

A-Plus Septic and Environmental Services

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88 Darrell White Road
Huntsville, TX 77340

Site Evaluation, Septic System Design, Aerobic Treatment System Design

Septic System Inspections

November 12, 2023

Supplemental Planning Material for Subdivision & Developments utilizing OSSFs

Report detailing types of OSSFs to be used and the compatibility with Soils, Groundwater and Drainage:

On site visit to study a plat called Michael Dur 29.588 acre tract, located at the corner of Poole Rd. and Preston Rd., in the J. A. McGary Survey, A-369, in Huntsville, Walker County, Texas. This property has been subdivided into four (4) lots, 3 (10.479 acre) tracts, Tracts 2,3 and 4 and one 1 (11.604 acre) Tract 1. All 4 lots are vacant with no residents or OSSFs. All lots will require private water wells and meet all setbacks required by TAC 30 Chapter 285 (EXHIBIT 1).

1. The Soil Conservation Service Survey classifies soils in this area as {somewhat to very limited for septic systems} (EXHIBIT 2).
2. Based on the site visit and FIRM maps (Panel# 48471) no portion of this property is in the flood plain. (EXHIBIT 3).
3. The site visit and USGS Topographic maps indicates that this site is hilly with scattered trees and clearing.

NOTE: PROPERTY LOCATION AND SIZE ARE APPROXIMATE ONLY ON MAPS

Summary

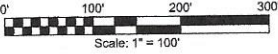
These Lots have adequate site conditions to support the following On Site Sewage Facilities. These OSSFs must be planned due close proximity to well for both lots.

- Aerobic Treatment System Utilizing Spray Irrigation
- Drip Irrigation System using Secondary Treatment & Filtering Device
- Low Pressure Dosing System
- Any system engineered to meet TCEQ standard not listed above

The above listed systems may or may not be appropriate depending on a specific smaller site within these lots.

