









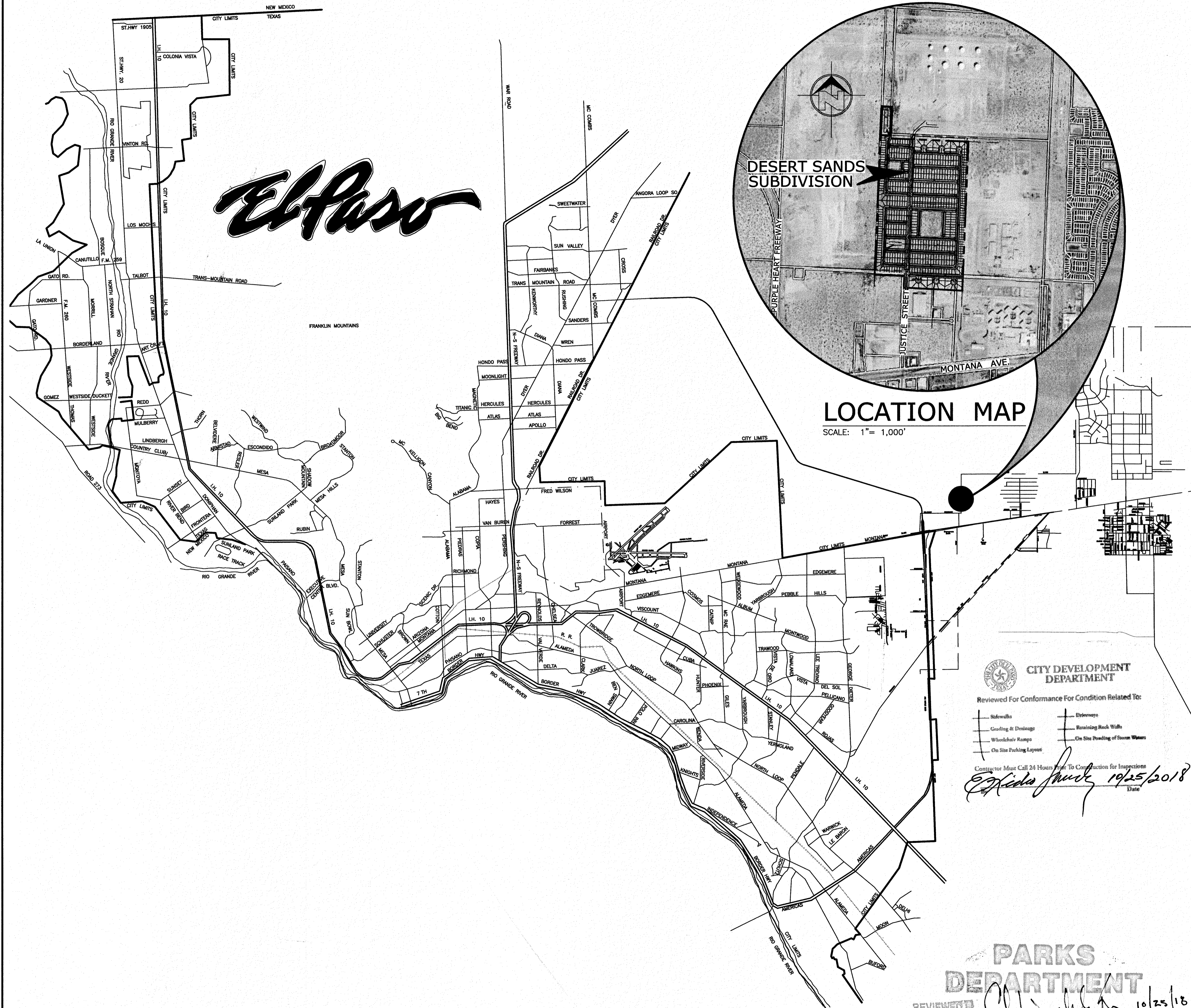




# DESERT SANDS SUBDIVISION

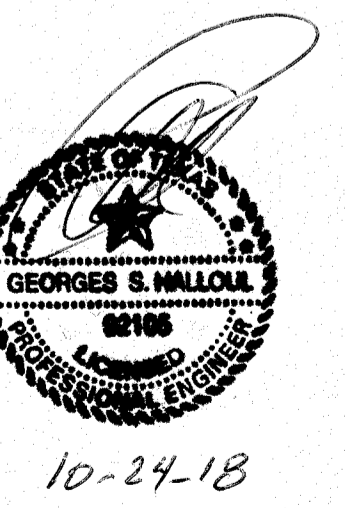
## STREET IMPROVEMENT PLANS

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L1-L15	PARKS LANDSCAPING AND IRRIGATION PLANS

**SLI ENGINEERING, INC.**  
 CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS  
 6600 WESTWIND EL PASO, TEXAS (915) 584-4457  
 OCTOBER 2018



10-24-18

C-00.00

A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
BOOK 2884, PAGE 1625

# DESERT SANDS

BEING A PORTION OF SECTIONS 28 AND 33, BLOCK 79,  
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING: 106.282 ACRES ±

## DEDICATION

STATE OF TEXAS  
COUNTY OF EL PASO

E. P. T. LAND PROPERTIES, OWNER, OF THIS LAND, HEREBY PRESENTS THIS MAP AND DEDICATES TO THE USE OF THE PUBLIC AS HEREON LAID DOWN AND DESIGNATED THE RETENTION PONDS, STREETS, PARKS AND UTILITY EASEMENTS FOR OVERHANG OF SERVICE WIRES, POLE TYPE UTILITIES, BURIED SERVICE WIRES, CONDUITS AND PIPES FOR UNDERGROUND UTILITIES AND THE RIGHT OF INGRESS AND EGRESS FOR SERVICE AND CONSTRUCTION AND THE RIGHT TO TRIM INTERFERING TREES AND SHRUBS.

E. P. T. LAND PROPERTIES, OWNER  
RICHARD AGUILAR, PRESIDENT

## ACKNOWLEDGEMENT

STATE OF TEXAS  
COUNTY OF EL PASO

BEFORE ME THE UNDERSIGNED NOTARY PUBLIC, ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2018 A.D. PERSONALLY APPEARED KNOWN TO ME TO BE THE PERSON WHOSE NAME IS RICHARD AGUILAR.

NOTARY PUBLIC, STATE OF TEXAS

MY COMMISSION EXPIRES: \_\_\_\_\_

## CITY PLAN COMMISSION

THIS SUBDIVISION IS HEREBY APPROVED AS TO THE PLATTING AND AS TO THE CONDITIONS OF THE DEDICATION IN ACCORDANCE WITH CHAPTER 212 OF THE LOCAL GOVERNMENT CODE OF TEXAS THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2018 A.D.

EXECUTIVE SECRETARY \_\_\_\_\_ CHAIRPERSON \_\_\_\_\_

APPROVED FOR FILING THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2018 A.D.

PLANNING AND INSPECTIONS DIRECTOR \_\_\_\_\_

## FILING

FILED AND RECORDED IN THE OFFICE OF THE COUNTY CLERK OF EL PASO COUNTY, TEXAS, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2018 A.D.

FILE NO. \_\_\_\_\_

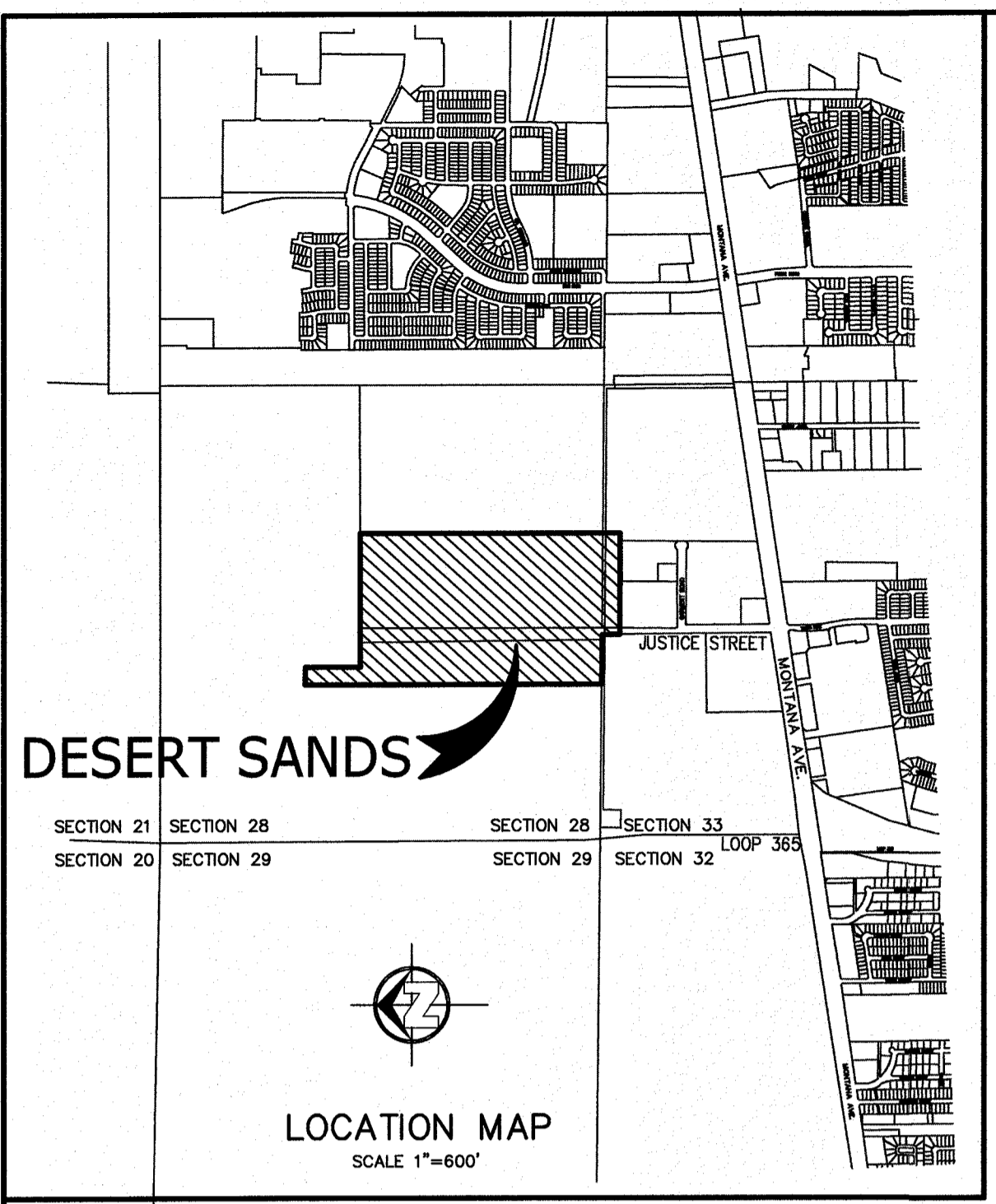
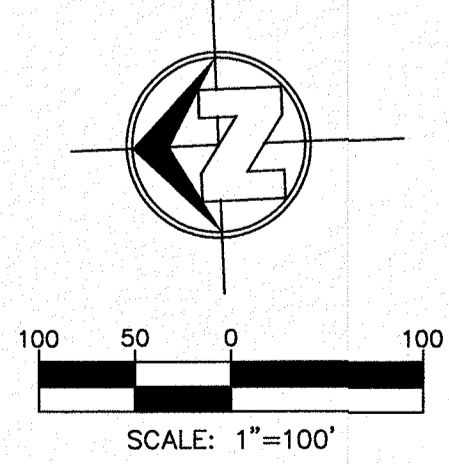
COUNTY CLERK \_\_\_\_\_ BY DEPUTY \_\_\_\_\_

THIS PLAT REPRESENTS A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION AND IS IN COMPLIANCE WITH THE CURRENT TEXAS BOARD OF PROFESSIONAL LAND SURVEYING PROFESSIONAL AND TECHNICAL STANDARDS.

GUILLERMO LICON, RPLS 2998



LEGEND	
	PROPOSED CITY MONUMENT
	BLOCK NUMBER
	LOT NUMBER



ID	TO	EASEMENTS	DESCRIPTION	DOC #
Ⓞ	DIAMOND SHAMROCK REFINING	100.0' PERPETUAL NON-EXCLUSIVE EASEMENT UNDERGROUND HYDROCARBON LIQUIDS PIPELINES	STATE OF TEXAS ME NO. 940012	
ⓧ	EPWU	20.0' WATERLINE EASEMENT	2999	341

### GENERAL NOTES:

- SET 1/2" IRON WITH SLI CAP STAMPED "TX 2989" ON ALL PROPERTY CORNERS UNLESS OTHERWISE INDICATED.
- BEARINGS ARE GRID AND BASED ON THE STATE PLANE COORDINATE SYSTEM CENTRAL ZONE OF TEXAS 4203 (NAD83). ALL DISTANCES ARE AT GROUND LEVEL.
- THIS SUBDIVISION SHALL PROVIDE FOR POSTAL DELIVERY SERVICE. THE SUBDIVIDER WILL COORDINATE INSTALLATION AND CONSTRUCTION WITH THE UNITED STATES POSTAL SERVICE IN DETERMINING THE TYPE OF DELIVERY SERVICE FOR THE PROPOSED SUBDIVISION. IN ALL CASES, THE TYPE AND LOCATION OF DELIVERY SERVICE SHALL BE SUBJECT TO THE APPROVAL OF THE UNITED STATES POSTAL SERVICE.
- ALL INFORMATION SHOWN HEREON WITH RESPECT TO UNDERGROUND CONDITIONS WAS DETERMINED BY DATA COLLECTED THROUGH SURVEY CREW OBSERVATION AND OTHER INFORMATION TAKEN FROM EXISTING PLANS AND MAPS OF RECORD. NO UNDERGROUND UTILITIES EXISTING OR ABANDONED WERE EXPOSED OR LOCATED.
- UNLESS SPECIFICALLY ACCEPTED BY SLI ENGINEERING, INC. IN WRITING, SLI ENGINEERING, INC. MAKES NO CLAIM, EXPRESSED OR IMPLIED, AS TO THE UNDERGROUND SITE CONDITIONS.
- THIS SUBDIVISION LIES WITHIN THE SOCORRO INDEPENDENT SCHOOL DISTRICT.
- ALL DEVELOPED STORM WATER RUNOFF SHALL BE ADDRESSED WITHIN THE SUBDIVISION AND SHALL COMPLY WITH ALL PROVISIONS OF (DSC 19.19.010A AND DDM.11.1).
- THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO THIS SUBDIVISION BY THE EL PASO WATER/ PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR REGULATIONS AND WITH SECTION 16.343 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THIS SUBDIVISION FROM EXISTING FACILITIES LOCATED ALONG JUSTICE AVE.
- TAX CERTIFICATE FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT NO. \_\_\_\_\_ DATE: \_\_\_\_\_
- RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT NO. \_\_\_\_\_ DATE: \_\_\_\_\_

### FLOOD ZONE

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 480212 0175 B, DATED SEPTEMBER 4, 1991 THIS PROPERTY LIES IN FLOOD ZONE "X".  
ZONE "X", AREAS OF MINIMAL FLOODING.

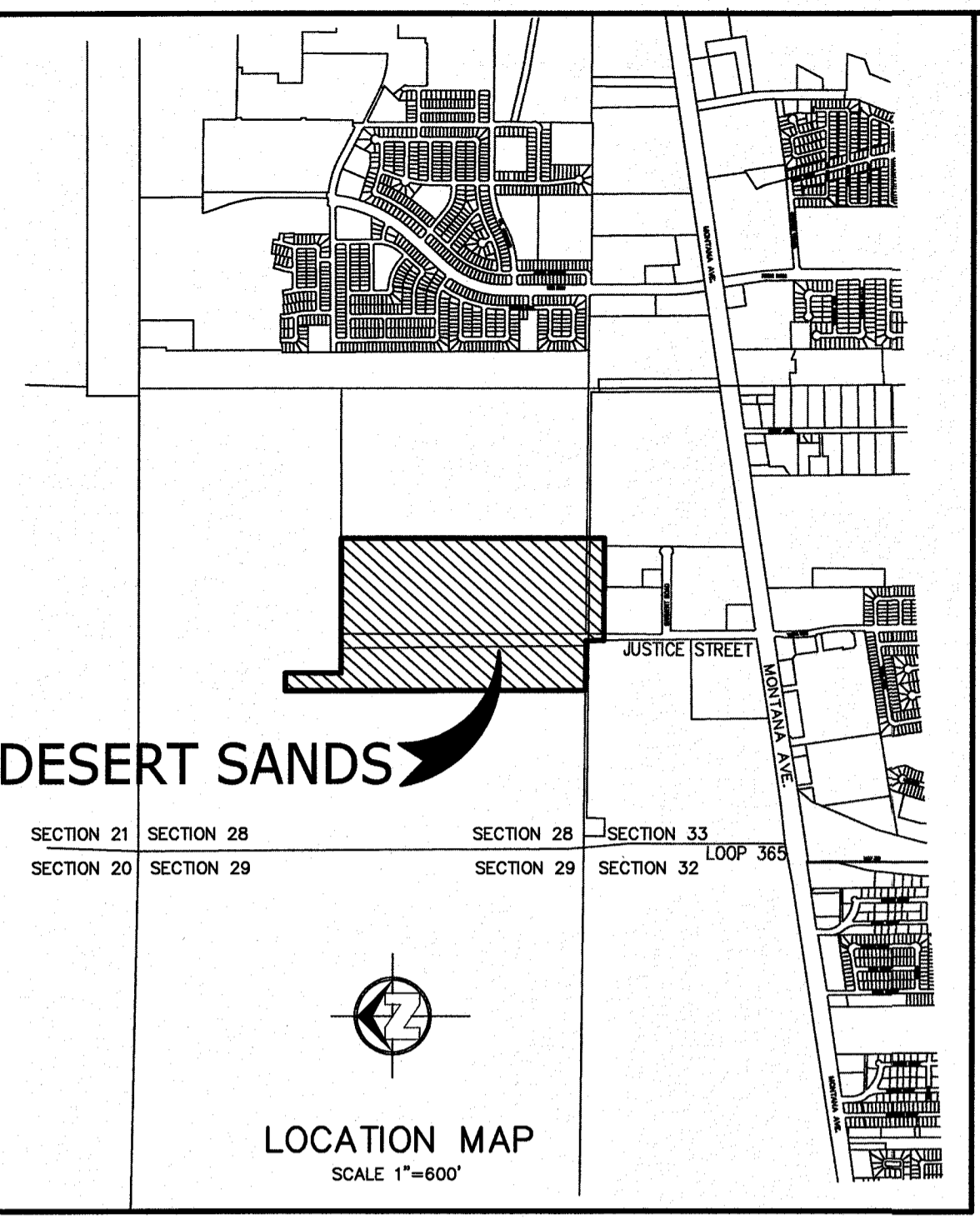
NUMBER OF LOTS	
RESIDENTIAL =	514
PUBLIC PARKS =	2
PONDS =	2
FUTURE PUBLIC R.O.W. =	1

SLI ENGINEERING, INC.  
CIVIL ENGINEERS - LAND SURVEYORS  
LAND PLANNERS - CONSTRUCTION MANAGEMENT  
6600 WESTWIND DR. - EL PASO, TEXAS - 79912 - (915) 584-4457  
DATE OF PREPARATION 07/09/18

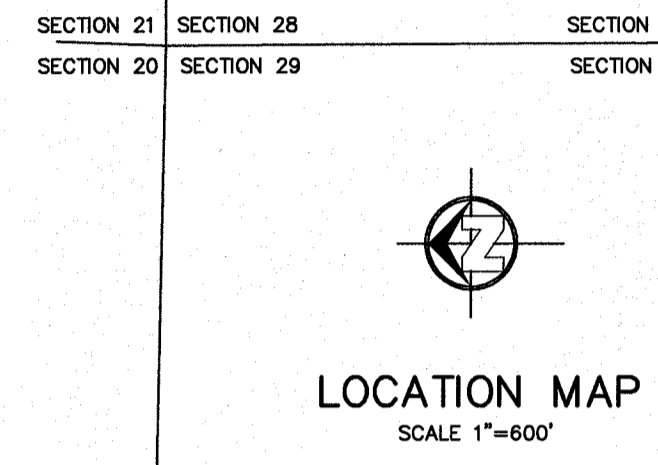


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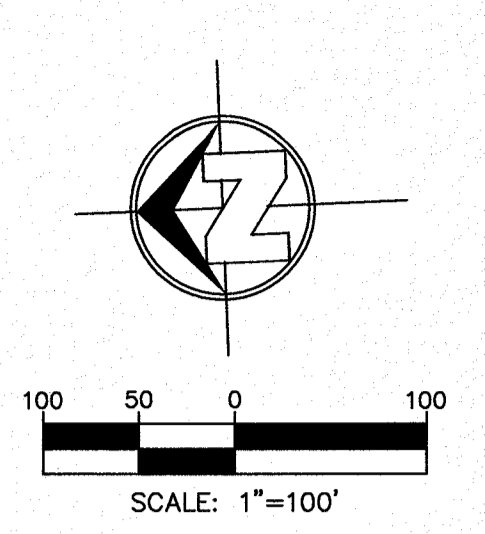
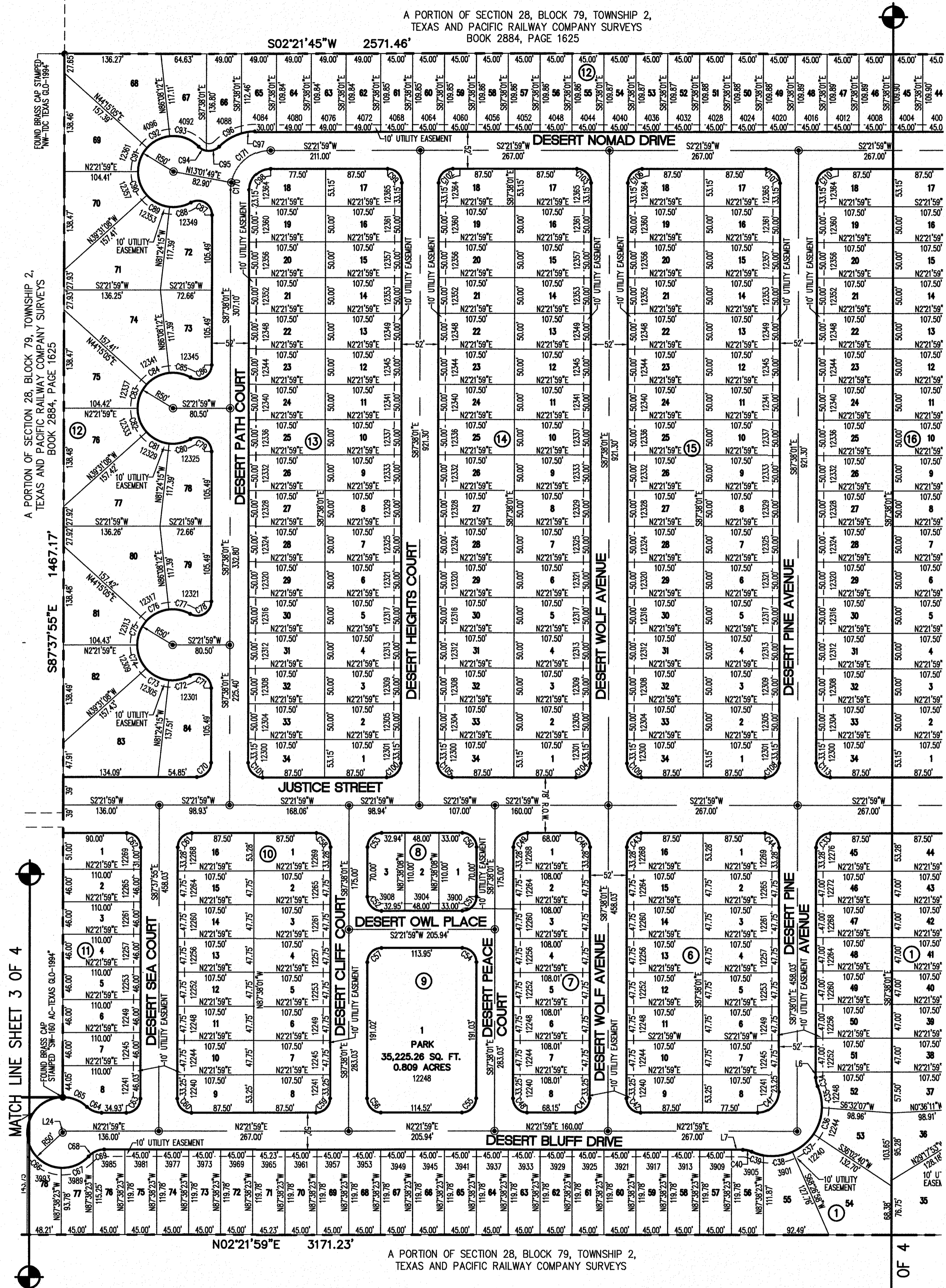
BEING A PORTION OF SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 106.282 ACRES ±



## DESERT SANDS



ID	TO	DESCRIPTION	DOC #
⊙	DIAMOND SHAMROCK REFINING	100.0' PERPETUAL NON-EXCLUSIVE EASEMENT UNDERGROUND HYDROCARBON LIQUIDS PIPELINES	STATE OF TEXAS ME NO. 940012
⊗	EPWU	20.0' WATERLINE EASEMENT	2999 341



**LEGEND**

- ⊙ PROPOSED CITY MONUMENT
- ① BLOCK NUMBER
- 1 LOT NUMBER

### ACKNOWLEDGEMENT

STATE OF TEXAS  
 COUNTY OF EL PASO  
 BEFORE ME THE UNDERSIGNED NOTARY PUBLIC, ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2018 A.D. PERSONALLY APPEARED KNOWN TO ME TO BE THE PERSON WHOSE NAME IS RICHARD AGUILAR.

NOTARY PUBLIC, STATE OF TEXAS \_\_\_\_\_

MY COMMISSION EXPIRES: \_\_\_\_\_

\_\_\_\_\_  
 COUNTY CLERK BY DEPUTY

THIS PLAT REPRESENTS A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION AND IS IN COMPLIANCE WITH THE CURRENT TEXAS BOARD OF PROFESSIONAL LAND SURVEYING PROFESSIONAL AND TECHNICAL STANDARDS.

GUILERMO LICON, RPLS 2998

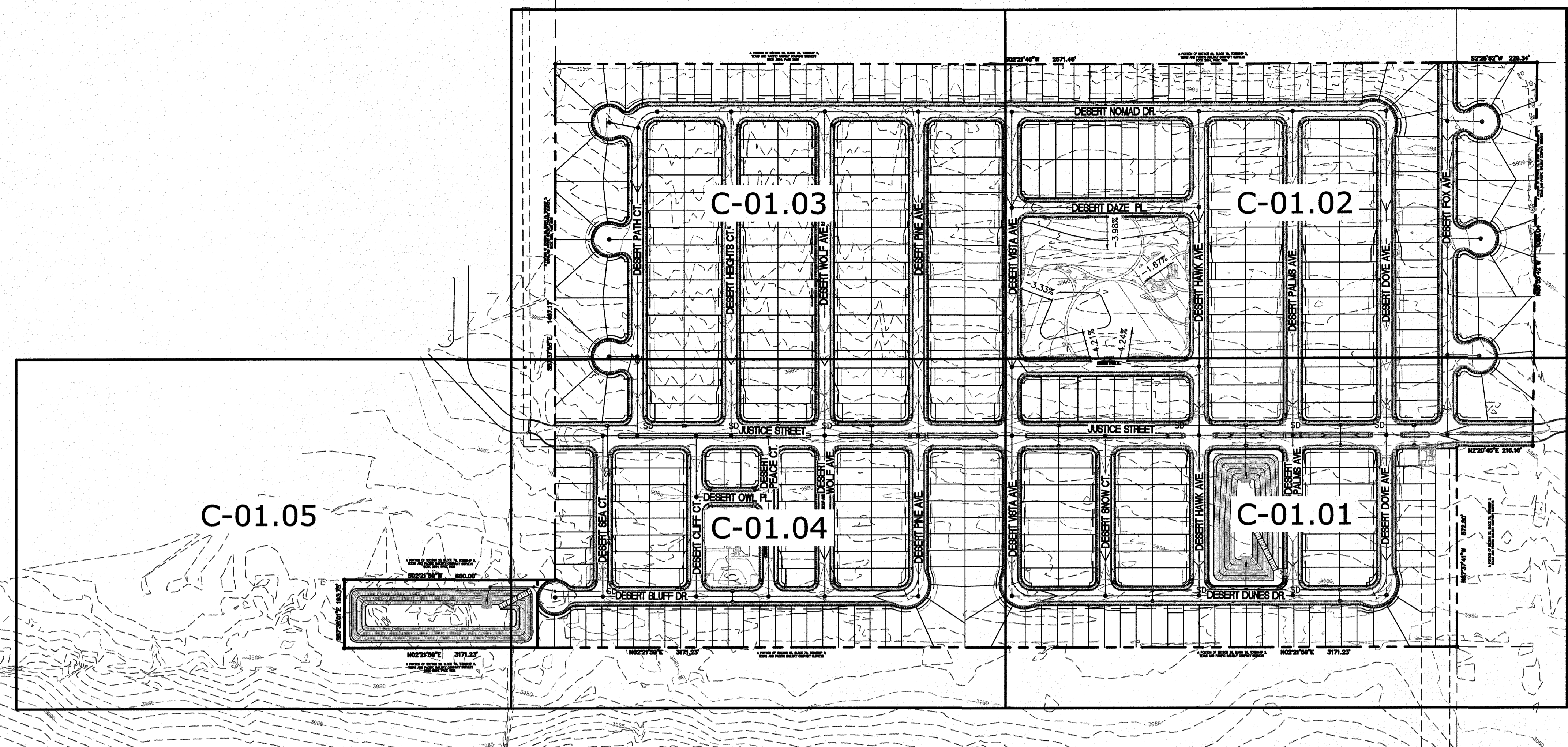
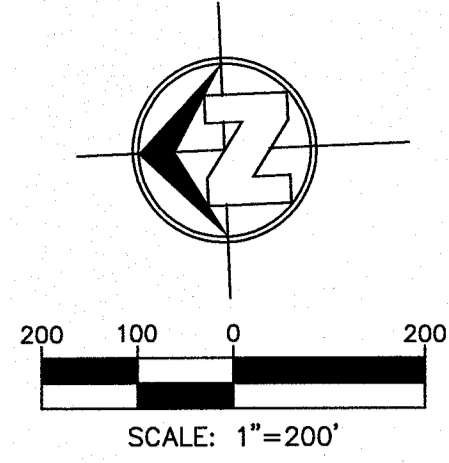


SLI ENGINEERING, INC.  
 CIVIL ENGINEERS - LAND SURVEYORS  
 LAND PLANNERS - CONSTRUCTION MANAGEMENT  
 6600 WESTWIND DR. - EL PASO, TEXAS - 79912 - (915) 584-4457  
 DATE OF PREPARATION 07/09/18









**LEGEND:**

17.20GND	NEW FG ELEV. (GROUND)
17.20SW	NEW SIDEWALK ELEV.(CONCRETE)
17.20EP	NEW FG ELEV. (EDGE OF PAVE.)
17.20GT	NEW FG ELEV. (GUTTER)
17.20TC	NEW FG ELEV. (TOP OF CURB)
3981.2	EXISTING (SPOT ELEV.)
80	NEW FG (CONTOUR)
3975	EXISTING GROUND (CONTOUR)
SD	NEW STORM DRAIN (PIPE)
▲	HIGH POINT
▼	LOW POINT
F.G.	BUILDING PAD FINISHED GRADE ELEV.

NOTE: BUILDING FINISHED FLOOR = F.G.+8"

**EROSION CONTROL:**

1. WIND EROSION CONTROL: WATERING DURING AND AFTER COMPLETION OF SITE GRADING, THE PROJECT AREA SHALL BE COMPLETELY WATERED AS NEEDED TO CONTROL WIND EROSION OR AS DIRECTED BY THE CITY ENGINEER.
2. THE CONTRACTOR SHALL CLEAN UP ANY DIRT OR DEBRIS THAT IS SPILLED ON THE EXISTING PUBLIC ROADWAY AS A RESULT OF THIS CONSTRUCTION PROJECT. CLEAN UP IS TO BE DONE ON A REGULAR BASIS OR AS DIRECTED BY THE CITY ENGINEER.
3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SLOPES IN GOOD CONDITION AND PROTECTING THEM FROM EROSION UNTIL THE FINAL LANDSCAPING ELEMENTS ARE IN PLACE.

**NOTES PERTAINING TO PUBLIC PARK SITES**

1. ALL UTILITIES SHALL BE A MINIMUM FIVE (5') FEET DEEP.
2. WHERE POSSIBLE AND PREFERABLY, UTILITIES SHALL BE PLACED UNDERNEATH THE PROPOSED 7' WIDE SIDEWALK TO AVOID FUTURE CONFLICT WITH THE PROPOSED STREET TREES LINE OR DAMAGE TO THE UTILITIES.
3. NO TRANSFORMERS, PEDESTAL OR JUNCTION BOXES SHALL BE INSTALLED WITHIN "PARK SITE" OR WITHIN NEW SIDEWALKS/HIKE AND BIKE TRAIL.

**FLOOD ZONE:**

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 480212 0175 B, DATED SEPTEMBER 4, 1991 THIS PROPERTY LIES IN FLOOD ZONE "X".

ZONE "X", AREAS OF 500-YEAR FLOOD. AREAS OF 100-YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE AND AREAS PROTECTED BY LEVEES FROM 100-YEAR FLOOD.

**BENCHMARK**

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)

**NOTES FOR GRADING**

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE PROJECT SPECS. AND IN CONJUNCTION WITH THE "2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES. (APPLICABLE ITEMS ONLY)
2. ALL FILL AREAS SHALL BE COMPACTED TO 95% DENSITY, (ASTM D-1557).
3. REFER TO THE CITY OF EL PASO GRADING ORDINANCE CHAPTER 18.44 FOR SITE GRADING SPECIFICATIONS. GRADING PERMIT MUST BE AVAILABLE AT THE JOB SITE UPON COMMENCEMENT OF WORK.
4. POSITIVE DRAINAGE SHALL BE PROVIDED BY THE CONTRACTOR DURING ALL PHASES OF CONSTRUCTION AND GRADING. THE CONTRACTOR SHALL NOT ALLOW DEBRIS OR SEDIMENT TO SPILL ONTO THE PUBLIC STREETS OR ADJOINING PROPERTIES.
5. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITY LINES (SHOWN OR NOT SHOWN) WITHIN THE SCOPE OF CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE RESPECTIVE AGENCY PRIOR TO MOVING ON SITE, SO THE EXISTING UTILITY LINES CAN BE LOCATED IN THE FIELD. IF ANY LINES ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL REPLACE THEM AT HIS OWN EXPENSE.
6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS ON SITE AND SHALL CONTACT THE DESIGN ENGINEER AND REPORT ANY DISCREPANCIES, OMISSIONS, AND ERRORS ON PLANS PRIOR TO COMMENCING OR CONTINUING WORK.
7. **"CAUTION TO CONTRACTOR"** LOCATE AND PROTECT FROM DAMAGE ALL UTILITY LINES WITHIN THE CONSTRUCTION AREA.
8. GRADING, SWPPP, AND N.O.I. PERMITS REQUIRED BEFORE MOVING ON SITE.
9. ALL RAMPS SHALL HAVE A MAX. OF 1:12 SLOPE AND ALL SIDEWALKS SHALL HAVE A MAX. OF 2% CROSS SLOPE. ALL ACCESSIBLE PARKING SPACES SHALL HAVE A MAX. OF 2% (LONGITUDINAL OR CROSS SLOPE) ALL ACCESSIBLE ROUTES SHALL HAVE A MAX. OF 5% SLOPE.

**PERMIT CLOSEOUT PROCEDURES**

10. AFTER THE PERMITTEE COMPLETES THE GRADING UNDER THE PERMIT, THE PERMIT SHALL BE CLOSED. AS PART OF THE CLOSEOUT PROCEDURE, THE APPLICANT MUST SUBMIT THE FOLLOWING TO THE CITY:
  - A. A STATEMENT FROM THE ENGINEER OF RECORD THAT STATES "THE GRADING OPERATION HAS BEEN SUBSTANTIALLY COMPLETED AND GENERALLY CONFORMS TO THE APPROVED SET OF PLANS." THE PERMITTEE SHALL CALL THE PERMIT OFFICIAL TO ESTABLISH THE BEGINNING OF THE WARRANTY PERIOD AND TO NOTIFY THE PERMIT OFFICIAL THAT THE GSP HAS BEEN IMPLEMENTED.
  - B. A COPY OF THE NOTICE OF TERMINATION FILED WITH THE STATE OR DATED CONSTRUCTION SITE NOTICE, IF APPLICABLE, IN ACCORDANCE WITH CHAPTER 15.

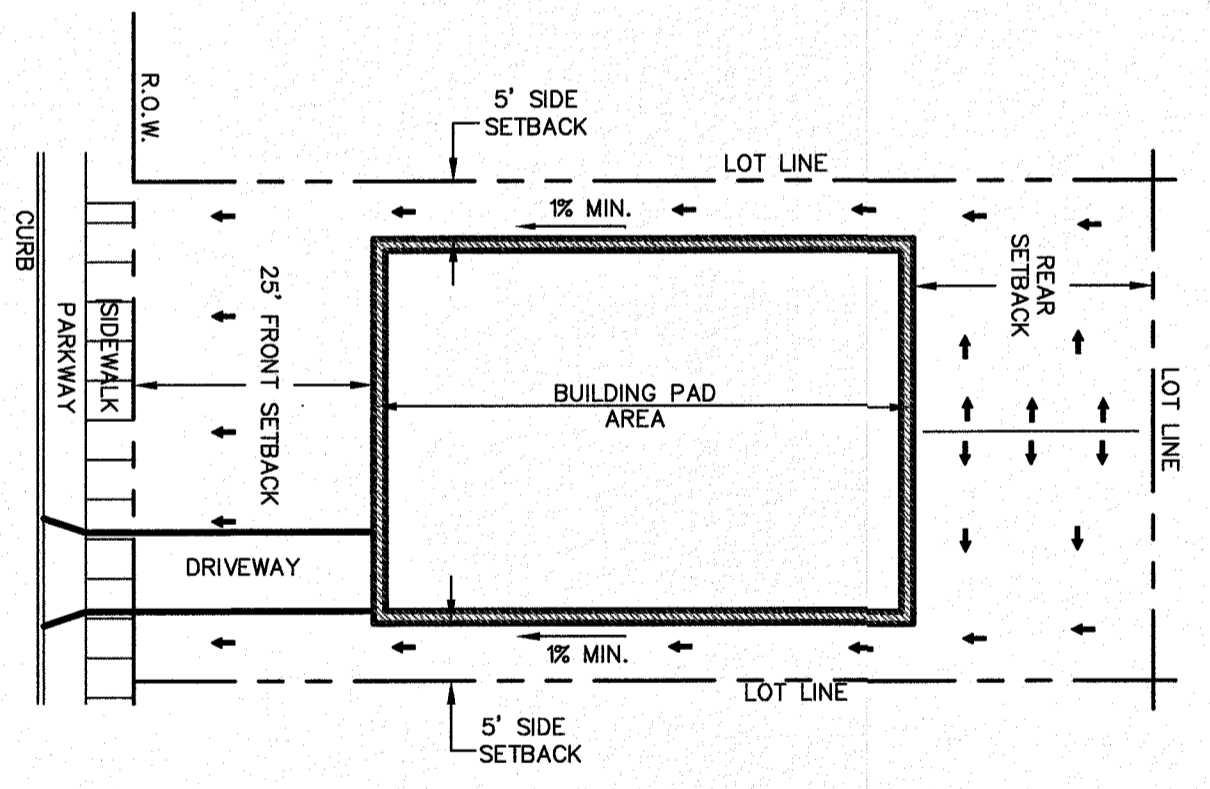
THE CITY WILL ISSUE A LETTER STATING GENERAL CONFORMANCE TO THE PERMIT HAS BEEN MET AND THAT THE WARRANTY PERIOD REQUIREMENTS WILL BE IN EFFECT.

- WARRANTY**
11. ANY PERSON ISSUED A PERMIT SHALL AGREE, WARRANT AND MAINTAIN THE AREA DESCRIBED IN THE PERMIT FOR A PERIOD OF TWO YEARS AFTER THE PERMIT IS CLOSED BY THE CITY PURSUANT TO SECTION 18.44.220, OR UNTIL A BUILDING PERMIT IS ISSUED FOR THE PURPOSE OF MAINTAINING A STABILIZED SITE IN ACCORDANCE WITH THE APPROVED GSP, WHICHEVER FIRST OCCURS (THE "WARRANTY" OR "WARRANTY PERIOD"). THE CITY MAY CONDUCT INSPECTIONS OF THE PERMITTED AREA THROUGHOUT THE WARRANTY PERIOD AND REQUIRE MAINTENANCE AND CORRECTION OF THE WORK BY THE PERMIT HOLDER. FAILURE OF THE PERMIT HOLDER TO CORRECT THE WORK SHALL CONSTITUTE A FAILURE TO COMPLY WITH THE PROVISIONS OF THIS CHAPTER. (ORDINANCE NO. 17516, § 1, 3-29-2011)

**ENGINEERING CONTROLS FOR GRADING.**

CONSTRUCTION ACTIVITY REQUIREMENTS. THE FOLLOWING OPERATIONAL GUIDELINES MUST BE FOLLOWED DURING THE GRADING OF THE SITE. THEY ARE REQUIRED TO BE INCLUDED AS "GENERAL NOTES" ON THE APPROVED GRADING PLAN.

1. NO ON-SITE PROCESSING OF MATERIAL FOR COMMERCIAL OR RETAIL SALES SHALL BE ALLOWED. ON-SITE PROCESSING OF MATERIALS TO BE USED FOR PREPARATION OR CONSTRUCTION OF IMPROVEMENTS WITHIN THE SITE COVERED BY THE GRADING PERMIT SHALL BE ALLOWED.
2. WORK SHALL BE CONDUCTED IN A MANNER THAT PRESERVES AND DOES NOT OBSTRUCT, IMPEDE OR INTERFERE WITH THE FLOW OF STORMWATER IN NATURAL DRAINAGE WAYS, UNIMPROVED CHANNELS OR WATERCOURSES, OR IMPROVED DITCHES, CHANNELS OR CANALS IN SUCH A MANNER AS TO CAUSE FLOODING WHERE IT WOULD NOT OTHERWISE OCCUR.
3. CONSTRUCTION EQUIPMENT AND FENCING SHALL BE KEPT OUT OF WATERCOURSES EXCEPT WHEN NECESSARY TO PERFORM WORK ON THE APPROVED PLANS. ADEQUATE BY-PASS MEASURES SHALL BE INSTALLED WHERE TEMPORARY DRAINAGE BLOCKAGES WILL OCCUR. WHERE WORK WITHIN A CHANNEL IS DESIGNATED ON APPROVED PLANS, PRECAUTIONS SHALL BE TAKEN TO STABILIZE THE WORK AREA DURING CONSTRUCTION TO MINIMIZE EROSION AS SHOWN ON THE PLANS. THE CHANNEL, INCLUDING BED AND BANKS, SHALL ALWAYS BE RESTORED/RE-STABILIZED IMMEDIATELY AFTER WORK IN THE CHANNEL IS COMPLETED.
4. WHERE A DRAINAGE WAY WILL BE CROSSED BY CONSTRUCTION VEHICLES REGULARLY DURING CONSTRUCTION, A TEMPORARY CROSSING SHALL BE CONSTRUCTED AS REQUIRED IN THE APPROVED GRADING PLANS.
5. MATERIAL STOCKPILING SHALL NOT BE ALLOWED WHEN GRADING OPERATIONS ARE IDLE FOR MORE THAN SEVEN CONSECUTIVE CALENDAR DAYS. STOCKPILING SHALL BE LIMITED TO TEN FEET HIGH WHEN GRADING OPERATIONS ARE BEING CONDUCTED.
6. A TRAFFIC CONTROL PERMIT SHALL BE REQUIRED IF THE GRADING OPERATION WILL IMPACT TRAFFIC.
7. ANY USE OF VIBRATORY EQUIPMENT SHALL NOT BE ALLOWED, UNLESS APPROVED IN WRITING BY THE PERMIT OFFICIAL IN ADVANCE OF SUCH USE.
8. THE PERMIT OFFICIAL MUST BE NOTIFIED NO LATER THAN 4:00 PM THE DAY IN ADVANCE OF ANY GRADING WORK. ADDITIONAL ACTIVITY REQUIREMENTS/RESTRICTIONS MAY BE SPECIFIED BY THE DESIGN ENGINEER OF RECORD.



NOTE: BUILDING FINISHED FLOOR = F.G.+8"

**TYPICAL LOT LAYOUT**  
SCALE: N.T.S.

**GRADING AND STABILIZATION NOTE**

1. FINAL STABILIZATION FOR THIS SUBDIVISION WILL BE CONSTRUCTED WITH ROAD AND HOMES OR LOTS FOR EACH PHASE.

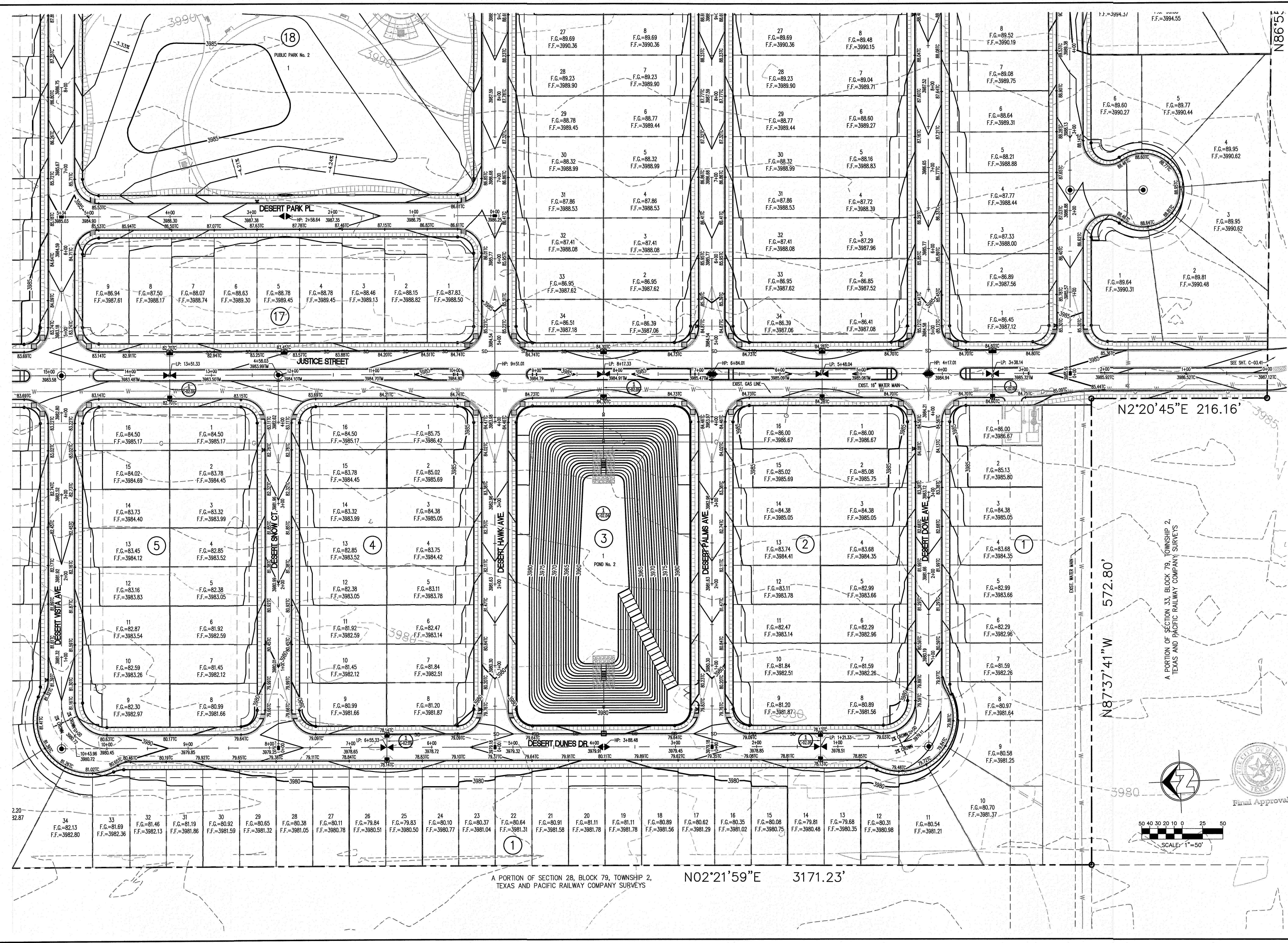


**Know what's below.  
Call before you dig.**  
Call 811 TWO Working days Before you dig  
It's Free, It's Easy, and  
**IT'S THE LAW!**

**NOTE:**  
ALL EXISTING AND PROPOSED SIDEWALKS, BARRIER FREE RAMPS, ACCESSIBLE PARKING, DRIVEWAY CROSSWALKS, DRIVEWAYS AND ACCESSIBLE ROUTES SHALL COMPLY WITH THE A.D.A.T.A.S. AND CITY OF EL PASO REQUIREMENTS. EXISTING INFRASTRUCTURE NOT COMPLYING SHALL BE REMOVED AND REPLACED TO MEET STANDARDS.



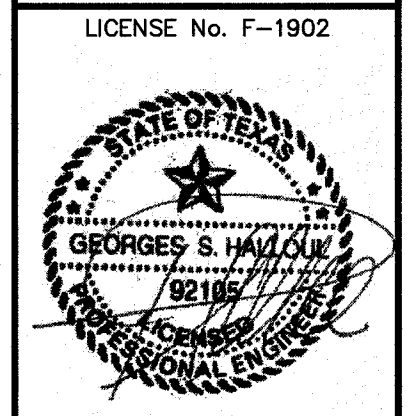
PROJECT NAME <b>DESERT SANDS</b> PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
	SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)			
SCALE: AS INDICATED	DESIGN BY: J/JET	CHECKED BY: GH/VE	DATE: OCTOBER 2018	
JOB NO.: 09-16-3911				
EL PASO, TEXAS				
CIVIL ENGINEERS LAND SURVEYORS ASBESTOS ABATEMENT ELECTRICAL MECHANICAL (915) 584-1407	<b>SLI ENGINEERING, INC.</b>			
LICENSE No. F-1902				
OCTOBER 24, 2018				
SHEET TITLE				
GRADING PLAN OVERALL				
<b>C-01.00</b>				



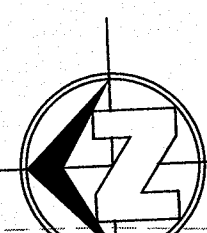
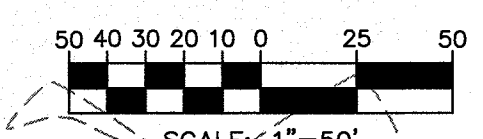
NO.	DATE	REVISION DESCRIPTION

BENCHMARK  
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 SCALE: AS INDICATED  
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 DESIGN BY: J/T  
 CHECKED BY: GH/VE  
 DATE: OCTOBER, 2018  
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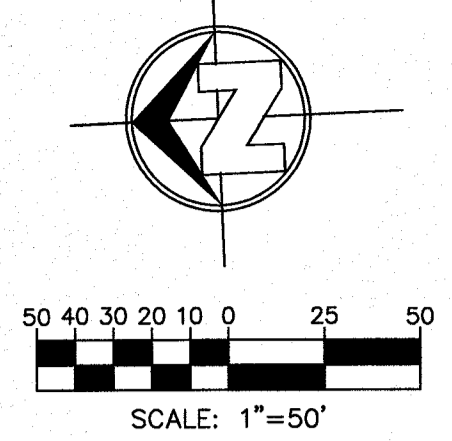
PROJECT NAME  
**DESERT SANDS**  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 EL PASO, TEXAS



SHEET TITLE  
**GRADING PLAN ENLARGED-1**  
**C-01.01**



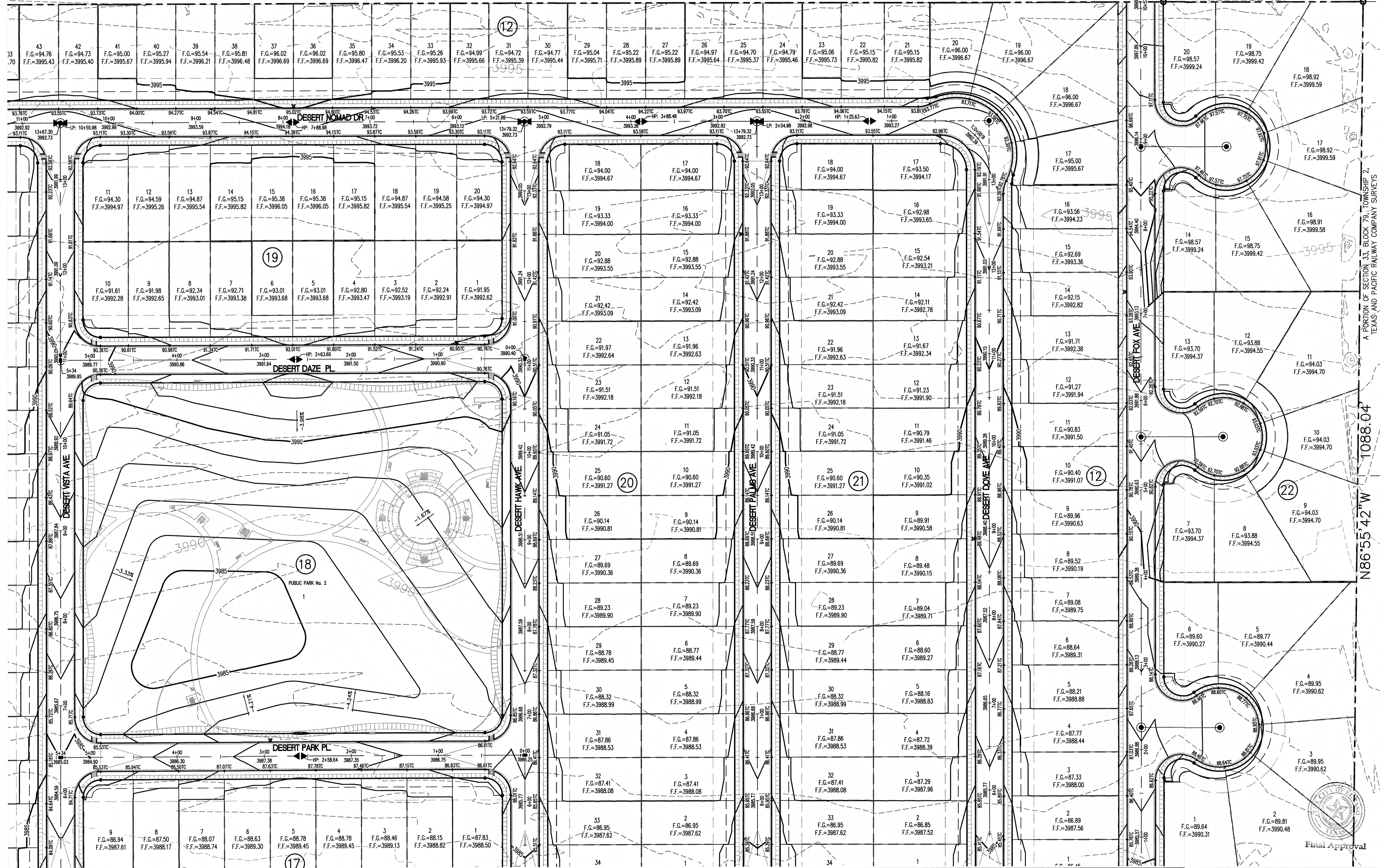
Final Approval



S02°21'45"W 2571.46'

A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
BOOK 2884, PAGE 1625

S2°25'52"W 229.34'



NO.	DATE	REVISION DESCRIPTION

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)
BENCHMARK
SCALE: AS INDICATED
JOB NO.: 09-1E-3911
DESIGN BY: J/T
CHECKED BY: G/H/E
DATE: OCTOBER 2018

PROJECT NAME DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	EL PASO, TEXAS
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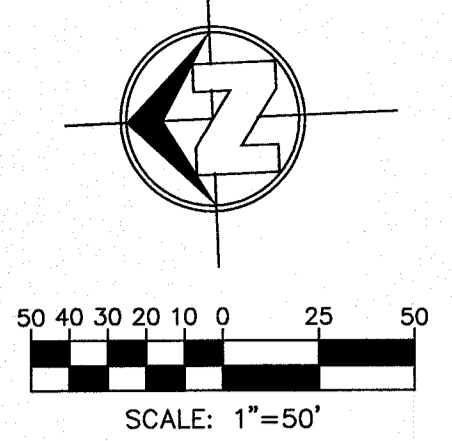
  

**SLI ENGINEERING, INC.**

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
8801 W. HAWTHORNE BL. SUITE 200  
DALLAS, TEXAS 75247  
PH: 972-984-4687  
FAX: 972-984-4688

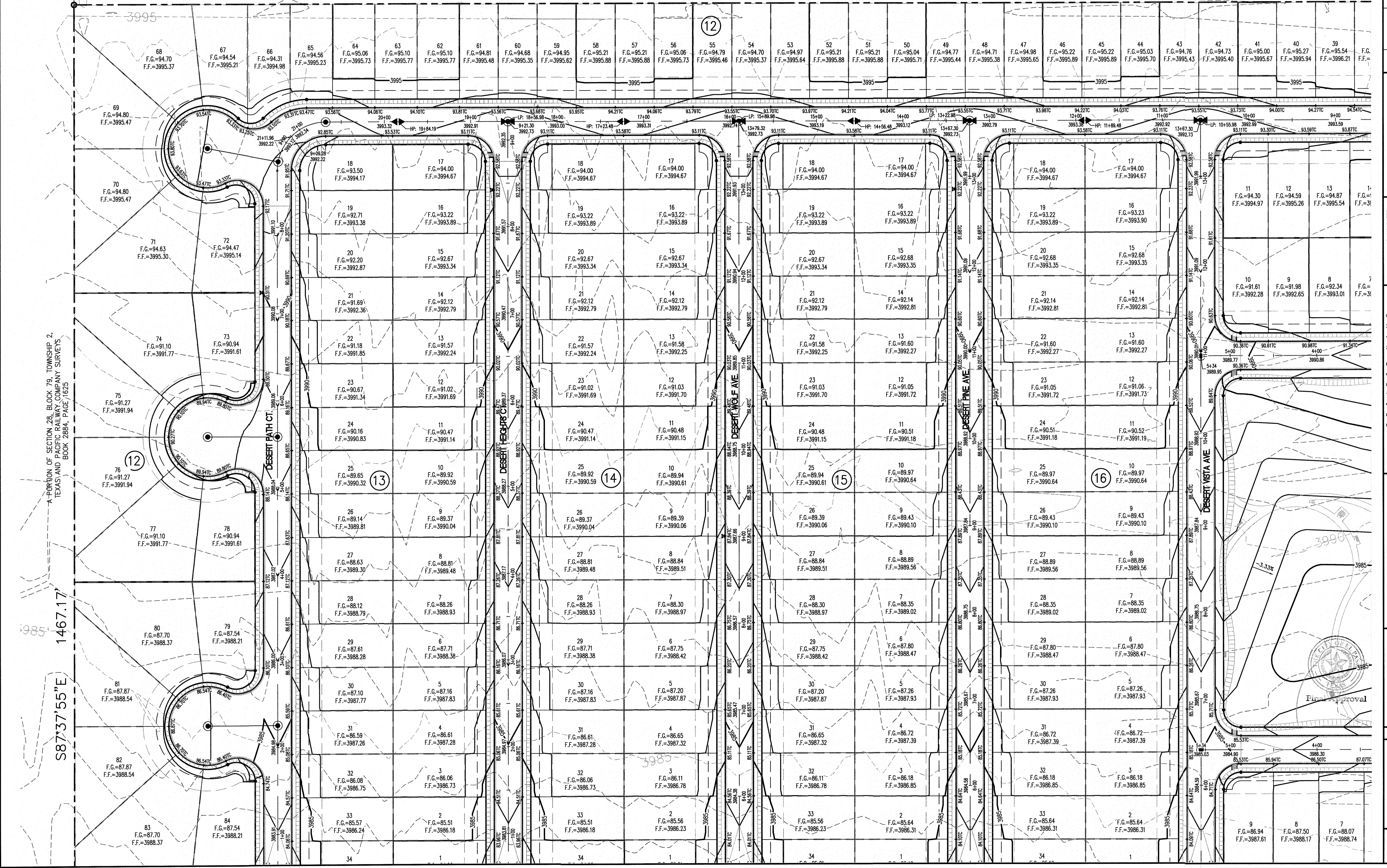
  

LICENSE No. F-1902
OCTOBER 24, 2018
SHEET TITLE
GRADING PLAN ENLARGED-2
<b>C-01.02</b>

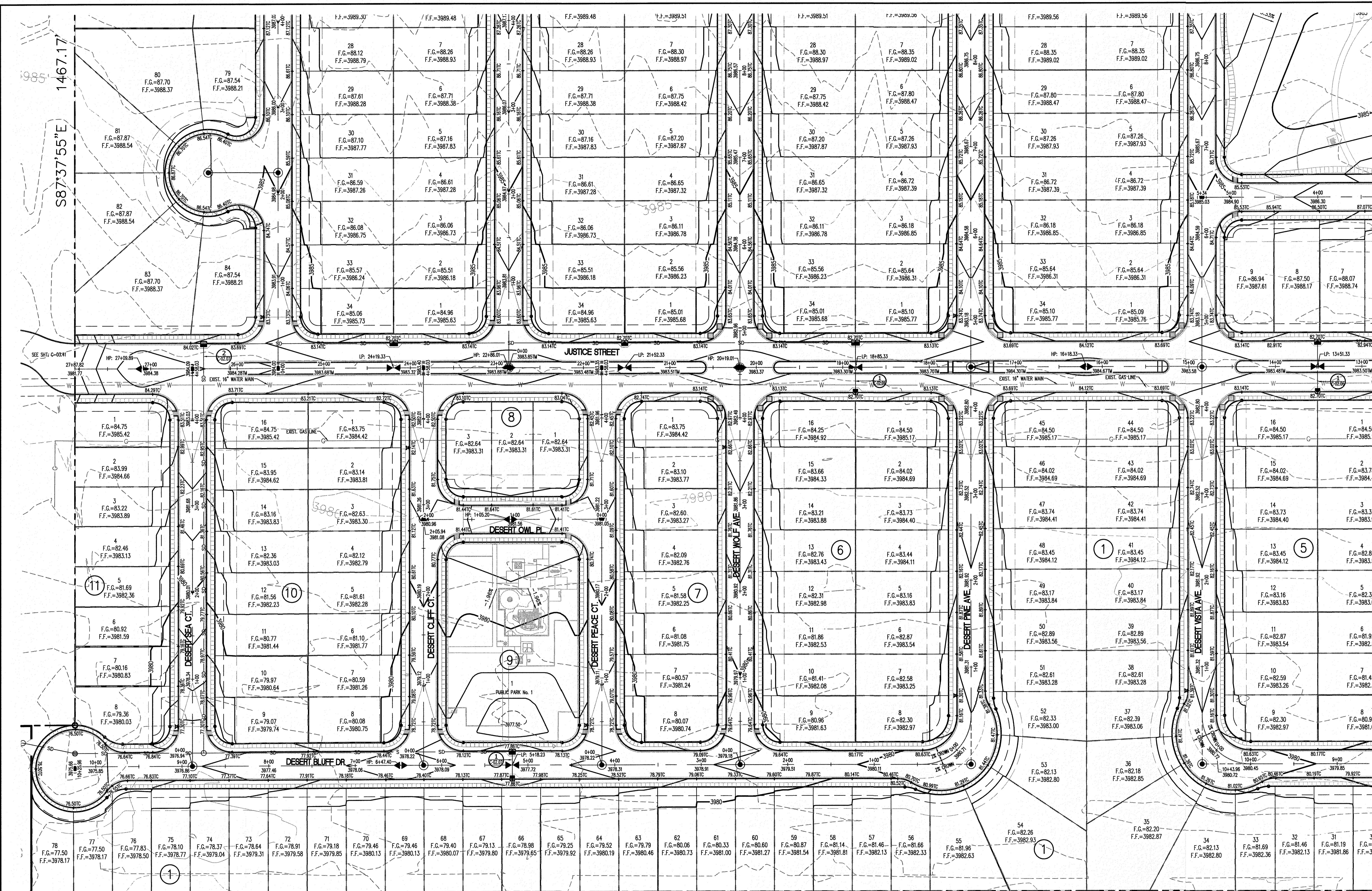


A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
BOOK 2884, PAGE 1625

S02°21'45"W 2571.46'

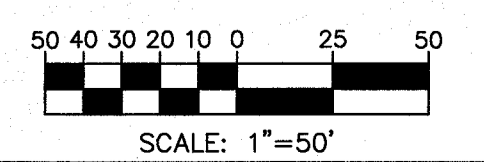
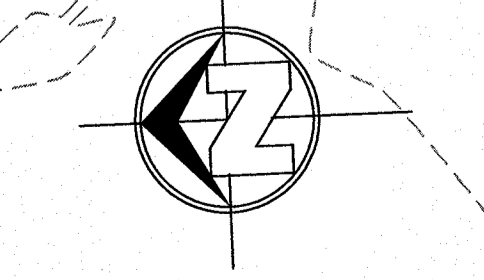


REVISION DESCRIPTION	NO.	DATE	BENCHMARK
PROJECT NAME <b>DESERT SANDS</b> PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	SCALE: AS INDICATED	DESIGN BY: J/JET	BENCH MARK SECTION CORNER FOR SECTIONS 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84 TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3539.38 (NAVD88 DATUM)
	JOB NO.: 09-16-3911	CHECKED BY: GH/EE	
	DATE: OCTOBER 2018	DATE: OCTOBER 2018	
	DESIGNER: J/JET	CHECKED BY: GH/EE	
EL PASO, TEXAS	EL PASO, TEXAS	EL PASO, TEXAS	EL PASO, TEXAS
LICENSE No. F-1902 			
OCTOBER 24, 2019 SHEET TITLE			
<b>GRADING PLAN ENLARGED-3</b>			
<b>C-01.03</b>			



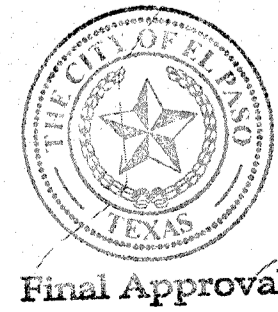
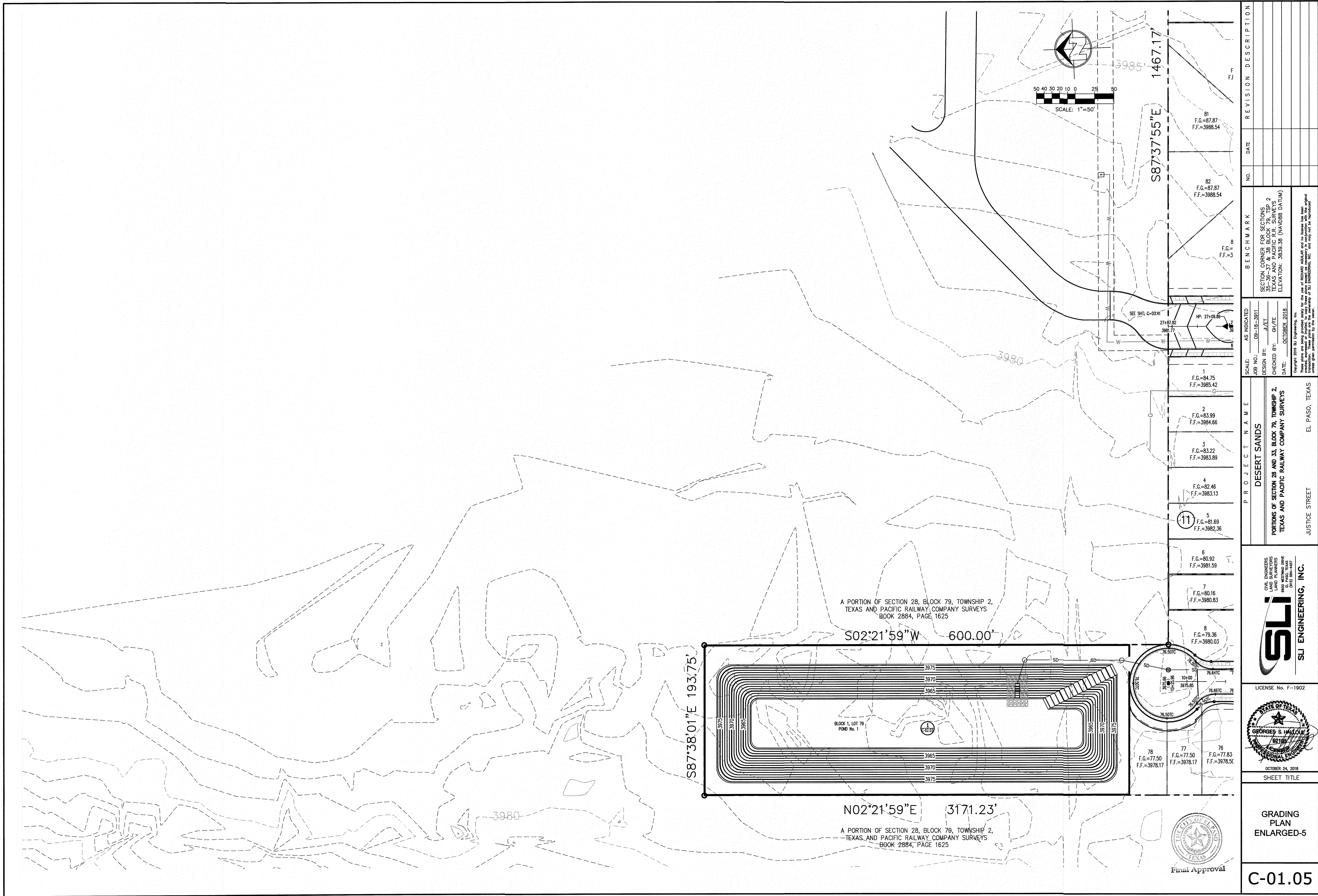
N02°21'59"E 3171.23'

A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS



<p>SECTION CORNER FOR SECTIONS TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3539.38 (NAVD88 DATUM)</p>	<p>BENCHMARK</p>	<p>NO.</p>	<p>DATE</p>	<p>REVISION DESCRIPTION</p>
<p>SCALE: AS INDICATED</p>	<p>PROJECT NAME</p>	<p>DESIGNER</p>	<p>CHECKED BY</p>	<p>DATE</p>
<p>JOB NO. BY: 09-16-3911</p>	<p>DESERT SANDS</p>	<p>J/T</p>	<p>G/H/E</p>	<p>OCTOBER, 2018</p>
<p>PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS</p>	<p>EL PASO, TEXAS</p>	<p>JUSTICE STREET</p>	<p>EL PASO, TEXAS</p>	<p>EL PASO, TEXAS</p>
<p>CIVIL ENGINEERS LAND SURVEYORS AND PLANNERS 600 W. WASHINGTON EL PASO, TEXAS 79901 (915) 381-1657</p>	<p><b>SLI</b> ENGINEERING, INC.</p>	<p>LICENSE No. F-1902</p>	<p>GEORGE S. HALL Professional Engineer No. 10181</p>	<p>OCTOBER 24, 2018</p>
<p>SHEET TITLE</p>	<p>GRADING PLAN ENLARGED-4</p>	<p>C-01.04</p>		





NO.	DATE	REVISION DESCRIPTION

SCALE:	AS INDICATED
JOB NO.:	09-16-3811
DESIGN BY:	J/JT
CHECKED BY:	GH/TE
DATE:	OCTOBER 2018

PROJECT NAME	BENCHMARK
DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2 TEXAS AND PACIFIC R.F. SURVEYS ELEVATION: 3539.35 (NAVD88 DATUM)

PROJECT NAME	EL PASO, TEXAS
JUSTICE STREET	EL PASO, TEXAS

CIVIL ENGINEERS LAND SURVEYORS AND PLANNERS REGISTERED IN THE STATE OF TEXAS EIT 384-1057
<b>SLI</b> SLI ENGINEERING, INC.

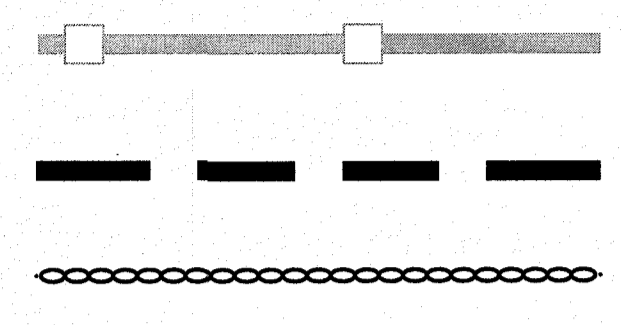
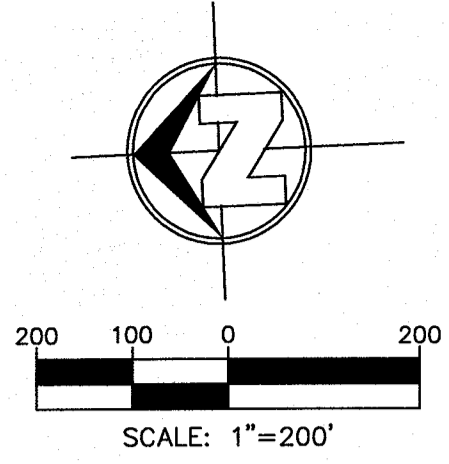
LICENSE No. F-1902
STATE OF TEXAS GEORGES S. HALL, CIVIL ENGINEER No. 52182
OCTOBER 24, 2018

SHEET TITLE
GRADING PLAN ENLARGED-5

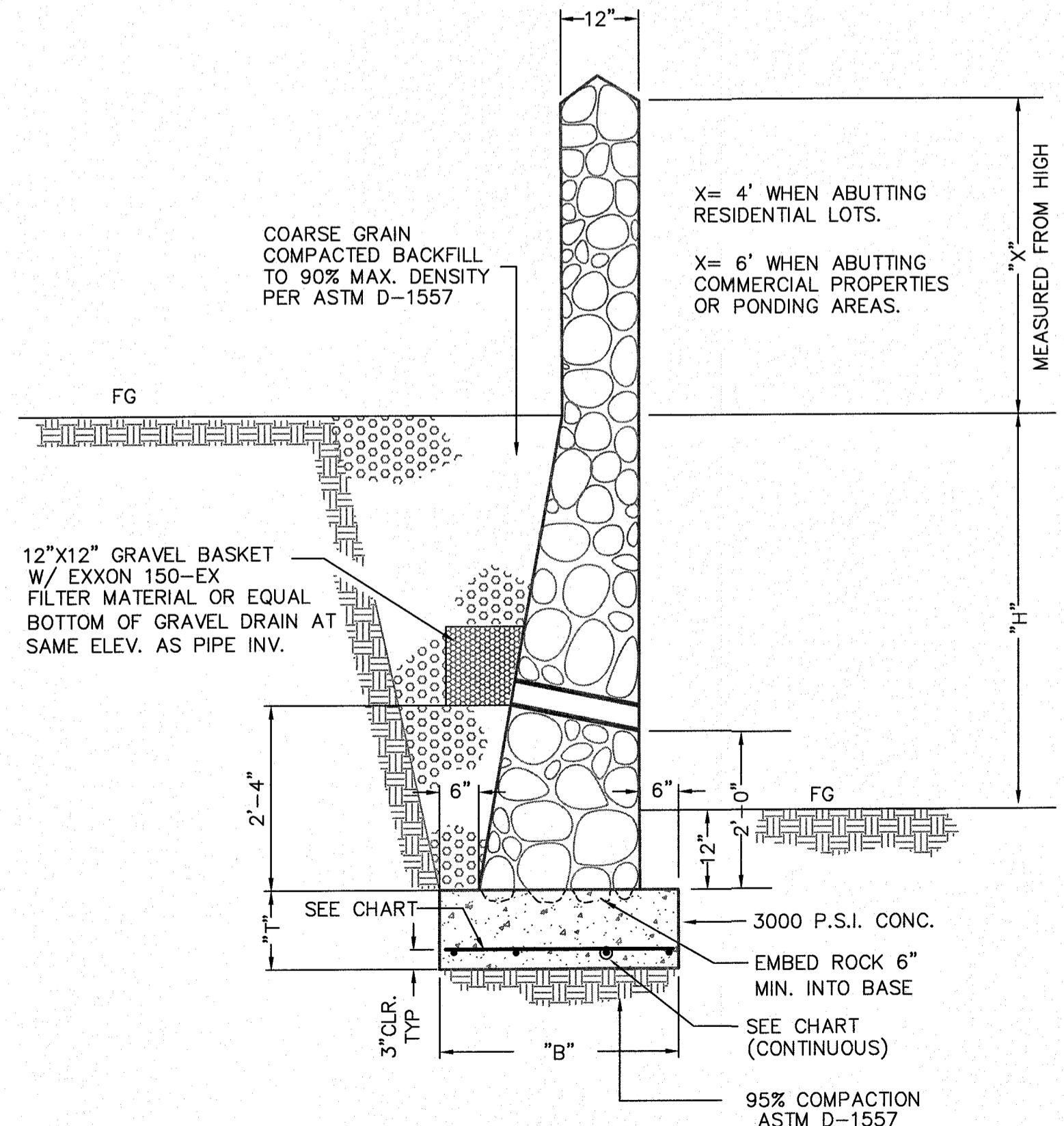
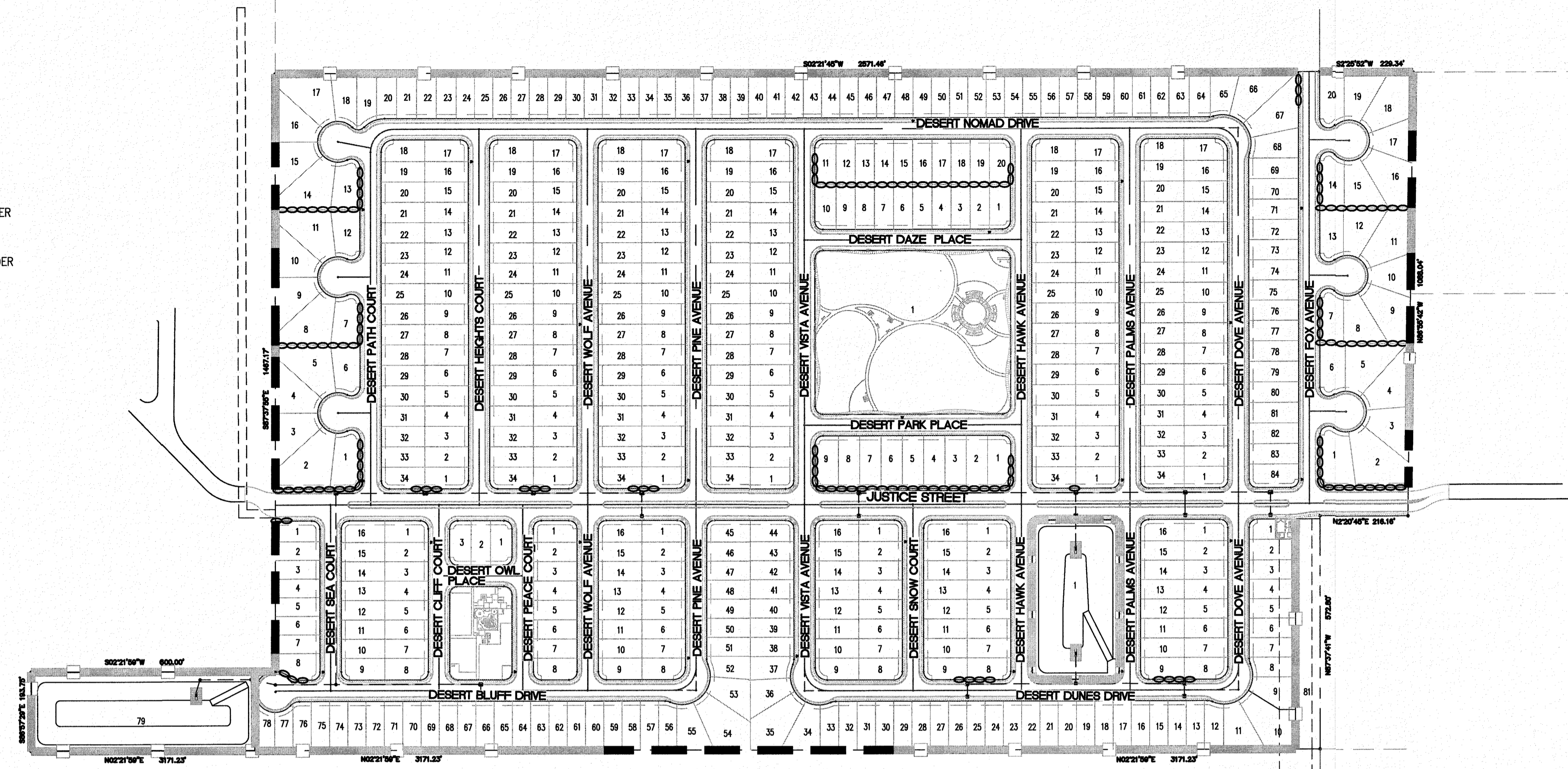
C-01.05
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STD. 6' ROCKWALL BY DEVELOPER  
SEE DETAIL THIS SHEET

6' RETAINING ROCKWALL BY DEVELOPER  
SEE DETAIL THIS SHEET

RETAINING ROCKWALL BY HOME BUILDER  
SEE DETAIL THIS SHEET



**RETAINING ROCKWALL**  
NO SCALE

WALL SCHEDULE			
"H"	"T"	"B"	REINFORCEMENT
3'-0"	12"	2'-1"	#4 @ 12" O.C.(BOTHWAYS)
4'-0"	12"	2'-8"	#4 @ 12" O.C.(BOTHWAYS)
5'-0"	12"	3'-6"	#4 @ 12" O.C.(BOTHWAYS)
6'-0"	12"	4'-3"	#4 @ 12" O.C.(BOTHWAYS)

THE BACKFILL FOR THE ROCKWALL SHALL BE SIMILAR TO THE EXISTING SOIL AND SHALL BE WELL COMPACTED AND FREE DRAINING (COARSE GRAIN TYPE)

**NOTES:**

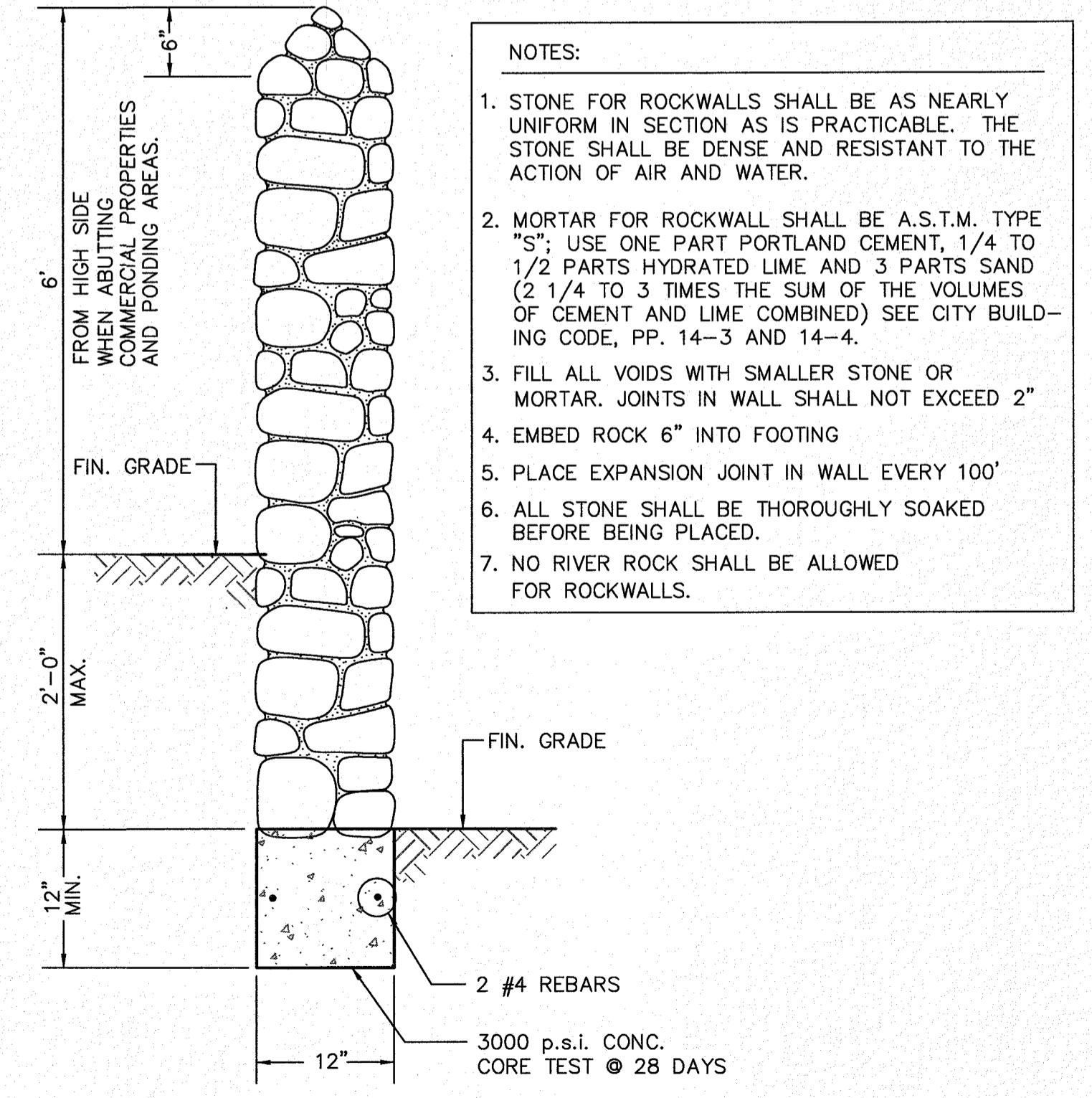
STONE FOR ROCKWALLS SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO THE ACTION OF AIR AND WATER.

MORTAR FOR ROCKWALL SHALL BE A.S.T.M. TYPE "S"; USE ONE PART PORTLAND CEMENT, 1/4 TO 1/2 PARTS HYDRATED LIME AND 3 PARTS SAND (2 1/4 TO 3 TIMES THE SUM OF THE VOLUMES OF CEMENT AND LIME COMBINED) SEE CITY BUILDING CODE, PP. 14-3 AND 14-4.

IF ROCKWALL IS FREQUENTLY EXPOSED TO WATER LIME SHALL NOT BE USED, AND THE PROPORTIONS SHALL BE 1 PART PORTLAND CEMENT AND 3 PARTS SAND.

FILL ALL VOIDS WITH SMALLER STONE AND MORTAR. ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.

NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.



**6' ROCKWALL DETAIL**  
NO SCALE

- NOTES:**
1. STONE FOR ROCKWALLS SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO THE ACTION OF AIR AND WATER.
  2. MORTAR FOR ROCKWALL SHALL BE A.S.T.M. TYPE "S"; USE ONE PART PORTLAND CEMENT, 1/4 TO 1/2 PARTS HYDRATED LIME AND 3 PARTS SAND (2 1/4 TO 3 TIMES THE SUM OF THE VOLUMES OF CEMENT AND LIME COMBINED) SEE CITY BUILDING CODE, PP. 14-3 AND 14-4.
  3. FILL ALL VOIDS WITH SMALLER STONE OR MORTAR. JOINTS IN WALL SHALL NOT EXCEED 2"
  4. EMBED ROCK 6" INTO FOOTING
  5. PLACE EXPANSION JOINT IN WALL EVERY 100'
  6. ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.
  7. NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.

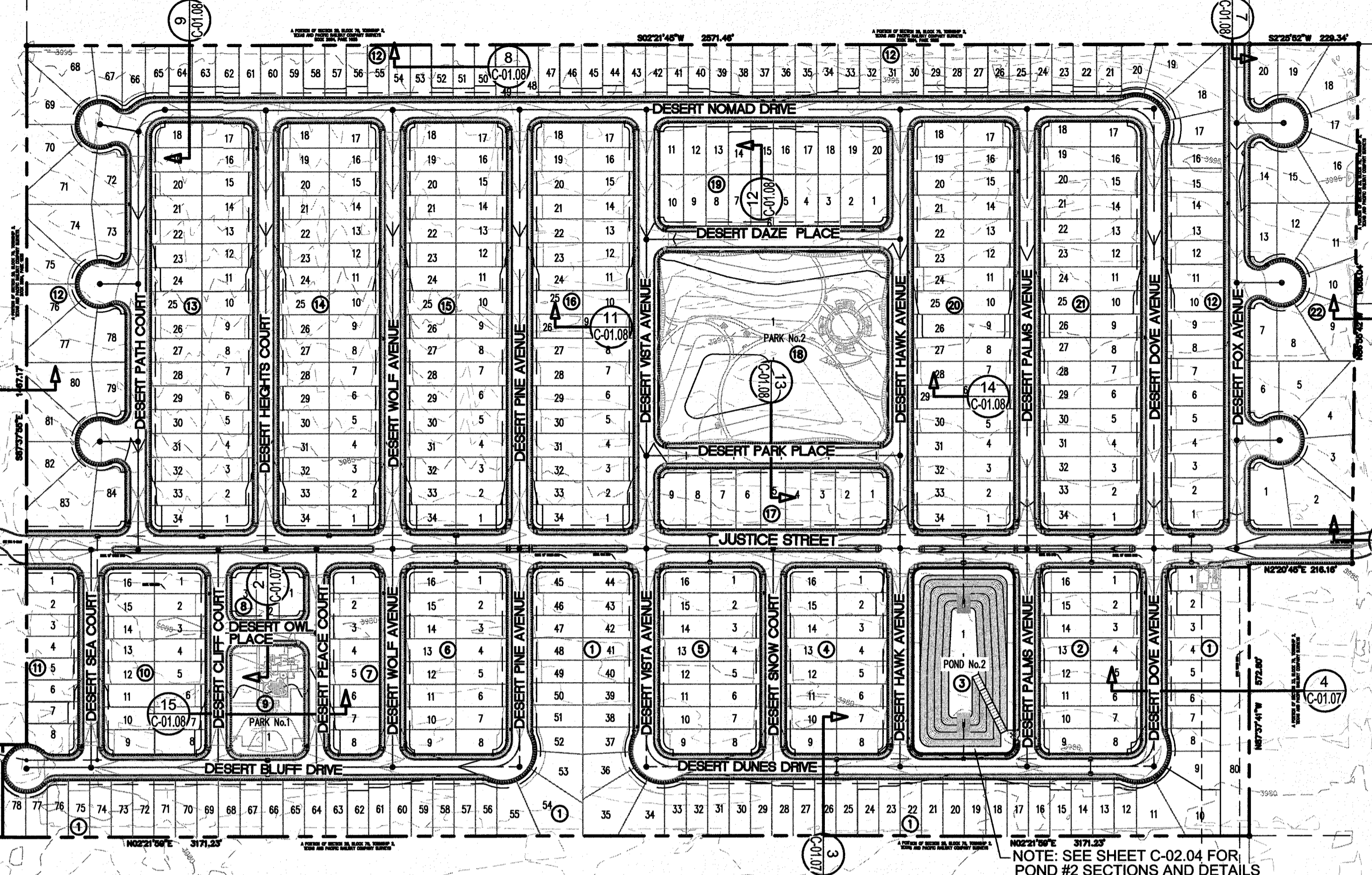
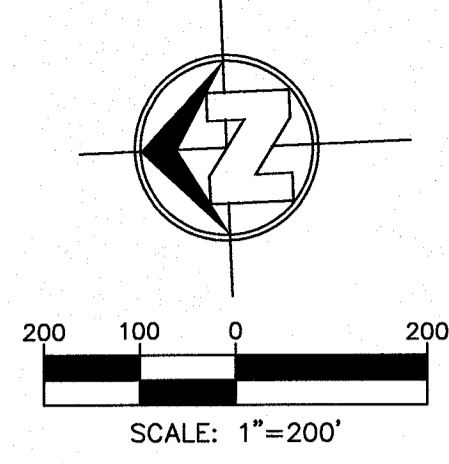
SCALE: AS INDICATED	BENCHMARK	REVISION DESCRIPTION
JOB NO.: 09-1E-3911	SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3539.38 (NAVD88 DATUM)	DATE
DESIGN BY: J/JET		NO.
CHECKED BY: GH/EE		
DATE: OCTOBER 2018		
<p>PROJECT NAME: DESERT SANDS</p> <p>PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS</p> <p>EL PASO, TEXAS</p>		
<p>CIVIL ENGINEERS LAND PLANNERS 6600 WESTING DRIVE EL PASO, TEXAS (79915)</p> <p><b>SLI ENGINEERING, INC.</b></p> <p>LICENSE No. F-1902</p> <p>STATE OF TEXAS</p> <p>GEORGES S. HALL</p> <p>OCTOBER 24, 2018</p> <p>SHEET TITLE</p>		
<p>ROCKWALL CONSTRUCTION</p> <p>C-01.06</p>		

**811**

Know what's below.  
Call before you dig.  
Call 811 TWO Working days Before you dig  
It's Free, It's Easy, and  
IT'S THE LAW!

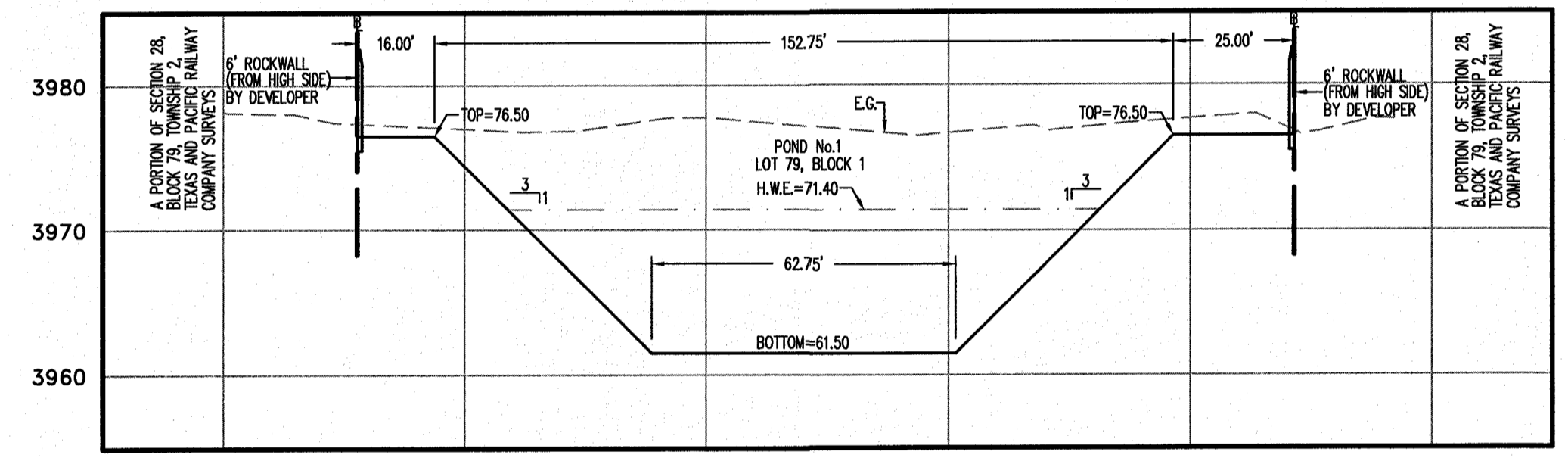


Final Approval

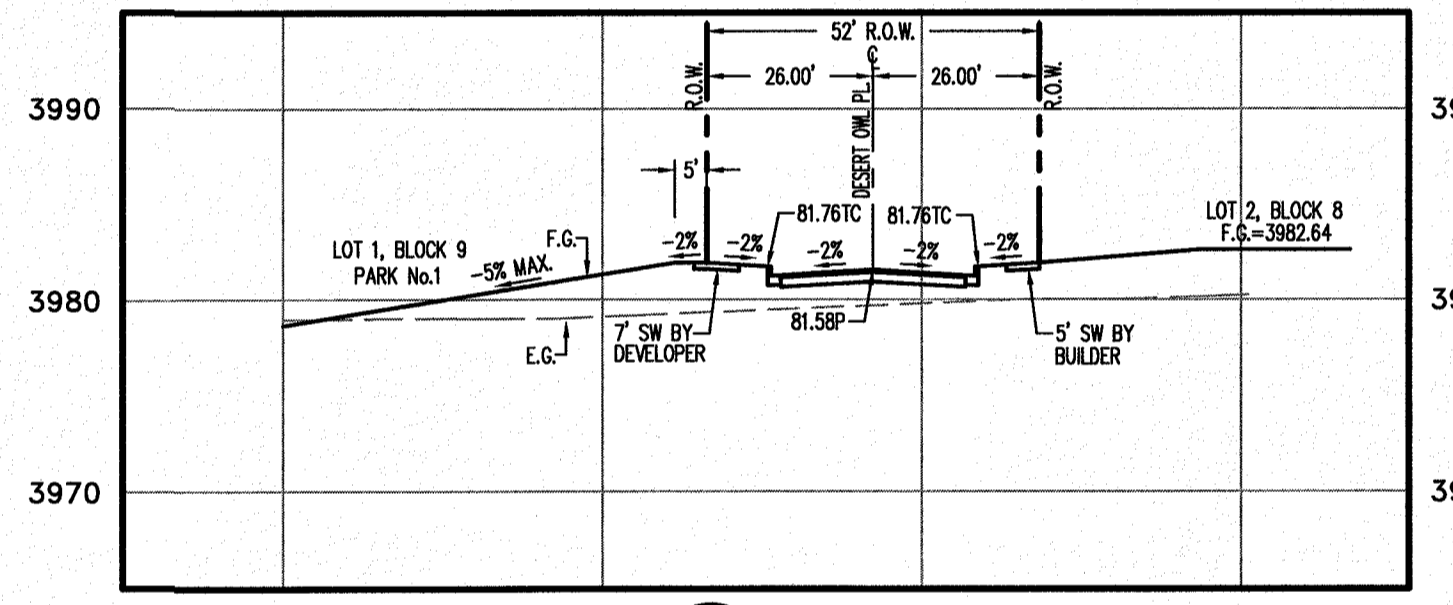


NOTE: SEE SHEET C-02.03 FOR POND #1 SECTIONS AND DETAILS

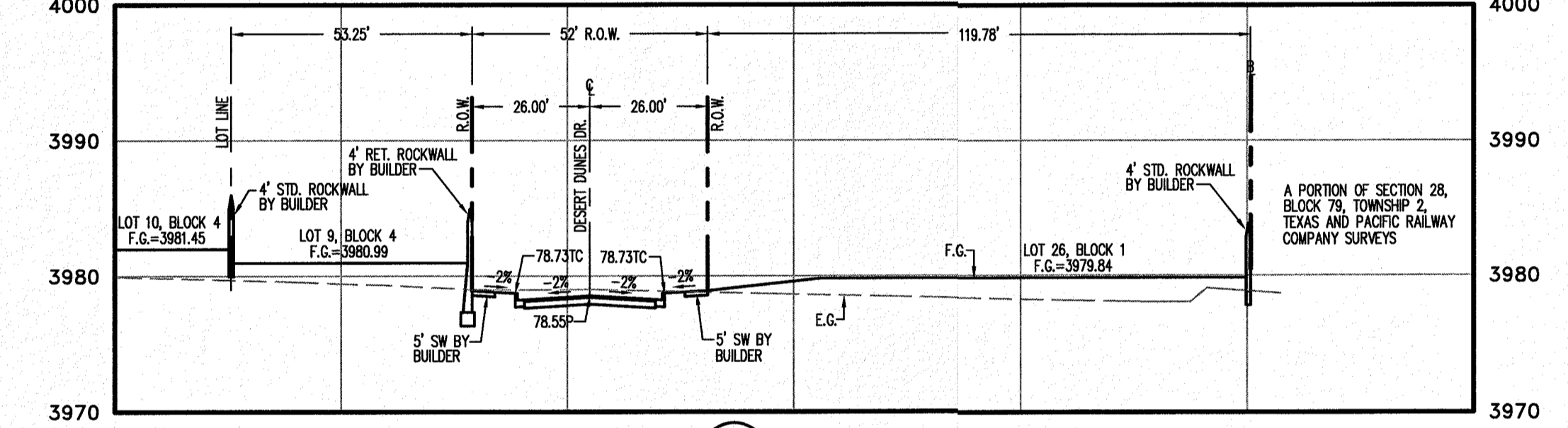
NOTE: SEE SHEET C-02.04 FOR POND #2 SECTIONS AND DETAILS



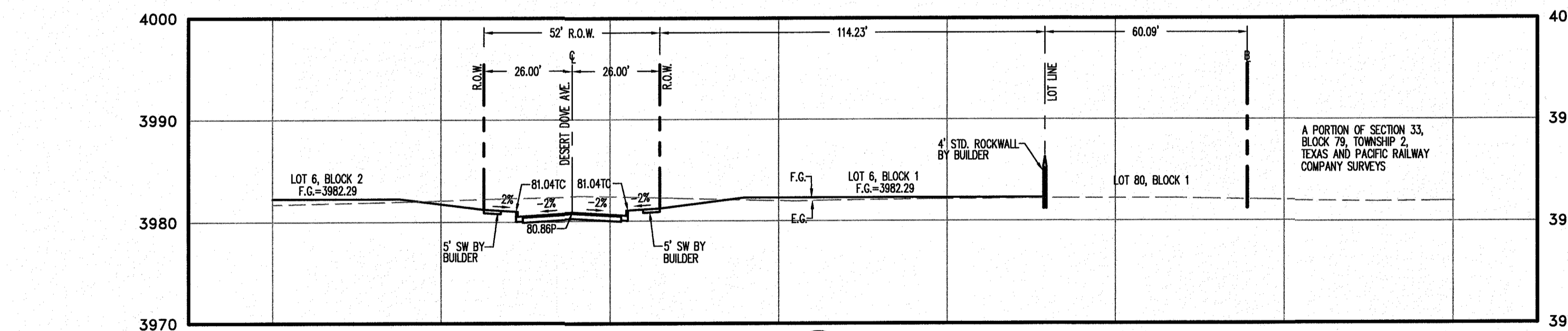
1 SECTION  
C-01.07 SCALE: 1"=30' HORL.  
1"=10' VERT.



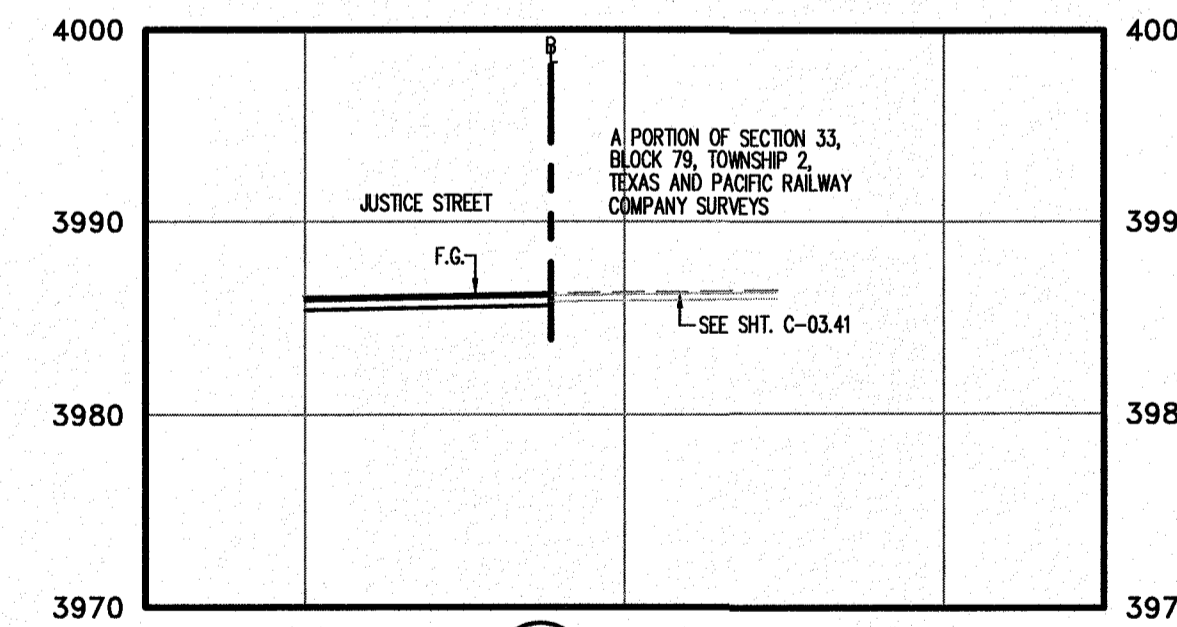
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1"=10' VERT.



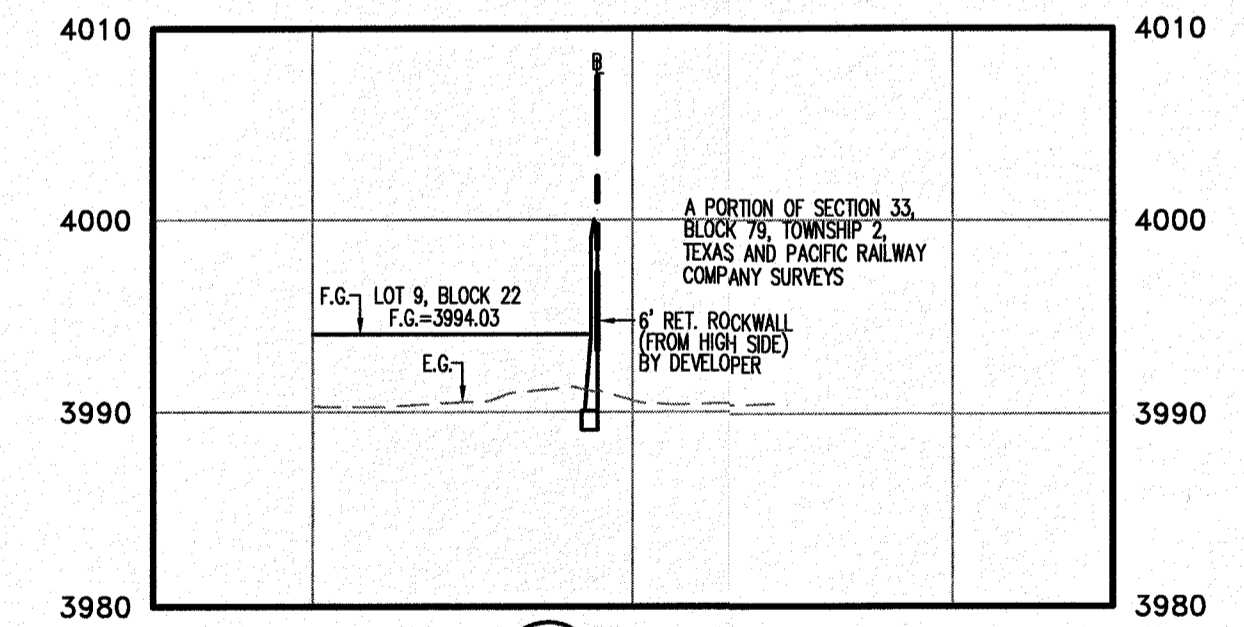
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1"=10' VERT.



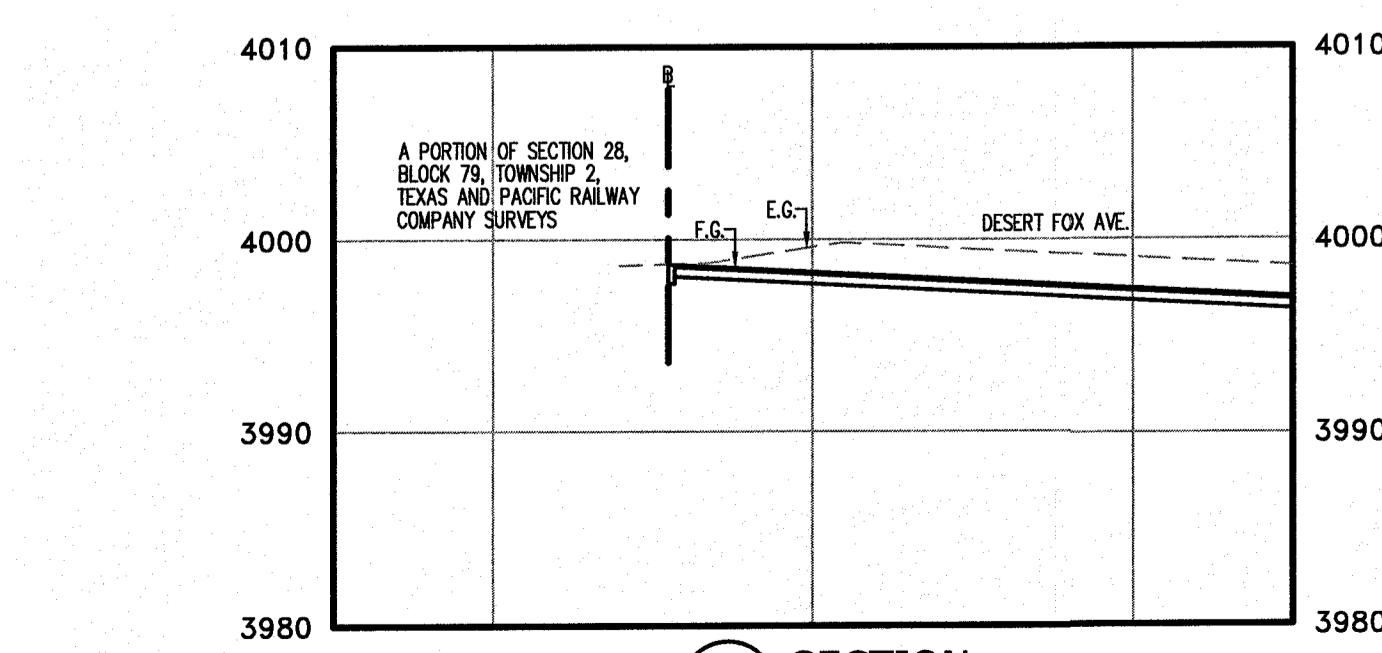
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1"=10' VERT.



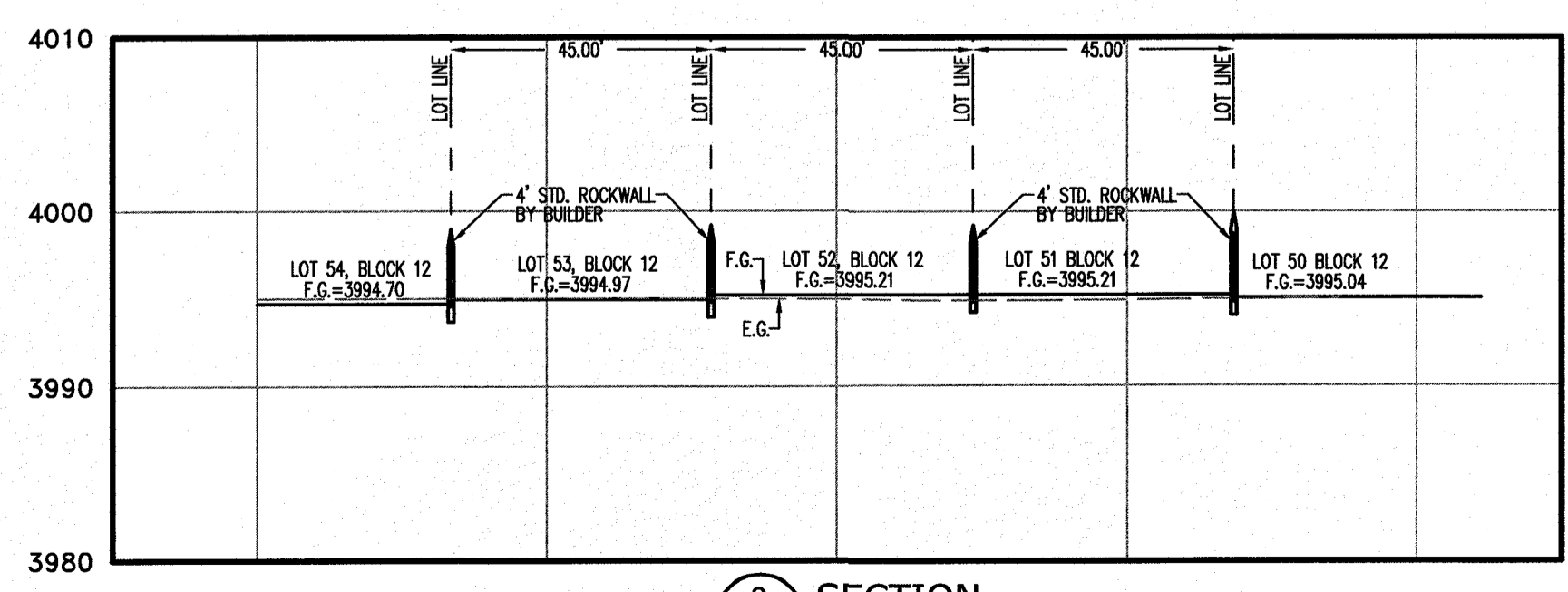
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1"=10' VERT.



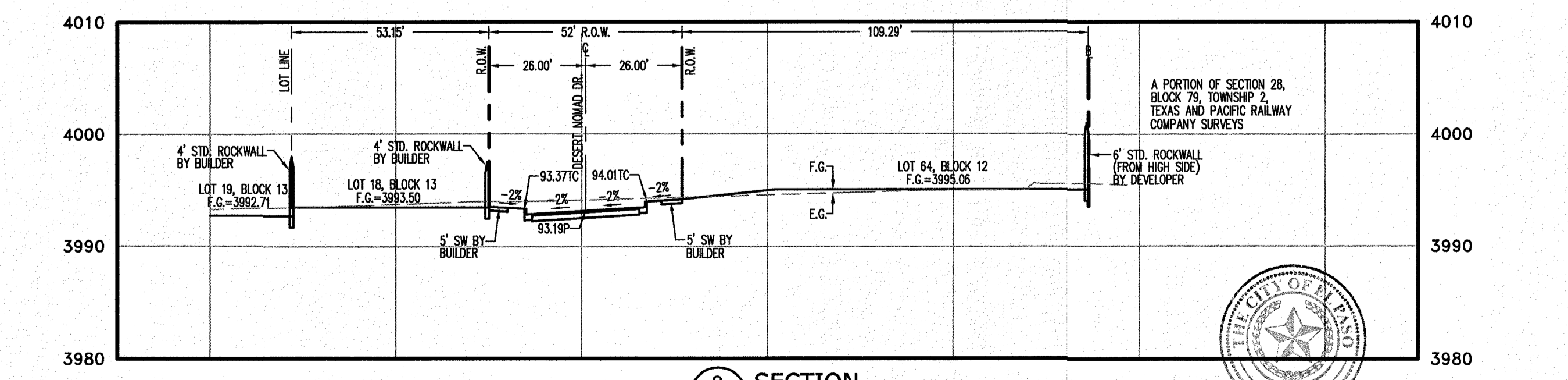
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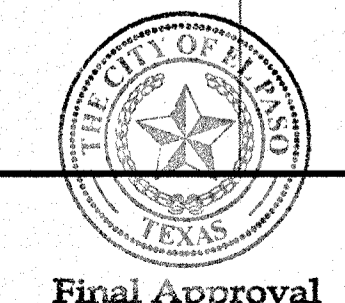
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1"=10' VERT.



8 SECTION  
C-01.07 SCALE: 1"=30' HORL.  
1"=10' VERT.



9 SECTION  
C-01.07 SCALE: 1"=30' HORL.  
1"=10' VERT.



NO.	DATE	REVISION DESCRIPTION

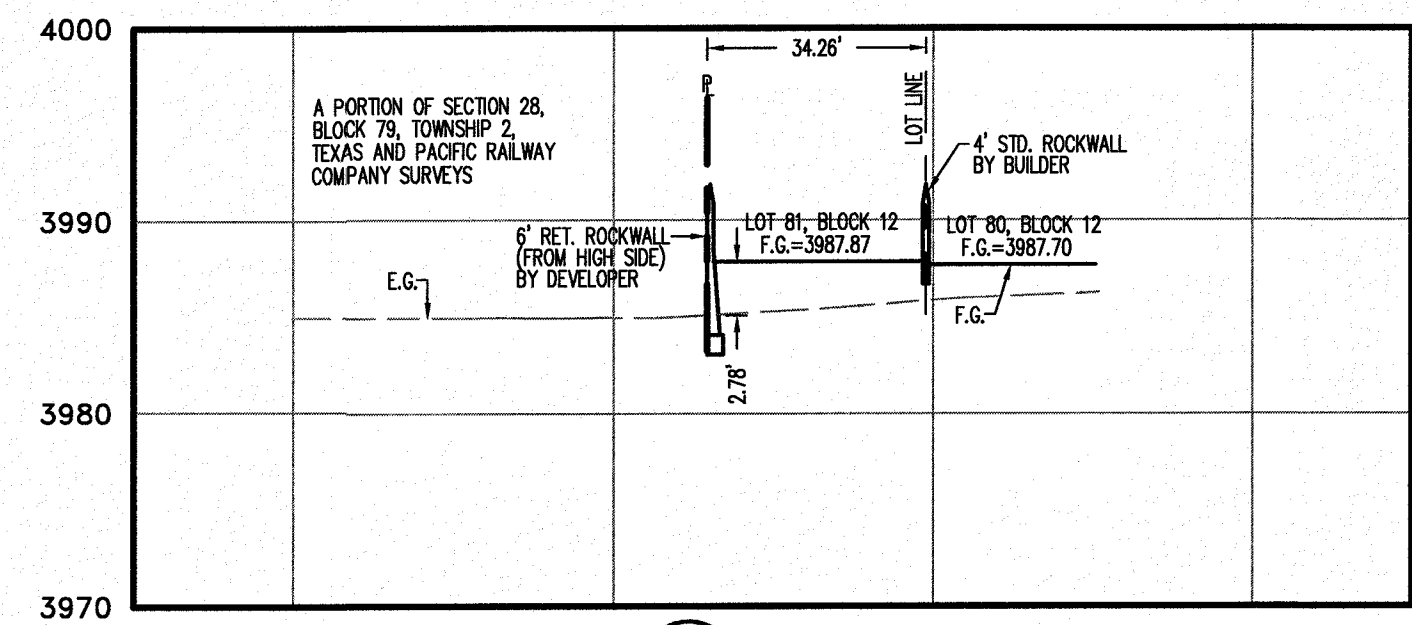
SCALE: AS INDICATED	JOB NO.: 09-16-3911
DESIGN BY: J/JT	CHECKED BY: GH/TE
DATE: OCTOBER, 2018	

PROJECT NAME: DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
EL PASO, TEXAS

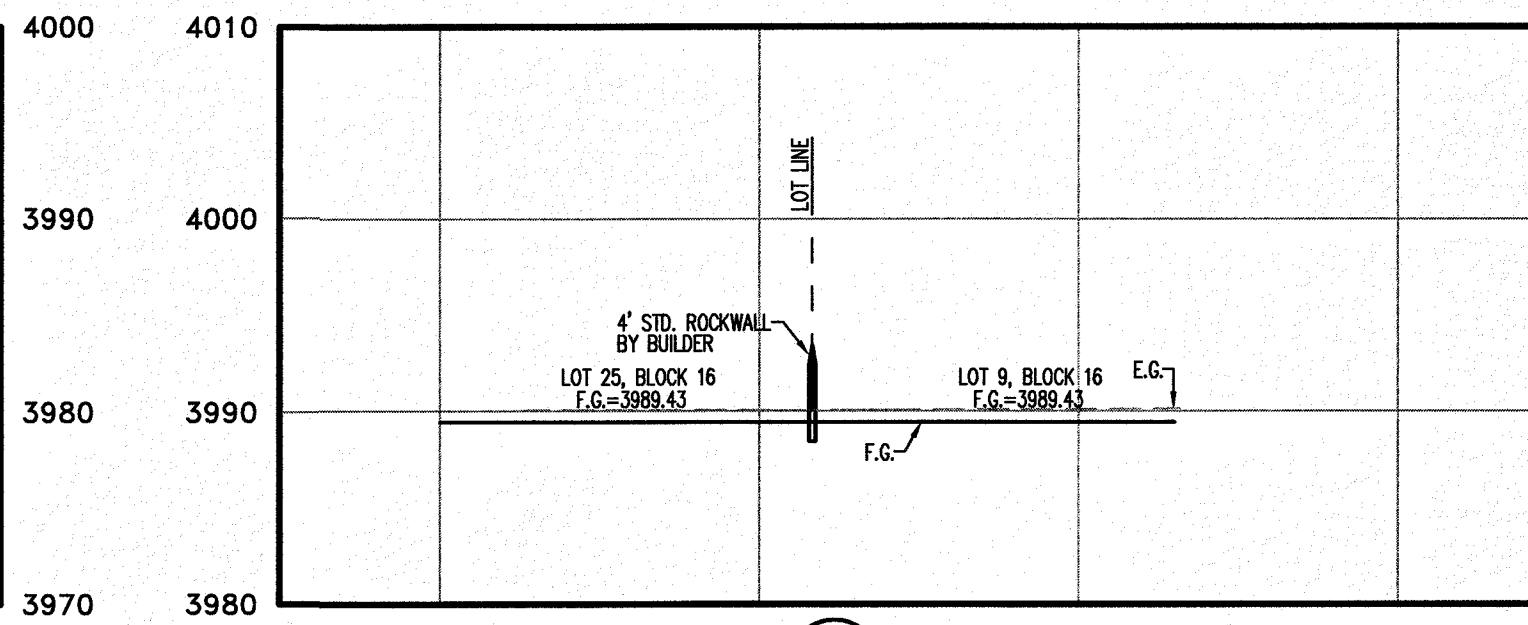
LICENSE No. F-1902  
SLI ENGINEERING, INC.  
CIVIL ENGINEERS  
LAND SURVEYORS  
AND PLANNERS  
9090 EL PASO, TEXAS  
PHONE 972-384-1407  
FAX 972-384-1407

OCTOBER 24, 2018  
SHEET TITLE: GRADING SECTIONS-1

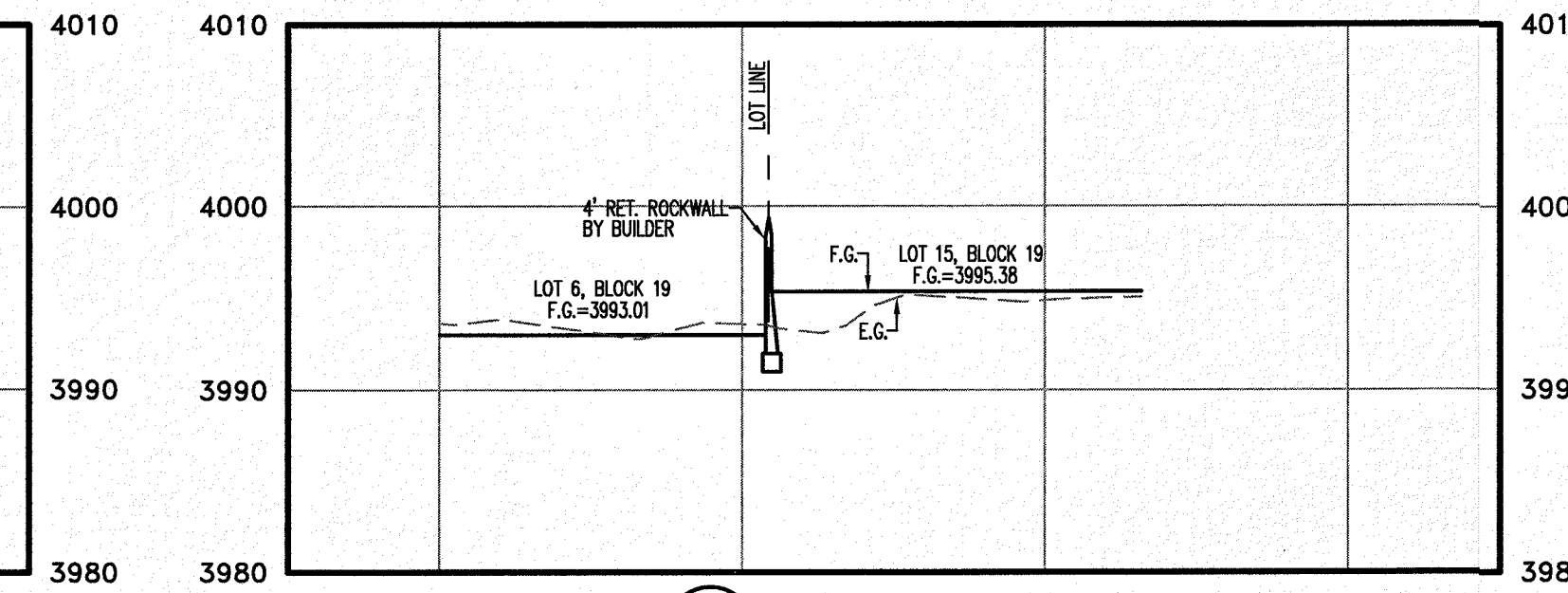
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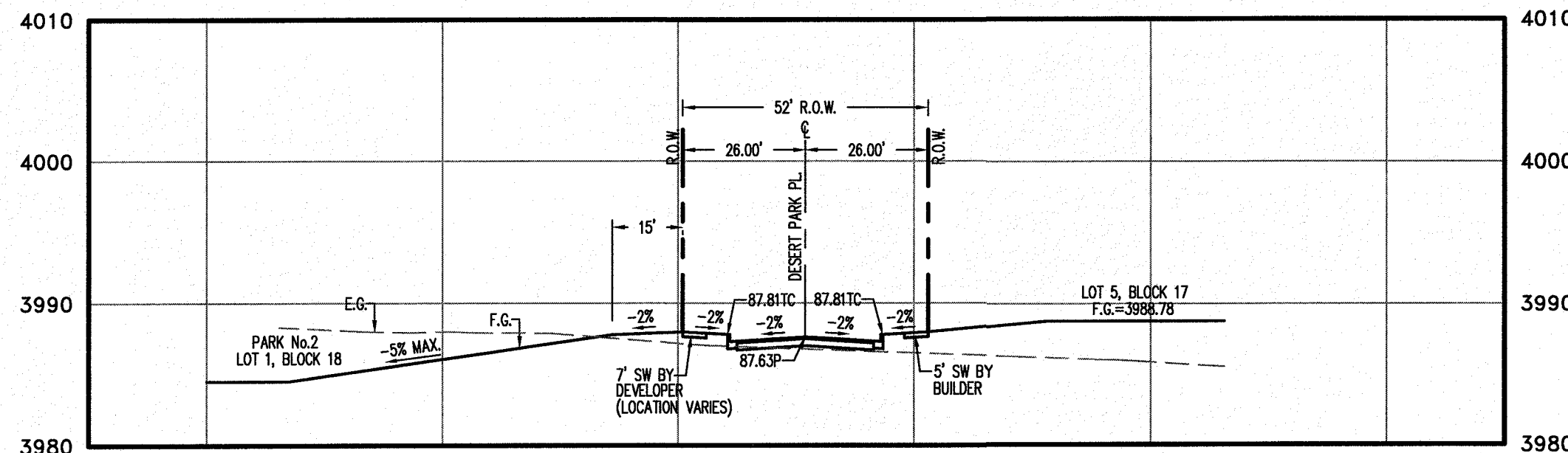
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1"=10' VERT.



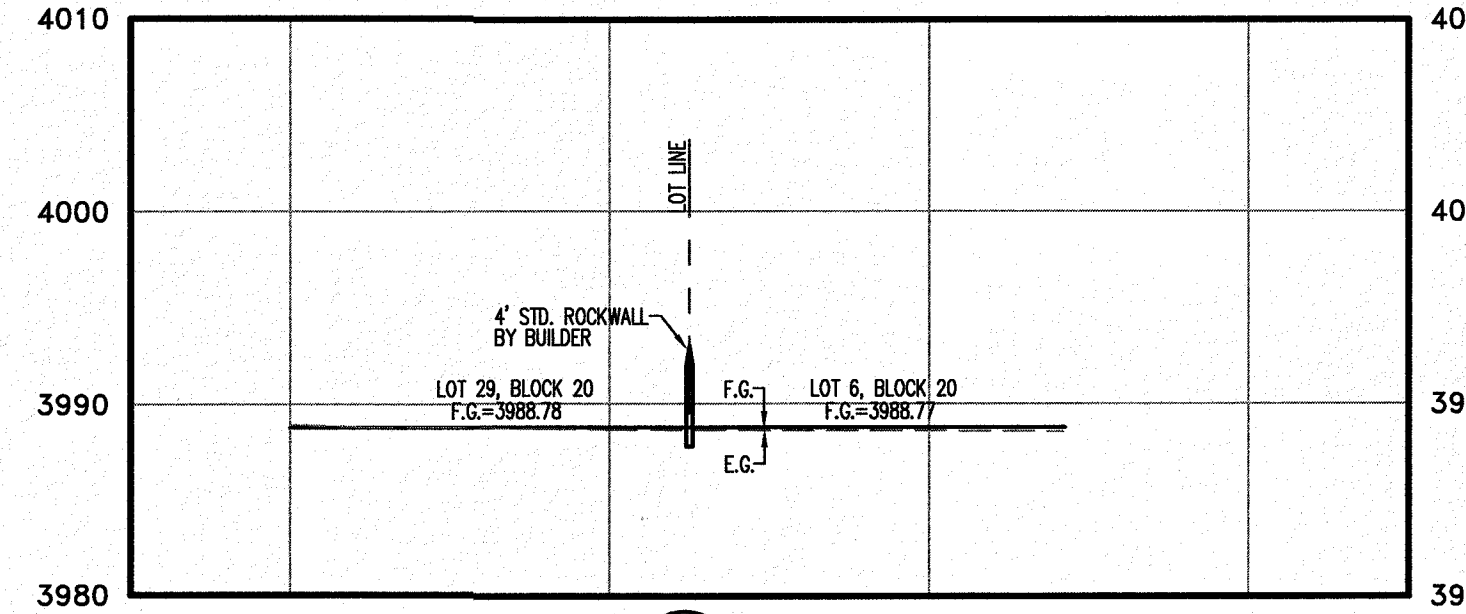
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1"=10' VERT.



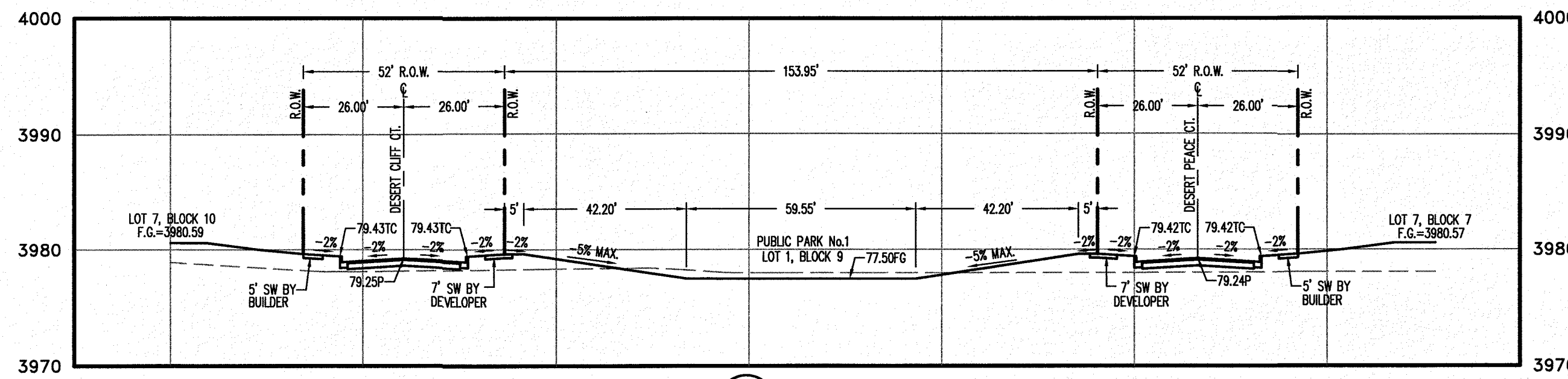
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1"=10' VERT.



13 SECTION  
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1"=10' VERT.



14 SECTION  
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1"=10' VERT.



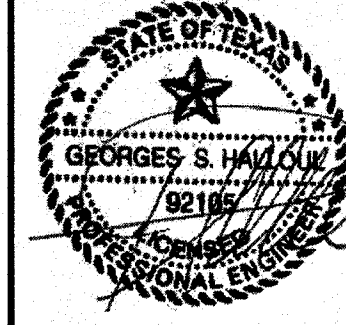
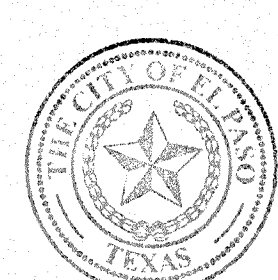
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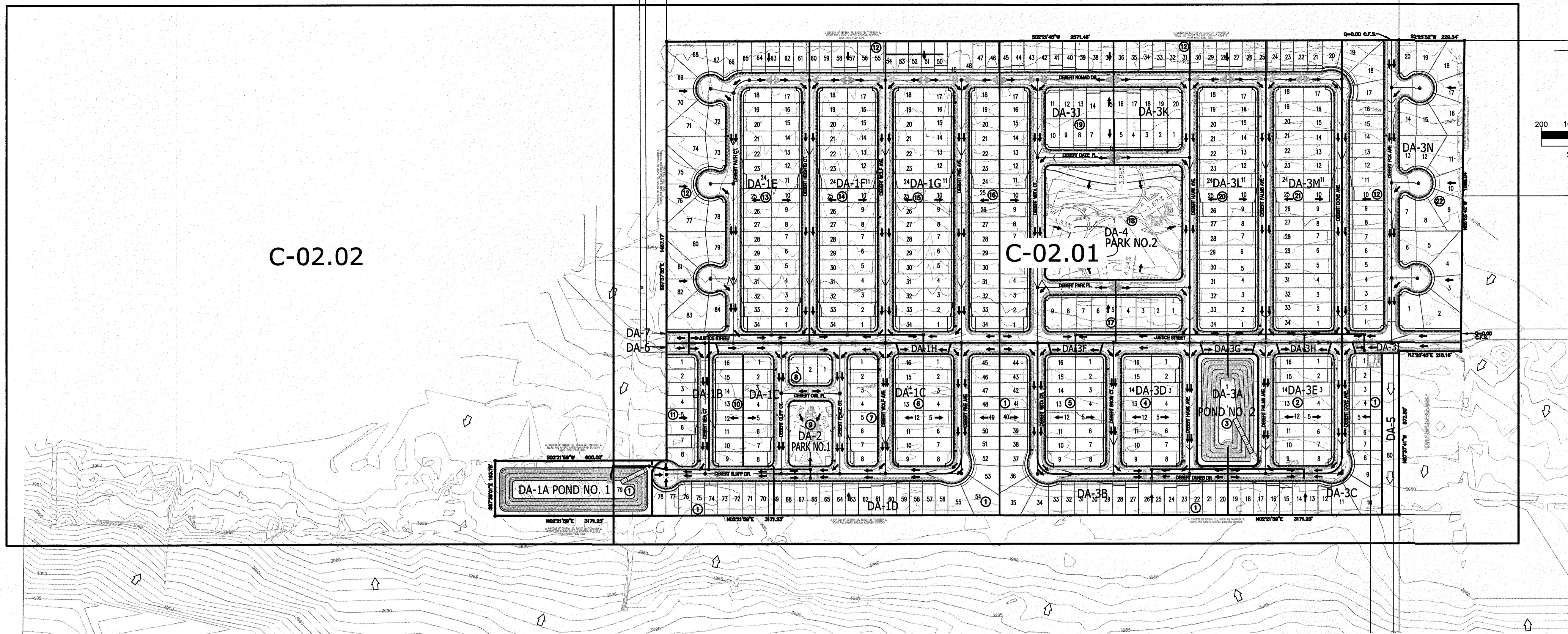
NO.	DATE	REVISION DESCRIPTION

BENCHMARK: SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD83 DATUM)  
 SCALE: AS INDICATED  
 JOB NO.: 09-16-3911  
 DESIGN BY: J/E/T  
 CHECKED BY: G/H/E  
 DATE: OCTOBER 2018  
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PROJECT NAME: DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET  
 EL PASO, TEXAS

CIVIL ENGINEERS, SURVEYORS AND PLANNERS  
 4600 WESTING DRIVE  
 DALLAS, TEXAS 75247  
**SLI**  
 SLI ENGINEERING, INC.

LICENSE No. F-1902  
  
 OCTOBER 24, 2018  
 SHEET TITLE: GRADING SECTIONS-2  
 Final Approval:   
**C-01.08**



C-02.02

C-02.01

**DRAINAGE CALCULATIONS BASED ON A 100 YR. STORM FREQUENCY FOR ESTIMATING RUNOFF FORMULA Q=CIA**

POND No.	DRAINAGE AREA (ACRES)	TC (MIN)	I (IN/HR)	C* (AVG)	Q (CFS)	
No. 1	DA-1A(POND)	02.46	10.00	05.36	00.40	05.27
	DA-1B	04.24	12.00	05.01	00.60	12.74
	DA-1C	07.09	12.00	05.01	00.60	21.31
	DA-1D	04.07	12.00	05.01	00.60	12.23
	DA-1E	12.13	12.00	05.01	00.60	36.46
	DA-1F	06.48	12.00	05.01	00.60	19.48
	DA-1G	09.72	12.00	05.01	00.60	29.22
	DA-1H	00.16	10.00	05.36	00.60	00.51
	TOTAL CONTRIBUTING TO POND No. 1 = 46.35 ACRES					
ON-SITE No. 3	DA-2 (PARK)	00.81	10.00	05.36	00.40	01.74
	DA-3A(POND)	01.93	10.00	05.36	00.60	06.21
	DA-3B	04.10	12.00	05.01	00.60	12.32
	DA-3C	03.21	12.00	05.01	00.60	09.65
	DA-3D	05.79	12.00	05.01	00.60	17.40
	DA-3E	02.99	12.00	05.01	00.60	08.99
	DA-3F	00.16	10.00	05.36	00.60	00.51
	DA-3G	00.16	10.00	05.36	00.60	00.51
	DA-3H	00.16	10.00	05.36	00.60	00.51
	DA-3I	00.30	10.00	05.36	00.60	00.96
	DA-3J	07.54	12.00	05.01	00.60	22.66
	DA-3K	04.51	12.00	05.01	00.60	13.56
DA-3L	06.48	12.00	05.01	00.60	19.48	
DA-3M	06.48	12.00	05.01	00.60	19.48	
DA-3N	10.28	12.00	05.01	00.60	30.90	
TOTAL CONTRIBUTING TO POND No. 2 = 54.09 ACRES						
ON-SITE	DA-4 (PARK)	04.44	10.00	05.36	00.40	09.52
OFF-SITE	DA-5	00.78	10.00	05.36	00.40	01.67
OFF-SITE	DA-6	00.05	10.00	05.36	00.95	00.25
OFF-SITE	DA-7	00.05	10.00	05.36	00.95	00.25

**PONDING DATA FORMULA =  $Q_t = \text{ARC}/12 + (A \times 0.012)$  100 YRS. STORM FREQUENCY**

POND DESIGNATION	"A" (AREA IN AC.)	"R"	"C"	REQUIRED VOLUME (AC-FT) W/OUT SILT	REQUIRED VOLUME (AC-FT) W/ SILT	HIGH WATER ELEV.	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.	FREEBOARD
POND NO. 1	46.35	4"/3 HRS.	0.59	09.11	09.67	3971.40	17.27	3961.50	3976.50	05.10'
POND NO. 2	54.09	4"/3 HRS.	0.59	10.64	11.29	3976.35	11.95	3960.00	3980.00	03.65'
PARK NO. 1	00.81	4"/3 HRS.	0.40	00.11	00.12	3977.95	00.13	3977.00	3978.00	00.05'
PARK NO. 2	04.44	4"/3 HRS.	0.40	00.59	00.64	3984.95	01.85	3984.50	3985.70	00.75'

\* WEIGHED "C" VALUES

**EROSION CONTROL:**

- WIND EROSION CONTROL: WATERING DURING AND AFTER COMPLETION OF SITE GRADING, THE PROJECT AREA SHALL BE COMPLETELY WATERED AS NEEDED TO CONTROL WIND EROSION OR AS DIRECTED BY THE CITY ENGINEER.
- THE CONTRACTOR SHALL CLEAN UP ANY DIRT OR DEBRIS THAT IS SPILLED ON THE EXISTING PUBLIC ROADWAY AS A RESULT OF THIS CONSTRUCTION PROJECT. CLEAN UP IS TO BE DONE ON A REGULAR BASIS OR AS DIRECTED BY THE CITY ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SLOPES IN GOOD CONDITION AND PROTECTING THEM FROM EROSION UNTIL THE FINAL LANDSCAPING ELEMENTS ARE IN PLACE.

**FLOOD ZONE:**

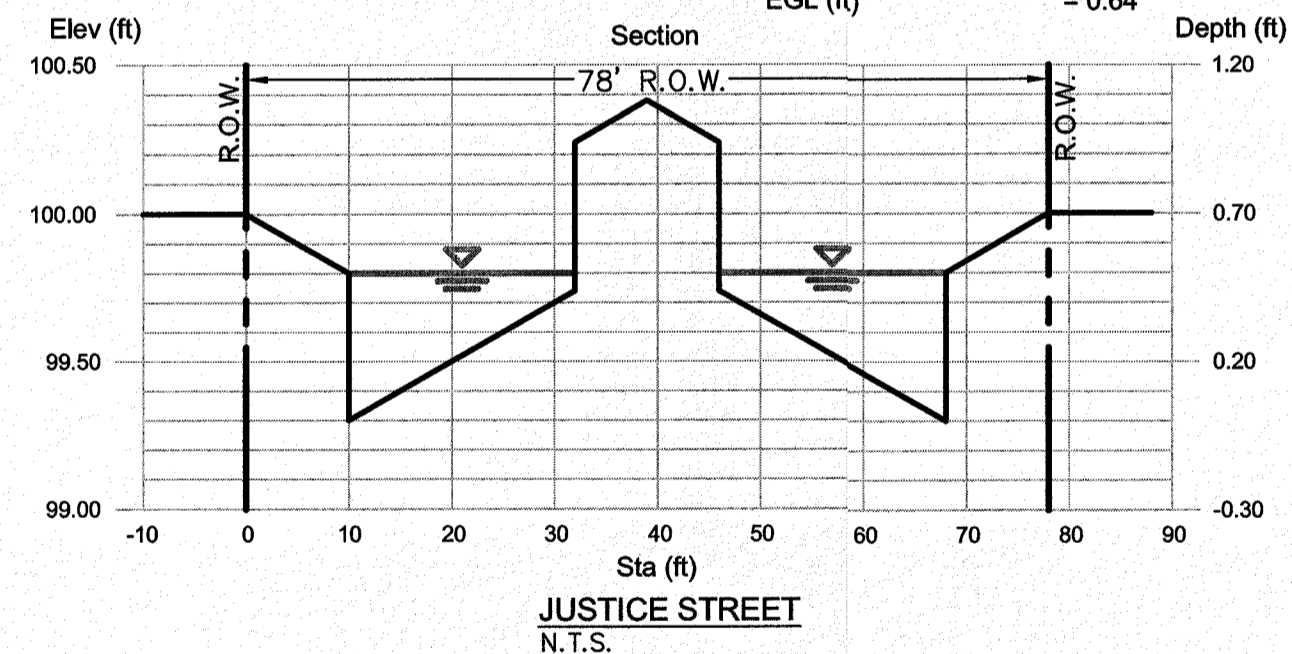
THIS SUBDIVISION LIES WITHIN ZONES "X" (AREAS OF MINIMAL FLOODING) AS DESIGNATED IN PANEL NO. 480212 01758, DATED SEPTEMBER 4, 1991, OF THE UNINCORPORATED FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS AND ZONE "B" (AREAS BETWEEN LIMITS OF THE 100-YEAR FLOOD AND 500-YEAR FLOOD) AS DESIGNATED IN PANEL NO. 480214 0016C, DATED FEBRUARY 5, 1986, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS

**LEGEND:**

- 17.20GND → NEW FG ELEV. (GROUND)
- 17.20SW → NEW SIDEWALK ELEV.(CONCRETE)
- 17.20EP → NEW FG ELEV. (EDGE OF PAVE.)
- 17.20GT → NEW FG ELEV. (GUTTER)
- 17.20TC → NEW FG ELEV. (TOP OF CURB)
- 3981.2 × → EXISTING (SPOT ELEV.)
- 80 → NEW FG (CONTOUR)
- → EXISTING GROUND (CONTOUR)
- NEW STORM DRAIN (PIPE)
- ▲ HIGH POINT
- ▼ LOW POINT
- DRAINAGE AREAS
- ◁ ▷ EXISTING DRAINAGE FLOW
- ← NEW DRAINAGE FLOW

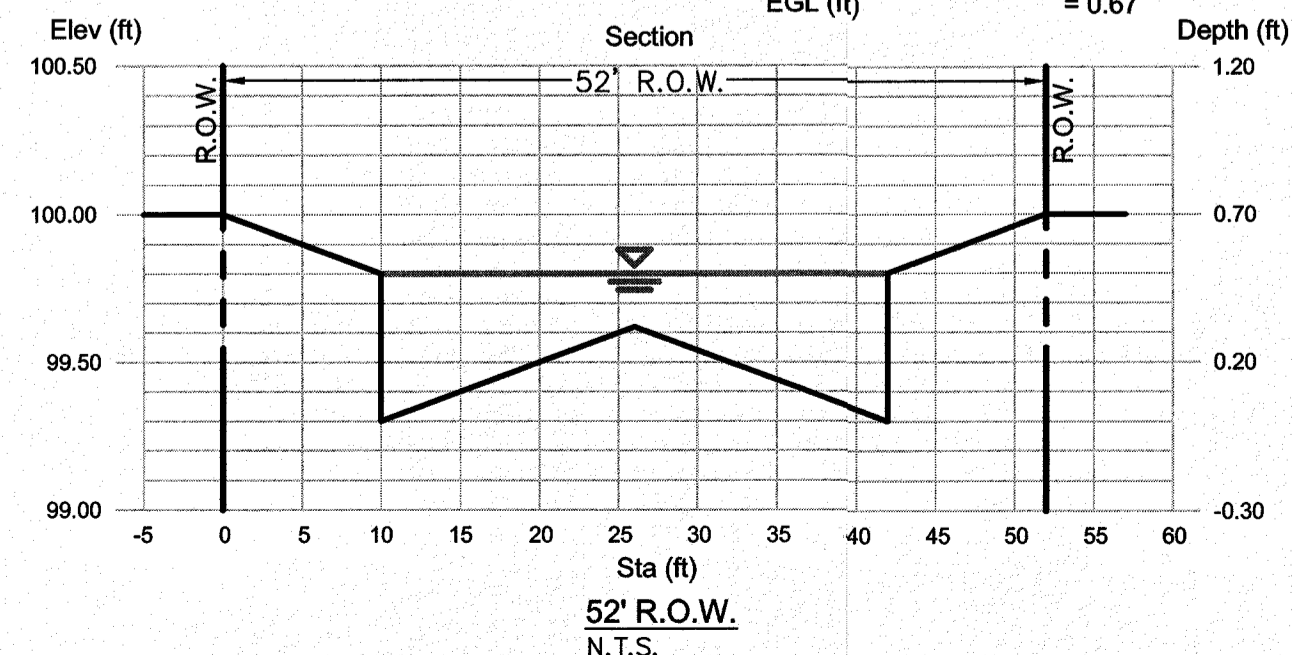
Invert Elev (ft) = 99.30  
 Slope (%) = 0.60  
 N-Value = 0.016

Depth (ft) @ 36.46 CFS = 0.50  
 Q EXP. (cfs) = 36.46  
 Q CAP. (cfs) = 83.19  
 Area (sqft) = 12.32  
 Velocity (ft/s) = 2.96  
 Wetted Perim (ft) = 45.13  
 Crit Depth, Yc (ft) = 0.50  
 Top Width (ft) = 44.00  
 EGL (ft) = 0.64



Invert Elev (ft) = 99.30  
 Slope (%) = 0.60  
 N-Value = 0.016

Depth (ft) @ 36.46 CFS = 0.50  
 Q EXP. (cfs) = 36.46  
 Q CAP. (cfs) = 70.77  
 Area (sqft) = 10.88  
 Velocity (ft/s) = 3.35  
 Wetted Perim (ft) = 33.01  
 Crit Depth, Yc (ft) = 0.51  
 Top Width (ft) = 32.00  
 EGL (ft) = 0.67



NOTE: FOR INLETS Q EXP. AND Q CAP. SEE SHEETS C-02.06 - C-02.09



**PROJECT NAME**  
DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**BENCHMARK**  
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS  
ELEVATION: 3539.38 (NAVD88 DATUM)

**REVISION DESCRIPTION**

**DATE**

**NO.**

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-3911  
**DESIGN BY:** J/JET  
**CHECKED BY:** GH/E  
**DATE:** OCTOBER 2018

**EL PASO, TEXAS**  
JUSTICE STREET

**SLI ENGINEERING, INC.**  
CIVIL ENGINEERS  
LAND SURVEYORS  
1800 W. HAVEN DRIVE  
EL PASO, TEXAS  
(972) 384-1657

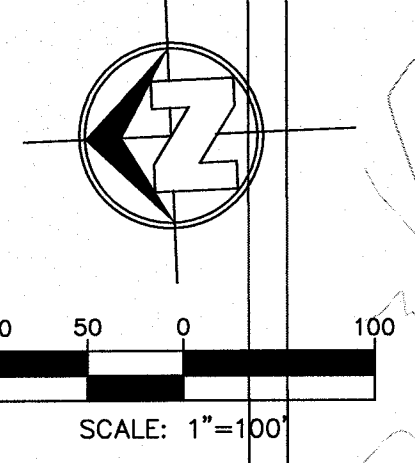
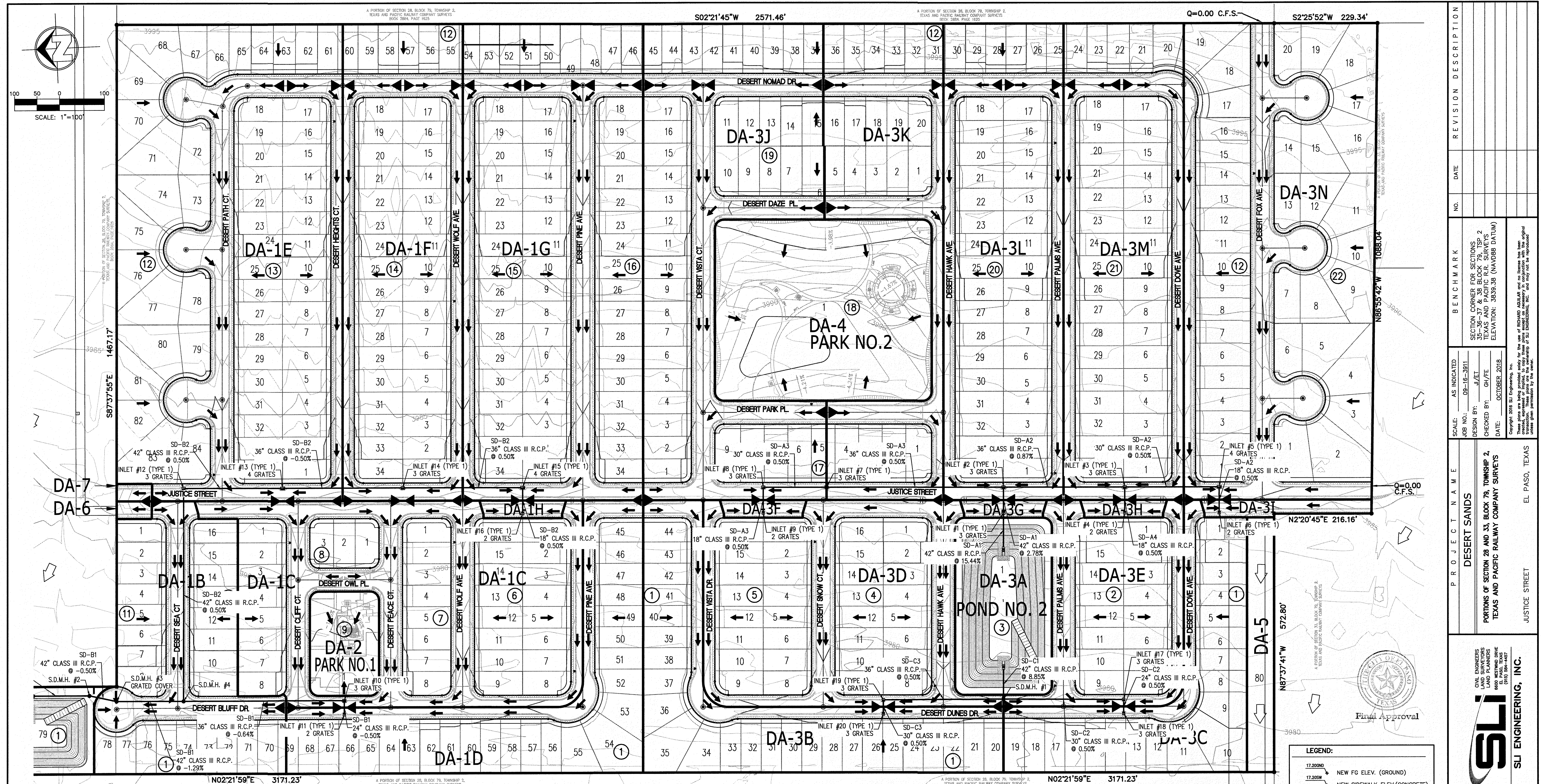
LICENSE No. F-1902

**GEORGES S. HAYDUK**  
REGISTERED PROFESSIONAL ENGINEER  
NO. 92181  
EXPIRES 09/01/2024

OCTOBER 24, 2018  
SHEET TITLE

**DRAINAGE PLAN OVERALL**

**C-02.00**



**DRAINAGE CALCULATIONS BASED ON A 100 YR. STORM FREQUENCY FOR ESTIMATING RUNOFF FORMULA Q=CA**

POND No.	DRAINAGE AREA (ACRES)	AREA (ACRES)	TC (MIN)	I (IN/HR)	C* (AVG)	Q (CFS)	
No. 1	DA-1A(POND)	02.46	10.00	05.36	00.40	05.27	
	DA-1B	04.24	12.00	05.01	00.60	12.74	
	DA-1C	07.09	12.00	05.01	00.60	21.31	
	DA-1D	04.07	12.00	05.01	00.60	12.23	
	DA-1E	12.13	12.00	05.01	00.60	36.46	
	DA-1F	06.48	12.00	05.01	00.60	19.48	
	DA-1G	09.72	12.00	05.01	00.60	29.22	
	DA-1H	00.16	10.00	05.36	00.60	00.81	
	TOTAL CONTRIBUTING TO POND No. 1 = 46.35 ACRES						
	No. 2	DA-2(POND)	01.93	10.00	05.36	00.40	01.74
DA-3B		04.10	12.00	05.01	00.60	12.32	
DA-3C		03.21	12.00	05.01	00.60	09.85	
DA-3D		05.79	12.00	05.01	00.60	17.40	
DA-3E		02.99	12.00	05.01	00.60	08.99	
DA-3F		00.16	10.00	05.36	00.60	00.81	
DA-3G		00.16	10.00	05.36	00.60	00.81	
DA-3H		00.16	10.00	05.36	00.60	00.81	
DA-3I		00.30	10.00	05.36	00.60	00.96	
DA-3J		07.54	12.00	05.01	00.60	22.66	
DA-3K		04.51	12.00	05.01	00.60	13.56	
DA-3L		06.48	12.00	05.01	00.60	19.48	
DA-3M		06.48	12.00	05.01	00.60	19.48	
DA-3N	10.28	12.00	05.01	00.60	30.90		
TOTAL CONTRIBUTING TO POND No. 2 = 54.09 ACRES							
No. 3	DA-4(POND)	04.44	10.00	05.36	00.40	09.52	
	DA-5	00.78	10.00	05.36	00.40	01.67	
	DA-6	00.05	10.00	05.36	00.35	00.28	
DA-7	00.05	10.00	05.36	00.35	00.25		

**PONDING DATA FORMULA = Q<sub>t</sub>=ARC/12 + (A X 0.012) 100 YRS. STORM FREQUENCY**

POND DESIGNATION	"A" (AREA IN AC.)	"R"	"C"	REQUIRED VOLUME (AC-FT) W/OILT	REQUIRED VOLUME (AC-FT) W/ SILT	HIGH WATER ELEV.	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.	FREEBORD
POND NO. 1	46.35	4*/3 HRS.	0.59	09.11	09.67	3971.40	17.27	3961.50	3976.50	05.10'
POND NO. 2	54.09	4*/3 HRS.	0.59	10.64	11.29	3976.35	11.95	3960.00	3980.00	03.65'
PARK NO. 1	00.81	4*/3 HRS.	0.40	00.11	00.12	3977.95	00.13	3977.00	3978.00	00.05'
PARK NO. 2	04.44	4*/3 HRS.	0.40	00.59	00.64	3984.95	01.85	3984.50	3985.70	00.75'

\* WEIGHED "C" VALUES

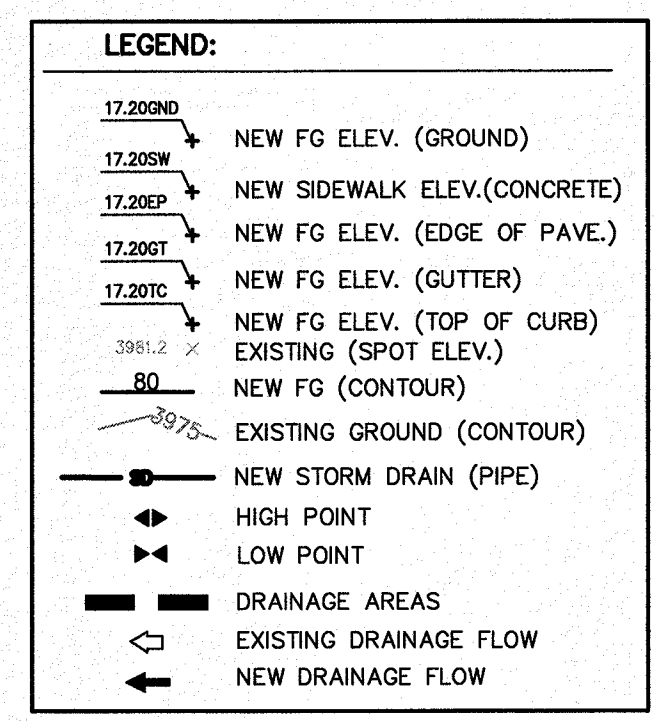
NOTE: FOR INLETS Q EXP. AND Q CAP. SEE SHEETS C-02.06 - C-02.09

**EROSION CONTROL:**

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**FLOOD ZONE:**

THIS SUBDIVISION LIES WITHIN ZONES "X" (AREAS OF MINIMAL FLOODING) AS DESIGNATED IN PANEL NO. 480212 0175B, DATED SEPTEMBER 4, 1991, OF THE UNINCORPORATED FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS AND ZONE "B" (AREAS BETWEEN LIMITS OF THE 100-YEAR FLOOD AND 500-YEAR FLOOD) AS DESIGNATED IN PANEL NO. 480214 0016C, DATED FEBRUARY 5, 1986, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS



**REVISION DESCRIPTION**

NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TOWNSHIP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3539.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-5911  
**DESIGN BY:** J/JET  
**CHECKED BY:** GH/FE  
**DATE:** OCTOBER 2018

**PROJECT NAME:** DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**EL PASO, TEXAS**

**SLI ENGINEERING, INC.**

LICENSE No. F-1902

**GEORGE S. HALL**

OCTOBER 24, 2018

SHEET TITLE

**DRAINAGE PLAN ENLARGED-1**

**C-02.01**

**811**

Know what's below.  
Call before you dig.  
Call 811 TWO Working days before you dig  
It's Free, It's Easy, and IT'S THE LAW!

DRAINAGE CALCULATIONS BASED ON A 100 YR. STORM FREQUENCY FOR ESTIMATING RUNOFF FORMULA Q=CIA

POND No.	DRAINAGE AREA	AREA (ACRES)	TC (MIN)	I (IN/HR)	C* (AVG)	Q (CFS)
No. 1	DA-1A(POND)	02.46	10.00	05.36	00.40	05.27
	DA-1B	04.24	12.00	05.01	00.60	12.74
	DA-1C	07.09	12.00	05.01	00.60	21.31
	DA-1D	04.07	12.00	05.01	00.60	12.23
	DA-1E	12.13	12.00	05.01	00.60	36.46
	DA-1F	06.48	12.00	05.01	00.60	19.48
	DA-1G	09.72	12.00	05.01	00.60	29.22
	DA-1H	00.16	10.00	05.36	00.60	00.51
TOTAL CONTRIBUTING TO POND No. 1 = 46.35 ACRES						
No. 2	DA-2 (PARK)	00.81	10.00	05.36	00.40	01.74
	DA-3A(POND)	01.93	10.00	05.36	00.60	06.21
	DA-3B	04.10	12.00	05.01	00.60	12.32
	DA-3C	03.21	12.00	05.01	00.60	09.65
	DA-3D	05.79	12.00	05.01	00.60	17.40
	DA-3E	02.99	12.00	05.01	00.60	08.99
	DA-3F	00.16	10.00	05.36	00.60	00.51
	DA-3G	00.16	10.00	05.36	00.60	00.51
	DA-3H	00.16	10.00	05.36	00.60	00.51
	DA-3I	00.30	10.00	05.36	00.60	00.96
No. 3	DA-3J	07.54	12.00	05.01	00.60	22.66
	DA-3K	04.51	12.00	05.01	00.60	13.56
	DA-3L	06.48	12.00	05.01	00.60	19.48
	DA-3M	06.48	12.00	05.01	00.60	19.48
	DA-3N	10.28	12.00	05.01	00.60	30.90
	DA-4 (PARK)	04.44	10.00	05.36	00.40	09.52
	DA-5	00.78	10.00	05.36	00.40	01.67
	DA-6	00.05	10.00	05.36	00.95	00.25
DA-7	00.05	10.00	05.36	00.95	00.25	

PONDING DATA FORMULA =  $Q = \frac{ARC}{12} + (A \times 0.012)$  100 YRS. STORM FREQUENCY

POND DESIGNATION	% (AREA IN AC)	T*	C*	REQUIRED VOLUME (AC-FT) W/O SILT	REQUIRED VOLUME (AC-FT) W/ SILT	HIGH WATER ELEV.	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.	FREEBOARD
POND NO. 1	46.35	4"/3 HRS.	0.59	09.11	09.67	3971.40	17.27	3961.50	3976.50	05.10'
POND NO. 2	54.09	4"/3 HRS.	0.59	10.64	11.29	3976.35	11.95	3960.00	3980.00	03.65'
PARK NO. 1	00.81	4"/3 HRS.	0.40	00.11	00.12	3977.95	00.13	3977.00	3978.00	00.05'
PARK NO. 2	04.44	4"/3 HRS.	0.40	00.59	00.64	3984.95	01.85	3984.50	3985.70	00.75'

\* WEIGHED "C" VALUES

EROSION CONTROL:

- WIND EROSION CONTROL- WATERING DURING AND AFTER COMPLETION OF SITE GRADING. THE PROJECT AREA SHALL BE COMPLETELY WATERED AS NEEDED TO CONTROL WIND EROSION OR AS DIRECTED BY THE CITY ENGINEER.
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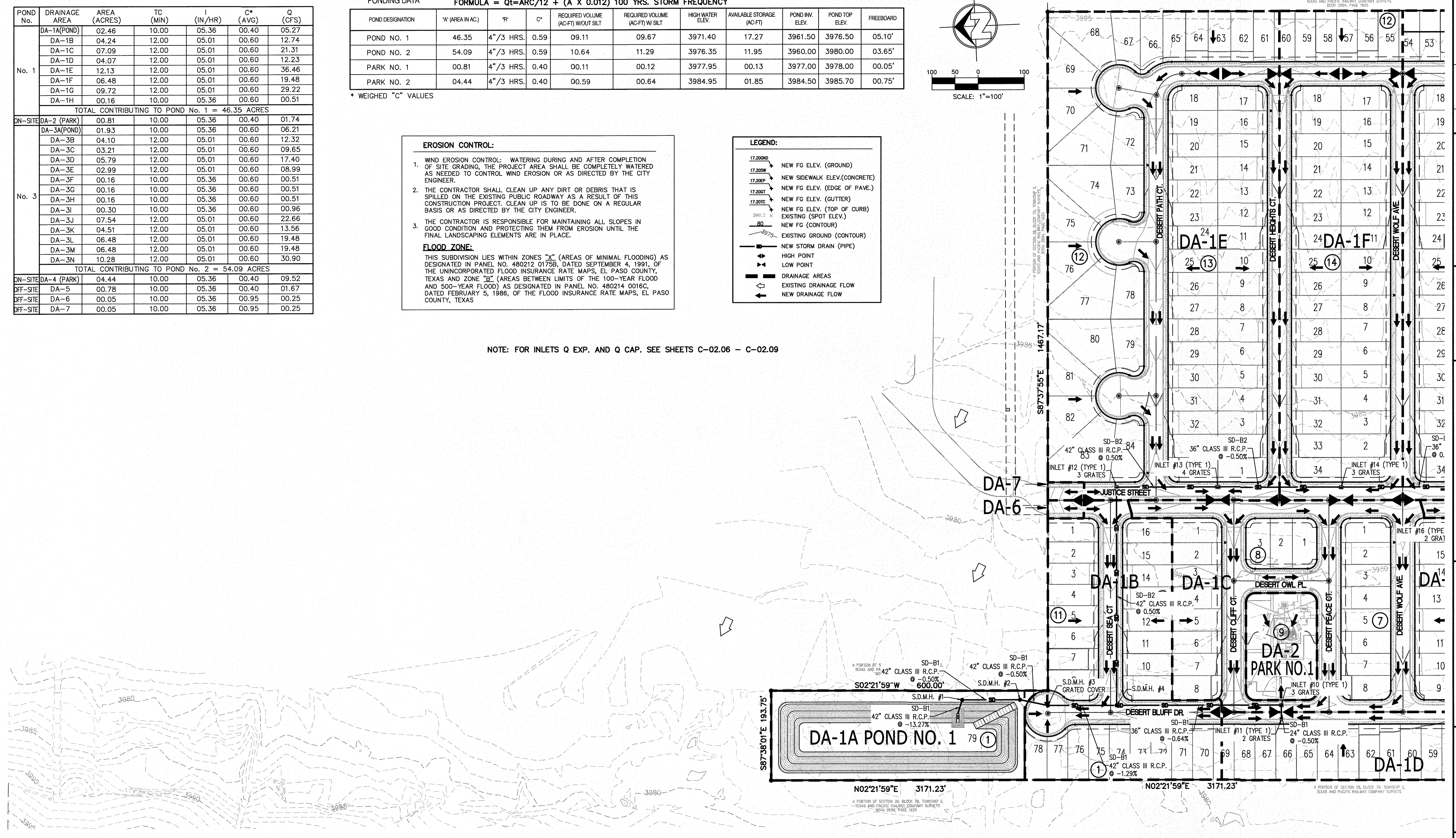
FLOOD ZONE:

THIS SUBDIVISION LIES WITHIN ZONES "C" (AREAS OF MINIMAL FLOODING) AS DESIGNATED IN PANEL NO. 480212 0175B, DATED SEPTEMBER 4, 1991, OF THE UNINCORPORATED FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS AND ZONE "B" (AREAS BETWEEN LIMITS OF THE 100-YEAR FLOOD AND 500-YEAR FLOOD) AS DESIGNATED IN PANEL NO. 480214 0016C, DATED FEBRUARY 5, 1986, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS

LEGEND:

- 17.2000D NEW FG ELEV. (GROUND)
- 17.2005W NEW SIDEWALK ELEV.(CONCRETE)
- 17.200P NEW FG ELEV. (EDGE OF PAVE.)
- 17.200T NEW FG ELEV. (GUTTER)
- 3981.2 X NEW FG ELEV. (TOP OF CURB)
- 80 EXISTING (SPOT ELEV.)
- 3975.2 X NEW FG (CONTOUR)
- EXISTING GROUND (CONTOUR)
- NEW STORM DRAIN (PIPE)
- HIGH POINT
- LOW POINT
- DRAINAGE AREAS
- EXISTING DRAINAGE FLOW
- NEW DRAINAGE FLOW

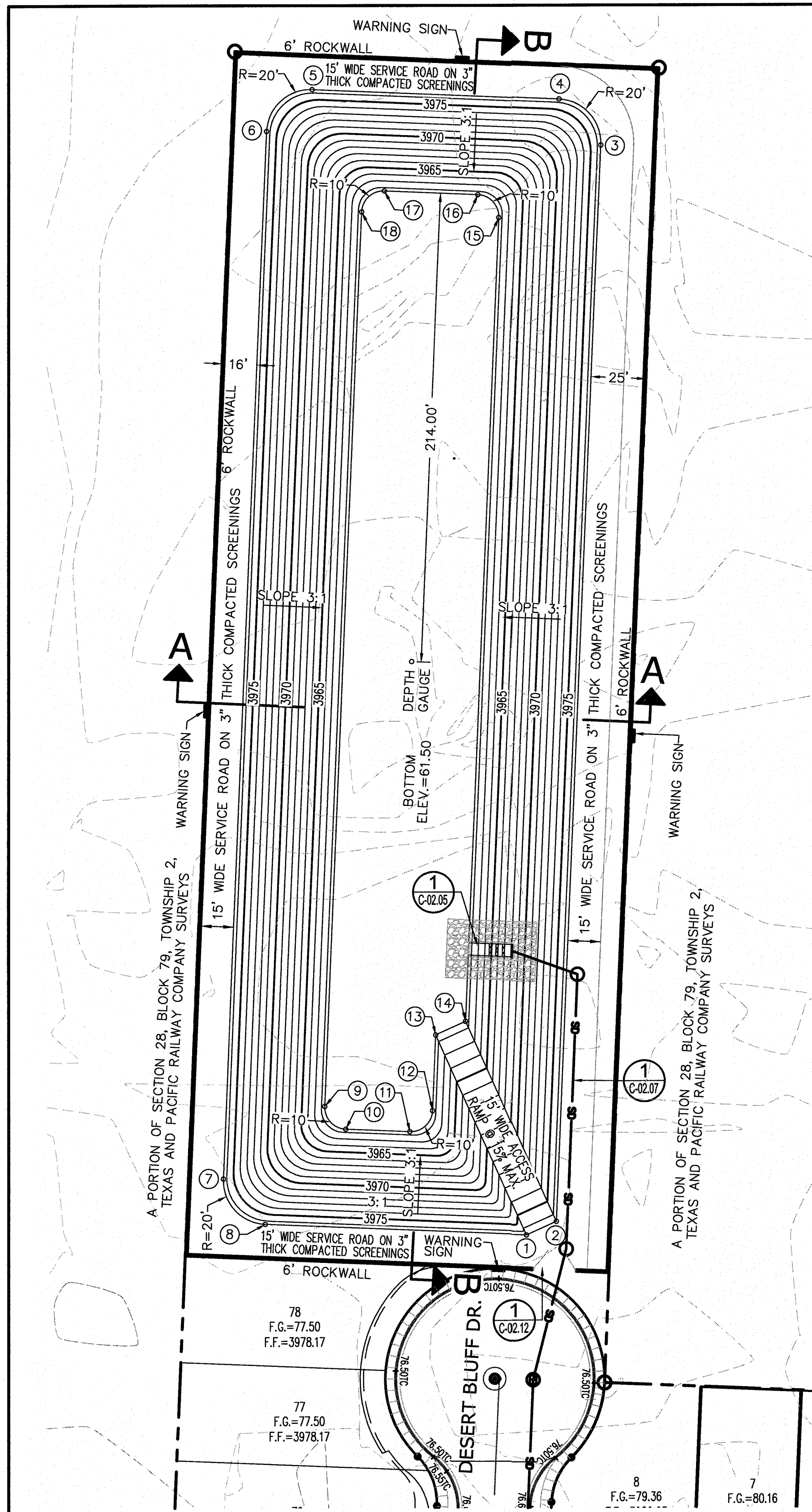
NOTE: FOR INLETS Q EXP. AND Q CAP. SEE SHEETS C-02.06 - C-02.09



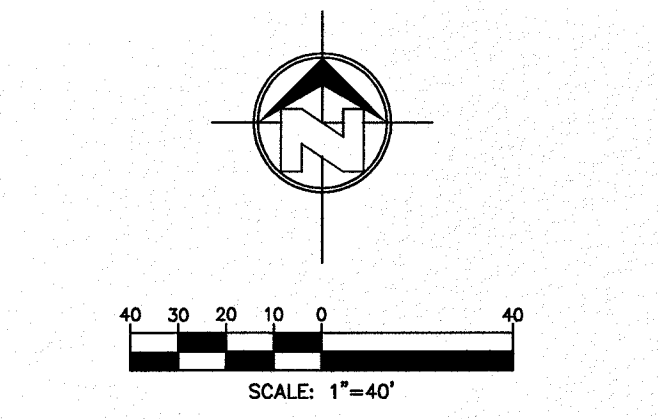
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3539.38 (NAVD88 DATUM)	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
DESERT SANDS	DESERT SANDS			
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS				
DESIGN BY: J/J/T	CHECKED BY: GH/FE	DATE: OCTOBER 2018	AS INDICATED: 09-16-2011	
PROJECT NAME	EL PASO, TEXAS			
		LICENSE No. F-1902 		
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS 8909 EL PASO, TEXAS (915) 381-1467		OCTOBER 24, 2018 SHEET TITLE		
DRAINAGE PLAN ENLARGED-2		C-02.02		

**Know what's below. Call before you dig.**
  
 Call 811 TWO Working days Before you dig
   
 It's Free, It's Easy, and IT'S THE LAW!

Final Approval



**1 RETENTION POND No. 1 LAYOUT**  
C-02.03 SCALE: 1"=40'



**LEGEND:**

17.20FG	NEW FG ELEV.
17.20SW	NEW FG ELEV. (SIDEWALK)
17.20EP	NEW FG ELEV. (EDGE OF PAVE.)
17.20GT	NEW FG ELEV. (GUTTER)
17.20TC	NEW FG ELEV. (TOP OF CURB)
4000	NEW FG (CONTOUR)
FG	FINISHED GROUND
EG	EXISTING GROUND
—	NEW STORM DRAIN (PIPE)

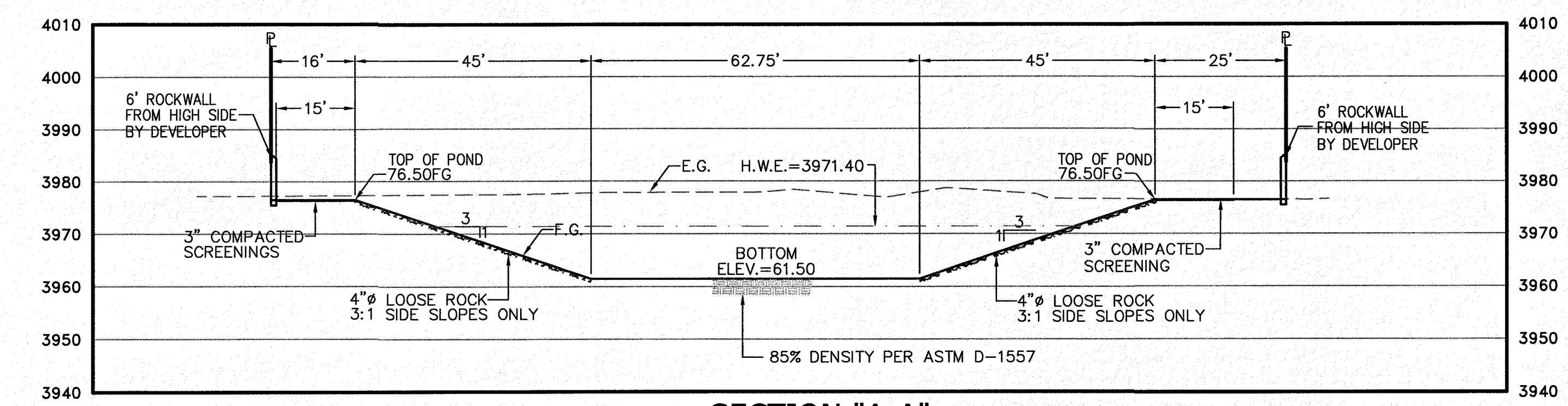
**POND COORDINATES**

1	N 10675013.48 E 456009.21	10	N 10675061.92 E 455926.78
2	N 10675019.67 E 456022.87	11	N 10675060.71 E 455956.11
3	N 10675510.50 E 456043.15	12	N 10675070.29 E 455966.52
4	N 10675531.31 E 456024.00	13	N 10675104.56 E 455967.93
5	N 10675535.96 E 455911.34	14	N 10675110.75 E 455981.59
6	N 10675516.81 E 455890.53	15	N 10675477.39 E 455996.75
7	N 10675039.21 E 455870.79	16	N 10675487.79 E 455987.17
8	N 10675018.41 E 455889.95	17	N 10675489.56 E 455944.45
9	N 10675072.33 E 455917.20	18	N 10675479.98 E 455934.05

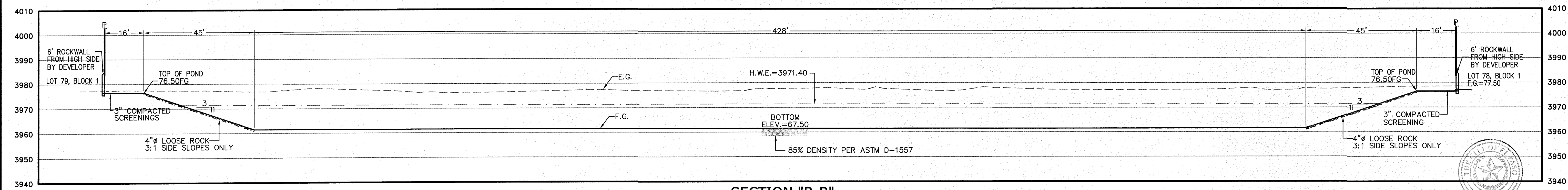
**PONDING DATA**      FORMULA =  $Q_t = \frac{ARC}{12} + (A \times 0.012)$  100 YRS. STORM FREQUENCY

POND DESIGNATION	"A" (AREA IN AC.)	"R"	C*	REQUIRED VOLUME (AC-FT) W/OUT SILT	REQUIRED VOLUME (AC-FT) W/ SILT	HIGH WATER ELEV.	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.
POND NO. 1	46.35	4"/3 HRS.	0.59	09.11	09.67	3971.40	17.27	3961.50	3976.50

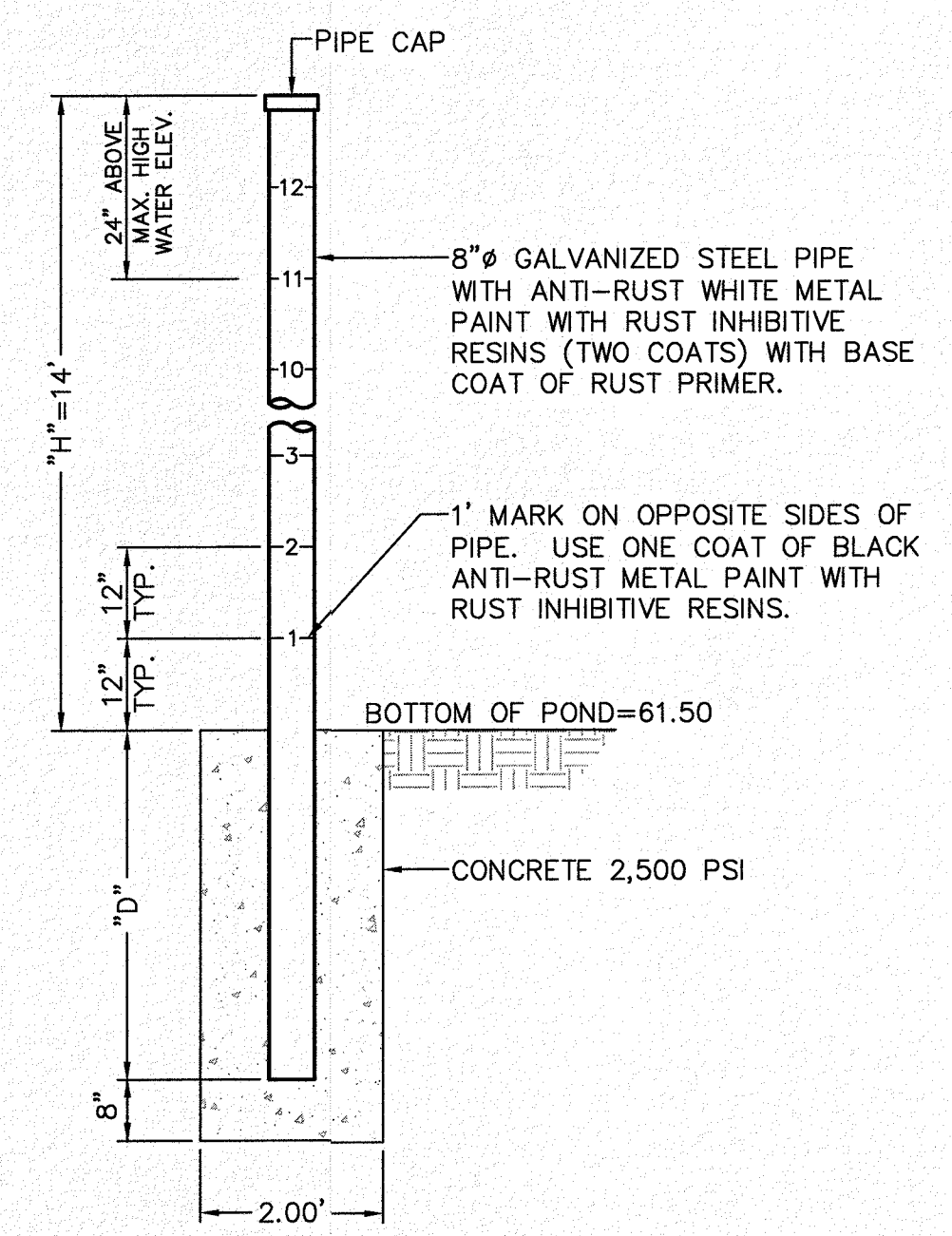
\* WEIGHED "C" VALUES



**SECTION "A-A"**  
SCALE: HOR. 1"=20', VER. 1"=20'



**SECTION "B-B"**  
SCALE: HOR. 1"=20', VER. 1"=20'



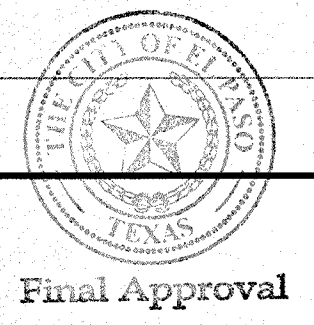
**NOTES:**

- CONSULT WITH PAINT MANUFACTURER FOR PRODUCTS THAT CAN SUSTAIN LONG PERIODS OF MOISTURE.
- ALTERNATES WILL BE ALLOWED WITH THE PRIOR REVIEW AND APPROVAL OF THE ENGINEER.
- D= DEPTH, H= HEIGHT
- D= H/4, BUT NOT LESS THAN 3'

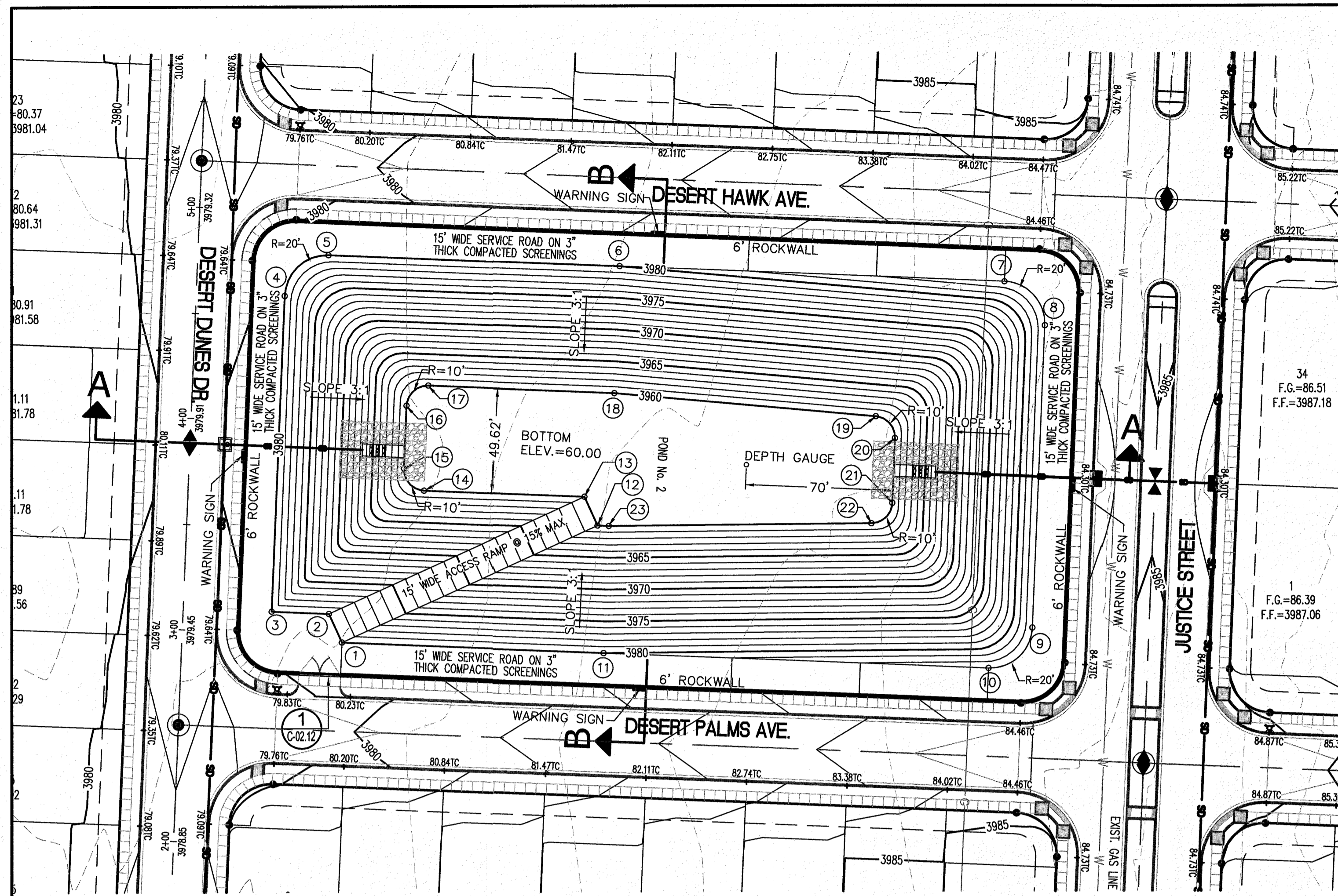
**POND DEPTH GAUGE**  
N.T.S.

NOTE: A PERCOLATION TEST WITHIN THE PROPOSED PONDS SHALL BE PERFORMED AT THE TIME OF EXCAVATION ACCORDING TO ASTM 5126 AND THE REPORT SUBMITTED FOR REVIEW AND APPROVAL BY EPIWU STORM WATER ENGINEERING. SUBSURFACE SOIL PROFILES SHALL BE PROVIDED TO A MINIMUM OF 5' (FEET) BELOW THE PROPOSED POND INVERT. STORM WATER SHALL PERCOLATE WITHIN 72 HOURS UNDER WET CONDITIONS IN ACCORDANCE WITH SECTION 11.4.3 OF THE CITY OF EL PASO'S DRAINAGE DESIGN MANUAL AND DETAIL 2-2 OF THE CITY OF EL PASO'S DESIGN STANDARDS FOR CONSTRUCTION. APPROVAL OF ALL SUBMITTED DOCUMENTATION IS REQUIRED PRIOR TO ACCEPTANCE OF ANY STORM WATER MANAGEMENT FACILITIES.

