

## **ITEM # 4.0**

### **FINAL PLAT APPROVAL:**

Sendero Phase IB Subdivision  
Being a resubdivision of 17.090-acres of land out of  
the south end of Porcion 52  
PUD (R-1)  
Developer: Rhodes Development, Inc.  
Engineer: Melden & Hunt, Inc.

## **REVIEW DATA**

### **PLAT DATA:**

The subdivision is part of a master plan located approximately 397' west of S. Inspiration Road and along the south side of Mile One South Road adjacent to and extending from Sendero Phase 1 A Subdivision — see vicinity map. The developer has constructed (69) Sixty-Nine Single Family Residential lots — see plat for actual dimensions, square footages, and land uses.

### **WATER**

The developer extended from an existing 8" water line which ran thru the site to provide 1" water service to each lot. The water line will be looped by connecting to an existing 12" main located along the West ROW of S. Inspiration Road. There are 6 fire hydrants via direction of the Fire Marshal's office. — see utility plan

### **SEWER**

The developer has extended the existing 8" sanitary sewer line to and thru the subdivision. An 8" Sanitary Sewer line will run through the subdivision and collect from each lot through a 4" front and center stub out service. The Capital Sewer Recovery Fees are required at \$200.00/Lot which equates to \$13,800.00 (\$200 x 69 Lots).

### **STREETS & STORM DRAINAGE**

The internal streets are 32' Back-to-Back within 50' Right of Ways, access will be from Mile One South Rd. and/or Inspiration Rd. The storm drainage system will consist of multiple curb inlets ranging in size from 24" to 42" RCP. Surface and street runoff will be caught by said inlets and conveyed via storm lines into the Perezville Drain (owned by H.C.D.D. No. 1) adjacent to south side of this property and ultimately have an outfall into the Mission Pilot Channel system of the H.C.D.D No.1 via 5'x5' box culvert under the United Main Canal. The development is included in Drainage Basins 26 & 32 of the Bentsen Palms Master Drainage Study. The required detention of 78,215 c.f, has already been provided within said detention ponds with a design detention capacity of 674,185 c.f.. Additionally, the widening of the Perezville Drain ditch has been completed as request by HCDD#1. The City Engineer has reviewed and approved the drainage report.