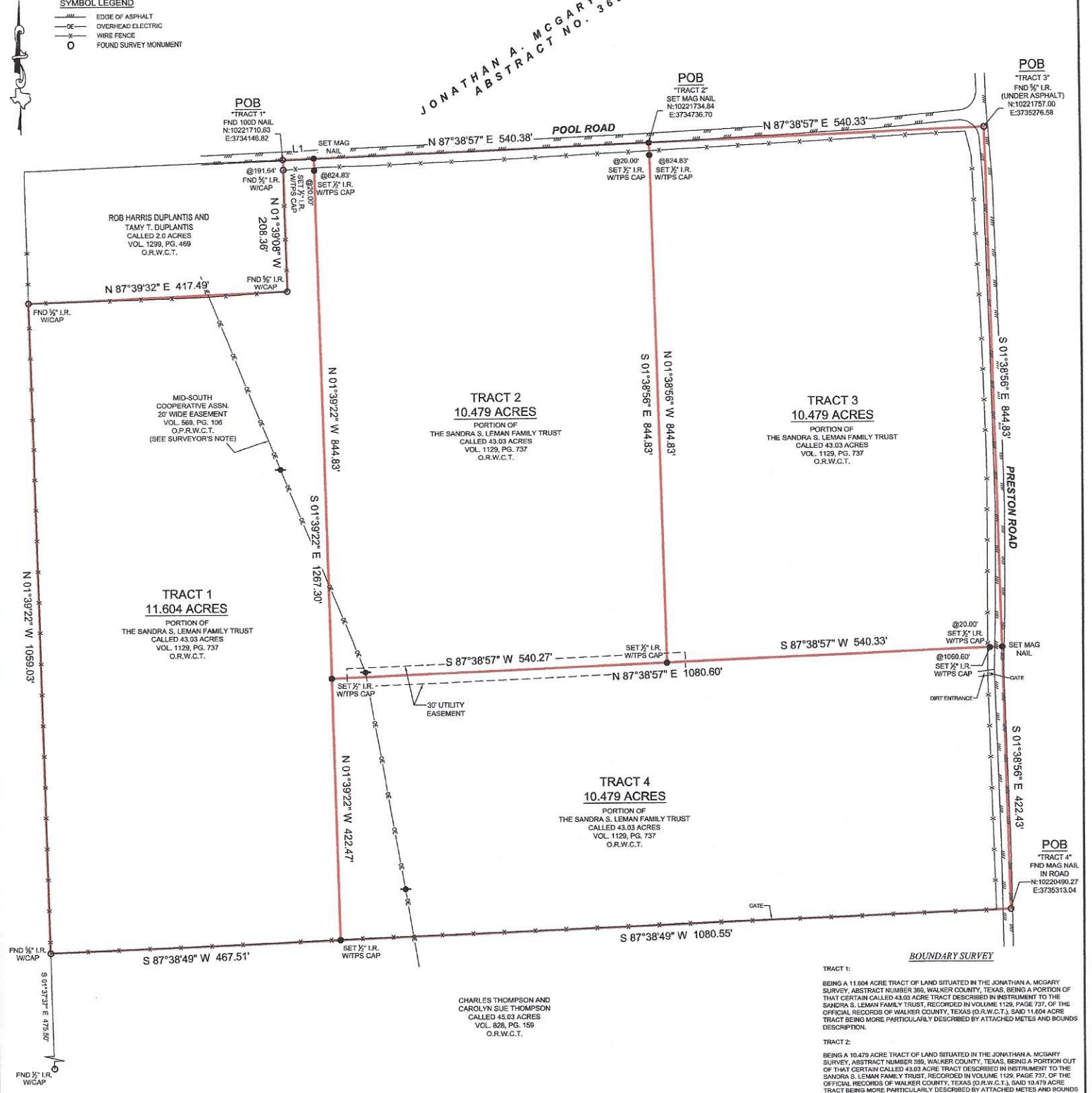


Wendell Baker RS, BS



SYMBOL LEGEND
 --- EDGE OF ASPHALT
 --- OVERHEAD ELECTRIC
 --- WIRE FENCE
 O FOUND SURVEY MONUMENT

JONATHAN A. MCGARY SURVEY
ABSTRACT NO. 369



POB
 "TRACT 1"
 FND 100D NAIL
 N:10221710.83
 E:3734146.82

POB
 "TRACT 2"
 SET MAG NAIL
 N:10221734.84
 E:3734736.70

POB
 "TRACT 3"
 FND 5/8" L.R.
 (UNDER ASPHALT)
 N:10221757.00
 E:3735276.58

ROB HARRIS DUPLANTIS AND
 TAMY T. DUPLANTIS
 CALLED 2.0 ACRES
 VOL. 1239, PG. 469
 O.R.W.C.T.

TRACT 2
10.479 ACRES
 PORTION OF
 THE SANDRA S. LEMAN FAMILY TRUST
 CALLED 43.03 ACRES
 VOL. 1129, PG. 737
 O.R.W.C.T.

TRACT 3
10.479 ACRES
 PORTION OF
 THE SANDRA S. LEMAN FAMILY TRUST
 CALLED 43.03 ACRES
 VOL. 1129, PG. 737
 O.R.W.C.T.

TRACT 1
11.604 ACRES
 PORTION OF
 THE SANDRA S. LEMAN FAMILY TRUST
 CALLED 43.03 ACRES
 VOL. 1129, PG. 737
 O.R.W.C.T.

TRACT 4
10.479 ACRES
 PORTION OF
 THE SANDRA S. LEMAN FAMILY TRUST
 CALLED 43.03 ACRES
 VOL. 1129, PG. 737
 O.R.W.C.T.

CHARLES THOMPSON AND
 CAROLYN SUE THOMPSON
 CALLED 43.03 ACRES
 VOL. 828, PG. 159
 O.R.W.C.T.