PROJECT NAME	DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	BENCHMARK	SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3539.38 (NAVD88 DATUM)	REVISION DESCRIPTION
SCALE:	AS INDICATED	NO.		
DESIGN BY:	J/T	DATE		
CHECKED BY:	GH/FE			
DATE:	OCTOBER, 2018			
COPYRIGHT:	© 2018 SLI Engineering, Inc. These plans are being provided solely for the use of the project and no license has been granted for their reproduction or use for any other project without the written consent of SLI Engineering, Inc. and may not be reproduced or used in any way without the written consent of SLI Engineering, Inc.			
PROJECT ADDRESS:	EL PASO, TEXAS JUSTICE STREET			
ENGINEER:	SLI ENGINEERING, INC. CIVIL ENGINEERS LAND SURVEYORS AND PLANNERS 6805 EL PASO TRAIL EL PASO, TEXAS 810 381-1607			
LICENSE No.:	F-1902			
SHEET TITLE:	RETENTION POND NO.1 DETAILS			
C-02.03				



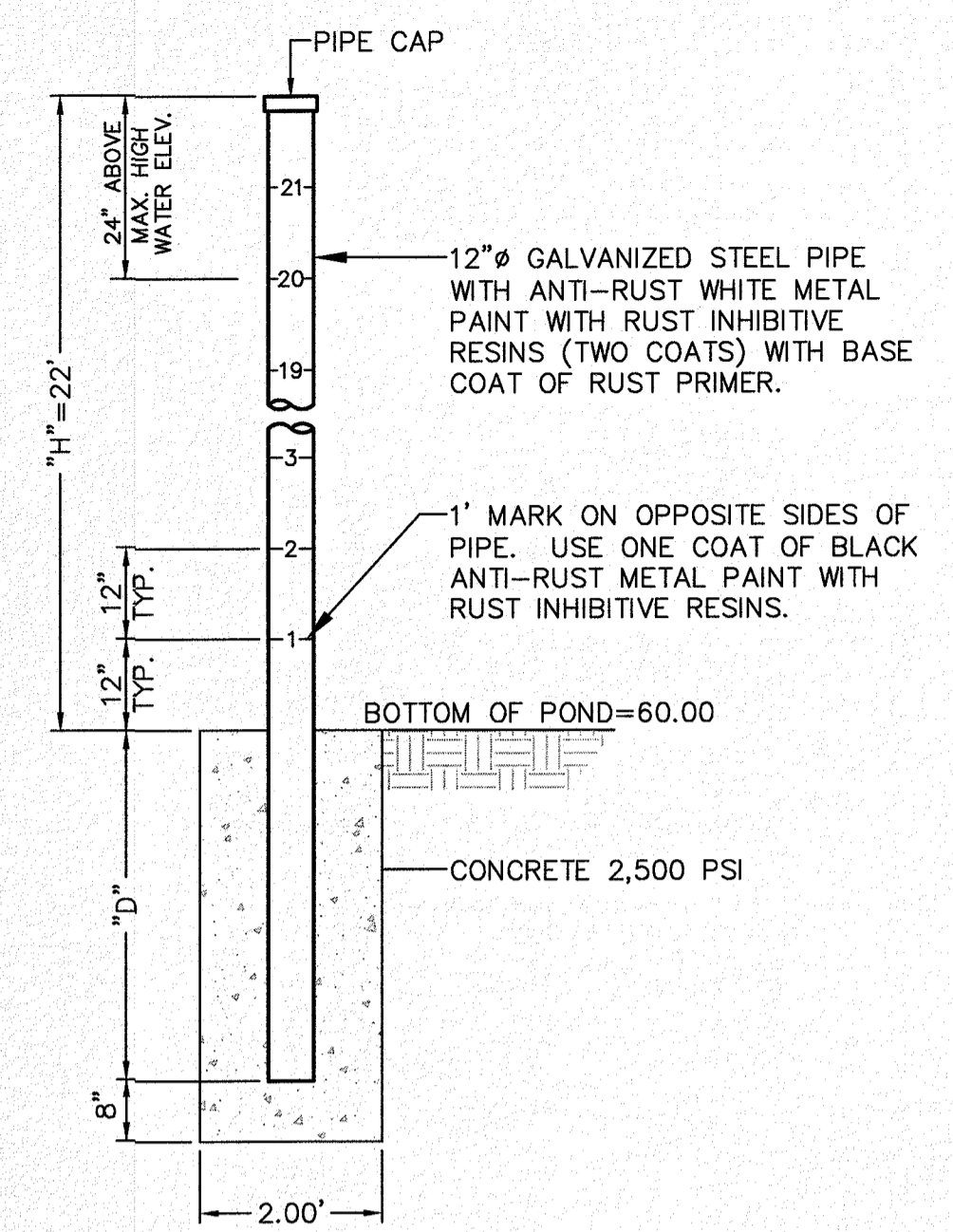




- LEGEND:**
- 17.20FG NEW FG ELEV.
  - 17.20SW NEW FG ELEV. (SIDEWALK)
  - 17.20EP NEW FG ELEV. (EDGE OF PAVE.)
  - 17.20GT NEW FG ELEV. (GUTTER)
  - 17.20TC NEW FG ELEV. (TOP OF CURB)
  - 4000 NEW FG (CONTOUR)
  - FG FINISHED GROUND
  - EG EXISTING GROUND
  - NEW STORM DRAIN (PIPE)

**POND COORDINATES**

1	N 10672884.60	13	N 10672953.31
2	E 455987.71	14	E 456102.58
3	N 10672898.26	15	N 10672956.44
4	E 455981.50	16	E 456026.71
5	N 10672899.38	17	N 10672966.85
6	E 455954.30	18	E 456017.14
7	N 10673048.87	19	N 10672996.43
8	E 455960.47	20	E 456018.36
9	N 10673068.03	21	N 10673006.01
10	E 455981.28	22	E 456028.76
11	N 10673062.33	23	N 10673002.38
12	E 456119.19		E 456116.71
	N 10673054.77		N 10672991.12
	E 456302.03		E 456240.85
	N 10673033.96		N 10672980.75
	E 456321.19		E 456249.93
	N 10672891.09		N 10672950.00
	E 456315.29		E 456248.66
	N 10672871.93		N 10672940.41
	E 456294.48		E 456238.75
	N 10672879.48		N 10672939.43
	E 456111.63		E 456114.11
	N 10672939.65		
	E 456108.78		

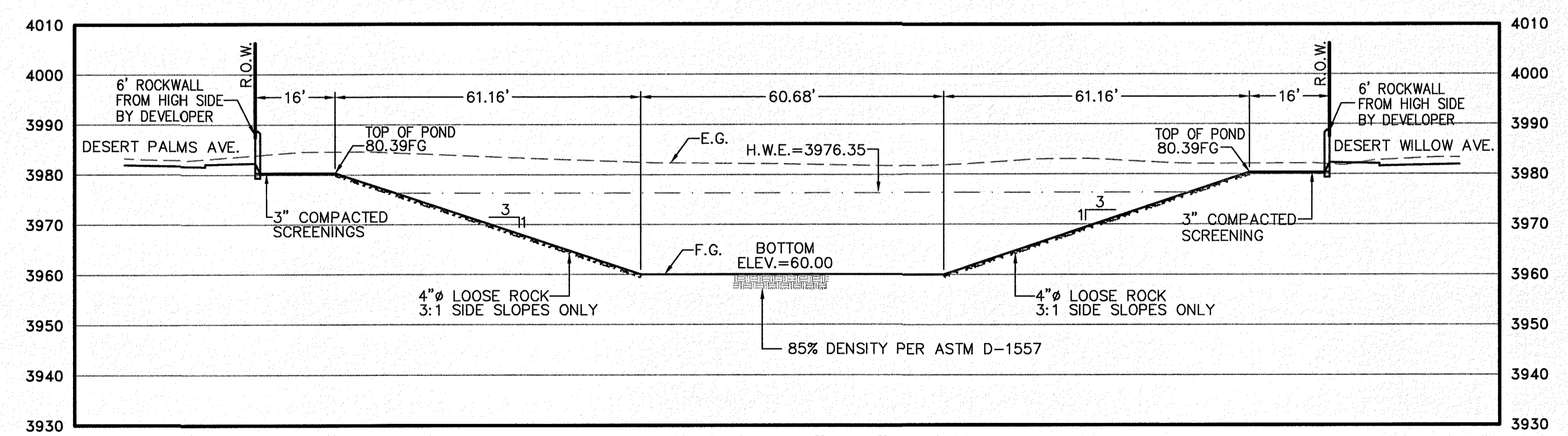
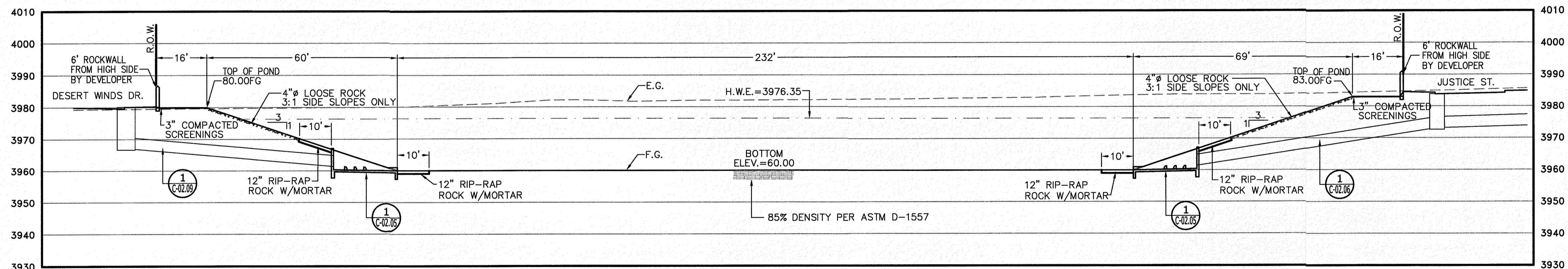


**NOTES:**

1. CONSULT WITH PAINT MANUFACTURER FOR PRODUCTS THAT CAN SUSTAIN LONG PERIODS OF MOISTURE.
2. ALTERNATES WILL BE ALLOWED WITH THE PRIOR REVIEW AND APPROVAL OF THE ENGINEER.
3. D= DEPTH, H= HEIGHT
4. D= H/4, BUT NOT LESS THAN 3'

**POND DEPTH GAUGE**  
N.T.S.

**1 RETENTION POND No. 2 LAYOUT**  
SCALE: 1"=40'



NOTE: A PERCOLATION TEST WITHIN THE PROPOSED PONDS SHALL BE PERFORMED AT THE TIME OF EXCAVATION ACCORDING TO ASTM 5126 AND THE REPORT SUBMITTED FOR REVIEW AND APPROVAL BY EPMU STORM WATER ENGINEERING. SUBSURFACE SOIL PROFILES SHALL BE PROVIDED TO A MINIMUM OF 5' (FEET) BELOW THE PROPOSED POND INVERT. STORM WATER SHALL PERCOLATE WITHIN 72 HOURS UNDER WET CONDITIONS IN ACCORDANCE WITH SECTION 11.4.3 OF THE CITY OF EL PASO'S DRAINAGE DESIGN MANUAL AND DETAIL 2-2 OF THE CITY OF EL PASO'S DESIGN STANDARDS FOR CONSTRUCTION. APPROVAL OF ALL SUBMITTED DOCUMENTATION IS REQUIRED PRIOR TO ACCEPTANCE OF ANY STORM WATER MANAGEMENT FACILITIES.

**PONDING DATA**      FORMULA =  $Qt = \text{ARC}/12 + (A \times 0.012) 100 \text{ YRS. STORM FREQUENCY}$

POND DESIGNATION	"A" (AREA IN AC.)	"R"	"C"	REQUIRED VOLUME (AC-FT) W/OUT SILT	REQUIRED VOLUME (AC-FT) W/ SILT	HIGH WATER ELEV.	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.
POND NO. 2	54.09	4"/3 HRS.	0.59	10.64	11.29	3976.35	11.95	3960.00	3980.00

\* WEIGHED "C" VALUES

REVISION DESCRIPTION

DATE

NO.

BENCHMARK

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10 EAST, COUNTY OF EL PASO, TEXAS. ELEVATION: 5839.38 (NAVD83 DATUM)

SCALE: AS INDICATED

JOB NO.: 09-16-3811

DESIGN BY: J/JET

CHECKED BY: CH/VE

DATE: OCTOBER, 2018

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PROJECT NAME: DESERT SANDS

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

JUSTICE STREET

CIVIL ENGINEERS  
LAND PLANNERS  
SURVEYORS  
SLI ENGINEERING, INC.  
808 S. PAUL ST. SUITE 100  
EL PASO, TEXAS 79901  
(915) 584-1467

LICENSE No. F-1902

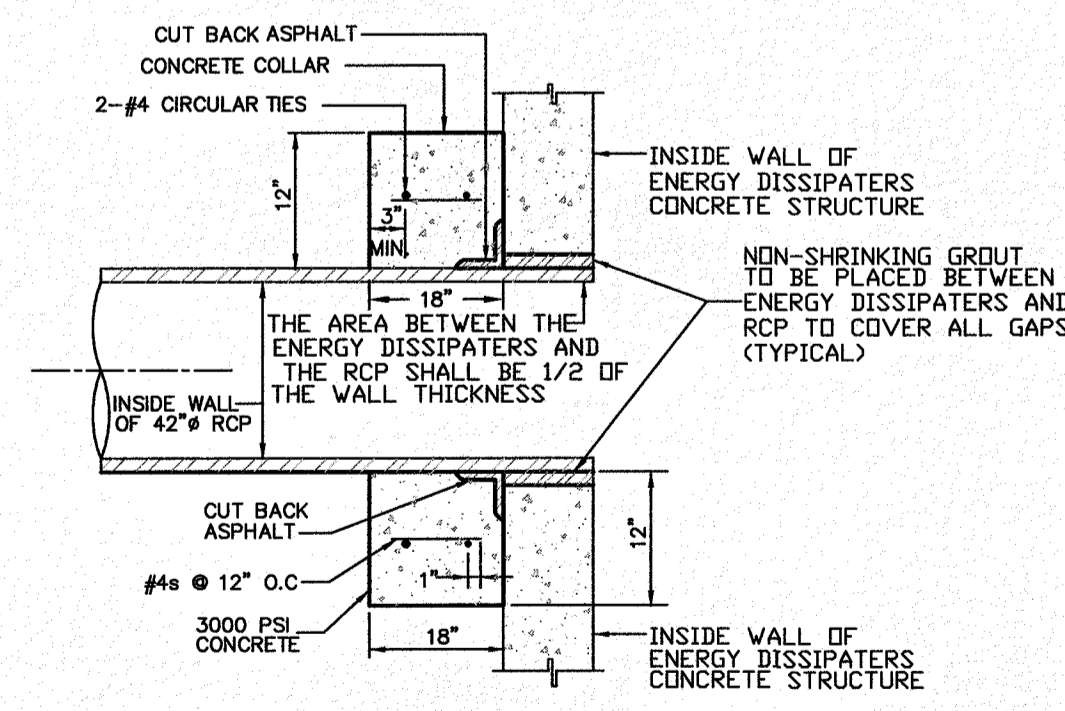
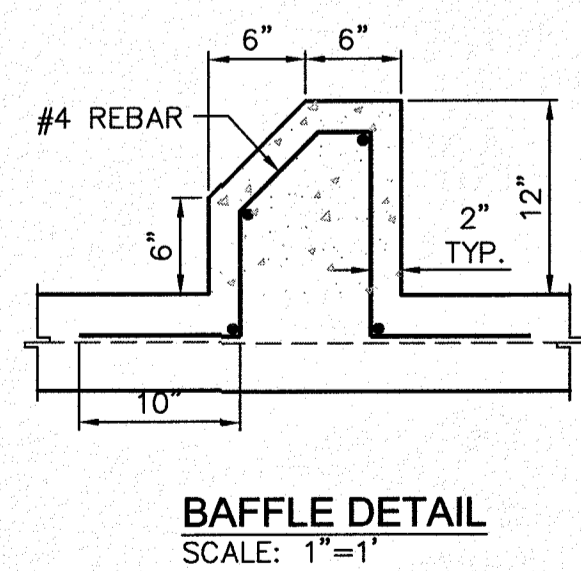
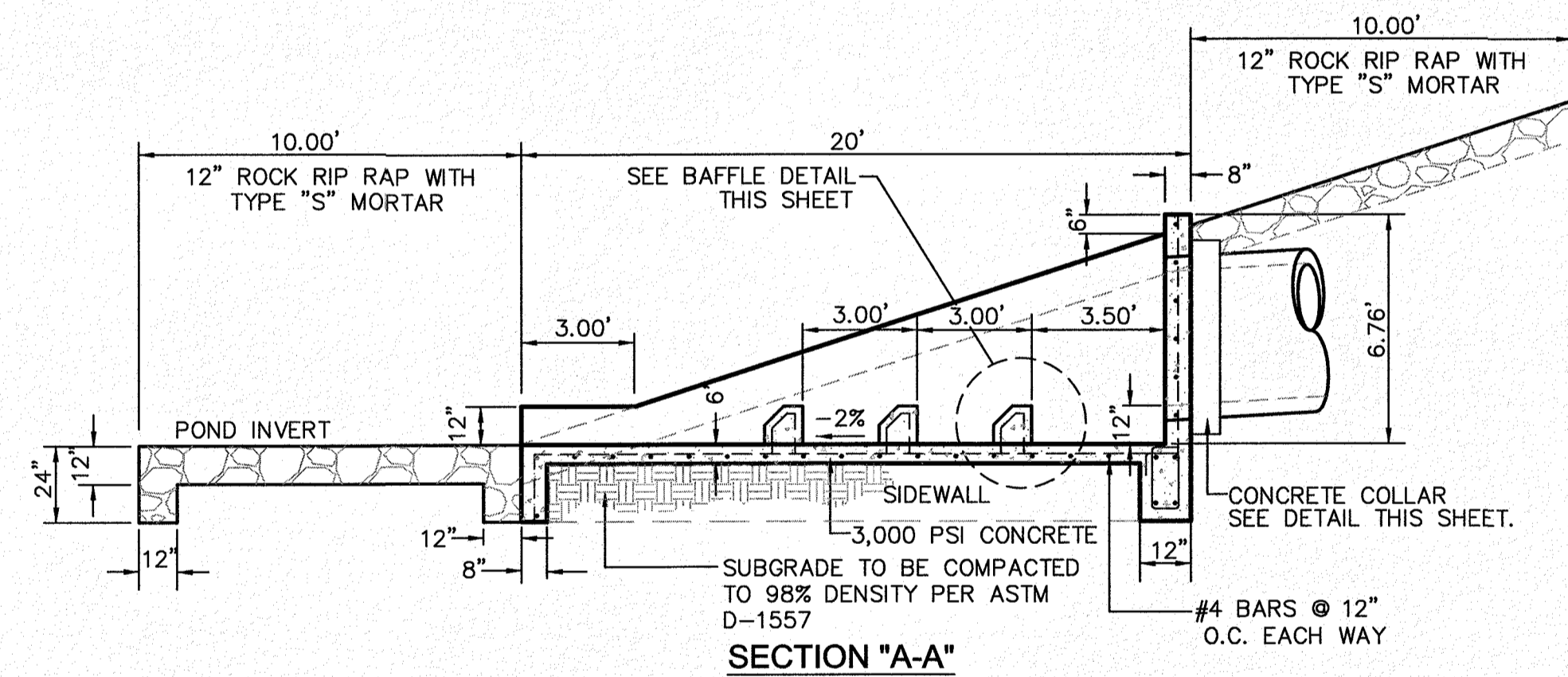
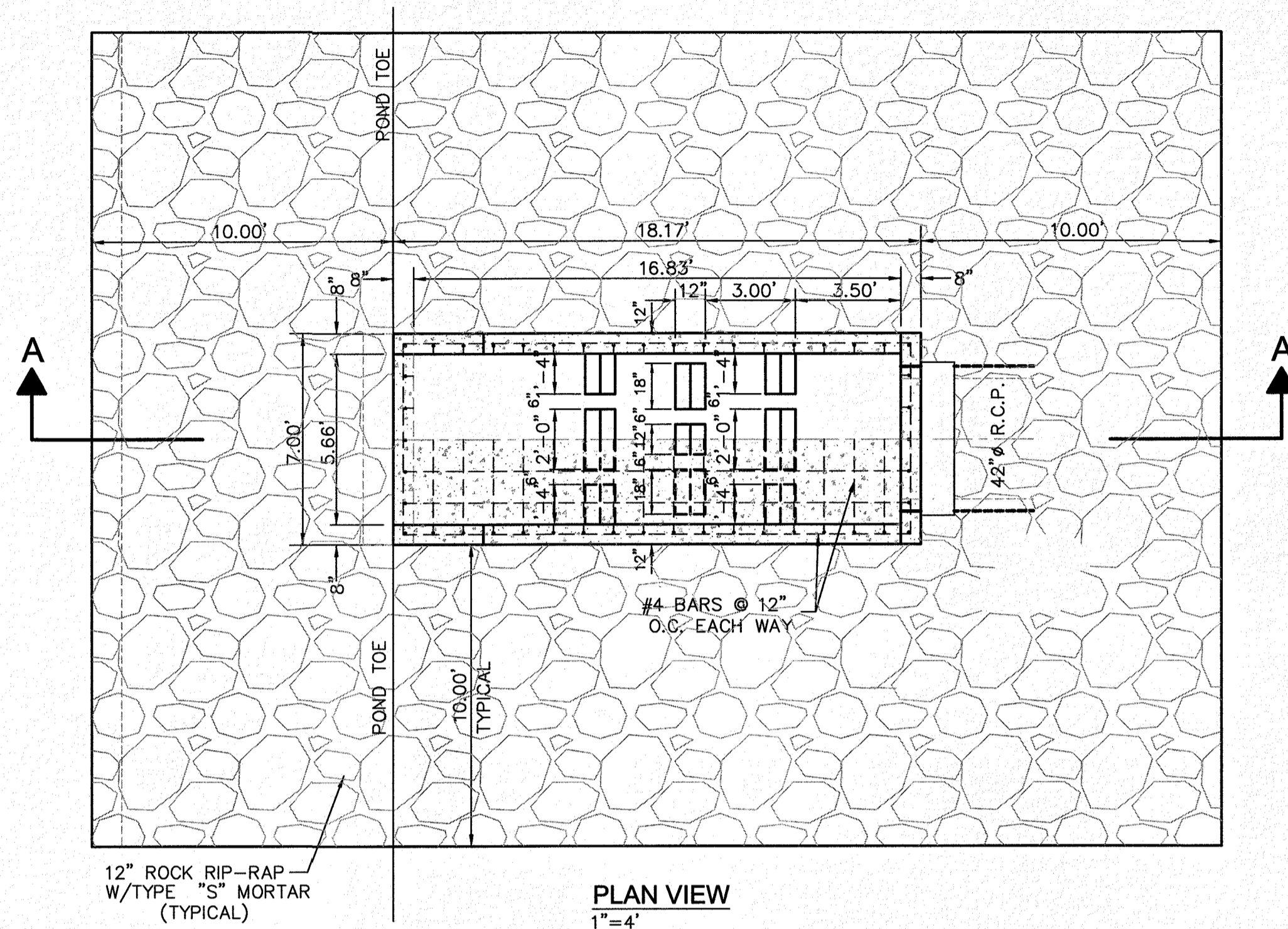
OCTOBER 24, 2018

SHEET TITLE

RETENTION POND NO.2 DETAILS

C-02.04





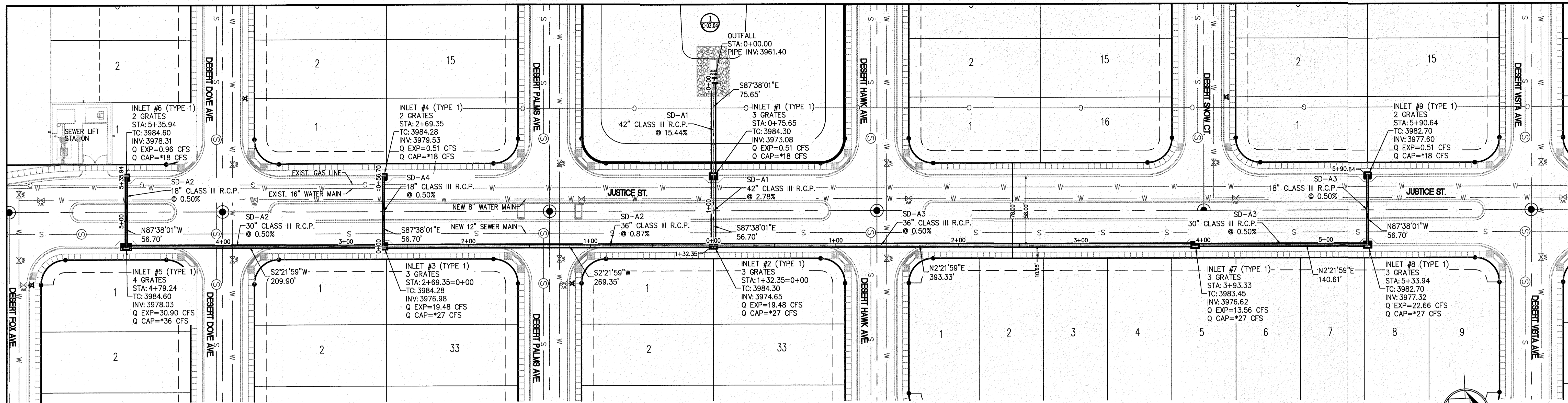
**1 POND ENERGY DISSIPATER**  
C-02.05 N.T.S.



NO.	DATE	REVISION DESCRIPTION

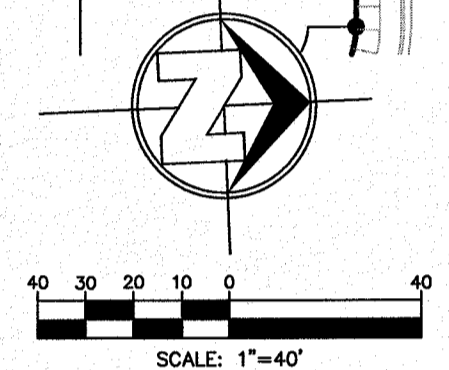
  

<b>BENCHMARK</b> SECTION CORNER FOR SECTIONS 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)	<b>AS INDICATED</b> JOB NO.: 09-16-3911 DESIGN BY: J/J/E CHECKED BY: GH/FE DATE: OCTOBER 2018 Copyright © 2018 SLI Engineering, Inc. These plans are being provided solely for the use of RICHARD ADRIAN and no license has been granted to any other person for the reproduction or transmission of these plans or the ownership of the contents hereof without the written permission of the owner.
<b>PROJECT NAME</b> DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	EL PASO, TEXAS JUSTICE STREET
<b>CIVIL ENGINEERS</b> LAND SURVEYORS 400 WESTINGHOUSE EL PASO, TEXAS (972) 784-4007 <b>SLI ENGINEERING, INC.</b>	LICENSE No. F-1902  OCTOBER 24, 2018 SHEET TITLE
<b>STORM DRAIN HEADWALL DETAILS</b> <b>C-02.05</b>	



**1 STORM DRAIN LINE "A"**  
 SCALE: 1"=40'

\* TYPE 1 INLET CAPACITY INCLUDES A 50% CLOGGING FACTOR FOR THE GRATE AND 33.33% CLOGGING FACTOR FOR CURB OPENING



NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

**DESIGN BY:** J/ET  
**CHECKED BY:** GY/FE  
**DATE:** OCTOBER 2018

**PROJECT NAME:** DESERT SANDS  
**PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS**

**EL PASO, TEXAS**

**SLI ENGINEERING, INC.**  
 CIVIL ENGINEERS  
 LAND PLANNERS  
 6008 W. P.O. BOX 1407  
 EL PASO, TEXAS 79907  
 (915) 584-1407

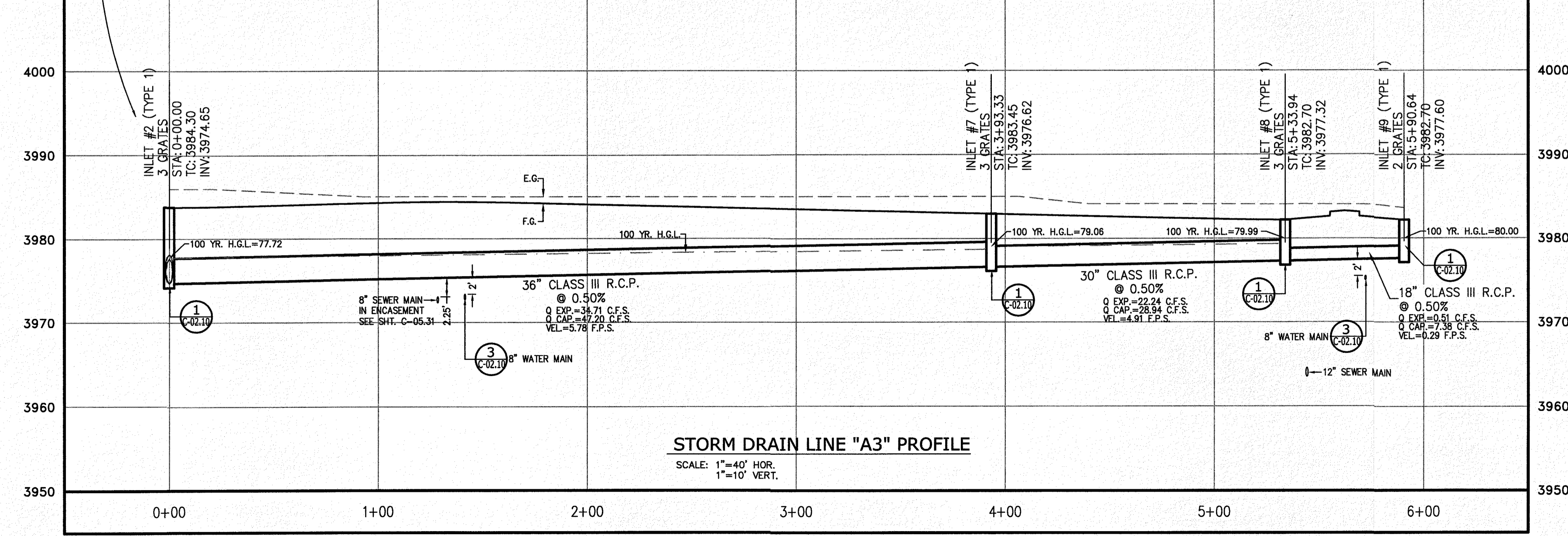
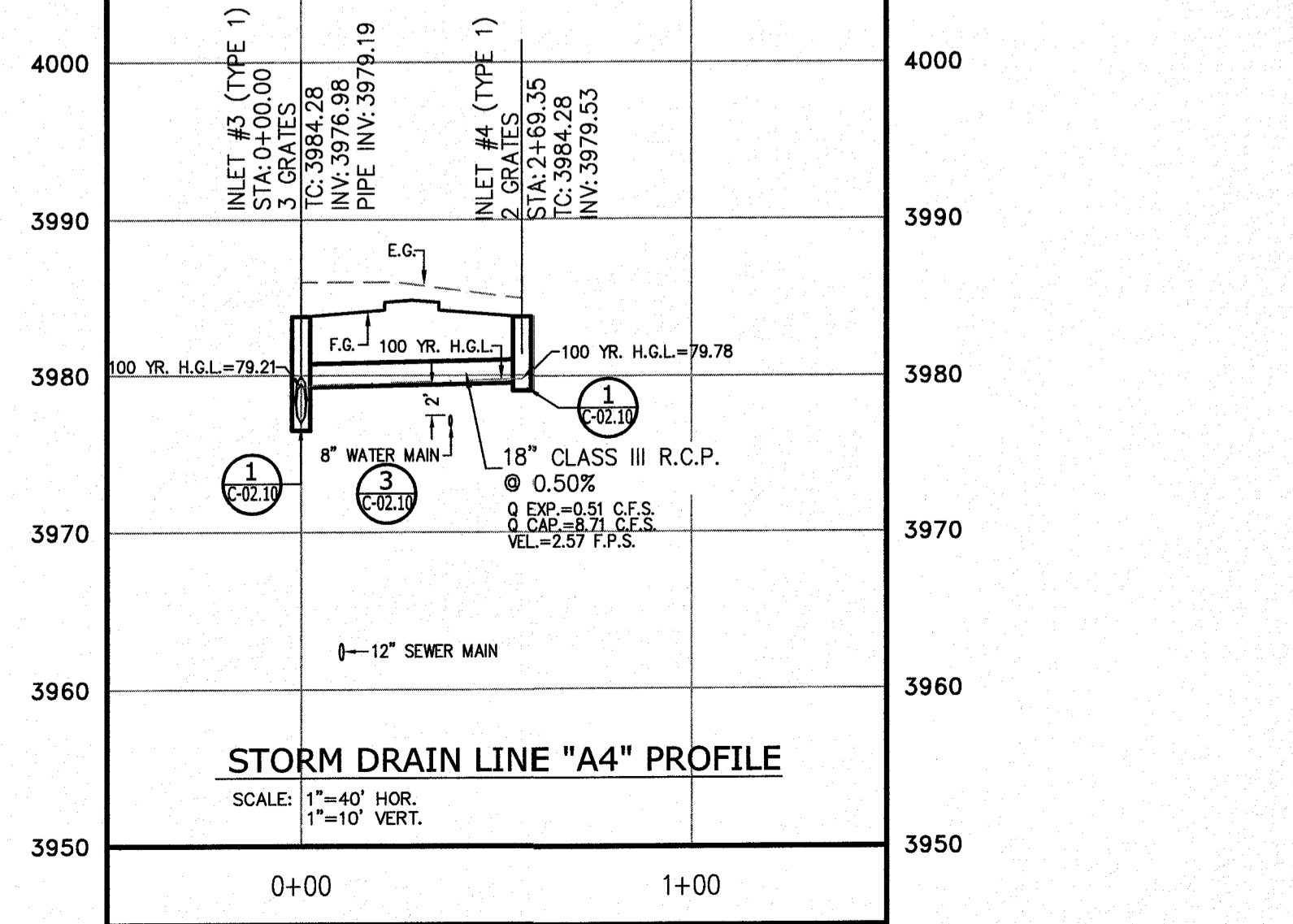
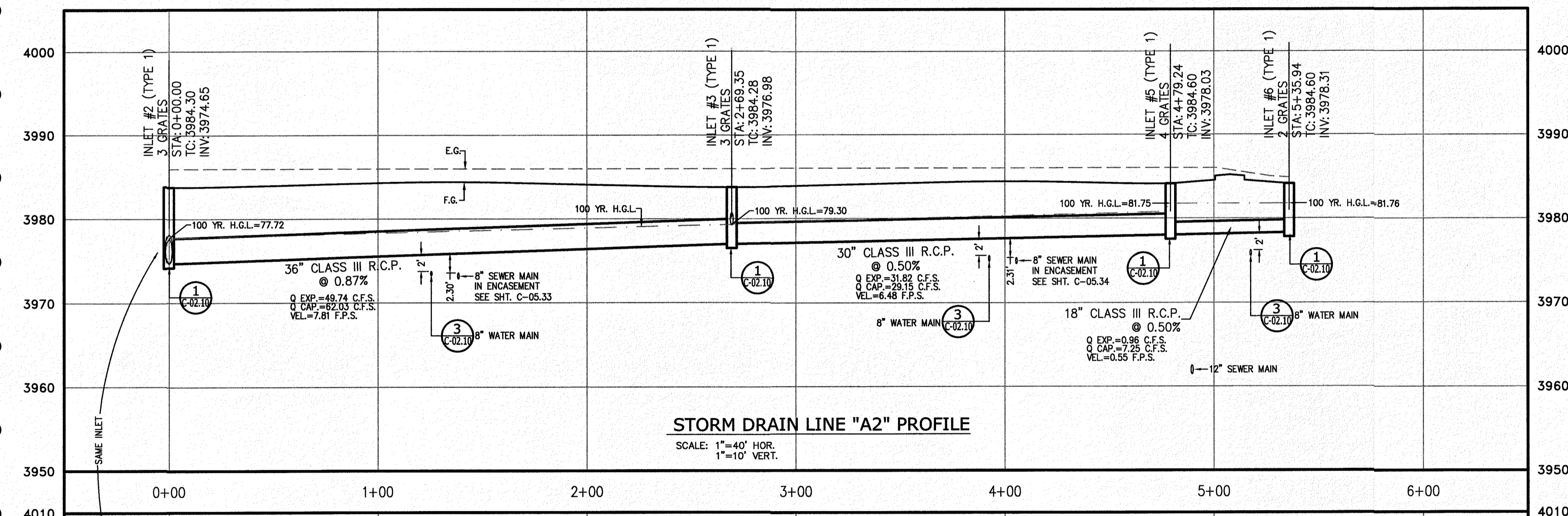
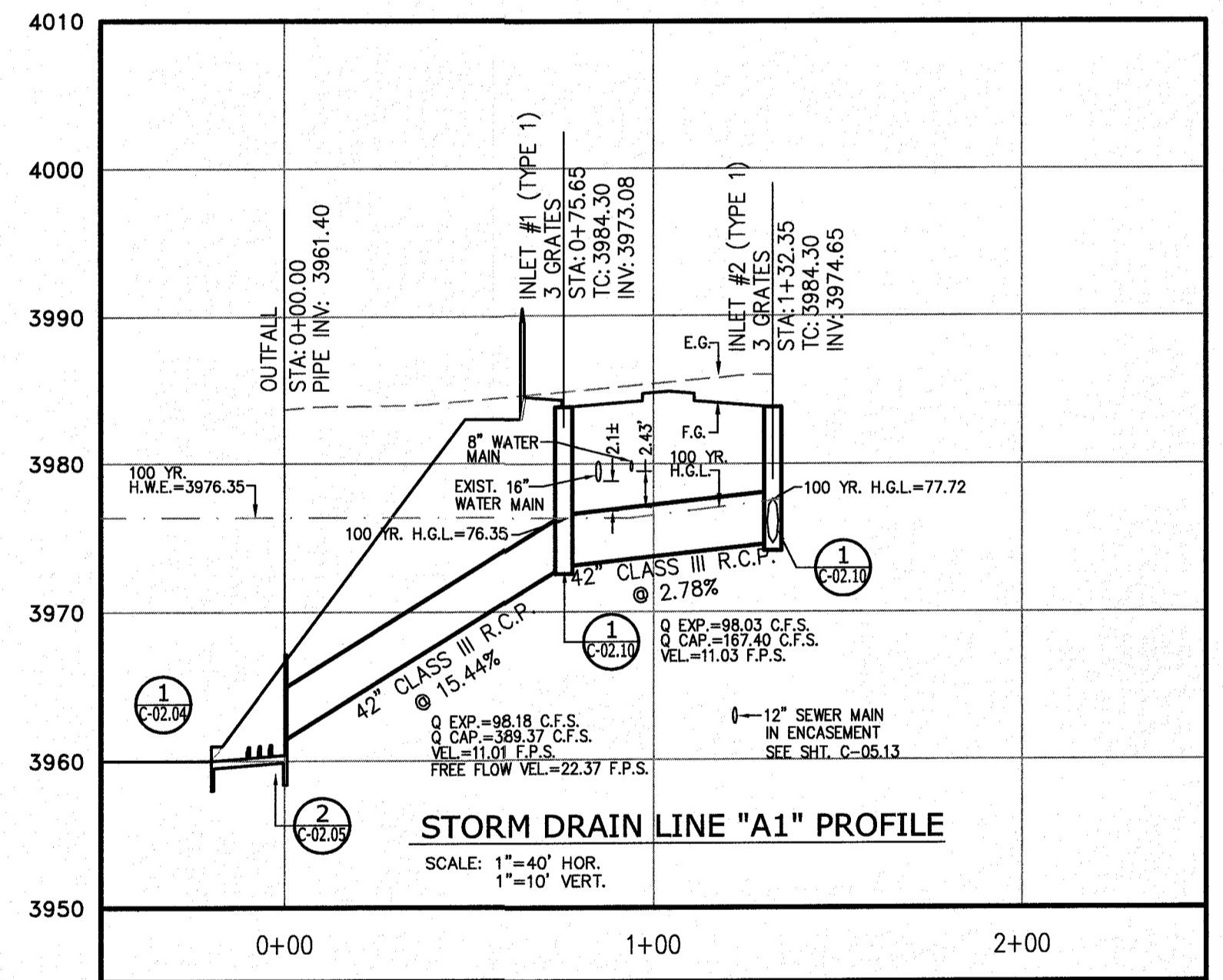
LICENSE No. F-1902

OCTOBER 24, 2018

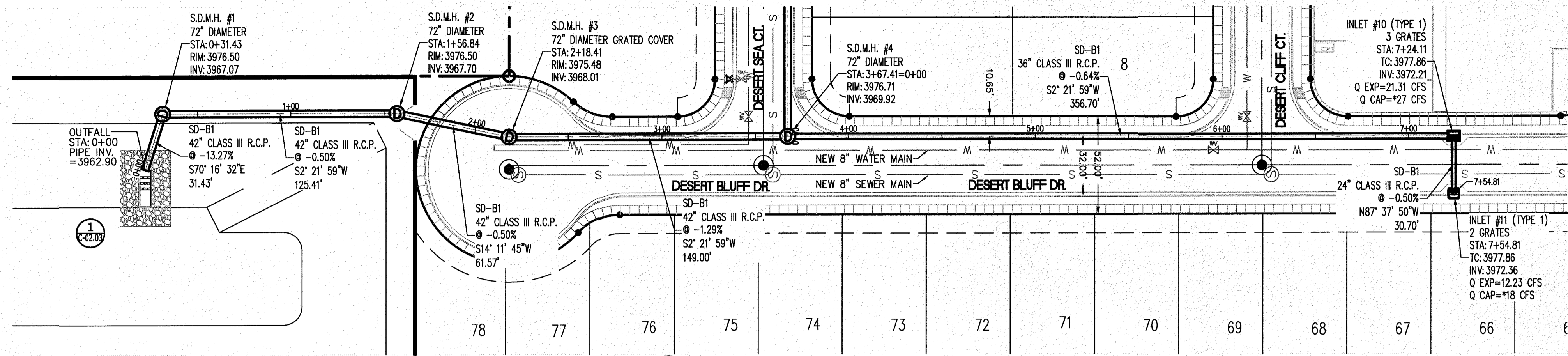
**SHEET TITLE**

**STORM DRAIN LINE "A" PLAN AND PROFILE**

**C-02.06**

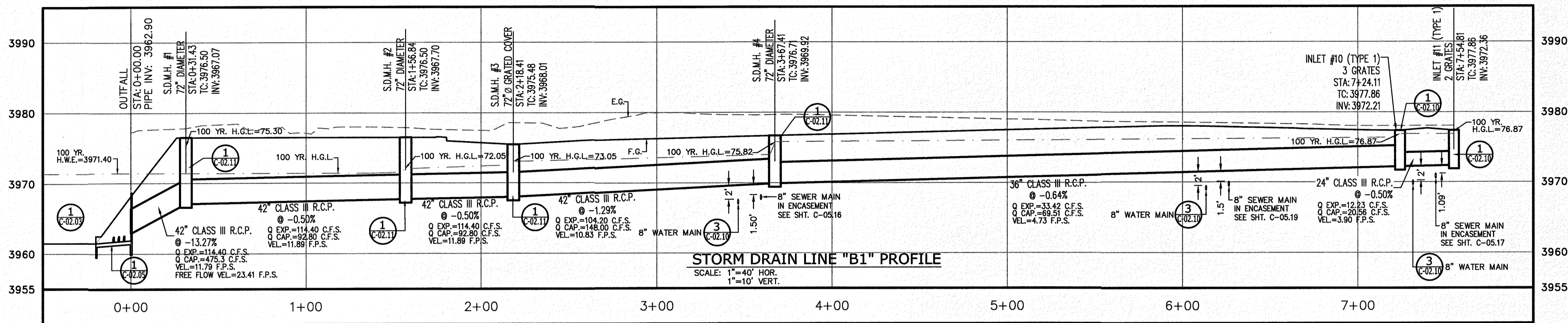
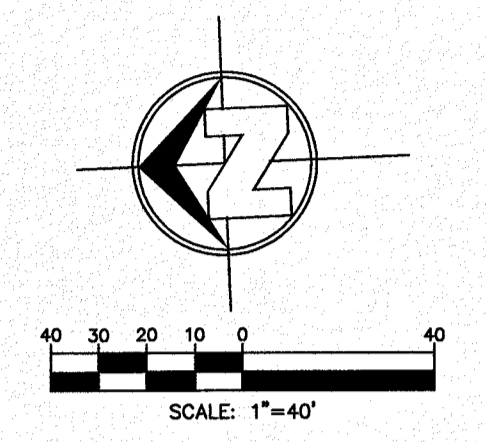


Final Approval

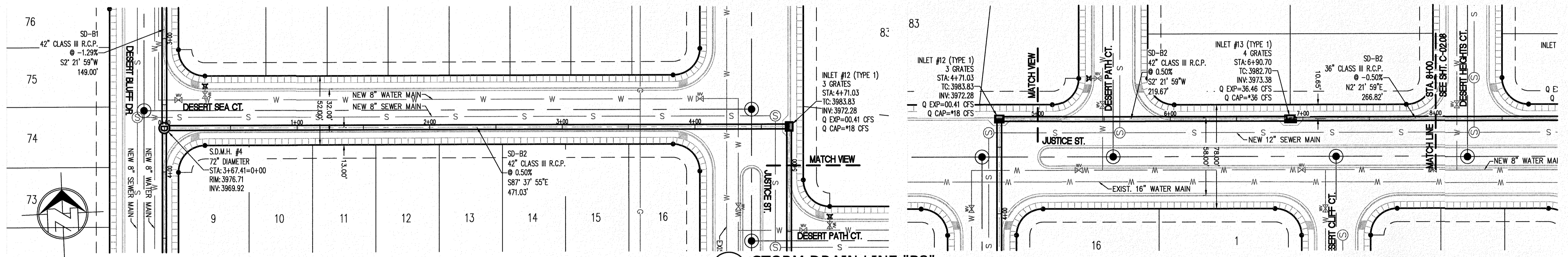


**1** STORM DRAIN LINE "B1"  
 C-02.07 SCALE: 1"=40'

\* TYPE 1 INLET CAPACITY INCLUDES A 50% CLOGGING FACTOR FOR THE GRATE AND 33.33% CLOGGING FACTOR FOR CURB OPENING

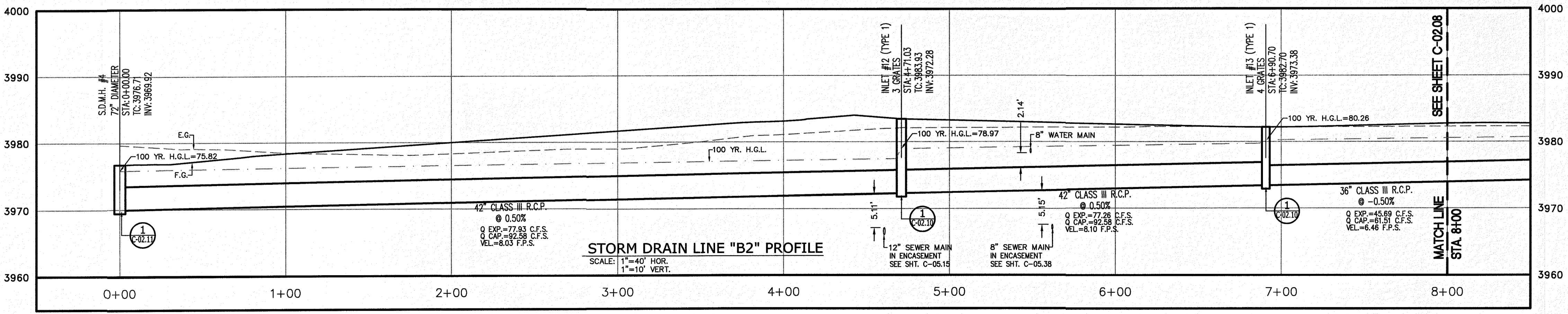
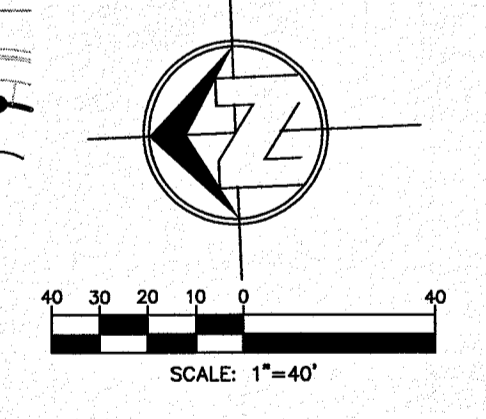
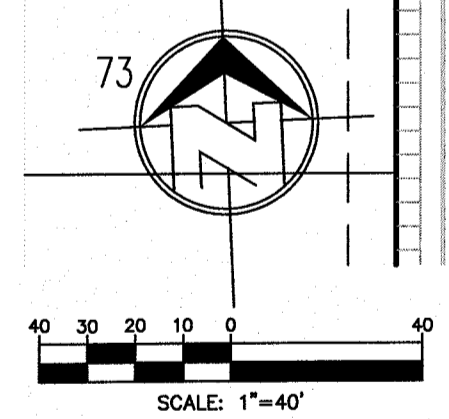


STORM DRAIN LINE "B1" PROFILE  
 SCALE: 1"=40' HOR.  
 1"=10' VERT.

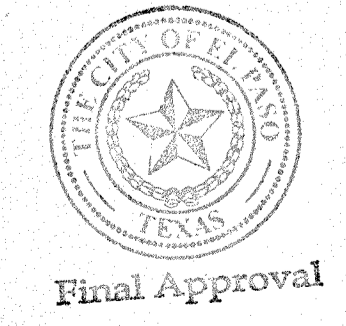


**2** STORM DRAIN LINE "B2"  
 C-02.08 SCALE: 1"=40'

\* TYPE 1 INLET CAPACITY INCLUDES A 50% CLOGGING FACTOR FOR THE GRATE AND 33.33% CLOGGING FACTOR FOR CURB OPENING



STORM DRAIN LINE "B2" PROFILE  
 SCALE: 1"=40' HOR.  
 1"=10' VERT.

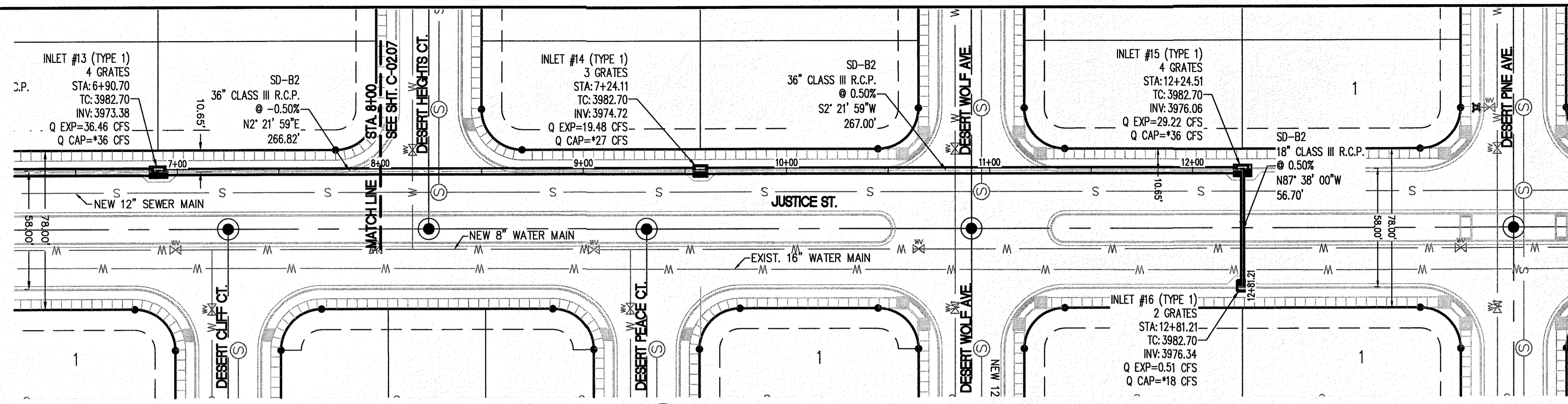


Final Approval

NO.	DATE	REVISION DESCRIPTION

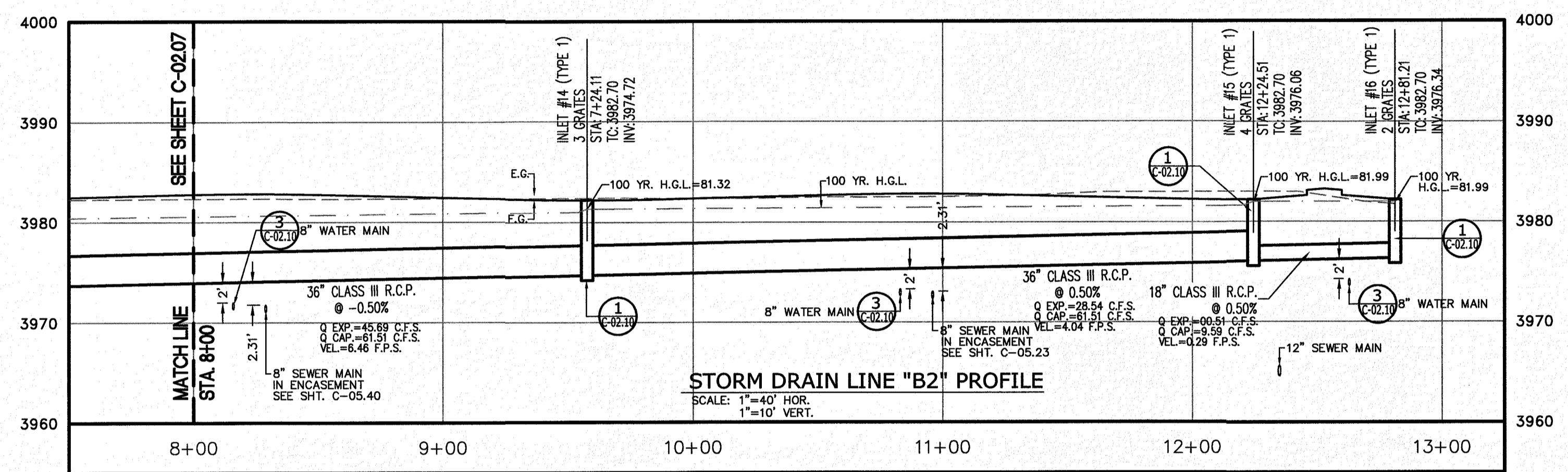
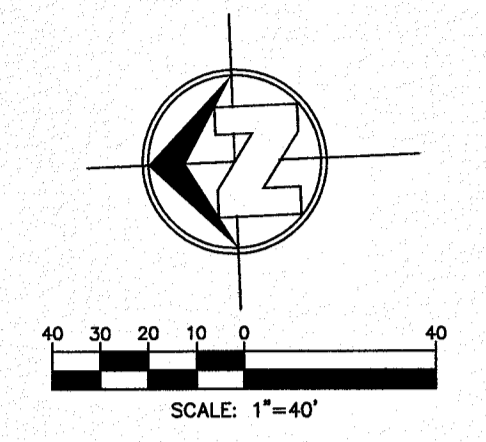
  

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)
BENCHMARK
SCALE: AS INDICATED
DESIGN NO: 09-16-3811
DESIGN BY: J/J/T
CHECKED BY: G/H/E
DATE: OCTOBER 2018
PROJECT NAME: DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
EL PASO, TEXAS
JUSTICE STREET
SLI ENGINEERING, INC. CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS PLANNING 9800 P.O. BOX 1407 EL PASO, TEXAS 79907 (915) 584-1407
LICENSE No. F-1902
OCTOBER 24, 2018
SHEET TITLE
STORM DRAIN LINE "B" PLAN AND PROFILE
C-02.07



**1** STORM DRAIN LINE "B2"  
C-02.08 SCALE: 1"=40'

\* TYPE 1 INLET CAPACITY INCLUDES A 50% CLOGGING FACTOR FOR THE GRATE AND 33.33% CLOGGING FACTOR FOR CURB OPENING



NO.	DATE	REVISION DESCRIPTION

SECTION CORNER FOR SECTIONS 28-38-37 & 38-37-38 BLOCK 28 PARTS 2 & 3, TOWNSHIP 2 NORTH, RANGE 38 EAST, COUNTY OF EL PASO, TEXAS ELEVATION: 3839.38 (NAVD88 DATUM)
--

SCALE: AS INDICATED	JOB NO.: 08-16-3811
DESIGN BY: J/JET	CHECKED BY: GH/FE
DATE: OCTOBER 2018	DESIGNER: SLI ENGINEERING, INC.

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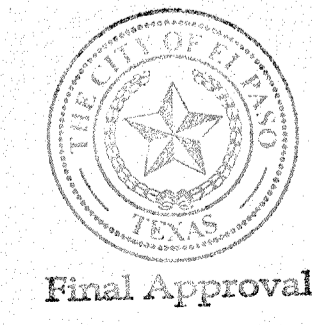
PROJECT NAME DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	BENCHMARK ELEVATION: 3839.38 (NAVD88 DATUM)
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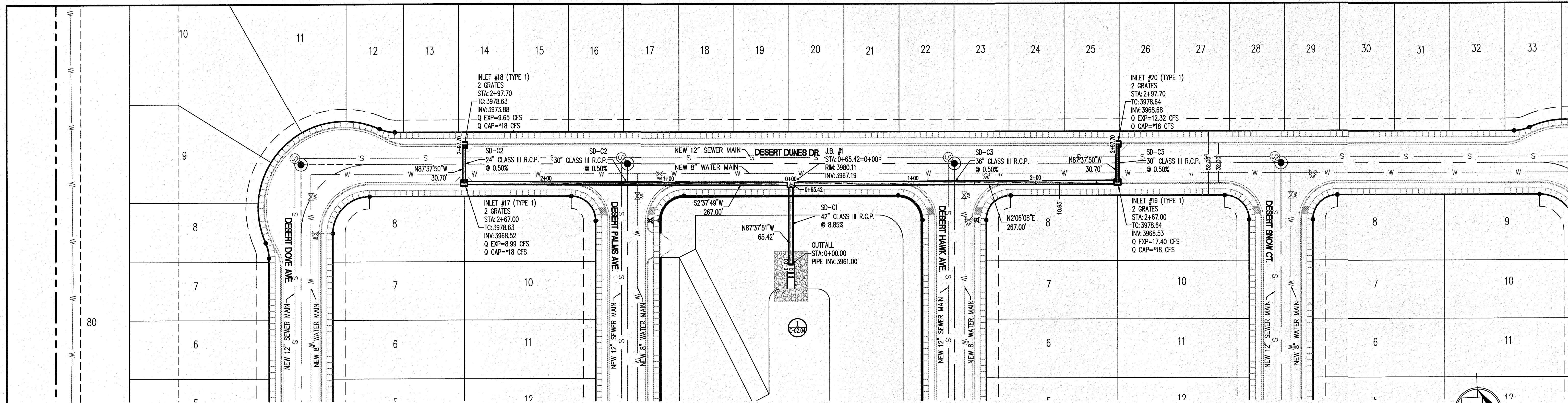
PROJECT NAME DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	EL PASO, TEXAS
--	----------------

 CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS 6605 W. TEXAS AVE. EL PASO, TEXAS 79907 (915) 584-1407	LICENSE No. F-1902  OCTOBER 24, 2018 SHEET TITLE STORM DRAIN LINE "B" PLAN AND PROFILE C-02.08
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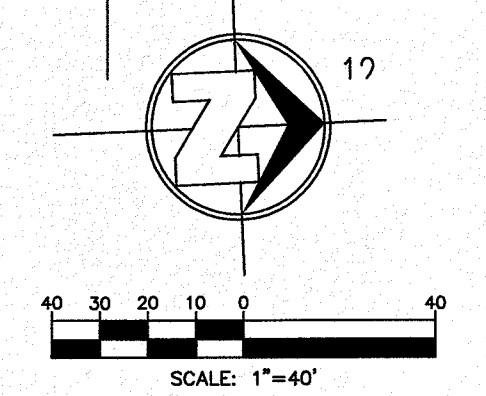


Final Approval



**1 STORM DRAIN LINE "C"**  
 C-02.09 SCALE: 1"=40'

\* TYPE 1 INLET CAPACITY INCLUDES A 50% CLOGGING FACTOR FOR THE GRATE AND 33.33% CLOGGING FACTOR FOR CURB OPENING



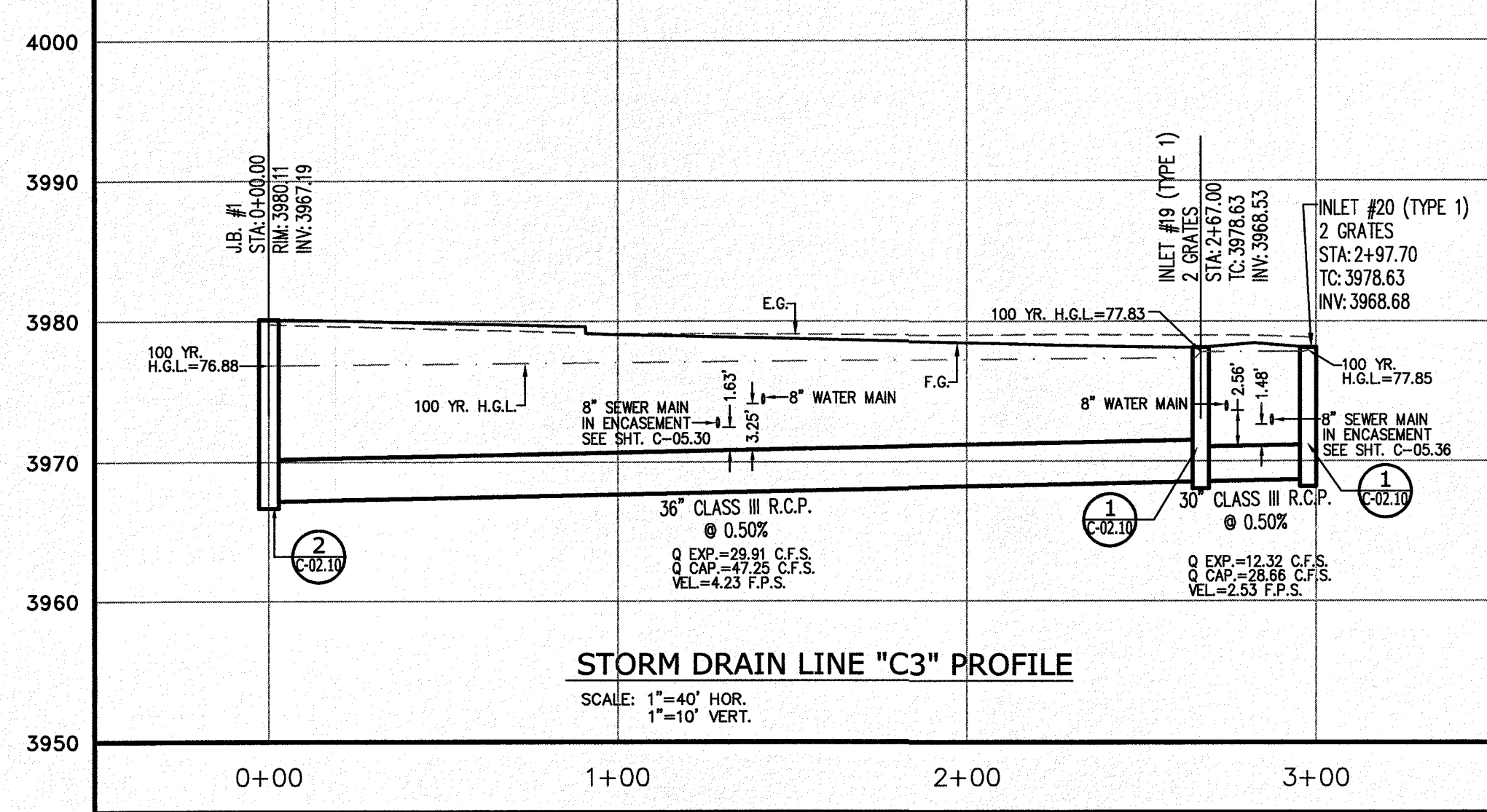
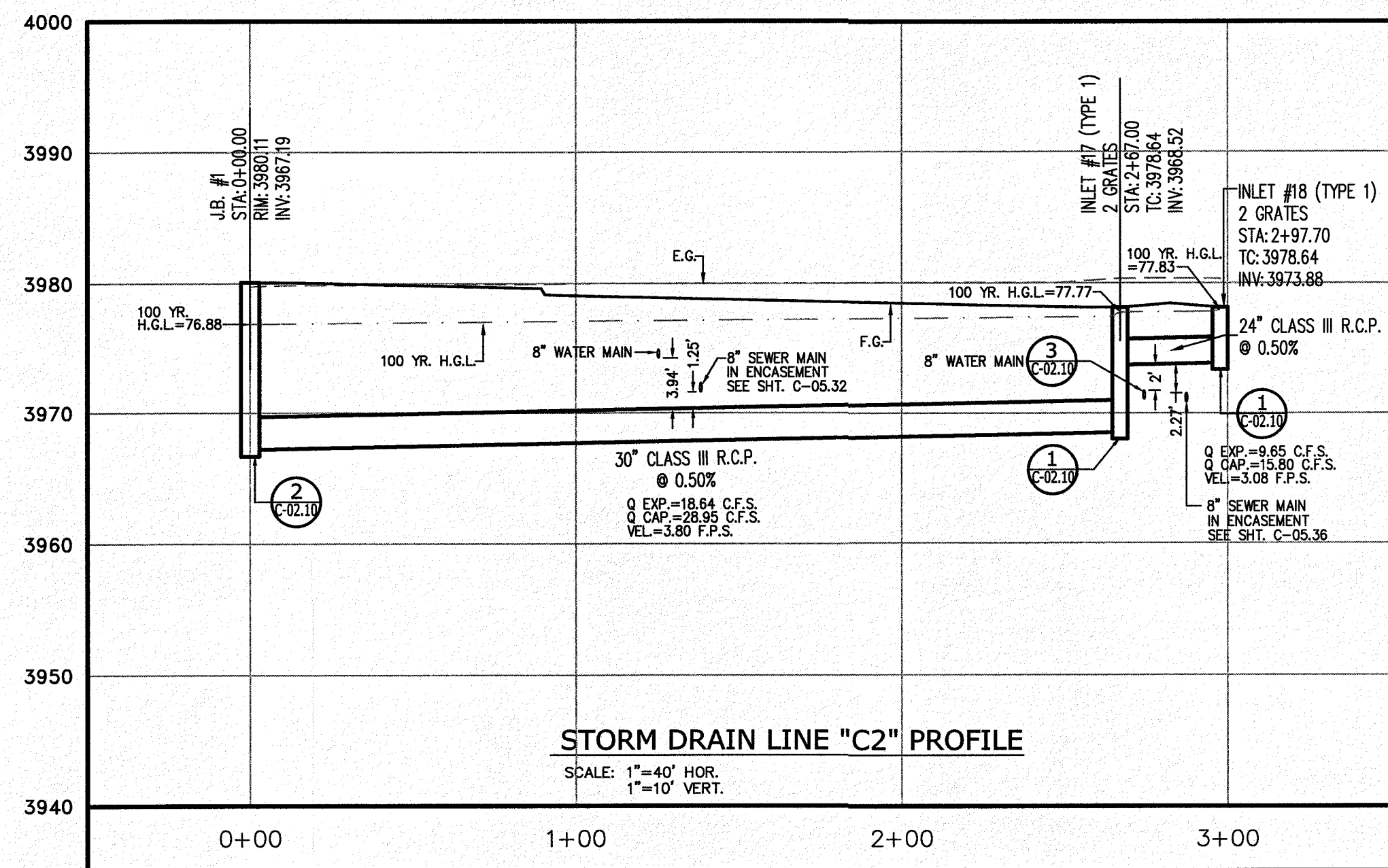
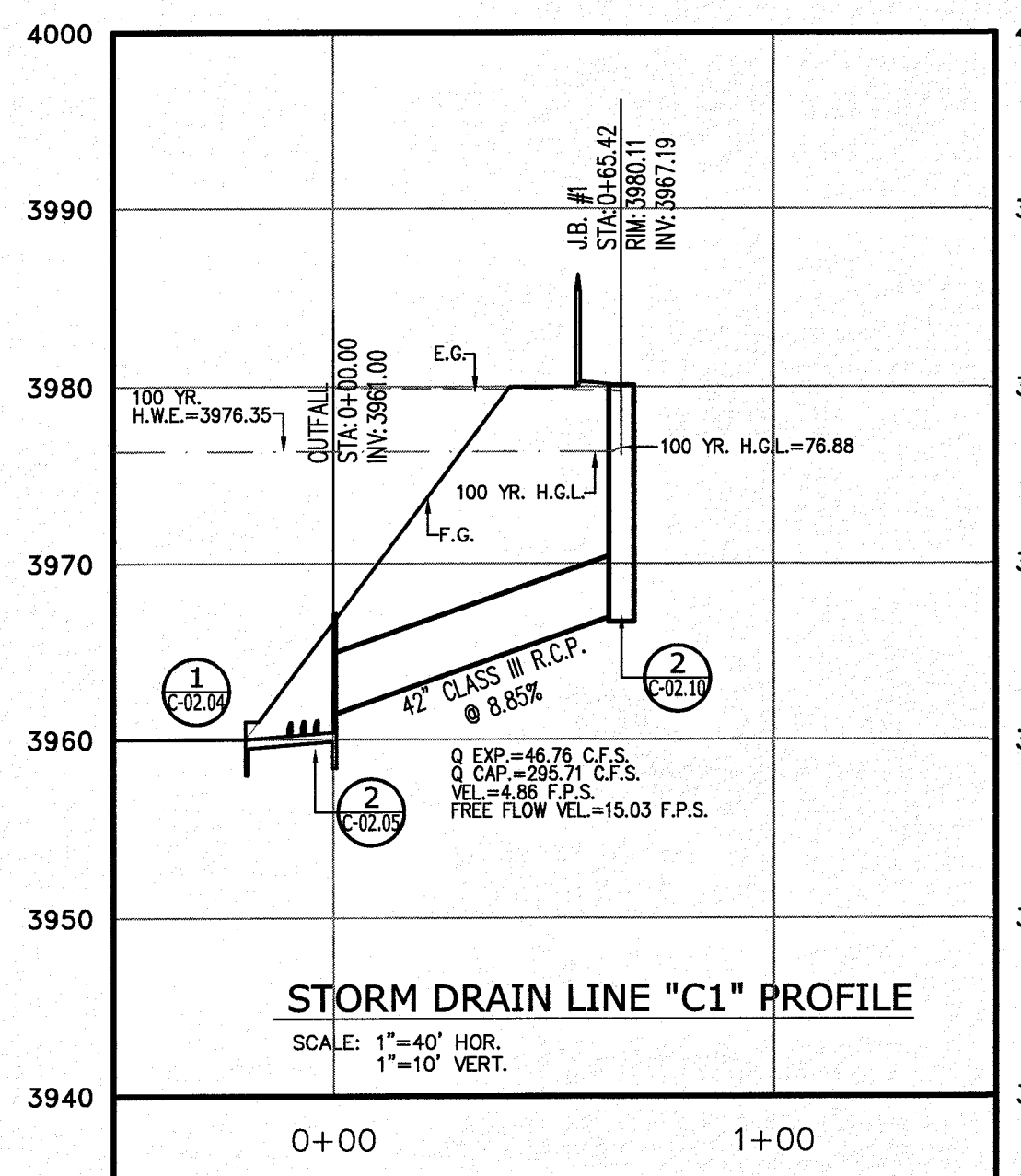
NO.	DATE	REVISION DESCRIPTION

BENCHMARK

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS 2  
 ELEVATION: 3539.38 (NAVD88 DATUM)

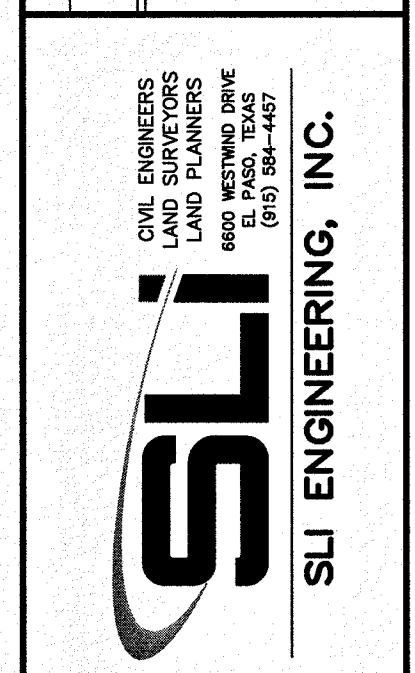
AS INDICATED  
 JOB NO.: 09-16-3911  
 DESIGN BY: J/J/T  
 CHECKED BY: GH/FE  
 DATE: OCTOBER, 2018

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PROJECT NAME  
**DESERT SANDS**  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS  
 JUSTICE STREET



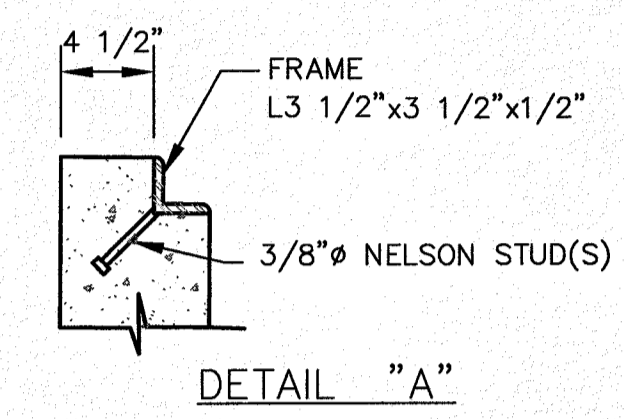
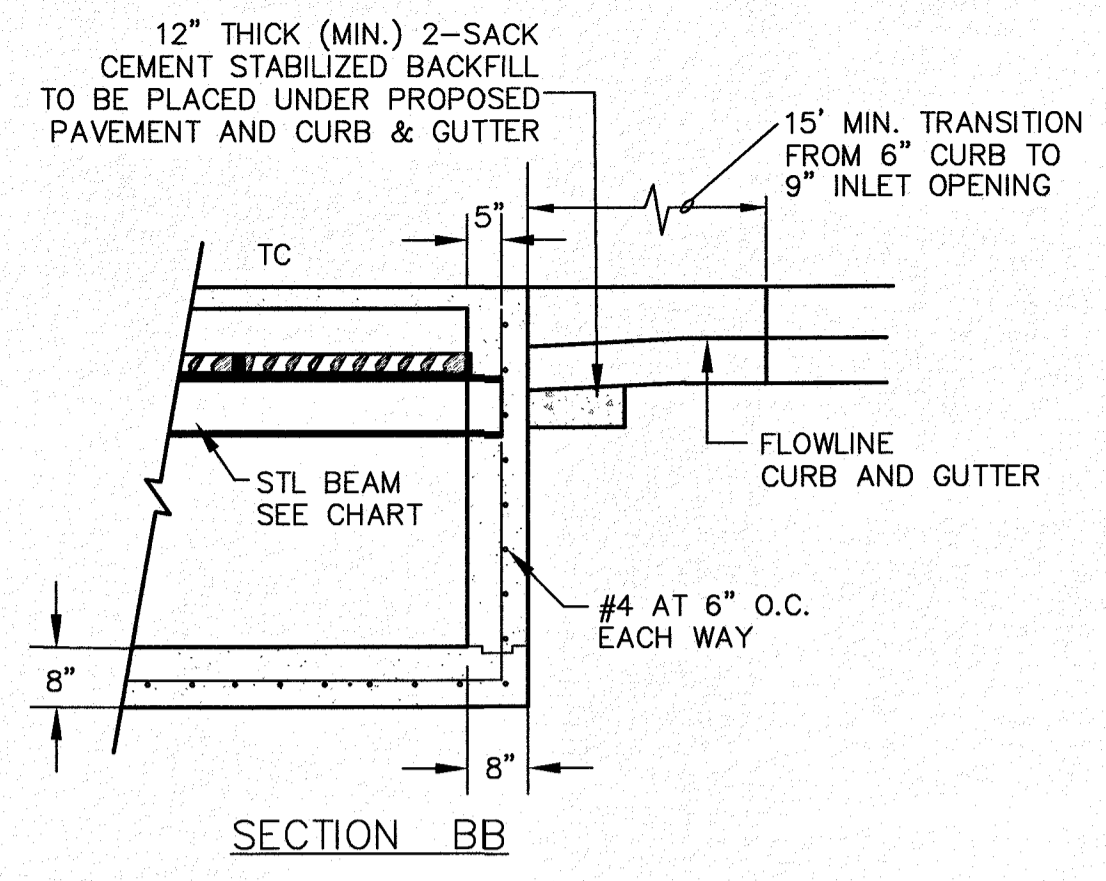
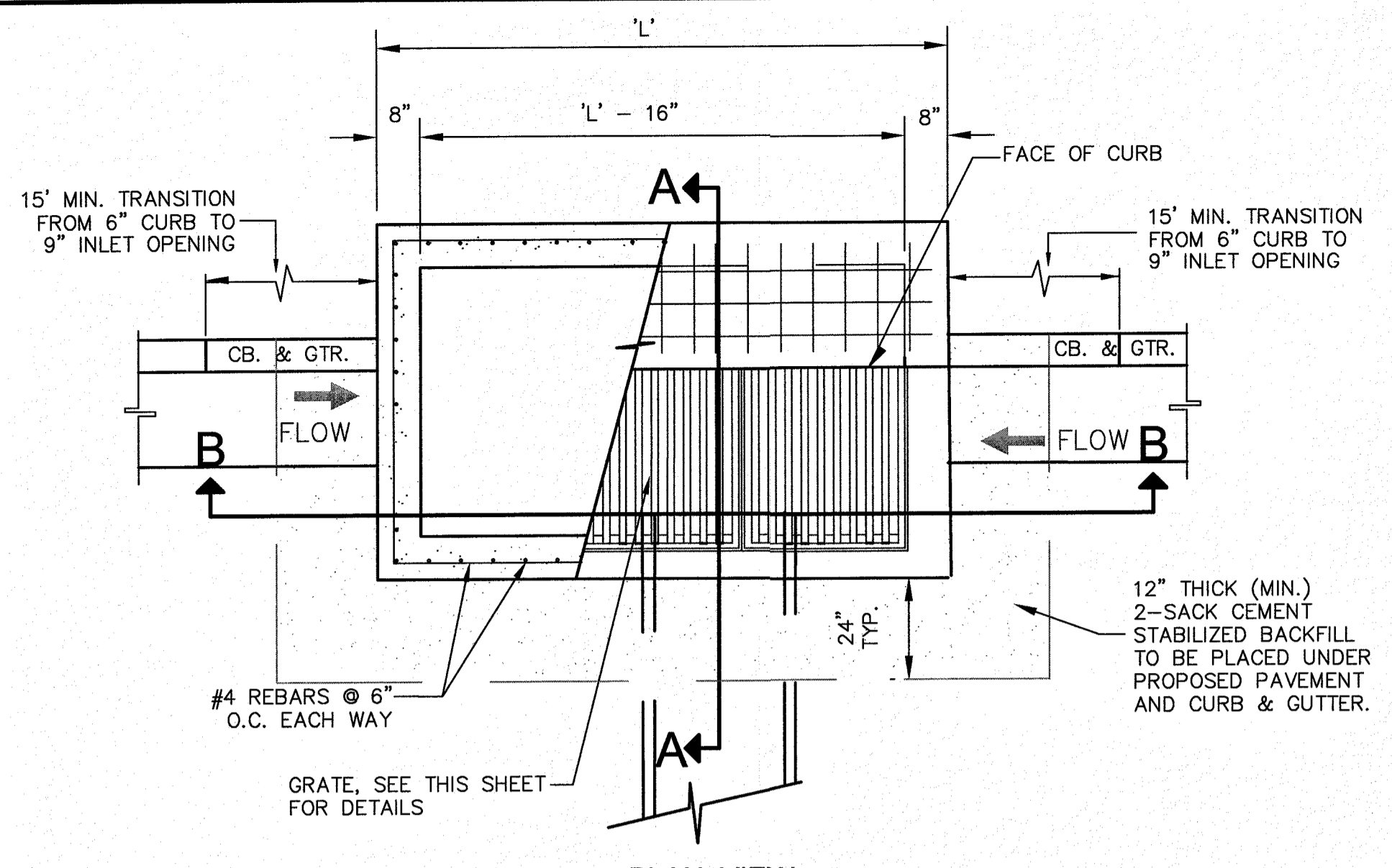
LICENSE No. F-1902

OCTOBER 24, 2018

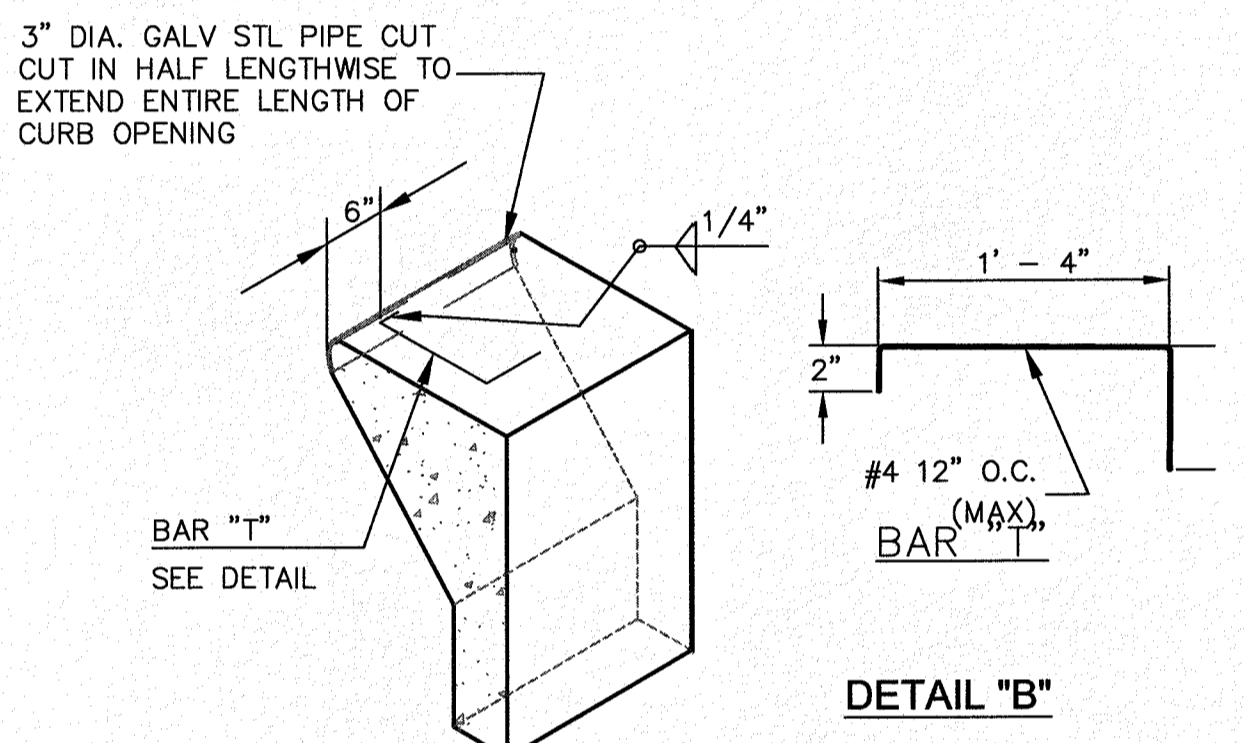
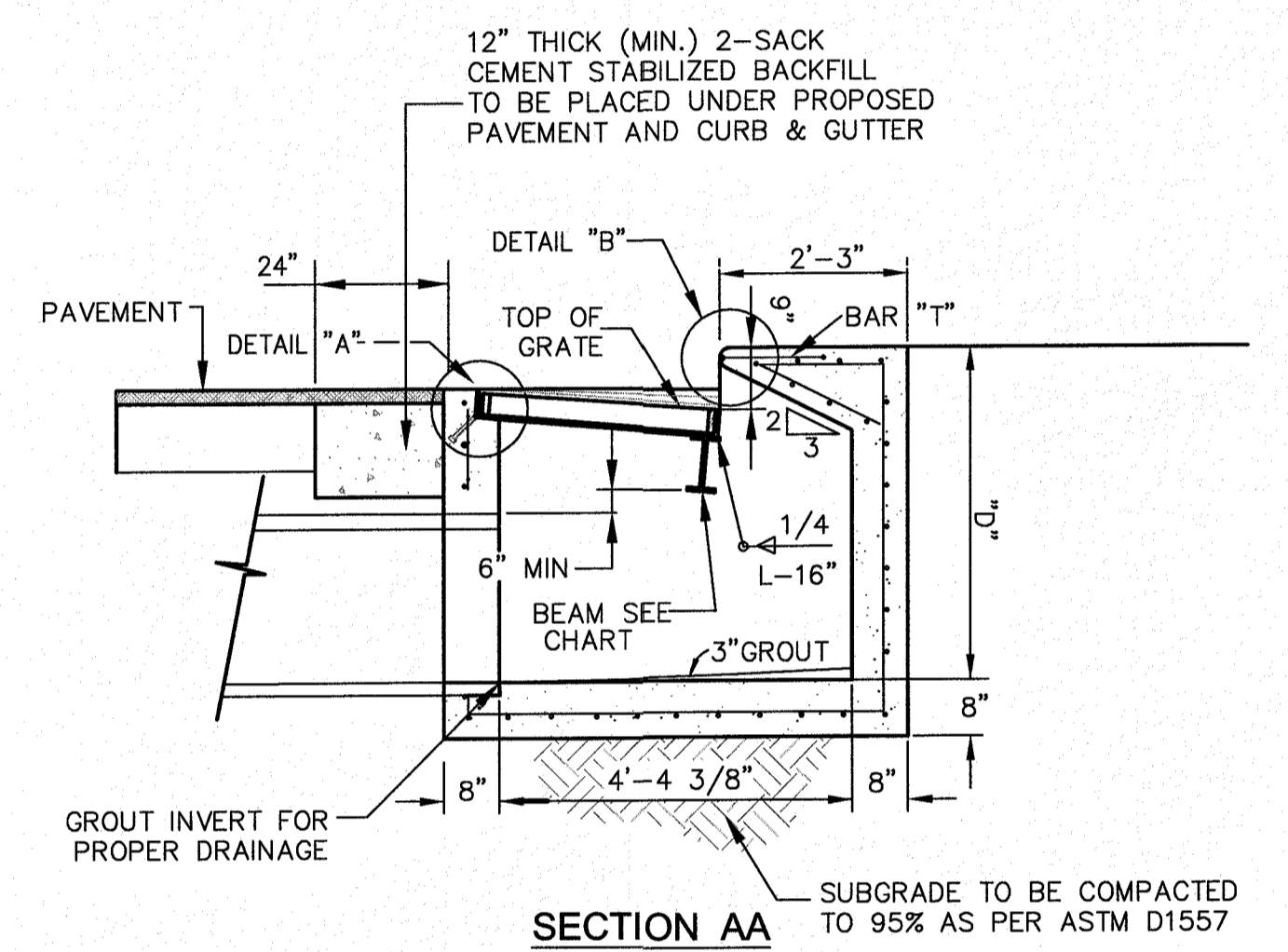
SHEET TITLE

**STORM DRAIN LINE "C" PLAN AND PROFILE**

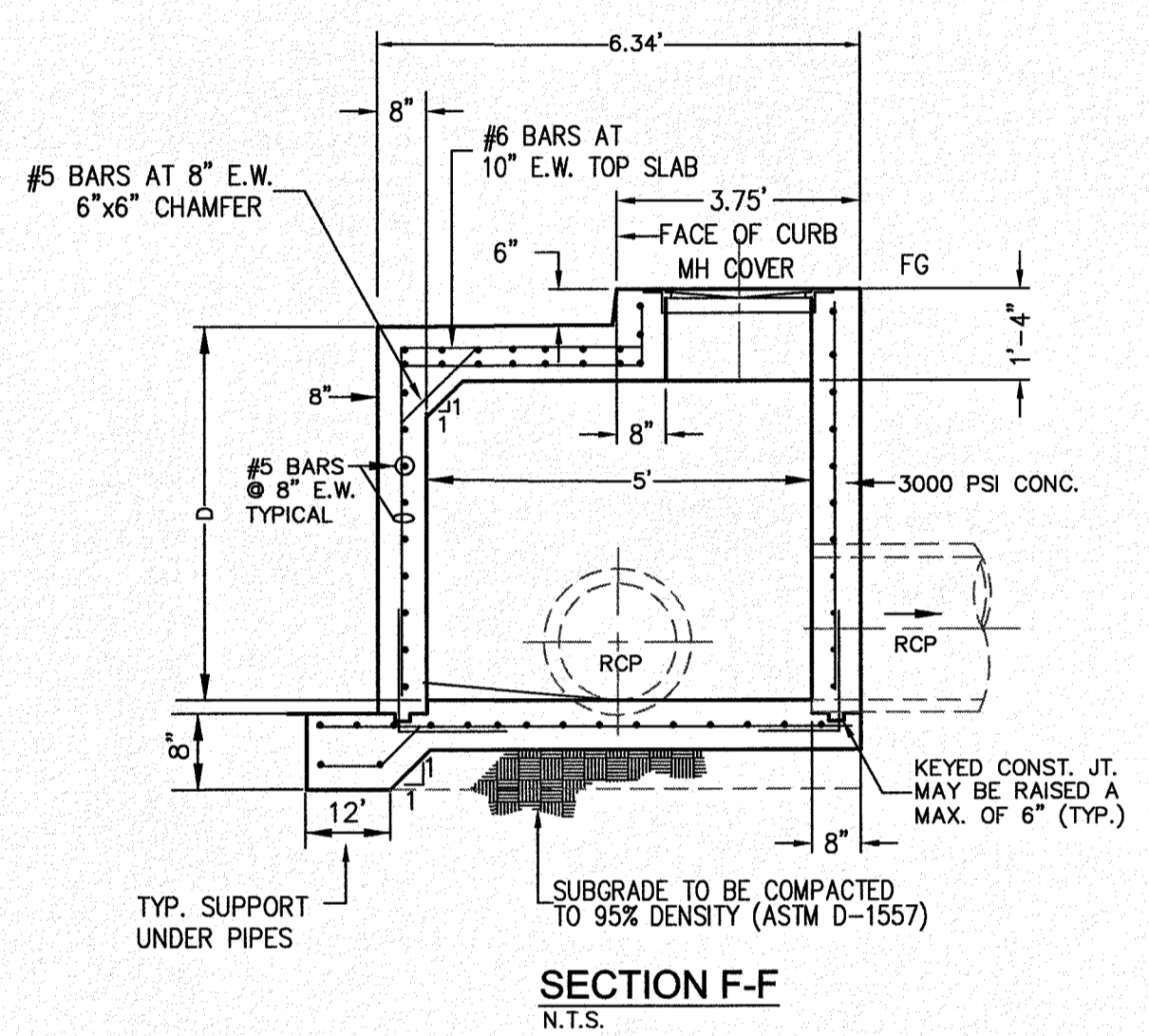
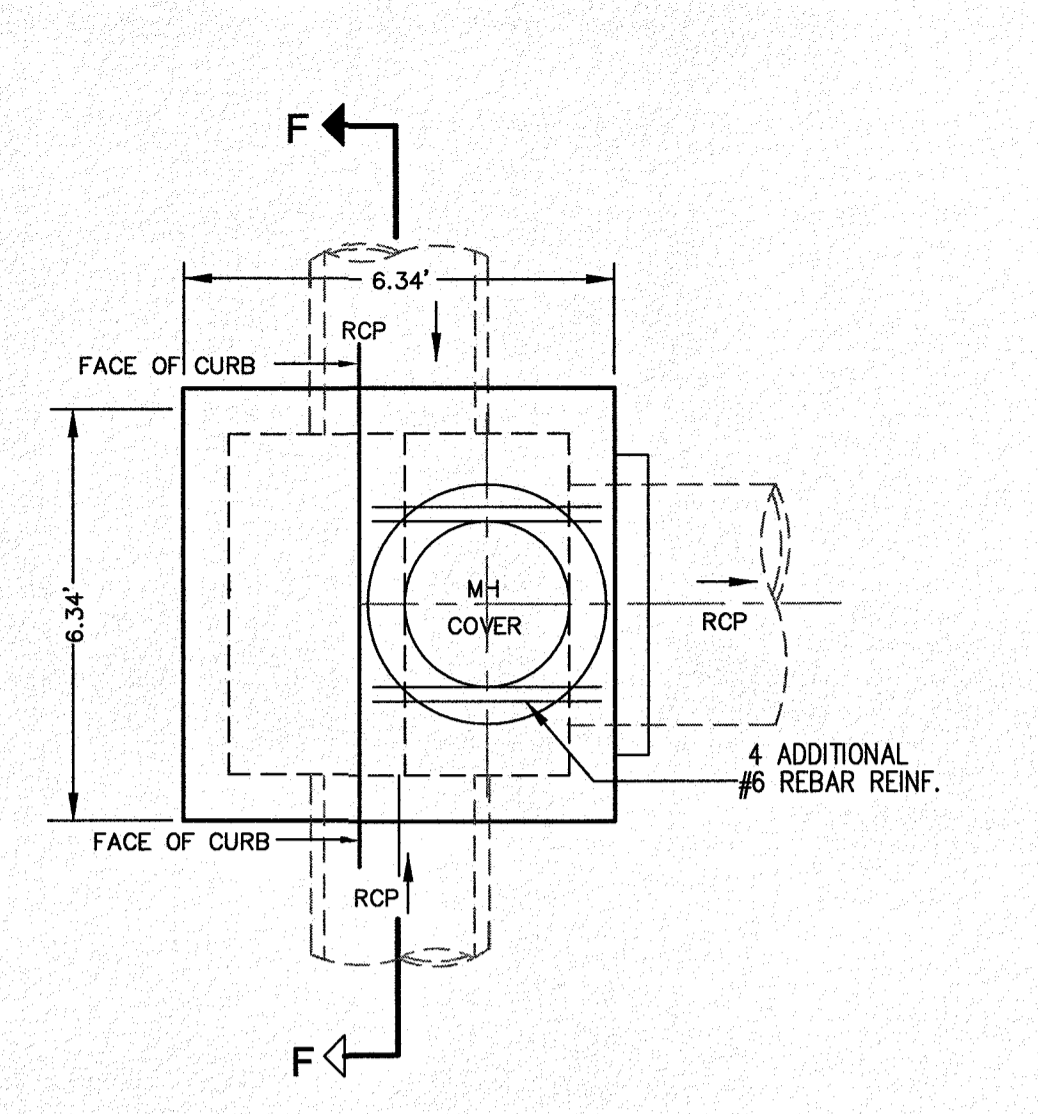
**C-02.09**



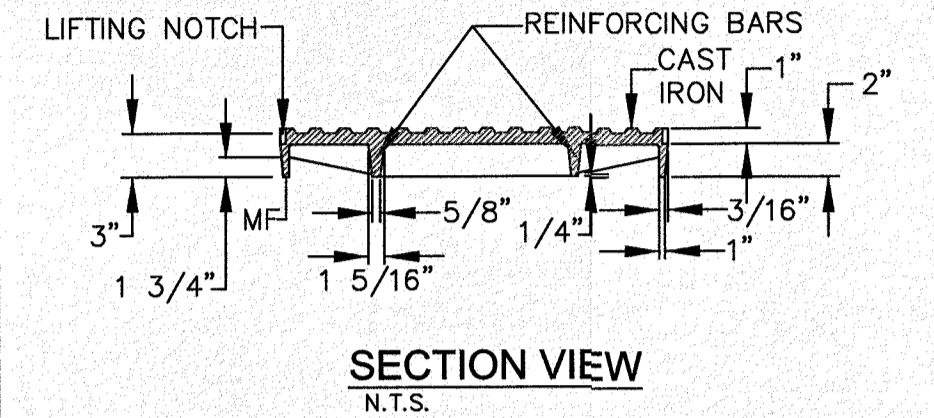
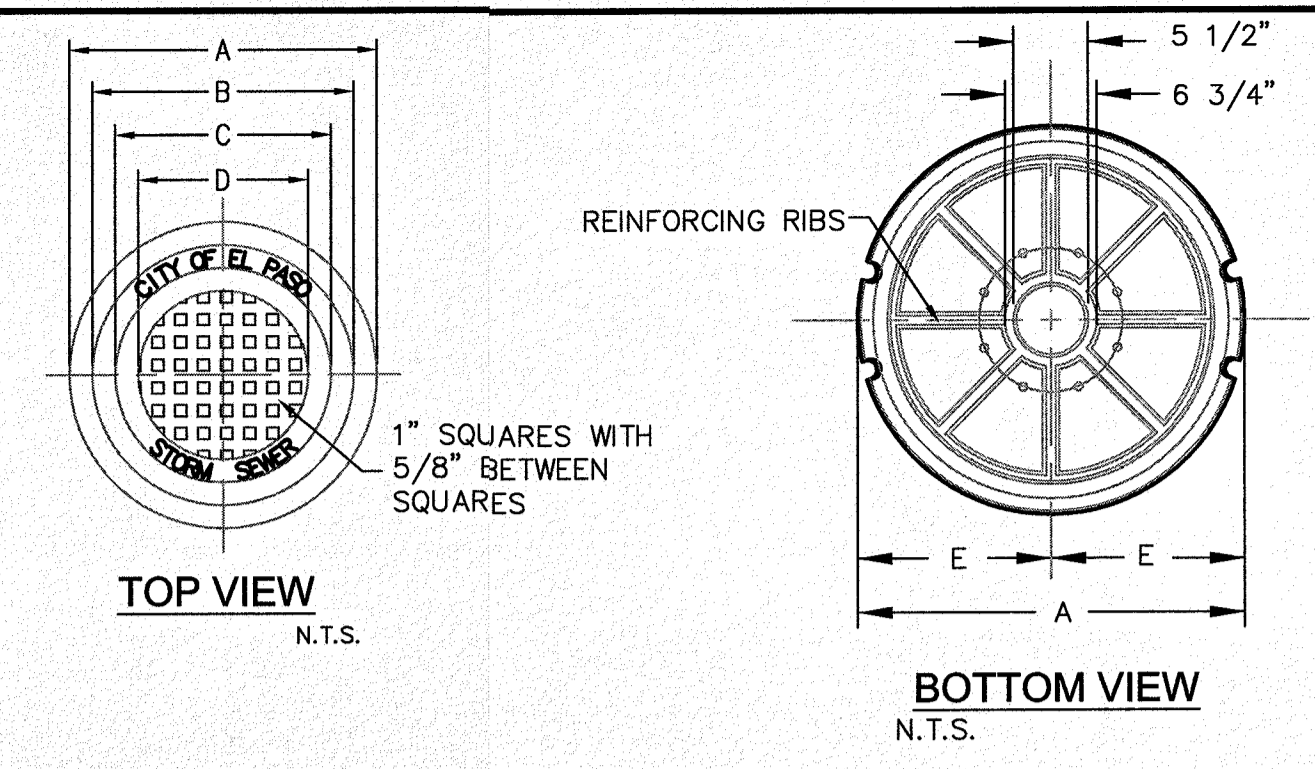
1. CONCRETE TO BE 3000 psi MIN CORE TEST @ 28 DAYS.
2. GRATE TO BE PERPENDICULAR TO TRAFFIC.



1 TYPICAL INLET DETAILS : TYPE I  
C-02.10 N.T.S.

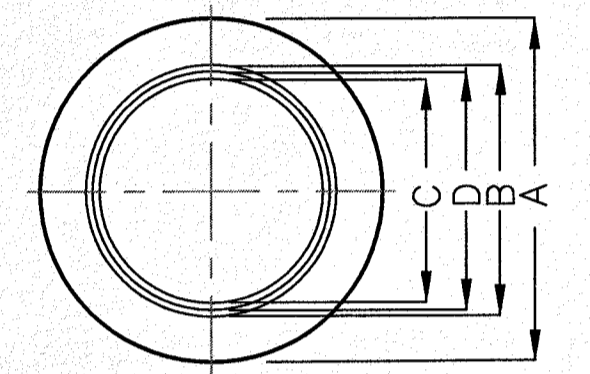


2 CAST-IN-PLACE JUNCTION BOX DETAILS  
C-02.10 N.T.S.

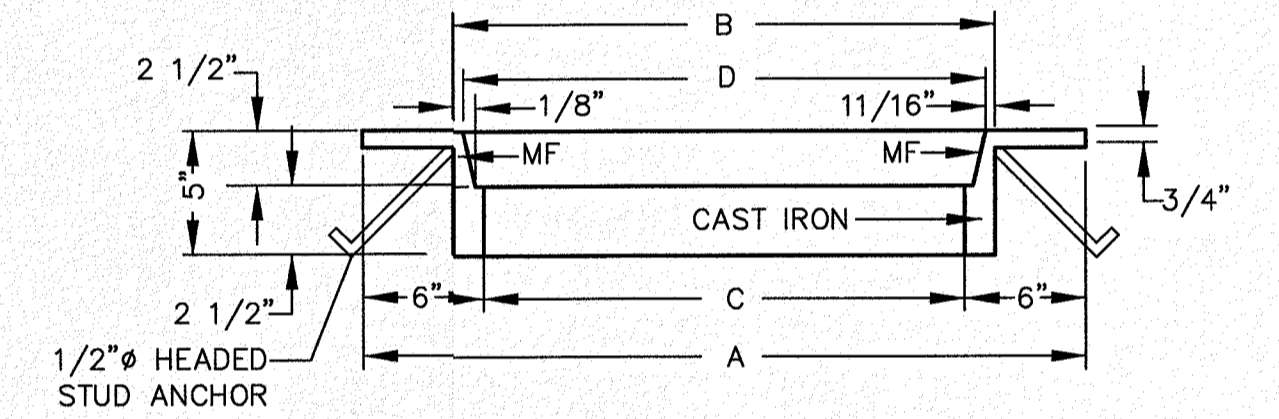


STD. MH COVER  
N.T.S.

MANHOLE COVER	72" MANHOLE
WEIGHT	310 LBS.
A	2'-7 1/4"
B	2'-4 1/8"
C	2'-3/8"
D	1'-9 7/8"
E	1'-3 5/8"



SLAB TYPE RING SECTION  
N.T.S.

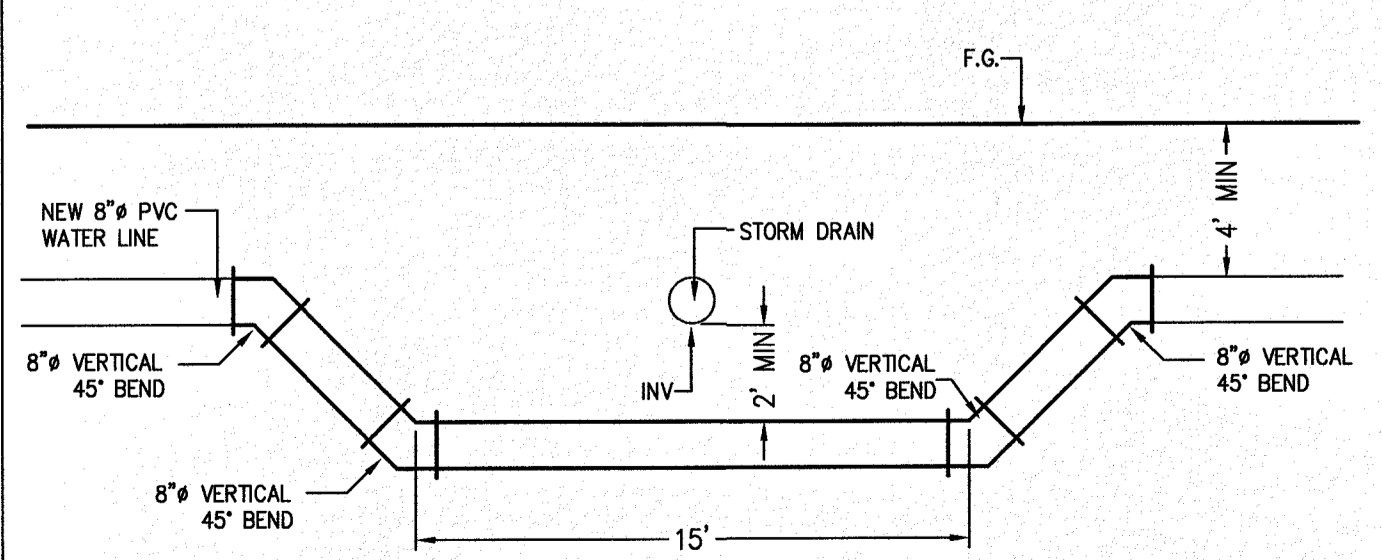


MANHOLE RING AND COVER DETAILS  
N.T.S.

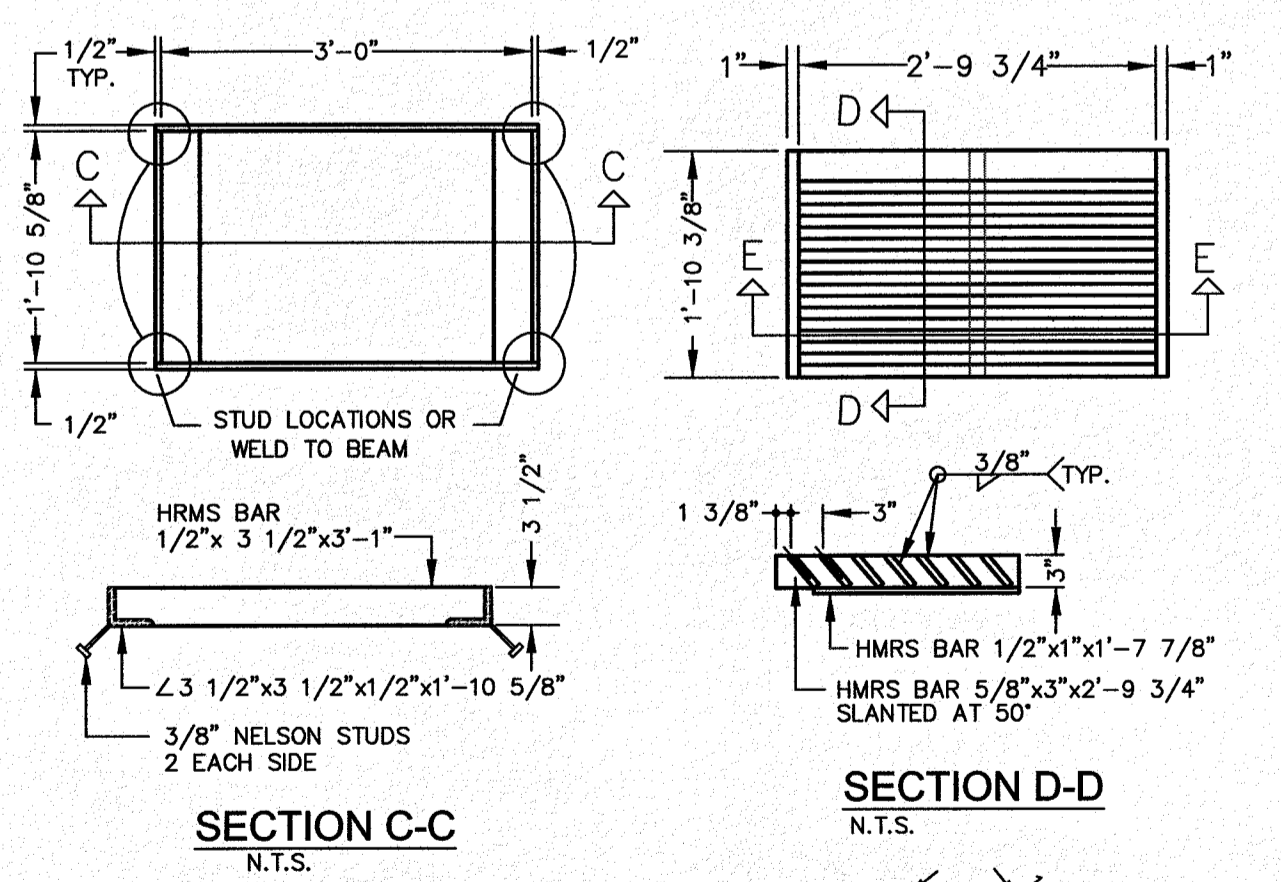
- NOTES: (ALL INLETS)**
1. WELDED STEEL OR CAST GRATES AS DETAILED ARE ALL ACCEPTABLE GRATES. MIXING OF ALTERNATE TYPES OF GRATES ON THE SAME PROJECT WILL BE PERMITTED WITH THE APPROVAL OF THE CITY ENGINEER.
  2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT STANDARD SPECIFICATIONS.
  3. SHARP EDGES RESULTING FROM FABRICATION SHALL BE DULLED BY ANY ACCEPTABLE METHOD FOR SAFETY IN HANDLING.
  4. WELDED GRATES SHALL BE STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-183 OR OF CORROSION RESISTANT STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-161 OR M-222 OR BE MADE OF OTHER APPROVED STEELS OF EQUAL QUALITY. MIXING GRADES OF STEEL ON THE SAME GRATE WILL NOT BE PERMITTED.
  5. GRATES MADE OF M-183 STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111 SPECIFICATIONS OR SHALL BE PAINTED WITH INORGANIC ZINC PAINTS, MEETING THE REQUIREMENTS OF CURRENT STANDARD SPECIFICATIONS.
  6. ALL WELDS SHALL BE A MINIMUM OF 1/4" FILLET AND SHALL CONFORM TO THE SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND TO THE AWS STRUCTURAL WELDING CODE. ELECTRODES SHALL BE COMPATIBLE TO THE DIFFERENT GRADES OF STEEL THAT COMPRISE THE GRATE MEMBERS.
  7. CAST GRATES SHALL BE CAST STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-103, GRADE 65-35 OR OF DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF ASTM A-536, SPECIAL GRADE 60-45, OR OF GRAY IRON CONFORMING TO THE REQUIREMENTS OF AASHTO M-105, CLASS 35B OR ASTM A-48 CLASS 35B. THE SPECIFICATIONS OF GENERAL APPLICATION FOR CAST STEEL GRATES SHALL BE AASHTO M-103 SCOPE 1.2.1, GRADE N-1.
  8. FERROUS CASTINGS SHALL BE OF UNIFORM QUALITY, FREE OF BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR OTHER APPROVED CLEANING METHOD. AFTER CLEANING THEY SHALL BE COATED WITH ASPHALT BASE PAINT RESULTING IN A SMOOTH COATING, TOUGH AND TENACIOUS WHEN COLD, NOT TACKY NOR BRITTLE.
  9. ALL CASTINGS SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER.
  10. ALL CONCRETE TO BE 3000 PS. CHAMFER ALL EXPOSED EDGES 3/4". ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
  11. MINIMUM CONCRETE COVER SHALL BE 1-1/2" FOR STEEL REINFORCING.
  12. EXPANSION MATERIAL TO BE 1/2" BITUMINOUS FIBER AND BE PLACED WHERE PROPOSED CONCRETE COMES IN CONTACT WITH ANY EXISTING OR PROPOSED CONCRETE OR MASONRY STRUCTURE.
  13. STRUCTURAL STEEL SHALL BE PAINTED IN ACCORDANCE WITH T.H.D. ITEM 446 "PAINT AND PAINTING".
  14. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
  15. ALL REINFORCING BARS TO #4 BARS (GRADE 60K) AT 6" O.C. GRADE 60. BEND BARS AROUND PIPE OPENINGS.
  16. THE GRATES OF ALL INLETS WITHIN THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.

INLET TABLE										
INLET NO.	TYPE	GRATES	"L"	"D"	BEAM SIZE	T.C.	T.G.	INVERT	CAP. Q (CFS)	
1	1	3	7'-0 1/4"	11.22'	W8x15	84.30	-	73.08	27.00 +	
2	1	3	7'-0 1/4"	9.65'	W8x15	84.30	-	74.65	27.00 +	
3	1	3	7'-0 1/4"	7.30'	W8x15	84.28	-	76.98	27.00 +	
4	1	2	8'-1 1/8"	4.75'	W8x12	84.28	-	79.53	18.00 +	
5	1	4	9'-1 1/2"	6.57'	W9x18	84.60	-	78.03	36.00 +	
6	1	2	8'-1 1/8"	6.29'	W8x12	84.60	-	78.31	18.00 +	
7	1	3	7'-0 1/4"	7.83'	W8x15	83.45	-	76.62	27.00 +	
8	1	3	7'-0 1/4"	5.38'	W8x15	82.70	-	77.32	27.00 +	
9	1	2	8'-1 1/8"	5.10'	W6x12	82.70	-	77.60	18.00 +	
10	1	3	7'-0 1/4"	5.65'	W8x15	77.86	-	72.21	27.00 +	
11	1	2	8'-1 1/8"	5.50'	W6x12	77.86	-	72.36	18.00 +	
12	1	3	7'-0 1/4"	11.55'	W8x15	83.83	-	72.28	27.00 +	
13	1	4	9'-1 1/2"	9.32'	W9x18	82.70	-	73.38	36.00 +	
14	1	3	7'-0 1/4"	7.98'	W8x15	82.70	-	74.72	27.00 +	
15	1	4	9'-1 1/2"	6.64'	W9x18	82.70	-	76.06	36.00 +	
16	1	2	8'-1 1/8"	6.36'	W6x12	82.70	-	76.34	18.00 +	
17	1	2	8'-1 1/8"	10.11'	W8x12	78.63	-	68.52	18.00 +	
18	1	2	8'-1 1/8"	4.75'	W6x12	78.63	-	73.88	18.00 +	
19	1	2	8'-1 1/8"	10.31'	W8x12	78.64	-	68.33	18.00 +	
20	1	3	7'-0 1/4"	9.96'	W8x15	78.64	-	68.68	27.00 +	

+ TYPE 1 INLET CAPACITY INCLUDES A 50% CF FOR THE GRATE AND 33.33% CF FOR CURB OPENING  
 ++ TYPE 2 INLET CAPACITY INCLUDES A 50% CF FOR THE GRATE  
 CF= CLOGGING FACTOR

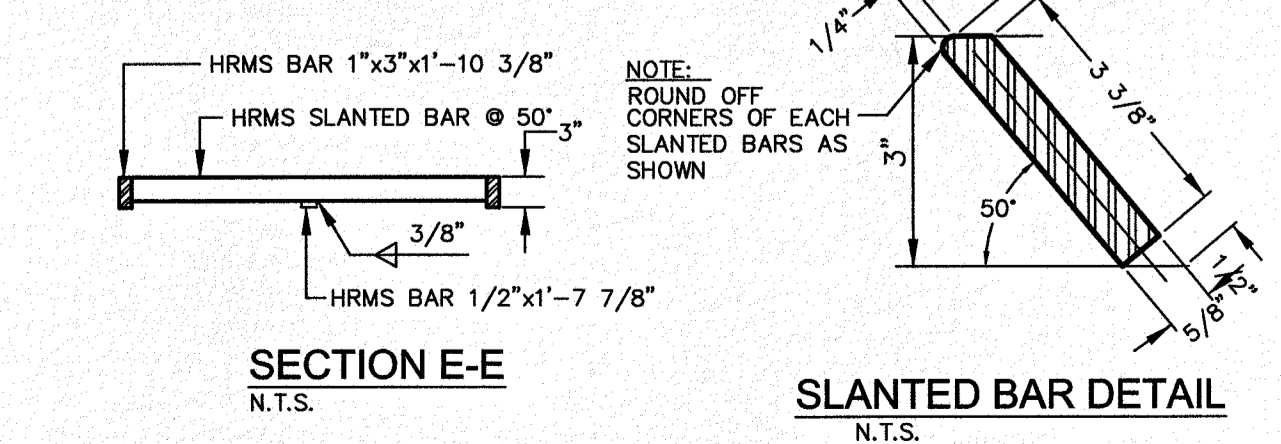


3 WATER LINE CROSSING CONFLICT DETAIL  
C-02.10 N.T.S.



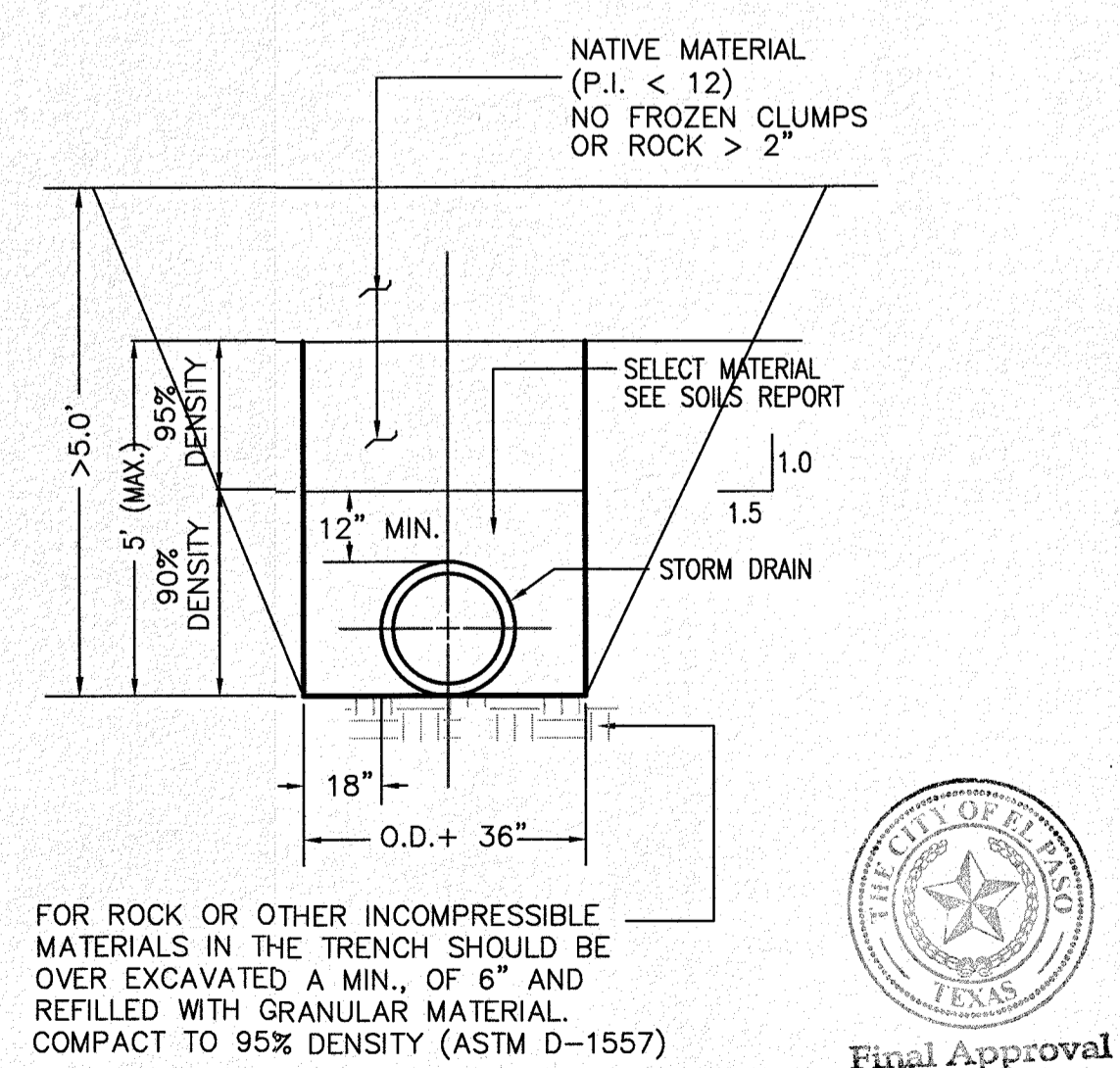
SECTION C-C  
N.T.S.

SECTION D-D  
N.T.S.



SLANTED BAR DETAIL  
N.T.S.

FRAME AND GRATE DETAILS  
N.T.S.



FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS IN THE TRENCH SHOULD BE OVER EXCAVATED A MIN., OF 6" AND REFILLED WITH GRANULAR MATERIAL. COMPACT TO 95% DENSITY (ASTM D-1557)

NOTE: THE CONTRACTOR SHALL ABIDE BY ALL OF THE LATEST OSHA REGULATIONS CONCERNING PIPE INSTALLATIONS AND TRENCH SAFETY PROCEDURES. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A TRENCH SAFETY PLAN, FOR APPROVAL, PRIOR TO BEGINNING WORK ON THE SITE.

TRENCH SECTION: STORM DRAIN  
N.T.S.

REVISION DESCRIPTION

DATE

BENCHMARK

NO.

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3539.38 (NAVD88 DATUM)

SCALE: AS INDICATED

JOB NO.: 09-16-3811

DESIGN BY: J/JT

CHECKED BY: GH/FE

DATE: OCTOBER 2018

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DESERT SANDS

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

JUSTICE STREET

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
PLANNING  
1100 W. WALKER STREET  
SUITE 300  
EL PASO, TEXAS 79901  
PH: 915.764.4657  
FAX: 915.764.4658

SLI ENGINEERING, INC.

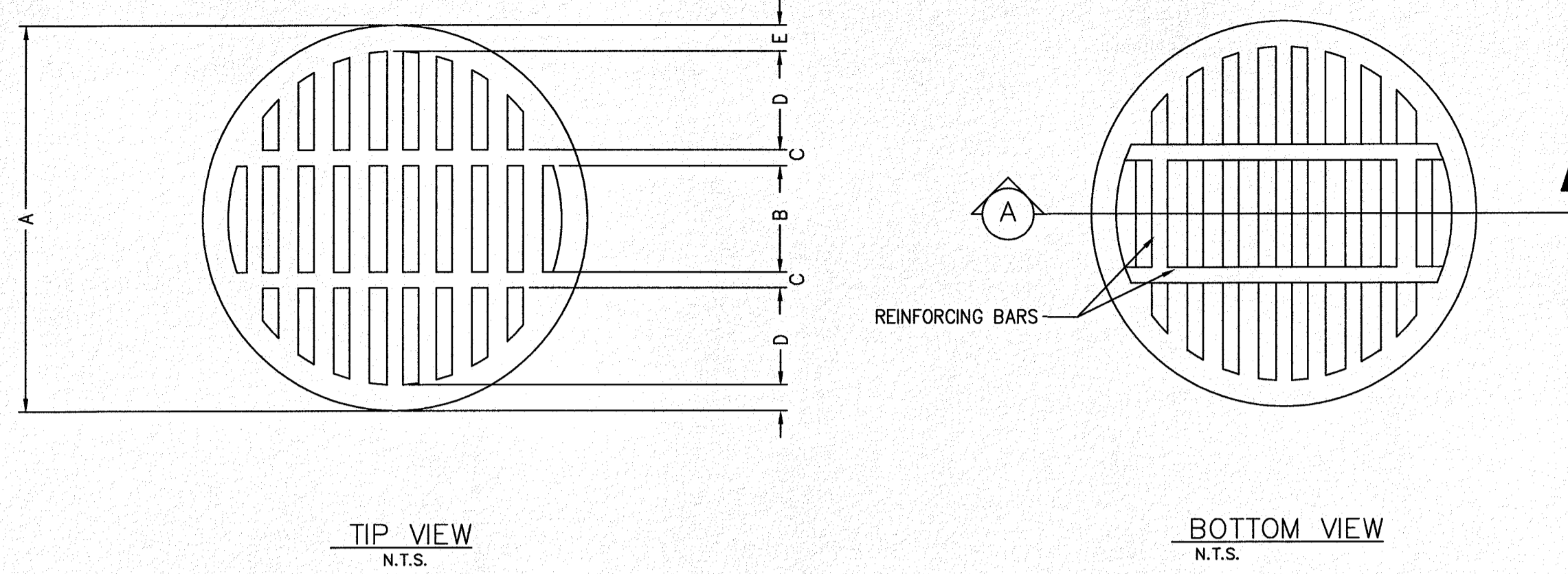
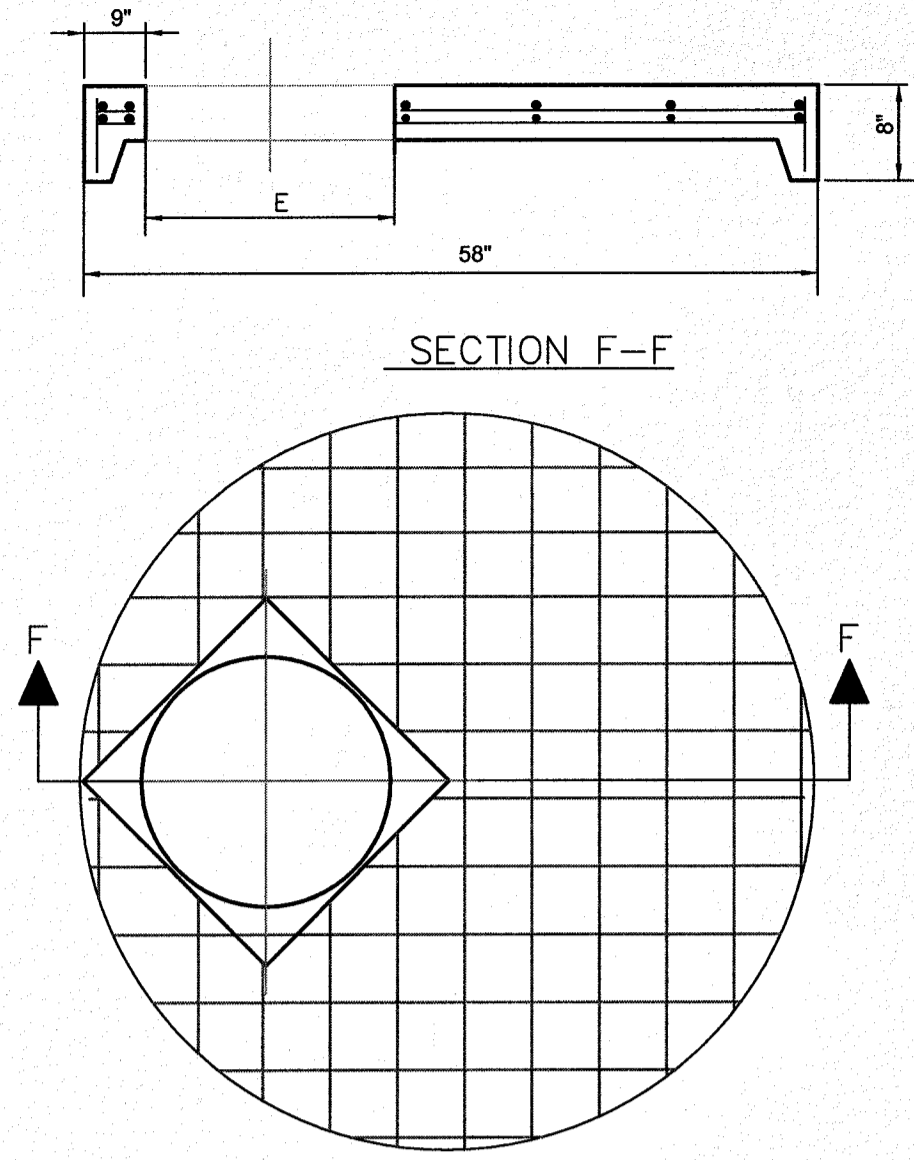
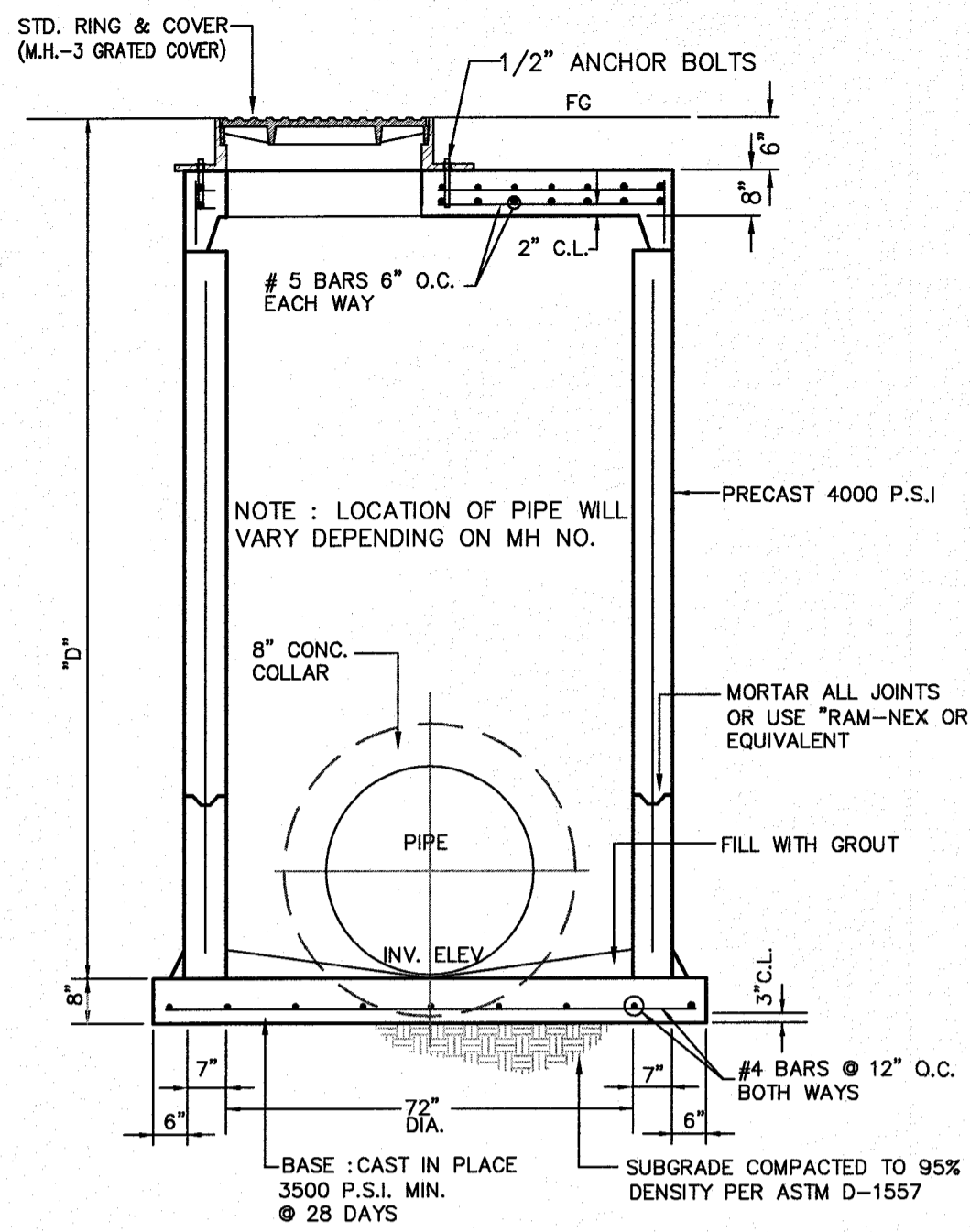
LICENSE No. F-1902

OCTOBER 24, 2018

SHEET TITLE

INLET AND JUNCTION BOX DETAILS

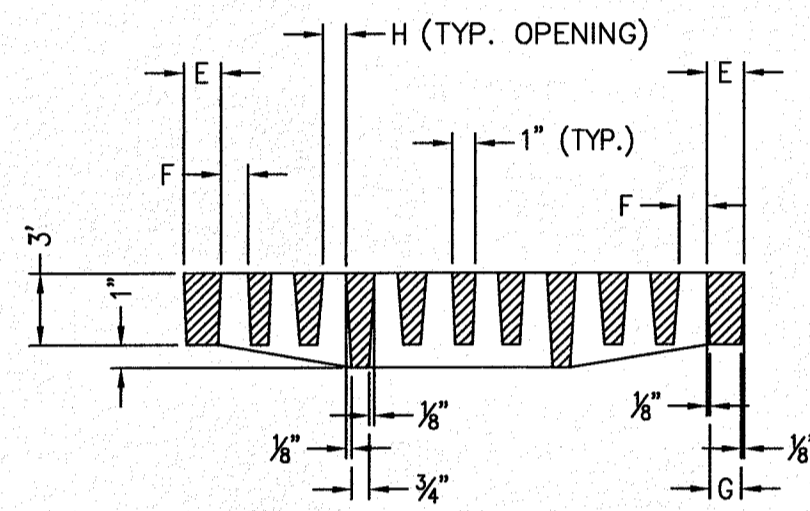
C-02.10



NOTE:  
THIS MANHOLE COVER FITS IN A STANDARD MANHOLE RING (SEE 2-16)

GENERAL NOTES:  
1. MATCHING SURFACES MARKED "MF" TO BE MACHINE FINISHED OR ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.  
2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.

MANHOLE COVER	48" MANHOLE	72" MANHOLE
WEIGHT	175 LBS.	310 LBS.
A	1'-113/4"	2'-71/4"
B	6 1/2"	9"
C	1"	1 1/2"
D	6"	8"
E	1 5/8"	1 5/8"
F	1-1/4"	1"
G	1 3/8"	1 3/8"
H	1"	1"



GRATED COVER DETAILS  
N.T.S.

TYPICAL SECTION

MANHOLE GENERAL NOTES

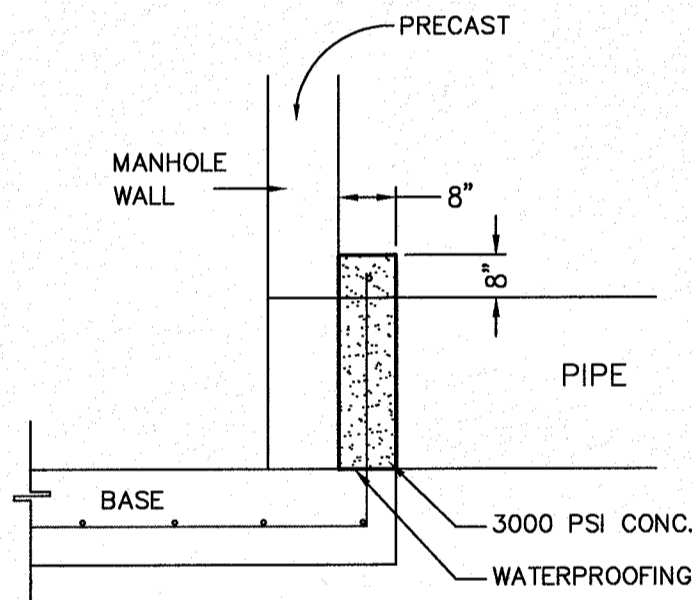
- MANHOLES SHALL BE MANUFACTURED IN CONFORMANCE W/ ASTM C-478-93 AND MEETING ALL REQUIREMENTS AND DIMENSIONS.  
MINIMUM WALL THICKNESS SHALL BE 1/2 OF INTERNAL DIAMETER OF RISER OR LARGEST CORE DIAMETER. REINFORCEMENT SHALL BE 6" X 6" 6/6 WWF (DOUBLE CAGE).  
CONCRETE SHALL HAVE A MINIMUM 4000 PSI @ 28 COMPRESSIVE STRENGTH. IN NO CASE SHALL THE COMPRESSIVE STRENGTH FALL BELOW 3200 PSI BY TESTING CYLINDERS OR CORING OF FINISHED PRODUCT.  
AGGREGATES SHALL CONFORM TO SPECIFICATION C-33, EXCEPT THAT THE GRADATION SHALL NOT APPLY.  
JOINTS ARE TONGUE AND GROOVE TYPE.
- POURED IN PLACE CONCRETE MUST HAVE A MINIMUM ALLOWABLE COMPRESSIVE STRENGTH OF 3000 p.s.i. @ 28 DAYS.
- MASONRY IF USED, TO BE COMMON BRICK WITH ASTM TYPE "S" MORTAR 1800 p.s.i.
- ALL PRECAST JOINTS ON MANHOLES MUST BE GROUTED OR SEALED FOR A WATER TIGHT JOINT.
- MANHOLE COVER MUST BE FLUSH WITH FINISHED CONCRETE. (SLOPE TO MATCH FG.)
- MATCHING SURFACES MARKED "MF" TO BE MACHINE FINISHED
- CASTING OF MANHOLES, ETC. TO BE SMOOTH AND VOID OF AIR HOLES.

- CONSTRUCTION KEY NOTES:
- 4000 P.S.I. CONCRETE, 28 DAYS.
  - KEYLOCK ADDS 8" TO VERTICAL HEIGHT.
  - RING & COVER OR SPECIAL LIDS TO MEET REQUIREMENTS. MAY BE CAST IN PLACE.
  - REINFORCING SHALL MEET A.S.T.M. C478-87 AND TRAFFIC LOADING (HS-20)
  - SIZE TO ACCOMMODATE 24" MANHOLE RING.

MANHOLE COVER FOR TYPE 72" MANHOLE

GENERAL NOTES

- ALL JOINTS TO BE TONGUE AND GROOVE
- MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.



MH CONCRETE COLLAR DETAIL

1 PRECAST 72" Ø MANHOLE DETAILS  
C-02.11 N.T.S.

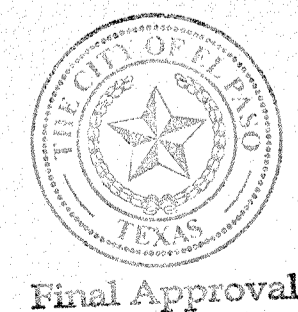
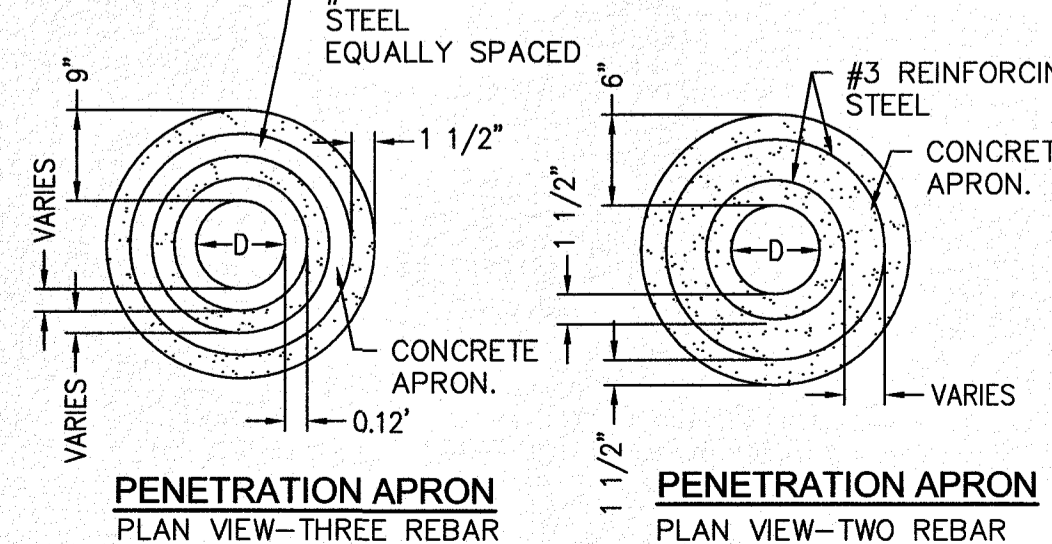
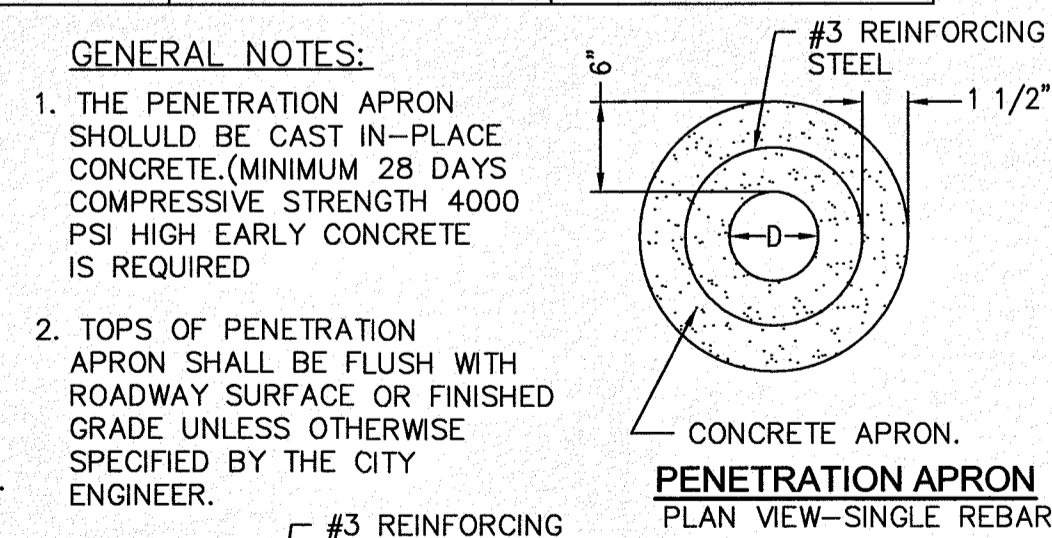
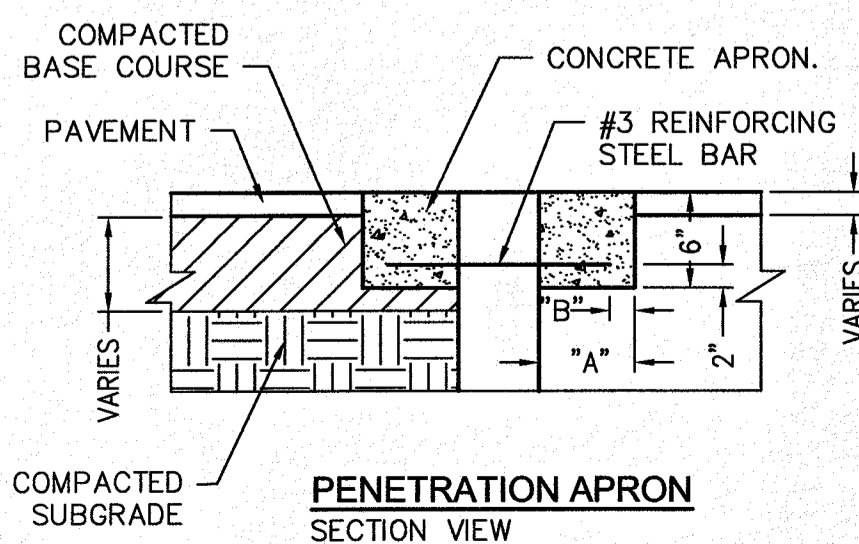
CONCRETE APRON FOR CIRCULAR PENETRATIONS IN ASPHALT PAVEMENTS				
"D" DIAMETER OF PENETRATION (INCHES)	"A" CONCRETE HORIZONTAL DIMENSION FROM PENETRATION (INCHES)	NUMBER OF NO. 3 REINFORCING STEEL BARS (INCHES)	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE APRON TO CENTER OF NEAREST REBAR (INCHES)	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR (INCHES)
0 TO 6.01	6	1	1 1/2	1 1/2
6.01 TO 18.01	8	2	1 1/2	1 1/2
18.01 AND OVER	12	3	1 1/2	1 1/2

CONSTRUCTION NOTES:

- ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
- ANY DISTURBED COARSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557
- PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
- REINFORCEMENT SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20)
- NO. 3 REINFORCING STEEL HOOP SHALL BE SPACED EQUALLY.

GENERAL NOTES:

- THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE (MINIMUM 28 DAYS COMPRESSIVE STRENGTH 4000 PSI HIGH EARLY CONCRETE IS REQUIRED)
- TOPS OF PENETRATION APRON SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.



NO.	DATE	REVISION DESCRIPTION

BENCHMARK

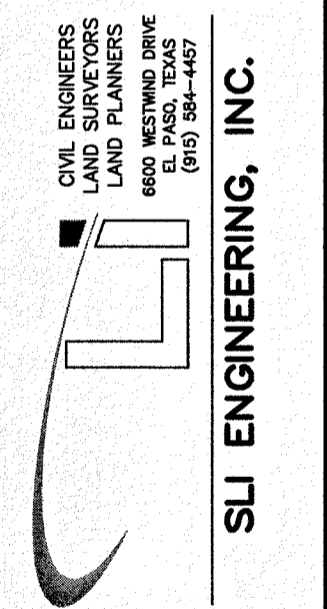
SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP. 2  
MID AND END OF SECTION (NAD83 DATUM)  
ELEVATION: 5859.56

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/ET  
CHECKED BY: GH/FE  
DATE: OCTOBER 2018

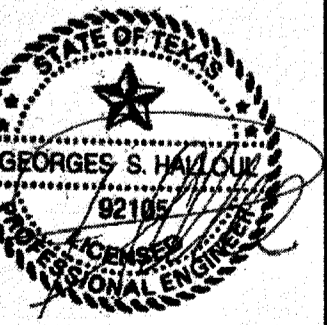
DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

JUSTICE STREET



LICENSE No. F-1902

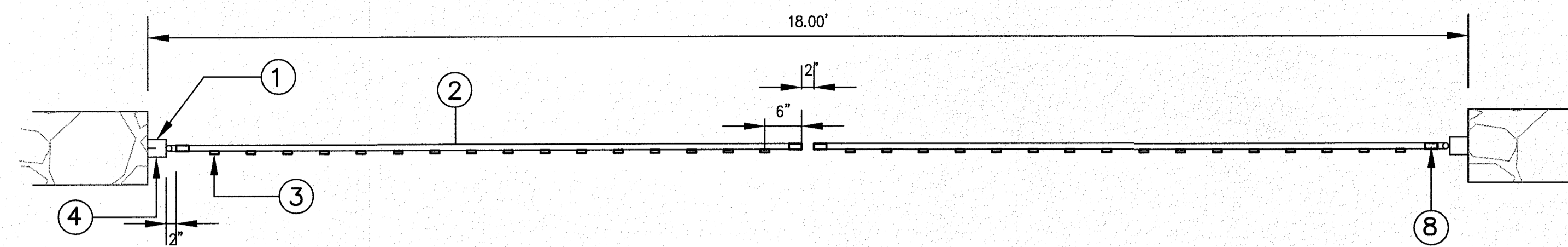


OCTOBER 24, 2018  
SHEET TITLE

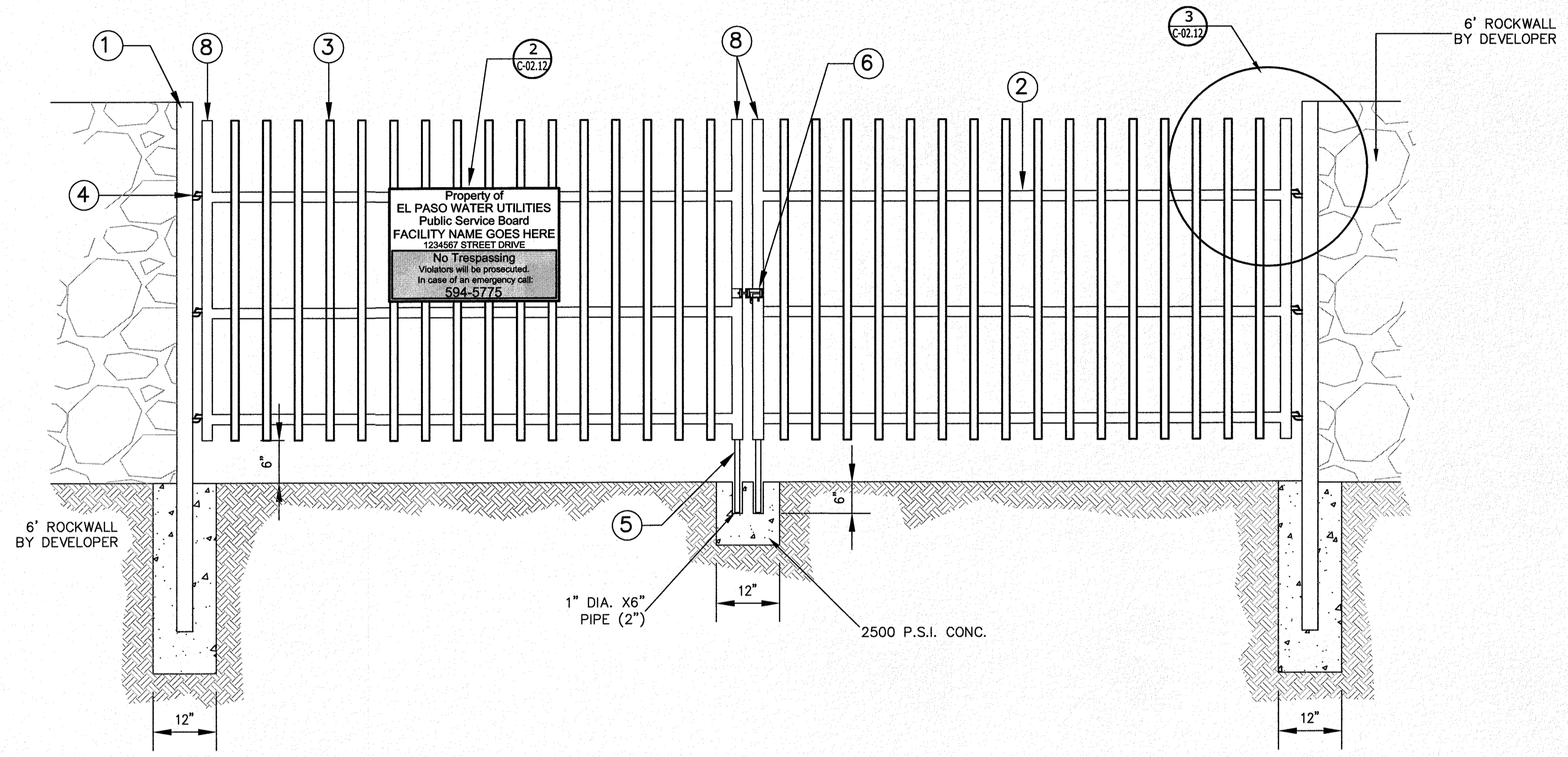
MANHOLE DETAILS

C-02.11

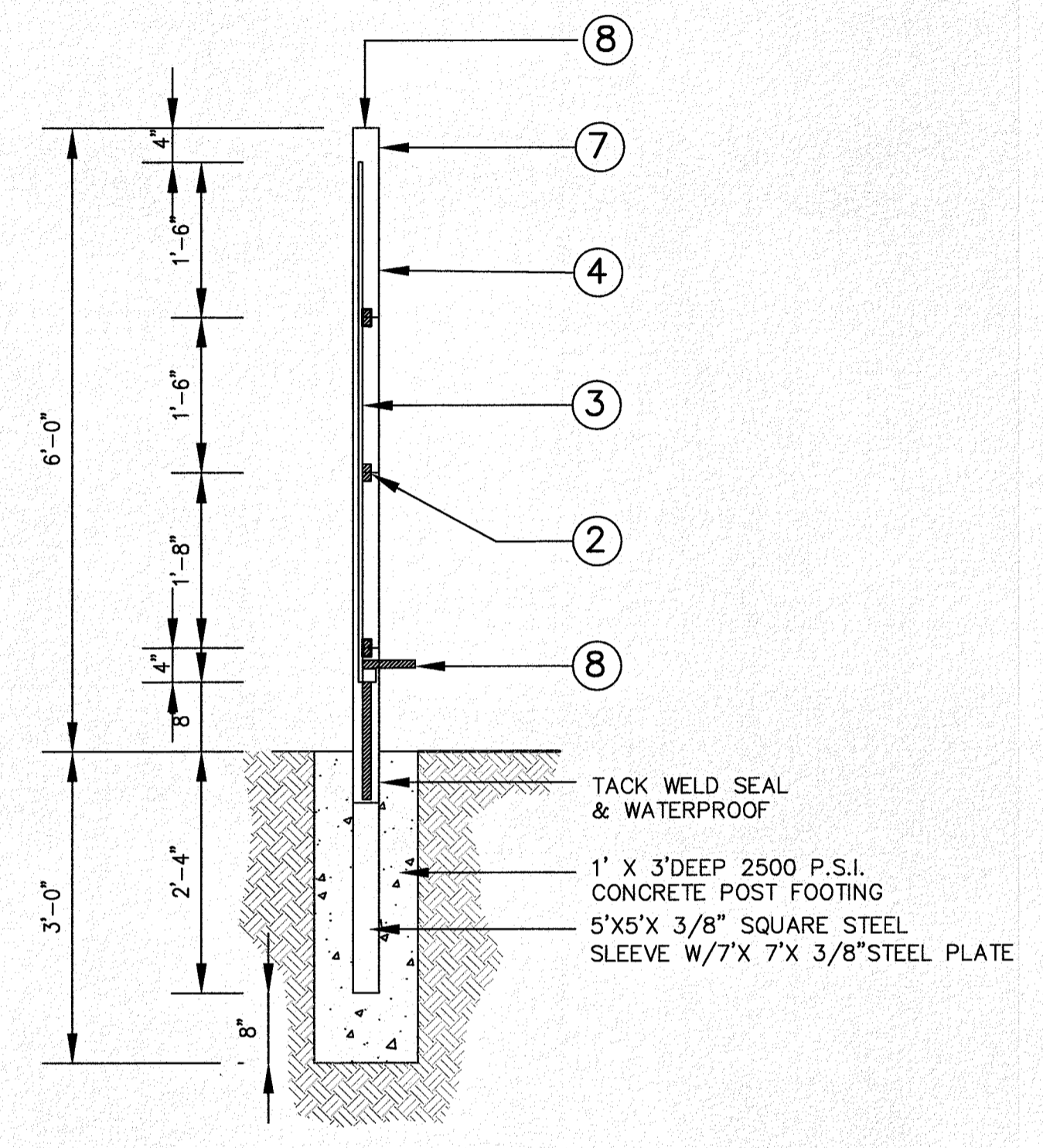




**GATE PLAN**

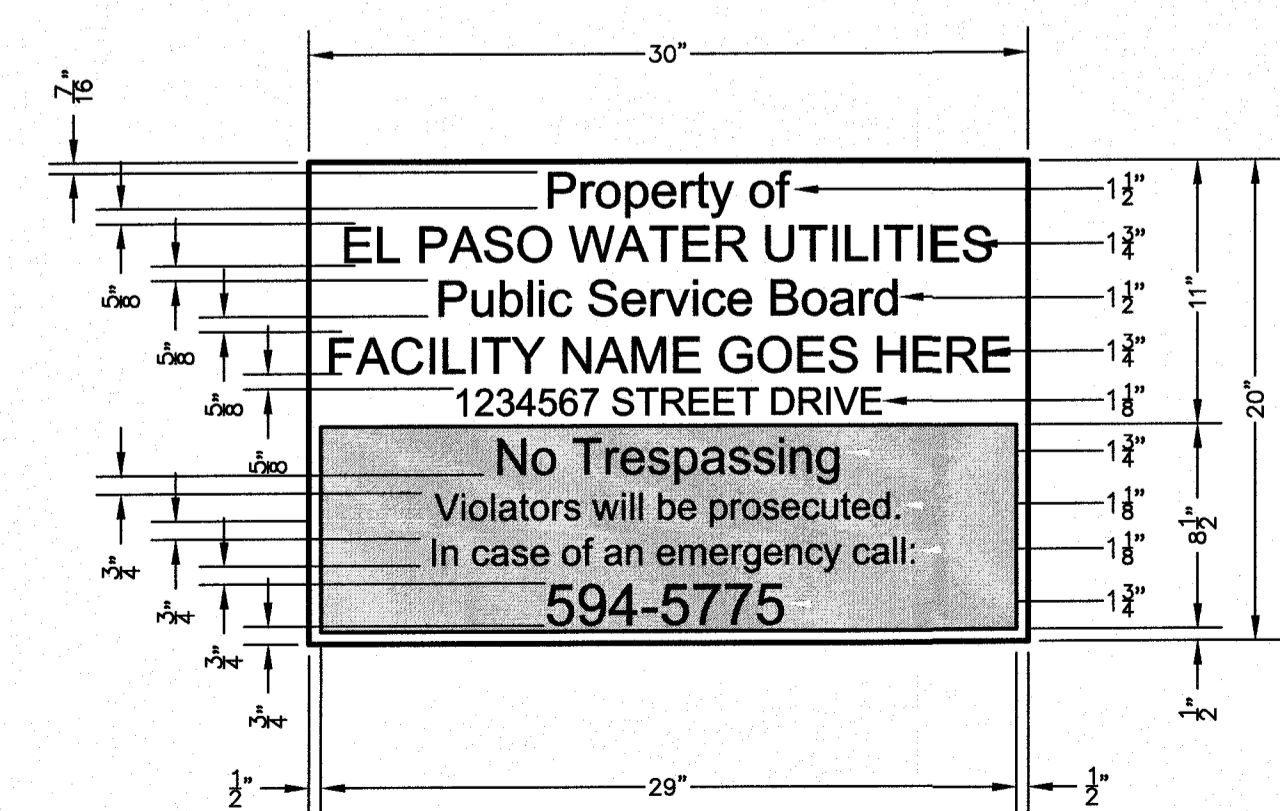


**1 WROUGHT IRON GATE AND PANEL SECTION**  
NTS

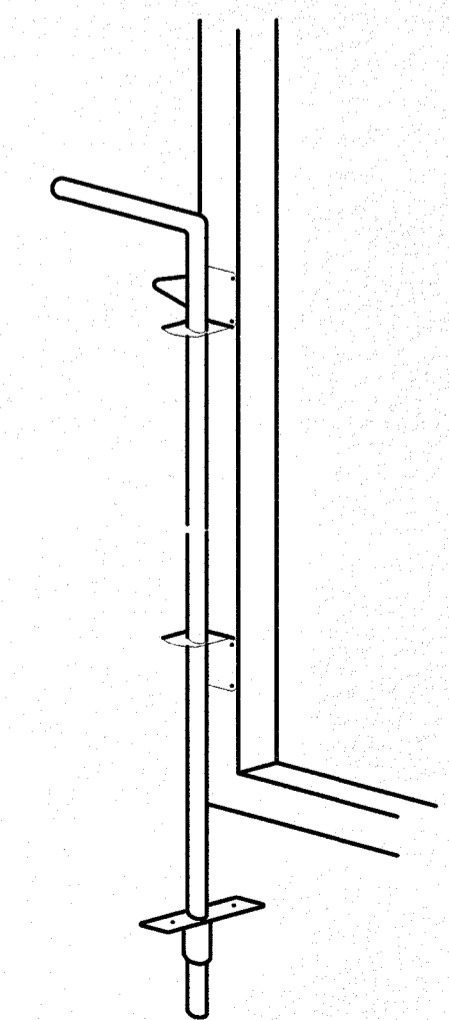


**GATE SECTION**

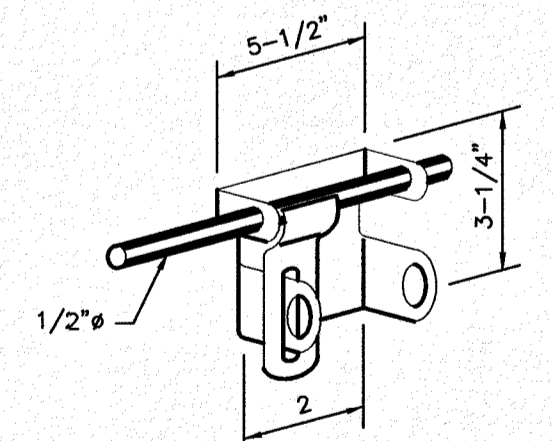
- GENERAL NOTES:**
- SIGN MATERIAL TO BE 16 GAUGE GALVANIZED SHEET METAL.
  - TOP PART OF SIGN SHALL SHOW BLACK LETTERS ON A WHITE BACKGROUND.
  - BOTTOM PART OF SIGN SHALL SHOW WHITE LETTERS ON A BLACK BACKGROUND.



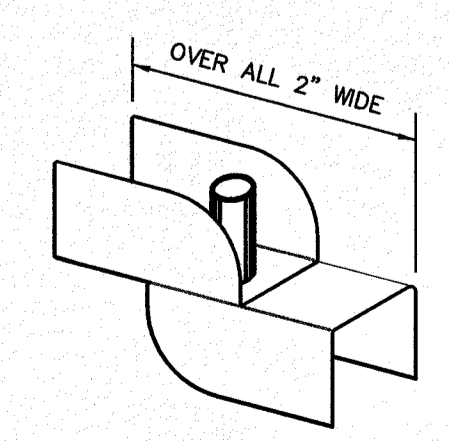
**2 NO TRESPASSING WARNING SIGN**  
C-02.12 N.T.S.



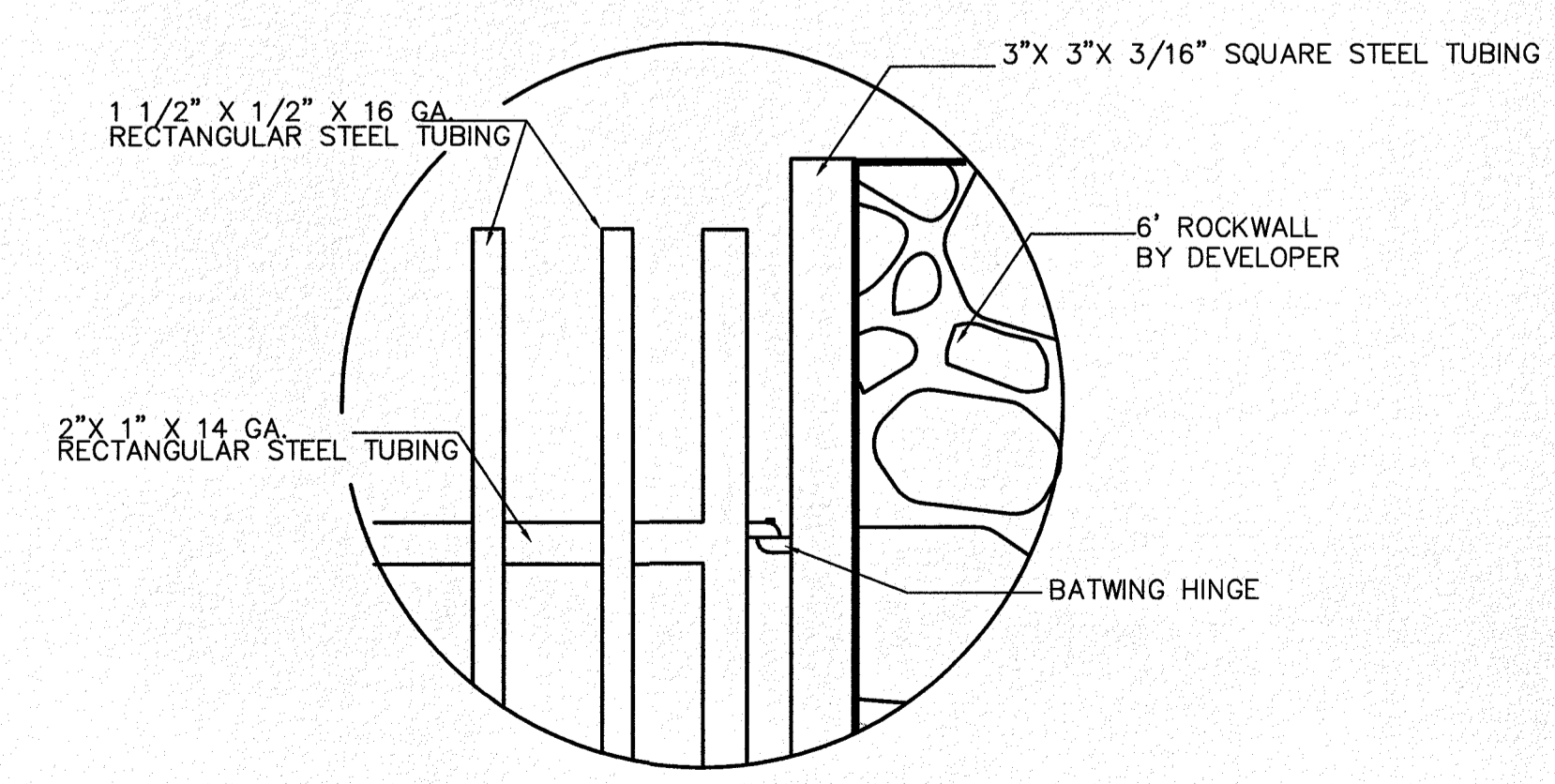
**CANE BOLT LATCH W/KEEPER**  
NOT TO SCALE  
No. 14.2023  
Standard Duty 1/2" steel bolt 16" long.



**SLIDE BOLT**  
NOT TO SCALE  
HEAVY DUTY  
(1/2"Ø SOLID STEEL BOLT WITH WELDED FLAP FOR PAD LOCK)  
No. 14.2001



**BATWING HINGE**  
NOT TO SCALE  
No. 14.1300 (Female)  
No. 14.1302 (Male)



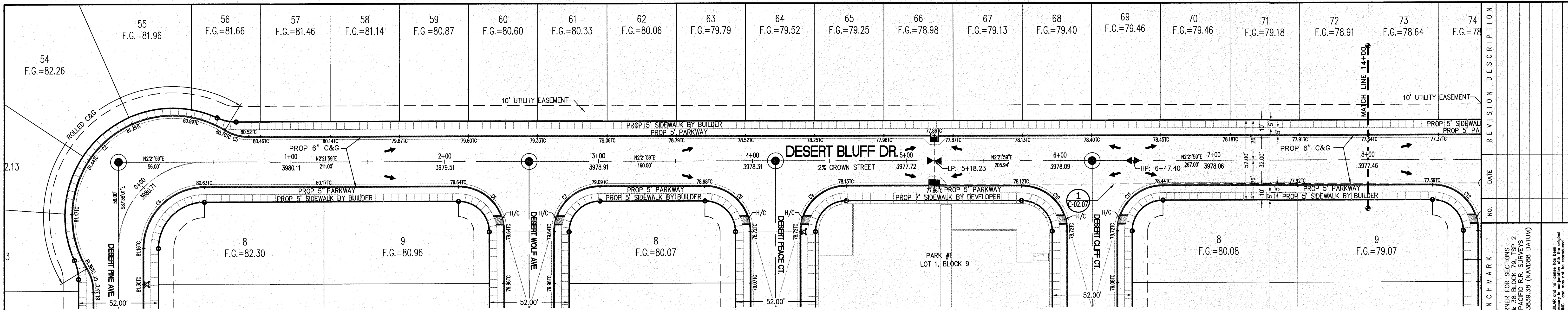
**3 DETAIL**  
SCALE: 1" = 6"

- NOTES:**
- 3" X 3" X 3/16" SQUARE STEEL TUBING
  - 2" X 1" X 14 GA. RECTANGULAR STEEL TUBING
  - 1 1/2" X 1/2" X 16 GA. RECTANGULAR STEEL TUBING
  - BATWING HINGE
  - CANE BOLT LATCH W/KEEPER
  - SLIDE BOLT, HEAVY DUTY 1/2"Ø SOLID STEEL BOLT WITH WELDED FLAP FOR PAD LOCK
  - FLAT TOP POLYVINYL CAP
  - 2" X 1" X 10 GA. RECT.STL. TUBING

NO.	DATE	REVISION DESCRIPTION

<b>BENCHMARK</b>	SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEY'S 2 ELEVATION: 3839.38 (NAVD88 DATUM)
<b>PROJECT NAME</b>	DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
<b>SCALE:</b>	AS INDICATED
<b>JOB NO.:</b>	09-16-3811
<b>DESIGN BY:</b>	A/J/E
<b>CHECKED BY:</b>	G/H/E
<b>DATE:</b>	OCTOBER 2018
<b>PROJECT NAME</b>	DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
<b>PROJECT ADDRESS</b>	JUSTICE STREET EL PASO, TEXAS
<b>ENGINEER</b>	SLI ENGINEERING, INC. CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS PLANNING 1000 W. 14TH STREET, SUITE 100 EL PASO, TEXAS 79906 (915) 584-4407
<b>APPROVAL</b>	Final Approval THE CITY OF EL PASO, TEXAS
<b>LICENSE</b>	No. F-1902
<b>STATE OF TEXAS</b>	Professional Engineer No. 9218 GEOFFREY S. HARRIS 1000 W. 14TH STREET, SUITE 100 EL PASO, TEXAS 79906 (915) 584-4407
<b>DATE</b>	OCTOBER 24, 2018
<b>SHEET TITLE</b>	GATE DETAILS
<b>PROJECT NO.</b>	C-02.12



**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	16.38'	8.40'	16.18'	S76°43'13"W	31°17'31"
C2	65.00'	173.34'	268.60'	126.35'	S42°31'45"E	152°47'34"
C3	56.00'	87.96'	56.00'	79.20'	S42°38'01"E	90°00'00"
C4	40.00'	62.83'	40.00'	56.57'	S42°38'01"E	90°00'00"
C5	30.00'	16.49'	8.46'	16.29'	N18°07'00"E	31°30'03"
C6	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C7	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C8	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C9	30.00'	47.12'	30.00'	42.43'	S42°38'05"E	90°00'06"
C10	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C11	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"

**LEGEND**

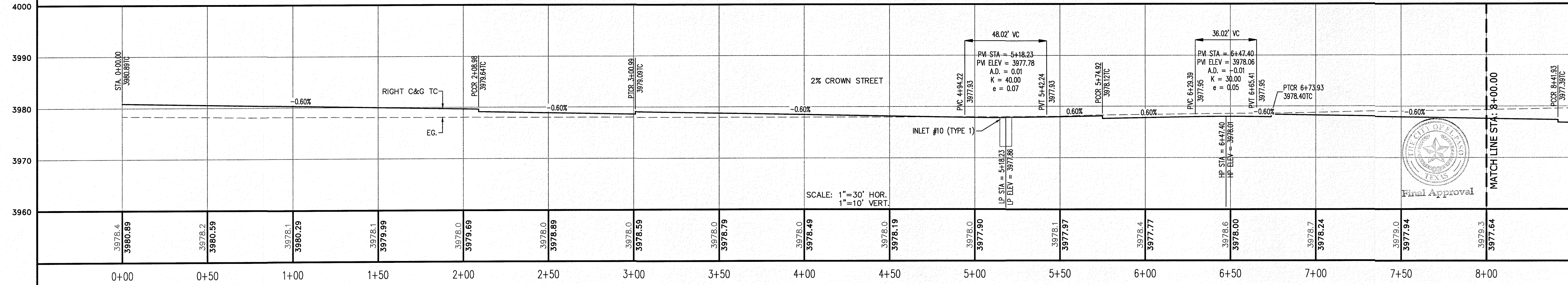
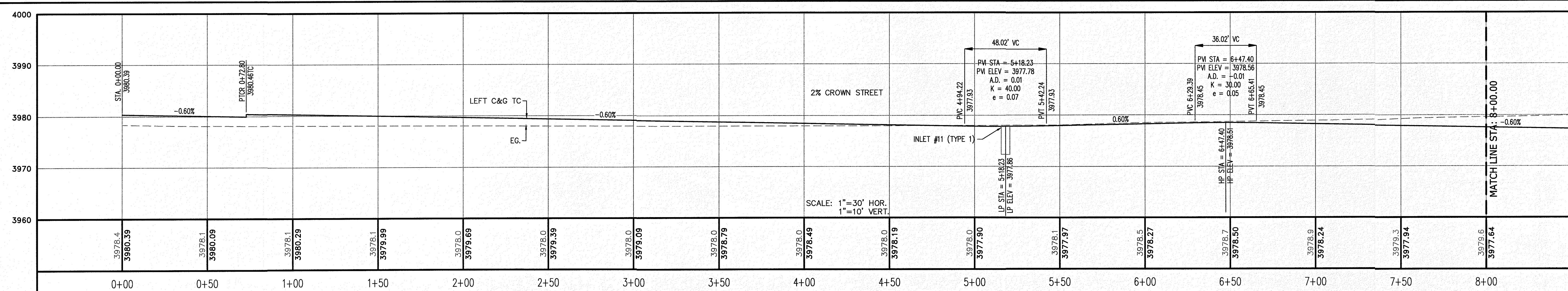
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ▼ = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL PVTM TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

**811 Know what's below. Call before you dig.**  
 Call 811 TWO Working Days Before you dig.  
 It's Free, It's Easy, and IT'S THE LAW!

SCALE: 1"=30'



**REVISION DESCRIPTION**

NO.	DATE	DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, RANGE 10E, MERIDIAN 10E, TEXAS AND PACIFIC R.R. SURVEYS  
 ELEVATION: 3839.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-3911  
**DESIGN BY:** J/JT  
**CHECKED BY:** GH/E  
**DATE:** OCTOBER 2018

**PROJECT NAME:** DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, RANGE 10E, MERIDIAN 10E, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**EL PASO, TEXAS**

**SLI ENGINEERING, INC.**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 6800 W. HUNTSVILLE DRIVE  
 EL PASO, TEXAS 79907  
 (972) 384-1657

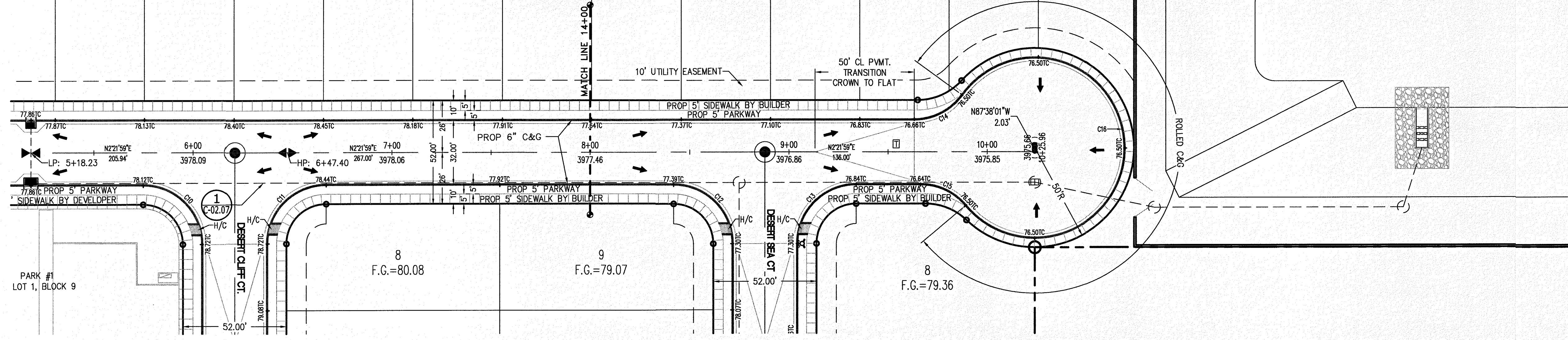
LICENSE No. F-1902

**GEORGES S. HALL, CIVIL ENGINEER**  
 OCTOBER 24, 2018

**SHEET TITLE:** DESERT BLUFF DRIVE  
 STA. 0+00 - 8+00

**C-03.00**

6 78.98    67 F.G.=79.13    68 F.G.=79.40    69 F.G.=79.46    70 F.G.=79.46    71 F.G.=79.18    72 F.G.=78.91    73 F.G.=78.64    74 F.G.=78.37    75 F.G.=78.10    76 F.G.=77.83    77 F.G.=77.50    78 F.G.=77.50



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C12	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C13	30.00'	47.12'	30.00'	42.43'	S42°37'58"E	89°59'54"
C14	30.00'	28.33'	15.32'	27.29'	N24°41'12"W	54°06'21"
C15	30.00'	26.27'	14.05'	25.44'	S27°27'23"W	50°10'48"
C16	45.00'	223.28'	34.98'	55.23'	N89°35'48"W	284°17'09"

**LEGEND**

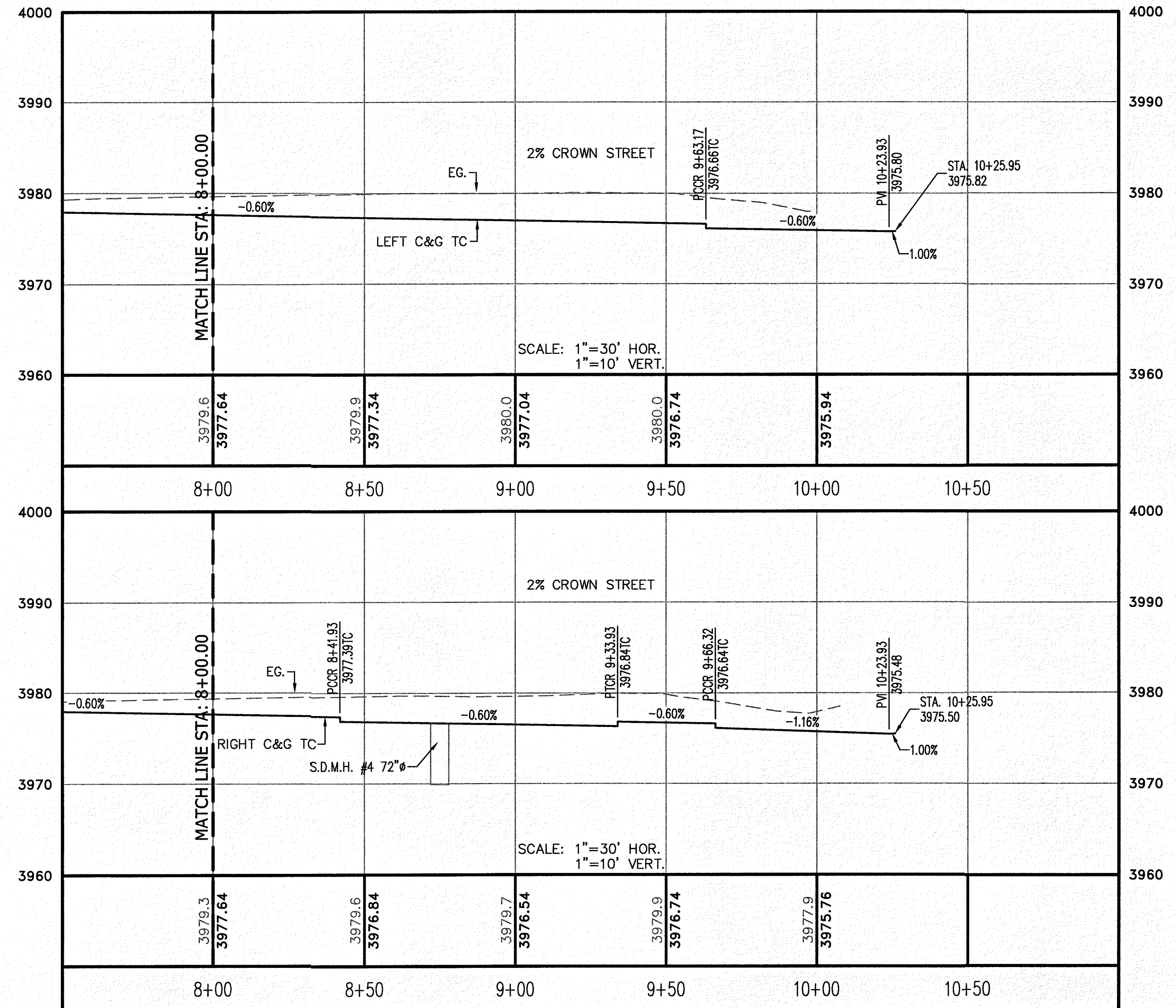
- R.O.W. = RIGHT-OF-WAY
- ← = PROPOSED WATER FLOW
- ⬆ = HIGH POINT ON STREET
- ⬇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- ⊙ = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ⊖ = CL PVMT TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- - - = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy, and IT'S THE LAW.

SCALE: 1"=30'



NO.	DATE	REVISION DESCRIPTION

BENCHMARK

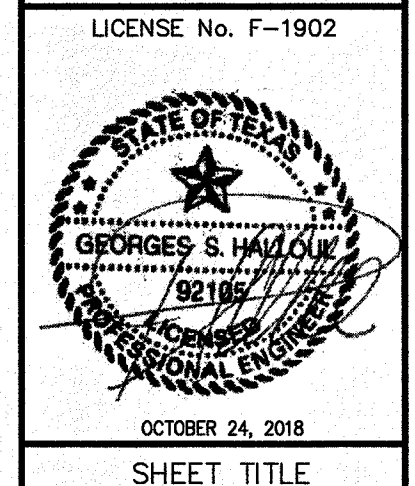
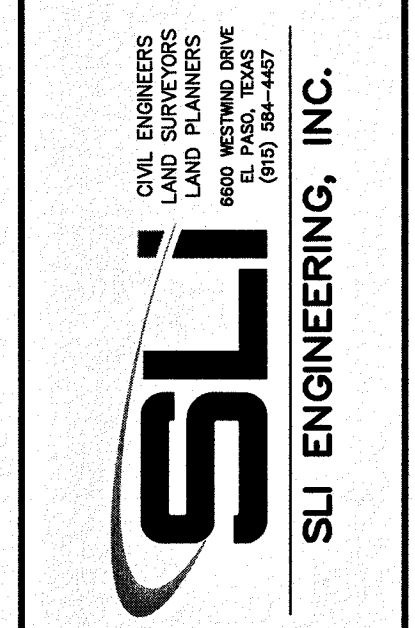
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEY'S 2  
ELEVATION: 3839.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/J/E  
CHECKED BY: GH/E  
DATE: OCTOBER 2018

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PROJECT NAME  
**DESERT SANDS**  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

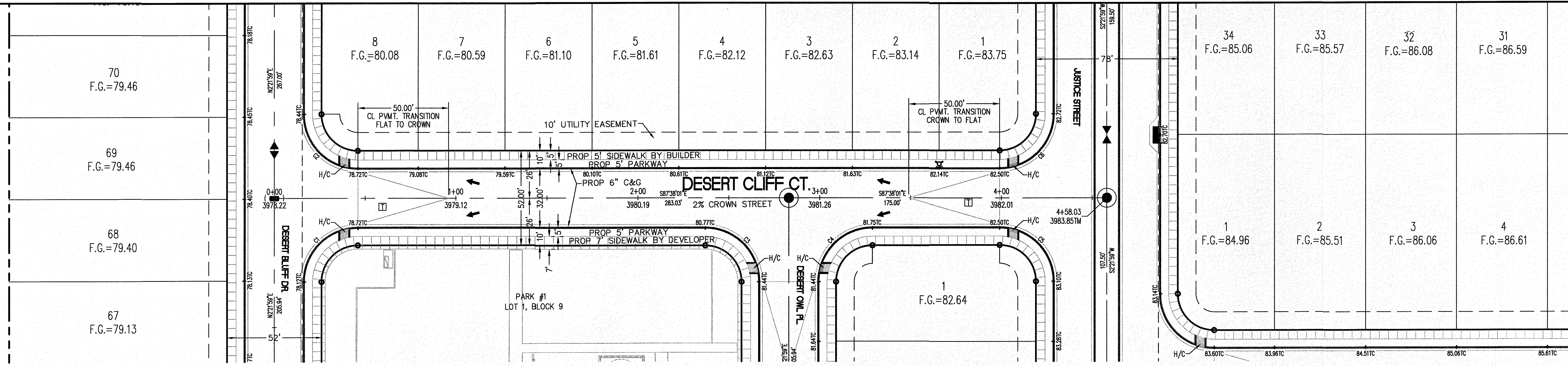
JUSTICE STREET  
EL PASO, TEXAS



SHEET TITLE  
**DESERT BLUFF DRIVE**  
STA. 8+00 - 10+25.96



C-03-01



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C3	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C5	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"

**LEGEND**

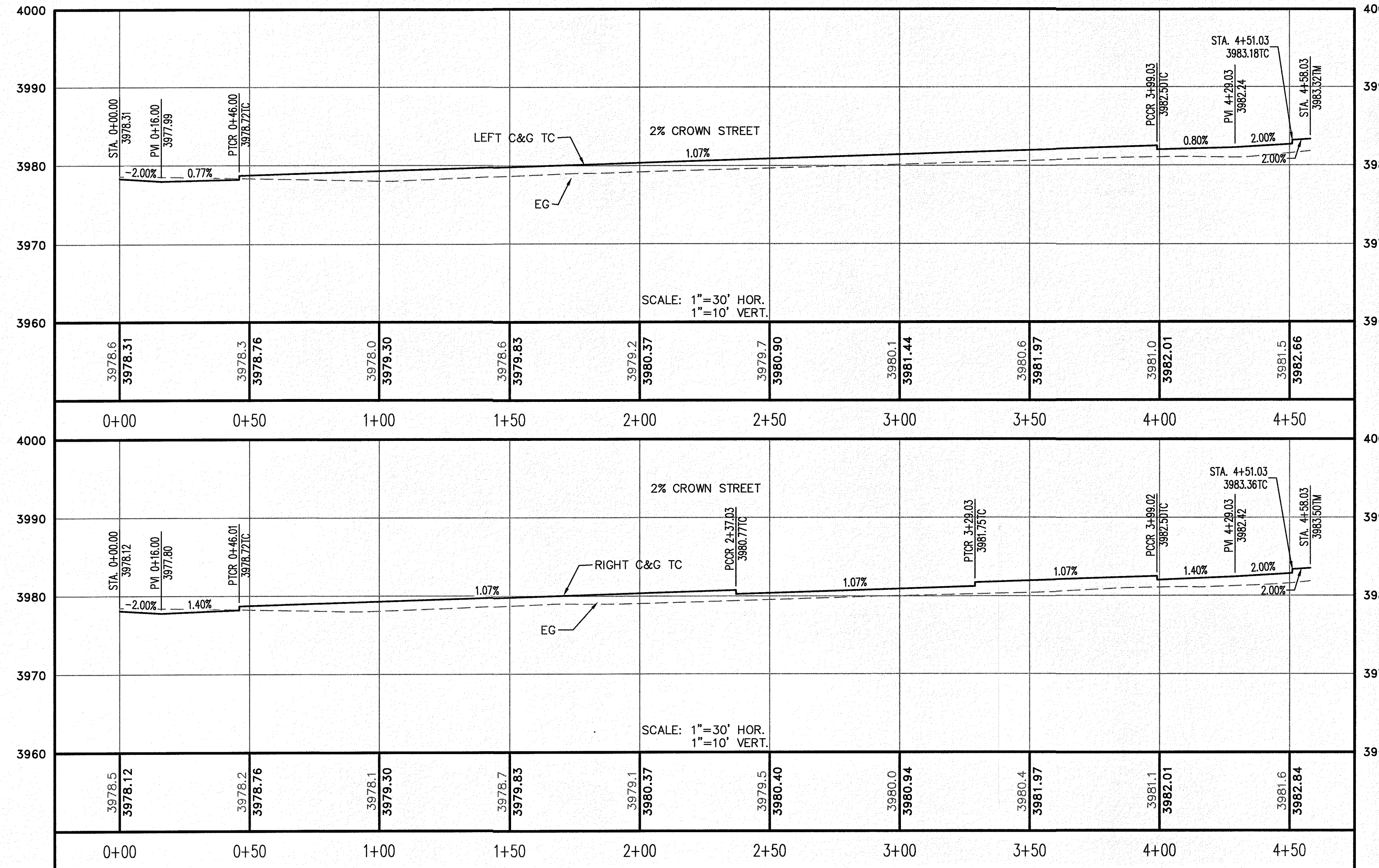
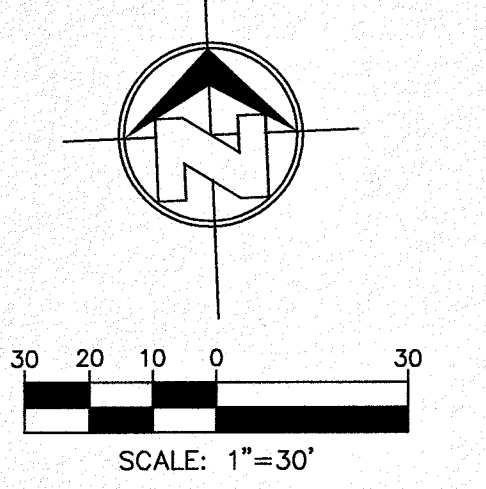
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ◆ = HIGH POINT ON STREET
- ◇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = CL PWMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. In Texas, it's Easy and IT'S THE LAW!

SCALE: 1"=30'

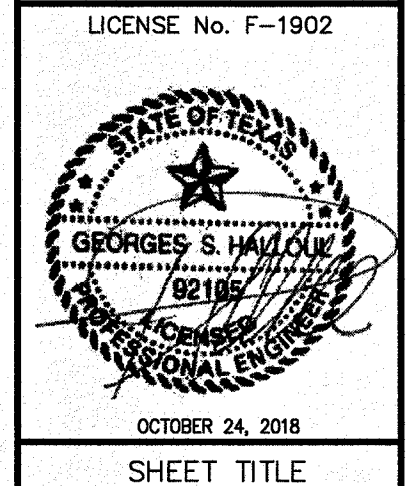
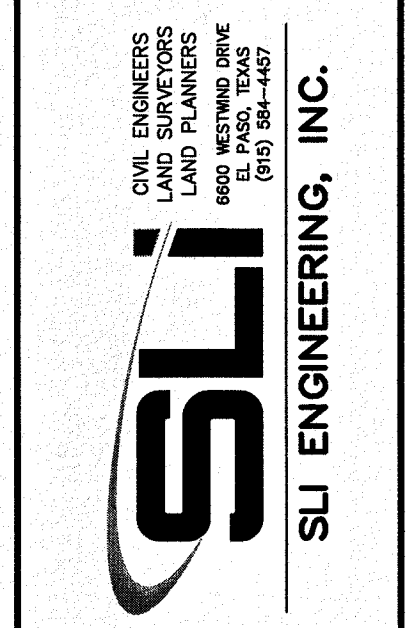


BENCHMARK	NO.	DATE	REVISION DESCRIPTION
SECTION CORNER FOR SECTIONS 32, 33, 34			
SECTION CORNER FOR SECTIONS 1, 2, 3, 4			
TEXAS AND PACIFIC R.R. SURVEYS			
ELEVATION: 3539.38 (NAVD88 DATUM)			

SCALE: AS INDICATED  
 JOB NO.: 09-16-3911  
 DESIGN BY: J/J/T  
 CHECKED BY: GH/E  
 DATE: OCTOBER 2018  
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PROJECT NAME  
**DESERT SANDS**  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2,  
 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

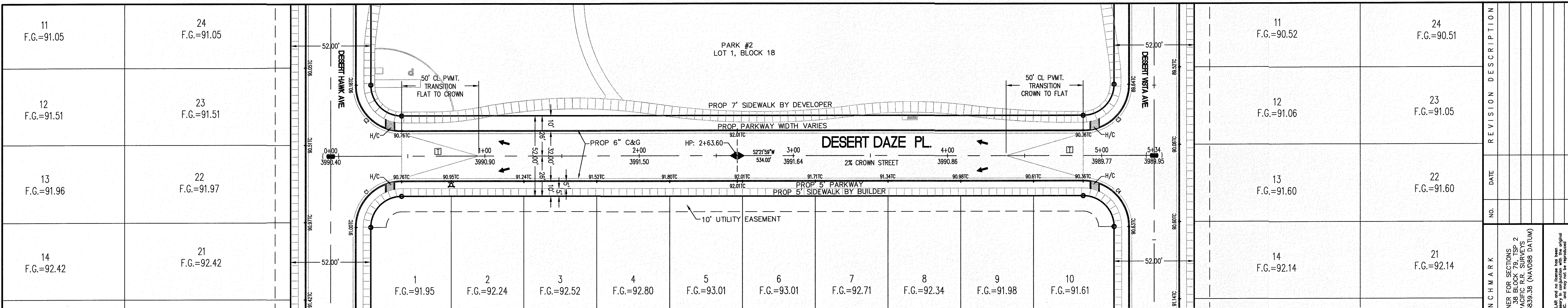
EL PASO, TEXAS  
 JUSTICE STREET



SHEET TITLE  
**DESERT CLIFF COURT**  
 STA. 0+00 - 4+58.03

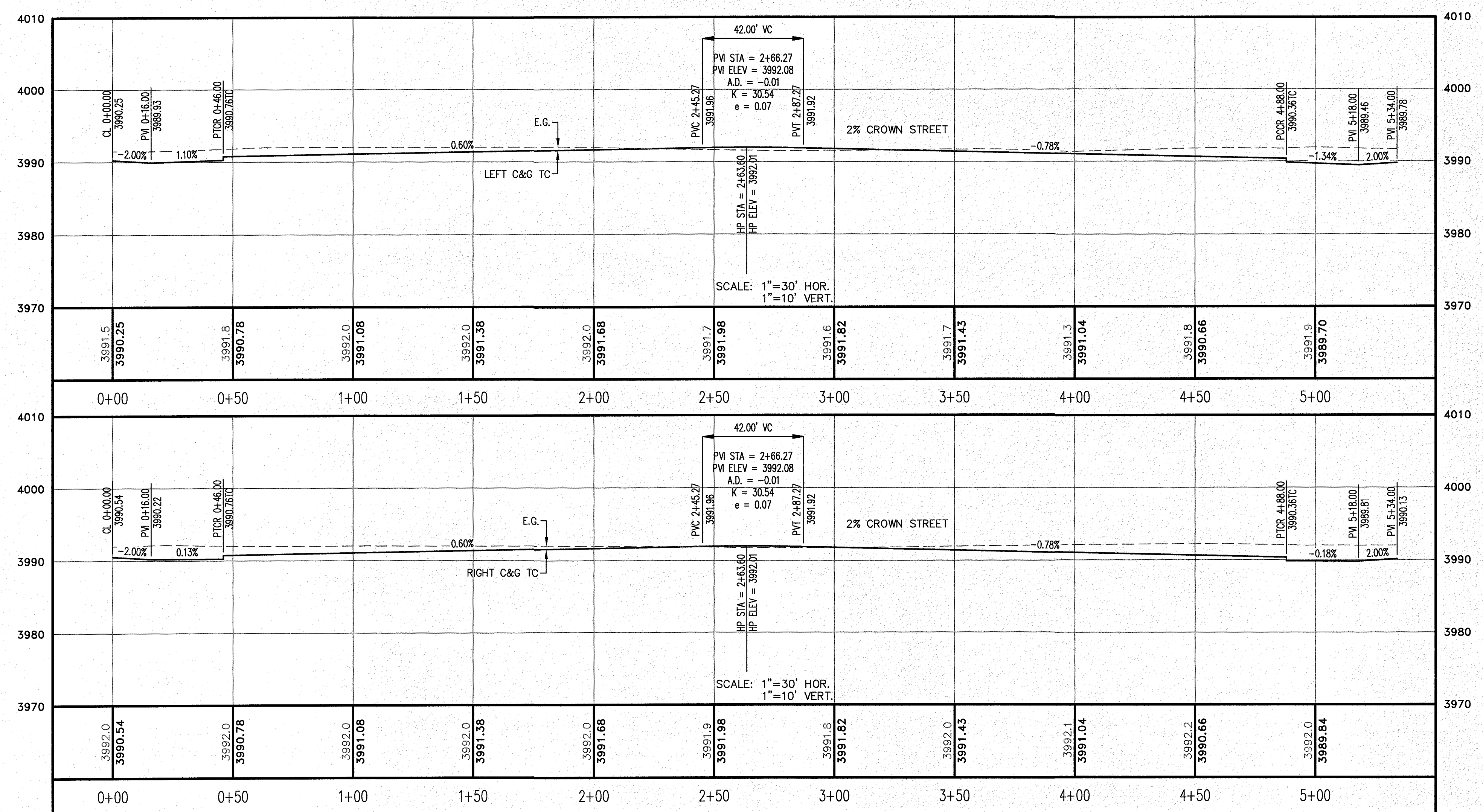
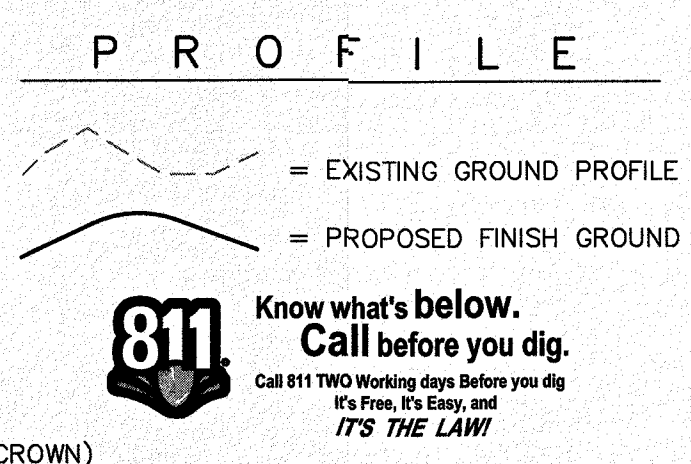
Final Approval

**C-03.02**



CURVE TABLE					
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S42°38'01"E 90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	N47°21'59"E 90°00'00"
C3	30.00'	47.12'	30.00'	42.43'	N42°38'01"W 90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	S47°21'59"W 90°00'00"

- LEGEND**
- R.O.W. = RIGHT-OF-WAY
  - ← = PROPOSED WATER FLOW
  - ◆ = HIGH POINT ON STREET
  - ⬇ = LOW POINT ON STREET
  - ⊙ = PROPOSED CITY MONUMENT
  - TC = TOP OF CURB ELEV.
  - G = GUTTER ELEV.
  - P = PAVEMENT ELEV.
  - C&G = STANDARD CURB AND GUTTER
  - ▭ = CL PVMT. TRANSITION (FLAT TO CROWN)
  - H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER



NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28-30 AND 33-35, BLOCK 78, TOWNSHIP 2 NORTH, RANGE 10E, MERIDIAN 10W, ELEVATION: 3839.38 (NAVD88 DATUM)

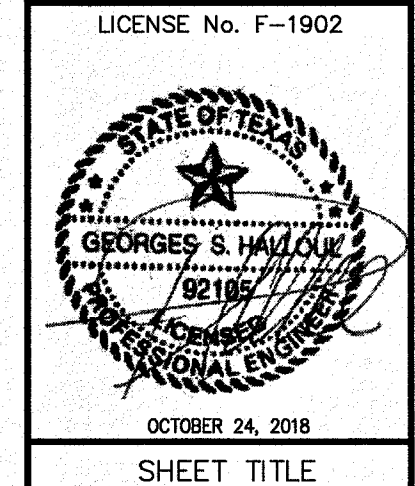
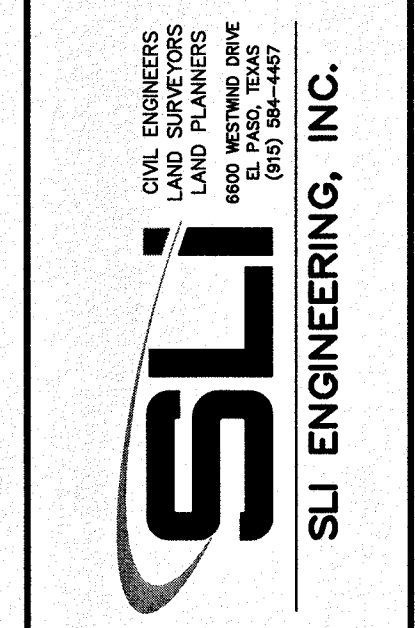
SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/J/T  
CHECKED BY: GH/TE  
DATE: OCTOBER 2018

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**PROJECT NAME**

DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

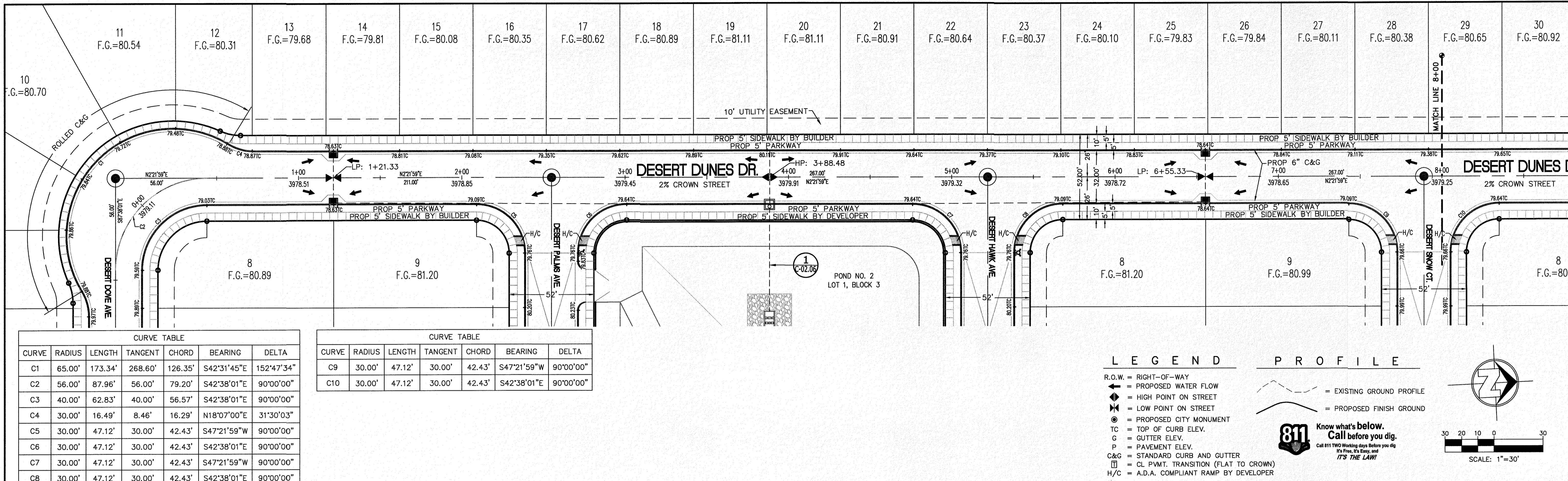
JUSTICE STREET  
EL PASO, TEXAS



DESERT DAZE PLACE  
STA. 0+00 - 5+34

**C-03.03**





CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	65.00'	173.34'	268.60'	126.35'	S42°31'45"E	152°47'34"
C2	56.00'	87.96'	56.00'	79.20'	S42°38'01"E	90°00'00"
C3	40.00'	62.83'	40.00'	56.57'	S42°38'01"E	90°00'00"
C4	30.00'	16.49'	8.46'	16.29'	N18°07'00"E	31°30'03"
C5	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C7	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C8	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C10	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"

**LEGEND**

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ▼ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- CL P.V.M.T. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

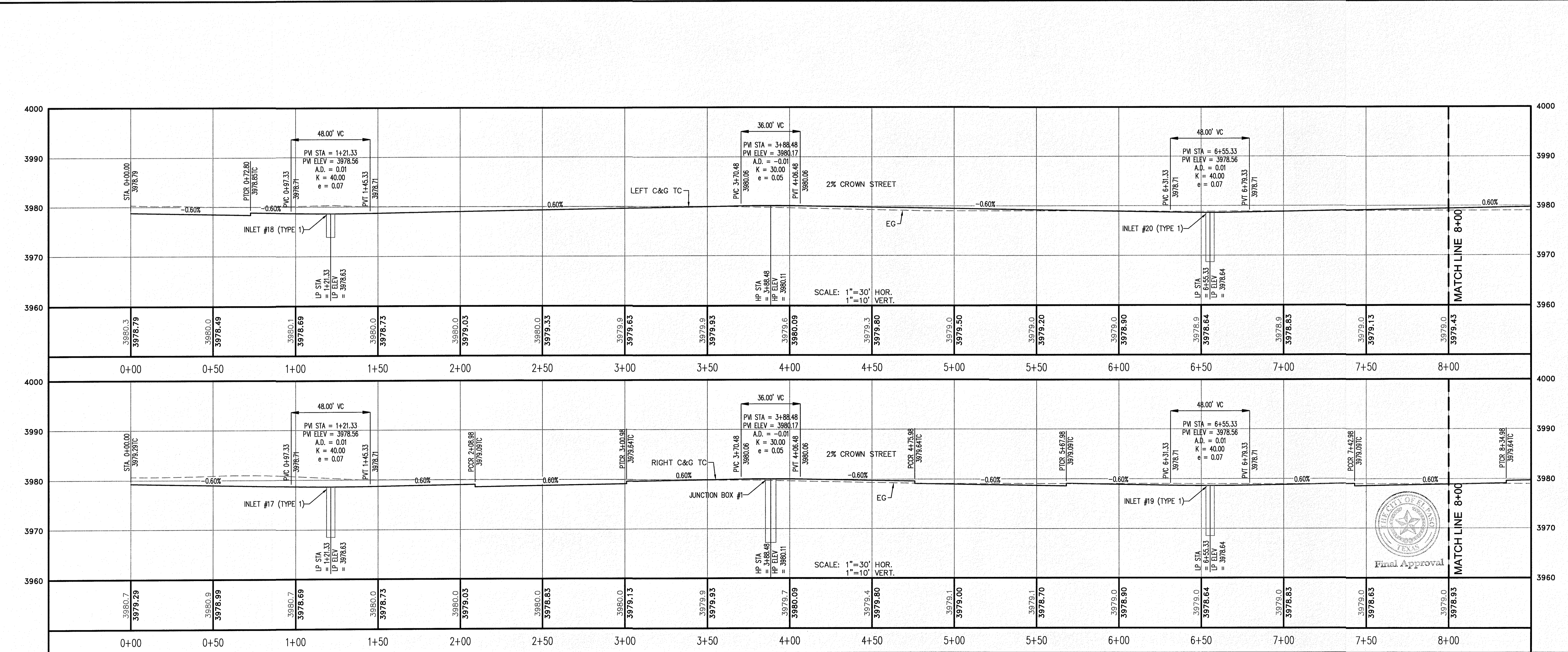
811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy, and IT'S THE LAW.

