



CITY OF ROCKWALL, TEXAS
"THE NEW HORIZON"
PAVING & DRAINAGE IMPROVEMENTS
FOR
TURTLE COVE BOULEVARD
YELLOW JACKET LANE

MAY 2021
CIP-TR2018-005

CITY COUNCIL

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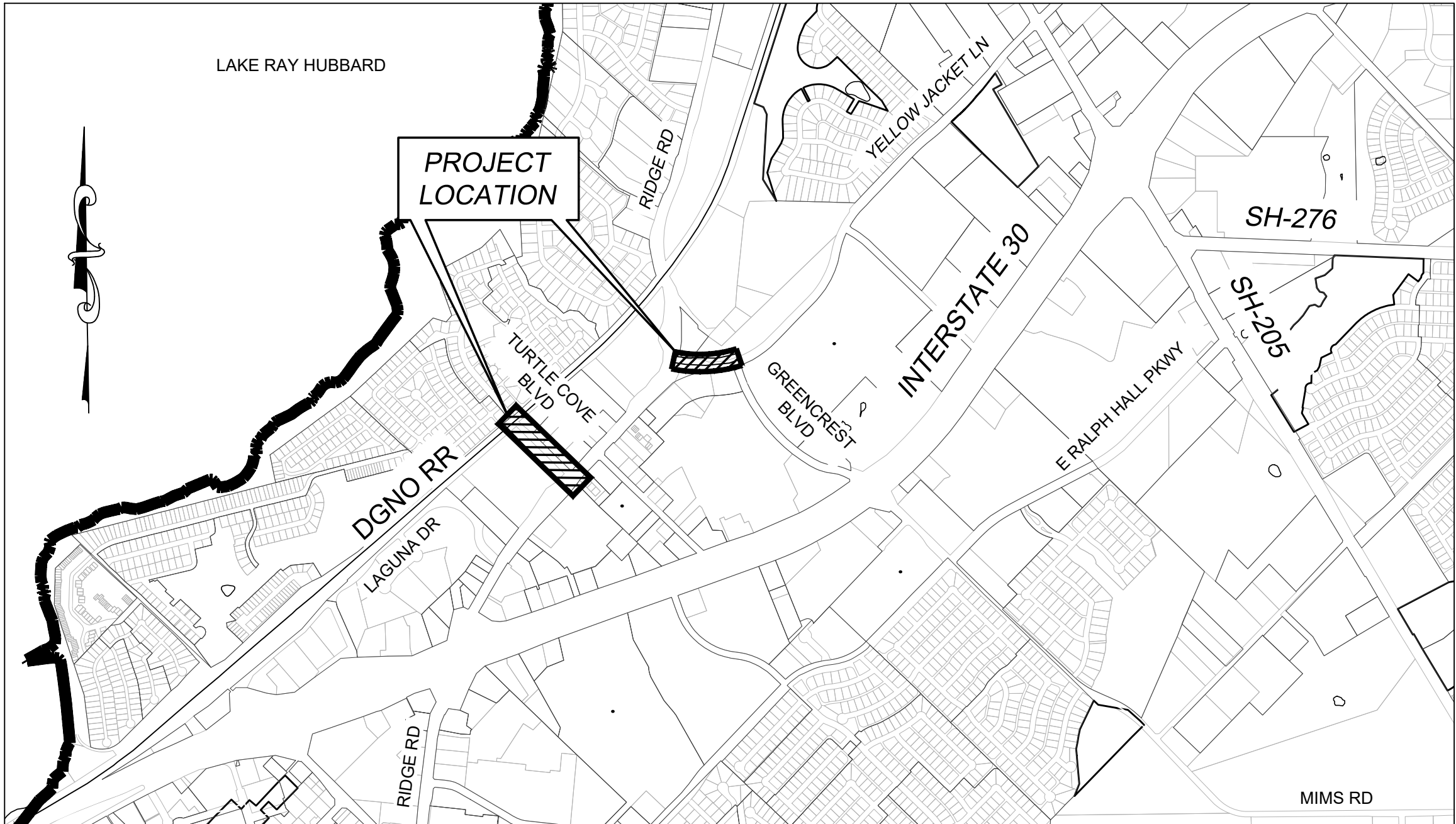
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RECORD DRAWING
REVISED TO REFLECT CONSTRUCTION RECORDS, THIS RECORD DRAWING IS A COMPILATION OF THE SEALED ENGINEERING DRAWINGS FOR THIS PROJECT, MODIFIED BY ADDENDA, FIELD CHANGES, CHANGE ORDER, AND INFORMATION PROVIDED BY THE CONTRACTOR AND/OR AGENCY. THE INFORMATION SHOWN ON THE "AS-BUILT" DRAWINGS THAT WERE PROVIDED BY THE CONTRACTOR AND/OR AGENCY, OR OTHERS NOT ASSOCIATED WITH THE DESIGN ENGINEER, HAVE NOT BEEN VERIFIED FOR ACCURACY OR COMPLETENESS.
DATE: 05/13/2024

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SUBMITTAL LOG

NO.	DATE	DESCRIPTION
1.	04/03/2019	30% SUBMITTAL (FOR PRELIMINARY REVIEW ONLY)
2.	10/09/2019	60% SUBMITTAL (FOR PRELIMINARY REVIEW ONLY)
3.	01/16/2020	90% SUBMITTAL (FOR PRELIMINARY REVIEW ONLY)
4.	07/13/2020	100% SUBMITTAL (FOR PRELIMINARY REVIEW ONLY)
5.	09/15/2020	BID SET
6.	05/24/2012	CONFORMED SET (APPROVED FOR CONSTRUCTION)



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GENERAL ITEMS

1. All construction shall conform to the requirements of the "Standard Specifications for Public Works Construction" by the North Texas Central Council of Governments, 5th edition amended by the City of Rockwall. The CONTRACTOR shall reference the latest City of Rockwall standard details provided in the Rockwall Engineering Departments "Standards of Design and Construction" manual for details not provided in these plans. The CONTRACTOR shall possess one set of the NCTCOG Standard Specifications and Details and the City of Rockwall's "Standards of Design and Construction" manual on the project site at all times
2. The CONTRACTOR shall protect existing property monumentation and primary control. Any such points which the CONTRACTOR believes will be destroyed shall have offset points established by the CONTRACTOR prior to construction. Any monumentation destroyed by the CONTRACTOR shall be re-established at CONTRACTOR's expense by a registered professional land surveyor.
3. Upon the CITIES request the CONTRACTOR shall provide survey Northings, Eastings and Elevations by registered professional land surveyor for: any existing utilities that may be in conflict with the proposed improvements of the construction plans, and any proposed installation to verify it has been installed per plan. (no separate pay)
4. Any item called out for on the plans that does not have a specific bid item shall be subsidiary to the project and no separate pay shall be given.
5. The CONTRACTOR is solely responsible for performing all construction layouts from the site layout control points, and from the dimensions and centerlines shown. The CONTRACTOR must notify the engineer of any discrepancies before proceeding with the work.
6. CONTRACTOR shall take all available precautions to control dust. CONTRACTOR shall control dust by sprinkling water (no separate pay), or as approved by the City and engineer.
7. CONTRACTOR shall video record and provide a copy to the construction inspector of the entire job site before construction starts. Video record of the site will be used to dispute discrepancies of any preexisting conditions of the project site before construction begins.
8. It is the CONTRACTOR's responsibility to maintain a neat and accurate redline record of construction for the City's records. The CONTRACTOR shall provide the City full size reproducible markups that record all construction deviating from the plans. These redline construction plan records shall be submitted to the City at the end of the job and sign by the CONTRACTOR. These records must be received or the City will not release final retainage or acceptance on the job.

EROSION CONTROL & VEGETATION

1. The CONTRACTOR or developer shall be responsible, as the entity exercising operational control, for all permitting as required by the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ). This includes, but is not limited to, preparation of the Storm Water Pollution Prevention Plan (SWPPP), the Construction Site Notice (CSN), the Notice of Intent (NOI), the Notice of Termination (NOT) and any Notice of Change (NOC) and is required to pay all associated fees
2. Erosion control devices as shown on the erosion control plan for the project shall be installed prior to the start of land disturbing activities.
3. All erosion control devices are to be installed in accordance with the approved plans, specifications and Storm Water Pollution Prevention Plan (SWPPP) for the project. Erosion control devices shall be placed and in working order prior to start of construction. Changes are to be reviewed by the design engineer and the City of Rockwall prior to implementation.
4. If the Erosion Control Plans and Storm Water Pollution Prevention Plan (SWPPP) as approved cannot appropriately control erosion and off-site sedimentation from the project, the erosion control plan and/or the SWPPP is required to be revised and any changes reported to the Texas Commission on Environmental Quality (TCEQ), when applicable.
5. All erosion control devices shall be inspected weekly by the CONTRACTOR and after all major rain events, or more frequently as dictated in the project Storm Water Pollution Prevention Plan (SWPPP). CONTRACTOR shall provide copies of inspection's reports to the engineering inspection after each inspection.
6. The CONTRACTOR shall not dispose of waste and any materials into streams, waterways or floodplains. The CONTRACTOR shall secure all excavation at the end of each day and dispose of all excess materials. Disposal site shall be documented and provided to the City.
7. CONTRACTOR shall grade ground and ditches disturbed by construction to prevent ponding of storm water runoff. Grading shall be subsidiary to the appropriate bid item for unclassified street and unclassified channel excavation. Topsoil shall be stockpiled and replaced to a minimum depth of 6-inches and disc harrowed to a minimum depth of 4-inches (no pay item). CONTRACTOR shall replace grass areas disturbed by construction activities with solid sod. Sodded areas shall be watered and maintained until established.
8. The CONTRACTOR shall provide 4 inches of top soil in all parkways that are to be sodded. Top soil shall be approved by the City in writing. Topsoil shall be subsidiary to placement of grass/sod.
9. All areas outside pavement disturbed by construction activities shall be tilled 6-inches and topped with clean top soil to final grade and have grass sod established immediately. Sod shall match existing yard type. Payment shall be made under the appropriate bid schedule item. Areas disturbed outside the R.O.W. or limits of construction shall have grass sod established immediately at the CONTRACTOR's expense.

FRANCHISE UTILITY NOTES

1. Reasonable effort has been made to show the location of all known underground franchise utilities and service lines. However, the owner assumes no responsibility for failure to show any or all existing subsurface franchise utilities or utility line, or to show them in their exact location. The CONTRACTOR shall be responsible for the protection of all existing utilities, service lines or the like, which are exposed by the construction operation.
2. Existing franchise utilities shown in these plans reflect approximate locations prior to relocations. Some relocations have occurred with utility pole, gas, phone and cable utilities. The CONTRACTOR shall contact 811/Dig-Tess to locate existing and new utilities not shown in these plans.
3. CONTRACTOR shall support utilities where crossing with proposed storm sewer, water lines and sanitary sewers. Method of support shall be provided to the owner 24 hours prior to crossing.
4. The location off all Atmos gas lines, AT&T, Charter/Spectrum and TXU/Oncor electric underground phone lines in these plans are approximate. The CONTRACTOR shall contact

- Atmos, TXU/Oncor, AT&T and Charter/Spectrum to verify location and depth of all existing gas, electric and phone lines prior to construction.
5. CONTRACTOR shall have and pay for TXU/Oncor, AT&T and/or Charter/Spectrum support and protect all power, guy wires or cable and/or light poles in the work area.
 6. Any damage incurred to existing franchise utilities, appurtenances, utility poles, light standards, etc. By construction related activities shall be the sole responsibility of the CONTRACTOR

TRAFFIC CONTROL

1. A suggested traffic control sequence plan is provided in the plan set. At a minimum the CONTRACTOR will be required to use the suggested sequence plan. If the CONTRACTOR choses to change the traffic control sequencing, a traffic control sequencing plan and traffic control sheets of each phase will have to be provided for review and approval by the City. All shall be signed and sealed by a Registered Professional Engineer with the State of Texas.
2. All new Detouring or Traffic Control Plans submitted by the City for review and approval a minimum of 21 calendar days prior to planned day of implementation.
3. CONTRACTOR shall notify the City 14 Calendar days prior to changing Detouring and Traffic Control for each Phase and Segment. This is to give time for Contractor to place Message Boards for warning of Detour Change and for City Notification to other departments, emergency services, mail delivery, school district, and trash services.
4. Pedestrian and vehicular traffic flow, safety and access shall be maintained during all phases of construction. Barricading and traffic control during construction shall be the responsibility of the CONTRACTOR and shall conform to the "Texas Manual on Uniform Traffic Control Devices ", latest edition, Part IV in particular. Traffic flow and access shall be maintained during all phases of construction unless otherwise noted on the traffic control plan. The CONTRACTOR is responsible for providing traffic safety measures for work on the project. The CONTRACTOR shall assume full responsibility for public safety in the construction area during the duration of construction activities.
5. The CONTRACTOR shall furnish, install, maintain and remove all necessary traffic control devices in conformance with the Texas Manual on Uniform Traffic Control Devices (Part 6). The CONTRACTOR shall provide access to properties at all times during each phase of construction to all local residents, businesses, mail service, trash pick-up and emergency services.
6. No traffic signs shall be taken down without permission from the City. CONTRACTOR needing to move and replace traffic sign for construction purposes should be paid for under traffic control bid item.
7. CONTRACTOR will furnish and install all signage in accordance with TMUTCD guidelines. Prior to installation of signage, CONTRACTOR shall stake locations and receive approval from City on locations. All signage that is removed by the CONTRACTOR shall be saved and delivered to municipal service center, streets division. All replaced signs shall be new. See City requirements for sign materials.
8. The CONTRACTOR shall be responsible for coordination, scheduling and temporary equipment that is needed for all temporary traffic signal modifications during construction traffic control phasing.

MAILBOXES, MAIL SERVICE AND TRASH SERVICE NOTES

1. Existing mailboxes in conflict with construction shall be temporarily taken out of service. Were possible the CONTRACTOR shall attempt to move and reset the same mailbox. When not possible to reuse the old mailbox, the mailbox shall be removed and replace to the same or better condition and placed in a location approved by the city/property owner. Photographs of the mailbox shall be taken with the address shown, shall be provided to the city prior to being removed.
2. Payment for removal and replacement of existing mailbox will be paid for under the appropriate bid item. Brick mailbox shall match existing brick.
3. Temporary mailbox shall be provided and maintained throughout the project where existing mail boxes are being removed. Addresses shall be provided on all temporary mail boxes. (No Separate Pay)
4. Trash service shall be maintained throughout the duration of construction. On collection days the contractor shall move trash and recycling receptacles to location along street to be collected and moved back to original location at the end of the day. (No Separate Pay)

FENCES, TREES, LANDSCAPING, AND IRRIGATION NOTES

1. The removal, replacement or reconstruction of any fence for the convenience of construction shall be at the CONTRACTOR's expense (no separate pay). New materials shall match existing fences. All wood fences shall be replaced with new cedar with the post matching City requirements.
2. Temporary fencing shall be required where there is evidence of livestock and where damaged or removed fences are not to be replaced by the end of the same work day.
3. The removal and replacement of all shrubs, plants, trees, etc. for the convenience of construction shall be at the CONTRACTOR's expense (no separate pay). New shrubs, tree, etc. shall be equal to or better than existing ones.
4. All shrubs, plants, trees, etc. must be approved by the City before removal.
5. CONTRACTOR shall replace any trees removed or destroyed that are not shown in these plans to be removed or shall pay fair market value to the owner as determined by the owner. (No Separate Pay).
6. The CONTRACTOR shall locate and record existing irrigation systems prior to construction. If irrigations systems are damaged during construction the CONTRACTOR shall repair to same or better condition. An irrigator licensed in the state of Texas shall repair all damaged caused by construction. CONTRACTOR shall coordinate any irrigation work with the City of Rockwall and property owner's representatives. (No Separate Pay).
7. If an irrigation system is damaged between the months of March and October the Contractor shall repair the system back in working order within one week. The contractor shall be responsible for any damage to landscaping, trees, shrubs, foundations, etc. due to the lack of non-working irrigation systems. (No Separate Pay)

UTILITY NOTES

1. Reasonable effort has been made to show the location and type of all known City of Rockwall underground wet utilities and service lines. However, the City of Rockwall assumes no responsibility for failure to show any or all existing City of Rockwall underground wet utilities and service lines, or to show them in their exact location. The

- CONTRACTOR shall be responsible for the protection of all existing utilities, service lines or the like, which are exposed by the construction operation.
2. Bidders shall make any investigation of existing subsurface conditions as deemed necessary at no expense to the City of Rockwall. Neither the City of Rockwall nor the engineer will be responsible in any way for additional compensation for excavation work performed under this contract due to the CONTRACTOR's assumptions.
 3. CONTRACTOR shall adjust all City of Rockwall utilities to the final grades.
 4. CONTRACTOR shall be responsible for the protection of all existing service lines crossed or exposed by construction operations. Where existing service lines are cut, broken or damaged, the CONTRACTOR shall immediately replace the service line with same type of original construction or better.
 5. The CONTRACTOR shall excavate and field locate the horizontal and vertical location of existing utility crossing locations utilizing provided project control. The CONTRACTOR shall immediately notify the engineer of any discrepancies identified between the CONTRACTORs field verified existing utility location and proposed location of utilities for the project.
 6. The CONTRACTOR shall abide by all applicable federal, state, and local laws governing excavation. The CONTRACTOR shall provide detailed plans and specifications for trench safety systems that comply with applicable laws governing excavation. These plans shall be sealed by an engineer experienced in the design of trench safety systems, registered in the state of Texas. The CONTRACTOR shall submit completed trench safety plan to the engineer and City prior to commencing work. The CONTRACTOR shall be solely responsible for all aspects of work related to excavations.
 7. Dewatering of utility trenches, bores pits, and any other excavations shall be no separate pay and shall be subsidiary to the other pay items on the project.

WATER LINE NOTES

1. The CONTRACTOR shall maintain existing water service at all times during construction.
2. Proposed water lines shall be AWWA C900-16 PVC Pipe (blue in color) for all sizes, DR 14 (PC 305) for pipeline sizes 12-inch and smaller, and DR 18 (PC 235) for 14-inch and larger water pipelines unless otherwise shown on water plan and profiles sheets. Proposed water lines shall be constructed with minimum cover of 4 feet for 6-inch through 8-inch, 5 feet for 12-inch through 18-inch and 6 feet for 20-inch and larger.
3. Proposed water line embedment shall be NCTCOG Class 'B-3' as amended by the City of Rockwall's public works standards of design and construction manual.
4. CONTRACTOR shall coordinate the shutting down of all water lines with the City of Rockwall, Public Works, Water Division. The City shall operate all water valves.
5. CONTRACTOR shall furnish and install gasket on water lines between all dissimilar metals and at valves (both existing and proposed).
6. All fire hydrants and valves removed and salvaged shall be returned to the City of Rockwall municipal service center.
7. Blue EMS pads shall be installed at every change in direction, valve, curb stop and service tap on the proposed water line and every 250'.
8. CONTRACTOR to install new meter boxes, all fittings and new meters per each service complete including connection to the main line. CONTACTOR shall be responsible to coordinate with Utility Billing 972-771-7736 on which meters need to be replaced and which meters are to remain for the project. New meters will be supplied by the Utility Billing Department. CONTACTOR shall give the Utility Billing Department ample Notice to make sure meters are on hand to be installed for the project.
9. Existing meter and meter boxes, and valve stem and covers not specifically called to be relocated shall be adjusted to match final grades (no pay item). Any meter in pavement shall have a traffic rated lid.
10. All water valve extensions, bolts, nuts and washers shall be 316 Stainless Steel.
11. All fire hydrants bolts, nuts and washers that are buried shall be 316 Stainless Steel.
12. Abandoned water lines to remain in place shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product. Valves to be abandoned in place shall have any extensions and the valve box removed and shall be capped in concrete

WASTEWATER LINE NOTES

1. The CONTRACTOR shall maintain existing wastewater service at all times during construction.
2. Wastewater line for 4-inch through 15-inch shall be Green PVC – SDR 35 (ASTM D3034) [less 10 ft cover] and SDR 26 (ASTM D3034) [10 ft or more cover]. For 18-inch and lager wastewater line shall be Green PVC – PS 46 (ASTM F679) [less 10 ft cover] and PS 115 (ASTM F679) [10 ft or more cover].
3. Proposed wastewater line embedment shall be NCTCOG Class 'H' as amended by the City of Rockwall's public works standard design and construction manual.
4. Green EMS pads shall be installed at every 250', manhole, clean out and service lateral on proposed wastewater lines.
5. All existing wastewater services shall be transferred from wastewater lines being abandoned to proposed wastewater lines. Transferring wastewater services shall include double clean outs at the property lines, caps, tees, wyes, plugs and connection. Payment for transferring wastewater services shall be paid per each, under the appropriate bid schedule item.
6. CONTRACTOR shall CCTV all existing wastewater lines that are to be abandoned to ensure that all laterals are accounted for and transferred to proposed wastewater lines. (no separate pay)
7. All abandoned wastewater and force main lines shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product.
8. Existing manholes and cleanouts not specifically called to be relocated shall be adjusted to match final grades (no pay item).
9. All wastewater pipes and public services shall be inspected by photographic means (television and DVD) prior to final acceptance. The contractor shall furnish a DVD to the Engineering Division Construction Inspector for review. Any sags, open joints, cracked pipes, etc. shall be repaired or removed by the contractor at the contractor's expense. A television survey will be performed as part of the final testing in the twentieth (20th) month of the maintenance period.
10. All manholes (public or private) shall be fitted with inflow prevention. The inflow prevention shall conform to the measures called out in standard detail R-5031.

11. All new or existing manholes being modified shall have corrosion protection being Raven Liner 405 epoxy coating, ConShield, or approved equal.. Consheild must have terracotta color dye mixed in the precast and cast-in-place concrete. Where connections to existing manholes are made the contractor shall rehab manhole as necessary and install a 125 mil thick coating of Raven Liner 405 or approved equal.

DEMOLITION, REMOVAL, DISPOSAL AND EXCAVATION NOTES


1. CONTRACTOR shall remove and properly dispose of all existing concrete and HMAC pavement outside of the City limits as required for construction of the project. All cost shall be included in the appropriate item in the bid schedule.
2. Payments for removal and replacement of street, driveway and sidewalk pavement shall be based on plan quantity and no adjustments will be made unless approved in writing by the City engineer.
3. All pavements to be removed and replaced shall be saw cut to full depth along neat lines shown in the plans. Proposed concrete pavement shall be constructed with longitudinal butt construction joints at all connections to existing concrete pavement. Concrete Pavement to be removed and replaced shall be full panel replacement.
4. The CONTRACTOR shall remove from the project area all surplus material. This work shall be incidental and not a separate pay item. Surplus materials from excavation include dirt, trash, rock measuring greater than 6" in the largest dimension, etc. Shall be properly disposed of at a site acceptable to the City of Rockwall if within the City limits. No excess excavated material shall be deposited in low areas or along natural drainage ways without written permission from the affected property owner and the City of Rockwall. If the CONTRACTOR places excess materials in these areas without written permission, he will be responsible for all damages resulting from such fill and he shall remove the material at his own cost.
5. All excavation on the project is unclassified. If soil borings were conducted they are provided in the bid/contract documents.

PAVING

1. All paving roadway sections thickness, strength, reinforcement, joint type, joint spacing and subgrade treatment shall match the typical sections and details called out in the plans. If not called out on the plans all concrete paving shall conform to the minimum requirements in the Standards of Design and Construction.
2. Reinforcing steel shall be tied (100%). Reinforcing steel shall be set on plastic chairs. Bar laps shall be minimum 30 diameters. Sawed transverse dummy joints shall be spaced every 15 feet or 1.25 time longitudinal butt joint spacing whichever is less. Sawing shall occur within 5 to 12 hours after the pour, including sealing. Otherwise, the section shall be removed and longitudinal butt joint constructed.
3. All proposed HMAC street pavement shall consist of 4 inches of Type B (Base) with 2 inches of Type D (Surface) on top of 6" flex base (if not specified in the plans)
4. No sand shall be allowed under any paving.
5. Concrete mix design shall be submitted to the City for review and approval prior to placement.
6. Fly ash may be used in concrete pavement locations provided that the maximum cement reduction does not exceed 20% by weight per C.Y. of concrete. The fly ash replacement shall be 1.25 lbs per 1.0 lb cement reduction.
7. All curb and gutter shall be integral (monolithic) with the pavement.
8. All fill shall be compacted by sheep's foot roller to a minimum 95% standard proctor. Maximum loose lift for compaction shall be 8 inches. All lifts shall be tested for density by an independent laboratory approved by the City.
9. All proposed sidewalks shall include barrier free ramps at intersecting streets, alleys, etc. Barrier free ramps shall meet current City and ADA requirements and be approved by the Texas Department of Licensing and Regulation (TDLR).
10. Sidewalks shall be doveled into pavement where it abuts curbs and driveways. Expansion joint material shall be used at these locations (no pay item).
11. All connection of proposed concrete pavement to existing concrete pavement shall include a longitudinal butt joint as the load transfer device. Concrete saw cuts for all driveways and sidewalks shall be subsidiary to the appropriate bid item for driveway and sidewalk replacement. All longitudinal butt joints shall be clean, straight and smooth (not jagged in appearance)
12. There shall be no separate payment for subgrade preparation under driveway and sidewalk areas and all cost shall be included in the appropriate items of the bid schedule.
13. Cracks formed in concrete pavement shall be repaired or removed by the CONTRACTOR at the City's discretion.

DRAINAGE / STORM SEWER NOTES

1. The CONTRACTOR shall maintain drainage at all times during construction. Ponding of water in streets, drives, trenches, etc. will not be allowed. Existing drainage ways shall not be blocked or removed unless explicitly stated in the plans or written approval is given by the City.
2. All structural concrete shall be 4200 psi compressive strength at 28 days minimum 7.0 sack, air entrained, unless noted otherwise.
3. Proposed storm sewer embedment shall be NCTCOG Class 'B' as amended by the City of Rockwall's Public Works, Engineering Division Standards of Design and Construction Manual.
4. All storm pipe shall be reinforced concrete pipe (RCP), Class III, unless otherwise noted.
5. All drainage structures shall be double formed. No earth forms will be allowed.



GENERAL CONSTRUCTION NOTES
May 2020

CITY OF ROCKWALL
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

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Rockwall, Texas 75087

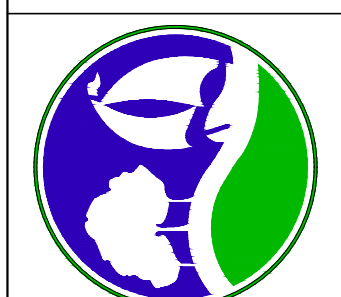
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REVISIONS

NO	DATE	COMMENT

05/24/2021
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CITY OF ROCKWALL, TEXAS
TURTLE COVE BLVD. (RIDGE RD. TO DGNO RAILROAD)
YELLOWJACKET LANE (RIDGE RD. TO GREENCREST BLVD.)

