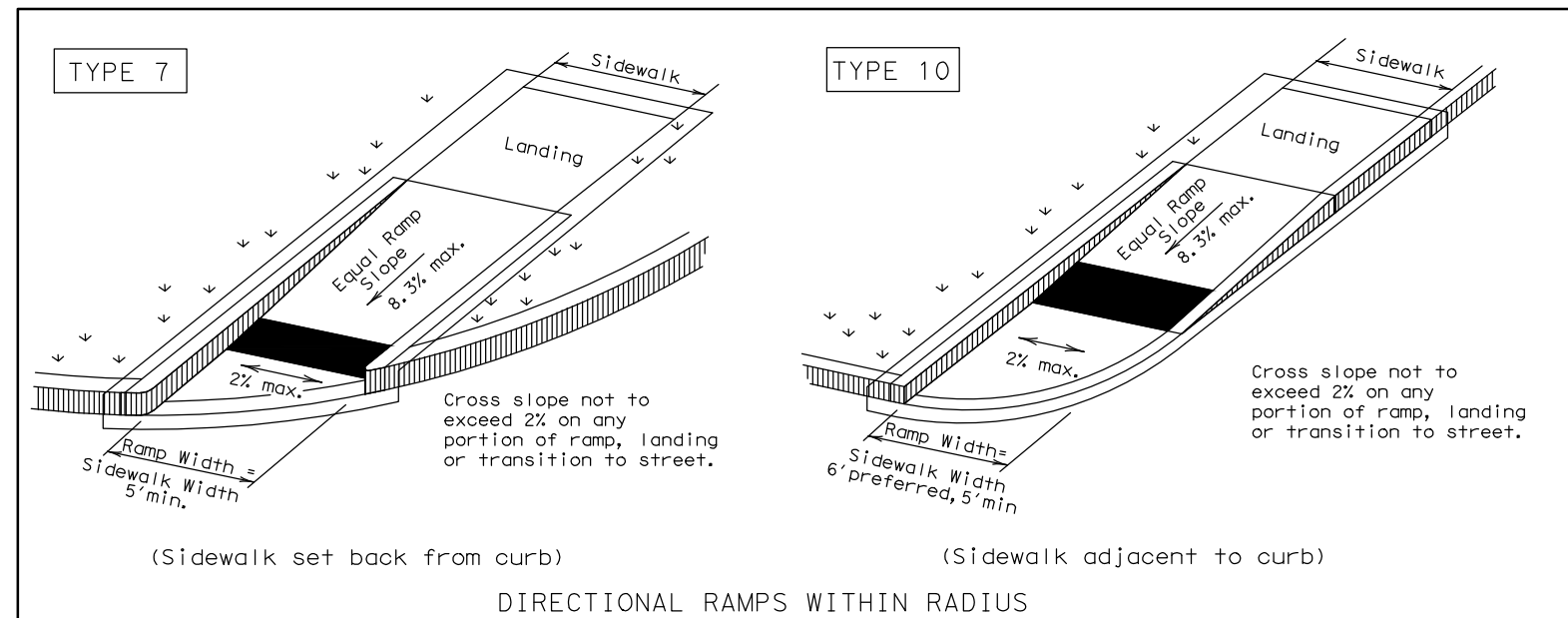


**CITY OF HARLINGEN GENERAL NOTES FOR PUBLIC IMPROVEMENT PROJECTS:**

- CITY PERSONNEL CONTACT INFORMATION:  
 CITY INSPECTOR: MR. OSCAR OVALLE  
 CITY ENGINEER: MR. LUIS VARGAS, PE  
 ASSISTANT CITY ENGINEER: MR. ROBERTO HERNANDEZ, PE  
 EXCAVATION PERMIT REQUEST: EXCAVATION.PERMITS@CITYOFHARLINGEN.US  
 CITY ENGINEER: MR. LUIS VARGAS, PE  
 ASSISTANT CITY ENGINEER: MR. ROBERTO HERNANDEZ, PE  
 EXCAVATION PERMIT REQUEST: EXCAVATION.PERMITS@CITYOFHARLINGEN.US
- THE CONTRACTOR SHALL VERIFY ALL LOCATION DIMENSIONS, VERTICAL CONTROL ELEVATIONS, AND PROPERTY LINE LOCATIONS PRIOR TO CONSTRUCTION WITHIN THE EXISTING CITY ROW.
- THE CONTRACTOR SHALL COORDINATE WITH THE OWNER, PROJECT ENGINEER OR HIS REPRESENTATIVE, AND CITY ENGINEER OR HIS REPRESENTATIVE REGARDING ANY DEVIATIONS FROM THE PLANS.
- THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE CITY OF HARLINGEN BEFORE PERFORMING WORK WITHIN THE ROW.
- THE CONTRACTOR SHALL NOTIFY TEXAS ONE CALL (811) OF HIS INTENDED OPERATIONS AT LEAST 48 HOURS PRIOR TO ANY AND ALL EXCAVATIONS.
- PER THE TEXAS ONE CALL STATUTE, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL UTILITY COMPANIES WITH JURISDICTION IN THE AREA OF CONSTRUCTION TO DETERMINE WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT AND TO REQUEST LOCATION AND IDENTIFICATION OF ALL UTILITIES NO LESS THAN TWO BUSINESS DAYS PRIOR TO CONSTRUCTION. A TEXAS ONE CALL NOTIFICATION CENTER MUST BE CONTACTED FOR LOCATE REQUESTS OF CLASS A UNDERGROUND FACILITIES BY CALLING 811 OR 1-800-545-6005. PHONE NUMBERS FOR CLASS B UNDERGROUND FACILITIES COMMONLY FOUND IN THE CITY OF HARLINGEN ARE LISTED BELOW BUT IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL OWNERS OF CLASS B UNDERGROUND FACILITIES IN THE AREA OF CONSTRUCTION ARE NOTIFIED. THE CONTRACTOR SHALL OBTAIN WRITTEN ACKNOWLEDGEMENT AND APPROVAL FROM SUCH UTILITY COMPANIES AUTHORIZING THE CONTRACTOR TO PROCEED WITH THE PROPOSED CONSTRUCTION WORK. THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS FOR THE SUPPORT, PROTECTION, AND/OR TEMPORARY RELOCATION OF ALL UTILITIES AND/OR STRUCTURES (BOTH ABOVE AND BELOW GROUND) DURING CONSTRUCTION. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND FACILITIES FOUND.
- CITY OF HARLINGEN (956) 216-5300/HARRIS (956) 430-6107/TEXAS ONE CALL(800) 245-4545/DIG-TESS TEXAS GAS SERVICE(956) 959-5325/SOUTHWESTERN BELL TELEPHONE(800) 286-8313/SPECTRUM CABLE(800) 222-5355/AT&T TEXAS(800) 288-2024/PEP TEXAS(800) 344-8377/WHEN WORKING IN EXISTING CITY ROW, TRENCH EXCAVATION SHALL NOT PRECEED BACKFILL BY MORE THAN 300 FEET FROM ANY TRENCH WORKING HOURS.
- THE CONTRACTOR SHALL EMPLOY GOOD HOUSEKEEPING MEASURES WITHIN THE PUBLIC ROW AT ALL TIMES. ALL MUD OR OTHER OBSTRUCTIONS SHALL BE IMMEDIATELY REMOVED FROM PUBLIC ROADWAYS OR SIDEWALKS. NO WASTE SHALL BE STORED IN THE ROW. PORTABLE RESTROOMS SHALL APPEAR CLEAN AND BE PLACED IN SUCH A MANNER TO ELIMINATE NUISANCE ODORS FROM AFFECTING ADJACENT PROPERTY OWNERS.
- THE CONTRACTOR SHALL NOT UNLOAD OR STORE ANY MATERIAL, PERMIT WORKERS TO PARK, PARK EQUIPMENT, NOR PLACE REFUSE CONTAINERS WITHIN CITY RIGHT OF WAY OR ON A PUBLIC STREET WITHOUT FIRST OBTAINING PERMISSION FROM THE CITY ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCURING ALL LEGALLY REQUIRED PERMITS AND LICENSES, GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK, AND POST ALL NOTICES REQUIRED BY LAW PROMINENTLY AT THE JOBSITE AT ALL TIMES.
- ANY DAMAGE TO EXISTING PUBLIC IMPROVEMENTS CAUSED BY THE CONTRACTOR EITHER ACCIDENTAL IN NATURE OR THROUGH HIS MEANS AND METHODS SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS OR BETTER AT NO COST TO THE CITY.
- THE CONTRACTOR SHALL IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH TPDES GENERAL PERMIT NUMBER TXR150000 AND SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING ANY SWPPP MEASURES REQUIRED BY THE PLAN. A COPY OF THE SWPPP AND NOI (AS APPLICABLE) MUST BE PROVIDED TO THE CITY PRIOR TO CONSTRUCTION.
- INSPECTIONS AND TESTING:  
 1. THE CITY SHALL BE GRANTED THE RIGHT OF ENTRY FOR THE PURPOSES OF INSPECTION OF THE PERTINENT ITEMS.  
 2. THE CONTRACTOR SHALL COORDINATE ALL PAVING AND DRAINAGE IMPROVEMENT ACTIVITIES THAT REQUIRE CITY INSPECTION OR TESTING WITH THE CITY INSPECTOR. WORK REQUIRED TO BE INSPECTED OR TESTED BY THE CITY SHALL OCCUR BETWEEN REGULAR WORKING HOURS 8:00 AM TO 5:00 PM, MONDAY THROUGH FRIDAY.  
 3. THE CONTRACTOR SHALL PROVIDE 100-FOOT STATIONING THROUGHOUT ALL AREAS THAT REQUIRE TESTING. MATERIAL TESTING REPORTS SHALL INDICATE STATION AND OFFSET LOCATION OF TEST.  
 4. THE CITY SHALL SCHEDULE ALL TESTING AND PROCTOR SAMPLE PICK-UPS FOR PAVING AND DRAINAGE IMPROVEMENTS TO BE DEDICATED FOR PUBLIC USE ON THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE CITY INSPECTOR A MINIMUM OF 24-HOURS ADVANCE NOTICE FOR TESTING AND INSPECTIONS.  
 5. THE CONTRACTOR SHALL PROVIDE THE CITY OF HARLINGEN WITH COPIES OF ALL MATERIAL, TICKETS AND MATERIAL TESTING REPORTS FOR ALL PAVEMENT AND DRAINAGE RELATED ITEMS. TICKETS SHALL INDICATE THE MATERIAL TYPE, QUANTITY DELIVERED, PROJECT NAME, AND LOCATION OF DELIVERY. HARD COPIES OF TICKETS SHALL BE PROVIDED TO THE CITY INSPECTOR DAILY. ELECTRONIC COPIES SHALL BE EMAILED TO THE ASSISTANT CITY ENGINEER ON A WEEKLY BASIS.  
 6. COPIES OF ALL MATERIAL TESTING REPORTS FOR ALL PAVEMENT AND DRAINAGE RELATED ITEMS SHALL BE EMAILED TO THE CITY INSPECTOR AND ASSISTANT CITY ENGINEER WITHIN 72-HOURS OF RECEIPT.  
 7. TRAFFIC:  
 1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST PUBLISHED VERSION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.  
 2. THE CONTRACTOR OR DEVELOPER'S ENGINEER SHALL PREPARE A TRAFFIC CONTROL PLAN FOR THE SIGNING, BARRICADING AND PAVEMENT MARKING FOR THE SAFE MAINTENANCE OF TRAFFIC DURING CONSTRUCTION WITHIN EXISTING STREETS AND PUBLIC RIGHT-OF-WAY. PLAN SHALL BE STAMPED BY A PROFESSIONAL ENGINEER. PLAN MUST BE SUBMITTED TO AND APPROVED BY THE CITY OF HARLINGEN, CITY ENGINEER AT LEAST TWO BUSINESS DAYS PRIOR TO ANY CONSTRUCTION WITHIN THE PUBLIC STREET RIGHT-OF-WAY. BARRICADES, TEMPORARY PAVEMENT MARKINGS, AND SIGNS SHALL BE MAINTAINED IN GOOD CONDITION AND MEET THE LEGIBILITY, RETRO-REFLECTIVITY, AND OTHER REQUIREMENTS OF THE CURRENT EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES UNTIL THE COMPLETION AND ACCEPTANCE OF ALL WORK WITHIN THE PUBLIC ROW OR UNTIL CONTRACTOR IS DIRECTED OTHERWISE.  
 3. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE LATEST VERSION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THIS PLAN SHALL BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER AND SUBMITTED TO THE CITY ENGINEER FOR APPROVAL PRIOR TO THE COMMENCEMENT OF THE WORK.  
 4. THE CONTRACTOR SHALL PROVIDE THE CITY A MINIMUM OF 72-HOURS ADVANCE NOTICE OF ANY PROPOSED ROAD, INTERSECTION, OR TURNOUT CLOSURES. IF THE PROPOSED CLOSURE IS ON OR ADJACENT A STATE-OWNED STREET, THE CONTRACTOR SHALL, IN ADDITION, COORDINATE THE REQUEST WITH THE SAN BENITO AREA TxDOT OFFICE (399-5102).  
 5. THE CONTRACTOR SHALL NOT ADVERSELY AFFECT OR POSE A SIGNIFICANT SAFETY RISK TO THE TRAVELING PUBLIC. THE CONTRACTOR SHALL MINIMIZE WORK ACTIVITIES OUTSIDE OF THE WORK ZONE ON PUBLIC STREETS AND SIDEWALKS.  
 6. A 3:1 SAFETY SLOPE AND 4'0" BUFFER ZONE SHALL BE REQUIRED DURING NON-WORKING HOURS WHEN CONSTRUCTION OPERATIONS RESULT IN AN ELEVATION DIFFERENCE OF MORE THAN 2-INCHES NEXT TO AN OPEN TRAVEL WAY.  
 7. THE CONTRACTOR SHALL PROVIDE A SUFFICIENT NUMBER OF CERTIFIED FLAGGERS AND APPROPRIATE TRAFFIC CONTROL DEVICES TO SAFELY GUIDE THE TRAVELING PUBLIC THROUGH THE WORK AREA AT ALL TIMES WHEN WORKING WITHIN THE ROW. THE ENGINEER MAY REQUIRE ADDITIONAL FLAGGERS OR TRAFFIC CONTROL DEVICES.  
 8. ALL TRAFFIC CONTROL DEVICES SHALL BE PROPERLY MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL ASSURE THAT ALL TRAFFIC CONTROL DEVICES ARE CLEAN AND FUNCTIONAL AT ALL TIMES.  
 9. THE CONTRACTOR SHALL PLAN AND PERFORM HIS WORK IN A MANNER THAT WILL PERMIT SAFE PUBLIC TRAFFIC MOVEMENT ON ALL STREETS.



**General Notes**

- Curb Ramps**
- Install a curb ramp or blended transition at each pedestrian street crossing.
  - All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
  - The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5'x 5' passing areas at intervals not to exceed 200' are required.
  - Landings shall be 5'x 5' minimum with a maximum 2% slope in any direction.
  - Maneuvering space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
  - Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
  - Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
  - Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
  - To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
  - Small channelization islands, which do not provide a minimum 5'x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
  - Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
  - Handrails are not required on curb ramps. Provide curb ramps wherever on accessible route crosses (penetrates) a curb.
  - Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
  - Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
  - Provide a smooth transition where the curb ramps connect to the street.
  - Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
  - Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

**Detectable Warning Material**

- Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
- Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
- Detectable warning surfaces must be slip resistant and not allow water to accumulate.
- Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
- Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
- Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

**Detectable Warning Pavers**

- Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
- Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning paver units using a power saw.

**Sidewalks**

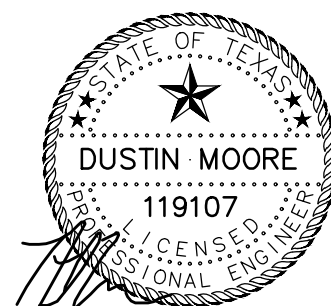
- Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
- Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
- Street grades and cross slopes shall be as shown elsewhere in the plans.
- Changes in level greater than 1/4 inch are not permitted.
- The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
- Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
- Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
- Sidewalk details are shown elsewhere in the plans.

PLANS FOR:  
 5823 MILLENIUM DR.  
 LOT 5B, BLOCK 1  
 HARLINGEN INDUSTRIAL  
 PARK SUBD. NO. 4  
 CONSTRUCTION PLANS

HARLINGEN, TEXAS  
 OCTOBER 2025

INDEX TO SHEETS:

- TITLE SHEET VICINITY MAP, INDEX & NOTES
- EXISTING CONDITIONS
- DIMENSION CONTROL PLAN
- EROSION CONTROL PLAN & DETAILS
- LANDSCAPE PLAN
- PAVING AND GRADING PLAN
- PAVING & GRADING DETAILS
- UTILITY PLAN
- UTILITY DETAILS



PREPARED BY: DUSTIN MOORE, PE  
 11/13/25

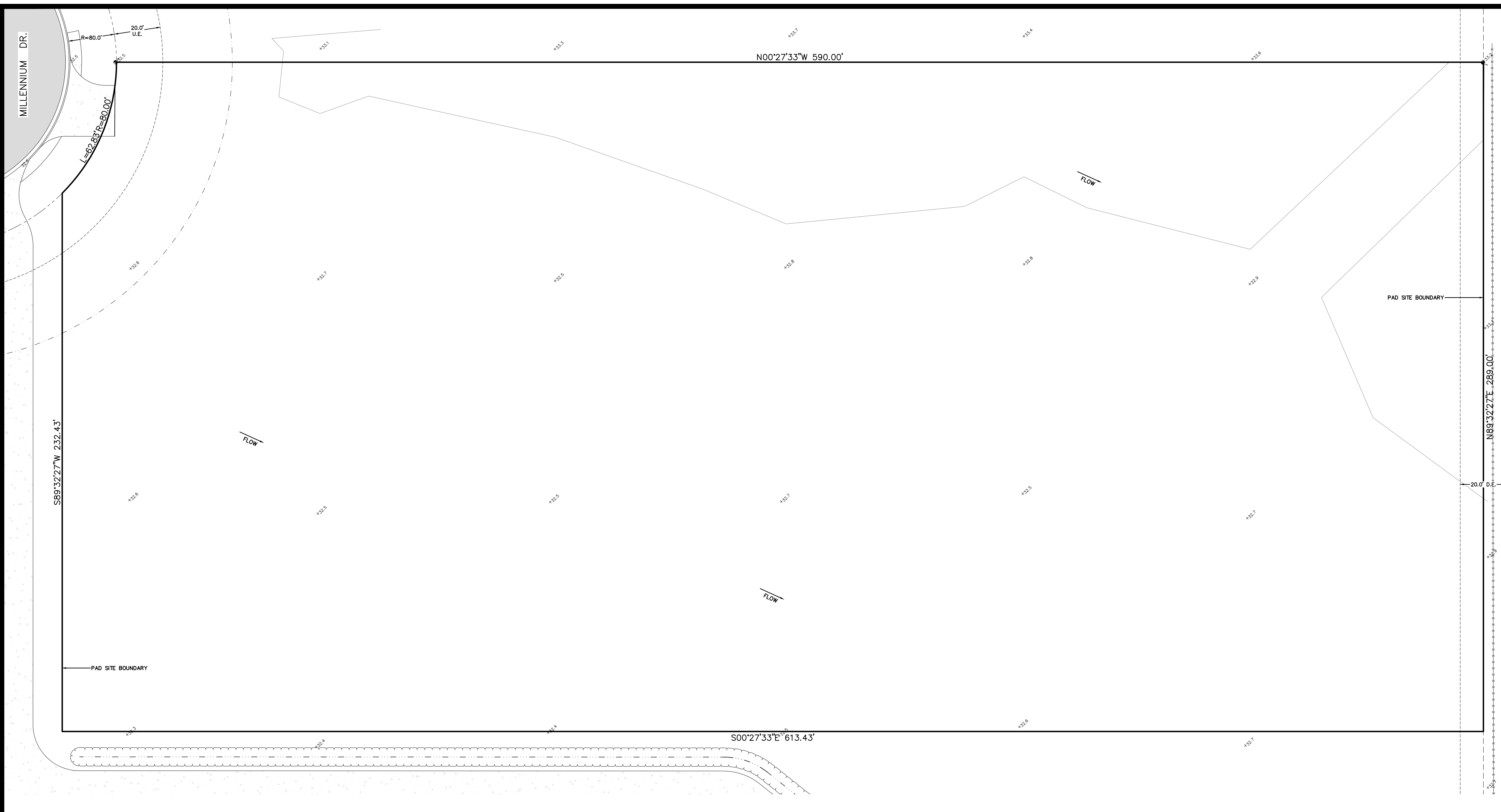
APPROVED BY: \_\_\_\_\_  
 CITY OF HARLINGEN