### **OTHER COMMENTS**

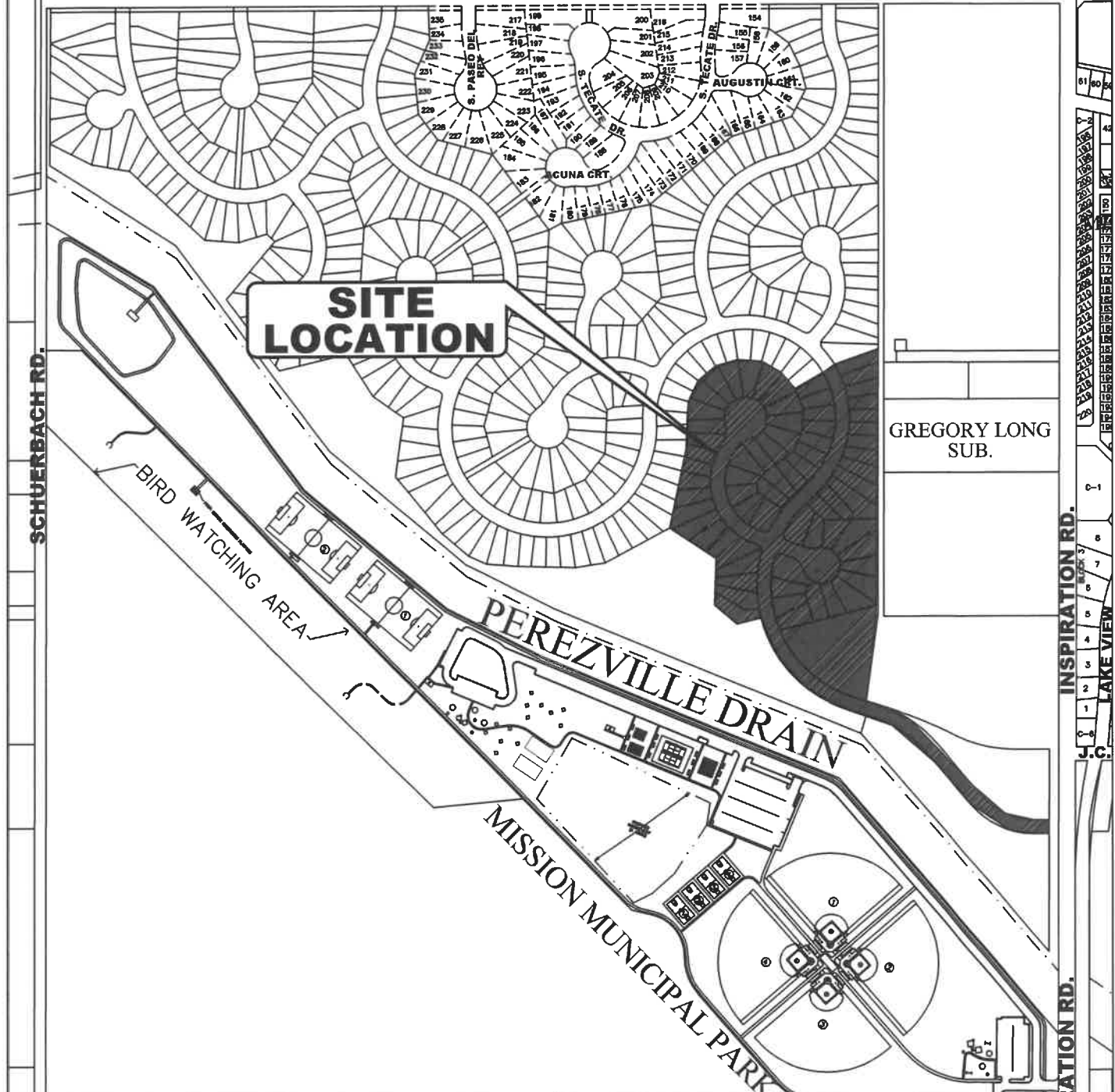
- No Park Fees – Mike Rhodes dedication of park land still stratifies the park Dedication Ord.
- Installation of Street Lighting as per City Standards
- Comply with all other format findings

### **RECOMMENDATION**

Staff recommends approval.

124	79	75	30	162	27	26	25	257	330	340	365	398	443	454	73	57	61	41
123	80	74	31	163	206	207	250	258	300	341	384	399	442	455	72	56	60	40
122	81	73	32	164	205	208	248	259	300	342	383	400	441	456	71	55	59	39
121	82	72	33	165	204	209	248	280	299	343	382	401	440	457	70	54	58	38
120	83	71	34	166	203	210	247	281	298	344	381	402	439	458	69	53	57	37
119	84	70	35	167	202	211	246	282	297	345	380	403	438	459	68	52	56	36
118	85	69	36	168	201	212	245	283	296	346	379	404	437	460	67	51	55	35
117	86	68	37	169	200	213	244	284	295	347	378	405	436	461	66	50	54	34
116	87	67	38	170	199	214	243	285	294	348	377	406	435	462	65	49	53	33
115	88	66	39	171	198	215	242	286	293	349	376	407	434	463	64	48	52	32
114	89	65	40	172	197	216	241	287	292	350	375	408	433	464	63	47	51	31
113	90	64	41	173	196	217	240	288	291	351	374	409	432	465	62	46	50	30
112	91	63	42	174	195	218	239	289	290	352	373	410	431	466	61	45	49	29
111	92	62	43	175	194	219	238	290	289	353	372	411	430	467	60	44	48	28
110	93	61	44	176	193	220	237	291	288	354	371	412	429	468	59	43	47	27
109	94	60	45	177	192	221	236	292	287	355	370	413	428	469	58	42	46	26
108	95	59	46	178	191	222	235	293	286	356	369	414	427	470	57	41	45	25
107	96	58	47	179	190	223	234	294	285	357	368	415	426	471	56	40	44	24
106	97	57	48	180	189	224	233	295	284	358	367	416	425	472	55	39	43	23
105	98	56	49	181	188	225	232	296	283	359	366	417	424	473	54	38	42	22
104	99	55	50	182	187	226	231	297	282	360	365	418	423	474	53	37	41	21
103	100	54	51	183	186	227	230	298	281	361	364	419	422	475	52	36	40	20
102	101	53	52	184	185	228	229	299	280	362	363	420	421	476	51	35	39	19

