



HIDALGO COUNTY PLANNING DEPARTMENT

2818 S. BUSINESS HWY 281
EDINBURG TEXAS 78539
Tel. 956-318-2840

Anthony Uresti,
Director of Planning

HIDALGO COUNTY COMMISSIONERS COURT MEETING

DATE: 4-29-2025

PROPOSED PIONEER GARDENS, PRECINCT No. 3.

ENGINEER IZAGUIRRE ENGINEERING GROUP LLC, DEVELOPER: JOSEPH F. PHILLIPS

PRELIMINARY APPROVAL FINAL APPROVAL FINAL APPROVAL WITH FINANCIAL GUARANTEE WITH VARIANCE

NUMBER OF LOTS: 40 *SINGLE FAMILY *MULTI-FAMILY COMMERCIAL INSTITUTIONAL

ESTIMATED NUMBER OF STREETLIGHTS: 6

FILLING STATIONS: 3

LOCATION DESCRIPTION: EAST OF GLASSCOCK ROAD AND APPROXIMATELY ¼ OF A MILE SOUTH OF 7 MILE LINE ROAD.

SUBDIVISION LIES WITHIN THE: ETJ OF MCALLEN

DRAINAGE REPORT WAS APPROVED BY HCDD#1: ON 12-16-2024 PROPERTY LIES WITHIN FLOOD ZONE: "X" AS PER FEMA.

DRAINAGE DESIGN: DRAINAGE WILL BE PROVIDED BY STORM SEWER SYSTEM AND DETENTION WILL BE PROVIDED BY THE EXISTING DRAIN DITCH.

SEWER SYSTEM: SEWER BY MCALLEN

WATER SERVICE PROVIDER: S.W.S.C.

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

Final Approval subject to recommendations other departments

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

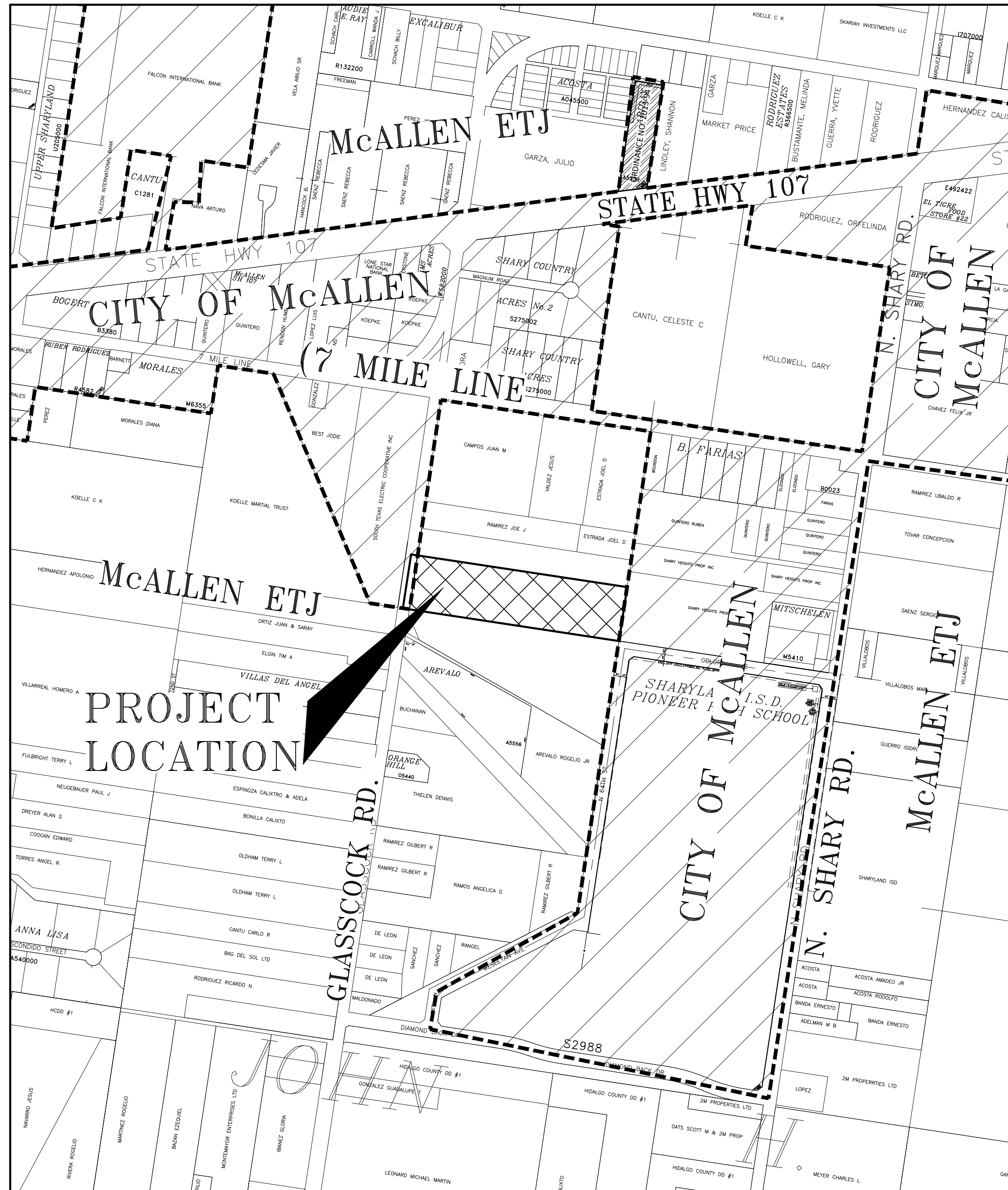
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Texas Water Development Board Model Subdivision Rules and The Texas Local Government Code.

PIONEER GARDENS

HIDALGO COUNTY

TEXAS



LOCATION MAP - SCALE: 1"=500'

APPROVED FOR CONSTRUCTION

Hidalgo County Planning Department

By: _____ DATE _____
 SUBDIVISION COORDINATOR

By: _____ DATE _____
 HIDALGO COUNTY DRAINAGE DISTRICT No.1

By: _____ DATE _____
 CONSTRUCTION PROJECT ENGINEER

By: _____ DATE _____
 PAVING CONTRACTOR

By: _____ DATE _____
 DRAINAGE CONTRACTOR

THESE PLANS HAVE BEEN REVIEWED FOR COMPLIANCE BY THE HIDALGO COUNTY PLANNING DEPARTMENT AND THE HIDALGO COUNTY DRAINAGE DISTRICT No.1. ALL CONSTRUCTION SHALL COMPLY WITH ALL STATE, COUNTY, FEDERAL, UTILITY PROVIDERS AND SOUND ENGINEERING PRACTICE. ANY DEVIATION FROM THE PLANS SHALL BE REPORTED TO THE APPROPRIATE DEPARTMENTS AND A WRITTEN ACKNOWLEDGEMENT FROM THE PLANNING DEPARTMENT SHALL BE OBTAINED BY THE ENGINEER BEFORE ANY WORK MAY BE CONDUCTED.

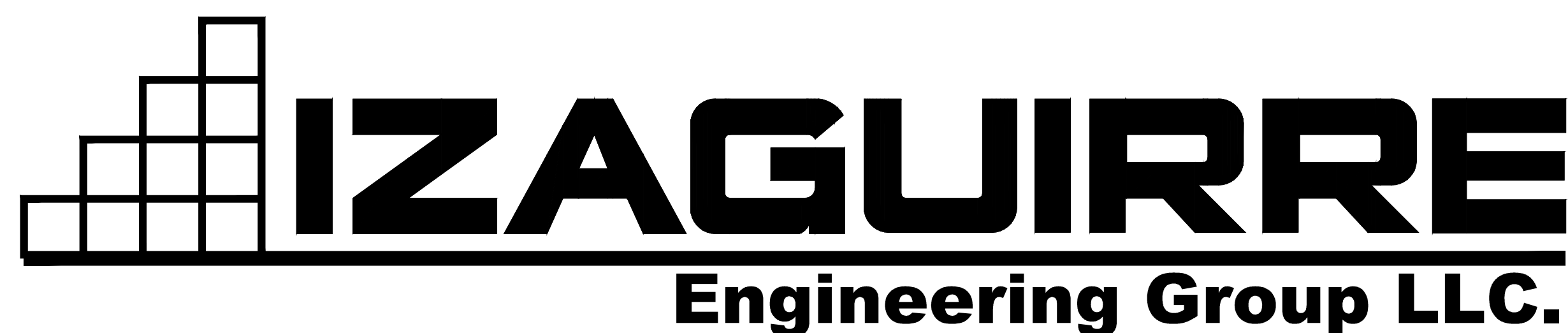


Gilberto A. Gracia
 GILBERTO A. GRACIA
 REGISTERED PROFESSIONAL ENGINEER No. 62477
 IZAGUIRRE ENGINEERING GROUP, LLC.
 7413 N. LA HOMA
 MISSION, TEXAS 78574

10-7-2024
 DATE

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- C1-C2 SANITARY SEWER PROFILES
- C3-C40 STORM SEWER PROFILES



PRINCIPAL CONTACTS:				
Name	Address	City & Zip	Phone	Fax
OWNER: ANICETO IZAGUIRRE	2121 E. GRIFFIN PARKWAY SUITE 2	MISSION, TEXAS 78574	(956)240-3246	(956)585-0554
ENGINEER: GILBERTO A. GRACIA	2121 E. GRIFFIN PARKWAY SUITE 2	MISSION, TEXAS 78574	(956)584-0554	(956)584-0554
SURVEYOR: HOMERO LUIS GUTIERREZ	2600 SAN DIEGO ST.	MISSION, TEXAS 78574	(956)369-0988	

2121 E GRIFFIN PKWY SUITE 2 F-10214 PHONE (956) 584-0554
 MISSION TEXAS, 78574 FAX (956) 584-0049

SUBDIVISION PLAT OF:

PIONEER GARDENS

METES AND BOUNDS

BEING A 9.991 ACRE TRACT (435,222 S.F.) OF LAND, OUT OF SOUTH 20 ACRES OF LOT 483, JOHN H. SHARY SUBDIVISION, AS RECORDED IN VOL. 1, PAGE 17, OF THE MAP RECORDS OF HIDALGO COUNTY (H.C.M.R.), TEXAS, SAME BEING OUT THAT CALLED 5.00 TRACT (SOUTH) CONVEYED TO EFRAIN ALEJANDRO, ET UX, AS DESCRIBED IN VOLUME 3214, PAGE 24, HIDALGO COUNTY OFFICIAL RECORDS (H.C.O.R.), TEXAS, AND ALSO BEING OUT OF THAT CALLED 5.00 (NORTH) CONVEYED TO EFRAIN ALEJANDRO, ET UX, AS DESCRIBED IN VOLUME 3252, PAGE 868, (H.C.O.R.), TEXAS.

BEING A 9.991 ACRE TRACT (435,222 S.F.) OF LAND, OUT OF SOUTH 20 ACRES OF LOT 483, JOHN H. SHARY SUBDIVISION, AS RECORDED IN VOL. 1, PAGE 17, OF THE MAP RECORDS OF HIDALGO COUNTY (H.C.M.R.), TEXAS, SAME BEING OUT THAT CALLED 5.00 TRACT (SOUTH) CONVEYED TO EFRAIN ALEJANDRO, ET UX, AS DESCRIBED IN VOLUME 3214, PAGE 24, HIDALGO COUNTY OFFICIAL RECORDS (H.C.O.R.), TEXAS, AND ALSO BEING OUT OF THAT CALLED 5.00 (NORTH) CONVEYED TO EFRAIN ALEJANDRO, ET UX, AS DESCRIBED IN VOLUME 3252, PAGE 868, (H.C.O.R.), TEXAS, SAID 9.991 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING, AT THE NORTHWEST CORNER OF SAID LOT 483, SAME BEING THE INTERSECTION OF GLASSCOCK RD. (50.0' FOUND R.O.W.) AND MILE 7 ROAD; THENCE, SOUTH 08° 34' 57" WEST, ALONG THE CENTERLINE OF SAID GLASSCOCK RD., A DISTANCE OF 990.00 FEET TO A POINT ON WEST LINE OF SAID LOT 483 AND TO THE POINT OF BEGINNING, FOR THE NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT.

THENCE, SOUTH 81° 23' 11" EAST, ALONG THE COMMON LINE OF SAID 9.991 ACRE TRACT AND CERTAIN CALLED 5.0 ACRE TRACT CONVEYED TO REVERIANO HERNANDEZ, ET UX, AS RECORDED IN DOCUMENT NO. 269259, (O.R.H.C.), TEXAS, AT A DISTANCE OF 19.78 FEET PASS A 1/2-INCH IRON ROD FOUND IN THE EXISTING EAST RIGHT OF WAY LINE, CONTINUING FOR A TOTAL DISTANCE OF 1319.91 FEET TO A 1/2-INCH IRON ROD FOUND IN THE WEST LINE OF CERTAIN TRACT CONVEYED TO SHARY HEIGHTS PROPERTIES, INC., AS RECORDED IN DOCUMENT NO. 1221563, (O.R.H.C.), TEXAS, FOR THE NORTHEAST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, SOUTH 08° 34' 27" WEST, ALONG THE COMMON LINE OF SAID 9.991 ACRE TRACT AND SAID TRACT CONVEYED TO SAID SHARY HEIGHTS PROPERTIES, INC., A DISTANCE OF 329.26 FEET TO A 3/4-INCH IRON PIPE FOUND AT THE COMMON CORNER OF THAT CERTAIN CALLED 11.78 ACRE TRACT CONVEYED CARMEL DREAM LTD., A TEXAS LIMITED PARTNERSHIP AS RECORDED IN DOCUMENT NO. 1534722 (H.C.O.R.), TEXAS, AND COMMON CORNER TO SHARYLAND I.S.D. PIONEER SCHOOL SUBDIVISION AS RECORDED IN DOCUMENT NO. 2539907 (M.R.H.C.), TEXAS, FOR THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, NORTH 81° 25' 37" WEST, ALONG THE COMMON LINE OF SAID 9.991 ACRE TRACT AND SAID 11.78 ACRE TRACT AT A DISTANCE OF 1300.56 FEET PASS A 1/2-INCH IRON ROAD STAMPED GMS YELLOW CAP SET AT THE EXISTING EAST RIGHT OF WAY LINE, AND CONTINUING FOR A TOTAL DISTANCE OF 1319.96 FEET TO A 40D NAIL FOUND IN THE WEST LINE OF SAID LOT 483, BEING THE CENTERLINE OF SAID GLASSCOCK RD., FOR THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, NORTH 08° 34' 57" EAST, ALONG THE WEST LINE OF SAID LOT 483 AND THE CENTERLINE OF SAID GLASSCOCK RD., A DISTANCE OF 330.20 FEET TO THE POINT OF BEGINNING, CONTAINING A GROSS AREA OF 9.991 ACRES OF LAND (435,222 S.F.), OF WHICH 0.148 ACRE (6,467.85 S.F.) FALLS WITHIN THE EXISTING RIGHT OF WAY, MORE OF LESS.

THE BEARING BASIS ARE GRID NORTH BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH TEXAS ZONE (4205), NAD 83.

STATE OF TEXAS COUNTY OF HIDALGO OWNER'S DEDICATION, CERTIFICATION, AND ATTESTATION

I, JOSEPH F. PHILLIPS, OWNER OF THE 9.991 ACRE TRACT OF LAND ENCOMPASSED WITHIN THE PROPOSED PIONEER GARDENS, HEREBY SUBDIVIDE THE LAND AS DEPICTED IN THIS SUBDIVISION PLAT AND DEDICATE TO PUBLIC USE THE STREET, PARK, AND EASEMENTS SHOWN HEREIN.

I CERTIFY THAT I HAVE COMPLIED WITH THE REQUIREMENTS OF TEXAS LOCAL GOVERNMENT CODE 232.032 AND THAT:

- (A) THE WATER QUALITY AND CONNECTIONS TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS;
(B) SEWER CONNECTIONS TO THE LOTS OR SEPTIC TANKS MEET, OR WILL MEET, THE MINIMUM REQUIREMENTS OF STATE STANDARDS;
(C) ELECTRICAL CONNECTIONS PROVIDED TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS;
(D) GAS CONNECTIONS, IF AVAILABLE, PROVIDED TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS.

I ATTEST THAT THE MATTERS ASSERTED IN THIS PLAT ARE TRUE AND COMPLETE.

JOSEPH F. PHILLIPS, PRESIDENT METRO INVESTMENTS, INC. P.O. BOX 1810 McALLEN, TEXAS 78501

STATE OF TEXAS COUNTY OF HIDALGO

BEFORE ME, the undersigned notary public, on this day personally appeared JOSEPH F. PHILLIPS proved to me through her 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 she executed the same for the purposes and consideration thereby expressed.

Given under my hand and seal of office this day of 2024.