POB
 "TRACT 4"
 FND MAG NAIL
 IN ROAD
 N:10220498.27
 E:3735313.04

BOUNDARY SURVEY

- TRACT 1:**
 BEING A 11.604 ACRE TRACT OF LAND SITUATED IN THE JONATHAN A. MCGARY SURVEY, ABSTRACT NUMBER 369, WALKER COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN CALLED 43.03 ACRE TRACT DESCRIBED IN INSTRUMENT TO THE SANDRA S. LEMAN FAMILY TRUST, RECORDED IN VOLUME 1129, PAGE 737, OF THE OFFICIAL RECORDS OF WALKER COUNTY, TEXAS (O.R.W.C.T.), SAID 11.604 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED BY ATTACHED METES AND BOUNDS DESCRIPTION.
- TRACT 2:**
 BEING A 10.479 ACRE TRACT OF LAND SITUATED IN THE JONATHAN A. MCGARY SURVEY, ABSTRACT NUMBER 369, WALKER COUNTY, TEXAS, BEING A PORTION OUT OF THAT CERTAIN CALLED 43.03 ACRE TRACT DESCRIBED IN INSTRUMENT TO THE SANDRA S. LEMAN FAMILY TRUST, RECORDED IN VOLUME 1129, PAGE 737, OF THE OFFICIAL RECORDS OF WALKER COUNTY, TEXAS (O.R.W.C.T.), SAID 10.479 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED BY ATTACHED METES AND BOUNDS DESCRIPTION.
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GENERAL NOTES:
 1) THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A CURRENT TITLE REPORT. SURVEYOR DID NOT ABSTRACT TITLE AND DOES NOT CERTIFY TO EASEMENTS OR RESTRICTIONS NOT SHOWN. CHECK WITH YOUR LOCAL GOVERNING AGENCIES FOR ANY ADDITIONAL EASEMENTS, BUILDING LINES OR OTHER RESTRICTIONS NOT REFLECTED ON SURVEY.

SURVEYORS NOTE:
 1) IT IS THE SURVEYORS OPINION THAT THE EASEMENT TO MID-SOUTH ELECTRIC COOPERATIVE ASSOCIATION, RECORDED IN VOLUME 898, PAGE 106, D.R.W.C.T., IS A BLANKET EASEMENT. CLIENT REQUESTED TO PLACE INFORMATION OF EASEMENT REFLECTED ON SURVEY PREPARED BY HAROLD E. MCGARY, R.P.L.S., NO. 2005, DATED JUNE 17, 2014.

EXHIBIT 1

NO PORTION OF THIS PROPERTY APPEARS TO LIE WITHIN THE 100 YEAR FLOODPLAIN PER GRAPHIC SCALING OF COMMUNITY PANEL NO. 4847100325D HAVING AN EFFECTIVE DATE OF 08/16/2011.

ALL COORDINATES, BEARINGS AND DISTANCES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983 (2011 ADJUSTMENT), CENTRAL ZONE (TXC-4203), U.S. SURVEY FEET, AND ARE BASED ON GPS OBSERVATIONS MADE BY TEXAS PROFESSIONAL SURVEYING, L.L.C.

PROJECT NUMBER	34239	PURCHASER	TOP GUNS REALTY
DATE	09-14-2023	ADDRESS	POOL ROAD, RICHARDS, TX, 77183
DRAWN BY	TNK	SURVEY	JONATHAN A. MCGARY, A-369
CHECKED BY	OPF	SUBJECT	11.604 ACRES, 10.479 ACRES, 10.479 ACRES, AND 10.479 ACRES
FIELD CREW	TC	COUNTY	WALKER
REVISION 1			
REVISION 2			
REVISION 3			
REVISION 4			

THIS SURVEY WAS CREATED FROM NOTES AND OBSERVATIONS TAKEN ON THE GROUND UNDER MY DIRECT SUPERVISION, AND IS TRUE AND CORRECT AT TIME OF SURVEY.

