Owner Authorization Form

Edwards Aquifer Protection Program

Instructions

Complete the following form by adding the requested information in the fields below. The form must be notarized for it to be considered complete. Attach it to other programmatic submittals required by 30 Texas Administrative Code (30 TAC), Chapter 213, and provide it to TCEQ's Edwards Aquifer Protection Program (EAPP) as part of your application.

If you have questions on how to fill out this form or about EAPP, please contact us by phone at 512-339-2929 or by e-mail at eapp@tceq.texas.gov.

Landowner Authorization

I, Michael Valenzuela of Marielle Land Group LLC

am the Manager of the owner of the property located at:

Marielle Subdivision Lot 1A, Block A

and am duly authorized in accordance with 30 TAC 213.4(c)(2) and 213.4(d)(1), or 30 TAC 213.23(c)(2) and 213.23(d), relating to the right to submit an application, signatory authority, and proof of authorized signatory.

I do hereby authorize Zach Summers, Vice President of Land Acquisition of Mill Creek Residential Trust
To conduct development of multi-family units and associated site, utility, and pond improvements.
At 13220 Morris Road, Austin, Texas 78729

Landowner Acknowledgement

I understand that Marielle Land Group LLC

Is ultimately responsible for the compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation even if the responsibility for compliance and the right to possess and control the property referenced in the application has been contractually assumed by another legal entity. I further understand that any failure to comply with any condition of the executive director's approval is a violation and subject to administrative rule or orders and penalties as provided under 30 TAC 213.10, relating to enforcement. Such violations may also be subject to civil penalties.

Landowner Signature

Michael Valenzuela, Manager, Marielle Land Group LLC

2-26-25

Date

THE STATE § OF State Texas

County § of County Travis

BEFORE ME, the undersigned authority, on this day personally appeared

Michael Valenzuela

known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this Day 26th day of Month February, 2025

#126330111 (ID)

NOTARY PUBLIC

Cecilia Gunn (Notary Signature)

MY COMMISSION EXPIRES: Date 3/5/2028

CECILIA GUNN
Notary ID #126330111
My Commission Expires
March 5, 2028

Optional Attachments

Select All that apply:

☐ Lease Agreement

☐ Signed Contract

☐ Deed Restricted Easement

☐ Other legally binding documents

WATER POLLUTION ABATEMENT PLAN & ORGANIZED SEWAGE COLLECTION SYSTEM PLAN

MORRIS ROAD RESIDENTIAL
AUSTIN, WILLIAMSON COUNTY, TEXAS

Prepared For:

MCRT SFR INVESTMENT, LLC
5910 N. Central Expressway, Suite 1100
Dallas, TX 75206

Prepared By:

KIMLEY-HORN AND ASSOCIATES, INC.
10814 Jollyville Road
Avallon IV Suite 200
Austin, Texas 78759
(512) 418-1771

Firm No. 928
KHA Project No. 064487031

December 10, 2024

Table of Contents

Kimley»Horn

SECTION 1: EDWARDS AQUIFER APPLICATION COVER PAGE

kimley-horn.com | 10814 Jollyville Road Avallon IV Suite 200 Austin, Texas 78759 | 512 418 1771

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with 30 TAC 213.

Administrative Review

1. Edwards Aquifer applications must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

   To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: http://www.tceq.texas.gov/field/eapp.

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.

3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.

4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

   An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
6. If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.

2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.
3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or if not withdrawn the application will be denied and the application fee will be forfeited.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available to you:

- You can withdraw your application, and your fees will be refunded or credited for a resubmittal.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the effected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: MCRT SFR TEXAS CONSTRUCTION LLC						**2. Regulated Entity No.:**			
3. Customer Name: Zach Summers						**4. Customer No.: CN605974344**			
5. Project Type: **(Please circle/check one)**	☒ New		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	☒ WPAP	CZP	☒SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	☐Residential		Non-residential			**8. Site (acres):**		7.913	
9. Application Fee:	$5,650		**10. Permanent BMP(s):**			Partial Sedimentation/Filtration			
11. SCS (Linear Ft.):	137		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			Lake Creek			

Application Distribution

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	_X_
Region (1 req.)	___	___	_X_
County(ies)	___	___	_X_
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	_X_ Austin ___ Cedar Park ___ Florence ___ Georgetown ___ Jerrell ___ Leander ___ Liberty Hill ___ Pflugerville ___ Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.
Jose M. Farias, P.E.
Print Name of Customer/Authorized Agent
 2-20-25
Signature of Customer/Authorized Agent Date

FOR TCEQ INTERNAL USE ONLY				
Date(s)Reviewed:		Date Administratively Complete:		
Received From:		Correct Number of Copies:		
Received By:		Distribution Date:		
EAPP File Number:		Complex:		
Admin. Review(s) (No.):		No. AR Rounds:		
Delinquent Fees (Y/N):		Review Time Spent:		
Lat./Long. Verified:		SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):		Fee Check:	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):			Signed (Y/N):	
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):	

SECTION 2: GENERAL INFORMATION

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

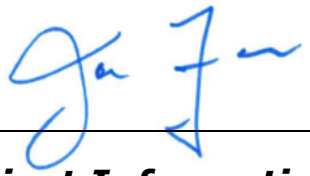
Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Jose M. Farias, P.E.

Date: 12/10/2025

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: MCRT SFR TEXAS CONSTRUCTION LLC
2. County: Williamson
3. Stream Basin: Lake Creek
4. Groundwater Conservation District (If applicable): N/A
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

   ☒ WPAP
   ☒ SCS
   ☐ Modification
   ☐ AST
   ☐ UST
   ☐ Exception Request

7. Customer (Applicant):

   Contact Person: Zach Summers
   Entity: MCRT SFR Investment, LLC
   Mailing Address: 5910 N. Central Expressway, Suite 1100
   City, State: Dallas, TX Zip: 75206
   Telephone: 210.885.4676 Fax: N/A
   Email Address: zsummers@mcrtrust.com

8. Agent/Representative (If any):

   Contact Person: Jose M. Farias, P.E.
   Entity: Kimley-Horn & Associates
   Mailing Address: 10814 Jollyville Road, Avallon IV, Suite 200
   City, State: Austin, Texas Zip: 78759
   Telephone: 737-249-0434 Fax: N/A
   Email Address: joe.farias@kimley-horn.com

9. Project Location:

   ☒ The project site is located inside the city limits of Austin.
   ☐ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of the city of _____.
   ☐ The project site is not located within any city's limits or ETJ.

10. ☒ The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

    13220 Morris Road, Austin, Texas north of Anderson Mill Road

    Legal Descriptions:

    MARIELLE SUB (BLLK A LTS 1A & 2A), BLOCK A, Lot 1A, ACRES 7.913

11. ☒ **Attachment A – Road Map**. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.

12. ☒ **Attachment B - USGS / Edwards Recharge Zone Map**. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:

    ☒ Project site boundaries.
    ☒ USGS Quadrangle Name(s).
    ☒ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
    ☒ Drainage path from the project site to the boundary of the Recharge Zone.

13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned**. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate

the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

☒ Survey staking will be completed by this date: **01/9/2025**

14. ☒ **Attachment C – Project Description**. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:

☒ Area of the site
☒ Offsite areas
☒ Impervious cover
☒ Permanent BMP(s)
☒ Proposed site use
☒ Site history
☒ Previous development
☒ Area(s) to be demolished

15. Existing project site conditions are noted below:

☐ Existing commercial site
☐ Existing industrial site
☐ Existing residential site
☐ Existing paved and/or unpaved roads
☐ Undeveloped (Cleared)
☒ Undeveloped (Undisturbed/Uncleared)
☐ Other: _____

Prohibited Activities

16. ☒ I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);

(2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;

(3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;

(4) The use of sewage holding tanks as parts of organized collection systems; and

(5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

(6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

17. ☒ I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);

(2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

(3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

18. The fee for the plan(s) is based on:

☒ For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
☒ For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
☐ For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
☐ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
☐ A request for an extension to a previously approved plan.

19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

☐ TCEQ cashier
☒ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

21. ☒ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

Attachment A

Road Map

GRAPHIC SCALE IN FEET
0 75 150 300

LEGEND

PROPERTY LINE

ADJACENT PROPERTY LINE

DIRECTIONS FROM TCEQ HEADQUARTERS TO PROJECT SITE

1. GET ON I-35 N FROM S I-35 FRONTAGE ROAD AND N INTERSTATE 35 FRONTAGE ROAD
2. FOLLOW I-35 N TO N INTERSTATE 35 FRONTAGE ROAD IN GEORGETOWN
3. TAKE EXIST 253 FROM I-35 N
4. DRIVE TO CHISHOLM TRAIL ROAD

Morris Road Residential Road Map

Austin, Texas
December 2024

DWG NAME K:\AUS_CIVIL\069273503 - MORRIS ROAD RESIDENTIAL\CAD\EXHIBITS\PLANSHEETS\20241204 - TCEQ\ROAD MAP EXHIBIT.DWG
LAST SAVED 12/4/2024 4:52 PM

Kimley»Horn
10814 Jollyville Road, Avallon IV, Suite 500
Austin, TX 78759
(512) 646-418-1771
State of Texas Registration No. F-928

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND HAS BEEN PRODUCED WITHOUT THE BENEFIT OF A SURVEY, TOPOGRAPHY, UTILITIES, CONTACT WITH THE CITY, ETC.

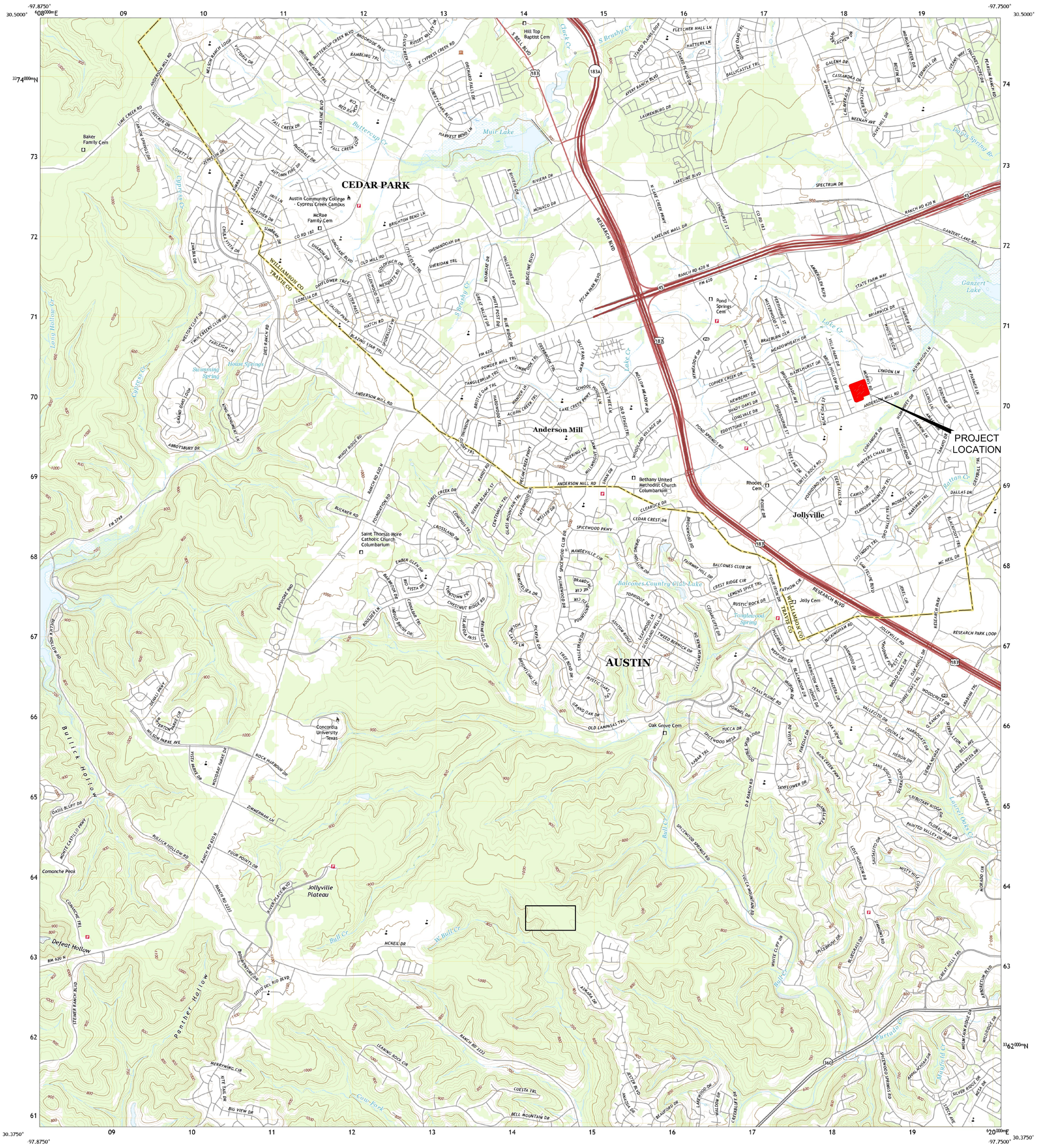
Attachment B
USGS/Edwards Recharge Zone Map

USGS science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

JOLLYVILLE QUADRANGLE
TEXAS
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R
This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery	NAIP,	September 2016 -	November 2016
Roads	U.S. Census Bureau,	2015 -	2019
Names	GNIS,	1979 -	2022
Hydrography	National Hydrography Dataset,	2002 -	2020
Contours	National Elevation Dataset,		2019
Boundaries	Multiple sources; see metadata file	2019 -	2021
Wetlands	FWS National Wetlands Inventory	Not Available	

MN
GN
3°46'
67 MILS
0°36'
11 MILS
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
PU
Grid Zone Designation
14R

SCALE 1:24 000
1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

TEXAS
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 Nameless
2 Leander
3 Round Rock
4 Mansfield Dam
5 Pflugerville West
6 Bee Cave
7 Austin West
8 Austin East
ADJOINING QUADRANGLES

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

NSN 7643016396729
NGA REF NO. USGSX24K22747

JOLLYVILLE, TX
2022

Morris Road Residential
USGS Quadrangle Map

Austin, Texas
December 2024

DWG NAME K:\AUS_CIVIL\069273503 - MORRIS ROAD RESIDENTIAL\CAD\EXHIBITS\PLANSHEETS\20241204 - TCEQ\USGS QUADRANGLE MAP.DWG
LAST SAVED 12/4/2024 4:49 PM

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State of Texas Registration No. F-928

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND HAS BEEN PRODUCED WITHOUT THE BENEFIT OF A SURVEY, TOPOGRAPHY, UTILITIES, CONTACT WITH THE CITY, ETC.

Project Description

Introduction

The subject property containing the Project is located west of IH-35, bordered by Anderson Mill Road to the south and Morris Road to the east in Austin, Texas. This Project will include an overall ±7.91-acre tract with a new multifamily development.

This project is located within the Lake Creek Watershed. The proposed site is not located in the Federal Emergency Management Agency's 100-year floodplain according to the FEMA FIRM map 48491C0610F.

The entire ±7.91-acre tract is located within the Edwards Aquifer Recharge Zone. There are no known environmental or geological features located on-site.

Legal Description

The legal description of the subject tract is as follows:
MARIELLE SUB (BLLK A LTS 1A & 2A), BLOCK A, Lot 1A, ACRES 7.913

Land Use

The existing Marielle Land Group tract is mostly undeveloped land with two single story buildings that are set to be removed.

Existing Drainage Conditions

The existing site has two drainage areas. The runoff from the existing site is currently not treated. The existing drainage generally flows east to west across the site. The total existing impervious cover is 1.47 acres.

Proposed Development

The proposed Marielle Land Group Property development includes 143 residential units. The total building coverage of the residential units is 109,300 square feet. The water quality BMP's account for 60% impervious cover for pond A and 57% impervious cover for pond B.

Proposed Drainage Conditions

Runoff from this development will be collected by inlet structures placed along the driving aisles and routed through proposed storm pipes to two on-site water quality ponds. Water will eventually discharge from the pond to the existing drainage system. Detention will be designed such that peak flows for the 2-,10-,25-,50- and 100-year storm events do not increase from existing to proposed conditions.

Detention and Water Quality

The entire Project is located within the Edwards Aquifer Recharge Zone. Subsequently, water quality requirements set forth by the Texas Commission on Environmental Quality (TCEQ) will need to be met. Best managements practices (BMPs) used include a partial sedimentation and filtration basin.

Erosion and Sedimentation Controls

Temporary erosion and sedimentation controls during construction are proposed on the Erosion Control Plan and include silt fences, inlet protection, and a stabilized construction entrance designed to City of Austin criteria. The land disturbed during construction will drain into the proposed on-site storm sewer system where it will be conveyed to the proposed water quality ponds located on-site.

SECTION 3:
GEOLOGIC ASSESSMENT

Geologic Assessment
TCEQ-0585

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Chad M. Copeland, PG

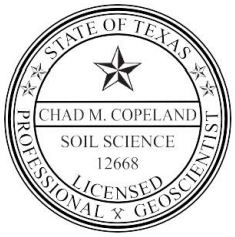
Telephone: 512-335-1785x124

Fax: 512-335-0527

Date: **08/02/2022**

Representing: Ranger Environmental Services, LLC (TBPG Firm #50140) (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



08/02/2022

Regulated Entity Name: Marielle

Project Information

1. Date(s) Geologic Assessment was performed: 7/20/2022
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)

Soil Name	Group*	Thickness(feet)
Eckrant extremely stony clay (0-3% slopes) (EeB)	D	greater than 6.67'

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

   Applicant's Site Plan Scale: 1" = 60'
   Site Geologic Map Scale: 1" = 60'
   Site Soils Map Scale (if more than 1 soil type): 1" = ~490'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.
12. ☐ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☒ Geologic or manmade features were not discovered on the project site during the field investigation.
13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.
14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

    ☒ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

ATTACHMENT A

Geological Assessment Table
TCEQ-0585 Table

GEOLOGIC ASSESSMENT TABLE — PROJECT NAME: Marielle

LOCATION			FEATURE CHARACTERISTICS											EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11	12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)	TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
No geologic features observed																			

* DATUM WGS84

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date

Sheet 1 of 1

TCEQ-0585-Table (Rev. 10-01-04)

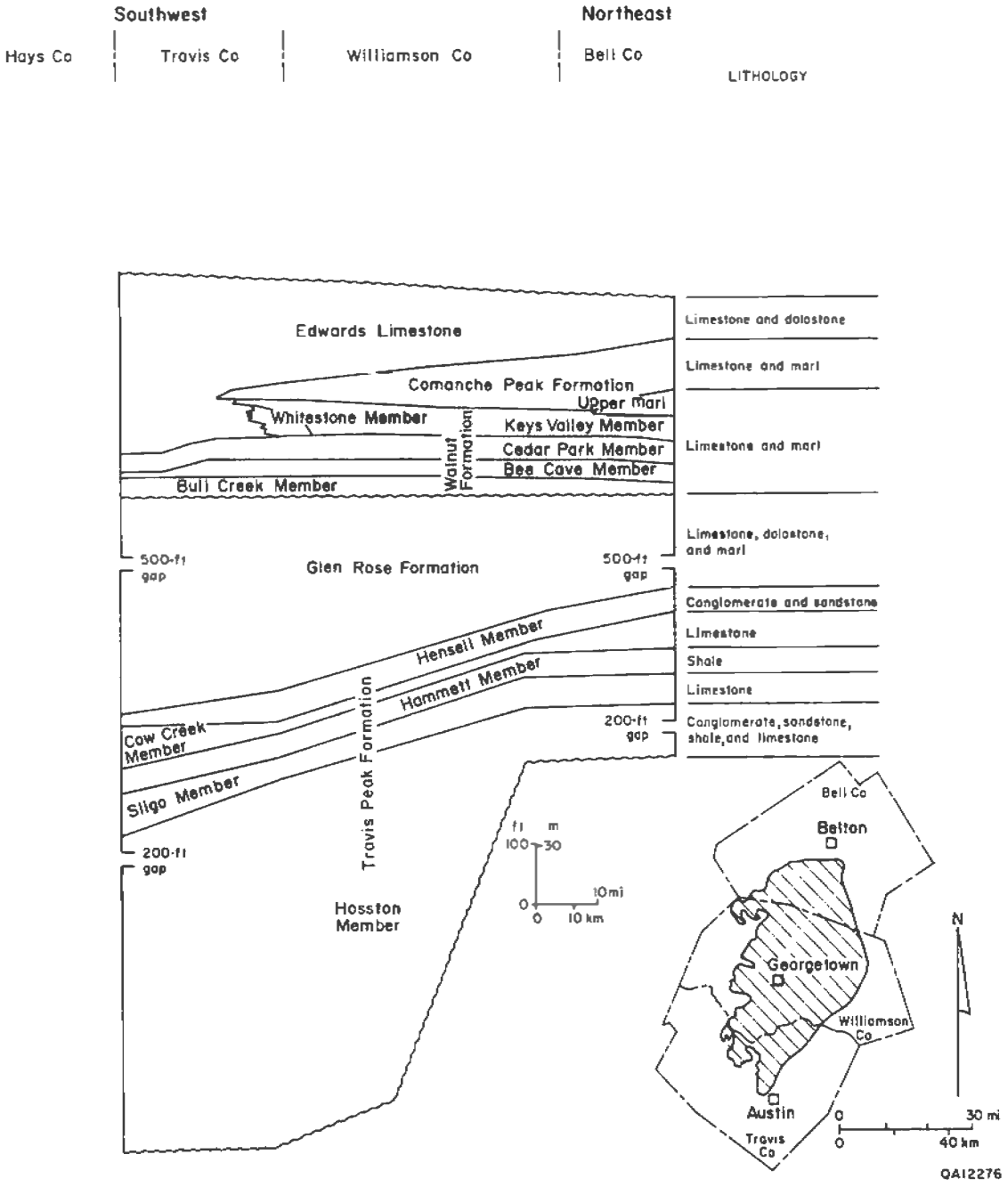
STATE OF TEXAS
CHAD M. COPELAND
SOIL SCIENCE
12668
LICENSED
PROFESSIONAL GEOSCIENTIST

08/02/2022

ATTACHMENT B

Stratigraphic Column

Stratigraphic column of Cretaceous rocks of the northern segment of the Edwards aquifer, Austin region.



STATE OF TEXAS
CHAD M. COPELAND
SOIL SCIENCE
12668
LICENSED
PROFESSIONAL GEOSCIENTIST

08/02/2022

RANGER ENVIRONMENTAL SERVICES, INC.

Marielle

8600 Black Oak Street, Austin, Texas

RANGER REFERENCE 6568

*FIGURE ADAPTED AND EDITED BY RANGER ENVIRONMETAL SERVICES

*ORIGINAL SOURCE: Senger, R., Collins E., Kreitler C. (1990). Hydrology of the Northern Segment of the Edwards Aquifer, Austin Region. The University of Texas at Austin, Texas 78713. Bureau of Economic Geology.

ATTACHMENT C

Site Geology

RANGER
ENVIRONMENTAL SERVICES, INC.

GEOLOGIC ASSESSMENT
Marielle
8600 Black Oak Street
Austin, Texas
Williamson County
August 2022

INTRODUCTION

Ranger Environmental Services, Inc. (Ranger) was contracted to conduct a Geologic Assessment of the referenced property. This location lies within the designated Edwards Aquifer Recharge Zone. This subject site was noted to be mostly undeveloped with a driveway, shop and garage. Since the subject site is located over the Edwards Aquifer Recharge Zone, site development should adhere to the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program Rules in accordance with Title 30 of the Texas Administrative Code, Section 213 (30 TAC§ 213).

PROJECT DESCRIPTION

The subject site consists of one approximate 2.999-acre lot, more or less, located at 8600 Black Oak Street, Austin, in Williamson County, Texas at approximately N 30.458034 and approximately W 97.769158.

The subject site is located within a mixed use area of residential and commercial properties.

METHODOLOGY

This assessment follows general guidelines contained in Texas Commission on Environmental Quality (TCEQ) guidance "*Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones"* (TCEQ Guidance 0585). The site is located on an area of the recharge zone that may contain karst features within the outcropping limestone. Karst features may be expressed as surface features but more commonly tend to persist with depth.

A field geologic assessment was conducted by Chad M. Copeland, P.G. on July 20, 2022. The site is mostly undeveloped with a driveway, shop and garage.

The walking geologic survey was conducted on 50-foot center transects, where possible. No intrusive testing was conducted. If present, features identified in the field were photographed and recorded with a hand held global positioning system (GPS). Features include, but were not limited to, caves, solution cavities, solution-enlarged fractures, faults, manmade features in bedrock, swallow holes, sinkholes, non-karst closed depressions, and zone clustered or aligned features.

The geologic assessment table, stratigraphic column, geologic, soils and topographic maps are included herein.

RESEARCH INFORMATION

Prior to conducting the geologic survey, Ranger conducted a review of existing geologic data and maps to prepare for the field survey. Reviewed references included, but are not limited to:

- Barnes, V.E. 1974. *Geologic Atlas of Texas, Austin Sheet*. The University of Texas at Austin, Bureau of Economic Geology.
- Senger, R.K., E.W. Collins and C.W. Kreitler. 1990. Hydrogeology of the Northern Segment of the Edwards Aquifer, Austin Region, Report of Investigations 192. The University of Texas at Austin, Bureau of Economic Geology.
- Texas Commission on Environmental Quality. 1999. Complying with the Edwards Aquifer Rules: Administrative Guidance.
- Texas Commission on Environmental Quality. Revised 2004. Instructions to Geologist for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones.
- Sellards, E.H., W.S. Adkins and F.B. Plummer. 1932. The University of Texas Bulletin No. 3232. The Geology of Texas. Volume 1, Stratigraphy.
- U.S. Department of Agriculture National Resources Conversation Services (www.nrcs.usda.gov).
- Texas Commission on Environmental Quality (www.tceq.state.tx.us).
- FEMA Flood Plain Maps.
- Center for Geospatial Technology, Texas Tech University, obtained from the Texas Geologic Atlas of Texas.
- USGS Topographic Maps – Terrain Navigator Pro 2015.
- ESRI

SITE GEOLOGY

The subject site is underlain by Cretaceous sedimentary strata. In general, the Cretaceous strata dip regionally one degree towards the east-southeast. The area lies within the Balcones Fault Zone, a geologic province characterized in this region by north-northeast trending en echelon normal faults with the downthrown side most commonly to the east of the fault planes.

The Balcones Fault Zone trend closely follows the structural trend of the late Paleozoic Ouachita fold and thrust belt. Faulting may have been initiated in the Late Cretaceous with the majority of movement taking place during the late Oligocene and early Miocene. Minor isostatic adjustments resulting from sediment loading in the Gulf of Mexico continue to the present.

Referencing the Geologic Atlas of Texas, Austin Sheet, and The University of Texas Bulletin No. 3232, The Geology of Texas, Volume 1 the local stratigraphic units that outcrop at the site is the Edwards Limestone (Ked).

The Lower Cretaceous Edwards Limestone is a member of the Fredericksburg Group and is massive to thinly bedded limestones and dolostones. The Edwards Limestone is generally light gray, crystalline to coarse-grained, cavernous and includes calcareous shell detritus. Chert and rudistids are present within the Edwards Limestone and can serve as markers to differentiate the Edwards Limestone from the underlying Comanche Peak Formation and the unconformable and overlying Georgetown Formation.

In the Austin area, the Edwards Limestone has a maximum thickness of approximately 300 feet and thins to the north. Recharge to groundwater within the Edwards Limestone is primarily through precipitation. The regional groundwater system is characterized by varied porosity and permeability as associated with the vast solution cavities and fracture zones within the Edwards Limestone. Large amounts of groundwater can move from the recharge area through the local system in a short period of time.

No vugs, faults, or fractures were observed during the site geologic inspection. No outcropping was observed.

SITE SPECIFIC GEOLOGIC FEATURES

No geologic features, as defined in Texas Commission on Environmental Quality (TCEQ) guidance "*Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones*" (TCEQ Guidance 0585), were observed at the site.

SOIL DESCRIPTION

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) *Web Soil Survey*, the soils located at the site are noted as Eckrant extremely stony clay (0-3% slopes) (EeB).

Please see attached USDA NRCS Custom Soil Resource Report.

TOPOGRAPHY AND DRAINAGE

The site is relatively flat with drainage flowing towards the east and south.

CONCLUSIONS AND RECOMMENDATIONS

Ranger Environmental Services, Inc. conducted a Geologic Assessment of the site in accordance with 30 TAC§ 213. Ranger concludes that no sensitive features as defined by the TCEQ (30 TAC§ 213) were observed at the site.

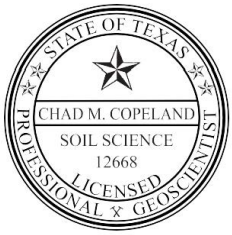
This assessment does not address the possible presence of subsurface conditions that may be exposed during future construction and/or development. Should solution features or conditions be exposed during site construction activities that indicate a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer, operations in the vicinity of the feature should be halted and the Texas Commission on Environmental Quality (TCEQ) Edwards

Aquifer Protection Program should be contacted immediately in accordance with 30 TAC §213.5(f)(2).

LIMITATIONS

It should be noted that only areas readily accessible were inspected. There may be geologic features present that were not identified as part of this study. This non-intrusive visual field assessment cannot wholly eliminate the possibility of sensitive features at the site.

Prepared by:

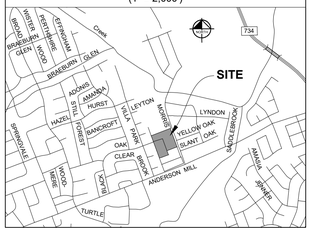


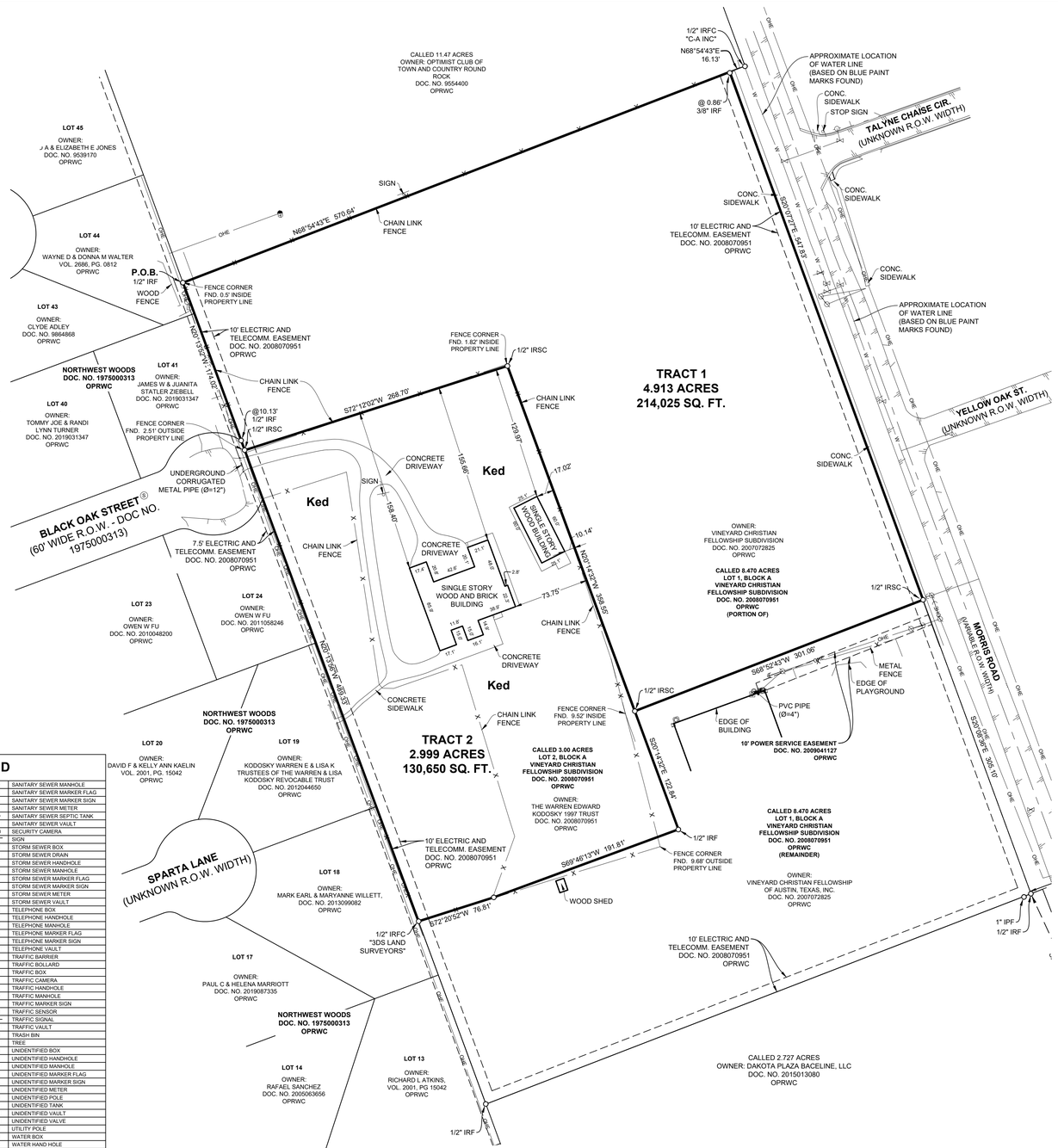
08/02/2022

Chad M. Copeland, P.G.

ATTACHMENT D

Site Geologic Map(s)





VICINITY MAP
(1" = 2,000')

METES AND BOUNDS DESCRIPTION OF
TRACT 1 - 4.913 ACRES

BEING A 4.913 ACRE (214,025 SQUARE FEET) TRACT OF LAND, CALLED TRACT 1, SITUATED IN THE M. M. HORNSBY SURVEY, ABSTRACT NO. 280, CITY OF AUSTIN, WILLIAMSON COUNTY, TEXAS, AND BEING A PORTION OF LOT 1, BLOCK A OF THE VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION, AS SHOWN ON PLAT RECORDED IN DOCUMENT NO. 2008070951 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS; AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 1/2" IRON ROD FOUND IN THE EAST BOUNDARY LINE OF LOT 44 OF THE NORTHWEST WOODS SUBDIVISION, AS SHOWN ON PLAT RECORDED IN DOCUMENT NO. 1975000313 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS; AT THE SOUTHWEST CORNER OF A CALLED 11.47 ACRE TRACT OF LAND DESCRIBED TO THE OPTIMIST CLUB OF TOWN AND COUNTY ROUND ROCK AS EVIDENCED IN DOCUMENT NO. 9554400 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS; FOR THE NORTHWEST CORNER OF SAID LOT 1 AND THE NORTHWEST CORNER OF THIS TRACT;

THENCE NORTH 68°54'43" EAST, 570.64 FEET ALONG THE COMMON BOUNDARY LINE OF SAID 11.47 ACRE TRACT AND SAID LOT 1, TO A POINT IN THE WESTERLY RIGHT-OF-WAY LINE OF MORRIS ROAD (VARIABLE WIDTH ROW), FOR THE NORTHEAST CORNER OF SAID LOT 1 AND THE NORTHEAST CORNER OF THIS TRACT; WHENCE A 1/2" IRON ROD WITH SURVEYOR'S CAP STAMPED "C-A INC RPLS 298-" FOUND FOR REFERENCE BEARS NORTH 68°54'43" EAST, 16.13 FEET;

THENCE, SOUTH 20°07'27" EAST, ALONG THE WESTERLY RIGHT-OF-WAY LINE OF SAID MORRIS ROAD AND THE EAST BOUNDARY LINE OF SAID LOT 1, AT 0.86 FEET PASSING A 3/8" IRON ROD FOUND FOR A LINE MARKER, IN ALL A DISTANCE OF 547.83 FEET TO A 1/2" IRON ROD WITH PLASTIC SURVEYOR'S CAP STAMPED "KHA" SET FOR THE SOUTHEAST CORNER OF THIS TRACT; WHENCE A 1/2" IRON ROD FOUND FOR REFERENCE BEARS SOUTH 20°07'27" EAST, 302.72 FEET;

THENCE SOUTH 68°52'43" WEST, 301.06 FEET DEPARTING THE WESTERLY RIGHT-OF-WAY LINE OF SAID MORRIS ROAD, ACROSS SAID LOT 1, TO A 1/2" IRON ROD WITH PLASTIC SURVEYOR'S CAP STAMPED "KHA" SET IN THE EAST BOUNDARY LINE OF A LOT 2, BLOCK A OF SAID VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION AND A WEST BOUNDARY LINE OF SAID LOT 1, FOR THE SOUTHERLY SOUTHWEST CORNER OF THIS TRACT; WHENCE A 1/2" IRON ROD FOUND AT THE SOUTHEAST CORNER OF SAID LOT 2 BEARS SOUTH 20°14'32" EAST, 122.84 FEET;

THENCE NORTH 20°14'32" WEST, 358.55 FEET ALONG THE COMMON BOUNDARY LINE OF SAID LOT 1 AND SAID LOT 2 TO A 1/2" IRON ROD WITH PLASTIC SURVEYOR'S CAP STAMPED "KHA" SET AT THE NORTHEAST CORNER OF SAID LOT 2, FOR AND INTERIOR CORNER OF SAID LOT 1 AND AN INTERIOR CORNER OF THIS TRACT;

THENCE SOUTH 72°12'02" WEST, 268.70 FEET CONTINUING ALONG THE COMMON BOUNDARY LINE OF SAID LOT 1 AND SAID LOT 2 TO A 1/2" IRON ROD WITH PLASTIC SURVEYOR'S CAP STAMPED "KHA" SET IN A CUL-DE-SAC RIGHT-OF-WAY LINE OF BLACK OAK STREET (60' ROW WIDTH) AS SHOWN ON SAID NORTHWEST WOODS SUBDIVISION AND AT THE NORTHWEST CORNER OF SAID LOT 2, FOR THE NORTHERLY SOUTHWEST CORNER OF SAID LOT 1 AND THE NORTHERLY SOUTHWEST CORNER OF THIS TRACT;

THENCE NORTH 20°13'52" WEST, ALONG THE COMMON BOUNDARY LINE OF SAID LOT 1 AND SAID NORTHWEST WOODS SUBDIVISION, AT 10.13 FEET PASSING A 1/2" IRON ROD FOUND AT THE SOUTHEAST CORNER OF LOT 41 OF SAID NORTHWEST WOODS SUBDIVISION FOR A LINE MARKER, IN ALL A DISTANCE OF 174.02 FEET TO THE **POINT OF BEGINNING** AND CONTAINING 4.913 ACRES OF LAND, MORE OR LESS, IN WILLIAMSON COUNTY, TEXAS. THE BASIS OF BEARING FOR THIS DESCRIPTION IS THE TEXAS STATE PLANE COORDINATE SYSTEM GRID, CENTRAL ZONE (FIPS 4203) (NAD'83). ALL DISTANCES ARE ON THE SURFACE AND SHOWN IN U.S. SURVEY FEET. THIS DOCUMENT WAS PREPARED IN THE OFFICE OF KIMLEY-HORN AND ASSOCIATES, INC. IN AUSTIN, TEXAS.

LEGAL DESCRIPTION:
TRACT 2 - 2.999 ACRES

BEING LOT 2, BLOCK A, VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION, AS PER MAP OR PLAT THEREOF RECORDED UNDER DOCUMENT NUMBER 2008070951, OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS.

NOTES ADDRESSING SCHEDULE B EXCEPTIONS:
TRACT 1

(PURSUANT TO COMMITMENT FOR TITLE INSURANCE LISTED IN GENERAL NOTE 1.)

THE FOLLOWING RESTRICTIVE COVENANTS OF RECORD ITEMIZED BELOW:
CABINET FF, SLIDE 62, PAGE OF THE PLAT RECORDS OF WILLIAMSON COUNTY, TEXAS.
(SUBJECT TO, AS SHOWN)

10. THE FOLLOWING MATTERS AND ALL TERMS OF THE DOC.S CREATING OR OFFERING EVIDENCE OF THE MATTERS (WE MUST INSERT MATTERS OR DELETE THIS EXCEPTION.):

a. RIGHTS OF PARTIES IN POSSESSION. (NOT A SURVEY MATTER)

b. THE FOLLOWING EXCEPTION WILL APPEAR IN ANY POLICY ISSUED (OTHER THAT THE T-1R RESIDENTIAL OWNER POLICY OF TITLE INSURANCE AND THE T-2R SHORT-FORM RESIDENTIAL MORTGAGEE POLICY) IF THE COMPANY IS NOT PROVIDED A SURVEY OF THE LAND, ACCEPTABLE TO THE COMPANY, FOR REVIEW AT OR PRIOR TO CLOSING:

ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND.

NOTE: UPON RECEIPT OF A SURVEY ACCEPTABLE TO THE TITLE COMPANY, THIS EXCEPTION WILL BE DELETED. THE COMPANY RESERVES THE RIGHT TO EXCEPT ADDITIONAL ITEMS AND/OR MAKE ADDITIONAL REQUIREMENTS AFTER REVIEWING SAID SURVEY. (NOT A SURVEY MATTER)

c. ELECTRIC AND TELECOMMUNICATIONS EASEMENT(S) 10 FEET IN WIDTH ALONG THE SOUTH, EAST AND WEST PROPERTY LINE(S), AS SHOWN BY THE RECORDED PLAT OF SAID SUBDIVISION. (SUBJECT TO, AS SHOWN)

d. ELECTRIC DISTRIBUTION UTILITY EASEMENT GRANTED TO CITY OF AUSTIN, AS SET FORTH AND DESCRIBED BY INSTRUMENT FILED FOR RECORD UNDER WILLIAMSON COUNTY CLERK'S FILE NO.(S) 2009041127. (DOES NOT AFFECT)

e. ANY PORTION OF THE SUBJECT PROPERTY LYING WITHIN THE BOUNDARIES OF A PUBLIC OR PRIVATE ROADWAY, WHETHER DEDICATED OR NOT. (DOES NOT AFFECT)

f. ALL LEASES, GRANTS, EXCEPTIONS OR RESERVATIONS OF COAL, LIGNITE, OIL, GAS AND OTHER MINERALS, TOGETHER WITH ALL RIGHTS, PRIVILEGES, AND IMMUNITIES RELATING THERETO, APPEARING IN THE PUBLIC RECORDS WHETHER LISTED IN SCHEDULE B OR NOT. THERE MAY BE LEASES, GRANTS, EXCEPTIONS OR RESERVATIONS OF MINERAL INTEREST THAT ARE NOT LISTED. (NOT A SURVEY MATTER)

g. IF ANY PORTION OF THE PROPOSED LOAN AND/OR THE OWNER'S TITLE POLICY COVERAGE AMOUNT INCLUDES FUNDS FOR IMMEDIATELY CONTEMPLATED IMPROVEMENTS, THE FOLLOWING EXCEPTIONS WILL APPEAR IN SCHEDULE B OF ANY POLICY ISSUED AS INDICATED:

OWNER'S AND LOAN POLICY(IES): ANY AND ALL LIENS ARISING BY REASON OF UNPAID BILLS OR CLAIMS FOR WORK PERFORMED OR MATERIALS FURNISHED IN CONNECTION WITH IMPROVEMENTS PLACED, OR TO BE PLACED, UPON THE SUBJECT LAND. HOWEVER, THE COMPANY DOES INSURE THE INSURED AGAINST LOSS, IF ANY, SUSTAINED BY THE INSURED UNDER THIS POLICY IF SUCH LIENS HAVE BEEN FILED WITH THE COUNTY CLERK OF {COUNTY} COUNTY, TEXAS, PRIOR TO THE DATE HEREOF.

OWNER'S POLICY(IES) ONLY: LIABILITY HEREUNDER AT THE DATE HEREOF IS LIMITED TO $0.00. LIABILITY SHALL INCREASE AS CONTEMPLATED IMPROVEMENTS ARE MADE, SO THAT ANY LOSS PAYABLE HEREUNDER SHALL BE LIMITED TO SAID SUM PLUS THE AMOUNT ACTUALLY EXPENDED BY THE INSURED IN IMPROVEMENTS AT THE TIME THE LOSS OCCURS. ANY EXPENDITURES MADE FOR IMPROVEMENTS, SUBSEQUENT TO THE DATE OF THIS POLICY, WILL BE DEEMED MADE AS OF THE DATE OF THIS POLICY. IN NO EVENT SHALL THE LIABILITY OF THE COMPANY HEREUNDER EXCEED THE FACE AMOUNT OF THIS POLICY. (NOT A SURVEY MATTER)

h. VARIANCE OF FENCE AND PROPERTY LINE(S) ALONG THE MOST SOUTHERLY WEST PROPERTY LINE(S), AS EVIDENCED BY SURVEY DATED JULY 21, 2020, PREPARED BY ZACHARY KEITH PETRUS, REGISTERED PROFESSIONAL LAND SURVEYOR NO. 6769, JOB NO. 069273503. (OWNER'S POLICY ONLY)

NOTES ADDRESSING SCHEDULE B EXCEPTIONS:
TRACT 2

(PURSUANT TO COMMITMENT FOR TITLE INSURANCE LISTED IN GENERAL NOTE 1.)

1. THE FOLLOWING RESTRICTIVE COVENANTS OF RECORD ITEMIZED BELOW:

CABINET FF, SLIDE 62, PAGE OF THE PLAT RECORDS OF WILLIAMSON COUNTY, TEXAS.
(SUBJECT TO, AS SHOWN ON SURVEY)

10. THE FOLLOWING MATTERS AND ALL TERMS OF THE DOCUMENTS CREATING OR OFFERING EVIDENCE OF THE MATTERS (WE MUST INSERT MATTERS OR DELETE THIS EXCEPTION.):

a. RIGHTS OF PARTIES IN POSSESSION. (NOT A SURVEY MATTER)

b. ALL VISIBLE AND APPARENT EASEMENTS OR USES AND ALL UNDERGROUND EASEMENTS OR USES, THE EXISTENCE OF WHICH MAY ARISE BY UNRECORDED GRANT OR BY USE. (SUBJECT TO)

c. RIGHTS, IF ANY, OF THIRD PARTIES WITH RESPECT TO ANY PORTION OF THE SUBJECT PROPERTY LYING WITHIN THE BOUNDARIES OF A PUBLIC OR PRIVATE ROAD. (SUBJECT TO)

d. ANY AND ALL MATTERS THAT WOULD BE SHOWN ON A CURRENT, CORRECT SURVEY OF THE PROPERTY. (SUBJECT TO)

e. ALL LEASES, GRANTS, EXCEPTIONS, OR RESERVATIONS OF COAL, LIGNITE, OIL, GAS AND OTHER MINERALS, TOGETHER WITH ALL RIGHTS, PRIVILEGES AND IMMUNITIES RELATING THERETO, APPEARING IN THE PUBLIC RECORDS WHETHER LISTED IN SCHEDULE B OR NOT. THERE MAY BE LEASES, GRANTS, EXCEPTIONS, OR RESERVATIONS OF MINERAL INTEREST THAT ARE NOT LISTED. (NOT A SURVEY MATTER)

f. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT.
(NOT A SURVEY MATTER)

g. RESTRICTIONS, TERMS, PROVISIONS, CONDITIONS, EASEMENTS AND OTHER MATTERS SHOWN IN PLAT OF VINEYARD CHRISTIAN FELLOWSHIP AS RECORDED IN CABINET FF, SLIDES 62 AND 63, PLAT RECORDS OF WILLIAMSON COUNTY, TEXAS. (SUBJECT TO, AS SHOWN)

LEGEND

◎	A/C UNIT	S	SANITARY SEWER MANHOLE
A	AIR RELEASE VALVE	S	SANITARY SEWER MARKER FLAG
B	BASKET BALL GOAL	S	SANITARY SEWER MARKER SIGN
⊖	BORE LOCATION	S	SANITARY SEWER METER
TV	CABLE TV BOX	ST	SANITARY SEWER SEPTIC TANK
TV	CABLE TV HANDHOLE	S	SANITARY SEWER VAULT
TV	CABLE TV MANHOLE	📷	SECURITY CAMERA
TV	CABLE TV MARKER FLAG	—o—	SIGN
TV	CABLE TV MARKER SIGN	D	STORM SEWER BOX
TV	CABLE TV VAULT	▦	STORM SEWER DRAIN
C	COMMUNICATIONS BOX	D	STORM SEWER HANDHOLE
C	COMMUNICATIONS HANDHOLE	D	STORM SEWER MANHOLE
C	COMMUNICATIONS MANHOLE	D	STORM SEWER MARKER FLAG
C	COMMUNICATIONS MARKER FLAG	D	STORM SEWER MARKER SIGN
C	COMMUNICATIONS MARKER SIGN	D	STORM SEWER METER
C	COMMUNICATIONS VAULT	D	STORM SEWER VAULT
TR	CROSS WALK SIGNAL	T	TELEPHONE BOX
E	ELECTRIC BOX	T	TELEPHONE HANDHOLE
E	ELECTRIC METER	T	TELEPHONE MANHOLE
E	ELECTRIC MANHOLE	T	TELEPHONE MARKER FLAG
E	ELECTRIC MARKER FLAG	T	TELEPHONE MARKER SIGN
E	ELECTRIC MARKER SIGN	T	TELEPHONE VAULT
⚡	ELECTRIC SWITCH	▪▪▪	TRAFFIC BARRIER
T	ELECTRIC TRANSFORMER	●	TRAFFIC BOLLARD
E	ELECTRIC VAULT	TR	TRAFFIC BOX
⊕	ELEVATION BENCHMARK	■	TRAFFIC CAMERA
F	FIBER OPTIC BOX	TR	TRAFFIC HANDHOLE
F	FIBER OPTIC HANDHOLE	TR	TRAFFIC MANHOLE
F	FIBER OPTIC MANHOLE	TR	TRAFFIC MARKER SIGN
F	FIBER OPTIC MARKER FLAG	TR	TRAFFIC SENSOR
F	FIBER OPTIC MARKER SIGN	◎—	TRAFFIC SIGNAL
F	FIBER OPTIC VAULT	TR	TRAFFIC VAULT
∀	FIRE DEPT. CONNECTION	🗑	TRASH BIN
⌖	FIRE HYDRANT	⊙	TREE
◉	FLAG POLE	U	UNIDENTIFIED BOX
☼	FLOOD LIGHT	U	UNIDENTIFIED HANDHOLE
⇦	FLOW DIRECTION	U	UNIDENTIFIED MANHOLE
FU	FUEL TANK	U	UNIDENTIFIED MARKER FLAG
G	GAS BOX	U	UNIDENTIFIED MARKER SIGN
G	GAS HANDHOLE	U	UNIDENTIFIED METER
G	GAS METER	U	UNIDENTIFIED POLE
G	GAS MANHOLE	U	UNIDENTIFIED TANK
G	GAS MARKER FLAG	U	UNIDENTIFIED VAULT
G	GAS SIGN	U	UNIDENTIFIED VALVE
G	GAS TANK	⊘	UTILITY POLE
GT	GREASE TRAP	W	WATER BOX
G	GAS VAULT	W	WATER HAND HOLE
G	GAS VALVE	W	WATER MANHOLE
G	GAS WELL	W	WATER MARKER FLAG
o—o	GOAL POST	W	WATER MARKER SIGN
→	GUY ANCHOR	W	WATER METER
⊖→	GUY ANCHOR POLE	W	WATER TANK
♿	HANDICAPPED PARKING	⋈	WATER VALVE
⊛	IRRIGATION VALVE	W	WATER VAULT
◓	LIGHT STANDARD	W	WATER WELL
✉	MAIL BOX	ADF	ALUMINUM DISK FOUND
⊸	MARQUEE/BILLBOARD	BDF	BRASS TxDOT DISK FOUND
▽	MONITORING WELL	BM	BENCHMARK
N	NEWS STAND	CMF	CONCRETE MONUMENT FOUND
⊣	PARKING METER	CAF	CAR AXLE FOUND
☎	PHONE BOOTH	CSF	COTTON SPINDLE FOUND
P	PIPELINE BOX	IPF	IRON PIPE FOUND
P	PIPELINE HANDHOLE	IRF	IRON ROD FOUND
P	PIPELINE METER	IRFC	IRON ROD WITH CAP FOUND
P	PIPELINE MANHOLE	IRSC	1/2" IRON ROD W/ "KHA" CAP SET
P	PIPELINE MARKER FLAG	PKF	PK NAIL FOUND
P	PIPELINE MARKER SIGN	PKS	PK NAIL SET
P	PIPELINE VAULT	RRSF	RAILROAD SPIKE FOUND
P	PIPELINE VALVE	RRSS	RAILROAD SPIKE SET
RR	RAILROAD BOX	XF	"X" CUT IN CONCRETE FOUND
RR	RAILROAD HANDHOLE	XS	"X" CUT IN CONCRETE SET
◎	RAILROAD SIGNAL	P.O.B.	POINT OF BEGINNING
⊗	RAILROAD SIGN	(140.50')	PARENTHESIS INDICATES RECORD MEASUREMENT
RR	RAILROAD VAULT	DRWC	DEED AND RECORDS OF WILLIAMSON COUNTY, TEXAS
▣	ROOF DRAIN		
S	SANITARY SEWER BOX	OPRWC	OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS
○	SANITARY SEWER CLEAN OUT		
S	SANITARY SEWER HANDHOLE	RPRWC	REAL PROPERTY RECORDS OF WILLIAMSON COUNTY, TEXAS
S	SANITARY SEWER LIFT STATION		

LINE TYPE LEGEND

━━━━━━	BOUNDARY LINE
— — — —	EASEMENT LINE
——— · ———	BUILDING LINE
—— W ——	WATER LINE
—— SS ——	SANITARY SEWER LINE
═ ═ ═ ═	STORM DRAINAGE LINE
—— GAS ——	UNDERGROUND GAS LINE
—— OHE ——	OVERHEAD UTILITY LINE
—— CBL ——	UNDERGROUND CABLE LINE
—— UGE ——	UNDERGROUND ELECTRIC LINE
' ' ' ' ' ' ' '	SIDEWALK
—X—X—X—X—	FENCE
——— — — ———	FEMA FLOOD LINE
—— · · —— · · ——	SURVEY LINE
▨	CONCRETE PAVEMENT
▨	ASPHALT PAVEMENT

Map adapted by Ranger Env. Svcs.

GENERAL NOTES:

1. TITLE COMMITMENTS:

TRACT 1: THIS SURVEY WAS PERFORMED UTILIZING THAT CERTAIN TITLE REPORT PREPARED BY WESTCOR LAND TITLE INSURANCE COMPANY, G.F. NO. 9991-20-6631 (ISSUE DATE: MAY 03, 2021, EFFECTIVE DATE: APRIL 27, 2021) AND REFLECTS ONLY THOSE EASEMENTS AND ENCUMBRANCES OF RECORD MENTIONED THEREIN. KIMLEY-HORN DID NOT ABSTRACT THE PUBLIC RECORDS. THE SURVEYED TRACT MAY BE SUBJECT TO ADDITIONAL GOVERNMENT REGULATIONS AND RESTRICTIONS PRIOR TO FURTHER SITE DEVELOPMENT.

TRACT 2: THIS SURVEY WAS PERFORMED UTILIZING THAT CERTAIN TITLE REPORT PREPARED BY AGENTS NATIONAL TITLE INSURANCE COMPANY, G.F. NO. GF21144684 (ISSUE DATE: APRIL 30, 2021, EFFECTIVE DATE: APRIL 19, 2021) AND REFLECTS ONLY THOSE EASEMENTS AND ENCUMBRANCES OF RECORD MENTIONED THEREIN. KIMLEY-HORN DID NOT ABSTRACT THE PUBLIC RECORDS. THE SURVEYED TRACT MAY BE SUBJECT TO ADDITIONAL GOVERNMENT REGULATIONS AND RESTRICTIONS PRIOR TO FURTHER SITE DEVELOPMENT.

2. ACCORDING TO COMMUNITY PANEL NO. 48491C0610F, EFFECTIVE DATE: DECEMBER 20, 2019, OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM), THE SUBJECT TRACTS ARE LOCATED WITHIN ZONE "X" (UN-SHADED) WHICH IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN," COMMONLY KNOWN AS THE 500-YEAR FLOODPLAIN. ZONE "X" (UN-SHADED) IS OUTSIDE OF ANY FEMA ESTABLISHED FLOOD HAZARD ZONE. ALL ZONE DELINEATIONS SHOWN HEREON ARE APPROXIMATE. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ON RARE OCCASIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE ANY LIABILITY ON THE PART OF KIMLEY-HORN OR THE UNDERSIGNED.

3. THE BEARINGS, DISTANCES, AREAS AND COORDINATES SHOWN HEREON ARE TEXAS STATE COORDINATE SYSTEM GRID, CENTRAL ZONE (FIPS 4203) (NAD'83), AS DETERMINED BY THE GLOBAL POSITIONING SYSTEM (GPS). ALL DISTANCES SHOWN HEREON ARE ON THE GRID. THE UNIT OF LINEAR MEASUREMENT IS U.S. SURVEY FEET.

4. PER ALTA/NSPS SURVEY STANDARDS ITEM 5, SECTION C. PARAGRAPH III: THE TERM "ENCROACHMENT" IMPLIES A LEGAL OPINION. "EVIDENCE OF POTENTIALLY ENCROACHING STRUCTURAL APPURTENANCES AND PROJECTIONS OBSERVED IN THE PROCESS OF CONDUCTION FIELDWORK" RELATIVE TO TITLE LINES, SETBACKS, ADJOINING PROPERTIES, AND RIGHTS-OF-WAYS, WILL BE SHOWN, BUT THE SURVEY WILL MAKE NO JUDGMENT OF "ENCROACHMENT" OR "NON-ENCROACHMENT".

5. A PRIVATE ZONING REPORT WAS NOT PROVIDED BY THE OWNER OR THE INSURER PER ALTA/NSPS OPTIONAL TABLE A ITEMS 6(A)(B). THIS SURVEY DOES NOT REFLECT ZONING STATUS OR RESTRICTIONS.

6. ANY UNDERGROUND UTILITIES SHOWN HEREON ARE FROM TEXAS 811 MARKINGS LOCATED BY SURVEY CREWS, OR RECORD DRAWINGS OBTAINED FROM UTILITY COMPANIES REPRESENTATIVES. KIMLEY-HORN CANNOT GUARANTEE THE LOCATIONS OF SAID UTILITIES, EXCEPT THOSE THAT ARE OBSERVED AND READILY VISIBLE ON THE SURFACE AT THE TIME OF THIS SURVEY. KIMLEY-HORN HAS MADE NO ATTEMPT TO OBTAIN OR SHOW DATA CONCERNING THE SIZE, DEPTH, CONDITION, OR CAPACITY OF ANY BURIED UTILITIES OR UNDERGROUND FACILITIES. FOR INFORMATION REGARDING SAID UTILITIES OR FACILITIES, PLEASE CONTACT THE APPROPRIATE AGENCIES. TEXAS 811 MARKINGS SHOWING THE LOCATION OF BURIED UTILITIES WERE OBSERVED AND LOCATED BY SURVEY CREWS WHILE PERFORMING THE FIELD SURVEY. KIMLEY-HORN CANNOT GUARANTEE THE ACCURACY AND THOROUGHNESS OF UTILITY COMPANY REPRESENTATIVES MARKING EFFORT. KIMLEY-HORN ASSUMES NO LIABILITY FOR POORLY OR IMPROPERLY MARKED UTILITY LOCATIONS. NO PRIVATE INTERIOR SERVICE LINES WERE MARKED AND NOT ARE SHOWN.

7. THE SURVEY CREW OBSERVED NO EVIDENCE OF RECENT EARTH MOVING WORK ON THE SURVEYED PROPERTY.

8. THE SURVEYOR IS UNAWARE OF ANY PROPOSED CHANGES TO STREET RIGHT-OF-WAYS AND THERE WAS NO VISIBLE EVIDENCE OF CHANGES TO STREET RIGHT-OF-WAYS AT THE TIME OF SURVEY.

9. THE SURVEY CREW OBSERVED NO EVIDENCE OF READILY VISIBLE MARKERS DELINEATING THE WETLANDS ON THE SURVEYED PROPERTY.

10. THE SURVEY CREW OBSERVED NO EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.

11. THE SURVEY CREW OBSERVED NO PARKING SPOTS, HANDICAPPED OR OTHERWISE ON THE SURVEYED PROPERTY.

12. KIMLEY-HORN DID NOT REVIEW LEASE INTEREST WHILE PERFORMING SURVEY.

13. THE SURVEYED PROPERTY IS LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE ZONE.

14. THE SURVEYED TRACTS HAVE ACCESS TO THE PUBLIC STREET RIGHT-OF-WAYS AS FOLLOWS:

TRACT 1: MORRIS ROAD
TRACT 2: BLACK OAK STREET

SURVEYORS CERTIFICATION:

TO: MAG CONSTRUCTION MANAGEMENT LLC AND/OR ASSIGNS;
VINEYARD CHRISTIAN FELLOWSHIP OF AUSTIN, TEXAS, INC.;
WESTCOR LAND TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 8, 9, 13, AND 16 OF TABLE A THEREOF.

FIELD WORK COMPLETED: JUNE 30, 2021
ALTA SURVEY COMPLETED: JULY 23, 2021.

PRELIMINARY
THIS DOC. SHALL NOT
BE RECORDED FOR ANY
PURPOSE AND SHALL
NOT BE USED OR
VIEWED OR RELIED
UPON AS A FINAL
SURVEY DOC.

ZACHARY KEITH PETRUS
REGISTERED PROFESSIONAL
LAND SURVEYOR NO. 6769
10814 JOLLYVILLE ROAD
CAMPUS IV, SUITE 200
AUSTIN, TEXAS 78759
PH. (512) 572-6674
ZACH.PETRUS@KIMLEY-HORN.COM

Ked - Edwards Formation

CHAD M. COPELAND
SOIL SCIENCE
12668

08/02/2022

ALTA/NSPS LAND TITLE SURVEY OF
TRACT 1 - 4.913 ACRES
TRACT 2 - 2.999 ACRES

BEING A PORTION OF LOT 1, BLOCK A
& ALL OF LOT 2, BLOCK A OF THE
VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION
AS SHOWN ON DOC. NO. 2008070951, OPRWC
M. M. HORNSBY SURVEY, ABSTRACT NO. 280
CITY OF AUSTIN, WILLIAMSON COUNTY, TEXAS

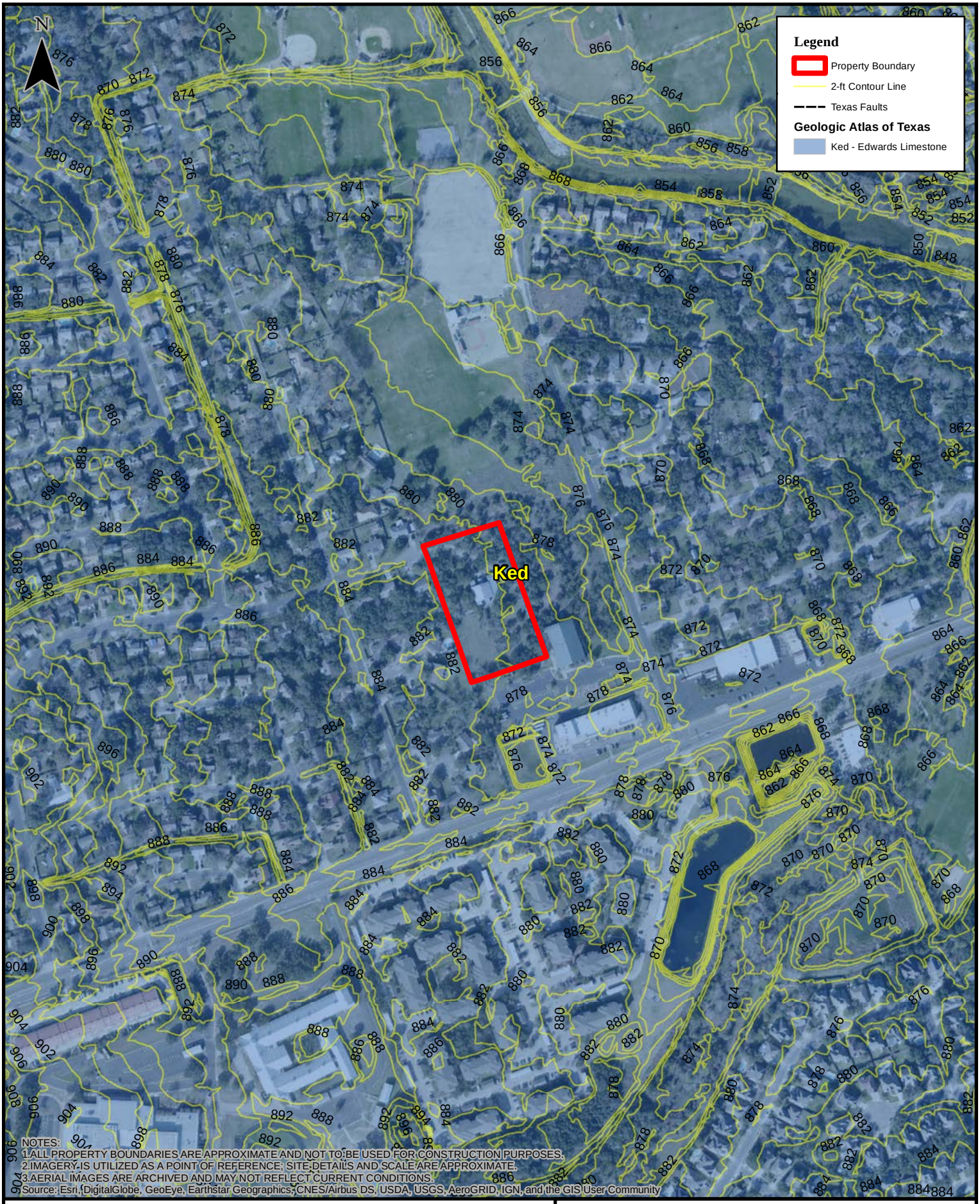
1		.
No.	DATE	REVISION DESCRIPTION

Kimley»Horn

10814 JOLLYVILLE ROAD, CAMPUS IV,
SUITE 200, AUSTIN, TEXAS 78759
FIRM # 10194624
TEL. NO. (512) 418-1771
WWW.KIMLEY-HORN.COM

Scale	Drawn by	Checked by	Date	Project No.	Sheet No.
1" = 60'	NLS	ZKP	7/23/2021	069273503	1 OF 1

DWG NAME: K:\SNA_SURVEY\069273503 - MORRIS ROAD CONDOS\DWG\MORRIS ROAD - ALTA (3AC).DWG PLOTTED BY SCHOFIELD, NIC 7/23/2021 12:31 PM LAST SAVED 7/23/2021 11:51 AM



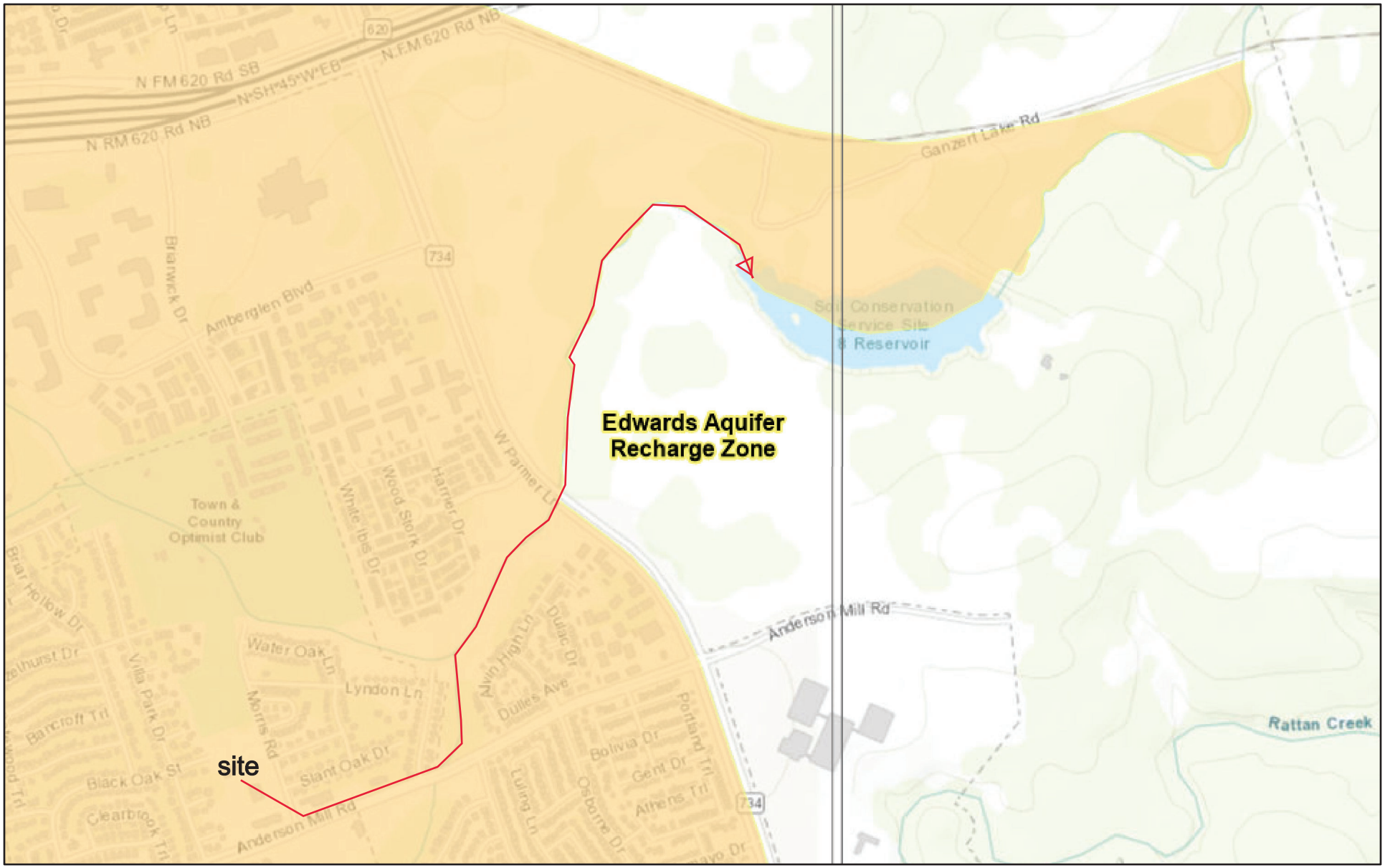
RANGER ENVIRONMENTAL SERVICES, INC.

0 125 250 500 750 1,000 Feet

1:5,000

Geologic Site Map
8600 Black Oak Street
Marielle Development Group, Inc.

Edwards Aquifer Viewer Custom Print



7/21/2022, 8:51:30 AM

Edwards Aquifer Label

City/Place

TX Counties

7.5 Minute Quad Grid

TCEQ_EDWARDS_OFFICIAL_MAPS

1:18,056

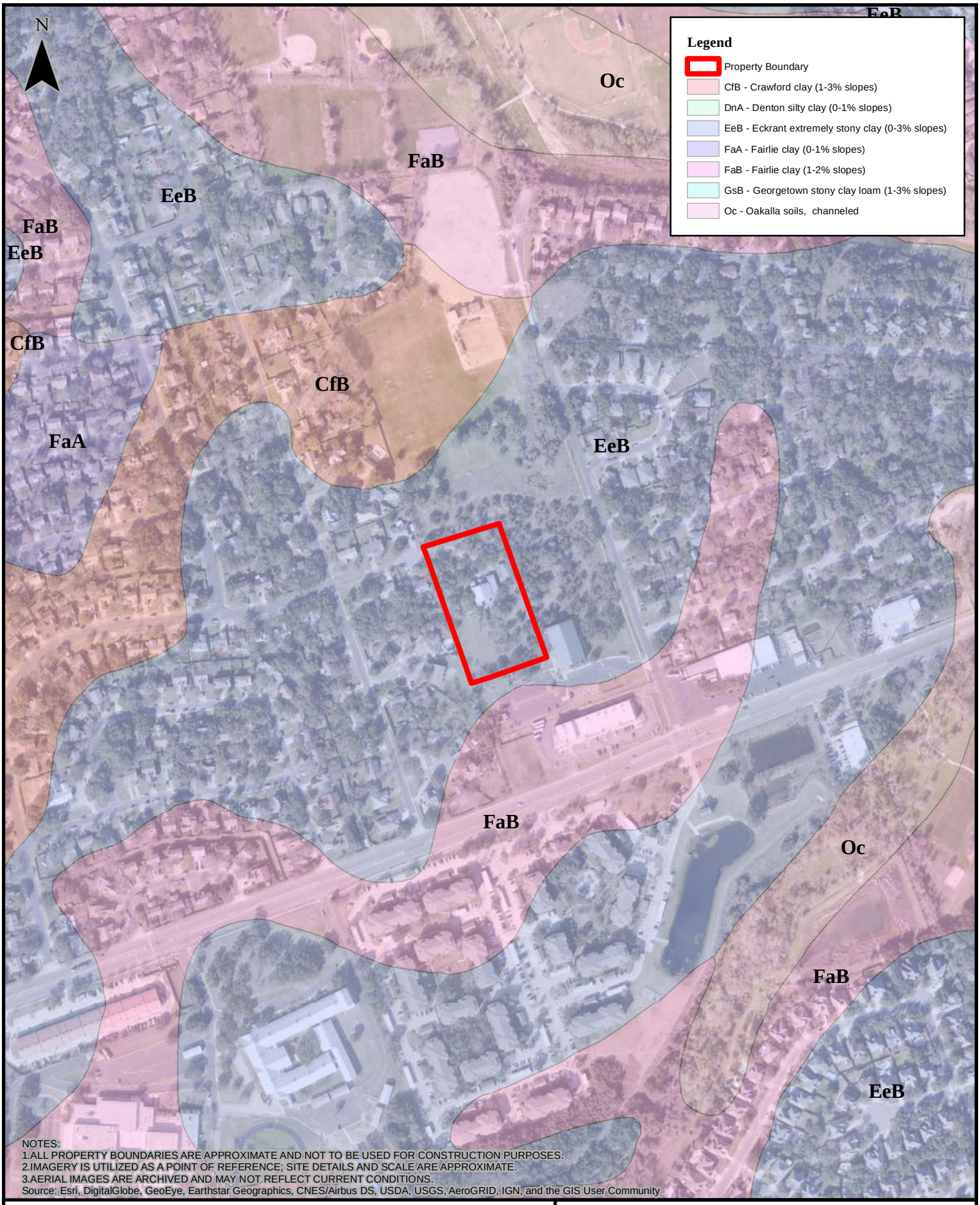
0 0.13 0.25 0.5 mi

0 0.2 0.4 0.8 km

Austin Community College, City of Austin, County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/NASA,

Web AppBuilder for ArcGIS

TCEQ | Austin Community College, City of Austin, County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/NASA, EPA, USDA |



NOTES:
1.ALL PROPERTY BOUNDARIES ARE APPROXIMATE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES.
2.IMAGERY IS UTILIZED AS A POINT OF REFERENCE; SITE DETAILS AND SCALE ARE APPROXIMATE.
3.AERIAL IMAGES ARE ARCHIVED AND MAY NOT REFLECT CURRENT CONDITIONS.
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

RANGER ENVIRONMENTAL SERVICES, INC.

0 125 250 500 750 1,000 Feet

1:5,000

NRCS Soil Map
8600 Black Oak Street
Marielle Development Group, Inc.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Williamson County, Texas

Marielle

August 2, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:1,020 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Williamson County, Texas
Survey Area Data: Version 22, Sep 10, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 15, 2020—Dec 1, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EeB	Eckrant stony clay, 0 to 3 percent slopes, stony	3.2	100.0%
Totals for Area of Interest		**3.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Williamson County, Texas

EeB—Eckrant stony clay, 0 to 3 percent slopes, stony

Map Unit Setting

National map unit symbol: djpv
Elevation: 650 to 1,320 feet
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 65 to 69 degrees F
Frost-free period: 210 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Eckrant, stony, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Eckrant, Stony

Setting

Landform: Ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

A1 - 0 to 4 inches: stony clay
A2 - 4 to 11 inches: extremely stony clay
R - 11 to 80 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: 4 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 0.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ
Hydric soil rating: No

Minor Components

Georgetown

Percent of map unit: 8 percent
Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R081CY361TX - Redland 29-35 PZ
Hydric soil rating: No

Doss

Percent of map unit: 7 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R081CY355TX - Adobe 29-35 PZ
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Geologic Assessment
TCEQ-0585

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Mr. Chad M. Copeland, P.G., PWS

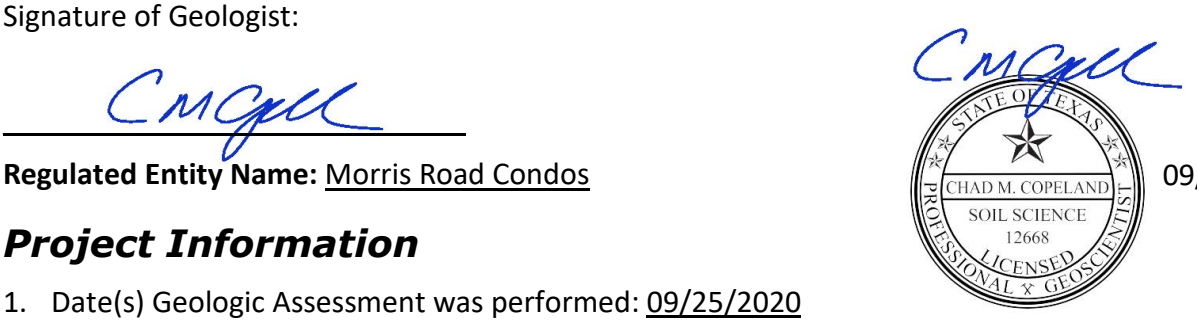
Telephone: 512-335-1785

Fax: 512-335-0527

Date: 9/25/2020

Representing: Ranger Environmental Services, Inc. (State of Texas Geoscience Firm No. 50140)
(Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Morris Road Condos

09/25/2020

Project Information

1. Date(s) Geologic Assessment was performed: 09/25/2020
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)

Soil Name	Group*	Thickness(feet)
Eckrant stony clay, 0 to 3 percent slopes, stony	D	0.33-1.67

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

   Applicant's Site Plan Scale: 1" = 60'
   Site Geologic Map Scale: 1" = 60'
   Site Soils Map Scale (if more than 1 soil type): 1:1,750 & 1:2,230

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.
12. ☐ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☒ Geologic or manmade features were not discovered on the project site during the field investigation.
13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.
14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

    ☒ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

ATTACHMENT A

Geological Assessment Table
TCEQ-0585 Table

No Features observed

GEOLOGIC ASSESSMENT TABLE			PROJECT NAME: Morris Road Condos																	
LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	

* DATUM WGS84

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.
My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date 09/25/2020

Sheet 1 of 1

TCEQ-0585-Table (Rev. 10-01-04)

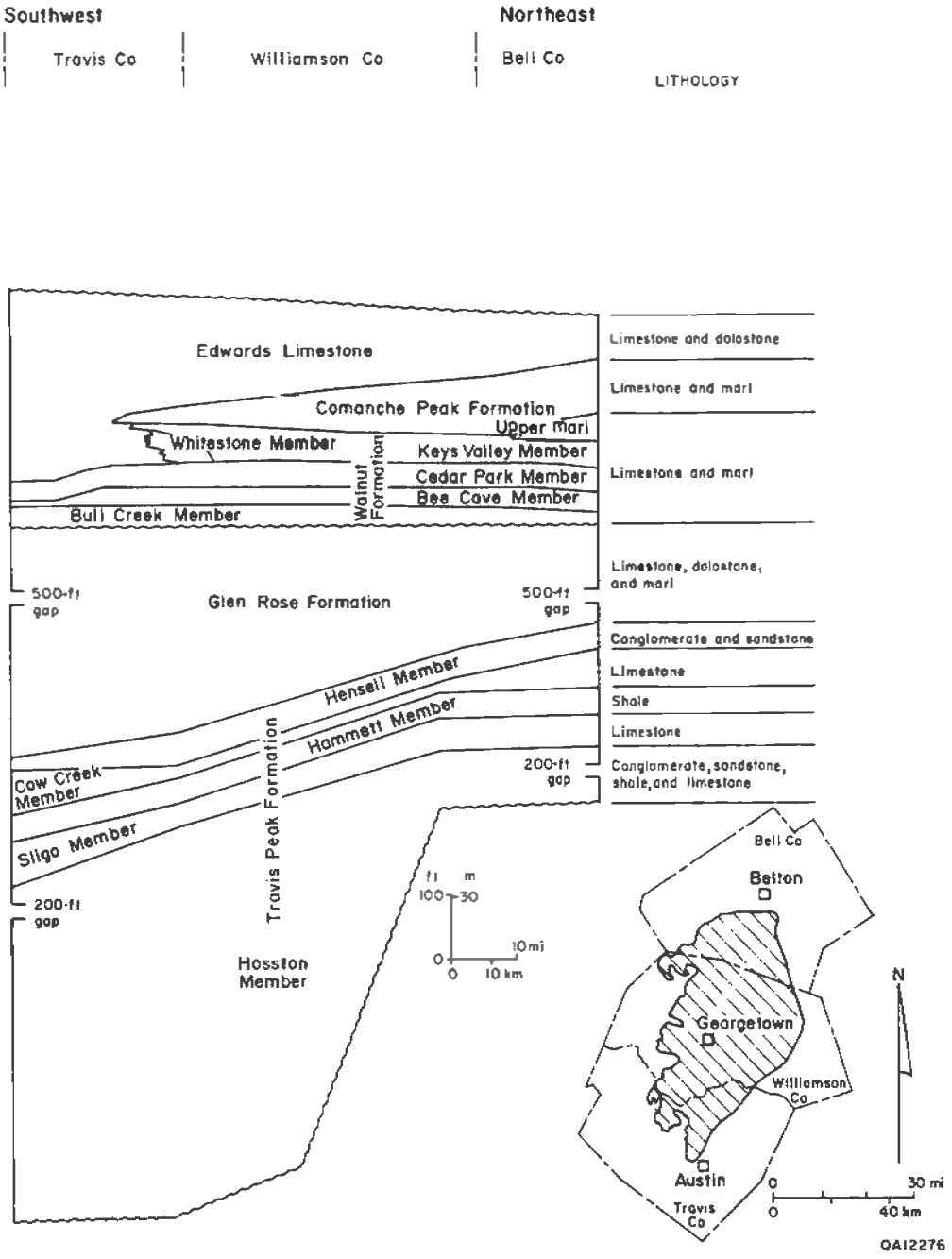
STATE OF TEXAS
CHAD M. COPELAND
SOIL SCIENCE
12668
LICENSED
PROFESSIONAL GEOSCIENTIST

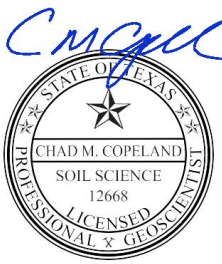
09/25/2020

ATTACHMENT B

Stratigraphic Column

Stratigraphic column of Cretaceous rocks of the northern segment of the Edwards aquifer, Austin region.