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DESIGN BY:
SLM
DATE:
May 2021
SHEET

DRAWN BY:
AM
JOB NUMBER:
1812-037-01

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OF 50

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ABBREVIATIONS

LEGEND

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B <u>B-B</u> B.O.C. BLDG	BACK TO BACK BACK OF CURB BUILDING
C <u>CAB</u> CB CFA C C.I.R. C.I.R.F. CL CO CONC CPB	CABINET CHORD BEARING COBB, FENDLEY & ASSOCIATES CENTERLINE CAPPED IRON ROD CAPPED IRON ROD FOUND CHORD LENGTH CLEAN OUT CONCRETE COMMUNICATION PULL BOX
E <u>E</u> ECAB EG ELEC ELEV EM EMH EOP EP EPB ESMT EX	EAST ELECTRIC CABINET EXISTING GRADE ELECTRIC ELEVATION ELECTRIC METER ELECTRIC MANHOLE EDGE OF PAVEMENT END POINT ELECTRIC PULL BOX EASEMENT EXISTING
F <u>FH</u> FL FT	FIRE HYDRANT FLOW LINE FOOT OR FEET
G <u>GTL</u> GW	GAS TEST LINE GUY WIRE
H <u>H.D.P.E.</u>	HIGH-DENSITY POLYETHYLENE
I <u>ICV</u>	IRRIGATION CONTROL VALVE
L <u>L</u> LF LP LT	LENGTH LINEAR FEET LIGHT POLE LEFT
M <u>MH</u>	MANHOLE
N <u>N</u> NEPI NW	NORTH NO EXTRA PAY ITEM NORTHWEST
O <u>OHW</u>	OVERHEAD WIRE
P <u>PC</u> PCC PI PG PP PPR PROP PRC PT	POINT OF CURVE POINT OF COMPOUND CURVATURE POINT OF INTERSECTION PROPOSED GRADE POWER POLE POWER POLE RISER PROPOSED POINT OF REVERSE CURVATURE POINT OF TANGENCY
PVC <u>PVI</u>	POLYVINYL CHLORIDE POINT OF VERTICAL INTERSECTION
R <u>R</u> RCB R.C.C.P. RCP RFD R.O.W. RT	RADIUS REINFORCED CONCRETE BOX REINFORCED CONCRETE CYLINDER PIPE REINFORCED CONCRETE PIPE ROCK FILER DAM RIGHT OF WAY RIGHT
S <u>S</u> SAN SCF SH SS SSMH STA STM STMH SWR	SOUTH SANITARY SEDIMENT CONTROL FENCE SPRINKLER HEAD SANITARY SEWER SANITARY SEWER MANHOLE STATION STORM STORM MANHOLE SEWER
T <u>T</u> TC TCP TELE TH THT T.O.P. TPED TSB TW TYP	TANGENT TOP OF CURB TRAFFIC CONTROL PLAN TELEPHONE TEST HOLE THROAT TOP OF PIPE TELEPHONE PEDESTAL TRAFFIC SIGNAL BOX TOP OF WALL TYPICAL
U <u>UE</u>	UNDERGROUND ELECTRIC
V <u>VLV</u>	VALVE
W <u>W</u> W/ WM WV	WEST WITH WATER METER WATER VALVE

	MINOR CONTOUR		STRUCTURE, BUILDING OR FACILITY LOCATION POINT - COORDINATES
	MAJOR CONTOUR		SURVEY CONTROL POINT
	EASEMENT LINE		SANITARY SEWER MANHOLE
	PROPERTY LINE		STREET LIGHT FOUNDATION
	FENCE LINE		ROCK RIP RAP
	SANITARY SEWER LINE		SIDEWALK PAVEMENT
	WATER LINE		CONCRETE PAVEMENT
	UNDERGROUND ELECTRIC		
	OVERHEAD ELECTRIC		
	TREE LINE		
	BRICK COLUMN		
	SIGN		
	MANHOLE		
	GUY WIRE		
	POWER POLE RISER		
	POWER POLE		
	LIGHT POLE		
	ELECTRIC MANHOLE		
	GAS TEST		
	PULL BOX		
	ELECTRIC METER		
	BOLLARD		
	FIRE HYDRANT		
	WATER VALVE		
	SPRINKLER HEAD		
	SANITARY SEWER VALVE		
	SANITARY SEWER MANHOLE		
	CLEAN OUT		
	STORM SEWER MANHOLE		
	TREE		
	ROCK RIP RAP		
	SIDEWALK PAVEMENT		
	CONCRETE PAVEMENT		

 CobbFendley TBPE Firm Registration No. 274 TBPLS Firm Registration No. 100467 2801 Network Boulevard, Suite 800 Frisco, Texas 75034 972.335.3214 fax 972.335.3202 www.cobbhendley.com				CITY OF ROCKWALL, TEXAS TURTLE COVE BLVD. (RIDGE RD. TO DGNO RAILROAD) YELLOWJACKET LANE (RIDGE RD. TO GREENCREST BLVD.) LEGEND & ABBREVIATIONS		<div style="text-align: right;"> REVISIONS NO. DATE COMMENT </div>	
DESIGN BY: SLM DATE: May 2021 SHEET		DRAWN BY: AM JOB NUMBER: 1812-037-01		05/24/2023			

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TURTLE COVE BLVD AND YELLOW JACKET LANE QUANTITY SUMMARY																			
BID ITEM NUMBER	BID ITEM DESCRIPTION	TURTLE COVE BLVD										YELLOW JACKET LANE						Project Bid Total	
		Unit	SH 7	SH 8	SH 9	SH 10	SH 14	SH 15	SH 16	Unit	TURTLE COVE Total	SH 24	SH 25	SH 26	SH 27	Unit	JACKET Total		
A1 - DEMOLITION/PREPARATION/CONTROLS ITEMS - TURTLE COVE BLVD & YELLOW JACKET LN																			
101	Mobilization	LS								LS	-					LS	-	1	
102	Maintenance and Control of Traffic	LS								LS	-					LS	-	1	
103	Project Signs	EA								EA	2					EA	2	4	
104	Install, Maintain and Remove Erosion Control	LS								LS	-					LS	-	1	
105	Remove and Dispose of Pavment(All Depth and Types) including Curbs and Sawcut	SY	3324							SY	3,324	1325				SY	1,325	4,649	
106	Unclassified Street Excavation	CY	1985							CY	1,985	25				CY	25	2,010	
107	Compacted Earth Fill	CY		350						CY	350		80			CY	80	430	
108	Remove and Dispose of Concrete Sidewalk	SY	20							SY	20					SY	-	20	
109	Remove and Dispose of Barrier Free Ramp	EA	2							EA	2	2				EA	2	4	
110	Remove and Dispose of Concrete (Inlet)	EA	2							EA	2					EA	-	2	
111	Remove and Dispose of Concrete (Headwall)	EA	1							EA	1					EA	-	1	
112	Remove and Dispose of Concrete (Pipes) (18"-48")	LF	235							LF	235					LF	-	235	
113	Remove and Dispose of Tree	EA	8							EA	8	1				EA	1	9	
D1 - PROJECT CONTINGENCY - TURTLE COVE BLVD & YELLOW JACKET LN																			
401	Construction Contingency	LS								LS	-					LS	-	1	

TURTLE COVE BLVD AND YELLOW JACKET LANE QUANTITY SUMMARY												
BID ITEM NUMBER	BID ITEM DESCRIPTION	TURTLE COVE BLVD										TURTLE COVE Total
		Unit	SH 7	SH 8	SH 9	SH 10	SH 14	SH 15	SH 16	Unit		
B1 - PAVING ITEMS - TURTLE COVE BLVD												
201	8" Thick Joint Reinforced Concrete Pavement (3600 PSI)	SY		1570	1930					SY	3,500	
202	6" Thick Reinforced Concrete Driveways (3600 PSI)	SY		75	250					SY	325	
203	8" Type D HMAc	SY			20					SY	20	
204	4" Thick Reinforced Concrete Sidewalk (3600 PSI)	SY		262						SY	262	
205	10" Thick Flex Base Subgrade	SY		1730	1780					SY	3,510	
206	TxDOT Type 5 Barrier Free Ramp	EA		1						EA	1	
207	TxDOT Type 7 Barrier Free Ramp	EA		4	1					EA	5	
B2 - SIGNAGE AND STRIPING ITEMS - TURTLE COVE BLVD												
208	Reflectorized Pavement Markers/ II-A-A (Y)	EA							104	EA	104	
209	Traffic Button Type Y	EA							102	EA	102	
210	Thermoplastic Pavement Markers (W) Symbol & Word	EA							6	EA	6	
211	4" Thermoplastic Pavement Markings (Y)	LF							210	LF	210	
212	8" Thermoplastic Pavement Markings (W)	LF							100	LF	100	
213	24" Thermoplastic Stop Bar Markings (W)	LF							27	LF	27	
214	12" Thermoplastic Pavement Markings (W)	LF							140	LF	140	
B3 - DRAINAGE ITEMS - TURTLE COVE BLVD												
215	18" CL III RCP w/ Embedment	LF					12			LF	12	
216	21" CL III RCP w/ Embedment	LF					77			LF	77	
217	24" CL IV RCP w/ Embedment	LF					176			LF	176	
218	48" CL III RCP w/ Embedment	LF					40			LF	40	
219	10" Reinforced Concret Inlet	EA					3			EA	3	
220	7' x 7' Storm Manhole	EA					1			EA	1	
221	48" Flared Wing Head wall (CH-FW-0)	EA					1			EA	1	
222	Pipe to Pipe Connection	EA					5			EA	5	
223	Trench Safety	LF					273			LF	273	
B4 - WATER ITEMS - TURTLE COVE BLVD												
224	Adjust Water Valve	EA		3						EA	3	
225	Adjust Water Meter	EA		3						EA	3	
226	12" Water Line Including Ductile Iron Fittings	LF		150						LF	150	
227	Connect to Existing 12-inch Water Line	EA		2						EA	2	
B5 - WASTEWATER ITEMS - TURTLE COVE BLVD												
228	Adjust Wastewater Manhole	EA			2					EA	2	
B6 - SW3P ITEMS - TURTLE COVE BLVD												
229	Block Sodding	SF								SF	1,500	
B7 - MISCELLANEOUS ITEMS - TURTLE COVE BLVD												
230	Concrete Block Retaining Wall	SF				1500				SF	1,500	
231	TY PR 1 pedestrian Rail	LF				220				LF	220	
B8 - ALTERNATE BID ITEMS - TURTLE COVE BLVD												
232	18" CL III RCP w/ Embedment	LF					95			LF	95	
233	18" Flared Wing Head wall (CH-FW-0)	EA					2			EA	2	

TURTLE COVE BLVD AND YELLOW JACKET LANE QUANTITY SUMMARY							
BID ITEM NUMBER	BID ITEM DESCRIPTION	YELLOW JACKET LANE					JACKET Total
		SH 24	SH 25	SH 26	SH 27	Unit	
C1 - PAVING ITEMS - YELLOW JACKET LN							
301	10" Thick Joint Reinforced Concrete Pavement (3600 PSI)		1315			SY	1,315
302	6" Thick Integral Stamped & Stained Reinforced Concrete (3600 PSI)		185			SY	185
303	6" Thick Reinforced Concrete Driveways (3600 PSI)		80			SY	80
304	4" Thick Reinforced Concrete Sidewalk (3600 PSI)		190			SY	190
305	10" Thick Flex Base Subgrade		1485			SY	1,485
306	TxDOT Type 5 Barrier Free Ramp		2			EA	2
307	TxDOT Type 7 Barrier Free Ramp		1			EA	1
C2 - SIGNAGE AND STRIPING ITEMS - YELLOW JACKET LN							
308	Reflectorized Pavement Markers/ II-A-A (W)				31	EA	31
309	Traffic Button Type W				30	EA	30
310	Thermoplastic Pavement Markers (W) Symbol & Word				9	EA	9
311	8" Thermoplastic Pavement Markings (W)				240	LF	240
312	Remove / Replace Street Signs				3	EA	3
313	Install Street Signs, including Pole, Hardware, and Foundation				3	EA	3
C3 - SW3P - YELLOW JACKET LN							
314	Block Sodding					SY	400

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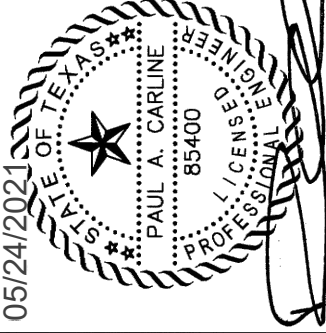
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CITY OF ROCKWALL, TEXAS

TURTLE COVE BLVD. (RIDGE RD. TO DGNO RAILROAD)

YELLOWJACKET LANE (RIDGE RD. TO GREENCREST BLVD.)

QUANTITY SUMMARY



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SLM

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JOB NUMBER:
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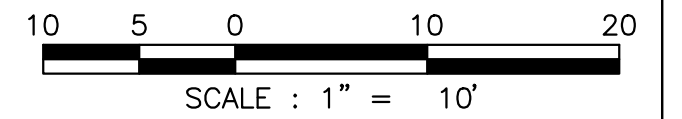
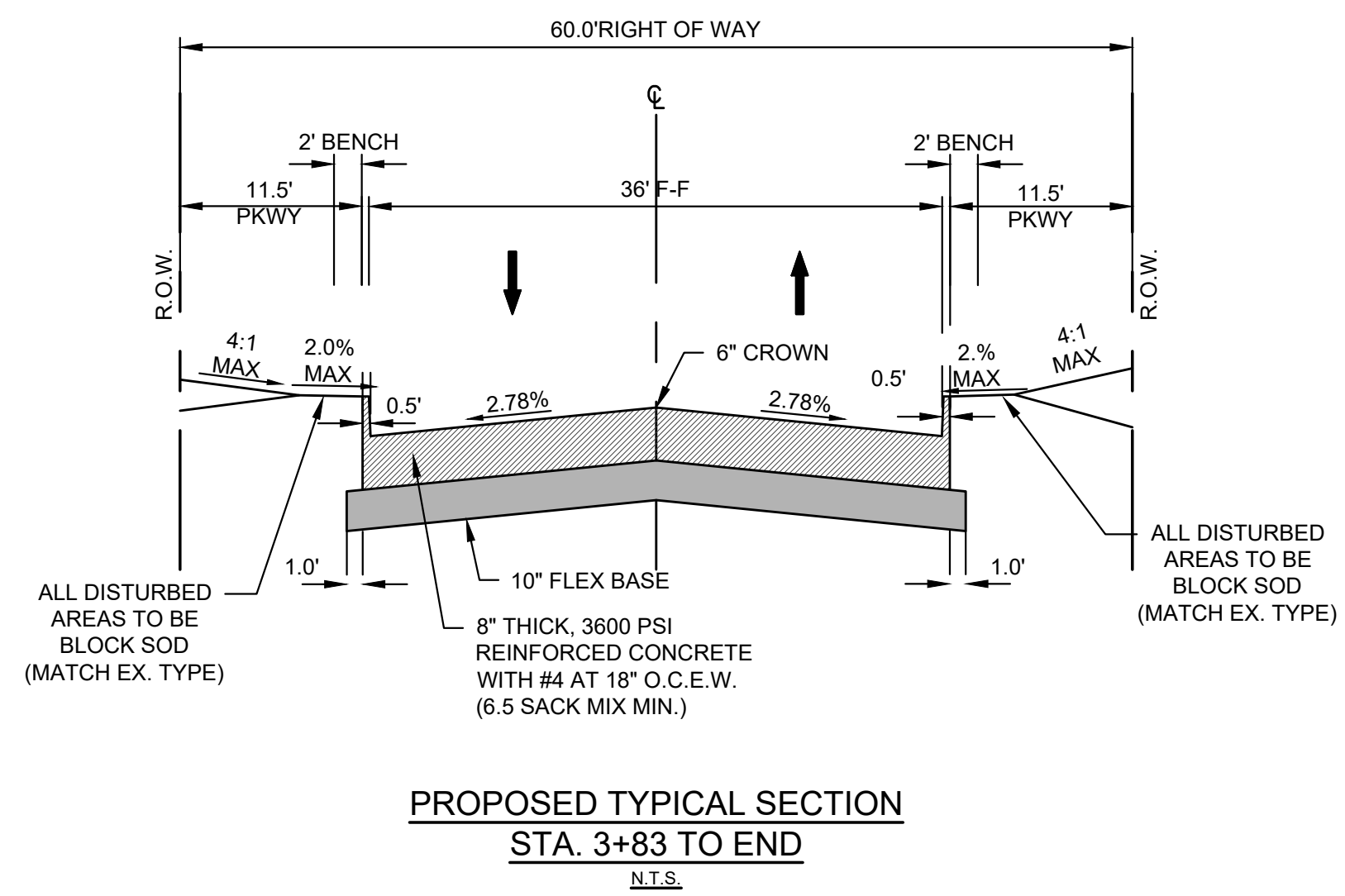
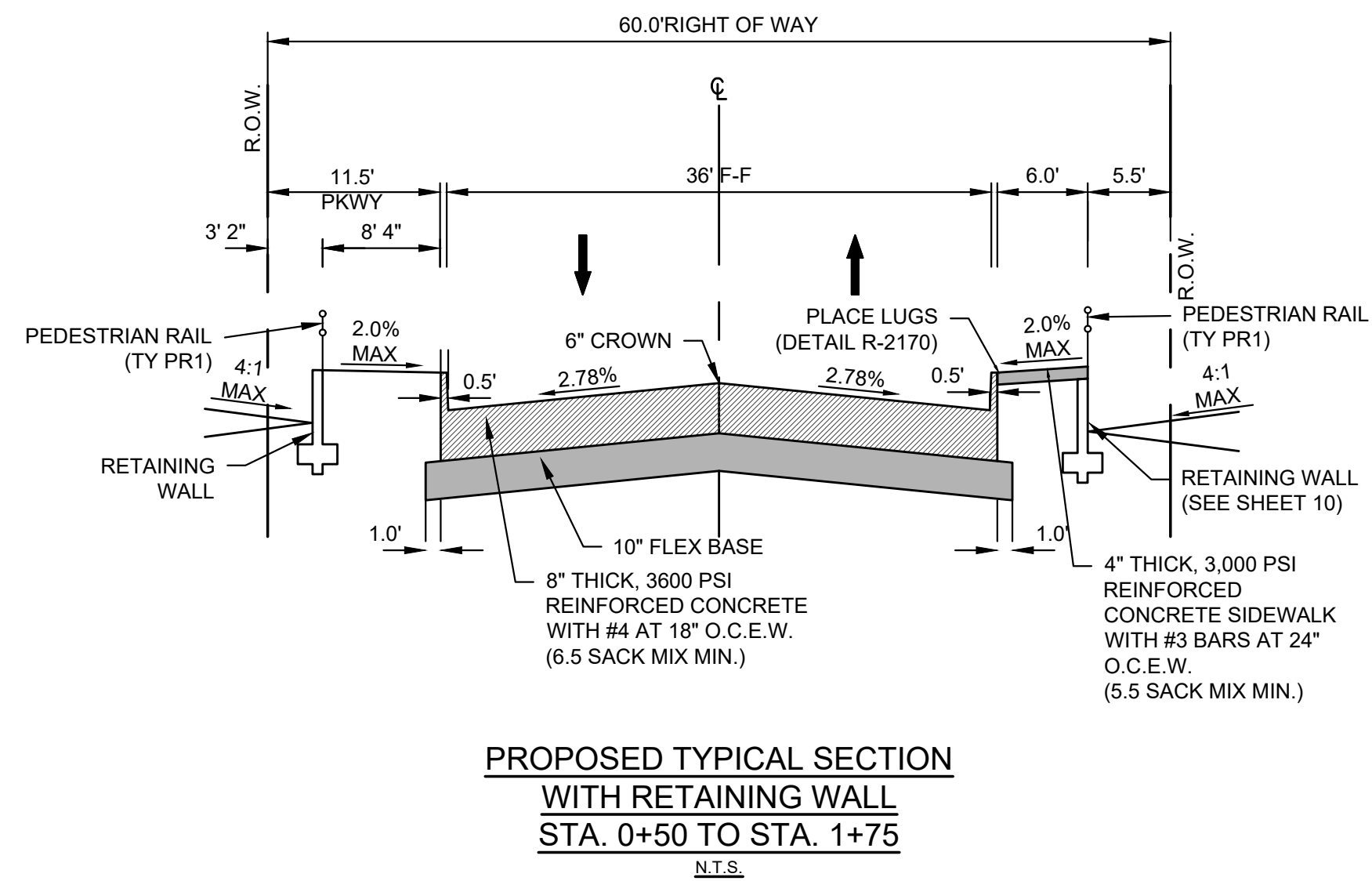
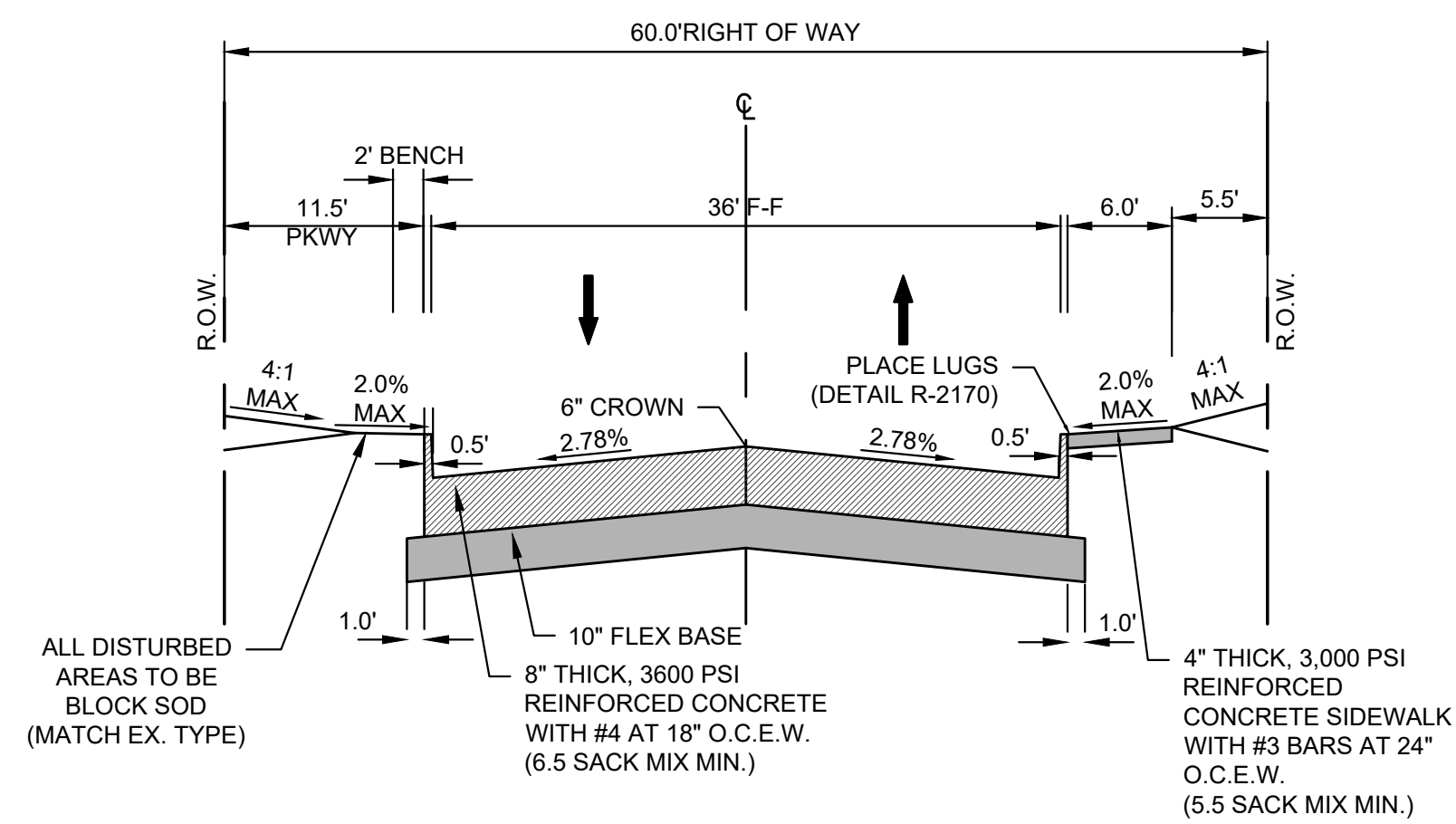
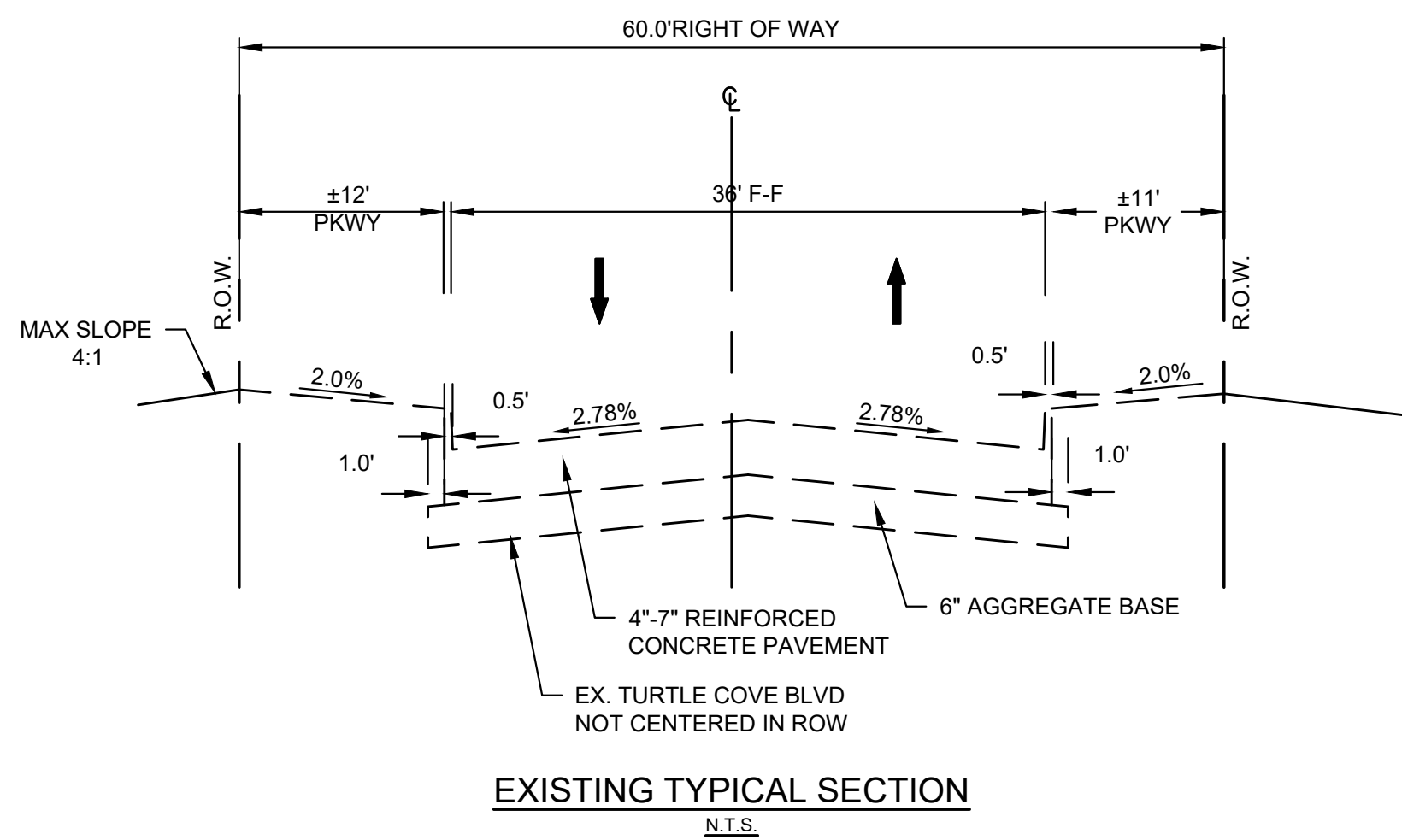
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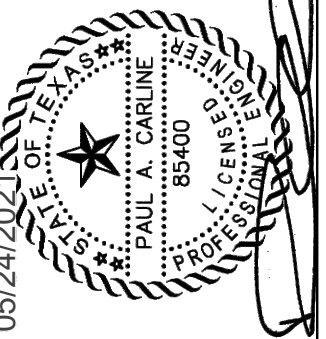


