



HIDALGO COUNTY PLANNING DEPARTMENT

1304 SOUTH 25TH STREET
EDINBURG TEXAS 78539
Tel. 956-318-2840 Fax. 956-318-2844

T.J. Arredondo, CFM
Director of Planning

HIDALGO COUNTY COMMISSIONERS COURT MEETING

DATE: 11-22-2016

PROPOSED SAN MARTIN NO. 1 SUBDIVISION, PRECINCT No. 1.

ENGINEER: QUINTANILLA, HEADLEY & ASSOCIATES DEVELOPER: BUENA TIERRA DEV., INC.

PRELIMINARY APPROVAL FINAL APPROVAL FINAL APPROVAL WITH FINANCIAL GUARANTEE WITH VARIANCE
NUMBER OF LOTS: 67 *SINGLE FAMILY *MULTI-FAMILY COMMERCIAL INSTITUTIONAL

LOCATION DESCRIPTION: SOUTH OF CANTON ROAD APPROXIMATELY 200 FEET EAST OF VALVERDE ROAD[F.M. 1423].

SUBDIVISION LIES WITHIN THE: ETJ of DONNA and was approved by the P & Z and City Commission of said City

DRAINAGE REPORT WAS APPROVED BY HCDD#1: ON 3-22-2016 PROPERTY LIES WITHIN FLOOD ZONE: " C " AS PER FEMA.

DRAINAGE DESIGN: DRAINAGE WILL BE PROVIDED BY STORM DRAINAGE PIPE SYSTEM AND DETENTION WILL BE PROVIDED BY WIDENING THE EXISTING DRAIN DITCH LOCATED SOUTH OF THE PROPOSED SUBDIVISION DEVELOPMENT.

ROAD R.O.W. DEDICATION: 20.00 FEET ONTO CANTON ROAD.

H.C.R.O.W. FINAL APPROVAL DATE: 11-02-2016 By, ROY GONZALEZ, PCT. 1 R.O.W. AGENT

H.C.H.D. FINAL APPROVAL DATE: 11-04-2016 By, ELIZARDO "CHARDO" RAMOS Environmental Health Division Manager

SEWER SYSTEM: OSSF HAVE BEEN INSTALLED AND INSPECTED BY HCHD.

WATER SERVICE PROVIDER: NAWSC LINE SIZE: 12" LOCATION: VALVERDE ROAD.

H.C.O.E.C. FINAL APPROVAL DATE: 11-04-2016 : By MARTIN RAMIREZ Environmental Compliance Coordinator

LARGE CONSTRUCTION

The applicant has submitted the required NOI as per Part II, Section E of the TPDES General Permit for Construction Activities (TXR150000) along with a copy of the Erosion Control Plan for the proposed project.

PRELIMINARY APPROVAL FROM THE
HIDALGO COUNTY COMMISSIONERS COURT ON: APRIL 26, 2016

STAFF RECOMMENDS: Preliminary Approval subject to comments and future recommendations by planning, other departments and the approval of the City of DONNA.

Final Approval subject to recommendations other departments

This subdivision plat has been reviewed and complies with the Hidalgo County Subdivision Rules,

** Texas Water Development Board Model Subdivision Rules and The Texas Local Government Code.*

SAN MARTIN SUBDIVISION No. 1

A 42.91 ACRE TRACT OF LAND BEING THE WEST HALF OF BLOCK 43 AND THE EAST 22.91 ACRES OF BLOCK 44, HILL-HALBERT SUBDIVISION, HIDALGO COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN VOLUME 1, PAGE 35, MAP RECORDS, HIDALGO COUNTY, TEXAS, AND ACCORDING TO WARRANTY DEED RECORDED UNDER COUNTY CLERK'S DOCUMENT NUMBER 1974434, OFFICIAL RECORDS, HIDALGO COUNTY, TEXAS.

FINAL ENGINEERING REPORT FOR SAN MARTIN SUBDIVISION No. 1:
BY ALFONSO QUINTANILLA, P.E.

WATER SUPPLY: Description and Costs.

SAN MARTIN SUBDIVISION No. 1 WILL BE PROVIDED WITH POTABLE WATER BY THE NORTH ALAMO WATER SUPPLY CORPORATION (N.A.W.S.C.). THE SUBDIVIDER AND N.A.W.S.C. HAVE ENTERED INTO A CONTRACT IN WHICH N.A.W.S.C. HAS PROMISED TO PROVIDE SUFFICIENT WATER TO THE SUBDIVISION FOR AT LEAST 30 YEARS AND N.A.W.S.C. HAS PROVIDED DOCUMENTATION TO SUFFICIENTLY ESTABLISH THE LONG TERM QUANTITY AND QUALITY OF THE AVAILABLE WATER SUPPLY TO SERVE THE FULL DEVELOPMENT OF THIS SUBDIVISION. N.A.W.S.C. HAS A 12" DIAMETER WATERLINE LOCATED ON THE SOUTHWEST CORNER OF CANTON ROAD AND VALVERDE ROAD. AN 8" WATERLINE WILL TAP INTO THE EXISTING 12" WATERLINE AND RUN EAST ALONG THE SOUTH SIDE OF CANTON ROAD IN AN EXCLUSIVE EASEMENT, ENDING AT THE NORTHEAST CORNER OF LOT 31.

ON THE NORTHWEST CORNER OF LOT 67, AN 8" DIAMETER WATERLINE RUNS SOUTH ALONG THE EAST SIDE OF SALLY DRIVE. ON THE SOUTHWEST CORNER OF LOT 59, IT TURNS EAST AND RUNS ALONG THE NORTH SIDE OF TOMMY DRIVE. ON THE SOUTHEAST CORNER OF LOT 40, THE 8" DIAMETER WATERLINE TURNS NORTH AND RUNS ALONG THE WEST SIDE OF NOE DRIVE CONNECTING TO THE 8" DIAMETER WATERLINE ON TOMMY DRIVE.

ON THE NORTHEAST CORNER OF LOT 50, ANOTHER 8" DIAMETER WATERLINE CONNECTS TO THE 8" WATERLINE ON CANTON AND RUNS SOUTH ALONG THE WEST SIDE OF LISA DRIVE. IT CONNECTS WITH THE 8" DIAMETER WATERLINE ON TOMMY DRIVE.

FROM THE 8" DIAMETER WATERLINE, THERE ARE THIRTY-ONE (31) 1" DUAL SERVICE LINES RUNNING TO PAIR OF LOTS BEFORE SPLITTING INTO TWO 3/4" DIAMETER SINGLE SERVICE LINES THAT RUN INTO THE WATER METER BOXES FOR EACH LOT. THERE ARE FIVE (5) 3/4" SINGLE SERVICE LINES THAT RUN TO THE METER BOXES OF THE LOTS.

THE 8" WATERLINE, THE 1" DUAL SERVICE LINES, THE 3/4" SINGLE SERVICE LINES AND THE METER BOXES HAVE BEEN INSTALLED, AT A TOTAL COST OF \$ 183,715.00 OR \$ 2,742.01 PER LOT. THE SUBDIVIDER HAS IN ADDITION PAID N.A.W.S.C. THE SUM OF \$ 45,775.00 OR \$ 683.21 PER LOT, WHICH REPRESENTS THE TOTAL COST OF WATER METERS AND ALL MEMBERSHIPS OR OTHER FEES ASSOCIATED WITH CONNECTING THE INDIVIDUAL LOTS IN THE SUBDIVISION TO THE N.A.W.S.C. SYSTEM. THE SUBDIVIDER WILL BE INSTALLED EIGHT (8) FIRE HYDRANTS AT A UNIT COST OF \$ 2,300.00 FOR A TOTAL COST OF \$ 18,400.00. THE ENTIRE WATER FACILITIES WILL BE APPROVED AND ACCEPTED BY N.A.W.S.C. AND SAID DISTRIBUTION SYSTEM IS OPERABLE AS OF THE DATE OF THE RECORDING OF THE PLAT.