09/25/2020

RANGER ENVIRONMENTAL SERVICES, INC.

Morris Road Condos

RANGER REFERENCE 6055

*FIGURE ADAPTED AND EDITED BY RANGER ENVIRONMETAL SERVICES, INC.

*ORIGINAL SOURCE: Senger, R., Collins E., Kreitler C. (1990). Hydrology of the Northern Segment of the Edwards Aquifer, Austin Region. The University of Texas at Austin, Texas 78713. Bureau of Economic Geology.

ATTACHMENT C

Site Geology

RANGER
ENVIRONMENTAL SERVICES, INC.

GEOLOGIC ASSESSMENT
Morris Road Condos
13208 Morris Road
Austin, Texas
Williamson County
September 2020

INTRODUCTION

Ranger Environmental Services, Inc. (Ranger) was contracted to conduct a Geologic Assessment of the referenced property. This location lies within the designated Edwards Aquifer Recharge Zone. The site was noted to be undeveloped. Since the subject site is located over the Edwards Aquifer Recharge Zone, site development should adhere to the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program Rules in accordance with Title 30 of the Texas Administrative Code, Section 213 (30 TAC§ 213).

PROJECT DESCRIPTION

The subject site consists of one approximate 4.91-acre tract, more or less, that was part of an approximate 8.47 lot located at 13208 Morris Road, Austin, in Williamson County, Texas at approximately N 30° 27' 30.8" and approximately W 097° 46' 0.36".

The subject site was noted to be undeveloped. It was reported to Ranger that the construction residential condos were planned for the site. The site is situated in a residential/commercial area.

METHODOLOGY

This assessment follows general guidelines contained in Texas Commission on Environmental Quality (TCEQ) guidance "*Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones"* (TCEQ Guidance 0585). The site is located on an area of the recharge zone that may contain karst features within the outcropping limestone. Karst features may be expressed as surface features but more commonly tend to persist with depth.

A field geologic assessment was conducted by Mr. Chad M. Copeland, P.G., PWS on September 25, 2020. The site was noted to be undeveloped

The walking geologic survey was conducted on 50-foot center transects, where possible. No intrusive testing was conducted. If present, features identified in the field were photographed and recorded with a hand held global positioning system (GPS). Features include, but were not limited to, caves, solution cavities, solution-enlarged fractures, faults, manmade features in bedrock, swallow holes, sinkholes, non-karst closed depressions, and zone clustered or aligned features.

The geologic assessment table, stratigraphic column, geologic, soils and topographic maps are included herein.

RESEARCH INFORMATION

Prior to conducting the geologic survey, Ranger conducted a review of existing geologic data and maps to prepare for the field survey. Reviewed references included, but are not limited to:

- Barnes, V.E. 1974. *Geologic Atlas of Texas, Austin Sheet*. The University of Texas at Austin, Bureau of Economic Geology.
- Senger, R.K., E.W. Collins and C.W. Kreitler. 1990. Hydrogeology of the Northern Segment of the Edwards Aquifer, Austin Region, Report of Investigations 192. The University of Texas at Austin, Bureau of Economic Geology.
- Texas Commission on Environmental Quality. 1999. Complying with the Edwards Aquifer Rules: Administrative Guidance.
- Texas Commission on Environmental Quality. Revised 2004. Instructions to Geologist for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones.
- Sellards, E.H., W.S. Adkins and F.B. Plummer. 1932. The University of Texas Bulletin No. 3232. The Geology of Texas. Volume 1, Stratigraphy.
- U.S. Department of Agriculture National Resources Conversation Services (www.nrcs.usda.gov).
- Texas Commission on Environmental Quality (www.tceq.state.tx.us).
- FEMA Flood Plain Maps.
- Center for Geospatial Technology, Texas Tech University, obtained from the Texas Geologic Atlas of Texas.
- USGS Topographic Maps – Terrain Navigator Pro 2015.
- ESRI

SITE GEOLOGY

According to the *Geologic Atlas of Texas, Austin Sheet* (1974), the site is underlain by Edwards Limestone (Ked), a formation belonging to the Fredericksburg Group. The Edwards Limestone is characterized by limestone, dolomite, and chert. The limestone is aphanitic to fine grained, massive to thin bedded, hard, brittle, in part rudistid biostromes, much miliolid biospharite. The dolomite is fine to very fine grained, porous, medium gray to grayish brown. The chert varies in amount bed to bed with some intervals free of chert. It is mostly white to light gray. In zones of weathering, the Edwards Limestone is considerably recrystallized, "honeycombed," and cavernous forming an aquifer. The Edwards Limestone thickness is 60-350 feet and thins northward.

During the field inspection, the site was noted to be a mix of woodland and grassland supporting vegetation. There were no defined drainage features. No outcropping was observed. Numerous manmade piles of rock and soil were noted on the property. No vugs, faults, or fractures were observed during the site geologic inspection.

SITE SPECIFIC GEOLOGIC FEATURES

No geologic features, as defined in Texas Commission on Environmental Quality (TCEQ) guidance "*Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones*" (TCEQ Guidance 0585), were observed at the site.

SOIL DESCRIPTION

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) *Web Soil Survey*, the soil located at the site are classified as Eckrant stony clay, 0 to 3 percent slopes, stony (EeB). These soils typically have a stony clay A horizon with a shallow R horizon of approximately 0.33 feet to 1.67 feet. Additionally, these soils are well drained with very slow infiltration.

Please see attached USDA NRCS Custom Soil Resource Report.

TOPOGRAPHY AND DRAINAGE

The site was observed to be relatively flat. The elevation ranged from approximately 874 feet above mean sea level to approximately 881. There were numerous manmade rock/soil piles noted. The general direction of drainage is northeast/east.

CONCLUSIONS AND RECOMMENDATIONS

Ranger Environmental Services, Inc. conducted a Geologic Assessment of the site in accordance with 30 TAC§ 213. Ranger concludes that no sensitive features as defined by the TCEQ (30 TAC§ 213) were observed at the site.

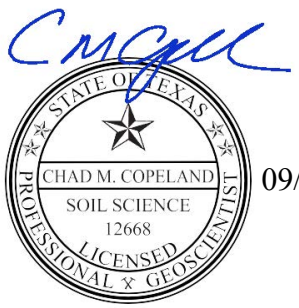
This assessment does not address the possible presence of subsurface conditions that may be exposed during future construction and/or development. Should solution features or conditions be exposed during site construction activities that indicate a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer, operations in the vicinity of the feature should be halted and the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program should be contacted immediately in accordance with 30 TAC §213.5(f)(2).

LIMITATIONS

It should be noted that only areas readily accessible were inspected. There may be geologic features present that were not identified as part of this study. This non-intrusive visual field assessment cannot wholly eliminate the possibility of sensitive features at the site.

Prepared by:

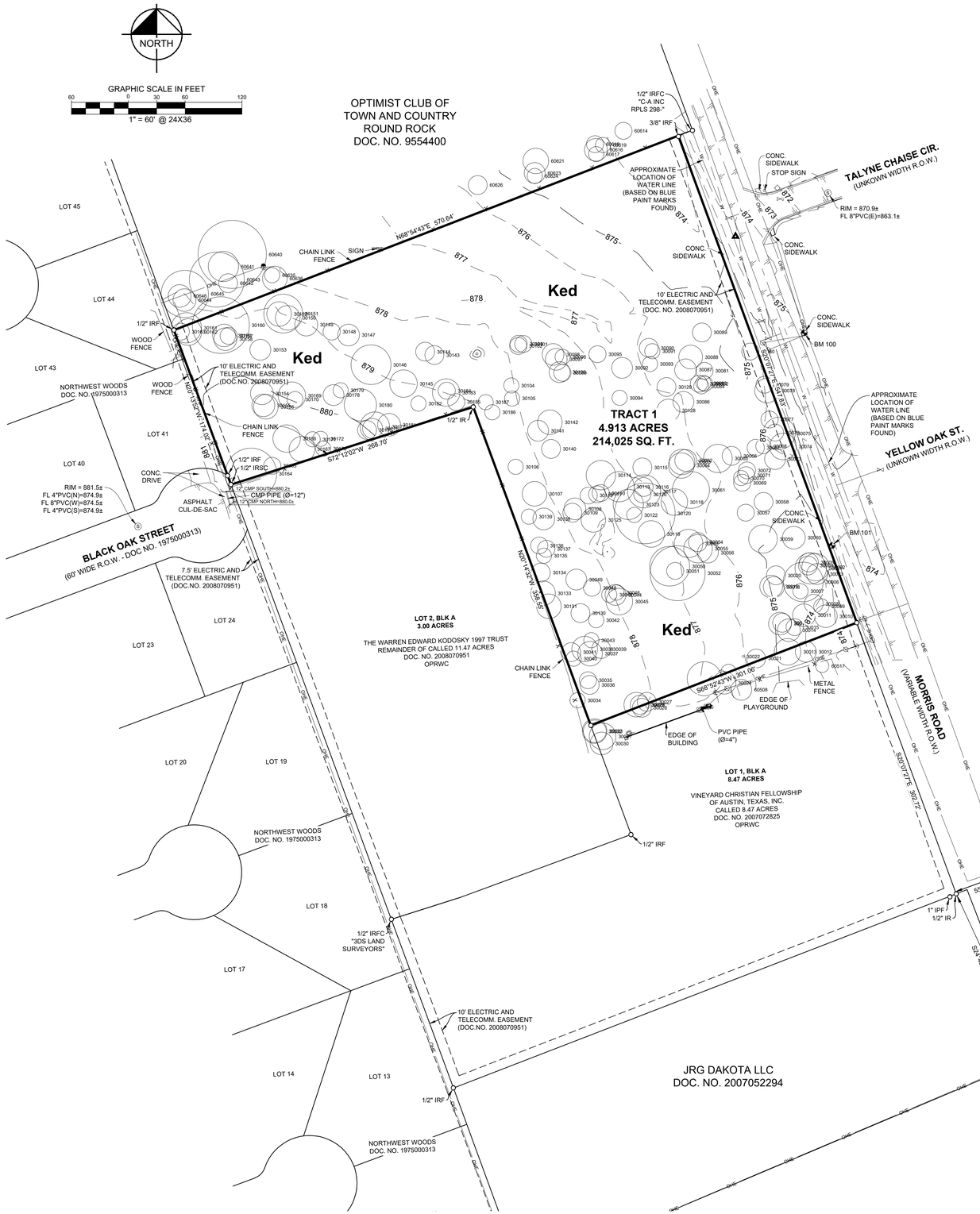
Chad M. Copeland, P.G., PWS



09/25/2020

ATTACHMENT D

Site Geologic Map(s)



TREE TABLE		TREE TABLE		TREE TABLE	
NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION
30001	16.5" LIVE OAK	30026	10" LIVE OAK	30051	9" LIVE OAK
30002	14.5" LIVE OAK	30027	10" LIVE OAK	30052	29" LIVE OAK
30003	11" LIVE OAK	30028	10" LIVE OAK	30053	15" LIVE OAK
30004	10" LIVE OAK	30029	13" LIVE OAK	30054	10" LIVE OAK
30005	10" LIVE OAK	30030	12" LIVE OAK	30055	15" LIVE OAK
30006	21" LIVE OAK	30031	14" LIVE OAK	30056	11" LIVE OAK
30007	8" LIVE OAK	30032	12" LIVE OAK	30057	9" LIVE OAK
30008	10" LIVE OAK	30033	13" LIVE OAK	30058	10" LIVE OAK
30009	8" LIVE OAK	30034	8" LIVE OAK	30059	15" LIVE OAK
30010	12" LIVE OAK	30035	9" LIVE OAK	30060	12" LIVE OAK
30011	12" LIVE OAK	30036	10" LIVE OAK	30061	19.5" LIVE OAK
30012	11" LIVE OAK	30037	13" LIVE OAK	30062	11.5" LIVE OAK
30013	14" LIVE OAK	30038	13.5" LIVE OAK	30063	13.5" LIVE OAK
30014	12" LIVE OAK	30039	10" LIVE OAK	30064	13.5" LIVE OAK
30015	9" LIVE OAK	30040	8" LIVE OAK	30065	15" LIVE OAK
30016	10" LIVE OAK	30041	10" LIVE OAK	30066	10" LIVE OAK
30017	12" LIVE OAK	30042	8" LIVE OAK	30067	9" LIVE OAK
30018	11" LIVE OAK	30043	8" LIVE OAK	30068	8" LIVE OAK
30019	12" LIVE OAK	30044	11" LIVE OAK	30069	9" LIVE OAK
30020	10" LIVE OAK	30045	14" LIVE OAK	30070	8" LIVE OAK
30021	10" LIVE OAK	30046	8" LIVE OAK	30071	9" LIVE OAK
30022	1" LIVE OAK	30047	8" LIVE OAK	30072	9" LIVE OAK
30023	8" LIVE OAK	30048	9" LIVE OAK	30073	11" LIVE OAK
30024	12" LIVE OAK	30049	11" LIVE OAK	30074	14" LIVE OAK
30025	18" LIVE OAK	30050	21" LIVE OAK	30075	17" LIVE OAK

TREE TABLE		TREE TABLE		TREE TABLE		TREE TABLE		TREE TABLE		TREE TABLE	
NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION
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30077	9" LIVE OAK	30102	9" LIVE OAK	30129	10" LIVE OAK	30155	12" LIVE OAK	30182	8" LIVE OAK	60646	12" LIVE OAK
30078	13" LIVE OAK	30103	9" LIVE OAK	30130	10" LIVE OAK	30156	13" LIVE OAK	30183	14.5" LIVE OAK		
30079	9" LIVE OAK	30104	8" LIVE OAK	30131	13" LIVE OAK	30157	9" CEDAR ELM	30184	9" LIVE OAK		
30080	9" LIVE OAK	30105	8" LIVE OAK	30133	13" CEDAR ELM	30158	12" LIVE OAK	30185	9" LIVE OAK		
30081	9" LIVE OAK	30106	8" LIVE OAK	30134	10" LIVE OAK	30159	12" LIVE OAK	30186	8" LIVE OAK		
30082	8" LIVE OAK	30107	13" LIVE OAK	30135	8" LIVE OAK	30160	30" LIVE OAK	30187	8" LIVE OAK		
30083	8" LIVE OAK	30108	11.5" LIVE OAK	30136	9" LIVE OAK	30161	16" LIVE OAK	60508	11" CEDAR ELM		
30084	8" LIVE OAK	30109	10" LIVE OAK	30137	9" LIVE OAK	30162	14" LIVE OAK	60517	7" LIVE OAK		
30085	9" LIVE OAK	30110	9" LIVE OAK	30138	11.5" LIVE OAK	30163	9" LIVE OAK	60614	9" LIVE OAK		
30086	11" LIVE OAK	30111	9" LIVE OAK	30139	8" LIVE OAK	30164	27" LIVE OAK	60616	12" LIVE OAK		
30087	11.5" LIVE OAK	30112	9" LIVE OAK	30140	10" LIVE OAK	30165	9" LIVE OAK	60617	8" LIVE OAK		
30088	12.5" LIVE OAK	30113	16" LIVE OAK	30141	11" LIVE OAK	30166	14.5" LIVE OAK	60618	9" CEDAR ELM		
30089	10" LIVE OAK	30114	15.5" LIVE OAK	30142	13" LIVE OAK	30167	13.5" LIVE OAK	60619	8" LIVE OAK		
30090	10" LIVE OAK	30115	10" CEDAR ELM	30143	10" LIVE OAK	30169	14.5" LIVE OAK	60621	13.5" LIVE OAK		
30091	8" LIVE OAK	30116	10" LIVE OAK	30144	10" LIVE OAK	30170	8.5" LIVE OAK	60623	11" LIVE OAK		
30092	11" LIVE OAK	30117	17.5" LIVE OAK	30145	14.5" LIVE OAK	30171	8" LIVE OAK	60624	8" LIVE OAK		
30093	8" LIVE OAK	30118	14" LIVE OAK	30146	21" LIVE OAK	30172	8" LIVE OAK	60626	10" LIVE OAK		
30094	8" LIVE OAK	30119	14" LIVE OAK	30147	11.5" LIVE OAK	30173	8" LIVE OAK	60635	8" CEDAR ELM		
30095	8" LIVE OAK	30120	32" LIVE OAK	30148	9" HACKBERRY	30175	10" LIVE OAK	60636	13" CEDAR ELM		
30096	8" LIVE OAK	30122	8" LIVE OAK	30149	12" CHINABERRY	30176	10.6" LIVE OAK	60640	36" LIVE OAK		
30097	11.5" LIVE OAK	30123	16" LIVE OAK	30150	13" LIVE OAK	30177	15.5" LIVE OAK	60641	16" LIVE OAK		
30098	11.5" LIVE OAK	30125	13" LIVE OAK	30151	20.5" LIVE OAK	30178	11" LIVE OAK	60642	10" CEDAR ELM		
30099	9" LIVE OAK	30126	9" LIVE OAK	30152	13" LIVE OAK	30179	8" LIVE OAK	60643	29" LIVE OAK		
30100	11" LIVE OAK	30127	8" LIVE OAK	30153	11" LIVE OAK	30180	17" LIVE OAK	60644	12" LIVE OAK		

LINE TYPE LEGEND

	BOUNDARY LINE
	EASEMENT LINE
	BUILDING LINE
W	WATER LINE
SS	SANITARY SEWER LINE
	STORM SEWER LINE
GAS	UNDERGROUND GAS LINE
OHE	OVERHEAD UTILITY LINE
UGE	UNDERGROUND ELECTRIC LINE
UGT	UNDERGROUND TELEPHONE LINE
	FENCE
	CONCRETE PAVEMENT
	ASPHALT PAVEMENT

BENCH MARK LIST

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION

- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

LEGEND

	A/C UNIT		SANITARY SEWER MANHOLE
	AIR RELEASE VALVE		SANITARY SEWER MARKER FLAG
	BASKET BALL GOAL		SANITARY SEWER MARKER SIGN
	BORE LOCATION		SANITARY SEWER METER
	CABLE TV BOX		SANITARY SEWER SEPTIC TANK
	CABLE TV HANDHOLE		SANITARY SEWER VAULT
	CABLE TV MANHOLE		SECURITY CAMERA
	CABLE TV MARKER FLAG		SIGN
	CABLE TV MARKER SIGN		STORM SEWER BOX
	CABLE TV VAULT		STORM SEWER DRAIN
	COMMUNICATIONS BOX		STORM SEWER HANDHOLE
	COMMUNICATIONS HANDHOLE		STORM SEWER MANHOLE
	COMMUNICATIONS MANHOLE		STORM SEWER MARKER FLAG
	COMMUNICATIONS MARKER FLAG		STORM SEWER MARKER SIGN
	COMMUNICATIONS MARKER SIGN		STORM SEWER METER
	COMMUNICATIONS VAULT		STORM SEWER VAULT
	CROSS WALK SIGNAL		TELEPHONE BOX
	ELECTRIC BOX		TELEPHONE HANDHOLE
	ELECTRIC METER		TELEPHONE MANHOLE
	ELECTRIC MANHOLE		TELEPHONE MARKER FLAG
	ELECTRIC MARKER FLAG		TELEPHONE MARKER SIGN
	ELECTRIC MARKER SIGN		TELEPHONE VAULT
	ELECTRIC SWITCH		TRAFFIC BARRIER
	ELECTRIC TRANSFORMER		TRAFFIC BOLLARD
	ELECTRIC VAULT		TRAFFIC BOX
	ELEVATION BENCHMARK		TRAFFIC CAMERA
	FIBER OPTIC BOX		TRAFFIC HANDHOLE
	FIBER OPTIC HANDHOLE		TRAFFIC MANHOLE
	FIBER OPTIC MANHOLE		TRAFFIC MARKER SIGN
	FIBER OPTIC MARKER FLAG		TRAFFIC SENSOR
	FIBER OPTIC MARKER SIGN		TRAFFIC SIGNAL
	FIBER OPTIC VAULT		TRAFFIC VAULT
	FIRE DEPT. CONNECTION		TRASH BIN
	FIRE HYDRANT		TREE
	FLAG POLE		UNIDENTIFIED BOX
	FLOOD LIGHT		UNIDENTIFIED HANDHOLE
	FLOW DIRECTION		UNIDENTIFIED MANHOLE
	FUEL TANK		UNIDENTIFIED MARKER FLAG
	GAS BOX		UNIDENTIFIED MARKER SIGN
	GAS HANDHOLE		UNIDENTIFIED METER
	GAS METER		UNIDENTIFIED POLE
	GAS MANHOLE		UNIDENTIFIED TANK
	GAS MARKER FLAG		UNIDENTIFIED VAULT
	GAS SIGN		UNIDENTIFIED VALVE
	GAS TANK		UTILITY POLE
	GREASE TRAP		WATER BOX
	GAS VAULT		WATER HAND HOLE
	GAS VALVE		WATER MANHOLE
	GAS WELL		WATER MARKER FLAG
	GOAL POST		WATER MARKER SIGN
	GUY ANCHOR		WATER METER
	GUY ANCHOR POLE		WATER TANK
	HANDICAPPED PARKING		WATER VALVE
	IRRIGATION VALVE		WATER VAULT
	LIGHT STANDARD		WATER WELL
	MAIL BOX	ADF	ALUMINUM DISK FOUND
	MARQUEE/BILLBOARD	BDF	BRASS TxDOT DISK FOUND
	MONITORING WELL	BM	BENCHMARK
	NEWS STAND	CMF	CONCRETE MONUMENT FOUND
	PARKING METER	CAF	CAR AXLE FOUND
	PHONE BOOTH	CSF	COTTON SPINDLE FOUND
	PIPELINE BOX	IPF	IRON PIPE FOUND
	PIPELINE HANDHOLE	IRF	IRON ROD FOUND
	PIPELINE METER	IRFC	IRON ROD WITH CAP FOUND
	PIPELINE MANHOLE	IRSC	1/2" IRON ROD W/ "KHA" CAP SET
	PIPELINE MARKER FLAG	PKF	PK NAIL FOUND
	PIPELINE MARKER SIGN	PKS	PK NAIL SET
	PIPELINE VAULT	RRSF	RAILROAD SPIKE FOUND
	PIPELINE VALVE	RRSS	RAILROAD SPIKE SET
	RAILROAD BOX	XF	"X" CUT IN CONCRETE FOUND
	RAILROAD HANDHOLE	XS	"X" CUT IN CONCRETE SET
	RAILROAD SIGNAL	P.O.B.	POINT OF BEGINNING
	RAILROAD SIGN	(1402.52')	PARENTHESIS INDICATES RECORD MEASUREMENT
	RAILROAD VAULT	DPRTC	DEED AND PLAT RECORDS OF TRAVIS COUNTY, TEXAS
	ROOF DRAIN		
	SANITARY SEWER BOX	OPRTC	OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS
	SANITARY SEWER CLEAN OUT		
	SANITARY SEWER HANDHOLE	PRTC	PLAT RECORDS OF TRAVIS COUNTY, TEXAS
	SANITARY SEWER LIFT STATION		

GENERAL NOTES

1. THIS SURVEY WAS PERFORMED UTILIZING THAT CERTAIN TITLE REPORT PREPARED BY WESTCOR LAND TITLE INSURANCE COMPANY, G.F. NO. 9991-20-6631 (ISSUE DATE: MARCH 27, 2020, EFFECTIVE DATE: MARCH 16, 2020) AND REFLECTS ONLY THOSE EASEMENTS AND ENCUMBRANCES OF RECORD MENTIONED THEREIN. KIMLEY-HORN DID NOT ABSTRACT THE PUBLIC RECORDS. THE SURVEYED TRACT MAY BE SUBJECT TO ADDITIONAL GOVERNMENT REGULATIONS AND RESTRICTIONS PRIOR TO FURTHER SITE DEVELOPMENT.
2. THIS IS A TOPOGRAPHIC MAP PREPARED FOR SITE IMPROVEMENT AND DESIGN PURPOSES ONLY. THIS NOT A LAND TITLE SURVEY.
3. ACCORDING TO COMMUNITY PANEL NO. 48491C0610F, DATED 12/20/2019 OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM), THE SUBJECT TRACT IS LOCATED WITHIN ZONE "X" (UN-SHADED) WHICH IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN," COMMONLY KNOWN AS THE 500-YEAR FLOODPLAIN. ZONE "X" (UN-SHADED) IS OUTSIDE OF ANY FEMA ESTABLISHED FLOOD HAZARD ZONE. ALL ZONE DELINEATIONS SHOWN HEREON ARE APPROXIMATE. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ON RARE OCCASIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE ANY LIABILITY ON THE PART OF KIMLEY-HORN OR THE UNDERSIGNED.
4. THE BEARINGS, DISTANCES, AREAS AND COORDINATES SHOWN HEREON ARE TEXAS STATE COORDINATE SYSTEM GRID, CENTRAL ZONE (FIPS 4203) (NAD'83), AS DETERMINED BY THE GLOBAL POSITIONING SYSTEM (GPS). ALL DISTANCES SHOWN HEREON ARE ON THE GRID. THE UNIT OF LINEAR MEASUREMENT IS U.S. SURVEY FEET.
4. THIS DRAWING SHOWS EXISTING SPOT ELEVATIONS AND CONTOUR LINES BASED UPON A FIELD SURVEY CONDUCTED BY SURVEY PERSONNEL. THE CONTOUR INTERVAL IS 1 FOOT. ALL ELEVATIONS SHOWN HEREON ARE TIED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) BASED ON GPS OBSERVATIONS.
5. KIMLEY-HORN HAS MADE NO ATTEMPT TO OBTAIN OR SHOW DATA CONCERNING THE EXISTENCE, SIZE, DEPTH, CONDITION, CAPACITY, OR LOCATION OF ANY UTILITY OR UNDERGROUND FACILITY. FOR INFORMATION REGARDING SAID UTILITIES OR FACILITIES, PLEASE CONTACT THE APPROPRIATE AGENCIES. NO TEXAS 811 MARKINGS SHOWING THE LOCATION OF BURIED UTILITIES WERE OBSERVED AND LOCATED BY SURVEY CREWS WHILE PERFORMING THE FIELD SURVEY. KIMLEY-HORN CANNOT GUARANTEE THE ACCURACY AND THOROUGHNESS OF UTILITY COMPANY REPRESENTATIVES MARKING EFFORT. KIMLEY-HORN ASSUMES NO LIABILITY FOR POORLY OR IMPROPERLY MARKED UTILITY LOCATIONS. NO PRIVATE INTERIOR SERVICE LINES WERE MARKED AND NOT ARE SHOWN.
6. THE TREE SPECIES REFERENCE ON THIS EXHIBIT REFLECT FIELD INDICATIONS MADE BY SURVEY CREW PERSONNEL. AN ARBORIST OR OTHER EXPERT CONSULTANT SHOULD MAKE THE FINAL DETERMINATION OF TREE TYPES AND CONDITIONS.

Ked - Edwards Limestone

CHAD M. COPELAND 12668 LICENSED SOIL SCIENCE ENVIRONMENTAL SPECIALIST

09/25/2020

TOPOGRAPHIC AND TREE SURVEY OF TRACT 1 - 4.913 ACRES

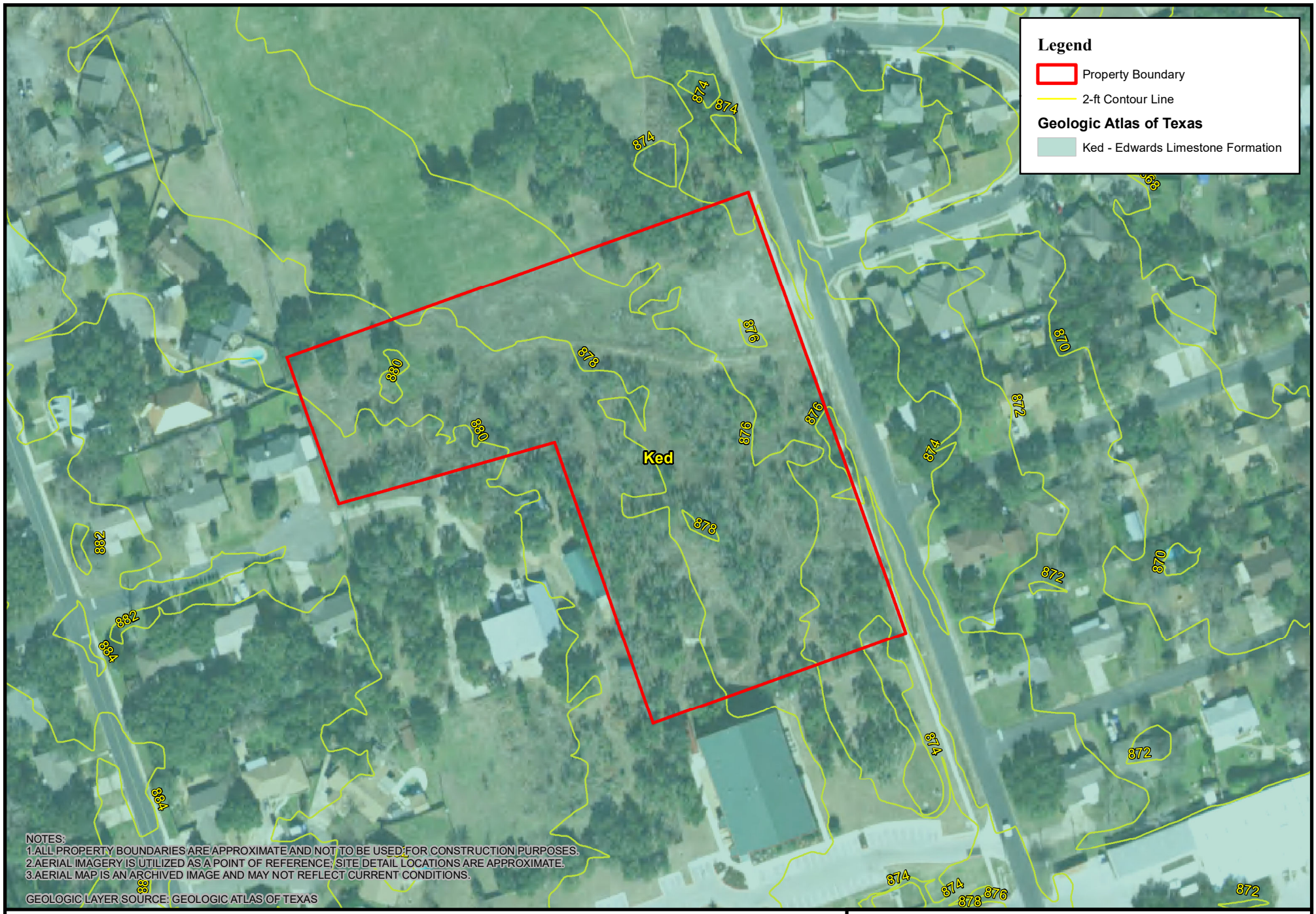
BEING A PORTION OF LOT 1, BLOCK A, M.M. HORNSBY SURVEY, ABSTRACT NO. 280
13208 MORRIS ROAD, CITY OF AUSTIN, WILLIAMSON COUNTY, TEXAS

Kimley»Horn
601 NW Loop 410, Suite 350 San Antonio, Texas 78216 FIRM # 10193973
Tel. No. (210) 541-9166 www.kimley-horn.com

Scale	Drawn by	Checked by	Date	Project No.	Sheet No.
1" = 60'	MCH	ZKP	7/6/2020	069273503	1 OF 1

Map adapted by Ranger Environmental Services, Inc.

DWG NAME: I:\SNAP\01\DATA\PROJECT\SNA_SURVEY\069273503 - MORRIS ROAD CONDOS\TRANSFER-OU\7\2020-07-06 DESIGN FILE TO BRANDON\MORRIS ROAD CONDOS - DESIGN FILE.DWG PLOTTED BY: PETRUS, ZACH 7/6/2020 10:23 PM LAST SAVED: 7/6/2020 8:01 PM



RANGER ENVIRONMENTAL SERVICES, INC.

0 45 90 180 270 360 Feet

1:1,750

N

Geologic Site Map
13208 Morris Road, Austin, Texas
Bright Sky Environmental, LLC

RANGER ENVIRONMENTAL SERVICES, INC.

0 45 90 180 270 360 Feet

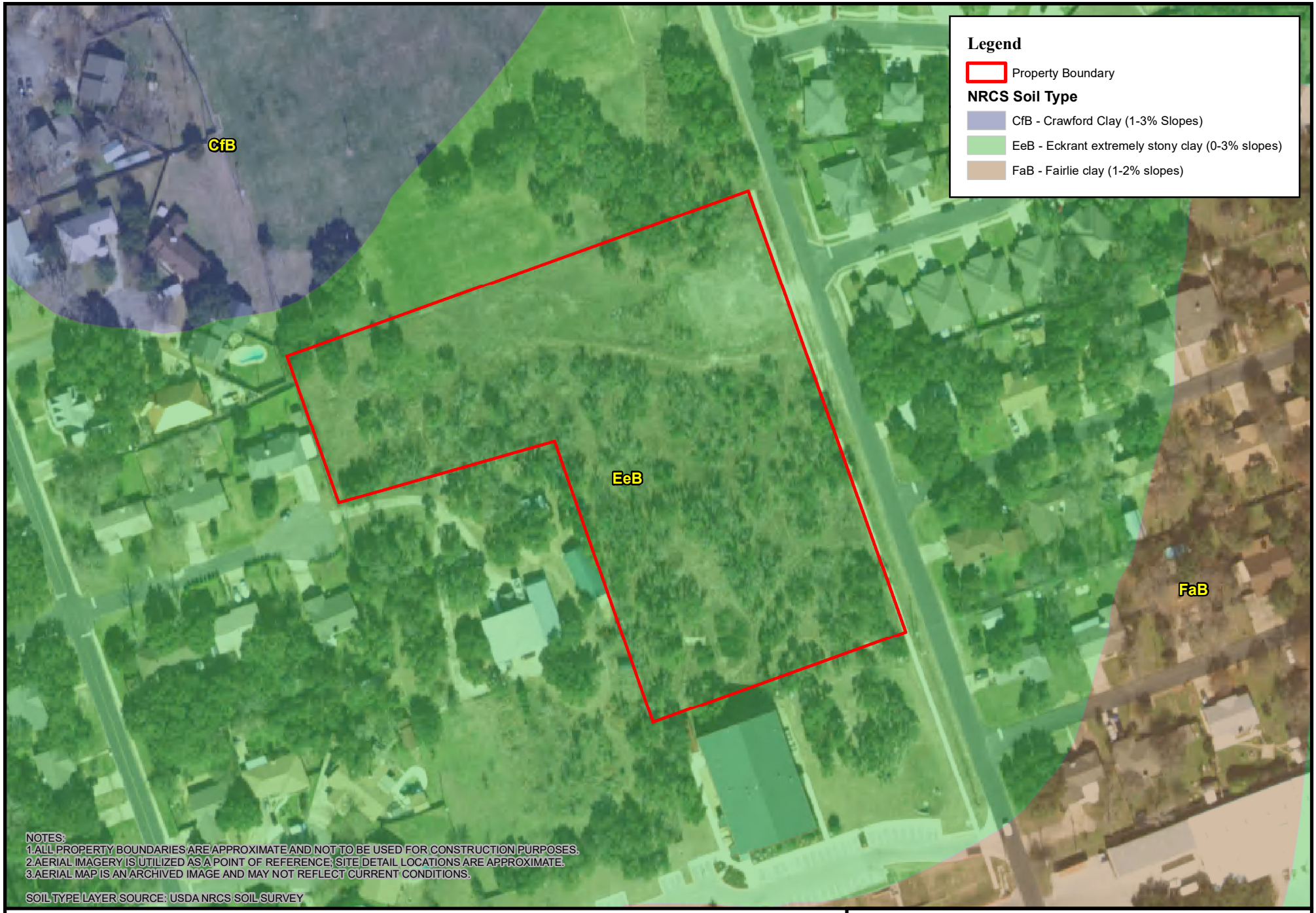
1:1,750

N

Edwards Aquifer Map

13208 Morris Road, Austin, Texas

Bright Sky Environmental, LLC



RANGER ENVIRONMENTAL SERVICES, INC.

0 45 90 180 270 360 Feet

1:1,750

N

Site Soil Map

13208 Morris Road, Austin, Texas

Bright Sky Environmental, LLC

United States Department of Agriculture

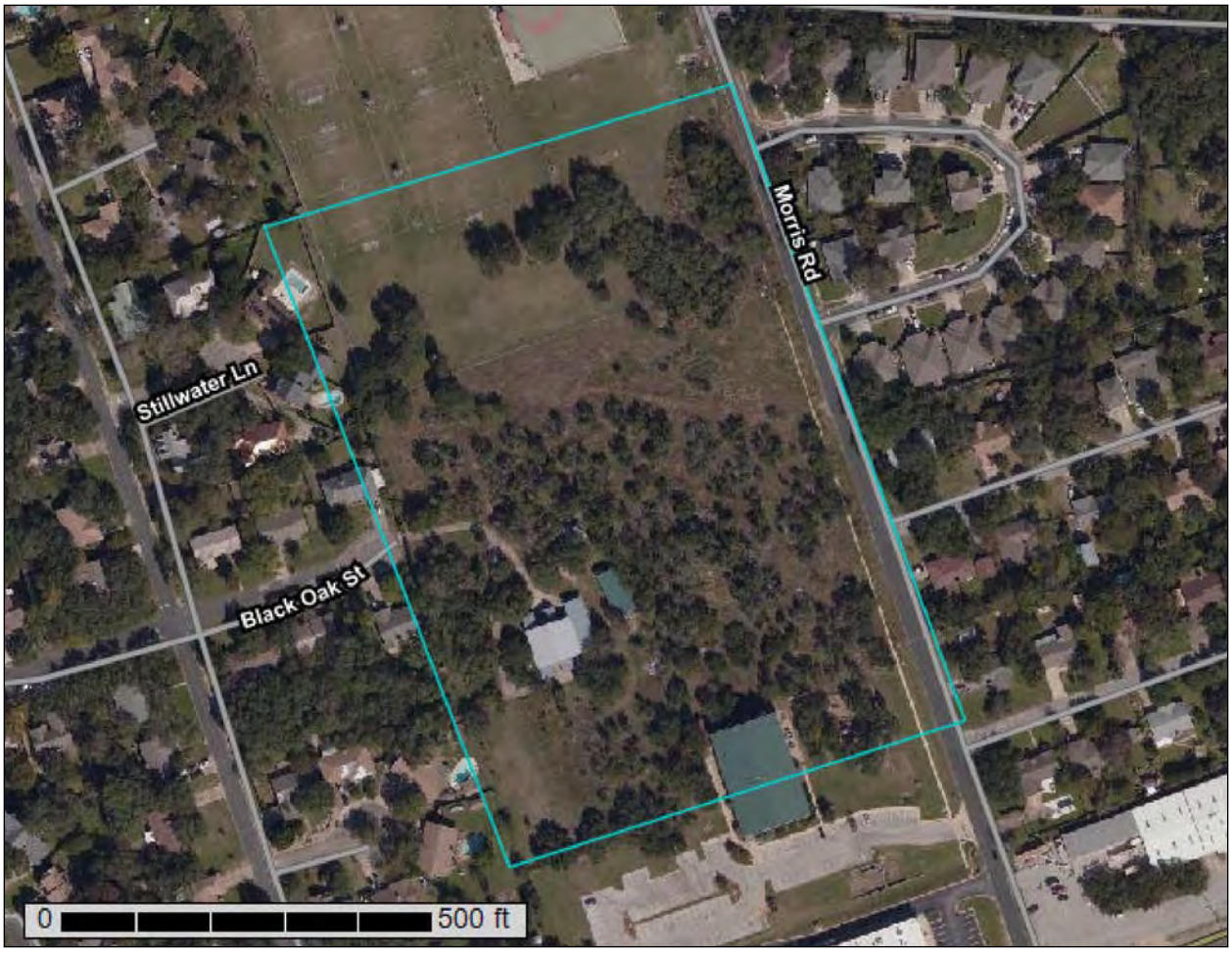
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Williamson County, Texas

13208 Morris Road, Austin, Texas



September 24, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:2,230 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 30 60 120 180

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Williamson County, Texas
Survey Area Data: Version 21, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 27, 2018—Nov 16, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CfB	Crawford clay, 1 to 3 percent slopes	1.2	8.6%
EeB	Eckrant stony clay, 0 to 3 percent slopes, stony	12.5	91.4%
Totals for Area of Interest		**13.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Williamson County, Texas

CfB—Crawford clay, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2rspf
Elevation: 400 to 1,100 feet
Mean annual precipitation: 26 to 34 inches
Mean annual air temperature: 64 to 68 degrees F
Frost-free period: 230 to 250 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Crawford and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Crawford

Setting

Landform: Plains
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

A - 0 to 6 inches: clay
Bss - 6 to 27 inches: clay
R - 27 to 30 inches: bedrock

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: D
Ecological site: R081CY358TX - Deep Redland 29-35 PZ
Hydric soil rating: No

Minor Components

Georgetown

Percent of map unit: 4 percent
Landform: Plains
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Interfluve, base slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R081CY361TX - Redland 29-35 PZ
Hydric soil rating: No

Denton

Percent of map unit: 4 percent
Landform: Ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R081CY357TX - Clay Loam 29-35 PZ
Hydric soil rating: No

Fairlie

Percent of map unit: 4 percent
Landform: Ridges
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R086AY011TX - Southern Blackland
Hydric soil rating: No

Purves

Percent of map unit: 2 percent
Landform: Ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R081CY574TX - Shallow 29-35 PZ
Hydric soil rating: No

Unnamed

Percent of map unit: 1 percent
Hydric soil rating: No

EeB—Eckrant stony clay, 0 to 3 percent slopes, stony

Map Unit Setting

National map unit symbol: djpv

Elevation: 650 to 1,320 feet
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 65 to 69 degrees F
Frost-free period: 210 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Eckrant, stony, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Eckrant, Stony

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

A1 - 0 to 4 inches: stony clay
A2 - 4 to 11 inches: extremely stony clay
R - 11 to 80 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: 4 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Very low (about 0.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ
Hydric soil rating: No

Minor Components

Georgetown

Percent of map unit: 8 percent
Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear

Across-slope shape: Linear
Ecological site: R081CY361TX - Redland 29-35 PZ
Hydric soil rating: No

Doss

Percent of map unit: 7 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R081CY355TX - Adobe 29-35 PZ
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Section 4: Water Pollution Abatement Plan

Water Pollution Abatement Plan Application Form

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

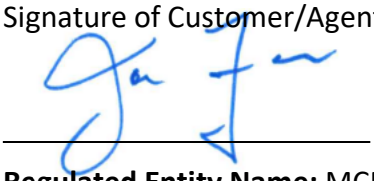
Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: Jose M. Farias, P.E.

Date: 12/10/2025

Signature of Customer/Agent:



Regulated Entity Name: MCRT SFR TEXAS CONSTRUCTION LLC

Regulated Entity Information

1. The type of project is:

   ☐ Residential: Number of Lots: ___
   ☒ Residential: Number of Living Unit Equivalents: 143
   ☐ Commercial
   ☐ Industrial
   ☐ Other:_____

2. Total site acreage (size of property): 7.913 acres

3. Estimated projected population: 286

4. The amount and type of impervious cover expected after construction are shown below:

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	109,285.00	÷ 43,560 =	2.50
Parking	2,268	÷ 43,560 =	0.05
Other Paved Surfaces	87,616	÷ 43,560 =	2.01
Total Impervious Cover	199,169.00	÷ 43,560 =	4.57

Total Impervious Cover 4.57 ÷ Total Acreage 7.913 X 100 = 57.8% Impervious Cover

5. ☒ **Attachment A - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.

6. ☒ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

For Road Projects Only

Complete questions 7 - 12 if this application is exclusively for a road project.

7. Type of project: **N/A**

   ☐ TXDOT road project.
   ☐ County road or roads built to county specifications.
   ☐ City thoroughfare or roads to be dedicated to a municipality.
   ☐ Street or road providing access to private driveways.

8. Type of pavement or road surface to be used: **N/A**

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

9. Length of Right of Way (R.O.W.): ____ feet. **N/A**

   Width of R.O.W.: ____ feet.
   L x W = ____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.

10. Length of pavement area: ____ feet. **N/A**

    Width of pavement area:_____ feet.
    L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
    Pavement area ____ acres ÷ R.O.W. area ____acres x 100 = ____% impervious cover.

11. ☐ A rest stop will be included in this project. **N/A**

    ☐ A rest stop will not be included in this project.

12. ☐ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ. **N/A**

Stormwater to be generated by the Proposed Project

13. ☒ **Attachment B - Volume and Character of Stormwater**. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on the area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

14. The character and volume of wastewater is shown below:

100 % Domestic	110,857 Gallons/day
% Industrial	Gallons/day
% Commingled	Gallons/day
	TOTAL 110,857 Gallons/day

15. Wastewater will be disposed of by:

☐ On-Site Sewage Facility (OSSF/Septic Tank):

- ☐ **Attachment C - Suitability Letter from Authorized Agent**. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.
- ☐ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☒ Sewage Collection System (Sewer Lines):

- ☐ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- ☒ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
- ☐ The SCS was previously submitted on_____.
- ☒ The SCS was submitted with this application.
- ☐ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

☒ The sewage collection system will convey the wastewater to the Austin West WWTP .The treatment facility is:
- ☒ Existing.
- ☐ Proposed.

16. ☒ All private service laterals will be inspected as required in 30 TAC §213.5.

Site Plan Requirements

Items 17 – 28 must be included on the Site Plan.

17. ☒ The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = 30', 40'

18. 100-year floodplain boundaries:

☒ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
☐ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): Federal Emergency Management Agency Flood Insurance Rate Map (FEMA) and 48491C0610F dated December 20th 2019.

19. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, open space, etc. are shown on the plan.

☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, open space, etc. are shown on the site plan.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

☒ There are 0 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)
- ☐ The wells are not in use and have been properly abandoned.
- ☐ The wells are not in use and will be properly abandoned.
- ☐ The wells are in use and comply with 16 TAC §76.
- ☐ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:

- ☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
- ☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.
- ☐ **Attachment D - Exception to the Required Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

22. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

23. ☒ Areas of soil disturbance and areas which will not be disturbed.
24. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
25. ☒ Locations where soil stabilization practices are expected to occur.
26. ☐ Surface waters (including wetlands).

    ☒ N/A
27. ☐ Locations where stormwater discharges to surface water or sensitive features are to occur.

    ☒ There will be no discharges to surface water or sensitive features.
28. ☒ Legal boundaries of the site are shown.

Administrative Information

29. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
30. ☒ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fee.

Kimley»Horn

Attachment A
Factors Affecting Water Quality

Materials that are anticipated to be used on site that could be a potential source of contamination include the following:
During Construction:

1. Petroleum drippings from vehicle movement
2. Integrated Pest Management
3. Asphalt and /or Concrete Products
4. Soil/Stockpile
5. Concrete and Masonry Materials
6. Wood, plastic, and metal Materials
7. Tar and hydrocarbons from paving operations
8. Oil, grease, fuel, and hydraulic fluid from construction equipment and vehicle drippings
9. Fertilizers, herbicides, and pesticides
10. Cleaning solutions and detergents
11. Miscellaneous construction trash and debris
12. Soil erosion and sedimentation due to construction activity

Ultimate Use:

1. Pollutants generated from vehicles utilizing the site
2. Fertilizers, herbicides, and pesticides used to maintain landscaping
3. Miscellaneous trash and debris generated from the public

This is not intended to be an all-inclusive list. All practical management practices will be used to reduce the risk of spills and other exposure of any contaminant to surface or groundwater.

Attachment B
Volume and Character of Storm Water

Existing Drainage Conditions

The existing site topographic information used for this drainage study is provided by an on-site topographic survey of the ±7.91-acre tract and Aerial Lidar contours of the off-site contributing drainage areas. From the topography, one (1) drainage basin/point of analysis was identified and analyzed. E-A drains from west to and drains into Morris Road. E-B drains from west to south and drains into Morris Road.

EXISTING CONDITIONS (HEC-HMS)										
Draiange Area	AREA (acres)	AREA (sq.mi.)	Curve Number	Impervious Cover (%)	TC (min.)	LAG TIME (min.)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
E-A	6.27	0.010	84	14.39	37.4	22.4	12.6	21.9	28.3	38.9
E-B	4.04	0.006	84	14.21	26.4	15.8	9.7	16.9	21.8	29.9
POA "A"							12.6	21.9	28.3	38.9
POA "B"							9.7	16.9	21.8	29.9

Proposed Drainage Conditions

Two drainage areas are proposed, “P-A” and “P-B”. Basin “E-A” and “E-B” will be routed through water quality ponds proposed within the Project to reduce peak flows to existing conditions.

PROPOSED CONDITIONS (HEC-HMS)										
Draiange Area	AREA (acres)	AREA (sq.mi.)	Curve Number	Impervious Cover (%)	Tc (min.)	LAG TIME (min.)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
P-A	29.48	0.046	80	85	5.0	3.0	18.3	29.7	37.3	50.1
P-B	19.86	0.031	80	85	5.0	3.0	11.9	19.0	23.7	31.6
POA "A"							11.5	18.9	24.1	33.8
POA "B"							8.4	13.4	17.2	23.7

Storm Water Detention and Water Quality

The detention pond requirements used for the purpose of this report are assumed to be based on the requirements outlined by the City of Austin Drainage Specifications. Therefore, this report focuses on the reduction of flows to pre-developed conditions for the 2, 10, 25, & 100-year frequencies. To reduce the flow to pre-developed conditions, a partial sedimentation/filtration pond will be constructed as a part of this development to reduce flows to existing conditions. Water Quality Best Management Practices (BMP) for the Project will address the water quality requirements for the area disturbed. Drainage area “DA-1” will utilize a partial sedimentation and filtration basin to meet all water quality requirements per TCEQ requirements.

2/5/2025

Pond "A"

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Pond "A"
Date Prepared: 9/26/2024

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadshee

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased lo
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Williamson	
Total project area included in plan * =	4.35	acres
Predevelopment impervious area within the limits of the plan * =	0.34	acres
Total post-development impervious area within the limits of the plan* =	2.63	acres
Total post-development impervious cover fraction * =	0.60	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	1996	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = Pond A

Total drainage basin/outfall area =	4.35	acres
Predevelopment impervious area within drainage basin/outfall area =	0.34	acres
Post-development impervious area within drainage basin/outfall area =	2.63	acres
Post-development impervious fraction within drainage basin/outfall area =	0.60	
$L_{M\ THIS\ BASIN}$ =	1993	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	4.35	acres
A_I =	2.63	acres
A_P =	1.72	acres
L_R =	2618	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ =	1996	lbs.
F =	0.76	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	0.94	inches
Post Development Runoff Coefficient =	0.42	
On-site Water Quality Volume =	6315	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	1.26	acres
Off-site Impervious cover draining to BMP =	0.57	acres
Impervious fraction of off-site area =	0.45	
Off-site Runoff Coefficient =	0.33	
Off-site Water Quality Volume =	1427	cubic feet
Storage for Sediment =	1548	
Total Capture Volume (required water quality volume(s) x 1.20) =	9291	cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

Required Water Quality Volume for retention basin =	NA	cubic feet	
Irrigation Area Calculations:			
Soil infiltration/permeability rate =	0.1	in/hr	Enter determined permeability rate or assumed value
Irrigation area =	NA	square feet	
	NA	acres	

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin =	NA	cubic feet

9. Filter area for Sand Filters Designed as Required in RG-348 Pages 3-58 to 3-63

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	9291	cubic feet	
Minimum filter basin area =	351	square feet	
Maximum sedimentation basin area =	3158	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	789	square feet	For maximum water depth of 8 feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	9291	cubic feet	
Minimum filter basin area =	632	square feet	
Maximum sedimentation basin area =	2526	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	158	square feet	For maximum water depth of 8 feet

10. Bioretention System Designed as Required in RG-348 Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin =	NA	cubic feet

11. Wet Basins Designed as Required in RG-348 Pages 3-66 to 3-71

Required capacity of Permanent Pool =	NA	cubic feet	Permanent Pool Capacity is 1.20 times the WQV
Required capacity at WQV Elevation =	NA	cubic feet	Total Capacity should be the Permanent Pool Capacit plus a second WQV.

2/5/2025

Pond "B"

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Pond "B"
Date Prepared: 9/26/2024

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the s

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Williamson	
Total project area included in plan * =	3.57	acres
Predevelopment impervious area within the limits of the plan * =	0.05	acres
Total post-development impervious area within the limits of the plan* =	2.02	acres
Total post-development impervious cover fraction * =	0.57	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	1712	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = Pond B

Total drainage basin/outfall area =	3.57	acres
Predevelopment impervious area within drainage basin/outfall area =	0.05	acres
Post-development impervious area within drainage basin/outfall area =	2.02	acres
Post-development impervious fraction within drainage basin/outfall area =	0.57	
$L_{M\ THIS\ BASIN}$ =	1715	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 percent

Aqualogic Cartridge Filt
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	3.57	acres
A_I =	2.02	acres
A_P =	1.55	acres
L_R =	2014	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 1715 lbs.

F = 0.85

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-

Rainfall Depth = 1.32 inches
Post Development Runoff Coefficient = 0.40
On-site Water Quality Volume = 6788 cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP = 1.15 acres
Off-site Impervious cover draining to BMP = 0.52 acres
Impervious fraction of off-site area = 0.45
Off-site Runoff Coefficient = 0.33
Off-site Water Quality Volume = 1834 cubic feet

Storage for Sediment = 1724

Total Capture Volume (required water quality volume(s) x 1.20) = 10347 cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate = 0.1 in/hr Enter determined permeability rate or assu
Irrigation area = NA square feet
NA acres

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = NA cubic feet

9. Filter area for Sand Filters Designed as Required in RG-348 Pages 3-58 to 3-63

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = 10347 cubic feet

Minimum filter basin area = 377 square feet

Maximum sedimentation basin area = 3394 square feet For minimum water depth of 2 feet
Minimum sedimentation basin area = 849 square feet For maximum water depth of 8 feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = 10347 cubic feet

Minimum filter basin area = 679 square feet

Maximum sedimentation basin area = 2715 square feet For minimum water depth of 2 feet
Minimum sedimentation basin area = 170 square feet For maximum water depth of 8 feet

Attachment C
Suitability Letter From Authorized Agent

Attachment C is not applicable for this project. An on-site sewage facility will not be implemented for this development. A sewage collection system is proposed and an SCS Application is submitted with this application.

Attachment D
Exception to the Required Geologic Assessment

Attachment D is not applicable for this project. A geological assessment exemption will not be requested. Raba Kistner has prepared a Geologic Assessment for this site, see Geologic Assessment Form and Attachments.

SECTION 5: TEMPORARY STORMWATER SECTION

kimley-horn.com | 10814 Jollyville Road Avallon IV Suite 200 Austin, Texas 78759 | 512 418 1771

Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

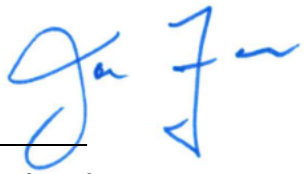
Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Jose M. Farias P.E.

Date: 12/10/2025

Signature of Customer/Agent:



Regulated Entity Name: MCRT SFR TEXAS CONSTRUCTION LLC

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

   ☐ The following fuels and/or hazardous substances will be stored on the site: _____

   These fuels and/or hazardous substances will be stored in:

   ☐ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

   ☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☒ Fuels and hazardous substances will not be stored on the site.

2. ☒ **Attachment A - Spill Response Actions**. A site-specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☒ **Attachment B - Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

5. ☒ **Attachment C - Sequence of Major Activities**. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

   ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

   ☒ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

6. ☒ Name the receiving water(s) at or near the site which will be disturbed, or which will receive discharges from disturbed areas of the project: **Onion Branch**

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. ☒ **Attachment D – Temporary Best Management Practices and Measures**. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

   ☒ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

☒ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

☒ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

☒ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

☐ **Attachment E - Request to Temporarily Seal a Feature**. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ☒ **Attachment F - Structural Practices**. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. ☒ **Attachment G - Drainage Area Map**. A drainage area map supporting the following requirements is attached:

☒ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

11. ☒ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations**. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

    ☐ N/A

12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.

13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. ☒ **Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices**. A schedule of the interim and permanent soil stabilization practices for the site is attached.

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

Attachment A

Spill Response Actions

If there is an accidental spill on site, the contractor shall respond with appropriate action. The contractor will be required to contact the owner and in turn the owner will contact the TCEQ in the event of a spill on site. In addition to the following guidance, reference the latest version of TCEQ's Technical Guidance Manual (TGM) RG-348 Section 1.4.16.

Cleanup and Good House Keeping

- Clean up leaks and spills immediately.
- Neat and orderly storage of any chemicals, pesticides, fertilizers, fuels, etc. that are being stored on site.
- Regular garbage, rubbish, construction waste and sanitary waste disposal.
- Cleanup of sediments that have been tracked by vehicles or have been transported by wind or storm water about the site or onto nearby roads.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
  - Contain the spread of the spill.
  - Recover spilled materials.
  - Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Manufacturer's recommended methods of spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and the cleanup supplies. Spills should be cleaned up immediately:

- Contain spread of the spill.
- Notify the project foreman immediately.
- If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
- If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

- If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

- Notify the TCEQ by telephone as soon as possible and within 24 hours at (512)339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- Notification should first be made by telephone and followed up with a written report.
- The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- Other agencies which may need to be consulted include, but not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc. The local emergency authority, as necessary, will implement its emergency management plans, which may include notifying and evacuating affected personnel. In the absence of a local emergency authority, the contractor shall take reasonable measure to notify potentially affected persons of the imminent health threat.

Attachment B

Potential Sources of Contamination

Potential Source: Oil, grease, fuel, and hydraulic fluid contamination from construction equipment and vehicle dripping. Any spills shall be handled according to the Spill Response Actions in *Attachment A*.

Preventative Measures: Vehicle maintenance will be performed within the construction staging area or a local maintenance shop.

Potential Source: Asphalt wash -off after unexpected rain.

Preventative Measures: After placement of asphalt, emulsion, or coatings, the applicant will be responsible for immediate cleanup should an unexpected rain occur. During the entirety of the asphalt curing time, the applicant should maintain standby personnel and equipment to contain any asphalt wash-off.

Potential Source: Miscellaneous trash and litter from construction workers and material wrappings.

Preventative Measures: Trash containers will be placed throughout the site to encourage proper disposal of trash.

Potential Source: Silt leaving the site.

Preventative Measures: Contractor will install all temporary best management practices, described in *Attachment D,* prior to start of construction including the stabilized construction entrance to prevent tracking onto adjoining streets and to prevent the discharge of sediment to the San Gabriel River.

Potential Source: Construction Debris.

Preventative Measures: Construction debris will be monitored daily by contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.

Potential Source: Soil and Mud from Construction Vehicle tires as they leave the site.

Preventative Measures: A stabilized construction exit shall be utilized as vehicles leave the site. Any soil, mud, etc. carried from the project onto public roads shall be cleaned up within 24 hours.

Potential Source: Sediment from soil, sand, gravel and excavated materials stock piled on site.

Preventative Measures: Silt fence shall be installed on the down gradient side of the stock piled materials. Reinforced rock berms shall be installed at all downstream discharge locations.

Potential Source: Portable toilet spill.

Preventative Measures: Toilets on the site will be emptied on a regular basis by the contracted toilet company.

Attachment C

Sequence of Major Activities

The installation of erosion and sedimentation controls shall occur prior to any excavation of materials or major disturbances on the site. The sequence of major construction activities will be as follows. Approximate acreage to be disturbed is listed in parentheses next to each activity. The location of the temporary erosion control measures is shown on the Erosion & Sedimentation Control Sheets.

Intended Schedule or Sequence of Major Activities:

Site Construction:

1. Construct Access (0.65 acres)
2. Installation of Temporary BMPs (76 EA inlet protection)
3. Initiate Grubbing and Topsoil Stripping of Site (7.91 acres onsite)
4. Rough Subgrade Preparation (earthwork, grading, street and drainage excavation and embankment) (7.91 acres onsite)
5. Wet and Dry Utility Construction (6.6 acres)
6. Final Subgrade Preparation (7.91 acres)
7. Installation of Base Materials (7.91 acres)
8. Concrete (foundations, curbs, flatwork) (2.55 acres)
9. Building Construction (7.91 acres)
10. Paving Activities (1.39 acres)
11. Topsoil, Irrigation and Landscaping (7.91 acres)
12. Site cleanup and Removal of Temporary BMPs (76 EA inlet protection)

Complete any necessary final dress up of areas. Conduct a final inspection and complete all punch list items.

Attachment D

Temporary Best Management Practices and Measures

A. There is no storm water that originates up gradient from the site that will flow across the site.

B. Temporary BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down-gradient sides of the property to prevent silt from escaping the construction area. A temporary construction entrance will be placed on site to reduce vehicle "tracking" onto adjoining streets. A concrete washout pit will be used to collect all excess concrete during construction. Inlet protection will be placed over all existing and proposed inlets to stop the discharge of sediments into the sewer system. Please reference the attached copy of the Erosion and Sedimentation Control Plans for specific locations and details of all controls.

BMPs for this project will protect surface water or groundwater from turbid water, phosphorus, sediment, oil, and other contaminants, which may mobilize in storm water flows by slowing the flow of runoff to allow sediment and suspended solids to settle out of the runoff.

Practices may also be implemented on site for interim and permanent stabilization. Stabilization practices may include but are not limited to: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, and other similar measures.

The contractor is expected to inspect the controls weekly and after significant rainfalls to ensure proper function.

C. There are no sensitive features or surface streams within the boundaries of the project. The temporary onsite BMPs will be used to treat stormwater runoff before it leaves the project and prevent pollutants from entering into surface streams or any sensitive features down-gradient of the site.

D. There were no sensitive features on the 7.91 acre site identified during the geologic assessment. However, the BMPs for this project are designed to allow water to pass through after sedimentation has occurred. Existing flow patterns will be maintained to any naturally occurring sensitive features that are discovered during construction.

Attachment E

Request to Temporarily Seal a Feature

Naturally-occurring features will not be sealed on the site; therefore this section is not applicable.

Attachment F

Structural Practices

Structural BMPs will be used to limit runoff discharge of pollutants from exposed areas of the site. BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down-gradient sides of the property to prevent silt from escaping the construction area. A temporary construction entrance will be placed at the site entry/exit point to reduce tracking onto adjoining streets. A construction staging area will be used onsite to perform all vehicle maintenance and for equipment and material storage. A concrete truck washout pit will be placed on site to provide containment and easier cleanup of waste from concrete operations. The location of all structural temporary BMP's are shown on the erosion control plan sheet and details and specifications are provided on the erosion control details sheet which can be found at the end of this report under Section 9.

Description of Temporary BMPs

Temporary Construction Entrance/Exit

The purpose of a temporary gravel construction entrance is to provide a stable entrance/exit condition from the construction site and keep mud and sediment off public roads. A stabilized construction entrance is a stabilized pad of crushed stone located at any point traffic will be entering or leaving the construction site from a public right-of-way, street, alley, sidewalk or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking or flowing of sediment onto public rights-of-way. This practice should be used at all points of construction ingress and egress.

Excessive amounts of mud can also present a safety hazard to roadway users. To minimize the amount of sediment loss to nearby roads, access to the construction site should be limited to as few points as possible and vegetation around the perimeter should be protected where access is not necessary. A rock stabilized construction entrance should be used at all designated access points.

Silt Fence

The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas of a limited extent. Silt fence is used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence should remain in place until the disturbed area is permanently stabilized. Silt fence should not be used where there is a concentration of water in a channel or drainage way. If concentrated flow occurs after installation, corrective action must be taken such as placing a rock berm in the areas of concentrated flow.

Silt fencing within the site may be temporarily moved during the day to allow construction activity provided it is replaced and properly anchored to the ground at the end of the day. Silt fences on the perimeter of the site or around drainage ways should not be moved at any time.

Rock Berm

The purpose of a rock berm is to serve as a check dam in areas of concentrated flow, to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow. The rock berm should be used when the contributing drainage area is less than 5 acres. Rock berms are used in areas where the volume of runoff is too great for a silt fence to contain. They are less effective for sediment removal than silt fences, particularly for fine particles, but are able to withstand higher flows than a silt fence. As such, rock berms are often used in areas of channel flows (ditches, gullies, etc.). Rock berms are most effective at reducing bed load in channels and should not be substituted for other erosion and sediment control measures further up the watershed.

Triangular Filter Dike

The purpose of a triangular sediment filter dike is to intercept and detain water-borne sediment from unprotected areas of limited extent. The triangular sediment filter dike is used where there is no concentration of water in a channel or other drainage way above the barrier and the contributing drainage area is less than one acre. If the uphill slope above the dike exceeds 10%, the length of the slope above the dike should be less than 50 feet. If concentrated flow occurs after installation, corrective action should be taken such as placing rock berm in the areas of concentrated flow. This measure is effective on paved areas where installation of silt fence is not possible or where vehicle access must be maintained. The advantage of these controls is the ease with which they can be moved to allow vehicle traffic and then reinstalled to maintain sediment.

Inlet Protection

In developments for which drainage is to be conveyed by underground storm sewers (i.e., streets with curbs and gutters), all inlets that may receive storm runoff from disturbed areas should be protected. Temporary inlet protection is a series of different measures that provide protection against silt transport or accumulation in storm sewer systems. This clogging can greatly reduce or completely stop the flow in the pipes. The different measures are used for different site conditions and inlet types

Concrete Washout Area

The purpose of concrete washout areas is to prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employees and subcontractors.
The following steps will help reduce stormwater pollution from concrete wastes:

- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Avoid mixing excess amounts of fresh concrete.
- Perform washout of concrete trucks in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped onsite, except in designated areas.
- For onsite washout:
- Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
- Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.

Below grade concrete washout facilities are typical. These consist of a lined excavation sufficiently large to hold expected volume of washout material. Above grade facilities are used if excavation is not practical. Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this section, with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.

When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Attachment G

Drainage Area Map

An existing and proposed drainage area map is provided at the end of this report in Section 9 to support the aforementioned requirement.

Attachment H

Temporary Sediment Pond(s) Plans and Calculations

The proposed development will not disturb areas over 10 acres. Therefore, a temporary sediment pond is not proposed.

Attachment I

Inspection and Maintenance for BMPs

Personnel Responsible for Inspections

The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. The contractor is to provide an inspector with a CPESC, CESSWI, or CISEC certification. Documentation of the inspector's qualifications is to be included in the attached Inspector Qualifications Log.

Inspection Guidelines for BMPs

The following sections address inspection and maintenance taken from the TNRCC Manual, "Complying with Edwards Aquifer Rules: Technical Guidance on Best Management Practices."

Silt Fence:

1. Inspection shall be made weekly and after each rainfall event, in accordance with Section 1.4.3 of RG-348.
2. Torn fabric shall be replaced or a second line of fencing parallel to the torn section shall be implemented as needed.
3. Accumulated silt shall be removed when it reaches a depth of six (6) inches. The silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation.
4. Silt fence shall be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Inlet Protection:

1. Daily inspection shall be made by the contractor and silt accumulation must be removed when depth reaches 50 millimeters (two (2) inches).
2. Contractor shall monitor the performance of inlet protection during each rainfall event and immediately remove the inlet protections if the stormwater begins to overtop the curb.
3. Inlet protections shall be removed as soon as the source of sediment is stabilized.

Stabilized Construction Fence:

1. The entrance shall be maintained in a condition that will prevent tracking or flowing of sediment onto public roadway. This may require periodic top dressing with additional stone as conditions demand. As well as repair and clean out of any measure device used to trap sediment. All sediments that are spilled, dropped, washed or tracked onto a public roadway must be removed immediately.
2. Entrance shall be properly graded to prevent run-off from leaving the construction site.

Sediment Basins:

1. Inspection should be made weekly and after each rainfall in accordance to Section 1.4.13 of RG-348.
2. To prevent clogging of the outlet structure of proposed water quality facilities implemented as temporary sediment basins, trash and other debris shall be removed promptly after each rainfall event.
3. Silt accumulation should be removed as well as basin re-graded to original dimensions once the capability of the facility has been reduced to 75% of original storage capacity.
4. Removed sediment should be redistributed in the respective phases' stockpiling area.

Rock Berm:

1. Inspection should be made weekly and after each rainfall in accordance to Section 1.4.5 of RG-348. If placed in streambeds, inspection should occur daily.
2. Accumulated silt shall be removed when it reached a depth of six (6) inches. The silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation.
3. Loose wire sheathing shall be repaired immediately when necessary and the berm shall be reshaped as needed during inspection.

4. Berm shall be replaced if the structure ceases to function as initially intended due to factors such as silt accumulation, washout, construction traffic damage, etc.
5. When all upstream areas are stabilized and the accumulated silt has been removed, the rock berm should be removed and disposed of.

Concrete Washout:

1. The purpose of a concrete washout is to provide a process for cleaning off all equipment involved in the production and placement of concrete before exiting the construction limits of the subject site. These pieces of equipment typically include large concrete mixing trucks and smaller hand tools such as wheelbarrows. Upon performing a washout, the effluent water produced can be toxic and harmful to the natural environment, including, but not limited to, seepage into subsurface groundwater. The concrete washout provides a designated location for wash and proper disposal of aforementioned effluent.
2. Remove concrete waste in the washout area as needed to maintain BMP function (typically when two-thirds capacity). Collect concrete waste and deliver off-site to a designated disposal location.
3. Upon completion of concrete work and needed for washout activities, accumulated waste must be removed from the site as noted above in item #2. Wash water may be allowed to evaporate for solid disposal.

Inspection Schedule

The primary operator is required to complete inspections as specified above, and choose one of the two inspections listed below for all temporary stormwater controls not specifically listed.

☐ **Option 1:** Once every seven calendar days. If this alternative schedule is developed, then the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.

☐ **Option 2:** Once every 14 calendar days and within 24 hours of the end of a storm event of two inches or greater.

The inspections may occur on either schedule provided that documentation reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented (e.g., end of "dry" season and beginning of "wet" season).

If option 2 is the chosen frequency of inspections a rain gauge must be properly maintained on site or the storm event information from a weather station that is representative of the site location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, proper documentation of the total rainfall measured for that day must be recorded.
Personnel provided by the permittee must inspect:

- disturbed areas of the construction site that have not been finally stabilized;
- areas used for storage of materials that are exposed to precipitation;
- structural controls (for evidence of, or the potential for, pollutants entering the drainage system);
- sediment and erosion control measures identified in the SWP3 (to ensure they are operating correctly); and
- locations where vehicles enter or exit the site (for evidence of off-site sediment tracking).

Reductions in Inspection Frequency

Where sites have been finally or temporarily stabilized or where runoff is unlikely due to winter conditions (e.g. site is covered with snow, ice, or frozen ground exists), inspections must be conducted at least once every month. In arid, semi-arid, or drought-stricken areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater. A record of the total rainfall measured, as well as the approximate beginning and ending dates of winter or drought conditions resulting in monthly frequency of inspections in the attached Rain Gauge Log.

In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.

Inspection Report Forms

Use the Inspection Report Forms given as a checklist to ensure that all required areas of the construction site are addressed. There is space to document the inspector's name as well as when the inspections regularly take place. The tables will document that the required area was inspected. (If there were any areas of concern, briefly describe them in this space with a more detailed description in the narrative section. Use the last table to document any discharges found during the inspections).
Describe how effective the installed BMPs are performing. Describe any BMP failures that were noted during the investigation and describe any maintenance required due to the failure. If new BMPs are needed as the construction site changes, the inspector can use the space at the bottom of the section to list BMPs to be implemented before the next inspection.

Describe the inspector's qualifications, how the inspection was conducted, and describe any areas of non-compliance in detail. If an inspection report does not identify any incidents of non-compliance, then it must contain a certifying signature stating that the facility or site is in compliance. The report must be signed by a person and in a manner required by 30 TAC 305.128. There is space at the end of the form to allow for this certifying signature.

Whenever an inspection shows that BMP modifications are needed to better control pollutants in runoff, the changes must be completed within seven calendar days following the inspection. If existing BMPs are modified or if additional BMPs are needed, you must describe your implementation schedule, and wherever possible, make the required BMP changes before the next storm event.

The Inspection Report Form functions as the required report and must be signed in accordance with TCEQ rules at 30 TAC 305.128.

Corrective Action

Personnel Responsible for Corrective Actions

Both Primary and Secondary Operators are responsible for maintaining all necessary Corrective Actions. If an individual is specifically identified as the responsible party for modifying the contact information for that individual should be documented in the attached Inspector Qualifications Log.

Corrective Action Forms

The Temporary BMPs must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the attached forms and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable. Actions taken as a result of inspections must be properly documented by completing the corrective action forms given.

Attachment J

Schedule of Interim and Permanent Soil Stabilization

Construction practices shall disturb the minimal amount of existing ground cover as required for land clearing, grading, and construction activity for the shortest amount of time possible to minimize the potential of erosion and sedimentation from the site. Existing vegetation shall be maintained and left in place until it is necessary to disturb for construction activity. For this project the following stabilization practices will be implemented:

1. Hydraulic Mulch and Seeding: Disturbed areas subject to erosion shall be stabilized with hydraulic mulch and/or seeded and watered to provide interim stabilization. For areas that are not to be sodded as per the project landscaping plan, a minimum of 85% vegetative cover will be established to provide permanent stabilization.
2. Sodding and Wood Mulch: As per the project landscaping plan, Sodding and wood mulch will be applied to landscaped areas to provide permanent stabilization prior to project completion.

Records of the following shall be maintained:

a) The dates when major grading activities occur;
b) The dates when construction activities temporarily or permanently cease on a portion of the site; and
c) The dates when stabilization measures are initiated.

Stabilization measures must be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, and except as provided in the following, must be initiated no more that fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased:

Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practical.

Where construction activity on a portion of the site is temporarily ceased and earth disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures do not have to be initiated on that portion of the site.

In arid areas (areas with an average rainfall of 0-10 inches), semiarid areas (areas with an average annual rainfall of 10 to 20 inches), and areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonably arid conditions, stabilization measures must be initiated as soon as practical.

Maintenance

Below are some maintenance practices to be used to maintain erosion and sediment controls:

- All measures will be maintained in good working order. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection.
- BMP Maintenance (as applicable)
- Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.

- Silt fence will be inspected for depth of sediment, tears, to see of the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Drainage swale will be inspected and repaired as necessary.
- Inlet control will be inspected and repaired as necessary.
- Check dam will be inspected and repaired as necessary.
- Straw bale dike will be inspected and repaired as necessary.
- Diversion dike will be inspected, and any breaches promptly repaired.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee must work with the owner or operator of the property to remove the sediment.
- Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

To maintain the above practices, the following will be performed:

- Maintenance and repairs will be conducted before the next anticipated storm event or as necessary to maintain the continued effectiveness of storm water controls. Following an inspection, deficiencies should be corrected no later than seven (7) calendar days after the inspection.

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Inspector Qualifications Log*

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

** The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. The contractor is to provide an inspector with a CPESC, CESSWI, or CISEC certification.*

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Amendment Log

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

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Construction Activity Sequence Log

Name of Operator	Projected dates Month/year	Activity Disturbing Soil clearing, excavation, etc.	Location on-site where activity will be conducted	Acreage being disturbed

*Construction activity sequences for linear projects may be conducted on a rolling basis. As a result, construction activities may be at different stages at different locations in the project area. The Contractor is required to complete and update the schedule and adjust as necessary.

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Stormwater Control Installation and Removal Log

Stormwater Control	Location On-Site	Installation Date	Removal Date

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Stabilization Activities Log

Date Activity Initiated	Description of Activity	Description of Stabilization Measure and Location	Date Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures Initiated

Stabilization and erosion control practices may include, but are not limited to: establishing temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, and protecting existing trees and vegetation. List practices used where they are located, when they will be implemented, and whether they are temporary (interim) or permanent.

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Inspection Frequency Log

Date	Frequency Schedule and Reason for Change

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Rain Gauge Log

Date	Location of Rain Gauge	Gauge Reading

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General Information					
Name of Project		**Tracking No.**		**Inspection Date**	
Inspector Name, Title & Contact Information					
Present Phase of Construction					
Inspection Location (if multiple inspections are required, specify location where this inspection is being conducted)					

Inspection Frequency

Standard Frequency: ☐ Weekly ☐ Every 14 days and within 24 hours of a 0.25" rain

Increased Frequency: ☐ Every 7 days and within 24 hours of a 0.25" rain

Reduced Frequency:

- ☐ Once per month (for stabilized areas)
- ☐ Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought)
- ☐ Once per month (for frozen conditions where earth-disturbing activities are being conducted)

Was this inspection triggered by a 0.25" storm event? ☐ Yes ☐ No

If yes, how did you determined whether a 0.25" storm event has occurred?