Thomas A. McIntyre
 Registered Professional Land Surveyor No. 6921

Septic Tank Absorption Field (TX)—Walker County, Texas
(Franks Soil Map 1)

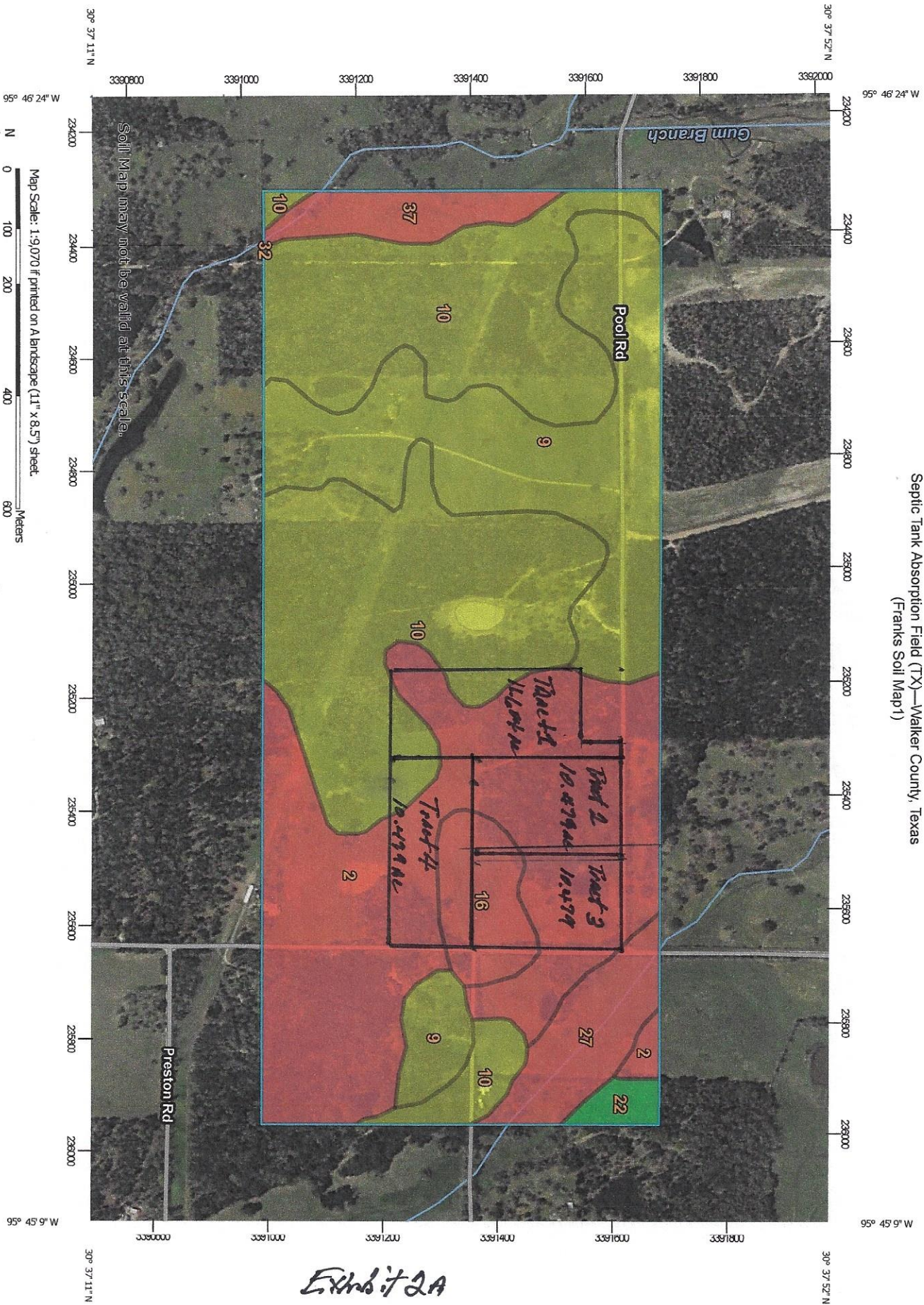

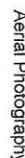











Exhibit 2A

MAP LEGEND

- Area of Interest (AOI)
 -  Area of Interest (AOI)
 -  Background
 -  Aerial Photography
- Soils
 - Soil Rating Polygons**
 -  Very limited
 -  Somewhat limited
 -  Not limited
 -  Not rated or not available
 - Soil Rating Lines**
 -  Very limited
 -  Somewhat limited
 -  Not limited
 -  Not rated or not available
 - Soil Rating Points**
 -  Very limited
 -  Somewhat limited
 -  Not limited
 -  Not rated or not available
- Water Features**
 -  Streams and Canals
- Transportation**
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
 -  Rails

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: Walker County, Texas
Survey Area Data: Version 20, Sep 5, 2023

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

Date(s) aerial images were photographed: Jan 26, 2023—Mar 4, 2023

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.

Exhibit 26

Septic Tank Absorption Field (TX)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI	
2	Annona fine sandy loam, 1 to 5 percent slopes	Very limited	Annona (90%)	Depth to saturated zone (1.00)	86.3	30.4%	
				Clayey (1.00)			
9	Depcor-Huntsburg association, gently undulating	Somewhat limited	Depcor, AFFR >30 (54%)	Depth to saturated zone (0.25)	58.1	20.5%	
			Conroe (3%)	Depth to saturated zone (0.25)			
10	Depcor-Huntsburg-Gunter association, gently rolling	Somewhat limited	Depcor, AFFR >30 (40%)	Depth to saturated zone (0.25)	105.7	37.3%	
			Conroe (5%)	Depth to saturated zone (0.25)			
