



# Olmito Water Supply Corp.

Cameron County, Texas

## WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT

FUNDING BY:

TxCDBG Colonia Fund Construction Program Project No. CFC21-0446

PROJECT LOCATION:

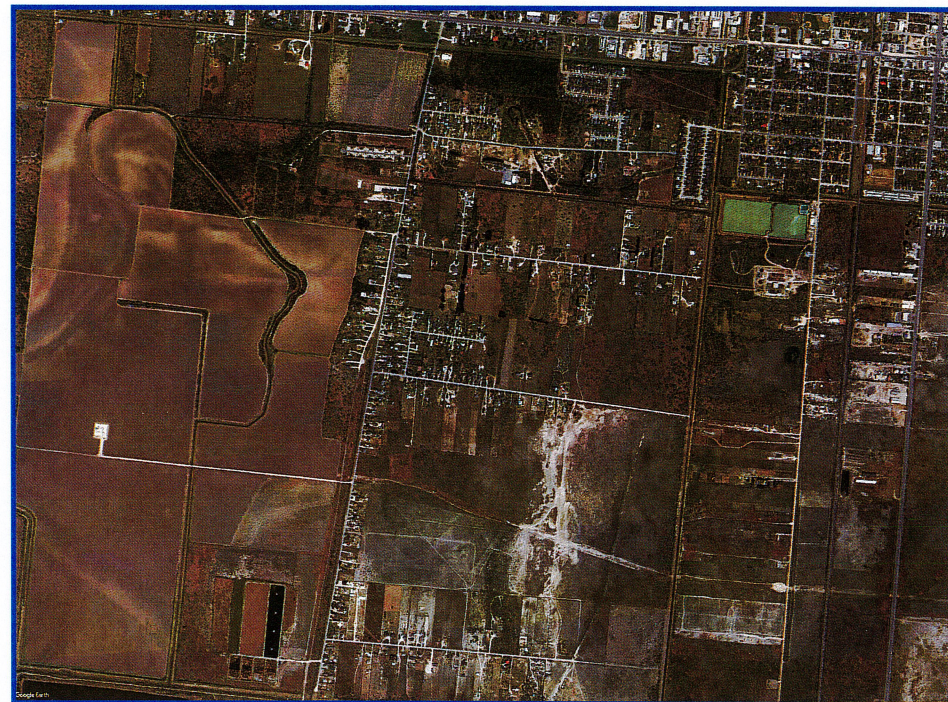
OLMITO, TEXAS  
SUBMITTED TO OLMITO WATER SUPPLY CORPORATION

PROJECT DESCRIPTION / NOTES:

ISSUED:

FOR TCEQ REVIEW JULY 26, 2022

ISSUED FOR BIDDING NOVEMBER 15TH, 2022

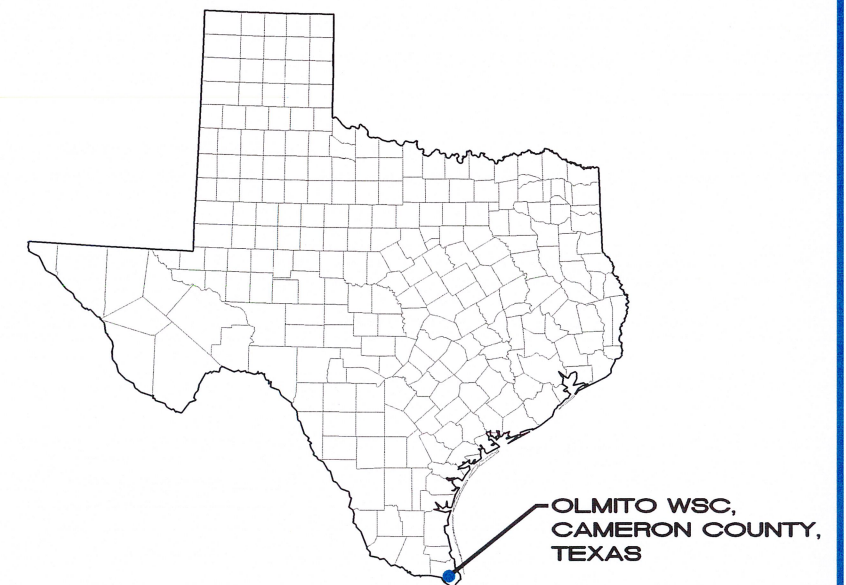


OLMITO WSC

### DRAWING INDEX

SHEET 1.	LOCATION MAP
SHEET 2.	GENERAL NOTES
<b>PROPOSED WATERLINE</b>	
SHEET 3.	SHEET LAYOUT – AREA 1
SHEET 4.	PROPOSED WATER LINE STA. 0+00 TO STA. 5+10
SHEET 5.	PROPOSED WATER LINE STA. 5+10 TO STA. 10+30
SHEET 6.	PROPOSED WATER LINE STA. 10+30 TO STA. 15+50
SHEET 7.	PROPOSED WATER LINE STA. 15+50 TO STA. 20+70
SHEET 8.	PROPOSED WATER LINE STA. 20+70 TO STA. 25+90
SHEET 9.	PROPOSED WATER LINE STA. 25+90 TO STA. 31+10
SHEET 10.	PROPOSED WATER LINE STA. 31+10 TO STA. 36+30
SHEET 11.	PROPOSED WATER LINE STA. 36+30 TO STA. 41+50
SHEET 12.	PROPOSED WATER LINE STA. 41+50 TO STA. 46+70
SHEET 13.	PROPOSED WATER LINE STA. 46+70 TO STA. 51+90
SHEET 14.	PROPOSED WATER LINE STA. 51+90 TO STA. 57+10
SHEET 15.	PROPOSED WATER LINE STA. 57+10 TO STA. 62+30
SHEET 16.	PROPOSED WATER LINE STA. 62+30 TO STA. 67+50
SHEET 17.	PROPOSED WATER LINE STA. 67+50 TO STA. 72+70
SHEET 18.	PROPOSED WATER LINE STA. 72+70 TO STA. 77+90
SHEET 19.	PROPOSED WATER LINE STA. 77+90 TO STA. 83+10
SHEET 20.	PROPOSED WATER LINE STA. 83+10 TO STA. 88+27
SHEET 21.	PROPOSED WATER LINE STA. 88+27 TO STA. 93+47
SHEET 22.	PROPOSED WATER LINE STA. 93+47 TO STA. 98+67
SHEET 23.	PROPOSED WATER LINE STA. 98+67 TO 100+50
SHEET 24.	PROPOSED WATER LINE STA. 105+50 TO END
SHEET 25.	PROPOSED WATER LINE PROFILE
SHEET 26.	PROPOSED WATER LINE PROFILE
SHEET 27.	WATER SERVICE CONNECTION DETAIL ACROSS STREET
SHEET 28.	WATERLINE DETAILS
SHEET 29.	STORM WATER POLLUTION PREVENTION PLAN (SW3P)(GENERAL)
SHEET 30.	STORM WATER POLLUTION PREVENTION PLAN (SW3P)(GENERAL)
SHEET 31.	STORM WATER POLLUTION PREVENTION PLAN (SW3P)(GENERAL)
SHEET 32.	STORM WATER POLLUTION PREVENTION PLAN (SW3P)(GENERAL)

VICINITY MAP:



### BOARD OF DIRECTORS

PRESIDENT  
VICE PRESIDENT  
SECRETARY/TREASURER  
MEMBER  
MEMBER

MARGIE TAPIA  
PEDRO RODRIGUEZ, Jr.  
NORA G. URESTE  
OSCAR SANCHEZ, Jr.  
ENRIQUE ESQUIVEL, Jr.

DIRECTOR OF OPERATIONS

TOMAS TAMAYO



JUNE 2022

*[Handwritten Signature]*  
11/15-22

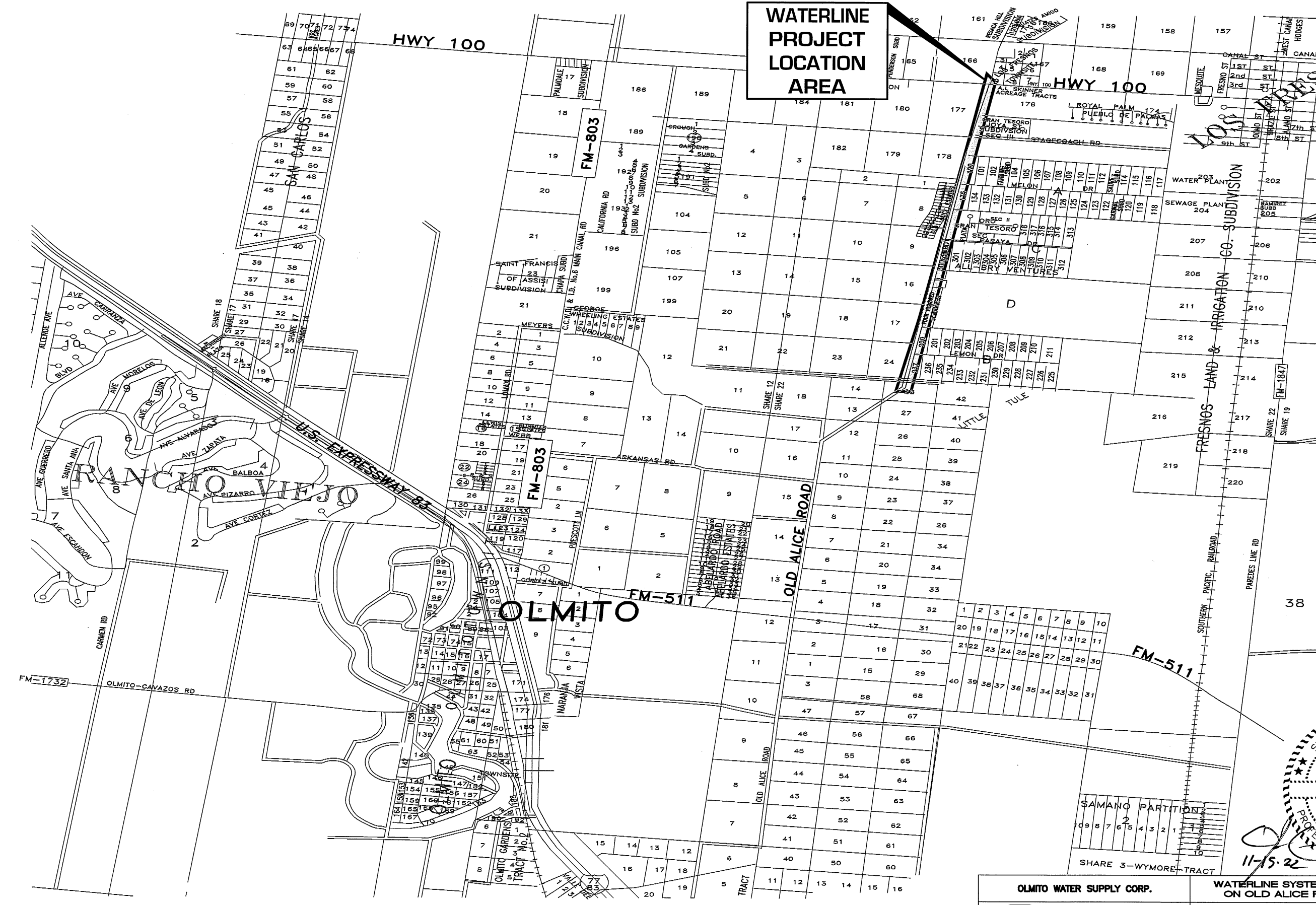



**CRUZ - HOGAN**

ENGINEERS | PLANNERS

McAllen | Harlingen | Weslaco  
TBPE FIRM REGISTRATION No: F - 4860

**WATERLINE PROJECT LOCATION AREA**



<b>OLMITO WATER SUPPLY CORP.</b>  <b>CRUZ - HOGAN</b> ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No.: F-4860		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b> LOCATION MAP				
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	1

## GENERAL NOTES

- CONTRACTOR TO CONTACT ALL UTILITIES COMPANIES IN THE AREA FOR FIELD VERIFICATION OF EXISTING FACILITIES. UTILITY COMPANY'S INCLUDED BUT NOT BE LIMITED TO THE FOLLOWING:

OLMITO WATER SUPPLY CORP.	(956) 350-4099
AEP	1-800-373-4858
TEXAS GAS SERVICE	(956) 444-3966
SPECTRUM	1-833-694-9259
TEXAS 811	811

- \*CONTRACTOR TO COORDINATE ANY UTILITY ADJUSTMENT WITH EACH UTILITY ENTITY.
- CONTRACTOR SHALL VISIT THE SITES PRIOR TO BIDDING AND BECOME CAREFULLY FAMILIAR WITH THE SITE AND ITEMS OF WORK WHICH ARE REQUIRED.
  - ALL IMPROVEMENTS TO BE IN ACCORDANCE WITH ALL LOCAL CODES, STATE, TCEQ AND FEDERAL REGULATIONS.
  - WORK TO OCCUR DURING REGULAR WORKING HOURS (8:00am TO 5:00pm), MONDAY THROUGH FRIDAY UNLESS APPROVED BY OWNER.
  - THE CONTRACTOR WILL VERIFY ALL CONNECTIONS INTO EXISTING WATER LINES, SEWER LINES, ETC. PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO EXPOSE ANY EXISTING FACILITY THAT MAY BE IN CONFLICT PRIOR TO START OF CONSTRUCTION.
  - ALL EXISTING CITY UTILITIES (WATER/SEWER) SHOWN ARE FROM BEST INFORMATION AVAILABLE. NEITHER THE ENGINEER NOR THE CITY IS RESPONSIBLE FOR THE ACCURACY OF LOCATION.
  - CONTRACTOR SHALL KEEP ALL WATER AND SANITARY SEWER SERVICES OPERATIONAL.
  - EXISTING POWER POLES, CONCRETE STAND PIPES, ETC. WILL NEED TO BE BRACED DURING ADJACENT CONSTRUCTION.
  - CONTRACTOR SHALL USE CARE WHILE TRENCHING IN THE VICINITY OF TREES AS NECESSARY TO AVOID DAMAGING THE ROOT SYSTEMS AS MUCH AS POSSIBLE.
  - THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROTECT TREES, GRASS, SHRUBBERY, SIDEWALKS, SIGNS, DRIVEWAYS, FENCING AND ALL UTILITIES. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGE DURING CONSTRUCTION TO SUCH ITEMS AT HIS OWN EXPENSE. BOUNDARY FENCES OR OTHER IMPROVEMENTS REMOVED TO PERMIT CONSTRUCTION SHALL BE REPLACED IN THE SAME LOCATION AND IN A CONDITION AS GOOD OR BETTER THAN IN WHICH THEY WERE FOUND. NO COMPENSATION SHALL BE GIVEN TO THE CONTRACTOR FOR REMOVAL AND REPLACEMENT OF FENCES. ALL SIGNS MOVED DURING CONSTRUCTION ARE TO BE RE-ERECTED AT NO ADDITIONAL EXPENSE TO THE OWNER.
  - THESE PLANS PREPARED BY CRUZ-HOGAN CONSULTANTS, INC. DO NOT EXTEND TO OR INCLUDE DESIGN OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF CRUZ-HOGAN CONSULTANTS, INC. REGISTERED PROFESSIONAL ENGINEER (S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED IN THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY THE HOUSE BILLS 662 AND 665 ENACTED BY THE TEXAS LEGISLATURE IN THE 70TH LEGISLATURE REGULAR SESSION.
  - THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES DURING CONSTRUCTION. BEFORE FINAL COMPLETION OF THIS PROPOSED WORK, ALL ROADWAY, SLOPES, DITCHES AND BERMS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
  - CONTRACTOR SHALL AT ALL TIMES ALLOW ACCESS TO EXISTING DRIVEWAYS OR PROVIDE/MAINTAIN ALTERNATIVE ALL-WEATHER ROUTES.
  - THE CONTRACTOR SHALL PROVIDE ALL BARRICADES, FLAGGING, LIGHTING, TRAFFIC AND SAFETY SIGNS AND OTHER ITEMS NECESSARY TO MAINTAIN THE SAFETY OF THE PUBLIC, STUDENTS AND THE EMPLOYEES. CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND/OR SAFETY OF THE WORK SITE, WORKERS, SUBCONTRACTORS, MATERIALS AND/OR EQUIPMENT.
  - TRENCHES OR EXCAVATIONS MAY NOT BE LEFT OPEN OVERNIGHT UNLESS AUTHORIZED IN WRITING BY THE ENGINEERING DEPARTMENT. IN SUCH CASES, THE CONTRACTOR MUST PROVIDE 1/2" STEEL PLATES OVER PLATES WITH ANCHORING AS PER SPECIFICATIONS TO BE PROVIDED BY THE **OLMITO WSC**.
  - OLMITO WSC** WILL HAVE THE OPTION TO KEEP SALVAGED MATERIALS; IF **OLMITO WSC** DECIDES NOT TO KEEP SALVAGED MATERIALS, THE CONTRACTOR WILL BE RESPONSIBLE TO DISPOSE AT HIS EXPENSE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL EXCAVATED MATERIAL AND DEBRIS FROM THE SITE AT NO ADDITIONAL EXPENSE TO THE OWNER. NO EXCESS EXCAVATED MATERIAL SHALL BE DEPOSITED IN LOW AREAS OR ALONG NATURAL DRAINAGE WAYS, WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. CONTRACTOR SHALL NOT PLACE FILL OR WASTE MATERIAL ON ANY PRIVATE PROPERTY WITH PRIOR WRITTEN AGREEMENT WITH THE PROPERTY OWNER.
  - THE ENGINEER WILL BE THE FINAL AUTHORITY OF ALL CONFLICTS, DISCREPANCIES, AND THE INTERPRETATIONS OF THE DRAWINGS OR SPECIFICATIONS.
  - ENGINEER WILL PROVIDE REFERENCE POINTS (ONLY) FOR CONSTRUCTION STAKEOUT. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION STAKEOUT AND HUB/FLAGGING LOCATIONS. THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION STAKEOUT AND SURVEYING. ALL FIELD SURVEY LAYOUT WORK TO BE APPROVED BY ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. HUBS ARE REQUIRED AT 50 FOOT SPACING AND AT ALL BENDS AND FITTING, ETC.

## GENERAL NOTES CONT'D

- ALL REFERENCE TO THE TEXAS DEPARTMENT OF TRANSPORTATION SHALL REFER TO THE LATEST EDITION.
- BACKFILL IN RIGHT-OF-WAYS OF TEXAS DEPARTMENT OF TRANSPORTATION WILL BE AS PER THEIR SPECIFICATIONS.
- THE CONTRACTOR SHALL HOLD HARMLESS THE **OLMITO WSC** AND THE PROJECT ENGINEER AGAINST ANY ACTION FOR PERSONAL INJURY OR PROPERTY DAMAGE SUSTAINED BY REASON OF THE EXERCISE OF THIS CONSTRUCTION.
- THE CONTRACTOR SHALL HAVE A FULL TIME SUPERINTENDENT AT PROJECT SITE DURING THE PROJECT AND AT ALL TIMES DURING ANY CONSTRUCTION ACTIVITIES. THE SUPERINTENDENT SHALL BE A DIRECT EMPLOYEE OF THE CONTRACTOR.
- CONTRACTOR SHALL NOT SUBCONTRACT MORE THAN 35 PERCENT OF THE TOTAL PROJECT CONSTRUCTION
- THE CONTRACTOR SHALL LEAVE SITE IN CONDITION FOUND. ANY DISTURBED AREAS SHALL BE BROUGHT TO CONDITION FOUND. ALL DISTURBED AREAS SHALL BE SEED BY USE OF HYDROMULCH.

## SPECIAL PROVISIONS

### 1. OLMITO WSC EXISTING WATER AND SEWER UTILITIES

THE DRAWINGS SHOW AS MUCH INFORMATION AS CAN BE REASONABLY OBTAINED BY THE ENGINEERING SURVEY PARTY, FROM EXISTING UTILITY COMPANY RECORDS AND MAPPINGS AND FROM LOCATION/SPOTTING PROVIDED BY THE **OLMITO WSC**.

THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION IS NOT GUARANTEED.

**THE CONTRACTOR IS HEREBY MADE EXTREMELY AWARE THAT ALL WATER AND SEWER LINES CAN NOT BE ACCURATELY LOCATED AND IN CASES MAY BE UNABLE TO BE SPOTTED OR LOCATED BY THE OLMITO WSC DUE TO THE UNAVAILABILITY OF ACCURATE RECORDS AND MAPPING.**

IN THE EVENT THAT ANY WATER AND SEWER LINE, WHETHER SHOWN OR NOT SHOWN ON THE DRAWINGS OR NOT SPOTTED ON THE GROUND BY **OLMITO WSC** PERSONNEL DUE TO UNAVAILABILITY OF RECORDS ARE ENCOUNTERED, IT SHALL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY TO LOCATE SUCH UNDERGROUND UTILITIES SUFFICIENTLY IN ADVANCE OF OPERATIONS TO PRECLUDE DAMAGE TO SAME.

IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO LOCATE SUCH UNDERGROUND WATER AND SEWER UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION TO PRECLUDE DAMAGE TO THE WATER AND SEWER LINES.

IN THE EVENT THAT THE CONTRACTOR DAMAGES ANY **OLMITO WSC** WATER OR SEWER LINES OR FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY MAKE THE NECESSARY REPAIRS TO PLACE THE WATER AND SEWER FACILITIES BACK IN SERVICE AT NO INCREASE IN THE CONTRACTOR'S PRICE.

ALL REPAIRS SHALL CONFORM TO THE REQUIREMENTS OF **OLMITO WSC**.

### 2. TRENCH SAFETY

CONTRACTOR SHALL PROVIDE ALL REQUIRED TRENCH SAFETY SYSTEMS IN ACCORDANCE WITH OSHA REGULATIONS AND REQUIREMENTS OF TEXAS LEGISLATURE H.B. No 661 AND 665. TRENCH SAFETY SYSTEMS ARE REQUIRED FOR ANY EXCAVATION, OVER FIVE FEET IN DEPTH FOR SEWER LINES, MANHOLE, LIFT STATIONS, WATERLINE, ETC.

THE CONTRACTOR IS HEREBY MADE AWARE THAT HE IS TOTALLY RESPONSIBLE FOR TRENCH SAFETY, INCLUDING IMPLEMENTATION, DESIGN, CONSTRUCTION, INSPECTION ETC., AND HE HAS INCLUDED A TRENCH SAFETY SYSTEM IN HIS CONTRACT.

SEE SPECIFICATION SECTION FOR TRENCH SAFETY REQUIREMENTS.

### 3. TEXAS COMMISSION ON ENVIRONMENT QUALITY (TCEQ) RULES AND REQUIREMENTS

THE CONTRACTOR SHALL STRICTLY ADHERE TO TCEQ RULES AND REGULATIONS WHICH REGULATE THE INSTALLATION AND TESTING OF DOMESTIC WATER AND WASTEWATER PROJECTS AS DETAILED IN 30 TAC, CHAPTER 290 OF TCEQ RULES. ALL MINIMUM SEPARATION DISTANCES AND CROSSING REQUIREMENTS ARE TO BE STRICTLY ADHERED TO. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR THE ADHERENCE TO THESE REQUIREMENTS, AND REGULATIONS.

THE CONTRACTOR SHALL MAINTAIN SEPARATION DISTANCE IN ALL DIRECTIONS OF NINE FEET BETWEEN THE PROPOSED WATERLINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES. IF THIS DISTANCE CANNOT BE MAINTAINED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET 30 TAC §290.44(e)(1)-(4).

## SPECIAL PROVISIONS CONT'D

### 3. TEXAS COMMISSION ON ENVIRONMENT QUALITY (TCEQ) RULES AND REQUIREMENTS CONT'D

IF A NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOTED INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT 30 TAC §290.44(e)(5).

### 4. TESTING AND EXCAVATION

THE CONTRACTOR SHALL DISINFECT THE NEW WATERLINES IN ACCORDANCE WITH RECENT AWWA STANDARD C651-14 AND 30 TAC §290.44(f)(3), THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED IN SERVICE. DECHLORINATION OF DISINFECTING WATER SHALL BE IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD C655-09.

THE CONTRACTOR SHALL USE SELECT BACKFILL AT THE SITE. GRADING BACKFILL SHALL BE FREE OF DEBRIS AND GRASS. ALL SITE BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. BACKFILL SHALL HAVE A PLASTICITY INDEX OF LESS THAN 18.

ALL BACKFILL SHALL BE COMPACTED AT DENSITIES SHOWN ON THE DRAWINGS. INITIAL TESTING WILL BE PAID FOR BY **OLMITO WSC**. THE FIRST TEST, AT ANY OWNER SELECTED AREA, WILL BE PAID BY **OLMITO WSC**. ANY RE-TESTING REQUIRED DUE TO FAILING TEST, WILL BE PAID BY THE CONTRACTOR. **OLMITO WSC** WILL SELECT TESTING LABORATORY.

ALL BACKFILL SHALL BE PERFORMED IN 6 INCH LIFTS TO A CONDITION COMPARABLE TO ADJACENT, UNDISTURBED MATERIAL. CONTRACTOR SHALL CORRECT ANY FUTURE SETTLEMENT IN AREA OF EXCAVATION.

SEE PROJECT DRAWING FOR DETAIL SHOWING BACKFILL AND PAVEMENT REPAIRS.

ALL MATERIALS ARE SUBJECT TO APPROVAL BY THE ENGINEER PRIOR TO USE AND ANY MATERIAL FAILING APPROVAL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE.

ALL TESTING AND SOIL ANALYSIS REQUIRED TO BE PAID BY THE OWNER. CONTRACTOR TO ARRANGE FOR ALL TESTING. ANY RE-TESTS, DUE TO FAILURE, SHALL BE PAID FOR BY THE CONTRACTOR. TESTING COMPANY MUST BE APPROVED BY ENGINEER AND OWNER.


### 5. TRAFFIC PROTECTION AND CONTROL

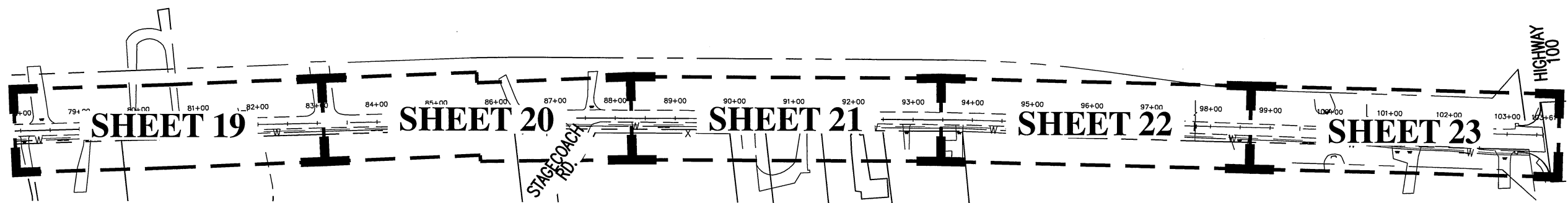
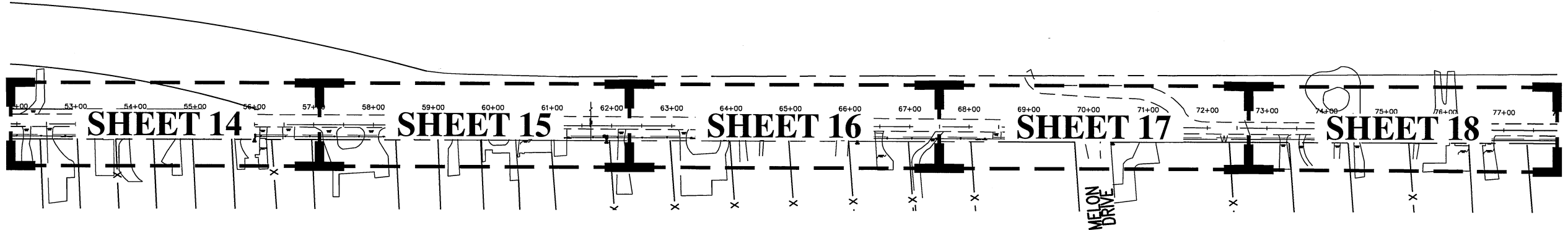
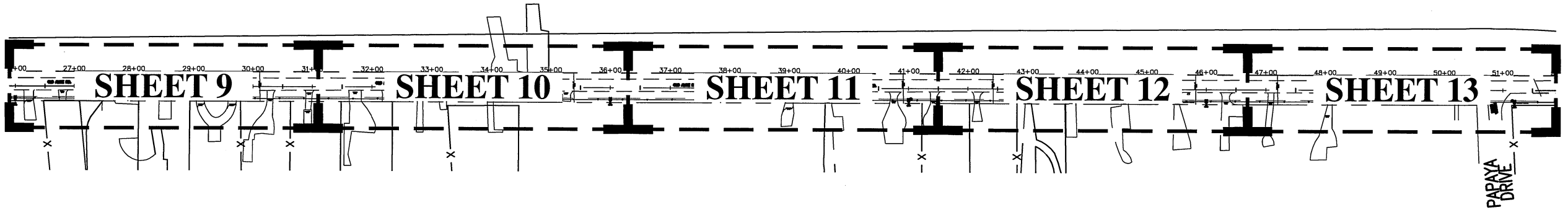
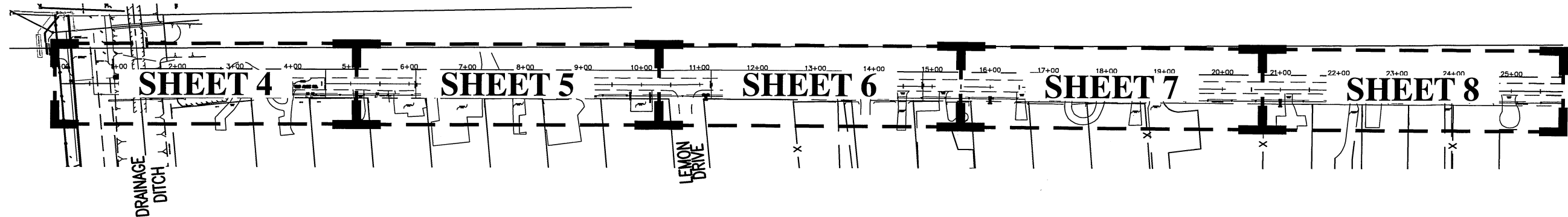
THE ROADWAY AND STREETS SHALL REMAIN OPEN FOR ACCESS TO TRAFFIC AT ALL TIMES DURING CONSTRUCTION OF THIS PROJECT CONTRACTOR TO PROVIDE TEMPORARY ALL-WEATHER ACCESS DURING CONSTRUCTION. CONTRACTOR IS TO INSTALL SIGNAGE TO INDICATE "CONSTRUCTION" AND BARRICADES AND LIGHTING AT PROJECT LIMITS. THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION FOR ALL TRAFFIC AFFECTED BY THE CONTRACTOR'S WORK WITH WARNING SIGNS, FLAGS, LIGHTS, AND FLAGMEN WHERE NECESSARY AND REQUIRED. A TEN FOOT (10') BUFFER ZONE SHALL BE MAINTAINED BETWEEN TRAFFIC AND WORK AREA. SHOULD ANY PORTION OF THE TRAVELWAY, INCLUDING A ZONE 5 FEET FROM THE PAVEMENT EDGE, BE RESTRICTED TO TRAFFIC DURING THE HOURS OF DARKNESS. THE JOBSITE AND PROJECT AREA SHALL BE PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TEXAS DEPARTMENT OF HIGHWAYS.