THE COST TO INSTALL A SEPTIC SYSTEM ON AN INDIVIDUAL LOT IS \$ 1,350.00, INCLUDING THE COST FOR THE REQUIRED PERMIT AND LICENSE. ALL OSSFS HAVE BEEN INSTALLED AS OF THE TIME OF APPLICATION FOR FINAL PLAT APPROVAL AT A TOTAL COST OF \$ 90,450.00. THE HIDALGO COUNTY HEALTH DEPARTMENT HAS INSPECTED AND APPROVED THE INSTALLATION OF ALL OSSFS ON OCTOBER 7, 2016.

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 COSTS TO INSTALL THE CONSTRUCTED WATER AND ON-SITE SEWAGE FACILITIES, DISCUSSED ABOVE, ARE AS FOLLOWS:

WATER FACILITIES— THESE FACILITIES WILL BE CONSTRUCTED, WITH THE INSTALLATION OF WATER METER BOXES, HAVE COST A GRAND TOTAL OF \$ 229,490.00 WHICH EQUALS TO \$ 3,425.22 PER LOT.

SEWAGE FACILITIES— SEPTIC SYSTEM IS ESTIMATED TO COST \$ 1,350.00 PER LOT (ALL INCLUSIVE), FOR A TOTAL OF \$ 90,450.00 FOR THE ENTIRE SUBDIVISION.



Alfonso Quintanilla P.E.
ALFONSO QUINTANILLA
P.E. 95534
11-1-16
DATE

REPORTE FINAL DE INGENIERIA PARA LA SUBDIVISION SAN MARTIN SUBDIVISION No. 1: POR ALFONSO QUINTANILLA, P.E.

PROVISION DE AGUA: Descripción y Costos.

LA SUBDIVISION SAN MARTIN SUBDIVISION No. 1 HA SIDO PROVISITA DE AGUA POTABLE POR LA COMPANIA DE AGUA DE NORTH ALAMO (N.A.W.S.C.). EL DUEÑO DE LA SUBDIVISION Y LA COMPANIA DE AGUA N.A.W.S.C. SE HA COMPROMETIDO A PROVEER DE AGUA SUFICIENTE A LA SUBDIVISION POR UN PERIODO DE 30 AÑOS. LA COMPANIA DE AGUA N.A.W.S.C. HA PRESENTADO LA DOCUMENTACION DEMOSTRANDO LA DISPONIBILIDAD DE CANTIDAD Y CALIDAD DE AGUA A LARGO PLAZO QUE SERVIRA PARA EL FUTURO DESARROLLO DE LA SUBDIVISION. N.A.W.S.C. TIENE UNA LINEA DE AGUA DE 12" DE DIAMETRO EN LA ESQUINA SURESTE DE CANTON ROAD Y VAL VERDE ROAD. UNA LINEA DE AGUA DE 8" DE DIAMETRO CONECTA CON LA LINEA DE AGUA DE 12" DE DIAMETRO Y CORRE ESTE POR EL LADO SUR DE CANTON ROAD, TERMINANDO CON UNA VALVULA DE 2" EN LA ESQUINA NORESTE DE LOTE 31.

UNA LINEA DE AGUA DE 8" DE DIAMETRO CONECTA CON LA LINEA DE AGUA DE 8" EN LA ESQUINA NORESTE DE LOTE 67 Y CORRE SUR POR EL LADO ESTE DE SALLY DRIVE. EN LA ESQUINA SURESTE DE LOTE 59, LA LINEA DE AGUA DE 8" DE DIAMETRO VOLTEA Y CORRE ESTE POR EL LADO NORTE DE LA CALLE TOMMY DRIVE. EN LA ESQUINA SURESTE DE LOTE 40, LA LINEA DE AGUA DE 8" DE DIAMETRO VOLTEA NORTE Y CORRE POR EL LADO OESTE DE LA CALLE NOE DRIVE Y SE CONECTA CON UNA LINEA DE AGUA DE 8" DE DIAMETRO EN LA CALLE CANTON ROAD.

EN LA ESQUINA NORESTE DE LOTE 50, UNA LINEA DE AGUA DE 8" DE DIAMETRO SE CONECTA CON UNA LINEA DE AGUA DE 8" DE DIAMETRO EN LA CALLE CANTON ROAD Y CORRE SUR POR EL LADO OESTE DE LA CALLE LISA DRIVE. LA LINEA DE AGUA DE 8" DE DIAMETRO CONECTA CON UNA LINEA DE AGUA DE 8" DE DIAMETRO EN LA CALLE TOMMY DRIVE.

DEL CONDUCTO DE AGUA DE 8 PULGADAS SE PRODUCEN TREINTA Y UNO (31) DOBLE-CONDUCTOS DE AGUA DE 1 PULGADA DE DIAMETRO PARA CADA DOS LOTES. ESTOS CONDUCTOS SE SEPARAN PARA PRODUCIR DOS CONDUCTOS DE AGUA DE 3/4" DE DIAMETRO PARA CADA LOTE. ADICIONALMENTE HAY CINCO (5) CONDUCTOS INDIVIDUALES DE AGUA DE 3/4" DE DIAMETRO PARA CADA LOTE.

LOS DOBLE-CONDUCTOS DE AGUA DE 1 PULGADA DE DIAMETRO, EL CONDUCTO DE 3/4" DE PULGADAS DE DIAMETRO, Y LOS MEDIDORES MECANICOS DE AGUA A UN COSTO TOTAL DE US\$ 183,715.00 O US\$ 2,742.01 POR LOTE. EL DUEÑO DE LA SUBDIVISION TAMBIEN LE HA PAGADO A LA COMPANIA N.A.W.S.C. US\$ 45,775.00, QUE CUBRE EL COSTO DEL MEDIDOR MECANICO DE AGUA PARA CADA LOTE. US\$ 683.21. ESTE PRECIO INCLUYE EL COSTO DE LA INSTALACION DE CADA MEDIDOR Y LOS GASTOS DE CONEXION. CUANDO EL DUEÑO DE CADA LOTE SOLICITE UN MEDIDOR DE AGUA, LA COMPANIA N.A.W.S.C. LO INSTALARA SIN ALGUN GASTO AL DUEÑO. EL DUEÑO DE LA SUBDIVISION TAMBIEN HA INSTALADO OCHO (8) BOCAS DE RIEGO (FIRE HYDRANT) A UN COSTO DE \$ 2,300.00 POR CADA UNO CUAL GASTA UNA CANTIDAD TOTAL DE \$ 18,400.00. EL SISTEMA DE AGUA ESTARA EN FUNCIONAMIENTO COMPLETO ANTES O EN LA FECHA, EN LA CUAL LA SUBDIVISION SEA REGISTRADA EN EL CONDADO DE HIDALGO.

DRENAJE: Descripción y Costos.

SE INSTALARA UNA FOSA SEPTICA EN CADA SOLAR DE LA SUBDIVISION SAN MARTIN SUBDIVISION No. 1. ESTA FOSA SEPTICA CONSISTE DE UN TANQUE SEPTICO DE MODELO DUAL Y DE UN CAMPO DE DRENAJE PARA EL SOLAR. EL EVALUADOR (LIC# OS 12258) AUTOR DE ESTE DOCUMENTO HA EVALUADO EL AREA DONDE SE ENCUENTRA LA SUBDIVISION Y HA PREPARADO UN REPORTE QUE CONCLUYE QUE ESTE TERRENO ES ADECUADO PARA ESAS FOSAS SEPTICAS (OSSFS). EL REPORTE FUE APROBADO POR EL DEPARTAMENTO DE SALUBRIDAD DEL CONDADO DE HIDALGO (HIDALGO COUNTY HEALTH DEPARTMENT) SEGUN EL REPORTE.