NO.	REVISION DESCRIPTION	DATE

BENCHMARK

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 78, TOWNSHIP 2, RANGE 10E, MERIDIAN 10W, COUNTY OF EL PASO, TEXAS. ELEVATION: 3539.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3811  
DESIGN BY: J/ET  
CHECKED BY: GH/FE  
DATE: OCTOBER, 2018  
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PROJECT NAME: DESERT SANDS

PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, RANGE 10E, MERIDIAN 10W, COUNTY OF EL PASO, TEXAS

JUSTICE STREET

EL PASO, TEXAS

SLI ENGINEERING, INC.

CIVIL ENGINEERS  
LAND SURVEYORS  
6600 WESTERN DRIVE  
EL PASO, TEXAS 79907  
(915) 381-1407

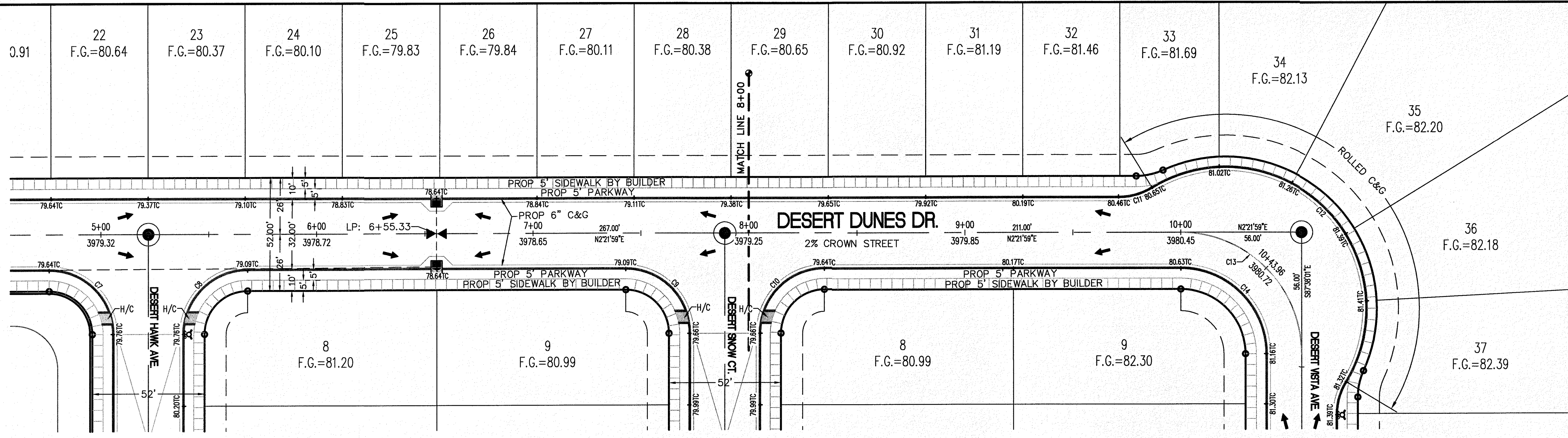
LICENSE No. F-1902

OCTOBER 24, 2018

SHEET TITLE

DESERT DUNES DRIVE  
STA. 0+00 - 8+00

C-03.04

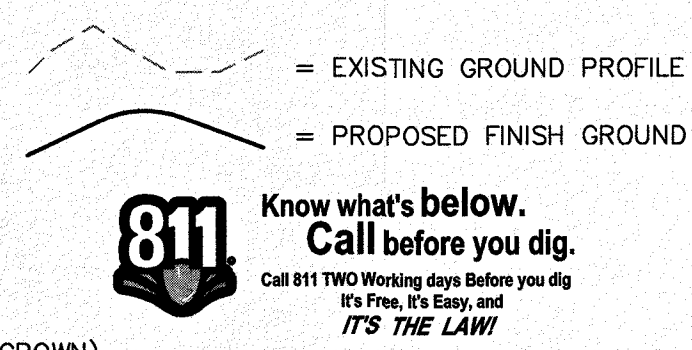


CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C10	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C11	30.00'	16.49'	8.46'	16.29'	N13°23'03"W	31°30'03"
C12	65.00'	173.34'	268.60'	126.35'	S47°15'42"W	152°47'34"
C13	56.00'	87.96'	56.00'	79.20'	S47°21'59"W	90°00'00"
C14	40.00'	62.83'	40.00'	56.57'	S47°21'59"W	90°00'00"

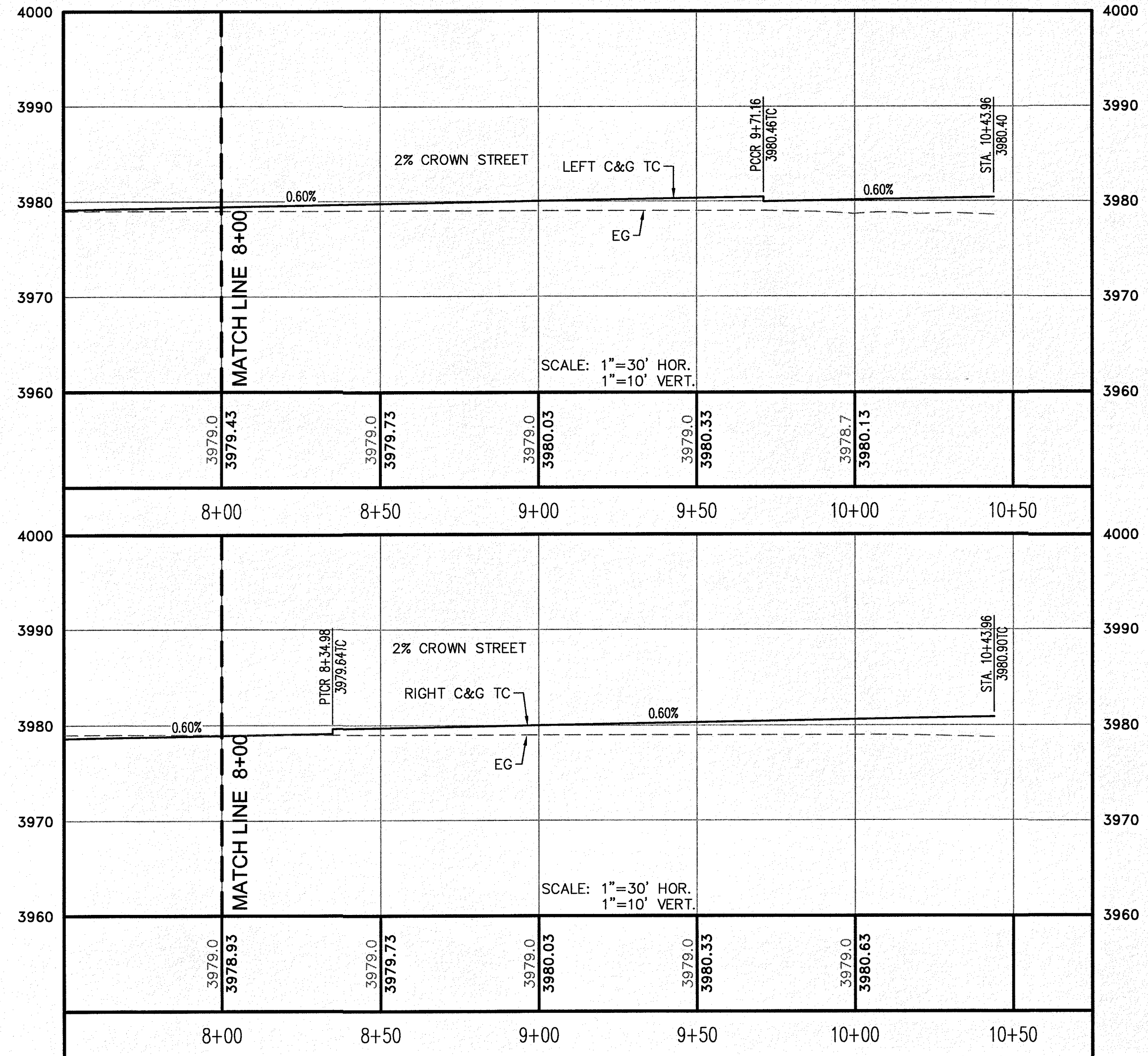
**LEGEND**

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ▼ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**



**811** Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy, and IT'S THE LAW.



NO.	DATE	REVISION DESCRIPTION

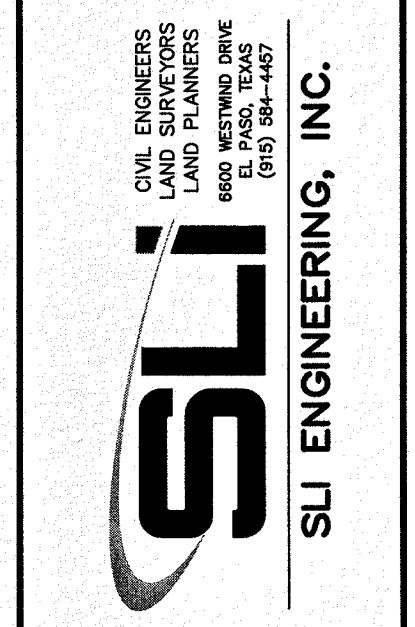
**BENCHMARK**

SECTION CORNERS FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3539.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-3811  
**DESIGN BY:** J/JET  
**CHECKED BY:** GH/FE  
**DATE:** OCTOBER 2018

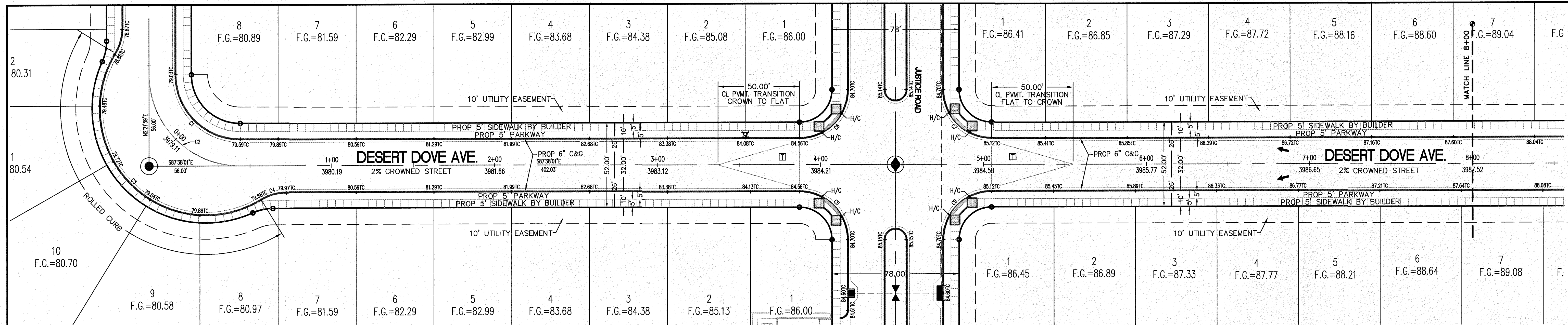
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**PROJECT NAME**  
 DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET  
 EL PASO, TEXAS



LICENSE No. F-1902  
 STATE OF TEXAS  
 GEORGES S. HAZELCORN  
 02/19  
 OCTOBER 24, 2018  
**SHEET TITLE**

**DESERT DUNES DRIVE**  
 STA. 8+00 - 10+43.96  
**C-03.05**



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	40.00'	62.83'	40.00'	56.57'	S42°38'01"E	90°00'00"
C2	56.00'	87.96'	56.00'	79.20'	S42°38'01"E	90°00'00"
C3	65.00'	173.34'	268.60'	126.35'	S42°31'45"E	152°47'34"
C4	30.00'	16.38'	8.40'	16.18'	S76°43'13"W	31°17'31"
C5	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C7	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C8	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"

**LEGEND**

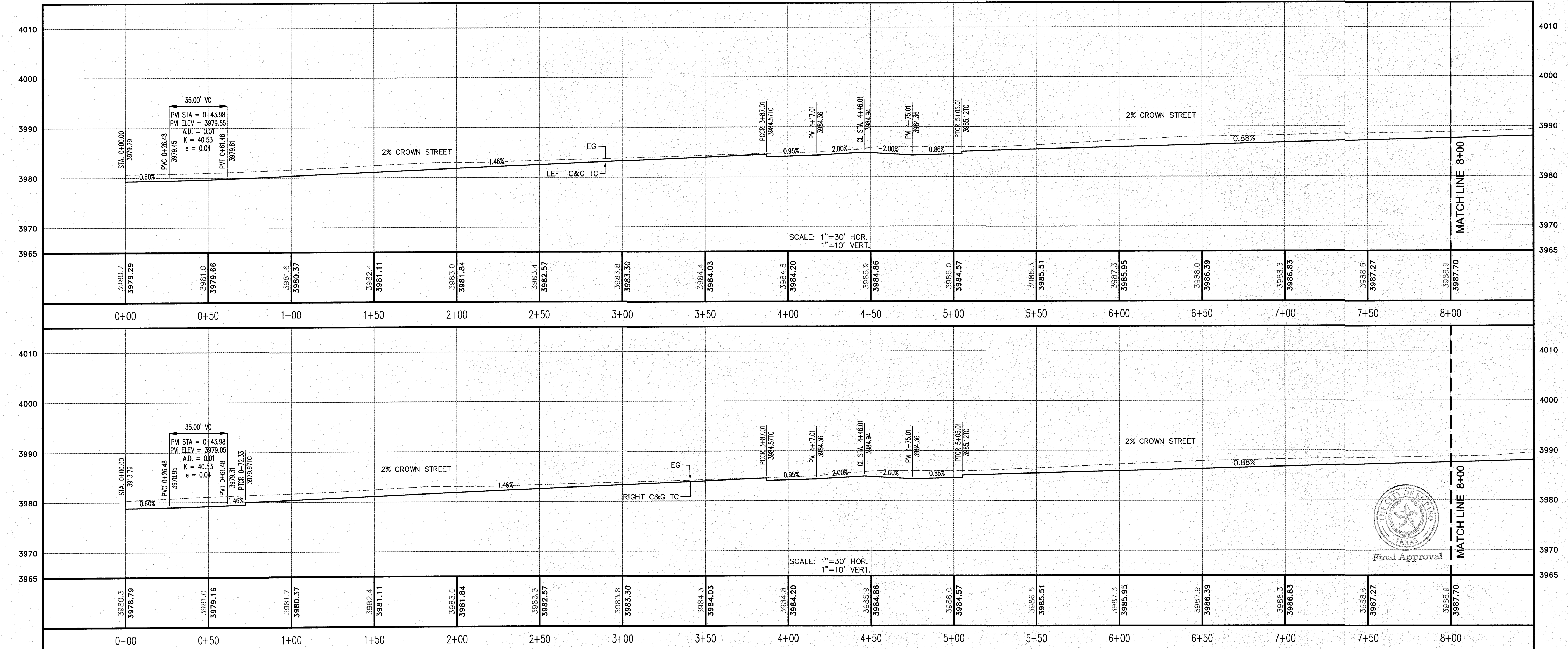
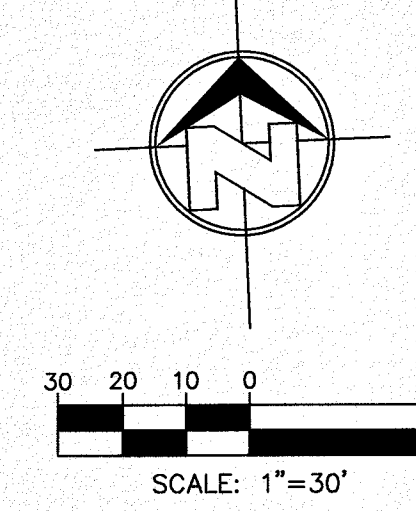
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ◆ = HIGH POINT ON STREET
- ◇ = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = CL. P.W.M.T. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

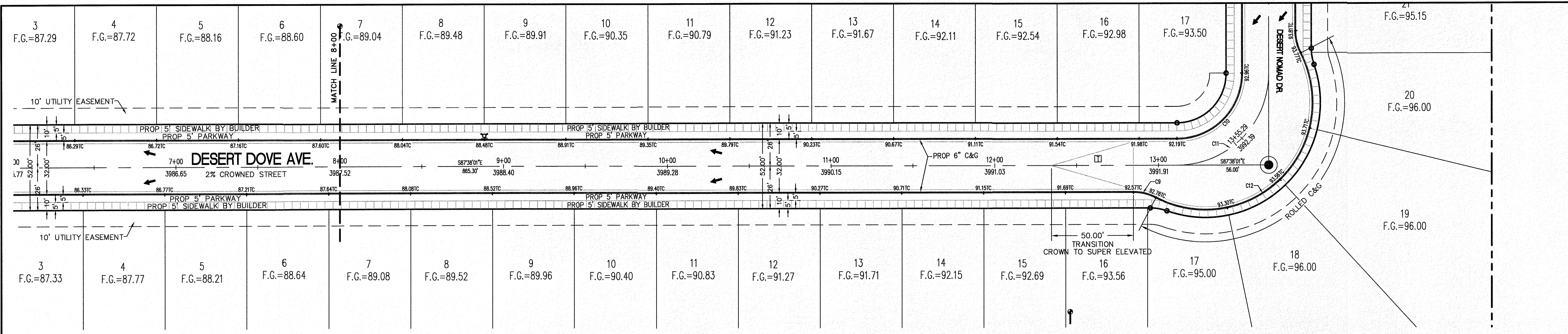
811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy and IT'S THE LAW!

SCALE: 1"=30'



REVISION DESCRIPTION	
DATE	
NO.	
BENCHMARK	
SECTION CORNER FOR SECTIONS 35, 36, 37 & 38 BLOCK 79, TOWNSHIP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3539.38 (NAVD88 DATUM)	
SCALE: AS INDICATED	JOB NO.: 09-1E-3911
DESIGN BY: J/J/T	CHECKED BY: GH/FE
DATE: OCTOBER 2018	
PROJECT NAME	DESERT SANDS
	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
	JUSTICE STREET
	EL PASO, TEXAS
	SLI ENGINEERING, INC.
	LICENSE No. F-1902
	STATE OF TEXAS
	GEORGES S. HAZEN
	OCTOBER 24, 2018
	SHEET TITLE
	DESERT DOVE AVENUE
	STA. 0+00 - 8+00
	C-03.06





CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	30.00'	14.50'	7.40'	14.36'	N73°46'58"W	27°42'06"
C10	40.00'	62.83'	40.00'	56.57'	N47°21'59"E	90°00'00"
C11	56.00'	87.96'	56.00'	79.20'	N47°21'59"E	90°00'00"
C12	65.00'	164.38'	205.49'	123.95'	N47°37'14"E	144°53'40"

**LEGEND**

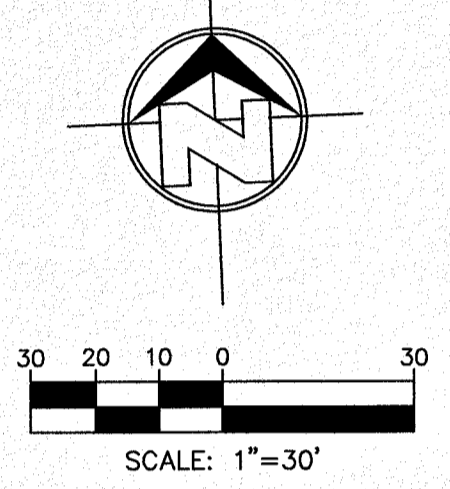
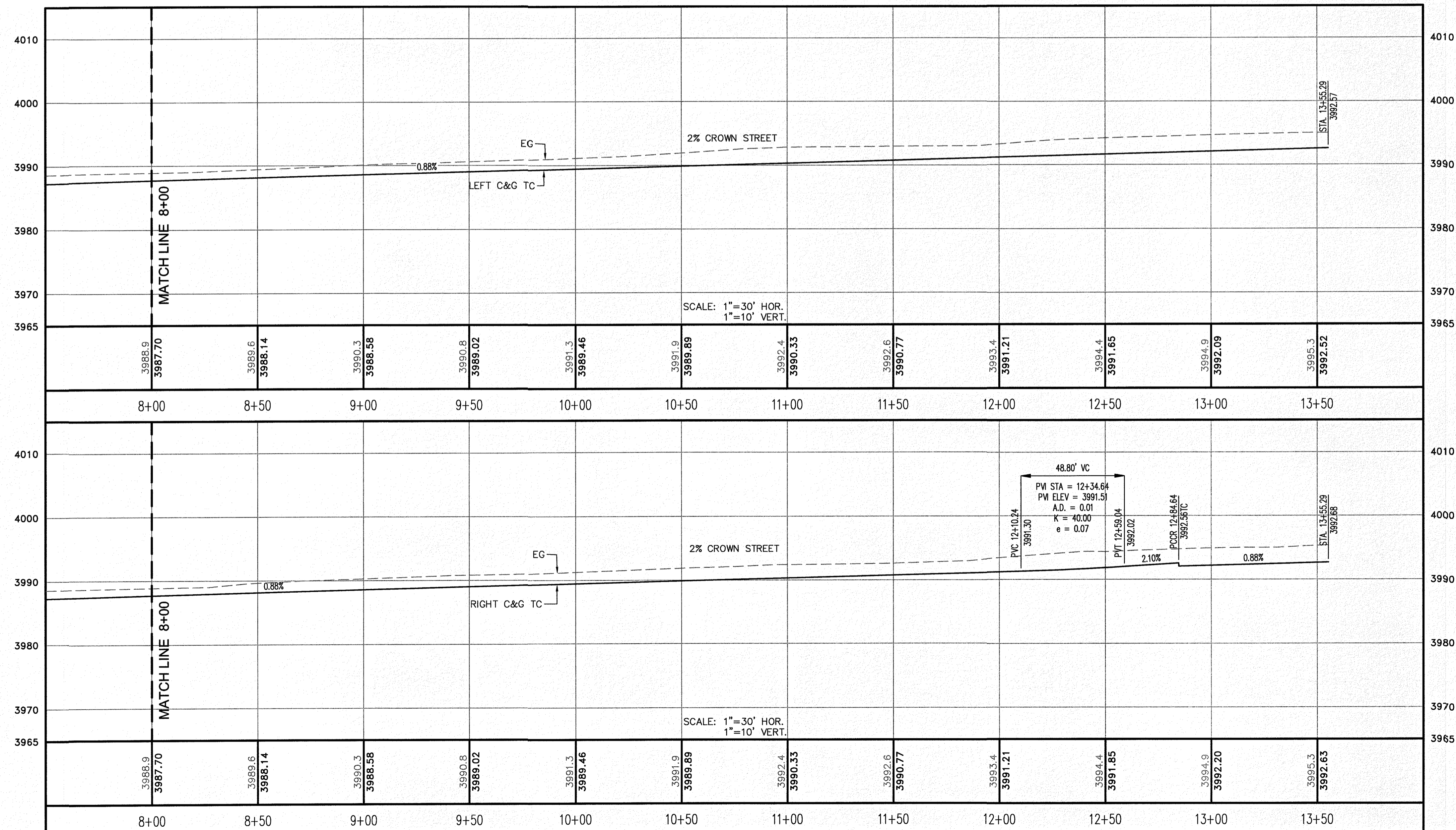
- R.O.W. = RIGHT-OF-WAY
- ← = PROPOSED WATER FLOW
- ⬆ = HIGH POINT ON STREET
- ⬇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = TRANSITION (CROWN TO SUPER ELEVATED)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy and IT'S THE LAW!

SCALE: 1" = 30'



NO.	DATE	REVISION DESCRIPTION

BENCHMARK

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3859.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/JT  
CHECKED BY: GH/FE  
DATE: OCTOBER 2018

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PROJECT NAME  
**DESERT SANDS**  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS  
JUSTICE STREET

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
6800 W. HAWTHORNE  
EL PASO, TEXAS  
910 941-4407

**SLI**  
SLI ENGINEERING, INC.

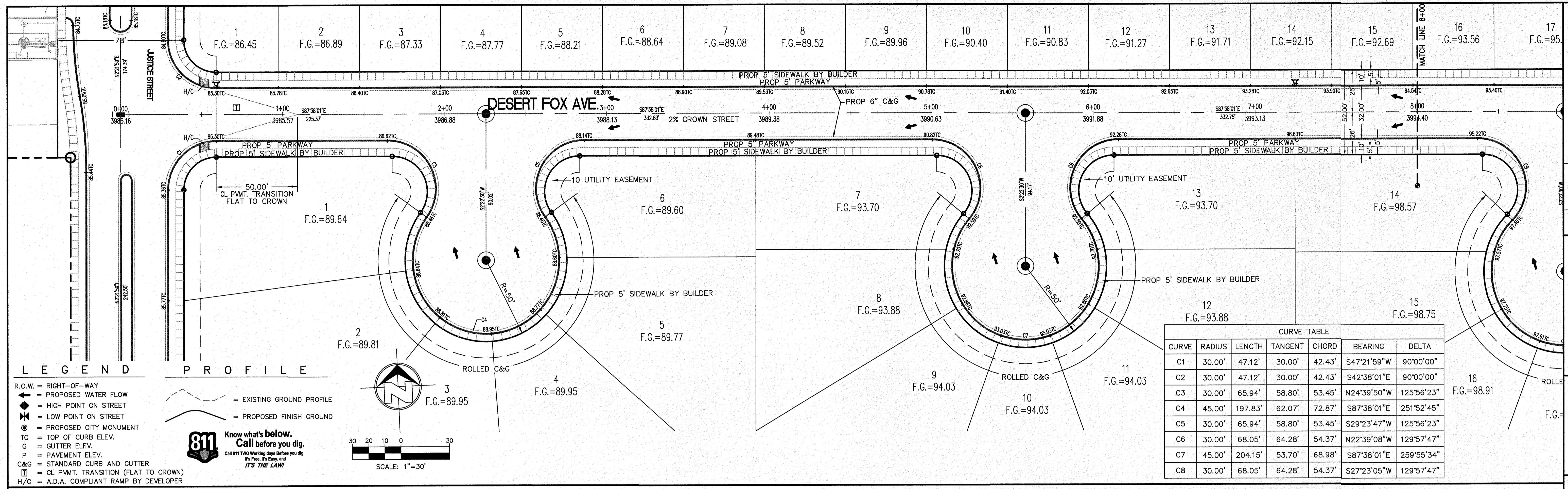
LICENSE No. F-1902

OCTOBER 24, 2018  
SHEET TITLE

DESERT DOVE AVENUE  
STA. 8+00 - 13+55.29

Final Approval

**C-03.07**



**LEGEND**

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ⬆ = HIGH POINT ON STREET
- ⬇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL. P.W.M.T. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

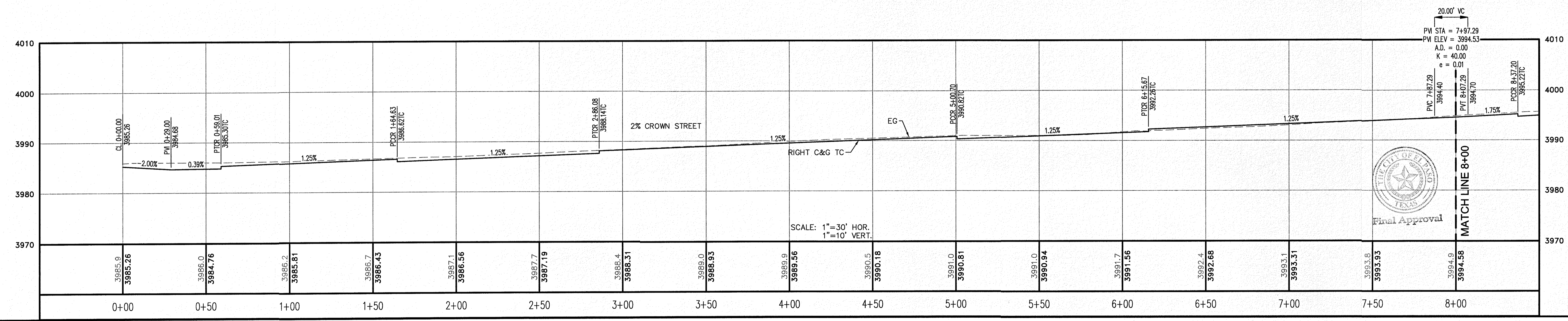
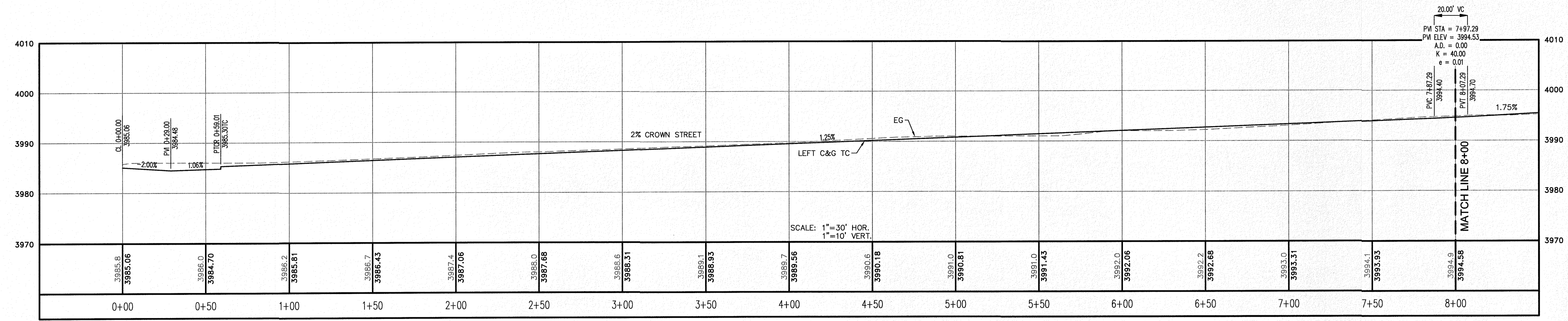
- = EXISTING GROUND PROFILE
- - - = PROPOSED FINISH GROUND

**811 Know what's below. Call before you dig.**  
Call 811 TWO Working days Before you dig  
IT'S THE LAW!

SCALE: 1"=30'

**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C3	30.00'	65.94'	58.80'	53.45'	N24°39'50"W	125°56'23"
C4	45.00'	197.83'	62.07'	72.87'	S87°38'01"E	251°52'45"
C5	30.00'	65.94'	58.80'	53.45'	S29°23'47"W	125°56'23"
C6	30.00'	68.05'	64.28'	54.37'	N22°39'08"W	129°57'47"
C7	45.00'	204.15'	53.70'	68.98'	S87°38'01"E	259°55'34"
C8	30.00'	68.05'	64.28'	54.37'	S27°23'05"W	129°57'47"



**REVISION DESCRIPTION**

NO.	DATE	DESCRIPTION

**BENCHMARK**

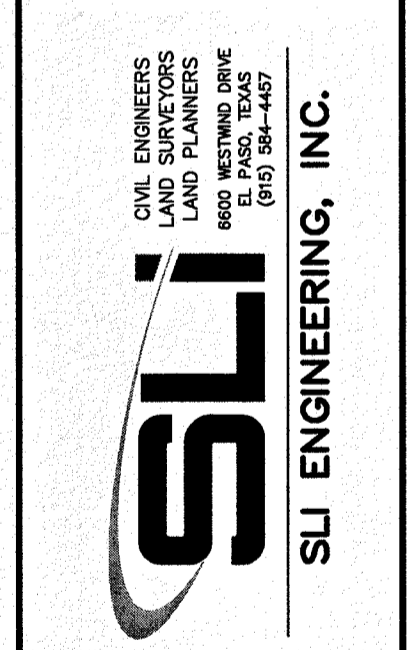
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF HALL, TEXAS AND PACIFIC R.R. SURVEYS  
ELEVATION: 3839.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 08-16-3911  
**DESIGN BY:** J/J  
**CHECKED BY:** GH/E  
**DATE:** OCTOBER 2018

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**PROJECT NAME**  
DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF HALL, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**EL PASO, TEXAS**  
JUSTICE STREET

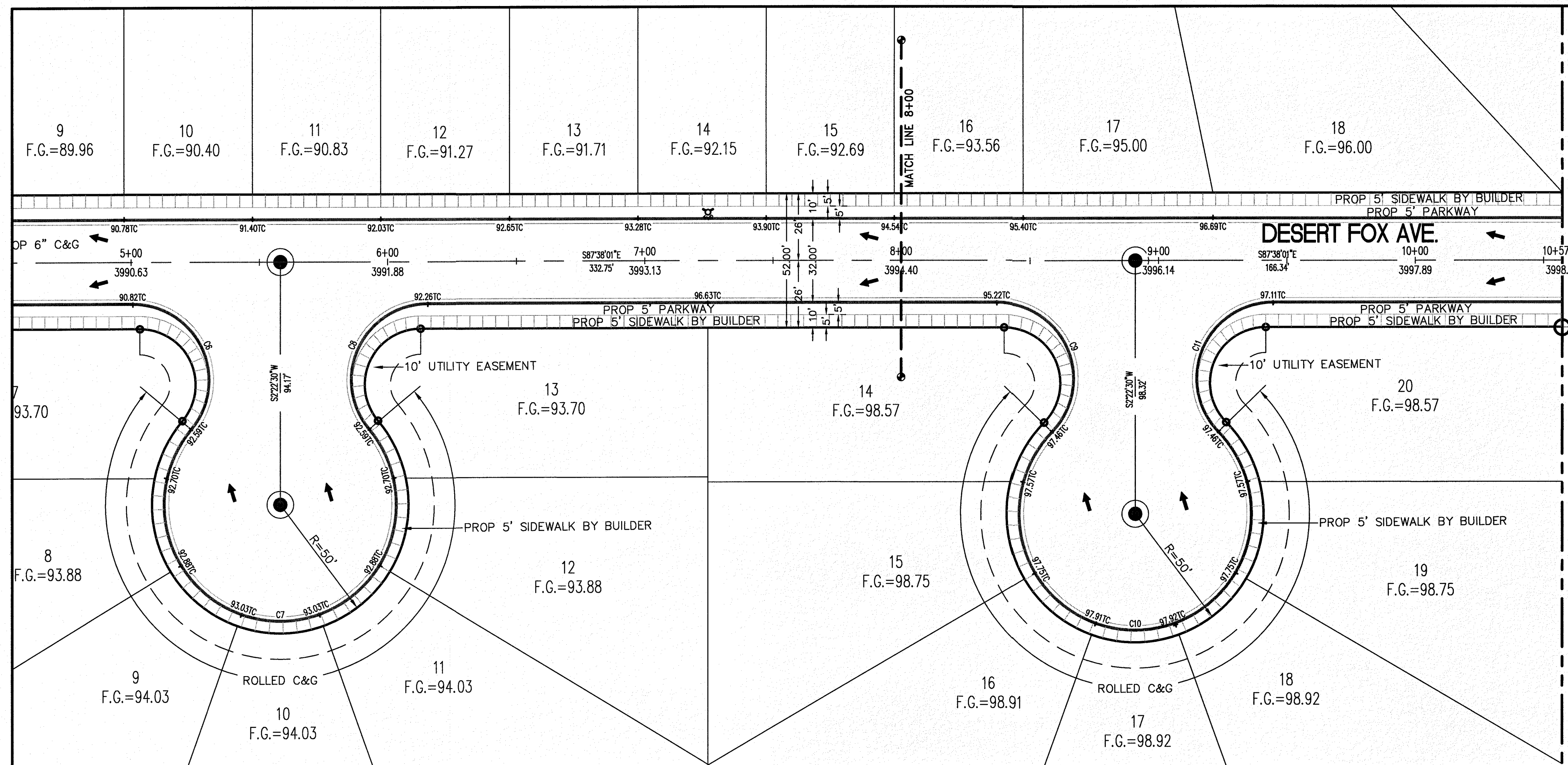


LICENSE No. F-1902

STATE OF TEXAS  
GEORGE B. HALL  
COUNTY CLERK  
OCTOBER 24, 2018

**SHEET TITLE**  
DESERT FOX AVENUE  
STA. 0+00 - 8+00

**C-03.08**



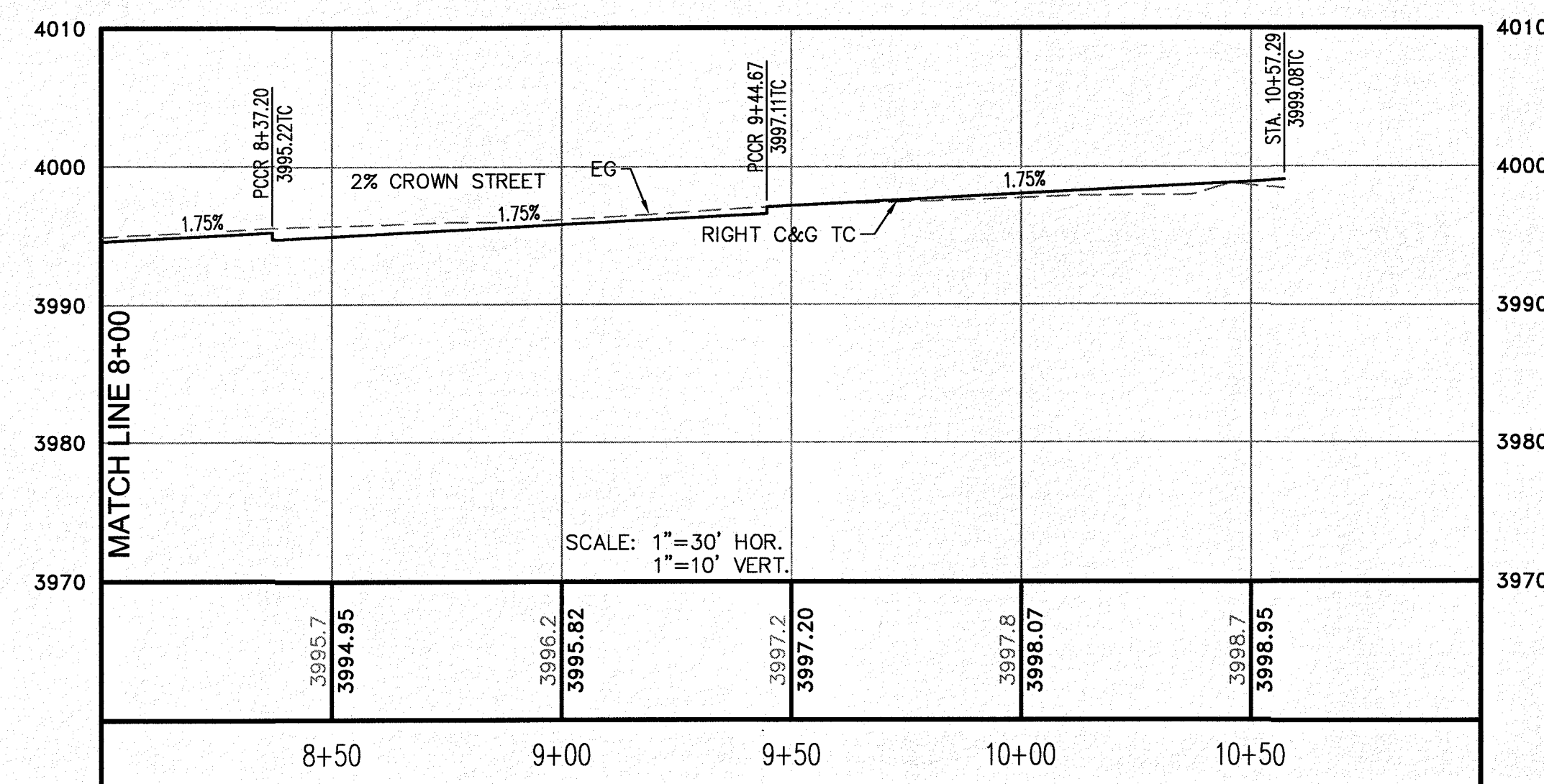
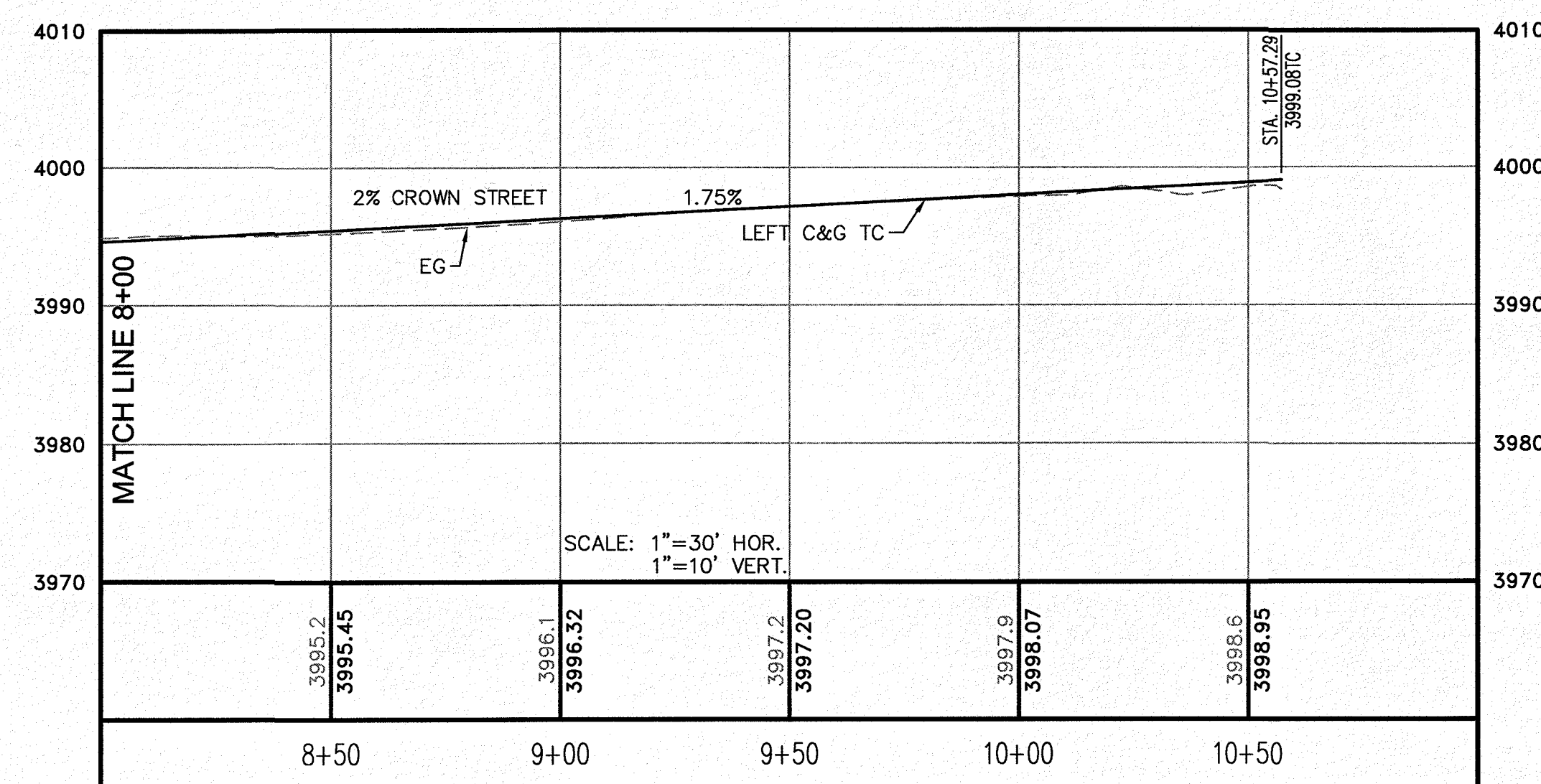
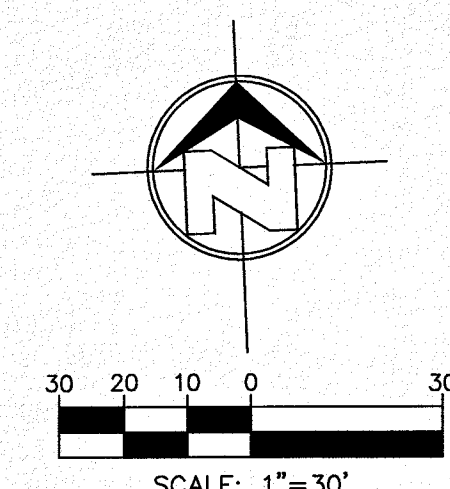
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	30.00'	70.29'	71.09'	55.28'	N20°30'53"W	134°14'17"
C10	45.00'	210.86'	46.21'	64.48'	S87°38'01"E	268°28'33"
C11	30.00'	70.29'	71.09'	55.28'	S25°14'50"W	134°14'17"

**LEGEND**

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ⬆ = HIGH POINT ON STREET
- ⬇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = CL. PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

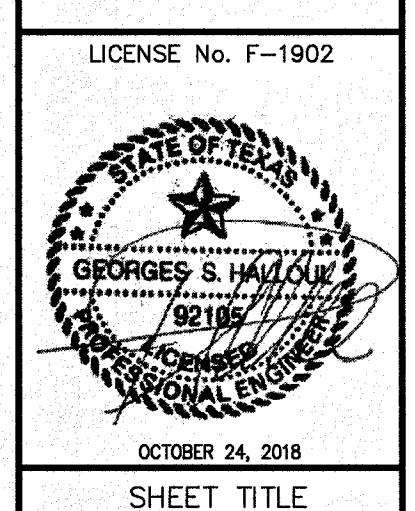
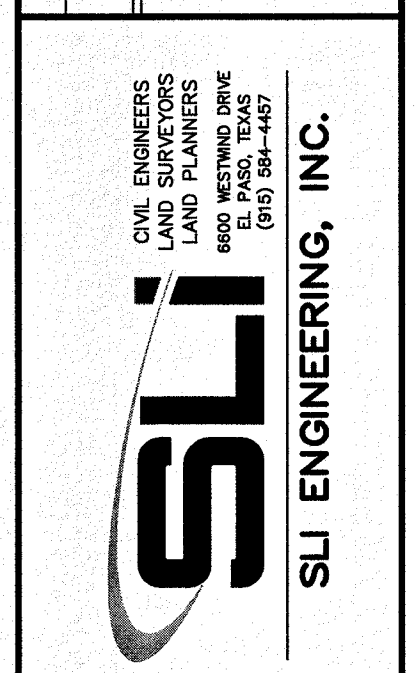


NO.	DATE	REVISION DESCRIPTION

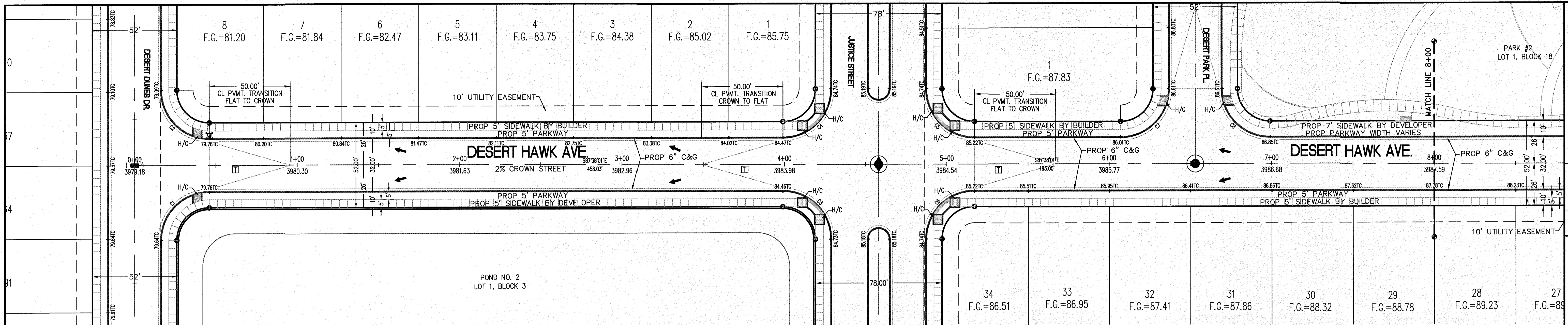
BENCHMARK: SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3859.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/J/T  
CHECKED BY: GH/EE  
DATE: OCTOBER 2018  
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PROJECT NAME: DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
EL PASO, TEXAS  
JUSTICE STREET



DESERT FOX AVENUE  
STA. 8+00 - 10+57.29  
C-03.09



**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C3	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C5	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C7	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C8	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"

**LEGEND**

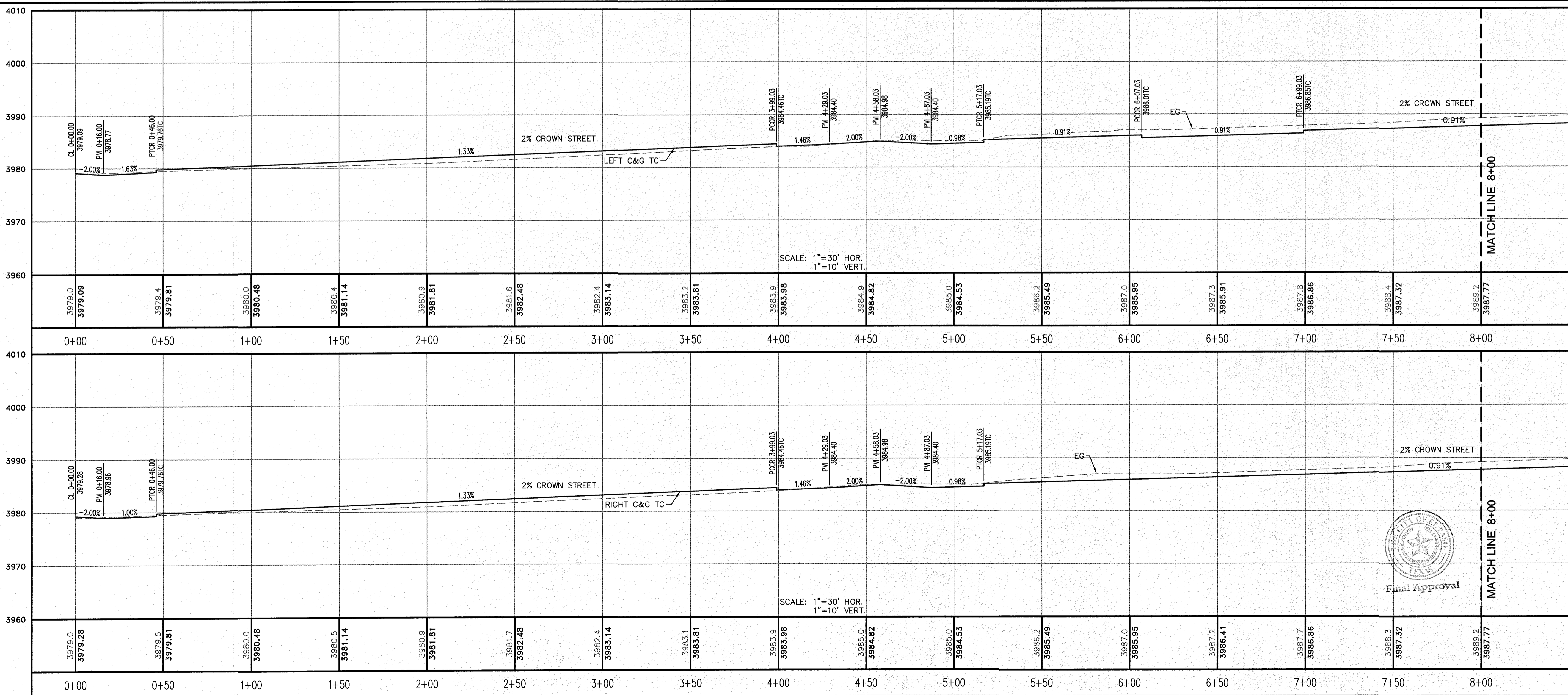
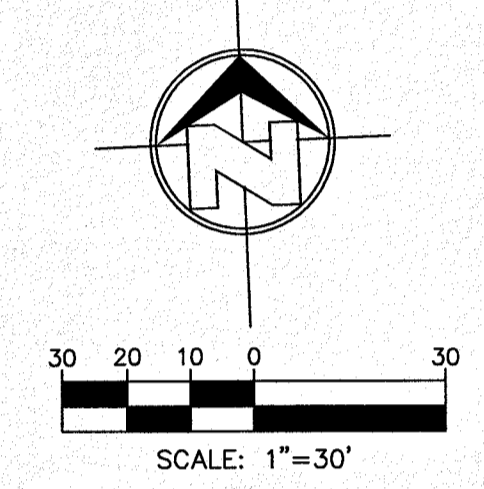
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ⬆ = HIGH POINT ON STREET
- ⬆ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- ⊙ = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = CL. PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. 811 From 8:00am to 5:00pm, 7 days a week. IT'S THE LAW!

SCALE: 1" = 30'



**REVISION DESCRIPTION**

NO.	DATE	DESCRIPTION
1	09-16-2011	SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3539.38 (NAVD88 DATUM)

**BENCHMARK**

DATE: OCTOBER 2018

**PROJECT NAME**: DESERT SANDS

**DESIGNER**: TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**LOCATION**: EL PASO, TEXAS

**SLI ENGINEERING, INC.**

LICENSE No. F-1902

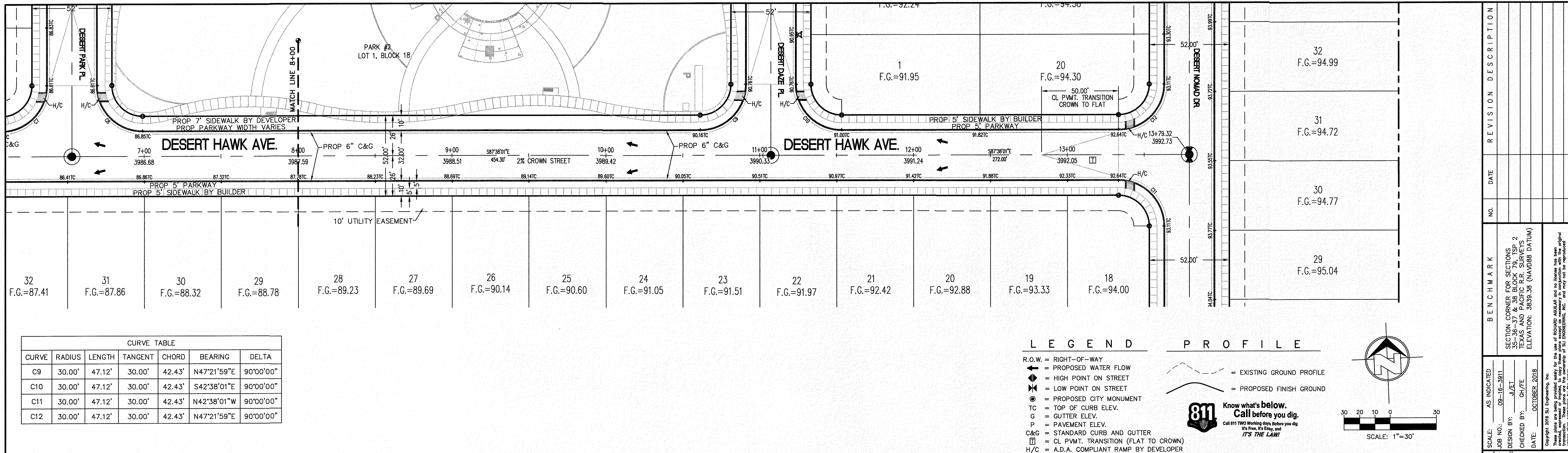
**STATE OF TEXAS**

GEORGES S. HALL, CIVIL ENGINEER

OCTOBER 24, 2018

**SHEET TITLE**: DESERT HAWK AVENUE STA. 0+00 - 8+00

**C-03.10**



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C10	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C11	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C12	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"

**LEGEND**

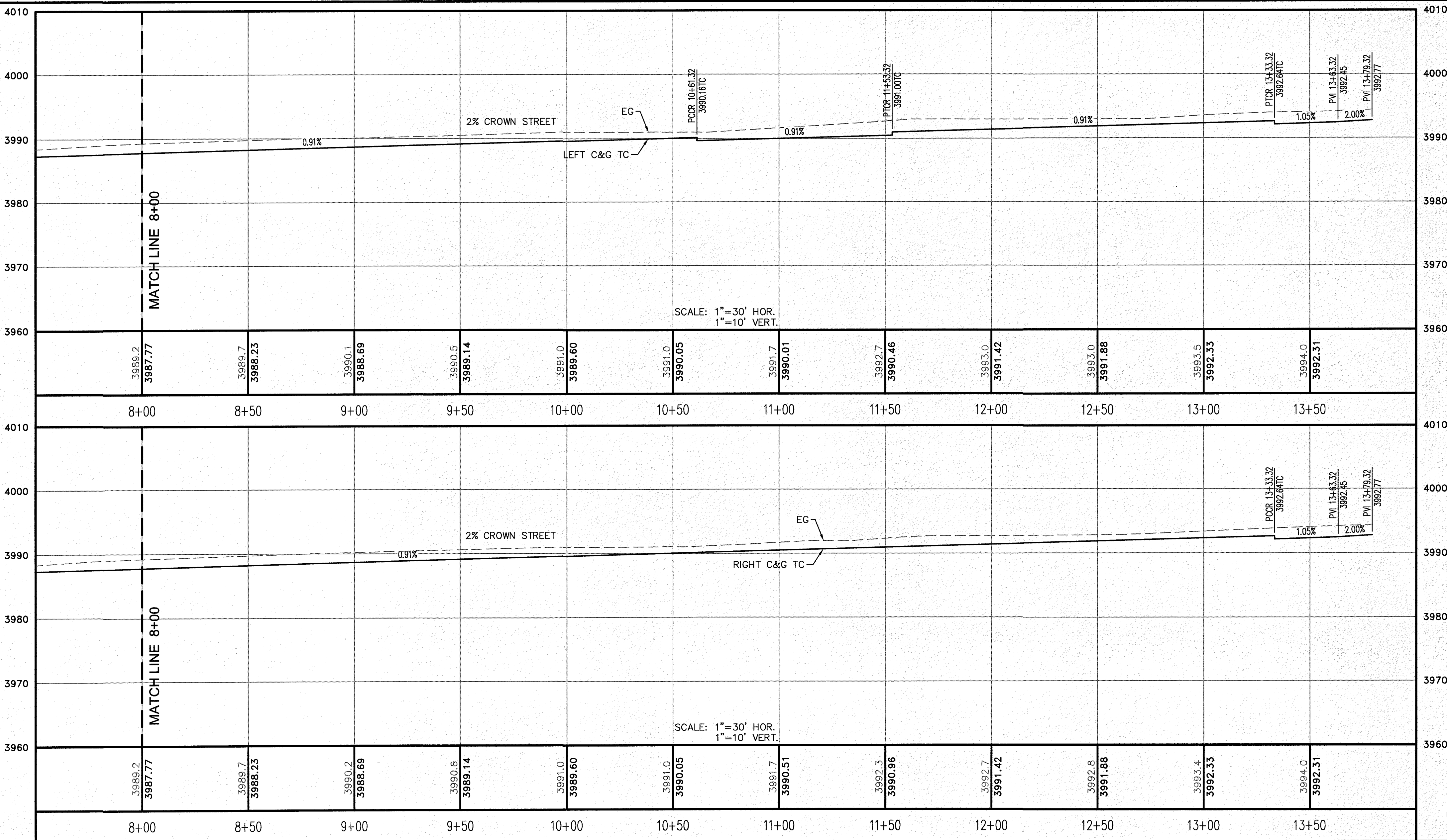
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ▼ = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL. P.V.M.T. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

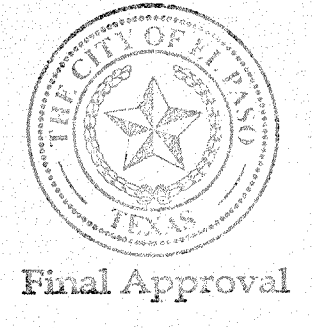
- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

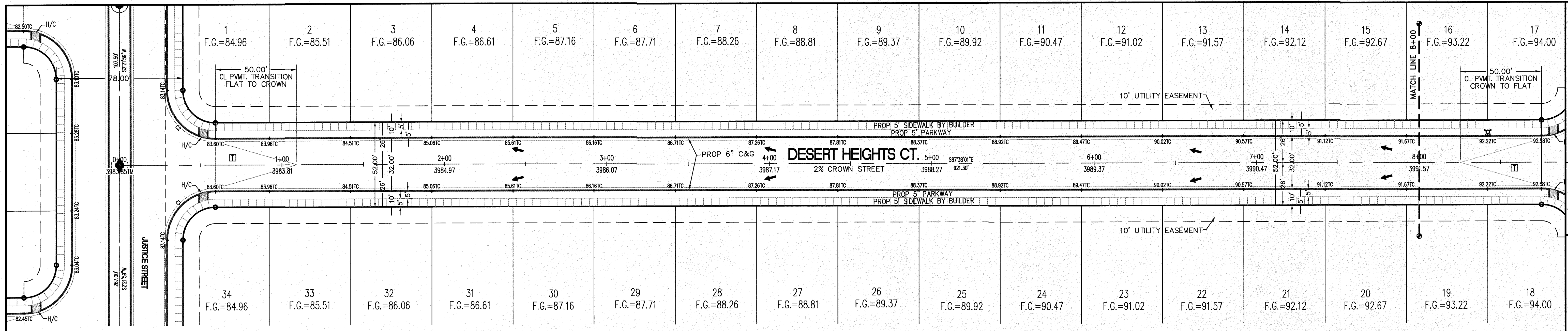
**811 Know what's below. Call before you dig.**  
Call 811 TWO Working days Before you dig. It's Free, It's Easy, and IT'S THE LAW!

SCALE: 1"=30'



SECTION CORNER FOR SECTIONS 29, 30, 31, 32, TEXAS AND PACIFIC RAILWAY SURVEY, 2 ELEVATION: 3859.38 (NAVD88 DATUM)	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
SCALE: AS INDICATED	JOB NO.: 09-16-3911	DESIGN BY: J/ET	CHECKED BY: GH/FE	DATE: OCTOBER 2018
PROJECT NAME: DESERT SANDS				
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEY				
EL PASO, TEXAS				
CIVIL ENGINEERS, LAND SURVEYORS, AND PLANNERS <b>SLI ENGINEERING, INC.</b> 6905 EL PASO, TEXAS 979 384-4457				
LICENSE No. F-1902				
OCTOBER 24, 2018				
SHEET TITLE				
DESERT HAWK AVENUE				
STA. 8+00 - 13+79.32				
C-03.11				





CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"

**LEGEND**

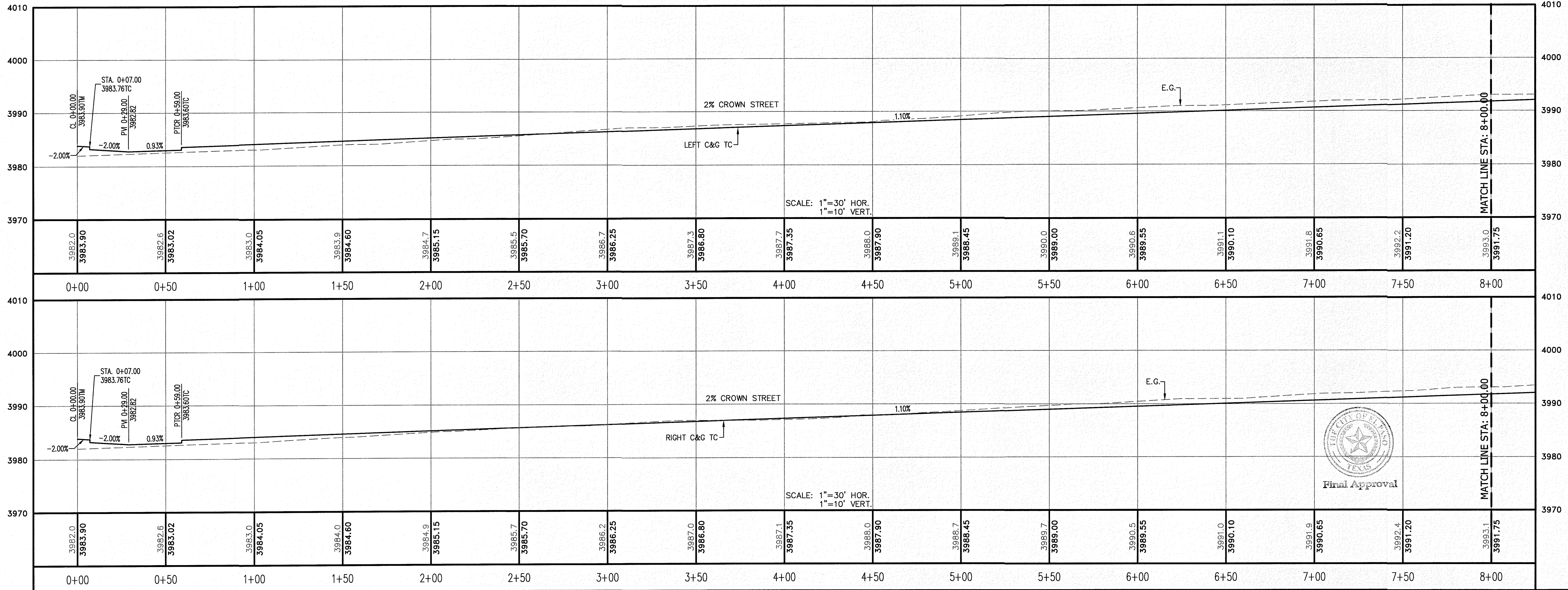
- R.O.W. = RIGHT-OF-WAY
- ← = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ▼ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = CL. PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. Call 811 Two Working days Before you dig. It's Free, It's Easy and IT'S THE LAW!

SCALE: 1"=30'



NO.	DATE	REVISION DESCRIPTION

BENCHMARK: SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3839.38 (NAVD8 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/T  
CHECKED BY: CH/FE  
DATE: OCTOBER 2018

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PROJECT NAME: DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
EL PASO, TEXAS

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
6805 W. HAVEN  
EL PASO, TEXAS  
(915) 561-4487

**SLI**  
SLI ENGINEERING, INC.

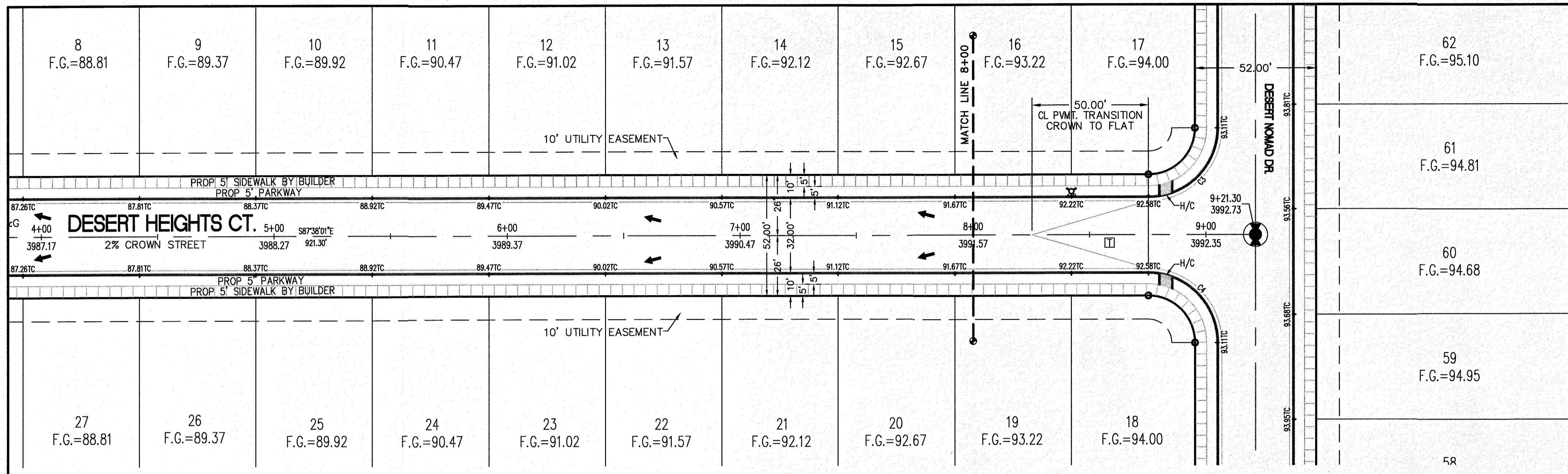
LICENSE No. F-1902

STATE OF TEXAS  
GEOORGES S. HALL  
2018

OCTOBER 24, 2018

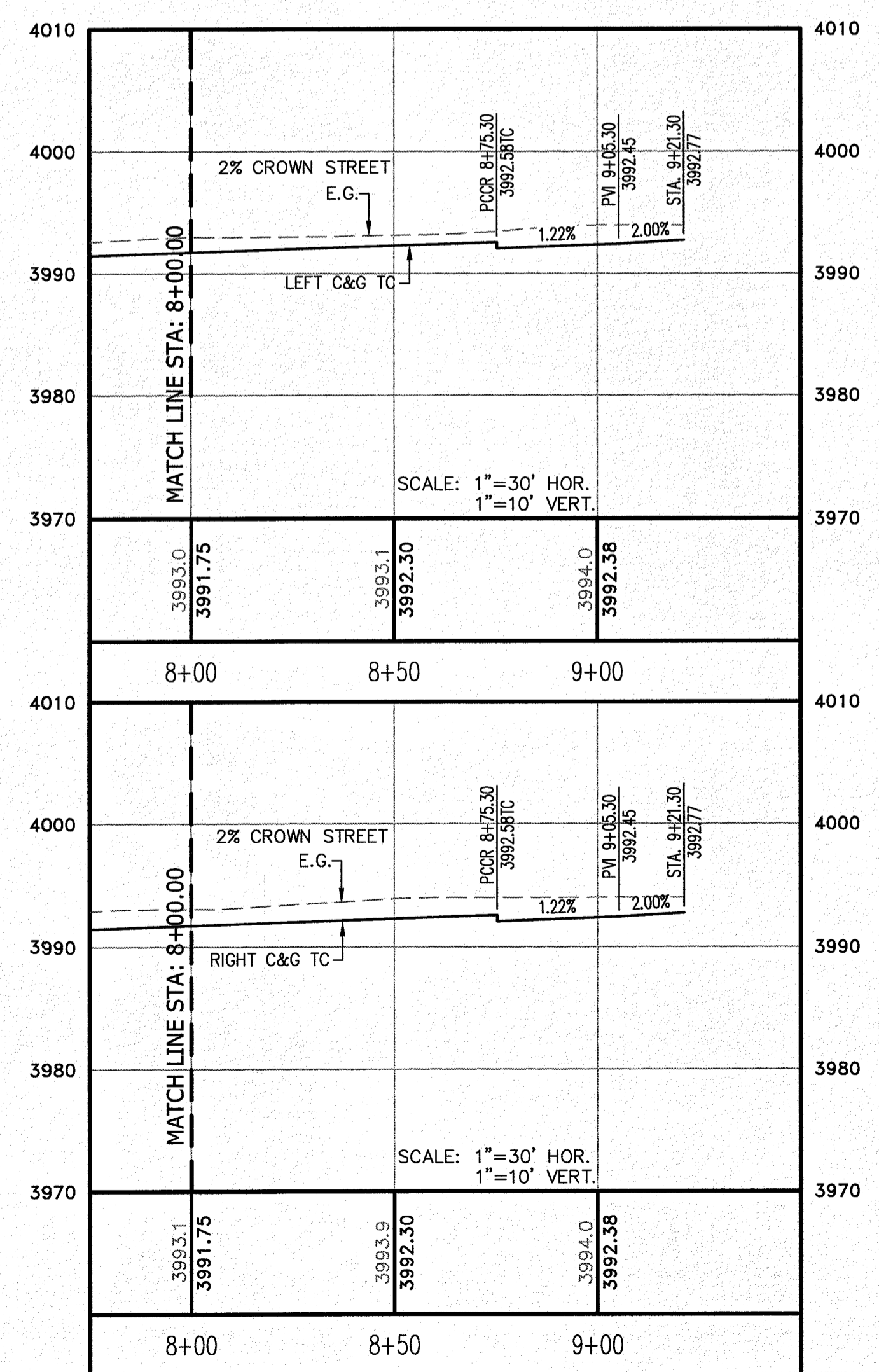
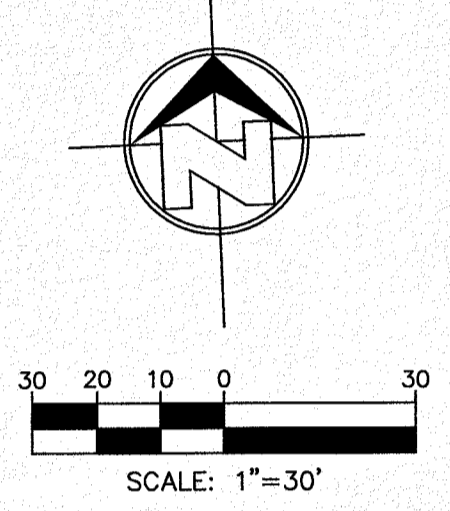
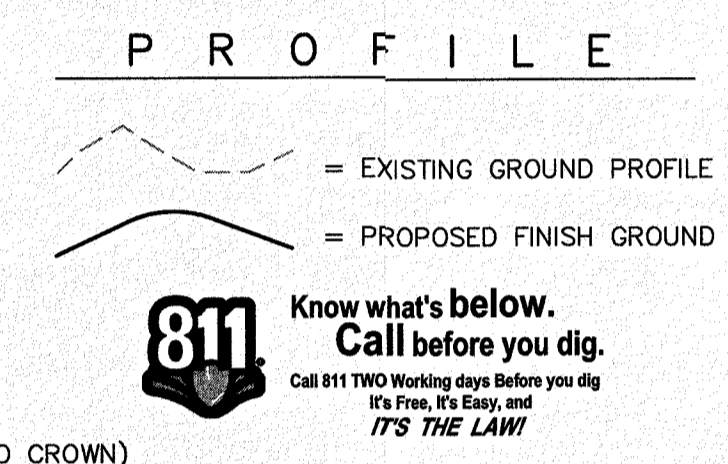
SHEET TITLE: DESERT HEIGHTS COURT  
STA. 0+00 - 8+00

C-03.12



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"

- LEGEND**
- R.O.W. = RIGHT-OF-WAY
  - ← = PROPOSED WATER FLOW
  - ◆ = HIGH POINT ON STREET
  - ◇ = LOW POINT ON STREET
  - ⊙ = PROPOSED CITY MONUMENT
  - ⊕ = TOP OF CURB ELEV.
  - G = GUTTER ELEV.
  - P = PAVEMENT ELEV.
  - C&G = STANDARD CURB AND GUTTER
  - = CL PVMT. TRANSITION (FLAT TO CROWN)
  - H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER



NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3839.38 (NAVD88 DATUM)

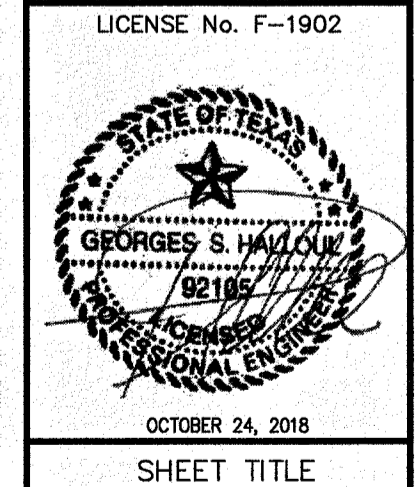
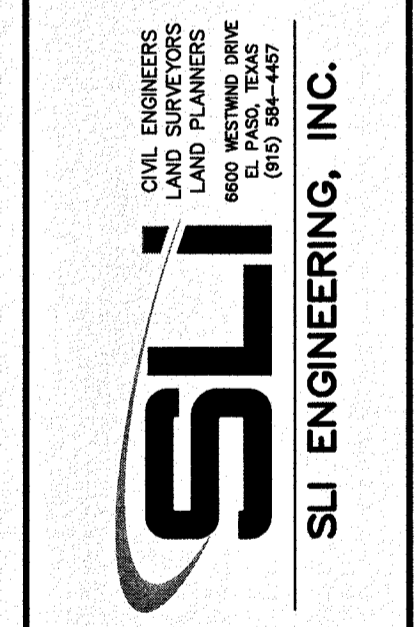
SCALE: AS INDICATED  
JOB NO.: 09-1E-3811  
DESIGN BY: J/T  
CHECKED BY: G/H/E  
DATE: OCTOBER 2018

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**PROJECT NAME**

DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

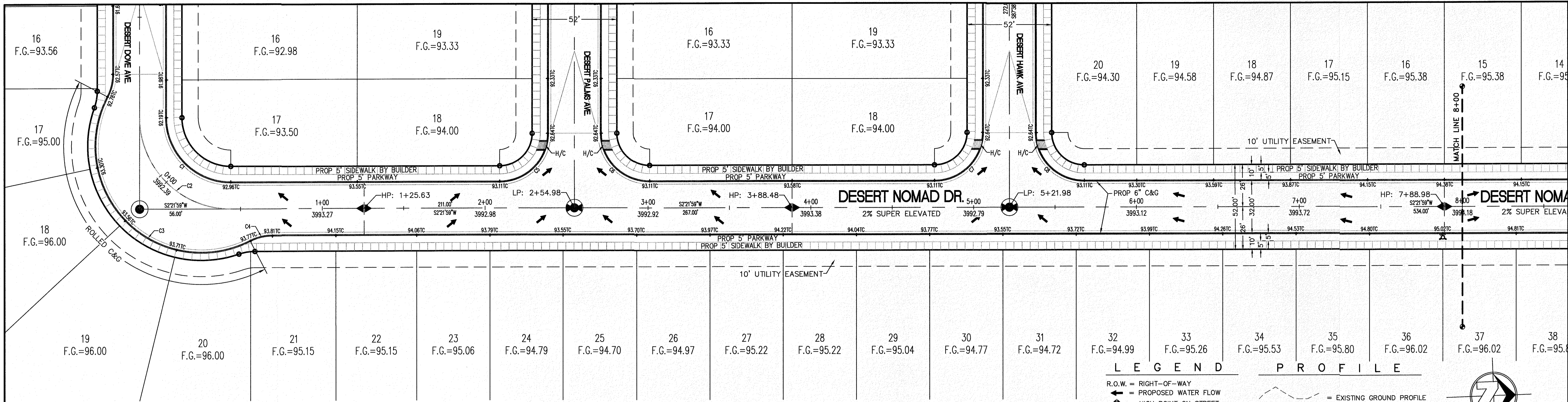
JUSTICE STREET  
EL PASO, TEXAS



DESERT HEIGHTS COURT  
STA. 8+00 - 9+11.30

C-03.13





CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	40.00'	62.83'	40.00'	56.57'	N47°21'59"E	90°00'00"
C2	56.00'	87.96'	56.00'	79.20'	N47°21'59"E	90°00'00"
C3	65.00'	164.38'	205.49'	123.95'	N47°37'14"E	144°53'40"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C4	30.00'	14.24'	7.26'	14.10'	S11°13'49"E	27°11'34"
C5	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C8	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"

**LEGEND**

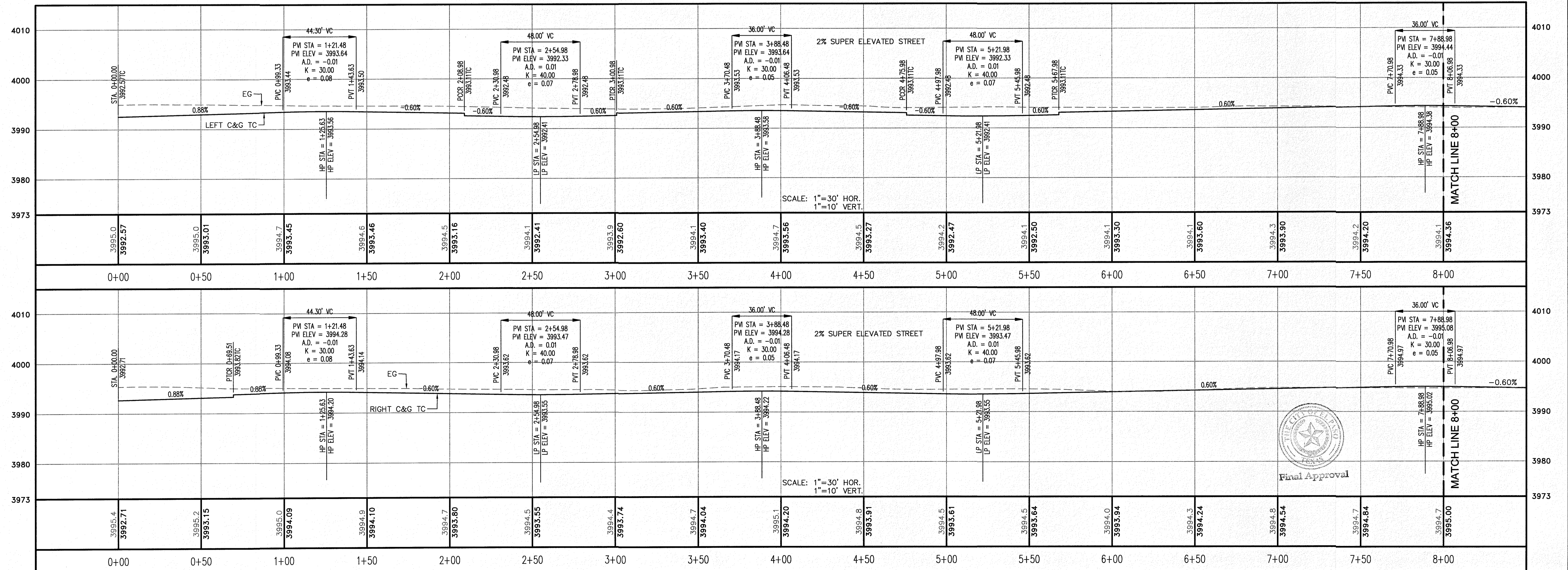
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = TRANSITION (CROWN TO SUPER ELEVATED)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

**811 Know what's below. Call before you dig.**  
Call 811 TWO Working days Before you dig  
It's Free, It's Easy, and IT'S THE LAW!

SCALE: 1"=30'



NO.	REVISION	DESCRIPTION

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3639.36 (NA DDB DATUM)

DATE: OCTOBER 2018

SCALE: AS INDICATED

JOB NO.: 09-16-3911

DESIGNED BY: J/JET

CHECKED BY: G/TE

DATE: OCTOBER 2018

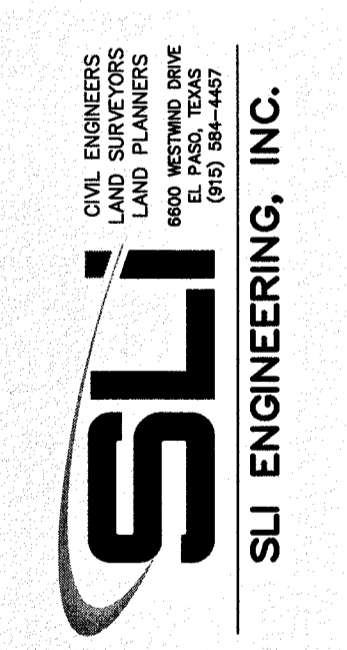
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PROJECT NAME: DESERT SANDS

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

JUSTICE STREET

EL PASO, TEXAS



LICENSE No. F-1902

OCTOBER 24, 2018

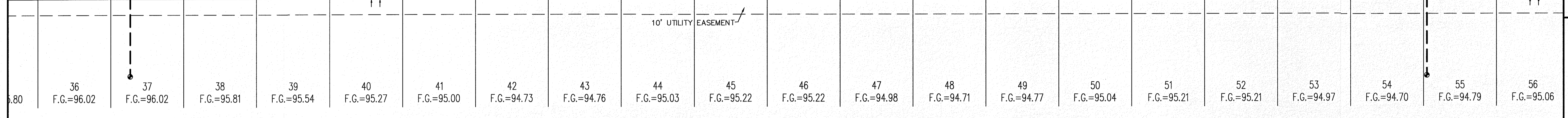
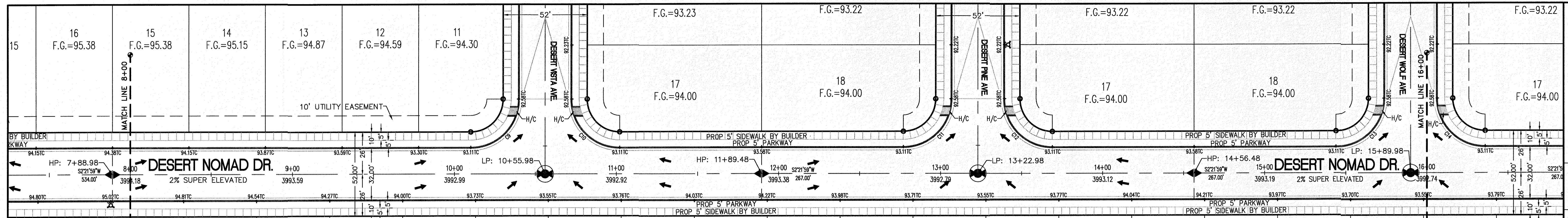
SHEET TITLE

DESERT NOMAD DRIVE

STA. 0+00 - 8+00

C-03.14

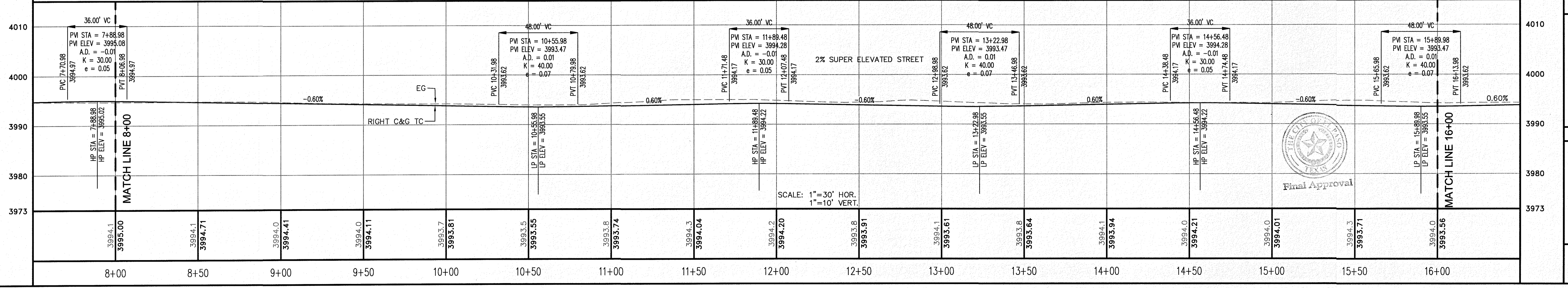
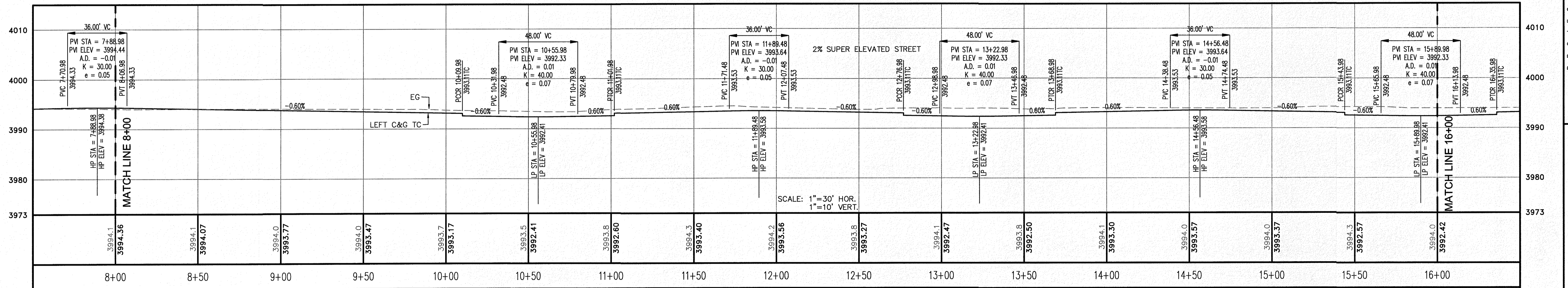
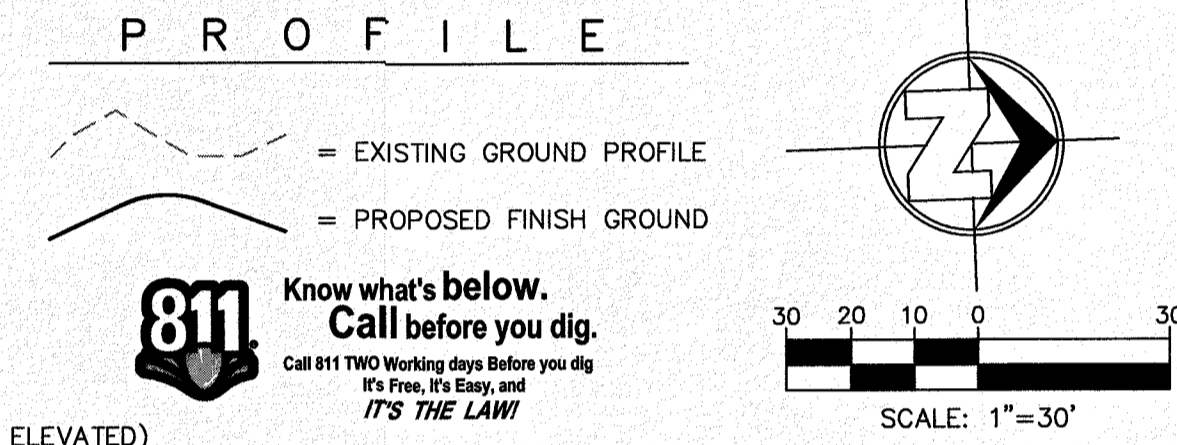




CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C10	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C11	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C12	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C13	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C14	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"

**LEGEND PROFILE**

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ⬆ = HIGH POINT ON STREET
- ⬇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- ⊕ = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = TRANSITION (CROWN TO SUPER ELEVATED)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER



**REVISION DESCRIPTION**

NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

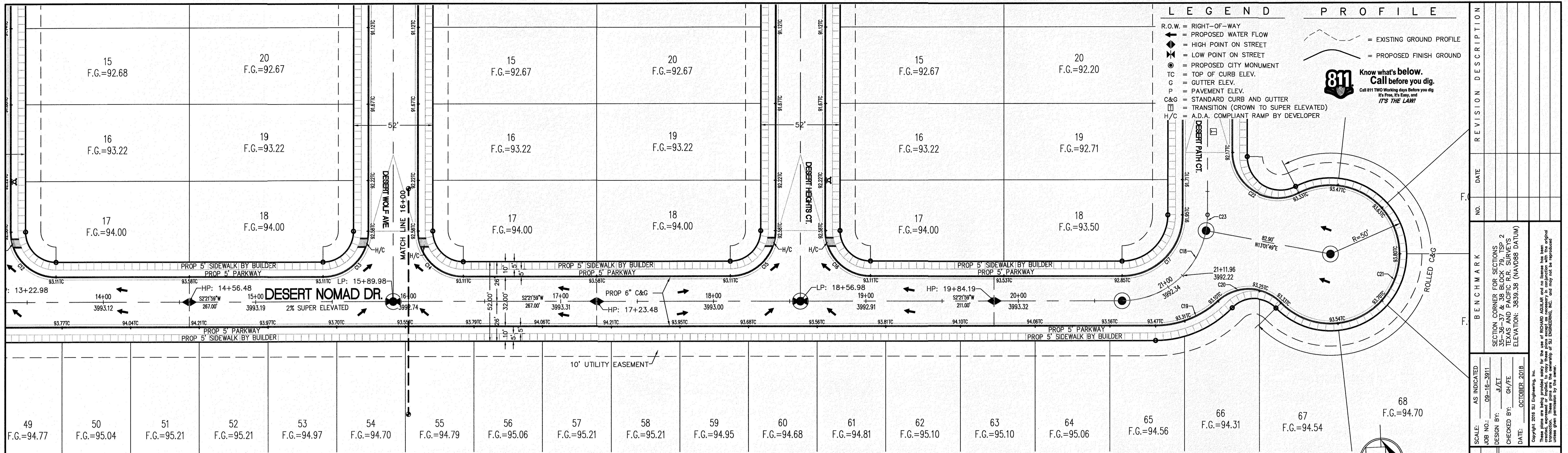
SECTION CORNER FOR SECTIONS 35, 37, 38, 39 AND 40, TOWNSHIP 2 NORTH, RANGE 10 WEST, COUNTY OF EL PASO, TEXAS AND PACIFIC R.R. SURVEYS  
ELEVATION: 3839.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
JOB NO.: 09-1E-3911  
DESIGN BY: J/J/T  
CHECKED BY: GH/VE  
DATE: OCTOBER 2018

**PROJECT NAME**  
DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
JUSTICE STREET  
EL PASO, TEXAS

**SLI ENGINEERING, INC.**  
CIVIL ENGINEERS  
LAND SURVEYORS  
4600 WESTINGHOUSE  
EL PASO, TEXAS  
(915) 384-1007

LICENSE No. F-1902  
OCTOBER 24, 2018  
SHEET TITLE  
DESERT NOMAD DRIVE  
STA. 8+00 - 16+00  
C-03.15



**LEGEND**

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ⬇ = HIGH POINT ON STREET
- ⬆ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- C = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ◻ = TRANSITION (CROWN TO SUPER ELEVATED)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

**811 Know what's below. Call before you dig.**  
Call 811 Two Working Days Before you dig. It's Free, It's Easy, and IT'S THE LAW!

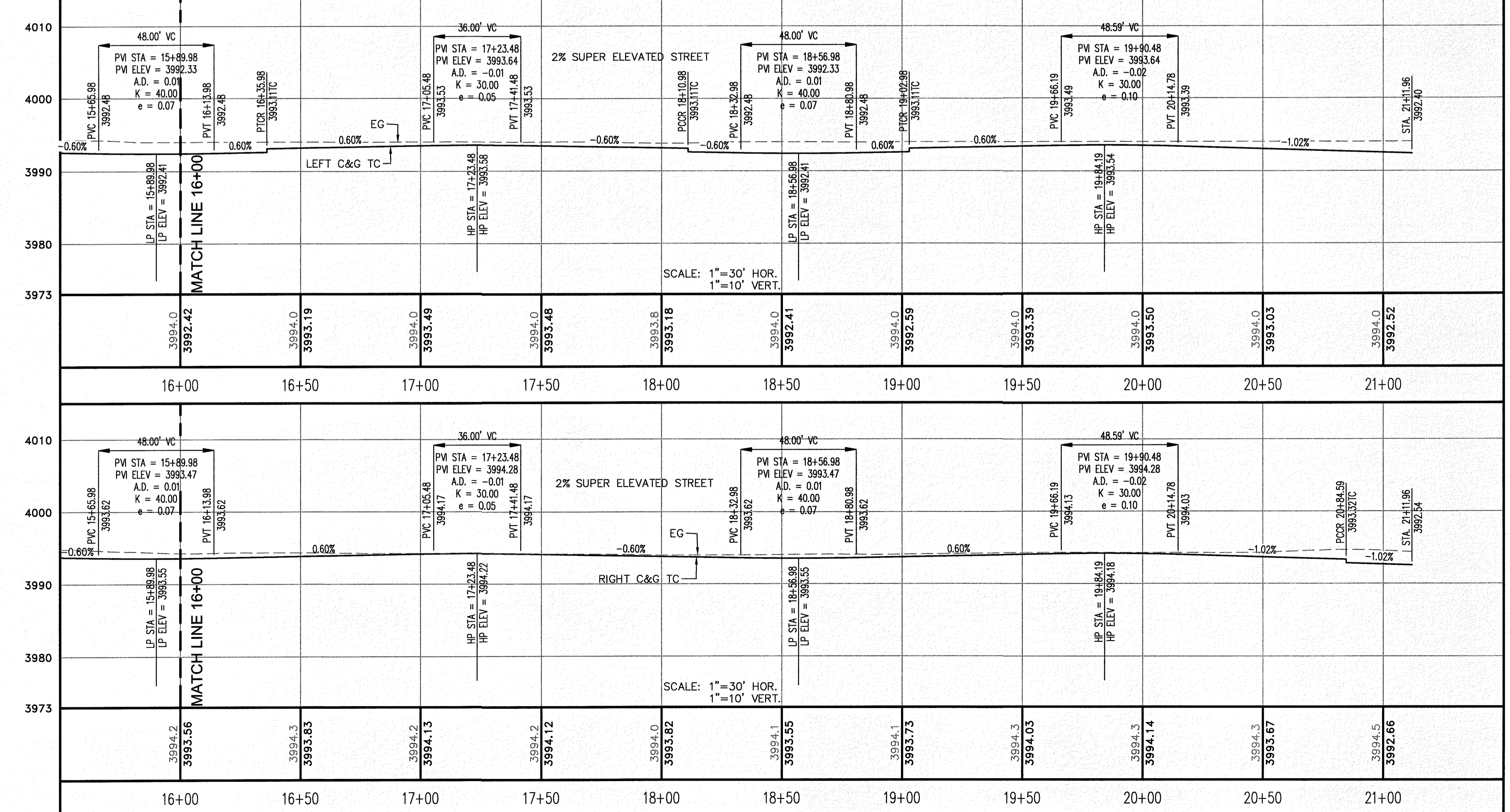
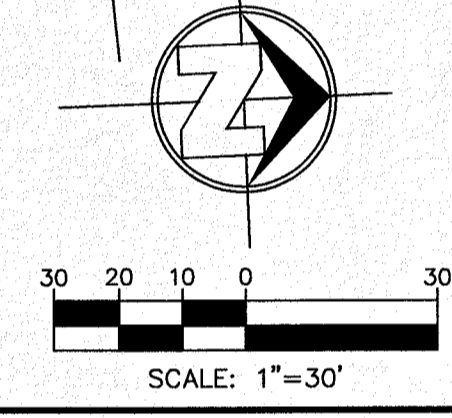
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)
SCALE: AS INDICATED
JOB NO.: 09-16-3911
DESIGN BY: J/J/E/T
CHECKED BY: GH/E
DATE: OCTOBER 2018
PROJECT NAME: DESERT SANDS
PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
BENCHMARK NO.:
DATE:
REVISION DESCRIPTION:
NO.:
EL PASO, TEXAS

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C13	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C14	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C15	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C16	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C17	40.00'	62.83'	40.00'	56.57'	N42°38'01"W	90°00'00"
C18	56.00'	77.54'	46.44'	71.49'	N37°18'06"W	79°20'10"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C19	60.00'	44.64'	23.41'	43.62'	N18°56'55"W	42°37'47"
C20	30.00'	46.17'	29.07'	41.75'	S3°49'49"W	88°11'14"
C21	45.00'	198.66'	60.88'	72.37'	N78°32'54"W	252°56'39"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C22	30.00'	61.46'	49.33'	51.26'	N33°40'22"E	117°23'12"
C23	56.00'	10.42'	5.23'	10.41'	N82°18'06"W	10°39'50"



DESERT SANDS

PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

JUSTICE STREET

EL PASO, TEXAS

SCALE: 1"=30'

SLI ENGINEERING, INC.  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS  
 SURVEYORS & MAPPING  
 8000 W. HIGHTWAY 170  
 SUITE 100  
 EL PASO, TEXAS 79907  
 (915) 848-4607

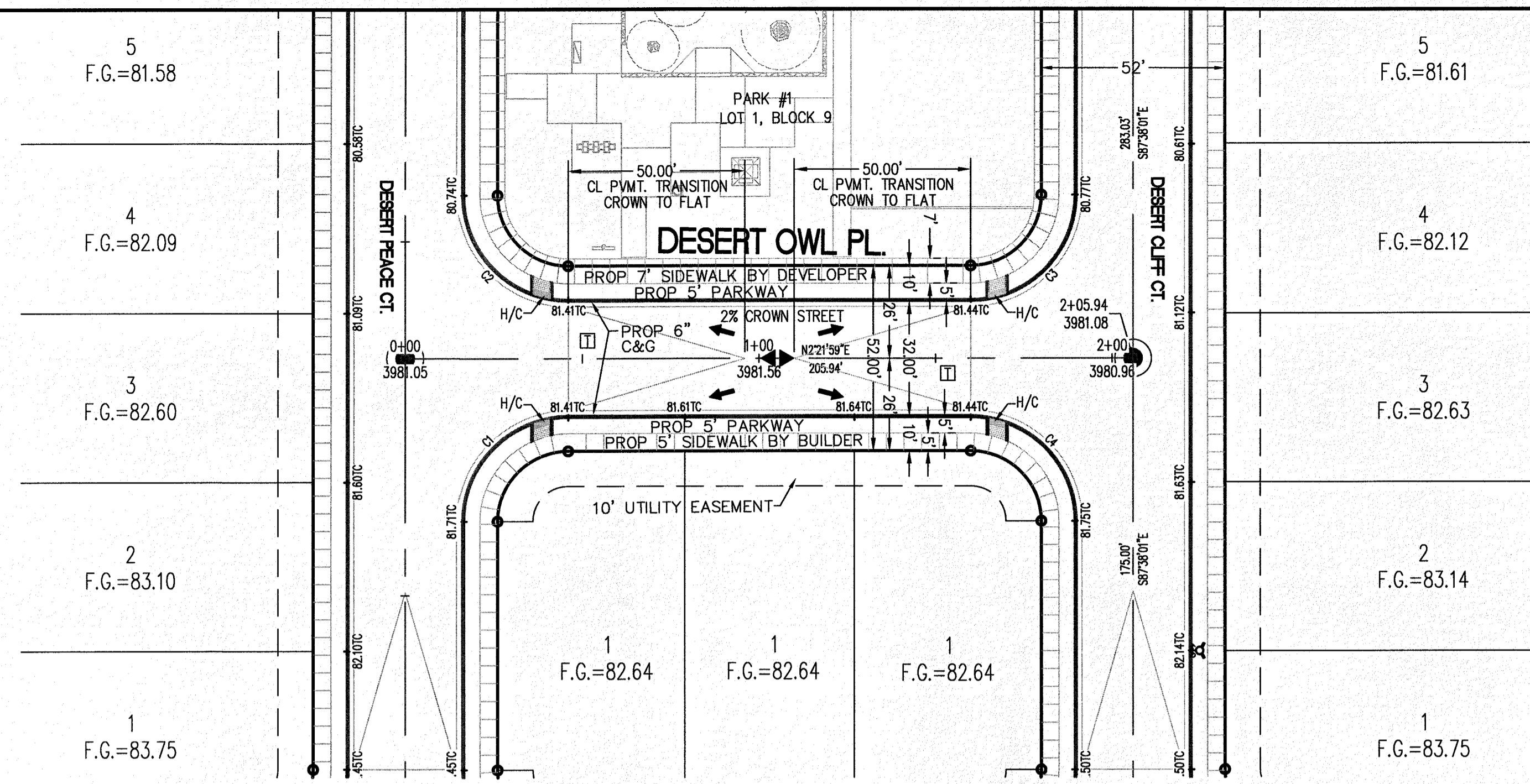
LICENSE No. F-1902

OCTOBER 24, 2018

SHEET TITLE

DESERT NOMAD DRIVE  
 STA. 16+00 - 21+11.96

C-03.16



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S42°38'05"E	90°00'06"
C2	30.00'	47.12'	30.00'	42.43'	N47°21'55"E	89°59'54"
C3	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"

**LEGEND**

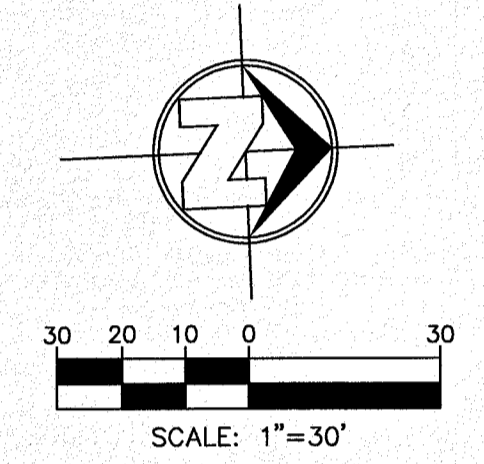
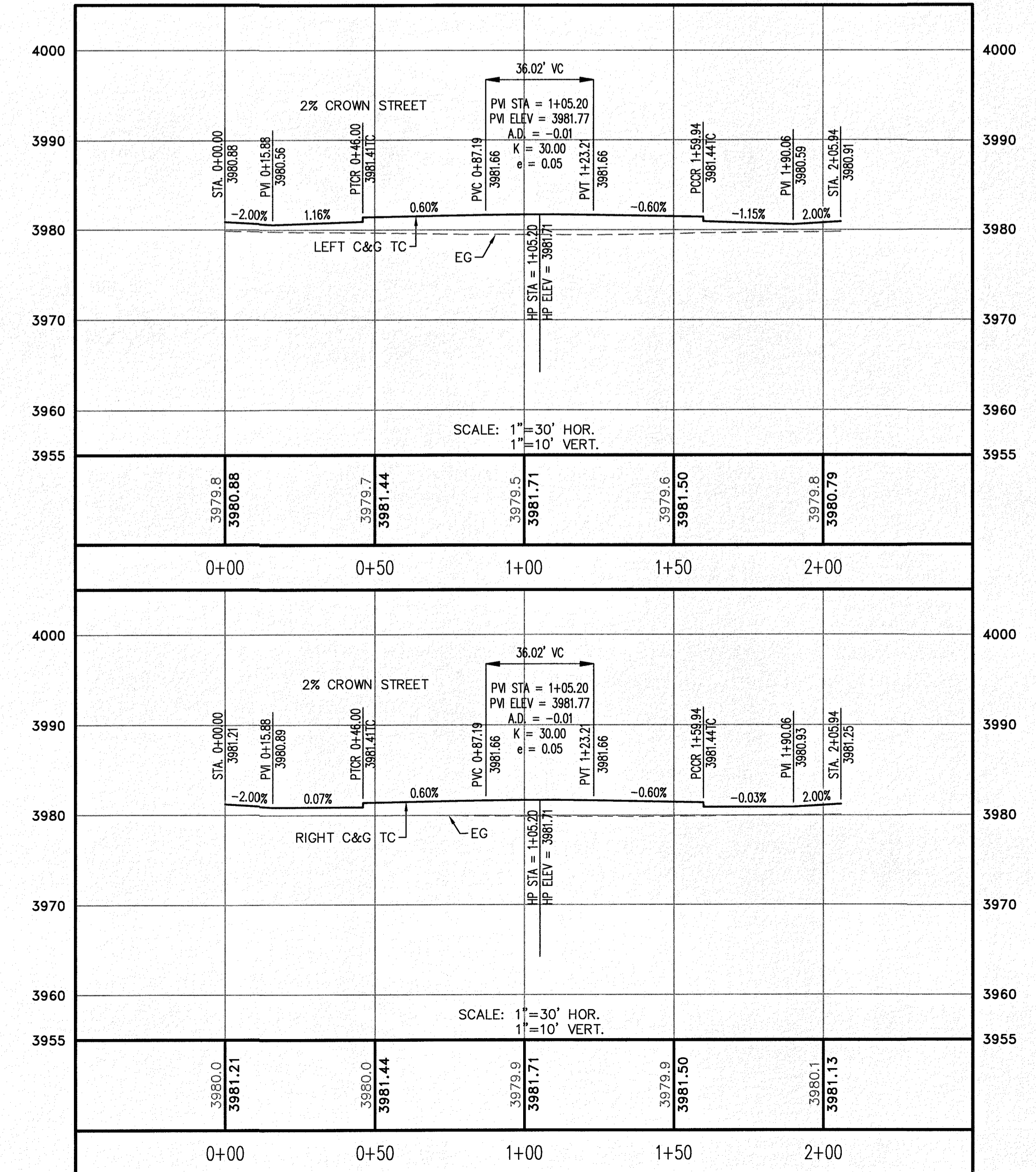
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ⬆ = HIGH POINT ON STREET
- ⬇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ⊞ = CL. P.W.M.T. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. It's Free, It's Easy and IT'S THE LAW!

SCALE: 1"=30'



NO.	DATE	REVISION DESCRIPTION

BENCHMARK

SECTION CORNER FOR SECTIONS 35, 36, 37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3539.38 (NAVD83 DATUM)

SCALE: AS INDICATED

JOB NO.: 09-16-3911

DESIGN BY: J/J/E

CHECKED BY: G/H/E

DATE: OCTOBER 2018

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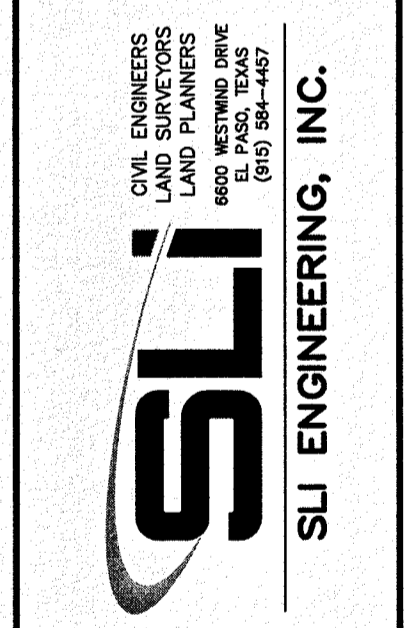
PROJECT NAME

**DESERT SANDS**

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

JUSTICE STREET

EL PASO, TEXAS



LICENSE No. F-1902

OCTOBER 24, 2018

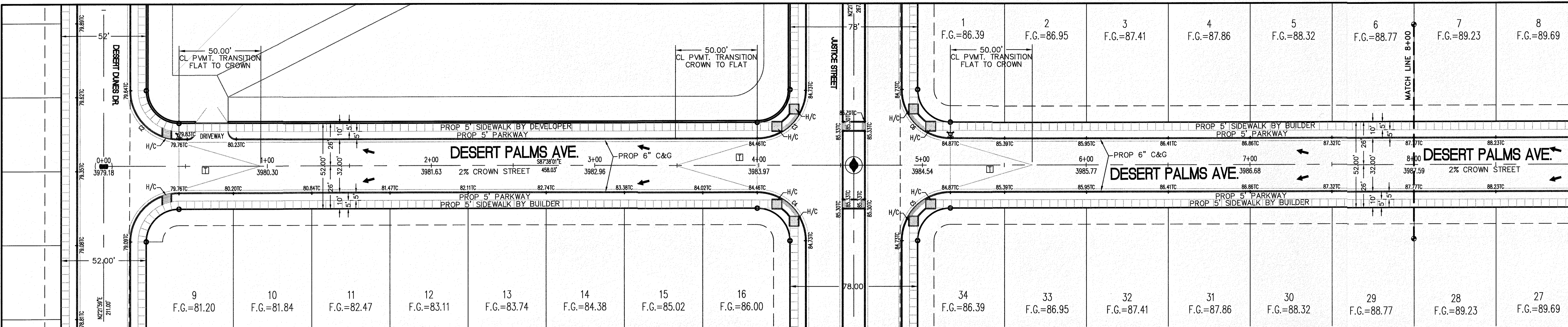
SHEET TITLE

**DESERT OWL PLACE**

STA. 0+00 - 2+05.94

**C-03.17**





CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C2	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C3	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C5	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"

**LEGEND**

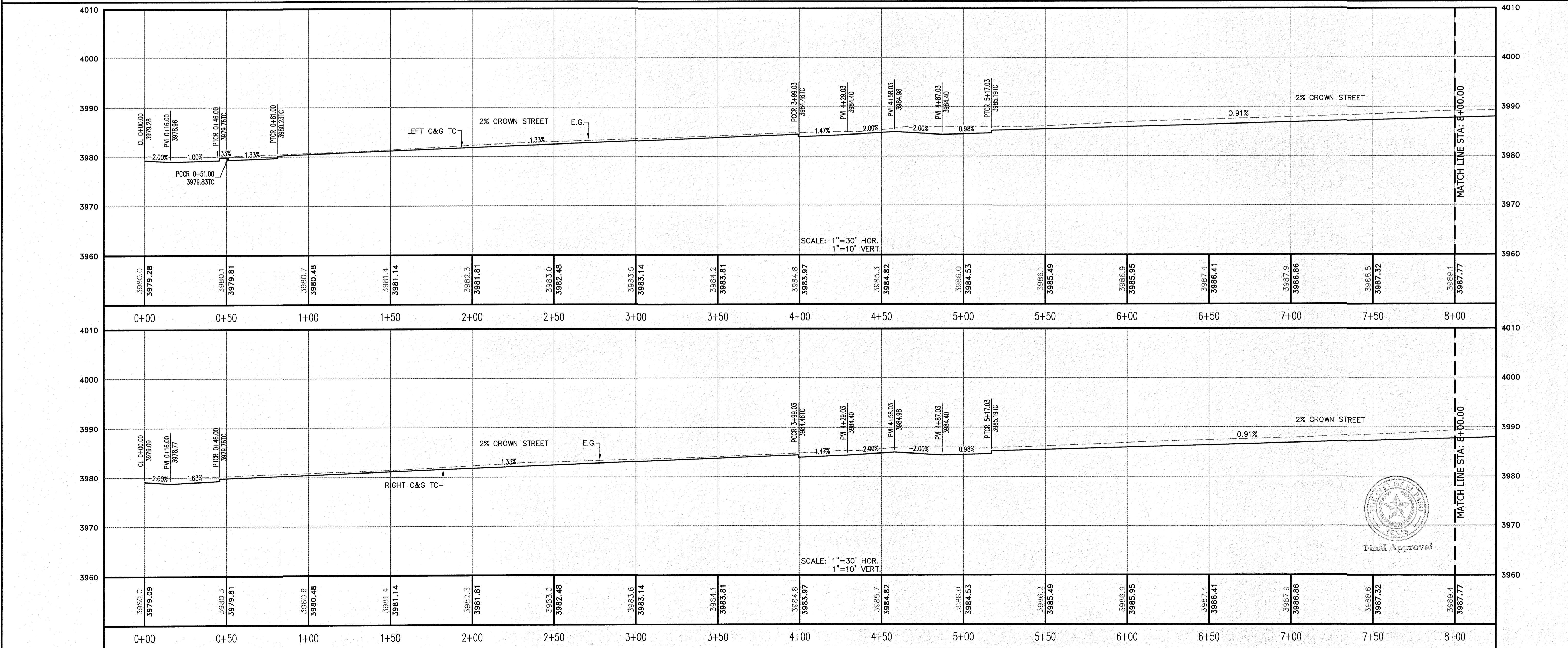
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ◆ = HIGH POINT ON STREET
- ◊ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- CL PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- - - = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. Call 811 TWO Working Days Before you dig. It's Free, It's Easy and IT'S THE LAW!

SCALE: 1" = 30'



**REVISION DESCRIPTION**

NO.	DATE	BENCHMARK

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3859.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/JT  
CHECKED BY: GH/FE  
DATE: OCTOBER 2018

PROJECT NAME: DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
EL PASO, TEXAS

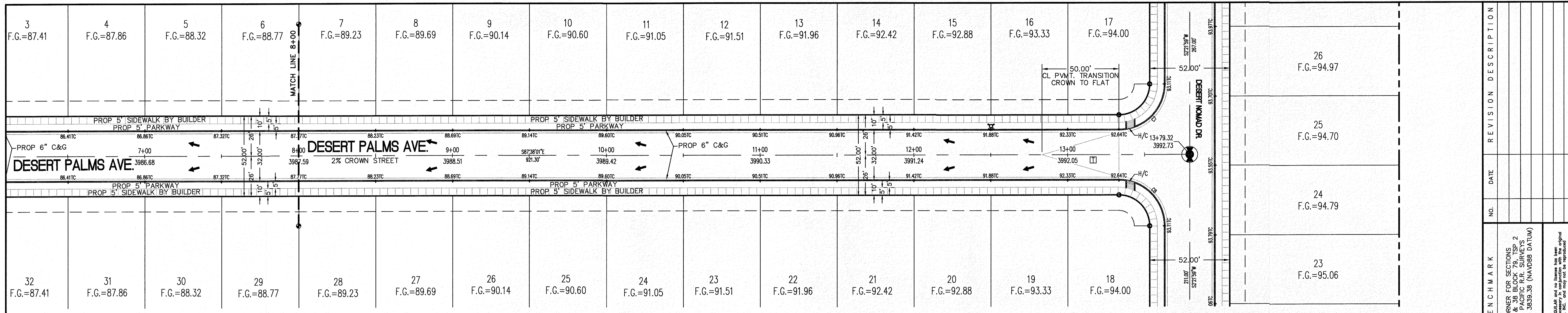
SLI ENGINEERING, INC.  
CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
6901 W. WASH. TRAIL  
EL PASO, TEXAS 79907  
PH: 987.381-4467

LICENSE No. F-1902

OCTOBER 24, 2018  
SHEET TITLE

DESERT PALMS AVENUE  
STA. 0+00 - 8+00

**C-03.18**



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C8	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"

**LEGEND**

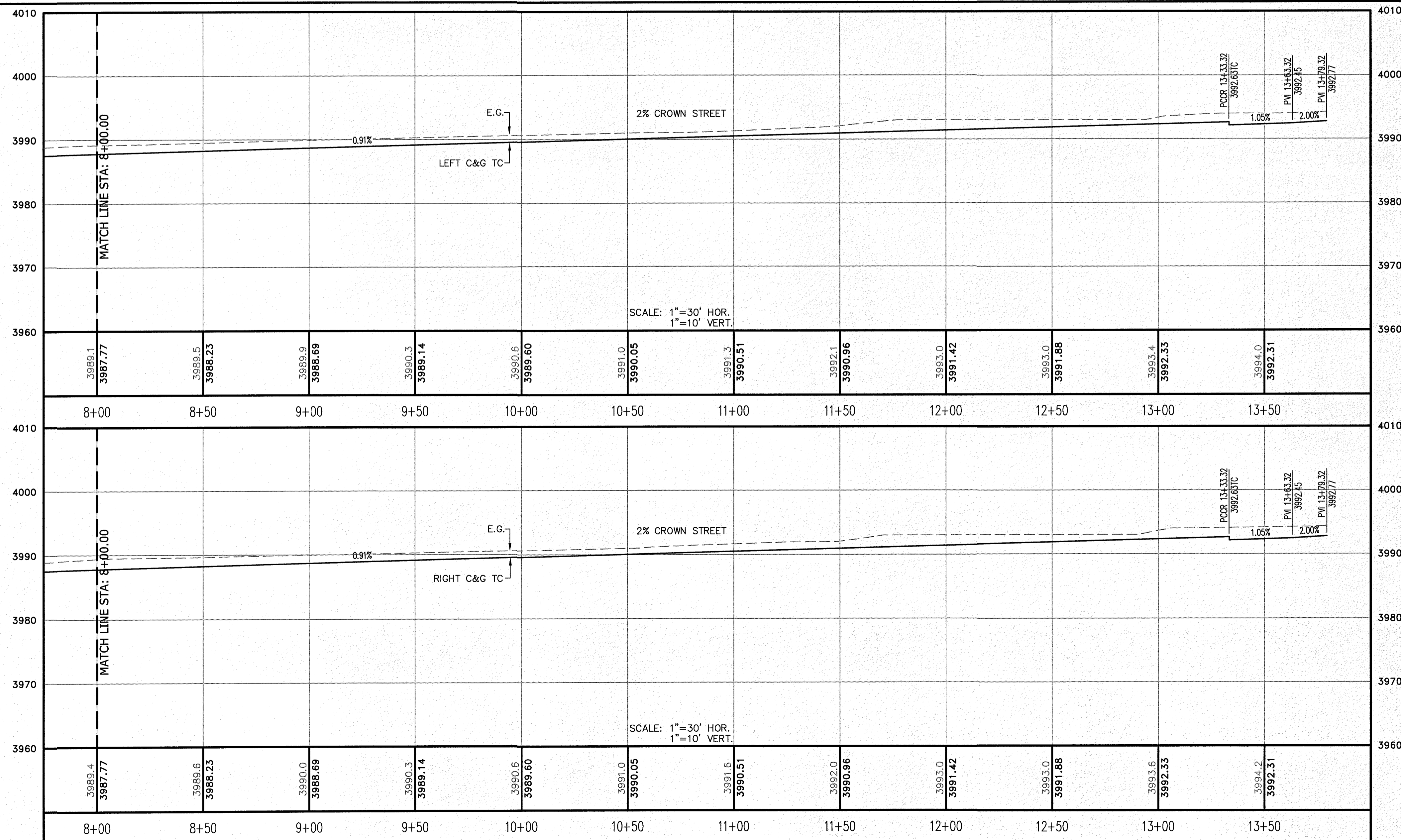
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ◆ = HIGH POINT ON STREET
- ◇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

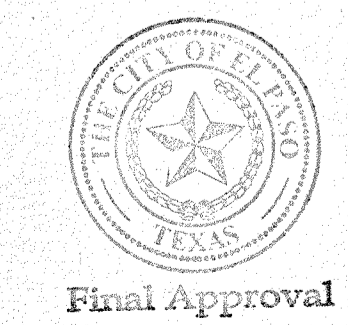
- = EXISTING GROUND PROFILE
- - - = PROPOSED FINISH GROUND

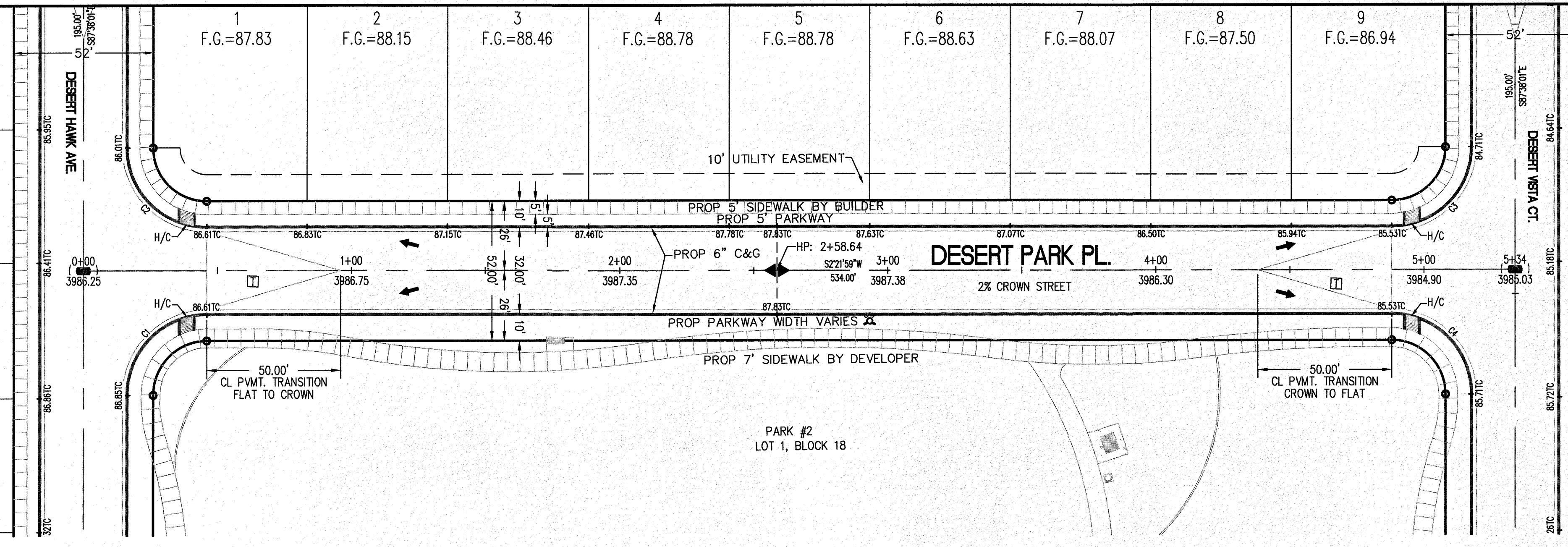
811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy, and IT'S THE LAW.

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SECTION CORNER FOR SECTIONS 23, 24, 25 AND 26 FOR SURVEYS 2 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3859.38 (NAVD88 DATUM)	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
SCALE: AS INDICATED	DESIGN BY: J/ET	CHECKED BY: GH/TE	DATE: OCTOBER 2018	
PROJECT NAME: DESERT SANDS	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS			
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS SLI ENGINEERING, INC. 6801 W. 15TH ST., SUITE 100 EL PASO, TEXAS 79907 PH: 915-781-1467	EL PASO, TEXAS			
LICENSE No. F-1902	OCTOBER 24, 2018			
SHEET TITLE				
DESERT PALMS AVENUE STA. 8+00 - 13+79.32				
C-03.19				





2 F.G.=86.95	33 F.G.=86.95	2 F.G.=85.64	33 F.G.=85.64
3 F.G.=87.41	32 F.G.=87.41	3 F.G.=86.18	32 F.G.=86.18
4 F.G.=87.86	31 F.G.=87.86	4 F.G.=86.72	31 F.G.=86.72
5 F.G.=88.32	30 F.G.=88.32	5 F.G.=87.26	30 F.G.=87.26

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C3	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"

**LEGEND**

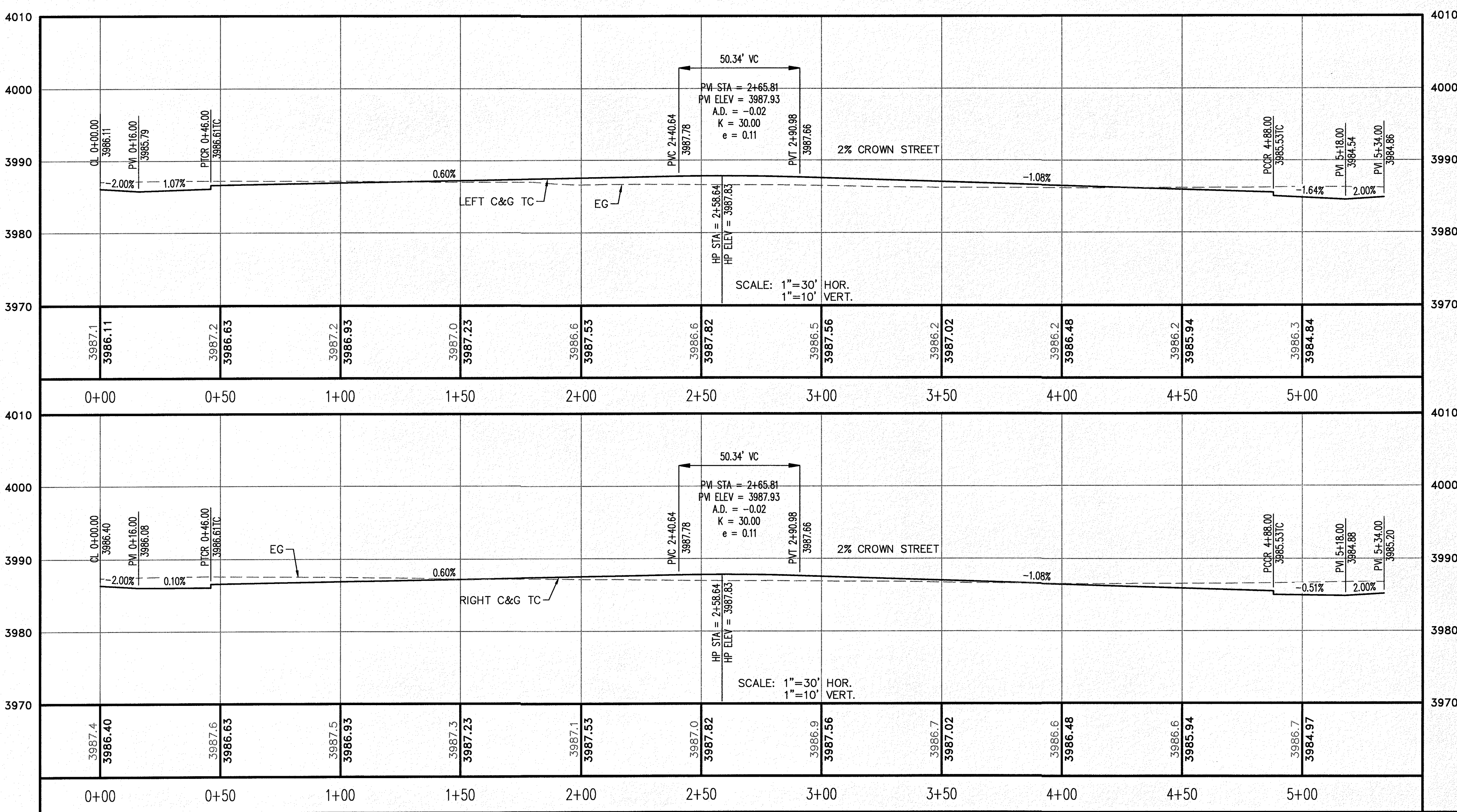
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ◆ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. Call 811 TWO Working days before you dig. 24 Hours, 7x7, Easy and IT'S THE LAW!

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**REVISION DESCRIPTION**

NO.	DATE	BENCHMARK	REVISION DESCRIPTION

**SECTION CORNER FOR SECTIONS 28 AND 33**  
 BLOCK 79, TOWNSHIP 2 N, RANGE 37 E, MERIDIAN 10 W  
 ELEVATION: 3839.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
 JOB NO.: 09-1E-3911  
 DESIGN BY: J/T  
 CHECKED BY: GH/TE  
 DATE: OCTOBER 2018

**PROJECT NAME**  
 DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2 N, RANGE 37 E, MERIDIAN 10 W, EL PASO COUNTY, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS  
 JUSTICE STREET

**SLI ENGINEERING, INC.**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 AND PLANNERS  
 6901 W. HAVEN  
 EL PASO, TEXAS  
 (915) 561-4497

LICENSE No. F-1902

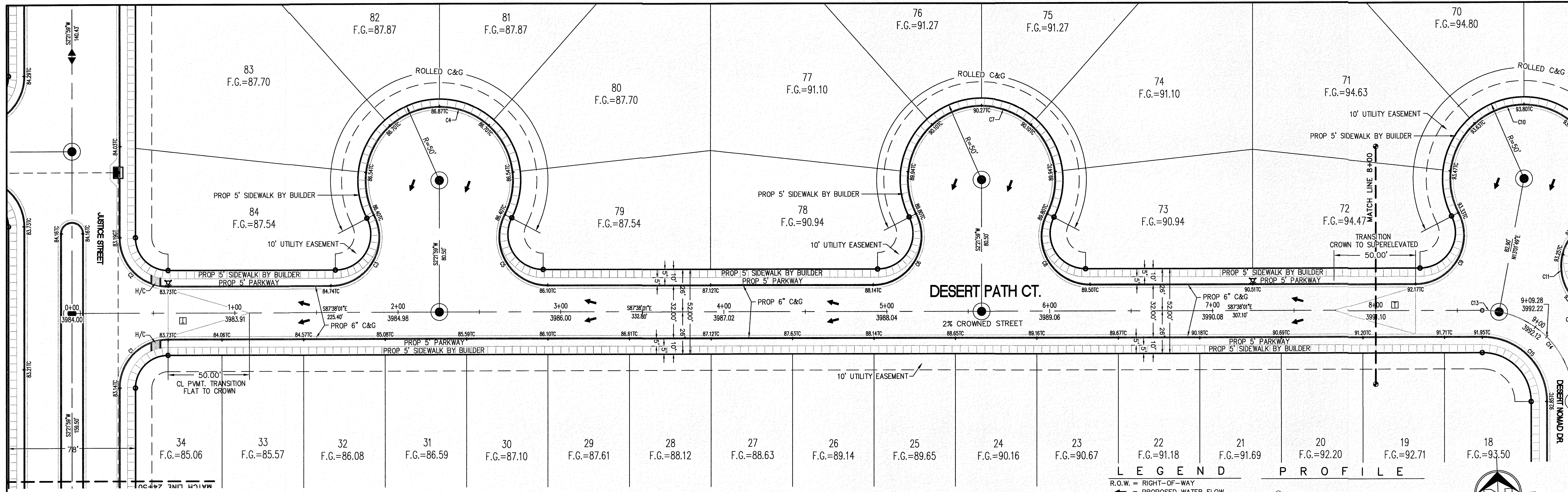
**STATE OF TEXAS**  
 GEORGES S. HALLOU  
 121116

OCTOBER 24, 2018  
 SHEET TITLE

**DESERT PARK PLACE**  
 STA. 0+00 - 5+34

Final Approval

**C-03.20**



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C3	30.00'	61.46'	49.33'	51.26'	N33°40'22"E	117°23'12"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C4	45.00'	184.39'	86.86'	79.91'	N87°38'01"W	234°46'25"
C5	30.00'	61.46'	49.33'	51.26'	S28°56'25"E	117°23'12"
C6	30.00'	61.46'	49.33'	51.26'	N33°40'22"E	117°23'12"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	45.00'	184.39'	86.86'	79.91'	N87°38'01"W	234°46'25"
C8	30.00'	61.46'	49.33'	51.26'	S28°56'25"E	117°23'12"
C9	30.00'	61.46'	49.33'	51.26'	N33°40'22"E	117°23'12"

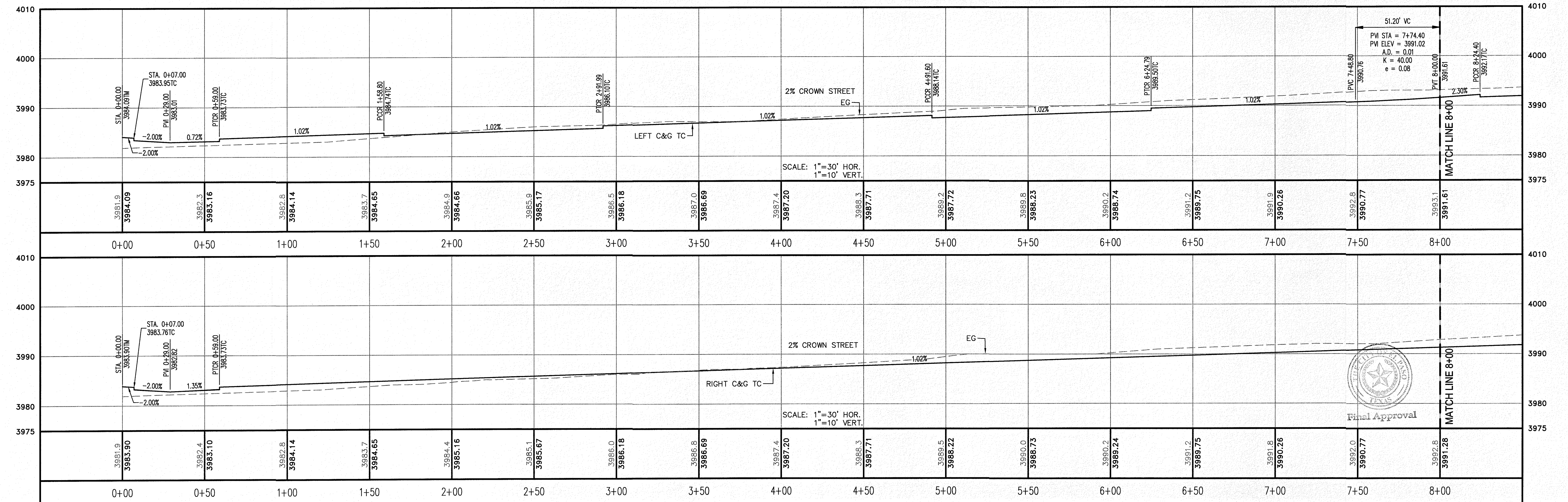
**LEGEND**

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- = HIGH POINT ON STREET
- = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL PWMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- - - = PROPOSED FINISH GROUND

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**REVISION DESCRIPTION**

NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3539.38 (NAVDB DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/JT  
CHECKED BY: GH/FE  
DATE: OCTOBER 2018

**PROJECT NAME**  
DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**EL PASO, TEXAS**

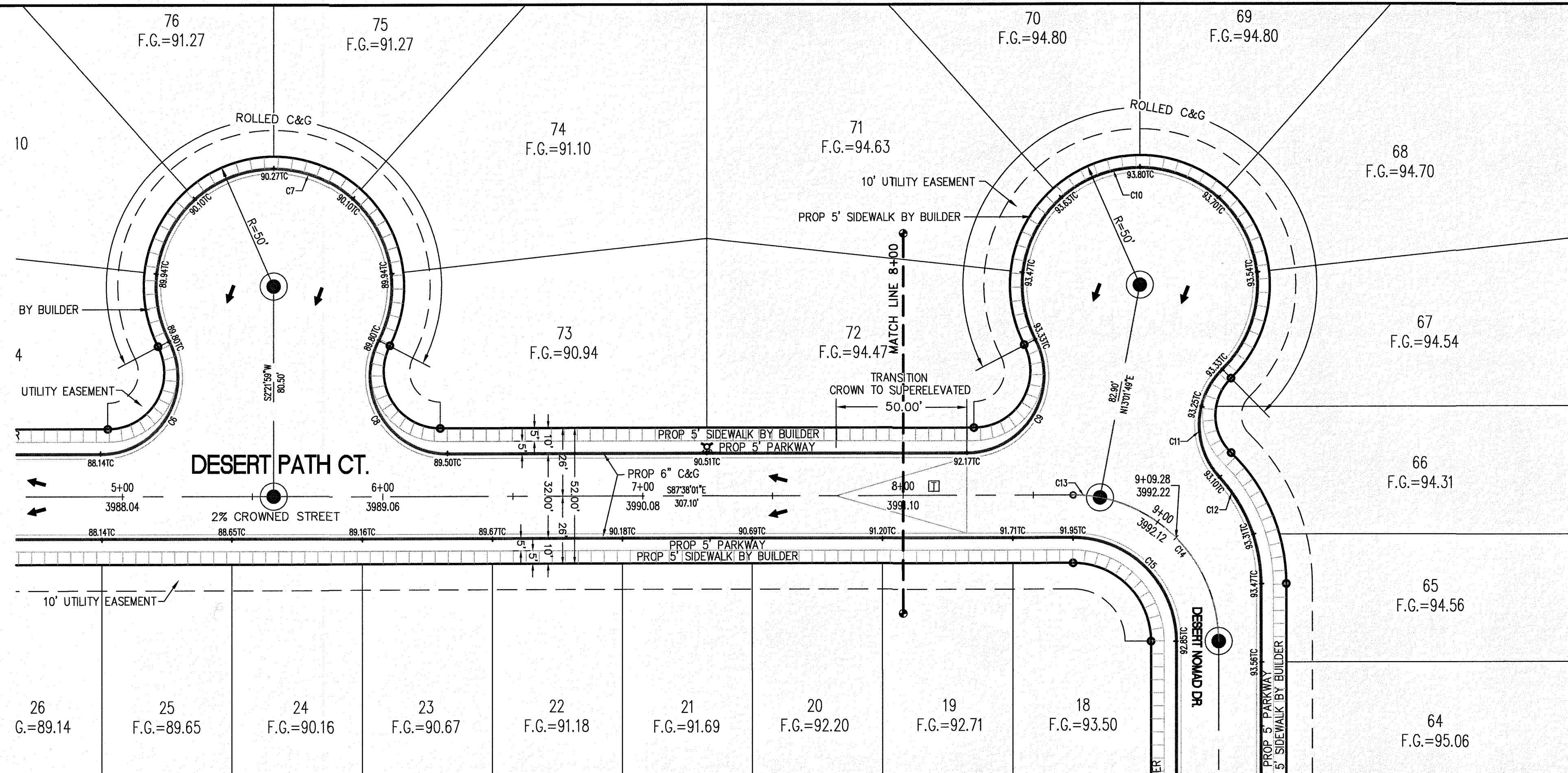
**SLI ENGINEERING, INC.**  
CIVIL ENGINEERS  
LAND PLANNERS  
SURVEYORS  
1000 WESTINGHOUSE  
DR., EL PASO, TEXAS  
(972) 782-1100

LICENSE No. F-1902

**STATE OF TEXAS**  
OCTOBER 24, 2018  
SHEET TITLE

**DESERT PATH COURT**  
STA. 0+00 - 8+00

**C-03.21**



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	30.00'	61.46'	49.33'	51.26'	N33°40'22"E	117°23'12"
C10	45.00'	198.66'	60.88'	72.37'	N78°32'54"W	252°56'39"
C11	30.00'	46.17'	29.07'	41.75'	S3°49'49"W	88°11'14"

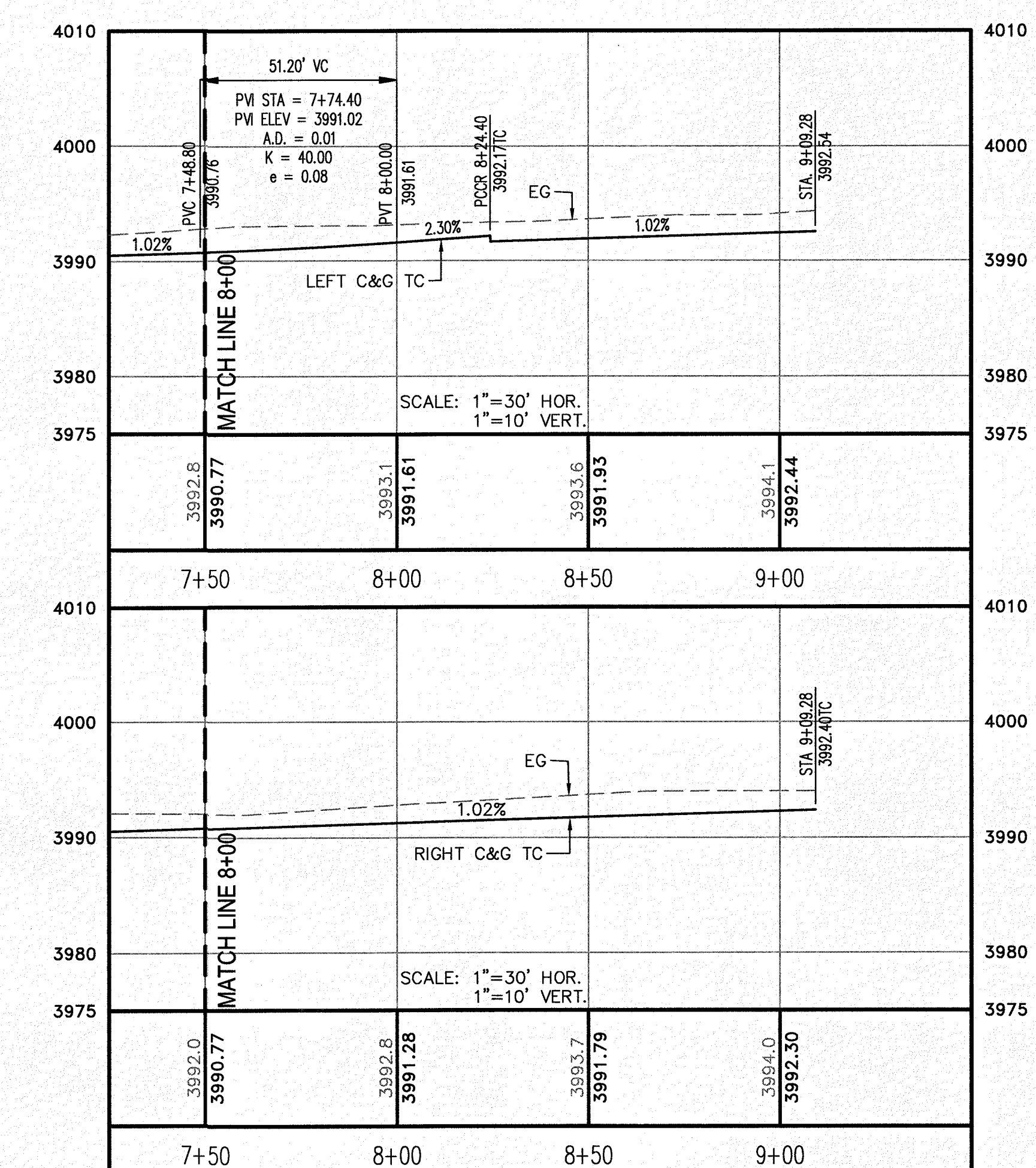
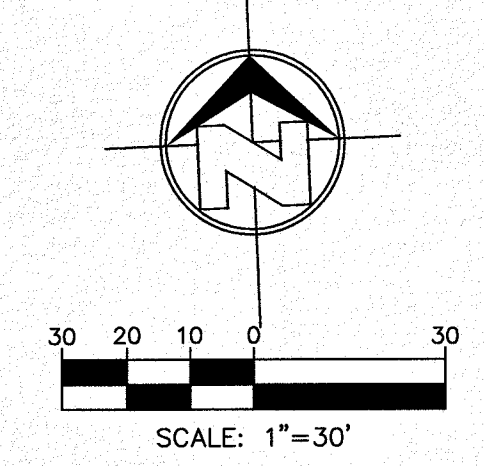
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C12	60.00'	44.64'	23.41'	43.62'	N18°56'55"W	42°37'47"
C13	56.00'	10.42'	5.23'	10.41'	N82°18'06"W	10°39'50"
C14	56.00'	77.54'	46.44'	71.49'	N37°18'06"W	79°20'10"
C15	40.00'	62.83'	40.00'	56.57'	N42°38'01"W	90°00'00"

**LEGEND**

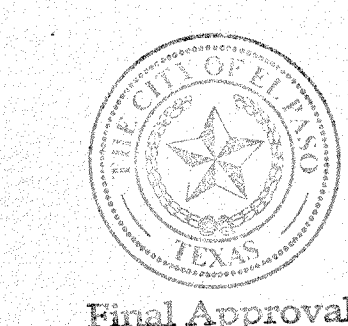
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ⬆ = HIGH POINT ON STREET
- ⬇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- ⊙ = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = TRANSITION (FLAT TO SUPER ELEVATED)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

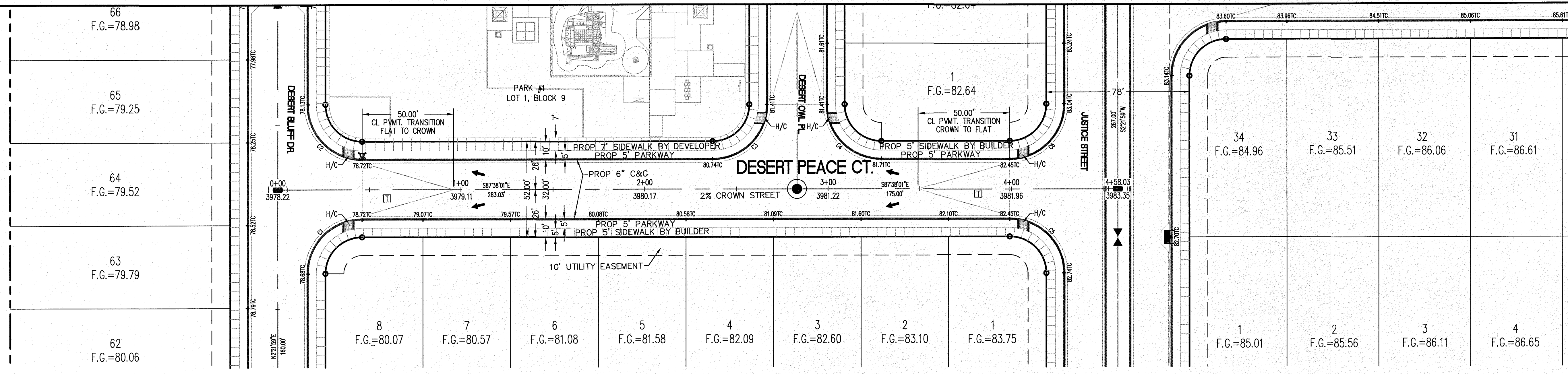


PROJECT NAME <b>DESERT SANDS</b> PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
	SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3539.35 (NAVD83 DATUM)			
SCALE: AS INDICATED	DESIGN BY: J/ET	CHECKED BY: GH/FE	DATE: OCTOBER 2018	
JOB NO.: 09-16-3911	Copyright 2018 SLI Engineering, Inc. These plans are being provided solely for the use of RICHARD ADLAK and no license has been granted to any other person. No part of these plans may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the owner.			
PROJECT NAME	EL PASO, TEXAS			
PROJECT NAME	JUSTICE STREET			
 CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS 8901 W. HAWK DR. EL PASO, TEXAS 79917 (915) 381-1467				
LICENSE No. F-1902				
 GEORGES S. HALL 02196				
OCTOBER 24, 2018				
SHEET TITLE				
DESERT PATH COURT STA. 8+00 - 9+09.28				
C-03.22				



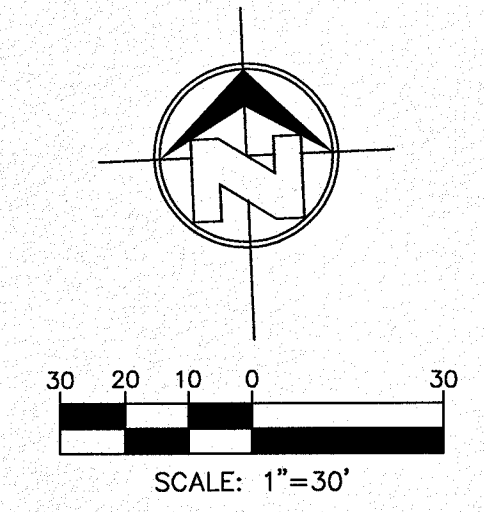
Final Approval



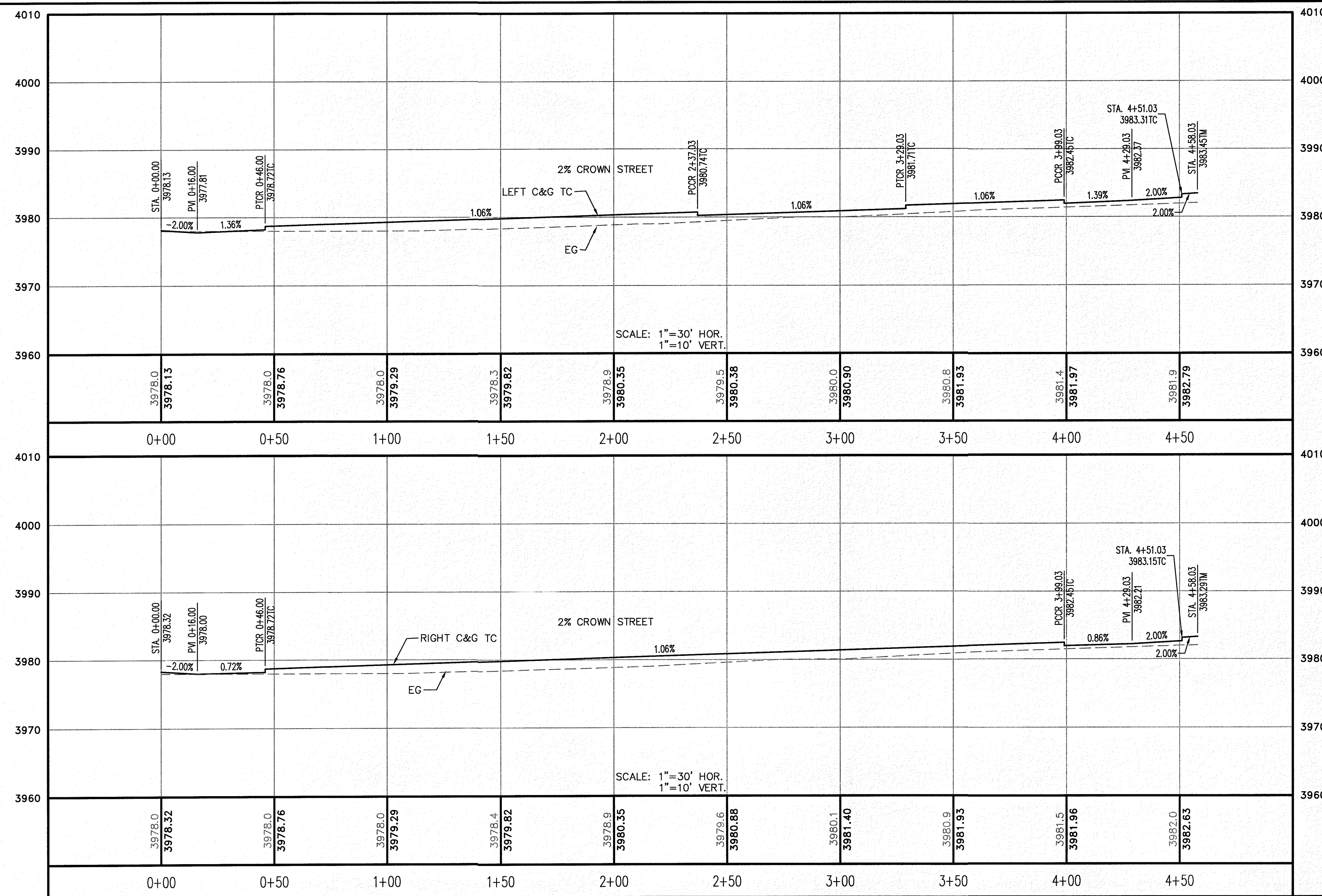


CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S42°38'05"E	90°00'06"
C3	30.00'	47.12'	30.00'	42.43'	N47°21'55"E	89°59'54"
C4	30.00'	47.12'	30.00'	42.43'	S42°38'05"E	90°00'06"
C5	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	N47°21'55"E	89°59'54"

- LEGEND**
- R.O.W. = RIGHT-OF-WAY
  - ↑ = PROPOSED WATER FLOW
  - ⬆ = HIGH POINT ON STREET
  - ⬇ = LOW POINT ON STREET
  - ⊙ = PROPOSED CITY MONUMENT
  - ⊙ = TOP OF CURB ELEV.
  - ⊙ = GUTTER ELEV.
  - ⊙ = PAVEMENT ELEV.
  - C&G = STANDARD CURB AND GUTTER
  - ⊙ = CL. P.V.M.T. TRANSITION (FLAT TO CROWN)
  - H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER
- PROFILE**
- = EXISTING GROUND PROFILE
  - = PROPOSED FINISH GROUND



**811** Know what's below. Call before you dig. It's Free, It's Easy and IT'S THE LAW!



**REVISION DESCRIPTION**

NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3539.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-3811  
**DESIGN BY:** J/J/T  
**CHECKED BY:** GH/FE  
**DATE:** OCTOBER 2018  
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**PROJECT NAME**  
 DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET EL PASO, TEXAS

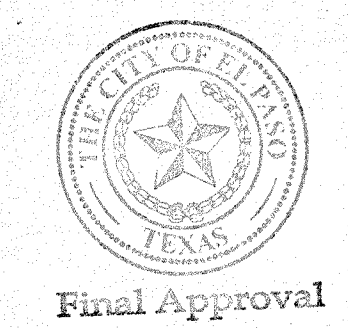
**SLI ENGINEERING, INC.**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 6600 WESTINGHOUSE BL. SUITE 100  
 EL PASO, TEXAS 79907  
 (915) 384-1407

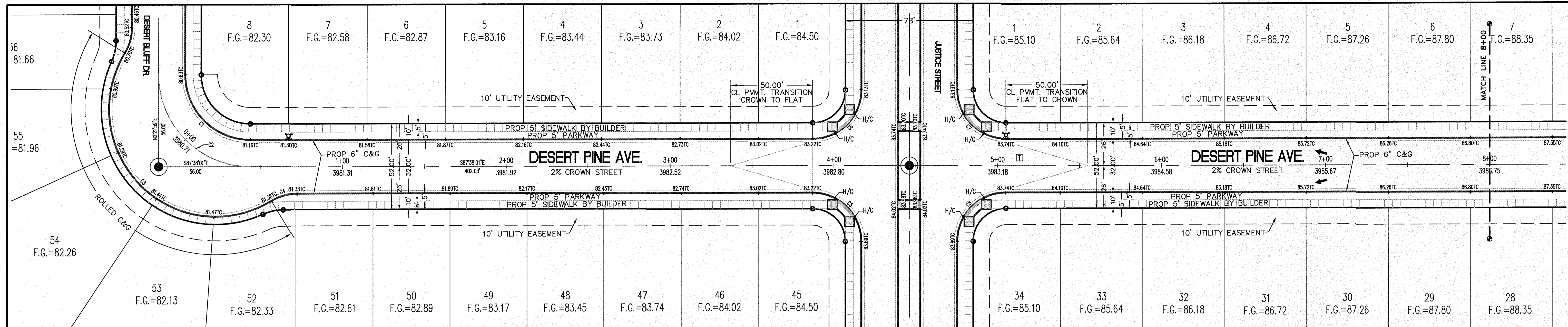
LICENSE No. F-1902

**STATE OF TEXAS**  
 GEORGES S. HAZEL  
 LICENSED SURVEYOR  
 OCTOBER 24, 2018

**SHEET TITLE**  
 DESERT PEACE COURT  
 STA. 0+00 - 4+58.03

**C-03.23**

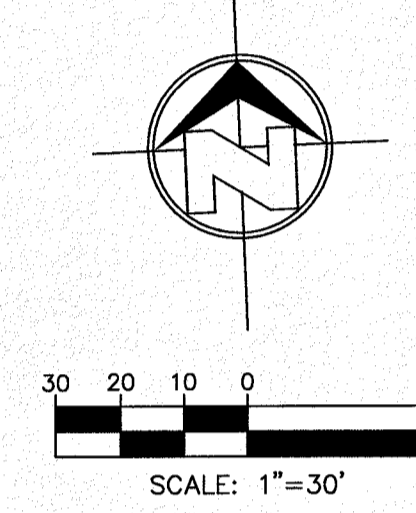




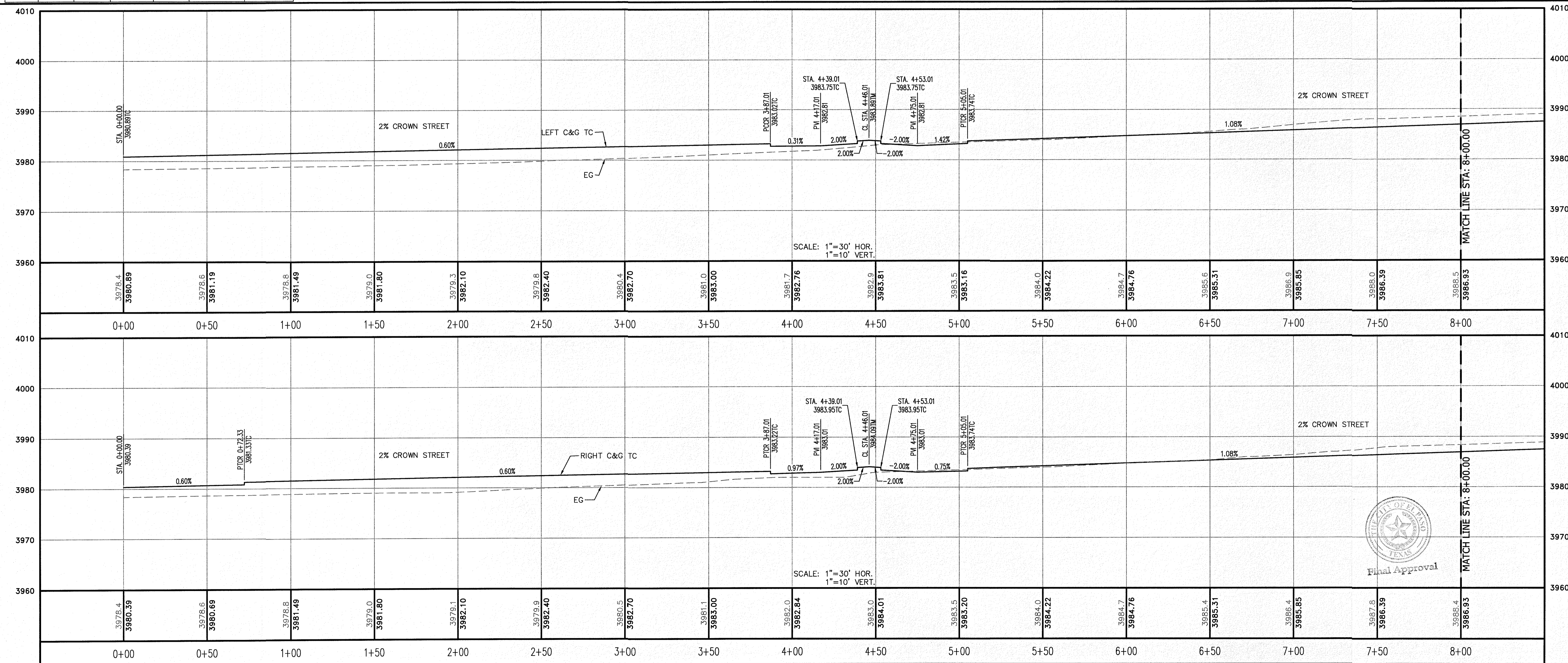
CURVE TABLE					
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA
C1	40.00'	62.83'	40.00'	56.57'	S42°38'01"E 90°00'00"
C2	56.00'	87.96'	56.00'	79.20'	S42°38'01"E 90°00'00"
C3	65.00'	173.34'	268.60'	126.35'	S42°31'45"E 152°47'34"
C4	30.00'	16.38'	8.40'	16.18'	S76°43'13"W 31°17'31"
C5	30.00'	47.12'	30.00'	42.43'	N42°38'01"W 90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	N47°21'59"E 90°00'00"
C7	30.00'	47.12'	30.00'	42.43'	S42°38'01"E 90°00'00"
C8	30.00'	47.12'	30.00'	42.43'	S47°21'59"W 90°00'00"

**LEGEND PROFILE**

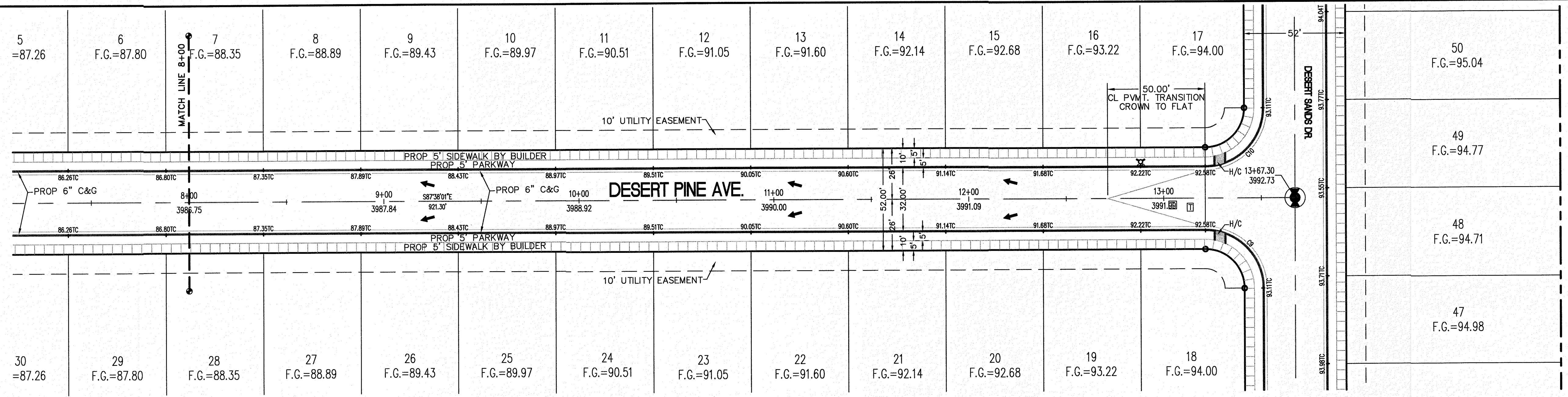
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ⬆ = HIGH POINT ON STREET
- ⬇ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- ⊙ = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ⬆ = CL. P.V.M.T. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER
- = EXISTING GROUND PROFILE
- - - = PROPOSED FINISH GROUND



**811** Know what's below. Call before you dig.  
 Call 811 TWO Working days Before you dig  
 It's Free, It's Easy, and IT'S THE LAW.



BENCHMARK		REVISION DESCRIPTION	
DATE		NO.	
SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79 TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)			
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SCALE:	AS INDICATED	PROJECT NAME	DESERT SANDS
JOB NO.:	09-16-3911	DESIGNER	J/JT
CHECKED BY:	GH/E	DATE:	OCTOBER, 2018
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS			
EL PASO, TEXAS			
CIVIL ENGINEERS LAND PLANNERS 6000 WESTINGHOUSE DRIVE EL PASO, TEXAS 79907 (750) 750-1200			
OCTOBER 24, 2018			
SHEET TITLE			
DESERT PINE AVENUE			
STA. 0+00 - 8+00			
C-03.24			



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C10	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"

**LEGEND**

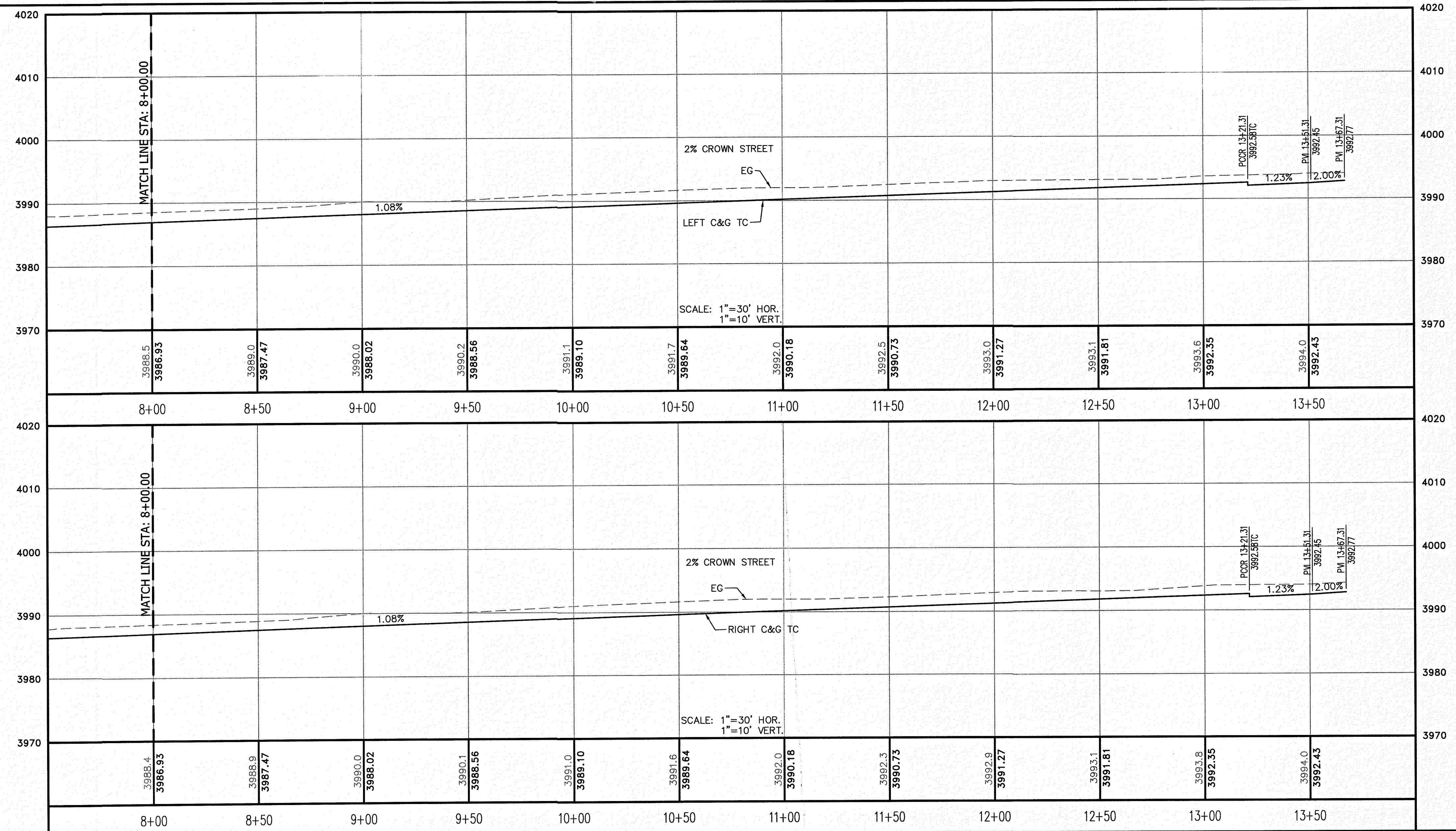
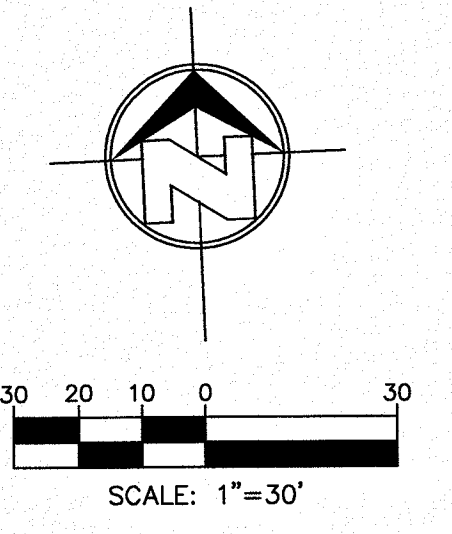
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ▼ = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

**811 Know what's below. Call before you dig.**  
 Call 811 TWO Working Days Before you dig  
 It's Free, It's Easy, and IT'S THE LAW!

SCALE: 1"=30'

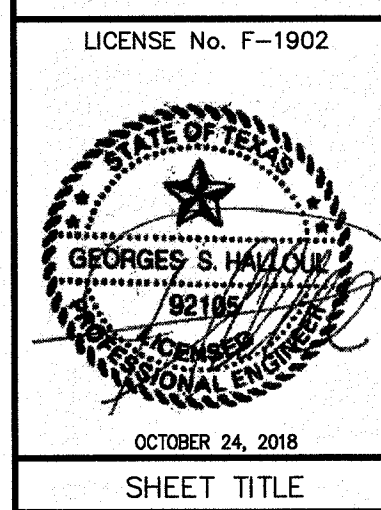
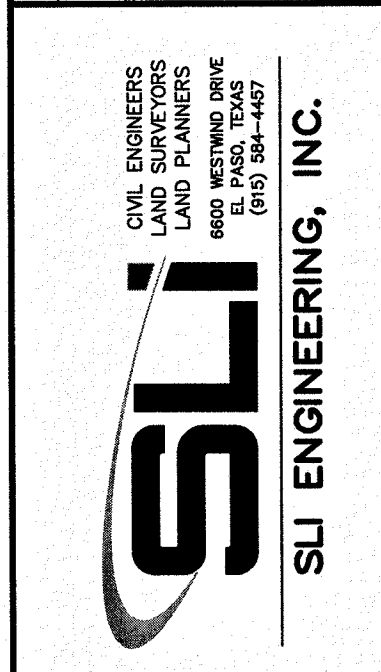


BENCHMARK	NO.	DATE	REVISION DESCRIPTION
SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)			

SCALE: AS INDICATED  
 JOB NO.: 09-16-3911  
 DESIGN BY: J/JET  
 CHECKED BY: GH/FE  
 DATE: OCTOBER 2018

PROJECT NAME: DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS



LICENSE No. F-1902

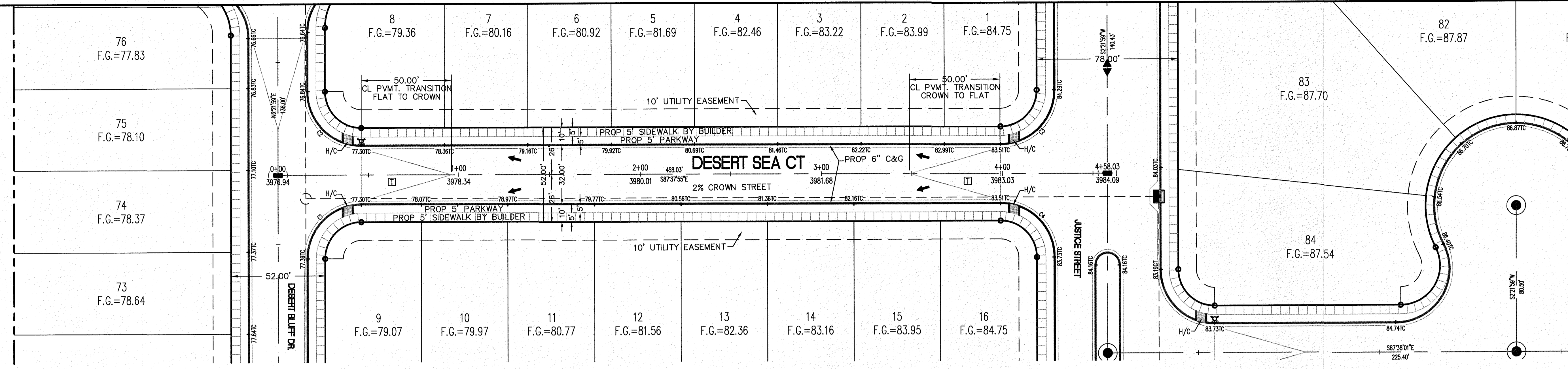
OCTOBER 24, 2018

SHEET TITLE

DESERT PINE AVENUE  
 STA. 8+00 - 13+67.31

Final Approval

C-03.25



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S42°37'58"E	89°59'54"
C3	30.00'	47.12'	30.00'	42.43'	N47°22'02"E	90°00'06"
C4	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"

**LEGEND**

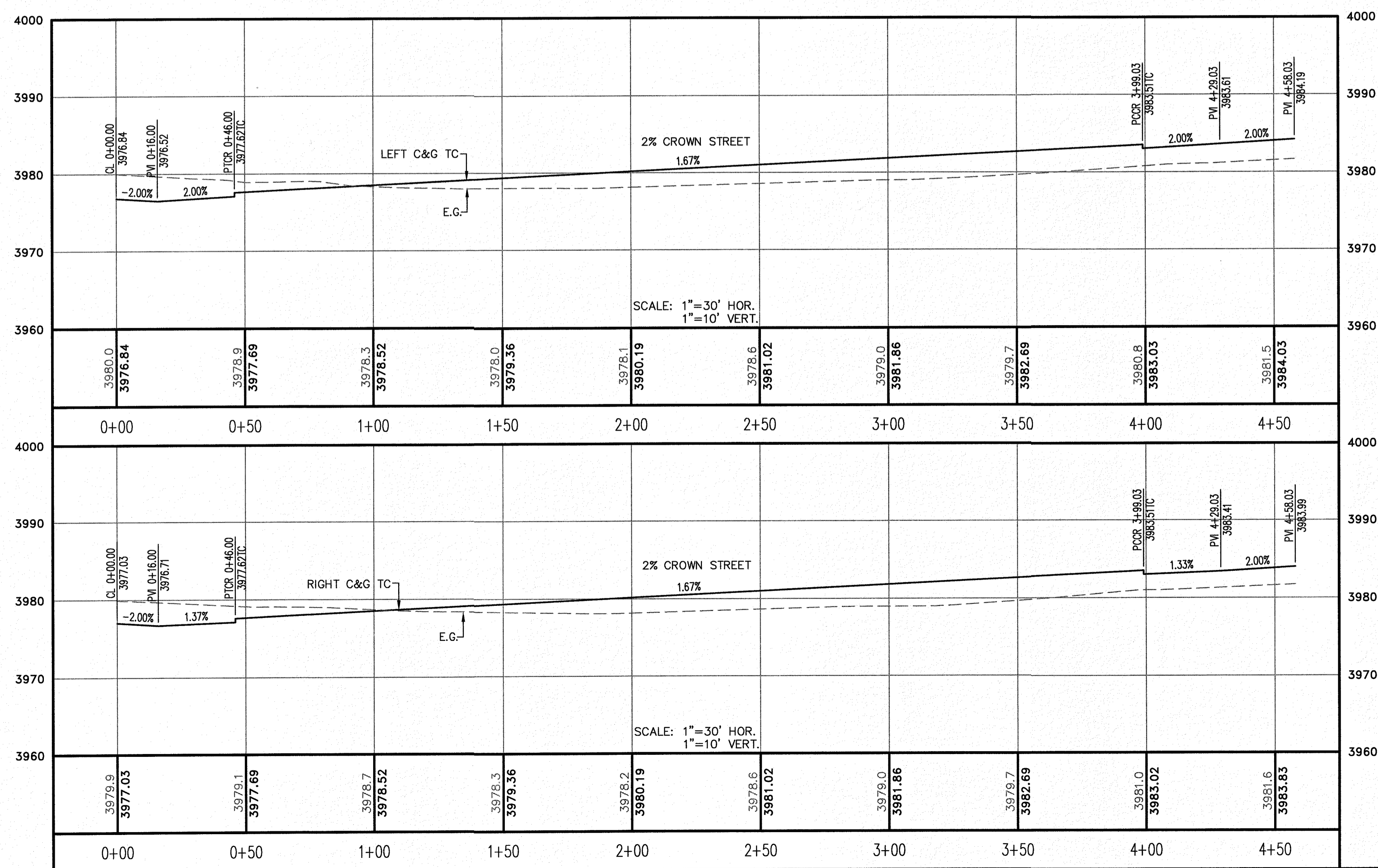
- R.O.W. = RIGHT-OF-WAY
- ↑ = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ▼ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL. P.V.M.T. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

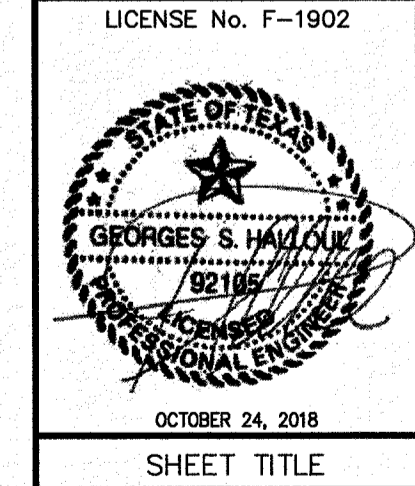
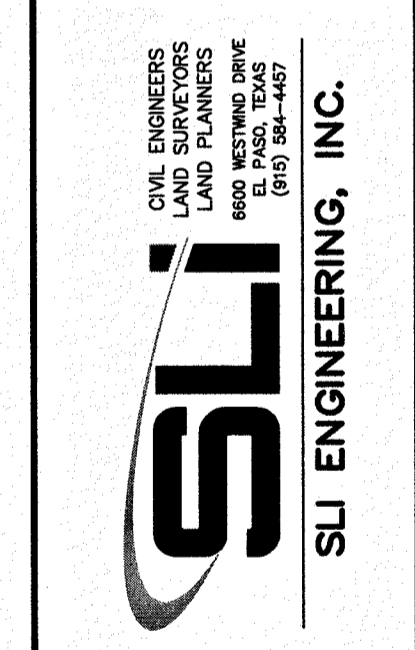
811 Know what's below. Call before you dig. Call 811 TWO Working days before you dig. 30 Free, 24 Hour and IT'S THE LAW!

SCALE: 1" = 30'

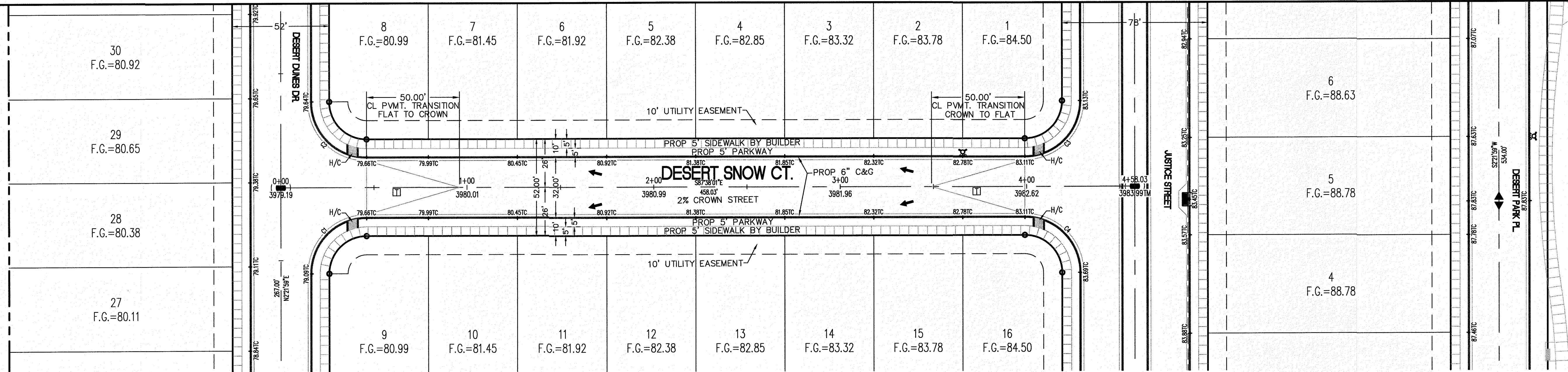


REVISION DESCRIPTION	DATE	NO.	BENCHMARK
SECTION CORNER FOR SECTIONS 15-36-37 & 38 BLOCK 79, TSP-2 ELEVATION: 3639.38 (NAVD88 DATUM)			

PROJECT NAME: DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET  
 EL PASO, TEXAS



DESERT SEA COURT  
 STA. 0+00 - 4+58.03  
 Final Approval  
 C-03.26



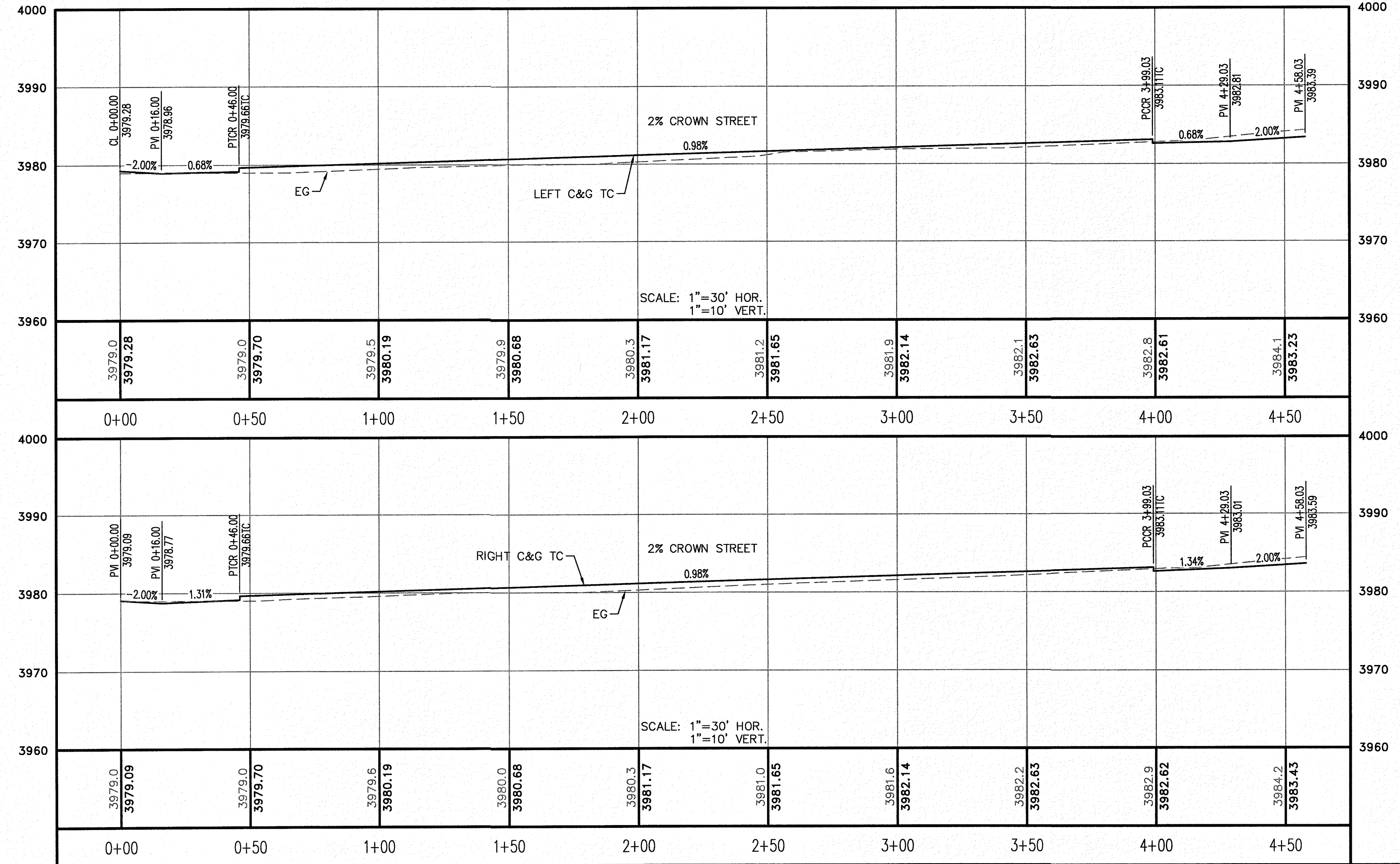
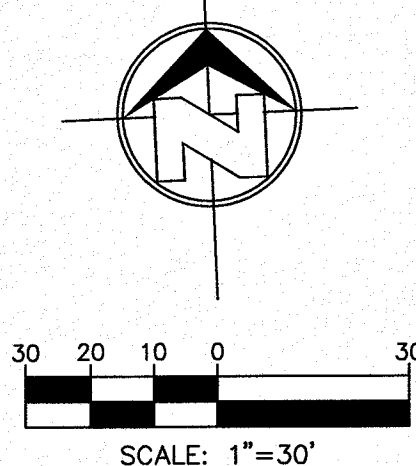
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C3	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"

- LEGEND**
- R.O.W. = RIGHT-OF-WAY
  - = PROPOSED WATER FLOW
  - ◆ = HIGH POINT ON STREET
  - ◇ = LOW POINT ON STREET
  - ⊙ = PROPOSED CITY MONUMENT
  - TC = TOP OF CURB ELEV.
  - G = GUTTER ELEV.
  - P = PAVEMENT ELEV.
  - C&G = STANDARD CURB AND GUTTER
  - ▭ = CL. P.V.M.T. TRANSITION (FLAT TO CROWN)
  - H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

— = EXISTING GROUND PROFILE  
 - - - = PROPOSED FINISH GROUND

**811 Know what's below. Call before you dig.**  
 Call 811 TWO Working days Before you dig  
 10' Free, It's Easy and IT'S THE LAW!



