
SUBDIVISION REVIEW

TO: WCCHD
FROM: BRANDON COUCH, R.S.
SITE: DOVE PASS
DATE: 11/21/2017

INSPECTION ON 11/18/2017

Subdivision Description:
Dove Pass Subdivision
Subdivision of 30.351 Acres
in the
P. Coursey Survey, Abstract No. 131
Williamson Country

Findings



The site plan of the property, including location of profile holes, is attached.

Directions to the property: (Locator Map on Preliminary Plat) Hwy 29E to Hwy 95S; slightly southwest on Old Granger Road; east on E. Lake Drive; back south on Jones Street; and east on Old Thorndale Road; property on the right before Gravel Pit Road

EARZ issues: This tract is not located within the Edwards Aquifer Recharge Zone (Contributing Zone).

Flood Plain Issues: No portions of this subdivision lie within the FEMA 100-year flood plain.

Lot Size is labeled on the attached subdivision layout. Lot numbers are assigned as shown.

Water service provided by public water supply (City of Taylor)

Soil Profile Summary: The soils found were class IV silty clay over class III silty clay loams. Individual soil profiles can be found on the attached sheet. Soils appear to generally agree USDA Soil Map Units.

Subdivision Features: As indicated, the subdivision will be served by public water supply. The property generally drains north to south. Positive drainage exists; should pooling be found, it must be remediated if affecting the OSSF location. Previous use for agricultural production (crop rows, etc.)

Profile Holes:
Locations Marked on Survey

Profile Hole #1: (tilled)

Total Depth: 70"

0-42": Class IV Brown Silty Clay with root penetration; no mottles, ground water or redox features. Gravel (<30%). Restrictive horizon.

42-70": Class III White-Tan-Orange Silty Clay Loam (blocky) with root penetration; no mottles, no ground water or redox features. Gravely (<30%).

70: Termination

Profile Hole #2: (tilled)

Total Depth: 67"

0-51": Class IV Brown Silty Clay with root penetration; no mottles, ground water or redox features. Gravel (<30%). Restrictive horizon.

51-67": Class III White-Tan-Orange Silty Clay Loam (blocky) with root penetration; no mottles, no ground water or redox features. Gravely (<30%).

67: Termination

Profile Hole #3: (tilled)

Total Depth: 65"

0-38": Class IV Brown Silty Clay with root penetration; no mottles, ground water or redox features. Gravel (<30%). Restrictive horizon.

38-65": Class III White-Tan-Orange Silty Clay Loam (blocky) with root penetration; no mottles, no ground water or redox features. Gravely (<30%). (some calcium carbonate nodules found; slow draining/seasonal issues possible)

65: Termination

Profile Hole #4: (tilled)

Total Depth: 64"

0-35": Class IV Brown Silty Clay with root penetration; no mottles, ground water or redox features. Gravel (<30%). Restrictive horizon.

35-64": Class III White-Tan-Orange Silty Clay Loam (blocky) with root penetration; no mottles, no ground water or redox features. Gravely (<30%). (higher percentage of calcium carbonate nodules found; slow draining/seasonal issues possible)

64: Termination

OSSF Types: After consideration of the soil conditions in the majority of the subdivision, the following types of systems are recommended:

Aerobic systems with:

- spray irrigation (where lot size & home placement permits): simple replacement area, not depended on soil penetration;
- low pressure dosage: requires replacement area, soil depth and separation to groundwater to be used;
- drip/mound hybrids: requires replacement area, can be used with shallow soils;
- mound disposal fields: requires replacement area, and basal area.
- lined and unlined evapotranspiration (ET) beds: requires replacement area.

