

ITEM # 2.1

PRELIMINARY & FINAL PLAT APPROVAL:

De Leon Zamora Subdivision
A 10.0 acre tract of land, more or less,
out of Lot 34-6, John H. Shary Subdivision
Suburban E.T.J.
Developer: Jose A De Leon & Erik Zamora
Engineer: Urban Infrastructure Group, Inc.

REVIEW DATA

PLAT DATA

The proposed subdivision is at a distance approximately 2,150' north of the intersection of North Mile 3 Rd. and S.H. 107 (Mission Suburban ETJ) — see vicinity map. The De Leon Zamora Subdivision is a proposed twenty-six (26) lot subdivision. The subdivision will have 24 multi-family residential lots, 2 commercial lots, and 2 detention ponds. — see plat for actual dimensions, square footages, and land uses.

WATER

The water CCN belongs to Sharyland Water Supply Corp (SWSC). The developer is proposing to connect to an existing water line located along the west side of S.H. 107 and extend into the subdivision with a 6" main line to provide water service to each lot. There are 3 fire hydrants proposed to be used as filling stations via direction of the Fire Marshal's office.

SEWER

An internal 8" sewer line system will provide sewer service to all the lots as it ties into an existing manhole on the west side of S.H. 107. The sewer CCN does not belong to the City of Mission and will be collected by the City of McAllen.

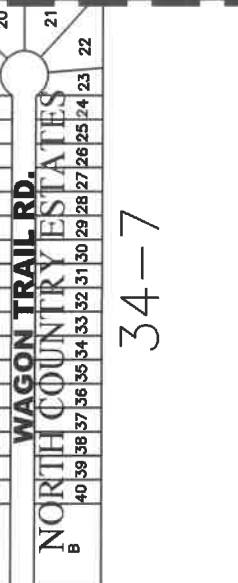
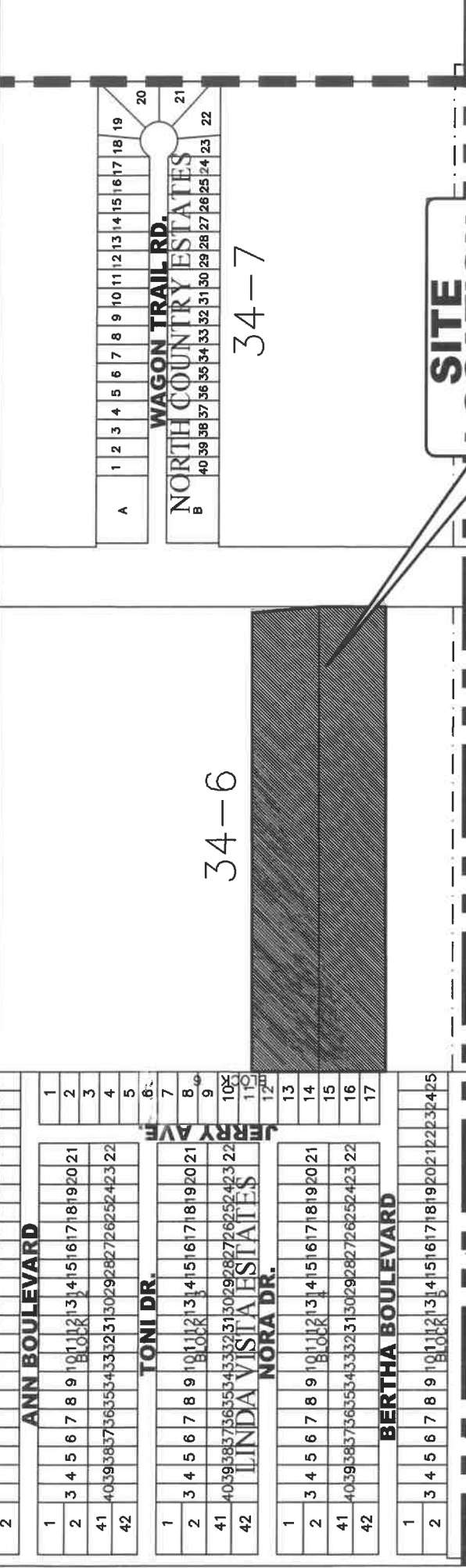
STREETS & STORM DRAINAGE

The subdivision will have 1 street with access from S.H. 107 and end at a cul-de-sac. The street will have a 50' ROW and turn-around at the mid-point. The design will include a proposed 32' B-B paved street complete with curb & gutter.