NO.	DATE	REVISION DESCRIPTION

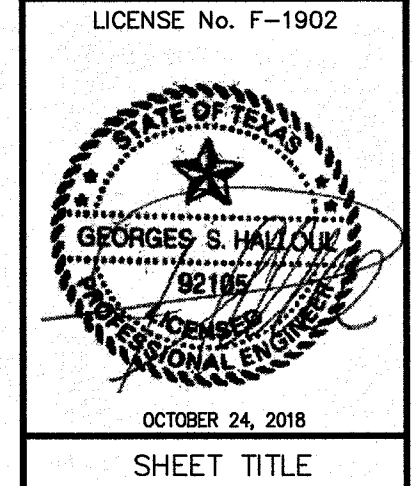
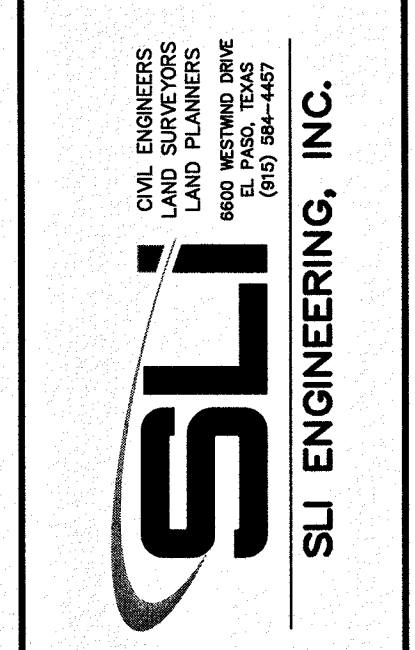
**BENCHMARK**

SECTION CORNER FOR SECTIONS 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, TSP, 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-3811  
**DESIGN BY:** J/ET  
**CHECKED BY:** GH/FE  
**DATE:** OCTOBER 2018

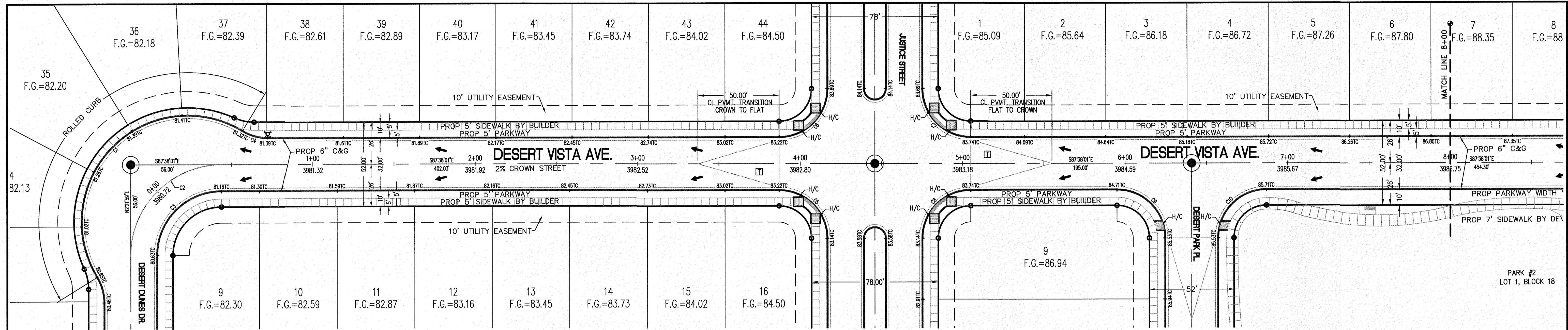
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**PROJECT NAME**  
 DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET EL PASO, TEXAS



**SHEET TITLE**  
 DESERT SNOW COURT  
 STA. 0+00 - 4+58.03  
**C-03.27**

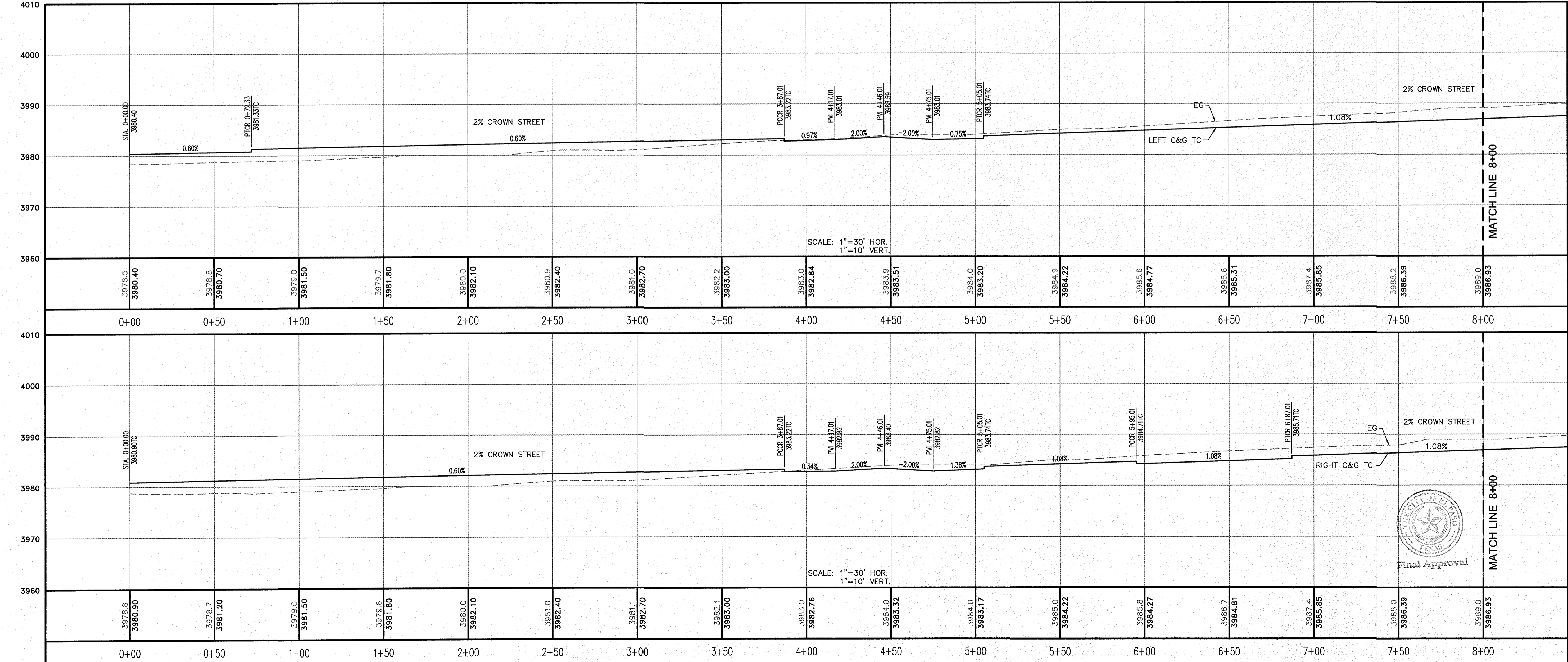
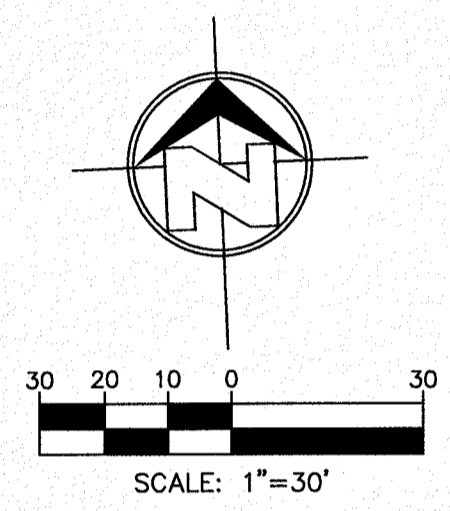
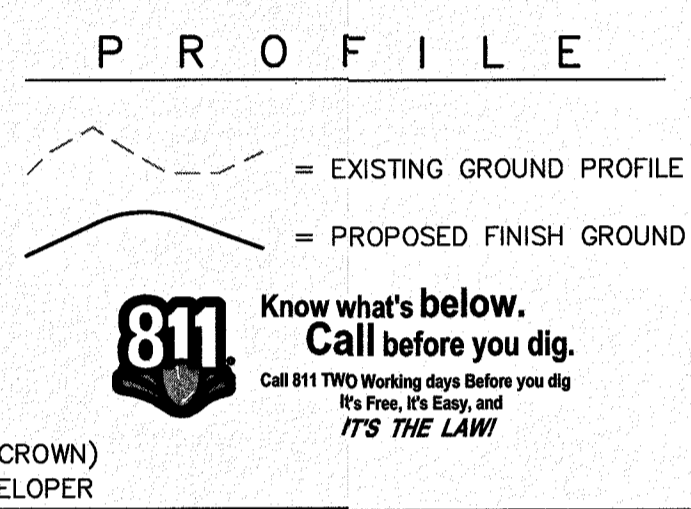




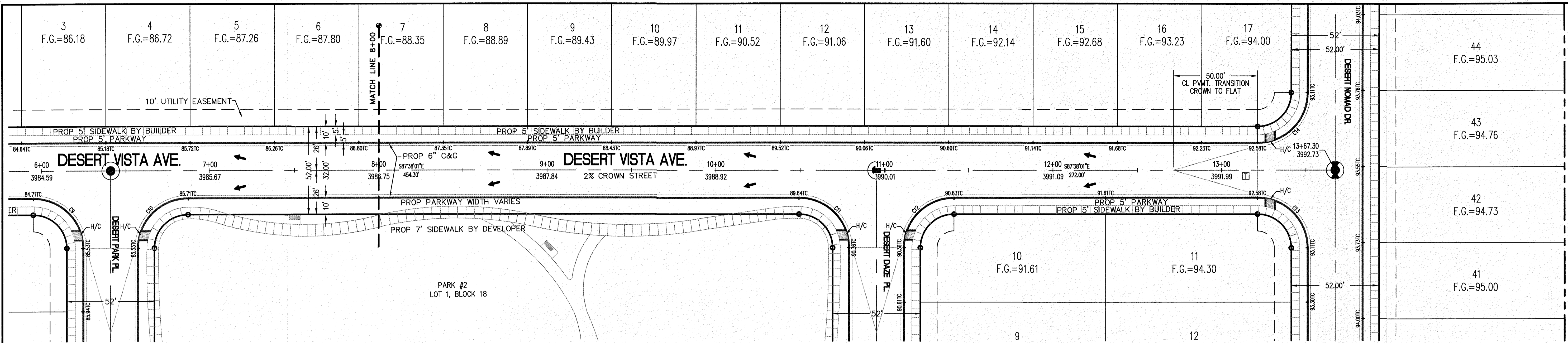
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	65.00'	173.34'	268.60'	126.35'	S47°15'42"W	152°47'34"
C2	56.00'	87.96'	56.00'	79.20'	S47°21'59"W	90°00'00"
C3	40.00'	62.83'	40.00'	56.57'	S47°21'59"W	90°00'00"
C4	30.00'	16.38'	8.40'	16.18'	S71°59'16"E	31°17'31"
C5	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C7	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C8	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C9	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C10	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"

- LEGEND**
- R.O.W. = RIGHT C&G TC-OF-WAY
  - = PROPOSED WATER FLOW
  - ▲ = HIGH POINT ON STREET
  - ▼ = LOW POINT ON STREET
  - ⊙ = PROPOSED CITY MONUMENT
  - TC = TOP OF CURB ELEV.
  - G = GUTTER ELEV.
  - P = PAVEMENT ELEV.
  - C&G = STANDARD CURB AND GUTTER
  - = CL P.V.M.T. TRANSITION (FLAT TO CROWN)
  - H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER



<b>REVISION DESCRIPTION</b>	
<b>DATE</b>	
<b>BENCHMARK</b>	
<b>NO.</b>	
SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC RAILWAY SURVEYS ELEVATION: 3699.56 (NAD 83 DATUM)	
<b>SCALE:</b>	AS INDICATED
<b>JOB NO.:</b>	09-16-3911
<b>DESIGN BY:</b>	JL/ET
<b>CHECKED BY:</b>	GH/ZE
<b>DATE:</b>	OCTOBER 2018
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<b>PROJECT NAME</b>	DESERT SANDS
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	
<b>EL PASO, TEXAS</b>	JUSTICE STREET
 <b>SLI ENGINEERING, INC.</b>	
LICENSE No. F-1902	
OCTOBER 24, 2018	
SHEET TITLE	
DESERT VISTA AVE.	
STA. 0+00 - 8+00	
C-03.28	



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C11	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C12	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C13	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C14	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"

**LEGEND**

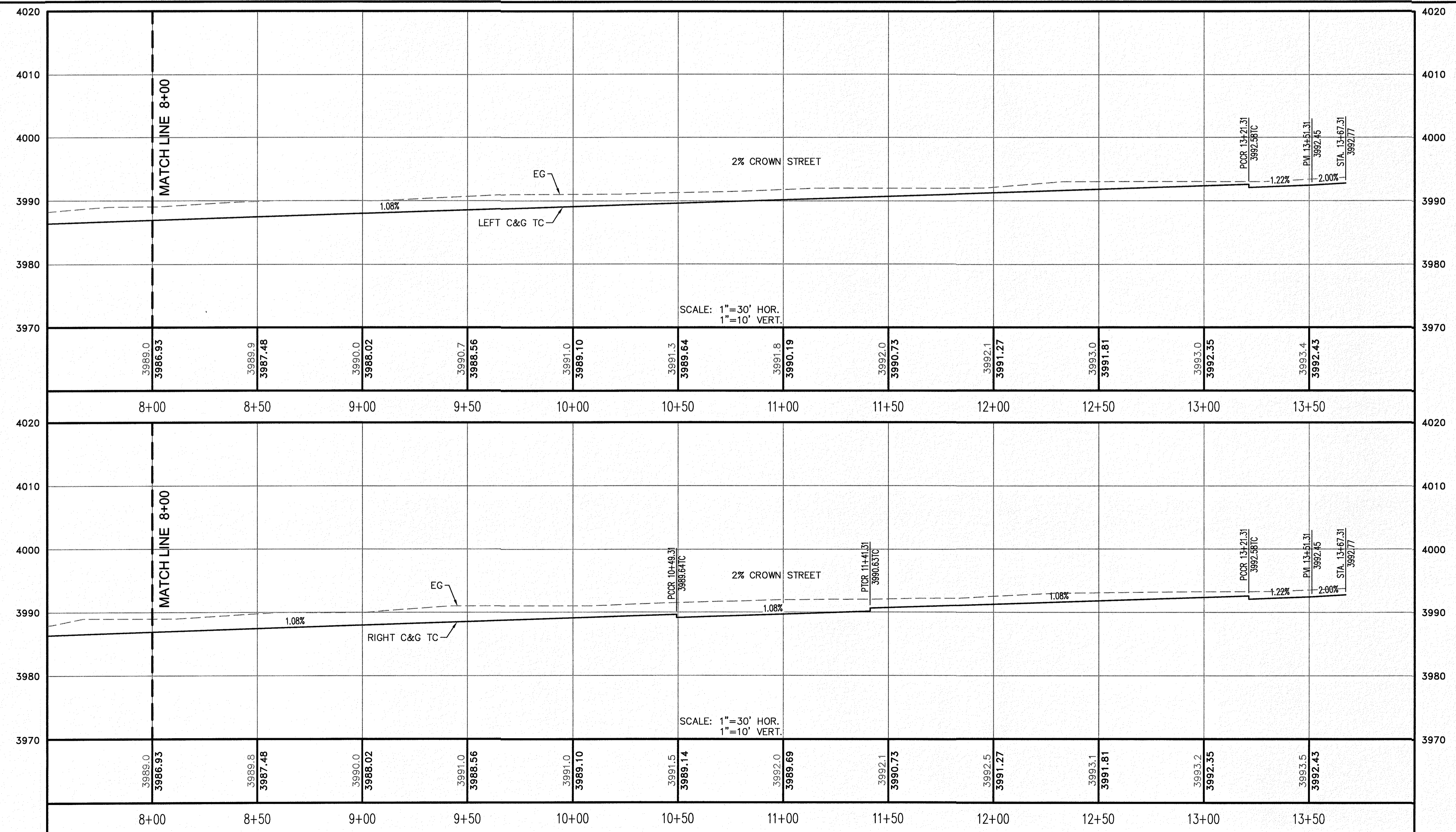
- R.O.W. = RIGHT C&G TC-OF-WAY
- = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ▼ = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- - - = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. It's Free, It's Easy, and IT'S THE LAW.

SCALE: 1" = 30'



NO.	DATE	REVISION DESCRIPTION

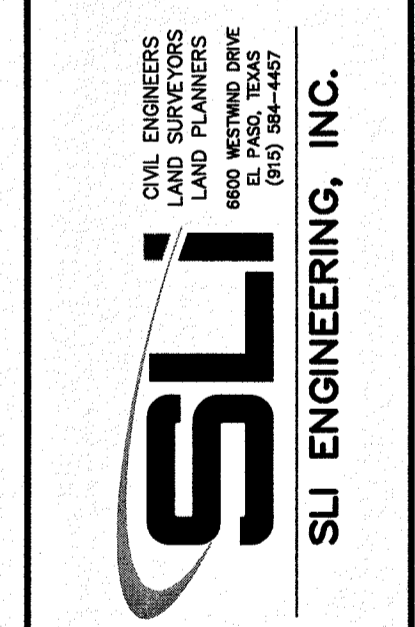
BENCHMARK

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 98 TSP 2 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/ET  
CHECKED BY: GH/VE  
DATE: OCTOBER 2018

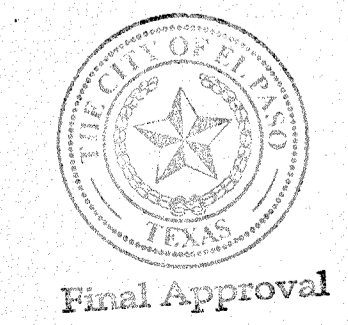
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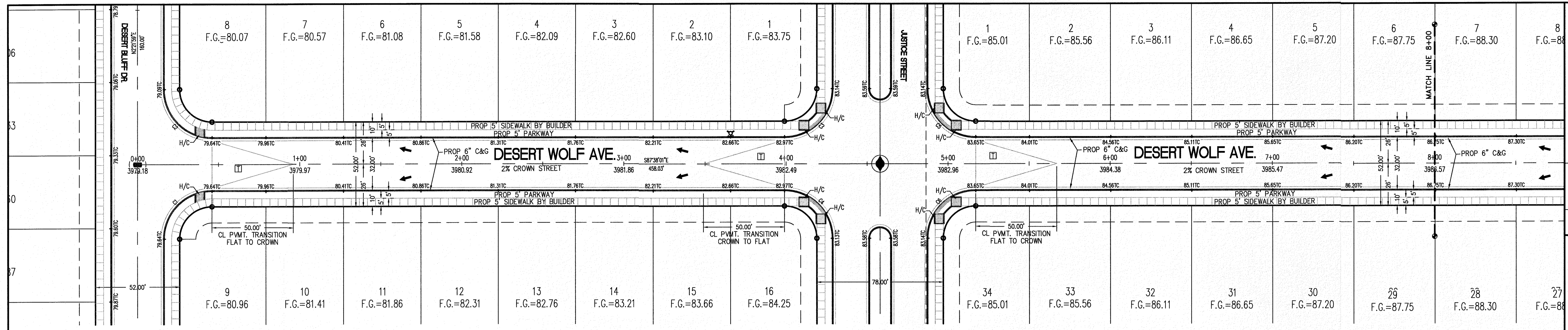
PROJECT NAME: DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
EL PASO, TEXAS  
JUSTICE STREET



LICENSE No. F-1902  
OCTOBER 24, 2018

SHEET TITLE: DESERT VISTA AVE. STA. 8+00 - 13+67.31  
C-03.29





CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C3	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C5	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"

**LEGEND**

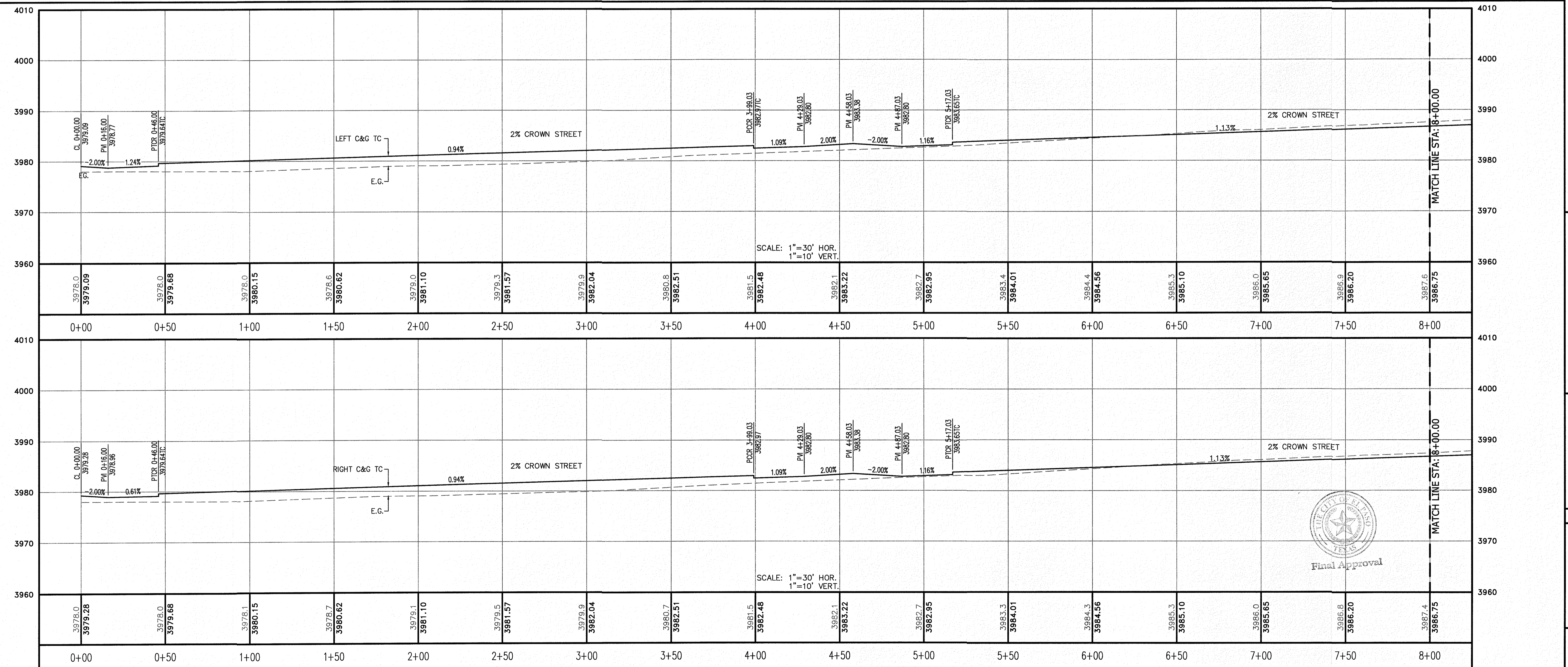
- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ◆ = HIGH POINT ON STREET
- ◊ = LOW POINT ON STREET
- ⊙ = PROPOSED CITY MONUMENT
- ⊙ = TOP OF CURB ELEV.
- G = GUTTER ELEV.
- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- = CL P.V.M.T. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy and IT'S THE LAW.

SCALE: 1"=30'



**REVISION DESCRIPTION**

NO.	DATE	DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY SURVEYS 2  
ELEVATION: 3539.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-3911  
**DESIGN BY:** J/JT  
**CHECKED BY:** GH/FE  
**DATE:** OCTOBER 2018

**PROJECT NAME:** DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
JUSTICE STREET EL PASO, TEXAS

**CIVIL ENGINEERS**  
LAND SURVEYORS  
LAND PLANNERS  
DESIGNERS  
EL PASO, TEXAS  
PHONE: 915-784-1467

**SLI ENGINEERING, INC.**

LICENSE No. F-1902

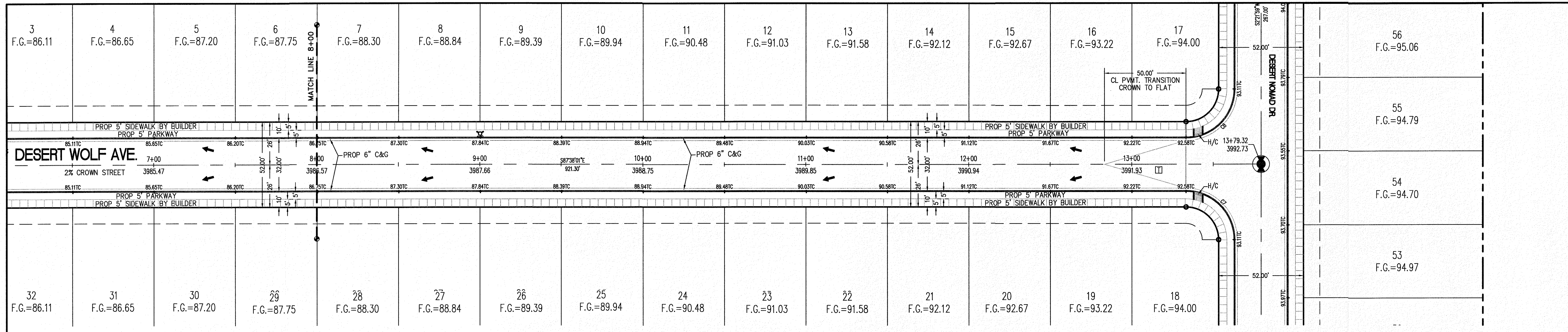
OCTOBER 24, 2018

**SHEET TITLE**

DESERT WOLF AVE.  
STA. 0+00 - 8+00

**C-03.30**

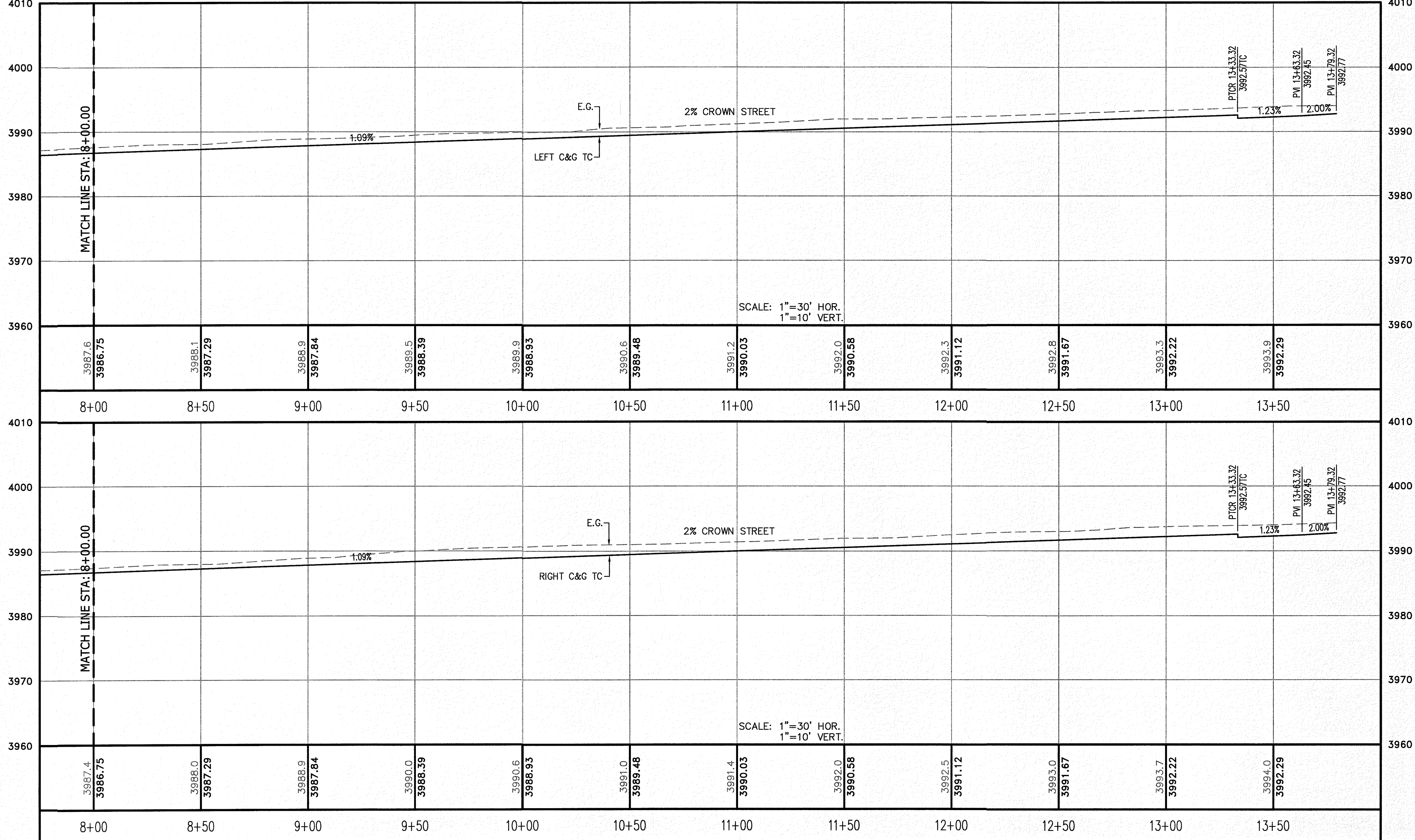
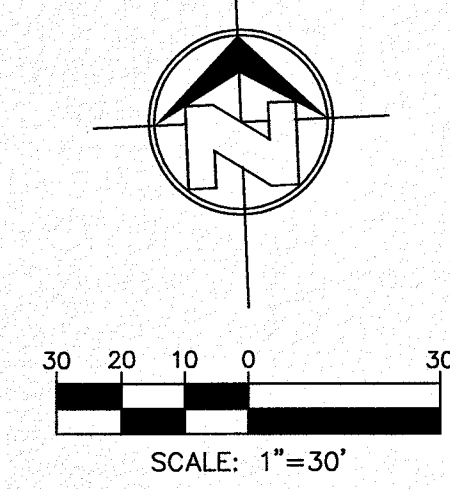




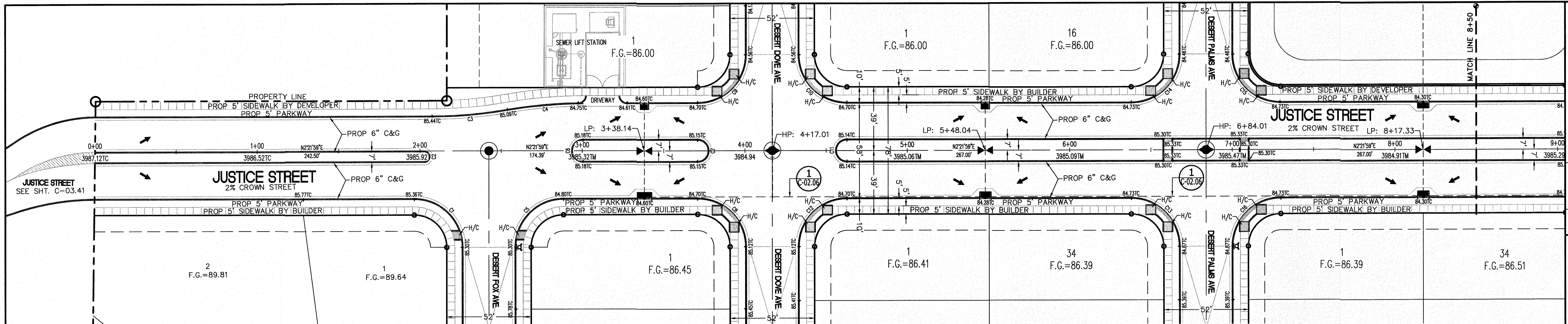
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C8	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"

- LEGEND**
- R.O.W. = RIGHT-OF-WAY
  - = PROPOSED WATER FLOW
  - ⬤ = HIGH POINT ON STREET
  - ⬤ = LOW POINT ON STREET
  - ⊙ = PROPOSED CITY MONUMENT
  - TC = TOP OF CURB ELEV.
  - G = GUTTER ELEV.
  - P = PAVEMENT ELEV.
  - E.O.P. = EDGE OF PAVEMENT
  - = CL P.V.M.T. TRANSITION (FLAT TO CROWN)
  - H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER
- PROFILE**
- - - = EXISTING GROUND PROFILE
  - = PROPOSED FINISH GROUND

**811** Know what's below. Call before you dig.  
 Call 811 TWO Working days Before you dig  
 It's Free, It's Easy, and IT'S THE LAW



<b>NO.</b>	<b>REVISION DESCRIPTION</b>	
<b>DATE</b>		
<b>BENCHMARK</b>	SECTION CORNER FOR SECTIONS 35, 36, 37 & 38 BLOCK 79, TOWNSHIP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3859.38 (NAVD88 DATUM)	
<b>SCALE:</b>	AS INDICATED	
<b>JOB NO.:</b>	09-16-3811	
<b>DESIGN BY:</b>	J/J/T	
<b>CHECKED BY:</b>	G/H/E	
<b>DATE:</b>	OCTOBER 2018	
<b>PROJECT NAME</b>	DESERT SANDS	
	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	
	JUSTICE STREET	EL PASO, TEXAS
	 <b>SLI ENGINEERING, INC.</b> <small>CIVIL ENGINEERS LAND SURVEYORS 660 WESTINGHOUSE EL PASO, TEXAS (915) 384-4000</small>	
	 <small>OCTOBER 24, 2018</small> <b>GEORGES S. HUIJIB</b> <small>9218</small>	
	 <small>Final Approval</small>	
	<b>DESERT WOLF AVE.</b> STA. 8+00 - 13+79.32	
	C-03.31	



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S47°21'59\"W	90°00'00\"
C2	3.50'	11.00'	401347.48'	7.00'	N87°38'03\"W	180°00'04\"
C3	272.77'	46.77'	23.44'	46.71'	N2°32'45\"E	9°49'28\"
C4	272.77'	46.77'	23.44'	46.71'	S2°32'45\"E	9°49'28\"
C5	30.00'	47.12'	30.00'	42.43'	S42°38'01\"E	90°00'00\"
C6	7.00'	21.99'	INFINITY	14.00'	S87°38'01\"E	180°00'00\"
C7	7.00'	21.99'	INFINITY	14.00'	N87°38'01\"W	180°00'00\"
C8	30.00'	47.12'	30.00'	42.43'	S47°21'59\"W	90°00'00\"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	30.00'	47.12'	30.00'	42.43'	N42°38'01\"W	90°00'00\"
C10	30.00'	47.12'	30.00'	42.43'	N47°21'59\"E	90°00'00\"
C11	7.00'	21.99'	INFINITY	14.00'	S87°38'01\"E	180°00'00\"
C12	30.00'	47.12'	30.00'	42.43'	S42°38'01\"E	90°00'00\"
C13	30.00'	47.12'	30.00'	42.43'	S47°21'59\"W	90°00'00\"
C14	30.00'	47.12'	30.00'	42.43'	N42°38'01\"W	90°00'00\"
C15	30.00'	47.12'	30.00'	42.43'	N47°21'59\"E	90°00'00\"
C16	30.00'	47.12'	30.00'	42.43'	S42°38'01\"E	90°00'00\"

**LEGEND**

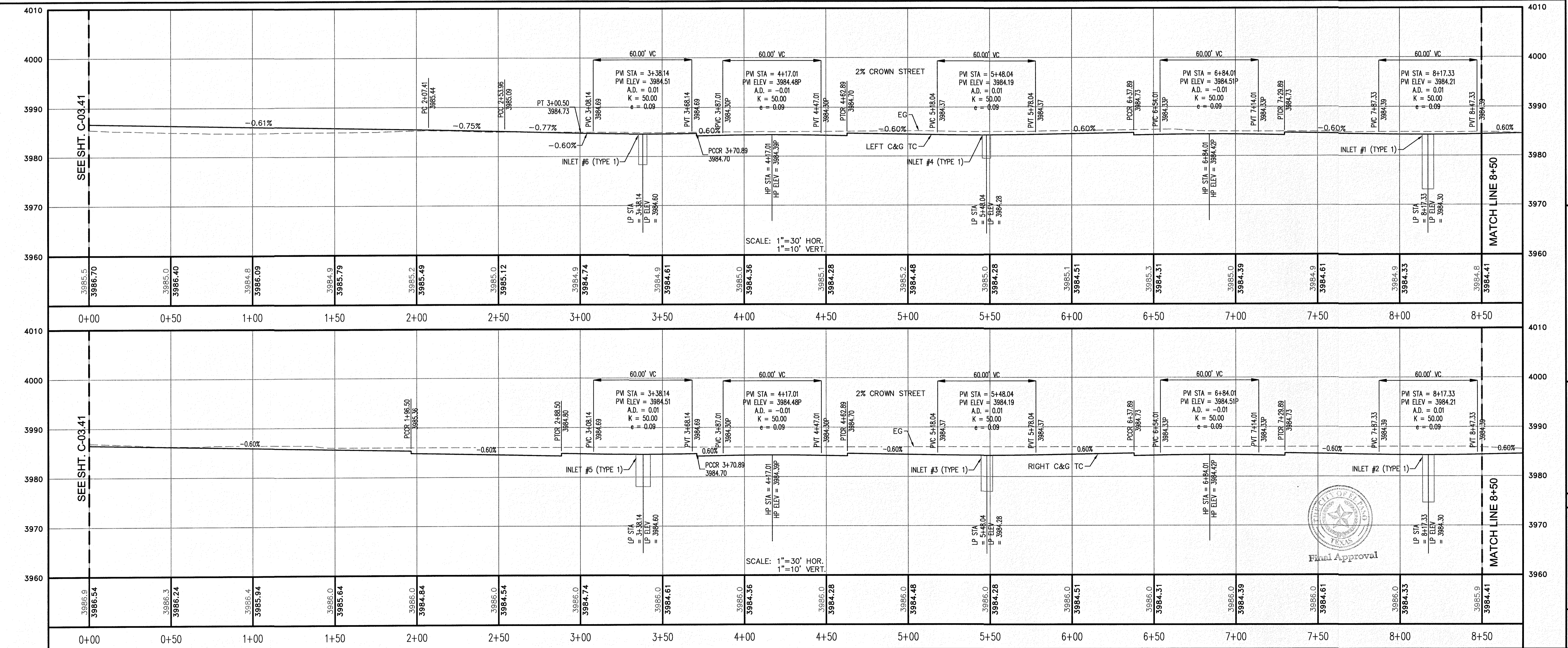
- R.O.W. = RIGHT-OF-WAY
- Proposed Water Flow
- High Point on Street
- Low Point on Street
- Proposed City Monument
- Top of Curb Elev.
- Gutter Elev.
- Pavement Elev.
- Standard Curb and Gutter
- CL PVMT. TRANSITION (FLAT TO CROWN)
- A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- Existing Ground Profile
- Proposed Finish Ground

811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. From 8 A.M. to 5 P.M. IT'S THE LAW!

Scale: 1"=30'



**REVISION DESCRIPTION**

NO.	DATE	BENCHMARK	DESCRIPTION

SECTION CORNER FOR SECTIONS 28 AND 34, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS 2. ELEVATION: 3839.38 (NAVD88 DATUM)

SCALE: AS INDICATED

JOB NO.: 09-1E-3811

DESIGN BY: J/T/E

CHECKED BY: G/H/E

DATE: OCTOBER 2018

PROJECT NAME: DESERT SANDS

PORTIONS OF SECTION 28 AND 34, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

SLI ENGINEERING, INC.

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
6800 W. HAWTHORNE BL. SUITE 100  
EL PASO, TEXAS 79907  
(915) 941-1467

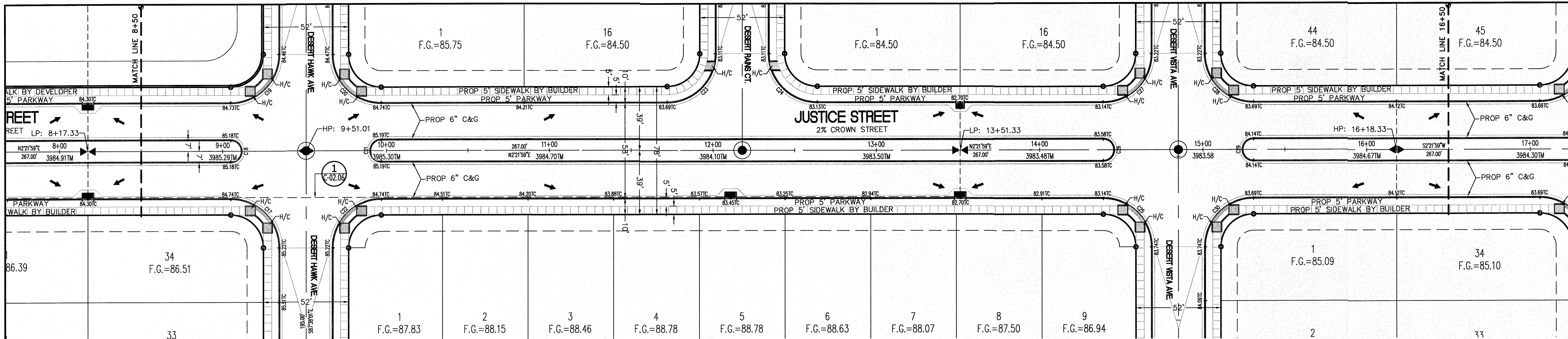
LICENSE No. F-1902

OCTOBER 24, 2018

SHEET TITLE: JUSTICE STREET

STA. 0+00 - 8+50

C-03.32



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C17	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C18	7.00'	21.99'	INFINITY	14.00'	N87°38'01"W	180°00'00"
C19	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C20	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C21	7.00'	21.99'	INFINITY	14.00'	S87°38'01"E	180°00'00"
C22	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C23	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C24	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C25	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C26	7.00'	21.99'	INFINITY	14.00'	N87°38'01"W	180°00'00"
C27	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C28	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C29	7.00'	21.99'	INFINITY	14.00'	S87°38'01"E	180°00'00"
C30	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"

**LEGEND**

- R.O.W. = RIGHT-OF-WAY
- Proposed Water Flow
- High Point on Street
- Low Point on Street
- Proposed City Monument
- Top of Curb Elev.
- Gutter Elev.
- Pavement Elev.
- Standard Curb and Gutter
- CL PVMT. TRANSITION (FLAT TO CROWN)
- A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- Existing Ground Profile
- Proposed Finish Ground

**811 Know what's below. Call before you dig.**  
 Call 811 Two Working Days Before You Dig  
 For Free, It's Easy and IT'S THE LAW!

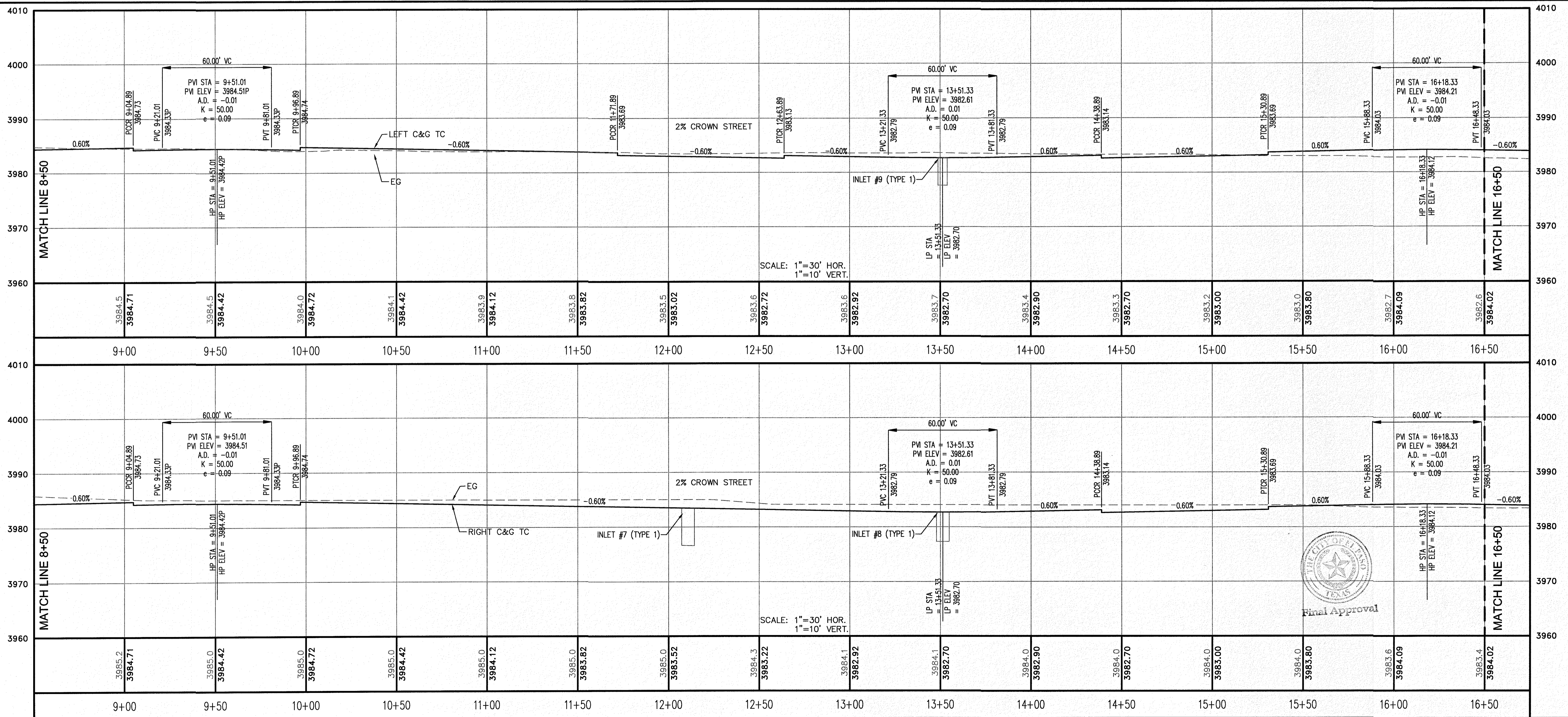
SCALE: 1"=30'

NO.	DATE	REVISION DESCRIPTION

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 ELEVATION: 3859.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
 JOB NO.: 09-1E-3811  
 DESIGN BY: J/JET  
 CHECKED BY: G/H/TE  
 DATE: OCTOBER 2018

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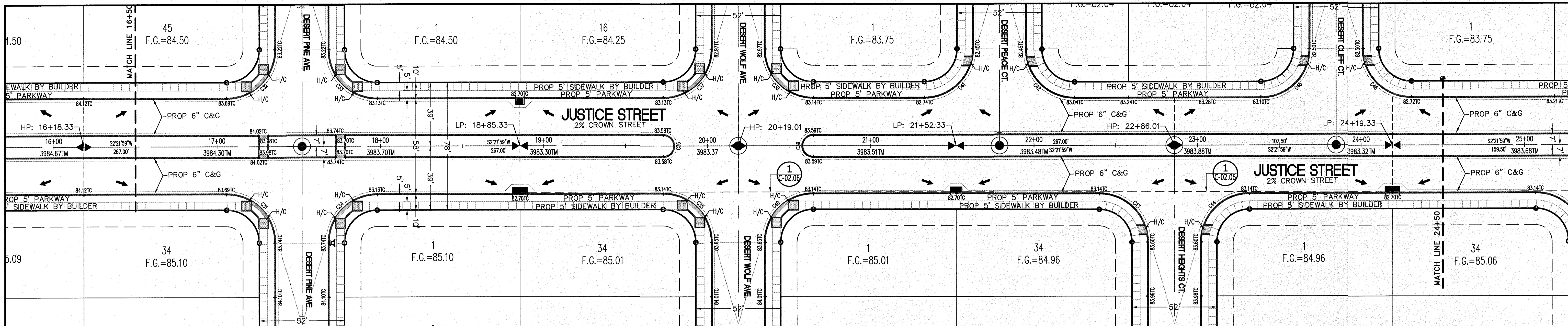
PROJECT NAME: DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET  
 EL PASO, TEXAS

CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS  
 6905 W. WASH. BLVD.  
 SUITE 100  
 EL PASO, TEXAS 79907  
**SLI ENGINEERING, INC.**

LICENSE No. F-1902

OCTOBER 24, 2018  
 SHEET TITLE  
 JUSTICE STREET  
 STA. 8+50 - 16+50

**C-03.33**



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C31	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C32	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C33	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C34	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C35	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C36	7.00'	21.99'	INFINITY	14.00'	N87°38'01"W	180°00'00"
C37	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C38	30.00'	47.12'	30.00'	42.43'	N47°21'55"E	89°59'54"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C39	7.00'	21.99'	INFINITY	14.00'	S87°38'01"E	180°00'00"
C40	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C41	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C42	30.00'	47.12'	30.00'	42.43'	N47°21'55"E	89°59'54"
C43	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C44	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C45	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C46	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"

**LEGEND**

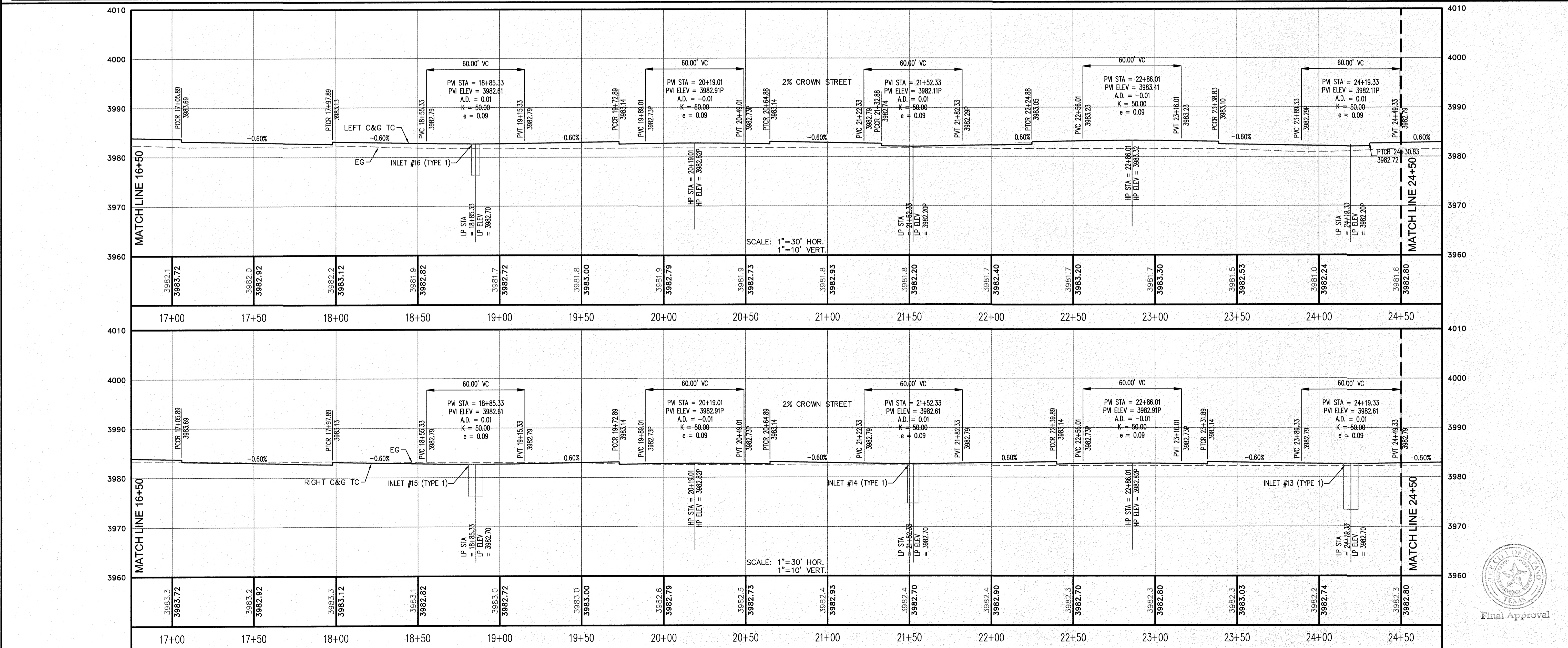
- R.O.W. = RIGHT-OF-WAY
- Proposed Water Flow
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- Low Point on Street
- Proposed City Monument
- TC = TOP OF CURB ELEV.
- G = GUTTER ELEV.
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- C&G = STANDARD CURB AND GUTTER
- CL PVMT. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- Existing Ground Profile
- Proposed Finish Ground

811 Know what's below. Call before you dig. Call 811 TWO Working Days Before you dig. From 8a-5p and IT'S THE LAW!

SCALE: 1"=30'



**REVISION DESCRIPTION**

NO.	DATE	BENCHMARK	DESCRIPTION

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3859.38 (NAVD88 DATUM)

SCALE: AS INDICATED

JOB NO.: 09-16-3911

DESIGN BY: J/J/T

CHECKED BY: GH/FE

DATE: OCTOBER 2018

PROJECT NAME: DESERT SANDS

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

SLI ENGINEERING, INC.

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
9805 W. TEXAS AVE.  
SUITE 100, DALLAS, TEXAS 75243  
(972) 984-1467

LICENSE No. F-1902

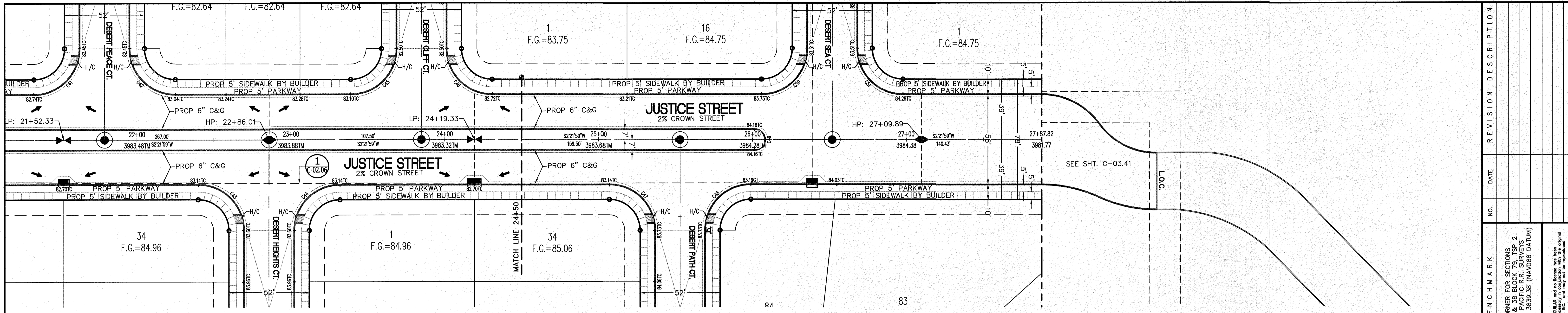
OCTOBER 24, 2018

SHEET TITLE

JUSTICE STREET  
STA. 16+50 - 24+50

Final Approval

**C-03.34**



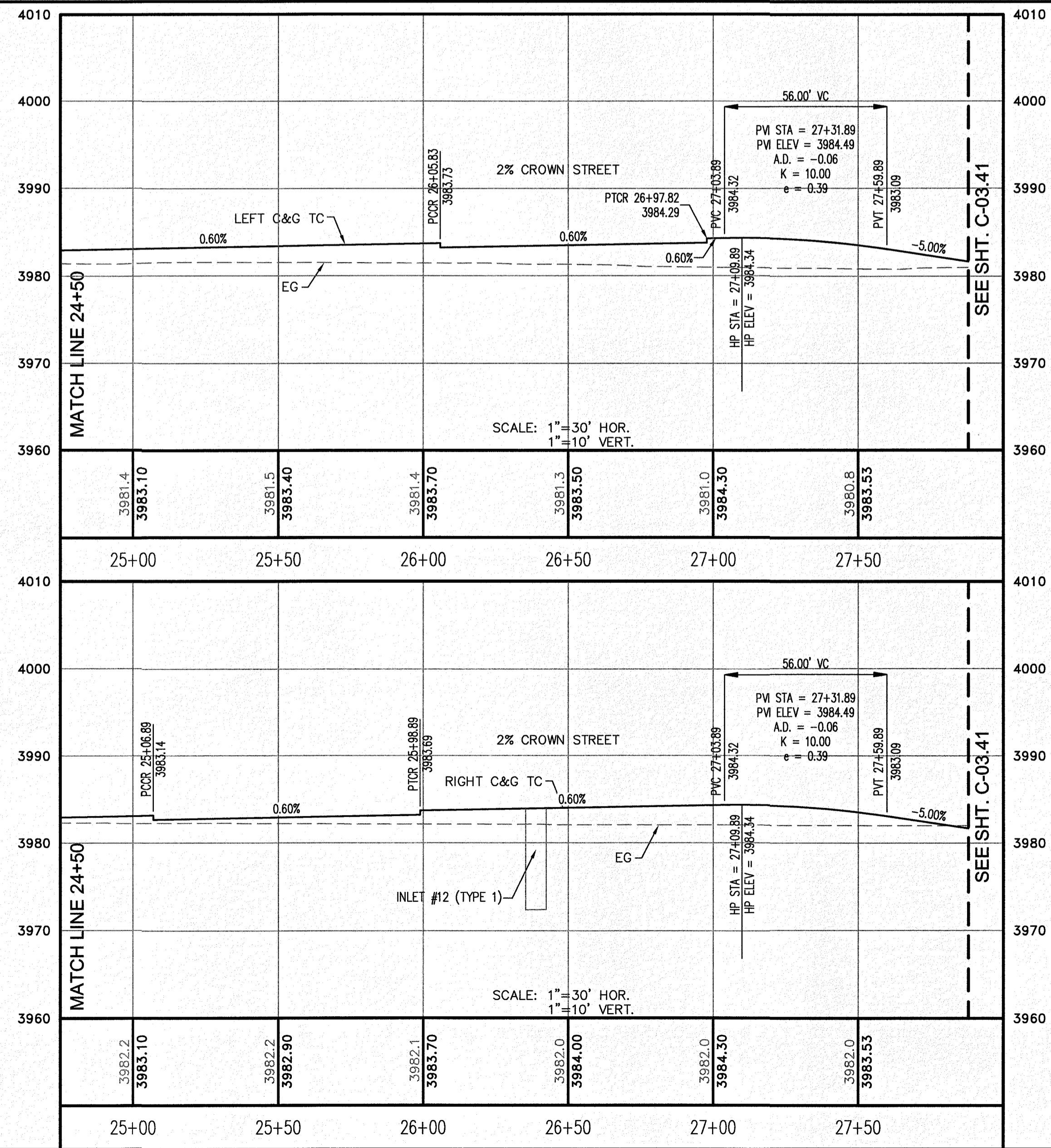
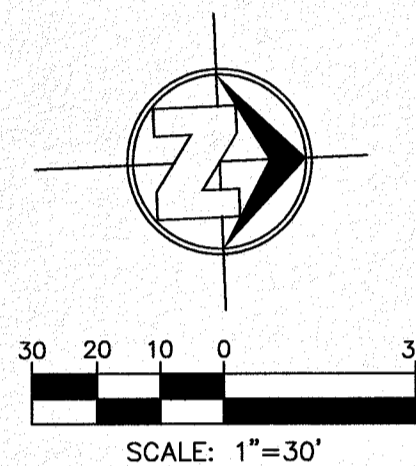
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C46	30.00'	47.12'	30.00'	42.43'	N47°21'59"E	90°00'00"
C47	30.00'	47.12'	30.00'	42.43'	S47°21'59"W	90°00'00"
C48	30.00'	47.12'	30.00'	42.43'	S42°38'01"E	90°00'00"
C49	7.00'	21.99'	INFINITY	14.00'	N87°38'01"W	180°00'00"
C50	30.00'	47.12'	30.00'	42.43'	N42°38'01"W	90°00'00"
C51	30.00'	47.12'	30.00'	42.43'	N47°22'02"E	90°00'06"

**LEGEND**

- R.O.W. = RIGHT-OF-WAY
- = PROPOSED WATER FLOW
- ▲ = HIGH POINT ON STREET
- ▼ = LOW POINT ON STREET
- = PROPOSED CITY MONUMENT
- TC = TOP OF CURB ELEV.
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- P = PAVEMENT ELEV.
- C&G = STANDARD CURB AND GUTTER
- ▭ = CL. P.V.M.T. TRANSITION (FLAT TO CROWN)
- H/C = A.D.A. COMPLIANT RAMP BY DEVELOPER

**PROFILE**

- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND



NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

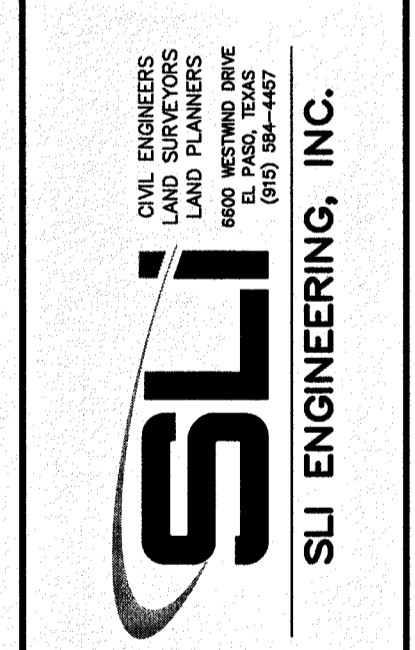
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DESIGN BY: J/J/T  
 CHECKED BY: GH/TE  
 DATE: OCTOBER 2018

**PROJECT NAME**  
 DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2,  
 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-3811  
**DESIGN BY:** J/J/T  
**CHECKED BY:** GH/TE  
**DATE:** OCTOBER 2018

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LICENSE No. F-1902

OCTOBER 24, 2018  
**SHEET TITLE**

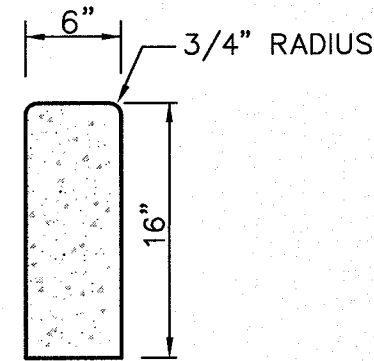
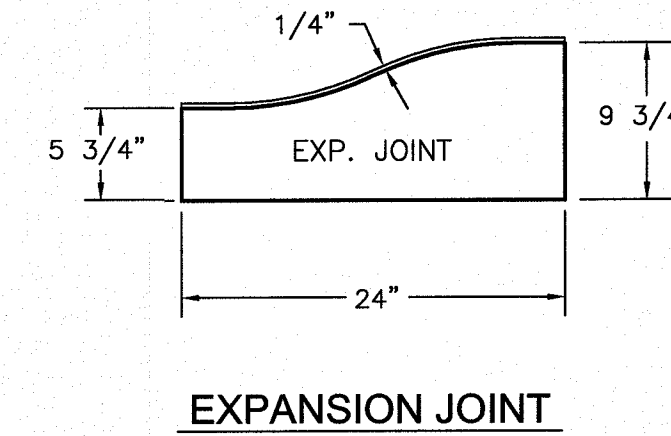
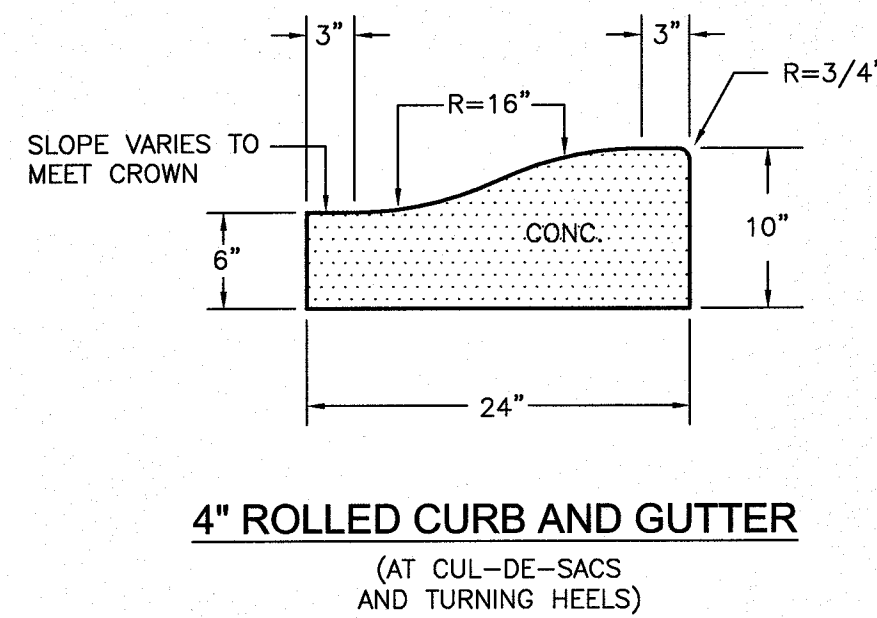
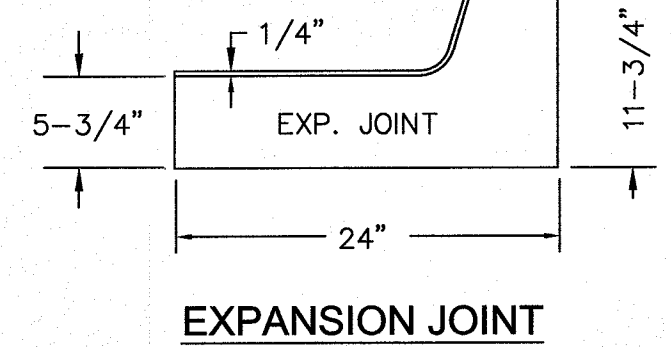
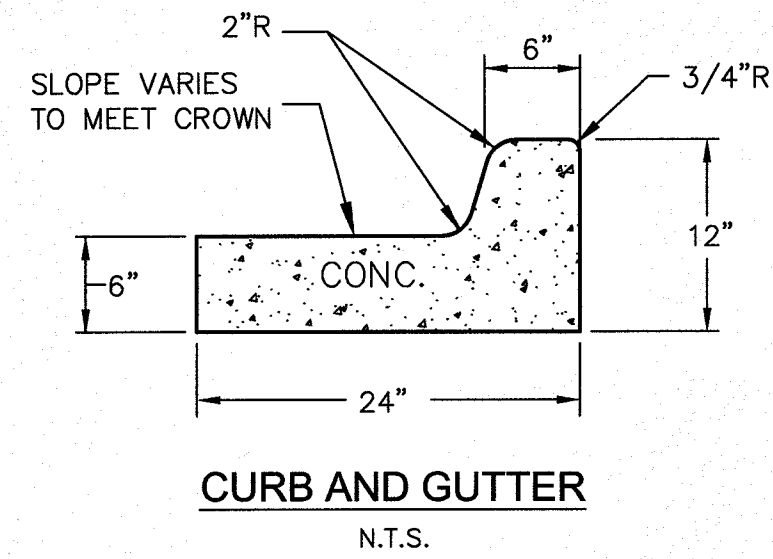
**JUSTICE STREET**  
 STA. 24+50 - 27+87.94

**C-03.35**



GENERAL NOTES

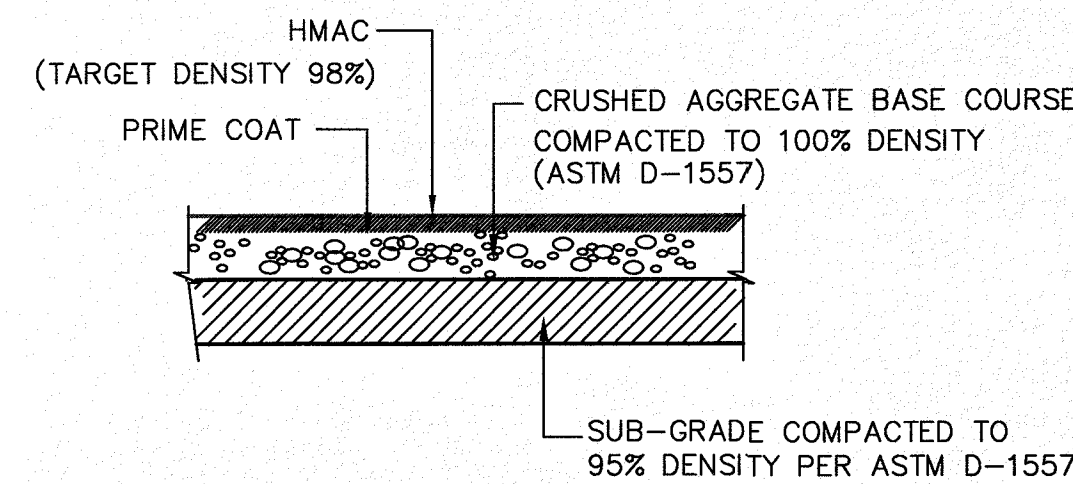
1. PROVIDE 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION JOINT AT ALL CURVE POINTS AND WHERE THE NEW CURB WILL ABUT ANY EXISTING CURB. EXPANSION JOINT IS REQUIRED BETWEEN BACK OF CURB AND ANY STRUCTURE ABUTTING DIRECTLY AGAINST IT AND SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
2. TRIM EXPANSION JOINT MATERIAL 1/4" LESS THAN THE NEAT CURB AND GUTTER DIMENSION.
3. SUBGRADE UNDER CURB MUST BE FORMED AND COMPACTED. (95% ASTM D-1557)
4. CONCRETE SHALL BE CLASS 'A', AND HAVE A COMPRESSIVE STRENGTH OF 3000 PSI (MIN) AT 28 DAYS.
5. EXPANSION JOINTS FOR CURBS ARE TO BE PROVIDED AT CHANGES OF DIRECTIONS, AT ALL CURB RETURNS, AND WHERE CURB ABUTS OTHER MASONRY STRUCTURES.
6. 1/4-INCH MINIMUM SCORED JOINTS ARE TO BE PROVIDED EVERY 10 FT. FOR CURB AND GUTTER.
7. REJECTED DEFECTIVE CURB MUST BE REPLACED IN 10.0 LONG SECTIONS, MINIMUM.



TYPICAL CONC. CURB DETAILS

NOTES : (APPLICABLE TO DRIVEWAYS AND PARKING AREAS)

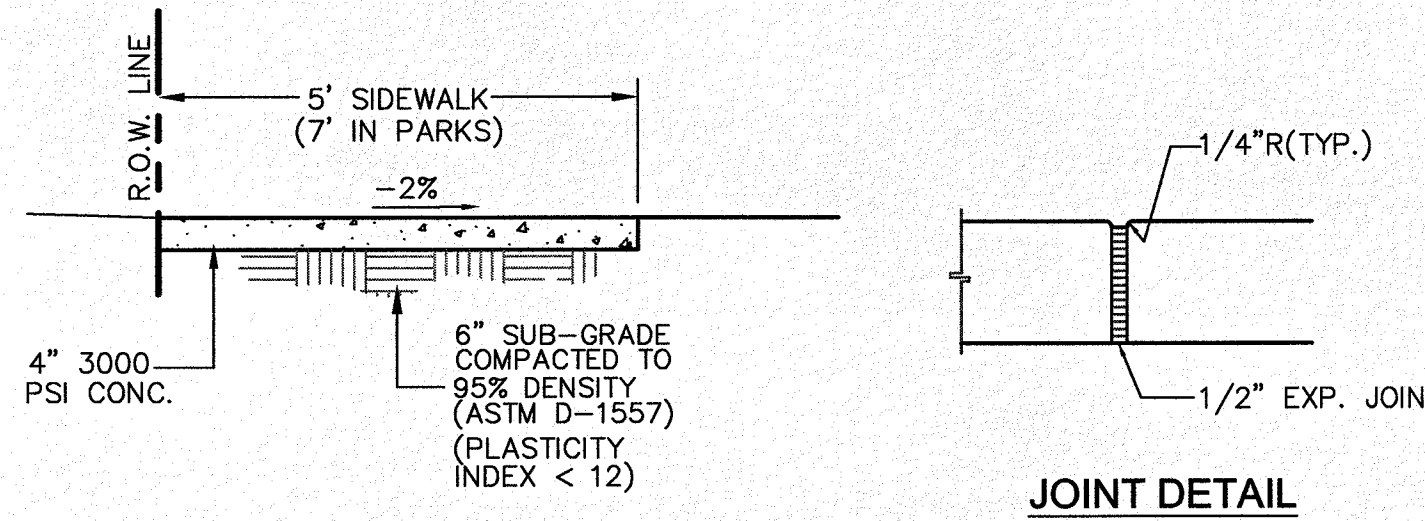
1. SUB-GRADE TO BE COMPACTED TO 95% DENSITY (ASTM D-1557). IF THE BASE COURSE IS NOT PLACED IMMEDIATELY AFTER SUB-GRADE PREPARATION IS COMPLETED THEN AN APPLICATION OF A TACK COAT UTILIZING A COMPOUND EMULSION TYPE FM-1 OR EQUIVALENT APPROVED BY THE GEOTECHNICAL ENGINEER SHALL BE APPLIED PRIOR TO PLACING BASE COURSE. SUCH COMPOUND SHALL BE APPLIED AT A RATE OF 0.33 GAL. PER SQUARE YARD.
2. BASE TO BE COMPACTED TO 100% DENSITY (ASTM D-1557).
3. PRIME COAT SHALL CONSIST OF CATIONIC ASPHALT EMULSION SLOW SETTING TYPE, GRADE CSS-1H, APPLIED AT THE RATE OF 0.25 TO 0.30 GALLONS PER SQUARE YARD.
4. SUB-GRADE UNDER CURB MUST BE FORMED AND COMPACTED AS SHOWN OR EXCESS CUT MUST BE BACK FILLED WITH CONCRETE.
5. H.M.A.C. SHALL CONFORM TO SECTION K3305 GRADE "B" OR "C", OF THE CITY SPECIFICATIONS. (SEE SECTIONS BELOW FOR STREET TYPE USAGE).
6. CRUSHED AGGREGATE BASE COURSE SHALL CONFORM TO ITEM 247 TYPE "A", GRADE III CRUSHED STONE OF TxDOT PAVEMENT CONSTRUCTION DETAILS.



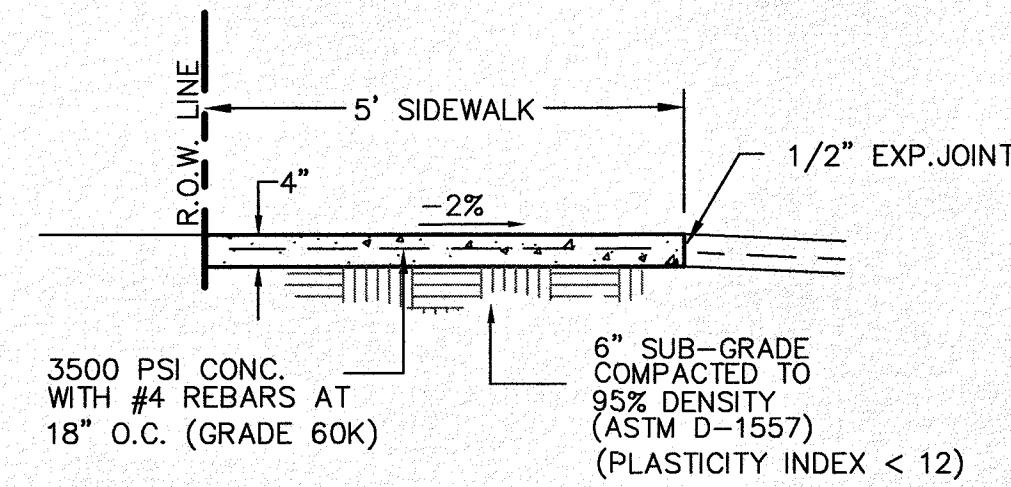
TYPICAL PAVEMENT SECTION

GENERAL NOTES

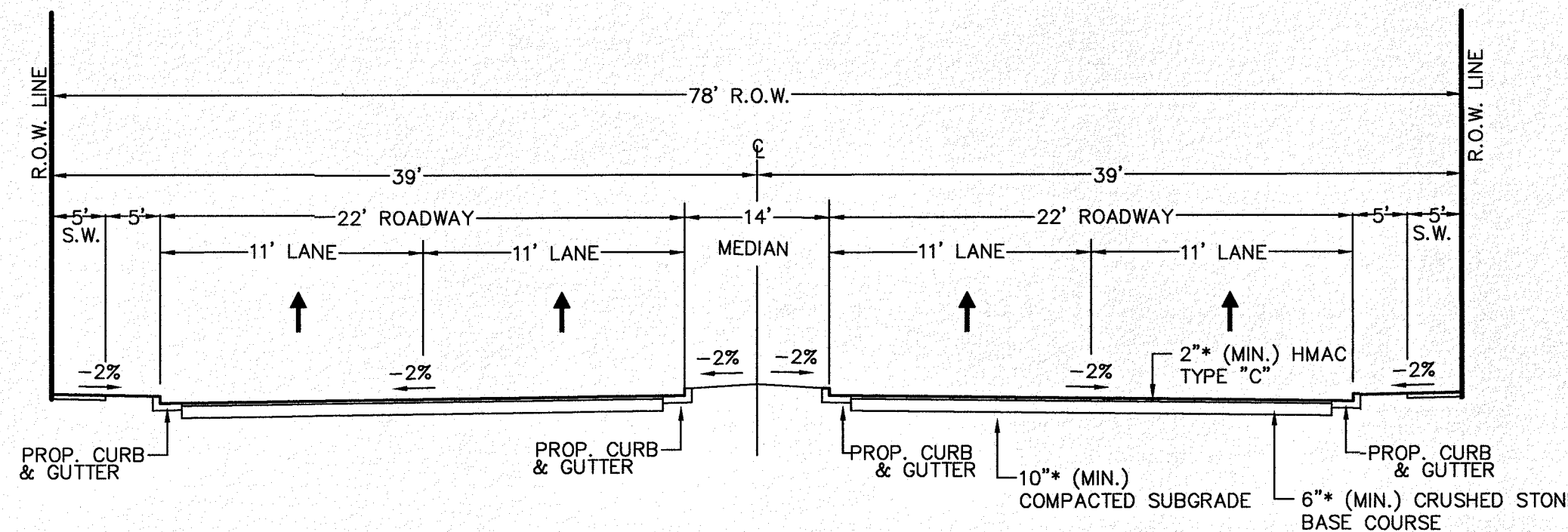
1. PROVIDE 1/2" PRE MOLDED ASPHALT IMPREGNATED EXPANSION JOINT AT ALL CURVE POINTS AND WHERE THE NEW CURB WILL ABUT ANY EXISTING CURB. EXPANSION JOINT IS REQUIRED BETWEEN BACK OF CURB AND ANY STRUCTURE ABUTTING DIRECTLY AGAINST IT AND SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS. PLACE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT FILLER (AASHTO M-33) AT 20' O.C.
2. TRIM EXPANSION JOINT MATERIAL 1/4" LESS THAN THE NEAT CURB AND GUTTER DIMENSION.
3. SUB-GRADE UNDER AND BEHIND CURB MUST BE FORMED AND COMPACTED TO 95% DENSITY PER ASTM D-1557.
4. CONCRETE SHALL BE CLASS 'A', AND HAVE A COMPRESSIVE STRENGTH OF 3000 PSI (MIN) AT 28 DAYS. (UNLESS OTHERWISE INDICATED)
5. 1/4" DEEP SCORED DUMMY JOINTS AT 5' O.C. (TYP)
6. ALL SIDEWALKS TO BUILT BY BUILDER EXCEPT ALONG PONDING AREAS, DRAINAGE R.O.W.S AND PARK FRONTAGE, WHICH SHALL BE CONSTRUCTED BY THE DEVELOPER.



TYPICAL SIDEWALK SECTION

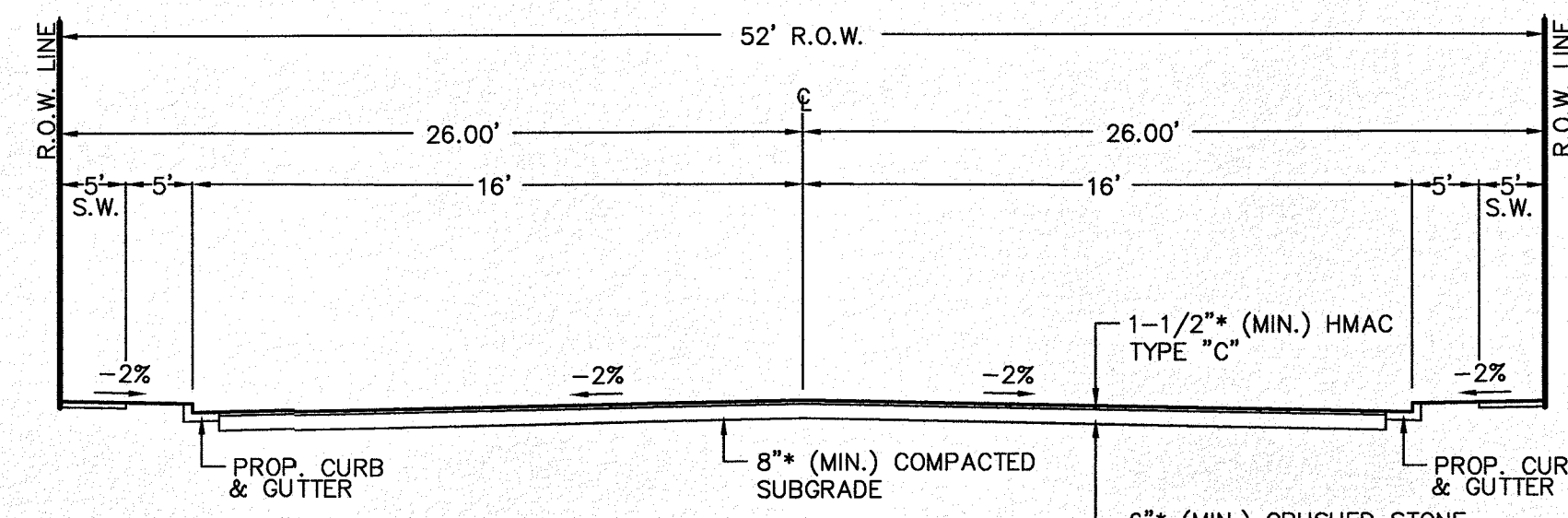


TYPICAL SIDEWALK DETAILS

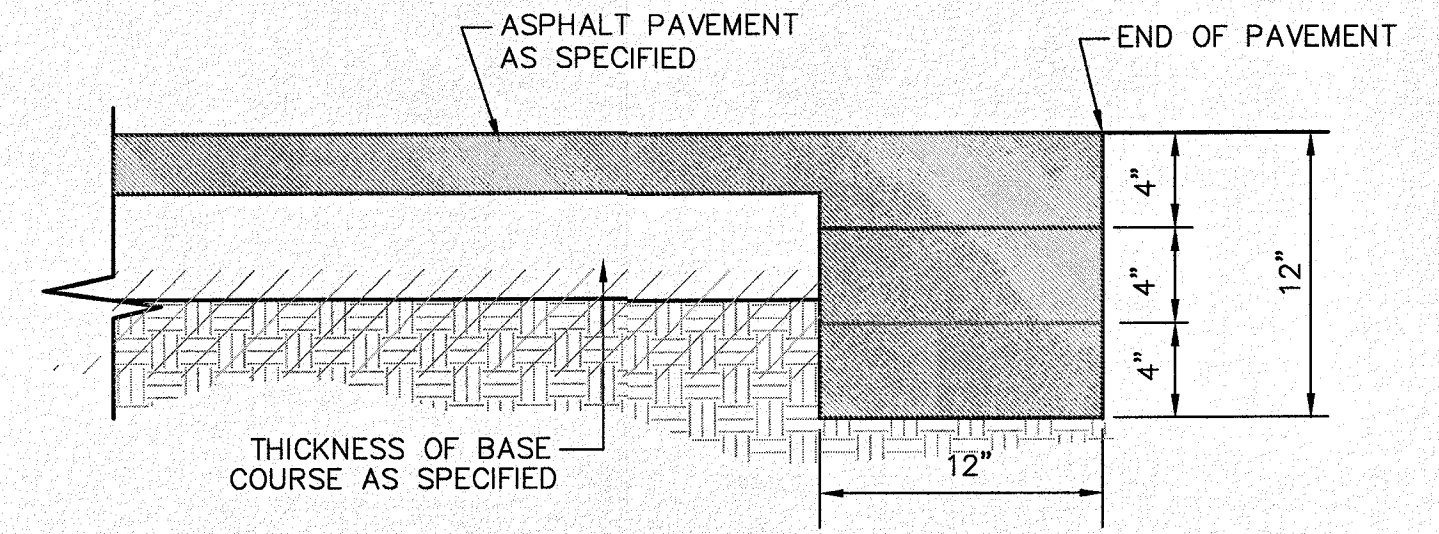


78' R.O.W. JUSTICE STREET TYPICAL SECTION

\* NOTE: MINIMUM THICKNESS REQUIREMENTS TAKEN FROM GEOTECHNICAL REPORT PROVIDED BY LOI ENGINEERS, DATED 11/16/2016

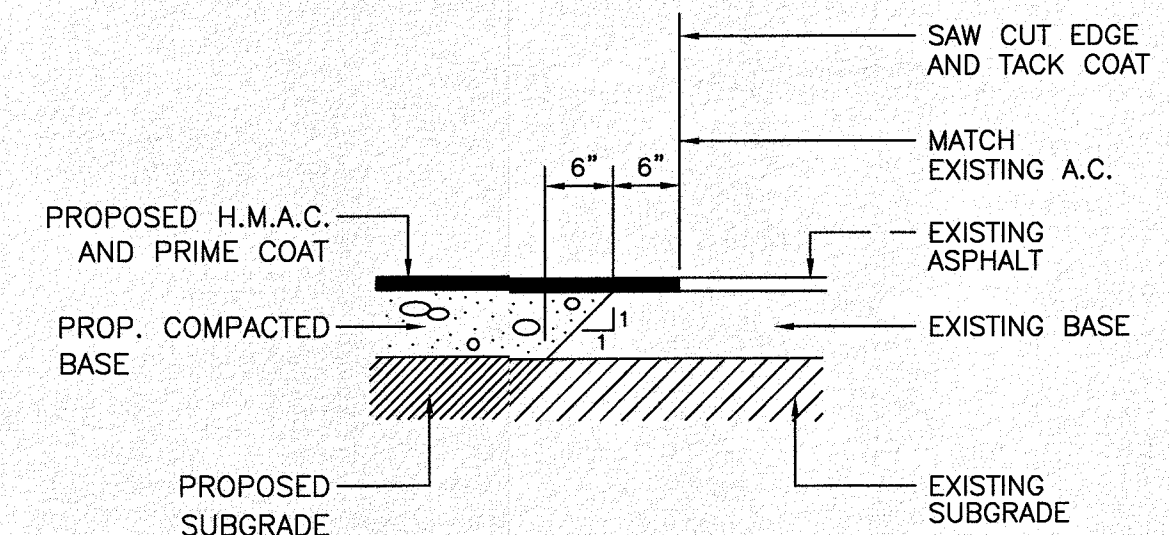


52' R.O.W. TYPICAL SECTION



NOTE: TERMINUS MUST BE CONSTRUCTED IN 4" LIFTS. FINAL LIFT MUST BE PLACED WITH FINAL PAVEMENT COURSE. COMPACTION REQUIREMENTS SHALL BE 98% MINIMUM AS PER ASTM D1557 OR AS RECOMMENDED BY THE PROJECT GEOTECHNICAL ENGINEER.

TERMINUS OF STREET

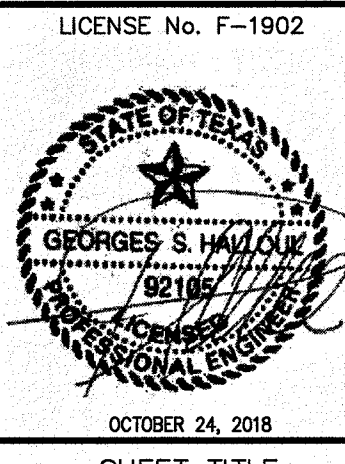
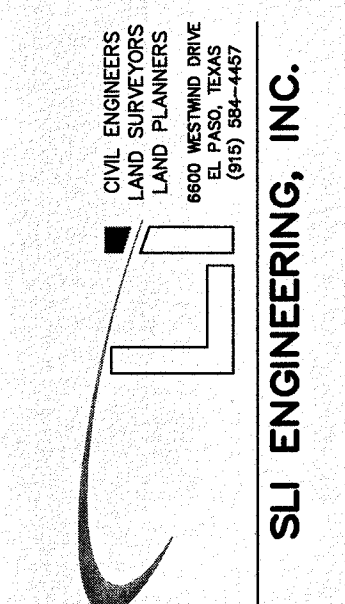


ASPHALT PAVEMENT JUNCTURE

NO.	DATE	REVISION DESCRIPTION

BENCHMARK	SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS, 2 ELEVATION: 3539.38 (NAVD88 DATUM)
SCALE:	AS INDICATED
JOB NO.:	09-16-3911
DESIGN BY:	J/J/T
CHECKED BY:	GH/FE
DATE:	OCTOBER, 2018
PROJECT NAME	DESERT SANDS
PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	EL PASO, TEXAS
JUSTICE STREET	EL PASO, TEXAS



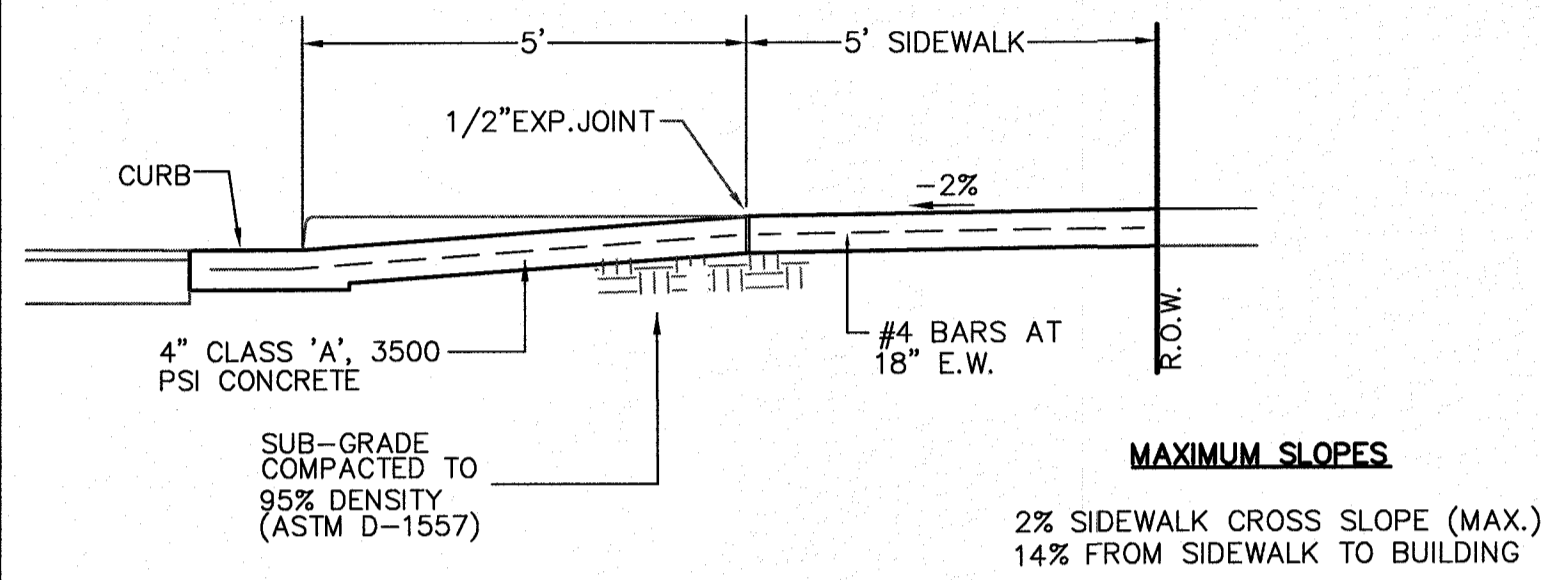
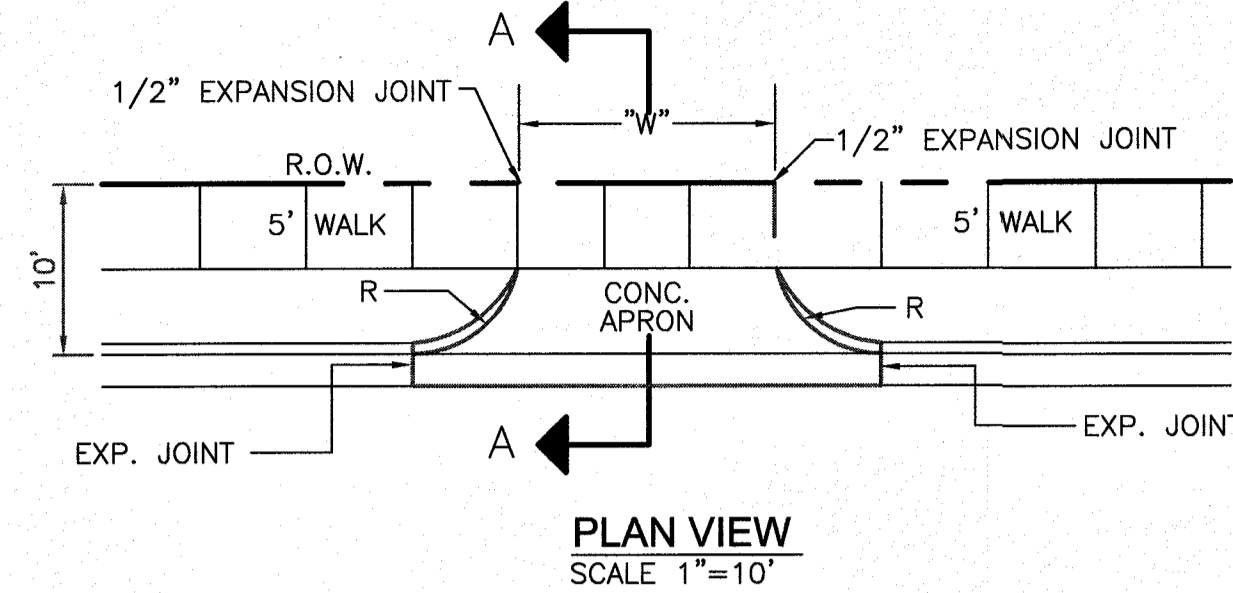
MISCELLANEOUS DETAILS-1



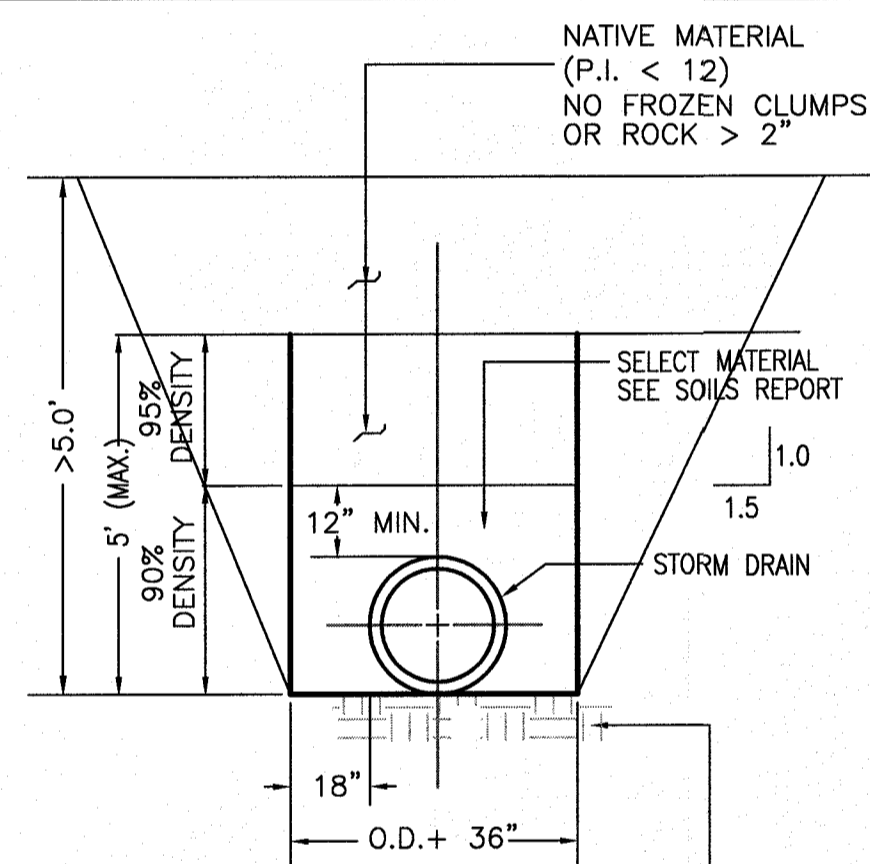
C-03.36

DRIVEWAY WIDTH	W (MIN.)	W (MAX.)	R
RESIDENTIAL	15'	25'	10'

**NOTE:**  
ALL RESIDENTIAL DRIVEWAYS ARE TO BE BUILT BY HOME BUILDER.



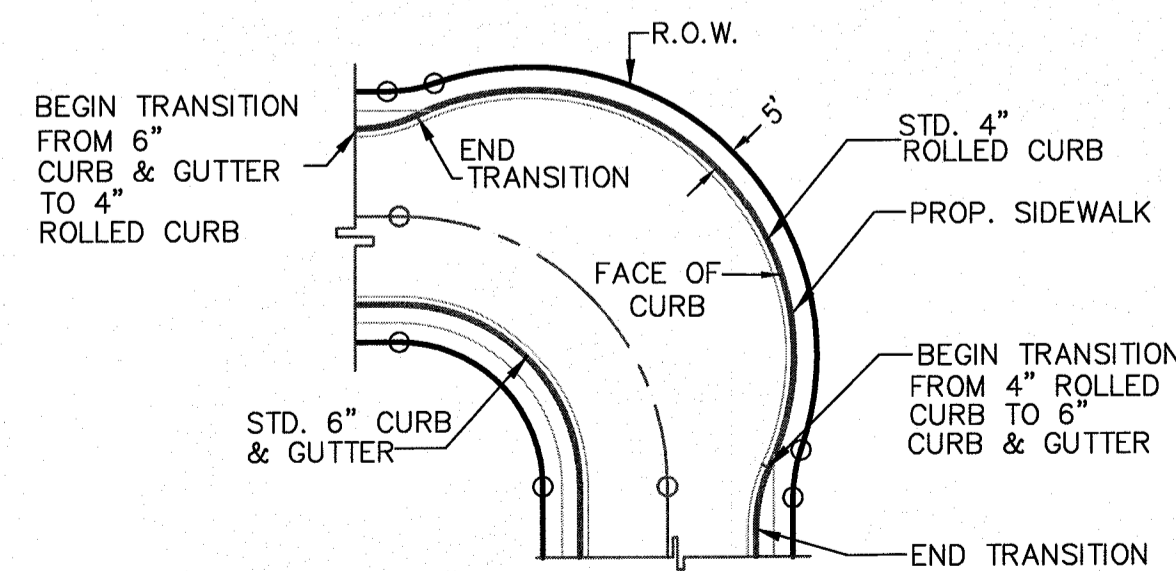
**1 TYPICAL RESIDENTIAL CONC. DRIVEWAY**  
N.T.S.



FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS IN THE TRENCH SHOULD BE OVER EXCAVATED A MIN. OF 6" AND REFILLED WITH GRANULAR MATERIAL. COMPACT TO 95% DENSITY (ASTM D-1557)

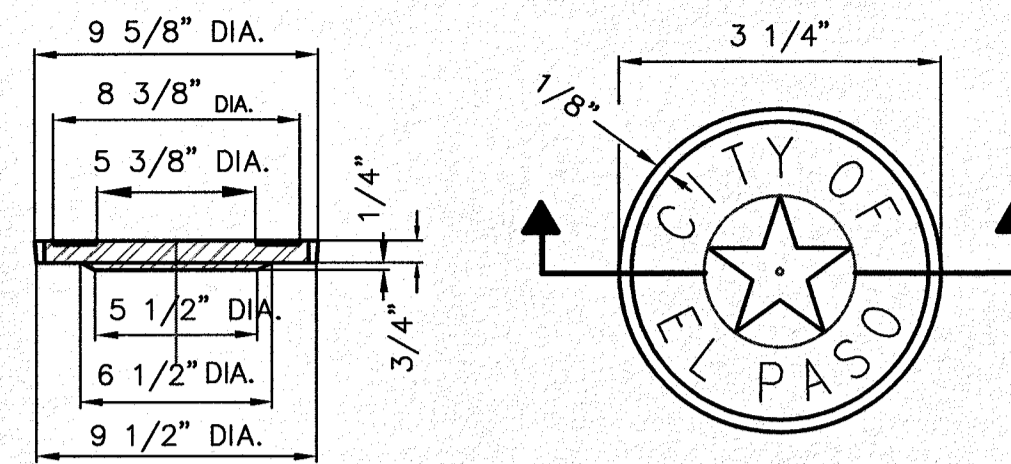
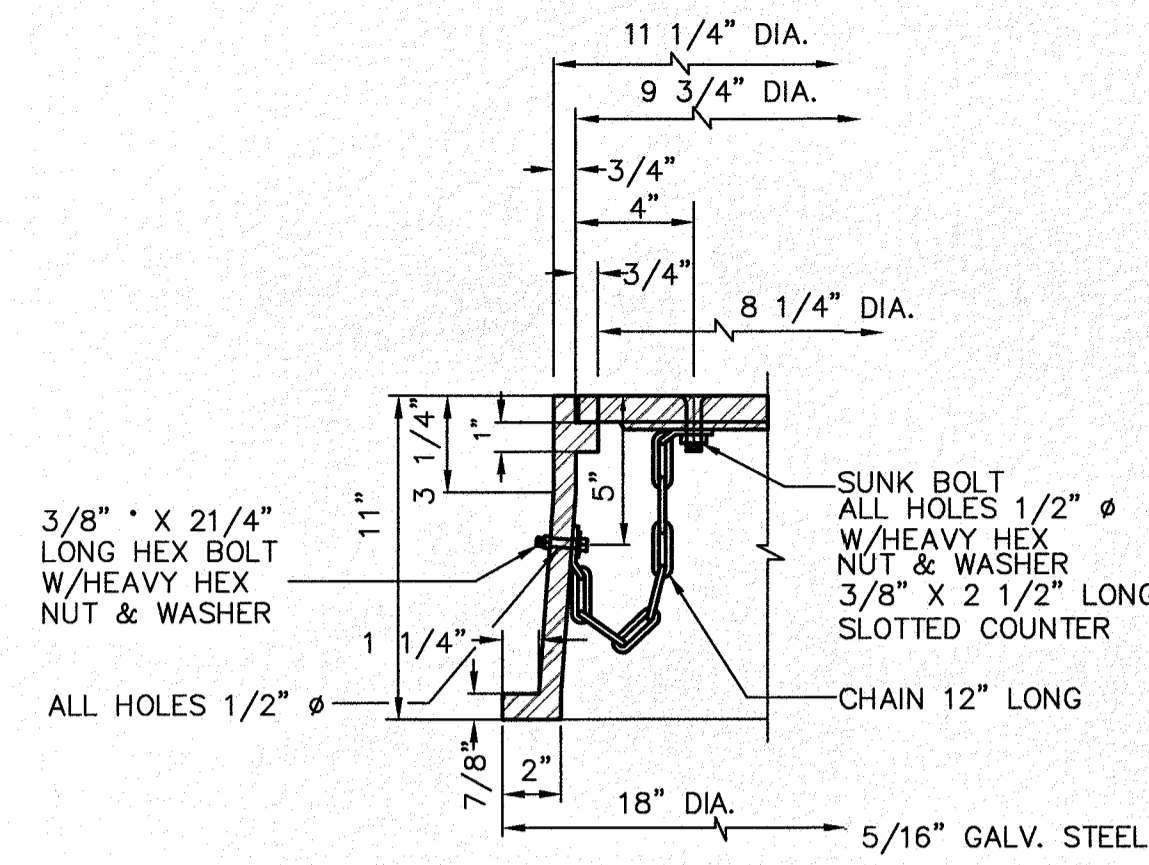
**NOTE:**  
THE CONTRACTOR SHALL ABIDE BY ALL OF THE LATEST OSHA REGULATIONS CONCERNING PIPE INSTALLATIONS AND TRENCH SAFETY PROCEDURES. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A TRENCH SAFETY PLAN, FOR APPROVAL, PRIOR TO BEGINNING WORK ON THE SITE.

**2 TRENCH SECTION: STORM DRAIN**  
N.T.S.

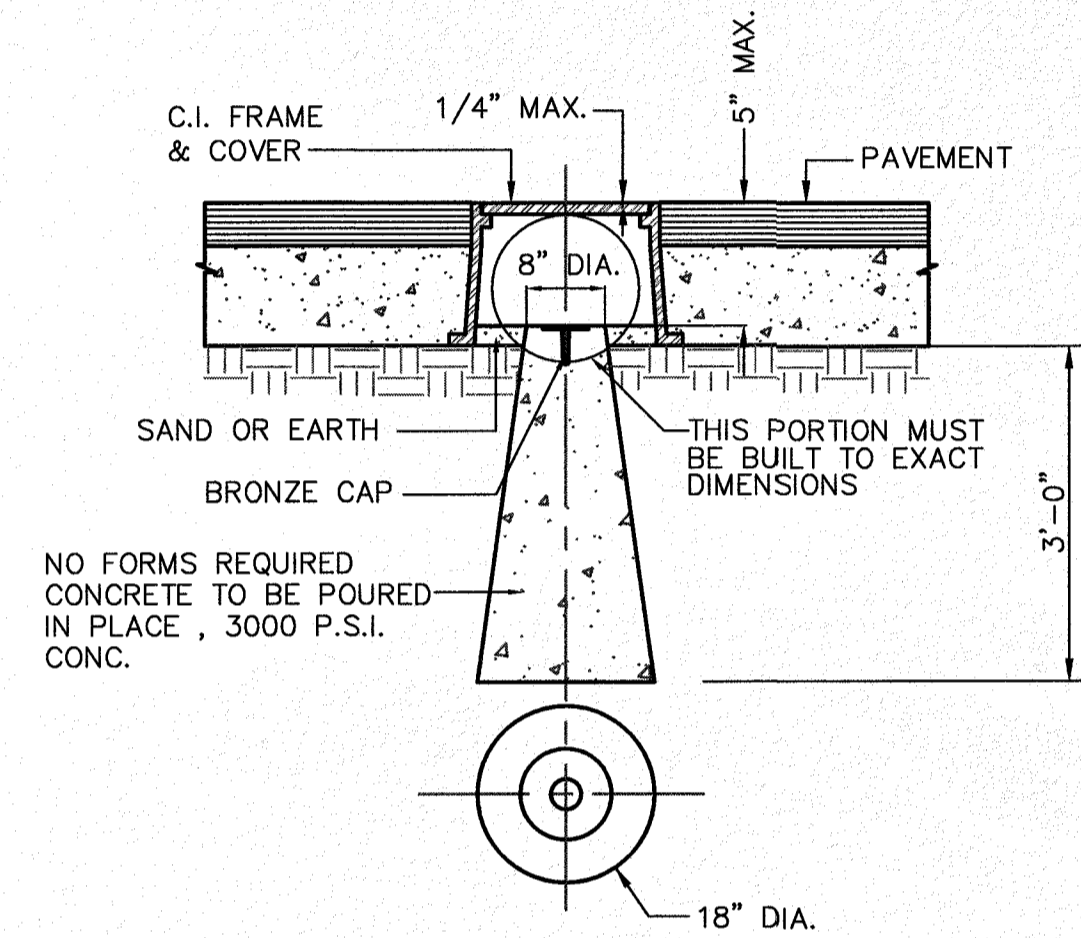


**NOTE:**  
USE SAME BEGINNING AND ENDING TRANSITION POINTS FOR CUL-DE-SAC.

**3 TYPICAL TURNING HEEL**  
N.T.S.



**NOTES:**  
OUTSIDE RADIUS OF STAR = 3/4"  
INSIDE RADIUS OF STAR = 5/16"  
HEIGHT OF LETTERS = 7/16"  
WIDTH OF LETTER BODY = 3/16"  
RADI FOR POSITION OF LETTERING 13/16" AND 1 1/4"  
EMBOSS STAR, RING AND LETTERS TO HEIGHT OF 3/32"

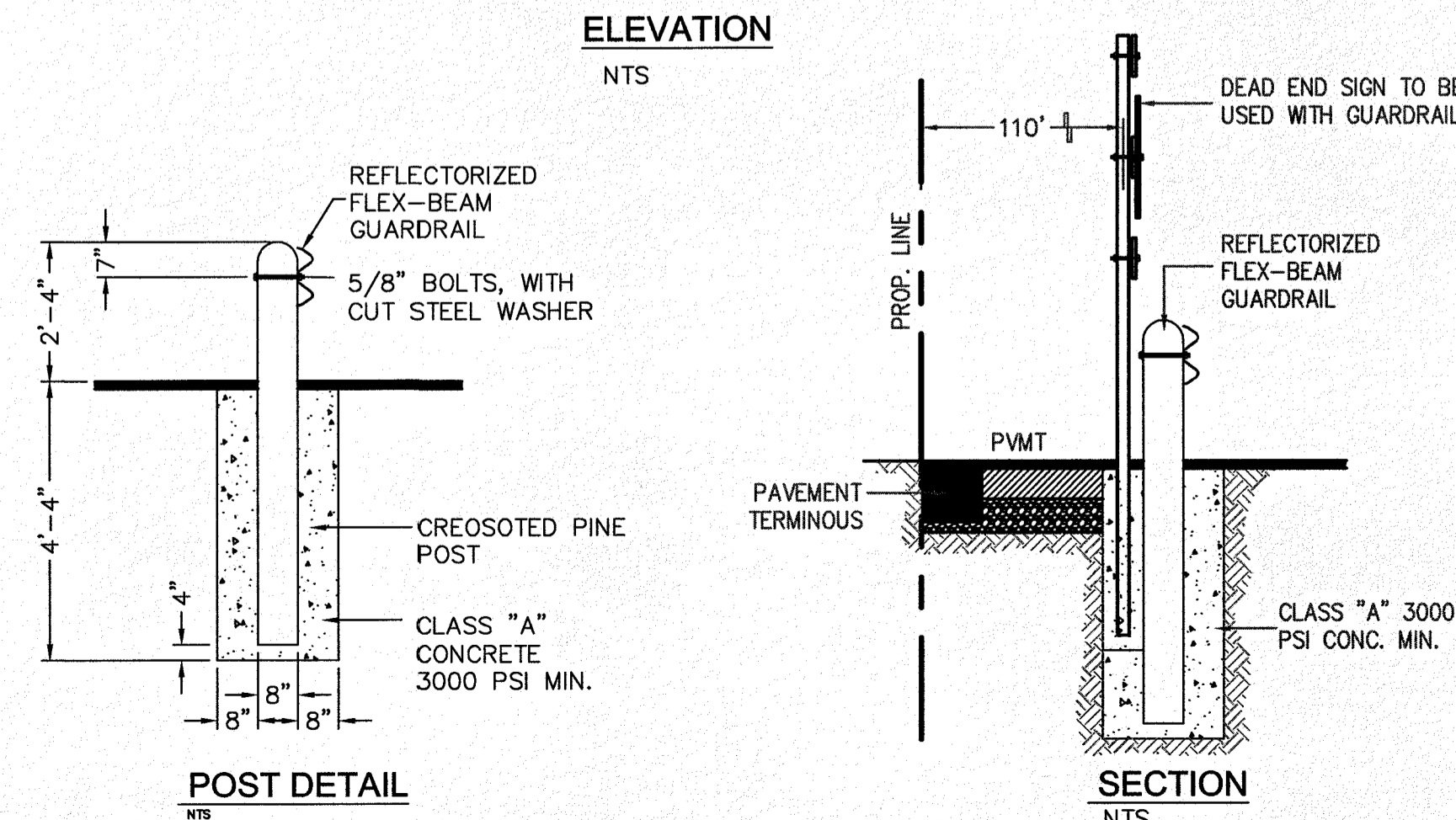
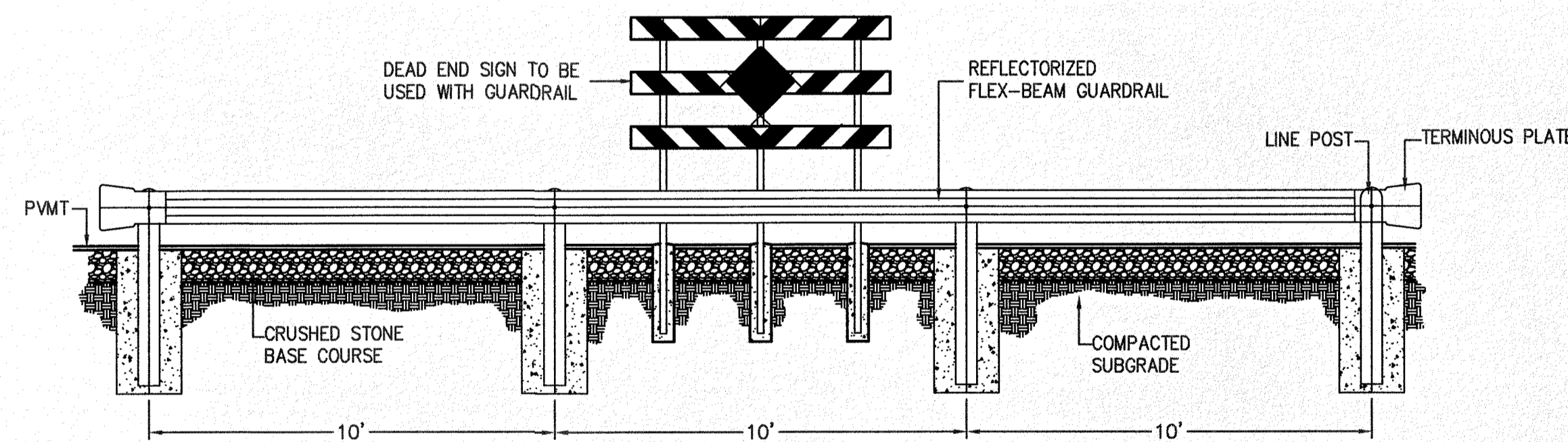


**BRONZE MONUMENT CAP FOUNDATION**

**COUNTERSUNK DET.**

**COVER**

**4 TYP. CITY MONUMENT DETAILS**  
NO SCALE

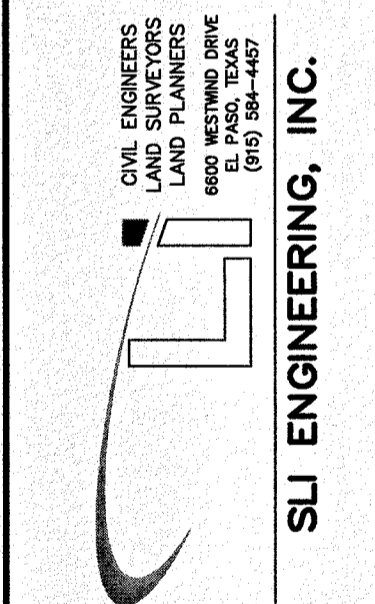


**5 GUARDRAIL/SIGN ASSEMBLY AT DEAD STREET DETAIL**  
N.T.S.

PROJECT NAME	DESERT SANDS
SECTION	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
BENCHMARK	SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3839.38 (NAVD88 DATUM)
DATE	
REVISION DESCRIPTION	
NO.	
AS INDICATED	
JOB NO.	09-16-3811
DESIGN BY	J/ET
CHECKED BY	GH/FE
DATE	OCTOBER, 2018

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
6800 W. 34TH ST., SUITE 100  
EL PASO, TEXAS 79907  
PH: 910-584-4487  
**SLI ENGINEERING, INC.**

JUSTICE STREET  
EL PASO, TEXAS



LICENSE No. F-1902



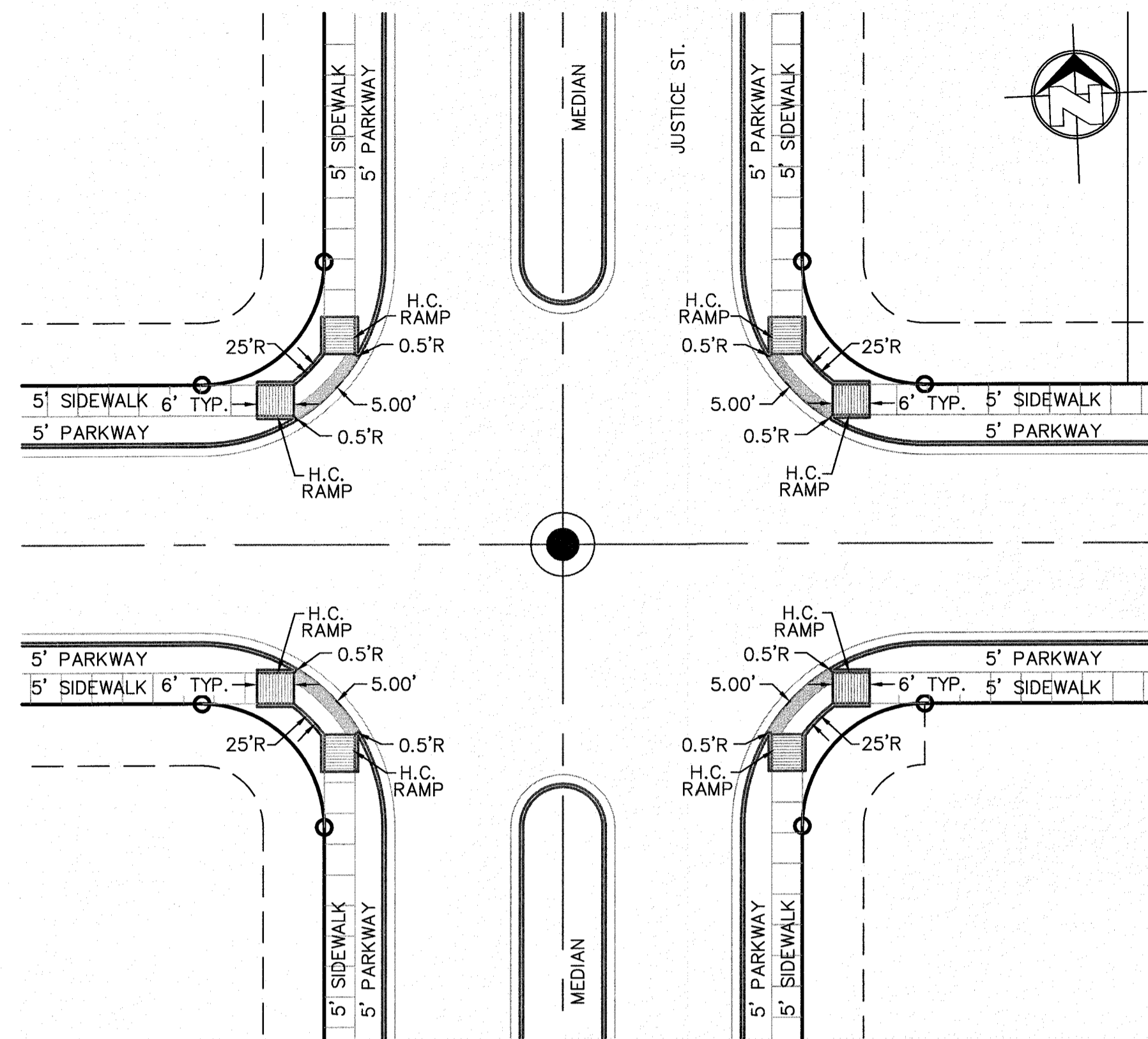
OCTOBER 24, 2018  
SHEET TITLE

MISCELLANEOUS DETAILS-2

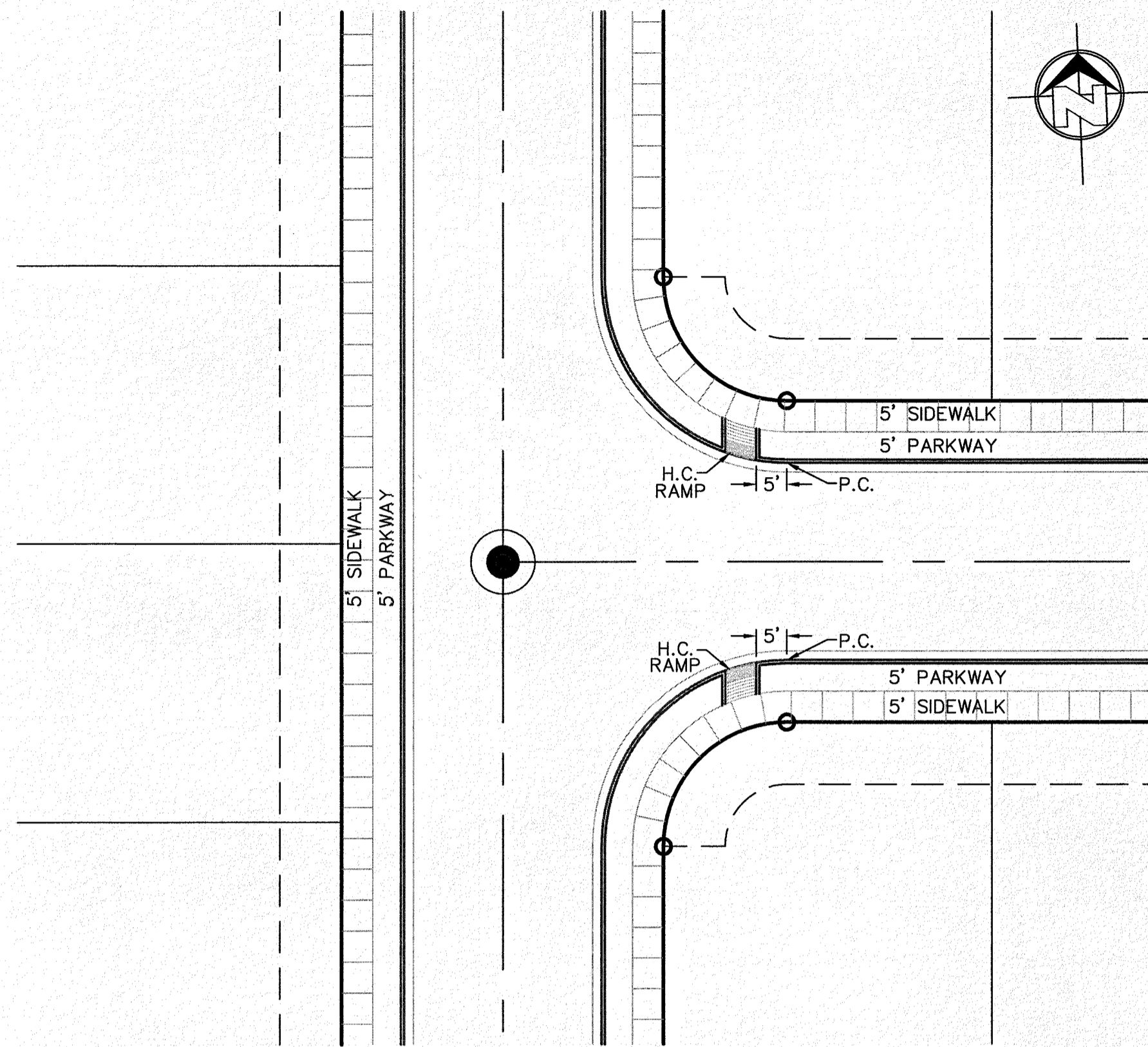
C-03.37



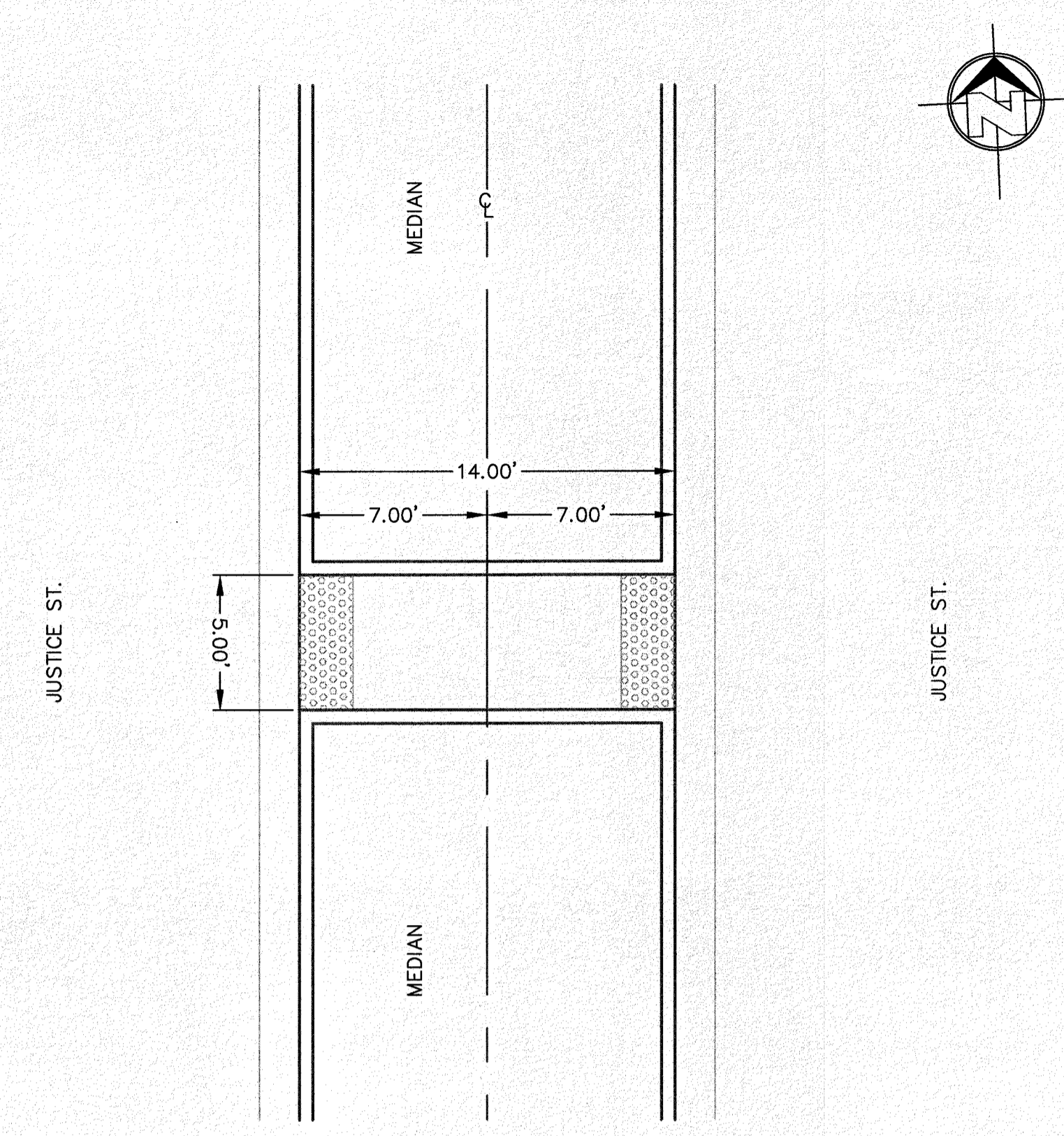
Final Approval



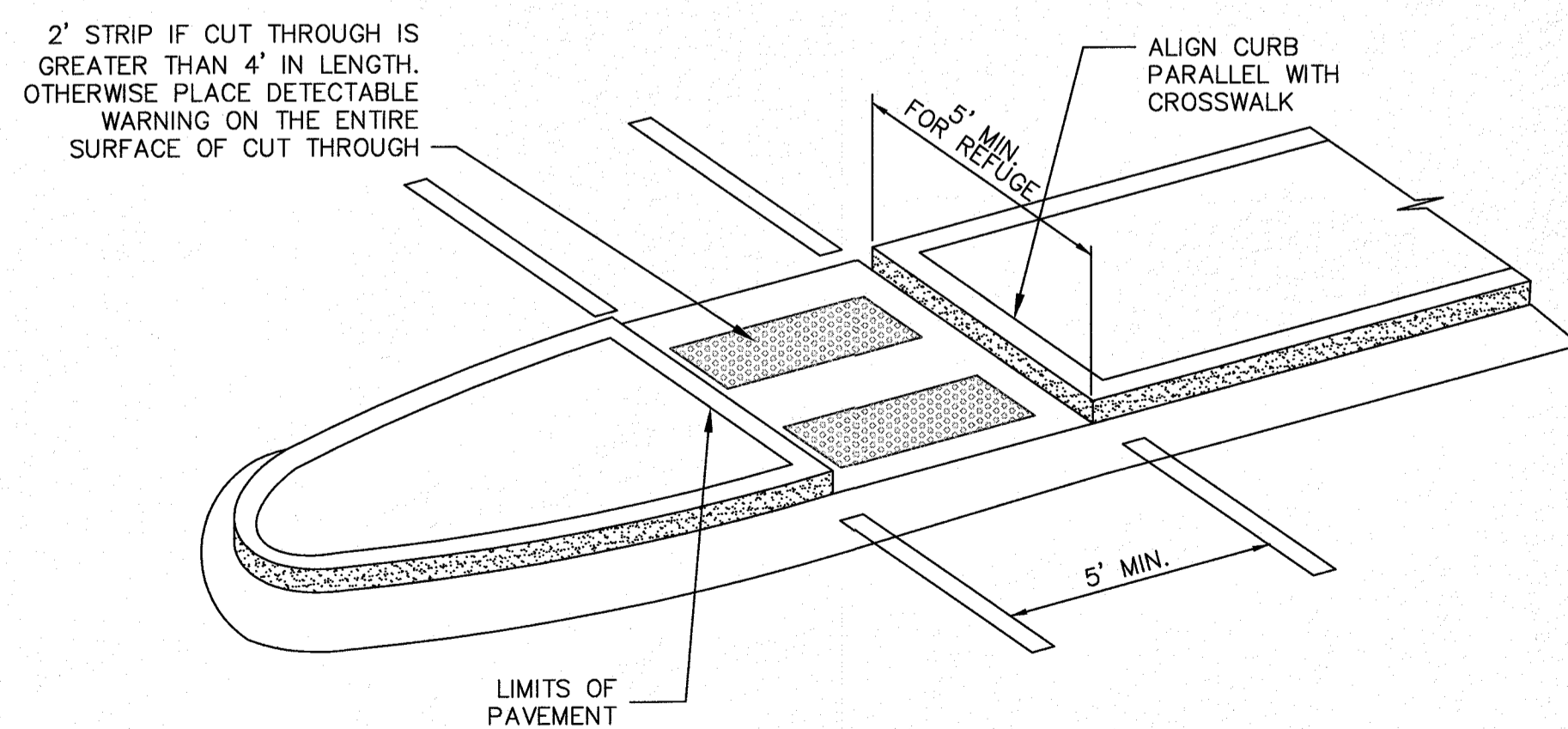
1 TYP. RAMP LAYOUT (WHERE INDICATED)  
C-03.38 SCALE: 1"=20'



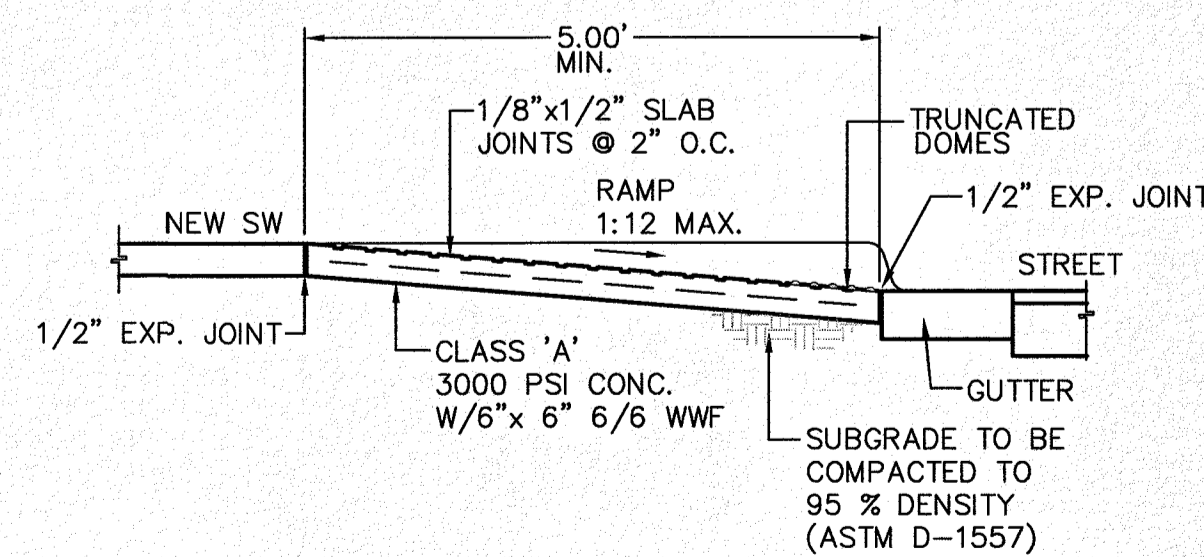
2 TYP. RAMP LAYOUT "T" INTERSECTION (WHERE INDICATED)  
C-03.38 SCALE: 1"=20'



TYP. MEDIAN OPENING  
SCALE: 1"=5'



CURB RAMPS AT MEDIAN ISLANDS



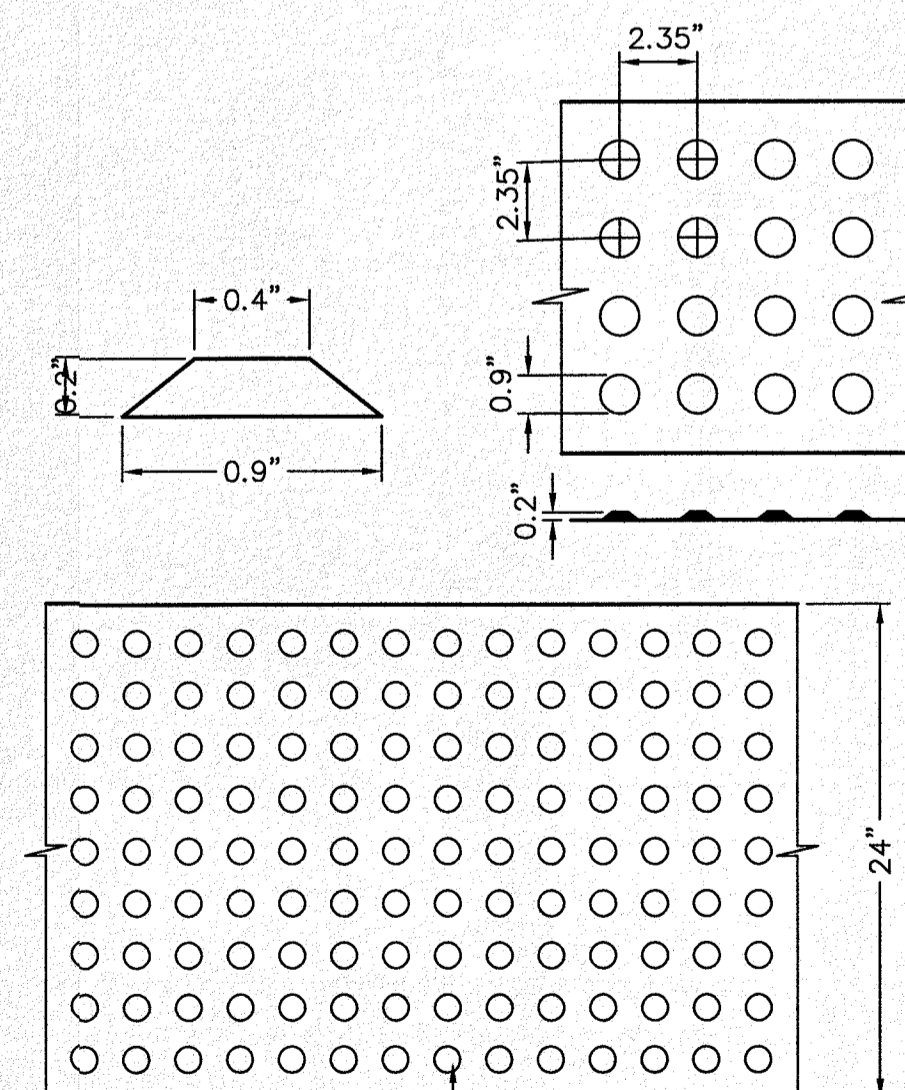
RAMP SECTION  
SCALE: 1"=2'

**NOTES:**

DOMES SIZE AND SPACING. TRUNCATED DOMES SHALL HAVE A DIAMETER OF NOMINAL 0.9 INCHES (23 mm) AT THE BOTTOM, A DIAMETER OF 0.4 INCHES (10 mm) AT THE TOP, A HEIGHT OF NOMINAL 0.2 INCHES (5 mm), AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES (60 mm) MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT.

DOMES ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES. DETECTABLE WARNING SURFACES SHALL EXTEND 24 INCHES (610 mm) MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION.

CONTRAST. THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE, OR THE DETECTABLE WARNING SHALL BE "RED BRICK" COLOR, UNLESS OTHERWISE DIRECTED BY THE OWNER. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE. CONTRAST SHALL BE PROVIDED BY PLACING AND MIXING TINT IN THE PLASTIC CONCRETE USED FOR THE DETECTABLE WARNING SURFACE. NO PAINTING OF SURFACE SHALL BE PERMITTED.



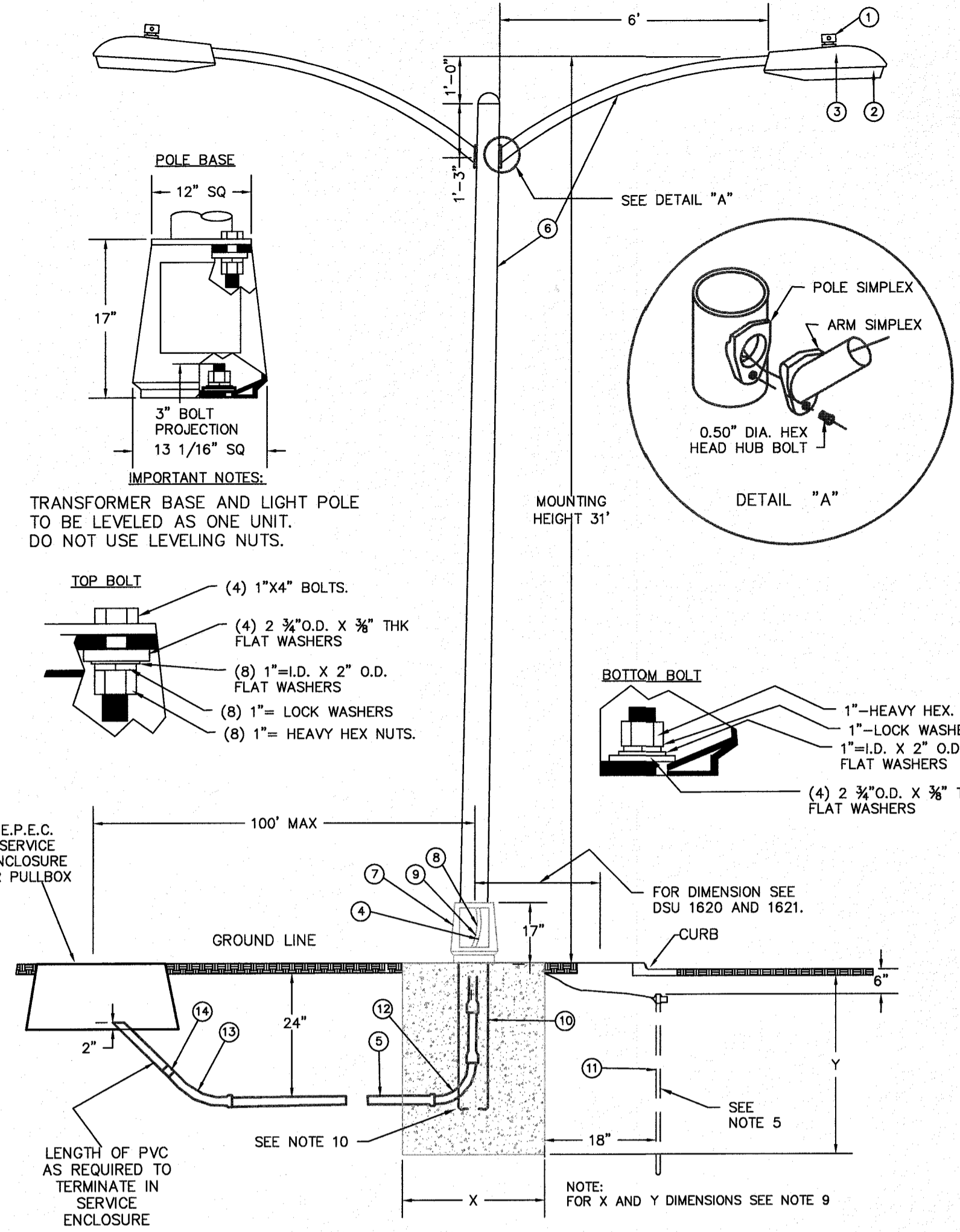
TRUNCATED DOME TILES. ADA CERTIFIED "ARMOR-TILE" TACTILE SYSTEMS OR APPROVED EQUAL



TRUNCATED DOME NOTES AND DETAILS(TYP.)  
N.T.S

REVISION DESCRIPTION	DATE	NO.	BENCHMARK
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, RANGE 10E, MERIDIAN 10W, COUNTY OF EL PASO, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)			
SCALE: AS INDICATED	JOB NO.: 09-16-3811	DESIGN BY: J/ET	CHECKED BY: GH/VE
DATE: OCTOBER 2018	Copyright 2018 SLI Engineering, Inc. These plans are being provided solely for the use of RICHARD ADRIAN and no license has been granted for their reproduction. These plans are the property of SLI Engineering, Inc. and may not be reproduced without prior permission by the owner.		
PROJECT NAME	DESERT SANDS		
	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, RANGE 10E, MERIDIAN 10W, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS		
	JUSTICE STREET EL PASO, TEXAS		
CIVIL ENGINEERS AND SURVEYORS LICENSE NO. 9218	SLI ENGINEERING, INC.		
LICENSE No. F-1902	OCTOBER 24, 2018		
SHEET TITLE			
TYPICAL RAMP DETAILS			
C-03.38			



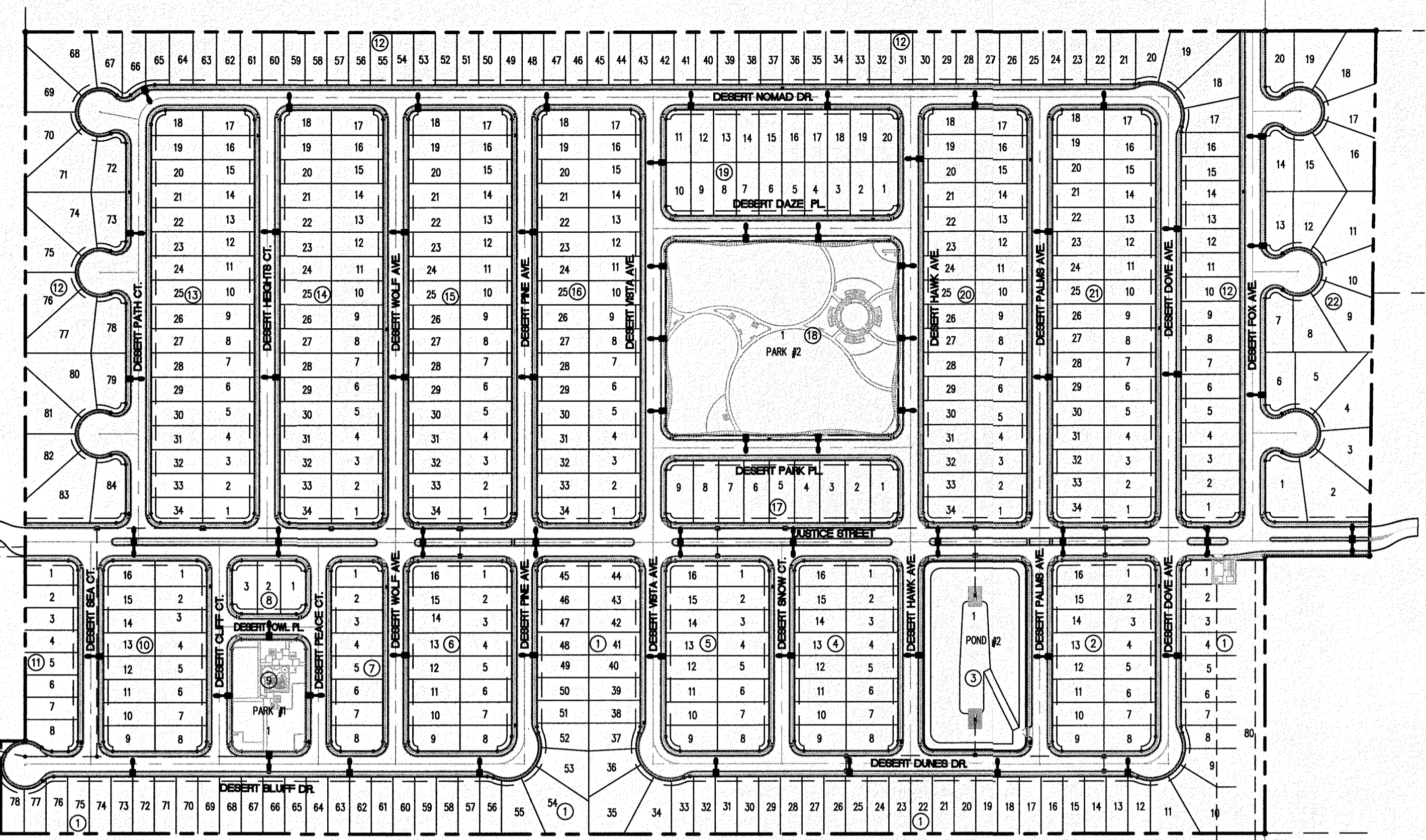
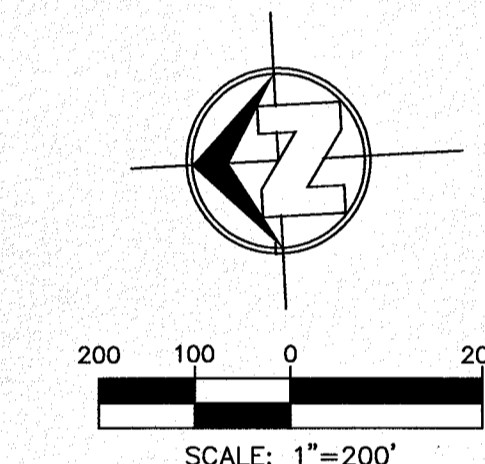


ITEM No.	DESCRIPTION	STOCK/DSU No.	QTY.	C/U CODE	FEATURE
1	PHOTO CELL, 240 V - SEE NOTE 1	21-225	2	LCOBRAHD	STL31FTSTEELDBL_BASE
2	HPS LAMP, 100W	21-085	2		
3	LUMINAIRE, 100W H.P.S.	21-335	2		
4	CABLE #2 CU SOLID, 600V, RED	13-702	80'	LC#12CU	
5	1" PVC CONDUIT	17-299	AS-REQ	DPVCI	
6	STEEL POLE 31" STREET LIGHT	09-301	1	LTBASE13	
7	ALUMINIUM TRANSFORMER BASE	21-608	1	LTBASE	
8	BREAKAWAY FUSES 30 AMP	21-250	4	LBRKFUSE	
9	CURRENT LIMITING FUSE	21-240	4	LFUSE10A	
10	ANCHOR BOLT 1" X 36"	21-630	4		
11	5/8" X 10" CU BONDED GROUND ROD	08-626	1	PGRNDSTL	
12	#4 BARE COPPER WELD	12-106	6'		
13	1" PVC 90 DEGREE BELOW	17-297	1	DEL901	
14	1" PVC 45 DEGREE BELOW	17-298	1	DEL451	
15	1" PVC COUPLING	17-296	1	DCPLG1	

NOTES:

- 1 MOUNT SO THAT PHOTO CELL IS FACING NORTH.
- 2 INSTALLATION MUST COMPLY WITH LOCAL CODE REQUIREMENTS.
- 3 STEEL POLE TO HAVE A BREAKAWAY BASE AS REQUIRED BY THE CITY OF EL PASO.
- 4 POLE SHALL BE GROUNDED AS REQUIRED BY N.E.C. LATEST EDITION.
- 5 A GROUND ROD MUST BE USED.
- 6 LOCK WASHERS MUST BE INCLUDED ON ALL ANCHOR BOLTS.
- 7 FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING THIS STANDARD, CALL THE EL PASO ELECTRIC COMPANY DISTRIBUTION DESIGN DEPARTMENT.
- 8 CONCRETE FOUNDATION DIMENSIONS ARE AS FOLLOWS:  
DIAMETER: (X) (Y)  
DEPTH: (X) (Y)
- 9 CONCRETE FOR FOUNDATION SHALL BE 3000 PSI, 3/4" ROCK AGGREGATE AND HAVE A 5" SLUMP.
- 10 4-ANCHOR BOLTS WITH 4" HOOKS, THREAD END GALVANIZED #1 DIA. X 36" LONG. EACH BOLT FURNISHED WITH 2 HEX NUTS AND 2 FLAT WASHERS ARE SUPPLIED WITH THE STEEL POLE.
- 11 ON STREETS WHERE SIDEWALK IS ADJACENT TO CURB, STREET LIGHT POLE SHALL BE INSTALLED IN THE SIDEWALK NEXT TO PROPERTY LINE, 36 INCHES REQUIRED FROM BACK OF CURB TO COMPLY WITH AMERICAN DISABILITY'S ACT AND LOCAL CODES.

**RESIDENTIAL STREET LIGHT DUEL MAST ARM STEEL POLE (JUSTICE ST. ONLY)**  
N.T.S.



NOTES:

1. ALL ILLUMINATION POLE LOCATIONS TO BE FIELD VERIFIED.
2. CONTRACTOR TO COORDINATE WITH EL PASO ELECTRIC CO. FOR DESIGN AND ILLUMINATION INSTALLATION.
3. ALL ROADWAYS INTERSECTING EXISTING PUBLIC ROADWAYS SHALL REMAIN COMPLETELY CLOSED FOR PUBLIC USE UNTIL ACCEPTED FOR MAINTENANCE BY THE CITY.

NOTE PERTAINING TO PARK SITES

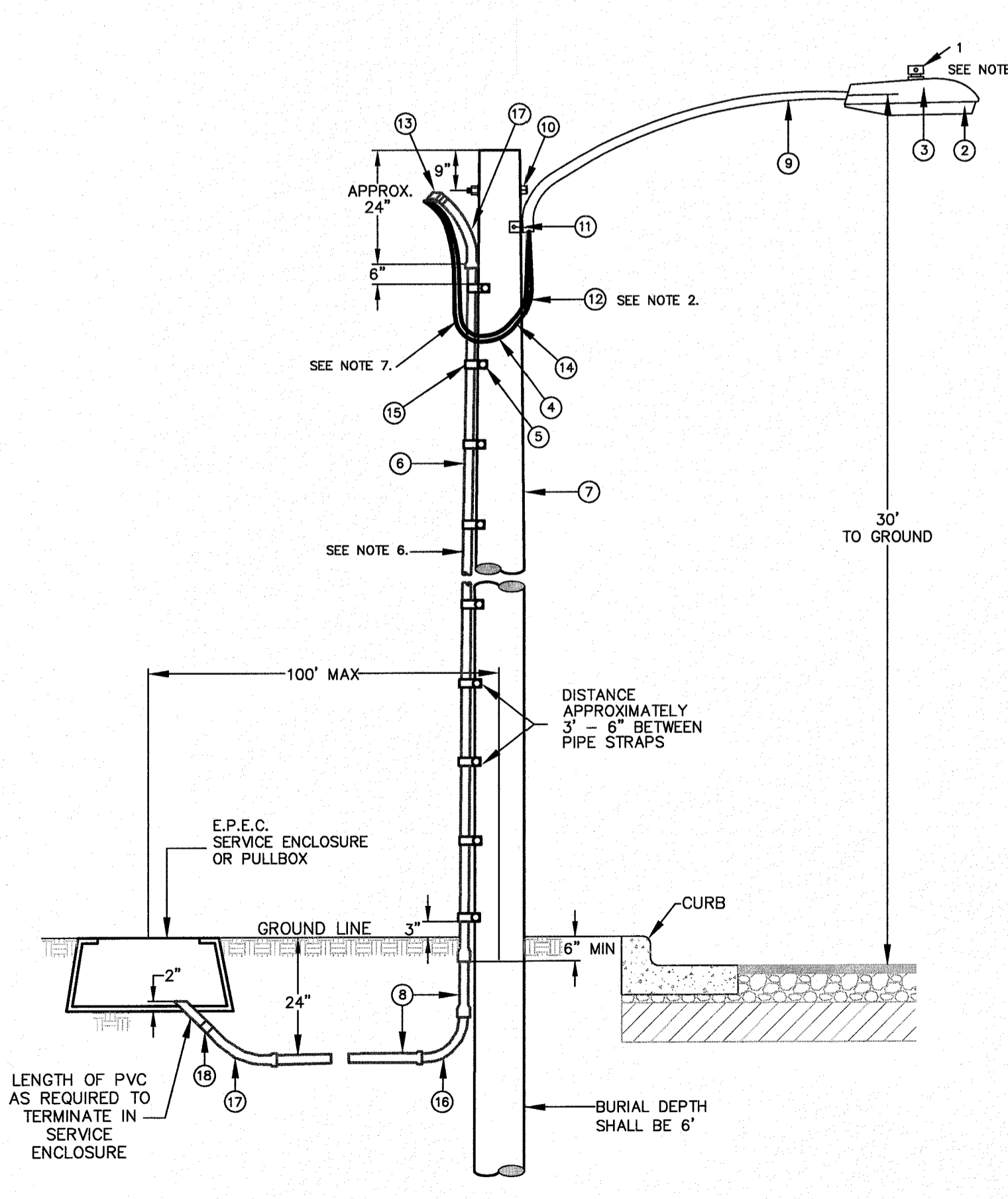
1. UTILITY EASEMENTS SHALL NOT BE PLD WITHIN PARK.
2. ANY UTILITIES SHALL BE A MIN. FIVE (5') FEET DEEP ADJACENT TO PARK.
3. UTILITIES SHALL BE PLD UNDERNEATH 7' WIDE SIDEWALK TO AVOID FUTURE CONFLICT WITH THE PROPOSED STREET, TREE LINE OR DAMAGE TO THE UTILITIES.
4. NO TRANSFORMERS, PEDESTAL OR JUNCTION BOXES SHALL BE INSTALLED WITHIN PARK.

STREET TYPE	REQUIRED SPACING	POLE TYPE	LAMP TYPE	HEIGHT
LOCAL STREETS	AT INTERVALS OF NOT MORE THAN THREE HUNDRED FEET (300')	WOOD	100 WATT HIGH PRESSURE SODIUM	30 FEET
COLLECTOR ARTERIALS	AT INTERVALS OF NOT MORE THAN THREE HUNDRED FEET (300')	WOOD	100 WATT HIGH PRESSURE SODIUM	30 FEET
PARK AREAS	AT INTERVALS OF NOT MORE THAN ONE HUNDRED FIFTY FEET (150')	METAL	65 WATT L.E.D.	30 FEET

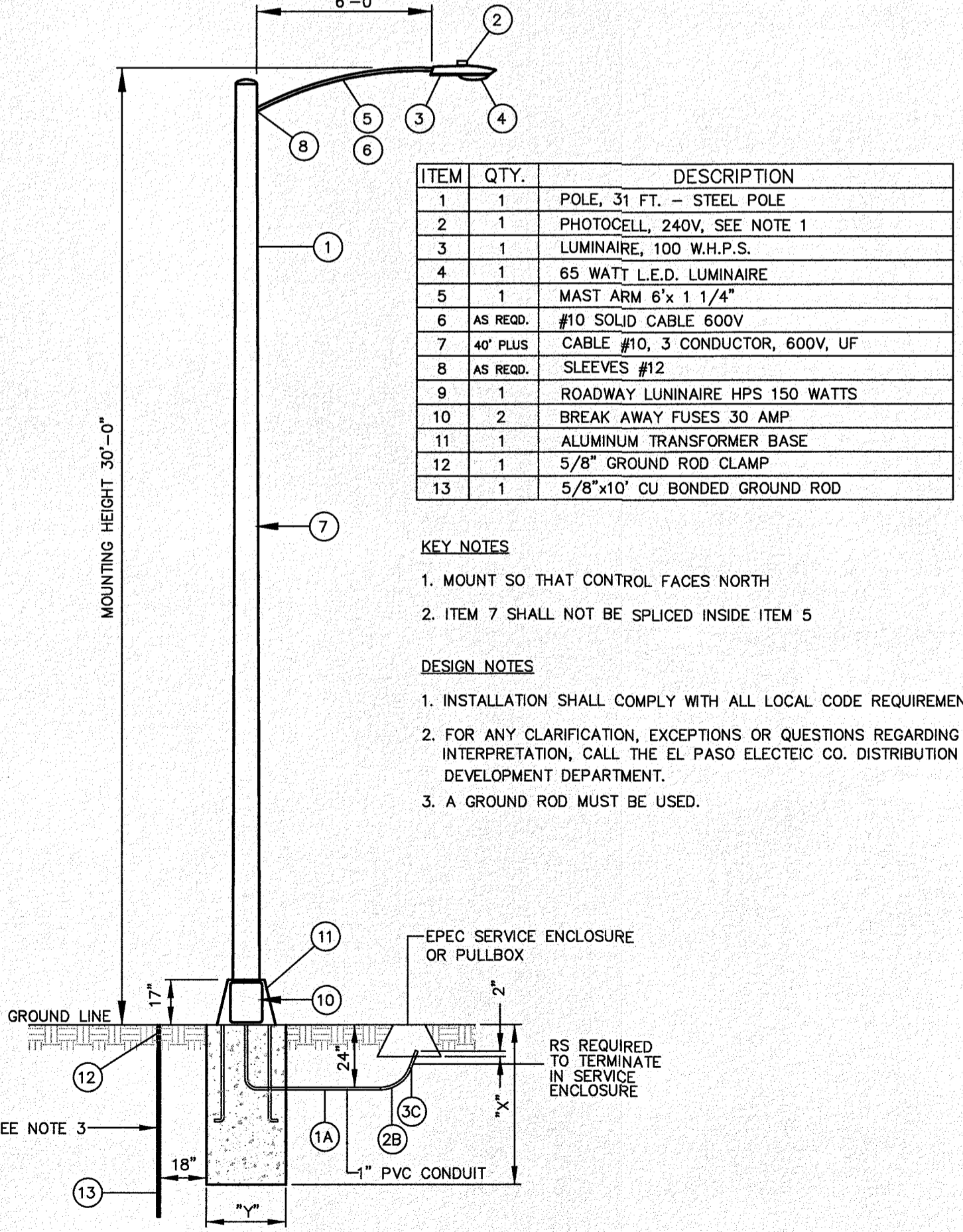
ITEM	DESCRIPTION	STOCK/DSU	QTY.	C/U CODE	FEATURE
1	PHOTO CELL, 240 V - SEE NOTE 1	21-225	1	LCOBRAHD	LCOBRAUG
2	HPS LAMP, 100W	21-085	1		
3	LUMINAIRE, 100W H.P.S.	21-335	1		
4	COPPER CABLE, #12, SOLID, 600V, BLUE	13-702	60'	LC#12CU	
5	NAIL, STAINLESS STEEL SCREW 2.5 IN.	14-427	.25#	LNAL14#2	
6	SCHEDULE 80 1" PVC CONDUIT	17-280	30'	DSCH801	
7	POLE, 35 FT. - CLASS 4	09-035	1	P354	
8	1" PVC CONDUIT	17-299	AS-REQ	DPVCI	
9	MAST ARM, 6' X 1 1/4"	21-200	1	LBRKT1#6	
10	MACHINE BOLT, 5/8" X 12"	02-470	1	PMBS/612	
11	SQUARE GALV. WASHER, 2 1/4" X 2 1/4"	02-760	1	DCOIL58	
12	COIL SPRING, WASHER, 5/8"	02-786	1	PNUTLUCK58	
13	LOCK NUT, 5/8"	02-705	1		
14	LAG BOLT, 3/8" X 3"	02-343	2		
15	CABLE, #10, 2 CONDUCTOR, 600V, UF	13-600	8'	L2C#10S	
16	SERVICE ENTRANCE CAP FOR 1" PVC CONDUIT	17-281	1	LSVCCAP1	
17	SLEEVES, #12-10	05-140	2	ESLV1210	
18	PIPE STRAP FOR 1" CONDUIT, 2-HOLE	17-283	2	LPVCS1RP	
19	1" PVC 90 DEGREE BELOW	17-297	1	DEL901	
20	1" PVC 45 DEGREE BELOW	17-298	2	DEL451	
21	1" PVC COUPLING	17-296	1	DCPLG1	

NOTES:

1. MOUNT SO THAT PHOTO CELL IS FACING NORTH.
2. ITEM #12 SHALL NOT BE SPLICED INSIDE ITEM #10.
3. INSTALLATION MUST COMPLY WITH LOCAL CODE REQUIREMENTS.
4. FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING THIS STANDARD, CALL THE EL PASO ELECTRIC COMPANY DISTRIBUTION DESIGN DEPARTMENT.
5. THE CONDUIT RISER SHALL BE INSTALLED ON THE BACK OF THE WOOD POLE (AWAY FROM THE STREET).
6. THE WIRE LEADS FROM THE WEATHER HEAD TO THE MAST ARM SHALL HAVE A MINIMUM 4" DRIP LOOP BELOW THE WEATHER HEAD.



**RESIDENTIAL STREET LIGHT WOOD POLE ASSEMBLY**  
N.T.S.



**RESIDENTIAL STREET LIGHT STEEL POLE (PARK AREAS ONLY)**  
N.T.S.

PROJECT NAME: DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYSELEVATION: 3539.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/ET  
CHECKED BY: GH/VE  
DATE: OCTOBER 2018

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
ELEVATION: 3539.38 (NAVD88 DATUM)

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EL PASO, TEXAS

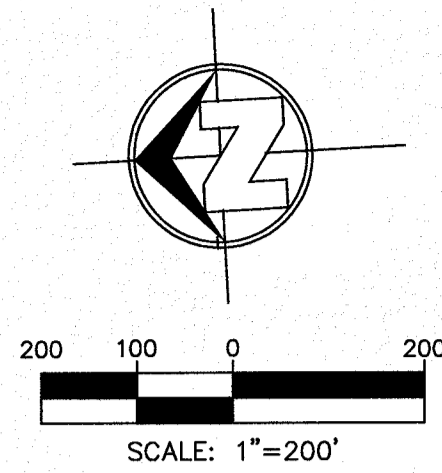
JUSTICE STREET

SLI ENGINEERING, INC.  
LICENSE No. F-1902

OCTOBER 24, 2018  
SHEET TITLE

ILLUMINATION PLAN

C-03.39

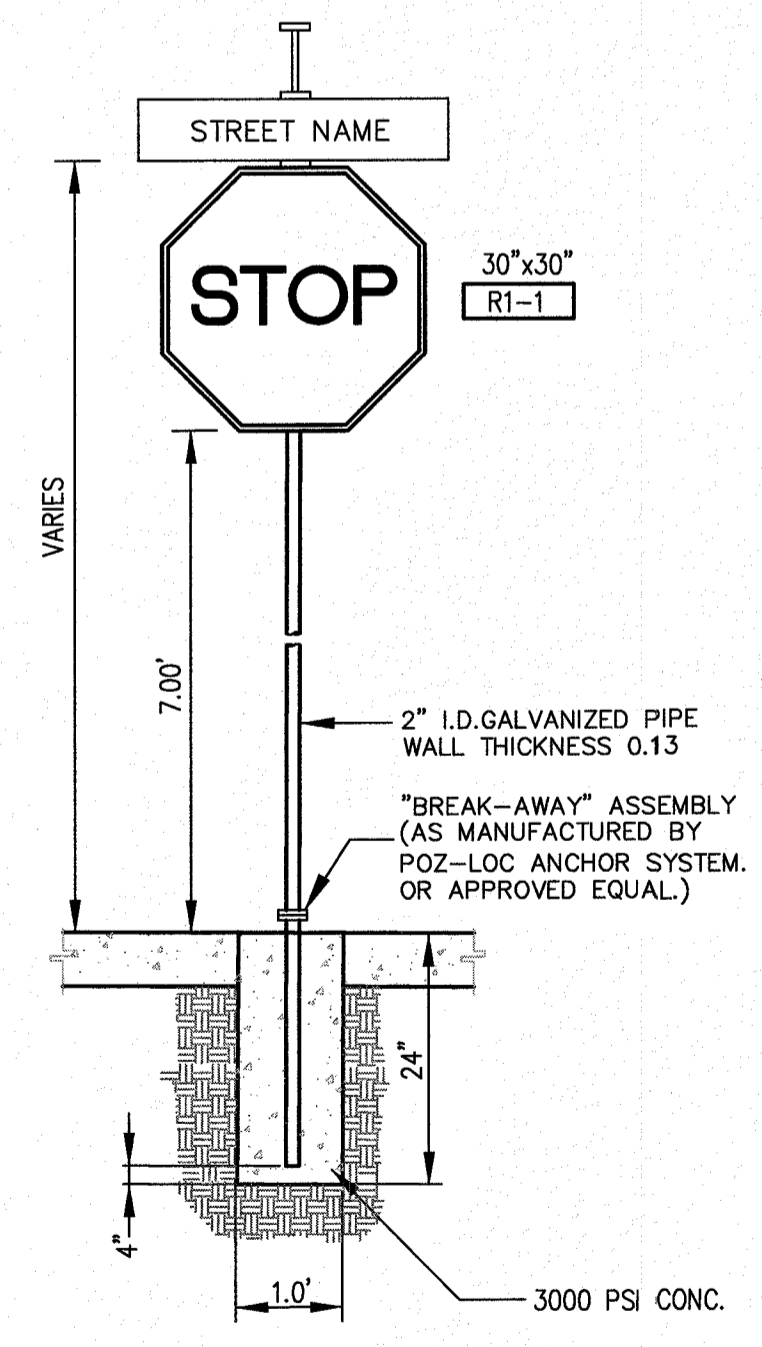
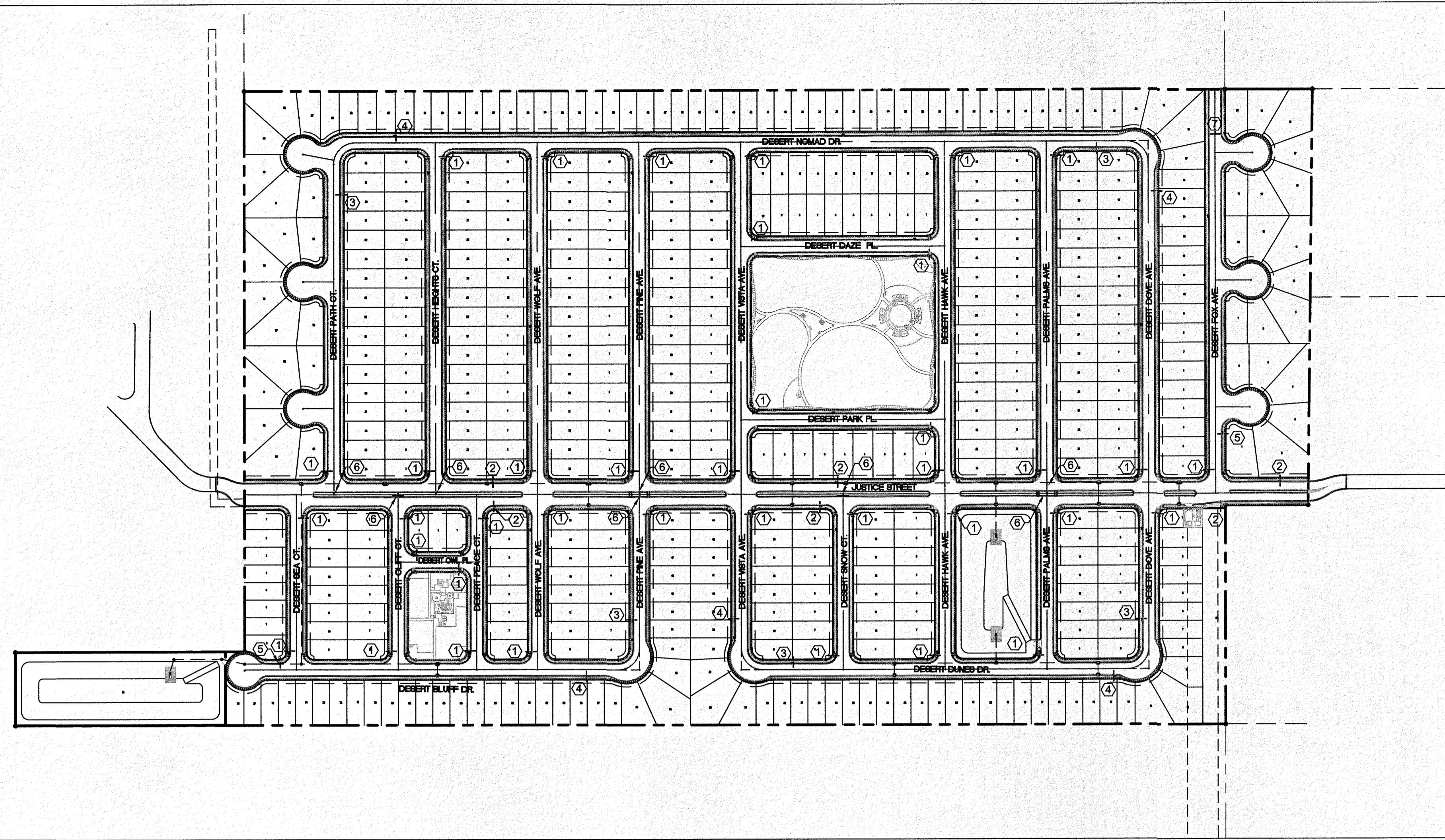


**LEGEND**

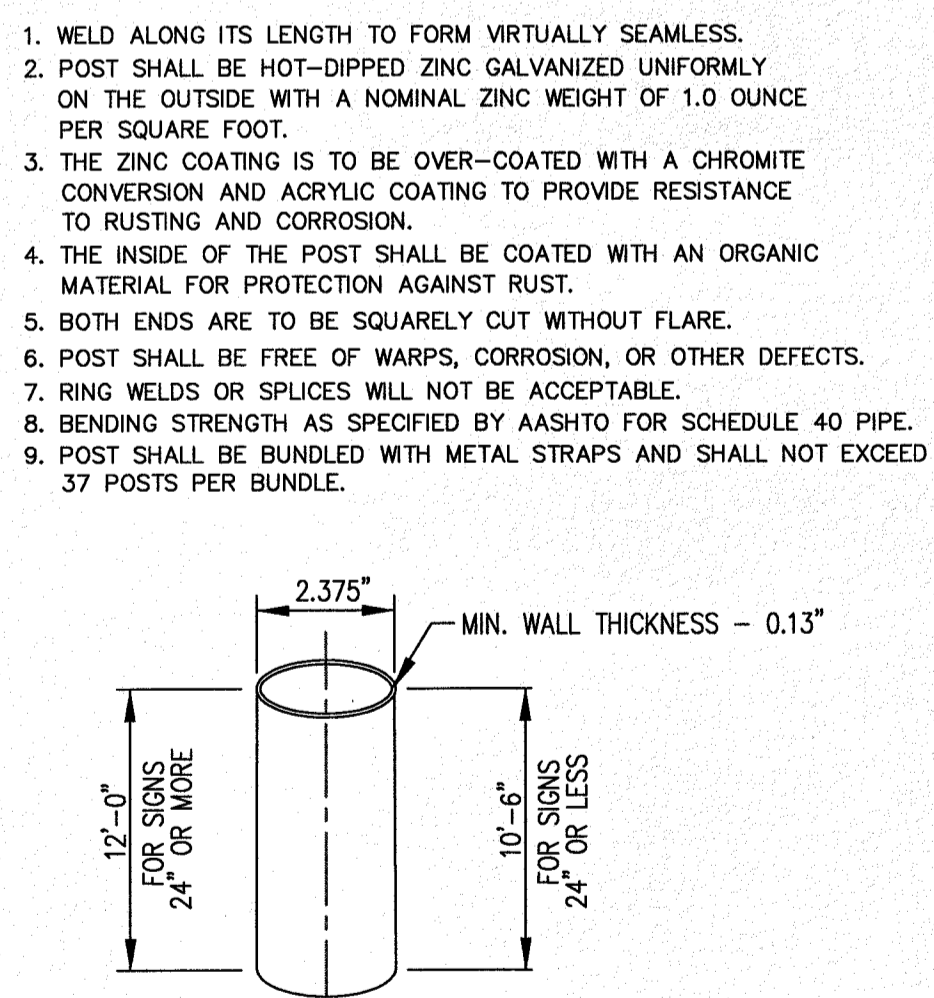
- PROPOSED W1-1 SIGNS
- PROPOSED R1-1 SIGNS
- PROPOSED 4" DOUBLE YELLOW STRIPES
- PROPOSED W1-1 SIGNS (RIGHT OR LEFT)
- PROPOSED R1-1 SIGNS
- PROP. SIDEWALK

**NOTES:**

- ALL SIGNS POLE LOCATIONS TO BE FIELD VERIFIED.
- ALL ROADWAYS INTERSECTING EXISTING PUBLIC ROADWAYS SHALL REMAIN COMPLETELY CLOSED FOR PUBLIC USE UNTIL ACCEPTED FOR MAINTENANCE BY THE CITY.
- SIGNAGE SHOWN IN THE LAYOUT TO BE FURNISHED BY THE CONTRACTOR AND INCLUDED IN THE BID PRICE.



**TYPICAL STREET SIGN AND STOP SIGN PLACEMENT**  
N.T.S.



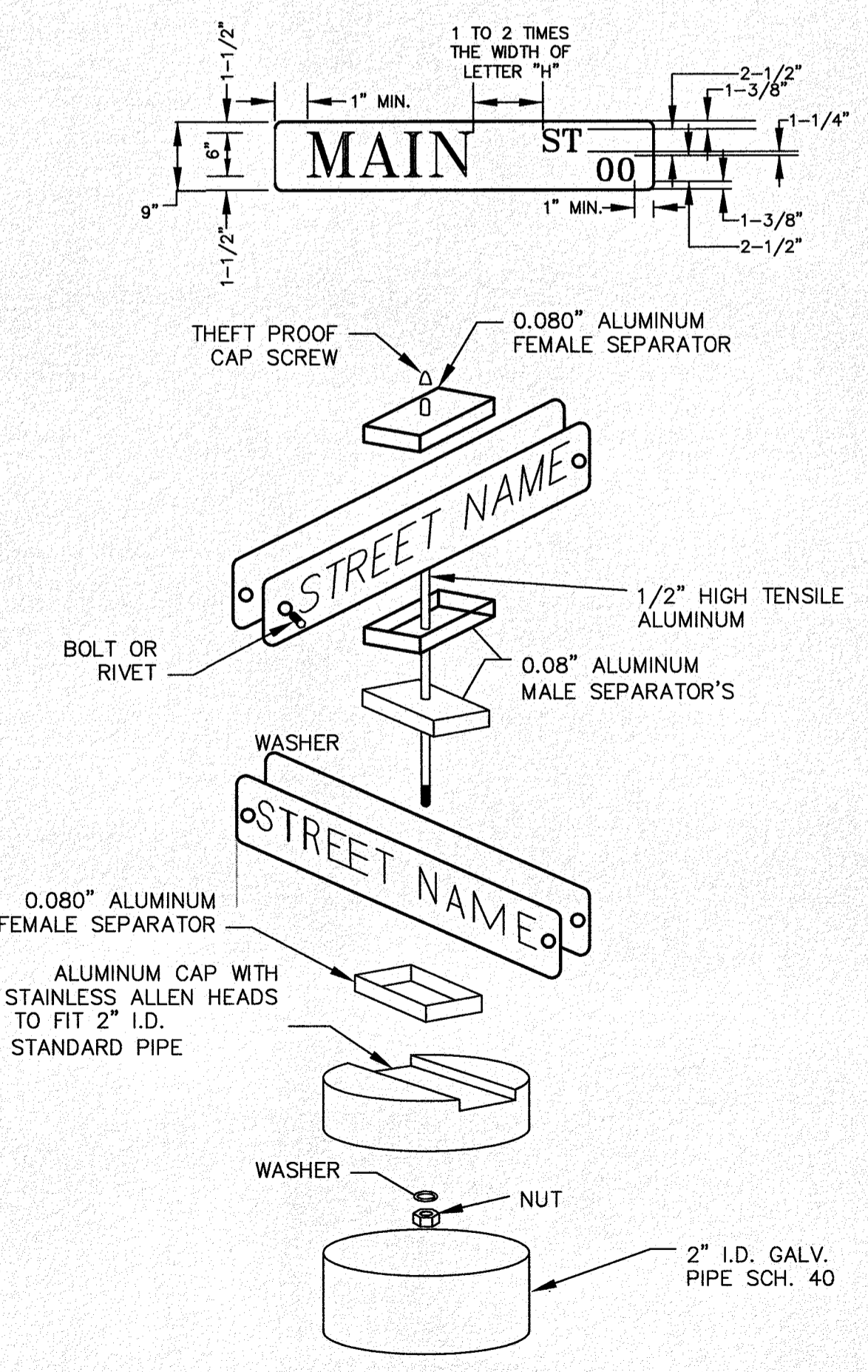
**SIGN POST SPECIFICATIONS**

**SPECIFICATIONS FOR REFLECTORIZED STREET NAME SIGNS**

- Color of Signs: The finished sign must have a reflectORIZED blue background and must be of high intensity reflective sheeting and must be of the "break-away" type. The legend must be reflectORIZED silver white (blue reverse screened background with silver copy).
- Letter Design: The lettering of all legends must be upper case letters in accordance with "standard alphabets for highway signs" published by the federal highway administration.
- Letter Spacing: The control for the spacing values in traffic layout is the distance recognized as aesthetic spacing between two straight letters (H-N). A spacing control of two times the width of the stroke of the letter series to be used must be the aesthetic control (100%). Two and one-half times (2-1/2) this control must be used as the aesthetic word space between elements in the primary legend.
- Layout: The maximum number of letters to be accommodated on a given length street name face must be determined by the widest letter series possible for that legend and the spacing control (100%) for the series used must be expanded or condensed up to 25% in 5% increments.
- The spacing control (100%) for the series used must be expanded or condensed up to 25% in 5% increments for the end margin with minimum of 1".
- The word space must be expanded up to 25% in 5% increments but not condensed.
- Space between primary and block number area must be 1/2 the aesthetic work space used in the primary legend.
- Size of Legend: For 9" street name signs the primary legend, or street name must have capital letters four inches (4") high and all secondary legends, including the suffix, and clock numbers must have upper case letters two inches (2") high.
- Suffix letter size for all lengths must be 2" capitals, C series, except that series A or B where suffix abbreviation exceeds two letters, may be used.
- Size of Legend: For 9" street name signs, the primary legend, or street name must have capital letters six inches (6") high and all secondary legends, including the suffix, block numbers, must have upper case letters two and a half inches (2 1/2") high.
- Suffix letter size for all lengths must be 2 1/2" capitals, C series, except that series A or B where suffix abbreviation exceeds two letters, may be used.
- Position of Legend: Each sign face will consist of the street name, suffix and two zeros of the block number. The additional numbers of the block number will be applied by the city of El Paso. The suffix will be located in the upper right corner and the block number in the lower right corner of the sign face and the street name centered in the remaining space.
- Sign Fabrication: The sign face must be fabricated by reverse screening green transparent color over silver reflective sheeting. Transparent process colors must be as recommended but the sheeting manufacturer. Cut-out or applied legends are not permitted. Sign faces must be comprised of one piece or panel of reflective sheeting.
- Type of Sheeting: Engineer grade reflective sheeting must be used in the fabrication of the street name sign faces.

SIGN CLASS	SIGN LENGTH	PRIMARY LETTERS SIZE & SERIES	SUFFIX & BLOCK NUMBER SIZE AND SERIES
6"	24"	4" B,C,D, SERIES	2" C SERIES
LOCAL	30"	4" B,C,D, SERIES	2" C SERIES
STREETS	36"	4" A,B,C,D, SERIES	2" C SERIES

**9" STREET NAME SIGN ASSEMBLY**  
NTS

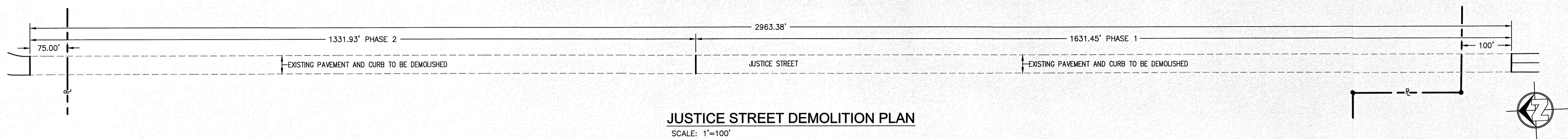


**STREET NAME SIGN ASSEMBLY**  
NTS

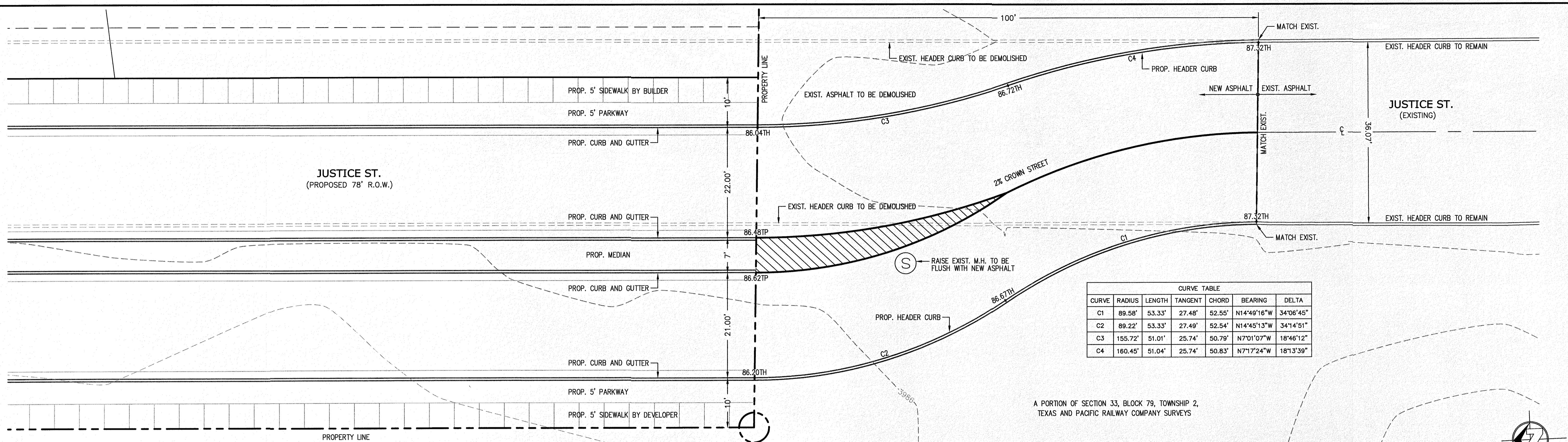
- SIGN KEY NOTES:**
- R1-1: 30"x30" STOP SIGN MOUNTED ON STREET SIGN ASSEMBLY.
  - R2-1: 24"x30" SPEED LIMIT SIGN
  - W1-1R: 30"x30" CURVE SIGN
  - W1-1L: 30"x30" CURVE SIGN
  - W14-2: 30"x30" NO OUTLET SIGN
  - R6-1: 36"x12" ONE WAY SIGN
  - DEAD END GUARDRAIL ASSEMBLY. SEE SHEET C-03.37 FOR DETAILS



<b>PROJECT NAME</b>	DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	<b>BENCHMARK</b>	SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS. ELEVATION: 3539.38 (NAVD88 DATUM)
<b>SCALE:</b>	AS INDICATED	<b>DATE</b>	
<b>JOB NO.:</b>	09-16-3811	<b>DESIGN BY:</b>	J/J/T
<b>CHECKED BY:</b>	GH/FE	<b>DATE</b>	OCTOBER 2018
Copyright 2018, SLI Engineering, Inc. These plans are being provided solely for the use of RICARDO AGUILAR and no license has been granted to any other person. The user of these plans assumes all responsibility for their use. No warranty is made by SLI Engineering, Inc. and no liability shall be assumed by the user.			
<b>REVISION DESCRIPTION</b>		<b>NO.</b>	
<b>EL PASO, TEXAS</b>	<b>JUSTICE STREET</b>		
<b>SLI ENGINEERING, INC.</b>			
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS 6909 W. HAVEN EL PASO, TEXAS 79912 TEL: (915) 381-4487			
LICENSE No. F-1902			
OCTOBER 24, 2018			
SHEET TITLE			
<b>SIGNAGE PLAN</b>			
<b>C-03.40</b>			



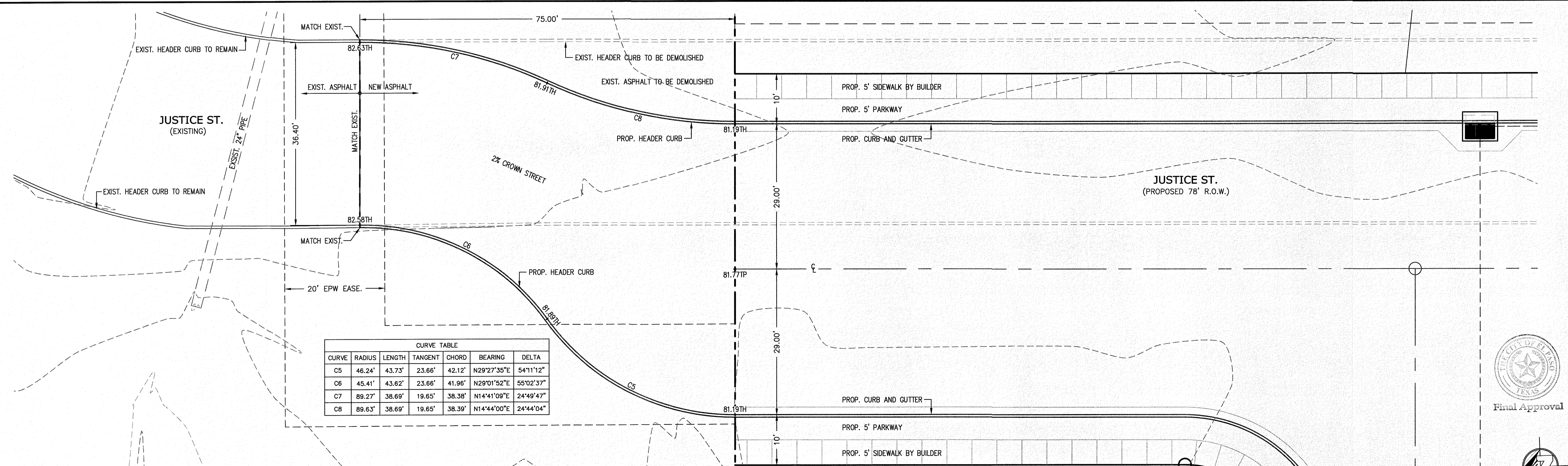
**JUSTICE STREET DEMOLITION PLAN**  
SCALE: 1"=100'



**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	89.58'	53.33'	27.48'	52.55'	N14°49'16"W	34°06'45"
C2	89.22'	53.33'	27.49'	52.54'	N14°45'13"W	34°14'51"
C3	155.72'	51.01'	25.74'	50.79'	N7°01'07"W	18°46'12"
C4	160.45'	51.04'	25.74'	50.83'	N7°17'24"W	18°13'39"

**JUSTICE STREET SUBDIVISION ENTRANCE TRANSITION**  
SCALE: 1"=10'



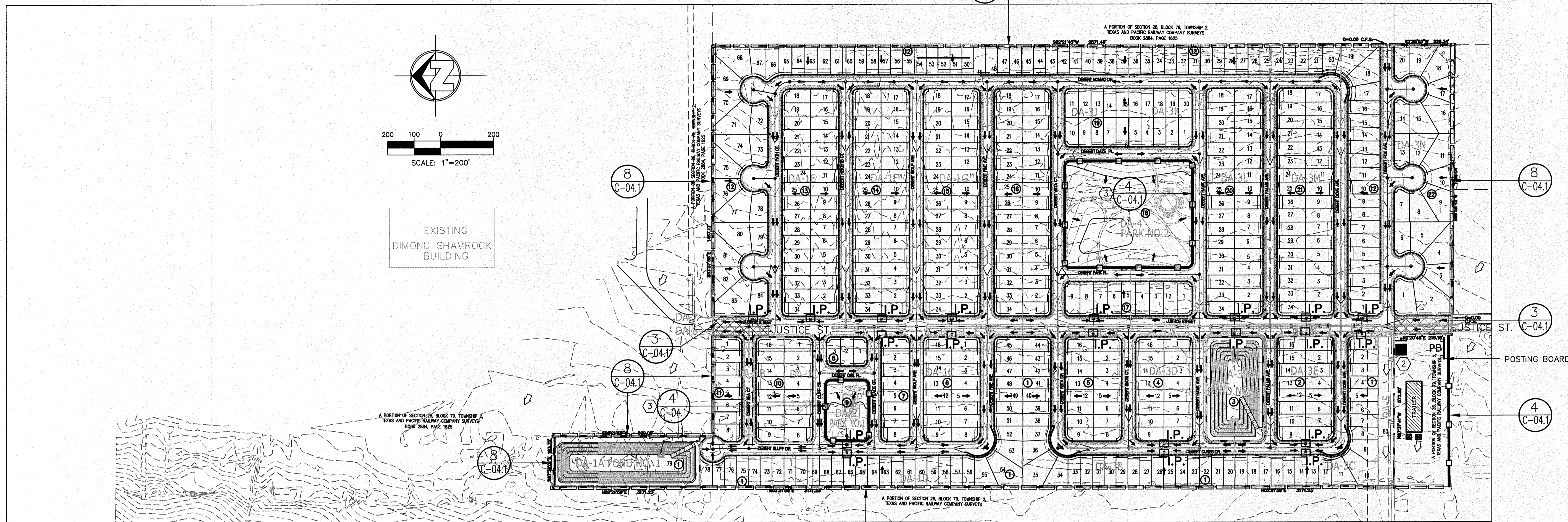
**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C5	46.24'	43.73'	23.66'	42.12'	N29°27'35"E	54°11'12"
C6	45.41'	43.62'	23.66'	41.96'	N29°01'52"E	55°02'37"
C7	89.27'	38.69'	19.65'	38.38'	N14°41'09"E	24°49'47"
C8	89.63'	38.69'	19.65'	38.39'	N14°44'00"E	24°44'04"

**JUSTICE STREET SUBDIVISION EXIT TRANSITION**  
SCALE: 1"=10'

REVISION DESCRIPTION	DATE	NO.	BENCHMARK
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3839.38 (NAVD88 DATUM)			
SCALE: AS INDICATED	JOB NO.: 09-1E-3811	DESIGN BY: J/JT	CHECKED BY: GH/FE
		DATE: OCTOBER 2018	
PROJECT NAME	DESERT SANDS		
	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS		
	EL PASO, TEXAS		
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS 6905 W. WYATT EL PASO, TEXAS 79905 (915) 944-4467			
LICENSE No. F-1902			
OCTOBER 24, 2018			
SHEET TITLE			
JUSTICE ST. DEMOLITION AND STREET TRANSITION PLAN			
C-03.41			

Final Approval



DRAINAGE CALCULATIONS BASED ON A 100 YR. STORM FREQUENCY FOR ESTIMATING RUNOFF FORMULA Q=CIA

POND No.	DRAINAGE AREA	AREA (ACRES)	TC (MIN)	I (IN/HR)	C* (AVG)	Q (CFS)	
No. 1	DA-1A(POND)	02.46	10.00	05.36	00.40	05.27	
	DA-1B	04.24	12.00	05.01	00.60	12.74	
	DA-1C	07.09	12.00	05.01	00.60	21.31	
	DA-1D	04.07	12.00	05.01	00.60	12.23	
	DA-1E	12.13	12.00	05.01	00.60	36.46	
	DA-1F	06.48	12.00	05.01	00.60	19.48	
	DA-1G	09.72	12.00	05.01	00.60	29.22	
	DA-1H	00.16	10.00	05.36	00.60	00.51	
	TOTAL CONTRIBUTING TO POND No. 1 = 46.35 ACRES						
	No. 2	ON-SITE DA-2 (PARK)	00.81	10.00	05.36	00.40	01.74
DA-3A(POND)		01.93	10.00	05.36	00.60	06.21	
DA-3B		04.10	12.00	05.01	00.60	12.32	
DA-3C		03.21	12.00	05.01	00.60	09.65	
DA-3D		05.79	12.00	05.01	00.60	17.40	
DA-3E		02.99	12.00	05.01	00.60	08.99	
DA-3F		00.16	10.00	05.36	00.60	00.51	
DA-3G		00.16	10.00	05.36	00.60	00.51	
DA-3H		00.16	10.00	05.36	00.60	00.51	
DA-3I		00.30	10.00	05.36	00.60	00.96	
No. 3	DA-3J	07.54	12.00	05.01	00.60	22.66	
	DA-3K	04.51	12.00	05.01	00.60	13.56	
	DA-3L	06.48	12.00	05.01	00.60	19.48	
	DA-3M	06.48	12.00	05.01	00.60	19.48	
	DA-3N	10.28	12.00	05.01	00.60	30.90	
	TOTAL CONTRIBUTING TO POND No. 2 = 54.09 ACRES						
	ON-SITE DA-4 (PARK)	04.44	10.00	05.36	00.40	09.52	
OFF-SITE DA-5	00.78	10.00	05.36	00.40	01.67		
OFF-SITE DA-6	00.05	10.00	05.36	00.95	00.25		
OFF-SITE DA-7	00.05	10.00	05.36	00.95	00.25		

GRADING AND STABILIZATION NOTE

1. FINAL STABILIZATION FOR THIS SUBDIVISION WILL BE CONSTRUCTED WITH ROAD AND HOMES OR LOTS FOR EACH PHASE.

PONDING DATA

FORMULA =  $Q_t = \text{ARC}/12 + (A \times 0.012)$  100 YRS. STORM FREQUENCY

POND DESIGNATION	"W" (AREA IN AC.)	"R"	C*	REQUIRED VOLUME (AC-FT) W/OUT SILT	REQUIRED VOLUME (AC-FT) W/ SILT	HIGH WATER ELEV.	AVAILABLE STORAGE (AC-FT)	POND INV. ELEV.	POND TOP ELEV.	FREEBOARD
POND NO. 1	46.35	4"/3 HRS.	0.59	09.11	09.67	3971.40	17.27	3961.50	3976.50	05.10'
POND NO. 2	54.09	4"/3 HRS.	0.59	10.64	11.29	3976.35	11.95	3960.00	3980.00	03.65'
PARK NO. 1	00.81	4"/3 HRS.	0.40	00.11	00.12	3977.95	00.13	3977.00	3978.00	00.05'
PARK NO. 2	04.44	4"/3 HRS.	0.40	00.59	00.64	3984.95	01.85	3984.50	3985.70	00.75'

\* WEIGHED "C" VALUES

NOTE: FOR INLETS Q EXP. AND Q CAP. SEE SHEETS C-02.06 - C-02.09

EROSION CONTROL:

- WIND EROSION CONTROL: WATERING DURING AND AFTER COMPLETION OF SITE GRADING, THE PROJECT AREA SHALL BE COMPLETELY WATERED AS NEEDED TO CONTROL WIND EROSION OR AS DIRECTED BY THE CITY ENGINEER.
- THE CONTRACTOR SHALL CLEAN UP ANY DIRT OR DEBRIS THAT IS SPILLED ON THE EXISTING PUBLIC ROADWAY AS A RESULT OF THIS CONSTRUCTION PROJECT. CLEAN UP IS TO BE DONE ON A REGULAR BASIS OR AS DIRECTED BY THE CITY ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SLOPES IN GOOD CONDITION AND PROTECTING THEM FROM EROSION UNTIL THE FINAL LANDSCAPING ELEMENTS ARE IN PLACE.

