taking place below the OHWM in Medium habitat quality areas and ALL construction activities taking place within High habitat quality areas (both above and below OHWM) TPWD recommends having a permitted biological monitor or trained sub-permittee onsite during construction who is familiar with the identification of this species. If an alligator snapping turtle is incidentally captured, the permitted biological monitor, or trained sub-permittee, will contact TPWD Houston Wildlife Office for data collection information and instruction on relocating to the designated holding site. If an AST is observed within the work area and no permitted biological monitor or sub-permittee is present, the AST should be allowed to safely leave the site on its own before work begins. If an AST is observed and there is a permitted biological monitor or sub-</li></ul>
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		<p>permittee present, this person may gently encourage the AST to move out of the work area. Under no circumstances should AST or other wildlife be harmed or harassed. TPWD recommends that, should AST be incidentally captured during the project, any turtles observed should be collected and detained until release is possible. Turtles may be detained individually in a large container, such as a large plastic tub, until a point in the workday when relocation to the designated holding site is practical. If project work takes place in the summer, the turtles should be kept in a shaded area to avoid overheating; in especially warm weather, turtle relocation may need to take place at a frequency greater than once per day. TPWD and/or volunteers may be available to assist in turtle relocation. For safety and in instances of inclement weather (including temperature extremes) a climate-controlled and secure location is required to house any AST. Please coordinate these details with this agency prior to finalizing the work plan. This Standard Operating Procedure (SOP) regarding alligator snapping turtle handling should be included in the environmental awareness training for employees and contractors. Only permitted individuals should handle and transport alligator snapping turtles.</p>
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		<p><u>Post-Construction</u></p> <ul style="list-style-type: none"><li>● Widening a natural channel and terracing, especially if turfgrass is planned for revegetation, will remove the existing important riparian zone. Healthy riparian zones contribute to instream habitat structure and reduce erosion potential and sedimentation, which often result in habitat loss and degradation, compromises channel conveyance capacity, and increases maintenance costs. TPWD recommends mimicking the pre-project conditions observed within high quality habitat sites as best feasible. Areas of suitable nesting habitat should be maintained or restored proportional to their pre-construction availability within the stream reach. The use of rip-rap, concrete, or other impervious structures should be limited in the area of construction. If these construction methods are inevitable, there should be an appropriately sized area in the immediate vicinity that mimics the natural, sloping sandy banks of the riparian zone.</li><li>● If impacts to important aquatic habitat features (rootballs, cutbanks, pools) are unavoidable during construction, these in-water structures should be replaced within the waterway to the maximum extent feasible upon completion of the project. Replaced structures should be situated in a manner consistent with pre-construction conditions (e.g., diameter of logs, distance from the riverbank). If these preferred features (cutbanks, pools, natural bottoms) are destroyed during construction.</li></ul>
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		<p><u>Habitat Needs of AST</u></p> <ol style="list-style-type: none"> <li>1. Movement/Territory Requirements Mean home range (linear) reported for three other populations: 0.48 mile (Riedle et al. 2006- Oklahoma population), 1.11 miles (Moore et al 2014- Oklahoma population; Shipman and Neely 1998-Missouri population). Males are territorial.</li> <li>2. Channel Requirements <ul style="list-style-type: none"> <li>● Maximum Depth – Minimum Depth: 10 feet minimum channel depth would be ideal, reported to use shallow (1 foot) depths during movement through channels(Moore et al 2014)</li> <li>● Silt/Sand Depth for Channel Bottom 1.5 - 2 feet would be acceptable</li> <li>● Artificial Structure</li> <li>● i. Culverts (Concrete v. Natural) not ideal- sores observed on feet of AST from living on concrete.</li> <li>ii. Boulders not ideal, not ecologically appropriate for this region, waste of project funds</li> <li>iii. Cut-bank artificial “cut-bank” comprised of hard structure (e.g., boulder) would not be ideal. Such structure would not provide the same opportunity for use by AST compared to natural in situ substrates; hard structure presents poor viability as a place to take refuge and come up for air.</li> <li>iv. Pools, Riffles and Runs Short riffles, long runs.1. Depths: a. Pools should be a minimum of 9 feet deep (water over substrate) at</li> </ul> </li> </ol>
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		<p>low-water/flow times of year.</p> <p>b. Runs/riffles should be at least 3 feet in depth to allow safe passage of all size classes of AST.</p> <p>i. Riffles should not be constructed out of large concrete blocks or large natural boulders that would inhibit the movement of turtles along the stream channel. These features will form over time from natural movement of substrates and therefore should not need to be artificially constructed.</p> <p>d. Natural Structure</p> <p>i. Root Balls</p> <p>ii. Embedding Tree Trunks ((Dave) Rosgen Geomorphic Channel Design <a href="https://wildlandhydrology.com/">https://wildlandhydrology.com/</a>)</p> <p>iii. Bank Vegetation/Management Some woody vegetation is acceptable for nesting habitat. As long as it is not densely vegetated everywhere, female AST should be able to locate suitable nest sites..</p> <p>e. Meanders: Important for driving/maintaining natural stream geomorphology (cutbanks, riffles, etc)</p> <ul style="list-style-type: none"> <li>● 3. Bank/Shore Requirements <ul style="list-style-type: none"> <li>a. Soil Depth: Depth of the soil on the banks should be a minimum of 3 feet for nesting. The use of any impervious surface above the 3 ft. mark would be detrimental to the ability of an AST to adequately dig a nest. AST will utilize a variety of soil textures.</li> </ul> </li> </ul>
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		<p>b. Bank Slope: Moderately steep is acceptable as it allows AST to get as much rise over water level in as short a distance as possible. A significant area of the bank should be designed where the bank is not flooded during the 1-year average reoccurrence interval (average of 3.56 inches per 24-hour period rainfall events, as recorded for the headwaters area of Little Cypress Creek by NOAA).</p> <p>c. Terracing of banks, especially with the use of retaining walls, is not recommended. Terracing that uses an abrupt, near vertical slope between terrace levels inhibits the movement of nesting female alligator snapping turtles.</p> <ul style="list-style-type: none"><li>● 4. Vegetation Design/Management Wooded riparian zones are important and appropriate for the region. However, there must be some open or herbaceous-dominated patches as well to allow for nesting sites and overall habitat complexity. Exotic turfgrasses should be avoided.</li></ul> <hr/>
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		<p><b>Mitigation:</b></p> <ul style="list-style-type: none"><li>● Reevaluation of the Federal List of Species Prior to the start of construction, the City will reevaluate the most current Federal List of Species to determine whether the Tricolored Bat (TCB) has become a listed species. If the TCB is listed at that time, the City will initiate U.S. Fish and Wildlife Service (USFWS) consultation and implement any required mitigation measures.</li><li>● Pre-Construction Visual Inspection A visual inspection of the underpass area described in the Species Survey will be conducted closer to the start of construction to confirm presence or probable absence of the Tricolored Bat (TCB).</li><li>● Applicability of AST Guidance and Water Resources/Aquatic Species Measures Not all of the recommended measures provided in the AST Guidance and the Water Resources and Aquatic Species section are applicable to this project due to no activities being planned underneath the bridge.</li></ul> <p><b>Finding:</b> Based on the aforementioned information, it was determined that the project have “No Effect” on Federally Threatened or Endangered Species.</p> <p>Review is in compliance with the Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402. (See Endangered Species)</p>
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<p><b>Explosive and Flammable Hazards</b></p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No  <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to the HUD Checklist on Explosive and Flammable Hazard, because the proposed HUD-assisted project does not include a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries) and does not include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion, there will be no impact to Explosive and Flammable Hazards.</p> <p>Moreover, according to HUD, 24 CFR Part 51 Subpart C refers to habitable structures and does not apply to temporary workers. Therefore, this project is in compliance with 24 CFR 51 C.</p> <p>No impact/effect anticipated and the review is in compliance with 24 CFR Part 51 Subpart C.  (See Explosive and Flammable Hazards)</p>
<p><b>Farmlands Protection</b></p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes No  <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to the HUD Checklist on Farmlands Protect, because the project does not include activities that could convert agricultural land to non-agricultural land, there will be no impact/effect anticipated and review is in compliance with the Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658.  (See Farmlands Protection)</p>