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CITY OF ROCKWALL, TEXAS
TURTLE COVE BLVD. (RIDGE RD. TO DGNO RAILROAD)

CITY OF ROCKWALL, TEXAS
TURTLE COVE BLVD. (RIDGE RD. TO DGNO RAILROAD)

TYPICAL SECTIONS



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1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL ADJACENT AND/OR CONFLICTING UTILITIES PRIOR TO CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES IF REQUIRED. CONTRACTOR SHALL VERIFY THE DEPTH OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

- LEGEND

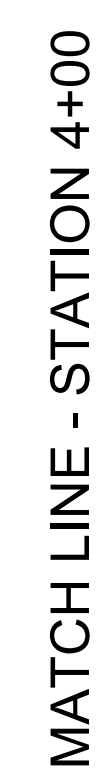
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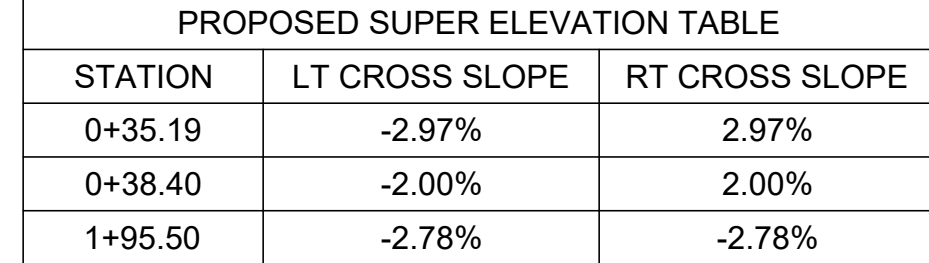


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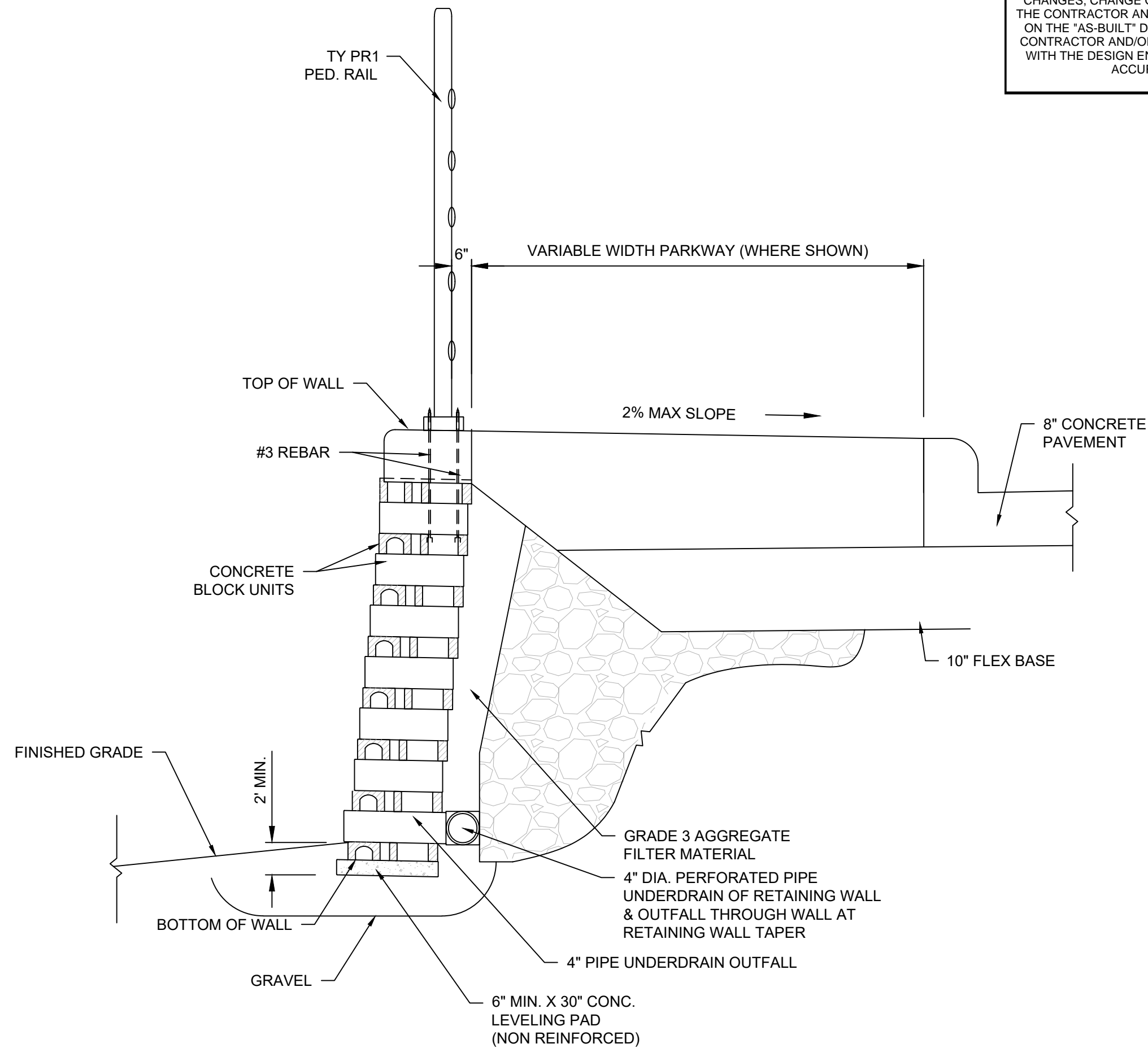


811

**Know what's below.
Call before you dig.**

NOTE !!

EXISTING UTILITIES IN THE AREA. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES WITH THE PROVIDER PRIOR TO START OF CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATION WHERE NECESSARY AND NOTICING EXISTING UTILITIES (SHOWN OR NOT SHOWN) IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT THEIR OWN EXPENSE.



TYPICAL RETAINING WALL SECTION W/O SIDEWALK

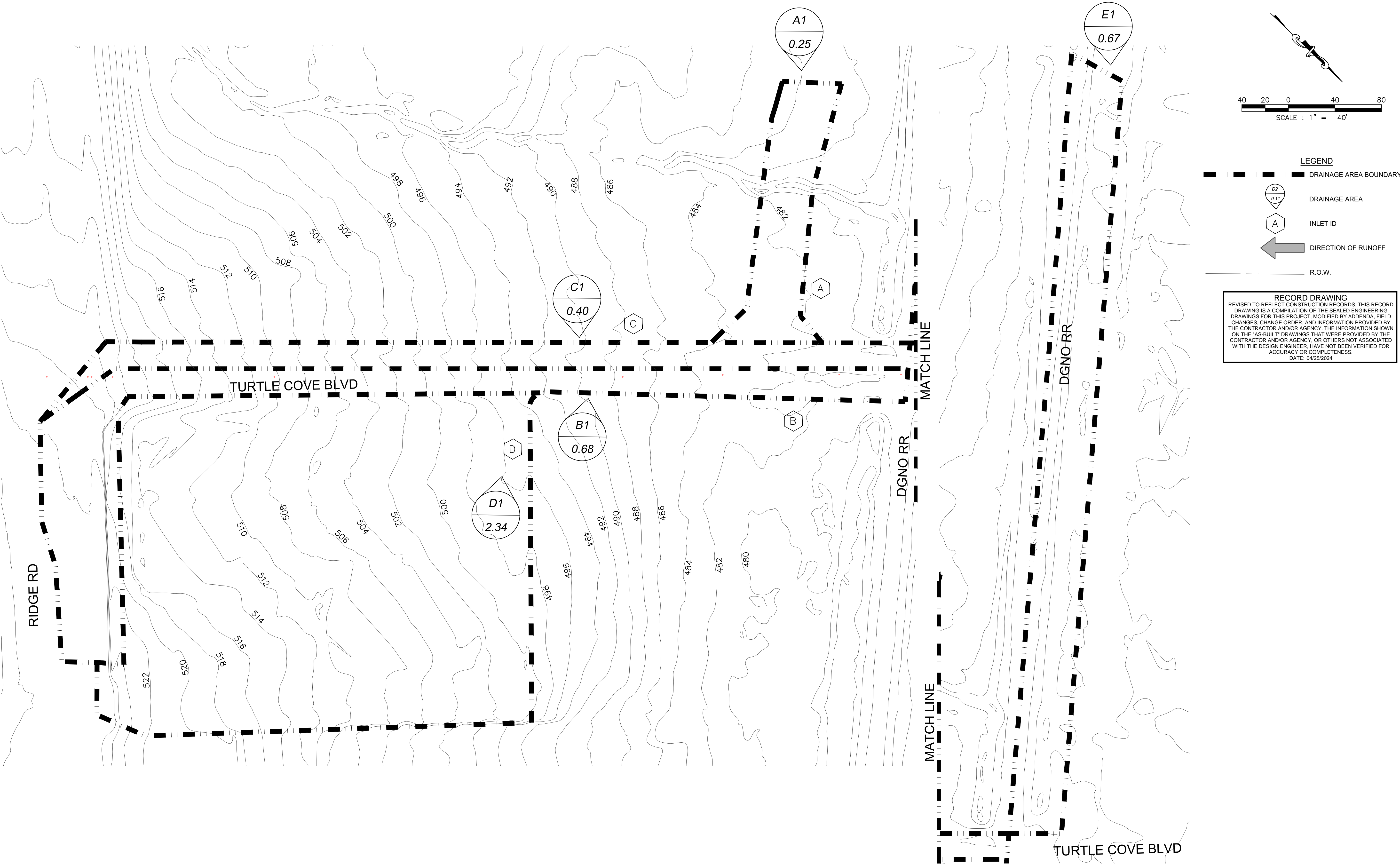


- LEGEND:**
- | | |
|----|----------------|
| TW | TOP OF WALL |
| BW | BOTTOM OF WALL |
| EG | EXISTING GRADE |
| FG | FINISH GRADE |

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10B OF 5

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DRAINAGE AREA TABLE						
Drainage Area ID	Area (acres)	Runoff Coefficient "C"	Time of Concentration (minutes)	100-yr Intensity (in.hr)	Runoff (Q100)	Note
A1	0.25	0.9	10	9.8	2.25	Offsite Inlet at KE Andrews (see KH plans)
B1	0.68	0.9	10	9.8	6.03	Curb Inlet
C1	0.40	0.9	10	9.8	3.54	Curb Inlet
D1	2.34	0.9	10	9.8	20.64	Offsite System at Rockwall Executive Center
E1	0.67	0.9	10	9.8	5.94	Existing 18" Culvert

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PAUL A. CARLINE

REGISTERED PROFESSIONAL ENGINEER

STATE OF TEXAS

15540

15540

CITY OF ROCKWALL, TEXAS

TURTLE COVE BLVD. (RIDGE RD. TO DGNO RAILROAD)

EXISTING DRAINAGE AREA MAP

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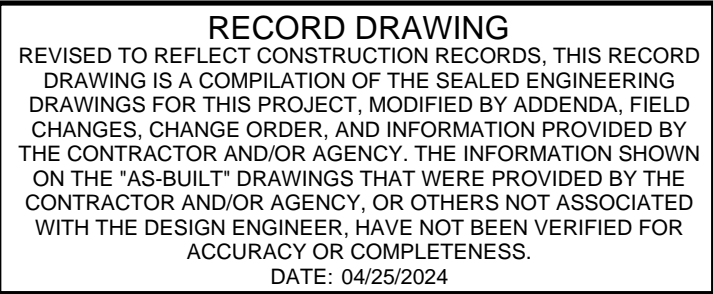
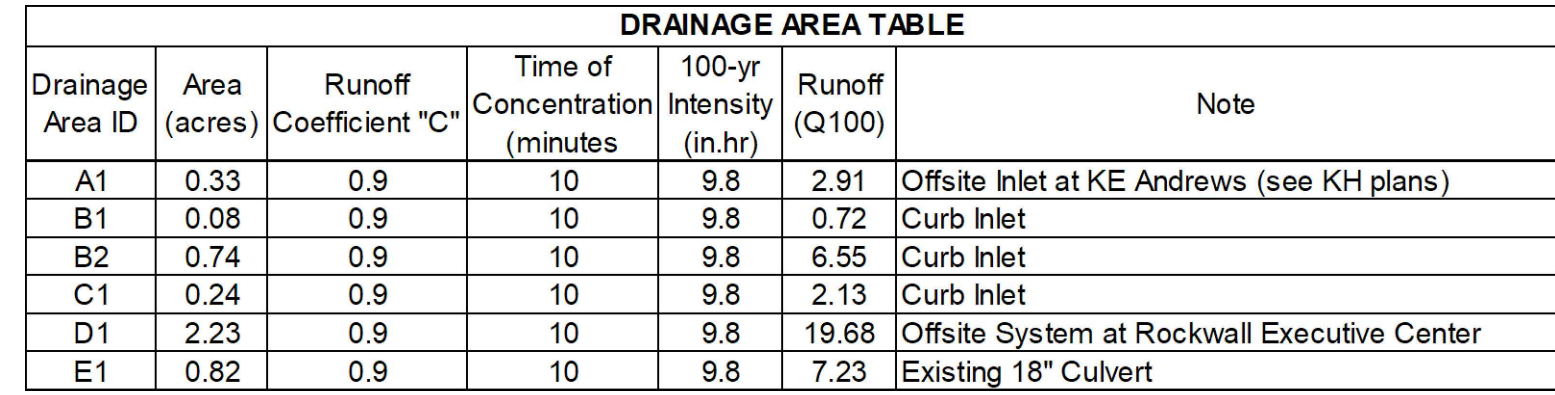
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CITY OF ROCKWALL, TEXAS
 TURTLE COVE BLVD. (RIDGE RD. TO DGNO RAILROAD)

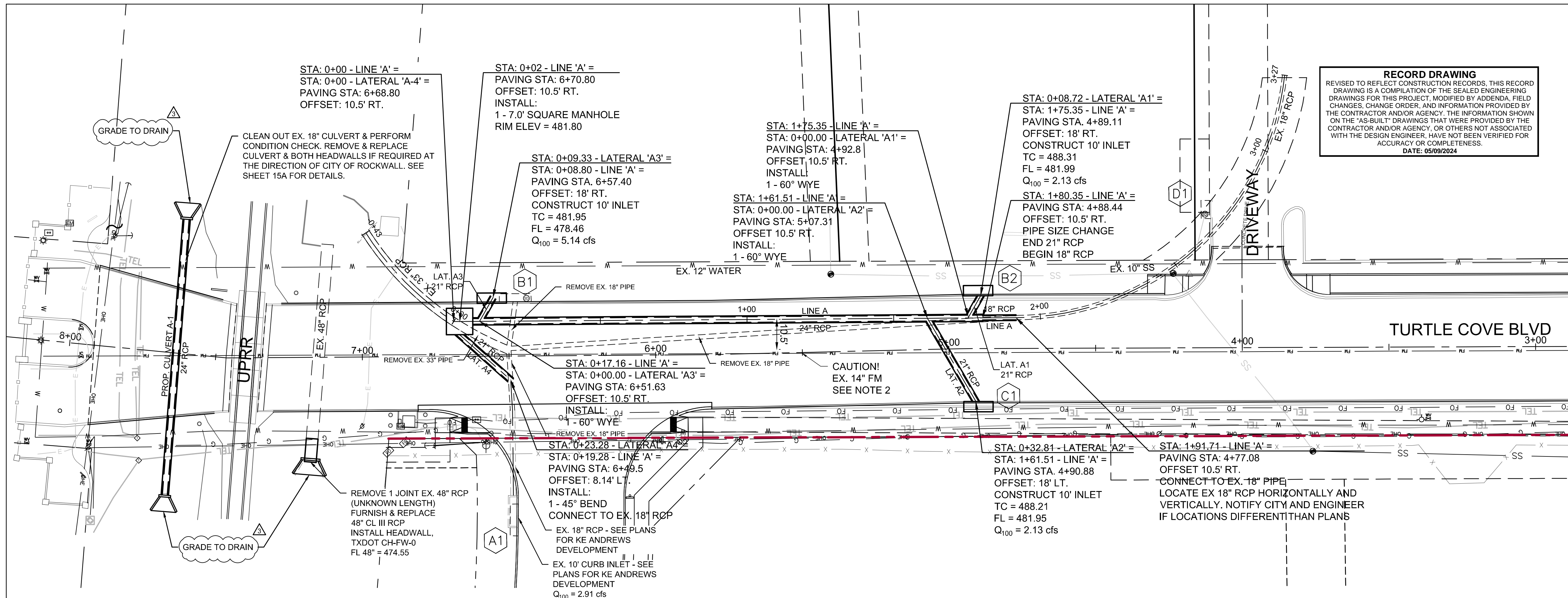
PROPOSED DRAINAGE AREA MAP

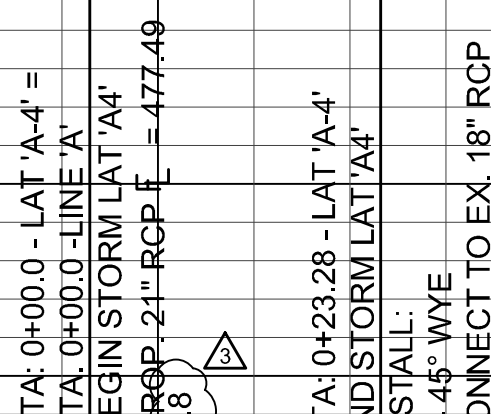
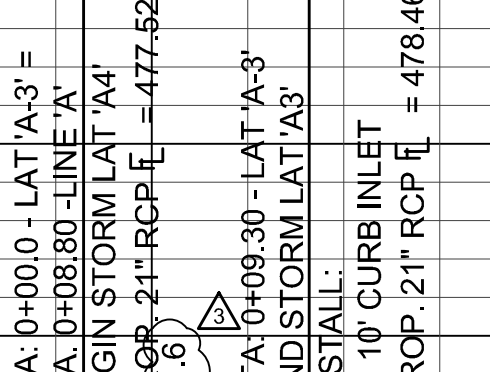
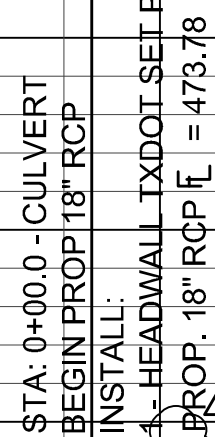
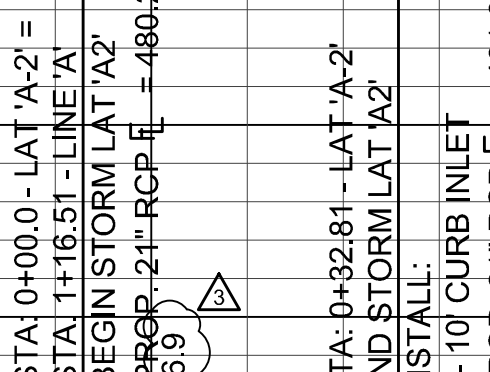
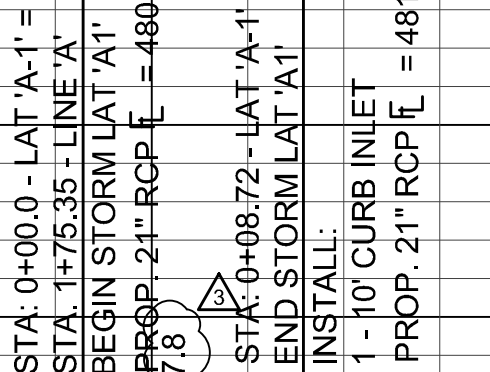
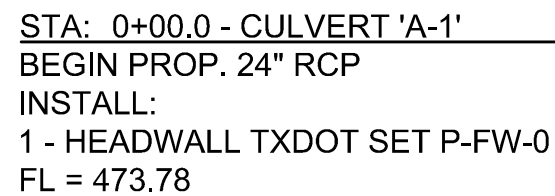
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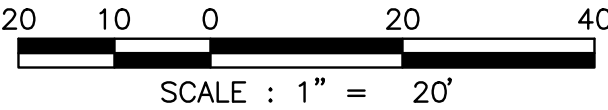

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1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL ADJACENT AND/OR CONFLICTING UTILITIES PRIOR TO CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES IF REQUIRED. CONTRACTOR SHALL VERIFY THE DEPTH OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
2. LOCATION AND ELEVATION OF EXISTING NORTH TEXAS MUNICIPAL WATER DISTRICT (NTMWD) 14" FORCE MAIN IS UNKNOWN. CONTRACTOR SHALL LOCATE AND NOTIFY THE CITY AND ENGINEER IF ANY CONFLICTS REQUIRE REDESIGN PRIOR TO CONSTRUCTION (NO PAY ITEM)

TURTLE COVE BLVD. (RIDGE RD. TO UP RAILROAD)

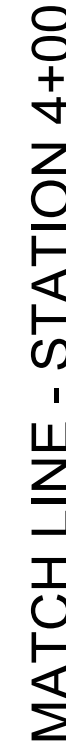
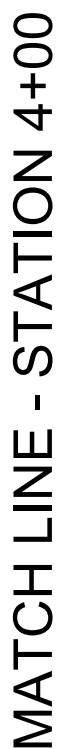
PROP. CULVERT & STORM LATERAL PROFILES



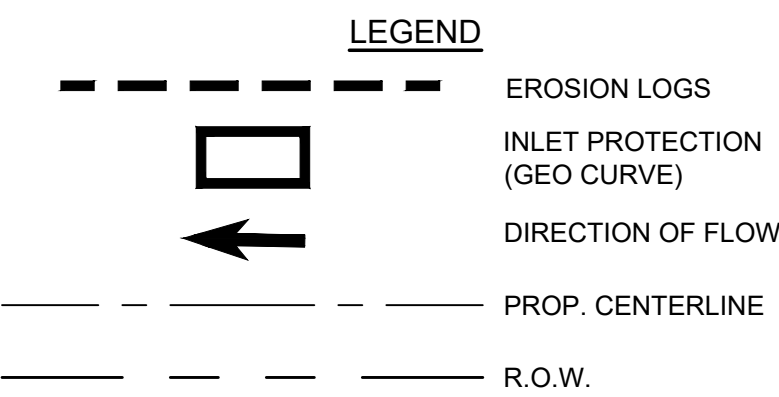
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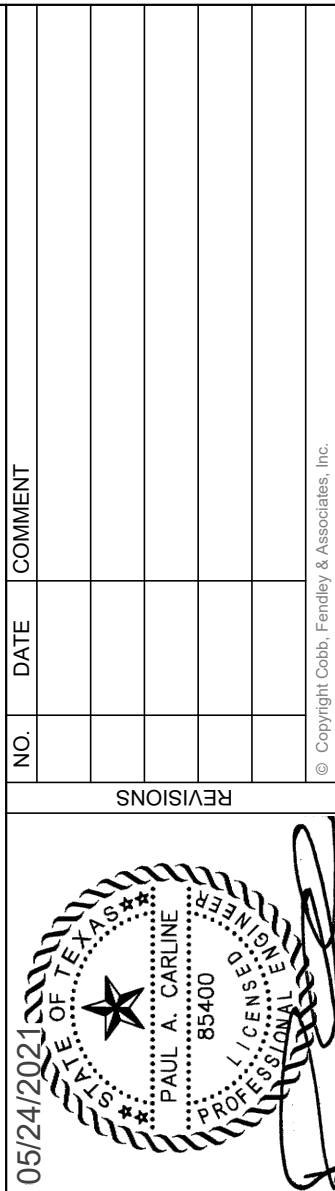
1. INSTALL INITIAL BMPS
 - a. EROSION CONTROL LOGS/FILTER TUBES
2. DEMOLITION AND GRADING
3. UNDERGROUND UTILITY INSTALLATION
4. PAVING OPERATIONS
5. RETAINING WALL CONSTRUCTION
6. ESTABLISH PERMANENT GROUND COVER
7. REMOVE TEMPORARY BMPS



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DATE: 04/25/2024



CITY OF ROCKWALL, TEXAS
TURTLE COVE BLVD. (RIDGE RD. TO DGNO RAILROAD)

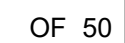
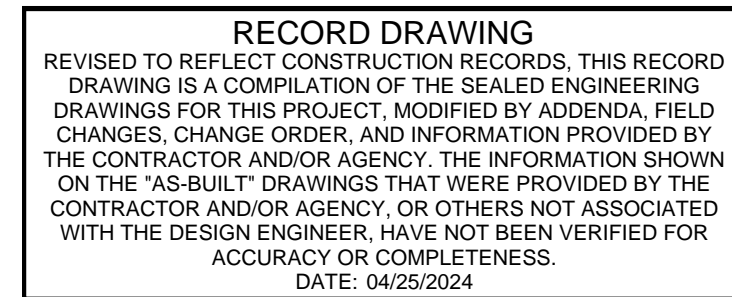
EROSION CONTROL PLAN



