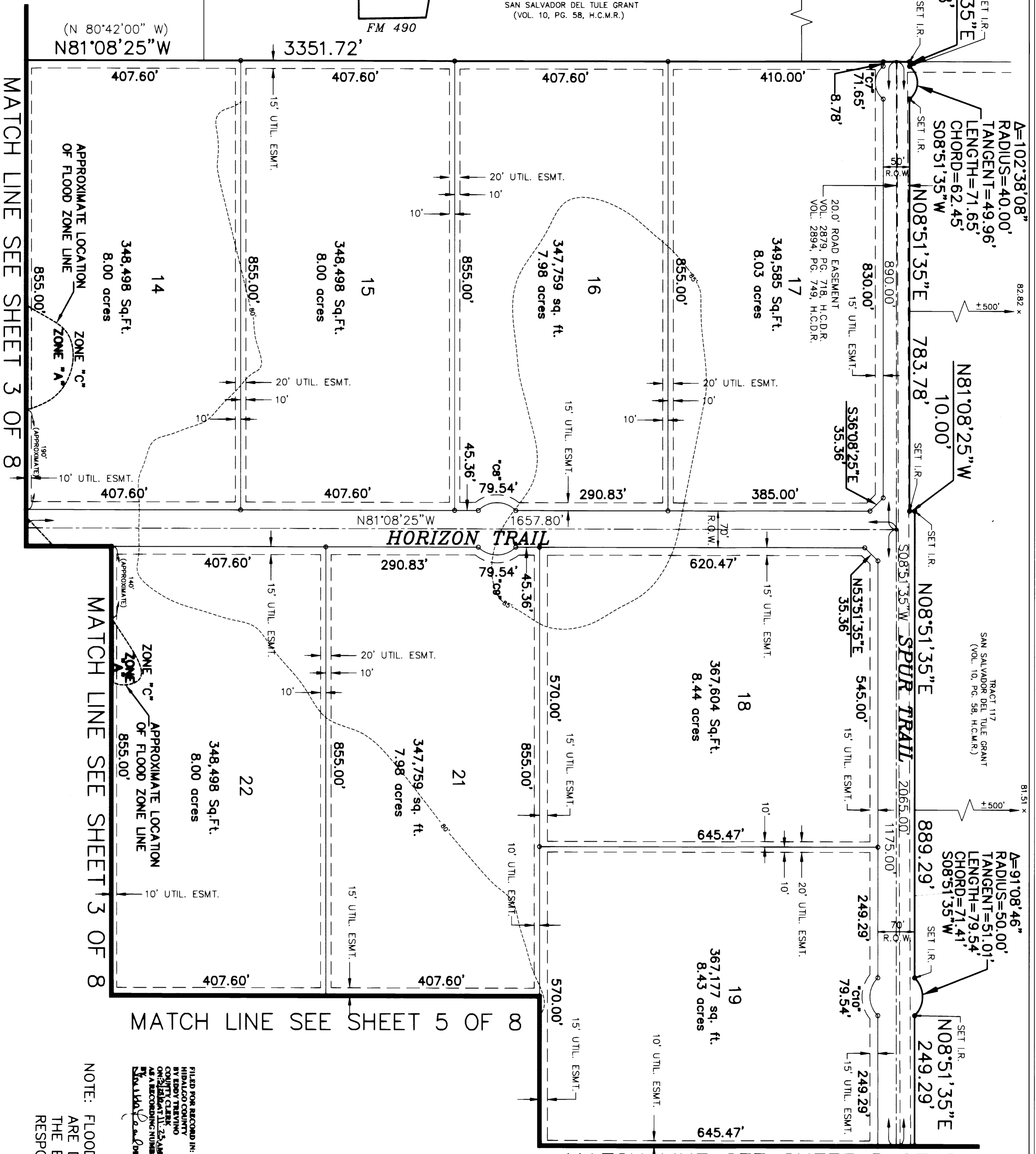




JAVIER HINOJOSA ENGINEERING
CONSULTING ENGINEERS
416 E. DOVE AVENUE McALLEN, TEXAS 78504
PHONE (956) 668-1588

DATE OF PREPARATION: OCTOBER, 2004
DRAWN BY: P.GONZALEZ
CHECKED BY: J.B.G.



