Austin Transit Partnership

Lady Bird Lake Bridge Project

Aquatic Resources Delineation Report and Proposed Jurisdictional Analysis

Austin, TX
January 13, 2025

Deliberative Draft

Contents

Tables

Appendices

Deliberative Draft

1 Introduction

Kimley-Horn and Associates Inc. (Kimley-Horn) has prepared the following aquatic resources delineation report and analysis of U.S. Army Corps of Engineers (USACE) permitting requirements for the Austin Light Rail Lady Bird Lake Bridge and Elevated Guideway Extension to Travis Heights Blvd and South Congress Ave (site or study area). The Lady Bird Lake Bridge and Elevated guideway extension is a proposed base design for the Austin Light Rail (ALR) generally located from just south of the cul-de-sac on Trinity Street (South of Caesar Chavez Street) to the south shore of Lady Bird Lake and extends beyond the south shore (just east of the Austin American Statesman building) in two branches: east along Riverside Drive to Travis Heights Blvd and south along Bouldin Creek to South Congress Ave in Aquatic Resources Delineation Report and Proposed Jurisdictional Analysis (Appendix A, Figure 1).

The purpose of the aquatic resources delineation is to identify, delineate, and describe wetlands, special aquatic sites, and other waters within the study area. Our observations were made under the known policy and regulations applicable to the USACE Fort Worth District at the time of the writing of this report.

2 Summary of Waters of the U.S. Regulations

2.1 Statutory Authorities

Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged or fill material into waters of the U.S., including jurisdictional wetlands. Under Section 404 of the Clean Water Act, the discharge of dredged and fill material into waters of the U.S. is regulated, and in many circumstances, authorization from the USACE is required prior to commencing construction activities.

2.2 Regulatory Change Timeline

- June 5, 2007
  - EPA and the USACE jointly issued guidance interpreting the Supreme Court's June 2006 split decision in the consolidated cases of *Rapanos v. U.S.* and *Carabell v. U.S.* (known as the Rapanos decision).
- January 18, 2023
  - EPA and the USACE published the "Revised Definition of Waters of the United States" in the Federal Register and would be effective on March 20, 2023.
- March 19, 2023
  - District court judge for the Southern District of Texas issued an order preliminarily enjoining the new 2023 rule (Final Revised Definitions of "Waters of the United States") in Texas and Idaho.

Deliberative Draft

- March 20, 2023
  - New 2023 rule, published by the EPA, titled, *Final Revised Definitions of "Waters of the United States"* became effective, except in states under an active injunction.
- May 25, 2023
  - U.S. Supreme Court issued a decision in the case of *Sackett v. EPA* that narrowed the federal Clean Water Act jurisdiction over wetlands.
  - The Court determined that "Waters of the United States" encompass only those that are relatively permanent, standing, or continuously flowing bodies of water; referred to now as Relatively Permanent Waters (RPWs).
  - The Court determined that Clean Water Act authority includes wetlands with a continuous surface connection to bodies that are "Waters of the United States" in their own right (i.e., an RPW).
  - The Court eliminated the prior *Significant Nexus Test* established in the Rapanos decision when evaluating USACE jurisdiction.
- August 29, 2023
  - EPA issued an amendment to the new 2023 rule (*Final Revised Definitions of "Waters of the United States")* to conform with the Supreme Court's *Sackett* decision.
  - The new amendment is effective as of September 8, 2023 as published in the *Federal Register*.
- As of the date of this report:
  - As a result of ongoing litigation, the agencies will implement the definition of "Waters of the United States" under one of two rules (Operative Definition of "Waters of the United States" map created by the EPA, below).
    - The new 2023 rule, as amended by the *Sackett* decision, in 23 states.
    - The pre-2015 regulatory regime consistent with the Sackett decision, in the remaining 27 states until further notice. This regulatory regime is applicable in Texas as of the date of this report.

The USEPA and USACE, including Fort Worth District have issues interim guidance to the Pre-2015 Regulatory Regime indicating they are considering seasonal flowing streams and wetlands with a continuous surface connection, which may be a non-jurisdictional feature, as potential WOTUS. Both could be broader than the strict limits described in the Sackett Ruling.

Referencing the USEPA and WOTUS website https://www.epa.gov/wotus/definition-waters-united-states-rule-status-and-litigation-update, referencing this website will provide the most up to date regulations and regulatory guidance prior to construction.

Deliberative Draft

3 Methods

3.1 Approach

A detailed delineation was conducted and observations for wetlands, special aquatic sites, and other waters within the study area, as defined at 33 CFR Part 328.3, were made. Guidance from the "Corps of Engineers Wetlands Delineation Manual USACE Waterways Experiment Station Wetlands Research Program Technical Report Y-87-1", dated January 1987 for routine wetland determinations for areas greater than five-acres (as modified by the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region Version 2, March 2010) was used to evaluate if wetlands were present within the study area.

Potential wetlands are typically evaluated based on the observations of the following characteristics:

- Presence of hydrology
- Presence of hydric soils
- Prevalence of hydrophytic vegetation

In other words, there must be saturated soil conditions during the growing season, the presence of soils that form under saturated conditions, and vegetation that has adapted to grow under saturated soil conditions.

Streams are typically evaluated based on the observations of the following characteristics:

- Flow
  - Perennial: contains water at all times of the year except during extreme drought
  - Intermittent: contains water occasionally or seasonally
  - Ephemeral: contains water only during and immediately after periods of rainfall or snowmelt
    - Ephemeral streams and some intermittent streams without seasonal flow are not anticipated to be WOTUS after the Sackett Ruling.
- Ordinary High-Water Mark (OHWM):
  - The limit line on the shore established by the fluctuation of the water surface shown by:
    - A clear line impressed on the bank
    - Shelving
    - Changes in soil character
    - Destruction of terrestrial vegetation
    - Presence of litter and debris

Deliberative Draft

The USACE generally asserts jurisdiction to the normal pool elevation for lakes and ponds, if those features are considered jurisdictional.

The methodology is to assist Austin Transit Partnership (ATP), evaluate federal section 404 permitting requirements, and that local City of Austin evaluation criteria for aquatic sites and other critical environmental features may vary.

3.2 Mapping and Background Information

Prior to performing the site visit, selected maps and background information were obtained and reviewed to assist with identifying potential aquatic features on the study area. The selected resources are described below. Figures 1 through 11 in Appendix A include several sources of background data which were collected for mapping purposes.

- Figure 1: Vicinity Map
  - Displays general location of the study area.
- Figure 2: United States Geological Survey (USGS) Topographic Map.
  - Depicts potential aquatic features and elevation contour lines.
- Figure 3: Recent Aerial (2024)
  - Natural color (NC) aerial photography.
- Figure 4: Historic Color Infrared Aerial (2015)
  - Color infrared (CIR) aerial photography.
  - Vegetation moisture content varies the intensity of the red color.
  - Water appears blue; murky water is lighter blue while clearer water is darker blue.
- Figure 5: Historic Color Infrared Aerial (2004)
  - Color infrared aerial photography.
- Figure 6: Historic Color Infrared Aerial (1996)
  - Color infrared aerial photography.
- Figure 7: FEMA Mapped National Flood Hazard Layer
  - Flood hazard map generated using the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL).
    - The NFHL can be useful in identifying areas that may experience increased levels of flooding and may have an increased potential presence of aquatic features.
- Figure 8: National Wetlands Inventory Map
  - The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) online mapper was used to generate this map.

Deliberative Draft

- The NWI dataset can be useful in identifying the potential presence of aquatic features.
- However, the dataset is not always accurate because it was created at coarse scale and has not been field verified.
- The NWI dataset is rarely updated.

- Figure 9: Soils Map
  - The U.S. Department of Agriculture (USDA) Web Soil Survey was utilized to download soils data to generate this map.
    - Soil maps can be useful in identifying potentially hydric soils typically associated with wetlands.
- Figure 10: Hillshade Map
  - Digital elevation model (DEM) data from the Texas Geographic Information Office (TXGIO) was utilized to generate this map.
    - Light Detection and Ranging (lidar) data are the basis for the DEM data.
  - The hillshade map is useful for visualizing terrain based on the slope and aspect of an elevation surface.
    - The land surface appears three-dimensional making low and high areas on the landscape appear easier to distinguish.
- Figures 11.0-11.3: Aquatic Features Maps
  - Aquatic feature locations overlaid onto aerial photography from 2024.

3.3 Site Visit

Following the background information review, the routine method of wetland determination in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual USACE Waterways Experiment Station Wetlands Research Program Technical Report Y-87-1 and Great Plains Regional Supplement were used to identify aquatic features within the study area. Kimley-Horn conducted a site visit to the study area on September 23, 2024. Aquatic resources were delineated using Trimble Geo7x GPS unit with submeter accuracy.

Ground level photographs were taken during the site visit. The general locations of photographs are depicted on Figure 1 in Appendix B and the numbering system on the figure corresponds to the site visit photograph numbers, also included in Appendix B.

Wetland determination data was recorded at soil stations during the site visit. The general location of soil stations are depicted on Figure 1 in Appendix C and the numbering system on Figure 1 corresponds to the wetland data determination forms, also included in Appendix C.

Kimley-Horn's jurisdictional analysis map is included as Figures 1.0-1.3 in Appendix D.

Deliberative Draft

4 Study Area Description

The proposed Lady Bird Lake Bridge Project is located along approximately 38-acres of public right-of-way in Aquatic Resources Delineation Report and Proposed Jurisdictional Analysis. The study area is generally located west of Interstate 35 and south of East Cesar Chavez Street. The study area appears to be located in the City of Austin-Colorado River watershed (USGS Hydrologic Unit Code (HUC): 1209020503). The approximate center coordinates of the study area are Latitude: 30.256 and Longitude: -97.744 (1983 North American Datum (NAD) Coordinates). Based on historic aerial imagery and current observations, the majority of the site appears to be developed and utilized for urban development.

4.1 Vegetation

The vegetated portion of the study area can be divided into different communities defined by current and historic land use practices. The various vegetation species of each community can be useful for identifying general site conditions. Based on site visit observations, the study area can be broken into the following vegetation communities:

- Vegetation Type 1: Maintained Urban Vegetation
    - The vegetation type makes up approximately 90% of the vegetated portion of the study area and is dominated by:
        - Black willow (*Salix nigra*);
        - Cedar elm (*Ulmus crassifolia*);
        - White mulberry (*Morus alba*); and
        - Poverty oat grass (*Danthonia spicata*).
- Vegetation Type 2: Riparian Herbaceous
    - The vegetation type makes up approximately 10% of the vegetated portion of the study area and is dominated by:
        - False nettle (*Boehmeria cylindrica*);
        - Elephant ears (*Colocasia esculenta*);
        - Giant ragweed (*Ambrosia trifida*); and
        - Climbing hempvine (*Mikania scandens*).

Deliberative Draft

4.2 Soils

According to the USDA Soil Survey for Travis County, two soil types were located within the study area. The mapped soil types are listed in **Table 1.**

Table 1 Soil types located within the study area.

Soil Unit ID	Soil Unit Name
EuC	Eddy Soils and Urban land, 0 to 6 percent slopes
Ur	Urban land, 0 to 6 percent slopes
W	Water

Figure 9 in Appendix A depicts the soils overlaid on the study area. Neither of these mapped soil types are located on the Travis County hydric soils list, published by the Natural Resource Conservation Service (NRCS) within the USDA, suggesting wetlands would not be expected. However, six wetlands were observed within the study area.

4.3 Hydrology

According to the USGS Topographic map (Appendix A, Figure 2), three “blue-line” features are located within the study area. The “blue-line” features were generally identified as open water features and perennial streams.

The FEMA flood hazard map designates the site is located in multiple FEMA zones, Zone AE: 100-Year Floodplain, Zone X: 500-Year Floodplain, and Zone X: Area of Minimal Flood Hazard (Appendix A, Figure 7).

The USFWS NWI map identifies one lake, and three riverine features located within the study area (Appendix A, Figure 8). The mapped lake feature was generally identified as the Colorado River (Lady Bird Lake). The riverine features were generally identified as an ephemeral stream, and two perennial streams during site reconnaissance.

5 Results

Referencing both the aquatic features map (Appendix A, Figures 11.0-11.3), the photo location map (Appendix B, Figure 1), and the wetland determination data (Appendix C) will supplement the following discussion.

5.1 Delineated Aquatic Features

Based on the site visit, two emergent wetlands, three fringe wetlands, two open water features, one ephemeral stream, and two perennial streams were observed during the site reconnaissance. Further discussion of the observed aquatic features is detailed below.

Deliberative Draft

Streams

- One ephemeral stream (S1) was observed within the northwestern portion of the study area. This stream appeared to be ephemeral because it lacked water and appeared to have not had water within the channel recently.
    - Stream S1 was observed to originate in the northern portion of the study area and continues offsite to the south. Stream S1 was observed to be dry with a stream bed composition of gravel and dead leaves. Stream S1 is a named water feature, East Bouldin Creek.
- Two perennial streams (S2-S3) were observed within the central and southern portion of the study area. The streams appeared to be perennial because of stream size and indicators of variable water flow.
    - Stream S2 originated offsite from the west, exhibited flowing water, and appeared to connect to open water OW1. Stream S2 is a named water feature, East Bouldin Creek.
    - Stream S3 appeared to originate offsite from the south, exhibit flowing water, had isolated pools of water, and a stream bed mainly of gravel. Stream S3 traveled underground and connected to open water feature OW2. Stream S3 is a named water feature, Blunn Creek.

Wetlands

- Six wetlands (W1-W6) were observed within the study area.
    - Wetlands W1 and W3, are classified as emergent wetlands due to dominance of herbaceous plant species (non-shrub and non-forest). The wetlands were located in low, depressional areas that would likely collect water after precipitation events. Standing water, soil saturation, and inundation were observed within the wetland.
    - Wetlands W2, W4-W6 are classified as fringe wetlands according to The City of Austin Property Profile.