16	Ferris clay, 1 to 5 percent slopes	Very limited	Ferris (85%)	Clayey (1.00)	10.3	3.6%	
				Depth to bedrock (0.43)			
22	Gunter association, undulating	Not limited	Gunter (67%)		2.6	0.9%	
27	Kanebreak soils, frequently flooded	Very limited	Kanebreak, AFFR >30 (90%)	Flooding (1.00)	12.5	4.4%	
				Depth to saturated zone (1.00)			
				Kaufman (3%)			Flooding (1.00)
				Trinity (3%)			Flooding (1.00)
				Kaman (2%)			Flooding (1.00)
				Depth to saturated zone (0.86)			
Gowker (2%)	Flooding (1.00)						
	Depth to saturated zone (1.00)						
32	Landman association, gently undulating	Not limited	Landman (83%)		0.0	0.0%	
			Gunter (10%)				
37	Nugent soils, frequently flooded	Very limited	Nugent (90%)	Flooding (1.00)	8.2	2.9%	
			Kanebreak (5%)	Flooding (1.00)			

Exhibit 2c

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Depth to saturated zone (1.00)		
			Gowker (5%)	Flooding (1.00)		
				Depth to saturated zone (1.00)		
Totals for Area of Interest					283.7	100.0%

Rating	Acres in AOI	Percent of AOI
Somewhat limited	163.8	57.7%
Very limited	117.2	41.3%
Not limited	2.7	0.9%
Totals for Area of Interest	283.7	100.0%

Exh. 6.7.2 d

Description

The Septic Tank Absorption Field (TX) interpretation is a tool for assessing soil limitations for septic systems designed to treat household effluent. Suburban dwellings and farm and ranch homesteads, outbuildings, and recreational facilities require a means to safely dispose of effluent. The ratings are not intended to substitute for or replace the need for an onsite soil investigation to determine a site's soil restrictions and suitability. The interpretation ratings simply identify limiting soil features that can be found in the soil mapping unit and that may exist on site.