MATCH LINE SEE SHEET 3 OF 8

MATCH LINE SEE SHEET 3 OF 8

MATCH LINE SEE SHEET 5 OF 8

MATCH LINE SEE SHEET 5 OF 8

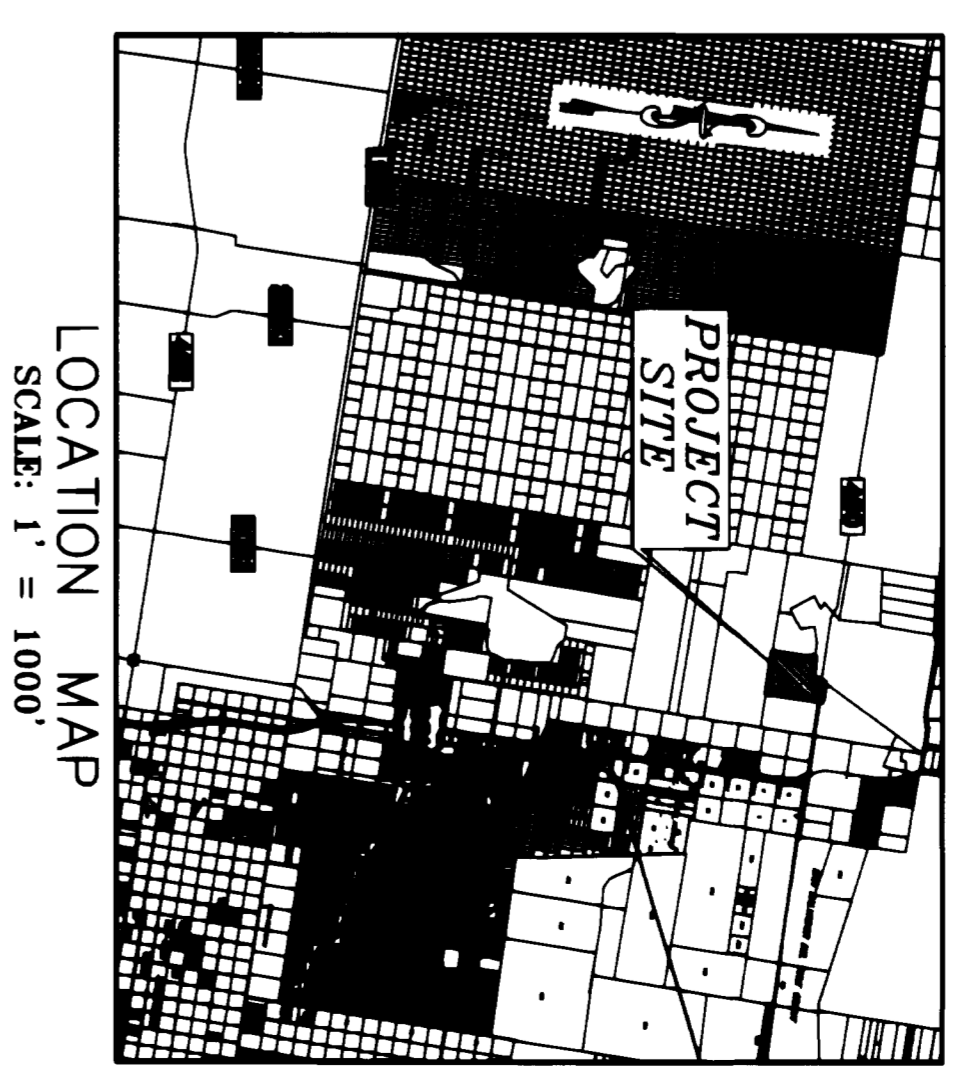
SENDERO TRAILS SUBDIVISION
PHASE I
SHEET 2 OF 8

NOTE: FLOOD ZONE AREAS SHOWN ON THIS PLAN ARE DETERMINED BY GRAPHIC PLOTTING ONLY. THE ENGINEER AND SURVEYOR DO NOT ASSUME RESPONSIBILITY FOR ACCURACY AND EXACT LOCATION.

FILED FOR RECORD IN: HIDALGO COUNTY, TEXAS
COUNTY CLERK: [Signature]
BY: [Signature]
ON: [Date]
AS A RECORDING NUMBER 1855-51
[Signature]

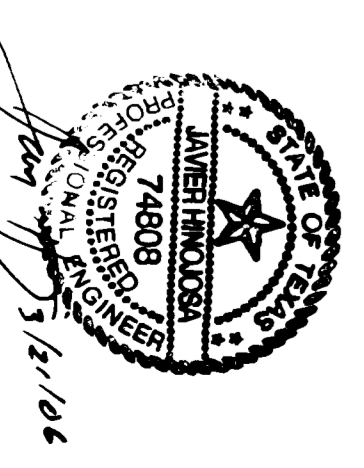
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD
C1*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C2*	26°56'39"	270.00'	63.85'	125.40'	124.28'
C3*	31°41'41"	270.00'	76.64'	149.36'	147.46'
C4*	91°08'46"	200.00'	200.00'	314.16'	282.84'
C5*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C6*	102°38'08"	40.00'	49.98'	71.65'	62.45'
C7*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C8*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C9*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C10*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C11*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C12*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C13*	90°00'00"	200.00'	200.00'	314.16'	282.84'
C14*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C15*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C16*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C17*	91°08'46"	50.00'	51.01'	79.54'	71.41'
C18*	62°57'40"	270.00'	185.33'	296.70'	281.99'

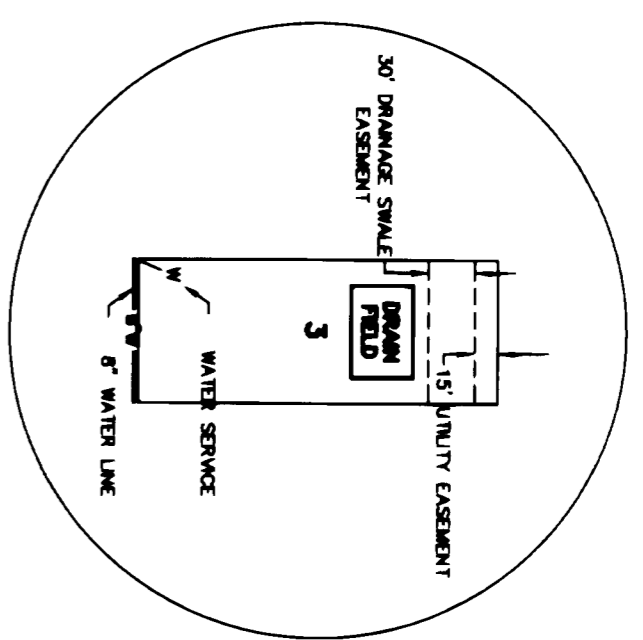
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD
A*	90°00'00"	235.00'	235.00'	369.14'	332.34'



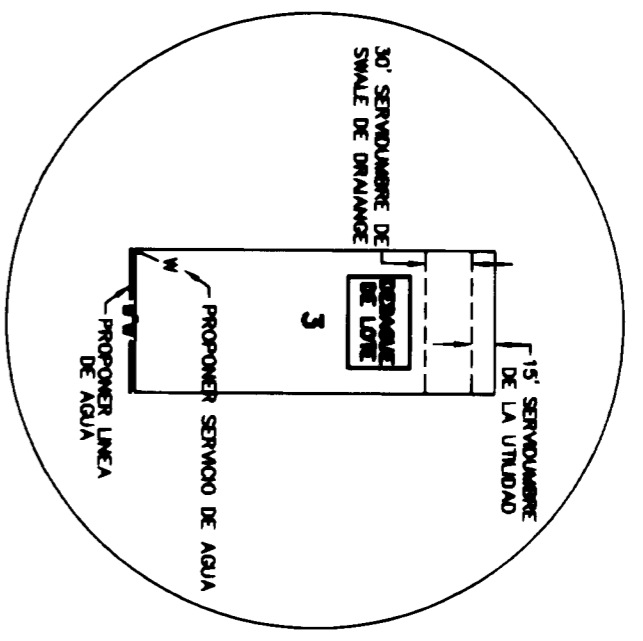
LOCATION MAP
SCALE: 1" = 1000'