The site lies within a Flood Zone "A" and "C" as seen on the FEMA Community Panel No. 480334 0400 C. The runoff detention volume to contain the 50-yr frequency storm event while releasing at a 10-yr frequency storm event is approximately 34,281 cu. ft. or 0.787 acre-foot. It is proposed that the flow will be controlled using an outlet box with a 10" orifice at elevation 158.42 and a 1.0' wide weir at the elevation 160.40. The City Engineer has reviewed and approved the drainage report.

RECOMMENDATION

Staff recommends approval subject to meeting the Model Subdivision Rules and meeting any comments from the County Planning Department.



**SITE
LOCATION**

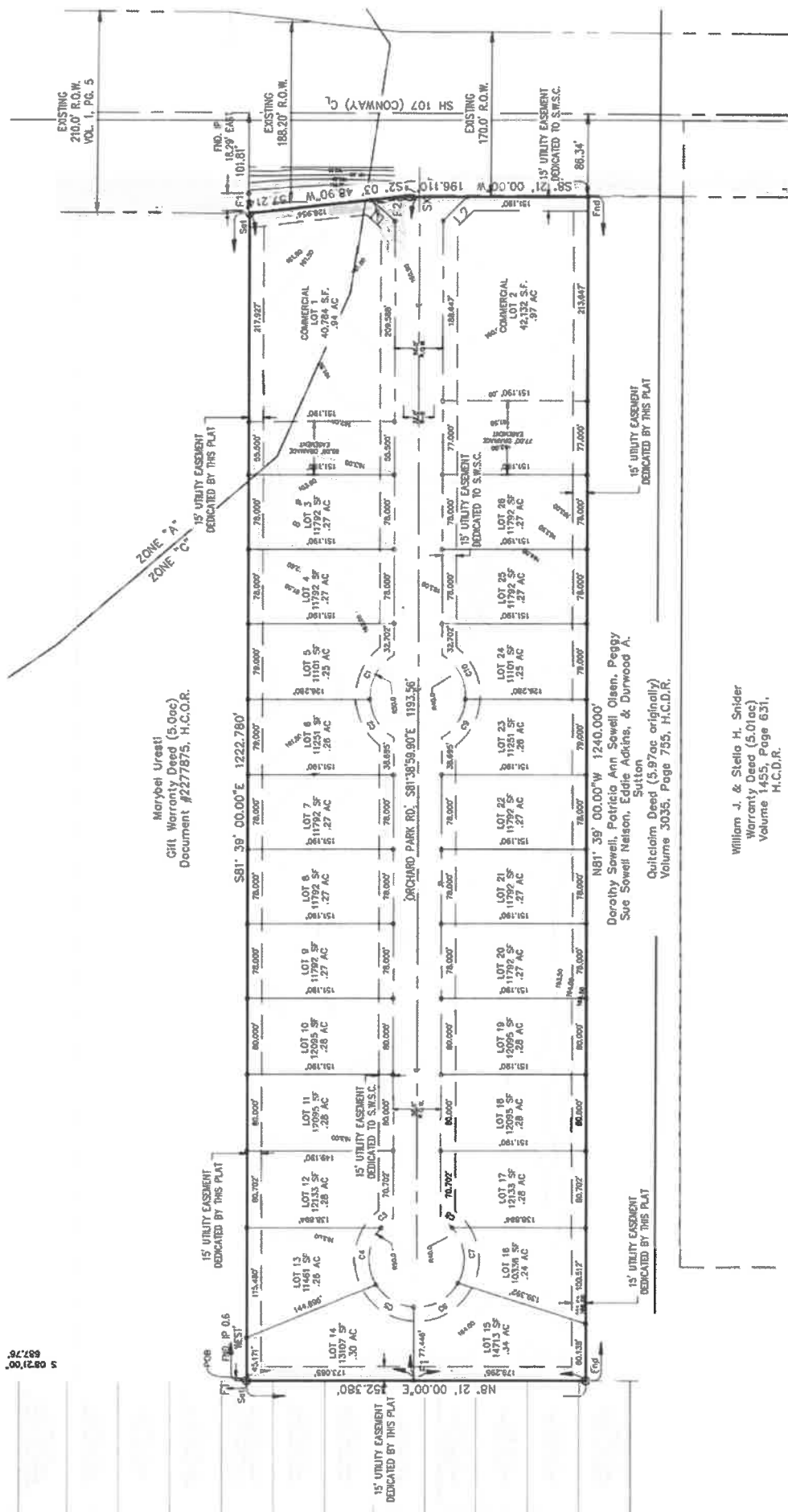


CITY OF MISSION
HIDALGO COUNTY, TEXAS
1201 E. 8th Street
MISSION, TX 78572
PH: (956) 380-8672
FAX: (956) 380-8680

No.