ALL TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE TOTALLY FAMILIAR WITH THE TEXAS DEPARTMENT OF HIGHWAYS SAFETY, TRAFFIC, BARRICADES AND CONSTRUCTION STANDARDS.

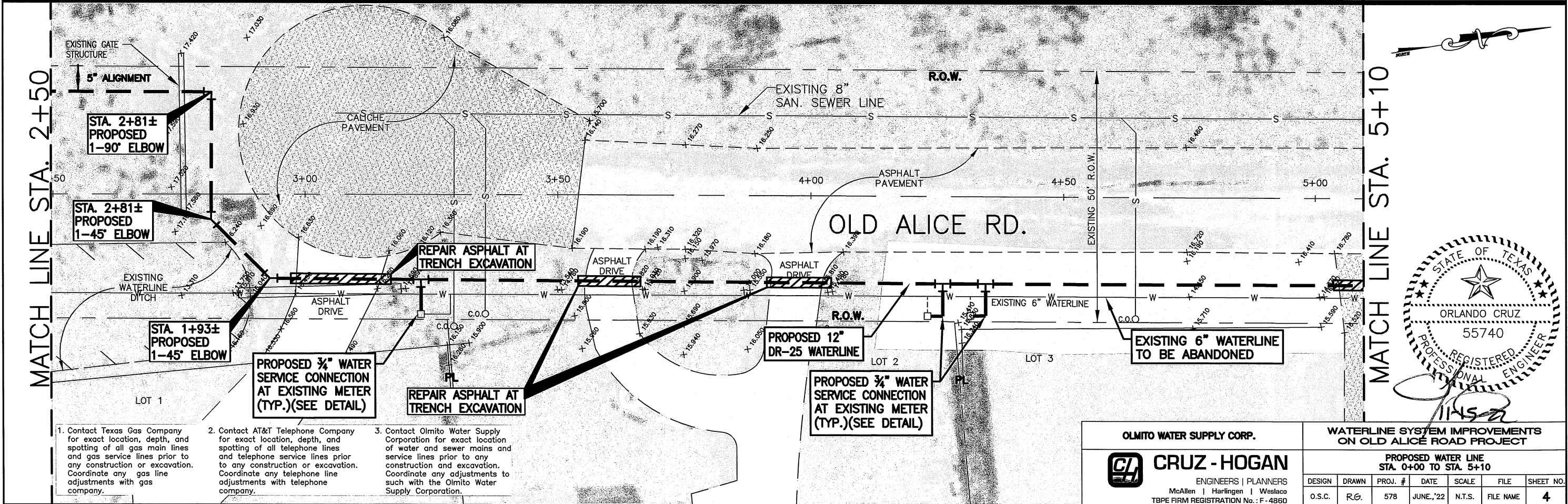
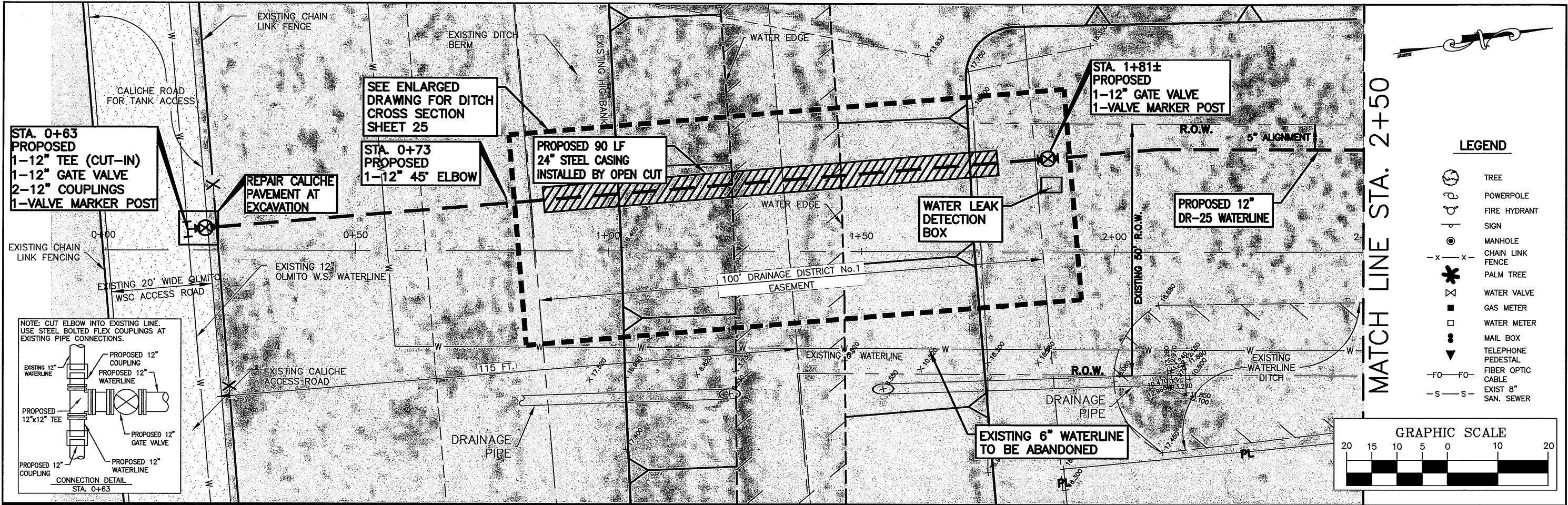


<b>OLMITO WATER SUPPLY CORP.</b>		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b>						
 <b>CRUZ - HOGAN</b>		<b>GENERAL NOTES</b>						
ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No.: F-4860		DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
		O.S.C.	R.G.	578	JUNE., '22	N.T.S.	FILE NAME	<b>2</b>



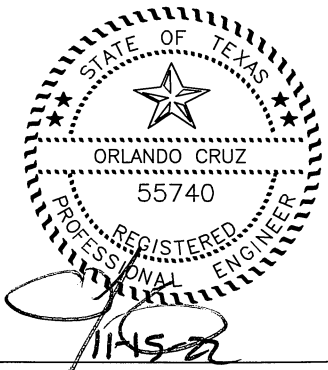
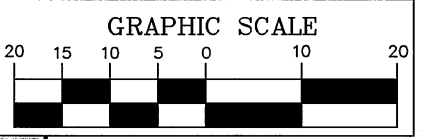
<b>OLMITO WATER SUPPLY CORP.</b>  <b>CRUZ - HOGAN</b> ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No. : F-4860		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b> <b>SHEET LAYOUT</b>				
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE., '22	N.T.S.	FILE NAME	<b>3</b>

Dropbox (Cruz-Hogan Consultant)\CHC Weslaco AutoCAD Files



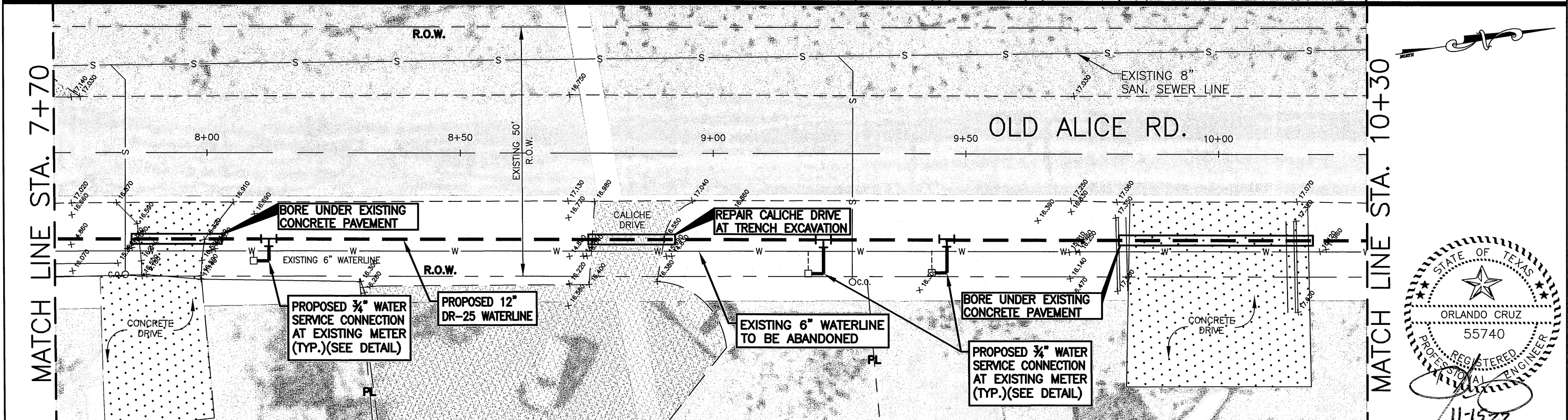
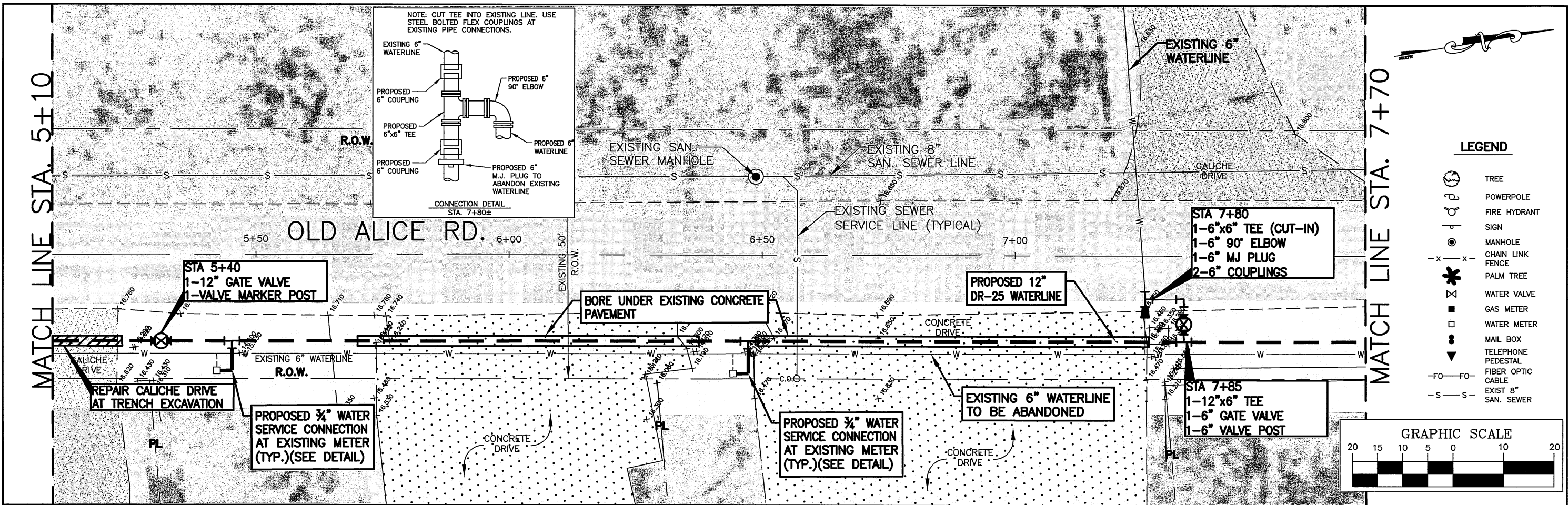
**LEGEND**

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDestal
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER

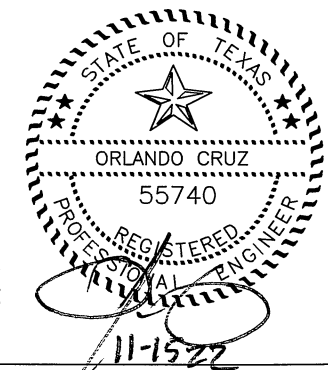
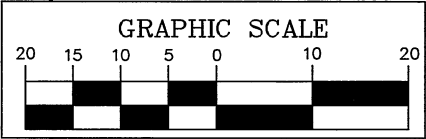


1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

<b>OLMITO WATER SUPPLY CORP.</b> <b>CRUZ - HOGAN</b> ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPCE FIRM REGISTRATION No.: F-4860		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b> <b>PROPOSED WATER LINE STA. 0+00 TO STA. 5+10</b>					
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.	
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	4	



- LEGEND**
- TREE
  - POWERPOLE
  - FIRE HYDRANT
  - SIGN
  - MANHOLE
  - CHAIN LINK FENCE
  - PALM TREE
  - WATER VALVE
  - GAS METER
  - WATER METER
  - MAIL BOX
  - TELEPHONE PEDESTAL
  - FIBER OPTIC CABLE
  - EXIST 8" SAN. SEWER



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

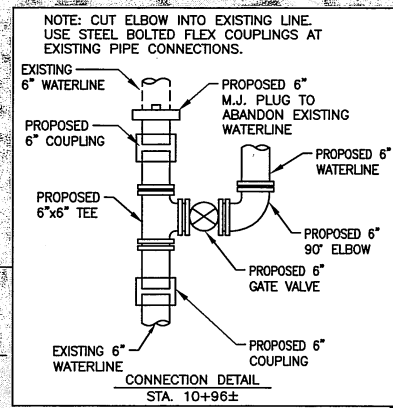
<b>OLMITO WATER SUPPLY CORP.</b> 		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b> <b>PROPOSED WATER LINE STA. 5+10 TO STA. 10+30</b>				
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>5</b>

MATCH LINE STA. 10+30

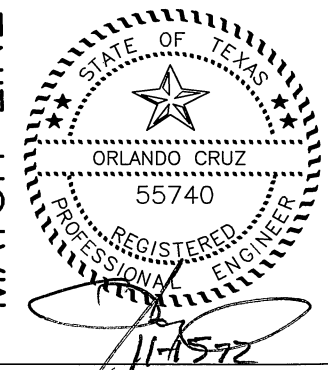
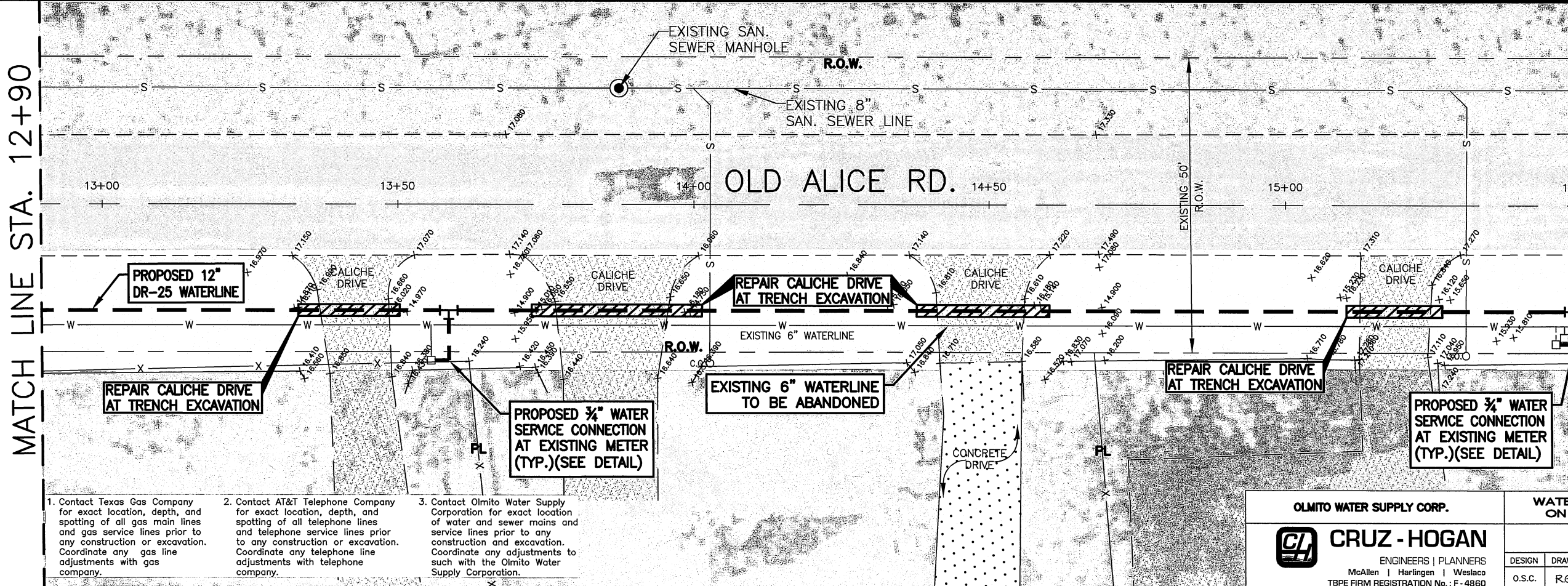
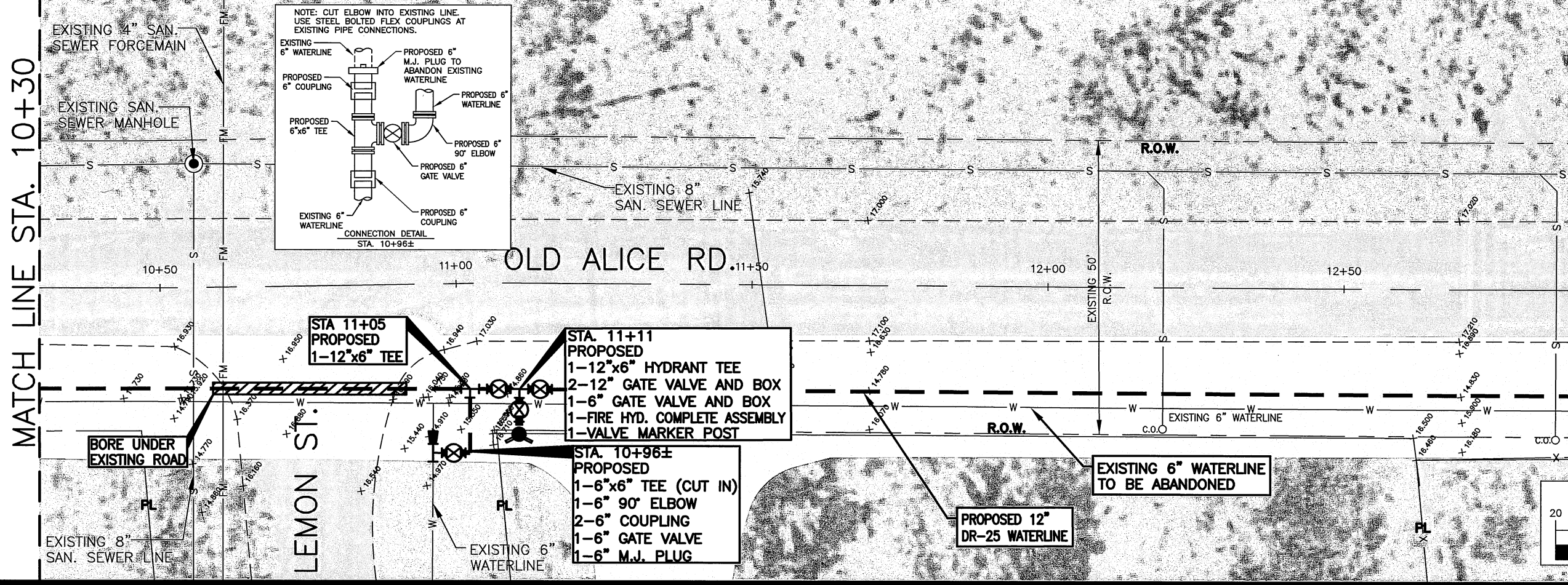
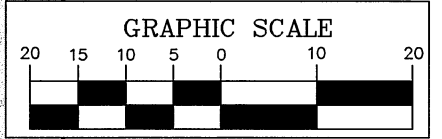
MATCH LINE STA. 12+90

MATCH LINE STA. 12+90

MATCH LINE STA. 15+50



- LEGEND**
- TREE
  - POWERPOLE
  - FIRE HYDRANT
  - SIGN
  - MANHOLE
  - CHAIN LINK FENCE
  - PALM TREE
  - WATER VALVE
  - GAS METER
  - WATER METER
  - MAIL BOX
  - TELEPHONE PEDESTAL
  - FIBER OPTIC CABLE
  - EXIST 8" SAN. SEWER



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

**OLMITO WATER SUPPLY CORP.**

**CRUZ - HOGAN**

ENGINEERS | PLANNERS

McAllen | Harlingen | Weslaco

TBPE FIRM REGISTRATION No.: F-4860

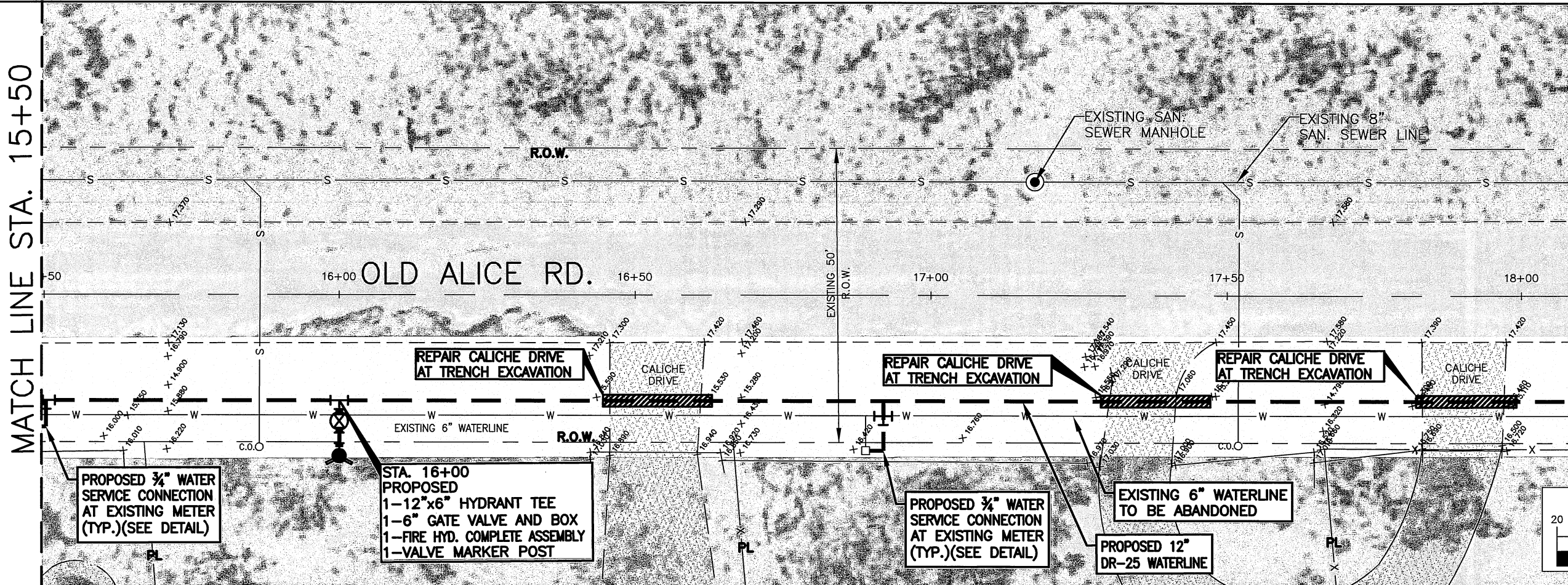
**WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT**

PROPOSED WATER LINE  
STA. 10+30 TO STA. 15+50

DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	6

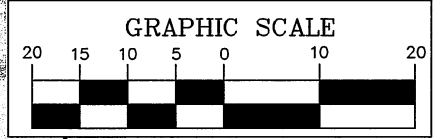
MATCH LINE STA. 15+50

MATCH LINE STA. 18+10



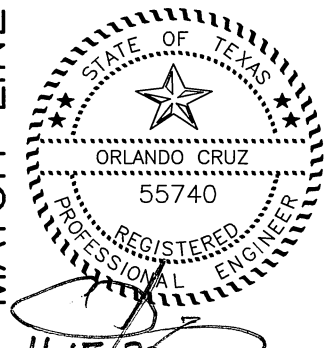
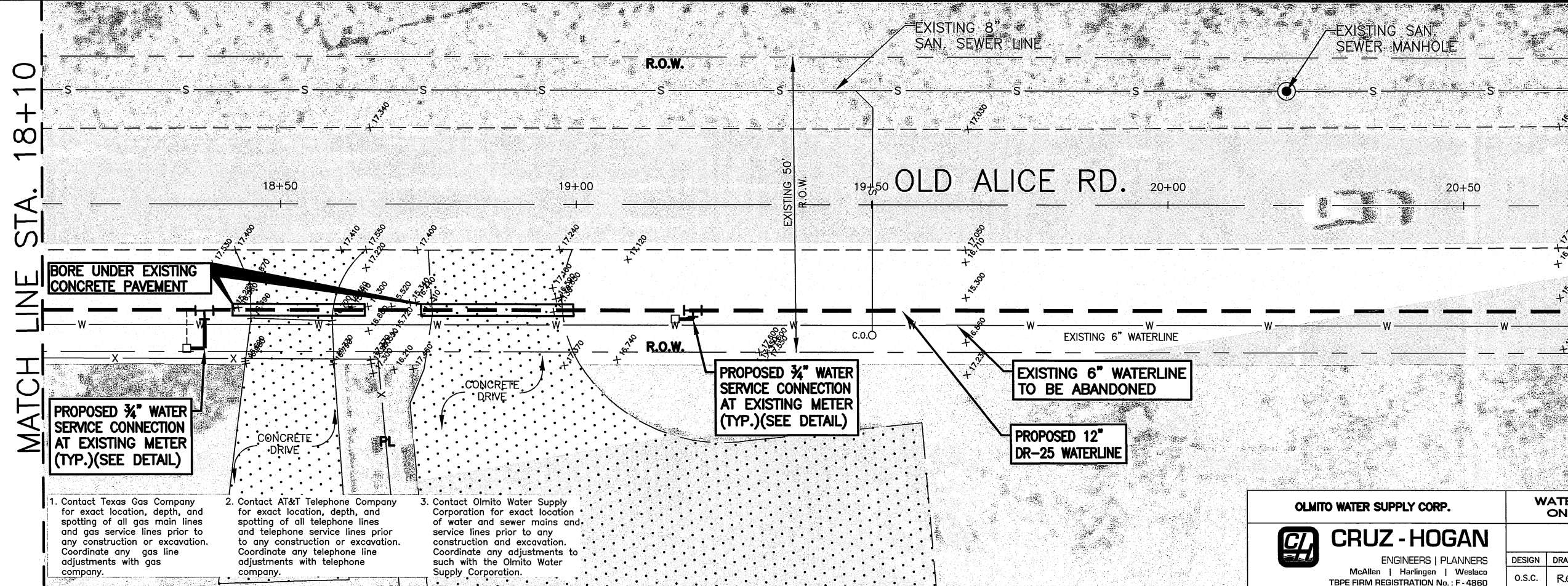
**LEGEND**

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



MATCH LINE STA. 18+10

MATCH LINE STA. 20+70



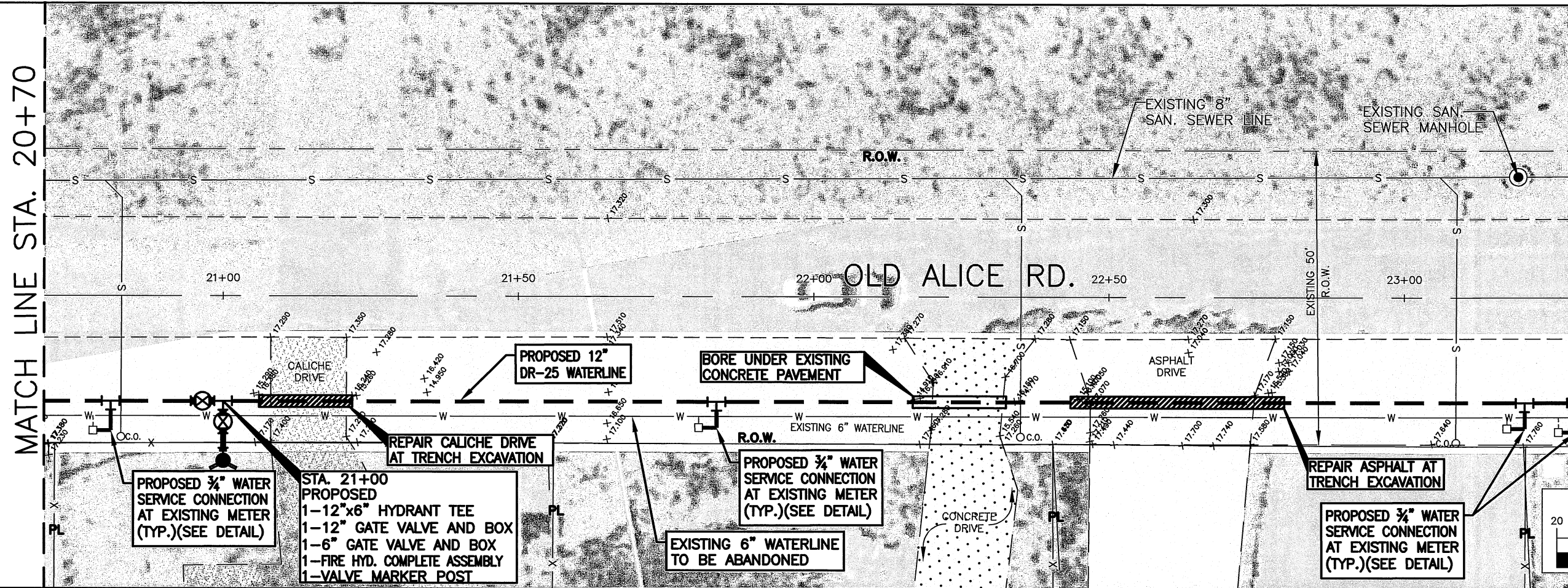
1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b>				
<b>CRUZ - HOGAN</b> ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No.: F-4860		<b>PROPOSED WATER LINE STA. 15+50 TO STA. 20+70</b>				
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>7</b>