<p><b>Floodplain Management</b></p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes    No X      <input type="checkbox"/></p>	<p><b><i>Exemptions to Part 55:</i></b> <i>Actions listed in the revised 24 CFR 55.12 that are exempt from the floodplain management requirements of Part 55 include:</i></p> <ul style="list-style-type: none"> <li>● <i>Exempt activities and actions that are Categorically Excluded Not Subject to 50.4 or 58.5</i></li> <li>● <i>Restoration or preservation of floodplains, acquisition of floodplains property provided the site is used for flood control or open space but only if structures are cleared and improvements are specifically limited</i></li> <li>● <i>Receivership or foreclosure and related actions</i></li> <li>● <i>Policy-level actions not involving site-based work</i></li> <li>● <i>Issuance of non-project-based housing vouchers</i></li> <li>● <i>A minor amendment to a previously approved action</i></li> </ul> <p><u>The project is subject to Part 55 because it meets the criteria for none of the exemptions.</u></p>
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		<p><b>Critical Actions:</b>  <i>Critical action means any activity for which even a slight chance of flooding would be too great because such flooding might result in loss of life, injury to persons, or damage to property. Critical actions include activities that create, maintain, or extend the useful life of those structures or facilities that:</i></p> <ul style="list-style-type: none"> <li>● <i>Produce, use, or store highly volatile, flammable, explosive, toxic, or water-reactive materials</i></li> <li>● <i>Provide essential and irreplaceable records or utility or emergency services that may become lost or inoperative during flood and storm events (e.g., community stormwater management infrastructure, water treatment plants, data storage centers, generating plants, principal utility lines, emergency operations centers including fire and police stations, and roadways providing sole egress from flood-prone areas)</i></li> <li>● <i>Are likely to contain occupants who may not be sufficiently mobile to avoid loss of life or injury during flood or storm events, e.g., persons who reside in hospitals, nursing homes, convalescent homes, intermediate care facilities, board and care facilities, and retirement service centers; housing for independent living for the elderly is not considered a critical action</i></li> </ul> <p>Because no portion of the project meets any of the above criteria the project is not considered a critical action:</p> <hr/>
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		<p><b><i>How FFRMS was determined:</i></b>  <i>The FFRMS is determined by utilizing a tiered approach:</i></p> <ul style="list-style-type: none"> <li>● <i>Climate-Informed Science Approach (CISA) - Preferred Method</i></li> <li>● <i>0.2-Percent-Annual Chance Floodplain Approach (0.2PFA)</i></li> <li>● <i>Freeboard Value Approach (FVA)</i></li> </ul> <p><u><i>Climate-Informed Science Approach (CISA)</i></u></p> <ul style="list-style-type: none"> <li>● <i>Federal CISA data must be equal to or greater than base flood elevation (BFE) to be used.</i></li> </ul> <p>According to the Federal Flood Standard Support Tool (FFSST), there is no CISA data available for the project areas. As such, <u>this approach could not provide a determination as to whether the project was in the FFRMS floodplain.</u> The next tiered approach, 0.2PFA (500-year floodplain method), was therefore considered.</p> <p><u><i>FEMA 0.2PFA (500-year floodplain)</i></u></p> <ul style="list-style-type: none"> <li>● <i>FEMA maps must show a 500-year floodplain in order to be used</i></li> <li>● <i>Critical Actions require both the 0.2PFA and the Freeboard Value Approach (FVA) be used to determine which elevation is higher, the 0.2PFA or FVA.</i></li> </ul> <p>According to FEMA floodplain map #48051C935M (Effective Date 1/16/17), #48201C0955M (Effective Date 1/6/17), portions of the project are located in Zone X (Area of Minimal Flood Hazard), Zone AE (100-Year Floodplain), the 500-year floodplain and the Floodway. Since the 500-year floodplain is shown on the floodmaps, this method can be utilized to determine the FFRMS floodplain. Since Zone X is not considered a FFRMS floodplain, no further action is required for this portion of the project.</p>
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Since the 100-Year Floodplain, 500-Year Floodplain and Floodway are all considered FFRMS floodplains, **the 8-step process is required.**