Open Water Features

- Two open water features (OW1 and OW2) were observed within the study area. Open water features are typically located on channel or have downstream connections to other features.
    - Open water feature OW1 appeared to be a ponded area regulated by the Waller Creek tunnel outlet structure.
    - Open water feature OW2 appeared to be the Colorado River (Lady Bird Lake), connecting to OW1 via underground culverts.

Deliberative Draft

Table 2, below, is a summary of the aquatic features observed within the study area.

Table 2 Summary of the aquatic features observed within the study area.

Feature	Amount of Aquatic Feature		Photo Number*
	linear feet	acres	
Ephemeral Stream			
Stream S1 (East Bouldin Creek)	302 linear feet 4 - 6-foot OHWM	0.07 acre	50-51
Perennial Stream			
Stream S2 (East Bouldin Creek)	960 linear feet 10-foot OHWM	0.36 acre	46-49
Stream S3 (Blunn Creek)	1,039 linear feet 2-foot OHWM	0.06 acre	34-41
TOTAL Perennial Stream	**1,999 linear feet**	**0.42 acre**	**N/A**
Open Water Features			
Open Water OW1	-	0.40 acre	04
Open Water OW2 (Lady Bird Lake)	-	9.9 acres	09,12-13, 53
TOTAL Open Water	**-**	**10.3 acres**	**N/A**
Emergent Wetland			
Wetland W1	-	0.10 acre	01-05
Wetland W3		0.24 acre	10-13
Total Emergent Wetland	**-**	**0.34 acre**	**N/A**
Fringe Wetland			
Wetland W2	-	0.04	N/A
Wetland W4	-	0.56 acre	06-09
Wetland W5	-	Wetland W5	N/A

Feature	Amount of Aquatic Feature		Photo Number*
	linear feet	acres	
Wetland W6	-	0.28 acre	N/A
Total Fringe Wetland	**-**	**1.19 acres**	**N/A**

*Reference Appendix B, Figure 1 for the locations of the site visit photos.

6 Jurisdictional Analysis

Referencing the jurisdictional analysis map (Appendix D, Figures 1.0-1.3) will supplement the following discussion. Please note that guidance for implementing the *Sackett* decision has not been published by the USACE. Our analysis is informed by discussion and interactions with the USACE staff at the individual district level.

Likely Jurisdictional Features

Based on Kimley-Horn's analysis, under the Rapanos guidance (modified by the *Sackett* decision), the Fort Worth District USACE would likely assert jurisdiction over the perennial streams (S2-S3), emergent wetlands (W1, W3), fringe wetlands (W2, W4-W6), and open water features (OW1-OW2).

Further justification for our jurisdictional analysis is provided in the sections below:

- Streams
  - Perennial streams S2-S3:
    - appeared to exhibit a continuous pool of water during all times of the year;
      - based on aerial review
      - our observations
      - stream size
      - and indicators of a variable water flow
    - would likely be considered a RPW; and
    - appeared to have direct surface connections to other likely jurisdictional features.
- Wetlands
  - Emergent wetlands W1, W3:
    - appeared to have direct surface connections to other likely jurisdictional features.
  - Fringe wetlands W2, W4-W6:
    - appeared to have a direct surface connection to other likely jurisdictional features.

Deliberative Draft

- Open Water Features
  - Open water features OW1 and OW2:
    - Are an impoundment of, or have a direct hydrologic connection to an RPW (i.e., the Colorado River); and
    - appeared to have direct surface connections to other likely jurisdictional features.

Likely Non-Jurisdictional Features

Based on Kimley-Horn's analysis, under the Rapanos guidance (modified by the *Sackett* decision), the Fort Worth District USACE would likely not assert jurisdiction over the ephemeral stream (S1).

Further justification for our jurisdictional analysis is provided in the sections below:

- Stream
  - Ephemeral stream S1:
    - Appeared to only contain water in direct response to precipitation events;
      - observed to lack a presence of water
      - did not appear to have contained water within the channel recently
      - and lacked indicators of a variable water flow
    - and would not be considered a RPW.

7 USACE Permitting

7.1 USACE Jurisdictional Determinations

The USACE has several mechanisms for implementing Section 404 and Section 10 regulations. Jurisdictional Determinations (JDs) by the USACE can specify what geographic areas will be treated as subject to regulation. Jurisdictional Determinations are frequently used in conjunction with a permit action and are not considered permits in themselves. The following is a brief overview of the more common JD tools.

- Preliminary Jurisdictional Determination (PJD)
  - A document that indicates that there are waters of the U.S. present.
  - Generally, assumes all aquatic features that could be classified as jurisdictional are considered jurisdictional.
  - Typically reduces lengthy USACE review times.
  - Cannot be appealed.
  - Can request and Approved Jurisdictional Determination (AJD) at a later date, if necessary.
- Approved Jurisdictional Determination (AJD)

Deliberative Draft

- A definitive, official determination that defines which aquatic features are jurisdictional and subject to permitting.
- Can be appealed.

- No Permit Required letter (NPR)
  - A brief document, issued by the USACE, that indicates that a specific project will not involve activities subject to the requirements of Section 404 or Section 10; therefore, that project would not require a Department of Army permit.
- Delineation Concurrence
  - The USACE, does not address jurisdiction at all and simply agrees with how aquatic features are delineated.
  - Typically reduces lengthy USACE review times.
  - Cannot be appealed.
  - Can typically be reviewed faster than a PJD or AJD as part of a permit submittal.

7.2 USACE Permit Actions

The following is provided for informational purposes and is a general overview of common permit strategies for impacts to waters of the U.S. based on our experience within the USACE. Permits are *typically* utilized with some form of JD.

If the proposed development were to impact waters of the U.S., potential permit actions for development projects include coverage by one or more of the following options:

- Standard Permit
  - Individual Permit (IP)
  - Letter of Permission (LOP)
- General Permit
  - Regional General Permit
  - Nationwide Permit (NWP)

Generally, IPs are for projects with large or cumulative impacts. Individual Permits generally take longer to process and involve an in-depth onsite and offsite Alternatives Analysis, among other requirements.

Nationwide Permits are generally less challenging to obtain than an IP, and generally do not require compensatory mitigation for unavoidable impacts to waters of the U.S., if impacts are small enough. Nationwide Permits generally allow for impacts to waters of the U.S. that do not exceed 0.5 acre.

Deliberative Draft

7.3 Potentially Applicable Nationwide Permits

Nationwide permits are action specific and depend upon the activity that is requiring the impact to waters of the U.S. The following discussion is about some potentially applicable Nationwide Permits to this project based on our experience:

- Nationwide Permit 14: Linear Transportation Projects
  - If proposed impacts are only due to site access, such as a roadway crossing, NWP 14 may be applicable.
  - Permit authorizes discharges into non-tidal waters of the U.S. for the construction, expansion, modification, or improvement of linear transportation projects.
    - Stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; and
    - such modifications must be in the immediate vicinity of the project.
    - Examples of linear transportation projects include access roads, trails, and sidewalks.
  - Generally, each separate crossing location of the linear project is considered separately for impact thresholds.
  - Pre-Construction Notification (PCN) to the USACE is required if:
    - Impacts are to special aquatic sites, including wetlands; or
    - Impacts exceed 0.10 acre.
  - Discharges may not cause the loss of greater than 0.5 acre of non-tidal waters of the U.S.
  - Mitigation not required if:
    - Impacts are kept to 0.10 acre or less; and
    - PCN is not required.
  - Mitigation required if:
    - PCN is required; and
    - stream channel impact exceeds 0.03 acre; and/or
    - wetland and open water impact exceeds 0.10 acre.

8 Conclusions

8.1 Kimley-Horn Analysis

It is Kimley-Horn's analysis that the USACE Fort Worth District would **likely assert jurisdiction over:**

- two perennial streams (S2-S3);

Deliberative Draft

- two emergent wetlands (W1, W3);
- fringe wetlands (W2, W4-W6); and
- the open water features OW1 and OW2.

It is Kimley-Horn's analysis that the USACE Fort Worth District would **likely not assert jurisdiction over**:

- the ephemeral stream S1.

8.2 Potential Actions

The proposed project would impact waters of the U.S; therefore, permitting would be required:

- USACE permitting would be required, as discussed in Section 7.3 above
  - the submittal of a PCN may not be required (depending on the type and amount of impacts to waters of the U.S.).

Please note that our analysis is based on our professional judgment and understanding of the applicable laws and our experience with their interpretation. However, we do not control, and cannot predict, how the USACE will respond in any particular situation.

Deliberative Draft

This report was prepared by:

KIMLEY-HORN AND ASSOCIATES, INC.

Lauren Karns, Environmental Analyst

Craig Hiatt, Senior Environmental Scientist

Disclaimer:

Kimley-Horn has prepared this document based on limited field observations and our interpretation, as wetland scientists, of the USACE's regulations at 33 CFR 328 Definition of Waters of the United States, joint USACE and EPA guidance regarding the Pre-2015 Regulatory Regime consistent with the *Sackett* Supreme Court decision. While Kimley-Horn believes our interpretation to be accurate, final authority to interpret the regulations lies with the USACE and EPA. USACE and EPA Headquarters occasionally issue guidance that changes the interpretation of published regulations. Guidance issued after the date of this report has the potential to invalidate our conclusion and/or recommendations and may cause a need to reevaluate our recommendation. Because Kimley-Horn has no regulatory authority, the Client understands that proceeding based solely upon this document does not protect the Client from potential sanction or fines from the USACE. The Client acknowledges that they have the opportunity to submit a proposed jurisdictional determination to the USACE for concurrence prior to proceeding with any work. If the Client elects not to do so, then the Client proceeds at their sole risk.

Deliberative Draft

Appendix A. Study Area Figures

Deliberative Draft

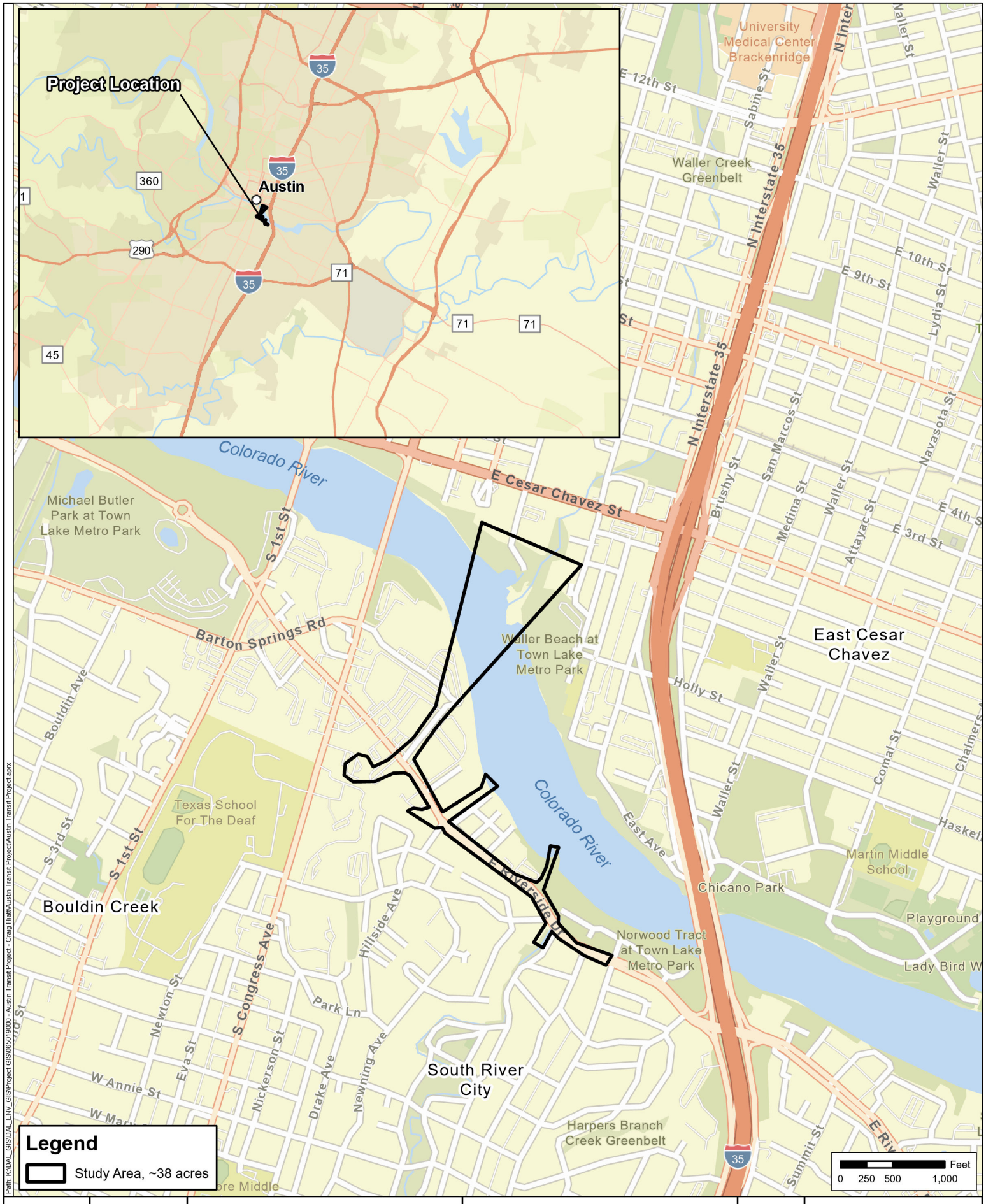
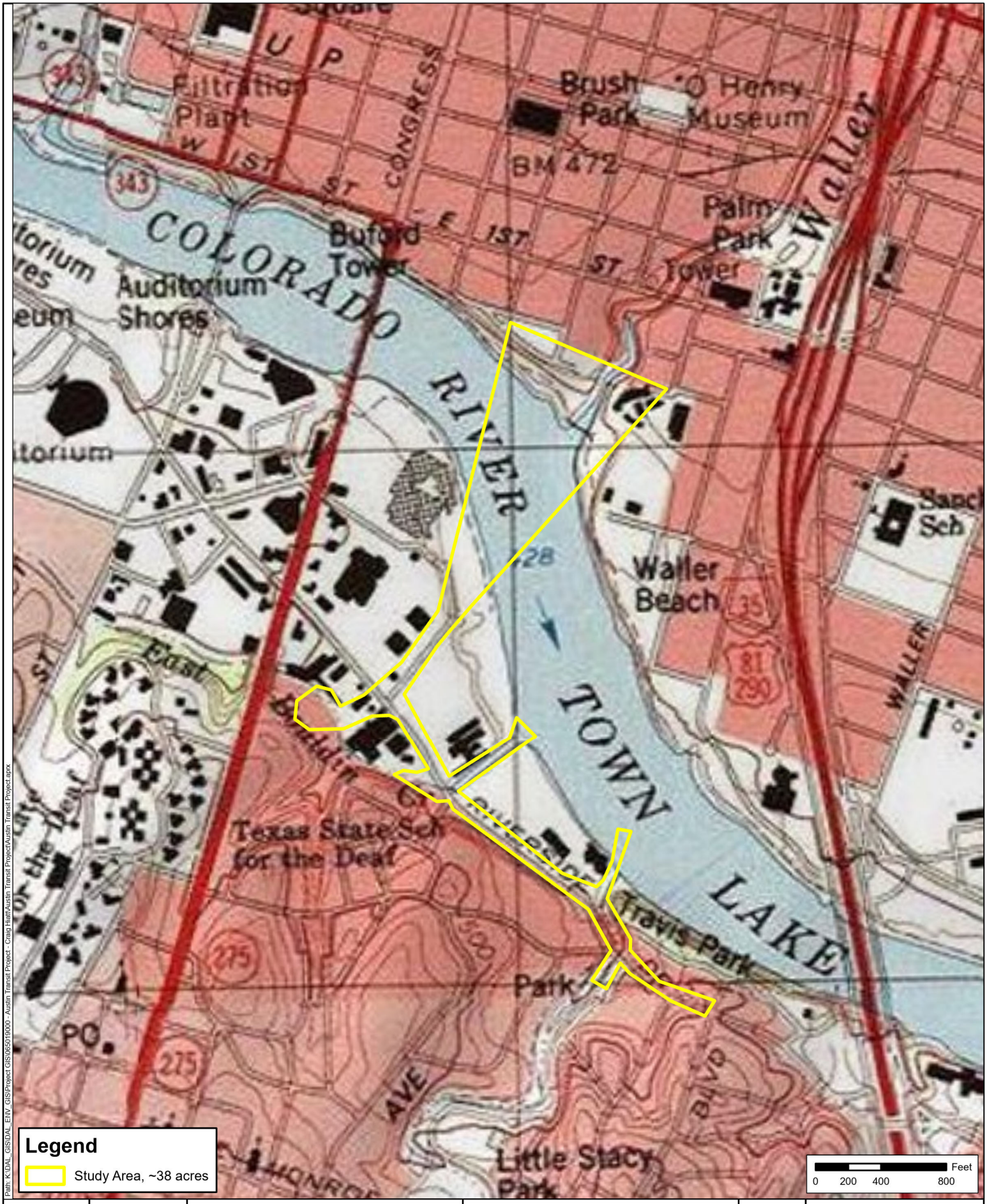