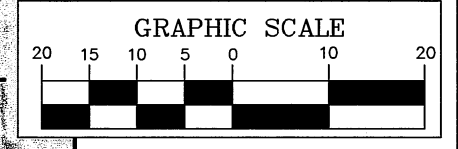


MATCH LINE STA. 20+70

MATCH LINE STA. 23+30

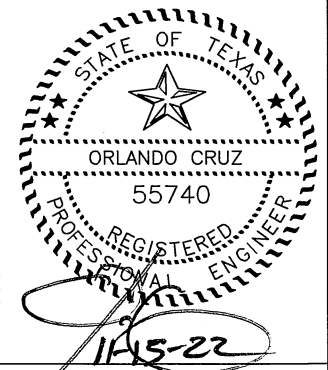
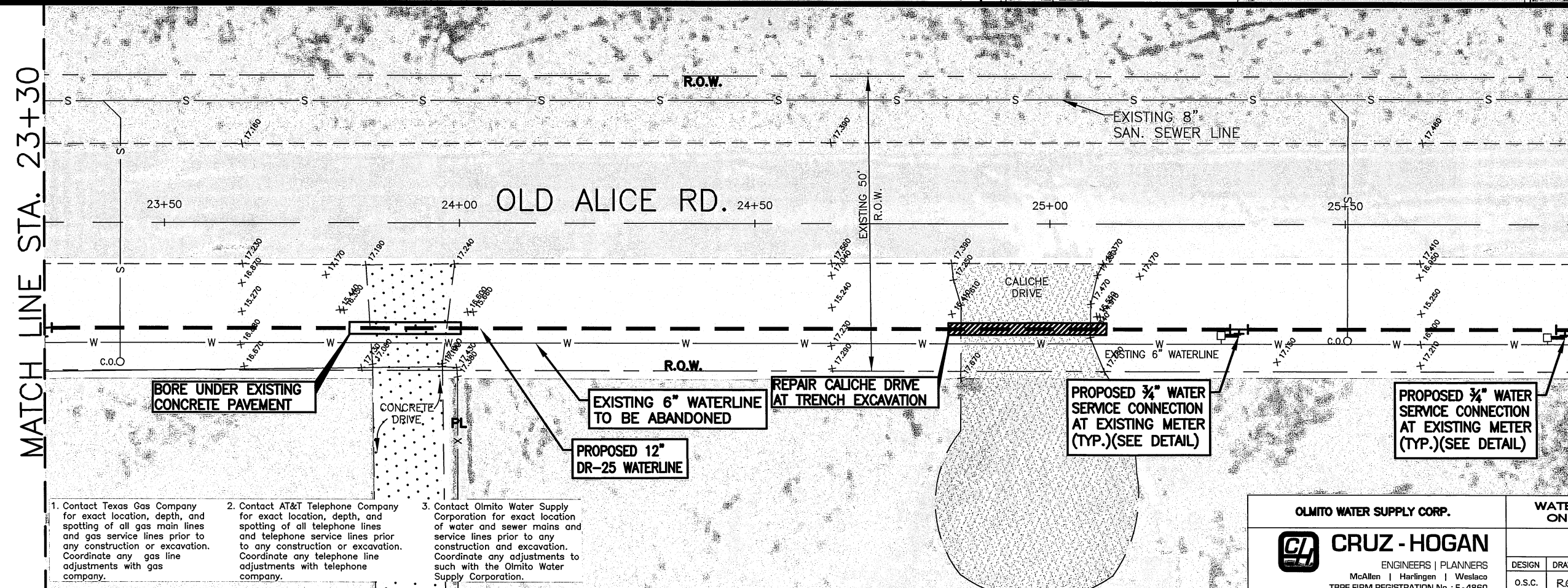


- LEGEND**
- TREE
  - POWERPOLE
  - FIRE HYDRANT
  - SIGN
  - MANHOLE
  - CHAIN LINK FENCE
  - PALM TREE
  - WATER VALVE
  - GAS METER
  - WATER METER
  - MAIL BOX
  - TELEPHONE PEDESTAL
  - FIBER OPTIC CABLE
  - EXIST 8" SAN. SEWER



MATCH LINE STA. 23+30

MATCH LINE STA. 25+90



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

<b>OLMITO WATER SUPPLY CORP.</b>		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b>					
		<b>CRUZ - HOGAN</b>					
McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No. : F-4860		PROPOSED WATER LINE STA. 20+70 TO STA. 25+90					
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.	
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>8</b>	

MATCH LINE STA. 25+90

MATCH LINE STA. 28+50

MATCH LINE STA. 28+50

MATCH LINE STA. 31+10

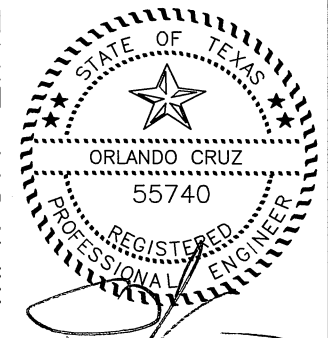
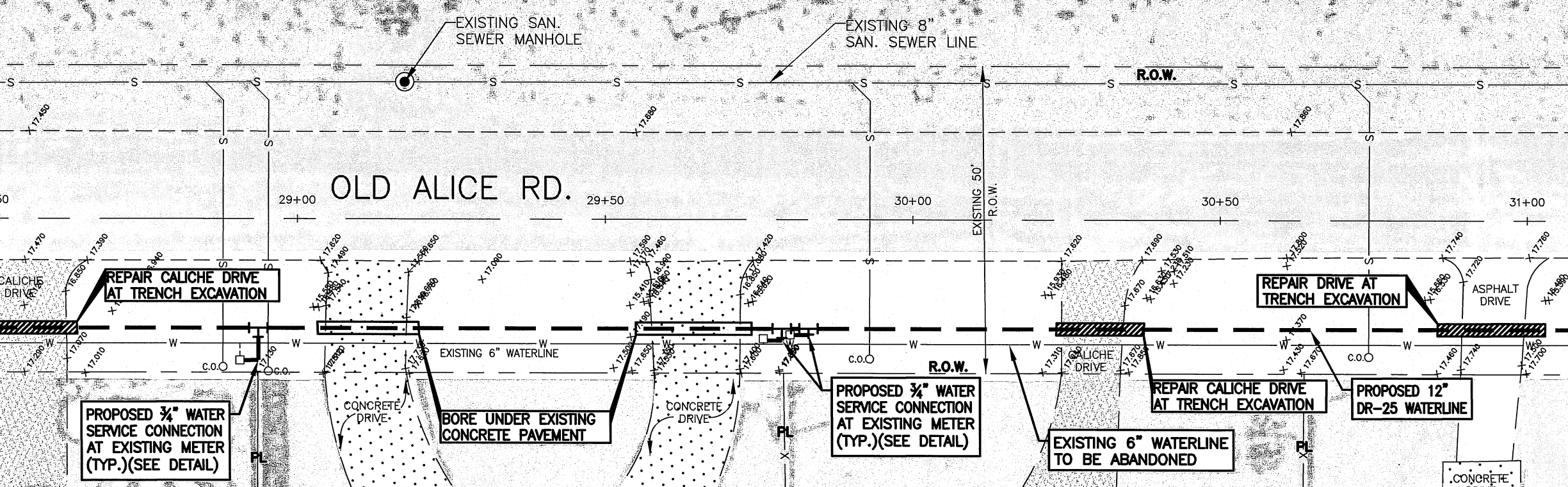
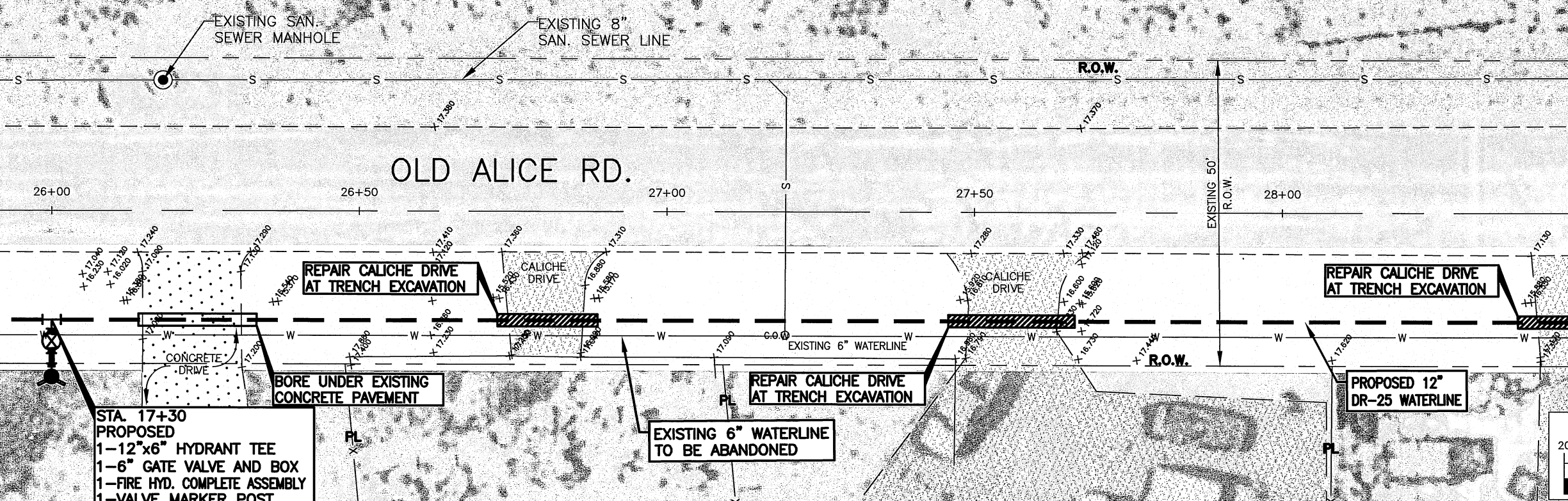
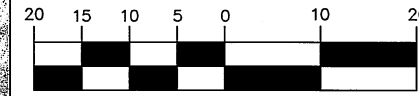
OLD ALICE RD.

OLD ALICE RD.

LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER

GRAPHIC SCALE



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

OLMITO WATER SUPPLY CORP.

**CRUZ - HOGAN**  
ENGINEERS | PLANNERS  
McAllen | Harlingen | Weslaco  
TBE FIRM REGISTRATION No. : F-4860

WATERLINE SYSTEM IMPROVEMENTS  
ON OLD ALICE ROAD PROJECT

PROPOSED WATER LINE  
STA. 25+90 TO STA. 31+10

DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	9

MATCH LINE STA. 31+10

MATCH LINE STA. 33+70

MATCH LINE STA. 33+70

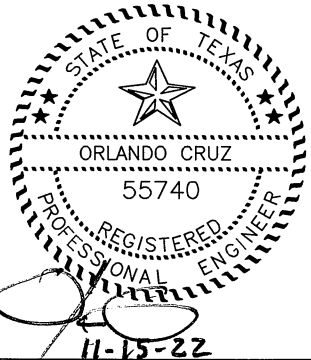
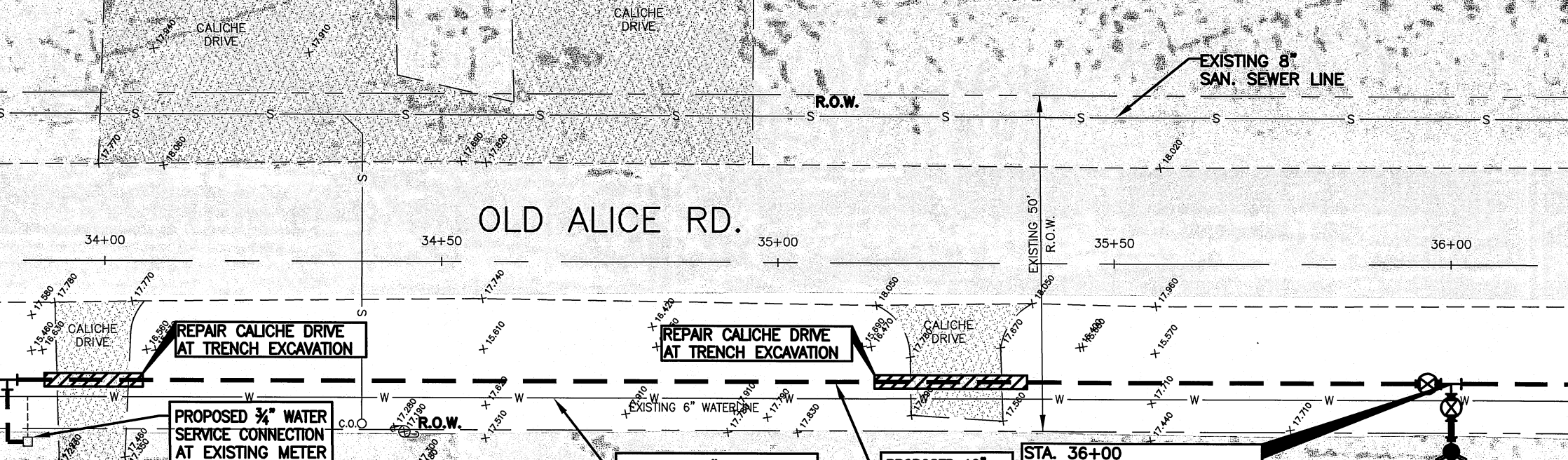
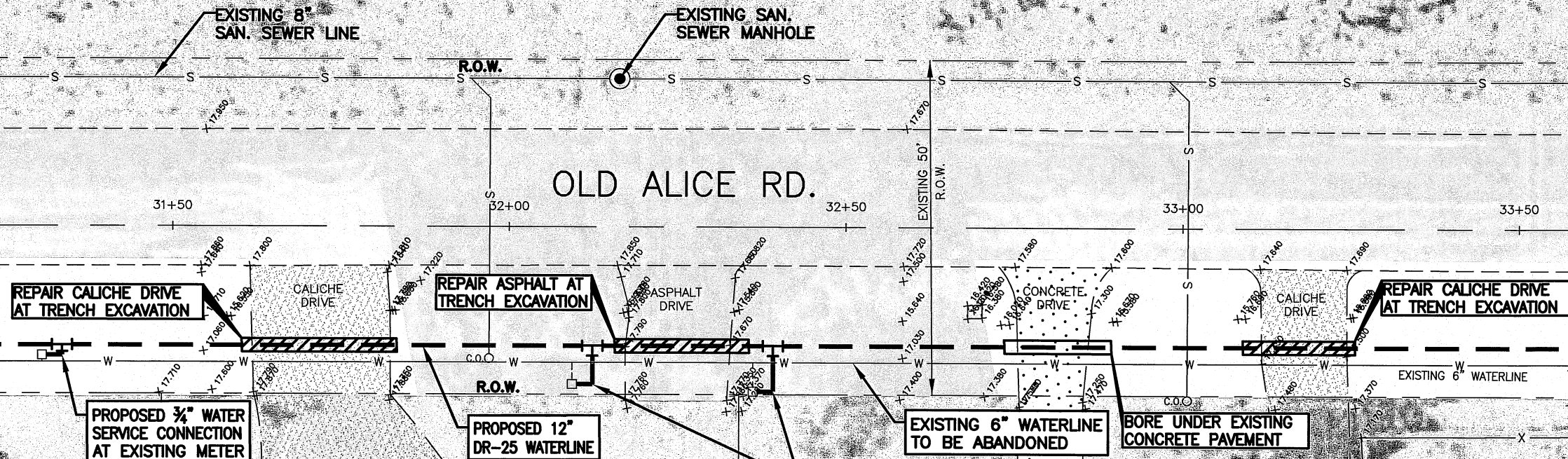
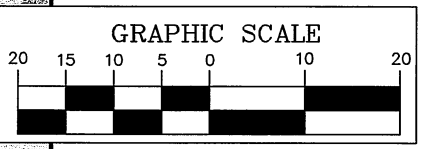
MATCH LINE STA. 36+30

# OLD ALICE RD.

# OLD ALICE RD.

### LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDestal
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

STA. 36+00  
 PROPOSED  
 1-12"x6" HYDRANT TEE  
 1-12" GATE VALVE BOX  
 1-6" GATE VALVE AND BOX  
 1-FIRE HYD. COMPLETE ASSEMBLY  
 1-VALVE MARKER POST

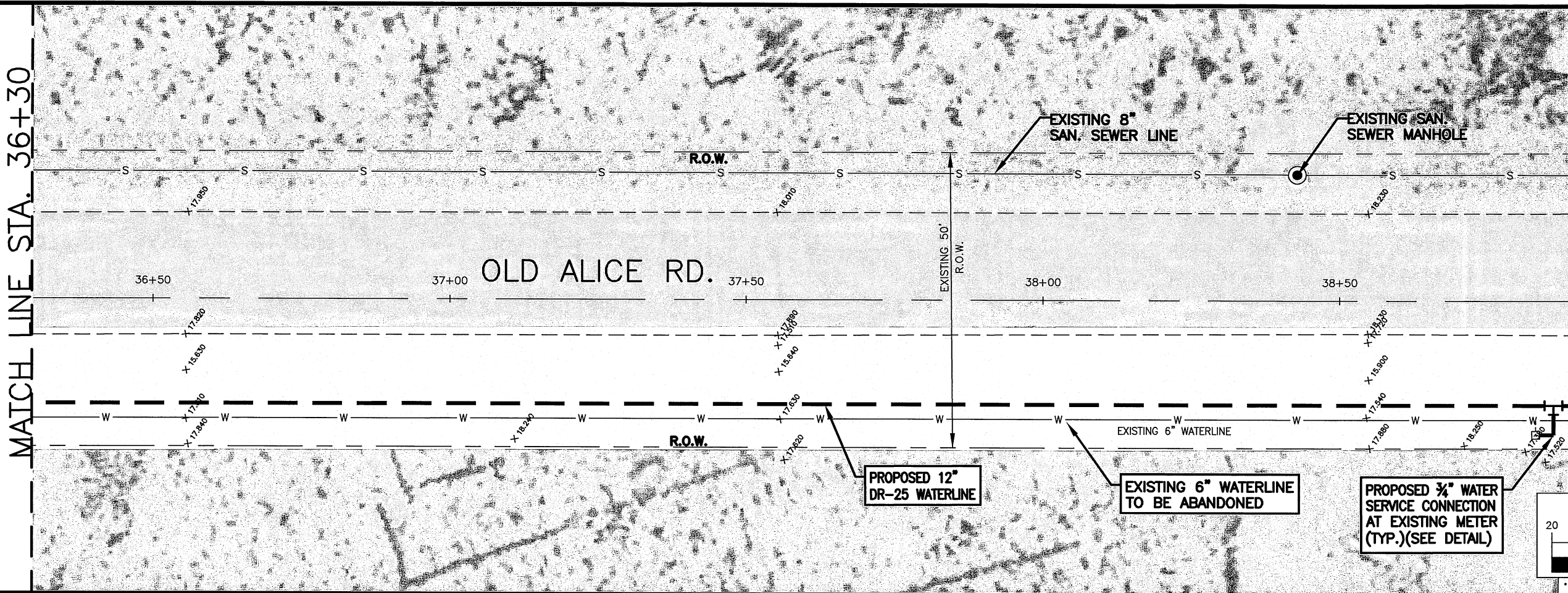
**OLMITO WATER SUPPLY CORP.**

**CRUZ - HOGAN**  
 ENGINEERS | PLANNERS  
 McAllen | Harlingen | Weslaco  
 TBPE FIRM REGISTRATION No.: F-4860

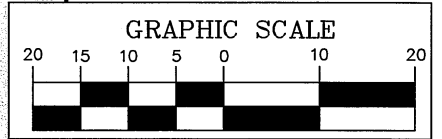
WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT						
PROPOSED WATER LINE STA. 31+10 TO STA. 36+30						
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	10

MATCH LINE STA. 36+30

MATCH LINE STA. 38+90

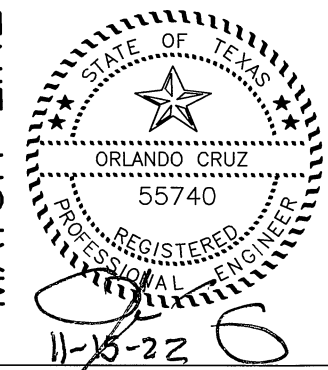
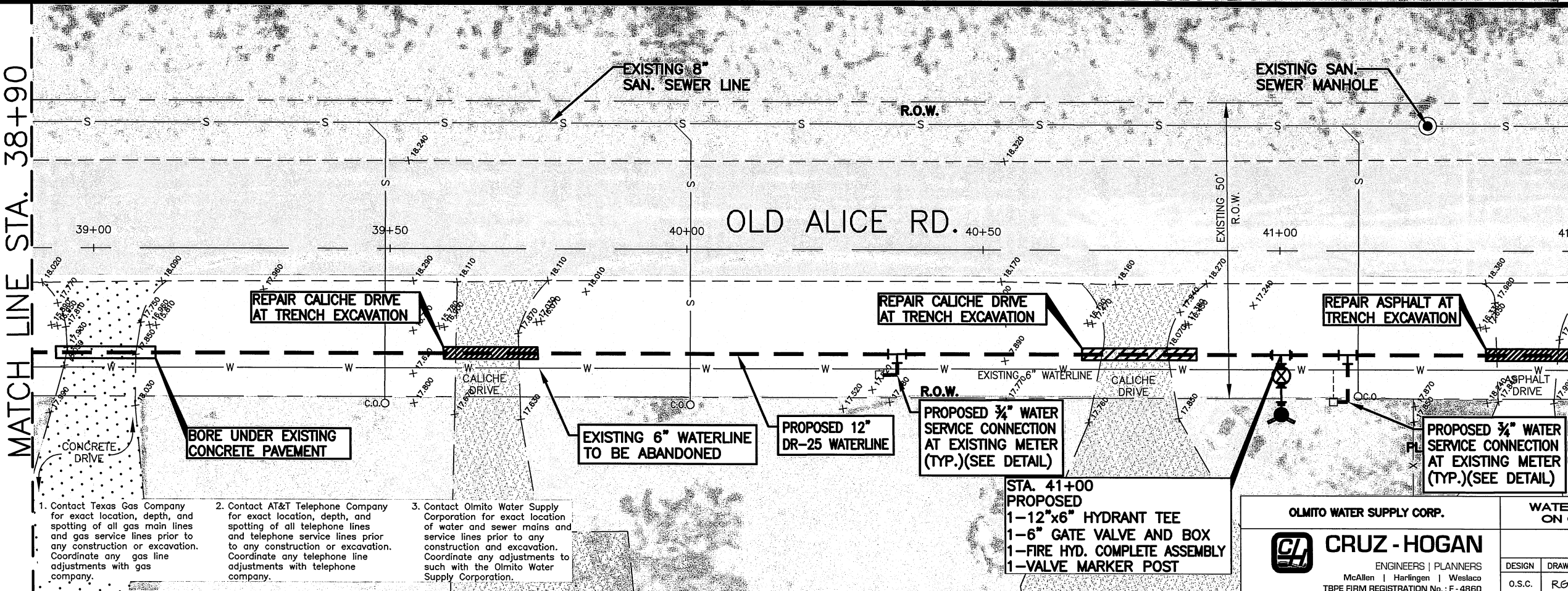


- LEGEND**
- TREE
  - POWERPOLE
  - FIRE HYDRANT
  - SIGN
  - MANHOLE
  - CHAIN LINK FENCE
  - PALM TREE
  - WATER VALVE
  - GAS METER
  - WATER METER
  - MAIL BOX
  - TELEPHONE PEDESTAL
  - FIBER OPTIC CABLE
  - EXIST 8" SAN. SEWER



MATCH LINE STA. 38+90

MATCH LINE STA. 41+50



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

STA. 41+00  
**PROPOSED**  
 1-12"x6" HYDRANT TEE  
 1-6" GATE VALVE AND BOX  
 1-FIRE HYD. COMPLETE ASSEMBLY  
 1-VALVE MARKER POST

**OLMITO WATER SUPPLY CORP.**

**CRUZ - HOGAN**  
 ENGINEERS | PLANNERS  
 McAllen | Harlingen | Weslaco  
 TBPE FIRM REGISTRATION No. : F- 4860

**WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT**

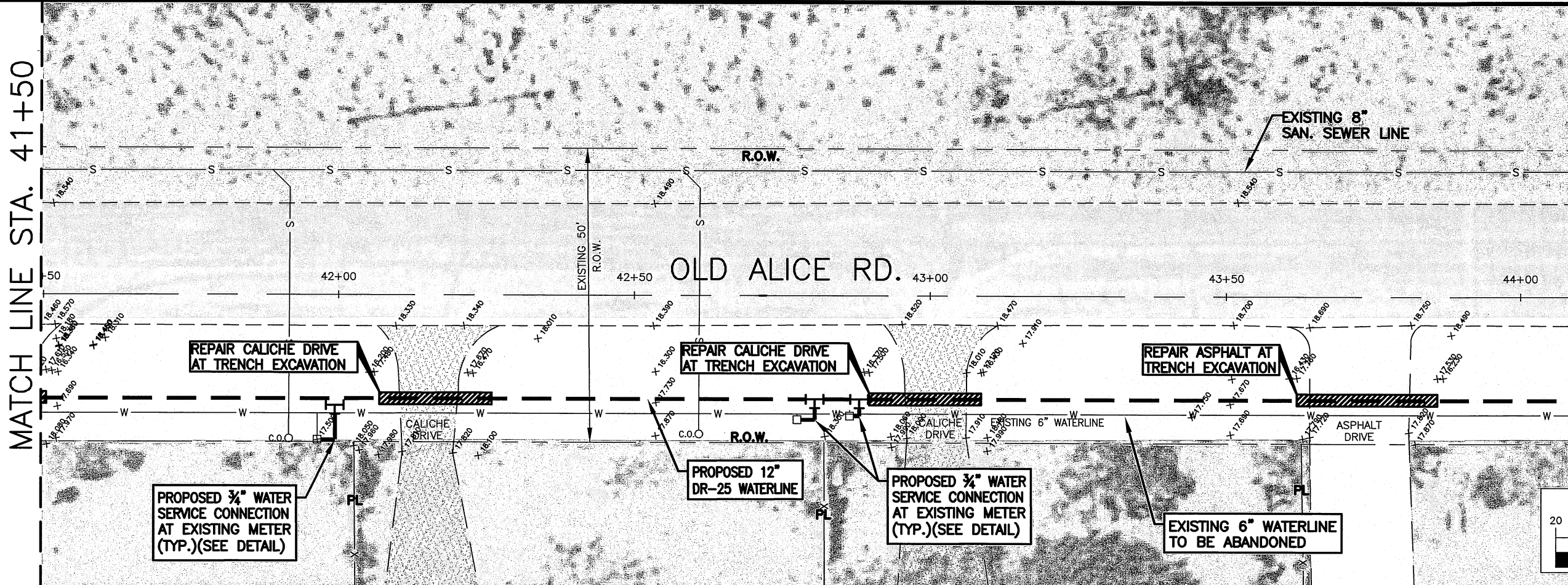
PROPOSED WATER LINE STA. 36+30 TO STA. 41+50

DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>11</b>

Dropbox (Cruz-Hogan Consultant)\CHC Weslaco AutoCAD Files

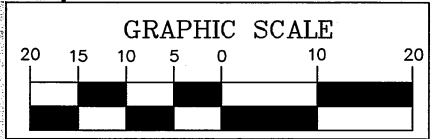
MATCH LINE STA. 41+50

MATCH LINE STA. 44+10



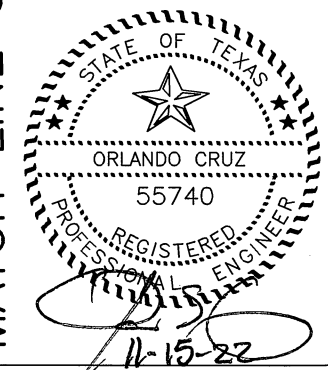
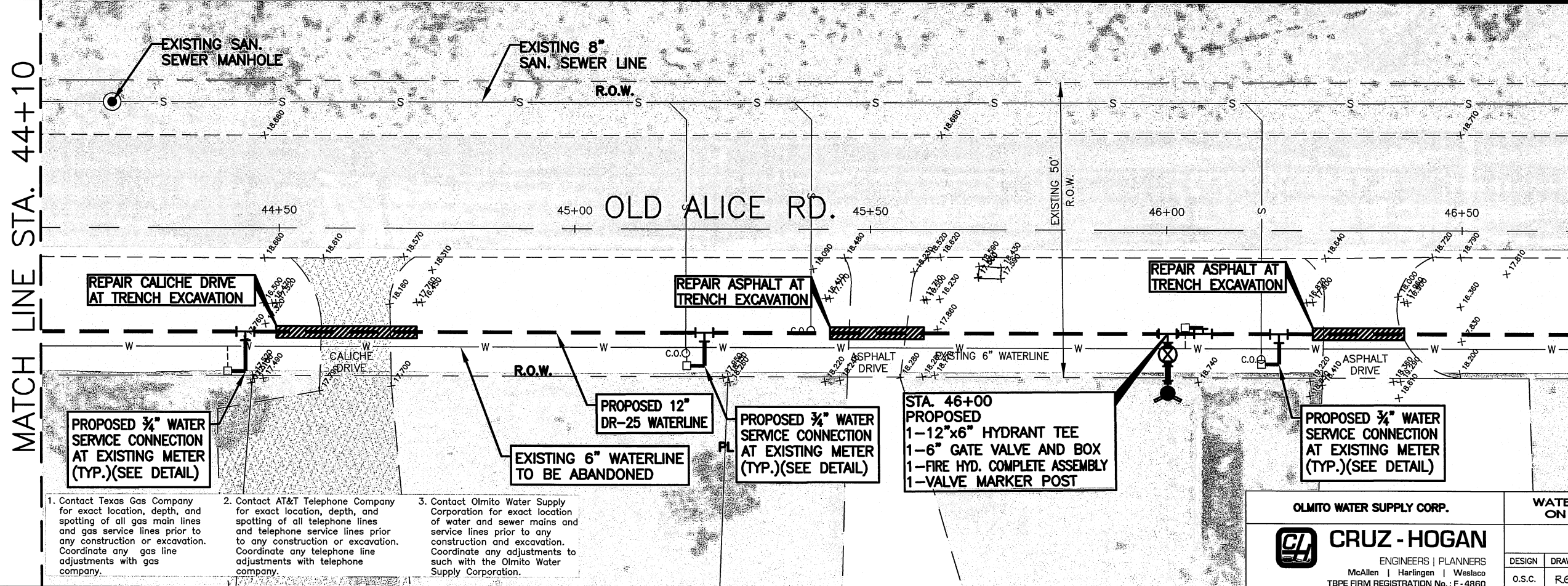
LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



MATCH LINE STA. 44+10

MATCH LINE STA. 46+70



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

**OLMITO WATER SUPPLY CORP.**

**CRUZ - HOGAN**

ENGINEERS | PLANNERS  
McAllen | Harlingen | Weslaco  
TBPE FIRM REGISTRATION No.: F-4860

**WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT**

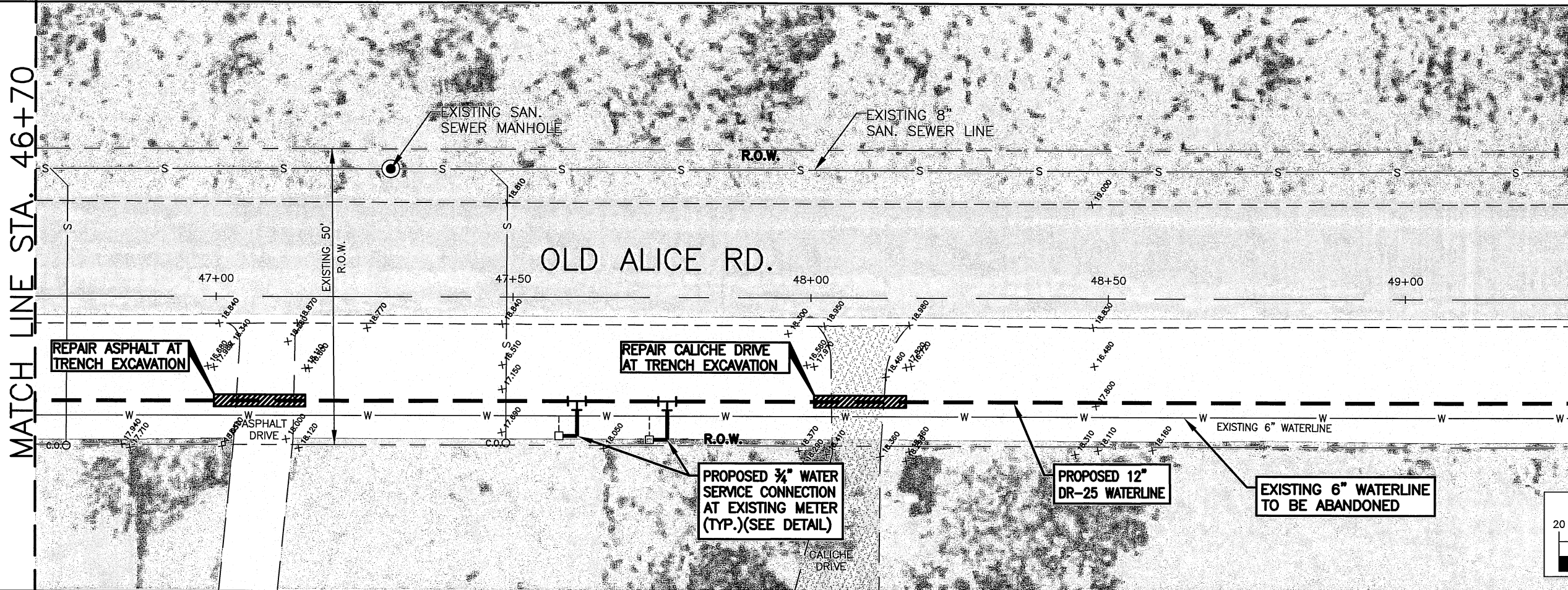
PROPOSED WATER LINE  
STA. 41+50 TO STA. 46+70

DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE., '22	N.T.S.	FILE NAME	12

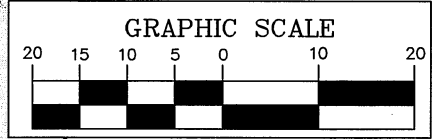
Dropbox (Cruz-Hogan Consultant)\CHC Weslaco AutoCAD Files

MATCH LINE STA. 46+70

MATCH LINE STA. 49+30

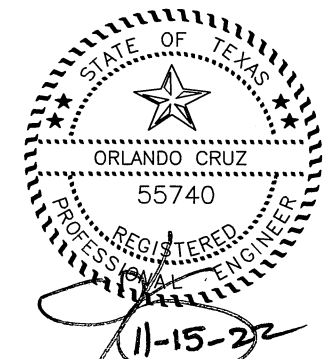
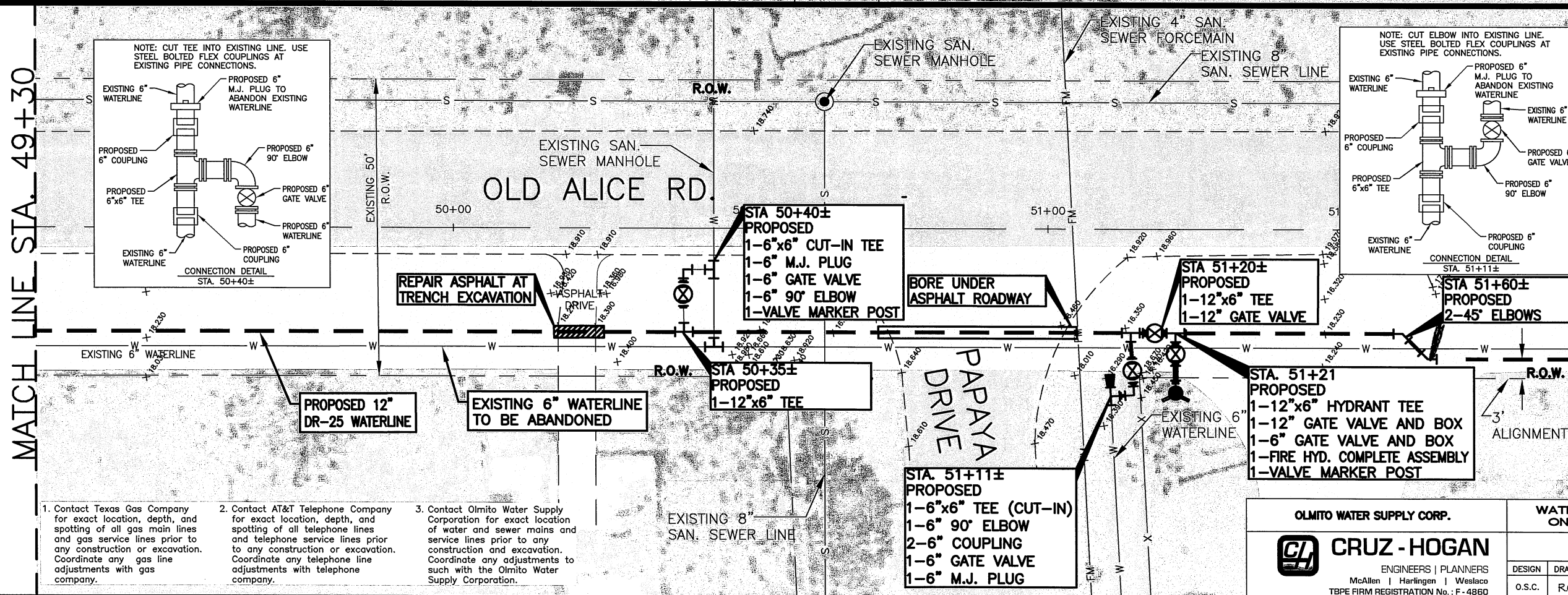


- LEGEND**
- TREE
  - POWERPOLE
  - FIRE HYDRANT
  - SIGN
  - MANHOLE
  - CHAIN LINK FENCE
  - PALM TREE
  - WATER VALVE
  - GAS METER
  - WATER METER
  - MAIL BOX
  - TELEPHONE PEDESTAL
  - FIBER OPTIC CABLE
  - EXIST 8" SAN. SEWER



MATCH LINE STA. 49+30

MATCH LINE STA. 51+90



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

**OLMITO WATER SUPPLY CORP.**

**CRUZ - HOGAN**  
ENGINEERS | PLANNERS  
McAllen | Harlingen | Weslaco  
TBE FIRM REGISTRATION No.: F-4860

**WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT**

PROPOSED WATER LINE STA. 46+70 TO STA. 51+90

DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	13

MATCH LINE STA. 51+90

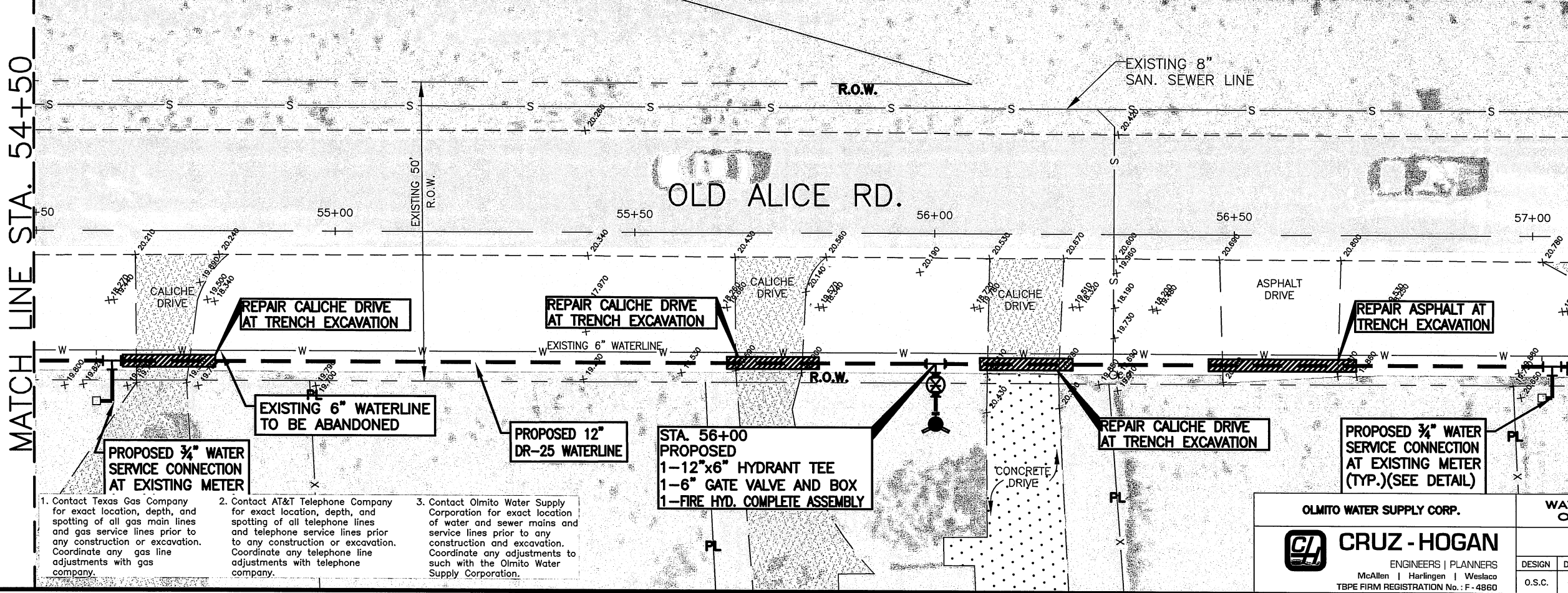
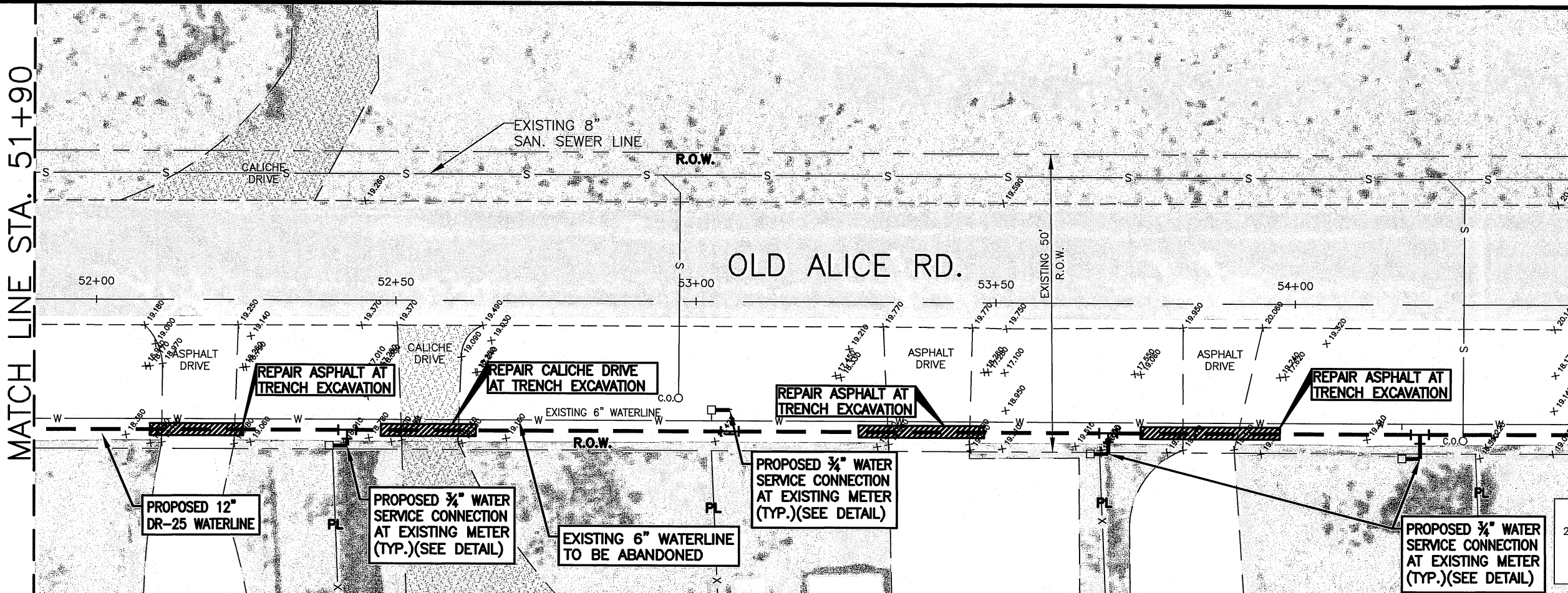
MATCH LINE STA. 54+50

MATCH LINE STA. 54+50

MATCH LINE STA. 57+10

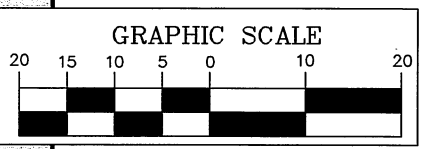
# OLD ALICE RD.

# OLD ALICE RD.

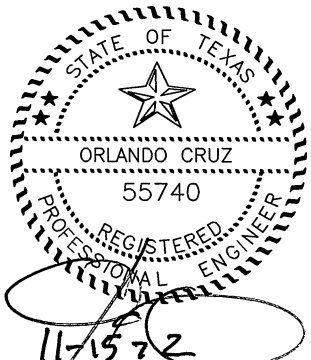


### LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.



**OLMITO WATER SUPPLY CORP.**

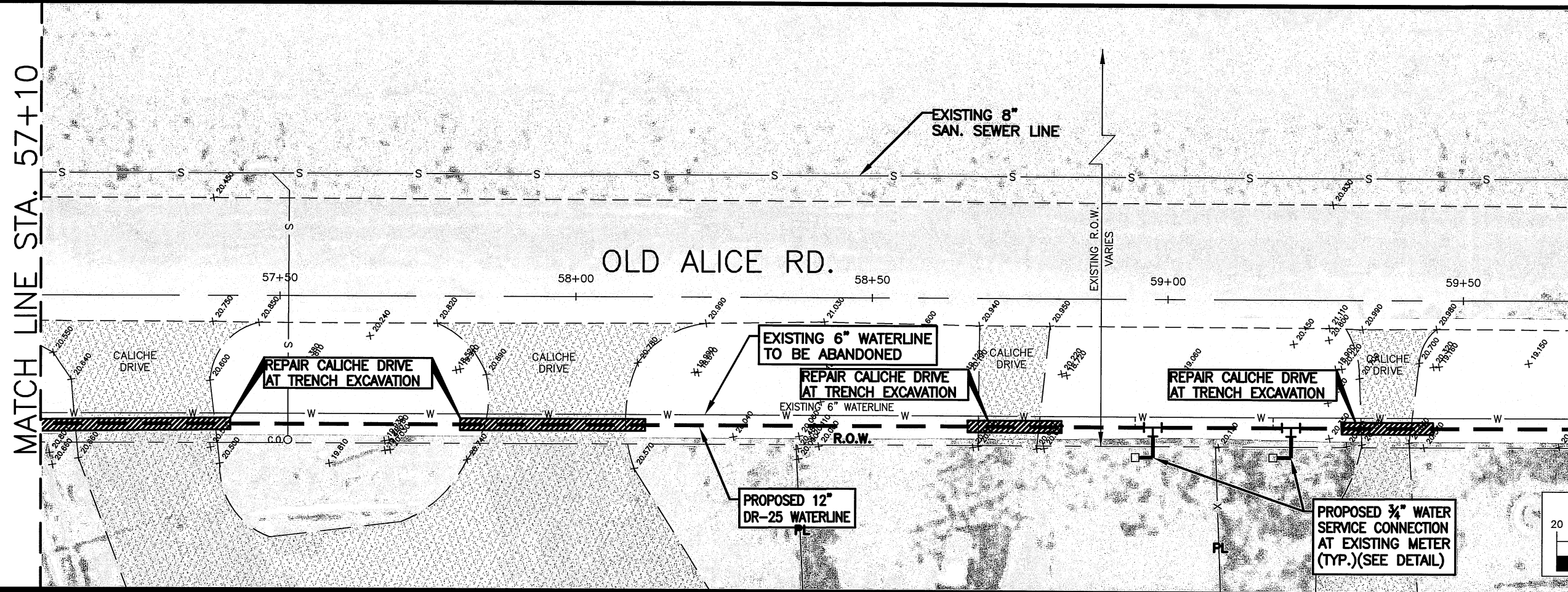
**CRUZ - HOGAN**

ENGINEERS | PLANNERS  
McAllen | Harlingen | Westaco  
TBPE FIRM REGISTRATION No.: F-4860

WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT						
PROPOSED WATER LINE STA. 51+90 TO STA. 57+10						
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>14</b>

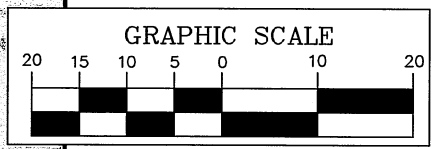
MATCH LINE STA. 57+10

MATCH LINE STA. 59+70



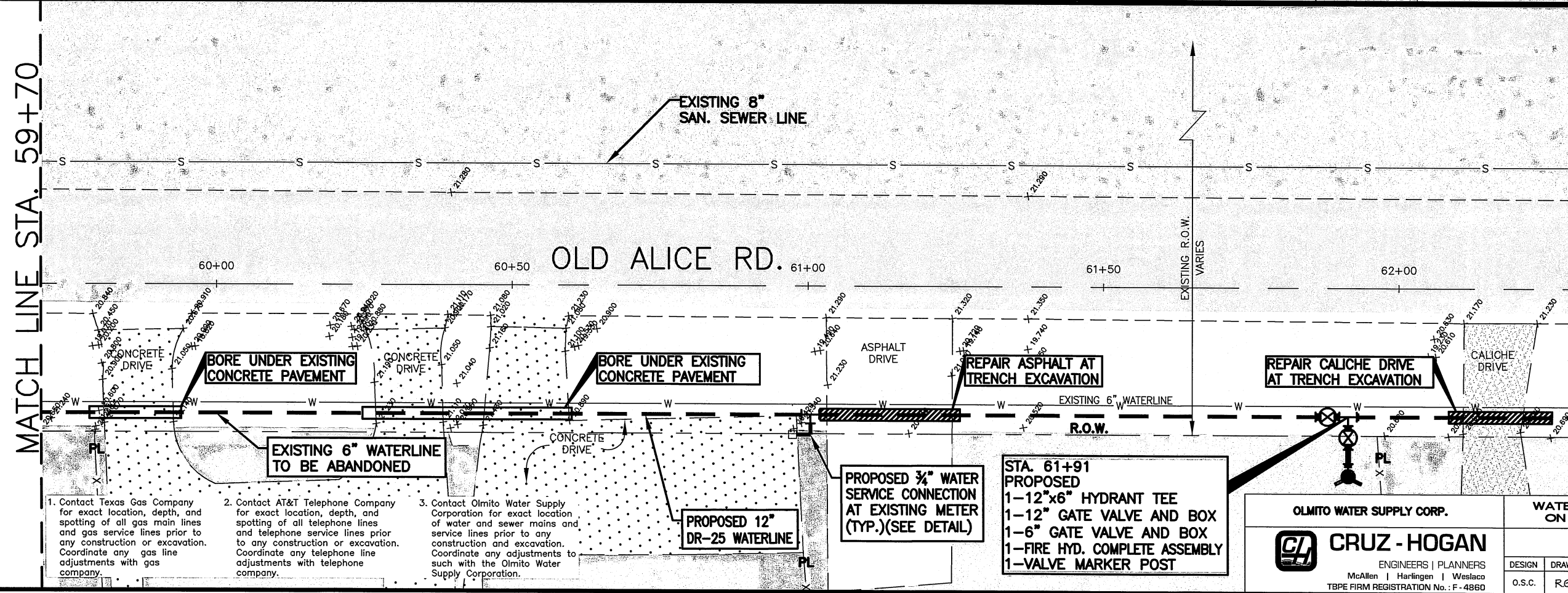
LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



MATCH LINE STA. 59+70

MATCH LINE STA. 62+30



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

STA. 61+91  
 PROPOSED  
 1-12"x6" HYDRANT TEE  
 1-12" GATE VALVE AND BOX  
 1-6" GATE VALVE AND BOX  
 1-FIRE HYD. COMPLETE ASSEMBLY  
 1-VALVE MARKER POST

OLMITO WATER SUPPLY CORP.

**CRUZ - HOGAN**  
 ENGINEERS | PLANNERS  
 McAllen | Harlingen | Weslaco  
 TBPE FIRM REGISTRATION No.: F-4860

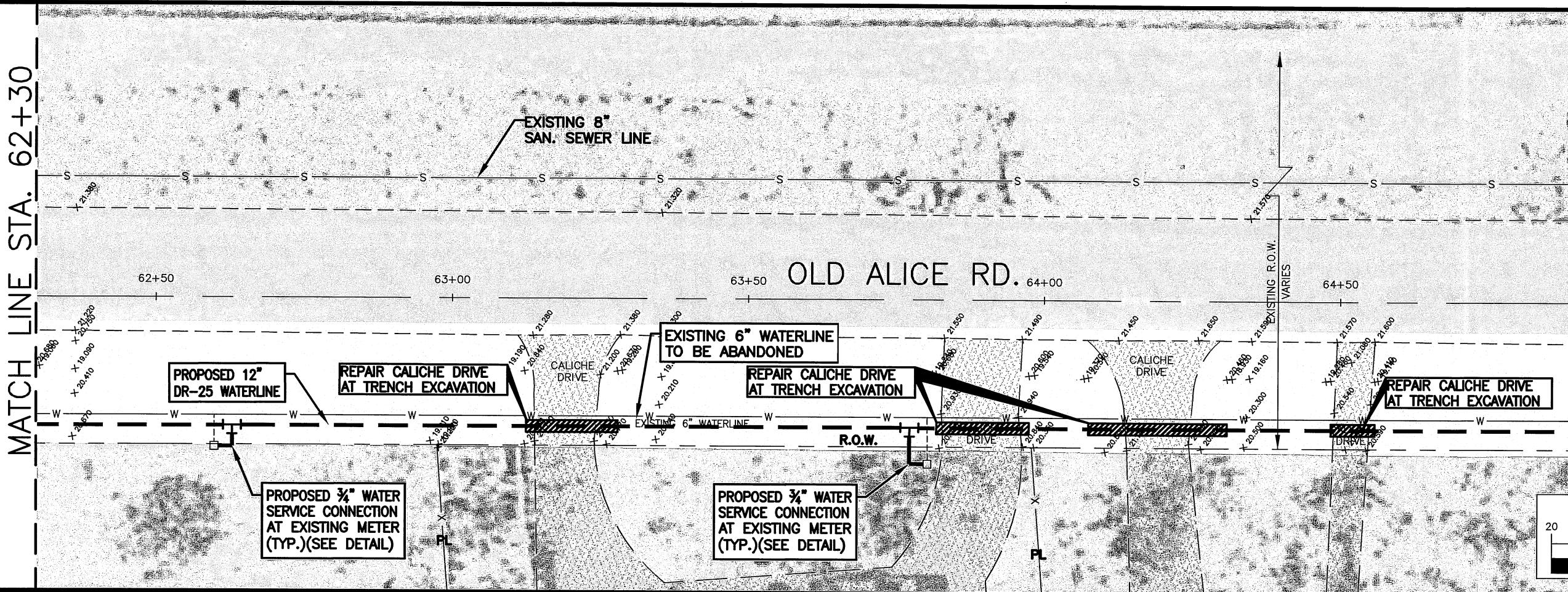
WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT						
PROPOSED WATER LINE STA. 57+10 TO STA. 62+30						
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE., '22	N.T.S.	FILE NAME	15

Dropbox (Cruz-Hogan Consultant) CHC Westaco AutoCAD Files



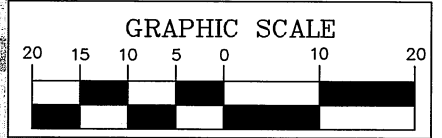
MATCH LINE STA. 62+30

MATCH LINE STA. 64+90



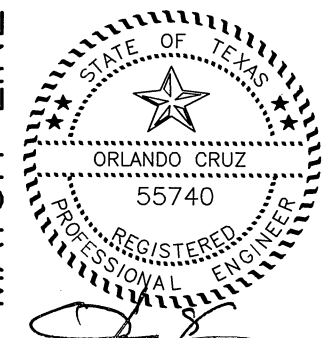
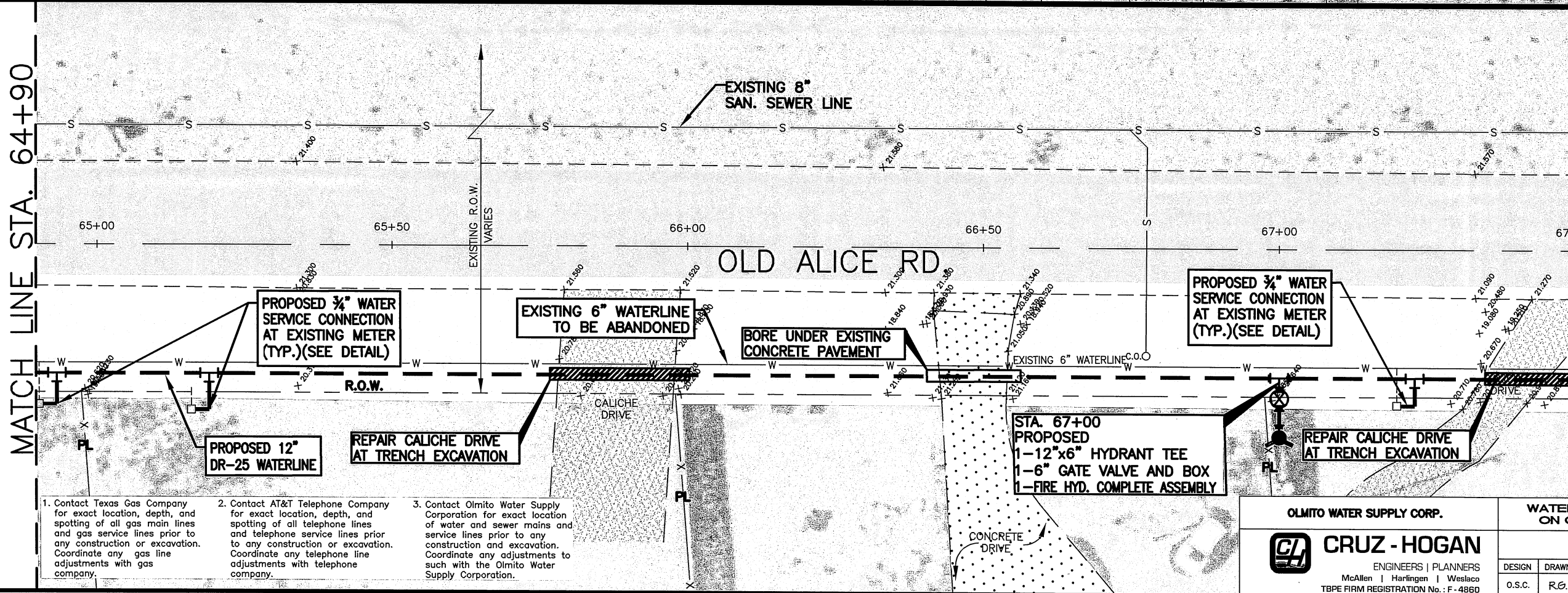
LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



MATCH LINE STA. 64+90

MATCH LINE STA. 67+50



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

<b>OLMITO WATER SUPPLY CORP.</b>		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b>				
<b>CRUZ - HOGAN</b>		<b>PROPOSED WATER LINE STA. 62+30 TO STA. 67+50</b>				
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	16

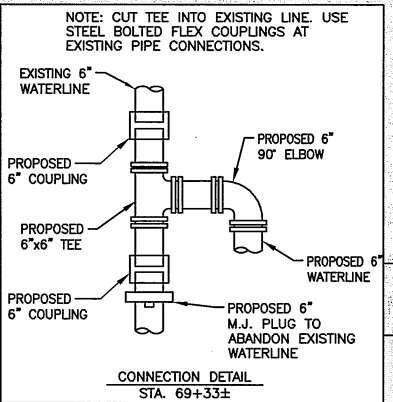
Dropbox (Cruz-Hogan Consultants) \CNC Westaco AutoCAD Files

MATCH LINE STA. 67+50

MATCH LINE STA. 70+10

MATCH LINE STA. 70+10

MATCH LINE STA. 72+70



REPAIR CALICHE DRIVE AT TRENCH EXCAVATION

REPAIR ASPHALT AT TRENCH EXCAVATION

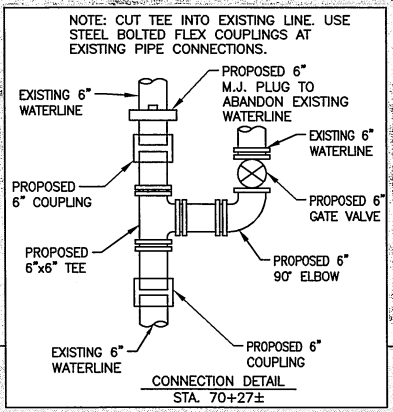
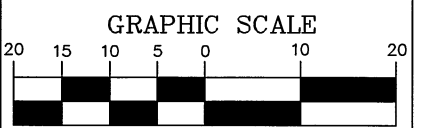
EXISTING 6" WATERLINE TO BE ABANDONED

STA. 69+33  
PROPOSED  
1-6"x6" TEE  
1-6" 90° ELBOW  
2-6" COUPLING  
1-6" M.J. PLUG

STA. 69+35  
PROPOSED  
1-12"x6" TEE  
1-6" GATE VALVE  
1-VALVE MARKER POST

LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



STA 70+27± PROPOSED  
1-12"x6" TEE

STA. 70+40  
PROPOSED  
1-12"x6" HYDRANT TEE  
1-12" GATE VALVE AND BOX  
1-6" GATE VALVE AND BOX  
1-FIRE HYD. COMPLETE ASSEMBLY  
1-VALVE MARKER POST

REPAIR CALICHE DRIVE AT TRENCH EXCAVATION

EXISTING 6" WATERLINE TO BE ABANDONED

PROPOSED 12" DR-25 WATERLINE

EXISTING 6" WATERLINE

STA. 70+27±  
PROPOSED  
1-6"x6" TEE  
1-6" 90° ELBOW  
2-6" COUPLING  
1-6" GATE VALVE  
1-6" M.J. PLUG

1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.