APPROVED BY: \_\_\_\_\_  
 HARLINGEN WATER WORKS SYSTEM

DEVELOPER:  
 VALLEY FIRST DEVELOPMENT INC.  
 717 W. HARRISON  
 HARLINGEN, TX 78550  
 (956) 495-6953

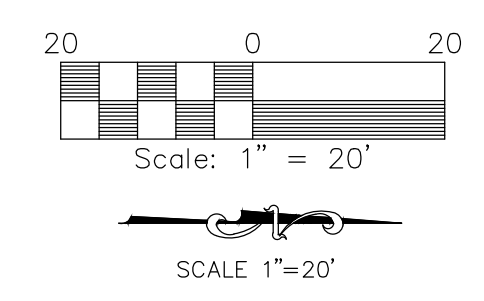
Moore Land  
 Surveying, LLC

14216 Palis Drive, La Feria, TX 78559  
 (956)245-0988 TBP'S Firm No. 10194186  
 (956)245-4651 TBP'S Firm No. 19190



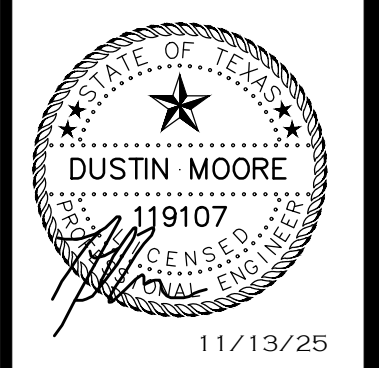
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5. CONCRETE CYLINDERS (SET OF 5) TO BE TAKEN FOR ALL CONCRETE POURS (1 SET PER DAY OR EVERY 60 CY).
6. MECHANICAL COMPACTION UNDER ROADWAYS TO BE PERFORMED PER STANDARD DETAILS AND REQUIRED TO BE TESTED A MAXIMUM OF EVERY 1' OF COMPACTED BACKFILL (1 TEST PER 1,000 SY OF COMPACTION)

LEGEND					
	IRON ROD FOUND		FIRE HYDRANT		A/C UNIT
	CONC. MONUMENT FOUND		WATER VALVE		MAILBOX
	NAIL FOUND		GAS METER		CLEANOUT
	YC MARK FOUND		GAS VALVE		POWER POLE
	IRON ROD SET WITH CAP STAMPED "MOORE-6370"		ELECTRIC JUNCTION BOX		GUY WIRE ANCHOR
	TREE		TELEPHONE PEDESTAL		IRRIGATION VALVE
	WATER METER		STORM INLET		IRRIGATION STANDPIPE
	TRANSFORMER		SIGN		SEPTIC TANK
	CABLE PEDESTAL		LIGHT POST		POST
			MANHOLE		GRATE INLET
	TOP OF BANK		EX. 12" WATERLINE		EXISTING FENCE
	FLOW LINE		PROP. 8" WATERLINE		PROP. SILT FENCE
	TOE OF EMBANKMENT		EX. 8" SEWER		EXIST. OVERHEAD ELEC.
	EXIST. HMAC		PROP. HMAC		EXIST. CONCRETE



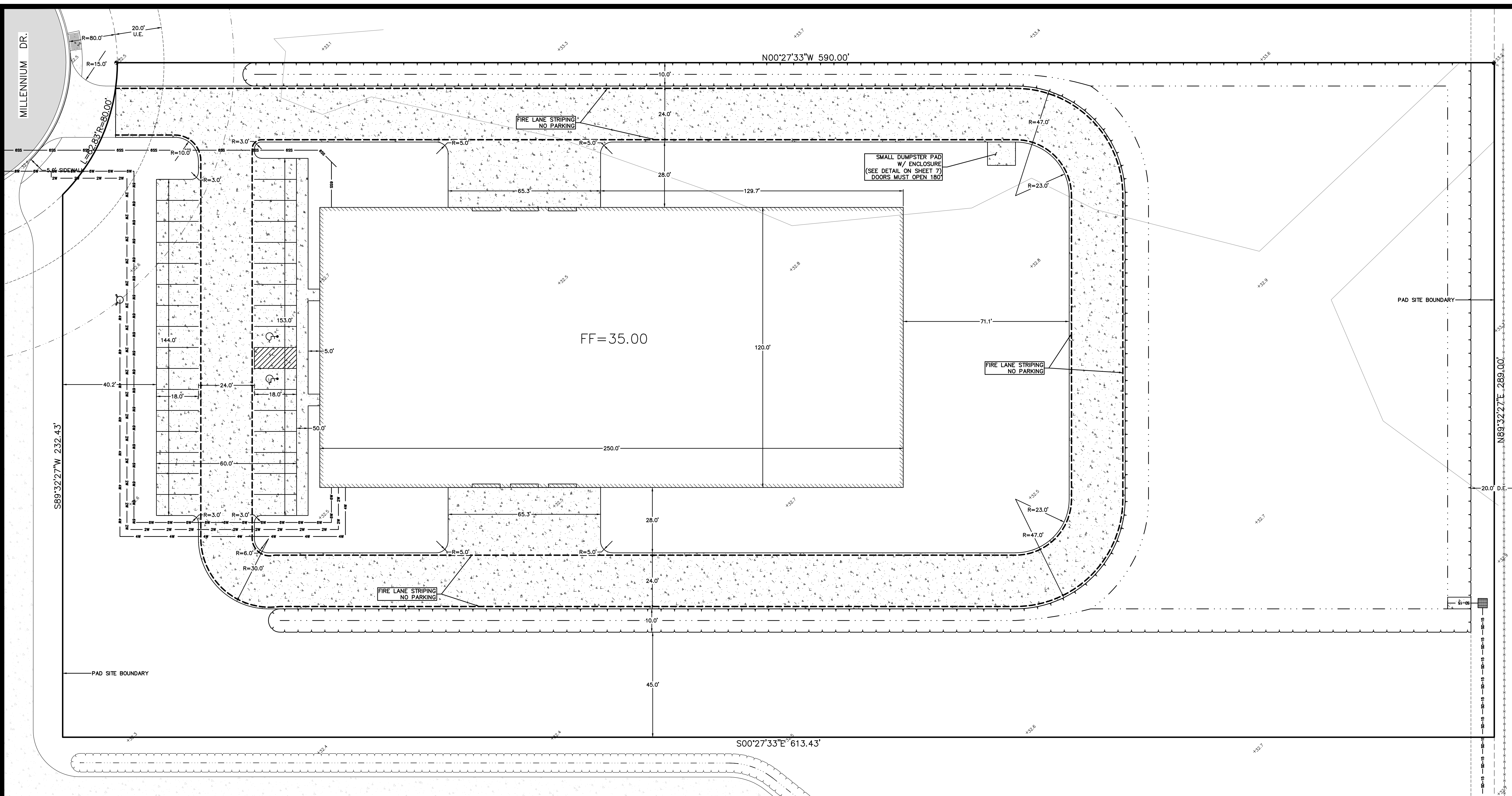
14216 PALE DRIVE, LA FERIA, TX 78559  
 (956)245-0888 TBP&S Firm No. 10194186  
 (956)245-4651 TBPE Firm No. 19190

**Moore Land Surveying, LLC**



**5823 MILLENNIUM DR., HARLINGEN, TX 78550**  
**LOT 5B, BLOCK 1, HARLINGEN IND. PARK SUBD. NO. 4**  
**EXISTING CONDITIONS**

REVISIONS	1	
	2	
	3	
	4	
	5	
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DATE	6/23/24	
SHEET	2	
OF	9	
CAD		
DRAWING NO.		



**\*\*BUILDING WILL HAVE 1 PARKING SPACE PER 1000 SF OF STORAGE & 1 PARKING SPACE PER 400 SF OF FLOOR SPACE**

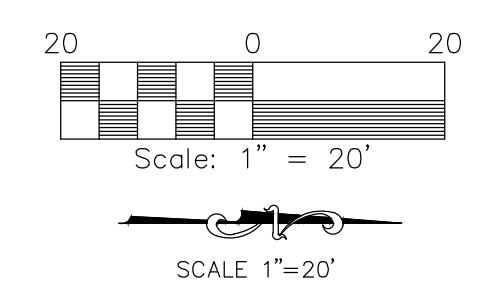
**PAD SITE 15 -  
9,430 SF WAREHOUSE (10 SPACES RQD)  
570 SF OF FLOOR SPACE (2 SPACES RQD)**

**12 REQUIRED  
15 PROVIDED, (1 - ADA SPACES) & 1 - ADA AISLE**

- CONTRACTOR TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL CONTACT CITY OF HARLINGEN OR HWWS INSPECTOR FOR INSPECTION PRIOR TO BACKFILLING.
- CONTRACTOR SHALL CONTACT HWWS PRIOR TO CONNECTING TO EXISTING MAIN WATER.
- CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN TO CITY OF HARLINGEN FOR APPROVAL PRIOR TO CONSTRUCTION.
- CONCRETE CYLINDERS (SET OF 5) TO BE TAKEN FOR ALL CONCRETE POURS (1 SET PER DAY OR EVERY 60 CY).
- MECHANICAL COMPACTION UNDER ROADWAYS TO BE PERFORMED PER STANDARD DETAILS AND REQUIRED TO BE TESTED A MAXIMUM OF EVERY 1' OF COMPACTED BACKFILL (1 TEST PER 1,000 SY OF COMPACTION)

⊕ IRON ROD FOUND	⊕ FIRE HYDRANT	⊕ A/C UNIT
⊕ CONC. MONUMENT FOUND	⊕ WATER VALVE	⊕ MAILBOX
⊕ NAIL FOUND	⊕ GAS METER	⊕ CLEANOUT
⊕ "C" MARK FOUND	⊕ GAS VALVE	⊕ POWER POLE
⊕ IRON ROD SET WITH CAP STAMPED "MOORE-6370"	⊕ ELECTRIC JUNCTION BOX	⊕ GUY WIRE ANCHOR
⊕ TREE	⊕ TELEPHONE PEDESTAL	⊕ IRRIGATION VALVE
⊕ WATER METER	⊕ STORM INLET	⊕ IRRIGATION STANDPIPE
⊕ TRANSFORMER	⊕ SIGN	⊕ SEPTIC TANK
⊕ CABLE PEDESTAL	⊕ LIGHT POST	⊕ POST
	⊕ MANHOLE	⊕ GRATE INLET

— TOP OF BANK	— EX 12" WATERLINE	— EXISTING FENCE
— FLOW LINE	— PROP. 8" WATERLINE	— PROP. SILT FENCE
— TOE OF EMBANKMENT	— EX 8" SEWER	— EXIST. OVERHEAD ELEC.
— EXIST. HMAC	— PROP. HMAC	— EXIST. CONCRETE



14216 Park Drive, La Feria, TX 78559  
(956)245-0888 TBE'S Firm No. 10194186  
(956)245-0851 TBE Firm No. 19190

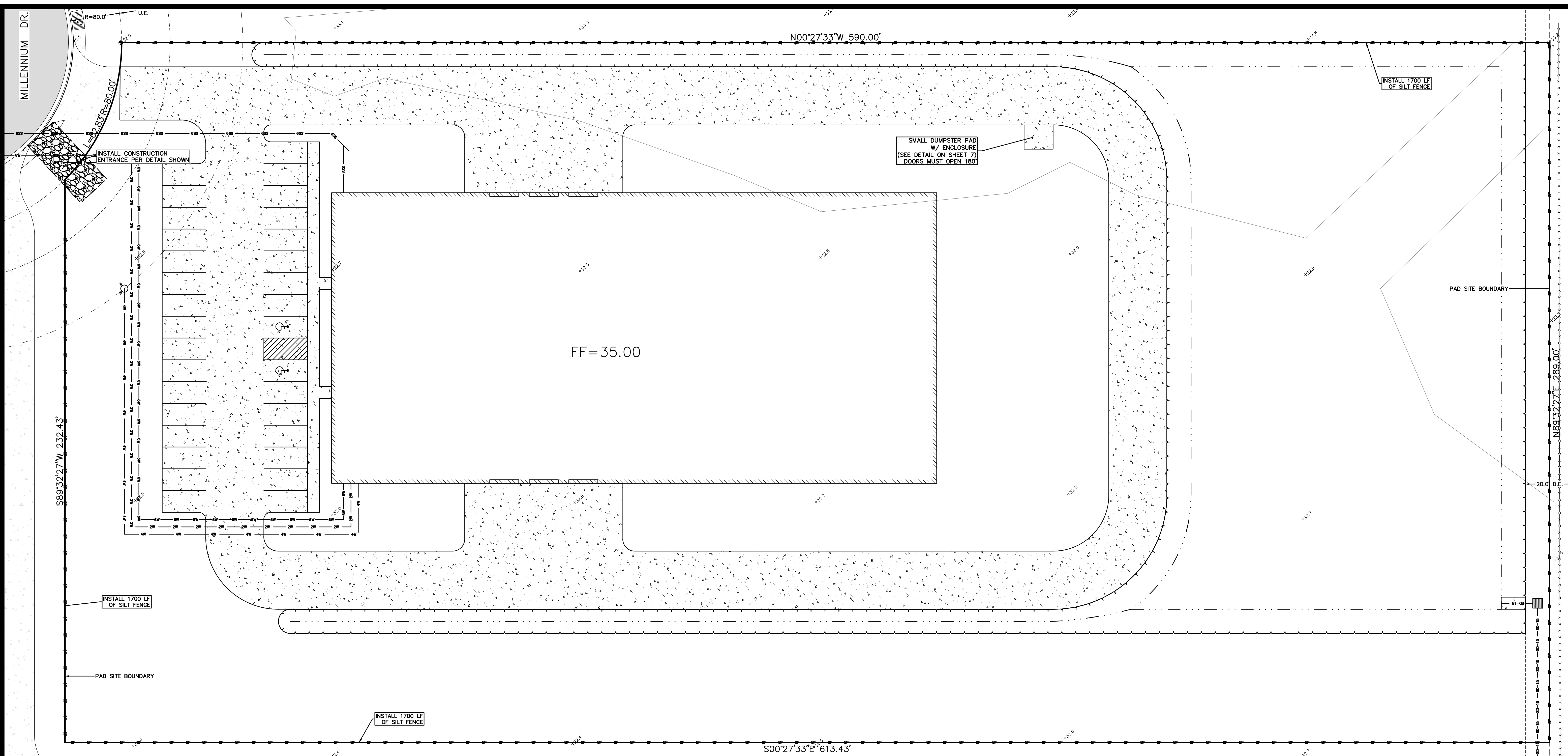
**Moore Land Surveying, LLC**

**5823 MILLENNIUM DR., HARLINGEN, TX 78550**  
**LOT 5B, BLOCK 1, HARLINGEN IND. PARK SUBD. NO. 4**  
**DIMENSION CONTROL PLAN**

REVISIONS	1
	2
	3
	4
	5

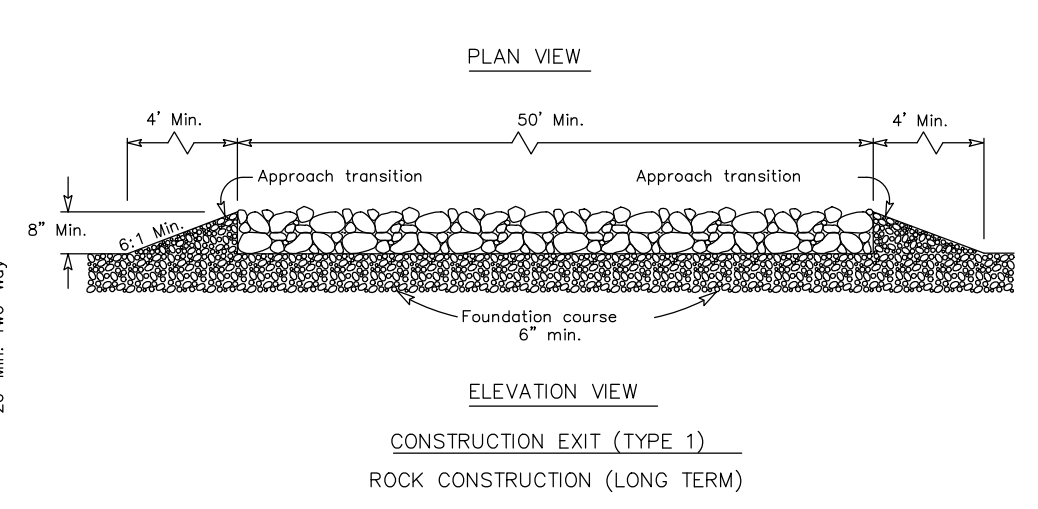
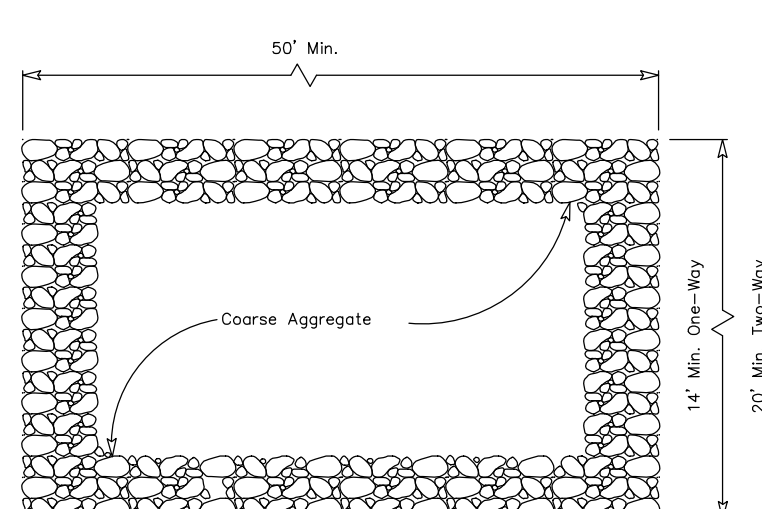
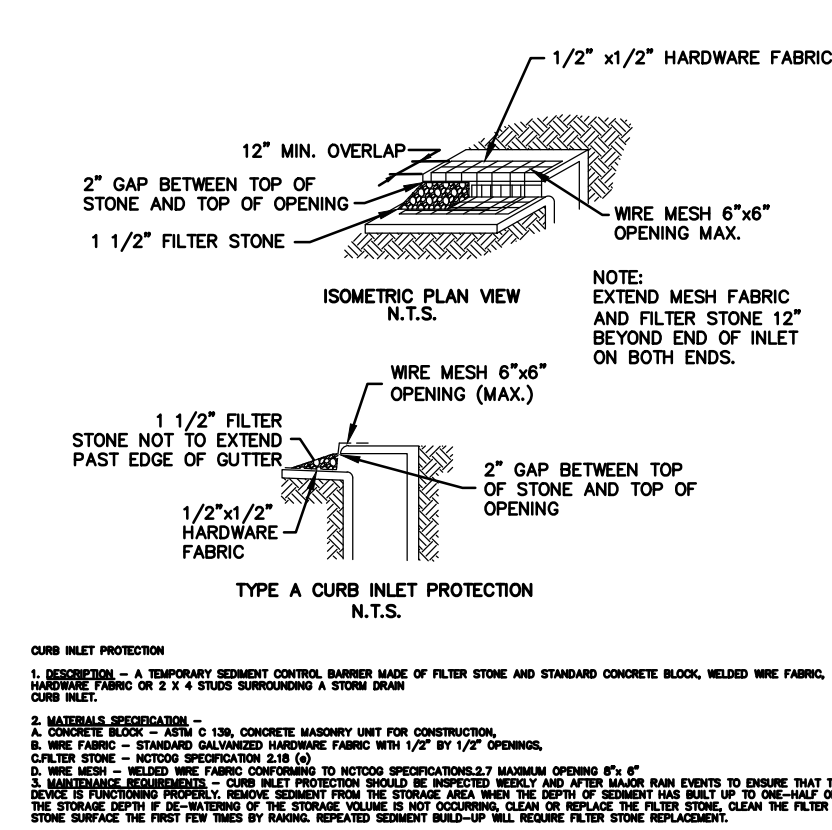
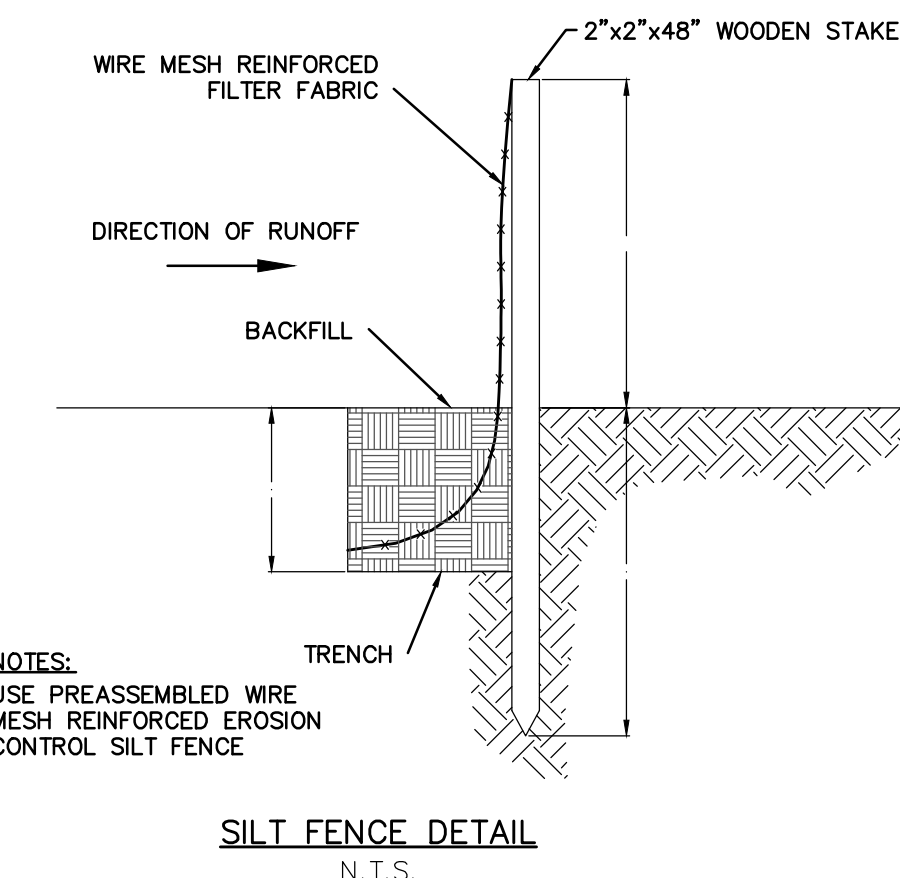
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SHEET: **3**  
OF: **9**  
CAD: **DM**  
DRAWING NO.:



**EROSION CONTROL NOTE: (SMALL CONSTRUCTION PROJECT)**

- Prior to commencing construction operations, erosion control devices shall be installed as indicated on this erosion control plan or other areas as may be directed by the Owner's Representative or City Inspector.
- Site entry and exit locations shall be maintained in a condition which will prevent tracking or flowing of sediment onto public roadways. All sediment spilled, dropped, washed or tracked on a public roadway must be removed immediately. When washing is required to remove sediment prior to entrance to a public roadway, it shall be done on an area stabilized with crushed stone which drains into an approved sediment basin. All fines imposed for tracking onto public roads shall be paid by the Contractor.
- Erosion control devices and temporary seeding may be added or reduced in the field as directed by the Owner's representative.
- Maintenance - Erosion controls shall be repaired or replaced as inspection deemed necessary or as directed by the Owner's representative. Accumulated silt at any erosion control device shall be removed when it reaches a depth of 6 inches, and shall be distributed on site in a manner not contributing to additional silt.
- The Contractor is responsible for reestablishing any erosion control device which he disturbs. Each contractor shall notify the Owner's representative of any deficiencies in the established erosion control measures which may lead to unauthorized discharge or storm water pollution, sedimentation to other pollutants. Unauthorized pollutants include, but are not limited to, excess concrete dumping or concrete residues, paints, solvents, greases, fuel and lube oil pesticides, any solid waste materials.
- Utility Contractor to be responsible for placement of erosion control devices around inlets as shown on this plan.



