



P.O. Box 13231, 1700 N. Congress Ave.
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Phone (512) 463-7847, Fax (512) 475-2053

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED AGENCIES AND PUBLIC GROUPS:

As required by the rules of the Texas Water Development Board (TWDB), 31 Texas Administrative Code (TAC) § 375.61, an environmental review consistent with the National Environmental Policy Act (NEPA), 42 United States Code § 4321 *et seq.*, has been performed on the project below. This project is proposed to be funded through the Clean Water State Revolving Fund (CWSRF) Program, which is administered by the TWDB.

City of Arlington, Tarrant County, Texas
TWDB CWSRF Project No. 73960
Kee Branch and Shadow Drive Collection System Improvements
Shadow Drive Sanitary Sewer Main Replacement
Total Financing Amount: \$16,585,000
Loan No. L1001934

The City of Arlington (City) is proposing to use \$16,585,000 in financing from the CWSRF Program for the Shadow Drive Sanitary Sewer Main Replacement Project to relocate two at-risk wastewater pipelines out of major waterways. The proposed construction would add one new lift station, approximately 11,000 linear feet (LF) of force main and 1,100 LF of new gravity sewer mains of various sizes.

This Finding of No Significant Impact (FONSI) corresponds to the Shadow Drive Sanitary Sewer Main Replacement project, which will relocate an at-risk wastewater pipeline with approximately 7,000 LF of new wastewater pipeline and force main and construct a new 2.94 million gallons per day (MGD) lift station. Because the funded project components are comprised of two separate water main replacements and system enhancements, the Kee Branch portion of the project will be completed under a separate environmental finding.

An environmental review of the project consistent with NEPA has been completed following the guidelines provided in 31 TAC § 375.61. This environmental review is documented by the enclosed Environmental Assessment, which contains mitigative environmental conditions that will be applied to the project to avoid significant adverse environmental impacts on waters of the United States, wetlands, floodplains, cultural and historical resources, threatened and endangered species, and protected migratory bird species. Based on a detailed environmental review of the planning information, the Environmental Information Document, and other documentation, the project is environmentally sound with the following special and standard environmental conditions:

Our Mission	:	Board Members
Leading the state's efforts	:	L'Oreal Stepney, P.E., Chairwoman Tonya R. Miller, Board Member
in ensuring a secure	:	
water future for Texas	:	Bryan McMath, Executive Administrator

Special Environmental Conditions

- Consistent with the Flood Insurance Reform Act of 2004, federal Executive Order 11988 as amended by EO 13690, Texas Water Code Section 16.315, and local floodplain development ordinances, a floodplain development permit will be obtained from the local floodplain administrator prior to construction in, across, or under a Special Flood Hazard Area, and any requirements contained therein will be adhered to.
- To avoid potential impacts to waters of the United States, including wetlands, waterline crossings of waterbodies, including two streams in the project area, will be performed by a trenchless method, and the project will be designed to avoid the wetland (USACE No. SWF-2025-00190).
- As per agreements with the Texas Parks and Wildlife Department (TPWD; Project No. 54667) and United States Fish and Wildlife Service (USFWS; Project Code 2025-0062402), to ensure compliance with Texas Parks and Wildlife Code, Chapters 12, 64, and 67 of the Endangered Species Act of 1973, as amended, the Migratory Bird Treaty Act, and applicable federal regulations pertaining to protected species including the tricolored bat (*Perimyotis subflavus*), the following measures will be implemented:
 - Vegetation clearing must be excluded during the general bird nesting season and tricolored bat pupping season, March 15 through September 15, to avoid adverse impacts to breeding birds and tricolored bats. If vegetation clearing during this time is unavoidable, the area proposed for disturbance will be surveyed by a qualified biologist to identify occupied nests and pupping habitat, not more than five days prior to clearing activities. If occupied nests or bat roosts or hibernacula are observed during surveys, a vegetation buffer area of no less than 100 feet in diameter will remain around the nest or roost until all young have fledged; however, the size of the buffer zone depends on various factors and can be coordinated with the local or regional USFWS office. State and federal regulations as currently interpreted do not permit incidental take.
 - The City of Arlington (City) will avoid the removal of trees that have hollows, as they provide suitable habitat for roosting bats such as the tricolored bat. Likewise, culverts will be inspected for bats prior disturbance. Total tree removal will be limited to 0.50 acres.
 - To avoid tricolored bat impacts, the project will be designed to utilize the minimum amount of nighttime light needed for safety and security for lighted structures. Lights will be focused downward with cutoff luminaries to avoid light emitting above the horizontal. Lighting will only be illuminated when needed, will only be as bright as needed, will be fully shielded, and will minimize blue light emissions. Nighttime construction will be avoided during the tricolored bat's active season in this region, March 15 through November 15.
 - The length of trenches left open at any given time during construction will be minimized. Trenching and backfilling activities will be kept close together in time. Trenches and excavation areas will be covered overnight and/or inspected every morning or if left open longer than two daylight hours to ensure no wildlife species have been trapped. If trenches cannot be backfilled the day of initial trenching, then escape ramps will be installed every 300 feet, in the form of short lateral trenches or wooden planks sloping to the surface at an angle of less than 45 degrees, at a ratio one horizontal foot for every one foot of depth.

- Contractors and construction crews will be provided with informational materials identifying protected species that may occur in the project area and instructing them on how to avoid impacts to wildlife that are encountered: If wildlife are encountered, the animals will be allowed to leave the area safely. Wildlife in danger from project activities that will not readily leave the site can be relocated to a nearby area with similar habitat. Any translocations of reptiles will occur within 100-200 yards from the initial encounter location. State-listed species will be handled only by persons with authorization obtained through the Texas Parks and Wildlife Department.
- For soil stabilization and revegetation, no-till drilling, hydromulching (avoiding plastic ingredients), and/or hydroseeding will be used rather than erosion control blankets or mats, which pose an entanglement hazard to wildlife. If erosion control blankets or mats cannot be avoided, products that contain no netting or loosely woven natural fiber netting will be used, avoiding any type of plastic netting.

Standard Environmental Conditions

- Consistent with the TWDB Supplemental Construction Contract Conditions (TWDB-0551), the City will abide by the standard emergency condition for the discovery of cultural resources.
- Consistent with the TWDB Supplemental Construction Contract Conditions (TWDB -0551), the City will abide by the standard emergency condition for the discovery of threatened and endangered species.

Therefore, it is recommended that a Finding of No Significant Impact be issued.

Documentation supporting this decision is on file in the office of the Regional Water Project Development, TWDB, and is available for public review upon request. Comments supporting or disagreeing with this preliminary environmental determination may be submitted to the Director, Regional Water Project Development, Texas Water Development Board, P.O. Box 13231, Austin, Texas 78711-3231 or via email at RWPD-Environmental@twdb.texas.gov. After evaluating the comments received, the Executive Administrator will make a final determination. However, no action regarding the provision of federal financial assistance for the project will be taken for at least thirty (30) calendar days after the release of this Finding of No Significant Impact.

Sincerely,

T. Clay Schultz, Ph.D., Director
Regional Water Project Development

Enclosure



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City of Arlington, Tarrant County, Texas
Clean Water State Revolving Fund Project No. 73960
Kee Branch and Shadow Drive Collection System Improvements
Shadow Drive Sanitary Sewer Main Replacement
Environmental Assessment

REVIEW PROCESS

As described below, Texas Water Development Board (TWDB) staff has performed a review consistent with the 31 Texas Administrative Code (TAC) § 375.61 and the National Environmental Policy Act (NEPA), 42 U.S. Code § 4321 *et seq.* Consistent with 31 TAC § 375.65, the Environmental Information Document (EID) ¹ for the Kee Branch and Shadow Drive Collection System Improvements Project, Shadow Drive Sanitary Sewer Main Replacement, proposed by the City of Arlington (City) was reviewed by TWDB staff for the development of this Environmental Assessment (EA). This project is financed through the Clean Water State Revolving Fund (CWSRF) Program, which is administered by the TWDB.

PURPOSE AND NEED

The City owns an existing 21-inch wastewater line that is located close to the West Fork Trinity River. It has become structurally compromised and is in danger of failure due to erosion from the river and subsequent undermining of the pipe. A pier section of the line was constructed to be intentionally exposed, but exposed piers appear to have settled, resulting in tilting. This segment of the wastewater line serves 5,253 Arlington residents and has an average dry daily flow of 0.52 million gallons per day (MGD).

The purpose of the proposed project is to replace a section of compromised 21-inch wastewater pipeline. The existing wastewater line has been impacted by erosion and undermining from the West Fork Trinity River. The project addresses the threat that the compromised section of existing wastewater line would fail.

PROJECT DESCRIPTION

The City is proposing to relocate two at-risk wastewater pipelines out of major waterways. The proposed construction would add one new lift station, approximately 11,000 linear feet (LF) of force main and 1,100 LF of new gravity sewer mains of various sizes. The proposed Shadow Drive Sanitary Sewer Main Replacement project would bypass a compromised section of

¹ City of Arlington (July 7, 2025). Environmental Information Document (EID) (TWDB Form 0801), Prepared by Freese and Nichols, Inc. Received by TWDB on June 16, 2025, The EID is complete with the supplementary materials submitted to the TWDB on July 7, 2025.

existing 21-inch wastewater pipeline by constructing a new wastewater line that avoids the West Fork Trinity River. The main design components of the proposed project include a new section of 21-inch wastewater pipeline, a new lift station, a new section of 6-inch wastewater pipeline, and a new 12-inch force main. The proposed lift station capacity is 2.94 MGD, which would handle the peak wet weather flow. Other-than-open-cut construction methods (e.g., boring, horizontal directional drilling) are proposed to be utilized at multiple locations during installation of new pipe segments to minimize impacts to residential areas, the existing roadway, and streams.

The proposed project is in northern Arlington, south of the West Fork Trinity River and Lake Viridian. It extends from Morgan Woodward Way to West Shadow Drive. The proposed project would bypass the compromised section of existing 21-inch wastewater line by constructing a new wastewater line that avoids the West Fork Trinity River. The bypass is proposed to begin near Morgan Woodward Way. A new 21-inch wastewater line would connect to the existing wastewater line and redirect the flow south to a proposed new lift station. The proposed lift station would be in City right-of-way approximately 0.3 miles north of the intersection of Green Oaks Boulevard and Ballpark Way. A new 6-inch-diameter sanitary wastewater line is proposed to tie into the proposed 21-inch wastewater line before reaching the new lift station. From the proposed lift station, a 12-inch-diameter force main is proposed to be constructed to connect the proposed lift station to West Shadow Drive. The 12-inch force main would exit the lift station and extend south to the intersection of Green Oaks Boulevard and Ballpark Way, then northeast to West Shadow Drive where it would tie back into the existing 21-inch wastewater pipeline. Construction staging areas will be located on Shadow Drive, Burney Place, and in Dizon W. Holman Park.

PROJECT FUNDING

To address these issues, the City applied to the TWDB for financing through the CWSRF Program for the planning, design, and construction, as well as to acquire land and easements. On October 17, 2025, the TWDB committed \$16,585,000 for the Kee Branch and Shadow Drive Collection System Improvements Project. The City closed the financing on February 25, 2025. Some of the planning funds were used to assess the potential environmental impact of the Shadow Drive Sanitary Sewer Main Replacement project and prepare an Environmental Information Document (EID). Preparation of the EID involved consultation with state and federal regulatory agencies and additional public participation.