OLMITO WATER SUPPLY CORP.

**CRUZ - HOGAN**

ENGINEERS | PLANNERS

McAllen | Harlingen | Weslaco

TBPE FIRM REGISTRATION No. : F-4860

WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT

PROPOSED WATER LINE STA. 67+50 TO STA. 72+70

DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	17

Dropbox (Cruz-Hogan Consultin)\CHC Weslaco AutoCAD Files

MATCH LINE STA. 72+70

MATCH LINE STA. 75+30

MATCH LINE STA. 75+30

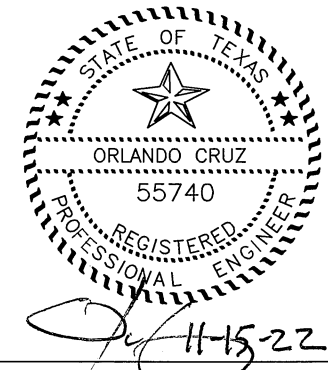
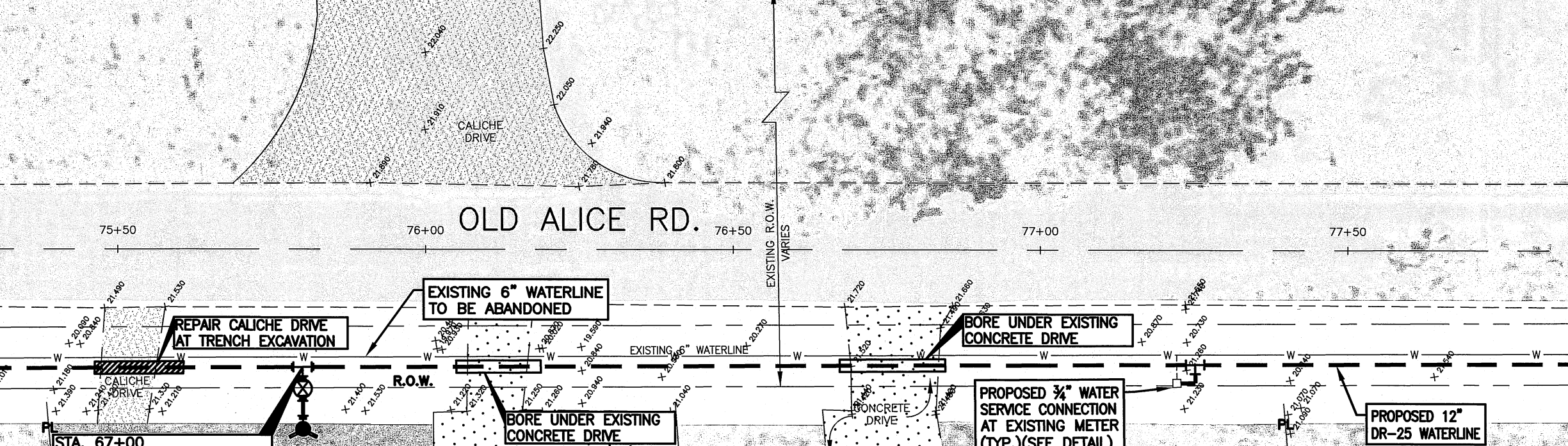
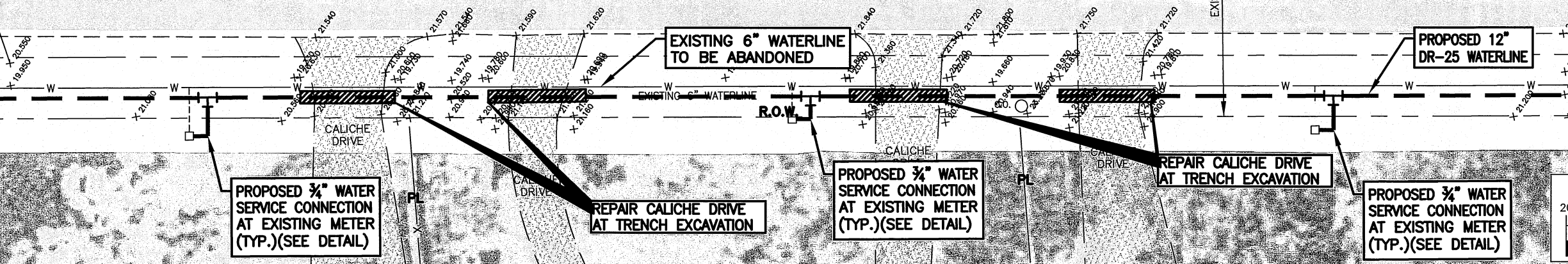
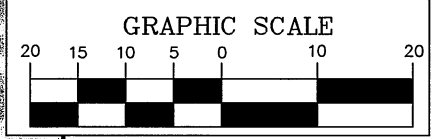
MATCH LINE STA. 77+90

# OLD ALICE RD.

# OLD ALICE RD.

### LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



- Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
- Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
- Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

**OLMITO WATER SUPPLY CORP.**

**CRUZ - HOGAN**

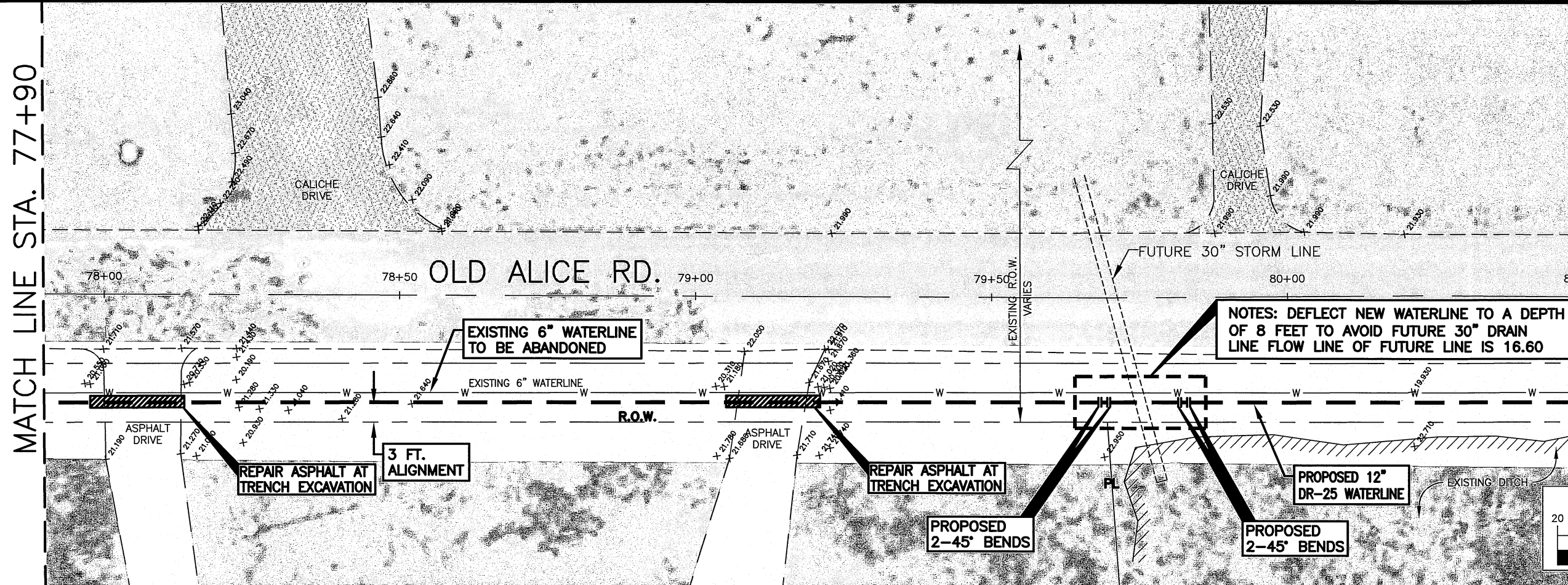
ENGINEERS | PLANNERS  
McAllen | Harlingen | Weslaco  
TBPB FIRM REGISTRATION No.: F-4860

WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT						
PROPOSED WATER LINE STA. 72+70 TO STA. 77+90						
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE., '22	N.T.S.	FILE NAME	18

Dropbox (Cruz-Hogan Consultant)\CHC Weslaco AutoCAD Files

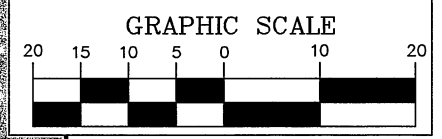
MATCH LINE STA. 77+90

MATCH LINE STA. 80+50



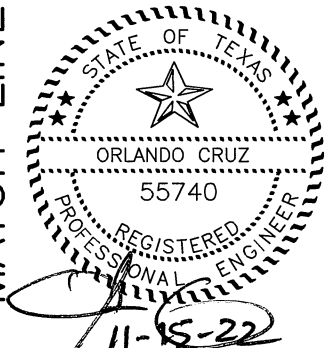
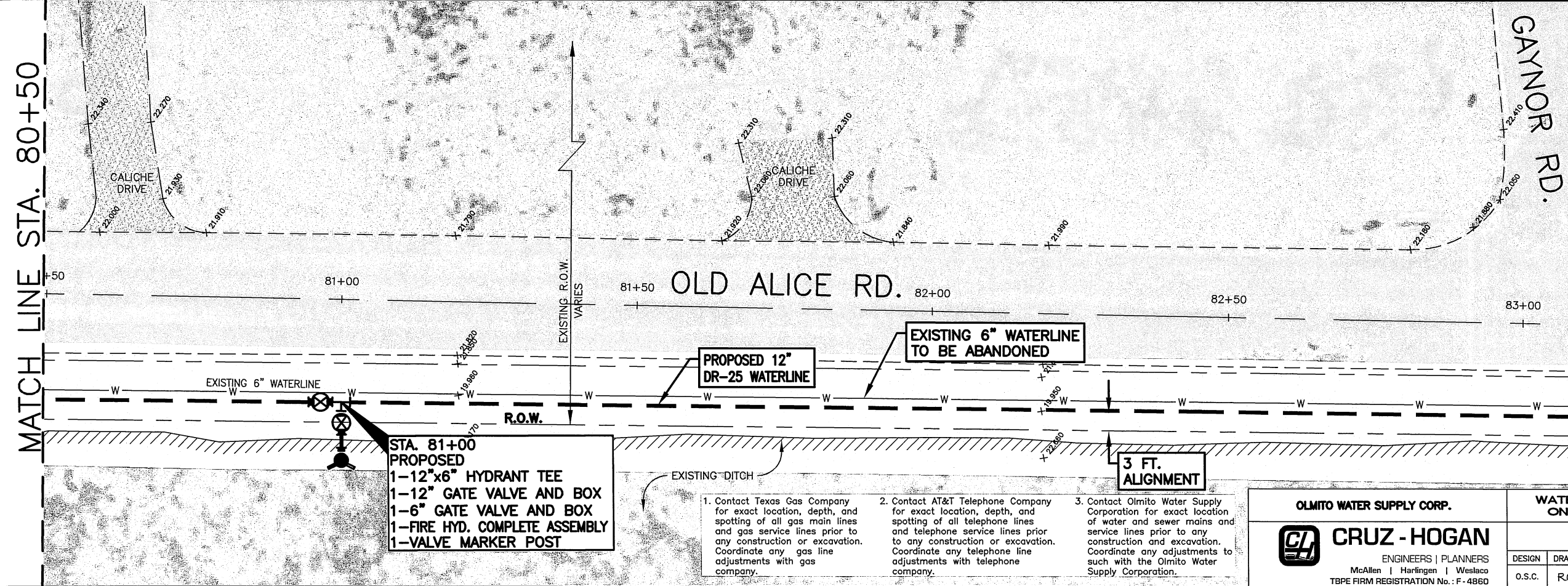
LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



MATCH LINE STA. 80+50

MATCH LINE STA. 83+10



STA. 81+00  
 PROPOSED  
 1-12"x6" HYDRANT TEE  
 1-12" GATE VALVE AND BOX  
 1-6" GATE VALVE AND BOX  
 1-FIRE HYD. COMPLETE ASSEMBLY  
 1-VALVE MARKER POST

1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

**OLMITO WATER SUPPLY CORP.**

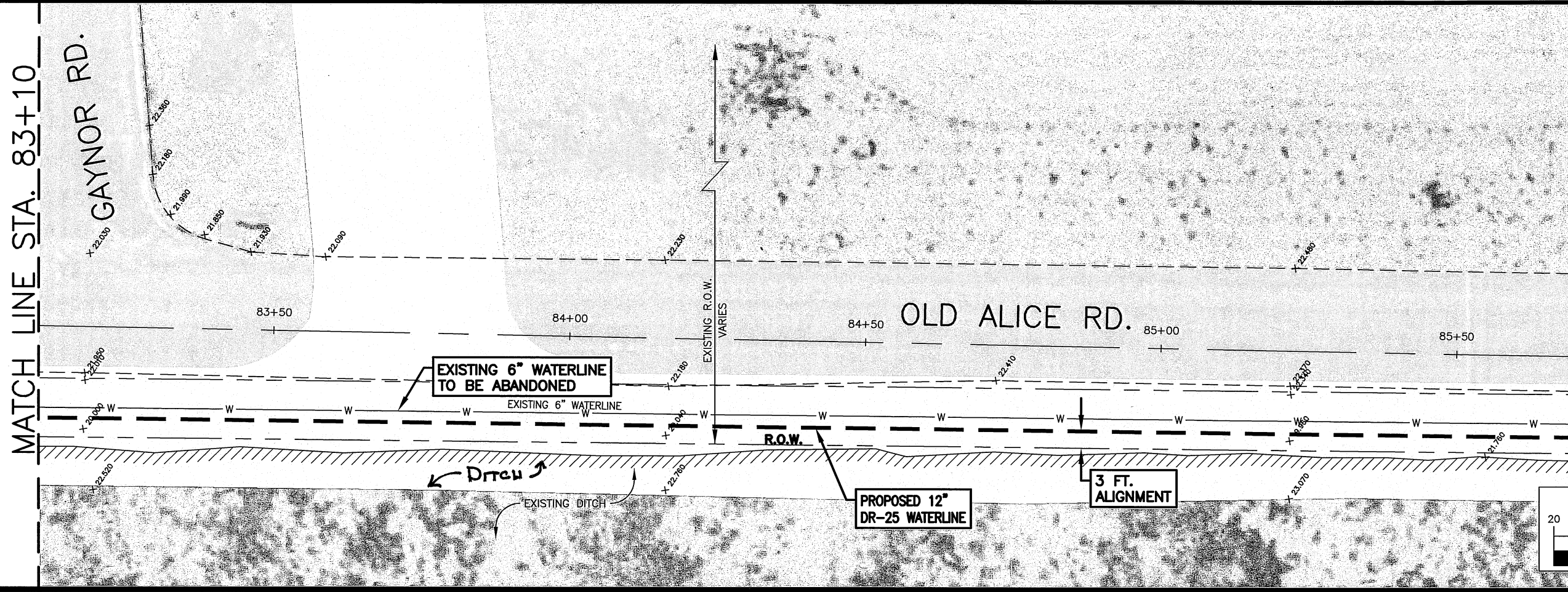
**CRUZ - HOGAN**

ENGINEERS | PLANNERS  
 McAllen | Harlingen | Weslaco  
 TBPE FIRM REGISTRATION No.: F-4860

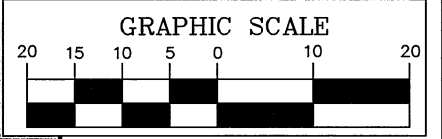
WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT						
PROPOSED WATER LINE STA. 77+90 TO STA. 83+10						
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE., '22	N.T.S.	FILE NAME	19

MATCH LINE STA. 83+10

MATCH LINE STA. 85+70

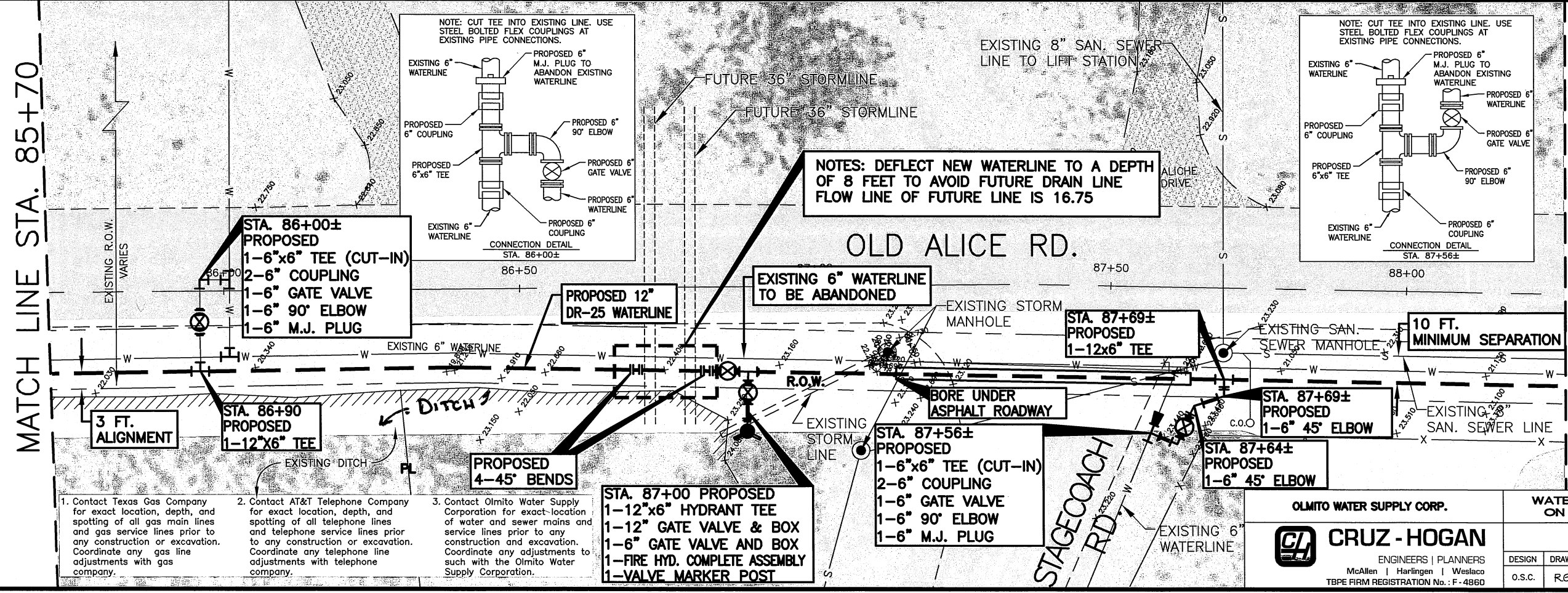


- LEGEND**
- TREE
  - POWERPOLE
  - FIRE HYDRANT
  - SIGN
  - MANHOLE
  - CHAIN LINK FENCE
  - PALM TREE
  - WATER VALVE
  - GAS METER
  - WATER METER
  - MAIL BOX
  - TELEPHONE PEDESTAL
  - FIBER OPTIC CABLE
  - EXIST 8" SAN. SEWER



MATCH LINE STA. 85+70

MATCH LINE STA. 88+27



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

**STA. 87+00 PROPOSED**  
 1-12"x6" HYDRANT TEE  
 1-12" GATE VALVE & BOX  
 1-6" GATE VALVE AND BOX  
 1-FIRE HYD. COMPLETE ASSEMBLY  
 1-VALVE MARKER POST

**STA. 87+56± PROPOSED**  
 1-6"x6" TEE (CUT-IN)  
 2-6" COUPLING  
 1-6" GATE VALVE  
 1-6" 90° ELBOW  
 1-6" M.J. PLUG

**STA. 87+64± PROPOSED**  
 1-6" 45° ELBOW

**STA. 87+69± PROPOSED**  
 1-12x6" TEE

**10 FT. MINIMUM SEPARATION**

**OLMITO WATER SUPPLY CORP.**

McAllen | Harlingen | Weslaco  
 TBP FIRM REGISTRATION No. : F-4860

**WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT**

PROPOSED WATER LINE STA. 83+10 TO STA. 88+27

DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	20



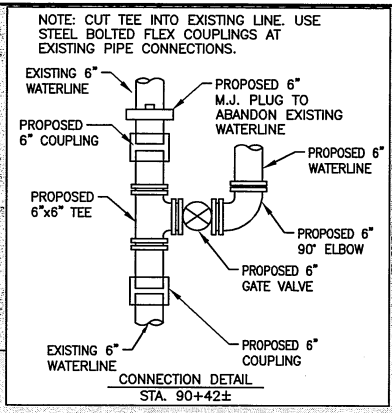
Dropbox (Cruz-Hogan Consultant)\CHC - Weslaco AutoCAD Files

MATCH LINE STA. 88+27

MATCH LINE STA. 90+87

MATCH LINE STA. 90+87

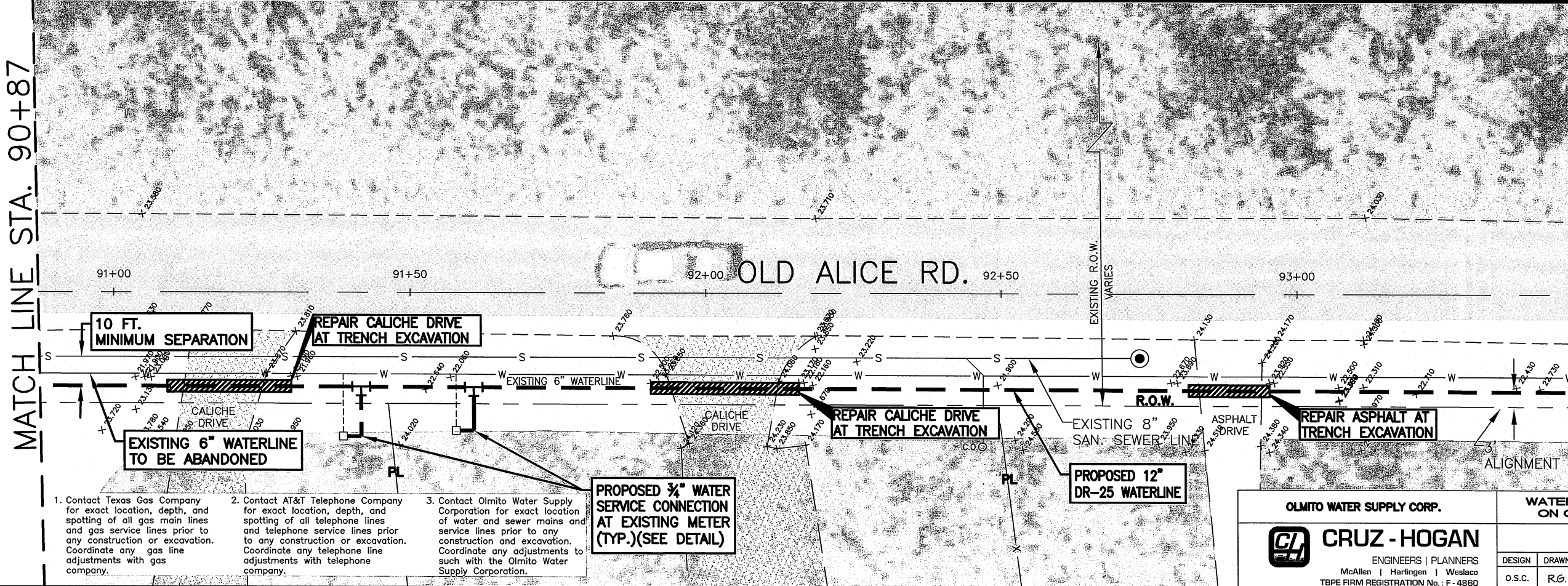
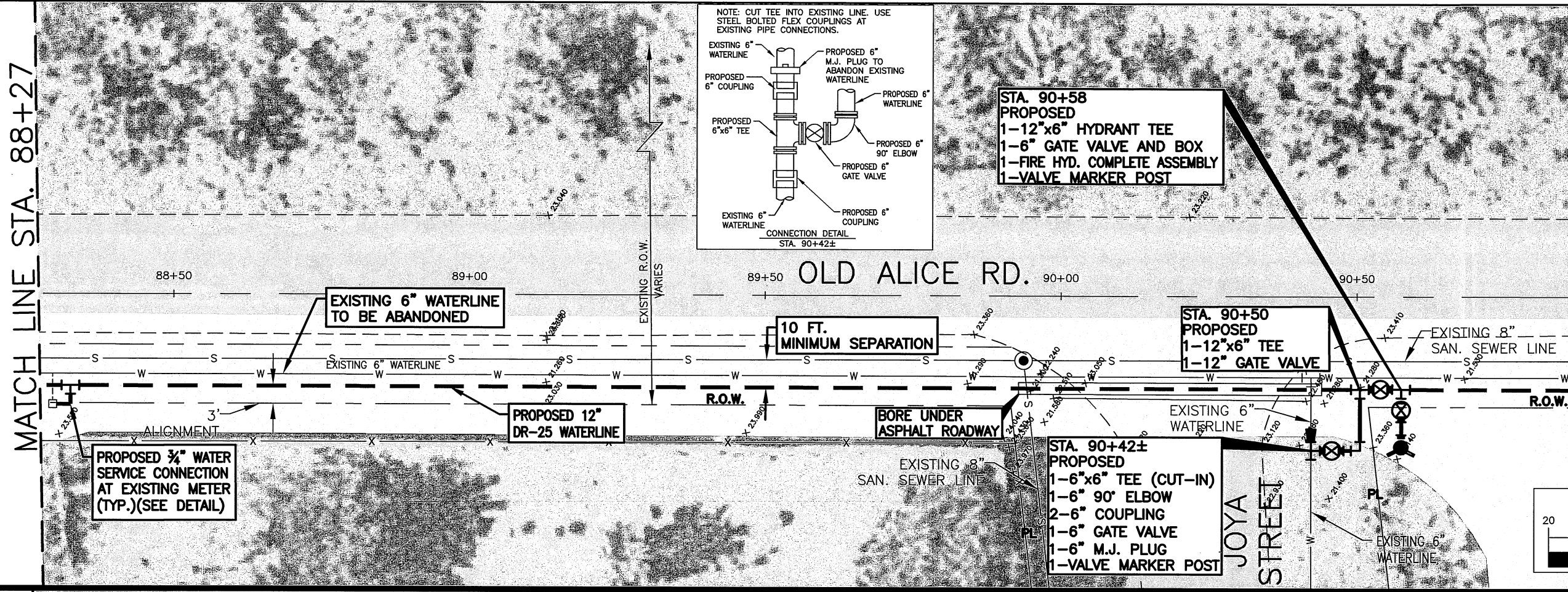
MATCH LINE STA. 93+47



STA. 90+58  
PROPOSED  
1-12"x6" HYDRANT TEE  
1-6" GATE VALVE AND BOX  
1-FIRE HYD. COMPLETE ASSEMBLY  
1-VALVE MARKER POST

STA. 90+42±  
PROPOSED  
1-6"x6" TEE (CUT-IN)  
1-6" 90° ELBOW  
2-6" COUPLING  
1-6" GATE VALVE  
1-6" M.J. PLUG  
1-VALVE MARKER POST

STA. 90+50  
PROPOSED  
1-12"x6" TEE  
1-12" GATE VALVE

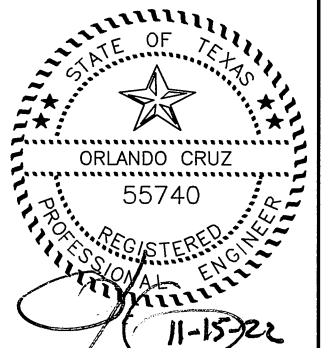
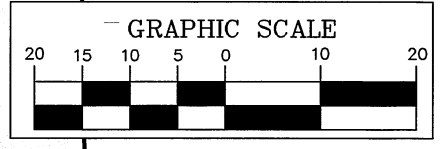


1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

PROPOSED 3/4" WATER SERVICE CONNECTION AT EXISTING METER (TYP.)(SEE DETAIL)

**LEGEND**

	TREE
	POWERPOLE
	FIRE HYDRANT
	SIGN
	MANHOLE
	CHAIN LINK FENCE
	PALM TREE
	WATER VALVE
	GAS METER
	WATER METER
	MAIL BOX
	TELEPHONE PEDESTAL
	FIBER OPTIC CABLE
	EXIST 8" SAN. SEWER



<b>OLMITO WATER SUPPLY CORP.</b>		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b>						
<b>CRUZ - HOGAN</b>		PROPOSED WATER LINE STA. 88+27 TO STA. 93+47						
ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No.: F-4860		DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
		O.S.C.	R.G.	578	JUNE,'22	N.T.S.	FILE NAME	21