100-Year Floodplain

- Area of Disturbance: 0.90 acres

500-Year Floodplain

- Area of Disturbance: 1.94 acres

Floodway

- Area of Disturbance: 0.29 acres  
(Note: work will occur on a bridge which is elevated above the floodway)

In order to ensure that all appropriate FEMA floodplain data was considered and the most stringent data source was used for the comparable flood data, all available effective, preliminary and pending FIRMS were reviewed:

- Effective Maps - 987
- Preliminary Maps - 0
- Pending Maps - 0

Upon completion of this review, it was determined that there was no additional data which would change the FFRMS determination.

Allowable Activities in the Floodway

Under 24 CFR 55.1(c)(1), no HUD financial assistance may be approved concerning any action located in a floodway other than a functionally dependent use project or floodplain function restoration activity, or unless an exception in section § 55.12(c) excludes the action from Part 55 compliance. There is also a strict prohibition on using federal funds for any critical action located in a floodway or coastal high-hazard area [§55.2(b)(3)(ii)].

		<p>The regulations at § 55.2(b)(6) defines a functionally dependent use as a land use project that must be constructed in close proximity to water(e.g., dams, marinas, port facilities, waterfront parks, culverts, outfalls, and bridges). Floodplain function restoration activities include restoring and preserving the natural and beneficial functions and values of floodplains by clearing out all physical improvements and restoring the area to its natural state.</p> <p>Several activities listed in § 55.12(c) include floodplain restoration with an associated permanent covenant, sites where FEMA has issued a final Letter of Map Revision or final Letter of Map Amendment, actions that are Categorically Excluded and Not Subject to 58.5, and sites where the “incidental floodplain exception” applies. If the project is a functionally dependent use or floodplain restoration activity that does not meet all requirements of § 55.12(c)(3), the 8-Step decision-making process is required.</p> <p>Housing and construction or repair of most linear infrastructure, such as road improvements, do not fit into the above categories and can present challenges to HUD-assisted projects with activities located in a floodway. For example, HUD will not fund the road replacement of a culvert project or the road approaches to a bridge project in the floodway. However, other non-HUD funds could be used for the associated road improvements.</p> <p><u>Based on the project description, the proposed activities are allowed in the floodway under 24 CFR 55.8(a)(1) as it is considered Functionally Dependent.</u></p>
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		<p><u>8-Step Process</u> The 8-step process was followed and alternatives were considered:</p> <ol style="list-style-type: none"><li>1. <b>Do work only outside the floodplains.</b> Completing the project without disturbing any floodplain is not possible. (Not Viable)</li><li>2. <b>Obtain a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR).</b> - It was determined that neither a LOMA nor a LOMR was likely nor practical for the project area. (Not Viable)</li><li>3. <b>Other infrastructure considered.</b> - After considering other potential projects in the County, it was determined that of the eligible projects, this project was of the highest priority. (Not Viable)</li><li>4. <b>No Action or Alternative Actions that Serve the Same Purpose.</b> - The current streets and storm drainage system in the project area are inadequate and must be addressed to prevent public health hazards. (Not Viable)</li></ol> <p>No comments were received.</p> <p>It was determined that there are no practical alternatives to the project as proposed.</p>
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		<p>To minimize any potential negative impacts to the floodplain, the following mitigation will be undertaken:</p> <ol style="list-style-type: none"><li>1. Preserving Property: Project designs should, to the best extent possible, incorporate measures to reduce the risk of damage to the new infrastructure via a flood.</li><li>2. Preserving Natural Values and Minimizing Impacts: After construction is completed, the disturbed area will need to be immediately re-vegetated with native grasses. Only native plants are to be used in the floodplain, and on the site.</li><li>3. Deposition and excavation of materials will need to be performed in such a manner that erosion and sedimentation will be controlled.</li><li>4. Precautions will need to be taken in the handling of fuels or other hazardous materials to prevent discharge or spillage resulting in lower groundwater quality.</li><li>5. Erosion control measures such as hay bales or silt screen barriers will need to be implemented and maintained during construction as required.</li><li>6. The project engineer will need to incorporate best management practices into the specifications and plans.</li></ol> <p>No impact/effect anticipated and review is in compliance with Executive Order 11988, particularly section 2(a); 24 CFR Part 55. (See Floodplain Management)</p>
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<p><b>Historic Preservation</b></p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes    No  X    <input type="checkbox"/></p>	<p>According to the Texas Historical Commission:</p> <p><b>Above-Ground Resources</b>  A portion of the project will occur adjacent to Robert E. Lee High School, which was designated as a Recorded Texas Historical Landmark in 2011 and is eligible for listing in the National Register of Historic Places for its architecture. The Division of Architecture review staff concurs that this undertaking constitutes “no adverse effect” to above-ground resources under CFR Part 800: Protection of Historic Properties.</p> <p><b>Archeology Comments</b>  The THC Archeology Division review concurs that a mechanical scraping survey be conducted adjacent to the Hill of Rest cemetery’s boundary within the current Area of Potential Effect (APE). However, instead of conducting the mechanical scraping, monitoring the site during the construction phase has been proposed as an alternative.</p> <hr/> <p><u><b>Antiquities Permit</b></u>  The Texas Historical Commission approved Archeology Permit #32575 on October 16, 2025, granting the City of Baytown (Permittee and Sponsor) <u>authorization for Archeological Monitoring</u> of the Market Street Improvements project in Harris County, Texas, to be carried out by Principal Investigator Kenneth Gergely of Stantec over a five-year period expiring on October 16, 2030.</p> <p>This monitoring permit requires a professional archeologist to be on-site to observe construction activities for potential cultural resource damage and report findings to the Commission.</p>
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All resulting artifacts and data remain the property of the State of Texas and will be permanently curated at the Center for Archaeological Studies, and the Principal Investigator is responsible for preparing a final, thorough technical report for Commission review and approval