SCALE: 1" = 100'
BASIS OF BEARING: AS PER TEXAS STATE PLANE COORDINATES SYSTEM, NAD, SOUTH ZONE

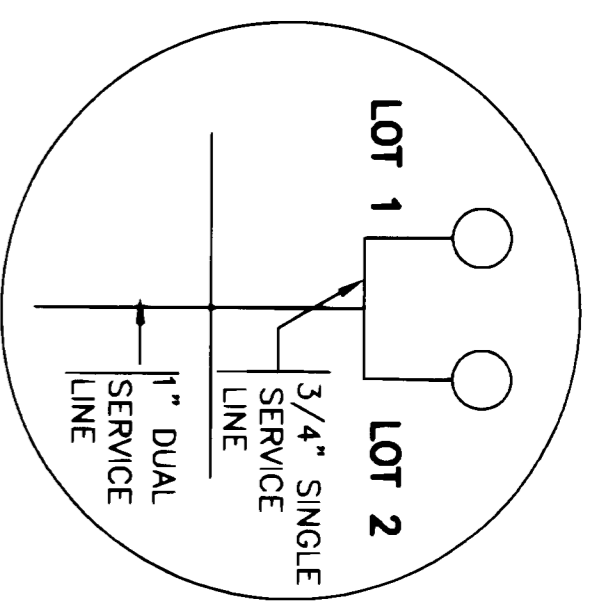




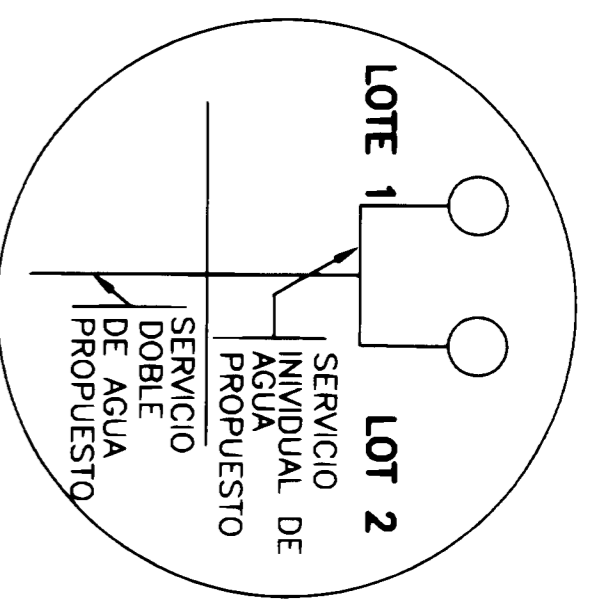
TYPICAL LOT DETAIL



DETALLE TIPICO DE LOTE



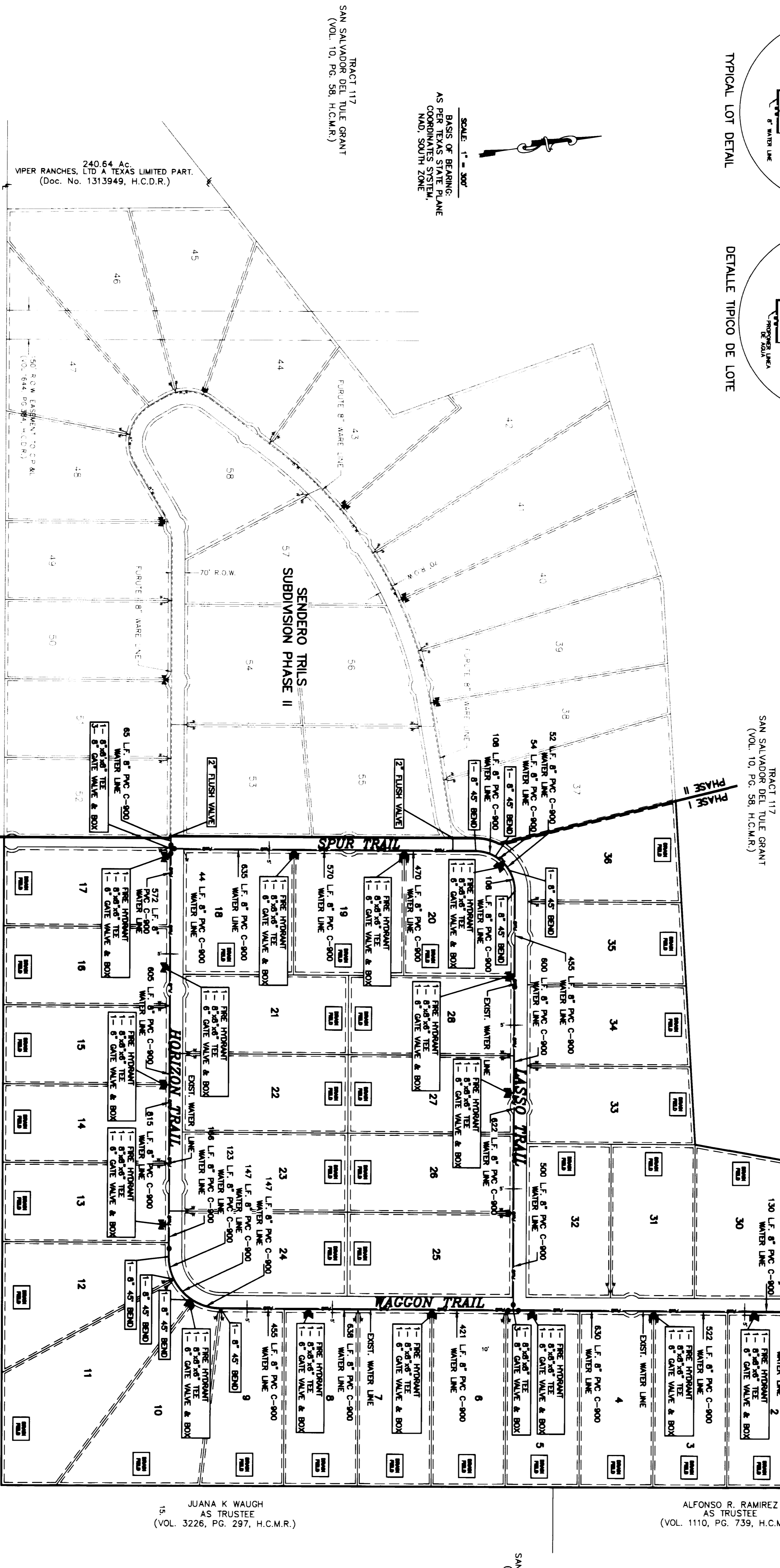
TYPICAL DETAIL OF SERVICE LINES AND WATER METER BOXES



DETALLE TIPICO DE LINEAS DE SERVICIO Y MEDIDOR DE AGUA

LEGEND
○ WATER METER BOX

LEGEND
○ MEDIDOR DE AGUA



TRACT 117
SAN SALVADOR DEL TULE GRANT
(VOL. 10, PG. 58, H.C.M.R.)

SCALE: 1" = 300'
BASIS OF BEARING:
AS PER TEXAS STATE PLANE
COORDINATES SYSTEM,
NAD, SOUTH ZONE

240.64 Ac.
VPPER RANCHES, LTD & A TEXAS LIMITED PART.
(Doc. No. 1313949, H.C.D.R.)

TRACT 117
SAN SALVADOR DEL TULE GRANT
(VOL. 10, PG. 58, H.C.M.R.)

TRACT 117
SAN SALVADOR DEL TULE GRANT
(VOL. 10, PG. 58, H.C.M.R.)

JUANA K WAUGH
AS TRUSTEE
(VOL. 3226, PG. 297, H.C.M.R.)

ALFONSO R. RAMIREZ
AS TRUSTEE
(VOL. 1110, PG. 739, H.C.M.R.)

SENDERO TRAILS SUBDIVISION PHASE I

MAP OF WATER DISTRIBUTION & SEPTIC TANK LOCATIONS

MAPA DE DISTRIBUCION DE AGUA & SISTEMA SEPTICO

SHEET 7 OF 8

FILED FOR RECORD IN:
HERRING COUNTY
RECORD DEPARTMENT
ON 11/25/2004
AS A REFERENCE NUMBER 595251
Stallard & Associates

Reproduced in Volume 50, Page 118
of the map records of Herring
County, Texas
County Clerk
County Check



NOVEMBER 30, 2004

DRAWN BY: JH

CHK: BY

JH JAVIER HINOJOSA ENGINEERING
CONSULTING ENGINEERS
416 E. BONE AVENUE SUITE 100A, TEXAS 75064
PHONE (972) 882-1188

FINAL ENGINEERING REPORT FOR SENDERO TRAILS SUBDIVISION PHASE I
BY JAVIER HINOJOSA, P.E.

WATER SUPPLY: DESCRIPTION, COSTS, AND OPERABILITY DATE:

THE SENDERO TRAILS SUBDIVISION PHASE I IS PROVIDED WITH POTABLE WATER BY THE CITY OF EDINBURG. THE SUBDIVIDER AND THE CITY OF EDINBURG HAVE ENTERED INTO A CONTRACT IN WHICH THE CITY OF EDINBURG HAS PROMISED TO PROVIDE SUFFICIENT WATER TO THE SUBDIVISION FOR AT LEAST THIRTY YEARS AND THE CITY OF EDINBURG HAS PROVIDED THE DOCUMENTATION