MATCH LINE STA. 93+47

MATCH LINE STA. 96+07

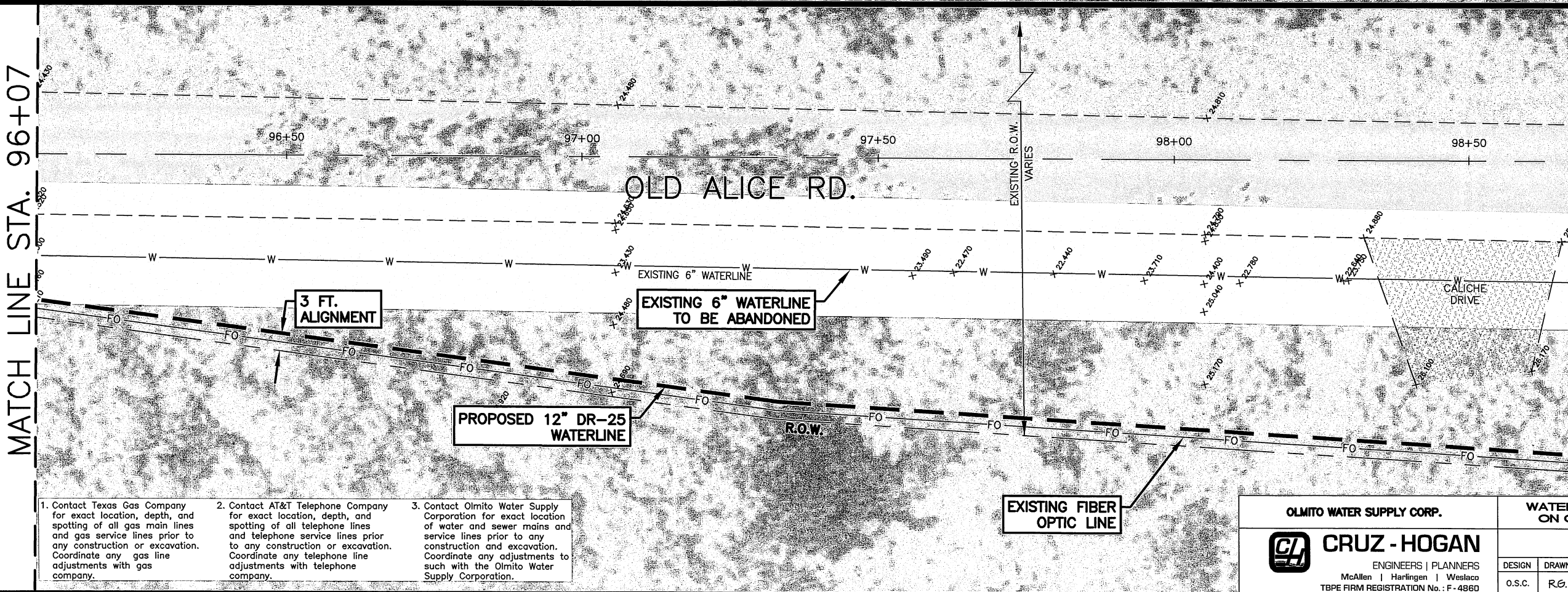
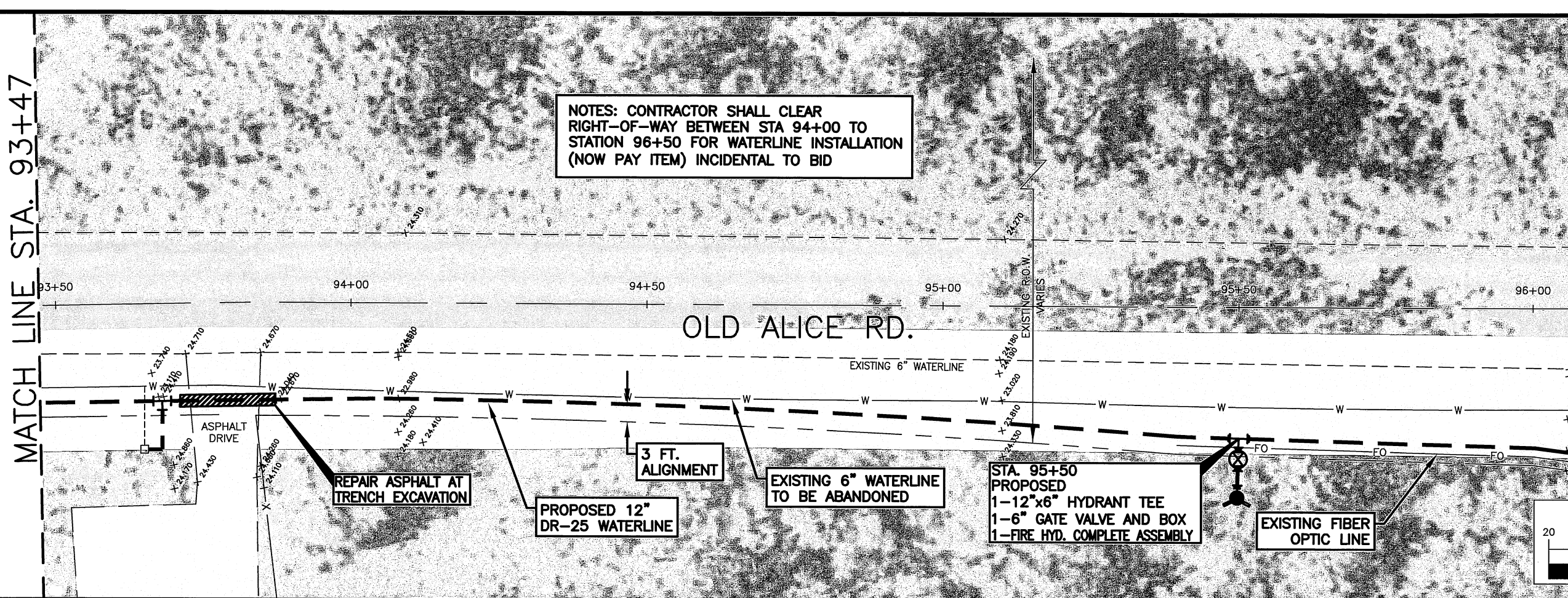
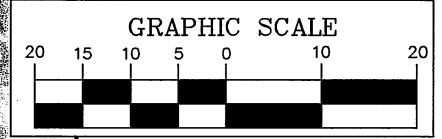
MATCH LINE STA. 96+07

MATCH LINE STA. 98+67

NOTES: CONTRACTOR SHALL CLEAR RIGHT-OF-WAY BETWEEN STA 94+00 TO STATION 96+50 FOR WATERLINE INSTALLATION (NOW PAY ITEM) INCIDENTAL TO BID

LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



11-15-22

1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

OLMITO WATER SUPPLY CORP.		WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT						
CRUZ - HOGAN		PROPOSED WATER LINE STA. 93+47 TO STA. 98+67						
ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No.: F-4860		DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
		O.S.C.	R.G.	578	JUNE., '22	N.T.S.	FILE NAME	22

MATCH LINE STA. 98+67

MATCH LINE STA. 100+80

MATCH LINE STA. 100+80

MATCH LINE STA. 102+50

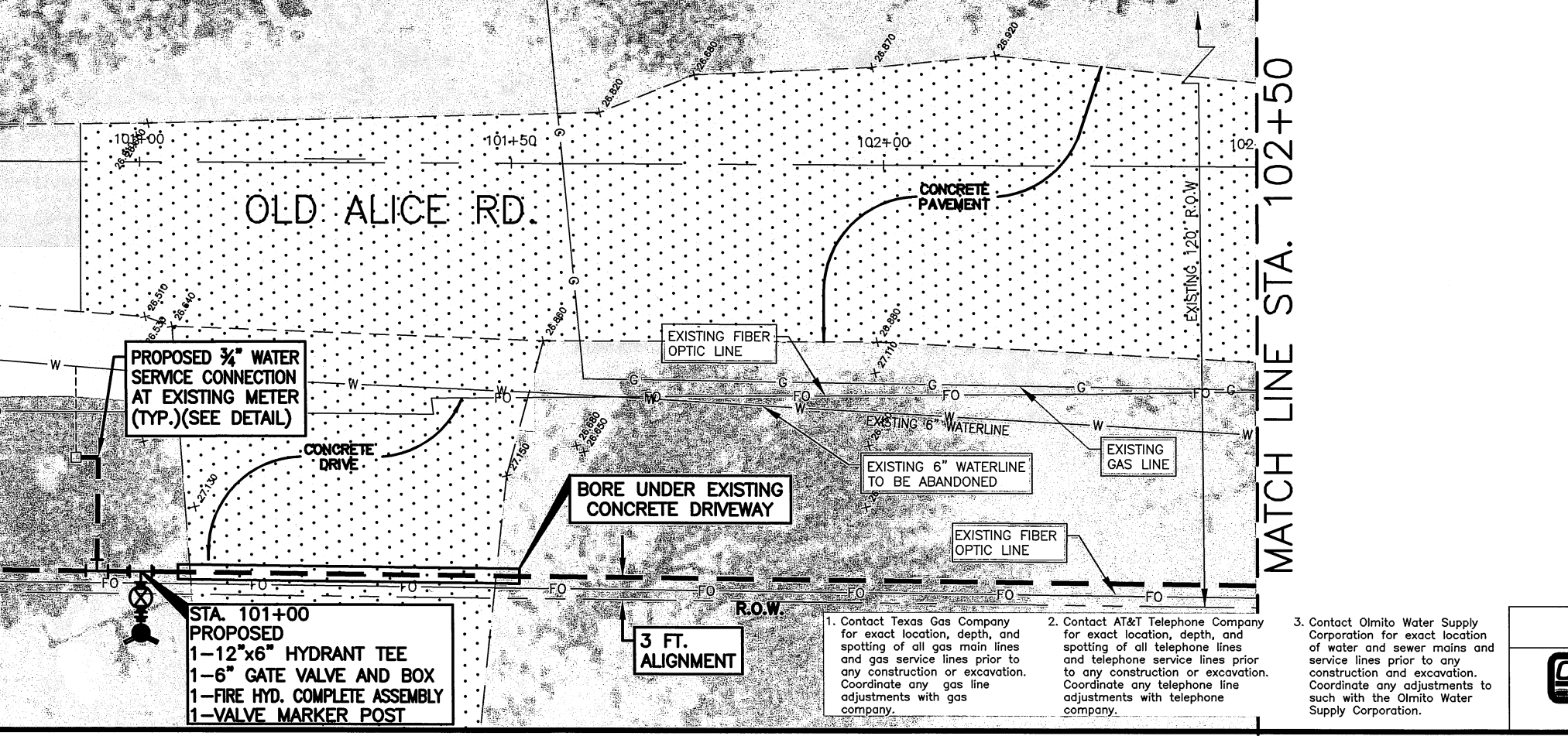
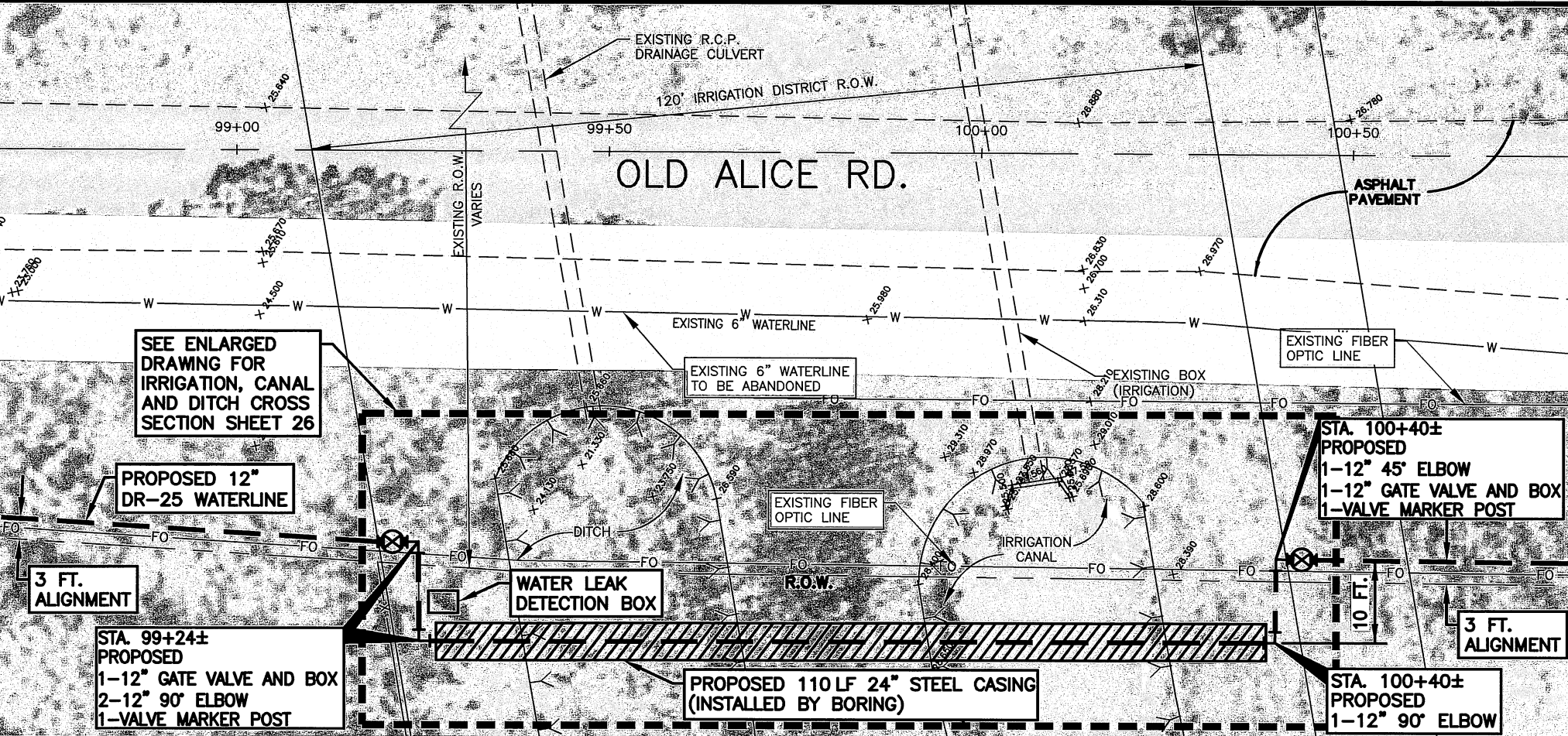
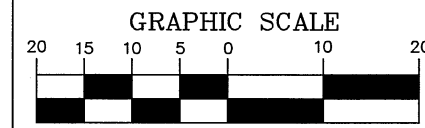
OLD ALICE RD.

OLD ALICE RD.

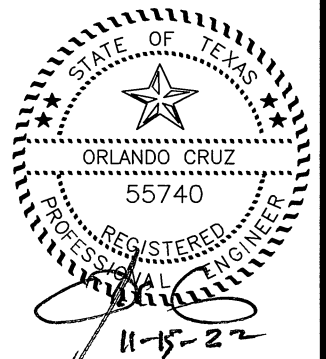


LEGEND

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER



1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.



Dropbox (Cruz-Hogan Consultant)\GHC Westlaco AutoCAD Files

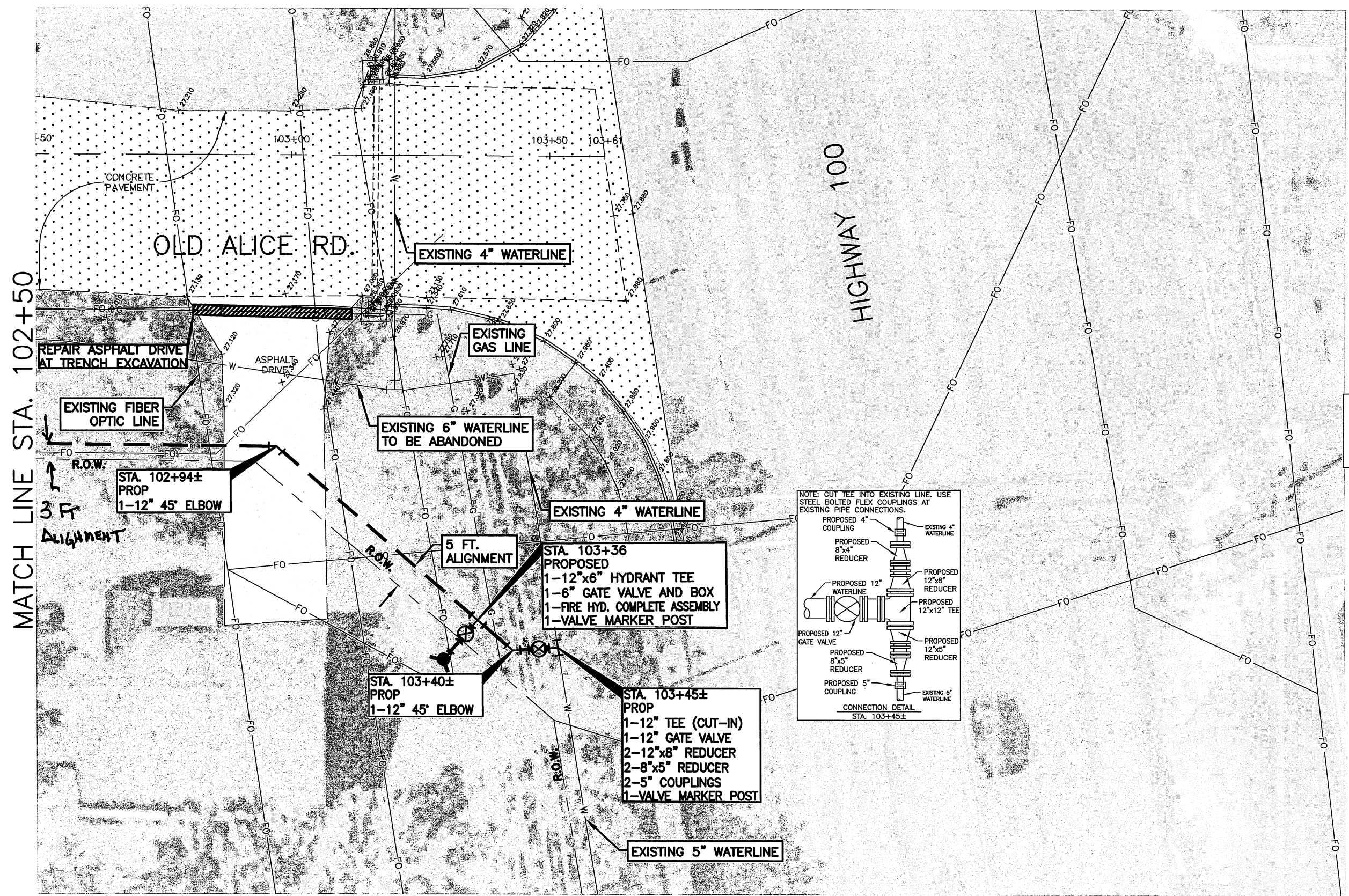
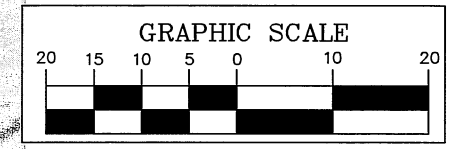
<b>OLMITO WATER SUPPLY CORP.</b>		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b>						
<b>CRUZ - HOGAN</b>		<b>PROPOSED WATER LINE STA. 98+67 TO 102+50</b>						
ENGINEERS   PLANNERS McAllen   Harlingen   Westlaco TBPE FIRM REGISTRATION No.: F-4860		DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
		O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>23</b>





**LEGEND**

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST B
- SAN. SEWER



MATCH LINE STA. 102+50

HIGHWAY 100

OLD ALICE RD.

STA. 102+94±  
PROP  
1-12" 45° ELBOW

5 FT. ALIGNMENT

STA. 103+36  
PROP  
1-12"x6" HYDRANT TEE  
1-6" GATE VALVE AND BOX  
1-FIRE HYD. COMPLETE ASSEMBLY  
1-VALVE MARKER POST

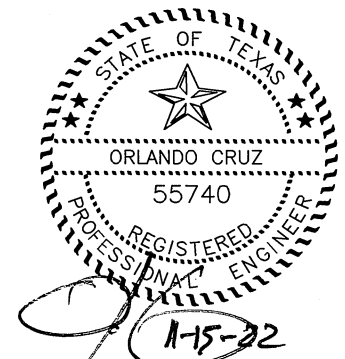
STA. 103+40±  
PROP  
1-12" 45° ELBOW

STA. 103+45±  
PROP  
1-12" TEE (CUT-IN)  
1-12" GATE VALVE  
2-12"x8" REDUCER  
2-8"x5" REDUCER  
2-5" COUPLINGS  
1-VALVE MARKER POST

**EXISTING 5" WATERLINE**

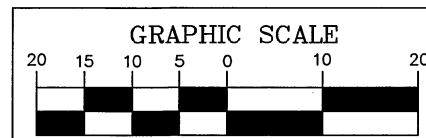
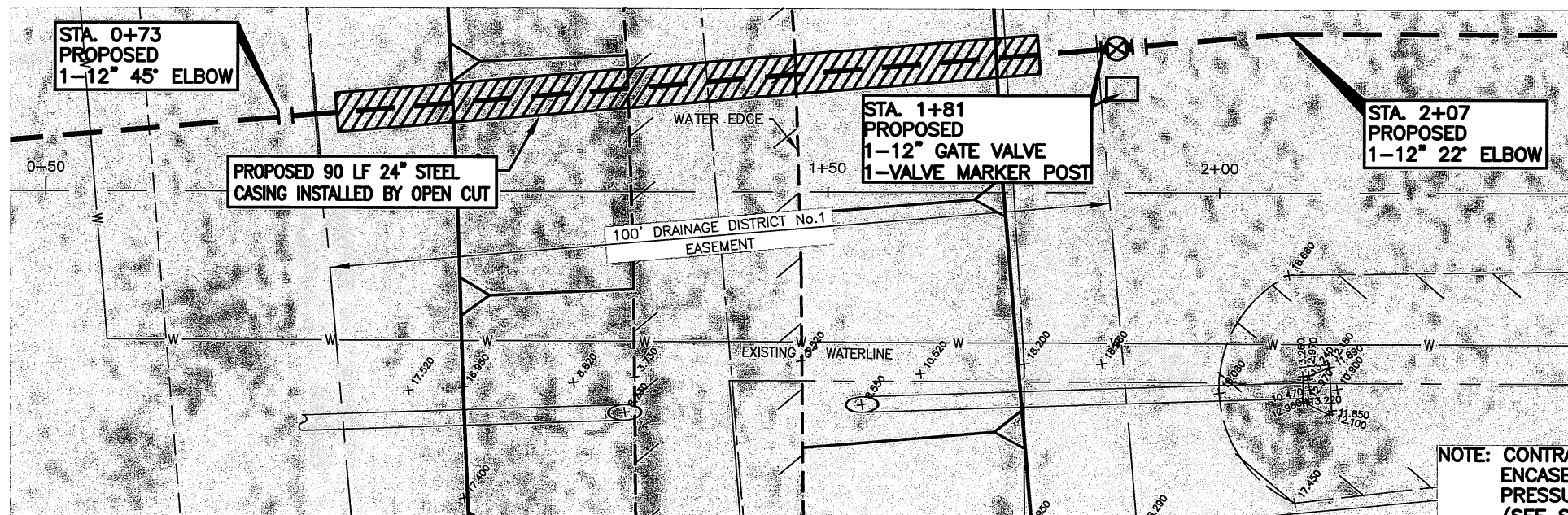
1. Contact Texas Gas Company for exact location, depth, and spotting of all gas main lines and gas service lines prior to any construction or excavation. Coordinate any gas line adjustments with gas company.
2. Contact AT&T Telephone Company for exact location, depth, and spotting of all telephone lines and telephone service lines prior to any construction or excavation. Coordinate any telephone line adjustments with telephone company.
3. Contact Olmito Water Supply Corporation for exact location of water and sewer mains and service lines prior to any construction and excavation. Coordinate any adjustments to such with the Olmito Water Supply Corporation.

CONNECTION DETAIL  
STA. 0+33±



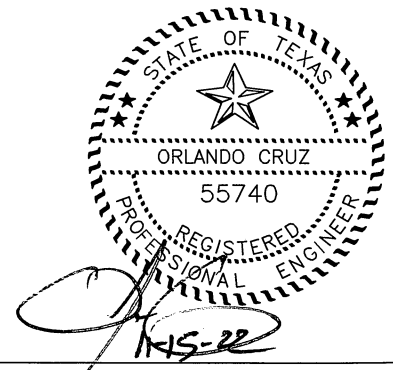
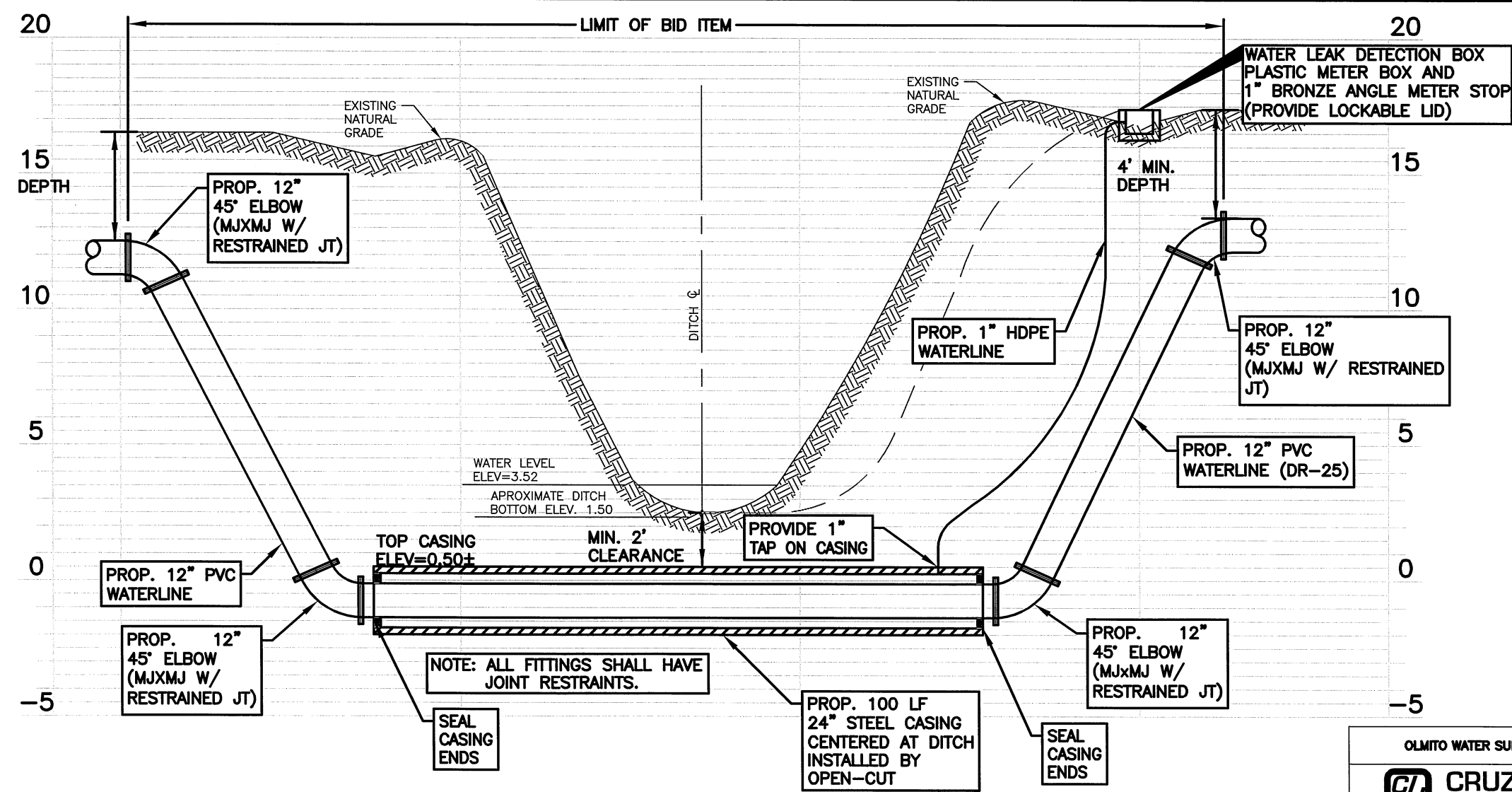
<b>OLMITO WATER SUPPLY CORP.</b>		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b>						
<b>CRUZ - HOGAN</b>		<b>PROPOSED WATER LINE STA. 102+50 TO END</b>						
ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No. : F-4860		DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
		O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>24</b>

Dropbox (Cruz-Hogan Consultant)\CHC Weslaco AutoCAD Files



- LEGEND**
- TREE
  - POWERPOLE
  - FIRE HYDRANT
  - SIGN
  - MANHOLE
  - CHAIN LINK FENCE
  - PALM TREE
  - WATER VALVE
  - GAS METER
  - WATER METER
  - MAIL BOX
  - TELEPHONE PEDESTAL
  - FIBER OPTIC CABLE
  - EXIST 8" SAN. SEWER

NOTE: CONTRACTOR SHALL ISOLATE ENCASED PIPE AT DITCH AND PRESSURE TEST FOR LEAKAGE. (SEE SPECIFICATION)



OLMITO WATER SUPPLY CORP.		WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT					
<b>CRUZ - HOGAN</b>		PROPOSED WATER LINE PROFILE					
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.	
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	25	

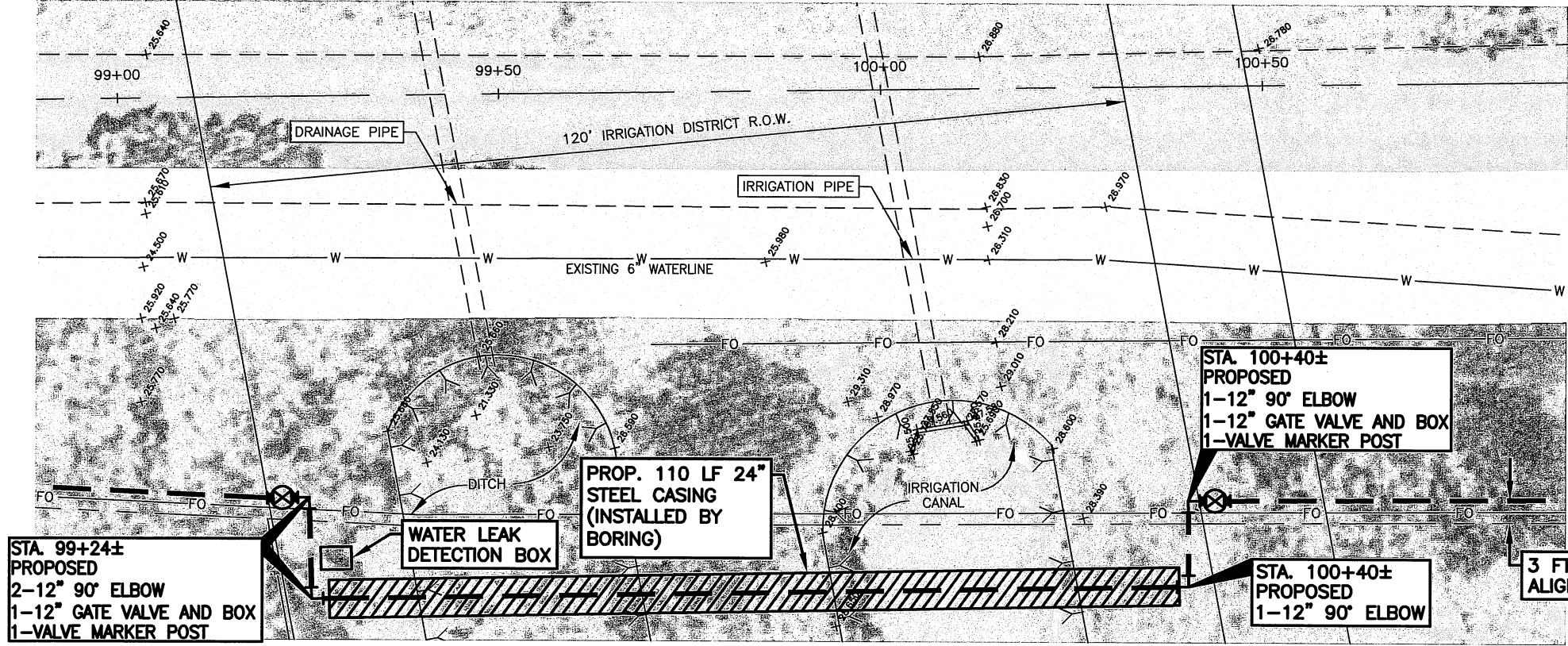
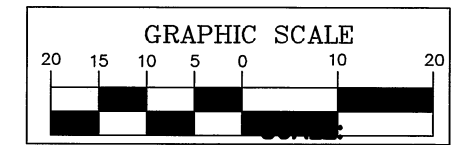
**CRUZ - HOGAN**  
ENGINEERS | PLANNERS  
McAllen | Harlingen | Weslaco  
TBPE FIRM REGISTRATION No.: F-4860