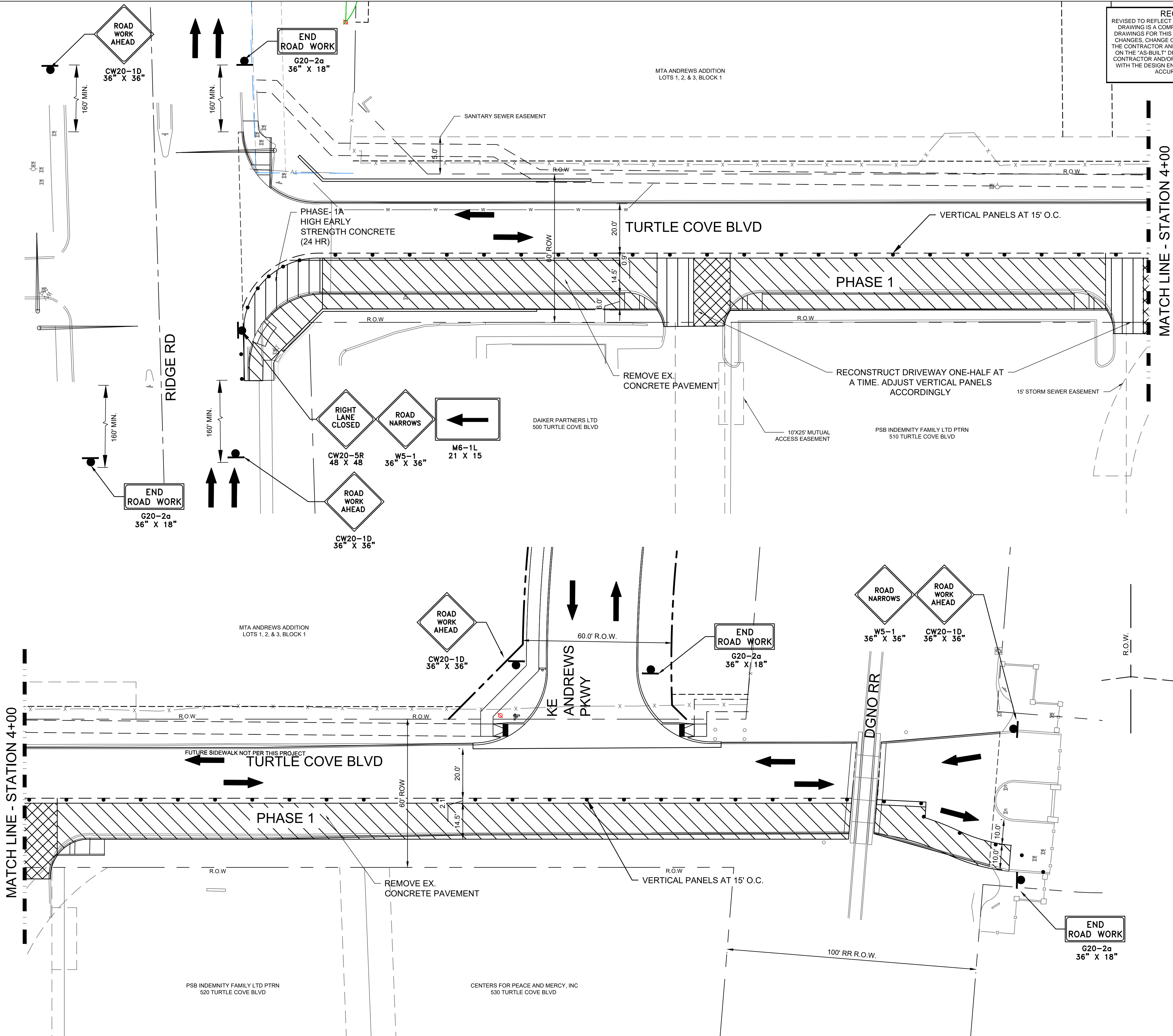
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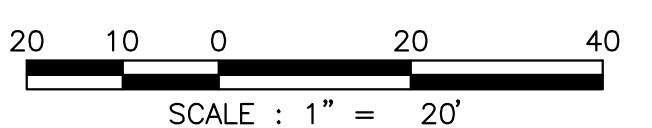
DESIGN BY: SLM	DRAWN BY: AM
DATE: May 2021	JOB NUMBER: 1812-037-01
SHEET	



Dwg Info: P:\Projects\2021\0512\Traffic_Cover\Traffic\T-Cover\T-Cover.dwg - Plotter: 5/24/2021



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DATE: 04/25/2024

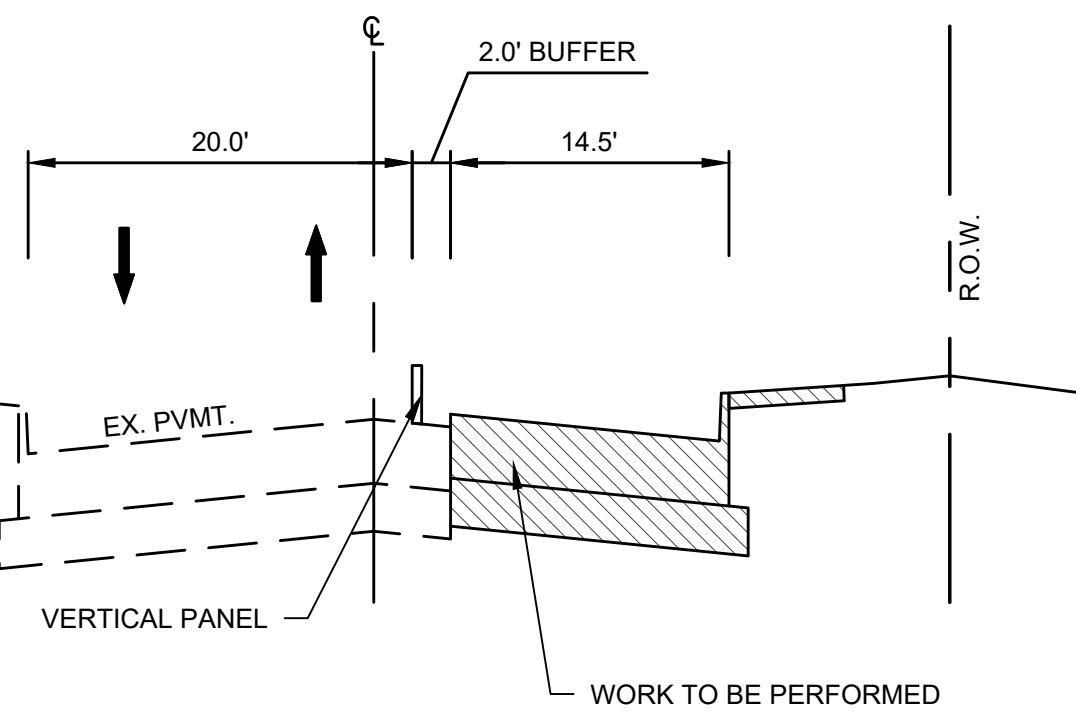


GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL ADJACENT AND/OR CONFLICTING UTILITIES PRIOR TO CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES IF REQUIRED. CONTRACTOR SHALL VERIFY THE DEPTH OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
2. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTORS OPERATIONS SHALL BE RESTORED AT HIS EXPENSE.
3. SEE TYPICAL SECTIONS AND REMOVALS/STRIPING FOR WORK TO BE PERFORMED.
4. CONTRACTOR TO COORDINATE WITH TxDOT ON ALL TEMPORARY TRAFFIC SIGNAL MODIFICATIONS REQUIRED DURING EACH PHASE OF CONSTRUCTION. ALL COORDINATION, TEMPORARY EQUIPMENT, & ETC. SHALL BE CONSIDERED SUBSIDIARY TO TRAFFIC CONTROL (NO SEPARATE PAY).

LEGEND

- PROF. CONCRETE
- PROF. SIDEWALK
- R.O.W.
- CONSTRUCTION SIGN
- WORK ZONE
- CHANNELIZING DEVICE



**TURTLE COVE BLVD.
PHASE 1**

05/24/2021

DATE

NO.

COMMENT

REVISIONS

05/24/2021

PAUL A. CARLINE

85400

CEN'S REG. NO.

PROF. ENGINEER

CITY OF ROCKWALL, TEXAS

TURTLE COVE BLVD. (RIDGE RD. TO DGNO RAILROAD)

TCP- TRAFFIC CONTROL &
CONSTRUCTION PHASING-PHASE 1

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SLM

DATE:
May 2021

SHEET

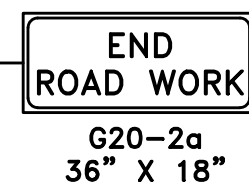
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AM

JOB NUMBER:
1812-037-01

18

OF 50





NO.	DATE	COMMENT

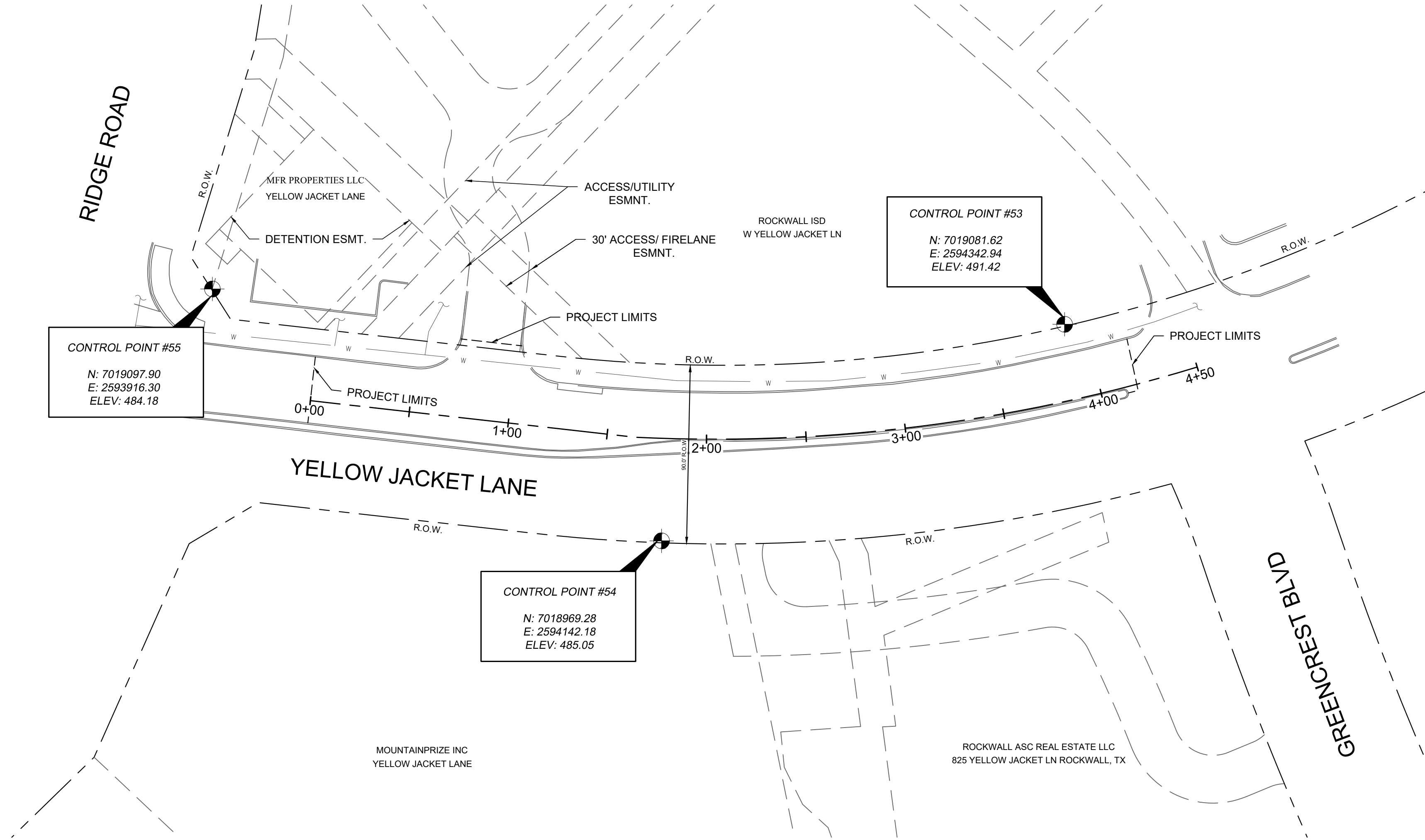
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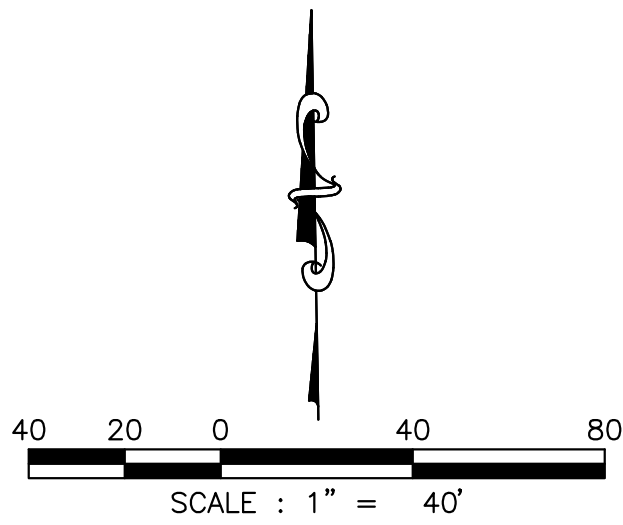
CROSS SECTIONS 1



SCALE:
HOR: 1" = 20'
VER: 1" = 10'



CONTROL POINT LIST				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
55	484.18	7019097.90	2593916.30	5/8" w/cap- set
54	485.05	7018969.28	2594142.18	5/8" w/cap- set
53	491.42	7019081.62	2594342.94	5/8" w/cap- set



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DATE: 04/25/2024

REVISIONS	
NO.	COMMENT

CITY OF ROCKWALL, TEXAS
YELLOWJACKET LANE (RIDGE RD. TO GREENCREST BLVD.)
PROJECT CONTROL

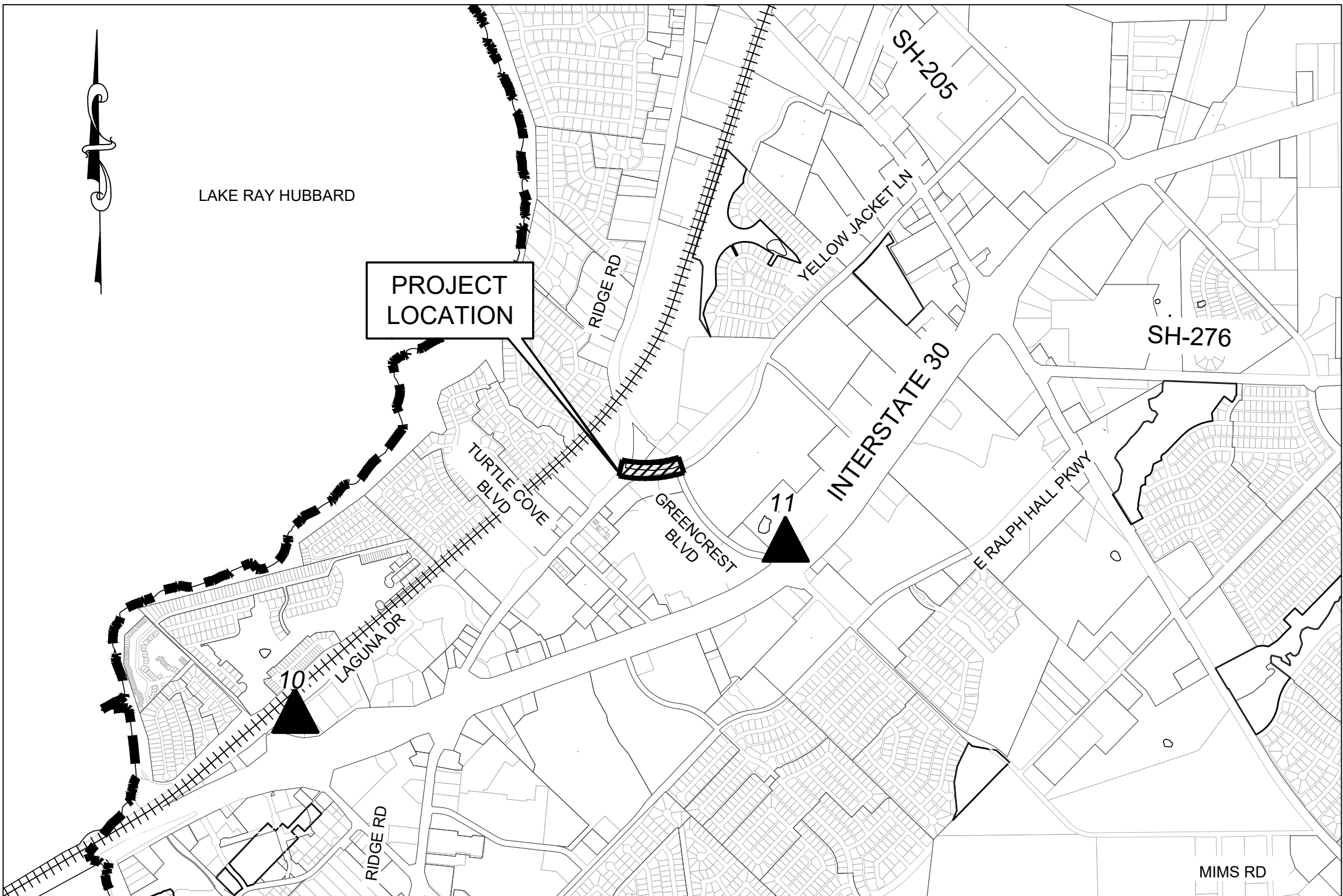


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DESIGN BY: SLM
DATE: May 2021
SHEET
DRAWN BY: AM
JOB NUMBER: 1812-037-01

DATE RECORDED	STATION NO.	STATION DESCRIPTION
09-07-2017	COR-10	BRASS DISK STAMPED "CITY OF ROCKWALL SURVEY MONUMENT" ON THE SOUTHEAST SIDE OF LAGUNA DR. AT THE SOUTHEAST CORNER OF A CURB INLET, +325' NORTH EAST INTERSECTION OF VILLAGE/LAGUNA.
NORTH AMERICAN DATUM - 1983 (2011) TEXAS NORTH CENTRAL ZONE (4202)		
LATITUDE	N 32° 53' 48.91571"	
LONGITUDE	W 96° 28' 33.05950"	
NORTHING (Y)	2138246.722(meters)	7015231.120 (feet)
EASTING (X)	789347.840 (meters)	2589718.705(feet)
CONVERGENCE ANGLE	01° 06' 14.25665"	
GRID SCALE FACTOR	0.99987625	
COMBINED SCALE FACTOR	0.99985529	
ELEVATION (NAVD88-GEOID12B)	158.987 (meters)	521.61 (feet)

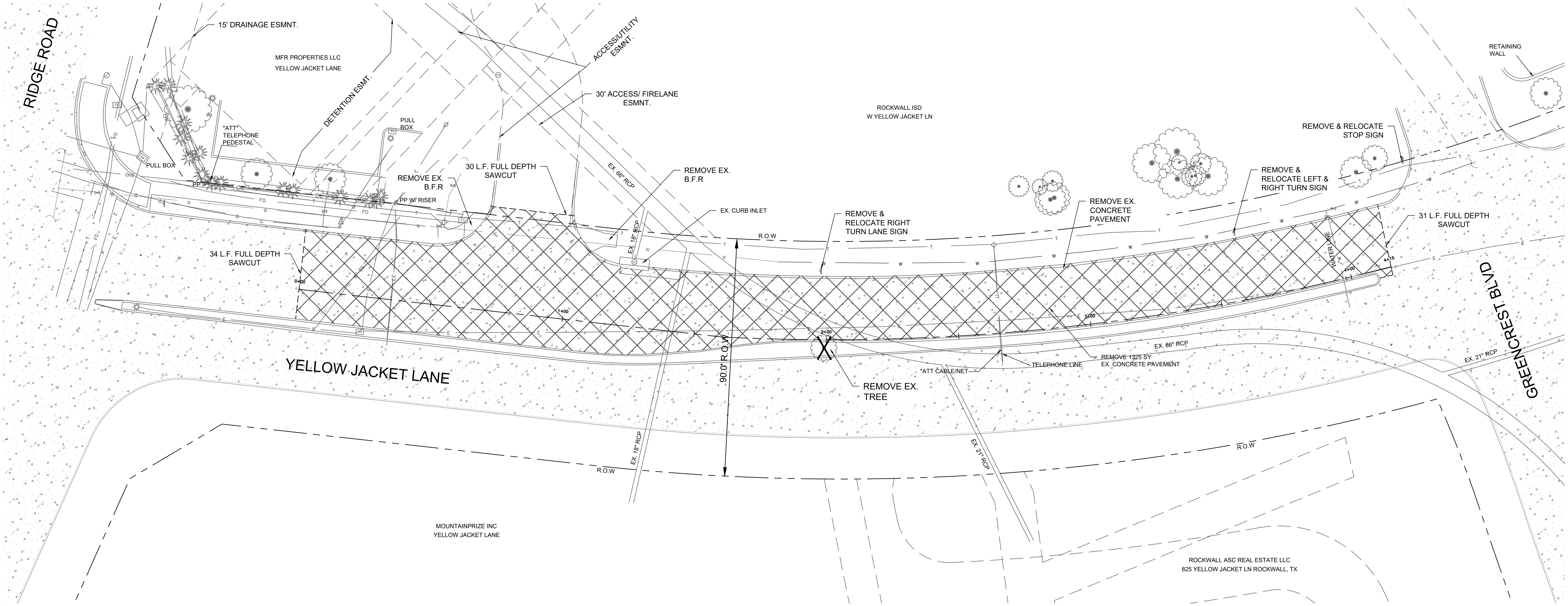
DATE RECORDED	STATION NO.	STATION DESCRIPTION
09-08-2017	COR-20	BRASS DISK STAMPED "CITY OF ROCKWALL SURVEY MONUMENT" AT THE SOUTHEAST CORNER OF THE INTERSECTION OF SH 276 AND FM 551 AT THE NORTH END OF A CONCRETE HEADWALL.
NORTH AMERICAN DATUM - 1983 (2011) TEXAS NORTH CENTRAL ZONE (4202)		
LATITUDE	N 32° 54' 06.61266"	
LONGITUDE	W 96° 22' 08.80410"	
NORTHING (Y)	2138989.174 (meters)	7017666.982 (feet)
EASTING (X)	799320.151 (meters)	2622436.195 (feet)
CONVERGENCE ANGLE	01° 09' 43.82737"	
GRID SCALE FACTOR	0.99987602	
COMBINED SCALE FACTOR	0.99985400	
ELEVATION (NAVD88-GEOID12B)	165.675 (meters)	543.55 (feet)



VICINITY MAP
N.T.S.

NOTE:
ALL BEARINGS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE 4202, NAD 83 (2011), EPOCH 2010.00. ALL DISTANCES AND COORDINATES SHOWN ARE SURFACE AND MAY BE CONVERTED TO GRID BY DIVIDING BY A COMBINED SCALE FACTOR OF 1.000150630.

Dwg file: F:\Projects\2016\2027\Traffic_Cover\YellowJacket_Plan\YellowJacket.dwg - Plot#: 2242027

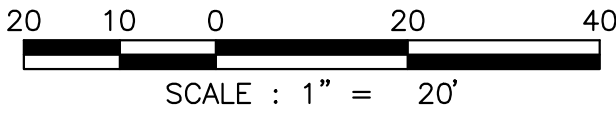


GENERAL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL ADJACENT AND/OR CONFLICTING UTILITIES PRIOR TO CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES IF REQUIRED. CONTRACTOR SHALL VERIFY THE DEPTH OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
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LEGEND

- EX. CONCRETE
- EX. CONCRETE (TO BE REMOVED)
- EX. OVERHEAD WIRE
- EX. SANITARY SEWER LINE
- EX. WATER LINE
- EX. GAS
- EX. WOOD FENCE
- PROP. CENTERLINE
- PROP. SAWCUT
- R.O.W.
- TREE REMOVAL



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DATE: 04/25/2024

REVISIONS		NO.	DATE	COMMENT

05/24/2024

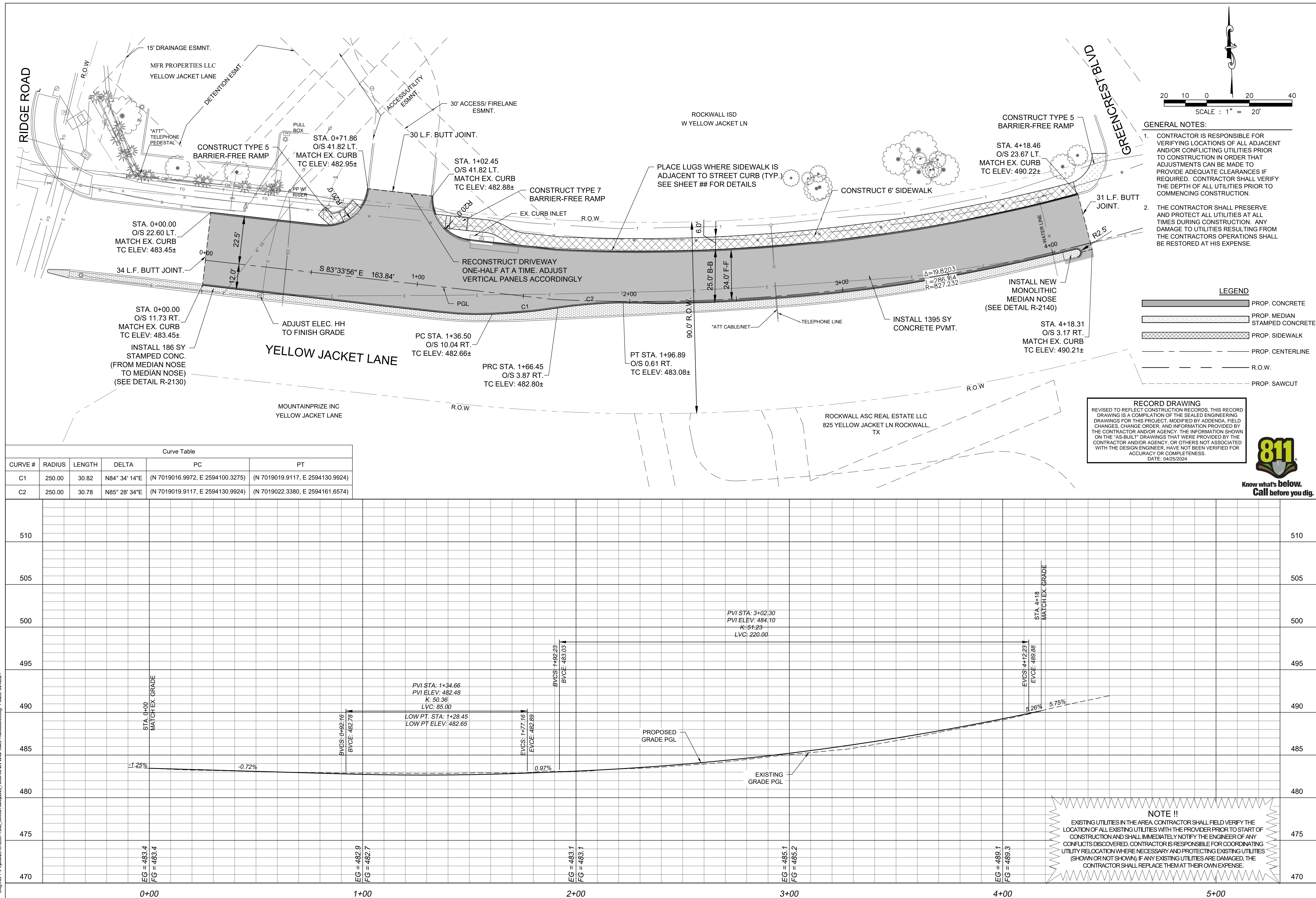
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CITY OF ROCKWALL, TEXAS
YELLOWJACKET LANE (RIDGE RD. TO GREENCREST BLVD.)