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Tribes

According to the HUD Tribal Directory Assessment Tool, there are six (6) tribes with an interest in the County.

Comment letters were sent out on May 16, 2025. No comments were received.

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Mitigation

Project will be constructed under THC permit #32575.

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Finding

Based on the aforementioned consultations, the City of Baytown concluded that there will be no impacts on Historical Resources as proper mitigation will be followed.

No impact/effect is anticipated and review is in compliance with the National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800.

(See Historical Preservation)

<p><b>Noise Abatement and Control</b></p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to the HUD Checklist on Noise, because the project does not involve a noise-sensitive use such as a residential structure, school, hospital, nursing home, library, etc, there will be no impacts to noise abatement and control.</p> <p>During construction, noise may increase which could bother local residents. Negative impacts are expected to be minimal as all work will be performed during working hours.</p> <p>No impact/effect anticipated and review is in compliance with the Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B. (See Noise Abatement and Control)</p>
<p><b>Sole Source Aquifers</b></p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to the EPA Sole Source Aquifer Map, the project is not near a sole source aquifer.</p> <p>No impact/effect anticipated and review is in compliance with the Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149.</p> <p>(See Sole Source Aquifers)</p>

<p><b>Wetlands Protection</b></p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes    No  X      <input type="checkbox"/></p>	<p><u>Waters of the US (WOTUS) Delineation and Habitat Assessment Report</u></p> <p>Waters of the US (WOTUS) Delineation and Habitat Assessment Report for the project area, the following was concluded:</p> <p>CMEC conducted a wetlands/waters of the U.S. delineation concurrently with a threatened and endangered species habitat assessment on the approximately 33.34-acre Market Street Corridor Study project area in Harris County, Texas, on February 8, 2021.</p> <p>Three aquatic features were identified during the field investigation. Two aquatic features were preliminarily categorized as perennial streams (PS01 &amp; PS02). TW01 was categorized as a category (a)(2) water which are tributaries of a category (a)(1) waters (territorial seas and traditional navigable waters). PS01, PS02, and TW01 exhibit direct downstream flow and connection to a traditional navigable water, the Gulf of Mexico. Based on the continuous surface connection to a traditional navigable water, these three aquatic features would best be described as category (a)(2) waters, which are tributaries of category (a)(1) waters (territorial seas and traditional navigable waters).</p> <p><u>It is Cox McLain Environmental Consulting's (CMEC's) professional opinion that due to these three aquatic features exhibiting a continuous surface connection to a traditional navigable water, the USACE with its Section 404 permitting and Section 10 authority would likely assert jurisdiction over these features.</u></p>
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		<p>An approximate total of 0.38 acres of preliminarily assessed jurisdictional waters of the U.S. were identified within the proposed project area. <u>No other waters of the U.S., including wetlands, were identified within the project area.</u></p> <p>The preliminary design for the proposed roadway improvements is currently not available; therefore, an assessment of potential impacts to the identified potential waters of the U.S. cannot be provided at this time.</p> <p>Should there be anticipated fill impacts to the identified potential waters of the U.S., the impacts would likely be considered for authorization by the USACE through Nationwide Permit 14, Linear Transportation Projects. Fill activities of 0.1 acre or less for each individual waterbody crossing typically do not require preconstruction notification to the USACE unless there is a discharge into a special aquatic site. Discharges exceeding 0.1 acre up to 0.5 acre would require pre-construction notification. Impacts exceeding 0.5 acre at one or more of the identified waterbodies would be expected to require the preparation and evaluation of a standard (i.e., individual) Department of the Army permit application. When preliminary design plans for the proposed roadway improvements are available, an appropriate permitting strategy can be developed and recommended at that time</p> <hr/>
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		<p>USACE</p> <p>A Jurisdiction determination request was submitted to the United States Army Corp of Engineers (USACE) on June 17,2022. The following was determined:</p> <p>We have determined that the subject site contains the following aquatic resources subject to our jurisdiction:</p> <ol style="list-style-type: none"><li>1. Crossing 1 (0.02 ac, 95 LF) is a non-tidal unnamed tributary to Goose Creek,subject to Section 404 CWA.</li><li>2. Crossing 2 (0.31 ac, 137LF) is Goose Creek, a tidally influenced perennial stream subject to Section 10 of RHA and Section 404 CWA.</li><li>3. Crossing 3 (0.06 ac, 134 LF) is a tidally influence unnamed tributary to Goose Creek subject to Section 10 of RHA and Section 404 CWA.</li></ol> <p><u>The discharge of dredged and/or fill material into these features does require a Department of the Army permit, prior to any discharge.</u> This approved jurisdictional determination is valid for 5 years from the date of this letter unless new information warrants a revision of the determination prior to the expiration date.</p> <p><u>Summary:</u> Since no wetlands were identified in the project area, <u>the 8-Step Process is not required.</u> However, the following mitigation will be required for the identified WOTUS:</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"><li>• Should there be any discharge of dredged and/or fill material into WOTUS, a USACE Army will be obtained prior to any discharge.</li></ul>
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		<p>No impact/effect is anticipated and review is in compliance with Executive Order 11990, particularly sections 2 and 5. (See Wetlands Protection)</p>
<p><b>Wild and Scenic Rivers</b></p> <p>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to the Texas Wild and Scenic and Inventory Rivers map, the project is not within a one (1) mile proximity of a designated Wild, Scenic River; Study River or a river segment that potentially qualifies as a national wild, scenic or recreational river area.</p> <p>No impact/effect is anticipated and review is in compliance with the Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c). (See Wild and Scenic Rivers)</p>