DAISY BONILLA My Notary ID # 123944180 Expires August 02, 2025

NOTARY PUBLIC-- STATE OF TEXAS

HIDALGO COUNTY DRAINAGE DISTRICT No. 1

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 HEREBY CERTIFIES THAT THE DRAINAGE PLANS FOR THIS SUBDIVISION COMPLY WITH THE MINIMUM STANDARDS OF THE DISTRICT ADOPTED UNDER TEXAS WATER CODE NO. 49.211(C). THE DISTRICT HAS NOT REVIEWED AND DOES NOT CERTIFY THAT THE DRAINAGE STRUCTURES DESCRIBED ARE APPROPRIATE FOR THE SPECIFIC SUBDIVISION, BASED ON GENERALLY ACCEPTED ENGINEERING CRITERIA. IT IS THE RESPONSIBILITY OF THE DEVELOPER OF THE SUBDIVISION AND ITS ENGINEER TO MAKE THESE DETERMINATIONS.

RAUL SESIN, P.E. C.F.M. GENERAL MANAGER HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 902 N. DOOLITTLE RD. EDINBURG, TEXAS 78542

Table with 5 columns: Name, Address, City & Zip, Phone, Fax. Includes contact info for Joseph F. Phillips, Gilberto A. Gracia, and Homero Luis Gutierrez.

P.O.C. N.W.C. LOT 483

7 MILE LINE

GLASSCOCK ROAD

EAST R.O.W. LINE

EAST R.O.W. LINE

EAST R.O.W. LINE

EAST R.O.W. LINE

EAST R.O.W. LINE

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EAST R.O.W. LINE

EAST R.O.W. LINE

UNITED IRRIGATION DISTRICT

THIS PLAT IS HEREBY APPROVED BY UNITED IRRIGATION DISTRICT ON THIS THE DAY OF 2024.

NO IMPROVEMENTS OF ANY KIND (INCLUDING WITHOUT LIMITATION TREES, FENCES, AND BUILDINGS) SHALL BE PLACED UPON UNITED IRRIGATION DISTRICT RIGHT OF WAYS OR EASEMENTS. APPROVAL OF THIS PLAT DOES NOT RELEASE ANY RIGHTS THAT THE DISTRICT MAY HAVE WHETHER SHOWN OR NOT.

PRESIDENT ATTEST: SECRETARY

SHARYLAND WATER SUPPLY CORPORATION

Sharyland Conditional Approval Block for Preliminary Plats:

I, CARLOS LIMA, HEREBY CONDITIONALLY CERTIFY THAT POTABLE WATER SERVICE IS AVAILABLE FOR THE PIONEER GARDENS SUBDIVISION LOCATED WITHIN McALLEN'S ETJ IN HIDALGO COUNTY, TEXAS, SUBJECT TO THE SUBDIVISION'S POTABLE WATER SYSTEM MEETING THE APPROVAL OF THE DEVELOPER'S DESIGN ENGINEER, ALL APPLICABLE RULES AND REGULATIONS OF SHARYLAND WATER SUPPLY CORPORATION, AND LOCAL, STATE, AND FEDERAL AGENCIES.

DEVELOPER AND ITS DESIGN ENGINEER SHALL BEAR FULL RESPONSIBILITY TO ENSURE THAT THE ABOVE REFERENCED POTABLE WATER SYSTEM IS CONSTRUCTED WITHIN THE DESIGNATED SHARYLAND WATER SUPPLY CORPORATION EXCLUSIVE EASEMENT.

CARLOS LIMA GENERAL MANAGER SHARYLAND WATER SUPPLY CORPORATION

CITY OF McALLEN CERTIFICATE OF APPROVAL

UNDER LOCAL GOVERNMENT CODE 212.0115(B) WE THE UNDERSIGNED CERTIFY THAT THIS CITY OF PIONEER GARDENS WAS REVIEWED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF McALLEN.

MAYOR OF CITY OF McALLEN DATE

ATTEST: CITY SECRETARY DATE

PLANNING & ZONING COMMISSION ACKNOWLEDGMENT

THIS PLAT OF PIONEER GARDENS WAS SUBMITTED TO AND CONSIDERED BY THE PLANNING AND ZONING COMMISSION OF THE CITY OF McALLEN, TEXAS AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS DAY OF 2024.

CHAIRMAN

HIDALGO COUNTY CERTIFICATE OF PLAT APPROVAL UNDER LOCAL GOVERNMENT CODE § 232.028(a)

WE THE UNDERSIGNED CERTIFY THAT THIS PLAT OF THE PIONEER GARDENS WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY COMMISSIONERS COURT ON DATE

Hidalgo County Judge date

ATTEST: Hidalgo County Clerk date

CURVE DATA TABLE with columns: CURVE, DELTA, RADIUS, ARC LENGTH, CHORD LENGTH. Includes curves A, B, and C.

LINE DATA TABLE with columns: DATA, BEARING, LENGTH. Includes lines L1 and L2.

- LEGEND: SET 1/2" IRON ROAD WITH PLASTIC CAP STAMPED 2791 (BOUNDARY); SET 1/2" IRON ROAD WITH PLASTIC CAP STAMPED 2791 (IRON ROD FOUND); P.O.B. POINT OF BEGINNING; P.O.C. POINT OF COMMENCING

STATE OF TEXAS COUNTY OF HIDALGO

I, THE UNDERSIGNED, A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THE PROPER ENGINEERING CONSIDERATIONS HAVE BEEN GIVEN TO THIS PLAT.



PRELIMINARY GILBERTO A. GRACIA REGISTERED PROFESSIONAL ENGINEER No. 62477 IZAGUIRRE ENGINEERING GROUP, LLC. 7413 N. LA HOMA MISSION, TEXAS 78574

STATE OF TEXAS COUNTY OF HIDALGO

I, HOMERO LUIS GUTIERREZ, A REGISTERED PROFESSIONAL LAND SURVEYOR IN TEXAS, HEREBY CERTIFY THAT THE ABOVE PLAT AND DESCRIPTION OF THE PIONEER GARDENS WAS PREPARED FROM A SURVEY OF THE PROPERTY MADE ON THE GROUND BY ME OR UNDER MY SUPERVISION ON DATE 2024

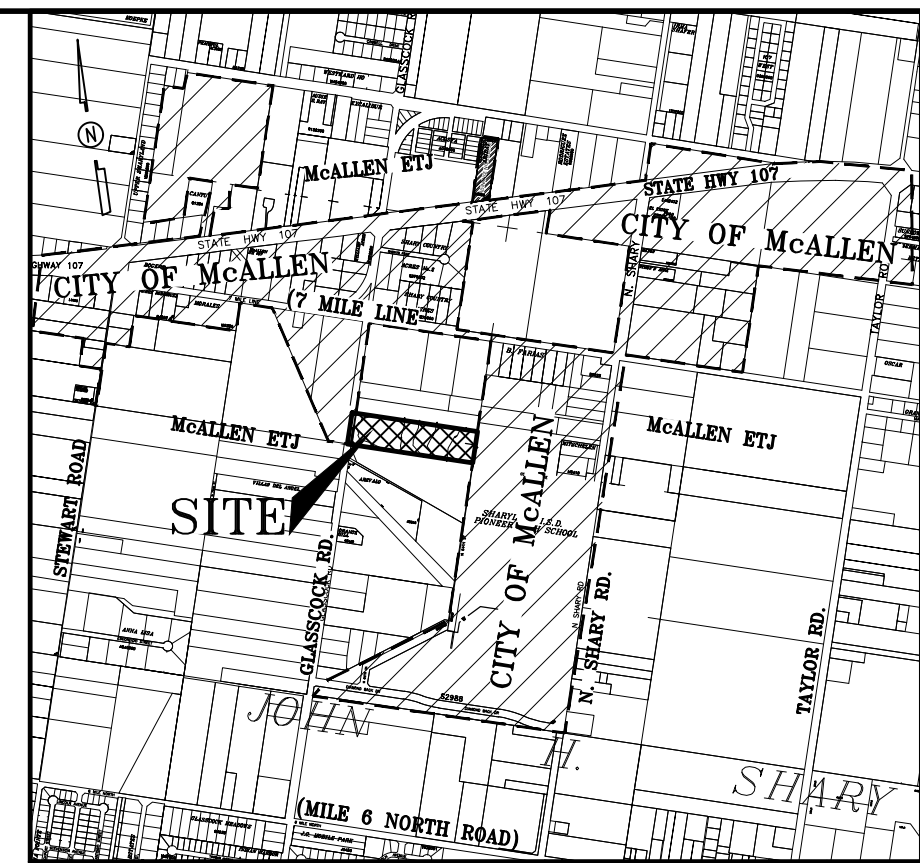


PRELIMINARY HOMERO LUIS GUTIERREZ R.P.L.S. No. 2791



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



LOCATION MAP SCALE = 1" : 2000'

LOCATION OF SUBDIVISION WITH RESPECT TO THE EXTRATERRITORIAL JURISDICTION OF A MUNICIPALITY: PIONEER GARDENS IS LOCATED IN WEST HIDALGO COUNTY, ON THE EAST SIDE OF GLASSCOCK RD., AND APPROXIMATELY 990 FT. SOUTH OF 7 MILE LINE. THE ONLY NEARBY MUNICIPALITY IS THE CITY OF McALLEN, ACCORDING TO THE OFFICIAL MAP IN THE OFFICE OF THE SECRETARY OF THE CITY OF McALLEN (POPULATION 144,579). GLASSCOCK ESTATES LIES JUST OUTSIDE OF THE CITY LIMITS AND IT IS WITHIN THE CITY OF McALLEN FIVE-MILE EXTRATERRITORIAL JURISDICTION (ETJ) UNDER LOCAL GOVERNMENT CODE § 212.001 AND LIES IN PCT. NO. 3.

PLAT NOTES AND RESTRICTIONS:

- 1.- FLOOD ZONE DESIGNATION: ZONE "X" AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD-PLAIN COMMUNITY-PANEL NUMBER 480334 0295 D. MAP REVISED: JUNE 6, 2000.
2.- NO MORE THAN ONE-SINGLE FAMILY DETACHED DWELLING SHALL BE LOCATED ON EACH LOT. APPLICATIONS FOR CONSTRUCTION ARE REQUIRED PRIOR TO OCCUPYING THE LOT. NO COMMERCIAL USE SHALL BE ALLOWED ON ALL INTERNAL LOTS 1 - 40.
3.- MINIMUM FINISH FLOOR ELEVATION SHALL BE 18" ABOVE CENTERLINE OF STREET OR 18" ABOVE NATURAL GROUND, WHICHEVER IS GREATER.
4.- NO CURB CUT, ACCESS, OR LOT FRONTAGE PERMITTED ALONG GLASSCOCK ROAD; FOR LOTS 1 & 40
5.- MINIMUM BUILDING SETBACK LINES: FRONT 25.00' OR GREATER FOR EASEMENTS; FRONT CUL-DE-SAC 15.00' OR GREATER FOR EASEMENTS; GARAGE 18.00', EXCEPT WHERE GREATER SETBACK IS REQUIRED, GREATER SETBACK APPLIES; INTERIOR SIDES 10.00' OR GREATER FOR EASEMENTS; CORNER 10.00' EXCEPT 20.0' FOR LOTS ADJACENT TO A STREET WITH A ROW GREATER THAN 50.0 FEET, OR GREATER FOR EASEMENTS; OR TO EASEMENT LINE WHICHEVER IS GREATER ON ALL CASES.
6.- DRAINAGE: IN ACCORDANCE WITH THE HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 AND HIDALGO COUNTY REQUIREMENTS, THIS DEVELOPMENT WILL BE REQUIRED TO OBTAIN A TOTAL OF 34,359.89 CUBIC FEET (0.79 ACRE FEET) OF STORM WATER RUNOFF. DRAINAGE RETENTION IN ACCORDANCE WITH THE LOCAL REQUIREMENTS WILL BE ACCOMPLISHED AS FOLLOWS: SEE DRAINAGE REPORT ON SHEET No.5.
7.- ALL IRRIGATION EASEMENTS ARE EXCLUSIVE TO UNITED IRRIGATION DISTRICT, AND THE DISTRICT ALLOWS NO OTHER UTILITIES OR USE WITHOUT ITS EXPRESS WRITTEN APPROVAL.
8.- NO UTILITY COMPANY, PUBLIC ENTITY, PARTY OR PERSON IS ALLOWED TO CROSS ABOVE OR BELOW GROUND ANY DISTRICT EASEMENT OR RIGHT OF WAY WITH LINES, POLES, OPEN DITCHES OR OTHER USE WITHOUT FIRST OBTAINING A CROSSING PERMIT FROM UNITED IRRIGATION DISTRICT.
9.- NO PERMANENT STRUCTURE, UTILITY POLE, HOLE, WALL, FENCE, DRIVEWAY OR ROAD WILL BE ALLOWED TO BE CONSTRUCTED OR EXIST ON ANY DISTRICT EASEMENT OR RIGHT OF WAY WITHOUT WRITTEN APPROVAL BY UNITED IRRIGATION DISTRICT. ANY UNAUTHORIZED STRUCTURE WITHIN THE EXISTENT BOUNDARY IS SUBJECT TO IMMEDIATE REMOVAL AT VIOLATOR'S EXPENSE.
10.- NO UTILITY COMPANY, PUBLIC ENTITY, PARTY OR PERSON IS ALLOWED TO CONNECT TO ANY DISTRICT FACILITY WITHOUT FIRST OBTAINING A PERMIT FROM UNITED IRRIGATION DISTRICT. ANY CONNECTION NOT AUTHORIZED BY THE DISTRICT IS SUBJECT TO IMMEDIATE REMOVAL AT VIOLATOR'S EXPENSE.
11.- BENCHMARK NOTE: THE FOLLOWING BENCHMARK IS IDENTIFIED ON THE FACE OF THE PLAT AND ON THE ATTACHED ENGINEERING PLANS.
BM1: ELEV. _____ AT A IRON ROD FOUND AT THE NORTH EAST ROW LINE AND THE EAST PROPERTY LINE OF THIS SUBDIVISION. X = 1057186.6873 Y = 16637604.6856, SOUTH TEXAS ZONE (4205), NAD 83.
BM2: ELEV. _____ AT AN IRON ROD FOUND AT THE SOUTH EAST R.O.W. LINE AND THE EAST PROPERTY LINE OF THIS SUBDIVISION. X = 1057137.0376 Y = 16637278.2593, SOUTH TEXAS ZONE (4205), NAD 83.
12.- NO STRUCTURE SHALL BE PERMITTED OVER ANY EASEMENT. EASEMENTS SHALL BE KEPT CLEAR OF FENCES, BUILDINGS, SHEDS, SHRUBS TREES, AND OTHER PLANTINGS (EXCEPT LOW LESS THAN 18 INCHES MATURE HEIGHT, GROUND COVER, GRASS, OR FLOWERS) AND OTHER OBSTRUCTIONS THAT WOULD INTERFERE WITH THE OPERATIONS AND MAINTENANCE OF THE EASEMENT.
13.- EACH PURCHASE CONTRACT MADE BETWEEN A SUBDIVIDER AND PURCHASER OF A LOT IN THIS SUBDIVISION SHALL CONTAIN A STATEMENT DESCRIBING HOW AND WHEN WATER, SEWER, ELECTRICITY AND GAS SERVICES WILL BE MADE AVAILABLE TO THE SUBDIVISION.
14.- AS PER LOCAL GOVERNMENT CODE REQUIREMENTS, SANITARY SEWER MUST BE CONNECTED TO RESIDENTIAL HOMES PRIOR TO RECEIVING A FINAL CLEARANCE FOR WATER METER. A SEWER TAP INSPECTION SHALL BE PROVIDED FROM THE ENTITY SERVICE PROVIDER PRIOR TO RECEIVING A CLEARANCE FOR WATER METER(S).
15. THE RESIDENTIAL LOTS SHOULD REFLECT SERVICE BY A 3/4" METER.
16. ALL PUBLIC UTILITIES EASEMENTS DEDICATED BY THIS PLAT SHALL BE A MINIMUM WIDTH OF 15.00 FEET AS PER THE HIDALGO COUNTY MODEL SUBDIVISION RULES. BY SIGNING THIS PLAT DEVELOPER AND ENGINEER CERTIFY THAT ALL OTHER EASEMENTS SHOWN COMPLY WITH THE SIZE REQUIRED BY EACH UTILITY PROVIDER OCCUPYING AN EASEMENT.
17.- ALL LOTS SHALL HAVE A POST DEVELOPMENT FINISHED GRADE FROM THE REAR OF THE LOT TO THE CURB AND/OR ROADSIDE DITCH AT A 0.25% SLOPE TO ACCOMPLISH POSITIVE DRAINAGE.
18.- ALL SHARYLAND WATER SUPPLY CORPORATION EASEMENTS ARE EXCLUSIVE. NO OTHER USE OF THE EASEMENT IS PERMITTED WITHOUT THE EXPRESS WRITTEN APPROVAL OF SHARYLAND WATER SUPPLY CORPORATION.