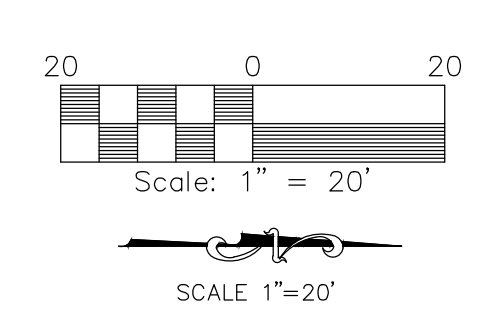
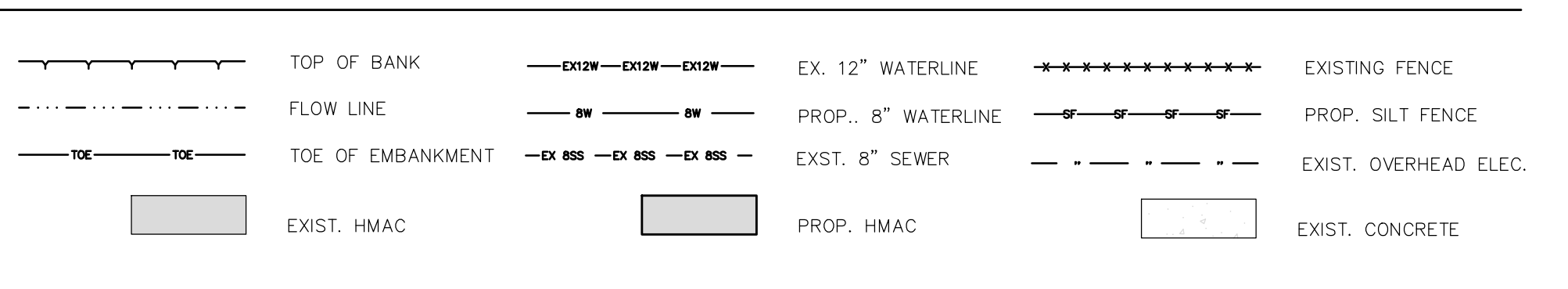
**GENERAL NOTES (TYPE 1)**

- The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
- The course aggregate should be open graded with a size of 4" to 8".
- The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
- The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other materials approved by the Engineer.
- The construction exit shall be graded to allow drainage to a sediment trapping device.
- The guidelines shown hereon are suggestions only and may be modified by the Engineer.
- Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.

- CONTRACTOR TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL CONTACT CITY OF HARLINGEN OR HWWS INSPECTOR FOR INSPECTION PRIOR TO BACKFILLING.
- CONTRACTOR SHALL CONTACT HWWS PRIOR TO CONNECTING TO EXISTING MAIN WATER.
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**LEGEND**

IRON ROD FOUND	FIRE HYDRANT	A/C UNIT
CONC. MONUMENT FOUND	WATER VALVE	MAILBOX
NAIL FOUND	GAS METER	CLEANOUT
"X" MARK FOUND	GAS VALVE	POWER POLE
IRON ROD SET WITH CAP	ELECTRIC JUNCTION BOX	GY WIRE ANCHOR
STAMPED "MOORE-6370"	TELEPHONE PEDESTAL	IRRIGATION VALVE
TREE	STORM INLET	IRRIGATION STANDPIPE
WATER METER	SIGN	SEPTIC TANK
TRANSFORMER	LIGHT POST	POST
CABLE PEDESTAL	MANHOLE	GRATE INLET



14216 PAUL DRIVE, LA BREA, TX 78559  
 (956)245-0888 TBE'S Firm No. 10194186  
 (956)245-0851 TBE Firm No. 19190

**Moore Land Surveying, LLC**

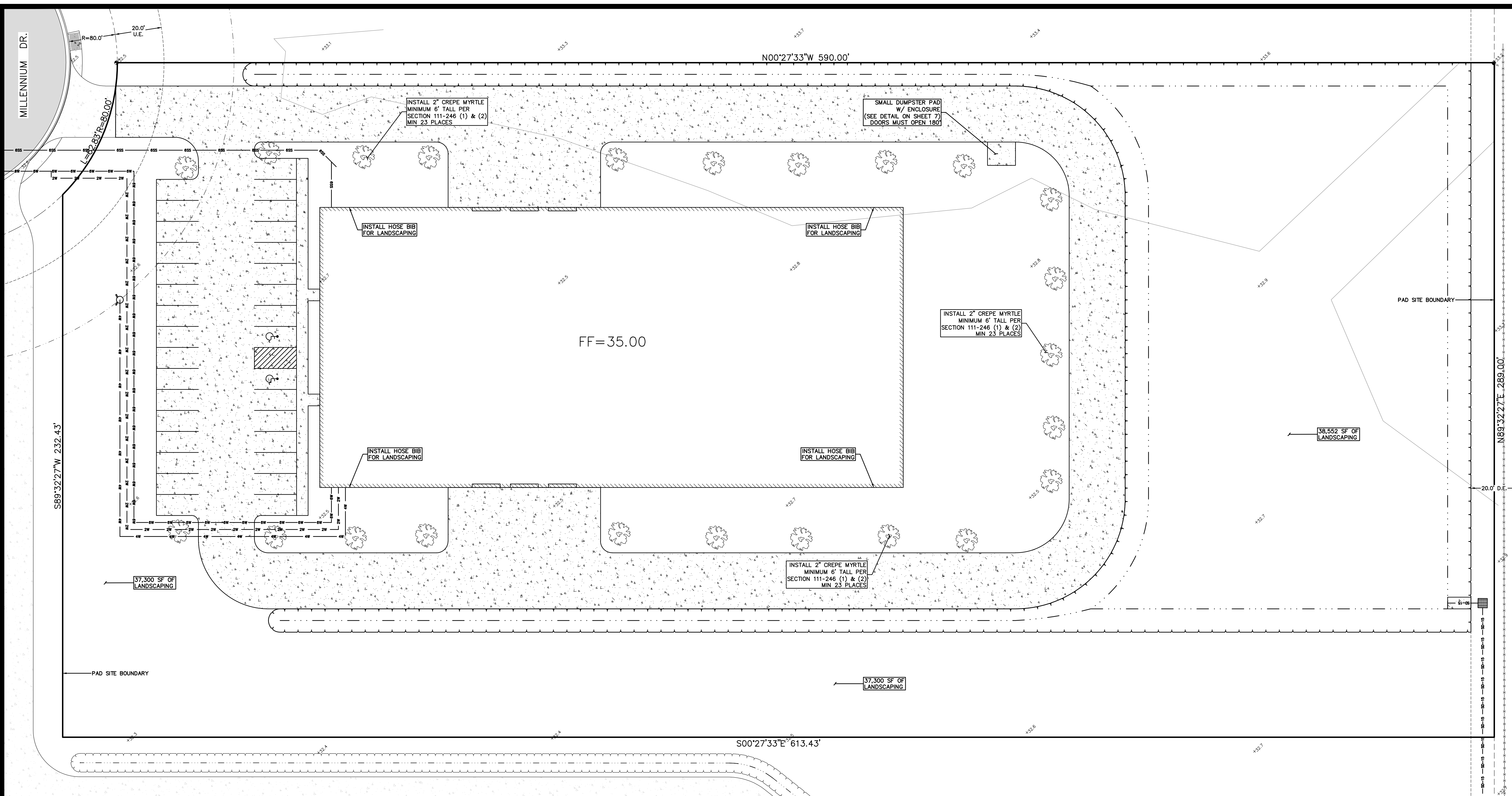
**DUSTIN MOORE**  
 19107  
 11/13/25

**5823 MILLENNIUM DR., HARLINGEN, TX 78550**  
**LOT 5B, BLOCK 1, HARLINGEN IND. PARK SUBD. NO. 4**  
**EROSION CONTROL PLAN**

REVISIONS 1 \_\_\_\_\_  
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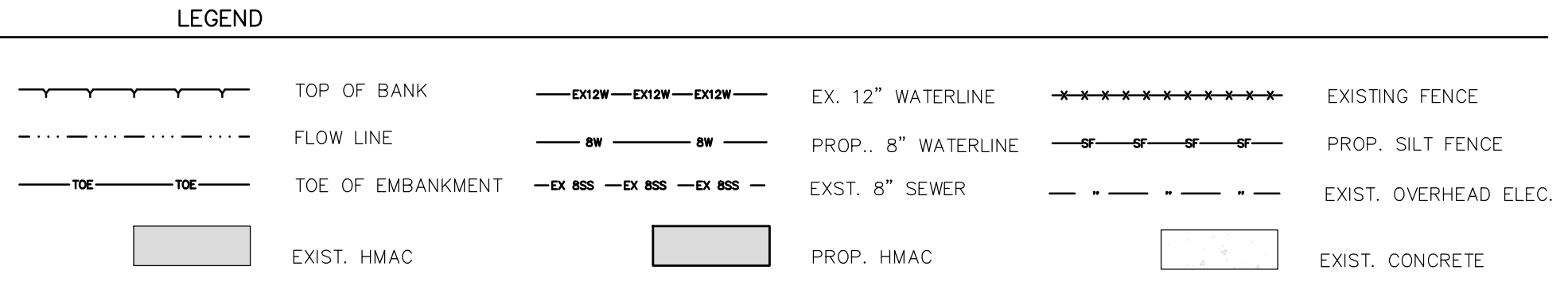
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**\*\*IRRIGATION SYSTEM IS NOT PROPOSED, HOWEVER, IF ONE IS TO BE INSTALLED AT ANY FUTURE DATE, IT MUST BE INSTALLED BY A LICENSED IRRIGATOR AND HAVE A SEPARATE METER, SERVICE LINES, AND HWWS APPROVED BACKFLOW PREVENTION DEVICE.**

1. CONTRACTOR TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL CONTACT CITY OF HARLINGEN OR HWWS INSPECTOR FOR INSPECTION PRIOR TO BACKFILLING.
3. CONTRACTOR SHALL CONTACT HWWS PRIOR TO CONNECTING TO EXISTING MAIN WATER.
4. CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN TO CITY OF HARLINGEN FOR APPROVAL PRIOR TO CONSTRUCTION.
5. CONCRETE CYLINDERS (SET OF 5) TO BE TAKEN FOR ALL CONCRETE POURS (1 SET PER DAY OR EVERY 60 CY).
6. MECHANICAL COMPACTION UNDER ROADWAYS TO BE PERFORMED PER STANDARD DETAILS AND REQUIRED TO BE TESTED A MAXIMUM OF EVERY 1' OF COMPACTED BACKFILL (1 TEST PER 1,000 SY OF COMPACTION)

⊕	IRON ROD FOUND	⊗	FIRE HYDRANT	⊕	A/C UNIT
■	CONC. MONUMENT FOUND	⊕	WATER VALVE	⊕	MAILBOX
⊕	NAIL FOUND	⊕	GAS METER	⊕	CLEANOUT
⊕	"C" MARK FOUND	⊕	GAS VALVE	⊕	POWER POLE
⊕	IRON ROD SET WITH CAP STAMPED "MOORE-6370"	⊕	ELECTRIC JUNCTION BOX	⊕	GUY WIRE ANCHOR
⊕	TREE	⊕	TELEPHONE PEDESTAL	⊕	IRRIGATION VALVE
⊕	WATER METER	⊕	STORM INLET	⊕	IRRIGATION STANDPIPE
⊕	TRANSFORMER	⊕	SIGN	⊕	SEPTIC TANK
⊕	CABLE PEDESTAL	⊕	LIGHT POST	⊕	POST
		⊕	MANHOLE	⊕	GRATE INLET



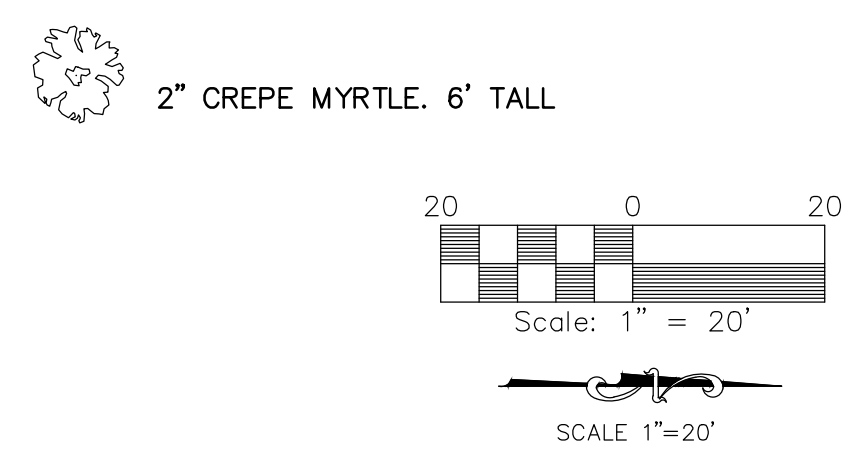
**LANDSCAPE REQUIREMENT**  
 BUILDING SITE AREA: 176,368 SF SF  
 RQD LANDSCAPE AREA: 17,637 SF  
 RQD FRONT/SIDE YARD AREA: 12,346 SF

LANDSCAPE PROVIDED - 38,552 SF  
 FRONT/SIDE PROVIDED - 37,300 SF

TOTAL LANDSCAPE PROVIDED: 78,852 SF

**TREE REQUIREMENT**  
 •ALL TREES TO BE MINIMUM 2" CALIPER & 6' TALL

1 TREE PER 800 SF: 23 TREES



14216 PAUL Drive, La Feria, TX 78559  
 (956)245-0888 TBE'S Firm No. 10194186  
 (956)245-4651 TBE Firm No. 19190

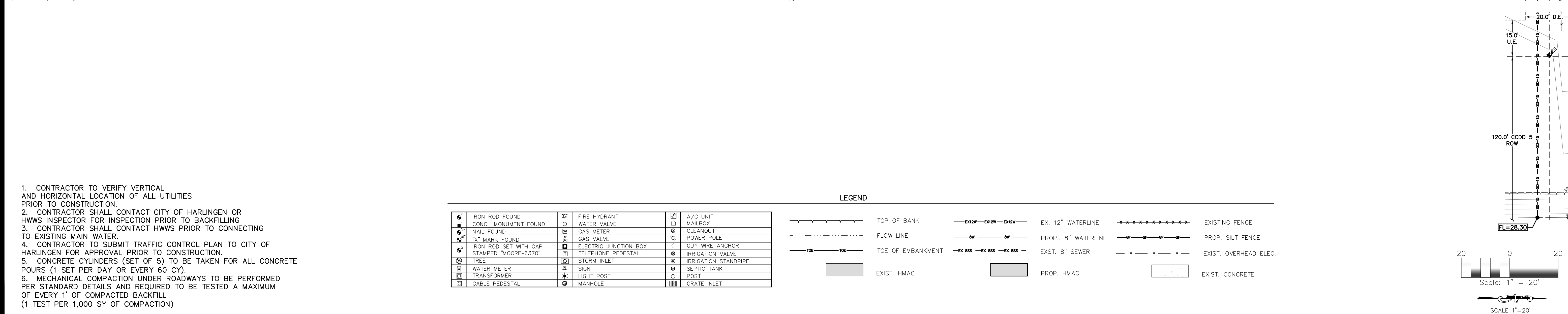
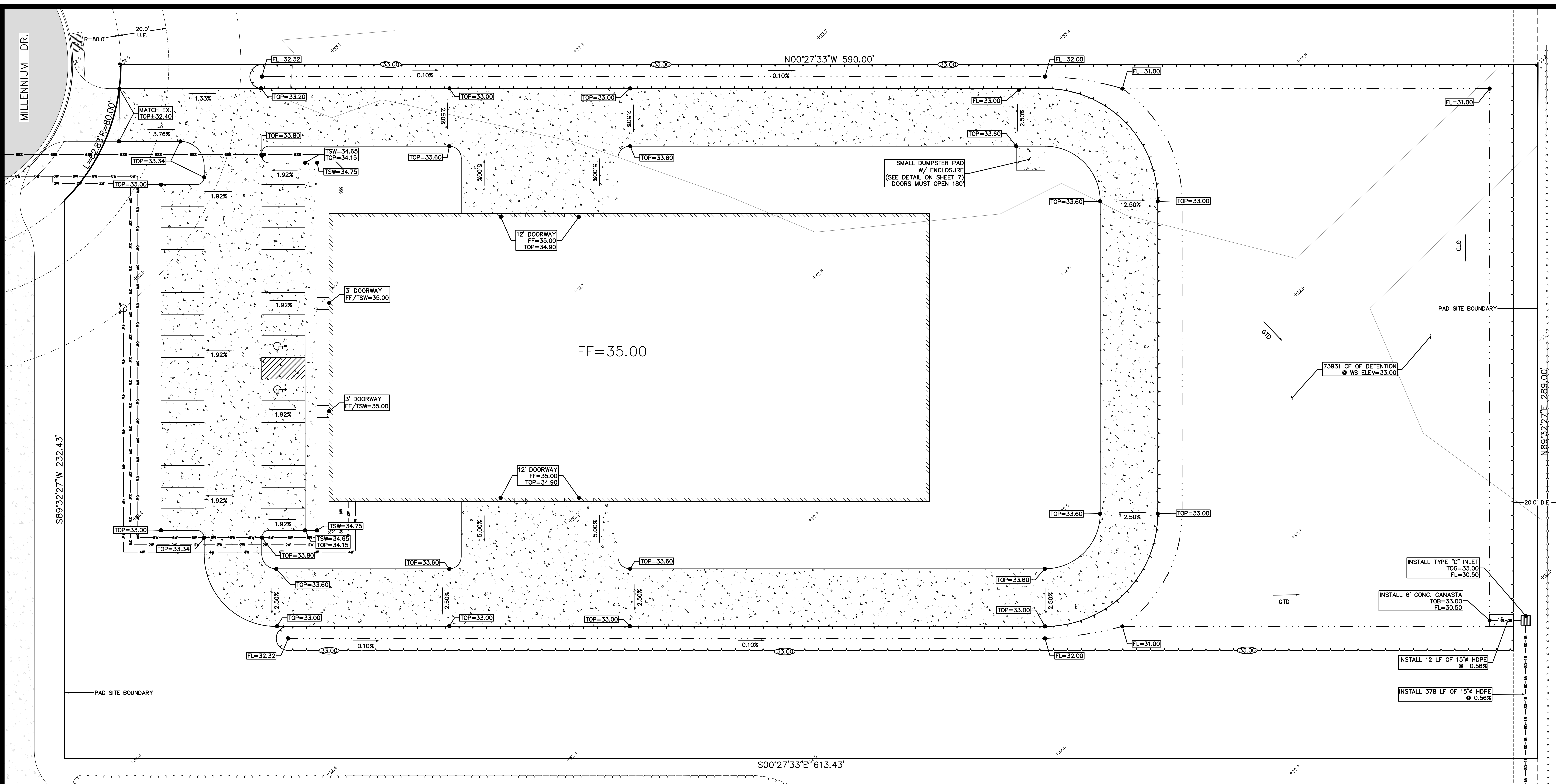
**Moore Land Surveying, LLC**