The TWDB may not fund testing, remediation, removal, disposal, or related works for contaminated or potentially contaminated materials. However, the project proponent should ensure that, if found, such materials are tested, removed, and disposed of in accordance with applicable state and federal laws.

EVALUATION OF ALTERNATIVES

In addition to the Preferred Alternative, the City evaluated the No-Action Alternative and three additional alternatives. Each alternative was evaluated for its potential direct, secondary, and cumulative impacts on the existing environment.

No-Action Alternative

The No-Action Alternative would have less direct impacts to land use and habitat than the preferred alternative; however, with the No-Action Alternative, the existing 21-inch wastewater pipeline adjacent to West Fork Trinity will continue to deteriorate from corrosion and erosion. The wastewater pipe may continue to shift and would continue to be in danger of failure. Failure of the wastewater pipe could lead to sanitary sewer overflows, fish kills in the West Fork Trinity River, and pollutant loading in adjacent wetlands and the floodplain. The proposed project addresses the risk that the river poses to the existing wastewater pipeline.

The No-Action Alternative was rejected because the proposed project is needed to protect the City's wastewater infrastructure and the West Fork of The Trinity River from sewer failure.

Alternative Not Selected

The Alternative Not Selected is the "Sleepy Hollow Drive" alternative. This alternative would include the installation of a 4,825 LF 12-inch force main. Like the Preferred Alternative, this alternative also requires a lift station. The alternative force main alignment would be placed from the lift station southeast to the intersection of Shadow Ridge Drive and Sleepy Hollow Drive. The wastewater line would then extend east to Shadow Drive. From here, the wastewater line alignment would continue north in the right of way until the force main outfalls into a new polymer concrete drop sewer manhole. An additional 40 LF of 21-inch gravity sewer line would be needed to reconnect the new force main to an existing sanitary sewer manhole just north of Copper Ridge Road.

This alternative would maintain the same amount of flow as the existing sanitary sewer and would have a similar environmental impact to the Preferred Alternative. The Alternative Not Selected was rejected because it would be more expensive than the Preferred Alternative.

Alternative Not Selected No. 2

The Alternative Not Selected No. 2 is the "Forestwood Drive" alternative, a 7,500 LF 12-inch force main. Like the Preferred Alternative, this alternative also requires a lift station. The alternative force main alignment would be placed from the lift station south to the intersection of Green Oaks Boulevard and Ballpark Way. Unlike the Preferred Alternative, the Alternative Not Selected No. 2 alignment would extend beyond Shadow Drive, to Forestwood Drive. From the intersection of Forestwood Drive and Green Oaks Boulevard, the force main would reconnect to the existing gravity wastewater line on Shadow Drive.

This alternative would also require replacing about 1,050 LF of the existing 21-inch wastewater line with a 10-inch line via slip lining. The existing wastewater pipeline size is reduced because most of the flow would be redirected into the new force main and a smaller diameter pipe would be necessary to maintain a minimum velocity of about 2 feet per second.

Alternative Not Selected No. 2 would have a similar environmental impact to the Preferred Alternative. This alternative was rejected because it would be more expensive than the Preferred Alternative.

Alternative Not Selected No. 3

Alternative Not Selected No. 3, or the “Bank Stabilization” alternative, is based on the objective of protecting the proposed wastewater pipeline if it were to remain in place. The alternative consists of bank stabilization with stream training techniques through reinforced slope and toe protection with the following features: 1) 525 LF vertical rock toe to protect the bottom of the bank from lateral stream movement; 2) 835 square yards (SY) of bank reconstruction; 3) trees, shrubs, and live stakes placed along the floodplain bench; 4) terraced slopes to provide stabilization; 5) floodplain grading along the opposite bank to offset the bank reconstruction with the West Fork of the Trinity River; and 6) grading to result in no rise in water surface elevation.

The existing wastewater line would be removed and replaced with the same size pipe (21-inch diameter) in-line on the same grade while the exposed wastewater line would be reconstructed as an aerial crossing on piers with encasement to protect against future expected downcutting of an unnamed tributary. Significant bypass pumping of wastewater would be required during construction unless the existing wastewater pipeline could be installed parallel to the existing alignment to minimize bypass pumping needs.

Significant tree removal would be required during the construction of Alternative Not Selected No. 3. However, various species of trees, shrubs, and live stakes would be placed along the floodplain bench and terraced slopes post-construction to provide stabilization. Significantly less tree removal would be required for the Preferred Alternative.

Construction for this proposed alternative would occur in the floodplain and in potential wetlands. This alternative would also require compensatory storage, or floodplain grading, along the opposite bank to offset the bank reconstruction within the West Fork Trinity River. The Preferred Alternative would have less of an impact on the floodplain and has been designed to avoid all potential waters of the United States (WOTUS).

Effects to air quality may be greater for this alternative than the Preferred Alternative because this alternative would require more construction.

Alternative Not Selected No. 3 was rejected because it would be more expensive and would result in greater environmental impacts than the Preferred Alternative.

Preferred Alternative

The Preferred Alternative is described above under the Project Description. The purpose of the Preferred Alternative is to provide more reliable and sustainable wastewater infrastructure for the City, which the No-Action Alternative would not provide. The Preferred Alternative meets the City’s goals of providing a long-term solution to protect the wastewater infrastructure while managing costs and limiting impacts to the residential neighborhood.

ENVIRONMENTAL REVIEW

Consistent with the requirements of the federally funded CWSRF Program, the City defined the social and environmental contexts of the project and assessed its potential impact. This

information was presented in the EID and was made available to the community, regulatory agencies, and other interested parties.

Adverse effects on social and natural resources fall under the authority of various agencies. These regulatory agencies and participating area residents had the opportunity to address potential issues concerning construction practices, possible adverse effects within the project area, and the environmental conditions to be implemented during construction. The staff of the TWDB reviewed the EID, comments and other data and prepared the present EA.

AFFECTED ENVIRONMENT AND IMPACT ASSESSMENT

Existing Conditions

The proposed project would be constructed in the City of Arlington and would be serving 5,253 residents. The project is located in the eastern portion of Tarrant County between Fort Worth and Dallas. The project area is developed, and minimal growth is expected in this service area.

The project involves the construction of a lift station in an area that is currently undeveloped right-of-way (ROW) owned by the City. The lift station site is currently vegetated with mowed grass and is proposed to be located in City ROW north of the intersection of Ballpark Way and Northeast (NE) Green Oaks Boulevard. The proposed wastewater line alignment would be constructed in City ROW within a residential neighborhood on West Shadow Drive, on the six-lane roadway NE Green Oaks Blvd, and in an undeveloped area between residential neighborhoods north of the intersection of Ballpark Way and NE Green Oaks Boulevard. Minimal land use conversion is expected from the new wastewater pipeline alignment due to use of other-than open cut construction at multiple locations. Less than 0.50 acres of forest will be cleared and allowed to return to forest post-construction (not maintained). Approximately 0.33 acres of intermittently maintained grassland will be permanently converted to the lift station site.

Geology and Soils

The project is located within the Grand Prairie Physiographic Province of Texas, the eastern portion of which developed on limestones, where weathering and erosion have left thin, rocky soils.² Geologically, the project is underlain by the Woodbine Formation. The formation is comprised of sandstone, some clay, and shale. The upper part is mostly sandstone that is fine grained, with some shale. The middle part is also mostly sandstone that is fine grained, with some clayey sand. The lower part is interbedded sandstone and clay. The proposed project area is typical of the region and includes rolling hills that generally slope towards West Fork of the Trinity River. The hills on Shadow Drive are quite steep.

² Wermund, E.G. (1996). "Physiography of Texas." Bureau of Economic Geology, the University of Texas at Austin.

The project is not located in a karst or pseudo-karst zone. A 2020 research paper identified a *high confidence* fault in the project area.³ However, no direct impacts to geology are anticipated.

Those portions of the project footprint located on mapped soil units classified as Prime or Other Important Farmland (Bastil fine sandy loam, 0 to 3 percent slopes; Navo clay loam, 1 to 3 percent slopes) have already been developed as roadway ROW. The majority of soil disturbed during project construction would remain on site. If excess soil is moved offsite, it is proposed to be disposed of as non-hazardous waste at the Republic Services Arlington Landfill, in accordance with local, state, and federal regulations. Soil will not be contaminated as a result of the project.

Water Resources

The project is located in the United States Geological Survey (USGS) hydrologic unit Code (HUC) 06, Upper Trinity River Basin and the HUC-12 subwatershed, Johnson Creek – West Fork Trinity River. The source of the City's water supply is from surface water, Lake Arlington and Lake Worth. The project site is underlain by the Trinity major aquifer and Woodbine minor aquifer. There are no Environmental Protection Agency (EPA) designated sole source aquifers in the project area. This project would not increase the capacity of the District's water systems or permanently impact the availability or safety of the local water supply. The proposed project could potentially benefit surface water quality by reducing the potential for sanitary sewer overflows by addressing wastewater infrastructure deficiencies.

Temporary surface water runoff impacts are expected during construction. A Stormwater Pollution Prevention Plan (SWPPP) will be implemented by the contractor with erosion control best management practices (BMPs) in place prior to construction. The BMPs will act to minimize dust, sedimentation, erosion, and pollution to surface waters.

The project will not require an amendment to an existing TCEQ discharge permit and does not modify or add new discharge sites.

Topography and Floodplains

Elevation across the project area ranges from approximately 465 to 580 feet above mean sea level. The topography of the project area contains hills that generally slope toward the West Fork Trinity River. Hills on West Shadow Drive have a steep grade. The West Fork Trinity River is located north of the project site. Viridian Lake is located directly north of West Fork Trinity River. A pond is located directly southwest of the proposed lift station.

The project is partially located within the 100-year 500-year floodplains of the West Fork Trinity River. The City participates in the National Flood Insurance Program (NFIP).

³ Horne, E.A., Hennings, P.H., Osmond, J. L., DeShon, H. R. (2020). Structural characterization of potentially seismogenic faults in the Fort Worth Basin. *Interpretation*, 8 (2): T323–T347.
<https://doi.org/10.1190/INT-2019-0188.1>

The proposed project is not expected to have permanent adverse impacts to flood elevations. Surface modifications as part of the proposed project within the 100-year floodplain would be minor in relation to the entire floodplain and are not expected to result in significant impacts to flood valley storage. Preliminary coordination with the floodplain administrator (FPA) has begun, and during the detailed design phase, a floodplain development permit application will be submitted to the FPA to ensure the project is reviewed and authorized, as required.

Wetlands, Streams, and Waters of the United States

Environmental Scientists with Freese and Nichols, Inc. (FNI) conducted environmental pedestrian surveys on December 23, 2024, January 30, 2025, and March 13, 2025. Two streams and one wetland were identified in the project area north of Ballpark Way. Stream 1 is a mapped intermittent stream that flows north into the West Fork Trinity River. Stream 2 is an unmapped ephemeral stream that flows west from the project area. Both streams would be avoided using trenchless installation methods. Wetland 1 is an unmapped isolated wetland north of Ballpark Way. The project has been modified to avoid the wetland and will be 60 feet from the construction footprint. The proposed project will not directly affect the West Fork Trinity River. Therefore, the project will not adversely impact potential waters of the United States, including wetlands.