CADA LOTE EN LA SUBDIVISION MIDE MEDIO ACRE. EL EVALUADOR (LIC# OS 12258) HIZO OCHO (8) PRUEBAS CON AGUIEROS EN EL CENTRO DE LOS LOTES 6, 13, 23, 30, 34, 43, 50 Y 64 (EXCAVACIONES ADICIONALES NO FUERON NECESARIAS PORQUE EL TERRENO EN ESTA AREA ES SIGNIFICATIVAMENTE UNIFORME). EL TERRENO ES UNIFORME FRANCO ARENOSO (CLASS II) Y SE EXTIENDE A 36 PULGADAS BAJO TODAS LAS EXCAVACIONES PROPUESTAS. NO EXISTE EVIDENCIA DE AGUA 24 PULGADAS MAS ARRIBA DE LO MAS BAJO DE LAS EXCAVACIONES PROPUESTAS. LA AGUA EN ESTA AREA ES BIER.

EL COSTO TOTAL PARA LA INSTALACION DE UN SISTEMA INDIVIDUAL DE FOSAS SEPTICAS POR SOLAR SON US\$ 1,350.00, INCLUYENDO EL COSTO DEL PERMISO REQUERIDO Y LICENCIA EN ESTOS MOMENTOS TODAS LAS FOSAS SEPTICAS HAN SIDO INSTALADAS EN EL PROCESO DE LA APROBACION FINAL. A UN COSTO TOTAL DE US\$ 90,450.00. EL DEPARTAMENTO DE SALUBRIDAD DEL CONDADO DE HIDALGO HA INSPECCIONADO TODOS LAS FOSAS SEPTICAS Y AH APROBADO LA INSTALACION DE LAS FOSAS SEPTICAS DESDE EL 16 DE OCTUBRE DE 2016.

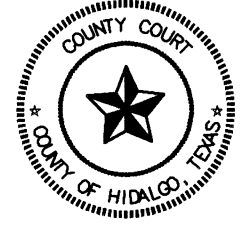
CERTIFICACION
CON MI FIRMA, CERTIFICO QUE LOS SERVICIOS Y SISTEMAS DE AGUA Y DE DRENAJE, DESCRITOS EN ESTE DOCUMENTO, CUMPLEN CON LAS MODEL SUBDIVISION RULES (LAS REGLAS GOBIERNANDO A LAS SUBDIVISIONES), ADOPTADAS EN LA SECCION 16.343 DEL TEXAS WATER CODE (CODIGO DE AGUA DE TEXAS). CERTIFICO QUE LOS GASTOS PARA INSTALAR LOS SISTEMAS DE AGUA Y DE DRENAJE SON:

AGUA: EL SISTEMA/SERVICIO DE AGUA ESTA TOTALMENTE CONSTRUIDO, CON LA INSTALACION DE LOS MEDIDORES DE AGUA, EL GRAN COSTO TOTAL ES DE US\$ 229,490.00 LO CUAL EQUIVALE A US\$ 3,425.22 POR LOTE.

DRENAJE: SE ESTIMA QUE LA FOSA SEPTICA COSTARA \$ 1,350.00 A UN COSTO TOTAL DE \$ 90,450.00 TODA LA SUBDIVISION.



Alfonso Quintanilla P.E.
ALFONSO QUINTANILLA
P.E. 95534
11-1-16
DATE



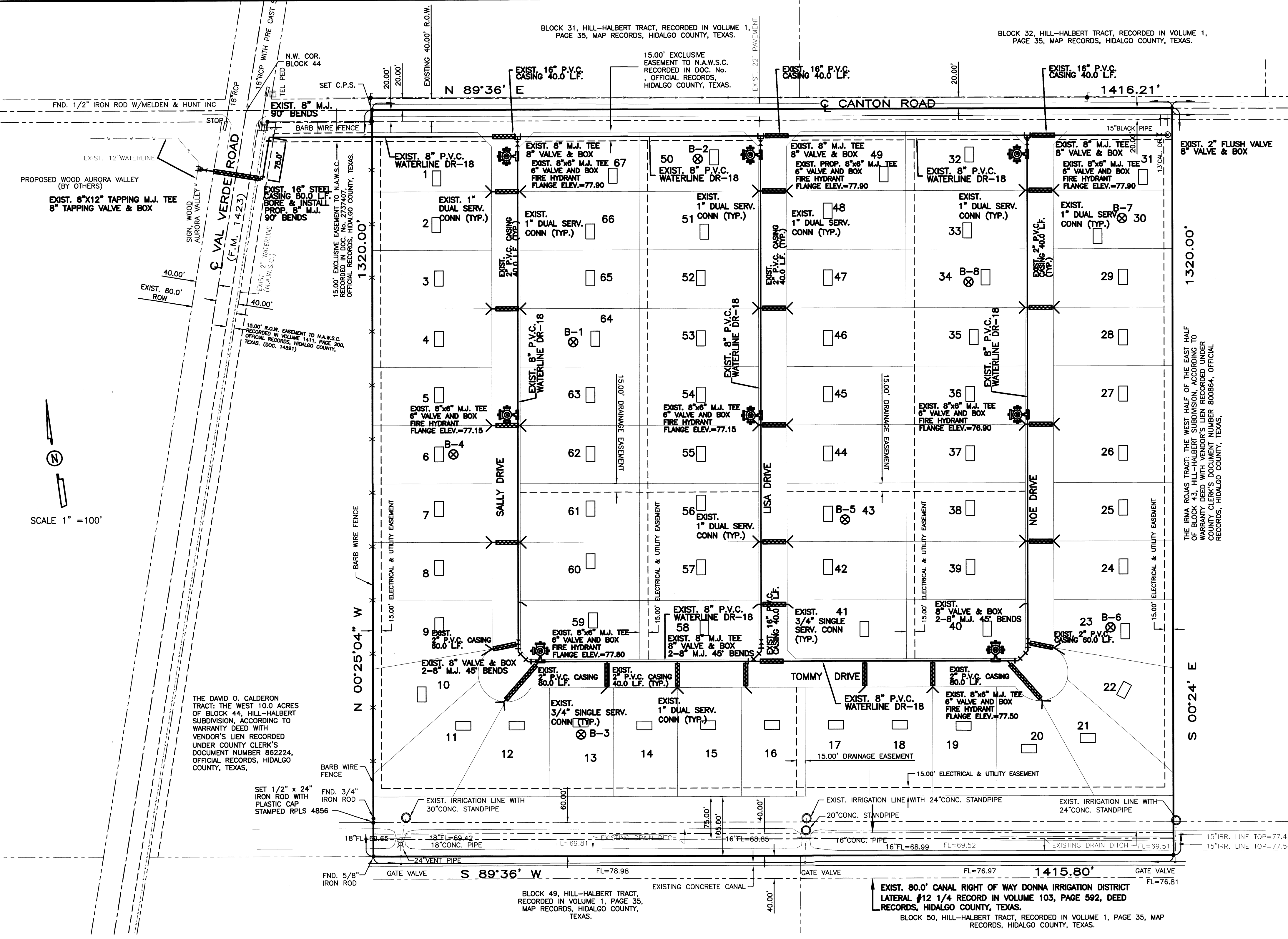
FILED FOR RECORD IN
HIDALGO COUNTY
ARTURO GUAJARDO, JR.
HIDALGO COUNTY CLERK

ON: _____ AT _____ AM/PM
INSTRUMENT NUMBER _____
OF THE MAP RECORDS OF HIDALGO COUNTY, TEXAS

BY: _____ DEPUTY

No.	Sheet	REVISION	Date	Approved

QUINTANILLA, HEADLEY AND ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
124 E. STUBBS ST. PHONE 956-381-6480
EDINBURG, TEXAS 78539 FAX 956-381-0527
REGISTRATION NUMBER F-1513 OFFICE@QHAENGINEERING.COM
SURVEYING REGISTRATION NUMBER 100411-00