Texas Commission on Environmental Quality publishes criteria and rules governing the location and installation of Septic Tank Absorption Fields. These rules and criteria are contained in "Texas Commission on Environmental Quality - TCEQ; Chapter 285: On-Site Sewage Facilities". Onsite investigation, evaluation, and system design must be conducted by a qualified professional in compliance with TCEQ policy, rules, and design guidelines.

Septic tank absorption fields are subsurface systems of perforated pipe that distribute effluent from a septic tank into the natural soil. The centerline depth of the pipe is assumed to be 18 inches or deeper. Only the soil between depths of 18 and 60 inches is considered in making the ratings. Soil properties and site features considered are those that affect the absorption of the effluent, those that affect the construction and maintenance of the system, and those that may affect public health.

Soil properties and qualities that affect the absorption of the effluent are depth to a seasonal high water table, depth to bedrock, depth to a cemented pan, and susceptibility to flooding or ponding. Shallow depth to bedrock, ice, or a cemented pan interferes with installation. Excessive slope may cause lateral seepage and surfacing of the effluent in down-slope areas. In addition, soil erosion is a hazard where absorption fields are installed in steep soils. Some soils are underlain by loose sand and gravel or fractured bedrock at a depth less than 2 feet below the distribution lines. In these soils, the absorption field may not adequately filter the effluent, particularly when the system is new; consequently, ground water supplies may be contaminated.

Ratings are both numerical and verbal. Numerical ratings or values indicate the relative severity or degree of limitation for individual soil restrictive (limiting) features. Ratings are shown for limiting soil features as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00), and the point at which the soil feature is not a limitation (0.00). Non-limiting soil features with a numerical rating of zero are not listed.

Rating class terms indicate the extent to which the soils are limited by the soil features that affect the soil interpretation. Verbal soil rating classes are based on the highest numerical rating for the most limiting soil feature(s) considered in the rating process. The "not limited" class (numerical value for the most restrictive feature = 0) indicates that the soil has no limiting features for the specified use. The "somewhat limited" class (numerical value for the most restrictive feature .01

to .99) indicates that the soil has limiting features for the specified use that can be overcome with proper planning, design, installation, and management. The effort required to overcome a soil limitation increases as the numerical rating increases. The "very limited" class (numerical value for the most restrictive feature = 1.00) indicates that the soil has one or more very limiting features that can only be overcome with special planning, major soil modification, special design, or significant management practices.

Lesser soil restrictive features have a lower numerical value than the maximum used to rate the soil, and they are identified to provide the user with additional information about soil limitations for the specific use. Lesser soil restrictive features also need to be considered in planning, design, installation, and management.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen, which is displayed on the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the Selected Soil Interpretations report with this interpretation included from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation is needed to validate these interpretations and to confirm the identity of the soil on a given site.

This interpretation for Texas differs from the national interpretation in that does not consider permafrost in the ratings. It also uses different limits for evaluating the affects of depth to bedrock, cemented pan, and water table, flooding, ponding, texture, seepage, and percolation on the interpretation.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Exh. B.12 f

National Flood Hazard Layer FIRMette

95°45'48"W, 30°37'56"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway

	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee, See Notes, Zone X
	Area with Flood Risk due to Levee Zone D

OTHER AREAS OF FLOOD HAZARD	
	Area of Minimal Flood Hazard Zone X
	Effective LOMRS
	Area of Undetermined Flood Hazard Zone I