**Environmental Assessment Factors** [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

**Impact Codes:** Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>LAND DEVELOPMENT</b>		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	<p>Review of Google Maps and onsite photos indicated that the project is in conformance with local development plans and no special permit or change in zoning will be required as the project involves street and drainage improvements which are already in conformance with local plans. All work will occur within existing ROW or easements.</p> <p>The project is in compliance with surrounding land uses and there will be no change in land use.</p> <p>The project does not constitute an activity that would contribute to urban sprawl.</p> <p>There will be no long-term impact of the project on the visual character of its surroundings and ultimately, on the residents, users and/or visitors of the project.</p>

<p>Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff</p>	<p>3</p>	<p>According to the National Seismic Hazard map, the project area is in a low-hazard area.</p> <p>The project will not be affected by a high water table as construction activities will occur well above the water line.</p> <p>No unusual soil conditions were identified during an onsite review of the project area and there was no visible evidence of soil problems or filled ground.</p> <p>Phase I and Phase II ESA soil studies have been conducted. However, the project engineer has determined that the soil is suitable for the project and unsuitable soil conditions are not expected to affect the project.</p> <p>The project will occur within residential areas of the City within existing ROW and will not change any land uses. Therefore, the project will not significantly affect soils that may be better suited for natural resource management activities such as farming, forestry, unique natural area preservation, etc.</p> <p>Onsite observations and review of on-site photos revealed that the project area is relatively flat.</p> <p>There was no visual indication of previous slides or slumps in the project area, such as tilted trees or fences, that would affect this project. Therefore the project will significantly affect or be affected by slope conditions.</p> <p>Onsite observations and review of on-site photos revealed some evidence of erosion and/or sedimentation in some project areas.</p> <p>Because the project may involve site clearance, the removal of soil and some native grasses, which could contribute to soil erosion, will likely occur.</p> <p>No erosion or sedimentation is expected to result from this project and erosion controls will be installed.</p>
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		<p>Based upon on-site observation, there was no indication of cross-lot runoff, swales or drainage flows. There were also no indications of filled ground, active rills or gullies at the sites.</p> <p>The project involves improving street and drainage infrastructure and will have a positive impact on stormwater disposal and treatment by improving the conveyance of stormwater in the area.</p> <p>There is public storm sewer available in the project area and streets, bar ditches and culverts are also utilized to control stormwater runoff.</p> <p>The project itself will not cause or substantially contribute to off-site pollution by stormwater run-off, leaching of chemicals, or other pollutants nor will it significantly affect or be affected by drainage and stormwater conditions as standard BMP's will be utilized.</p> <p>As a result of this project, localized flooding in the project area will be reduced.</p>
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<p>Hazards and Nuisances including Site Safety and Noise</p>	<p>3</p>	<p>On-site observations, review of onsite photos and aerial photos revealed that the project will not be affected by natural hazards, but will be affected by man-made hazards during construction: (Dangerous Street and Above and Below Ground Utilities).</p> <p>No unusual conditions were found at the site and review of state and federal hazmat databases indicated that the site has not been used as a dump, sanitary landfill or mine waste disposal area.</p> <p>There was no indication of contaminated soil or, fill/vent pipes, pipelines and there are no air pollution generators which would adversely affect the site.</p> <p>Drainage structures were identified in the project area which is anticipated since the project involves storm drainage improvements.</p> <p>The project will not be affected by any nuisances as it involves improving existing infrastructure which has been in existence for years and do not constitute a place where people will live, study or work.</p> <p>The project itself is not a noise-generating facility in a noise-sensitive area. Therefore, no such facility will be affected by this project.</p> <p>During construction, noise levels will be temporarily increased which could disturb residents in the area.</p> <p>Potential negative impacts will be reduced as traffic controls will be included in construction documents, state-mandated dig tests will be performed as necessary and construction will occur during working hours. In addition, appropriate mitigation to address the contaminants identified in the Phase II ESA will be incorporated into construction contracts.</p>
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Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>SOCIOECONOMIC</b>		
Employment and Income Patterns	1	<p>The project will result in no changes in employment and income patterns, will not significantly increase or decrease employment opportunities and will create conditions favorable to commercial, industrial or institutional operation or development by helping to improve a large street and reduce localized flooding in the community.</p>
Demographic Character Changes, Displacement	2	<p>After reviewing project area photos, it was concluded that the project will not have a measurable effect on the demographic character of the area, will not severely alter residential, commercial or industrial uses and will not destroy or harm any community institution, such as a church.</p> <p>The proposed will not cause the relocation or displacement of any residence or business or adversely affect planned development, businesses, residences, or neighborhoods near the project area.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>COMMUNITY FACILITIES AND SERVICES</b>		
Educational and Cultural Facilities	3	<p>Based upon review of on-site and aerial photos, the project serves and will impact five (5) school facilities located adjacent to and within ½ mile of the project area.</p> <p>The project does not involve a housing development, but will serve six places of worship. Therefore, adequate access to cultural facilities, as it pertains to housing, does not apply.</p> <p>During construction, vital utilities such as power, internet and water could be damaged which could disrupt school and cultural facility activities. In addition, school and cultural facility traffic detours may occur and people could enter the construction area and get injured.</p> <p>To minimize these potential negative impacts, state-mandated dig tests will be conducted as necessary and traffic controls and site safety will be included in construction contracts.</p> <p>As a result of the project, localized flooding is anticipated to be reduced during high rains which will help ensure school and cultural facility traffic can safely continue during these periods.</p>
Commercial Facilities	3	<p>The project will directly affect and be affected by commercial facilities and, according to Google Maps, the project area is located in a commercial area of the city.</p> <p>During construction, vital utilities such as electric, water, sewer and internet could be damaged and therefore interrupt commercial operations. Since state-mandated dig tests will be performed as necessary prior to construction, the potential for such damage will be minimized.</p>