5823 MILLENIUM DR., HARLINGEN, TX 78550  
 LOT 5B, BLOCK 1, HARLINGEN IND. PARK SUBD. NO. 4  
 LANDSCAPE PLAN

REVISIONS	1
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	5

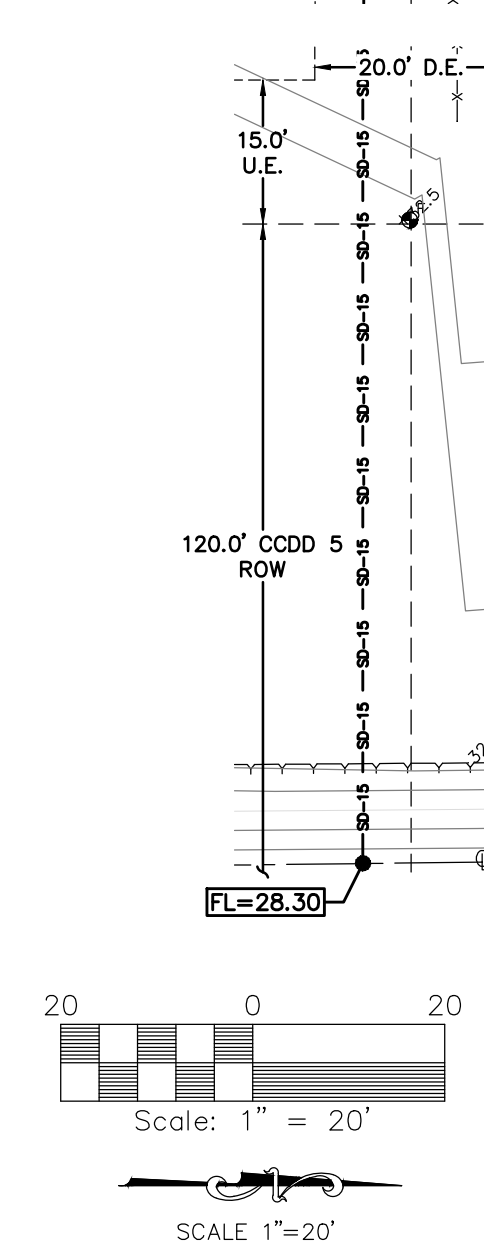
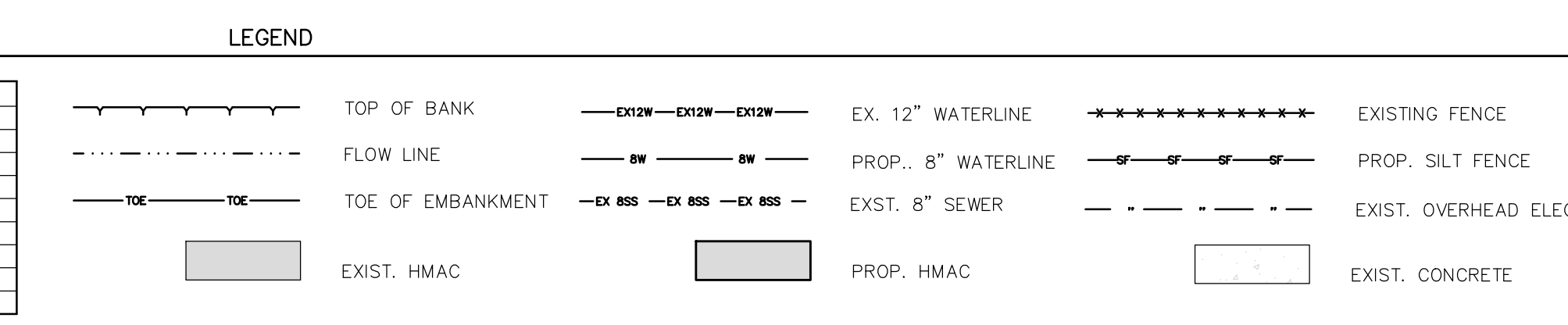
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1. CONTRACTOR TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
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LEGEND					
⊕	IRON ROD FOUND	⊕	FIRE HYDRANT	⊕	A/C UNIT
⊕	CONC. MONUMENT FOUND	⊕	WATER VALVE	⊕	MAILBOX
⊕	NAIL FOUND	⊕	GAS METER	⊕	CLEANOUT
⊕	"C" MARK FOUND	⊕	GAS VALVE	⊕	POWER POLE
⊕	IRON ROD SET WITH CAP STAMPED "MOORE-6370"	⊕	ELECTRIC JUNCTION BOX	⊕	GUY WIRE ANCHOR
⊕	TREE	⊕	TELEPHONE PEDESTAL	⊕	IRRIGATION VALVE
⊕	WATER METER	⊕	STORM INLET	⊕	IRRIGATION STANDPIPE
⊕	TRANSFORMER	⊕	SIGN	⊕	SEPTIC TANK
⊕	CABLE PEDESTAL	⊕	LIGHT POST	⊕	POST
		⊕	MANHOLE	⊕	GRATE INLET