FLOOD ZONE:

THIS SUBDIVISION LIES WITHIN ZONES "X" (AREAS OF MINIMAL FLOODING) AS DESIGNATED IN PANEL NO. 480212 01758, DATED SEPTEMBER 4, 1991, OF THE UNINCORPORATED FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS AND ZONE "B" (AREAS BETWEEN LIMITS OF THE 100-YEAR FLOOD AND 500-YEAR FLOOD) AS DESIGNATED IN PANEL NO. 480214 0016C, DATED FEBRUARY 5, 1986, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS

BENCHMARK

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)

GRADING AND STABILIZATION NOTE

- FINAL STABILIZATION FOR THIS SUBDIVISION WILL BE CONSTRUCTED WITH ROAD AND HOMES OR LOTS.

**LEGEND**

- 11.20FG NEW FG ELEV. (GROUND)
- 11.20SW NEW SIDEWALK ELEV.(CONCRETE)
- 11.20P NEW FG ELEV. (PAVEMENT)
- 11.20G NEW FG ELEV. (GUTTER)
- 11.20TC NEW FG ELEV. (TOP OF CURB)
- 11.20CS NEW FG ELEV. (CONCRETE SLAB)
- 11.20LS NEW FG ELEV. (LANDSCAPE)
- 4011.2 X EXISTING GROUND (SPOT ELEV.)
- 11.00 PROPOSED FG (CONTOUR)
- FF=11.50 FINISHED BUILDING FLOOR ELEVATION
- 4011 EXISTING GROUND (CONTOUR)
- ◇ HIGH POINT
- L.O.C. LIMITS OF CONSTRUCTION
- DRAINAGE AREAS
- EXISTING DRAINAGE FLOW
- ← NEW DRAINAGE FLOW
- ▩ SILT FENCE
- ▨ GRAVEL ENTRANCE
- ▧ PORT-O-JONS AND TRAILER
- EARTH BERM
- PB POSTING BOARD
- CONC. WASHOUT WITH SIGN
- I.P. INLET SEDIMENT PROTECTION

**REVISION DESCRIPTION**

NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED

**JOB NO.:** 09-1E-3811

**DESIGN BY:** J/J/T

**CHECKED BY:** G/H/E

**DATE:** OCTOBER 2018

**PROJECT NAME:** DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**POSTING BOARD:** JUSTICE STREET

**EL PASO, TEXAS**

**SLI ENGINEERING, INC.**

LICENSE No. F-1902

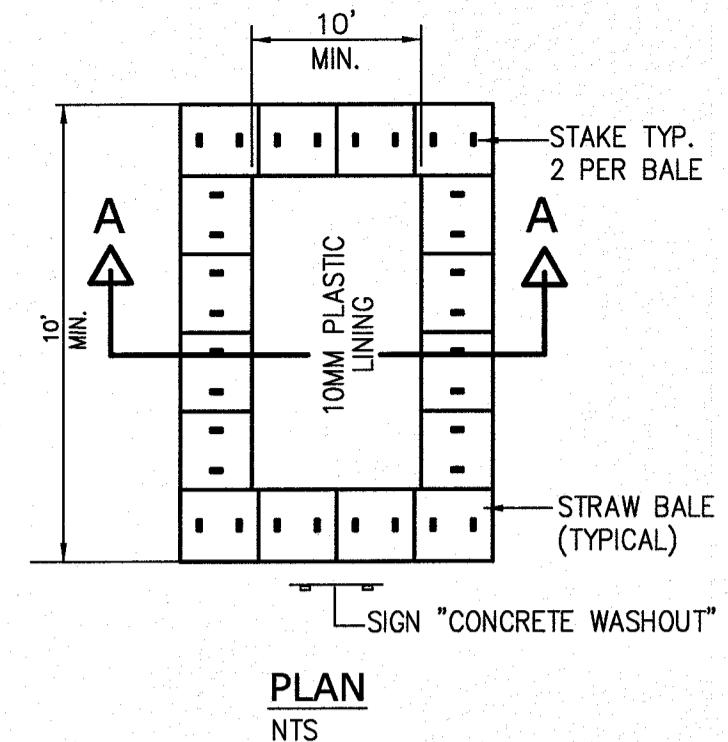
STATE OF TEXAS  
 GEORGES S. HALL  
 OCTOBER 24, 2018  
 SHEET TITLE

**811**  
 Know what's below.  
 Call what's below.  
 Call 811 TWO Working days Before you dig  
 It's Free, It's Easy, and IT'S THE LAW!

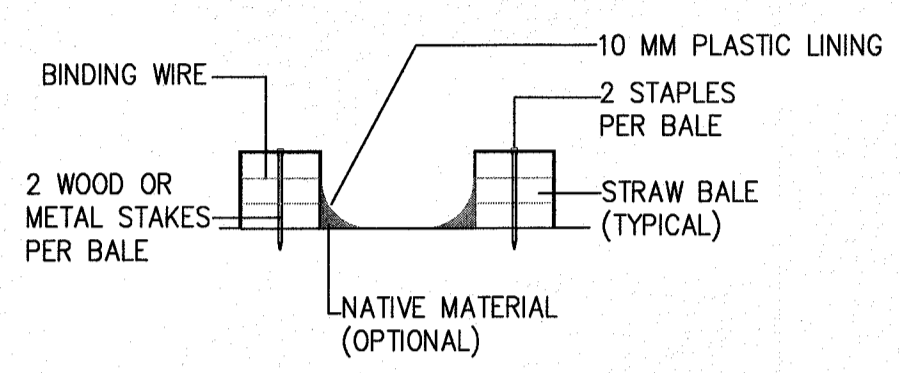
**STORM WATER POLLUTION PREVENTION PLAN**

(1 OF 3)

**C-04.00**



PLAN  
NTS

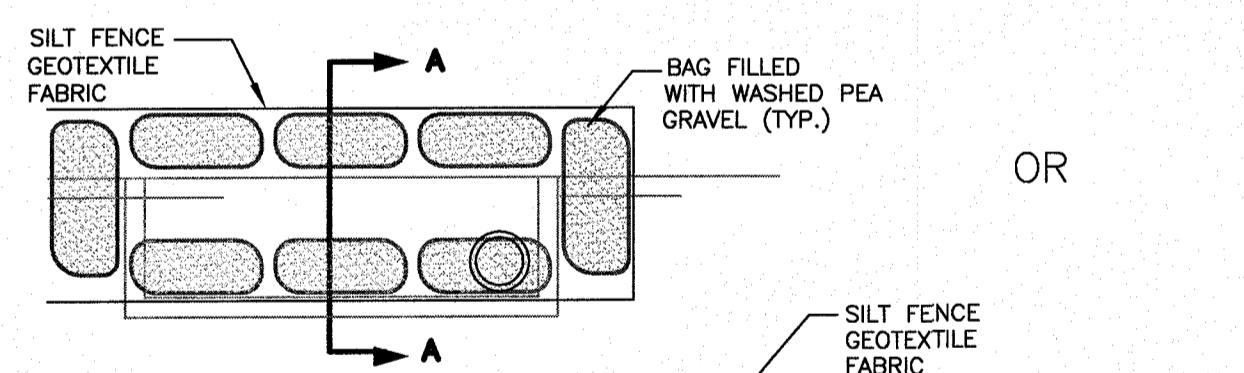
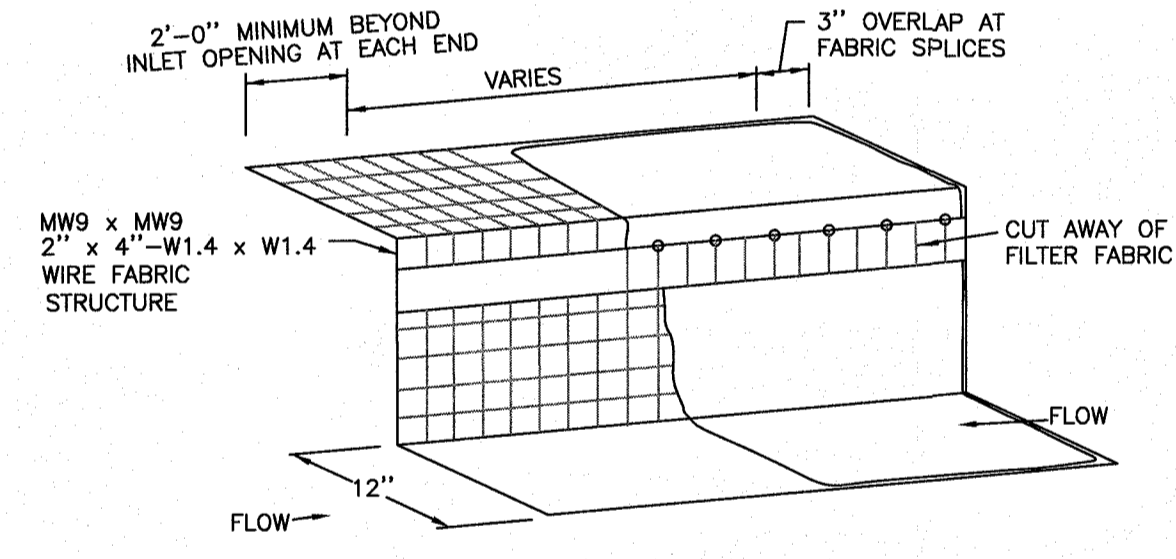


SECTION A-A  
NTS

- The washout area will be constructed before concrete pours occur at the site.
- Maintenance and Inspection:  
The washout areas will be inspected daily to ensure that all concrete washing is being discharged into the washout area, no leaks or tears are present, and to identify when concrete wastes need to be removed. The washout areas will be cleaned out once the area is filled to 75 percent of the holding capacity. Once the area's holding capacity has been reached, the concrete wastes will be allowed to harden; the concrete will be broken up, removed, and taken to Middletown Landfill for disposal. The plastic sheeting will be replaced if tears occur during removal of concrete wastes from the washout area.
- Design Specifications  
Temporary concrete washout type Above Grade will be constructed as shown above, with a recommended minimum length and minimum width of 10 feet but with sufficient quantity and volume to contain all liquid and conc. waste generated by washout operations. The washout will be a minimum of 50 feet from storm drain inlets. Plastic lining will be free of holes, tears, or other defects that compromise the impermeability of the material.

### 01 Above Grade Conc. Washout

N.T.S.

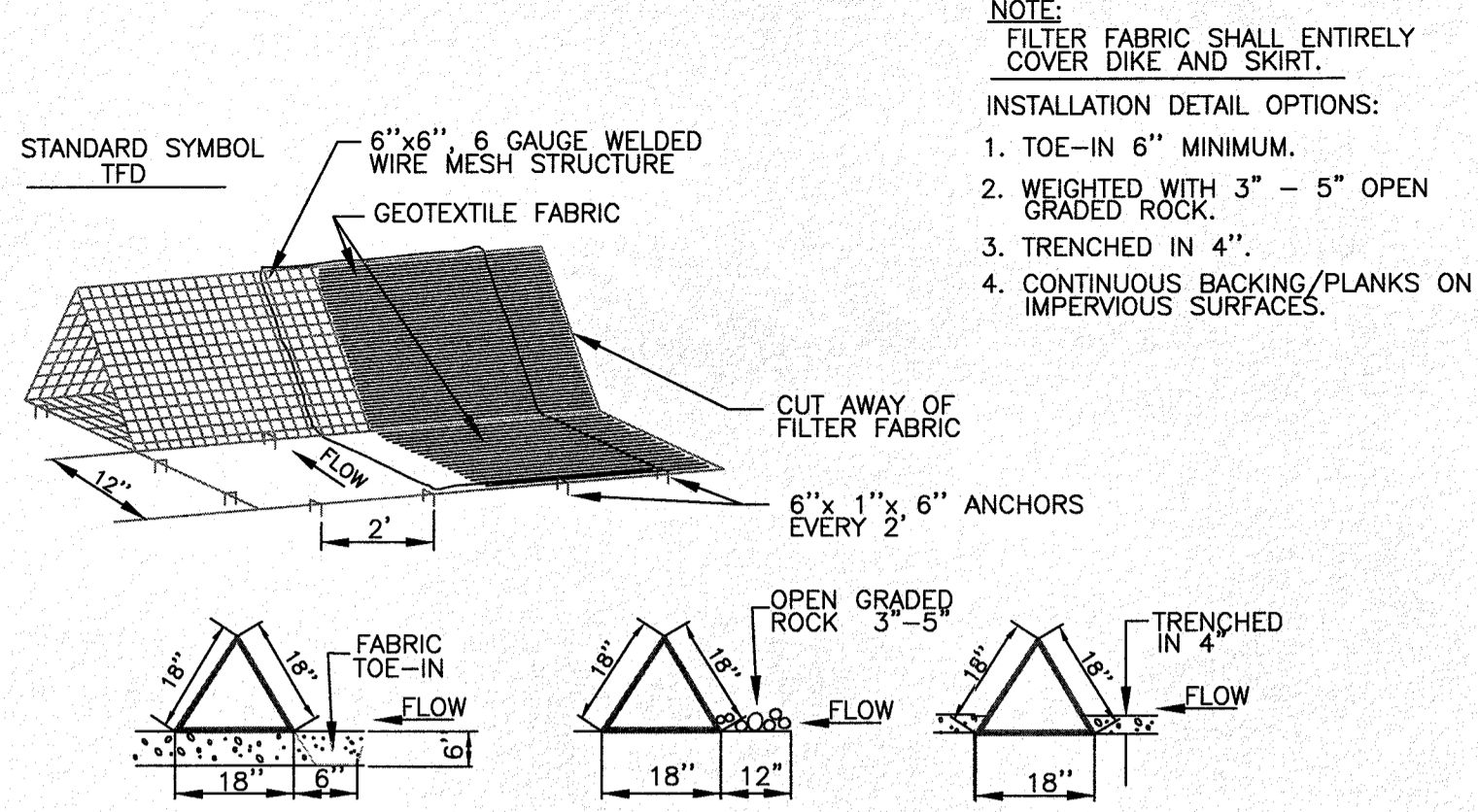


Section "A-A"

- NOTES:**
- WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GUTTER, THE CONTRACTOR MAY SUBSTITUTE A 1" x 4" BOARD SECURED WITH CONCRETE NAILS 8" O.C. NAILED INTO THE GUTTER IN LIEU OF SANDBAGS TO HOLD THE FILTER DIKE IN PLACE. UPON REMOVAL, CLEAN ANY DIRT/DEBRIS FROM NAILING LOCATIONS, APPLY CHEMICAL SANDING AGENT AND APPLY NON-SHRINK GROUT FLUSH WITH SURFACE OF GUTTER.
  - A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
  - DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
  - CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.
  - INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

### 05 Silt Fence Inlet Protection

N.T.S.

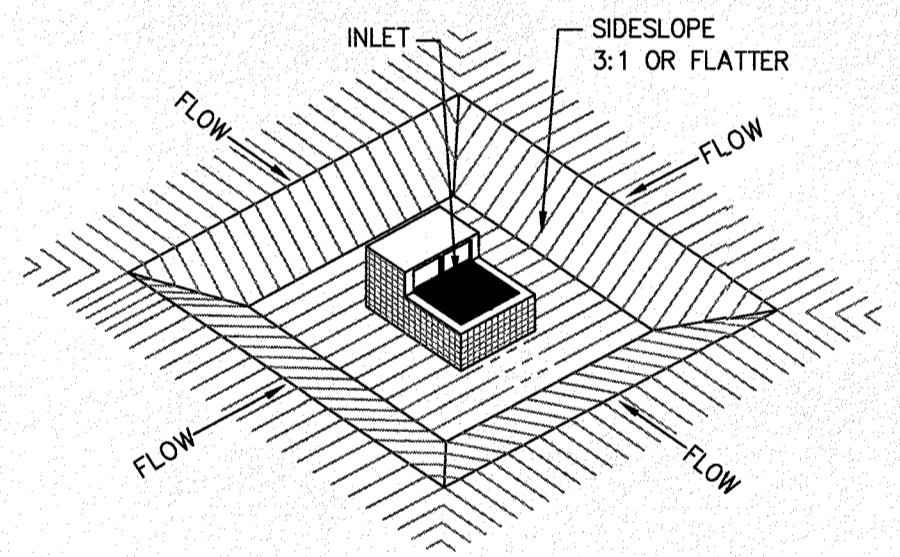


### GENERAL NOTES:

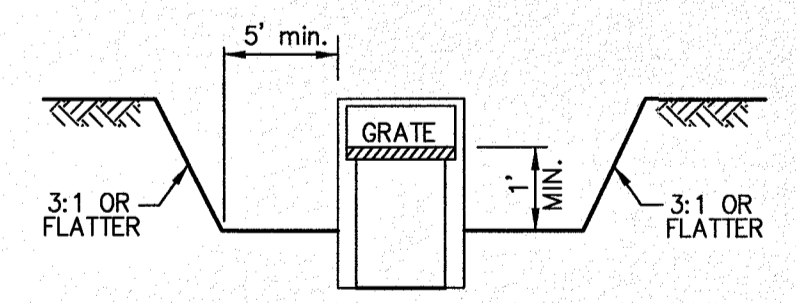
- TRIANGULAR SEDIMENT FILTER DIKES ARE USED IN AREAS WHERE THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR OTHER DRAINAGE WAY ABOVE THE BARRIER AND THE CONTRIBUTING DRAINAGE AREA IS LESS THAN ONE ACRE. THIS MEASURE IS EFFECTIVE ON PAVED AREAS WHERE INSTALLATION OF SILT FENCE IS NOT POSSIBLE OR WHERE VEHICLE ACCESS MUST BE MAINTAINED.
- DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
- THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
- THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 3-5" OPEN GRADED ROCK OR TOED-IN 6" WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 4".
- DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 6" WIRE STAPLES ON 2' CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 3/8" DIAMETER RE-BAR WITH TEE ENDS.
- FILTER MATERIAL SHALL BE LAPPED OVER ENDS 6" TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
- THE DIKE STRUCTURE SHALL BE MW40-6 GA. 6"x6" WIRE MESH, 18" ON A SIDE.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6" AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION. AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY
- REMAINING SILT SHALL BE REMOVED WITH PERMISSION FROM ENGINEER OR OWNER. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

### 02 Triangular Sediment Filter Dike

N.T.S.



PROFILE

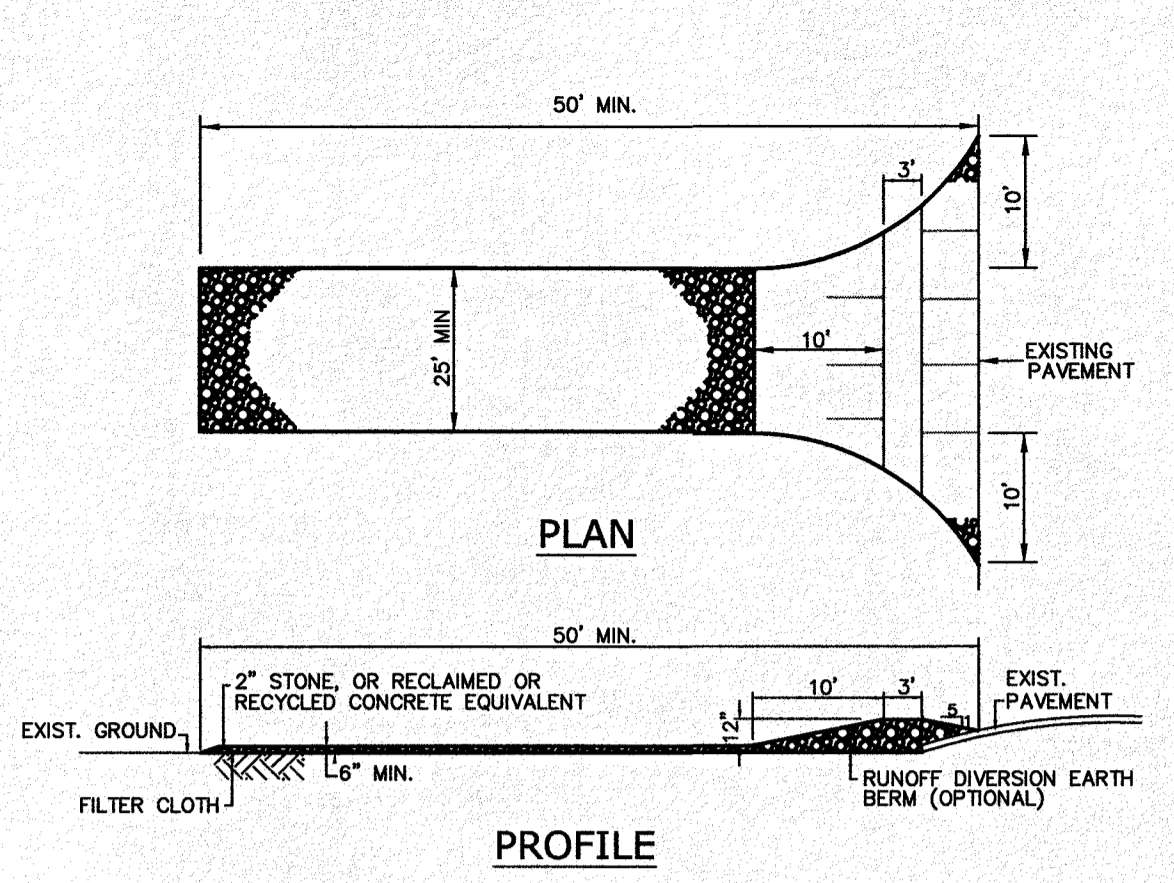


SECTION

- NOTES:**
- THE EXCAVATED TRAP SHALL BE SIZED TO PROVIDE A MINIMUM STORAGE CAPACITY CALCULATED AT 500 CUBIC FEET. THE TRAP SHALL BE NO LESS THAN ONE FOOT NOR MORE THAN TWO FEET DEEP MEASURED FROM THE TOP OF THE INLET STRUCTURE.
  - WHERE AN INLET IS LOCATED SO AS TO RECEIVE CONCENTRATED FLOWS, THE BASIN SHALL HAVE A RECTANGULAR SHAPE IN A 3:1 (LENGTH/WIDTH) RATIO, WITH THE LENGTH ORIENTED IN THE DIRECTION OF THE FLOW.
  - SEDIMENT SHALL BE REMOVED AND RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP.

### 06 Inlet Sediment Trap

N.T.S.



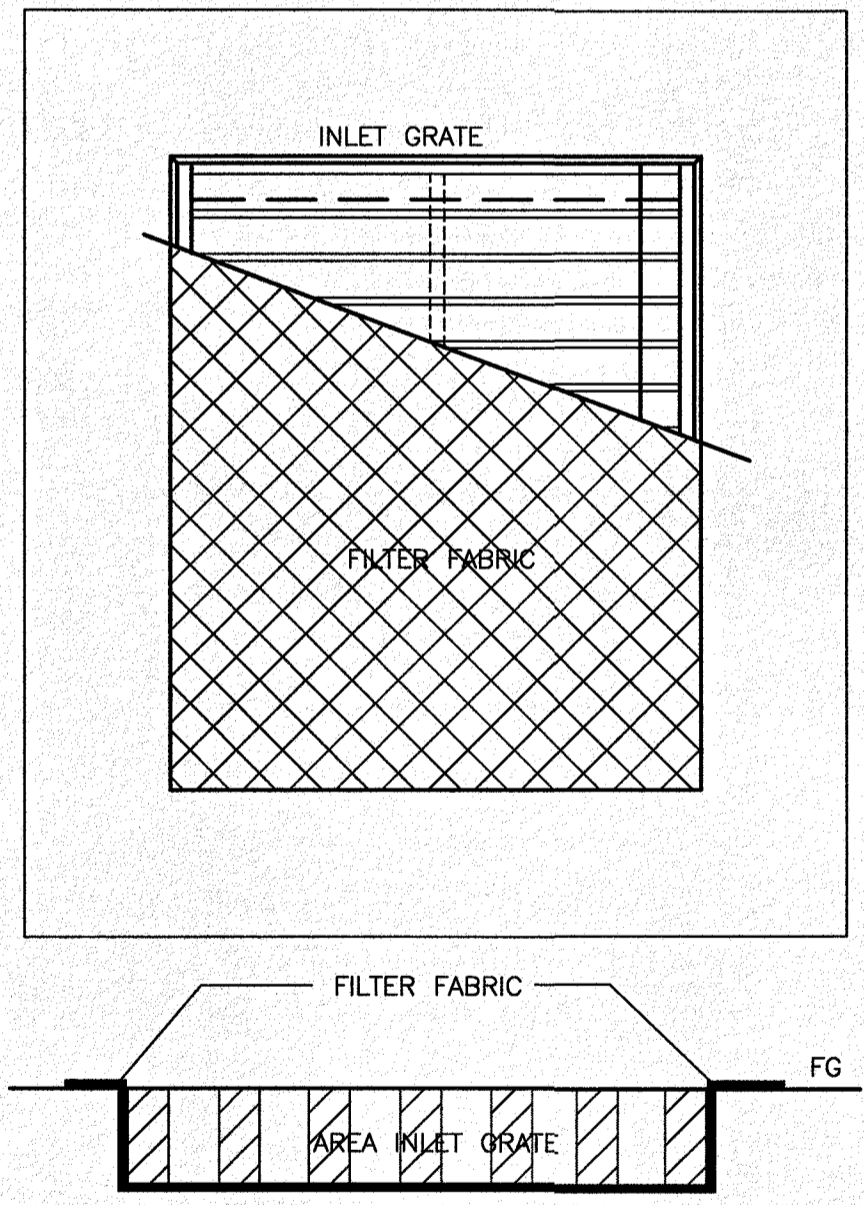
PLAN

PROFILE

- LOCATION FOR INSTALLATION IS IDENTIFIED ON THE PROJECT'S EROSION CONTROL PLAN. AN ALTERNATE LOCATION MUST BE APPROVED BY THE PROJECT ENGINEERING.
- REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.
- THE MIN. WIDTH OF THE ENTRANCE/EXIT SHALL BE 20 FT. OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.
- THE CONSTRUCTION ENTRANCE SHALL BE AT LEAST 50 FT. LONG. EXTEND BEYOND THE 30 FT MIN., AS NECESSARY, IF THE PAD IS TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC.
- PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY.
- DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
- ENTRANCE SHALL BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY BY CONTRACTOR
- WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

### 03 Stabilized Construction (Entrance/Exit)

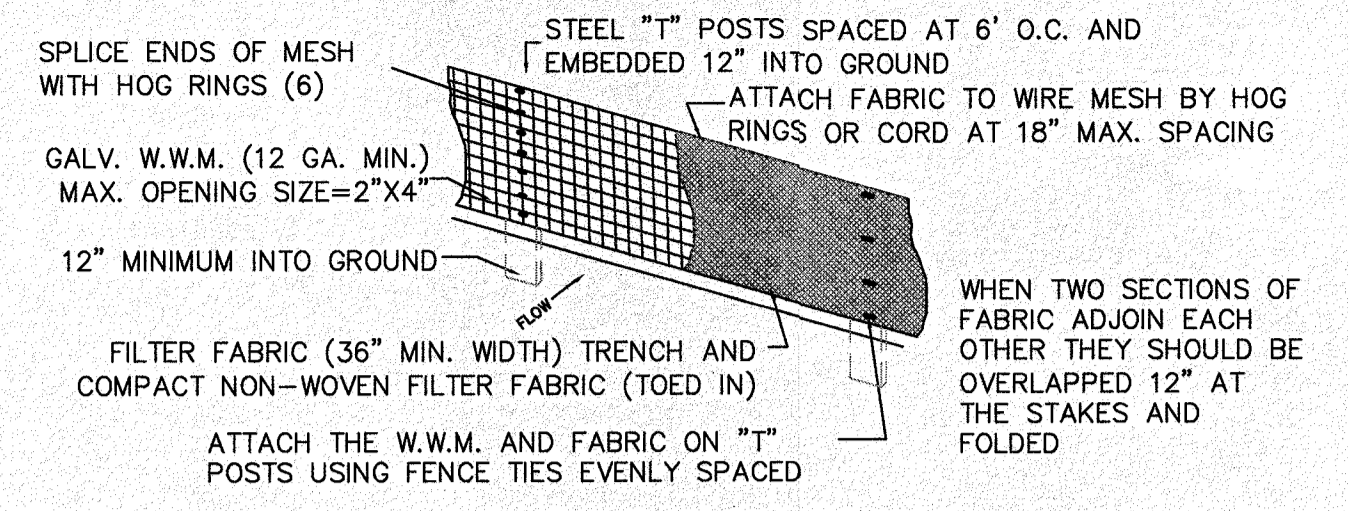
N.T.S.



- NOTES:**
- USE SILT FENCE DETAIL FOR INSTALLATION OF THE SILT FENCE AROUND THE AREA INLET.
  - THE METAL AREA INLET GRATE SHALL BE LIFTED AND FILTER FABRIC WRAPPED AROUND THE GRATE AND THE GRATE SHALL BE REPLACED.
  - IN VEHICULAR TRAFFIC AREAS THE METAL GRATE SHALL BE LIFTED OUT AND WIRE FENCE MATERIAL SHALL BE PLACED UNDER IT WITH FILTER FABRIC PLACED BETWEEN THE GRATE AND THE WIRE FENCE. THE WIRE FENCE SHALL BE ATTACHED TO THE GRATE.
  - ACCUMULATED SILT FENCE SHALL BE REMOVED WHEN THE FILTER FABRIC OVER THE GRATE COMPLETELY COVERS THE GRATE AREA, AND THE SILT AROUND THE SILT FENCE REACHES A HEIGHT OF 6".
  - AREA INLET PROTECTION SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED.

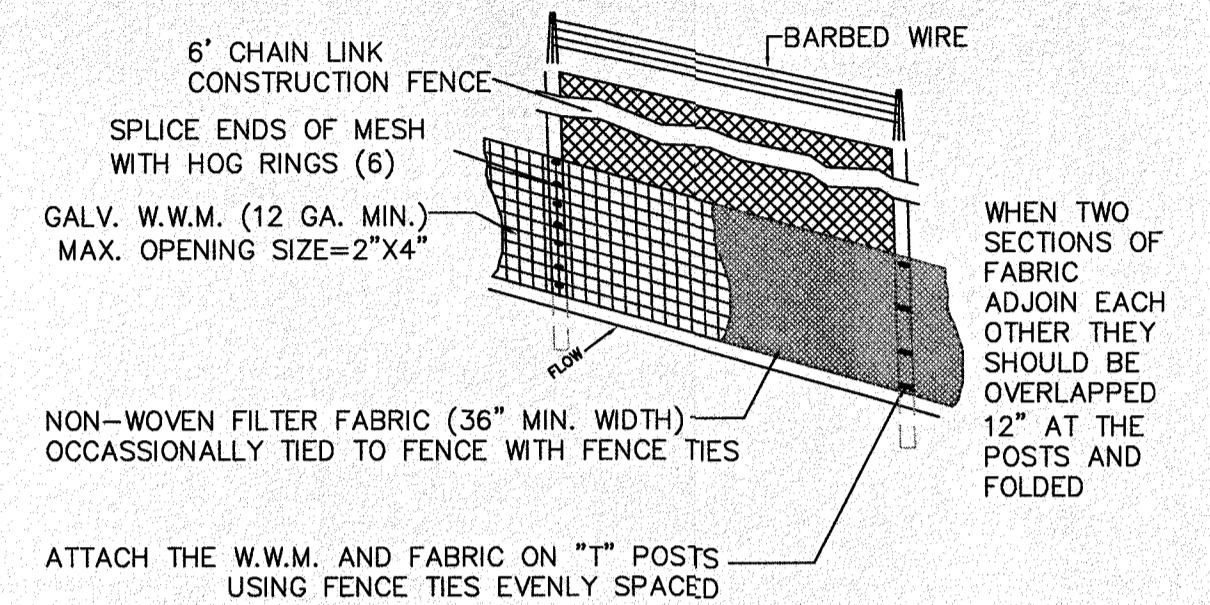
### 07 Silt Fence Inlet Protection

N.T.S.



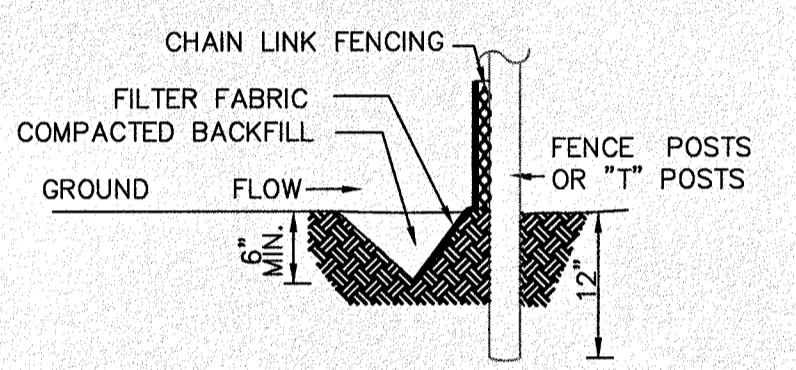
### STAND ALONE (OPTIONAL)

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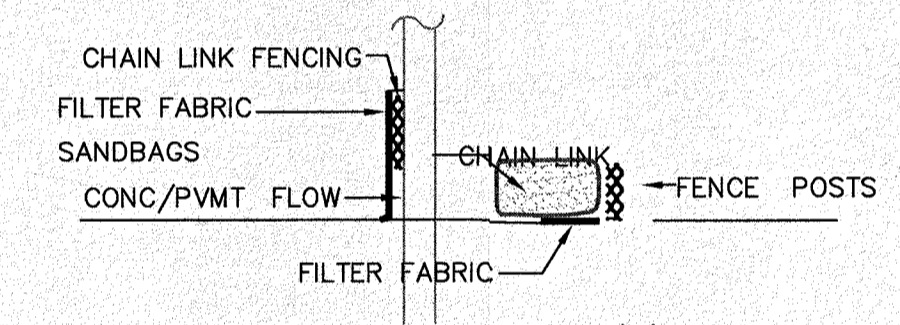
### ON CONTRACTOR'S FENCE

N.T.S.



### EXTENSION OF FABRIC TRENCH FOR GROUND CONDITIONS

N.T.S.



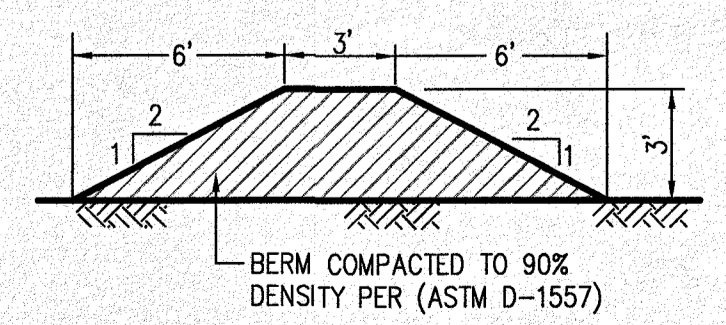
### EXTENSION OF FABRIC FOR PAVED CONDITIONS

N.T.S.

- SILT FENCE SHALL NOT BE USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY. IF CONCENTRATED FLOW OCCURS AFTER INSTALLATION, PLACE A ROCK BERM IN THE AREAS OF CONCENTRATED FLOW.
- SILT FENCE MATERIAL SHALL BE NON WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC WITH NON-RAVELING EDGES. THE FABRIC SHALL BE NON-BIODEGRADABLE, INERT TO MOST SOIL CHEMICALS, ULTRAVIOLET RESISTANT, UNAFFECTED BY MOISTURE OR OTHER WEATHER CONDITIONS, AND PERMEABLE TO WATER WHILE RETAINING SEDIMENT. THE FABRIC WIDTH SHALL BE 18" MIN.
- FENCE POSTS SHALL BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FT. LONG WITH TEE CROSS SECTION, SURFACE PAINTED OR GALVANIZED. POSTS SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS SHALL BE EMBEDDED A MINIMUM OF 1 FT. DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER OR AS DIRECTED BY THE GOVERNMENT.
- WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHALL BE GALVANIZED 2"x4" WELDED WIRE, 12 GAUGE MINIMUM.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 IN. OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE. THE TRENCH MUST BE A MIN. OF 6 IN. WIDE AND 6 IN. DEEP TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE SHALL BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
- SILT FENCE SHALL BE REMOVED, WITH THE GOVERNMENT'S APPROVAL, WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

### 04 Tempory Sediment Control Fence

N.T.S.



### 08 Earthen Berm

N.T.S.

REVISION DESCRIPTION	DATE	BENCHMARK	NO.
SECTION CORNER FOR SECTIONS 28-33-30 AND 28-33-31, TOWNSHIP 2 NORTH, RANGE 5 EAST, COUNTY OF EL PASO, TEXAS. ELEVATION: 3839.38 (NAVD88 DATUM)			
SCALE: AS INDICATED	JOB NO.: 09-16-3811	DESIGN BY: J/J/T	CHECKED BY: GH/YE
PROJECT NAME: DESERT SANDS	DATE: OCTOBER, 2018	PROJECT LOCATION: PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2 NORTH, RANGE 5 EAST, COUNTY OF EL PASO, TEXAS	PROJECT ADDRESS: JUSTICE STREET, EL PASO, TEXAS
CIVIL ENGINEERS LAND SURVEYORS	SLI ENGINEERING, INC.	LICENSE No. F-1902	OCTOBER 24, 2018
			SHEET TITLE: STORM WATER POLLUTION PLAN (2 OF 3)
			C-4.01



Final Approval

**GRADING STABILIZATION ACTIVITY PLAN**

- SEDIMENT CAUSED BY EXCESSIVE EROSION SHALL BE REMOVED FROM RUNOFF WATER BEFORE LEAVING THE SITE.
- PROJECT AREAS PHYSICALLY DISTURBED DURING DEVELOPMENT SHALL BE EXPOSED TO EROSION PRODUCING INFLUENCES FOR THE SHORTEST PERIOD OF TIME.
- AFTER COMPLETION OF THE SITE GRADING THE PROJECT AREAS SHALL BE WATERED AS REQUIRED TO CONTROL WIND EROSION.
- SITE MONITORING SHALL BE PERFORMED BY THE PERMITEE RESPONSIBLE FOR THE GRADING. ALL STABILIZATION MEASURES SHALL BE CHECKED ON A MONTHLY BASIS AND SHALL CONTINUE TO BE MAINTAINED.
- A MONITORING AND INSPECTION PROGRAM SHALL BE IMPLEMENTED UNTIL A STABILIZED SITE IS ACHIEVED AND BUILDING RESUMES. INACTIVE/IDLE SITES SHALL BE INSPECTED AND MAINTAINED ON ONE OF THE FOLLOWING SCHEDULES:
  - AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A WIND EVENT.
  - AT LEAST ONCE EVERY 7 CALENDAR DAYS ON A SET SPECIFIC DAY.
- AFTER PERMITEE COMPLETES THE GRADING, THE PERMIT SHALL BE CLOSED AS PART OF THE CLOSEOUT PROCEDURES. THE APPLICANT MUST SUBMIT THE FOLLOWING:
  - A STATEMENT FROM THE ENGINEER OF RECORD THAT STATES "THE GRADING OPERATION HAS BEEN SUBSTANTIALLY COMPLETED AND GENERALLY CONFORMS TO THE APPROVED SET OF PLANS".

THE PERMITEE SHALL CALL THE PERMIT OFFICIAL TO ESTABLISH THE BEGINNING OF THE WARRANTY PERIOD AND NOTIFY THE PERMIT OFFICIAL GSP HAS BEEN IMPLEMENTED.
- SHALL SUBMIT A COPY OF THE NOTICE OF TERMINATION FILED WITH THE STATE.

GRADING STABILIZATION MAINTENANCE AND SCHEDULE PLAN			
STABILIZATION MEASURES	INSPECTION DATE	MAINT. DATE	MAINTENANCE TYPE
WATERING OF SITE			
WEED PREVENTION AND MOWING			
RE-GRADING OF SITE DUE TO EROSION			
SEDIMENT FROM EROSION SHALL BE REMOVED FROM SITE			
ASSURE MAINTENANCE OF S.W.P.P. MEASURES			

**PERMITEE CERTIFICATION**

"I CERTIFY AND AGREE TO WARRANT AND MAINTAIN THE SITE AS DESCRIBED IN THIS GSP UNTIL BUILDING PERMIT IS ISSUED OR THE CITY CLOSES THE PERMIT AS SPECIFIED IN MUNICIPAL CODE SECTION 18.44.090."

PERMITEE: (SIGNED) \_\_\_\_\_ DATE: \_\_\_\_\_  
 OWNER: (NAME) \_\_\_\_\_  
 PHONE NUMBER: \_\_\_\_\_

**SWPPP INSPECTION REPORT**

PROJECT NAME: LOMAS DEL ESTE SUBDIVISION  
 CONTRACTOR : \_\_\_\_\_ DATE OF INSPECTION : \_\_\_\_\_  
 INSPECTION CONDUCTED BY: \_\_\_\_\_ PRINTED NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
 QUALIFICATIONS OF THE INSPECTOR: \_\_\_\_\_  
 REPORT PREPARED BY: (Circle One) CONTRACTOR OWNER  
 7 DAY INSPECTION 14 DAY INSPECTION AFTER-RAIN EVENT INSPECTION

SITE DESCRIPTION	
PROJECT TITLE:	DESERT SANDS SUBDIVISION
OWNER AND ADDRESS:	XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX EL PASO, TEXAS
DESCRIPTION:	CONSTRUCTION OF SUBDIVISION SINGLE FAMILY
SITE AREA:	THE SITE IS APPROXIMATELY 113 ACRES OF WHICH ALL ACRES WILL BE DISTURBED BY THE CONSTRUCTION ACTIVITIES.

INSPECTION ISSUE	Y	N	N/A	COMMENTS
ARE NPDES PERMITS, FOR ALL PERMITEES POSTED AT THE CONSTRUCTION ENTRANCE ?				
IS CONTACT INFORMATION FOR ALL PERMITS POSTED AT THE CONSTRUCTION ENTRANCE ?				
ARE COPIES OF INSPECTION REPORT INCLUDED WITH THE SWPPP				
IS A COPY OF THE SWPPP CERTIFICATIONS FOR ALL PERMITS INCLUDED WITH SWPPP ?				
IF THE BMP'S HAVE BEEN MODIFIED, HAS THE SWPPP BEEN MODIFIED ?				
ARE THERE ANY SIGNS OF DISCHARGE LEAVING THE SITE ?				
ARE ALL BMP'S FUNCTIONING AS INTENDED ?				
ANY ADDITIONAL BMS'S REQUIRED ?				
ARE STABILIZED ENTRANCES/EXITS PREVENTING STREET CONTAMINATION ?				
ARE ANY BMP'S IN NEED OF REPAIR AND/OR MAINTENANCE ?				
ARE ANY HAZARDOUS MATERIALS BEING EXPOSED TO STORM WATER RUNOFF ?				
HAVE THERE BEEN ANY REPORTABLE SPILLS OF HAZARDOUS MATERIALS ?				
HAVE ALL AREAS OF THE SITE NOT COVERED BY IMPERVIOUS MATERIALS ACHIEVED THE REQUIRED COVERAGE ?				
ARE ALL SOIL-DISTURBING ACTIVITIES COMPLETE?				
HAS A NOTICE OF TERMINATION (NOT) BEEN FILED ?				

**NOTE:** ALL ITEMS OF NON-COMPLIANCE SHALL BE REPAIRED/INSTALLED WITHIN SEVEN (7) CALENDAR DAYS OF INSPECTION. REPAIRS/INSTALLATION SHALL BE COMPLETED IMMEDIATELY, IF STORM CONDITIONS ARE IMMINENT

NOTE INCIDENTS OF NON-COMPLIANCE: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

"I CERTIFY UNDER PENALTY OF LAW THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ENSURE THAT QUALIFIED PERSONNEL PROPERTY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRINTED NAME: \_\_\_\_\_  
 TITLE: \_\_\_\_\_

**INSPECTIONS**

- GENERAL
  - EACH CONTRACTOR WILL DESIGNATE A QUALIFIED PERSON OR PERSONS TO PERFORM THE FOLLOWING INSPECTIONS:
    - DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION WILL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS CONTAMINATING THE AREA.
    - EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN WILL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY.
    - WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY WILL BE INSPECTED TO ASCERTAIN WHERE EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE SURROUNDING AREA.
    - LOCATIONS WHERE VEHICLES ENTER OR EXIT THE DISTURBED AREAS OF SITE WILL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING
  - THE INSPECTION WILL BE CONDUCTED BY THE RESPONSIBLE PERSON AT LEAST ONCE EVERY 7 CALENDAR DAYS INSPECTIONS SHALL TAKE PLACE ON TUESDAY OF THE WORKWEEK, ALLOWING SUFFICIENT TIME DURING THE SAME WORKWEEK FOR NECESSARY MAINTENANCE AND/OR REPAIR OF SITE CONTROLS.
  - AFTER A PORTION OF THE SITE IS FINALLY STABILIZED, INSPECTION WILL BE CONDUCTED AT LEAST ONCE EVERY MONTH.
  - BASED ON THE RESULTS OF THE INSPECTION, THE SITE EROSION AND SEDIMENT CONTROL DRAWING (SWPPP DRAWING) WILL BE REVISED AS APPROPRIATE, BUT IN NO CASE LATER THAN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.
  - A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF SWPPP, AND ACTIONS TAKEN IN ACCORDANCE WITH THIS SECTION WILL BE MADE AND RETAINED AS PART OF THE SWPPP FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED. THE REPORT WILL BE SIGNED BY THE BY THE QUALIFIED INSPECTOR

**NOTES**

- THERE ARE NO HISTORICAL STRUCTURES SITUATED ON THIS SITE.
- THERE ARE NO ENDANGERED SPECIES AFFECTED BY THIS CONSTRUCTION PROJECT.
- THE SOILS CONSIST OF TOP LAYERS OF BROWN CLAY AND SILT WITH VARYING AMOUNTS OF SAND AND VARIES FROM MOIST TO WET AND AT A SOFT TO STIFF CONSISTENCY TO DRY AND AT A SOFT TO FIRM CONSISTENCY.
- SOIL C VALUE = 0.40

**EROSION AND SEDIMENT CONTROL**

**SOIL STABILIZATION PRACTICES**

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

OTHER \_\_\_\_\_  
 \_\_\_\_\_

**STRUCTURAL PRACTICES**

- SILT FENCES
- EARTH BERMS
- DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- DIVERSION DIKES AND SWALE COMBINATIONS
- CONCRETE FLUMES
- ROCK BEDDING AT CONSTRUCTION EXIT
- TIMBER MATTING AT CONSTRUCTION EXIT
- CHANNEL LINERS
- SEDIMENT TRAPS
- RETENTION POND
- STORM INLET SEDIMENT TRAP
- STONE OUTLET STRUCTURES
- CURBS AND GUTTERS
- STORM DRAINS
- VELOCITY CONTROL DEVICES
- ROCK LINE SWALES
- OTHER FINAL STABILIZATION

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

- SUBMIT NOTICE OF INTENT, SECURE SITE AND INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS (e.g. SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE, etc.)
- EXECUTE GRADING.
- COMPLETE SITE GRADING.
- EXCAVATION FOR UTILITIES.
- COMPLETION OF SITE IMPROVEMENTS.
- WHEN ALL CONSTRUCTION ACTIVITIES RELATED TO THE DEVELOPMENT OF THE SITE ARE COMPLETED, REMOVE TEMPORARY CONTROLS MENTIONED IN NOTE NO.1 ABOVE, AND THEN SUBMIT NOTICE OF TERMINATION FORM.
- APPROXIMATE SCHEDULE OF MAJOR ACTIVITIES:  
 SITE GRADING = \_\_\_\_\_, 2016 THROUGH \_\_\_\_\_, 2016  
 TERMINATION OF GRADING TO END OF PROJECT = \_\_\_\_\_, 2016 THROUGH \_\_\_\_\_, 2016

**MATERIALS OR SUBSTANCES EXPECTED TO BE PRESENT ON SITE DURING CONSTRUCTION**

- CONCRETE
- DETERGENTS
- OILS
- PETROLEUM BASED PRODUCTS
- CLEANING SOLVENTS
- WOOD
- FUELS
- WATER WASHINGS
- CURING COMPOUNDS

(NO ASBESTOS ON SITE)

**GENERAL CONTRACTOR CERTIFICATION**

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT THAT AUTHORIZES STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION."

SIGNED: \_\_\_\_\_ COMPANY: \_\_\_\_\_  
 NAME: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 TITLE: \_\_\_\_\_ TELEPHONE: (915) \_\_\_\_\_  
 DATE: \_\_\_\_\_

**BEST MANAGEMENT PRACTICES CONTROLS**

**I WASTE MATERIALS:**  
 ALL WASTE MATERIALS, INCLUDING CONSTRUCTION DEBRIS, SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. NO CONSTRUCTION WASTE MATERIAL SHALL BE BURIED ON SITE. THE TRANSIT DUMPSTER SHALL COMPLY WITH ORDINANCE 18.52.010 (ENCLOSURE AND REMOVAL OF WASTE MATERIALS DURING CONSTRUCTION). THE DUMPSTER SHALL BE EMPTIED AS NECESSARY OR AS REQUIRED BY ORDINANCE 9.04 (SOLID WASTE MANAGEMENT) AND THE TRASH SHALL BE HAULED TO A LICENSED LANDFILL.

**II HAZARDOUS WASTE:**  
 AT A MINIMUM ANY PRODUCTS IN THE FOLLOWING CATEGORIES SHALL BE CONSIDERED HAZARDOUS: PAINT, ACIDS FOR CLEANING MASONRY SURFACES, CLEANING SOLVENTS, ASPHALT PRODUCTS, CHEMICAL ADDITIVES FOR SPILL STABILIZATION, CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION AND CONTACT THE FIRE DEPT. AND THRC.

**III SANITARY WASTE:**  
 ALL SANITARY WASTE SHALL BE COLLECTED FROM THE CONSTRUCTION PORTABLE UNITS AS NECESSARY OR AS REQUIRED, CHAPTER 18.06 (BUILDING CODE) BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR. ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**IV SPILL PREVENTION:**  
 THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURES OF MATERIALS TO STORM WATER RUNOFF.

- V GOOD HOUSEKEEPING:**
- STORE ONLY ENOUGH PRODUCTS REQUIRED TO DO THE JOB.
  - NEATLY STORE MATERIALS ON-SITE IN AN ORDERLY MANNER.
  - KEEP PRODUCTS IN THEIR ORIGINAL CONTAINER.
  - DO NOT MIX SUBSTANCES WITH ONE ANOTHER, UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER.
  - USE ENTIRE CONTENTS OF A PRODUCT BEFORE DISPOSING THE CONTAINER.
  - FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL.

- VI HAZARDOUS PRODUCTS:**  
 PRACTICES TO REDUCE RISKS:
- KEEP PRODUCTS IN THEIR ORIGINAL CONTAINER IF AT ALL POSSIBLE.
  - RETAIN ORIGINAL LABELS, PRODUCT INFORMATION AND MATERIAL SAFETY DATA SHEETS (MSDS).
  - DISPOSE SURPLUS PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS.

**VII PETROLEUM PRODUCTS:**  
 ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON-SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.

- VIII SPILL CONTROL PRACTICES:**
- MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES.
  - MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE.
  - ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
  - SPILL AREA SHALL BE WELL VENTILATED AND APPROPRIATE CLOTHING WILL BE WORN.
  - ANY SPILL SHALL BE REPORTED TO THE APPROPRIATE GOVERNMENTAL AGENCY.
  - MEASURES SHALL BE TAKEN TO PREVENT A SPILL FROM REOCCURRING.

**IX MAINTENANCE AND INSPECTION PROCEDURES:**  
 ALL POLLUTION PREVENTION MEASURES SHALL BE INSPECTED AT LEAST ONCE A MONTH OR WITHIN 24-HOURS PRIOR TO ANTICIPATED STORM EVENT AND FOLLOWING A STORM EVENT OF 0.50 INCHES OR MORE. INSPECTION IN FINAL STABILIZED AREAS OR DURING ARID PERIODS WILL BE CONDUCTED MONTHLY. BEST MANAGEMENT PRACTICES AND POLLUTION CONTROL PROCEDURES SHALL BE INSPECTED FOR ADEQUACY. A REPORT SUMMARIZING THE SCOPE OF INSPECTION SHALL BE DONE AND RETAINED ALONG WITH THE SDPCP.

**X 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 CLEANED AS SOON AS PRACTICABLE OF TEMPORARY EMBANKMENT, TEMPORARY BRIDGES, MATTING, FALSE WORK, PILING DEBRIS OR OTHER OBSTRUCTIONS PLACED DURING CONSTRUCTION OPERATIONS THAT ARE NOT A PART OF THE FINISHED WORK.

**XI OFFSITE VEHICLE TRACKING:**  
 IN ADDITION TO THE STABILIZED CONSTRUCTION ENTRANCES, THE FOLLOWING MEASURES SHALL BE OBSERVED DURING CONSTRUCTION:

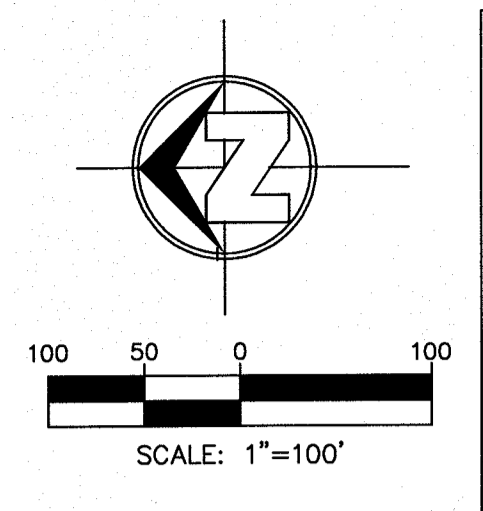
- HAUL ROADS SHALL BE DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPULIN.
- EXCESS DIRT ON ROADS SHALL BE REMOVED IMMEDIATELY.
- STABILIZED CONSTRUCTION ENTRANCE.

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



Final Approval

REVISION DESCRIPTION	DATE	NO.	BENCHMARK	PROJECT NAME
				<b>DESERT SANDS</b>
				PORTIONS OF SECTION 28 AND 33 BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
				EL PASO, TEXAS
				JUSTICE STREET
				SCALE: AS INDICATED
				JOB NO.: 09-18-3811
				DESIGN BY: J/JET
				CHECKED BY: GH/FE
				DATE: OCTOBER 2018
				SECTION CORNER FOR SECTIONS 28 AND 33 BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
				ELEVATION: 3859.38 (NAVOD88 DATUM)
				Copyright 2018, SLI Engineering, Inc.
				These plans are being provided solely for the use of RICHARD ADRIAN and no license has been granted to any other person for the use of these plans in any way without the express written permission of the owner.
				<b>SLI ENGINEERING, INC.</b>
				CIVIL ENGINEERS
				LAND SURVEYORS
				LAND PLANNERS
				888 N. WALKER
				EL PASO, TEXAS
				(915) 944-1457
				LICENSE No. F-1902
				OCTOBER 24, 2018
				SHEET TITLE
				<b>STORM WATER POLLUTION PREVENTION PLAN</b>
				(3 OF 3)
				<b>C-4.02</b>



**LEGEND**

	NEW 8" PVC WATER MAIN (C-900 DR-18)
	NEW SANITARY SEWER MAIN
	NEW FIRE HYDRANT
	NEW GATE VALVE
	EXISTING WATER MAIN
	EXISTING GAS LINE
	PHASE 1 LIMITS OF CONSTRUCTION

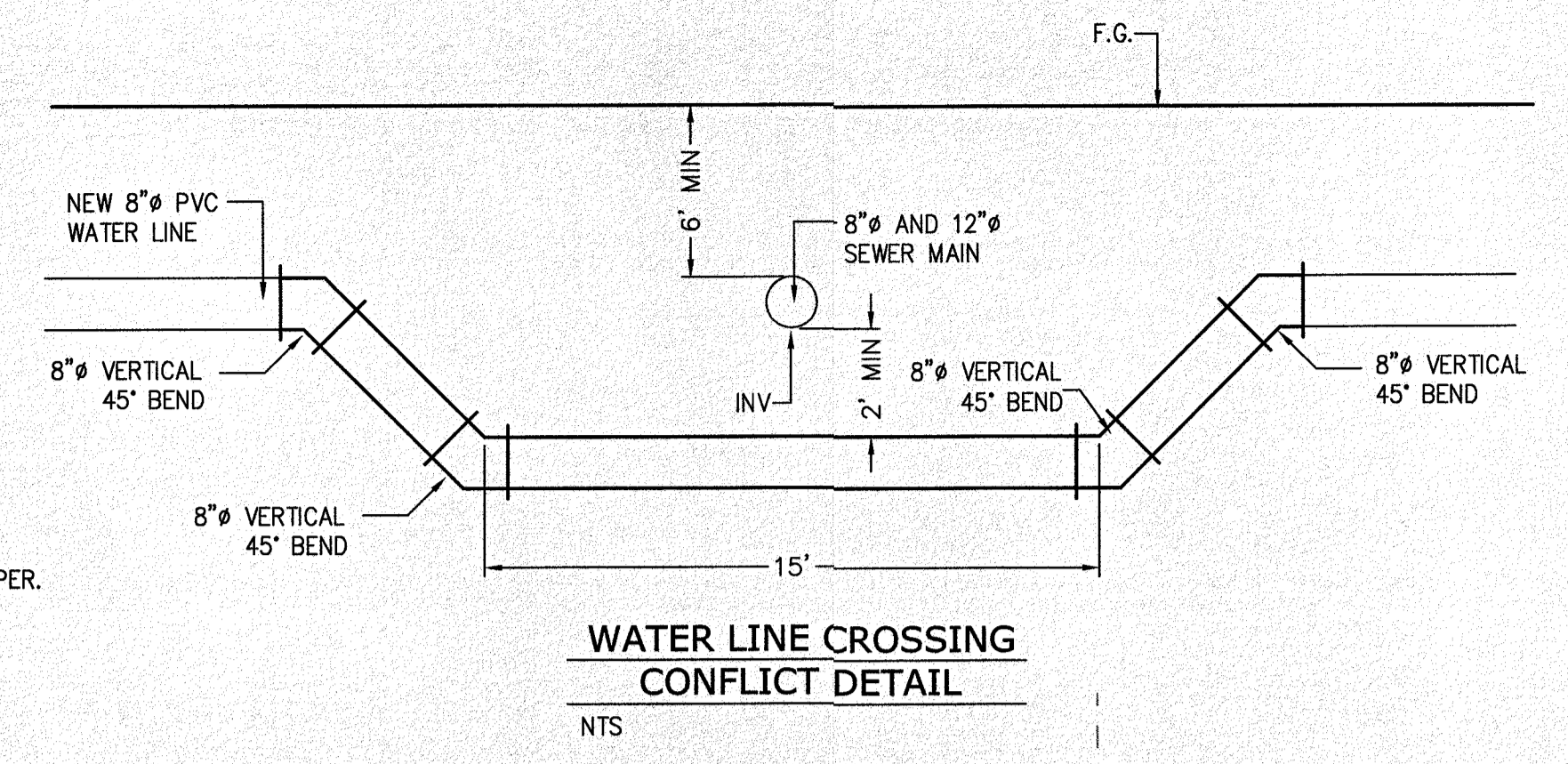
**TABLE OF WATER QUANTITIES TOTAL ALL PHASES**

8-INCH DIAMETER AWWA C-900 CLASS 235 DR-18	= 22,297.7 L.F. ±
FIRE HYDRANTS	= (24) TWENTY FOUR
8-INCH GATE VALVE	= (86) EIGHTY SIX
6-INCH GATE VALVE	= (24) TWENTY FOUR
8-INCH CROSS	= (6) SIX
8-INCH TEE	= (23) TWENTY THREE
8-INCH 90° BEND	= (32) THIRTY TWO
8-INCH 11.25° BEND	= (2) TWO
8-INCH 45° BEND	= (2) TWO
16-INCH X 8-INCH WET TAP CONNECTION	= (1) ONE

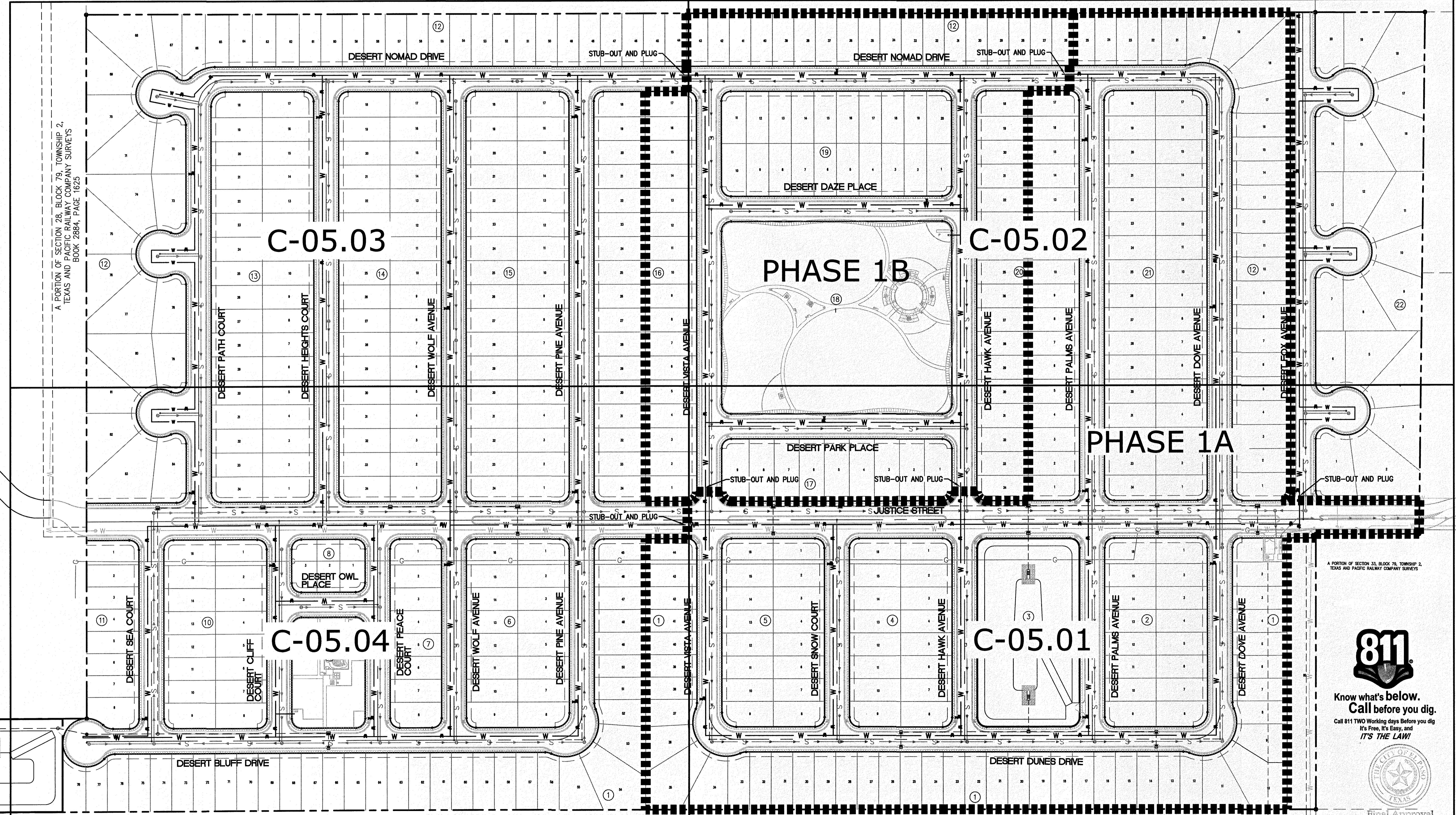
**TABLE OF WATER QUANTITIES PHASE 1A AND 1B**

8-INCH DIAMETER AWWA C-900 CLASS 235 DR-18	PHASE 1A= 6,928.78 L.F. ±	PHASE 1B= 3,610.25 L.F. ±
FIRE HYDRANTS	PHASE 1A= (8) EIGHT	PHASE 1B= (3) THREE
8-INCH GATE VALVE	PHASE 1A= (30) THIRTY	PHASE 1B= (12) TWELVE
6-INCH GATE VALVE	PHASE 1A= (8) EIGHT	PHASE 1B= (3) THREE
8-INCH CROSS	PHASE 1A= (4) FOUR	PHASE 1B= (0) ZERO
8-INCH TEE	PHASE 1A= (6) SIX	PHASE 1B= (6) SIX
8-INCH 90° BEND	PHASE 1A= (3) THREE	PHASE 1B= (0) ZERO
16-INCH X 8-INCH WET TAP CONNECTION	PHASE 1A= (1) ONE	PHASE 1B= (0) ZERO

- WATER NOTES**
- CONTACT UTILITY COMPANIES FOR EXACT LOCATION OF UNDERGROUND UTILITIES IN THIS AREA, BEFORE EXCAVATION.
  - INSTALL A TRENCH SAFETY SYSTEM TO PROVIDE FOR THE SAFE EXCAVATION OF TRENCHES EXCEEDING A DEPTH OF (5') FEET AS PER O.S.H.A. STDS.
  - PROVIDE ADEQUATE CONCRETE THRUST BLOCKING AT THE FOLLOWING: TAPPING SLEEVES, TEES, BENDS, PLUGS AND ALL FITTINGS.
  - ALL VALVES ON P.V.C. WATER MAINS SHALL BE ANCHORED IN CONCRETE.
  - P.V.C. PIPE SHALL BE PLACED WITH SELECT BEDDING MATERIAL ALL AROUND.
  - ALL WATER SERVICES SHALL BE INSTALLED COMPLETE AS PER EPW DETAILS AND READY TO ACCEPT THE WATER METERS (PER DETAIL 290-4) LOCATIONS TO BE DETERMINED BY EPW.
  - NO CONSTRUCTION OF PUBLIC SEWER/WATER MAINS SHALL BE PERFORMED UNTIL DEVELOPMENT AGREEMENT HAS BEEN EXECUTED BETWEEN EPWATER AND OWNER/DEVELOPER.



A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
BOOK 2884, PAGE 1625

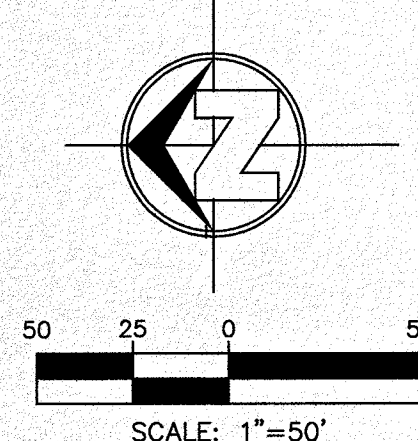
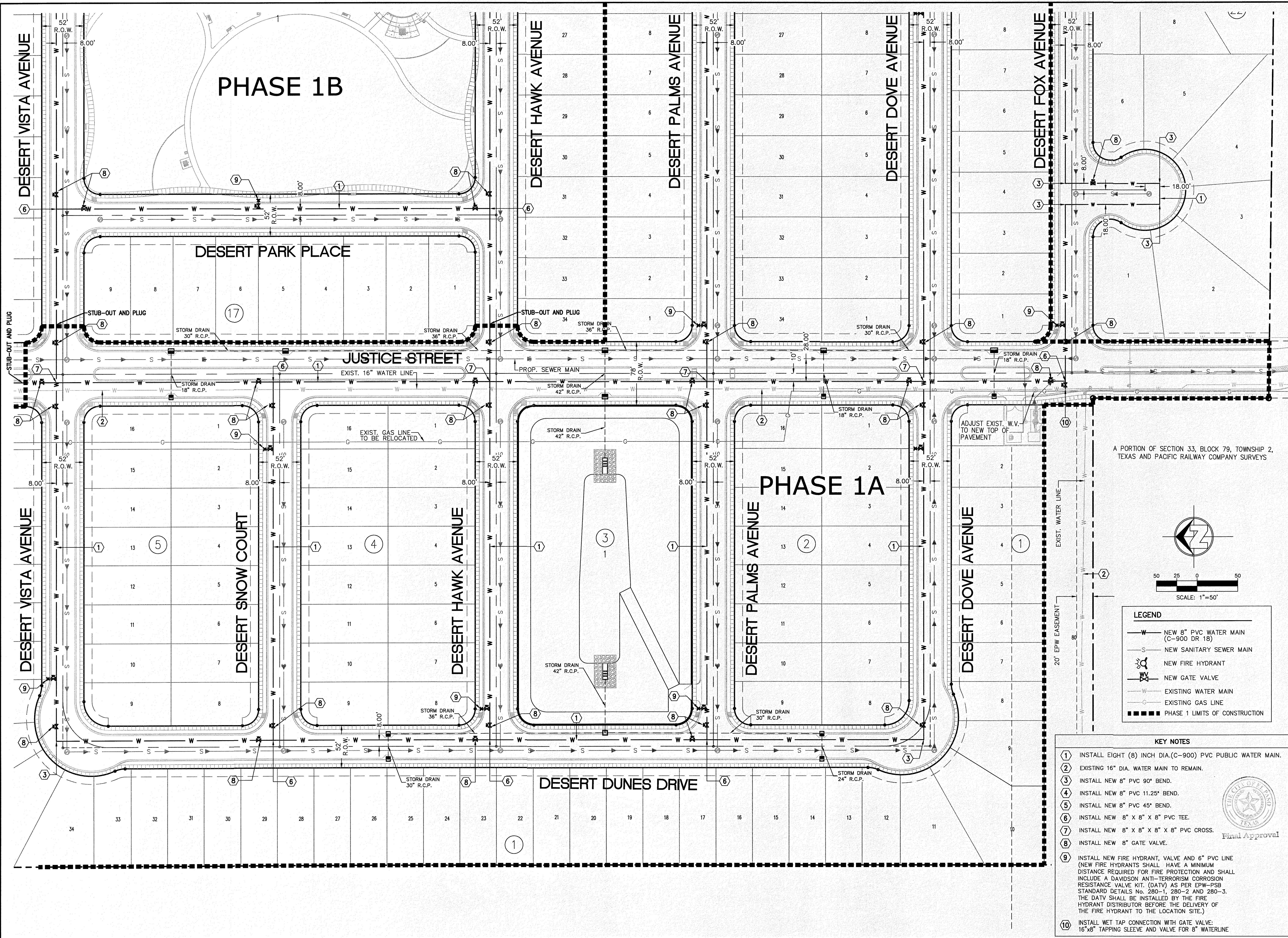


A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
BOOK 2884, PAGE 1625

A PORTION OF SECTION 33, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

NO.	DATE	REVISION DESCRIPTION
<b>BENCHMARK</b>		
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3539.38 (NAVD88 DATUM)		
<b>PROJECT NAME</b>		
DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS JUSTICE STREET EL PASO, TEXAS		
<b>CIVIL ENGINEERS, LAND SURVEYORS AND PLANNERS</b>		
 SLI ENGINEERING, INC. LICENSE No. F-1902 OCTOBER 24, 2018 SHEET TITLE		
 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig It's Free, It's Easy, and IT'S THE LAW!  Final Approval		
<b>C-05.00</b> <b>WATER LAYOUT PLAN OVERALL</b>		



**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ⊙ NEW FIRE HYDRANT
- ⊕ NEW GATE VALVE
- W — EXISTING WATER MAIN
- G — EXISTING GAS LINE
- PHASE 1 LIMITS OF CONSTRUCTION

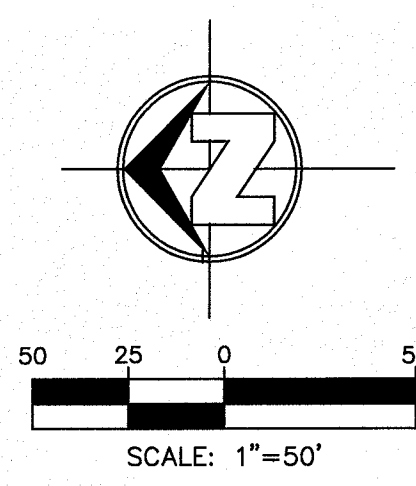
- KEY NOTES**
- 1 INSTALL EIGHT (8) INCH DIA.(C-900) PVC PUBLIC WATER MAIN.
  - 2 EXISTING 16" DIA. WATER MAIN TO REMAIN.
  - 3 INSTALL NEW 8" PVC 90° BEND.
  - 4 INSTALL NEW 8" PVC 11.25° BEND.
  - 5 INSTALL NEW 8" PVC 45° BEND.
  - 6 INSTALL NEW 8" X 8" X 8" PVC TEE.
  - 7 INSTALL NEW 8" X 8" X 8" X 8" PVC CROSS.
  - 8 INSTALL NEW 8" GATE VALVE.
  - 9 INSTALL NEW FIRE HYDRANT, VALVE AND 6" PVC LINE (NEW FIRE HYDRANTS SHALL HAVE A MINIMUM DISTANCE REQUIRED FOR FIRE PROTECTION AND SHALL INCLUDE A DAVIDSON ANTI-TERRORISM CORROSION RESISTANCE VALVE KIT (DATV) AS PER EPW-PSB STANDARD DETAILS No. 280-1, 280-2 AND 280-3. THE DATV SHALL BE INSTALLED BY THE FIRE HYDRANT DISTRIBUTOR BEFORE THE DELIVERY OF THE FIRE HYDRANT TO THE LOCATION SITE.)
  - 10 INSTALL WET TAP CONNECTION WITH GATE VALVE, 16"X8" TAPPING SLEEVE AND VALVE FOR 8" WATERLINE



Final Approval

SECTION CORNER FOR SECTIONS TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3539.38 (NAVD88 DATUM)	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
SCALE: AS INDICATED	DESERT SANDS	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	EL PASO, TEXAS	
JOB NO.: 09-16-3911	DESIGN BY: J/JT	CHECKED BY: GH/TE	DATE: OCTOBER, 2019	
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<p>CIVIL ENGINEERS LAND SURVEYORS AND PLANNERS 901 EL PASO, TEXAS 9710 DR# 381-1607</p> <p><b>SLI</b> SLI ENGINEERING, INC.</p> <p>LICENSE No. F-1902</p> <p>STATE OF TEXAS GEORGE S. HALL 9218 09/24/2019</p> <p>OCTOBER 24, 2019 SHEET TITLE</p> <p>WATER LAYOUT PLAN ENLARGED-1</p> <p>C-05.01</p>				



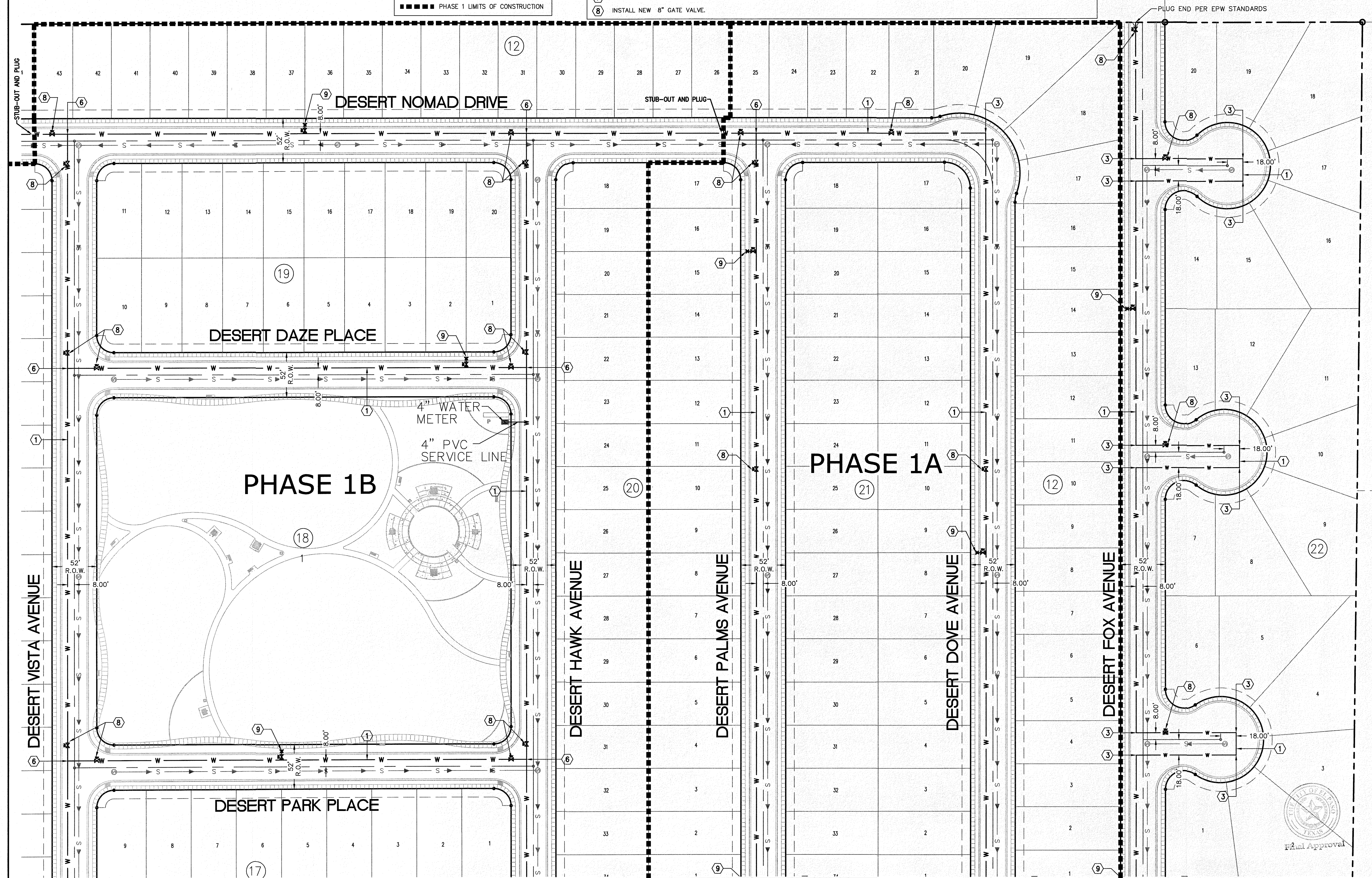


**LEGEND**

	NEW 8" PVC WATER MAIN (C-900 DR 18)
	NEW SANITARY SEWER MAIN
	NEW FIRE HYDRANT
	NEW GATE VALVE
	EXISTING WATER MAIN
	EXISTING GAS LINE
	PHASE 1 LIMITS OF CONSTRUCTION

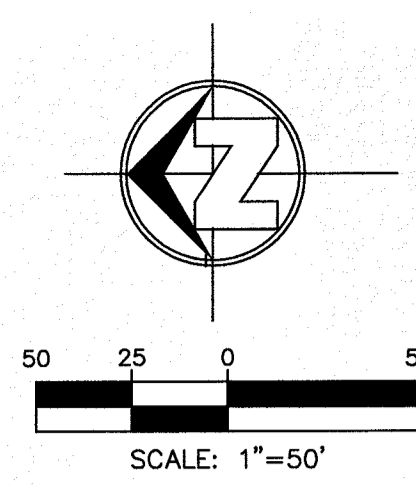
**KEY NOTES**

①	INSTALL EIGHT (8) INCH DIA.(C-900) PVC PUBLIC WATER MAIN.	⑨	INSTALL NEW FIRE HYDRANT, VALVE AND 6" PVC LINE (NEW FIRE HYDRANTS SHALL HAVE A MINIMUM DISTANCE REQUIRED FOR FIRE PROTECTION AND SHALL INCLUDE A DAVIDSON ANTI-TERRORISM CORROSION RESISTANCE VALVE KIT. (DATV) AS PER EPW-PSB STANDARD DETAILS No. 280-1, 280-2 AND 280-3. THE DATV SHALL BE INSTALLED BY THE FIRE HYDRANT DISTRIBUTOR BEFORE THE DELIVERY OF THE FIRE HYDRANT TO THE LOCATION SITE.)
②	EXISTING 16" DIA. WATER MAIN TO REMAIN.	⑩	INSTALL WET TAP CONNECTION WITH GATE VALVE, 16"x8" TAPPING SLEEVE AND VALVE FOR 8" WATERLINE
③	INSTALL NEW 8" PVC 90° BEND.		
④	INSTALL NEW 8" PVC 11.25° BEND.		
⑤	INSTALL NEW 8" PVC 45° BEND.		
⑥	INSTALL NEW 8" X 8" X 8" PVC TEE.		
⑦	INSTALL NEW 8" X 8" X 8" X 8" PVC CROSS.		
⑧	INSTALL NEW 8" GATE VALVE.		



<p>PROJECT NAME <b>DESERT SANDS</b></p> <p>PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS</p> <p>EL PASO, TEXAS</p>	<p>SCALE: AS INDICATED</p> <p>JOB NO.: 09-16-3811</p> <p>DESIGN BY: J/ET</p> <p>CHECKED BY: GH/FE</p> <p>DATE: OCTOBER 2018</p>	<p>BENCHMARK</p> <p>SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3539.38 (NAVD88 DATUM)</p>	<p>REVISION DESCRIPTION</p>
	<p>EL PASO, TEXAS</p>		
	<p>SLI ENGINEERING, INC.</p> <p>CIVIL ENGINEERS LAND SURVEYORS PLANNING ARCHITECTS 1800 W. TEXAS STREET EL PASO, TEXAS 79901 TEL: 972-381-1457 FAX: 972-381-1457</p> <p>LICENSE No. F-1902</p> <p>OCTOBER 24, 2018</p> <p>SHEET TITLE</p> <p>WATER LAYOUT PLAN ENLARGED-2</p> <p>C-05.02</p>		

A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
BOOK 2884, PAGE 1625

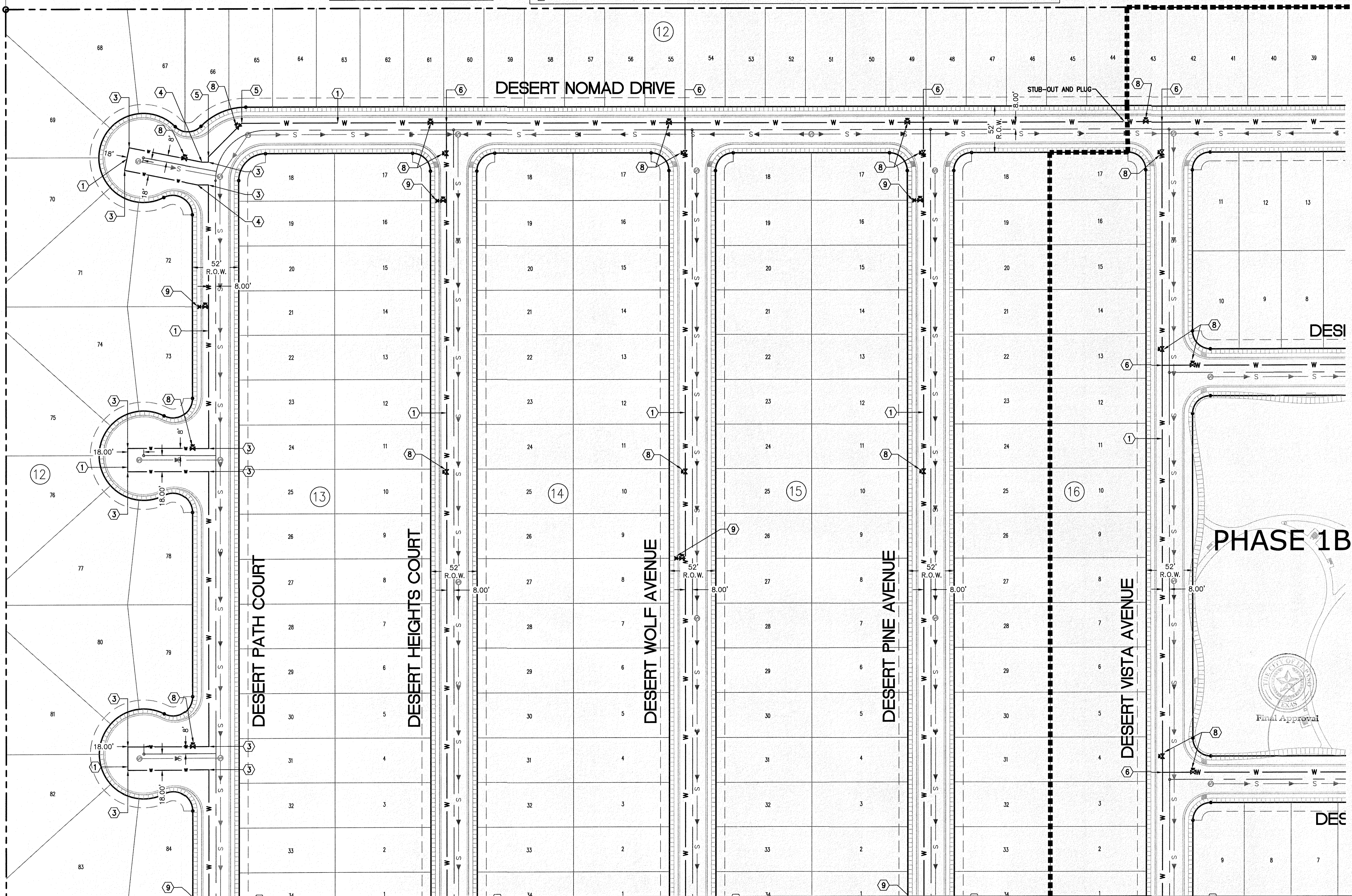


**LEGEND**

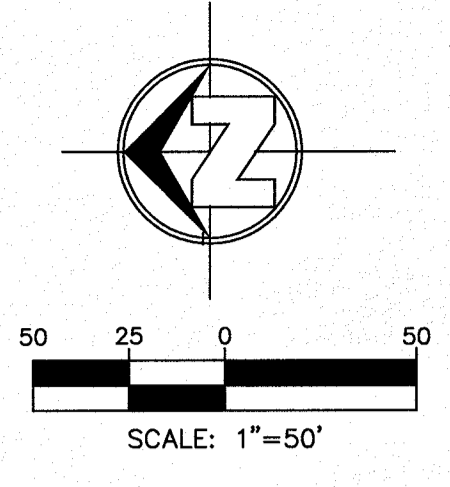
	NEW 8" PVC WATER MAIN (C-900 DR 18)
	NEW SANITARY SEWER MAIN
	NEW FIRE HYDRANT
	NEW GATE VALVE
	EXISTING WATER MAIN
	EXISTING GAS LINE
	PHASE 1 LIMITS OF CONSTRUCTION

**KEY NOTES**

1	INSTALL EIGHT (8) INCH DIA.(C-900) PVC PUBLIC WATER MAIN.	9	INSTALL NEW FIRE HYDRANT, VALVE AND 6" PVC LINE (NEW FIRE HYDRANTS SHALL HAVE A MINIMUM DISTANCE REQUIRED FOR FIRE PROTECTION AND SHALL INCLUDE A DAVIDSON ANTI-TERRORISM CORROSION RESISTANCE VALVE KIT. (DATV) AS PER EPW-PSB STANDARD DETAILS No. 280-1, 280-2 AND 280-3. THE DATV SHALL BE INSTALLED BY THE FIRE HYDRANT DISTRIBUTOR BEFORE THE DELIVERY OF THE FIRE HYDRANT TO THE LOCATION SITE.)
2	EXISTING 16" DIA. WATER MAIN TO REMAIN.	10	INSTALL WET TAP CONNECTION WITH GATE VALVE: 16"x8" TAPPING SLEEVE AND VALVE FOR 8" WATERLINE
3	INSTALL NEW 8" PVC 90° BEND.		
4	INSTALL NEW 8" PVC 11.25° BEND.		
5	INSTALL NEW 8" PVC 45° BEND.		
6	INSTALL NEW 8" X 8" X 8" PVC TEE.		
7	INSTALL NEW 8" X 8" X 8" X 8" PVC CROSS.		
8	INSTALL NEW 8" GATE VALVE.		



<p>SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)</p>	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
<p>SCALE: AS INDICATED JOB NO.: 09-1E-3911 DESIGN BY: J/T CHECKED BY: GH/TE DATE: OCTOBER 2018</p>	PROJECT NAME	<p>DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS</p>		
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<p>CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS 6800 W. HAVEN EL PASO, TEXAS (915) 561-1467</p>	<p><b>SLI</b> SLI ENGINEERING, INC.</p>	<p>LICENSE No. F-1902</p>		
<p>OCTOBER 24, 2018</p>	<p>Final Approval</p>	<p>SHEET TITLE</p>		
	<p>WATER LAYOUT PLAN ENLARGED-3</p>	<p>C-05.03</p>		

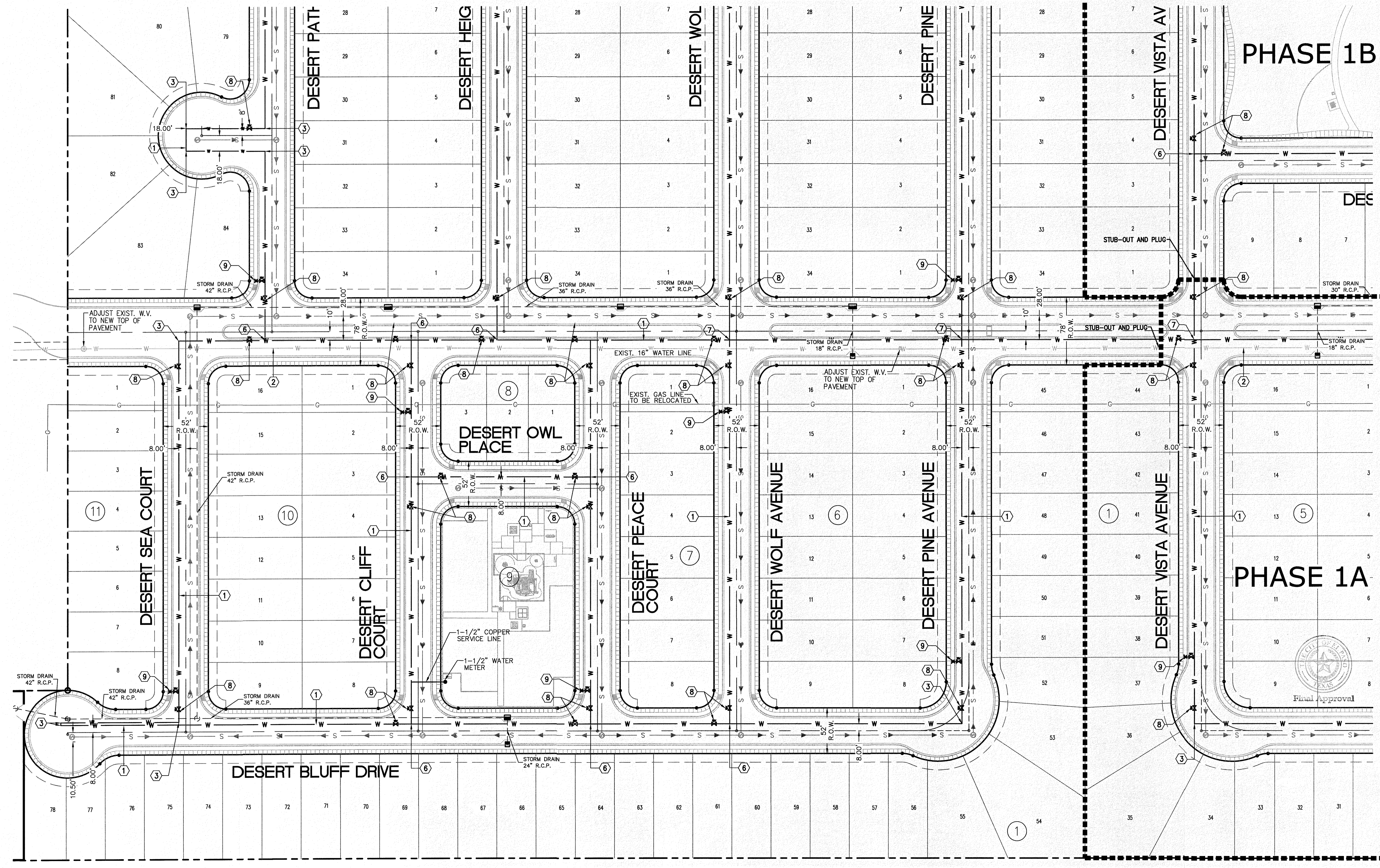


**LEGEND**

	NEW 8" PVC WATER MAIN (C-900 DR 18)
	NEW SANITARY SEWER MAIN
	NEW FIRE HYDRANT
	NEW GATE VALVE
	EXISTING WATER MAIN
	EXISTING GAS LINE
	PHASE 1 LIMITS OF CONSTRUCTION

**KEY NOTES**

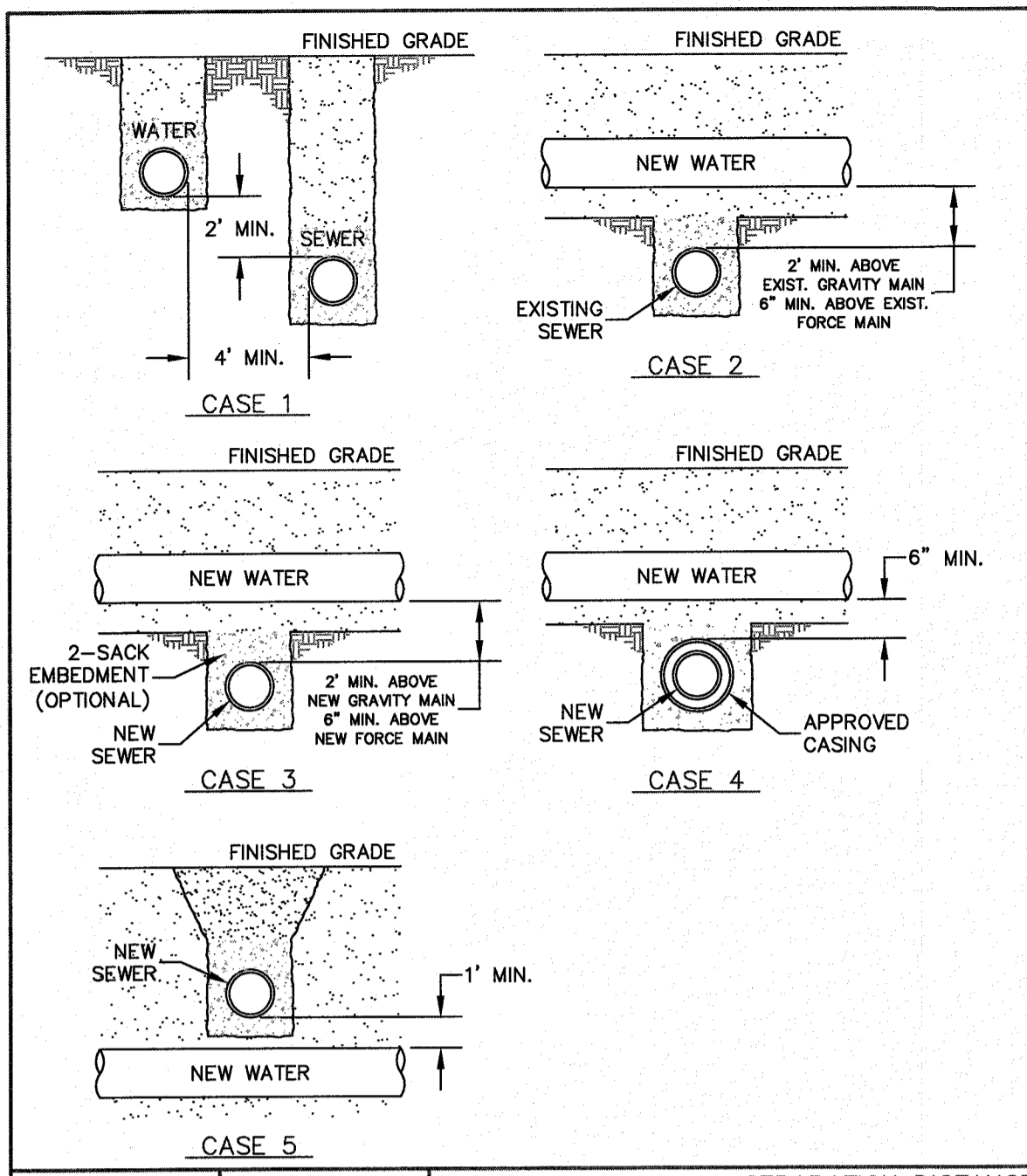
①	INSTALL EIGHT (8) INCH DIA.(C-900) PVC PUBLIC WATER MAIN.	⑨	INSTALL NEW FIRE HYDRANT, VALVE AND 6" PVC LINE (NEW FIRE HYDRANTS SHALL HAVE A MINIMUM DISTANCE REQUIRED FOR FIRE PROTECTION AND SHALL INCLUDE A DAVIDSON ANTI-TERRORISM CORROSION RESISTANCE VALVE KIT. (DATV) AS PER EPW-PSB STANDARD DETAILS No. 280-1, 280-2 AND 280-3. THE DATV SHALL BE INSTALLED BY THE FIRE HYDRANT DISTRIBUTOR BEFORE THE DELIVERY OF THE FIRE HYDRANT TO THE LOCATION SITE.)
②	EXISTING 16" DIA. WATER MAIN TO REMAIN.	⑩	INSTALL WET TAP CONNECTION WITH GATE VALVE: 16" X 8" TAPPING SLEEVE AND VALVE FOR 8" WATERLINE
③	INSTALL NEW 8" PVC 90° BEND.		
④	INSTALL NEW 8" PVC 11.25° BEND.		
⑤	INSTALL NEW 8" PVC 45° BEND.		
⑥	INSTALL NEW 8" X 8" X 8" PVC TEE.		
⑦	INSTALL NEW 8" X 8" X 8" X 8" PVC CROSS.		
⑧	INSTALL NEW 8" GATE VALVE.		



**PHASE 1B**

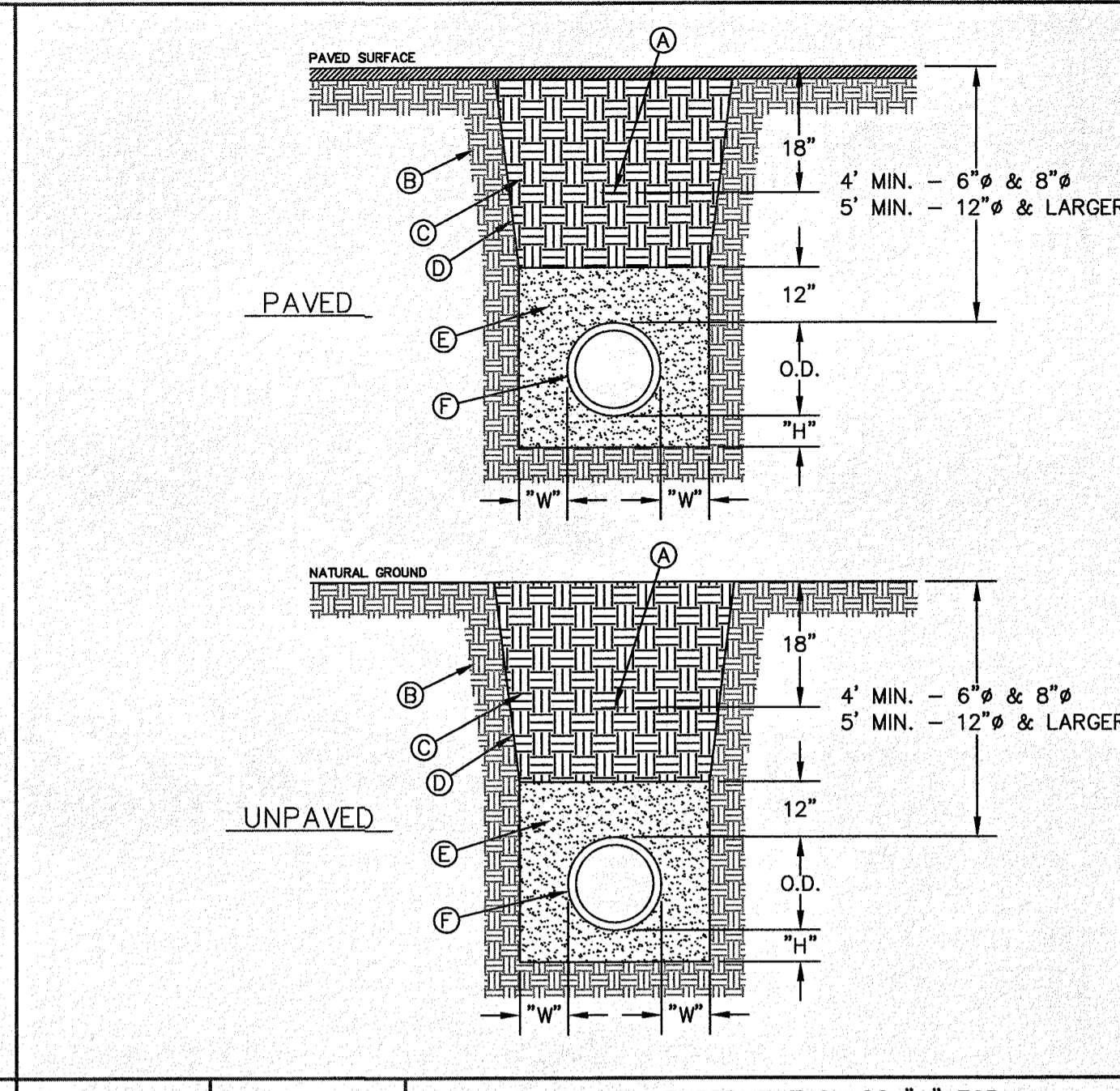
**PHASE 1A**

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3539.38 (NAVD88 DATUM)	REVISION DESCRIPTION
	DATE
BENCHMARK	NO.
SCALE: AS INDICATED	DATE: OCTOBER 2018
JOB NO.: 09-16-3811	DESIGN BY: J/JT
CHECKED BY: GH/FE	DATE: OCTOBER 2018
PROJECT NAME	EL PASO, TEXAS
DESERT SANDS	JUSTICE STREET
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	
CIVIL ENGINEERS LAND SURVEYORS AND PLANNERS SLI ENGINEERING, INC. 1100 N. TEXAS EL PASO, TEXAS 971-341-1467	
LICENSE No. F-1902	
OCTOBER 24, 2018	
SHEET TITLE	
WATER LAYOUT PLAN ENLARGED-4	
C-05.04	



**GENERAL NOTES:**  
 1. NEW OR EXISTING POTABLE WATER AND SANITARY SEWER MAINS.  
 2. SEPARATION DISTANCES SHALL FOLLOW TEXAS COMMISSION ON ENVIRONMENTAL QUALITY STANDARD REQUIREMENTS.

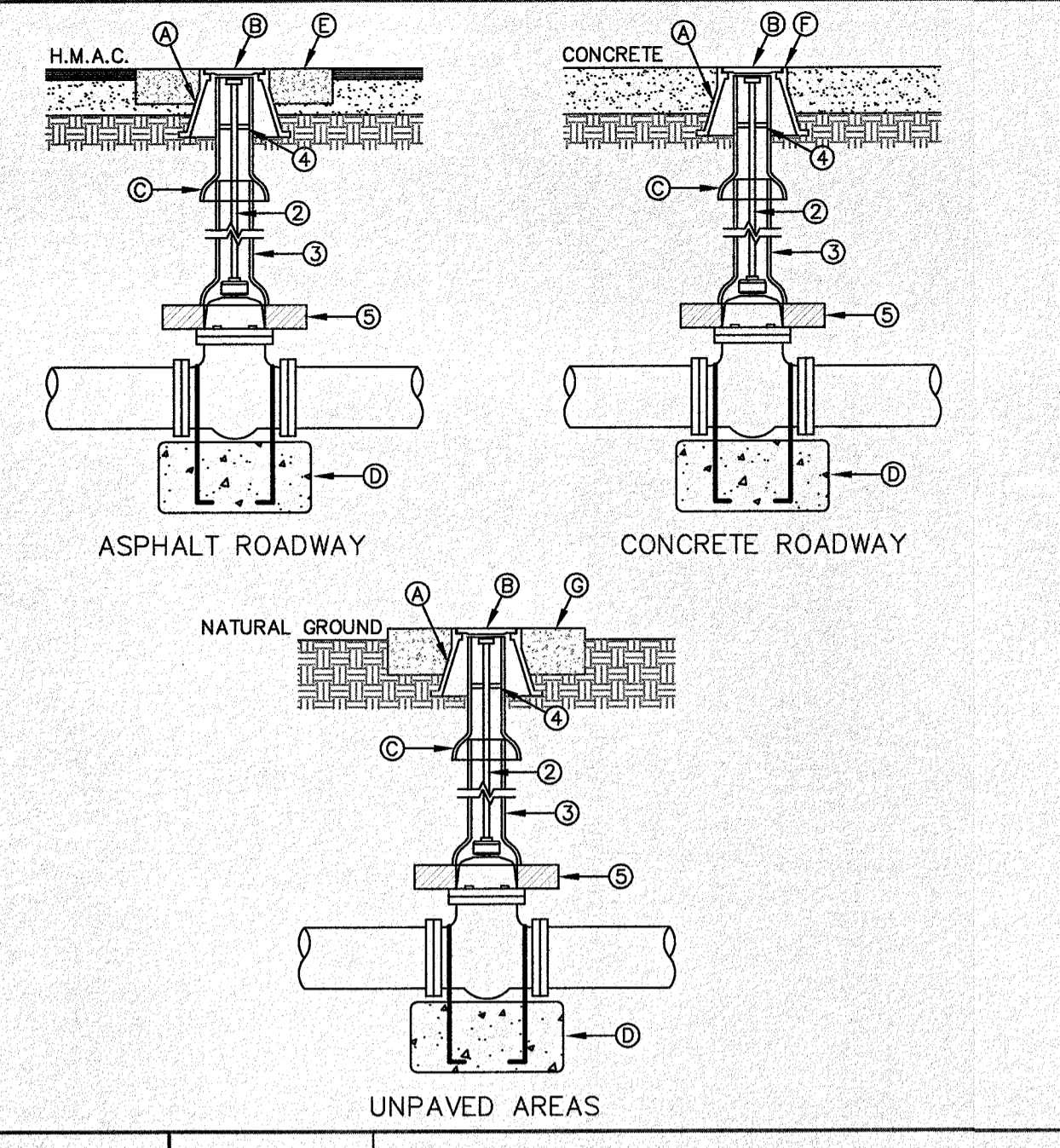
**CONSTRUCTION KEY NOTES:**  
 WHEN STANDARD TRENCH SEPARATION DISTANCE CANNOT BE ACHIEVED, SEPARATION SHALL BE DETERMINED ACCORDING TO THE FOLLOWING CONDITIONS:  
 CASE 1. GRAVITY SANITARY SEWER MAIN OR FORCE MAIN PARALLEL TO POTABLE WATER MAIN (PER TCEQ §290.440(4)(B)(VI) AND §290.440(4)(B)(VII)).  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING; REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.  
 CASE 2. NEW POTABLE WATER MAIN CROSSING EXISTING GRAVITY SANITARY SEWER MAIN OR EXISTING FORCE MAIN (PER TCEQ §290.440(4)(B)(VI) AND §290.440(4)(B)(VII)).  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING; REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.  
 CASE 3. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.440(4)(B)(VI) AND §290.440(4)(B)(VII)).  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING; REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.  
 CASE 4. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.440(4)(B)(VI) AND §290.440(4)(B)(VII)).  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING; REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.  
 CASE 5. NEW GRAVITY SEWER ONLY, IN LIEU OF PVC (SDR35) OR DI, INSTALL ONE PIPE SEGMENT OF 2000 PSI SEWER MAIN MUST BE EMBEDDED IN CEMENT STABILIZED BACKFILL. THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.  
 CASE 6. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.440(4)(B)(VI) AND §290.440(4)(B)(VII)).  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING; REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.  
 CASE 7. NEW GRAVITY SEWER ONLY, IN LIEU OF PVC (SDR35) OR DI, INSTALL ONE PIPE SEGMENT OF 2000 PSI SEWER MAIN MUST BE EMBEDDED IN CEMENT STABILIZED BACKFILL. THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.  
 CASE 8. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.440(4)(B)(VI) AND §290.440(4)(B)(VII)).  
 • LOCATION: WATER ABOVE SEWER OR FORCE MAIN.  
 • SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING; REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.  
 • CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.  
 • MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.



**GENERAL NOTES:**  
 1. BEDDING FOR PRESSURE AND GRAVITY PIPE IN DRY CONDITIONS.  
 2. PROVIDE TRENCH SAFETY SYSTEM FOR TRENCH DEPTHS GREATER THAN 5 FEET.  
 3. IF THE NATIVE MATERIAL EXCAVATED FROM THE TRENCH IS UNSUITABLE AS BACKFILL MATERIAL OR THE REQUIRED COMPACTION IS UNATTAINABLE, THE CONTRACTOR SHALL, AT HIS EXPENSE, IMPORT SELECT MATERIAL TO BE MIXED WITH OR USED IN PLACE OF THE NATIVE MATERIAL. SELECT MATERIAL MUST BE APPROVED BY EPWU. SUBSTITUTE SOIL CEMENT SLURRY (1-SACK) IF REQUIRED IN SPECS.

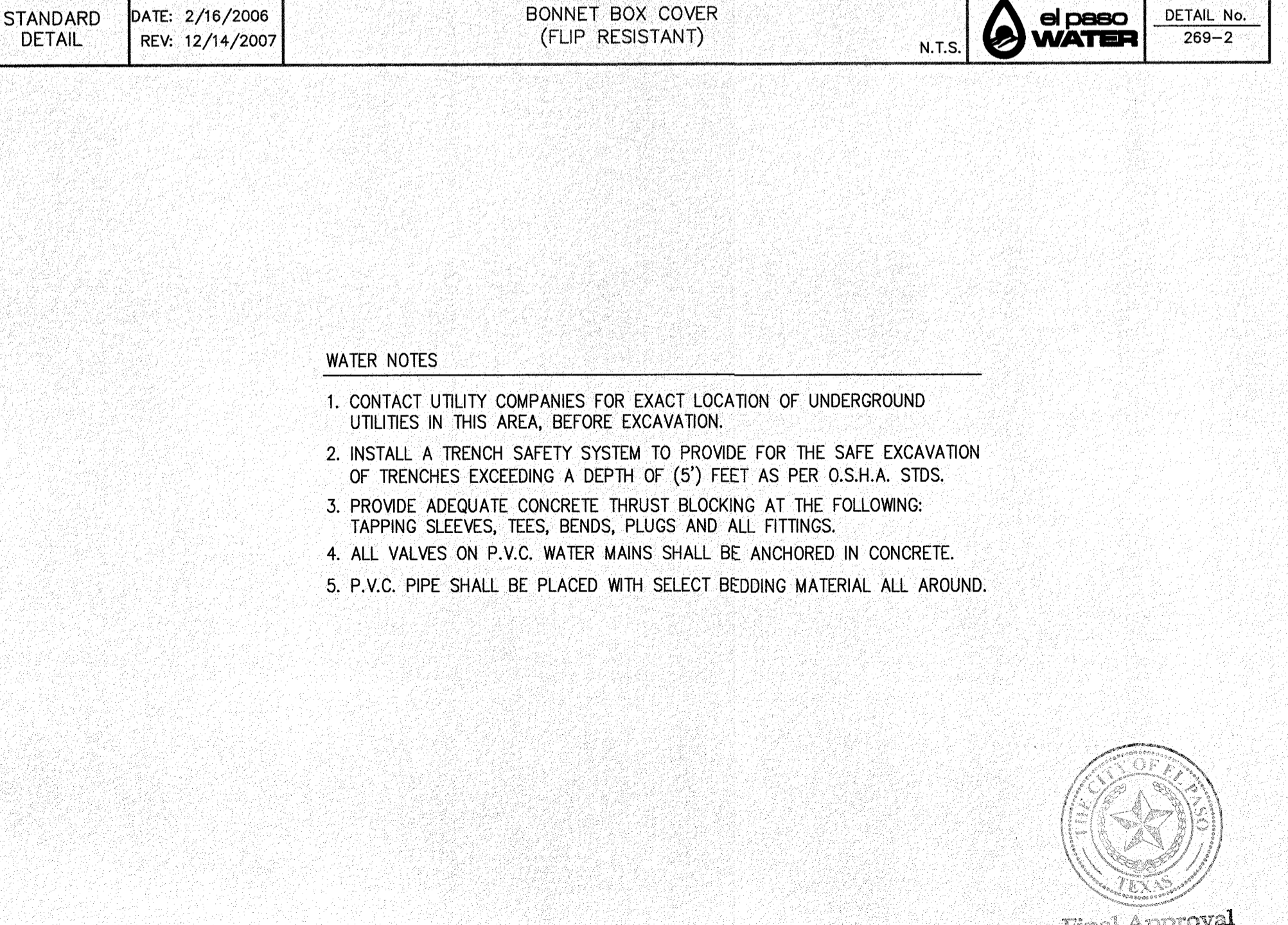
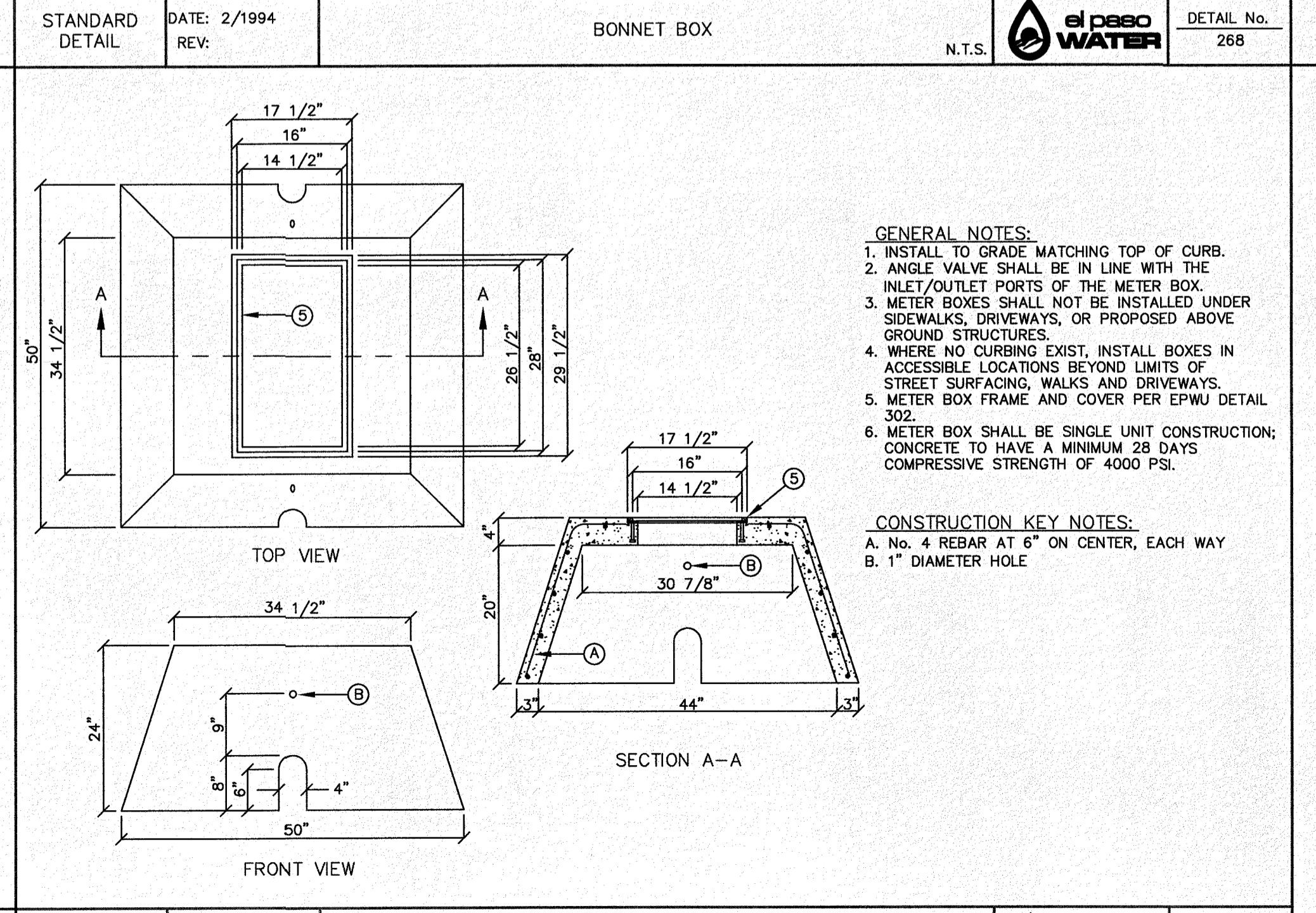
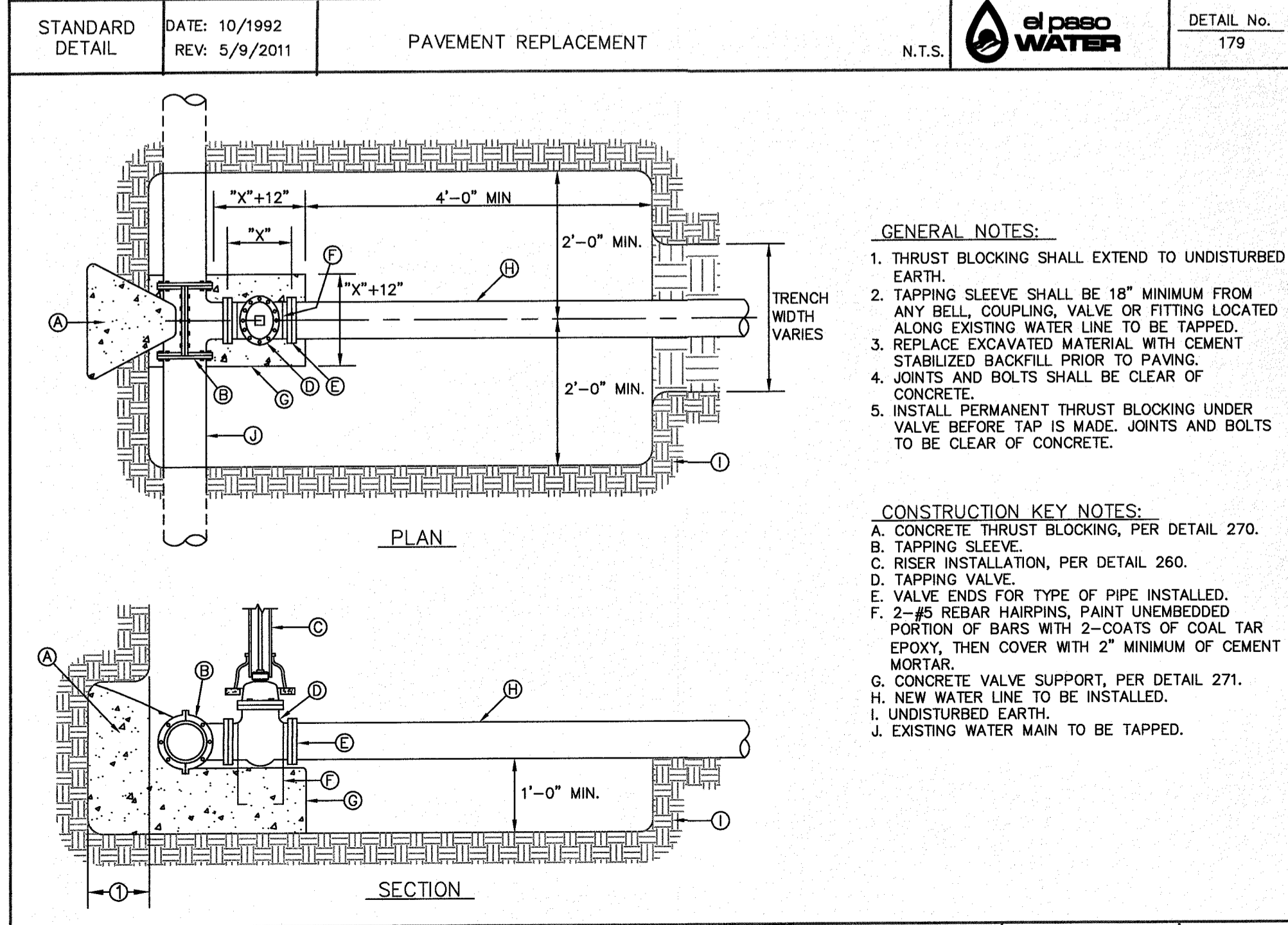
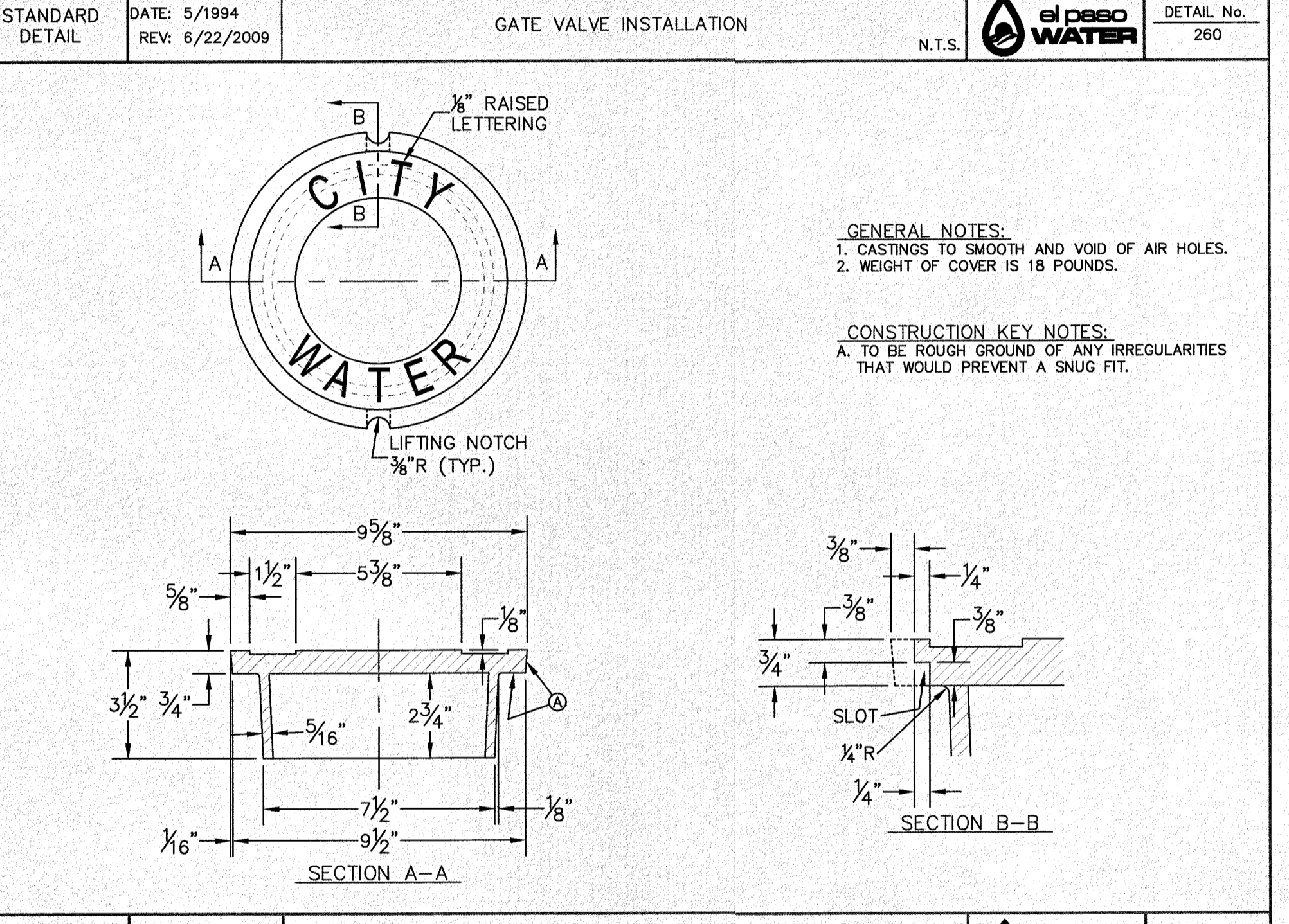
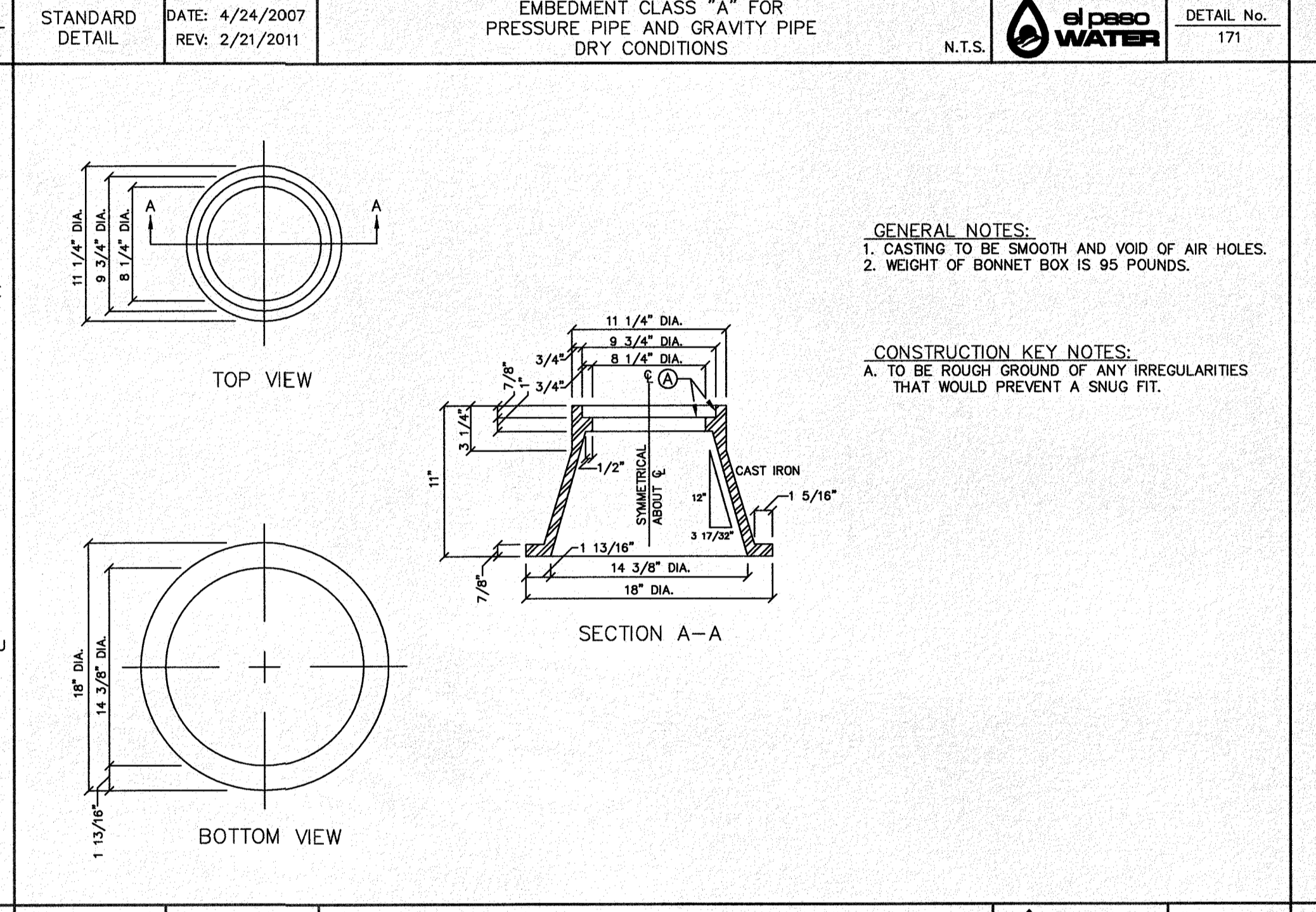
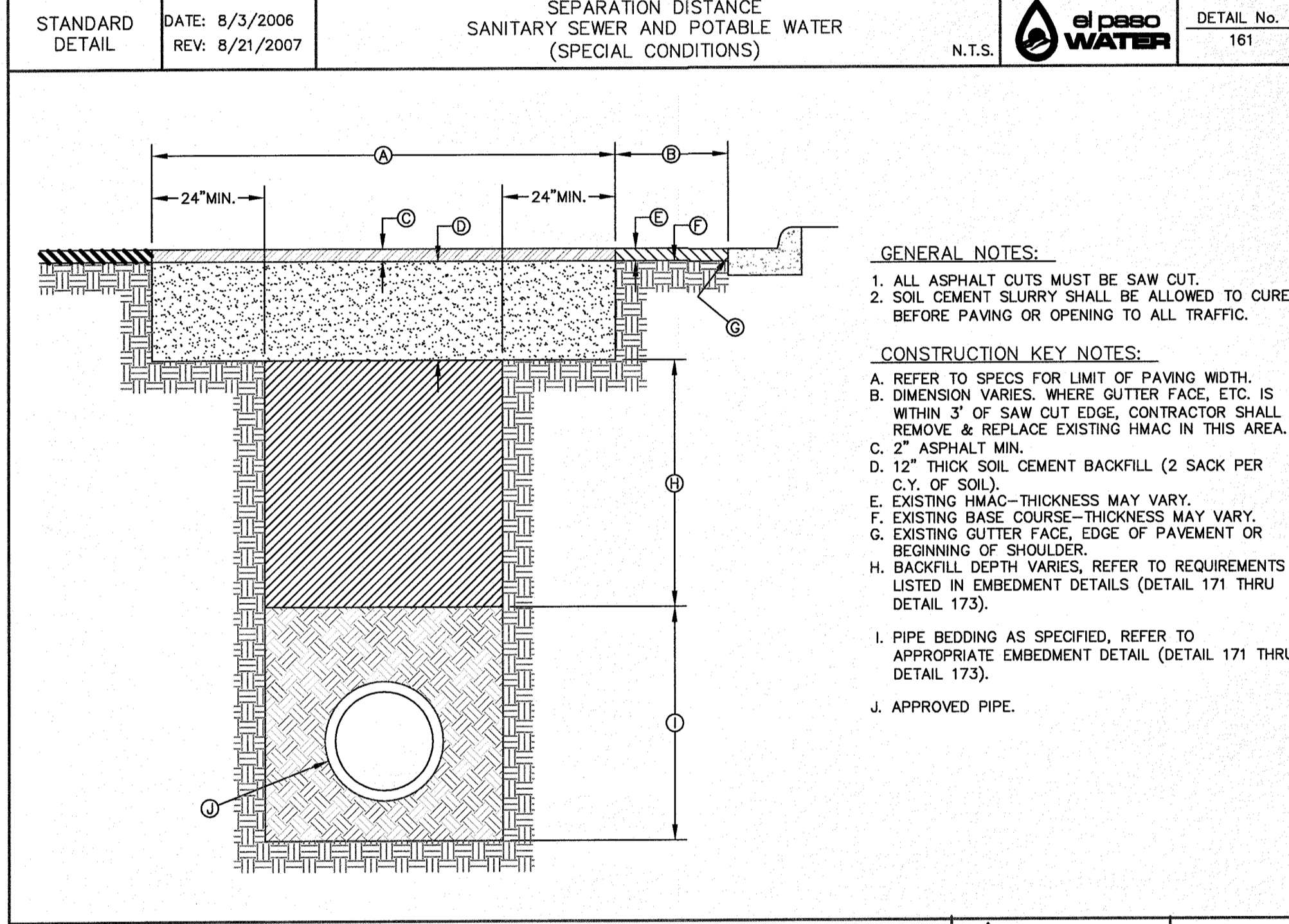
**CONSTRUCTION KEY NOTES:**  
 A. APPROVED MARKING TAPE.  
 B. UNDISTURBED STABLE MATERIAL.  
 C. NATIVE MATERIAL BACKFILL.  
 D. SLOPE TRENCH IN SANDY SOIL CONDITIONS.  
 E. USE CLASS II OR CLASS III SAND PER ASTM D-2487. NATIVE MATERIAL OR IMPORTED SELECT MATERIAL MEETING OR EXCEEDING THIS REQUIREMENT MAY BE USED. COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR (OR 90% D-698 STANDARD PROCTOR).  
 F. APPROVED PIPE.  
 G. TRENCH DIMENSIONS AS FOLLOWS:

PIPE DIAMETER	"H"	"W"
6" - 30"	4"	6"
GREATER THAN 30"	6"	12"



**GENERAL NOTES:**  
 1. VALVE TYPE AND VALVE ENDS SHALL BE AS SHOWN ON THE PLANS.  
 2. ALL BURIED VALVES 5' AND DEEPER SHALL BE PROVIDED WITH SOLID STEEL EXTENSION STEM OPERATOR WITH 2" SQUARE ANWMA NUT WITH 36° OF VALVE BOX COVER. NUT IS TO INDICATE DIRECTION OF ROTATION TO OPEN VALVE.  
 3. 8" DIA. MINIMUM VITRIFIED CLAY OR SDR 35 P.V.C. PIPE, PIPE SHALL NOT REST ON VALVE BODY.  
 4. 2" THICK STEEL TRASH RING VALVE BOX INSIDE DIAMETER MINUS 8".  
 5. MINIMUM 2" CONCRETE OR BRICK ALL AROUND.  
 6. CLEAN BONNET BOX OF ALL DEBRIS AND SOIL.  
 7. COAT BURIED PIPE AND BONNET BOX PER SPECIFICATIONS. VALVE SHALL BE WRAPPED IN POLYETHYLENE IN ACCORDANCE WITH SPECIFICATIONS.

**CONSTRUCTION KEY NOTES:**  
 A. BONNET BOX (SEE DETAIL 268).  
 B. BONNET BOX COVER (SEE DETAILS 269-1 & 269-2).  
 C. FINAL EXTENSION TO BONNET BOX SHALL BE WITH BELL AND SPIGOT ENDS (CLAY OR SDR 35 P.V.C. SPOOL).  
 D. CONCRETE VALVE ANCHOR (SEE DETAIL 271).  
 E. CONCRETE COLLAR (SEE DET 184-1) FLUSH WITH TOP OF H.M.A.C.  
 F. BONNET BOX FLUSH WITH TOP OF CONCRETE, CONCRETE COLLAR NOT NEEDED.  
 G. CONCRETE APRON (SEE DETAIL 184-2) FLUSH WITH BONNET BOX AND 2" ABOVE NATURAL GROUND.



STANDARD DETAIL DATE: 9/1994 REV: 8/9/2006 TAPPING SLEEVE AND VALVE INSTALLATION N.T.S. el paso WATER DETAIL No. 266

STANDARD DETAIL DATE: 4/1994 REV: 3/26/2007 METER BOX TYPE "D" FOR 2" SERVICE INSTALLATION N.T.S. el paso WATER DETAIL No. 294

STANDARD DETAIL DATE: 2/16/2006 REV: 12/14/2007 BONNET BOX COVER (FLIP RESISTANT) N.T.S. el paso WATER DETAIL No. 269-2

STANDARD DETAIL DATE: 8/3/2006 REV: 8/21/2007 SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS) N.T.S. el paso WATER DETAIL No. 161

STANDARD DETAIL DATE: 4/24/2007 REV: 2/21/2011 EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS N.T.S. el paso WATER DETAIL No. 171

STANDARD DETAIL DATE: 5/1994 REV: 6/22/2009 GATE VALVE INSTALLATION N.T.S. el paso WATER DETAIL No. 260

STANDARD DETAIL DATE: 10/1992 REV: 5/9/2011 PAVEMENT REPLACEMENT N.T.S. el paso WATER DETAIL No. 179

STANDARD DETAIL DATE: 2/1994 REV: BONNET BOX N.T.S. el paso WATER DETAIL No. 268

STANDARD DETAIL DATE: 2/16/2006 REV: 12/14/2007 BONNET BOX COVER (FLIP RESISTANT) N.T.S. el paso WATER DETAIL No. 269-2

STANDARD DETAIL DATE: 9/1994 REV: 8/9/2006 TAPPING SLEEVE AND VALVE INSTALLATION N.T.S. el paso WATER DETAIL No. 266

STANDARD DETAIL DATE: 4/1994 REV: 3/26/2007 METER BOX TYPE "D" FOR 2" SERVICE INSTALLATION N.T.S. el paso WATER DETAIL No. 294

STANDARD DETAIL DATE: 2/16/2006 REV: 12/14/2007 BONNET BOX COVER (FLIP RESISTANT) N.T.S. el paso WATER DETAIL No. 269-2

REVISION DESCRIPTION

DATE

BENCHMARK

NO.

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH AND PACIFIC R.R. SURVEY 2 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3539.38 (NAVD88 DATUM)

SCALE: AS INDICATED

JOB NO.: 09-16-3911

DESIGN BY: J/J/T

CHECKED BY: GH/FE

DATE: OCTOBER 2018

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PROJECT NAME: DESERT SANDS

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

JUSTICE STREET

CIVIL ENGINEERS LAND SURVEYORS AND ARCHITECTS 805 WEST 11TH STREET SUITE 100 EL PASO, TEXAS 79901 (915) 388-1457

SLI ENGINEERING, INC.

LICENSE No. F-1902

STATE OF TEXAS

GEORGES S. HAYDUK

REGISTERED PROFESSIONAL ENGINEER

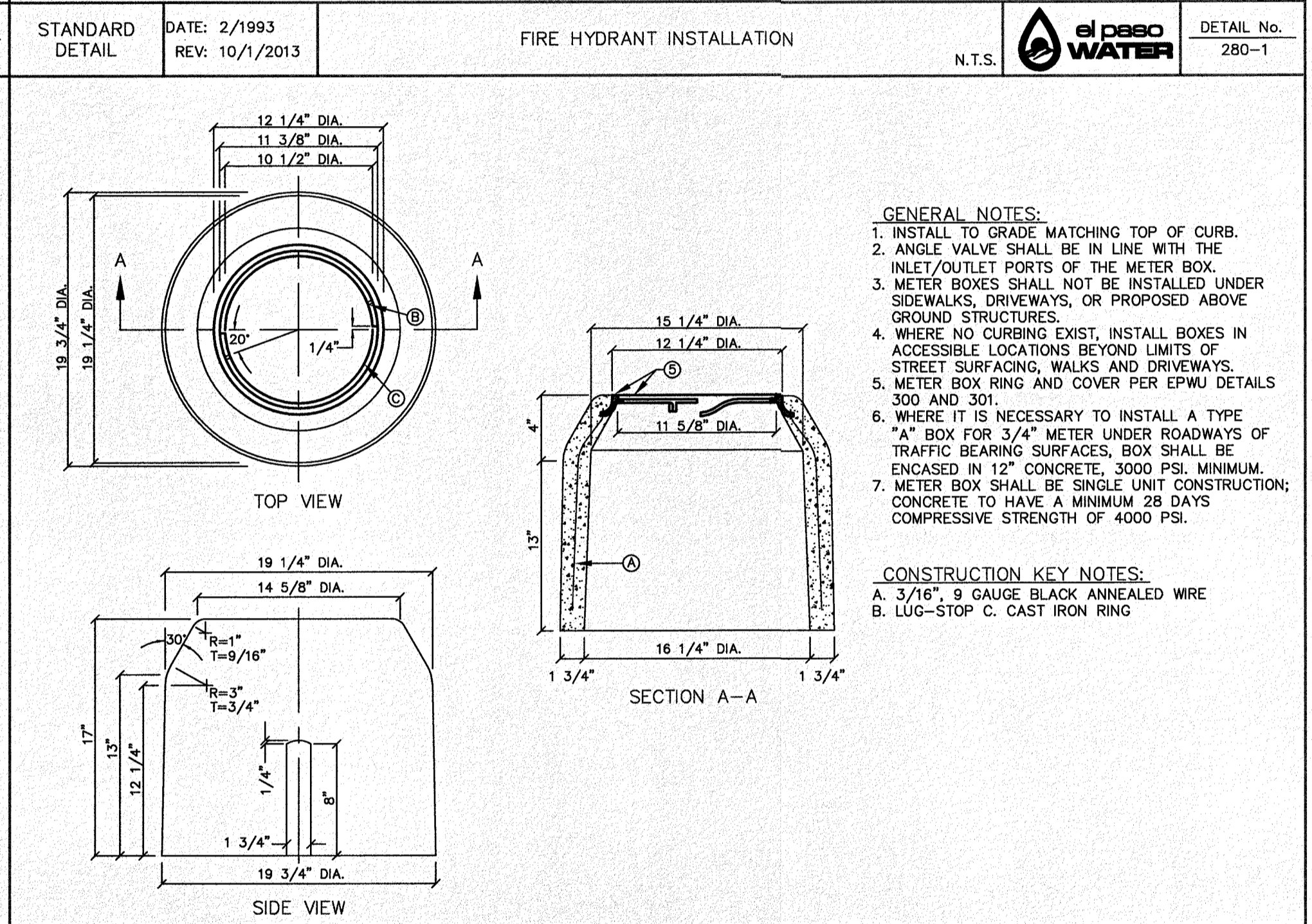
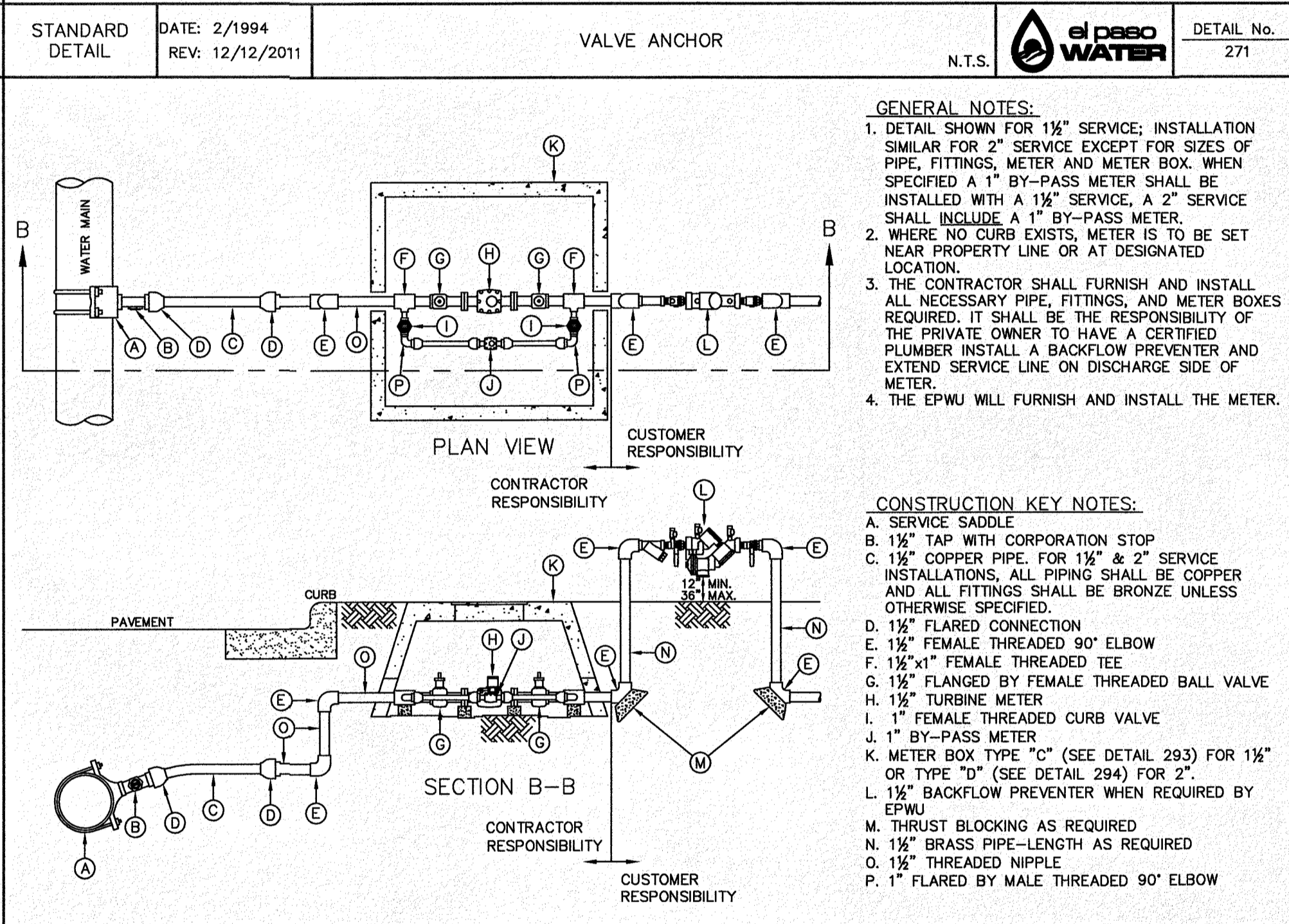
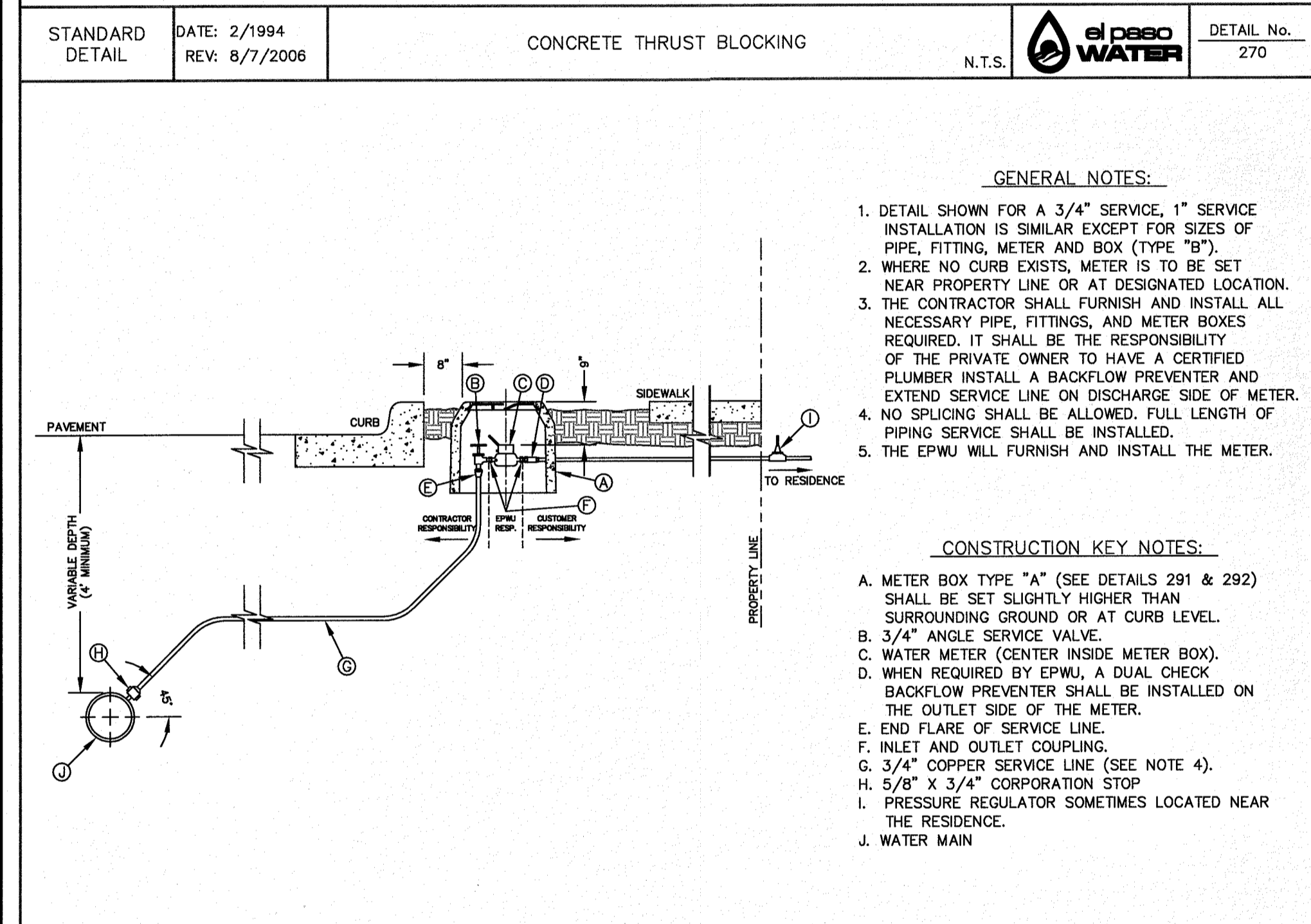
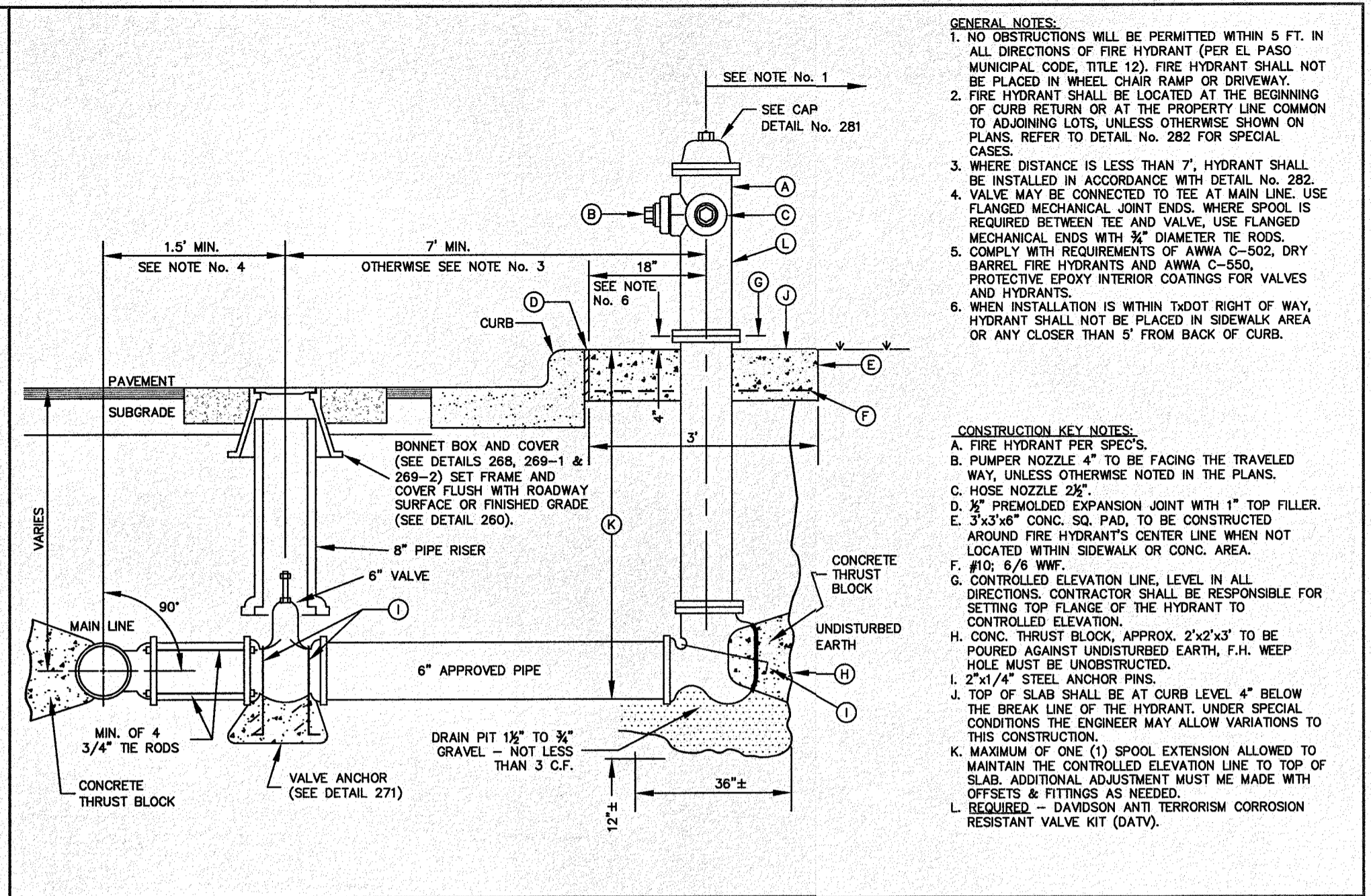
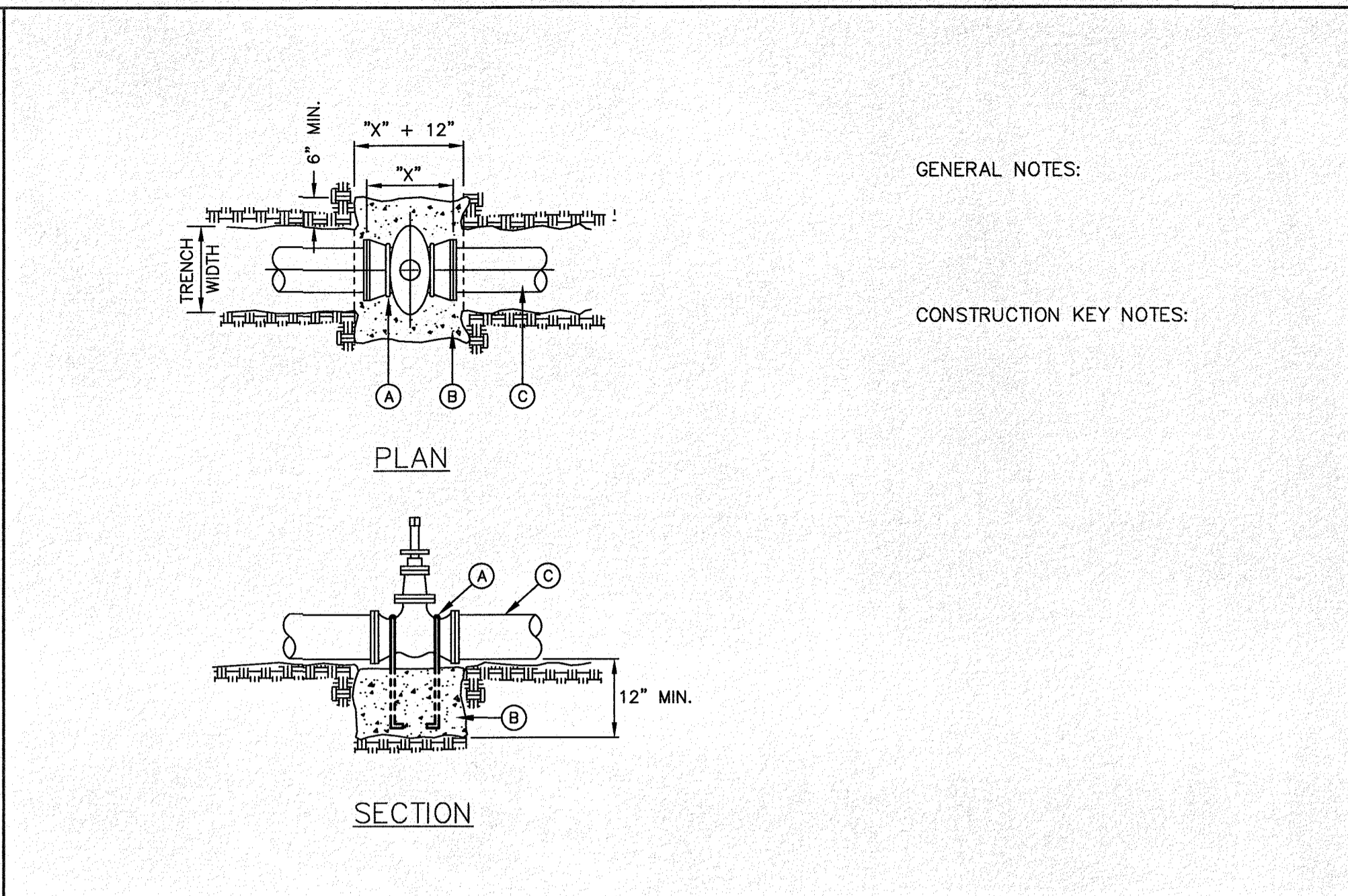
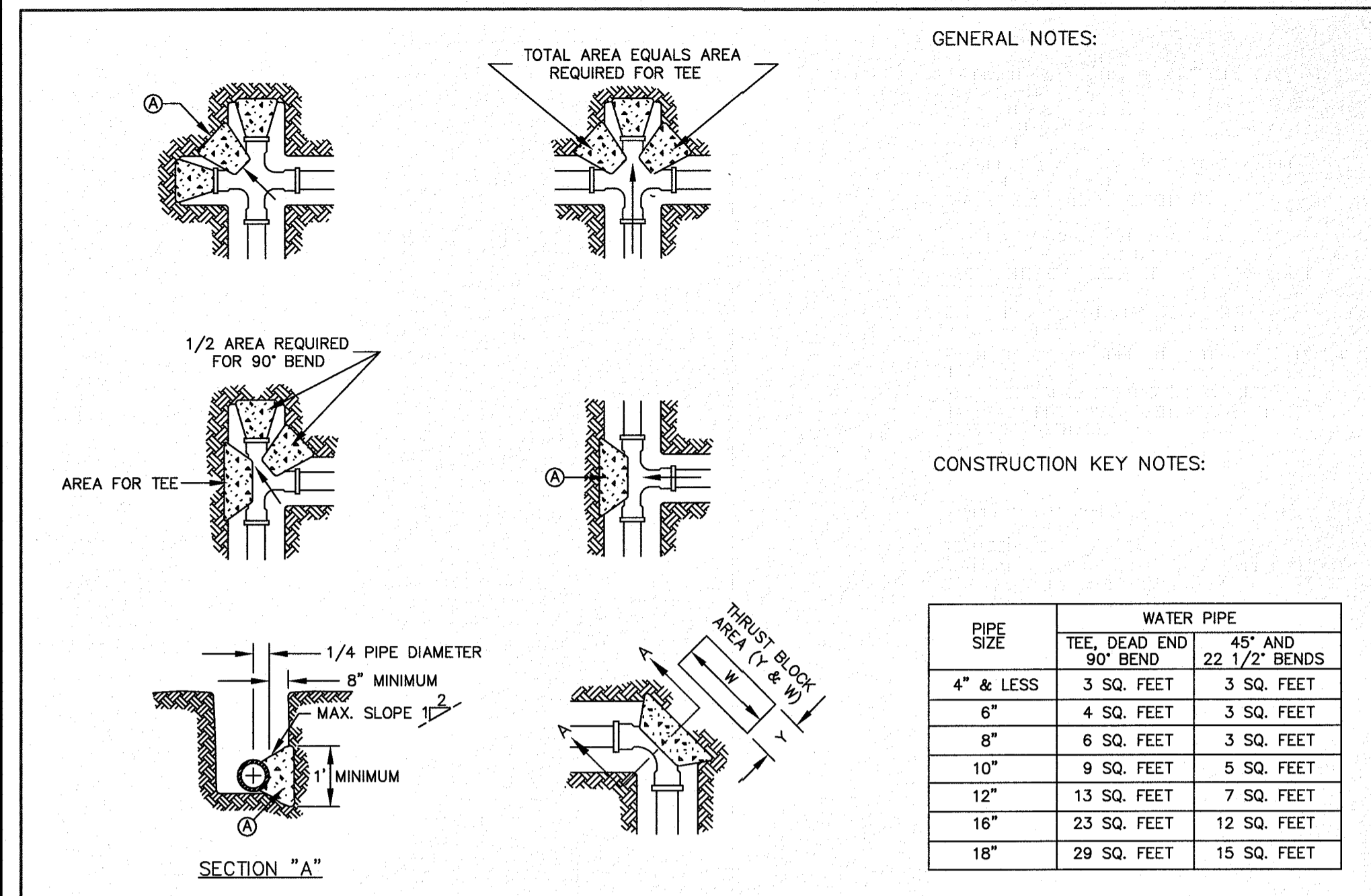
OCTOBER 24, 2018

SHEET TITLE

WATER LINE DISTRIBUTION DETAILS-1

Final Approval

C-05.05



STANDARD DETAIL DATE: 10/20/2000 REV: 5/24/2007 SERVICE LINE 3/4" AND 1" INSTALLATION BY CONTRACTOR

STANDARD DETAIL DATE: 4/21/1998 REV: 3/9/2011 SERVICE LINE 1 1/2" AND 2" INSTALLATION BY CONTRACTOR

STANDARD DETAIL DATE: 4/1994 REV: 8/24/2006 METER BOX TYPE "A" FOR 3/4" SERVICE INSTALLATION

PROJECT NAME: DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

SLI ENGINEERING, INC.

STATE OF TEXAS

GEORGES S. HALL

OCTOBER 24, 2018

SHEET TITLE: WATER LINE DISTRIBUTION DETAILS-2

C-05.06

**TABLE OF SANITARY SEWER QUANTITIES TOTAL ALL PHASES**

12-INCH DIAMETER SDR-35 ASTM D-3034 SEWER MAIN	= 2,419.3 L.F. ±
8-INCH DIAMETER SDR-35 ASTM D-3034 SEWER MAIN	= 18,290.5 L.F. ±
6-INCH DIAMETER C-900 CLASS 235 DR-18 SEWER FORCE MAIN	= 339.8 L.F. ±
MANHOLES	= (71) SEVENTY ONE
24" ENCASEMENT	= 39 L.F. ±
16" ENCASEMENT	= 602 L.F. ±

**TABLE OF SANITARY SEWER QUANTITIES PHASE 1A AND 1B**

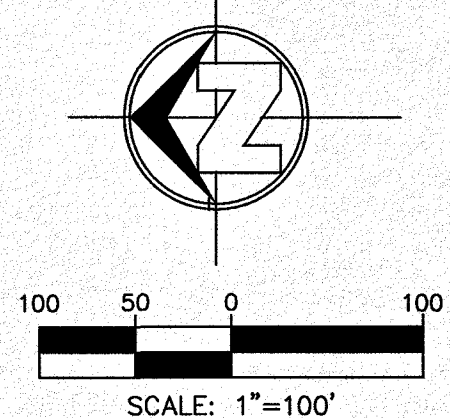
12-INCH DIAMETER SDR-35 ASTM D-3034 SEWER MAIN	PHASE 1A= 1,286.34 L.F. ± PHASE 1B= 0.00 L.F. ±
8-INCH DIAMETER SDR-35 ASTM D-3034 SEWER MAIN	PHASE 1A= 5,361.22 L.F. ± PHASE 1B= 3,461.00 L.F. ±
6-INCH DIAMETER C-900 CLASS 235 DR-18 SEWER FORCE MAIN	PHASE 1A= 339.8 L.F. ± PHASE 1B= 0.00 L.F. ±
MANHOLES	PHASE 1A= (22) TWENTY TWO PHASE 1B= (9) NINE
24" ENCASEMENT	PHASE 1A= 18 L.F. ± PHASE 1B= 0 L.F. ±
16" ENCASEMENT	PHASE 1A= 224 L.F. ± PHASE 1B= 72 L.F. ±

**SEWER NOTES:**

- CONTACT UTILITY COMPANIES FOR EXACT LOCATION OF UNDERGROUND UTILITIES IN THIS AREA BEFORE EXCAVATION.
- INSTALL A TRENCH SAFETY SYSTEM TO PROVIDE FOR THE SAFE EXCAVATION OF ALL TRENCHES EXCEEDING A DEPTH OF (5') FEET AS PER O.S.H.A. STANDARDS.
- PROVIDE MANHOLE ADAPTER WHERE P.V.C. PIPE CONNECTS TO MANHOLE.
- P.V.C. PIPE SHALL BE PLACED WITH SELECT BEDDING MATERIAL ALL AROUND.
- CITY PAVING OUT PERMIT REQUIRED BEFORE EXCAVATION.
- AN EASEMENT IS REQUIRED TO ACCOMMODATE PROPOSED SEWER LINES. REFER TO STANDARD UTILITY DOCUMENTATION IN E.P.W.U.-P.S.B. DEVELOPER AGREEMENT FOR EASEMENT TERMS AND CONDITIONS.
- SEPARATION DISTANCES BETWEEN WATER & SEWER MAINS SHALL COMPLY WITH TCEQ STANDARDS.
- CONSTRUCTION OF PUBLIC WATER & SANITARY SEWER MAINS, INCLUDING MATERIALS & TESTING SHALL COMPLY WITH EPWU STANDARD SPECIFICATION FOR THE INSTALLATION OF WATER MAINS, SEWER MAINS & RELATED APPURTENANCES.
- NO CONSTRUCTION OF PUBLIC SEWER/WATER MAINS SHALL BE PERFORMED UNTIL DEVELOPMENT AGREEMENT HAS BEEN EXECUTED BETWEEN EPWU AND OWNER/DEVELOPER.

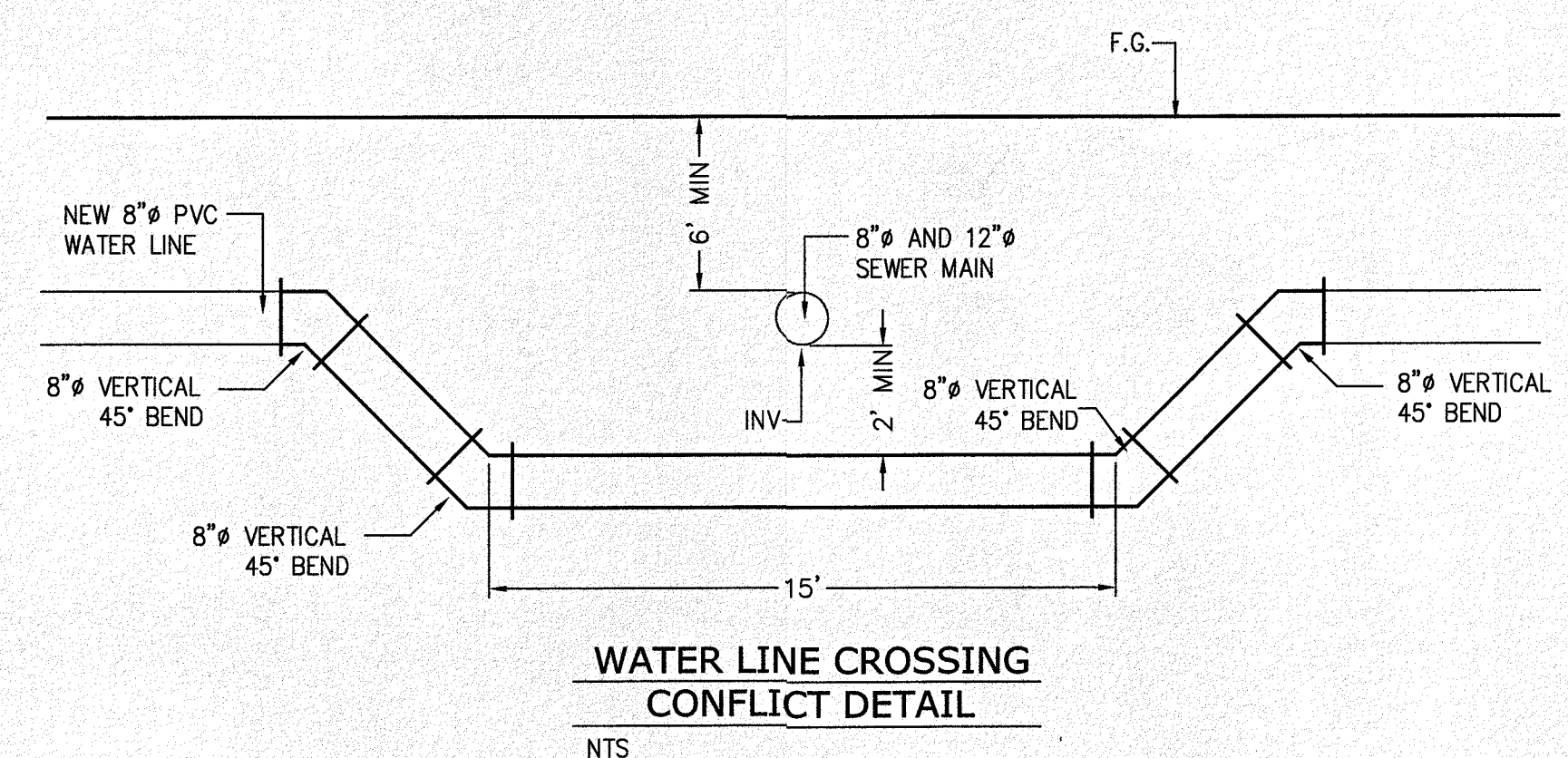


Know what's below.  
Call before you dig.  
Call 811 TWO Working days Before you dig  
It's Free, It's Easy, and  
IT'S THE LAW!

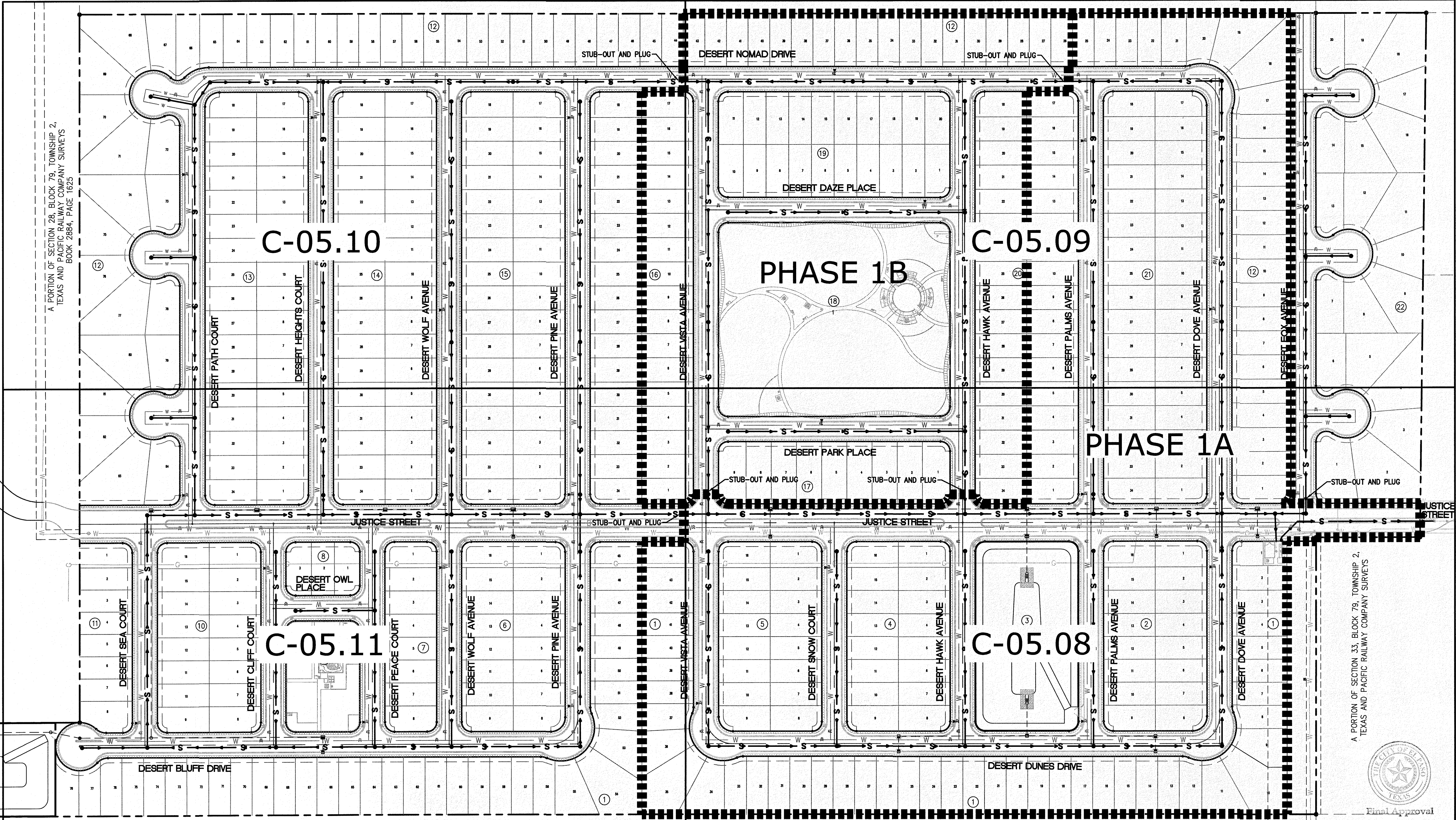


**LEGEND**

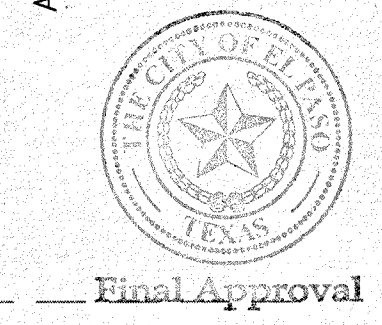
- NEW 8" PVC WATER MAIN (C-900 DR 18)
- NEW SANITARY SEWER MAIN
- EXISTING WATER
- EXISTING GAS
- PHASE 1 LIMITS OF CONSTRUCTION



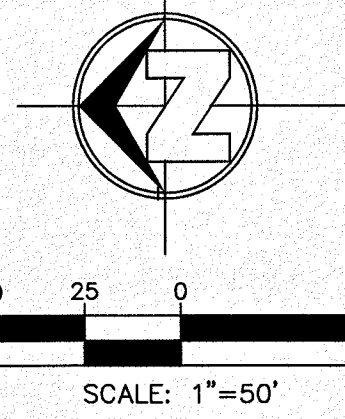
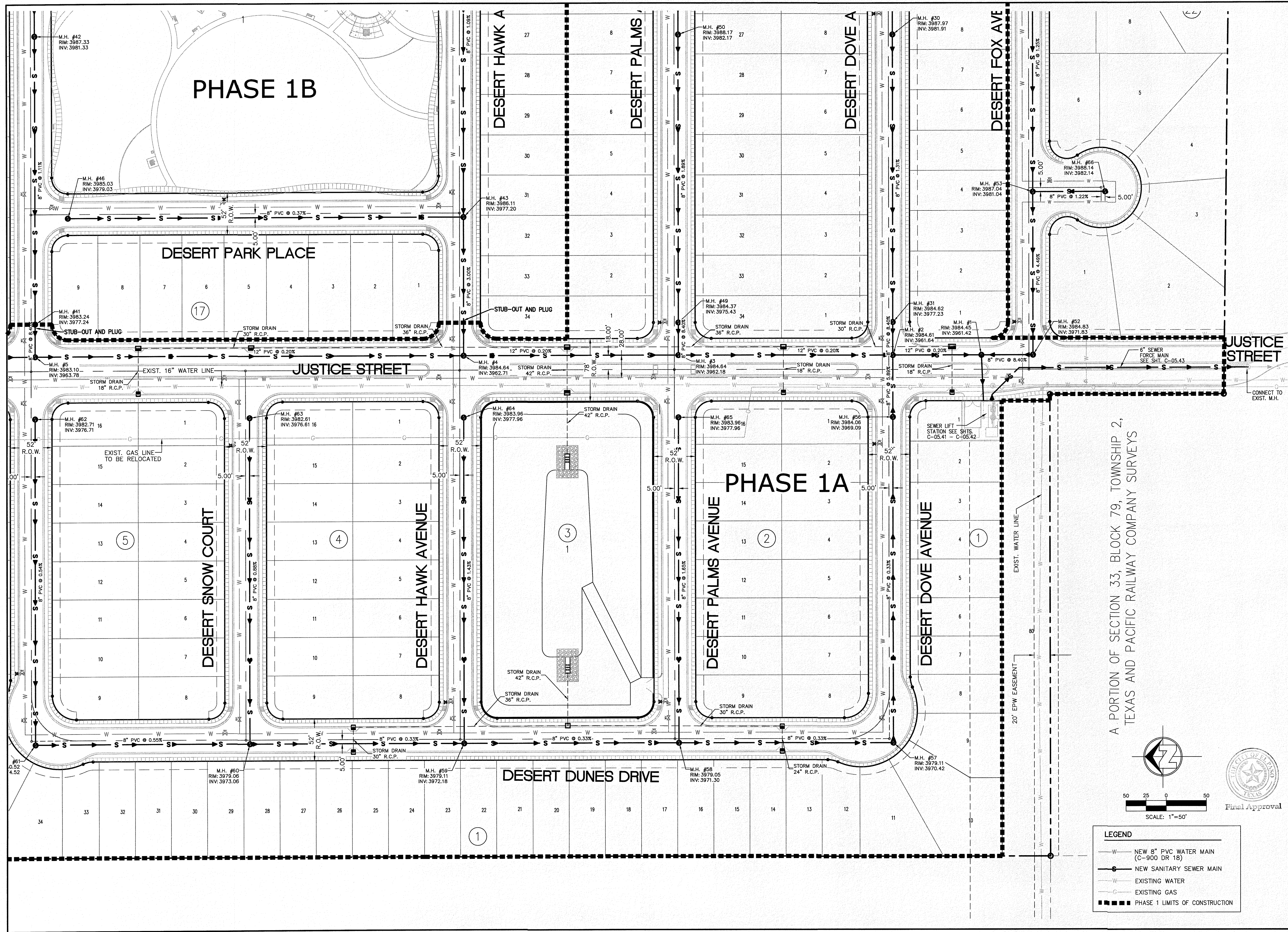
A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
BOOK 2884, PAGE 1625



A PORTION OF SECTION 28, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS



SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TOWNSHIP 2 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3839.35 (NAVD88 DATUM)	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
SCALE: AS INDICATED	PROJECT NAME	DESERT SANDS		
JOB NO.: 09-16-3911	DESIGN BY: J/T	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS		
CHECKED BY: GH/TE	DATE: OCTOBER 2018	EL PASO, TEXAS		
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS SLI ENGINEERING, INC. 6905 W. WINDYBROOK DRIVE EL PASO, TEXAS 79907 (915) 944-1467		SLI ENGINEERING, INC.		
LICENSE No. F-1902		OCTOBER 24, 2018		
SHEET TITLE		SEWER LAYOUT PLAN OVERALL		
C-05.07		Final Approval		



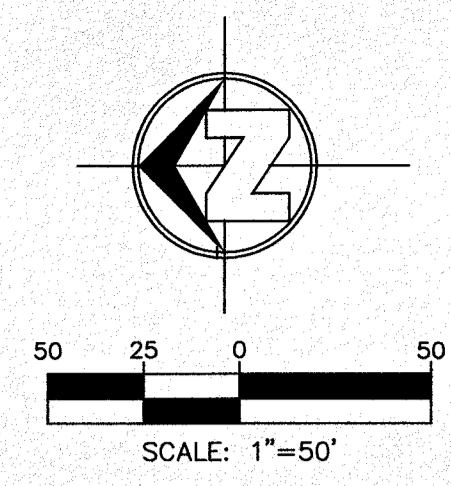
**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- W — EXISTING WATER
- G — EXISTING GAS
- ■ — PHASE 1 LIMITS OF CONSTRUCTION

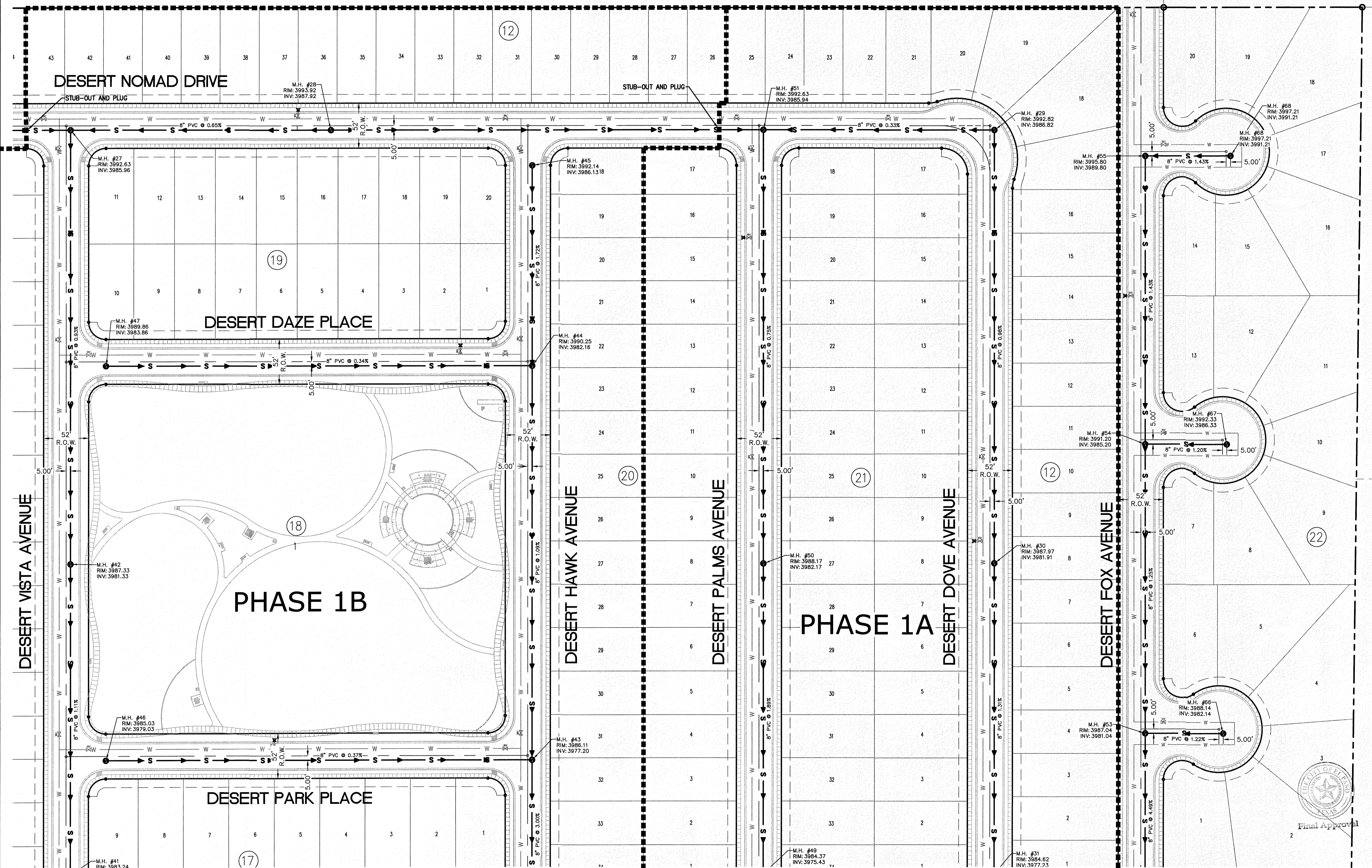


A PORTION OF SECTION 33, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

PROJECT NAME <b>DESERT SANDS</b> PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS		BENCHMARK SECTION CORNER FOR SECTIONS 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 ELEVATION: 3539.38 (NAVD88 DATUM)	
SCALE: AS INDICATED JOB NO.: 09-16-3811 DESIGN BY: J/J/T CHECKED BY: GH/FE DATE: OCTOBER 2018	REVISION DESCRIPTION NO. DATE	EL PASO, TEXAS JUSTICE STREET	
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS <b>SLI ENGINEERING, INC.</b> 6901 W. HAWK DR. EL PASO, TEXAS 79907 (915) 381-1467		LICENSE No. F-1902  OCTOBER 24, 2018 SHEET TITLE	
SEWER LAYOUT PLAN ENLARGED-1		<b>C-05.08</b>	



LEGEND	
—W—	NEW 8" PVC WATER MAIN (C-900 DR 18)
—S—	NEW SANITARY SEWER MAIN
—W—	EXISTING WATER
—C—	EXISTING GAS
—	PHASE 1 LIMITS OF CONSTRUCTION



NO.	DATE	REVISION DESCRIPTION

BENCHMARK SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3539.38 (NAVOD88 DATUM)	SCALE: AS INDICATED JOB NO.: 09-16-3911 DESIGN BY: J/J/E CHECKED BY: G/H/E DATE: OCTOBER 2018 Copyright 2018 SLI Engineering, Inc. These plans are being provided solely for the use of RICHARD ADRIAN and no license has been granted to any other person. These plans are the property of SLI Engineering, Inc. and may not be reproduced without prior written permission by the owner.
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PROJECT NAME <b>DESERT SANDS</b> PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	EL PASO, TEXAS JUSTICE STREET
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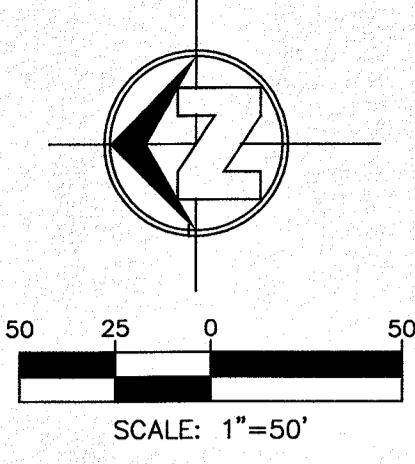
CIVIL ENGINEERS LAND SURVEYORS <b>SLI ENGINEERING, INC.</b> 4600 WESTINGHOUSE DRIVE EL PASO, TEXAS 79907 (972) 384-1007	LICENSE No. F-1902  OCTOBER 24, 2018 SHEET TITLE <b>SEWER LAYOUT PLAN ENLARGED-2</b> Final Approval
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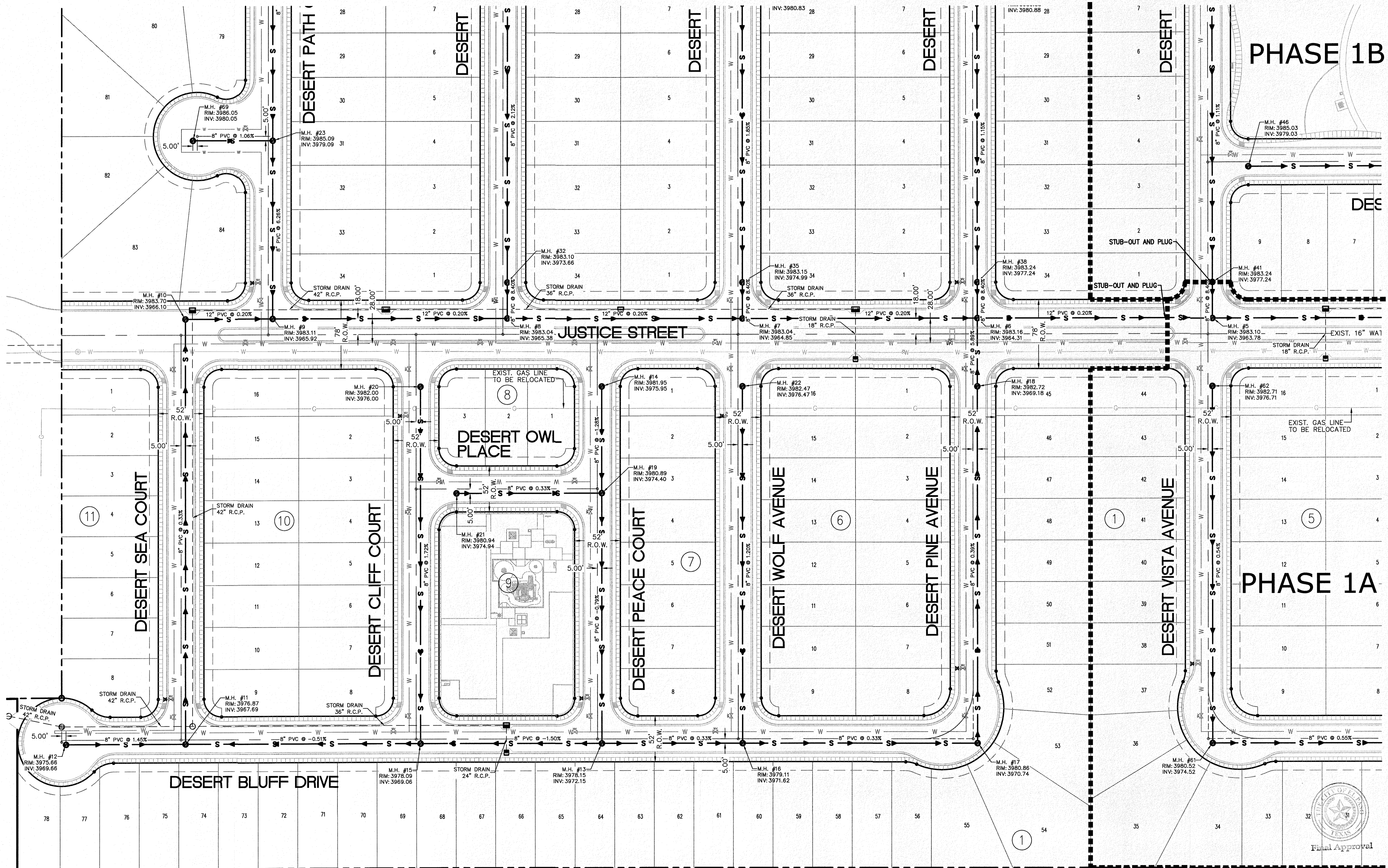
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LEGEND	
—W—	NEW 8" PVC WATER MAIN (C-900 DR 18)
—S—	NEW SANITARY SEWER MAIN
—W—	EXISTING WATER
—G—	EXISTING GAS
—■—	PHASE 1 LIMITS OF CONSTRUCTION



**PHASE 1B**

**PHASE 1A**

NO.	DATE	REVISION DESCRIPTION

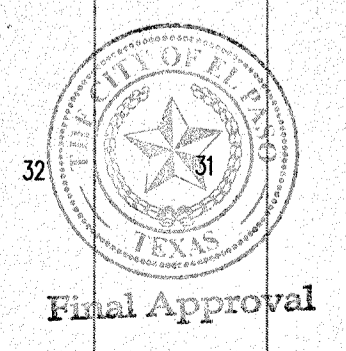
SECTION CORNER FOR SECTIONS TEXAS AND PACIFIC RAILWAY SURVEYS 2 ELEVATION: 3859.38 (NAVD83 DATUM)
BENCHMARK
SCALE: AS INDICATED
JOB NO.: 09-16-3811
DESIGN BY: J/T
CHECKED BY: CH/TE
DATE: OCTOBER 2018

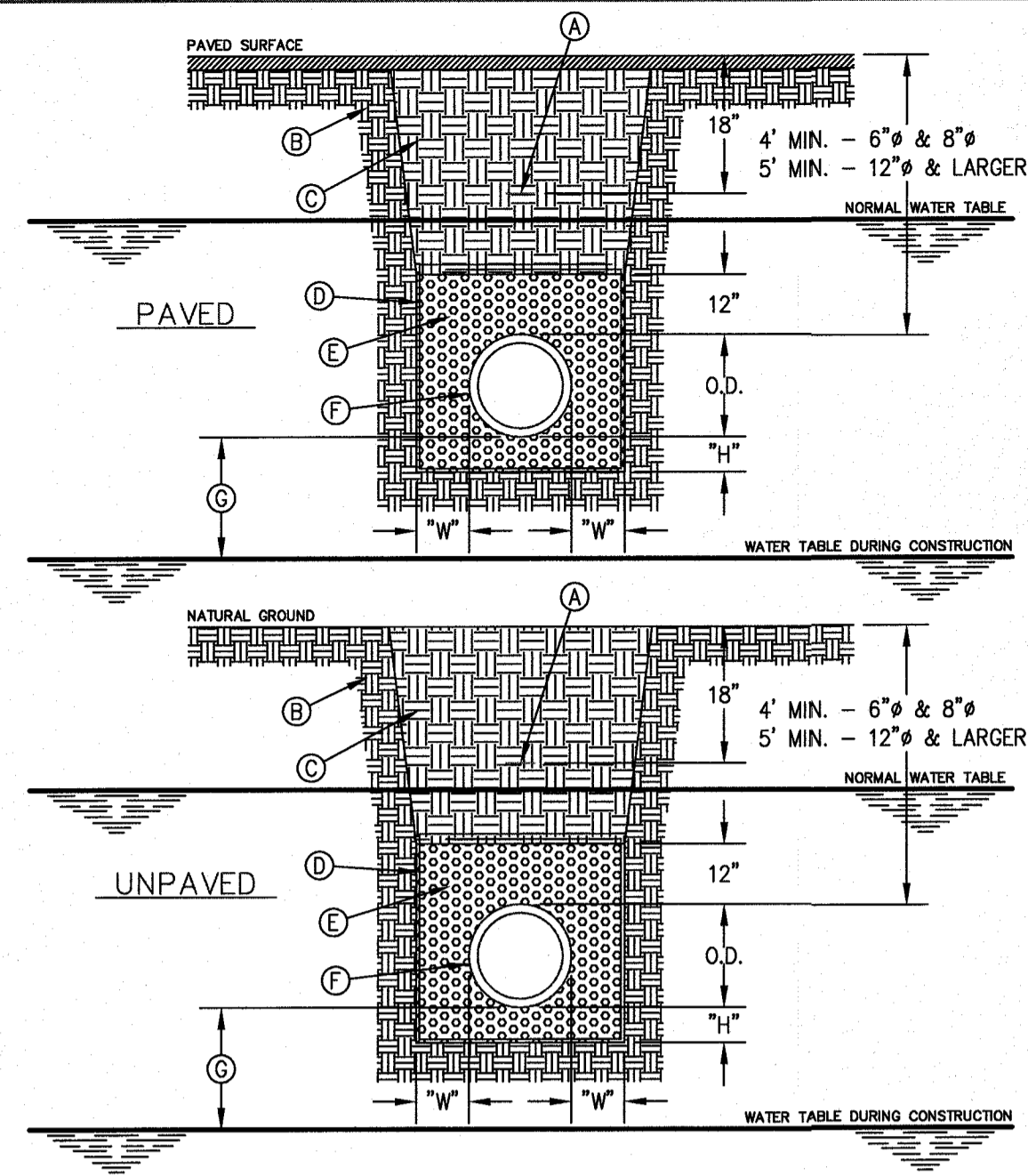
  

PROJECT NAME	DESERT SANDS
PORTIONS OF SECTION 28 AND 33 BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	
PROJECT LOCATION	EL PASO, TEXAS

CIVIL ENGINEERS LAND SURVEYORS PLANNERS DESIGNERS
<b>SLI</b>
SLI ENGINEERING, INC.
LICENSE No. F-1902
OCTOBER 24, 2018
SHEET TITLE
SEWER LAYOUT PLAN ENLARGED-4
C-05.11

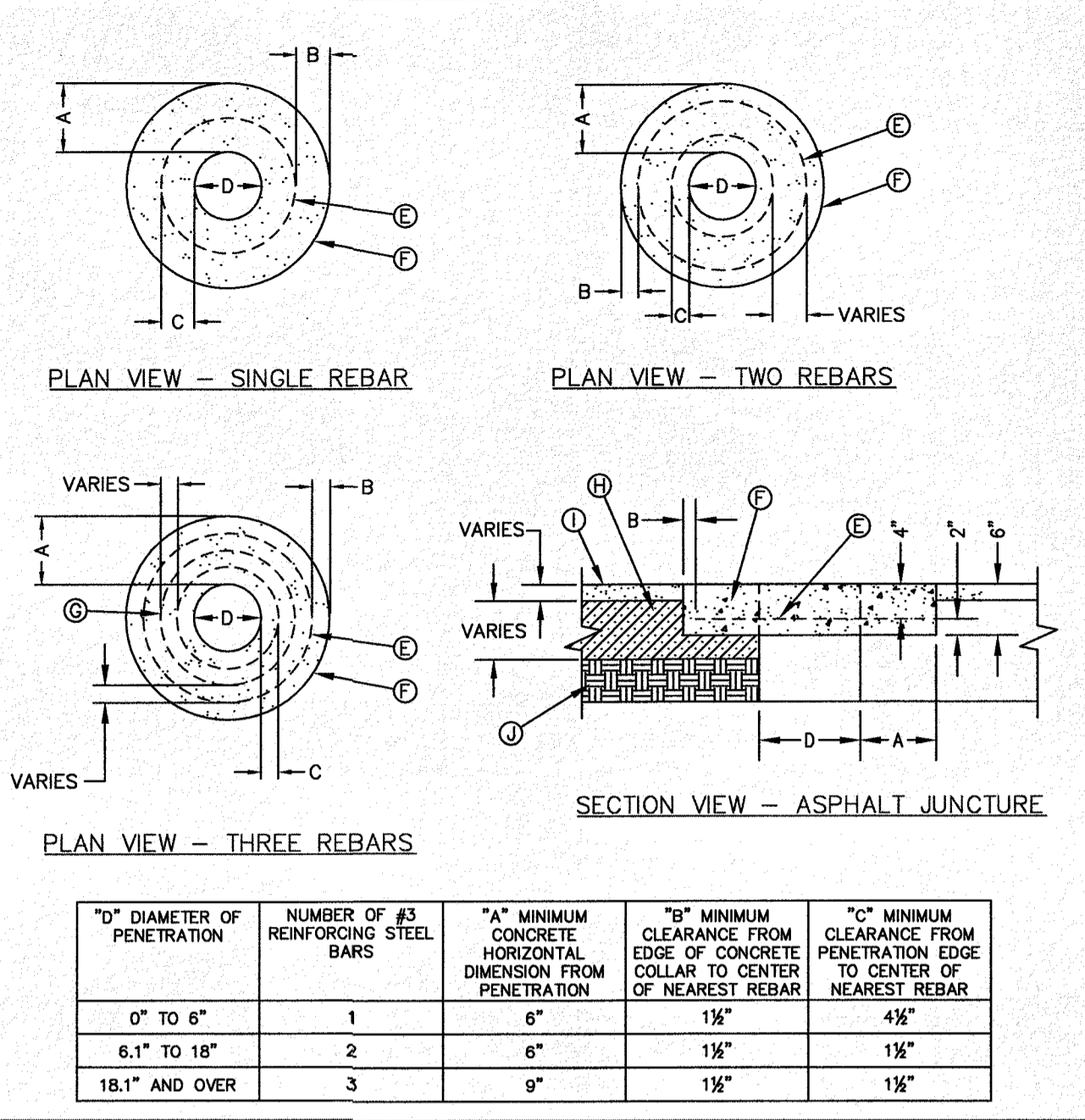




**GENERAL NOTES:**  
 1. BEDDING FOR PRESSURE PIPE IN WET CONDITIONS.  
 2. PROVIDE TRENCH SAFETY SYSTEM FOR TRENCH DEPTHS GREATER THAN 5 FEET.  
 3. A DRY TRENCH MUST BE MAINTAINED WHILE PLACING BEDDING AND GEOTECHNICAL FABRIC.  
 4. IF THE NATIVE MATERIAL EXCAVATED FROM THE TRENCH IS UNSUITABLE AS BACKFILL MATERIAL, OR THE REQUIRED COMPRESSION IS UNATTAINABLE, THE CONTRACTOR SHALL, AT HIS EXPENSE, IMPORT SELECT MATERIAL TO BE MIXED WITH OR USED IN PLACE OF THE NATIVE MATERIAL. SELECT MATERIAL MUST BE APPROVED BY EPWU. SUBSTITUTE SOIL CEMENT SLURRY (1-SACK) IF REQUIRED IN SPECS.