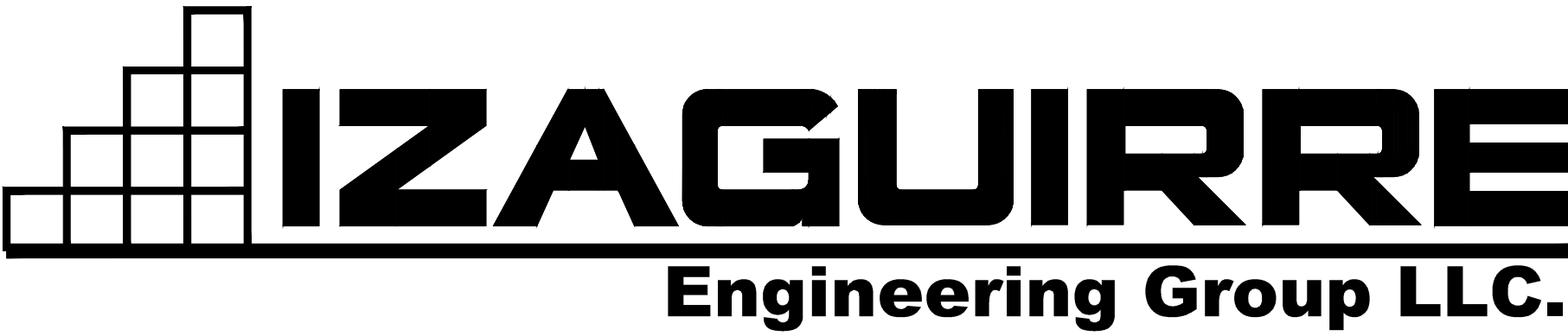
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SHEET 5.- PAVING AND DRAINAGE LAYOUT, DRAINAGE REPORT INCLUDING DESCRIPTION OF DRAINAGE AND HOW IT WILL SERVE THIS DEVELOPMENT; MAP OF TOPOGRAPHY AND DRAINAGE, AND ENGINEER'S CERTIFICATION; REVISION NOTES; TYPICAL ROADWAY SECTION; CURB AND GUTTER SECTION; VALLEY GUTTER SECTION.
SHEET 6.- STREETLIGHT LAYOUT

Table with 4 columns: SHEET NO. OF 6 SHEETS, DATE PREPARED, PREPARED BY, CHECKED BY, APPROVED BY. Includes dates 9-30-2024 and initials MC.

DATE OF PREPARATION: 10-7-2024

Table with 4 columns: NO., SHEET, REVISION, DATE, APPROVED. Includes sheet numbers 1 through 6.

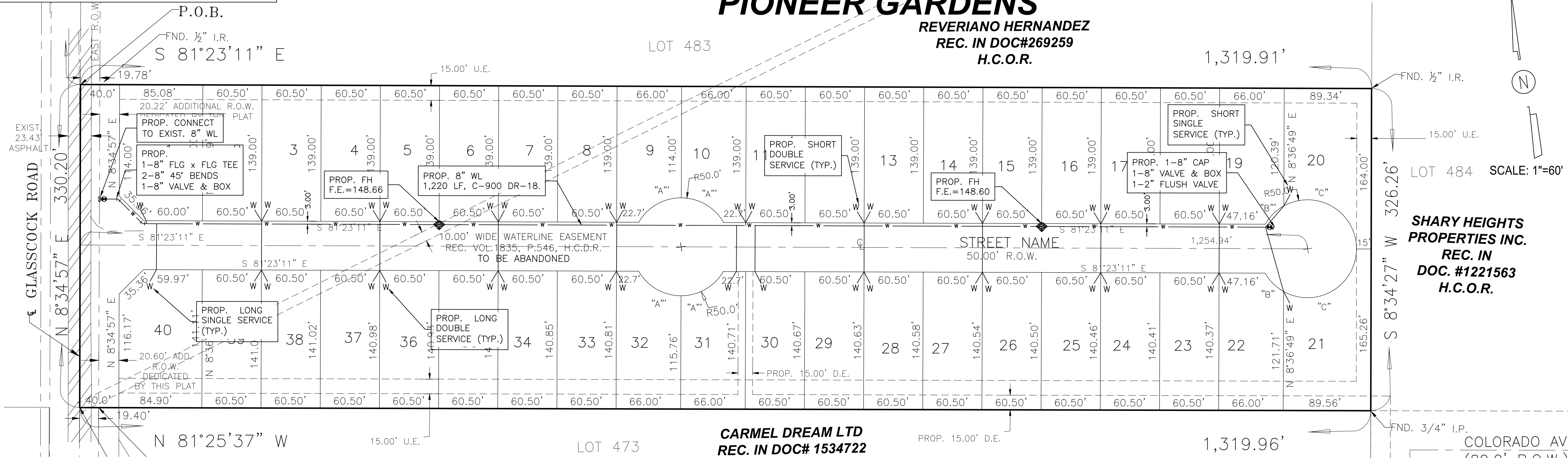


2121 E GRIFFIN PKWY SUITE 2 F-10214 PHONE (956) 584-0554 MISSION TEXAS, 78574 FAX (956) 584-0049

ALL WATERLINE CONSTRUCTION SHALL REFERENCE S.W.S.C. UTILITY DISTRICT STANDARDS. CONTRACTOR SHALL REFERENCE S.W.S.C. DETAILS WHENEVER CONFLICTS ARISE.

WATER LAYOUT OF: PIONEER GARDENS

REVERIANO HERNANDEZ
REC. IN DOC#269259
H.C.O.R.



FINAL ENGINEERING REPORT FOR PIONEER GARDENS:
BY GILBERTO A. GRACIA, P.E.

WATER SUPPLY: Description and Costs.

WATER SUPPLY:
PIONEER GARDENS HAS BEEN PROVIDED WITH POTABLE WATER BY THE WATER COMPANY OF SHARYLAND WATER SUPPLY COMPANY (S.W.S.C.), THE SUBDIVIDER AND COMPANY S.W.S.C. SIGNED A CONTRACT BY WHICH, THE SUBDIVISION WILL RECEIVE SUFFICIENT WATER PROVISION FOR AT LEAST 30 YEARS AND S.W.S.C. HAS PROVIDED SUFFICIENT DOCUMENTATION TO ESTABLISH THE LONG TERM QUANTITY AND QUALITY OF THE AVAILABLE WATER SUPPLIES TO SERVE THE FULL DEVELOPMENT OF THIS SUBDIVISION.

S.W.S.C. HAS AN EXISTING 8" DIAMETER LINE RUNNING ALONG GLASSCOCK RD.

THE WATER SYSTEM FOR GLASSCOCK ESTATES CONSISTS OF A 8" DIAMETER WATER LINE THAT TAPS INTO THE EXISTING 8" DIAMETER WATER LINE THAT RUNS ALONG GLASSCOCK ROAD. THE PROPOSED 8" DIAMETER WATER LINE RUNS EAST ALONG THE NORTH SIDE OF PROPOSED STREET, ENDING WITH A VALVE.

FROM THE PROPOSED 8" DIAMETER WATERLINE, SEVENTEEN (17) DOUBLE SERVICES OF 1" OF DIAMETER AND FOUR (4) SINGLE SERVICES ARE COMING OUT OF THIS LINE. SAID SERVICES TERMINATE AT THE WATER METERS OF EACH LOT. THE 8" DIAMETER LINE, THE WATER SERVICE LINES, AND THE WATER METER BOXES HAS BEEN INSTALLED AT A TOTAL COST OF \$ 97,140.00 OR \$ 2,428.50 PER LOT. IN ADDITION THE SUBDIVIDER HAS PAID PAY S.W.S.C. THE AMOUNT OF \$128,000.00 WHICH COVERS THE \$-3,200.00 COST PER LOT STATED IN THE 30 YR WATER SERVICE AGREEMENT, WHICH SUM REPRESENTS THE TOTAL COST OF WATER METER, RIGHTS ACQUISITION FEES, AND ALL MEMBERSHIP OR OTHER FEES ASSOCIATED WITH CONNECTING THE INDIVIDUAL LOTS IN THE SUBDIVISION TO S.W.S.C. UPON REQUEST BY THE LOT OWNER, S.W.S.C. WILL PROMPTLY INSTALL AT NO CHARGE THE WATER METER FOR THAT LOT. THE ENTIRE WATER FACILITIES HAVE BEEN APPROVED AND ACCEPTED BY S.W.S.C. AND SAID DISTRIBUTION SYSTEM IS OPERABLE AS OF THE DATE OF THE RECORDING OF THE PLAT.

ENGINEER 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 WATER AND SEWAGE FACILITIES, DISCUSSED ABOVE, ARE AS FOLLOWS:

WATER FACILITIES - THESE FACILITIES FULLY CONSTRUCTED HAS COST A GRAND TOTAL OF \$225,140.00 WHICH EQUALS TO \$ 5,628.50 PER LOT.



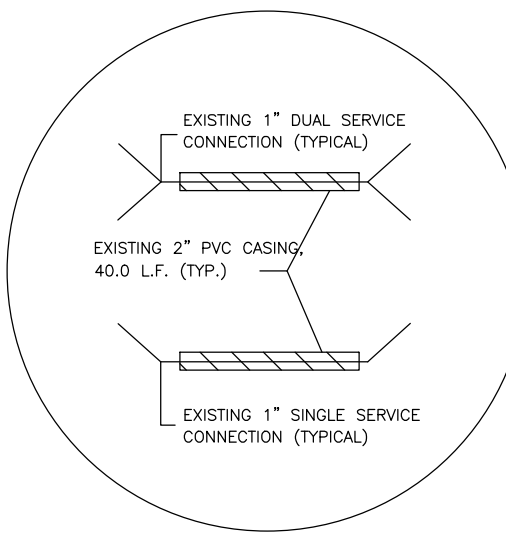
PRELIMINARY
GILBERTO A. GRACIA-P.E. No. 62477
This seal appearing on this document was authorized by Gilberto A. Gracia, P.E. No. 62477 on the above designated date.



PRELIMINARY
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This seal appearing on this document was authorized by Gilberto A. Gracia, P.E. No. 62477 on the above designated date.

GENERAL CONSTRUCTION NOTES:

- ALL EXISTING WATER LINES TO BE C-900 DR-18.
- CONTRACTOR TO INSTALL 1" SERVICE CONNECTIONS TO EVERY LOT & ALL SERVICES TO BE LOCATED IN FRONT OF LOTS APPROXIMATELY 1.0 FOOT FROM LOT LINE. CONTRACTOR TO UTILIZE SINGLE & DOUBLE SERVICE CONNECTIONS AS NEEDED.
- CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES FOR VERIFICATION OF CONFLICTS PRIOR TO CONSTRUCTION ON SITE.
- SEE WATER DETAIL SHEET FOR MORE INFORMATION.
- ALL LOTS SHALL BE PROVIDED WITH SERVICE STUBOUTS AND SAID SERVICE LOCATIONS SHALL BE MARKED ON THE CURB AND CUTTER WITH A "W" NOT LESS THAN 1 1/2" IN SIZE OR IN A MANNER APPROVED BY THE CITY AND SHALL BE 12" BELOW FINISH GRADE ELEVATION.
- THE RESIDENTIAL LOTS SHOULD REFLECT SERVICE BY A 3/4" METER.



COST ESTIMATE

WATER DISTRIBUTION:	\$ 97,140.00
PAVING IMPROVEMENTS:	\$ 316,910.50
DRAINAGE IMPROVEMENTS:	\$ 25,724.00
SANITARY SEWER IMPROVEMENTS:	\$ 180,636.00
TOTAL:	\$ 620,410.50

FOR: GILBERTO A. GRACIA, P.E.

PROVISION DE AGUA: DESCRIPCION, Y GASTOS.

PIONEER GARDENS HA SIDO PROVISTA DE AGUA POTABLE POR LA COMPAÑIA DE SHARYLAND WATER SUPPLY COMPANY (S.W.S.C.). EL SUBDIVIDOR Y LA COMPAÑIA DE S.W.S.C. FIRMARON UN CONTRATO POR EL CUAL LA SUBDIVISION RECIBIRA PROVISION DE AGUA SUFICIENTE POR LOS PROXIMOS 30 AÑOS Y LA COMPAÑIA DE S.W.S.C. PRESENTO SUFICIENTE DOCUMENTACION PARA ESTABLECER A LARGO PLAZO LA CANTIDAD Y CALIDAD DE AGUA ABASTECIDA PARA SERVIR EL FUTURO DESARROLLO DE LA SUBDIVISION.

S.W.S.C. TIENE UNA LINEA DE 8" DE DIAMETRO EXISTENTE, CORRIENDO POR LA CALLE GLASSCOCK ROAD. DE LA SUBDIVISION EXISTENTE DE EDUARDO'S NO. 19.

EL SISTEMA DE AGUA PARA GLASSCOCK ESTATES CONSISTE DE UNA LINEA DE AGUA DE 8" DE DIAMETRO QUE SE CONECTA CON LA LINEA EXISTENTE DE 8" DE DIAMETRO QUE CORRE EN LA CALLE GLASSCOCK ROAD. LA LINEA PROPUESTA DE 8" DE DIAMETRO CORRE HACIA EL ESTE DE LA CALLE PROPUESTA, TERMINANDO EN EL CUL DE SAC CON UNA VALVULA.

DE LA LINEA DE 8" DE DIAMETRO SE DESPRENDEN DIEZ Y SIETE (17) SERVICIOS DOBLES DE 1" DE DIAMETRO Y CUATRO (4) SERVICIOS DE AGUA SENCILLOS QUE VAN HACIA LOS MEDIDORES DE CADA LOTE. LA LINEA DE 8" DE DIAMETRO, LAS LINEAS DE SERVICIOS DE AGUA, Y LAS CAJAS DE LOS MEDIDORES SE INSTALARON A UN COSTO TOTAL DE US \$ 97,140.00 O US \$ 2,428.50 POR LOTE. EL DUEÑO DE LA SUBDIVISION PAGO ADICIONALMENTE A S.W.S.C. LA CANTIDAD DE \$128,000.00 QUE CUBRE LOS US \$ 3,200.00 COST POR LOTE DE ACUERDO AL CONTRATO Y DOCUMENTO DE 30 AÑOS DE SERVICIO DE AGUA POTABLE QUE CUBRE EL MEDIDOR DE AGUA, (INCLUYENDO COSTOS DE LA INSTALACION DE CADA MEDIDOR, TARIFAS DE CONEXION Y MEMBRESIAS). CUANDO EL DUEÑO DEL SOLAR SOLICITE UN MEDIDOR DE AGUA, LA COMPAÑIA S.W.S.C. INSTALARA EL MEDIDOR SIN COSTO ALGUNO AL DUEÑO. EL SISTEMA DE AGUA ESTA EN FUNCIONAMIENTO COMPLETO ANTES O EN LA FECHA, EN LA CUAL LA SUBDIVISION SEA REGISTRADA EN EL CONDADO DE HIDALGO.

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 GOBERNANDO 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 HA SIDO INSTALADO Y COMPLETAMENTE CONSTRUIDO A UN COSTO TOTAL DE US \$225,140.00 O US \$5,628.50 POR LOTE

STATE OF TEXAS

COUNTY OF HIDALGO

OWNER'S DEDICATION, CERTIFICATION, AND ATTESTATION

I, JOSEPH F. PHILLIPS, OWNER OF THE 9.991 ACRE TRACT OF LAND ENCOMPASSED WITHIN THE PROPOSED PIONEER GARDENS HEREBY SUBDIVIDE THE LAND AS DEPICTED IN THIS SUBDIVISION PLAT AND DEDICATE TO PUBLIC USE THE STREET, PARK, AND EASEMENTS SHOWN HEREIN.

I CERTIFY THAT I HAVE COMPLIED WITH THE REQUIREMENTS OF TEXAS LOCAL GOVERNMENT CODE 232.032 AND THAT:

- THE WATER QUALITY AND CONNECTIONS TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS;
 - SEWER CONNECTIONS TO THE LOTS OR SEPTIC TANKS MEET, OR WILL MEET, THE MINIMUM REQUIREMENTS OF STATE STANDARDS;
 - ELECTRICAL CONNECTIONS PROVIDED TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS;
 - GAS CONNECTIONS, IF AVAILABLE, PROVIDED TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS.
- I ATTEST THAT THE MATTERS ASSERTED IN THIS PLAT ARE TRUE AND COMPLETE.

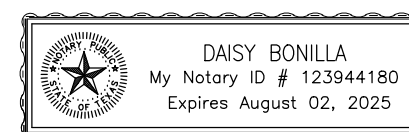
JOSEPH F. PHILLIPS,
PRESIDENT
BEXAR COUNTY
METRO INVESTMENTS, INC.
P.O. BOX 1810
MCALLEN, TEXAS 78501

DATE

STATE OF TEXAS
COUNTY OF HIDALGO

BEFORE ME, the undersigned notary public, on this day personally appeared JOSEPH F. PHILLIPS proved to me through her 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 she executed the same for the purposes and consideration thereby expressed.

Given under my hand and seal of office this _____ day of _____, 2024.