5 0821'00"
687.76'



Marybel Uresti
Ght Warranty Deed (5.0ac)
Document #2277875, H.C.O.R.

Orchard Park Rd. S81°39'00.00"E 1222.780'
N81°39'00.00"W 1240.000'
Dorothy Sowell, Patricia Ann Sowell Olsen, Peggy Sue Sowell Nelson, Eddie Adkins, & Durwood A. Sutton
Quitclaim Deed (\$5.97ac originally)
Volume 3036, Page 755, H.C.D.R.

William J. & Stello H. Snider
Warranty Deed (5.01ac)
Volume 1455, Page 631,
H.C.D.R.

EXISTING
210.0' R.O.W.
VOL. 1, PG. 5

EXISTING
188.20' R.O.W.

EXISTING
170.0' R.O.W.

ZONE 'A'
ZONE 'C'

15' UTILITY EASEMENT
DEDICATED BY THIS PLAT

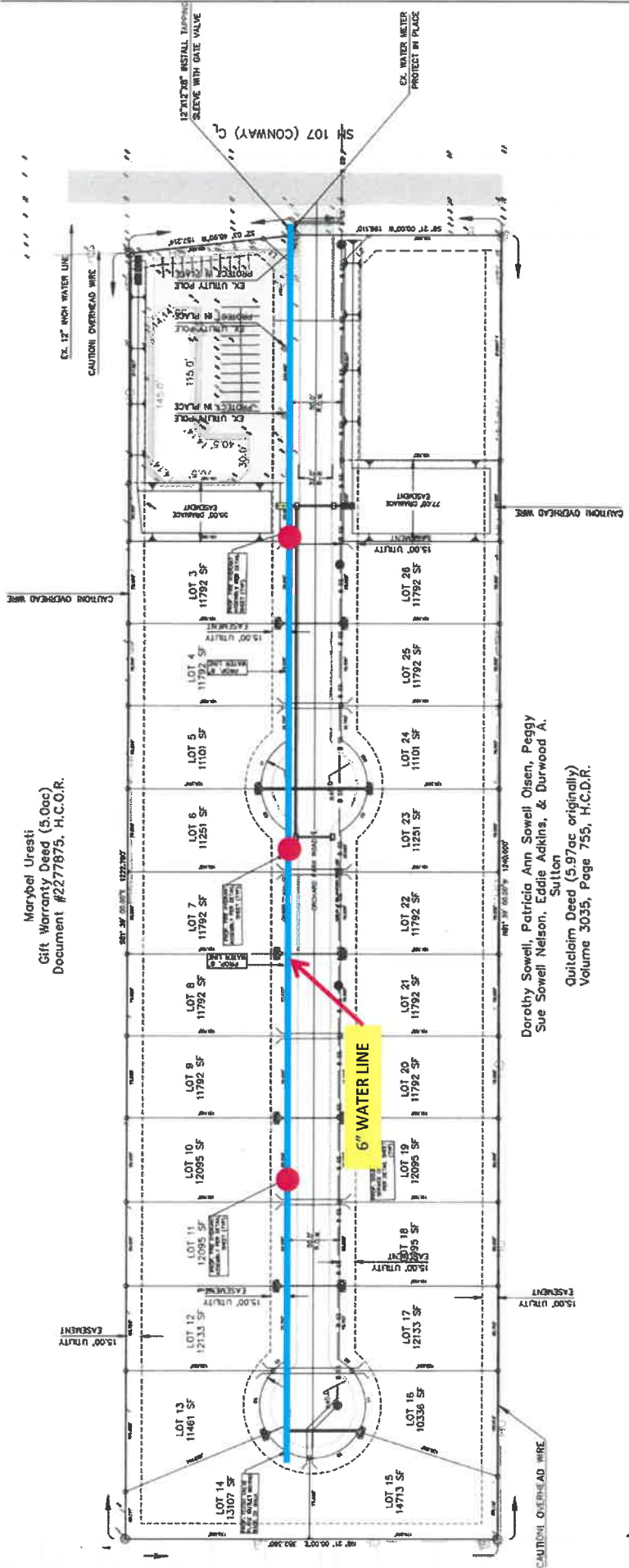
15' UTILITY EASEMENT
DEDICATED TO S.W.S.C.