Septic tanks with:

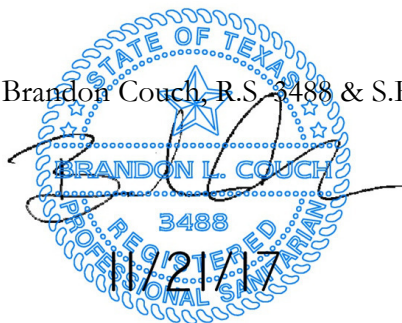
- low pressure dosage: (see above)
- mound systems: (see above)
- ET beds: (see above)
- Drip/mound hybrids: (see above) requires advanced filtration

Most of the soils analyzed were not sufficient to recommend usage of conventional disposal methods (gravity fed systems including leaching chambers, gravel & pipe, etc), with the exception of ET systems. Other treatment and distribution methods may be more appropriate and/or effective given clay and slow draining soils. The lots within the subdivision are of adequate size to support an OSSF and replacement area for residences of typical size; but individual sites should be reviewed for any proposed use planned due to the varying nature and volumes of use. Due to variable clay and some evidence of slow draining soils, careful planning and examination of area soils should be done prior to proposal of any soil absorption OSSF .

Further questions can be directed to Brandon Couch, R.S. at 512.630.8600.

Sincerely,

Brandon Couch, R.S. 3488 & S.E. 8636



OWNER: HBJR, INC., A TEXAS CORPORATION
SURVEYOR: BRUCE LANE BRYAN
ENGINEER: CHIEN LEE



HEJL, LEE & ASSOCIATES, INC.
ENGINEERING • SURVEYING • PLANNING
321 ED SCHMIDT BLVD., SUITE 100, HUTTO, TX 78634
PH: (512) 642-3292
TBPE FIRM REGISTRATION NO. F-755
TBPLS FIRM REGISTRATION NO. 10058500

911 NORTH MAIN
TAYLOR, TX 76574

PHONE: (512) 352-9090
FAX: (512) 352-9091

FIRM No. 10128500
surveying@austin.rr.com
www.brvantechanicalservices.com

BRYAN TECHNICAL SERVICES, INC.

ALL STRUCTURES AND/OR CONSTRUCTIONS ARE PROHIBITED IN
DESIGNATED CONSERVATION AREAS.

THERE ARE AREAS WITHIN THE BOUNDARIES OF THIS
SUBDIVISION IN THE 100 YEAR FLOODPLAIN AS DEFINED BY
FIRM MAP NUMBER 484910050.55E, EFFECTIVE DATE 9-26-2000.
A 10-FT PUBLIC UTILITY EASEMENT (P.U.E.) SHALL BE
DEDICATED ALONG ALL STREET FRONTAGES.

ALL MINIMUM YARD BUILDING SETBACKS SHALL BE IN
ACCORDANCE WITH THE CITY OF TAYLOR ZONING ORDINANCE,
AS AMENDED.

NO DEVELOPMENT SHALL BEGIN PRIOR TO THE ISSUANCE OF
FLOODPLAIN DEVELOPMENT PERMIT FOR EACH OF THE
FOLLOWING LOTS: 17.18 & 19

MINIMUM FLOW OF _____ GALLON PER MINUTE

$X^{\#}$ = TEST HOLES

"15.98 ACRES"
WD W/VL - ALVIN J. KLIMA, ET UX
TO
HAROLD E. HANSEN, JR., ET UX
12-17-2007 2007103784 QPRWC

SHEET 1 OF 2

CITY OF TAYLOR PERMIT NO.:

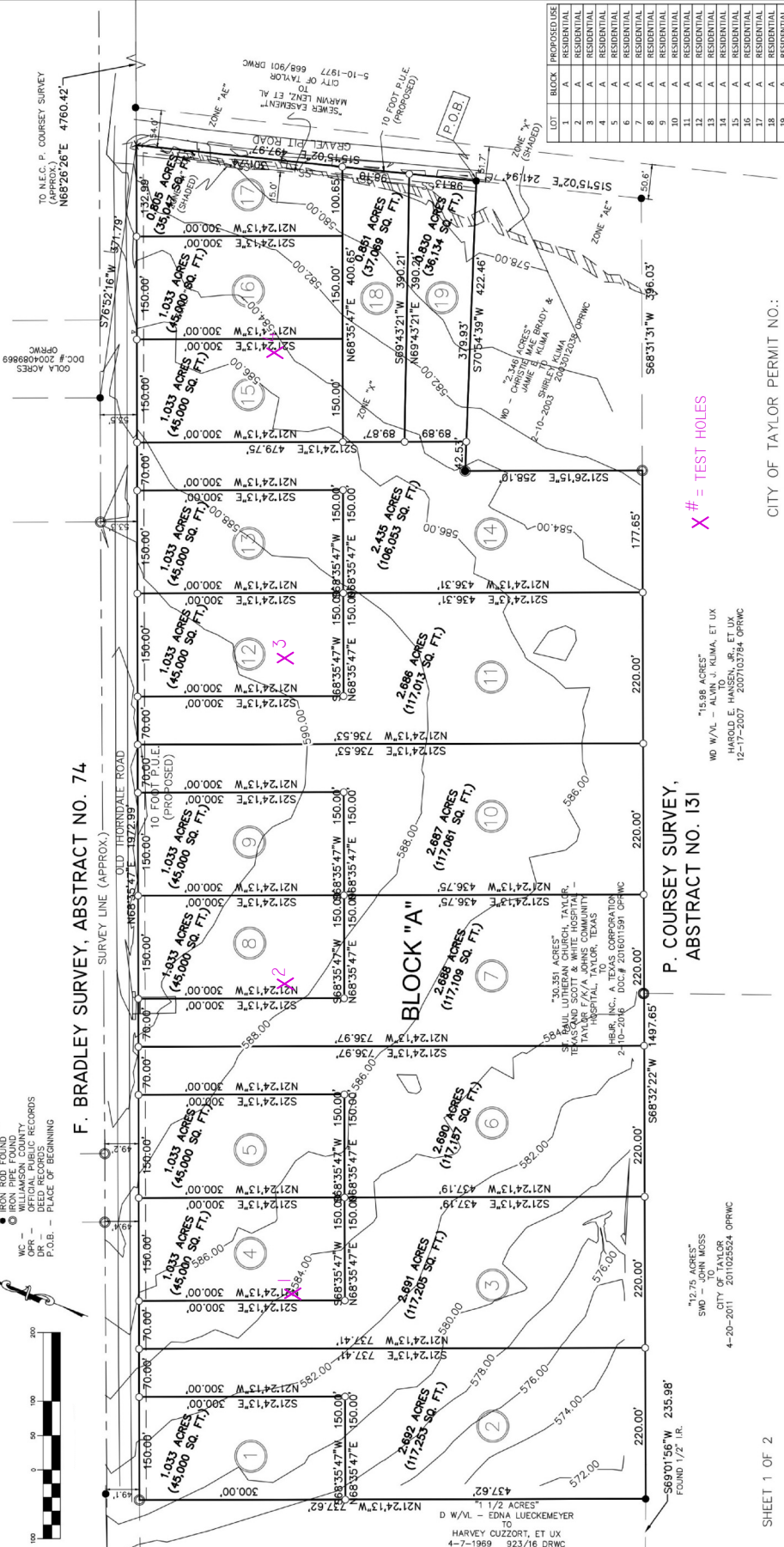
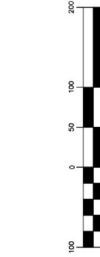
"12.75 ACRES"
S'WD - JOHN MOSS
TO
CITY OF TAYLOR
4-20-2011 2011025524

P. COURSEY SURVEY,
ABSTRACT NO. 131

F. BRADLEY SURVEY, ABSTRACT NO. 74

LEGEND:

- 1 1/2" IRON ROD SET
- IRON ROD FOUND
- ⊙ IRON PIPE FOUND
- WC - WILLIAMSON COUNTY
- OPR - OFFICIAL PUBLIC RECORDS
- DR - DEED RECORDS
- P.O.B. - PLACE OF BEGINNING