☐ Rain gauge on site ☐ Weather station representative of site. Specify weather station source:

Total rainfall amount that triggered the inspection (in inches)**:**

Unsafe Conditions for Inspection

Did you determine that any portion of your site was unsafe for inspection? ☐ Yes ☐ No

If "yes", complete the following:

- Describe the conditions that prevented you from conducting the inspection in this location:

- Location(s) where conditions were found:

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Condition and Effectiveness of Erosion and Sediment (E&S) Controls				
Type/Location of E&S Control	**Repairs or Other Maintenance Needed?**	**Corrective Action Required?**	**Date on Which Maintenance or Corrective Action First Identified?**	**Notes**
1.	☐Yes ☐No	☐Yes ☐No		
2.	☐Yes ☐No	☐Yes ☐No		
3.	☐Yes ☐No	☐Yes ☐No		
4.	☐Yes ☐No	☐Yes ☐No		
5.	☐Yes ☐No	☐Yes ☐No		
6.	☐Yes ☐No	☐Yes ☐No		
7.	☐Yes ☐No	☐Yes ☐No		
8.	☐Yes ☐No	☐Yes ☐No		
9.	☐Yes ☐No	☐Yes ☐No		
10.	☐Yes ☐No	☐Yes ☐No		

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Condition and Effectiveness of Pollution Prevention (P2) Practices				
Type/Location of P2 Practices	**Repairs or Other Maintenance Needed?**	**Corrective Action Required?**	**Identification Date**	**Notes**
1.	☐Yes ☐No	☐Yes ☐No		
2.	☐Yes ☐No	☐Yes ☐No		
3.	☐Yes ☐No	☐Yes ☐No		
4.	☐Yes ☐No	☐Yes ☐No		
5.	☐Yes ☐No	☐Yes ☐No		
6.	☐Yes ☐No	☐Yes ☐No		
7.	☐Yes ☐No	☐Yes ☐No		
8.	☐Yes ☐No	☐Yes ☐No		
9.	☐Yes ☐No	☐Yes ☐No		
10.	☐Yes ☐No	☐Yes ☐No		

Stabilization of Exposed Soil			
Stabilization Area	**Stabilization Method**	**Have You Initiated Stabilization?**	**Notes**
1.		☐ YES ☐ NO If yes, provide date:	
2.		☐ YES ☐ NO If yes, provide date:	
3.		☐ YES ☐ NO If yes, provide date:	
4.		☐ YES ☐ NO If yes, provide date:	
5.		☐ YES ☐ NO If yes, provide date:	

Description of Discharges	
Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? ☐ Yes ☐ No **If "yes", provide the following information for each point of discharge:**	
Discharge Location	**Observations**
1.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
2.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
3.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:

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Contractor or Subcontractor Certification and Signature
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Contractor or Subcontractor:** _____ **Date:** **Printed Name and Affiliation:** _____
Certification and Signature by Permittee
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Permittee or "Duly Authorized Representative":** _____ **Date:** **Printed Name and Affiliation:** _____

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Section A – Initial Report (Complete this section within 24 hours of discovering the condition that triggered corrective action)					
Name of Project		Tracking No.		Today's Date	
Date Problem First Discovered			Time Problem First Discovered		
Name and Contact Information of Individual Completing this Form					

What site conditions triggered the requirement to conduct corrective action:

☐ A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3

☐ The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards

☐ A prohibited discharge has occurred or is occurring

Provide a description of the problem:

Deadline for completing corrective action (*Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day)*:

If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:

Section B – Corrective Action Progress

(Complete this section no later than 7 calendar days after discovering the condition that triggered corrective action)

Section B.1 – Why the Problem Occurred

Cause(s) of Problem (Add an additional sheet if necessary)	How This Was Determined and the Date You Determined the Cause
1.	1.
2.	2.
3.	3.

Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem

List of Stormwater Control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes
1.		☐Yes ☐No Date:	
2.		☐Yes ☐No Date:	
3.		☐Yes ☐No Date:	

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Section A – Initial Report (Complete this section within 24 hours of discovering the condition that triggered corrective action)					
Name of Project		Tracking No.		Today's Date	
Date Problem First Discovered			Time Problem First Discovered		
Name and Contact Information of Individual Completing this Form					

What site conditions triggered the requirement to conduct corrective action:

☐ A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3
☐ The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards
☐ A prohibited discharge has occurred or is occurring

Provide a description of the problem:

Deadline for completing corrective action (*Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day)*:

If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:

Section B – Corrective Action Progress (Complete this section no later than 7 calendar days after discovering the condition that triggered corrective action)	
Section B.1 – Why the Problem Occurred	
Cause(s) of Problem (Add an additional sheet if necessary)	How This Was Determined and the Date You Determined the Cause
1.	1.
2.	2.
3.	3.

Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem			
List of Stormwater Control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes
1.		☐Yes ☐No Date:	
2.		☐Yes ☐No Date:	
3.		☐Yes ☐No Date:	

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Contractor or Subcontractor Certification and Signature
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Contractor or Subcontractor:** _____ **Date:** **Printed Name and Affiliation:** _____
Certification and Signature by Permittee
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Permittee or "Duly Authorized Representative":** _____ **Date:** **Printed Name and Affiliation:** _____

SECTION 6: PERMANENT STORMWATER

Permanent Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Jose Farias, P.E.

Date: 12/10/2025

Signature of Customer/Agent

Regulated Entity Name: MCRT SFR TEXAS CONSTRUCTION LLC

Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

1. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

   ☐ N/A

2. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to ensure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

   ☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____

☐ N/A

3. ☒ Owners must ensure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

   ☐ N/A

4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.
   ☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.
   ☒ The site will not be used for low density single-family residential development.

5. The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ **Attachment A - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
   ☐ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
   ☒ The site will not be used for multi-family residential developments, schools, or small business sites.

6. ☒ **Attachment B - BMPs for Upgradient Stormwater**.

☐ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.

☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

☒ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

7. ☒ **Attachment C - BMPs for On-site Stormwater**.

☒ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.

8. ☐ **Attachment D - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.

☒ N/A

9. ☒ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

☒ The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.

☐ **Attachment E - Request to Seal Features**. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.

10. ☒ **Attachment F - Construction Plans**. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:

☒ Design calculations (TSS removal calculations)
☒ TCEQ construction notes
☒ All geologic features
☒ All proposed structural BMP(s) plans and specifications

☐ N/A

11. ☒ **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan**. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
    ☒ A discussion of record keeping procedures

    ☐ N/A

12. ☐ **Attachment H - Pilot-Scale Field Testing Plan**. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.

    ☒ N/A

13. ☐ **Attachment I -Measures for Minimizing Surface Stream Contamination**. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

Responsibility for maintenance of best management practices and measures after construction is complete.

14. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

    ☐ N/A

15. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

    ☐ N/A

Attachment A

20% or Less Impervious Cover Waiver

The site will be used for multifamily purposes but has more than 20% impervious cover. Therefore, a waiver will not be submitted for this project, and this section is not applicable.

Attachment B

BMPs for UP-GRADIENT STORMWATER

Up-gradient storm water does not apply to this development exist based on current topography maps and field observations.

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Attachment C

BMPs for On-Site Stormwater

Revegetation of the site will be utilized as a permanent best management practice on this site. Revegetation is to include:

- A minimum of four (4) inches of top soil placed in all drainage channels (except rock) and between the curb and right-of-way line.
- Seeding must be provided for all permanent erosion control measures, to include broadcast seeding and hydraulic seeding.
- Planted areas shall be irrigated or sprinkled in a manner that will not erode the topsoil, but will sufficiently soak the soil to a depth of 6 inches.
- Restoration shall be acceptable when the grass has grown at least one and a half (1 ½) inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
- Native grass seeding shall comply with the requirements of the Williamson County.

A water quality pond will be utilized as a permanent best management practice on this site. The proposed, permanent water quality pond is a wet pond with a TSS reduction efficiency of 91%. The proposed wet basin was designed to treat the additional impervious cover from the development. The total project area draining to the proposed smart batch detention pond is 73.57 acres. 31.74 acres of the total area is designated as post-development impervious cover.

Construction plans, calculations and specifications are provided in Section 9 which is located at the end of this report. The TSS Spreadsheet Calculations are included on page 49 of the Chisholm Trail Developers Venture Property Civil Construction Plans.

Attachment D

BMPs for Surface Streams

There are no existing surface streams or sensitive features on the subject site. Therefore, this section is not applicable.

Attachment E

Request to Seal a Feature

The permanent sealing of or diversion of flow from a naturally-occurring “sensitive” or “possibly sensitive” feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed for any naturally-occurring “sensitive” or “possibly sensitive” features on this site; and therefore, this section is not applicable.

Attachment F

Construction Plans

Calculations for the load removal requirements for the project and the load removal provided by the permanent BMP's are provided in the Subdivision Construction Plans in Section 9 which have been signed and sealed by a professional engineer licensed in the state of Texas. The load removal requirements are derived from the equations from the technical guidance manual based upon project area and increase in impervious cover. All stormwater runoff from impervious areas will be treated by the proposed permanent BMP's to provide the overall required removal of at least 80% of the increase in Total Suspended Solids. Provided within the calculations is a summary of the amount of pollutant load required to be removed from the drainage areas and the amount of removal provided by the permanent BMP's.

Construction plans, details, specifications, calculations and construction notes for the development are provided in Section 9 which is attached at the end of this report.

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Attachment G

Inspection, Maintenance, Repair and Retrofit Plan

The inspection and maintenance plan outlines the procedures necessary to maintain the performance of the Permanent Best Management Practices for this project. It should be noted that the plan provides guidelines that may have to be adjusted dependent on site specific and weather related conditions.

It is the responsibility of the owner to provide the inspections and maintenance as outlined in the plan for the duration of the project. The owner will maintain this responsibility until it is assumed or transferred to another entity in writing. If the property is leased or sold, the responsibility for the maintenance will be required to be transferred through the lease agreement, binding covenants, closing documents, or other binding legal instrument.

Disposal of accumulated silt shall be accomplished following Texas Commission on Environmental Quality guidelines and specifications.

Maintenance records shall be kept on the installation, maintenance, or removal of items necessary for the proper operation of the facilities. All inspections shall be documented.

An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Responsible Party: MCRT SFR Investment, LLC

Mailing Address: 5910 N. Central Expressway, Suite 1100

City, State: Dallas, TX Zip: 75206

Telephone: 210-885-4676 Fax: _____

I, the owner, have read and understand the requirements of the attached Inspection and Maintenance Plan for the proposed Permanent Best Management Practices for my project. I acknowledge that I will maintain responsibility for the implementation and execution of the plan until the responsibility is transferred to or assumed by another party in writing through a binding legal instrument.

Signature of Responsible Party _____ Date 12/18/2024

This Maintenance Plan is based on TCEQ Maintenance Guidelines.

By: _____ Date 12/10/2025

Jose Farias, P.E.

Kimley»Horn

Water Quality Ponds

Routine Maintenance

Mowing: The side-slopes, embankment, and emergency spillway of the basin should be mowed at least twice a year to prevent woody growth and to control weeds.

Inspections. Water Quality Ponds should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. When possible, inspections should be conducted during wet weather to determine if the basin is functioning properly. There are many functions and characteristics of these BMPs that should be inspected. The embankment should be checked for subsidence, erosion, leakage, cracking, and tree growth. The condition of the emergency spillway should be checked. The inlet, barrel, and outlet should be inspected for clogging. Stability of the side slopes should be checked. Modifications to the basin structure and contributing watershed should be evaluated. During semi-annual inspections, replace any dead or displaced vegetation. Replanting of various species of wetland vegetation may be required at first, until a viable mix of species is established. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage. The inspections should be carried out with As-built pond plans in hand.

Debris and Litter Removal: As part of periodic mowing operations and inspections, debris and litter should be removed from the surface of the basin. Attention should be paid to floatable debris, and the outlet should be checked for possible clogging.

Sediment Removal: Inspection of the forebay should be completed every three months for the first two years after construction completion, and during the three-month inspection cycle, if more than 15% of the forebay volume is lost, the sediment build-up should be removed. After the two-year period, the sediment forebay should be inspected every three years, and the sediment should be cleaned out if more than one-third of the forebay volume is lost. Every six years, the sediment build-up in the mail pool should be inspected and sediment should be removed if twenty percent of the main pool volume is lost.

Erosion Control: The basin side slopes, emergency spillway, and embankment all may periodically suffer from slumping and erosion. Corrective measures such as re-grading and re-vegetation may be necessary.

Nuisance Control: Most public agencies surveyed indicate that control of insects, weeds, odors, and algae may be needed in some ponds. Nuisance control is probably the most frequent maintenance item demanded by local residents. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.). Biological control of algae and mosquitoes using fish such as fathead minnows is preferable to chemical applications.

Non-Routine Maintenance

Structural Repairs and Replacement: The structural integrity of the embankment, outlet structure and retaining walls should be inspected during the required routine inspections. Leakage or seepage of water through the embankment must be avoided and any structural damage should be repaired immediately.

Harvesting: If vegetation is present on the fringes or in the pond, it can be periodically harvested and the clippings removed to provide export of nutrients and to prevent the basin from filling with decaying organic matter.

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An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Responsible Party:	MCRT SFR Investment, LLC		
Mailing Address:	5910 N. Central Expressway, Suite 1100		
City, State:	Dallas, Texas	Zip:	75206
Telephone:	210-885-4676	Fax:	

I, the owner, have read and understand the requirements of the attached Inspection and Maintenance Plan for the proposed Permanent Best Management Practices for my project. I acknowledge that I will maintain responsibility for the implementation and execution of the plan until the responsibility is transferred to or assumed by another party in writing through a binding legal instrument.

Signature of Responsible Party _____ Date 12/18/2024

Attachment H

Pilot-Scale Field Testing Plan

The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site; therefore pilot-scale field testing is not required for this project.

Attachment I

Measures for Minimizing Surface Stream Contamination

All flows generated onsite due to this development are conveyed through a combination of sheet flow and storm sewer systems. Ultimately the flows are conveyed to Lake Creek Branch.

The TSS removal calculations for the proposed pond are attached.

Surface streams do not exist on site. Therefore, a description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream because of the construction and development is not provided at the end of this form. All disturbed areas will be re-vegetated as soon as practical.

SECTION 7: ORGANIZED SEWAGE COLLECTION SYSTEM PLAN

kimley-horn.com | 10814 Jollyville Road, Avallon IV, Suite 200 Austin, Texas 78759 | 512 418 1771

Organized Sewage Collection System Application

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(c), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Regulated Entity Name: MCRT SFR TEXAS CONSTRUCTION LLC

1. ☒ **Attachment A – SCS Engineering Design Report**. This Engineering Design Report is provided to fulfill the requirements of 30 TAC Chapter 217, including 217.10 of Subchapter A, §§217.51 – 217.70 of Subchapter C, and Subchapter D as applicable, and is required to be submitted with this SCS Application Form.

Customer Information

2. The entity and contact person responsible for providing the required engineering certification of testing for this sewage collection system upon completion (including private service connections) and every five years thereafter to the appropriate TCEQ region office pursuant to 30 TAC §213.5(c) is:

   Contact Person: Zach Summers
   Entity: MCRT SFR Investment, LLC
   Mailing Address: 5910 N. Central Expressway, Suite 1100
   City, State: Dallas, TX Zip: 75206
   Telephone: 210-885-4676 Fax: N/A
   Email Address: zsummers@mcrtrust.com

   The appropriate regional office must be informed of any changes in this information within 30 days of the change.

3. The engineer responsible for the design of this sewage collection system is:

   Contact Person: Jose M. Farias, P.E.
   Texas Licensed Professional Engineer's Number: 111389
   Entity: Kimley-Horn
   Mailing Address: 10814 Jollyville Road Avallon IV Suite 200
   City, State: Austin, Texas Zip: 78759
   Telephone: 737-249-0434 Fax: N/A
   Email Address: joe.farias@kimley-horn.com

Project Information

4. Anticipated type of development to be served (estimated future population to be served, plus adequate allowance for institutional and commercial flows):

- ☐ Residential: Number of lots: ___
- ☒ Multi-family: Number of residential units: 143
- ☐ Commercial
- ☐ Industrial
- ☐ Off-site system (not associated with any development)
- ☐ Other:_____

5. The character and volume of wastewater is shown below:

100 % Domestic	110,857 gallons/day
_____% Industrial	_____ gallons/day
_____% Commingled	_____ gallons/day
	Total gallons/day: 110,857

6. Existing and anticipated infiltration/inflow is 0 gallons/day. This will be addressed by: N/A

7. A Water Pollution Abatement Plan (WPAP) is re quired for construction of any associated commercial, industrial, or residential project located on the Recharge Zone.

- ☐ The WPAP application for this development was approved by letter dated . A copy of the approval letter is attached.
- ☒ The WPAP application for this development was submitted to the TCEQ on 12/9/2024, but has not been approved.
- ☐ A WPAP application is required for an associated project, but it has not been submitted.
- ☐ There is no associated project requiring a WPAP application.

8. Pipe description:

Table 1 - Pipe Description

Pipe Diameter (Inches)	*Linear Feet (1)*	*Pipe Material (2)*	*Specifications (3)*
8	137	PVC SDR-26	ASTM D-3034

Total Linear Feet: 137

(1) Linear feet - Include stub-outs and double service connections. Do not include private service laterals.
(2) Pipe Material - If PVC, state SDR value.
(3) Specifications - ASTM / ANSI / AWWA specification and class numbers should be included.

9. The sewage collection system will convey the wastewater to the Austin West WWTP. The treatment facility is:

- ☒ Existing
- ☐ Proposed

10. All components of this sewage collection system will comply with:

☒ The City of Austin standard specifications.
☐ Other. Specifications are attached.

11. ☒ No force main(s) and/or lift station(s) are associated with this sewage collection system.

☐ A force main(s) and/or lift station(s) is associated with this sewage collection system and the **Lift Station/Force Main System Application** form (TCEQ-0624) is included with this application.

Alignment

12. ☒ There are no deviations from uniform grade in this sewage collection system without manholes and with open cut construction.

13. ☒ There are no deviations from straight alignment in this sewage collection system without manholes.

☐ **Attachment B - Justification and Calculations for Deviation in Straight Alignment without Manholes**. A justification for deviations from straight alignment in this sewage collection system without manholes with documentation from pipe manufacturer allowing pipe curvature is attached.

☐ For curved sewer lines, all curved sewer line notes (TCEQ-0596) are included on the construction plans for the wastewater collection system.

Manholes and Cleanouts

14. ☒ Manholes or clean-outs exist at the end of each sewer line(s). These locations are listed below: (Please attach additional sheet if necessary)

Table 2 - Manholes and Cleanouts

Line	*Shown on Sheet*	*Station*	*Manhole or Clean-out?*
WWL-A	29	2+58.04	Manhole

15. ☐ Manholes are installed at all Points of Curvature and Points of Termination of a sewer line.

16. ☒ The maximum spacing between manholes on this project for each pipe diameter is no greater than:

Pipe Diameter (inches)	Max. Manhole Spacing (feet)
6 - 15	500
16 - 30	800
36 - 48	1000
≥54	2000

☐ **Attachment C – Justification for Variance from Maximum Manhole Spacing**. The maximum spacing between manholes on this project (for each pipe diameter used) is greater than listed in the table above. A justification for any variance from the

maximum spacing is attached and must include a letter from the entity which will operate and maintain the system stating that it has the capability to maintain lines with manhole spacing greater than the allowed spacing.

17. ☒ All manholes will be monolithic, cast-in-place concrete.

    ☐ The use of pre-cast manholes is requested for this project. The manufacturer's specifications and construction drawings, showing the method of sealing the joints, are attached.

Site Plan Requirements

Items 18 - 25 must be included on the Site Plan.

18. ☒ The Site Plan must have a minimum scale of 1" = 400'.

    Site Plan Scale: 1" = 30', 40’

19. ☒ The Site Plan must include the sewage collection system general layout, including manholes with station numbers, and sewer pipe stub outs (if any). Site plan must be overlain by topographic contour lines, using a contour interval of not greater than ten feet and showing the area within both the five-year floodplain and the 100-year floodplain of any drainage way.

20. Lateral stub-outs:

    ☐ The location of all lateral stub-outs are shown and labeled.
    ☒ No lateral stub-outs will be installed during the construction of this sewer collection system.

21. Location of existing and proposed water lines:

    ☒ The entire water distribution system for this project is shown and labeled.
    ☐ If not shown on the Site Plan, a Utility Plan is provided showing the entire water and sewer systems.
    ☐ There will be no water lines associated with this project.

22. 100-year floodplain:

    ☒ After construction is complete, no part of this project will be in or cross a 100-year floodplain, either naturally occurring or manmade. (Do not include streets or concrete-lined channels constructed above of sewer lines.)
    ☐ After construction is complete, all sections located within the 100-year floodplain will have water-tight manholes. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 3 - 100-Year Floodplain

Line	*Sheet*	*Station*
n/a	n/a	n/a
n/a	n/a	n/a

Line	*Sheet*	*Station*
n/a	n/a	n/a
n/a	n/a	n/a

23. 5-year floodplain:

☒ After construction is complete, no part of this project will be in or cross a 5-year floodplain, either naturally occurring or man-made. (Do not include streets or concrete-lined channels constructed above sewer lines.)

☐ After construction is complete, all sections located within the 5-year floodplain will be encased in concrete or capped with concrete. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 4 - 5-Year Floodplain

Line	*Sheet*	*Station*
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a

24. ☒ Legal boundaries of the site are shown.

25. ☒ The ***final plans and technical specifications*** are submitted for the TCEQ's review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

Items 26 - 33 must be included on the Plan and Profile sheets.

26. ☒ All existing or proposed water line crossings and any parallel water lines within 9 feet of sewer lines are listed in the table below. These lines must have the type of pressure rated pipe to be installed shown on the plan and profile sheets. Any request for a variance from the required pressure rated piping at crossings must include a variance approval from 30 TAC Chapter 290.

☐ There will be no water line crossings.

☐ There will be no water lines within 9 feet of proposed sewer lines.

Table 5 - Water Line Crossings

Line	*Station or Closest Point*	*Crossing or Parallel*	*Horizontal Separation Distance*	*Vertical Separation Distance*
WWL-A	1+00	Parallel	4'	n/a
WWL-A	2+20.96	Crossing	n/a	1.9'

27. Vented Manholes:

☒ **No part** of this sewer line is within the 100-year floodplain and vented manholes are not required by 30 TAC Chapter 217.

☐ **A portion** of this sewer line is within the 100-year floodplain and vented manholes will be provided at less than 1,500-foot intervals. These water-tight manholes are listed in the table below and labeled on the appropriate profile sheets.

☐ **A portion** of this sewer line is within the 100-year floodplain and an alternative means of venting shall be provided at less than 1500 feet intervals. A description of the alternative means is described on the following page.

☐ **A portion** of this sewer line is within the 100-year floodplain; however, there is no interval longer than 1500 feet located within. No vented manholes will be used.

Table 6 - Vented Manholes

Line	*Manhole*	*Station*	*Sheet*
n/a	n/a	n/a	n/a

28. Drop manholes:

☒ There are no drop manholes associated with this project.

☐ Sewer lines which enter new or existing manholes or "manhole structures" higher than 24 inches above the manhole invert are listed in the table below and labeled on the appropriate profile sheets. These lines meet the requirements of 30 TAC §217.55(l)(2)(H).

Table 7 - Drop Manholes

Line	*Manhole*	*Station*	*Sheet*
n/a	n/a	n/a	n/a

29. Sewer line stub-outs (For proposed extensions):

☐ The placement and markings of all sewer line stub-outs are shown and labeled.

☒ No sewer line stub-outs are to be installed during the construction of this sewage collection system.

30. Lateral stub-outs (Proposed Stub outs are for extension of public line with Phase 2 construction):

☐ The placement and markings of all lateral stub-outs are shown and labeled.

☒ No lateral stub-outs are to be installed during the construction of this sewage collection system.

31. Minimum flow velocity (From Appendix A)

☒ Assuming pipes are flowing full; all slopes are designed to produce flows equal to or greater than 2.0 feet per second for this system/line.

32. Maximum flow velocity/slopes (From Appendix A)

☒ Assuming pipes are flowing full, all slopes are designed to produce maximum flows of less than or equal to 10 feet per second for this system/line.

☐ **Attachment D – Calculations for Slopes for Flows Greater Than 10.0 Feet per Second.** Assuming pipes are flowing full, some slopes produce flows which are greater than 10 feet per second. These locations are listed in the table below. Calculations are attached.

Table 8 - Flows Greater Than 10 Feet per Second

Line	*Profile Sheet*	*Station to Station*	*FPS*	*% Slope*	*Erosion/Shock Protection*
n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a

33. Assuming pipes are flowing full, where flows are ≥ 10 feet per second, the provisions noted below have been made to protect against pipe displacement by erosion and/or shock under 30 TAC §217.53(l)(2)(B).
    - ☐ Concrete encasement shown on appropriate Plan and Profile sheets for the locations listed in the table above.
    - ☐ Steel-reinforced, anchored concrete baffles/retards placed every 50 feet shown on appropriate Plan and Profile sheets for the locations listed in the table above.
    - ☒ N/A

Administrative Information

34. ☒ The final plans and technical specifications are submitted for TCEQ review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

35. ☒ Standard details are shown on the detail sheets, which are dated, signed, and sealed by the Texas Licensed Professional Engineer, as listed in the table below:

Table 9 - Standard Details

Standard Details	*Shown on Sheet*
Lateral stub-out marking **[Required]**	n/a
Manhole, showing inverts comply with 30 TAC §217.55(l)(2) **[Required]**	34
Alternate method of joining lateral to existing SCS line for potential future connections **[Required]**	n/a
Typical trench cross-sections **[Required]**	34
Bolted manholes **[Required]**	34
Sewer Service lateral standard details **[Required]**	n/a
Clean-out at end of line **[Required, if used]**	34
Baffles or concrete encasement for shock/erosion protection **[Required, if flow velocity of any section of pipe >10 fps]**	n/a

Standard Details	*Shown on Sheet*
Detail showing Wastewater Line/Water Line Crossing **[Required, if crossings are proposed]**	34
Mandrel detail or specifications showing compliance with 30 TAC §217.57(b) and (c) **[Required, if Flexible Pipe is used]**	n/a
Drop manholes **[Required, if a pipe entering a manhole is more than 24 inches above manhole invert]**	n/a

36. ☒ All organized sewage collection system general construction notes (TCEQ-0596) are included on the construction plans for this sewage collection system.

37. ☒ All proposed sewer lines will be sufficiently surveyed/staked to allow an assessment prior to TCEQ executive director approval. If the alignments of the proposed sewer lines are not walkable on that date, the application will be deemed incomplete and returned.

    ☒ Survey staking will be completed on this date: **01/10/2025**

38. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

39. ☒ Any modification of this SCS application will require TCEQ approval, prior to construction, and may require submission of a revised application, with appropriate fees.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Organized Sewage Collection System Application** is hereby submitted for TCEQ review and executive director approval. The system was designed in accordance with the requirements of 30 TAC §213.5(c) and 30 TAC §217 and prepared by:

Print Name of Licensed Professional Engineer: Jose M. Farias, P.E.

Date: 12/9/2024

Place engineer's seal here:

Signature of Licensed Professional Engineer: _____

Appendix A-Flow Velocity Table

Flow Velocity (Flowing Full) All gravity sewer lines on the Edwards Aquifer Recharge Zone shall be designed and constructed with hydraulic slopes sufficient to give a velocity when flowing full of not less than 2.0 feet per second, and not greater than 10 feet per second. The grades shown in the following table are based on Manning's formula and an n factor of 0.013 and shall be the minimum and maximum acceptable slopes unless provisions are made otherwise.

Table 10 - Slope Velocity

Pipe Diameter(Inches)	*% Slope required for minimum flow velocity of 2.0 fps*	*% Slope which produces flow velocity of 10.0 fps*
6	0.50	12.35
8	0.33	8.40
10	0.25	6.23
12	0.20	4.88
15	0.15	3.62
18	0.11	2.83
21	0.09	2.30
24	0.08	1.93
27	0.06	1.65
30	0.055	1.43
33	0.05	1.26
36	0.045	1.12
39	0.04	1.01
>39	*	*

**For lines larger than 39 inches in diameter, the slope may be determined by Manning's formula (as shown below) to maintain a minimum velocity greater than 2.0 feet per second when flowing full and a maximum velocity less than 10 feet per second when flowing full.*

$$v = \frac{1.49}{n} \times R_h^{0.67} \times \sqrt{S}$$

Figure 1 - Manning's Formula

Where:

v = velocity (ft/sec)
n = Manning's roughness coefficient (0.013)
Rh = hydraulic radius (ft)
S = slope (ft/ft)

Kimley»Horn

Attachment A

Engineer's Design *Report*

This Engineering Design Report has been prepared to comply with the Texas Commission on Environmental Quality Design Criteria for Domestic Wastewater Systems, 30 TAC Chapter 217, including 217.10 of Subchapter A, §§217.51 – 217.70 of Subchapter C, and Subchapter D as applicable. Please note that throughout this application, the more stringent of AWU or TCEQ regulations shall apply.

Project Description

Introduction

The subject property containing the Project is located west of IH-35, bordered by Anderson Mill Road to the south and Morris Road to the east in Austin, Texas. The Project will include an overall ±7.91-acre tract with a new multifamily development.

This project is located within Lake Creek. The proposed site is not located in the Federal Emergency Management Agency's 100-year floodplain according to the FEMA FIRM map 48491C0610F dated December 20th 2019.

The entire ±7.91-acre tract is located within the Edwards Aquifer Recharge Zone. There are no known critical water quality zones or critical environmental features located on-site.

Pipe Design

Flow Design Basis

The build-out of the multifamily site will be served by this wastewater system. The City of Austin Criteria Manuals were used to determine the parameters for the design of the wastewater line extension.

Gravity Pipe and Joint Materials

The proposed pipe to be used for the 8-inch wastewater line will be ASTM D3034 SDR-26 PVC pipe (cell class 12454). The joints for this pipe shall meet the requirements of ASTM D3212. The pipe joints shall have an integral bell and rubber gasket seal with the locked-in type gasket.

Separation Distances for Water and Wastewater

At all waterline crossings a two-foot vertical separation is maintained. A nine-foot minimum horizontal separation is maintained between all proposed wastewater infrastructure and existing and proposed public water supply lines.

Building Laterals and Taps

A single service lateral is provided for the multifamily development.

Boring and Tunneling of Crossings

No boring or tunneling of crossings are proposed for this project.

Corrosion Potential

PVC pipe will be utilized for or all proposed wastewater lines. No deterioration of the proposed pipe or its associated components is anticipated in this application.

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Odor Control

No odor control is proposed with this project.

Active Geologic Faults

Per the Geologic Assessment, no active geologic faults were located within the area of the project.

Capacity Analysis

The capacity of each proposed wastewater segment is calculated below based on Manning's Equation. The calculation for each segment is based on the minimum proposed slope.

$$Q = \frac{1.49}{n} * A * R^{0.67} * S^{0.5}$$

Where:

Qfull = flow rate of fluid in pipe at full flow (ft^3/s) (cfs)

Q90%= flow rate of fluid in pipe at 90% full flow (ft^3/s) (cfs)

A = area of pipe (ft^2) = $\frac{\pi * d^2}{4}$

d = internal pipe diameter (ft) = Do – 2t

Do = outside diameter (in)

t = pipe wall thickness (in)

n = Manning's Roughness coefficient = 0.013

Rfull = hydraulic radius of pipe (full flow) = A/P = D/4 (ft)

R90%= hydraulic radius of pipe (90% full flow) = 0.9*A/P = 0.9*D/4 (ft)

P = wetted perimeter of pipe = π *D (ft)

S = slope of energy line

	LENGTH	AVERAGE SLOPE	PIPE DIAMETER			PW	A	Rfull	R90%	Qfull	Q90%	Vfull	V90%
PIPE-ID	FT	FT/FT	IN	FT	MANNING'S	FT	SF	FT	FT	CFS	CFS	FPS	FPS
EX MH TO WWL-A MH	137	0.005	8	0.67	0.013	2.09	0.35	0.17	0.15	0.85	0.77	2.44	2.20

The proposed wastewater line installed at the slope specified provides capacity in excess of the calculated peak wet weather design flows at full flow and 90% full flow conditions.

Structural Analysis

Flexible pipe is proposed on this project. Structural calculations are provided for the flexible pipe to be installed. The proposed collection system piping is designed to have a minimum structural life of 50 years. As previously mentioned, all proposed PVC pipe shall be cell class 12454 with a tensile strength of 7,000 psi.

Live Load Calculations – no significant live loads are anticipated on any segment of this project.

Buckling Pressure - the following equations utilized for the calculation of buckling pressure are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

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Pcr = $\frac{2 * E}{(1 - v^2) * (DR - 1)^3}$ *(Equation 7.14)*

Pb = $1.15 * \sqrt{Pcr * E'}$ *(Equation 7.18)*

H = (Pb*144)/w *(Equation 6.7)*

Where:

Pcr = critical buckling pressure (psi)

E = modulus of elasticity (psi) = 400,000 psi for PVC

v = Poisson's Ratio = 0.38 for PVC

DR = dimension ratio

Pb = buckling pressure in soil (psi)

E' = modulus of soil reaction (psi) = 2,000 psi for crushed rock compacted to greater than 95% relative density

H = maximum allowable cover height of soil (ft)

w = weight of soil (lbs/ft^3) = 120 lbs/ft^3

8" ASTM D3034 SDR-26

Pcr = $\frac{2 * 400{,}000}{(1 - 0.38^2) * (26 - 1)^3}$

Pcr = 59.84 psi

Pb = $1.15 * \sqrt{59.84 * 2{,}000}$

Pb = 397.84 psi

H = (397.84*144) / 120

H = 477.41 ft height of soil to cause pipe buckling

Prism Load Calculations - the following equations utilized for the calculation of prism loads are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

P = H*w *(Equation 6.7)*

Where:

P = prism load pressure due to soil weight (lbs/ft^2)

H = depth of pipe (ft)

w = soil density (lbs/ft^3) = 120 lbs/ft^3

8" ASTM D3034 SDR-26

H = 15' (Max Depth for System)

P = 15 * 120

P = 1,800 lbs/ft^2 or 12.50 psi

Long Term Deflection Calculations - the following equations utilized for the calculation of long term deflection are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

$$\Delta Y/D = \frac{DL*K*P+K*W_1}{[2E/(3(DR-1)^3)]+0.061*E'}*100 \qquad \textit{(Equation 7.10)}$$

Where:

ΔY/D = long term deflection (%)

DL = Deflection Lag Factor = 1.0 for prism load calculation

K = bedding constant = 0.096 for 90°

P = prism load pressure due to soil weight (lbs/ft^2)

W_1 = live load (psi) = 0 psi

E = modulus of elasticity (psi) = 400,000 psi for PVC

DR = dimension ratio

E' = modulus of soil reaction (psi) = 2,000 psi for crushed rock bedding compacted to greater than 95% relative density

Note: Leonhardt's Zeta factor is assumed to equal 1, and thus is not required in the calculation. This is a conservative assumption that results in a more conservatively calculated value for long term deflection.

8" ASTM D3034 SDR-26

$$\Delta Y/D = \frac{1.0*0.096*12.50+0.096*0}{[2(400{,}000)/(3(26-1)^3)]+0.061*2{,}000}*100$$

ΔY/D = 0.86%

Wall Crushing Calculations - the following equations utilized for the calculation of wall crushing are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

$$Py = \frac{\Theta C * 2 * A}{D} \qquad \textit{(Equation 7.20)}$$

H = Py / w *(Equation 6.7*

Where:

Py = pressure due to soil weight (psi)

ΘC = compressive stress (psi) = 4,000 psi for PVC pipe

A= surface area of the pipe wall (in^2/in)

D = mean pipe diameter (in) = Do – t

t = pipe wall thickness (in)

H = maximum allowable height of cover (ft)

w = soil density (lbs/ft^3) = 120 lbs/ft^3

8" ASTM D3034 SDR-26

D = 6.275 – 0.241 = 6.034 in, A = 2.89 in^2/ft (0.241 in * 12 in/ft)

Py = $\frac{4{,}000*2*(2.89/12)}{6.034}$

Py = 319.30 psi

H = (319.30*144) / 120

H = 383.16 ft height of soil to cause wall crushing

8" ASTM D3034 SDR-26

Do = 8.40 – 0.323 = 8.077 in, A = 3.88 in^2/ft (0.323 in * 12 in/ft)

Py = $\frac{4{,}000 * 2 * (3.88/12)}{8.077}$

Py = 320.25 psi

H = (320.25*144) / 120

H = 384.30 ft height of soil to cause wall crushing

Strain Calculations - the following equations utilized for the calculation of strain are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

$$\varepsilon h = \frac{P*D}{2*t*E} \qquad \textit{(Equation 7.22)}$$

$$\varepsilon f = \frac{t}{D}*\frac{[3*\Delta Y/D]}{[1-2*\Delta Y/D]} \qquad \textit{(Equation 7.24)}$$

$$\varepsilon = \varepsilon h + \varepsilon f \qquad \textit{(Equation 7.25)}$$

Where:

εh = maximum strain in the pipe wall due to hoop stress (in/in)

P = prism load pressure due to soil weight (psi)

D = mean pipe diameter (in) = Do – t

t = pipe wall thickness (in)

E = modulus of elasticity (psi) = 400,000 psi for PVC

εf = maximum strain in the pipe due to ring deflection or flexure (in/in)

ΔY/D = long term deflection

ε = maximum combined strain in pipe wall (in/in)

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8" ASTM D3034 SDR-26

$\varepsilon h = \frac{12.50 * 6.034}{2 * 0.241 * 400{,}000}$

$\varepsilon h = 0.00039$ in/in

$\varepsilon f = \frac{0241}{6.034} * \frac{[3 * 0.0086]}{[1 - 2 * 0.0086]}$

$\varepsilon f = 0.00105$ in/in

$\varepsilon = 0.00039 + 0.00105$

$\varepsilon = 0.00144$ in/in

8" ASTM D3034 SDR-26

$$\varepsilon h = \frac{10.00 * 8.077}{2 * 0.323 * 400{,}000}$$

$\varepsilon h = 0.00031$ in/in

$$\varepsilon f = \frac{0.323}{8.077} * \frac{[3 * 0.0069]}{[1 - 2 * 0.0069]}$$

$\varepsilon f = 0.00084$ in/in

$\varepsilon = 0.00031 + 0.00084$

$\varepsilon = 0.00115$ in/in

Per the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001), deflection test samples have experienced a pipe wall strain of up to 0.025 in/in and have not "showed any failures or cracks". The calculated strains for this project are significantly below this level, so no failure due to strain is anticipated.

Pipe Stiffness Calculation - the following equations utilized for the calculation of pipe stiffness are taken from the *Handbook of PVC Pipe: Design and Construction* (Uni-Bell PVC Pipe Association, 2001).

$$Ps = 4.47 * \frac{E}{(DR - 1)^3}$$ *(Equation 7.3)*

Where:

Ps =	pipe stiffness (psi)
DR =	Dimensional Ration = Do / t
Do =	Outside diameter (in)
t =	pipe wall thickness (in)
E =	modulus of elasticity (psi) = 400,000 psi for PVC

6" & 8" ASTM D3034 SDR-26

DR = 26

$$Ps = 4.47 * \frac{400{,}000}{(26-1)^3}$$

Ps = 115 psi

Total Site Area = 7.91

Development Tract	Proposed Use	Proposed Bldg. SF/# Units	LUE Conversion**	Proposed LUEs	Subtotal Proposed LUEs	WW Avg. Dry Weather Flow (gpm)	WW Peak Dry Weather Flow Factor	WW Peak Dry Weather Flow (gpm)	Infiltration Area (acres)	WW Peak Wet Weather Flow (gpm)
Marielle Condos	Condo [units]	143	0.7 LUE/unit	101	101	17.2	4.00	68.7	7.91	72.9

** Required Fire Flow based on the 2021 International Fire Code requirements and determined using the following assumptions:*
A) Actual building types may change based on final construction drawings
B) 2 Hour Fire Walls shall be provided between each of the units

***LUE Conversions based on the following assumptions:*
A) Condo consists of 6+ Units/AC to 24+ Units/AC

This project generates approximately 72.9 GPM of Peak Wet Weather Flow. Per coordination with the City of Austin Public Works department, there will be no adverse impacts or capacity issues within the existing downstream collection system and off-site wastewater treatment system.

Criteria for Laying Pipe

Pipe Embedment

Bedding and initial backfill material selection and installation will be carried out in accordance with applicable governing procedures contained within the *City of Austin Criteria Manual, TCEQ Chapter 217.54(a),* and in accordance with the City of Austin Details on sheets 34 and 35. Brush, debris, and junk shall not be utilized as a backfilling material.

Compaction

Trench compaction will be carried out in accordance with the *City of Austin Code of Ordinances* and *TCEQ Chapter 217.54(b)*. Proper placement of the backfill and compaction per City of Austin requirements will not negatively impact the structural integrity of the pipe.

Envelope Size

Envelope size will be in accordance with *City of Austin Code of Ordinances* and *TCEQ Chapter 217.54(c).* Per the City of Austin Detail 1100S-2 on sheet 34, a minimum of 6-inch and maximum of 24-inch space shall be allowed between the outside diameter of the pipe and the trench wall and floor. The embedment and initial backfill must be installed to a minimum depth of 12 inches above the crown of the pipe.

Trench Width

Trench width will be in accordance with the *City of Austin Code of Ordinances* and *TCEQ Chapter 217.54(d).* Per the City of Austin Detail 1100S-2 on sheet 34, a minimum of 6-inch and maximum of 24-inch space shall be allowed between the outside diameter of the pipe and the trench wall and floor. These

limits shall be maintained to protect the structural integrity of the pipe and will be sufficient for the placement of materials and use of compaction equipment in the pipe zone.

Manholes and Related Structures

Manhole and Appurtenance Placement

Manholes are located at all points of change in alignment or grade and at the intersection of all pipes for this project.

Manhole Stub Outs

No manhole stub outs are proposed in this project.

Cleanouts

Cleanouts are proposed along the wastewater line and all dead ends.

Manhole Material

Monolithic or precast manholes are acceptable for the contractor to utilize and are included in the City of Austin Detail 506S-10.

Manhole Spacing

Manhole spacing meets the requirements of Table C.2 in TCEQ Chapter 217.55.

Manholes within Waterways

No manholes will be located within flow paths of waterways or in areas where water ponding is probable.

Manhole Covers, Inlets, and Bases

Per the *City of Austin Code of Ordinances*, the manhole covers shall have a 32-inch diameter clear opening. Manhole covers shall be constructed of cast iron and have no openings for water to infiltrate. No proposed manholes are located within the 100-year flood plain. All manholes shall be watertight, with watertight rings and covers, as shown per the City of Austin detail 506S-10.
As shown in the project details, the bottom of the manhole shall have a U-shaped channel to provide smooth continuation between the inlet and outlet pipes. For the proposed pipe, the manhole channel depth shall be equal to at least half the largest pipe diameter. Manholes with different pipe sizes shall have the tops of the pipes at the same elevation and flow channels in the invert sloped evenly from pipe to pipe. A bench will be provided above each manhole channel to slope at a minimum of 0.5 inches per foot.

Manhole Steps

No steps shall be allowed in any proposed manholes.

Manhole Connections

Manhole-pipe connections shall be watertight per City of Austin Code of Ordinances. See City of Austin detail 506S-10.

Manhole Venting

The proposed manholes are spaced at less than 500-foot intervals and none are located within the 100-year flood plain. Therefore, no vented manholes are proposed in this project.

Trenchless Pipe Installation

There will be no trenchless pipe installation.

Testing Requirements for Gravity Pipes

Infiltration/Exfiltration and Low Pressure Air Test

All testing will be in compliance with Texas Administrative Code title 30 Part 1 Chapter 217 Subchapter C 217.57 and 217.58. Infiltration and exfiltration or low-pressure air testing in accordance with ASTM C828, C924 or F1417 are required for all proposed gravity wastewater pipe as specified in the project notes. The requirements specified are in accordance with *TCEQ Chapter 217.57*.

Deflection Testing

For the proposed 8-inch wastewater line, deflection shall be measured with a rigid mandrel. The requirements specified are in accordance with *TCEQ Chapter 217.57*.

Owner Inspection

The Owner shall have an inspector onsite during construction of the project. A professional engineer registered in the state of Texas (Jose Farias, P.E.) shall be present to witness the testing of the wastewater lines.

Testing Requirements for Manholes

Manhole testing in accordance with *TCEQ Chapter 217.58* is specified in the project notes. Manholes will be tested after assembly and backfilling for leakage by either a hydrostatic test and/or a vacuum test. For the vacuum test, all lift holes and exterior joints shall be plugged with an approved non-shrink grout and no grout shall be placed in horizontal joints before testing. All pipes entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole. Stub outs, manhole boots and pipe plugs shall be secured to prevent movement while the vacuum is drawn. A minimum 60-inch/lb torque wrench shall be used to tighten the external clamps that secure the test cover to the top of the manhole. The test head shall be placed at the inside of the top of the cone section and the seal inflated in accordance with the manufacturer's recommendation. A vacuum of 10 inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time shall be measured for the vacuum to drop to 9 inches of mercury. The manhole shall pass if the time is greater than 2 minutes. If the manhole fails the initial test, necessary repairs shall be made with a non-shrink grout while the vacuum is still being drawn. If the manhole fails a second time, repairs should again be made, and the manhole shall be tested by means of a hydrostatic test. If any manhole fails the hydrostatic test, after failing the vacuum test twice, the contractor should consider replacing that manhole. If the contractor chooses to attempt to repair that manhole, the manhole must be retested by means of the hydrostatic test until it passes.

Inspection will be provided during critical phases of construction by a qualified inspector under the direction of a P.E. (Jose Farias, P.E.). Critical phases of construction are deemed at a minimum to include testing of pipe and manholes for leakage and testing of flexible pipe for installed deflection.

TCEQ approval letters for plans and specifications review contain the requirement that once the project is completed, a P.E. registered in the state of Texas (Jose Farias, P.E.) much certify that the construction was performed substantially in accordance with the approved plans and specifications.

Notification and Inspection

TCEQ Chapter 213 requires that the applicant must provide written notification to the Austin regional office at least 48 hours prior to commencing construction on the regulated activity. If any sensitive feature is discovered during construction, then the work shall be suspended immediately, and the Austin regional office shall be notified to then determine the appropriate course of action. All other notification and inspection requirements identified in *TCEQ Chapter 213.5(c)* shall be met. Justification and Calculations for Deviation in Straight Alignment without Manholes.

NOT APPLICABLE

Attachment B

Justification and Calculations for Deviation in Straight Alignment Manholes

NOT APPLICABLE

Attachment C

Justification for Variance from Manhole Spacing

NOT APPLICABLE

Attachment D

Explanation of Slopes for Flows Greater Than 10.0 FPS

NOT APPLICABLE

Section 8: Additional Forms

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I Zach Summers,
Print Name

Vice President Land Acquisition,
Title - Owner/President/Other

of Mill Creek Residential Trust,
Corporation/Partnership/Entity Name

have authorized Jose Farias, P.E.
Print Name of Agent/Engineer

of Kimley-Horn and Associates, LLC
Print Name of Firm

to represent and act on the behalf of the above-named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

2/20/2025
Date

THE STATE OF Texas §

County of Irving §

BEFORE ME, the undersigned authority, on this day personally appeared Zachary Summers known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 20th day of February, 2025.

NOTARY PUBLIC

TATE SULLIVAN
My Notary ID # 130370506
Expires September 16, 2027

Tate Sullivan
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 9/16/2027

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: MCRT SFR Texas Construction LLC
Regulated Entity Location: 5910 N. Central Expressway, Suite 1100
Name of Customer: Zach Summers
Contact Person: Jose Farias Phone: 737-249-0434
Customer Reference Number (if issued): CN 605974344
Regulated Entity Reference Number (if issued): RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment**. This payment is being submitted to:

☒ Austin Regional Office
☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office
☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	*Size*	*Fee Due*
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	7.91 Acres	$ 5,000
Sewage Collection System	137 L.F.	$ 650
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____ Date: 2/5/2025

Application Fee Schedule

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	*Project Area in Acres*	*Fee*
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 **40 < 100** ≥ 100	$3,000 $4,000 $5,000 $6,500 **$8,000** $10,000

Organized Sewage Collection Systems and Modifications

Project	*Cost per Linear Foot*	*Minimum Fee-Maximum Fee*
Sewage Collection Systems	**$0.50**	**$650 - $6,500**

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	*Cost per Tank or Piping System*	*Minimum Fee-Maximum Fee*
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

Kimley»Horn

Check Payable to the "Texas Commission on Environmental Quality"

Kimley»Horn

Core Data Form

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☒ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal (*Core Data Form should be submitted with the renewal form*) ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 605974344		RN

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name (*If an individual, print last name first: eg: Doe, John*) *If new Customer, enter previous Customer below:*

Zach Summers

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*

11. Type of Customer: ☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☐ Yes ☐ No

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☒ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:

5910 N. Central Expressway, Suite 1100

City	Dallas	State	TX	ZIP	75206	ZIP + 4	

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
( ) -		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (*If 'New Regulated Entity" is selected below this form should be accompanied by a permit application*)

☐ New Regulated Entity ☒ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name (*Enter name of the site where the regulated action is taking place.*)

MCRT SFR Investment, LLC

23. Street Address of the Regulated Entity: *(No PO Boxes)*	5910 N. Central Expressway, Suite 1100						
	City	Dallas	**State**	TX	**ZIP**	75206	**ZIP + 4**
24. County	Dallas						

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	13220 Morris Road				
26. Nearest City			**State**	**Nearest ZIP Code**	
Austin			TX	78729	
27. Latitude (N) In Decimal:	30.4576530		**28. Longitude (W) In Decimal:**	-97.766885	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
6531		531311	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)* Real Estate Investment and Development Company

34. Mailing Address:	**5910 N. Central Expressway, Suite 1100**						
	City	**Manchaca**	**State**	**TX**	**ZIP**	**78652**	**ZIP + 4**
35. E-Mail Address:							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
( ) -		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

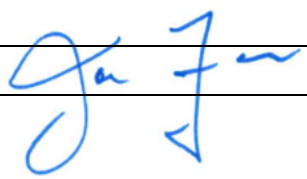
SECTION IV: Preparer Information

40. Name:	Joe Farias, P.E.	**41. Title:**	Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(737) 249-0434		( ) -	joe.farias@kimley-horn.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Kimley-Horn	**Job Title:**	Project Manger
Name *(In Print):*	Joe Farias, P.E.	**Phone:**	(737) 249- **434**
Signature:		**Date:**	

SECTION 9: EXHIBITS

Kimley»Horn

Civil Design Plan Set

OWNER NAME AND ADDRESS:
MCRT SFR INVESTMENT, LLC
5910 N. CENTRAL EXPRESSWAY, SUITE 1100
DALLAS, TEXAS 75206

PREVIOUS RELATED SITE DEVELOPMENT CASE NO.:

ZONING: 4.913 ACRES MF-2
3.00 ACRES MF-2 CO

WATERSHED: LAKE CREEK

PRESSURE ZONE: NORTHWEST B

LEGAL DESCRIPTION:
LOT 1A, BLOCK A (7.913 ACRES)

GENERAL PLAN NOTES:

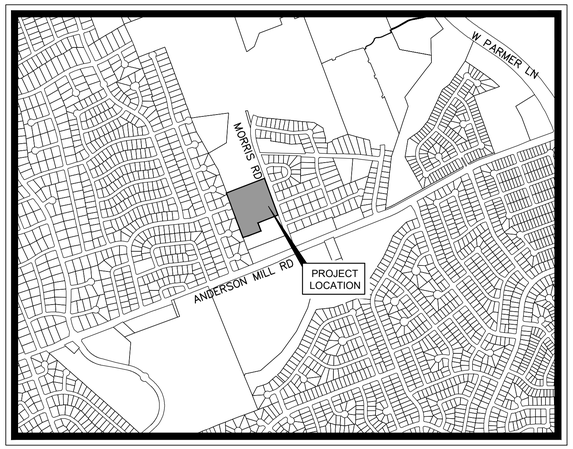
1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN AS SHOWN IN THE FEMA FLOOD INSURANCE RATE MAP NO. 48491C0610F (EFFECTIVE DATE DECEMBER 20, 2019).
3. WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY AUSTIN WATER UTILITY, CONDITIONED UPON ALL FEES AND CHARGES ARE PAID.
4. THERE ARE NO NATURAL SLOPES ON THIS SITE IN EXCESS OF 15%.
5. THERE ARE NO KNOWN CRITICAL ENVIRONMENTAL FEATURES ON THIS SITE.
6. NO STRUCTURES CAN BE BUILT WITHIN WATER & WASTEWATER EASEMENTS.
7. RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
8. AS PART OF THIS SITE PLAN, THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO BE ON SITE AT ALL TIMES.
9. SITE IS SUBJECT TO THE WATERSHED PROTECTION REGULATIONS.
10. THIS SITE IS LOCATED IN THE EDWARDS AQUIFER RECHARGE ZONE.
11. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH APPLICABLE CITY REGULATIONS ONLY. APPROVAL BY OTHER GOVERNMENTAL ENTITIES MAY BE REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR DETERMINING WHAT ADDITIONAL APPROVALS MAY BE NECESSARY.
12. DEVELOPMENT OF STRUCTURES THAT REQUIRE A BUILDING PERMIT WITHIN THIS SITE PLAN, OR REVISIONS THEREOF, ARE REQUIRED TO COMPLY WITH THE CITY OF AUSTIN STREET IMPACT FEE ORDINANCES 20221220-061 [https://www.austintexas.gov/edims/document.cfm?id=352887] AND 20201210-062 [https://www.austntexas.gov/edims/document.cfm?id=352739], AS APPLICABLE, PRIOR TO ACQUIRING THE BUILDING PERMIT. THE CITY SHALL NOT START COLLECTING STREET IMPACT FEES WITH ALL BUILDING PERMITS ISSUED ON OR AFTER JUNE 21, 2022. FOR MORE INFORMATION PLEASE VISIT THE STREET IMPACT FEE WEBSITE [austintexas.gov/streetimpactfee]
13. THIS PROJECT IS SUBJECT TO THE VOID AND WATER FLOW MITIGATION RULE (COA ECM 1.12.0 AND COA ITEM NO. 658S OF THE SSM) PROVISION THAT ALL TRENCHING GREATER THAN 5 FEET DEEP MUST BE INSPECTED BY A GEOLOGIST (TEXAS P.G.) OR A GEOLOGIST'S REPRESENTATIVE.
14. IF AT ANY TIME DURING CONSTRUCTION OF THIS PROJECT AN UNDERGROUND STORAGE TANK (UST) IS FOUND, CONSTRUCTION IN THAT AREA MUST STOP UNTIL A CITY OF AUSTIN UST CONSTRUCTION PERMIT IS APPLIED FOR AND APPROVED. ANY UST REMOVAL WORK MUST BE CONDUCTED BY A UST CONTRACTOR THAT IS REGISTERED WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). CONTACT ELIZABETH SIMMONS AT ELIZABETH.SIMMONS@AUSTINTEXAS.GOV IF YOU HAVE ANY QUESTIONS. [COA TITLE 6].
15. A FEE-IN-LIEU OF PARKLAND DEDICATION HAS BEEN PAID FOR 144 RESIDENTIAL UNITS.
16. THE PROPOSED PONDS WILL BE PRIVATELY MAINTAINED.
17. TYPE III DRIVEWAYS MUST BE RECONSTRUCTED AS CONCRETE APPROACHES BY THE OWNER WITHIN 60 DAYS AFTER CONSTRUCTION OF THE ABUTTING STREET TO PERMANENT GRADE WITH CURBS AND GUTTER.

CIVIL SITE DEVELOPMENT PLANS
FOR
AMAVI NORTHWEST AUSTIN

13220 MORRIS ROAD
AUSTIN, TX 78729

SP-2024-0063C

AUSTIN FIRE DEPARTMENT	
FIRE DESIGN CODES	2021 INTERNATIONAL FIRE CODE WITH CITY OF AUSTIN LOCAL AMENDMENTS
REQUIRED FIRE FLOW DEMAND @ 20 PSI (GPM)	1,500 GPM
INTENDED USE	MULTI-FAMILY RESIDENTIAL
CONSTRUCTION CLASSIFICATION (ALL BUILDINGS)	V-B
LARGEST BUILDING FIRE AREA (SF)	3,600
AUTOMATIC FIRE SPRINKLER SYSTEM TYPE	TYPE 13D
REDUCED FIRE FLOW DEMAND @ 20 PSI FOR HAVING A SPRINKLER SYSTEM (GPM) (IF APPLICABLE)	1,500 GPM
AFD FIRE HYDRANT FLOW TEST DATE	6/7/2020
AFD FIRE HYDRANT FLOW TEST LOCATION	13200 Morris Road Hydrant #233665
BUILDING HEIGHT AND NO. OF STORIES	37' BLDG HEIGHT, 3 STORIES
ALTERNATIVE METHOD OF COMPLIANCE AMOC (IF APPLICABLE)	N/A



VICINITY MAP
SCALE: 1" = 1,000'

COA GRID: H38
MAPSCO: 434L

APRIL 15, 2024

SHEET INDEX

THIS NOTE IS BEING PLACED ON THE PLAN SET IN PLACE OF A TEMPORARY TRAFFIC CONTROL STRATEGY WITH THE FULL UNDERSTANDING THAT, AT A MINIMUM OF 6 WEEKS PRIOR TO THE START OF CONSTRUCTION, A TEMPORARY TRAFFIC CONTROL PLAN MUST BE REVIEWED AND APPROVED BY THE RIGHT OF WAY MANAGEMENT DIVISION. THE OWNER/REPRESENTATIVE FURTHER RECOGNIZES THAT A REVIEW FEE, AS PRESCRIBED BY THE MOST CURRENT VERSION OF THE CITY'S FEE ORDINANCE, SHALL BE PAID EACH TIME A PLAN OR PLAN REVISION IS SUBMITTED TO RIGHT OF WAY MANAGEMENT DIVISION FOR REVIEW. THE FOLLOWING MUST BE TAKEN INTO CONSIDERATION WHEN DEVELOPING FUTURE TRAFFIC CONTROL STRATEGIES:

PEDESTRIAN AND BICYCLE TRAFFIC ACCESS MUST BE MAINTAINED AT ALL TIMES, UNLESS OTHER WISE AUTHORIZED BY RIGHT OF WAY MANAGEMENT.

NO LONG-TERM LANE CLOSURES WILL BE AUTHORIZED, UNLESS RIGHT OF WAY MANAGEMENT DETERMINES THAT ADEQUATE ACCOMMODATIONS HAVE BEEN MADE TO MINIMIZE TRAFFIC IMPACT.

PROJECT SHOULD BE PHASED SO THAT UTILITY INSTALLATION MINIMALLY IMPACTS EXISTING OR TEMPORARY PEDESTRIAN FACILITIES.

REVISIONS/CORRECTIONS							
NO.	DESCRIPTION	REVISE (R) VOID (V) ADD (A) SHEET NO.'S	TOTAL NO. SHEETS IN PLAN SET	NET CHANGE IMP. COVER (SQ. FT.)	TOTAL SITE IMP. COVER (SQ. FT.)/%	CITY OF AUSTIN APPROVAL DATE	DATE IMAGED

AUSTIN WATER UTILITY — DATE

CITY OF AUSTIN FIRE DEPARTMENT — DATE

FOR DIRECTOR, PLANNING AND DEVELOPMENT REVIEW DEPARTMENT — DATE

I CERTIFY THAT THESE ENGINEERING DOCUMENTS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THE INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION PRIOR TO FORMAL CITY APPROVAL.

SITE PLAN APPROVAL SHEET 1 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON_____ UNDER SECTION **112** OF
CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC)_____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A)_____ DWPZ_____ DDZ_____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE:_____ ZONING **MF-2, MF-2 CO**
Rev. 1_____ Correction 1_____
Rev. 2_____ Correction 2_____
Rev. 3_____ Correction 3_____
Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

BENCHMARKS

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION
- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION
- ELEV.=874.612'

811 Know what's below. Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

DESIGNERS:

ARCHITECT:
DANZE & DAVIS ARCHITECTS, INC.
4701 SPICEWOOD SPRINGS ROAD,
SUITE 200, AUSTIN, TEXAS 78759
PH. (512) 343-0714
CONTACT: HARRISON DAVIS

LANDSCAPE ARCHITECT:
KIMLEY-HORN
10814 JOLLYVILLE ROAD, AVALLON IV, SUITE 200
AUSTIN, TEXAS 78759
PH. (512) 418-1771
CONTACT: EDGAR ORTEGA

SURVEYOR
KIMLEY-HORN
10814 JOLLYVILLE ROAD, AVALLON IV, SUITE 200
AUSTIN, TEXAS 78759
PH. (512) 418-1771
CONTACT: JOE FARIAS, P.E.

LISTS OF CONTACTS:

WATER & SANITARY SEWER
AUSTIN WATER UTILITY
625 E. 10TH STREET, SUITE 715
AUSTIN, TX 78701
PH. (512) 972-0207

FIRE
AUSTIN FIRE DEPARTMENT
RALPH CASTILLO
ONE TEXAS CENTER SUITE 200
505 BARTON SPRINGS ROAD
AUSTIN, TX 78704
PH. (512) 974-0192

GAS
ATMOS GAS ENERGY CORPORATION
MICHAEL ANDREWS
3110 N. IH 35
ROUND ROCK, TX 78681
PH. (512) 310-3855

ELECTRIC
AUSTIN ENERGY
JIM ROWIN
2412 KRAMER LANE, BUILDING C
AUSTIN, TEXAS 78758
PH. (512) 505-7665

STORM SEWER
CITY OF AUSTIN
PLANNING & DEVELOPMENT REVIEW DEPARTMENT
505 BARTON SPRINGS ROAD
AUSTIN, TX 78704
PH. (512) 974-2680

PREPARED BY:

Kimley»Horn
10814 JOLLYVILLE ROAD, AVALLON IV, SUITE 300
AUSTIN, TEXAS 78759
CERTIFICATE OF REGISTRATION #928
Tel. No. (512) 418-1771
Fax No. (512) 418-1791

No.	REVISIONS	DATE	BY

AMAVI NORTHWEST AUSTIN - ----

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TX. REGISTERED ENGINEERING FIRM F-928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

COVER SHEET

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
1 OF 48

KH GENERAL NOTES

OVERALL:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE PLANS, CITY (OR TOWN) STANDARD DETAILS AND SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THE CITY SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION AND DETAIL SHALL BE FOLLOWED.
2. THE CONTRACTOR SHALL COMPLY WITH CITY (OR TOWN) "GENERAL NOTES" FOR CONSTRUCTION, IF EXISTING AND REQUIRED BY THE CITY. FOR INSTANCES WHERE THEY CONFLICT WITH THESE KH GENERAL NOTES, THEN THE MORE RESTRICTIVE SHALL APPLY.
3. THE CONTRACTOR SHALL FURNISH ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE AUTHORITIES' SPECIFICATIONS AND REQUIREMENTS.
4. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
5. THE EXISTING CONDITIONS SHOWN ON THESE PLANS WERE PROVIDED BY THE TOPOGRAPHIC SURVEY PREPARED BY THE PROJECT SURVEYOR, AND ARE BASED ON THE BENCHMARKS SHOWN. THE CONTRACTOR SHALL REFERENCE THE SAME BENCHMARKS.
6. THE CONTRACTOR SHALL REVIEW AND VERIFY THE EXISTING TOPOGRAPHIC SURVEY SHOWN ON THE PLANS REPRESENTS EXISTING FIELD CONDITIONS PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DISCREPANCIES FOUND TO THE OWNER AND ENGINEER IMMEDIATELY.
7. IF THE CONTRACTOR DOES NOT ACCEPT THE EXISTING TOPOGRAPHIC SURVEY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY AT THEIR OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED PROFESSIONAL LAND SURVEYOR TO THE OWNER AND ENGINEER FOR REVIEW.
8. CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION SURVEYING AND STAKING.
9. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROL, INCLUDING BENCHMARKS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS. PROPERTY LINES AND CORNERS SHALL BE HELD AS THE HORIZONTAL CONTROL.
10. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS, ELEVATIONS, AND FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ARCHITECT, ENGINEER, AND IF APPLICABLE THE CITY AND OWNER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE CITY, ENGINEER, AND OWNER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
11. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK TO HAVE THEM LOCATE THEIR EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
13. CONTRACTOR SHALL CALL TEXAS 811 AN ADEQUATE AMOUNT OF TIME PRIOR TO COMMENCING CONSTRUCTION OR ANY EXCAVATION.
14. CONTRACTOR SHALL USE EXTREME CAUTION AS THE SITE CONTAINS VARIOUS KNOWN AND UNKNOWN PUBLIC AND PRIVATE UTILITIES.
15. THE LOCATIONS, ELEVATIONS, DEPTH, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY MAPS AND PLANS, AND ARE CONSIDERED APPROXIMATE AND INCOMPLETE. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY THE PRESENCE, LOCATION, ELEVATION, DEPTH, AND DIMENSION OF EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION SO THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE ENGINEER SHALL BE NOTIFIED WHEN A PROPOSED IMPROVEMENT CONFLICTS WITH AN EXISTING UTILITY.
16. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY ADJUSTMENTS AND RELOCATIONS OF EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, ADJUSTING EXISTING MANHOLES TO MATCH PROPOSED GRADE, RELOCATING EXISTING POLES AND GUY WIRES THAT ARE LOCATED IN PROPOSED DRIVEWAYS, ADJUSTING THE HORIZONTAL OR VERTICAL ALIGNMENT OF EXISTING UNDERGROUND UTILITIES TO ACCOMMODATE PROPOSED GRADE OR CROSSING WITH A PROPOSED UTILITY, AND ANY OTHERS THAT MAY BE ENCOUNTERED THAT ARE UNKNOWN AT THIS TIME AND NOT SHOWN ON THESE PLANS.
17. CONTRACTOR SHALL ARRANGE FOR OR PROVIDE, AT ITS EXPENSE, ALL GAS, TELECOMMUNICATIONS, CABLE, OVERHEAD AND UNDERGROUND POWER LINE, AND UTILITY POLE ADJUSTMENTS NEEDED.
18. CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF FRANCHISE UTILITIES THAT ARE NECESSARY FOR ON-SITE AND OFF-SITE CONSTRUCTION, AND SERVICE TO THE PROPOSED DEVELOPMENT.
19. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES DUE TO THE CONTRACTORS' FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
20. BRACING OF UTILITY POLES MAY BE REQUIRED BY THE UTILITY COMPANIES WHEN TRENCHING OR EXCAVATING IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR, WITH NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE PAY ITEM.
21. CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND POWER LINES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, FEDERAL AND UTILITY OWNER REGULATIONS PERTAINING TO WORK SETBACKS FROM POWER LINES.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, APPROVALS, AND BONDS PRIOR TO CONSTRUCTION.
23. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES A COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, GEOTECHNICAL REPORT AND ADDENDA, PROJECT AND CITY SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
24. ALL SHOP DRAWINGS AND OTHER DOCUMENTS THAT REQUIRE ENGINEER REVIEW SHALL BE SUBMITTED BY THE CONTRACTOR SUFFICIENTLY IN ADVANCE OF CONSTRUCTION OF THAT ITEM, SO THAT NO LESS THAN 10 BUSINESS DAYS FOR REVIEW AND RESPONSE IS AVAILABLE.
25. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES, AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO USE OF THE FACILITY AND THE FINAL CONNECTION OF SERVICES.
26. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
27. CONTRACTOR'S BID PRICE SHALL INCLUDE ALL INSPECTION FEES.
28. ALL SYMBOLS SHOWN ON THESE PLANS (E.G. FIRE HYDRANT, METERS, VALVES, INLETS, ETC....) ARE FOR PRESENTATION PURPOSES ONLY AND ARE NOT TO SCALE. CONTRACTOR SHALL COORDINATE FINAL SIZES AND LOCATIONS WITH APPROPRIATE CITY INSPECTOR.
29. THE SCOPE OF WORK FOR THE CIVIL IMPROVEMENTS SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. REFERENCE THE BUILDING PLANS (E.G. ARCHITECTURAL, STRUCTURAL, MEP) FOR AREAS WITHIN 5-FEET OF THE BUILDING AND WITHIN THE BUILDING FOOTPRINT.
30. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL FINAL BUILDING DIMENSIONS.
31. THE PROPOSED BUILDING FOOTPRINT(S) SHOWN IN THESE PLANS WAS PROVIDED TO KIMLEY-HORN AND ASSOCIATES, INC. (KH) BY THE PROJECT ARCHITECT AT THE TIME THESE PLANS WERE PREPARED. IT MAY NOT BE THE FINAL CORRECT VERSION BECAUSE THE BUILDING DESIGN WAS ONGOING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING THE FINAL CORRECT VERSION OF THE BUILDING FOOTPRINT WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO LAYOUT. DIMENSIONS AND/OR COORDINATES SHOWN ON THESE PLANS WERE BASED ON THE ABOVE STATED ARCHITECTURAL FOOTPRINT, AND ARE THEREFORE A PRELIMINARY LOCATION OF THE BUILDING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY WHAT PART OF THE BUILDING THE ARCHITECT'S FOOTPRINT REPRESENTS (E.G. SLAB, OUTSIDE WALL, MASONRY LEDGE, ETC.....) AND TO CONFIRM ITS FINAL POSITION ON THE SITE BASED ON THE FINAL ARCHITECTURAL FOOTPRINT, CIVIL DIMENSION CONTROL PLAN, SURVEY BOUNDARY AND/OR PLAT. ANY DIFFERENCES FOUND SHALL BE REPORTED TO KH IMMEDIATELY.
32. ALL CONSTRUCTION SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSEQUENT ADDENDA.
33. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL MATERIALS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND COMPLY WITH CITY STANDARD SPECIFICATIONS AND GEOTECHNICAL REPORT. TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING MATERIALS. OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR MATERIALS TESTING.
34. ALL COPIES OF MATERIALS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING AGENCY.
35. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE MATERIALS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS.
36. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
37. ALL CONTRACTORS MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA. NO ENCROACHMENTS OUTSIDE OF THE WORK AREA WILL BE ALLOWED. ANY DAMAGE RESULTING THEREFROM SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY TO REPAIR.
38. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, UTILITIES, MANHOLES, POLES, GUY WIRES, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, COMMUNICATION BOXES/PEDESTALS, AND OTHER FACILITIES TO REMAIN AND SHALL REPAIR ANY DAMAGES AT NO COST TO THE OWNER.
39. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY OR PUBLIC IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCES, WALLS, SIGNS, PAVEMENT, CURBS, UTILITIES, SIDEWALKS, GRASS, TREES, LANDSCAPING, AND IRRIGATION SYSTEMS, ETC.... TO ORIGINAL CONDITION OR BETTER AT NO COST TO THE OWNER.
40. ALL AREAS IN EXISTING RIGHT-OF-WAY DISTURBED BY SITE CONSTRUCTION SHALL BE REPAIRED TO ORIGINAL CONDITION OR BETTER, INCLUDING AS NECESSARY GRADING, LANDSCAPING, CULVERTS, AND PAVEMENT.
41. THE CONTRACTOR SHALL SALVAGE ALL EXISTING POWER POLES, SIGNS, WATER VALVES, FIRE HYDRANTS, METERS, ETC... THAT ARE TO BE RELOCATED DURING CONSTRUCTION.
42. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
43. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
44. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
45. SITE SAFETY IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
46. THESE PLANS DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE ENGINEER'S SEAL HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL REQUIRED SAFETY PROCEDURES AND PROGRAMS.
47. SIGNS RELATED TO SITE OPERATION OR SAFETY ARE NOT INCLUDED IN THESE PLANS.
48. CONTRACTOR OFFICE AND STAGING AREA SHALL BE AGREED ON BY THE OWNER AND CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING REQUIREMENTS FOR THE CONSTRUCTION OFFICE, TRAILER, STORAGE, AND STAGING OPERATIONS AND LOCATIONS.
49. LIGHT POLES, SIGNS, AND OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN ACCESSIBLE ROUTES.
50. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
51. TOP RIM ELEVATIONS OF ALL EXISTING AND PROPOSED MANHOLES SHALL BE COORDINATED WITH TOP OF PAVEMENT OR FINISHED GRADE AND SHALL BE ADJUSTED TO BE FLUSH WITH THE ACTUAL FINISHED GRADE AT THE TIME OF PAVING.
52. CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED VALVES, FIRE HYDRANTS, AND OTHER UTILITY APPURTENANCES TO MATCH ACTUAL FINISHED GRADES AT THE TIME OF PAVING.
53. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SEQUENCING AND PHASING, AND SHALL CONTACT THE APPROPRIATE CITY OFFICIALS, INCLUDING BUILDING OFFICIAL, ENGINEERING INSPECTOR, AND FIRE MARSHALL TO LEARN OF ANY REQUIREMENTS.
54. CONTRACTOR IS RESPONSIBLE FOR PREPARATION, SUBMITTAL, AND APPROVAL BY THE CITY OF A TRAFFIC CONTROL PLAN PRIOR TO THE START OF CONSTRUCTION, AND THEN THE IMPLEMENTATION OF THE PLAN.
55. CONTRACTOR SHALL KEEP A NEAT AND ACCURATE RECORD OF CONSTRUCTION, INCLUDING ANY DEVIATIONS OR VARIANCES FROM THE PLANS.
56. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT PLANS TO THE ENGINEER AND CITY IDENTIFYING ALL DEVIATIONS AND VARIATIONS FROM THESE PLANS MADE DURING CONSTRUCTION.

EROSION CONTROL:

1. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL EROSION CONTROL AND WATER QUALITY REQUIREMENTS, LAWS, AND ORDINANCES THAT APPLY TO THE CONSTRUCTION SITE LAND DISTURBANCE.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE "TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 150000".
3. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE.
4. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT.
5. CONTRACTOR IS SOLELY RESPONSIBLE FOR INSTALLATION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL EROSION CONTROL DEVICES, BEST MANAGEMENT PRACTICES (BMPS), AND FOR UPDATING THE EROSION CONTROL PLAN DURING CONSTRUCTION AS FIELD CONDITIONS CHANGE.
6. CONTRACTOR SHALL DOCUMENT THE DATES OF INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL FOR EACH BMP EMPLOYED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE.
7. AS STORM SEWER INLETS ARE INSTALLED ON-SITE, TEMPORARY EROSION CONTROL DEVICES SHALL BE INSTALLED AT EACH INLET PER APPROVED DETAILS.
8. THE EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE AREA IT PROTECTS HAS BEEN PERMANENTLY STABILIZED.
9. CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL DEVICES NEEDED DUE TO PROJECT PHASING.
10. CONTRACTOR SHALL OBSERVE THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND MAKE FIELD ADJUSTMENTS AND MODIFICATIONS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE. IF THE EROSION CONTROL DEVICES DO NOT EFFECTIVELY CONTROL EROSION AND PREVENT SEDIMENTATION FROM WASHING OFF THE SITE, THEN THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
11. OFF-SITE SOIL BORROW, SPOIL, AND STORAGE AREAS (IF APPLICABLE) ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMP'S TO CONTROL EROSION AND SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP AND EROSION CONTROL PLAN TO INCLUDE BMPS FOR ANY OFF-SITE THAT ARE NOT ANTICIPATED OR SHOWN ON THE EROSION CONTROL PLAN.
12. ALL STAGING, STOCKPILES, SPOIL, AND STORAGE SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. PROTECTIVE MEASURES SHALL BE PROVIDED IF NEEDED TO ACCOMPLISH THIS REQUIREMENT, SUCH AS COVERING OR ENCIRCLING THE AREA WITH AN APPROPRIATE BARRIER.
13. CONTRACTORS SHALL INSPECT ALL EROSION CONTROL DEVICES, BMPS, DISTURBED AREAS, AND VEHICLE ENTRY AND EXIT AREAS WEEKLY AND WITHIN 24 HOURS OF ALL RAINFALL EVENTS OF 0.5 INCHES OR GREATER, AND KEEP A RECORD OF THIS INSPECTION IN THE SWPPP BOOKLET IF APPLICABLE, TO VERIFY THAT THE DEVICES AND EROSION CONTROL PLAN ARE FUNCTIONING PROPERLY.
14. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS IN ACCORDANCE WITH CITY SPECIFICATIONS. CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION TRAFFIC USES THE STABILIZED ENTRANCE AT ALL TIMES FOR ALL INGRESS/EGRESS.
15. SITE ENTRY AND EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING AND FLOWING OF SEDIMENT AND DIRT ONTO OFF-SITE ROADWAYS. ALL SEDIMENT AND DIRT FROM THE SITE THAT IS DEPOSITED ONTO AN OFF-SITE ROADWAY SHALL BE REMOVED IMMEDIATELY.
16. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A RESULT OF THE CONSTRUCTION, AS REQUESTED BY OWNER AND CITY. AT A MINIMUM, THIS SHOULD OCCUR ONCE PER DAY FOR THE OFF-SITE ROADWAYS.
17. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP BMP.
18. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ON-SITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER TCEQ AND CITY STANDARDS. IF NO ENGINEERING DESIGN HAS BEEN PROVIDED FOR A SEDIMENTATION BASIN ON THESE PLANS, THEN THE CONTRACTOR SHALL ARRANGE FOR AN APPROPRIATE DESIGN TO BE PROVIDED.
19. ALL FINES IMPOSED FOR SEDIMENT OR DIRT DISCHARGED FROM THE SITE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR.
20. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION ENTRANCE VOID SPACES BETWEEN STONES OR DIRT IS BEING TRACKED ONTO A ROADWAY, THE AGGREGATE PAD MUST BE WASHED DOWN OR REPLACED. RUNOFF FROM THE WASH-DOWN OPERATION SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL SEDIMENTATION. PERIODIC RE-GRADING OR NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFECTIVENESS OF THE CONSTRUCTION ENTRANCE.
21. TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION SHALL BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE OF ANY AREA, UNLESS ADDITIONAL CONSTRUCTION IN THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.
22. CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING CONSTRUCTION, ALWAYS CLEANING UP DIRT, LOOSE MATERIAL, AND TRASH AS CONSTRUCTION PROGRESSES.
23. UPON COMPLETION OF FINE GRADING, ALL SURFACES OF DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. STABILIZATION IS ACHIEVED WHEN THE AREA IS EITHER COVERED BY PERMANENT IMPERVIOUS STRUCTURES, SUCH AS BUILDINGS, SIDEWALK, PAVEMENT, OR A UNIFORM PERENNIAL VEGETATIVE COVER.
24. AT THE CONCLUSION OF THE PROJECT, ALL INLETS, DRAIN PIPE, CHANNELS, DRAINAGEWAYS AND BORROW DITCHES AFFECTED BY THE CONSTRUCTION SHALL BE DREDGED, AND THE SEDIMENT GENERATED BY THE PROJECT SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH APPLICABLE REGULATIONS.

STORM WATER DISCHARGE AUTHORIZATION:

1. CONTRACTOR SHALL COMPLY WITH ALL TCEQ AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 150000.
3. THE CONTRACTOR SHALL ENSURE THAT ALL PRIMARY OPERATORS SUBMIT A NOI TO TCEQ AT LEAST SEVEN DAYS PRIOR TO COMMENCING CONSTRUCTION (IF APPLICABLE), OR IF UTILIZING ELECTRONIC SUBMITTAL, PRIOR TO COMMENCING CONSTRUCTION. ALL PRIMARY OPERATORS SHALL PROVIDE A COPY OF THE SIGNED NOI TO THE OPERATOR OF ANY MS4 (TYPICALLY THE CITY) RECEIVING DISCHARGE FROM THE SITE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE, INCLUDING POSTING SITE NOTICE, INSPECTIONS, DOCUMENTATION, AND SUBMISSION OF ANY INFORMATION REQUIRED BY THE TCEQ AND EPA (E.G. NOI).
5. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN THE REQUIRED CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP.
6. A COPY OF THE SWPPP, INCLUDING NOI, SITE NOTICE, CONTRACTOR CERTIFICATIONS, AND ANY REVISIONS, SHALL BE SUBMITTED TO THE CITY BY THE CONTRACTOR AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION.
7. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO TCEQ BY ANY PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTAINED ALTERNATIVE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.

DEMOLITION:

1. KH IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS PRELIMINARY DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE.
2. KH DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, OR THAT THE UTILITIES SHOWN CAN BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ITS OWN SITE RECONNAISSANCE TO SCOPE ITS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OF THEIR FACILITIES.
3. THIS PLAN IS INTENDED TO GIVE A GENERAL GUIDE TO THE CONTRACTOR, NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND IMPLEMENTING THE DEMOLITION PLAN:

a. ENVIRONMENTAL SITE ASSESSMENT PROVIDED BY THE OWNER,
b. ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER,
c. GEOTECHNICAL REPORT PROVIDED BY THE OWNER.
d. OTHER REPORTS THAT ARE APPLICABLE AND AVAILABLE.

5. CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN PREPARED AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO STARTING ANY WORK ON THE SITE.
6. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE REGULATIONS, RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY.
7. KH DOES NOT REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT WILL NEED TO BE DEMOLISHED AND REMOVED.
8. SURFACE PAVEMENT INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT, FOUNDATIONS OR WALLS, THAT ARE ALSO TO BE REMOVED.

