

LOCATION MAP

NAVE
OWNER: RD SONOMA RANCH, LLC
ENGINEER: JAMER HINDUOSA
SURVEYOR: CARLOS VASQUEZ

CARLES VARIOUSEZ, R.P.L.S.

ROCKTODO PROCESSIONAL LAND SURVEYOR NO. 4408

OVAL LAND SURVEYORS, LLD

317 SOURCHOT ANC.

SEALULX, TEXAS SOURCESSION OF THE SURVEYORS, 00-06-3884

TRACES FIRST SOURCESSION OF THE SURVEYORS, 00-06-3884

FILE FOR RECORD IN HOALGO COUNTY ARTURO GUAJARDO, JR. HOALGO COUNTY CLERK

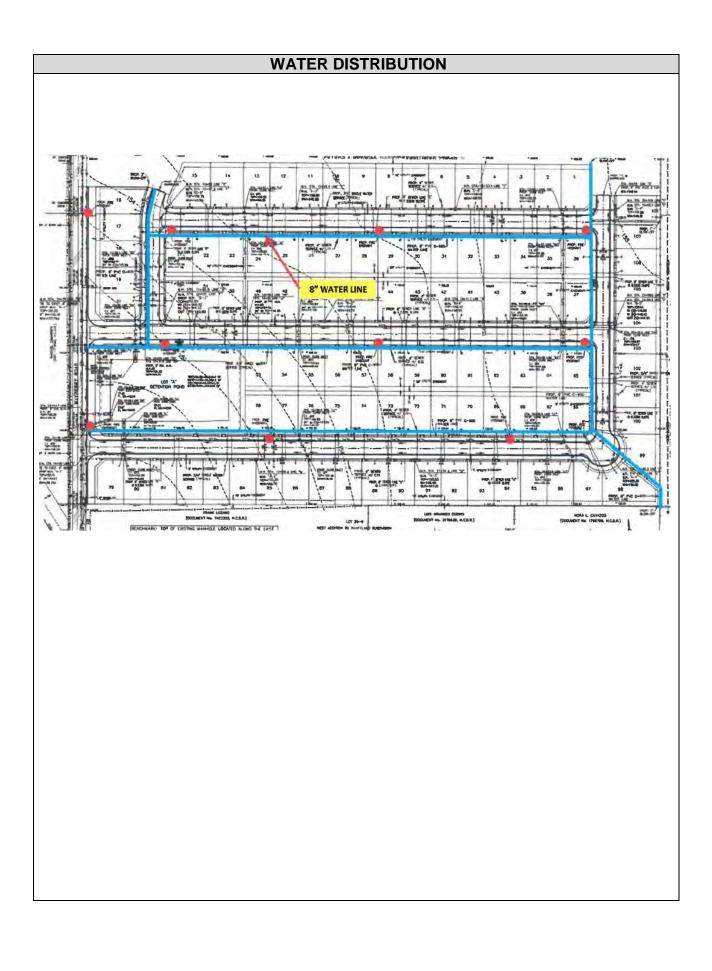
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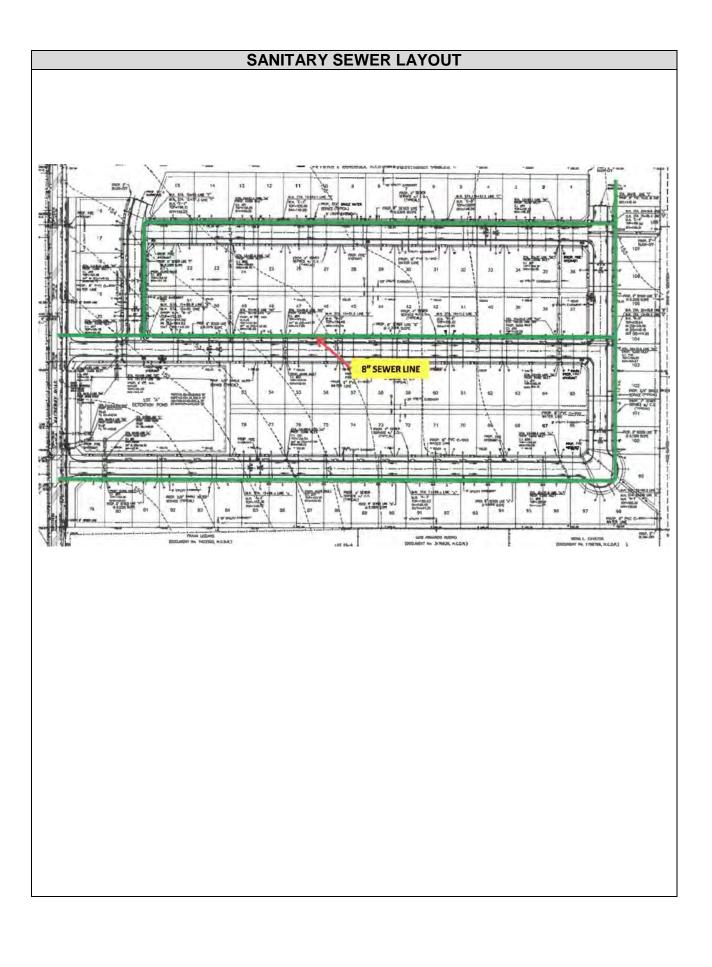
SATE OF PROPOSATION SQLT 12, 2024