14216 Park Drive, La Porte, TX 77559  
 (956)245-0888 TBE'S Firm No. 10194186  
 (956)245-4651 TBE Firm No. 19190

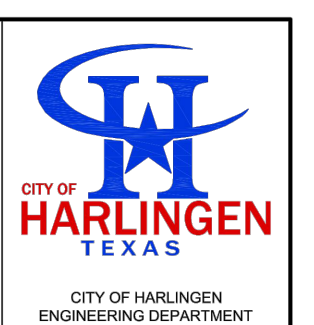
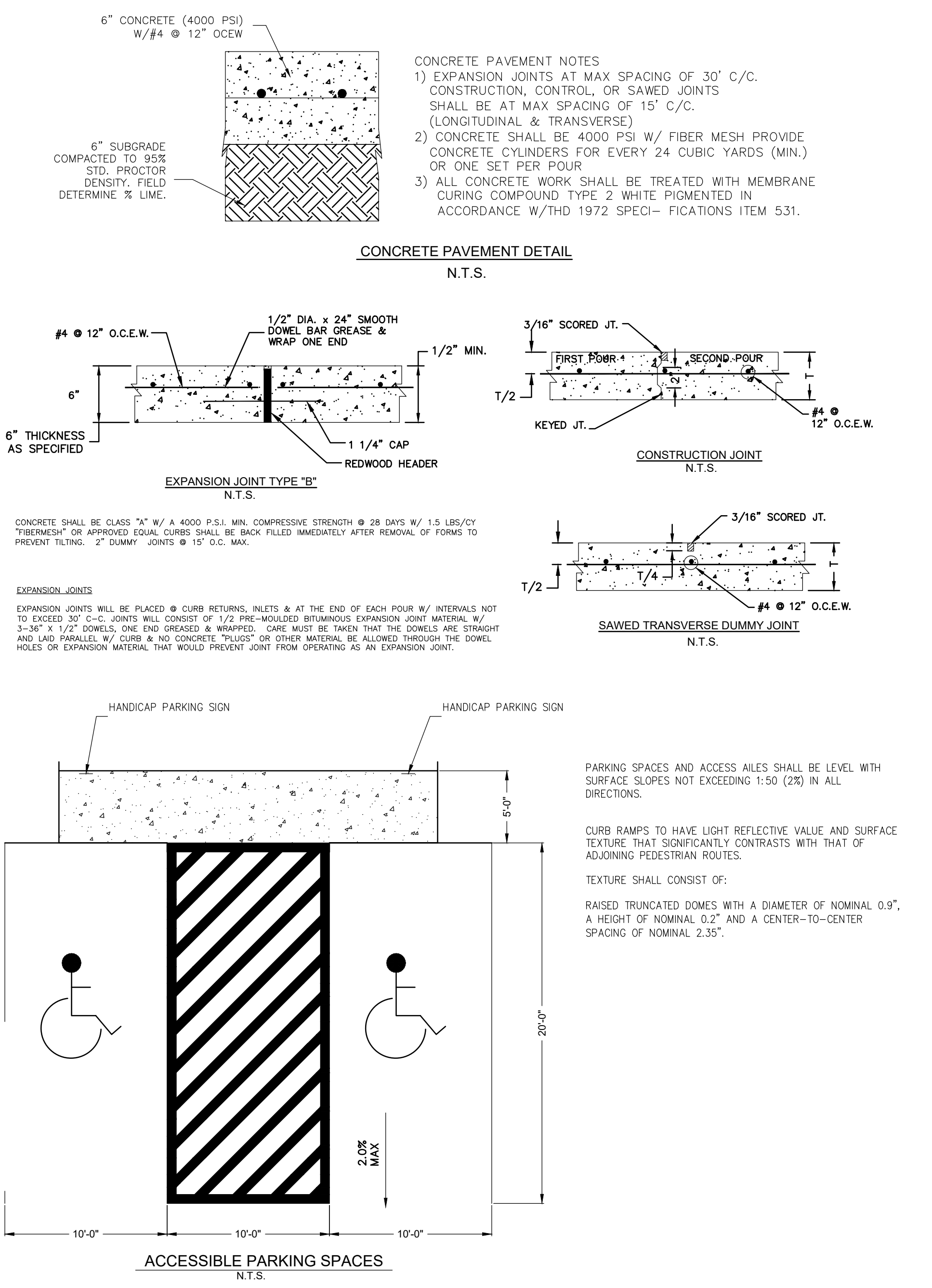
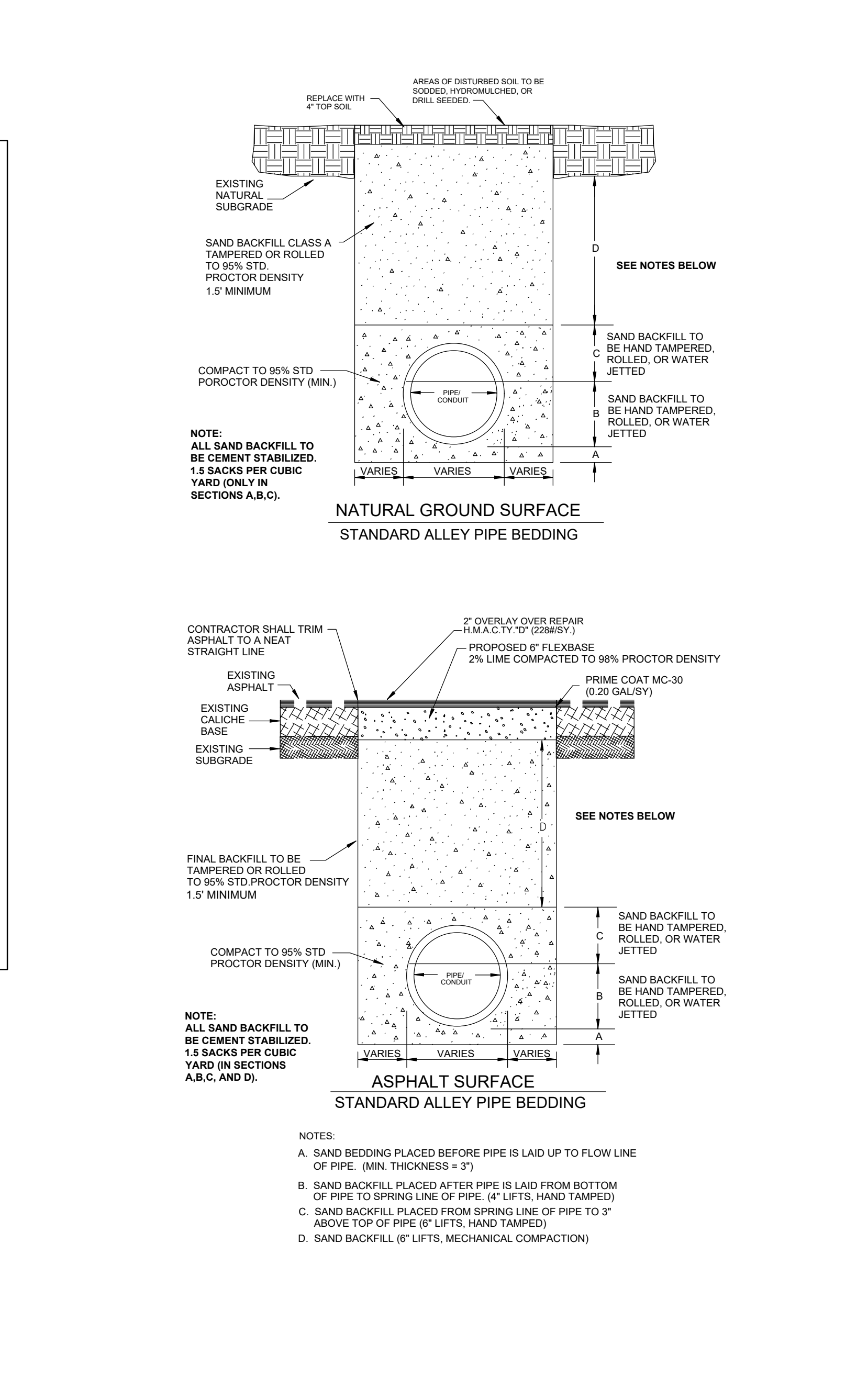
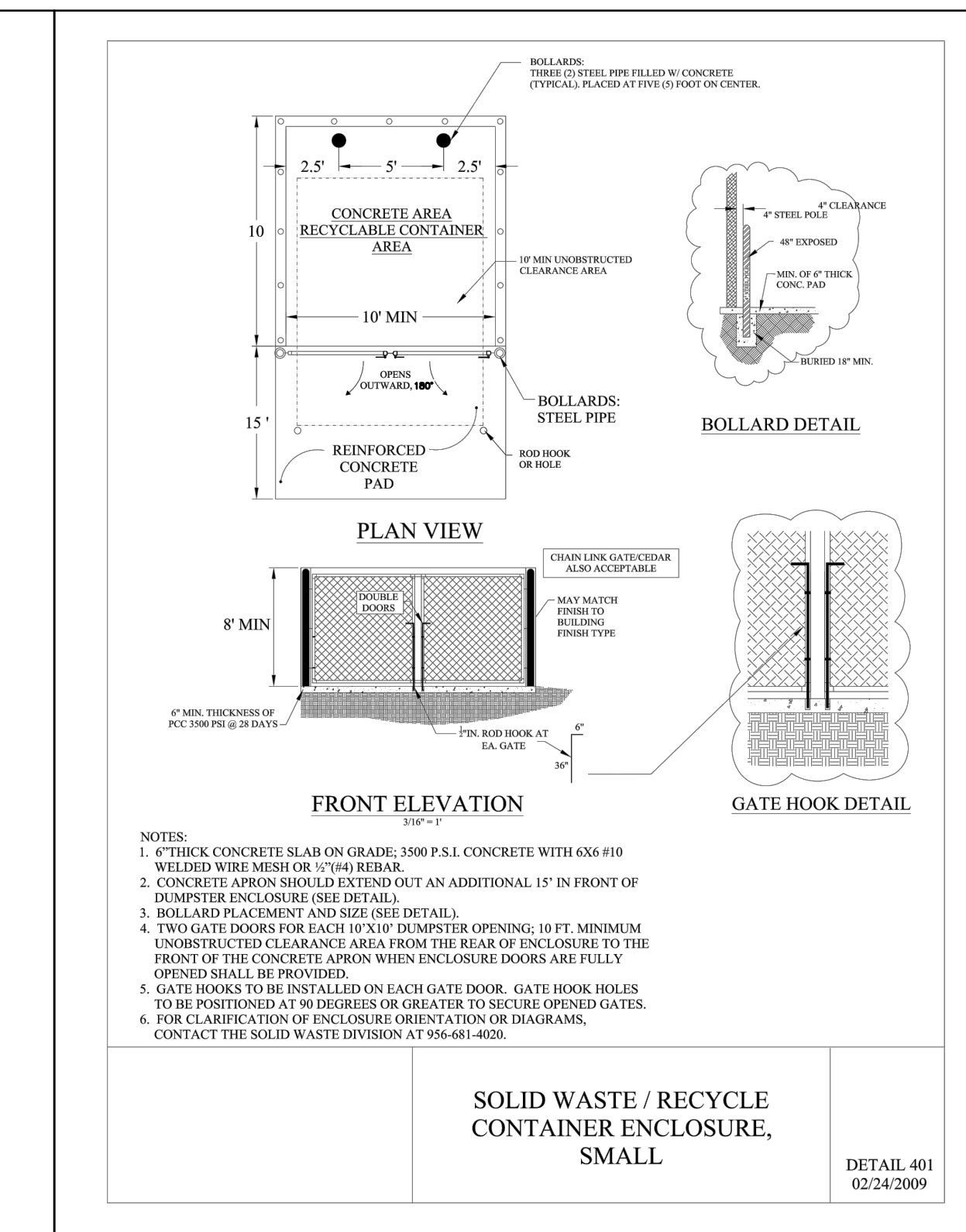
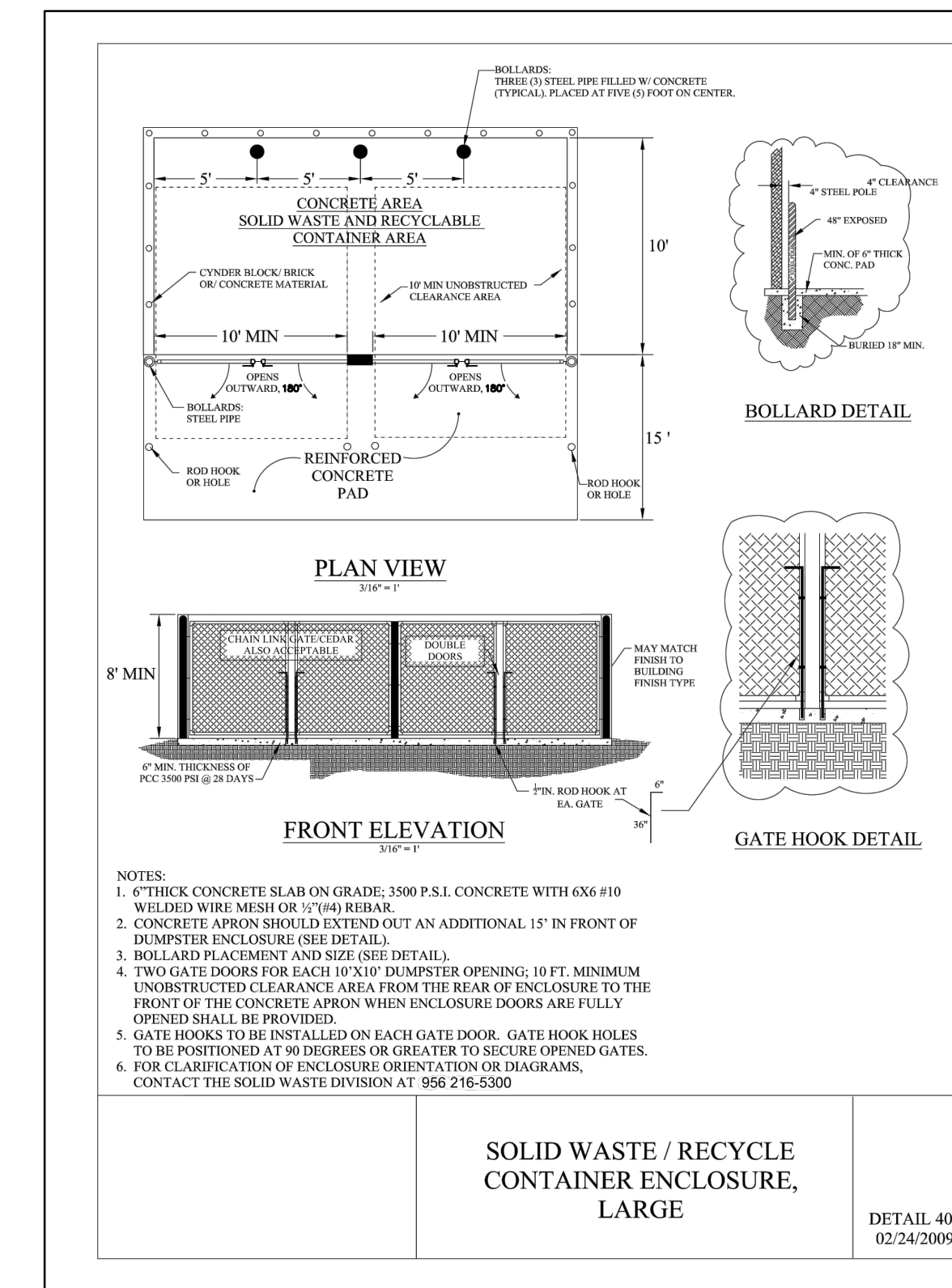
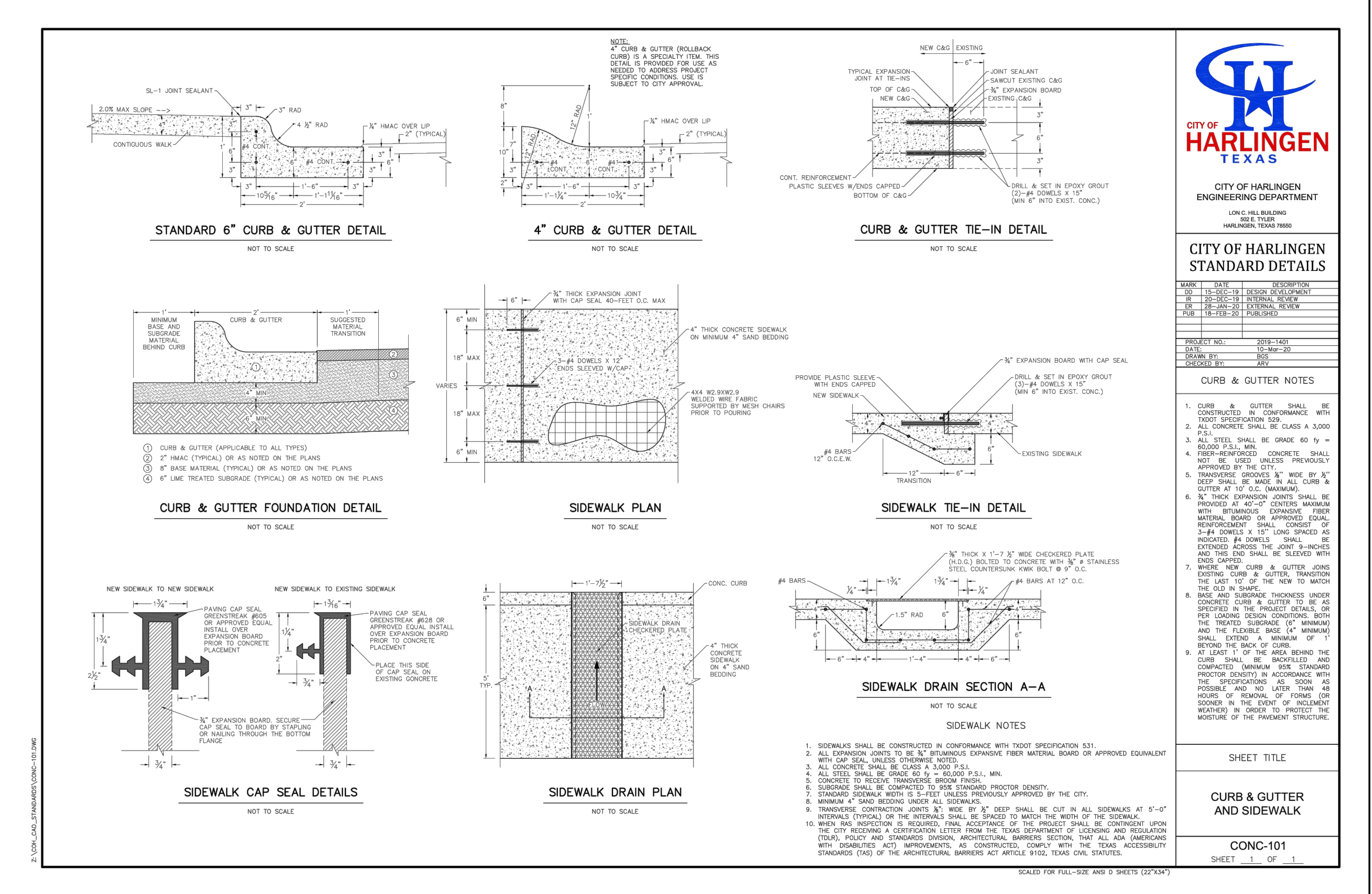
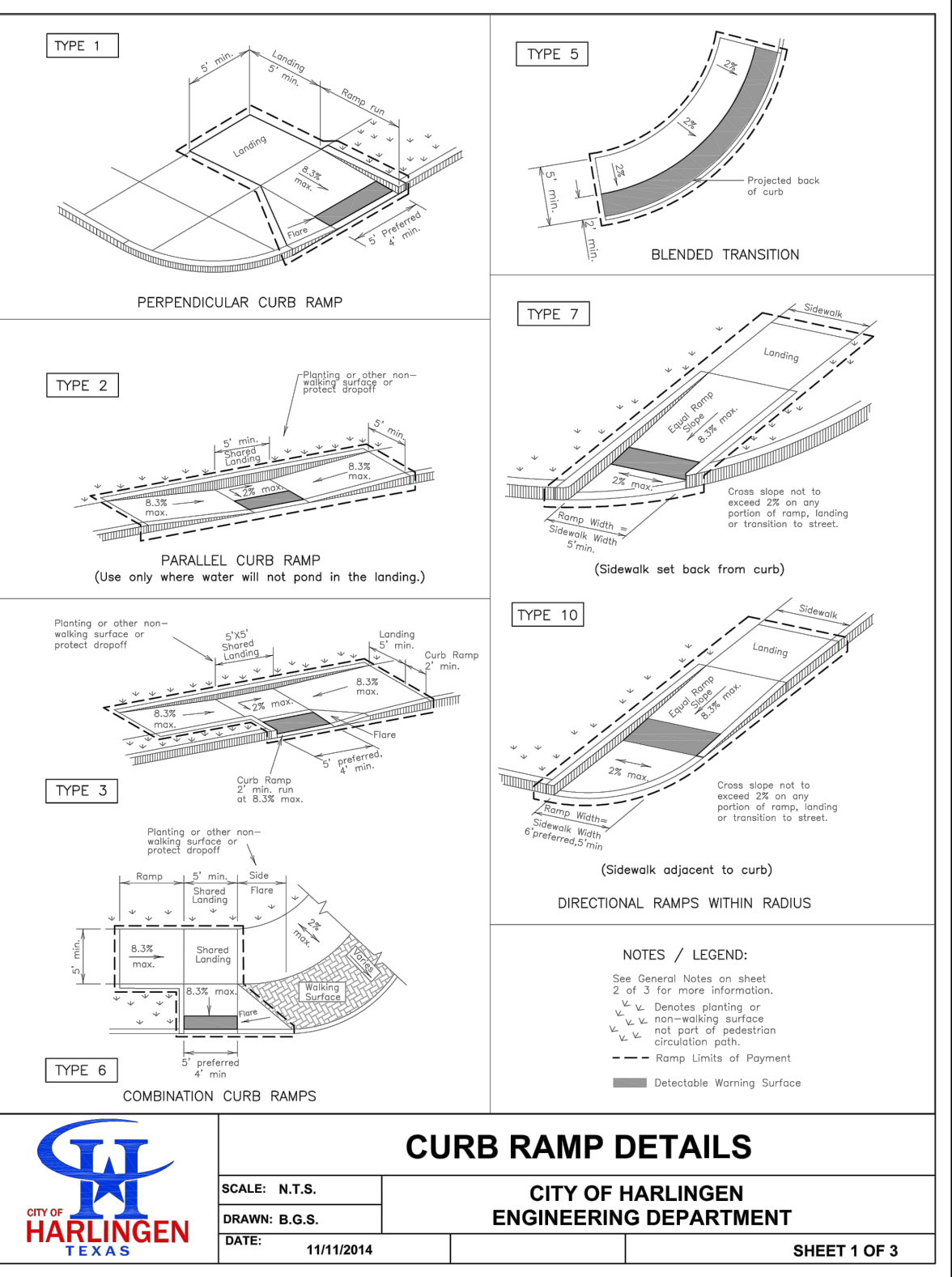
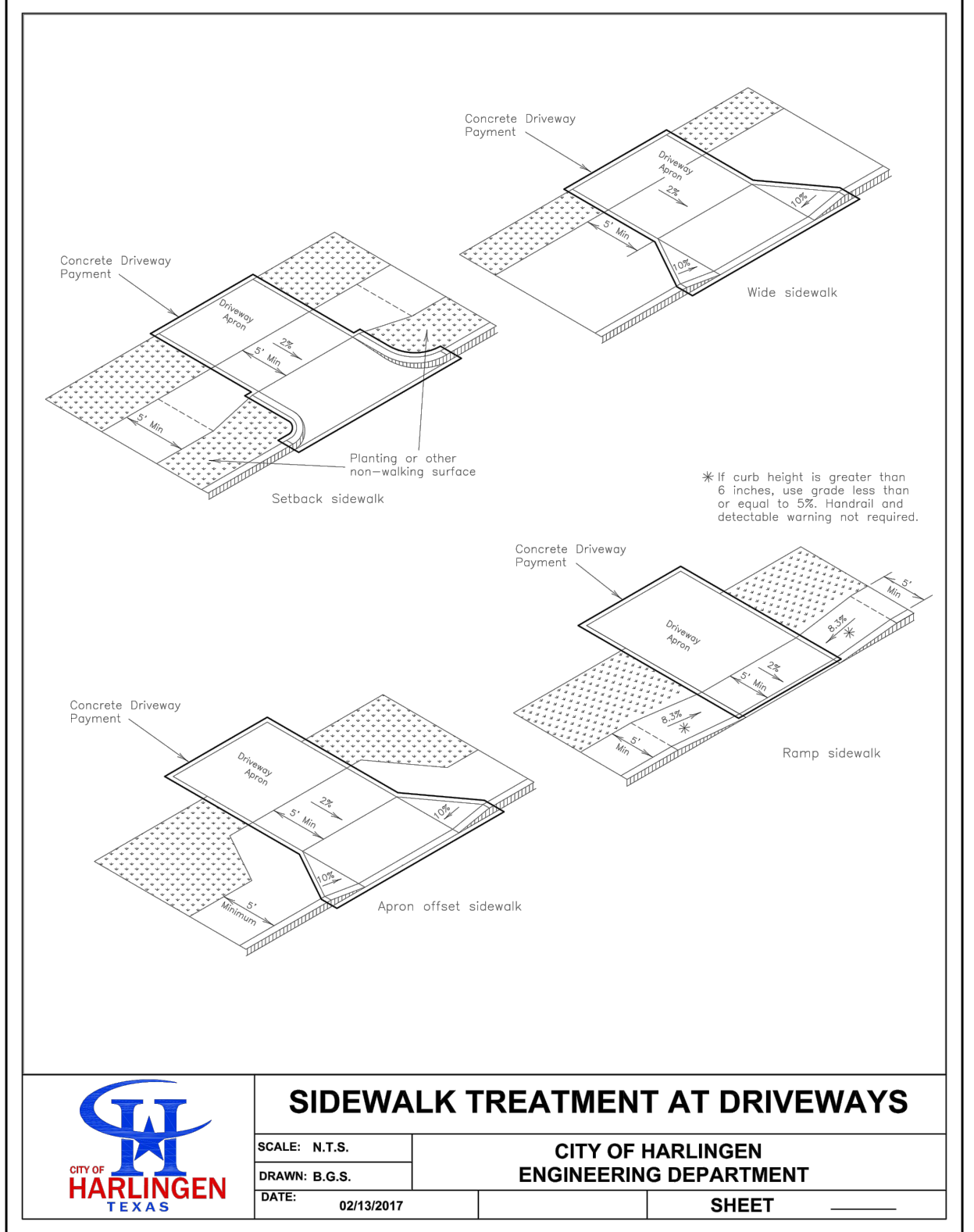
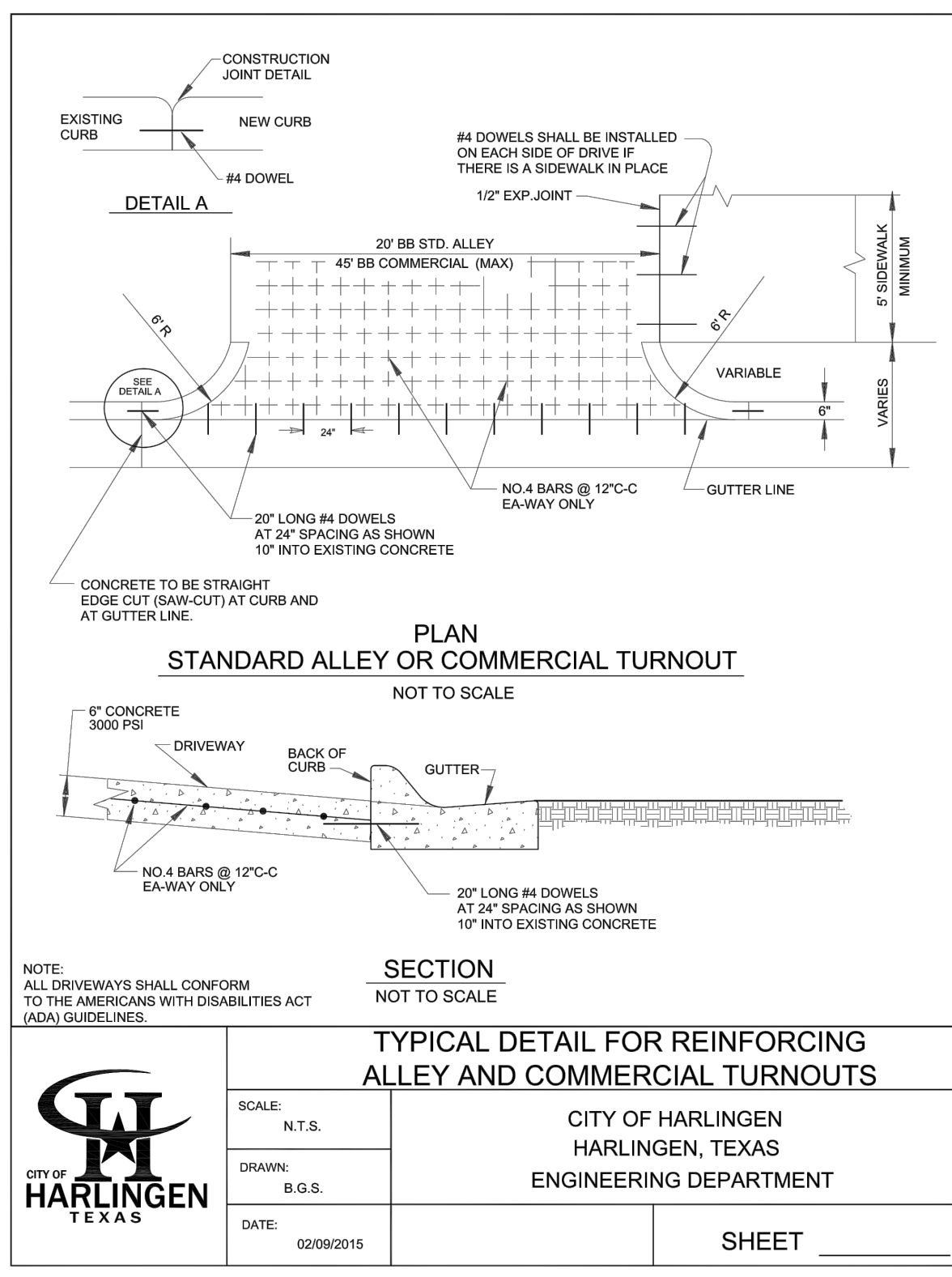
Moore Land Surveying, LLC

5823 MILLENNIUM DR., HARLINGEN, TX 77550  
 LOT 5B, BLOCK 1, HARLINGEN IND. PARK SUBD. NO. 4  
 PAVING & GRADING PLAN

REVISIONS	1
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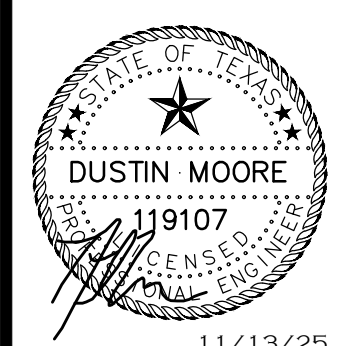
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CITY OF HARLINGEN  
ENGINEERING DEPARTMENT

CITY OF HARLINGEN  
STANDARD DETAILS

CONC-101  
SHEET 1 OF 1



14216 Balle Drive, La Brea, TX 78559  
(956)245-0988  
TBRLS Firm No. 10194186  
(956)245-0651

Moore Land  
Surveying, LLC

5823 MILLENIUM DR., HARLINGEN, TX 78550  
LOT 5B, BLOCK 1, HARLINGEN IND. PARK SUBD. NO. 4  
PAVING & GRADING DETAILS

REVISIONS

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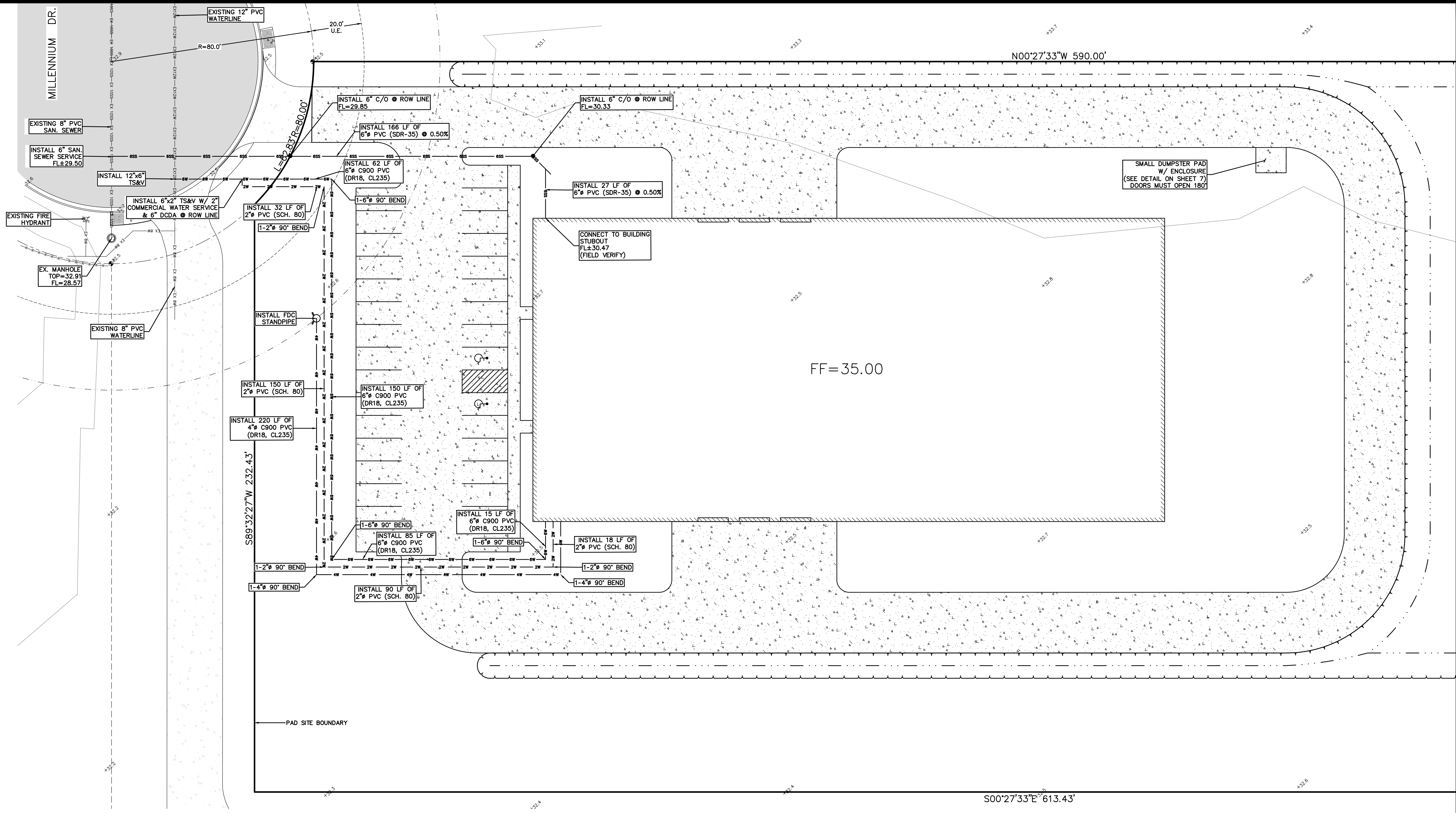
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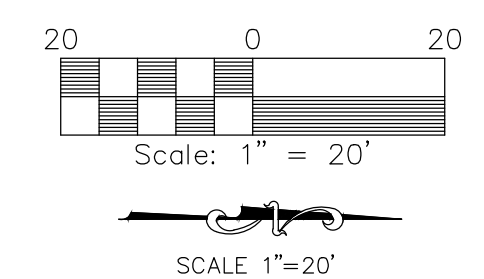
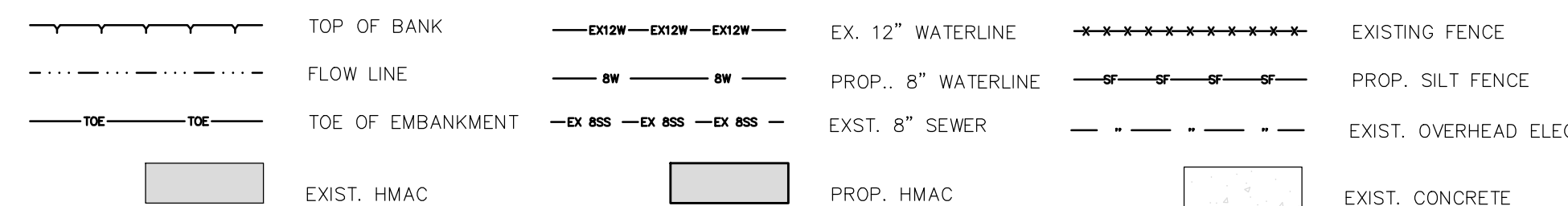