<p>Health Care and Social Services</p>	<p>2</p>	<p>Based upon review of onsite photos and Google Maps, the project will not directly affect or be affected by health care or social services facilities and there are no such facilities in the project area.</p> <p>Therefore, there will be no impacts to health care and social services facilities.</p>
<p>Solid Waste Disposal / Recycling</p>	<p>2</p>	<p>Based upon review of onsite photos and Google Maps, the project will not directly serve a solid waste facility and there are no such facilities in the project area.</p> <p>In addition, the project does not involve a housing or commercial development. Therefore, consideration of adequate solid waste disposal/recycling, as it pertains to these activities, does not apply.</p> <p>It is anticipated that waste associated with the project will be generated during construction. The contractor will be responsible for disposing of the waste in accordance to state laws, including those pertaining to hazardous materials.</p> <p>Due to the small amount of waste anticipated to be produced, existing landfill capacities in the area are expected to be adequate.</p>

<p>Waste Water / Sanitary Sewers</p>	<p>3</p>	<p>The project does not involve a housing or commercial development. Therefore, consideration of adequate sewer service, as it pertains to these activities, does not apply.</p> <p>During construction, existing sewer lines could be damaged, which could interrupt service and/or result in raw sewage spills which could pose a health risk to the community.</p> <p>Potential negative impacts to sewer facilities will be reduced as required dig tests will be conducted as necessary.</p> <p>As a result of this project, localized flooding will be reduced which could reduce infiltration/inflow into the wastewater system and/or raw sewage spills which could result in inefficient/effective treatment of sewage as well as a health hazard to the community.</p>
<p>Water Supply</p>	<p>3</p>	<p>The project does not involve a housing or commercial development and will not directly serve a public safety facility. Therefore, water supply, as it pertains to these activities, does not apply.</p> <p>During construction, existing water lines could be damaged, which could interrupt service which could pose a health risk to the community.</p> <p>Potential negative impacts to water facilities will be reduced as required dig tests will be conducted as necessary.</p> <p>As a result of this project, localized flooding will be reduced which could reduce infiltration into the water system which could contaminate the water supply and present a health hazard to water customers.</p>

Public Safety - Police, Fire and Emergency Medical	3	<p>The project does not involve a housing or commercial development and will not directly serve a public safety facility. Therefore, adequate police, fire and emergency medical access, as it pertains to these activities, does not apply. Review of onsite-photos and Google Maps indicated that no public safety facilities are located near the project area.\</p> <p>As a result of this project, localized flooding will be reduced which will help ensure emergency vehicles can safely move in the area during periods of high rain.</p>
Parks, Open Space and Recreation	2	<p>The project does not involve a housing development. Therefore, adequate access to parks, open space and recreation, as it pertains to housing, does not apply.</p> <p>According to on-site inspection, Google Maps and review of project area photographs, Bicentennial Park is located near the project area.</p> <p>In addition, traffic detours may occur and visitors could enter the construction area and get injured. To minimize these potential negative impacts, state-mandated dig tests will be conducted as necessary and traffic controls and site safety will be included in construction contracts.</p> <p>No impacts anticipated.</p>
Transportation and Accessibility	3	<p>The project does not involve a housing or commercial development. Therefore, adequate access to transportation facilities and parking, as it pertains to these activities, does not apply.</p> <p>During construction, road detours may occur which could disrupt vehicular movement. Because traffic controls will be incorporated into construction contracts, any impacts are expected to be minimal.</p> <p>As a result of the project, localized flooding is anticipated to be reduced during high rains which will help ensure vehicle movement can continue during these periods.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>NATURAL FEATURES</b>		
Unique Natural Features, Water Resources	2	<p>Review of Google Maps and onsite photos indicated that there are no natural features (bluffs or cliffs) or public or private scenic areas near the project site.</p> <p>According to the EPA Sole Source Aquifer Map, the project is not near a sole source aquifer.</p>
Vegetation, Wildlife	3	<p>The project will not create problems by introducing nuisance or non-indigenous species of vegetation that may be ecologically disruptive, be invasive, threaten survival of indigenous plant habitats, or disrupt agricultural or silvicultural activities as only native plants will be used.</p> <p>The project will not damage or destroy existing remnant or endemic plant communities, especially those containing nationally, regionally or locally rare species (e.g., prairie grasslands, ice-age disjuncts, local soil-type endemics, etc.) as none exist in the project area.</p> <p>The project will not damage or destroy plant species that are legally protected by state or local ordinances as none exist in the project area.</p> <p>There is a potential the project will damage or destroy trees in the project area as construction activities may include removing branches and or trees within the project area. However, impacts are expected to be minimal as few trees appear to be in the anticipated construction zone and appropriate mitigation will be in place.</p> <p>The project will create special hazards for animal life as ground soil, native grasses and small trees which serve as habitat for some species, may be removed during construction. However, the disturbance is expected to be minimal and most affected animal life should be able to relocate on adjacent properties.</p>