B-1 TEST BORINGS
 SEPTIC TANK (OSSF)

COST ESTIMATE
WATER DISTRIBUTION: \$ 183,715.00
DRAINAGE IMPROVEMENTS: \$ 188,070.00
PAYING IMPROVEMENTS: \$ 337,640.25
SEPTIC TANK (OSSF): \$ 90,450.00

WATER METER BOX CAJA DE MEDIDOR DE AGUA
 8" WATER SUPPLY LINE 8" LINEA DE AGUA
 SERVICE LINES LINEAS DE SERVICIOS

SUBDIVIDER CERTIFICATION

1.- BY COMPLETING THE IMPROVEMENTS DESCRIBED ON THE PLAT, SUBDIVIDER WILL COMPLY WITH MINIMUM STATE STANDARDS AND THAT (a) WATER QUALITY AND CONNECTIONS INCLUDING WATER METERS TO THE LOTS MEET SUCH STANDARDS AND (b) SEWER CONNECTIONS TO THE LOTS OR SEPTIC TANKS MEET OR WILL MEET SUCH STANDARDS AND WILL BE CONSTRUCTED IN ACCORDANCE WITH STATE AND COUNTY REGULATIONS.

SUBDIVIDER STATEMENT:
BUENA TIERRA DEVELOPMENT INC. SUBDIVIDERS OF SAN MARTIN SUBDIVISION No. 1 HEREBY CERTIFY SEWER PERMITS, AS APPLICABLE, HAVE BEEN PAID AND COPIES OF RECEIPTS ARE ON FILE WITH THE HIDALGO COUNTY HEALTH DEPARTMENT AND THAT AN ADEQUATE DRINKING WATER SOURCE IS IMMEDIATELY AVAILABLE TO EACH LOT OF THE TYPE, QUALITY & QUANTITY TO ENABLE EACH PERSON PURCHASING A LOT HAVE ADEQUATE WATER TO COMPLY WITH THE REGULATIONS AND THE LAWS OF THE STATE AS REQUIRED BY STATE AND COUNTY REGULATIONS.

BUENA TIERRA DEVELOPMENT INC.
TILLM WELCH, PRESIDENT
3714 S. EXPRESSWAY 281
EDINBURG TX, 78539

11-1-16
DATE

STATE OF TEXAS
COUNTY OF HIDALGO

BEFORE ME, the undersigned notary public, on this day personally appeared
TILLM WELCH, PRESIDENT OF BUENA TIERRA DEVELOPMENT INC.
proved to me through his Texas Department of Public Safety Driver License to be the person whose name is subscribed to the foregoing instrument, who, being by me first duly sworn, declared that the statements therein are true and correct and acknowledged that he executed the same for the purposes and consideration thereby expressed.

Given under my hand and seal of office this 1st day of November, 2016.

CLARISSA ANNETTE QUINTANILLA
Notary Public, State of Texas
My Commission Expires November 04, 2017