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DATE: May 2021	JOB NUMBER: 1812-037-01
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ACCURACY OR COMPLETENESS.
DATE: 04/25/2024



EROSION LOGS

INLET PROTECTION
(GEO CURVE)

PROP. CENTERLINE

R.O.W.

SEQUENCE OF LAND DISTURBING ACTIVITY

1. INSTALL INITIAL BMPS
 - a. CONSTRUCTION ENTRANCE
 - b. EROSION CONTROL FENCING
2. DEMOLITION AND GRADING
3. UNDERGROUND UTILITY INSTALLATION
4. PAVING OPERATIONS
5. RETAINING WALL CONSTRUCTION
6. ESTABLISH PERMANENT GROUND COVER
7. REMOVE TEMPORARY BMPS



	NO.	DATE	COMMENT

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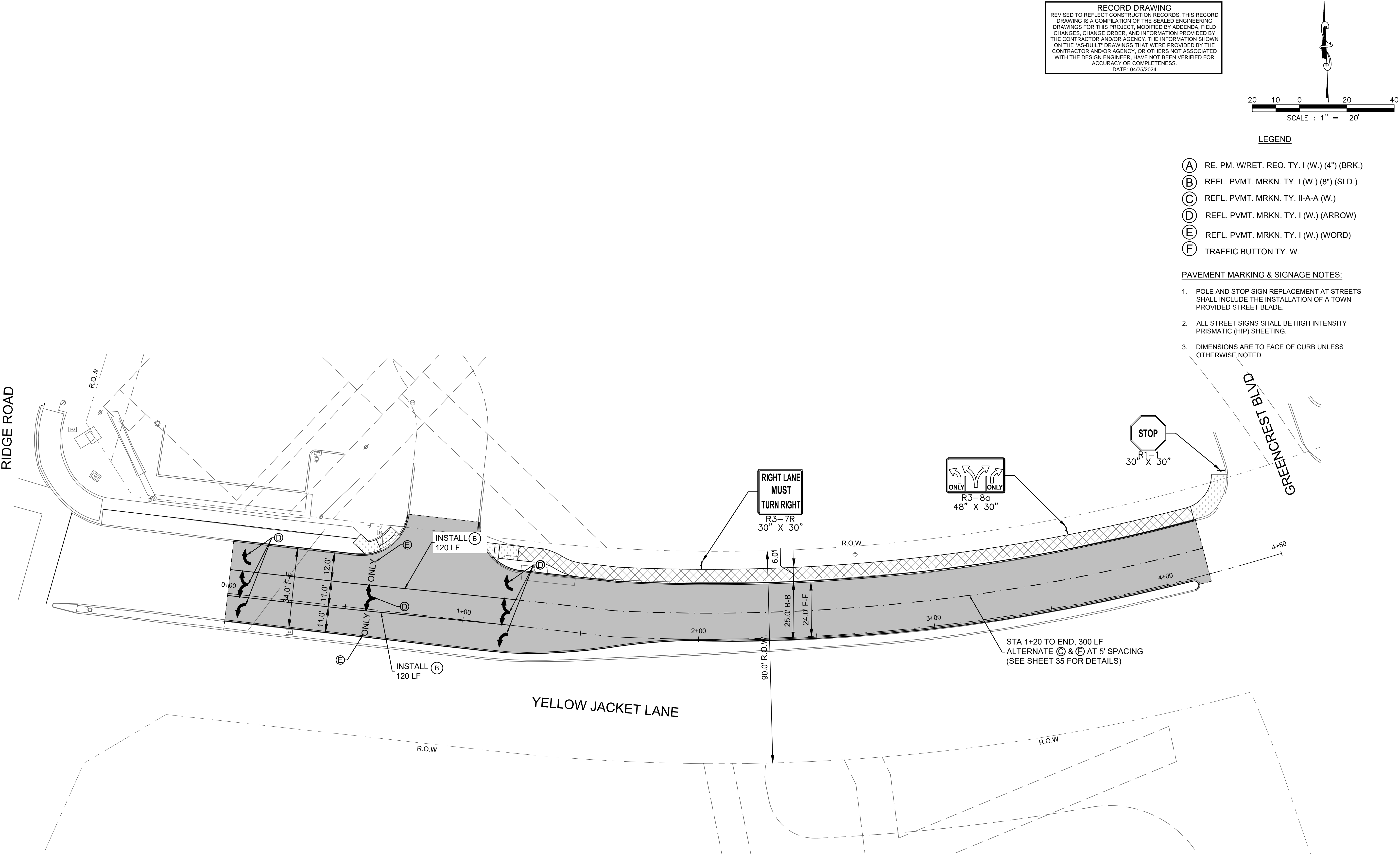
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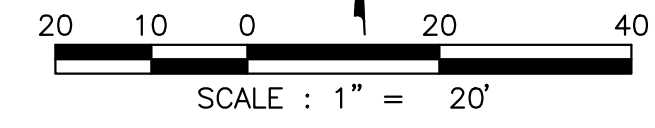
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DATE: May 2021	JOB NUMBER: 1812-037-01
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DATE: 04/25/2024



LEGEND

- (A) RE. PM. W/RET. REQ. TY. I (W.) (4") (BRK.)
- (B) REFL. PVMT. MRKN. TY. I (W.) (8") (SLD.)
- (C) REFL. PVMT. MRKN. TY. II-A-A (W.)
- (D) REFL. PVMT. MRKN. TY. I (W.) (ARROW)
- (E) REFL. PVMT. MRKN. TY. I (W.) (WORD)
- (F) TRAFFIC BUTTON TY. W.

PAVEMENT MARKING & SIGNAGE NOTES:

1. POLE AND STOP SIGN REPLACEMENT AT STREETS SHALL INCLUDE THE INSTALLATION OF A TOWN PROVIDED STREET BLADE.
2. ALL STREET SIGNS SHALL BE HIGH INTENSITY PRISMATIC (HIP) SHEETING.
3. DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

NO.	DATE	COMMENT

05/24/2021

CITY OF ROCKWALL, TEXAS
YELLOWJACKET LANE (RIDGE RD. TO GREENCREST BLVD.)

PAVEMENT SIGNAGE & STRIPING

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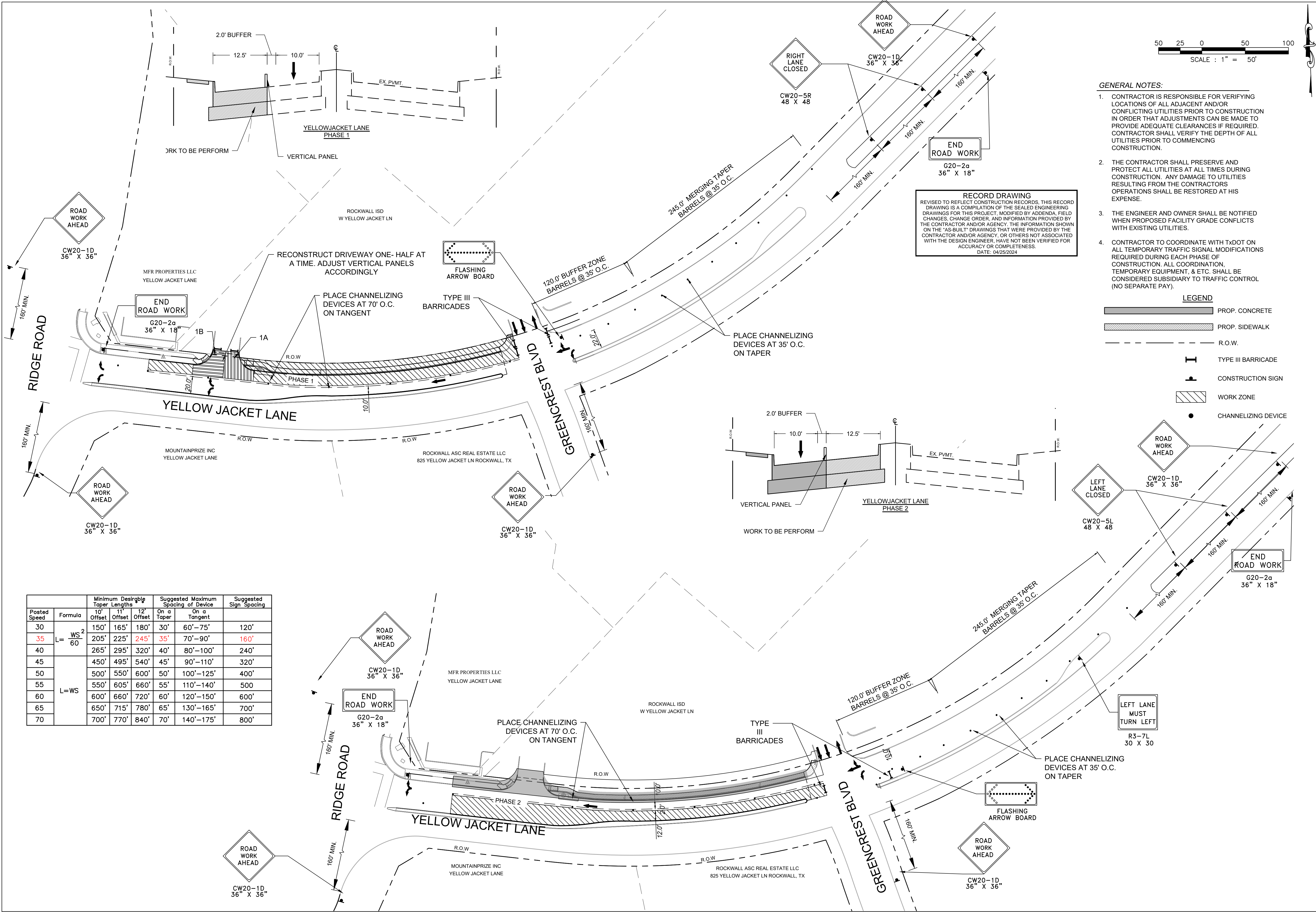
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DATE: May 2021	JOB NUMBER: 1812-037-01

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OF 50

Dwg File: F:\Projects\2021\05\2021\Traffic Control\YellowJacket.dwg - Plotter: 5/24/2021



CITY OF ROCKWALL, TEXAS
YELLOWJACKET LANE (RIDGE RD. TO GREENCREST BLVD.)