Biological Elements

The project area is located within the Environmental Protection Agency (EPA) Level III Cross Timbers Ecological Region. Environmental pedestrian surveys were conducted on December 23, 2024, January 30, 2025, and March 13, 2025. Potential habitat for the federally proposed endangered tricolored bat (*Perimyotis subflavus*) and federally proposed threatened monarch butterfly (*Danaus plexippus*) were identified. If these species are listed prior to or during construction, activities will cease, and the United States Fish and Wildlife Service (USFWS) will be consulted to assess for potential impacts. No habitat for currently listed threatened or endangered species was observed during the pedestrian survey. No designated critical habitat is located within the proposed project area.

The following three vegetation communities were identified within the project area: urban matrix, infrequently maintained grassland, and forest.

The urban matrix community was identified in the central and eastern portions along Northeast Green Oaks Boulevard and West Shadow Drive. These areas are comprised of asphalt and cement roadways with maintained grassy medians including Bermudagrass (*Cynodon dactylon*), dallisgrass (*Paspalum dilatatum*), and other grasses, along with groups of scattered, planted trees such as sugarberry (*Celtis laevigata*) and chaste tree (*Vitex agnus castus*).

The infrequently maintained grassland was identified within the dirt road and field in the western portion of the project area, north of Ballpark Way. The community consisted of mowed or overgrown grasses, forbs, and vines such as giant ragweed (*Ambrosia trifida*), Johnsongrass (*Sorghum halepense*), lemon bee balm (*Eryngium leavenworthii*), prairie tea (*Croton monanthogynus*), povertyweed (*Iva axillaris*), spreading hedge parsley (*Torilis arvensis*), red seed plantain (*Plantago rhodosperma*), Bermudagrass, Carolina vetch (*Vicia caroliniana*), tall

goldenrod (*Solidago altissima*), Spanish gold (*Grindelia papposa*), field brome (*Bromus japonicus*), common sunflower (*Helianthus annuus*), perennial ragweed (*Ambrosia psilostachya*), curly dock (*Rumex crispus*), and poison ivy (*Toxicodendron radicans*).

The forest community was identified in the western portion of the project area, north of Ballpark Way and within the riparian zone of the West Fork Trinity River. This community was dominated by trees including prairie sumac (*Rhus lanceolata*), honey mesquite (*Prosopis glandulosa*), eastern cottonwood (*Populus deltoides*), cedar elm (*Ulmus crassifolia*), American elm (*Ulmus americana*), live oak (*Quercus virginiana*), honey locust (*Gleditsia triacanthos*), Shumard's oak (*Quercus shumardii*), western soapberry (*Sapindus saponaria*), pecan (*Carya illinoensis*), eastern red cedar (*Juniperus virginiana*), gum bumelia (*Sideroxylon lanuginosum*), post oak (*Quercus stellata*), Hercules club (*Zanthoxylum clava-herculis*), callery pear (*Pyrus calleryana*), green ash (*Fraxinus pennsylvanica*), sugarberry, and Chinese privet (*Ligustrum sinense*). Other species identified included mustang grape (*Vitis mustangensis*), greenbriers (*Smilax spp.*), poison ivy, and inland wood oats (*Chasmanthium latifolium*). Other groundcover included encroachment from species identified in the infrequently maintained grassland community.

No state or national parks, forests, wildlife refuges, wild or scenic rivers, or natural areas or similar preserves are located within the project area. The proposed project will require temporary laydown areas along Burney Place, including temporary construction laydown areas within a portion of Dixon W. Holman Park. There would be no permanent surface or subsurface impacts to parkland. A private park is located beyond the northern terminus of a pipe laydown area at 3115 W Shadow Drive. No impacts are anticipated at this location. The River Legacy Parks trail system is located approximately 0.5-mile west of the project site and would not be affected.

Databases of state-listed and other protected species maintained by the Texas Parks and Wildlife Department (TPWD) were reviewed to verify any species that may occur in Tarrant County. While the proposed project is not anticipated to affect state or federally listed threatened or endangered species, the forest and grassland habitat in the project area may be suitable for 27 Species of Greatest Conservation Need (SGCN) that occur in Tarrant County. Special environmental conditions are incorporated into this finding to mitigate potential impacts to SGCN species in project design and construction. Trenching is proposed to be conducted in stages to minimize the time a trench remains open. The contractor will be informed of monitoring open trenches for trapped wildlife prior to backfilling to minimize the potential of harming wildlife. Plastic mesh matting or other erosion control mesh posing an entanglement hazard to wildlife will be avoided during construction activities. The proposed project will not involve the use of herbicides, pesticides, fungicides, insecticides, or rodenticides.

The two gravity sewer lines north of the lift station would be within the area described above as the forest community. Other-than-open-cut pipeline installation techniques will be utilized to minimize tree clearing to a maximum of 0.5 acres to prevent potential take of the tricolored bat and other sensitive species such as migratory birds and SGCN. Forest conversion resulting from pipeline construction is expected to be temporary: the clearings will not be maintained after project completion and are likely to become reforested over time. Within the project area, potential impacts to migratory birds may occur during disturbance of existing vegetation and bare ground that may contain active bird nests, including nests in grass, shrubs and trees and

on gravel pads, roads, and bare ground. Vegetation clearing, including of grasslands, will be avoided during bat pupping and migratory bird nesting season (March 15 to September 15). Approximately 0.33 acres of infrequently maintained grassland will be permanently converted to developed area to accommodate the lift station.

The majority of proposed sanitary sewer lines are within a previously disturbed residential and urban setting. This work will take place underneath paved roads and is not expected to have significant impact on natural vegetation or habitat.

Cultural Resources

An archaeological survey was prepared in November 2023 under Texas Antiquities Permit No. 31362⁴ for a portion of the project area. The survey report was reviewed by the THC staff pursuant to the Antiquities Code of Texas. Background research conducted in preparation for the survey indicated that the entire area of potential effect (APE) featured a low to moderate potential for containing archeological resources. There were no previously recorded significant or potentially significant sites within or adjacent to the project footprint, nor is the project within the protected area surrounding a historic cemetery, structure, or district. A pedestrian reconnaissance survey was conducted across the entire APE, along with an intensive survey. Due to the potential presence of deep soils along the terrace of the West Fork of Trinity Branch, the intensive archeological survey investigation included mechanical excavation to reach intact, native soils. No cultural deposits were documented within either of the backhoe trenches and no archeological sites were identified during the entirety of the survey. On December 18, 2023, THC staff concurred that no effect on archaeological sites, above-ground historic resources, or other cultural resources was anticipated as a result of the proposed project.

Following funding and project footprint and design changes, a Supplemental Cultural Resources Desktop Analysis Report was prepared on April 8, 2025, by Integrated Environmental Solutions, LLC (IES), and sent to the THC in accordance with Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas. The report concluded that, "As the project footprint has only minimally changed the [sic] since the THC's prior review, the methods implemented during the initial survey still comply with the Council of Texas Archeologist survey standards,...there is no potential for indirect impacts associated with project portions needing to comply with Section 106... [and] the project [should] be allowed to proceed without the need for any further cultural resources investigations." In a letter dated May 5, 2025, THC staff and the State Historic Preservation Officer (SHPO) concurred with the report's findings and that no historic properties were present or affected by the project as proposed.

Hazardous Materials

IES performed a Phase I Environmental Site Assessment for the project area in accordance

⁴ Birge, A., Chapman, T., Stone, K. (November 2023). Archeological Survey of the Shadow Drive Sanitary Sewer Line Relocation Project, City of Arlington, Tarrant County, Texas. Prepared by Integrated Environmental Solutions, LLC. for Freese and Nichols, Inc., on behalf of the City of Arlington. Texas Antiquities Permit No. 31362/THC No. 202402852.

with ASTM International E 1527-21 *Standard Practice for Environmental Assessments*.⁵ The analysis of the proposed project area found zero records that indicate environmental concern, and site reconnaissance observations did not indicate environmentally sensitive areas. Site reconnaissance indicated there was no presence or likely presence of any hazardous substances or petroleum products under conditions that indicate an existing significant release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water. Various types of litter and debris from surrounding roadways and residential developments were identified in discrete piles/locations. These materials should be classified and disposed of properly, but there was no indication of leaks, spills, or immediate hazards which would indicate a recognized environmental condition. No data gaps were found that were deemed critical to the outcome of the ESA. The assessment revealed no evidence of recognized environmental conditions in connection with the property.

There are no Superfund Sites from the EPA National Priorities List located on the proposed subject property or in areas associated with the proposed project. The TWDB does not fund the testing, remediation, removal, disposal, or related work for contaminated or potentially contaminated materials.

Demographics

A demographic analysis was performed on January 23, 2025, within a 0.5-mile radius of the project area using data from the United States Census 5-year American Community Survey for 2018 to 2022. Data include the population, percentage of minority residents, percent low income, and per capita income for the project area, for comparison with data for the county and state.

Area	Population	Percent Minority	Percent Below Poverty Level	Per Capita Income
State of Texas	30,503,301	60.7	13.7	\$37,514
Tarrant County	2,182,947	57.4	10.6	\$39,407
City of Arlington	398,431	61.0	13.0	\$33,477
Project Area (0.5-mile buffer)	11,408	77.0	-	\$43,027

The demographic analysis indicates that the area within 0.5 miles of the project has a portion of the population greater than that of the city, county or state, who are members of a racial/ethnic minority category. The population of the project area with a 0.5-mile buffer has a per capita income higher than that of the city, county, and state. The majority of the proposed project will occur within City ROW and would not displace low income or minority populations. Additionally, low income or minority populations would not have restricted access or restricted services during construction. The city and project area have higher percentages of minorities than the state average. However, the project is not expected to disproportionately, adversely impact low-

⁵ Integrated Environmental Solutions (August 9, 2023). Phase I Environmental Site Assessment Shadow Drive Sanitary Sewer Main Replacement. Prepared for Freese and Nichols, Inc.

income or minority populations. The entire population of this project area would be the recipients of benefits derived from the proposed improvements.

An increase in utility rates and taxes is not anticipated and the project will not require an increase in taxes to finance the debt.

Secondary and Cumulative Impacts

The project may temporarily impact air quality, noise levels, and traffic. Approximately 0.33 acres of intermittently mowed grassland will be permanently converted to the lift station site. Less than 0.5 acres of forest will be temporarily cleared for pipeline construction, then allowed to return to forest. Past projects including the construction of the existing wastewater lines, road construction, and residential development affected these same resources. The project is not anticipated to change the projected rate, density, or type of development in the vicinity of the project area. The land use in surrounding areas will generally remain in urban use following the construction of the project.