**CONSTRUCTION KEY NOTES:**  
 A. APPROVED MARKING TAPE.  
 B. UNDISTURBED STABLE MATERIAL.  
 C. NATIVE MATERIAL BACKFILL.  
 PAVED CONDITION: COMPACT TO 90% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.  
 UNPAVED CONDITION: COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR. (SEE NOTE #4 IF THESE PREVIOUS CONDITIONS CANNOT BE MET.)  
 D. APPROVED GEOTECHNICAL FABRIC WITH A STANDARD OVERLAP THAT IS 2 FEET EXCEPT WHERE TRENCH WIDTH EXCEEDS 3 FEET, THE OVERLAP AT TOP SHALL BE 3 FEET.  
 E. USE CLASS 1 gravel PER ASTM D-2321 AND D-2487. NO COMPACTION REQUIRED. USE MINIMAL TAMPING, RODDING OR HAUNCH SLICING CAREFULLY IN THE EMBEDMENT ZONE. IF REQUIRED BY THE ENGINEER, TEST PER ASTM D-4254 PERCENT OF RELATIVE DENSITY.  
 F. APPROVED PIPE.  
 G. 18" MINIMUM UNLESS OTHERWISE SPECIFIED.  
 H. TRENCH DIMENSIONS AS FOLLOWS.

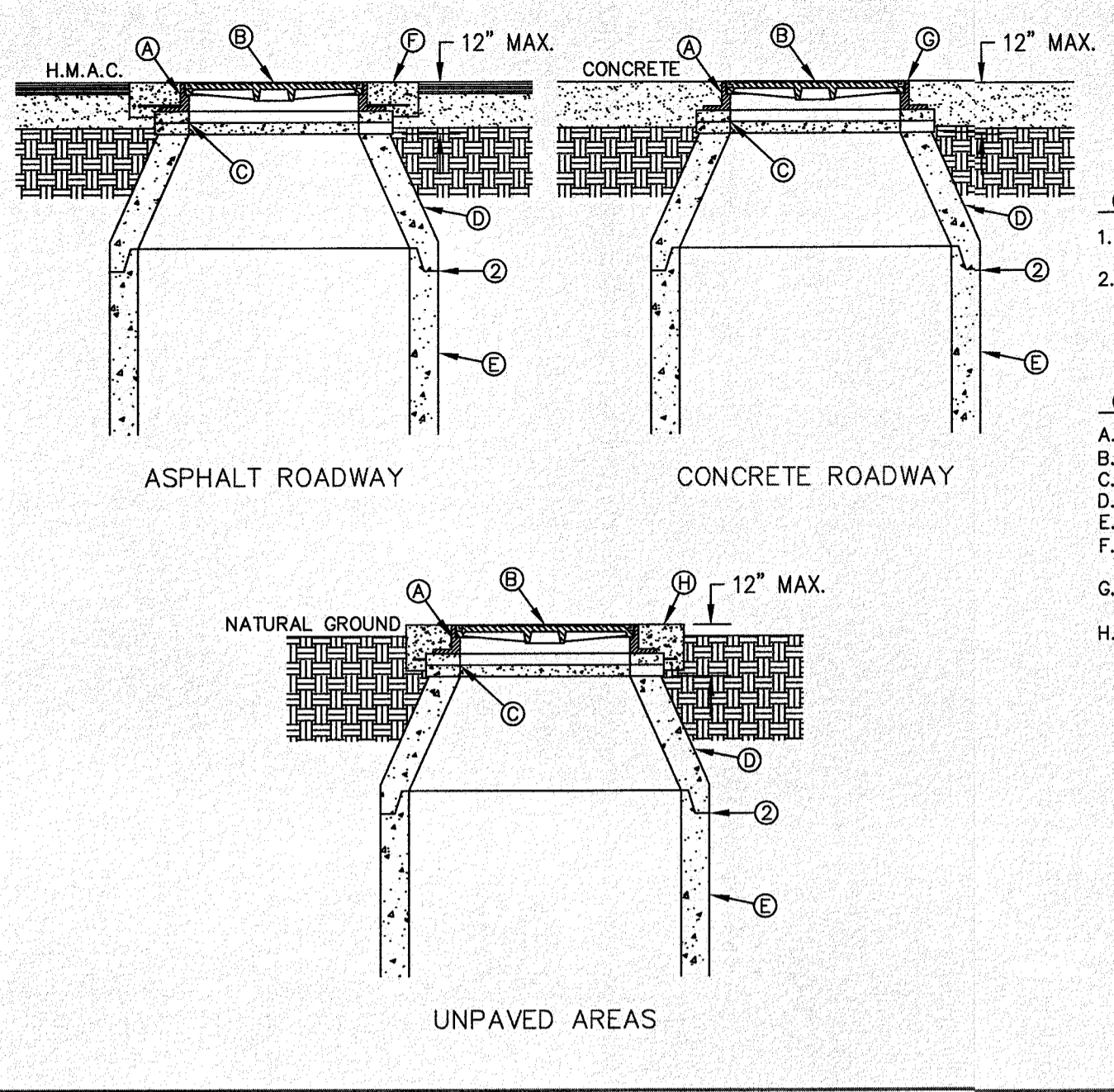
PIPE DIAMETER	1/4"
GREATER THAN 30"	4"
PIPE DIAMETER	5"
30"	6"
GREATER THAN 30"	12"



**GENERAL NOTES:**  
 1. THE CONCRETE COLLAR SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED)  
 2. TOPS OF CONCRETE COLLAR SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.  
 3. ANY DISTURBED SUBGRADE UNDER THE CONCRETE COLLAR SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.  
 4. ANY DISTURBED BASE COURSE UNDER THE CONCRETE COLLAR SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.  
 5. PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.  
 6. REINFORCING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20).  
 7. NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

**CONSTRUCTION KEY NOTES:**  
 E. #3 REINFORCING STEEL TYP.  
 F. CONCRETE COLLAR.  
 G. #3 REINFORCING STEEL EQUALLY SPACED.  
 H. COMPACTED BASE COURSE.  
 I. PAVEMENT.  
 J. COMPACTED SUBGRADE.

"D" DIAMETER OF PENETRATION	NUMBER OF #3 REINFORCING STEEL BARS	"A" MINIMUM HORIZONTAL DIMENSION FROM PENETRATION	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE COLLAR TO CENTER OF NEAREST REBAR	"C" MINIMUM CLEARANCE FROM EDGE OF CONCRETE COLLAR TO CENTER OF NEAREST REBAR
0" TO 6"	1	6"	1 1/2"	4 1/2"
6.1" TO 18"	2	6"	1 1/2"	1 1/2"
18.1" AND OVER	3	9"	1 1/2"	1 1/2"



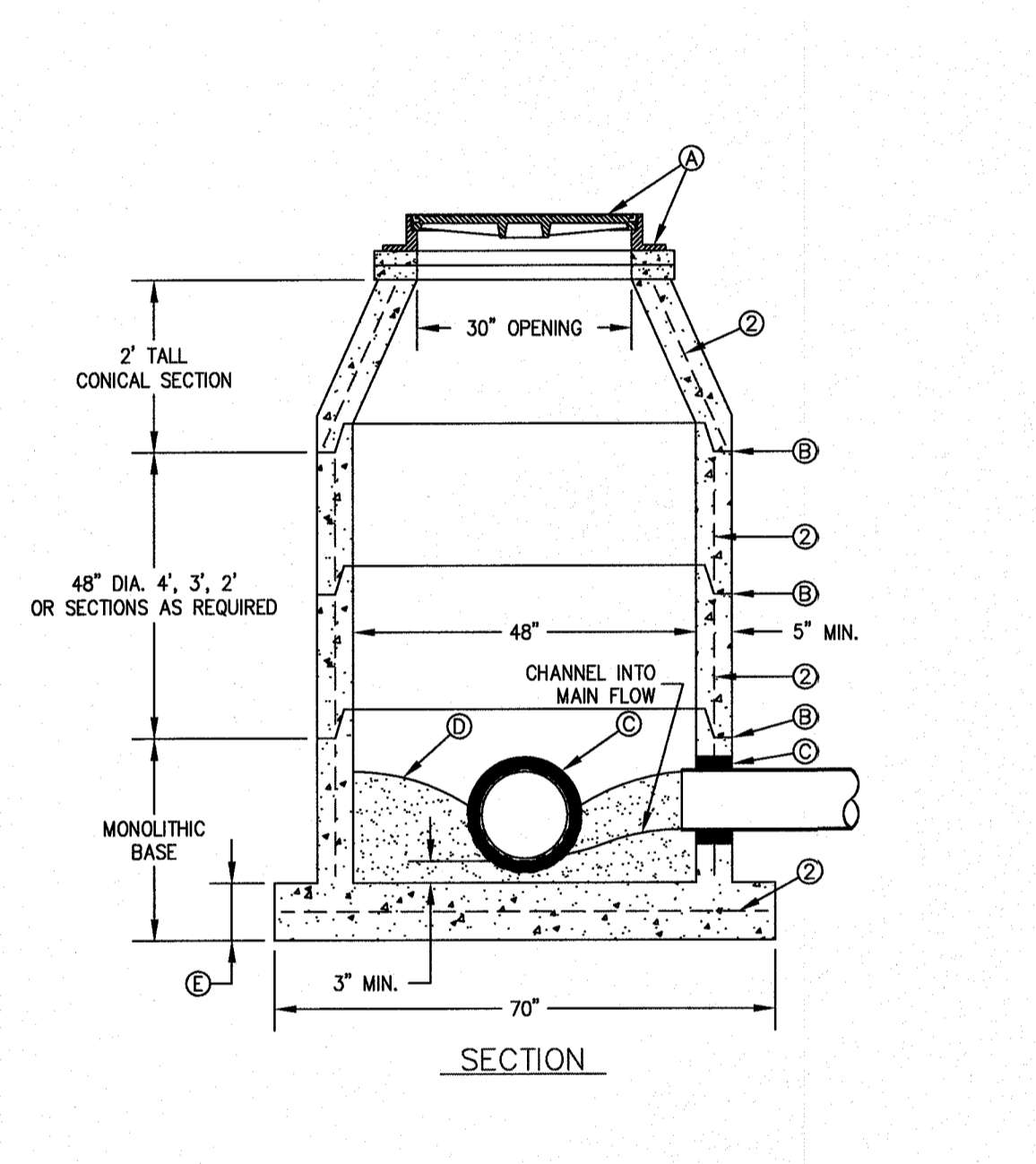
**GENERAL NOTES:**  
 1. MANHOLE TYPE SHALL BE AS SHOWN ON THE PLANS.  
 2. SEAL JOINTS PER SPECIFICATIONS.

**CONSTRUCTION KEY NOTES:**  
 A. MANHOLE RING (SEE DETAIL 377).  
 B. MANHOLE COVER (SEE DETAIL 378).  
 C. CONCRETE ADJUSTMENT RINGS AS REQUIRED.  
 D. MANHOLE COVER SECTION.  
 E. MANHOLE BARREL SECTION.  
 F. CONCRETE COLLAR (SEE DETAIL 184-1) FLUSH WITH TOP OF H.M.A.C.  
 G. MANHOLE RING FLUSH WITH TOP OF CONCRETE. CONCRETE COLLAR NOT NEEDED.  
 H. CONCRETE APRON (SEE DETAIL 184-2) FLUSH WITH MANHOLE RING AND 2" ABOVE NATURAL GROUND.

STANDARD DETAIL	DATE: 5/7/2007 REV: 7/6/2010	EMBEDMENT CLASS "C" FOR GRAVITY PIPE WET CONDITIONS	N.T.S.	el paso WATER	DETAIL No. 173
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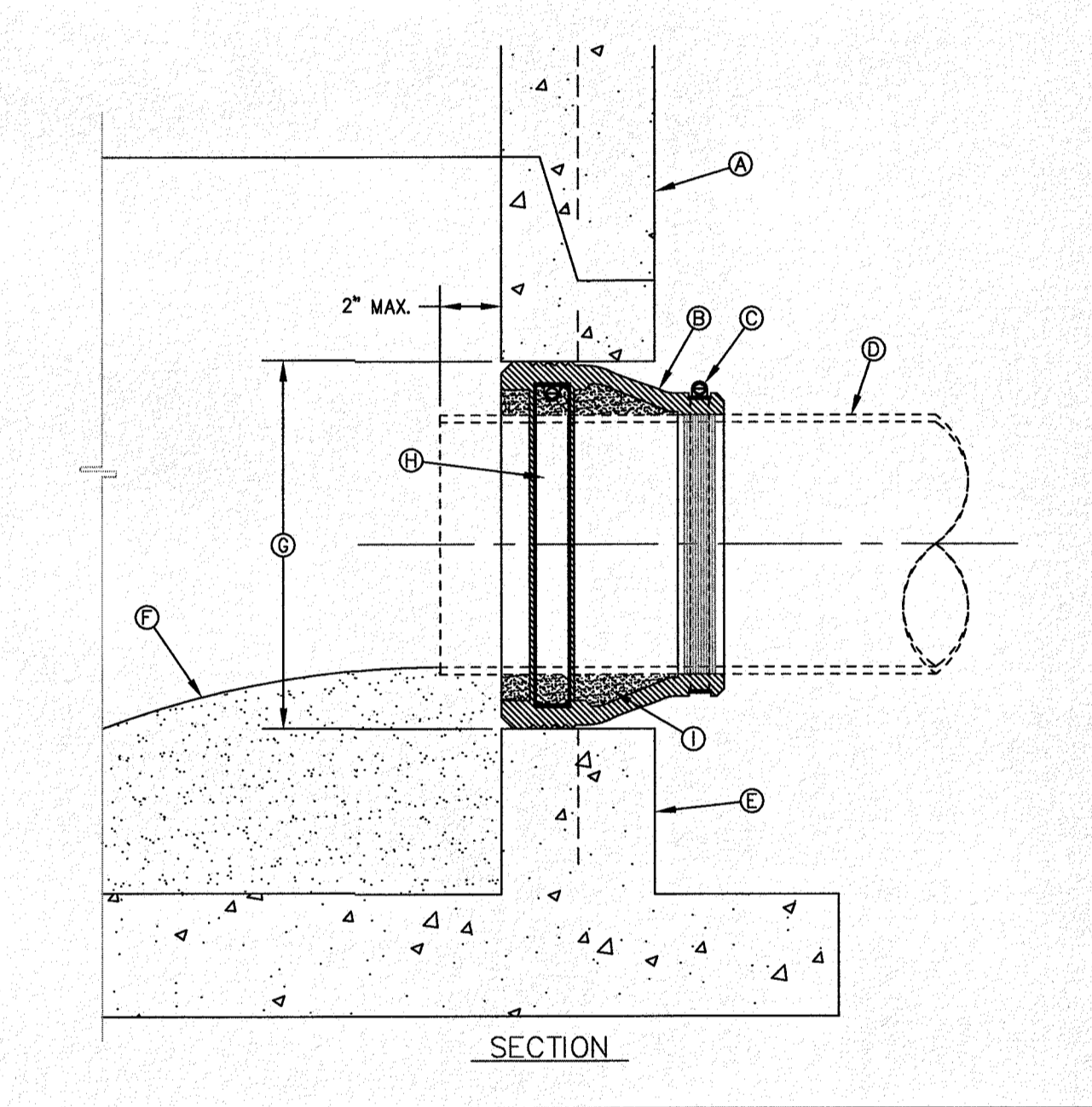
STANDARD DETAIL	DATE: 8/9/2006 REV: 11/6/2008	CONCRETE COLLAR INSTALLATION IN PAVED AREAS	N.T.S.	el paso WATER	DETAIL No. 184-1
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STANDARD DETAIL	DATE: 6/22/2009 REV:	MANHOLE RING AND COVER INSTALLATION	N.T.S.	el paso WATER	DETAIL No. 185
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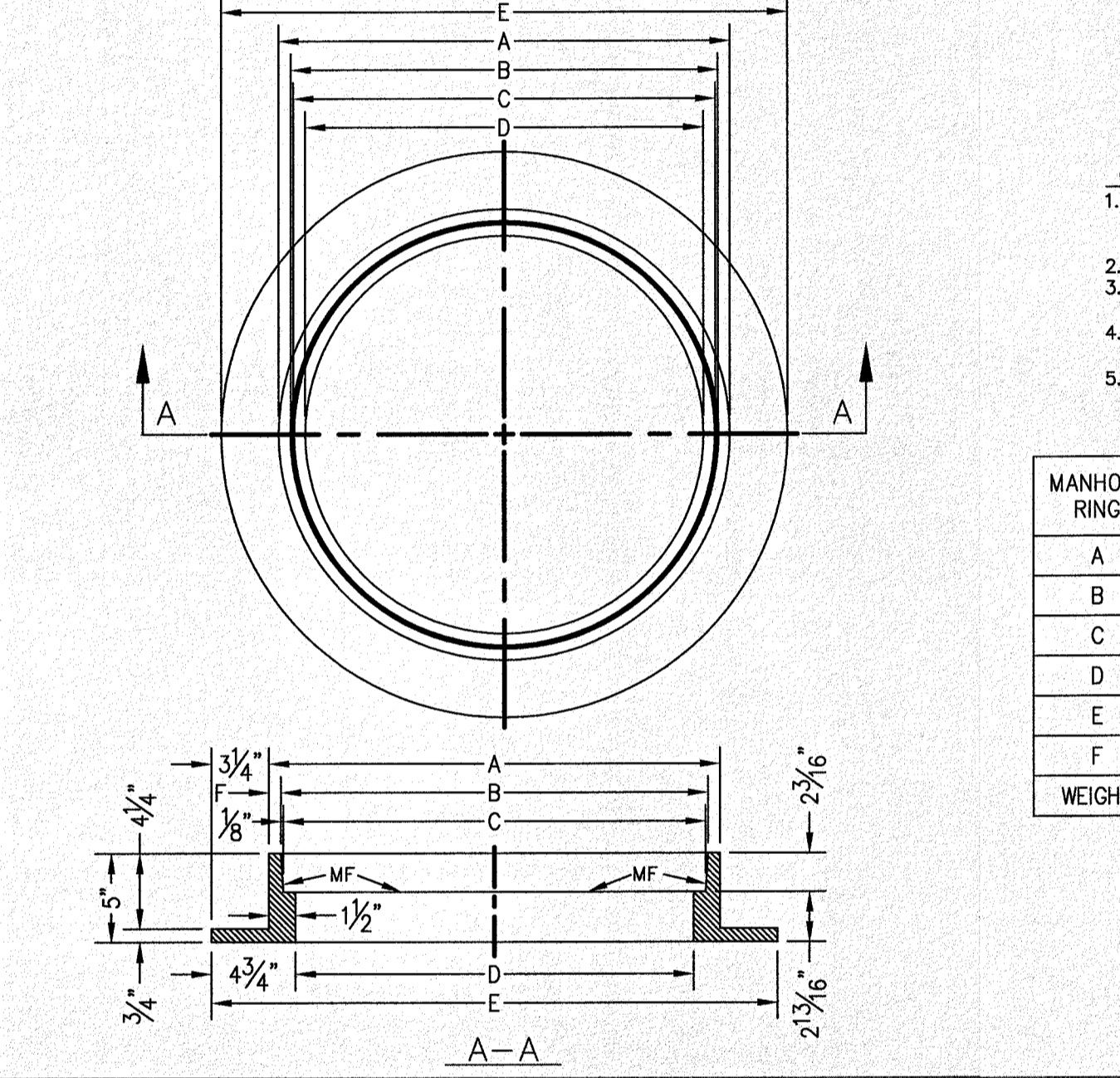
**GENERAL NOTES:**  
 1. MANHOLE TYPE "A" SHALL BE USED FOR LINES 21" AND SMALLER.  
 2. PRE-CAST MANHOLE SECTIONS SHALL BE OF REINFORCED CONCRETE CONFORMING TO ASTM C-478 AND SHALL MEET HS-20 LOADING. PROVIDE REINFORCEMENT WITHIN 3" OF OPENINGS OR KNOCKOUTS. OPENINGS (UP TO 8") MADE IN FIELD SHALL BE CORE DRILLED.  
 3. CEMENT SHALL BE TYPE I-II, PER ASTM C-150, AND MUST CONTAIN A MINIMUM OF 4% FLY ASH OF THE TOTAL MANHOLE WEIGHT.  
 4. THE BASE & RISER SHALL BE INTEGRALLY CAST. CONCRETE SHALL BE MIN. 28 DAY COMPRESSIVE STRENGTH 4000psi.  
 5. MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.  
 6. THE SUBGRADE UNDER THE BASE SHALL BE COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM D-1557.  
 7. MANHOLES BELOW GROUNDWATER TO BE EXTERNALLY AND INTERNALLY COATED WITH BITUMINOUS COATING.

**CONSTRUCTION KEY NOTES:**  
 A. MANHOLE RING AND COVER (SEE DETAILS 377 & 378). SET FRAME AND COVER FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE (SEE DETAIL 185).  
 B. ALL JOINTS TO BE TONGUE, GROOVE AND SEALED WITH RAM-NEK OR APPROVED EQUAL.  
 C. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE AND SHALL HAVE FLEXIBLE PIPE TO MANHOLE CONNECTORS (COMPRESSION TYPE ASTM-923). "KOR-N-SEAL" OR APPROVED EQUAL.  
 D. GROUT AS REQUIRED.  
 E. CONCRETE BASE SHALL BE 8" FOR MH's UP TO 12' DEEP AND 12" FOR DEPTHS GREATER THAN 12'.



**GENERAL NOTES:**  
 1. MANHOLE CONNECTOR SHALL BE KOR-N-SEAL OR EQUAL MEETING THE REQUIREMENTS OF ASTM C-923. CONNECTOR SHALL BE FURNISHED BY CONTRACTOR.

**CONSTRUCTION KEY NOTES:**  
 A. PRECAST MANHOLE BARREL.  
 B. FLEXIBLE CONNECTOR.  
 C. PIPE CLAMP SS 316.  
 D. APPROVED PIPE.  
 E. PRECAST MANHOLE BASE.  
 F. GROUT AS REQUIRED TO FORM SMOOTH CHANNEL TO MANHOLE INVERT.  
 G. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE.  
 H. EXPANSION BAND SS 316.  
 I. FILL SPACE WITH GROUT.



**GENERAL NOTES:**  
 1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.  
 2. CASTING TO BE SMOOTH & VOID OF AIR HOLES. (AASHTO M306-07).  
 3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.  
 4. AS-CAST DIMENSIONS MAY VARY 1/8" ± PER FOOT (AASHTO M306-07).  
 5. WEIGHT MAY VARY 5% ± (AASHTO M306-07).

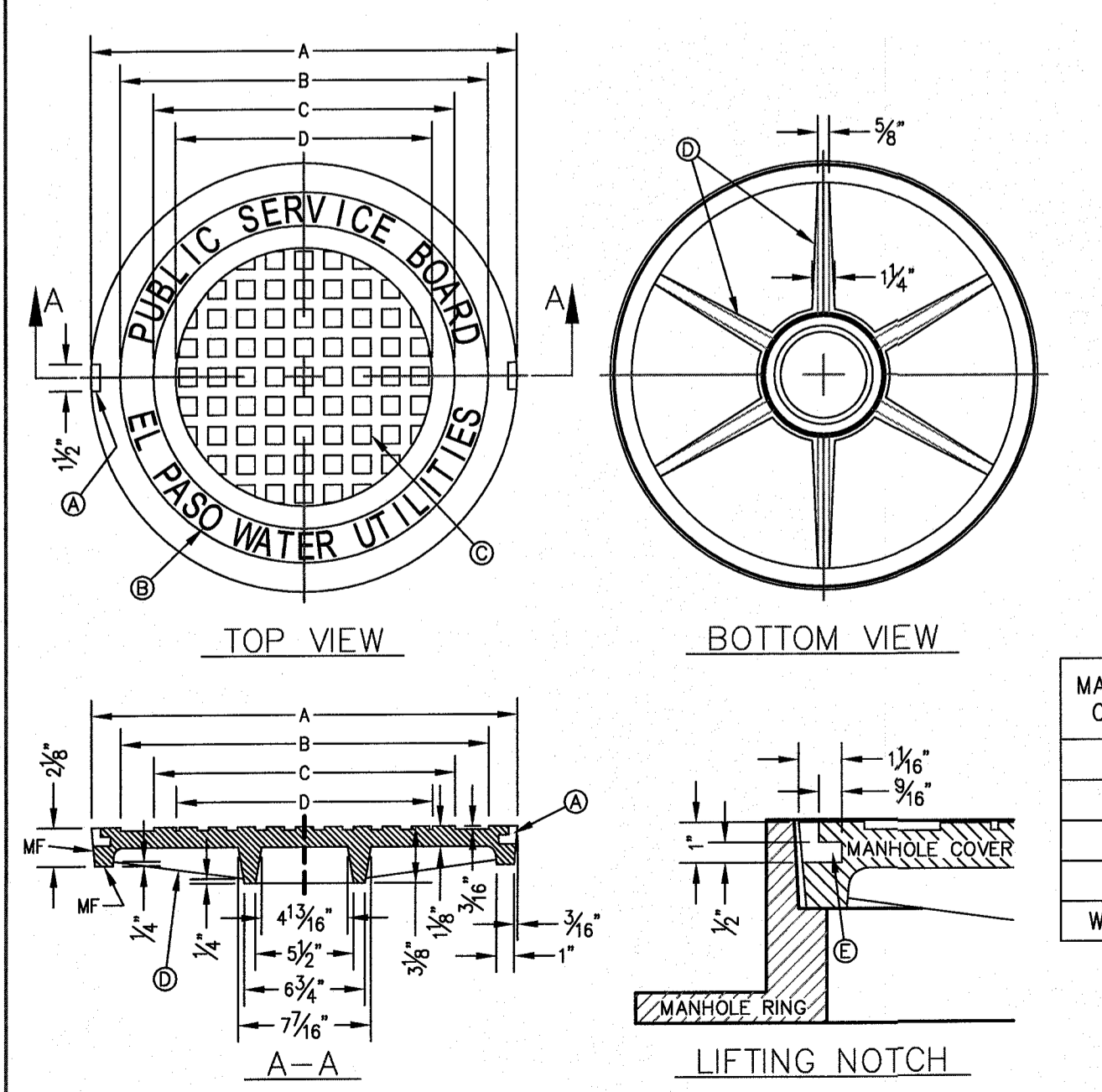
MANHOLE RING	MANHOLE - ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	33"	25 1/2"
B	31 1/2"	24 1/2"
C	31 1/2"	23 3/4"
D	30"	22 3/4"
E	30 1/2"	32"
F	5 1/2"	1 1/2"
WEIGHT	205 lbs.	170 lbs.

\*OBSOLETE - DO NOT USE (FOR REFERENCE ONLY)

STANDARD DETAIL	DATE: 11/1992 REV: 2/8/2013	MANHOLE TYPE "A"	N.T.S.	el paso WATER	DETAIL No. 370-1
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STANDARD DETAIL	DATE: 11/1992 REV: 8/13/2009	PIPE CONNECTION TO MANHOLE	N.T.S.	el paso WATER	DETAIL No. 376
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STANDARD DETAIL	DATE: 11/1992 REV: 2/21/2011	SEWER MANHOLE RING	N.T.S.	el paso WATER	DETAIL No. 377
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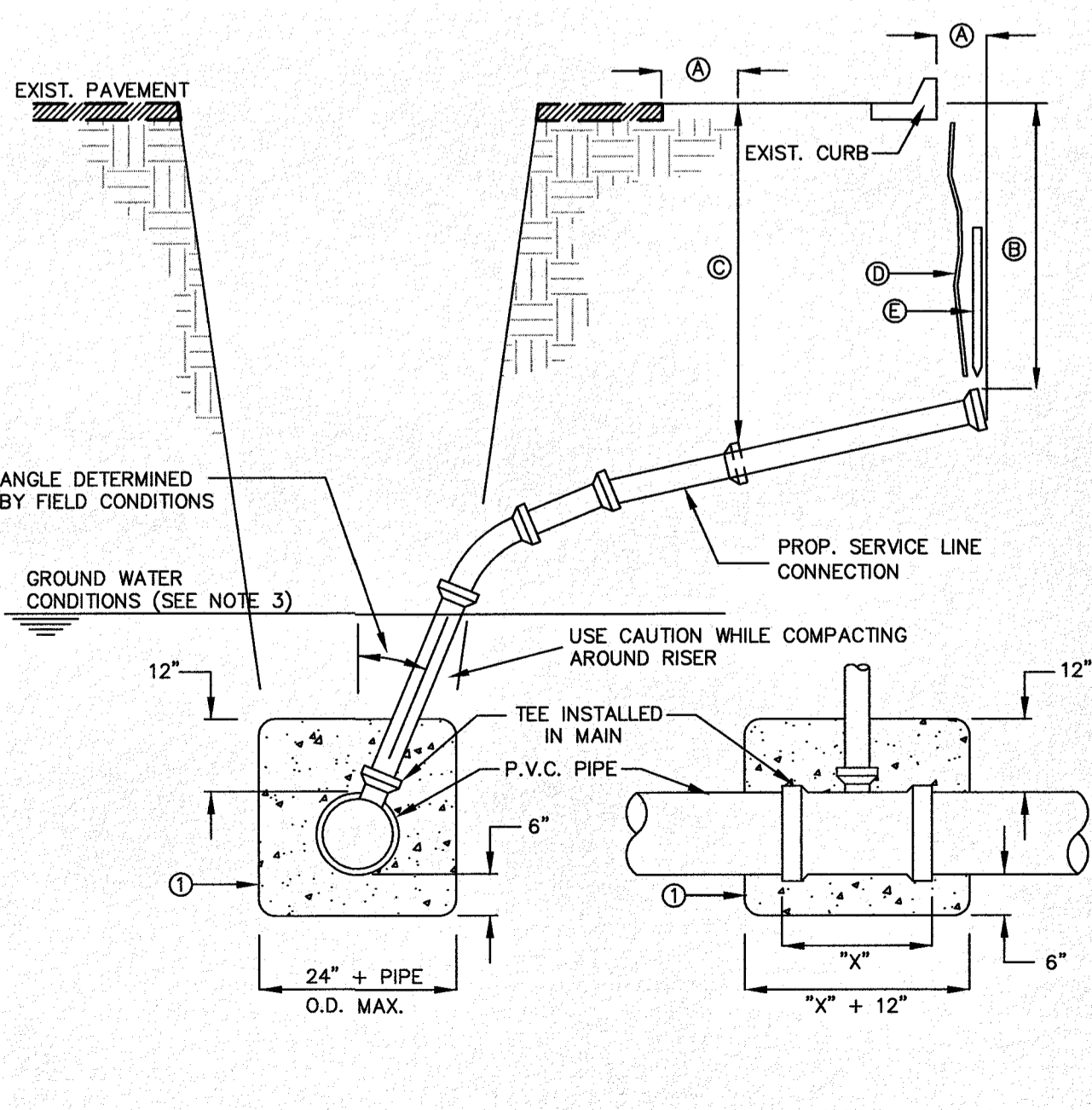


**GENERAL NOTES:**  
 1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.  
 2. CASTING TO BE SMOOTH & VOID OF AIR HOLES. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.  
 3. AS-CAST DIMENSIONS MAY VARY 1/8" ± PER FOOT (AASHTO M306-07).  
 4. WEIGHT MAY VARY 5% ± (AASHTO M306-07).

**CONSTRUCTION KEY NOTES:**  
 A. LIFTING NOTCH.  
 B. 3/8" RAISED LETTERING.  
 C. 1" SQUARES (3/4" TALL) WITH 3/8" SPACE BETWEEN.  
 D. REINFORCING RIBS.  
 E. SLOT.

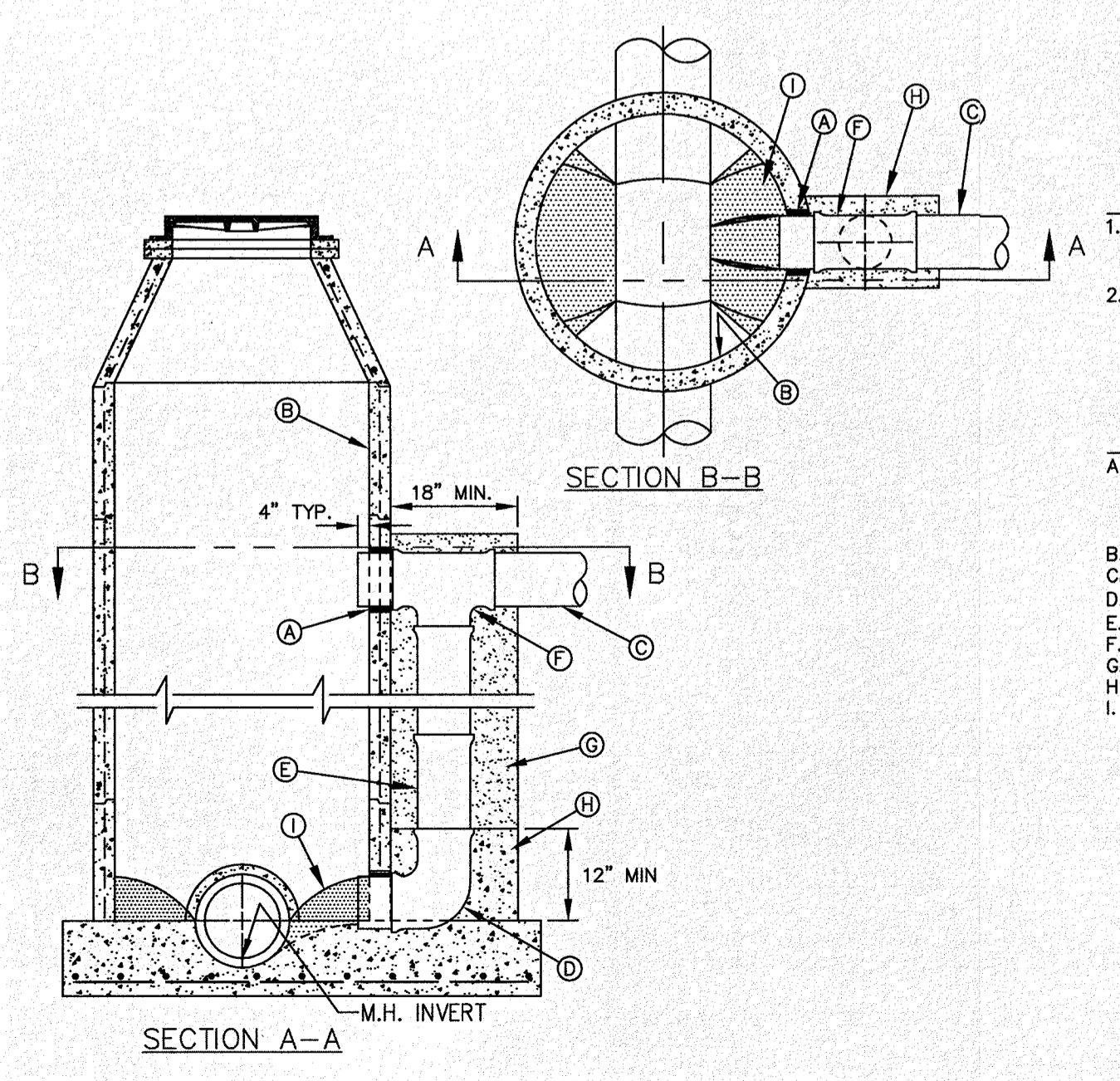
MANHOLE COVER	MANHOLE - ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	31 3/8"	23 3/4"
B	28 1/2"	20 3/4"
C	24 3/8"	16 3/4"
D	21 3/8"	14 3/8"
WEIGHT	200 lbs.	165 lbs.

\*OBSOLETE - DO NOT USE (FOR REFERENCE ONLY)



**GENERAL NOTES:**  
 1. IN GROUNDWATER CONDITIONS ONLY, P.V.C. SADDLES OR TEES ARE TO BE ENCASED WITH CLASS B CONCRETE.  
 2. UNDER CERTAIN CONDITIONS FIELD INVESTIGATIONS WILL BE REQUIRED TO DETERMINE THE ADEQUACY OF THE DEPTH ON THE LATERAL.  
 3. WHEN GROUND WATER IS ENCOUNTERED SERVICE RISER SHALL BE EXTENDED ABOVE ANTICIPATED WATER TABLE LEVEL.

**CONSTRUCTION KEY NOTES:**  
 A. CONTRACTOR TO INSTALL SEWER SERVICE LINE FROM THE MAIN TO A LOCATION 6" BEHIND THE CURB OR 18" BEYOND THE EDGE OF PAYMENT, UNLESS CONDITIONS REQUIRE OTHERWISE.  
 B. 18" FOR STANDARD SUBDIVISION, 3.5' FOR SUBDIVISIONS WITH ON-SITE PONDING OR FLAT TERRAIN.  
 C. RISERS OR LATERALS EXTENDING BEYOND EXISTING PAVING SHALL BE INSTALLED TO 3.5' MINIMUM TOP OF GROUND OR PAVEMENT, UNLESS CONDITIONS REQUIRE OTHERWISE.  
 D. PLASTIC METALLIC MARKING TAPE RISING TO WITHIN 6" OF GROUND SURFACE OR METALLIC DISK.  
 E. WOODEN STAKE (1"x2"x36") VERTICALLY PLACED AT PLUGGED END OF PROPOSED SERVICE LINE.



**GENERAL NOTES:**  
 1. DROP CONNECTION SHOWN MAY BE USED ON ALL MANHOLE TYPES (NOT RECOMMENDED IN GROUND WATER CONDITIONS).  
 2. DROP CONNECTION TO BE CONSTRUCTED WHEN INVERT ELEVATION OF INFLUENT PIPE IS 3 FEET (OR GREATER) ABOVE THE MANHOLE INVERT.

**CONSTRUCTION KEY NOTES:**  
 A. PIPE OPENINGS IN MANHOLE RISERS SHALL HAVE COMPRESSION TYPE FLEXIBLE PIPE TO MANHOLE CONNECTORS (A.S.T.M. - C923) "KOR-N-SEAL" OR APPROVED EQUAL.  
 B. MANHOLE WALL.  
 C. INFLUENT SEWER PIPE.  
 D. 90° BEND (P.V.C.).  
 E. P.V.C. PIPE (SDR. 35).  
 F. P.V.C. TEE.  
 G. CONCRETE FLOWABLE FILL H. 2500 psi CONCRETE.  
 I. USE GROUT TO FORM A SMOOTH CHANNEL TO MANHOLE INVERT.

STANDARD DETAIL	DATE: 11/1992 REV: 2/21/2011	SEWER MANHOLE COVER	N.T.S.	el paso WATER	DETAIL No. 378
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STANDARD DETAIL	DATE: 11/1992 REV: 1/23/2009	SEWER SERVICE RISER AND SERVICE LINE CONNECTION	N.T.S.	el paso WATER	DETAIL No. 391
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STANDARD DETAIL	DATE: 3/18/1998 REV: 6/19/2009	DROP CONNECTION - EXTERNAL MANHOLE INSTALLATION	N.T.S.	el paso WATER	DETAIL No. 375-1
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REVISION DESCRIPTION

DATE

NO.

BENCHMARK

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3539.35 (NAVD88 DATUM)

SCALE: AS INDICATED

JOB NO.: 09-16-3811

DESIGN BY: J/T

CHECKED BY: GH/FE

DATE: OCTOBER 2018

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PROJECT NAME: DESERT SANDS

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

JUSTICE STREET

CIVIL ENGINEERS LAND SURVEYORS AND PLANNERS 100 WEST 10TH STREET SUITE 200 EL PASO, TEXAS 79901 (915) 381-4457

SLI ENGINEERING, INC.

LICENSE No. F-1902

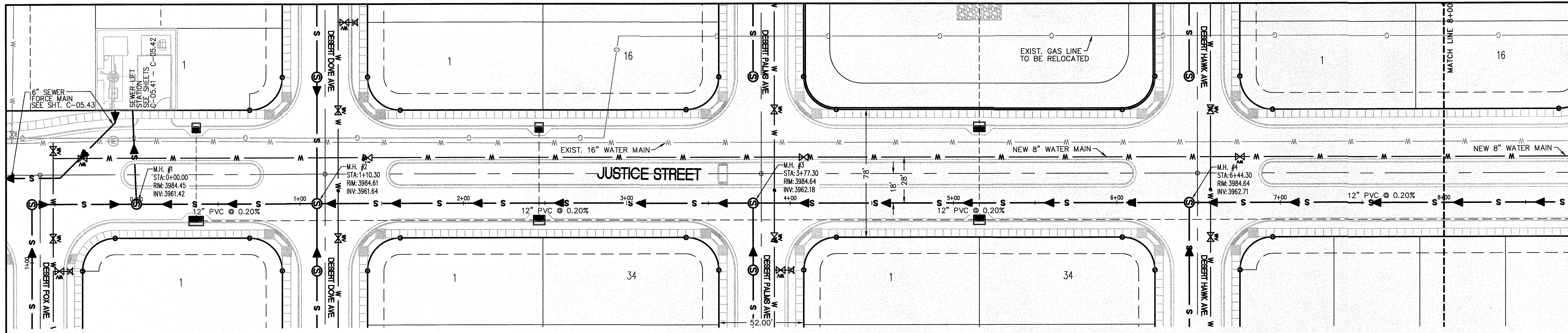
OCTOBER 24, 2018

SHEET TITLE

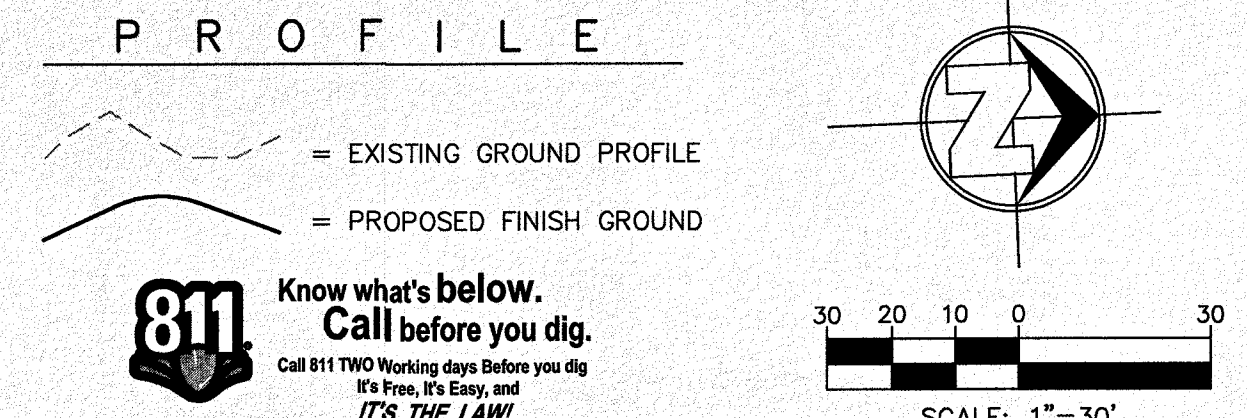
SANITARY SEWER DETAILS

Final Approval

C-05.12



- LEGEND**
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S — NEW SANITARY SEWER MAIN
  - ☼ NEW FIRE HYDRANT
  - ⊗ NEW GATE VALVE
  - W — EXISTING WATER
  - G — EXISTING GAS



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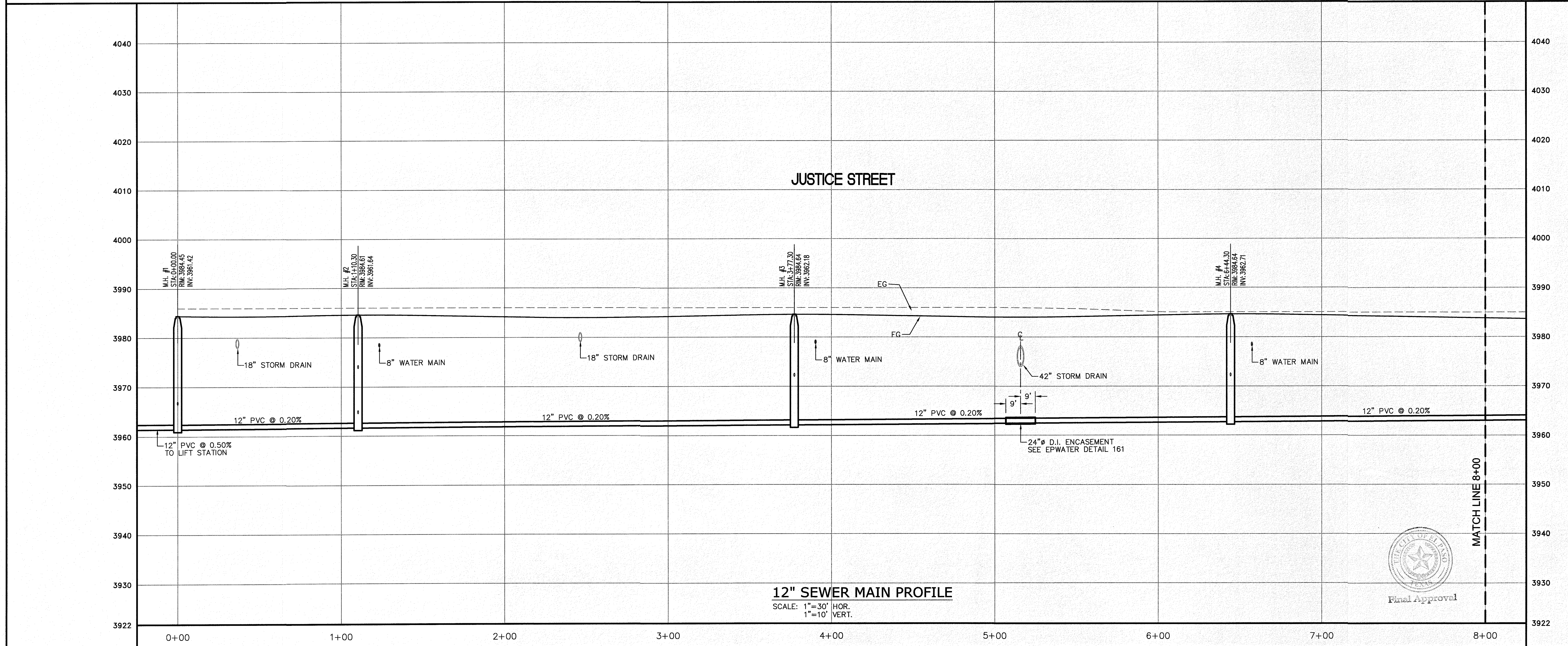
NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 25-28-37 & 38 BLOCK 79, TOWNSHIP 2 NORTH, RANGE 38E, MERIDIAN 101W (NAVODD DATUM)  
 ELEVATION: 3839.38 (NAVODD DATUM)

SCALE: AS INDICATED  
 JOB NO.: 09-16-3911  
 DESIGN BY: J/ET  
 CHECKED BY: GH/FE  
 DATE: OCTOBER 2018

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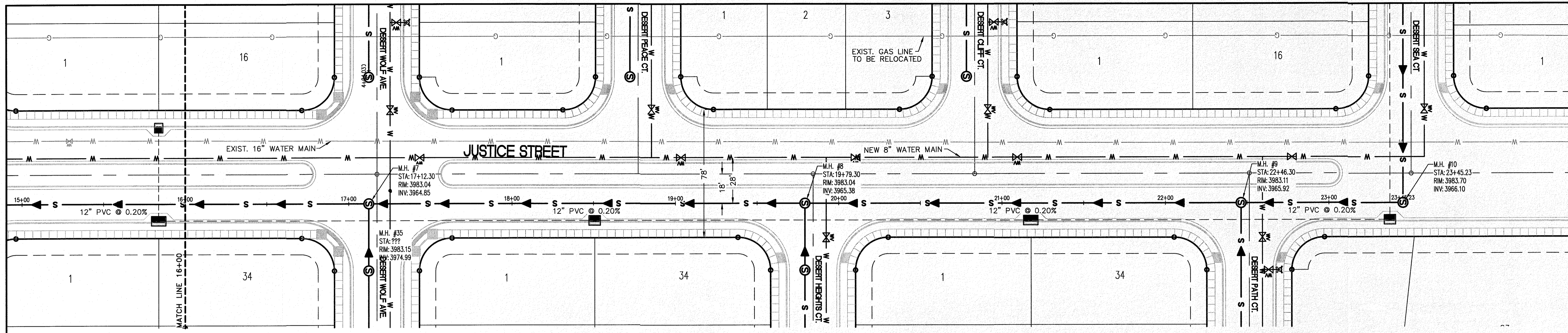
**PROJECT NAME**

DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 38E, MERIDIAN 101W  
 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**EL PASO, TEXAS**

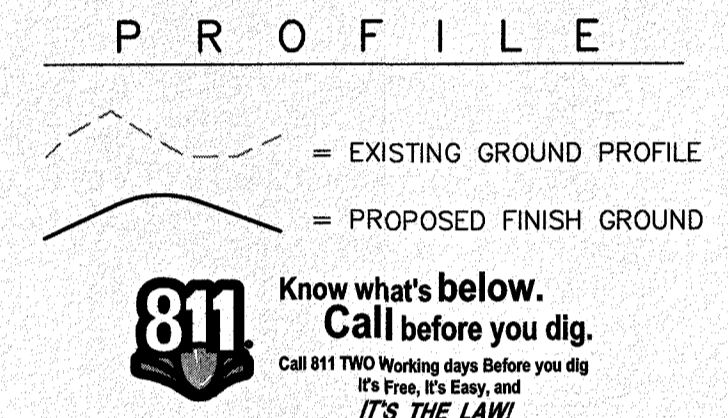
JUSTICE STREET



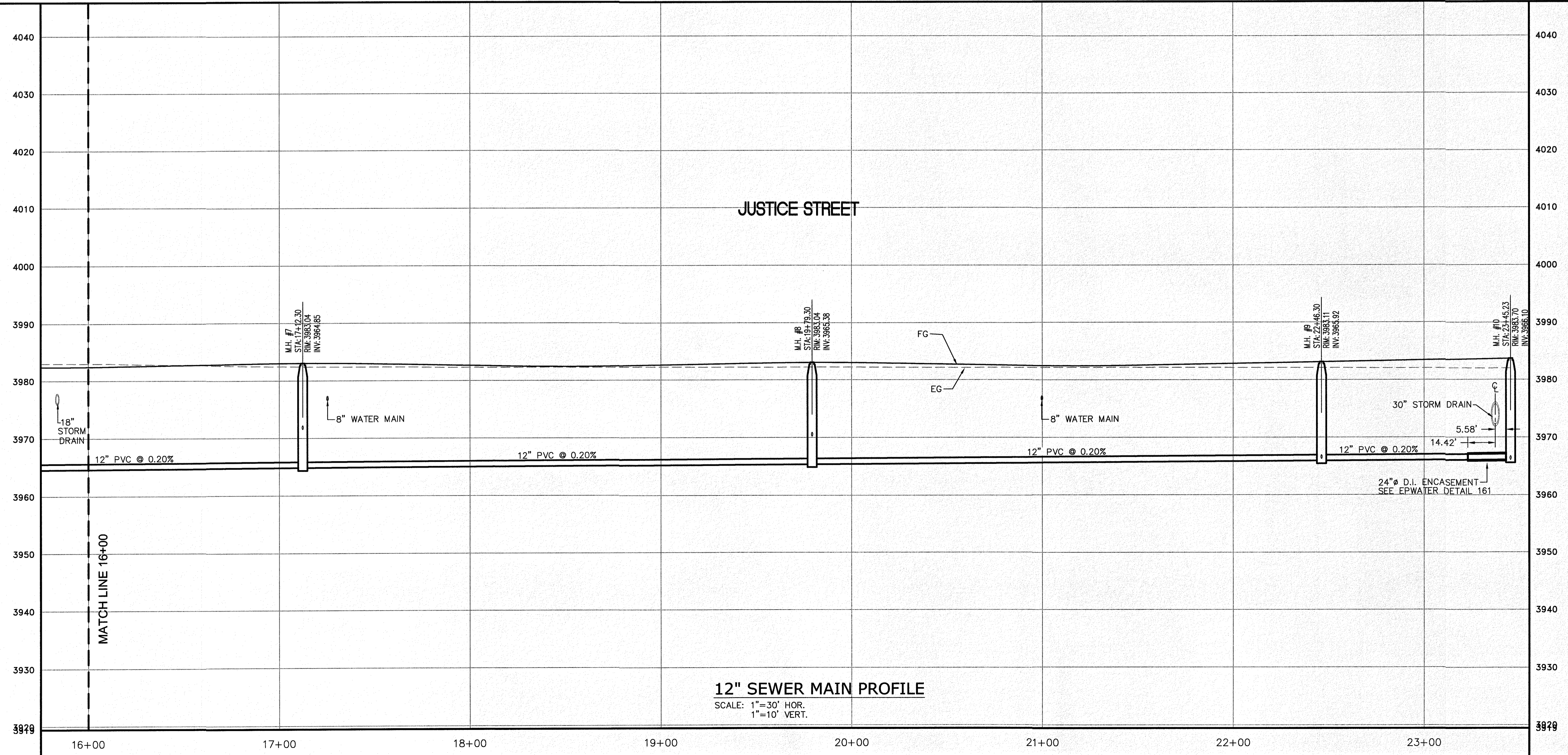


**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ — NEW FIRE HYDRANT
- ⊗ — NEW GATE VALVE
- W — EXISTING WATER
- C — EXISTING GAS



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**12" SEWER MAIN PROFILE**  
 SCALE: 1"=30' HOR.  
 1"=10' VERT.

NO.	DATE	REVISION DESCRIPTION

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TOWNSHIP 2, RANGE 18E, MERIDIAN 103W ELEVATION: 3839.38 (NA 088 DATUM)
--

SCALE: AS INDICATED	BENCHMARK
JOB NO.: 09-16-3811	DESIGN BY: J/ET
CHECKED BY: GH/FE	DATE: OCTOBER 2018

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PROJECT NAME	DESERT SANDS
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	EL PASO, TEXAS

CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS  
 6605 W. HAWTHORNE  
 EL PASO, TEXAS 79905  
 (910) 584-1487

**SLI** SLI ENGINEERING, INC.

LICENSE No. F-1902

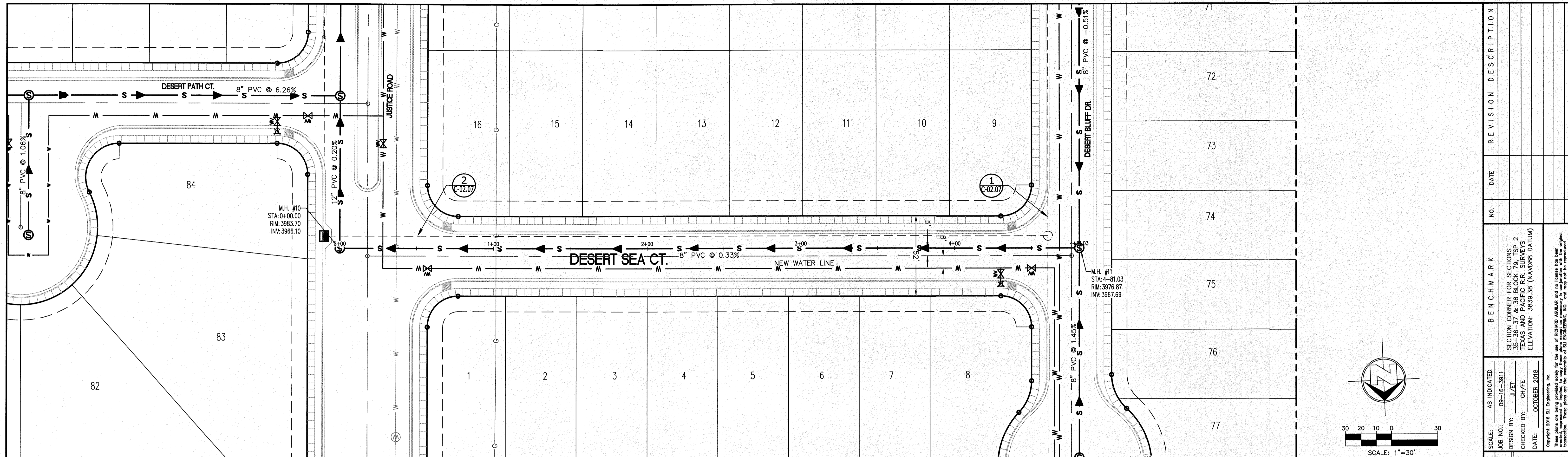
OCTOBER 24, 2018

SHEET TITLE

JUSTICE ST.  
 SEWER LINE  
 STA. 16+00 - 23+40.80

**C-05.15**





NO.	DATE	REVISION DESCRIPTION

BENCHMARK

SECTION CORNER FOR SECTIONS 28-37 & 38 BLOCK 79 TOWNSHIP 2 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)

SCALE: AS INDICATED

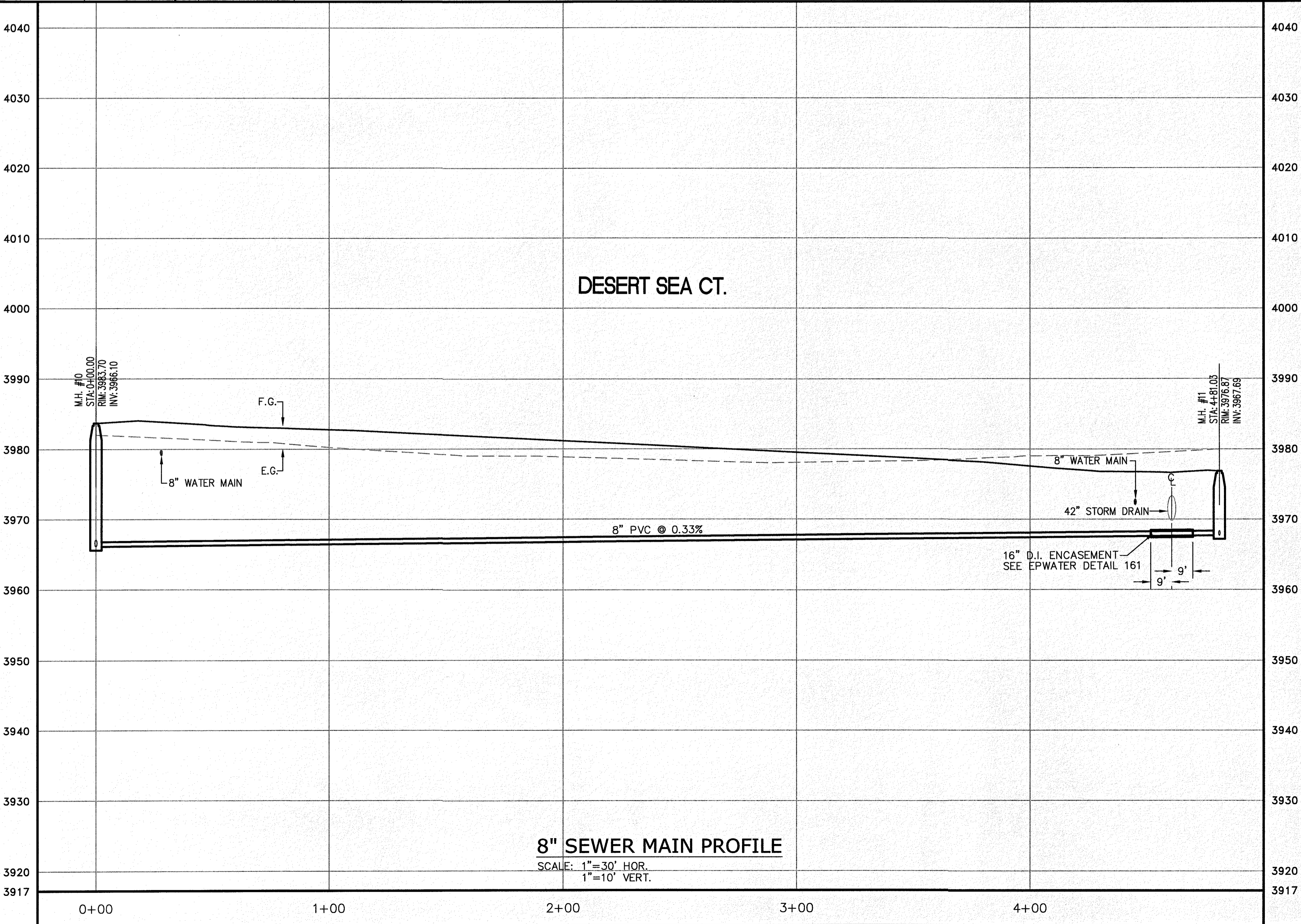
JOB NO.: 09-16-3911

DESIGN BY: J/ET

CHECKED BY: GH/TE

DATE: OCTOBER 2018

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- LEGEND**
- W NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S NEW SANITARY SEWER MAIN
  - ⊕ NEW FIRE HYDRANT
  - ⊗ NEW GATE VALVE
  - W EXISTING WATER
  - C EXISTING GAS

**PROFILE**

- - - EXISTING GROUND PROFILE
- PROPOSED FINISH GROUND

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PROJECT NAME

**DESERT SANDS**

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

JUSTICE STREET

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS

**SLI**

SLI ENGINEERING, INC.

6605 W. 13TH AVE  
EL PASO, TEXAS 79905  
(915) 584-1487

LICENSE No. F-1902

STATE OF TEXAS

GEORGE S. HALLAM

1921

OCTOBER 24, 2018

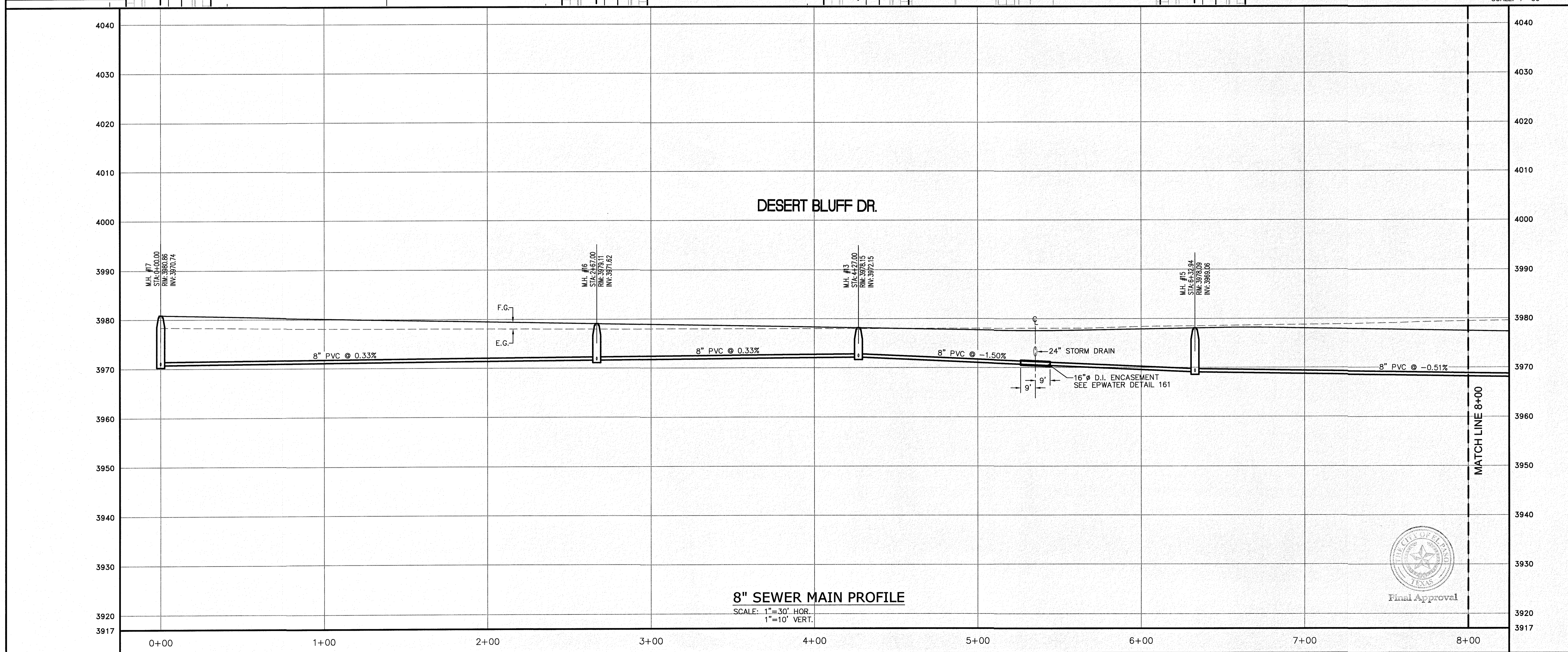
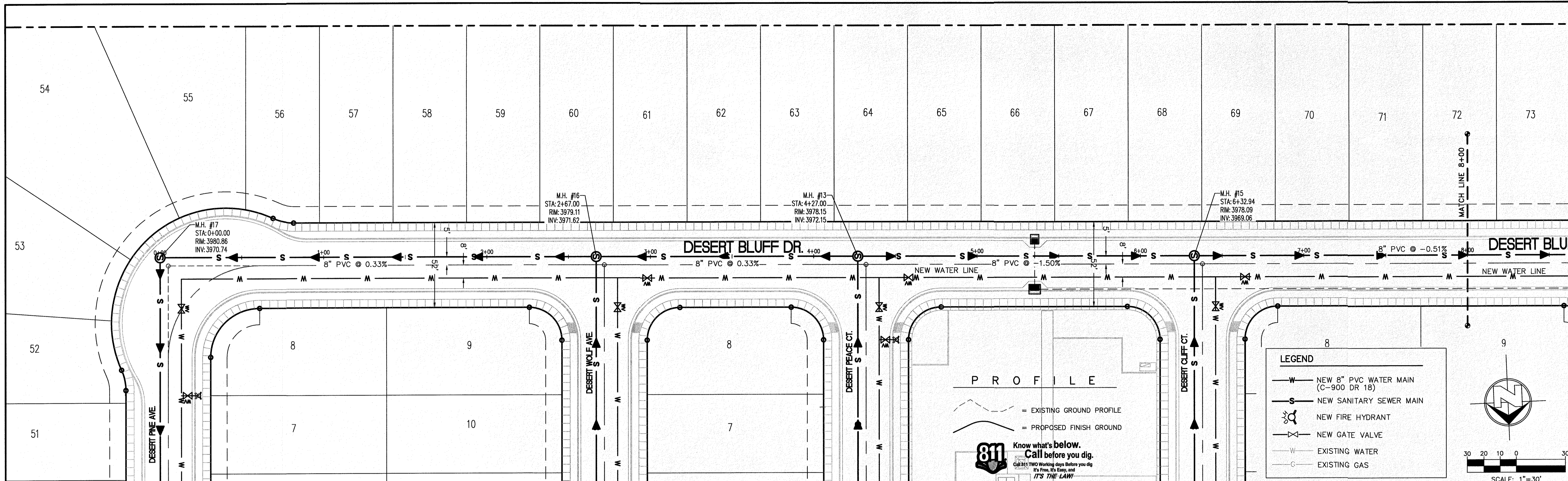
SHEET TITLE

DESERT SEA CT.  
SEWER LINE  
STA. 0+00 - 4+58.03

C-05.16



Final Approval



NO.	DATE	REVISION DESCRIPTION

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3839.38 (NAVD88 DATUM)
SCALE: AS INDICATED
JOB NO.: 09-16-3911
DESIGN BY: J/T
CHECKED BY: GH/TE
DATE: OCTOBER 2018
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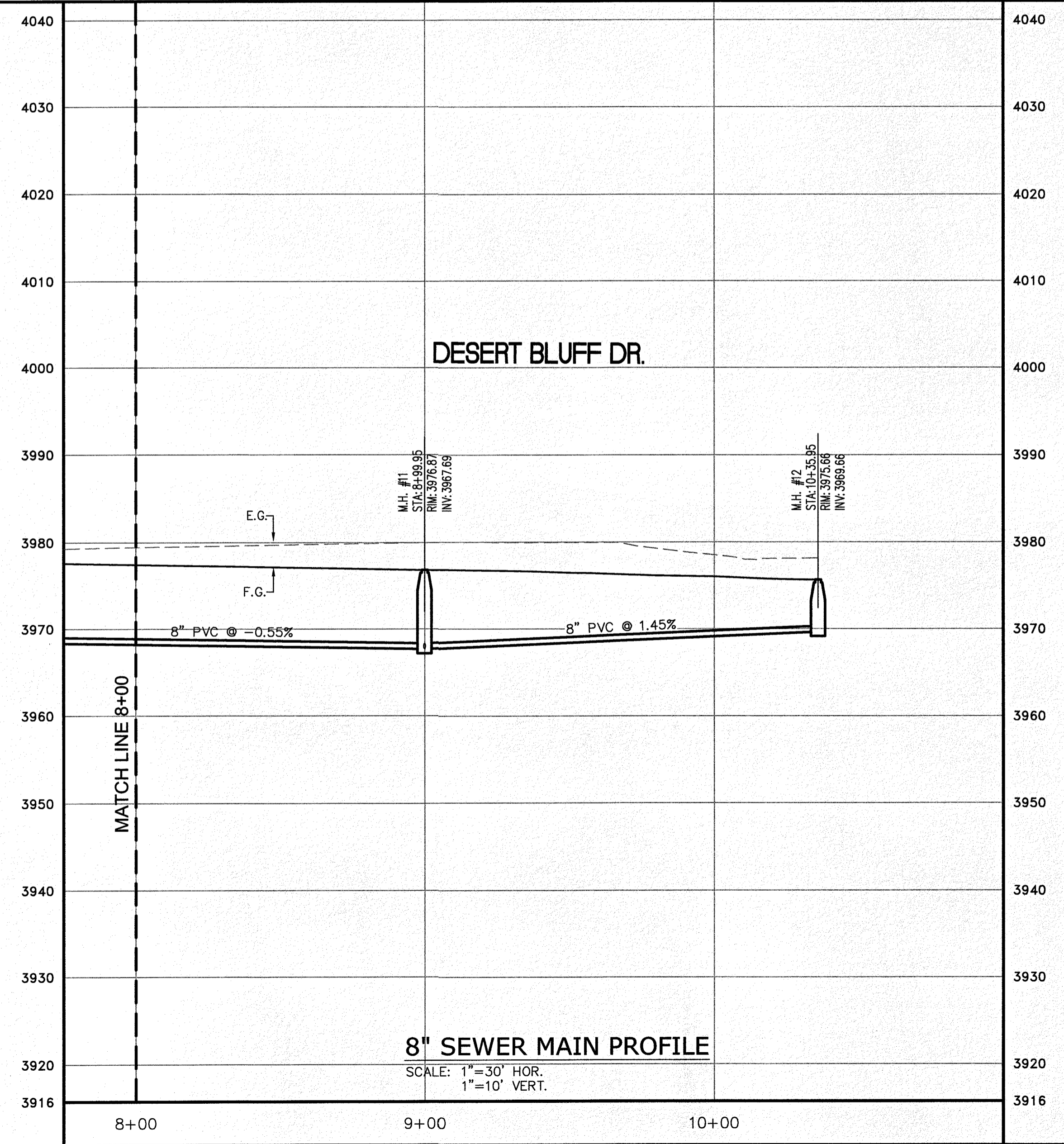
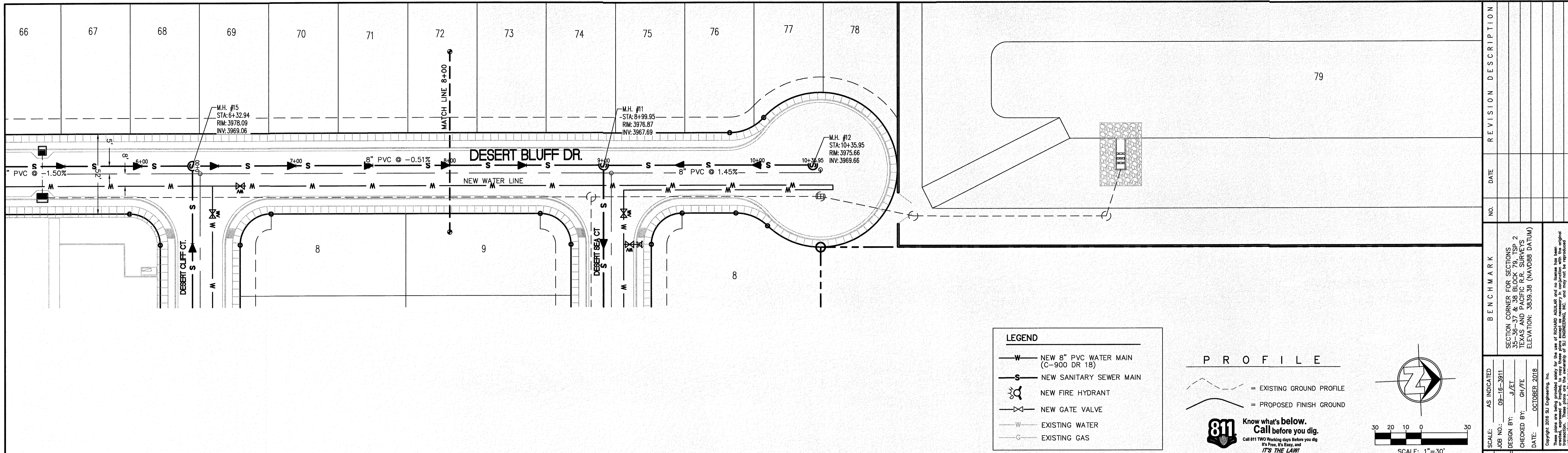
  

PROJECT NAME	DESERT SANDS	EL PASO, TEXAS
	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	JUSTICE STREET

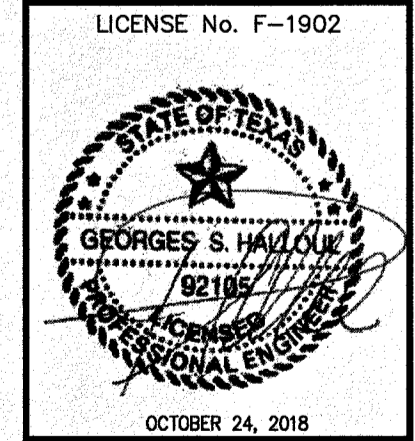
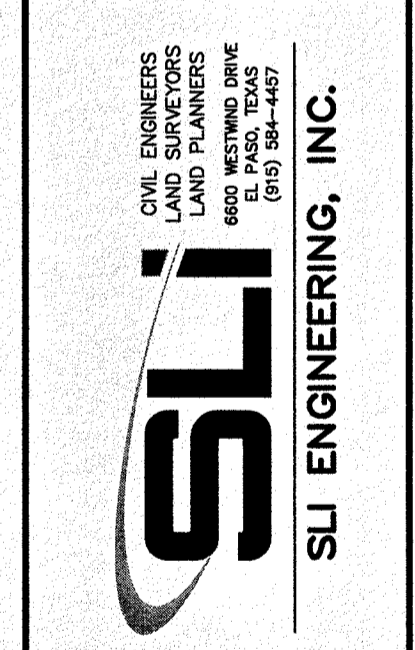
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS EL PASO, TEXAS P.L.L.C. 984-1467 <b>SLI</b> SLI ENGINEERING, INC.
LICENSE No. F-1902
OCTOBER 24, 2018
SHEET TITLE
DESERT BLUFF DR. SEWER LINE STA. 0+00 - 8+00
<b>C-05.17</b>





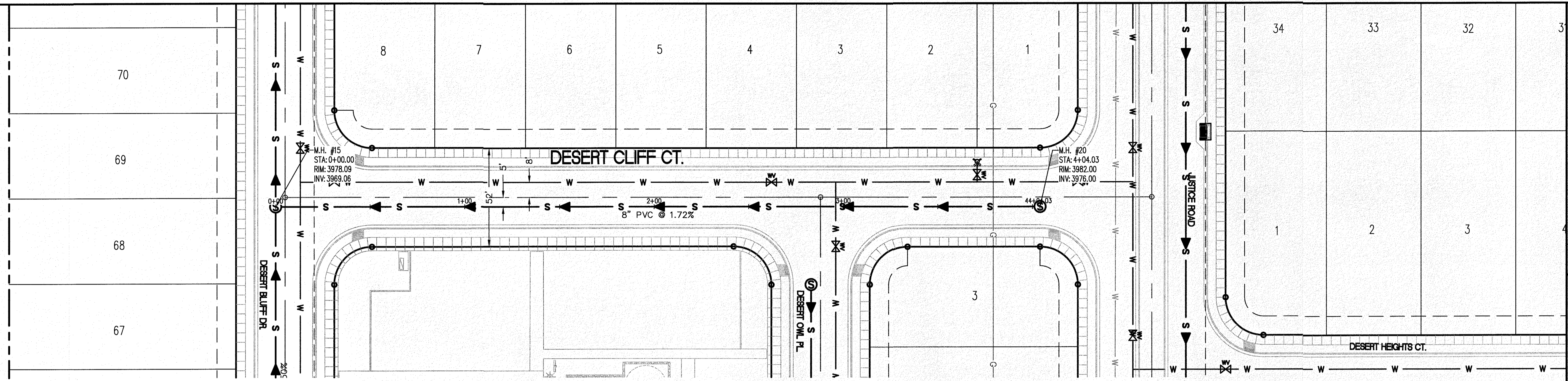
NO.	DATE	REVISION DESCRIPTION

**PROJECT NAME**  
DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2,  
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
JUSTICE STREET EL PASO, TEXAS

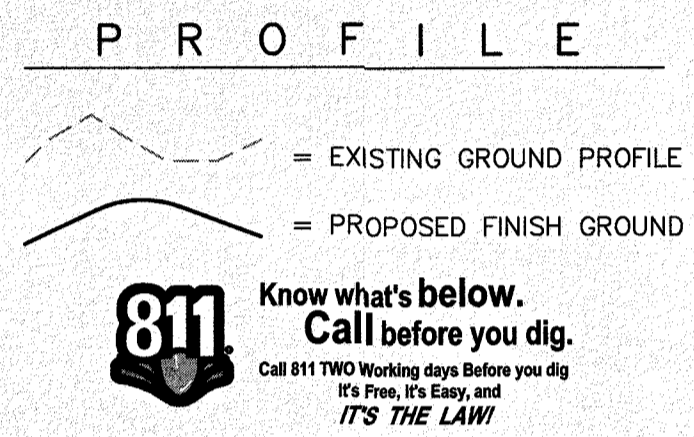


**SHEET TITLE**  
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SEWER LINE  
STA. 8+00 - 10+35.95  
**C-05.18**

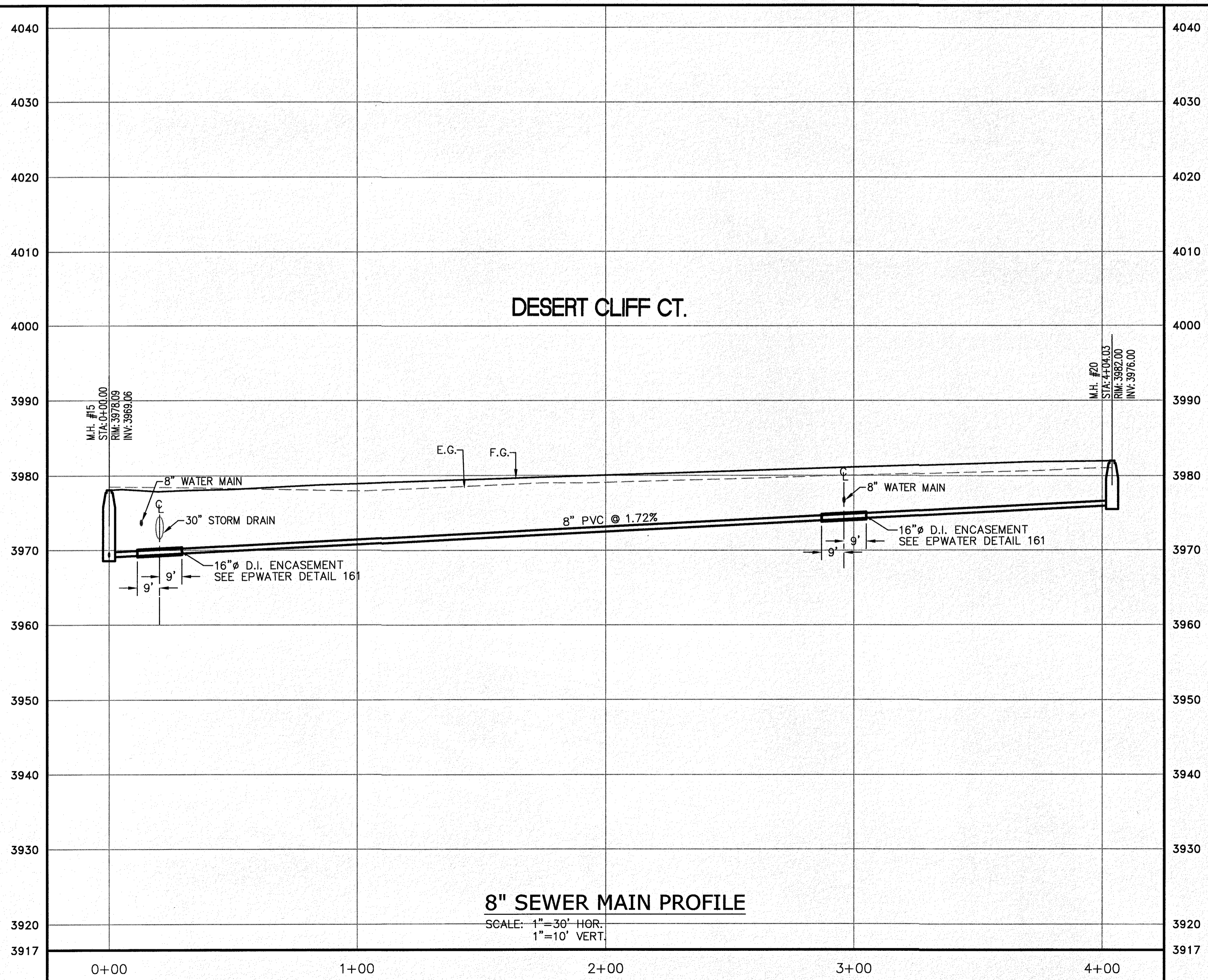




- LEGEND**
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S — NEW SANITARY SEWER MAIN
  - ☼ NEW FIRE HYDRANT
  - ⊗ NEW GATE VALVE
  - W — EXISTING WATER
  - C — EXISTING GAS



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**8" SEWER MAIN PROFILE**  
 SCALE: 1"=30' HOR.  
 1"=10' VERT.

NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2  
 44-D-38-00 (NAD 83 DATUM)  
 ELEVATION: 5889.35 (NAD83 DATUM)

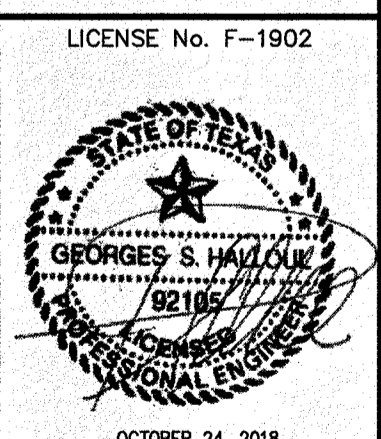
SCALE: AS INDICATED  
 JOB NO.: 09-18-3911  
 DESIGN BY: J/J/E  
 CHECKED BY: GH/Y/E  
 DATE: OCTOBER 2018

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**PROJECT NAME**  
 DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2,  
 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**EL PASO, TEXAS**  
 JUSTICE STREET

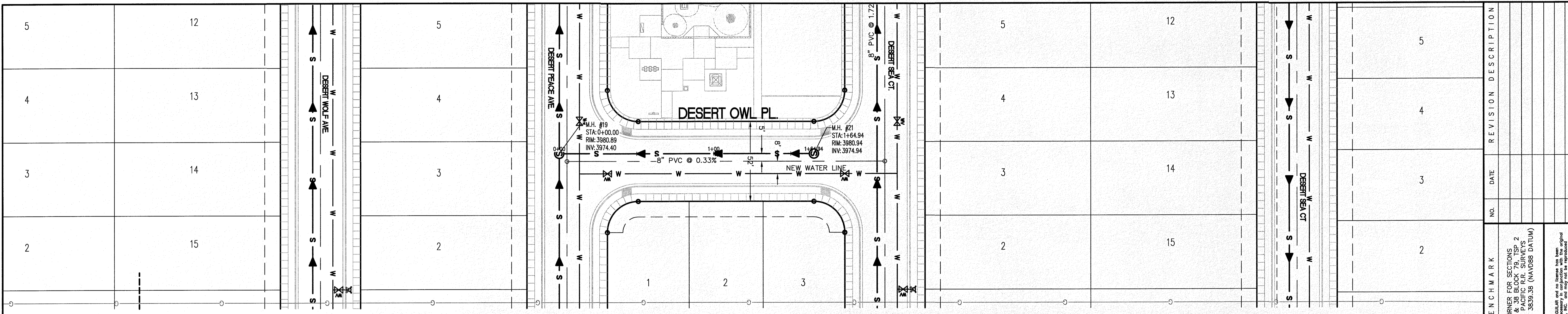
**SLI ENGINEERING, INC.**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS  
 6605 W. HAWK DR., SUITE 100  
 EL PASO, TEXAS 79905  
 (915) 944-1487



**SHEET TITLE**  
 DESERT CLIFF CT.  
 SEWER LINE  
 STA. 0+00 - 4+04.03



**C-05.19**



**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ NEW FIRE HYDRANT
- ⊗ NEW GATE VALVE
- W — EXISTING WATER
- C — EXISTING GAS

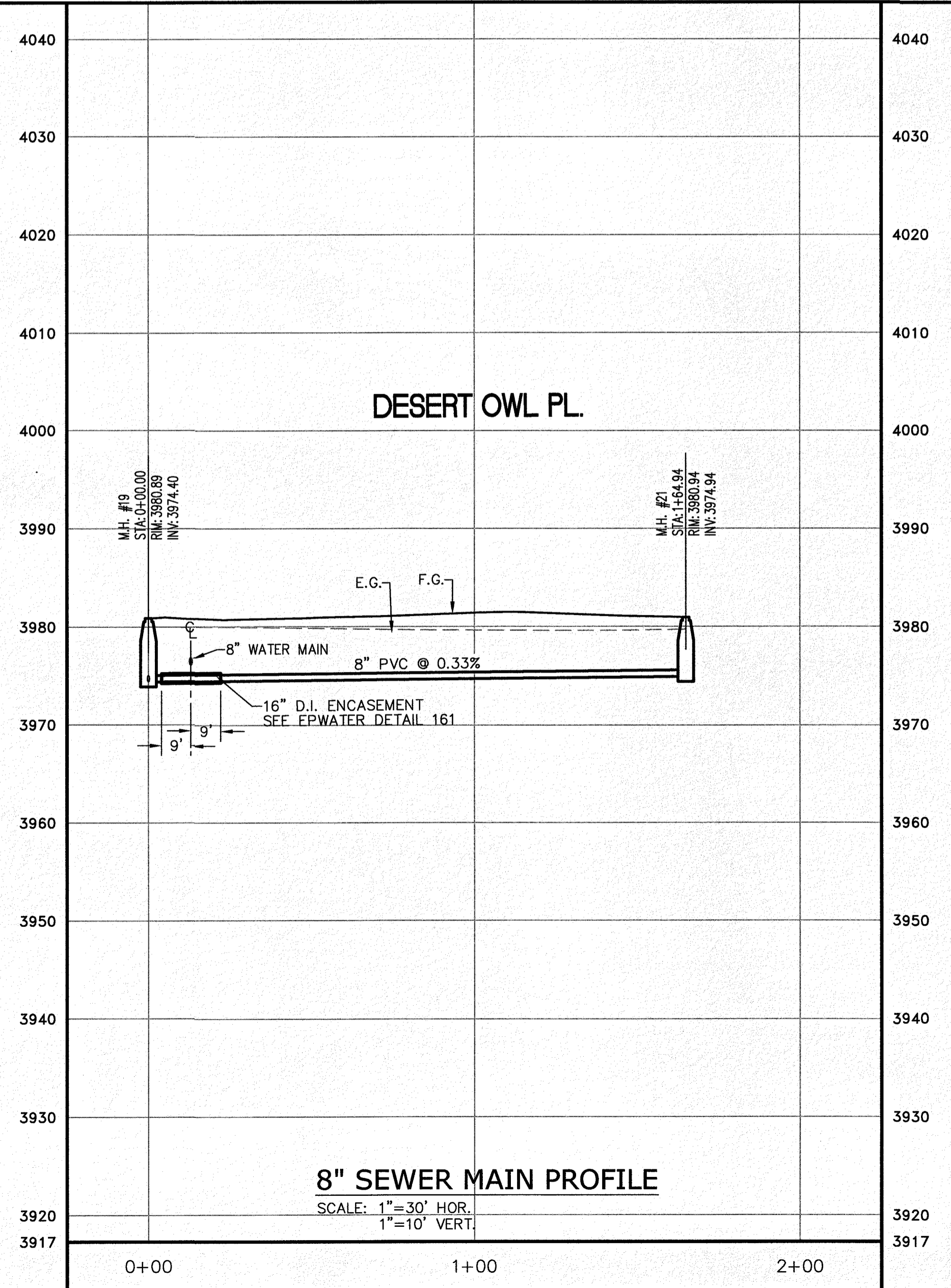
**PROFILE**

- - - - - EXISTING GROUND PROFILE
- PROPOSED FINISH GROUND

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SCALE: 1"=30'



NO.	DATE	REVISION DESCRIPTION

<b>BENCHMARK</b> SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 NAD 83 DATUM ELEVATION: 5859.55 (NAD83 DATUM)	<b>AS INDICATED</b> JOB NO.: 09-16-3811 DESIGN BY: J/ET CHECKED BY: GH/ZE DATE: OCTOBER 2018
---	--

<b>PROJECT NAME</b> DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	EL PASO, TEXAS JUSTICE STREET
--	----------------------------------

<b>CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS</b> <b>SLI ENGINEERING, INC.</b> 6605 W. HAWTHORNE EL PASO, TEXAS 79905 (915) 941-1487
--

LICENSE No. F-1902 
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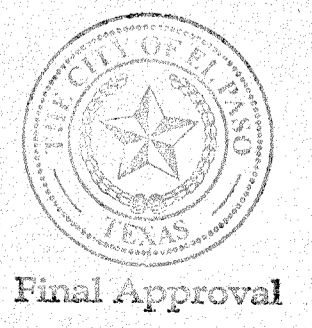
  

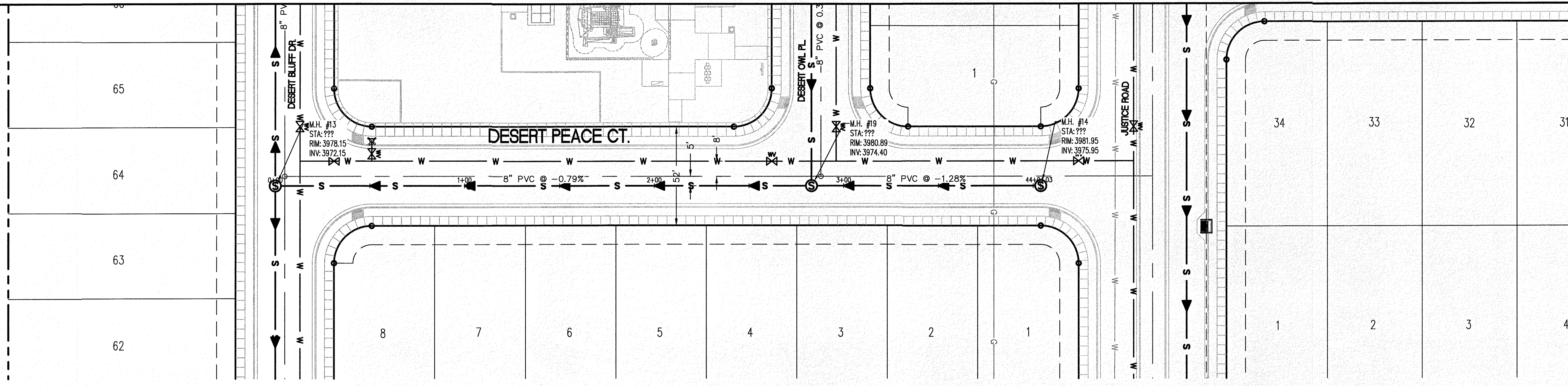
OCTOBER 24, 2018

SHEET TITLE

DESERT OWL PL.  
SEWER LINE  
STA. 0+00 - 1+64.94

C-05.20





**LEGEND**

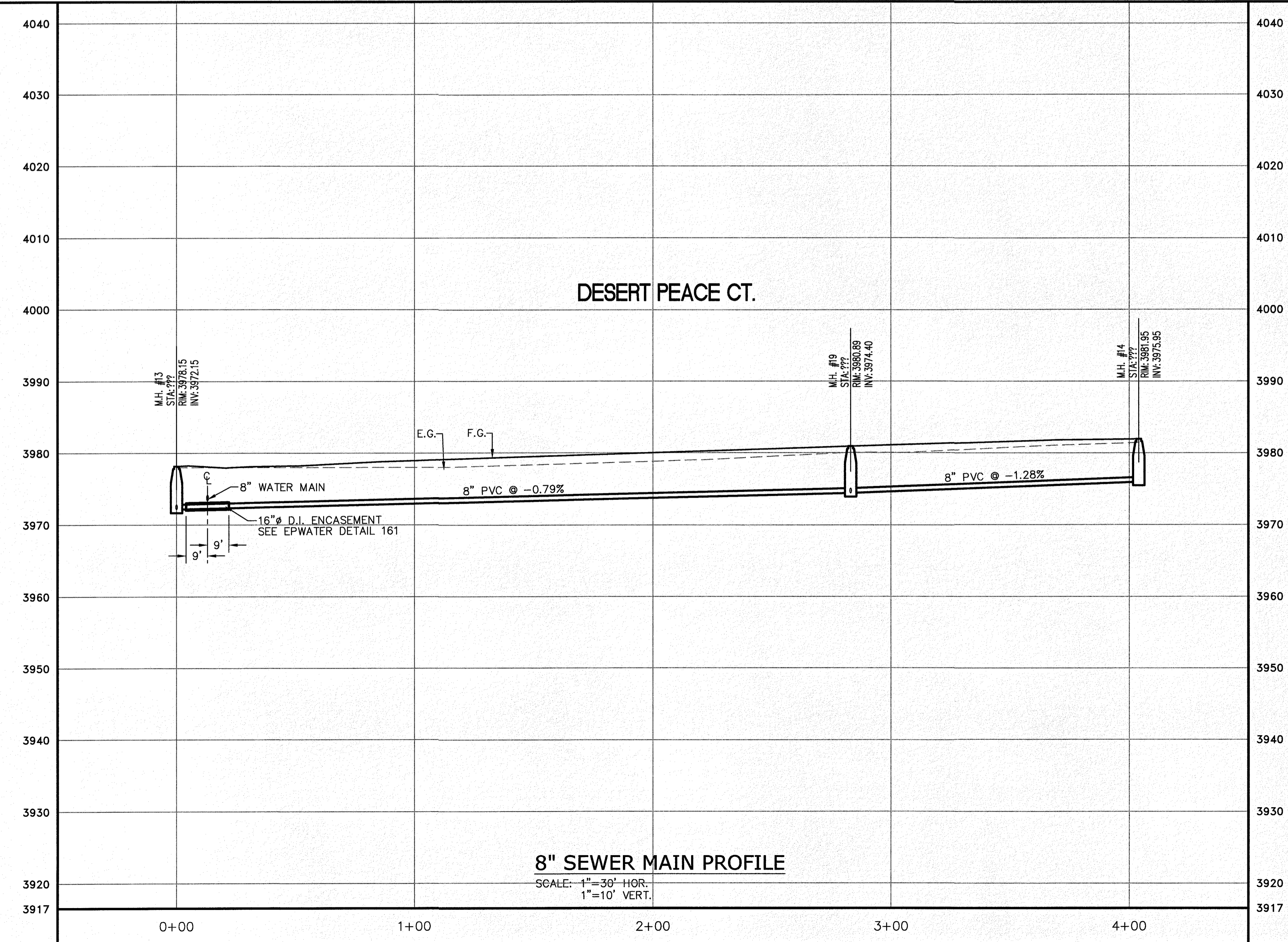
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- (Fire Hydrant Symbol) — NEW FIRE HYDRANT
- (Gate Valve Symbol) — NEW GATE VALVE
- (Water Line Symbol) — EXISTING WATER
- (Gas Line Symbol) — EXISTING GAS

**PROFILE**

- (Dashed Line) — EXISTING GROUND PROFILE
- (Solid Line) — PROPOSED FINISH GROUND

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SCALE: 1"=30'



NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28 AND 33, TOWNSHIP 2 NORTH, RANGE 79 EAST, COUNTY OF EL PASO, TEXAS. ELEVATION: 3539.38 (NAVD88 DATUM)

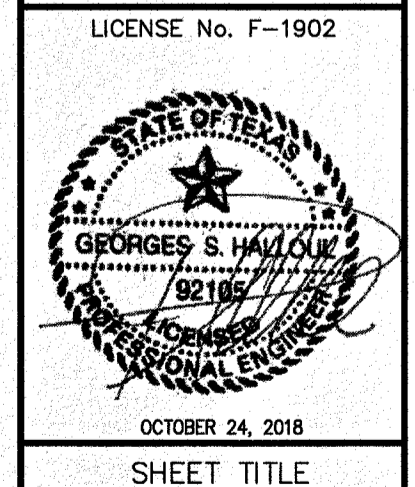
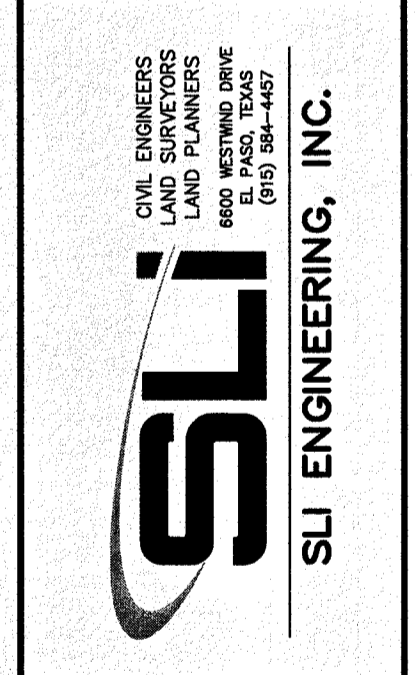
SCALE: AS INDICATED  
JOB NO.: 09-16-3811  
DESIGN BY: J/J/T  
CHECKED BY: GH/FE  
DATE: OCTOBER, 2018

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**PROJECT NAME**

DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

JUSTICE STREET EL PASO, TEXAS

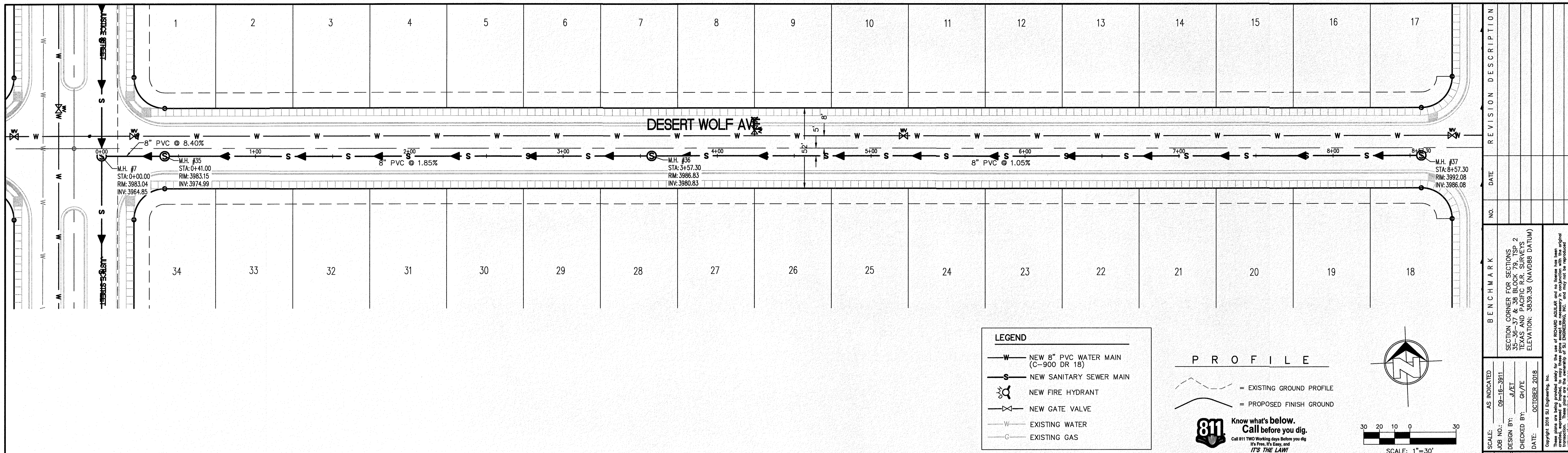


**DESERT PEACE CT. SEWER LINE**  
STA. 0+00 - 4+04.03

**C-05.21**

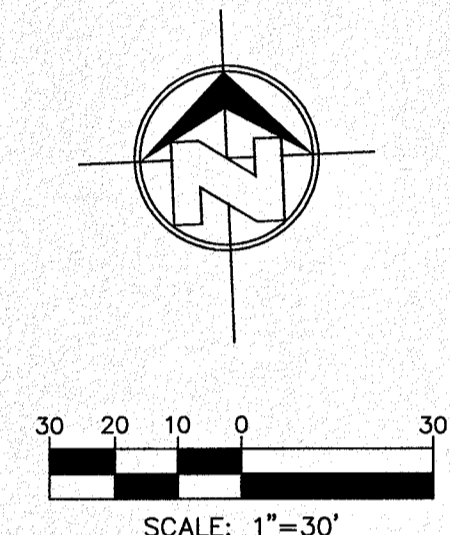
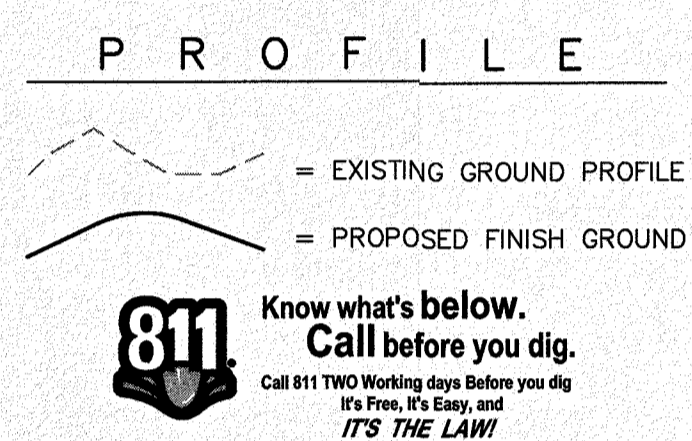






**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ NEW FIRE HYDRANT
- ⋈ NEW GATE VALVE
- W — EXISTING WATER
- C — EXISTING GAS



**811** Know what's below. Call before you dig. Call 811 TWO Working days before you dig. It's Free, It's Easy, and IT'S THE LAW!

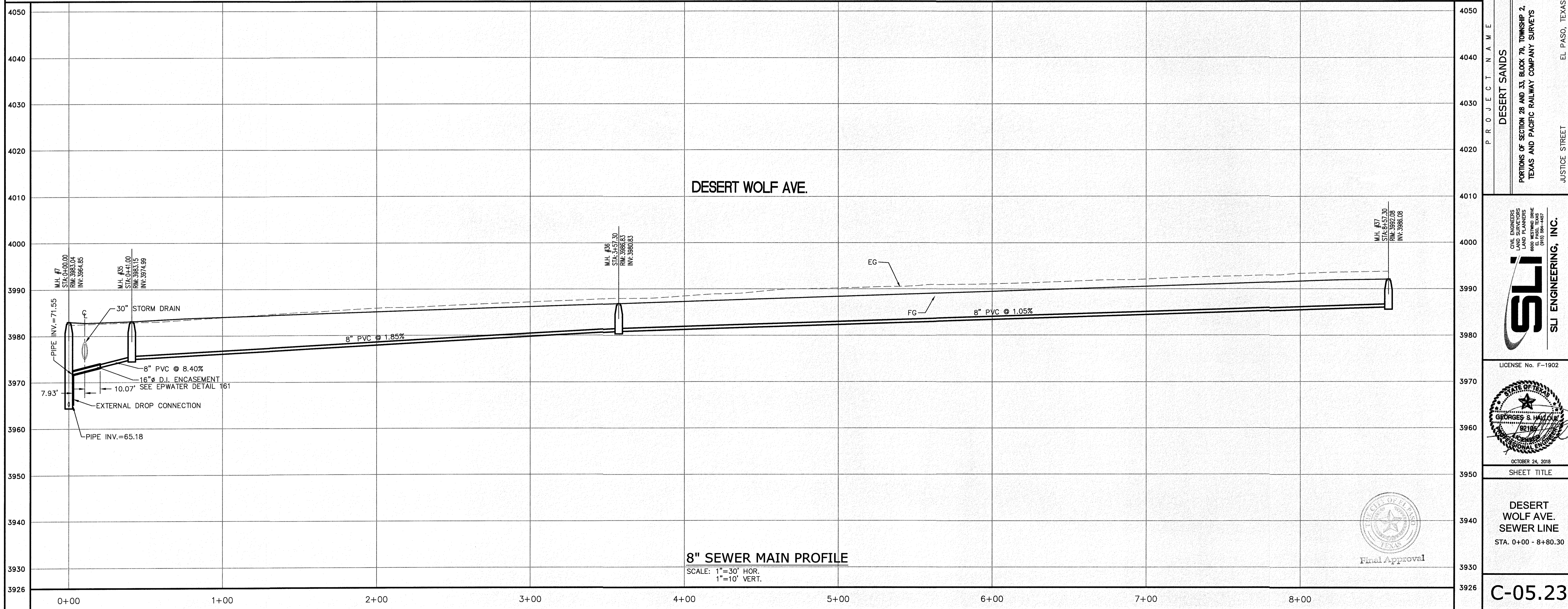
NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3839.35 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-3811  
**DESIGN BY:** J/J/E  
**CHECKED BY:** G/H/E  
**DATE:** OCTOBER 2018

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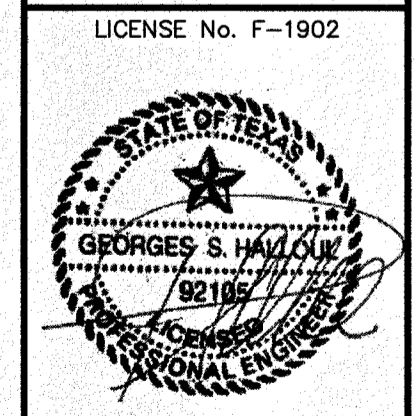
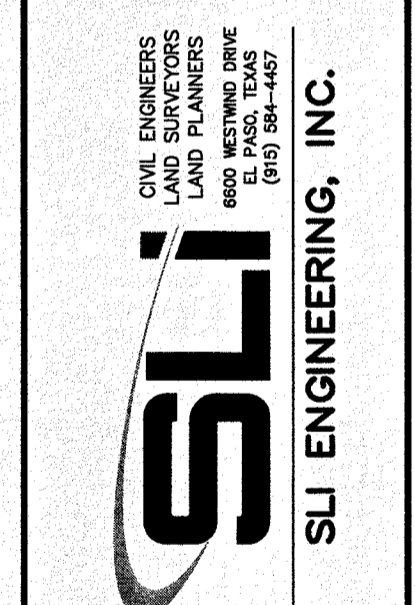


**PROJECT NAME**

DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**EL PASO, TEXAS**

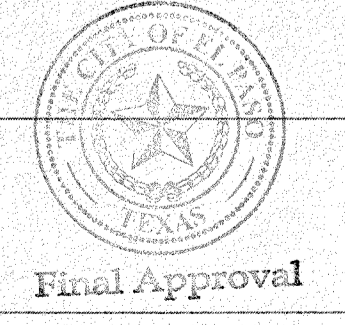
JUSTICE STREET

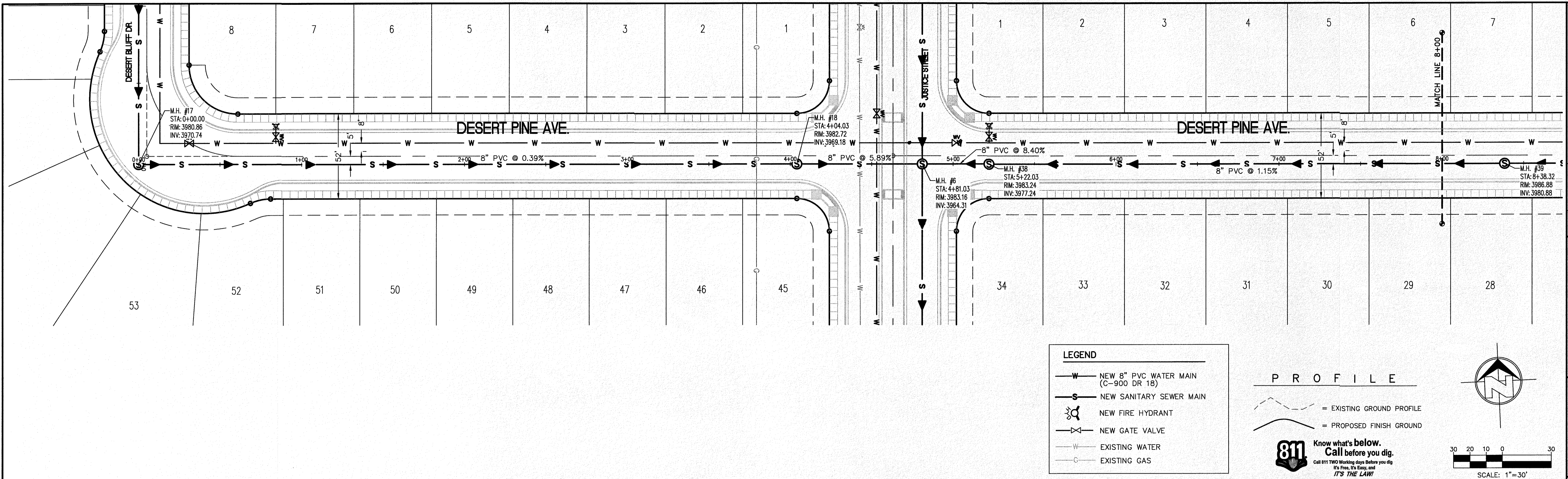


OCTOBER 24, 2018  
**SHEET TITLE**

DESERT WOLF AVE.  
 SEWER LINE  
 STA. 0+00 - 8+30.00

**C-05.23**





**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ NEW FIRE HYDRANT
- ⊗ NEW GATE VALVE
- W — EXISTING WATER
- C — EXISTING GAS

**PROFILE**

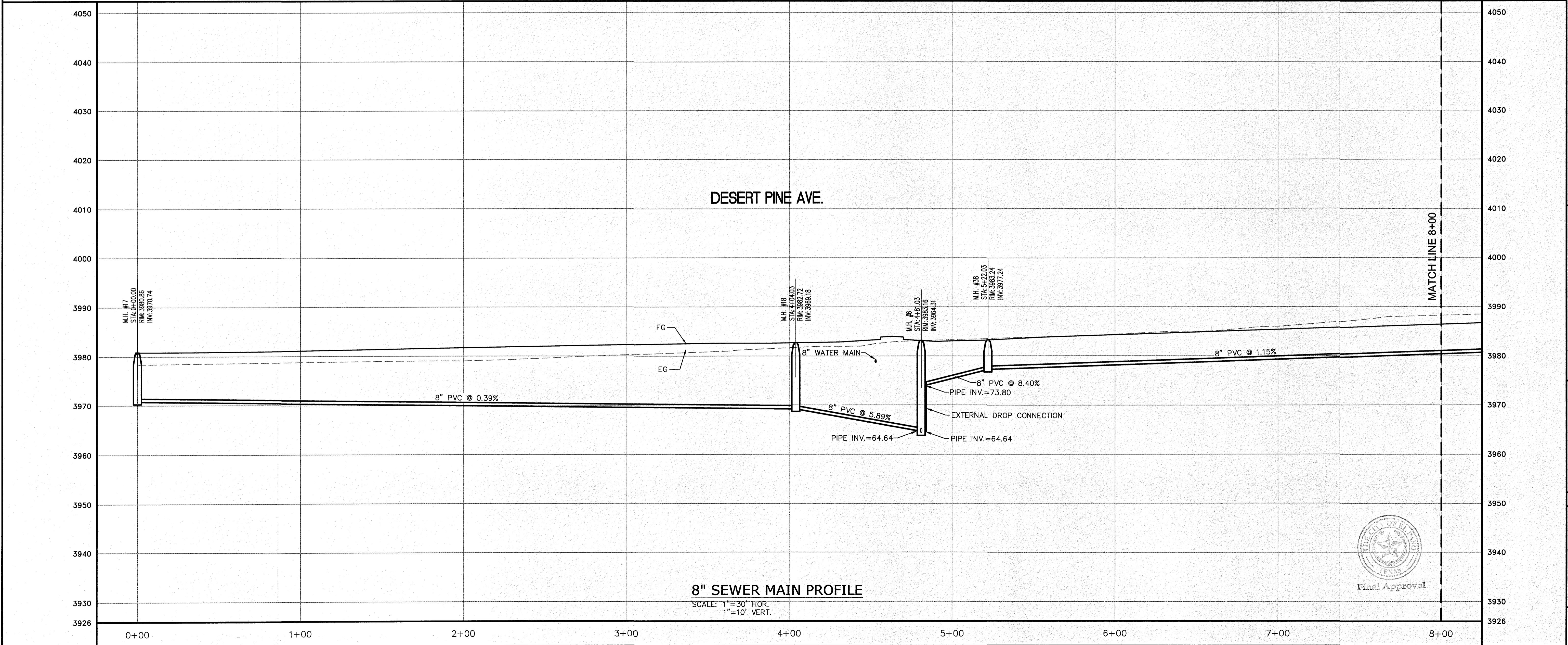
— — — — — = EXISTING GROUND PROFILE

————— = PROPOSED FINISH GROUND

**811** Know what's below.  
Call before you dig.  
Call 811 TWO Working days Before you dig  
It's Free, It's Easy, and  
IT'S THE LAW

SCALE: 1" = 30'

SCALE: 1" = 30'



NO.	DATE	REVISION DESCRIPTION

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 ELEVATION: 5859.55 (NAVD8 DATUM)
---

SCALE: AS INDICATED	JOB NO.: 09-18-3911
DESIGN BY: J/ET	CHECKED BY: GH/E
DATE: OCTOBER 2018	

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PROJECT NAME	DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
BENCHMARK	
LOCATION	JUSTICE STREET EL PASO, TEXAS

**SLI ENGINEERING, INC.**  
CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
6905 W. HAWTHORNE  
EL PASO, TEXAS  
(915) 584-1487

LICENSE No. F-1902

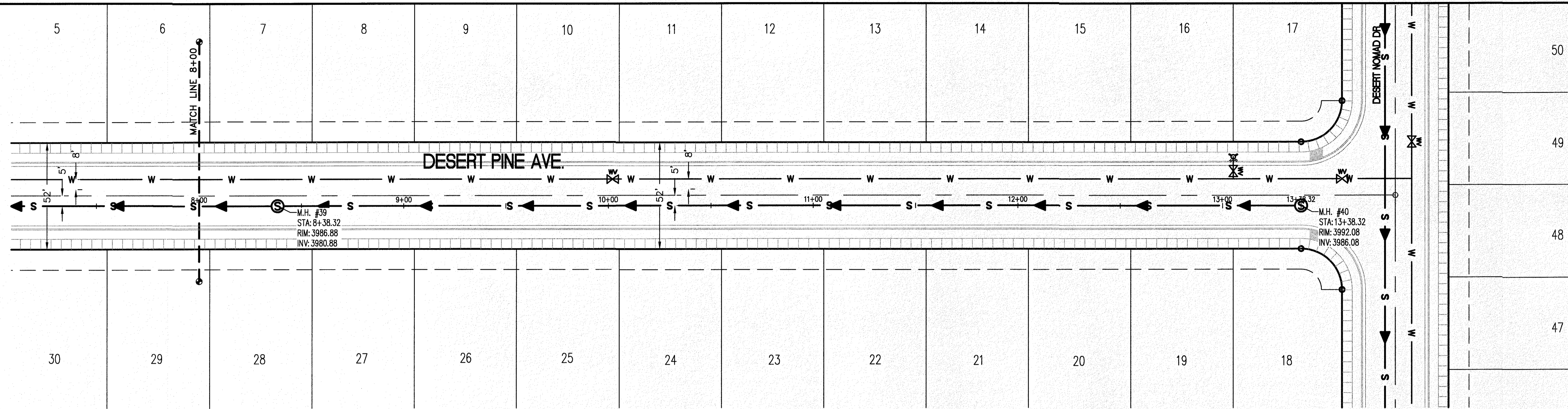
OCTOBER 24, 2018

SHEET TITLE

DESERT PINE CT.  
SEWER LINE  
STA. 0+00 - 8+00.00

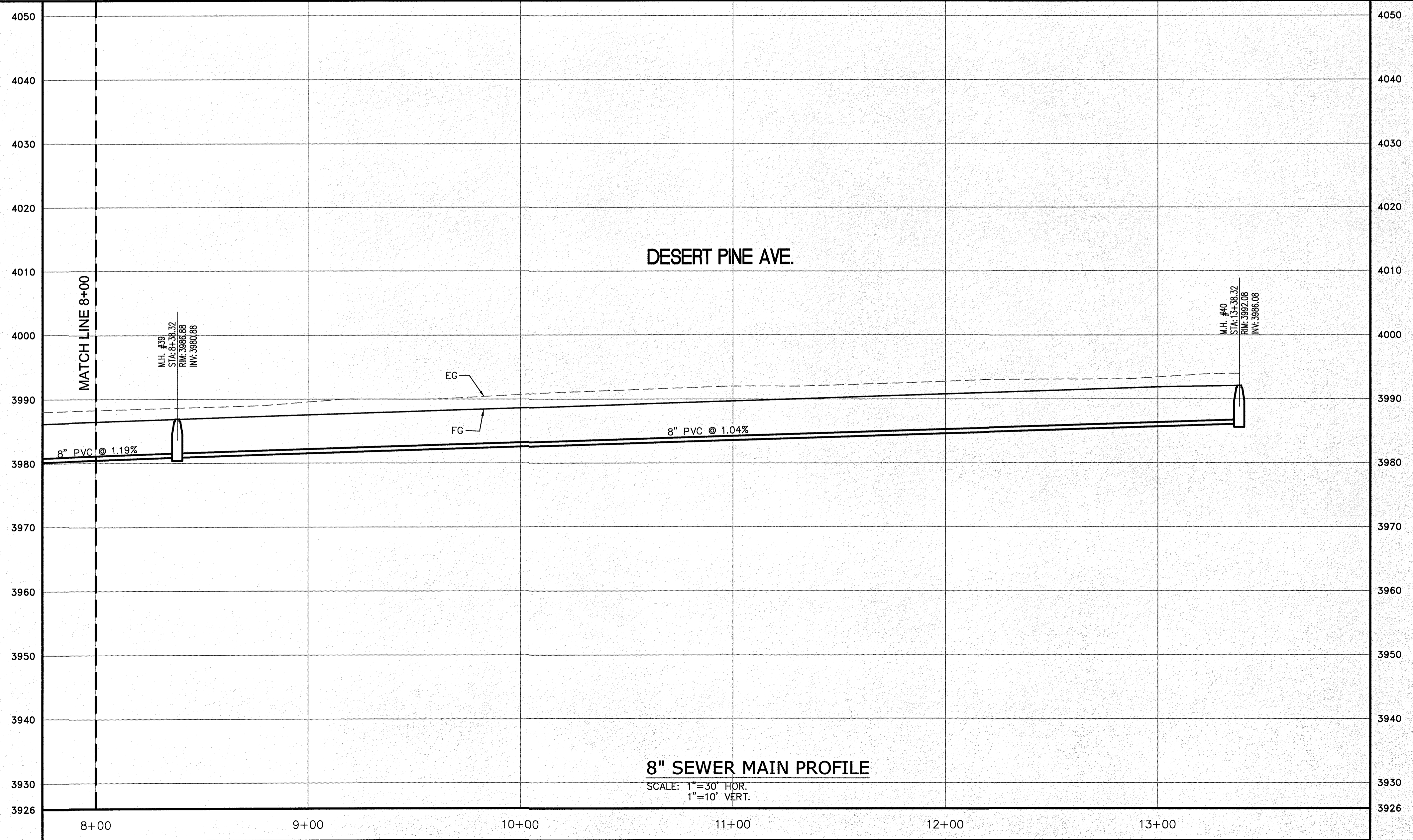
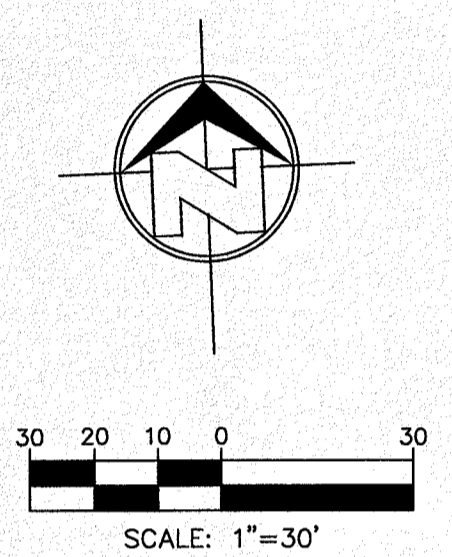
**C-05.24**





**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ NEW FIRE HYDRANT
- ⊗ NEW GATE VALVE
- W — EXISTING WATER
- G — EXISTING GAS



NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28 AND 29, TOWNSHIP 2 NORTH, RANGE 18E, COUNTY OF EL PASO, TEXAS  
ELEVATION: 3859.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 09-18-3911  
**DESIGN BY:** J/J/T  
**CHECKED BY:** GH/FE  
**DATE:** OCTOBER, 2018

**PROJECT NAME**  
DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
JUSTICE STREET EL PASO, TEXAS

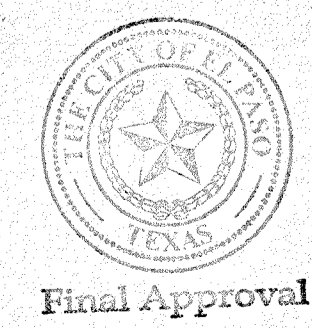
**CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS**  
**SLI ENGINEERING, INC.**  
6901 EL PASO, TEXAS  
PHONE: 978-4467

LICENSE No. F-1902

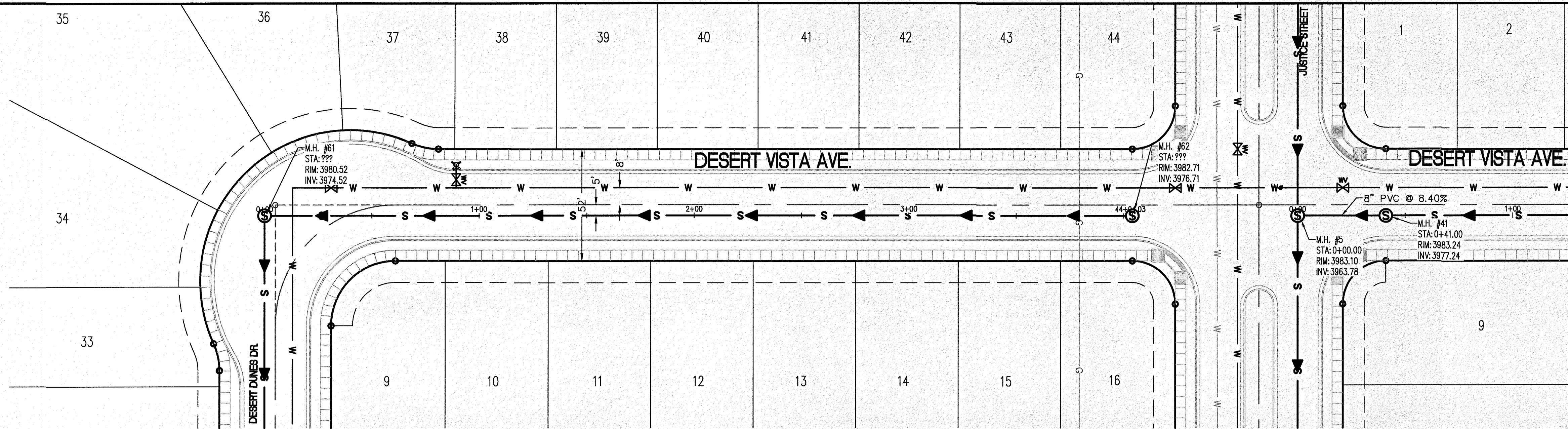
**STATE OF TEXAS**  
GEORGES S. HALL  
REGISTERED PROFESSIONAL ENGINEER  
NO. 9218  
OCTOBER 24, 2018

**SHEET TITLE**  
DESERT PINE CT.  
SEWER LINE  
STA. 0+00 - 8+00.00

**C-05.25**







**LEGEND**

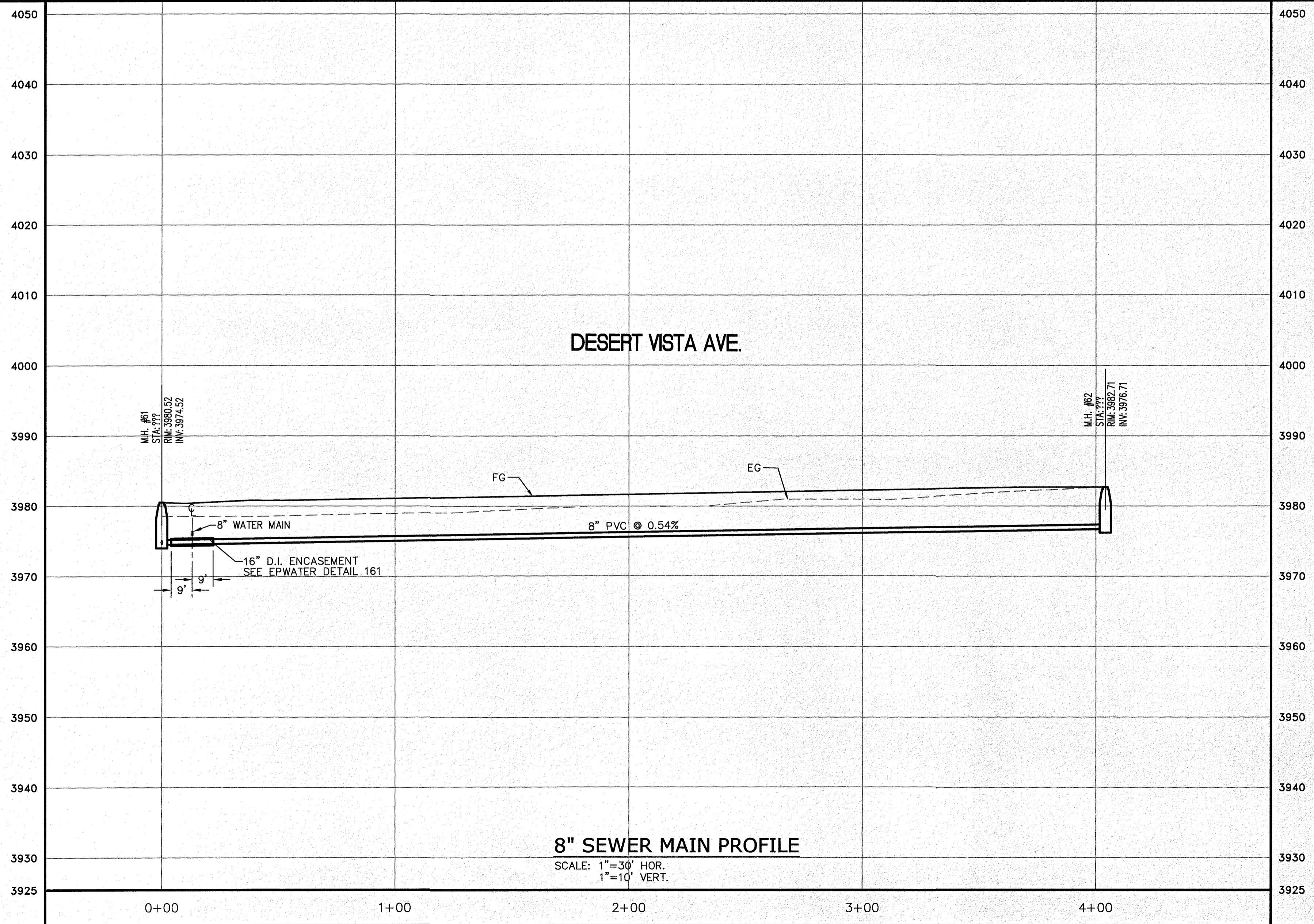
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ NEW FIRE HYDRANT
- ⊗ NEW GATE VALVE
- W — EXISTING WATER
- C — EXISTING GAS

**PROFILE**

- - - - - EXISTING GROUND PROFILE
- PROPOSED FINISH GROUND

**811** Know what's below. Call before you dig. Call 811 TWO Working days before you dig. It's Free, It's Easy, and IT'S THE LAW!

SCALE: 1"=30'



NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3639.36 (NAVD85 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/JET  
CHECKED BY: G/ZFE  
DATE: OCTOBER 2018

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**PROJECT NAME**

DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

JUSTICE STREET  
EL PASO, TEXAS

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
6600 WESTINGHOUSE DRIVE  
EL PASO, TEXAS 79907  
(915) 364-1487

SLI ENGINEERING, INC.

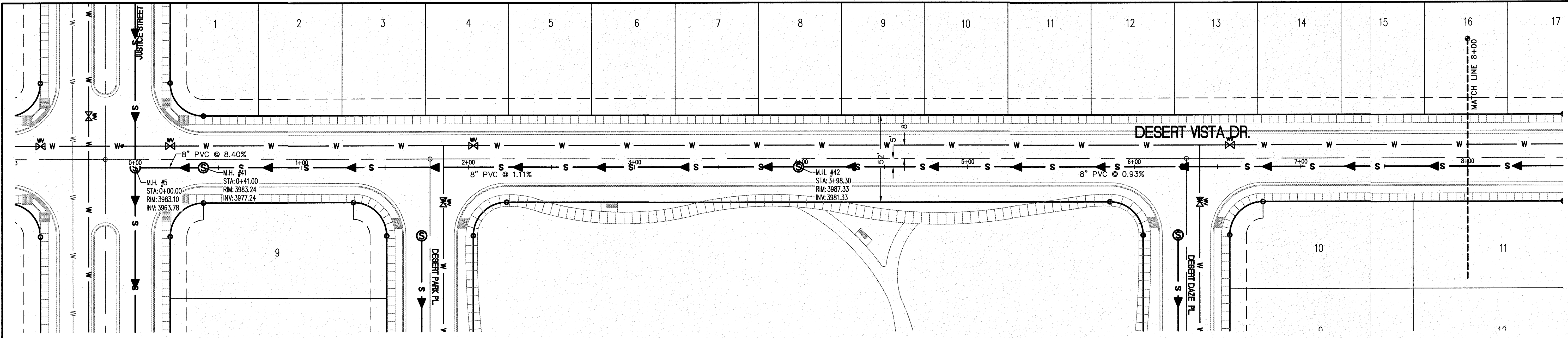
LICENSE No. F-1902

OCTOBER 24, 2018  
SHEET TITLE

DESERT VISTA AVE.  
SEWER LINE  
STA. 0+00 - 4+04.03

C-05.26





**LEGEND**

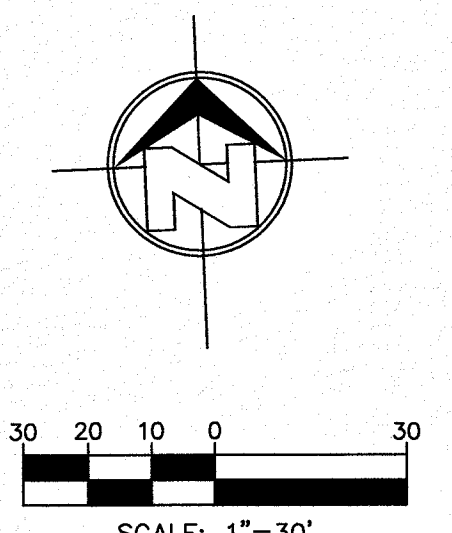
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ⊕ — NEW FIRE HYDRANT
- ⊗ — NEW GATE VALVE
- W — EXISTING WATER
- G — EXISTING GAS

**PROFILE**

- - - - - EXISTING GROUND PROFILE
- PROPOSED FINISH GROUND

**811** Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy, and IT'S THE LAW!

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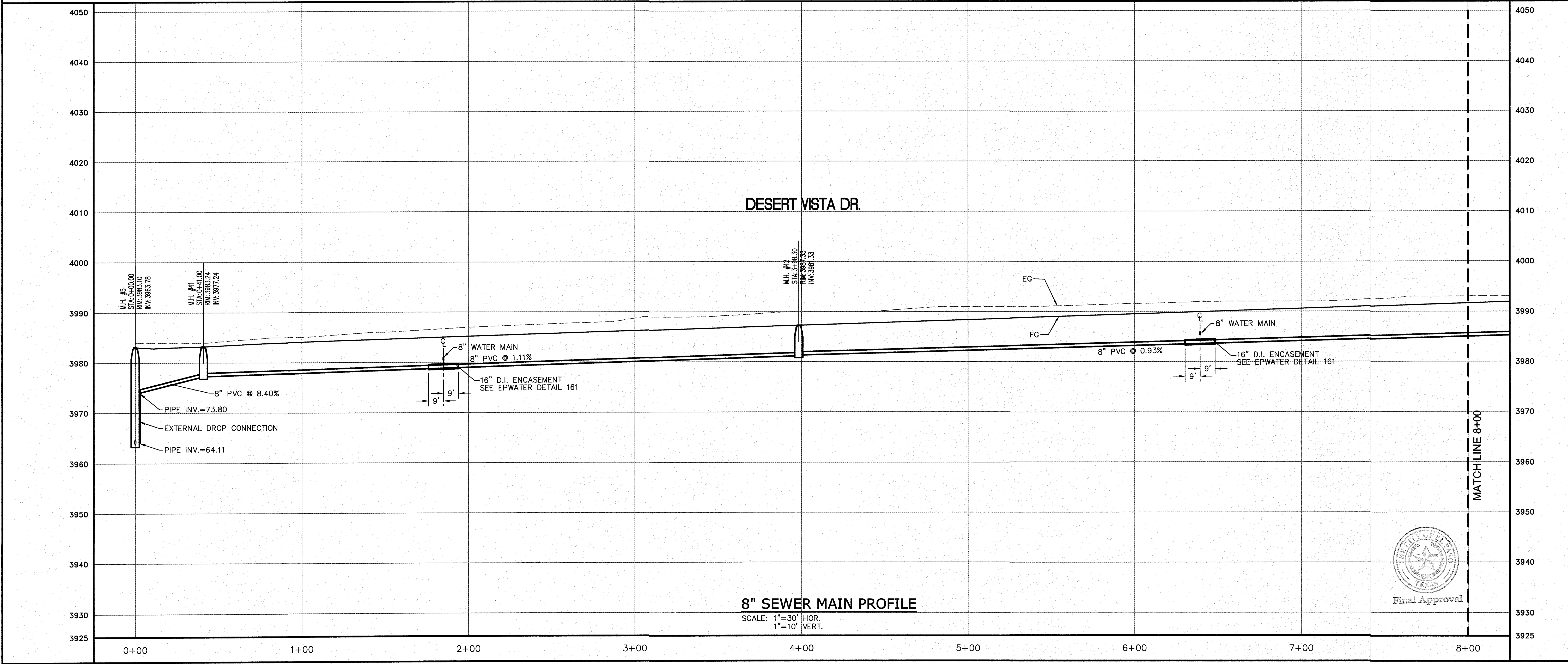
NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY SURVEYS 2  
ELEVATION: 3859.38 (NAVD88 DATUM)

**AS INDICATED**

SCALE: AS INDICATED  
JOB NO.: 09-16-3911  
DESIGN BY: J/JET  
CHECKED BY: GH/TE  
DATE: OCTOBER, 2018



**PROJECT NAME**

DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

JUSTICE STREET EL PASO, TEXAS

**SLI ENGINEERING, INC.**  
CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
6806 W. PALM DRIVE  
EL PASO, TEXAS 79912  
(915) 944-1467

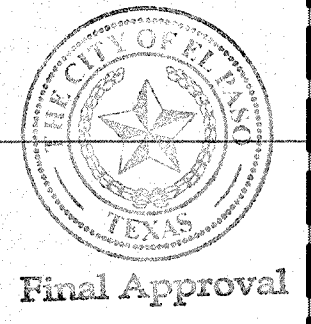
LICENSE No. F-1902

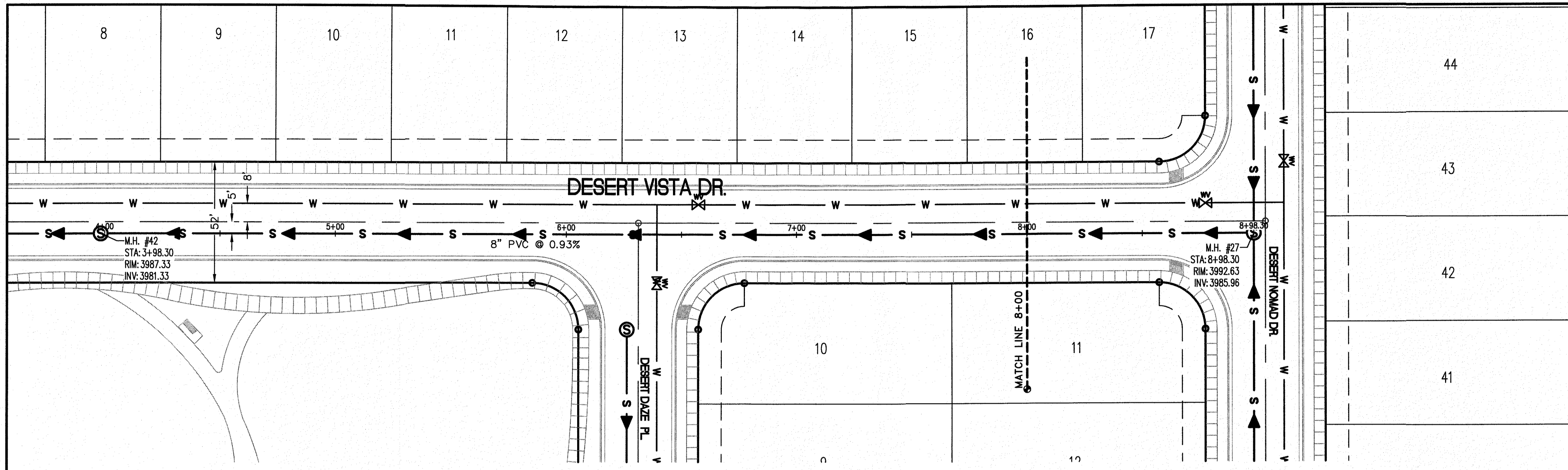
OCTOBER 24, 2018

**SHEET TITLE**

DESERT VISTA CT.  
SEWER LINE  
STA. 0+00 - 8+00

**C-05.27**





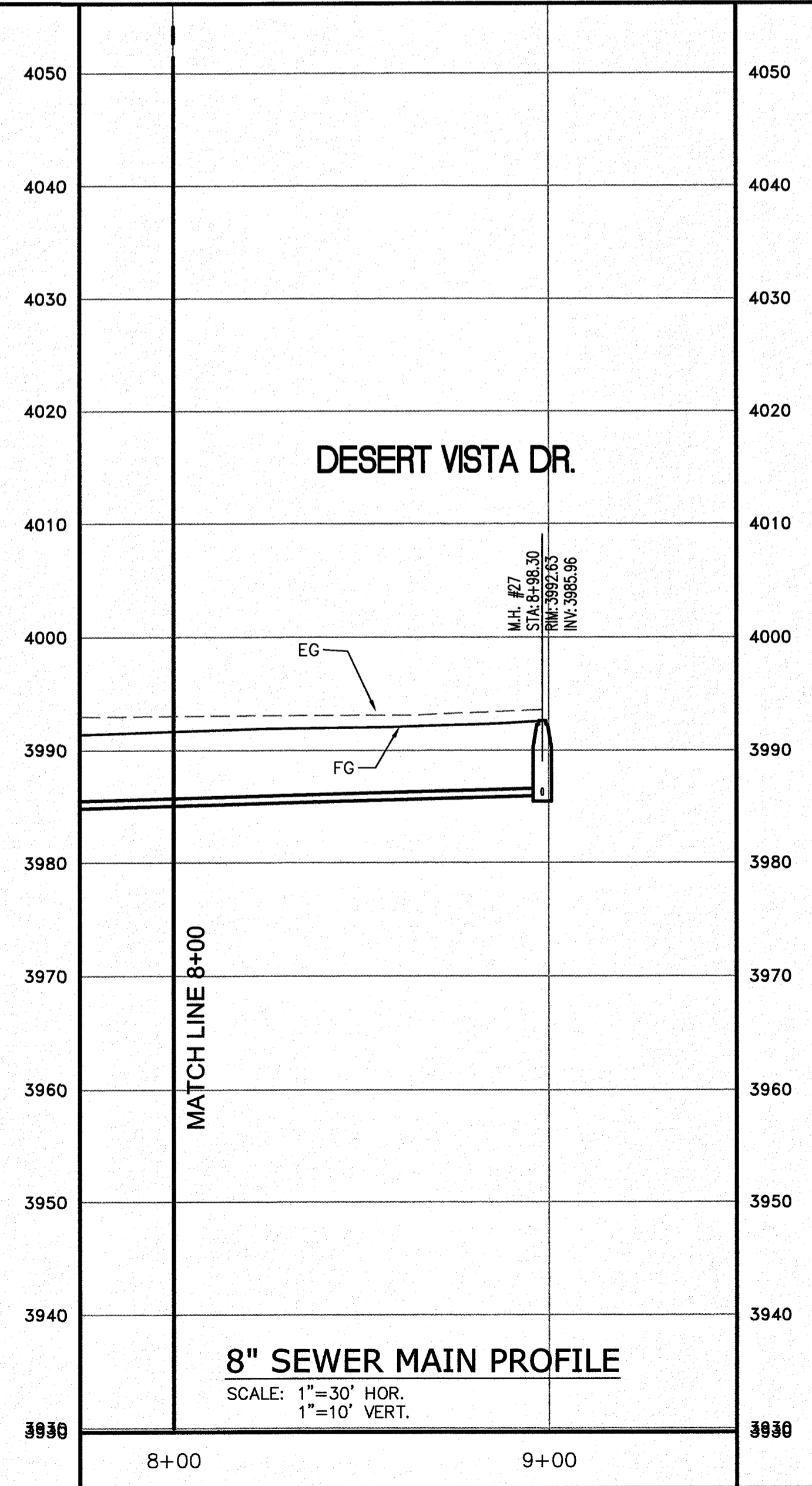
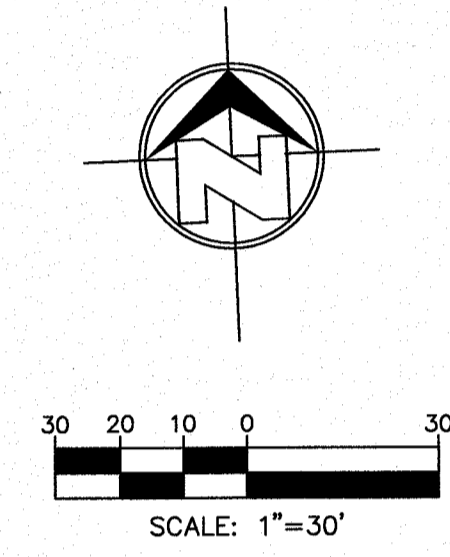
**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ⊗ NEW FIRE HYDRANT
- ⊗ NEW GATE VALVE
- W — EXISTING WATER
- G — EXISTING GAS

**PROFILE**

- - - EXISTING GROUND PROFILE
- PROPOSED FINISH GROUND

**811** Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy and IT'S THE LAW!



NO.	DATE	REVISION DESCRIPTION

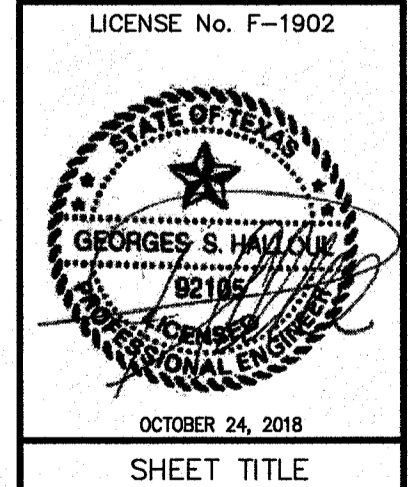
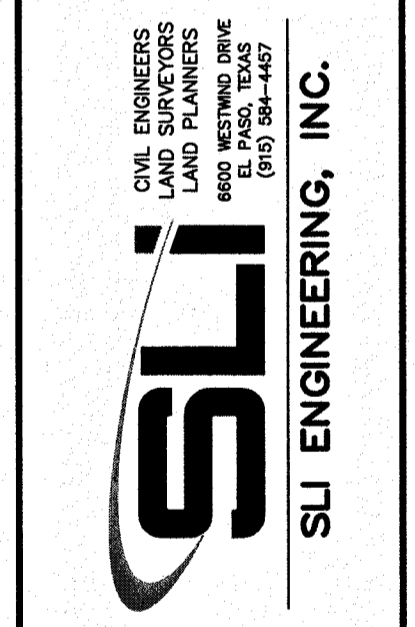
**BENCHMARK**

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 73 TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)

SCALE: AS INDICATED  
 JOB NO.: 08-16-3811  
 DESIGN BY: J/JET  
 CHECKED BY: GH/FE  
 DATE: OCTOBER 2018

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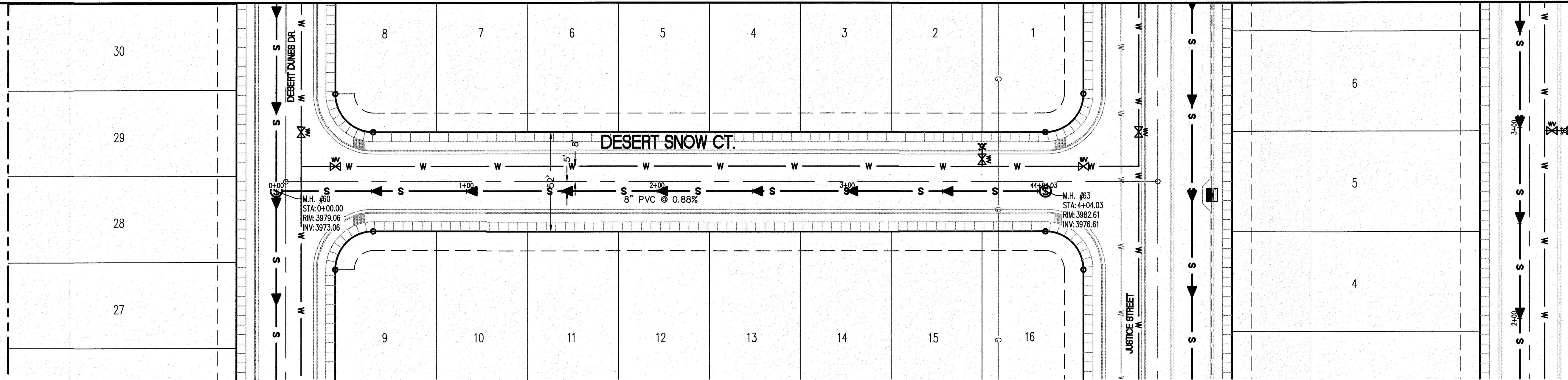
**PROJECT NAME**  
 DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET  
 EL PASO, TEXAS



**DESERT VISTA CT. SEWER LINE**  
 STA. 8+00 - 9+21.30



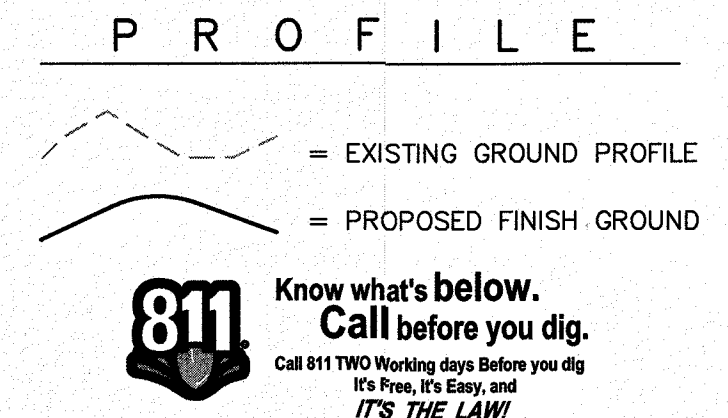
**C-05.28**



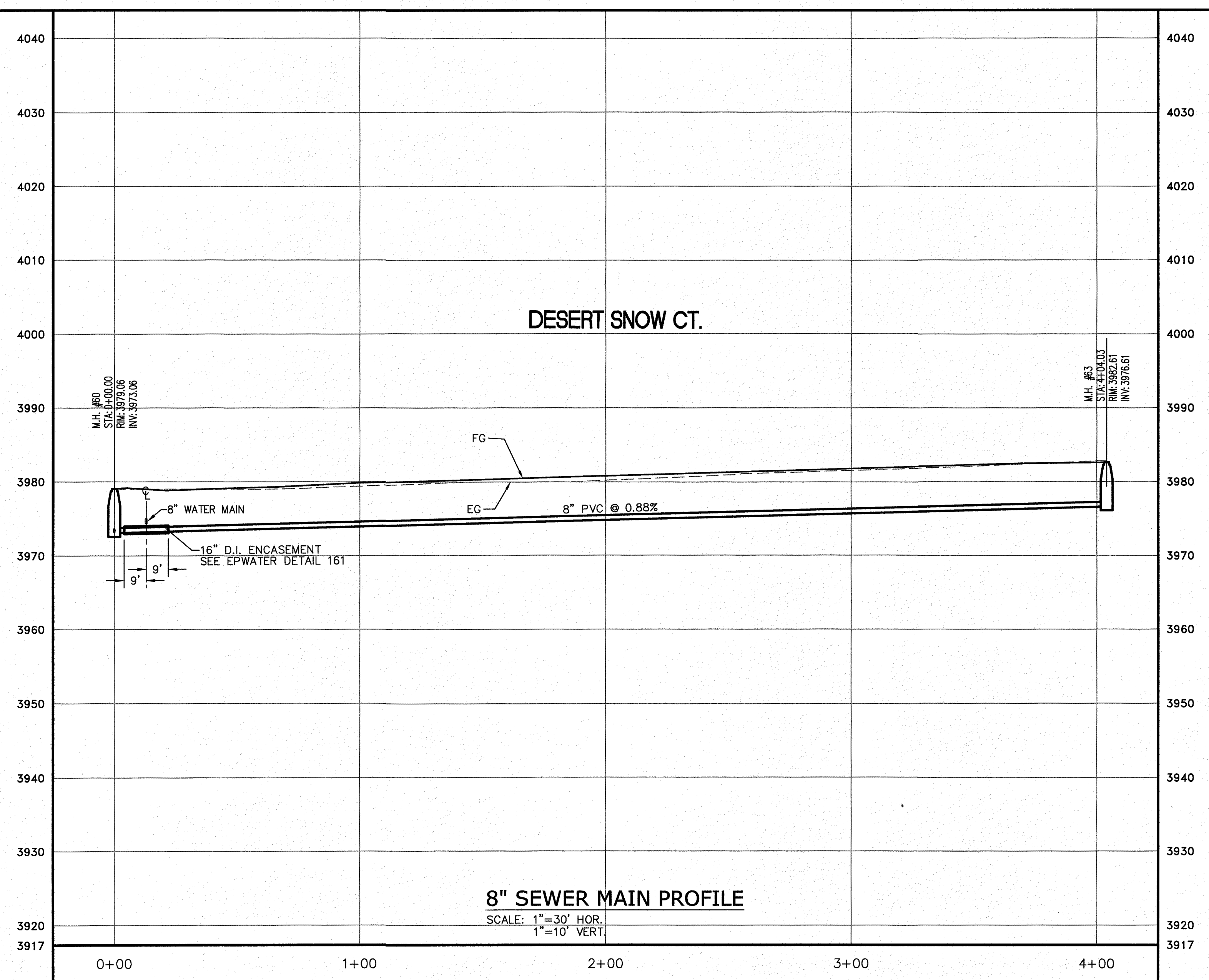
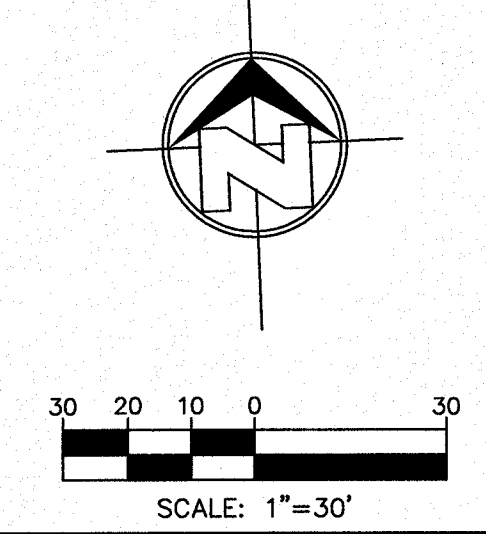
M.H. #60  
 STA: 0+00.00  
 RIM: 3979.06  
 INV: 3973.06

M.H. #63  
 STA: 4+04.03  
 RIM: 3982.61  
 INV: 3976.61

- LEGEND**
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S — NEW SANITARY SEWER MAIN
  - ☼ NEW FIRE HYDRANT
  - ⊗ NEW GATE VALVE
  - W — EXISTING WATER
  - G — EXISTING GAS



**811** Know what's below.  
 Call before you dig.  
 Call 811 TWO Working days before you dig.  
 It's Free, It's Easy, and IT'S THE LAW!



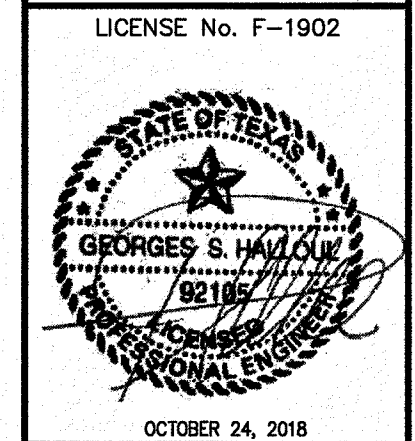
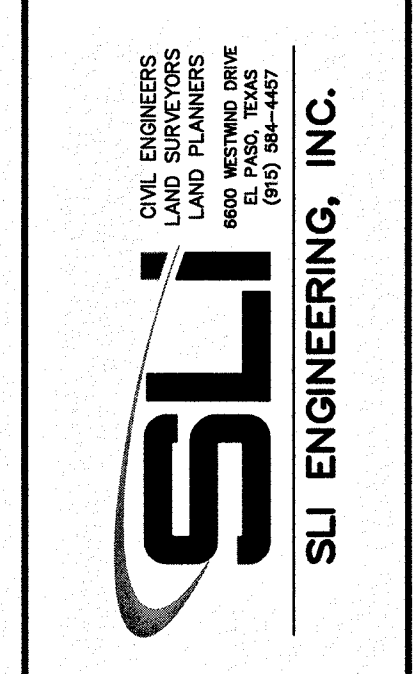
NO.	DATE	BENCHMARK	REVISION DESCRIPTION

SECTION CORNER FOR SECTIONS 28 AND 29, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS. ELEVATION: 3839.38 (NAVD88 DATUM)

DESIGN BY: J/ET  
 CHECKED BY: GH/TE  
 DATE: OCTOBER, 2018

PROJECT NAME  
**DESERT SANDS**  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

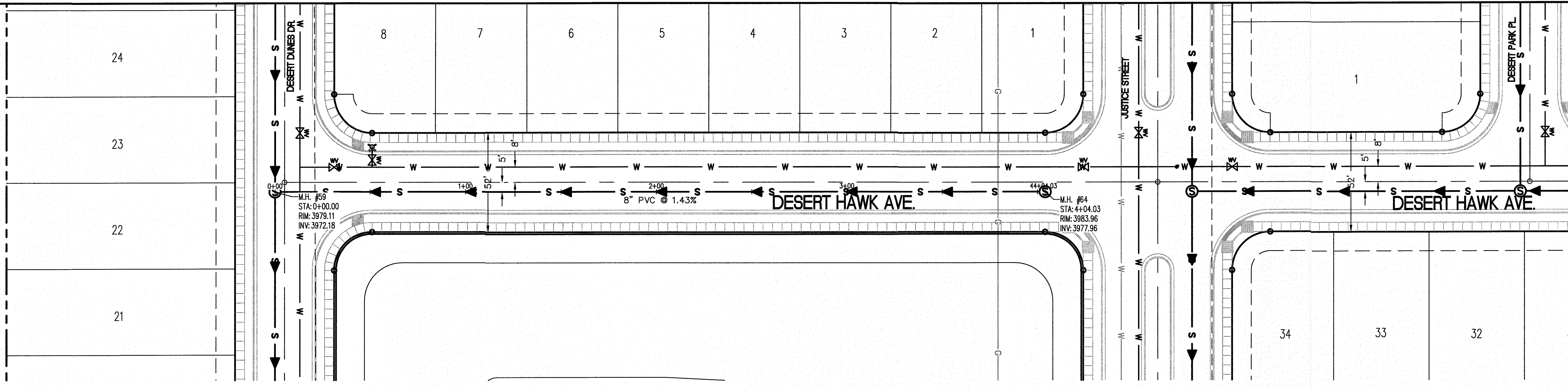
EL PASO, TEXAS



OCTOBER 24, 2018  
 SHEET TITLE  
**DESERT SNOW CT. SEWER LINE**  
 STA. 0+00 - 4+04.03



**C-05.29**



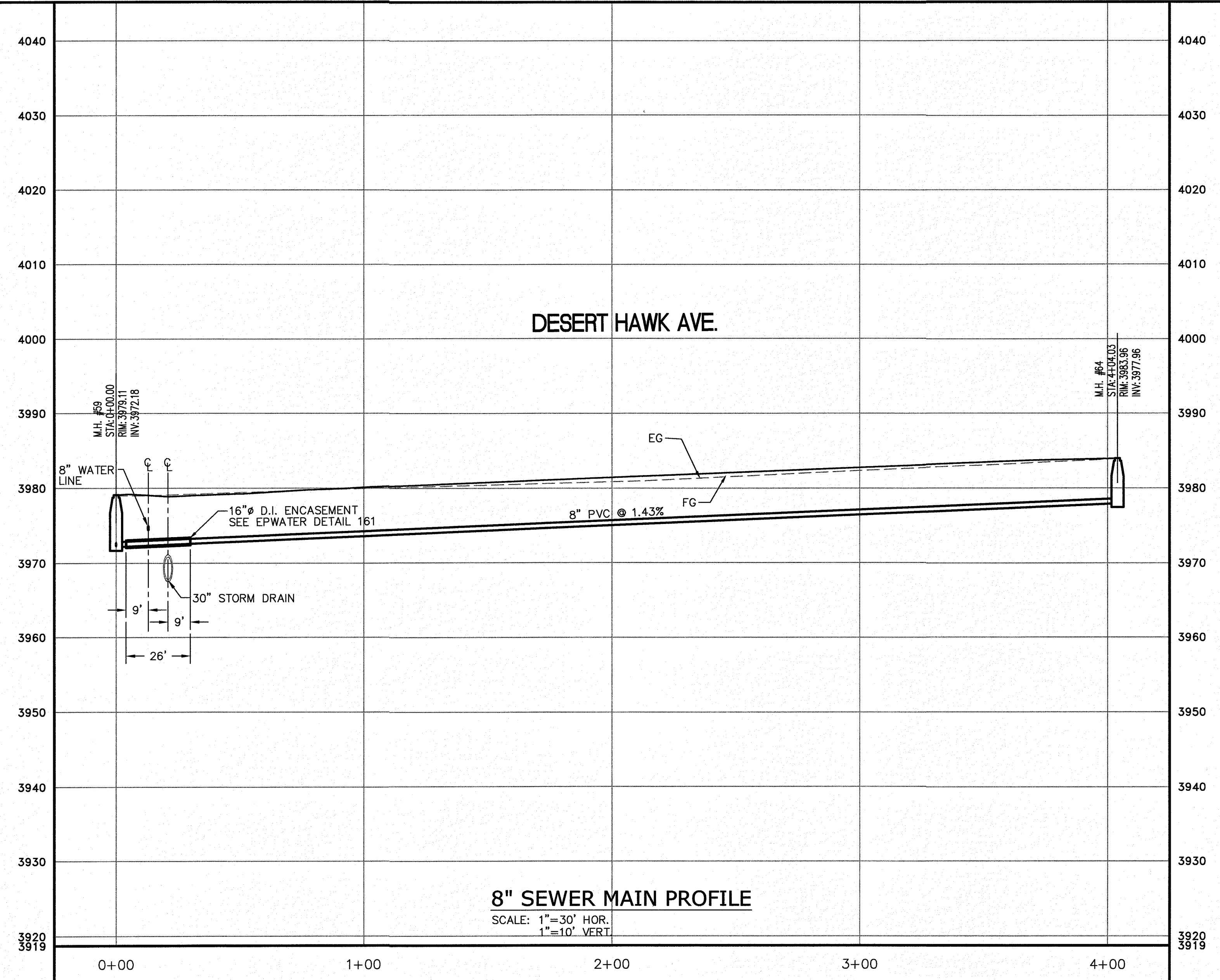
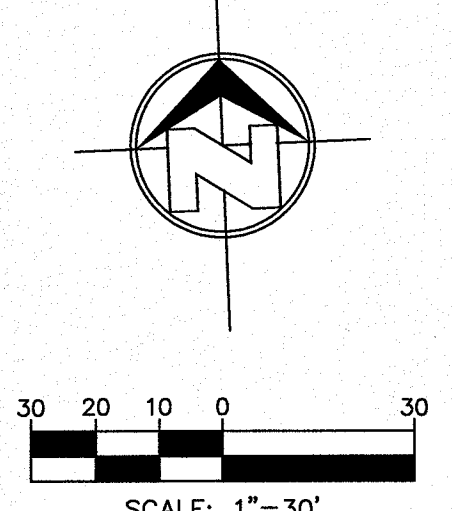
**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ NEW FIRE HYDRANT
- ⊗ NEW GATE VALVE
- W — EXISTING WATER
- G — EXISTING GAS

**PROFILE**

- - - - - EXISTING GROUND PROFILE
- PROPOSED FINISH GROUND

**811** Know what's below. Call before you dig. Call 811 TWO Working days before you dig. It's Free, It's Easy, and IT'S THE LAW!



NO.	DATE	REVISION DESCRIPTION

**PROJECT NAME**  
 DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2,  
 TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET EL PASO, TEXAS

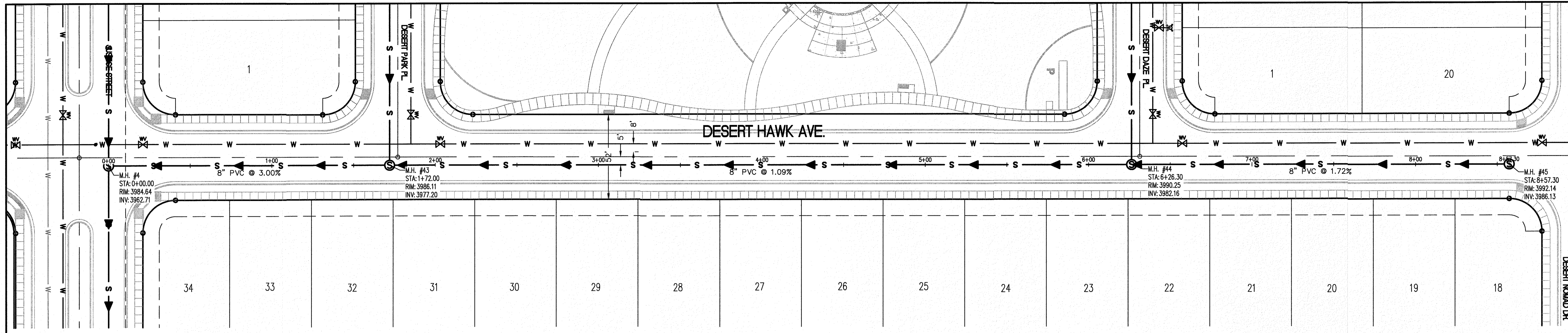
**SLI ENGINEERING, INC.**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS  
 8605 W. HAWTHORNE  
 EL PASO, TEXAS  
 (915) 944-1467

LICENSE No. F-1902  
  
 OCTOBER 24, 2018

**SHEET TITLE**  
 DESERT HAWK AVE.  
 SEWER LINE  
 STA. 0+00 - 4+04.03

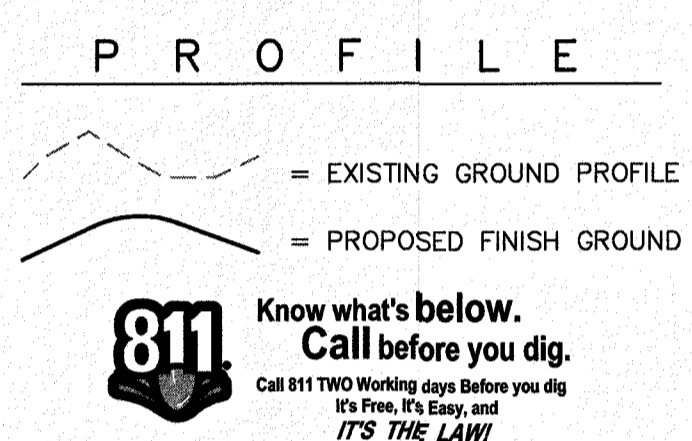
Final Approval

**C-05.30**



NO.	DATE	REVISION DESCRIPTION

- LEGEND**
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S — NEW SANITARY SEWER MAIN
  - ☼ NEW FIRE HYDRANT
  - ⊗ NEW GATE VALVE
  - W — EXISTING WATER
  - G — EXISTING GAS

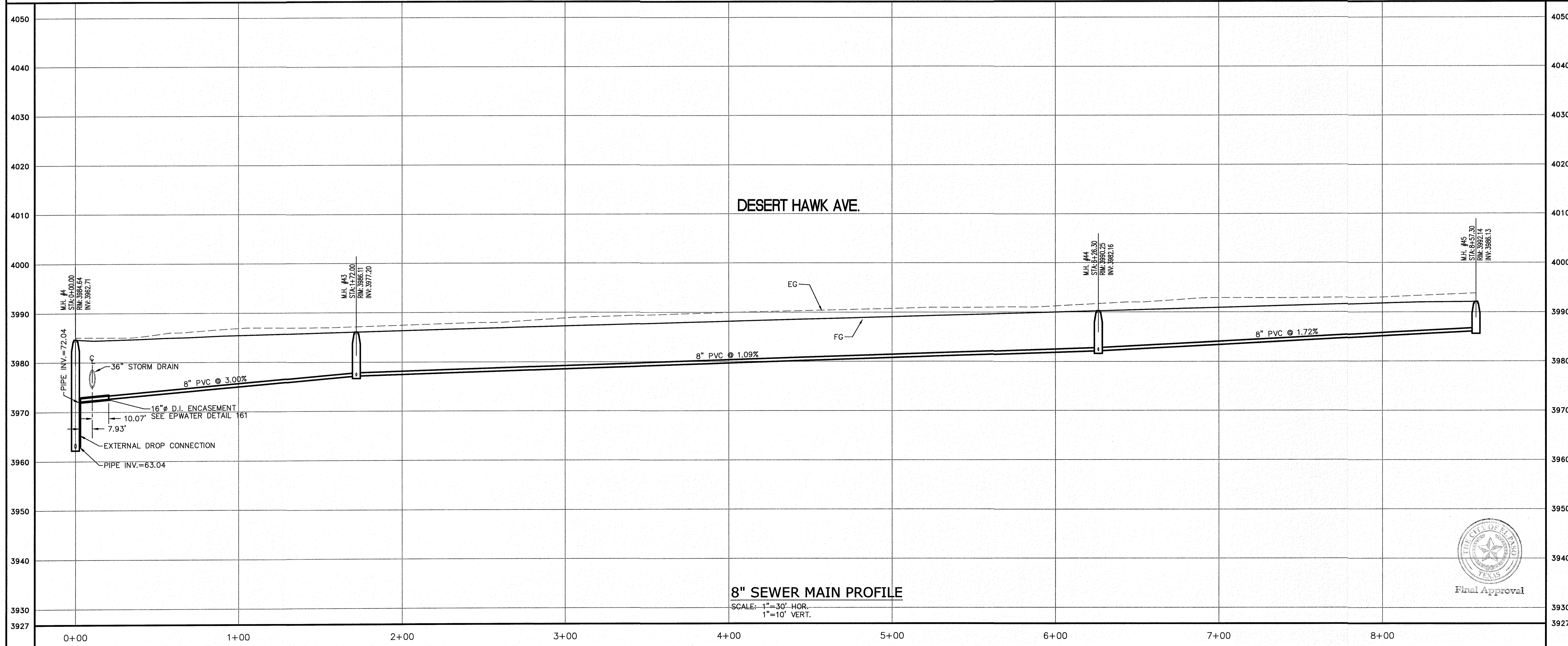


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 It's Free, It's Easy, and IT'S THE LAW!

SCALE: AS INDICATED	JOB NO.: 09-1E-3811
DESIGN BY: J/ET	CHECKED BY: GH/TE
DATE: OCTOBER, 2018	

SECTION CORNER FOR SECTIONS 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, AND 34 OF TOWNSHIP 2 NORTH, RANGE 14E, COUNTY OF EL PASO, TEXAS. ELEVATION: 3839.38 (NAVD88 DATUM)

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PROJECT NAME: DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET EL PASO, TEXAS

**SLI** SLI ENGINEERING, INC.  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS  
 8606 W. HAWTHORNE  
 EL PASO, TEXAS  
 79906-4607  
 (915) 944-1467

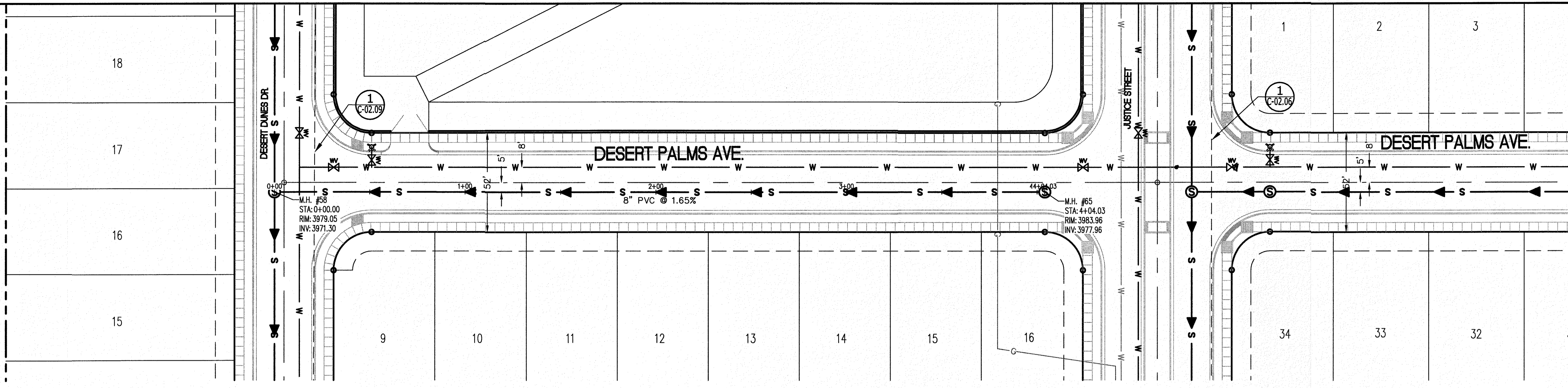
LICENSE No. F-1902

OCTOBER 24, 2018  
 SHEET TITLE

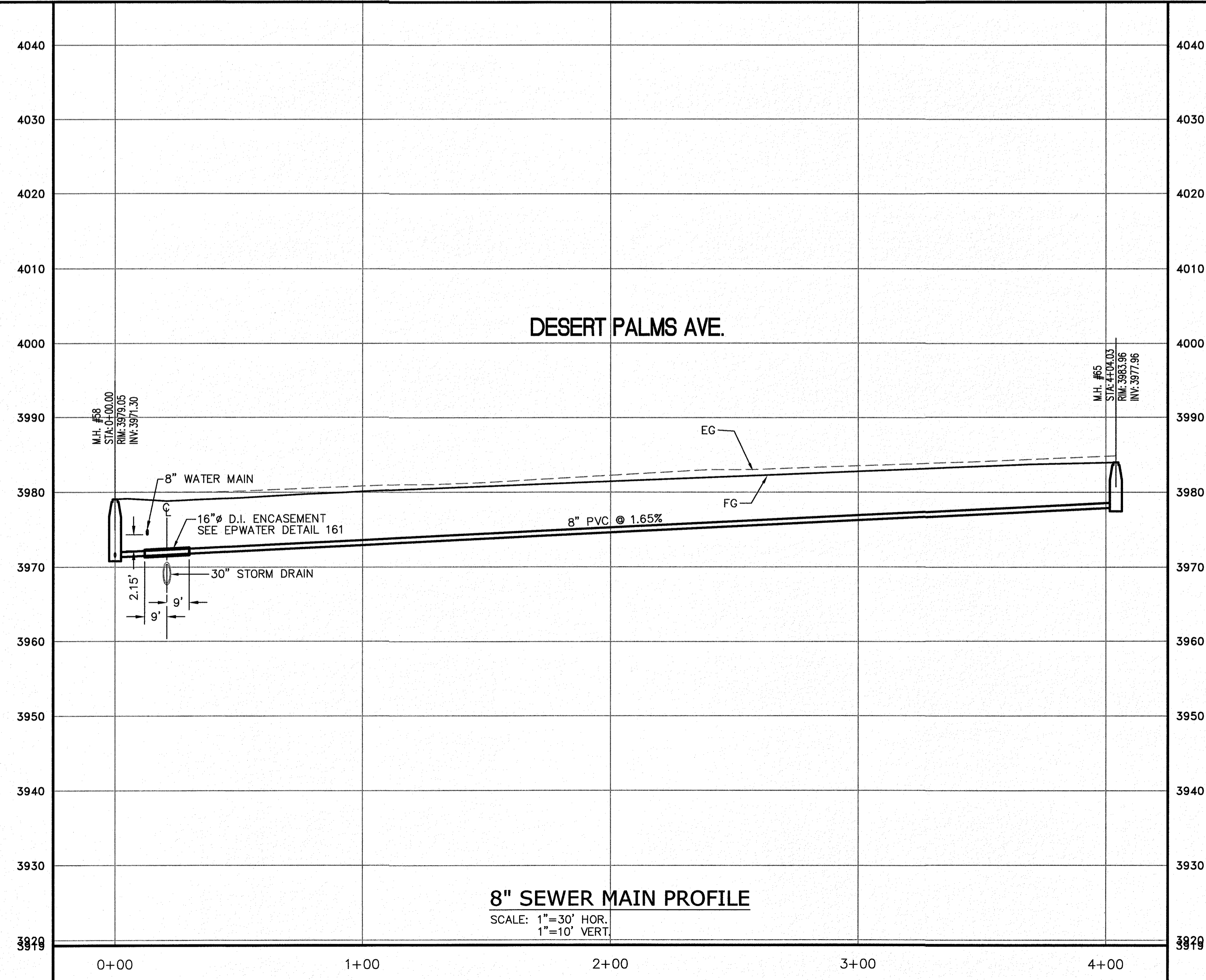
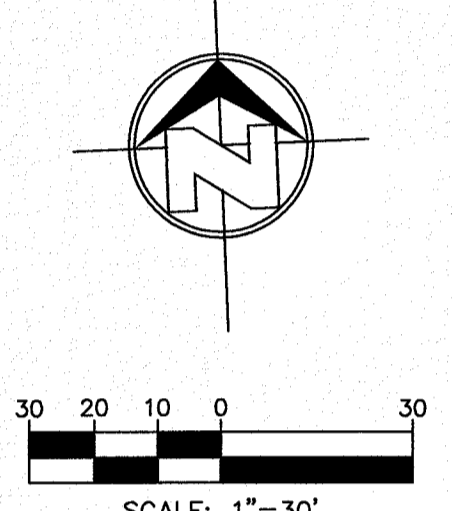
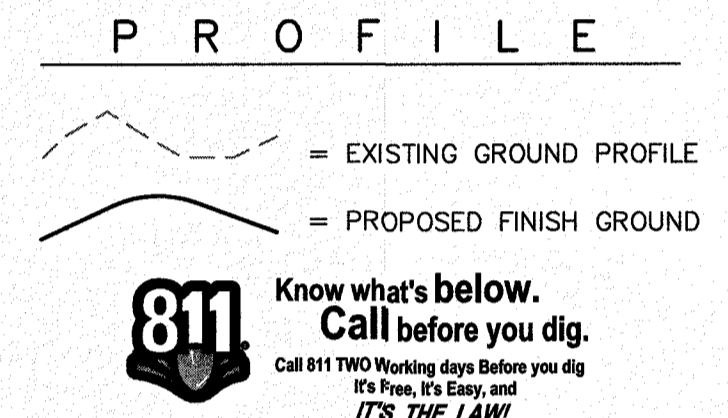
**DESERT HAWK AVE. SEWER LINE**  
 STA. 0+00 - 8+80.30

Final Approval

**C-05.31**



- LEGEND**
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S — NEW SANITARY SEWER MAIN
  - FH — NEW FIRE HYDRANT
  - GV — NEW GATE VALVE
  - W — EXISTING WATER
  - G — EXISTING GAS



NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

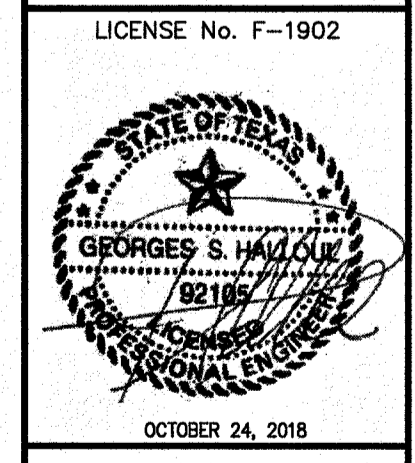
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
ELEVATION: 3839.38 (NAVD88 DATUM)

**SCALE:** AS INDICATED  
**JOB NO.:** 09-16-3911  
**DESIGN BY:** J/J/E  
**CHECKED BY:** GH/E  
**DATE:** OCTOBER 2018

**PROJECT NAME**

DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

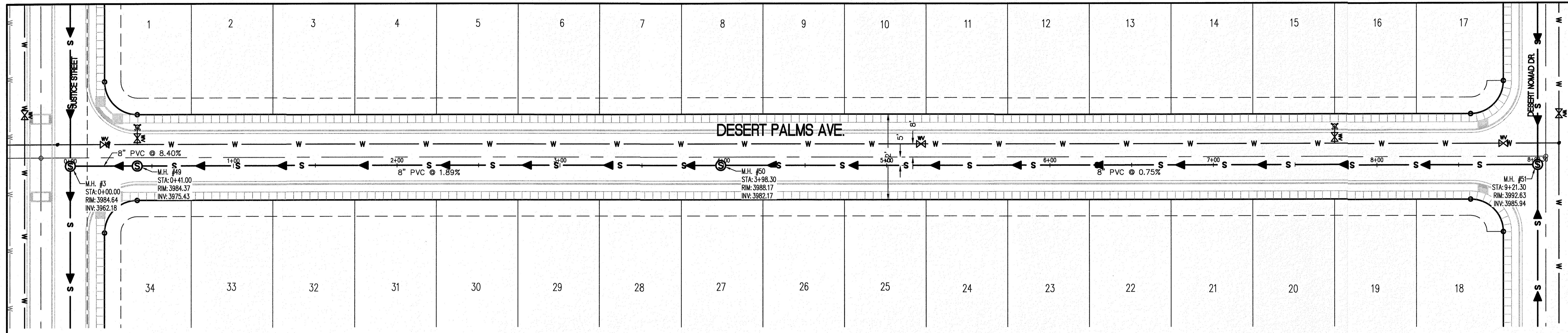


**SHEET TITLE**

DESERT PALMS AVE.  
SEWER LINE  
STA. 0+00 - 4+04.03

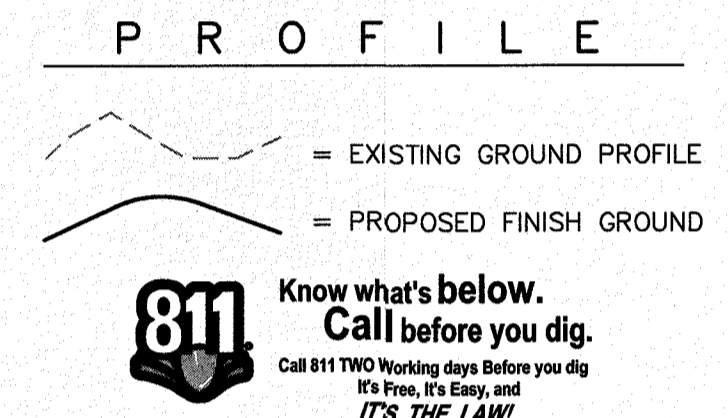
**C-05.32**





**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ NEW FIRE HYDRANT
- ⊗ NEW GATE VALVE
- W — EXISTING WATER
- G — EXISTING GAS



**811** Know what's below. Call before you dig. Call 811 TWO Working days before you dig. It's Free, It's Easy, and IT'S THE LAW!

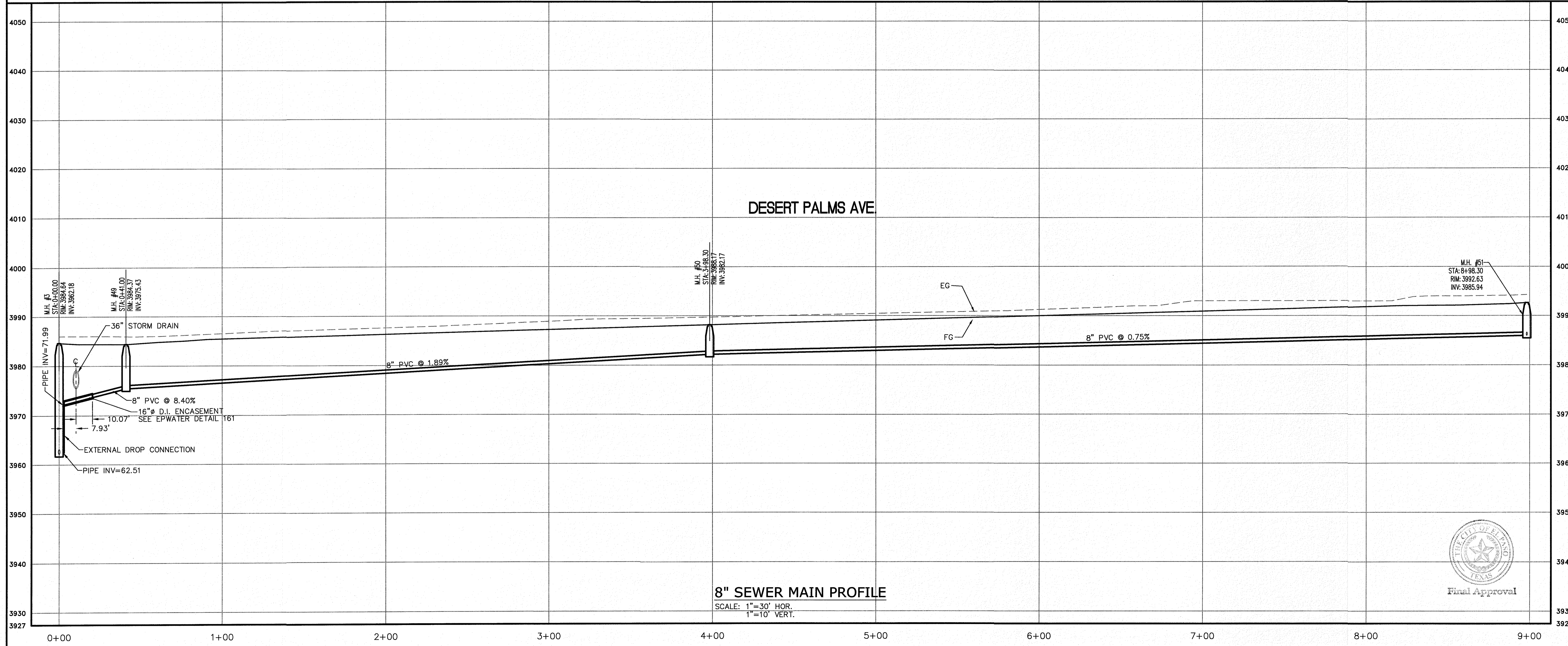
NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, T1S2 R10E S45CS. ELEVATION: 3839.38 (NAVD83 DATUM)

SCALE: AS INDICATED  
JOB NO.: 09-18-3911  
DESIGN BY: J/J/E  
CHECKED BY: G/Y/E  
DATE: OCTOBER 2018

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**PROJECT NAME**  
DESERT SANDS  
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
JUSTICE STREET EL PASO, TEXAS

**SLI ENGINEERING, INC.**  
CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS  
6008 N. MICHIGAN AVE.  
EL PASO, TEXAS 79912  
(915) 844-1467

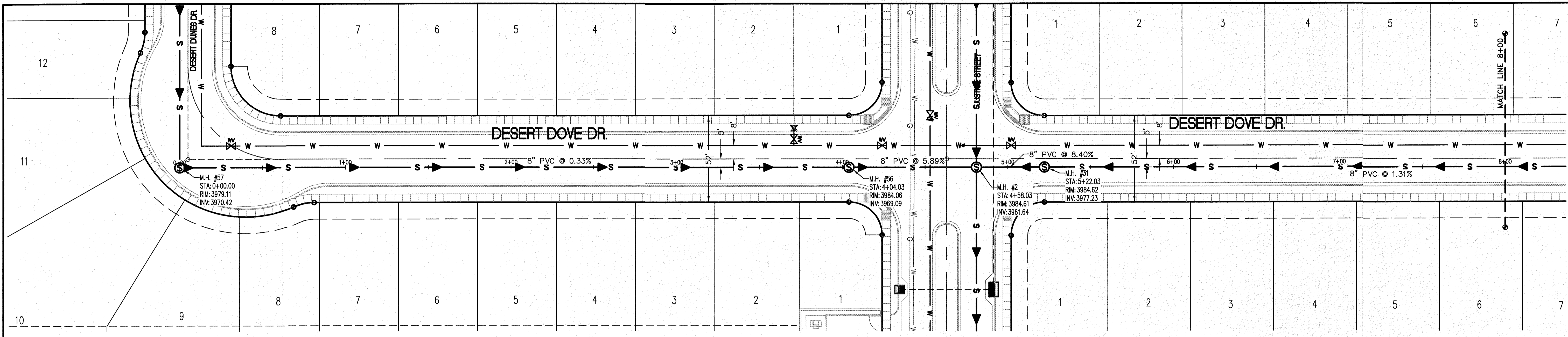
LICENSE No. F-1902

OCTOBER 24, 2018  
SHEET TITLE

**DESERT PALMS AVE. SEWER LINE**  
STA. 0+00 - 8+80.30

**C-05.33**





- LEGEND**
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S — NEW SANITARY SEWER MAIN
  - ⊗ — NEW FIRE HYDRANT
  - ⊗ — NEW GATE VALVE
  - W — EXISTING WATER
  - G — EXISTING GAS

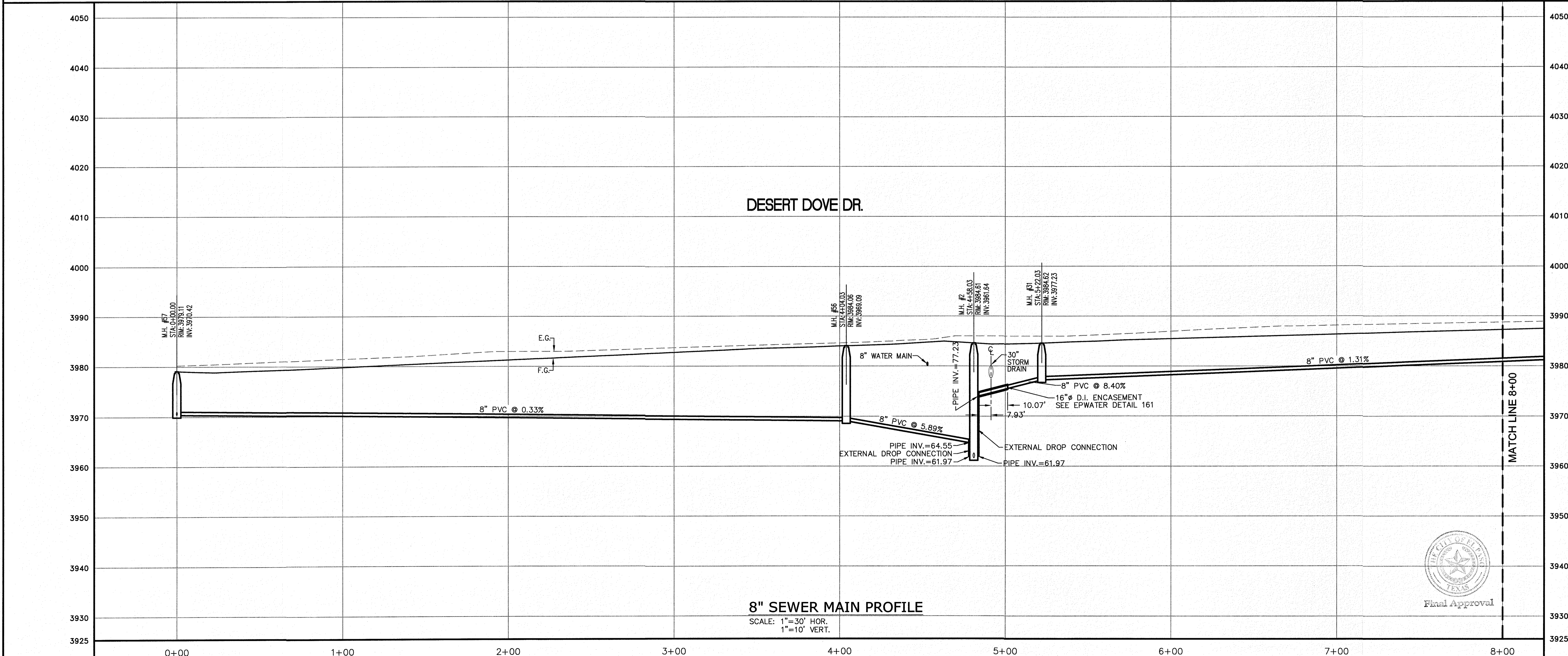
**PROFILE**

- - - EXISTING GROUND PROFILE
- PROPOSED FINISH GROUND

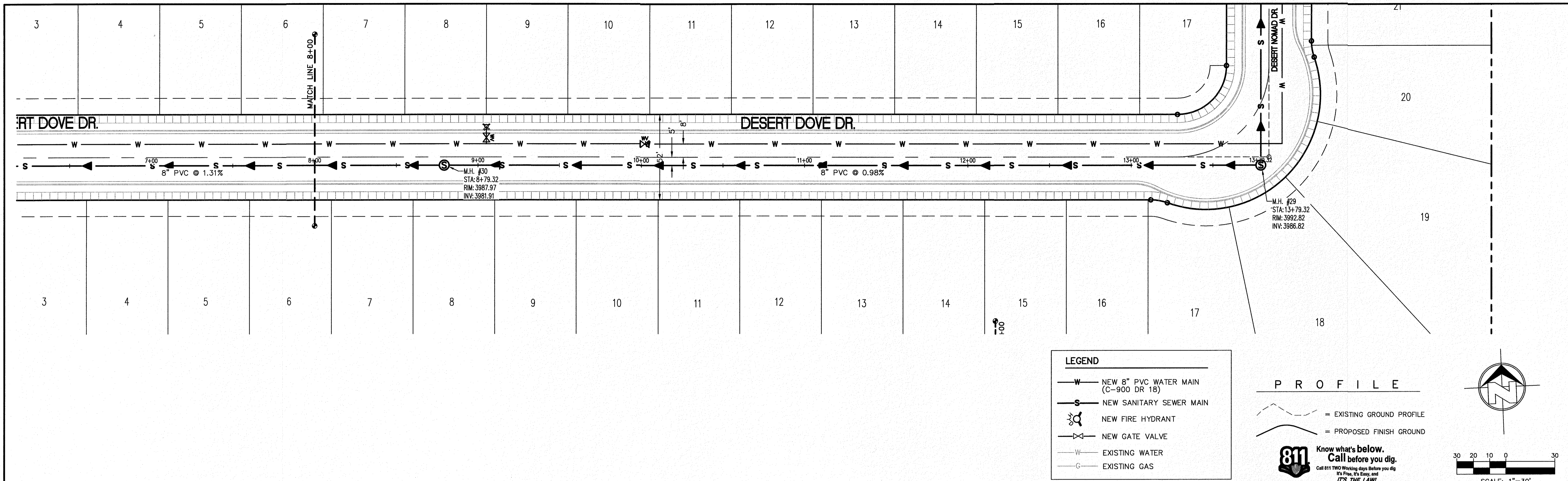
**811** Know what's below. Call before you dig. Call 811 TMO Working days before you dig. It's Free, It's Easy, and IT'S THE LAW!