NOTARY PUBLIC - STATE OF TEXAS



PRELIMINARY

PIONEER GARDENS
WATER LAYOUT

IZAGUIRRE
Engineering Group LLC.

2121 E. GRIFFIN PKWY SUITE 2
MISSION TEXAS, TX 78574

PHONE (956) 584-0554
FAX (956) 584-0049

*NOTE: SEE CONSTRUCTION TYPICAL DETAILS AND SPECIFICATION ON PAGE 3

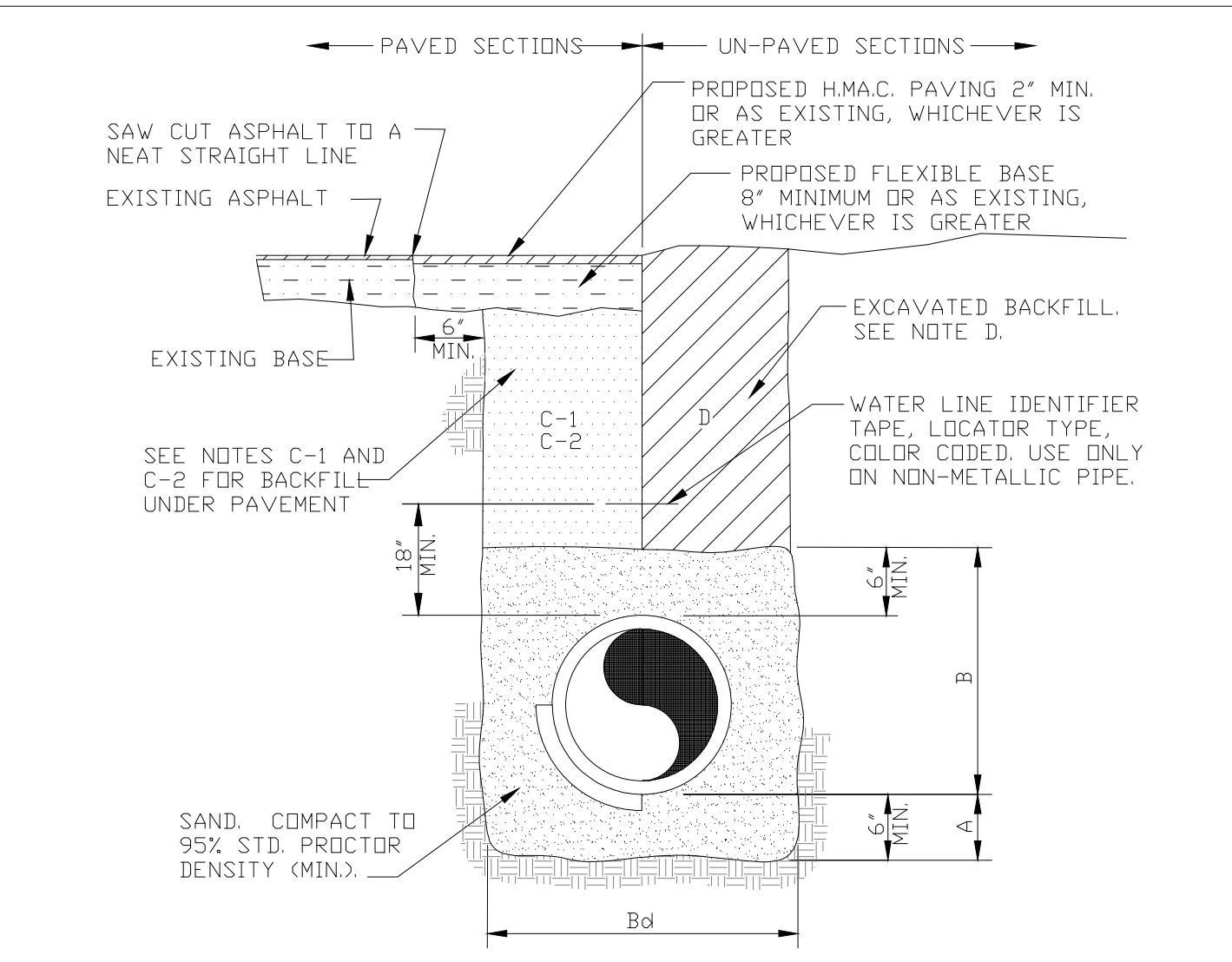
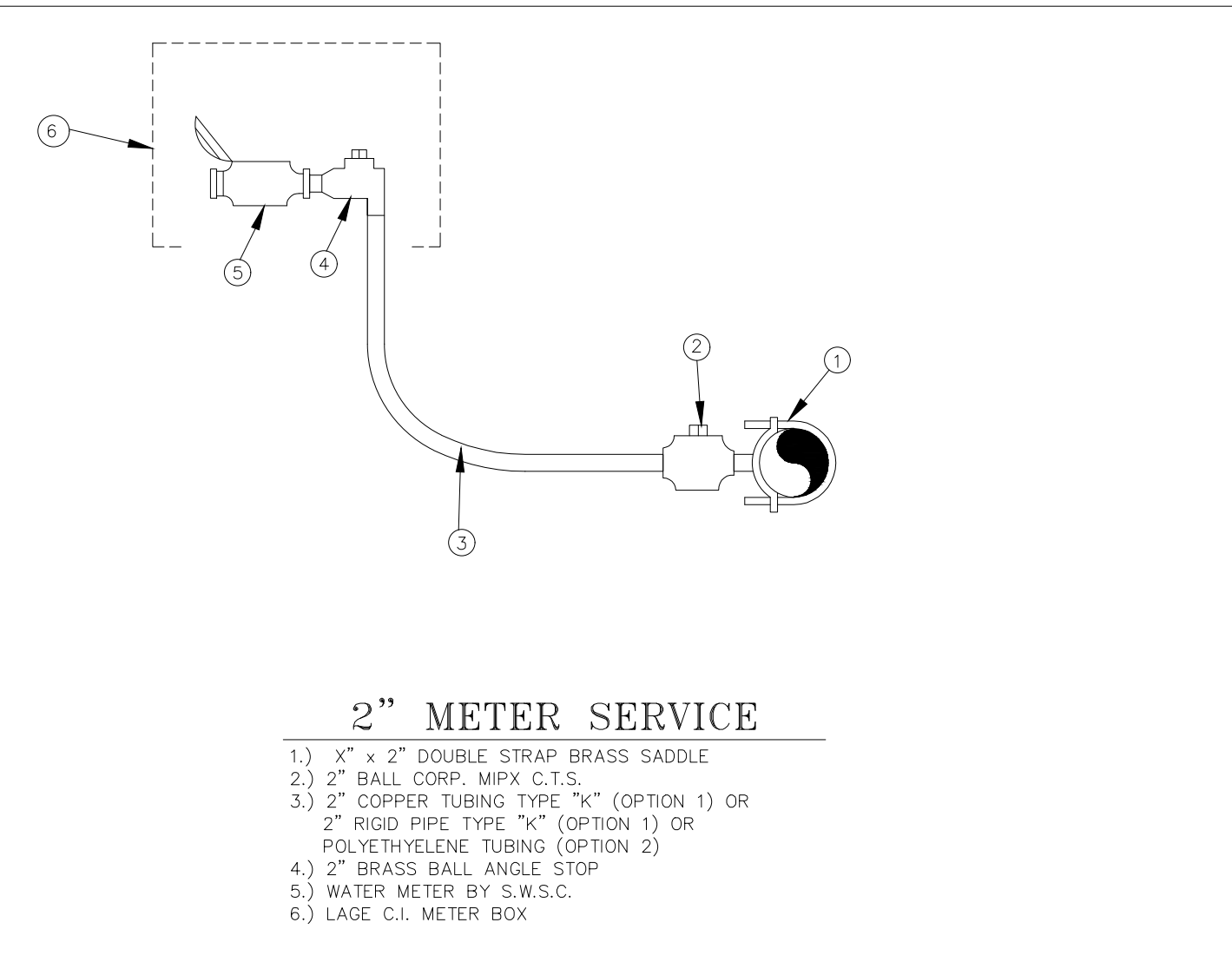
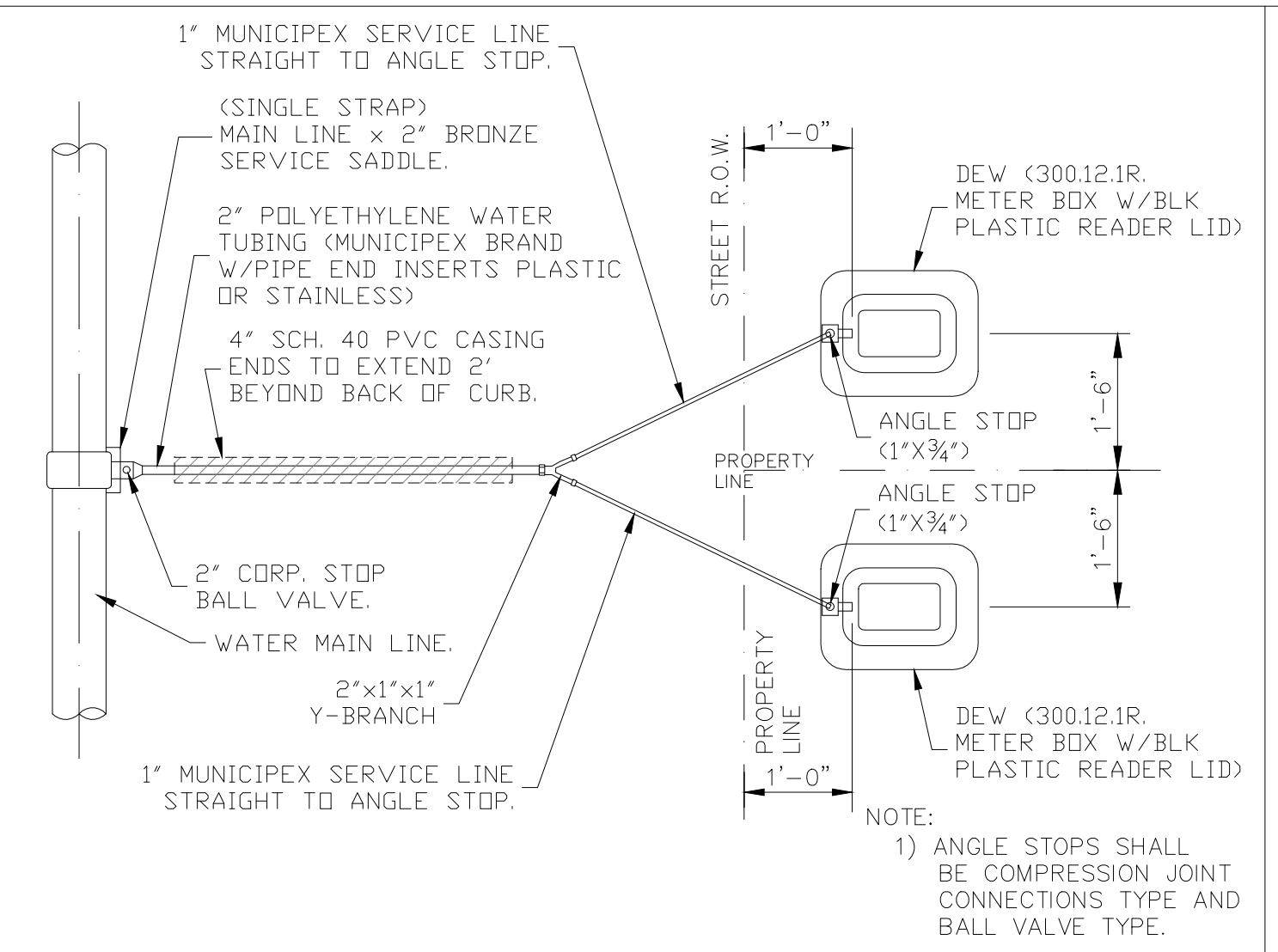
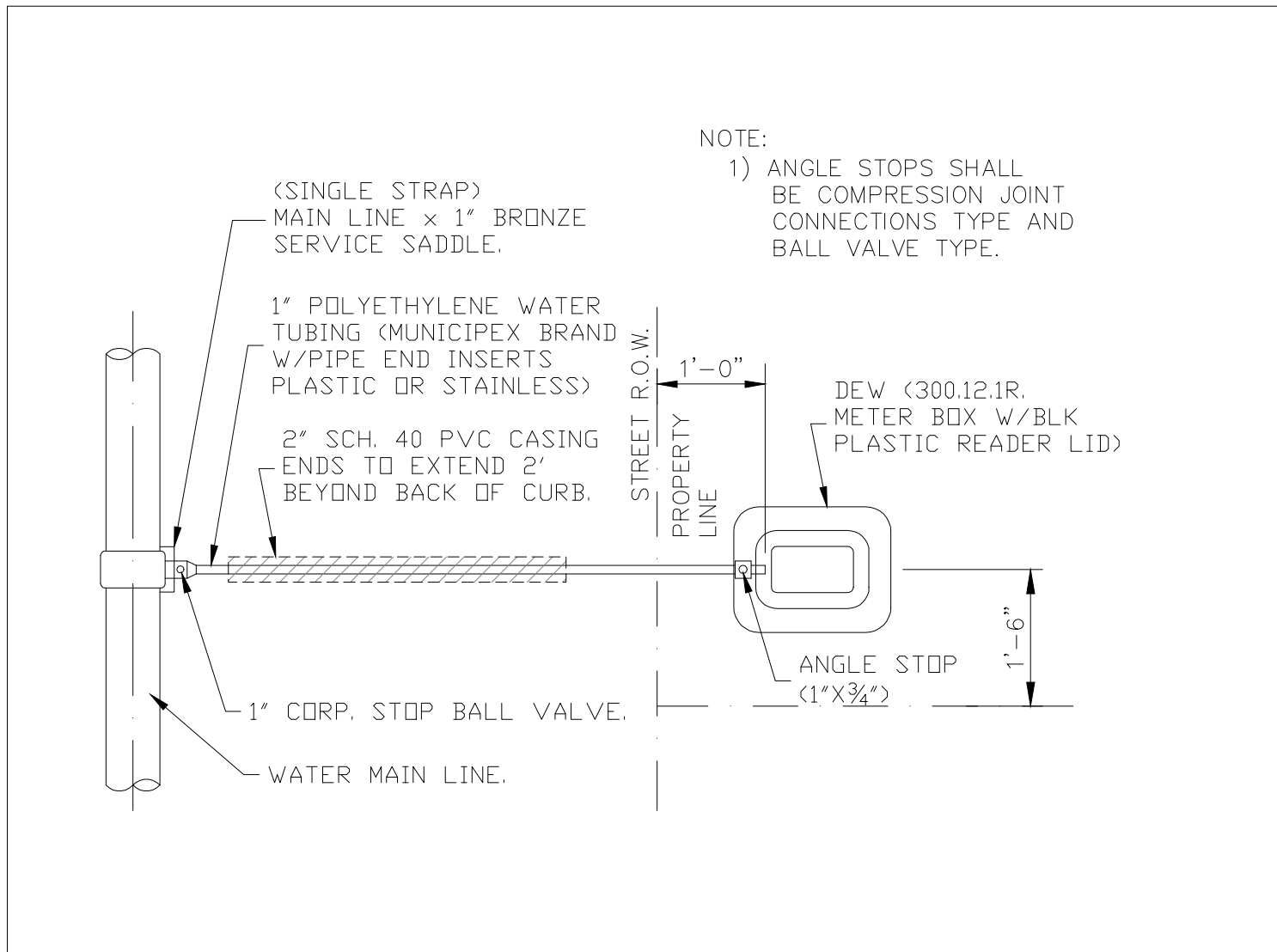
SHEET NO. 2
OF 6 SHEETS

SHARYLAND WATER SUPPLY DETAILS PIONEER GARDENS



PIONEER GARDENS
SHARYLAND WATER SUPPLY DETAILS

IZAGUIRRE
Engineering Group LLC.
2121 E. GRIFFIN PKWY SUITE 2
MISSION TEXAS, 78574
PHONE (956) 884-0554
FAX (956) 384-0049
F-10214