The project area is within an 8-hr ozone non-attainment area. Most ground-level ozone forms in the air from chemical reactions involving nitrogen oxides (NO_x), volatile organic compounds (VOCs), and sunlight (U.S. EPA, 2003b). Most airborne NO_x comes from combustion-related emissions sources of human origin, primarily fossil fuel combustion in electric utilities, high-temperature operations at industrial sources, and operation of motor vehicles. It is not expected that the proposed project will significantly contribute to NO_x emissions in the attainment area. The most likely sources of NO_x and VOC emissions would be from increased traffic and operation of construction equipment for construction of the proposed project. It is not expected that the project will have an impact on ambient air quality.

The project will require temporary lane closures during construction on Northeast Green Oaks Boulevard, Burney Place, and West Shadow Drive. Periodic odors associated with the lift station are expected to occur after it is constructed and put into service. Dust emissions and construction noise are also expected to occur temporarily during construction. These potential impacts are expected to be minor and/or temporary. BMPs from the SWPPP will act to minimize dust. Construction will primarily be scheduled during the day to avoid noise effects. Permanent nighttime lighting will be installed at the lift station which will contribute to the cumulative effects of light pollution in the Dallas/Fort Worth metroplex.

AGENCY COORDINATION AND COMPLIANCE

To ensure due consideration of the project's potential impact, the City prepared an EID describing the results of that investigation, held an open meeting to familiarize the community with the project and solicit public comment, and coordinated with all required regulatory agencies and other interested parties to define and avoid, minimize, or mitigate adverse effects. The City has provided assurance that environmental conditions will be implemented in a manner consistent with the requirements of state and federal regulatory agencies and rules of the TWDB.

“Cross-Cutter” Compliance

The project has been reviewed for potential impacts to the quality of the environment following the procedures provided in 31 Texas Administrative Code § 375.61, to ensure compliance with CWSRF program requirements and federal and state regulations, including the federal cross-cutting environmental authorities from the EPA listed below.

- (1) National Environmental Policy Act of 1969, Public Law (PL) 91-190
- (2) Archeological and Historic Preservation Act of 1974, PL 93-291
- (3) Clean Air Act, 42 USC 7506(c)
- (4) Coastal Barrier Resources Act, 16 USC 3501 *et seq.*
- (5) Coastal Zone Management Act of 1972, PL 92-583, as amended
- (6) Endangered Species Act, 16 USC 1531, *et seq.*
- (7) Executive Order 11593, Protection and Enhancement of the Cultural Environment
- (8) Executive Order 11988, Floodplain Management, as amended by Executive Order 12148
- (9) Executive Order 11990, Protection of Wetlands
- (10) Farmland Protection Policy Act, 7 USC 4201, *et seq.*
- (11) Fish and Wildlife Coordination Act, PL 85-624, as amended
- (12) National Historic Preservation Act of 1966, PL 89-665, as amended
- (13) Safe Drinking Water Act, § 1424(e), PL 92-523, as amended
- (14) Wild and Scenic Rivers Act, PL 90-542, as amended
- (15) The Wilderness Act, 16 USC 1131, *et seq.*
- (17) Flood Insurance Reform Act of 2004, PL 108-264
- (18) National Flood Insurance Reform Act of 1994, PL 103-325
- (19) Flood Disaster Protection Act of 1973, as amended, PL 93-234
- (20) Clean Water Act, PL 92-500, as amended

Agency Coordination

This environmental review included coordination with various state and federal regulatory agencies, local authorities, and other stakeholders and interested parties regarding the project's potential impact. The City submitted notifications to and requests for input from all required parties. Some entities did not require a response. The respondents are listed below, and the results of coordination are summarized in the EID and reflected in the environmental conditions.

- Texas Historical Commission, State Historic Preservation Officer, Austin in accordance with Section 106 of the National Historic Preservation Act; Antiquities Code of Texas; and other applicable regulations (Texas Antiquities Permit No. 31362; THC Tracking Nos. 202402852, 202509145)
- United States Army Corps of Engineers, Regulatory Branch, Fort Worth District, in accordance with Section 404 of the Clean Water Act; and Section 10 of the Rivers and Harbors Act of 1899 (Project No. SWF-2025-00190)
- Texas Parks and Wildlife Department, Wildlife Division, Ecological & Environmental Planning Program, Austin, in accordance with the Endangered Species Act of 1973, as amended; Migratory Bird Treaty Act; Texas Parks and Wildlife Code; and other applicable regulations (TPWD Project No. 54667)

- United States Fish and Wildlife Service, Arlington Ecological Services Field Office, in accordance with the Endangered Species Act and statutes affecting other federally protected species (USFWS 2025-0062402)
- Texas Commission on Environmental Quality in accordance with 40 CFR Part 93 and National Ambient Air Quality Standards (TCEQ NEPA Request No 2025-305)

No response was required from the following entities:

- Bureau of Reclamation, Oklahoma-Texas Area Office
- Bureau of Land Management
- Local Floodplain Administrator pursuant to the NFIP
- Local government (City Mayor and North Central Texas Council of Governments)

Texas Historical Commission

The THC staff were given the opportunity to review the proposed project in 2023 and again in 2025 (Texas Antiquities Permit No. 31362; THC Tracking Nos. 202402852, 202509145). The November 2023 archaeology survey report described in the Cultural Resources section above was reviewed by the THC staff pursuant to the Antiquities Code of Texas. On December 18, 2023, THC staff concurred that no effect on archaeological sites, above-ground historic resources, or other cultural resources was anticipated as a result of the proposed project. Following funding and project footprint and design changes, a Supplemental Cultural Resources Desktop Analysis Report was prepared on April 8, 2025, by Integrated Environmental Solutions, LLC (IES), and sent to the THC in accordance with Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas. In a letter dated May 5, 2025, THC staff and the State Historic Preservation Officer (SHPO) concurred with the report's findings and that no historic properties were present or affected by the project as proposed.

United States Army Corps of Engineers

The USACE, Fort Worth District Office, Regulatory Branch staff were given the opportunity to review the project (USACE Project No. SWF-2025-00190). The USACE issued a No Permit Required Letter on May 8, 2025, based on FNI's impact assessment. Both streams intersecting the proposed project would be avoided using trenchless installation methods and the wetland is avoided via the selected alignment. As currently designed, the proposed project would not result in the discharge of dredged or fill material within areas regulated under Section 404 of the Clean Water Act.

Texas Parks and Wildlife Department

The TPWD Wildlife Division, Ecological & Environmental Planning Program staff reviewed the project in accordance with the Texas Parks and Wildlife Code, and provided a response dated May 12, 2025 (TPWD Project No. 54667). The TPWD staff made recommendations and in correspondence dated June 11, 2025, FNI, on behalf of the City responded regarding their commitment to the recommendations. Recommendations related to migratory birds, tricolored bats, and SGCN species are reflected in the environmental conditions of this environmental finding.

United States Fish and Wildlife Service

The USFWS Arlington Ecological Services Field Office, in accordance with the Endangered Species Act and statutes affecting other federally protected species, was given the opportunity to review the project through the Information for Planning and Consultation (IPaC) system (Project Code No. 2025-0062402). Two USFWS technical assistance letters dated May 5, 2025, were generated: one for listed species and another for the tricolored bat. The initial letter issued a *No Effect* determination for the listed species in the project area and a formal Section 7 consultation was not required. The tricolored bat assessment generated a *Not Likely to Adversely Affect* (NLAA) determination in which the City agreed to mitigations for avoidance which are incorporated into this ED as special conditions. Given this agreement, the USFWS did not require further consultation.

Texas Commission on Environmental Quality

In a response dated September 18, 2025, the TCEQ stated that a review of the proposed project for general conformity impact, in accordance with 40 CFR Part 93 and Title 30, TAC § 101.30, indicates that Tarrant County is currently designated nonattainment for the 2008 eight-hour ozone National Ambient Air Quality Standard (NAAQS) with a classification of severe, and is designated nonattainment for the 2015 eight-hour ozone NAAQS with a classification of serious; therefore, federal Clean Air Act, §176(c) general conformity requirements apply (TCEQ NEPA Request No 2025-305). Per federal general conformity regulations at 40 CFR §93.153, a conformity demonstration may be required when the total projected direct and indirect VOC and NO_x emissions—precursor pollutants that lead to the formation of ozone—from an applicable federal action are equal to or exceed the *de minimis* emissions level of 50 tons per year (tpy) for ozone NAAQS serious nonattainment areas and 25 tpy for severe nonattainment areas. The TCEQ further noted that significant long-term environmental impacts are not anticipated as a result of the project as proposed, provided construction and waste disposal activities associated with it are completed in accordance with applicable local, state, and federal environmental permits, statutes, and regulations. The TCEQ recommended that the City take necessary steps to ensure that best management practices are used to control runoff from construction sites to prevent detrimental impact to surface and ground water.

PUBLIC PARTICIPATION

The project is consistent with local, regional, and statewide planning. Coordination with the appropriate governmental agencies has been made and no adverse comments have been received.

Public participation conducted during facilities planning included a public meeting held on May 15, 2025, which was advertised in the *Star Telegram*, a newspaper of general circulation in the service area. The notice was published on April 13, 2025, and contained information regarding availability of planning documents, including the EID, for public review at the Arlington City Hall at 101 West Abram Street, Arlington, Texas during normal business hours (8 a.m. to 5 p.m.). The public meeting was held at 5 p.m. on May 15, 2025, at the George W. Hawkes Downtown Library in Arlington, Texas. A total of six residents signed in for the meeting. Several residents provided verbal comments of support for the project and asked to be informed by the City when

construction is ready to begin. Two residents provided written comments at the public meeting. Both commenters expressed concerns about the condition of two small lakes behind their residences. The lakes are located outside the project area and would be avoided. They stated that stormwater runoff in the area, including at the intersection of Green Oaks Boulevard and Ballpark Way has been impacting the lakes with unwanted sedimentation. According to one of the comments, stormwater runoff has posed issues in this area since early 2024. The comments regarding concerns of the residential lakes were addressed at the public meeting by the City's project manager, the design engineer, and the environmental scientist. It was explained to the commenters that the proposed construction for this project has not yet occurred. It was further explained that the proposed project is designed to utilize other-than-open-cut construction methods (like boring or horizontal directional drilling) at multiple locations to minimize potential soil disturbances to waterbodies upstream of the residential lakes. It was explained that all the streams and wetlands in the project area, including at Stream 2 where a commenter expressed concerns, would be avoided. It was also explained to the commenters that a stormwater pollution prevention plan is required to be implemented by the contractor with appropriate best management practices prior to and throughout construction to minimize erosion and sedimentation.