FIGURE 1	DATE: 10/01/2024 DRAWN: LJK CHECKED: KRK KHA NO.: 065019000	Vicinity Map Source: ESRI Basemap	Austin Transit Project Austin, Travis County, Texas	N	Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

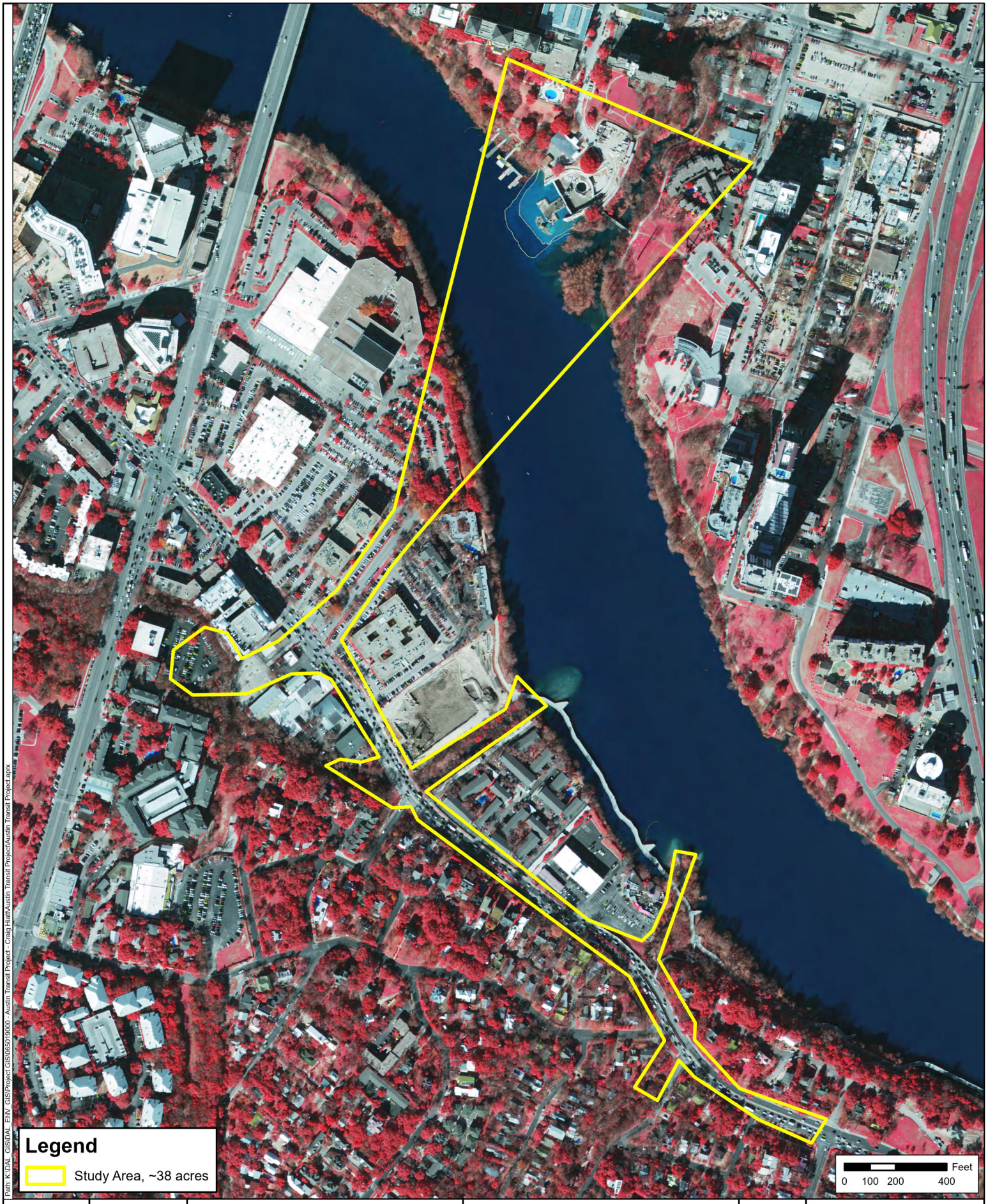
FIGURE 2	DATE: 10/01/2024 DRAWN: LJK CHECKED: KRK KHA NO.: 065019000	USGS Topographic Map Quad: Austin East	Austin Transit Project Austin, Travis County, Texas	N	Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE					
3	DATE: 10/01/2024 DRAWN: LJK CHECKED: KRK KHA NO.: 065019000	Recent Aerial Source: Nearmap June 2024	Austin Transit Project Austin, Travis County, Texas	N	Kimley»Horn

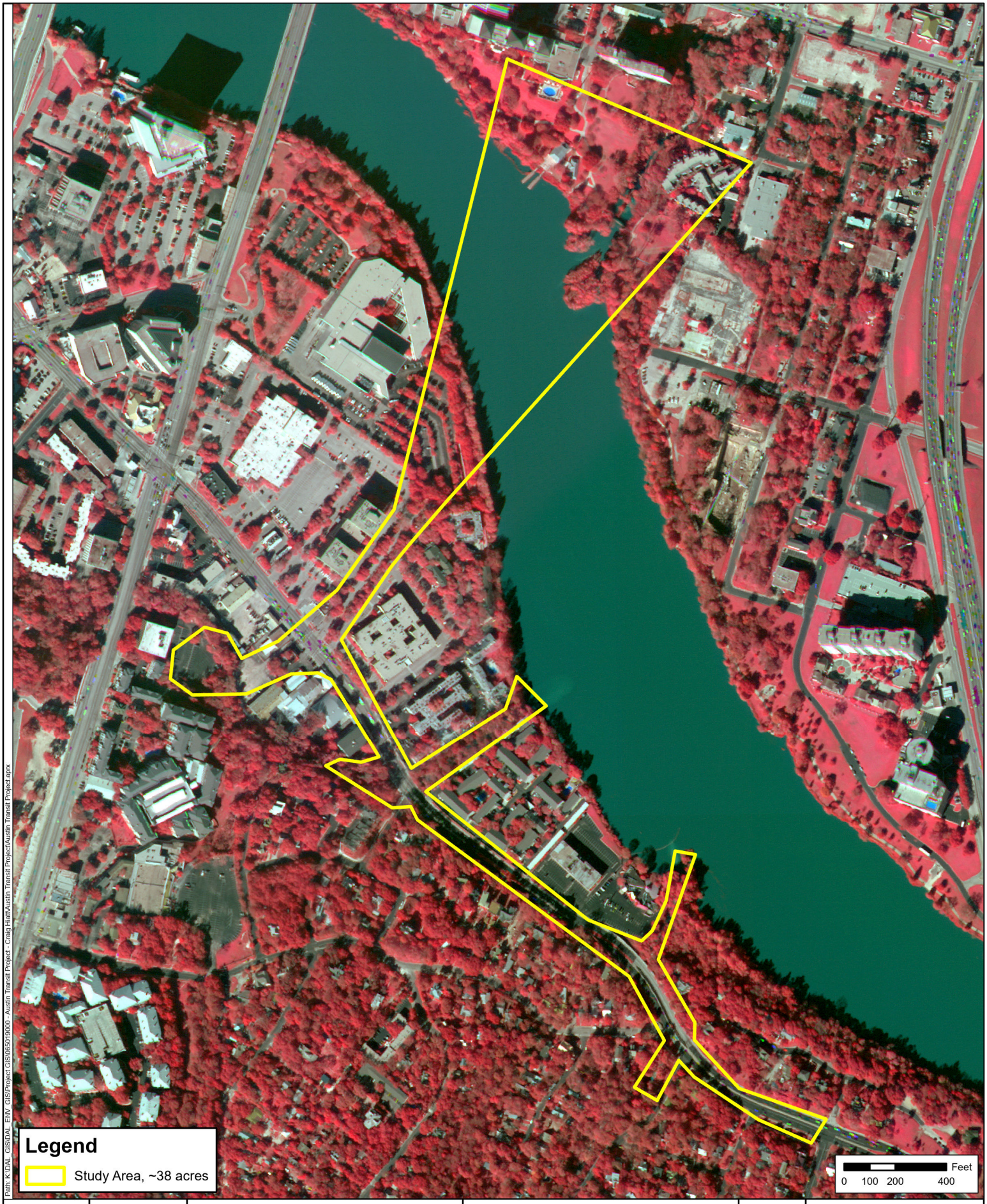
This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE 4	DATE: 10/01/2024 DRAWN: LJK CHECKED: KRK KHA NO.: 065019000	Historic Color Infrared Aerial Source: Texas TOP 2015	Austin Transit Project Austin, Travis County, Texas	N	Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE 5

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

Historic Color Infrared Aerial

Source: Texas NAIP 2004

Austin Transit Project

Austin, Travis County, Texas

N

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hiatt\Austin Transit Project\Austin Transit Project.aprx