Clarissa Quintanilla
CLARISSA ANNETTE QUINTANILLA - NOTARY PUBLIC

LEGEND

1" DUAL SERVICE LINE
3/4" SINGLE SERVICE LINE

LOT

1" DOBLE LINEA DE SERVICIO
3/4" LINEA DE SERVICIO

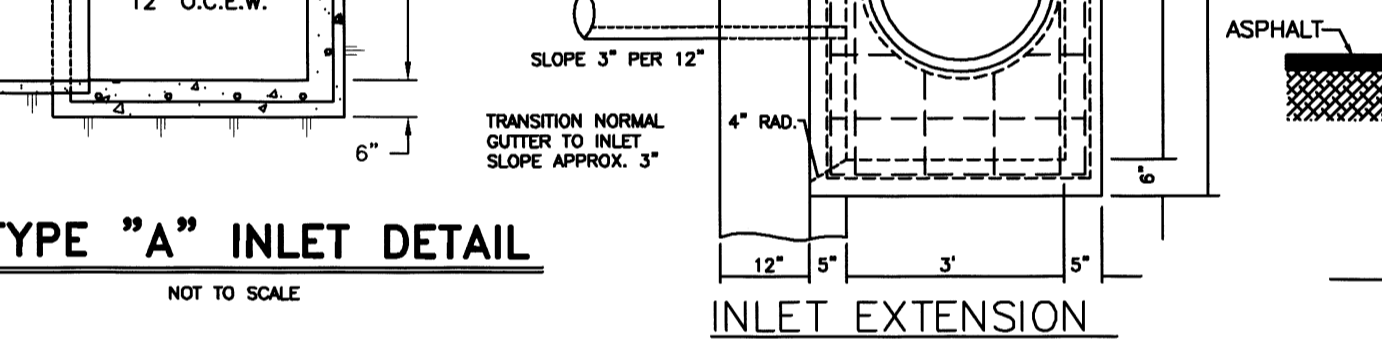
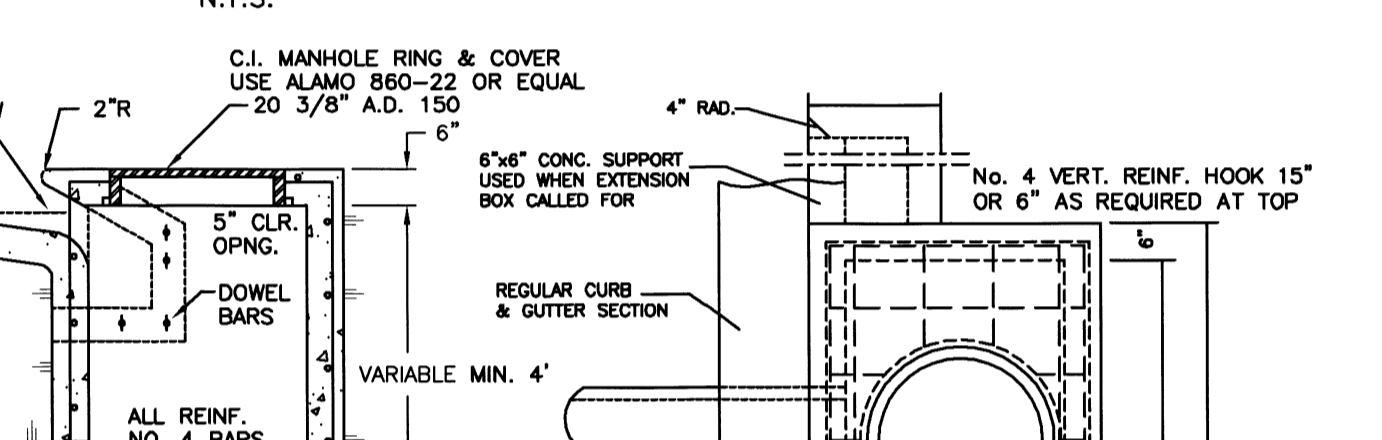
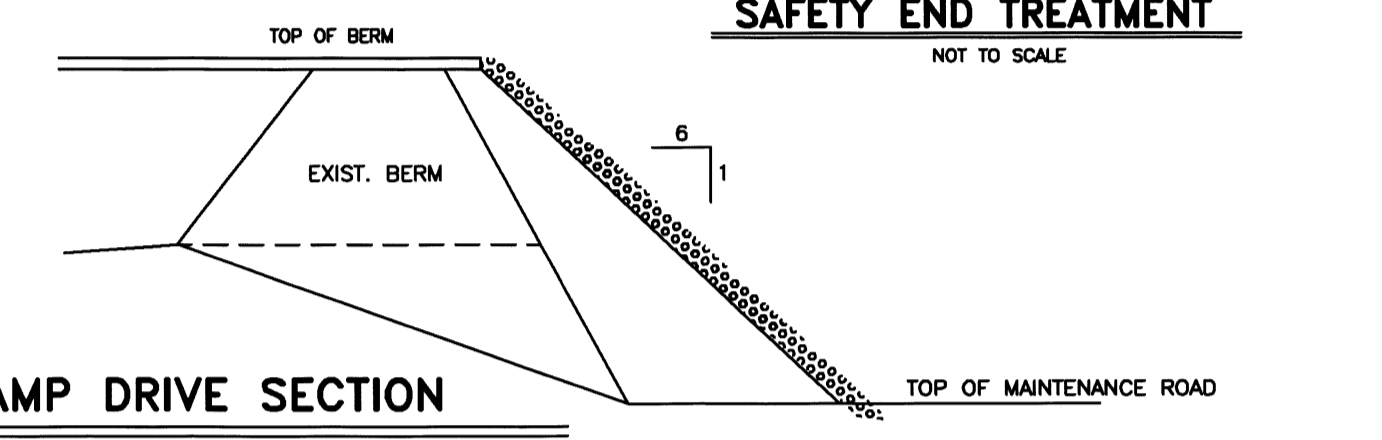
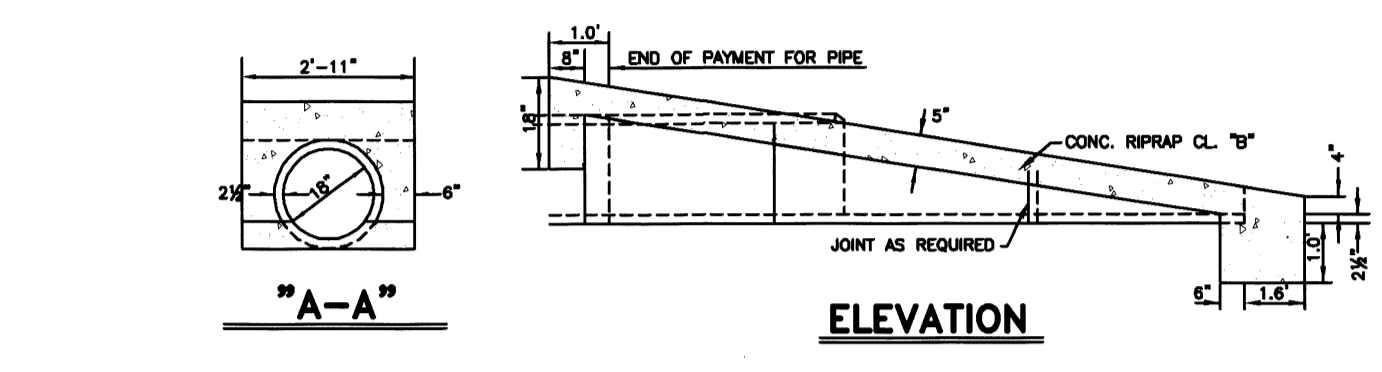
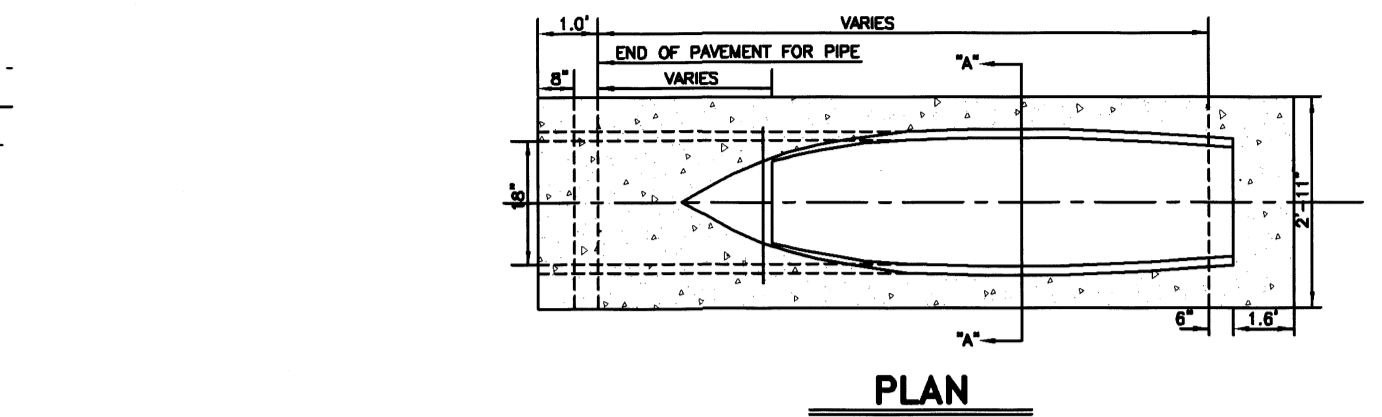
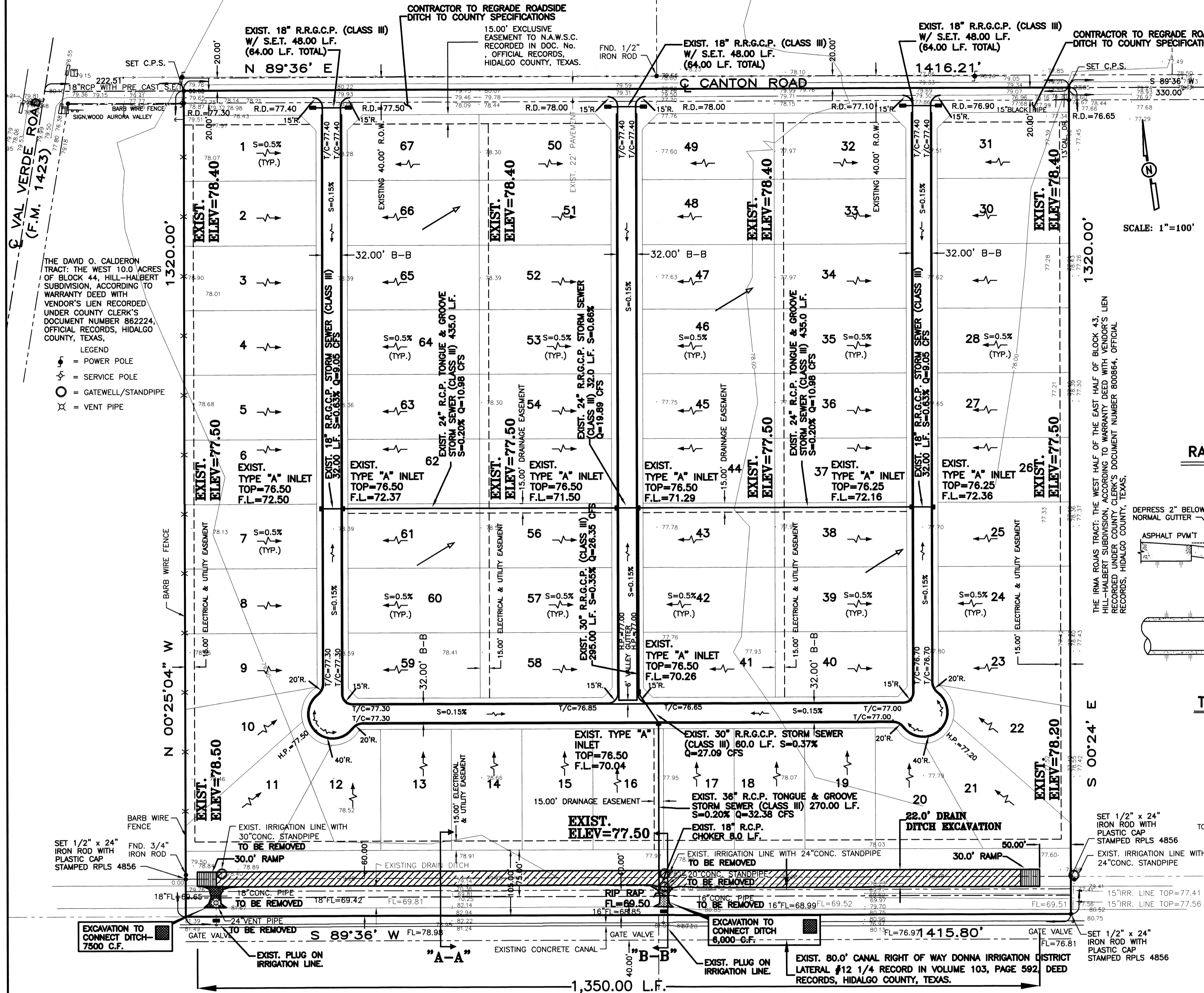
LOT