MILE ONE SOUTH



**CITY OF MISSION**  
HIDALGO COUNTY, TEXAS

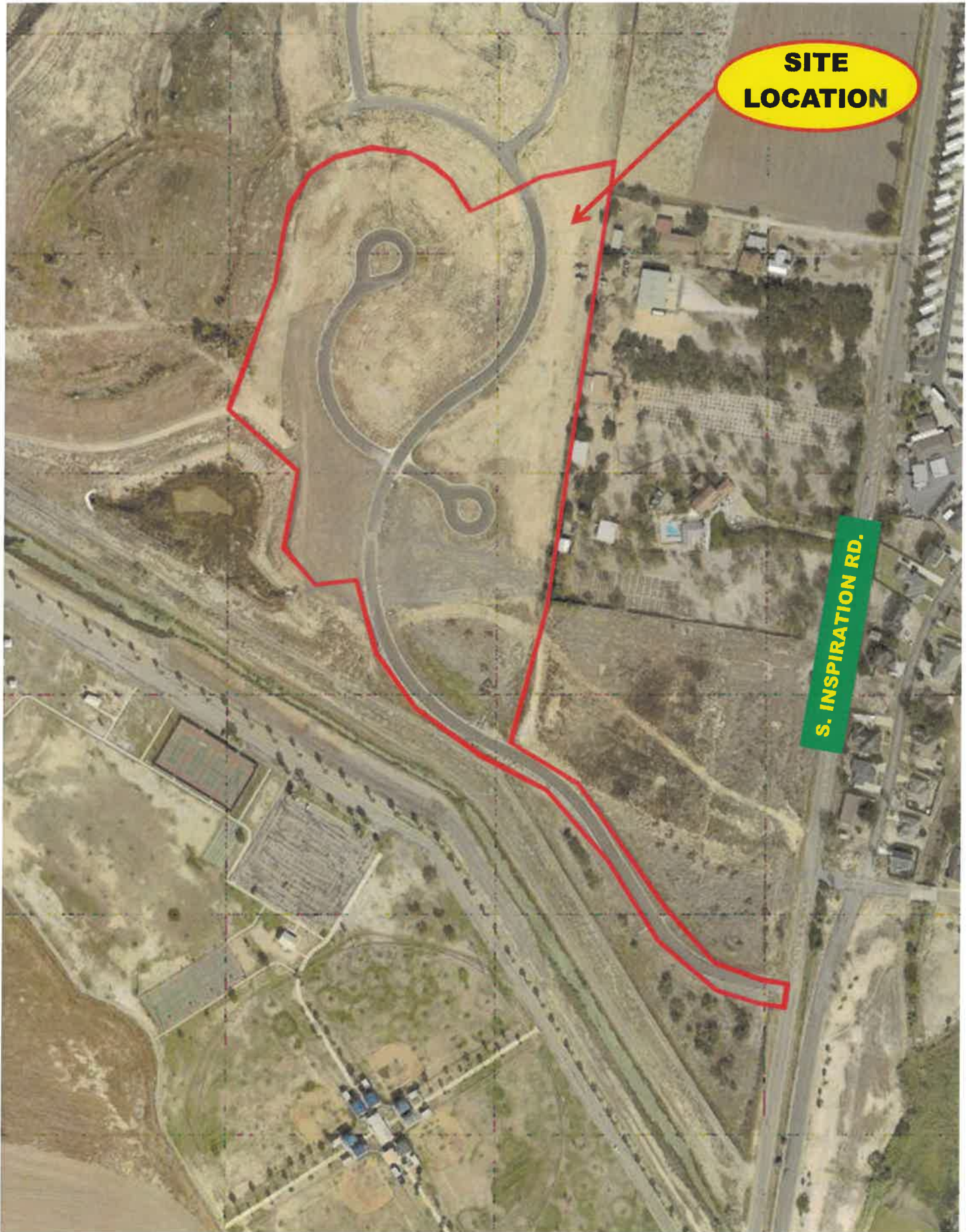
1201 E. 8th. Street  