TO SUFFICIENTLY ESTABLISH THE LONG-TERM QUANTITY AND QUALITY OF THE AVAILABLE WATER SUPPLIES TO SERVE THE FULL DEVELOPMENT OF THIS SUBDIVISION. THE DEVELOPER OF SENDERO TRAILS PHASE I HAS CONSTRUCTED A 12" WATER LINE FRONTING THE LENGTH OF THIS SUBDIVISION ON THE SOUTH SIDE OF F.M. 490 AND AT THE EAST EDGE OF THIS SUBDIVISION ON THE SOUTH SIDE OF THE WEST R.O.W. LINE OF U.S. HWY. 281 IN WHICH THE 12" WATER LINE CROSS TO THE NORTH SIDE OF F.M. 490 AND IT IS CONSTRUCTED FROM APPROXIMATELY 6000 FEET EAST TO THE WEST R.O.W. LINE OF U.S. HWY. 281 IN WHICH THE 12" WATER LINE SUBSIDION PHASE I CONSISTS OF A 8" WATER LINE CONSTRUCTED ON THE EAST R.O.W. LINE OF WAGON TRAIL, AND SPUR TRAIL AND ON THE SOUTH R.O.W. LINE OF LASSO TRAIL, AND HORIZON TRAIL. EACH LOT IS PROVIDED WITH A 1" INCH WATER SERVICE FROM THE 8" DIAMETER WATER LINES. A TOTAL OF 17 ONE-INCH DUAL SERVICE LINES WITH 1" INCH WATER SERVICE CONNECTIONS AND 2 SINGLE 1" INCH SERVICE CONNECTIONS ARE PROVIDED TO SERVE THE 36 LOTS WITHIN THIS SUBDIVISION. THE COST FOR INSTALLATION OF THE 8" AND 12" LINES AND WATER SERVICES IS A TOTAL OF \$369,905.00 OR \$10,275.14 PER LOT. THE SUBDIVIDER HAS IN ADDITION PAID TO THE CITY OF EDINBURG THE SUM OF \$14,625.00 WHICH COVERS THE COST PER LOT FOR THE WATER TAP FEES (INCLUDING INSTALLATION COSTS OF METER AND ALL TAP FEES AND MEMBERSHIP FEES) UPON REQUEST BY THE OWNER OF EACH LOT. THE CITY OF EDINBURG WILL PROMPTLY RESPOND TO ANY CHANGE BY THE OWNER OF EACH LOT. IF EDINBURG WILL NOT PROMPTLY RESPOND TO ANY CHANGE BY THE OWNER OF EACH LOT, THEN THE CITY OF EDINBURG WILL BE RESPONSIBLE FOR ALL COSTS OF THE WATER SERVICE FROM THE CITY OF EDINBURG TO THE CITY OF EDINBURG. THE CITY OF EDINBURG WILL PROCEED TO INSTALL THE WATER METER ON THE LOT. IN ANY EVENT, ALL THE WATER METERS SHALL BE INSTALLED ALL WILL BE OPERABLE ON OR BEFORE FEBRUARY 20, 2009. ALL WATER TRANSMISSION LINES SERVING THE SUBDIVISION ARE OPERABLE AS OF FEBRUARY 20, 2006.