W-1 RESIDENTIAL SINGLE WATER SERVICE CONNECTION

W-2 RESIDENTIAL DUAL WATER SERVICE CONNECTION

W-3 2" METER SERVICE

W-4A TYPICAL WATER LINE AND SEWER FORCEMAIN BEDDING DETAIL

NOTES:
A. SAND BEDDING PLACED, HAND LEVELED, AND COMPACTED BEFORE PIPE IS LAID, UP TO BOTTOM OF PIPE (MIN. THICKNESS = 8").
B. SAND BACKFILL PLACED AND COMPACTED AFTER PIPE IS LAID, FROM BOTTOM OF PIPE TO 6" ABOVE THE TOP OF PIPE. WORK IN UNDER PIPE HAUNCHES AND COMPACT BY HAND TO SPRING LINE. USE VIBRATORY-TYPE COMPACTORS FOR LIFTS ABOVE THE SPRING LINE. MAXIMUM 6" LIFTS.
Bd. MINIMUM TRENCH WIDTH: PIPE O.D. + 16" (FOR 16" PIPE AND SMALLER) OR PIPE O.D. X 1.25 + 12" (FOR 18" PIPE AND LARGER)
C-1. (CITY STREETS, PARKING AREA, AND DRIVEWAYS) SELECT EXCAVATED BACKFILL MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6" MAX. LIFTS.
C-2. (STATE MAINTAINED ROADWAYS) SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT COMPACTED TO 95% STANDARD PROCTOR DENSITY.
D. EXCAVATED EARTH BACKFILL MECHANICALLY COMPACTED IN 12" MAX. LIFTS. MINIMUM STANDARD PROCTOR DENSITY: 90% OUTSIDE RIGHT OF WAY; 95% INSIDE RIGHT OF WAY.
E. EMBEDMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D 2321. EMBEDMENT MATERIAL SHALL BE CLASS II OR III WITH < 50% PASSING A No. 200 SIEVE AND PLASTICITY INDEX < 7.
WHERE THIS STANDARD CONFLICTS WITH THE RECOMMENDATION OF ANY GEOTECHNICAL REPORT, OBTAIN WRITTEN CLARIFICATION FROM THE UTILITY ENGINEER PRIOR TO CONSTRUCTION.
FOUNDATION PREPARATION USING COBBLES, GRAVEL, CEMENT STABILIZATION, OR OTHER METHODS AS DIRECTED BY THE ENGINEER SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.
BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, AND COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6" MAXIMUM LIFTS. STRUCTURE BACKFILL MATERIAL SHALL BE SAND.
GENERAL NOTES:
1) THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING WITH ALL APPROPRIATE UTILITY COMPANIES FOR THE LOCATION OF ALL UTILITIES WITHIN CONSTRUCTION AREA.
2) ALL EXIST. UTILITIES ARE AT APPROXIMATE LOCATIONS.
3) THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS BASED ON OBSERVATION OF ABOVEGROUND STRUCTURES, LINES SPOTTED BY THE OWNER, AND UTILITY SPOTTING. ACTUAL LOCATION OF THESE UTILITIES MAY VARY, AND ADDITIONAL BURIED UTILITIES MAY BE ENCOUNTERED UPON EXCAVATION.
4) BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CALL FOR UTILITY SPOTTING BY THE APPROPRIATE AGENCY AND VERIFY THE LOCATION OF THESE UTILITIES TO HIS SATISFACTION.
5) ANY DAMAGE CAUSED TO EXISTING STRUCTURES AND/OR UTILITIES BY THE CONTRACTOR SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CORRECT AT HIS EXPENSE.
6) ANY DAMAGE TO PROPERTY, OUTSIDE THE CONSTRUCTION ZONE, CAUSED BY THE CONTRACTOR, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CORRECT AT HIS EXPENSE.

THRUST BLOCK SIZE			
DIAMETER OF PIPE IN INCHES	HORIZONTAL BENDS		WEIGHT AT VERTICAL BENDS-LBS.
	SURFACE AREA SQ. FT.	THICKNESS IN INCHES	
22-1/2" BENDS	2	8	1,700
6" OR LESS	3	12	3,000
8	3.5	12	4,500
12	4	14	6,800
14	5	18	9,000
16	6	18	11,800
45° BEND	4	12	3,200
6" OR LESS	5	14	5,800
8	6	18	9,000
12	7	18	13,000
14	8	24	17,000
16	11.5	24	23,200
90° BEND	6	12	6,000
6" OR LESS	8	15	10,700
8	10	18	16,700
12	12	18	24,000
14	18	24	32,600
16	21	24	42,700



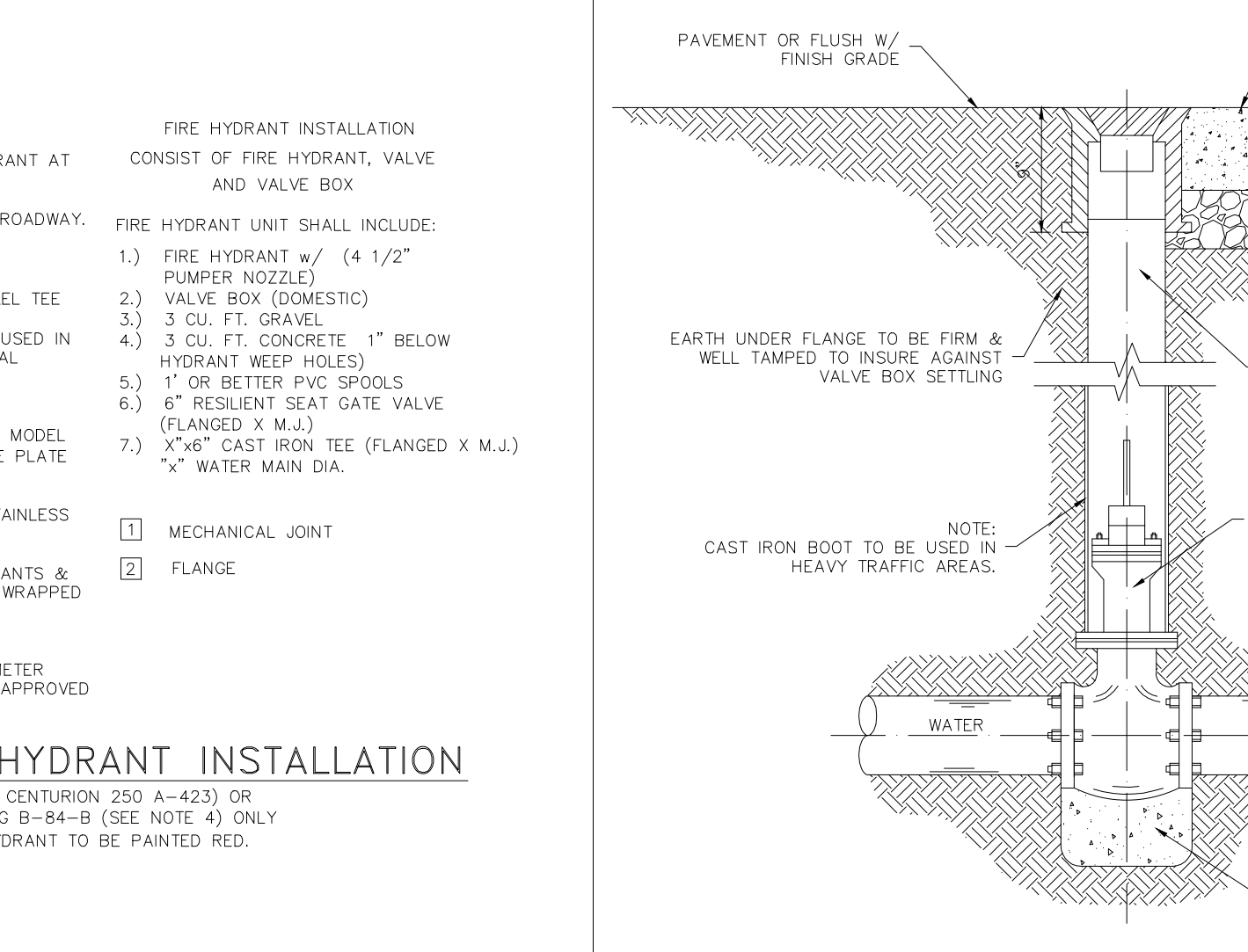
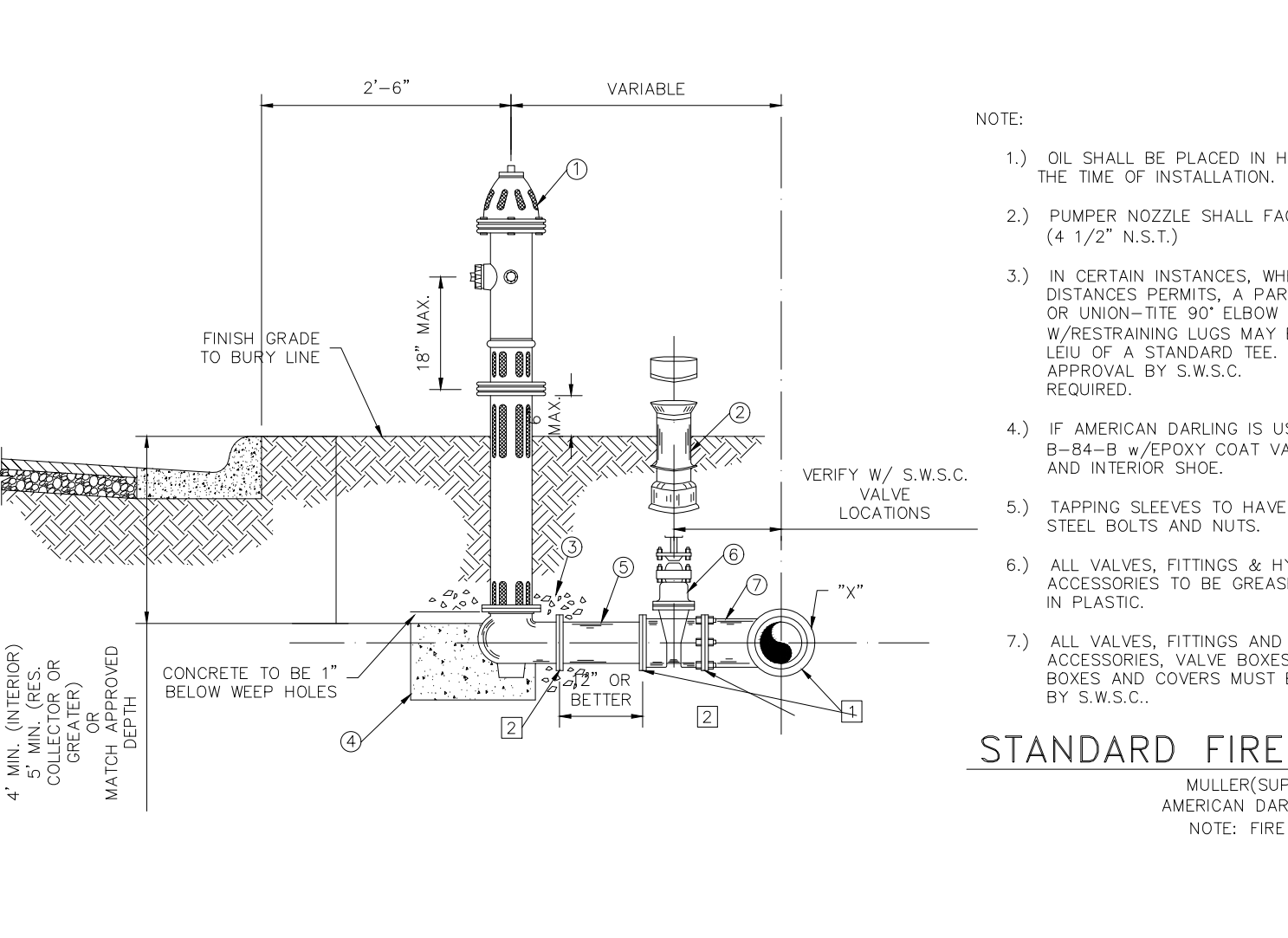
W-4B STANDARD WATER PIPE BEDDING DETAILS

W-5 THRUST BLOCKS DETAILS

W-6A WATER / SANITARY SEWER CROSSING DETAILS

W-6B WATER / SANITARY SEWER CROSSING DETAILS

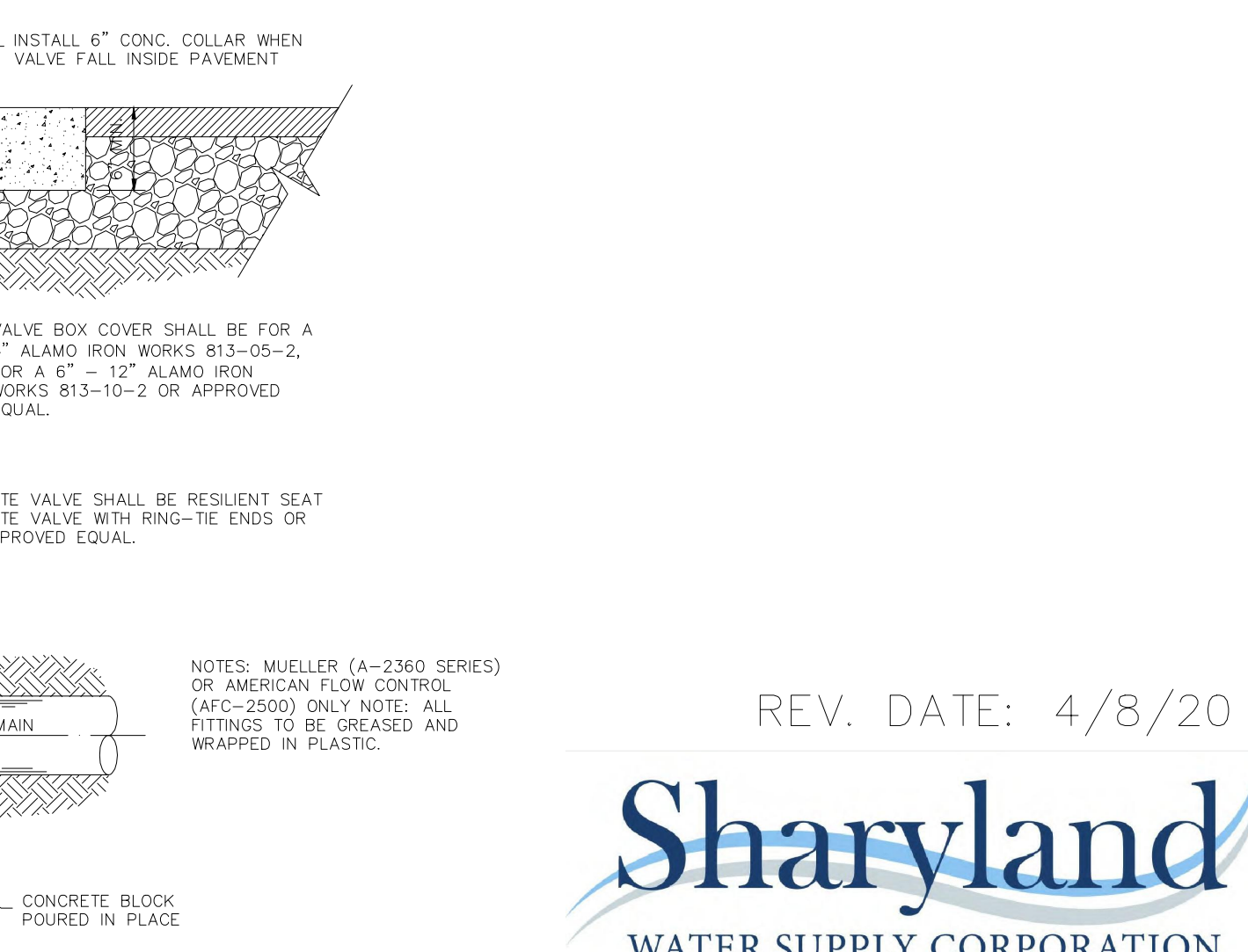
(A) A COLLECTION SYSTEM PIPE THAT RUNS PARALLEL TO AND BELOW A WATER SUPPLY PIPE MUST BE CONSTRUCTED OF AT LEAST 150 PSI PRESSURE CLASS, CORROSION-RESISTANT, NON-BRITTLE PIPE THAT:
(i) IS LOCATED AT LEAST TWO VERTICAL FEET BELOW THE WATER SUPPLY PIPE;
(ii) IS LOCATED AT LEAST FOUR HORIZONTAL FEET AWAY FROM THE WATER SUPPLY PIPE; AND
(iii) INCLUDES JOINTS THAT ARE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE.
(B) A CASING PIPE FOR A COLLECTION SYSTEM PIPE THAT RUNS PARALLEL BELOW A WATER SUPPLY PIPE MUST BE CONSTRUCTED OF AT LEAST 150 PSI PRESSURE CLASS PIPE THAT:
(i) IS SEALED AT BOTH ENDS WITH CEMENT GROUT OR A MANUFACTURED SEAL;
(ii) IS AT LEAST TWO NOMINAL SIZES LARGER THAN THE WASTEWATER COLLECTION PIPE; AND
(iii) IS SUPPORTED BY SPACERS BETWEEN THE COLLECTION SYSTEM PIPE AND THE ENCASED PIPE AT A MAXIMUM OF FIVE-FOOT INTERVALS.
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY PAGE 6 CHAPTER 217-- DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS
(7) IF A COLLECTION SYSTEM PIPE CROSSES BELOW A WATER SUPPLY PIPE, EACH PORTION OF THE COLLECTION SYSTEM PIPE WITHIN NINE FEET OF THE WATER SUPPLY PIPE MUST EITHER BE CONSTRUCTED USING AT LEAST 150 PSI PRESSURE CLASS PIPE ACCORDING TO SUBPARAGRAPH (A) OF THIS PARAGRAPH, OR MUST BE ENCASED IN CEMENT-STABILIZED SAND ACCORDING TO SUBPARAGRAPH (B) OF THIS PARAGRAPH, OR MUST BE ENCASED IN A CASING PIPE ACCORDING TO SUBPARAGRAPH (C) OF THIS PARAGRAPH. (A) A COLLECTION SYSTEM THAT CROSSES BELOW A WATER SUPPLY PIPE AND IS CONSTRUCTED OF AT LEAST 150 PSI PRESSURE CLASS, CORROSION-RESISTANT, NON-BRITTLE PIPE MUST:
(i) HAVE AT LEAST SIX INCHES OF SEPARATION BETWEEN THE OUTSIDES OF THE PIPES;
(ii) BE CENTERED ON THE CROSSING; (iii) BE AT LEAST 18 FEET LONG; AND
(iv) TERMINATE AT JOINTS THAT ARE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE.
(B) A COLLECTION SYSTEM PIPE THAT CROSSES BELOW A WATER SUPPLY PIPE AND IS CONSTRUCTED OF ANY MATERIAL OTHER THAN AT LEAST 150 PSI PRESSURE CLASS, CORROSION-RESISTANT, NON-BRITTLE PIPE MUST:
(i) HAVE AT LEAST TWO FEET OF SEPARATION BETWEEN THE OUTSIDES OF THE PIPES; AND
(ii) BE ENCASED IN CEMENT-STABILIZED SAND BACKFILL THAT MEETS THE REQUIREMENTS OF SUBPARAGRAPH (D) OF THIS PARAGRAPH.
(C) A CASING PIPE FOR A COLLECTION SYSTEM PIPE THAT CROSSES BELOW A WATER SUPPLY PIPE MUST BE CONSTRUCTED OF AT LEAST 150 PSI PRESSURE CLASS PIPE THAT IS:
(i) SEALED AT BOTH ENDS WITH CEMENT GROUT OR A MANUFACTURED SEAL;
(ii) AT LEAST TWO NOMINAL SIZES LARGER THAN THE WASTEWATER COLLECTION PIPE; AND
(iii) SUPPORTED BY SPACERS BETWEEN THE COLLECTION SYSTEM PIPE AND THE ENCASED PIPE AT A MAXIMUM OF FIVE-FOOT INTERVALS.
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY PAGE 7 CHAPTER 217--DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS
(D) CEMENT-STABILIZED SAND FOR ENCASED COLLECTION SYSTEM PIPES MUST:
(i) INCLUDE AT LEAST 160 POUNDS OF CEMENT FOR EVERY CUBIC YARD OF SAND;
(ii) BE INSTALLED BEGINNING ONE-QUARTER PIPE DIAMETER BELOW THE CENTERLINE OF THE COLLECTION SYSTEM PIPE;
(iii) BE INSTALLED ENDING ONE FULL PIPE DIAMETER ABOVE THE TOP OF THE COLLECTION SYSTEM PIPE, OR 12 INCHES ABOVE THE TOP OF THE COLLECTION SYSTEM PIPE, WHICHEVER IS GREATER.