USE	PROPOSED USE
LOT 1	RESIDENTIAL
LOT 2	RESIDENTIAL
LOT 3	RESIDENTIAL
LOT 4	RESIDENTIAL
LOT 5	RESIDENTIAL
LOT 6	RESIDENTIAL
LOT 7	RESIDENTIAL
LOT 8	RESIDENTIAL
LOT 9	RESIDENTIAL
LOT 10	RESIDENTIAL
LOT 11	RESIDENTIAL
LOT 12	RESIDENTIAL
LOT 13	RESIDENTIAL
LOT 14	RESIDENTIAL
LOT 15	RESIDENTIAL
LOT 16	RESIDENTIAL
LOT 17	RESIDENTIAL
LOT 18	RESIDENTIAL
LOT 19	RESIDENTIAL

Septic Tank Absorption Field (TX)—Williamson County, Texas
(Dove Pass Subdivision)



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

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

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 18, Nov 8, 2017

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

Date(s) aerial images were photographed: Feb 8, 2015—Mar 14, 2017

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.

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
BrA	Branyon clay, 0 to 1 percent slopes	Very limited	Branyon (85%)	Clayey (1.00)	0.0	0.0%
HuC2	Houston Black clay, 3 to 5 percent slopes, moderately eroded	Very limited	Houston Black, moderately eroded (90%)	Clayey (1.00)	0.1	0.4%
KsA	Krum silty clay, 0 to 1 percent slopes	Very limited	Krum (100%)	Clayey (1.00)	2.8	8.9%
KsB	Krum silty clay, 1 to 3 percent slopes	Very limited	Krum (100%)	Clayey (1.00)	27.2	87.3%
SuB	Sunev silty clay loam, 1 to 3 percent slopes	Not limited	Sunev (100%)		1.1	3.5%
Totals for Area of Interest					31.2	100.0%

Rating	Acres in AOI	Percent of AOI
Very limited	30.1	96.5%
Not limited	1.1	3.5%
Totals for Area of Interest	31.2	100.0%

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 it does not consider permafrost in the ratings. It also uses different limits for evaluating the effects of depth to bedrock, cemented pan, and water table, flooding, ponding, texture, seepage, and percolation on the interpretation.

Rating Options

Aggregation Method: Dominant Condition

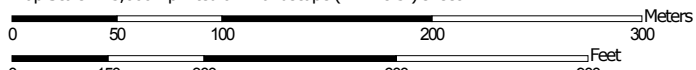
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Percent Clay—Williamson County, Texas
(Dove Pass Subdivision)



Map Scale: 1:3,600 if printed on A landscape (11" x 8.5") sheet.



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



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

11/21/2017
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Percent Clay—Williamson County, Texas
(Dove Pass Subdivision)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 ≤ 30.0
 > 30.0 and ≤ 48.8
 > 48.8 and ≤ 51.8
 > 51.8 and ≤ 54.0
 Not rated or not available

Soil Rating Lines

 ≤ 30.0
 > 30.0 and ≤ 48.8
 > 48.8 and ≤ 51.8
 > 51.8 and ≤ 54.0
 Not rated or not available

Soil Rating Points

 ≤ 30.0
 > 30.0 and ≤ 48.8
 > 48.8 and ≤ 51.8
 > 51.8 and ≤ 54.0
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways

 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

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Percent Clay

Map unit symbol	Map unit name	Rating (percent)	Acres in AOI	Percent of AOI
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HuC2	Houston Black clay, 3 to 5 percent slopes, moderately eroded	54.0	0.1	0.4%
KsA	Krum silty clay, 0 to 1 percent slopes	48.8	2.8	8.9%
KsB	Krum silty clay, 1 to 3 percent slopes	48.8	27.2	87.3%
SuB	Sunev silty clay loam, 1 to 3 percent slopes	30.0	1.1	3.5%
Totals for Area of Interest			31.2	100.0%

Description

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. The estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earth-moving operations.

Most of the material is in one of three groups of clay minerals or a mixture of these clay minerals. The groups are kaolinite, smectite, and hydrous mica, the best known member of which is illite.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: percent

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): Depth Range (Weighted Average)

Top Depth: 0

Bottom Depth: 60

Units of Measure: Inches