SEWAGE FACILITIES: DESCRIPTION, COSTS, AND OPERABILITY DATE:

SEWAGE FROM THE SENDERO TRAILS SUBDIVISION PHASE I WILL BE TREATED BY INDIVIDUAL ON-SITE SEWAGE FACILITIES (OSSF) CONSISTING OF A STANDARD DESIGN SANDY LOAM CONSERVATION SERVICE SOIL SURVEY BOOK INDICATED A SANDY SOIL. THE SOILS EVALUATOR HAS CALCULATED THE SUITABILITY OF THE SUBDIVISION SITE OF OSSF AND SUBMITTED A REPORT CONCLUDING THAT THE SITE IS SUITABLE FOR OSSF. THE REPORT WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT. HIGHLIGHTS OF THE REPORT ARE AS FOLLOWS:

EACH LOT IN THE PROPOSED SUBDIVISION IS AT LEAST 1/2 ACRE IN SIZE. THE USDA SOIL CONSERVATION SERVICE SOIL SURVEY BOOK INDICATED A FINE SANDY LOAM. THE SOILS EVALUATOR PERFORMED 36 SOIL ANALYSIS FOR THIS SUBDIVISION. THE OSSF ARE NOT IN THE 100 YEAR FLOODPLAIN. THE ESTIMATED COST TO INSTALL A SEPTIC SYSTEM ON AN INDIVIDUAL LOT IS \$1,000.00, INCLUDING THE COSTS FOR THE REQUIRED PERMIT AND LICENSE. NO OSSF HAVE BEEN INSTALLED AT THE TIME OF PREPARATION OF THIS REPORT. THE SUBDIVIDER WILL BE RESPONSIBLE FOR OBTAINING THE PERMIT AND LICENSE FROM THE HIDALGO COUNTY TO COVER THE TOTAL SEPTIC SYSTEM COSTS OF \$36,000.00. THE SUBDIVIDER WILL INCLUDE THE COST OF A SEPTIC SYSTEM IN THE SALES PRICE OF EACH LOT. AT ANY TIME AFTER A PARTICULAR LOT IS SOLD, THE PURCHASER MAY INITIATE INSTALLATION OF A SEPTIC SYSTEM BY WRITING OR CALLING THE SUBDIVIDER AND APPLICATION FOR A PERMIT TO CONSTRUCT A SEPTIC SYSTEM IF ON A LOT BELONGING TO THE SUBDIVIDER NO SEPTIC SYSTEM HAS BEEN INSTALLED AS OF JANUARY 01, 2009 THEN THE SUBDIVIDER WILL OBTAIN THE PROPER PERMIT AND INSTALL A SEPTIC SYSTEM BY FEBRUARY 20, 2009. IF ON A LOT BELONGING TO SOMEONE OTHER THAN THE SUBDIVIDER NO SEPTIC SYSTEM HAS BEEN INSTALLED AS OF JANUARY 01, 2009 THEN THE SUBDIVIDER WILL FIRST REMIND THE LOT OWNER OF THE AVAILABILITY OF THE SEPTIC SYSTEM. IF THE LOT OWNER DOES NOT OBTAIN THE PERMIT TO CONSTRUCT A SEPTIC SYSTEM BY FEBRUARY 20, 2009, THEN THE SUBDIVIDER WILL EXERCISE HIS/HER RETAINED RIGHT OF ENTRY AND HIS/HER OBTAINED POWER OF ATTORNEY SO THAT HE/SHE MAY INSTALL THE SEPTIC SYSTEM IN ANY EVENT. THE SEPTIC SYSTEM WILL BE INSTALLED ON THE LOT BY FEBRUARY 20, 2009.

CERTIFICATION

BY MY SIGNATURE BELOW, I CERTIFY THAT THE WATER AND SEWAGE SERVICE FACILITIES DESCRIBED ABOVE ARE IN COMPLIANCE WITH THE MODEL RULES ADOPTED UNDER SECTION 16.343, WATER CODE. I CERTIFY THAT THE ESTIMATED COSTS TO INSTALL THE WATER AND SEWAGE FACILITIES DISCUSSED ABOVE, ARE AS FOLLOWS:

WATER FACILITIES - THESE FACILITIES WILL BE FULLY CONSTRUCTED UPON FINAL PLAN APPROVAL, EXCEPT FOR INSTALLATION OF WATER METERS, AT A COST OF \$369,905.00. THE SUBDIVIDER HAS ALSO PAID A TOTAL OF \$14,625.00 TO THE CITY OF EDINBURG TO COVER THE COSTS OF INSTALLATIONS OF WATER METERS. SEWAGE FACILITIES - SEPTIC SYSTEMS ARE ESTIMATED TO COST \$1,000.00 PER LOT (ALL INCLUSIVE), FOR A TOTAL OF \$36,000.00 FOR THE SUBDIVISION.

JAVIER HINOJOSA, P.E., #74808 DATE

REPORTE DE INGENIERIA DE SENDERO TRAILS SUBDIVISION PHASE I
BY JAVIER HINOJOSA, P.E.