ENVIRONMENTAL CONDITIONS

An environmental review of the project consistent with NEPA has been completed following the guidelines provided in 31 TAC § 375.65. Mitigation measures were defined through the agency coordination process and public participation and are listed below as applicable environmental conditions. These conditions will pertain to the project throughout construction and beyond as warranted. Based on information provided by the City, the proposed Kee Branch and Shadow Drive Collection System Improvements Project, Shadow Drive Sanitary Sewer Main Replacement, is considered environmentally sound with the following special and standard environmental conditions:

Special Environmental Conditions

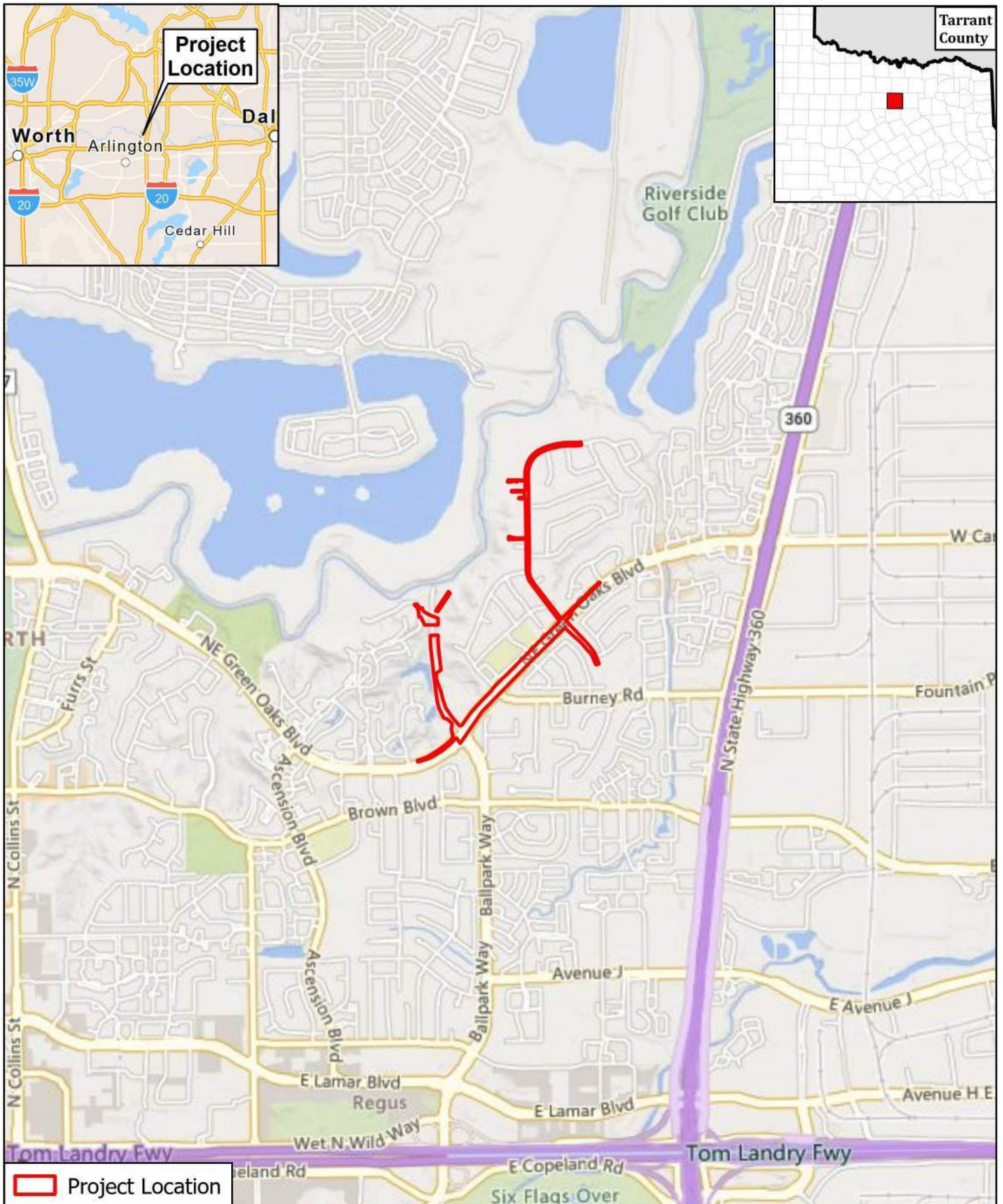
- Consistent with the Flood Insurance Reform Act of 2004, federal Executive Order 11988 as amended by EO 13690, Texas Water Code Section 16.315, and local floodplain development ordinances, a floodplain development permit will be obtained from the local floodplain administrator prior to construction in, across, or under a Special Flood Hazard Area, and any requirements contained therein will be adhered to.
- To avoid potential impacts to waters of the United States, including wetlands, waterline crossings of waterbodies, including two streams in the project area, will be performed by a trenchless method, and the project will be designed to avoid the wetland (USACE No. SWF-2025-00190).
- As per agreements with the Texas Parks and Wildlife Department (TPWD; Project No. 54667) and United States Fish and Wildlife Service (USFWS; Project Code 2025-0062402), to ensure compliance with Texas Parks and Wildlife Code, Chapters 12, 64, and 67 of the Endangered Species Act of 1973, as amended, the Migratory Bird Treaty Act, and applicable federal regulations pertaining to protected species including the tricolored bat (*Perimyotis subflavus*), the following measures will be implemented:

- Vegetation clearing must be excluded during the general bird nesting season and tricolored bat pupping season, March 15 through September 15, to avoid adverse impacts to breeding birds and tricolored bats. If vegetation clearing during this time is unavoidable, the area proposed for disturbance will be surveyed by a qualified biologist to identify occupied nests and pupping habitat, not more than five days prior to clearing activities. If occupied nests or bat roosts or hibernacula are observed during surveys, a vegetation buffer area of no less than 100 feet in diameter will remain around the nest or roost until all young have fledged; however, the size of the buffer zone depends on various factors and can be coordinated with the local or regional USFWS office. State and federal regulations as currently interpreted do not permit incidental take.
- The City of Arlington (City) will avoid the removal of trees that have hollows, as they provide suitable habitat for roosting bats such as the tricolored bat. Likewise, culverts will be inspected for bats prior disturbance. Total tree removal will be limited to 0.50 acres.
- To avoid tricolored bat impacts, the project will be designed to utilize the minimum amount of nighttime light needed for safety and security for lighted structures. Lights will be focused downward with cutoff luminaires to avoid light emitting above the horizontal. Lighting will only be illuminated when needed, will only be as bright as needed, will be fully shielded, and will minimize blue light emissions. Nighttime construction will be avoided during the tricolored bat's active season in this region, March 15 through November 15.
- The length of trenches left open at any given time during construction will be minimized. Trenching and backfilling activities will be kept close together in time. Trenches and excavation areas will be covered overnight and/or inspected every morning or if left open longer than two daylight hours to ensure no wildlife species have been trapped. If trenches cannot be backfilled the day of initial trenching, then escape ramps will be installed every 300 feet, in the form of short lateral trenches or wooden planks sloping to the surface at an angle of less than 45 degrees, at a ratio one horizontal foot for every one foot of depth.
- Contractors and construction crews will be provided with informational materials identifying protected species that may occur in the project area and instructing them on how to avoid impacts to wildlife that are encountered: If wildlife are encountered, the animals will be allowed to leave the area safely. Wildlife in danger from project activities that will not readily leave the site can be relocated to a nearby area with similar habitat. Any translocations of reptiles will occur within 100-200 yards from the initial encounter location. State-listed species will be handled only by persons with authorization obtained through the Texas Parks and Wildlife Department.
- For soil stabilization and revegetation, no-till drilling, hydromulching (avoiding plastic ingredients), and/or hydroseeding will be used rather than erosion control blankets or mats, which pose an entanglement hazard to wildlife. If erosion control blankets or mats cannot be avoided, products that contain no netting or loosely woven natural fiber netting will be used, avoiding any type of plastic netting.

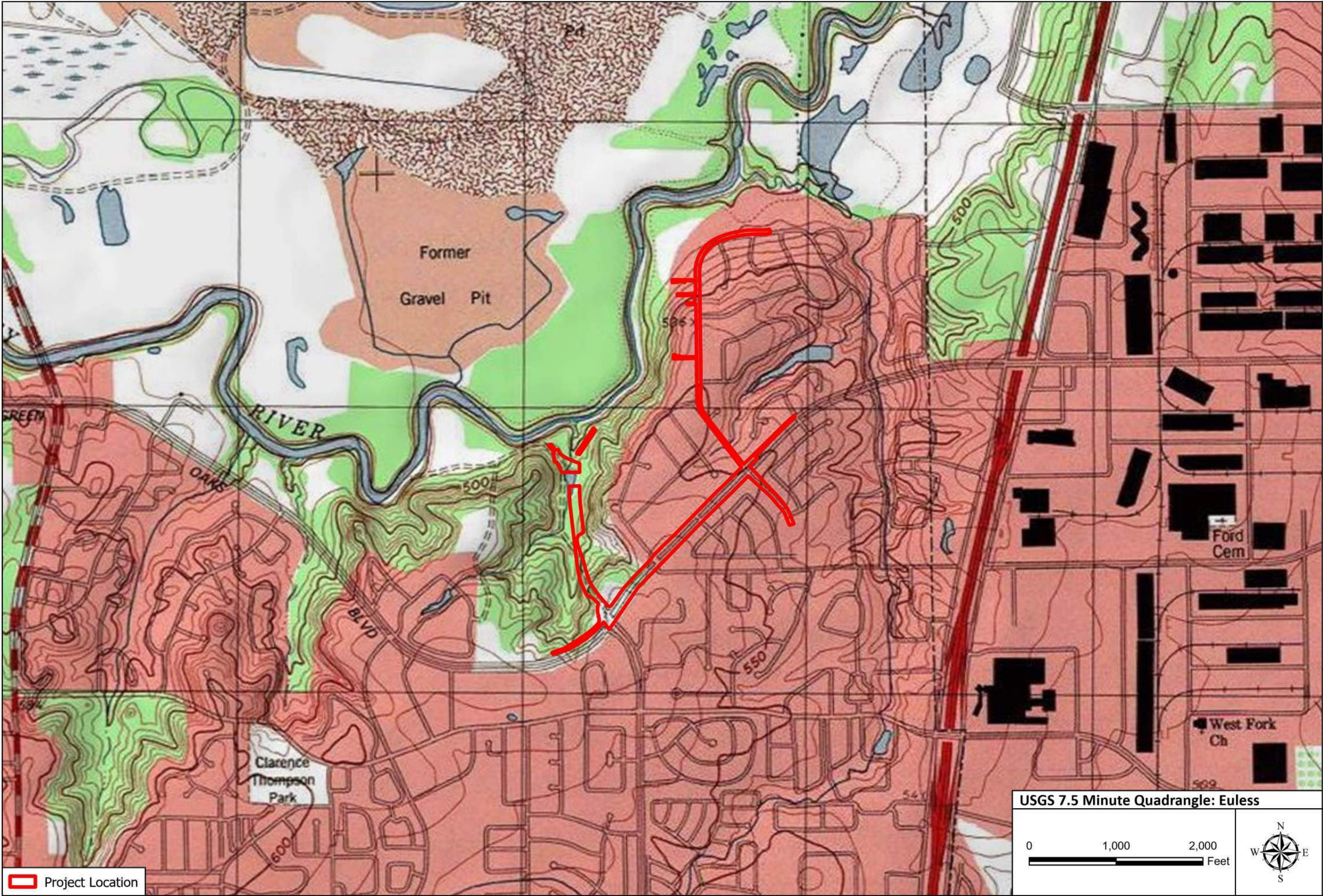
Standard Environmental Conditions

- Consistent with the TWDB Supplemental Construction Contract Conditions (TWDB-0551), the City will abide by the standard emergency condition for the discovery of cultural resources.
- Consistent with the TWDB Supplemental Construction Contract Conditions (TWDB -0551), the City will abide by the standard emergency condition for the discovery of threatened and endangered species.