FIGURE 6

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

Historic Color Infrared Aerial

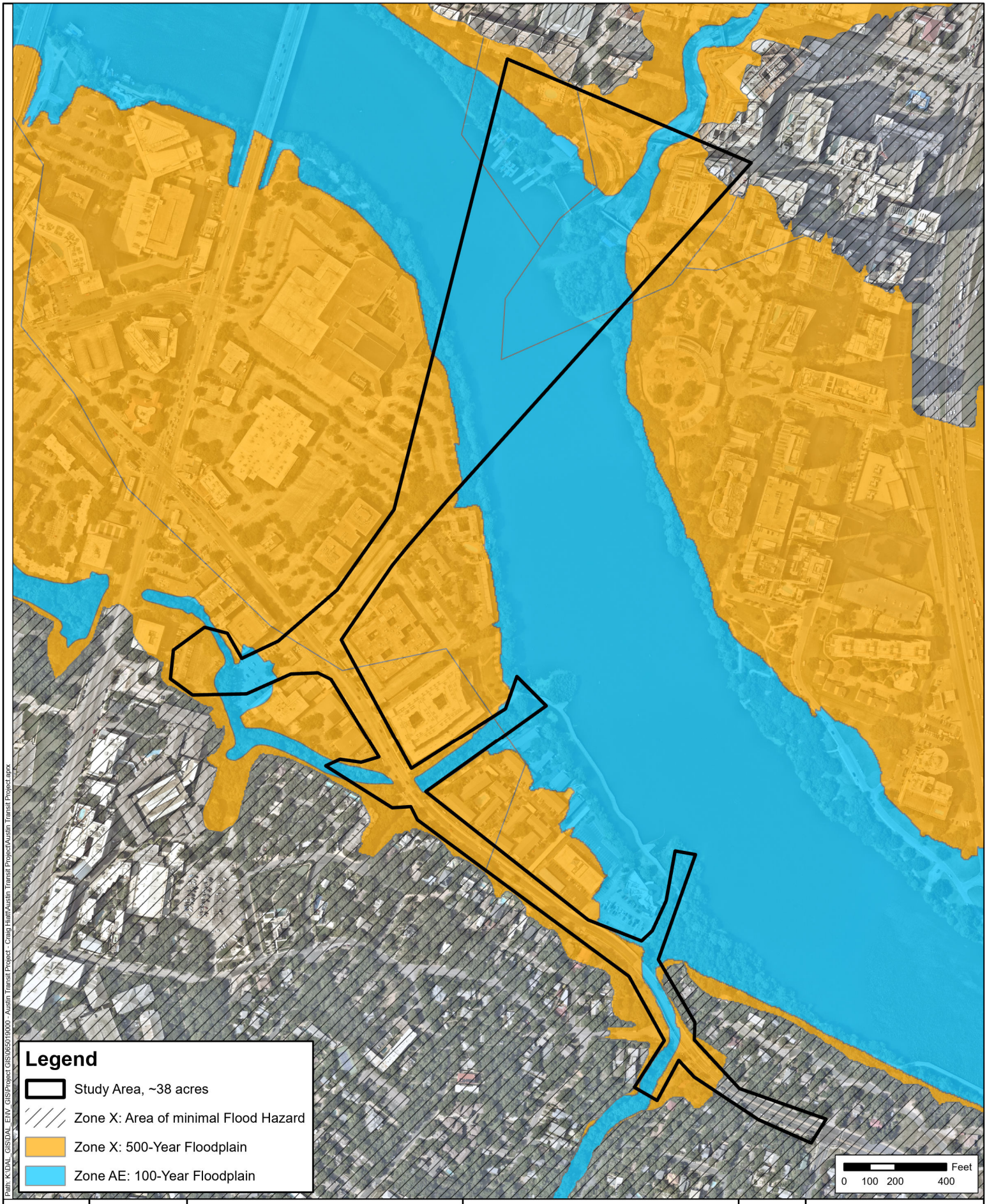
Source: Texas TOP 1996

Austin Transit Project

Austin, Travis County, Texas

Kimley»Horn

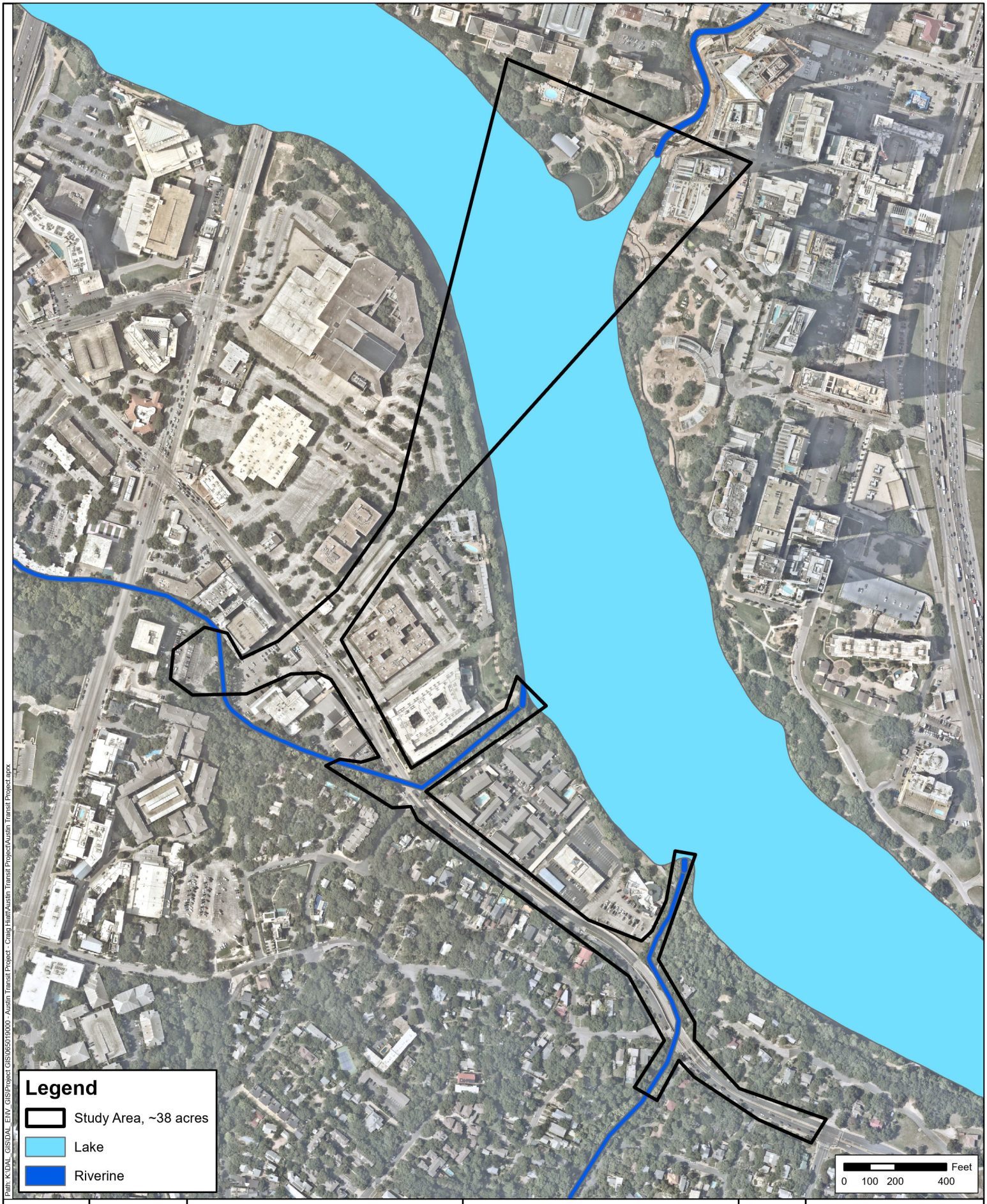
This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE					
7	DATE: 10/01/2024 DRAWN: LJK CHECKED: KRK KHA NO.: 065019000	FEMA Mapped Flood Hazard Layer Source: FEMA	Austin Transit Project Austin, Travis County, Texas	N	Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hiatt\Austin Transit Project\Austin Transit Project.aprx