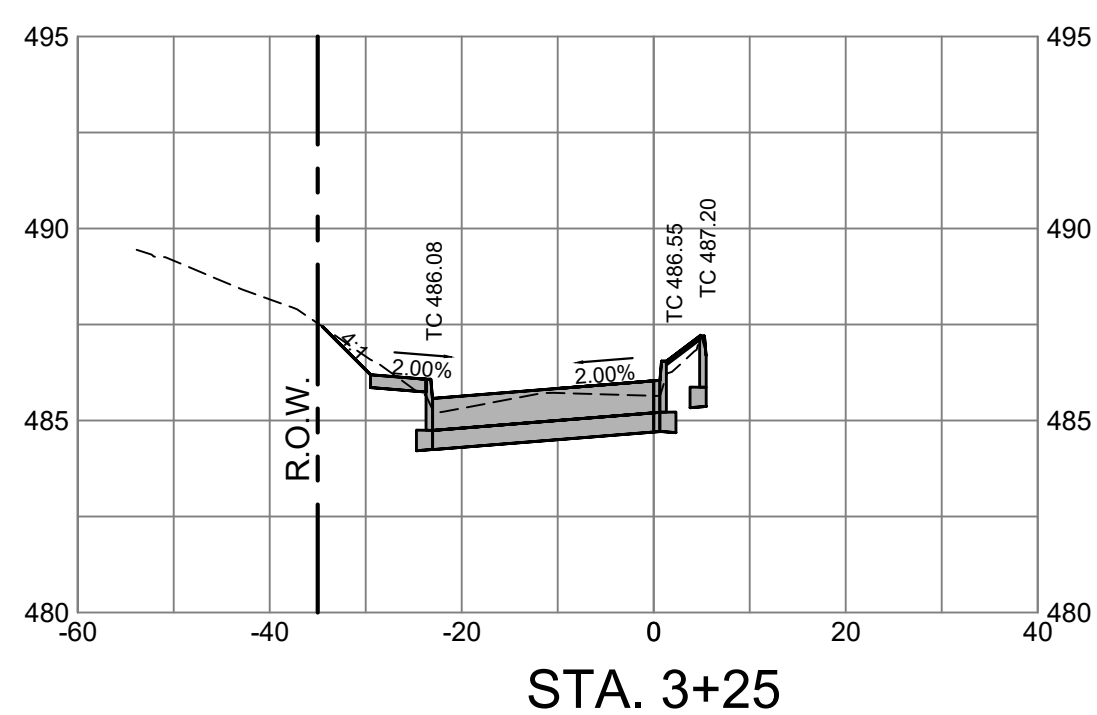
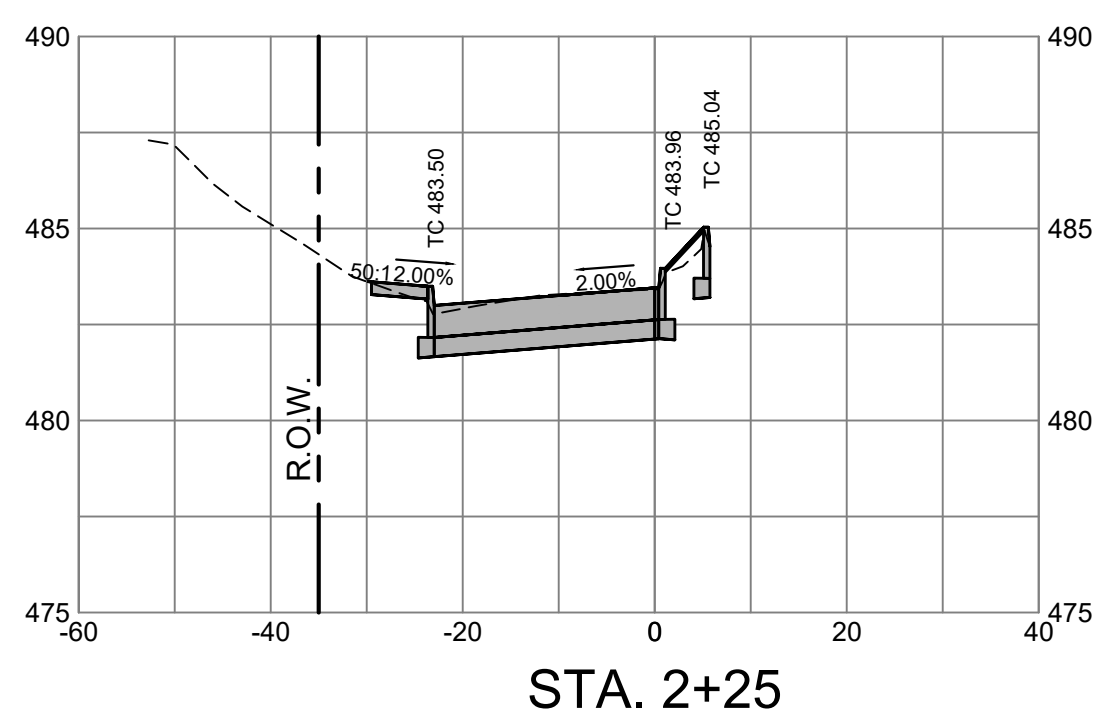
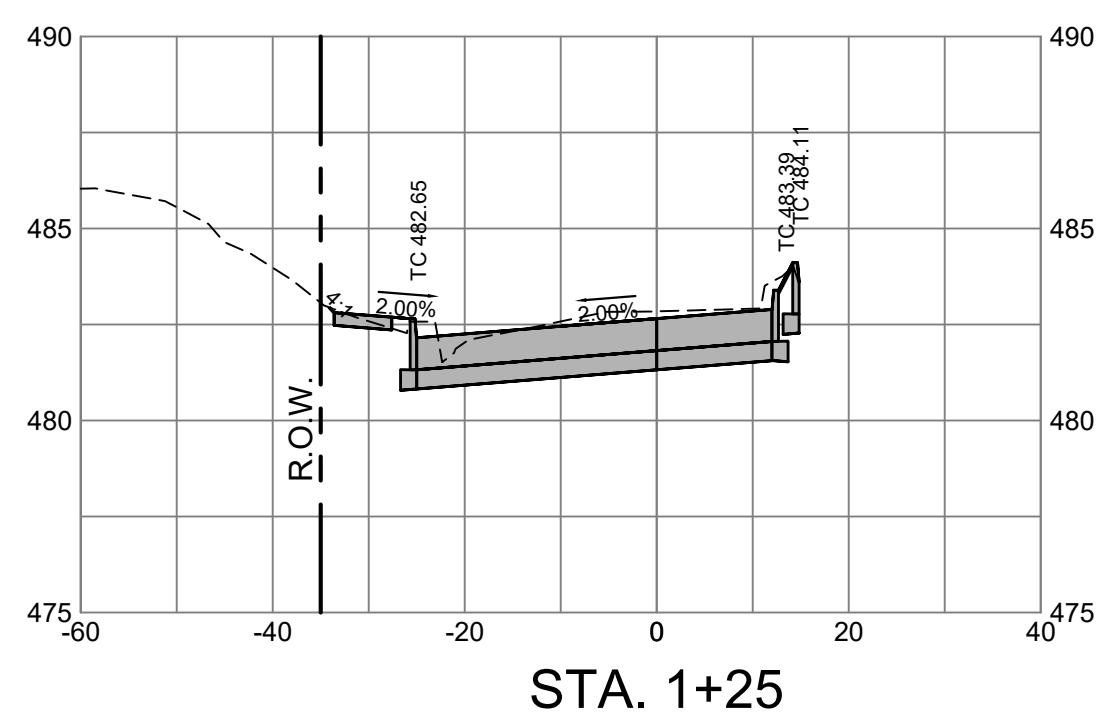
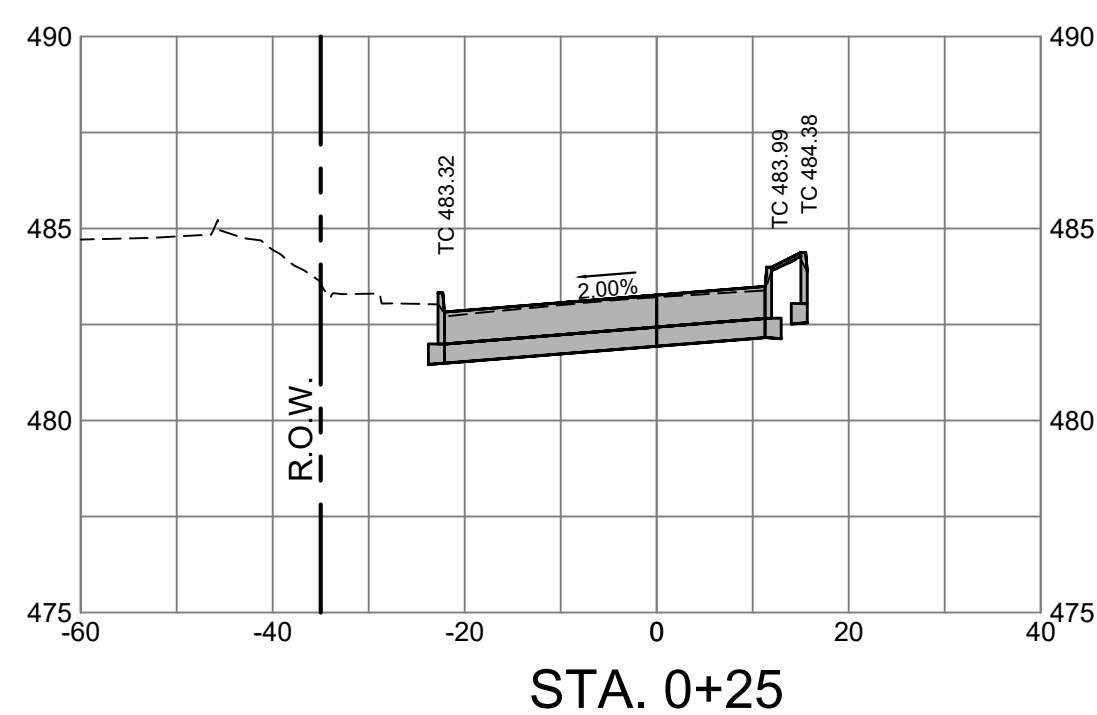
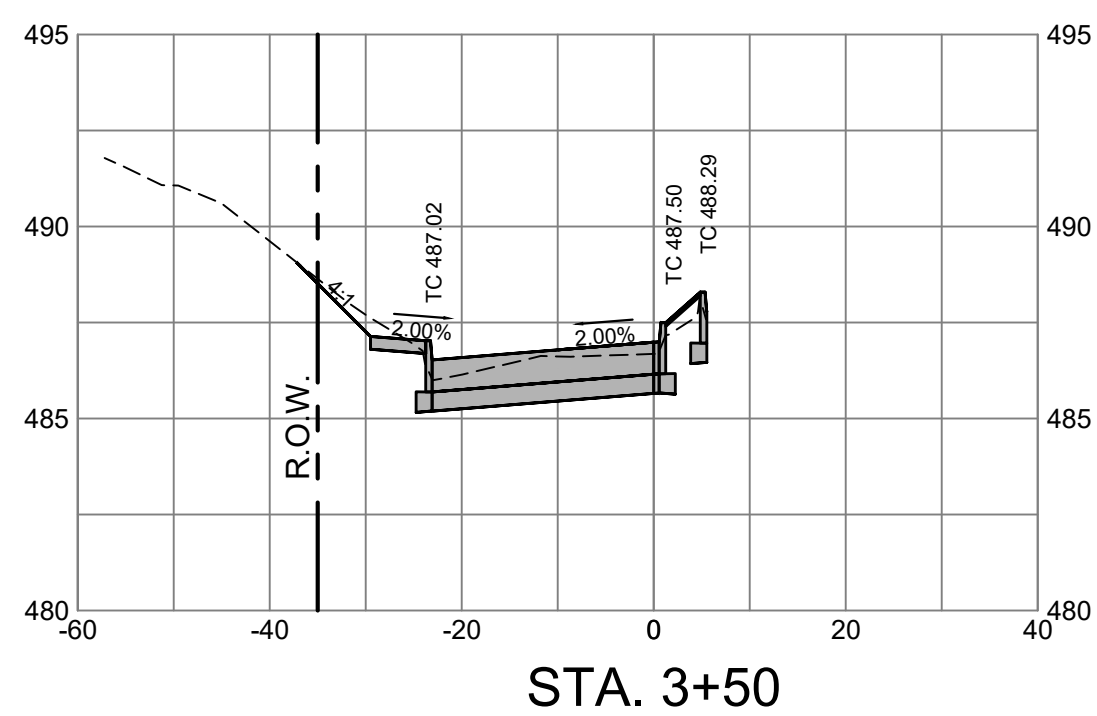
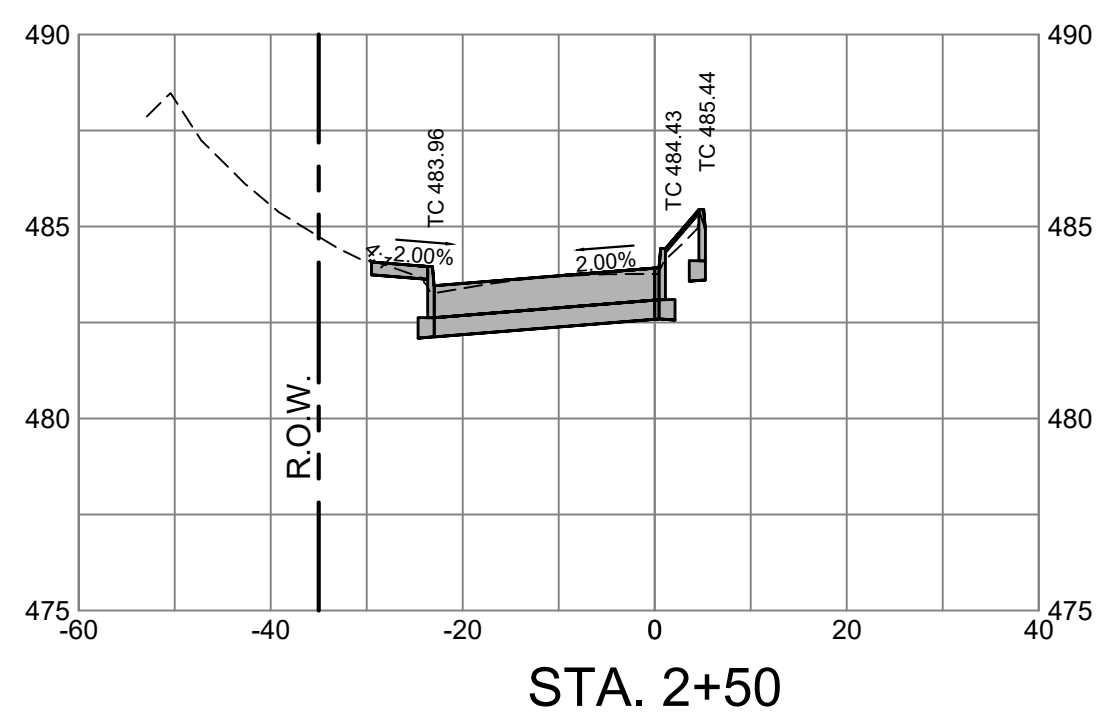
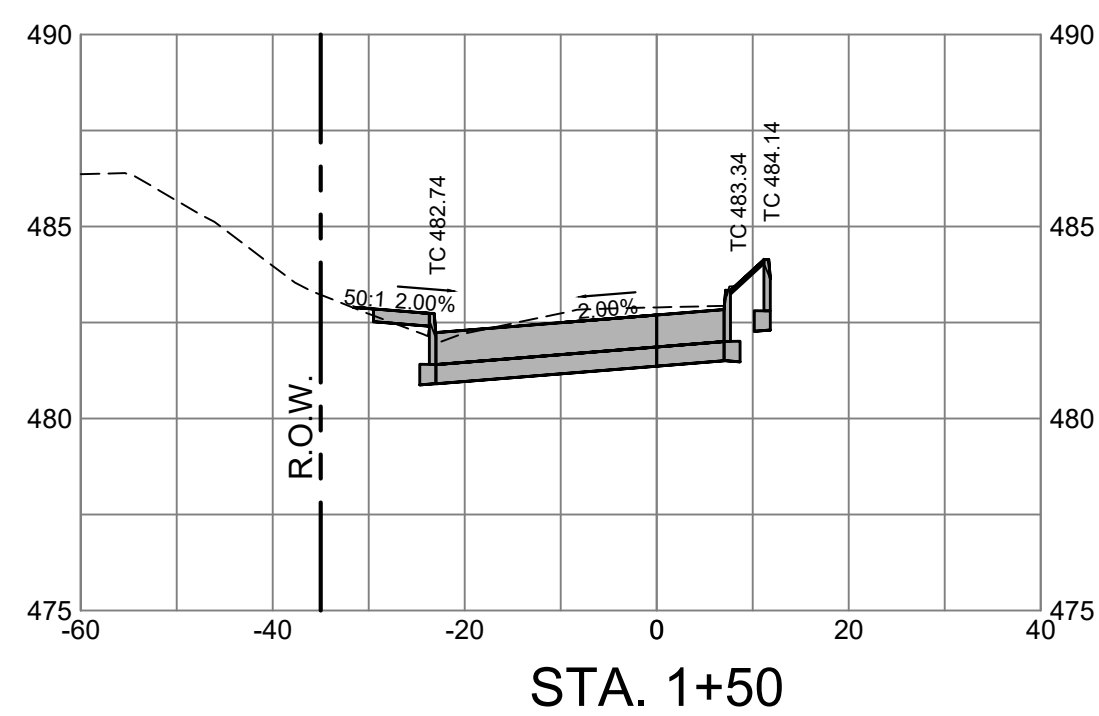
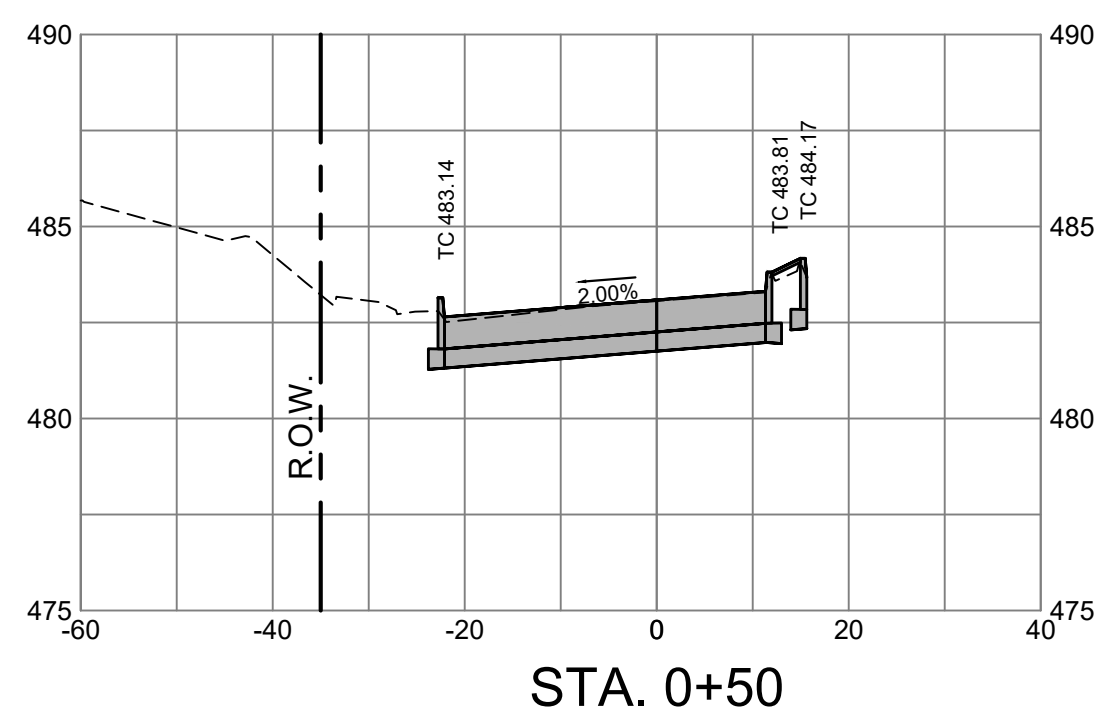
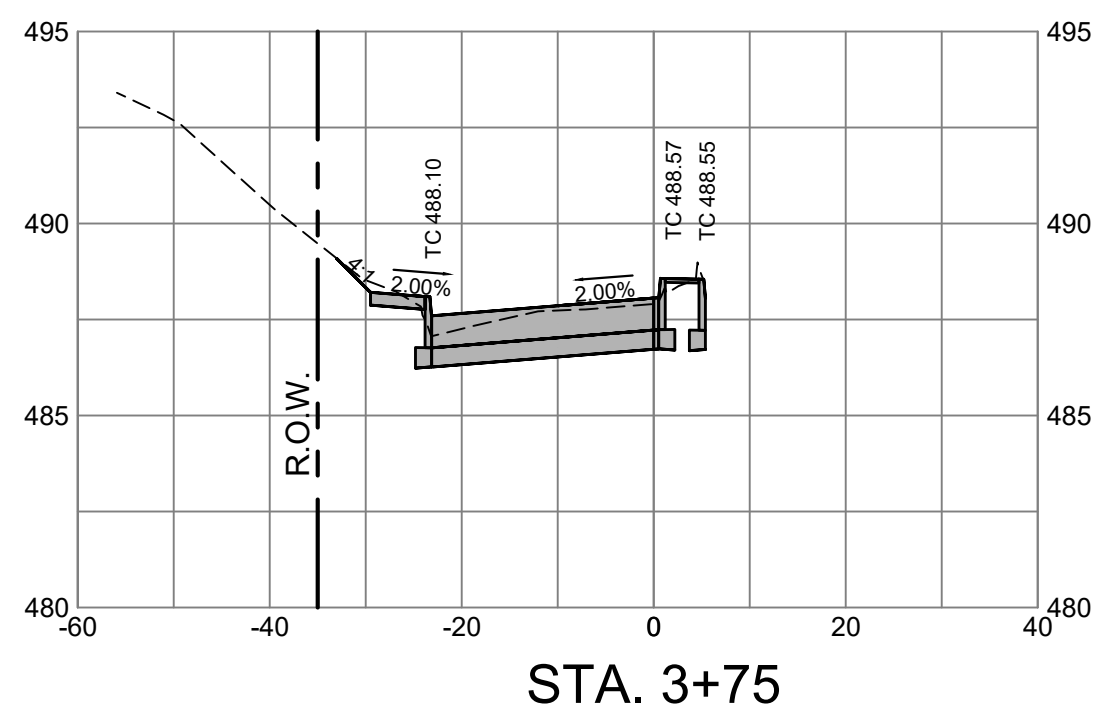
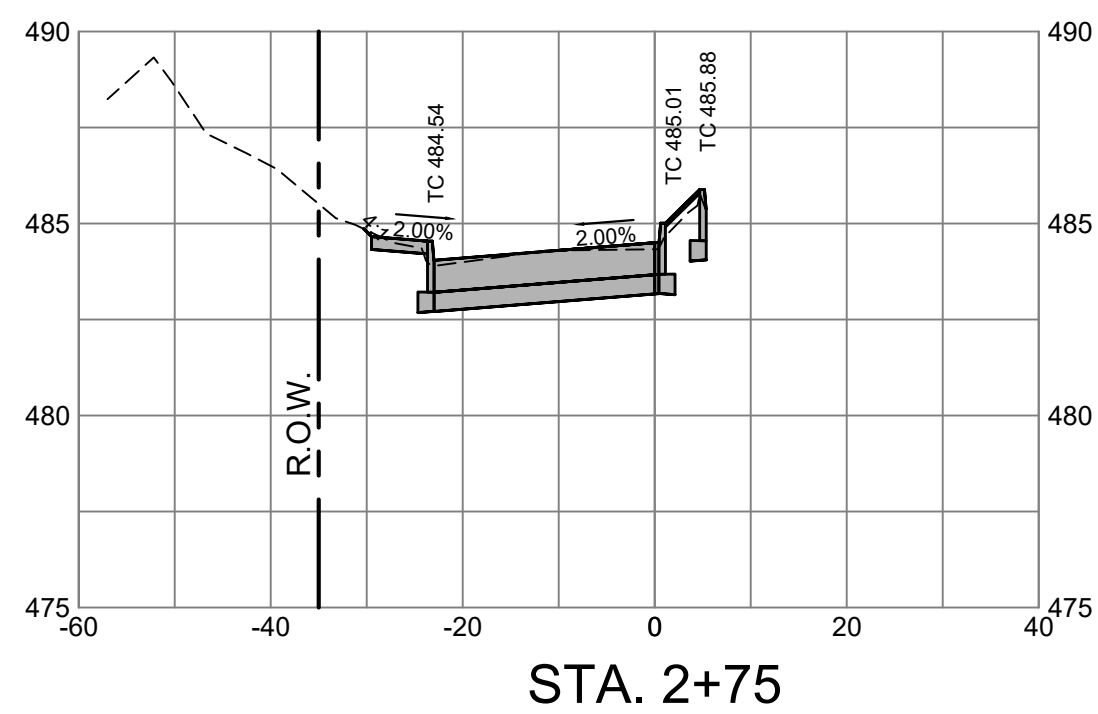
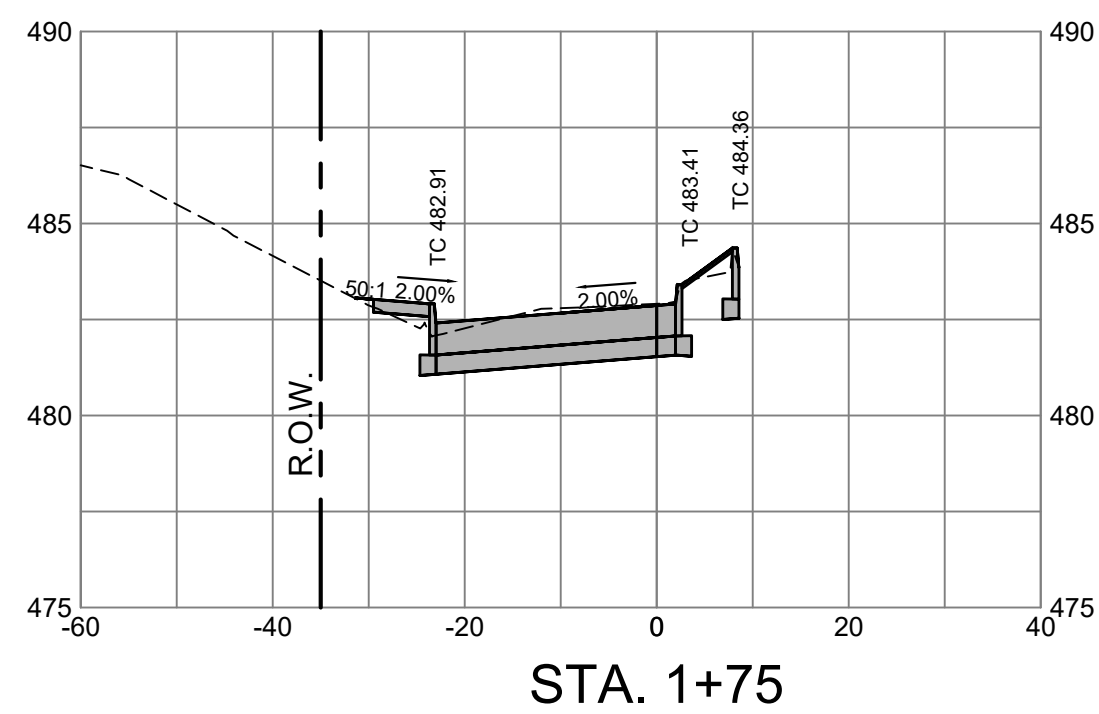
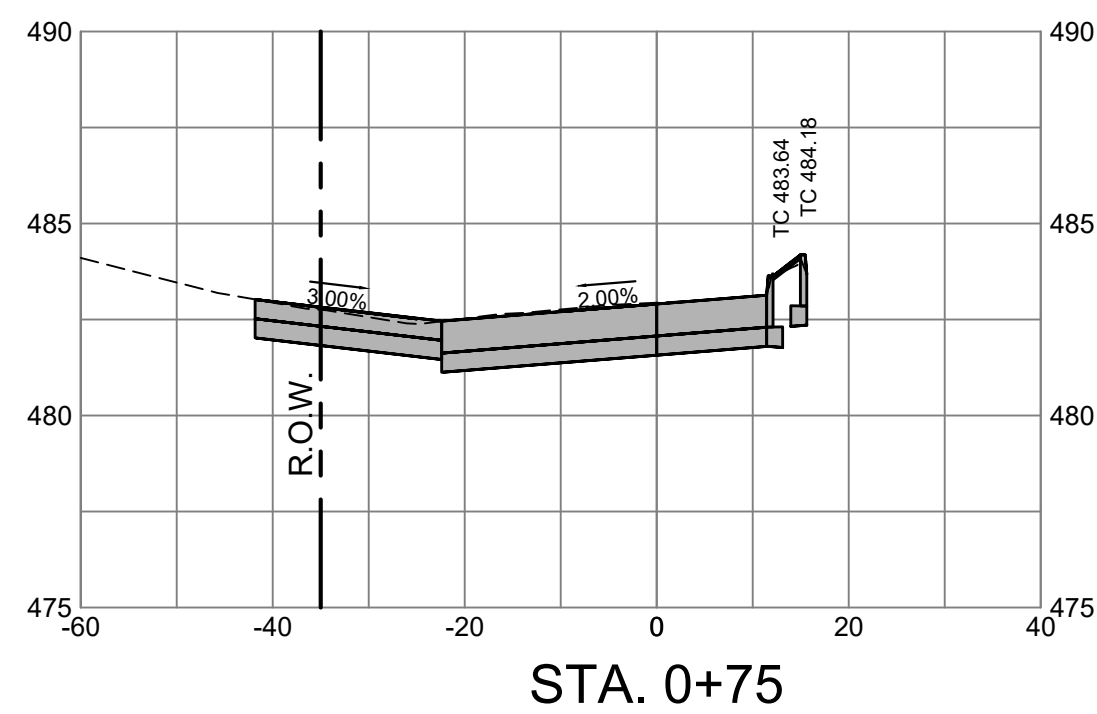
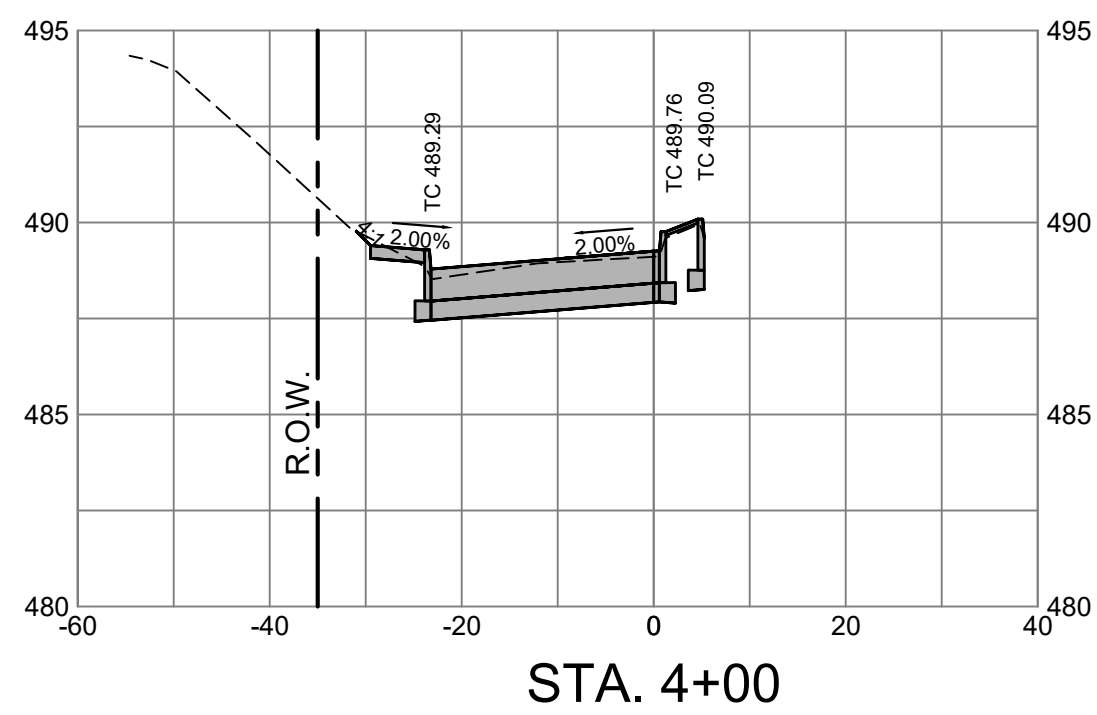
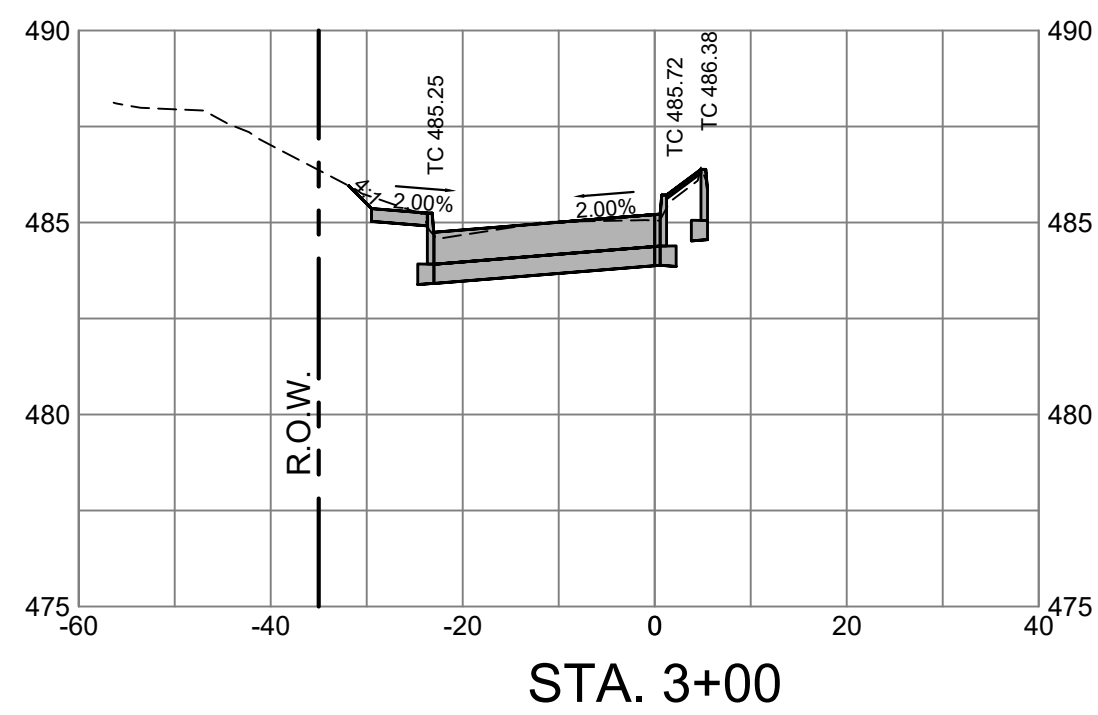
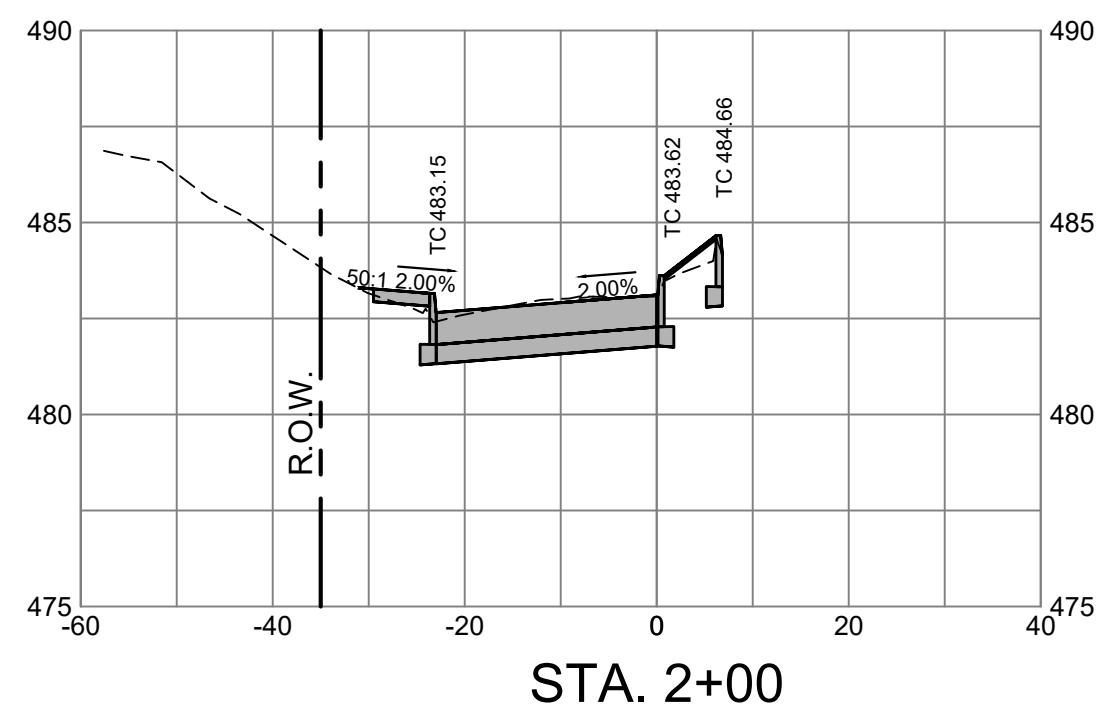
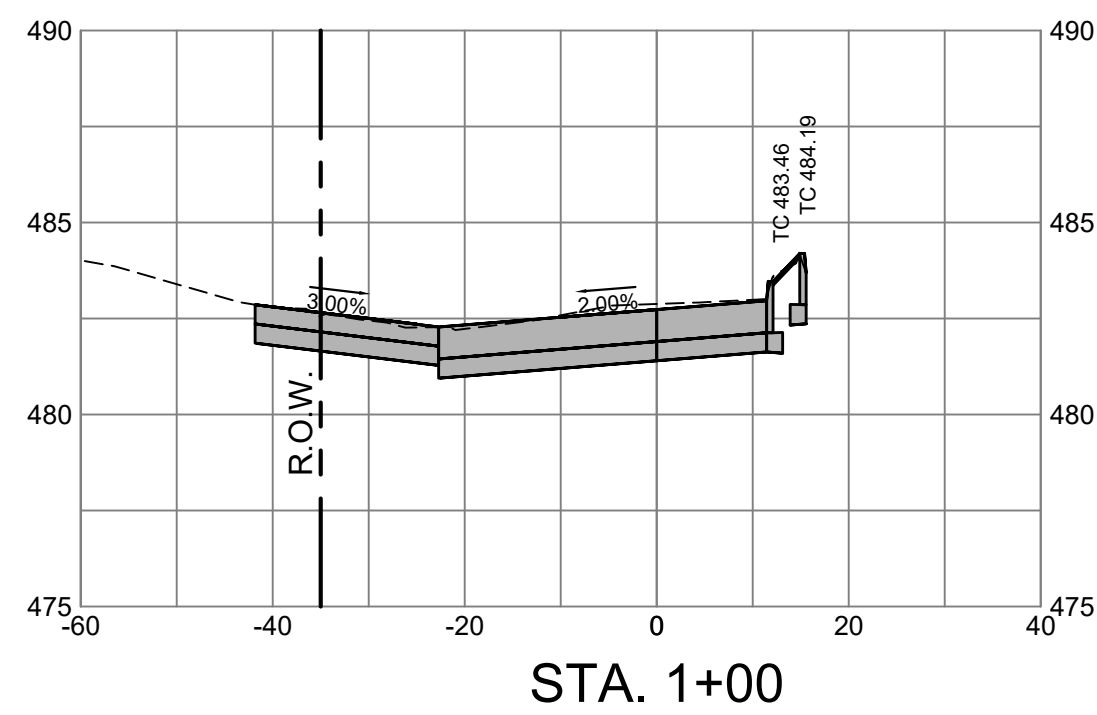
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JOB NUMBER:
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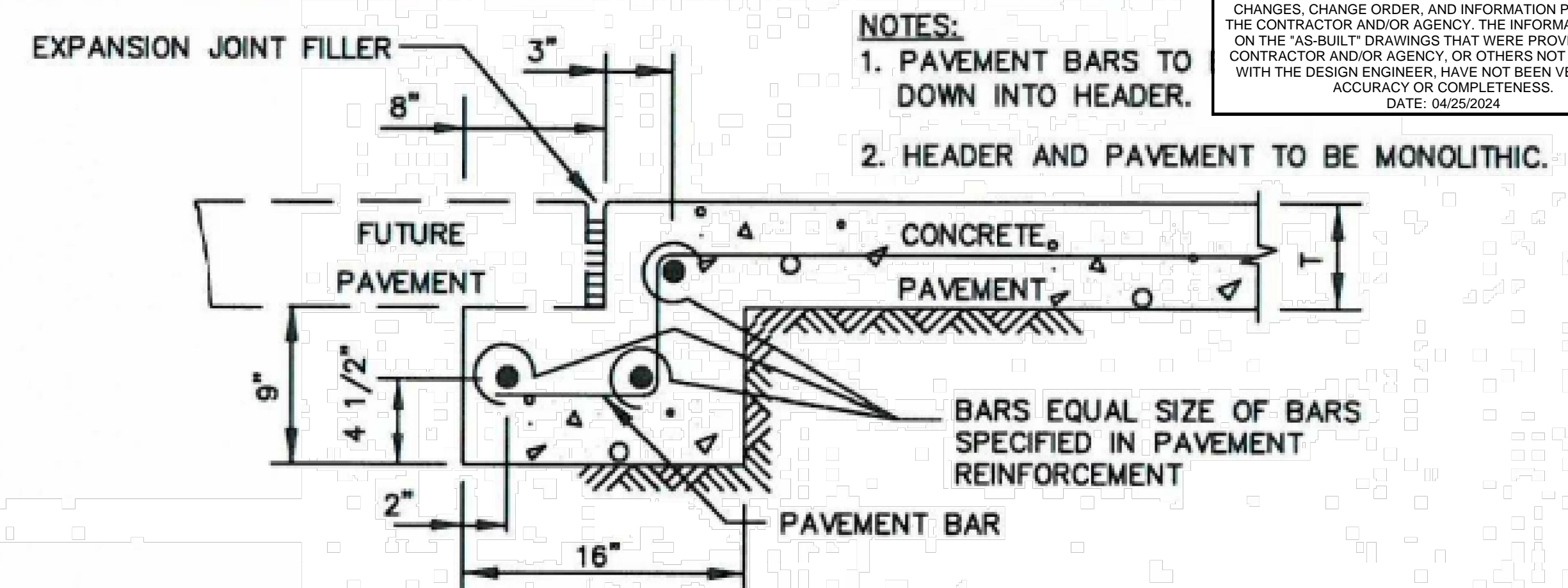
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OF 50