Therefore, it is recommended that a Finding of No Significant Impact be issued.





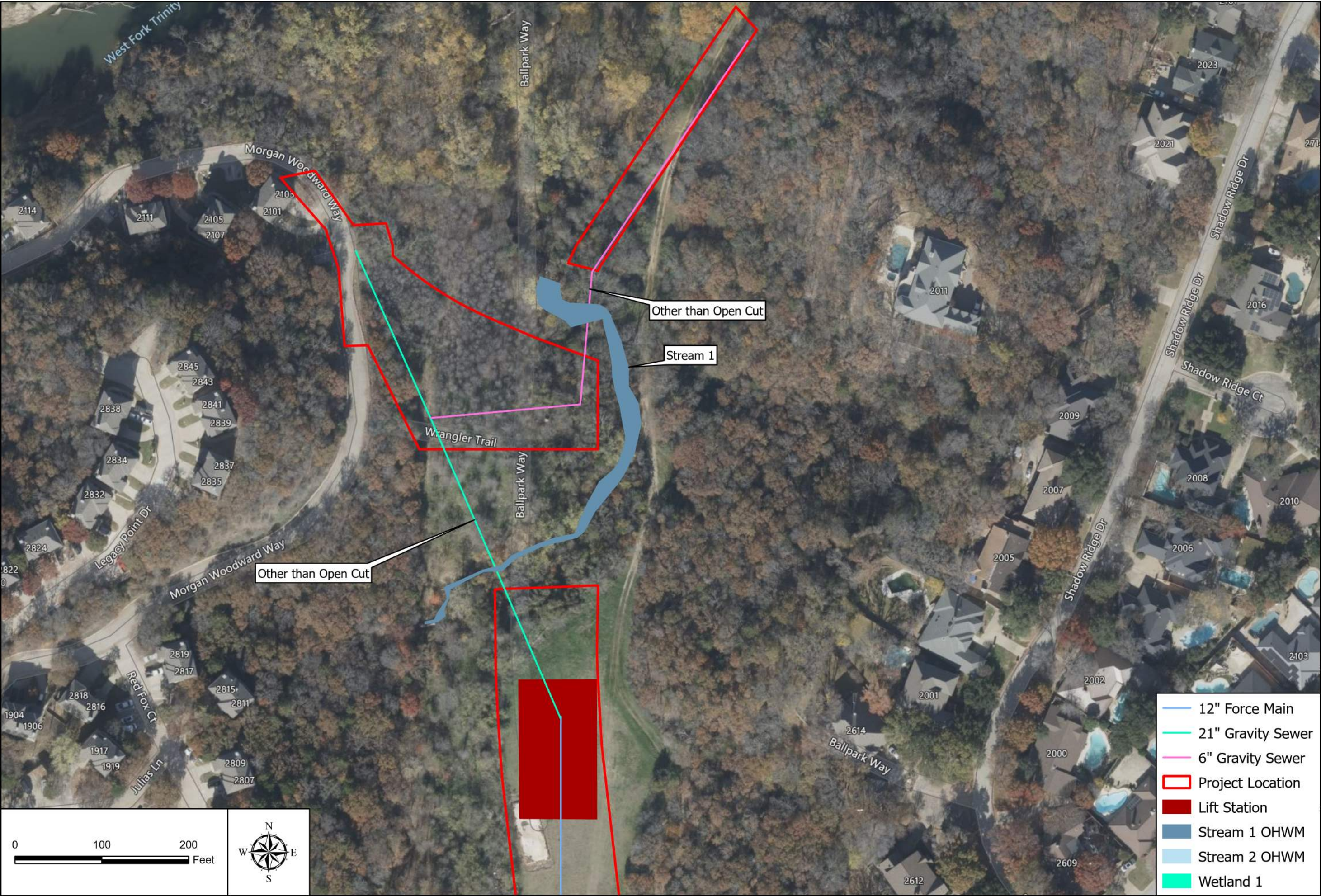
<p>FREASE AND NICHOLS 801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300</p>		<p>CITY OF ARLINGTON</p> <p>Shadow Dr SS Main Replacement</p> <p>Regional Location Map</p>		<p>PN JOB NO. ARL23408</p> <p>FILE NAME 1_Location_Map_8x11</p> <p>DATE 4/3/2025</p> <p>COORDINATE SYSTEM NAD 1983 StatePlane Texas North Central FIPS 4202 Feet</p> <p>DESIGNED AO</p> <p>DRAFTED AO</p>	<p>A-1</p> <p>FIGURE</p>
		<p>0 1,000 2,000</p> <p>Feet</p>			




 Project Location

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FREESE AND NICHOLS 801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300	CITY OF ARLINGTON	
	Shadow Dr SS Main Replacement	
	USGS Topographic Map	
	A-2 FIGURE	
USGS 7.5 Minute Quadrangle: Euless		
		
		
FN PROJECT NO. ARL23406 DATE CREATED 4/3/2025 DATUM & COORDINATE SYSTEM NAD 1983 StatePlane Texas North Central FIPS 4202 Feet FILE NAME 2 USGS TOPO 11x17 PREPARED BY AO		



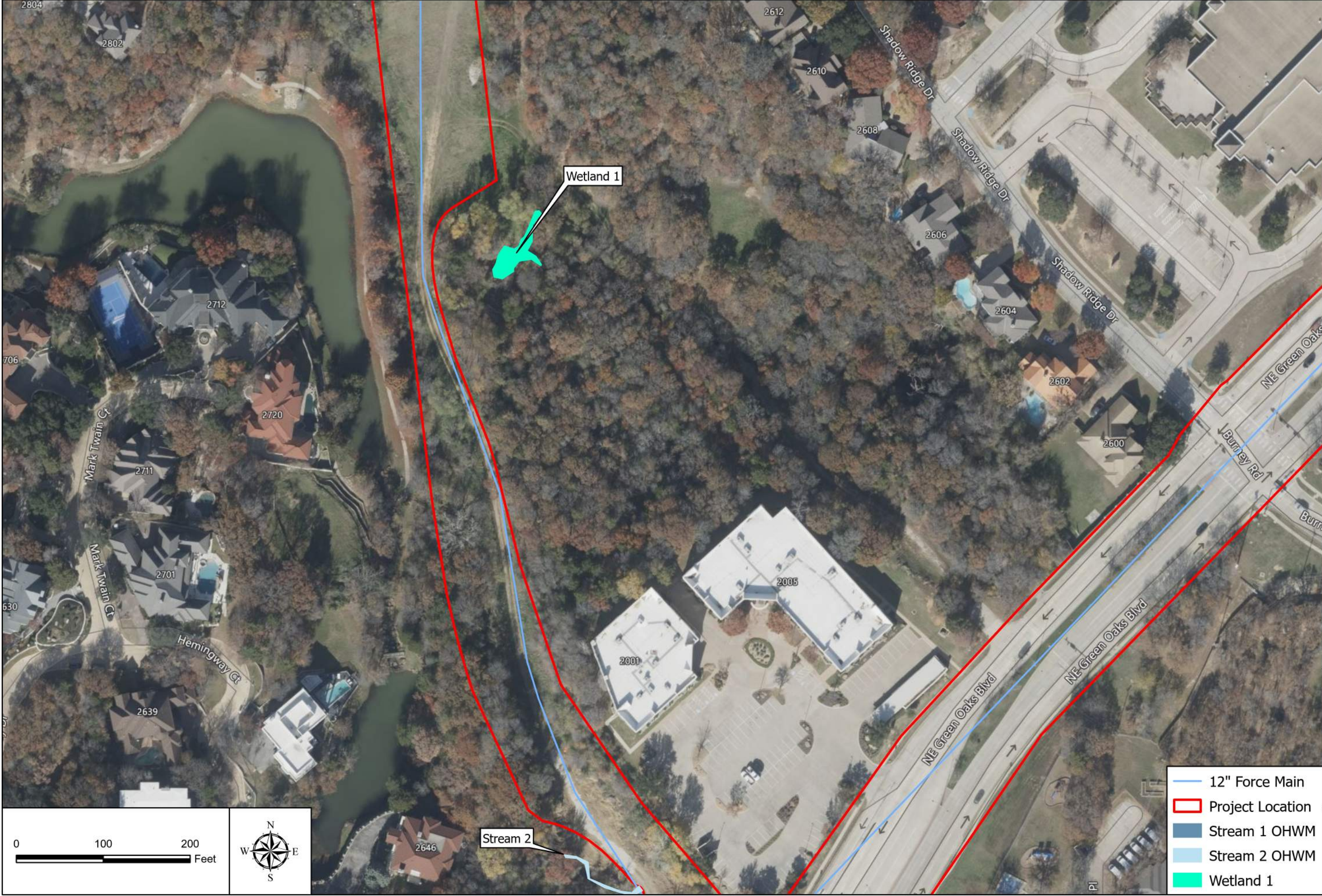
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Shadow Dr SS Main Replacement		DATE CREATED	7/1/2025
Project Footprint Map - Aerial		DATUM & COORDINATE SYSTEM	NAD 1983 StatePlane Texas North Central FIPS 4202 Feet
		FILE NAME	3_Aerial_11x17
		PREPARED BY	AO



FREEZE AND NICHOLS
801 Cherry St, Suite 2800
Fort Worth, TX 76102
Phone - (817) 735-7300

A-3.1

FIGURE



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CITY OF ARLINGTON		PROJECT NO. ARL 23-002	
Shadow Dr SS Main Replacement		DATE CREATED 7/11/2025	
Project Footprint Map - Aerial		DATUM & COORDINATE SYSTEM NAD 1983 StatePlane Texas North Central FIPS 4202 Feet	
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		PREPARED BY AO	

FREESE AND NICHOLS
801 Cherry St, Suite 2800
Fort Worth, TX 76102
Phone - (817) 735-7300