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**\*\*CONCRETE PAVEMENT OVER WATERLINE IS TO HAVE A CONSTRUCTION JOINT CENTERED 5' EITHER SIDE OF THE EXISTING 12" WATERLINE SHOULD THE HWWS EVER HAVE TO REPAIR THIS WATERLINE, THE CONCRETE PAVEMENT REMOVED BY HWWS MUST BE REPAIRED AT THE EXPENSE OF THE OWNER.**

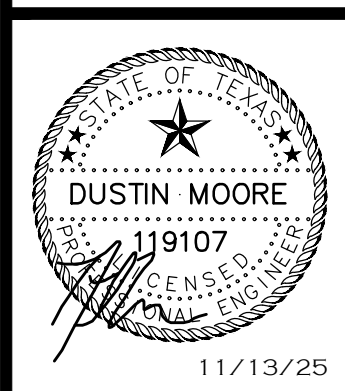
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⊕		⊕	MAILBOX
⊕		⊕	CLEANOUT
⊕		⊕	POWER POLE
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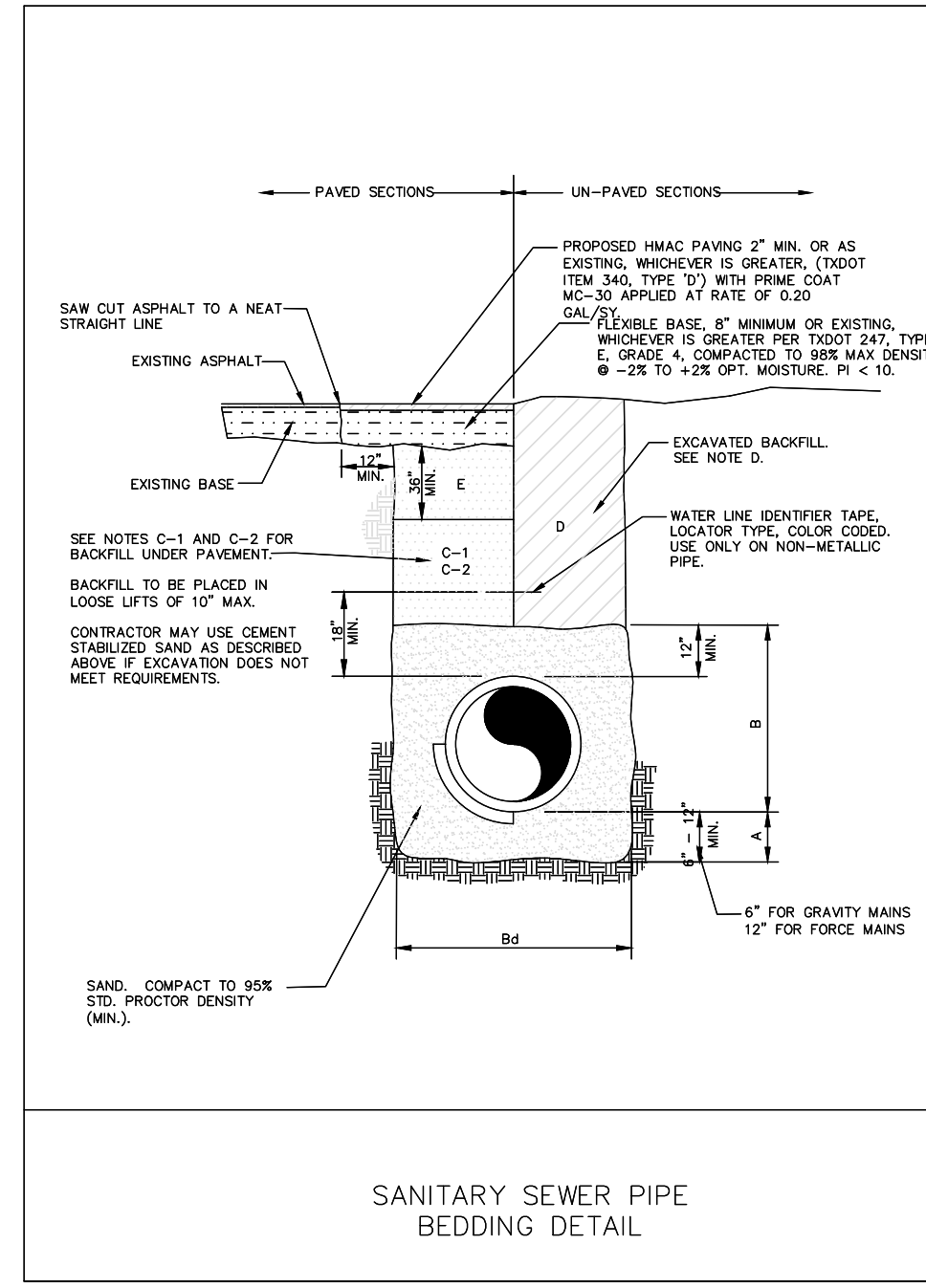
14216 Park Drive, La Porte, TX 78550  
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Moore Land Surveying, LLC



5823 MILLENNIUM DR., HARLINGEN, TX 78550  
 LOT 5B, BLOCK 1, HARLINGEN IND. PARK SUBD. NO. 4  
 UTILITY PLAN

REVISIONS	1	
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DATE	6/23/24	
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OF	9	
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SANITARY SEWER PIPE BEDDING DETAIL

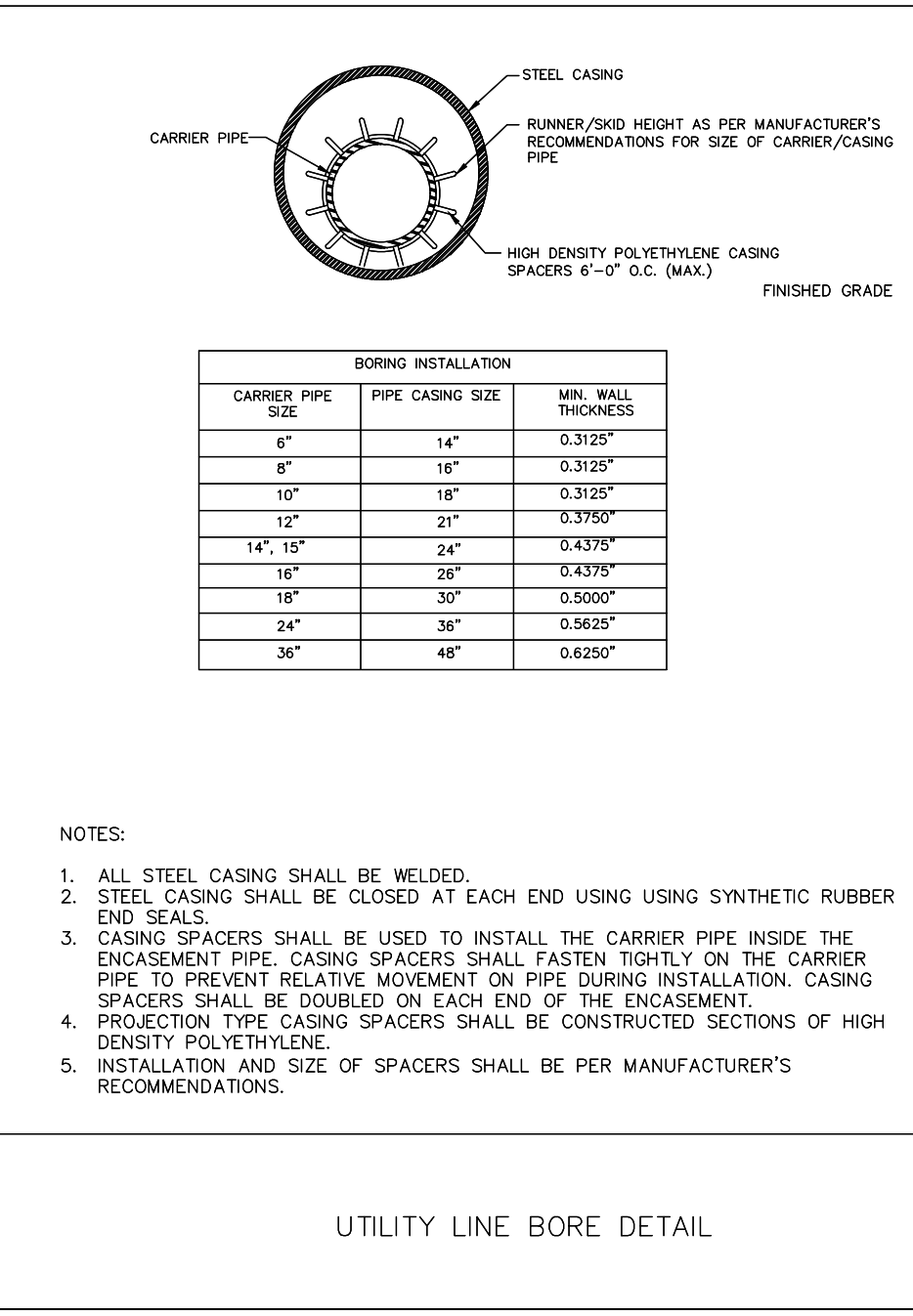
**NOTES:**

- SAND BEDDING PLACED, HAND LEVELED, AND COMPACTED BEFORE PIPE IS LAID, UP TO BOTTOM OF PIPE (MIN. THICKNESS = 6" FOR GRAVITY MAINS AND MIN. 12" FOR FORCE MAINS).
- SAND BACKFILL PLACED AND COMPACTED AFTER PIPE IS LAID, FROM BOTTOM OF PIPE TO 1" ABOVE THE TOP OF PIPE. WORK IN UNDER PIPE HAUNCHES AND COMPACT BY HAND TO SPRING LINE. USE VIBRATORY-TYPE COMPACTORS FOR LIFTS ABOVE THE SPRING LINE. MAXIMUM 6" LIFTS.
- MINIMUM TRENCH WIDTH: PIPE O.D. + 16" (FOR 16" PIPE AND SMALLER) OR PIPE O.D. X 1.25 + 12" (FOR 18" PIPE AND LARGER).
- (CITY STREETS, PARKING AREA, AND DRIVEWAYS) SELECT EXCAVATED BACKFILL MECHANICALLY COMPACTED TO 90% STANDARD PROCTOR DENSITY IN 6" MAX. LIFTS.
- (STATE MAINTAINED ROADWAYS) SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT COMPACTED TO 90% STANDARD PROCTOR DENSITY.
- (CITY STREETS, PARKING AREA, AND DRIVEWAYS) SELECT EXCAVATED BACKFILL MECHANICALLY COMPACTED TO 90% STANDARD PROCTOR DENSITY IN 12" MAX. LIFTS. MINIMUM STANDARD PROCTOR DENSITY: 90% OUTSIDE RIGHT OF WAY; 90% INSIDE RIGHT OF WAY.
- EMBEDMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D 2321. EMBEDMENT MATERIAL SHALL BE CLASS II OR II WITH < 50% PASSING A No. 200 SIEVE AND PLASTICITY INDEX < 7.
- WHERE THIS STANDARD CONFLICTS WITH THE RECOMMENDATION OF ANY GEOTECHNICAL REPORT, OBTAIN WRITTEN CLARIFICATION FROM THE UTILITY ENGINEER PRIOR TO CONSTRUCTION.
- FOUNDATION PREPARATION USING CORBELS, GRAVEL, CEMENT STABILIZATION, OR OTHER METHODS AS DIRECTED BY THE ENGINEER SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.
- BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, AND COMPACTED TO 90% STANDARD PROCTOR DENSITY IN 6" MAXIMUM LIFTS. STRUCTURE BACKFILL MATERIAL SHALL BE SAND.
- APPLICABLE ONLY FOR TRENCHES WITH EXISTING PAVEMENT AREAS, OTHERWISE REQUIREMENTS FOR 1" ABOVE SHALL APPLY.
  - SAND STABILIZED SAND (2 SACK /CY), SHALL MEET THE FOLLOWING:
    - NO CLUMPS
    - MOISTURE 0.10 ± 2%
    - LL < 20
    - PI 8-20
  - SAND GRAVEL OR PASSING:
    - #4 55-100
    - #10 40-100
    - #20 23-100
    - #30 15-100
  - PI NP-10, COMPACT TO 90% OF ASTM D698. MOISTURE TO BE WITHIN +/- 2% OPTIMUM MOISTURE.

**NOTES:**

- WHEN UTILITY LOCATED WITHIN CITY R.O.W., ALL BACKFILL IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY ENGINEER'S OFFICE.
- MINIMUM 6" SAND BEDDING UP TO FLOW LINE OF PIPE.
- SAND BACKFILL FROM FLOW LINE OF PIPE TO 6" ABOVE TOP OF PIPE (4" LIFTS, WATER JET, HAND TAMPED).
- FILL TRENCH W/SELECT BACKFILL, W/8" LIFTS COMPACT TO 90% STD. PROCTOR FOUNDATION PREPARATION (W/POINTS, GRAVEL, OR CEMENT STABILIZATION, SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE).
- BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENTS AND COMPACTED TO 90% STANDARD PROCTOR DENSITY. THE THICKNESS OF EACH LOOSE LAYER SHALL BE SAND, APPROVED SITE SOIL, OR OTHER APPROVED SUBSTITUTE.
- SAND TO BE ARROYO OR RIVER SAND w/ A PI < 8 AND LESS THAN 20% CLAY CONTENT.
- HWWS MAY APPROVE OR REJECT ANY BACKFILL MATERIAL DELIVERED TO THE SITE IF DEEMED INADEQUATE OR INAPPROPRIATE BASED ON OBSERVED FIELD CONDITIONS.

SANITARY SEWER PIPE BEDDING NOTES

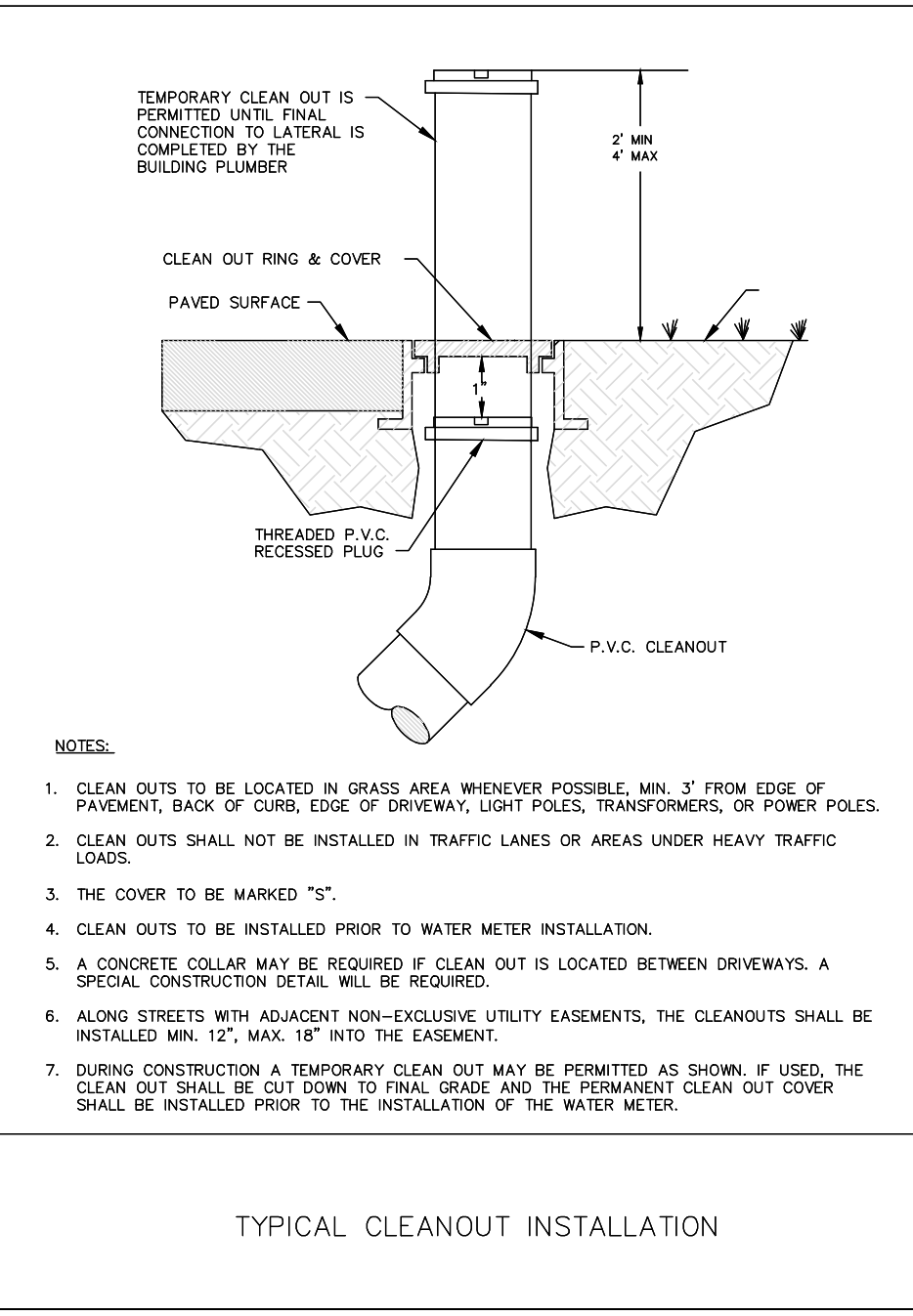


CARRIER PIPE SIZE	PIPE CASING SIZE	MIN. WALL THICKNESS
8"	14"	0.3125"
10"	16"	0.3125"
12"	18"	0.3125"
14"	20"	0.3750"
16"	24"	0.4375"
18"	28"	0.5000"
24"	36"	0.5625"
36"	48"	0.6250"

**NOTES:**

- ALL STEEL CASING SHALL BE WELDED.
- STEEL CASING SHALL BE CLOSED AT EACH END USING SYNTHETIC RUBBER END SEALS.
- CASING SPACERS SHALL BE USED TO INSTALL THE CARRIER PIPE INSIDE THE ENCASUREMENT PIPE. CASING SPACERS SHALL FASTEN TIGHTLY ON THE CARRIER PIPE TO PREVENT RELATIVE MOVEMENT ON PIPE DURING INSTALLATION. CASING SPACERS SHALL BE DOUBLED ON EACH END OF THE ENCASUREMENT.
- PROJECTION TYPE CASING SPACERS SHALL BE CONSTRUCTED SECTIONS OF HIGH DENSITY POLYETHYLENE.
- INSTALLATION AND SIZE OF SPACERS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