GRADING:

1. THE CONTRACTOR AND GRADING SUBCONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL OBTAIN ANY REQUIRED GRADING PERMITS FROM THE CITY.
3. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREA REFLECT TOP OF PAVEMENT SURFACE. IN LOCATIONS ALONG A CURB LINE, ADD 6-INCHES (OR THE HEIGHT OF THE CURB) TO THE PAVING GRADE FOR TOP OF CURB ELEVATION.
4. PROPOSED SPOT ELEVATIONS AND CONTOURS OUTSIDE THE PAVEMENT ARE TO TOP OF FINISHED GRADE.
5. PROPOSED CONTOURS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN CASE OF DISCREPANCY.
6. ALL FINISHED GRADES SHALL TRANSITION UNIFORMLY BETWEEN THE FINISHED ELEVATIONS SHOWN.
7. CONTOURS AND SPOT GRADES SHOWN ARE ELEVATIONS OF TOP OF THE FINISHED SURFACE. WHEN PERFORMING THE GRADING OPERATIONS, THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE ELEVATION HOLD-DOWN ALLOWANCE FOR THE THICKNESS OF PAVEMENT, SIDEWALK, TOPSOIL, MULCH, STONE, LANDSCAPING, RIP-RAP AND ALL OTHER SURFACE MATERIALS THAT WILL CONTRIBUTE TO THE TOP OF FINISHED GRADE. FOR EXAMPLE, THE LIMITS OF EARTHWORK IN PAVED AREAS IS THE BOTTOM OF THE PAVEMENT SECTION.
8. NO REPRESENTATIONS OF EARTHWORK QUANTITIES OR SITE BALANCE ARE MADE BY THESE PLANS. THE CONTRACTOR SHALL PROVIDE THEIR OWN EARTHWORK CALCULATION TO DETERMINE THEIR CONTRACT QUANTITIES AND COST. ANY SIGNIFICANT VARIANCE FROM A BALANCED SITE SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER.
9. ALL GRADING AND EARTHWORK SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSEQUENT ADDENDA.
10. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED. UNUSABLE EXCAVATED MATERIAL AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE REMOVED FROM THE SITE AND APPROPRIATELY DISPOSED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE.
11. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF GRADING. REFERENCE EROSION CONTROL PLAN, DETAILS, GENERAL NOTES, AND SWPPP FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
12. BEFORE ANY EARTHWORK IS PERFORMED, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF THE PROJECT'S PROPERTY LINE AND SITE IMPROVEMENTS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
13. CONTRACTOR TO DISPOSE OF ALL EXCESS EXCAVATION MATERIALS IN A MANNER THAT ADHERES TO LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS. THE CONTRACTOR SHALL KEEP A RECORD OF WHERE EXCESS EXCAVATION WAS DISPOSED, ALONG WITH THE RECEIVING LANDOWNER'S APPROVAL TO DO SO.
14. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF TOPSOIL AT THE COMPLETION OF FINE GRADING. CONTRACTOR SHALL REFER TO LANDSCAPE ARCHITECTURE PLANS FOR SPECIFICATIONS AND REQUIREMENTS FOR TOPSOIL.
15. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
16. NO EARTHWORK FILL SHALL BE PLACED IN ANY EXISTING DRAINAGE WAY, SWALE, CHANNEL, DITCH, CREEK, OR FLOODPLAIN FOR ANY REASON OR ANY LENGTH OF TIME, UNLESS THESE PLANS SPECIFICALLY INDICATE THIS IS REQUIRED.
17. TEMPORARY CULVERTS MAY BE REQUIRED IN SOME LOCATIONS TO CONVEY RUN-OFF.
18. REFER TO DIMENSION CONTROL PLAN, AND PLAT FOR HORIZONTAL DIMENSIONS.
19. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND CONDITION FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
20. CONTRACTOR IS RESPONSIBLE FOR ALL SOILS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL SOILS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND SHALL COMPLY WITH CITY STANDARD SPECIFICATIONS AND THE GEOTECHNICAL REPORT. SOILS TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING SOILS. THE OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR SOILS TESTING.
21. ALL COPIES OF SOILS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING AGENCY.
22. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE SOILS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS.
23. THE SCOPE OF WORK FOR CIVIL IMPROVEMENT SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT AND STRUCTURAL PLANS AND SPECIFICATIONS FILL, CONDITIONING, AND PREPARATION IN THE BUILDING PAD.
24. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
25. CONTRACTOR SHALL ENSURE THAT SUFFICIENT POSITIVE SLOPE AWAY FROM THE BUILDING PAD IS ACHIEVED FOR ENTIRE PERIMETER OF THE PROPOSED BUILDING(S) DURING GRADING OPERATIONS AND IN THE FINAL CONDITION. IF THE CONTRACTOR OBSERVES THAT THIS WILL NOT BE ACHIEVED, THE CONTRACTOR SHALL CONTACT THE ENGINEER TO REVIEW THE LOCATION.
26. THE CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY SPRINKLING WATER, OR BY OTHER MEANS APPROVED BY THE CITY, AT NO ADDITIONAL COST TO THE OWNER.
27. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS NEEDED FOR GRADING OPERATIONS AND TO ACCOMMODATE PROPOSED GRADE, INCLUDING THE UNKNOWN UTILITIES NOT SHOWN ON THESE PLANS. CONTRACTOR SHALL REFER TO THE GENERAL NOTES "OVERALL" SECTION THESE PLANS FOR ADDITIONAL INFORMATION.
28. EXISTING TREE LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. CONTRACTOR SHALL REPORT ANY DISCREPANCIES FOUND IN THE FIELD THAT AFFECT THE GRADING PLAN TO THE CIVIL ENGINEER.
29. CONTRACTOR SHALL FIELD VERIFY ALL PROTECTED TREE LOCATIONS, INDIVIDUAL PROTECTED TREE CRITICAL ROOT ZONES, AND PROPOSED SITE GRADING, AND NOTIFY THE CIVIL ENGINEER AND LANDSCAPE ARCHITECT OF ANY CONFLICTS WITH THE TREE PRESERVATION PLAN BY THE LANDSCAPE ARCHITECT PRIOR TO COMMENCING THE WORK.
30. TREE PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY STANDARD TREE PROTECTION DETAILS AND THE APPROVED TREE PRESERVATION PLANS BY THE LANDSCAPE ARCHITECT.
31. CONTRACTOR SHALL REFER TO THE LANDSCAPING AND TREE PRESERVATIONS PLANS FOR ALL INFORMATION AND DETAILS REGARDING EXISTING TREES TO BE REMOVED AND PRESERVED.
32. NO TREE SHALL BE REMOVED UNLESS A TREE REMOVAL PERMIT HAS BEEN ISSUED BY THE CITY, OR CITY HAS OTHERWISE CONFIRMED IN WRITING THAT ONE IS NOT NEEDED FOR THE TREE(S).
33. NO TREE SHALL BE REMOVED OR DAMAGED WITHOUT PRIOR AUTHORIZATION OF THE OWNER OR OWNER'S REPRESENTATIVE. EXISTING TREES SHALL BE PRESERVED WHENEVER POSSIBLE AND GRADING IMPACT TO THEM HELD TO A MINIMUM.
34. AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING AND INADEQUATE SLOPE FOR DRAINAGE. ALL AREAS SHALL ADEQUATELY DRAIN TOWARDS THE INTENDED STRUCTURE TO CONVEY STORMWATER RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER IF ANY AREAS OF POOR DRAINAGE ARE DISCOVERED.
35. CONTRACTOR FIELD ADJUSTMENT OF PROPOSED SPOT GRADES IS ALLOWED, IF THE APPROVAL OF THE CIVIL ENGINEER IS OBTAINED.

RETAINING WALLS:

1. RETAINING WALLS SHOWN ARE FOR SITE GRADING PURPOSES ONLY, AND INCLUDE ONLY LOCATION AND SURFACE SPOT ELEVATIONS AT THE TOP AND BOTTOM OF THE WALL.
2. RETAINING WALL TYPE OR SYSTEM SHALL BE SELECTED BY THE OWNER.
3. RETAINING WALL DESIGN SHALL BE PROVIDED BY OTHERS AND SHALL FIT IN THE WALL ZONE OR LOCATION SHOWN ON THESE PLANS. STRUCTURAL DESIGN AND PERMITTING OF RETAINING WALLS, RAILINGS, AND OTHER WALL SAFETY DEVICES SHALL BE PERFORMED BY A LICENSED ENGINEER AND ARE NOT PART OF THIS PLAN SET.
4. RETAINING WALL DESIGN SHALL MEET THE INTENT OF THE GRADING PLAN AND SHALL ACCOUNT FOR ANY INFLUENCE ON ADJACENT BUILDING FOUNDATIONS, UTILITIES, PROPERTY LINES AND OTHER CONSTRUCTABILITY NOTES.
5. RETAINING WALL ENGINEER SHALL CONSULT THESE PLANS AND THE GEOTECHNICAL REPORT FOR POTENTIAL CONFLICTS.

PAVING:

1. ALL PAVING MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS, THE CITY STANDARD DETAILS AND SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THE CITY SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION/DETAIL SHALL BE FOLLOWED.
2. ALL PRIVATE ON-SITE PAVING AND PAVING SUBGRADE SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING ALL ADDENDA.
3. ALL FIRELANE PAVING AND PAVING SUBGRADE SHALL COMPLY WITH CITY STANDARDS AND DETAILS. IF THESE ARE DIFFERENT THAN THOSE IN THE GEOTECHNICAL REPORT, THEN THE MORE RESTRICTIVE SHALL BE FOLLOWED.
4. ALL PUBLIC PAVING AND PAVING SUBGRADE SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
5. CONTRACTOR IS RESPONSIBLE FOR ALL PAVING AND PAVING SUBGRADE TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL PAVING AND PAVING SUBGRADE TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR. TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING PAVING AND SUBGRADE. OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR PAVING AND PAVING SUBGRADE TESTING.
6. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE PAVING AND PAVING SUBGRADE, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS.
7. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
8. CURB RAMPS ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON THE CITY STANDARD CONSTRUCTION DETAIL AND SPECIFICATIONS.
9. PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA AND TAS STANDARDS AND SHALL HAVE A DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP, NOT INCLUDING FLARES.
10. ALL ACCESSIBLE RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA AND TAS STANDARDS, LATEST EDITION.
11. ANY COMPONENTS OF THE PROJECT SUBJECT TO RESIDENTIAL USE SHALL ALSO CONFORM TO THE FAIR HOUSING ACT, AND COMPLY WITH THE FAIR HOUSING ACT DESIGN MANUAL BY THE US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
12. CONTRACTOR SHALL CONSTRUCT PROPOSED PAVEMENT TO MATCH EXISTING PAVEMENT WITH A SMOOTH, FLUSH, CONNECTION.
13. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS. ALL PAINT AND PAVEMENT MARKINGS SHALL ADHERE TO CITY AND OWNER STANDARDS.
14. REFER TO GEOTECHNICAL REPORT FOR PAVING JOINT LAYOUT PLAN REQUIREMENTS FOR PRIVATE PAVEMENT.
15. REFER TO CITY STANDARD DETAILS AND SPECIFICATIONS FOR JOINT LAYOUT PLAN REQUIREMENTS FOR PUBLIC PAVEMENT.
16. ALL REINFORCING STEEL SHALL CONFORM TO THE GEOTECHNICAL REPORT, CITY STANDARDS, AND ASTM A-615, GRADE 60, AND SHALL BE SUPPORTED BY BAR CHAIRS. CONTRACTOR SHALL USE THE MORE STRINGENT OF THE CITY AND GEOTECHNICAL STANDARDS.
17. ALL JOINTS SHALL EXTEND THROUGH THE CURB.
18. THE MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS SHALL BE 2 FEET.
19. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE ENGINEER AND OWNER PRIOR TO BEGINNING ANY OF THE PAVING WORK.
20. ALL SAWCUTS SHALL BE FULL DEPTH FOR PAVEMENT REMOVAL AND CONNECTION TO EXISTING PAVEMENT.
21. FIRE LANES SHALL BE MARKED AND LABELED AS A FIRELANE PER CITY STANDARDS.
22. UNLESS THE PLANS SPECIFICALLY DICTATE TO THE CONTRARY, ON-SITE AND OTHER DIRECTIONAL SIGNS SHALL BE ORIENTED SO THEY ARE READILY VISIBLE TO THE ONCOMING TRAFFIC FOR WHICH THEY ARE INTENDED.
23. CONTRACTOR IS RESPONSIBLE FOR INSTALLING NECESSARY CONDUIT FOR LIGHTING, IRRIGATION, ETC. PRIOR TO PLACEMENT OF PAVEMENT. ALL CONSTRUCTION DOCUMENTS (CIVIL, MEP, LANDSCAPE, IRRIGATION, AND ARCHITECT) SHALL BE CONSULTED.
24. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA, TAS, AND FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
25. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA/TAS SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA AND TAS SLOPE COMPLIANCE ISSUES.

STORM DRAINAGE:

1. ALL STORM SEWER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
2. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER.
3. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING STORM SEWER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY STORM SEWER, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
4. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF CURB INLETS AND GRATE INLETS AND ALL UTILITIES CROSSING THE STORM SEWER.
5. FLOW LINE, TOP-OF-CURB, RIM, THROAT, AND GRATE ELEVATIONS OF PROPOSED INLETS SHALL BE VERIFIED WITH THE GRADING PLAN AND FIELD CONDITIONS PRIOR TO THEIR INSTALLATION.
6. ALL PUBLIC STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
7. ALL PRIVATE STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
8. ALL PVC TO RCP CONNECTIONS AND ALL STORM PIPE CONNECTIONS ENTERING STRUCTURES OR OTHER STORM PIPES SHALL HAVE A CONCRETE COLLAR AND BE GROUTED TO ASSURE THE CONNECTION IS WATERTIGHT.
9. ALL PUBLIC STORM SEWER LINES SHALL BE MINIMUM CLASS III RCP. PRIVATE STORM SEWER LINES 18-INCHES AND GREATER SHALL BE CLASS III RCP OR OTHER APPROVED MATERIAL.
10. WHERE COVER EXCEEDS 20-FEET OR IS LESS THAN 2-FEET, CLASS IV RCP SHALL BE USED.
11. IF CONTRACTOR PROPOSES TO USE HDPE OR PVC IN LIEU OF RCP FOR PRIVATE STORM SEWER, CONTRACTOR SHALL SUBMIT TECHNICAL DATA TO THE OWNER, ENGINEER AND CITY ENGINEER/INSPECTOR FOR APPROVAL PRIOR TO ORDERING THE MATERIAL. ANY PROPOSED HDPE AND PVC SHALL BE WATERTIGHT.
12. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL STORM SEWER LINES.
13. EMBEDMENT FOR ALL STORM SEWER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
14. ALL WYE CONNECTIONS AND PIPE BENDS ARE TO BE PREFABRICATED AND INSTALLED PER MANUFACTURERS SPECIFICATIONS.
15. USE 4 FOOT JOINTS WITH BEVELED ENDS IF RADIUS OF STORM SEWER IS LESS THAN 100 FEET.
16. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
17. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.

POND NOTES:

1. ANY PONDS THAT ARE INTENDED TO HOLD WATER INDEFINITELY SHALL BE CONSTRUCTED WATERTIGHT.
2. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR POND LINER SPECIFICATIONS.
3. A GEOTECHNICAL ENGINEER SHALL REVIEW AND APPROVE ALL POND LINER MATERIAL, PLACEMENT PROCEDURES, AND PROVIDE TESTING TO ENSURE THE POND LINER MATERIAL PLACED IS WATERTIGHT.
4. STORM SEWER PIPES AND HEADWALLS THAT CONNECT TO A POND INTENDED TO HOLD WATER INDEFINITELY SHALL BE INSTALLED WITH WATERTIGHT JOINTS TO AT LEAST 1-FOOT ABOVE THE NORMAL POOL WATER SURFACE ELEVATION.
5. ANY GRAVEL OR OTHER PERVIOUS EMBEDMENT AROUND PIPES OR OUTFALL STRUCTURES NEAR THE POND SHALL BE ELIMINATED FOR AT LEAST 20-FEET FROM THE POND SO NO ROUTE FOR WATER TO LEAK THROUGH THE EMBEDMENT MATERIAL IS PROVIDED. BACKFILL IN THESE AREAS SHALL BE OF IMPERVIOUS MATERIAL.
6. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE WATER LEVEL FOLLOWING COMPLETION AND FILLING OF THE POND SHALL BE MONITORED BY THE CONTRACTOR FOR AT LEAST 60 DAYS TO OBSERVE WATER INFLOW, OUTFLOW, AND CALCULATE EVAPORATION TO VERIFY THAT THE POND IS WATERTIGHT.
7. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE POND WATER LEVEL SHALL ALSO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION SO THAT IT REMAINS FULL TO ITS DESIGN WATER LEVEL, AND IS NOT LOWERED, AS THIS MAY DRY-OUT THE POND LINER AND RISK ITS WATERTIGHT PROPERTIES.

WATER AND WASTEWATER:

1. ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
2. CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
3. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY SERVICES ENTERING THE BUILDING.
4. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
5. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
6. ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
7. ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
8. FIRE SPRINKLER LINES SHALL BE DESIGNED AND INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR, AND COMPLY TO THE APPLICABLE CODES AND INSPECTIONS REQUIRED. THESE PLANS WERE PREPARED WITHOUT THE BENEFIT OF THE FIRE SPRINKLER DESIGN. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES.
9. EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
10. CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, TCEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
11. CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
12. ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
13. CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
14. CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
15. CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
16. THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
17. VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
18. THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
19. ALL FIRE HYDRANTS, VALVES, TEES, BENDS, WYES, REDUCERS, FITTINGS, AND ENDS SHALL BE MECHANICALLY RESTRAINED AND/OR THRUST BLOCKED TO CITY STANDARDS.
20. CONTRACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 9-FEET FROM THE CROSSING.
21. ALL CROSSINGS AND LOCATIONS WHERE WASTEWATER IS LESS THAN 9-FEET FROM WATER, WASTEWATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH TCEQ CHAPTER 217.53.
22. ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH TCEQ CHAPTER 290.44.
23. ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND TCEQ STANDARDS AND SPECIFICATIONS. AT A MINIMUM, THIS SHALL CONSIST OF THE FOLLOWING:

a. ALL WATERLINES SHALL BE HYDROSTATICALLY TESTED AND CHLORINATED BEFORE BEING PLACED INTO SERVICE. CONTRACTOR SHALL COORDINATE WITH THE CITY FOR THEIR REQUIRED PROCEDURES AND SHALL ALSO COMPLY WITH TCEQ REGULATIONS.
b. WASTEWATER LINES AND MANHOLES SHALL BE PRESSURE TESTED. CONTRACTOR SHALL COORDINATE WITH THE CITY FOR THEIR REQUIRED PROCEDURES AND SHALL ALSO COMPLY WITH TCEQ REGULATIONS. AFTER COMPLETION OF THESE TESTS, A TELEVISION INSPECTION SHALL BE PERFORMED AND PROVIDED TO THE CITY AND OWNER ON A DVD.

24. CONTRACTOR SHALL INSTALL DETECTABLE WIRING OR MARKING TAPE A MINIMUM OF 12" ABOVE WATER AND WASTEWATER LINES. MARKER DECALS SHALL BE LABELED "CAUTION - WATER LINE", OR "CAUTION - SEWER LINE". DETECTABLE WIRING AND MARKING TAPE SHALL COMPLY WITH CITY STANDARDS, AND SHALL BE INCLUDED IN THE COST OF THE WATER AND WASTEWATER PIPE.
25. DUCTILE IRON PIPE SHALL BE PROTECTED FROM CORROSION BY A LOW-DENSITY POLYETHYLENE LINER WRAP THAT IS AT LEAST A SINGLE LAYER OF 8-MIL. ALL DUCTILE IRON JOINTS SHALL BE BONDED.
26. WATERLINES SHALL BE INSTALLED AT NO LESS THAN THE MINIMUM COVER REQUIRED BY THE CITY.
27. CONTRACTOR SHALL PROVIDE CLEAN-OUTS FOR PRIVATE SANITARY SEWER LINES AT ALL CHANGES IN DIRECTION AND 100-FOOT INTERVALS, OR AS REQUIRED BY THE APPLICABLE PLUMBING CODE. CLEAN-OUTS REQUIRED IN PAVEMENT OR SIDEWALKS SHALL HAVE CAST IRON COVERS FLUSH WITH FINISHED GRADE.
28. CONTRACTOR SHALL PROVIDE BACKWATER VALVES FOR PLUMBING FIXTURES AS REQUIRED BY THE APPLICABLE PLUMBING CODE (E.G. FLOOR ELEVATION OF FIXTURE UNIT IS BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER). CONTRACTOR SHALL REVIEW BOTH MEP AND CIVIL PLANS TO CONFIRM WHERE THESE ARE REQUIRED.
29. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
30. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.

ABBREVIATIONS AND DEFINITIONS:

A	AREA
ADA	AMERICANS WITH DISABILITIES ACT
AWWA	AMERICAN WATER WORKS ASSOCIATION
B-B	BACK TO BACK
BC	BEGIN CURVE
BC	BACK OF CURB
BCR	BEGIN CURB RETURN
BMP	BEST MANAGEMENT PRACTICE
BOC	BACK OF CURB
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
BW	BOTTOM OF WALL
CFS	CUBIC FEET PER SECOND
CITY	CITY, TOWN, OR OTHER APPLICABLE LOCAL GOVERNMENT JURISDICTION
C/L	CENTERLINE
CL	CENTERLINE
CONC	CONCRETE
CY	CUBIC YARD
DEMO	DEMOLITION
DG	DECOMPOSED GRANITE
DTL	DETAIL
EA	EACH
EC	END CURVE
ECR	END CURB RETURN
EG	EXISTING GROUND
EL	ELEVATION
ELEC	ELECTRICAL / ELECTRICITY
ELEV	ELEVATION
EPA	UNITES STATES ENVIRONMENTAL PROTECTION AGENCY
ESMT	EASEMENT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EX.	EXISTING
F-F	FACE TO FACE
FG	FINISHED GROUND
FH	FIRE HYDRANT
FL	FLOW LINE
FOC	FACE OF CURB
FT	FEET
HGL	HYDRAULIC GRADE LINE
KH	KIMLEY-HORN AND ASSOCIATES, INC.
KHA	KIMLEY-HORN AND ASSOCIATES, INC.
LAT	LATERAL
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
ME	MATCH EXISTING ELEVATION
MH	MANHOLE
MIN	MINUTE / MINIMUM
NO	NUMBER
NOI	NOTICE OF INTENT, REF. TCEQ GENERAL PERMIT
NOT	NOTICE OF TERMINATION, REF. TCEQ GENERAL PERMIT
NTS	NOT TO SCALE
OC	ON CENTER
OFF	OFFSET
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PC	POINT OF CURVATURE
PCC	PORTLAND CEMENT CONCRETE / POINT OF COMPOUND CURVATURE
PGL	PROPOSED GRADE LINE
PI	POINT OF INFLECTION
PROP	PROPOSED
PRC	POINT OF REVERSE CURVATURE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INFLECTION
PVMT	PAVEMENT
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RT	RIGHT
SF	SQUARE FEET
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SY	SQUARE YARD
TAS	ARCHITECTURAL BARRIERS TEXAS ACCESSIBILITY STANDARDS
TC	TOP OF CURB
TCEQ	TEXAS COMMISSION OF ENVIRONMENTAL QUALITY
TEMP	TEMPORARY
TXDOT	TEXAS DEPARTMENT OF TRANSPORTATION
TXMUTCD	TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
TW	TOP OF WALL
TYP	TYPICAL
VC	VERTICAL CURVE
WTR	WATER
WW	WASTEWATER

THESE PLAN AND GENERAL NOTES REFER TO:
GEOTECHNICAL ENGINEERING REPORT
RABA KISTNER
AAA21-116-00 , AAA21-115-00
11/16/2021
INCLUDING ALL REVISIONS AND ADDENDA TO THIS REPORT THAT MAY HAVE BEEN RELEASED AFTER THE NOTED DATE.

SITE PLAN APPROVAL SHEET 2 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON ______________ UNDER SECTION **112** OF
CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) _________ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A) _________ DWPZ ______ DDZ ______

____
Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: ____________ ZONING **MF-2, MF-2 CO**
Rev. 1 __________________ Correction 1 __________________
Rev. 2 __________________ Correction 2 __________________
Rev. 3 __________________ Correction 3 __________________

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

811
Know what's **below.**
Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

KIMLEY-HORN GENERAL NOTES

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
2 OF 48

SP-2024-0063C

GENERAL NOTES

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

2. THE CONTRACTOR IS TO CONTACT ONE OF THE FOLLOWING:

NATIONAL "CALL BEFORE YOU DIG"	811
TEXAS EXCAVATION SAFETY SYSTEM (TESS)	1-800-344-8377
TEXAS ONE CALL SYSTEM (TOCS)	1-800-245-4545
LONE STAR NOTIFICATION CENTER	1-800-669-8344

FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.

3. CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION (DPWT) AT (512) 974-7161 AT LEAST 24 HOURS PRIOR TO INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET R.O.W. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S R.O.W. MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.

4. FOR SLOPES OR TRENCHES GREATER THAN FIVE (5) FEET IN DEPTH, ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN, TEXAS.)

5. ALL SITE WORK SHALL COMPLY WITH ENVIRONMENTAL REQUIREMENTS SET FORTH IN THE CITY OF AUSTIN LAND DEVELOPMENT CODE AND ENVIRONMENTAL CRITERIA MANUAL.

6. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO RELEASE OF THE CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION RELEASE BY THE CITY, THE DESIGN ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS.

7. DEVELOPER INFORMATION
DEVELOPER: MARIELLE DEVELOPMENT GROUP, LLC
ADDRESS: 104 TEXAS ASH COVE
MANCHACA, TX 78652

A. OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
KIMLEY-HORN AND ASSOCIATES, INC.
10814 JOLLYVILLE RD, AVALLON IV, SUITE 200
AUSTIN, TX 78759
PHONE NO: 512-684-3232
CONTACT: KELLY BEST, P.E.

B. PERSON OR FIRM RESPONSIBLE FOR EROSION / SEDIMENTATION CONTROL MAINTENANCE:
DEVELOPER: MARIELLE DEVELOPMENT GROUP, LLC
ADDRESS: 104 TEXAS ASH COVE
MANCHACA, TX 78652
PHONE NO: (XXX) XXX-XXXX
CONTACT: MICHAEL VALENZUELA

D. PERSON OR FIRM RESPONSIBLE FOR TREE / NATURAL AREA CONTROL MAINTENANCE:
DEVELOPER: MARIELLE DEVELOPMENT GROUP, LLC
ADDRESS: 104 TEXAS ASH COVE
MANCHACA, TX 78652
PHONE NO: (XXX) XXX-XXXX
CONTACT: MICHAEL VALENZUELA

8. ALL CONSTRUCTION SHALL COMPLY WITH THE "CITY OF AUSTIN STANDARD SPECIFICATIONS," AS AMENDED BY SPECIAL PROVISION, CURRENT AT THE TIME OF BIDDING.

9. CONTRACTOR TO TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF THESE CONSTRUCTION OPERATIONS TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR, AT NO ADDITIONAL COST TO OWNER.

10. CONTRACTOR TO GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION PERMITS THAT CAN ONLY BE ISSUED TO THE CONTRACTOR HAVE BEEN OBTAINED BY THE CONTRACTOR AT ITS EXPENSE PRIOR TO COMMENCEMENT OF WORK.

11. CONTRACTOR TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING AND DISPOSAL.

12. CONTRACTOR TO COORDINATE INTERRUPTIONS OF ALL UTILITIES AND SERVICES. ALL WORK TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY COMPANY OR AGENCY INVOLVED.

13. LOCATION OF EXISTING UTILITIES SHOWN ON PLANS WAS COMPILED FROM RECORD INFORMATION. NO WARRANTY IS IMPLIED AS TO THE ACTUAL LOCATION OF EXISTING UTILITIES.

14. WHEN UNLOCATED OR INCORRECTLY LOCATED UNDERGROUND PIPING, OR A BREAK LOCATED IN THE LINE, OR OTHER UTILITIES AND SERVICES ARE ENCOUNTERED DURING SITE WORK OPERATIONS, NOTIFY THE APPLICABLE UTILITY COMPANY IMMEDIATELY TO OBTAIN PROCEDURE DIRECTIONS. COOPERATE WITH THE APPLICABLE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.

15. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS, AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO OWNER.

16. CONTRACTOR TO CONTROL DUST CAUSED BY THE WORK AND COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES. (NO SEPARATE PAY.)

17. THROUGHOUT THE CONSTRUCTION, AND AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR TO ENSURE THAT DRAINAGE OF STORM WATER RUNOFF IS NOT BLOCKED.

18. THESE PLANS, PREPARED BY KIMLEY-HORN AND ASSOCIATES, INC., DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF KIMLEY-HORN AND ASSOCIATES, INC. REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR TO PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY HOUSE BILLS 662 AND 665 ENACTED BY THE TEXAS LEGISLATURE IN THE 70TH LEGISLATURE - REGULAR SESSION.

19. TRAFFIC CONTROLS TO BE CONTRACTOR'S RESPONSIBILITY AND INSTALLED IN ACCORDANCE WITH THE "CITY OF AUSTIN MANUAL OF UNIFORM CONSTRUCTION BARRICADING STANDARDS," OCTOBER 1986. ADDITIONALLY, THE CONTRACTOR IS TO SCHEDULE THE WORK AND TRAFFIC CONTROLS TO ACHIEVE THE FOLLOWING TRAFFIC GUIDELINES:

PARKING LOTS:
MINIMUM OF ONE ACCESS POINT TO PARKING LOTS TO REMAIN OPEN AT ALL TIMES.

20. CONTRACTOR TO EXERCISE CAUTION DURING CONSTRUCTION NEAR AND AROUND GAS LINES. NOTIFY GAS COMPANY 24 HOURS PRIOR TO CONSTRUCTION.

21. NO BLASTING WITHIN 15 FEET OF EXISTING UTILITIES OR STRUCTURES. IF BLASTING IS TO BE USED BY THE CONTRACTOR, A BLASTING PERMIT MUST BE SECURED PRIOR TO COMMENCEMENT OF WORK. BLASTING TO BE IN ACCORDANCE WITH "CITY OF AUSTIN STANDARD SPECIFICATIONS" AND CRITERIA OF THE NATIONAL FIRE PROTECTION ASSOCIATION.

22. BURNING IS NOT ALLOWED ON THIS PROJECT.

23. CONTRACTOR TO INSTALL 1/2-INCH-DIAMETER BY 12-INCH-LONG REBAR VERTICALLY, WITH TWO (2) FEET OF SURVEYOR'S RIBBON ATTACHED, AT END OF ALL PIPE STUBS. TOP OF BAR TO BE NOT LESS THAN 12 INCHES BELOW THE FINISHED GRADE.
A. BLUE RIBBON- WATER LINE
B. GREEN RIBBON- WASTEWATER LINE
C. YELLOW RIBBON- GAS LINE
D. ORANGE RIBBON- TELECOM DUCT BANK
E. RED RIBBON- ELECTRICAL DUCT BANK

24. MAKE CONNECTION BETWEEN NEW AND EXISTING ASPHALT STREETS BY REMOVING EXISTING STREET FROM END BACK, UNTIL FULL DEPTH BASE AND HMAC ARE ENCOUNTERED AND HMAC APPEARS TO BE IN SOUND CONDITION. PROVIDE EXPANSION JOINT AND DOWELS WHERE CONNECTING EXISTING CURB TO NEW.

25. A CURB LAY DOWN IS REQUIRED AT ALL POINTS WHERE THE PROPOSED SIDEWALK INTERSECTS THE CURB.

26. UNLESS OCCURRING AT AN EXPANSION JOINT, MAKE CONNECTION BETWEEN NEW AND EXISTING SIDEWALK BY EXPOSING AND CLEANING A ONE-FOOT LENGTH OF WELDED WIRE REINFORCEMENT AND LAPPING NEW REINFORCEMENT ONTO THIS LENGTH.

27. CONCRETE FOR SITE WORK, OTHER THAN CONCRETE PAVEMENT AND STRUCTURES, TO BE CLASS "A" (5 SACK, 3,500 PSI @ 28-DAYS) AND ALL REINFORCING STEEL TO BE ASTM A615 60, UNLESS OTHERWISE NOTED. REFER TO GEOTECHNICAL REPORT AND ARCHITECTURAL DRAWINGS FOR PAVEMENT STRUCTURAL SPECIFICATIONS.

GENERAL NOTES (CONTINUED)

28. TREE SURVEY, CONTOURS, AND BENCHMARK INFORMATION SUPPLIED BY OTHERS. ACTUAL LOCATION OF TREES AND ELEVATION OF NATURAL GROUND ON THE PROJECT SITE MAY VARY FROM WHAT IS DEPICTED ON THE PLAN SHEETS. KIMLEY-HORN AND ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION REGARDING SURVEYS OR BENCHMARK LOCATIONS. BENCHMARKS ARE AS FOLLOWS:

TBM #1 - SQUARE CUT ON TOP OF CONCRETE CURB AT THE MIDDLE OF THE NOSE ON THE EAST END OF THE MEDIAN OF THE INTERSECTION OF I-35 FRONTAGE ROAD AND AVENIDA MERCADO STREET, ±12' SOUTHEAST FROM A LIGHT POLE, AND ±33' NORTHEAST FROM A YIELD SIGN.
ELEVATION = 745.46'

TBM #2 - SQUARE CUT ON TOP OF CONCRETE CURB AT THE MIDDLE OF THE NOSE ON THE NORTH END OF THE MEDIAN ON ESTANCIA PARKWAY, ±13 FEET NORTHWEST FROM A STORM MANHOLE IN ESTANCIA PARKWAY. AND ±64' NORTHEAST FROM A LIGHT POLE IN THE MEDIAN.
ELEVATION = 727.40'

29. DEMOLITION PERMITS (IF NEEDED) ARE TO BE OBTAINED BY THE CONTRACTOR AT THEIR EXPENSE.

30. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL INVESTIGATION REPORT FOR THIS SITE FOR SUBSURFACE INFORMATION REGARDING THIS PROJECT. AT ITS EXPENSE THE CONTRACTOR IS ENCOURAGED TO MAKE ADDITIONAL SUBSURFACE INVESTIGATIONS.

31. CONTRACTOR TO FIELD VERIFY LOCATION AND FLOWLINES OF EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED UTILITY. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

32. PUMPING OF STORMWATER FROM EXCAVATIONS IS PROHIBITED UNLESS THE STORMWATER IS DISCHARGED TO ENCOURAGE SHEET/OVERLAND FLOW. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED, AT NO ADDITIONAL COST TO THE OWNER.

33. UNLESS OTHERWISE NOTED, STORM SEWERS TO BE:
6"-15" SDR 35 PVC, 18" AND GREATER RCP ASTM-C76 CLASS III.

34. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS ONE SQUARE FOOT IN TOTAL AREA, BLOWS AIR FROM WITHIN THE SUBSTRATE, AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A CITY OF AUSTIN ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.

35. CONTRACTOR SHALL CALL THE ONE CALL CENTER (472-2822) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.

36. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION OF THE CITY'S ONE STOP SHOP (OSS) AT 974-6360 OR 974-7034 AT LEAST 24 HOURS PRIOR TO THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET R.O.W.THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S R.O.W. MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.

37. FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH, A NOTE MUST BE ADDED STATING: "ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION." (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN TEXAS.)

38. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.

39. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO THE FOLLOWING, THE ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE, FILTRATION AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS.:RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE DEVELOPMENT SERVICES DEPARTMENT (INSIDE THE CITY LIMITS); OR INSTALLATION OF AN ELECTRIC OR WATER METER (IN THE FIVE-MILE ETJ)

AMERICANS WITH DISABILITIES ACT

THE CITY OF AUSTIN HAS REVIEWED THIS PLAN FOR COMPLIANCE WITH CITY DEVELOPMENT REGULATIONS ONLY. THE APPLICANT, PROPERTY OWNER, AND OCCUPANT OF THE PREMISES ARE RESPONSIBLE FOR DETERMINING WHETHER THE PLAN COMPLIES WITH ALL OTHER LAWS, REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE.

RELEASE NOTES

1. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE A SITE PLAN AMENDMENT AND APPROVAL FROM THE DEVELOPMENT SERVICES DEPARTMENT.

2. THE OWNER IS RESPONSIBLE FOR ALL COST OF RELOCATION, OR DAMAGE TO, UTILITIES.

3. ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.

FIRE DEPARTMENT NOTES

1. THE AUSTIN FIRE DEPARTMENT REQUIRES FINAL ASPHALT OR CONCRETE PAVEMENT ON REQUIRED ACCESS ROADS PRIOR TO THE START OF COMBUSTIBLE CONSTRUCTION. ANY OTHER METHOD OF PROVIDING "ALL-WEATHER DRIVING CAPABILITIES" SHALL BE REQUIRED TO BE DOCUMENTED AND APPROVED AS AN ALTERNATE METHOD OF CONSTRUCTION IN ACCORDANCE WITH THE APPLICABLE RULES FOR TEMPORARY ROADS OUTLINED IN THE CITY OF AUSTIN FIRE PROTECTION CRITERIA MANUAL.

2. FIRE HYDRANTS SHALL BE INSTALLED WITH THE CENTER OF THE FOUR (4) INCH OPENING (STEAMER) LOCATED AT LEAST 18 INCHES ABOVE FINISHED GRADE. THE STEAMER OPENING OF FIRE HYDRANTS SHALL FACE THE APPROVED FIRE ACCESS DRIVEWAY OR PUBLIC STREET AND SET BACK FROM THE CURB LINE(S) AN APPROVED DISTANCE, TYPICALLY THREE (3) TO SIX (6) FEET. THE AREA WITHIN THREE (3) FEET IN ALL DIRECTIONS FROM ANY FIRE HYDRANT SHALL BE FREE OF OBSTRUCTIONS, AND THE AREA BETWEEN THE STEAMER OPENING AND THE STREET OR DRIVEWAY GIVING EMERGENCY VEHICLE ACCESS SHALL BE FREE OF OBSTRUCTIONS.

3. TIMING OF INSTALLATIONS: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE CONTRACTOR, SUCH FACILITIES SHALL INCLUDE SURFACE ACCESS ROADS. EMERGENCY ACCESS ROADS OR DRIVES SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. WHEN THE FIRE DEPARTMENT APPROVES AN ALTERNATE METHOD OF PROTECTION, THIS REQUIREMENT MAY BE MODIFIED AS DOCUMENTED IN THE APPROVAL OF THE ALTERNATE METHOD.

4. ALL EMERGENCY ACCESS ROADWAYS AND FIRE LANES, INCLUDING PERVIOUS/DECORATIVE PAVING, SHALL BE ENGINEERED AND INSTALLED AS REQUIRED TO SUPPORT THE AXLE LOADS OF EMERGENCY VEHICLES. A LOAD CAPACITY SUFFICIENT TO MEET THE REQUIREMENTS FOR HS-20 LOADING (16 KIPS/WHEEL) AND A TOTAL VEHICLE LIVE LOAD OF 80,000 POUNDS IS CONSIDERED COMPLIANT WITH THIS REQUIREMENT. ANY PERVIOUS/DECORATIVE PAVING WITHIN 100 FEET OF ANY BUILDING MUST BE APPROVED BY THE FIRE DEPARTMENT.

5. FIRE LANES DESIGNATED ON SITE PLANS SHALL BE REGISTERED WITH THE CITY OF AUSTIN FIRE DEPARTMENT AND INSPECTED FOR FINAL APPROVAL.

6. THE MINIMUM VERTICAL CLEARANCE REQUIRED FOR EMERGENCY VEHICLE ACCESS ROADS OR DRIVES IS 14 FEET FOR THE FULL WIDTH OF THE ROADWAY OR DRIVEWAY.

7. COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN TEN FEET OF OPENINGS, COMBUSTIBLE WALLS, OR COMBUSTIBLE EAVE LINES.

ENVIRONMENTAL NOTES:

SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D). PRIOR TO EXCAVATION WITHIN TREE DRIPLINES OR THE REMOVAL OF TREES ADJACENT TO OTHER TREES THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE. IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURING CONSTRUCTION WITH FENCING AND WHERE HEAVY VEHICULAR TRAFFIC IS ANTICIPATED, COVER THOSE AREAS WITH A MINIMUM OF 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION. IN AREAS WITH HIGH SOIL PLASTICITY GEOTEXTILE FABRIC, PER STANDARD SPECIFICATION 620S, SHOULD BE PLACED UNDER THE MULCH TO PREVENT EXCESSIVE MIXING OF THE SOIL AND MULCH. ADDITIONALLY, MATERIAL SUCH AS PLYWOOD AND METAL SHEETS, COULD BE REQUIRED BY THE CITY ARBORIST TO MINIMIZE ROOT IMPACTS FROM HEAVY EQUIPMENT. ONCE THE PROJECT IS COMPLETED, ALL MATERIALS SHOULD BE REMOVED, AND THE MULCH SHOULD BE REDUCED TO A DEPTH OF 3 INCHES. PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. SPRAY TREE CROWNS WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES. WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE SOIL.

RELEASE NOTES

1. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE A SITE PLAN AMENDMENT AND APPROVAL FROM THE DEVELOPMENT SERVICES DEPARTMENT.

2. APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING CODE AND FIRE CODE APPROVAL NOR BUILDING PERMIT APPROVAL. A CITY DEMOLITION OR RELOCATION PERMIT CAN ONLY BE ISSUED ONCE THE HISTORIC REVIEW PROCESS IS COMPLETED.

3. ALL SIGNS MUST COMPLY WITH THE REQUIREMENTS OF THE SIGN AND LAND DEVELOPMENT CODE.

4. THE OWNER IS RESPONSIBLE FOR ALL COST OF RELOCATION, OR DAMAGE TO, UTILITIES.

5. ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.

6. A DEVELOPMENT PERMIT MUST BE ISSUED PRIOR TO AN APPLICATION FOR BUILDING PERMIT FOR NON-CONSOLIDATED OR PLANNING COMMISSION APPROVED SITE PLANS.

7. WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN.

8. ALL EXISTING STRUCTURES SHOWN TO BE REMOVED WILL REQUIRE A DEMOLITION PERMIT FROM THE CITY OF AUSTIN DEVELOPMENT SERVICES DEPARTMENT.

9. FOR DRIVEWAY CONSTRUCTION: THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS FOR RELOCATION OF, OR DAMAGE TO UTILITIES.

10. FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, A ROW EXCAVATION PERMIT IS REQUIRED.

TREE PROTECTION NOTES

1. ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
2. PROTECTIVE FENCES SHALL BE ERECTED ACCORDING TO CITY OF AUSTIN STANDARDS FOR TREE PROTECTION.
3. PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING), AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
4. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIP LINES.
5. PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES, AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE) , FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:

A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;

B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL), OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY ARBORIST;

C. WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT;

D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.

6. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIP LINES MAY BE PERMITTED IN THE FOLLOWING CASES:

A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 TO 4 FEET BEYOND THE AREA DISTURBED;

B. WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIP LINE, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING SO THAT THIS AREA IS GRADED SEPARATELY PRIOR TO PAVING INSTALLATION TO MINIMIZED ROOT DAMAGE);

C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW 6 TO 10 FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING;

D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE CITY ARBORIST AT 512-974-1876 TO DISCUSS ALTERNATIVES.

SPECIAL NOTE: FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED.

7. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FT (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
8. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
9. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
10. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.).
13. ALL FINISHED PRUNING SHALL BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE CITY ARBORIST).
14. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NON-COMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

AUSTIN ENERGY NOTES

1. AUSTIN ENERGY HAS THE RIGHT TO PRUNE AND/OR REMOVE TREES, SHRUBBERY AND OTHER OBSTRUCTIONS TO THE EXTENT NECESSARY TO KEEP THE EASEMENTS CLEAR. AUSTIN ENERGY WILL PERFORM ALL TREE WORK IN COMPLIANCE WITH CHAPTER 25-8, SUBCHAPTER B OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
2. THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE AUSTIN ENERGY WITH ANY EASEMENT AND/OR ACCESS REQUIRED, IN ADDITION TO THOSE INDICATED, FOR THE INSTALLATION AND ONGOING MAINTENANCE OF OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES. THESE EASEMENTS AND/OR ACCESS ARE REQUIRED TO PROVIDE ELECTRIC SERVICE TO THE BUILDING AND WILL NOT BE LOCATED SO AS TO CAUSE THE SITE TO BE OUT OF COMPLIANCE WITH CHAPTER 25-8 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE
3. THE OWNER SHALL BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY EROSION CONTROL, REVEGETATION AND TREE PROTECTION. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR ANY INITIAL TREE PRUNING AND TREE REMOVAL THAT IS WITHIN TEN FEET OF THE CENTER LINE OF THE PROPOSED OVERHEAD ELECTRICAL FACILITIES DESIGNED TO PROVIDE ELECTRIC SERVICE TO THIS PROJECT. THE OWNER SHALL INCLUDE AUSTIN ENERGY'S WORK WITHIN THE LIMITS OF CONSTRUCTION FOR THIS PROJECT
4. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATION, CITY OF AUSTIN RULES AND REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT. AUSTIN ENERGY WILL NOT RENDER ELECTRIC SERVICE UNLESS REQUIRED CLEARANCES ARE MAINTAINED. ALL COSTS INCURRED BECAUSE OF FAILURE TO COMPLY WITH THE REQUIRED CLEARANCES WILL BE CHARGED TO THE OWNER.
5. ANY RELOCATION OF ELECTRIC FACILITIES SHALL BE AT LANDOWNER'S/DEVELOPER'S EXPENSE.

APPENDIX P-1: - EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. THE COA ESC PLAN SHALL BE CONSULTED AND USED AS THE BASIS FOR A TPDES REQUIRED SWPPP. IF A SWPPP IS REQUIRED, IT SHALL BE AVAILABLE FOR REVIEW BY THE CITY OF AUSTIN ENVIRONMENTAL INSPECTOR AT ALL TIMES DURING CONSTRUCTION, INCLUDING AT THE PRE-CONSTRUCTION MEETING. THE CHECKLIST BELOW CONTAINS THE BASIC ELEMENTS THAT SHALL BE REVIEWED FOR PERMIT APPROVAL BY COA EV PLAN REVIEWERS AS WELL AS COA EV INSPECTORS.
   - PLAN SHEETS SUBMITTED TO THE CITY OF AUSTIN MUST SHOW THE FOLLOWING:
     - •• DIRECTION OF FLOW DURING GRADING OPERATIONS.
     - •• LOCATION, DESCRIPTION, AND CALCULATIONS FOR OFF-SITE FLOW DIVERSION STRUCTURES.
     - •• AREAS THAT WILL NOT BE DISTURBED; NATURAL FEATURES TO BE PRESERVED.
     - •• DELINEATION OF CONTRIBUTING DRAINAGE AREA TO EACH PROPOSED BMP (E.G., SILT FENCE, SEDIMENT BASIN, ETC.)
     - •• LOCATION AND TYPE OF E&S BMPS FOR EACH PHASE OF DISTURBANCE.
     - •• CALCULATIONS FOR BMPS AS REQUIRED.
     - •• LOCATION AND DESCRIPTION OF TEMPORARY STABILIZATION MEASURES.
     - •• LOCATION OF ON-SITE SPOILS, DESCRIPTION OF HANDLING AND DISPOSAL OF BORROW MATERIALS, AND DESCRIPTION OF ON-SITE PERMANENT SPOILS DISPOSAL AREAS, INCLUDING SIZE, DEPTH OF FILL AND REVEGETATION PROCEDURES.
     - •• DESCRIBE SEQUENCE OF CONSTRUCTION AS IT PERTAINS TO ESC INCLUDING THE FOLLOWING ELEMENTS:
       - ••• INSTALLATION SEQUENCE OF CONTROLS (E.G. PERIMETER CONTROLS, THEN SEDIMENT BASINS, THEN TEMPORARY STABILIZATION, THEN PERMANENT, ETC)
       - ••• PROJECT PHASING IF REQUIRED (LOC GREATER THAN 25 ACRES)
       - ••• SEQUENCE OF GRADING OPERATIONS AND NOTATION OF TEMPORARY STABILIZATION MEASURES TO BE USED
       - ••• SCHEDULE FOR CONVERTING TEMPORARY BASINS TO PERMANENT WQ CONTROLS
       - ••• SCHEDULE FOR REMOVAL OF TEMPORARY CONTROLS
       - ••• ANTICIPATED MAINTENANCE SCHEDULE FOR TEMPORARY CONTROLS
   - CATEGORIZE EACH BMP UNDER ONE OF THE FOLLOWING AREAS OF BMP ACTIVITY AS DESCRIBED BELOW:
     - •• MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL
     - •• CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT
     - •• STABILIZE SOILS
     - •• PROTECT SLOPES
     - •• PROTECT STORM DRAIN INLETS
     - •• ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS
     - •• RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES
     - •• ESTABLISH STABILIZED CONSTRUCTION EXITS
     - •• ANY ADDITIONAL BMPS
   - NOTE THE LOCATION OF EACH BMP ON YOUR SITE MAP(S).
   - FOR ANY STRUCTURAL BMPS, YOU SHOULD PROVIDE DESIGN SPECIFICATIONS AND DETAILS AND REFER TO THEM.
   - FOR MORE INFORMATION, SEE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL 1.4.
3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
4. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY THE DEVELOPMENT SERVICES DEPARTMENT, 974-2278, AT LEAST THREE DAYS PRIOR TO THE MEETING DATE. COA APPROVED ESC PLAN AND TPDES SWPPP (IF REQUIRED) SHOULD BE REVIEWED BY COA EV INSPECTOR AT THIS TIME.
5. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST OR CITY ABORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY THE DEVELOPMENT SERVICES DEPARTMENT. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
6. THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR WITH EITHER A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), CERTIFIED EROSION, SEDIMENT AND STORMWATER-INSPECTOR (CESSWI) OR CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CISEC) CERTIFICATION TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
7. PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A CITY OF AUSTIN ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.
9. TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.
   - ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL [SEE STANDARD SPECIFICATION ITEM NO. 601S.3(A)]. DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.
     - •• TOPSOIL SALVAGED FROM THE EXISTING SITE IS ENCOURAGED FOR USE, BUT IT SHOULD MEET THE STANDARDS SET FORTH IN 601S.
   - AN OWNER/ENGINEER MAY PROPOSE USE OF ONSITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE CRITERIA OF STANDARD SPECIFICATION 601S BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A QUALIFIED PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY INDICATING THE ONSITE TOPSOIL WILL PROVIDE AN EQUIVALENT GROWTH MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.
     - •• SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ONSITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATERIAL.

     TOPSOIL SALVAGED FROM THE EXISTING SITE MAY OFTEN BE USED, BUT IT SHOULD MEET THE SAME STANDARDS AS SET FORTH IN THESE STANDARDS.
   - THE VEGETATIVE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

TEMPORARY VEGETATIVE STABILIZATION:

FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH OR INCLUDE A COOL SEASON COVER CROP: (WESTERN WHEATGRASS (PASCOPYRUM SMITHII) AT 5.6 POUNDS PER ACRE, OATS (AVENA SATIVA) AT 4.0 POUNDS PER ACRE, CEREAL RYE GRAIN (SECALE CEREALE) AT 45 POUNDS PER ACRE. CONTRACTOR MUST ENSURE THAT ANY SEED APPLICATION REQUIRING A COOL SEASON COVER CROP DOES NOT UTILIZE ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) OR PERENNIAL RYEGRASS (LOLIUM PERENNE). COOL SEASON COVER CROPS ARE NOT PERMANENT EROSION CONTROL.

FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 45 POUNDS PER ACRE OR A NATIVE PLANT SEED MIX CONFORMING TO ITEMS 604S OR 609S.

A. FERTILIZER SHALL BE APPLIED ONLY IF WARRANTED BY A SAOIL TEST AND CONFORM TO ITEM NO. 606S, FERTILIZER. FERTILIZATION SHOULD NOT OCCUR WHEN RAINFALL IS EXPECTED OR DURING SLOW PLANT GROWTH OR DORMANCY. CHEMICAL FERTILIZER MAY NOT BE APPLIED IN THE CRITICAL WATER ZONE.
B. HYDROMULCH SHALL COMPLY WITH TABLE1, BELOW.
C. TEMPORARY EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1½ INCHES HIGH WITH A MINIMUM OF 95% TOTAL COVERAGE SO THAT ALL AREAS OF A SITE THAT RELY ON VEGETATION FOR TEMPORARY STABILIZATION ARE UNIFORMLY VEGETATED, AND PROVIDED THERE ARE NO BARE SPOTS LARGER THAN 10 SQUARE FEET EXIST.
D. WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, AND STANDARD SPECIFICATIONS 604S OR 609S.

TABLE 1 HYDROMULCHING FOR TEMPORARY VEGETATIVE STABILIZATION

MATERIAL	DESCRIPTION	LONGEVITY	TYPICAL APPLICATIONS	APPLICATION RATES
100%, OR ANY BLEND OF WOOD, CELLULOSE, STRAW, AND/OR COTTON PLANT MATERIAL (EXCEPT NO MULCH SHALL EXCEED 30% PAPER)	70% OR GREATER WOOD/STRAW 30% OR LESS PAPER OR NATURAL FIBERS	0-3 MONTHS	MODERATE SLOPES; FROM FLAT TO 3:1	1500 TO 2000 LBS PER ACRE

PERMANENT VEGETATIVE STABILIZATION:

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING IS CONSIDERED TO BE TEMPORARY STABILIZATION ONLY. IF COOL SEASON COVER CROPS EXIST WHERE PERMANENT VEGETATIVE STABILIZATION IS DESIRED, THE GRASSES SHALL BE MOWED TO A HEIGHT OF LESS THAN ONE-HALF (½) INCH AND THE AREA SHALL BE RE-SEEDED IN ACCORDANCE WITH TABLE 2 BELOW. ALTERNATIVELY, THE COOL SEASON COVER CROP CAN BE MIXED WITH BERMUDA GRASS OR NATIVE SEED AND INSTALLED TOGETHER, UNDERSTANDING THAT GERMINATION OF WARM-SEASON SEED TYPICALLY REQUIRES SOIL TEMPERATURES OF 60 TO 70 DEGREES.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 45 POUNDS PER ACRE WITH A PURITY OF 95% AND A MINIMUM PURE LIVE SEED (PLS) OF 0.83. BERMUDA GRASS IS A WARM SEASON GRASS AND IS CONSIDERED PERMANENT EROSION CONTROL. PERMANENT VEGETATIVE STABILIZATION CAN ALSO BE ACCOMPLISHED WITH A NATIVE PLANT SEED MIX CONFORMING TO ITEMS 604S OR 609S.

A. FERTILIZER USE SHALL FOLLOW THE RECOMMENDATION OF A SOIL TEST. SEE ITEM 606S, FERTILIZER. APPLICATIONS OF FERTILIZER (AND PESTICIDE) ON CITY-OWNED AND MANAGED PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PESTICIDE AND FERTILIZER APPLICATION RECORD, ALONG WITH A CURRENT COPY OF THE APPLICATOR'S LICENSE FOR CURRENT COPY OF THE RECORD TEMPLATE CONTACT THE CITY OF AUSTIN'S IPM COORDINATOR.
B. HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.
C. WATER THE SEEDED AREAS IMMEDIATELY AFTER INSTALLATION TO ACHIEVE GERMINATION AND A HEALTHY STAND OF PLANTS THAT CAN ULTIMATELY SURVIVE WITHOUT SUPPLEMENTAL WATER. APPLY THE WATER UNIFORMLY TO THE PLANTED AREAS WITHOUT CAUSING DISPLACEMENT OR EROSION OF THE MATERIALS OR SOIL. MAINTAIN THE SEEDBED IN A MOIST CONDITION FAVORABLE FOR PLANT GROWTH. ALL WATERING SHALL COMPLY WITH CITY CODE CHAPTER 6-4 (WATER CONSERVATION), AT RATES AND FREQUENCIES DETERMINED BY A LICENSED IRRIGATOR OR OTHER QUALIFIED PROFESSIONAL, AND AS ALLOWED BY THE AUSTIN WATER UTILITY AND CURRENT WATER RESTRICTIONS AND WATER CONSERVATION INITIATIVES.
D. PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1½ INCHES HIGH WITH A MINIMUM OF 95 PERCENT FOR THE NON-NATIVE MIX, AND 95 PERCENT COVERAGE FOR THE NATIVE MIX SO THAT ALL AREAS OF A SITE THAT RELY ON VEGETATION FOR STABILITY MUST BE UNIFORMLY VEGETATED, AND PROVIDED THERE ARE NO BARE SPOTS LARGER THAN 16 SQUARE FEET.
E. WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, ITEMS 604S AND 609S.

TABLE 2: HYDROMULCHING FOR PERMANENT VEGETATIVE STABILIZATION

MATERIAL	DESCRIPTION	LONGEVITY	TYPICAL APPLICATIONS	APPLICATION RATES
BONDED FIBER MATRIX (BFM)	80% ORGANIC DEFIBRATED FIBERS			
10% TACKIFIER	6 MONTHS	ON SLOPES UP TO 2:1 AND EROSIVE SOIL CONDITIONS	2,500 TO 4,000 LBS PER ACRE (SEE MANUFACTURES RECOMMENDATIONS)	
FIBER REINFORCED MATRIX (FRM)	65% ORGANIC DEFIBRATED FIBERS 25% FIBERS OR LESS 10% TACKIFIER	UP TO 12 MONTHS	ON SLOPES UP TO 1:1 AND EROSIVE SOIL CONDITIONS	3,000 TO 4,500 LBS PER ACRE (SEE MANUFACTURES RECOMMENDATIONS)

10. DEVELOPER INFORMATION
DEVELOPER: MARIELLE DEVELOPMENT GROUP, LLC
ADDRESS: 104 TEXAS ASH COVE
MANCHACA, TX 78652
PHONE NO: (XXX) XXX-XXXX
CONTACT: MICHAEL VALENZUELA

F. OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
KIMLEY-HORN AND ASSOCIATES, INC.
PHONE NO: 512-684-3232
CONTACT: KELLY BEST, P.E.

G. PERSON OR FIRM RESPONSIBLE FOR EROSION / SEDIMENTATION CONTROL MAINTENANCE:
DEVELOPER: MARIELLE DEVELOPMENT GROUP, LLC
ADDRESS: 104 TEXAS ASH COVE
MANCHACA, TX 78652
PHONE NO: (XXX) XXX-XXXX
CONTACT: MICHAEL VALENZUELA

H. PERSON OR FIRM RESPONSIBLE FOR TREE / NATURAL AREA CONTROL MAINTENANCE:
DEVELOPER: MARIELLE DEVELOPMENT GROUP, LLC
ADDRESS: 104 TEXAS ASH COVE
MANCHACA, TX 78652
PHONE NO: (XXX) XXX-XXXX
CONTACT: MICHAEL VALENZUELA

11. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE DEVELOPMENT SERVICES DEPARTMENT AT 974-2278 AT LEAST 48 HOURS PRIOR WITH THE LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL.

3.6.2 Standard Plan Note

The following plan note summarizes the contents of the Environmental Criteria Manual as it relates to tree protection on sites with active permits:

BEFORE CONSTRUCTION
All trees and natural areas shown on plan to be preserved shall be protected per ECM 3.6.1.
Tree protection shall be installed prior to the start of any site work, including demolition or site preparation. Refer to ECM 3.6.1.A.
Fencing for tree protection shall be chain-link mesh with a minimum height of 5 feet and shall be installed around or beyond the Critical Root Zone except as allowed in ECM 3.6.1.B.4.
Unfenced sections of the Critical Root Zone shall be covered with mulch at a minimum depth of 8 inches and a maximum depth of 12 inches per ECM 3.6.1.C.
Where fencing is located 5 feet or less from the trunk of a preserved tree, trunk wrapping shall be installed per ECM 3.6.1.D.
Erosion and sedimentation controls shall be installed and maintained so as not to cause impacts that exceed preservation criteria listed in ECM 3.5.3.D.
DURING CONSTRUCTION
Trees approved for removal shall be removed in a manner that does not exceed preservation criteria for the trees to remain. Refer to ECM 3.5.2 A.
Fencing may not be temporarily moved or removed during development without prior authorization. The fenced Critical Root Zone shall not be used for tool or material storage of any kind and shall be kept free of litter. Refer to ECM 3.6.1.B.3.
Pruning shall be in compliance with the current ANSI A300 standard for tree care.
AFTER CONSTRUCTION
Tree protection shall be removed at the end of the project after all construction and final grading is complete, but before final inspection. Refer to ECM 3.6.1.A.
Landscape installation within the CRZ of preserved trees, including irrigation, soil and plantings, shall not exceed preservation criteria listed in ECM 3.5.2.
Documentation of tree work performed must be provided to inspector per ECM Appendix P-6.
THIS LIST IS NOT EXHAUSTIVE. REFER TO APPROPRIATE ECM SECTIONS FOR FULL REQUIREMENTS.

Source: Rules No. R161-21.22, 9-15-2021.

APPENDIX P-4: - STANDARD SEQUENCE OF CONSTRUCTION

THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE USED FOR ALL DEVELOPMENT. THE APPLICANT IS ENCOURAGED TO PROVIDE ANY ADDITIONAL DETAILS APPROPRIATE FOR THE PARTICULAR DEVELOPMENT.

1. TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION, INITIATE TREE MITIGATION MEASURES AND CONDUCT "PRE - CONSTRUCTION" TREE FERTILIZATION (IF APPLICABLE).
2. THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONTACT THE DEVELOPMENT SERVICES DEPARTMENT, ENVIRONMENTAL INSPECTION, AT 512-974-2278, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON-SITE PRECONSTRUCTION MEETING.
3. THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/OR DESIGNATED RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REVISED, IF NEEDED, TO COMPLY WITH CITY INSPECTORS' DIRECTIVES, AND REVISED CONSTRUCTION SCHEDULE RELATIVE TO THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION PLAN.
4. ROUGH GRADE THE POND(S) AT 100% PROPOSED CAPACITY. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A SUMP PIT OUTLET AND AN EMERGENCY SPILLWAY MEETING THE REQUIREMENTS OF THE DRAINAGE CRITERIA MANUAL AND/OR THE ENVIRONMENTAL CRITERIA MANUAL, AS REQUIRED. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL INSTALLATION OF THE PERMANENT WATER QUALITY POND(S). *NOTE: DUE TO THE AMOUNT OF TREES ON THIS SITE, IT WILL NOT BE FEASIBLE TO ROUGH GRADE IN PONDS PRIOR TO ANY CLEARING.*
5. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE.
6. BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
7. IN THE BARTON SPRINGS ZONE, THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR WILL SCHEDULE A MID-CONSTRUCTION CONFERENCE TO COORDINATE CHANGES IN THE CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF THE EROSION CONTROL PLAN AFTER POSSIBLE CONSTRUCTION ALTERATIONS TO THE SITE. PARTICIPANTS SHALL INCLUDE THE CITY INSPECTOR, PROJECT ENGINEER, GENERAL CONTRACTOR AND ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR. THE ANTICIPATED COMPLETION DATE AND FINAL CONSTRUCTION SEQUENCE AND INSPECTION SCHEDULE WILL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR.
8. PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
9. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
10. UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
11. UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
12. AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.

NOTE: THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE IS A GENERAL OVERVIEW AND IS INTENDED TO CONVEY THE GENERAL CONCEPTS OF THE EROSION CONTROL DESIGN AND SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETAILED PHASING AND CONSTRUCTION SEQUENCING NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS INCLUDED IN THESE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IMMEDIATELY, PRIOR TO AND/OR DURING CONSTRUCTION IF ANY ADDITIONAL INFORMATION ON THE CONSTRUCTION SEQUENCE IS NECESSARY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND ALL OTHER APPLICABLE LAWS.

APPENDIX P-6 - REMEDIAL TREE CARE NOTES AERATION AND SUPPLEMENTAL NUTRIE REQUIREMENTS FOR TREES WITHIN CONSTRUCTION AREAS

AS A COMPONENT OF AN EFFECTIVE REMEDIAL TREE CARE PROGRAM PER ENVIRONMENTAL CRITERIA MANUAL SECTION 3.5.4, PRESERVED TREES WITHIN THE LIMITS OF CONSTRUCTION MAY REQUIRE SOIL AERATION AND SUPPLEMENTAL NUTRIENTS. SOIL AND/OR FOLIAR ANALYSIS SHOULD BE USED TO DETERMINE THE NEED FOR SUPPLEMENTAL NUTRIENTS. THE CITY ARBORIST MAY REQUIRE THESE ANALYSES AS PART OF A COMPREHENSIVE TREE CARE PLAN. SOIL PH SHALL BE CONSIDERED WHEN DETERMINING THE FERTILIZATION COMPOSITION AS SOIL PH INFLUENCES THE TREE'S ABILITY TO UPTAKE NUTRIENTS FROM THE SOIL. IF ANALYSES INDICATE THE NEED FOR SUPPLEMENTAL NUTRIENTS, THEN HUMATE/NUTRIENT SOLUTIONS WITH MYCORRHIZAE COMPONENTS ARE HIGHLY RECOMMENDED. IN ADDITION, SOIL ANALYSIS MAY BE NEEDED TO DETERMINE IF ORGANIC MATERIAL OR BENEFICIAL MICROORGANISMS ARE NEEDED TO IMPROVE SOIL HEALTH. MATERIALS AND METHODS ARE TO BE APPROVED BY THE CITY ARBORIST (512-974-1876) PRIOR TO APPLICATION. THE OWNER OR GENERAL CONTRACTOR SHALL SELECT A FERTILIZATION CONTRACTOR AND IENSURE COORDINATION WITH THE CITY ARBORIST.

PRE-CONSTRUCTION TREATMENT SHOULD BE APPLIED IN THE APPROPRIATE SEASON, IDEALLY THE SEASON PRECEDING THE PROPOSED CONSTRUCTION. MINIMALLY, AREAS TO BE TREATED INCLUDE THE ENTIRE CRITICAL ROOT ZONE OF TREES AS DEPICTED ON THE CITY APPROVED PLANS. TREATMENT SHOULD INCLUDE, BUT NOT LIMITED TO, FERTILIZATION, SOIL TREATMENT, MULCHING, AND PROPER PRUNING.

POST-CONSTRUCTION TREATMENT SHOULD OCCUR DURING FINAL REVEGETATION OR AS DETERMINED BY A QUALIFIED ARBORIST AFTER CONSTRUCTION. CONSTRUCTION ACTIVITIES OFTEN RESULT IN A REDUCTION IN SOIL MACRO AND MICRO PORES AND AN INCREASE IN SOIL BULK DENSITY. TO AMELIORATE THE DEGRADED SOIL CONDITIONS, AERATION VIA WATER AND/OR AIR INJECTED INTO THE SOIL IS NEEDED OR BY OTHER METHODS AS APPROVED BY THE CITY ARBORIST. THE PROPOSED NUTRIENT MIX SPECIFICATIONS AND SOIL AND/OR FOLIAR ANALYSIS RESULTS NEED TO BE PROVIDED TO AND APPROVED BY THE CITY ARBORIST PRIOR TO APPLICATION (FAX # 512-974-3010). CONSTRUCTION WHICH WILL BE COMPLETED IN LESS THAN 90 DAYS MAY USE MATERIALS AT ½ RECOMMENDED RATES. ALTERNATIVE ORGANIC FERTILIZER MATERIALS ARE ACCEPTABLE WHEN APPROVED BY THE CITY ARBORIST. WITHIN 7 DAYS AFTER FERTILIZATION IS PERFORMED, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE WORK PERFORMED TO THE CITY ARBORIST, PLANNING AND DEVELOPMENT REVIEW . P.O. BOX 1088, AUSTIN, TX 78767. THIS NOTE SHOULD BE REFERENCED AS ITEM #1 IN THE SEQUENCE OF CONSTRUCTION.

SITE PLAN APPROVAL SHEET 3 OF 48
FILE NUMBER SP-2024-0063C APPLICATION DATE 04/15/2024
APPROVED BY COMMISSION ON ______ UNDER SECTION 112 OF
CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) ______ CASE MANAGER CLARISSA E. DAVIS
PROJECT EXPIRATION DATE (ORD.#970905-A) ______ DWPZ ______ DDZ ______

______
Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: ______ ZONING MF-2, MF-2 CO
Rev. 1 ______ Correction 1 ______
Rev. 2 ______ Correction 2 ______
Rev. 3 ______ Correction 3 ______

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

811
Know what's below.
Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
TBPE Firm No. 928

JOSE M. FARIAS
111389
12/24/2024

KHA PROJECT 064487031
DATE APRIL 2024
SCALE: AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

CITY OF AUSTIN
GENERAL NOTES

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
3 OF 48

GENERAL NOTES

ALL RESPONSIBILITY FOR THE ADEQUECY OF THESE PLANS REMAINS WITH THE ENGINEER. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN DOES NOT REMOVE THESE RESPONSIBILITIES.

REVIEWED BY AUSTIN WATER APPLIES ONLY TO FACILITIES WITHIN PUBLIC STREETS OR PUBLIC UTILITY EASEMENTS. ALL OTHER WATER AND WASTEWATER FACILITIES INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICATION OF BUILDING INSPECTIONS.

Use of Electronic Files General Disclaimer: Use of the attached files in any manner indicates your acceptance of terms and conditions as set forth below. If you do not agree to all of the terms and conditions, please contact Austin Water pipeline engineering, project coordinator prior to use of the referenced information. Please be advised that the attached files are in a format that can be altered by the user. Due to this fact, any reuse of the data will be at the user's sole risk without liability or legal exposure to The City of Austin and user shall indemnify and hold harmless The City of Austin from all claims, damages, losses and expenses including attorney's fees arising out of or resulting from using the digital file. In addition, it is the responsibility of the user to compare all data with the PDF version of this drawing. In the event there is a conflict between the PDF version drawing and the electronic file, the PDF version drawing shall prevail.

INSPECTION NOTES

Please call Development Services Department, Site and Subdivision Inspection at 512.974.6360 for arrangements for payment of Inspection fees and job assignment for Inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.

FIRE DEPARTMENT DATA

AUSTIN FIRE DEPARTMENT
FIRE PREVENTION DIVISION
505 Barton Springs Rd, Ste 200, Austin, Texas 78704
(512) 974-0160

Hydrant Flow Test Report

TEST DATE	06/27/2020	FIRE BOX	3810	COMPANY	PREVENTION
TIME:	1030 HRS	MAP GRID ID	H38	AFD STAFF	CHAFINO, XOCHITL

RESIDUAL HYDRANT

RESIDUAL HYDRANT #	233665	MAIN SIZE (in.)	8

BLK #	DIRECTION	STREET NAME	TYPE
13200		MORRIS	RD

STATIC PRESSURE (PSI)	100	RESIDUAL PRESSURE (PSI)	83

FLOW HYDRANT

FLOW HYDRANT #	55570	MAIN SIZE (in.)	8

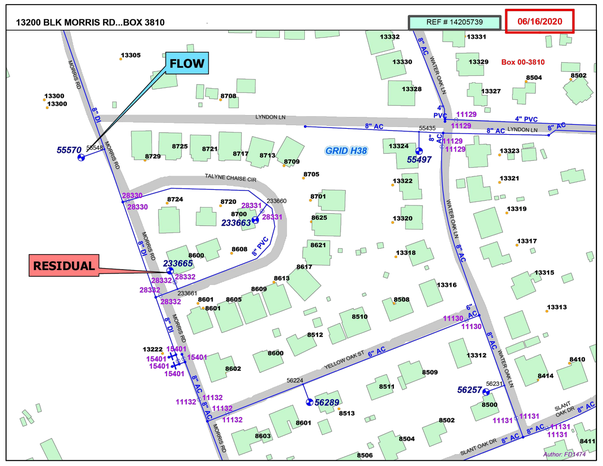
BLK #	DIRECTION	STREET NAME	TYPE
13200		MORRIS	RD

STATIC PRESSURE (PSI)	102	RESIDUAL PRESSURE (PSI)	78

Comments		
	dc = discharge coefficient straight 2½" butt = 0.9 w/ 45° elbow = 0.75	0.9
	FLOW RATE (GPM) =	1482

NOTE: This information represents the water supply characteristics in the immediate area on the date and time tested. The City of Austin does not guarantee this data will be representative of the water supply characteristics at any time in the future. It is the requesting party's responsibility to ensure that this test information is appropriate to the location of the project in question and that any differences in elevation between the test location and project are accounted for and included in the hydraulic calculations.

HFTR #14250440



SERVICE EXTENSION REQUESTS

WATER SER NO. 5746

WATER AND WASTEWATER SERVICE EXTENSION REQUEST FOR CONSIDERATION

Name: Marielle Condos — Service Requested: **Water**

SER-5746 — Infor (IPS) Service Request Number: 1142261 — Date Received: 03/22/2023

Location: 13208 MORRIS RD AUSTIN TX 78729

Acres: 7.91 — Land Use: APARTMENTS — LUE: 101

Alt. Utility Service or S.E.R. Number: City of Austin Wastewater SER-5747

Quad(s): H38 — Reclaimed Pressure Zone: N/A — DDZ: YES

Drainage Basin: LAKE CREEK — Pressure Zone: NORTHWEST B — DWPZ: NO

Demand (Estimated Peak Hour): 221 GPM — FIRE FLOW: 1,500 GPM

Cost Participation: $0 — % Within City Limits: 100 — % Within Limited Purpose: 0

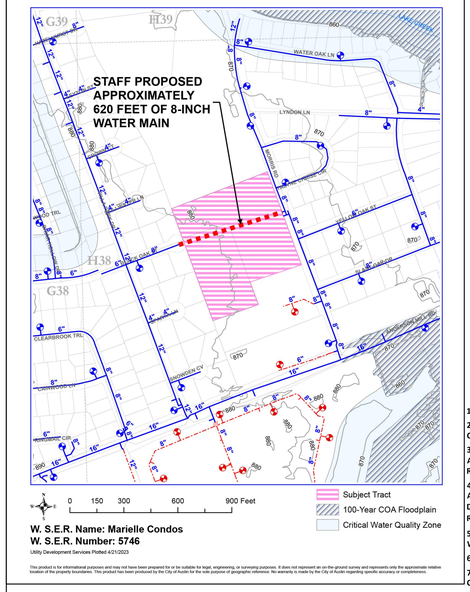
Description of Improvements:
Applicant shall construct approximately 620 feet of 8-inch water main from the existing 8-inchwater main (Project No. 75-0207) located in Black Oak St. and extend east through the subject tract to the existing 8-inch water main (Project No.84-0702) in Morris Rd. as approximately shown on the attached map.

NOTE: Water demand and sprinkled fire flow requirement based on engineering calculations received from Kelly Best, P.E. of Kimley Horn on 3/22/2023.

Approval of this Service Extension Request is subject to completion and acceptance of the improvements described above and the conditions set forth below:
1) Construction of all Service Extensions is subject to all environmental and planning ordinances.
2) Service Extensions are subject to the guidelines established in the Land Development Code, Chapter 25-9, Water and Wastewater Utility Service.
3) An approved Service Extension is not a reservation of capacity in the system, but it is an acknowledgment of the intent to serve. Available capacity shall be confirmed at the time a development application is submitted.
4) The level of service approved by this document does not imply commitment for land use.
5) Public utility mains must meet City of Austin design and construction criteria and must be approved by Austin Water Engineering Review. Actual length and location of staff proposed utility mains shall be finalized during the plan review process.
6) Approval of a site plan that meets the Fire Department requirements for fire control.
7) Proposed public water improvements will be dedicated to the City of Austin for ownership, operation, and maintenance.
8) Proposed public water improvements must be placed in the public right-of-way or approved utility easements. Utility easements must be approved by Austin Water Engineering Review and must be in place prior to construction plan approval.
9) The approved Service Extension will automatically expire 180 days after date of approval unless a development application has been accepted by the Development Services Department. The Service Extension expires on the date the development expires, or if approved, on the date the development application approval expires.

Project Manager, Utility Development Services — 4/21/2023 Date
Supervisor, Utility Development Services — 04/21/23 Date
Division Manager, Utility Development Services — 4/21/2023 Date
Assistant Director, Austin Water — 04/23/2023 Date

Utility Development Services Plotted 4/21/2023



W. S.E.R. Name: Marielle Condos
W. S.E.R. Number: 5746

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on the ground survey and represents only the approximate relative location of the property boundaries. This product has been produced by the City of Austin for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.

WASTEWATER SERVICE NO.4121

WATER AND WASTEWATER SERVICE EXTENSION REQUEST FOR CONSIDERATION

Name: Marielle Condos — Service Requested: **Wastewater**

SER-5747 — Infor (IPS) Service Request Number: 1142262 — Date Received: 03/22/2023

Location: 13208 MORRIS RD AUSTIN TX 78729

Acres: 7.91 — Land Use: APARTMENTS — LUE: 101

Alt. Utility Service or S.E.R. Number: City of Austin SER-5746

Quad(s): H38 — Reclaimed Pressure Zone: N/A — DDZ: YES

Drainage Basin: LAKE CREEK — Pressure Zone: NORTHWEST B — DWPZ: NO

Flow (Estimated Peak Wet Weather): 73 GPM

Cost Participation: $0 — % Within City Limits: 100 — % Within Limited Purpose: 0

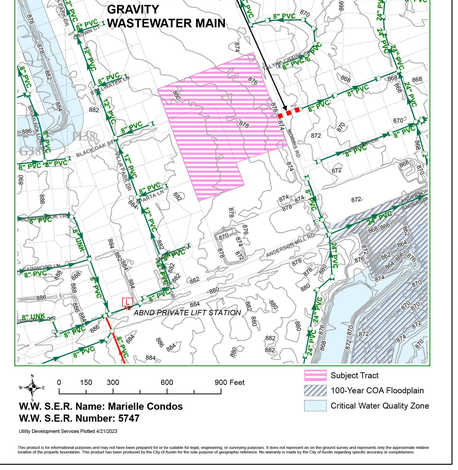
Description of Improvements:
Applicant shall construct approximately 130 feet of 8-inch gravity wastewater main from the existing 8-inch gravity wastewater main (Project No. 2013-0002; MH #254886) located in Yellow Oak St. and extend west along Yellow Oak St. to the subject tract, as approximately shown on the attached map.

NOTE: Wastewater flow based on engineering calculations received from Kelly Best, P.E. of Kimley Horn on 3/22/2023.

Approval of this Service Extension Request is subject to completion and acceptance of the improvements described above and the conditions set forth below:
1) Construction of all Service Extensions is subject to all environmental and planning ordinances.
2) Service Extensions are subject to the guidelines established in the Land Development Code, Chapter 25-9, Water and Wastewater Utility Service.
3) An approved Service Extension is not a reservation of capacity in the system, but it is an acknowledgment of the intent to serve. Available capacity shall be confirmed at the time a development application is submitted.
4) The level of service approved by this document does not imply commitment for land use.
5) Public utility mains must meet City of Austin Design and Construction Criteria and must be approved by Austin Water Engineering Review. Actual length and location of staff proposed utility mains shall be finalized during the plan review process.
6) Proposed public water improvements will be dedicated to the City of Austin for ownership, operation, and maintenance.
7) Proposed public wastewater improvements must be placed in the public right-of-way or approved utility easements. Utility easements must be approved by Austin Water Engineering Review and must be in place prior to construction plan approval.
8) The approved Service Extension will automatically expire 180 days after date of approval unless a development application has been accepted by the Development Services Department. The Service Extension expires on the date the development expires, or if approved, on the date the development application approval expires.

Project Manager, Utility Development Services — 4/21/2023 Date
Supervisor, Utility Development Services — 04/21/23 Date
Division Manager, Utility Development Services — 4/21/2023 Date
Assistant Director, Austin Water — 04/23/2023 Date

Utility Development Services Plotted 4/21/2023



W.W. S.E.R. Name: Marielle Condos
W.W. S.E.R. Number: 5747

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on the ground survey and represents only the approximate relative location of the property boundaries. This product has been produced by the City of Austin for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.

AWU INFRASTRUCTURE INFORMATION

PROPOSED PRODUCT TYPE (TO BE INSTALLED)	LENGTH OF PIPE (L.F.)	SIZE OF PIPE (INCH)	NO. OF SERVICES
PUBLIC WATER MAIN EXTENSION	777	8"	2
PUBLIC WASTEWATER MAIN EXTENSION	137	8"	0

PROJECT INFORMATION

PROJECT INFORMATION	
GRID NUMBER:	H38
MAPSCO NUMBER:	434L
AW INTERSECTION NUMBER:	11132
BUILDING SIZE IN SQUARE FEET:	5,406
BUILDING TYPE PER IFC:	V-B
BUILDING HEIGHT:	37'-0"
AVAILABLE FIRE FLOW CALCS AT 20 PSI:	3420
REQUIRED BUILDING FIRE FLOW PER IFC:	1500
REDUCED FIRE FLOW PER ⅝ FIRE SPRINKLER REDUCTION:	750
*MINIMUM FIRE FLOW:	1500
DOMESTIC WATER DEMAND:	520
WATER SUPPLY FIXTURE UNITS (WSFU):	3,622
DOMESTIC DEMAND CALCULATED PER THE WSFU:	520
AUSTIN WATER PRESSURE ZONE:	Northwest B
STATIC WATER PRESSURE:	101.73
HIGHEST LOT SERVED:	880
LOWEST LOT SERVED:	874
IRRIGATION DEMAND:	130
8" FIRE LINE VELOCITY:	9.57 ft/sec
6" DOMESTIC LINE VELOCITY:	13.27 ft/sec

NOTE: LOTS WITH 65 PSI OR GREATER REQUIRE A PRV TO BE INSTALLED ON THE PROPERTY OWNERS SIDE OF THE DOMESTIC WATER METER.