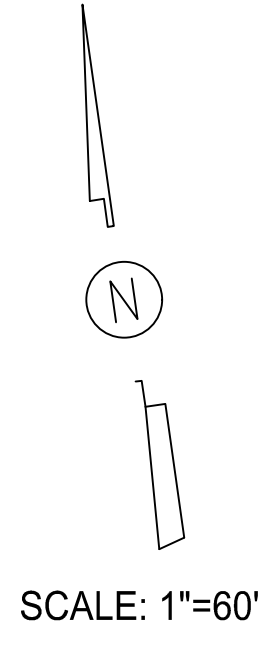
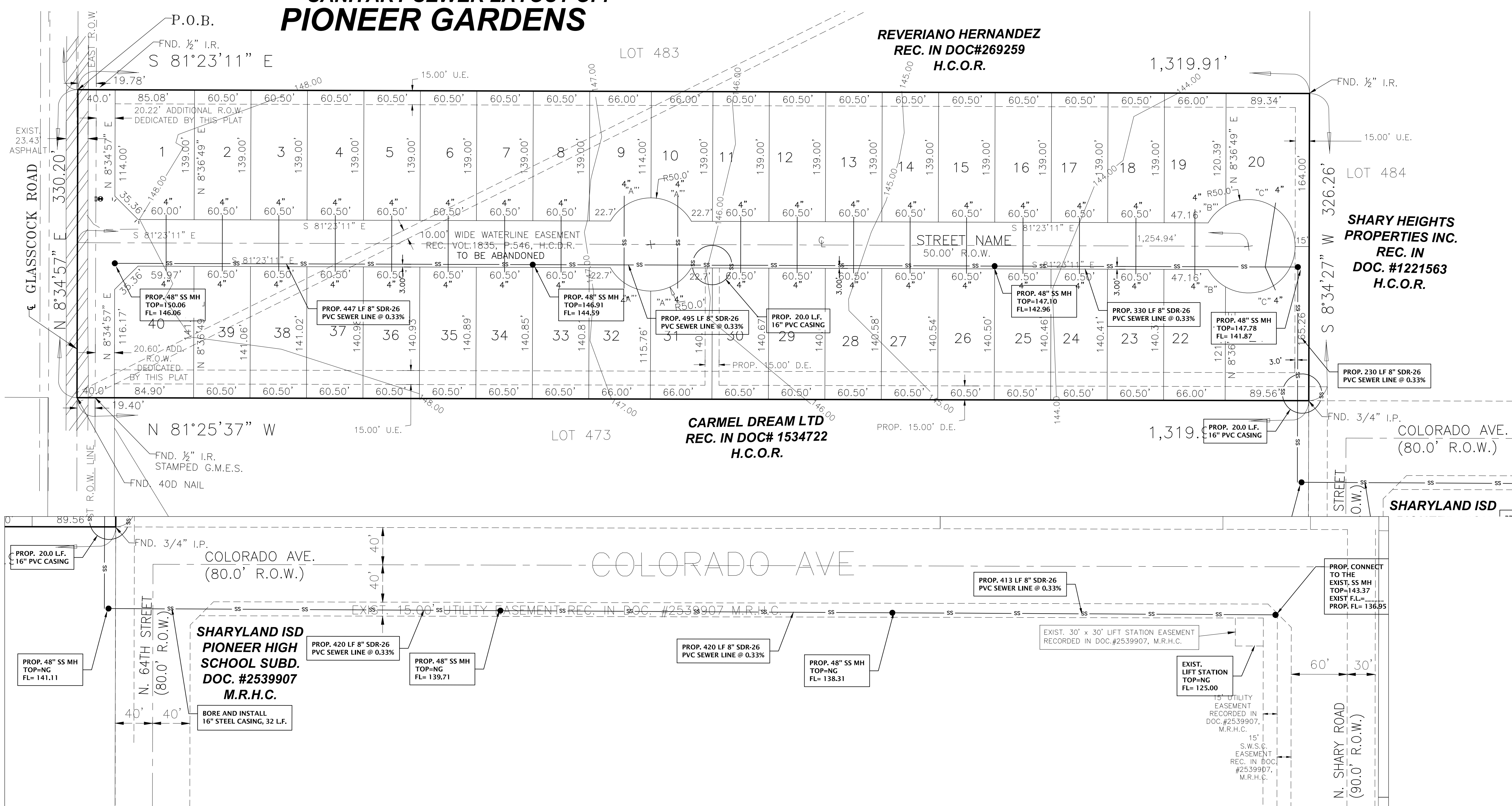
W-6C WATER / SANITARY SEWER CROSSING DETAILS

W-7 STANDARD WATER PIPE BEDDING DETAILS

W-8 TYPICAL VALVE AND VALVE BOX INSTALLATION ON MAIN LINE



SANITARY SEWER LAYOUT OF: PIONEER GARDENS



PRELIMINARY
PIONEER GARDENS
SANITARY SEWER LAYOUT

PIONEER GARDENS
BY GILBERTO A. GRACIA, P.E.
SEWER SUPPLY: Description and Costs.

PIONEER GARDENS HAS BEEN TREATED BY WASTEWATER SERVICE FROM THE CITY OF McALLEN. THE SUBDIVIDER AND THE CITY OF McALLEN HAVE ENTERED INTO A CONTRACT IN WHICH THE CITY OF McALLEN HAS PROMISED TO TREAT THE SUFFICIENT WASTEWATER FOR AT LEAST 30 YEARS AND THE CITY OF McALLEN HAS PROVIDED DOCUMENTATION TO SUFFICIENTLY ESTABLISH THE LONG TERM QUANTITY AND QUALITY OF THE AVAILABLE WASTEWATER SUPPLIES TO SERVE THE FULL DEVELOPMENT OF THIS SUBDIVISION.

THE SANITARY SEWER SYSTEM OF PIONEER GARDENS CONSISTS OF A PROPOSED 8" DIAMETER SEWER LINE THAT TAPS INTO THE EXISTING SANITARY SEWER MAN HOLE, LOCATED AT THE LIFT STATION ON THE S.W. CORNER OF THE INTERSECTION OF N. SHARY ROAD AND COLORADO AVENUE. FROM THERE IT RUNS WEST APPROXIMATELY 1253 FT. TO A MAN HOLE ALONG THE UTILITY EASEMENT ON THE SOUTH SIDE OF COLORADO AVENUE; FROM THERE IT TURNS NORTH FOR APPROXIMATELY 230 FT. TO A MANHOLE ON THE EAST SIDE OF CUL DE SAC AND ALSO THE EAST SIDE OF THIS SUBDIVISION; FROM THERE THE PROPOSED 8" SANITARY SEWER LINE RUNS APPROXIMATELY 1,272 FT WEST ALONG THE SOUTH SIDE OF PROPOSED STREET, ENDING AT A PROPOSED MAN HOLE ON THE EAST SIDE OF GLASSCOCK ROAD.

SANITARY SERVICES TERMINATE AT THE SEWER METERS OF EACH LOT FOR A TOTAL OF FORTY (40) SANITARY SEWER SERVICES.

THE 8" SANITARY SEWER LINE, THE 4" SERVICE LINES, THE SEVEN (7) SANITARY SEWER MANHOLES HAS BEEN INSTALLED, AT A TOTAL COST OF \$ 180,636.00 OR \$ 4,515.90 PER LOT. IN ADDITION, THE ENTIRE WASTEWATER FACILITIES HAVE BEEN APPROVED AND IS OPERABLE AS OF THE DATE OF THE RECORDING OF THE PLAT.

ENGINEER CERTIFICATION:
BY MY SIGNATURE BELOW, I CERTIFY THAT THE WATER AND SEWER 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 WATER AND SEWER FACILITIES, DISCUSSED ABOVE, ARE AS FOLLOWS:

SEWER FACILITIES - THESE FACILITIES FULLY CONSTRUCTED HAS COST A GRAND TOTAL OF \$ 180,636.00 WHICH EQUALS TO \$ 4,515.90 PER LOT.

PIONEER GARDENS
POR: GILBERTO A. GRACIA, P.E.

DRENAJE SANITARIO: DESCRIPCIÓN Y COSTOS

PIONEER GARDENS RECIBE SU PROVISIÓN DE DRENAJE SANITARIO DE LA CIUDAD DE McALLEN. EL DUEÑO DE LA SUBDIVISIÓN Y LA CIUDAD DE McALLEN HAN FIRMADO UN CONTRATO POR EL CUAL LA SUBDIVISIÓN RECIBIRÁ SU PROVISIÓN DE DRENAJE SANITARIO POR LOS PRÓXIMOS 30 AÑOS. LA CIUDAD DE McALLEN HA PRESENTADO DOCUMENTACIÓN PARA DEMOSTRAR A LARGO PLAZO LA CANTIDAD Y CALIDAD DE DRENAJE SANITARIO ACCESIBLE PARA SERVIR EL FUTURO DESARROLLO DE LA SUBDIVISIÓN.

EL SISTEMA DE DRENAJE SANITARIO PARA PIONEER GARDENS CONSISTE DE UNA LINEA DE 8" DIAMETRO QUE SE CONECTA AL POZO DE VISITA QUE SE ENCUENTRA PARA LA ESTACION DE BOMBEO EN LA ESQUINA NOROCCIDENTE DE LA INTERSECCION DE LAS CALLES N. SHARY RD. Y COLORADO AVENUE. DE AHI LA LINEA DE 8" PROPUESTA CORRE AL WEST POR APROXIMADAMENTE 1,253 PIES POR UN UTILITY EASEMENT EN EL LADO SUR DE LA CALLE COLORADO AVENUE A UN POZO DE VISITA; DE AHI LA LINEA DE 8" PROPUESTA VOLTEA AL NORTE POR APROXIMADAMENTE 230 PIES LLEGANDO A UN POZO DE VISITA LOCALIZADO DENTRO DE ESTA SUBDIVISION Y EN EL LADO OESTE DEL CUL DE SAC; DE AHI LA LINEA DE 8" PROPUESTA CORRE AL OESTE POR APROXIMADAMENTE 1,272 PIES POR EL LADO SUR DE LA CALLE PROPUESTA PARA ESTA SUBDIVISION, TERMINANDO EN UN POZO DE VISITA QUE SE ENCUENTRA EN EL LADO ESTE DE LA CALLE GLASSCOCK ROAD.

LOS SERVICIOS DE DRENAJE SANITARIO TERMINAN EN LOS MEDIDORES DE DRENAJE SANITARIO DE CADA LOTE PARA DAR UN TOTAL DE CUARENTA (40) SERVICIOS.

LAS LINEAS DE DRENAJE SANITARIO DE 8 PULGADAS, LOS SERVICIOS DE 4 PULGADAS, Y LOS SIETE (7) POZOS DE VISITA HAN SIDO INSTALADAS, A UN COSTO TOTAL DE US \$ 180,636.00 O US \$ 4,515.90 POR LOTE. EL SISTEMA DE DRENAJE SANITARIO ESTA EN FUNCIONAMIENTO COMPLETO ANTES O EN LA FECHA, EN LA CUAL LA SUBDIVISION SEA REGISTRADA EN EL CONDADO DE HIDALGO.

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 GOBERNANDO 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:

DRENAJE: SE ESTIMA QUE EL DRENAJE COSTO EN TOTAL US \$ 180,636.00 O US \$ 4,515.90 POR LOTE.

COST ESTIMATE

WATER DISTRIBUTION:	\$ 97,140.00
PAVING IMPROVEMENTS:	\$ 316,910.50
DRAINAGE IMPROVEMENTS:	\$ 25,724.00
SANITARY SEWER IMPROVEMENTS:	\$ 180,636.00
TOTAL:	\$ 620,410.50

STATE OF TEXAS
COUNTY OF HIDALGO
OWNER'S DEDICATION, CERTIFICATION, AND ATTESTATION

I, JOSEPH F. PHILLIPS, OWNER OF THE 9.991 ACRE TRACT OF LAND ENCOMPASSED WITHIN THE PROPOSED PIONEER GARDENS, HEREBY SUBDIVIDE THE LAND AS DEPICTED IN THIS SUBDIVISION PLAT AND DEDICATE TO PUBLIC USE THE STREET, PARK, AND EASEMENTS SHOWN HEREIN.

I CERTIFY THAT I HAVE COMPLIED WITH THE REQUIREMENTS OF TEXAS LOCAL GOVERNMENT CODE 232.032 AND THAT:

(A) THE WATER QUALITY AND CONNECTIONS TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS;
(B) SEWER CONNECTIONS TO THE LOTS OR SEPTIC TANKS MEET, OR WILL MEET, THE MINIMUM REQUIREMENTS OF STATE STANDARDS;
(C) ELECTRICAL CONNECTIONS PROVIDED TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS;
(D) GAS CONNECTIONS, IF AVAILABLE, PROVIDED TO THE LOTS MEET, OR WILL MEET, THE MINIMUM STATE STANDARDS.

I ATTEST THAT THE MATTERS ASSERTED IN THIS PLAT ARE TRUE AND COMPLETE.

JOSEPH F. PHILLIPS, PRESIDENT
BEXAR COUNTY METRO INVESTMENTS, INC.
P.O. BOX 1810
MCALLEN, TEXAS 78501

DATE



PRELIMINARY
GILBERTO A. GRACIA—P.E. No. 62477

This seal appearing on this document was authorized by Gilberto A. Gracia, P.E. No. 62477 on the above designated date.



PRELIMINARY
GILBERTO A. GRACIA—P.E. No. 62477

This seal appearing on this document was authorized by Gilberto A. Gracia, P.E. No. 62477 on the above designated date.

STATE OF TEXAS
COUNTY OF HIDALGO

BEFORE ME, the undersigned notary public, on this day personally appeared JOSEPH F. PHILLIPS proved to me through her 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 she executed the same for the purposes and consideration thereby expressed.

Given under my hand and seal of office this _____ day of _____, 2024.

DAISY BONILLA
My Notary ID # 12394180
Expires August 02, 2025

NOTARY PUBLIC— STATE OF TEXAS



PAVING AND DRAINAGE LAYOUT OF: PIONEER GARDENS

REVERIANO HERNANDEZ
REC. IN DOC#269259
H.C.O.R.