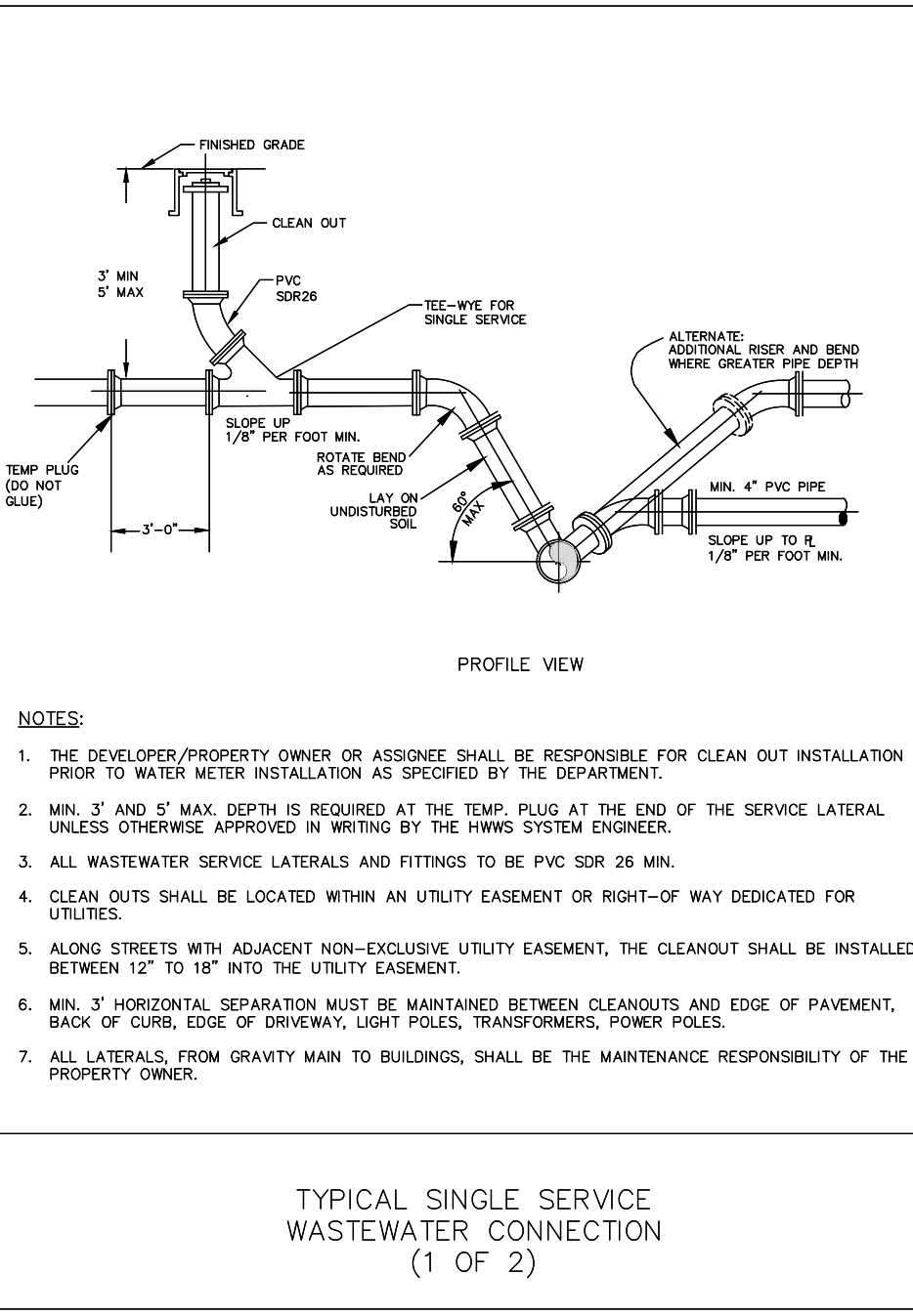
UTILITY LINE BORE DETAIL



**NOTES:**

- CLEAN OUTS TO BE LOCATED IN GRASS AREA WHENEVER POSSIBLE, MIN. 3' FROM EDGE OF PAVEMENT, BACK OF CURB, EDGE OF DRIVEWAY, LIGHT POLES, TRANSFORMERS, OR POWER POLES.
- CLEAN OUTS SHALL NOT BE INSTALLED IN TRAFFIC LANES OR AREAS UNDER HEAVY TRAFFIC LOADS.
- THE COVER TO BE MARKED "S".
- CLEAN OUTS TO BE INSTALLED PRIOR TO WATER METER INSTALLATION.
- A CONCRETE COLLAR MAY BE REQUIRED IF CLEAN OUT IS LOCATED BETWEEN DRIVEWAYS. A SPECIAL CONSTRUCTION DETAIL WILL BE REQUIRED.
- ALONG STREETS WITH ADJACENT NON-EXCLUSIVE UTILITY EASEMENTS, THE CLEANOUT SHALL BE INSTALLED MIN. 12" MAX. 18" INTO THE EASEMENT.
- DURING CONSTRUCTION A TEMPORARY CLEAN OUT MAY BE PERMITTED AS SHOWN. IF USED, THE CLEAN OUT SHALL BE CUT DOWN TO FINAL GRADE AND THE PERMANENT CLEAN OUT COVER SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF THE WATER METER.

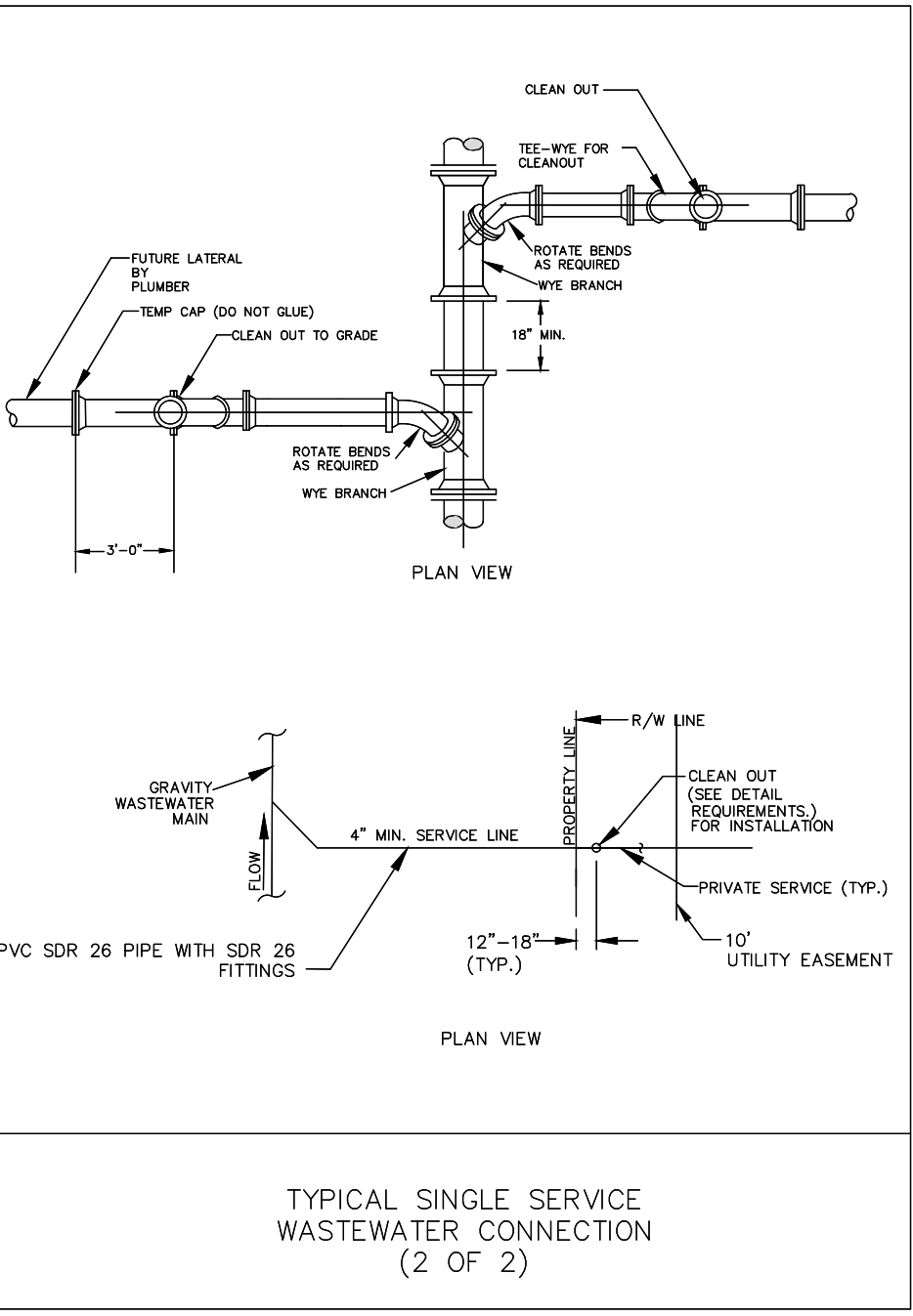
TYPICAL CLEANOUT INSTALLATION



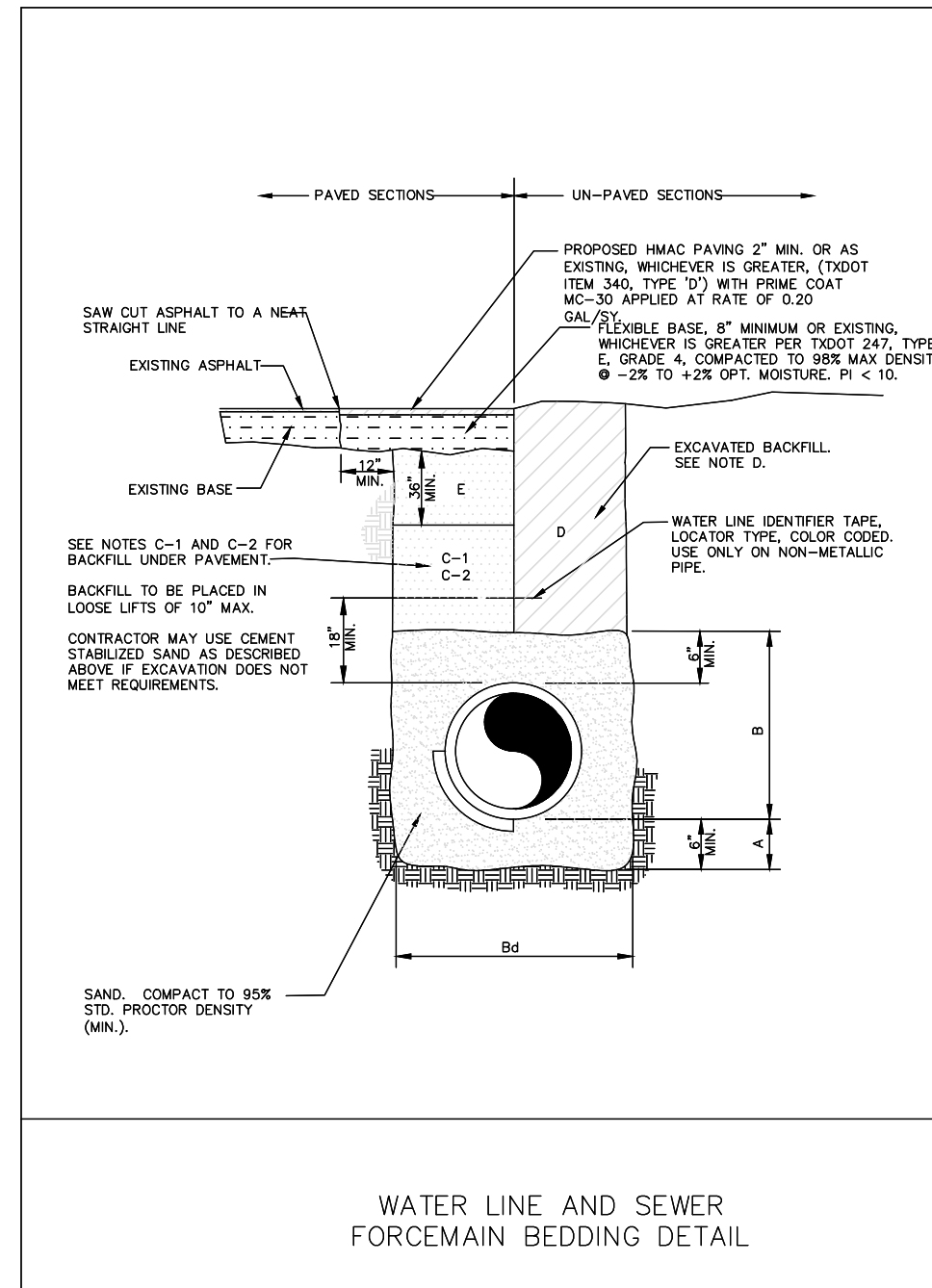
**NOTES:**

- THE DEVELOPER/PROPERTY OWNER OR ASSIGNEE SHALL BE RESPONSIBLE FOR CLEAN OUT INSTALLATION PRIOR TO WATER METER INSTALLATION AS SPECIFIED BY THE DEPARTMENT.
- MIN. 3" AND 5" MAX. DEPTH IS REQUIRED AT THE TEMP. PLUG AT THE END OF THE SERVICE LATERAL UNLESS OTHERWISE APPROVED IN WRITING BY THE TOWNS SYSTEM ENGINEER.
- ALL WASTEWATER SERVICE LATERALS AND FITTINGS TO BE PVC SDR 26 MIN.
- CLEAN OUTS SHALL BE LOCATED WITHIN AN UTILITY EASEMENT OR RIGHT-OF-WAY DEDICATED FOR UTILITIES.
- ALONG STREETS WITH ADJACENT NON-EXCLUSIVE UTILITY EASEMENT, THE CLEANOUT SHALL BE INSTALLED BETWEEN 12" TO 18" INTO THE UTILITY EASEMENT.
- MIN. 3" HORIZONTAL SEPARATION MUST BE MAINTAINED BETWEEN CLEANOUTS AND EDGE OF PAVEMENT, BACK OF CURB, EDGE OF DRIVEWAY, LIGHT POLES, TRANSFORMERS, POWER POLES.
- ALL LATERALS, FROM GRAVITY MAIN TO BUILDINGS, SHALL BE THE MAINTENANCE RESPONSIBILITY OF THE PROPERTY OWNER.

TYPICAL SINGLE SERVICE WASTEWATER CONNECTION (1 OF 2)



TYPICAL SINGLE SERVICE WASTEWATER CONNECTION (2 OF 2)



WATER LINE AND SEWER FORCEMAIN BEDDING DETAIL

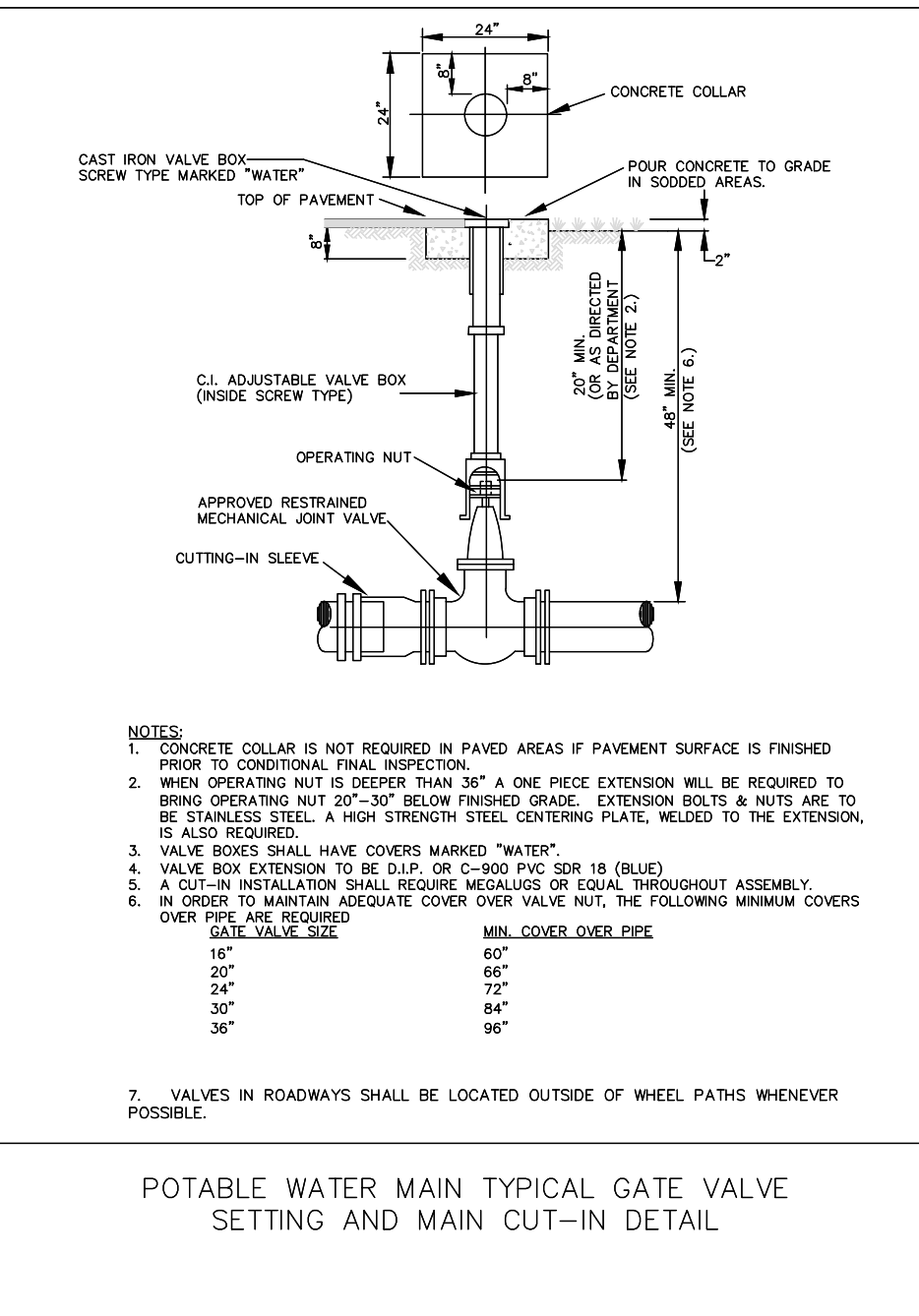
**NOTES:**

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- SAND BACKFILL PLACED AND COMPACTED AFTER PIPE IS LAID, FROM BOTTOM OF PIPE TO 1" ABOVE THE TOP OF PIPE. WORK IN UNDER PIPE HAUNCHES AND COMPACT BY HAND TO SPRING LINE. USE VIBRATORY-TYPE COMPACTORS FOR LIFTS ABOVE THE SPRING LINE. MAXIMUM 6" LIFTS.
- MINIMUM TRENCH WIDTH: PIPE O.D. + 16" (FOR 16" PIPE AND SMALLER) OR PIPE O.D. X 1.25 + 12" (FOR 18" PIPE AND LARGER).
- (CITY STREETS, PARKING AREA, AND DRIVEWAYS) SELECT EXCAVATED BACKFILL MECHANICALLY COMPACTED TO 90% STANDARD PROCTOR DENSITY IN 6" MAX. LIFTS.
- (STATE MAINTAINED ROADWAYS) SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT COMPACTED TO 90% STANDARD PROCTOR DENSITY.
- (CITY STREETS, PARKING AREA, AND DRIVEWAYS) SELECT EXCAVATED BACKFILL MECHANICALLY COMPACTED TO 90% STANDARD PROCTOR DENSITY IN 12" MAX. LIFTS. MINIMUM STANDARD PROCTOR DENSITY: 90% OUTSIDE RIGHT OF WAY; 90% INSIDE RIGHT OF WAY.
- EMBEDMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D 2321. EMBEDMENT MATERIAL SHALL BE CLASS II OR II WITH < 50% PASSING A No. 200 SIEVE AND PLASTICITY INDEX < 7.
- WHERE THIS STANDARD CONFLICTS WITH THE RECOMMENDATION OF ANY GEOTECHNICAL REPORT, OBTAIN WRITTEN CLARIFICATION FROM THE UTILITY ENGINEER PRIOR TO CONSTRUCTION.
- FOUNDATION PREPARATION USING CORBELS, GRAVEL, CEMENT STABILIZATION, OR OTHER METHODS AS DIRECTED BY THE ENGINEER SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.
- BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, AND COMPACTED TO 90% STANDARD PROCTOR DENSITY IN 6" MAXIMUM LIFTS. STRUCTURE BACKFILL MATERIAL SHALL BE SAND.
- APPLICABLE ONLY FOR TRENCHES WITH EXISTING PAVEMENT AREAS, OTHERWISE REQUIREMENTS FOR 1" ABOVE SHALL APPLY.
  - SAND STABILIZED SAND (2 SACK /CY), SHALL MEET THE FOLLOWING:
    - NO CLUMPS
    - MOISTURE 0.10 ± 2%
    - LL < 20
    - PI 8-20
  - SAND GRAVEL OR PASSING:
    - #4 55-100
    - #10 40-100
    - #20 23-100
    - #30 15-100
  - PI NP-10, COMPACT TO 90% OF ASTM D698. MOISTURE TO BE WITHIN +/- 2% OPTIMUM MOISTURE.