FIGURE 8

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

National Wetlands Inventory Map

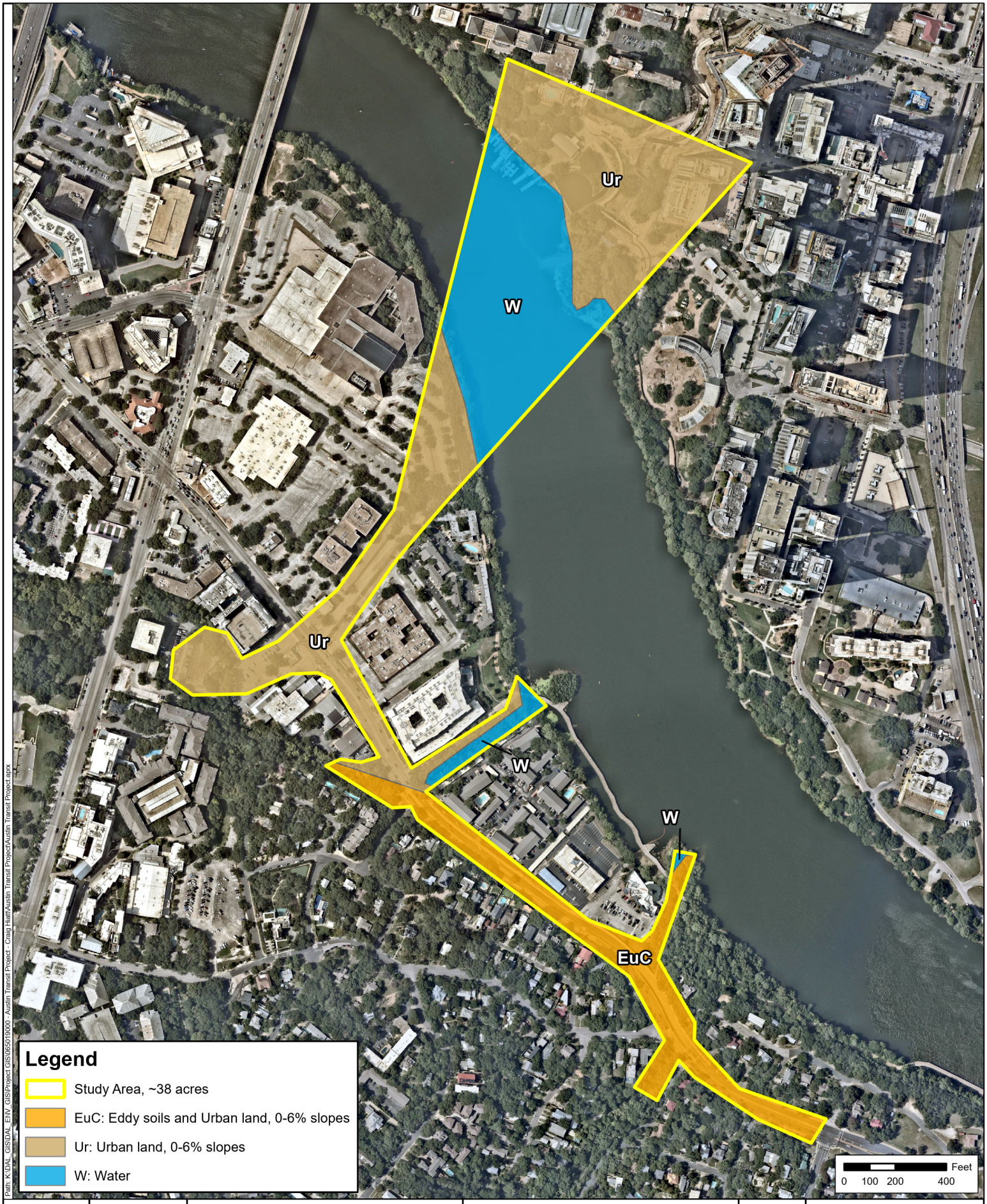
Source: USFWS

Austin Transit Project

Austin, Travis County, Texas

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE 9

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

Soils Map

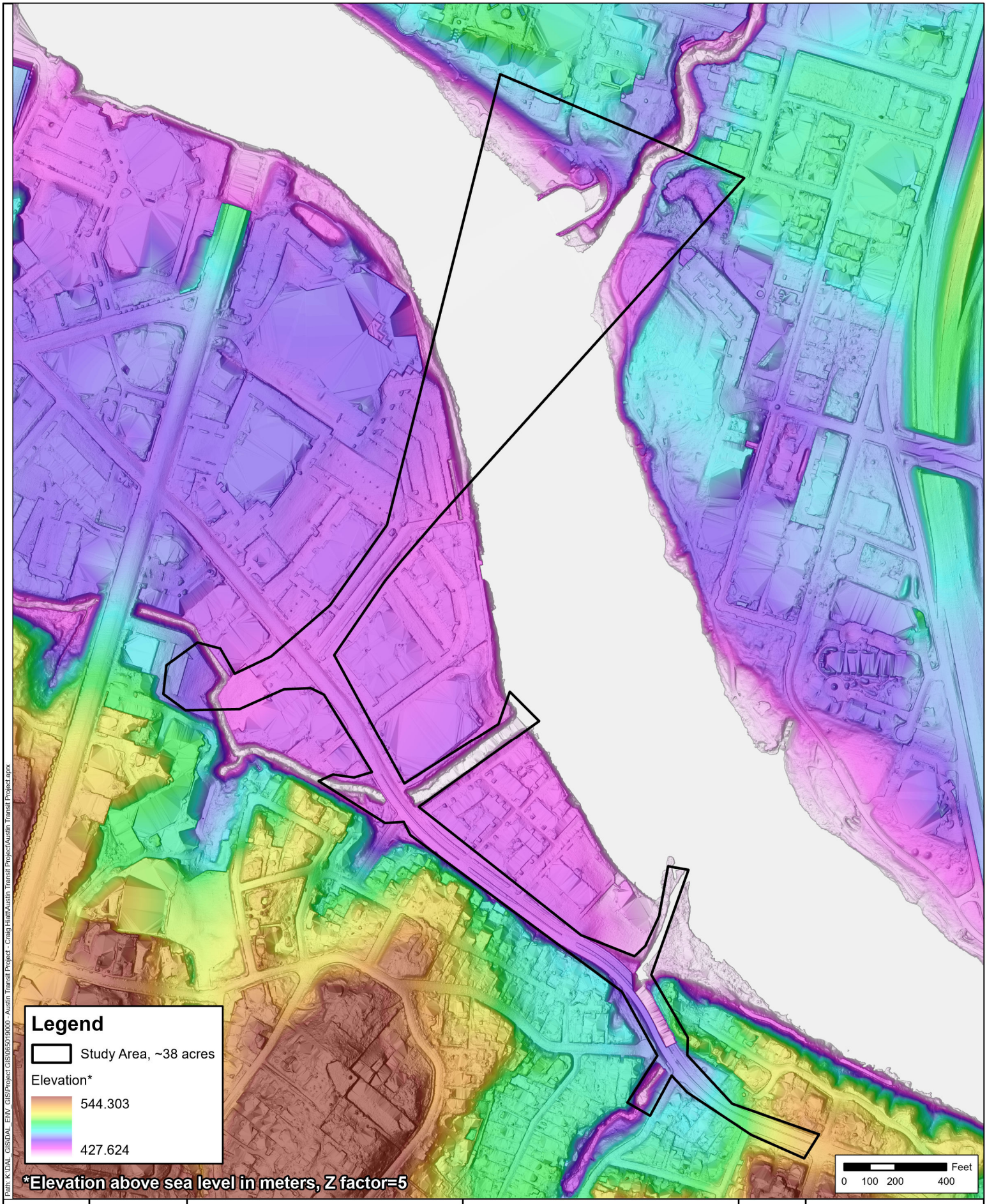
Source: USDA, NRCS

Austin Transit Project

Austin, Travis County, Texas

Kimley»Horn

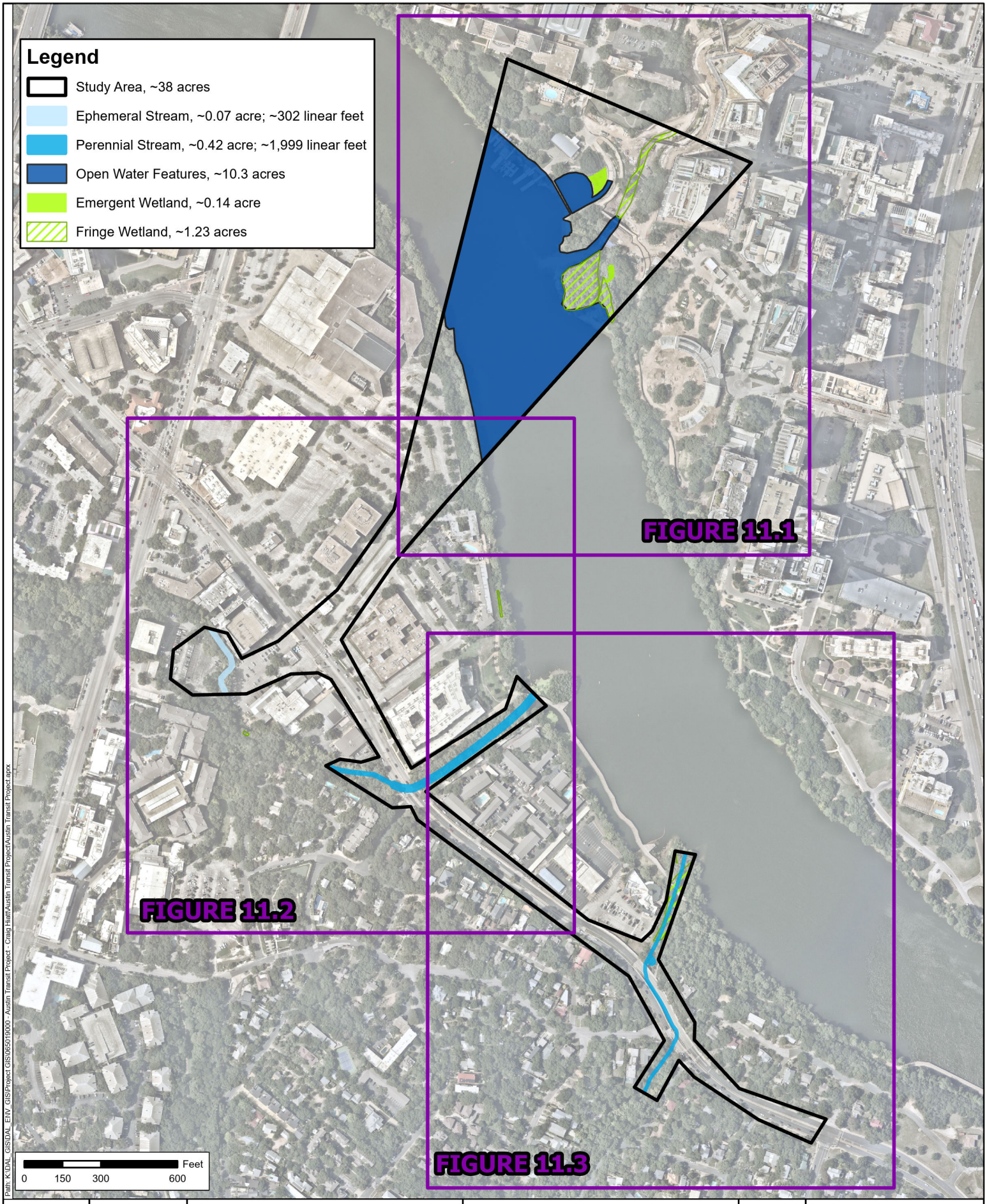
This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE					
10	DATE: 10/01/2024	Hillshade Map	Austin Transit Project	N	Kimley»Horn
	DRAWN: LJK				
	CHECKED: KRK				
	KHA NO.: 065019000	Source: Bexar & Travis County Lidar 2021	Austin, Travis County, Texas		

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE	DATE:	10/01/2024
11.0	DRAWN:	LJK
	CHECKED:	KRK
	KHA NO.:	065019000