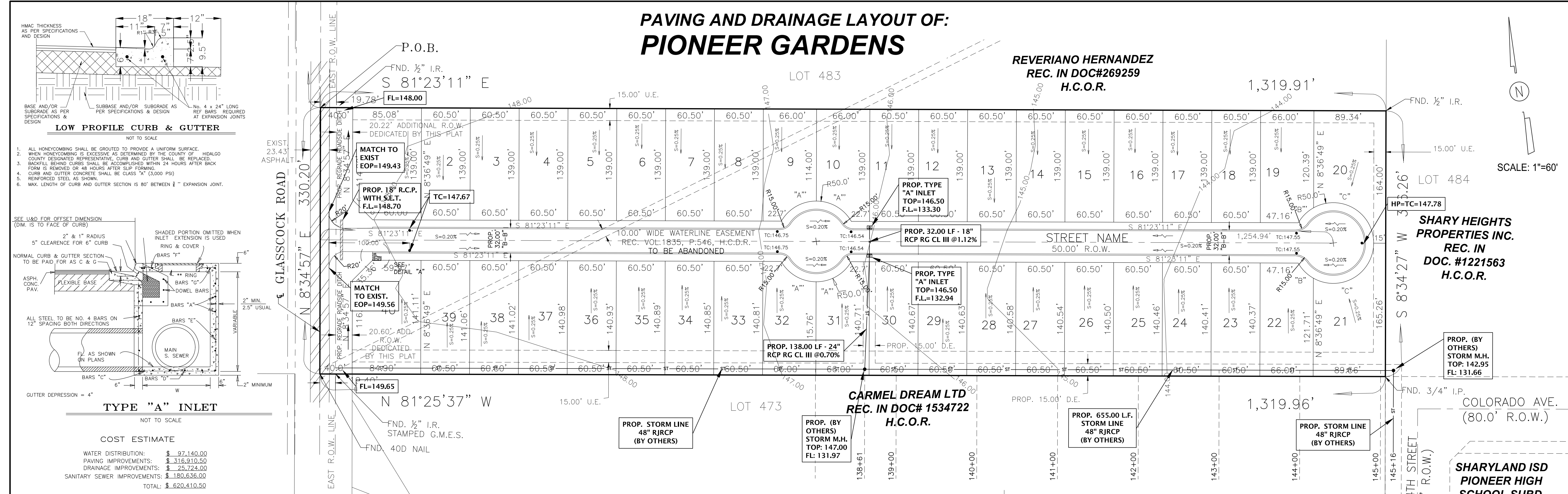


PRELIMINARY

PIONEER GARDENS
PAVING AND DRAINAGE LAYOUT

IZAGUIRRE
Engineering Group LLC.
2121 E. GRIFFIN PKWY SUITE 2
MISSION TEXAS, 78574
PHONE (956) 584-0554
FAX (956) 584-0049
F-10214

SHEET NO. 5
OF 6 SHEETS



DRAINAGE STATEMENT FOR PIONEER GARDENS

I. PROJECT LOCATION
THIS SUBDIVISION IS A 9.99-ACRE TRACT CONSISTING OF 40 SINGLE FAMILY RESIDENTIAL LOTS LOCATED ON THE EAST SIDE OF N GLASSCOCK RD AND APPROXIMATELY 1,000FT SOUTH OF MILE 7 RD. SAID SUBDIVISION, LOCATED WITHIN THE CITY OF McALLEN ETJ IS A 9.991-ACRE TRACT OF LAND, OUT OF SOUTH 20 ACRES OF LOT 483, JOHN H. SHARY SUBDIVISION, HIDALGO COUNTY, TEXAS, AS PER MAP THEREOF RECORDED IN VOLUME 1, PAGE 17, OF THE HIDALGO COUNTY MAP RECORDS.

II. FLOOD PLAIN
THE SUBJECT TRACT IS LOCATED WITHIN FLOOD ZONE "X" (UNSHADED) INDICATES AREAS TO BE OUTSIDE 500-YEAR FLOODPLAIN. FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 480334 0295 D, MAP REVISED JUNE 6, 2000.

III. SOIL CONDITIONS
A REVIEW OF THE U.S. SOIL CONSERVATION SURVEY OF HIDALGO COUNTY INDICATES THAT THE PREDOMINANT SOIL OF THE SUBJECT SITE IS CLASSIFIED AS BRENNAN-3 (FINE SANDY LOAM), AND RACOMBES-48 (SANDY CLAY LOAM).

3-BRENNAN- FINE SANDY LOAM, (HYDROLOGIC GROUP B, UNIFIED CLASS SC), TYPICALLY FOUND WITH 0-1% SLOPES, CONSISTS OF A SURFACE LAYER OF DARK BROWN FINE SANDY LOAM ABOUT 12 INCHES THICK. THE NEXT SOIL LAYER DOWN, FROM 12 TO 26 INCHES, IS BROWN SANDY CLAY LOAM. THE NEXT SOIL LAYER DOWN, FROM 26 TO 40 INCHES, IS PALE BROWN SANDY CLAY LOAM. THE SOIL DOWN THEREAFTER TO APPROXIMATELY 80 INCHES IS A VERY PALE BROWN SANDY CLAY LOAM. THIS SOIL: A) IS NONCALCAREOUS DOWN TO 29 INCHES, B) IS WELL DRAINED, C) HAS MEDIUM AVAILABLE WATER CAPACITY, D) HAS MEDIUM SURFACE RUNOFF, E) HAS MODERATE PERMEABILITY, F) HAS AN OVERALL LOW SHRINK-SWELL POTENTIAL, G) HAS A MODERATE HAZARD OF SOIL BLOWING, AND H) HAS A SLIGHT HAZARD OF WATER EROSION. SEE ATTACHED SOIL SURVEY REPORT FROM THE SOIL CONSERVATION SERVICE.

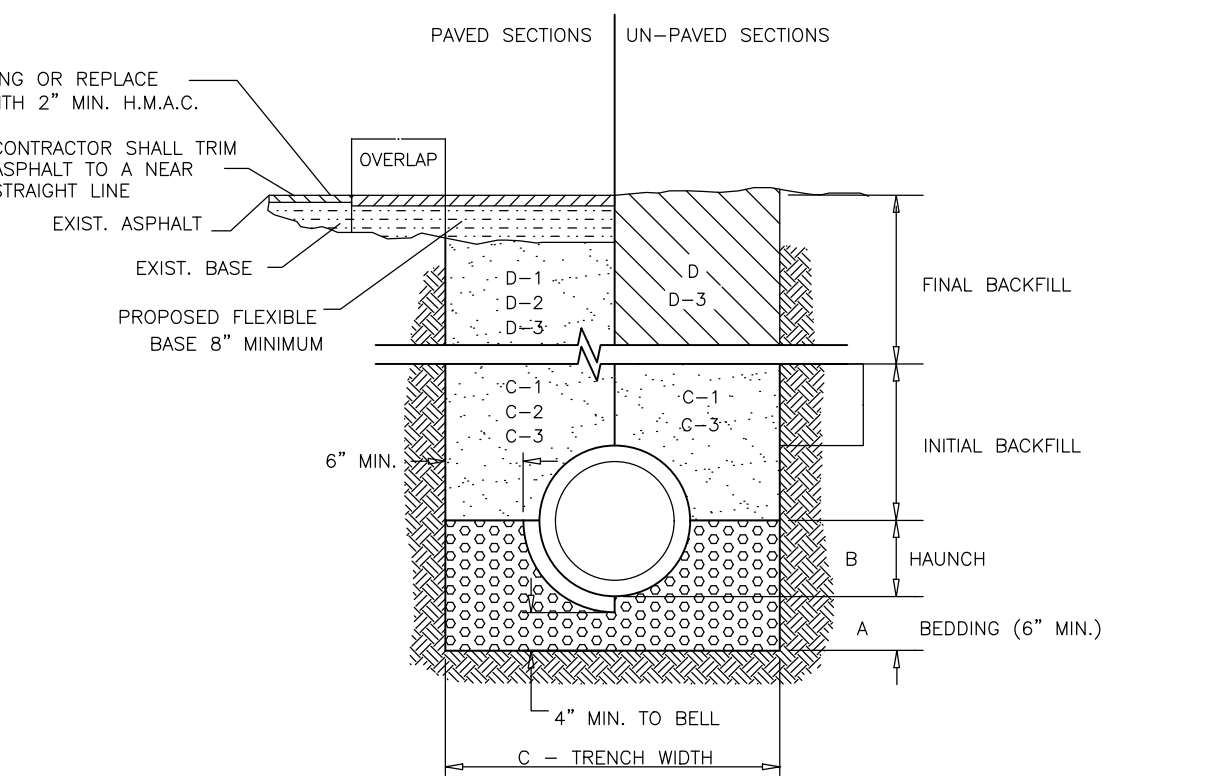
48-RACOMBES- SANDY CLAY LOAM, (HYDROLOGIC GROUP B, UNIFIED CLASS CL) IDENTIFIED BY ITS COMPOSITION OF SANDY CLAY LOAM WITH CONSISTENT LAYERS, TYPICALLY, SLOPES RANGE FROM 0 TO 1 PERCENT, THIS WELL-DRAINED SOIL HAS A DEEP PROFILE EXCEEDING 80 INCHES, WITH NO ISSUES OF FLOODING OR PONDING, IT HAS A MODERATE CAPACITY FOR WATER RETENTION (ABOUT 9.0 INCHES AVAILABLE). SEE ATTACHED SOIL SURVEY OF HIDALGO COUNTY, TEXAS

IV. EXISTING CONDITIONS
THE SUBJECT TRACT IS CURRENTLY UNDEVELOPED MODERATE BRUSH-LAND. TOPOGRAPHIC ELEVATIONS OBTAINED FROM THE SITE INDICATE THAT THE EXISTING TERRAIN HAS A GRADE TO THE EAST APPROXIMATELY (0.5%).

EXISTING RUNOFF FROM THE SUBJECT SITE IS IN THE FORM OF SHEET RUNOFF FLOWING OVERLAND TOWARDS THE EAST.
THE RATIONALE METHOD WAS UTILIZED TO DETERMINE THE EXISTING 10-YEAR FREQUENCY EVENT STORM WATER RUNOFF (Q₁₀ = 5.89 CFS) FOR THIS SITE.

V. PROPOSED CONDITIONS
UTILIZING THE 50-YEAR FREQUENCY STORM EVENT, AFTER DEVELOPMENT OF THIS SUBDIVISION STORM WATER RUNOFF WILL BE 16.56 CFS WITH AN INCREASED Q₁₀ = 10.67 CFS THE TOTAL PROPOSED DETENTION VOLUME, IN ACCORDANCE WITH THE COUNTY OF HIDALGO'S DRAINAGE REQUIREMENTS, IS 34,359.89 CUBIC FEET (0.79 ACRE-FEET) (REFER TO ATTACHED DRAINAGE CALCULATIONS). DETENTION VOLUME TO BE EXCAVATED OUT OF WEST MAIN DRAIN OWNED AND MAINTAINED BY HCD01.

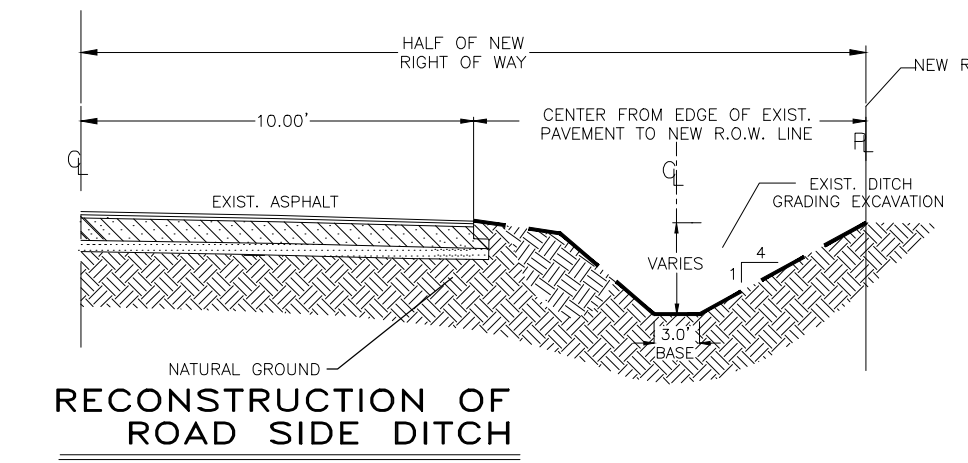
THE DEVELOPMENT SURFACE IS TO BE GRADED TO DIRECT STORM WATER SURFACE RUNOFF TOWARDS PROPOSED PAVED CURB AND GUTTER STREETS. SAID STORM WATER SURFACE RUNOFF WILL BE INTERCEPTED BY PROPOSED TYPE "A" CURB INLETS. CURB INLETS WILL BE CONNECTED TO AN APPROPRIATELY SIZED DRAIN PIPELINE SYSTEM, WHICH WILL OUT FALL INTO A PROPOSED 48IN STORM LINE VIA MANHOLE LOCATED ON THE SOUTH SIDE OF THE PROPERTY. SAID STORM LINE AND MANHOLE IS TO BE INSTALLED BY OTHERS. REFER TO "HCD01 MAYBERRY RD, TO GLASSCOCK RD, PROPOSED DRAINAGE IMPROVEMENT".



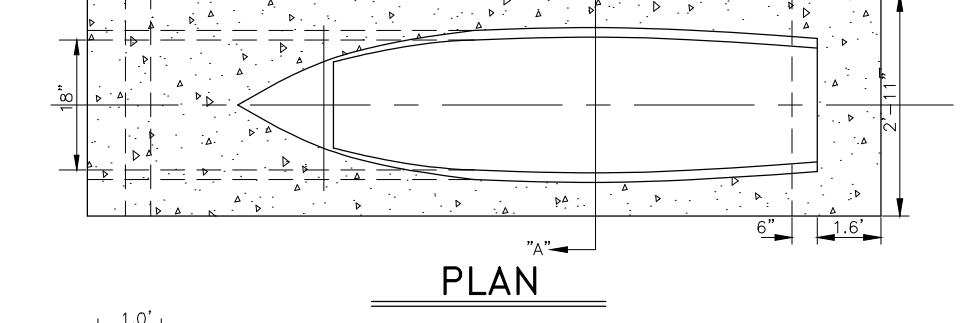
STORM TRENCH BEDDING AND BACKFILL DETAILS

- 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. COMPACTED THICKNESS = 6") - PIT RUN GRAVEL 1/2" MAX SIZE.
- B. HAUNCH FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE 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 AREAS, DRIVEWAYS, COUNTY ROADS & 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 D4253 AND ASTM D698, 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 ON CITY STREETS, PARKING AREAS, DRIVEWAYS AND COUNTY ROADS - 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.
- D-1 FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE ON CITY STREETS, PARKING AREAS, DRIVEWAYS AND COUNTY ROADS - 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.
- D-2 FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC 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 D4253 AND ASTM D698, 8" LOOSE LIFTS, MECHANICAL COMPACTION.
- D-3 FINAL BACKFILL FOR STRUCTURES (INLETS, MANHOLES, ETC.) - STRUCTURES UNDER THE ROADWAY AND UP TO 5 FT BEYOND THE EDGE OF PAVEMENT/BACK OF CURB SHALL HAVE CLASS I OR CLASS II (ASTM D2321) OR SOIL TYPE A1, A2, OR A3 (ASHTO M145) WITH A MAXIMUM P.I. OF 19 BACKFILL MATERIAL. STRUCTURES BEYOND 5 FT FROM THE E.O.P./B.O.C. SHALL HAVE CLASS I, II, III OR IV (ASTM D2321) BACKFILL MATERIAL. FOUNDATION PREPARATION (WELLPONTS, MINIMUM 4" GRAVEL OR CEMENTS STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE. BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% S.P.D. (USE RELATIVE DENSITY TEST PER ASTM D4253 & ASTM D698). THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 8".

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 THE 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.