ON MINIMUM FIRE FLOW, DESIGN ENGINEER MUST INCLUDE 1500 GALLONS PER MINUTE OR REDUCED FIRE FLOW AMOUNT, WHICHEVER IS GREATER)

STANDARD CONSTRUCTION NOTES

1. THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK.
2. CONTRACTOR MUST OBTAIN A STREET CUT PERMIT FROM AUSTIN TRANSPORTATION DEPARTMENT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.
3. AT LEAST 48 HOURS BEFORE BEGINNING ANY WATER AND WASTEWATER CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY AUSTIN TRANSPORTATION INSPECTION OR DEVELOPMENT SERVICES DEPARTMENT (DSD) INSPECTIONS AT THE NUMBER INDICATED ON THE PLANS BY THE AW PLAN REVIEWER.
4. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-8377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT LINES.
5. NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND WASTEWATER SERVICES.
6. THE CITY SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE.
7. ALL MATERIALS TESTS ORDERED BY THE OWNER FOR QUALITY ASSURANCE PURPOSES, SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY AND FUNDED BY THE OWNER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 1804S.04.
8. PRESSURE TAPS SHALL BE ALLOWED ON A CASE BY CASE BASIS, AS DETERMINED BY THE DIRECTOR'S DESIGNEE. NORMALLY PRESSURE TAPS WILL BE ALLOWED ONLY IN THE FOLLOWING CASES: A) A TEST SHUT OUT INDICATES AN ADEQUATE SHUT OUT TO PERFORM THE WORK IS NOT FEASIBLE B) MORE THAN 30 CUSTOMERS OR A SINGLE CRITICAL CUSTOMER (AS DEFINED BY AUSTIN WATER) WOULD BE IMPACTED BY THE SHUT OUT OR C) THE EXISTING WATER LINE WARRANTS IT.
9. THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 510.3(22) AND SPL WW 27-A and WW 27-F.
10. FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 511S.4 AND SHALL BE PAINTED FLYNT ALUMINUM OR EQUAL. FIRE HYDRANTS AND ASSOCIATED VALVES, TEN (10) YEARS AND OLDER WILL BE REQUIRED TO BE REPLACED WITH A NEW FIRE HYDRANT AND APPERTENUNANCES.
11. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS 510.3 (27)-(29). FORCE MAIN PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS AS WATER LINES (PRESSURE PIPE) OR AT THE PRESSURES SHOWN ON THE APPROVED PLANS.
12. ALL MATERIAL USED ON THIS PROJECT MUST BE LISTED ON THE STANDARD PRODUCTS LISTING. ANY MATERIAL NOT LISTED HAS TO GO THROUGH THE REVIEW OF THE STANDARDS COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO START OF PROJECT. TESTING AND EVALUATION OF PRODUCTS ARE REQUIRED BEFORE APPROVAL WILL BE GIVEN ANY CONSIDERATION.
13. WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS PE, THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD OR REPLACED THE FULL LENGTH WITH TYPE K COPPER MATERIAL. ANY TIME PB IS DAMAGED OR TAMPERED WITH IN ANY WAY, THE SERVICE LINE SHALL BE REPLACED FULL LENGTH WITH TYPE K COPPER MATERIAL. NOTE: FULL LENGTH IS FROM CORPORATION STOP TO METER.
14. WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR WHO WILL THEN NOTIFY AUSTIN WATER DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE.
15. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR SO THAT HE CAN NOTIFY THE AUSTIN WATER AT 972-0000 AT A MINIMUM OF 72 HOURS PRIOR TO RELOCATING ANY DOMESTIC OR FIRE DEMAND WATER METERS. THE CONTRACTOR SHALL CAREFULLY REMOVE ALL METERS AND METERS BOXES THAT ARE INDICATED TO BE RELOCATED OR SALVAGED. THE CONTRACTOR SHALL INSTALL THE REMOVED METER OR CITY PROVIDED METER AT THE NEW LOCATION INDICATED ON THE CONSTRUCTION PLANS.
16. WATER AND WASTE WATER SERVICES WILL NEED TO BE REPLACED UP TO THE MAIN. REPAIR COUPLINGS ARE NOT ALLOWED ON NEW INSTALLTIONS.
17. ALL MANHOLES IN UNPAVED AREAS PROVIDING DIRECT ACCESS TO A WASTEWATER LINE SHALL BE WATERTIGHT AND BEAR THE WORDING AND INSIGNIA FOR THE CITY OF AUSTIN.
18. THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES, BELOW GROUND AND OVERHEAD, PRIOR TO STARTING ONSITE UTILITY WORK.
19. ALL WATER AND WASTEWATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE SEPARATION DISTANCES INDICATED IN CHAPTER 290 - DRINKING WATER STANDARDS, CHAPTER 217 - DESIGN CRITERIA FOR SEWERAGE SYSTEMS AND CHAPTER 210 - DESIGN CRITERIA FOR RECLAIMED SYSTEMS OF TCEQ RULES.
20. CONTRACTOR'S PERSONNEL THAT PERFORM BUTT FUSION AND ELECTROFUSION ON OR TO HDPE PIPE AND FITTINGS MUST HAVE CURRENT QUALIFICATION TRAINING CERTIFICATE ISSUED BY MCELROY OR COMPARABLE TRAINING PROGRAM.
21. SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER, REGISTERED IN THE STATE OF TEXAS, SHALL BE SUBMITTED FOR AUSTIN WATER APPROVAL FOR LARGE DIAMETER PRE-CAST MANHOLES, JUNCTION BOXES, WET WELLS, AND SIMILAR STRUCTURES. THE SHOP DRAWINGS SHALL INCLUDE FLOWLINE ELEVATIONS OF ALL INCOMING AND OUTGOING PIPES, ELEVATION OF TRANSITION FROM LARGE DIAMETER SECTIONS TO 48" ID SECTION, TOP OF MANHOLE ELEVATION, SURROUNDING GROUND ELEVATION, AS WELL AS SPECIAL CONSTRUCTION CONSIDERATIONS THAT ARE SPECIFIED IN THE CONTRACT DRAWINGS.
22. VALVE STEM EXTENSIONS SHALL CONSIST OF A SINGLE PIECE OF IRON ROD OF THE REQUIRED LENGTH WITH A SOCKET ON ONE END AND NUT ON THE OTHER.
23. ALL POTABLE WATER SYSTEM COMPONENTS INSTALLED AFTER JANUARY 4, 2014, SHALL BE ESSENTIALLY "LEAD FREE" ACCORDING TO THE US SAFE DRINKING WATER ACT. EXAMPLES ARE VALVES (CORPORATION STOP, CURB STOP, AND PRESSURE REDUCING), NIPPLES, BUSHINGS, PIPE, FITTINGS, BACKFLOW PREVENTERS AND FIRE HYDRANTS. TAPPING SADDLES AND 2 INCH AND LARGER GATE VALVES ARE THE ONLY COMPONENTS EXEMPT FROM THIS REQUIREMENT. COMPONENTS THAT ARE NOT CLEARLY IDENTIFIED BY THE MANUFACTURER AS MEETING THIS REQUIREMENT EITHER BY MARKINGS ON THE COMPONENT OR ON THE PACKAGING SHALL NOT BE INSTALLED.
24. ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED, SALVAGED AND RETURNED TO AUSTIN WATER. NOTICE SHOULD BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINTENANCE, VALVES AND HYDRANT SERVICES, SUPERVISING AW PIPELINE TECHNICIAN AT 512-972-1133
25. ALL EXISTING WATER METERS IDENTIFIED TO BE RELOCATED OR ABANDONED AT THE DEVELOPMENT, SHALL BE REMOVED FROM THE METER BOX PRIOR TO CONSTRUCTION AND GIVEN IMMEDIATELY TO THE DSD INSPECTOR.
26. THE ENGINEER SHALL CALL OUT THE SIZE, TYPE AND USE (DOMESTIC OR IRRIGATION) OF ALL EXISTING WATER METERS TO BE RELOCATED OR REPURPOSED. WATER METER NUMBERS WILL NOT BE REQUIRED TO BE PLACED ON THE PLAN SHEET. A SEPARATE AUSTIN WATER TAPS OFFICE FORM WILL BE USED TO PROVIDE RELEVANT INFORMATION FOR THE EXISTING INFORMATION ON EXISTING METERS TO RECEIVE APPROPRIATE CREDITS. THIS FORM SHALL BE DIRECTLY SUBMITTED TO AUSTIN WATER TAPS OFFICE FOR REVIEW AND PROCESSING.
27. NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED.
28. ALL GRAVITY LINES SHALL BE INSTALLED DOWNSTREAM TO UPSTREAM.
29. METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS.
30. PROTECTED STREET STATUS IS SUBJECT TO CHANGE OVER TIME. IT IS THE OWNER'S RESPONSIBILITY TO CONFIRM THE STREET STATUS PRIOR TO CONSTRUCTION AS PROTECTED STREET STATUS WILL DIRECTLY IMPACT THE CONSTRUCTION COSTS. IF PROTECTED STREETS ARE PROPOSED TO BE DISTURBED, APPROVAL FROM THE STREET AND BRIDGE DIVISION OF THE TRANSPORTATION DEPARTMENT IS REQUIRED.

Meter Notice:

Meter 1.5 inches and larger must be purchased and ordered 90 days in advance of installation.

Meter(s) Requirement for Project:
Address: 13208 Morris Road
Proposed Use: Potable Domestic
Type: Compound
Size: 4" GPM: 520
Service Units: 30

Meter(s) Requirement for Project:
Address: 13208 Morris Road
Proposed Use: Irrigation (Potable Source)
Type: Positive Displacement
Size: 2" GPM: 160
Service Units: 8.0

Reclaimed Meter(s) Requirement for Project:
N/A
Address:
Proposed Use:
Type:
Size: GPM:

SITE PLAN APPROVAL SHEET 4 OF 48
FILE NUMBER SP-2024-0063C APPLICATION DATE 04/15/2024
APPROVED BY COMMISSION ON _____ UNDER SECTION 112 OF CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) _____ CASE MANAGER CLARISSA E. DAVIS
PROJECT EXPIRATION DATE (ORD.#970905-A) _____ DWPZ _____ DDZ _____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING MF-2, MF-2 CO
Rev. 1 _____ Correction 1 _____
Rev. 2 _____ Correction 2 _____
Rev. 3 _____ Correction 3 _____
Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

Know what's below. Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
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TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT	064487031
DATE	APRIL 2024
SCALE	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

AWU GENERAL NOTES

SHEET NUMBER
4 OF 48

SP-2024-0063C

Doc# 2023089678

LOTS 1A & 2A, BLOCK A
MARIELLE SUBDIVISION

BEING AN AMENDED PLAT OF LOTS 1 AND 2, BLOCK A,
VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION
DOCUMENT NO. 2008070951
OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS
AND BEING OUT OF THE
M.M. HORNSBY SURVEY, ABSTRACT NO. 280
WILLIAMSON COUNTY, TEXAS

DESCRIPTION	ACRES	SQ. FT.
LOT 1A, BLOCK A	7.913	344,690
LOT 2A, BLOCK A	3.246	141,396
TOTAL	11.159	486,086

LINETYPE LEGEND

- BOUNDARY LINE
- EASEMENT LINE
- ADJ. PROPERTY LINE
- LOT LINE

LEGEND

OPRWC	OFFICIAL PUBLIC RECORDS WILLIAMSON COUNTY
PRWC	PLAT RECORDS WILLIAMSON COUNTY
R.O.W.	RIGHT OF WAY
IRF	IRON ROD FOUND
MNS	MAG NAIL W/ WASHER "KHA" SET
⯐	BENCHMARK
○	1/2" IRON ROD SET W/CAP "KHA"
◎	1/2" IRON ROD FOUND (UNLESS NOTED)

BENCH MARK LIST

DATUM IS NAVD '88, USING GEOID 12B, BASED ON GPS OBSERVATIONS.

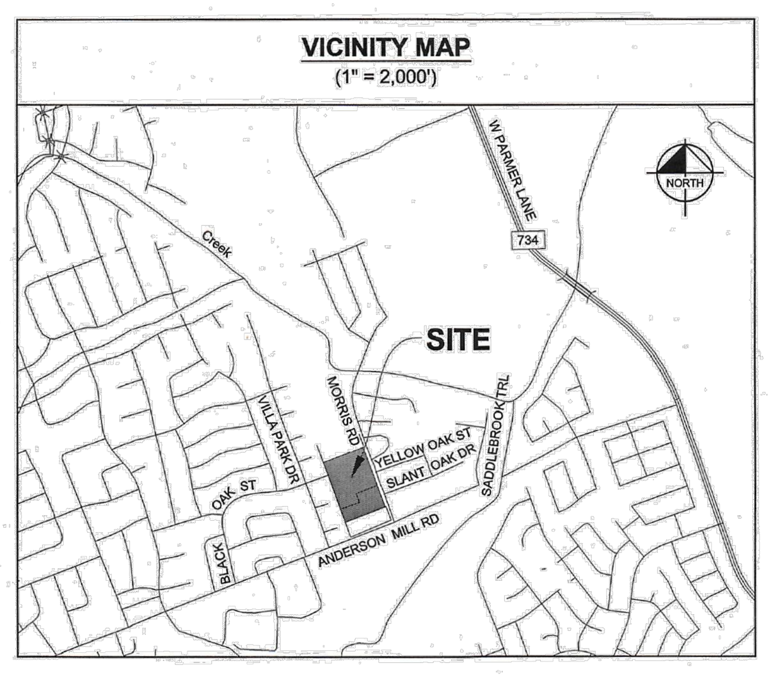
BM #100 MAG NAIL SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET SOUTH OF TALYNE CHAISE INTERSECTION

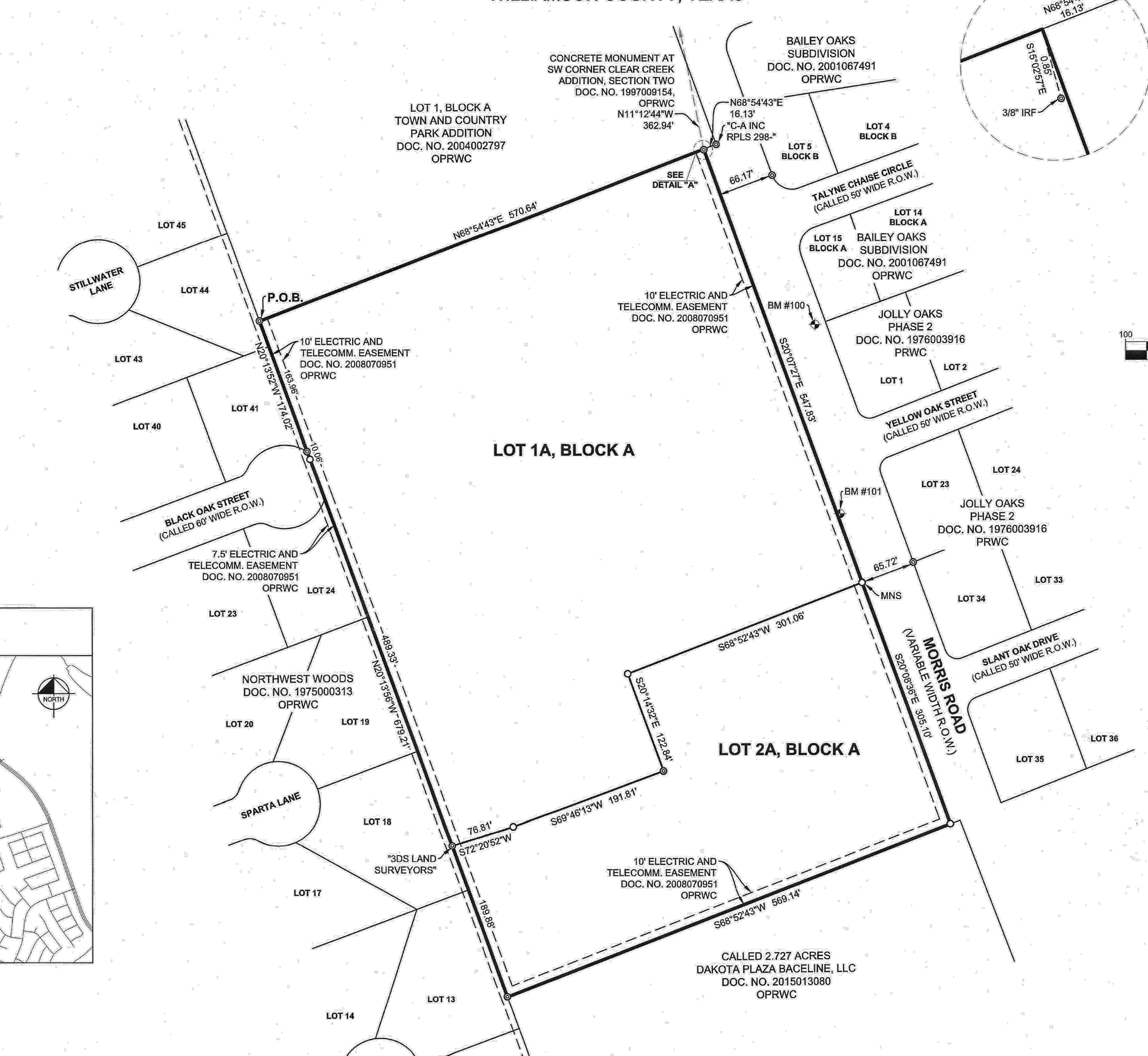
- ELEV.=875.069'

BM #101 MAG NAIL SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

VICINITY MAP
(1" = 2,000')





SURVEY NOTES:

1. BASIS OF BEARINGS IS THE TEXAS STATE COORDINATE SYSTEM OF 1983, CENTRAL ZONE (4203). ALL COORDINATES AND DISTANCES SHOWN HEREON ARE IN GRID. THE UNIT OF LINEAR MEASUREMENT IS U.S. SURVEY FEET.
2. ALL LOTS LOCATED IN THIS SUBDIVISON WILL BE MONUMENTED WITH A 1/2 INCH IRON ROD WITH A PLASTIC CAP STAMPED "KHA" SET PRIOR TO LOT SALES UNLESS OTHERWISE STATED.

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TEXAS 78759 — TBPELS FIRM # 10194624 — TEL. NO. (512) 418-1771 — WWW.KIMLEY-HORN.COM

SCALE	DRAWN BY	CHECKED BY	DATE	PROJECT NO.	SHEET NO.
1" = 100'	JKA	MMII	8/21/2023	069273503	1 OF 2

Doc# 2023089678

LOTS 1A & 2A, BLOCK A
MARIELLE SUBDIVISION

BEING AN AMENDED PLAT OF LOTS 1 AND 2, BLOCK A,
VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION
DOCUMENT NO. 2008070951
OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS
AND BEING OUT OF THE
M.M. HORNSBY SURVEY, ABSTRACT NO. 280
WILLIAMSON COUNTY, TEXAS

NOTES:

1. NO LOT WILL BE OCCUPIED UNTIL THE STRUCTURE IS CONNECTED TO THE CITY OF AUSTIN WATER AND WASTEWATER UTILITY SYSTEM.
2. AUSTIN ENERGY HAS THE RIGHT TO PRUNE AND/OR REMOVE TREES, SHRUBBERY AND OTHER OBSTRUCTIONS TO THE EXTENT NECESSARY TO KEEP THE EASEMENTS CLEAR. AUSTIN ENERGY WILL PERFORM ALL TREE WORK IN COMPLIANCE WITH CHAPTER 25-8, SUBCHAPTER B OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
3. THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE AUSTIN ENERGY WITH ANY EASEMENT AND/OR ACCESS REQUIRED, IN ADDITION TO THOSE INDICATED, FOR THE INSTALLATION AND ONGOING MAINTENANCE OF OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES. THESE EASEMENTS AND/OR ACCESS ARE REQUIRED TO PROVIDE ELECTRIC SERVICE TO THE BUILDING AND WILL NOT BE LOCATED SO AS TO CAUSE THE SITE TO BE OUT OF COMPLIANCE WITH CHAPTER 25-8 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
4. THE OWNER SHALL BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY EROSION CONTROL, REVEGETATION AND TREE PROTECTION. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR ANY INITIAL TREE PRUNING AND TREE REMOVAL THAT IS WITHIN TEN FEET OF THE CENTER LINE OF THE PROPOSED OVERHEAD ELECTRICAL FACILITIES DESIGNED TO PROVIDE ELECTRIC SERVICE TO THIS PROJECT. THE OWNER SHALL INCLUDE AUSTIN ENERGY'S WORK WITHIN THE LIMITS OF CONSTRUCTION FOR THIS PROJECT.
5. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, CITY OF AUSTIN RULES AND REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT. AUSTIN ENERGY WILL NOT RENDER ELECTRIC SERVICE UNLESS REQUIRED CLEARANCES ARE MAINTAINED. ALL COSTS INCURRED BECAUSE OF FAILURE TO COMPLY WITH THE REQUIRED CLEARANCES WILL BE CHARGED TO THE OWNER.
6. WATER QUALITY CONTROLS ARE REQUIRED FOR ALL DEVELOPMENT PURSUANT TO THE LAND DEVELOPMENT CODE.
7. THE WATER AND WASTEWATER UTILITY SYSTEM SERVING THIS SUBDIVISION MUST BE IN ACCORDANCE WITH THE CITY OF AUSTIN UTILITY DESIGN CRITERIA. THE WATER AND WASTEWATER UTILITY PLAN MUST BE REVIEWED AND APPROVED BY THE AUSTIN WATER UTILITY. ALL WATER AND WASTEWATER CONSTRUCTION MUST BE INSPECTED BY THE CITY OF AUSTIN. THE LANDOWNER MUST PAY THE CITY INSPECTION FEE WITH THE UTILITY CONSTRUCTION.
8. PRIOR TO CONSTRUCTION, EXCEPT DETACHED SINGLE FAMILY ON ANY LOT IN THIS SUBDIVISION, A SITE DEVELOPMENT PERMIT MUST BE OBTAINED FROM THE CITY OF AUSTIN.
9. PRIOR TO CONSTRUCTION ON ANY LOT IN THIS SUBDIVISION, DRAINAGE PLANS SHALL BE SUBMITTED TO THE CITY OF AUSTIN FOR REVIEW AND APPROVAL. RAINFALL RUN-OFF SHALL BE HELD TO THE AMOUNT EXISTING AT UNDEVELOPED STATUS BY PONDING OR OTHER APPROVED METHODS. ALL PROPOSED CONSTRUCTION OR SITE ALTERATION ON LOTS 1A AND 2A, BLOCK A REQUIRES APPROVAL OF A SEPARATE DEVELOPMENT PERMIT.
10. THIS SUBDIVISION IS LOCATED WITHIN THE LAKE CREEK WATERSHED, WHICH IS CLASSIFIED AS SUBURBAN, AND SHALL BE DEVELOPED, CONSTRUCTED, AND MAINTAINED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE CHAPTER 25-8.
11. NO OBJECTS, INCLUDING BUT NOT LIMITED TO, BUILDINGS, FENCES, OR LANDSCAPING, SHALL BE ALLOWED IN A DRAINAGE EASEMENT EXCEPT AS APPROVED BY TRAVIS COUNTY AND THE CITY OF AUSTIN.
12. THE PROPERTY OWNER AND/OR HIS/HER ASSIGNS SHALL PROVIDE ACCESS TO THE DRAINAGE EASEMENT AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS BY WILLIAMSON COUNTY AND THE CITY OF AUSTIN FOR INSPECTION OR MAINTENANCE OF SAID EASEMENT.
13. THE OWNER OF THIS SUBDIVISION AND THE OWNER'S SUCCESSORS AND ASSIGNS ARE RESPONSIBLE FOR CONSTRUCTION OF SUBDIVISION IMPROVEMENTS THAT COMPLY WITH CITY OF AUSTIN REGULATIONS. THE OWNER UNDERSTANDS THAT PLAT VACATION OR REPLATTING MAY BE REQUIRED, AT THE OWNER'S EXPENSE, IF PLANS TO CONSTRUCT THIS SUBDIVISION DO NOT COMPLY WITH THE REGULATIONS.
14. ANY RELOCATION OF ELECTRIC FACILITIES SHALL BE AT LANDOWNER'S/DEVELOPER'S EXPENSE.
15. THIS SITE IS SUBJECT TO THE CITY OF AUSTIN'S VOID AND WATER FLOW MITIGATION RULE.
16. PARKLAND DEDICATION IS REQUIRED FOR ANY APPLICABLE USES PER CITY CODE §25-1-601, AS AMENDED, PRIOR TO APPROVAL OF A SITE PLAN IN THIS SUBDIVISION.
17. BY APPROVING THIS PLAT, THE CITY OF AUSTIN ASSUMES NO OBLIGATION TO CONSTRUCT ANY INFRASTRUCTURE IN CONNECTION WITH THIS SUBDIVISION. ANY SUBDIVISION INFRASTRUCTURE REQUIRED FOR THE DEVELOPMENT OF THE LOTS IN THIS SUBDIVISION IS THE RESPONSIBILITY OF THE DEVELOPER AND/OR THE OWNERS OF THE LOTS. FAILURE TO CONSTRUCT ANY REQUIRED INFRASTRUCTURE TO CITY STANDARDS MAY BE JUST CAUSE FOR THE CITY TO DENY APPLICATIONS FOR CERTAIN DEVELOPMENT PERMITS INCLUDING BUILDING PERMITS, SITE PLAN APPROVALS, AND/OR CERTIFICATES OF OCCUPANCY.
18. ALL RESTRICTIONS AND NOTES FROM THE PREVIOUS EXISTING SUBDIVISION, VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION RECORDED IN DOC. NO. 2008070951 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, SHALL APPLY TO THIS PLAT.
19. ANY SUBSEQUENT RESIDENTIAL DEVELOPMENT WITHIN THIS SUBDIVISION IS REQUIRED TO DEDICATE PARKLAND OR MAKE PAYMENT IN-LIEU OF DEDICATION AT SITE PLAN (OR BUILDING PERMIT IF NO SITE PLAN IS REQUIRED) AS REQUIRED BY CHAPTER 25-1, ARTICLE 14 (PARKLAND DEDICATION) OR OTHER APPLICABLE ORDINANCE.
20. EACH LOT WITHIN THIS SUBDIVISION SHALL HAVE SEPARATE SEWER TAPS, SEPARATE WATER METERS, AND THEIR RESPECTIVE PRIVATE WATER AND SEWER SERVICE LINES SHALL BE POSITIONED OR LOCATED IN A MANNER THAT WILL NOT CROSS LOT LINES.

LEGAL DESCRIPTION OF:

BEING A 11.159 ACRES TRACT OF LAND, SITUATED IN THE M. M. HORNSBY SURVEY, ABSTRACT NO. 280, WILLIAMSON COUNTY, TEXAS; AND BEING ALL OF LOT 1 AND LOT 2, BLOCK A OF THE VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION, AS SHOWN ON PLAT RECORDED IN DOCUMENT NO. 2008070951 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS (O.P.R.W.C.T.); AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 1/2-INCH IRON ROD FOUND, IN THE NORTHEAST BOUNDARY LINE OF NORTHWEST WOODS, A LEGAL SUBDIVISION ACCORDING TO THE PLAT OF RECORD IN DOCUMENT NO. 1975000313 OF THE O.P.R.W.C.T.; FOR THE SOUTHWEST CORNER OF LOT 1, BLOCK A, TOWN AND COUNTRY PARK ADDITION, A LEGAL SUBDIVISION ACCORDING TO THE PLAT OF RECORD IN DOCUMENT NO. 2004002797 OF THE O.P.R.W.C.T., SAME BEING THE NORTHWEST CORNER OF SAID VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION;

THENCE, NORTH 68°54'43" EAST, DEPARTING SAID NORTHEAST BOUNDARY LINE OF NORTHWEST WOODS, WITH THE SOUTHEAST BOUNDARY LINE OF SAID TOWN AND COUNTRY PARK ADDITION, SAME BEING THE NORTHWEST BOUNDARY LINE OF SAID VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION, A DISTANCE OF 570.64 FEET TO A CALCULATED POINT, IN SAID SOUTHEAST BOUNDARY LINE OF TOWN AND COUNTRY PARK ADDITION, FOR AN ANGLE CORNER OF THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF MORRIS ROAD, A VARIABLE WIDTH RIGHT-OF-WAY, SAME BEING THE NORTHEAST CORNER OF SAID VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION; AND FROM WHICH A 3/8-INCH IRON ROD FOUND BEARS SOUTH 15°02'57" EAST, A DISTANCE OF 0.85 FEET;

THENCE, DEPARTING SAID SOUTHEAST BOUNDARY LINE OF TOWN AND COUNTRY PARK ADDITION, WITH SAID SOUTHWESTERLY RIGHT-OF-WAY LINE OF MORRIS ROAD, SAME BEING THE NORTHEAST BOUNDARY LINE OF SAID VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION, THE FOLLOWING TWO (2) COURSES AND DISTANCES:

1. SOUTH 20°07'27" EAST, A DISTANCE OF 547.83 FEET TO A MAG NAIL WITH WASHER STAMPED "KHA" SET;
2. SOUTH 20°08'36" EAST, A DISTANCE OF 305.10 FEET TO A 1/2-INCH IRON ROD WITH PLASTIC CAP STAMPED "KHA" SET, IN THE NORTHWEST BOUNDARY LINE OF A CALLED 2.727 ACRES TRACT OF LAND DESCRIBED TO DAKOTA PLAZA BACELINE, LLC AS SHOWN UNDER DOCUMENT NO. 2015013080 OF THE O.P.R.W.C.T.; FOR AN ANGLE CORNER OF SAID SOUTHWESTERLY RIGHT-OF-WAY LINE OF MORRIS ROAD, SAME BEING THE SOUTHEAST CORNER OF SAID VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION;

THENCE, SOUTH 68°52'43" WEST, DEPARTING SAID SOUTHWESTERLY RIGHT-OF-WAY LINE OF MORRIS ROAD, WITH SAID NORTHWEST BOUNDARY LINE OF THE 2.727 ACRES TRACT, SAME BEING THE SOUTHEAST BOUNDARY LINE OF SAID VINEYARD CHRISTIAN FELLOWSIHP SUBDIVISION, A DISTANCE OF 569.14 FEET TO A 1/2-INCH IRON ROD FOUND IN SAID NORTHEAST BOUNDARY LINE OF NORTHWEST WOODS, FOR THE NORTHWEST CORNER OF SAID 2.727 ACRES TRACT, SAME BEING THE SOUTHWEST CORNER OF SAID VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION;

THENCE, WITH SAID NORTHEAST BOUNDARY LINE OF NORTHWEST WOODS AND THE SOUTHWEST BOUNDARY LINE OF SAID VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION, THE FOLLOWING TWO (2) COURSES AND DISTANCES:

1. NORTH 20°13'56" WEST, A DISTANCE OF 679.21 FEET TO A 1/2-INCH IRON ROD WITH PLASTIC CAP STAMPED "KHA" SET;
2. NORTH 20°13'52" WEST, A DISTANCE OF 174.02 FEET TO THE **POINT OF BEGINNING** AND CONTAINING 11.159 ACRES OF LAND IN WILLIAMSON COUNTY, TEXAS. THIS DOCUMENT WAS PREPARED IN THE OFFICE OF KIMLEY-HORN AND ASSOCIATES, INC. IN AUSTIN, TEXAS.

SURVEYOR'S CERTIFICATION:

STATE OF TEXAS §
COUNTY OF WILLIAMSON §

I, MICHAEL A. MONTGOMERY II, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF SURVEYING AND HEREBY CERTIFY THAT THIS PLAT COMPLIES WITH THE SURVEYING RELATED PORTIONS OF TITLE 25 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND WAS PREPARED FROM AN ACTUAL ON THE GROUND SURVEY OF THE PROPERTY MADE UNDER MY DIRECTION AND SUPERVISION.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL THIS THE 31 DAY OF August, 2023 A.D.

MICHAEL A. MONTGOMERY II, R.P.L.S.
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 6890
STATE OF TEXAS

STATE OF TEXAS REGISTERED MICHAEL A. MONTGOMERY II 6890 PROFESSIONAL LAND SURVEYOR

ENGINEER'S CERTIFICATION:

STATE OF TEXAS §
COUNTY OF WILLIAMSON §

THAT I, JOSE M. FARIAS, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF ENGINEERING AND HEREBY CERTIFY THAT THIS PLAT IS FEASIBLE FROM AN ENGINEERING STANDPOINT AND COMPLIES WITH THE ENGINEERING RELATED PORTIONS OF TITLE 25 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

ACCORDING TO COMMUNITY PANEL NO. 48491C0610F, EFFECTIVE DATE: DECEMBER 20, 2019, OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM), THE SUBJECT TRACT IS LOCATED WITHIN ZONE "X" (UN-SHADED) WHICH IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN," COMMONLY KNOWN AS THE 500-YEAR FLOODPLAIN. ZONE "X" (UN-SHADED) IS OUTSIDE OF ANY FEMA ESTABLISHED FLOOD HAZARD ZONE.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL THIS THE 31 DAY OF August, 2023 A.D.

JOSE M. FARIAS
REGISTERED PROFESSIONAL ENGINEER NO. 111389
STATE OF TEXAS

STATE OF TEXAS JOSE M. FARIAS 111389 LICENSED PROFESSIONAL ENGINEER

OWNER'S CERTIFICATION:

STATE OF TEXAS §
COUNTY OF WILLIAMSON §

KNOW ALL MEN BY THE PRESENTS:

THAT MARIELLE LAND GROUP, LLC, BEING OWNER OF ALL OF LOT 2, BLOCK A AND A PORTION OF LOT 1, BLOCK A OF VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION, A SUBDIVISION OF RECORD IN DOCUMENT NO. 2008070951 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, CONVEYED BY DEED OF RECORD IN DOCUMENT NUMBERS 2021135294 AND 2022094788 OF THE REAL PROPERTY RECORDS OF WILLIAMSON COUNTY, TEXAS; AND THAT VINEYARD CHRISTIAN FELLOWSHIP OF AUSTIN, TEXAS, INC., BEING THE OWNER OF A PORTION OF LOT 1, BLOCK A OF SAID VINEYARD CHRISTIAN FELLOWSHIP SUBDIVISION, CONVEYED BY DEED OF RECORD IN DOCUMENT NUMBER 2007072825 OF THE REAL PROPERTY RECORDS OF WILLIAMSON COUNTY, TEXAS; AND SAID SUBDIVISION HAVING BEEN APPROVED FOR AMENDMENT PURSUANT TO CHAPTER 212.016 OF THE LOCAL GOVERNMENT CODE, DO HEREBY AMEND THE SUBJECT PROPERTY IN ACCORDANCE WITH THE MAP OR PLAT ATTACHED HERETO, TO BE KNOWN AS: ~~MARIELLE SUBDIVISION~~ Lots 1A & 2A Block A Marielle Subdivision -AC

AND DO HEREBY DEDICATE TO THE PUBLIC THE USE OF ALL STREETS AND EASEMENTS SHOWN HEREON, SUBJECT TO ANY AND ALL EASEMENTS OR RESTRICTIONS HERETOFORE GRANTED AND NOT RELEASED.

TO CERTIFY WHICH, WITNESS BY MY HAND ON THIS THE 6th DAY OF September, 2023 A. D.

MIKE VALENZUELA
MARIELLE LAND GROUP, LLC
5900 BALCONES DR, SUITE 100
AUSTIN, TX 78731

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED Mike Valenzuela, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGE TO ME THAT THEY EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED, IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE ON THIS THE 6th DAY OF September, 2023 A. D.

Cecilia Gunn
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS
MY COMMISSION EXPIRES ON: 3-5-2024

CECILIA GUNN Notary Public, State of Texas Comm. Expires 03-05-2024 Notary ID 126330111

BEN KOCH
VINEYARD CHRISTIAN FELLOWSHIP OF AUSTIN, Texas, Inc -A.C
13208 MORRIS ROAD
AUSTIN, TX 78729

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED Ben Koch, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGE TO ME THAT THEY EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED, IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE ON THIS THE 6th DAY OF September, 2023 A. D.

Cecilia Gunn
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS
MY COMMISSION EXPIRES ON: 3-5-2024

CECILIA GUNN Notary Public, State of Texas Comm. Expires 03-05-2024 Notary ID 126330111

STATE OF TEXAS §
CITY OF AUSTIN §

APPROVED, ACCEPTED AND AUTHORIZED FOR RECORD BY THE DIRECTOR, DEVELOPMENT SERVICES DEPARTMENT, CITY OF AUSTIN, COUNTY OF TRAVIS, THIS THE 24 DAY OF October, 20[illegible] A.D.

AMY COMBS FOR:
JOSE ROIG, DIRECTOR
DEVELOPMENT SERVICES DEPARTMENT

COUNTY CLERK'S APPROVAL:

STATE OF TEXAS §
COUNTY OF WILLIAMSON §

KNOW ALL MEN BY THESE PRESENTS.

I, NANCY E. RISTER, CLERK OF THE COUNTY COURT OF SAID COUNTY, DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT IN WRITING, WITH ITS CERTIFICATE OF AUTHENTICATION, WAS FILED FOR RECORD IN MY OFFICE ON THE 27th DAY OF October, A.D. 2023, AT 11:20 O'CLOCK A M, AND DULY RECORDED THIS THE 27th DAY OF October, 2023, A.D. AT 11:32 O'CLOCK A M, IN THE OFFICIAL RECORDS OF SAID COUNTY IN INSTRUMENT NO. 2023089678.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL AT THE COUNTY COURT OF SAID COUNTY, AT MY OFFICE IN GEORGETOWN, TEXAS. THE DATE LAST SHOWN ABOVE WRITTEN.

NANCY E. RISTER, CLERK OF THE COUNTY COURT
OF WILLIAMSON COUNTY, TEXAS

BY: Diane Law, DEPUTY

COUNTY COURT WILLIAMSON COUNTY, TEXAS

Kimley»Horn
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TEXAS 78759 — TBPELS FIRM # 10194624 — TEL. NO. (512) 418-1771 — WWW.KIMLEY-HORN.COM

SCALE	DRAWN BY	CHECKED BY	DATE	PROJECT NO.	SHEET NO.
N/A	JKA	MMII	8/21/2023	069273503	2 OF 2

SITE PLAN APPROVAL SHEET 5 OF 48
FILE NUMBER SP-2024-0063C APPLICATION DATE 04/15/2024
APPROVED BY COMMISSION ON ________ UNDER SECTION 112 OF
CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) ________ CASE MANAGER CLARISSA E. DAVIS
PROJECT EXPIRATION DATE (ORD.#970905-A) ________ DWPZ ____ DDZ ____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: ________ ZONING MF-2, MF-2 CO
Rev. 1 ________ Correction 1 ________
Rev. 2 ________ Correction 2 ________
Rev. 3 ________ Correction 3 ________

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

AMAVI NORTHWEST AUSTIN 13220 MORRIS ROAD CITY OF AUSTIN WILLIAMSON COUNTY, TEXAS	FINAL PLAT

KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

12/24/2024
(Seal: STATE OF TEXAS JOSE M. FARIAS 111389 LICENSED PROFESSIONAL ENGINEER)

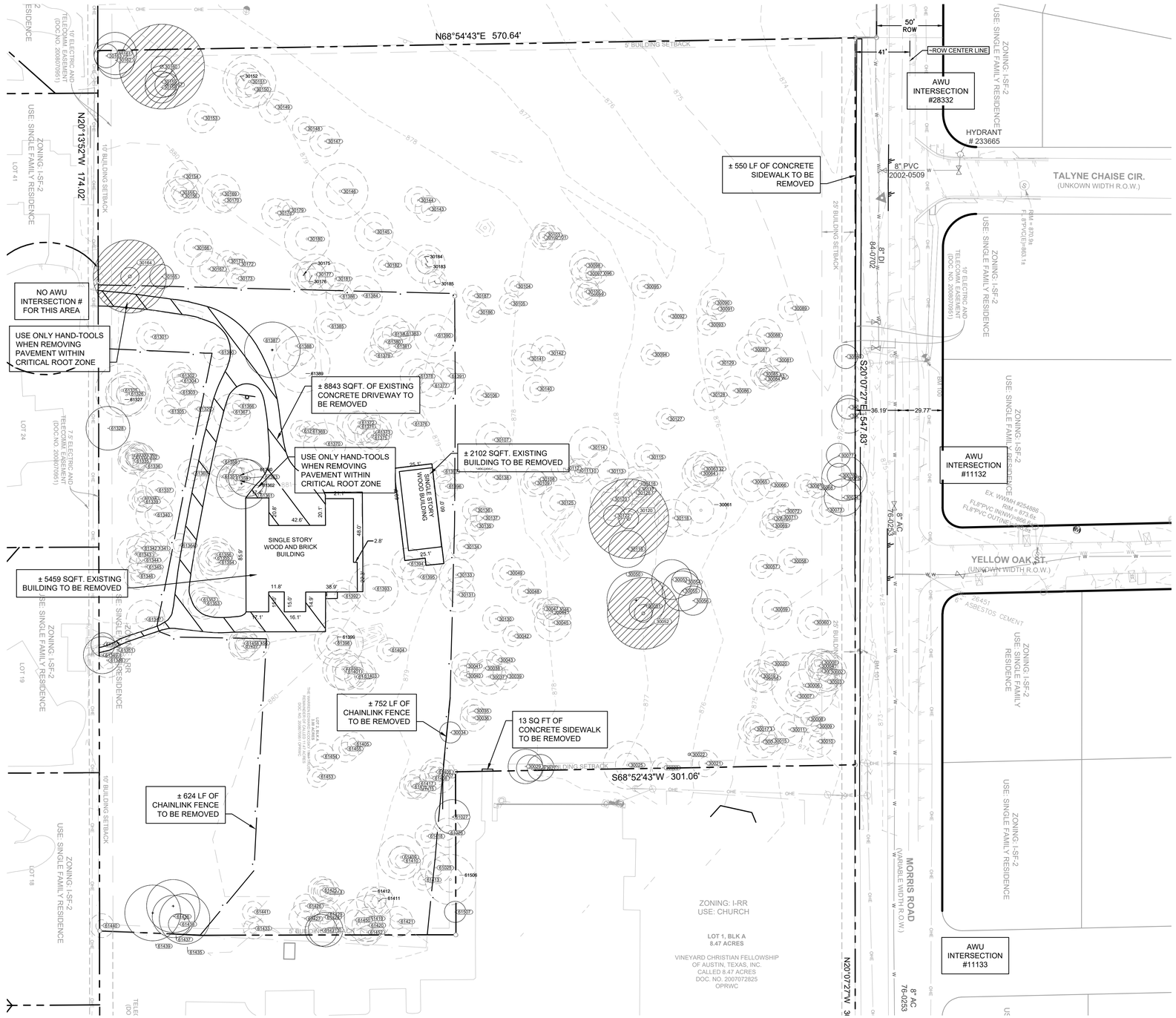
Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

No.	REVISIONS	DATE	BY

SHEET NUMBER
5 OF 48

SP-2024-0063C



LEGEND

- PROPERTY LINE
- SETBACK LINE
- ADJACENT PROPERTY LINE
- W — EXISTING WATER MAIN
- WW — EXISTING WASTEWATER MAIN
- EXISTING STORM SEWER MAIN
- OHE — EXISTING OVERHEAD ELECTRIC LINE
- 490 — EXISTING CONTOUR
- G — EXISTING NATURAL GAS LINE
- EXISTING FIRE HYDRANT
- W — EXISTING WATER METER
- WW — EXISTING WASTEWATER MANHOLE
- S — EXISTING STORM SEWER STRUCTURE
- EXISTING TREE TO REMAIN
- EXISTING HERITAGE TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- EXISTING WATER VALVE
- EXISTING IRRIGATION VALVE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING ELECTRIC METER
- EXISTING GUY WIRE
- EXISTING POWER/UTILITY POLE
- TP — TREE PROTECTION
- 100 YR FP — 100 YEAR FLOODPLAIN LINEWORK
- 25 YR FP — 25 YEAR FLOODPLAIN LINEWORK
- EHZ — EROSION HAZARD ZONE
- CWQZ — CRITICAL WATER QUALITY ZONE

N

W E

S

0 40' 80'

GRAPHIC SCALE 40'

1. CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FOR DEMOLITION AND SHALL NOTIFY ALL RESPECTIVE GOVERNMENTAL AND UTILITY AGENCIES AFFECTED BY DEMOLITION PRIOR TO STARTING DEMOLITION.
2. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION. COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 903 SAN JACINTO, RM 319, AUSTIN, TX. 78701, TEL (512) 916-5783.
3. PRIOR TO DEMOLITION, PROPER PHASING OF EROSION CONTROL DEVICES AND TREE PROTECTION ARE TO BE INSTALLED.
4. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE FENCING, LIGHTING, STORM INLET STRUCTURES OR ANY OTHER APPURTENANCE, THEN THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
5. ALL DEMOLITION AND CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
6. ALL BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ARE GENERALLY LOCATED TO AFFORD MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT AND TO ASSURE AN EXPEDITIOUS TRAFFIC FLOW AT ALL TIMES. DURING THE PROGRESS OF WORK, THE CONTRACTOR SHALL PROVIDE ACCESS FOR LOCAL TRAFFIC.
7. CONTRACTOR SHALL LIMIT SAW CUT & PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THE CONSTRUCTION PLANS, BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL, REPLACEMENT, AND/OR REPAIR.
8. ALL PAVING AND CURB TO BE REMOVED ARE TO BE REMOVED USING FULL-DEPTH SAWCUT 2' OFF EXISTING BACK OF CURB.
9. ANY ADDITIONAL CONCRETE PAVING, FOOTINGS OR STRUCTURES NOT IDENTIFIED ON THIS PLAN SHALL BE LOCATED BY CONTRACTOR AND SUBMITTED TO ENGINEER FOR APPROVAL.
10. CONTRACTOR SHALL EXERCISE EXTREME CAUTION AS SITE CONTAINS PRIVATE AND PUBLIC UTILITIES. CONTRACTOR SHALL CALL 811 AT LEAST 72 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL CONTACT ANY OTHER UTILITY COMPANIES WHO DO NOT SUBSCRIBE TO THE DIG TESS PROGRAM FOR LINE MARKINGS. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR REPAIRING ANY DAMAGE DONE TO THESE FACILITIES.
11. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE, AND GAS LINES REQUIRED TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY AS REQUIRED FOR A UTILITY SERVICE TRANSITION TO NEW SERVICE WITHOUT OUTAGE OF SERVICES. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN ROAD RIGHT OF WAYS DURING CONSTRUCTION.
12. THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPT. AND THE CITY UTILITY DEPT. TO PLAN PROPOSED IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE EXISTING BUILDING. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT OFFS WITH THE CITY DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATER MAIN SHUT OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED.
13. ANY OTHER PAVING, FOUNDATION, CONDUIT, PIPES, AND DEBRIS SHOWN OR NOT SHOWN ON THIS PLAN SHALL BE REMOVED AFTER NOTIFICATION IS MADE TO THE OWNER AND AFTER THE CONTRACTOR CONFIRMS THE ITEM IS NO LONGER IN SERVICE.
14. KIMLEY-HORN AND ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACTS THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE. KIMLEY-HORN AND ASSOCIATES, INC. DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, AND THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING THEIR OWN SITE RECONNAISSANCE TO SCOPE THEIR WORK AND TO CONFIRM WITH THE OWNERS OF EXISTING IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OF PROPOSED DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR THE SITE'S STATE POST-DEMOLITION. THE SITE MUST BE IN A STATE SUITABLE FOR THE CONSTRUCTION OF FUTURE DEVELOPMENT, REMOVAL, RELOCATION, OR PRESERVATION OF EXISTING IMPROVEMENTS, UTILITIES, ETC.
15. INSTALL TREE PROTECTION TO THE GREATEST EXTENTS POSSIBLE PRIOR TO DEMOLITION ACTIVITIES. DEMOLITION WITHIN THE HALF CRITICAL ROOT ZONE SHALL BE PERFORMED BY HAND. TREE PROTECTION SHALL BE EXPANDED TO MATCH EROSION CONTROL PLAN AS SOON AS DEMOLITION ACTIVITIES HAVE BEEN COMPLETED.
16. NO DEMOLITION WILL OCCUR UNTIL A PRE CONSTRUCTION MEETING IS HELD WITH THE ENVIRONMENTAL INSPECTOR.
17. PERIMETER EROSION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO DEMOLITION. REFERENCE EROSION CONTROL PLAN AND DETAILS FOR TYPE AND LOCATION.
18. PRIOR TO EXCAVATION WITHIN TREE DRIPLINES OR THE REMOVAL OF TREES ADJACENT TO OTHER TREES THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE.
19. PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGES.
20. A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.
21. TREE PROTECTION FENCING IS REQUIRED FOR ALL TREES WITHIN THE LIMITS OF DESTRUCTION ON SITE BEFORE DEMOLITION OCCURS. WHERE FENCING CANNOT BE PLACED TO PROTECT THE EXTENT OF THE CRZ WITH NATURAL GROUND COVER, PROVIDE AN 8" LAYER OF ORGANIC HARDWOOD MULCH OUTSIDE OF THE FENCING.
22. STRAPPING 2X4 OR THICKER LUMBER (TO MATCH HEIGHT OF BUILDING) SECURELY AROUND TREE TRUNK, BUTTRESS ROOTS, AND ROOT FLARE, IS REQUIRED IF FENCING CANNOT GO AROUND THE ENTIRE HALF CRZ.
23. IF PRUNING IS NECESSARY DURING DEMOLITION, IT SHOULD TAKE PLACE PRIOR TO THE START OF THE DEMOLITION PROCESS. IT MUST BE PERFORMED BY A QUALIFIED ARBORIST AND NO MORE THAN 25% IS PERMITTED.

EXISTING CONDITION NOTE

LOCATION OF PUBLIC AND FRANCHISE UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. CONTRACTOR SHALL CALL THE ONE CALL CENTER (512-472-2822) AT LEAST 48 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL CONTACT ANY OTHER UTILITY COMPANIES WHO DO NOT SUBSCRIBE TO THE ONE CALL PROGRAM FOR LINE MARKINGS. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE DONE TO THESE FACILITIES.

BENCHMARKS

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION

- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

SITE PLAN APPROVAL SHEET 6 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON_____ UNDER SECTION **112** OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC)_____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A)_____ DWPZ_____ DDZ_____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE:_____ ZONING**MF-2, MF-2 CO**
Rev. 1_____ Correction 1_____
Rev. 2_____ Correction 2_____
Rev. 3_____ Correction 3_____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

Know what's **below.** **Call** before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

DATE OF TREE SURVEY = MAY 2021
PERFORMED BY KIMLEY-HORN

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT 064487031	DATE APRIL 2024	SCALE: AS SHOWN	DESIGNED BY: AH	DRAWN BY: GA	CHECKED BY: JF

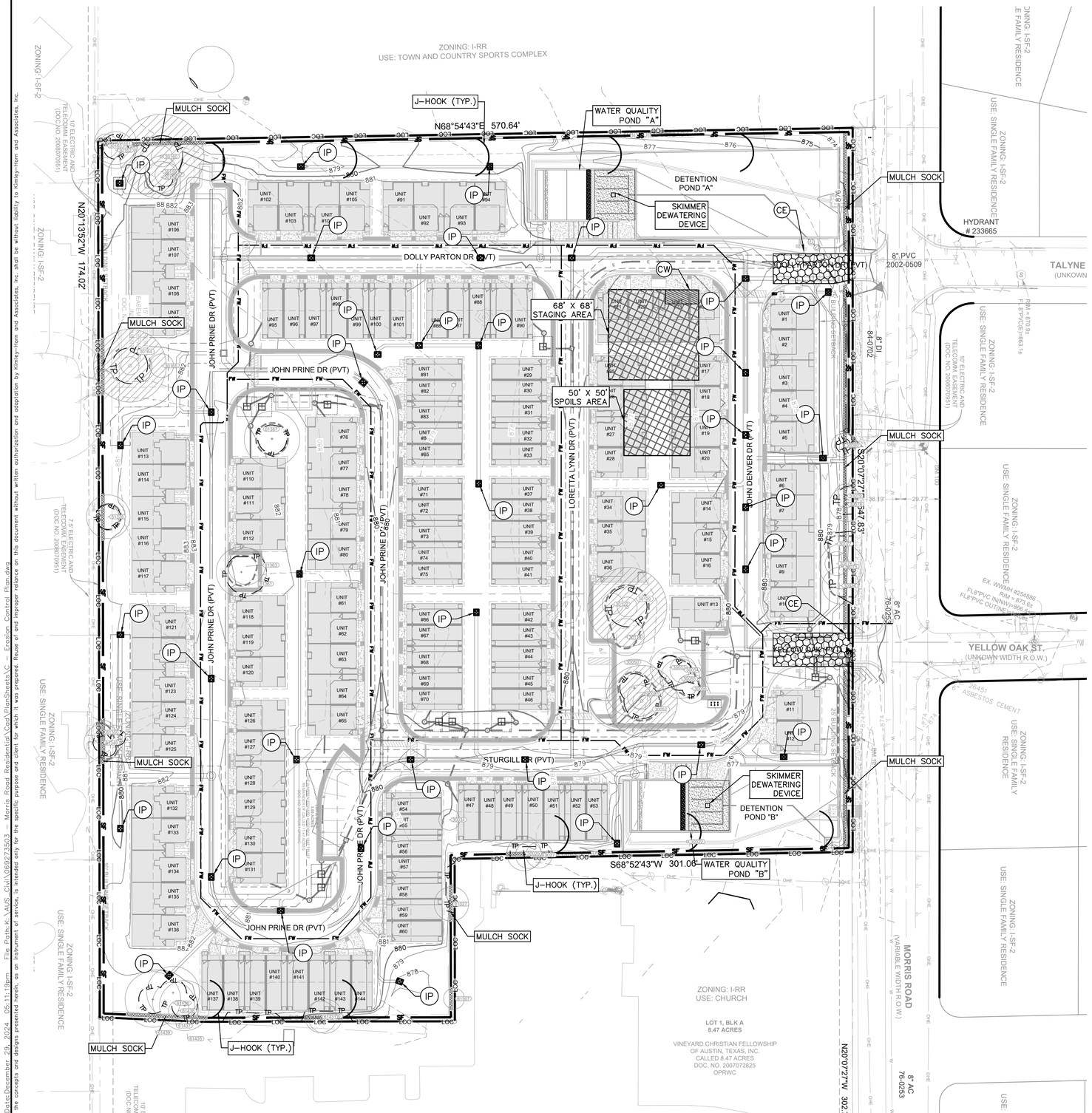
EXISTING CONDITIONS AND DEMOLITION PLAN

AMAVI NORTHWEST AUSTIN

13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
6 OF 48

SP-2024-0063C



LEGEND

SF	SF	SILT FENCE
TP	TP	TREE PROTECTION
IP	IP	PROPOSED INLET PROTECTION
CE	CE	CONSTRUCTION ENTRANCE
CW	CW	CONCRETE WASHOUT
RB	RB	ROCK BERM
		MULCH SOCK
450		EXISTING CONTOURS
450		PROPOSED CONTOURS
		LIMITS OF CONSTRUCTION AREA
XXX		TREE TO REMAIN
XXX		HERITAGE TREE TO REMAIN
XXX		TREE TO BE REMOVED
XXX		HERITAGE TREE TO BE REMOVED

NOTES:

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS - CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY.
2. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
3. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS [LDC 25-8-183].
4. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURE DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
5. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
6. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
7. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
8. REFERENCE EROSION CONTROL DETAILS ON SHEET 36.
9. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING [ECM 1.4.4.B.3, SECTION 5, I.].
10. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
11. ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF AUSTIN STANDARDS.
12. SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION PLAN AND TREE LIST.
13. PER LDC 25-8-323(C), FOR AREAS ON THE SITE THAT ARE TO REMAIN PERVIOUS AFTER DEVELOPMENT, ANY SOILS THAT ARE COMPACTED DURING SITE GRADING AND CONSTRUCTION OPERATIONS MUST BE DECOMPACTED IN COMPLIANCE WITH THE ECM AND IN COMPLIANCE WITH SSM 661S.
14. FINISHED ELEVATION FOR LANDSCAPE AREAS ADJACENT TO PARKING MUST BE AT LEAST SIX(6) INCHES BELOW THE FINISHED PARKING LOT ELEVATION TO ALLOW FOR PLACEMENT OF SIX(6) INCHES OF TOPSOIL [ECM 1.4.7].

APPENDIX Q-2
AMAVI NORTHWEST AUSTIN

SUBURBAN WATERSHEDS

NOTE: Q1 TABLES ARE NOT REQUIRED FOR SUBURBAN WATERSHEDS

TOTAL IMPERVIOUS COVER ALLOWED AT	60 %	X	7.91	ACRES =	4.746 ACRES

PROPOSED TOTAL IMPERVIOUS COVER

EXISTING IMPERVIOUS COVER PROPOSED TO REMAIN =	0.000	ACRES
PROPOSED NEW IMPERVIOUS COVER =	4.572	ACRES
TOTAL PROPOSED IMPERVIOUS COVER =	**4.572**	**ACRES**

ALLOWABLE IMPERVIOUS COVER BREAKDOWN BY SLOPE CATEGORY

TOTAL ACREAGE 15 - 25 % = 0.02 X 10% = 0.002 ACRES

PROPOSED IMPERVIOUS COVER ON SLOPES

SLOPES		IMPERVIOUS COVER		
		BUILDING & AND OTHER IMPERVIOUS COVER		DRIVEWAYS / ROADWAYS
SLOPE CATEGORIES	ACRES	ACRES	% OF CATEGORY	ACRES
0 - 15%	7.860	2.94	37.4%	1.61
15 - 25%	0.017	0.000	0.0%	0.00
25 - 35%	0.020	0.008	42.0%	0.01
OVER 35%	0.015	0.007	46.7%	0.00
GROSS SITE AREA	7.91			

BENCHMARKS

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION

- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

SITE PLAN APPROVAL SHEET 7 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON _____ UNDER SECTION **112** OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC)_____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A)_____ DWPZ_____ DDZ_____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE:_____ ZONING**MF-2, MF-2 CO**
Rev. 1_____ Correction 1_____
Rev. 2_____ Correction 2_____
Rev. 3_____ Correction 3_____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

811 Know what's below. Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
KIMLEY-HORN AND ASSOCIATES, INC.

TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED
PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT 064487031			
DATE APRIL 2024	SCALE: AS SHOWN	DESIGNED BY: AH	
		DRAWN BY: GA	
		CHECKED BY: JF	

EROSION CONTROL PLAN

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
7 OF 48

SP-2024-0063C

TREE TABLE

TAG NO.	DESCRIPTION	MULTI-TRUNK	STEM SIZES	REMOVE
30001	16.5" LIVE OAK	MULTI-TRUNK	12, 9	R
30002	14.5" LIVE OAK	MULTI-TRUNK	11, 7	R
30003	11" LIVE OAK	NON-MT		R
30004	10" LIVE OAK	NON-MT		R
30005	10" LIVE OAK	NON-MT		R
30006	24.5" LIVE OAK	MULTI-TRUNK	11, 12, 13	R
30007	8" LIVE OAK	NON-MT		R
30008	10" LIVE OAK	NON-MT		R
30009	8" LIVE OAK	NON-MT		R
30010	12" LIVE OAK	NON-MT		R
30011	12" LIVE OAK	MULTI-TRUNK	8, 8	R
30014	12" LIVE OAK	NON-MT		R
30015	9" LIVE OAK	NON-MT		R
30016	10" LIVE OAK	NON-MT		R
30017	12" LIVE OAK	NON-MT		R
30018	11" LIVE OAK	NON-MT		R
30019	12" LIVE OAK	NON-MT		R
30020	10" LIVE OAK	NON-MT		R
30021	10" LIVE OAK	NON-MT		R
30022	1" LIVE OAK	NON-MT		
30023	8" LIVE OAK	NON-MT		R
30025	18" LIVE OAK	MULTI-TRUNK	12, 12	R
30027	10" LIVE OAK	NON-MT		
30028	10" LIVE OAK	NON-MT		
30029	13" LIVE OAK	NON-MT		
30034	8" LIVE OAK	NON-MT		
30035	9" LIVE OAK	NON-MT		R
30036	10" LIVE OAK	NON-MT		R
30037	13" LIVE OAK	NON-MT		R
30038	13.5" LIVE OAK	MULTI-TRUNK	9, 9	R
30039	10" LIVE OAK	NON-MT		R
30040	8" LIVE OAK	NON-MT		R
30041	10" LIVE OAK	NON-MT		R
30042	8" LIVE OAK	MULTI-TRUNK	6, 4	R
30043	8" LIVE OAK	NON-MT		R
30044	11" LIVE OAK	MULTI-TRUNK	8, 6	R
30045	14" LIVE OAK	MULTI-TRUNK	8, 6, 6	R
30046	8" LIVE OAK	NON-MT		R
30047	8" LIVE OAK	NON-MT		R
30048	9" LIVE OAK	MULTI-TRUNK	6, 6	R
30049	11" LIVE OAK	MULTI-TRUNK	6, 5, 5	R
30050	22" LIVE OAK	MULTI-TRUNK	12, 11, 9	
30051	9" LIVE OAK	NON-MT		
30052	27" LIVE OAK	MULTI-TRUNK	11, 10.5, 8	
30053	15" LIVE OAK	NON-MT		
30054	10" LIVE OAK	NON-MT		
30055	15" LIVE OAK	MULTI-TRUNK	10, 10	
30056	11" LIVE OAK	NON-MT		
30057	9" LIVE OAK	NON-MT		R
30058	10" LIVE OAK	MULTI-TRUNK	7, 6	R
30059	15" LIVE OAK	MULTI-TRUNK	10, 10	R
30060	12" LIVE OAK	MULTI-TRUNK	8, 8	R
30061	19.5" LIVE OAK	MULTI-TRUNK	14, 11	R
30062	11.5" LIVE OAK	MULTI-TRUNK	9, 5	R
30063	13.5" LIVE OAK	MULTI-TRUNK	9, 9	R
30064	13.5" LIVE OAK	MULTI-TRUNK	9, 9	R
30065	15" LIVE OAK	MULTI-TRUNK	8, 7, 7	R
30066	10" LIVE OAK	NON-MT		R
30067	9" LIVE OAK	NON-MT		R
30068	8" LIVE OAK	NON-MT		R
30069	9" LIVE OAK	NON-MT		R
30070	8" LIVE OAK	NON-MT		R
30071	9" LIVE OAK	NON-MT		R
30072	9" LIVE OAK	NON-MT		R
30073	11" LIVE OAK	NON-MT		R

TREE TABLE

TAG NO.	DESCRIPTION	MULTI-TRUNK	STEM SIZES	REMOVE
30074	14" LIVE OAK	NON-MT		
30075	17" LIVE OAK	MULTI-TRUNK	13, 8	
30076	9" LIVE OAK	NON-MT		
30077	9" LIVE OAK	NON-MT		
30078	13" LIVE OAK	NON-MT		
30079	9" LIVE OAK	NON-MT		
30080	9" LIVE OAK	MULTI-TRUNK	6, 6	
30081	9" LIVE OAK	MULTI-TRUNK	6, 6	R
30082	8" LIVE OAK	NON-MT		R
30083	8" LIVE OAK	NON-MT		R
30084	8" LIVE OAK	NON-MT		R
30085	9" LIVE OAK	NON-MT		R
30086	11" LIVE OAK	NON-MT		R
30087	11.5" LIVE OAK	MULTI-TRUNK	8, 7	R
30088	12.5" LIVE OAK	MULTI-TRUNK	9, 7	R
30089	10" LIVE OAK	NON-MT		R
30090	10" LIVE OAK	MULTI-TRUNK	8, 4	R
30091	8" LIVE OAK	NON-MT		R
30092	11" LIVE OAK	MULTI-TRUNK	8, 6	R
30093	8" LIVE OAK	NON-MT		R
30094	8" LIVE OAK	NON-MT		R
30095	9" LIVE OAK	NON-MT		R
30096	8" LIVE OAK	NON-MT		R
30097	11.5" LIVE OAK	MULTI-TRUNK	9, 5	R
30098	11.5" LIVE OAK	MULTI-TRUNK	8, 7	R
30099	9" LIVE OAK	NON-MT		R
30100	11" LIVE OAK	NON-MT		R
30101	9" LIVE OAK	NON-MT		R
30102	9" LIVE OAK	NON-MT		R
30103	9" LIVE OAK	NON-MT		R
30104	8" LIVE OAK	NON-MT		R
30105	8" LIVE OAK	NON-MT		R
30106	8" LIVE OAK	NON-MT		R
30107	13" LIVE OAK	NON-MT		R
30108	11.5" LIVE OAK	MULTI-TRUNK	8, 7	R
30109	10" LIVE OAK	NON-MT		R
30110	9" LIVE OAK	NON-MT		R
30111	9" LIVE OAK	NON-MT		R
30112	9" LIVE OAK	NON-MT		R
30113	16" LIVE OAK	MULTI-TRUNK	11, 10	R
30114	15.5" LIVE OAK	MULTI-TRUNK	11, 9	R
30115	10" CEDAR ELM	NON-MT		R
30116	10" LIVE OAK	NON-MT		R
30117	17.5" LIVE OAK	MULTI-TRUNK	10, 9, 6	R
30118	14" LIVE OAK	NON-MT		R
30119	14" LIVE OAK	MULTI-TRUNK	11, 6	
30120	30" LIVE OAK	MULTI-TRUNK	20, 10, 10	
30122	8" LIVE OAK	NON-MT		
30123	16" LIVE OAK	MULTI-TRUNK	11, 10	R
30125	13" LIVE OAK	MULTI-TRUNK	8, 4, 6	R
30126	9" LIVE OAK	NON-MT		R
30127	8" LIVE OAK	NON-MT		R
30128	12" LIVE OAK	MULTI-TRUNK	8, 8	R
30129	10" LIVE OAK	NON-MT		R
30130	10" LIVE OAK	NON-MT		R
30131	13" LIVE OAK	NON-MT		R
30133	13" CEDAR ELM	NON-MT		R
30134	10" LIVE OAK	NON-MT		R
30135	8" LIVE OAK	NON-MT		R
30136	9" LIVE OAK	NON-MT		R
30137	9" LIVE OAK	NON-MT		R
30138	11.5" LIVE OAK	MULTI-TRUNK	8, 7	R
30139	8" LIVE OAK	NON-MT		R
30140	10" LIVE OAK	NON-MT		R
30141	11" LIVE OAK	NON-MT		R

TREE TABLE

TAG NO.	DESCRIPTION	MULTI-TRUNK	STEM SIZES	REMOVE
30142	13" LIVE OAK	NON-MT		R
30143	10" LIVE OAK	NON-MT		R
30144	10" LIVE OAK	NON-MT		R
30145	14.5" LIVE OAK	MULTI-TRUNK	12, 5	R
30146	21" LIVE OAK	MULTI-TRUNK	12.5, 11, 6	R
30147	11.5" LIVE OAK	MULTI-TRUNK	8, 7	R
30148	9" HACKBERRY	NON-MT		R
30149	12" CHINABERRY	MULTI-TRUNK	7, 5, 5	R
30150	13" LIVE OAK	NON-MT		R
30151	20" LIVE OAK	MULTI-TRUNK	14, 11.5	R
30152	13" LIVE OAK	NON-MT		R
30153	11" LIVE OAK	NON-MT		R
30154	12" LIVE OAK	NON-MT		R
30155	12" LIVE OAK	NON-MT		R
30156	13" LIVE OAK	NON-MT		R
30157	9" CEDAR ELM	NON-MT		
30158	12" LIVE OAK	NON-MT		
30159	12" LIVE OAK	NON-MT		
30160	32" LIVE OAK	MULTI-TRUNK	23, 18	
30161	16" LIVE OAK	NON-MT		
30162	14" LIVE OAK	NON-MT		
30163	9" LIVE OAK	NON-MT		
30164	27.5" LIVE OAK	MULTI-TRUNK	15, 12.5, 12	
30165	9" LIVE OAK	NON-MT		
30166	14.5" LIVE OAK	MULTI-TRUNK	10, 9	R
30167	13.5" LIVE OAK	MULTI-TRUNK	9, 9	R
30169	14.5" LIVE OAK	MULTI-TRUNK	10, 9	R
30170	8.5" LIVE OAK	MULTI-TRUNK	6, 5	R
30171	8" LIVE OAK	NON-MT		R
30172	8" LIVE OAK	NON-MT		R
30173	8" LIVE OAK	NON-MT		R
30175	10" LIVE OAK	NON-MT		R
30176	10.6" LIVE OAK	MULTI-TRUNK	8, 8	R
30177	15.5" LIVE OAK	MULTI-TRUNK	8, 8, 7	R
30178	11" LIVE OAK	NON-MT		R
30179	8" LIVE OAK	NON-MT		R
30180	17" LIVE OAK	MULTI-TRUNK	12, 10	R
30181	12" LIVE OAK	NON-MT		R
30182	8" LIVE OAK	NON-MT		R
30183	14.5" LIVE OAK	MULTI-TRUNK	8, 7, 6	R
30184	9" LIVE OAK	NON-MT		R
30185	9" LIVE OAK	NON-MT		R
30186	8" LIVE OAK	NON-MT		R
30187	8" LIVE OAK	NON-MT		R
61025	12" LIVE OAK	NON-MT		R
61026	11" LIVE OAK	NON-MT		R
61027	13" LIVE OAK	NON-MT		
61300	11" LIVE OAK	NON-MT		R
61301	11" LIVE OAK	NON-MT		R
61302	10" LIVE OAK	NON-MT		R
61303	12" LIVE OAK	NON-MT		R
61304	10" MISC. TREE	NON-MT		R
61305	10" MISC. TREE	NON-MT		R
61325	20" LIVE OAK	MULTI-TRUNK	16, 12	R
61326	17" LIVE OAK	NON-MT		R
61327	15" CEDAR ELM	NON-MT		R
61328	16.5" LIVE OAK	MULTI-TRUNK	11, 11	
61329	13" LIVE OAK	NON-MT		R
61330	10" LIVE OAK	NON-MT		R
61331	10" LIVE OAK	NON-MT		R
61332	10" LIVE OAK	NON-MT		R
61333	11" LIVE OAK	NON-MT		R
61334	11" LIVE OAK	NON-MT		R
61335	10" LIVE OAK	NON-MT		R
61336	9" LIVE OAK	NON-MT		R

TREE TABLE

TAG NO.	DESCRIPTION	MULTI-TRUNK	STEM SIZES	REMOVE
61337	15" LIVE OAK	NON-MT		R
61338	10" HACKBERRY	NON-MT		R
61339	8" LIVE OAK	NON-MT		R
61340	14" LIVE OAK	NON-MT		R
61341	13" LIVE OAK	NON-MT		R
61342	11" LIVE OAK	MULTI-TRUNK	8, 6	R
61343	14" LIVE OAK	NON-MT		R
61344	10" LIVE OAK	NON-MT		R
61345	13" LIVE OAK	NON-MT		R
61346	10" LIVE OAK	NON-MT		R
61347	14.5" ASH	MULTI-TRUNK	10, 9	R
61348	13" LIVE OAK	NON-MT		R
61349	14" LIVE OAK	NON-MT		
61350	9" LIVE OAK	NON-MT		
61351	11" LIVE OAK	NON-MT		R
61352	13" LIVE OAK	NON-MT		R
61353	12" LIVE OAK	NON-MT		R
61354	15" LIVE OAK	NON-MT		R
61355	13" LIVE OAK	NON-MT		R
61356	13" LIVE OAK	NON-MT		R
61357	16" LIVE OAK	NON-MT		R
61358	12" LIVE OAK	NON-MT		R
61359	10" LIVE OAK	NON-MT		R
61360	11" LIVE OAK	NON-MT		R
61361	19" LIVE OAK	NON-MT		
61362	10" LIVE OAK	NON-MT		R
61363	14" LIVE OAK	NON-MT		
61364	9" LIVE OAK	NON-MT		R
61365	11" LIVE OAK	NON-MT		R
61366	9" LIVE OAK	NON-MT		R
61367	14" LIVE OAK	NON-MT		R
61368	8" LIVE OAK	NON-MT		R
61369	8" LIVE OAK	NON-MT		R
61370	16" LIVE OAK	MULTI-TRUNK	12, 8	R
61371	12" LIVE OAK	NON-MT		R
61372	16.5" LIVE OAK	MULTI-TRUNK	11, 11	R
61373	13" LIVE OAK	MULTI-TRUNK	9, 8	R
61374	13" LIVE OAK	NON-MT		R
61375	8" LIVE OAK	NON-MT		R
61376	10" LIVE OAK	MULTI-TRUNK	7, 6	R
61377	17" LIVE OAK	NON-MT		R
61378	13" LIVE OAK	NON-MT		R
61379	8" LIVE OAK	NON-MT		R
61380	11" LIVE OAK	NON-MT		R
61381	8" LIVE OAK	NON-MT		R
61382	14" LIVE OAK	NON-MT		R
61383	9" LIVE OAK	NON-MT		R
61384	15" LIVE OAK	NON-MT		R
61385	11" LIVE OAK	NON-MT		R
61386	10" LIVE OAK	NON-MT		R
61387	21" LIVE OAK	NON-MT		
61388	15" LIVE OAK	NON-MT		R
61389	21.5" LIVE OAK	MULTI-TRUNK	15, 13	R
61390	16" LIVE OAK	NON-MT		R
61391	12" LIVE OAK	NON-MT		R
61392	12" LIVE OAK	NON-MT		R
61393	18.5" LIVE OAK	NON-MT		R
61394	12" LIVE OAK	NON-MT		R
61395	13" CEDAR ELM	NON-MT		R
61396	9" LIVE OAK	NON-MT		R
61397	9" LIVE OAK	NON-MT		R
61398	12" LIVE OAK	NON-MT		R
61399	18.5" LIVE OAK	MULTI-TRUNK	13, 11	R
61400	15" LIVE OAK	NON-MT		R
61401	14" LIVE OAK	NON-MT		R

TREE TABLE

TAG NO.	DESCRIPTION	MULTI-TRUNK	STEM SIZES	REMOVE
61402	16" LIVE OAK	MULTI-TRUNK	11, 10	R
61403	10" LIVE OAK	NON-MT		R
61404	9" LIVE OAK	NON-MT		R
61405	9" LIVE OAK	NON-MT		R
61406	8" LIVE OAK	NON-MT		R
61407	13.5" LIVE OAK	MULTI-TRUNK	9, 9	R
61408	9" LIVE OAK	NON-MT		R
61409	17" LIVE OAK	MULTI-TRUNK	12, 10	R
61410	11" LIVE OAK	NON-MT		R
61411	11" LIVE OAK	NON-MT		R
61412	11" LIVE OAK	NON-MT		R
61413	8" LIVE OAK	NON-MT		R
61415	8" LIVE OAK	NON-MT		R
61416	9" LIVE OAK	NON-MT		R
61417	10.5" LIVE OAK	MULTI-TRUNK	7, 7	R
61418	9" LIVE OAK	NON-MT		R
61419	17.5" LIVE OAK	MULTI-TRUNK	13, 9	R
61420	12" LIVE OAK	NON-MT		R
61421	11.5" LIVE OAK	MULTI-TRUNK	8, 7	R
61423	10" LIVE OAK	NON-MT		R
61424	9" LIVE OAK	NON-MT		R
61425	10" LIVE OAK	NON-MT		R
61426	9" LIVE OAK	NON-MT		R
61427	12" LIVE OAK	NON-MT		R
61428	10" LIVE OAK	NON-MT		R
61429	11" LIVE OAK	NON-MT		R
61430	13" LIVE OAK	NON-MT		
61431	12" LIVE OAK	NON-MT		
61433	8" LIVE OAK	NON-MT		R
61435	19" LIVE OAK	NON-MT		
61436	16" LIVE OAK	NON-MT		
61437	20" LIVE OAK	NON-MT		
61438	8" LIVE OAK	NON-MT		
61439	21" LIVE OAK	NON-MT		
61440	9" CEDAR ELM	MULTI-TRUNK	6, 6	R
61441	8" LIVE OAK	NON-MT		R
61450	15.5" LIVE OAK	MULTI-TRUNK	11, 9	R
61452	10" LIVE OAK	NON-MT		R
61453	8" LIVE OAK	NON-MT		R
61454	10" LIVE OAK	NON-MT		R
61455	10" LIVE OAK	NON-MT		R
61456	13" LIVE OAK	NON-MT		R
61457	10" LIVE OAK	NON-MT		R
61458	11" LIVE OAK	NON-MT		R
61506	19" LIVE OAK	NON-MT		R
61507	8" LIVE OAK	NON-MT		

TREE LEGEND

H	HERITAGE TREE
R	TREE TO BE REMOVED

TREE SURVEY DATE: 7/9/2021

BENCHMARKS

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION

- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

SITE PLAN APPROVAL SHEET 8 OF 48
FILE NUMBER SP-2024-0063C APPLICATION DATE 04/15/2024
APPROVED BY COMMISSION ON ____________ UNDER SECTION 112 OF
CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) ________ CASE MANAGER CLARISSA E. DAVIS
PROJECT EXPIRATION DATE (ORD.#970905-A) ________ DWPZ ____ DDZ ____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: ____________ ZONING MF-2, MF-2 CO
Rev. 1 ____________ Correction 1 ____________
Rev. 2 ____________ Correction 2 ____________
Rev. 3 ____________ Correction 3 ____________

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

811 Know what's below. Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

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PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM

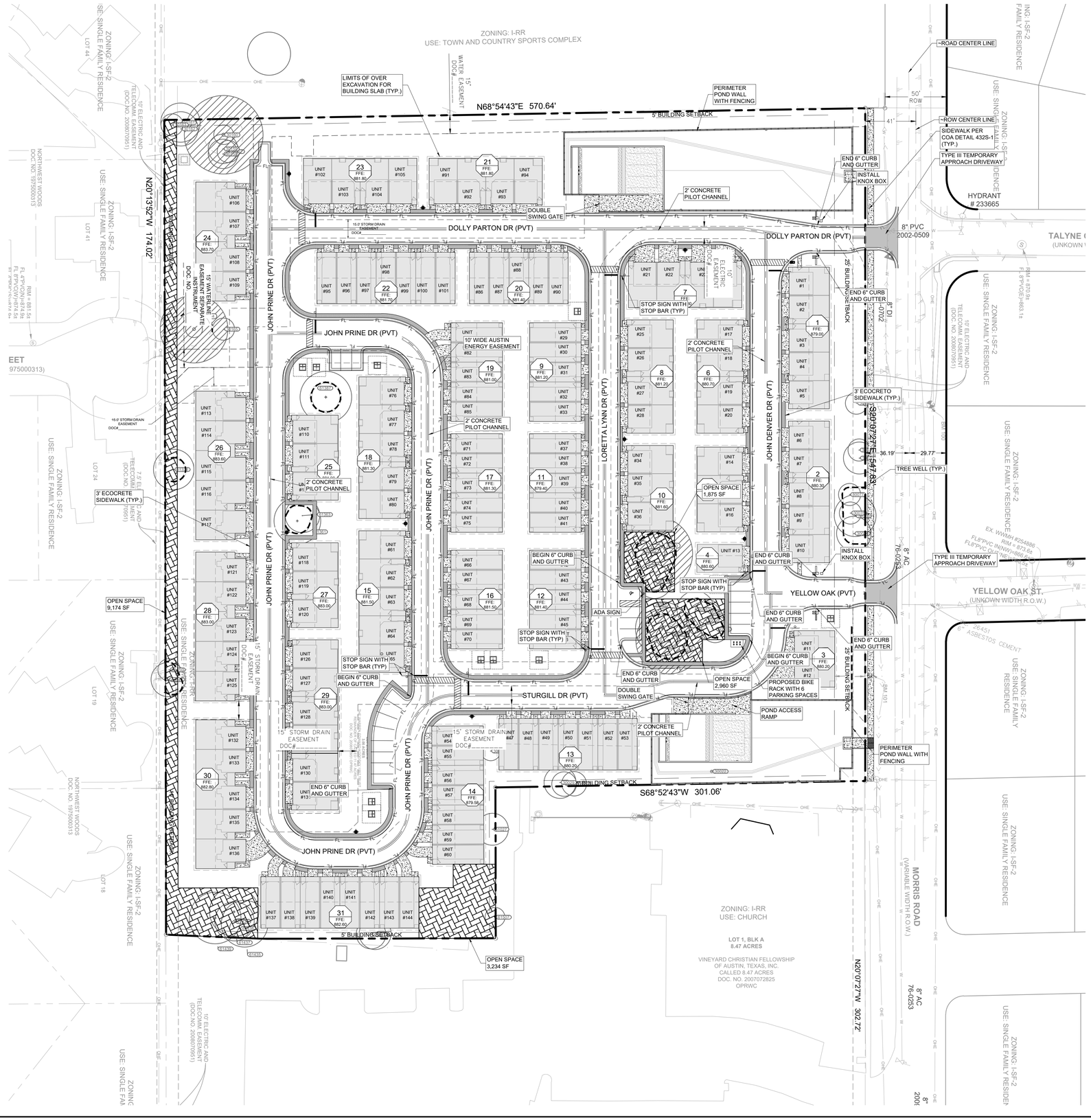
TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT 064487031
DATE APRIL 2024
SCALE: AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

TREE LIST

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS



LEGEND

- PROPERTY LINE
- WW — PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- OHP — EXISTING OVERHEAD POWER LINE
- W — EXISTING WATER LINE
- WW — EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE
- ADA ROUTE
- FL — ADA ROUTE
- 1 FFE: — BUILDING NUMBER / BUILDING FINISHED FLOOR ELEVATION
- UNIT # — ADDRESSING UNIT NUMBER
- TREE WELL

N
W E
S
0 40' 80'
GRAPHIC SCALE 40'

Parking Table	
Parking Provided	**Spaces Provided**
Garage	288
Visitor Surface Parking	20
Handicap	1
Total	**309**
Bicycle[1]	6

1– BASED ON SURFACE VISITOR PARKING

FIRE ACCESS NOTES

1. PROVIDE A KNOX KEY SWITCH AT ALL POWER OPERATED GATES AND A KNOX BOX AT ALL MANUAL GATES ACROSS FIRE ACCESS ROADS FOR FIRE DEPARTMENT ACCESS.
2. ALL GATES ACROSS FIRE ACCESS ROADS SHALL OPEN THE FULL WIDTH OF THE FIRE ACCESS ROAD SO THE FIRE ACCESS ROAD IS NOT OBSTRUCTED IN ANY WAY BY THE GATE OR ANY OF THE GATE COMPONENTS.
3. ALL POWER OPERATED GATES ACROSS FIRE ACCESS ROADS SHALL BE EQUIPPED WITH GATE OPERATORS LISTED IN ACCORDANCE WITH UL 325. GATES INTENDED FOR AUTOMATIC OPERATION SHALL BE DESIGNED, CONSTRUCTED AND INSTALLED PER ASTM F2200. A MANUAL MEANS OF OPENING THE GATE IN THE EVENT OF POWER LOSS IS REQUIRED.