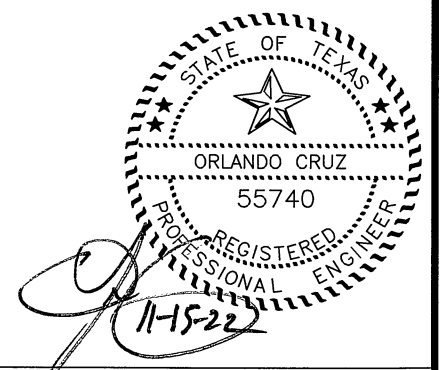
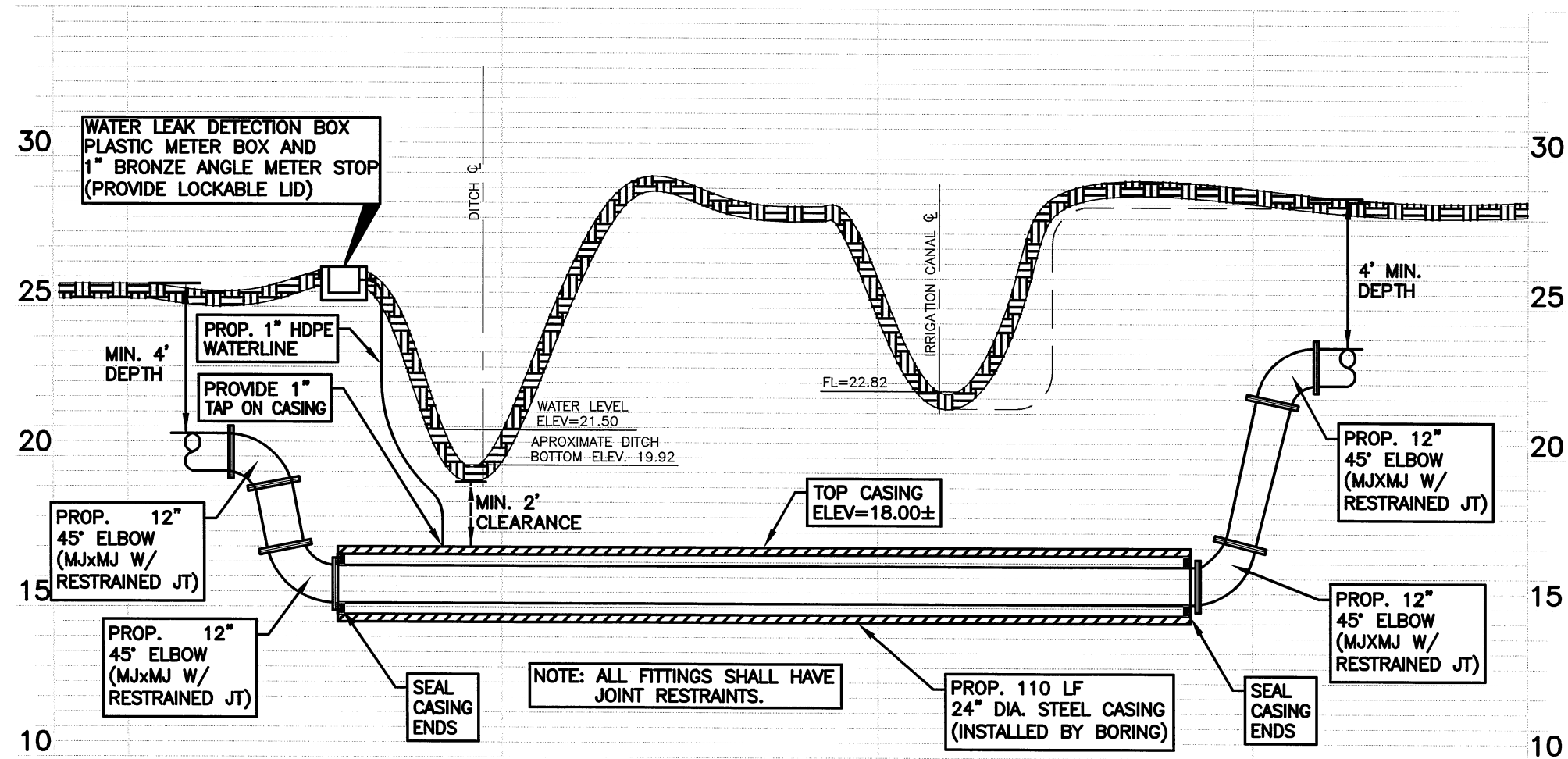
**LEGEND**

- TREE
- POWERPOLE
- FIRE HYDRANT
- SIGN
- MANHOLE
- CHAIN LINK FENCE
- PALM TREE
- WATER VALVE
- GAS METER
- WATER METER
- MAIL BOX
- TELEPHONE PEDESTAL
- FIBER OPTIC CABLE
- EXIST 8" SAN. SEWER

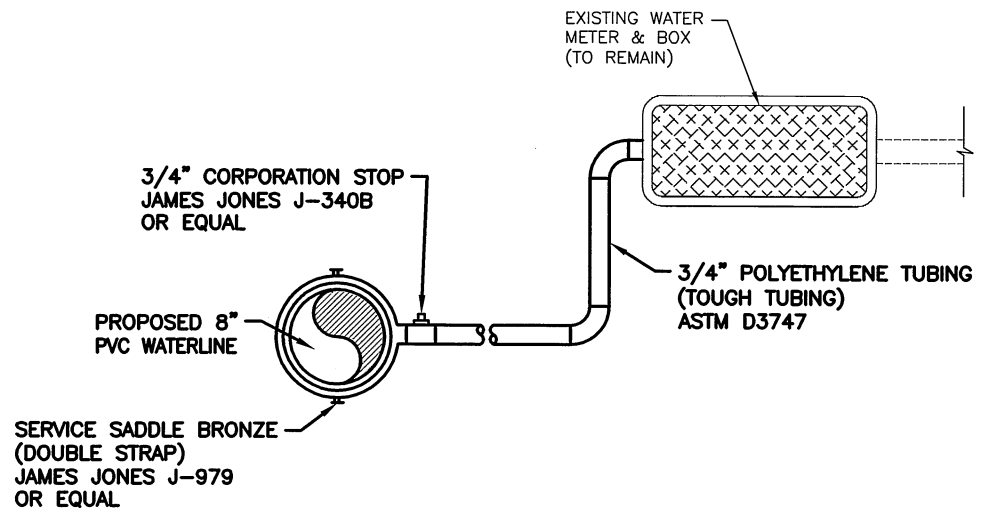
NOTE: CONTRACTOR SHALL ISOLATE ENCASED PIPE AT DITCH AND PRESSURE TEST FOR LEAKAGE. (SEE SPECIFICATION)



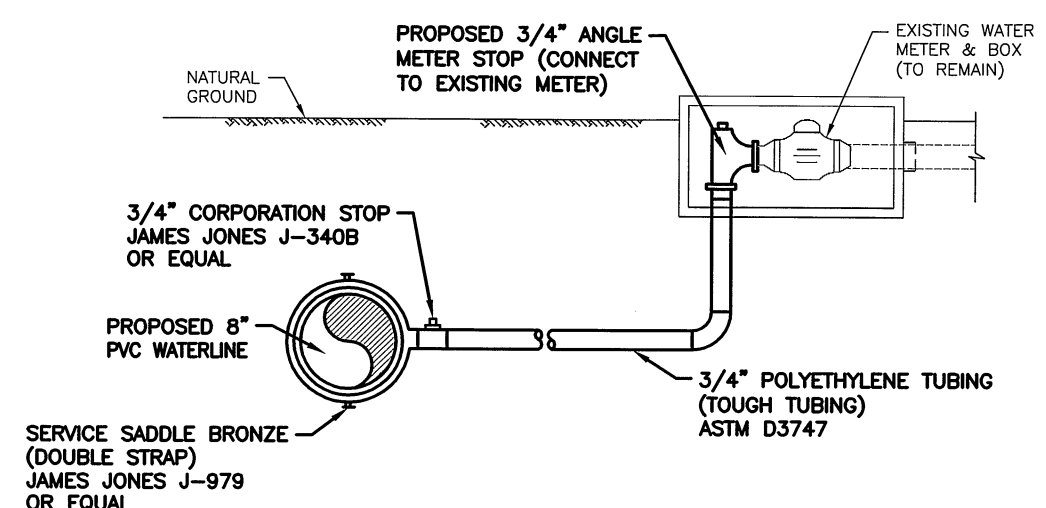
VERTICAL : 1" = 5'  
HORIZONTAL : 1" = 20'



OLMITO WATER SUPPLY CORP.		WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT						
<b>CRUZ - HOGAN</b>		PROPOSED WATER LINE PROFILE						
ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No. : F-4860		DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
		O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	26

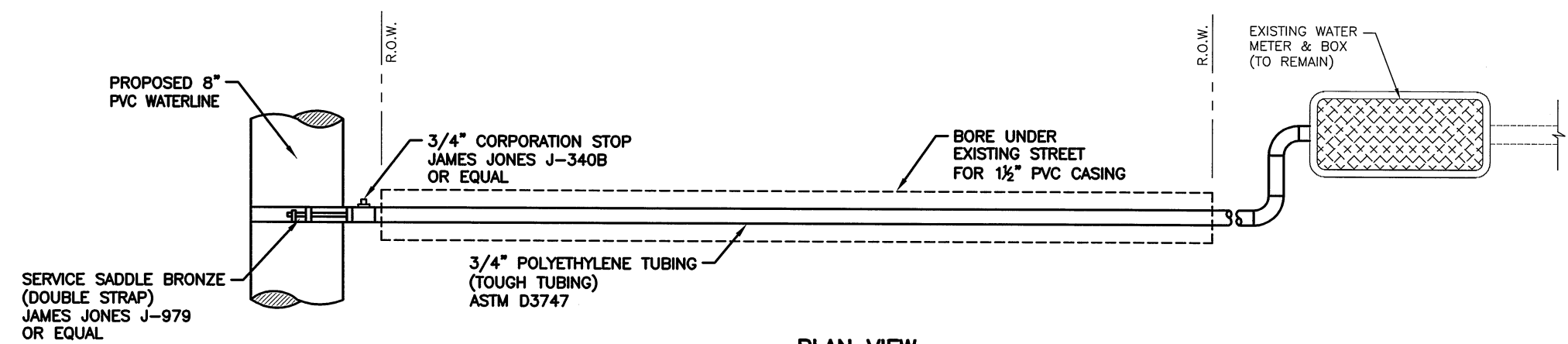


**PLAN VIEW  
WATER SERVICE LINE DETAIL (STREET SIDE)**

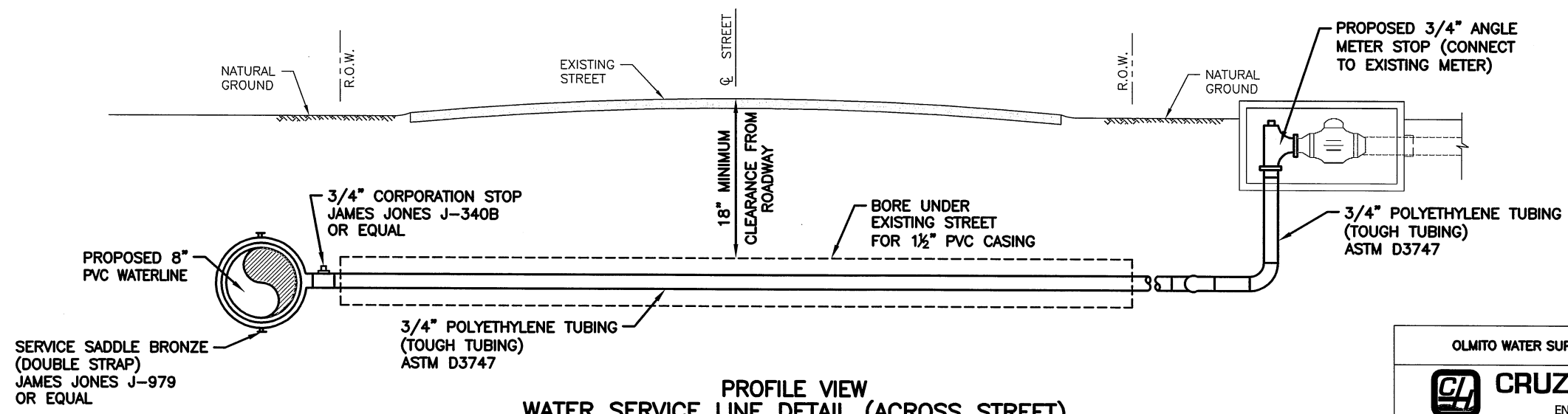


**PROFILE VIEW  
WATER SERVICE LINE DETAIL (STREET SIDE)**

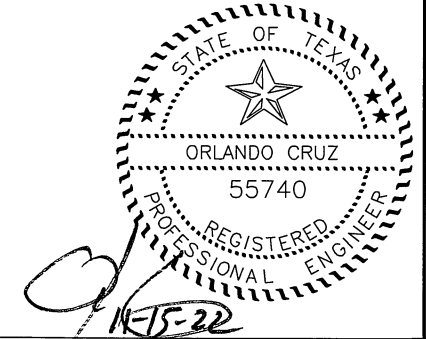
**METER CONNECTION**  
CONTRACTOR TO CONNECT NEW SERVICE LINE AND NEW METER STOP TO EXISTING METER. REMOVE EXISTING METER STOP AND TURN OVER TO OLMITO WSC. COORDINATE CONNECTION WITH OLMITO WSC AND THE RESIDENTIAL HOME OWNER.



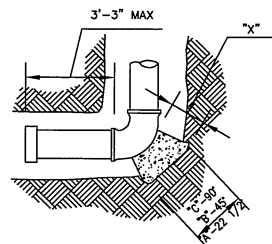
**PLAN VIEW  
WATER SERVICE LINE DETAIL (ACROSS STREET)**



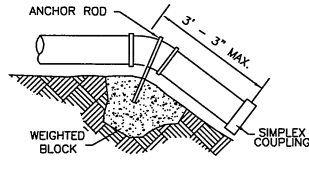
**PROFILE VIEW  
WATER SERVICE LINE DETAIL (ACROSS STREET)**



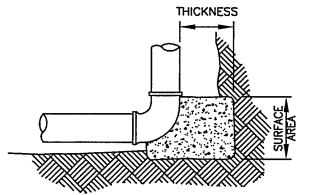
OLMITO WATER SUPPLY CORP.		WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT						
<b>CRUZ - HOGAN</b>		WATER SERVICE CONNECTION DETAIL ACROSS STREET						
ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPB FIRM REGISTRATION No.: F-4860		DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
		O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	27



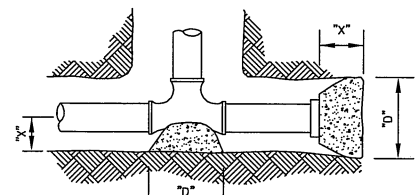
HORIZONTAL BENDS



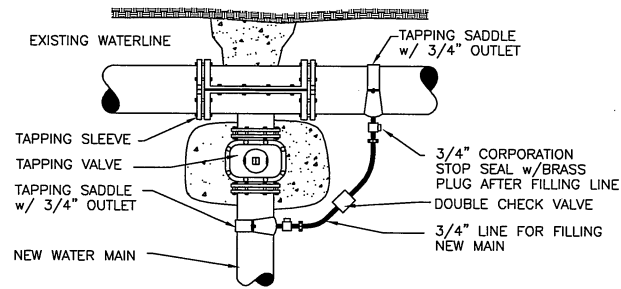
VERTICAL BENDS



HYDRANT BURYS

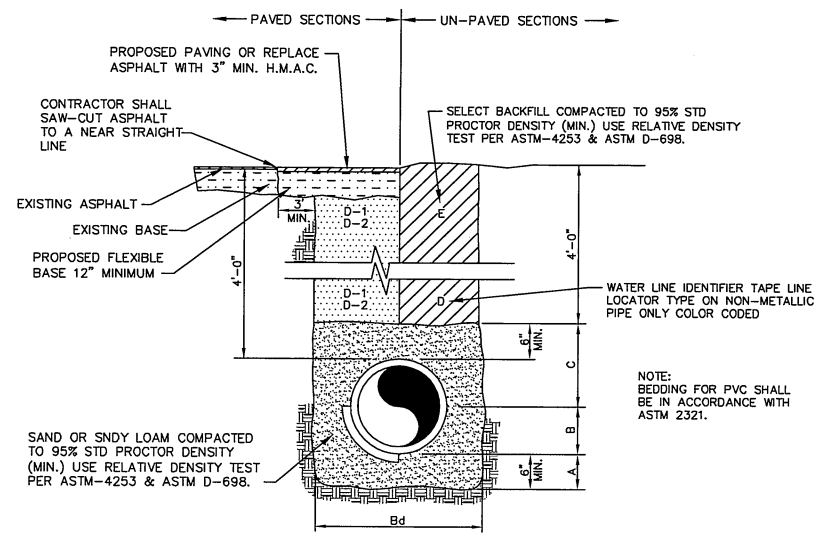


TEES & DEAD ENDS



**METHOD FOR FILLING NEW WATERLINES PRIOR TO CHLORINATION AND TESTING**

- NOTE: N.T.S.
1. THIS METHOD SHALL BE USED AT A NEW CONNECTION TO AN EXISTING DEAD-END LINE.
  2. AFTER THE NEW LINE HAS BEEN DISINFECTED, THE VALVE AT THE CONNECTION TO THE EXISTING LINE SHALL BE OPENED TO FLUSH OUT THE SUPERCHLORINE.



**WATER LINE BEDDING DETAIL**

N.T.S.

- GENERAL NOTES:
- A. SAND OR SANDY LOAM BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE. (MIN. THICKNESS=6")
  - B. SAND OR SANDY LOAM BACKFILL PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPE. (4" LIFTS, HAND TAMPED) B<sub>d</sub> TRENCHED WIDTH SHALL BE PIPE O.D. + 12" OR IN ACCORDANCE WITH ASTM 2331 FOR PVC PIPE.
  - C. SAND OR SANDY LOAM BACKFILL PLACED FROM SPRING LINE OF PIPE TO 6" ABOVE TOP OF PIPE. (6" LIFTS, HAND TAMPED)
  - D-1. (CITY STREETS, PARKING AREA, SAND BACKFILL MATERIAL COMPACTED TO 95% S.P.D. (8" LIFTS, MECHANICAL COMPACTION)
  - D-2. (STATE MAINTAINED ROADWAY) COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT COMPACTED AS PER ASTM D-4253 AND ASTM-698.
  - E. SELECTED EARTH BACKFILL COMPACTED TO 95% STANDARD PROCTOR DENSITY (12" LIFT, MECHANICAL COMPACTION). FOUNDATION PREPARATION (WELLPOINTS, GRAVEL OR CEMENT 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% STANDARD PROCTOR DENSITY (USE RELATIVE DENSITY TEST PER ASTM D-4253 & ASTM D-698). THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 6". STRUCTURE BACKFILL MATERIAL SHALL BE SAND, APPROVED SITE SOIL, OR OTHER APPROVED SUBSTITUTE.

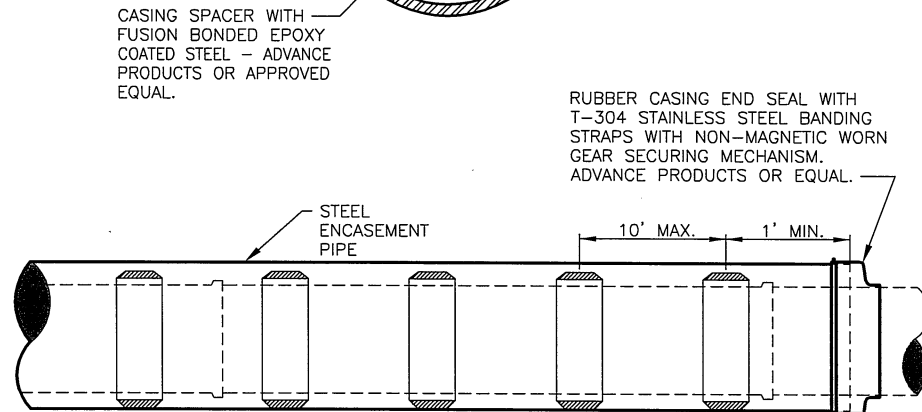
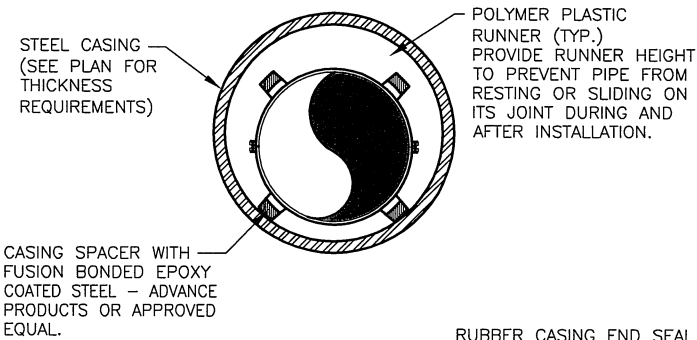
**HORIZONTAL BLOCKING TABLE**

PIPE SIZE	22 1/2 DEGREES		45 DEGREES		90 DEGREES		TEE & PLUG		
	"A"	MIN. AREA	"B"	MIN. AREA	"C"	MIN. AREA	"D"	MIN. AREA	
4"	1.50	1.00	1.00	1.00	1.00	1.06	1.00	1.06	
6"	1.50	1.00	1.14	1.30	1.55	2.40	1.30	1.70	
8"	1.50	1.08	1.18	1.52	2.31	4.27	1.74	3.02	
10"	1.50	1.35	1.84	1.90	3.61	6.66	2.17	4.71	
12"	1.50	1.63	2.65	1.86	5.19	3.10	9.60	2.61	6.79

- NOTE:
1. THE LOCATION OF THRUST BLOCKS DEPENDS UPON THE DIRECTION OF THRUST AND TYPE OF FITTINGS.
  2. THRUST BLOCK CALCULATIONS ARE BASED ON A WATER LINE PRESSURE OF 150 P.S.I. AND AN ALLOWABLE SOIL BEARING VALUE OF 2,500 POUNDS PER SQUARE FOOT.
  3. "C" DIMENSIONS SHALL BE LARGE ENOUGH TO MAKE ANGLE  $\theta$  EQUAL TO LARGER THAN 45°.
  4. ANGLE SHALL BE EQUAL TO OR LARGER THAN 45°.

**THRUST BLOCK DETAILS**

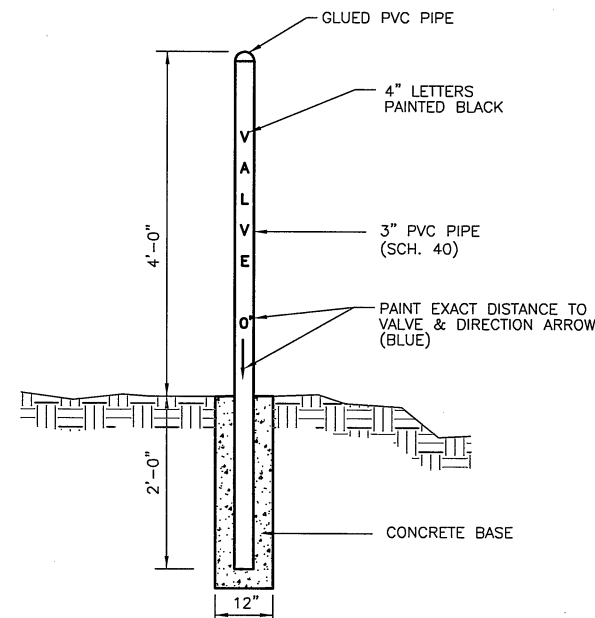
N.T.S.



**CASING SPACE & CASING END DETAIL**

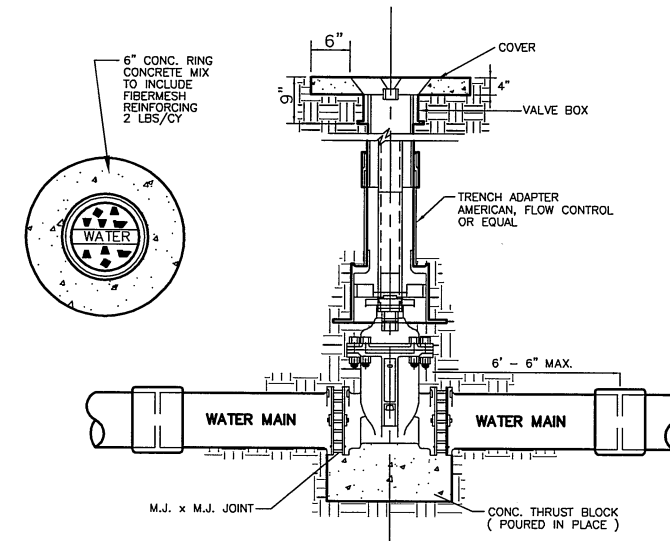
**CASING DETAILS**

N.T.S.



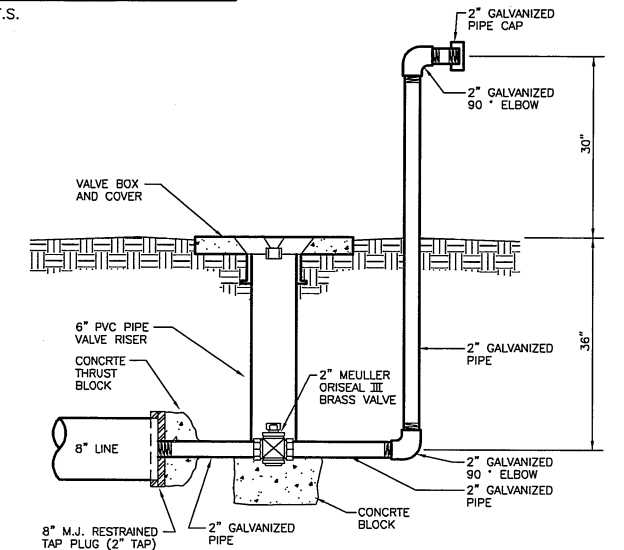
**VALVE MARKER POST DETAIL**

N.T.S.



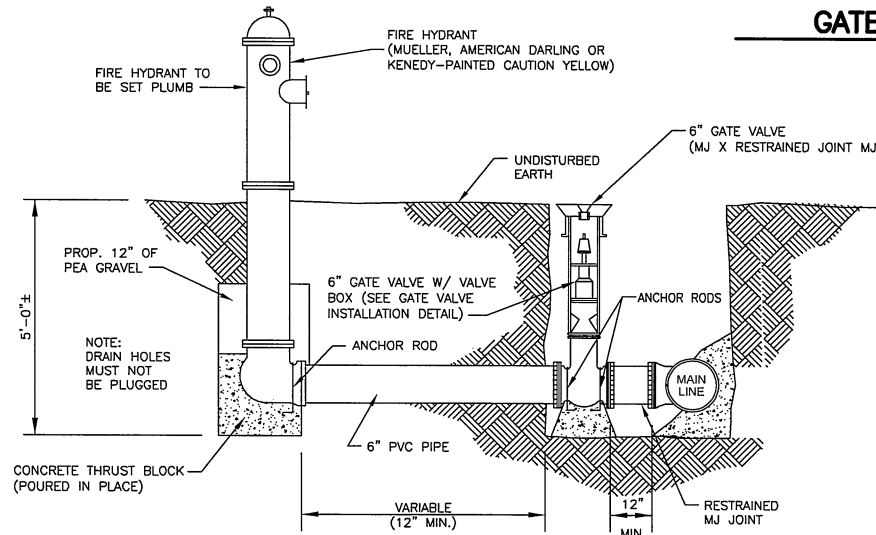
**GATE VALVE DETAIL**

N.T.S.



**FLUSH VALVE DETAIL**

N.T.S.

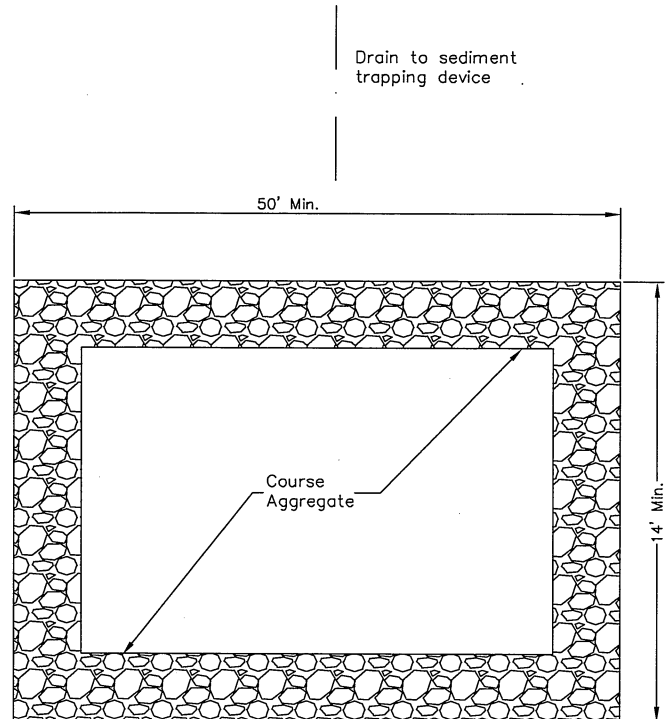


**TYPICAL FIRE HYDRANT ASSEMBLY DETAIL**

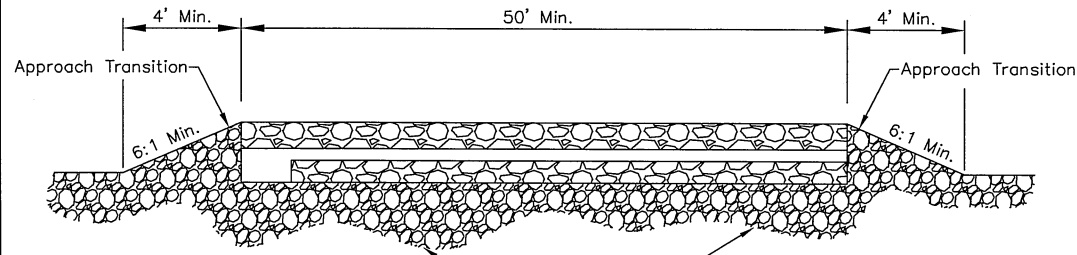
N.T.S.