MAP OF TOPOGRAPHY AND DRAINAGE / MAPA DE TOPOGRAFIA Y DRENAJE

SAN MARTIN SUBDIVISION
No. 1

NOTE:
DIRT EXCAVATED FROM DRAIN DITCH SHALL BE SPREAD AT LOCATION DETERMINED BY ENGINEER

A 42.91 ACRE TRACT OF LAND BEING THE WEST HALF OF BLOCK 43 AND THE EAST 22.91 ACRES OF BLOCK 44, HILL-HALBERT SUBDIVISION, HIDALGO COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN VOLUME 1, PAGE 35, MAP RECORDS, HIDALGO COUNTY, TEXAS, AND ACCORDING TO WARRANTY DEED RECORDED UNDER COUNTY CLERK'S DOCUMENT NUMBER 1974434, OFFICIAL RECORDS, HIDALGO COUNTY, TEXAS.



DRAINAGE REPORT FOR SAN MARTIN SUBDIVISION No. 1

A 42.91 acre tract of land being the west half of Block 43 and the east 22.91 acres of Block 44, Hill-Halbert subdivision, Hidalgo County, Texas, according to warranty deed recorded under county clerk's document number 1974434, official records, Hidalgo County, Texas. This subdivision is located on the south side of Canton Road, approximately 222 feet east of Val Verde Road (F.M. 1423). The proposed subdivision will consist of 67 residential lots.

The tract is Zone "C" as per FEMA Flood Insurance Rate Map, Community Panel No. 480334 0425 C, dated on November 16, 1982.

The majority of the soil is sandy clay loam, and clay loam. This soil is well drained. Permeability is moderate. Plasticity index has a range of 11-25. See attached Soil Survey of Hidalgo County, Texas tables.

Presently, the site has very minimal runoff. The existing runoff for the proposed subdivision is Q=11.23 cubic feet per second based on a 10-year storm.