MISSION, TX 78572

PH: (956) 580-8672  
FAX: (956) 580-8680

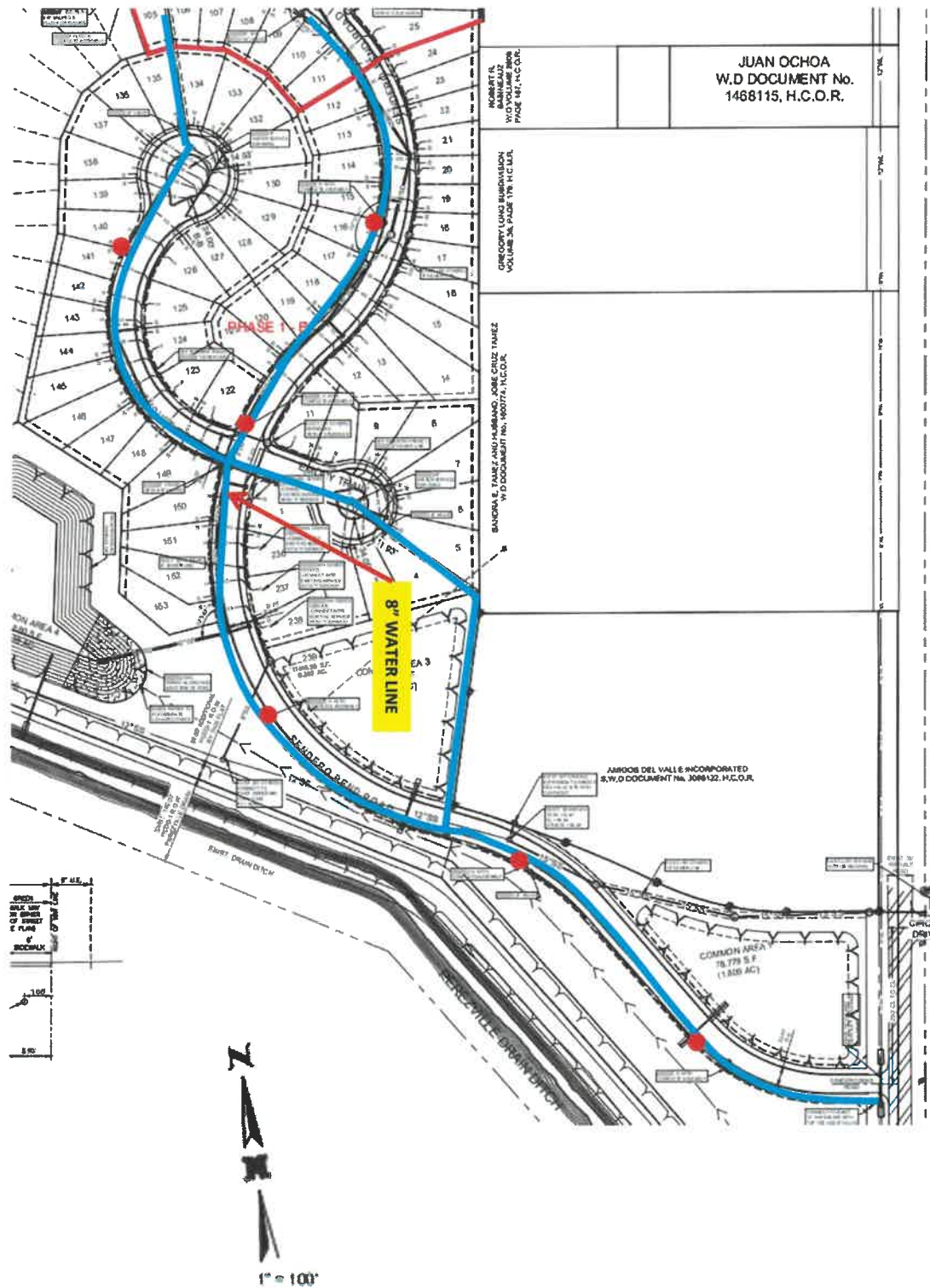
No.