SITE PLAN NOTES

1. ALL EXTERIOR LIGHTING WILL BE FULL CUT–OFF AND FULLY SHIELDED IN COMPLIANCE WITH SUBCHAPTER E 2.5 AND WILL BE REVIEWED DURING BUILDING PLAN REVIEW. ANY CHANGE OR SUBSTITUTION OF LAMP/LIGHT FIXTURES SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL IN ACCORDANCE WITH SECTION 2.5.2.E.
2. ALL EXTERIOR LIGHTING WILL BE HOODED OR SHIELDED FROM THE VIEW OF ADJACENT RESIDENTIAL PROPERTY. [SECTION 25–2–1064].
3. ALL DUMPSTERS AND ANY PERMANENTLY PLACED REFUSE RECEPTACLES WILL BE LOCATED AT A MINIMUM OF TWENTY (20) FEET FROM A PROPERTY USED OR ZONED AS SF–5 OR MORE RESTRICTIVE. [SECTION 25–2–1067].
4. THE USE OF HIGHLY REFLECTIVE SURFACES, SUCH AS REFLECTIVE GLASS AND REFLECTIVE METAL ROOFS, WHOSE PITCH IS MORE THAN A RUN OF SEVEN (7) TO A RISE OF TWELVE (12), WILL BE PROHIBITED. [SECTION 25–2–1067].
5. THE NOISE LEVEL OF MECHANICAL EQUIPMENT WILL NOT EXCEED 70 DBA AT THE PROPERTY LINE ADJACENT TO RESIDENTIAL USES. [SECTION 25–2–1067].

SITE INFORMATION	
total number of units	144
total site area (in sq. ft.)	344,690
zoning and use	MF-2, MF-2 CO - Multifamily Use
total gross floor area (in sq. ft.)	281,170
total gross floor area (in percentage)	81.57
building coverage (in sq. ft.)	112,268
building coverage (in percentage)	33%
impervious cover (in sq. ft.)	199,169
impervious cover (percentage)	57.78
floor-to-area ratio (expressed as a ratio)	0.82
open space (in sq. ft.)	17,243
open space (percentage)	5.0
building height (in stories)	2-3
building height (feet)	38
foundation type	Slab

Figure 34:
Examples of fully-shielded light fixtures.

DRAINAGE EASEMENT:
ALL PROPOSED DRAINAGE EASEMENTS WILL BE DEDICATED BY SEPARATE INSTRUMENT.

BENCHMARKS

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION

- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

SITE PLAN APPROVAL SHEET 9 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON_____UNDER SECTION **112** OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC)_____CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A)_____DWPZ_____DDZ_____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE:_____ZONING**MF-2, MF-2 CO**
Rev. 1_____Correction 1_____
Rev. 2_____Correction 2_____
Rev. 3_____Correction 3_____
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No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
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TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

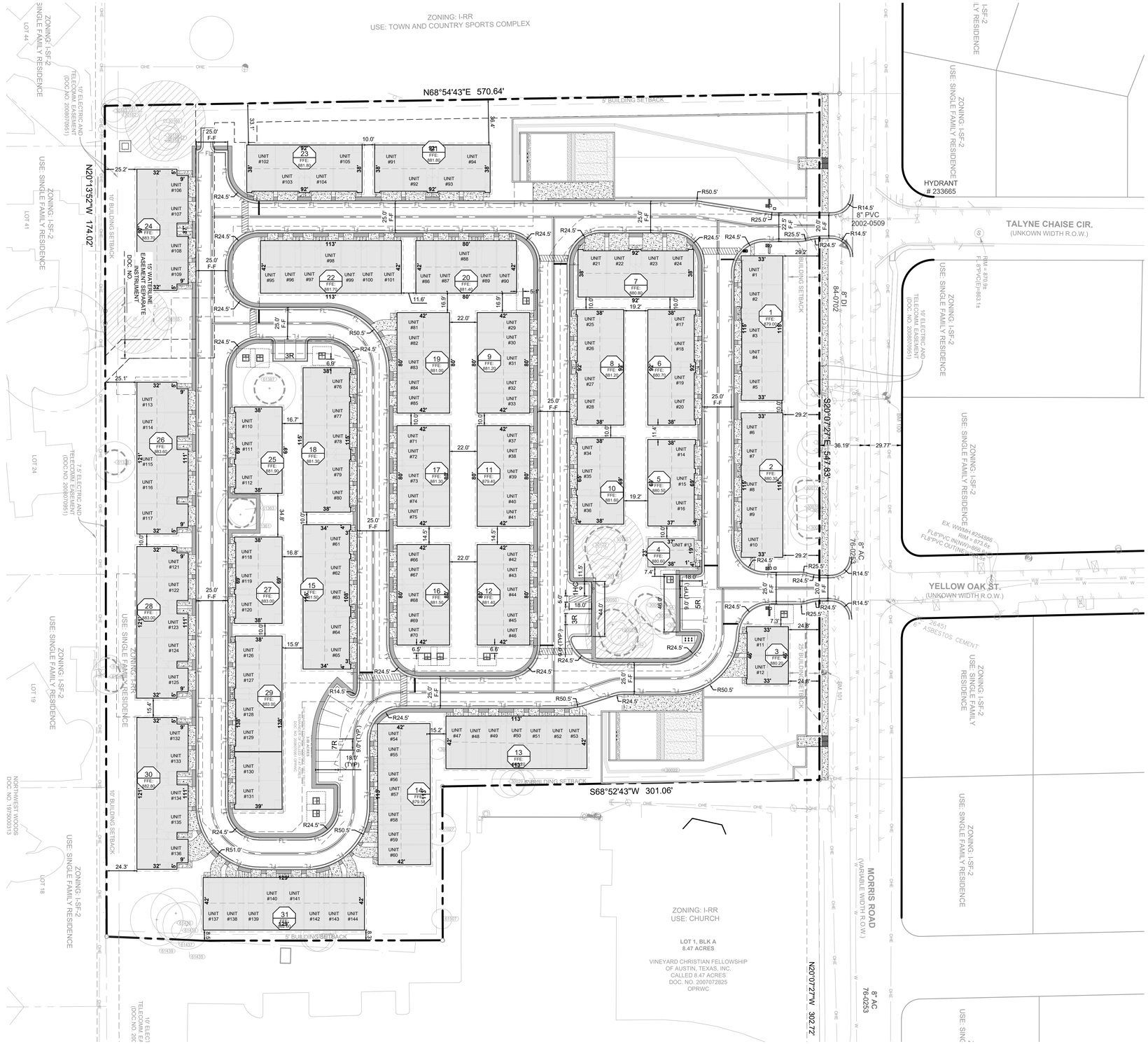
KHA PROJECT 064487031	DATE APRIL 2024	SCALE: AS SHOWN	DESIGNED BY: AH	DRAWN BY: GA	CHECKED BY: JF

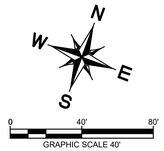
SITE PLAN

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
9 OF 48

SP-2024-0063C





LEGEND

- PROPERTY LINE
- PROPOSED EASEMENT
- ROW DEDICATION
- FL — FIRE LANE
- PROPOSED WALL
- X (TYPE X) — BUILDING NUMBER / BUILDING TYPE
- R — REGULAR PARKING SPACE
- HC — HANDICAP PARKING SPACE

NOTES:

1. ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 13'-6" VERTICAL CLEARANCE.
2. ESTABLISH FIRE ZONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS "FIRE ZONE/TOW-AWAY ZONE" IN WHITE LETTERS AT LEAST 3 INCHES HIGH AT 35-FOOT INTERVALS ALONG THE CURB. ALSO, SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE. ALTERNATE MARKING OF THE FIRE LANES MAY BE APPROVED BY THE FIRE CHIEF, PROVIDED THE FIRE LANES ARE CLEARLY IDENTIFIED AT BOTH ENDS AND AT INTERVALS NOT TO EXCEED 35 FEET. SEC. 901.4.2
3. ALL PARKING SPACES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE.
4. EVERY HANDICAP ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY A SIGN CENTERED 5 FEET ABOVE THE PARKING SURFACE, AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE RESERVED, OR EQUIVALENT LANGUAGE. SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE AND SHALL MEET THE CRITERIA SET FORTH IN UBC, 3108(c) AND ANSI A1171-1986-4.6.2.
5. CONTRACTOR TO HAVE STAKING VERIFIED BY OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
6. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
7. ALL RADII TO BE 3' UNLESS OTHERWISE NOTED.
8. SEE OVERALL SITE PLAN ON SHEET 9 FOR ADDITIONAL NOTES.
9. RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF FOOTING TO THE TOP OF THE WALL SHALL BE ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT [IBC 105.2].
10. SCREENING FOR SOLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE SAME AS, OR OF EQUAL QUALITY TO, PRINCIPAL BUILDING MATERIALS.
11. ALL STANDARD PARKING STALLS TO BE 9.0' WIDE BY 17.5' DEEP TO FACE OF CURB. ALL COMPACT PARKING STALLS TO BE 7.5' WIDE BY 15.0' DEEP TO FACE OF CURB.

BENCHMARKS

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SITE PLAN APPROVAL SHEET 11 OF 48
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Rev. 1 _____ Correction 1 _____
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Rev. 3 _____ Correction 3 _____

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TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT	064487031
DATE	APRIL 2024
SCALE: AS SHOWN	
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

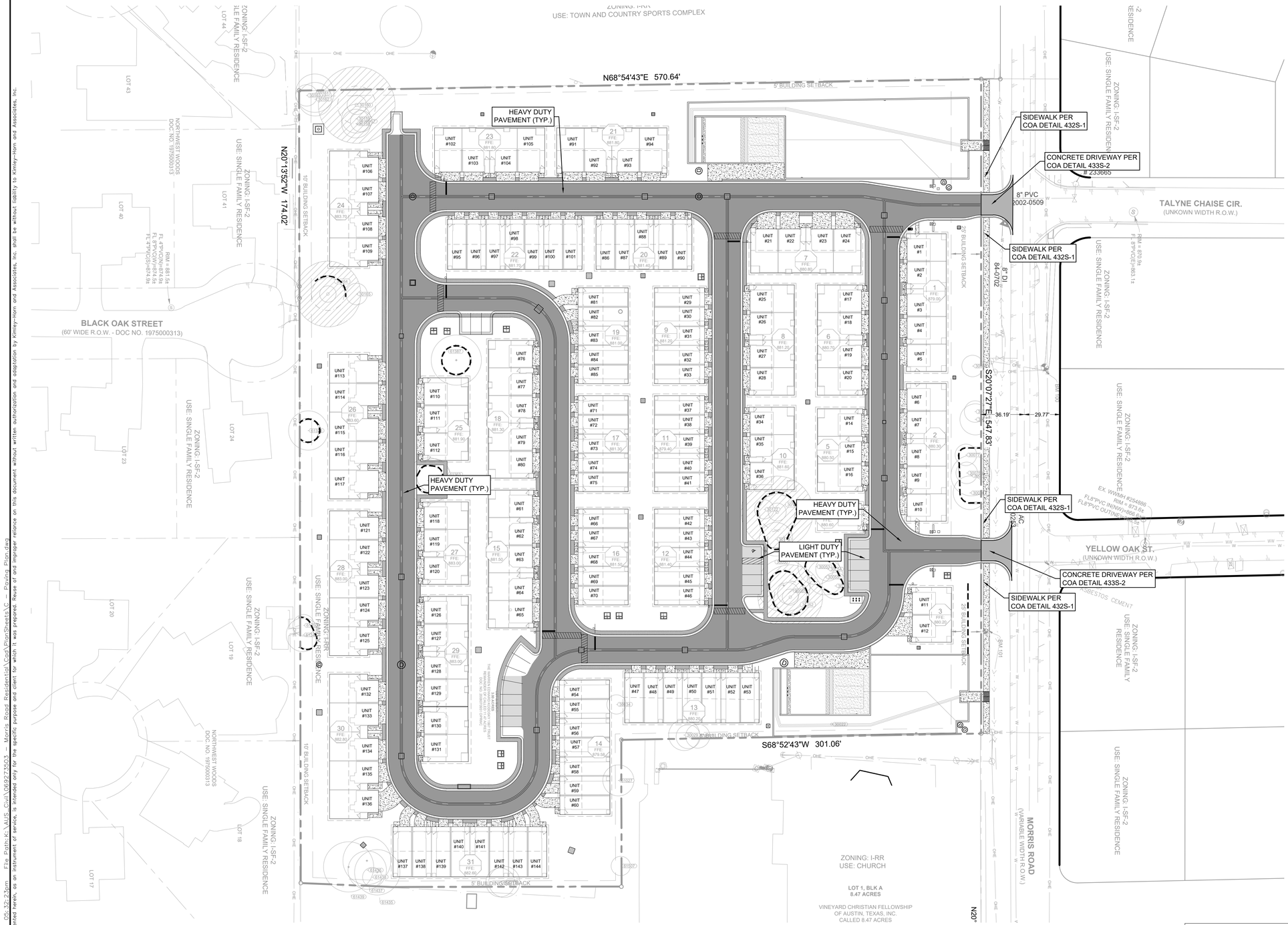
DIMENSION CONTROL PLAN

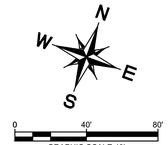
AMAVI NORTHWEST AUSTIN

13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
11 OF 48

SP-2024-0063C





LEGEND

- PROPERTY LINE
- FL — PROPOSED FIRE LANE
- LIGHT DUTY PAVEMENT
- HEAVY DUTY PAVEMENT
- CONCRETE DRIVEWAY
- PROPOSED ADA STRIPING
- PROPOSED PUBLIC SIDEWALK

REFER TO GEOTECHNICAL REPORT
BY RABA KISTNER
GEOTECH PROJECT NO. AAA21-115-00 , AAA21-116-00
DATED: 11/16/2021

BENCHMARKS

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SITE PLAN APPROVAL SHEET 12 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
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PROJECT EXPIRATION DATE (ORD.#970905-A) _____ DWPZ _____ DDZ _____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING **MF-2, MF-2 CO**
Rev. 1 _____ Correction 1 _____
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STATE OF TEXAS
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111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

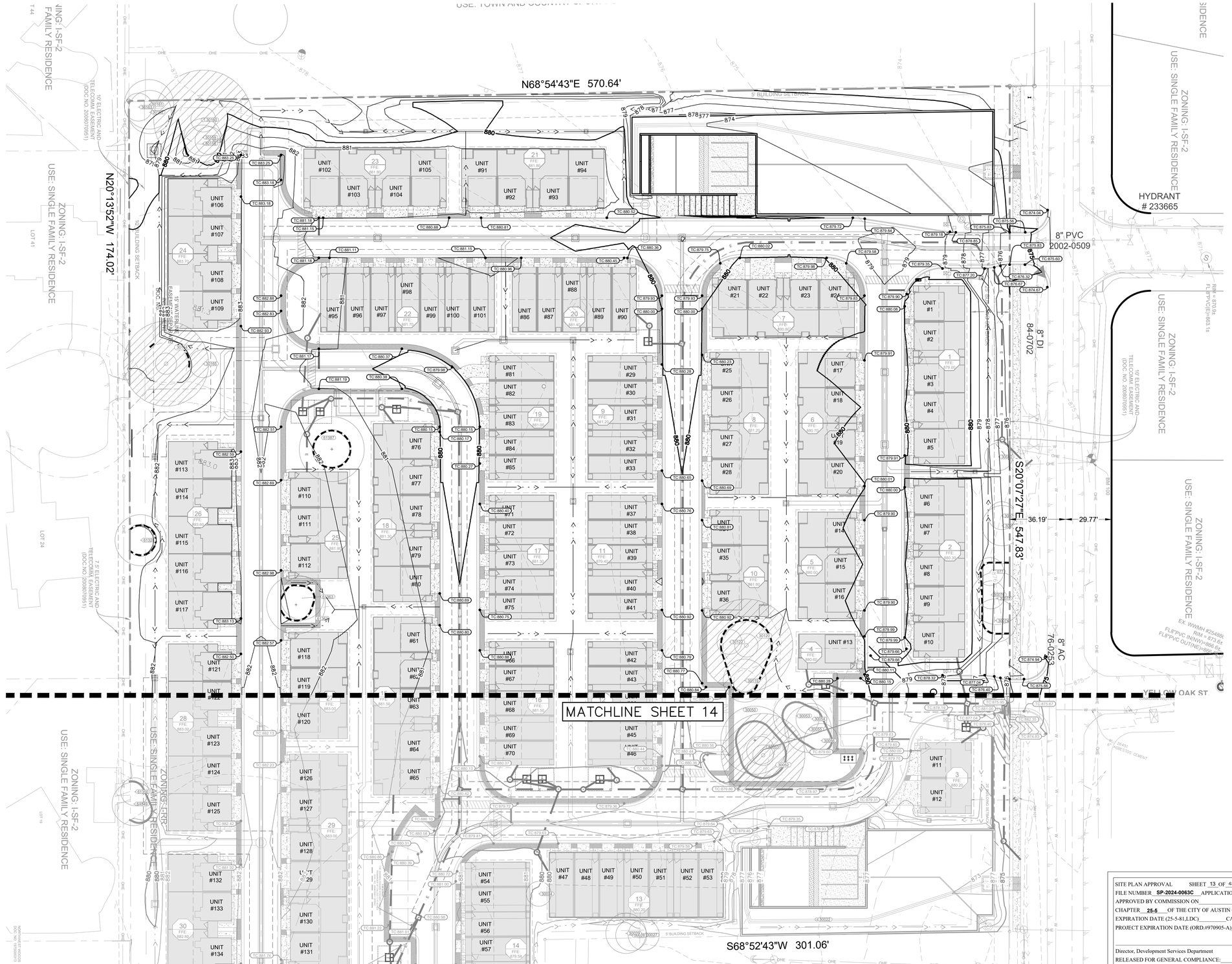
KHA PROJECT 064487031			
DATE	APRIL 2024		
SCALE:	AS SHOWN		
DESIGNED BY:	AH		
DRAWN BY:	GA		
CHECKED BY:	JF		

PAVING PLAN

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
12 OF 48

SP-2024-0063C



LEGEND

▬ ▬ ▬	PROPOSED LINE
FF=XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
XXX.X●	PROPOSED TOP OF PAVEMENT ELEVATION
EX XXX.X ●	EXISTING TOP OF PAVEMENT ELEVATION
TG XXX.X ●	PROPOSED TOP OF GRATE
TW XXX.X●	PROPOSED GRADE AT TOP OF WALL
BW XXX.X●	PROPOSED GRADE AT BOTTOM OF WALL
EW XXX.X●	PROPOSED GRADE AT END OF WALL
—< —< —< —< —	PROPOSED SWALE
— — HP — — — — —	HIGH POINT
→	FLOW DIRECTION
▬▬▬▬	PROPOSED RETAINING WALL
—— 555 ——	PROPOSED CONTOUR
— — 555 — —	EXISTING CONTOUR
○	EXISTING TREE TO REMAIN

NOTES:

1. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
2. ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
3. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL.
4. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS, SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS: NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
5. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.

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SITE PLAN APPROVAL SHEET 13 OF 48
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____
Director, Development Services Department
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Rev. 1 ____________ Correction 1 ____________
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TBPE Firm No. 928

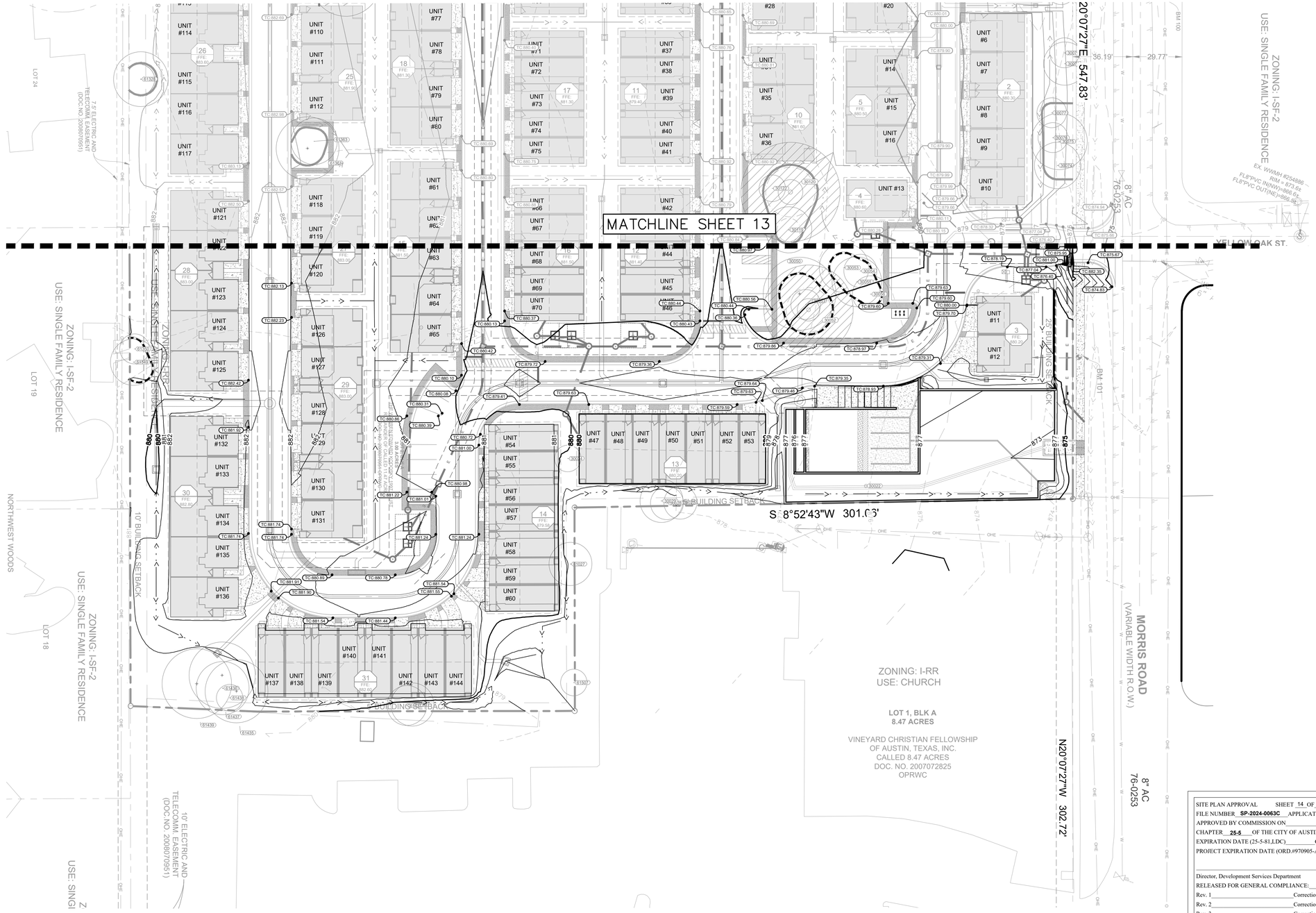
JOSE M. FARIAS
111389
12/24/2024

KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

GRADING PLAN
(SHEET 1 OF 2)

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
13 OF 48



LEGEND

— — —	PROPERTY LINE
FF=XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
XXX.X●	PROPOSED TOP OF PAVEMENT ELEVATION
EX XXX.X ●	EXISTING TOP OF PAVEMENT ELEVATION
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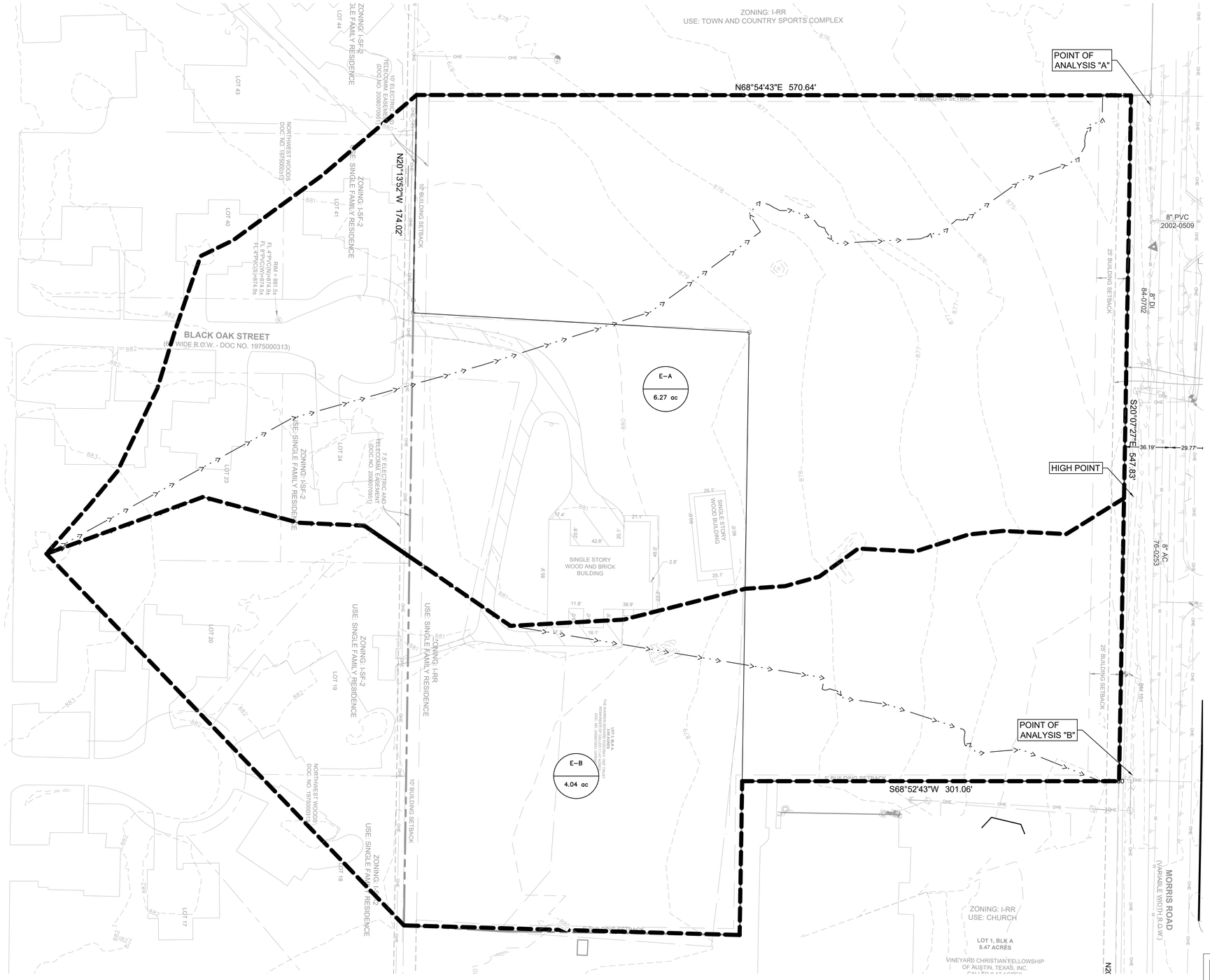
12/24/2024

KHA PROJECT 064487031
DATE APRIL 2024
SCALE: AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

GRADING PLAN
(SHEET 2 OF 2)

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
14 OF 48



LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR / AREA IN ACRES / Q100 FLOW IN CFS
	PROPERTY LINE
	EXISTING STORM DRAIN LINE
	EXISTING DRAINAGE DIVIDE
	EXISTING STORM DRAIN INLET
	EXISTING STORM DRAIN MANHOLE
	EXISTING STORM DRAIN HEADWALL
	EXISTING FLOW DIRECTION
555	EXISTING CONTOUR

EXISTING CONDITIONS (HEC-HMS)										
Draiange Area	AREA (acres)	AREA (sq.mi.)	Curve Number	Impervious Cover (%)	TC (min.)	LAG TIME (min.)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
E-A	6.27	0.010	84	14.39	37.4	22.4	12.6	21.9	28.3	38.9
E-B	4.04	0.006	84	14.21	26.4	15.8	9.7	16.9	21.8	29.9
POA "A"							12.6	21.9	28.3	38.9
POA "B"							9.7	16.9	21.8	29.9

BENCHMARKS

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SITE PLAN APPROVAL SHEET 15 OF 48
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12/24/2024

KHA PROJECT 064487031
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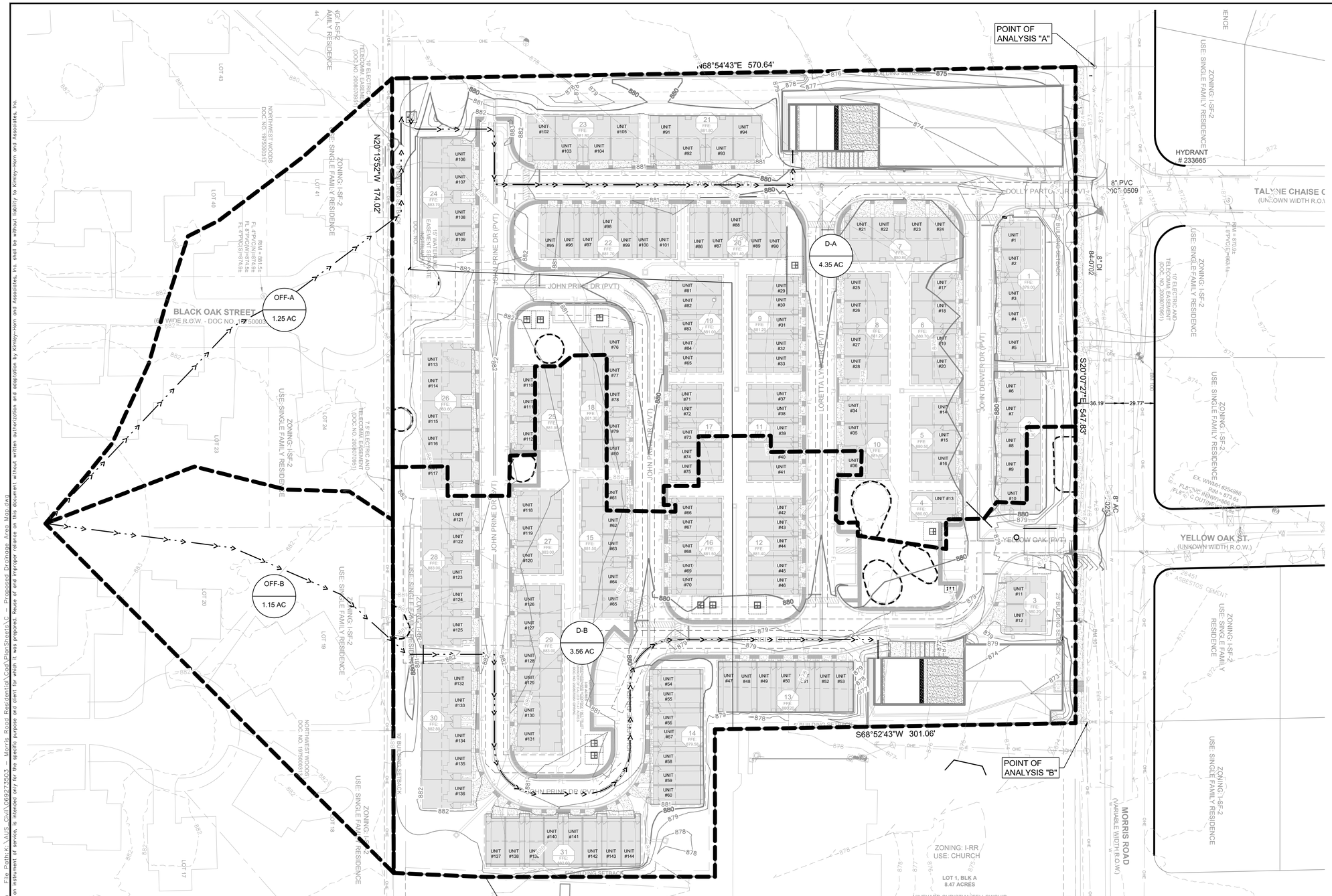
SCALE: AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

EXISTING DRAINAGE AREA MAP

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
15 OF 48

SP-2024-0063C



LEGEND

- X-1 / 9.9 ac — AREA DESIGNATOR / AREA IN ACRES
- A-1 — INLET NUMBER
- PROPERTY LINE
- PROPOSED STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- PROPOSED DRAINAGE DIVIDE
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN HEADWALL
- PROPOSED FLOW DIRECTION
- 555 — PROPOSED CONTOUR
- 555 — EXISTING CONTOUR

PROPOSED CONDITIONS (HEC-HMS)

Drainage Area	AREA (acres)	AREA (sq.mi.)	Curve Number	Impervious Cover (%)	Tc (min.)	LAG TIME (min.)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
P-A	6.27	0.010	84	51	23.6	14.2	18.3	29.7	37.3	50.1
P-B	4.04	0.006	84	63	25.1	15.1	11.9	19.0	23.7	31.6
POA "A"							11.5	18.9	24.1	33.8
POA "B"							8.4	13.4	17.2	23.7

BENCHMARKS

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION

- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

SITE PLAN APPROVAL SHEET 16 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON_____ UNDER SECTION **112** OF
CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC)_____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A)_____ DWPZ_____ DDZ_____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE:_____ ZONING **MF-2, MF-2 CO**
Rev. 1_____ Correction 1_____
Rev. 2_____ Correction 2_____
Rev. 3_____ Correction 3_____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

Know what's **below.** **Call** before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
TBPE Firm No. 928

JOSE M. FARIAS — 111389 — LICENSED PROFESSIONAL ENGINEER
12/24/2024

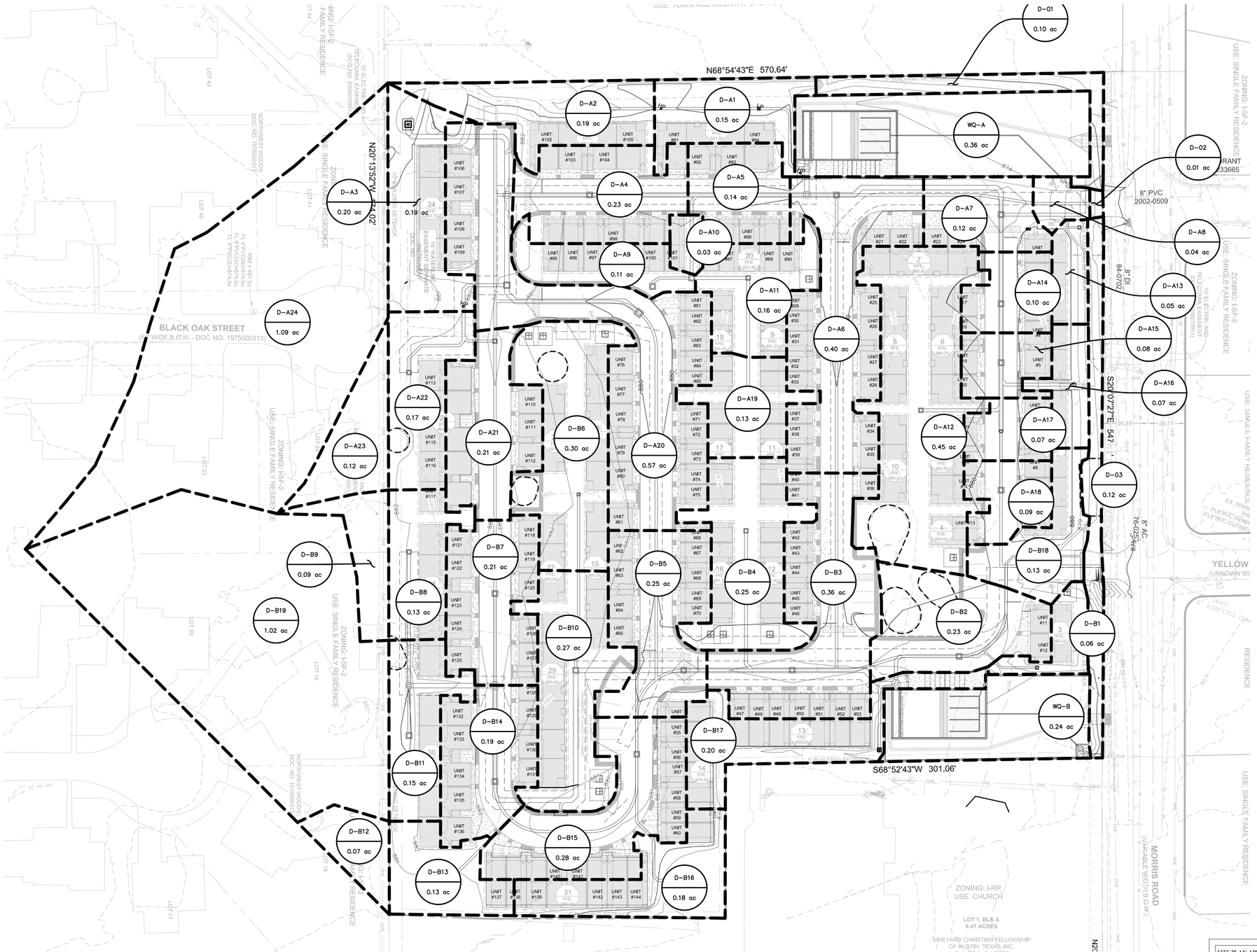
KHA PROJECT 064487031
DATE APRIL 2024
SCALE: AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

PROPOSED DRAINAGE AREA MAP

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
16 OF 48

SP-2024-0063C



N

W E

S

0 40' 80'

GRAPHIC SCALE 40'

LEGEND

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STATE OF TEXAS
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111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
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INLET DRAINAGE AREA MAP

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
17 OF 48

SP-2024-0063C

Intensity-Duration-Frequency Curve Coefficient (ZONE 2)			
Frequency	**a**	**b**	**c**
2	46.99	9.575	0.7517
10	60.75	8.361	0.7185
25	64.56	7.382	0.6814
100	76.9	6.726	0.6554

Proposed "C" Value Calculations							
D.A. Number	**Drainage Area (SF)**	**Drainage Area (Ac)**	**Pervious Area (SF)**	**Impervious Area (SF)**	**I.C. (%)**	**Comp. C_{25}**	**Comp. C_{100}**
A-1	6,534	0.15	4706	1828	28%	0.53	0.60
A-2	8,276	0.19	6653	1623	20%	0.49	0.56
A-3	8,712	0.20	6610	2102	24%	0.51	0.58
A-4	10,019	0.23	895	9124	91%	0.84	0.92
A-5	6,098	0.14	497	5601	92%	0.84	0.93
A-6	17,424	0.40	8902	8522	49%	0.63	0.71
A-7	5,227	0.12	670	4557	87%	0.82	0.90
A-8	1,742	0.04	465	1277	73%	0.75	0.83
A-9	4,792	0.11	2794	1997	42%	0.59	0.67
A-10	1,307	0.03	426	880	67%	0.72	0.80
A-11	6,970	0.16	3372	3597	52%	0.64	0.72
A-12	19,602	0.45	9432	10170	52%	0.64	0.72
A-13	2,178	0.05	1079	1099	50%	0.64	0.72
A-14	4,356	0.10	298	4058	93%	0.85	0.94
A-15	3,485	0.08	274	3211	92%	0.84	0.93
A-16	3,049	0.07	1673	1376	45%	0.61	0.69
A-17	3,049	0.07	195	2854	94%	0.85	0.94
A-18	3,920	0.09	257	3663	93%	0.85	0.94
A-19	5,663	0.13	2975	2688	47%	0.62	0.70
A-20	24,829	0.57	3050	21780	88%	0.82	0.91
A-21	9,148	0.21	692	8456	92%	0.84	0.93
A-22	7,405	0.17	5275	2131	29%	0.53	0.61
A-23	5,227	0.12	2875	2352	45%	0.61	0.69
A-24	47,480	1.09	26114	21366	45%	0.61	0.69
B-1	2,614	0.06	1875	739	28%	0.53	0.60
B-2	10,019	0.23	4419	5600	56%	0.66	0.75
B-3	15,682	0.36	2067	13614	87%	0.82	0.90
B-4	10,890	0.25	6410	4480	41%	0.59	0.67
B-5	10,890	0.25	1302	9588	88%	0.82	0.91
B-6	13,068	0.30	7523	5545	42%	0.60	0.68
B-7	9,148	0.21	517	8630	94%	0.85	0.94
B-8	5,663	0.13	3380	2283	40%	0.59	0.67
B-9	3,920	0.09	3920	0	0%	0.39	0.46
B-10	11,761	0.27	7110	4652	40%	0.58	0.66
B-11	6,534	0.15	4333	2201	34%	0.56	0.63
B-12	3,049	0.07	3049	0	0%	0.39	0.46
B-13	5,663	0.13	4804	859	15%	0.46	0.54
B-14	8,276	0.19	405	7871	95%	0.86	0.95
B-15	12,197	0.28	1314	10882	89%	0.83	0.92
B-16	7,841	0.18	5405	2435	31%	0.54	0.62
B-17	8,712	0.20	4615	4097	47%	0.62	0.70
B-18	5,663	0.13	1707	3955	70%	0.73	0.82
B-19	44,431	1.02	24437	19994	45%	0.61	0.69
D-01	4,356	0.10	4356	0	0%	0.39	0.46
D-02	436	0.01	0	436	100%	0.88	0.97
D-03	5,227	0.12	4879	348	7%	0.42	0.49

Proposed Inlet Runoff (Q) Calculations									
D.A. Number	**Drainage Area (Ac)**	**TOTAL I.C. (%)**	**Comp. C_{25}**	**Comp. C_{100}**	**TOTAL T_c (Min.)**	**i_{25} (in/hr)**	**i_{100} (in/hr)**	**Q_{25} (cfs)**	**Q_{100} (cfs)**
A-1	0.15	28%	0.53	0.60	5.0	11.62	15.32	0.92	1.38
A-2	0.19	20%	0.49	0.56	5.0	11.62	15.32	1.07	1.63
A-3	0.20	24%	0.51	0.58	5.0	11.62	15.32	1.18	1.79
A-4	0.23	91%	0.84	0.92	5.0	11.62	15.32	2.24	3.26
A-5	0.14	92%	0.84	0.93	5.0	11.62	15.32	1.37	1.99
A-6	0.40	49%	0.63	0.71	5.0	11.62	15.32	2.93	4.35
A-7	0.12	87%	0.82	0.90	5.0	11.62	15.32	1.14	1.66
A-8	0.04	73%	0.75	0.83	5.0	11.62	15.32	0.35	0.51
A-9	0.11	42%	0.59	0.67	5.0	11.62	15.32	0.76	1.13
A-10	0.03	67%	0.72	0.80	5.0	11.62	15.32	0.25	0.37
A-11	0.16	52%	0.64	0.72	5.0	11.62	15.32	1.20	1.77
A-12	0.45	52%	0.64	0.72	5.0	11.62	15.32	3.37	4.99
A-13	0.05	50%	0.64	0.72	5.0	11.62	15.32	0.37	0.55
A-14	0.10	93%	0.85	0.94	5.0	11.62	15.32	0.98	1.43
A-15	0.08	92%	0.84	0.93	5.0	11.62	15.32	0.78	1.14
A-16	0.07	45%	0.61	0.69	5.0	11.62	15.32	0.50	0.74
A-17	0.07	94%	0.85	0.94	5.0	11.62	15.32	0.69	1.01
A-18	0.09	93%	0.85	0.94	5.0	11.62	15.32	0.89	1.29
A-19	0.13	47%	0.62	0.70	5.0	11.62	15.32	0.94	1.40
A-20	0.57	88%	0.82	0.91	5.0	11.62	15.32	5.43	7.92
A-21	0.21	92%	0.84	0.93	5.0	11.62	15.32	2.06	3.00
A-22	0.17	29%	0.53	0.61	5.0	11.62	15.32	1.05	1.58
A-23	0.12	45%	0.61	0.69	5.0	11.62	15.32	0.85	1.27
A-24	1.09	45%	0.61	0.69	13.7	8.10	10.66	5.39	8.01
B-1	0.06	28%	0.53	0.60	5.0	11.62	15.32	0.37	0.56
B-2	0.23	56%	0.66	0.75	5.0	11.62	15.32	1.77	2.62
B-3	0.36	87%	0.82	0.90	5.0	11.62	15.32	3.41	4.98
B-4	0.25	41%	0.59	0.67	5.0	11.62	15.32	1.72	2.57
B-5	0.25	88%	0.82	0.91	5.0	11.62	15.32	2.39	3.48
B-6	0.30	42%	0.60	0.68	5.0	11.62	15.32	2.08	3.11
B-7	0.21	94%	0.85	0.94	5.0	11.62	15.32	2.08	3.03
B-8	0.13	40%	0.59	0.67	5.0	11.62	15.32	0.89	1.33
B-9	0.09	0%	0.39	0.46	5.0	11.62	15.32	0.41	0.63
B-10	0.27	40%	0.58	0.66	5.0	11.62	15.32	1.83	2.74
B-11	0.15	34%	0.56	0.63	5.0	11.62	15.32	0.97	1.45
B-12	0.07	0%	0.39	0.46	5.0	11.62	15.32	0.32	0.49
B-13	0.13	15%	0.46	0.54	5.0	11.62	15.32	0.70	1.07
B-14	0.19	95%	0.86	0.95	5.0	11.62	15.32	1.89	2.75
B-15	0.28	89%	0.83	0.92	5.0	11.62	15.32	2.69	3.92
B-16	0.18	31%	0.54	0.62	5.0	11.62	15.32	1.13	1.71
B-17	0.20	47%	0.62	0.70	5.0	11.62	15.32	1.44	2.14
B-18	0.13	70%	0.73	0.82	5.0	11.62	15.32	1.11	1.63
B-19	1.02	45%	0.61	0.69	13.8	8.05	10.60	5.01	7.45
D-01	0.10	0%	0.39	0.46	5.0	11.62	15.32	0.45	0.70
D-02	0.01	100%	0.88	0.97	5.0	11.62	15.32	0.10	0.15
D-03	0.12	7%	0.42	0.49	5.0	11.62	15.32	0.59	0.91

Note: All inlet drainage calculations have been determined using the Rational Method per the City of Austin Engineering Design Manual.

Inlet Calculation Table							
Equations: Area Inlet Orifice (Submerged) Q=0.67*h*L*(2gd)^.5 (COA Eq. 4-4a) **Equations: Curb Inlet Orifice (Submerged) Q=3*L*d^1.5 (COA Eq. 4-3)** **Equations: Grate Inlet Orifice (Submerged) Q=0.67*A*(2gd)^.5 (COA Eq. 4-6)**				**Clogging Factor = 0% (Area inlets in Sump)** **Clogging Factor = 10% (Curb inlets in Sump)** **Clogging Factor = 50% (Grate inlets in Sump)**			
Inlet # or Area #	**Q25 - Required Q to Pass (cfs)**	**Q100 - Required Q to Pass (cfs)**	**INLET**	**Available Weir Length (ft)**	**Open Area (sf)**	**Provided 'h' (ft.)**	**Provided Capacity (w/ Clogging Factor) (cfs)**
A-1	0.92 cfs	1.38 cfs	2' x 2' - Grate Inlet	N/A	2.21	0.50'	4.20 cfs
A-2	1.07 cfs	1.63 cfs	2' x 2' - Grate Inlet	N/A	2.21	0.50'	4.20 cfs
A-3 & A-24	6.57 cfs	9.80 cfs	4' - 4' Sided Area Inlet	16.0	N/A	0.42'	35.8 cfs
A-4	2.24 cfs	3.26 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
A-5	1.37 cfs	1.99 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
A-6	2.93 cfs	4.35 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.17'	5.18 cfs
A-7	1.14 cfs	1.66 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
A-8	0.35 cfs	0.51 cfs	24"x12" - Trench Grate	N/A	0.89	0.17'	0.98 cfs
A-9	0.76 cfs	1.13 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.50'	8.98 cfs
A-10	0.25 cfs	0.37 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.50'	8.98 cfs
A-11	1.20 cfs	1.77 cfs	3' x 3' - Grate Inlet	N/A	4.67	0.50'	8.88 cfs
A-12	3.37 cfs	4.99 cfs	3' x 3' - Grate Inlet	N/A	4.67	0.50'	8.88 cfs
A-13	0.37 cfs	0.55 cfs	2' x 2' - Grate Inlet	N/A	2.21	0.50'	4.20 cfs
A-14	0.98 cfs	1.43 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
A-15	0.78 cfs	1.14 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
A-16	0.50 cfs	0.74 cfs	2' x 2' - Grate Inlet	N/A	2.21	0.50'	4.20 cfs
A-17	0.69 cfs	1.01 cfs	2' x 2' - Grate Inlet	N/A	2.21	0.08'	1.71 cfs
A-18	0.89 cfs	1.29 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
A-19	0.94 cfs	1.40 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.50'	8.98 cfs
A-20	5.43 cfs	7.92 cfs	5' x 5' - Grate Inlet	N/A	19.49	0.08'	15.13 cfs
A-21	2.06 cfs	3.00 cfs	3' x 3' - Grate Inlet	N/A	4.67	0.08'	3.63 cfs
A-22 & A-23	1.90 cfs	2.85 cfs	3' x 3' - Grate Inlet	N/A	4.67	0.50'	8.88 cfs
B-1	0.37 cfs	0.56 cfs	2' x 2' - Grate Inlet	N/A	2.21	0.50'	4.20 cfs
B-2	1.77 cfs	2.62 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
B-3	3.41 cfs	4.98 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.17'	5.18 cfs
B-4	1.72 cfs	2.57 cfs	3' x 3' - Grate Inlet	N/A	4.67	0.50'	8.88 cfs
B-5	2.39 cfs	3.48 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
B-6	2.08 cfs	3.11 cfs	2' x 2' - Grate Inlet	N/A	2.21	0.50'	4.20 cfs
B-7	2.08 cfs	3.03 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
B-8 & B-9	1.30 cfs	1.96 cfs	3' x 3' - Grate Inlet	N/A	4.67	0.50'	8.88 cfs
B-10	1.83 cfs	2.74 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
B-11 & B-19	5.98 cfs	8.91 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.50'	8.98 cfs
B-13 & B-12	1.02 cfs	1.56 cfs	3' x 3' - Grate Inlet	N/A	4.67	0.50'	8.88 cfs
B-14	1.89 cfs	2.75 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.08'	3.66 cfs
B-15	2.69 cfs	3.92 cfs	10' - Curb Inlet	10.0	N/A	0.50'	9.55 cfs
B-16	1.13 cfs	1.71 cfs	4' x 4' - Grate Inlet	N/A	4.72	0.50'	8.98 cfs
B-17	1.44 cfs	2.14 cfs	2' x 2' - Grate Inlet	N/A	2.21	0.50'	4.20 cfs
B-18	1.11 cfs	1.63 cfs	24"x12" - Trench Grate	N/A	0.89	0.50'	1.69 cfs

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No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
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TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT 064487031
DATE APRIL 2024
SCALE AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

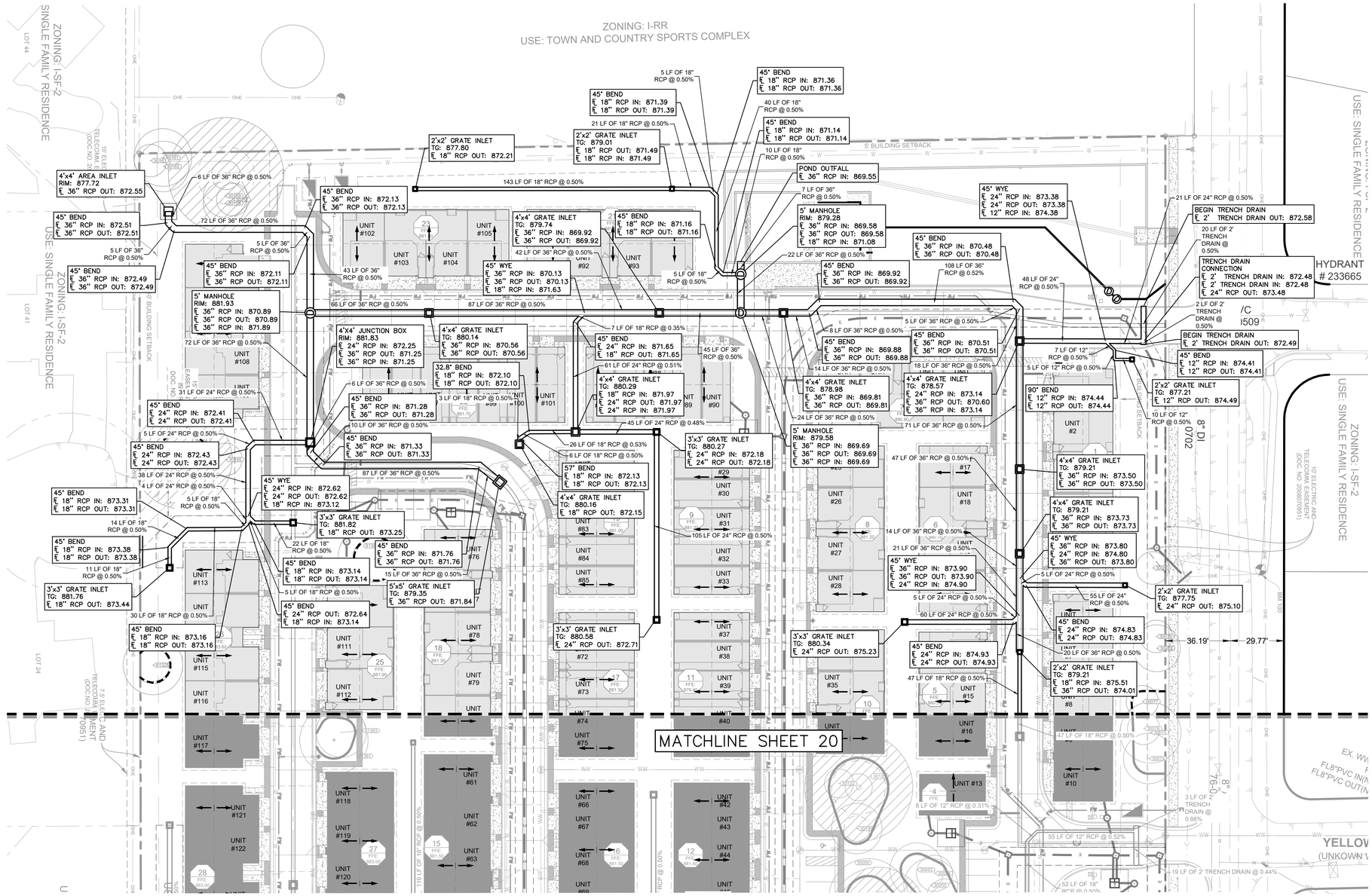
INLET DRAINAGE CALCULATIONS

AMAVI NORTHWEST AUSTIN

13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
18 OF 48

SP-2024-0063C



LEGEND

- PROPERTY LINE
- ROOF DRAIN DIRECTION
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

NOTE:
ALL STORM WATER PIPE TO BE WATER TIGHT PIPE.

BENCHMARKS

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION

- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

SITE PLAN APPROVAL SHEET 19 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE: **04/15/2024**
APPROVED BY COMMISSION ON_____ UNDER SECTION **112** OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC)_____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A)_____ DWPZ_____ DDZ_____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE:_____ ZONING **MF-2, MF-2 CO**
Rev. 1_____ Correction 1_____
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KHA PROJECT 064487031
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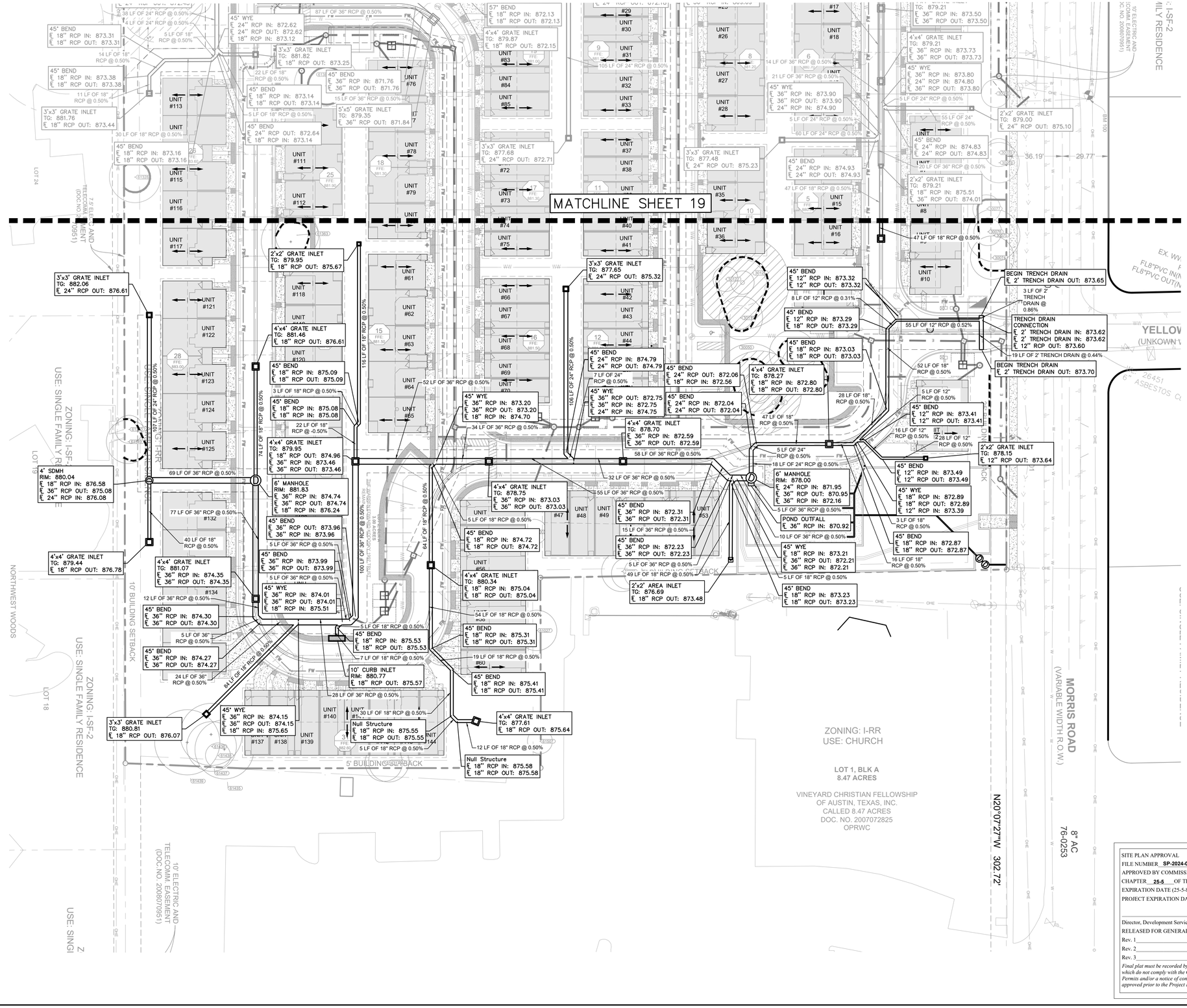
STORM PLAN (SHEET 1 OF 2)

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
19 OF 48

SP-2024-0063C



LEGEND

▬ ▬ ▬	PROPERTY LINE
WW	PROPOSED WASTEWATER LINE
W	PROPOSED WATER LINE
WW	PROPOSED WASTEWATER MANHOLE
○	PROPOSED WASTEWATER CLEANOUT
→	WASTEWATER FLOW DIRECTION
●	PROPOSED FIRE HYDRANT
	PROPOSED TAPPING SLEEVE & VALVE
	PROPOSED STORM DRAIN LINE
▣	PROPOSED STORM DRAIN INLET
OHP	EXISTING OVERHEAD POWER LINE
W	EXISTING WATER LINE
WW	EXISTING WASTEWATER LINE
	EXISTING STORM SEWER LINE
⊘	EXISTING POWER POLE
	EXISTING FIRE HYDRANT
⊗	EXISTING WATER METER
○	EXISTING WASTEWATER MANHOLE
CWQZ	CRITICAL WATER QUALITY ZONE
	CREEK CENTERLINE
EHZ	EROSION HAZARD ZONE
25 YR FP	25-YR COA DELINEATED FLOODPLAIN
100 YR FP	100-YR COA DELINEATED FLOODPLAIN
	CEF SETBACK

GRAPHIC SCALE 30'

0 30' 60'

BUILDING DOWNSPOUT NOTE:
BUILDING DOWNSPOUT CONNECTIONS ARE TO BE PROVIDED ALONG THE PROPOSED BUILDING FACE

LANDSCAPE INLET NOTE:
ADDITIONAL LANDSCAPE INLETS MAY BE NECESSARY THROUGH THE STE AS DESIGN PROGRESSES PAST CONCEPT PLANNING.

NOTE:
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BENCHMARKS

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SITE PLAN APPROVAL SHEET 20 OF 48
FILE NUMBER SP-2024-0063C APPLICATION DATE 04/15/2024
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PROJECT EXPIRATION DATE (ORD.#970905-A) ______ DWPZ ______ DDZ ______

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JOSE M. FARIAS
111389
12/24/2024

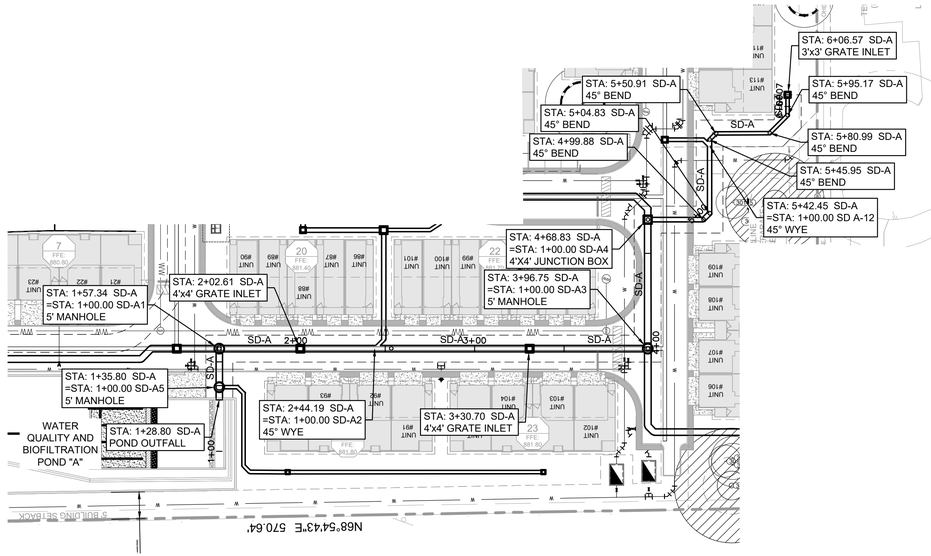
KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

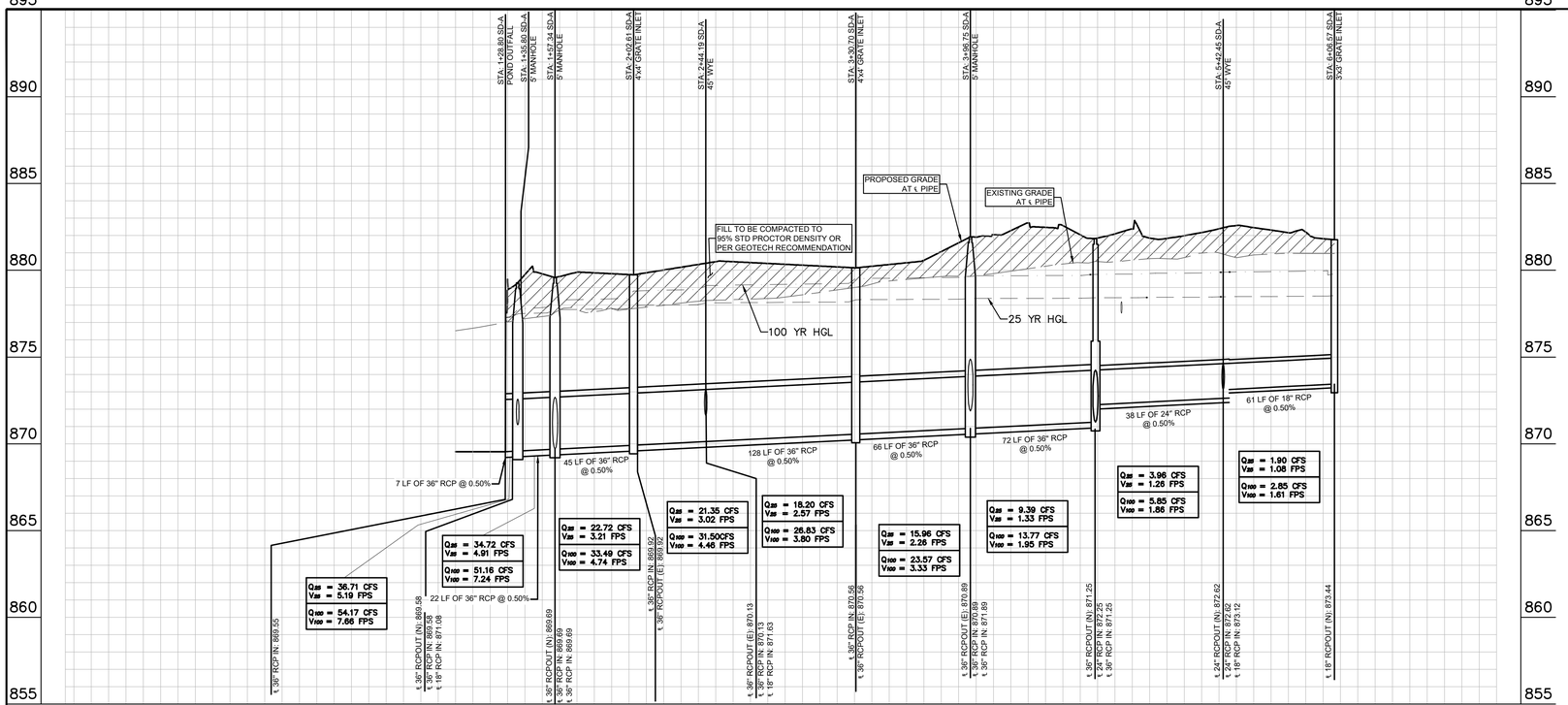
STORM PLAN
(SHEET 2 OF 2)

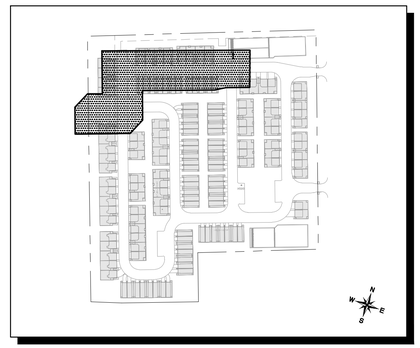
AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
20 OF 48

Plotted By:Farias, Joe Date:December 29, 2024 06:06:15pm File Path:K:\AUS_Civil\069273503 - Morris Road Residential\Cad\PlanSheets\C - Overall Storm Plan.dwg







KEYMAP
N.T.S

LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

GRAPHIC SCALE 40'

NOTE:
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BENCHMARKS

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SITE PLAN APPROVAL SHEET 21 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
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Director, Development Services Department
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STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER
12/24/2024

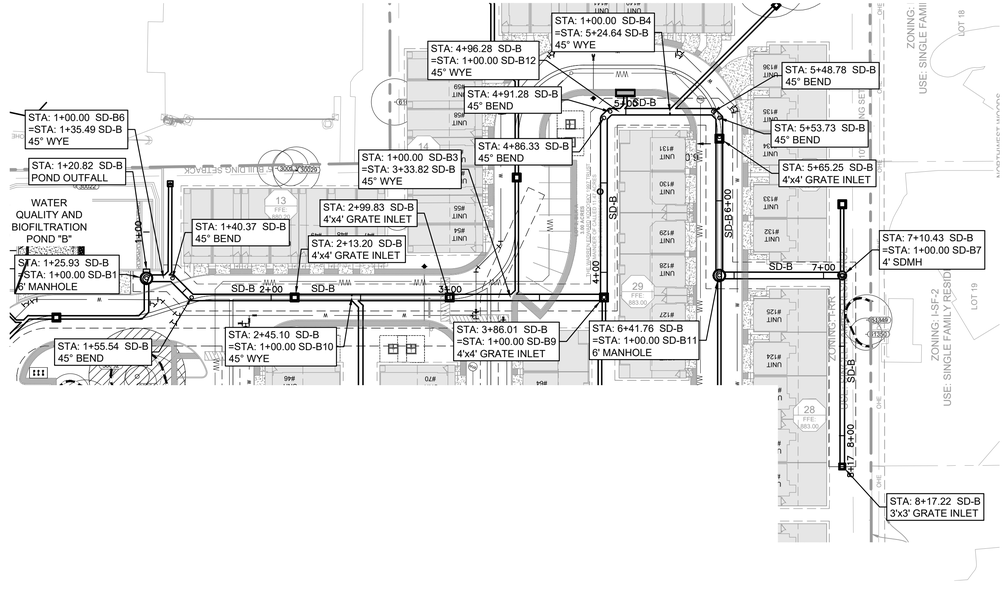
KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

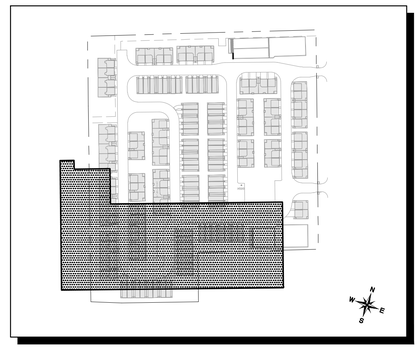
PUBLIC STORM LINE A PLAN & PROFILE

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

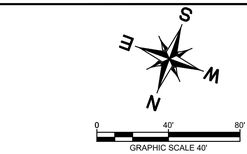
SHEET NUMBER
21 OF 48

SP-2024-0063C





KEYMAP
N.T.S



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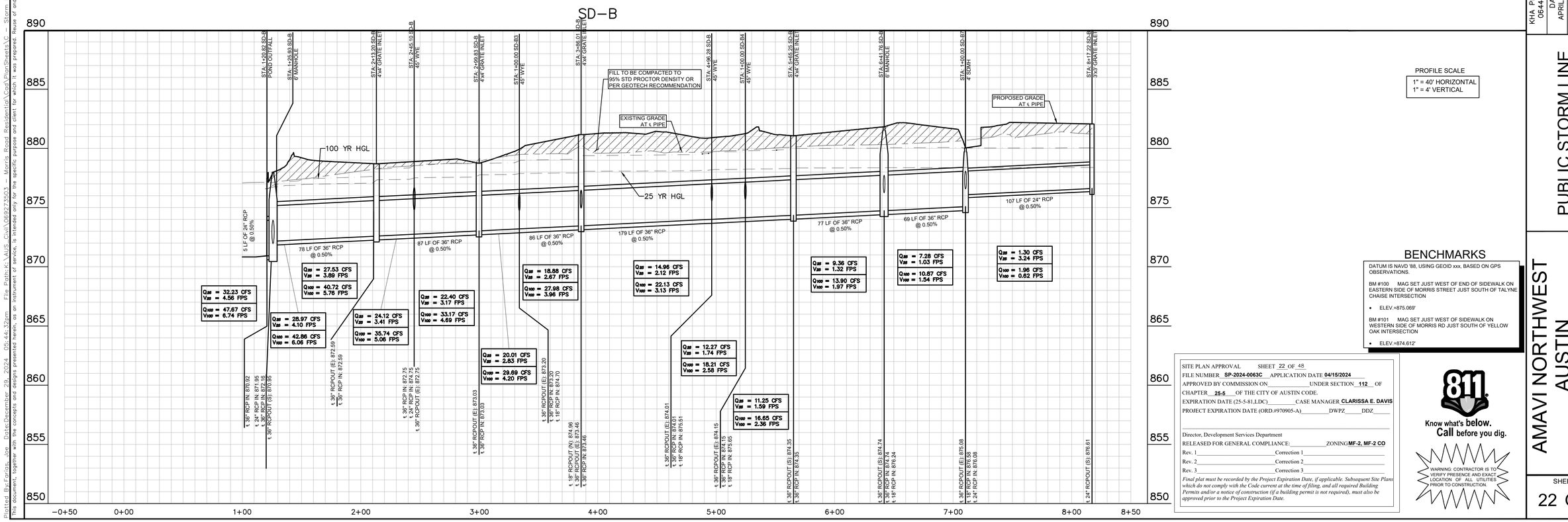

PROFILE SCALE
1" = 40' HORIZONTAL
1" = 4' VERTICAL

BENCHMARKS

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SITE PLAN APPROVAL SHEET 22 OF 48
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KHA PROJECT 064487031			
DATE APRIL 2024	SCALE: AS SHOWN	DESIGNED BY:	AH
		DRAWN BY:	GA
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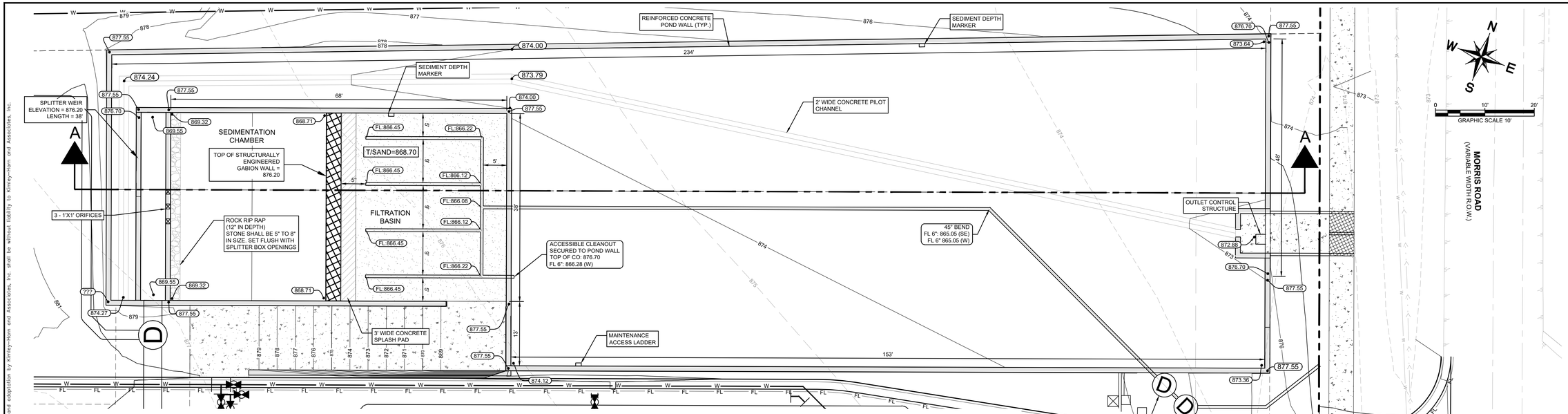
PUBLIC STORM LINE B PLAN & PROFILE

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
22 OF 48

SP-2024-0063C

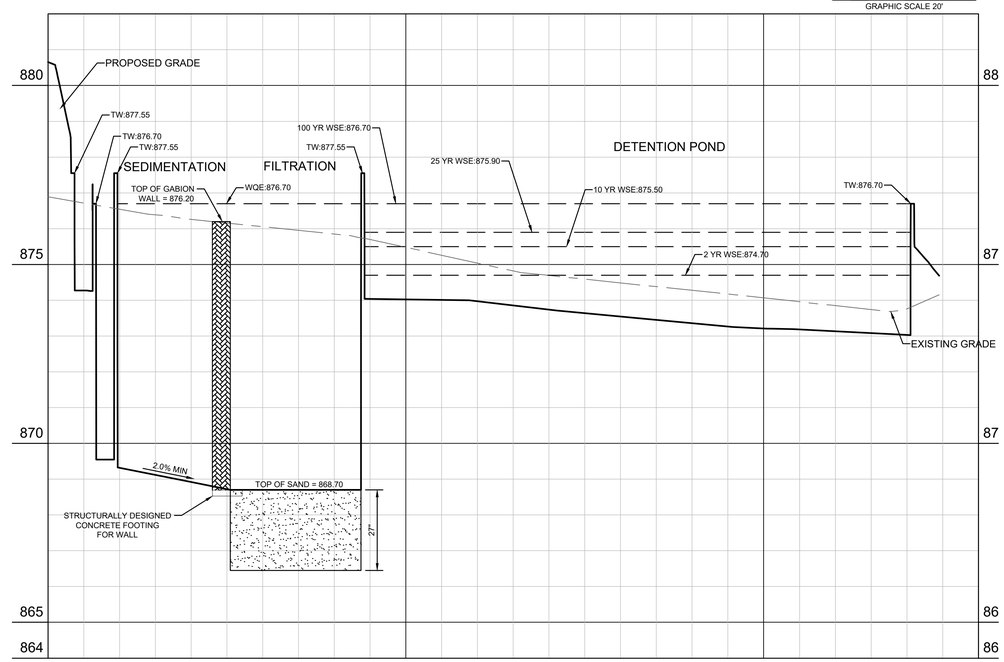


POND STAGE STORAGE TABLE					
STAGE (FT MSL)	Area (AC)	AREA (SF)	STORAGE (CF)	CUMULATIVE STORAGE (CF)	CUMULATIVE STORAGE (AC-FT)
872.86	0.056	2,439	0	0	0.00
873.00	0.063	2,744	363	363	0.01
874.00	0.232	10,106	6,425	6,788	0.16
875.00	0.308	13,416	11,761	18,549	0.43
876.00	0.308	13,416	13,416	31,966	0.73
876.70	0.308	13,416	9,392	41,357	0.95
877.00	0.308	13,416	4,025	45,382	1.04

POND ROUTING TABLE				
DESIGN SCENARIO	PEAK INFLOW (FT^3/S)	COMPUTED PEAK OUTFLOW (FT^3/S)	MAXIMUM WATER SURFACE ELEVATION (FT)	MAXIMUM STORAGE (ac-ft)
2 YR	18.30	11.50	874.70	0.30
10 YR	29.70	18.90	875.50	0.60
25 YR	37.30	24.10	875.90	0.70
100 YR	50.10	33.80	876.70	0.90

NOTE: MAINTENANCE OF WATER QUALITY POND SHALL BE PERFORMED PER CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL (ECM) 1.6.3 - MAINTENANCE AND CONSTRUCTION REQUIREMENTS.