15' UTILITY EASEMENT
DEDICATED BY THIS PLAT

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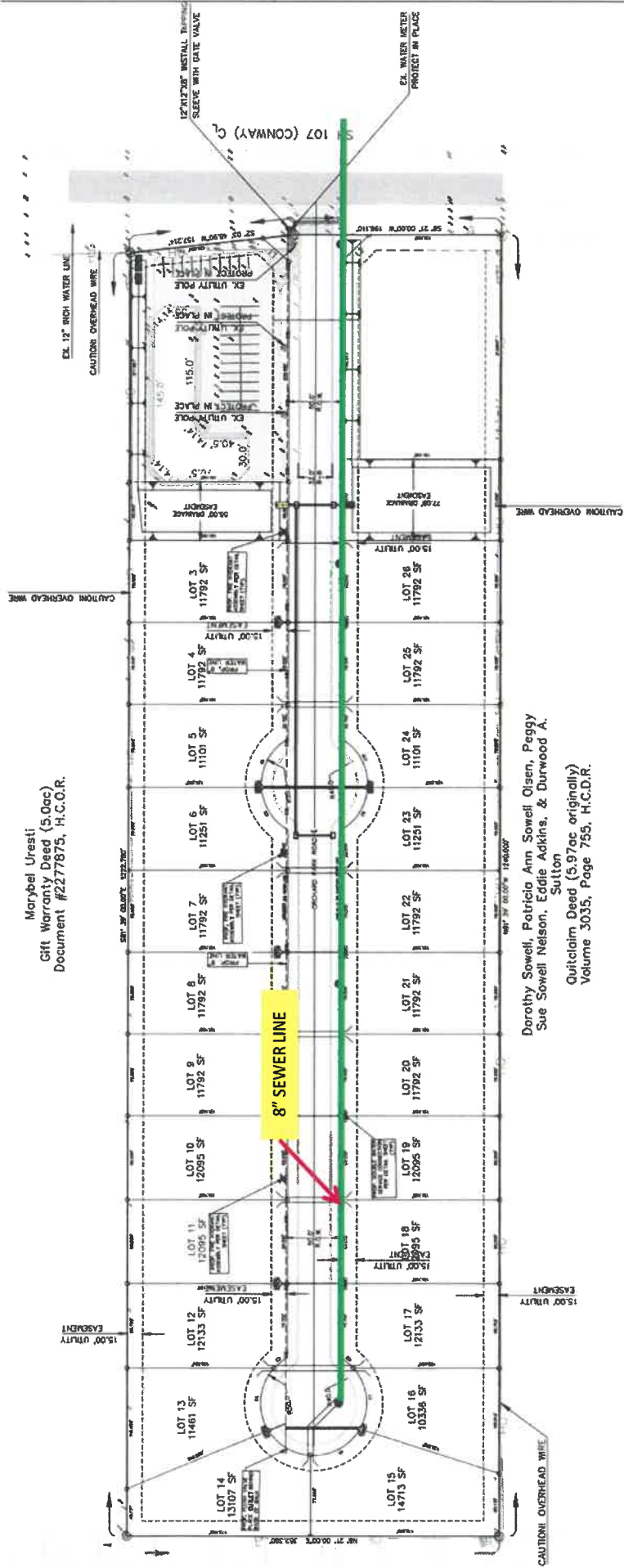
Marybel Uresti
 Gift Warranty Deed (5.0ac)
 Document #2277875, H.C.O.R.

Dorothy Sowell, Patricia Ann Sowell Oisen, Peggy
 Sue Sowell Nelson, Eddie Adkins, & Durwood A.
 Sulten
 Quitclaim Deed (5.97ac originally)
 Volume 3035, Page 755, H.C.D.R.

NOTE:

GENERAL NOTES:

Marybel Uresti
 Gift Warranty Deed (5.0ac)
 Document #2277875, H.C.O.R.