ABASTECIMIENTO DE AGUA: DESCRIPCION, COSTOS Y FECHA DE OPERABILIDAD

LA SUBDIVISION SENDERO TRAILS FASE I SERA ABASTECIDA CON AGUA POTABLE POR PARTE DE LA CIUDAD DE EDINBURGO. LA PERSONA ENCARGADA O DUEÑO DE LA SUBDIVISION Y LA CIUDAD DE EDINBURGO HAN HECHO UN CONTRATO EN EL CUAL LA CIUDAD DE EDINBURGO SE COMPROMETE A ABASTECER CON SUFICIENTE AGUA A LA SUBDIVISION POR LO MENOS 30 AÑOS. LA CIUDAD DE EDINBURGO HA PROPORCIONADO LA DOCUMENTACION QUE ESTABLECE LA CANTIDAD Y CALIDAD DE ABASTECIMIENTO DE AGUA A LARGO PLAZO PARA SERVIR EL COMPLETO DESARROLLO DE ESTA SUBDIVISION. EL CONSTRUCTOR DE SENDERO TRAILS SUBDIVISION PHASE I HA CONSTRUIDO UNA LINEA DE AGUA DE 12" A LO LARGO DEL FRONTE DE ESTA SUBDIVISION EN LA PARTE QUE DA A F.M. 490 EN EL LADO SUR EN LA ESQUINA ESTE DE ESTA SUBDIVISION EN LA PARTE QUE DA A F.M. 490 NORTE Y CONTINUA HACIA EL ESTE 800 PIES HASTA EL DERECHO DE VA DEL CRUZO HACIA EL NORTE Y CONTINUA HACIA EL ESTE EN UNA LINEA DE 8" A LA CUAL SE CONECTARA EL SISTEMA DE AGUA DE SENDERO TRAILS SUBDIVISION PHASE I CONSISTE EN UNA LINEA DE 8" CONECTADA EN EL CADA ESTE DEL ABASTECIMIENTO DE AGUA DE 12" DE DIAMETRO. UN TOTAL DE 17 LOTES DE AGUA SERAN SERVIDOS CON SERVICIO DE AGUA DE 1" DE DIAMETRO. UN TOTAL DE 17 LOTES SERAN ABASTECIDOS CON SERVICIOS INDIVIDUALES DE 1" DE DIAMETRO. EN TOTAL SERAN 36 LOTES SERAN ABASTECIDOS DE AGUA PARA ESTA SUBDIVISION. EL COSTO POR LAS LINEAS DE 8" Y 12" POR LOTE EL DUEÑO DEBERA PAGAR ADICIONALMENTE A LA CIUDAD DE EDINBURGO LA SUMA DE \$14,625.00 LO CUAL CUBRE EL COSTO POR LOTE Y LOS SERVICIOS DE AGUA (INCLUYENDO EL COSTO DE INSTALACION MEDIDORES Y TUBOS LAS CUBIERTAS DE MEMBRERA) SOBRE EL REQUERIMIENTO DE EL DUEÑO DEL LOTE. LA CIUDAD DE EDINBURG INMEDIATAMENTE INSTALARA SIN CARGO ALGUNO EL MEDIDOR DEL AGUA PARA ESTE LOTE. SI EL DUEÑO NO HA REQUERIDO LA INSTALACION PARA EL FEBRERO 20, DEL 2009, LA CIUDAD DE EDINBURG PROCEDERA A INSTALAR EL MEDIDOR EN EL LOTE. EN CUALQUIERA DE LOS CASOS, TODOS LOS MEDIDORES E INSTALACIONES DE AGUA ESTARAN OPERABLES PARA O ANTES DE 20 DE FEBRERO DEL AÑO 2009. TODAS LAS LINEAS DE TRANSMISION QUE SIRVEN A ESTA SUBDIVISION ESTARAN OPERANDO DESDE 20, DE FEBRERO DEL 2006.

AGUAS RESIDUALES: DESCRIPCION, COSTOS Y FECHA DE OPERABILIDAD

LAS AGUAS RESIDUALES DE SENDERO TRAILS SUBDIVISION FASE II SERAN TRATADAS INDIVIDUALMENTE EN CADA LOTE CONSISTIENDO DE UN TANQUE O FOSA SEPTICA DE DISEÑO ESTANDAR DE DOBLE COMPARTIMIENTO Y UN AREA DE DRENAJE PARA CADA LOTE (OSSF). EL INGENIERO HA EVALUADO LA DISPONIBILIDAD DE LA SUBDIVISION PARA OSSF Y HA ENTREGADO UN REPORTE CONCLUYENDO QUE EL LUGAR ES APTO PARA OSSF. EL REPORTE FUE REVISADO Y APROBADO POR EL DEPARTAMENTO DE SALUD AMBIENTAL DEL CONDADO DE HIDALGO. LOS DETALLES SON LOS SIGUIENTES:

CADA LOTE EN LA SUBDIVISION PROPUUESTA CUENTA POR LO MENOS CON 1/2 ACRE (0.202343 HECTAREAS), DE ACUERDO CON EL LIBRO DE ESTUDIO DEL CONDADO DE HIDALGO TEXAS, Y TIENE DE 3.00 A 12.00 PIES DE ANCHURA EN LA LINEA DE FRONTERA DEL LOTE. EL TIPO DE SUELO EN LA LINEA DE FRONTERA DEL LOTE ES DEL TIPO SANDY LOAM. EL EVALUADOR DE TIERRA TIPO 36 MUESTRAS PARA ANALISIS. EL OSSF NO SE ENCUENTRA DENTRO DEL AREA DE INUNDACION A 100 AÑOS. EL COSTO ESTIMADO PARA INSTALAR UN TANQUE SEPTICO EN CADA UNO DE LOS LOTES ES DE \$1000.00, INCLUYENDO LOS COSTOS POR EL PERMISO Y LA LICENCIA REQUERIDOS. NINGUN OSSF SE HA INSTALADO HASTA EL TIEMPO DE LA APLICACION O APROBACION FINAL DEL PLANO DE LA SUBDIVISION. LA PERSONA ENCARGADA O DUEÑO DE LA SUBDIVISION FACILITARA UNA FINANZA O UNA CARTA DE CREDITO AL TIEMPO DEL PROCESO DEL PLANO FINAL, CON EL CONDADO DE HIDALGO PARA CUBRIR EL COSTO TOTAL DEL SISTEMA SEPTICO DE \$36,000.00. CADA PERSONA INCLUIRA EL COSTO DEL SISTEMA SEPTICO EN EL PRECIO DE CADA LOTE. EL CONSTRUCTOR PODRA INICIAR LA INSTALACION DEL SISTEMA SEPTICO YA SEA ESCRIBIENDO O LLAMANDO A LA PERSONA ENCARGADA O DUEÑO DE LA SUBDIVISION, Y LUEGO APLICANDO CON EL DEPARTAMENTO DE SALUD DEL CONDADO DE HIDALGO POR UN PERMISO PARA CONSTRUIR UN SISTEMA SEPTICO. EN EL CASO DE QUE UN LOTE PERTENEZCA AL SUBDIVIDOR Y DE QUE EL SISTEMA SEPTICO NO HAYA SIDO INSTALADO PARA EL 01 DE ENERO DEL AÑO 2009, ENTONCES EL SUBDIVIDOR OBTENDRA EL PERMISO CORRESPONDIENTE E INSTALARA UN SISTEMA SEPTICO PARA EL 20 DE FEBRERO DEL 2009, SI UN LOTE PERTENEZCA A UNA PERSONA A PARTE DEL SUBDIVIDOR Y NO HA INSTALADO UN SISTEMA SEPTICO PARA EL 01, ENERO DEL 2009, ENTONCES EL DUEÑO DE LA SUBDIVISION RECORDARA AL ACTUAL DUEÑO DEL LOTE DE LA DISPONIBILIDAD DE UN SISTEMA SEPTICO, AL MENOS DE QUE EL ACTUAL DUEÑO DEL LOTE INDIQUE INMEDIATAMENTE LA INSTALACION DEL SISTEMA SEPTICO NOTIFICANDO AL DUEÑO DE LA SUBDIVISION Y APLICANDO POR EL PERMISO PARA CONSTRUIR EL SISTEMA. EL DUEÑO DE LA SUBDIVISION EJERCERA SU PODER OBTENIDO DE UN LOS ABOGADO PARA QUE PUEDA INSTALAR EL SISTEMA SEPTICO EN CUALQUIERA DE LOS CASOS. EL SISTEMA SEPTICO SERA INSTALADO EN CADA LOTE PARA EL 20 DE ENERO DEL AÑO 2009.

CERTIFICACION:

POR MEDIO DE LA PRESENTE CERTIFICO QUE LOS SERVICIOS DE AGUA Y DRENAJE SANITARIO DESCritos ANTERIORMENTE CUMPLAN CON LAS REGLAS Y MODELO APROPIADOS BAJO LA SECCION 16.343 DEL CODIGO DE AGUA.

CERTIFICO QUE LOS COSTOS ESTIMADOS PARA INSTALAR LOS SERVICIOS DE AGUA SUBTERRANEA Y DRENAJE SANITARIO EN CADA UNO DE LOS LOTES (OSSF), DISCUSIDOS ANTERIORMENTE SON DE LA SIGUIENTE MANERA. AGUA - EL SISTEMA ESTARA TOTALMENTE CONSTRUIDO DESPUES DE LA APROBACION DEL PLANO FINAL, EXCEPTO LA INSTALACION DE MEDIDORES A UN COSTO DE \$369,905.00. LA PERSONA ENCARGADA O DUEÑO DE LA SUBDIVISION HA TAMBIEN PAGADO UN TOTAL DE \$14,625.00 A LA CIUDAD DE EDINBURGO PARA CUBRIR LOS GASTOS DE INSTALACION DE SERVICIOS DE AGUA DRENAJE SANITARIO - EL SISTEMA SEPTICO TIENE UN COSTO ESTIMADO DE \$1000.00 POR LOTE (TODOS INCLUIDO), CON UN TOTAL DE \$36,000.00 POR LA SUBDIVISION.