Copyright 2018 811 Connectors, Inc. These plans are being provided solely for the use of 811/ADO AD&U&S and no license has been created, warrant or promise to every three digit number provided on these plans in accordance with the original 811/ADO AD&U&S. No liability will be assumed by the engineer.

SCALE: 1"=30'



NO.	REVISION DESCRIPTION
BENCHMARK	
SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2	
DESIGN BY: J/ET	
CHECKED BY: GH/FE	
DATE: OCTOBER 2018	
ELEVATION: 5639.36 (NAVD8 DATUM)	
AS INDICATED	
JOB NO.: 09-18-3911	
DESIGN BY: J/ET	
CHECKED BY: GH/FE	
DATE: OCTOBER 2018	
PROJECT NAME	DESERT SANDS
	PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
	JUSTICE STREET
	EL PASO, TEXAS
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS	<b>SLI</b> SLI ENGINEERING, INC.
6606 N. MICHIGAN AVE. DALLAS, TEXAS 75206 (972) 984-1487	
LICENSE No. F-1902	
OCTOBER 24, 2018	
SHEET TITLE	DESERT DOVE DR. SEWER LINE STA. 0+00 - 8+00
	C-05.34



**LEGEND**

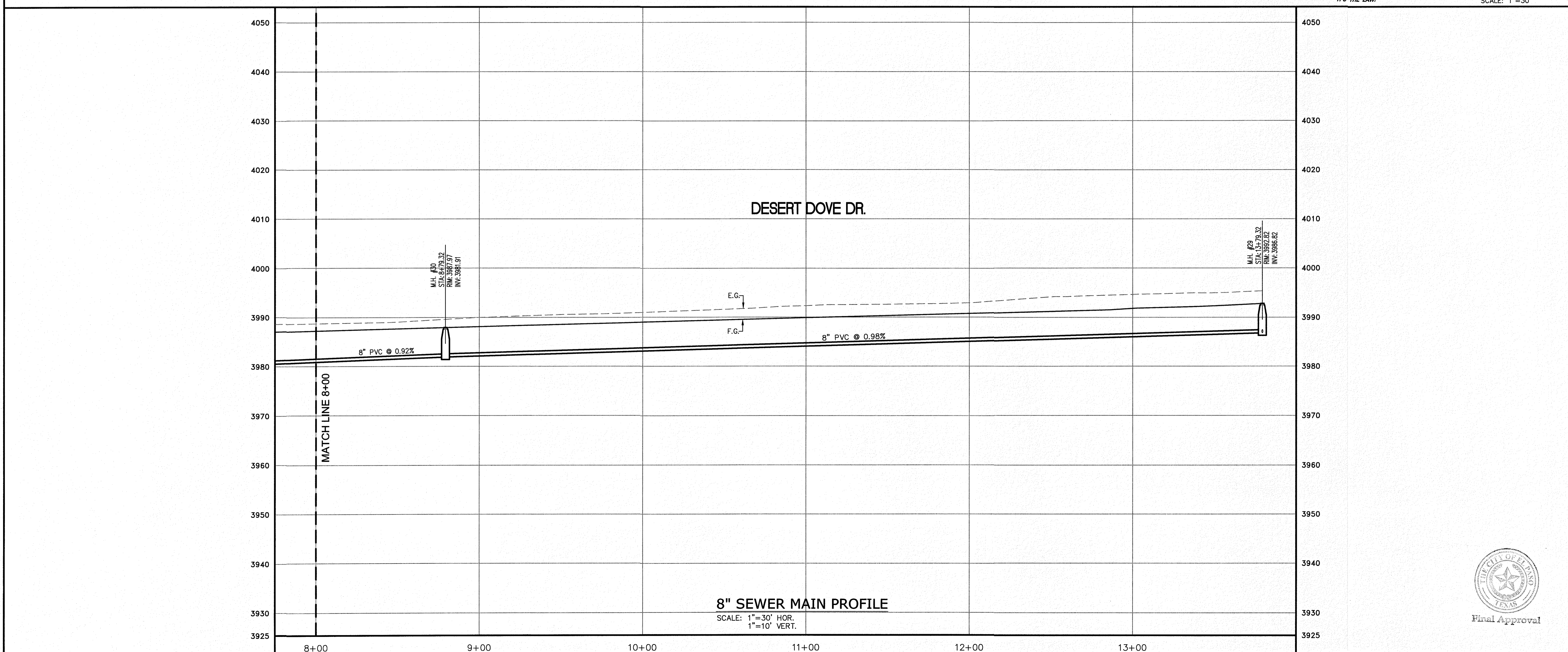
- NEW 8" PVC WATER MAIN (C-900 DR 18)
- NEW SANITARY SEWER MAIN
- NEW FIRE HYDRANT
- NEW GATE VALVE
- EXISTING WATER
- EXISTING GAS

**PROFILE**

- EXISTING GROUND PROFILE
- PROPOSED FINISH GROUND

**811 Know what's below. Call before you dig.**  
Call 811 TWO Working days before you dig  
It's Free, It's Easy, and IT'S THE LAW!

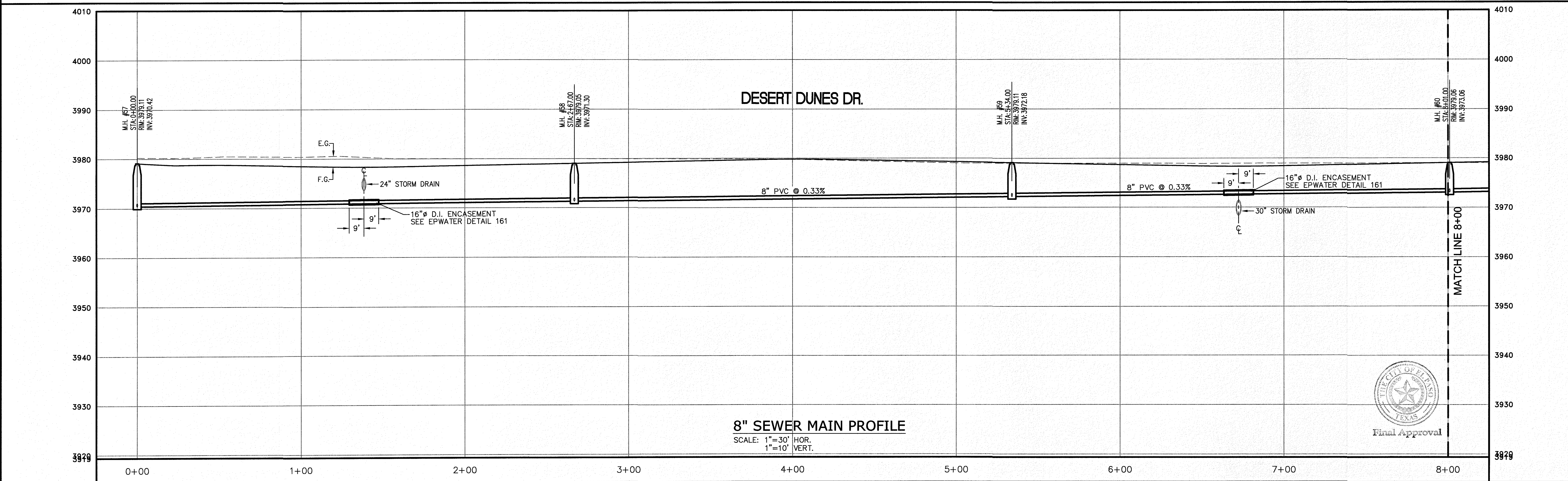
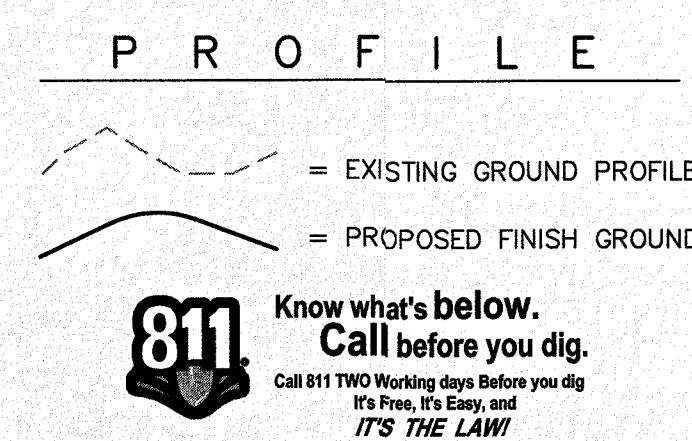
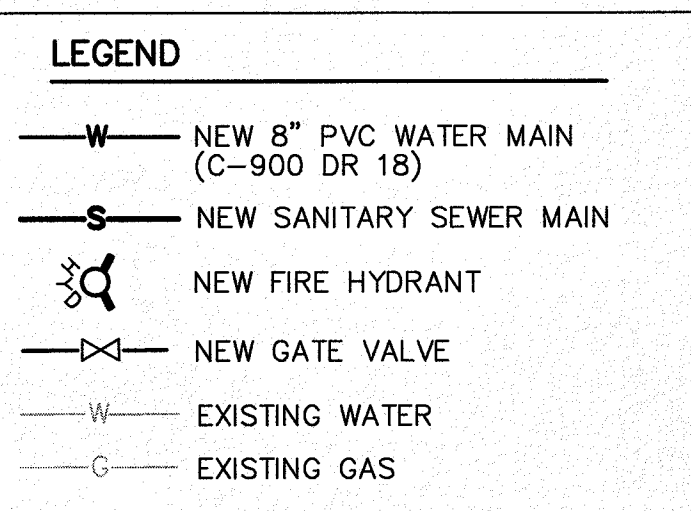
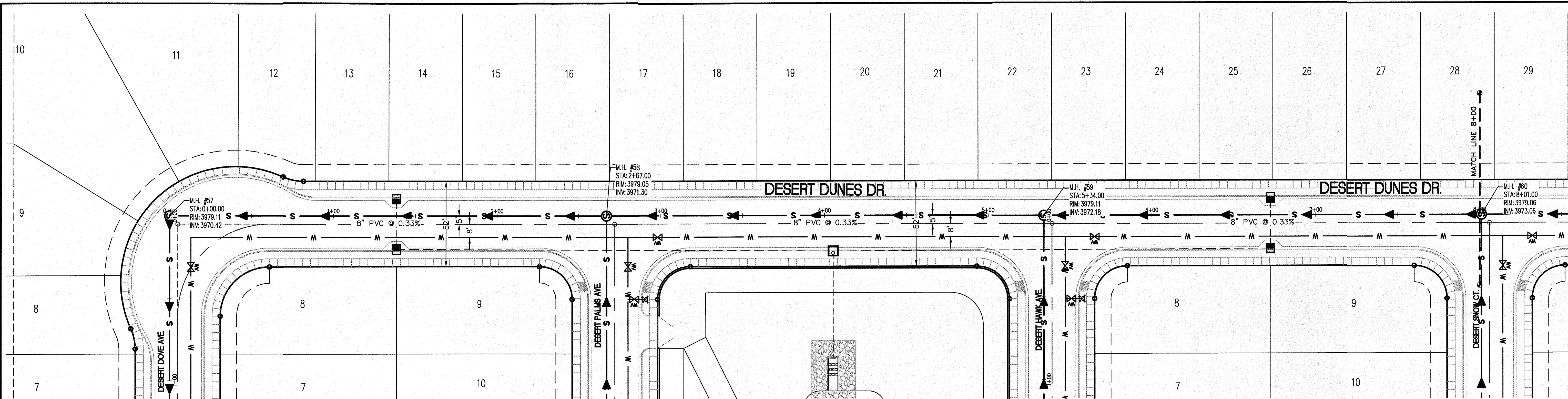
**SCALE: 1"=30'**



NO.	DATE	REVISION DESCRIPTION

<b>BENCHMARK</b>	SECTION CORNER FOR SECTIONS 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
<b>SCALE:</b>	AS INDICATED
<b>JOB NO.:</b>	09-16-3911
<b>DESIGN BY:</b>	J/J/E/T
<b>CHECKED BY:</b>	GH/FE
<b>DATE:</b>	OCTOBER 2018
<b>PROJECT NAME:</b>	DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
<b>PROJECT ADDRESS:</b>	JUSTICE STREET EL PASO, TEXAS
<b>ENGINEER:</b>	 SLI ENGINEERING, INC. CIVIL ENGINEERS LAND SURVEYORS 1405 WESTINGHOUSE DRIVE EL PASO, TEXAS (972) 788-4407
<b>LICENSE No.:</b>	F-1902
<b>STATE OF TEXAS:</b>	
<b>DATE:</b>	OCTOBER 24, 2018
<b>SHEET TITLE:</b>	DESERT DOVE DR. SEWER LINE STA. 8+00 - 13+79.32
<b>Final Approval:</b>	
<b>C-05.35</b>	



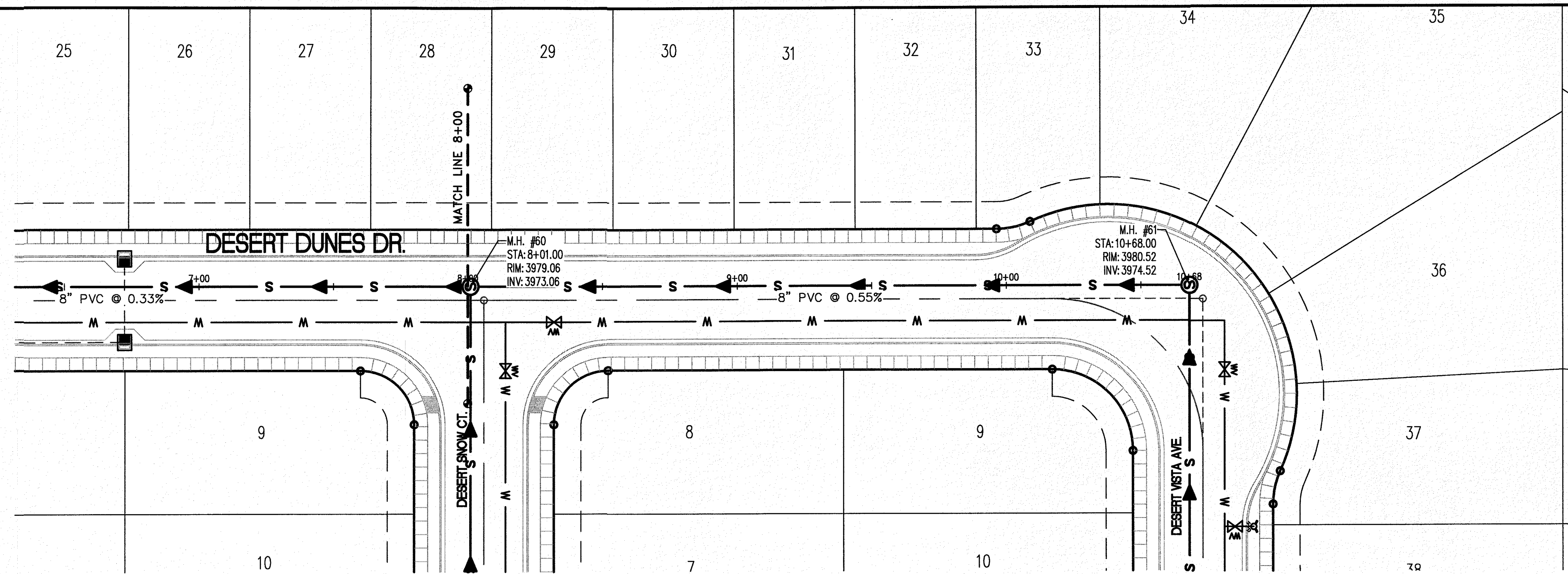
**8" SEWER MAIN PROFILE**  
 SCALE: 1"=30' HOR.  
 1"=10' VERT.



NO.	DATE	REVISION DESCRIPTION

BENCHMARK SECTION CORNER FOR SECTIONS 28 AND 29, TOWNSHIP 2N, RANGE 10E, COUNTY OF EL PASO, TEXAS ELEVATION: 3539.38 (NAVD88 DATUM)	PROJECT NAME <b>DESERT SANDS</b> PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2N, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
SCALE: AS INDICATED JOB NO.: 09-16-3911 DESIGN BY: J/JT CHECKED BY: GH/FE DATE: OCTOBER, 2018	PROJECT NAME <b>DESERT SANDS</b> PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2N, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
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LICENSE No. F-1902  OCTOBER 24, 2018 SHEET TITLE	 <b>SLI ENGINEERING, INC.</b> CIVIL ENGINEERS LAND SURVEYORS AND PLANNERS 6905 W. HAWK AVENUE EL PASO, TEXAS (915) 381-1407
DESERT DUNES DR. SEWER LINE STA. 0+00 - 8+00	<b>C-05.36</b>



**LEGEND**

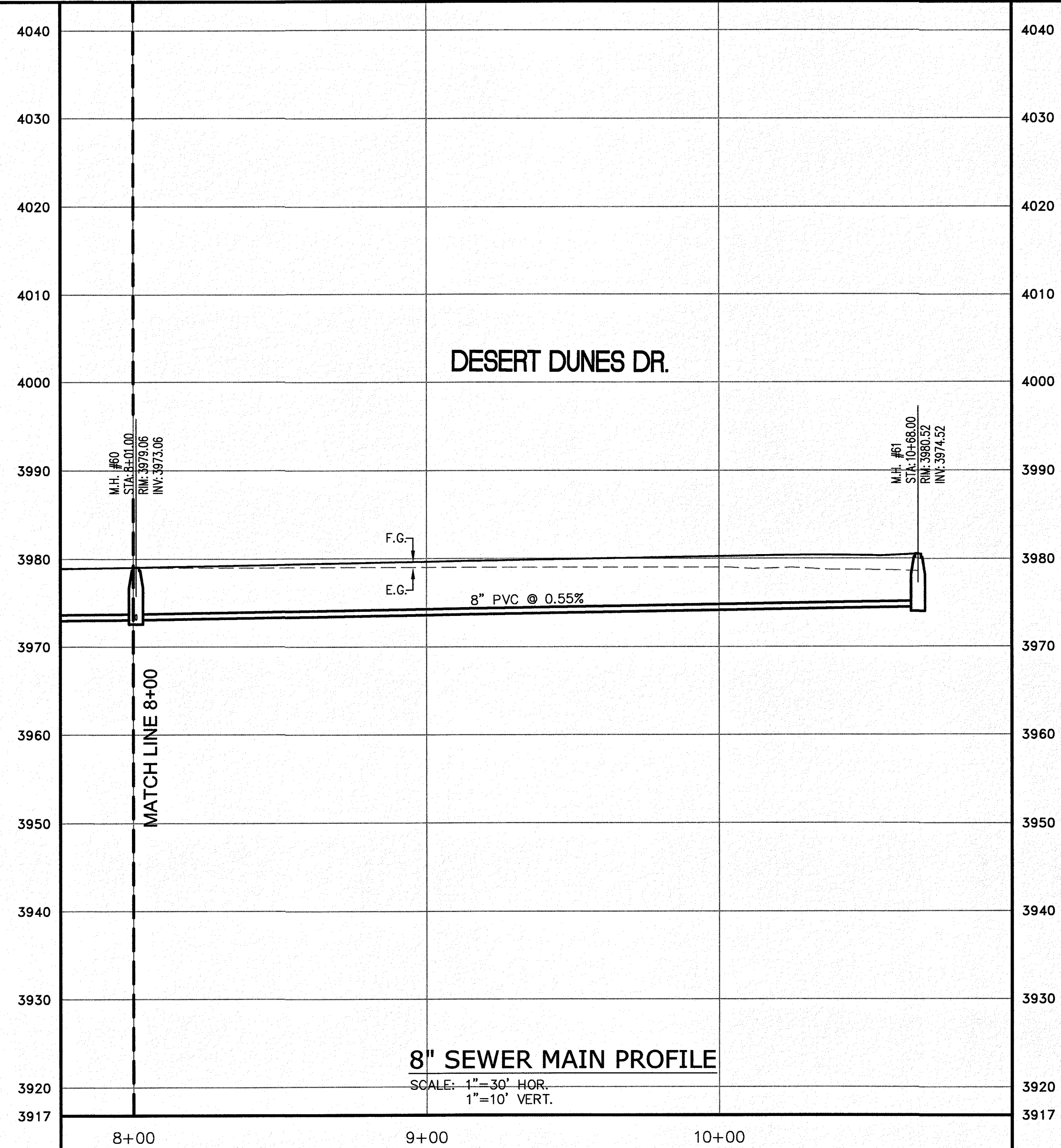
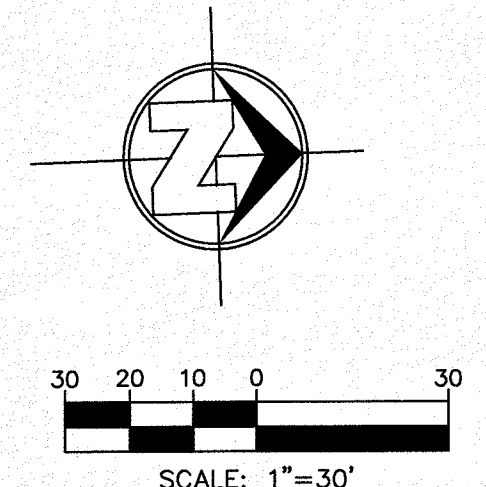
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ — NEW FIRE HYDRANT
- X — NEW GATE VALVE
- W — EXISTING WATER
- G — EXISTING GAS

**PROFILE**

- — — — — EXISTING GROUND PROFILE
- PROPOSED FINISH GROUND

**811** Know what's below. Call before you dig. Call 811 TWO Working days before you dig. It's Free, It's Easy, and IT'S THE LAW!

SCALE: 1" = 30'



NO.	DATE	REVISION DESCRIPTION

**BENCHMARK**

SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3839.38 (NAVD88 DATUM)

AS INDICATED

JOB NO.: 09-16-3811

DESIGN BY: J/ET

CHECKED BY: GH/FE

DATE: OCTOBER 2018

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**PROJECT NAME**

DESERT SANDS

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

JUSTICE STREET

EL PASO, TEXAS

**SLI ENGINEERING, INC.**

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS

6900 W. HALL LANE  
EL PASO, TEXAS 79907  
(915) 561-4427

LICENSE No. F-1902

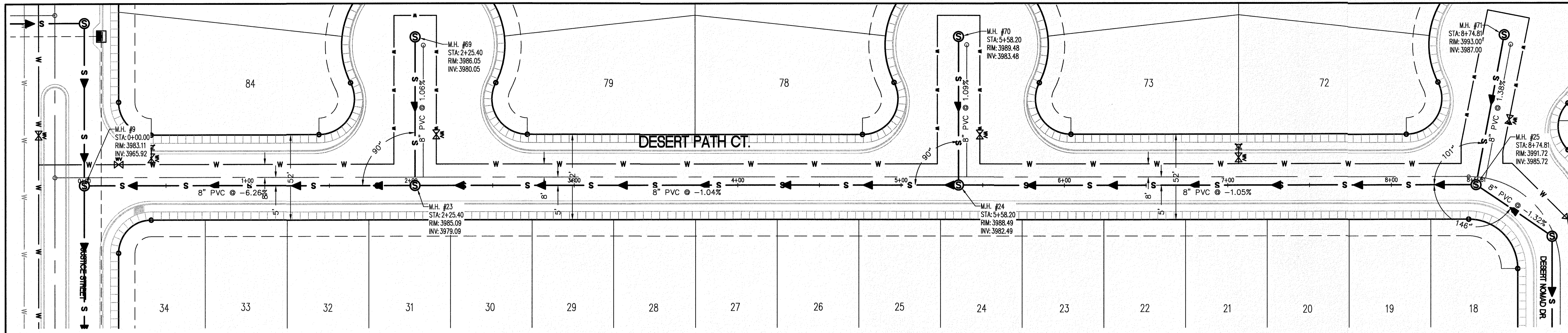
OCTOBER 24, 2018

**SHEET TITLE**

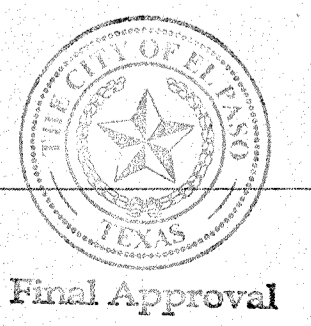
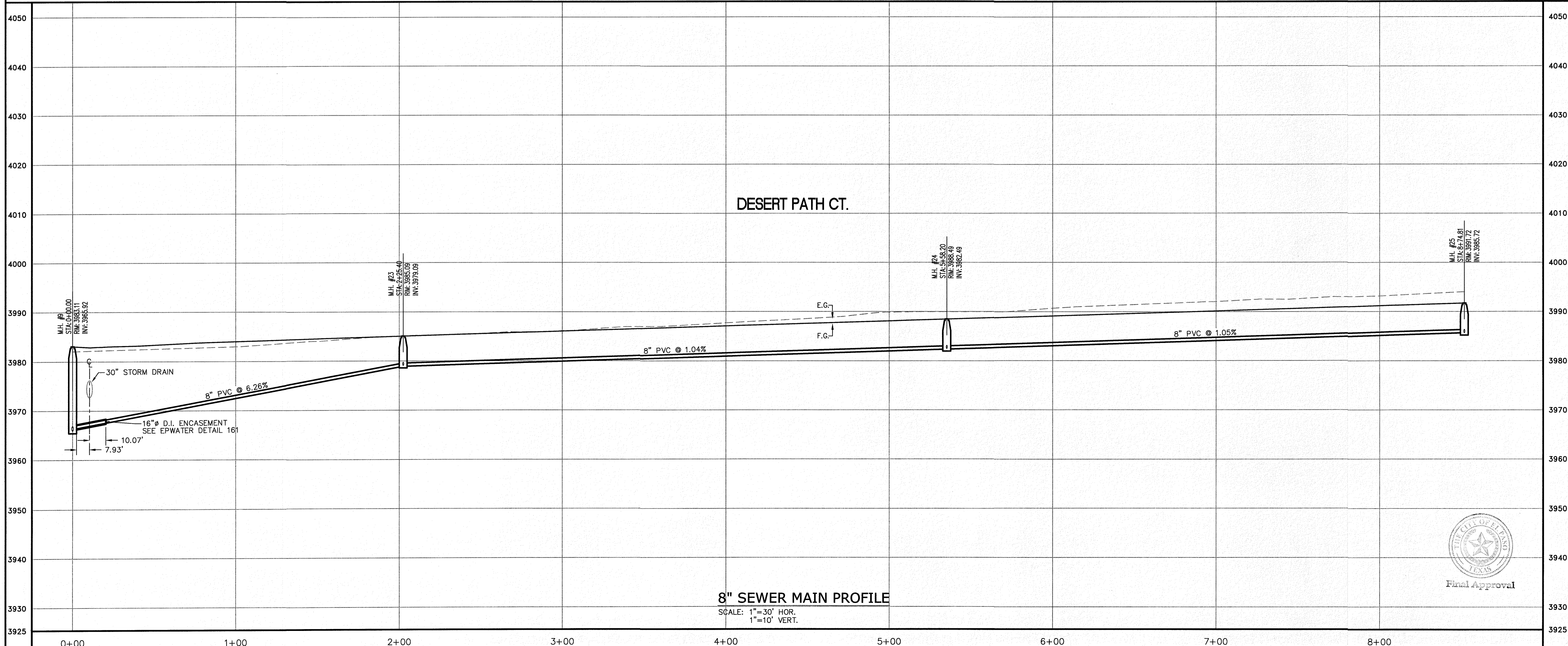
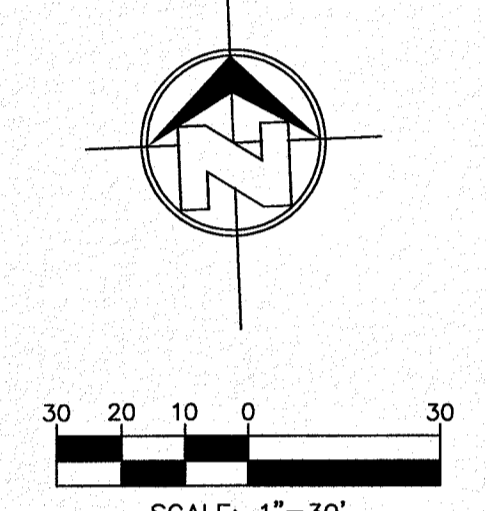
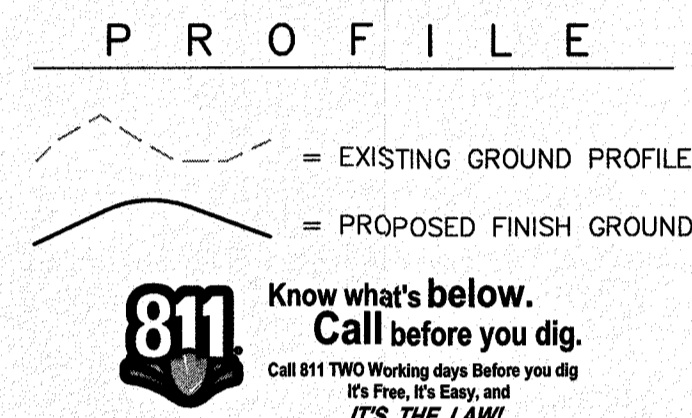
DESERT DUNES DR.  
SEWER LINE  
STA. 8+00 - 10+68.00

**C-05.37**

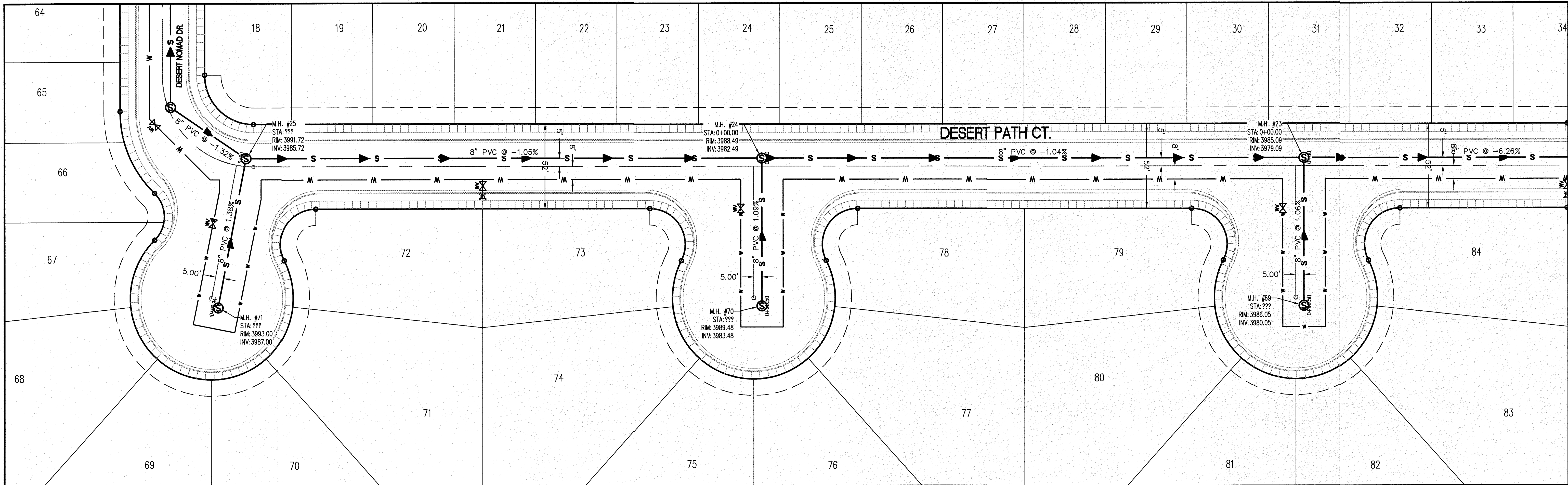




- LEGEND**
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S — NEW SANITARY SEWER MAIN
  - ⊕ — NEW FIRE HYDRANT
  - ⊗ — NEW GATE VALVE
  - — EXISTING WATER
  - G — EXISTING GAS



SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
SCALE: AS INDICATED	JOB NO.: 09-16-3811	DESIGN BY: J/ET	CHECKED BY: GH/E	DATE: OCTOBER 2018
PROJECT NAME	DESERT SANDS			
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	JUSTICE STREET			
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS PLANNING 9000 W. PALM DRIVE EL PASO, TEXAS 79911 (915) 584-1407	SLI ENGINEERING, INC.			
LICENSE No. F-1902	OCTOBER 24, 2018			
SHEET TITLE				
DESERT PATH DR. SEWER LINE STA. 0+00 - 8+74.81				
C-05.38				



NO.	DATE	REVISION DESCRIPTION

SCALE: AS INDICATED	JOB NO.: 09-16-3811
DESIGN BY: J/JET	CHECKED BY: GH/ZE
DATE: OCTOBER 2018	

SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3639.36 (NAVD85 DATUM)
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**LEGEND**

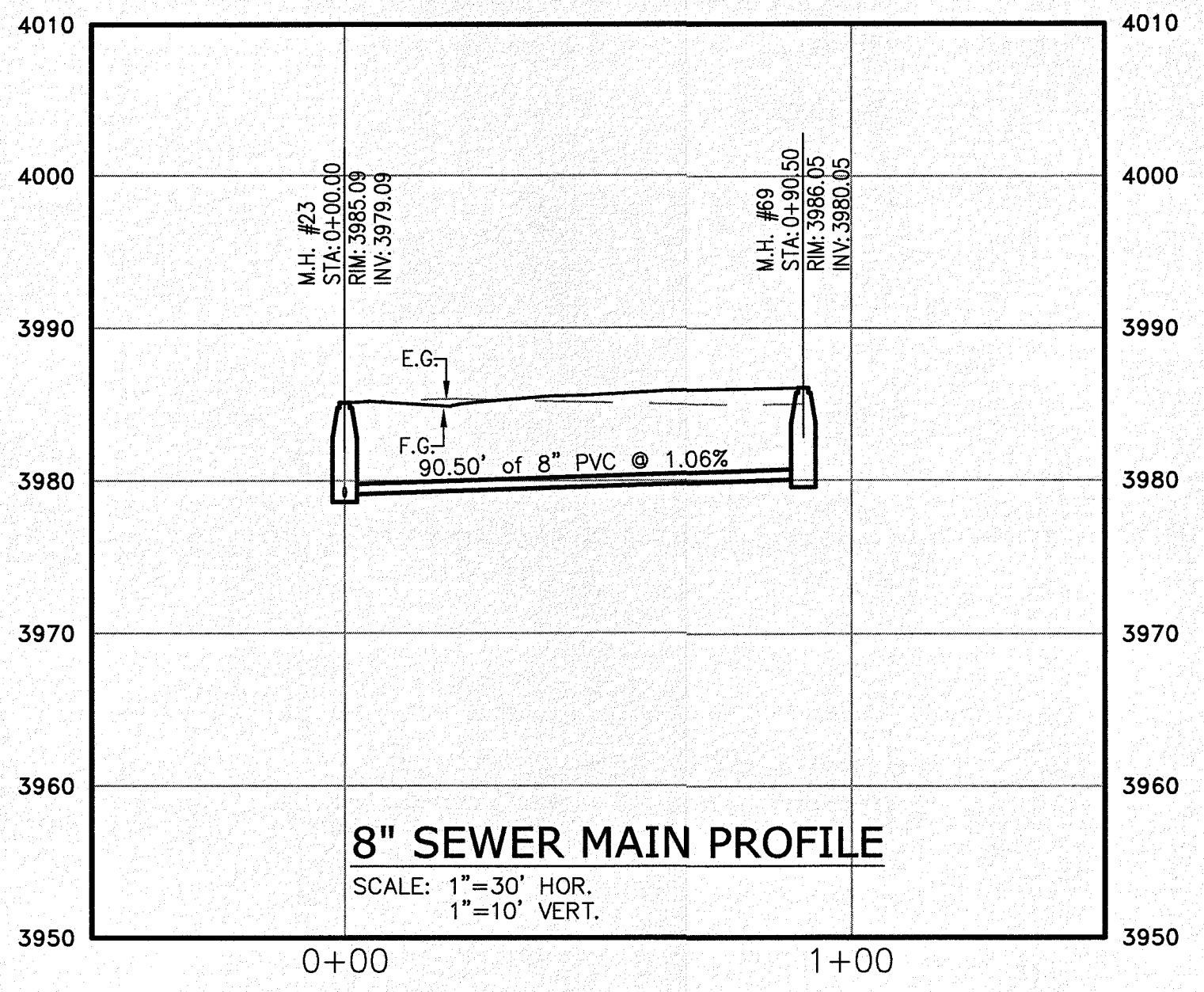
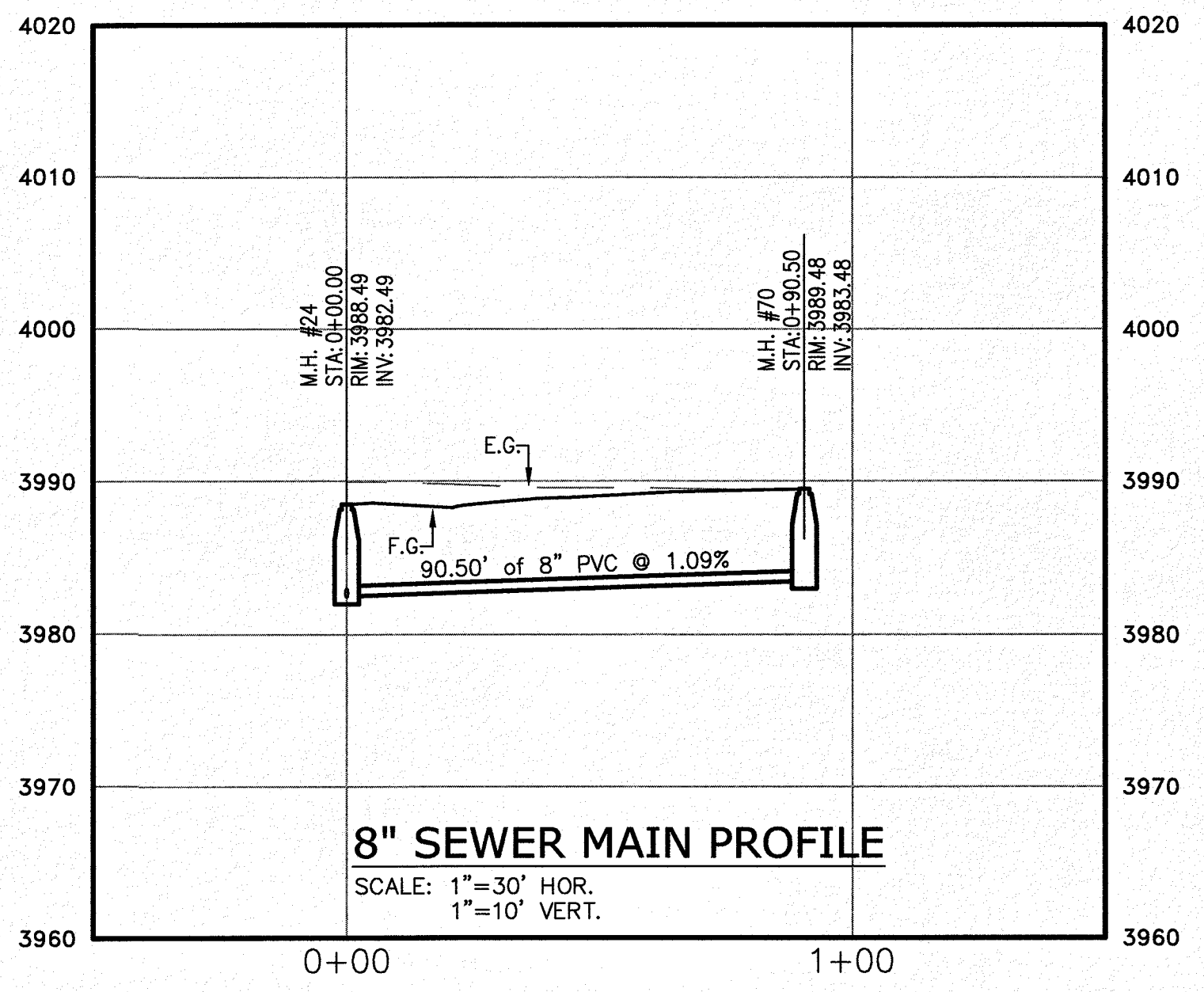
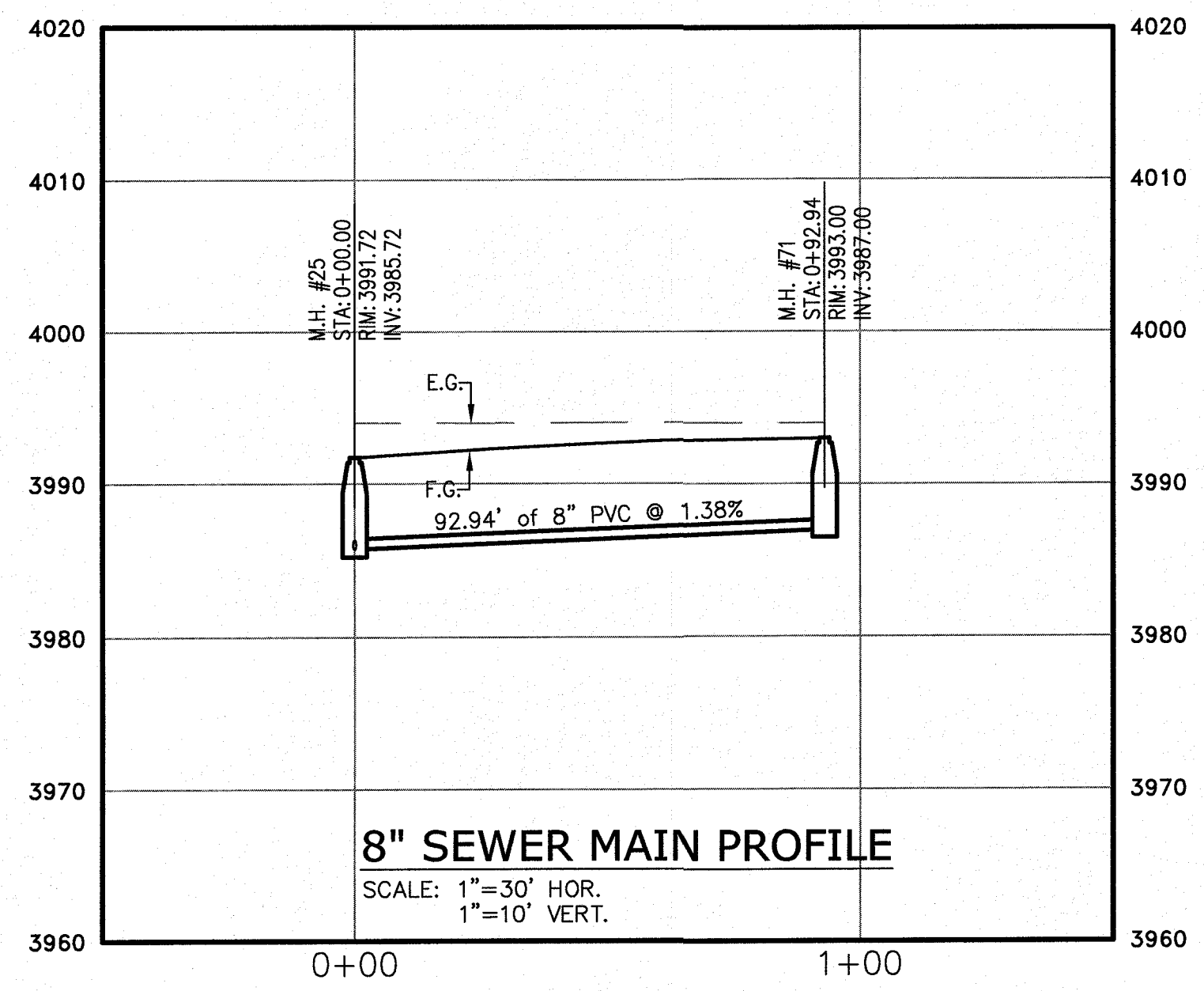
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ☼ NEW FIRE HYDRANT
- ⊗ NEW GATE VALVE
- W — EXISTING WATER
- G — EXISTING GAS

**PROFILE**

— — — — — EXISTING GROUND PROFILE  
 — — — — — PROPOSED FINISH GROUND

**811** Know what's below. Call before you dig.  
 Call 811 Two Working Days Before you dig. It's Free, It's Easy, and IT'S THE LAW!

SCALE: 1"=30'



**PROJECT NAME**  
 DESERT SANDS  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

**BENCHMARK**  
 JUSTICE STREET  
 EL PASO, TEXAS

CIVIL ENGINEERS  
 LAND SURVEYORS  
 6600 WESTINGHOUSE DRIVE  
 (817) 384-1457

**SLI**  
 SLI ENGINEERING, INC.

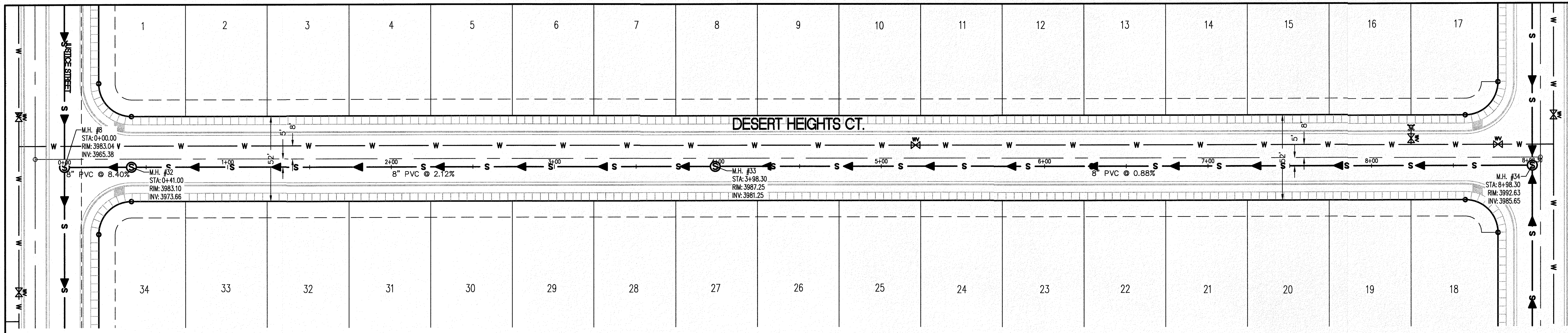
LICENSE No. F-1902

OCTOBER 24, 2018  
 SHEET TITLE

DESERT PATH AVE.  
 CUL-DE-SACS  
 SEWER LINES

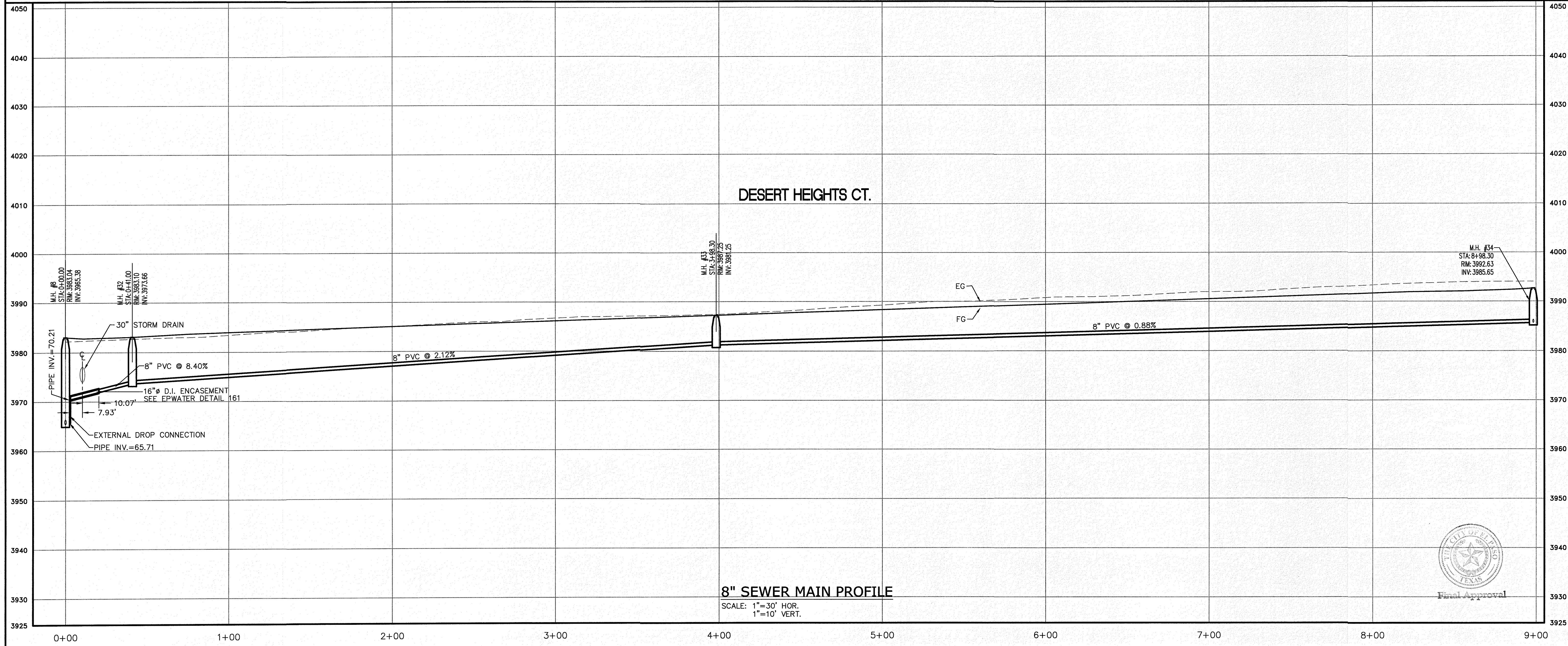
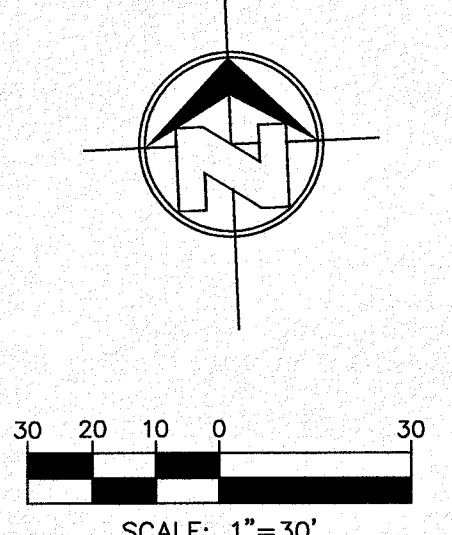
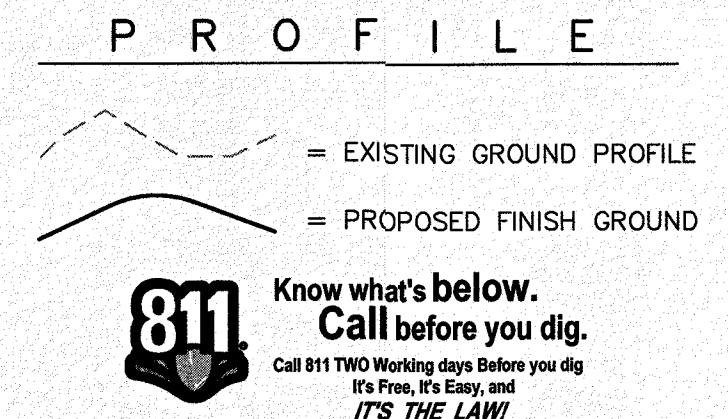
**C-05.39**



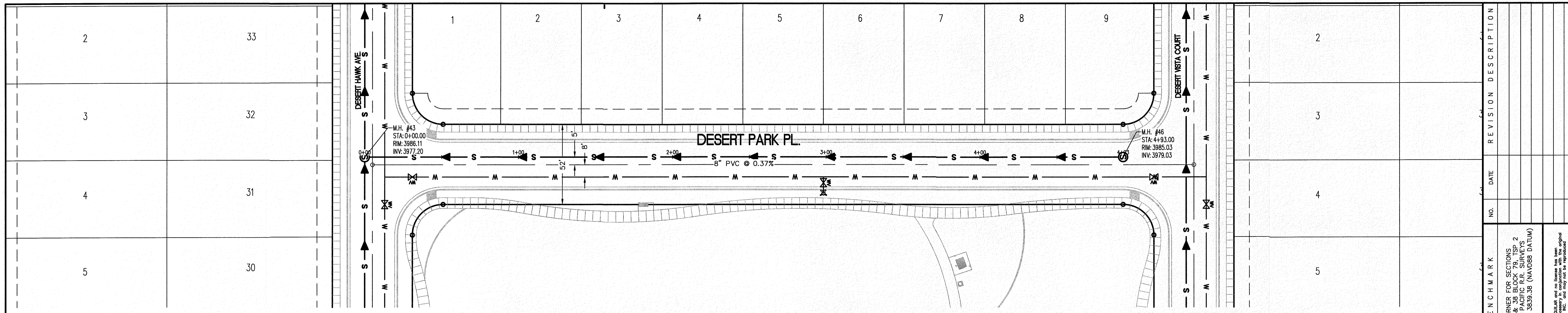


**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- FH — NEW FIRE HYDRANT
- GV — NEW GATE VALVE
- W — EXISTING WATER
- G — EXISTING GAS



SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3859.38 (NAVD88 DATUM)	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
SCALE: AS INDICATED	JOB NO.: 09-16-3811	DESIGN BY: J/JT	CHECKED BY: GH/TE	DATE: OCTOBER 2018
PROJECT NAME: DESERT SANDS, PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	EL PASO, TEXAS			
CIVIL ENGINEERS, LAND SURVEYORS AND PLANNERS <b>SLI ENGINEERING, INC.</b> 699 W. WASH. ST. SUITE 100 EL PASO, TEXAS 79901 PH: 972-341-4467	LICENSE No. F-1902			
OCTOBER 24, 2018				
SHEET TITLE				
DESERT HEIGHTS CT. SEWER LINE STA. 0+00 - 8+00				
C-05.40				



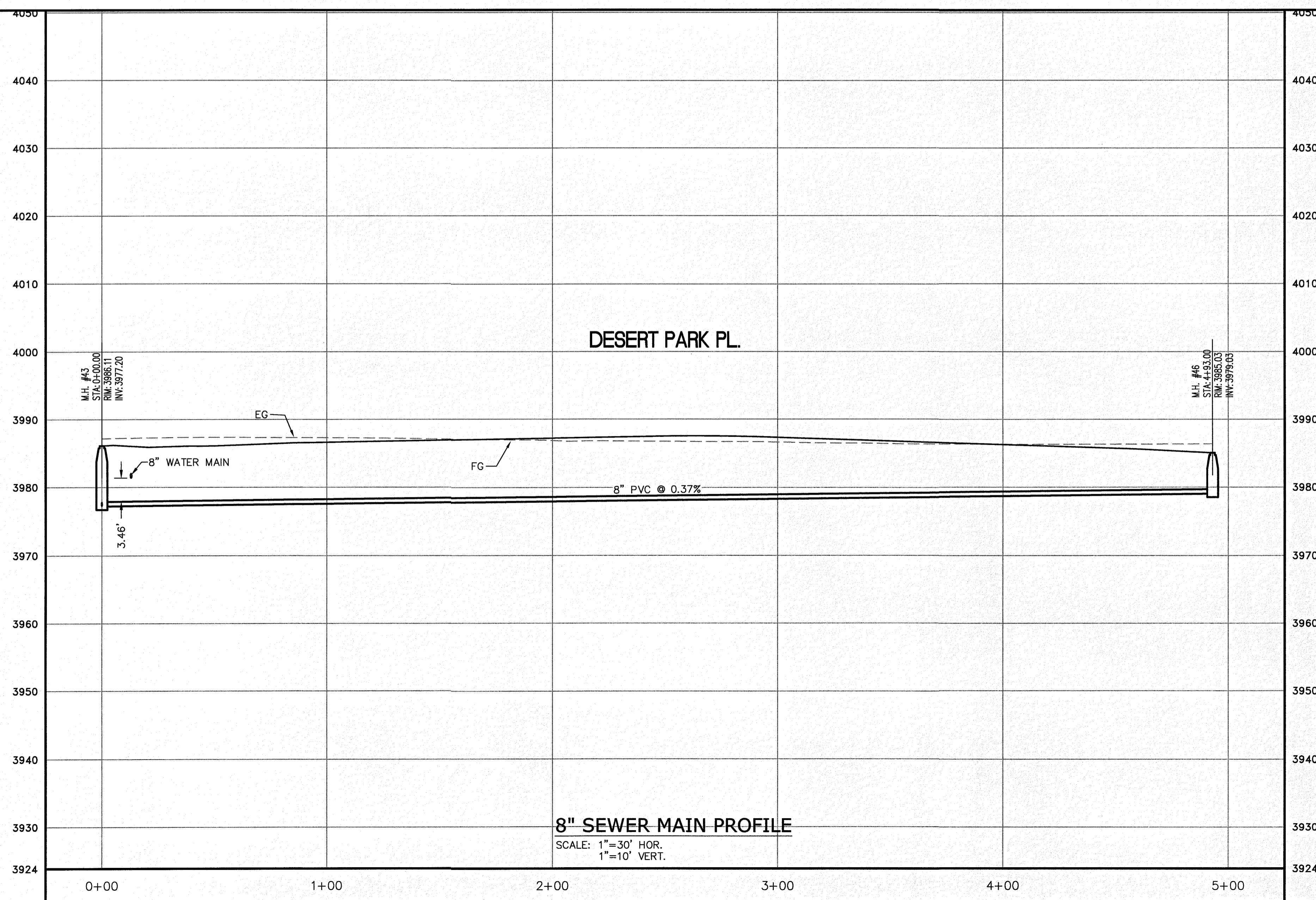
- LEGEND**
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S — NEW SANITARY SEWER MAIN
  - [Symbol] — NEW FIRE HYDRANT
  - [Symbol] — NEW GATE VALVE
  - [Symbol] — EXISTING WATER
  - [Symbol] — EXISTING GAS

**PROFILE**

— [Symbol] — EXISTING GROUND PROFILE  
 — [Symbol] — PROPOSED FINISH GROUND

**811** Know what's below. Call before you dig. Call 811 TWO Working days before you dig. It's Free, It's Easy, and IT'S THE LAW!

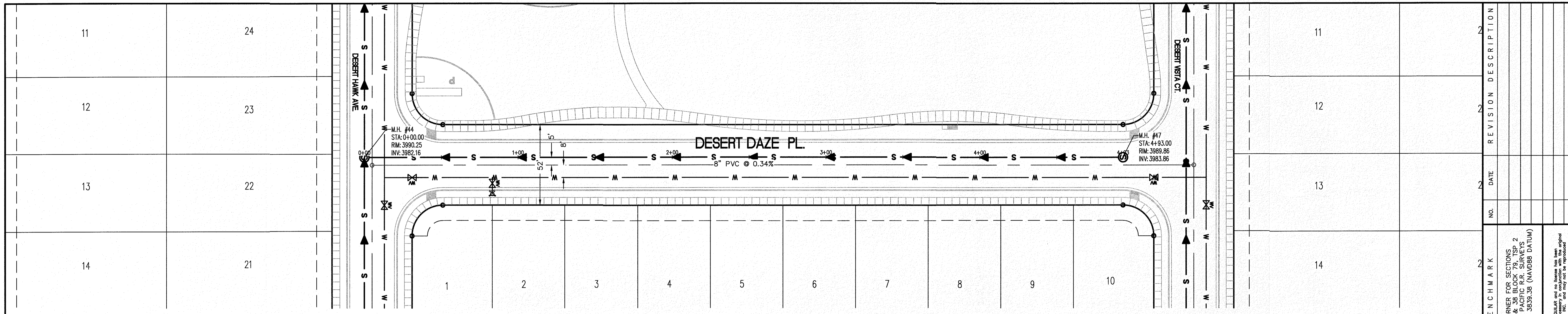
SCALE: 1"=30'



**8" SEWER MAIN PROFILE**  
 SCALE: 1"=30' HOR.  
 1"=10' VERT.

NO.	DATE	REVISION DESCRIPTION						
BENCHMARK								
SECTION CORNER FOR SECTIONS 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 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SURVEYORS LAND PLANNERS <b>SLI ENGINEERING, INC.</b> 808 P.O. BOX 1407 EL PASO, TEXAS (915) 584-4407	LICENSE No. F-1902 	OCTOBER 24, 2018 SHEET TITLE <b>DESERT PARK PL. SEWER LINE</b> STA. 0+00 - 4+93.00	Final Approval 	<b>C-05.41</b>





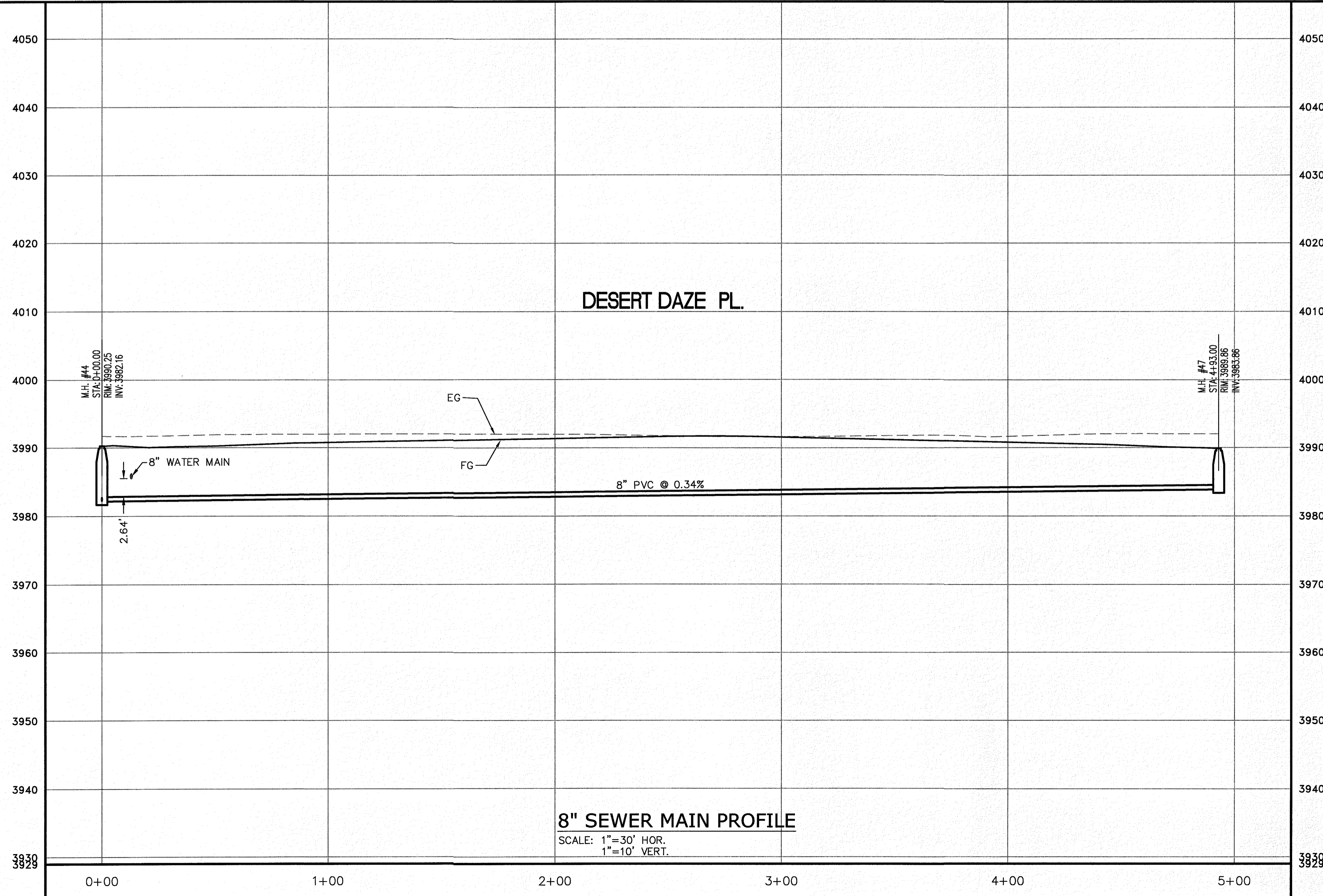
- LEGEND**
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
  - S — NEW SANITARY SEWER MAIN
  - ⊕ — NEW FIRE HYDRANT
  - ⊗ — NEW GATE VALVE
  - W — EXISTING WATER
  - C — EXISTING GAS

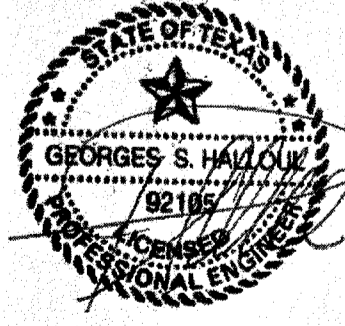
**PROFILE**

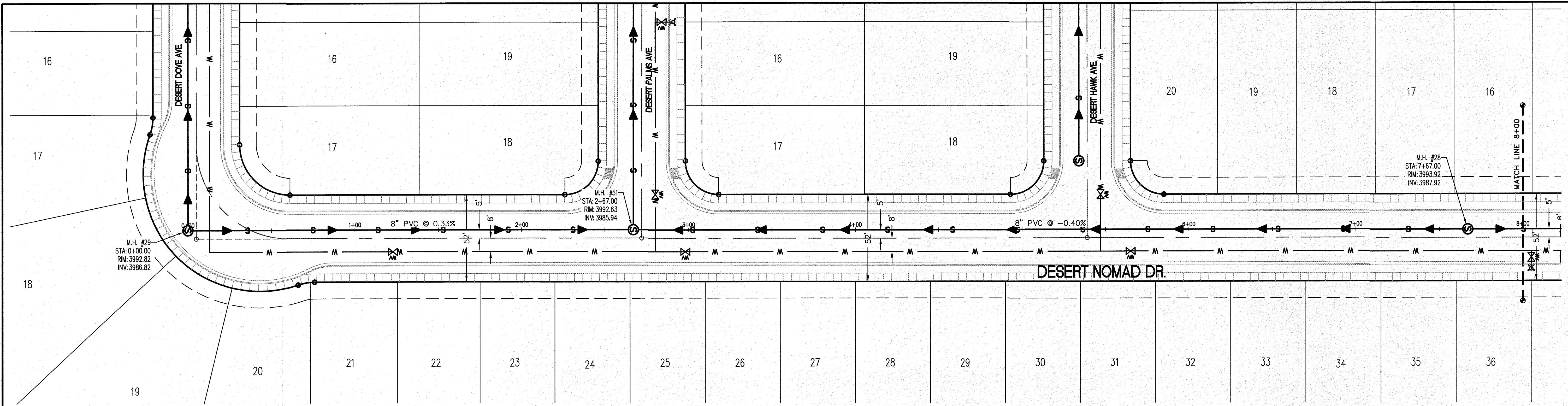
— — — — — EXISTING GROUND PROFILE  
 — — — — — PROPOSED FINISH GROUND

**811** Know what's below. Call before you dig. Call 811 TWO Working days before you dig. It's Free, It's Easy, and IT'S THE LAW!

SCALE: 1"=30'



NO.	DATE	REVISION DESCRIPTION
BENCHMARK		
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 78, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS. ELEVATION: 3839.38 (NAVD88 DATUM)		
SCALE:	AS INDICATED	
JOB NO.:	09-16-3811	
DESIGN BY:	J/ET	
CHECKED BY:	GH/TE	
DATE:	OCTOBER 2018	
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PROJECT NAME		
DESERT SANDS		
PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2 NORTH, RANGE 10E, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS		
EL PASO, TEXAS		
JUSTICE STREET		
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS SLI ENGINEERING, INC. 8002 W. 14TH STREET EL PASO, TEXAS 79906 (915) 984-1467		
LICENSE No. F-1902		
		
OCTOBER 24, 2018		
SHEET TITLE		
DESERT DAZE PL. SEWER LINE STA. 0+00 - 4+93.00		
Final Approval		
C-05.42		



**LEGEND**

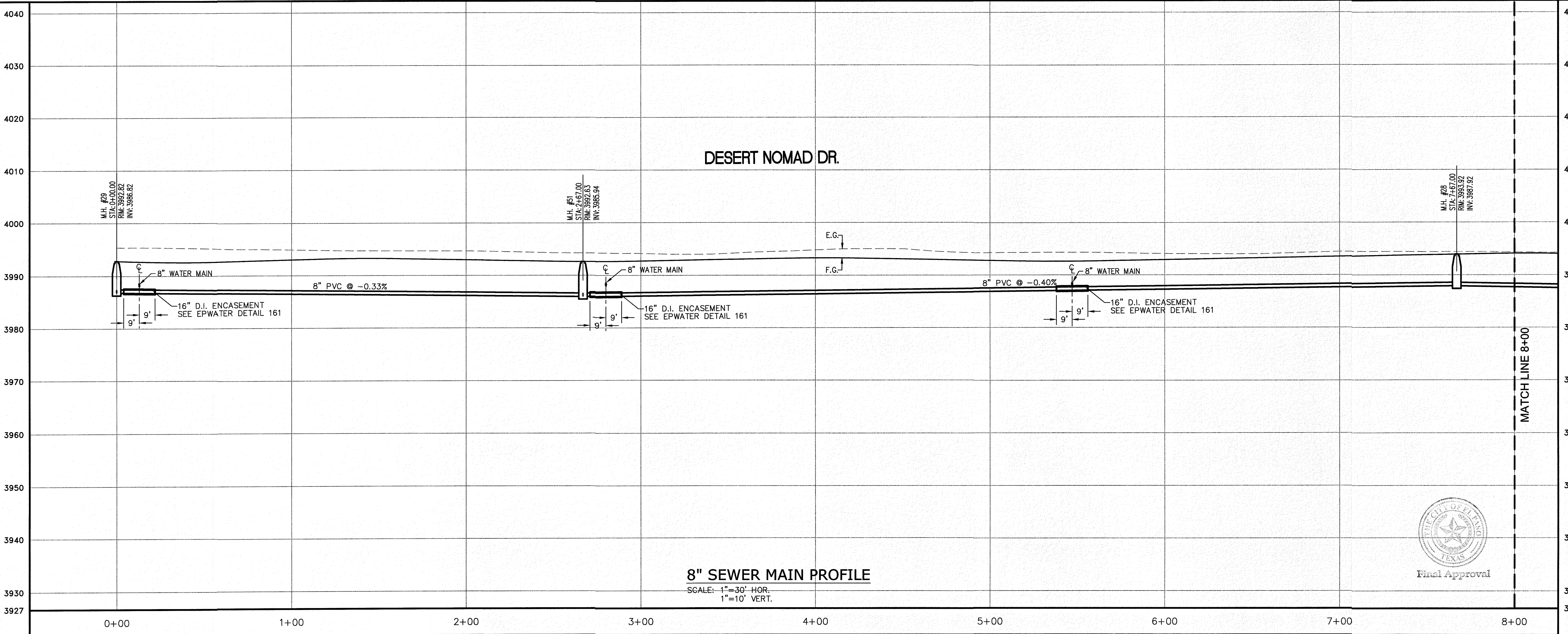
- NEW 8" PVC WATER MAIN (C-900 DR 18)
- NEW SANITARY SEWER MAIN
- NEW FIRE HYDRANT
- NEW GATE VALVE
- EXISTING WATER
- EXISTING GAS

**PROFILE**

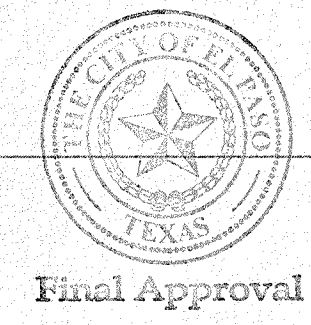
- = EXISTING GROUND PROFILE
- = PROPOSED FINISH GROUND

811 Know what's below. Call before you dig. Call 811 TWO Working days Before you dig. It's Free, It's Easy, and IT'S THE LAW.

Scale: 1"=30'



**8" SEWER MAIN PROFILE**  
 SCALE: 1"=30' HOR.  
 1"=10' VERT.



NO.	DATE	REVISION DESCRIPTION

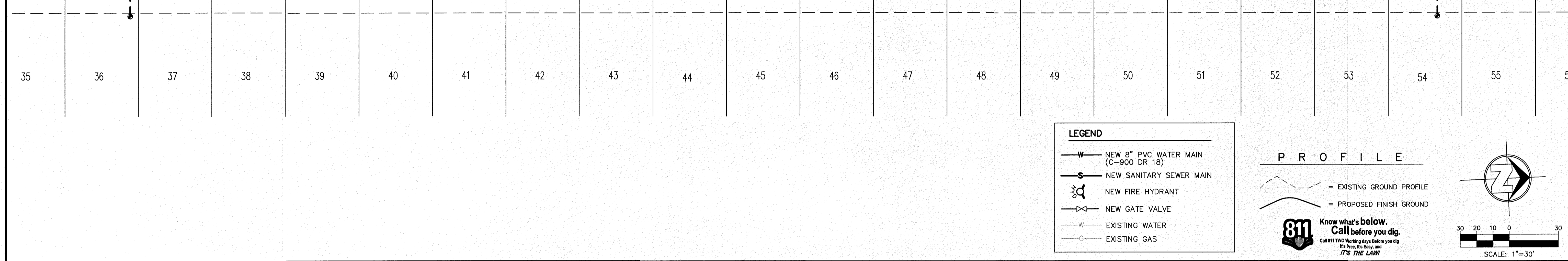
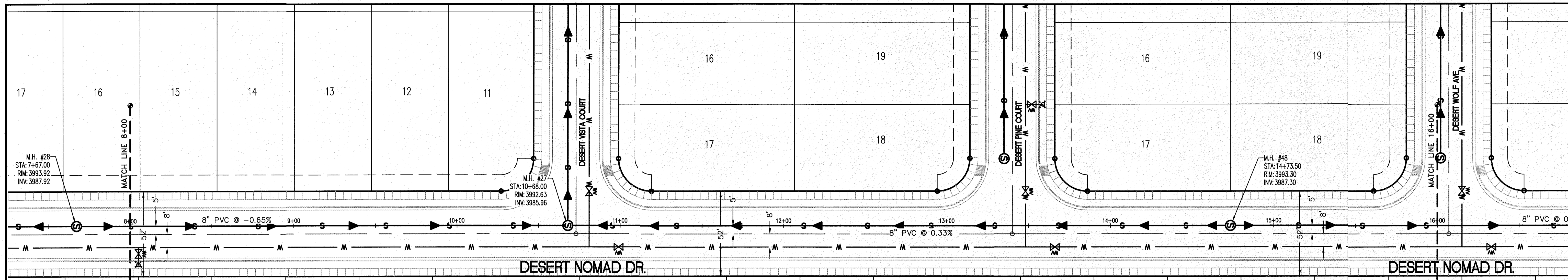
<b>BENCHMARK</b>	SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3639.36 (NA DDB DATUM)
<b>AS INDICATED</b>	SCALE: AS INDICATED
<b>JOB NO.</b>	09-16-3811
<b>DESIGN BY</b>	J/JET
<b>CHECKED BY</b>	GH/ZE
<b>DATE</b>	OCTOBER 2018

<b>PROJECT NAME</b>	DESERT SANDS	<b>PROJECT LOCATION</b>	EL PASO, TEXAS
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS		JUSTICE STREET	

<b>CIVIL ENGINEERS AND SURVEYORS LAND PLANNERS</b> <b>SLI ENGINEERING, INC.</b> 6600 WESTINGHOUSE DRIVE (915) 361-1457	<b>LICENSE No. F-1902</b>
	<b>OCTOBER 24, 2018</b>
<b>SHEET TITLE</b>	
DESERT NOMAD DR. SEWER LINE STA. 0+00 - 8+00	
<b>C-05.43</b>	



**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ⊙ — NEW FIRE HYDRANT
- ⊗ — NEW GATE VALVE
- W — EXISTING WATER
- C — EXISTING GAS

**PROFILE**

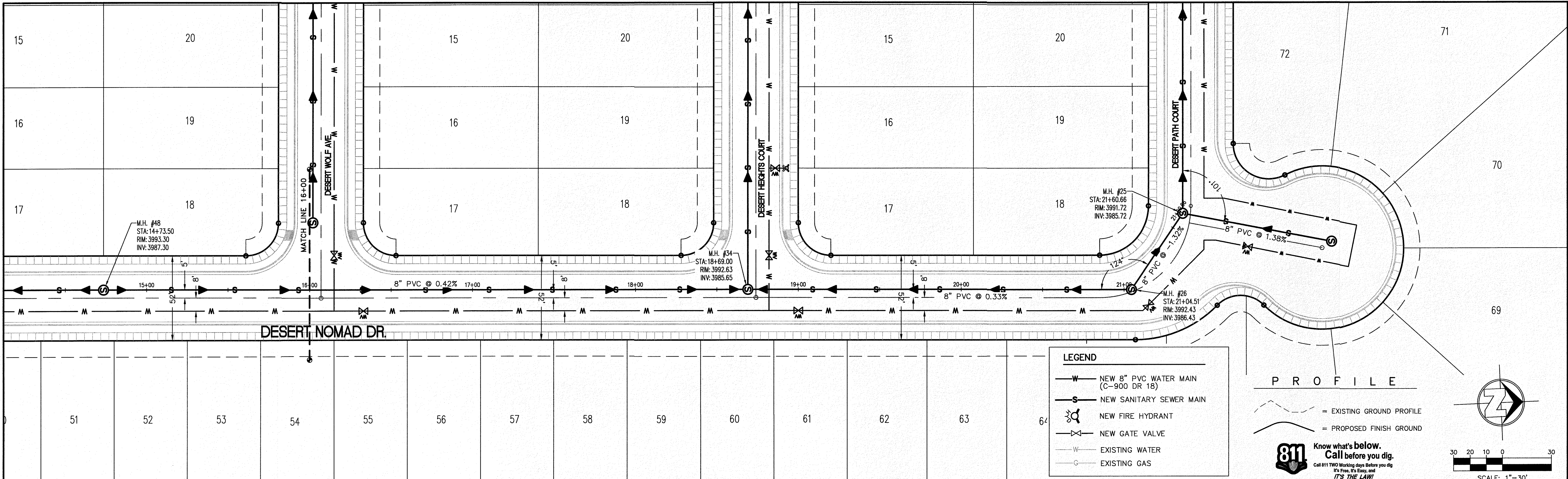
— — — — — = EXISTING GROUND PROFILE  
 — — — — — = PROPOSED FINISH GROUND

**811 Know what's below. Call before you dig.**  
 Call 811 TWO Working days Before you dig  
 It's Free, It's Easy, and IT'S THE LAW

SCALE: 1"=30'

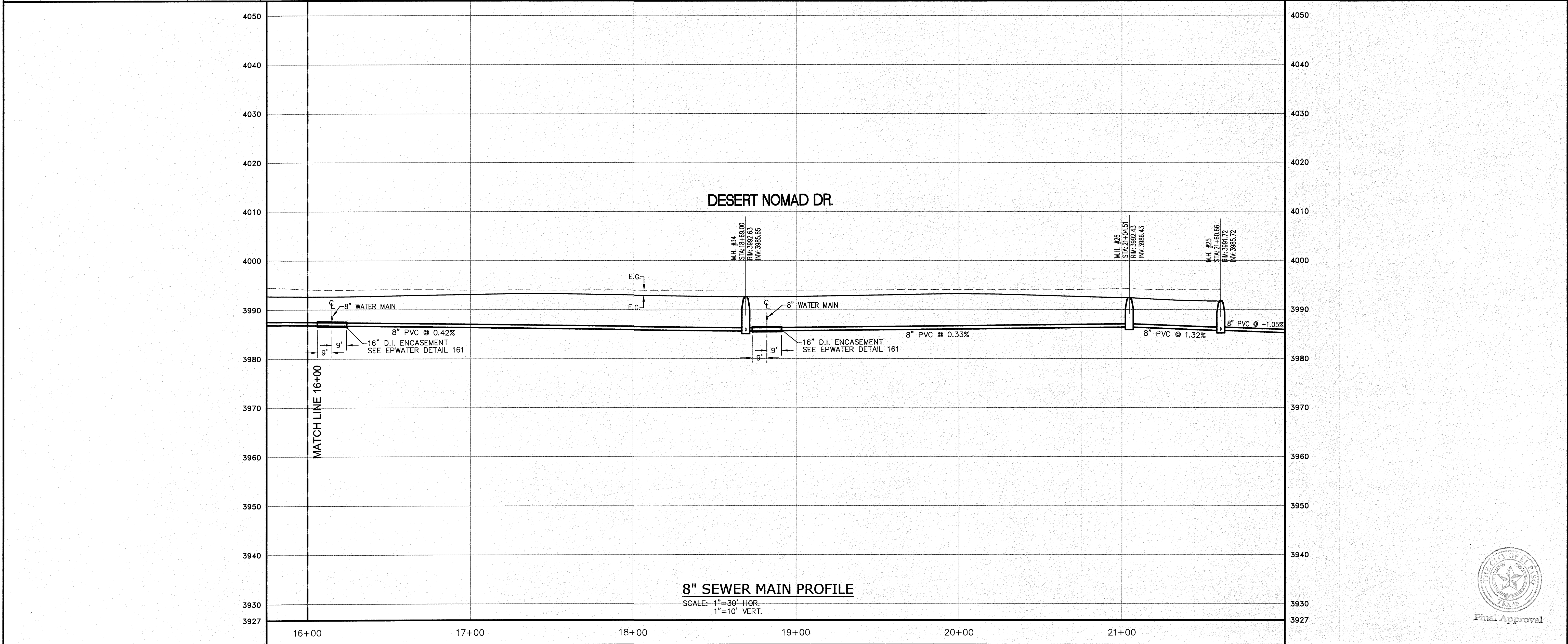
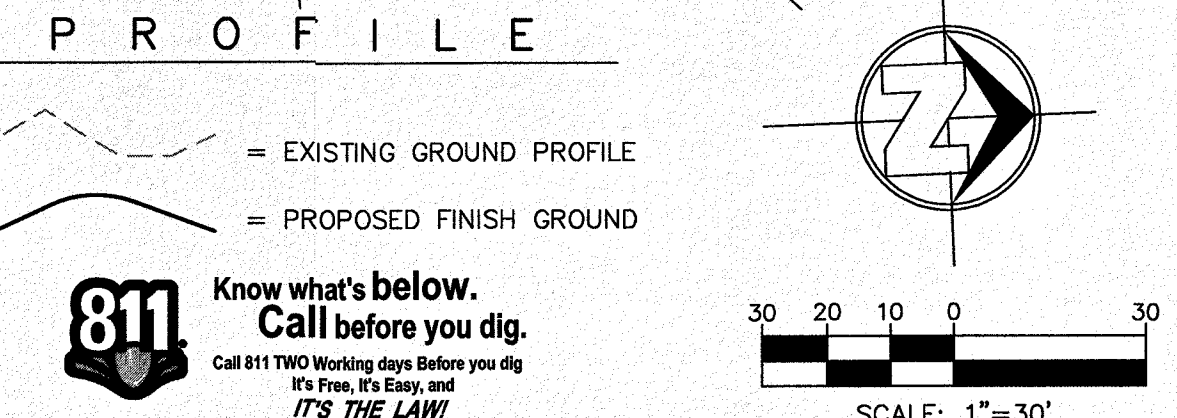
**8" SEWER MAIN PROFILE**  
 SCALE: 1"=30' HOR.  
 1"=10' VERT.

SECTION CORNER FOR SECTIONS 28-30 AND 31-33, TOWNSHIP 2 NORTH, RANGE 13E, ELEVATION: 3839.38 (NAVD88 DATUM)	BENCHMARK	NO.	DATE	REVISION DESCRIPTION
DESERT SANDS	DESERT SANDS			
PORTIONS OF SECTION 28 AND 33, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	JUSTICE STREET			
EL PASO, TEXAS				
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS P.L.L.C. 1010 9th - 1407 EL PASO, TEXAS 979-784-4407	<b>SLI</b> SLI ENGINEERING, INC.			
LICENSE No. F-1902				
OCTOBER 24, 2018				
SHEET TITLE				
DESERT NOMAD DR. SEWER LINE STA. 8+00 - 16+00				
Final Approval				
C-05.44				

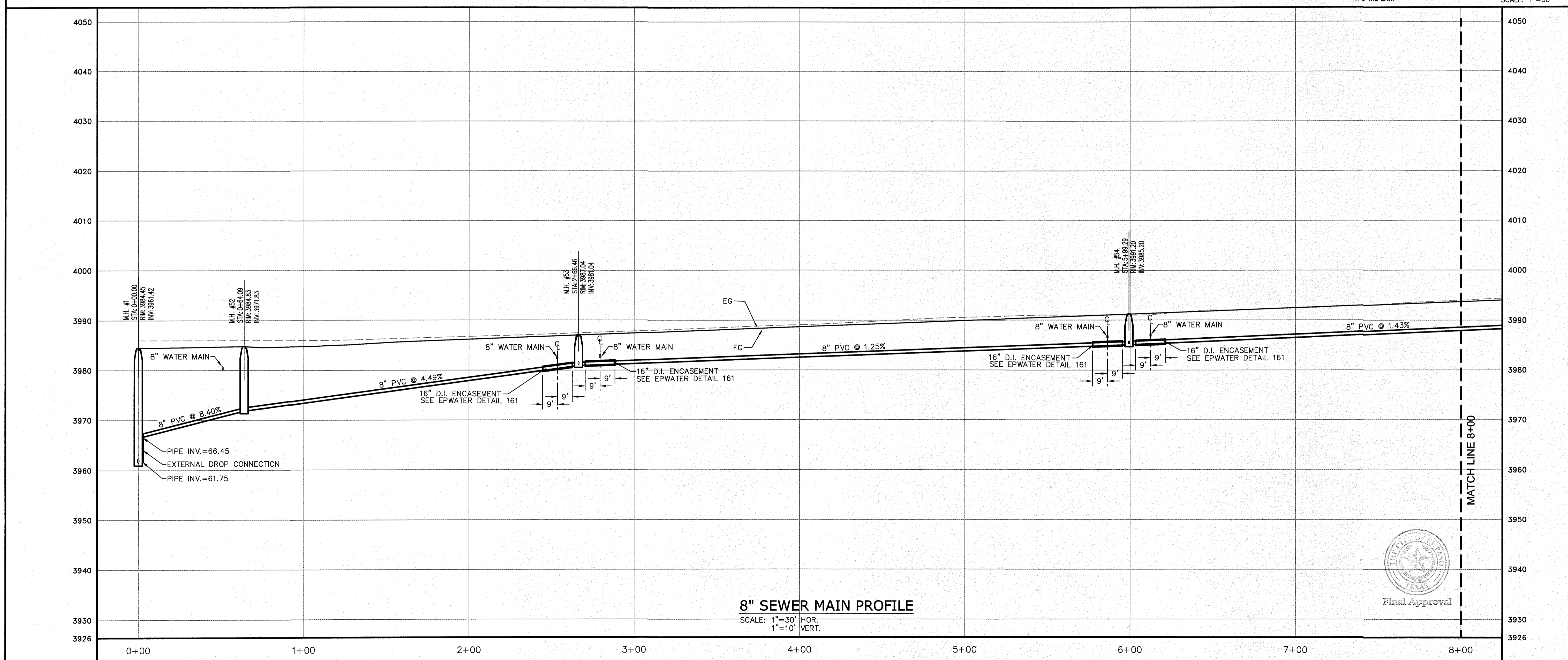
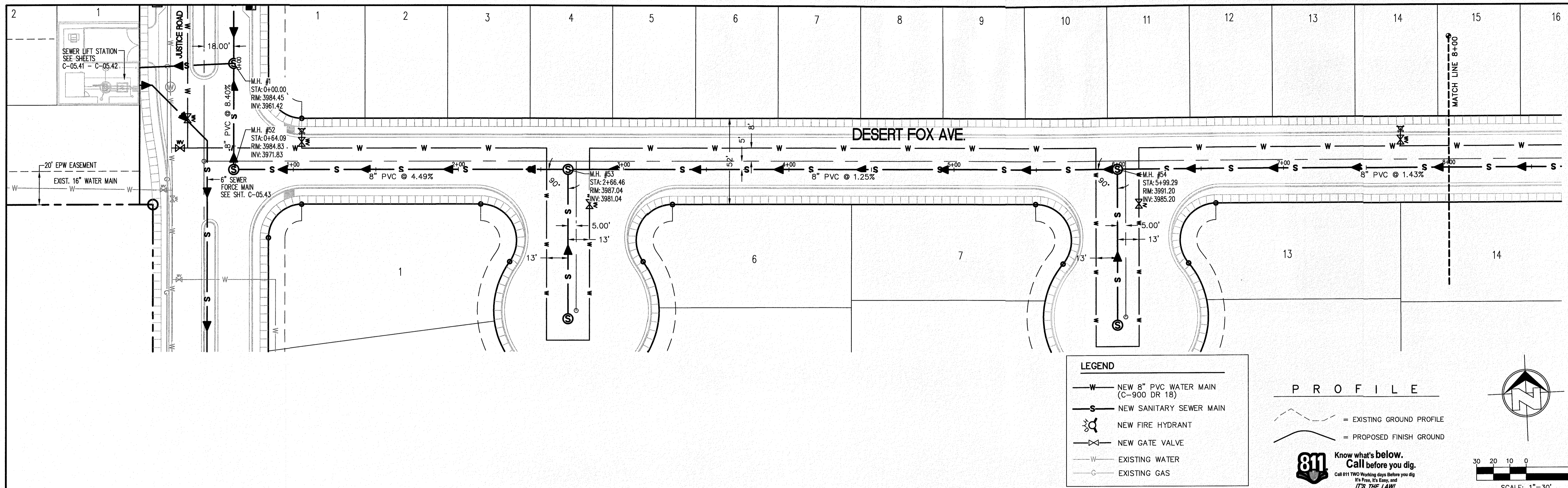


**LEGEND**

- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- FH — NEW FIRE HYDRANT
- GV — NEW GATE VALVE
- W — EXISTING WATER
- G — EXISTING GAS



REVISION DESCRIPTION	NO.	DATE
BENCHMARK	SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC RR. SURVEYS ELEVATION: 3939.36 (NA ODB DATUM)	
AS INDICATED	JOB NO.:	09-16-3911
DESIGN BY:	J/JET	
CHECKED BY:	G/PZE	
DATE:	OCTOBER 2018	
PROJECT NAME	DESERT SANDS PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	
PROJECT NAME	EL PASO, TEXAS	
PROJECT NAME	JUSTICE STREET	
CIVIL ENGINEERS LAND PLANNERS 6600 JACKSON DRIVE DALLAS, TEXAS 75230 (972) 344-1467		
LICENSE No. F-1902		
OCTOBER 24, 2018	SHEET TITLE	
DESERT NOMAD DR. SEWER LINE STA. 24+00 - 32+00		
Final Approval		
C-05.45		



NO.	DATE	REVISION DESCRIPTION

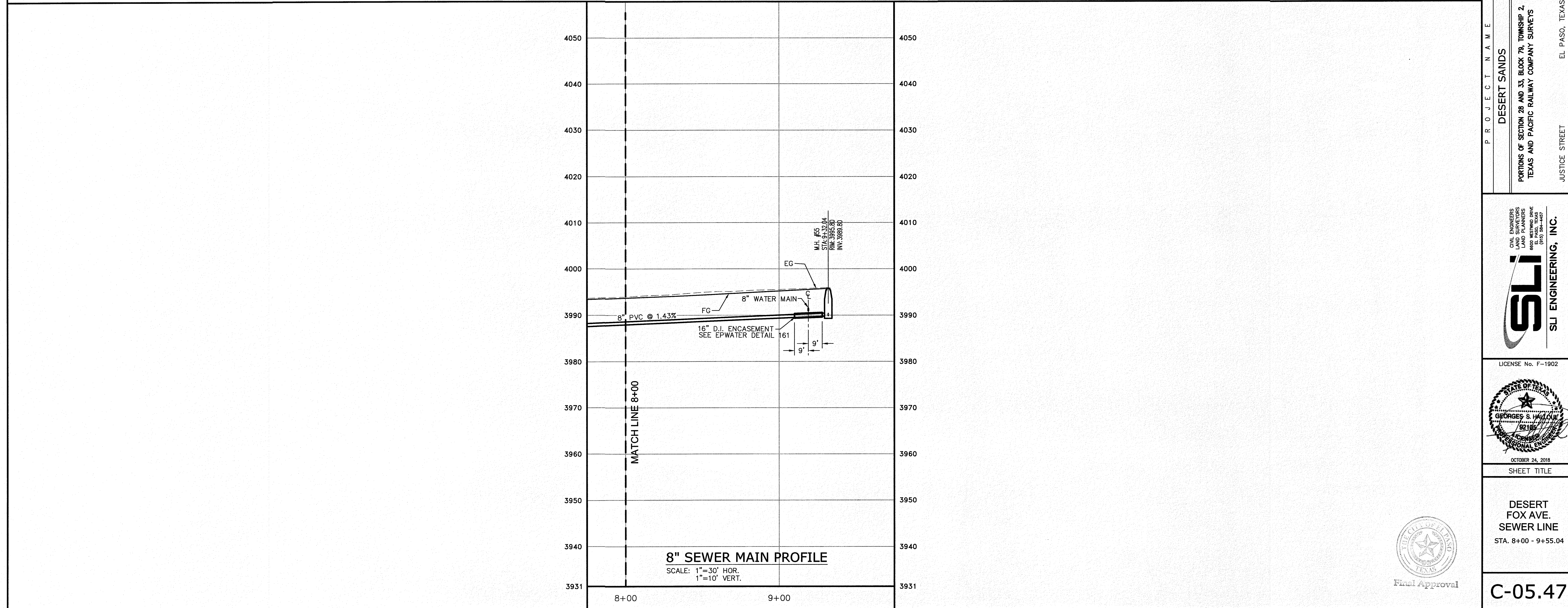
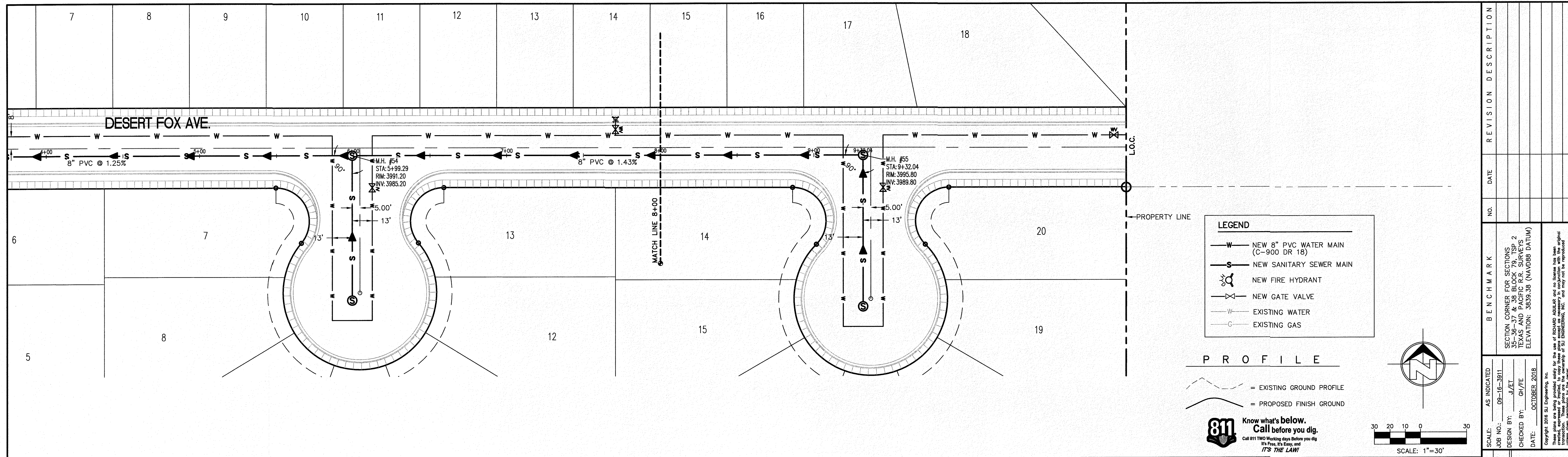
SECTION CORNER FOR SECTIONS 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC R.R. SURVEYS 2 ELEVATION: 3839.38 (NAVD88 DATUM)
SCALE: AS INDICATED
JOB NO.: 09-1E-3811
DESIGN BY: J/ET
CHECKED BY: GH/FE
DATE: OCTOBER 2018
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PROJECT NAME	DESERT SANDS
PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS	
BENCHMARK	EL PASO, TEXAS
JUSTICE STREET	

CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS 6806 W. P.O. BOX 2438 EL PASO, TEXAS (915) 584-1467
<b>SLI</b> SLI ENGINEERING, INC.
LICENSE No. F-1902
OCTOBER 24, 2018
SHEET TITLE
DESERT FOX AVE. SEWER LINE STA. 0+00 - 8+00
C-05.46



NO.	DATE	REVISION DESCRIPTION

BENCHMARK

SECTION CORNER FOR SECTIONS 28 AND 33, TOWNSHIP 2 NORTH, RANGE 79 WEST, COUNTY OF EL PASO, TEXAS AND PACIFIC R.R. SURVEYS 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

ELEVATION: 3539.38 (NAVD88 DATUM)

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SCALE: AS INDICATED

JOB NO.: 09-16-3811

DESIGN BY: J/JT

CHECKED BY: GH/FE

DATE: OCTOBER 2018

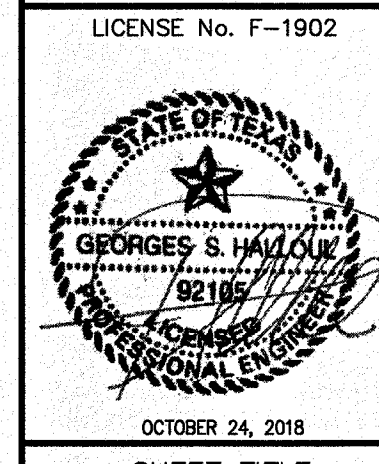
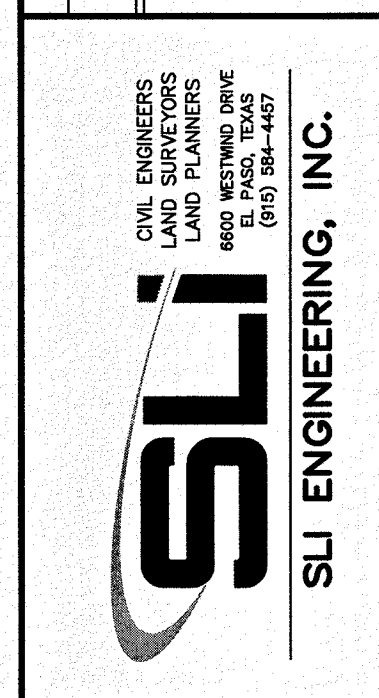
PROJECT NAME

**DESERT SANDS**

PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 79 WEST, COUNTY OF EL PASO, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS

EL PASO, TEXAS

JUSTICE STREET

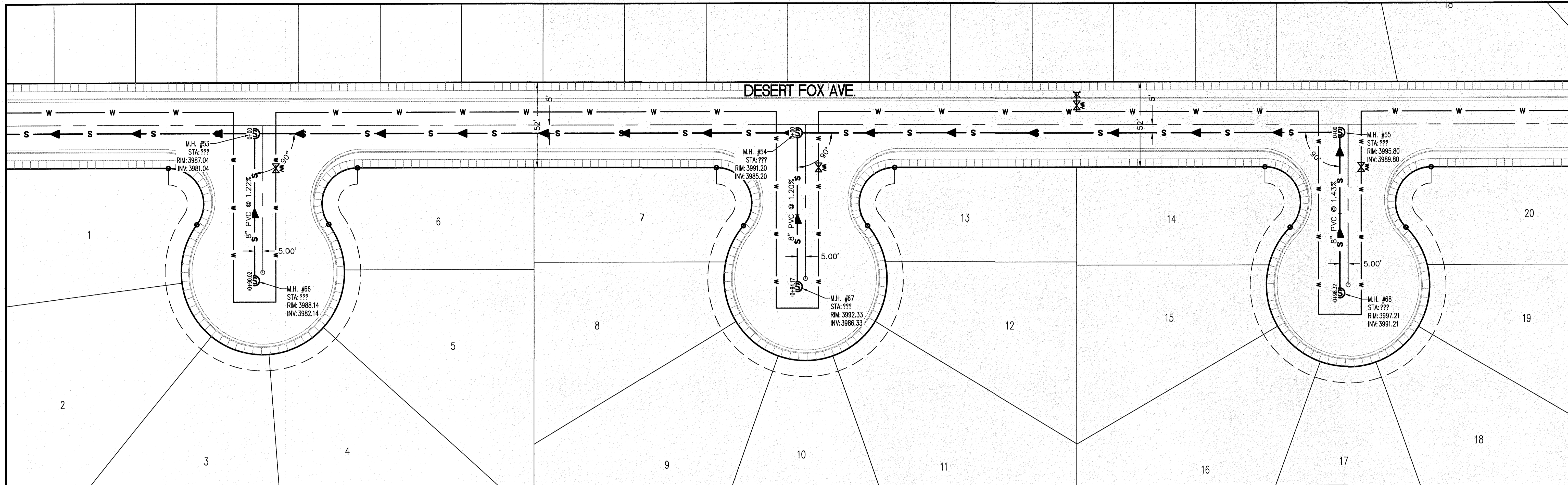


**DESERT FOX AVE. SEWER LINE**

STA. 8+00 - 9+55.04

**C-05.47**





NO.	DATE	REVISION DESCRIPTION

BENCHMARK  
 SECTION CORNER FOR SECTIONS 35-36-37 & 38 BLOCK 79, TSP 2 TEXAS AND PACIFIC R.R. SURVEYS ELEVATION: 3839.38 (NAVD88 DATUM)  
 AS INDICATED  
 JOB NO.: 09-16-3911  
 DESIGN BY: J/J/E  
 CHECKED BY: GH/EE  
 DATE: OCTOBER, 2018  
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PROJECT NAME  
**DESERT SANDS**  
 PORTIONS OF SECTION 28 AND 33, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS  
 JUSTICE STREET  
 EL PASO, TEXAS

LICENSE No. F-1902  

 OCTOBER 24, 2018  
 SHEET TITLE

DESERT FOX DR.  
 CUL-DE-SACS  
 SEWER LINES  
**C-05.48**

**LEGEND**

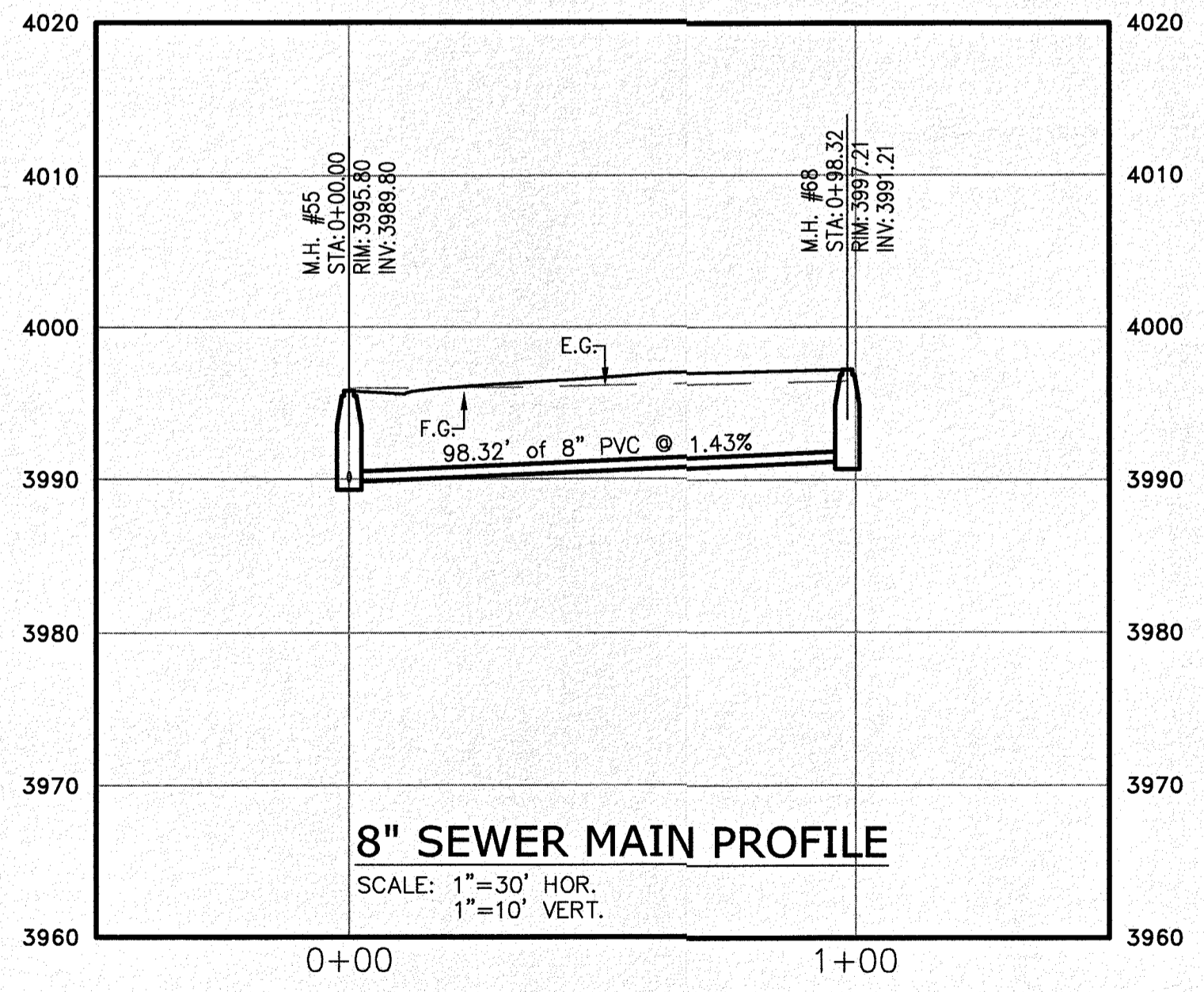
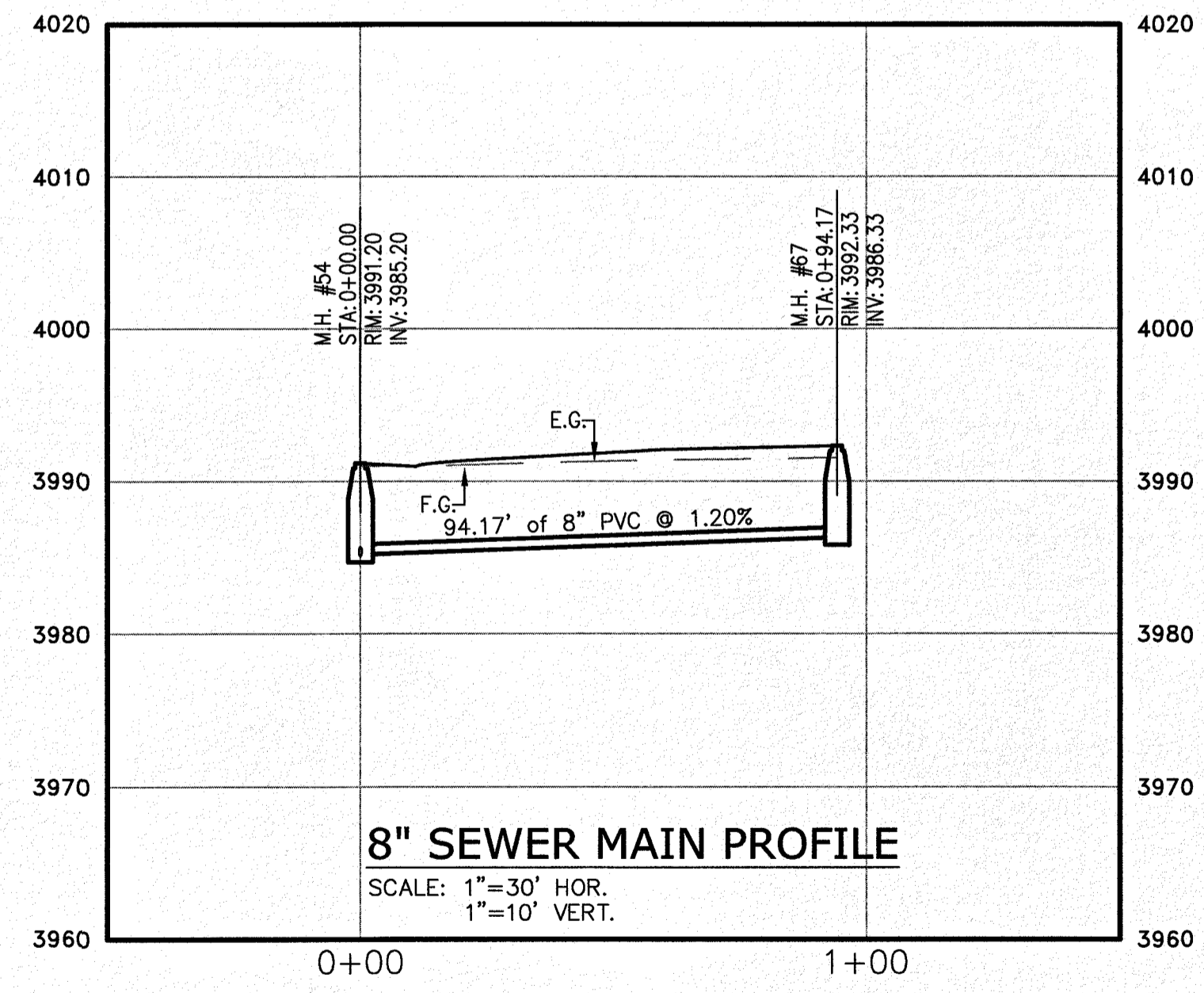
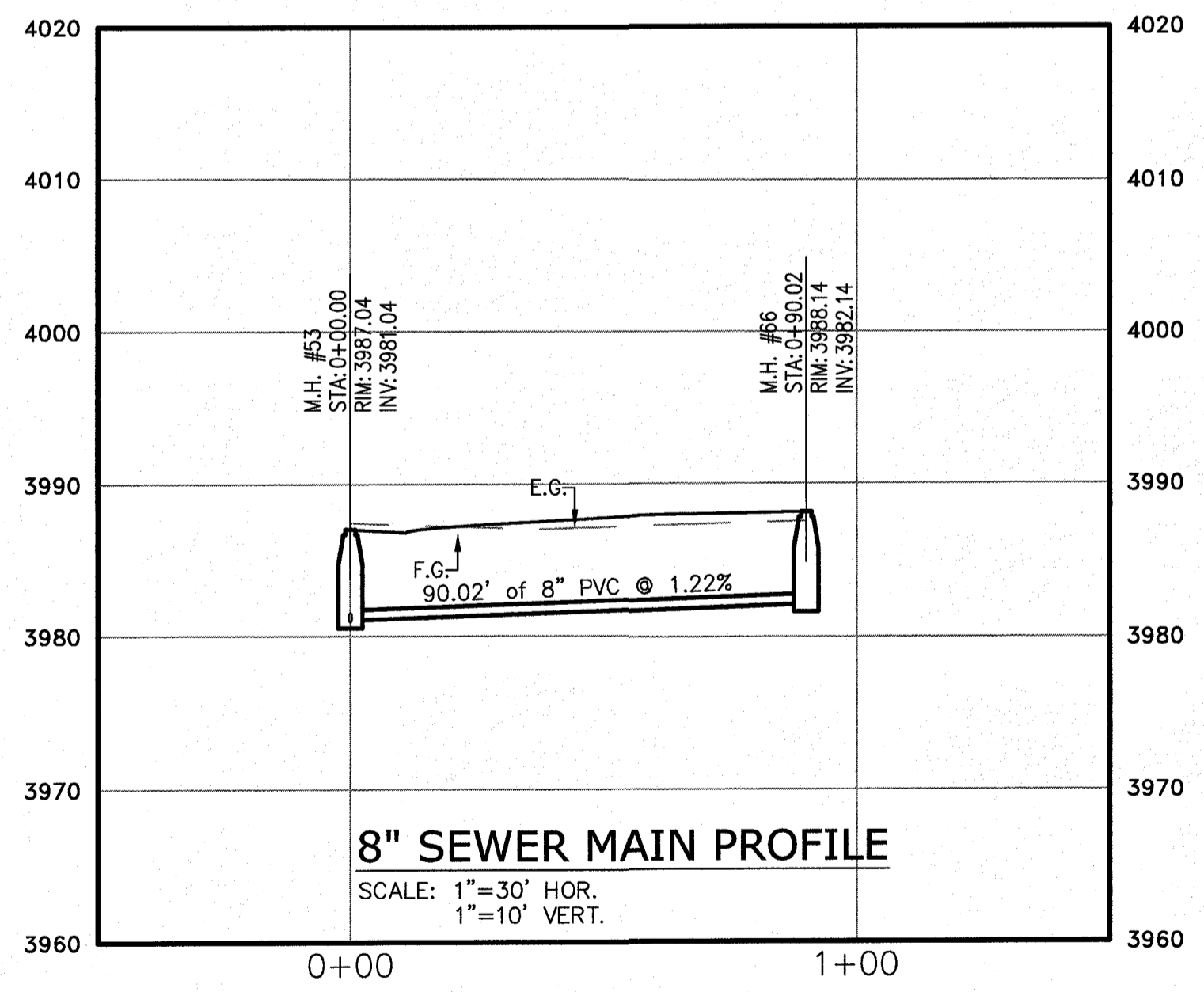
- W — NEW 8" PVC WATER MAIN (C-900 DR 18)
- S — NEW SANITARY SEWER MAIN
- ⊗ — NEW FIRE HYDRANT
- ⊗ — NEW GATE VALVE
- — EXISTING WATER
- — EXISTING GAS

**PROFILE**

- — EXISTING GROUND PROFILE
- — PROPOSED FINISH GROUND

**Know what's below. Call before you dig.**  
 Call 811 TWO Working Days Before you dig.  
 It's Free, It's Easy, and IT'S THE LAW!

SCALE: 1"=30'



**SODDING NOTES**

**SUBMIT THE FOLLOWING:**

1. SOD CERTIFICATION FOR GRASS SPECIES AND NAME AND LOCATION OF SOD SOURCE. SODDING SCHEDULE, INCLUDING DATES AND TYPE OF WORK TO BE PERFORMED. PRIOR TO ORDERING, NAME OF SUPPLIER OF SOIL AMENDMENTS MATERIALS.

**QUALITY ASSURANCE**

2. MINIMUM AGE 18 MONTHS, WITH ROOT DEVELOPMENT THAT WILL SUPPORT ITS OWN WEIGHT WITHOUT TEARING, WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS.
- DELIVERY, STORAGE AND HANDLING
3. TIME DELIVERY SO THAT SOD WILL BE PLACED WITHIN 24 HOURS OF DELIVERY AT SITE. PROTECT AGAINST DRYING AND BREAKING OF ROLLED STRIPS.
4. DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING HEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED ON SITE.

**SITE CONDITIONS**

5. PROCEED WITH AND COMPLETE LANDSCAPE WORK AS RAPIDLY AS PORTIONS OF SITE BECOME AVAILABLE, WORKING WITHIN SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED.
6. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS CONSULT THE LANDSCAPE ARCHITECT AND CITY OF EL PASO PARKS AND RECREATION BEFORE PLANTING.
7. PLANT OR INSTALL MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF LANDSCAPE WORK REQUIRED. CORRELATE PLANTING WITH SPECIFIED MAINTENANCE PERIODS TO PROVIDE MAINTENANCE FROM DATE OF FINAL ACCEPTANCE.

**SOIL AMENDMENTS**

8. PROVIDE SOIL ANALYSIS BEFORE ADDITION OF SOIL AMENDMENTS & ANALYSES OF SOIL AMENDMENTS. ORGANIC AMENDMENTS SHALL CONSIST OF WELL-AGED ORGANIC COMPOST OR APPROVED EQUAL.

**FERTILIZER**

9. SLOW-RELEASE STARTER FERTILIZER ANALYSIS AS RECOMMENDED BY LANDSCAPE ARCHITECT BY WEIGHT AT A RATE OF 1 LB OF ACTUAL NITROGEN PER 1000 SQUARE FEET BY WEIGHT.

**GRASS MATERIALS**

10. PROVIDE STRONGLY ROOTED SOD, NOT LESS THAN 18 MONTHS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES AND MACHINE CUT TO PAD THICKNESS OF 3/4 INCH (PLUS OR MINUS 1/4 INCH), EXCLUDING TOP GROWTH AND THATCH. PROVIDE SOD CAPABLE OF GROWTH AND DEVELOPMENT WHEN PLANTED. CUT SOD PIECES A MINIMUM OF 18 INCHES WIDE.

**PREPARATION**

11. PRIOR TO START OF SOIL PREPARATION ALL FINISH GRADES SHALL BE ESTABLISHED AND APPROVED AS MEETING THE REQUIREMENTS OF THE GRADING PLAN. APPLY A UNIFORM ONE-INCH LAYER (3 G.Y./1000 SQUARE FEET) OF ORGANIC SOIL AMENDMENT, AFTER APPLICATION OF ORGANIC AMENDMENT AND STARTER FERTILIZER ALL AREAS TO BE SODDED SHALL BE THOROUGHLY ROTOTILLED TO A MINIMUM DEPTH OF 12 INCHES. AFTER ROTOTILLING IS COMPLETE AT CROSS DIRECTIONS, DRAG, AND LASER LEVEL TO AN EVEN GRADE, THEN ROLL FOR FIRMNESS. RAKE TILLED AREA AND REMOVE STONES OVER 1 INCH IN ANY DIMENSION, STICKS, ROOTS, RUBBISH AND OTHER EXTRANEOUS MATTER. ROLL ENTIRE AREA WITH WEIGHTED HAND ROLLER.

**SODDING OPERATIONS**

12. LAY SOD WITHIN 24 HOURS OF DELIVERY AT SITE. DO NOT PLANT DORMANT SOD OR ON FROZEN GROUND.
13. IF SOIL IS DRY, MOISTEN AREAS BEFORE SODDING. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY. DO NOT CREATE A MUDDY SOIL CONDITION.
14. REMOVE FIBER MESH USED BY SOD FARM TO TRANSPORT SOD ROLLS AS SOD IS BEING INSTALLED.
15. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. NO JOINT SHALL BE MORE THAN 1/8" LAY SOD OVER MOISTENED SOIL. LIGHTLY RAKING THE SOIL AHEAD OF EACH SOD STRIP. BUTT ENDS AND SIDES OF SOD STRIPS, DO NOT OVERLAP. STAGGER STRIPS TO OFF-SET JOINTS IN ADJACENT COURSES. LAY SOD PARALLEL TO CONTOURS OF SLOPE. WORK FROM BOARDS TO AVOID DAMAGE TO SUBSOIL OR SOD. TAMP FIRMLY AND EVENLY BY HAND TO ENSURE CONTACT WITH SUBSOIL. WORK SIFTED TOPSOIL OR SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD
16. WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.

**MAINTENANCE**

17. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.
18. MAINTAIN LAWNS FOR NOT LESS THAN A PERIOD OF AT LEAST 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SOD. INSPECTION TO DETERMINE ACCEPTANCE OF SODDED LAWNS WILL BE MADE BY PARKS STAFF AND SITES SOUTHWEST REPRESENTATIVE UPON CONTRACTOR'S REQUEST. PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE, AND LONGER AS REQUIRED TO ESTABLISH AN ACCEPTABLE LAWN.
19. SODDED LAWNS TO BE MAINTAINED NOT LESS THAN 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SODDING OPERATIONS
20. MAINTENANCE TO INCLUDE:  
WATER SOD THOROUGH EVERY 2 TO 3 DAYS MIN. AS REQUIRED TO ESTABLISH PROPER ROOTING. REPAIR, REWORK AND RESOD AREAS THAT HAVE WASHED OUT OR ERODED.  
REPLACE DEAD OR UNDESIRABLE SOD SECTIONS WITH NEW SOD.  
MOW LAWN AREAS WHEN THE GRASS IS OVER 2 INCHES HIGH FOR FIRST CUTTING.  
FERTILIZE LAWN WITH TOP DRESSING FERTILIZER AT 1 LB. PER 1000 SQ.FT. OF NITROGEN, WATER THOROUGHLY.
21. ADDITIONAL LAWN MAINTENANCE CONSISTS OF WEEDING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

**CLEANUP AND PROTECTION**

22. DURING THE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
23. PROTECT WORK AND MATERIALS FROM DAMAGE DUE TO SODDING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED WORK AS DIRECTED.

**INSPECTION AND ACCEPTANCE**

24. WHEN INSPECTED WORK DOES NOT COMPLY WITH REQUIREMENTS, REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED BY THE LANDSCAPE ARCHITECT AND CITY OF EL PASO PARKS AND RECREATION AND FOUND TO BE ACCEPTABLE. REMOVE REJECTED SOD AND MATERIALS PROMPTLY FROM PROJECT SITE.

**GENERAL IRRIGATION NOTES**

1. ALL MATERIALS LISTED BY BRAND NAME MAY BE SUBSTITUTED BY EQUAL OR BETTER PRODUCTS AS APPROVED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
2. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING AND PROPOSED UTILITIES, AND ALL SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER CONTRACTORS WORKING ON THE SITE. COORDINATE INSTALLATION OF SLEEVINGS
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WATER PRESSURE, WATER SOURCE AND SIZE IN THE FIELD PRIOR TO CONSTRUCTION. SHOULD A DISCREPANCY EXIST BETWEEN DESIGN PRESSURE AND FIELD PRESSURE THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
5. IF PRESSURE IS MORE THAN 45 PSI DOWNSTREAM OF METER NOTIFY THE PROJECT MANAGER AND LANDSCAPE ARCHITECT IMMEDIATELY.
6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
7. LOCATION OF THE CONTROLLER AND BACKFLOW SHALL BE APPROVED BY CITY OF EL PASO PARKS AND RECREATION DEPT.
8. STAKE OUT ROTOR HEAD AND PIPING LOCATIONS PRIOR TO TRENCHING. AFTER APPROVAL BY CITY OF EL PASO PARKS AND RECREATION DEPT., TRENCHING AND EQUIPMENT INSTALLATION MAY BEGIN.
9. THE CONTRACTOR SHALL NOT IMPED DRAINAGE IN ANY WAY. THE CONTRACTOR SHALL ALWAYS MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS, WALLS, ETC.
10. ALL PIPING/WIRING RUNNING BENEATH PAVED SURFACES (DRIVES, WALKS, ETC.) SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES. SLEEVES MUST BE 2 X THE DIAMETER SIZE OF PIPE ENGAGED. REMOTE CONTROL WIRING MUST BE RUN IN SEPARATE SLEEVES FROM IRRIGATION PIPE SLEEVES. EXTEND SLEEVE TWENTY-FOUR INCHES (24") BEYOND EDGE OF HARD SURFACES, WRAP ENDS WITH FOUR (4) MILS PLASTIC AND GOOD QUALITY PLASTIC TAPE. GRAY, CLOTH DUCT TAPE IS NOT ACCEPTABLE.
11. DIRECT BURIAL 24V ELECTRIC CONTROL WIRE (#14) AND COMMON GROUND (#12) SHALL BE STANDARD COLORS- RED(HOT) AND WHITE(COMMON). INSTALL WIRE WITH SLACK TO ALLOW FOR THERMAL EXPANSION AND CONTRACTION. LABEL ALL WIRE ENDS AT CONTROLLER AND IN VALVE BOX. PROVIDE THREE SPARE REMOTE CONTROL VALVE WIRES FOR EACH CONTROLLER AND EXTEND TO FURTHEST VALVE. WIRING SHALL BE IN SEPARATE TRENCH FIVE FEET (5') FROM PRESSURE MAIN LINE ON NORTH AND WEST SIDE OF MAIN. PROVIDE EXPANSION LOOPS FOR WIRING EVERY 200'. WIRES SHALL NOT BE STRETCHED TIGHT. USE DRI-SPLICE CONNECTORS FACTORY FILLED WITH SILICONE FOR VALVE WIRE. SPLICES ARE NOT ALLOWED BETWEEN CONTROLLER AND VALVES. SPARE REMOTE CONTROL VALVE WIRES MUST BE OTHER THAN STANDARD RED IN COLOR.
12. ALL VALVES SHALL BE TAGGED WITH A WATERPROOF TAG SHOWING VALVE NUMBER LABEL ALL WIRING AT CONTROLLERS AND PANELS.
13. ALL PIPE CUTS SHALL BE MITERED TO 90 DEGREES TO ASSURE PROPER SOLVENT WELD. ALL BURRS SHALL BE REMOVED PRIOR TO GLUING AND MUST HAVE A FILED BEVELED EDGE A MINIMUM OF ONE FOURTH (1/4) THE WIDTH OF PIPE WALL.  
USE "9-STEP" GLUING PROCESS.  
PIPE MUST BE CLEAN AND PRIMER APPLIED AS RECOMMENDED BY MANUFACTURER WHEN GLUING PROCESS IS UNDERTAKEN. PRIMER SHOULD BE MOIST AS GLUE IS APPLIED AND PVC PIPING IS ASSEMBLED. USE IPS WELD-ON PURPLE PRIMER P88 OR P10.  
USE IPS WELD-ON GRAY GLUE #111 HEAVY DUTY. PIPE OFF ALL EXCESS CEMENT AND LET SET PER MANUFACTURER'S RECOMMENDATIONS. INITIAL SET TIMES SHALL BE MINIMUM OF 5 MIN. FOR 1/2 TO 1-1/4" PIPE; 8 MIN. FOR 1-1/2" TO 2" PIPE; 2 HOURS FOR 2-1/2" TO 6" PIPE.  
CURE TIMES ARE 20 MIN FOR 1/2" TO 1-1/4" PIPE; 30 MIN FOR 1-1/2" PIPE; 4 HOURS FOR 2-1/2" PIPE. WHEN HUMIDITY EXCEEDS 60% INCREASE CURE TIME BY 50%. ONCE WELD IS SET, PIPE SHALL NOT BE MOVED FOR ANY REASON UNTIL SET TIMES HAVE BEEN ACHIEVED. WATER SHALL NOT BE TURNED ON UNTIL ALL CURE TIMES HAVE BEEN ACHIEVED.
14. A CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE MUST BE PRESENT DURING ALL FLUSHING, TESTING AND ADJUSTING. THE CONTRACTOR MUST PROVIDE 24 HRS NOTICE TO THE CITY OF EL PASO PARKS AND RECREATION DEPT. PRIOR TO CONDUCTING THE TESTS. FLUSHING AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PARKS AND RECREATION DEPARTMENT DESIGN AND CONSTRUCTION STANDARDS.
15. THE FINISH GRADE OF ALL TRENCHED AREAS SHALL BE SMOOTH EVEN AND CONSISTENT, FREE OF ANY HUMP, DEPRESSIONS OR OTHER GRADING IRREGULARITIES. OVERFILL TRENCHES AND COMPACT SO NOT TO CRUSH THE PIPE. PRIOR TO SODDING INSPECT TRENCHES FOR SETTILING AND BACKFILL AND REGRADE IF NECESSARY. DO NOT LAY SOD UNTIL TRENCHES ARE ACCEPTABLE.
16. THE CONTRACTOR SHALL FINE TUNE AND ADJUST THE IRRIGATION SYSTEM SO THAT NO WATER WILL RUN ONTO THE STREET OR WALKS
17. THE CONTRACTOR SHALL PROVIDE A WATER AUDIT CONDUCTED IN THE PRESENCE OF THE CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE.
18. THE CONTRACTOR SHALL MAINTAIN ALL WORK UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
19. WATERING TIME: TO SET TURF STATIONS  
SEE TURF IRRIGATION SYSTEM DESIGN CRITERIA. SET PER LOCAL WATERING CODES.
20. WARRANTY PERIOD IS ONE YEAR FROM DATE OF ACCEPTANCE.

**PLANTING NOTES**

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS FROM FALLING OR BEING BLOWN OVER AND TO STRAIGHTEN OR REPLANT ALL PLANTS WHICH ARE DAMAGED DUE TO WIND. PLANTS BLOWN OVER BY HIGH WINDS SHALL NOT BE A CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR.
2. TOPSOIL MATERIAL FOR PLANTING SHALL BE FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, STONES LARGER THAN 1" IN DIAMETER, NOXIOUS WEEDS AND PLANTS, SOD, PARTIALLY DISINTEGRATED DEBRIS INSECTS OR ANY OTHER UNDESIRABLE MATERIAL. PLANTS OR SEEDS THAT HOLD BE TOXIC OR HARMFUL TO GROWTH.
3. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF PLANT MATERIAL QUANTITIES.
4. IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. IMPROPER PLANT COUNT MADE BY THE LANDSCAPE CONTRACTOR SHALL BE NO CAUSE FOR ADDITIONAL COSTS TO THE OWNER.
5. THE CONTRACTOR SHALL MEET BOTH THE CONTAINER SIZE AND CALIPER SIZE, AS WELL AS HEIGHT AND SPREAD SPECIFICATIONS.
6. EXCAVATE TWO TIMES GREATER THAN THE ROOT BALL-DIAMETER OF SHRUBS AND ROOT BALLS OF TREES. SCARIFY THE BOTTOM OF PLANTING PIT BEFORE PLACING PLANT. PLACEMENT OF PLANT SHALL BE PERPENDICULAR TO GROUND/VERTICAL WITHOUT LEANING.
7. REMOVE ALL WIRE, STRINGS, WIRE BASKETS, BURLAP, CONTAINERS, ETC., FROM THE ROOT BALL OF PLANTS BEFORE BACKFILLING THE PLANTING HOLE.
8. CONTRACTOR WILL NOT PLANT MATERIAL SHOWN ON PLANS WHEN IT IS EVIDENT THAT FIELD CONDITIONS HAVE CHANGED SINCE PLANS WERE DRAWN OR IF OTHER CONFLICTS ARE EVIDENT. ANY CHANGES ARE TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PLANTING IS DONE IN THE AREA.
9. PLANT SUBSTITUTIONS WILL BE PERMITTED DUE TO AVAILABILITY ISSUES NOT PRICE. REQUEST SUBSTITUTION IN WRITING GIVING REASON FOR SUCH SUBSTITUTIONS.
10. TURF QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
11. TREAT ALL PLANTING AREAS WITH AN APPLICATION OF SURFLAN. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION.
12. SEEDED AREAS SHOULD BE MAINTAINED UNTIL A FULL GROWTH OF MILD GRASS OR SEEDING MATERIAL IS ACHIEVED.
13. WARRANTY FOR THE PLANTING MATERIAL SHALL BE ONE YEAR FROM THE DATE OF ACCEPTANCE. (TREES, SHRUBS AND GROUND COVER).

**UNSUITABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS**

DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCOLATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH; COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.

ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BY SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING AS PER PARK'S DESIGN & CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED ON 01/08/2013.

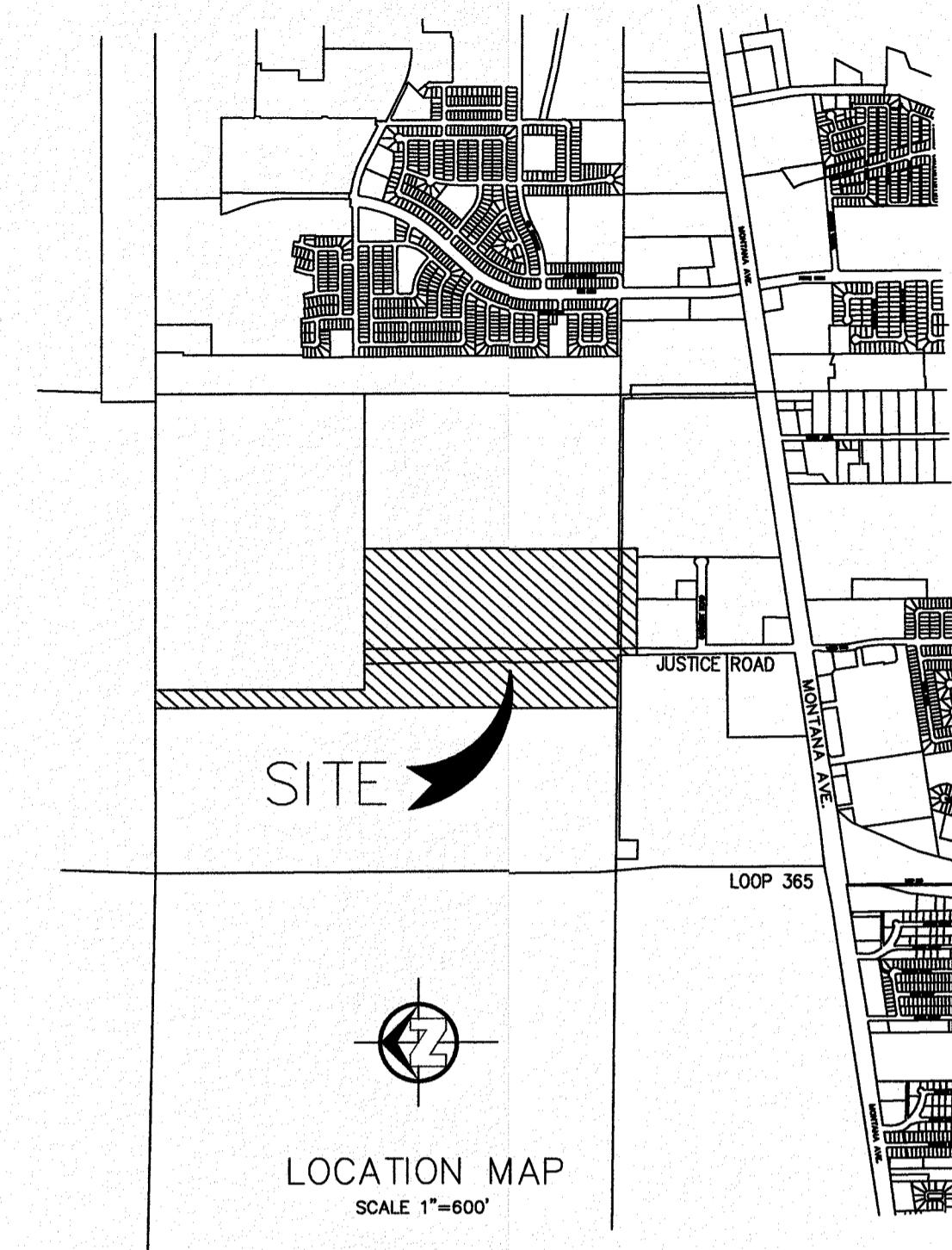
ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DESIGNEE ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH #10 TOP SOIL / SANDY LOAM MATERIAL (BLEND OF 40% SAND, 40% SILT, & 20% CLAY - CAPABLE OF HOLDING MOISTURE) TO INCLUDE ORGANIC MATTER / NUTRIENTS TO A MINIMUM DEPTH OF 12 INCHES.

**PARKS DEPARTMENT**  
REVIEWED BY *Clayton Cole for 10/25/13*

PROJECT MUST BE COORDINATED WITH TDLR TO INSURE COMPLIANCE WITH TAS REQUIREMENTS TO INCLUDE INSPECTION AND CERTIFICATE OF SUBSTANTIAL COMPLETION.

**WATER AUDIT**

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
2. AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
3. WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.



TREES AND OTHER PLANTS DELIVERED TO THE SITE SHALL BE COVERED WITH CANVAS TARP DURING TRANSPORT. PLASTIC TARPS ARE PROHIBITED. TRANSPORT IN ENCLOSED VAN IS ACCEPTABLE BUT PLANTS MUST BE UNLOADED IMMEDIATELY UPON ARRIVAL AT SITE.

DO NOT LIFT TREES BY THE TRUNK. LIFT BY CONTAINER.

**SHEET INDEX**

L1	SITE MAP, SHEET INDEX, NOTES
L2	4 ACRE PARK PLANTING AND MATERIALS PLAN
L3	4 ACRE PARK IRRIGATION - SPRAY PATTERN
L4	4 ACRE PARK IRRIGATION - PIPE SIZING
L5	4 ACRE PARK PLAYGROUND LAYOUT
L6	4 ACRE PARK LAYOUT
L7	1 ACRE PARK PLANTING AND MATERIALS PLAN
L8	1 ACRE PARK IRRIGATION - SPRAY AND PIPE SIZING
L9	1 ACRE PARK PLAYGROUND LAYOUT
L10	1 ACRE PARK LAYOUT
L11	CONSTRUCTION DETAILS
L12	CONSTRUCTION DETAILS
L13	IRRIGATION DETAILS
L14	IRRIGATION DETAILS
L15	IRRIGATION DETAILS

**Final Approval**

DATE REFERENCES - BENCHMARKS

LISA MC NELLIS  
LANDSCAPE ARCHITECT  
1900 FOXBORO  
LAS CRUCES, NEW MEXICO 88007  
(505) 621-9092

ARCHITECT'S SEAL

SCALE

PROJECT TITLE

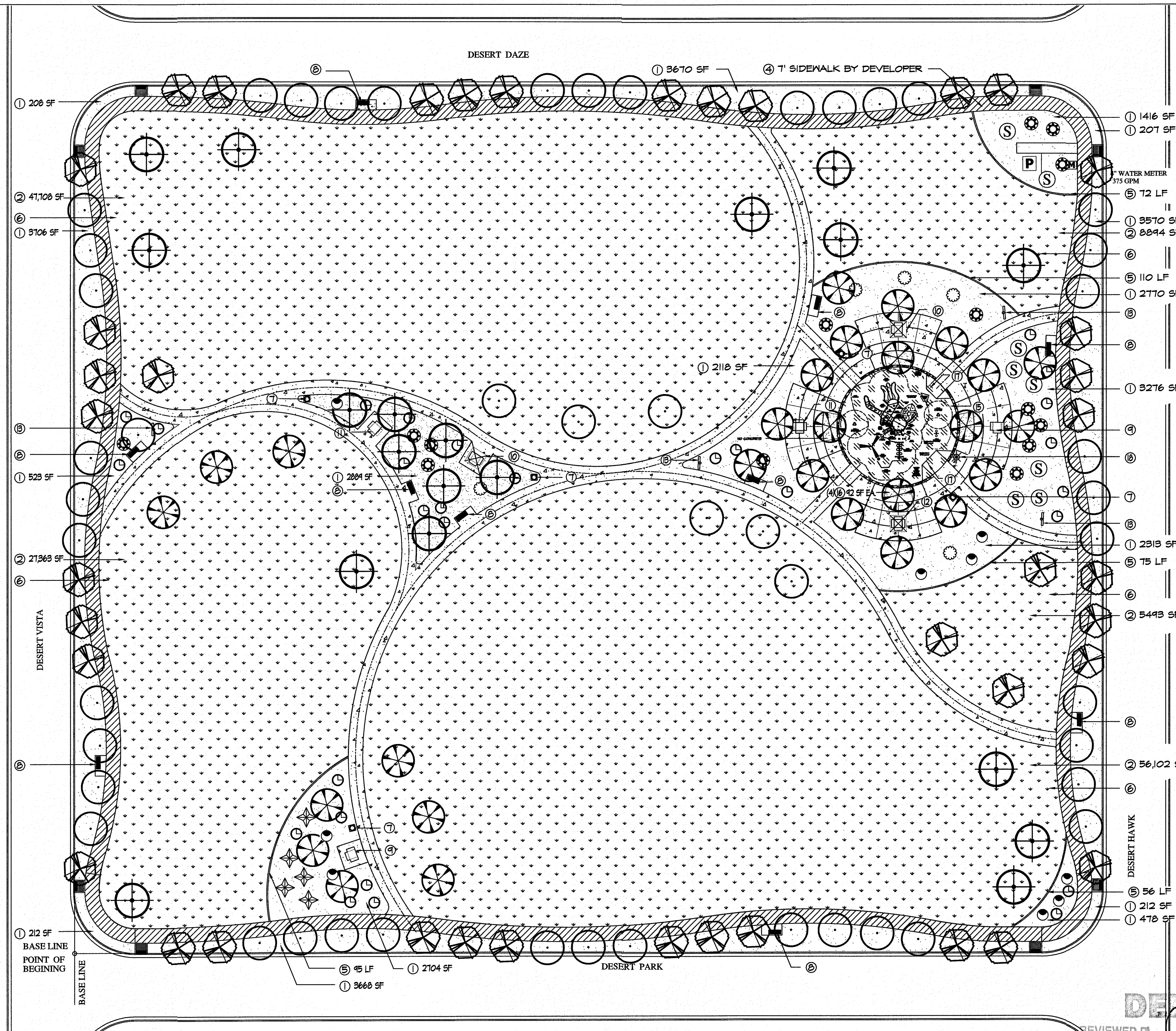
DESERT SANDS PARK & DESERT BREEZE PARK PARK IMPROVEMENTS

SHEET TITLE

INDEX AND NOTES

SHEET 1 OF 15





**PARK MATERIAL LEGEND AND DETAIL KEY:**

- FRANKLIN RED GRAVEL CRUSHER FINES 3" DEPTH 2" BELOW ALL CONCRETE SURFACES. USE MEEP BARRIER. PROJECT TOTAL [5649 SF] SEE DETAIL (C) ON SHEET L11.
- SANTA ANA BERRUDA GRASS PROJECT TOTAL [45560 SF] TOP OF SOD 2" BELOW TOP OF SIDEWALK AND CONCRETE HEADER CURB. SEE DETAIL (D) ON SHEET L11.
- 7'-0" PARK CONCRETE WALKWAY, PATIO, BENCH & TABLE PADS. PROJECT TOTAL [3460 SF] SEE DETAIL (E) ON SHEET L11.
- SUBDIVISION 7'-0" CONCRETE WALKWAY BY DEVELOPER.
- 6"X12" CONCRETE HEADER CURB. PROJECT TOTAL [336' LF] SEE DETAIL (E) ON SHEET L11.
- 6'-0" RECESSED AREA FOR WATER HARVESTING PARKS AND RECREATION REPRESENTATIVE MUST APPROVE GRADING PRIOR TO INSTALLING SOD OR GRAVEL.
- DUMOR TRASH RECEPTACLE 84-32-RC PROJECT TOTAL [5] BLUE - INSTALL PER MANUFACTURER'S RECOMMENDATIONS SEE DETAIL (H) ON SHEET L11.
- 6'-0" DUMOR 54 SERIES BENCH-IN GROUND MOUNT. TOTAL - [10] FOREST GREEN. INSTALL PER MANUF. RECOMMENDATIONS FOR ADA BENCH SEE DETAIL (I) ON SHEET L12.
- ACCESSIBLE PICNIC TABLE - PROJECT TOTAL [2] DUMOR 448-48. MATCH COLORS TO PLAYGROUND. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (J) ON SHEET L12.
- SHADED ACCESSIBLE PICNIC TABLE - PROJECT TOTAL [2] GR5 HAWAIIAN 8X8 COVERED TABLE. 3 SEATS. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (K) ON SHEET L12.
- PICNIC TABLE - PROJECT TOTAL [2] DUMOR 448-48. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (L) ON SHEET L12.
- SHADED PICNIC TABLE - PROJECT TOTAL [1] GR5 HAWAIIAN 8X8 COVERED TABLE. 4 SEATS. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (M) ON SHEET L12.
- PARK INFORMATION SIGN - LOCATION SHALL BE APPROVED BY PARKS DEPT REPRESENTATIVE. SEE DETAIL (N) ON SHEET L12.
- ENGINEERED FIBER WOOD CHIPS. INSTALL PER MANUFACTURER'S SPECIFICATIONS. PROJECT TOTAL [2640 SF] PLACE 18" DEPTH OF CHIPS AND COMPACT TO 12" DEPTH.
- 18" HT. ROCK WALL. PROJECT TOTAL [86' LF] SEE DETAIL (O) ON SHEET L12.
- T X 19' PLANTING SPACE IN FRANKLIN RED CRUSHER FINES. REFER TO PLAYGROUND PLAN FOR LOCATION.
- ADA ACCESSIBLE PLAYGROUND RAMP. RAMP VARY IN LENGTH. SEE DETAIL (P) ON SHEET L12.
- AERIAL LIGHTING - 30' HIGH PRE-STRESSED CONCRETE DIRECT BURY POLE. LED FIXTURES AND LAMPS. MUST COMPLY WITH CITY OF EL PASO MUNICIPAL CODE FOR OUTDOOR LIGHTING SECTION 10.10 SEE ENGINEER'S ILLUMINATION PLAN.
- PLAY STRUCTURE - PLAYBOOSTER DESIGN #1222408 COLORS - TANGERINE, PLUM, LIMON, LIMON COLOR PALATTE. MUST BE APPROVED BY PARKS PRIOR TO ORDERING. SEE SHEET L5 FOR MORE INFORMATION.

PLANS MUST BE SUBMITTED TO TEXAS DEPT OF LICENSING AND REGULATION FOR COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS. #EABPRJB0824528

**PLAN VIEW - PLANTING AND MATERIALS**  
SCALE: 1" = 30' - 0"

- PARK SITE NOTES**
- NO SIGNS, FIRE HYDRANTS, LIGHTS, NOCEBUS, ELECTRICAL/WATER BOXES, TELEPHONE PEDESTALS, NO OBSTRUCTIONS IN GENERAL. SHALL BE PLACED INTO PROPOSED PERIMETER SIDEWALK, NOR SHALL ANY UTILITY CONDUITS BE PLACED ALONG THE PARK SITE. - ANY UTILITIES WITHIN THE PARKWAY MUST BE BURIED WITH 5'-0" MINIMUM COVER. IF PLACED BENEATH THE PROPOSED SIDEWALK STANDARD BURIAL DEPTHS APPLY.
  - DEVELOPER SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GRADE) AND PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, MINERAL AVAILABILITY, WATER INFILTRATION, AND DETAILED SALINITY AND PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOIL AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.
  - ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIATED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES. HARD PAN CALICHE, CLAY SOILS AND ROCKY SOILS MUST BE SHATTERED IN TWO DIRECTIONS TO A DEPTH OF 36" BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING, AS PER PARKS DESIGN AND CONSTRUCTION STANDARDS.
  - ALL PARK IMPROVEMENTS (SIDEWALKS, RAMP, ETC) AND PAVED HIKE/BIKE TRAILS (IF APPLICABLE) ARE TO BE COMPLIANT WITH REQUIRED ACCESSIBILITY CRITERIA AS SET FORTH IN ADAAS & TAS STANDARDS AS MANDATED BY FEDERAL AND STATE GOVERNMENTS.

**UNSUITABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS**

DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GRADE) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCOLATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOIL AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.

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ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DESIGNEE ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH @TOP SOILS / SANDY LOAM MATERIAL (BLEND OF 40% SAND, 40% SILT, & 20% CLAY - CAPABLE OF HOLDING MOISTURE) TO INCLUDE ORGANIC MATTER / NUTRIENTS TO A MINIMUM DEPTH OF 12 INCHES.

**PARKS DEPARTMENT**  
REVIEWED BY *Chapman del...* 10/25/18

**TREE NOTES:**  
MINIMUM BRANCHING CLEARANCE IS 7' OVER SIDEWALK  
DO NOT SELECT TREES WITH LOW FORK BRANCHING PATTERN. PRUNING TO MEET CLEARANCE REQUIREMENTS WILL DESTROY FORM OF TREES WITH THAT GROWTH HABIT.  
MINIMUM HEIGHT 10'. CALIPER IS MEASURED AT 6" ABOVE TOP ROOT.

**TREE LEGEND/SCHEDULE PROJECT TOTAL**

SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
LET		LACEBARK ELM	ULMUS PARVIFOLIA	24" BOX	2' CAL-10HT-6' SPREAD	40	SINGLE-FULL
GPT		CHINESE PISTACHE	PISTACIA CHINENSIS	24" BOX	2' CAL-10HT-6' SPREAD	48	SINGLE TRUNK-FULL
RAT		RAYWOOD ASH	FRAXINUS OXYCARPA	24" BOX	2' CAL-10HT-6' SPREAD	21	SINGLE TRUNK-FULL
CET		CEDAR ELM	ULMUS CRASSIFOLIA	24" BOX	2' CAL-10HT-6' SPREAD	19	SINGLE TRUNK - FULL

QUANTITIES ARE PROJECT TOTALS - VERIFY! PLANS TAKE PRECEDENCE

**PLANT LEGEND/SCHEDULE**

SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	MIN SPACING	QUANT.	SIZE	REMARKS
CS		CIMARRON SAGE-BLUE RANGER	LEUCOPHYLLUM ZYGOPHYLLUM CIMARRON	5 GAL	4'	6	18" HT	OO
SE		SILVER CASSIA	SENNA ARTEMISOIDES	5 GAL	6'	8	4' HT	OO
LA		'NEM GOLD' LANTANA	LANTANA CAMERA 'NEM GOLD'	5 GAL	3'	26	12" HT	OO
PP		PINK PARADE HESPERALOE	HESPERALOE FUNIFERA X PARVIFLORA	5 GAL	5'	5	18" HT	
YB		YELLOW BELLS	TEGOMA STANS VAR. ANGSTATA	5 GAL	6'	5	18" HT	
TB		TURPENTINE BUSH	ERICAMERIA LARIGIFOLIA	5 GAL	4'	14	15" HT	
		SANTA ANA	G.DACTYLON X TRANSVAALENSIS	SOD		146,038 SF		LAY SOD SO THAT NO LINES ARE VISIBLE TYPICAL IT MAY BE USED AS ALTERNATE

REVISIONS

DATE

ARCHITECT'S SEAL

**LISA MCNEELIS**  
LANDSCAPE ARCHITECT  
1900 FOXBORO  
LAS CRUCES, NEW MEXICO 88007  
(505) 621-5052

10/11/18

SCALE

Horizontal: Vertical: Contour Interval: N/A

DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPVD. BY: LM  
JOB No.

PROJECT TITLE

**DESERT SANDS PARK**  
12325 DESERT HAWK AVE.  
LOT 1, BLOCK 18  
DESERT SANDS SUBDIVISION  
CITY OF EL PASO, EL PASO, TEXAS 79938  
AREA: 193,953.86 SQ.F.T. - 4.44 ACRES

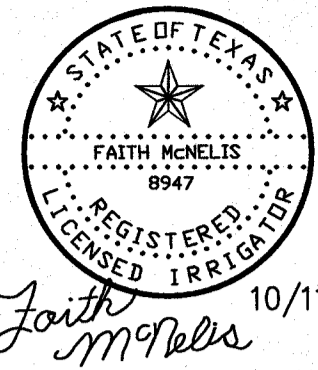
**DESERT SANDS PARK**

SHEET TITLE

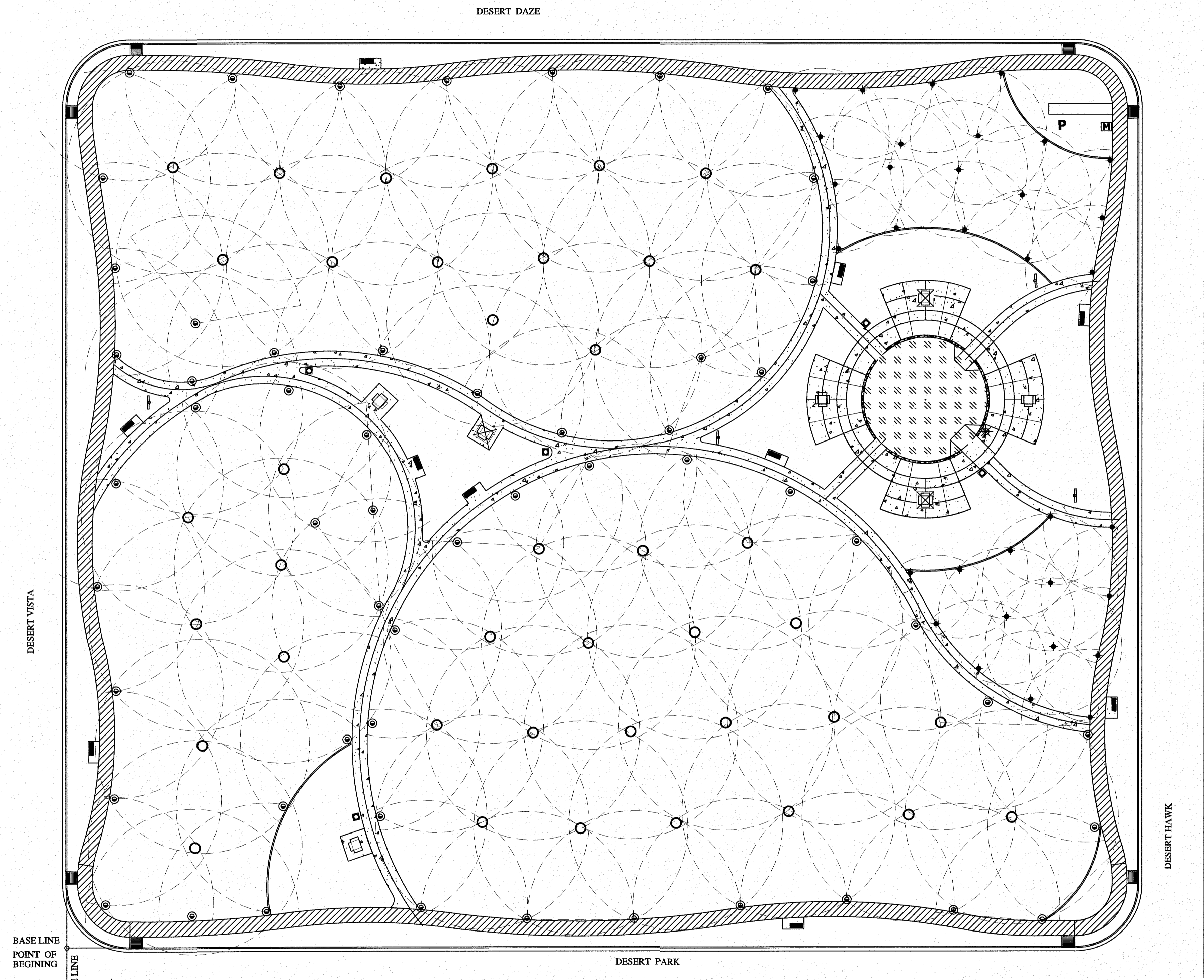
**L2**

4 AC. PARK PLANTING AND MATERIALS

SHEET 2 OF 15



IRRIGATION IS REGULATED BY:  
 PO BOX 13087  
 AUSTIN, TEXAS 78711-3087  
 TCEQ 512-239-6719  
 CHAPTER 34, TEXAS WATER CODE  
 IRRIGATOR'S LIC. #8947



PLAN VIEW - IRRIGATION PIPE SIZING  
 SCALE: 1" = 30'-0"

**WATER AUDIT**

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
- AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
- WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.

**PARKS DEPARTMENT**  
 REVIEWED BY: *Cheryl Williams* 10/25/18

**TURF IRRIGATION SYSTEM DESIGN CRITERIA**

**WATER SOURCE**

- WATER MUST BE DELIVERED TO THE SITE AT SUFFICIENT PRESSURE AND FLOW TO PROVIDE MAXIMUM PERFORMANCE AS SHOWN BELOW.
  - PRESSURE REQUIREMENT** - 66 PSI STATIC PRESSURE UPSTREAM OF METER AT FIELD LOCATION AND ELEVATION
  - PUMP WILL PROVIDE UP TO 37 PSI STATIC PRESSURE BOOST.
  - 50 PSI AT BASE OF ROTOR HEAD
- FLOW REQUIREMENT FOR ROTOR STATIONS** - 361.8 GPM MAXIMUM FLOW RATE

(DIFFERENCES IN AVAILABLE FLOW AND OR PRESSURE WILL REQUIRE DESIGN CHANGES) CONTRACTOR MUST VERIFY

- PROPOSED 6" WATER SERVICE LINE, PROPOSED 4" WATER METER**
  - HEAD LAY-OUT**
    - HEAD AND LATERAL SPACING WILL VARY WITH DIMENSIONS OF TURF. ADJUSTED SPACINGS WILL BE NECESSARY. HEAD SHALL BE SET BACK FROM PAVING TO PREVENT SPRAY ONTO SIDEWALKS.
    - ROTOR HEAD LAY-OUT AND SPACING IS BASED ON TRIANGULAR LAYOUT. RADIUS OF THE HUNTER 1-25 NOZZLE #15 @ 50 PSI IS 36. 36X24=864" FOR HEAD SPACING. 50" X 866" = 43320" FOR TRIANGULAR LAYOUT ROW SPACING. ADJUSTED SPACING IS SHOWN AT EDGES OF TURF AND CONCRETE EDGING IN GENERAL. HEAD SPACING IS AS FOLLOWS:
 

MAXIMUM HEAD SPACING = 50', LATERAL SPACING = 43'	GALLONS PER MINUTE FLOW - 13.4
---	--------------------------------
    - ROTOR HEAD LAY-OUT AND SPACING IS BASED ON TRIANGULAR LAYOUT. RADIUS OF THE 1-20 WITH MPR - 95 NOZZLE @ 45 PSI IS 35. 35X24=840" FOR HEAD SPACING. 32" X 866" = 27712" FOR TRIANGULAR LAYOUT ROW SPACING. ADJUSTED SPACING IS SHOWN AT EDGES OF TURF AND CONCRETE EDGING IN GENERAL. HEAD SPACING IS AS FOLLOWS:
 

MAXIMUM HEAD SPACING = 32', LATERAL SPACING = 28'	GALLONS PER MINUTE FLOW - VARIES
---	----------------------------------

**PERFORMANCE STATISTICS**

- THE FOLLOWING PERFORMANCE STATISTICS WERE CALCULATED BASED ON INFORMATION SHOWN ON THIS PLAN. CHANGES IN OPERATING PRESSURE, HEAD SPACING AND OR NOZZLE SELECTION WILL EFFECT RESULTS.
 

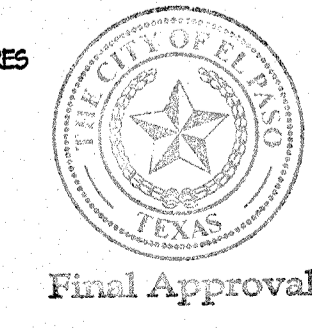
<b>VALVES #1 AND #2 MPR HEADS TOTAL AREA METHOD</b>	
$\frac{16.66 \times 96.3}{8944} = 1382.36$	83 1/2 HR
$\frac{1382.36}{1.45} = 953.35$	81 MIN
<b>VALVES #3, #6, #8, #13, AND #14</b>	
$\frac{13.4 \times 96.3}{2150} = 1290.42$	6 1/2 HR FULL HEADS
$\frac{1290.42}{2.150} = 600.20$	2 HR 120 MIN
<b>VALVE #4, #7, #10, #11, AND #17</b>	
$\frac{13.4 \times 96.3}{2150} = 1290.42$	6 x 2 = 12 1/2 HR PART HEADS
$\frac{1290.42}{1.18} = 1093.58$	1 HR 60 MIN
<b>VALVE #15 AND #16 MPR HEADS TOTAL AREA METHOD</b>	
$\frac{53.76 \times 96.25}{5443} = 5174.4$	94 1/2 HR
$\frac{5174.4}{5443} = 950.82$	128 HR 11 MIN

**DRIP IRRIGATION SYSTEM DESIGN CRITERIA**

VALVES #5, 12 AND 18 - 64.8 GPM PER TREE - 21 GPM SHRUBS AND 60 PLANTS - 1.2 GPM PER - 0.38 GPM AT 240 MINUTES PER WEEK CONTROLLER SETTING.

**IRRIGATION NOTES**

- IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMPLISHING FULL COVERAGE IN ALL AREAS WITH SPECIFIED EQUIPMENT. ANY DISCREPANCIES IN THE PLAN SHOULD BE BROUGHT TO THE PROJECT MANAGER'S ATTENTION DURING CONSTRUCTION.
- ALL FITTINGS AND NECESSARY EQUIPMENT REQUIRED TO MAKE THIS IRRIGATION SYSTEM OPERATE PROPERLY AND TO COMPLY WITH LOCAL AND STATE CODES ARE INCIDENTAL TO THESE PLANS AND ARE THE CONTRACTOR'S RESPONSIBILITY.
- CONTRACTOR WILL BE HELD LIABLE FOR GAINING ACCESS UNDER ALL PAVEMENTS.
- SLEEVES SHOWN ON THE PLANS SHOULD BE VERIFIED FOR ACCESSIBILITY AND FEASIBILITY BEFORE BID IS MADE.
- THE CONTRACTOR SHALL LOCATE AND VERIFY EACH WATER TAP TO WHICH THE IRRIGATION SYSTEM WILL CONNECT. ALL EQUIPMENT AND INSTALLATION METHODS SHALL COMPLY WITH THE STANDARDS OF THE CITY OF EL PASO AND THE SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS AND VALVES REQUIRED FOR THE FULL IMPLEMENTATION OF THE SYSTEM.
- THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO INITIATING WORK.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR INTERRUPTION IN SERVICE CAUSED BY HIS EXCAVATIONS AND/OR WORK.
- EACH CONTROLLER WILL HAVE AN INDEPENDENT COMMON WIRE LOOPED TO THE VALVES CONNECTED TO IT.
- REMOTE CONTROL VALVE WIRES ARE TO BE IN A SEPARATE TRENCH 5' FROM MAIN LINE ON NORTH OR WEST SIDE OF MAINLINE.
- ALL REMOTE CONTROL VALVE WIRES NEED TO BE LABELED AT VALVE W/ WEATHER (WATER) PROOF LABELS AND AT CONTROLLER WITH CORRESPONDING LABEL. (LETTER AND/OR NUMBER TAGS IN SEQUENTIAL ORDER WILL BE PROVIDED).
- SPLICING OF REMOTE CONTROL VALVE WIRES IS NOT ALLOWED BETWEEN CONTROLLER & VALVE BOX FOR WIRES MUST BE CONTINUOUS FROM CONTROLLER TO REMOTE CONTROL VALVE WITHOUT SPLICING.
- ALL ROTOR SPRINKLER HEADS SHALL BE ON STAINLESS STEEL RISERS WITH CHECK VALVE.
- CONTRACTOR SHALL PROVIDE SLEEVES FOR NEW IRRIGATION LINES CROSSING UNDER CONCRETE SIDEWALKS. SLEEVES SHALL BE 2 TIMES THE PIPE SIZE EXTENDED 24" BEYOND EDGE OF SURFACE, BE WRAPPED WITH MINIMUM 4 MIL PLASTIC AND TAPED WITH 3M BRAND HEAVY DUTY PLASTIC.



REVISIONS

DATE

ARCHITECT'S SEAL

ARCHITECT'S SEAL

SCALE

Horizontal: 1" = 100'

Vertical: 1" = 10'

Contour Interval: N/A

DESIGN BY: LM

DRAWN BY: LM

CHKD. BY: LM

APPVD. BY: LM

JOB NO.

PROJECT TITLE

**DESERT SANDS PARK**

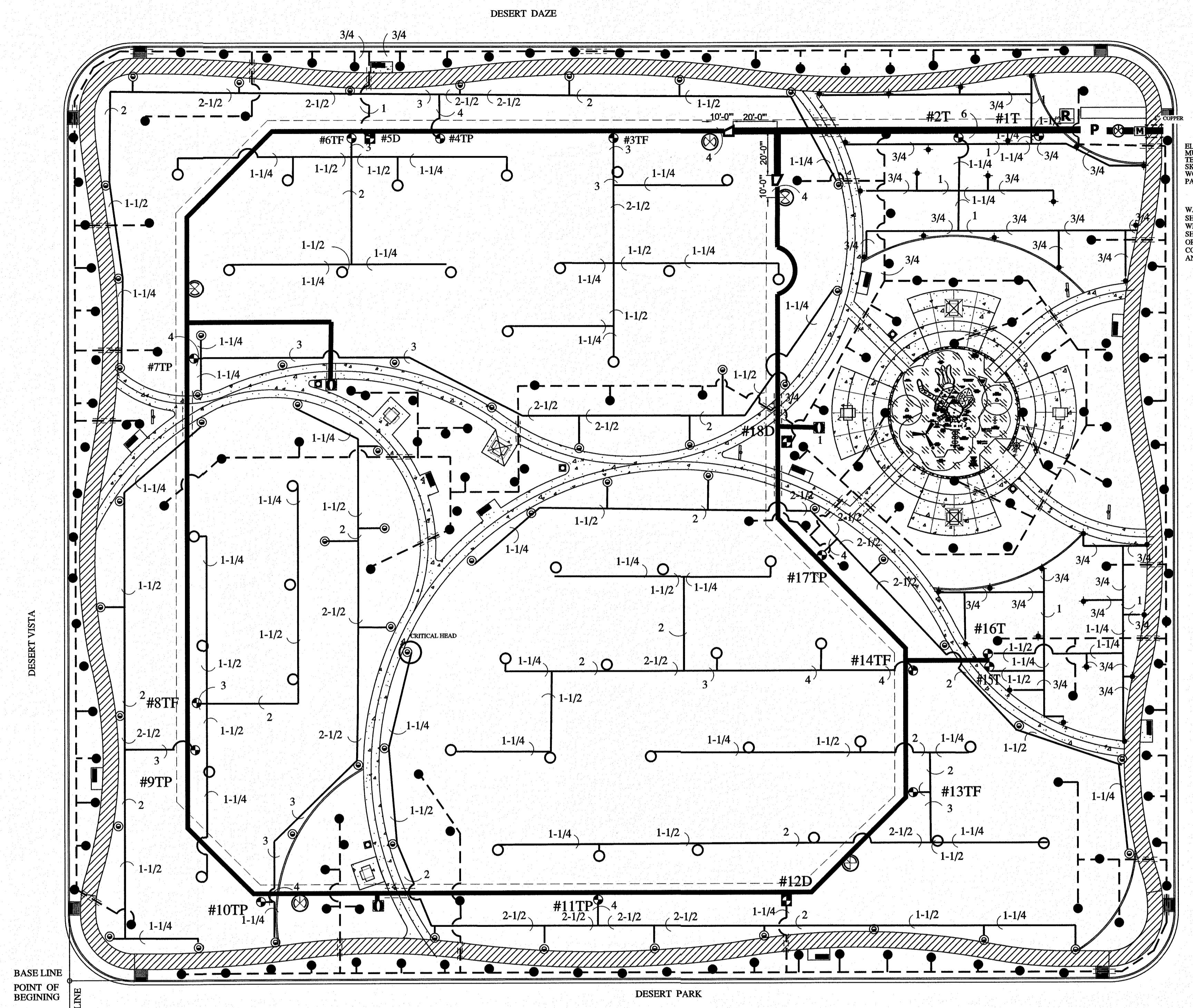
12325 DESERT HAWK AVE.  
 LOT 1, BLOCK 18  
 DESERT SANDS SUBDIVISION  
 CITY OF EL PASO, EL PASO, TEXAS 79938  
 AREA: 193,963.86 SQ.FT. - 4.44 ACRES

SHEET TITLE

**L3**

4 AC. PARK IRRIGATION

SHEET 3 OF 15



VALVE NUMBER AND FILLUP OR PART(T) TURF (T) #1F 1" VALVE SIZE  
 GALLONS PER MINUTE ON THIS VALVE 107 8 NUMBER OF HEADS ON THIS VALVE

- MATERIAL LEGEND AND DETAIL KEY:**
- 6" PRESSURE MAIN PVC SCHEDULE 40, DEPTH 18" TO TOP OF PIPE. SEE DETAIL (1) ON L13.
  - 4" PRESSURE MAIN PVC SCHEDULE 40, DEPTH 18" TO TOP OF PIPE. SEE DETAIL (1) ON L13.
  - LATERAL PVC CLASS 200, DEPTH 12" TO TOP OF PIPE. SEE DETAIL (1) ON L13.
  - DRIP LATERAL PVC CLASS 200, DEPTH 12" TO TOP OF PIPE. SEE DETAIL (1) ON L13.
  - SCH 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. SLEEVES SHALL EXTEND 12" PAST PAVING. CHISEL 1" MARK IN CONCRETE CURB OR WALK TO LOCATE SLEEVE AT EACH SIDE. SIZE 2X DIA. OF PIPE TO BE SLEEVED. SEE #10 UNDER GENERAL IRRIGATION NOTES ON L1.
  - CONCENTRIC REDUCER - SET 20' FROM JUNCTION IN LOOPED MAIN.
  - FIELD WIRING SHALL BE IN A SEPARATE TRENCH 5' OFFSET FROM MAIN LINE ON NORTH AND WEST SIDE.
  - HANTER I-25-06-55 #15 GRAY FULL CIRCLE NOZZLE. USE LASCO SWING JOINTS. 50 PSI-54 GPM -56" RADIUS. SEE DETAIL (1) ON L13.
  - HANTER I-25-06-55 #15 GRAY PART CIRCLE NOZZLE - ADJUSTABLE ARC. USE LASCO SWING JOINTS. 50 PSI-54 GPM -56" RADIUS. SEE DETAIL (1) ON L13.
  - HANTER I-20-06-55 MPR-35 NOZZLE. USE LASCO SWING JOINTS. 45 PSI- 6PM VARY -35" RADIUS. SEE DETAIL (1) ON L13.
  - DRIP EMITTER FOR TREES: RAINBIRD XER-BIRD XBD-80 WITH FILTER. USE 8 X8-20PC EMITTERS PER TREE. 21 GPM LOCATE 3' AWAY ON WEST OR SOUTH SIDE OF TREE. SET IN EMITTER VALVE BOX. SEE DETAILS (2) AND (3) ON L13.
  - DRIP EMITTER FOR PLANTS: RAINBIRD XER-BIRD XBD-80 WITH FILTER. USE 18X-20PC EMITTER PER PLANT. DO NOT EXCEED 20" OF MICRO TUBE. PLACE EMITTER ON UPHILL SIDE OF PLANT. SET IN EMITTER VALVE BOX. SEE DETAIL (2) ON L13.
  - ELECTRIC REMOTE VALVE: HEATHERMATIC 8200CR-10 WITH XPR OPTION AND CUT-OFF BALL VALVE. SIZE ON PLAN. SEE DETAIL (4) (5) AND (6) ON L14.
  - ELECTRIC REMOTE VALVE FOR DRIP: HEATHERMATIC 8200CR-10 WITH XPR OPTION AND CUT-OFF BALL VALVE. SIZE ON PLAN. SEE DETAIL (4) ON L13 AND (1) ON L14.
  - ISOLATION GATE VALVE IN LOCKING VALVE BOX. USE STANDARD VALVE BOX DETAILS. MUST BE LOCATED 10' FROM CONCENTRIC REDUCER ON 4" PIPE. ELSEWHERE AS SHOWN ON PLANS. SEE DETAIL (3) ON L13.
  - BUCKNER 1" QUICK COUPLER - DOUBLE LUG WITH LASCO SNAP LOK WITH HALF BRASS STABILIZER ELBOW WITH CUT OFF. TO BE SET IN 12"x4" LOCKING VALVE BOX. SEE DETAIL (2) ON L14.
  - 4" METER. LOCATION ON THIS PLAN IS APPROXIMATE. FLOW: 575 GPM. DO NOT SET IN SIDEWALK.
  - BACKFLOW PREVENTION DEVICE: FEBCO MODEL 860 4" REDUCED PRESSURE ZONE ASSEMBLY. LOCATED IN INSULATED PUMP ENCLOSURE. WALLS R.I.B. CEILING SHALL BE INSULATED TO R.R. INSTALL TO MEET LOCAL CODES AND CITY OF EL PASO PARKS DEPT. REQUIREMENTS. SEE DETAILS (1) (2) (3) ON L13.
  - RAINBIRD ESP24 SYSTEM CONTROLLER - 24 STATION. MAXIMUM COMPATIBLE. LOCATE IN PUMP HOUSE IN WATER-TIGHT NEMA ENCLOSURE. SEE DETAILS (2) ON L14 AND (3) ON L13.
  - BERKELEY B23PMS 10 HP VARIABLE SPEED PUMP WITH 3 PHASE MOTOR. FLANGED VOLUTE CASE IN TI POSITION. CAST IRON IMPELLER. MECHANICAL SHIM SEAL. PENTAC DRIVE. BUILDING MATERIAL # 870246. VERIFY PRIOR TO ORDERING. HOUSED IN 8'x12' TUFFSHED BRAND PREMIER SERIES ENCLOSURE. INSTALL TO MEET LOCAL CODES AND CITY OF EL PASO REQUIREMENTS. LOCATION APPROVED BY CITY OF EL PASO PARKS AND REC. DEPARTMENT. SEE DETAILS (1) - (2) ON L13.
  - RAIN SENSOR - RAINBIRD RSD-BEX MOUNTED ON POLE. SEE DETAIL (4) ON L14.
  - ALL COMPONENTS TO BE SET IN VALVE BOXES MUST CONFORM TO STANDARD INSTALLATION. SEE DETAIL (4) ON L13.

ELECTRICAL SERVICES MUST BE PROVIDED BY TEXAS LICENSED ELECTRICIAN. SKETCH/DRAWING OF PROPOSED WORK MUST BE SUBMITTED TO PARKS DEPT. OR DESIGNER.

WATER METER VAULT SHALL NOT BE INSTALLED WITHIN SIDEWALK. KNOCKOUTS SHALL BE SEALED WITH CONCRETE OR NON SHRINK MORTAR AND COPPER PIPE WRAPPED WHERE IT ENTERS AND EXISTS THE BOX.

COORDINATE THE LOCATION OF ALL EQUIPMENT WITH THE CITY OF EL PASO PARKS AND REC. DEPT.

1T 1.5"	2T 1.5"	3TF 2.5"	4TP 3"	5D 1"	6TF 2.5"	7TP 3"	8TF 2.5"	9TP 2.5"
33.64 9	43.02 10	93.8 7	147.4 11	12.42 46 E	93.8 7	134 10	93.8 7	93.8 7
10TP 2.5"	11TP 3"	12D 1"	13TF 3"	14TF 3"	15T 1.5"	16T 1.5"	17TP 3"	18D 1"
107.2 8	134 10	15.12 56	134 10	120.6 9	25.4 7	28.36 7	134 10	13.5 50

**PRESSURE LOSS CALCULATION SHEET**

1-25 #15 NOZZLE SECTIONS #8, #11, and #17 361.8 GPM

Length of Pipe (Feet)	Flow (Gal.)	Size (In.)	Pressure Loss Per 100 Ft.	Pressure Loss This Item	Accumulated Pressure Loss
class 200	43	13.4	1-1/4"	0.83	0.3569
class 200	43	26.8	1-1/2"	1.54	0.6622
class 200	46	40.2	2"	1.24	0.5704
class 200	50	53.6	2.5"	0.71	0.3550
class 200	25	67	2.5"	1.10	0.2750
class 200	10	134	4"	0.45	0.0450
Section # 11 Pressure Losses					2.2645
Pressure losses from stations #8 and #17				4.5290	6.7935
Item	Size (In.)	Pressure Loss Per 100 Ft.	Pressure Loss This Item	Accumulated Pressure Loss	
Section Valve #11	134 3		2.4000	9.1935	
Section Valve #17	134 3		2.4000	11.5935	
Section Valve #8	93.8 2.5		2.6000	14.1935	
Main SCH 40	800 180.9 4	0.83	4.9800	19.1735	
Main SCH 40	177 361.8 6	0.4	0.7080	19.8815	
Backflow			10.0000	29.8815	
Water Meter			13.0000	42.8815	
Copper Supply	65 361.8 6	0.5	0.3250	43.2065	
Total Pressure Loss to the City Main				43.2065	
Minimum Required Head Pressure				50.0000	
Static Pressure				66.0000	
Available Pressure				22.7935	
Design Pressure (max 37 psi provided by pump)				37.0000	
Actual Head Pressure				59.7935	

525' of JC Viramontes Dr and Garment Road.  
 Sta: 66 Res: 64 GPM: 888

**PRECIPITATION SCHEDULE FOR ROTOR VALVES**

VALVE #	VALVE SIZE	TOTAL GPM	HANTER PRECIP. RATE	CALCULATED PRECIP. RATE*	WATER REQUIREMENT	NOZZLE SIZE	# & TYPE OF HEADS	GPM PER HEAD	RUN TIME PER DAY
1T	1.5"	33.64	.71 IN/HR	.83 IN/HR	1.2"/DAY	MPR-35	10	VARIES	87 MIN
2T	1.5"	43.02	.71 IN/HR	.83 IN/HR	1.2"/DAY	MPR-35	10	VARIES	87 MIN
3TF	2.5"	93.8	.475 IN/HR	.6 IN/HR	1.2"/DAY	#5	1 FILL	13.4	120 MIN
4TP	3"	147.4	.45 IN/HR	1.2 IN/HR	1.2"/DAY	#5	11 PART	13.4	60 MIN
5D	1"	12.42	N/A	N/A	N/A	46 EM. DEVICE	21 PER DEVICE		240 MIN
6TF	2.5"	93.8	.475 IN/HR	.6 IN/HR	1.2"/DAY	#5	1 FILL	13.4	120 MIN
7TP	3"	134	.45 IN/HR	1.2 IN/HR	1.2"/DAY	#5	10 PART	13.4	60 MIN
8TF	2.5"	93.8	.475 IN/HR	.6 IN/HR	1.2"/DAY	#5	1 PART	13.4	120 MIN
9TP	2.5"	93.8	.45 IN/HR	1.2 IN/HR	1.2"/DAY	#5	1 PART	13.4	60 MIN
10TP	2.5"	107.2	.45 IN/HR	1.2 IN/HR	1.2"/DAY	#5	8 PART	13.4	60 MIN
11TP	3"	134	.45 IN/HR	1.2 IN/HR	1.2"/DAY	#5	10 PART	13.4	60 MIN
12D	1"	15.12	N/A	N/A	N/A	56 EM. DEVICE	21 PER DEVICE		240 MIN
13TF	3"	134	.475 IN/HR	.6 IN/HR	1.2"/DAY	#5	10 FILL	13.4	120 MIN
14TF	3"	120.6	.475 IN/HR	.6 IN/HR	1.2"/DAY	#5	4 FILL	13.4	120 MIN
15T	1.5"	25.4	.71 IN/HR	.83 IN/HR	1.2"/DAY	MPR-35	7	VARIES	77 MIN
16T	1.5"	28.36	.71 IN/HR	.83 IN/HR	1.2"/DAY	MPR-35	7	VARIES	77 MIN
17TP	3"	134	.45 IN/HR	1.2 IN/HR	1.2"/DAY	#5	10 PART	13.4	60 MIN
18D	1"	13.5	N/A	N/A	N/A	50 EM. DEVICE	21 PER DEVICE		240 MIN

**WATERING SCHEDULE**

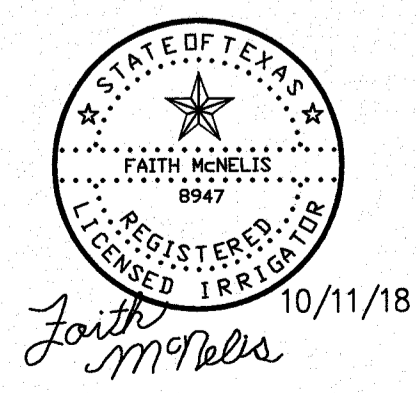
STATION #	VALVE COMBINATION	RUN TIME PER DAY	WATERING DAYS	DURATION	CLOCK START TIME
1T	X X	87 MIN	S M T W T F S	87 MIN	11:00 PM
2T	X X	87 MIN	X X X X X	87 MIN	11:00 PM
3TF	X	120 MIN	X X X X X	120 MIN	12:28 AM
4TP	X X X X	60 MIN	X X X X X	60 MIN	2:24 AM
5D	X	240 MIN	X X X X X	240 MIN	11:00 PM
6TF	X X X X	120 MIN	X X X X X	120 MIN	3:30 AM
7TP	X X X X	60 MIN	X X X X X	60 MIN	3:30 AM
8TF	X X X X	120 MIN	X X X X X	120 MIN	5:31 AM
9TP	X X X X	60 MIN	X X X X X	60 MIN	2:24 AM
10TP	X X X X	60 MIN	X X X X X	60 MIN	3:30 AM
11TP	X X X X	60 MIN	X X X X X	60 MIN	5:31 AM
12D	X	240 MIN	X X X X X	240 MIN	11:00 PM
13TF	X	120 MIN	X X X X X	120 MIN	12:28 AM
14TF	X	120 MIN	X X X X X	120 MIN	12:28 AM
15T	X X X X	77 MIN	X X X X X	77 MIN	11:00 PM
16T	X X X X	77 MIN	X X X X X	77 MIN	11:00 PM
17TP	X X X X	60 MIN	X X X X X	60 MIN	5:31 AM
18D	X	240 MIN	X X X X X	240 MIN	11:00 PM

TOTAL RUN TIME PER DAY OF OPERATION - DRIP: 240 MIN / 4 HOURS  
 TOTAL RUN TIME PER DAY OF OPERATION - ROTORS: 507 MIN / 8.45 HOURS  
 TOTAL RUN TIME PER WEEK - ROTORS: 1521 MIN / 25.35 HOURS

PLAN VIEW - IRRIGATION PIPE SIZING  
 SCALE: 1" = 30' - 0"

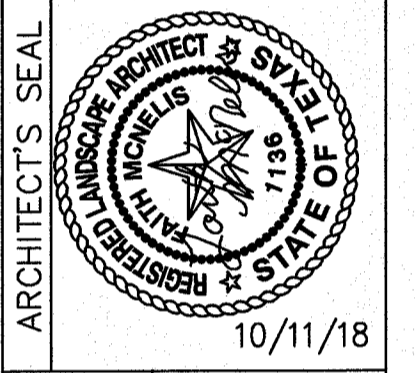
**PARKS DEPARTMENT**  
 REVIEWED BY: *Anthony del Rio* 10/25/18

IRRIGATION IS REGULATED BY:  
 PO BOX 13087  
 AUSTIN, TEXAS 78711-3087  
 TCEQ 512-239-6719  
 CHAPTER 34, TEXAS WATER CODE  
 IRRIGATOR'S LIC. #8947



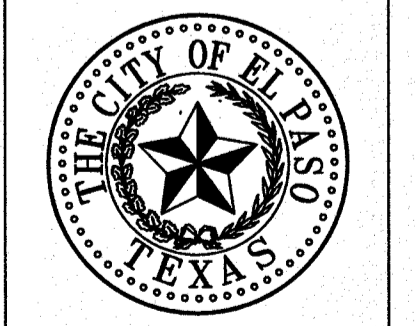
REVISIONS  
 DATE

LISA MCNELLIS  
 LANDSCAPE ARCHITECT  
 1900 FOXBORO  
 LAS CRUCES, NEW MEXICO 86007  
 (505) 621-5052

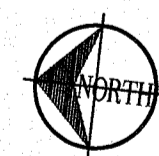
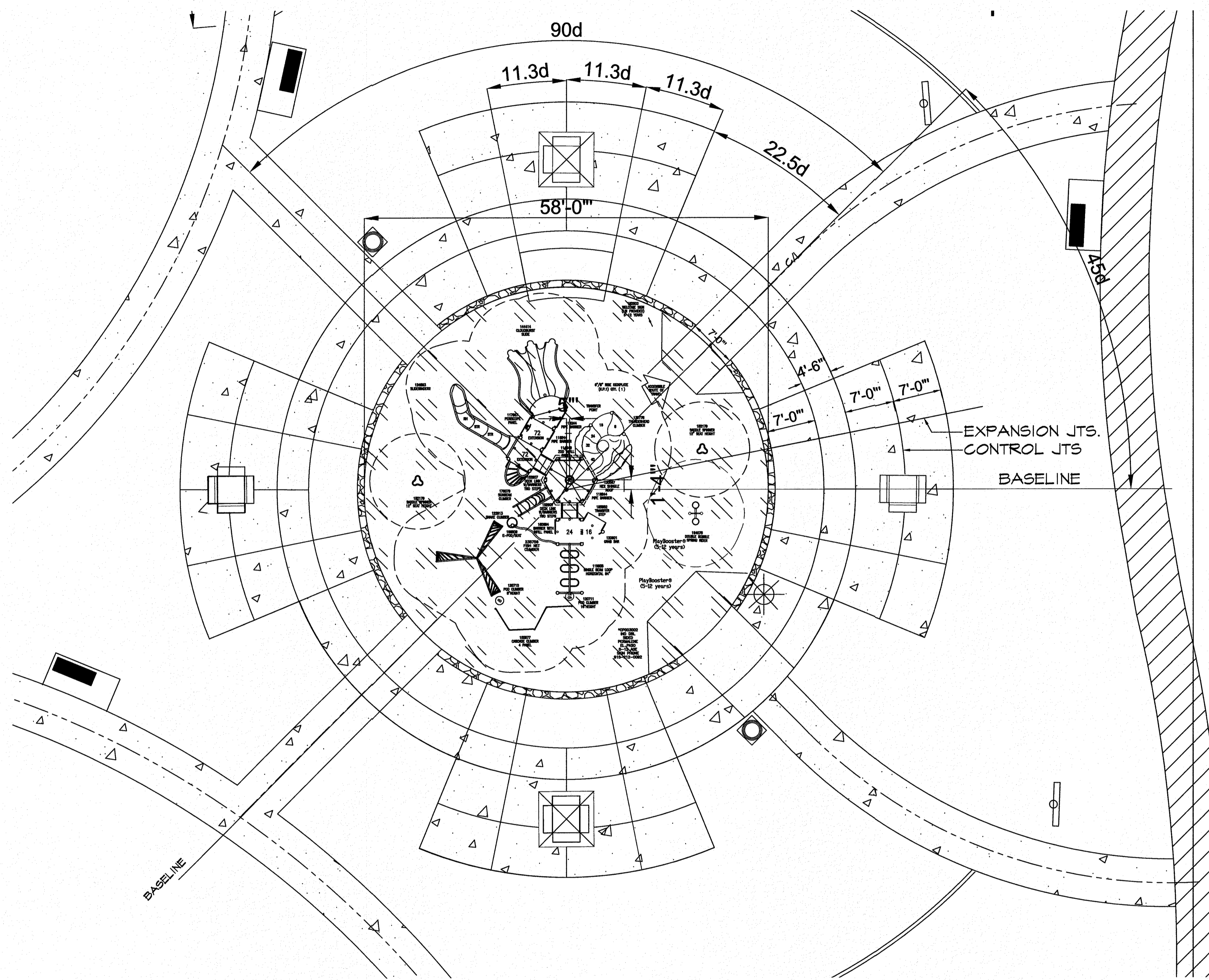


SCALE:  
 Horizontal: Contour Interval: N/A  
 DATE: DESIGN BY: LM  
 DRAWN BY: LM  
 CHKD. BY: LM  
 APPVD. BY: LM  
 JOB NO.

PROJECT TITLE  
**DESERT SANDS PARK**  
 12225 DESERT HAWK AVE.  
 LOT 1, BLOCK 18  
 DESERT SANDS SUBDIVISION  
 CITY OF EL PASO, EL PASO, TEXAS 79938  
 AREA: 193,963.86 SQ. FT. - 4.44 ACRES



SHEET TITLE  
**L4**  
 Final Approval  
 4 AC. PARK IRRIGATION  
 SHEET 4 OF 15



**PLAN VIEW - PLANTING AND MATERIALS**

SCALE: 1" = 10' - 0"

- PLAYGROUND EQUIPMENT NOTES:**
1. VERIFY LOCATION AND DIMENSIONS OF PLAYGROUND EQUIPMENT BEFORE FINAL INSTALLATION.
  2. ACTUAL CONDITIONS IN THE FIELD MAY REQUIRE ADDING OR ADJUSTING COMPONENTS OF THE PLAYGROUND EQUIPMENT TO MEET ALL CPSC, ASTM AND ADAAG REQUIREMENTS. ALL CHANGES SHALL BE REVIEWED AND ACCEPTED BY PARKS STAFF PRIOR TO THEIR EXECUTION.
  3. CONTRACTOR SHALL MEET ALL APPLICABLE ADA AND TAS REQUIREMENTS FOR ACCESS TO PLAYGROUND TO INCLUDE CONCRETE SIDEWALKS. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT RUNNING SLOPE (5%), CROSS-SECTION (4.15%) AND FINISHED SURFACE TEXTURE COMPLY WITH ACCESSIBILITY REQUIREMENTS.
  4. CONTRACTOR SHALL PROVIDE A MINIMUM FALL ZONE AS NOTED ON THE DRAWINGS FROM THE EDGE OF THE EQUIPMENT TO THE INNER FACE OF THE CONTAINMENT ROCKWALL.
  5. CONTRACTOR IS RESPONSIBLE TO INSURE THAT PLAYGROUND AREA IS FENCE-IN THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT. FENCE IS REQUIRED TO BE MINIMUM OF 6 FEET HIGH AND MAINTAINED IN A STABLE AND SECURE CONDITION.
  6. CONTRACTOR SHALL PROTECT ALL CONCRETE WORK TO AVOID VANDALISM OR DAMAGE DURING CURING TIME; ANY DAMAGE DONE TO THE CONCRETE DUE TO VANDALISM DAMAGE MUST BE RESTORED TO GOOD FINISHED QUALITY APPEARANCE.
  7. CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ANY VEGETATION TREATED AND REMOVED PRIOR TO THE EXCAVATION OF THE SITE FOR THE PLAYGROUND EQUIPMENT, CONTAINMENT ROCKWALL AND SIDEWALK.
  8. AT COMPLETION OF PROJECT INSTALLATION CONTRACTOR SHALL PROVIDE MANUFACTURER CERTIFICATION AND OBTAIN AN INDEPENDENT AGENCY TO PROVIDE A SAFETY AUDIT OF PLAYGROUND EQUIPMENT AND PLAY SURFACE.
  9. CONTRACTOR IS RESPONSIBLE TO MAINTAIN SITE CLEAN AND FREE OF CONSTRUCTION DEBRIS. DAILY CLEAN-UP OF SITE WILL BE REQUIRED TO BE PROVIDED BY CONTRACTOR, NO STOCK PILING OF CONSTRUCTION DEBRIS WILL BE PERMITTED ON SITE.
  10. CONTRACTOR IS RESPONSIBLE TO INSURE THAT CONSTRUCTION EQUIPMENT WILL NOT BE CLEANED AT THE SITE UNLESS PROPER CONTAINERS ARE PROVIDED TO STORE WASTE. THIS INCLUDES MORTAR, CONCRETE, RUBBERIZED RESILIENT SURFACING, ETC.; WASTE MATERIAL MUST BE REMOVED FROM SITE ON A DAILY BASIS.
  11. CONTRACTOR IS RESPONSIBLE TO INSURE THAT ANY CONSTRUCTION MASONRY MATERIALS THAT ARE HAND MIXED AT JOB SITE ARE DONE IN AN APPROPRIATE CONTAINER AND ANY SPILLAGE IS CLEANED AND REMOVED IMMEDIATELY.