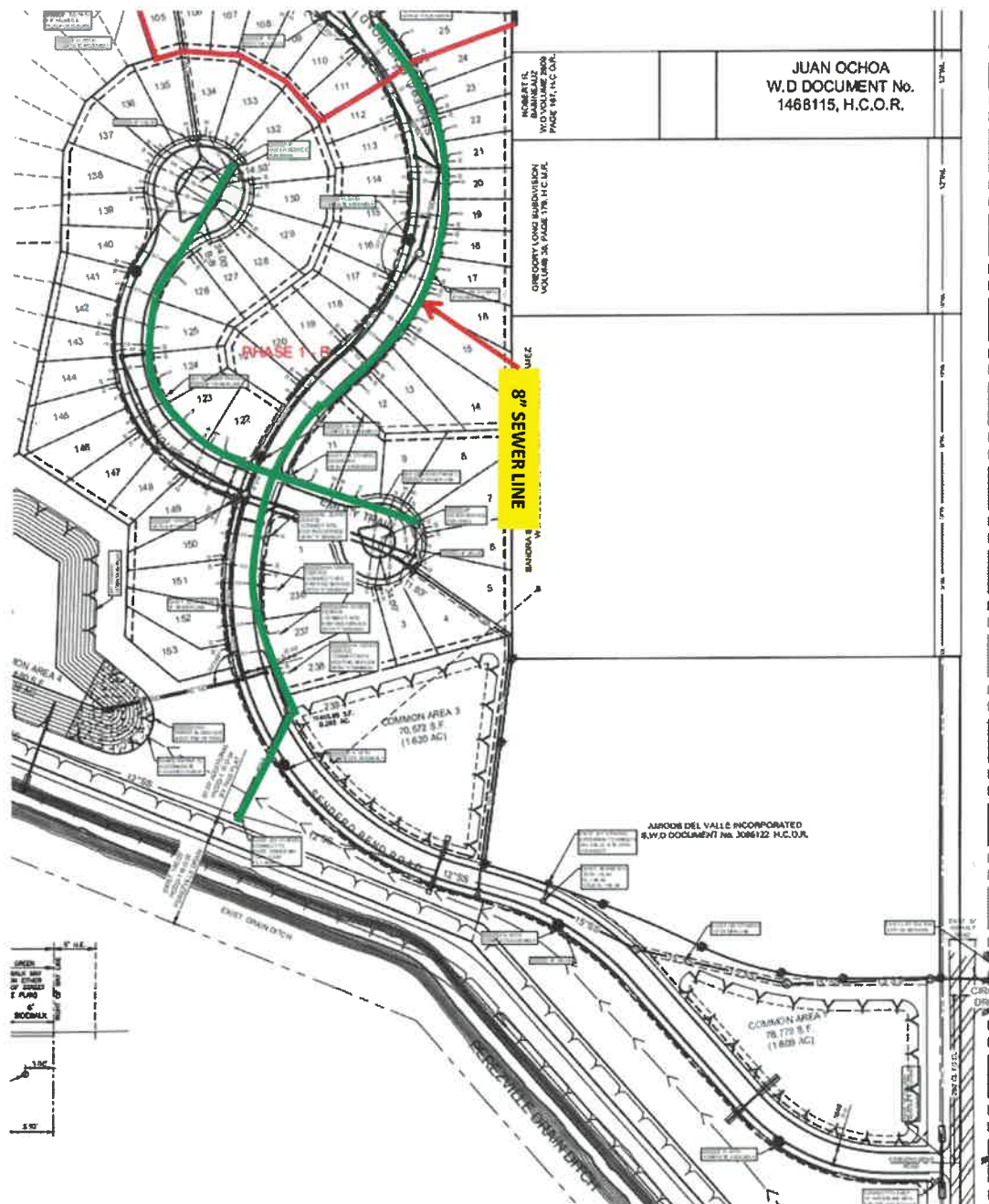
**SITE  
LOCATION**

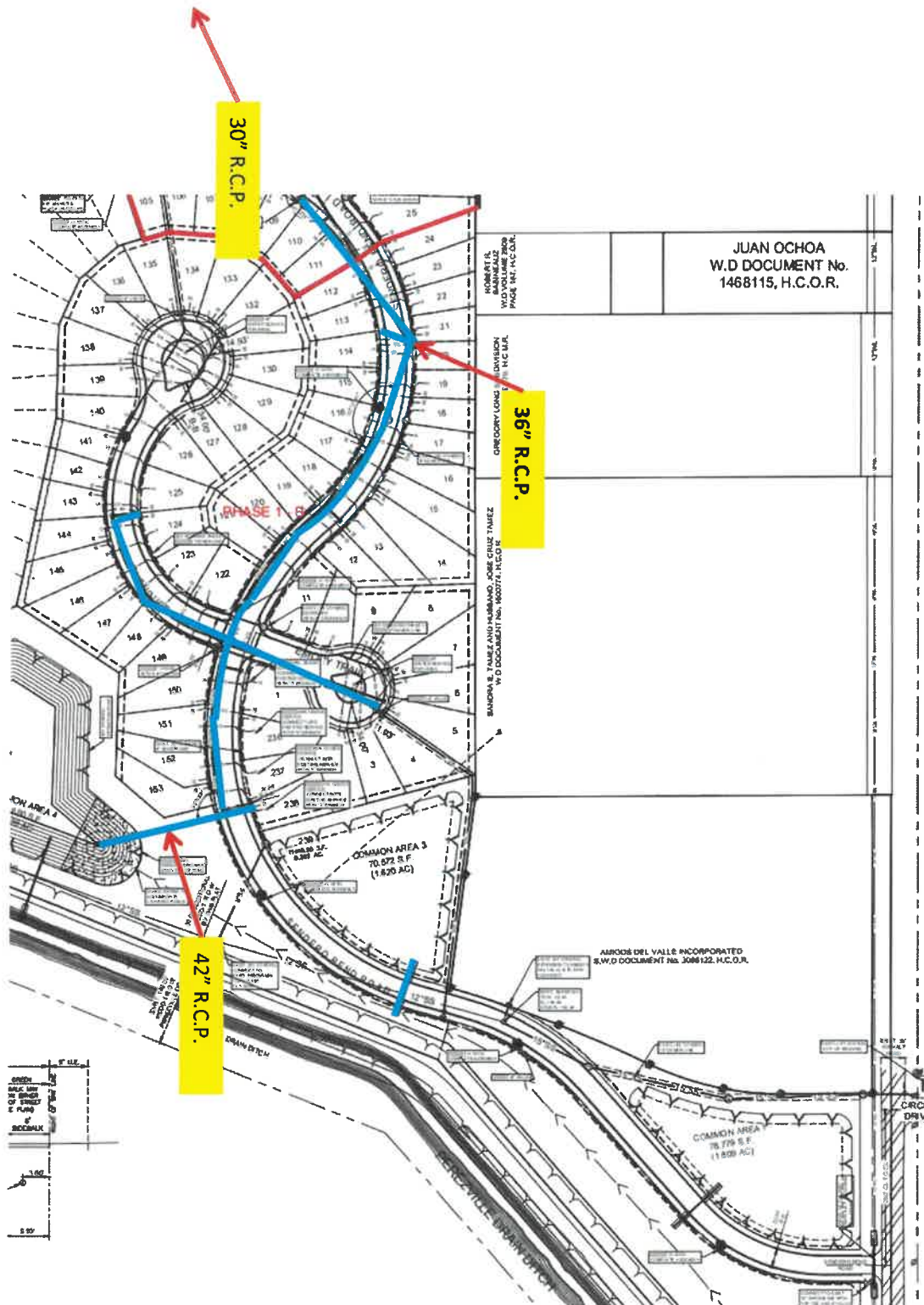
**S. INSPIRATION RD.**















TBPELS Firm # F-1435  
TBPELS # 10096900

# MELDEN & HUNT INC.

CONSULTANTS • ENGINEERS • SURVEYORS

MARIO A. REYNA • ALLAN F. BOOE • ROBERTO N. TAMEZ • RUBEN JAMES DE JESUS • MICHAEL HERNANDEZ

## **DRAINAGE STATEMENT SENDERO PHASE I B SUBDIVISION Job No.: 22123**

**SENDERO PHASE I B SUBDIVISION** is a resubdivision of 17.090 acres of land being a part out of the south end of Porcion 52, in the City of Mission, County of Hidalgo, Texas. The tract is currently vacant with a proposed land use of 70 residential lots. This property is located mostly in Zone "B" and partially in Zone "AH" on FEMA's Flood Insurance Rate Map, Community Panel No. 480334 0400 C Map Revised: November 16, 1982. Zone "B" is defined as areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot, or where the contributing drainage area is less than one (1) square mile; or areas protected by levees from the base flood (medium shading). Zone "AH" is defined as areas of 100-year shallow flooding where depths are between one(1) and three(3) feet; base flood elevation has been determined to be , but no flood hazard factors are determined.