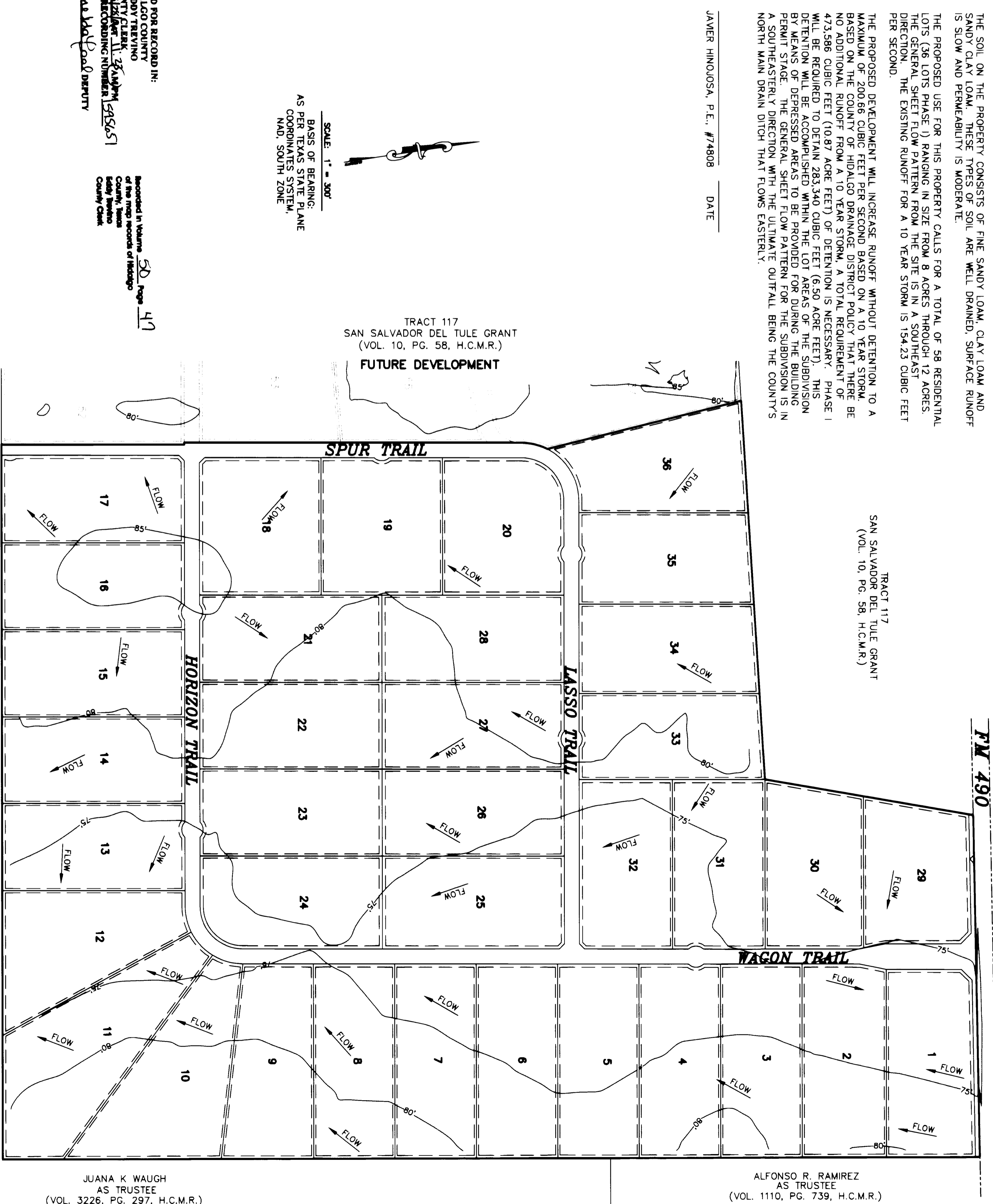
JAVIER HINOJOSA, P.E., #74808 DATE

DRAINAGE REPORT
SENDERO TRAILS SUBDIVISION PHASE I

THE SENDERO TRAILS SUBDIVISION PHASE I AND II ARE A 524.60 ACRE TRACT LOCATED ON SOUTH SIDE OF F.M. 490 APPROXIMATELY 1.1 MILES WEST OF U.S. HIGHWAY 281. PHASE I CONSISTS OF 313.88 ACRES. THE SITE IS PRESENTLY UTILIZED FOR AGRICULTURAL PURPOSES. THE PROPERTY IS LOCATED WITHIN ZONE I AND ZONE II. THE PROPERTY IS LOCATED WITHIN FLOOD INSURANCE RATE BASE ZONE I AND ZONE II. THE FLOOD INSURANCE RATE BASE ZONE I AND ZONE II ARE 100 YEAR FLOOD PLAIN AREAS. THE ELEVATION FOR THE AREA NEAR F.M. 490 ELEVATION 76.00 FOR THE TWO AREAS SOUTH OF THE ABOVEMENTIONED ELEVATION 74.00 AND ELEVATION 86.00 FOR THE AREA ON THE WEST END OF THE PROPERTY.

THE SOIL ON THE PROPERTY CONSISTS OF FINE SANDY LOAM, CLAY LOAM AND SANDY CLAY LOAM. THESE TYPES OF SOIL ARE WELL DRAINED. SURFACE RUNOFF IS SLOW AND PERMEABILITY IS MODERATE. THE PROPOSED USE FOR THIS PROPERTY CALLS FOR A TOTAL OF 36 RESIDENTIAL LOTS (36 LOTS PHASE I) RANGING IN SIZE FROM 8 ACRES THROUGH 12 ACRES. THE GENERAL SHEET FLOW PATTERN FROM THE SITE IS IN A SOUTHEAST DIRECTION. THE EXISTING RUNOFF FOR A 10 YEAR STORM IS 194.23 CUBIC FEET PER SECOND. THE PROPOSED DEVELOPMENT WILL INCREASE RUNOFF WITHOUT DETENTION TO A MAXIMUM OF 200.66 CUBIC FEET PER SECOND BASED ON A 10 YEAR STORM. BASED ON THE COUNTY OF HIDALGO DRAINAGE DISTRICT POLICY THAT THERE BE NO ADDITIONAL RUNOFF FROM A 10 YEAR STORM, A TOTAL REQUIREMENT OF 473,586 CUBIC FEET (10.87 ACRE FEET) OF DETENTION IS NECESSARY. PHASE I WILL BE REQUIRED TO DETAIN 283,340 CUBIC FEET (6.50 ACRE FEET). THIS DETENTION WILL BE ACCOMPLISHED WITHIN THE LOT AREAS OF THE SUBDIVISION BY MEANS OF DEPRESSED AREAS TO BE PROVIDED FOR DURING THE BUILDING PERMIT STAGE. THE GENERAL SHEET FLOW PATTERN FOR THE SUBDIVISION IS IN A SOUTHEASTERNLY DIRECTION WITH THE ULTIMATE OUTFALL BEING THE COUNTY'S NORTH MAIN DRAIN DITCH THAT FLOWS EASTERLY.

JAVIER HINOJOSA, P.E., #74808 DATE



FILED FOR RECORD IN:
HIDALGO COUNTY
BY EDDY TRAVINO
COUNTY CLERK
ON 12/21/09 AT 3:30 PM
AS A RECORDING NUMBER 995657
Javier Hinojosa, P.E. DEPUTY

SCALE: 1" = 300'
BASIS OF BEARING:
AS PER TEXAS STATE PLAIN
COORDINATES SYSTEM,
NAD, SOUTH ZONE

SHEET 6 OF 8



SENDERO TRAILS SUBDIVISION PHASE I

MAP OF TOPOGRAPHY/MAPA DE TOPOGRAPHIA
FINAL ENGINEERING REPORT/REPORTE DE INGENIERIA
JAVIER HINOJOSA ENGINEERING
CONSULTING ENGINEERS
418 E. DOVE AVENUE, WAXAHACH, TEXAS 75064
PHONE: (940) 966-1588