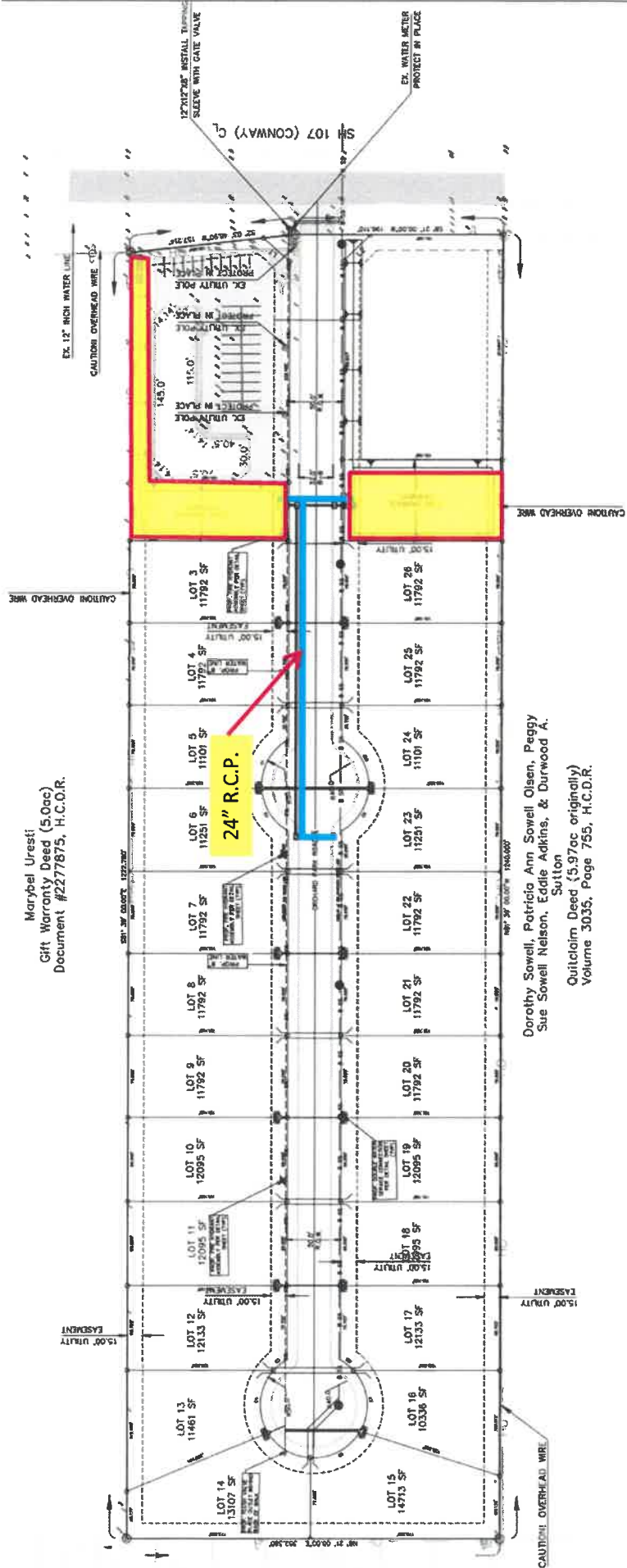


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NOTE:

GENERAL NOTES:

INTRODUCTION

The De Leon-Zamora Subdivision is a proposed twenty-six (26) lot subdivision. The Subdivision will have 24 multi-family residential lots and 2 commercial lots. The property is approximately a 10.00-acre tract of land out of lot 34-6, West Addition to Sharyland Subdivision, map or plat thereof recorded in volume 1, page 56, Hidalgo County map records, Texas. The property is located outside the City of Mission city limits (ETJ), approximately 2,180 feet North of intersection of 3-Mile line and FM-107. A location map is provided in **Attachment A**.

FLOODPLAIN INFORMATION

The property contains Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (SFHA). The De Leon-Zamora Subdivision is located within FEMA Community Panel No. 480334 0400 C, map revised November 16, 1982. A FEMA map showing the property is provided in **Attachment B**. The attached map shows that the property is located within a FEMA Zone "C" and Zone "A" (shaded). Zone "C" is defined as areas outside of the 500-year flood plain and protected from levee from 100-year flood. Zone "A" are areas with a 1% annual chance of flooding, for which no base flood elevations have been determined. For the Zone A area within the property, the new BFE was calculated using simplified methods from the FEMA guide "**Managing Floodplain Development in Approximate Zone- A Areas - A Guide For Obtaining and Developing Base (100-Year) Flood Elevations,**" with the method based on contour interpolation, the calculated BFE is 162.5. See **Attachment B** for BFE determination. Fill has been placed in the Zone A as part of the existing commercial development. Approximately 29,687 cu ft of fill has been placed, see **Attachment B** for fill sections. Prior to construction of structures, the developer shall submit approved LOMR-F and additional detention volume as required.