The soils in this area are (25) Hidalgo fine sandy loam "B" rating, (28) Hidalgo sandy clay loam with "B" rating, For the purpose of this report we will use rating "B" in Hydrologic Group Soils. Hidalgo Sandy clay loam has moderate infiltration rate when thoroughly wet. This soil consist chiefly of moderate fine texture to moderate coarse texture and has a moderate rate of water transmission (56) Reynosa silty clay loam "C" rating, having a low infiltration rate when thoroughly wet. (See excerpts from "Soil Survey of Hidalgo County, Texas).

Storm runoff on this tract is by surface flow, with a southerly direction. The volume of storm runoff is 10.69 c.f.s. based on the 10-year storm frequency, as per attached calculations. Proposed runoff after development is 66.61 c.f.s., during the 100-year storm frequency, as per the attached calculations, which is an increase of 55.92 c.f.s.

In accordance with the City of Mission's drainage policy, the proposed storm drainage system for this subdivision will consist of multiple curb inlets placed at strategic locations interconnected with storm pipes ranging in size from 24" to 42", see Flow Rate Determination Tables for sizing and design slope. Surface runoff from the lots and the proposed streets will be caught by said inlets and conveyed via said storm lines into a proposed system of detention ponds within a common area along the entire south boundary. Said detention ponds will discharge at a pre-development rate of 6.43 c.f.s. based on the 10-year storm frequency into the Perezville Drain (owned by HCDD-1) adjacent to south side of this property. This