STEP 1 SAVIER HINOJOSA ENGINEERING CONSULTING EXCHANGES
15 L DOTE PROPE HAULEN, TEXAS 75004
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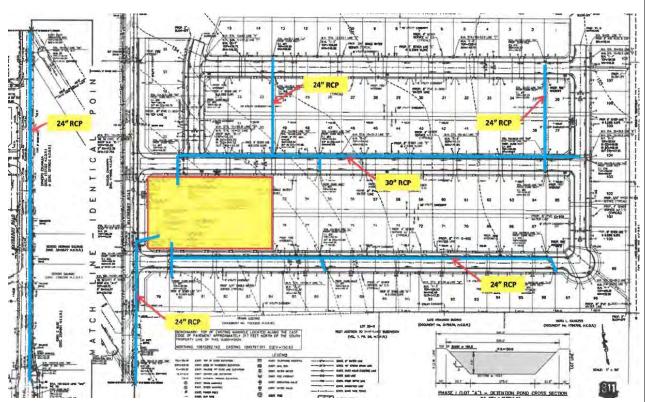
UPDATED: OCT. 1, 2024 - REV. FRONT ES DATE OF PREPARATION: SEPT. 12, 2024

AERIAL PHOTO EMILE 2 RD





STORM WATER DRAINAGE STATEMENT



Drainage Statement onoma Ranch Subdivision Mission, Texas

Introduction

Sonoma Ranch Subdivision is a 38.99 acre tract of land out of Lot 30-9, West Addition to Sharyland Subdivision as recorded in Volume 1, Page 56, Hidalgo County Map Records. Sonoma Ranch Subdivision will be developed in two phases. This drainage statement addresses both phases of this subdivision. The subdivision is located along the east side of Mayberry Road approximately 1,320 feet north of Mile 2 and is within the city limits of Mission, Texas.

Flood Plair

Sonoma Ranch Subdivision is located in Zone "C" on a Flood Insurance Rate Map, Community Panel No. 480334 0400C, map revised November 16, 1982. Zone "C" is defined as "areas of minimal flooding (no shading)." The minimum finish floor elevation shall be 18" above the top of curb as measured at the center of each lot.

Soil Conditions

According to the soil survey report prepared for Hidalgo County by the USDA Natural Resources Conservation Service; the soils in this subdivision are found to be Hidalgo Fine Sandy Loam (25), Hidalgo Sandy Clay Loam (28) and Hidalgo Sandy Clay Loam, Saline (30). Soils group 25, 28 and 30 are in hydrologic group "B" and are moderately pervious with a relatively low plasticity index.

Pre-developed Conditions

The current land use for this property has been used for agricultural purposes and has an existing runoff in a southwesterly direction. Based on an existing 10-year storm, a total storm runoff of 29.41 cubic feet per second is being generated by this subdivision. Note: because the outfall is being choked down to a 24" at a slope of 0.516%, this calculates to 16.25 cfs on the outfall pipe thus detention will be based upon the 100-year detention requirements.

Proposed Conditions

Sonoma Ranch Subdivision is a proposed 38.99 Acre - 183 single-family lot subdivision. Phase I is 22.845 Acres and has 108 lots, with Phase II being 16.143 Acres and 75 lots. Drainage shall be accomplished within this development with the placement of curb inlets to intercept drainage runoff generated by this subdivision. Pipe sizes shall range from an 18° to 36° throughout the subdivision with each phase discharging into proposed detention ponds located near the southwest portion of the phase. This development will increase runoff to a maximum of 184.51 cubic feet per second based on the 100-year storm frequency for an increase Q of 168.26 cubic feet per second. Required detention for the overall subdivision is 391,113 cubic feet (8.979 Ac.Ft.). Phase I will be required to detain 229,186 cubic feet (5.261 Ac.Ft.) with the proposed detention pond having a capacity of 349,599 cubic feet (8.026 Ac.Ft.) with the proposed detention pond having a capacity of 1927 cubic feet (3.717 Ac.Ft.) the proposed detention pond having a capacity of 239,270 cubic feet (5.493 Ac.Ft.) at a depth of 9.0 feet. Each individualized detention pond will be excavated as part of the construction of its

phase. Maintenance of the detention ponds shall be provided for by the Sonoma Ranch Home Owners Association. The detention pond in Phase II will tie to an inlet in Phase I with a choked 18" pipe @ 0.413%. The Phase I detention pond outfall will be along the east side of Mayberry Road extending south to and tie to an existing inlet approximately 170 feet north of Mile 2 North. The outfall pipe will be a 24" at the earlier referenced slope of 0.516%. See the provided outfall storm plan and profile for your reference that also shows a siphon under the existing United Irrigation District "Bryan Canal".