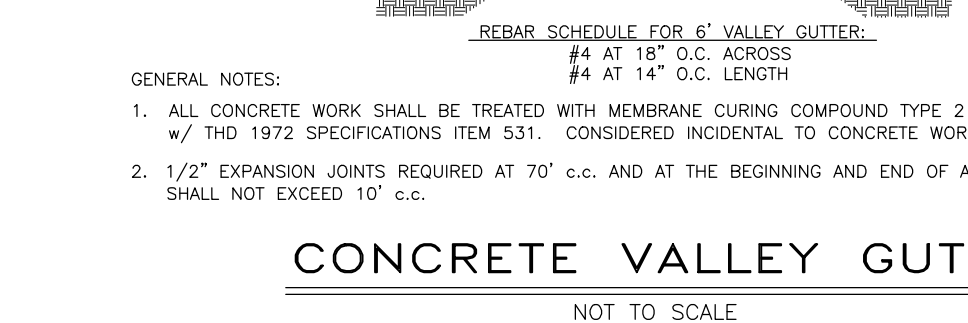
RECONSTRUCTION OF ROAD SIDE DITCH



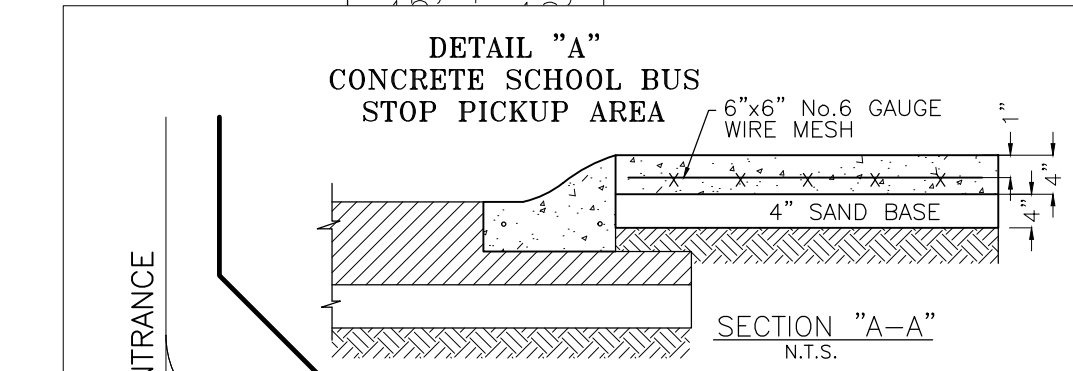
SAFETY END TREATMENT



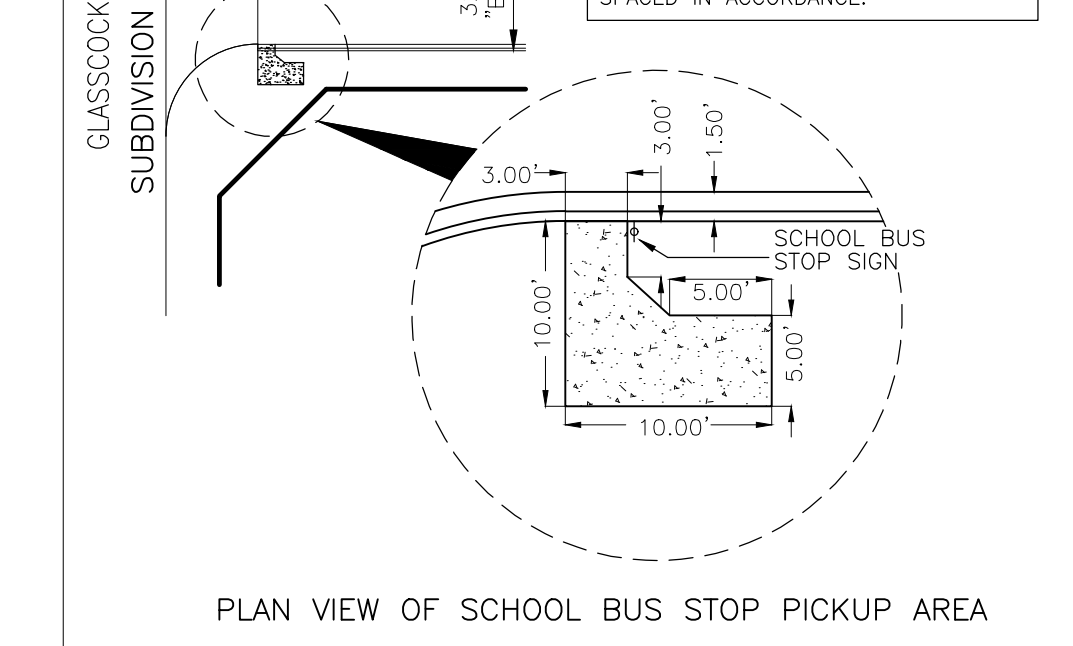
CONCRETE VALLEY GUTTER



STREET SECTION



DETAIL "A" CONCRETE SCHOOL BUS STOP PICKUP AREA



PLAN VIEW OF SCHOOL BUS STOP PICKUP AREA

INDEX OF SHEETS

SHEET 1-	HEADING; INDEX; LOCATION MAP AND ETJ; PRINCIPAL CONTACTS; PLAT WITH LOTS, STREETS, AND EASEMENT DESIGNATIONS; LEGAL DESCRIPTION (METES AND BOUNDS); SURVEYOR'S AND ENGINEER'S CERTIFICATION; FLAT NOTES AND RESTRICTIONS; OWNERS DEDICATION, CERTIFICATION, AND ATTESTATION; COUNTY CLERK'S RECORDING CERTIFICATE; HIDALGO COUNTY CERTIFICATE OF PLAT APPROVAL; DESCRIPTION OF LOCATION OF SUBDIVISION WITH RESPECT TO THE ETJ OF A MUNICIPALITY AND DESIGNATE THE PRECINCT THE PROJECT IS SITUATED; H.C.O.D. CERTIFICATION; IRRIGATION DISTRICT CERTIFICATE OF APPROVAL; SWCS CERTIFICATION, P&Z CITY CERTIFICATION; REVISION NOTES.
SHEET 2-	WATER DISTRIBUTION MAP, ENGINEERING REPORT (ENGLISH AND SPANISH VERSION), INCLUDING DESCRIPTION OF WATER AND ENGINEER'S CERTIFICATION (ENGLISH AND SPANISH VERSION); TYPICAL WATER SERVICE CONNECTION; SUBDIVIDER CERTIFICATE AND STATEMENT.
SHEET 3.0-	SHARYLAND WATER SUPPLY DETAILS
SHEET 3.1-	SHARYLAND WATER SUPPLY DETAILS
SHEET 3.2-	SHARYLAND SEWER DETAILS
SHEET 4-	SANITARY SEWER DISTRIBUTION LAYOUT
SHEET 5-	PAVING AND DRAINAGE LAYOUT, DRAINAGE REPORT INCLUDING DESCRIPTION OF DRAINAGE AND HOW IT WILL SERVE THIS DEVELOPMENT; MAP OF TOPOGRAPHY AND DRAINAGE, AND ENGINEER'S CERTIFICATION; REVISION NOTES; TYPICAL ROADWAY SECTION; CURB AND GUTTER SECTION; VALLEY GUTTER SECTION.
SHEET 6-	STREETLIGHT LAYOUT

OCTOBER 10, 2023

 GILBERTO A. GRACIA-P.E., No. 62477
 This seal appearing on this document was authorized by Gilberto A. Gracia, P.E. No. 62477 on the above designated date.

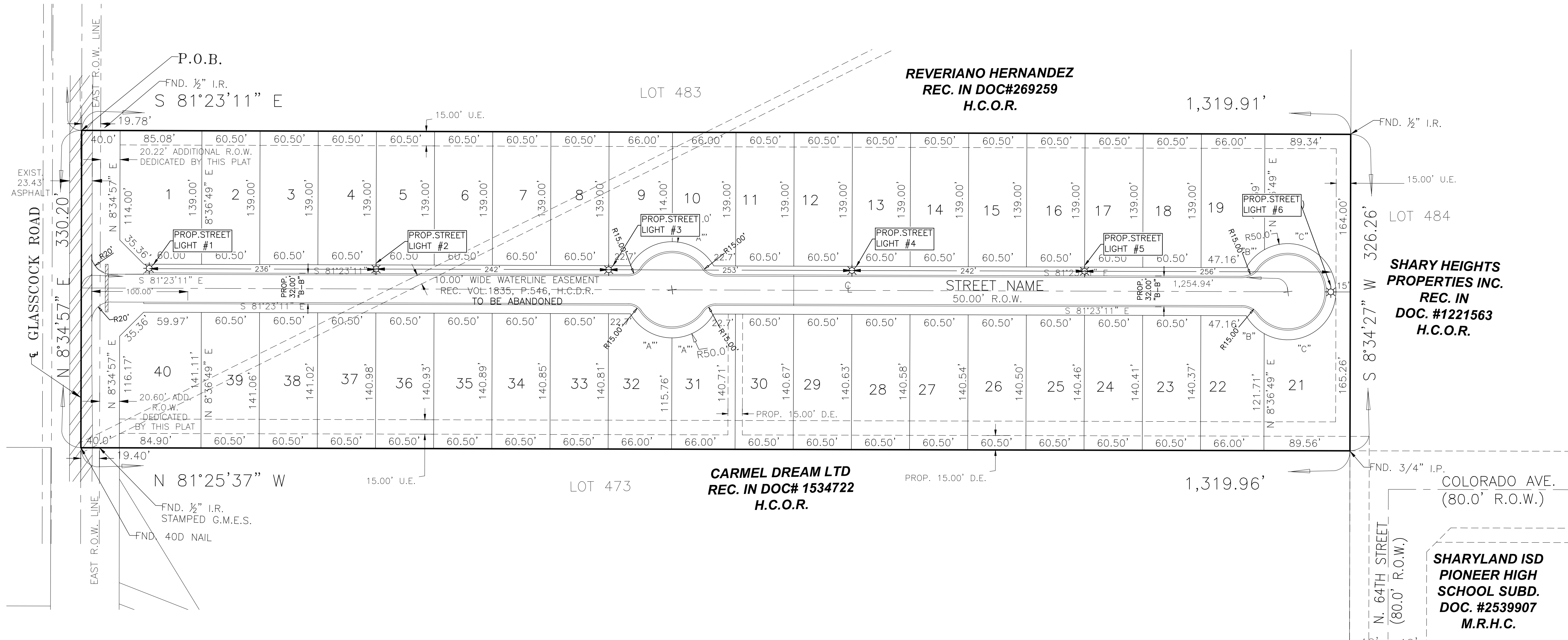
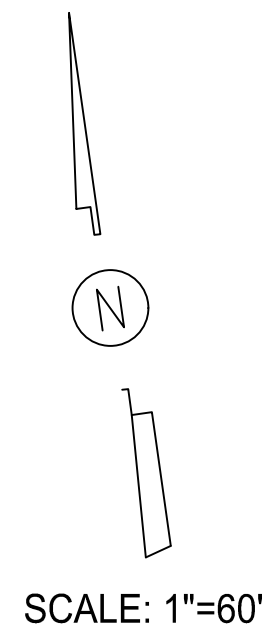


STREETLIGHT LAYOUT OF: PIONEER GARDENS



PRELIMINARY

PIONEER GARDENS STREETLIGHT LAYOUT



STREET LIGHT FIXTURES

THE STREET LIGHT FIXTURES FOR RESIDENTIAL STRETS ARE TO CONSIST OF 250 WATT HIGH PRESSURE SODIUM, COBRA TYPE FIXTURES WITH 6' EXTENSIONS MOUNTED ON 35" CONCRETE STANDARD.

IZAGUIRRE
Engineering Group LLC.

2121 E GRIFFIN PKWY SUITE 2
MISSION TEXAS, 78574
F-10214

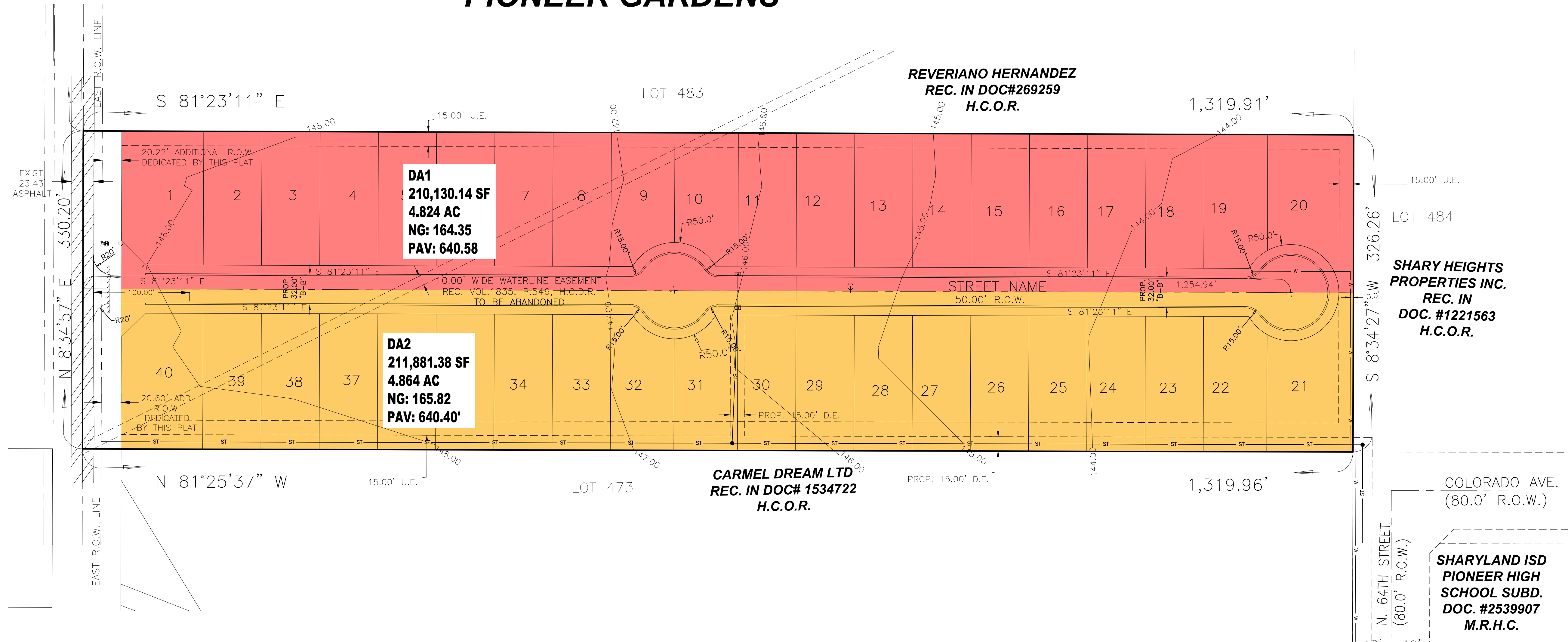
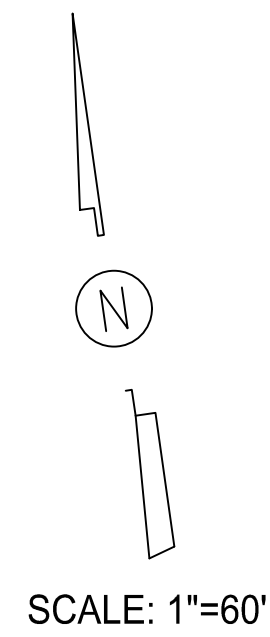
PHONE (956) 584-0554
FAX (956) 584-0049

DRAINAGE AREAS MAP OF: PIONEER GARDENS



PRELIMINARY

PIONEER GARDENS DRAINAGE AREAS MAP



Location: Hidalgo County, Texas
 Project No.: PIONEER GARDENS
 Date: 10/8/2024

Time of Concentration Calculations
 $tc = L/60V$
 Minimum 10 min.
 FHA Hydraulic Engineering Circular No. 22, Third Edition
 Urban Drainage Design Manual
 Shallow Concentrated Flow Velocity Formula
 $V = Kk(Sp\%)^{0.5}$
 Average velocity (V):
 k value for short grass pasture (overland flow): 0.213
 k value for paved area (shallow concentrated flow): 0.619
 Ku constant: 3.28

Atlas 14 Values

	e	b	d
10 year frequency			
CITY	0.812	92.23	12.33
TXDOT	0.8133	65.7576	9.0525
50 year frequency			
CITY	0.795	123.47	12.86
TXDOT	0.8056	90.4138	8.5079

DA#	Enter Distances in Feet			Velocities Calculated			Time of Concentration:	I CITY	TXDOT	C single	A ACRES	Q CFS	n value	DA#	RUN	R ID/4	F/L IN FT	F/L OUT FT	Slope FT/FT	Dia FT	Veloc FPS	drop FT	Length FT	A SQFT	PIPE Q CFS	EXIST Q CFS	Over/Under Design cfs	Head Lose Coeff	Minor Loose Coeff	Flow Time in Sewer	Hydraulic Grade Line			Top Curb	Top Gutter	elev = gutter
	Overland Flow	Pipe Flow	Gutter Flow	Overland Velocity	Overland Slope	Gutter Velocity																									Gutter Slope	1.40	1.50			
A-1	164.00	0	640	0.24	0.12	0.91	0.2	tc = 23.04	5.097584	0.35	4.82	8.60	0.011	A-1	A1-A2	0.38	133.30	132.94	0.011250	1.50	7.44871	0.36	32.00	1.77	13.16	8.60	4.56	1.5	0.1000	0.2000	1.40	1.50	1.86	146.44	-0.5	145.94
A-2	165.00	0	640	0.24	0.12	0.91	0.2	tc = 23.11	5.089539	0.35	4.86	8.66	0.011	A-2	A2-out	0.50	132.94	131.97	0.007029	2.00	7.13322	0.97	138.00	3.14	22.41	17.26	5.15	0.5	0.4308	0.3224	-	0.43	1.40	146.44	-0.5	145.94

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