SILT FENCE GENERAL NOTES:

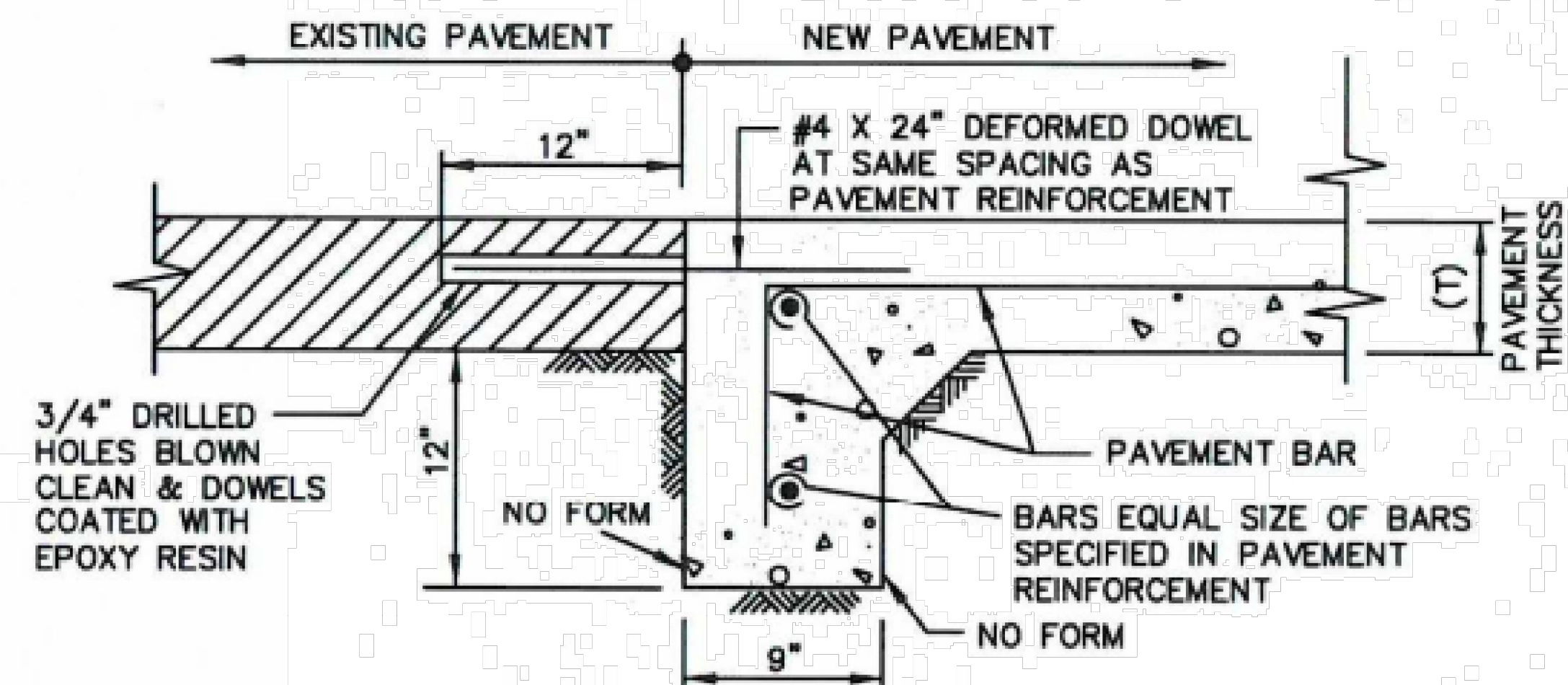
1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WIRE BACKING, WHICH IN TURN IS ATTACHED TO THE FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. FILTER STONE SHALL BE WRAPPED IN FILTER FABRIC AND BURIED SIX (6") INCHES MINIMUM.

SILT FENCE		CITY OF ROCKWALL 	STANDARD SPECIFICATION REFERENCE 202.5 *	
			DATE Mar. 2018	STANDARD DRAWING NO. R-1020B



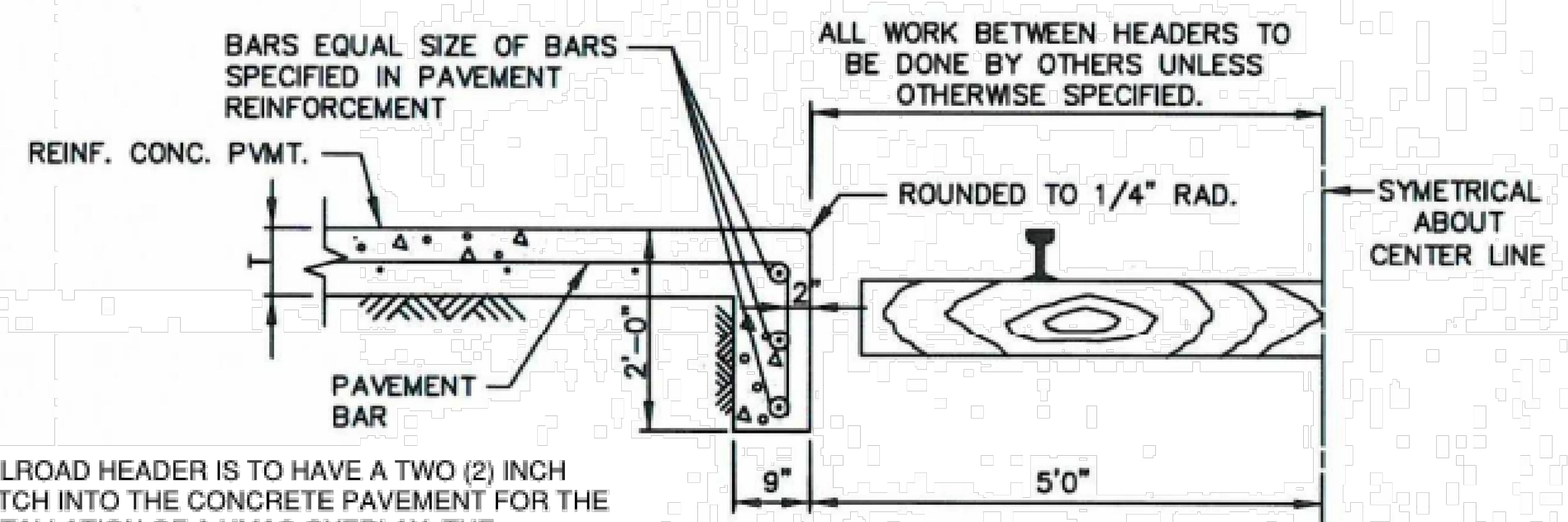
STREET HEADER FOR FUTURE PAVEMENT

N.T.S.



STREET HEADER AT EXISTING PAVEMENT

☐ N.T.S.

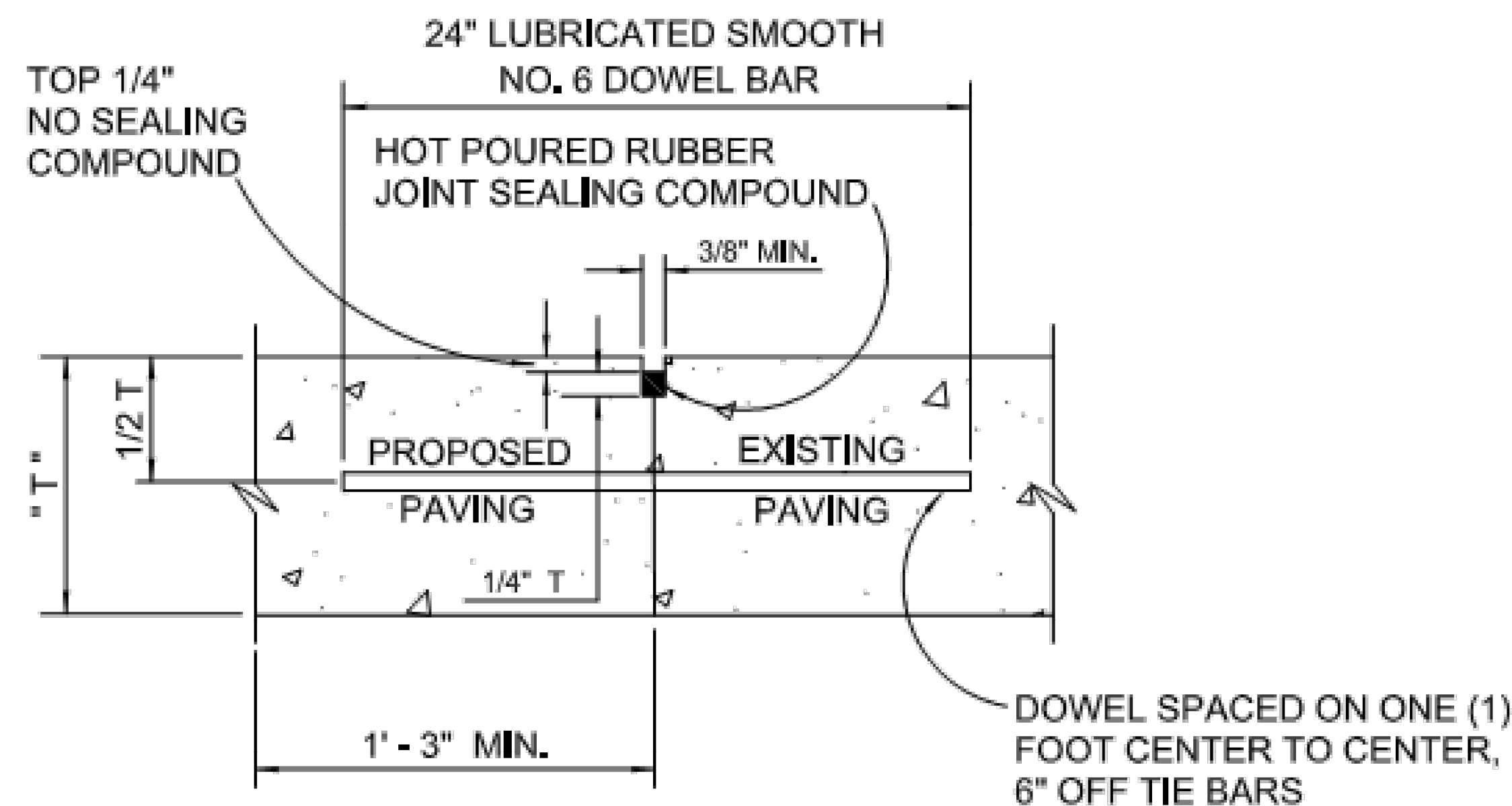


STREET HEADER AT RAILROAD

N.T.S.

RAILROAD HEADER IS TO HAVE A TWO (2) INCH NOTCH INTO THE CONCRETE PAVEMENT FOR THE INSTALLATION OF A HMAC OVERLAY. THE CONCRETE UNDER THE HMAC IS TO BE THE FULL STREET THICKNESS. THE NOTCH SHOULD START AT THE END OF THE PAVEMENT AND GO TWENTY (20) FEET UP THE ROAD AWAY FROM THE CROSSING.

REINFORCED CONCRETE PAVEMENT	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 305.4	
STREET HEADERS		DATE Mar. 2018	STANDARD DRAWING NO. R-2070



NOTES: T = PAVEMENT

1. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
2. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
3. DRILLING BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO GREEN CONCRETE NOT ACCEPTABLE.

LONGITUDINAL BUTT JOINT
NOT TO SCALE

REINFORCED CONCRETE PAVEMENT

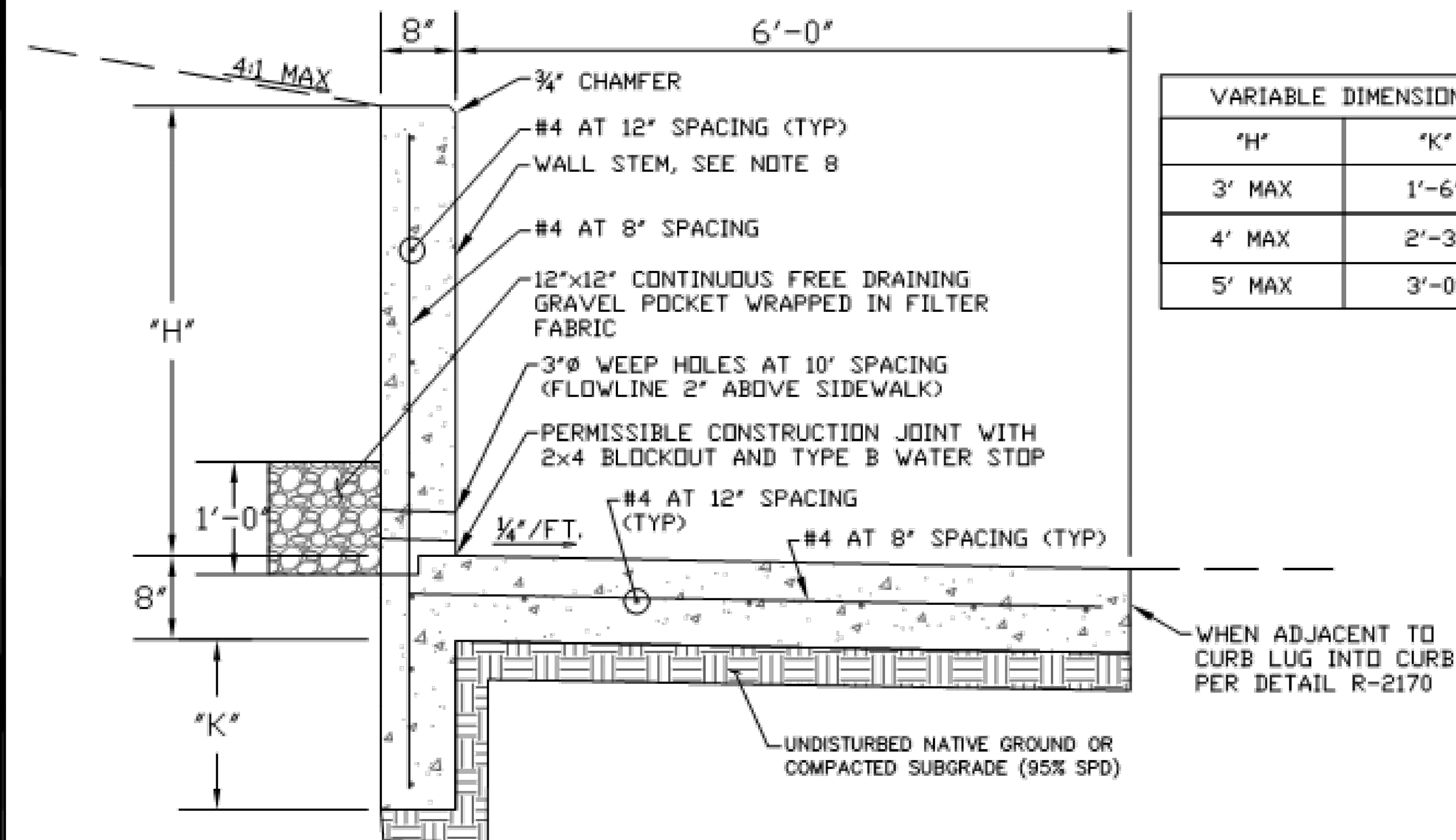
LONGITUDINAL BUTT JOINT

CITY OF ROCKWALL



DATE
OCT. '17

DRAWING NO.
R-2051



RETAINING WALL WITH INTEGRAL SIDEWALK

N.T.S.

NOTES:

1. FOR USE OF THIS STANDARD DETAIL, THE FOLLOWING GEOTECHNICAL SITE CONDITIONS MUST BE MET:
 - MINIMUM ALLOWABLE BEARING PRESSURE: 1,500 PSF
 - MINIMUM COEFFICIENT OF FRICTION: 0.3
 - MAXIMUM ACTIVE PRESSURE COEFFICIENT (K_a): 0.65
2. ALL MATERIALS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
4. ALL REINFORCING STEEL SHALL BE GRADE 60.
5. ALL CLEAR COVER SHALL BE 2" WHERE FORMED AND 3" WHERE CAST AGAINST EARTH.
6. IF ANY SURCHARGE LOAD IS ANTICIPATED AN ENGINEERING DESIGN IS REQUIRED, SEALED BY A REGISTERED ENGINEER IN THE STATE OF TEXAS. THIS INCLUDES DEAD LOAD SURCHARGES AND LIVE LOAD SURCHARGES SUCH AS TRAFFIC LOADS.
7. JOINT LOCATIONS SHALL MATCH ON SIDEWALK AND WALL. JOINT SPACING SHALL BE EVERY 30 FEET FOR CONTROL JOINTS AND EVERY 90 FEET FOR EXPANSION JOINTS. TYPE B WATERSTOP SHALL BE APPLIED ON THE FILL SIDE OF ALL EXPANSION AND CONSTRUCTION JOINTS.
8. WALL FACE SHALL BE FORM LINER OR STONE VENEER WITH RANDOM ROCK ASHLAR PATTERN, NO SMOOTH CONCRETE SURFACE ALLOWED

REINFORCED CONCRETE RETAINING WALL

INTEGRAL WITH SIDEWALK

CITY OF ROCKWALL



DATE
AUG '19

DRAWING NO.
R-2180

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DATE: 04/25/2024

VARIABLE DIMENSIONS	
"H"	"K"
3' MAX	1'-6"
4' MAX	2'-3"
5' MAX	3'-0"

CITY OF ROCKWALL, TEXAS
TURTLE COVE BLVD. (RIDGE RD. TO BRIAR OAK DR.)



CobbFendley
 TBPE Firm Registration No. 274
 TBPLS Firm Registration No. 100467
 2801 Network Boulevard, Suite 800
 Frisco, Texas 75034
 972.335.3214 | fax 972.335.3202 | www.cobbfendley.com

DESIGN BY:
SLM

DRAWN BY:
AM

DATE:
May 2021

JOB NUMBER:
1812-037-01

RECORD DRAWING
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DATE: 04/25/2024

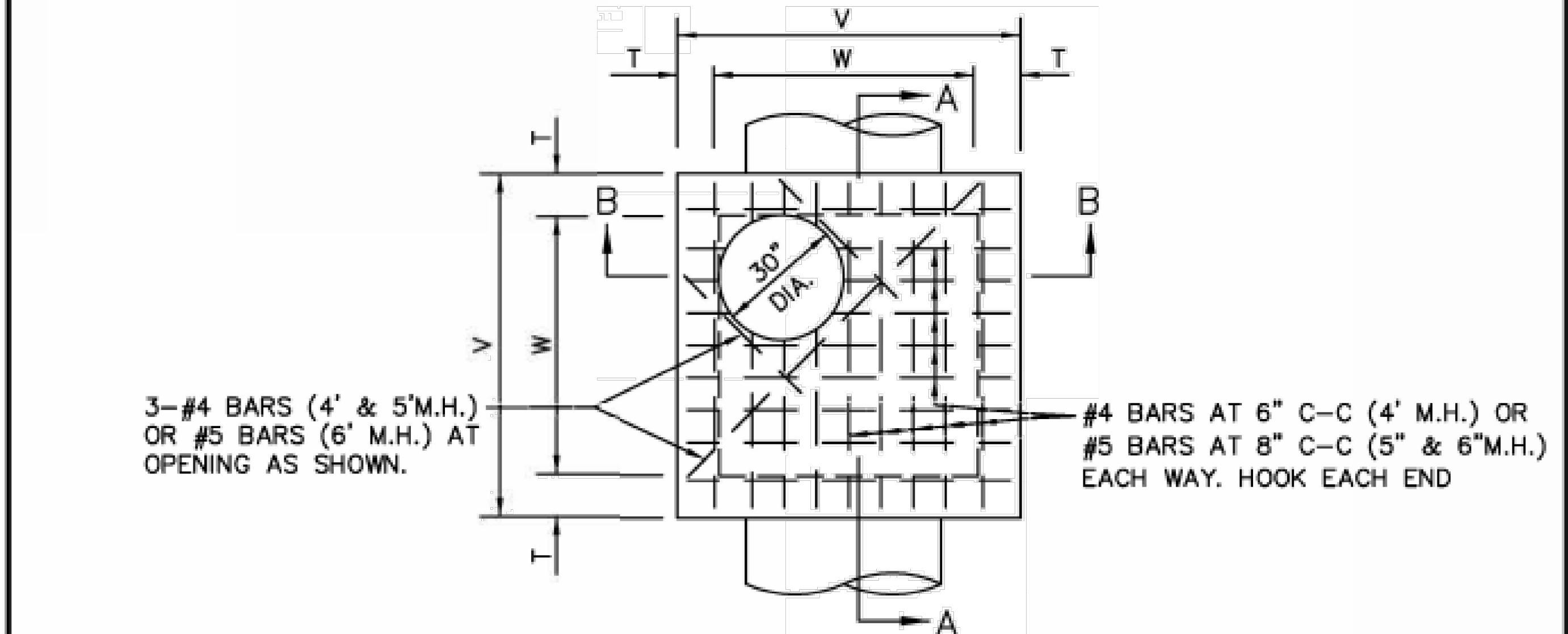
EROSION CONTROL BLANKETS GENERAL NOTES:

1. PRIOR TO THE INSTALLATION OF ANY EROSION CONTROL BLANKETS, ALL ROCKS, DIRT CLODS, STUMPS, ROOTS, TRASH AND ANY OTHER OBSTRUCTIONS THAT WOULD PREVENT THE BLANKET FROM LYING IN DIRECT CONTACT WITH THE SOIL SHALL BE REMOVED. ANCHOR TRENCHING SHALL BE LOCATED ALONG THE ENTIRE PERIMETER OF THE INSTALLATION AREA, EXCEPT FOR SMALL AREAS WITH LESS THAN 2% SLOPE.

2. INSTALLATION AND ANCHORING SHALL CONFORM TO THE RECOMMENDATIONS SHOWN WITHIN THE MANUFACTURER'S PUBLISHED LITERATURE FOR THE APPROVED EROSION CONTROL BLANKET. PARTICULAR ATTENTION MUST BE PAID TO JOINTS AND OVERLAPPING MATERIAL.

3. AFTER APPROPRIATE INSTALLATION, THE BLANKETS SHOULD BE CHECKED FOR UNIFORM CONTACT WITH THE SOIL, SECURITY OF THE LAP JOINTS, AND FLUSHNESS OF THE STAPLES WITH THE GROUND.

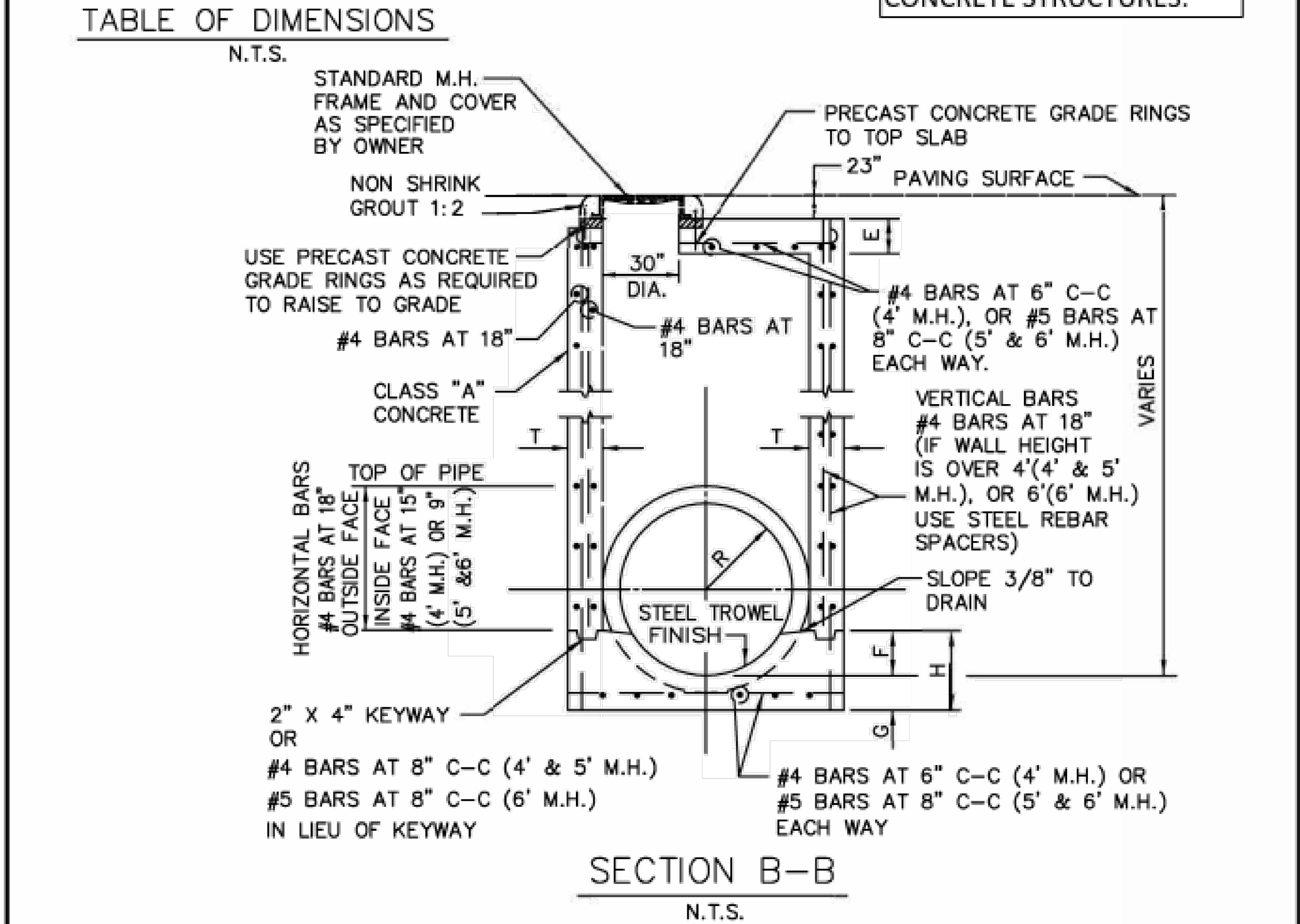
4. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP.