Aquatic Features Map
Key Sheet

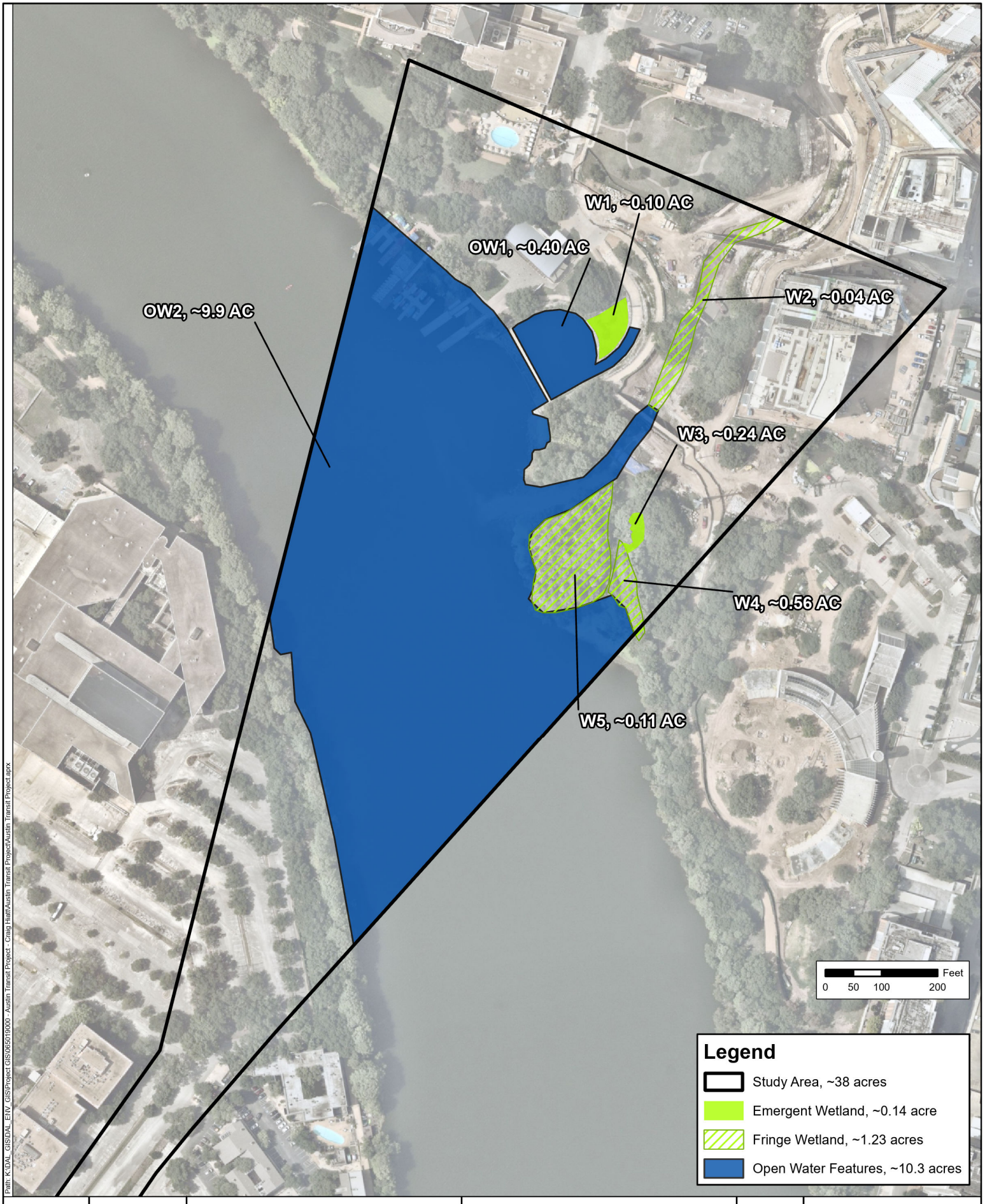
Sources: Nearmap June 2024

Austin Transit Partnership
Lady Bird Lake Bridge
Austin, Travis County, Texas

N

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE
11.1

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

Aquatic Features Map

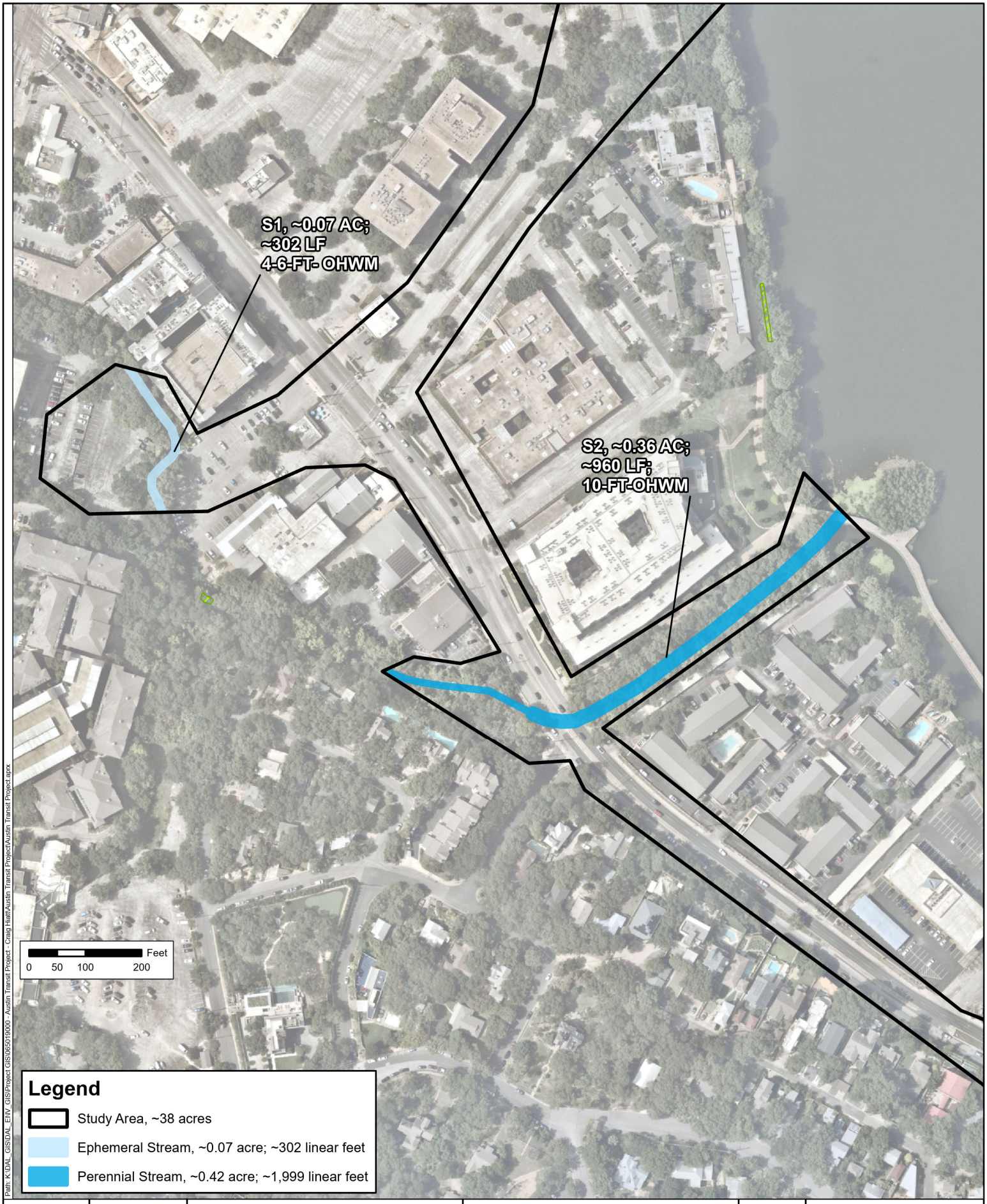
Source: Nearmap June 2024

Austin Transit Partnership
Lady Bird Lake Bridge
Austin, Travis County, Texas

N

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE
11.2

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

Aquatic Features Map

Source: Nearmap June 2024

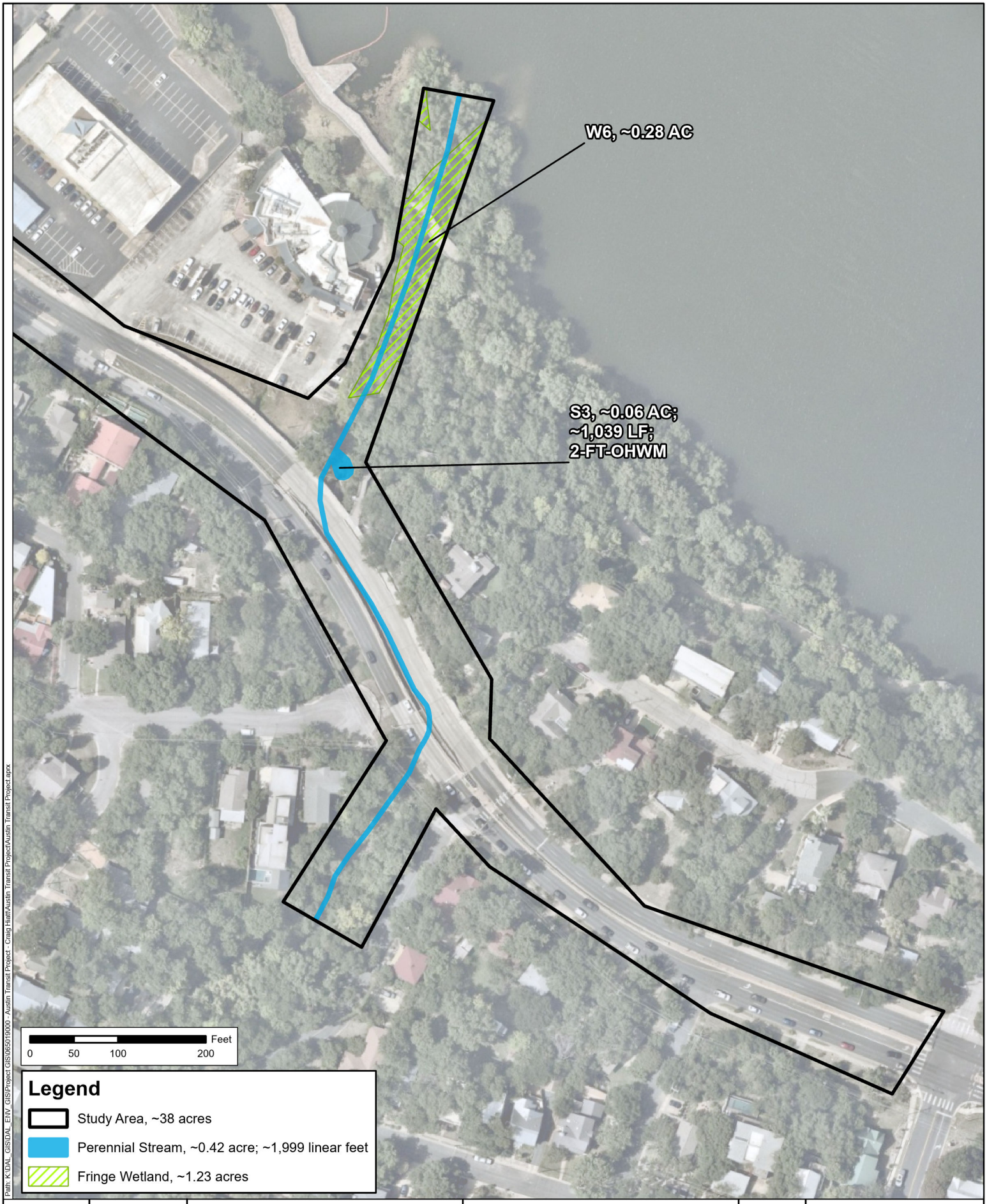
Austin Transit Partnership
Lady Bird Lake Bridge

Austin, Travis County, Texas

N

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE
11.3

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

Aquatic Features Map

Source: Nearmap June 2024

Austin Transit Partnership
Lady Bird Lake Bridge

Austin, Travis County, Texas

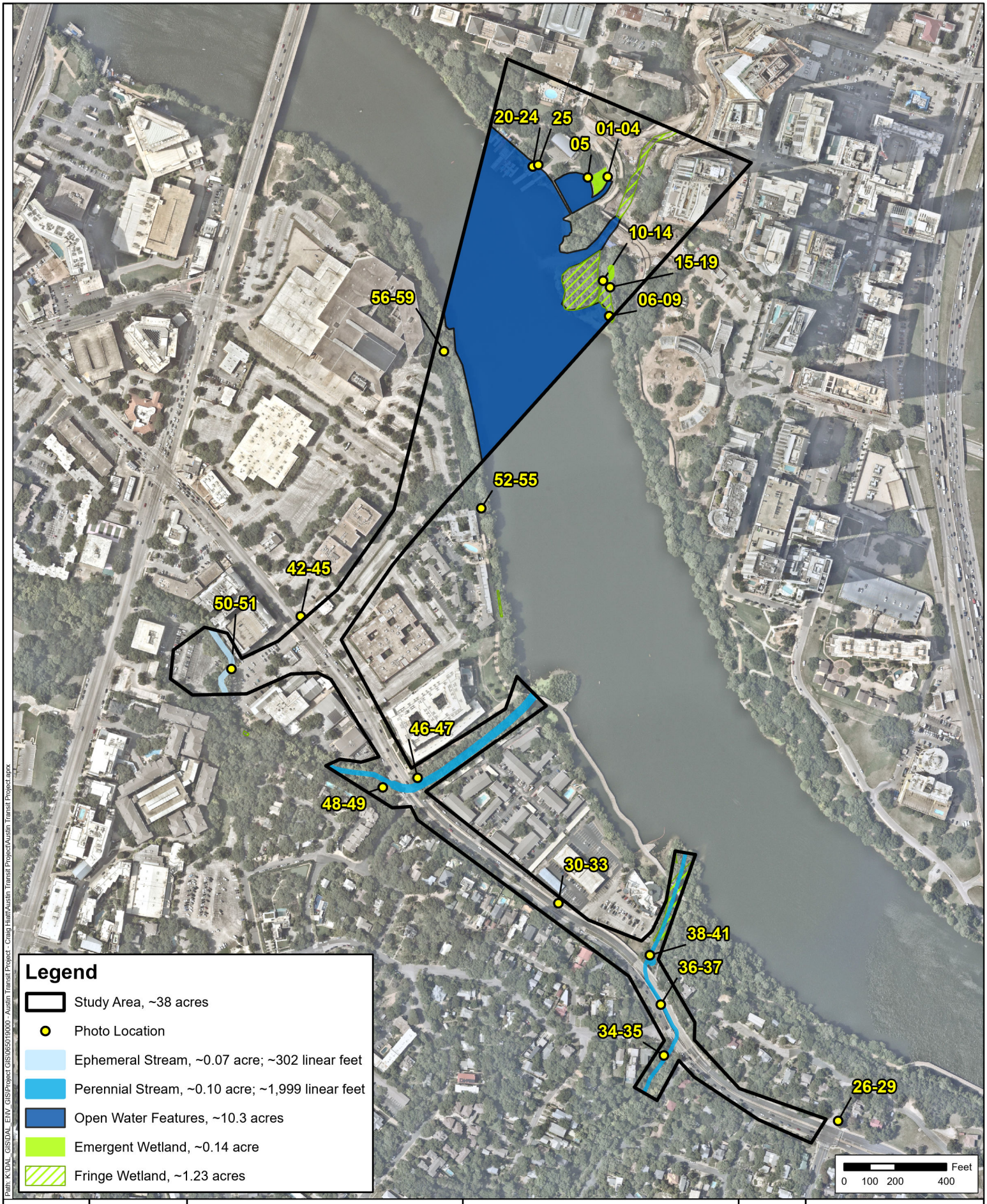
N

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

Appendix B. Photo Location Map and Site Visit Photographs

Deliberative Draft



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hiatt\Austin Transit Project\Austin Transit Project.aprx

FIGURE			
1	DATE:	10/072024	
	DRAWN:	LJK	
	CHECKED:	KRK	
	KHA NO.:	065019000	

Photo Location Map

Source: Nearmap June 2024

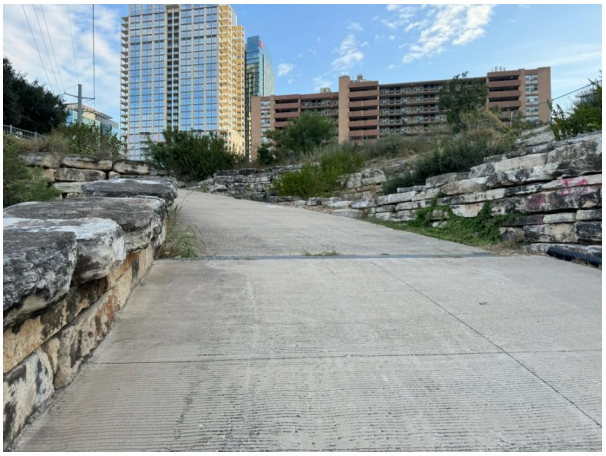
Austin Transit Partnership
Lady Bird Lake Bridge
Austin, Travis County, Texas

N

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

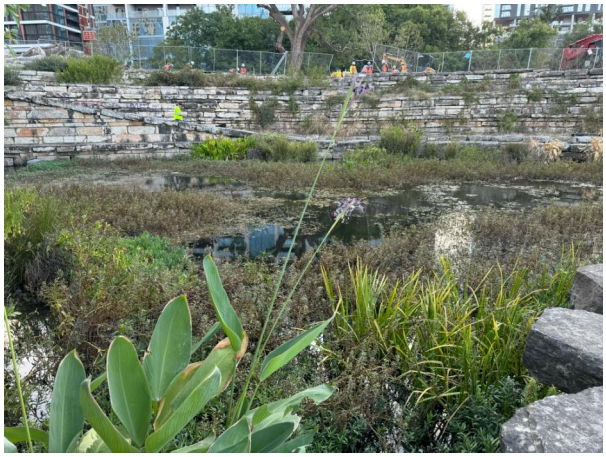
01



02

03

04



05

06

Photos were taken on 09/23/2024

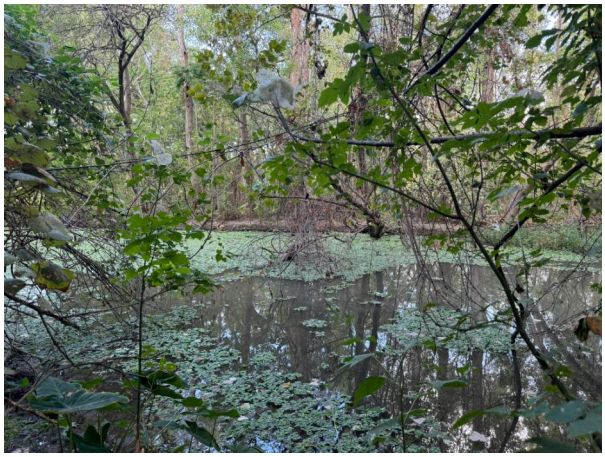
07

08

09

10

11



12

Photos were taken on 09/23/2024

13

14

15

16

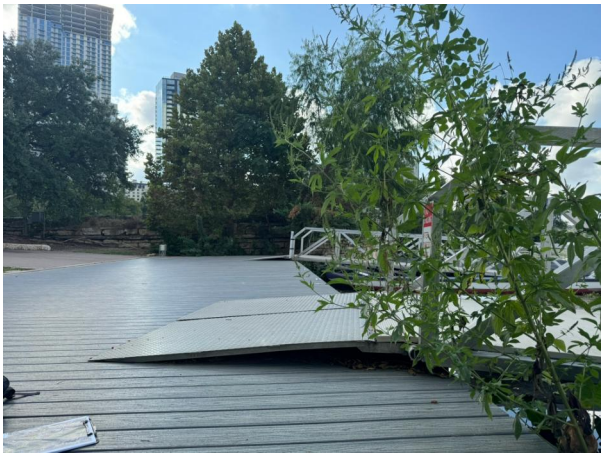
17

18

Photos were taken on 09/23/2024

19

20



21

22

23

24

Photos were taken on 09/23/2024

25

26

27

28

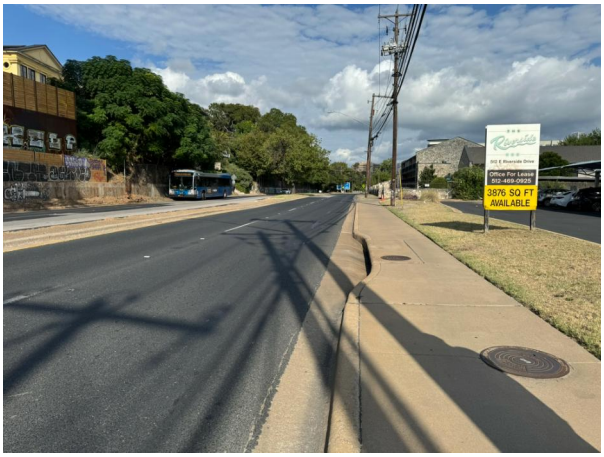
29

30

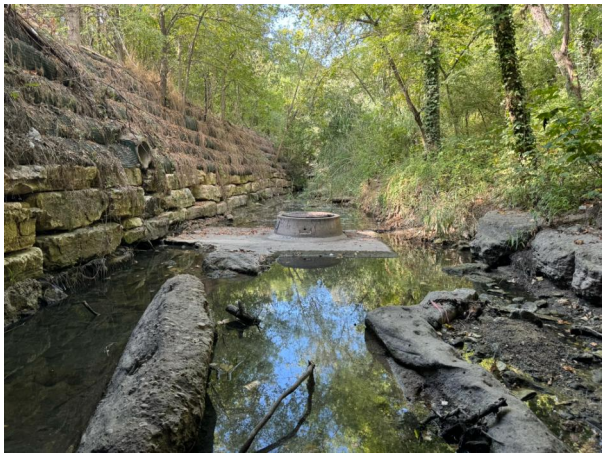
Photos were taken on 09/23/2024

31

32



33

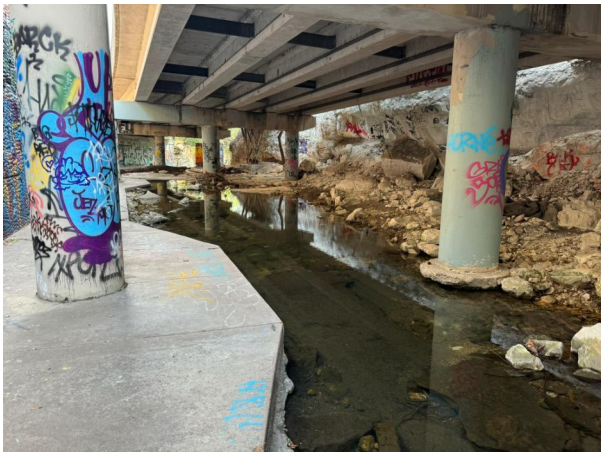


34

35

36

Photos were taken on 09/23/2024



37

38

39

40

41

42

Photos were taken on 09/23/2024

43

44

45

46

47

48

Photos were taken on 09/23/2024

49

50

51

52

53

54

Photos were taken on 09/23/2024

55

56

57

58

59

Photos were taken on 09/23/2024

Appendix C. Wetland Determination Data Documentation

Deliberative Draft

Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hiatt\Austin Transit Project\Austin Transit Project.aprx