POND A - SECTION A-A



LEGEND

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WATER QUALITY AND DETENTION POND A

SPLITTER WEIR DESIGN

Provided Overflow Elevation = 876.70
Top of Box Elevation = 877.55

Using the weir flow equation:
$Q = C*L*H^(3/2)$

Q = 100 year developed flow into splitter box (cfs)	50.1
C = Weir coefficient	3.00
L = Width of weir (feet)	38.0
H = Depth of flow (feet)	0.58

Max. WSE_{100} in Box = 877.28

100-YR EMERGENCY OVERFLOW WEIR DESIGN

Provided Overflow Elevation = 876.70
Top of Pond Elevation = 877.55

Using the weir flow equation:
$Q = C*L*H^(3/2)$

Q = 100 yr dev. flow released from det. pond (cfs)	50.1
C = Weir coefficient	3.00
L = Width of weir (feet)	48.0
H = Depth of flow (feet)	0.49

Max. Head over Weir = 877.19

POND A DRAWDOWN CALCULATIONS

Minimum Drawdown Time = 48 hours = 172,800 seconds
Pond volume to be removed = 19,760 cf
Volume removed per second = 0.11 cfs

Orifice equation is "Q = 0.6*A*(2*g*h)^.5
A = area of orifice g= 32.2
h = average depth of pond= 8.00 ft

$A = Q/(0.6*(2*g*h)^.5) = p*r^2$ =	0.008 sf	
r =	0.052 ft	
r =	0.62 in	
d =	1.24 in	Calculated
d=	1.24 in	Provided

SPLITTER BOX ORIFICE CALCULATIONS TO SEDIMENTATION BASIN A

25-YR PEAK FLOW RATE = 37.30 CFS
ORIFICE FLOWLINE ELEVATION = 869.33 FT (MSL)
WATER QUALITY ELEVATION = 876.70 FT (MSL)

ORIFICE EQUATION: $Q = N\,C\,A\sqrt{2GH}$

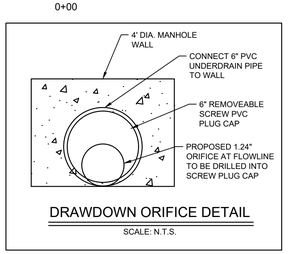
WHERE: Q = ORIFICE FLOW (CFS)
C = ORIFICE COEFFICIENT (0.60)
A = AREA OF ORIFICE (FT^2)
G = GRAVITATIONAL CONSTANT (32.2 FT/S^2)
H = HEAD ON ORIFICE FROM CENTERLINE (FT)
N = NUMBER OF ORIFICES
OH = HEIGHT OF ORIFICES
W = WIDTH OF ORIFICES

H =	6.87 FT
N =	4.00
OH =	1.00
W =	1.00
A =	1.00 FT^2
C =	0.60
G =	32.20 FT/SEC2
Q (PROVIDED) =	50.48

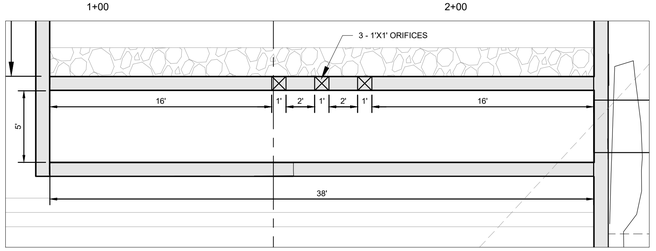
DRAWDOWN CALCULATIONS USING DYNAMIC HEAD

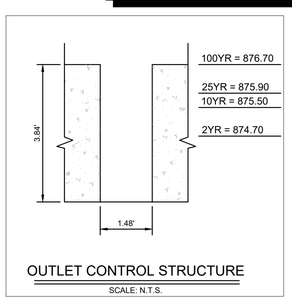
Pipe Diameter = 6.00 in.
Orifice Diameter = 1.24 in.
Center of Orifice Elev = 864.82 MSL
WQ.V = 19,760 CF
WQ.V. ELEV = 876.70 MSL
Filtration Bed Elev = 868.70 MSL
Initial Depth = 8.00 FT

TIME HRS	HEAD FT	OUTFLOW CFS	VOL. CF	dV CF	total dV CF	H FT	dH FT	total dH FT	W.E MSL
0.00	11.88	0.14	19,760	505	505	7.80	0.20	0.20	876.50
1.00	11.68	0.14	19,255	501	1006	7.59	0.20	0.41	876.29
2.00	11.47	0.14	18,754	496	1503	7.39	0.20	0.61	876.09
3.00	11.27	0.14	18,257	492	1995	7.19	0.20	0.81	875.89
4.00	11.07	0.13	17,765	488	2482	6.99	0.20	1.01	875.69
5.00	10.87	0.13	17,278	483	2966	6.80	0.20	1.20	875.50
6.00	10.68	0.13	16,794	479	3445	6.61	0.19	1.39	875.31
7.00	10.49	0.13	16,315	475	3919	6.41	0.19	1.59	875.11
8.00	10.29	0.13	15,841	470	4390	6.22	0.19	1.78	874.92
9.00	10.10	0.13	15,370	466	4856	6.03	0.19	1.97	874.73
10.00	9.91	0.13	14,904	462	5317	5.85	0.19	2.15	874.55
11.00	9.73	0.13	14,443	457	5774	5.66	0.19	2.34	874.36
12.00	9.54	0.12	13,986	453	6227	5.48	0.18	2.52	874.18
13.00	9.36	0.12	13,533	448	6676	5.30	0.18	2.70	874.00
14.00	9.18	0.12	13,084	444	7120	5.12	0.18	2.88	873.82
15.00	9.00	0.12	12,640	440	7559	4.94	0.18	3.06	873.64
16.00	8.82	0.12	12,201	435	7995	4.76	0.18	3.24	873.46
17.00	8.64	0.12	11,765	431	8425	4.59	0.17	3.41	873.29
18.00	8.47	0.12	11,335	427	8852	4.42	0.17	3.58	873.12
19.00	8.30	0.12	10,908	422	9274	4.25	0.17	3.75	872.95
20.00	8.13	0.12	10,486	418	9692	4.08	0.17	3.92	872.78
21.00	7.96	0.11	10,068	413	10105	3.91	0.17	4.09	872.61
22.00	7.79	0.11	9,655	409	10515	3.74	0.17	4.26	872.44
23.00	7.62	0.11	9,245	405	10919	3.58	0.16	4.42	872.28
24.00	7.46	0.11	8,841	400	11320	3.42	0.16	4.58	872.12
25.00	7.30	0.11	8,440	396	11716	3.26	0.16	4.74	871.96
26.00	7.14	0.11	8,044	392	12107	3.10	0.16	4.90	871.80
27.00	6.98	0.11	7,653	387	12494	2.94	0.16	5.06	871.64
28.00	6.82	0.11	7,266	383	12877	2.79	0.15	5.21	871.49
29.00	6.67	0.10	6,883	378	13256	2.63	0.15	5.37	871.33
30.00	6.51	0.10	6,504	374	13630	2.48	0.15	5.52	871.18
31.00	6.36	0.10	6,130	370	13999	2.33	0.15	5.67	871.03
32.00	6.21	0.10	5,761	365	14365	2.18	0.15	5.82	870.88
33.00	6.06	0.10	5,395	361	14726	2.04	0.15	5.96	870.74
34.00	5.92	0.10	5,034	357	15082	1.89	0.14	6.11	870.59
35.00	5.77	0.10	4,678	352	15435	1.75	0.14	6.25	870.45
36.00	5.63	0.10	4,325	348	15782	1.61	0.14	6.39	870.31
37.00	5.49	0.09	3,978	343	16126	1.47	0.14	6.53	870.17
38.00	5.35	0.09	3,634	339	16465	1.33	0.14	6.67	870.03
39.00	5.21	0.09	3,295	335	16800	1.20	0.14	6.80	869.90
40.00	5.08	0.09	2,960	330	17130	1.06	0.13	6.94	869.76
41.00	4.94	0.09	2,630	326	17456	0.93	0.13	7.07	869.63
42.00	4.81	0.09	2,304	322	17777	0.80	0.13	7.20	869.50
43.00	4.68	0.09	1,983	317	18095	0.67	0.13	7.33	869.37
44.00	4.55	0.09	1,665	313	18407	0.55	0.13	7.45	869.25
45.00	4.43	0.08	1,353	308	18716	0.42	0.12	7.58	869.12
46.00	4.30	0.08	1,044	304	19020	0.30	0.12	7.70	869.00
47.00	4.18	0.08	740	300	19320	0.18	0.12	7.82	868.88
48.00	4.06	0.08	440	295	19615	0.06	0.12	7.94	868.76
49.00	3.94	0.08	145	291	19906	-0.06	0.12	8.06	868.64
50.00	3.82	0.08	-146	287	20192	0.00	-0.06	8.00	868.70



DRAWDOWN ORIFICE DETAIL
SCALE: N.T.S.





OUTLET CONTROL STRUCTURE
SCALE: N.T.S.

SITE PLAN APPROVAL SHEET 23 OF ##
FILE NUMBER SP-2024-0063C APPLICATION DATE 04/15/2024
APPROVED BY COMMISSION ON_____UNDER SECTION 112 OF CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC)_____CASE MANAGER CLARISSA E. DAVIS
PROJECT EXPIRATION DATE (ORD.#970905-A)_____DWPZ_____DDZ_____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE:_____ZONING MF-2, MF-2 CO
Rev. 1_____Correction 1_____
Rev. 2_____Correction 2_____
Rev. 3_____Correction 3_____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

811 Know what's below. Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

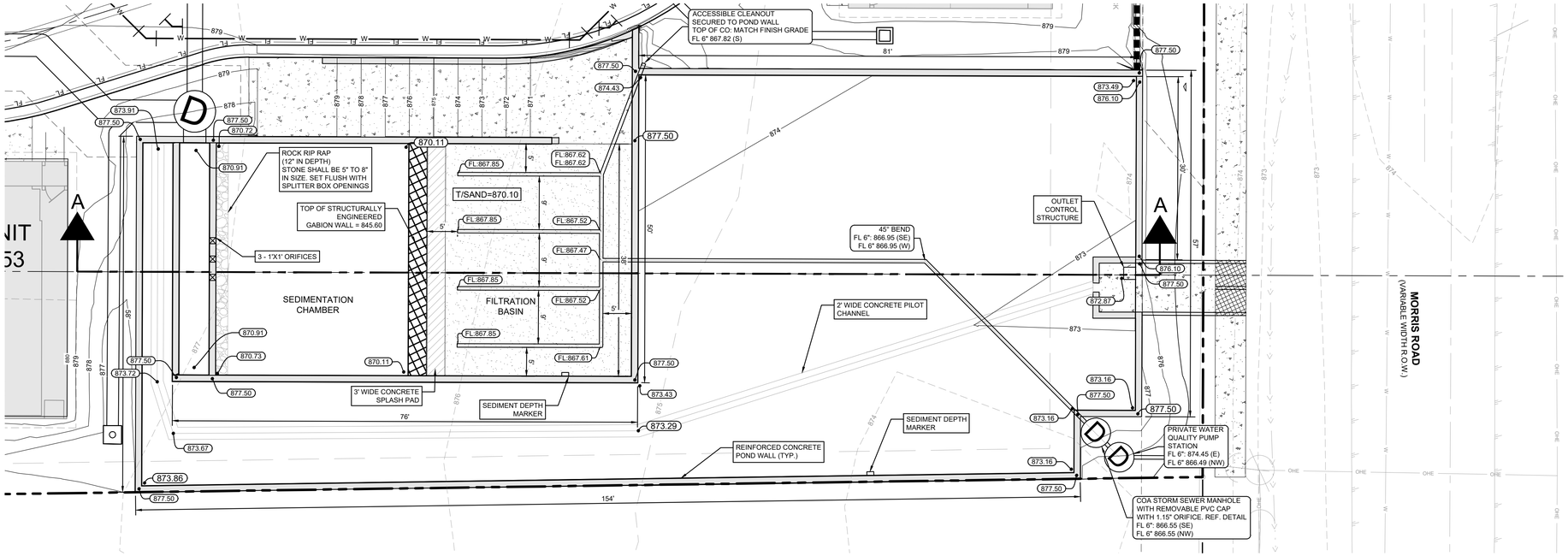
KHA PROJECT 069244502	DATE APRIL 2024	SCALE: AS SHOWN	DESIGNED BY: AH	DRAWN BY: GA	CHECKED BY: JF

POND A PLAN

WILDHORSE TRIANGLE
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
23 OF ##

SP-2024-0063C

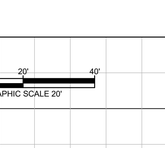


LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TBPE Firm No. 928



KHA PROJECT 064487031			
DATE APRIL 2024	SCALE: AS SHOWN	DESIGNED BY:	AH
		DRAWN BY:	GA
		CHECKED BY:	JF

POND B PLAN

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
24 OF 48

POND STAGE STORAGE TABLE					
STAGE (FT MSL)	Area (AC)	AREA (SF)	STORAGE (CF)	CUMULATIVE STORAGE (CF)	CUMULATIVE STORAGE (AC-FT)
872.86	0.0567	2,470	0	0	0.00
873.00	0.0612	2,666	360	360	0.01
874.00	0.1974	8,599	5,632	5,992	0.14
875.00	0.207	9,017	8,808	14,800	0.34
876.00	0.207	9,017	9,017	23,817	0.55
876.10	0.207	9,017	902	24,718	0.57
877.00	0.207	9,017	8,115	32,833	0.75

POND ROUTING TABLE				
DESIGN SCENARID	PEAK INFLOW (FT^3/S)	COMPUTED PEAK OUTFLOW (FT^3/S)	MAXIMUM WATER SURFACE ELEVATION (FT)	MAXIMUM STORAGE (ac-ft)
2 YR	11.90	8.40	874.30	0.20
10 YR	19.00	13.40	874.90	0.30
25 YR	23.70	17.20	875.30	0.40
100 YR	31.60	23.70	875.90	0.50

WATER QUALITY AND DETENTION POND B

SPLITTER WEIR DESIGN

Provided Overflow Elevation	=	876.10
Top of Box Elevation	=	877.50

Using the weir flow equation: $Q = C*L*H^(3/2)$

Q = 100 year developed flow into splitter box (cfs)	31.6
C = Weir coefficient	3.00
L = Width of weir (feet)	38.0
H = Depth of flow (feet)	0.43
Max. WSE_{SB} in Box =	876.53

100-YR EMERGENCY OVERFLOW WEIR DESIGN

Provided Overflow Elevation	=	876.10
Top of Pond Elevation	=	877.50

Using the weir flow equation: $Q = C*L*H^(3/2)$

Q = 100 yr dev. flow released from det. pond (cfs)	31.6
C = Weir coefficient	3.00
L = Width of weir (feet)	30.0
H = Depth of flow (feet)	0.50
Max. Head over Weir =	876.60

POND A DRAWDOWN CALCULATIONS

Minimum Drawdown Time = 48 hours =	172,800	seconds
Pond volume to be removed =	14,820	cf
Volume removed per second =	0.09	cfs

Orifice equation is "Q = 0.6*A*(2*g*h)^.5
A = area of orifice g= 32.2
h = average depth of pond= 6.00 ft

$A = Q/ (0.6* (2*g*h)^.5) = p*r^2$ =	0.007	sf
r =	0.048	ft
r =	0.58	in
d =	1.15	in Calculated
d=	1.15	in Provided

SPLITTER BOX ORIFICE CALCULATIONS TO SEDIMENTATION BASIN B

25-YR PEAK FLOW RATE =	23.70 CFS
ORIFICE FLOWLINE ELEVATION =	870.73 FT (MSL)
WATER QUALITY ELEVATION =	876.10 FT (MSL)

ORIFICE EQUATION: $Q = N\,C\,A_O\sqrt{2gH}$

WHERE: Q = ORIFICE FLOW (CFS)
C = ORIFICE COEFFICIENT (0.60)
A_O = AREA OF ORIFICE (FT^2)
G = GRAVITATIONAL CONSTANT (32.2 FT/S^2)
H = HEAD ON ORIFICE FROM CENTERLINE (FT)
N = NUMBER OF ORIFICES
OH = HEIGHT OF ORIFICES
W = WIDTH OF ORIFICES

H =	4.87 FT
N =	3.00
OH =	1.00
W =	1.00
A =	1.00 FT^2
C =	0.60
G =	32.20 FT/SEC2
Q (PROVIDED) =	31.88

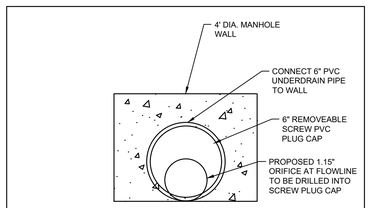
DRAWNDOWN CALCULATIONS USING DYNAMIC HEAD

Pipe Diameter =	6.00 in.	WQ.V. =	14,820 CF
Orifice Diameter =	1.15 in.	WQ.V. ELEV =	876.10 MSL
Center of Orifice Elev =	866.80 MSL	Filtration Bed Elev =	870.10 MSL
		Initial Depth =	6.00 FT

TIME HRS	HEAD FT	OUTFLOW CFS	VOL. CF	dV CF	total dV CF	H FT	dH FT	total dH FT	W.E. MSL
0.00	9.90	0.11	14,820	384	384	5.84	0.16	0.16	875.94
1.00	9.14	0.11	14,436	381	765	5.69	0.15	0.31	875.79
2.00	8.99	0.10	14,054	378	1144	5.54	0.15	0.46	875.64
3.00	8.84	0.10	13,676	375	1519	5.39	0.15	0.61	875.49
4.00	8.69	0.10	13,301	372	1890	5.23	0.15	0.77	875.33
5.00	8.53	0.10	12,930	368	2258	5.09	0.15	0.91	875.19
6.00	8.39	0.10	12,562	365	2623	4.94	0.15	1.06	875.04
7.00	8.24	0.10	12,197	362	2985	4.79	0.15	1.21	874.89
8.00	8.09	0.10	11,835	359	3344	4.65	0.15	1.35	874.75
9.00	7.95	0.10	11,476	355	3699	4.50	0.14	1.50	874.60
10.00	7.80	0.10	11,121	352	4051	4.36	0.14	1.64	874.46
11.00	7.66	0.10	10,769	349	4400	4.22	0.14	1.78	874.32
12.00	7.52	0.10	10,420	346	4746	4.08	0.14	1.92	874.18
13.00	7.38	0.09	10,074	342	5089	3.94	0.14	2.06	874.04
14.00	7.24	0.09	9,731	339	5428	3.80	0.14	2.20	873.90
15.00	7.10	0.09	9,392	336	5764	3.67	0.14	2.33	873.77
16.00	6.97	0.09	9,056	333	6097	3.53	0.13	2.47	873.63
17.00	6.83	0.09	8,723	330	6426	3.40	0.13	2.60	873.50
18.00	6.70	0.09	8,394	328	6752	3.27	0.13	2.73	873.37
19.00	6.57	0.09	8,068	323	7075	3.14	0.13	2.86	873.24
20.00	6.44	0.09	7,745	320	7395	3.01	0.13	2.99	873.11
21.00	6.31	0.09	7,425	317	7712	2.88	0.13	3.12	872.98
22.00	6.18	0.09	7,108	313	8025	2.75	0.13	3.25	872.85
23.00	6.05	0.09	6,795	310	8335	2.63	0.13	3.37	872.73
24.00	5.93	0.08	6,485	307	8642	2.50	0.12	3.50	872.60
25.00	5.80	0.08	6,178	304	8946	2.38	0.12	3.62	872.48
26.00	5.68	0.08	5,874	300	9246	2.26	0.12	3.74	872.36
27.00	5.56	0.08	5,574	297	9543	2.14	0.12	3.86	872.24
28.00	5.44	0.08	5,277	294	9837	2.02	0.12	3.98	872.12
29.00	5.32	0.08	4,983	291	10128	1.90	0.12	4.10	872.00
30.00	5.20	0.08	4,692	287	10416	1.78	0.12	4.22	871.88
31.00	5.08	0.08	4,404	284	10700	1.67	0.12	4.33	871.77
32.00	4.97	0.08	4,120	281	10981	1.55	0.11	4.45	871.65
33.00	4.85	0.08	3,839	278	11259	1.44	0.11	4.56	871.54
34.00	4.74	0.08	3,561	275	11533	1.33	0.11	4.67	871.43
35.00	4.63	0.07	3,287	271	11804	1.22	0.11	4.78	871.32
36.00	4.52	0.07	3,016	268	12073	1.11	0.11	4.89	871.21
37.00	4.41	0.07	2,747	265	12337	1.01	0.11	4.99	871.11
38.00	4.31	0.07	2,483	262	12599	0.90	0.11	5.10	871.00
39.00	4.20	0.07	2,221	258	12857	0.79	0.10	5.21	870.89
40.00	4.09	0.07	1,963	255	13112	0.69	0.10	5.31	870.79
41.00	3.99	0.07	1,708	252	13364	0.59	0.10	5.41	870.69
42.00	3.89	0.07	1,456	249	13613	0.49	0.10	5.51	870.59
43.00	3.79	0.07	1,207	245	13858	0.39	0.10	5.61	870.49
44.00	3.69	0.07	962	242	14100	0.29	0.10	5.71	870.39
45.00	3.59	0.07	720	239	14339	0.19	0.10	5.81	870.29
46.00	3.49	0.06	481	236	14575	0.10	0.10	5.90	870.20
47.00	3.40	0.06	245	232	14807	0.01	0.09	5.99	870.11
48.00	3.31	0.06	13	229	15037	-0.09	0.09	6.09	870.01
49.00	3.21	0.06	-217	226	15263	-0.18	0.09	6.18	869.92
50.00	3.12	0.06	-443	223	15485	0.00	-0.18	6.00	870.10

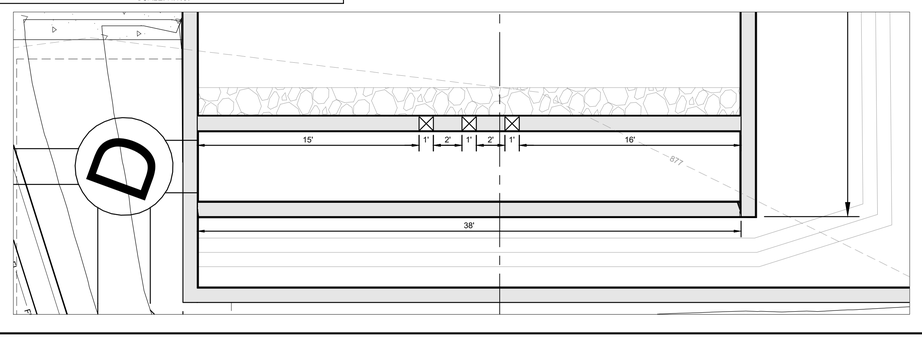
NOTE: MAINTENANCE OF WATER QUALITY POND SHALL BE PERFORMED PER CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL (ECM) 1.6.3 - MAINTENANCE AND CONSTRUCTION REQUIREMENTS.

OUTLET CONTROL STRUCTURE
SCALE: N.T.S.



DRAWDOWN ORIFICE DETAIL
SCALE: N.T.S.

POND B- SECTION A-A



SITE PLAN APPROVAL SHEET 24 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON _____ UNDER SECTION **112** OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) _____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A) _____ DWPZ _____ DDZ _____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING **MF-2, MF-2 CO**
Rev. 1 _____ Correction 1 _____
Rev. 2 _____ Correction 2 _____
Rev. 3 _____ Correction 3 _____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

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SP-2024-0063C

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Pond "A"
Date Prepared: 9/26/2024

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadshee

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased lo
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project
County = Williamson
Total project area included in plan * = 4.35 acres
Predevelopment impervious area within the limits of the plan * = 0.34 acres
Total post-development impervious area within the limits of the plan* = 2.63 acres
Total post-development impervious cover fraction * = 0.60
P = 32 inches

$L_{M\ TOTAL\ PROJECT}$ = 1996 lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = Pond A

Total drainage basin/outfall area = 4.35 acres
Predevelopment impervious area within drainage basin/outfall area = 0.34 acres
Post-development impervious area within drainage basin/outfall area = 2.63 acres
Post-development impervious fraction within drainage basin/outfall area = 0.60
$L_{M\ THIS\ BASIN}$ = 1993 lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C = 4.35 acres
A_I = 2.63 acres
A_P = 1.72 acres
L_R = 2618 lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 1996 lbs.

F = 0.76

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth = 0.94 inches
Post Development Runoff Coefficient = 0.42
On-site Water Quality Volume = 6315 cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP = 1.26 acres
Off-site Impervious cover draining to BMP = 0.57 acres
Impervious fraction of off-site area = 0.45
Off-site Runoff Coefficient = 0.33
Off-site Water Quality Volume = 1427 cubic feet

Storage for Sediment = 1548
Total Capture Volume (required water quality volume(s) x 1.20) = 9291 cubic feet
The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate = 0.1 in/hr **Enter determined permeability rate or assumed value**
Irrigation area = NA square feet
NA acres

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = NA cubic feet

9. Filter area for Sand Filters Designed as Required in RG-348 Pages 3-58 to 3-63

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = 9291 cubic feet

Minimum filter basin area = 351 square feet

Maximum sedimentation basin area = 3158 square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = 789 square feet **For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = 9291 cubic feet

Minimum filter basin area = 632 square feet

Maximum sedimentation basin area = 2526 square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = 158 square feet **For maximum water depth of 8 feet**

10. Bioretention System Designed as Required in RG-348 Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = NA cubic feet

11. Wet Basins Designed as Required in RG-348 Pages 3-66 to 3-71

Required capacity of Permanent Pool = NA cubic feet **Permanent Pool Capacity is 1.20 times the WQV**
Required capacity at WQV Elevation = NA cubic feet **Total Capacity should be the Permanent Pool Capacity plus a second WQV.**

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Pond "B"
Date Prepared: 9/26/2024

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the s

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project
County = Williamson
Total project area included in plan * = 3.57 acres
Predevelopment impervious area within the limits of the plan * = 0.05 acres
Total post-development impervious area within the limits of the plan* = 2.02 acres
Total post-development impervious cover fraction * = 0.57
P = 32 inches

$L_{M\ TOTAL\ PROJECT}$ = 1712 lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = Pond B

Total drainage basin/outfall area = 3.57 acres
Predevelopment impervious area within drainage basin/outfall area = 0.05 acres
Post-development impervious area within drainage basin/outfall area = 2.02 acres
Post-development impervious fraction within drainage basin/outfall area = 0.57
$L_{M\ THIS\ BASIN}$ = 1715 lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 percent

Aqualogic Cartridge Filt
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C = 3.57 acres
A_I = 2.02 acres
A_P = 1.55 acres
L_R = 2014 lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 1715 lbs.

F = 0.85

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-

Rainfall Depth = 1.32 inches
Post Development Runoff Coefficient = 0.40
On-site Water Quality Volume = 6788 cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP = 1.15 acres
Off-site Impervious cover draining to BMP = 0.52 acres
Impervious fraction of off-site area = 0.45
Off-site Runoff Coefficient = 0.33
Off-site Water Quality Volume = 1834 cubic feet

Storage for Sediment = 1724
Total Capture Volume (required water quality volume(s) x 1.20) = 10347 cubic feet
The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate = 0.1 in/hr **Enter determined permeability rate or assu**
Irrigation area = NA square feet
NA acres

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = NA cubic feet

9. Filter area for Sand Filters Designed as Required in RG-348 Pages 3-58 to 3-63

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = 10347 cubic feet

Minimum filter basin area = 377 square feet

Maximum sedimentation basin area = 3394 square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = 849 square feet **For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = 10347 cubic feet

Minimum filter basin area = 679 square feet

Maximum sedimentation basin area = 2715 square feet **For minimum water depth of 2 feet**
Minimum sedimentation basin area = 170 square feet **For maximum water depth of 8 feet**

Appendix R-3

POND "A" Partial Sedimentation/Filtration Pond Calculations for Development Permits

Drainage Area Data:		
Drainage Area to Control (DA)	6.27 AC.	
Drainage Area Percent Impervious Cover	51%	
Capture Depth (CD)	0.81 IN.	
Water Quality Control Calculations:	**Required**	**Provided**
The Water Quality Control is to be Partial Sedimentation/Filtration		
25 Year Peak Flow Rate to Control (Q25)	37.30 CFS	
100 Year Peak Flow Rate to Control (Q100)	50.10 CFS	
Water Quality Volume (WQV=CD*DA*3630)	18436 CF	19580 CF
Maximum Ponded Depth Above Sand Bed (H)		8.00 FT
Sedimentation Pond Area		1197 SF
Sedimentation Pond Volume (minimum 20% of WQV)	3687 CF	9396 CF
Filtration Pond Area (WQV/(4+1.33*H))	1259 SF	1273 SF
Filtration Pond Volume		10184 CF
Water Quality Elevation		876.70 FT MSL
Elevation of Splitter/Overflow Weir	Minimum WQ Elevation	876.70 FT MSL
Height of Gabian Wall	WQ Elevation - 0.5'	876.20 FT
Length of Splitter Weir		38 FT
Required Head to Pass Q100	Max. 1.0 FT	0.58 FT
Pond Freeboard Provided to Pass Q100	Min. 0.25 FT	0.25 FT
48 Hour Drawdown Time Orifice Opening Diameter (inches)		1.24 IN

Sedimentation Pond:

Stage (FT MSL)	Area (SF)	Storage (CF)	Storage Cumm. (CF)	
868.70	0	0	0	
869.00	1,197	180	180	
870.00	1,197	1197	1377	
871.00	1,197	1197	2574	
872.00	1,197	1197	3771	**> 20% WQV**
873.00	1,197	1197	4968	
874.00	1,197	1197	6165	
875.00	1,197	1197	7362	
876.00	1,197	1197	8559	
876.70	1,197	838	9396	

Filtration Pond:

Stage (FT MSL)	Area (SF)	Storage (CF)	Storage Cumm. (CF)	
868.70	1,273	0	0	
869.00	1,273	382	382	
870.00	1,273	1273	1655	
871.00	1,273	1273	2928	
872.00	1,273	1273	4201	
873.00	1,273	1273	5474	
874.00	1,273	1273	6747	
875.00	1,273	1273	8020	
876.00	1,273	1273	9293	
876.70	1,273	891	10184	**WQV**

Appendix R-3

Pond "B" Partial Sedimentation/Filtration Pond Calculations for Development Permits

Drainage Area Data:		
Drainage Area to Control (DA)	4.71 AC.	
Drainage Area Percent Impervious Cover	63%	
Capture Depth (CD)	0.93 IN.	
Water Quality Control Calculations:	**Required**	**Provided**
The Water Quality Control is to be Partial Sedimentation/Filtration		
25 Year Peak Flow Rate to Control (Q25)	23.70 CFS	
100 Year Peak Flow Rate to Control (Q100)	31.60 CFS	
Water Quality Volume (WQV=CD*DA*3630)	15900 CF	16191 CF
Maximum Ponded Depth Above Sand Bed (H)		7.50 FT
Sedimentation Pond Area		1197 SF
Sedimentation Pond Volume (minimum 20% of WQV)	3180 CF	6643 CF
Filtration Pond Area (WQV/(4+1.33*H))	1138 SF	1273 CF
Filtration Pond Volume		9548 CF
Water Quality Elevation		876.10 FT MSL
Elevation of Splitter/Overflow Weir	Minimum WQ Elevation	876.10 FT MSL
Height of Gabian Wall	WQ Elevation - 0.5'	875.60 FT
Length of Splitter Weir		38 FT
Required Head to Pass Q100	Max. 1.0 FT	0.43 FT
Pond Freeboard Provided to Pass Q100	Min. 0.25 FT	0.25 FT
48 Hour Drawdown Time Orifice Opening Diameter (inches)		1.14 IN

Sedimentation Pond:

Stage (FT MSL)	Area (SF)	Storage (CF)	Storage Cumm. (CF)	
868.60	0	0	0	
869.00	1,197	239	239	
870.00	1,197	1197	1436	
871.00	1,197	1197	2633	
872.00	1,197	1197	3830	**> 20% WQV**
873.00	1,197	1197	5027	
874.00	1,197	1197	6224	
875.00	1,197	1197	7421	
876.00	1,197	1197	8618	
876.10	1,197	120	8738	

Filtration Pond:

Stage (FT MSL)	Area (SF)	Storage (CF)	Storage Cumm. (CF)	
868.60	1,273	0	0	
869.00	1,273	509	509	
870.00	1,273	1273	1782	
871.00	1,273	1273	3055	
872.00	1,273	1273	4328	
873.00	1,273	1273	5601	
874.00	1,273	1273	6874	
875.00	1,273	1273	8147	
876.00	1,273	1273	9420	
876.10	1,273	127	9548	**WQV**

SITE PLAN APPROVAL SHEET 25 OF 48
FILE NUMBER SP-2024-0063C APPLICATION DATE 04/15/2024
APPROVED BY COMMISSION ON ______ UNDER SECTION 112 OF
CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) ______ CASE MANAGER CLARISSA E. DAVIS
PROJECT EXPIRATION DATE (ORD.#970905-A) ______ DWPZ ______ DDZ ______

______
Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: ______ ZONING MF-2, MF-2 CO
Rev. 1 ______ Correction 1 ______
Rev. 2 ______ Correction 2 ______
Rev. 3 ______ Correction 3 ______

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

811
Know what's below. Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No. | REVISIONS | DATE | BY

Kimley-Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

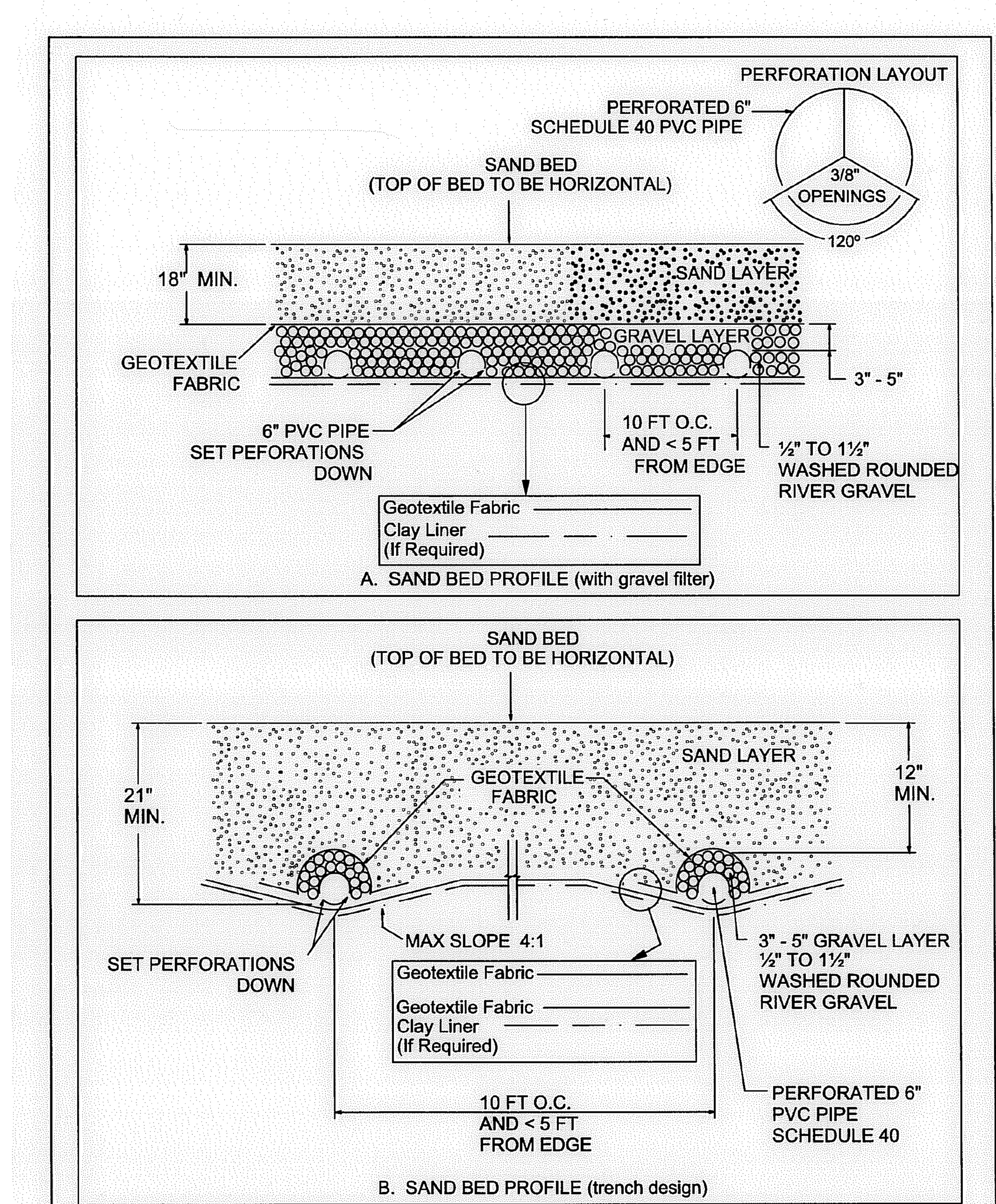
KHA PROJECT 064487031
DATE APRIL 2024
SCALE: AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

WATER QUALITY CALCULATIONS

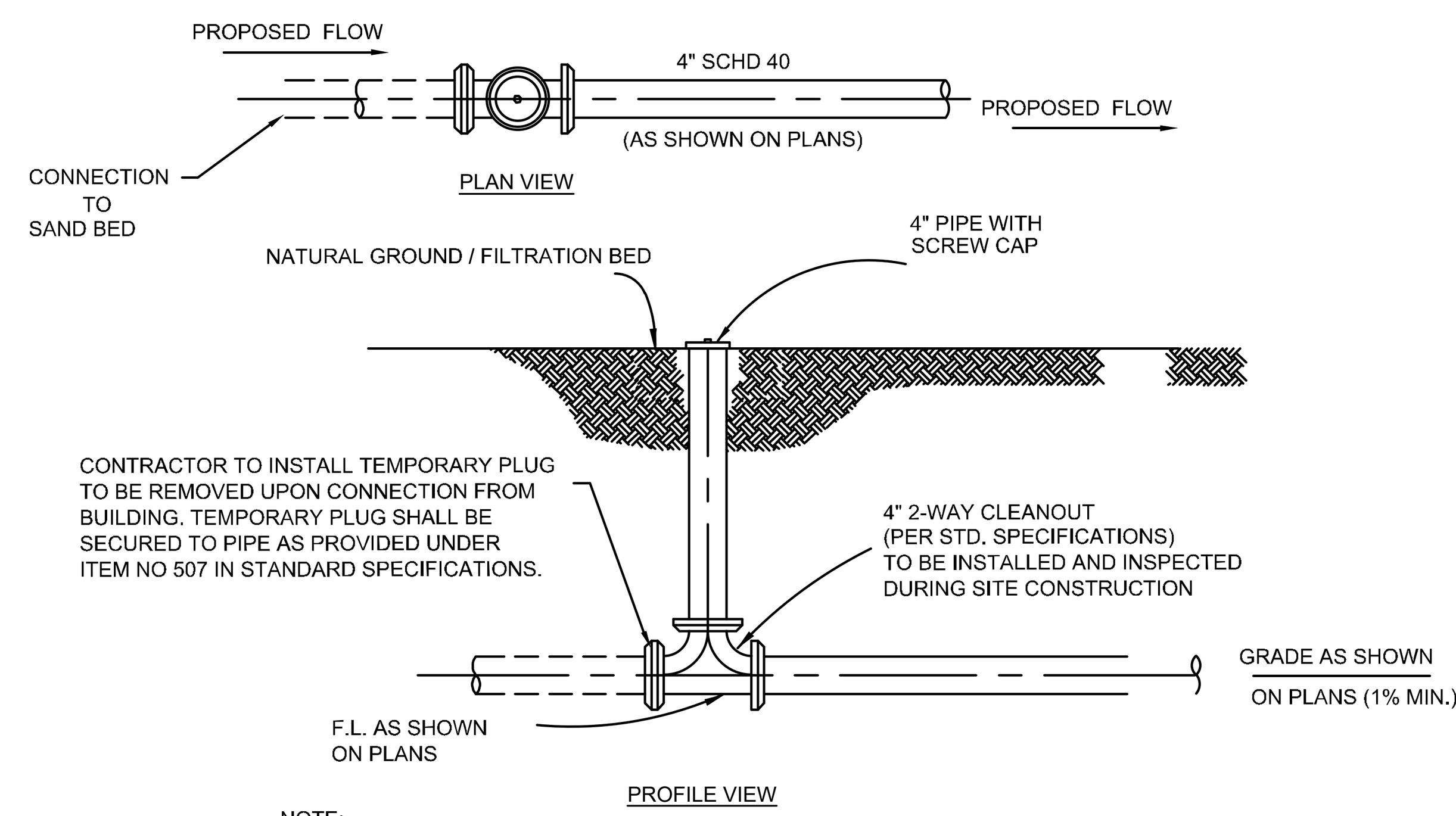
AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
25 OF 48

SP-2024-0063C



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SAND BED FILTRATION CONFIGURATIONS USING CLAY LINER / NO LINER REQUIRED	
P.E. 12/30/14 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 661-2



NOTE:

1. CLEANOUTS SHALL BE FLUSH WITH TOP OF GROUND/FILTRATION ELEVATION

CLEANOUT DETAIL

SCALE: N.T.S.

MAINTENANCE NOTES

THE FOLLOWING MAINTENANCE ACTIVITIES SHALL BE PERFORMED ON ALL SCMS, IN ADDITION TO THE REQUIREMENTS LISTED FOR THE INDIVIDUAL SCM TYPES, TO ENSURE PROPER FUNCTION:

A. ACCUMULATED PAPER, TRASH AND DEBRIS SHALL BE REMOVED EVERY SIX (6) MONTHS OR AS NECESSARY TO MAINTAIN PROPER OPERATION.
B. STRUCTURAL INTEGRITY SHALL BE MAINTAINED AT ALL TIMES. BASINS AND ALL APPURTENANCES SHALL BE INSPECTED ANNUALLY, OR MORE FREQUENTLY IF SPECIFIED, AND REPAIRS SHALL BE MADE IF NECESSARY. WHEN MAINTENANCE OR REPAIRS ARE PERFORMED, THE SCM SHALL BE RESTORED TO THE ORIGINAL LINES AND GRADES.
C. CORRECTIVE MAINTENANCE SHALL OCCUR:
   I. ANY TIME DRAWDOWN OF THE WATER QUALITY VOLUME DOES NOT OCCUR WITHIN NINETY-SIX (96) HOURS (I.E., NO STANDING WATER IS ALLOWED), UNLESS A GREATER MAXIMUM DRAWDOWN TIME IS SPECIFIED IN THE PLANS.
   II. FOR DETENTION PONDS ONLY, ANY TIME DRAWDOWN DOES NOT OCCUR WITHIN TWENTY-FOUR (24) HOURS.
D. THE INLET AND OUTLET OF SCMS SHALL BE MAINTAINED UNIMPEDED IN ORDER TO CONVEY FLOW AT ALL TIMES. OBSERVED BLOCKAGES TO THE INLET AND OUTLET, DUE TO VEGETATION, SEDIMENT, DEBRIS, OR ANY OTHER CAUSE, SHALL BE REMOVED.
E. NO UNVEGETATED AREA SHALL EXCEED TEN (10) SQUARE FEET. THIS PERFORMANCE REQUIREMENT APPLIES TO THE ENTIRE POND INCLUDING THE POND BOTTOM, SIDE SLOPES, AND AREAS ADJACENT TO THE POND, AND IS INTENDED TO LIMIT EROSION.
F. INTEGRATED PEST MANAGEMENT SHALL BE PERFORMED AND SHALL ADHERE TO SECTION 1.6.2.F, INTEGRATED PEST MANAGEMENT GUIDELINES.
G. THE MINIMUM VEGETATION HEIGHT SHALL BE FOUR (4) INCHES IN THE SCM AND ALL APPURTENANCES, INCLUDING THE TOE OF THE BERM OR WALL OUTSIDE THE SCM, WHERE APPLICABLE.
H. SEDIMENT BUILD-UP SHALL BE REMOVED:
   I. WHEN THE ACCUMULATION EXCEEDS SIX (6) INCHES IN SPLITTER BOXES, WET WELLS AND BASINS.
   II. WHEN SEDIMENT TRAPS ARE FULL.
   III. WHEN SEDIMENT, OF ANY AMOUNT, CAUSES STANDING WATER CONDITIONS OR REDUCES BASIN STORAGE BY MORE THAN 10%.
I. WHEN SEDIMENT IS REMOVED, THE FOLLOWING REQUIREMENTS APPLY:
   I. IRRIGATION SHALL BE PROVIDED, AS NEEDED, UNTIL VEGETATION IS ESTABLISHED (WELL ROOTED). SEE SECTION 1.6.3.D, IRRIGATION GUIDELINES.
   II. THE DESIGN DEPTH OF THE FILTRATION MEDIA SHALL BE VERIFIED. SEE SECTION 1.6.3.B.5.
   III. TILLING OF THE FILTRATION MEDIUM IS NOT ALLOWED.
J. FOR SUBSURFACE PONDS MAINTENANCE PLAN REQUIREMENTS, REFER TO ECM SECTION 1.6.2(E).2.SEDIMENTATION AND FILTRATION SCMS (SECTION 1.6.5).

SEDIMENTATION AND FILTRATION SCMS (SECTION 1.6.5):

A. VEGETATION WITHIN THE SCM SHALL NOT EXCEED EIGHTEEN (18) INCHES IN HEIGHT AT ANY TIME, EXCEPT AS CALLED FOR IN THE DESIGN.
B. VEGETATION THAT IS MOWED OR CUT SHALL BE REMOVED FROM THE SCM.

DETENTION BASINS:

A. VEGETATION WITHIN THE BASIN SHALL NOT EXCEED EIGHTEEN (18) INCHES IN HEIGHT AT ANY TIME.

GABION WALL NOTES

594S DESCRIPTION

THIS ITEM SHALL INCLUDE FURNISHING, ASSEMBLING, FILLING, AND TYING ROCK-FILLED WIRE MESH COMPARTMENTED GABIONS AND REVET MATTRESSESS IN ACCORDANCE WITH THE LINES, GRADES, AND DIMENSIONS SHOWN ON THE DRAWINGS OR OTHERWISE ESTABLISHED IN THE FIELD BY THE ENGINEER OR DESIGNATED REPRESENATIVE.

594S.2 MATERIALS

(1) GABION AND REVET MATTRESS WIRE

GABION WIRE SHALL BE GALVANIZED STEEL, CLASS 3 OR A COATING, SOFT TEMPER CONFORMING TO ASTM A 641, AND SHALL SPECIFICALLY MEET THE REQUIREMENTS GIVEN BELOW FOR GABIONS (12 GUAGE WIRE) AND/OR REVET MATTRESSES (13.5 WIRE GUAGE) AS CALLED OUT IN DRAWINGS. PVC COATING OF WIRE MAY BE FUSEBONDED OR EXTRUDED ONTO THE WIRE. GALVANIZATION OF WELDED WIRE SHALL BE PERFORMED EITHER BEFORE OR AFTER WELDING.

CHARACTERISTIC	GABIONS	REVET MATTRESSES
WIRE GUAGE	12 GUAGE	13.5 GUAGE
MAX. TENSILE STRENGTH (ASTM 641)	70,000 PSI. (483 mPa)	75,000 PSI. (517 mPa)
NOMINAL WIRE DIAMETER (ASTM A 641)	0.106 INCH (2.7 mm)	0.0866 INCH (2.2 mm)
MINIMUM DIAMETER (ASTM A 641, TABLE 3)	0.102 INCH (2.6 mm)	0.0826 INCH (2.9 mm)
GALVANIZED, ZINC (ASTM A 641, TABLE 1)	0.80 OZ/FT^2 (245 GR/M^2)	0.70 OZ/FT^2 (215 GR/M^2)

(2) GABION MESH

(A) WOVEN MESH
WOVEN MESH SHALL BE OF A UNIFORM NONRAVELING, DOUBLE TWIST HEXAGONAL PATTERN NOMINALLY OF DIMENSIONS 3.25 INCHES BY 4.5 INCHES (83 mm BY 144mm). SELVEDGE WIRE SHALL BE 10 GUAGE (NOMINAL DIAMETER OF 3.4 mm).

(B) WELDED MESH
MESH OPENING SHALL BE NOMINALLY 3 INCHES BY 3 INCHES (75 mm BY 75 mm). STRENGTH OF WELDS SHALL BEET THE FOLLOWING REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH SECTION 13.4 OF ASTM, A-974:

TYPE OF STRUCTURE	WIRE SIZE (DIAMETER)	MINIMUM AVERAGE WELD SHEAR STRENGTH
	GUAGE (mm)	ENGLISH UNITS (SI UNITS)
GABIONS	12 (2.7)	475 lbf (2.10 kN)
REVET MATRESS	13.5 (2.2)	292 lbf (1.30 kN)

(C) MANUFACTURING
TWISTED WIRE MESH GABIONS SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-975, WHILE WELDED WIRE MESH GABIONS SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-974.

(3) REVET MATRESSES

(A) WOVEN MESH
WOVEN MESH SHALL BE OF A UNIFORM NONRAVELING, DOUBLE TWIST HEXAGONAL PATTERN NOMINALLY OF DIMENSIONS 2.5 INCHES BY 3.25 INCHES (64 mm BY 83mm). SELVEDGE WIRE SHALL BE 12 GUAGE (NOMINAL DIAMETER OF 2.7 mm).

(B) WELDED MESH
MESH OPENING SHALL BE NOMINALLY 1.5 INCHES BY 3 INCHES (38 mm BY 76 mm). STRENGTH OF WELDS SHALL BEET THE REQUIREMENTS LISTED IN TABLE 2 FOR 13.5 GUAGE (2.2 mm) WIRE WHEN TESTED IN ACCORDANCE WITH SECTION 13.4 OF ASTM, A-974:

(C) MANUFACTURING
TWISTED WIRE MESH REVET MATRESSES SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-975, WHILE WELDED WIRE MESH REVET MATRESSES SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-974.

(4) PVC COATING

SEE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO 594S GABIONS AND REVET MATTRESSES.

(5) STONE

(A) GABION BASKET STONES
STONE FILL SHALL BE DURABLE AND OF SUITABLE QUALITY TO ENSURE PERMINANENCE IN THE STRUCTURE. THE STONE USED TO FILL THE GABION BASKETS SHALL BE A CLEAN, SOUND, AND DURABLE ROCK MEETING THE FOLLOWING REQUIREMENTS. IT SHALL HAVE A WEARING LOSS LESS THAN 35% WHEN THE STONE IS TESTED WITH THE LOS ANGELES ABRASION MACHINE IN ACCORDANCE WITH ASTM TEST METHOD C535 (TxDOT TEST METHOD TEX-410A).THE LOSS OF MATERIAL EXPERIENCED DURING FIVE CYCLES OF MAGNESIUM SULFATE EXPOSURE CONDUCTED IN ACCORDANCE WITH TxDOT TEST METHOD TEX-411A FOR ROCK RIP RAP SHALL NOT EXCEED 18%. THE STONE SHALL BE WELL GRADED TO PRODUCE A DENSE FILL, ANGULAR IN TEXTURE, WHILE MEETING THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZE US (SI)	PERCENT BY WEIGHT (MASS) % PASSING EACH INDIVIDUAL SIEVE
8 INCH (200 mm)	100
4 INCH (100 mm)	0-5
3 INCH (75 mm)	0

THE MINIMUM UNIT WEIGHT (UNIT MASS) OF A ROCKFILLED GABION SHALL BE 120 pcf [1.92 MEGAGRAMS (mg) PER CUBIC METER]. VERIFICATION OF UNIT WEIGHT (MASS) SHALL BE PERFORMED WHEN ORDERED BY THE ENGINEER, BY CONSTRUCTING A TEST GABION WITH MATERIALS SUPPLIED FOR CONSTRUCTION WITH THE SAME EFFORT AND METHOD INTENDED FOR PRODUCTION GABIONS.

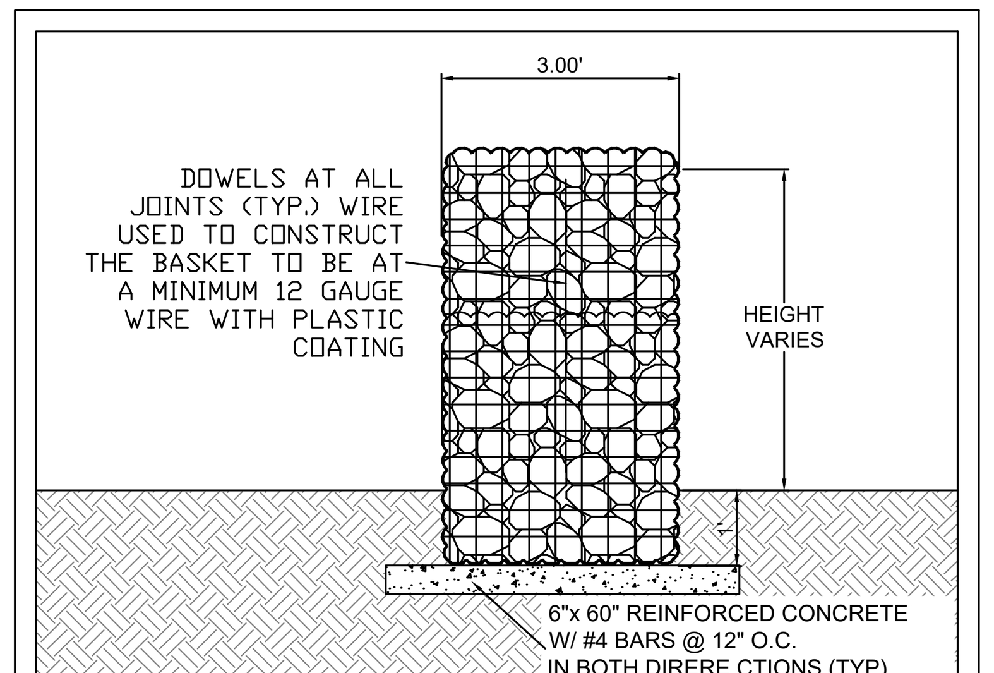
(6) CONNECTIONS

SEE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO 594S GABIONS AND REVET MATTRESSES.

(7) FASTENER SYSTEM

SEE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO 594S GABIONS AND REVET MATTRESSES.

(8) PANEL TO PANEL JOINT STRENGTH
SEE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO 594S GABIONS AND REVET MATTRESSES.



GABION WALL FOR WQ PONDS (TYP)

N.T.S.

SITE PLAN APPROVAL SHEET 26 OF 48
FILE NUMBER SP-2024-0063C APPLICATION DATE 04/15/2024
APPROVED BY COMMISSION ON ____________ UNDER SECTION 112 OF
CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) ________ CASE MANAGER CLARISSA E. DAVIS
PROJECT EXPIRATION DATE (ORD.#970905-A) ________ DWPZ _____ DDZ _____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: __________ ZONING MF-2, MF-2 CO
Rev. 1 __________ Correction 1 __________
Rev. 2 __________ Correction 2 __________
Rev. 3 __________ Correction 3 __________

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Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

No. | REVISIONS | DATE | BY

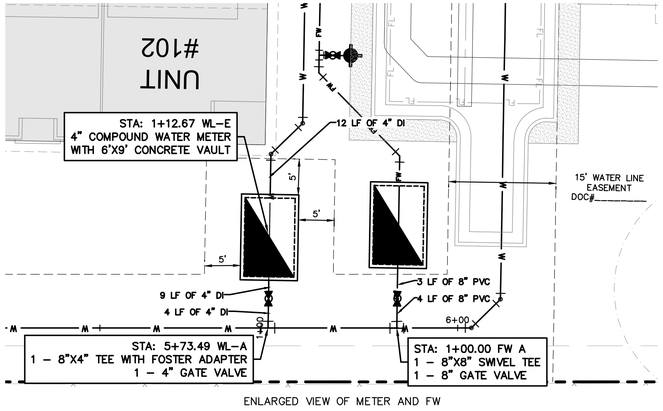
STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT 064487031
DATE APRIL 2024
SCALE: AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

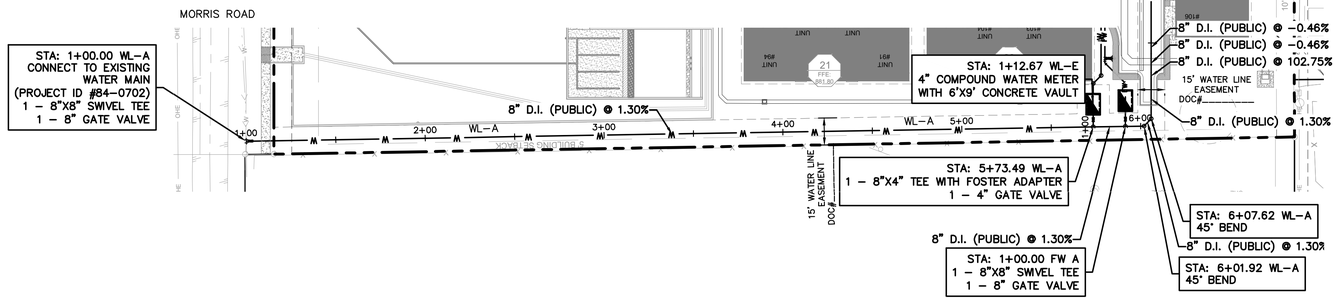
POND DETAILS

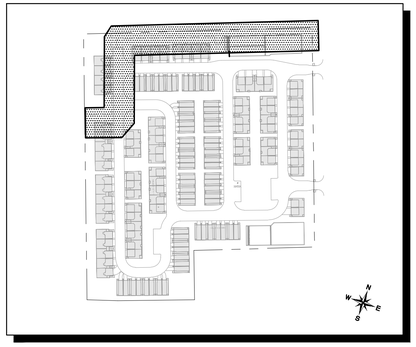
AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

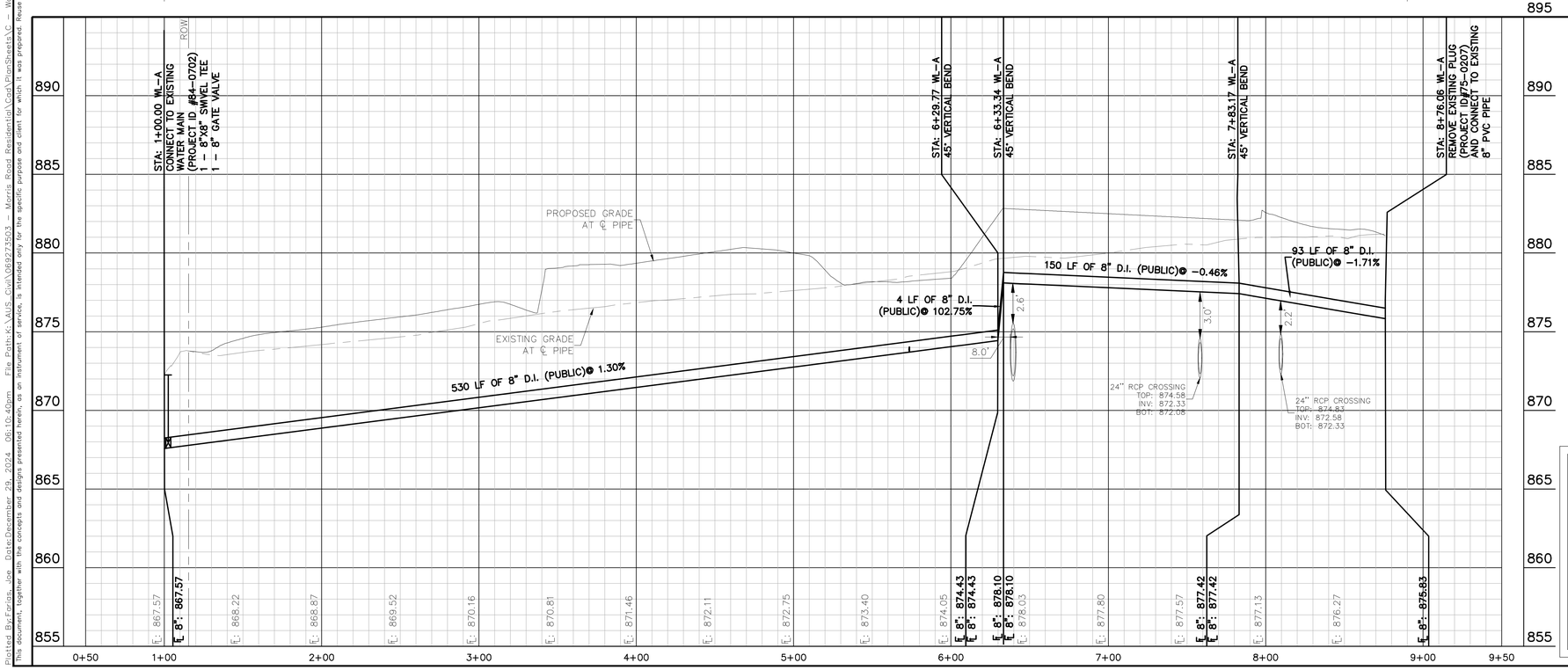
SHEET NUMBER
26 OF 48



ENLARGED VIEW OF METER AND FW







PROFILE SCALE
1" = 40' HORIZONTAL
1" = 4' VERTICAL

LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

BENCHMARKS

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION

- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

SITE PLAN APPROVAL SHEET 27 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON _____ UNDER SECTION **112** OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) _____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A) _____ DWPZ _____ DDZ _____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING **MF-2, MF-2 CO**
Rev. 1 _____ Correction 1 _____
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No.	REVISIONS	DATE	BY

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10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

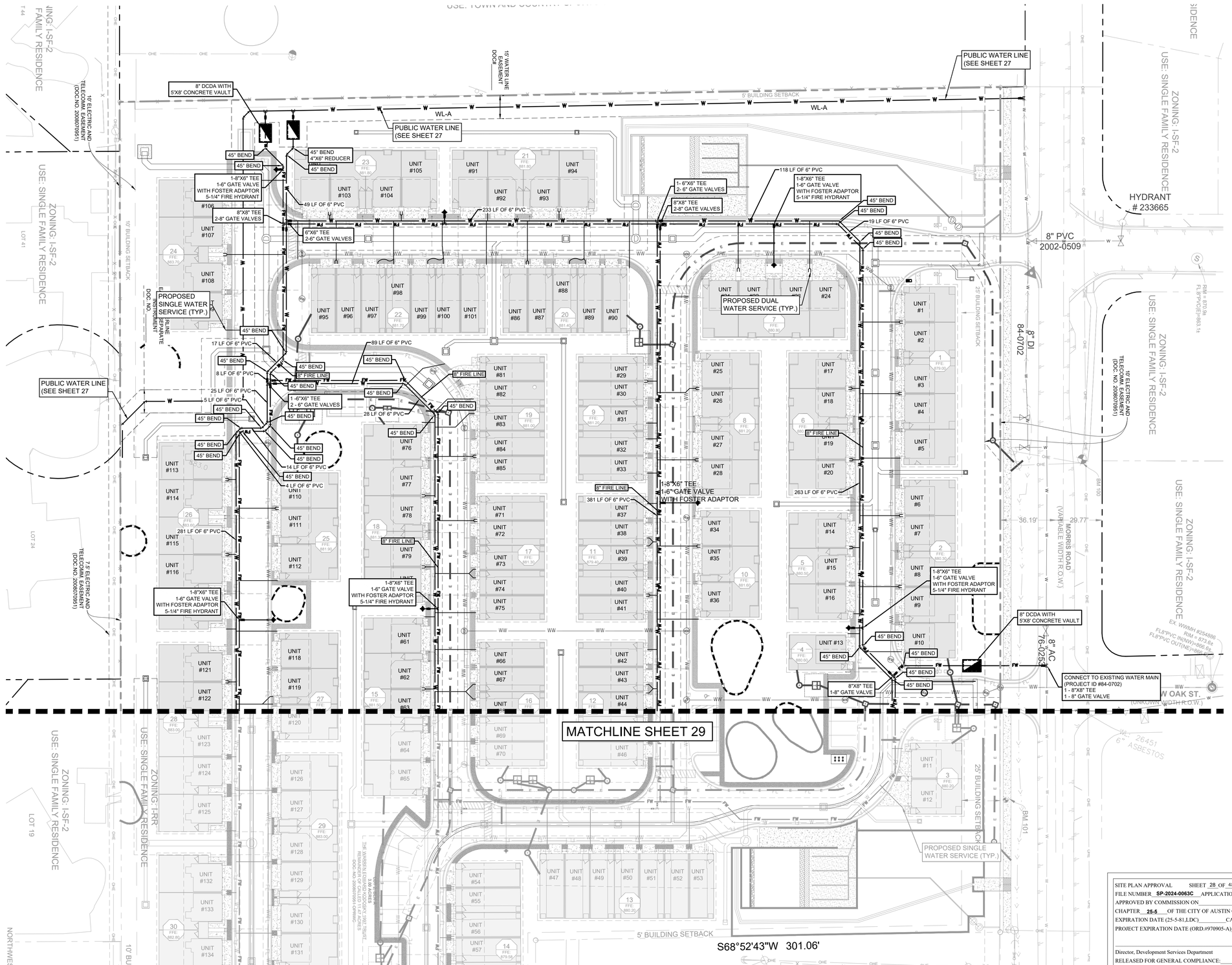
KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

PUBLIC WATERLINE A - PLAN & PROFILE

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
27 OF 48

SP-2024-0063C



N
W
E
S

0 30' 60'
GRAPHIC SCALE 30'

LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

NOTES:

1. UNDERGROUND MAINS SUPPLYING PRIVATE HYDRANTS MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 24, AND THE FIRE CODE, BY A LICENSED CONTRACTOR WITH A PLUMBING PERMIT. THE ENTIRE MAIN MUST BE HYDROSTATICALLY TESTED AT ONE TIME, UNLESS ISOLATION VALVES ARE PROVIDED BETWEEN TESTED SECTIONS.
2. CONTRACTOR SHALL USE C900 PVC PIPE FOR FIRE LINE WITH THE EXCEPTION OF FIRE HYDRANT LEADS WHICH WILL BE DUCTILE IRON PIPE.
3. CONTRACTOR SHALL USE C900 PVC PIPE FOR DOMESTIC WATER LINE.

1-1/4"
SINGLE WATER SERVICE

1-1/4" 1-1/4" 2"
DUAL WATER SERVICE

BENCHMARKS

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SITE PLAN APPROVAL SHEET 28 OF 48
FILE NUMBER SP-2024-0063C APPLICATION DATE: 04/15/2024
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KIMLEY-HORN AND ASSOCIATES, INC.

TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

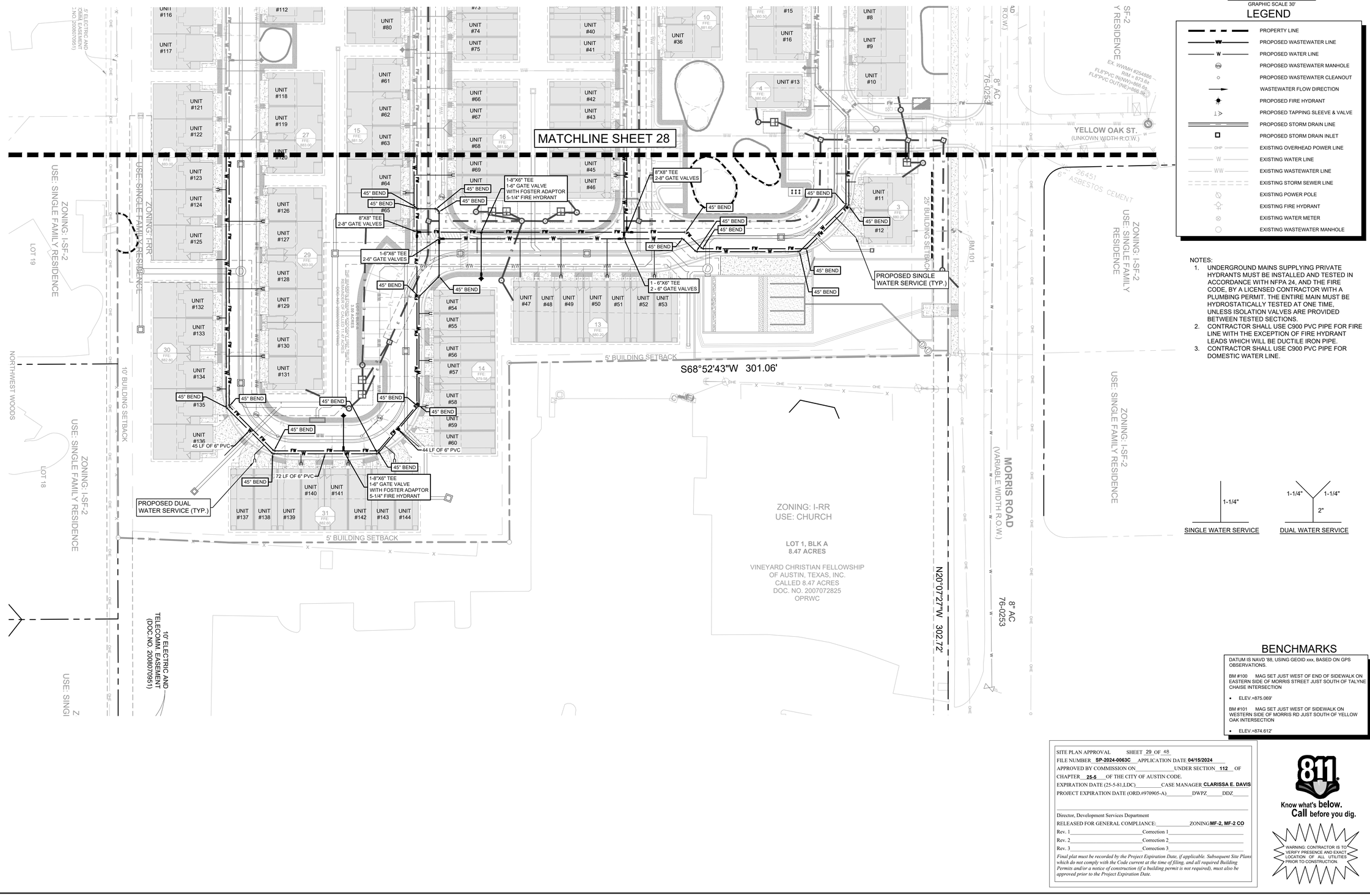
KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

PRIVATE WATER PLAN (SHEET 1 OF 2)

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
28 OF 48

SP-2024-0063C



LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
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- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

GRAPHIC SCALE 30'

1-1/4" SINGLE WATER SERVICE

1-1/4" 1-1/4" 2" DUAL WATER SERVICE

NOTES:
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SITE PLAN APPROVAL SHEET 29 OF 48
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KIMLEY-HORN AND ASSOCIATES, INC.
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TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

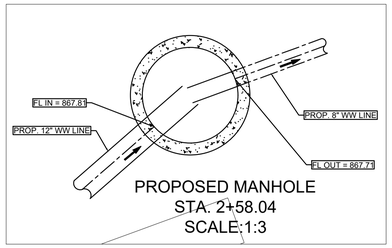
KHA PROJECT 064487031			
DATE APRIL 2024	SCALE: AS SHOWN	DESIGNED BY:	AH
		DRAWN BY:	GA
		CHECKED BY:	JF

PRIVATE WATER PLAN (SHEET 2 OF 2)

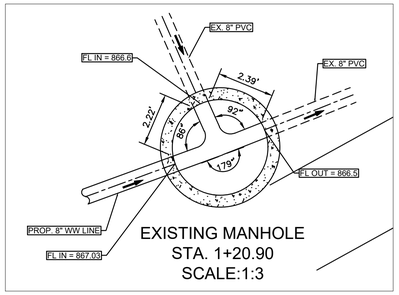
AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
29 OF 48

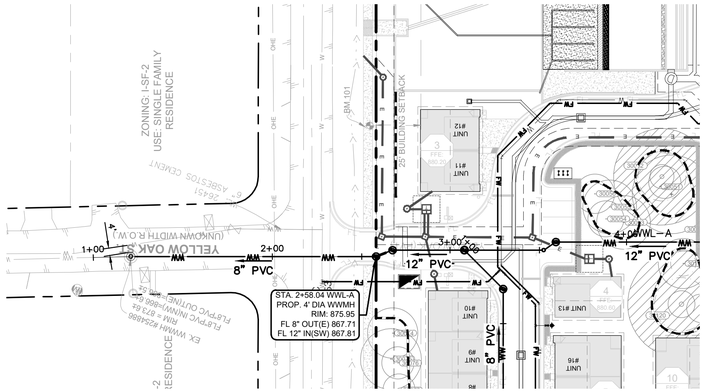
SP-2024-0063C

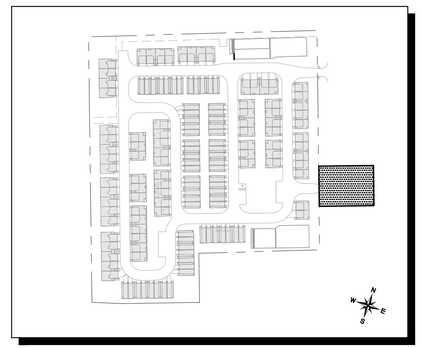


PROPOSED MANHOLE
STA. 2+58.04
SCALE:1:3

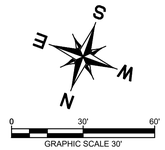


EXISTING MANHOLE
STA. 1+20.90
SCALE:1:3





KEYMAP
N.T.S



LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
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- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
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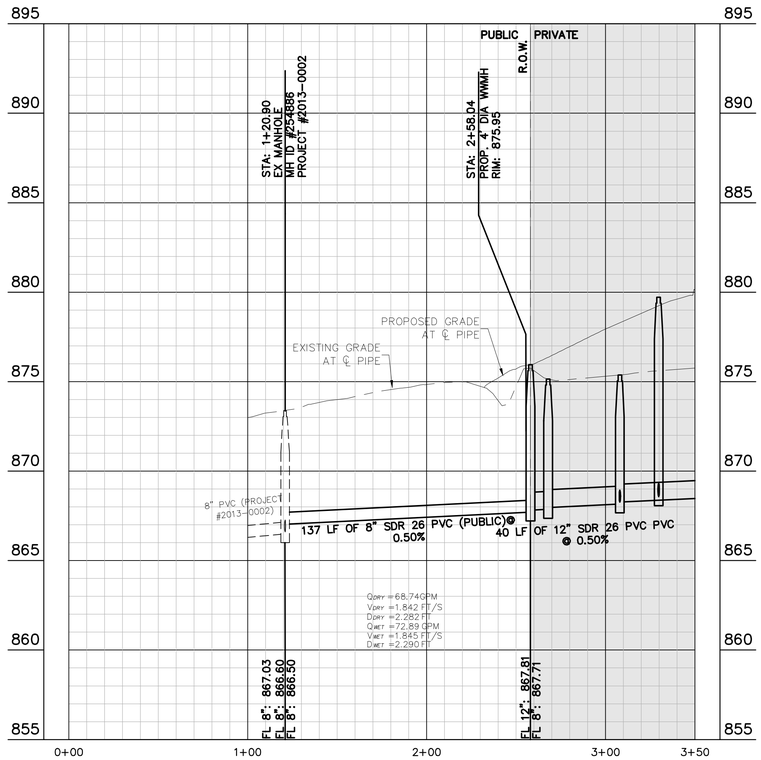

PROFILE SCALE
1" = 40' HORIZONTAL
1" = 4' VERTICAL

BENCHMARKS

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SITE PLAN APPROVAL SHEET 30 OF 48
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STATE OF TEXAS
JOSE M. FARIAS
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LICENSED PROFESSIONAL ENGINEER
12/24/2024

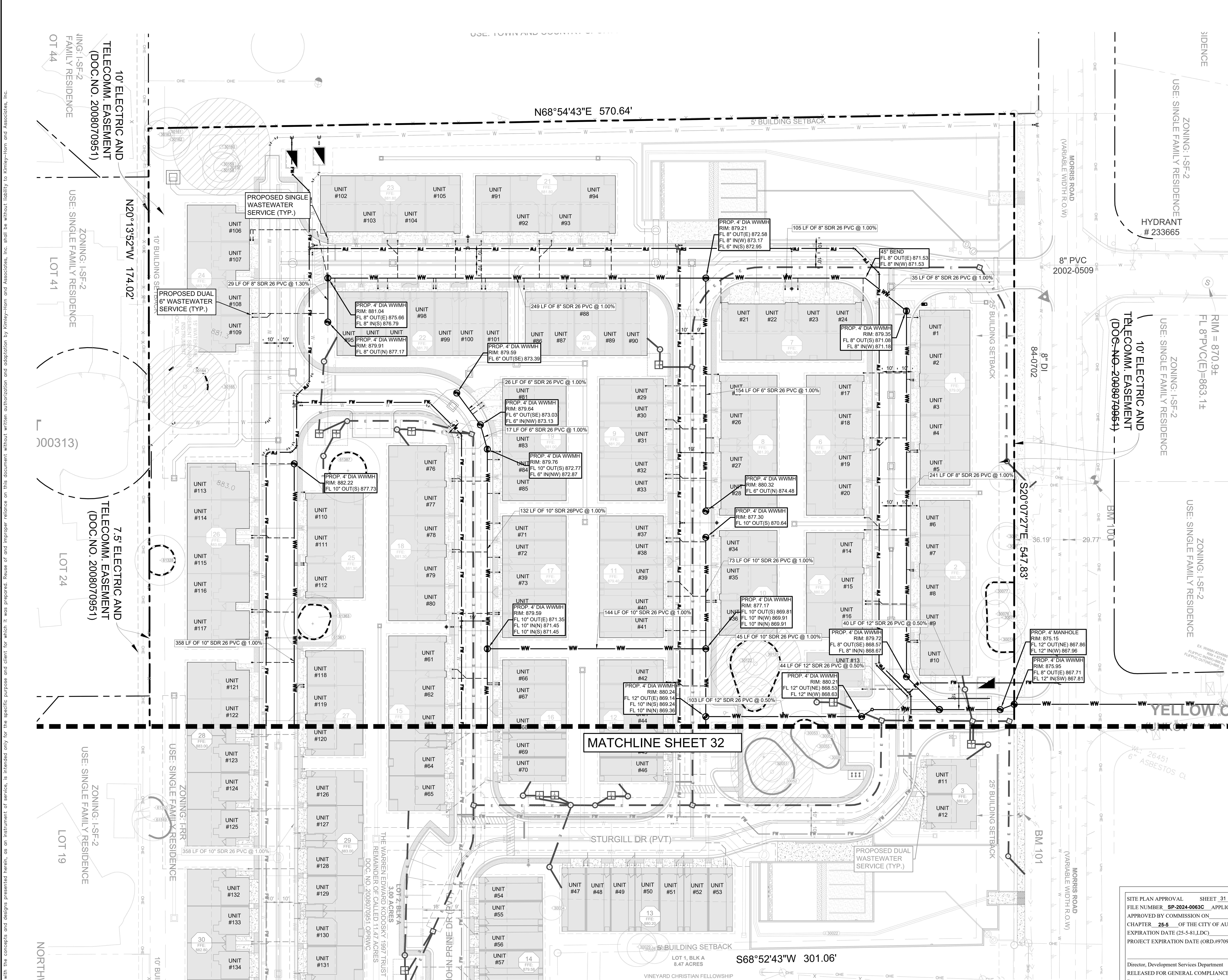
KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

PUBLIC WASTEWATER A - PLAN AND PROFILE

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
30 OF 48

SP-2024-0063C



LEGEND

- PROPERTY LINE
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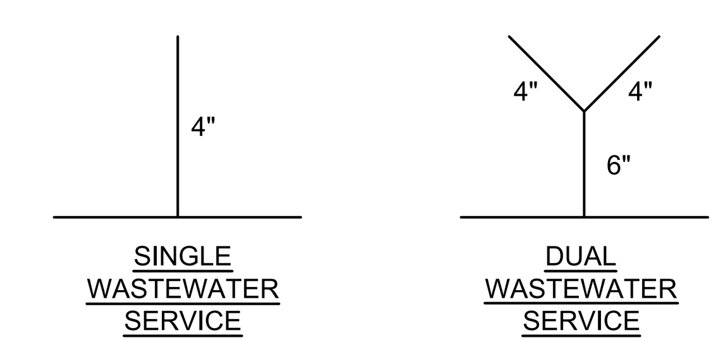

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JOSE M. FARIAS 111389 LICENSED PROFESSIONAL ENGINEER 12/24/2024

KHA PROJECT	064487031
DATE	APRIL 2024
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CHECKED BY:	JF

PRIVATE WASTEWATER PLAN (SHEET 1 OF 2)

AMAVI NORTHWEST AUSTIN
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CITY OF AUSTIN
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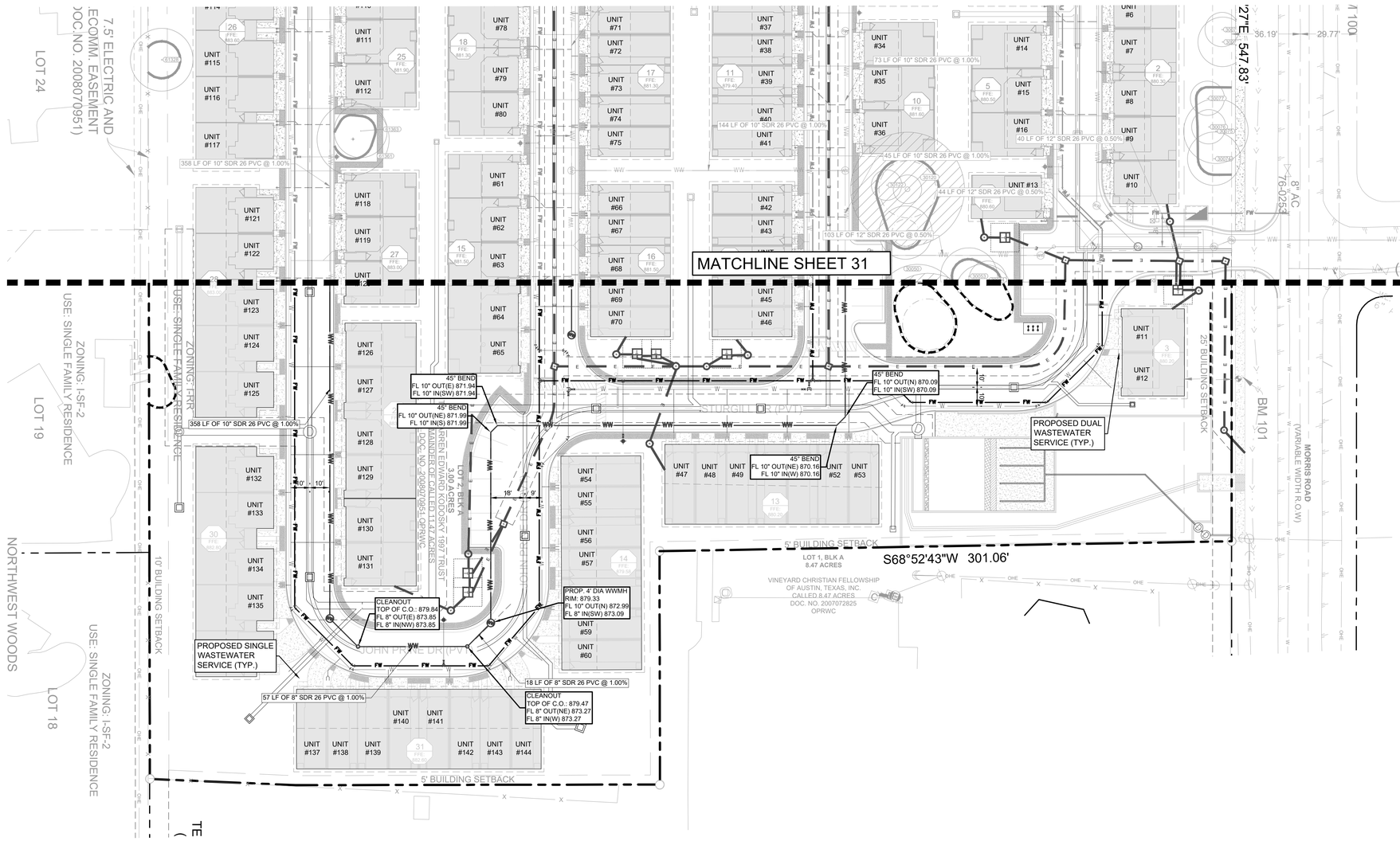
SHEET NUMBER
31 OF 48

SP-2024-0063C



N
W E
S
0 30' 60'
GRAPHIC SCALE 30'

LEGEND

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- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

4" SINGLE WASTEWATER SERVICE

4" 4" 6" DUAL WASTEWATER SERVICE

BENCHMARKS

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LICENSED PROFESSIONAL ENGINEER
12/24/2024

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SCALE: AS SHOWN		CHECKED BY:	JF

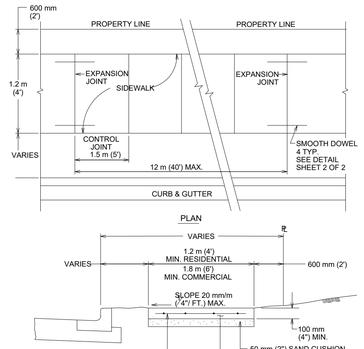
PRIVATE WASTEWATER PLAN (SHEET 2 OF 2)

AMAVI NORTHWEST AUSTIN

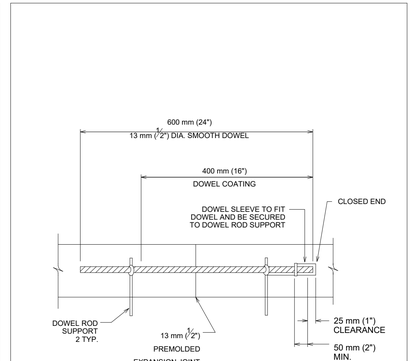
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
32 OF 48

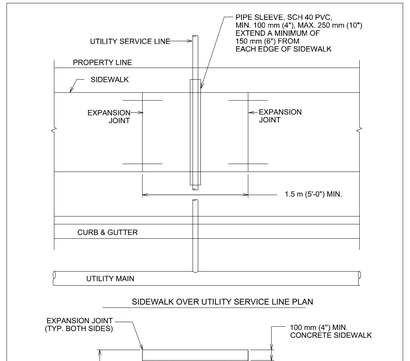
SP-2024-0063C



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1
ADOPTED			1 OF 3

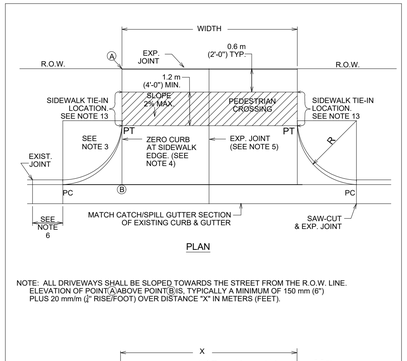


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1
ADOPTED			2 OF 3

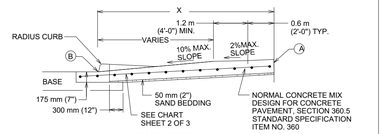


NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1
ADOPTED			3 OF 3

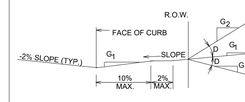


NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE. ELEVATION OF POINT Ⓐ ABOVE POINT Ⓑ IS, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm/m (¼"/FOOT) OVER DISTANCE "X" IN METERS (FEET).