		<p>The project will not impact migratory birds as appropriate mitigation will be incorporated into the project.</p> <p>The project site does not host species that are monitored or listed by local, state, tribal or the federal government.</p> <p>The project will not damage or destroy existing wildlife habitats (e.g., removal or blockage of wildlife corridors, such as a riparian buffer) as none exist in the project area.</p> <p>The project will not include excessive grading that will alter the groundwater level and thus cause death of trees and ground cover which in turn diminishes animal habitat as no such grading is included in this project.</p> <p>The project will not damage game fish habitat or spawning grounds as none exist in the project area.</p> <p>During construction, storm drainage in the project area could be disrupted. However, any disruption is expected to be minimal as drainage controls will be incorporated into the construction contract where needed.</p> <p>The project will not create conditions favorable to the proliferation of pest species as it is anticipated that only native plants/soils will be utilized in the project as native grasses and landscaping will be utilized.</p> <p>The project will not create conditions (e.g., generate excessive noise or introduce pesticide usage) that could harm or harass wildlife species that are nationally, regionally or locally rare or protected by state or local ordinance as none exist in the project area.</p>
Other Factors	2	None Identified.

**Field Inspection** (Date and completed by):  
4/24/25 - Jordan Oxsheet - Public Management, Inc.

**Additional Studies Performed:**

- Phase I Environmental Site Assessment - June 2021
- Phase II Environmental Site Assessment - August 2021
- Waters of the US Delineation and Habitat Assessment Report - May 2021
- Market Street Improvement Project Threatened & Endangered Species Habitat Assessment Memo - September 2025

**List of Sources, Agencies and Persons Consulted** [40 CFR 1508.9(b)]:

Sources:

- US Census
- Google Maps
- Aerial Photos
- Onsite Observation
- NPIAS Website
- Map of U.S. Military Bases
- General Land Office Coastal Barrier Map
- FEMA Community Status Book Report
- NEPA Assist
- Closed and Abandoned Landfills - Regional COG
- TCEQ - CQR
- General Land Office Coastal Zone Map
- USFWS IPAC Report and Official Species List
- TPWD County Species List
- Federal Flood Standard Support Tool
- FEMA floodplain map
- HUD Tribal Directory
- EPA Sole Source Aquifer Map
- USFWS Wetland Mapper
- Texas Wild and Scenic and Inventory Maps
- National Seismic Hazard Map

**Agencies:**

- General Land Office - 5/20/25
- Texas Parks and Wildlife - 9/16/25
- USFWS - 4/14/21
- Texas Historical Commission - 4/26/21
- Alabama-Coushatta Tribe of Texas - 5/16/25
- Comanche Nation, Oklahoma - 5/16/25
- Apache Tribe of Oklahoma - 5/16/25
- Coushatta Tribe of Louisiana - 5/16/25
- Tonkawa Tribe of Indians of Oklahoma - 5/16/25
- Wichita and Affiliated Tribes - (Wichita, Keechi, Waco & Tawakonie), Oklahoma - 5/16/25
- USACE - June 17, 2022

**List of Permits Obtained: Antiquities Permit**

**Public Outreach [24 CFR 50.23 & 58.43]:**

**The public was given the following opportunities to comment:**

- During Application Process
- During 8-Step Process
- During FONSI comment period

**Cumulative Impact Analysis [24 CFR 58.32]:**

**Project Size and Beneficiaries**

The total area of disturbance will be approximately 30 acres and will impact 5,630 persons. Of these persons, 4,210, or 74.78%, are of low to moderate income.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

### **BUILD**

1. **Install different sized pipe and/or install additional pipes.** - The project engineer has determined that the pipe size and quantity called for in the proposed project are adequate. However, it is possible both the pipe size and quantity could change. (Not Viable)
2. **Other infrastructure considered.** - After considering other potential projects in the City, it was determined that of the eligible projects, this project was of the highest priority. (Not Viable)
3. **No Action or Alternative Actions that Serve the Same Purpose.** - Portions of the current street and storm drainage system are inadequate for the area and must be addressed to prevent public health hazards. (Not Viable)

### **BUILD/PROPOSED**

4. **Construct the project as proposed.** The City has determined that the project, as proposed, is the best solution to the street and storm drainage issues as adequate funding is in place and engineering plans and environmental studies are underway. (viable)

**No Action Alternative** [24 CFR 58.40(e)]:

5. **A no-action alternative was considered.** Portions of the roadway and storm drainage system are currently not functioning properly and/or are inadequate which could pose a health hazard to the community if not addressed. (Not Viable)

### **Summary of Findings and Conclusions:**

#### **Resource Study Area**

Based on a review of the performance statement in the grant contract with GLO, the relevant resource study area (RSA) is the City of Baytown and the area served by the roadway and storm drainage system to be improved with this project.