FIGURE 1

DATE:	10/07/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

Soil Stations Map

Source: Nearmap June 2024

Austin Transit Partnership
Lady Bird Lake Bridge

Austin, Travis County, Texas

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Austin Transit Project | City/County: Austin, Travis County | Sampling Date: 09/23/2024

Applicant/Owner: | State: TX | Sampling Point: SS1

Investigator(s): L. Karns, C. Hiatt | Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Bowl | Local relief (concave, convex, none): Concave | Slope (%): 2-3

Subregion (LRR): LRR J | Lat: 30.260211 | Long: -97.741236 | Datum: NAD 83

Soil Map Unit Name: Ur: Urban land, 0-6% slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐ Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐ Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☑ No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑ No ☐	
Wetland Hydrology Present?	Yes ☑ No ☐	

Remarks:
Storm water runoff collection.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus velutina*	5	Y	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. *Ludwigia octovalvis*	10	Y	OBL
2.			
3.			
4.			
5.		5	N
	10 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Justicia americana*	40	Y	OBL
2. *Maranta arundinacea*	25	Y	OBL
3. *Colocasia esculenta*	10	N	FACW
4. *Boehmeria cylindrica*	5	N	FACW
5. *Scirpus cyperinus*	5	N	OBL
6.			
7.			
8.			
9.			
10.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
% Bare Ground in Herb Stratum	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is :53.0[1]
- ☐ 4 - Morphological Adaptations[1](Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

SOIL

Sampling Point: SS1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR F)**
- ☐ 1 cm Muck (A9) **(LRR F, G, H)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRRI, J)**
- ☐ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ☐ Dark Surface (S7) **(LRR G)**
- ☐ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☑ **No** ☐

Remarks:

Surface water observed - Hydric soils assumed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)
- ☐ Frost-Heave Hummocks (D7) **(LRR F)**

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): 18

Water Table Present? Yes ☐ No ☑ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☑ No ☐ Depth (inches): 12

Wetland Hydrology Present? **Yes** ☑ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Austin Transit Project | City/County: Austin, Travis County | Sampling Date: 09/23/2024

Applicant/Owner: | State: TX | Sampling Point: SS2

Investigator(s): L. Karns, C. Hiatt | Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Bowl | Local relief (concave, convex, none): Concave | Slope (%): 2-3

Subregion (LRR): LRR J | Lat: 30.259021 | Long: -97.741233 | Datum: NAD 83

Soil Map Unit Name: Ur: Urban land, 0-6% slopes | NWI classification: L1UBHh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐ Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐ Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☑ No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑ No ☐	
Wetland Hydrology Present?	Yes ☑ No ☐	

Remarks:
Emergent wetland (W3).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		

Herb Stratum (Plot size: 5')			
1. *Colocasia esculenta*	40	Y	FACW
2. *Pistia stratiotes*	20	Y	OBL
3. *Ambrosia trifida*	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	65 = Total Cover		

Woody Vine Stratum (Plot size: 15')			
1. *Vitis mustangensis*	20	Y	UPL
2. *Toxicodendron radicans*	10	Y	FACU
% Bare Ground in Herb Stratum 60	30 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	40	x 2 =	80
FAC species	5	x 3 =	15
FACU species	10	x 4 =	40
UPL species	20	x 5 =	100
Column Totals:	95 (A)		255 (B)

Prevalence Index = B/A = 2.7

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☑ 3 - Prevalence Index is ::3.0[1]
- ☐ 4 - Morphological Adaptations[1](Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

SOIL

Sampling Point: SS2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	80	10YR 2/1	20	C	M	Loamy Sand	
6-18	10YR 4/1	100					Loamy Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR F)**
- ☐ 1 cm Muck (A9) **(LRR F, G, H)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRRI, J)**
- ☐ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ☐ Dark Surface (S7) **(LRR G)**
- ☐ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Hydric soils were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☑ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)
- ☐ Frost-Heave Hummocks (D7) **(LRR F)**

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): 1

Water Table Present? Yes ☑ No ☐ Depth (inches): 4

Saturation Present? (includes capillary fringe) Yes ☑ No ☐ Depth (inches): 1

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Austin Transit Project | City/County: Austin, Travis County | Sampling Date: 09/23/2024

Applicant/Owner: | State: TX | Sampling Point: SS3

Investigator(s): L. Karns, C. Hiatt | Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0-1

Subregion (LRR): LRR J | Lat: 30.259093 | Long: -97.741321 | Datum: NAD 1983

Soil Map Unit Name: Ur: Urban land, 0-6% slopes | NWI classification: L1UBHh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [✔] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [ ]	No [✔]	**Is the Sampled Area within a Wetland?** Yes [ ] No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]	
Wetland Hydrology Present?	Yes [ ]	No [✔]	

Remarks:
Upland data point.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*	80	Y	FACU
2.			
3.			
4.			
5.			
	80 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. *Toxicodendron radicans*	80	Y	FACU
2. *Morus alba*	5	N	FACU
3.			
4.			
5.			
	85 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Danthonia spicata*	5	Y	UPL
2. *Malvastrum coromandelianum*	3	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	8 = Total Cover		
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
% Bare Ground in Herb Stratum 40	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	3	x 3 =	9
FACU species	165	x 4 =	660
UPL species	5	x 5 =	25
Column Totals:	173 (A)		694 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [ ] 3 - Prevalence Index is :53.0[1]
- [ ] 4 - Morphological Adaptations[1](Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes [ ] No [✔]

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not observed.

SOIL

Sampling Point: SS3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	7.5YR 4/2	100					Loam	
3-8	7.5YR 4/2	60					Loam	
	10YR 5/6	40					Loam	
8-12	10YR 6/6	80					Loam	
	10YR 5/4	20					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR F)**
- ☐ 1 cm Muck (A9) **(LRR F, G, H)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRRI, J)**
- ☐ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ☐ Dark Surface (S7) **(LRR G)**
- ☐ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Root hard-pan

Depth (inches): 12

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)
- ☐ Frost-Heave Hummocks (D7) **(LRR F)**

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☐ No ☑ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☑

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was not observed.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Austin Transit Project | City/County: Austin, Travis County | Sampling Date: 09/23/2024

Applicant/Owner: | State: T | Sampling Point: SS4

Investigator(s): L. Karns, C. Hiatt | Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0-1

Subregion (LRR): LRR J | Lat: 30.26034 | Long: -97.742161 | Datum: NAD 1983

Soil Map Unit Name: Ur: Urban land, 0-6% slopes | NWI classification: L1UBHh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [✔] No [ ] (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ], or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes [✔] No [ ]

Are Vegetation [ ] Soil [ ], or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes [✔]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [ ] No [✔]
Hydric Soil Present?	Yes [ ]	No [✔]	
Wetland Hydrology Present?	Yes [✔]	No [ ]	

Remarks:
Upland by Boat dock.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. *Sambucus canadensis*	15	Y	UPL
2. *Salix nigra*	3	N	FACW
3. *Ulmus crassifolia*	3	N	FAC
4.			
5.			
	21 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Colocasia esculenta*	40	Y	FACW
2. *Ambrosia trifida*	40	Y	FAC
3. *Mikania scandens*	10	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 15')			
1. *Toxicodendron radicans*	25	Y	FACU
2.			
% Bare Ground in Herb Stratum	25 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	53	x 2 =	106
FAC species	43	x 3 =	129
FACU species	25	x 4 =	100
UPL species	15	x 5 =	75
Column Totals:	136 (A)		410 (B)

Prevalence Index = B/A = 3.0

Hydrophytic Vegetation Indicators:

- [ ] 1 - Rapid Test for Hydrophytic Vegetation
- [ ] 2 - Dominance Test is >50%
- [✔] 3 - Prevalence Index is ::3.0[1]
- [ ] 4 - Morphological Adaptations[1](Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes [✔] No [ ]

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

SOIL

Sampling Point: SS4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5 YR	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR F)**
- ☐ 1 cm Muck (A9) **(LRR F, G, H)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRRI, J)**
- ☐ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ☐ Dark Surface (S7) **(LRR G)**
- ☐ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Root hard pan

Depth (inches): 12

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1) (C3)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)
- ☐ Frost-Heave Hummocks (D7) **(LRR F)**

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots **(where tilled)**
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): ___

Water Table Present? Yes ☑ No ☐ Depth (inches): 2

Saturation Present? (includes capillary fringe) Yes ☑ No ☐ Depth (inches): 1

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Austin Transit Project | City/County: Austin, Travis County | Sampling Date: 09/23/2024

Applicant/Owner: | State: TX | Sampling Point: SS5

Investigator(s): L. Karns, C. Hiatt | Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Bowl | Local relief (concave, convex, none): Concave | Slope (%): 2-4

Subregion (LRR): LRR J | Lat: 30.251821 | Long: -97.740936 | Datum: NAD 1983

Soil Map Unit Name: EuC: Eddy soils and Urban land, 0-6% slopes | NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐ Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐ Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☑ No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑ No ☐	
Wetland Hydrology Present?	Yes ☑ No ☐	

Remarks:
Blunn Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. *Triadica sebifera*	25	Y	FAC
2. *Acer negundo*	5	N	FAC
3.			
4.			
5.			
	30 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Ambrosia trifida*	40	Y	FAC
2. *Polygonum hydropiperoides*	10	N	OBL
3. *Canna indica*	5	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	55 = Total Cover		
Woody Vine Stratum (Plot size: 15')			
1. *Toxicodendron radicans*	15	Y	FACU
2.			
% Bare Ground in Herb Stratum	15 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is :53.0[1]
- ☐ 4 - Morphological Adaptations[1](Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

SOIL

Sampling Point: SS5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR F)**
- ☐ 1 cm Muck (A9) **(LRR F, G, H)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRRI, J)**
- ☐ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ☐ Dark Surface (S7) **(LRR G)**
- ☐ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Surface water observed - Hydric soils assumed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)
- ☐ Frost-Heave Hummocks (D7) **(LRR F)**

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☑ No ☐ Depth (inches): 24

Water Table Present? Yes ☑ No ☐ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☑ No ☐ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

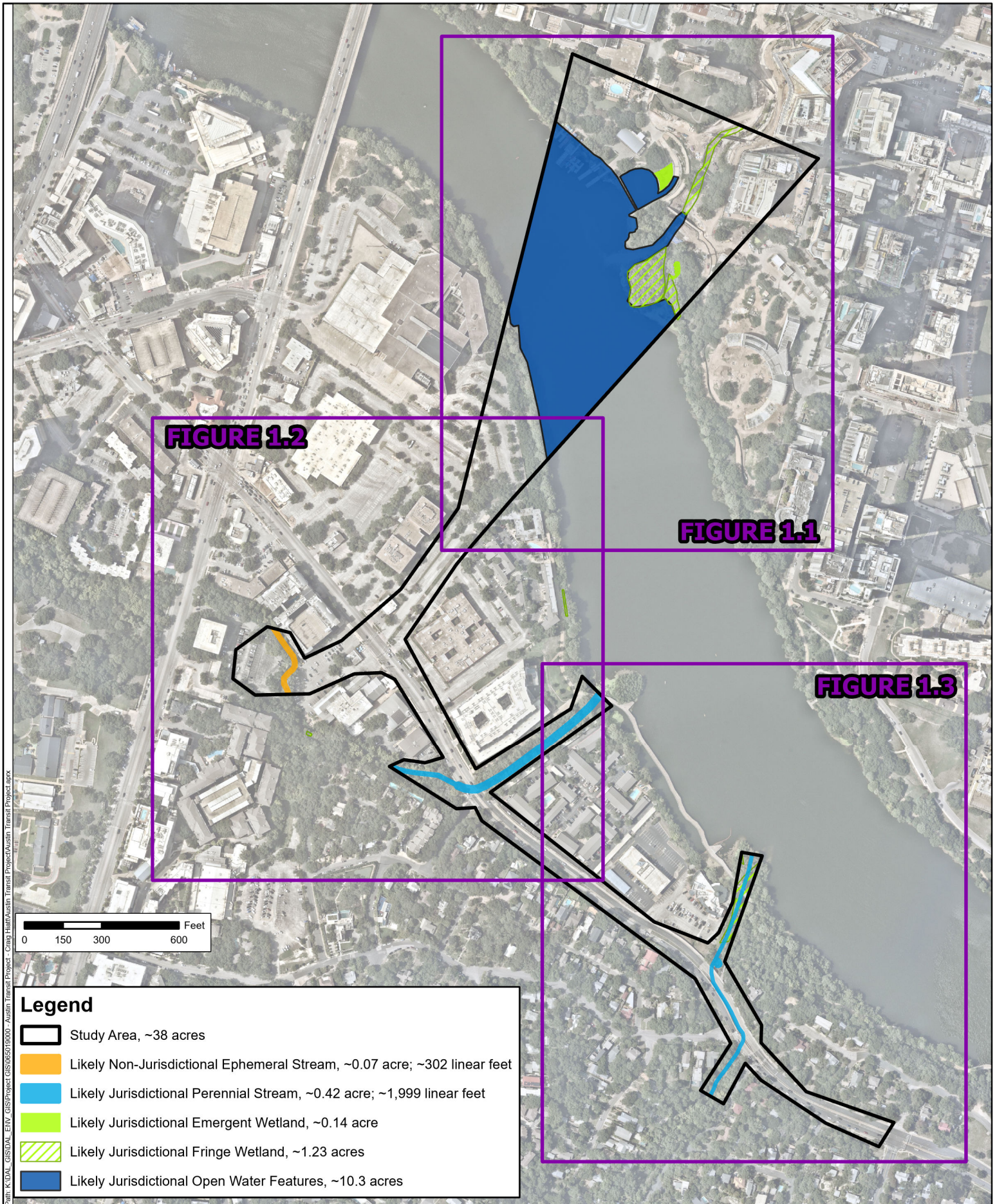
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was observed.