<b>OLMITO WATER SUPPLY CORP.</b> <b>CRUZ-HOGAN</b> ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No.: F-4860		<b>WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT</b> <b>WATERLINE DETAILS</b>				
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.
O.S.C.	R.G.	578	JUNE., '22	N.T.S.	FILE NAME	<b>28</b>



**PLAN**

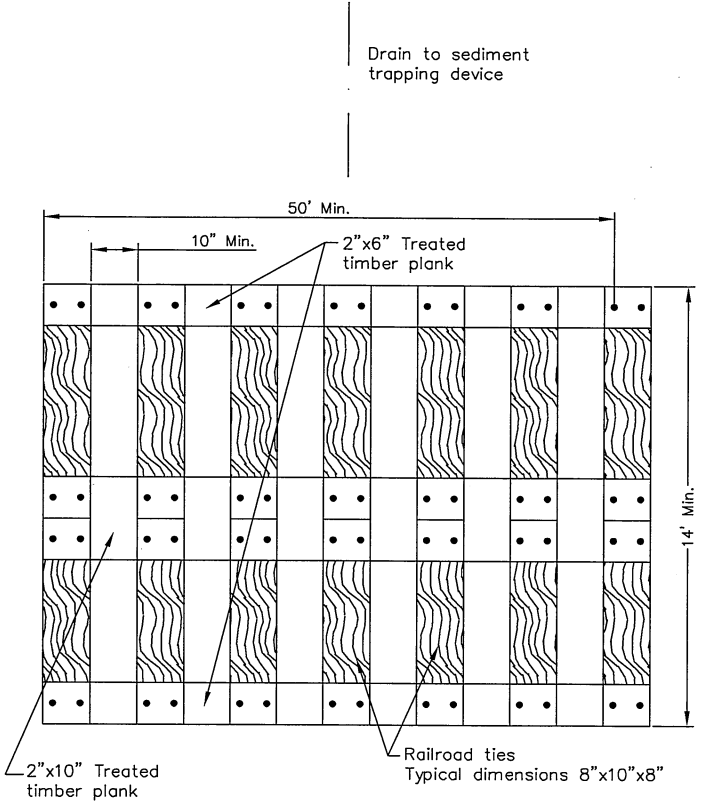


**PROFILE**

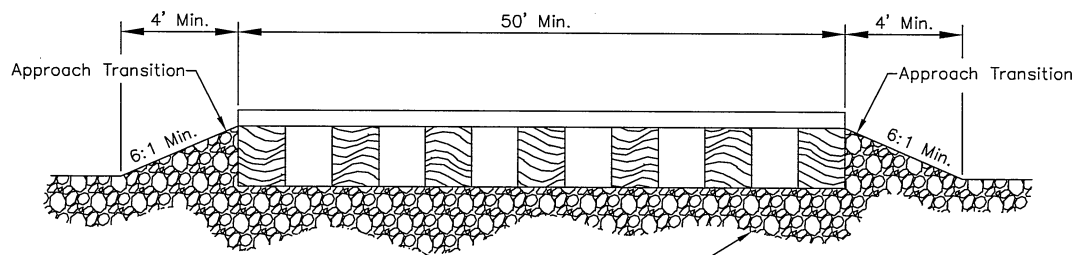
**CONSTRUCTION EXIT (TYPE 1)**

**GENERAL NOTES**

1. The length of the Type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.



**PLAN**

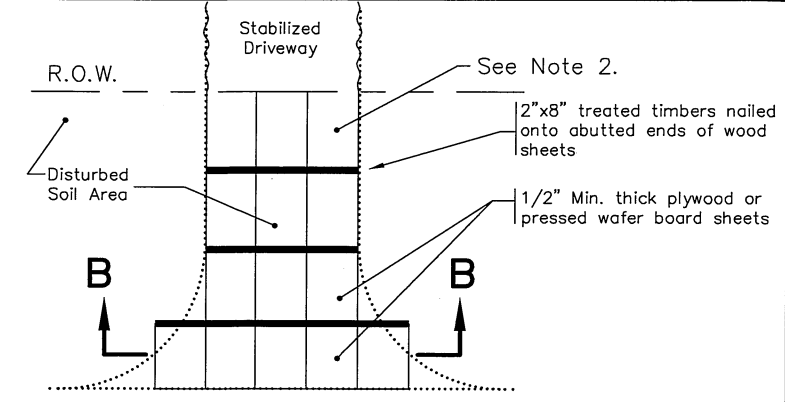


**PROFILE**

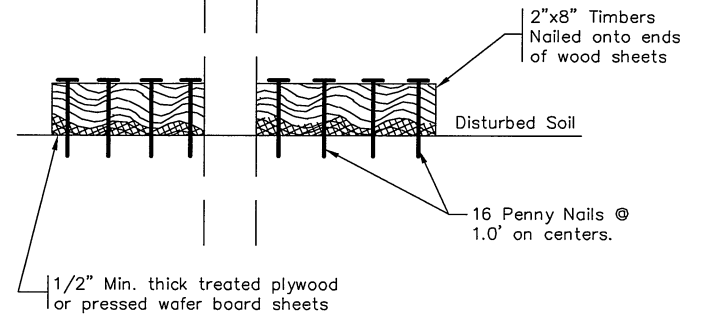
**CONSTRUCTION EXIT (TYPE 2)**

**GENERAL NOTES**

1. The length of the Type 2 construction exit shall be as indicated on the plans, but not less than 50'.
2. The treated timber planks shall be attached to the railroad ties with 1/2"x6" min. lag bolts. Other fasteners may be used as approved by the Engineer.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The approach transitions shall be no steeper than 6:1 and constructed as directed by the Engineer.
5. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
6. The construction exit should be graded to allow drainage to a sediment trapping device.
7. The guidelines shown hereon are suggestions only and may be modified by the Engineer.



**PLAN**



**SECTION A-A**

**CONSTRUCTION EXIT (TYPE 3)**

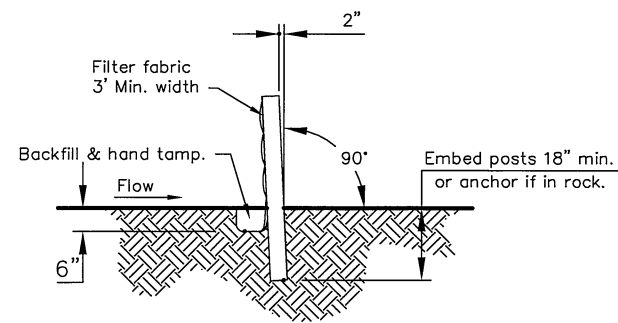
**GENERAL NOTES**

1. The length of the Type 3 construction exit shall be as shown on the plans, or as directed by the Engineer.
2. The Type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a minimum of 4" thick to the limits shown on the plans.
3. The treated timber planks shall be #2 grade minimum, and should be free from large and loose knots.
4. The guidelines shown hereon are suggestions only and may be modified by the Engineer.



OLMITO WATER SUPPLY CORP.		WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT					
<b>CRUZ - HOGAN</b>		STORM WATER POLLUTION PREVENTION PLAN (SW3P) (GENERAL)					
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.	
O.S.C.	R.G.	578	JUNE., '22	N.T.S.	FILE NAME	29	

ENGINEERS | PLANNERS  
McAllen | Harlingen | Weslaco  
TBPE FIRM REGISTRATION No.: F-4860



**SECTION A-A**

**SEDIMENT CONTROL FENCE USAGE GUIDELINES**

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2-year storm frequency may be used to calculate the flow rate to be filtered.

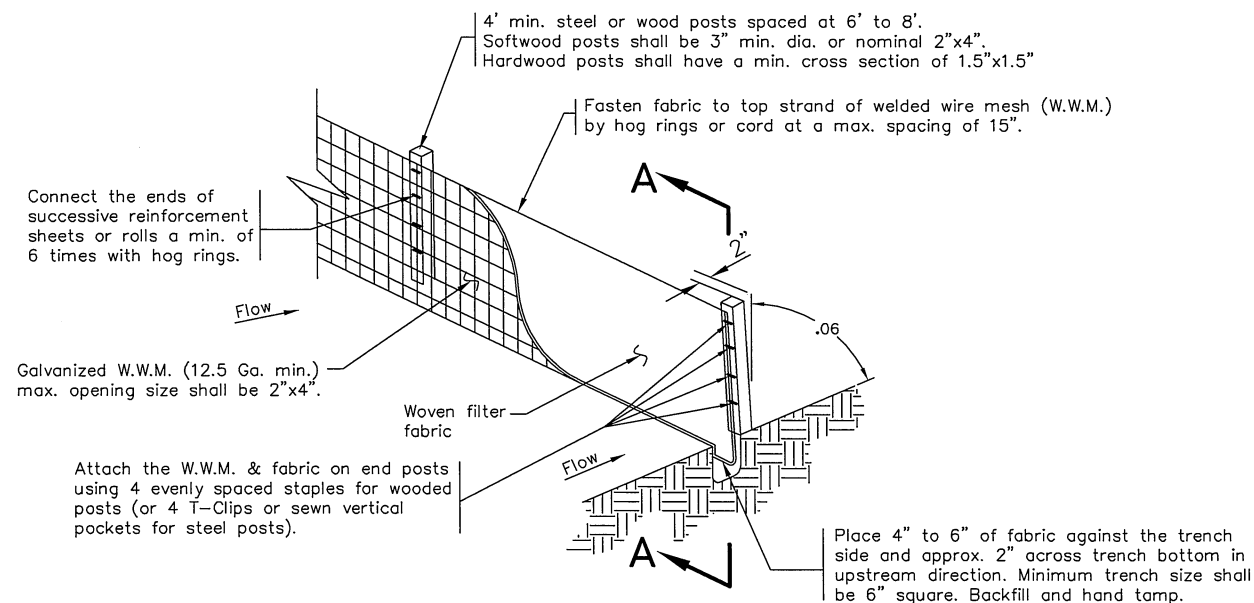
Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

**PLAN SHEET LEGEND**

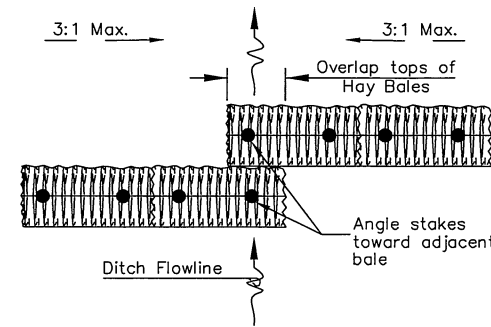
Sediment Control Fence — SCF —

**GENERAL NOTES**

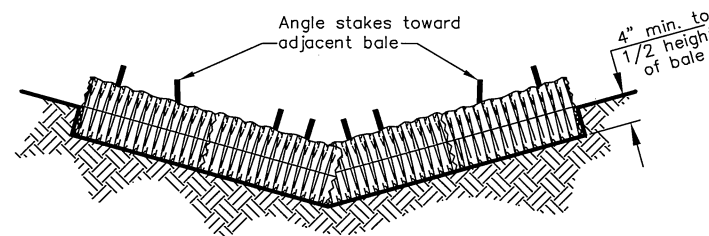
1. The guidelines shown hereon are suggestions only and may be modified by the Engineer.



**TEMPORARY SEDIMENT CONTROL FENCE**



**PLAN VIEW**



**PROFILE VIEW**

**PLANS SHEET LEGEND**

Baled Hay — BH —

**BAILED HAY USAGE GUIDELINES**

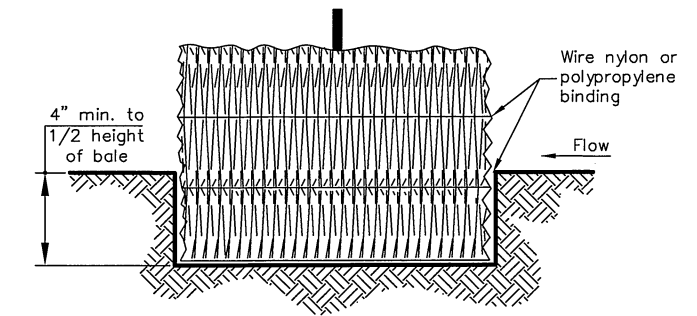
A Baled Hay installation may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from over land runoff. A two-year storm frequency may be used to calculate the flow rate of be filtered. The installation should be sized to filter a maximum flow thru rate of 5 GPM/FT<sup>2</sup> of cross sectional area. Baled hay may be used at the following locations:

1. Where the runoff approaching the baled hay flows over disturbed soil for less than 100'. If the slope of the disturbed soil exceeds 10%, the length of slope upstream the baled hay should be less than 50'.
2. Where the installation will be required for less than 3 months.
3. Where the contributing drainage area is less than 1/2 acre.

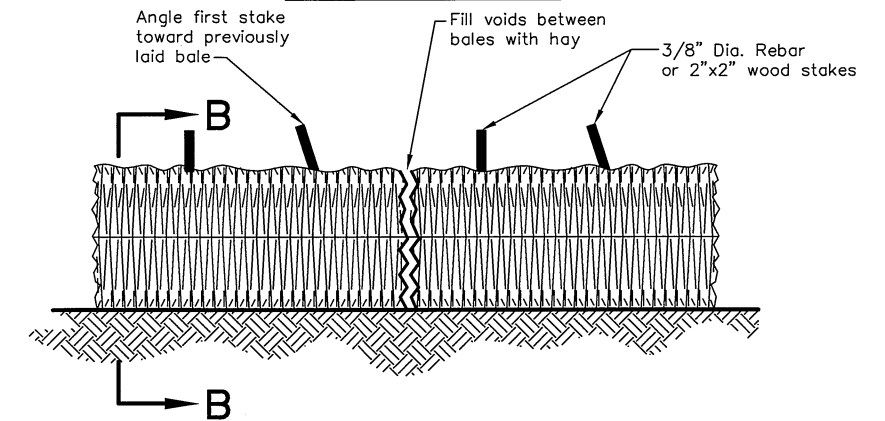
For Baled Hay installations in small ditches, the additional following considerations apply:

1. The ditch sideslopes should be graded as flat as possible to maximize the drainage flowrate thru the hay.
2. The ditch should be graded large enough to contain the overtopping drainage when sediment has filled to the top of the baled hay.

Bales should be replaced usually every 2 months or more often during wet weather when loss of structural integrity is accelerated.



**SECTION B-B**



**BAILED HAY FOR EROSION CONTROL**

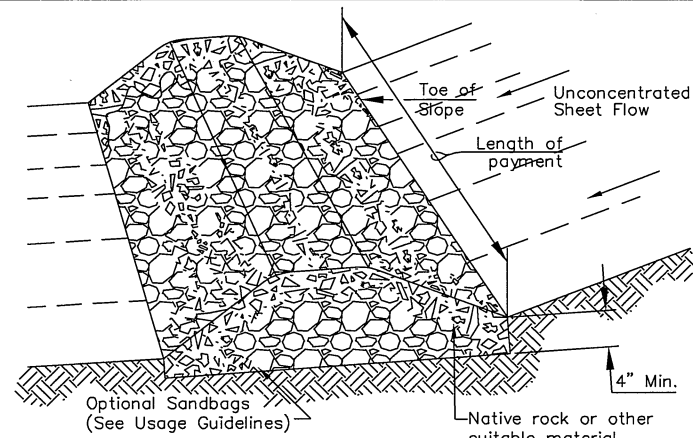
**GENERAL NOTES**

1. Hay bales shall be a minimum of 30" in length and weigh.
2. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetable matter.
3. Hay bales shall be embedded in the soil a minimum of 4" and where possible 1/2 the height of the bale.
4. Hay bales shall be placed in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
5. Hay bales shall be securely anchored in place with 3/8" Dia. rebar or 2"x2" wood stakes, driven through the bales. The first stake shall be angled towards the previously laid bale to force the bales together.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

*JG*  
1/15/22

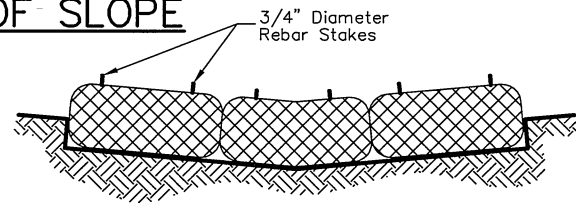


OLMITO WATER SUPPLY CORP.		WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT					
<b>CRUZ - HOGAN</b>		STORM WATER POLLUTION PREVENTION PLAN (SW3P) (GENERAL)					
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.	
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>30</b>	
ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBE FIRM REGISTRATION No.: F-4860							

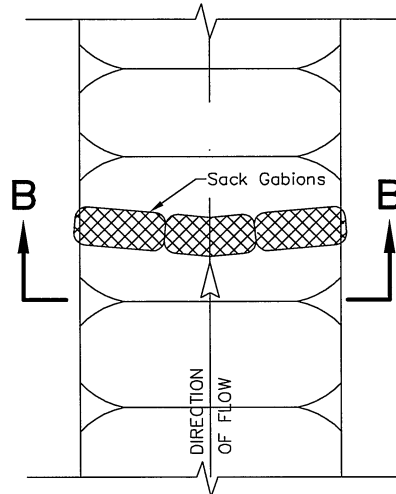


**FILTER DAM @ TOE OF SLOPE**

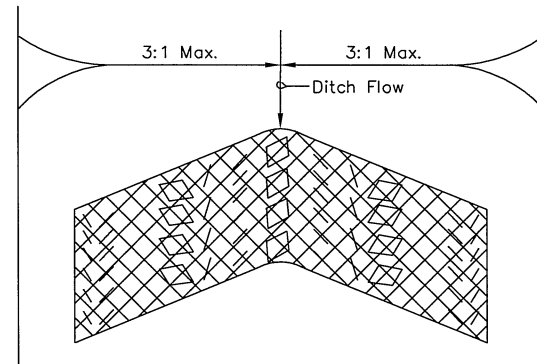
RFD1  
TYPE 1



**SECTION B-B**



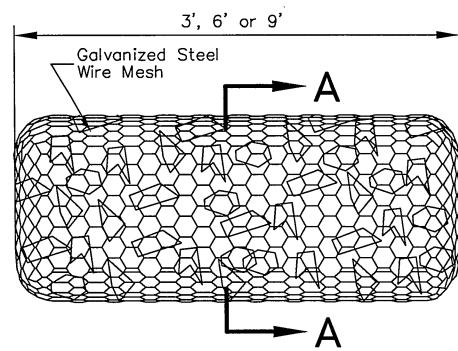
**PLAN VIEW**



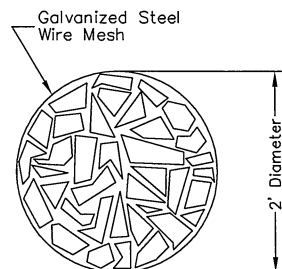
**"V" SHAPE**  
(Plan View)

**PLANS SHEET LEGEND**

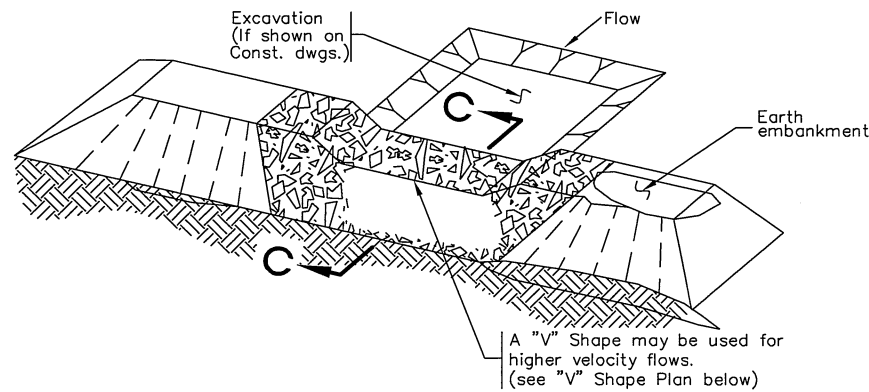
- Type 1 Rock Filter Dam — RFD1
- Type 2 Rock Filter Dam — RFD2
- Type 3 Rock Filter Dam — RFD3



**TYPE 4 (SACK GABIONS)**

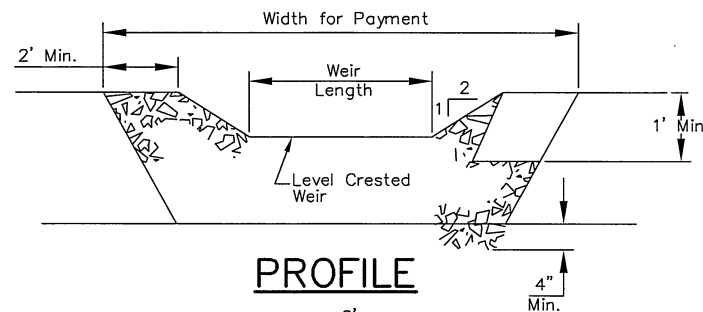


**SECTION A-A**

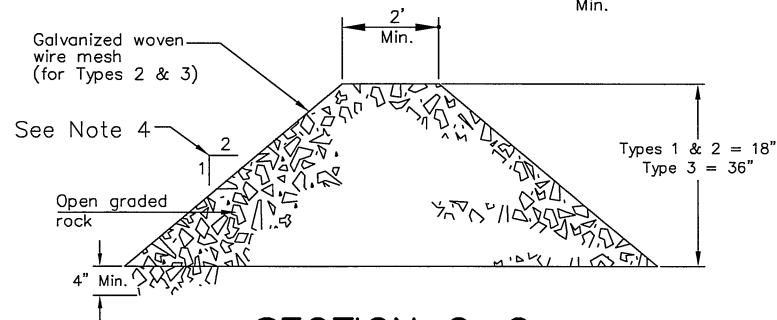


**FILTER DAM AT SEDIMENT TRAP**

RFD1 OR RFD2  
TYPE 1 OR TYPE 2



**PROFILE**



**SECTION C-C**

**BAILED HAY USAGE GUIDELINES**

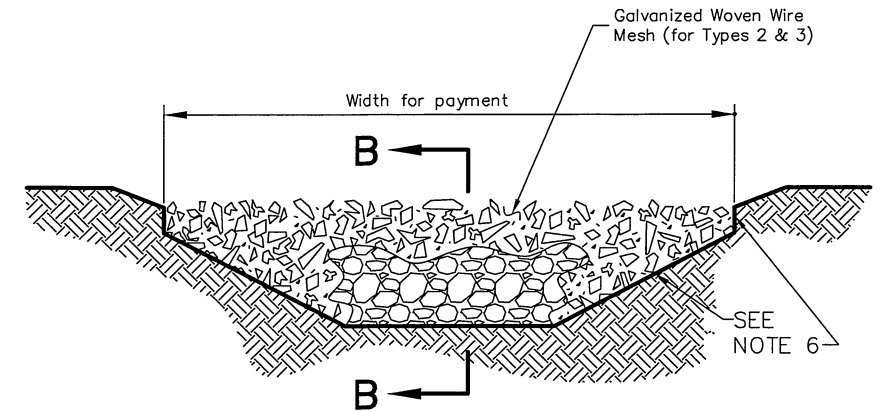
Rock Filter Dams should be constructed downstream from disturbed areas to intercept and sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT<sup>2</sup> of cross sectional area. A 2-year storm frequency may be used to calculate the flow rate.

**Type 1 (18" high with no wire mesh):** Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approx. 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

**Type 2 (18" high with wire mesh):** Type 2 may be used in ditches and at dike or swale outlets.

**Type 3 (36" high with wire mesh):** Type 3 may be used in stream flow and should be secured to the stream bed.

**Type 4 (Sack gabions):** Type 4 may be used in ditches and smaller channels to form an erosion control dam.

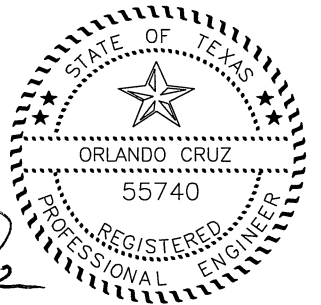


**FILTER DAM AT CHANNEL SECTIONS**

RFD1 OR RFD2 OR RFD3  
TYPE 1 OR TYPE 2

**GENERAL NOTES**

1. If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream at drainage structures, and in roadway ditches and channels to collect sediment.
2. Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by the specification for "Rock Filter Dams for Erosion and Sedimentation Control".
3. The rock filter dam dimensions shall be as indicated on the SW3P plans.
4. Side slopes should be 2:1 or flatter. Dams within the safety zone shall have sideslopes of 6:1 or flatter.
5. Maintain a minimum of 1' between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
6. Filter dams should be embedded a minimum of 4" into existing ground.
7. The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
8. Rock filter dam types 2 & 3 shall be secured with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the height & slopes specified. The mesh shall be folded at the upstream side over the aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. In stream use, the mesh should be secured or staked to the stream bed prior to aggregate placement.
9. Sack Gabions should be staked down with 3/4" diameter rebar stakes.
10. Flow outlet should be onto a stabilized area (vegetation, rock, etc.).
11. The guidelines shown hereon are suggestions only and may be modified by the Engineer.



*Handwritten signature and date: 11-15-22*

OLMITO WATER SUPPLY CORP.		WATERLINE SYSTEM IMPROVEMENTS ON OLD ALICE ROAD PROJECT					
<b>CRUZ - HOGAN</b>		STORM WATER POLLUTION PREVENTION PLAN (SW3P) (GENERAL)					
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.	
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>31</b>	



ENGINEERS | PLANNERS  
McAllen | Harlingen | Weslaco  
TBPE FIRM REGISTRATION No.: F-4860



**SITE DESCRIPTION**

PROJECT LIMITS:  
 EXISTING STORM DRAINAGE DITCH, ADJACENT TO OWSC  
 WASTEWATER TREATMENT PLANT TO HIGHWAY 100.

LATITUDE: \_\_\_\_\_ LONGITUDE: \_\_\_\_\_

PROJECT DESCRIPTION: INSTALLATION OF A  
 12 INCH WATERLINE ALONG OLD ALICE ROAD.

MAJOR SOIL DISTRIBUTING ACTIVITIES:

TOTAL PROJECT AREA: APPROX. 60,000 S.F.

TOTAL AREA TO BE DISTURBED: APPROX. 52,500 S.F.

WEIGHTED RUNOFF COEFFICIENT  
 N/A

EXISTING CONDITION OF SOIL & VEGETATIVE  
 COVER AND % OF EXISTING VEGETATIVE COVER:  
 ALL EXISTING AREA IS VEGETATED WITH GRASS.

NAME OF RECEIVING WATERS:

DITCH AT PROJECT BEGINNING.

**EROSION AND SEDIMENT CONTROLS**

**SOIL STABILIZATION PRACTICES:**

- TEMPORARY SEEDING
- PERMANENT PLANTING, SODDING, OR SEEDING
- MULCHING
- SOIL RETENTION BLANKET
- BUFFER ZONES
- PRESERVATION OF NATURAL RESOURCES

OTHER: Disturbed areas on which construction activity has ceased (temporarily or permanently) shall be stabilized within 14 days unless activities are scheduled to resume within 21 days.

**STRUCTURAL PRACTICES:**

- SILT FENCES
- HAY BALES
- ROCK BERMS (TYPE 3)
- DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- DIVERSION DIKE AND SWALE COMBINATIONS
- PIPE SLOPE DRAINS
- PAVED FLUMES
- ROCK BEDDING AT CONSTRUCTION EXIT
- TIMBER MATTING AT CONSTRUCTION EXIT
- CHANNEL LINERS
- SEDIMENT TRAPS
- SEDIMENT BASINS
- STORM INLET SEDIMENT TRAP
- STONE OUTLET STRUCTURES
- CURBS AND GUTTERS
- STORM SEWERS
- VELOCITY CONTROL DEVICES

OTHER: \_\_\_\_\_

**NARRATIVE – SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES:**

The order of activities will be as follows:

1. Install Project perimeter controls and clear only where construction and staging area will take place.
2. Install SW3P implementation shown on plan layouts.
3. Construct improvements as shown on the plans.
4. Once all construction activity is complete, cleaning and soil dressing of the project area shall be done according to plans or as instructed by the Engineer.

**STORM WATER MANAGEMENT:**

Storm water drainage will be provided by site drain ditches which flow into an existing county ditch. The ditches flow north to the Raymondville drain and eventually into the Laguna Madre and ultimately into the Gulf of Mexico.

**OTHER EROSION AND SEDIMENT CONTROLS:**

**MAINTENANCE:** All erosion and sediment controls will be maintained in good working order. If a repair is necessary, it will be done at the earliest date possible, but no later than 7 calendar days after the surrounding exposed ground has dried sufficiently to prevent further damage from heavy equipment.

**INSPECTION:** An inspection will be performed by a construction inspector every week as well as after every half inch or more of rain (as recorded on a non-freezing rain gauge to be located at the Project Site). An inspection and Maintenance Report will be made per each inspection. Based on the inspection results, the controls shall be revised per the inspection report.

**WASTE MATERIALS:** All waste materials shall be collected, hauled from project site and/or stored in a securely lidded dumpster. All trash and construction debris from the site shall be hauled off the project site at the contractor's responsibility. No construction waste material shall be buried on site.

**HAZARDOUS WASTE (INCLUDING SPILL REPORTING):** At a minimum, any products in the following categories to be hazardous: Paints, Acids for cleaning masonry surfaces, Cleaning Solvents, Asphalt products, Chemical additives for soil stabilization, or Concrete curing compounds and additives. In the event of a spill which may be hazardous, the spill Coordinator should be contacted immediately. Emptying of excess concrete should not be allowed on site. Likewise, washout of concrete trucks should not be performed on site. These discharges are considered non-allowable non-storm water discharges. Concrete trucks should never be allowed to dump into storm drains or sanitary sewers.

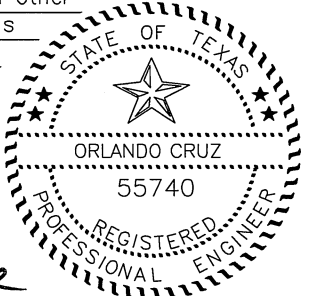
**SANITARY WASTE:** All sanitary waste will be collected from the pothole units as necessary or as required by local regulation by a licensed sanitary waste management contractor.

**OFFSITE VEHICLE TRACKING:**

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPULIN
- EXCESS DIRT ON ROAD REMOVED DAILY
- STABILIZED CONSTRUCTION ENTRANCE

OTHER: \_\_\_\_\_

**REMARKS:** Disposal areas, stockpiles, and haul roads shall be constructed in a manner that will minimize and control the amount of sediment that may enter receiving waters. Disposal areas shall not be located in any wetland, waterbody or streambed. Construction staging areas and vehicle maintenance areas shall be constructed by the Contractor in a manner to minimize the runoff of pollutants. All waterways shall be cleared as soon as practicable of temporary embankment, temporary bridges, matting, falsework, piling, debris or other obstructions placed during construction operations that are not a part of the finished work.



*[Handwritten Signature]*  
 11-15-22

<b>OLMITO WATER SUPPLY CORP.</b> <b>CRUZ - HOGAN</b> ENGINEERS   PLANNERS McAllen   Harlingen   Weslaco TBPE FIRM REGISTRATION No.: F-4860		<b>WATERLINE SYSTEM IMPROVEMENTS                  ON OLD ALICE ROAD PROJECT</b> STORM WATER POLLUTION PREVENTION PLAN (SW3P) (GENERAL)					
DESIGN	DRAWN	PROJ. #	DATE	SCALE	FILE	SHEET NO.	
O.S.C.	R.G.	578	JUNE, '22	N.T.S.	FILE NAME	<b>32</b>	