#### **The Context**

The City of Baytown suffered severe impacts from the 2019 disasters, which resulted in floodwaters overwhelming the existing drainage systems and posing a threat to public health, safety, and welfare. To address these issues and prevent similar future occurrences, the City has proposed a project to improve its infrastructure. This project focuses on repairing and strengthening the existing drainage and street systems and making targeted enhancements to streets and drainage. These improvements aim to reduce the risk of disaster-related loss of life, suffering, injury, and damage to property.

With the aid of federal grant funds, the City has been able to upgrade other infrastructure in the City. In addition, planning studies have been commissioned which will help the City better allocate their funds for such projects.

### **Cumulative Effects**

Cumulative Effects are defined as environmental effects that are greater in magnitude, extent, or duration than the direct and indirect effects of a proposed action when combined with the effects of other current and future actions, regardless of the proponent.

Using a trends method to analyze the cumulative effects on the resources over time along with consultation with federal, state authorities, the City and the project engineer, the effect or cumulative stresses were determined for the RSA.

As part of this analysis, the following other projects within the same geographic scope were considered:

- Baytown - West Baytown Drainage Improvements

Other cumulative impacts which were considered include:

- **Reduced Ongoing Maintenance:** Improved drainage may lead to less street damage from flooding, potentially reducing long-term street maintenance costs.
- **Decreased Contamination Risk:** Better drainage could lessen the risk of water and wastewater contamination due to floodwaters mixing with sewage or other pollutants.
- **Potential for Increased Property Values:** Reduced flooding could make the area more desirable, potentially leading to increased property values.
- **Community Growth:** The increased protection from flooding may attract new residents and businesses to the area.
- **Short-term Construction Impacts:** There may be temporary negative impacts during construction, such as traffic disruptions, utility damage, and noise.

No other cumulative impacts are expected to occur from the Proposed Action in combination with actions occurring near the project area.

### **Foreseeable Actions**

It has been determined that addressing the storm drainage in the project area will occur.

### **Conclusion**

The conclusion of this environmental review is that the project will not result in a significant impact on the quality of the human environment, leading to a Finding of No Significant Impact (FONSI). This determination is based on the environmental assessment, consultation with relevant agencies, and consideration of potential impacts and mitigation measures. As stated, while some minor adverse impacts are possible, they can be mitigated, and the project as proposed is the best solution to address the inadequate storm drainage system and damaged roadways, which pose a health risk to residents.

**Mitigation Measures and Conditions [40 CFR 1505.2(c)]**

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

<b>Law, Authority, or Factor</b>	<b>Mitigation Measure</b>
Contamination and Toxic Substances	<ul style="list-style-type: none"><li>• Qualified personnel should monitor conditions near this release and implement appropriate safety precautions such as worker PPE or explosive vapor monitoring as necessary.</li></ul>
Endangered Species	<ul style="list-style-type: none"><li>• Reevaluation of the Federal List of Species Prior to the start of construction, the City will reevaluate the most current Federal List of Species to determine whether the Tricolored Bat (TCB) has become a listed species. If the TCB is listed at that time, the City will initiate U.S. Fish and Wildlife Service (USFWS) consultation and implement any required mitigation measures.</li><li>• Pre-Construction Visual Inspection A visual inspection of the underpass area described in the Species Survey will be conducted closer to the start of construction to confirm presence or probable absence of the Tricolored Bat (TCB).</li><li>• Applicability of AST Guidance and Water Resources/Aquatic Species Measures Not all of the recommended measures provided in the AST Guidance and the Water Resources and Aquatic Species section are applicable to this project due to no activities being planned underneath the bridge.</li></ul>

Floodplain Management	<ul style="list-style-type: none"> <li>● Preserving Property: Project designs should, to the best extent possible, incorporate measures to reduce the risk of damage to the new infrastructure via a flood.</li> <li>● Preserving Natural Values and Minimizing Impacts: After construction is completed, the disturbed area will need to be immediately re-vegetated with native grasses. Only native plants are to be used in the floodplain, and on the site.</li> <li>● Deposition and excavation of materials will need to be performed in such a manner that erosion and sedimentation will be controlled.</li> <li>● Precautions will need to be taken in the handling of fuels or other hazardous materials to prevent discharge or spillage resulting in lower groundwater quality.</li> <li>● Erosion control measures such as hay bales or silt screen barriers will need to be implemented and maintained during construction as required.</li> <li>● The project engineer will need to incorporate best management practices into the specifications and plans.</li> </ul>
Historic Preservation	<ul style="list-style-type: none"> <li>● Project must be constructed under THC permit #32575.</li> </ul>
Wetlands Protection	<ul style="list-style-type: none"> <li>● Should there be any discharge of dredged and/or fill material into WOTUS, a USACE Army will need be obtained prior to any discharge.</li> </ul>

**The Mayor and Staff will ensure that this plan, as modified and described above, is executed and necessary language will be included in all agreements with participating parties. These parties will also take an active role in monitoring the construction process to ensure no unnecessary impacts occur nor unnecessary risks are taken.**

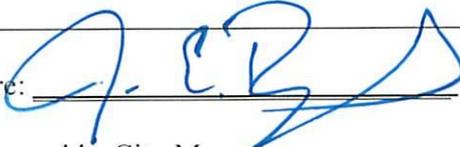
**Determination:**

**Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]  
The project will not result in a significant impact on the quality of the human environment.

**Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]  
The project may significantly affect the quality of the human environment.

Preparer Signature:  Date: 1/5/2026

Name/Title/Organization: Todd Cave, Cave Consulting, Inc.

Certifying Officer Signature:  Date: 1-7-2026

Name/Title: Jason E. Reynolds, City Manager

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).