Appendix D. Jurisdictional Analysis Maps

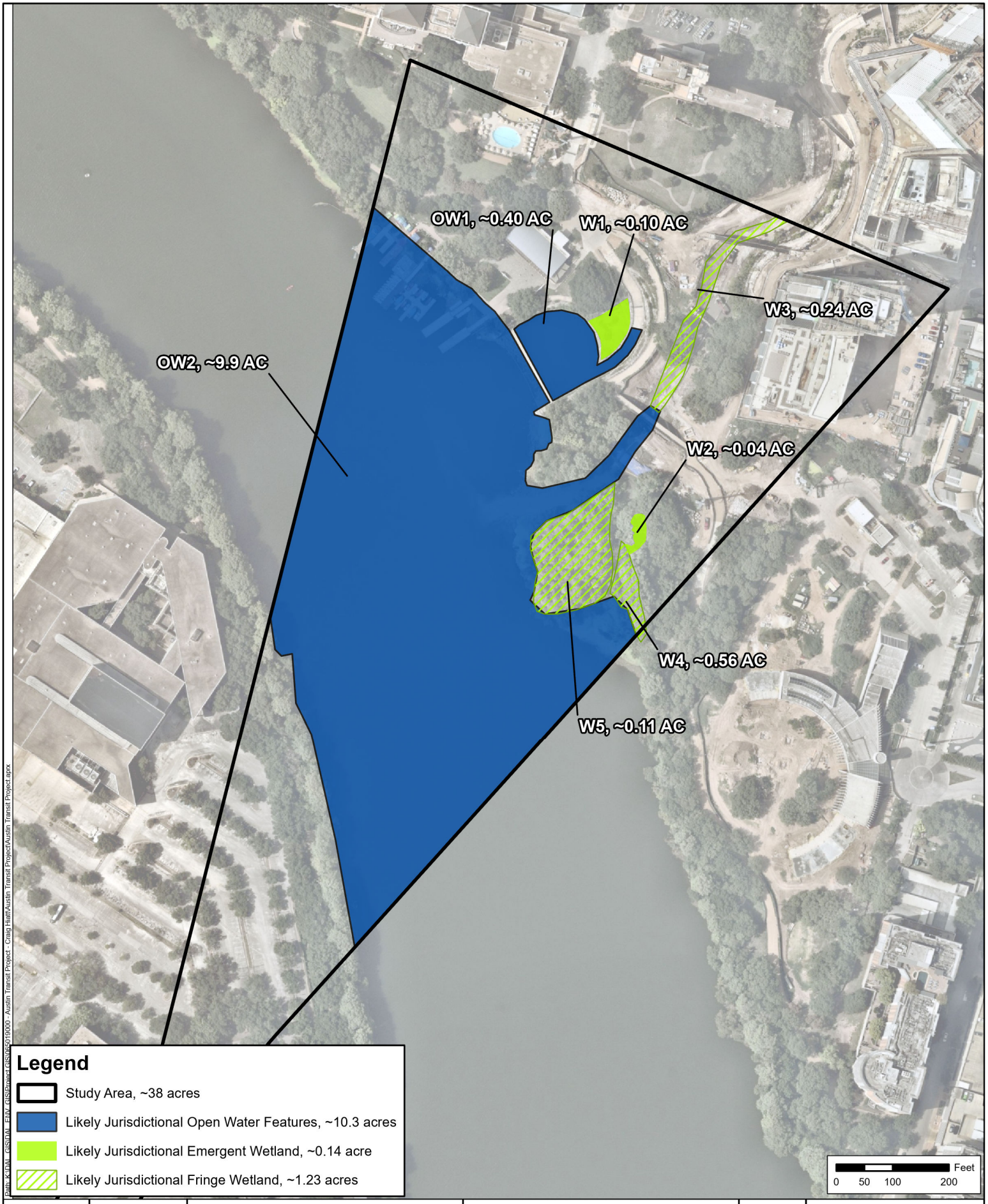
Deliberative Draft



Path: K:\DAL_GIS\DAL_ENV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hiatt\Austin Transit Project\Austin Transit Project.aprx

FIGURE 1.0	DATE: 10/01/2024 DRAWN: LJK CHECKED: KRK KHA NO.: 065019000	Jurisdictional Analysis Map Key Sheet Sources: Nearmap June 2024	Austin Transit Partnership Lady Bird Lake Bridge Austin, Travis County, Texas	N	Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE 1.1

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

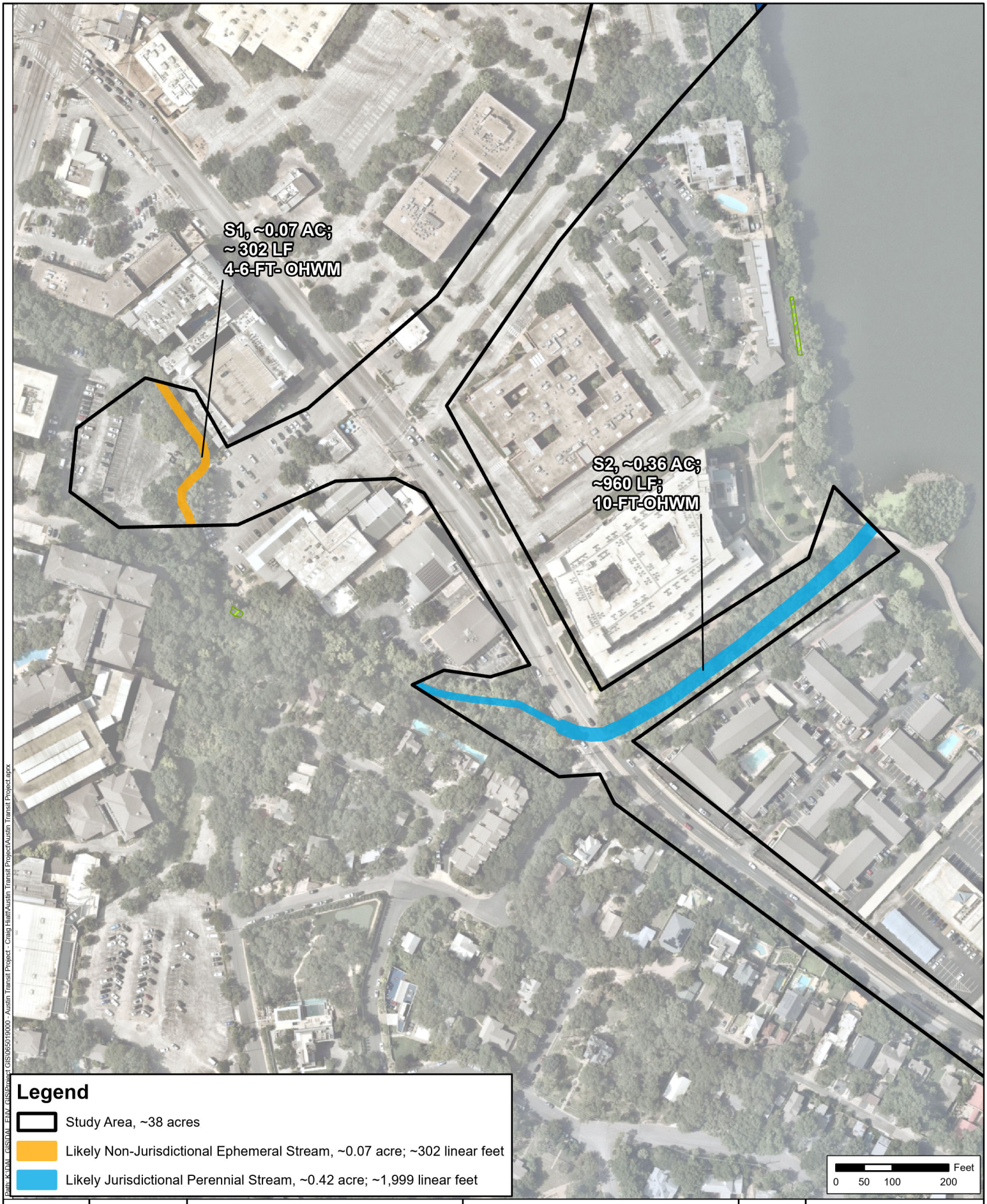
Jurisdictional Analysis Map

Source: Nearmap June 2024

Austin Transit Partnership
Lady Bird Lake Bridge
Austin, Travis County, Texas

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_FDV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE
1.2

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

Jurisdictional Analysis Map

Source: Nearmap June 2024

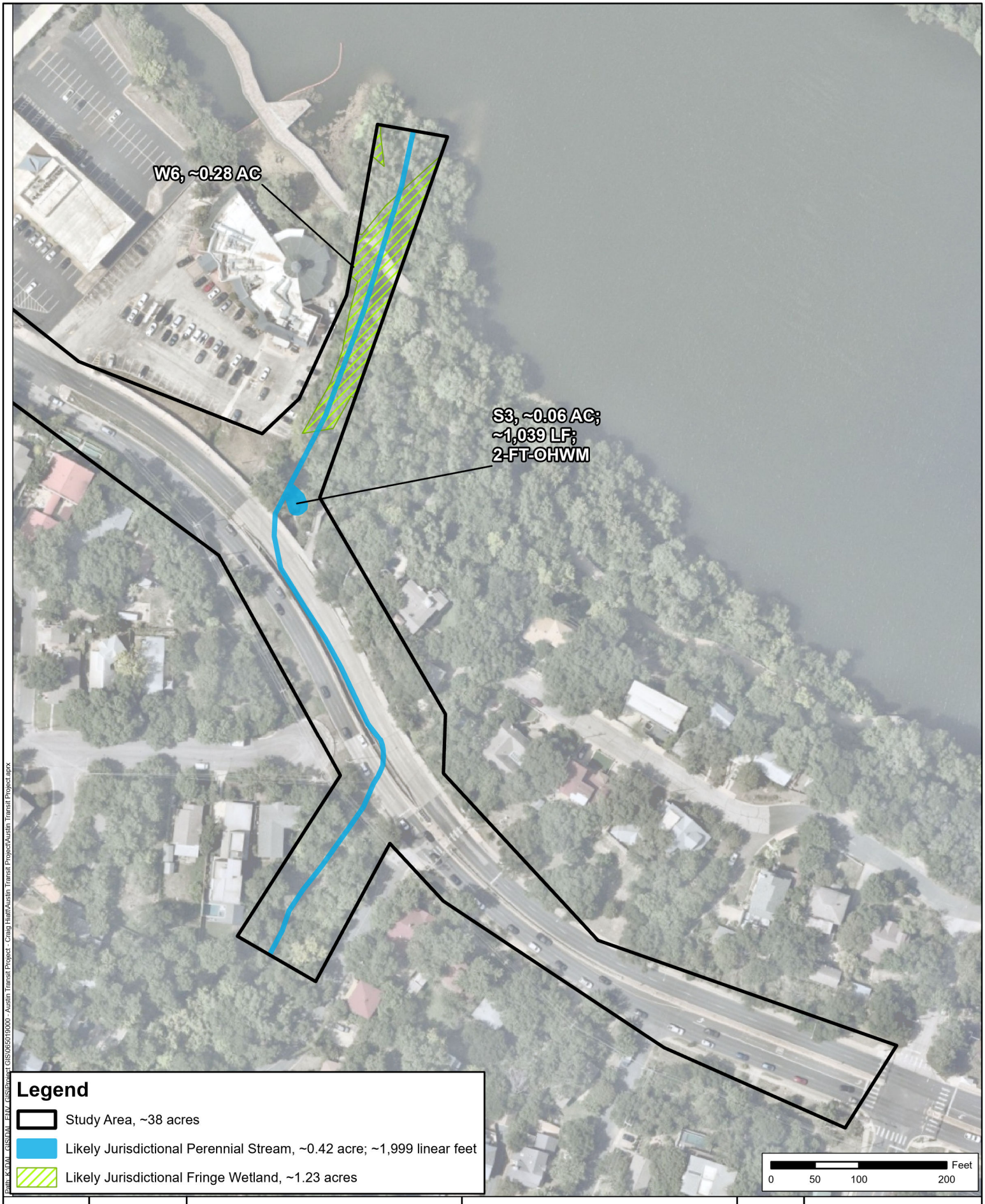
Austin Transit Partnership
Lady Bird Lake Bridge

Austin, Travis County, Texas

N

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



Path: K:\DAL_GIS\DAL_FDV_GIS\Project GIS\065019000 - Austin Transit Project - Craig Hart\Austin Transit Project\Austin Transit Project.aprx

FIGURE
1.3

DATE:	10/01/2024
DRAWN:	LJK
CHECKED:	KRK
KHA NO.:	065019000

Jurisdictional Analysis Map

Source: Nearmap June 2024

Austin Transit Partnership
Lady Bird Lake Bridge

Austin, Travis County, Texas

N

Kimley»Horn

This product is for informational purposes and may not have been prepared for, or be suitable for, legal, engineering, or survey purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.