AGE APPROPRIATE SIGNAGE MUST BE INCLUDED.

**exerPlay inc.**

**SPECIAL CERTIFIED**

THE PLAY AREA IS SUBJECT TO INSPECTION AND SHALL BE KEPT OPEN TO THE PUBLIC AT ALL TIMES.

IF YOU ARE NOT SURE OF THE SAFETY OF THE PLAY AREA, PLEASE CONTACT THE CITY OF EL PASO AT 910-755-3100.

DESIGNED BY: SJA  
 EXERCISES: SJA  
 DATE: 10/11/18  
 DRAWN BY: SJA  
 CHECKED BY: SJA  
 APP'D BY: SJA

TOTAL ELEVATED PLAY COMPONENTS	8	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	8	REQUIRED	4
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	8	REQUIRED	3
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	8	REQUIRED	6

SCALE: 1" = 10' - 0"

Desert Sands 4 Acre Park  
El Paso, TX

ExerPlay, Inc.  
Nate Tierney

Project No: 172280C

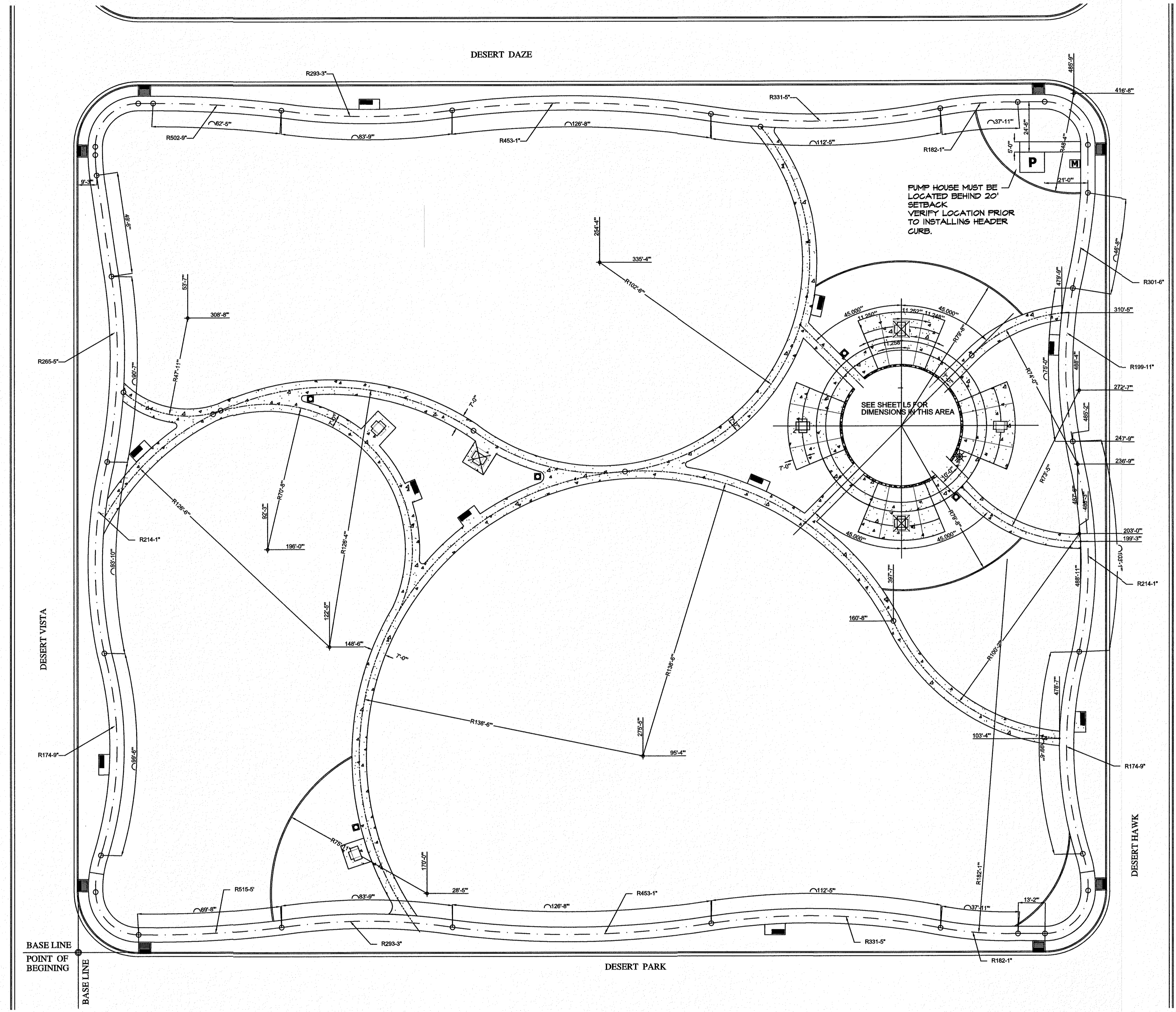
landscape structures

NO SCALE

**PARKS DEPARTMENT**  
 REVIEWED BY: *Antonio...* 10/25/18



REVISIONS					
DATE					
ARCHITECT'S SEAL					
SCALE	Horizontal: N/A Vertical: N/A Contour Interval: N/A DATE: LM DESIGN BY: LM DRAWN BY: LM CHKD. BY: LM APP'D. BY: LM JOB No. LM				
PROJECT TITLE	<b>DESERT SANDS PARK</b> 12325 DESERT HAWK AVE. LOT 1, BLOCK 18 DESERT SANDS SUBDIVISION CITY OF EL PASO, EL PASO, TEXAS 79938 AREA: 193,963.36 SQ.FT. - 4.44 ACRES				
SHEET TITLE					
SHEET 5 OF 15	<b>L5</b> 4 AC. PARK PLAYGROUND				

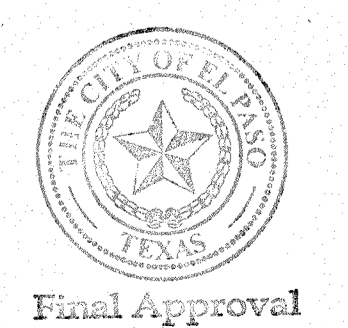


PLAN VIEW - PARK LAYOUT

SCALE: 1" = 30' - 0"

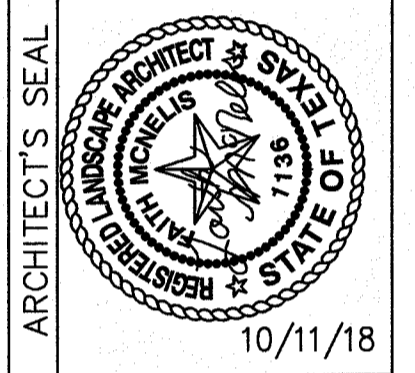
SEE CIVIL SHEET CO3.41 FOR PARK PERIMETER SIDEWALK LAYOUT.

**PARKS DEPARTMENT**  
 REVIEWED BY *Chapman* 10/25/18



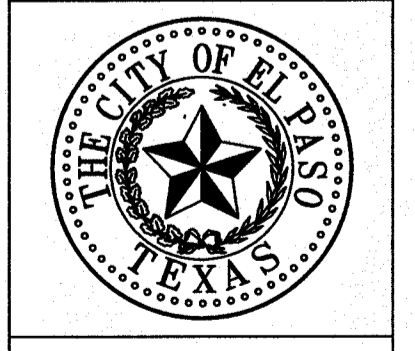
REVISIONS	DATE

**LISA MCNELLIS**  
 LANDSCAPE ARCHITECT  
 1900 FOXBORO  
 LAS CRUCES, NEW MEXICO 88007  
 (575) 621-8092

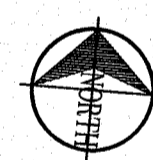
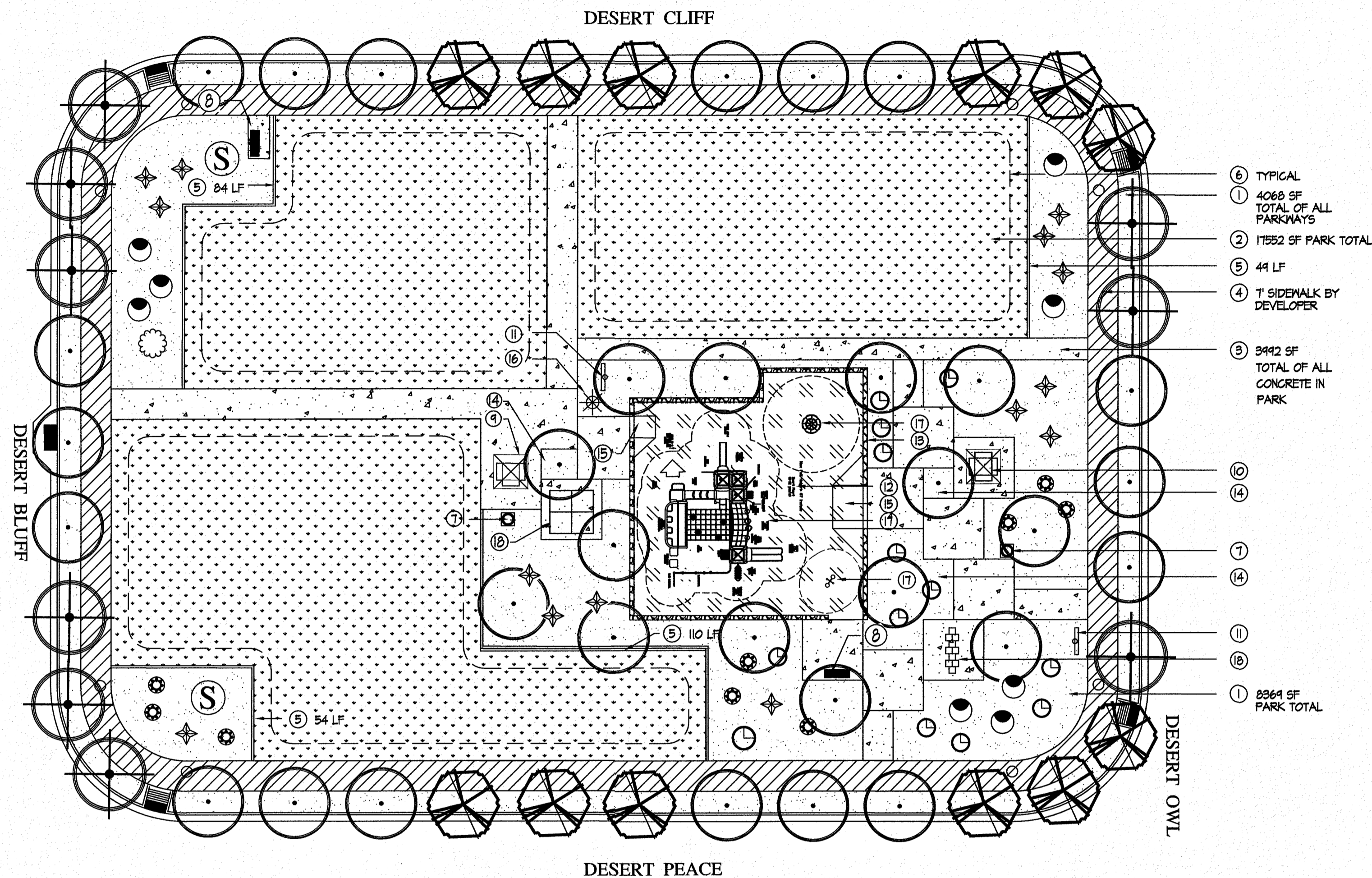


SCALE	
Horizontal:	
Vertical:	
Contour Interval:	N/A
DATE:	
DESIGN BY:	LM
DRAWN BY:	LM
CHKD. BY:	LM
APPVD. BY:	LM
JOB No.	

**DESERT SANDS PARK**  
 12325 DESERT HAWK AVE.  
 LOT 1, BLOCK 18  
 DESERT SANDS SUBDIVISION  
 CITY OF EL PASO, EL PASO, TEXAS 79938  
 AREA: 193,663.86 SQ.FT. - 4.44 ACRES



SHEET TITLE  
**L6**  
 4 AC. PARK LAYOUT  
 SHEET 6 OF 15



**PLAN VIEW - PLANTING AND MATERIALS**

SCALE: 1" = 20' - 0"

**PARK SITE NOTES**

- NO SIGNS, FIRE HYDRANTS, LIGHTS, NOCBUS, ELECTRICAL/WATER BOXES, TELEPHONE PEDESTALS, NO OBSTRUCTIONS IN GENERAL, SHALL BE PLACED INTO PROPOSED PERIMETER SIDEWALK, NOR SHALL ANY UTILITY CONDUITS BE PLACED ALONG THE PARK SITE. - ANY UTILITIES WITHIN THE PARKWAY MUST BE BURIED WITH 5'-0" MINIMUM COVER. IF PLACED BENEATH THE PROPOSED SIDEWALK STANDARD BURIAL DEPTHS APPLY.
- DEVELOPER SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GRADE) AND PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, MINERAL AVAILABILITY, WATER INFILTRATION, AND DETAILED SALINITY AND PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOIL AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.
- ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES. HARD PAN CALICHE, CLAY SOILS AND ROCKY SOILS MUST BE SHATTERED IN TWO DIRECTIONS TO A DEPTH OF 36" BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING, AS PER PARKS DESIGN AND CONSTRUCTION STANDARDS.
- ALL PARK IMPROVEMENTS (SIDEWALKS, RAMPS, ETC.) AND PAVED HIKE/BIKE TRAILS (IF APPLICABLE) ARE TO BE COMPLIANT WITH REQUIRED ACCESSIBILITY CRITERIA AS SET FORTH IN ADAAS & TAS STANDARDS AS MANDATED BY FEDERAL AND STATE GOVERNMENTS.

PLANS MUST BE SUBMITTED TO TEXAS DEPT OF LICENSING AND REGULATION FOR COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS. #EABFR\_IB0024529

**UNSUITABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS**

DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCOLATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.

ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BY SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN & CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED ON 01/09/2018.

ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DESIGNEE ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH 6" TOP SOIL / SANDY LOAM MATERIAL (BLEND OF 40% SAND, 40% SILT, & 20% CLAY - CAPABLE OF HOLDING MOISTURE) TO INCLUDE ORGANIC MATTER / NUTRIENTS TO A MINIMUM DEPTH OF 12 INCHES.

**PARK MATERIAL LEGEND AND DETAIL KEY:**

- FRANKLIN RED GRAVEL CRUSHER FINES 9" DEPTH 2" BELOW ALL CONCRETE SURFACES. USE NEED BARRIER. PROJECT TOTAL [12437 SF] SEE DETAIL (C) ON SHEET L11.
- SANTA ANA BERMUDA GRASS PROJECT TOTAL [17552 SF] TOP OF SOD 2" BELOW TOP OF SIDEWALK AND CONCRETE HEADER CURB. SEE DETAIL (D) ON SHEET L11.
- 1"-0" PARK CONCRETE WALKWAY, PATIO, BENCH & TABLE PADS. PROJECT TOTAL [4359 SF] SEE DETAIL (E) ON SHEET L11.
- SUBDIVISION 1"-0" CONCRETE WALKWAY BY DEVELOPER.
- 6"x12" CONCRETE HEADER CURB. PROJECT TOTAL [2911 LF] SEE DETAIL (E) ON SHEET L11.
- 6'-8" RECESSED AREA FOR WATER HARVESTING PARKS AND RECREATION REPRESENTATIVE MUST APPROVE GRADING PRIOR TO INSTALLING SOD OR GRAVEL.
- DUMOR TRASH RECEPTACLE 84-32-RC PROJECT TOTAL [2] BLUE - INSTALL PER MANUFACTURER'S RECOMMENDATIONS SEE DETAIL (F) ON SHEET L11.
- 6'-0" DUMOR 54 SERIES BENCH-IN-GROUND MOUNT. TOTAL FOREST GREEN. INSTALL PER MANIF. RECOMMENDATIONS FOR ADA BENCH SEE DETAIL (G) ON SHEET L12.
- SHADED ACCESSIBLE PICNIC TABLE - PROJECT TOTAL [1] ORS HAWAIIAN 2X8 COVERED TABLE. 3 SEATS. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (H) ON SHEET L12.
- SHADED PICNIC TABLE - PROJECT TOTAL [1] ORS HAWAIIAN 2X8 COVERED TABLE. 4 SEATS. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (I) ON SHEET L12.
- PARK INFORMATION SIGN - LOCATION SHALL BE APPROVED BY PARKS DEPT REPRESENTATIVE. SEE DETAIL (J) ON SHEET L12.
- ENGINEERED FIBER WOOD CHIPS. INSTALL PER MANUFACTURER'S SPECIFICATIONS. PROJECT TOTAL [2776 SF] PLACE 18" DEPTH OF CHIPS AND COMPACT TO 12" DEPTH.
- 18" HT. ROCK WALL. PROJECT TOTAL [94 LF] SEE DETAIL (K) ON SHEET L12.
- OPEN PLANTING SPACE IV FRANKLIN RED CRUSHER FINES.
- ADA ACCESSIBLE PLAYGROUND RAMP. RAMPS VARY IN WIDTH. SEE DETAIL (L) ON SHEET L12.
- AERIAL LIGHTING - 30' HIGH PRE-STRESSED CONCRETE DIRECT BURY POLE LED FIXTURES AND LAMPS. MUST COMPLY WITH CITY OF EL PASO MUNICIPAL CODE FOR OUTDOOR LIGHTING SECTION 18.18 SEE ENGINEER'S ILLUMINATION PLAN.
- PLAY STRUCTURE - LANDSCAPE STRUCTURES VENTI COLORS - TANGERINE, PLUM, LIMON, LIMON COLOR PALATTE. MUST BE APPROVED BY PARKS PRIOR TO ORDERING. PLUS ADDITIONAL PLAY COMPONENTS. SEE SHEET L14 FOR MORE INFORMATION.
- PAINTED HOPSCOTCH OR FOURSQUARE

QUANTITIES ARE PROJECT TOTALS - VERIFY! PLANS TAKE PRECEDENCE

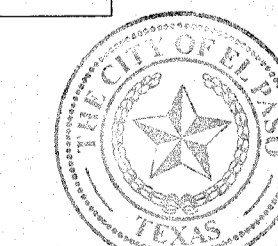
TREE LEGEND/SCHEDULE PROJECT TOTAL						
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	REMARKS
LET	⊗	LACEBARK ELM	ULMUS PARVIFOLIA	24' BOX	2" CAL-10HT-5' SPREAD	12 SINGLE-FULL
CPT	⊗	CHINESE PISTACHE	FRAXINUS OXYCARPA	24' BOX	2" CAL-10HT-5' SPREAD	32 SINGLE TRUNK-FULL
GET	⊗	CEDAR ELM	ULMUS CRASSIFOLIA	24' BOX	2" CAL-10HT-5' SPREAD	8 SINGLE TRUNK - FULL

PLANT LEGEND/SCHEDULE						
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	MIN SPACING	REMARKS
CS	●	CIMARRON SAGE-BLUE RANGER	LEUCOPHYLLUM ZYGOPHYLLUM	5 GAL	4'	8 18" HT 00
SE	⊙	SILVER CASSIA	SENNA ARTEMISOIDES	5 GAL	6'	1 4' HT 00
LA	⊙	'NEN GOLD' LANTANA	LANTANA CAMERA 'NEN GOLD'	5 GAL	3'	11 12" HT 00
PP	⊙	PINK PARADE HESPERALOE	HESPERALOE FINIFERA X PARVIFLORA	5 GAL	5'	11 18" HT 00
YB	⊙	YELLOW BELLS	TECOMA STANS VAR. ANGSTATA	5 GAL	6'	1 18" HT 00
TB	⊙	TURPENTINE BUSH	ERICAMERIA LARICIFOLIA	5 GAL	4'	1 15" HT 00
		SANTA ANA	C.DACTYLON X TRANSVAALENSIS	SOD	N/A	17552 SF LAY SOD SO THAT NO LINES ARE VISIBLE TYPING IT MAY BE USED AS ALTERNATE

**TREE NOTES:**  
MINIMUM BRANCHING CLEARANCE IS 1' OVER SIDEWALK  
DO NOT SELECT TREES WITH LOW FORK BRANCHING PATTERN. PRUNING TO MEET CLEARANCE REQUIREMENTS WILL DESTROY FORM OF TREES WITH THAT GROWTH HABIT.  
MINIMUM HEIGHT 10'. CALIFER IS MEASURED AT 6" ABOVE TOP ROOT.

**PARKS DEPARTMENT**

REVIEWED BY *Anthony...* 10/25/18



SHEET TITLE

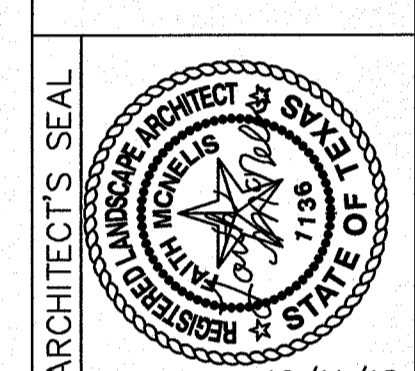
**L7**

1 AC. PARK PLANTING AND MATERIALS

SHEET 7 OF 15

REVISIONS	DATE

**LISA MCNEELIS**  
LANDSCAPE ARCHITECT  
1900 FOXBORO  
LAS CRUCES, NEW MEXICO 88007  
(505) 621-5052

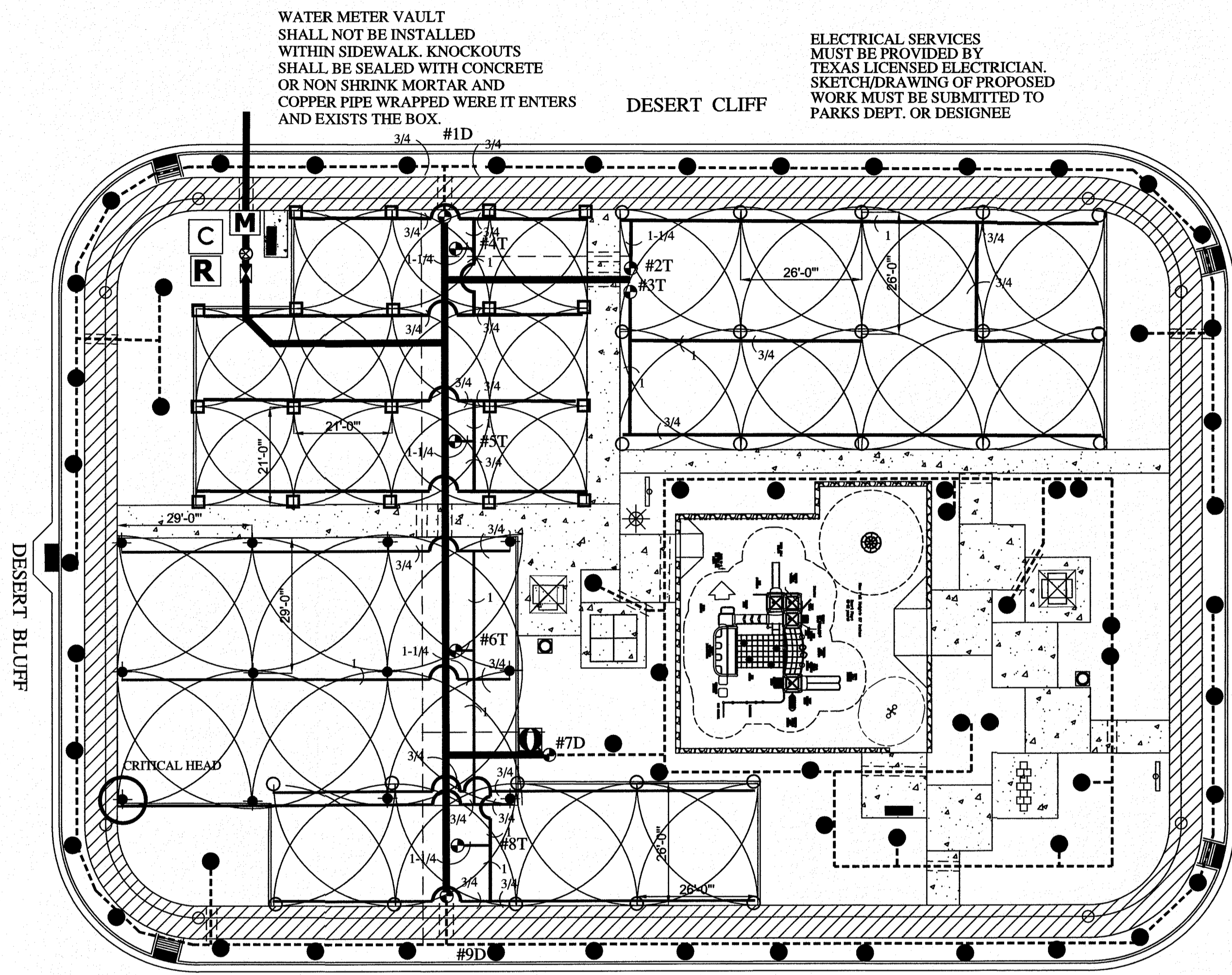


SCALE  
Horizontal: N/A  
Vertical: Contour Interval: N/A  
DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPVD. BY: LM  
JOB No.

**DESERT BREEZE PARK**  
12248 DESERT CLIFF CT  
DESERT SANDS SUBDIVISION  
LOT 1 OF BLOCK 6  
CITY OF EL PASO, EL PASO, TEXAS 79938  
AREA: 32,225.26 SQ.FT. .809 ACRES



Final Approval



PLAN VIEW - IRRIGATION

SCALE: 1" = 20' - 0"

1D	1"	2T	1"	3T	1.25"	4T	1"	5T	1.25"	6T	1.5"	7D	1"	8T	1.25"	9D	1"
6.21	23	14.9	7	19.14	8	14.88	9	17.02	10	32.82	12	5.4	20	17.02	10	5.4	20

WATER AUDIT

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
- AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
- WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.

IRRIGATION IS REGULATED BY:  
 PO BOX 13087  
 AUSTIN, TEXAS 78711-3087  
 TCEQ 512-239-6719  
 CHAPTER 34, TEXAS WATER CODE  
 IRRIGATOR'S LIC. #8947



*Faith McNeelis* 10/11/18

525' of JC Viramontes Dr and Garment Road.  
 Sta: 66 Res: 64 GPM: 888

PARKS DEPARTMENT  
 REVIEWED BY *Chapman del Rio* 10/25/18

PRECIPITATION SCHEDULE FOR ROTOR VALVES

VALVE #	VALVE SIZE	TOTAL GPM	HUNTER PRECIP. RATE	CALCULATED PRECIP. RATE*	WATER REQUIREMENT	NOZZLE SIZE	# & TYPE OF HEADS	GPM PER HEAD	RUN TIME PER DAY
1D	1"	6.21	N/A	N/A	N/A	N/A	28 EM. DEVICE	21 PER DEVICE	240 MIN
2T	1"	14.9	.47 IN/HR	.61 IN/HR	1.2"/DAY	30 MPR	1 MPR	N/A	118 MIN
3T	1.25"	19.14	.47 IN/HR	.61 IN/HR	1.2"/DAY	30 MPR	8 MPR	N/A	118 MIN
4T	1"	14.88	.54 IN/HR	.69 IN/HR	1.2"/DAY	25 MPR	9 MPR	N/A	118 MIN
5T	1.25"	17.02	.54 IN/HR	.69 IN/HR	1.2"/DAY	25 MPR	10 MPR	N/A	118 MIN
6T	1.25"	32.82	.58 IN/HR	.64 IN/HR	1.2"/DAY	35 MPR	12 MPR	N/A	118 MIN
7D	1"	5.4	N/A	N/A	N/A	N/A	20 EM. DEVICE	21 PER DEVICE	240 MIN
8T	1.25"	17.02	.47 IN/HR	.61 IN/HR	1.2"/DAY	30 MPR	10 MPR	N/A	121 MIN
9D	1"	5.4	N/A	N/A	N/A	N/A	20 EM. DEVICE	21 PER DEVICE	240 MIN

THIS DRAWING IS A SCHEMATIC AND DOES NOT SHOW EXACT PIPE LOCATION OR LENGTH.

VALVE NUMBER AND FILLUP OR PART# TURF (1) → #1F 1" → VALVE SIZE  
 GALLONS PER MINUTE ON THIS VALVE → 107 8 → NUMBER OF HEADS ON THIS VALVE

MATERIAL LEGEND AND DETAIL KEY:

- 2-1/2" PRESSURE MAIN PVC SCHEDULE 40, DEPTH 18" TO TOP OF PIPE. SEE DETAIL (1) ON LIB.
  - LATERAL PVC CLASS 200. DEPTH 12", TO TOP OF PIPE. SEE DETAIL (1) ON LIB.
  - DRIP LATERAL PVC CLASS 200. DEPTH 12", TO TOP OF PIPE. SEE DETAIL (1) ON LIB.
  - SCH 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. SLEEVES SHALL EXTEND 12" PAST PAVING. CHISEL, 1" MARK IN CONCRETE CURB OR WALK TO LOCATE SLEEVE AT EACH SIDE. SIZE 2X DIA. OF PIPE TO BE SLEAVED. SEE #10 UNDER GENERAL IRRIGATION NOTES ON LI.
  - FIELD WIRING SHALL BE IN A SEPARATE TRENCH 5' OFFSET FROM MAIN LINE ON NORTH AND WEST SIDE.
  - HUNTER I-20-06-55 MPR-25 NOZZLE USE LASCO SWING JOINTS. 25 PSI- 6PM VARY - 32 X 2 X .45 = 24" RADIUS. SEE DETAIL (1) ON LIB.
  - HUNTER I-20-06-55 MPR-30 NOZZLE USE LASCO SWING JOINTS. 25 PSI- 6PM VARY - 29 X 2 X .45 = 24" RADIUS. SEE DETAIL (1) ON LIB.
  - HUNTER I-20-06-55 MPR-25 NOZZLE USE LASCO SWING JOINTS. 25 PSI- 6PM VARY - 28 X 2 X .45 = 21" RADIUS. SEE DETAIL (1) ON LIB.
  - DRIP EMITTER FOR TREES: RAINBIRD XERI-BIRD XBD-80 WITH FILTER. USE 8 XB-20PC EMITTERS PER TREE. 21 GPM LOCATE 5' AWAY ON WEST OR SOUTH SIDE OF TREE. SET IN EMITTER VALVE BOX. SEE DETAILS (2) AND (3) ON LIB.
  - DRIP EMITTER FOR PLANTS: RAINBIRD XERI-BIRD XBD-80 WITH FILTER. USE 1 XB-20PC EMITTER PER PLANT. DO NOT EXCEED 20' OF MICRO TUBE. PLACE EMITTER ON UPWIND SIDE OF PLANT. SET IN EMITTER VALVE BOX. SEE DETAIL (2) ON LIB.
  - ELECTRIC REMOTE VALVE: WEATHERMATIC 8200CR-10 WITH XPR OPTION AND CUT-OFF BALL VALVE. SIZE ON PLAN. SEE DETAILS (4) (5) AND (6) ON LIB.
  - ELECTRIC REMOTE VALVE FOR DRIP: WEATHERMATIC 8200CR-10 WITH XPR OPTION AND CUT-OFF BALL VALVE. SIZE ON PLAN. SEE DETAILS (4) ON LIB AND (1) ON LI4.
  - ISOLATION GATE VALVE IN LOCKING VALVE BOX. USE STANDARD VALVE BOX DETAILS. MUST BE LOCATED 5' FROM CONCENTRIC REDUCER ON 9" PIPE. SEE DETAIL (7) ON LIB.
  - BUCKNER 1" QUICK COUPLER - DOUBLE LUG WITH LASCO SNAP LOK WITH MALE BRASS STABILIZER ELBOW WITH CUT OFF. TO BE SET IN 12"x14" LOCKING VALVE BOX. SEE DETAIL (8) ON LI4.
  - 1-1/2" METER LOCATION ON THIS PLAN IS APPROXIMATE. FLOW: 75 GPM. DO NOT SET IN SIDEWALK.
  - BACKFLOW PREVENTER REDUCED PRESSURE 825Y 2". USE ASSE 1060-CLASS 1 ENCLOSURE ELEC. HEAT. INSTALL TO MEET LOCAL CODES AND CITY OF EL PASO PARKS DEPT. REQUIREMENTS. PORTS MUST BE 2' AWAY FROM ANY OBSTRUCTION TO ALLOW FOR INSPECTIONS. SEE DETAIL (9) ON LI4.
  - RAINBIRD ESP-125SITE SATELLITE CONTROLLER IN LOCKING STRONGBOX STAINLESS STEEL UNIT SB-2466 WITH PEDESTAL. SEE DETAILS (10) AND (11) ON LI4.
  - RAIN SENSOR - RAINBIRD RSD-BEX MOUNTED ON POLE. SEE DETAIL (12) ON LI4.
- ALL COMPONENTS TO BE SET IN VALVE BOXES MUST CONFORM TO STANDARD INSTALLATION SEE DETAIL (13) ON LIB.

COORDINATE THE LOCATION OF ALL EQUIPMENT WITH THE CITY OF EL PASO PARKS AND REC. DEPT.

TURF IRRIGATION SYSTEM DESIGN CRITERIA

- WATER SOURCE
- WATER MUST BE DELIVERED TO THE SITE AT SUFFICIENT PRESSURE AND FLOW TO PROVIDE MAXIMUM PERFORMANCE AS SHOWN BELOW.  
 PRESSURE REQUIREMENT - 66 PSI STATIC PRESSURE UPSTREAM OF METER AT FIELD LOCATION AND ELEVATION  
 - 25 PSI MINIMUM AT BASE OF ROTOR HEAD  
 FLOW REQUIREMENT FOR ROTOR STATIONS (DIFFERENCES IN AVAILABLE FLOW AND OR PRESSURE WILL REQUIRE DESIGN CHANGES) CONTRACTOR MUST VERIFY
  - PROPOSED 1-1/2" WATER SERVICE LINE, PROPOSED 1-1/2" WATER METER - 75 GPM
- HEAD LAY-OUT
- HEAD AND LATERAL SPACING WILL VARY WITH DIMENSIONS OF TURF. ADJUSTED SPACINGS WILL BE NECESSARY. HEAD SHALL BE SET BACK FROM PAVING TO PREVENT SPRAY ONTO SIDEWALKS.
  - ROTOR HEAD LAY-OUT AND SPACING: RADIUS OF THE HUNTER I-20 WITH MPR-25 AT 25 PSI 32X2X.45=24" MAXIMUM HEAD SPACING = 24", LATERAL SPACING MAX = 24" GALLONS PER MINUTE FLOW - VARIES
  - ROTOR HEAD LAY-OUT AND SPACING: RADIUS OF THE HUNTER I-20 WITH MPR-30 AT 25 PSI 29X2X.45=26" MAXIMUM HEAD SPACING = 26", LATERAL SPACING MAX = 26" GALLONS PER MINUTE FLOW - VARIES
  - ROTOR HEAD LAY-OUT AND SPACING: RADIUS OF THE HUNTER I-20 WITH MPR-25 AT 25 PSI 28X2X.45=21" MAXIMUM HEAD SPACING = 21", LATERAL SPACING MAX = 21" GALLONS PER MINUTE FLOW - VARIES
- PERFORMANCE STATISTICS
- THE FOLLOWING PERFORMANCE STATISTICS WERE CALCULATED BASED ON INFORMATION SHOWN ON THIS PLAN. CHANGES IN OPERATING PRESSURE, HEAD SPACING AND OR NOZZLE SELECTION WILL EFFECT RESULTS.
- |                 |                             |
|-----------------|-----------------------------|
| VALVE #2 AND #3 | MPR HEADS TOTAL AREA METHOD |
| 34.04 X 46.3    | 3218.05                     |
| 5847            | 613/HR                      |
|                 | 1.96 HR 118 MIN             |
| VALVE #4 AND #5 | MPR HEADS TOTAL AREA METHOD |
| 31.9 X 46.3     | 3071.97                     |
| 4844.38         | 634/HR                      |
|                 | 1.84 HR 118 MIN             |
| VALVE #6        | MPR HEADS TOTAL AREA METHOD |
| 32.82 X 46.3    | 3160.57                     |
| 4953.71         | 636                         |
|                 | 1.88 HR 118 MIN             |
| VALVE #8        | MPR HEADS TOTAL AREA METHOD |
| 17.02 X 46.3    | 1629.08                     |
| 2746.5          | 547/HR                      |
|                 | 2.01 HR 121 MIN             |

WATERING SCHEDULE

STATION #	VALVE COMBINATION	RUN TIME PER WEEK	WATERING DAYS	DURATION	CLOCK START TIME
1D	X	120 MIN	S M T W T F S	240 MIN	11:00 PM
2T	X X	354 MIN	X X X X X	118 MIN	11:00 PM
3T	X X	354 MIN	X X X X X	118 MIN	11:00 PM
4T	X X	339 MIN	X X X X X	118 MIN	12:54 AM
5T	X X	339 MIN	X X X X X	118 MIN	12:54 AM
6T	X	339 MIN	X X X X X	118 MIN	2:58 AM
7D	X	120 MIN	X X X X X	240 MIN	11:00 PM
8T	X	369 MIN	X X X X X	121 MIN	4:47 AM
9D	X	120 MIN	X X X X X	240 MIN	11:00 PM
TOTAL RUN TIME PER DAY OF OPERATION - DRIP		240 MIN / 4 HOURS			
TOTAL RUN TIME PER DAY OF OPERATION - ROTORS		465 MIN / 7.75 HOURS			
TOTAL RUN TIME PER WEEK - ROTORS		1945 MIN / 32.25 HOURS			

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WATER PRESSURE, WATER SOURCE AND FLOW IN THE FIELD PRIOR TO CONSTRUCTION. SHOULD A DISCREPANCY EXIST BETWEEN STATIC/DESIGN PRESSURE AND FIELD PRESSURE OR FLOW, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.

PRESSURE LOSS CALCULATION SHEET

VALVE #	Length of Pipe (Feet)	Flow (Gal.)	Size (in.)	Pressure Loss Per 100 ft.	Pressure Loss This Item	Accumulated Pressure Loss
class 200	29	1.4	3/4	0.24	0.0696	0.0696
class 200	29	4.15	3/4	1.33	0.3857	0.4553
class 200	19	6.9	3/4	2.47	0.4693	0.9246
class 200	29	8.3	1	1.17	0.3393	1.2639
class 200	67	24.52	1 1/2	1.34	0.8978	2.1617
class 200	6	32.82	2	0.78	0.0468	2.2085
Section Pressure Losses (Sub-Total)						
Calculate Remaining Pressure Losses Below						
Item	Size (in.)	Pressure Loss Per 100 Ft.	Pressure Loss This Item	Accumulated Pressure Loss		
Section Valve	1.5		2.5000	4.7085		
Main SCH 40	119	32.82	0.4	4.4760	5.1845	
	0	0	0	0.0000	5.1845	
Backflow	1.5		12.0000	17.1845		
Water Meter	1.5		2.4000	19.5845		
Copper Supply	80	32.82	1.5	2.5900	22.1745	
Total Pressure Loss to the City Main						
Static Pressure						
Actual Head Pressure						
Minimum Required Head Pressure						

REVISIONS

DATE

LISA MCNEELIS  
 LANDSCAPE ARCHITECT  
 1900 FOXBORO  
 LAS CRUCES, NEW MEXICO 88007  
 (505) 621-9092

ARCHITECT'S SEAL

10/11/18

SCALE:  
 Horizontal: Contour Interval: N/A  
 Vertical: LM  
 DATE: LM  
 DRAWN BY: LM  
 CHKD. BY: LM  
 APPVD. BY: LM  
 JOB No. LM

DESERT BREEZE PARK  
 12248 DESERT CLIFF CT.  
 DESERT SANDS SUBDIVISION  
 LOT 1 OF BLOCK 9  
 CITY OF EL PASO, EL PASO, TEXAS 79938  
 AREA: 35,225.26 SQ.FT. - .809 ACRES

THE CITY OF EL PASO, TEXAS

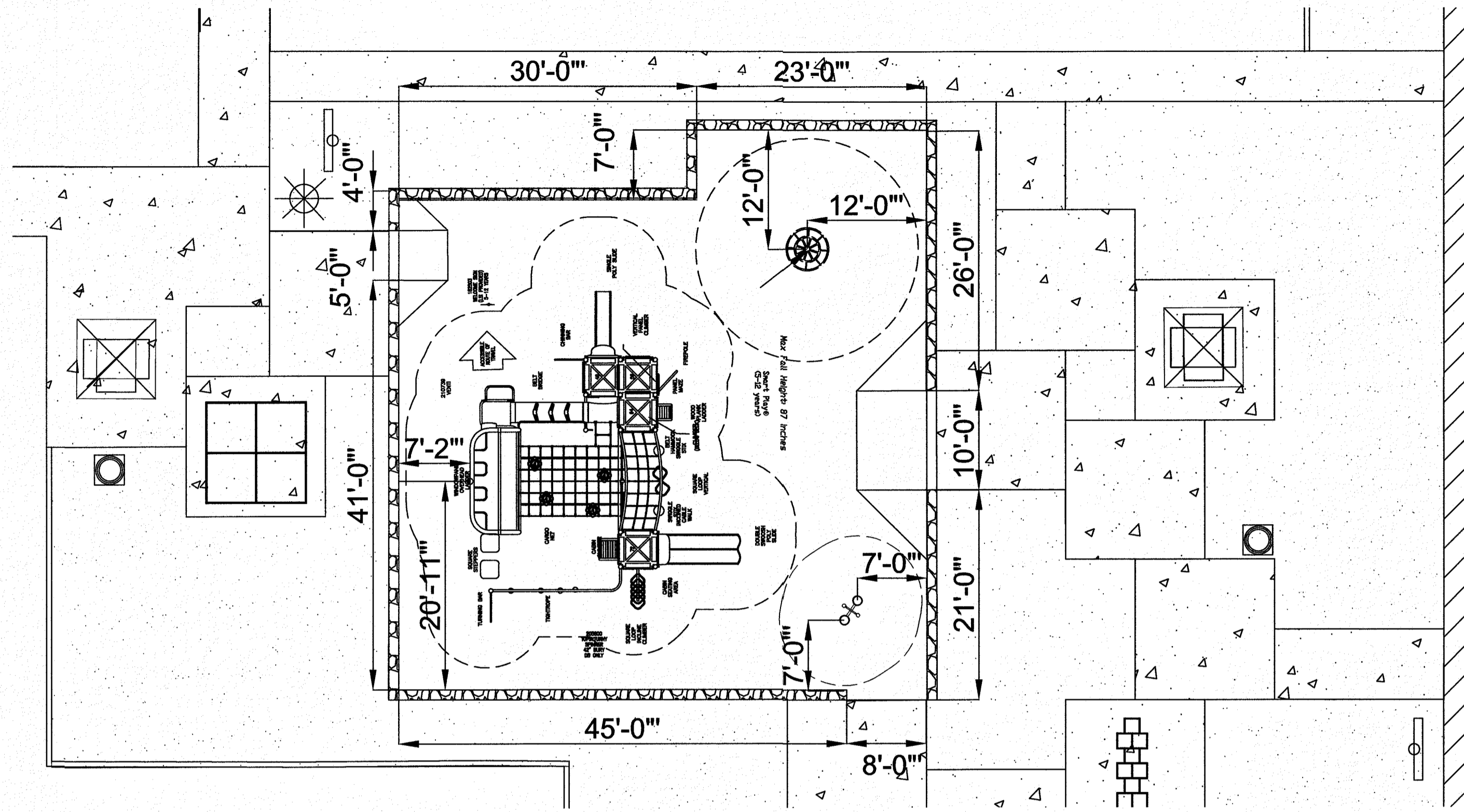
SHEET TITLE

L8

1 AC. PARK IRRIGATION PLAN

SHEET 8 OF 15

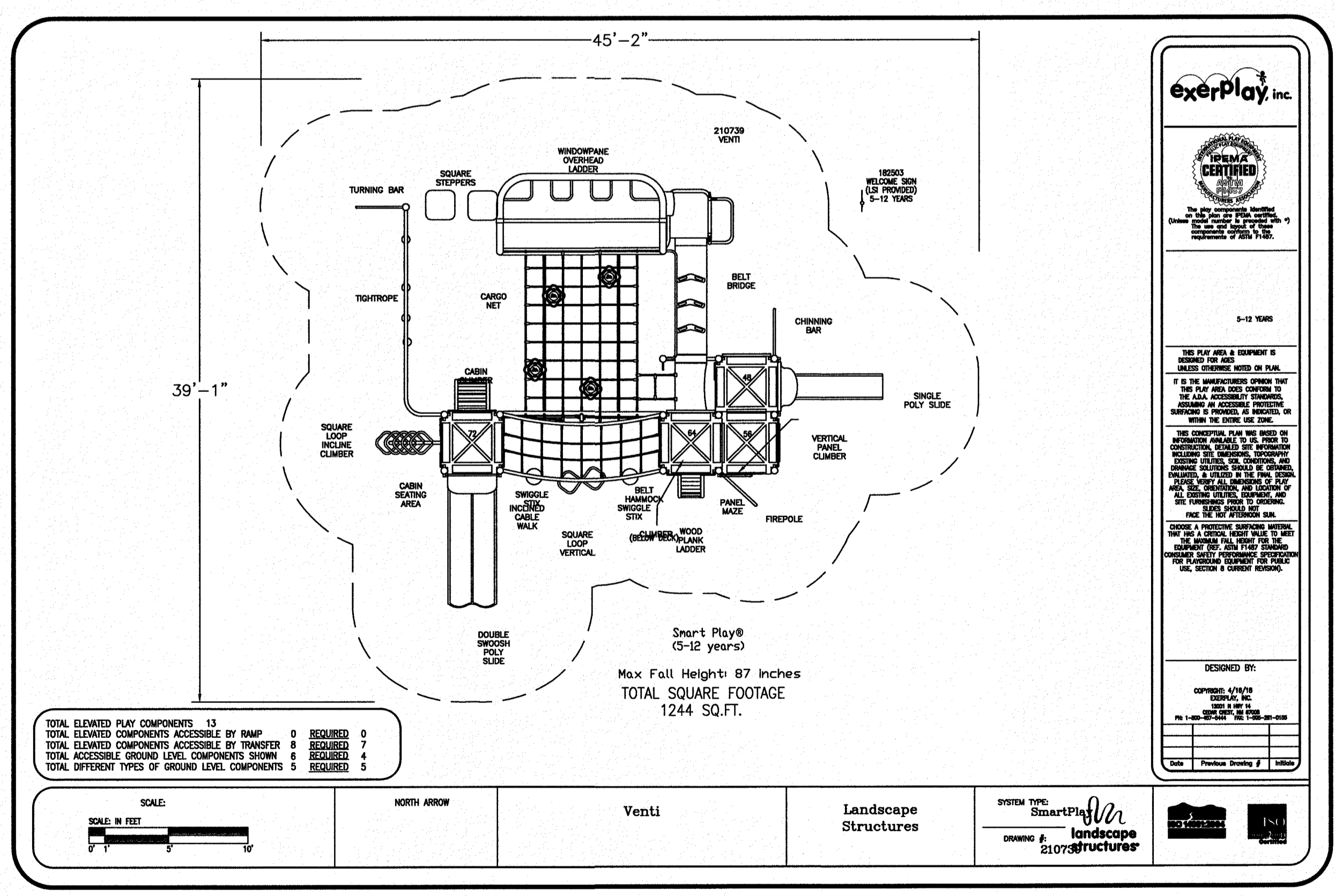
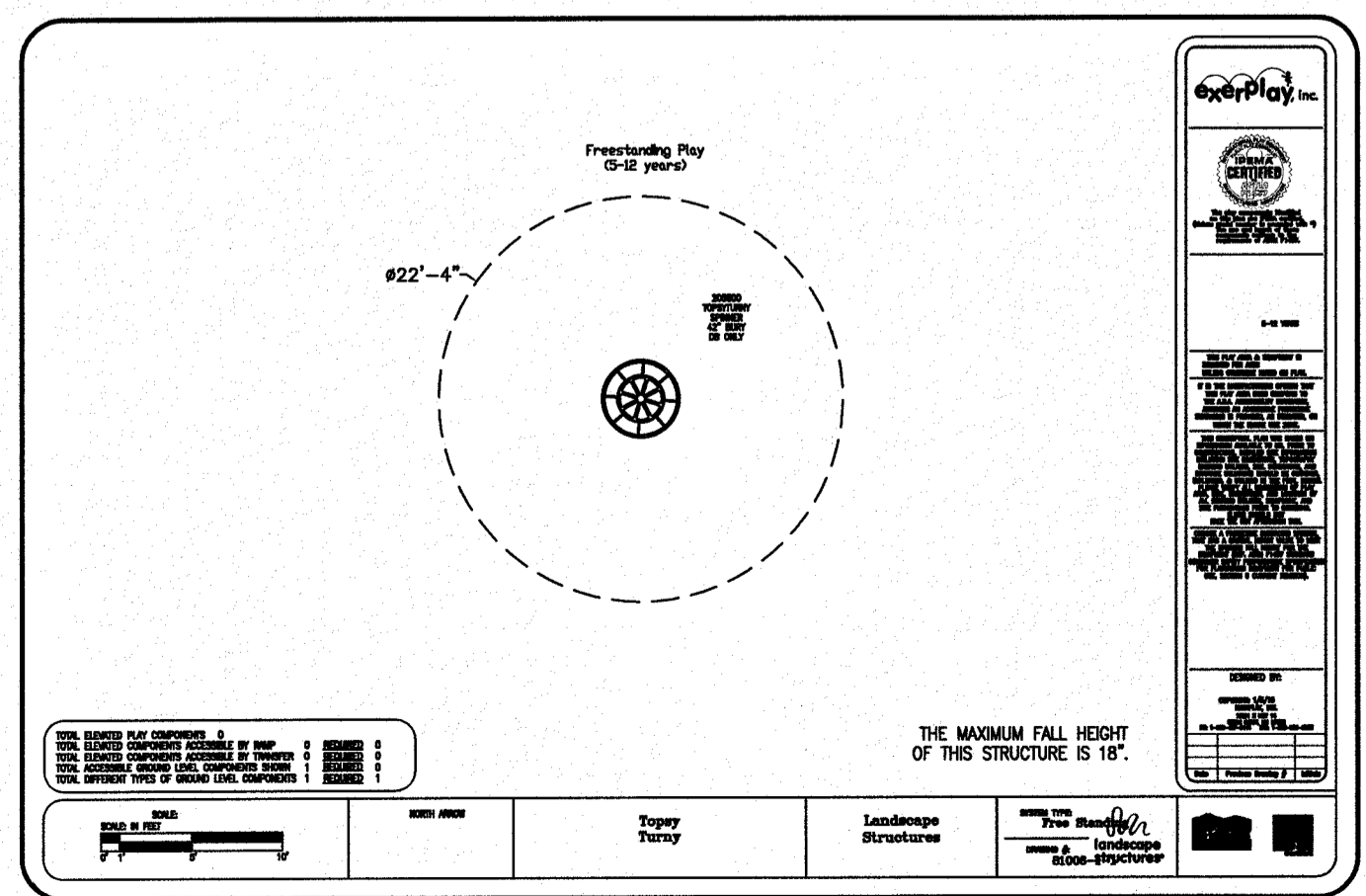
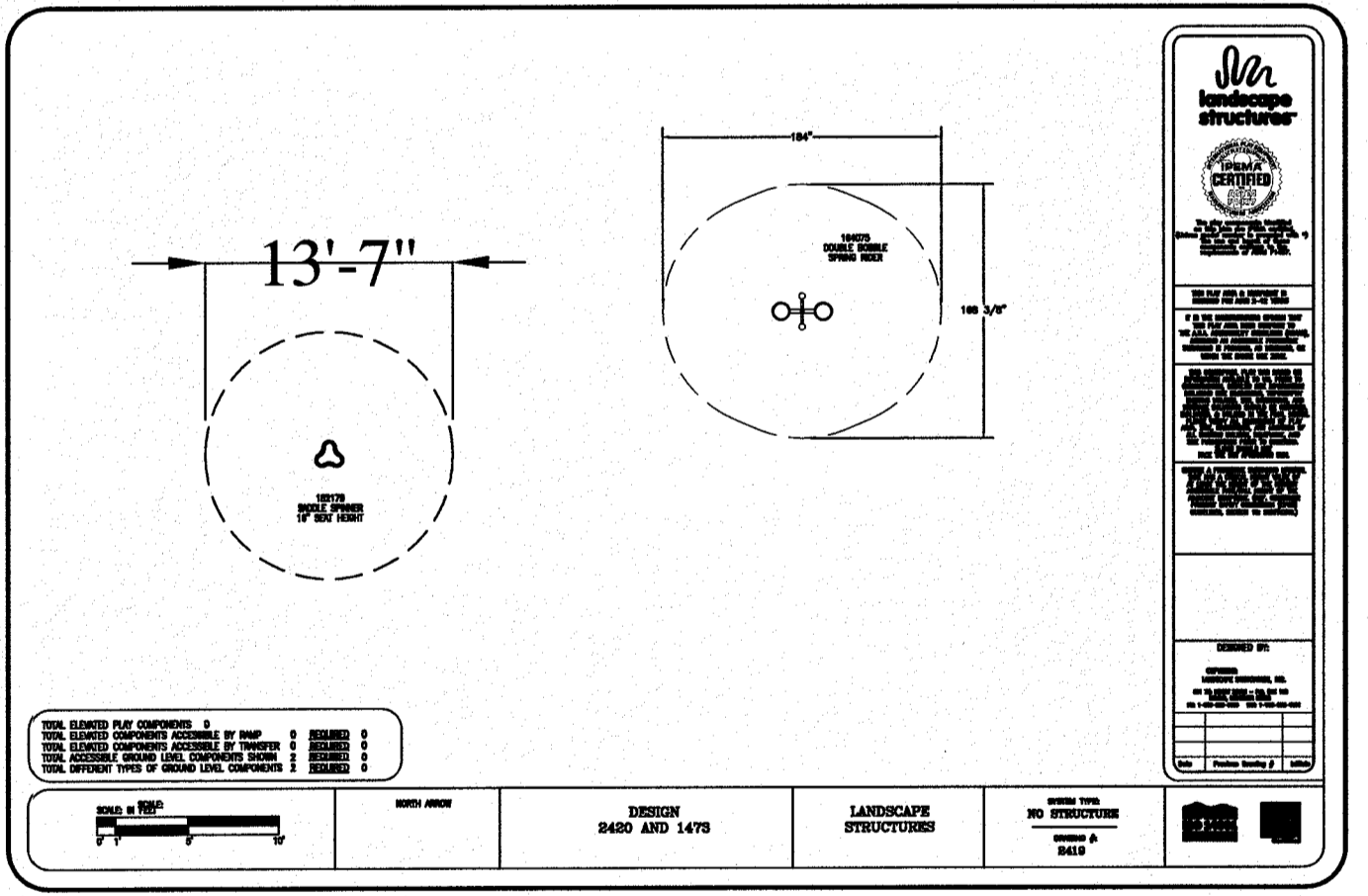
Final Approval



**PLAN VIEW - PLAYGROUND LAYOUT**  
SCALE: 1" = 10' - 0"

- PLAYGROUND EQUIPMENT NOTES:**
1. VERIFY LOCATION AND DIMENSIONS OF PLAYGROUND EQUIPMENT BEFORE FINAL INSTALLATION.
  2. ACTUAL CONDITIONS IN THE FIELD MAY REQUIRE ADDING OR ADJUSTING COMPONENTS OF THE PLAYGROUND EQUIPMENT TO MEET ALL CPSC, ASTM AND ADAAG REQUIREMENTS. ALL CHANGES SHALL BE REVIEWED AND ACCEPTED BY PARKS STAFF PRIOR TO THEIR EXECUTION.
  3. CONTRACTOR SHALL MEET ALL APPLICABLE ADA AND TAS REQUIREMENTS FOR ACCESS TO PLAYGROUND TO INCLUDE CONCRETE SIDEWALKS. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT RUNNING SLOPE (5%), CROSS-SECTION (1/8") AND FINISHED SURFACE TEXTURE COMPLY WITH ACCESSIBILITY REQUIREMENTS.
  4. CONTRACTOR SHALL PROVIDE A MINIMUM FALL ZONE AS NOTED ON THE DRAWINGS FROM THE EDGE OF THE EQUIPMENT TO THE INNER FACE OF THE CONTAINMENT ROCKWALL.
  5. CONTRACTOR IS RESPONSIBLE TO INSURE THAT PLAYGROUND AREA IS FENCED-IN THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT. FENCE IS REQUIRED TO BE MINIMUM OF 6 FEET HIGH AND MAINTAINED IN A STABLE AND SECURE CONDITION.
  6. CONTRACTOR SHALL PROTECT ALL CONCRETE WORK TO AVOID VANDALISM OR DAMAGE DURING CURING TIME; ANY DAMAGE DONE TO THE CONCRETE DUE TO VANDALISM DAMAGE MUST BE RESTORED TO GOOD FINISHED QUALITY APPEARANCE.
  7. CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ANY VEGETATION TREATED AND REMOVED PRIOR TO THE EXCAVATION OF THE SITE FOR THE PLAYGROUND EQUIPMENT, CONTAINMENT ROCKWALL AND SIDEWALK.
  8. AT COMPLETION OF PROJECT INSTALLATION CONTRACTOR SHALL PROVIDE MANUFACTURER CERTIFICATION AND OBTAIN AN INDEPENDENT AGENCY TO PROVIDE A SAFETY AUDIT OF PLAYGROUND EQUIPMENT AND PLAY SURFACE.
  9. CONTRACTOR IS RESPONSIBLE TO MAINTAIN SITE CLEAN AND FREE OF CONSTRUCTION DEBRIS. DAILY CLEAN-UP OF SITE WILL BE REQUIRED TO BE PROVIDED BY CONTRACTOR, NO STOCK PILING OF CONSTRUCTION DEBRIS WILL BE PERMITTED ON SITE.
  10. CONTRACTOR IS RESPONSIBLE TO INSURE THAT CONSTRUCTION EQUIPMENT WILL NOT BE CLEANED AT THE SITE UNLESS PROPER CONTAINERS ARE PROVIDED TO STORE WASTE. THIS INCLUDES MORTAR, CONCRETE, RUBBERIZED RESILIENT SURFACING, ETC.; WASTE MATERIAL MUST BE REMOVED FROM SITE ON A DAILY BASIS.
  11. CONTRACTOR IS RESPONSIBLE TO INSURE THAT ANY CONSTRUCTION MASONRY MATERIALS THAT ARE HAND MIXED AT JOB SITE ARE DONE IN AN APPROPRIATE CONTAINER AND ANY SPILLAGE IS CLEANED AND REMOVED IMMEDIATELY.

AGE APPROPRIATE SIGNAGE MUST BE INCLUDED.



**PLAN VIEW - PLAYGROUND**  
NOT TO SCALE

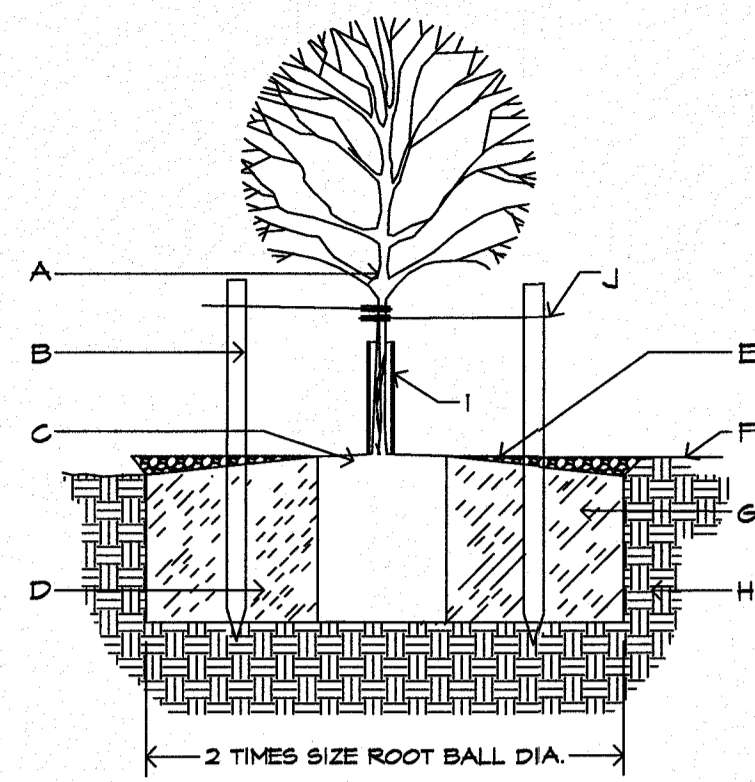
**PARKS DEPARTMENT**  
REVIEWED BY: *Anthony...* 10/25/18



REVISIONS	DATE			
<b>LISA MCNELLIS</b> LANDSCAPE ARCHITECT 1900 FOXBORO LAS CRUCES, NEW MEXICO 88007 (575) 621-5092				
10/11/18				
SCALE	Horizontal: N/A	Vertical: N/A	Contour Interval: N/A	
DATE:	DESIGN BY: LM	DRAWN BY: LM	CHKD. BY: LM	APPVD. BY: LM
JOB NO.:				
<b>DESERT BREEZE PARK</b> DESERT SANDS SUBDIVISION LOT 1 OF BLOCK 9 CITY OF EL PASO, EL PASO, TEXAS 79938 AREA: 35,225.26 SQ.FT. .809 ACRES				
SHEET TITLE				
<h1>L9</h1>				
1 AC. PARK PLAYGROUND				
SHEET 9 OF 15				







- A. TREE
- B. STAKING NEEDED
- C. 4" SPACE BETWEEN MULCH AND TREE
- D. SLOPE ON SIDES OF PLANTING HOLE
- E. DEPTH OF BARK MULCH-SEE PLAN
- F. FINISH SOIL GRADE
- G. BACKFILL WITH EXISTING NATIVE SOIL
- H. UNDISTURBED SOIL
- I. TREEGUARD
- J. TIES TO STAKES TO HAVE RUBBER HOSE TO PROTECT TREE TRUNK FROM DAMAGE BY WIRE. WIRE TIES TO BE LOOSE TO PROTECT TREE TRUNK FROM DAMAGE. WIRE TIES TO BE SET ON SAME TRUNK OR MAIN TRUNK.

STAKE 1" GALIPER TREES IN PARK PARKWAY.

**A** TREE PLANTING DETAIL - SECTION  
NOT TO SCALE

1. KEEP SOIL BELOW ROOT BALL UNDISTURBED TO PREVENT TREE FROM SETTLING.
2. REMOVE ANY EXCESS SOIL FROM TOP OF ROOTBALL TO EXPOSE ROOT FLARE (WHERE TOP MOST ROOT EMERGES FROM THE TRUNK). PLANT WITH ROOT FLARE THAN FINISH GRADE 1'-2" HIGHER.
3. REMOVE CONTAINER AND CUT ANY ROOTS THAT ARE CIRCLING THE CONTAINER PRIOR TO SETTING TREE IN PLANTING HOLE (PIT).
4. TAMP SOIL FIRMLY AROUND BASE OF ROOTBALL WITH FOOT PRESSURE.
5. AT TIME OF PLANTING, ONLY PRUNE CO-DOMINANT LEADERS (DOES NOT APPLY TO MULTI-TRUNK SPECIMENS), CROSSOVER LIMBS, AND DEAD OR BROKEN BRANCHES.
6. DO NOT ALLOW MULCH IN CONTACT WITH TREE TRUNK. KEEP AT LEAST 4" AWAY FROM TRUNK.
7. INSTALL TREE GUARD. FOR TREES IN TURF AREAS. WWW.BENMEADOWS.COM
8. WHEN DONE, THOROUGHLY WATER TO ELIMINATE AIR POCKETS.

9. STAKING IS NOT REQUIRED - STAKE TREES ONLY IF TREE CANNOT STAND ALONE AND WITH APPROVAL OF THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOT STAKE ALL TREES INDISCRIMINATELY, APPROVAL MUST BE OBTAINED TO STAKE TREES.
10. WITH APPROVAL, PROVIDE MIN. 3 STAKES/TREE (TYP.) IN A TRIANGULAR PATTERN, STAKED INTO UNDISTURBED SOIL WITH CLARK'S TREE STAKE KIT OR APPROVED EQUAL, REMOVE AFTER ONE GROWING SEASON.
11. TOP OF ROOT BALL SHALL BE LEVEL WITH TOP OF MULCH OR BARK. MULCH SHALL BE FEATHERED TO FULL DEPTH.

**GENERAL NOTES:**

1. TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE PIT EXCAVATED 5 TIMES THE SIZE OF THE ROOTBALL.
2. TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE 1/3 TO 1/2 TOP SOIL BLENDED WITH CLAY SOIL AND USED AS BACKFILL.
3. TREES PLANTED IN ROCKY SOIL ARE TO HAVE ALL ROCKY MATERIAL LARGER THAN 1" IN SIZE REMOVED.

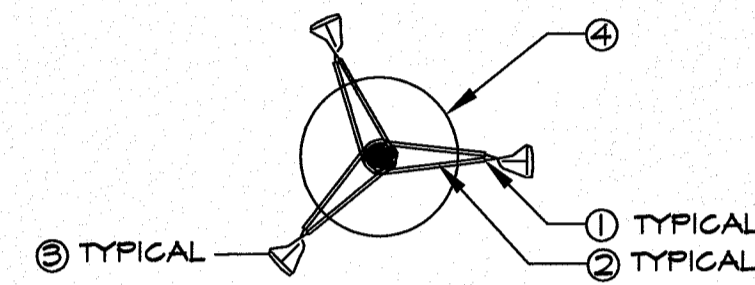
STAKING IS NOT REQUIRED BUT IF DEEMED NECESSARY THE STAKING DETAIL SHALL BE FOLLOWED. STAKING IS AT THE DISCRETION OF THE CONTRACTOR, LANDSCAPE ARCHITECT AND PARKS DEPT. BUT SHOULD TREES REQUIRE STAKING THE CONTRACTOR SHALL INCLUDE THE COST OF THE STAKING IN THE COST OF THE TREE.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE STAKES AT END OF THE GUARANTEE PERIOD AT NO COST TO THE OWNER.

TREES THAT ARE DAMAGED DUE TO IMPROPER OR LACK OF STAKING MUST BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

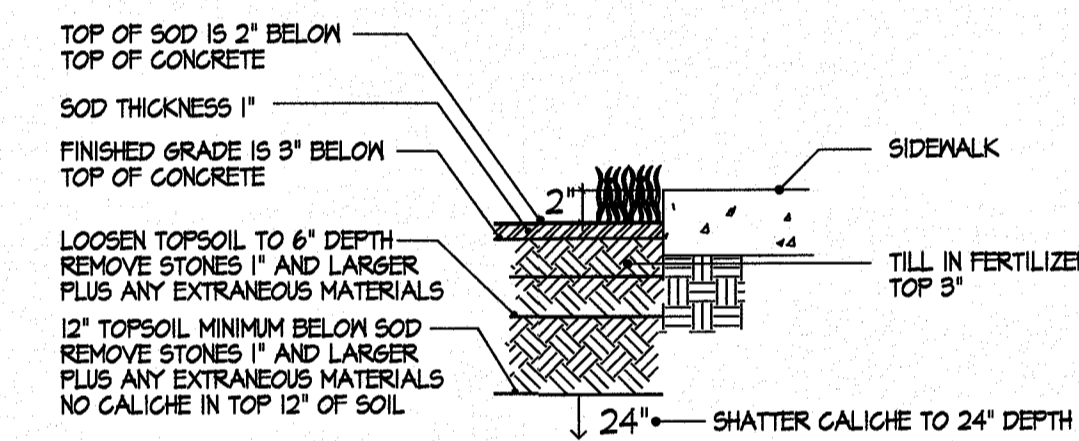
WIRES SHALL NOT BE TAUT BUT SHOULD ALLOW MOVEMENT OF 5 - 10 DEGREES FROM VERTICAL.

STAKES SHALL NOT BE DRIVEN INTO ROOTBALL OF TREES.



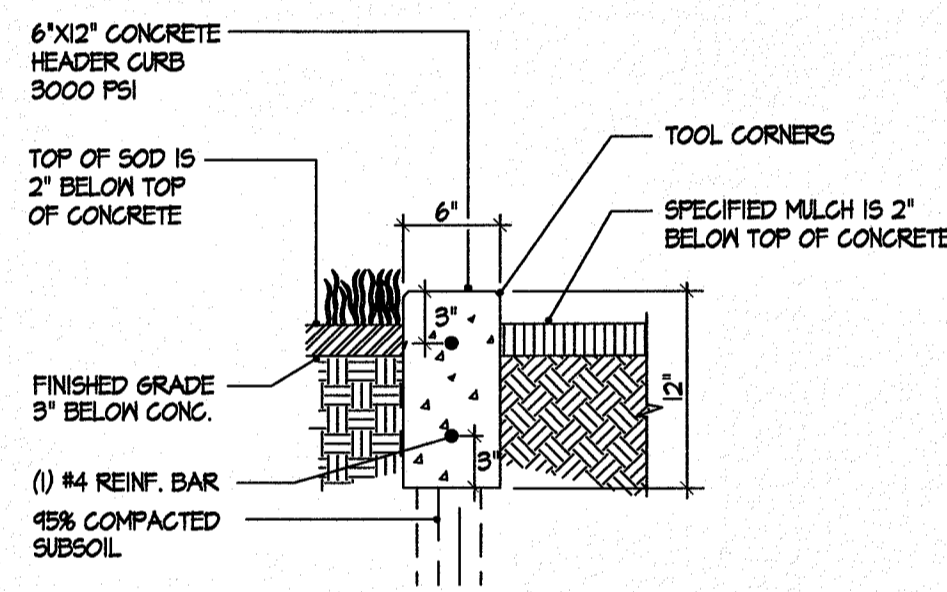
- 1. 2 STRAND TWIST
- 2. 1/2" RUBBER HOSE
- 3. 6" WOOD STAKE SET INTO GROUND 2'
- 4. ROOTBALL

**B** TYPICAL TREE GUYING DETAIL - PLAN VIEW  
NOT TO SCALE



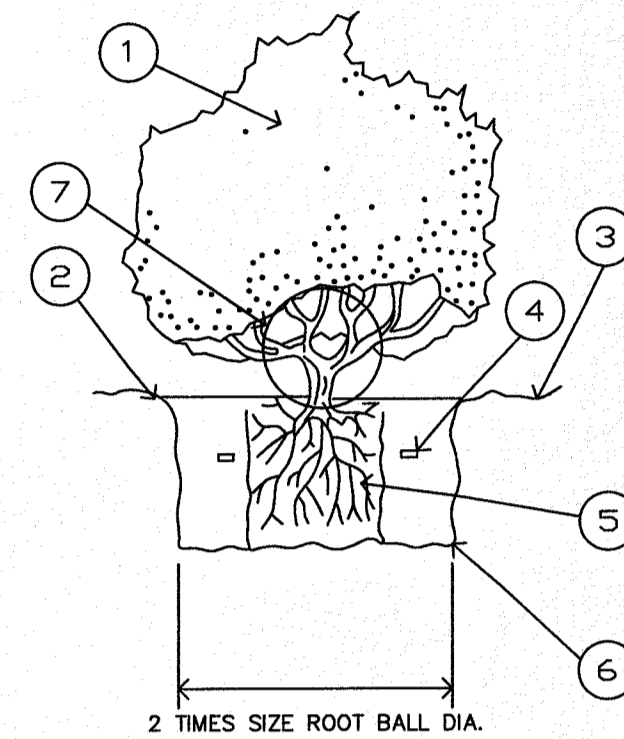
NOTES:  
MOISTEN SOIL PRIOR TO LAYING SOD  
ROLL IN TWO DIRECTIONS  
SEE SOD SPECIFICATIONS FOR COMPLETE REQUIREMENTS.

**D** TYPICAL TURF AT CONCRETE DETAIL - SECTION  
NOT TO SCALE



NOTES:  
1. USE CONTROL JOINT EVERY 10'.  
2. USE 1/2" ASPHALT EXPANSION JOINTS EVERY 50' AND AT CURB RETURNS

**E** CONCRETE HEADER CURB DETAIL - SECTION  
NOT TO SCALE

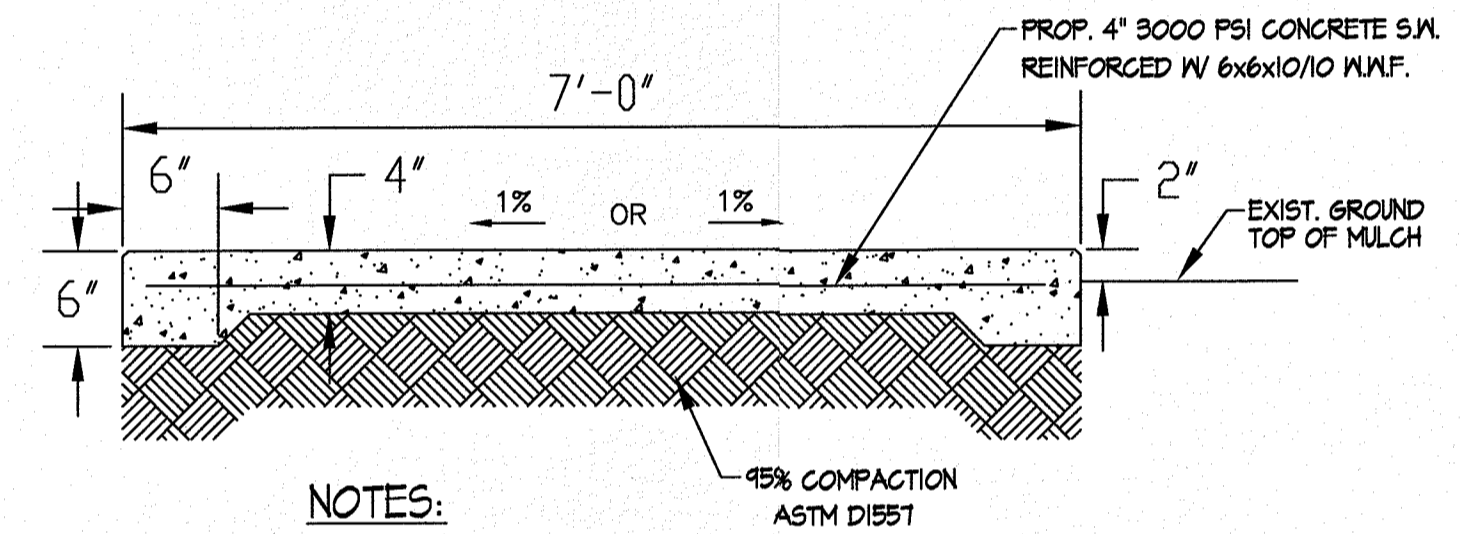


**LEGEND**

1. SHRUB OR VINE PER PLAN
2. EARTH WATERING BASIN (COVER WITH SPECIFIED MULCH ON PLAN).
3. FINISH GRADE
4. 7 GRAM PLANT TABLETS  
1 GAL = 3, 5 GAL = 6, 10-15 GAL = 9
5. ROOTBALL (SET CROWN FLUSH WITH FINISH GRADE) COVER 2" SPECIFIED MULCH.
6. UNDISTURBED NATIVE SOIL
7. DO NOT BURY PLANT BASE IN GRAVEL

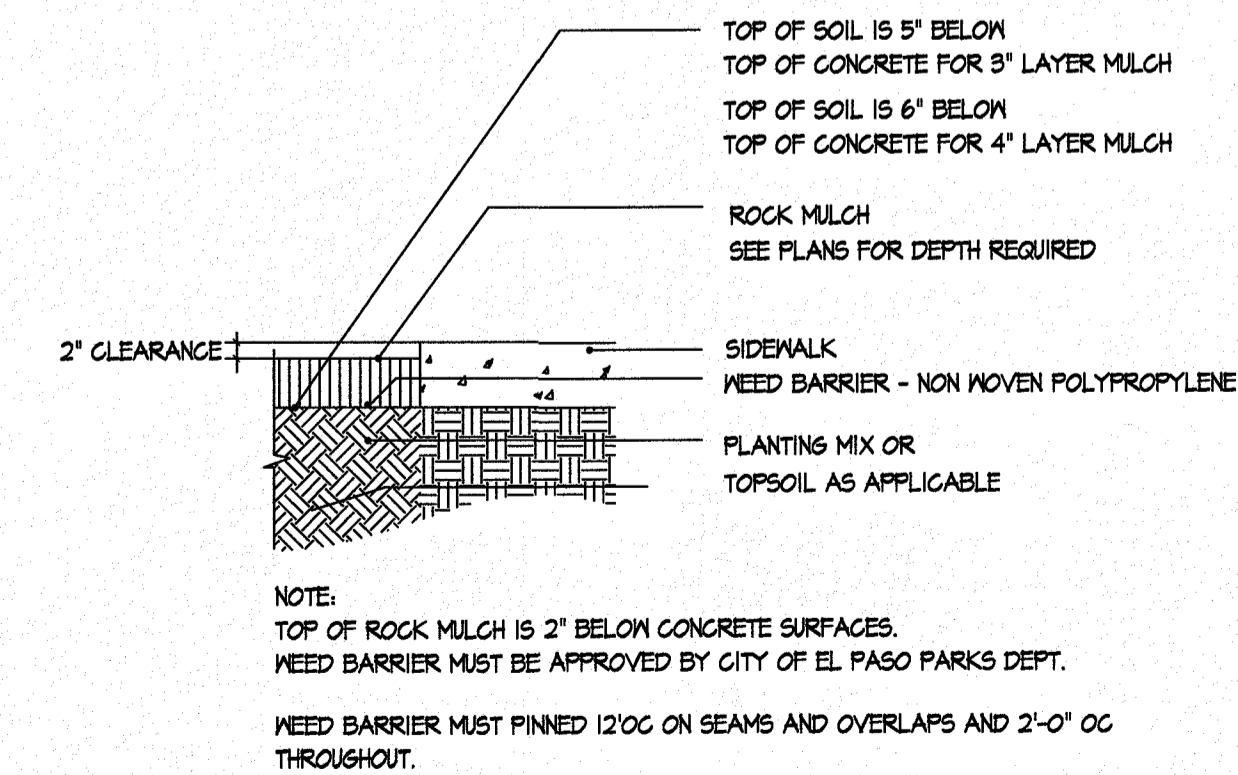
EXCAVATE AND REPLACE WITH SAME SOIL. REMOVE STONES 2" OR LARGER.

**C** SHRUB PLANTING DETAIL - SECTION  
NOT TO SCALE



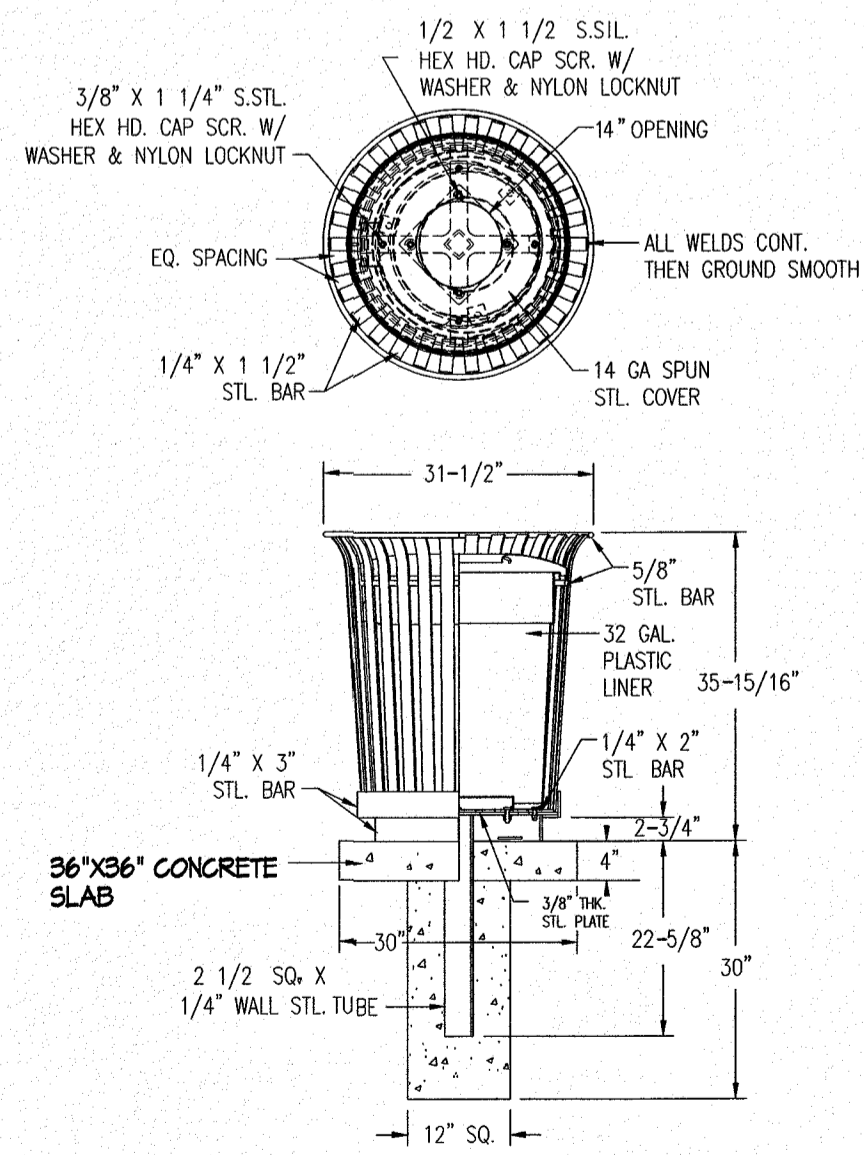
- NOTES:
1. CONCRETE SHALL BE 3000 PSI MINIMUM
  2. CONTROL JOINT REQUIRED AT 5' O.C. FOR SIDEWALKS. CONTROL JOINTS SHALL BE 1/8" THICK AND 1" DEEP.
  3. EXPANSION JOINT MATERIAL REQUIRED @ 20' O.C. FOR SIDEWALKS.
  4. DO NOT CROSS REINFORCEMENT THRU EXPANSION MATERIAL
  5. PROVIDE EXPANSION JOINT MATERIAL WHERE SIDEWALKS MEET, EXISTING SIDEWALKS AND CURBS.

**F** TYPICAL CONCRETE SIDEWALK - SECTION  
NOT TO SCALE



NOTE:  
TOP OF ROCK MULCH IS 2" BELOW CONCRETE SURFACES.  
NEED BARRIER MUST BE APPROVED BY CITY OF EL PASO PARKS DEPT.  
NEED BARRIER MUST BE PINNED 120G ON SEAMS AND OVERLAPS AND 2'-0" OC THROUGHOUT.

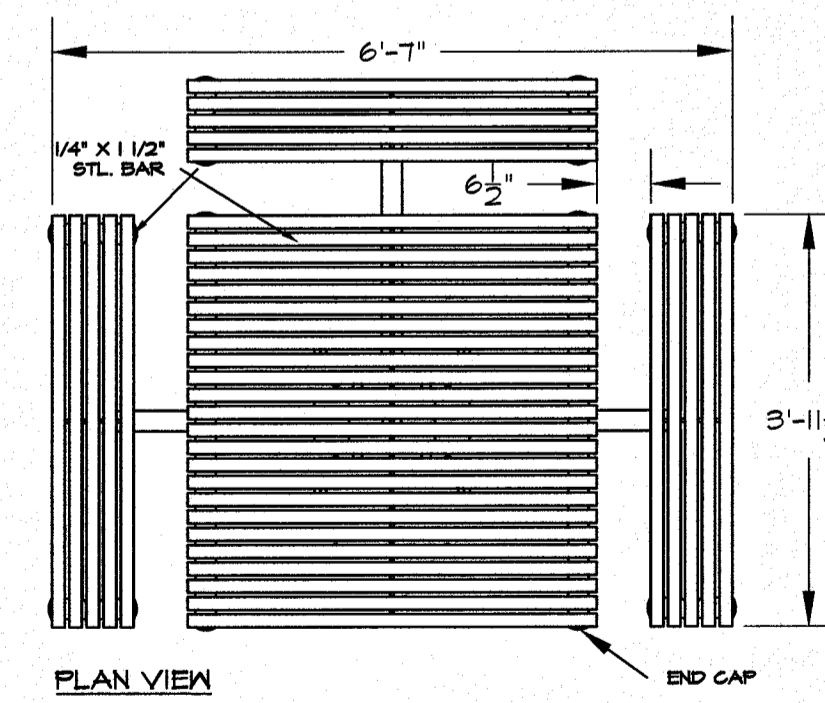
**G** ROCK MULCH DEPTH AT CONCRETE - SECTION  
NOT TO SCALE



**MODEL NUMBER 04-02-F705-1**

- NOTES
1. ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
  2. ALL WELDS CONT. THEN GROUND SMOOTH
  3. COLOR IS BROWN. MATCH WITH TABLE AND BENCH. TO BE APPROVED.
  4. 32 GAL. CAPACITY WITH LINER AND FLAT LID W/ 14" OPENING. LID SHALL BE ABLE TO SECURE TO MAIN BODY OF RECEPTICAL. COLOR TO BE APPROVED BY PARKS DEPT.

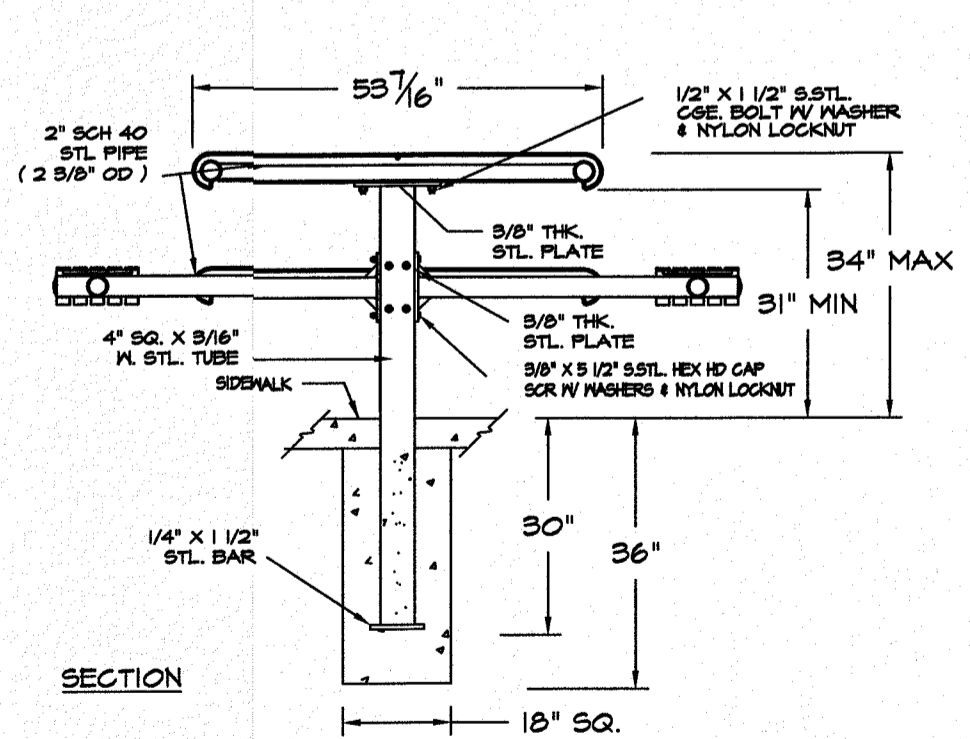
**H** TYPICAL TRASH RECEPTACLE - SECTION  
NOT TO SCALE



**NOTES: DUMOR 448-58" TABLE - EMBEDMENT**

- 1) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2) BROWN COLOR - MATCH WITH BENCH AND TRASH RECEPTICALS. COLOR TO BE APPROVED BY PARKS DEPT.

**I** TYPICAL PICNIC TABLE  
NOT TO SCALE



USE 3 BENCHES FOR ACCESSABLE TABLES  
USE 4 BENCHES FOR NON-ACCESSABLE TABLES

**PARKS DEPARTMENT**  
REVIEWED BY *[Signature]* 10/25/18

Final Approval

REVISIONS

DATE

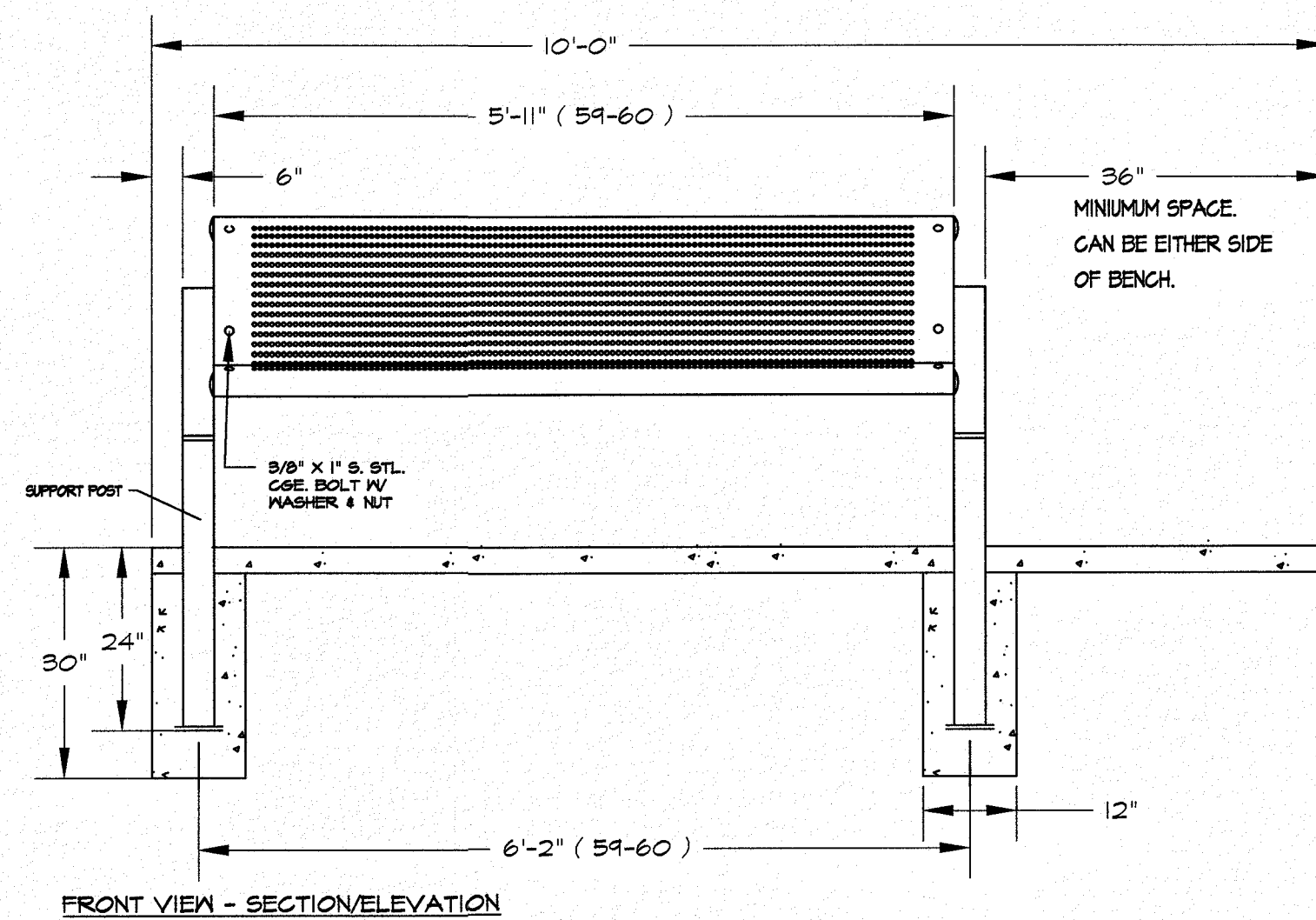
PROJECT TITLE  
**DESERT SANDS PARK & DESERT BREEZE PARK LANDSCAPE IMPROVEMENTS**

ARCHITECT'S SEAL  
**LISA MCNELLIS**  
LANDSCAPE ARCHITECT  
1900 FOXBORO  
LAS CRUCES, NEW MEXICO 88007  
(505) 621-9092

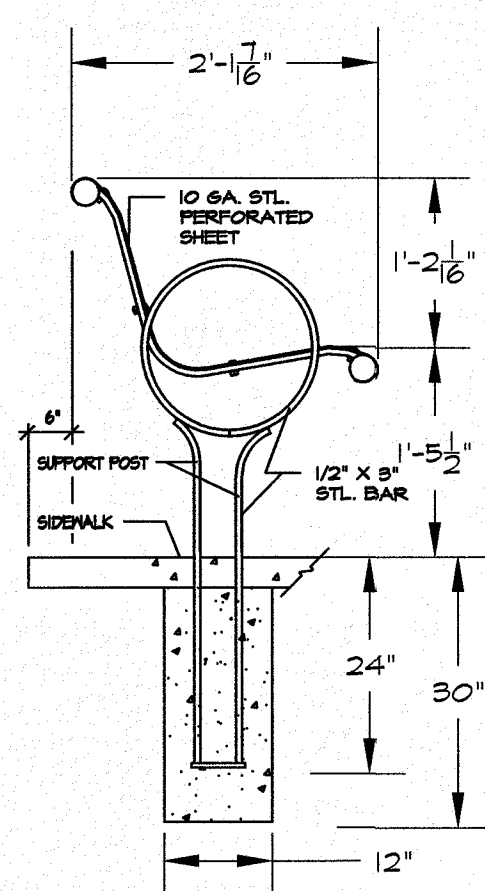
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Vertical: N/A  
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DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APP'D. BY: LM  
JOB NO.

10/11/18

SHEET TITLE  
**L11**  
CONSTRUCTION DETAILS  
SHEET 11 OF 15

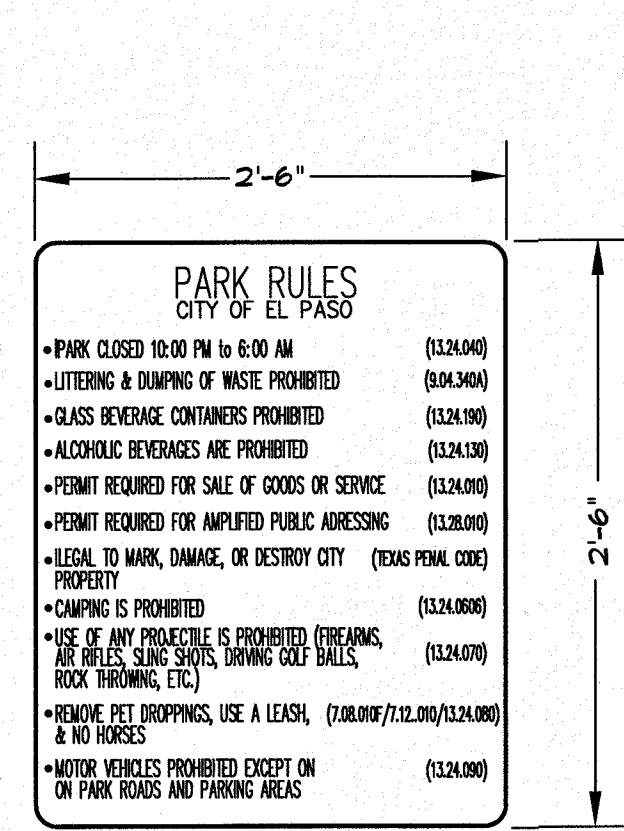


FRONT VIEW - SECTION/ELEVATION

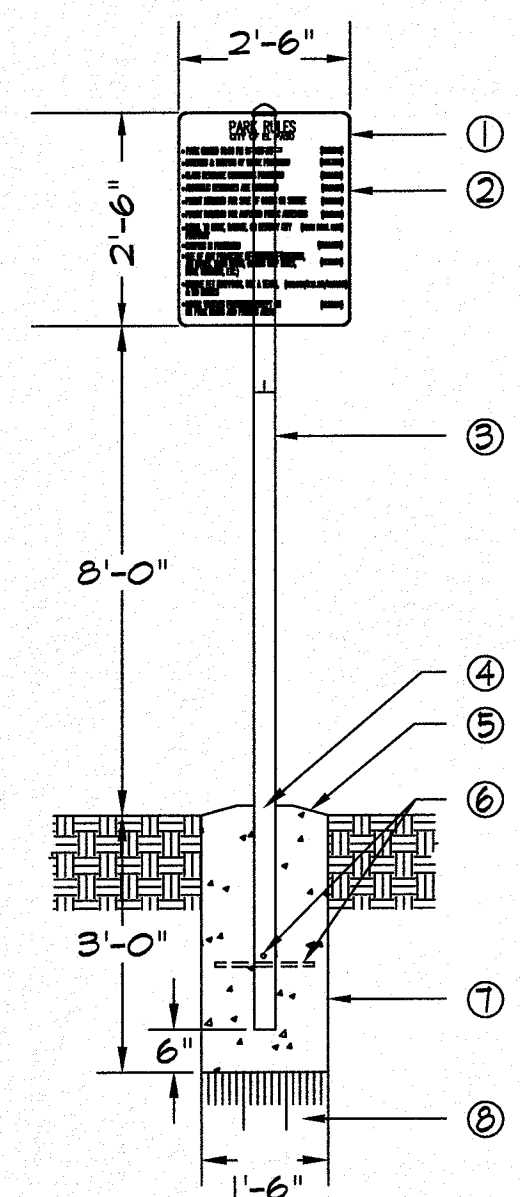


SIDE VIEW - SECTION/ELEVATION

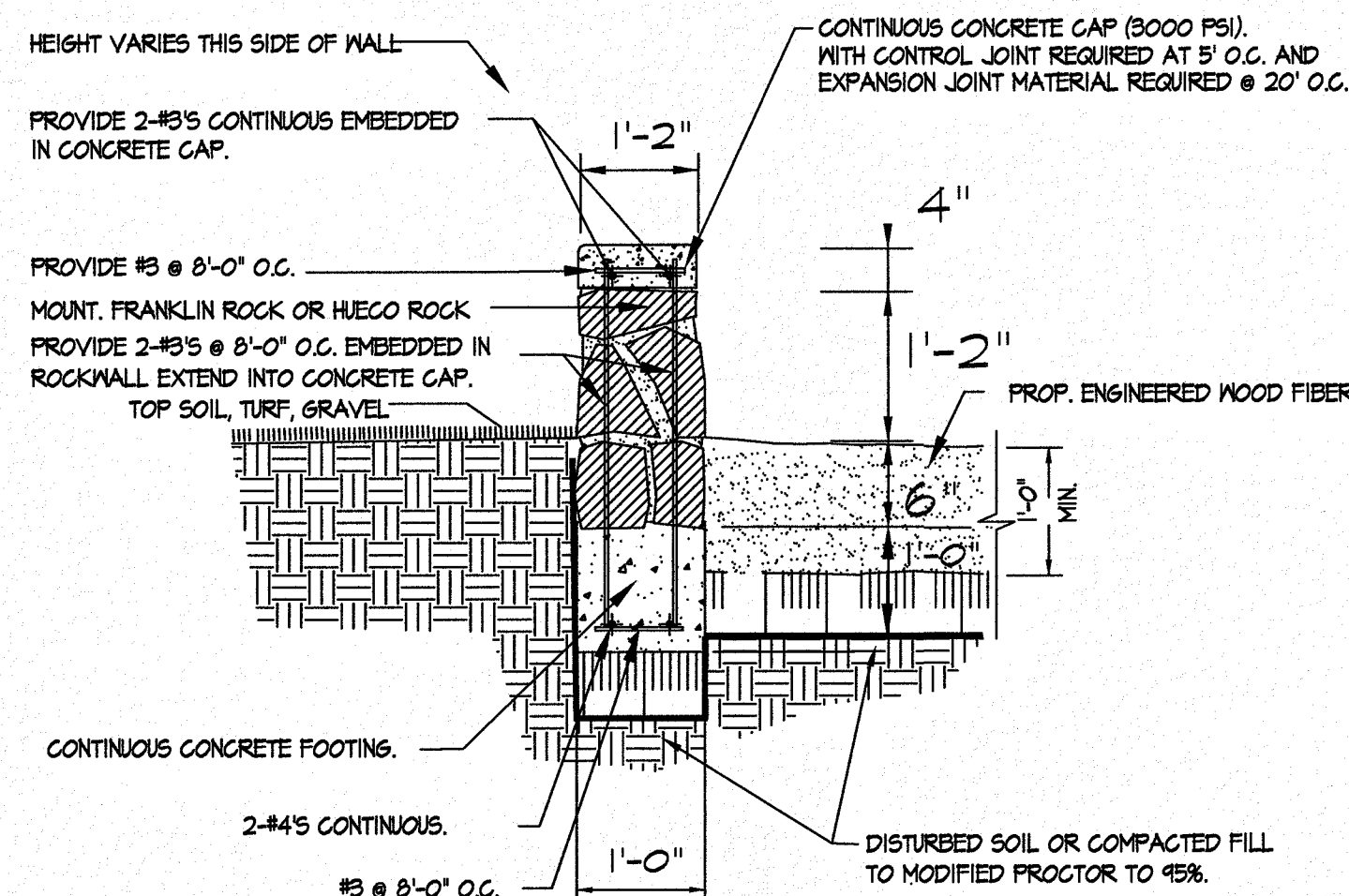
I ADA BENCH DETAIL  
NOT TO SCALE



K PARK RULES SIGN - SECTION  
NOT TO SCALE



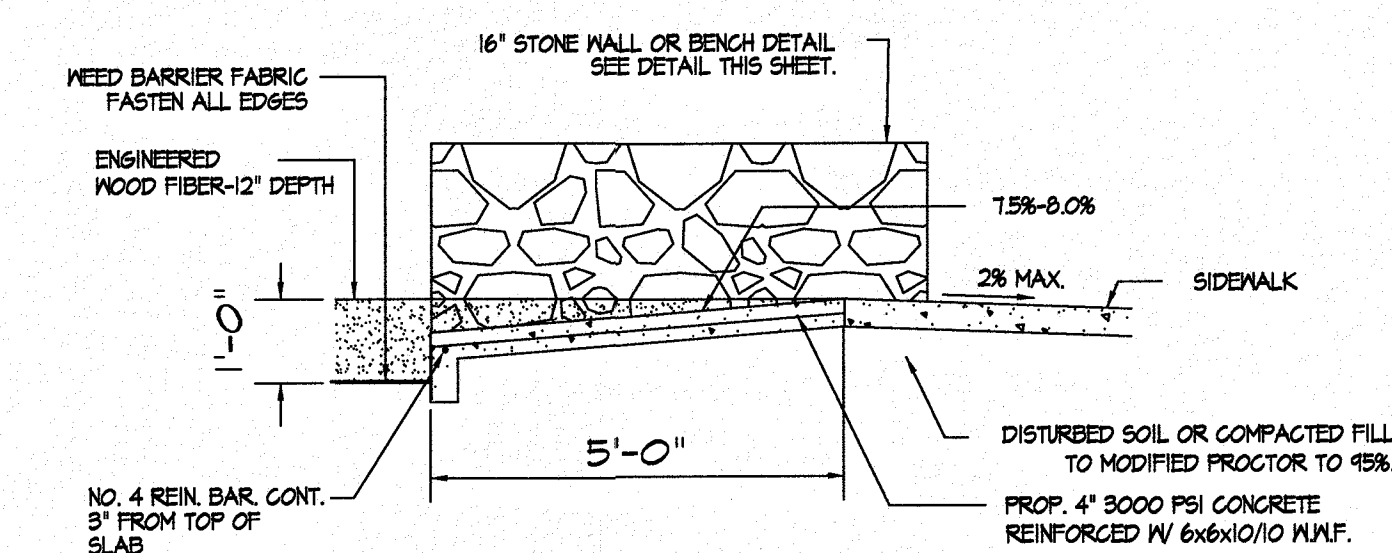
- 1 GALVANIZED STEEL CAP SECURED BY TACK WELDS (CLEANED, PRIMED AND PAINTED WITH ZINC BASED PAINT)
- 2 2 PARK RULES SIGN ONE SIDE ENGLISH ONE SIDE SPANISH
- 3 3" DIA. NPS STANDARD GALVANIZED STEEL PIPE POST SCHED. 40
- 4 STANDARD STEEL PIPE POST EMBEDDED IN CONCRETE BASE.
- 5 CROWN TOP OF FOOTING
- 6 #6 X 8" LONG BARS E.M. THROUGH PIPE.
- 7 3000 PSI CONCRETE FOOTING.
- 8 COMPACTED FILL TO MODIFIED PROCTOR TO 95%.



L PLAYGROUND ROCK WALL WITH MORTAR CAP  
NOT TO SCALE

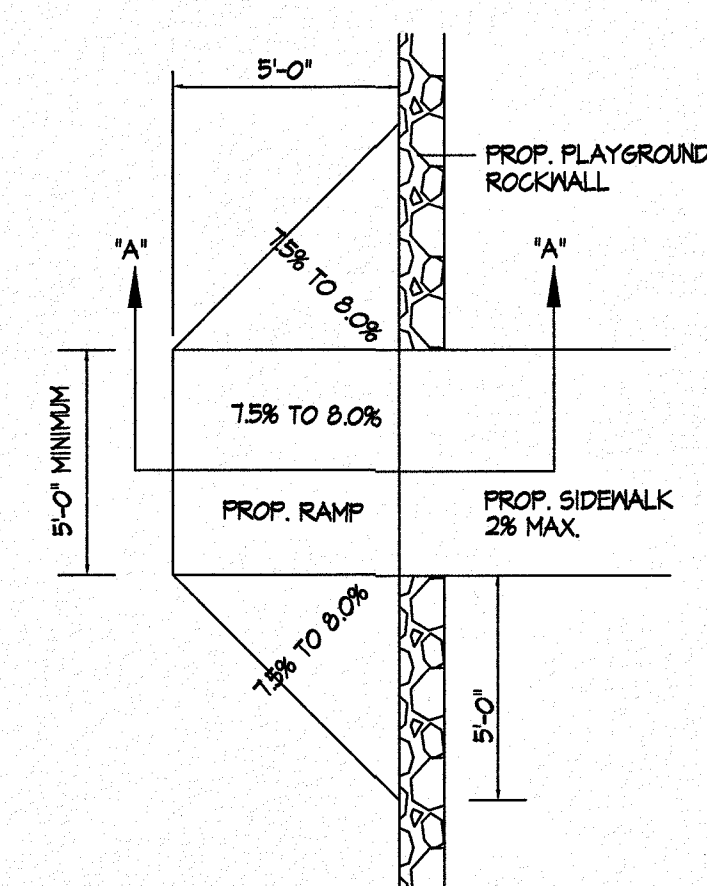
ROCKWALL NOTES:

1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO AIR AND WATER.
2. MORTAR SHALL BE TYPE 'S' 1800 P.S.I. AS PER ASTM C270-13. MORTAR SHALL CONSIST BY VOLUME OF 1 PART PORTLAND CEMENT, 3 1/2 PARTS OF CLEAN, HARD, DURABLE SAND AND 1/4 PART (MORTAR) LIME THOROUGHLY MIXED WITH WATER.
3. ROCKWALL MORTAR JOINTS SHALL NOT EXCEED 3/4" TO 1 1/4".
4. STONE SHALL BE CLEANED, FREE OF DIRT PRIOR TO INSTALLATION.
5. NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.

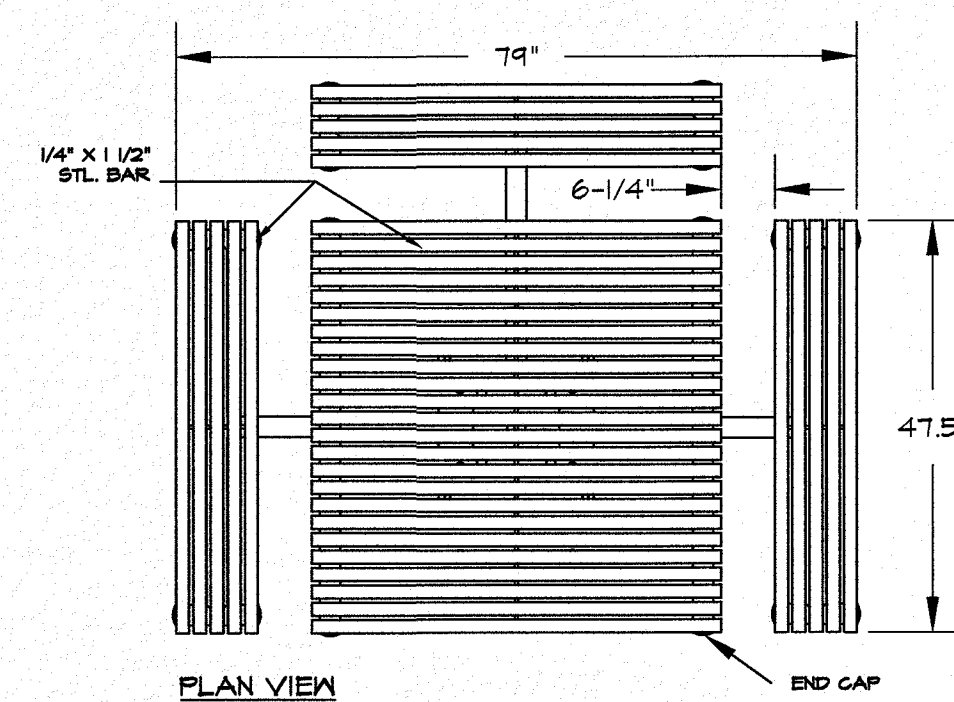


SECTION A-A

M ADA ACCESSIBILITY TO PLAYGROUND  
NOT TO SCALE



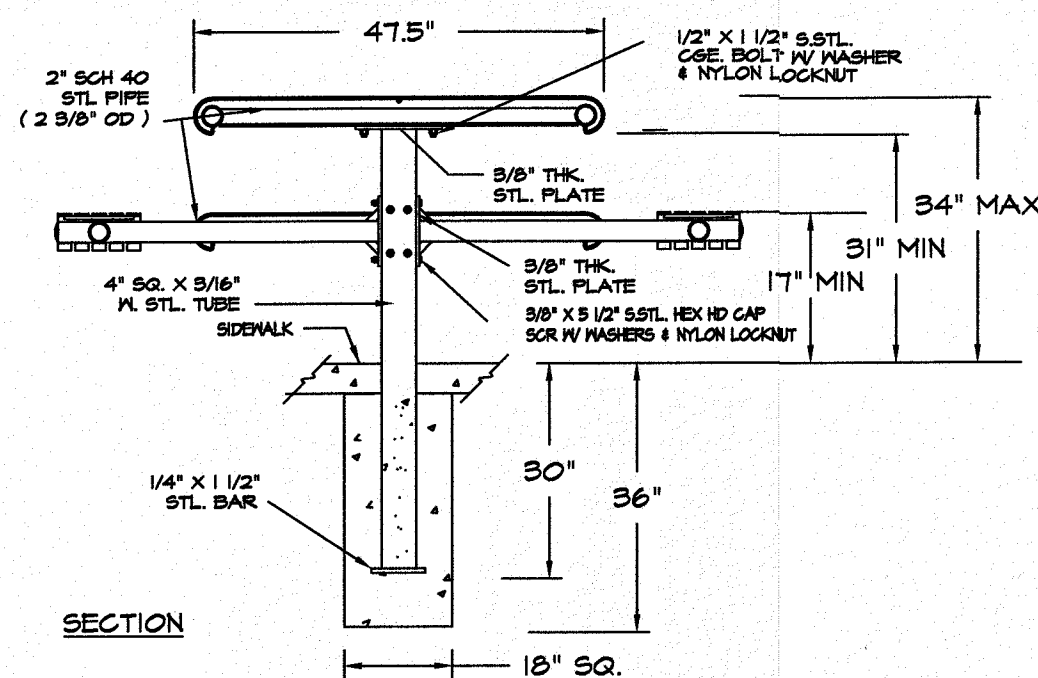
A B



NOTES: DIMOR 448-59" TABLE - EMBEDMENT

- 1) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2) BROWN COLOR - MATCH WITH BENCH AND TRASH RECEPTACLS. COLOR TO BE APPROVED BY PARKS DEPT.

N ADA ACCESSIBILITY TO PLAYGROUND  
NOT TO SCALE



PARKS DEPARTMENT  
REVIEWED BY *Chapman* for 10/23/18

Final Approval

REVISIONS

DATE

ARCHITECT'S SEAL

SCALE

Horizontal: Vertical: Contour Interval: N/A

DATE: DESIGN BY: LM DRAWN BY: LM CHECK BY: LM APP'D. BY: LM JOB No.:

PROJECT TITLE

DESERT SANDS PARK & DESERT BREEZE PARK LANDSCAPE IMPROVEMENTS

THE CITY OF EL PASO, TEXAS

SHEET TITLE

L12

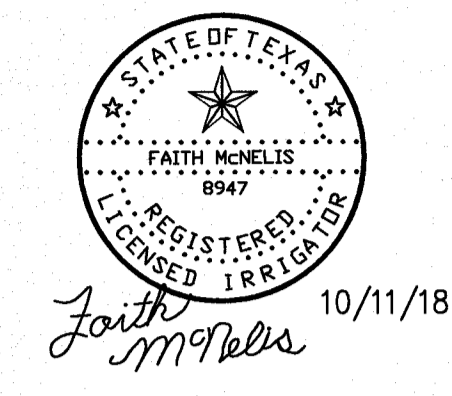
CONSTRUCTION DETAILS

SHEET 12 OF 15

LISA MCNELLIS LANDSCAPE ARCHITECT  
1900 FOXBORO LAS CRUCES, NEW MEXICO 88007  
(505) 621-8092

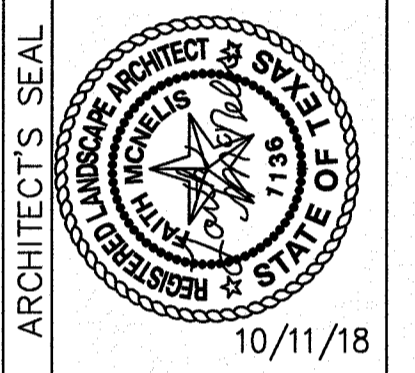
10/11/18

IRRIGATION IS REGULATED BY:  
 PO BOX 13087  
 AUSTIN, TEXAS 78711-3087  
 TCEQ 512 239-6719  
 CHAPTER 34, TEXAS WATER CODE  
 IRRIGATOR'S LIC. #8947



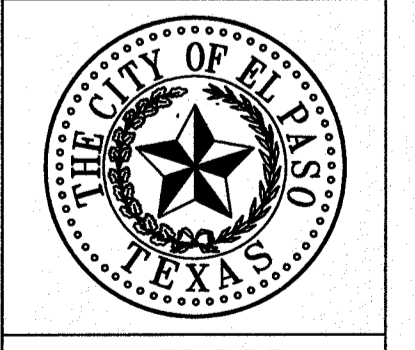
REVISIONS	DATE

LISA MCNELIS  
 LANDSCAPE ARCHITECT  
 1900 FOXBORO  
 LAS CRUCES, NEW MEXICO 88007  
 (505) 621-9092

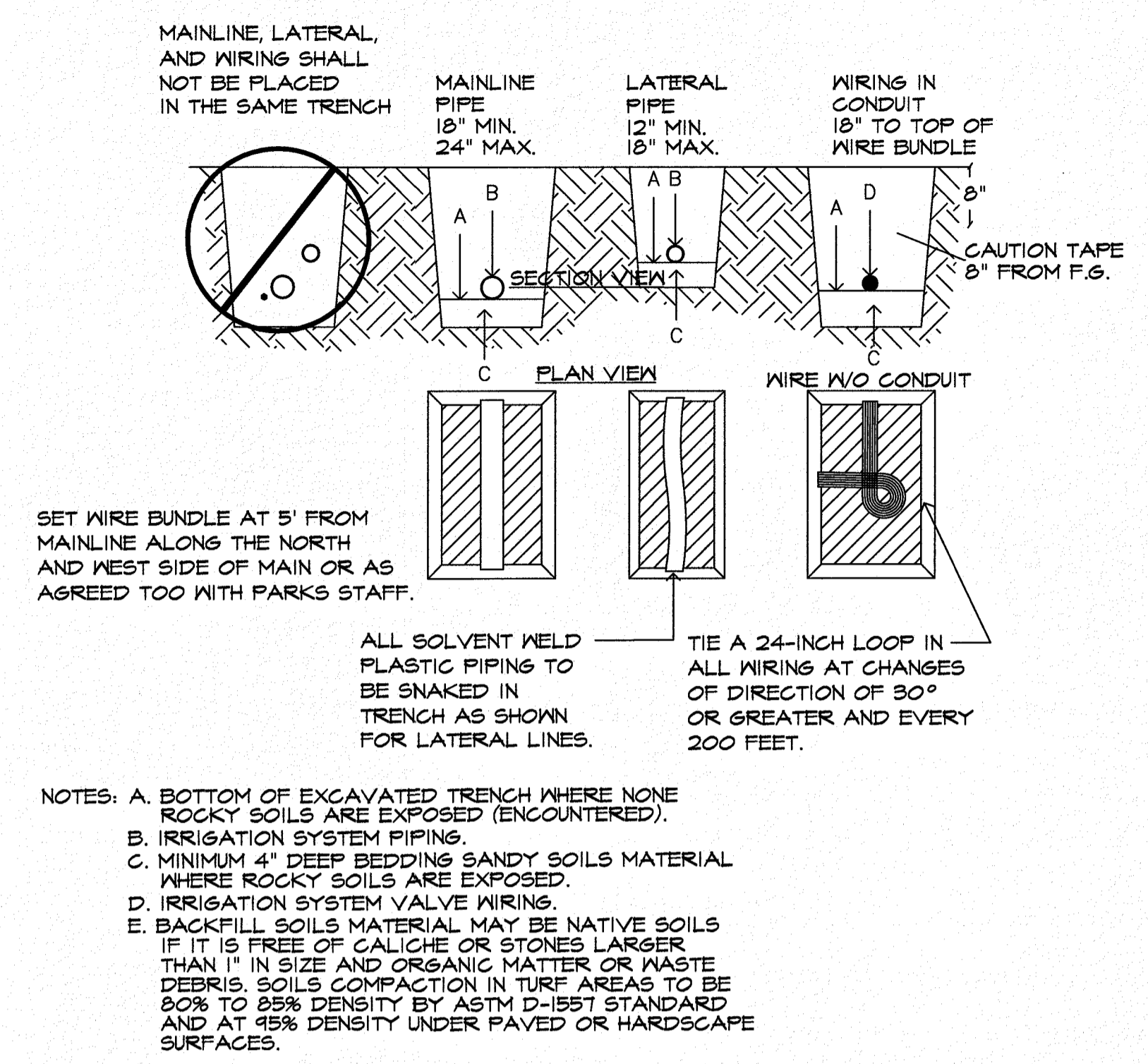


Horizontal:	
Vertical:	
Scale:	
Contour Interval:	N/A
DATE:	
DESIGN BY:	LM
DRAWN BY:	LM
CHKD. BY:	LM
APPVD. BY:	LM
JOB No.:	

PROJECT TITLE  
**DESERT SANDS PARK & DESERT BREEZE PARK**  
 LANDSCAPE IMPROVEMENTS

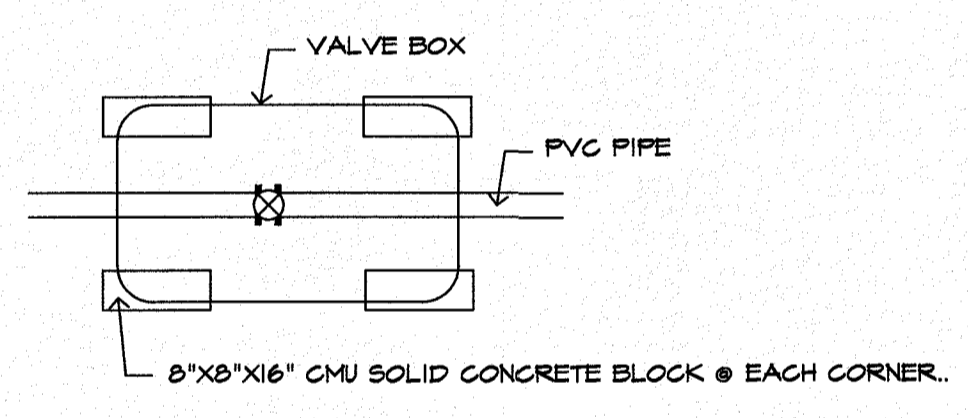


SHEET TITLE  
**L13**  
 IRRIGATION DETAILS  
 SHEET 13 OF 15

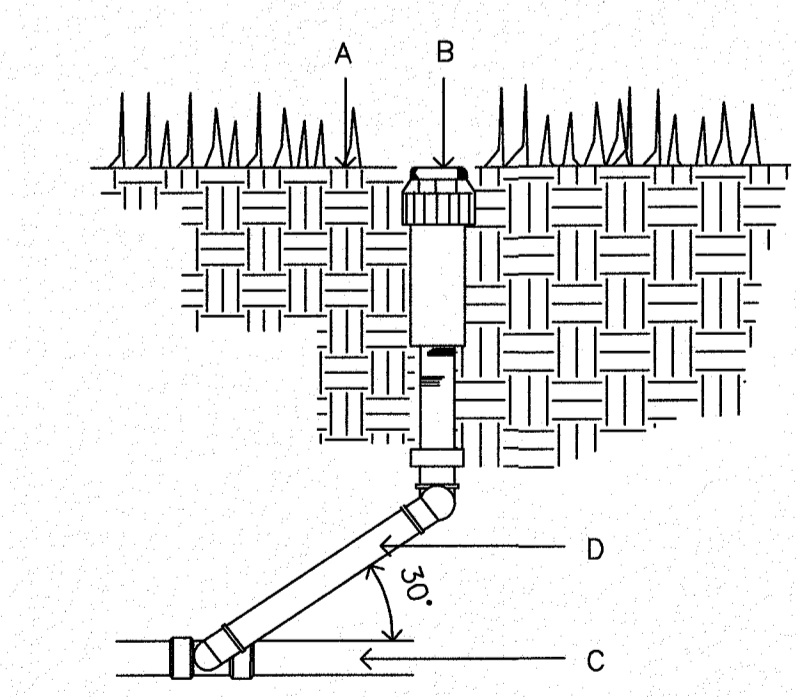


1 TYPICAL PIPE AND WIRE TRENCHING DETAIL  
 NOT TO SCALE

THIS DETAIL SHALL TAKE PRECEDENCE TO ANY OTHER DETAIL SHOWING VALVE BOX INSTALLATION.

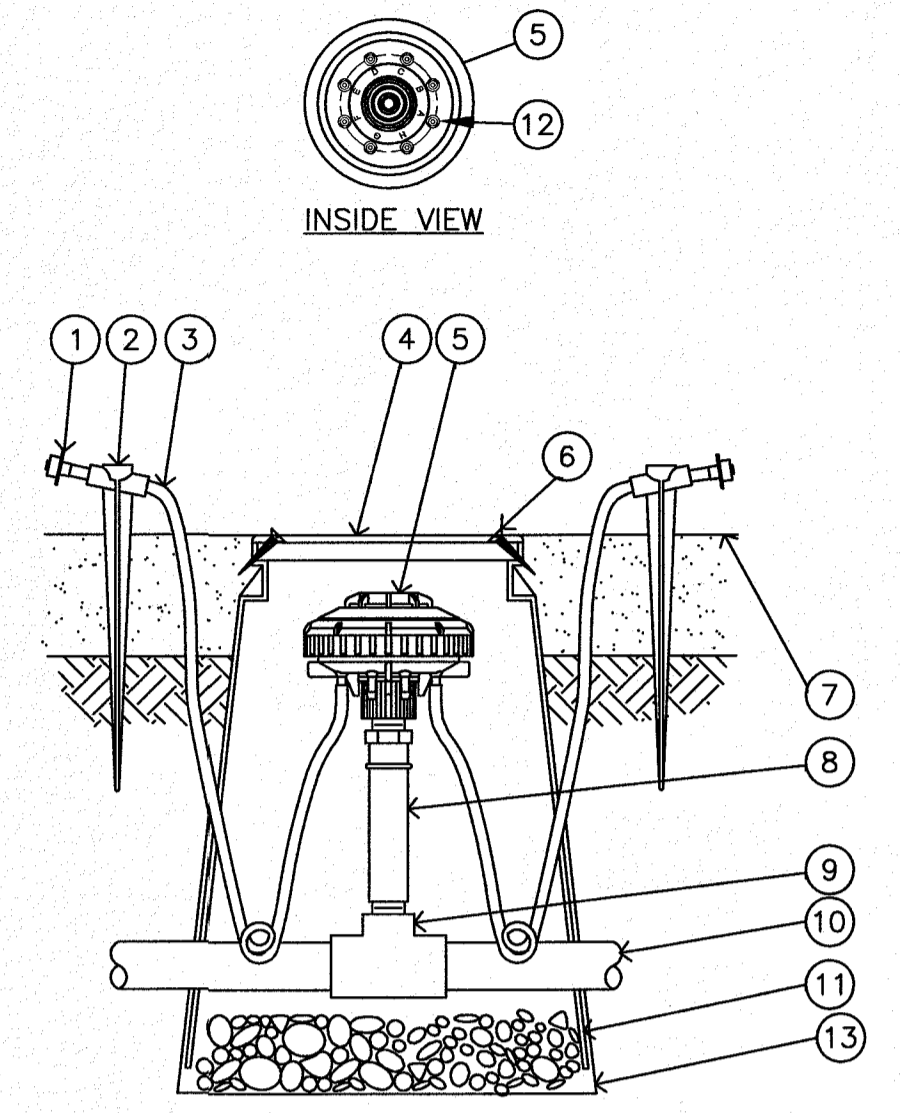


4 BLOCK PLACEMENT FOR VALVE BOXES  
 NOT TO SCALE

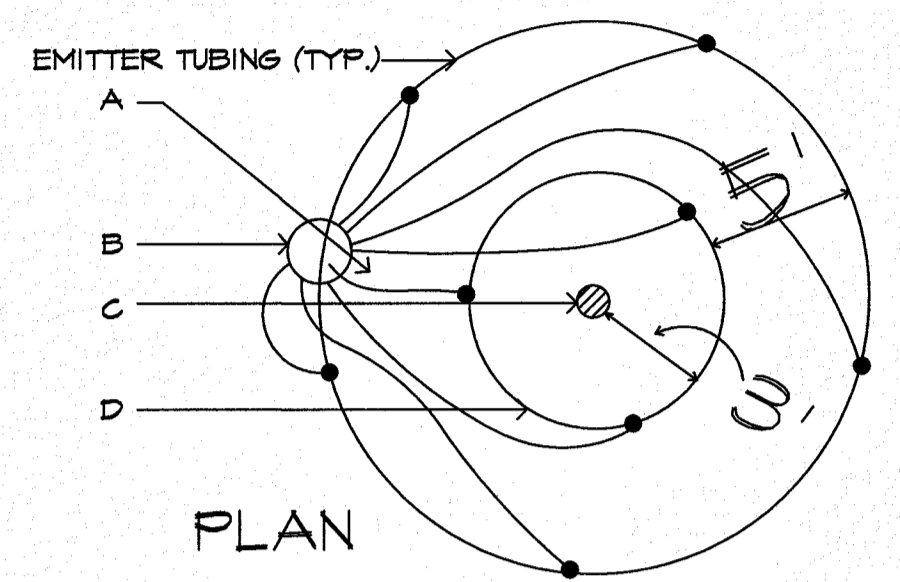


7 HUNTER ROTOR HEAD  
 NOT TO SCALE

LOCATE INNER RING EMITTER OUTLETS WITHIN 3' OF TREE TRUNK.  
 LOCATE OUTER RING EMITTER OUTLETS 8' FROM ROOTBALL.  
 DO NOT EXCEED 20' OF MICROTUBING.  
 FOR SHRUBS AND GROUNDCOVER PLANTS PLACE EMITTER ON UPHILL SIDE OF PLANT 12\"/>

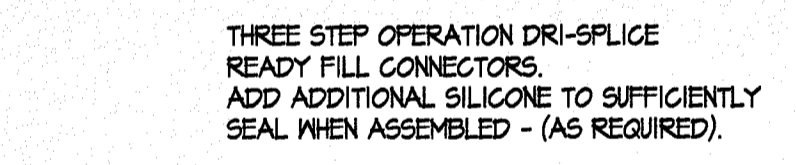


2 DRIP EMITTER FOR TREES AND PLANTS RAIN BIRD XERI-BIRD & MULTI OUTLET EMISSION DEVICE  
 NOT TO SCALE

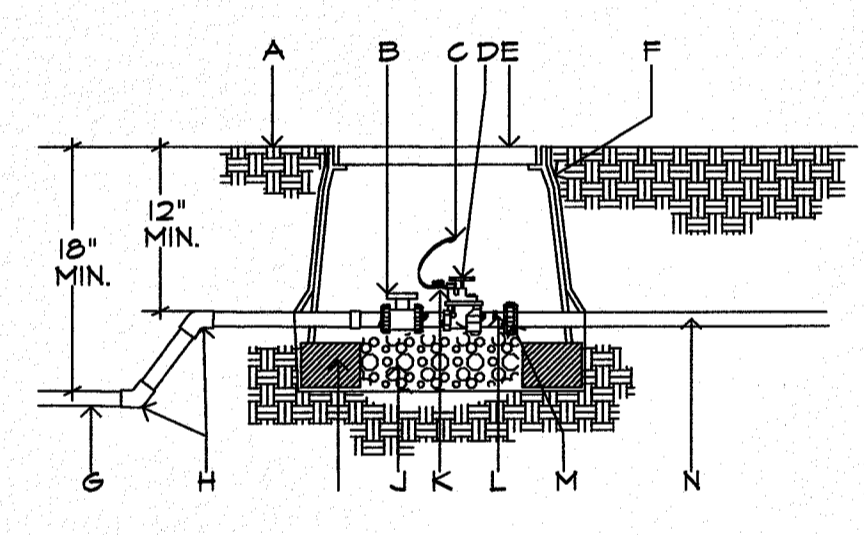


3 EMITTER PLACEMENT FOR TREES  
 NOT TO SCALE

NOTES:  
 1. COIL ADDITIONAL 4\"/>



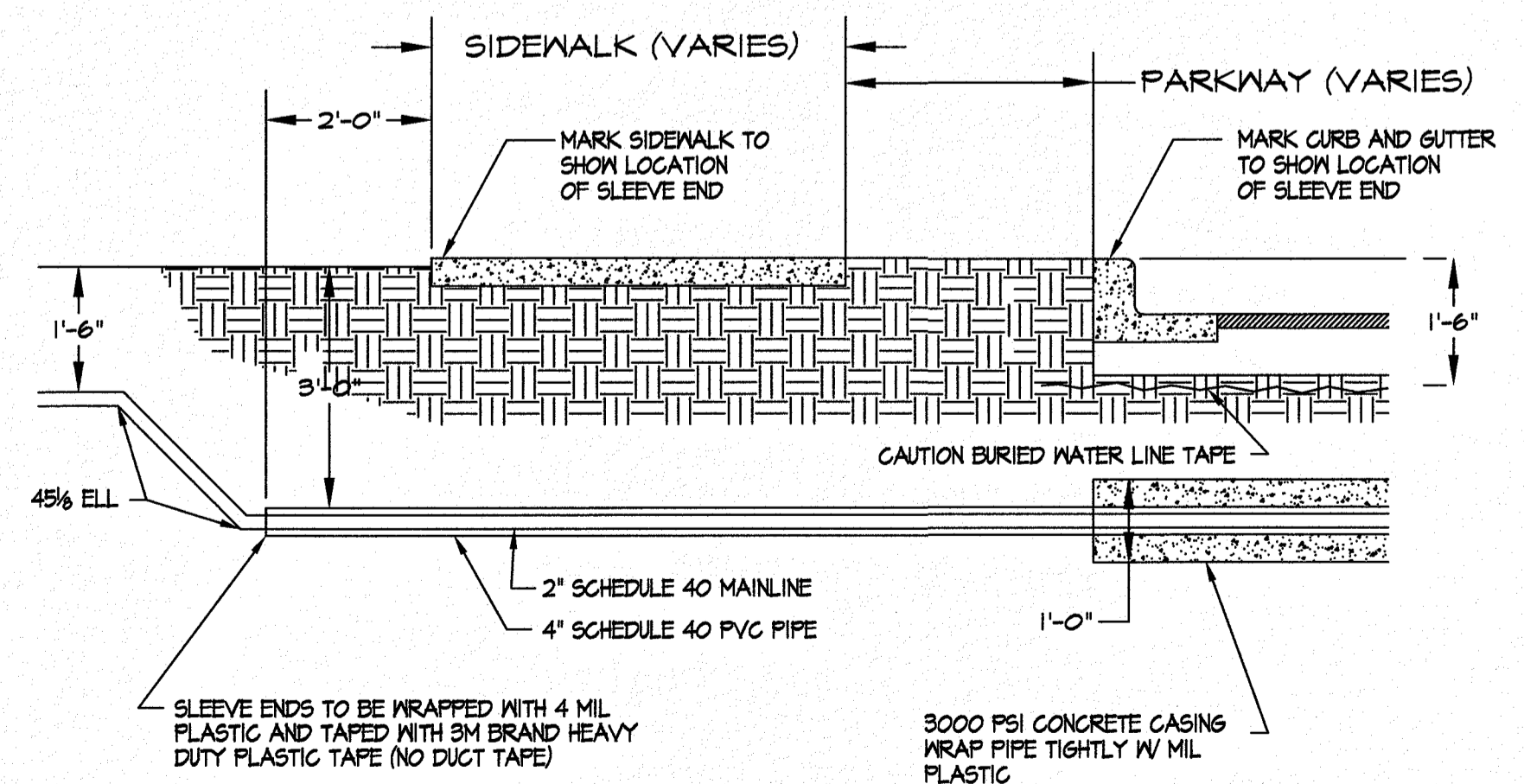
5 WIRE CONNECTORS  
 NOT TO SCALE



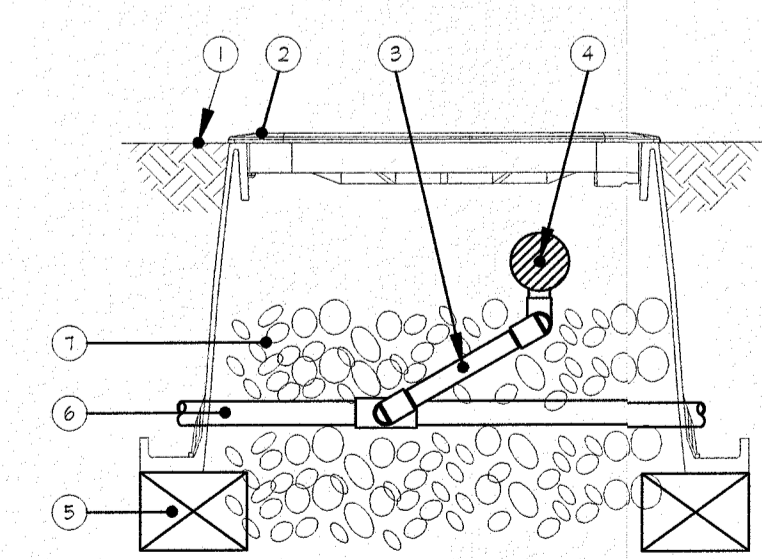
6 IRRIGATION CONTROL VALVE  
 NOT TO SCALE

NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK.

- A. FINISH GRADE.
- B. BALL VALVE.
- C. DRY SPLICE CONNECTOR OR EQUAL.
- D. ELECTRIC VALVE - SEE IRRIGATION LEGEND.
- E. CARSON PRODUCTS INC. 1414-18(ABS) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISHED MATERIAL AND 8\"/>
- F. PROVIDE DENIT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.
- G. PVC MAINLINE-SEE IRRIGATION LEGEND.
- H. SCH 80 - 45 DEGREE FITTING.
- I. 8\"/>
- J. 4\"/>
- K. 24\"/>
- L. SCHEDULE 80 PVC CLOSE NIPPLE.
- M. FLANGE (3\"/>
- N. LATERAL LINE.



9 SLEEVING UNDER STREETS  
 NOT TO SCALE



10 AIR RELEASE VALVE  
 NOT TO SCALE

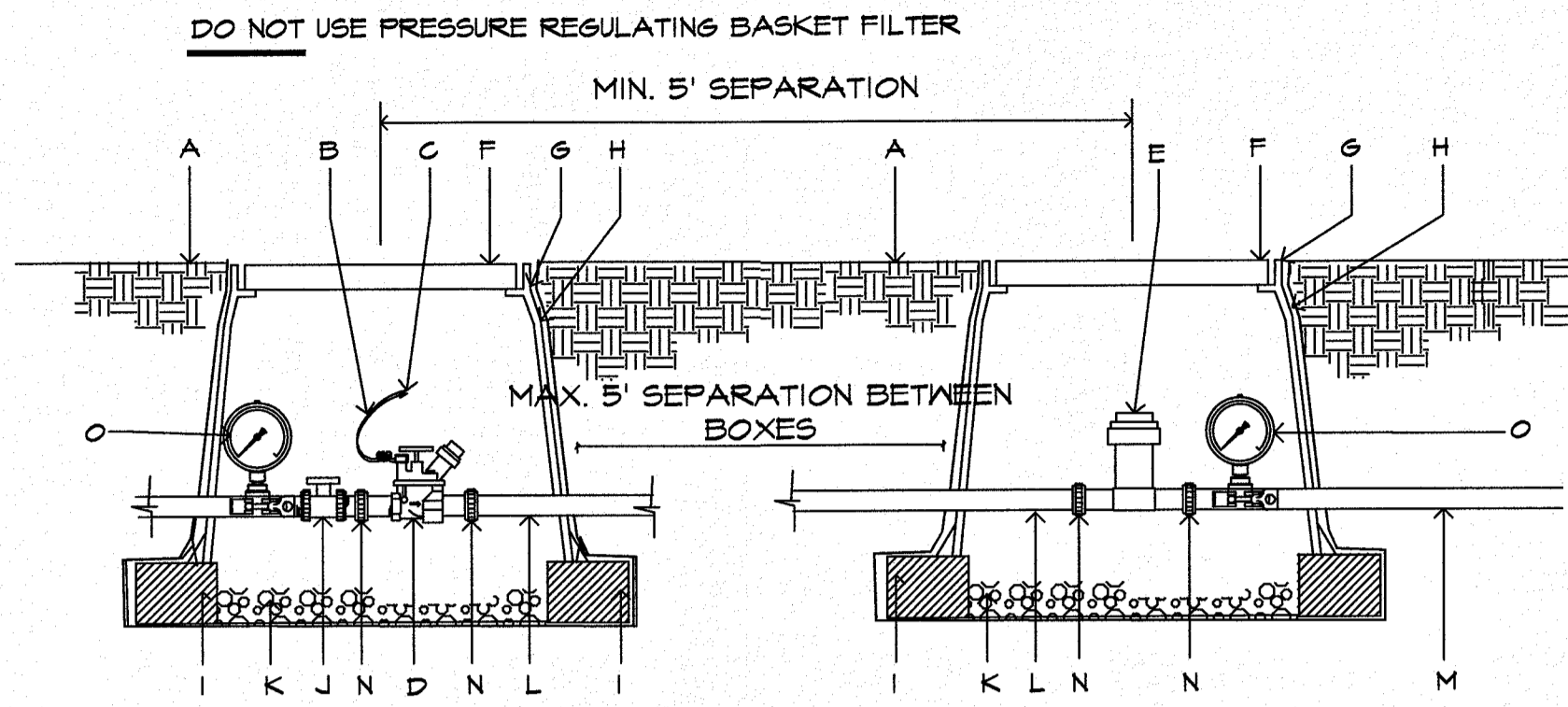
INSTALL BRICK AT EACH CORNER OF VALVE BOX 3/8\"/>

SEE ISOLATION VALVE DETAIL #6 ON L16 FOR STANDARD VALVE BOX INSTALLATION INFORMATION.

AIR RELEASE VALVES SHALL BE INSTALLED AT HIGH POINTS OF THE MAIN LINE AND LATERALS. LOCATION TO BE DETERMINED IN THE FIELD.



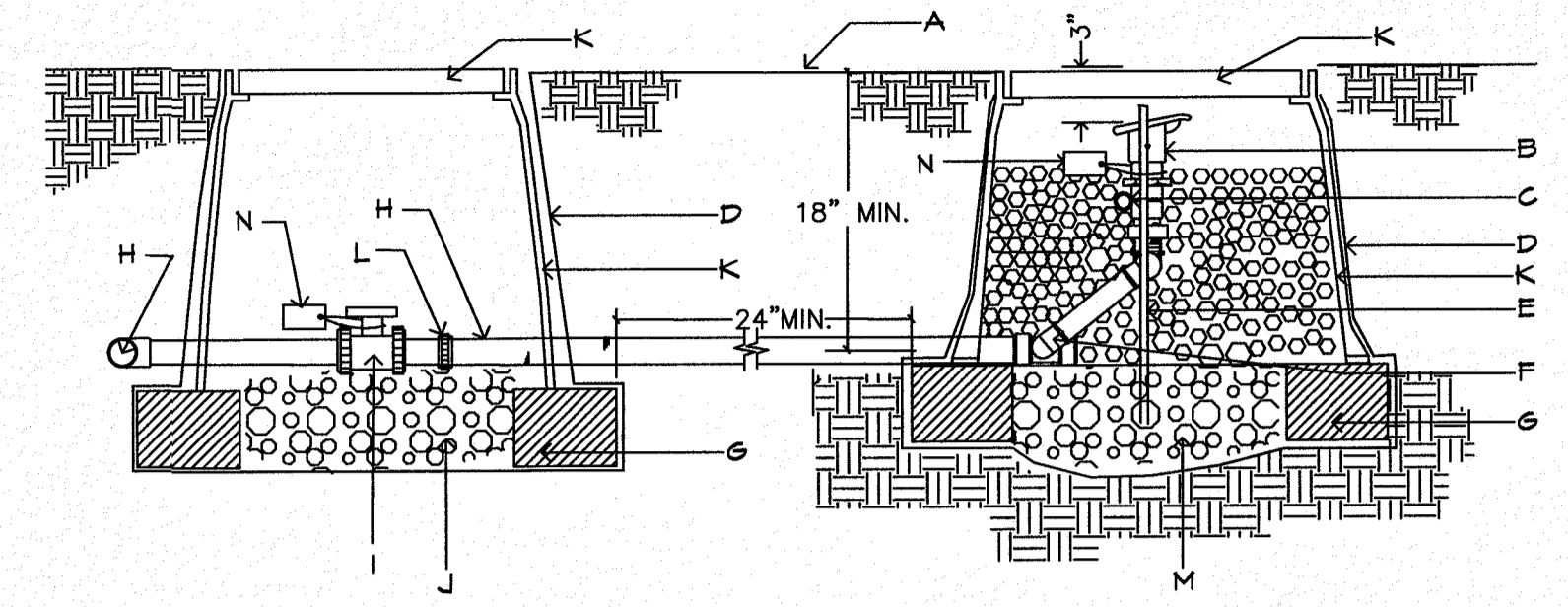
Final Approval



NOTE: PROVIDE 1 PRESSURE GAUGE ON MAIN LINE UPSTREAM OF BALL VALVE AND ANOTHER DOWNSTREAM OF BASKET FILTER. PROVIDE 5' SEPARATION BETWEEN BOXES. IF SPACE IS NOT AVAILABLE, PROVIDE A MIN. 5' SEPARATION AT CENTER LINES OF BOXES. SET GAGES HORIZONTAL TO BE READABLE FROM ABOVE.

- A. FINISH GRADE.
- B. 24" WIRE LOOP.
- C. DRY SPLICE CONNECTOR OR EQUAL.
- D. AUTOMATIC VALVE. SEE IRRIGATION LEGEND.
- E. RAINBIRD PRESSURE BASKET FILTER STRAINER SHALL BE INSTALLED TO PROVIDE ACCESS FOR MAINTENANCE AND REPLACEMENT.
- F. LOCKING VALVE BOX COVER FLAT LID WITH BOLT.
- G. CARSON PRODUCTS INC. 1419-10 BODY (ABS) VALVE BOX W/BOLT DOWN COVER (COVER COLOR TO MATCH FINISH MATERIAL AND EXTENSION AS NECESSARY).
- H. PROVIDE DEWITT PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX AND BLOCKS TAPE TO ALL INLET & OUTLET PIPE WITH 3M HEAVY DUTY PLASTIC TAPE.
- I. 8"x8"x16" CMU SOLID CONCRETE BLOCK @ EACH CORNER.
- J. BALL VALVE, INCLUDED IN CONTROL ZONE KIT, SEE IRRIGATION LEGEND.
- K. 4" LAYER OF 3/8" WASHED PEA GRAVEL.
- L. PVC PIPE SIZED PER PLAN WITH WELD ON THREADED FITTINGS ON EACH END.
- M. LATERAL LINE.
- N. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
- O. HORIZONTAL HYGIENIC PRESSURE GAUGE.

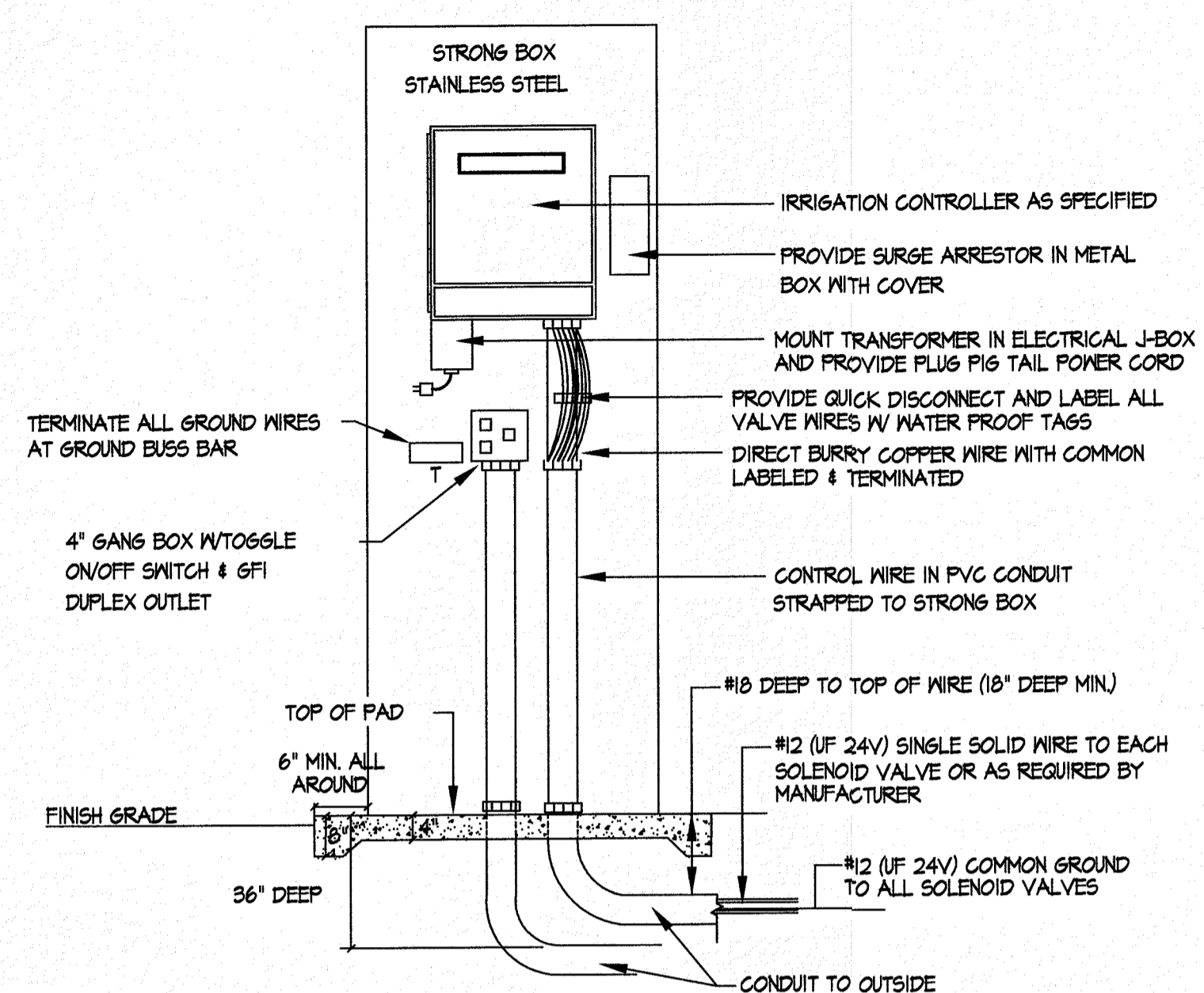
11 DRIP VALVE W/ BASKET FILTER  
NOT TO SCALE



- A. FINISH GRADE.
- B. 1" BUCKNER QUICK COUPLER VALVE, DOUBLE SLOT, PURPLE TOP-MODEL QBSNPIO WITH LASCO SNAP-LOK W/MALE BRASS STABILIZER ELBOW.
- C. MIN. 12" SECTION 1" DIA. PVC SECTION SHOULD EXTEND BEYOND BOTH REBAR SECTION, STABILIZE IN GRAVEL.
- D. PROVIDE DEWITT PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX. TAPE TO ALL INLET & OUTLET PIPE WITH HEAVY DUTY 3M PLASTIC TAPE.
- E. 1/2" OR 3/8" REBAR, MIN. 30" LENGTH, ONE ON EITHER SIDE OF QUICK COUPLER FOR STABILITY.
- F. LASCO SWING JOINT (PRE-ASSEMBLED).
- G. 8" X 8" X 16" SOLID CMU BLOCK.
- H. IRRIGATION MAINLINE.
- I. ISOLATION BALL VALVE, SEE IRRIGATION LEGEND.
- J. 6" DEPTH OF 3/8" WASHED PEA GRAVEL.
- K. CARSON PRODUCTS INC. 1419-10 BODY (ABS) VALVE BOX AND EXTENSIONS) W/BOLT DOWN COVER (COVER COLOR TO BE PURPLE).
- L. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
- M. 3/8" WASHED PEA GRAVEL FILLED TO QUICK COUPLER FOR STABILITY.
- N. WEATHER PROOF TAG THAT READS: "NON-PORTABLE WATER, NOT SAFE FOR DRINKING." FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.

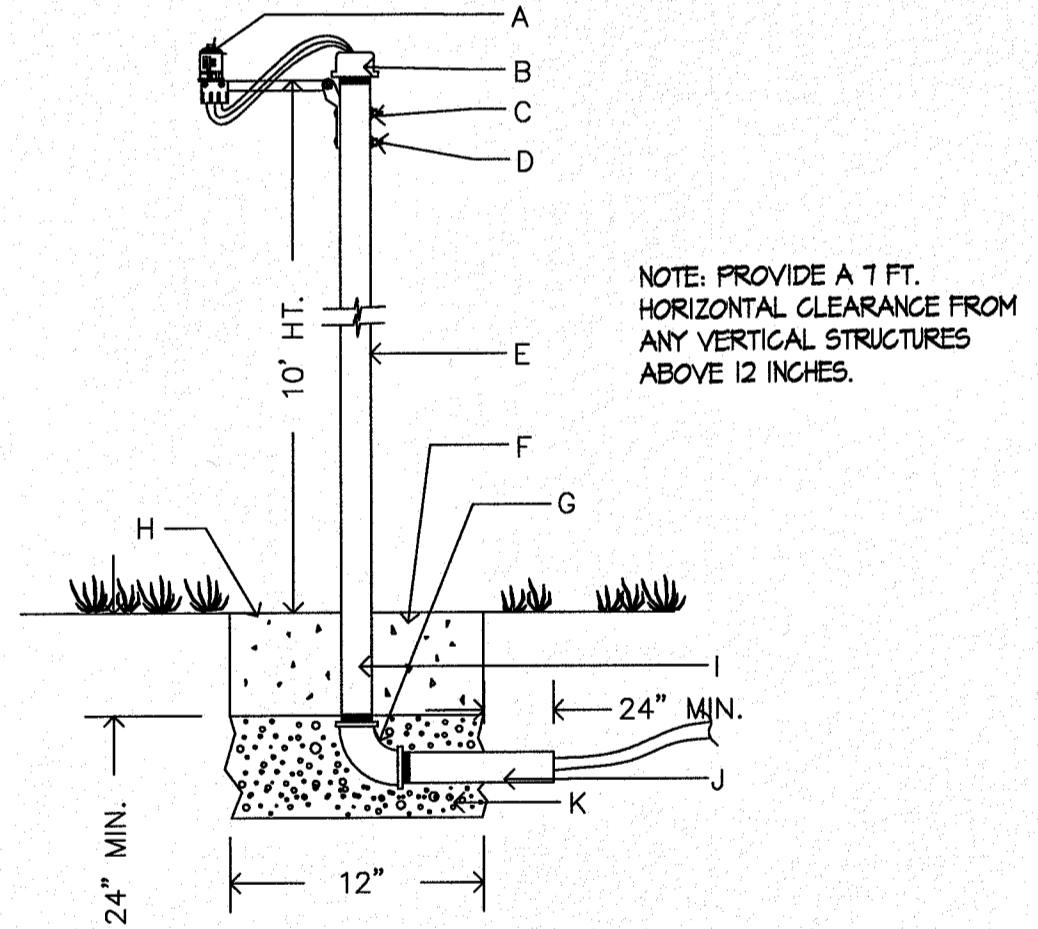
NOTE: INSTALL AN 8" X 8" X 16" SOLID CMU BLOCK AT EACH CORNER OF THE VALVE BOX. INSTALL 3/8" PEA GRAVEL BELOW THE 1419-10 VALVE BOX WITH BOLT DOWN COVER. EXTEND PEA GRAVEL UP TO COLLAR OF QUICK COUPLER VALVE. INSTALL A TEE, FLANGE & BALL VALVE OFF OF THE MAIN LINE IMMEDIATELY UPSTREAM OF THE QUICK COUPLER VALVE.

12 QUICK COUPLER  
NOT TO SCALE



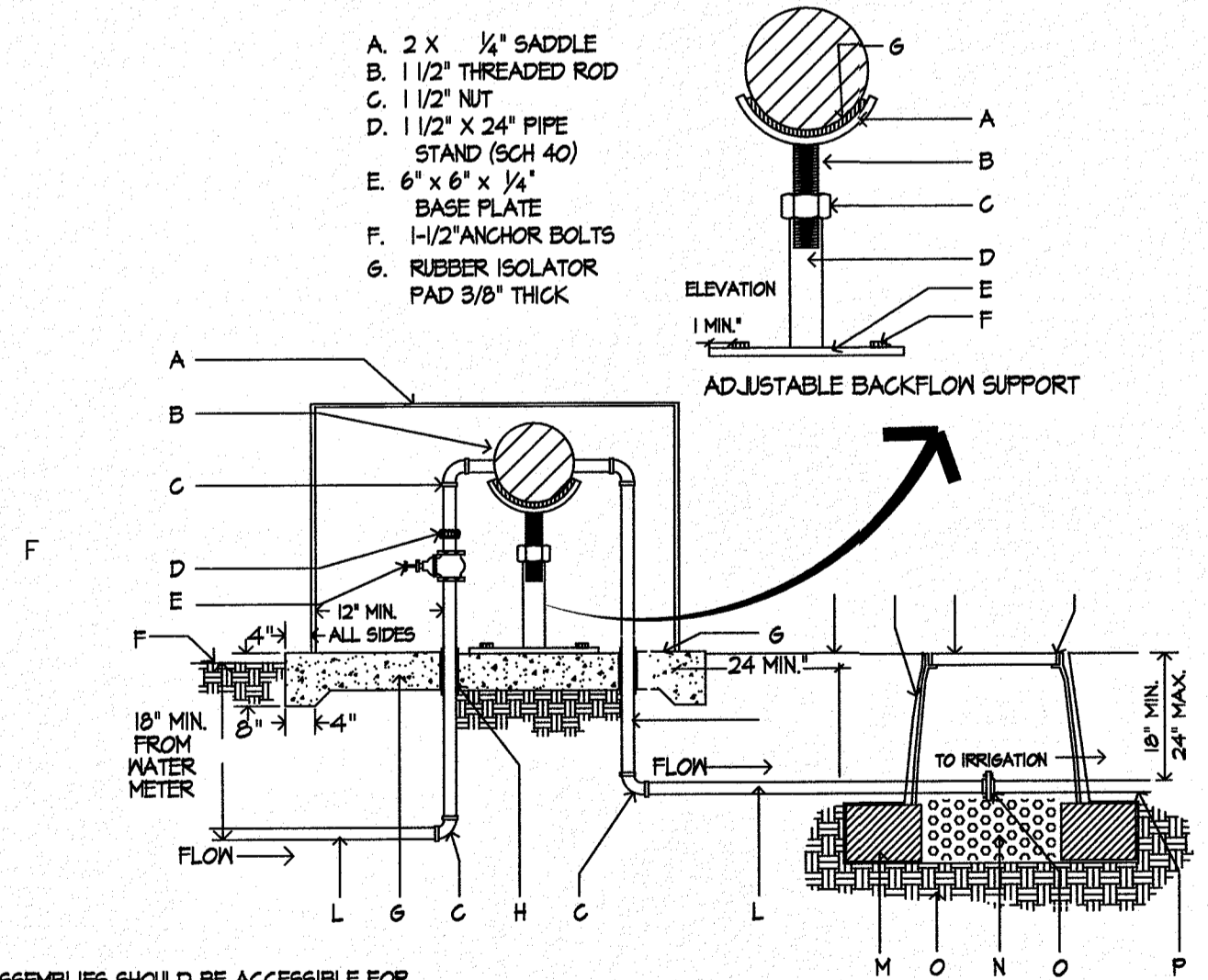
NOTES: 1. GROUND CABINET WITH #10 GAUGE OR HEAVIER STRANDED COPPER WIRE TO GROUNDING ROD AS PER MANUFACTURER'S SPECIFICATIONS.  
2. PEDESTAL ENCLOSURE TO BE SIZED TO HOUSE EQUIPMENT PROPERLY.

13 CONTROLLER IN PEDESTAL ENCLOSURE DETAIL FOR ONE ACRE PARK  
NOT TO SCALE



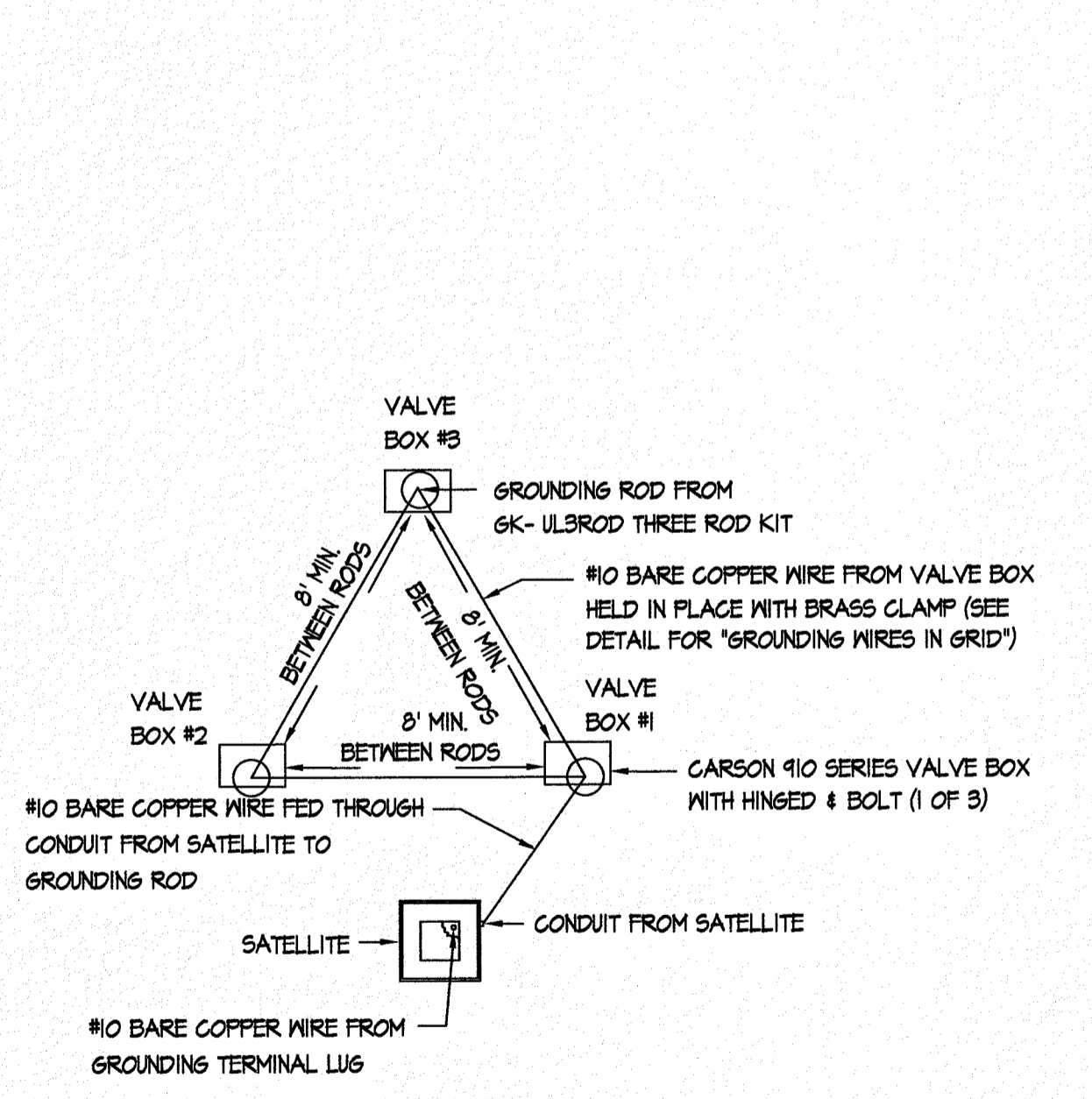
- A. RAIN BIRD RSD-BEX RAIN SENSOR. SET TO 1/8"
- B. 2 1/2" PIPE CAP WITH HOLE FOR WIRES AND SEAL WITH EXTERIOR GRADE SILICONE SEALANT.
- C. DRILL TWO 3/16" HOLES IN PIPE FOR SENSOR BRACKET.
- D. (2) NO. 8-32 MACHINE SCREWS WITH WASHER, LOCK WASHER AND NUT.
- E. 2 1/2" SCH 40 GALVANIZED PIPE-10 FT. HT. A.G.
- F. 12"x12" CONCRETE BASE, MIN. 24" DEEP.
- G. PIPE ELBOW.
- H. FINISH GRADE.
- I. PIPE TO BE SEALED AFTER CABLE IS RUN. USE 4 MIL. PLASTIC AND TAPED NIPPLE AND THE CABLE WITH HIGH GRADE 3M WEATHER PROOF PLASTIC TAPE.
- J. NIPPLE. GALVANIZED PIPE IN CONCRETE FOOTING TO BE WRAPPED WITH WEATHER PROOF TAPE TO PROTECT FROM CORROSION.
- K. 6" THICK, 3/8" DIAMETER WASHED PEA GRAVEL.

14 RAIN SENSOR  
NOT TO SCALE



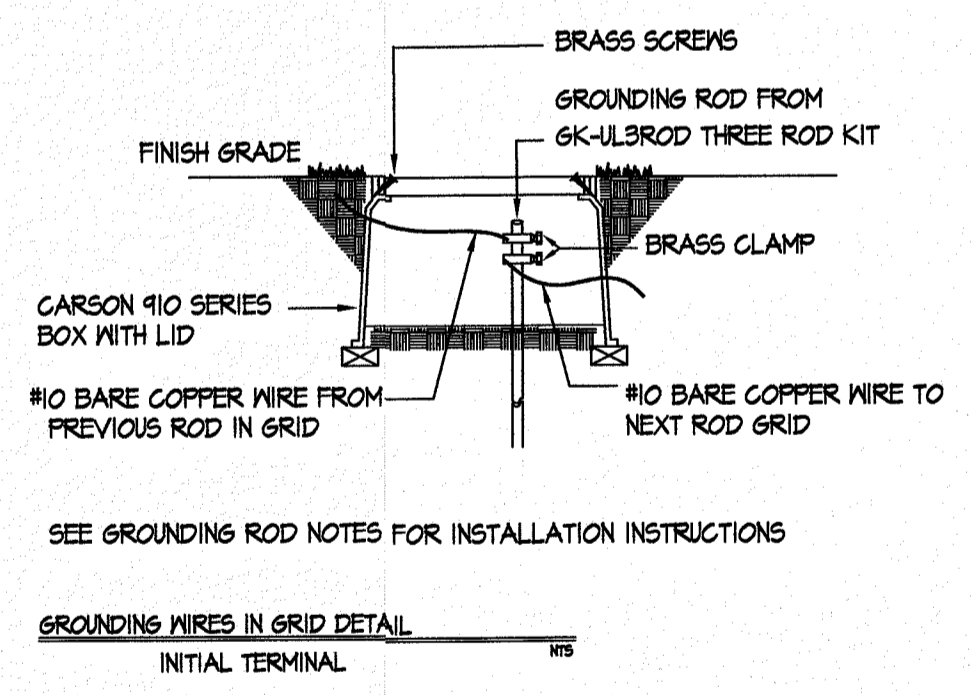
NOTE: ALL ASSEMBLIES SHOULD BE ACCESSIBLE FOR PERIODIC TESTING AND MAINTENANCE AS ESTABLISHED BY LOCAL CODES. SUGGESTED 16" MINIMUM CLEARANCE FROM TESTCOCK SIDE OF ASSEMBLY AND 12" MINIMUM CLEARANCE FROM VALVE BODY.

15 REDUCED PRESSURE ASSEMBLY BACKFLOW  
NOT TO SCALE



PLAN VIEW FOR LAYOUT ONLY. SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

16 TRIANGULAR GROUNDING GRID DETAIL  
NOT TO SCALE

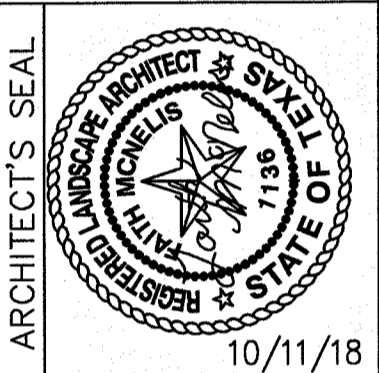


GROUNDING ROD NOTES:

- GROUNDING RODS SERVE AS ELECTRODES FOR DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. CAREFULLY READ THE FOLLOWING INSTALLATION INSTRUCTIONS:
- ALWAYS USE A 5/8" X 8' COPPER CLAD ROD.
  - RUN A #10 OF LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
  - KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
  - CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
  - TO INSTALL GROUNDING ROD, USE 6K-TOOLS ROD DRIVING SLEEVE.
  - SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8' APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID #10 COPPER WIRE.
  - WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GREATER THAN 5 OHMS.
  - WHENEVER MORE THAN ONE WIRE IS ATTACHED TO A GROUNDING ROD ALWAYS USE A SEPARATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESISTANCE LEVELS.
  - GROUNDING RODS SERVE AS ELECTRODES FOR THE SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. REMEMBER THESE TIPS WHEN INSTALLING THEM.

REVISIONS	DATE

LISA MCNEELIS  
LANDSCAPE ARCHITECT  
1900 FOXBORO  
LAS CRUCES, NEW MEXICO 88007  
(505) 621-5052



SCALE  
Horizontal: Contour Interval: N/A  
Vertical: LM  
DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPRD. BY: LM  
JOB No.:

PROJECT TITLE  
DESERT SANDS PARK & DESERT BREEZE PARK  
LANDSCAPE IMPROVEMENTS



SHEET TITLE

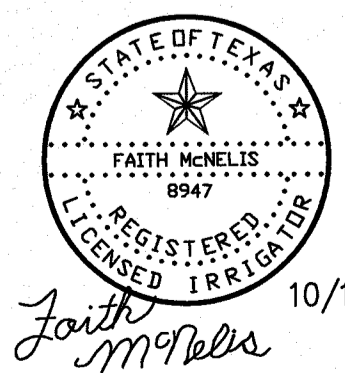
L14

IRRIGATION DETAILS

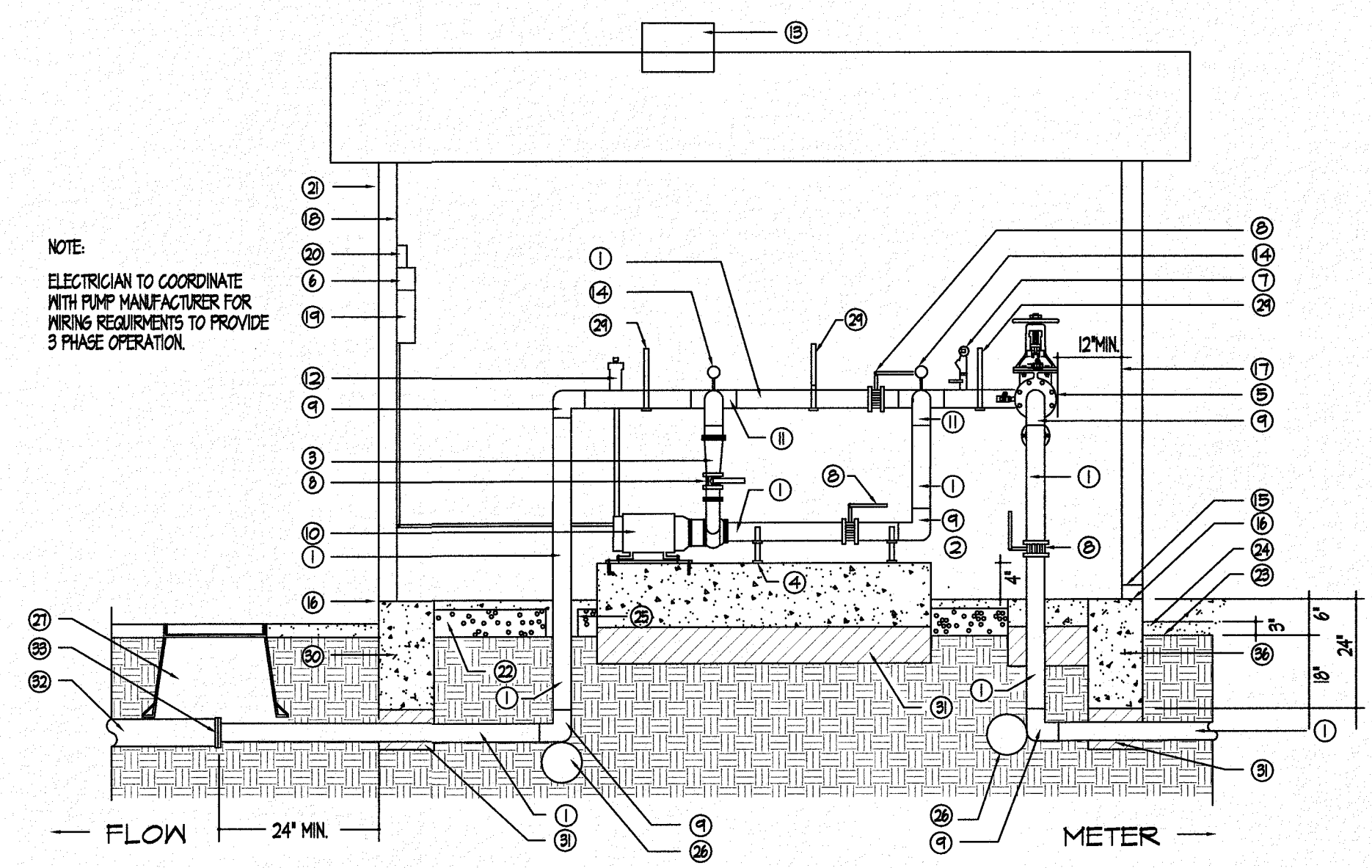
SHEET 14 OF 16

PARKS DEPARTMENT  
REVIEWED BY: Anthony [Signature] 10/25/15

IRRIGATION IS REGULATED BY:  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
TCEQ 512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947



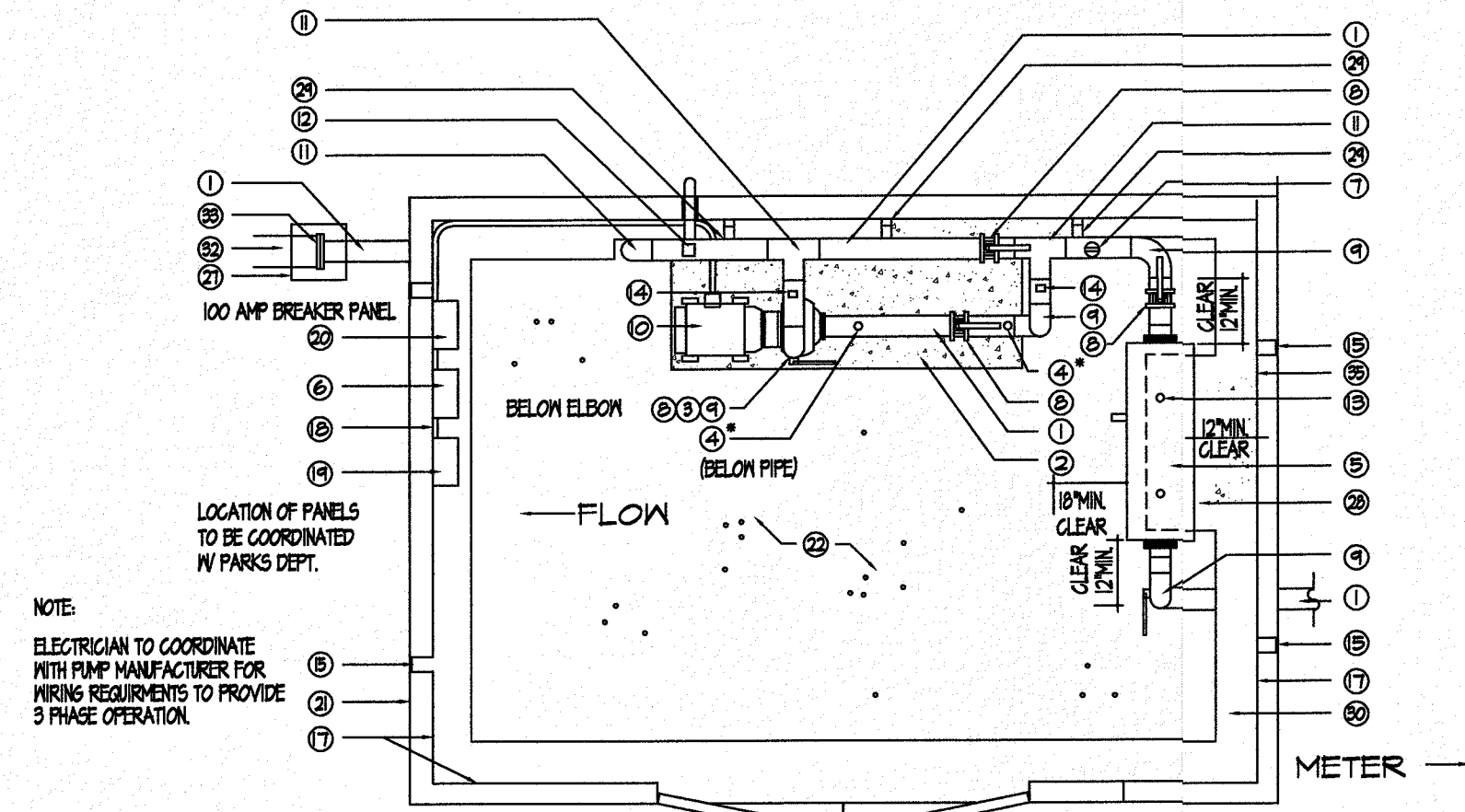
10/11/18  
Faith McNeelis



17 BOOSTER PUMP AND ENCLOSURE - SECTION/ELEVATION  
NOT TO SCALE

KEYED NOTES FOR DETAILS O AND P

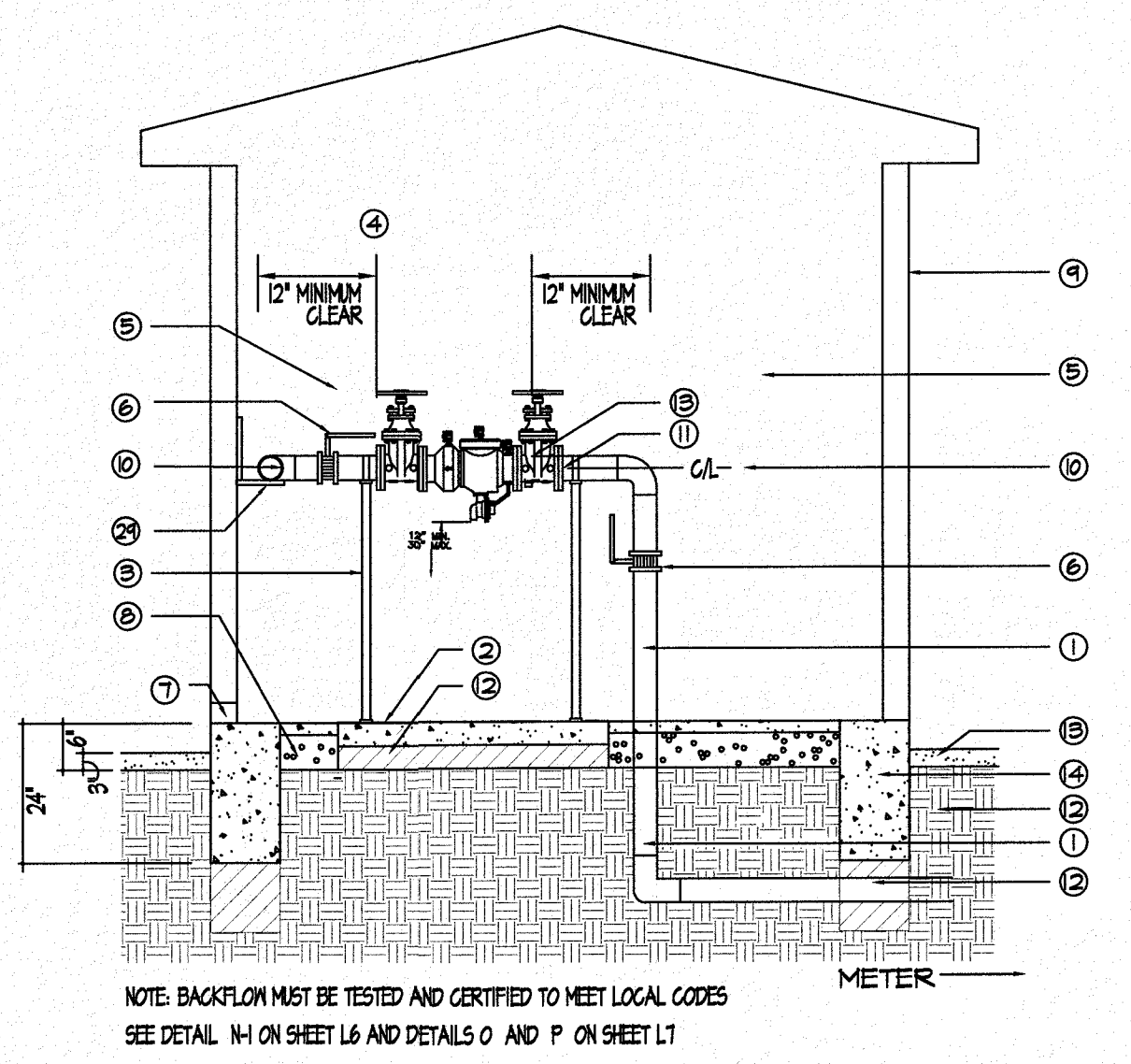
- 1 TYPE K COPPER - SEE PLANS FOR SIZE
- 2 CONCRETE SLAB BELOW PUMP - 3000 PSI 4" HIGHER THAN BUILDING FOOTING
- 3 CONCENTRIC REDUCER IF PUMP OUTLET IS LESS THAN 3"
- 4 STEEL SUPPORTS WITH ISOLATORS BOLTED TO CONCRETE
- 5 BACKFLOW PREVENTER - SEE PLANS
- 6 PENAIR VARIABLE FREQUENCY DRIVE
- 7 MERCID DA SWITCH - HIGH/LOW CUT OFF SWITCH MUST BE VERTICAL AND LEVEL WIRE TO PUMP PANEL
- 8 1/2" STYLE BUTTERFLY VALVE
- 9 COPPER ELBOW
- 10 BERKELEY 602PM VARIABLE FREQUENCY DRIVE PUMP IN 3 PHASE 10 HP MOTOR FLANGED MOUNTED ON CONCRETE SLAB WITH 1/2" OR THICKER SOLE PLATE TAPPED FOR HOLD DOWN BOLTS. USE RUBBER ISOLATORS BETWEEN PUMP AND SOLE PLATE. REFER TO BERKELEY CENTRIFUGAL PUMP OWNER'S MANUAL P. 5
- 11 COPPER TEE
- 12 PRESSURE RELEASE VALVE VENT TO OUTSIDE OF PUMP HOUSE
- 13 METAL STATIC VENT
- 14 100 PSI PRESSURE GAUGE
- 15 INSTALL KNOCK OUT DRAINS W/ STURDY METAL LOWERS (N)
- 16 TOP OF SHED FOOTING
- 17 WATER BOARD IN WALLS AND CEILING
- 18 3/4" CDX PLYWOOD BEHIND CONTROLLER AND ELEC. PANEL
- 19 CONTROLLER WITHIN 8' OF PUMP RELAYS. SEE DETAIL M SHEET L6
- 20 PUMP PANEL WITH NEMA 3R ENCLOSURE. REFER TO BERKELEY PUMP MANUFACTURER'S RECOMMENDED COMPONENTS FOR PUMP PROTECTION DURING OPERATION. MUST MEET ALL LOCAL ELEC. CODE REQUIREMENTS.
- 21 8' X 12' PREMIER TUFF SHED. DOOR LOCATION APPROVED BY PARKS.
- 22 4" MINIMUM DEPTH PEA GRAVEL
- 23 FINISHED GRADE
- 24 3" LAYER OF GRAVEL (OUTSIDE SHED)
- 25 USE "LEAVE OUT" IN CONCRETE OR PVC SLEEVE.
- 26 THRUST BLOCK
- 27 JIMBO CARSON BOX 18" DEPTH FOR INSPECTION
- 28 4" SLAB BELOW BACKFLOW FOR STEEL SUPPORTS
- 29 UNISTRUT PIPE SUPPORT SYSTEM - DETAILS PROVIDED TO PARKS
- 30 12"x24" CONCRETE FOOTING SEE T ON SHEET L2
- 31 UNDISTURBED SOIL OR COMPACTED FILL TO MODIFIED PROCTOR 95% BELOW ALL CONCRETE.
- 32 SCHEDULE 40 PVC MAIN
- 33 COPPER FLANGE TO PVC SCHEDULE 80 FLANGE



NOTE: DO NOT LET THE HEIGHT OF THE PIPE REST ON THE PUMP. INSTALL PRE SUPPORTS AS SHOWN. ADD SUPPORTS IF NECESSARY. TYPE K COPPER WILL BE USED FOR COPPER INSTALLED FROM SERVICE LINE THROUGH THE BACKFLOW AND PUMP.

SHED AND COMPONENTS MAY BE REORIENTED IN THE FIELD BASED ON WATER METER LOCATION. MAINTAIN CLEARANCES AND ORDER OF COMPONENTS. SHED MUST BE SET BEHIND BLDG SETBACKS.

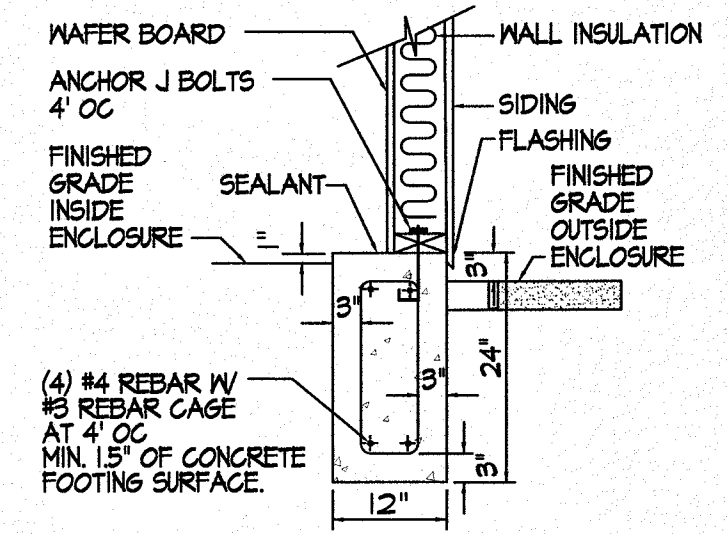
18 BOOSTER PUMP AND ENCLOSURE - PLAN VIEW  
NOT TO SCALE



19 BACKFLOW IN PUMP ENCLOSURE - SECTION/ELEVATION  
NOT TO SCALE

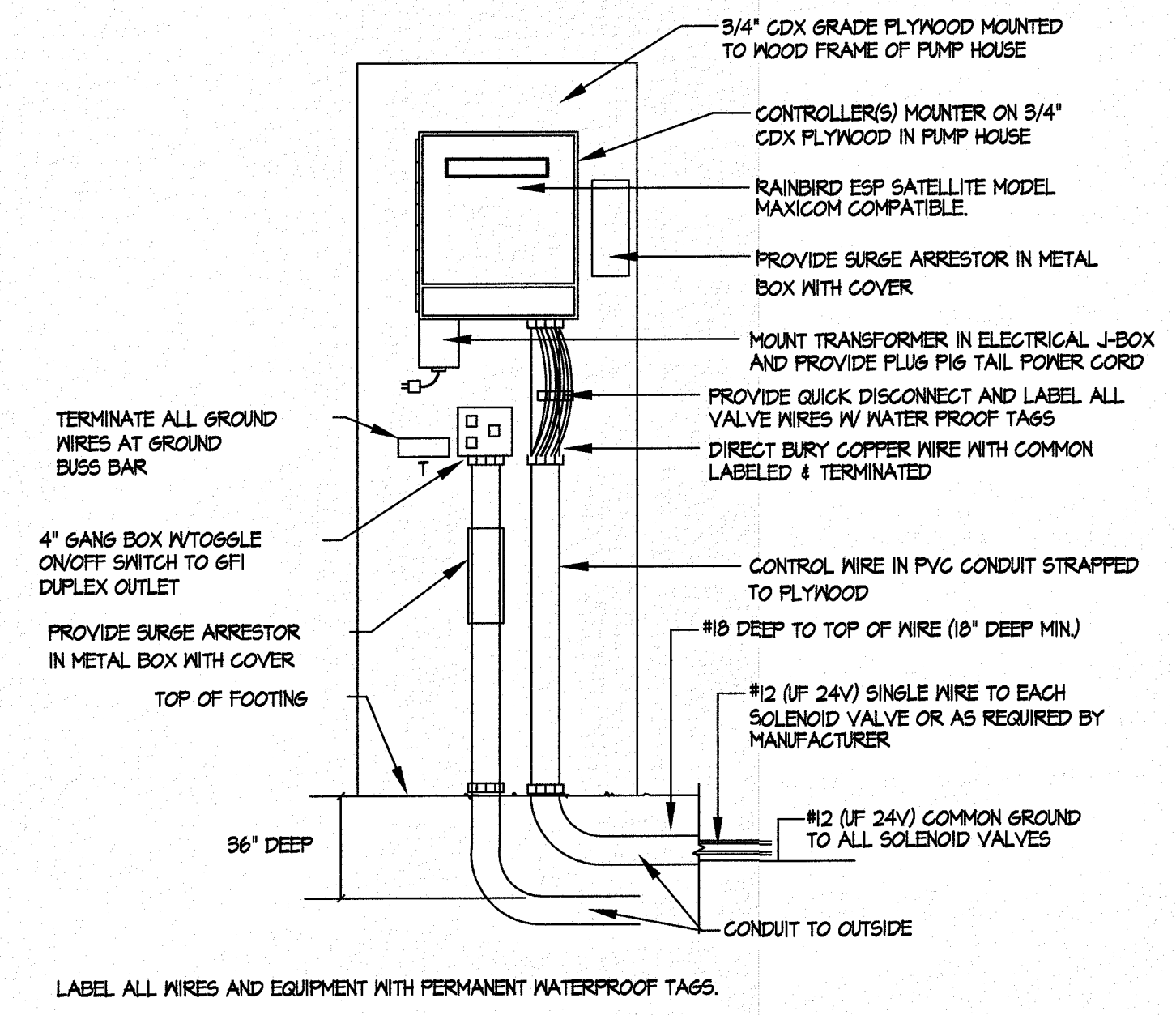
- 1 TYPE K COPPER - SEE PLANS FOR SIZE
- 2 4" CONCRETE SLAB BELOW BACKFLOW 3000 PSI CONCRETE. SAME FOUR AS SHED FOOTING
- 3 STEEL SUPPORTS WITH RUBBER ISOLATORS BOLTED TO CONCRETE
- 4 UNISTRUT PIPE SUPPORT SYSTEM - DETAIL TO BE APPROVED BY PARKS.
- 5 BACKFLOW PREVENTER - SEE PLANS
- 6 BUTTERFLY VALVE
- 7 INSTALL KNOCK OUT DRAINS WITH STURDY METAL LOWERS
- 8 4" DEPTH OF PEA GRAVEL
- 9 8' X 12' TUFF SHED. DOOR LOCATION TO BE APPROVED BY PARKS.
- 10 MUST ALIGN WITH BY-PASS ABOVE PUMP
- 11 COPPER UNION (FLANGED)
- 12 UNDISTURBED SOIL OR COMPACTED FILL TO MODIFIED PROCTOR 95% BELOW ALL CONCRETE.
- 13 3" LAYER OF GRAVEL OUTSIDE OF SHED
- 14 12' X 24" CONCRETE FOOTING MINIMUM SIZE BELOW WALLS. SEE DETAIL T ON L12.

PROVIDE CLEARANCES FOR BACKFLOW DEVICE OF:  
12" ON BACKSIDE  
12" ON SUPPLY AND DISCHARGE SIDES  
18" ON FRONT SIDE (TEST SIDE)



20 PUMP ENCLOSURE FOOTING DETAIL - SECTION/ELEVATION  
NOT TO SCALE

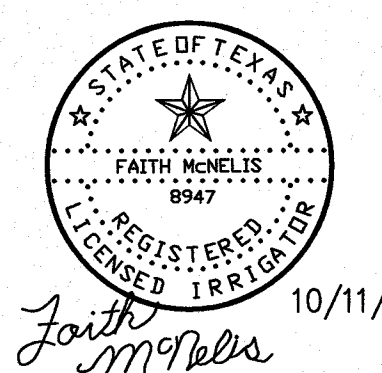
NOTES:  
ALL SIDING AND TRIM WORK TO BE CAULKED THEN PRIMED. USE 2 COATES OF PAINT (COLOR SELECTED BY PARKS AND RECREATION DEPT.).  
INSTALL KNOCK-OUT DRAINS WITH STURDY METAL LOWERS AT BASE OF PUMP HOUSE IN CASE OF LEAKS.  
SEE DETAILS N, O AND P ON SHEETS L6 AND L7 FOR MORE INFORMATION.



21 WALL MOUNTED CONTROLLER MAXICOM COMPATIBLE  
NOT TO SCALE

PARKS DEPARTMENT  
REVIEWED BY Anthony J. [Signature] 10/25/18

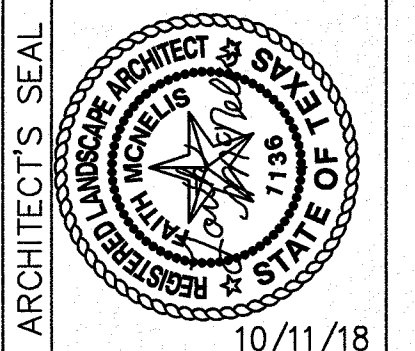
IRRIGATION IS REGULATED BY:  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
TCOQ 512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947



10/11/18

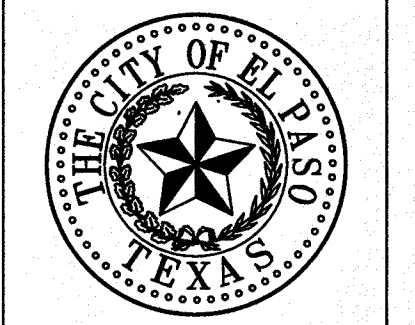
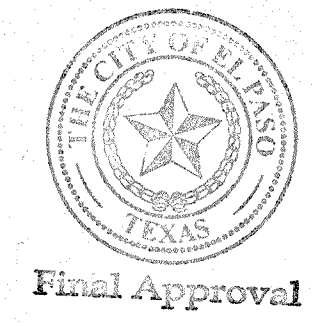
REVISIONS	DATE

LISA MCNELIS  
LANDSCAPE ARCHITECT  
1900 FOXBORO  
LAS CRUCES, NEW MEXICO 88007  
(505) 621-8092



SCALE:  
Vertical: N/A  
Horizontal: N/A  
DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPVD. BY: LM  
JOB No.

PROJECT TITLE  
**DESERT SANDS PARK**  
DESERT SANDS SUBDIVISION  
LOT 11 BLOCK 17  
CITY OF EL PASO, EL PASO, TEXAS 79938  
AREA: 193,963.86 SQ. FT. - 4.44 ACRES



SHEET TITLE  
**L15**  
IRRIGATION DETAILS  
SHEET 15 OF 15