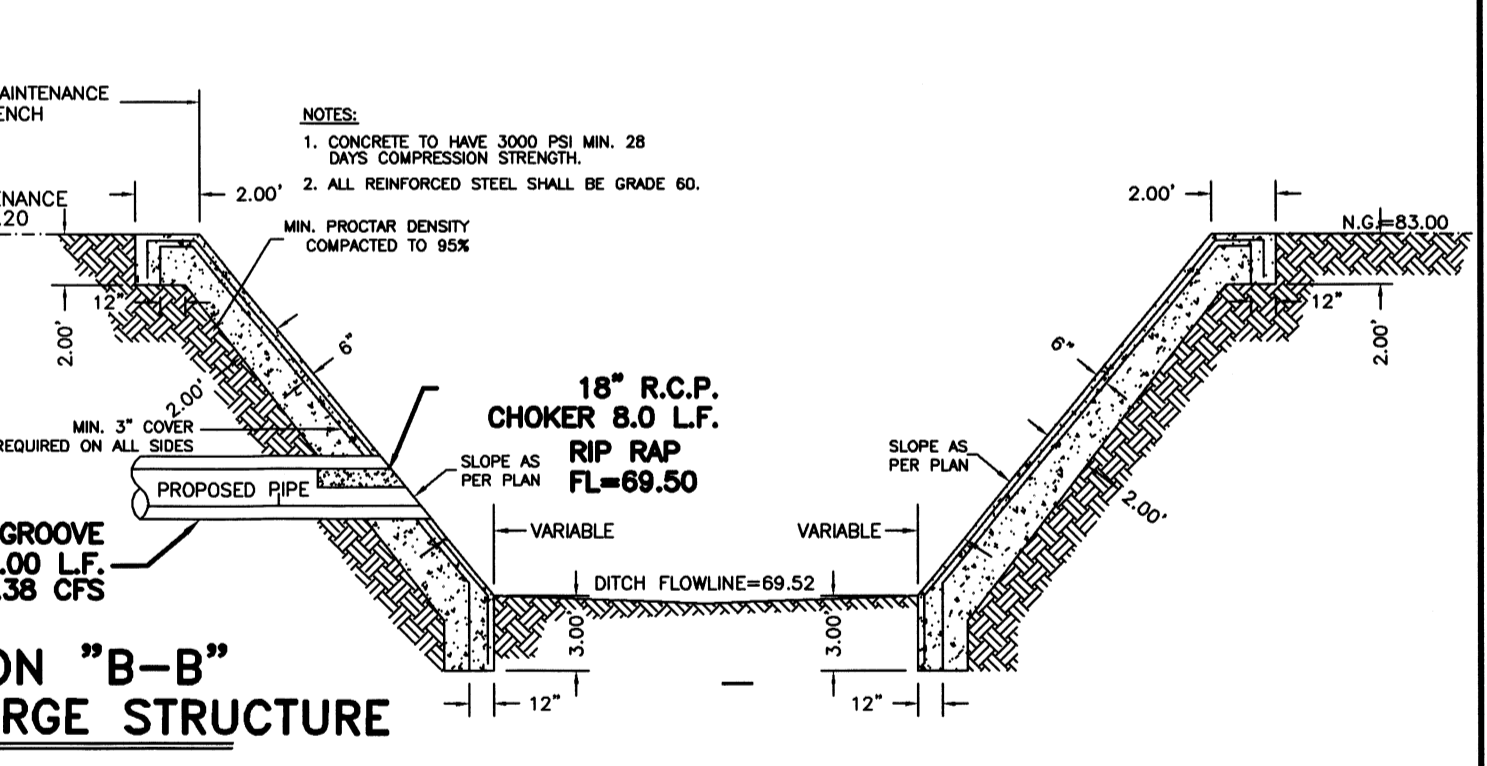
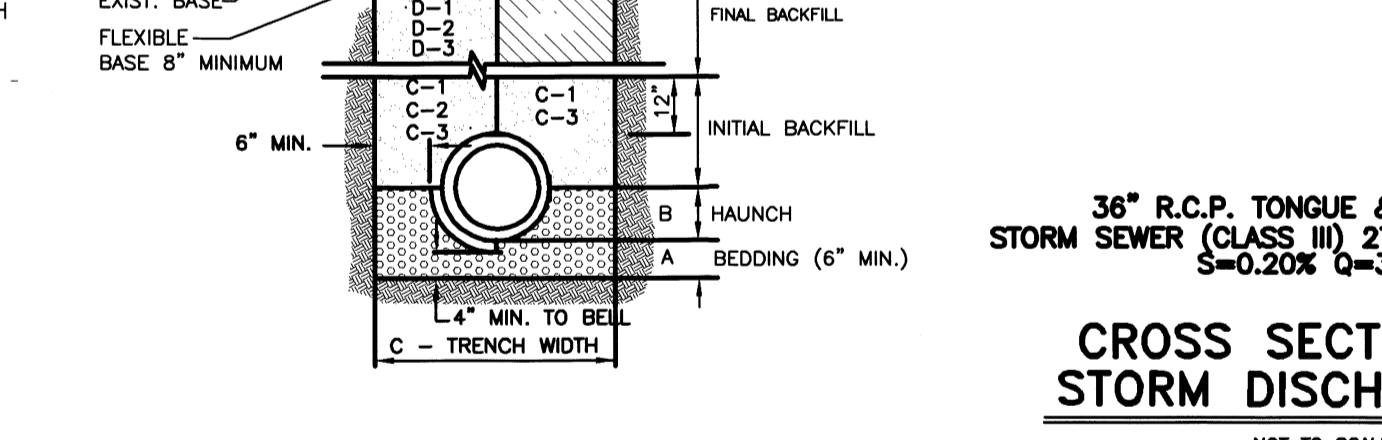
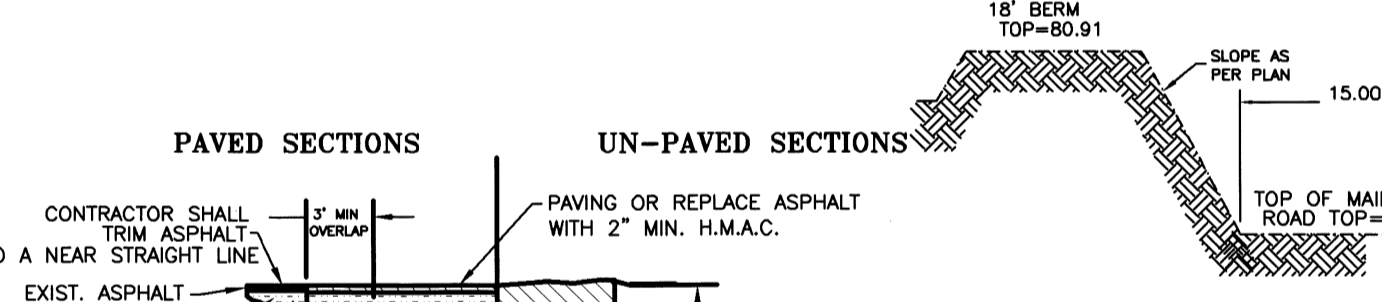
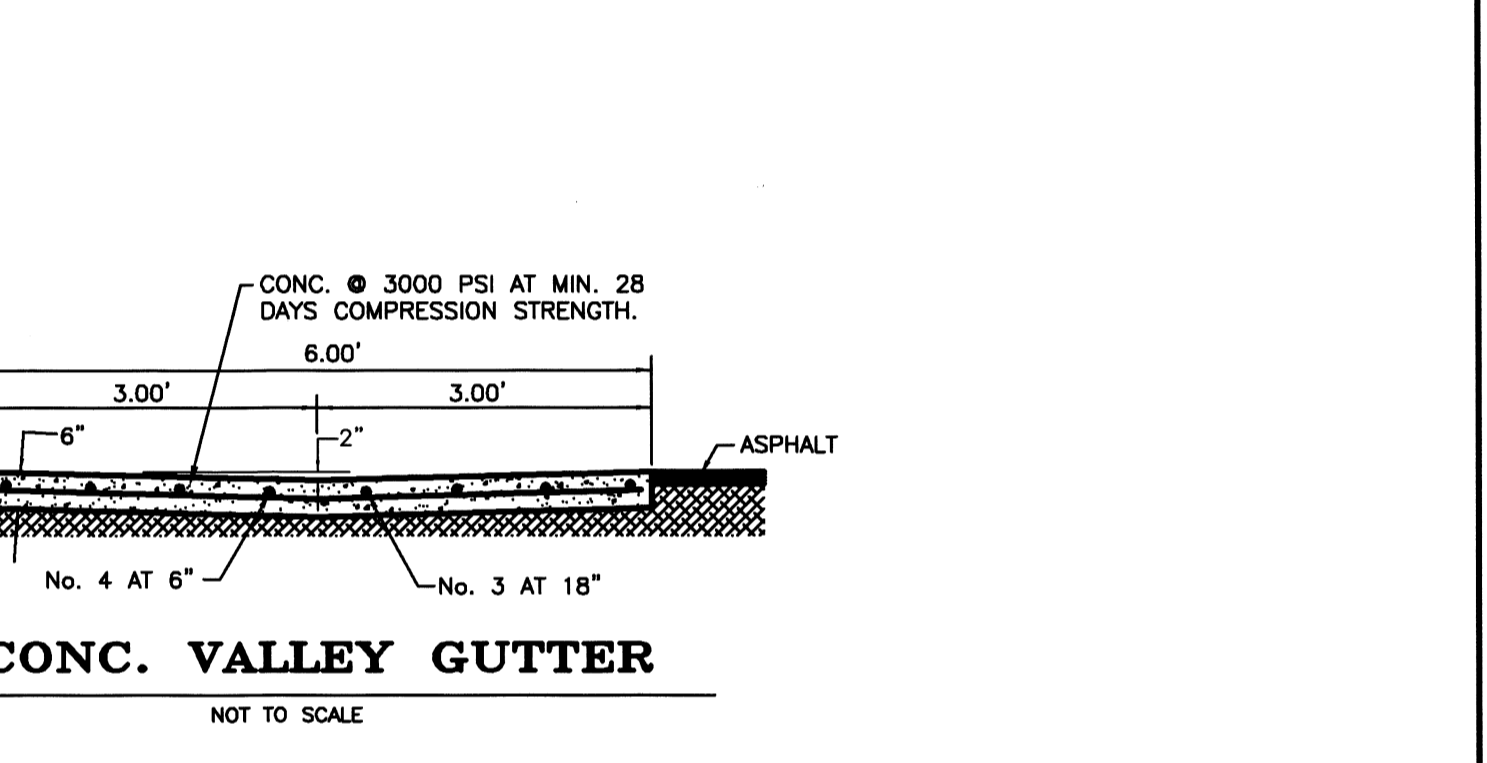
After development the runoff will be Q=34.28 cubic feet per second for an increase of Q=23.05 cubic feet per second. Detention will be provided in the 109,365.61 cubic feet (2.51 acre feet) and will be accomplished by excavating the existing Donna Irrigation District Drain Ditch on the south side of the subdivision. The street runoff will be collected by a storm sewer system consisting of 18", 24", 30" and 36" pipes and Type "A" inlets that will discharge into the existing Drain Ditch. The 105.00 feet of right of way for the Drain Ditch is being dedicated to the Donna Irrigation District by the plat.

CERTIFICATION:

BY MY SIGNATURE BELOW, I CERTIFY THAT THE 100-YEAR FLOODPLAIN FOR ZONE "C" (AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN) AS DESCRIBED IN COMMUNITY PANEL NUMBER 480334 0425 C (NOVEMBER 16, 1982) IS CONTAINED WITHIN THE RIGHT-OF-WAY OF STREET AND WITHIN THE DRAINAGE OF THE SUBDIVISION, AS SHOWN BELOW.