development is included in Drainage Basins 26 & 32 of the Bentsen Palms Master Drainage Study (see attached Drainage Area Map). Said Perezville Drain has an ultimate outfall into the Mission Pilot Channel system of the HCDD-1 via a 5'x5' box culvert under the United Main Canal. In accordance with the City's drainage policy, the difference between pre and post development storm runoff shall not increase during the 10-100 year rainfall event... (continued next page)



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Therefore, as per attached calculations, and in accordance to the Approved Master Drainage Plan for the development, the required detention of 78,215 c.f. (1.796 ac-ft) has already been provided within said detention ponds with a design detention capacity of 674,185 c.f. Additionally the widening of the Perezville Drain ditch has been completed as requested by HCDD-1 (see widening detail). The overall master plan has been developed in accordance with City and County requirements.

By:

1-27-25

Mario A. Reyna, P.E.

Date

<input type="checkbox"/> REJECTED	
<input checked="" type="checkbox"/> APPROVED FOR SUBMITTAL	
<input type="checkbox"/> TO H.C. PLANNING DEPT.	
<input checked="" type="checkbox"/> TO CITY	
<input type="checkbox"/> DISCHARGE PERMIT REQUIRED	
<input type="checkbox"/> DISTRICT FACILITY	
<input type="checkbox"/> CITY FACILITY	
<input type="checkbox"/> OTHER	
 H.C.D.D. NO. 1	2-13-25 DATE