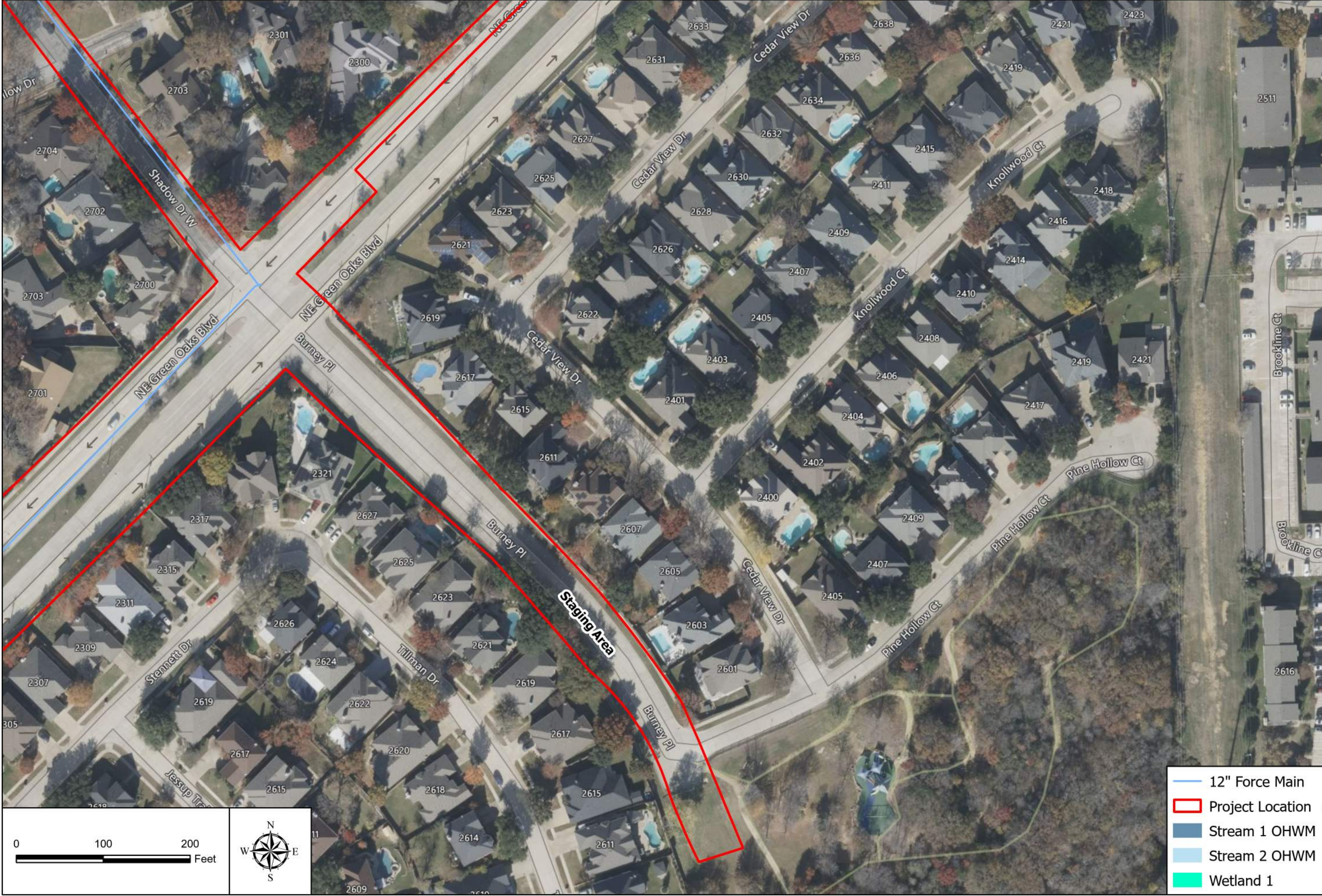
A-3.2
FIGURE



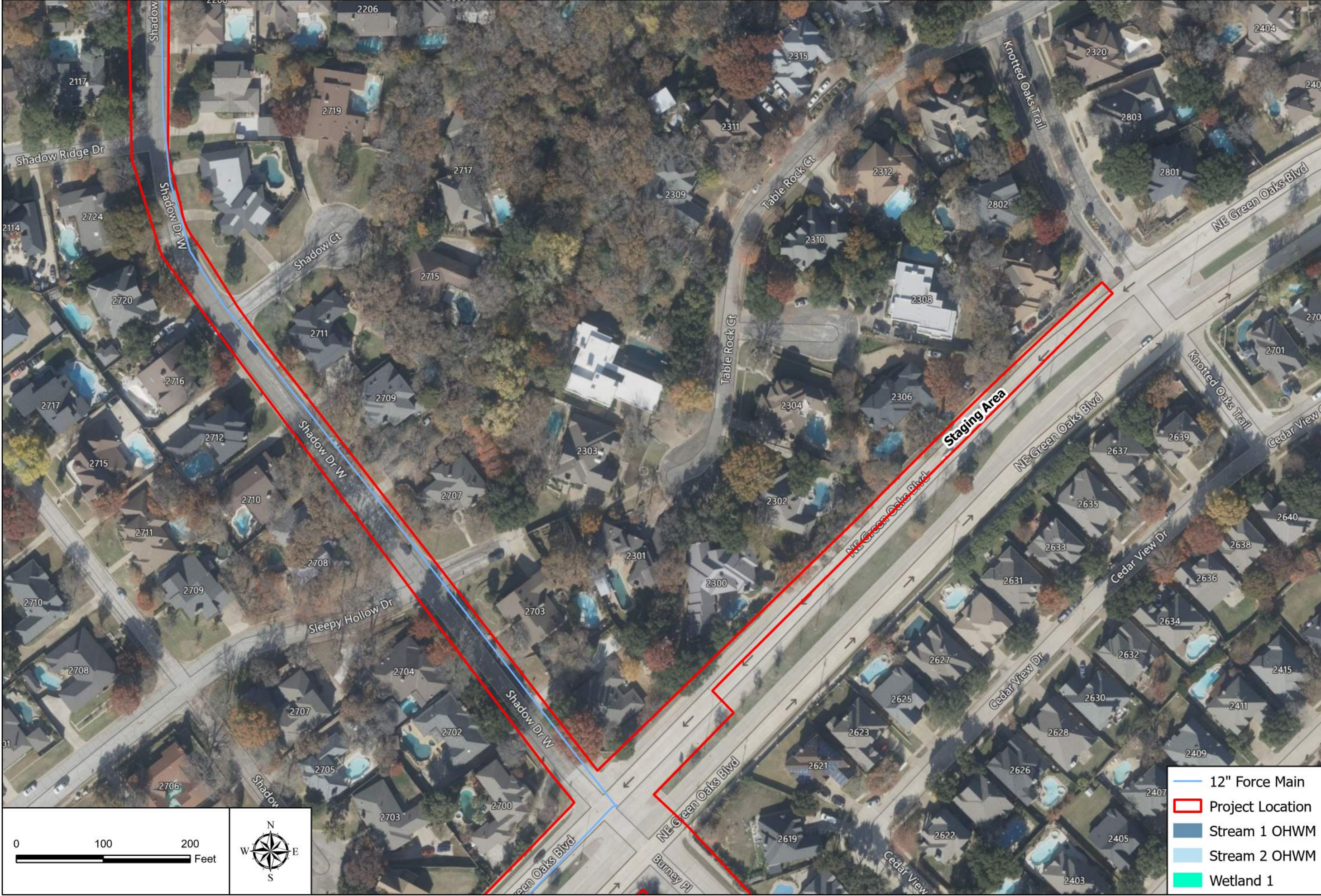
CITY OF ARLINGTON	
Shadow Dr SS Main Replacement	
Project Footprint Map - Aerial	
FREESE AND NICHOLS	
FREESE AND NICHOLS 801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300	
A-3.4	
FIGURE	
PROJECT NO.	ARI 23402
DATE CREATED	7/1/2025
DATUM & COORDINATE SYSTEM	NAD 1983 StatePlane Texas North Central FIPS 4202 Feet
FILE NAME	3 Aerial_11x17
PREPARED BY	AO



CITY OF ARLINGTON		Shadow Dr SS Main Replacement		PROJECT NO. ARL 23-002	
Project Footprint Map - Aerial				DATE CREATED 7/1/2025	
				DATUM & COORDINATE SYSTEM NAD 1983 StatePlane Texas North Central FIPS 4202 Feet	
				FILE NAME 3 Aerial_11x17	
				PREPARED BY AO	
FREESE AND NICHOLS					
FREESE AND NICHOLS 801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300					
A-3.5					
FIGURE					



CITY OF ARLINGTON		Shadow Dr SS Main Replacement		PROJECT NO. ARL 23-002	
Project Footprint Map - Aerial				DATE CREATED 7/1/2025	
				DATUM & COORDINATE SYSTEM NAD 1983 StatePlane Texas North Central FIPS 4202 Feet	
				FILE NAME 3 Aerial_11x17	
				PREPARED BY AO	
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FREESE AND NICHOLS 801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300					
A-3.6					
FIGURE					