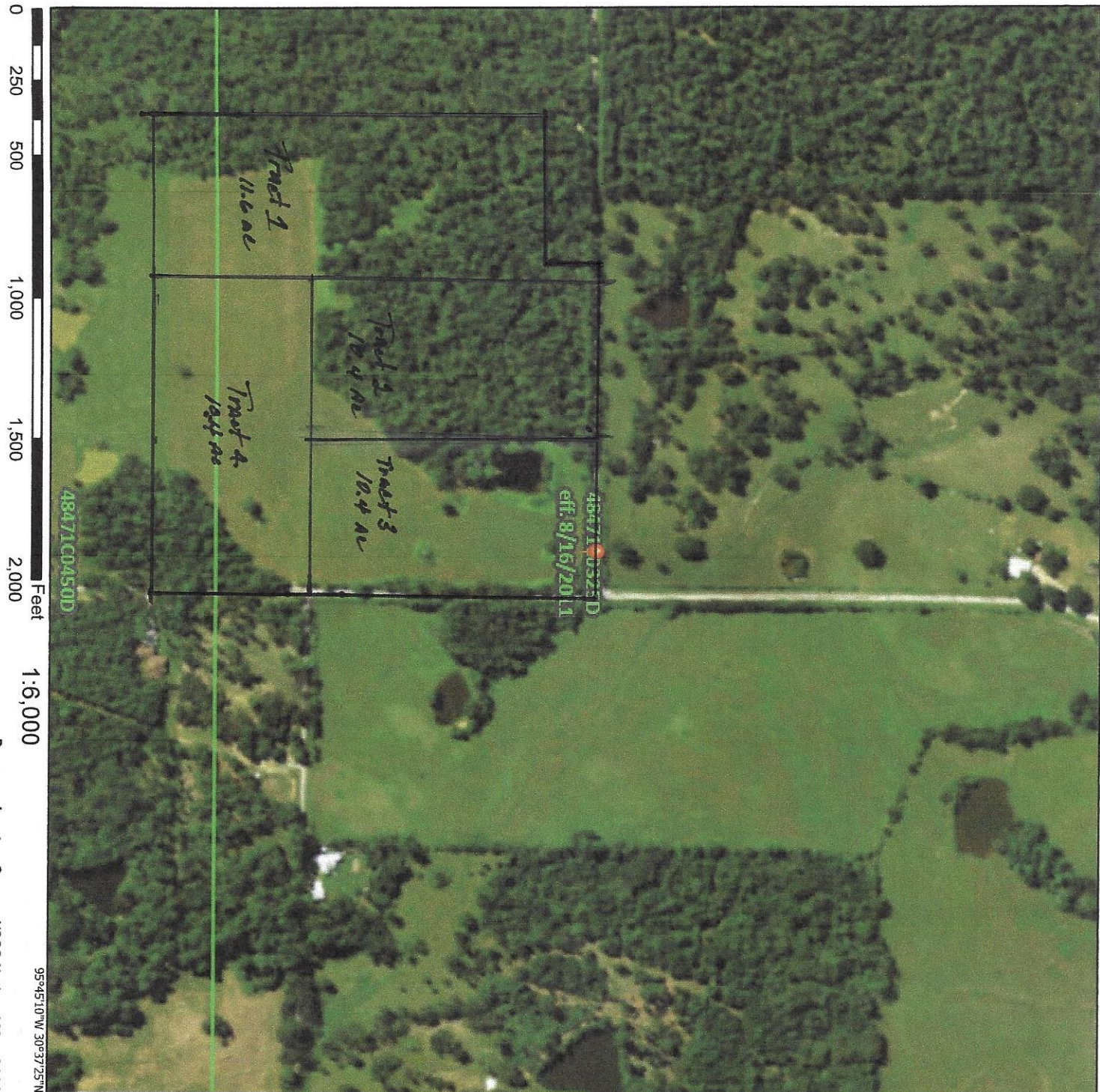
OTHER AREAS	
	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall

GENERAL STRUCTURES	
	Cross Sections with 1% Annual Chance
	Water Surface Elevation
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	Coastal Transsect Baseline
	Profile Baseline
	Hydrographic feature

OTHER FEATURES	
	Digital Data Available
	No Digital Data Available
	Unmapped

MAP PANELS	
	The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

Exhibit 3



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **11/6/2023 at 3:37 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmapped areas cannot be used for regulatory purposes.