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE II DRIVEWAY	
RECORD COPY SIGNED BY CUONG TRAN	*02/24/10*	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2
ADOPTED			1 OF 2

USE	THICKNESS	REINFORCEMENT
DRIVEWAYS FOR PASSENGER VEHICLE PARKING LOTS	150 mm (6") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS
ALL OTHERS	175 mm (7") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS



ALLOWABLE GRADES

DRIVEWAY VOLUME (ADT)	D=GRADE CHANGE STD.	MAX.
>1500	0%	3%
500-1500	3%	6%
< 500	6%	15%

NOTES:
1. ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
2. DRIVEWAY WIDTHS AND RADII DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE, SUBJECT TO SITE SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 "DRIVEWAYS".
3. THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITITIONED INTO THE SIDEWALK TIE-IN LOCATION BEGINNING AT THE RADIUS PC LINE.
4. "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST.
5. PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAY ALL DRIVEWAYS.
6. IF DIMENSION IS LESS THAN 1.5 METERS (5 FEET), REMOVE CURB AND GUTTER TO EXISTING JOINT AND POUR MONOLITHICALLY WITH DRIVEWAY.
7. IF THE BASE IS OVER-EXCAVATED WHERE THE CURB AND GUTTER WERE REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
8. TYPE II DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHT OF WAY THAN 60% OF PARCEL FRONTAGE AT 30 METERS (100 FEET), WHICHEVER IS LESS.
9. DRIVEWAY SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
10. WHILE THE PROPERTY OWNER REMAINS RESPONSIBLE FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHALL BE CONSULTED WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND "G2 IS GREATER THAN 15%.
11. USE 12 MM (1/2") ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB AND GUTTER EXPANSION JOINTS. SIDEWALK, AT THE R.O.W. LINE AND AT MIDWIDTH, SEE NOTE 5.
12. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 FOR OTHER DRIVEWAY REQUIREMENTS.
13. THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
14. WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE II DRIVEWAY	
RECORD COPY SIGNED BY CUONG TRAN	*02/24/10*	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2
ADOPTED			2 OF 2

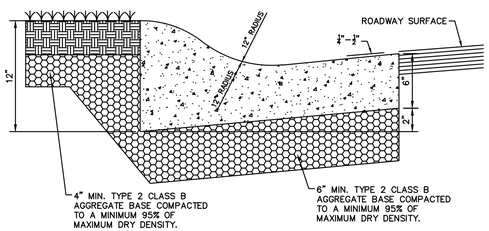
GENERAL NOTES:
1. RACK INSTALLATION METHOD SHALL COMPLY WITH CITY STANDARD DETAIL 710S-3, 710S-4, OR 710S-5.
2. RACK PLACEMENT SHALL COMPLY WITH APPLICABLE CITY STANDARD DETAILS 710S-6A, 710S-6B, OR 710S-6C AND CITY OF AUSTIN CODE SECTION 25-6-477 OR ITS SUCCESSOR.
3. BASE PLATES TO BE 6.35 mm (1/4") PLATES, ASTM A-36 1010-1018 LOW CARBON PRIME STEEL

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		CLASS III STYLE BICYCLE PARKING	
9/26/12		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 710S-1
ADOPTED			1 OF 1

NOTES:
1. * DIMENSIONS MAY VARY REFER TO DIMENSIONAL CONTROL PLAN
2. SIGNAGE AND MARKINGS TO BE IN ACCORDANCE WITH FEDERAL STATE AND LOCAL REGULATIONS.
3. MAXIMUM SLOPE FOR HANDICAPPED ACCESSIBLE PATHS ARE 5% WITH A MAXIMUM CROSS FALL SLOPE OF 2%. THE FIRST FIVE FEET FROM THE DOOR IS NOT TO EXCEED 2% IN ANY DIRECTION.
4. HANDICAPPED SIGNS, INSTALL 2' FROM BACK OF CURB (TYP. EACH SPACE). SIGNAGE TO BE IN ACCORDANCE WITH TEXAS DEPARTMENT OF LICENSING AND REGULATION TEXAS ACCESSIBILITY STANDARDS (TAS) PER 4.6.4

HANDICAPPED PARKING DETAIL TYP.
N.T.S.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION		CURB AND GUTTER SECTION	
Luis Pinzon 9/29/99		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-1
ADOPTED			



NOTES:
1. EXPANSION JOINTS 1/2-INCH WIDE SHALL BE LOCATED IN CURBS AND GUTTERS AT EACH SIDE OF STRUCTURES, AT THE ENDS OF ALL CURB RETURNS, AND ABUTTING HARDENED IN-PLACE CURB AND GUTTER, EXCEPT THAT EXPANSION JOINTS SHALL NOT BE INSTALLED WITHIN 20 FEET OF AN ISLAND NOSE. EXPANSION JOINTS SHALL BE 1/2-INCH THICK, SHAPED TO THE CROSS SECTION OF THE CURB AND GUTTER, AND CONSTRUCTED AT RIGHT ANGLES TO THE CURB AND GUTTER. JOINT FILLER MATERIAL SHALL CONFORM TO SSPWC SECTION 202.10. WEAKENED PLAN JOINTS SHALL BE EVERY 10 FEET AND LOCATED ON THE BACK, TOP AND FACE OF THE CURB AND THE TOP OF THE GUTTER PAN.
2. CURB AND GUTTER SECTIONS HALL BE PLACED SEPARATELY FROM SIDEWALK SECTIONS.
3. WHEN SIDEWALK IS NOT REQUIRED, BACKFILL BEHIND THE CURB TO THE TOP FOR A HORIZONTAL DISTANCE OF 12" FROM BACK FACE OF CURB, WITH A MATCH TO EXISTING GRADE OF NOT EXCEEDING A 3:1 SLOPE.

ROLLED CURB & GUTTER
N.T.S.

SITE PLAN APPROVAL SHEET 33 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON _____ UNDER SECTION **112** OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) _____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A) _____ DWPZ _____ DDZ _____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING **MF-2, MF-2 CO**
Rev. 1 _____ Correction 1 _____
Rev. 2 _____ Correction 2 _____
Rev. 3 _____ Correction 3 _____
Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

Know what's **below.** **Call** before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

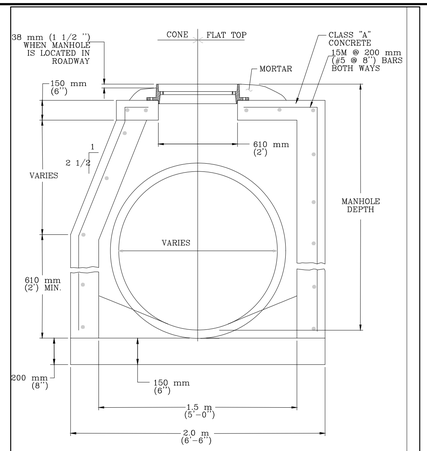
KHA PROJECT 064487031
DATE APRIL 2024
SCALE: AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

SITE DETAILS

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
33 OF 48

SP-2024-0063C



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STORM DRAIN MANHOLE DETAIL	
RECORD COPY SIGNED BY GEORGE E. OSWALD 2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-11

BENCHMARKS

DATUM IS NAVD '88, USING GEOID xxx, BASED ON GPS OBSERVATIONS.

BM #100 MAG SET JUST WEST OF END OF SIDEWALK ON EASTERN SIDE OF MORRIS STREET JUST SOUTH OF TALYNE CHAISE INTERSECTION

- ELEV.=875.069'

BM #101 MAG SET JUST WEST OF SIDEWALK ON WESTERN SIDE OF MORRIS RD JUST SOUTH OF YELLOW OAK INTERSECTION

- ELEV.=874.612'

SITE PLAN APPROVAL SHEET 34 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON _____ UNDER SECTION **112** OF
CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) _____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A) _____ DWPZ _____ DDZ _____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING **MF-2, MF-2 CO**
Rev. 1 _____ Correction 1 _____
Rev. 2 _____ Correction 2 _____
Rev. 3 _____ Correction 3 _____
Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

811 Know what's **below.** **Call** before you dig.

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No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX
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PHONE: 512-418-1771 FAX: 512-418-1791
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TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED
PROFESSIONAL ENGINEER
12/24/2024

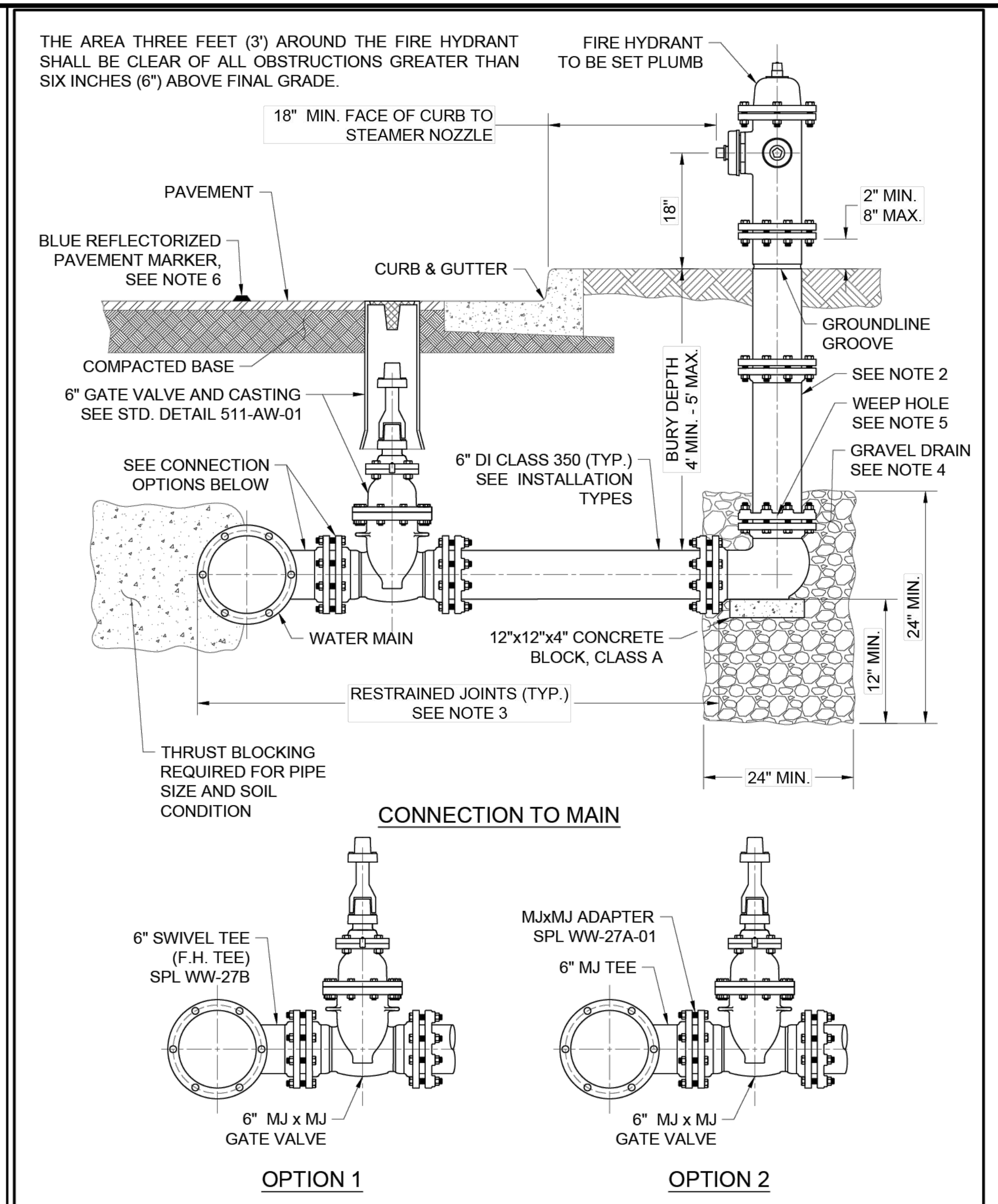
KHA PROJECT	064487031
DATE	APRIL 2024
SCALE:	AS SHOWN
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

STORM DRAIN DETAILS

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
34 OF 48

SP-2024-0063C



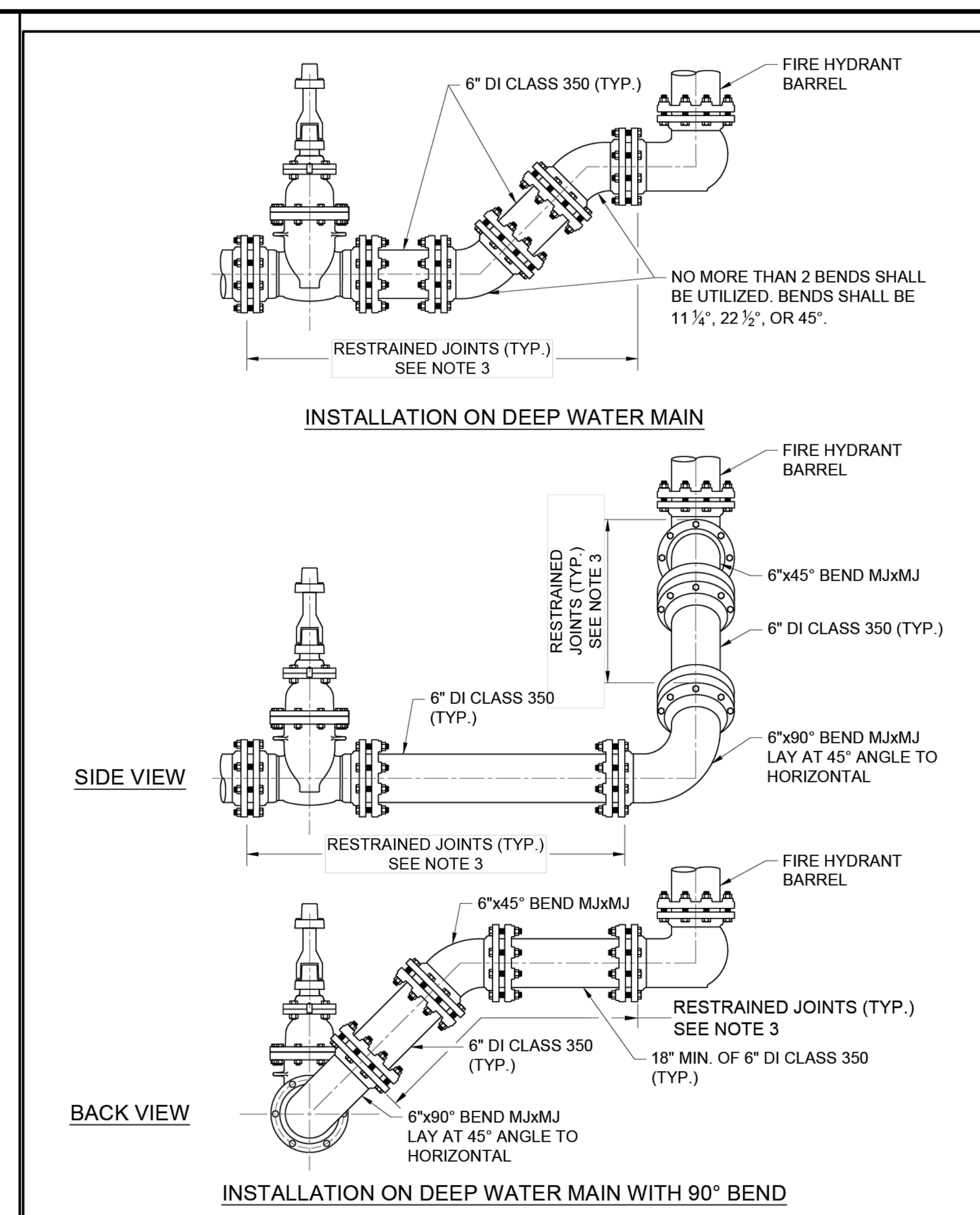
CITY OF AUSTIN
AUSTIN WATER

FIRE HYDRANT ASSEMBLY

JEFF A. KYLE 11/06/2023 ADOPTED

THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.

STANDARD NO. 511-AW-02 1 OF 3



CITY OF AUSTIN
AUSTIN WATER

FIRE HYDRANT ASSEMBLY

JEFF A. KYLE 11/06/2023 ADOPTED

THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.

STANDARD NO. 511-AW-02 2 OF 3

NOTES: APPLICABLE TO ALL INSTALLATION TYPES.

1. NO PART OF A HYDRANT OR ITS NOZZLE CAPS SHALL BE WITHIN 6" OF ANY SIDEWALK OR PEDESTRIAN RAMP. ANY FIRE HYDRANT PLACED NEAR A STREET CORNER SHALL BE LOCATED OUTSIDE THE CURVE RADIUS AND A MINIMUM OF 4' FROM RAMPS.
2. ONE BARREL EXTENSION NOT EXCEEDING 2' LENGTH MAY BE INSTALLED DIRECTLY BELOW THE FIRE HYDRANT IN ORDER TO MEET THE REQUIRED BURY DEPTH OF 4' - 5'. BREAK AWAY BOLTS (SHOE TYPES) SHALL BE PROPERLY SPACED AND PLACED.
3. FIRE LINE SHALL HAVE ALL JOINTS RESTRAINED FROM MAIN TO FIRE HYDRANT INCLUDING MJ RESTRAINT OF TEE AT THE MAIN. JOINTS SHOWN MAY VARY. SEE SPL WW-27A, WW-27A-01, AND WW-27B FOR RESTRAINT OPTIONS.
4. BELOW EACH HYDRANT, A DRAINAGE PIT 24" IN DIAMETER AND 12" DEEP SHALL BE EXCAVATED AND FILLED WITH COMPACTED COARSE GRAVEL OR BROKEN STONE MIXED WITH COARSE SAND UNDER AND AROUND THE BOWL OF THE HYDRANT, AND TO A LEVEL 12" ABOVE THE HYDRANT DRAIN OPENING (SEE STD. SPEC. 510). THE HYDRANT DRAINAGE PIT SHALL NOT BE CONNECTED TO A SANITARY SEWER. THE DRAIN GRAVEL SHALL BE COVERED WITH FILTER FABRIC PER STD. SPEC. 620.
5. WRAP 8 MIL. POLY-FILM WRAP ON ALL BURIED PIPE AND FITTINGS. CUT SLITS IN POLY-FILM WRAP AT BOOT TO ALLOW WATER TO ESCAPE FROM WEEP HOLES AND POLY-WRAP.
6. A BLUE TYPE II-B-B REFLECTORIZED PAVEMENT MARKER, CONFORMING TO STANDARD SPECIFICATION ITEM NO. 863S, SHALL BE PLACED 2 TO 3 FEET OFFSET FROM THE CENTERLINE OF PAVED STREETS, ON THE SIDE OF AND IN LINE WITH ALL NEWLY INSTALLED FIRE HYDRANTS.

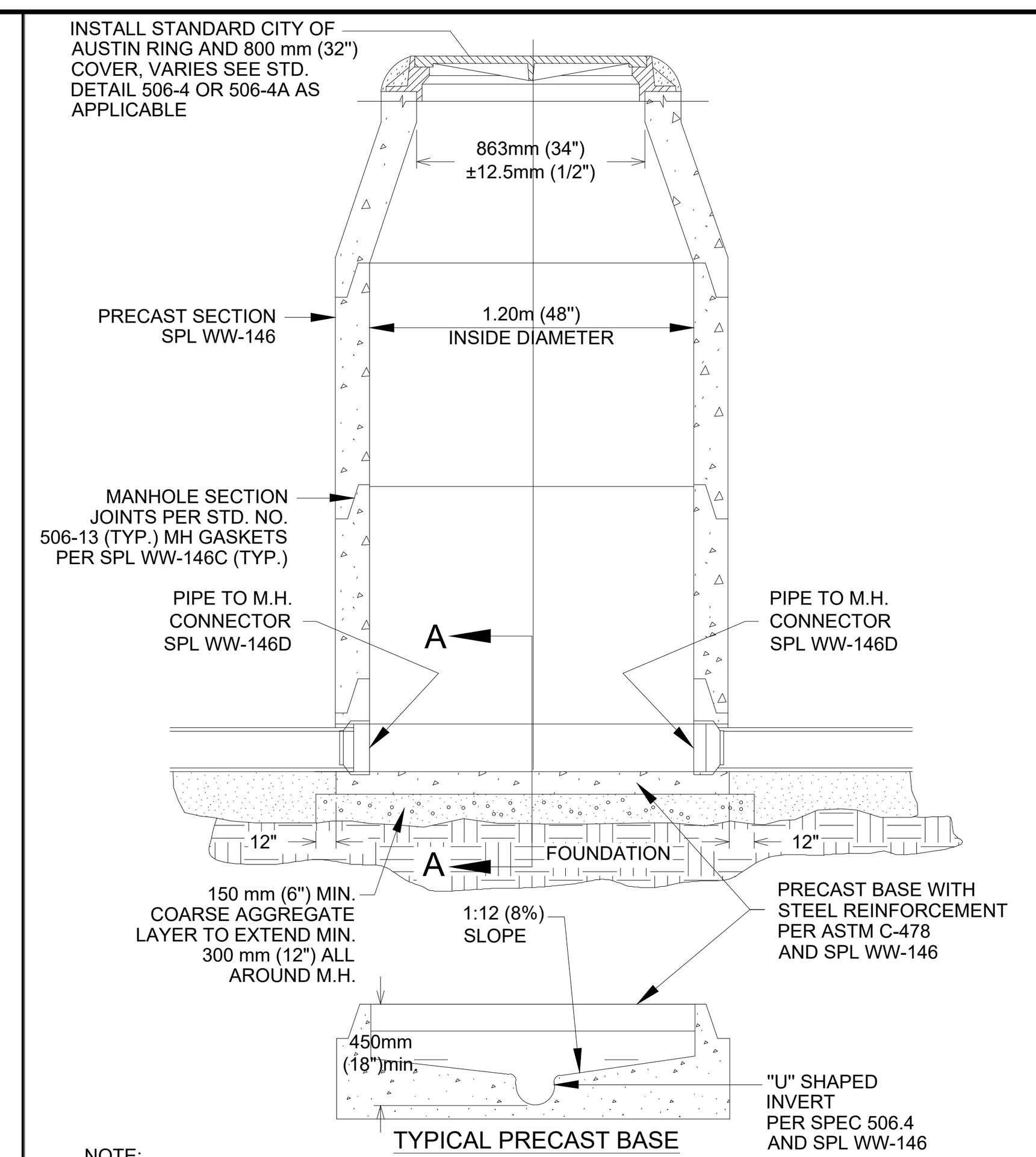
CITY OF AUSTIN
AUSTIN WATER

FIRE HYDRANT ASSEMBLY

JEFF A. KYLE 11/06/2023 ADOPTED

THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.

STANDARD NO. 511-AW-02 3 OF 3



NOTE:
1. THE MANHOLE BASE SHALL BE BEDDED ON 150 mm (6") COARSE AGGREGATE. THE CONTRACTOR SHALL LEVEL AND PLUMB THE BASE PRIOR TO SETTING THE PRECAST MANHOLE RISER SECTIONS ON THE PRECAST CONCRETE BASE.
2. MH FOUNDATION SHALL MEET OR EXCEED STD. SPEC. 506.5B.

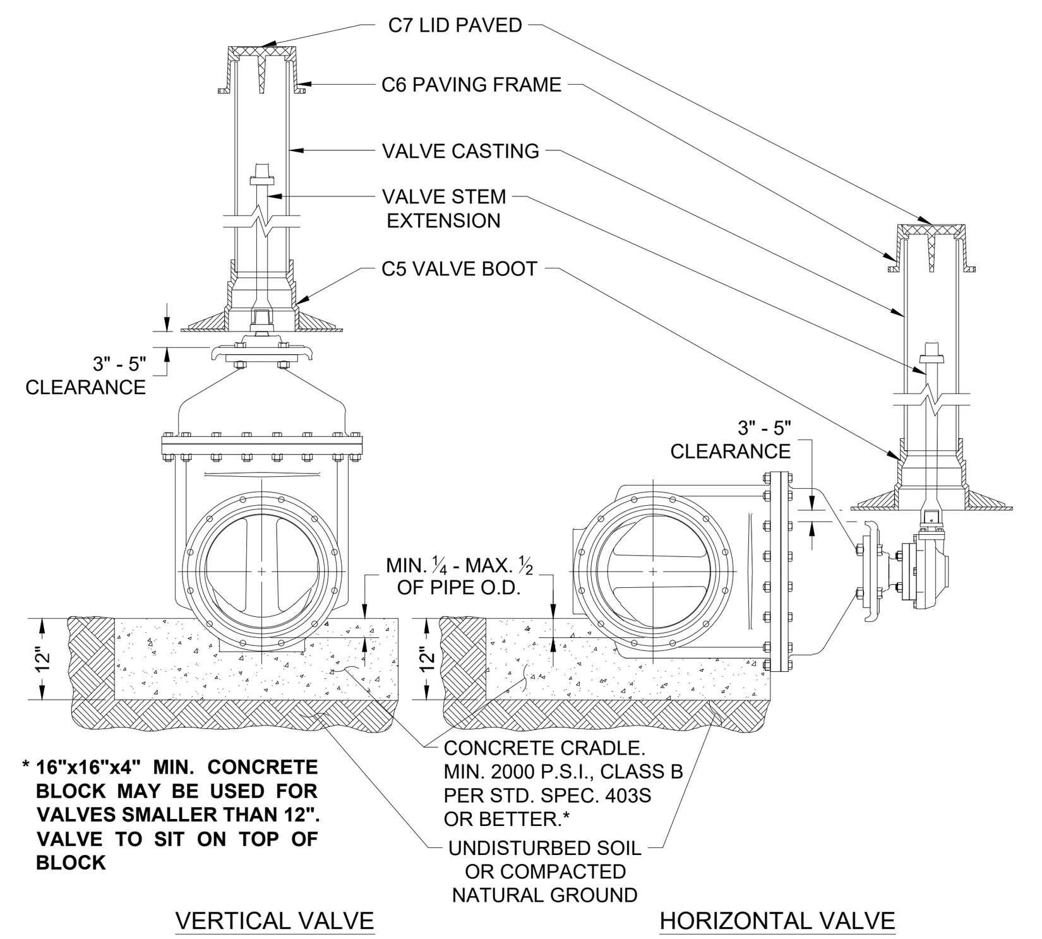
CITY OF AUSTIN
AUSTIN WATER UTILITY

WASTEWATER MANHOLE ON PRECAST BASE

RECORD COPY SIGNED BY KATHI L FLOWERS 08/31/2011

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD

STANDARD NO. 506S-10



* 16"x16"x4" MIN. CONCRETE BLOCK MAY BE USED FOR VALVES SMALLER THAN 12". VALVE TO SIT ON TOP OF BLOCK

VERTICAL VALVE

HORIZONTAL VALVE
ONLY TO BE USED WHEN CALLED OUT ON THE DRAWINGS.

NOTES:
1. WELD SOCKET 2½" x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT, [SCH. 80 FOR LENGTHS OVER 10'.]
2. VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE **"RECLAIMED WATER"** CAST INTO THEM.

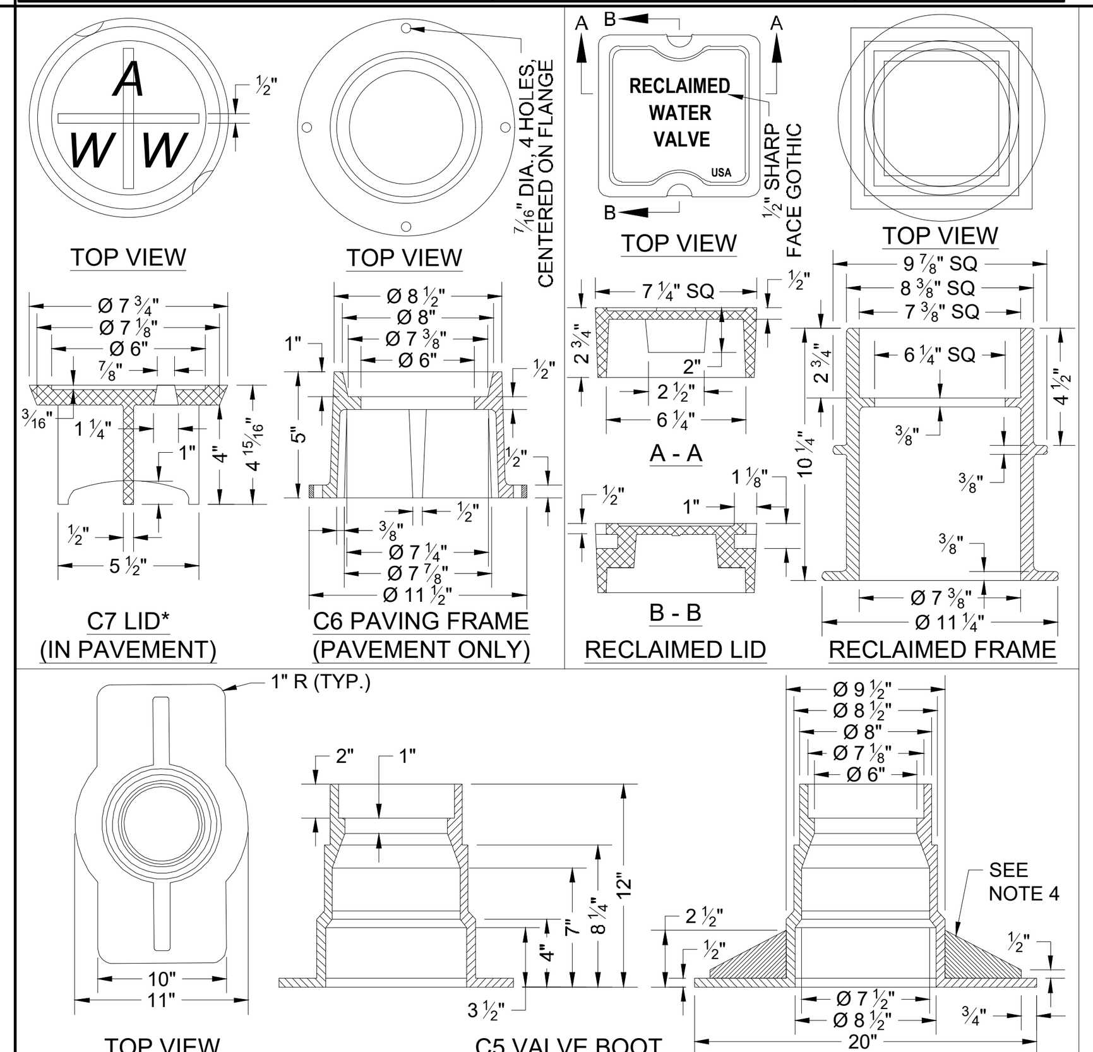
CITY OF AUSTIN
AUSTIN WATER

TYPICAL GATE VALVE 4" - 16"

RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 511-AW-01 1 OF 4



NOTES:
1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.

WEIGHTS:
C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 78 LBS

* LETTERING SHALL BE 1½"
2 PICK BAR SLOTS REQUIRED

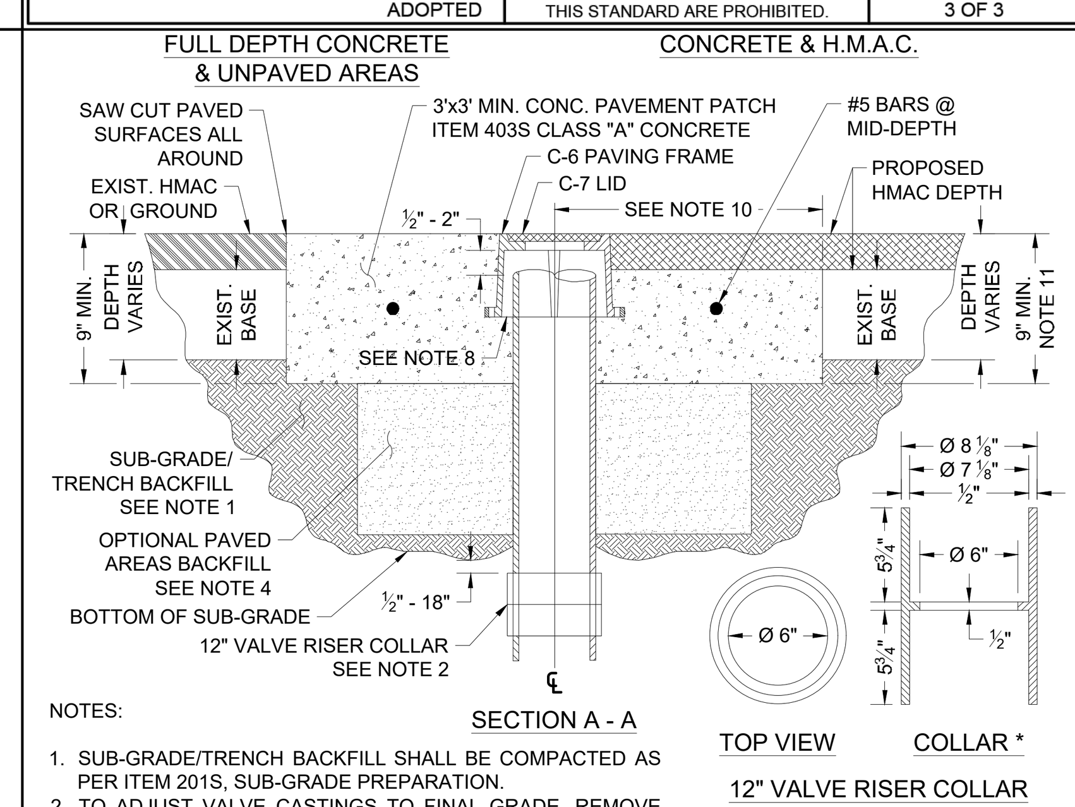
CITY OF AUSTIN
AUSTIN WATER

TYPICAL GATE VALVE 4" - 16"

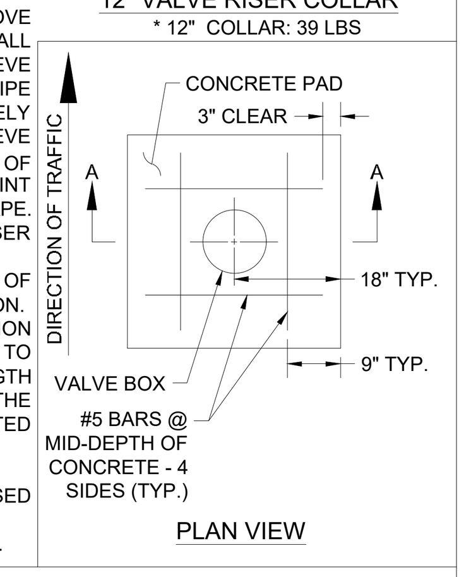
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 511-AW-01 2 OF 4



NOTES:
1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED ½" - 18" BELOW SUB-GRADE. THE INSIDE "LIP" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE. ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE; NUT SHALL OPERATE WITH NO OBSTRUCTION.
4. WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
5. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.7.
6. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
7. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18'.



CITY OF AUSTIN
AUSTIN WATER

TYPICAL GATE VALVE 4" - 16"

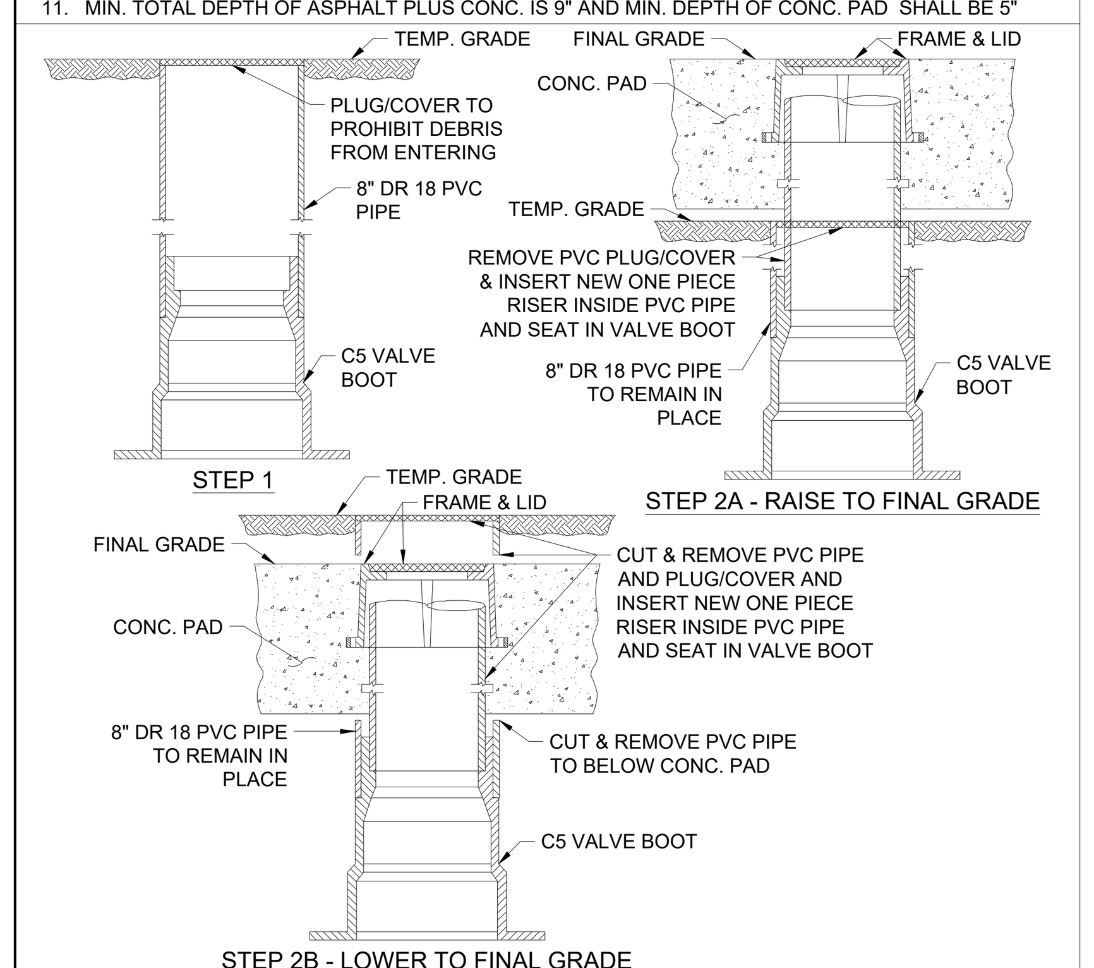
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 511-AW-01 3 OF 4

NOTES (CON'T):

8. PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED ½" - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
9. IN UNPAVED AREAS, INSTALL ONE DELINEATOR STAKE IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE PAD. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES.
10. VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
11. MIN. TOTAL DEPTH OF ASPHALT PLUS CONC. IS 9" AND MIN. DEPTH OF CONC. PAD SHALL BE 5"



OPTIONAL ONE PIECE VALVE CASTING INSTALLATION

CITY OF AUSTIN
AUSTIN WATER

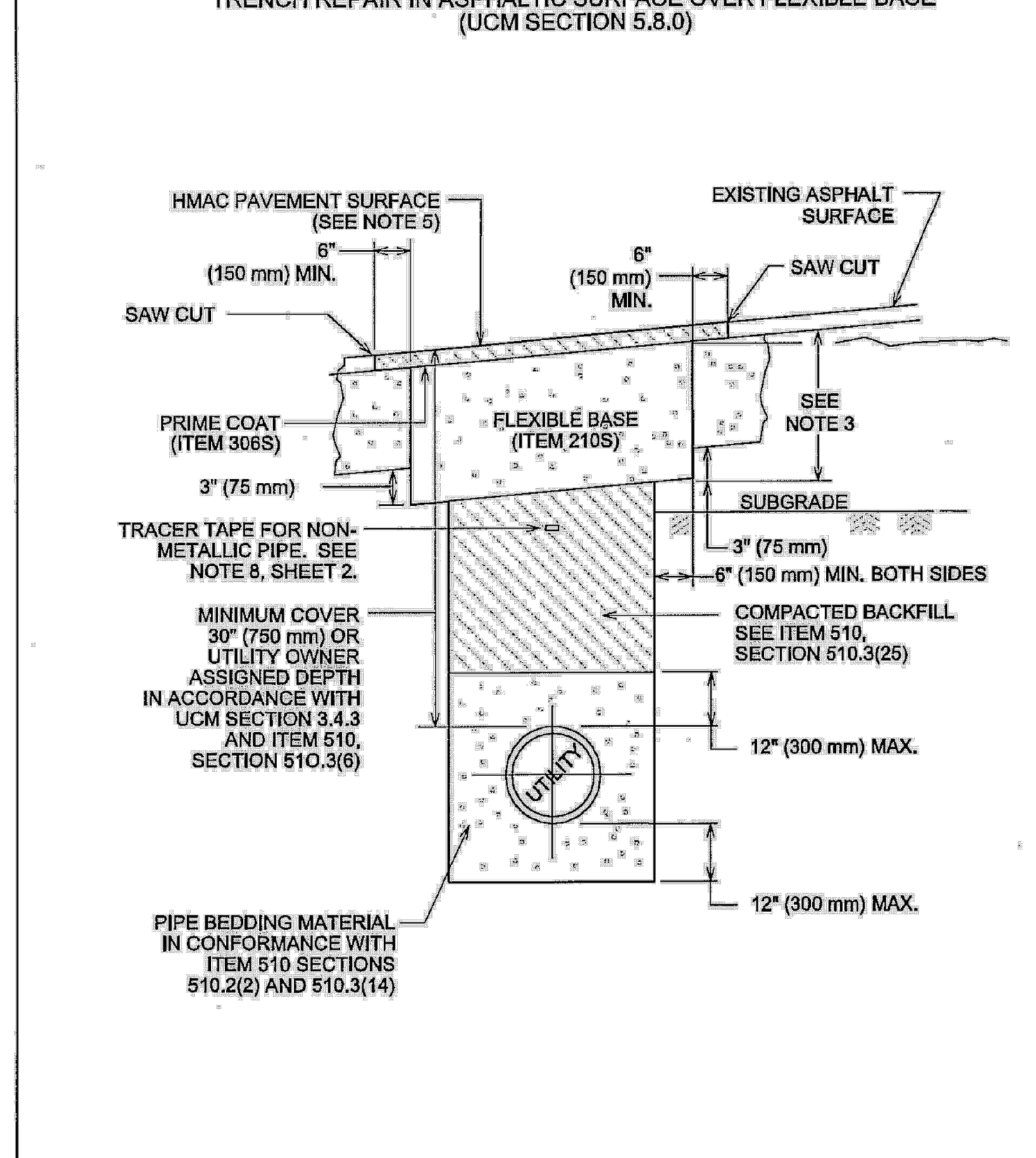
TYPICAL GATE VALVE 4" - 16"

RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 511-AW-01 4 OF 4

TRENCH REPAIR IN ASPHALTIC SURFACE OVER FLEXIBLE BASE
(UCM SECTION 5.8.0)



CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT

ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 1100S-2 1 OF 2

NOTES:
1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE, A MINIMUM OF 12" (300 mm) WIDER THAN UNDISTURBED SIDES OF THE TRENCH AND SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX AC OR TEMPORARY HMAC. TEMPORARY MIX SHALL BE PLACED OVER FLEXIBLE BASE.
3. ROAD BASE SHALL BE REPLACED IN KIND WITH BASE THICKNESS EQUAL TO EXISTING BASE THICKNESS PLUS 3" (75 mm), BUT IN NO CASE LESS THAN 12" (300 mm).
4. DAMAGED PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH A BASE THICKNESS OF 10" (250 mm) OR A THICKNESS MATCHING EXISTING, WHICHEVER IS GREATER.
5. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
6. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
7. TACK COAT ALL EXPOSED EDGES AND SURFACES (SPEC ITEM 307S).
8. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

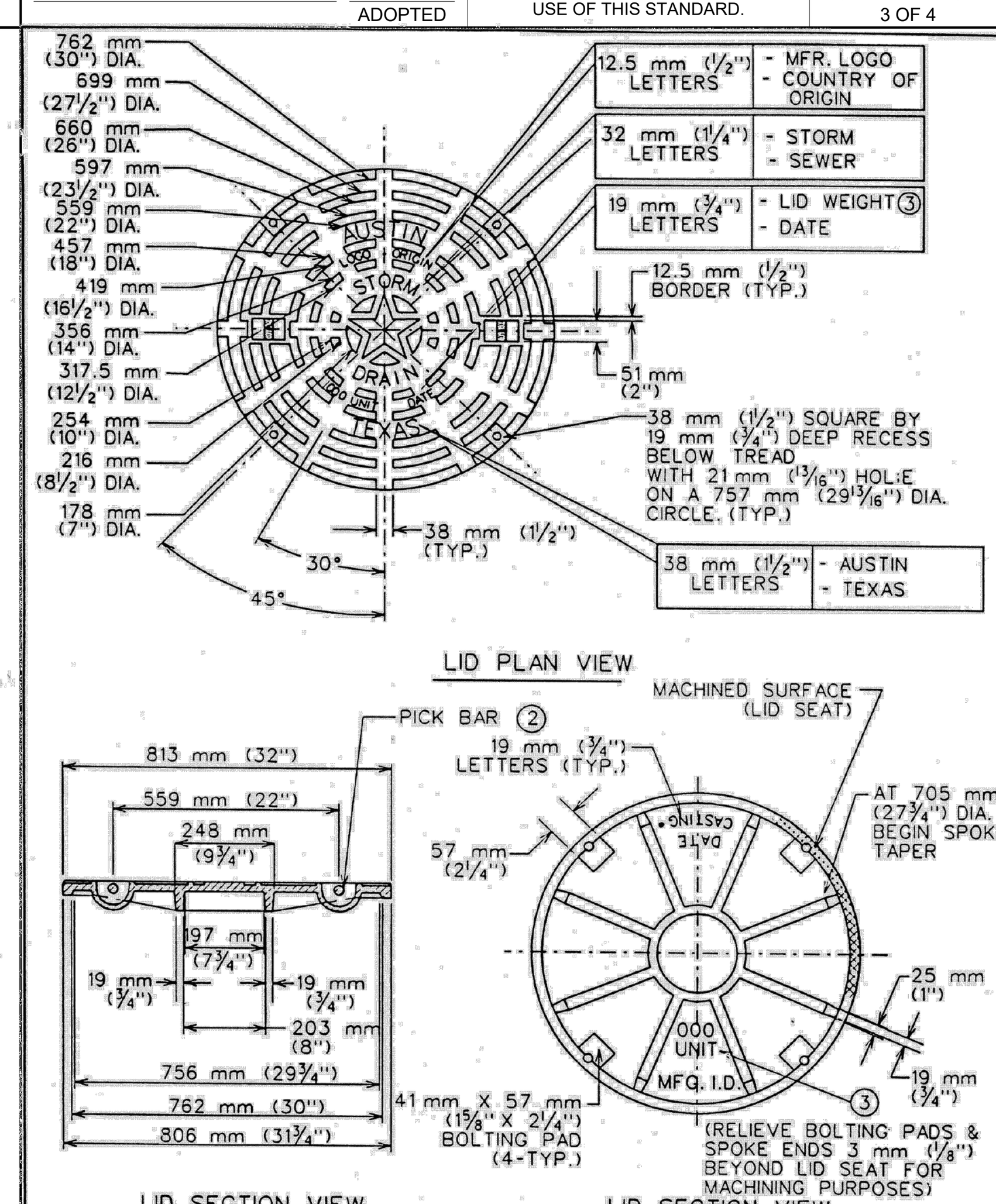
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT

ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 1100S-2 2 OF 2



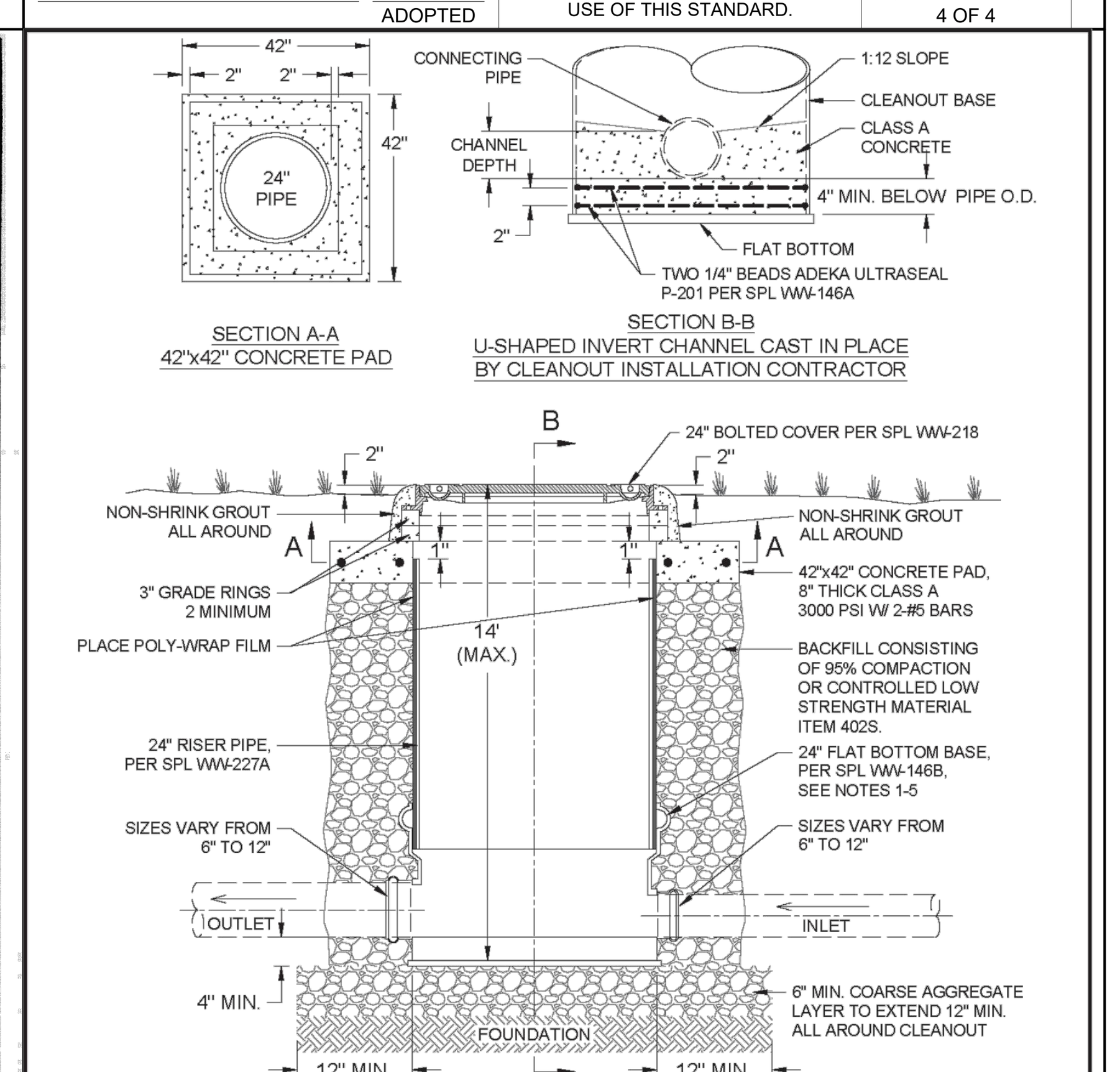
CITY OF AUSTIN
DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW

BOLTED STORM DRAIN MANHOLE RING AND 813 mm (32") COVER

ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 503S-5S 1 OF 3



NOTES:
1. THE CLEANOUT BASE SECTION SHALL BE SUPPLIED WITH A FLAT BOTTOM WITHOUT A FABRICATOR-INSTALLED INVERT.
2. A U-SHAPED INVERT CHANNEL CONNECTING THE FLOWLINES OF THE INLET AND OUTLET PIPES SHALL BE CAST IN PLACE BY THE CLEANOUT INSTALLATION CONTRACTOR.
3. THE CHANNEL DEPTH SHALL BE 3/4 OF THE DIAMETER OF THE LARGEST PIPE CONNECTING TO THE CLEANOUT.
4. USE CLASS A CONCRETE FOR THE CAST IN PLACE INVERT AND COAT IT WITH AN ORGANIC SPRAY LINER LISTED ON SPL WW-511.
5. THE CLEANOUT FOUNDATION SHALL MEET OR EXCEED STANDARD SPECIFICATION ITEM 506.5B.
6. IN CASES WHERE THE WASTEWATER SERVICE LINE IS LARGER THAN 12" DIAMETER, THE CONTRACTOR MUST INSTALL A MINIMUM 48" DIAMETER MANHOLE IN LIEU OF THE LARGE DIAMETER CLEANOUT. THE ENGINEER MUST PROVIDE AN ACCEPTABLE SAMPLE PORT AND RECEIVE APPROVAL IN WRITING FROM THE INDUSTRIAL WASTE REVIEWER BEFORE INSTALLATION. THE 48" DIA. MANHOLE SHALL CONFORM TO STD. 506S-10 AND INCLUDE A SAMPLE PORT.

CITY OF AUSTIN
AUSTIN WATER

LARGE DIAMETER CLEANOUT

JEFF A. KYLE 08/14/2020 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD DETAIL 506-AW-04 1 OF 1

SITE PLAN APPROVAL SHEET 35 OF 48
FILE NUMBER SP-2024-0063C APPLICATION DATE 04/15/2024
APPROVED BY COMMISSION ON ______ UNDER SECTION 112 OF
CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) ______ CASE MANAGER CLARISSA E. DAVIS
PROJECT EXPIRATION DATE (ORD.#970905-A) ______ DWPZ ______ DDZ ______

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: ______ ZONING MF-2, MF-2 CO
Rev. 1 ______ Correction 1 ______
Rev. 2 ______ Correction 2 ______
Rev. 3 ______ Correction 3 ______

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

Know what's below. Call before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

Kimley-Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED
PROFESSIONAL ENGINEER
12/24/2024

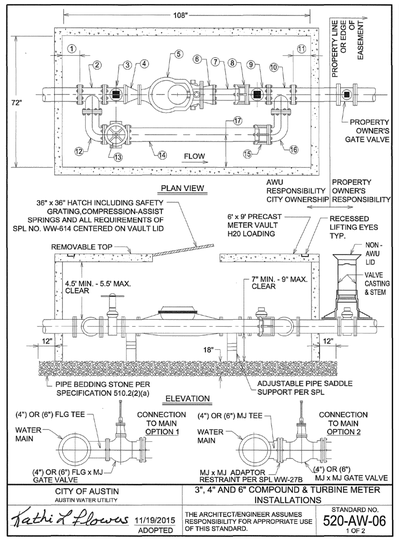
KHA PROJECT 064487031
DATE APRIL 2024
SCALE: AS SHOWN
DESIGNED BY: AH
DRAWN BY: GA
CHECKED BY: JF

UTILITY DETAILS (SHEET 1 OF 2)

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
35 OF 48

SP-2024-0063C



CITY OF AUSTIN AUSTIN WATER UTILITY		3", 4" AND 6" COMPOUND & TURBINE METER INSTALLATIONS	
Kathi L Flowers 11/19/2015 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-06 1 OF 2	

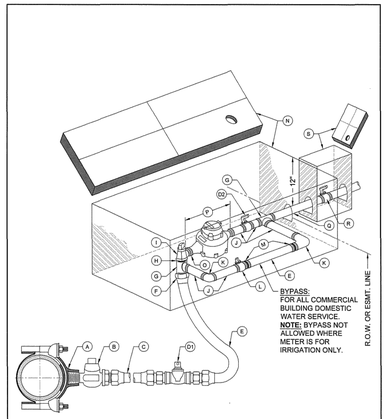
LARGE METER INSTALLATIONS

DIMENSIONS IN INCHES		3" TURBINE	3" COMPOUND	4" TURBINE	4" COMPOUND	6" TURBINE	6" COMPOUND
No.	METER LINE	4" BYPASS	4" BYPASS	4" BYPASS	4" BYPASS	6" BYPASS	6" BYPASS
1	CLEARANCE FROM VALVE WALL TO TEE	8"	8"	12"	12"	6"	6"
2	FLANGED TEE	13"	13"	13"	13"	16"	16"
3	COA GATE VALVE SQUARE NUT	9"	9"	9"	9"	10 1/2"	10 1/2"
4	3" X 4" FLANGED REDUCER (3" METER ONLY)	7"	7"	–	–	–	–
5	METER	17"	19"	20"	23"	24"	27"
6	3" X 4" FLANGED REDUCER (3" METER ONLY)	7"	7"	–	–	–	–
7+8	(7) FLANGED X PLAIN END DI PIPE + (8) RESTRAINED FLANGE COUPLING ADAPTOR (RFCA) OR (7) FLANGE X DI PIPE + (8) DISMANTLING JOINT (DJ)	17"	15"	20"	17"	19"	16"
9	COA GATE VALVE SQUARE NUT	9"	9"	9"	9"	10 1/2"	10 1/2"
10	FLANGED TEE	13"	13"	13"	13"	16"	16"
11	CLEARANCE FROM INSIDE WALL TO TEE	8"	8"	12"	12"	6"	6"
	TOTAL (INCHES)	108.0"	108.0"	108.0"	108.0"	108.0"	108.0"
	BYPASS LINE						
1	CLEARANCE FROM INSIDE WALL TO TEE	8"	8"	12"	12"	6"	6"
	1/2 TEE	6 1/2"	6 1/2"	6 1/2"	6 1/2"	8"	8"
12	FLANGED 90° ELBOW	6 1/2"	6 1/2"	6 1/2"	6 1/2"	8"	8"
13	BYPASS GATE VALVE WITH HAND WHEEL	9"	9"	9"	9"	10 1/2"	10 1/2"
14+15	(14) FLANGED X PLAIN END DI PIPE + (15) RESTRAINED FLANGE COUPLING ADAPTOR (RFCA) OR (14) FLANGE X FLANGE DI PIPE + (15) DISMANTLING JOINT (DJ)	57"	57"	49"	49"	53 1/2"	53 1/2"
16	FLANGED 90° ELBOW	6 1/2"	6 1/2"	6 1/2"	6 1/2"	8"	8"
	1/2 TEE	6 1/2"	6 1/2"	6 1/2"	6 1/2"	8"	8"
11	CLEARANCE FROM VALVE WALL TO TEE	8"	8"	12"	12"	6"	6"
	TOTAL (INCHES)	108.0"	108.0"	108.0"	108.0"	108.0"	108.0"
17	CLEARANCE FROM INSIDE WALL TO CENTER OF BYPASS LINE	23"	23"	23"	23"	20"	20"

NOTES:

1. METER VAULT MUST BE PLACED AT THE PROPERTY LINE WITHIN PUBLIC RIGHT-OF-WAY OR WITHIN A DEDICATED WATER METER EASEMENT. METER SHALL NOT BE PLACED IN THE PATH OF VEHICULAR TRAFFIC INCLUDING ROADWAYS, DRIVEWAYS AND PARKING LOTS. METERS MAY NOT BE PLACED IN SIDEWALKS UNLESS SPECIFICALLY APPROVED BY AUSTIN WATER. METERS MUST BE ACCESSIBLE TO SERVICE VEHICLES AND SHALL NOT BE ENCLOSED WITHIN PROPERTY FENCES.
2. ALL PIPE AND FITTINGS FROM MAIN TO CUSTOMER VALVE SHALL BE RESTRAINED.
3. FACTORY NOTCHES WHERE PIPING GOES THROUGH VAULT WALL SHALL BE FILLED WITH NON-SHRINK GROUT PER SPL NO. WW-704A.

CITY OF AUSTIN AUSTIN WATER UTILITY		3", 4" AND 6" COMPOUND & TURBINE METER INSTALLATIONS	
Kathi L Flowers 11/19/2015 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-06 2 OF 2	



CITY OF AUSTIN AUSTIN WATER		1½" - 2" METER INSTALLATION SHOWING OPTIONAL BYPASS	
Kathi L Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-04 1 OF 2	

MATERIALS LIST:

A. 2" SERVICE CLAMP
B. 2" CORPORATION STOP MALE THREAD INLET BY COMPRESSION OUTLET
C. 2" COPPER WATER SERVICE TUBING EXTENDED BEYOND PAVEMENT
D1. 2" BALL VALVE, SPL WW-27S
D2. 2" BALL VALVE, SPL WW-27S
E. 2" COPPER SERVICE TUBING
F. 2" BRASS COUPLING - COMPRESSION TO MALE IPT
G. 2" BRASS TEE
H. 2" BRASS CLOSE-NIPPLE
I. 2" ANGLE METER STOP; SERVICE TUBING INLET x FLANGED OUTLET
J. 2" BRASS NIPPLE
K. 2" BRASS ELBOW
L. 2" LOCKABLE CURB STOP - FEMALE IPT INLET BY COMPRESSION OUTLET
M. 2" BRASS COUPLING - SERVICE TUBING TO MALE IPT
N. RECTANGULAR METER BOX AND COVER, SPL WW-145A
O. BRASS ADAPTER (2" x 1 ½") FOR 1 ½" METER ONLY
P. WATER METER, LENGTH 13", (PURCHASED FROM AUSTIN WATER)
Q. 2" COPPER SERVICE TUBING (PRIVATE PLUMBING PER CODE)
R. CUSTOMER CUT-OFF VALVE
S. CUSTOMER VALVE BOX AND LID

NOTES:

1. SERVICE CLAMP SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM.
2. BRANCH CONNECTIONS AND ALL ANGLE METER STOPS MUST BE INSTALLED PRIOR TO ANY METER INSTALLATION.
3. TOP OF BOXES SHOULD BE 1" ABOVE GROUND.
4. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SECTION 510.3 (14) OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS; BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SECTION 510.3 (25).
5. BOX MUST BE BEHIND CURB NEXT TO PROPERTY LINE OR EASEMENT AND OUT OF VEHICULAR TRAFFIC AREA AND SIDEWALK.
6. BALL VALVE "D1" SHALL NOT BE LOCATED UNDER SIDEWALK, CURB, OR PAVEMENT, AND NOT BE LOCATED MORE THAN 24" HORIZONTALLY FROM METER BOX OR 36" BELOW FINAL GRADE.
7. COPPER SERVICE SHALL BE COPPER TUBING SIZE ANNEALED SEAMLESS TYPE "K" MEETING ASTM B88 WITH NO SWEAT OR SOLDERED JOINTS.

RECLAIMED WATER:

FOR RECLAIMED WATER SERVICES AND METERS, ALL RECLAIMED TUBING SHALL BE MANUFACTURED PURPLE TUBING. ALL OTHER TUBING AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL TUBING AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE "RECLAIMED WATER" CAST INTO THEM.

CITY OF AUSTIN AUSTIN WATER		1½" - 2" METER INSTALLATION SHOWING OPTIONAL BYPASS	
Kathi L Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-04 2 OF 2	

SITE PLAN APPROVAL SHEET 36 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON_____ UNDER SECTION **112** OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC)_____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A)_____ DWPZ_____ DDZ_____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE:_____ ZONING**MF-2, MF-2 CO**
Rev. 1_____ Correction 1_____
Rev. 2_____ Correction 2_____
Rev. 3_____ Correction 3_____
Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

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No.	DATE	BY
	REVISIONS	

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TBPE Firm No. 928

JOSE M. FARIAS 111389 LICENSED PROFESSIONAL ENGINEER
12/24/2024

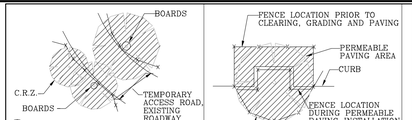
KHA PROJECT 064487031	
DATE APRIL 2024	
SCALE: AS SHOWN	
DESIGNED BY:	AH
DRAWN BY:	GA
CHECKED BY:	JF

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

UTILITY DETAILS (SHEET 2 OF 2)

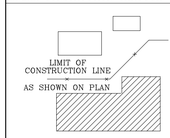
SHEET NUMBER
36 OF 48

SP-2024-0063C

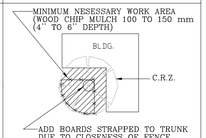


LINEAR CONSTRUCTION THROUGH TREES

TREES IN PAVING AREA

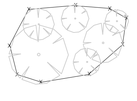


NATURAL AREAS



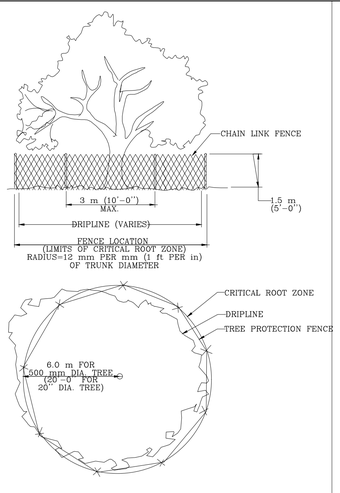
TREES NEAR CONSTRUCTION ACTIVITY

INDIVIDUAL TREE

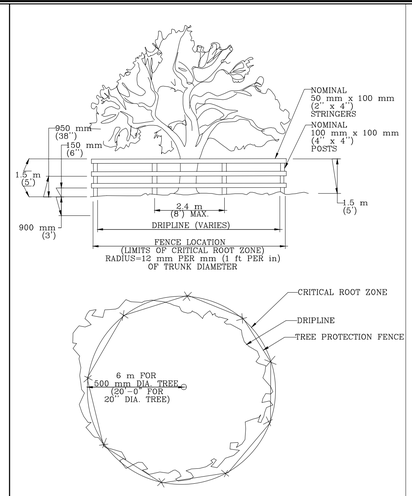


GROUP OF TREES

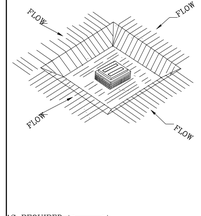
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE LOCATIONS	
RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-1

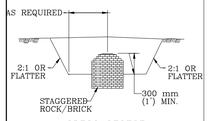


CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROPTECTION FENCE TYPE A – CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-2

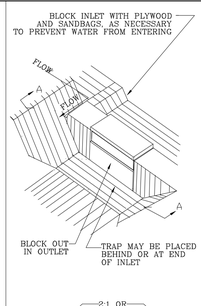


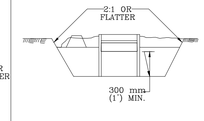
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE TYPE B – WOOD	
RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-3





CROSS SECTION YARD DRAIN

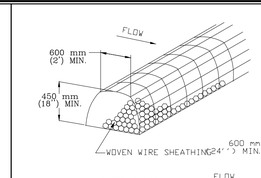




SECTION A-A CURB DRAIN

NOTE:
WHERE CURB IS IN PLACE, PROVIDE A 300 mm (1') WIDE OPENING IN THE CURB, OR USE A SANDBAG TO DAM TO FORCE WATER OVER THE CURB TO THE TRAP.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STORM INLET SEDIMENT TRAP	
RECORD COPY SIGNED BY J. PATRICK MURPHY 3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 632S-1



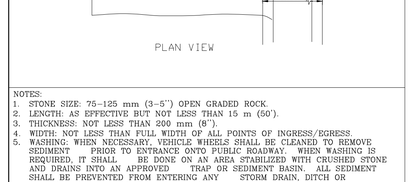
STANDARD SYMBOL FOR ROCK BERM (RB)

RB

CROSS SECTION

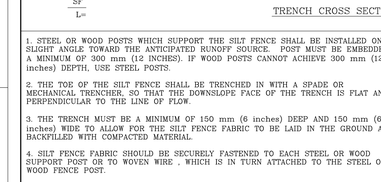
NOTES:
1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTION PROBLEM.
5. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	
RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



NOTES:
1. STONE SIZE: 75–125 mm (3–5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1



STANDARD SYMBOL FOR SILT FENCE (SF)

SF

1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

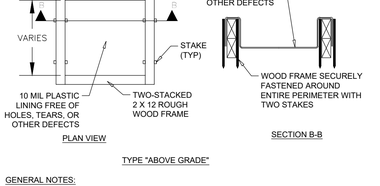
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.

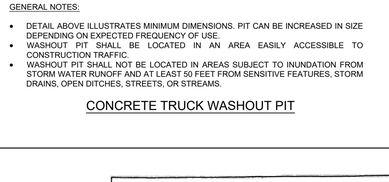
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



TYPE "BELOW GRADE"

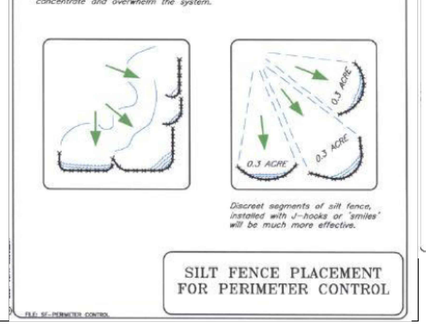


TYPE "ABOVE GRADE"

GENERAL NOTES:

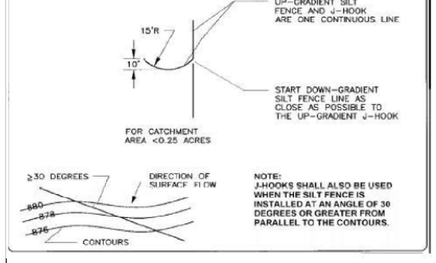
- DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
- WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
- WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF AND AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.

CONCRETE TRUCK WASHOUT PIT



SILT FENCE PLACEMENT

ECM FIGURE 1.4.5.G.3
SCALE: N.T.S.



SILT FENCE J-HOOKS

ECM FIGURE 1.4.5.G.4
SCALE: N.T.S.

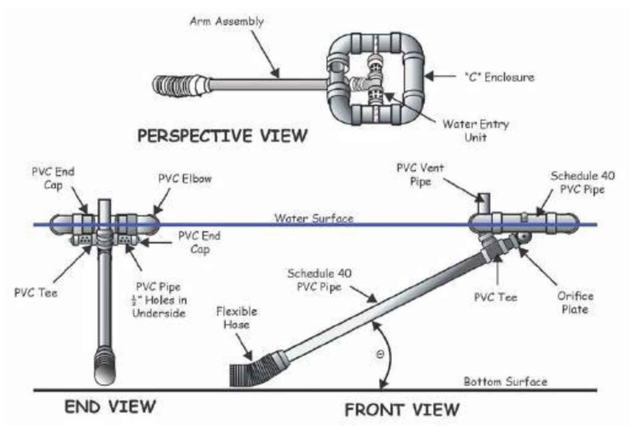
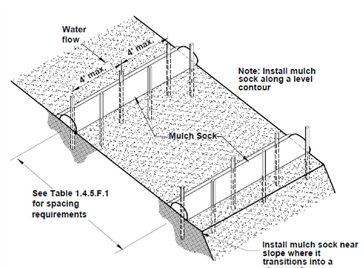
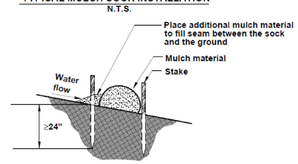


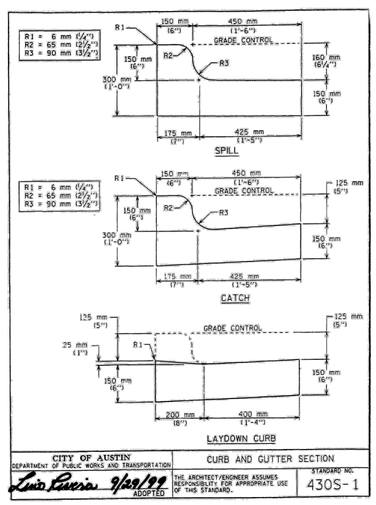
Figure 6.64a Schematic of a skimmer, from Pennsylvania Erosion and Sediment Pollution Control Manual, March, 2000.



TYPICAL MULCH SOCK INSTALLATION
N.T.S.



MULCH SOCK
N.T.S.



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION	CURB AND GUTTER SECTION	
Lucia Lucia 9/28/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-1

SITE PLAN APPROVAL SHEET 37 OF 48
FILE NUMBER **SP-2024-0063C** APPLICATION DATE **04/15/2024**
APPROVED BY COMMISSION ON _____ UNDER SECTION **112** OF CHAPTER **25-5** OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81,LDC) _____ CASE MANAGER **CLARISSA E. DAVIS**
PROJECT EXPIRATION DATE (ORD.#970905-A) _____ DWPZ _____ DDZ _____

Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING **MF-2, MF-2 CO**
Rev. 1 _____ Correction 1 _____
Rev. 2 _____ Correction 2 _____
Rev. 3 _____ Correction 3 _____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

Know what's **below.** **Call** before you dig.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

STATE OF TEXAS
JOSE M. FARIAS
111389
LICENSED PROFESSIONAL ENGINEER
12/24/2024

KHA PROJECT 064487031			
DATE	APRIL 2024		
SCALE	AS SHOWN	DESIGNED BY:	AH
		DRAWN BY:	GA
		CHECKED BY:	JF

EROSION CONTROL DETAILS

AMAVI NORTHWEST AUSTIN
13220 MORRIS ROAD
CITY OF AUSTIN
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
37 OF 48

SP-2024-0063C