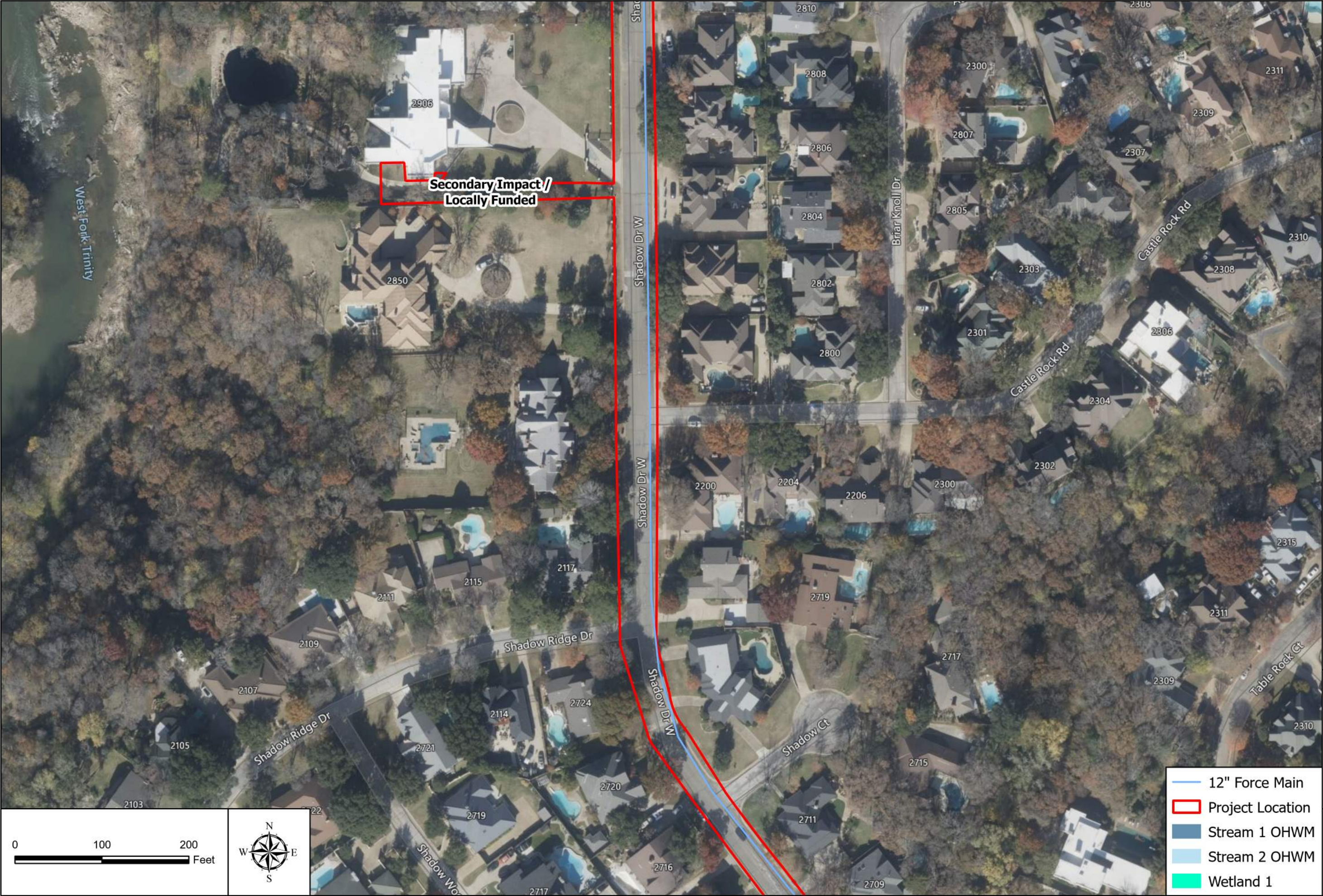


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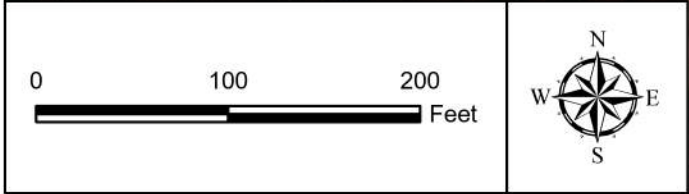
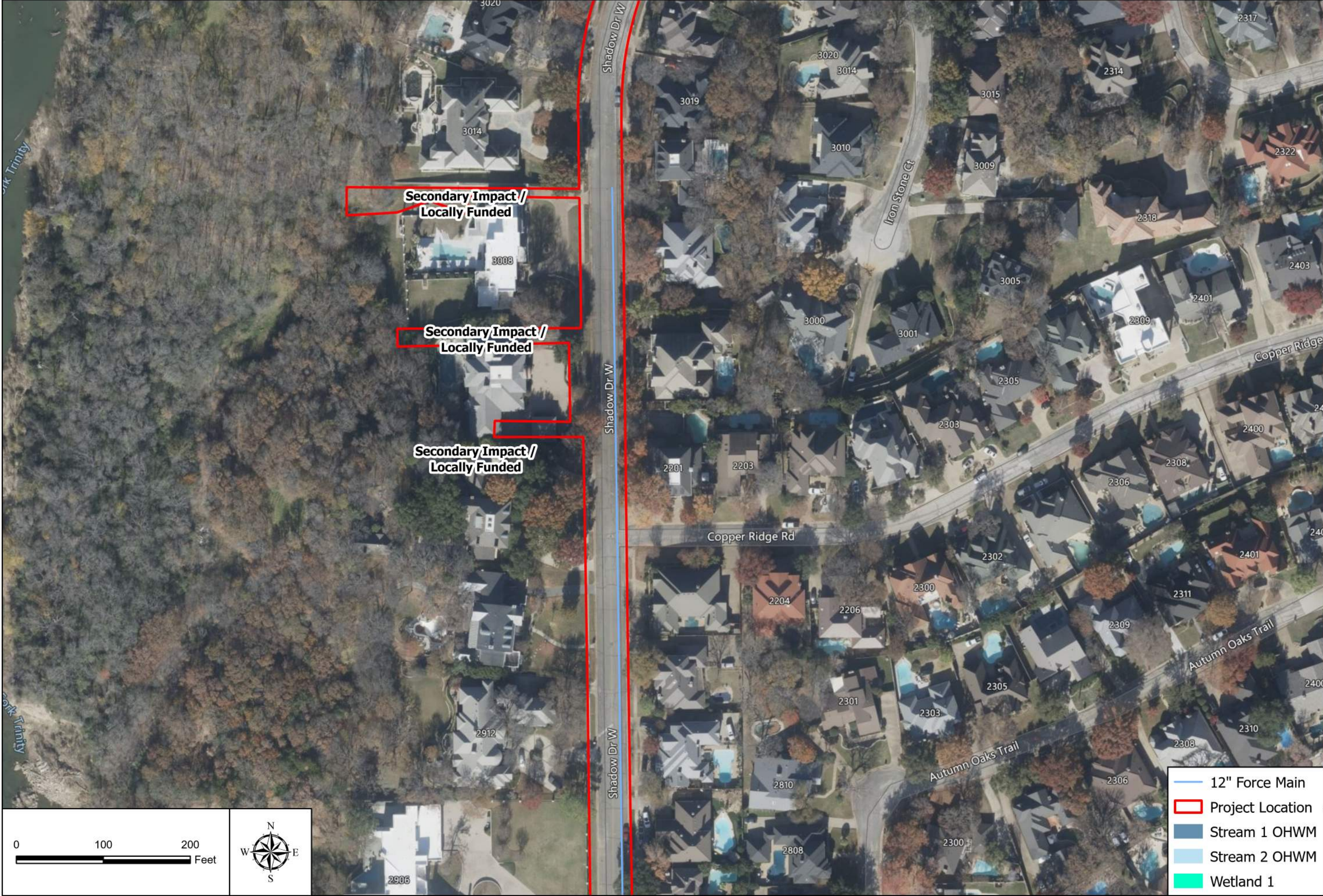
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Shadow Dr SS Main Replacement	
Project Footprint Map - Aerial	
PROJECT NO. ARI 23400	DATE CREATED 7/1/2025
DATUM & COORDINATE SYSTEM NAD 1983 StatePlane Texas North Central FIPS 4202 Feet	
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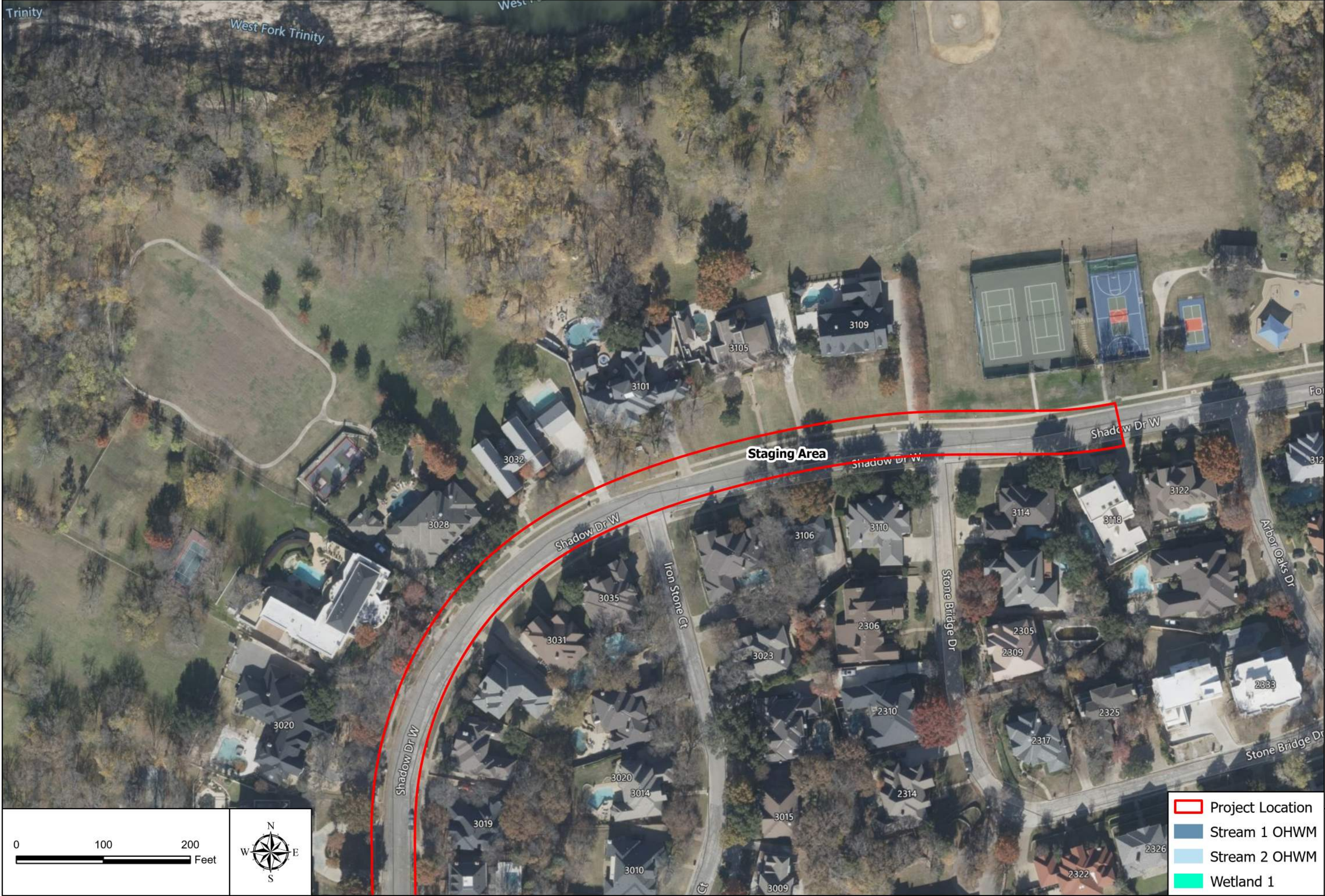
A-3.7
FIGURE



CITY OF ARLINGTON		FN PROJECT NO.	ARI 23400
Shadow Dr SS Main Replacement		DATE CREATED	7/1/2025
Project Footprint Map - Aerial		DATUM & COORDINATE SYSTEM	NAD 1983 StatePlane Texas North Central FIPS 4202 Feet
		FILE NAME	3 Aerial_11x17
		PREPARED BY	AO
FREESE AND NICHOLS			
FREESE AND NICHOLS 801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300			
A-3.8			
FIGURE			



CITY OF ARLINGTON		PROJECT NO. ARL 23-002	
Shadow Dr SS Main Replacement		DATE CREATED 7/1/2025	
Project Footprint Map - Aerial		DATUM & COORDINATE SYSTEM NAD 1983 StatePlane Texas North Central FIPS 4202 Feet	
FREESE AND NICHOLS		FILE NAME 3_Aerial_11x17	
801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300		PREPARED BY AO	
A-3.9			
FIGURE			



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CITY OF ARLINGTON		PROJECT NO. ARL 23-002	
Shadow Dr SS Main Replacement		DATE CREATED 7/1/2025	
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		PREPARED BY AO	
FREESE AND NICHOLS			
FREESE AND NICHOLS 801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300			
A-3.10			
FIGURE			

- Project Location
- Stream 1 OHWM
- Stream 2 OHWM
- Wetland 1



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CITY OF ARLINGTON Shadow Dr SS Main Replacement FEMA Floodplain Map		PROJECT NO. ARL23406
FREESE NICHOLS FREESE AND NICHOLS 801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300		DATE CREATED 4/3/2025
A-5 FIGURE		DATUM & COORDINATE SYSTEM NAD 1983 StatePlane Texas North Central FIPS 4202 Feet
		FILE NAME 5_Floodplain_11x17
		PREPARED BY AO



- Project Location
- NHD Flowline
- NHD Waterbodies
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake

FREESE NICHOLS FREESE AND NICHOLS 801 Cherry St, Suite 2800 Fort Worth, TX 76102 Phone - (817) 735-7300		CITY OF ARLINGTON Shadow Dr SS Main Replacement NWI & NHD Map		FN PROJECT NO. ARL23406 DATE CREATED 4/3/2025 DATUM & COORDINATE SYSTEM NAD 1983 StatePlane Texas North Central FIPS 4202 Feet FILE NAME 6 NWI NHD 11x17 PREPARED BY AO
A-6 FIGURE				