SOIL SURVEY

According to the Soil Survey Report prepared for Hidalgo County by the U.S.D.A. Soil Conservation Service, the project site is 70.5% 4 Brennan fine sandy loam, 0 to 3 percent slopes. The site hydrologic soil group is identified as group B. 28 soil has the capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr) Depth to water table:

More than 80 inches. The frequency of flooding is none and the frequency of ponding is none. 25 soil is comprised as 29.5% Hidalgo fine sandy loam, 0 to 1. The site hydrologic soil group is identified as group B. 25 soil has the capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr) Depth to water table: More than 80 inches. The frequency of flooding is none and the frequency of ponding is none. 25 soil is comprised as 85% Hidalgo and similar soils and 15% minor components. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data (see attached Soil Survey) in **Attachment C**.

HYDROLOGY

Stormwater flow on the existing site generally flows from the west to the east draining into N. Conway Ave. roadside ditch owned by TxDOT. There are twenty-six proposed lots. Lot 1 and lot 2 will be for commercial use and lots 3-26 will be for multi-family use. The existing tract is partially developed and consists of a concrete driveway, a stucco house, and two covered parking areas as well as an existing commercial plaza. The existing Single-Family houses will be demolished. The Rational Method was used in HydroCAD, and the HydroCAD results for the existing 10-year storm event are found in **Attachment E** and the HydroCAD results for the 50-year post-development storm event are found in **Attachment F**. Runoff coefficients, "C" values, were determined based on the Texas Department of Transportation (TxDOT) *Hydraulic Design Manual*, dated 2019. HydroCAD supplementary information for the Hydraulic calculations used on the storm drainage design, based on a 25-year storm event, are found in **Attachment G**.


It is proposed that each multi-family lot will provide its own detention, therefore, calculations for the subdivision detention pond do not include impervious cover for the multi-family lots. It is estimated that detention for each Multi-Family lot will require approximately 1,028 cf for detention storage. Thus, the total detention for all the Multi-Family lots combined is estimated to be 24,664 cf, calculations for the detention volume for the Multi-Family lots are found in **Attachment D**.

The existing retail plaza is located on proposed lot 1. The existing plaza has an existing detention pond that was previously permitted. For detention modeling purposes this area was routed around

the proposed detention pond. The existing site has existing concrete driveways and parking area that were constructed with the existing residential development. This concrete paving will be removed and new asphalt will be placed for the proposed roadway. Due to the existing roofs and paving the change in the post-developed "C" value is minimal. The composite "C" values for the existing conditions were calculated to be approximately 0.33. The post development composite "C" value is estimated to be 0.36; that is an increase of 0.03 weighted runoff coefficient. Calculations using the rational method were the following: For the existing peak 10-year flowrate being equal to 3.70 cfs, and the proposed peak 50-year flow rate being 5.67; With an increased runoff of approximately 1.97 cfs for the site subdivision.



DETENTION

Using the Modified Rational Method, the runoff detention volume to contain the 50-year frequency storm event with the assumed improvements, while releasing at the existing 10-year frequency storm event is approximately 34,281 cu ft or 0.787 acre-foot. It is proposed that the flow will be controlled using an outlet box with a 10" orifice at elevation 158.42 and a 1.0' wide weir at elevation 160.40. The pond outlet structure is detailed in **Attachment H**. Since approximately 29,687 cu ft of fill has been placed within the Zone A, the total detention volume required is approximately 63,969 cu ft. Stormwater runoff will be detained onsite within Commercial Lots 1 & 2, with the proposed storage being approximately 69,000 cu ft. Owners for Lots 1 & 2 shall maintain their respective detention ponds, see Drainage Exhibits in **Attachment H**.



Craig A. Gonzalez, P.E.
Firm No. F-13094



<input type="checkbox"/> REJECTED	
<input checked="" type="checkbox"/> APPROVED FOR SUBMITTAL	
<input checked="" type="checkbox"/> TO H.C. PLANNING DEPT.	
<input type="checkbox"/> TO CITY	
<input checked="" type="checkbox"/> DISCHARGE PERMIT REQUIRED	
<input type="checkbox"/> DISTRICT FACILITY	
<input type="checkbox"/> CITY FACILITY	
<input checked="" type="checkbox"/> OTHER <i>TxDOT</i>	
	<i>10/14/22</i>
H.C.D.D. NO. 1	DATE