Alfonso Quintanilla P.E.
ALFONSO QUINTANILLA
P.E. 95534

11-1-16
DATE



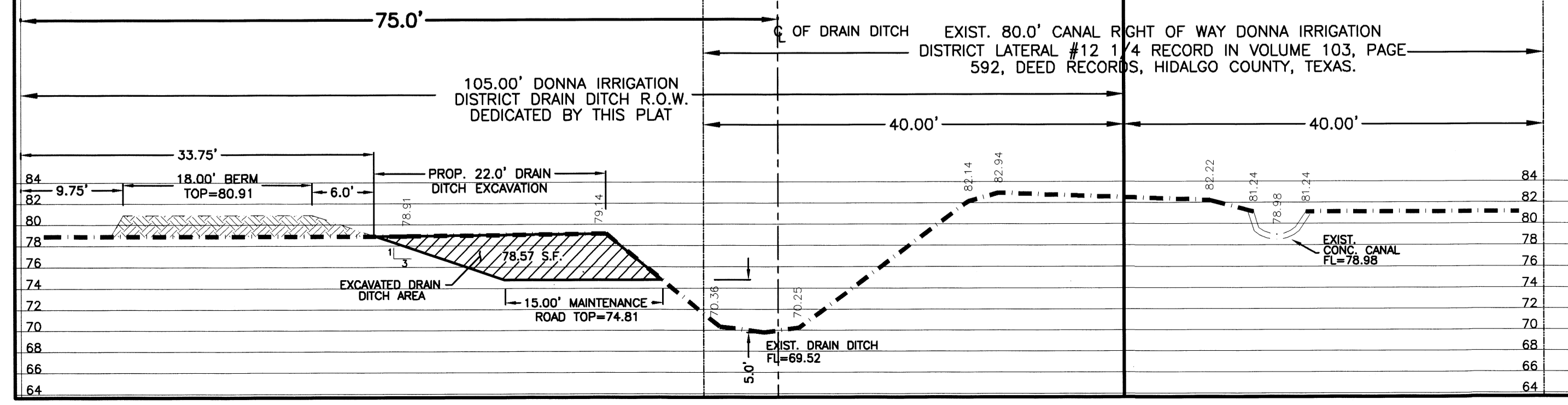
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TOTAL DETENTION REQUIRED - 109,365.61 C.F.

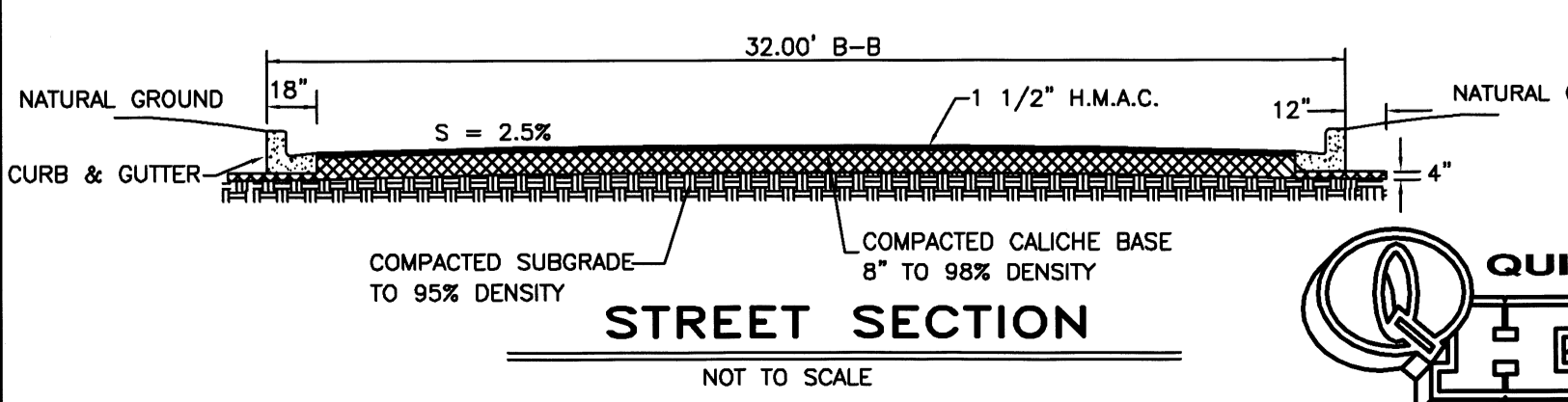
TOTAL DETENTION PROVIDED - 117,212.40 C.F.

(1320 L.F. X 78.57 S.F.) + 7,500 C.F. + 6,000 C.F.

CROSS SECTION "A-A" SCALE: HORIZONTAL 1" = 10', VERTICAL 1" = 10'



- STORM TRENCH BEDDING AND BACKFILL DETAILS
- N.T.S.
- A. BEDDING FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SAND AND/OR GRAVEL MIX BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW OF PIPE. (MIN. THICKNESS = 6") - PIT RUN GRAVEL 3/4" MAX. SIZE.
 - B. HAUNCH FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE CLASS I OR CLASS II (ASTM D2321) BACKFILL MATERIAL COMPACTED TO 92% S.P.D. 8" LOOSE LIFTS, MECHANICAL COMPACTION.
 - C. TRENCH WIDTH SHALL BE BELL O.D. X 1.5 + 12" MINIMUM TRENCH WIDTH SHALL EQUAL STRUCTURE WIDTH + 4 FT. THROUGHOUT THE HEIGHT OF THE STRUCTURE.
 - C-1 INITIAL BACKFILL FOR RCP CLASS III STORM DRAIN PIPE ON CITY STREETS, PARKING AREA, DRIVEWAYS, COUNTY ROAD & UNPAVED AREAS - SHALL BE SOIL TYPE A1, A2, A3, WITH A MAXIMUM P.I. OF 19 (ASHTO M145) COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.
 - C-2 INITIAL BACKFILL FOR RCP CLASS III STORM DRAIN PIPE ON STATE MAINTAINED ROADWAYS - COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT, COMPACTED TO 92% S.P.D. AS PER ASTM D-4253 AND ASTM D-698, 8" LOOSE LIFTS, MECHANICAL COMPACTION.
 - C-3 INITIAL BACKFILL FOR HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE CLASS I OR CLASS II WITH A MAXIMUM P.I. OF 19 (ASTM D2321) BACKFILL MATERIAL COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.
 - D. FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE UNDER UNPAVED SECTIONS - SHALL BE CLASS I, II, III OR IV, COMPACTED TO 92% S.P.D. (12" LOOSE LIFTS, MECHANICAL COMPACTION).
- NOTES: 1. MAXIMUM COVER SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. FOR D-1 AND D-2 THE COMPACTION REQUIREMENT SHALL BE 95% S.P.D. WITHIN 12 IN. BELOW THE FLEXIBLE BASE.
3. FOR PAVED SECTIONS THE ABOVE REQUIREMENTS SHALL APPLY WHEN ANY PART OF TRENCH WIDTH IS WITHIN 5 FT. FROM THE E.O.P./B.O.C.
4. THE ABOVE REQUIREMENTS SHALL APPLY TO UTILITY PIPELINES AND UTILITY STRUCTURES OF OTHER UTILITY ENTITIES.



REVISION NOTES

No.	Sheet	REVISION	Date	Approved

QUINTANILLA, HEADLEY AND ASSOCIATES, INC.

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RECONSTRUCTION OF ROAD SIDE DITCH

FILED FOR RECORD IN HIDALGO COUNTY ARTURO GUAJARDO, JR. HIDALGO COUNTY CLERK

ON: _____ AT _____ AM/PM
INSTRUMENT NUMBER _____
OF THE MAP RECORDS OF HIDALGO COUNTY, TEXAS

BY: _____ DEPUTY

SHEET NO. 3 OF 3 SHEETS

FILE NAME: F:\DATA\SUBDIVISIONS\SAN MARTIN\02-B-PLAT
DATE PREPARED: 10-14-2014
PREPARED BY: LG
CHECKED BY: _____
APPROVED BY: _____