**NOTES:**

- WHEN UTILITY LOCATED WITHIN CITY R.O.W., ALL BACKFILL IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY ENGINEER'S OFFICE.
- MINIMUM 6" SAND BEDDING UP TO FLOW LINE OF PIPE.
- SAND BACKFILL FROM FLOW LINE OF PIPE TO 6" ABOVE TOP OF PIPE (4" LIFTS, WATER JET, HAND TAMPED).
- FILL TRENCH W/SELECT BACKFILL, W/8" LIFTS COMPACT TO 90% STD. PROCTOR FOUNDATION PREPARATION (W/POINTS, GRAVEL, OR CEMENT STABILIZATION, SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE).
- BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENTS AND COMPACTED TO 90% STANDARD PROCTOR DENSITY. THE THICKNESS OF EACH LOOSE LAYER SHALL BE SAND, APPROVED SITE SOIL, OR OTHER APPROVED SUBSTITUTE.
- SAND TO BE ARROYO OR RIVER SAND w/ A PI < 8 AND LESS THAN 20% CLAY CONTENT.
- HWWS MAY APPROVE OR REJECT ANY BACKFILL MATERIAL DELIVERED TO THE SITE IF DEEMED INADEQUATE OR INAPPROPRIATE BASED ON OBSERVED FIELD CONDITIONS.

WATER LINE AND SEWER FORCEMAIN BEDDING NOTES

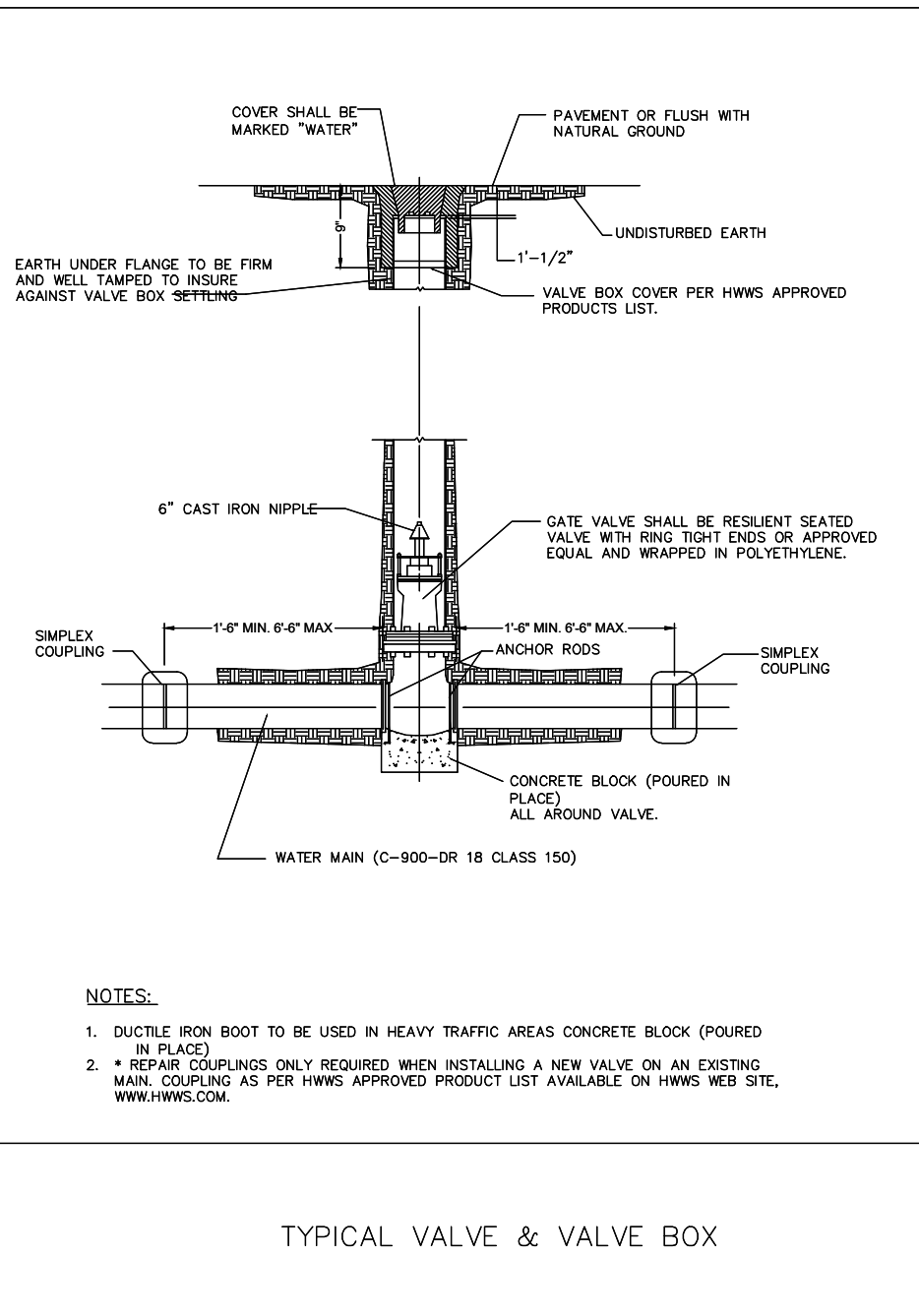


POTABLE WATER MAIN TYPICAL GATE VALVE SETTING AND MAIN CUT-IN DETAIL

**NOTES:**

- CONCRETE COLLAR IS NOT REQUIRED IN PAVED AREAS IF PAVEMENT SURFACE IS FINISHED PRIOR TO OPERATIONAL FINAL INSPECTION.
- WHEN OPERATING NUT IS ORDERED SHORTER THAN 36" A ONE PIECE EXTENSION WILL BE REQUIRED TO BRING OPERATING NUT 20"±30" BELOW FINISHED GRADE. EXTENSION BOLTS & NUTS ARE TO BE STAINLESS STEEL. A HIGH STRENGTH STEEL CENTERING PLATE, WELDED TO THE EXTENSION, IS ALSO REQUIRED.
- VALVE BOXES SHALL HAVE COVERS MARKED "WATER".
- VALVE BOX EXTENSION TO BE D.I.P. OR C-800 PVC SDR 18 (BLUE).
- A CUT-IN INSTALLATION SHALL REQUIRE REGULAR OR EQUAL THROUGHOUT ASSEMBLY.
- IN ORDER TO MAINTAIN ADEQUATE COVER OVER VALVE NUT, THE FOLLOWING MINIMUM COVERS OVER PIPE ARE REQUIRED:
 

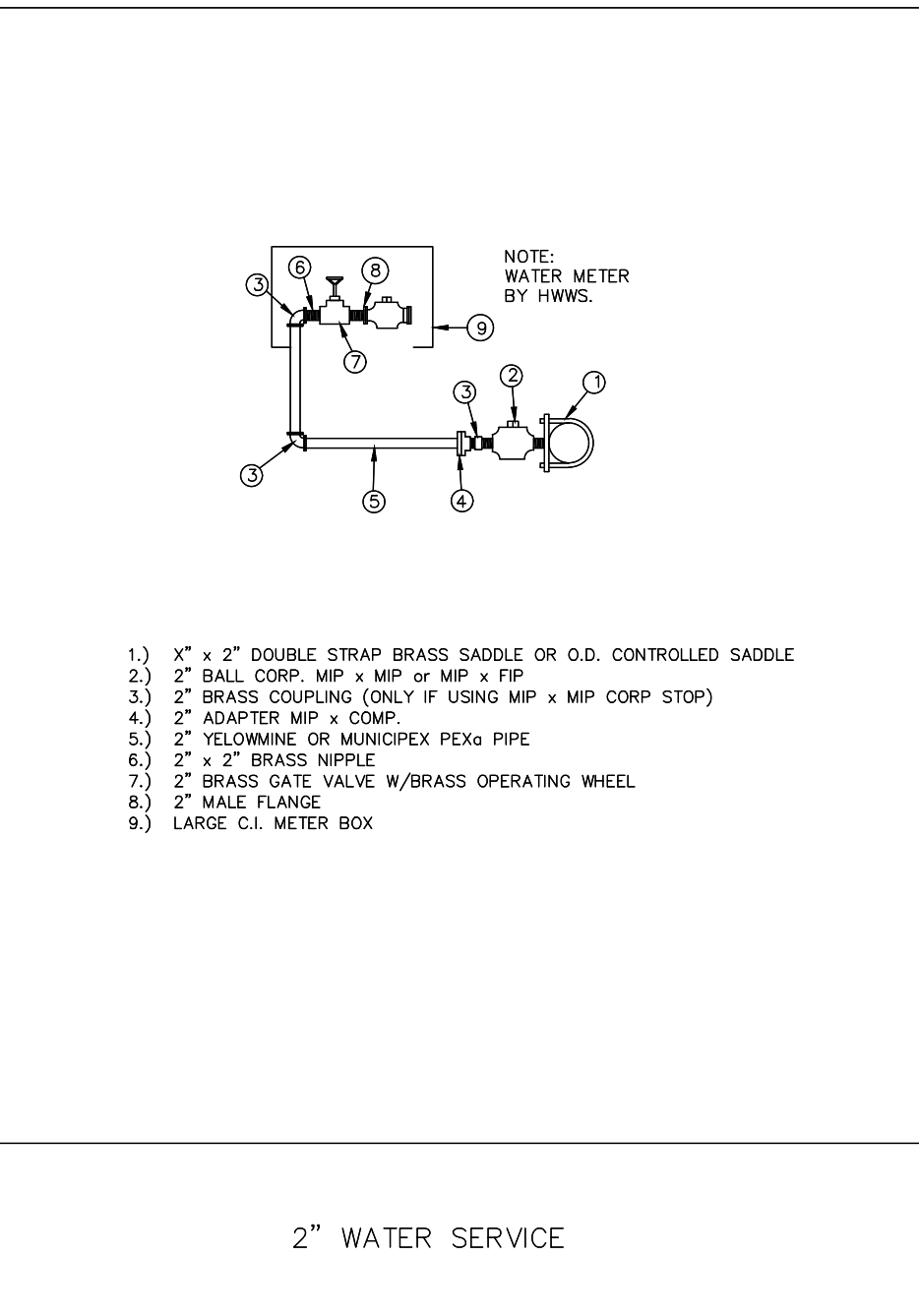
VALVE SIZE	MIN. COVER OVER PIPE
16"	60"
20"	66"
24"	72"
30"	84"
- VALVES IN ROADWAYS SHALL BE LOCATED OUTSIDE OF WHEEL PATHS WHENEVER POSSIBLE.



**NOTES:**

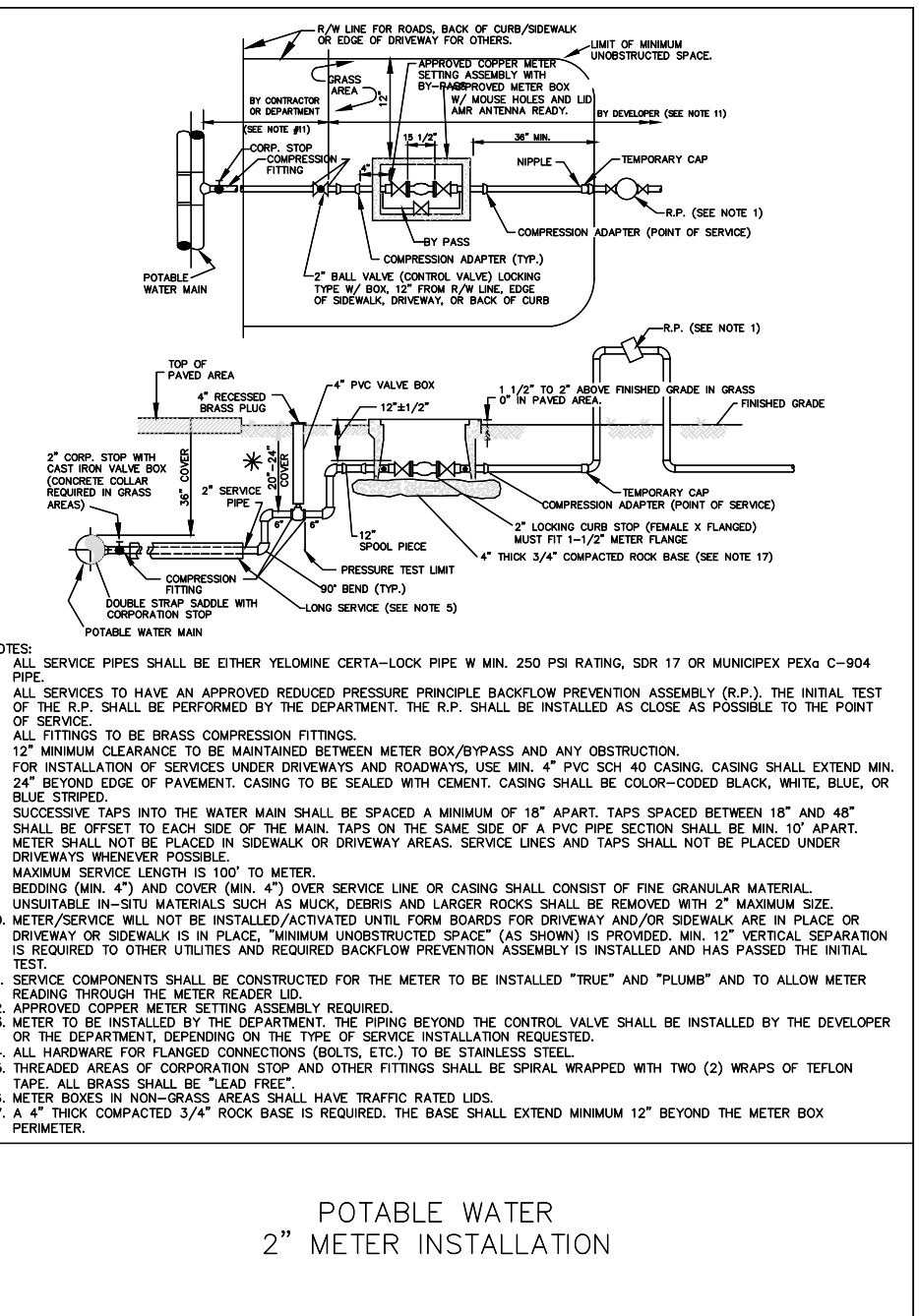
- DUCTILE IRON BOOT TO BE USED IN HEAVY TRAFFIC AREAS CONCRETE BLOCK (FOUNDED IN PLACE).
- REBAR COLLARS ONLY REQUIRED WHEN INSTALLING A NEW VALVE ON AN EXISTING MAIN. COLLARING AS PER HWWS APPROVED PRODUCT LIST AVAILABLE ON HWWS WEB SITE. WWW.HWWS.COM.

TYPICAL VALVE & VALVE BOX



1) 1" x 2" DOUBLE STRAP BRASS SADDLE OR O.D. CONTROLLED SADDLE  
 2) 2" BALL CORP. MIP x MIP or MIP x FIP  
 3) 2" ADAPTER MIP x COMP.  
 4) 2" YELLOWLINE OR MANICPEX PEXG PIPE  
 5) 2" x 2" BRASS NIPPLE  
 6) 2" x 2" BRASS GATE VALVE W/BRASS OPERATING WHEEL  
 7) 2" MALE FLANGE  
 8) 2" MALE FLANGE  
 9) LARGE C.I. METER BOX

2" WATER SERVICE



POTABLE WATER 2" METER INSTALLATION

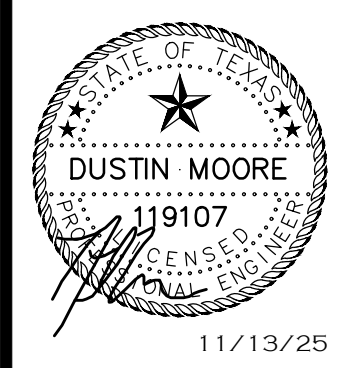
**NOTES:**

- ALL SERVICE PIPES SHALL BE EITHER YELLOWLINE CERTA-LOCK PIPE W/ MIN. 250 PSI RATING, SDR 17 OR MANICPEX PEXG C-804 PIPE.
- ALL SERVICES TO HAVE AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY (B.P.A.). THE INITIAL TEST OF THE B.P.A. SHALL BE PERFORMED BY THE DEPARTMENT. THE B.P.A. SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE POINT OF SERVICE.
- ALL FITTINGS TO BE BRASS COMPRESSION FITTINGS.
- ALL MINIMUM CLEARANCES TO BE MAINTAINED BETWEEN METER BOX/WHEELS AND ANY OBSTRUCTION.
- FOR INSTALLATION OF SERVICES UNDER DRIVEWAYS AND ROADWAYS, USE MIN. 4" PVC IGH 40 CASING. CASING SHALL EXTEND MIN. 12" ABOVE TOP OF PAVEMENT. CASING TO BE SEALED WITH GRANIT. CASING SHALL BE COLOR-CODED BLACK, WHITE, BLUE, OR BLUE STRIPED.
- SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" APART. TAPS SPACED BETWEEN 18" AND 48" SHALL BE OFFSET TO EACH SIDE OF THE MAIN TAPS ON THE SAME SIDE OF A PVC PIPE SECTION SHALL BE MIN. 10' APART.
- METERS SHALL BE PLACED IN SIDEWALK OR DRIVEWAY AREAS. SERVICE LINES AND TAPS SHALL NOT BE PLACED UNDER DRIVEWAYS WHEN POSSIBLE.
- MINIMUM SERVICE LENGTH IS 100' TO METER.
- BEHIND MAN. 4" AND COVER MAN. 4" OVER SERVICE LINE OR CASING SHALL CONSIST OF THE GRANULAR MATERIAL.
- UNUSABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED WITH 2" MAXIMUM SIZE METER SERVICE HULL NOT BE INSTALLED/ACTIVATED UNTIL TOWN SERVICES (DRIVEWAY AND/OR SIDEWALK) ARE IN PLACE OR DRIVEWAY OR SIDEWALK IS IN PLACE. MINIMUM UNDISTURBED SPACE (AS SHOWN) IS PROVIDED. MIN. 12" VERTICAL SEPARATION IS REQUIRED TO OTHER UTILITIES AND REQUIRED BACKFLOW PREVENTION ASSEMBLY IS INSTALLED AND HAS PASSED THE INITIAL TEST.
- SERVICE COMPONENTS SHALL BE CONSTRUCTED FOR THE METER TO BE INSTALLED "TRUE" AND "PLUMB" AND TO ALLOW METER READING THROUGH THE METER BY ROSE LED.
- APPROVED COPPER METERS SETTING ASSEMBLY REQUIRED.
- METER TO BE INSTALLED TO THE DEPARTMENT. THE SPRING BEYOND THE CONTROL VALVE SHALL BE INSTALLED BY THE DEVELOPER.
- BEHIND DEPARTMENT CONTROL VALVE. THE TYPE OF SERVICE INSTALLATION REQUIRED.
- ALL HANDRAILS FOR FLANGED CONNECTIONS (BOLTS, ETC.) TO BE STAINLESS STEEL.
- DISCARD WRENCH OF COPPERWRENCH AND OTHER FITTINGS SHALL BE SERIAL WRAPPED WITH TWO (2) WRAPS OF TEFLON TAPE. ALL BRASS SHALL BE LEAD FREE.
- METER BOXES IN NON-TRAFFIC AREAS SHALL HAVE TRAFFIC RATED LIDS.
- 4" x 4" THICK COMPACTED 3/4" ROCK BASE IS REQUIRED. THE BASE SHALL EXTEND MINIMUM 12" BEYOND THE METER BOX FOOTPRINTS.

- CONTRACTOR TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL CONTACT CITY OF HARLINGEN OR HWWS INSPECTOR FOR INSPECTION PRIOR TO BACKFILLING.
- CONTRACTOR SHALL CONTACT HWWS PRIOR TO CONNECTING TO EXISTING MAIN WATER.
- CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN TO CITY OF HARLINGEN FOR APPROVAL PRIOR TO CONSTRUCTION.
- CONCRETE CYLINDERS (SET OF 5) TO BE TAKEN FOR ALL CONCRETE POURS (1 SET PER DAY OR EVERY 60 CY).
- MECHANICAL COMPACTION UNDER ROADWAYS TO BE PERFORMED PER STANDARD DETAILS AND REQUIRED TO BE TESTED A MAXIMUM OF EVERY 1' OF COMPACTED BACKFILL (1 TEST PER 1,000 SY OF BACKFILL)

14216 Ballie Drive, La Brea, TX 78559  
 (956)245-0888  
 (956)245-0851

Moore Land Surveying, LLC



11/13/25

5823 MILLENIUM DR., HARLINGEN, TX 78550  
 LOT 5B, BLOCK 1, HARLINGEN IND. PARK SUBD. NO. 4  
 STANDARD HWWS DETAILS

REVISIONS  
 1  
 2  
 3  
 4  
 5

DRAWN BY: DM/RR

SCALE 1"=20'  
 DATE 6/23/24  
 SHEET 9  
 OF 9  
 CAD  
 DRAWING NO.