M.H. SIZE(W)	V	T	E	F	G	H
4'	5'-4"	8"	6"	9"	6"	1'-3"
5'	6'-4"	8"	6"	12"	8"	1'-8"
6'	7'-6"	9"	9"	16"	10"	2'-2"

PLAN
N.T.S.

ALL CONCRETE STRUCTURES SHALL BE CLASS F (4200psi, MIN. 7.0 SACK CEMENT). NO FLY ASH IS ALLOWED IN CONCRETE STRUCTURES.



STORM WATER MANHOLE	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE
4', 5', OR 6' SQUARE		502.1.4.1*
		DATE: Mar. 2018
		STANDARD DRAWING NO. R-6010A

EROSION CONTROL BLANKETS	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE
		202.15 *
		DATE: OCT. '04
		STANDARD DRAWING NO. 1160B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

05/24/2024

REVISIONS

NO.

DATE

COMMENT

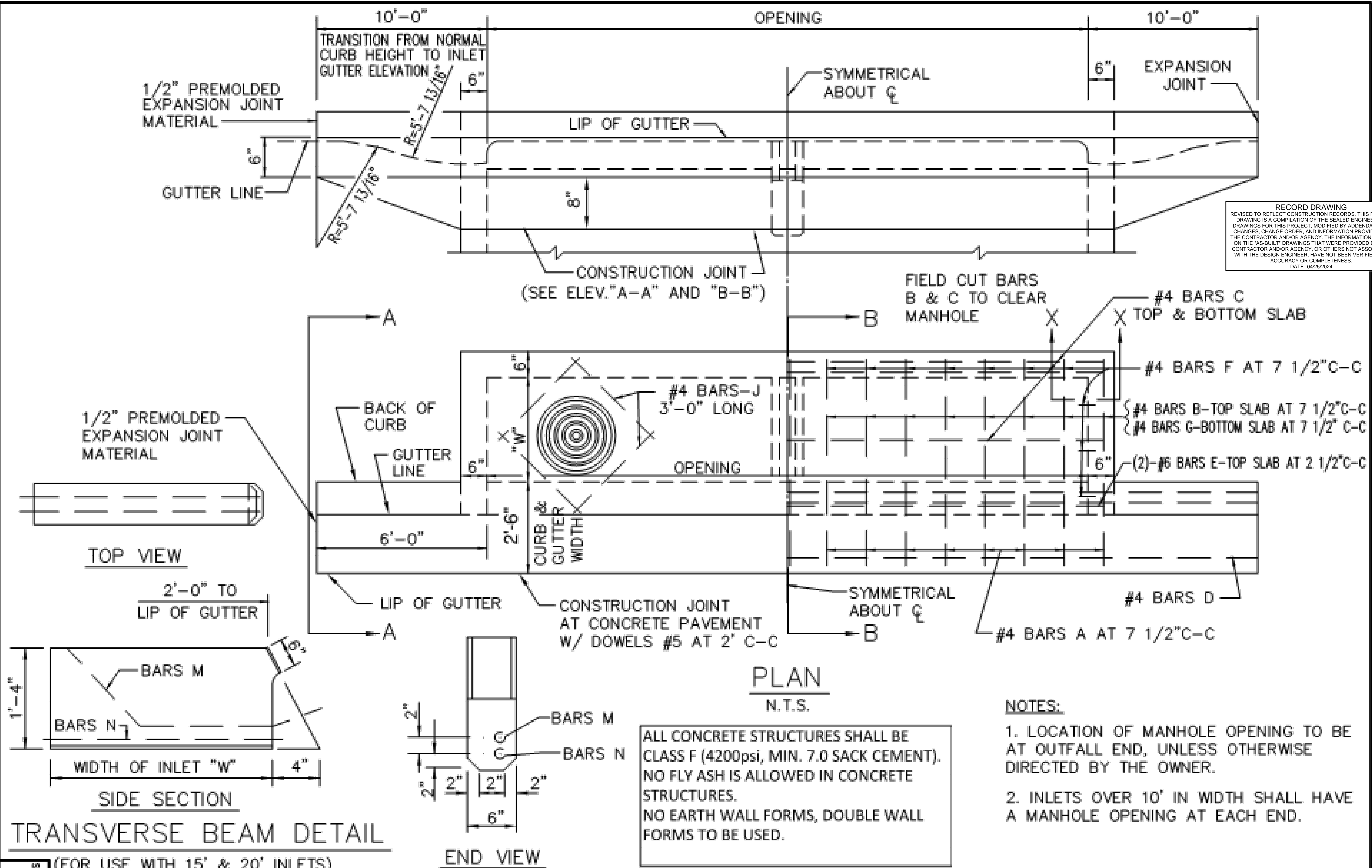
CITY OF ROCKWALL, TEXAS
TURTLE COVE BLVD. (RIDGE RD. TO BRIAR OAK DR.)

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DESIGN BY: SLM
DATE: May 2021
SHEET

DRAWN BY: AM
JOB NUMBER: 1812-037-01

37
OF 50



STANDARD DRAWING NO. R-6020A	CURB INLET		CITY OF ROCKWALL		STANDARD SPECIFICATION REFERENCE 702	
	5', 10', 15' OR 20' OPENING				DATE AUG. 2019	STANDARD DRAWING NO. R-6020A
					SHEET 39	OF 50

DESIGN BY:
SLM
DATE:
May 2021
SHEET

DRAWN BY:
AM
JOB NUMBER:
1812-037-01

05/24/2024

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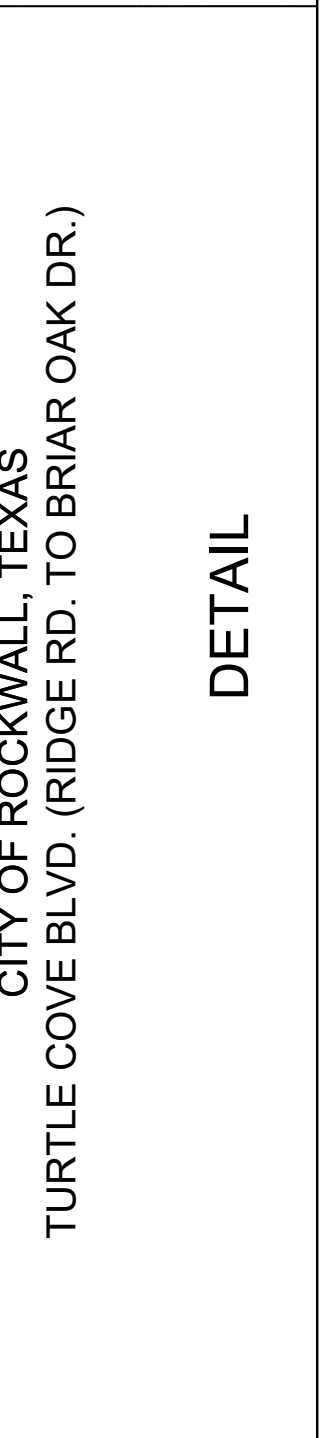
DATE

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CITY OF ROCKWALL, TEXAS
TURTLE COVE BLVD. (RIDGE RD. TO BRIAR OAK DR.)

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DETAIL

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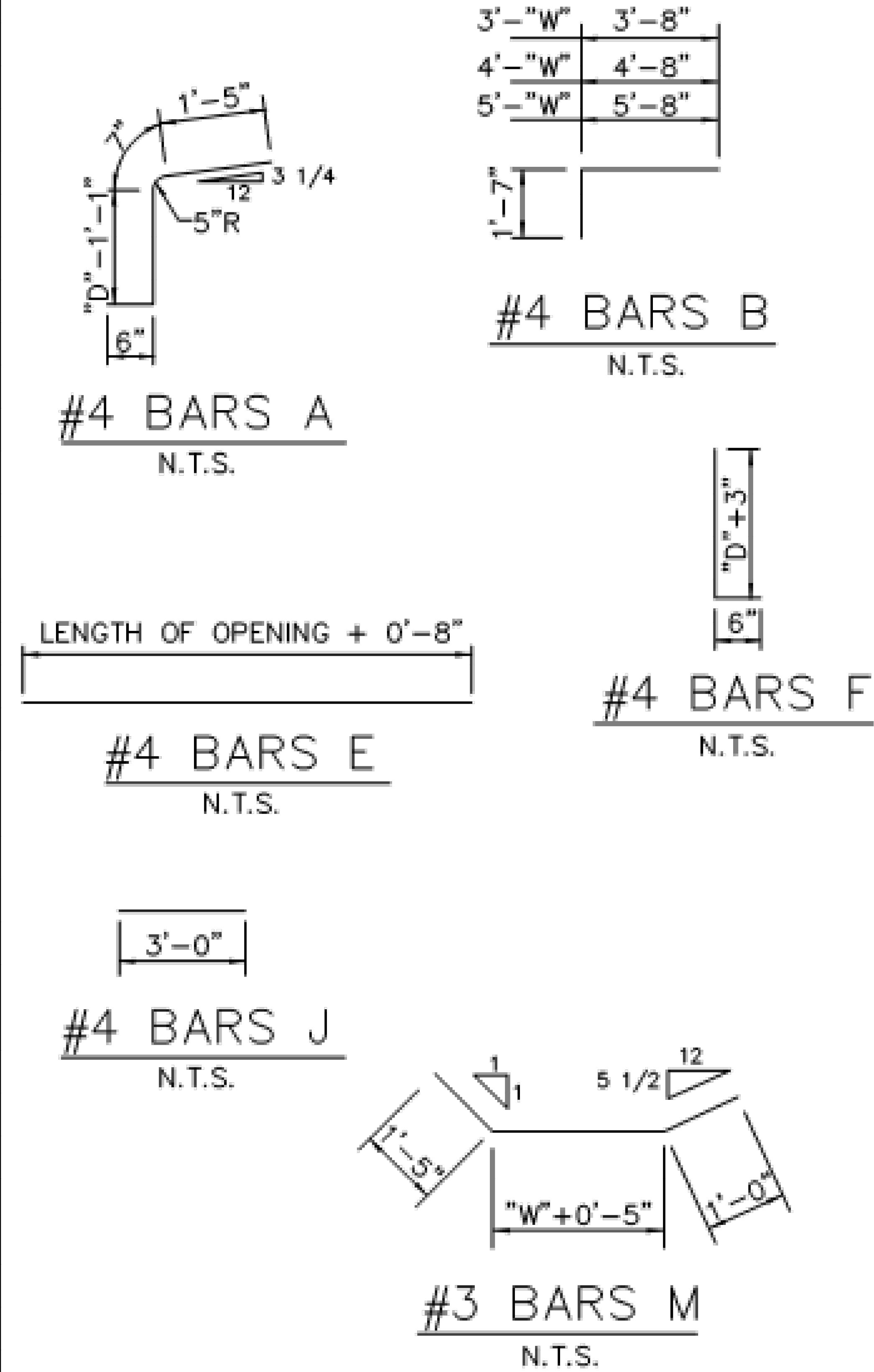
- CobbFendley**
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DESIGN BY: FLM	DRAWN BY: AM
DATE: May 2021	JOB NUMBER: 1812-037-01
SHEET 40 OF 50	

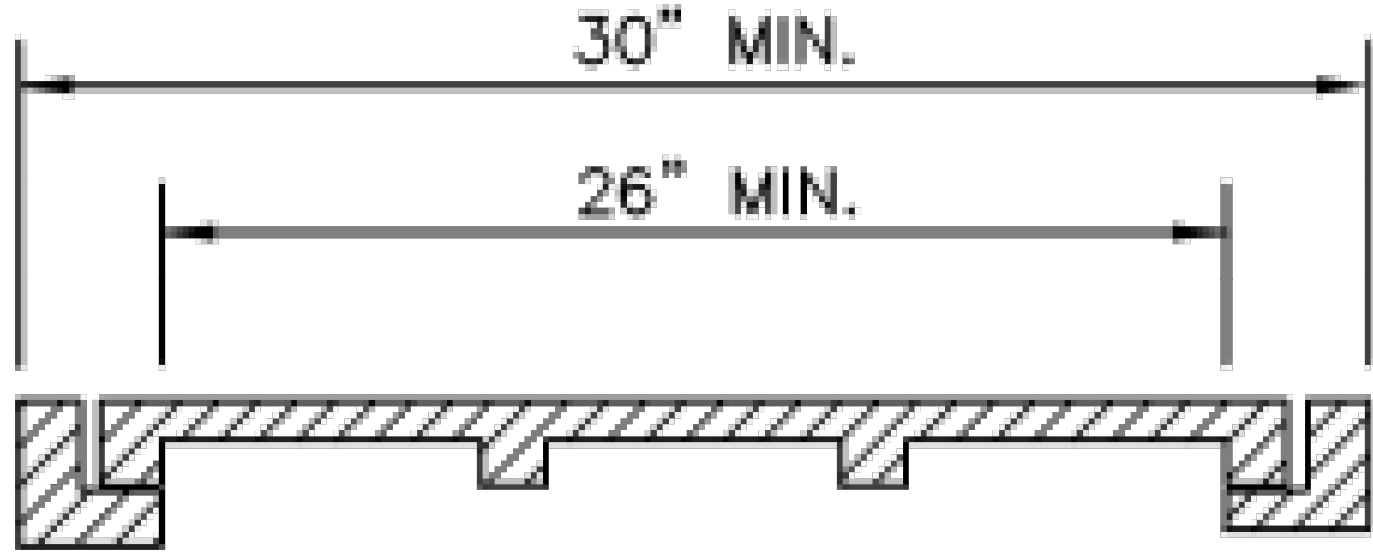
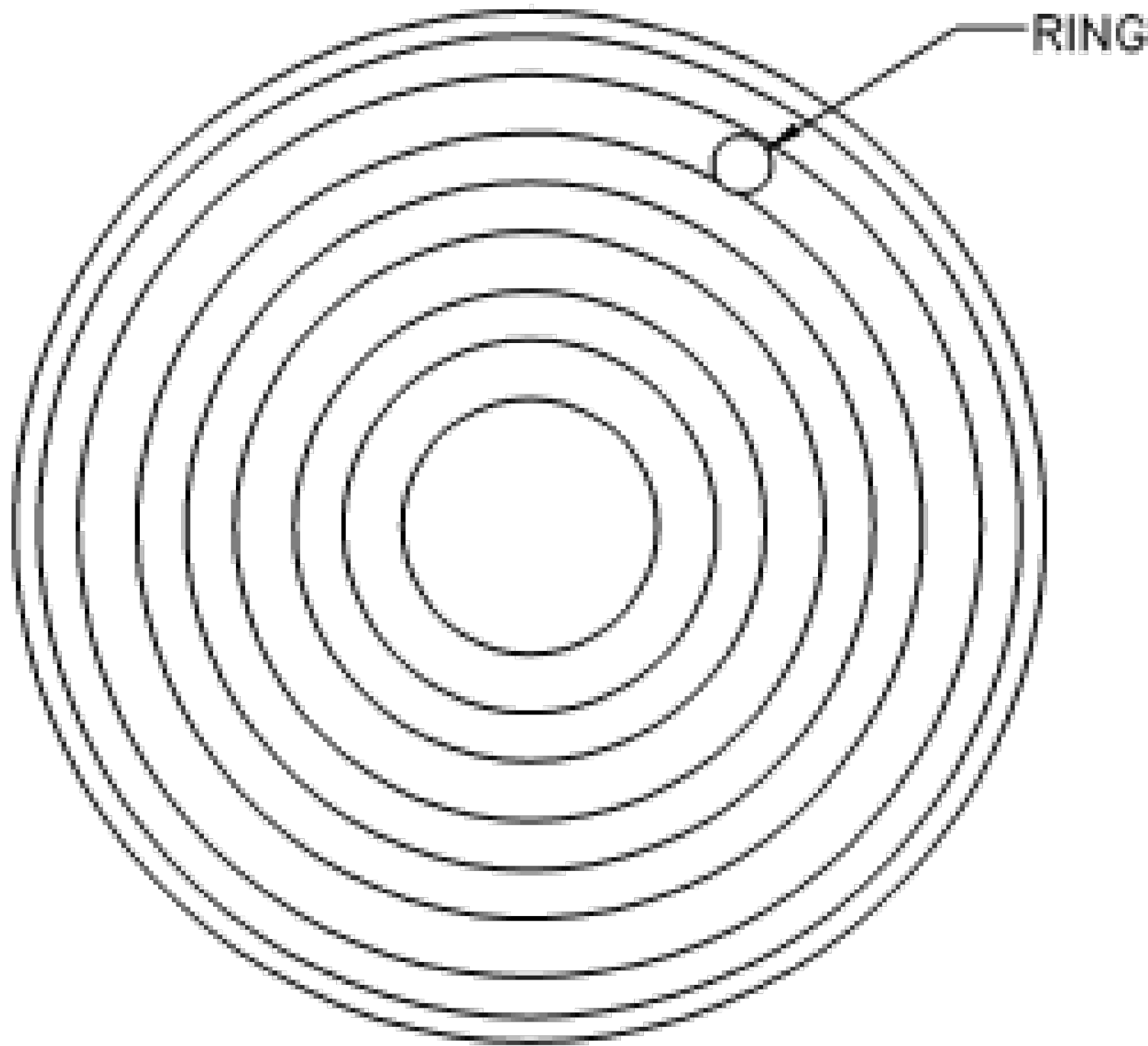
CITY OF ROCKWALL

STANDARD SPECIFICATION REFERENCE	
702	
DATE	STANDARD DRAWING NO.
AUG. 2019	R-6020B

STANDARD DRAWING NO.
6020C



ALL CONCRETE STRUCTURES
SHALL BE CLASS F (4200psi,
MIN. 7.0 SACK CEMENT).
NO FLY ASH IS ALLOWED IN
CONCRETE STRUCTURES.
INLET LID TO BE LOCKING.



CAST IRON
FRAME AND COVER
N.T.S

RECORD DRAWING
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ACCURACY OR COMPLETENESS.
DATE: 04/25/2024

NO.	DATE	COMMENT

REVISIONS

05/24/2024
CITY OF ROCKWALL, TEXAS
TURTLE COVE BLVD. (RIDGE RD. TO BRIAR OAK DR.)
DETAIL

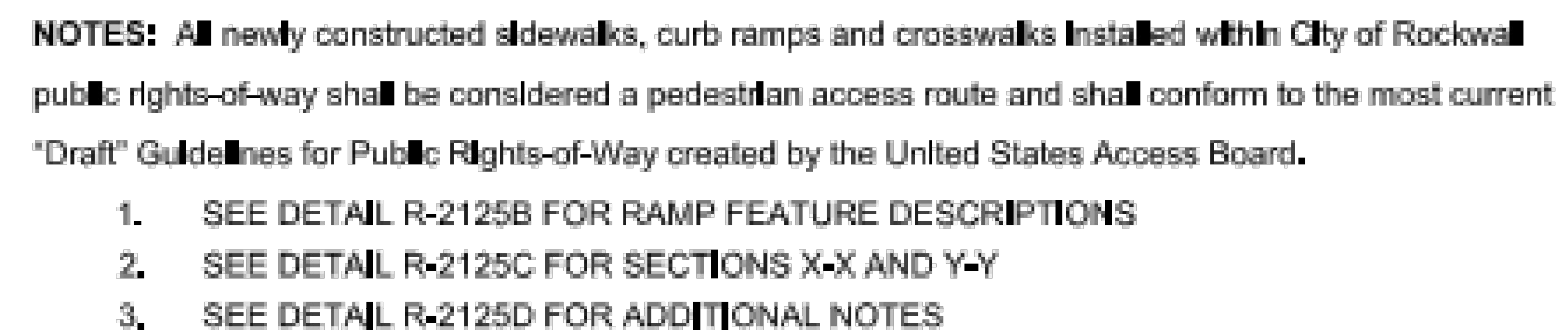
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DATE: May 2021
SHEET

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JOB NUMBER: 1812-037-01

41
OF 50

The following is a typical detail for a directional curb ramp on a standard residential street and does not fit all scenarios in the City of Rockwall. It shall be the responsibility of the design consultant and contractor to ensure that all ramps constructed meet current ADA requirements.



Page 269

A Detectable Warning Devices (DWD) shall be pre-manufactured cast-in-place truncated dome plates installed to the manufacturer's specifications, and shall meet all ADA requirements. No Brick Pavers allowed. Color to be approved by the City. DWD shall be 24 inches in length for the full width of the street connection starting at the back of curb. A maximum 2-inch border shall be allowed on the sides of the DWD for proper installation.

B Also known as "Clear Space" per ADA PROWAG, the City requires a minimum landing space of 5-foot by 5-foot at the bottom of every ramp. This landing space shall have a cross slope in both directions that does not exceed 2.0% and shall be wholly outside the parallel vehicular travel path.

C The ramp component of the directional curb ramp shall have a continuous longitudinal slope more than 5% and less than 8.3%. The ramp shall also have a cross slope of no more than 2.0%. Length of ramp can vary, but shall not exceed 15 feet to achieve desired elevation change.

D Also known as "Turning Space" per ADA PROWAG, a minimum landing space of 5-foot by 5-foot shall be at the top of every ramp. This landing (turning) space shall have a cross slope in both directions that does not exceed 2.0%. Landing must match width of sidewalk and length shall be the same distance ("Squared" Landing).

E All curb ramps shall have grade breaks at the top and bottom that are perpendicular to the direction of the ramp run. Where the ends of the bottom grade break are less than or equal to 5 feet, the DWD shall be placed within the ramp at the bottom grade break. Where either end of the bottom grade break is greater than 5 feet, the DWD shall be placed behind the back of the curb.

F Paving contractor shall leave block out with a keyway joint installed, minimum of 18 inches measured from back of curb. Block out shall be poured monolithically with Curb Ramp. Concrete shall tie to street paving with a keyway joint per NCTCOG detail 2050. No curb shall be constructed where a DWD is provided. The curb on either side shall have a typical 5 foot taper to transition from the standard 6-inch curb height to be flush with ramp.

G All work associated with accessible routes shall be installed flush with all features to minimize vertical surface discontinuities. Each segment along accessible route shall be flush with no more (zero tolerance) than a $\frac{1}{4}$ -inch grade separation (elevation difference), or $\frac{1}{2}$ -inch grade separation if beveled (bevel slope shall not be steeper than 50%).

H A sidewalk header shall be constructed at ends of all work performed.

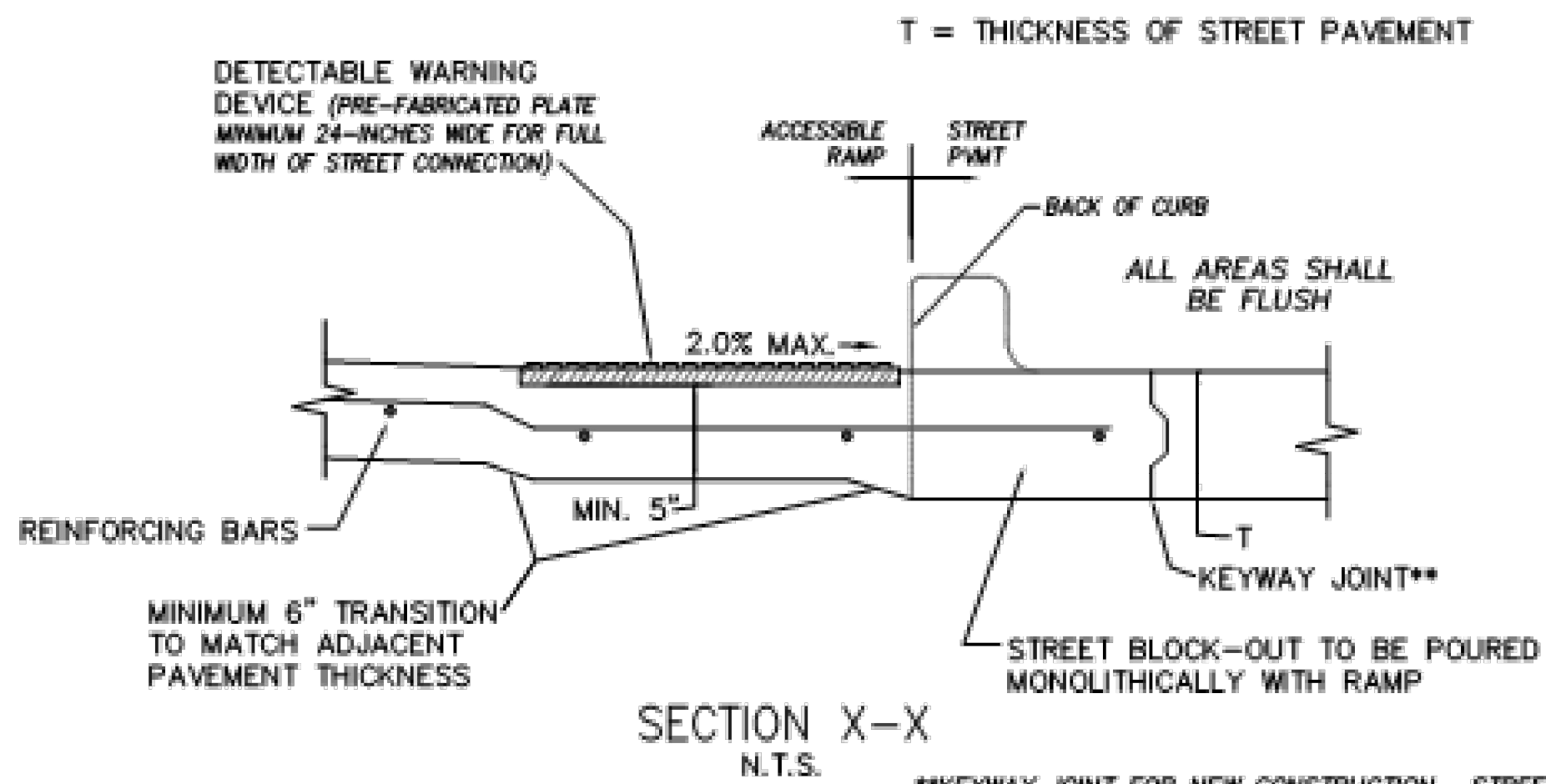
I Street crossings shall adhere to same guidelines as other accessible routes within public right-of-way, and shall be for the full width of the in-line accessible route. Cross slope shall not exceed 2%*. New street construction shall incorporate all ADA design requirements. It shall be the responsibility of the Design Professional and Contractor to ensure all street crossings meet the requirements of PROWAG. Street alterations on existing streets to bring to compliance shall be at the City Engineer's discretion.

J All curbs constructed as part of an ADA Ramp shall match City curb standards.

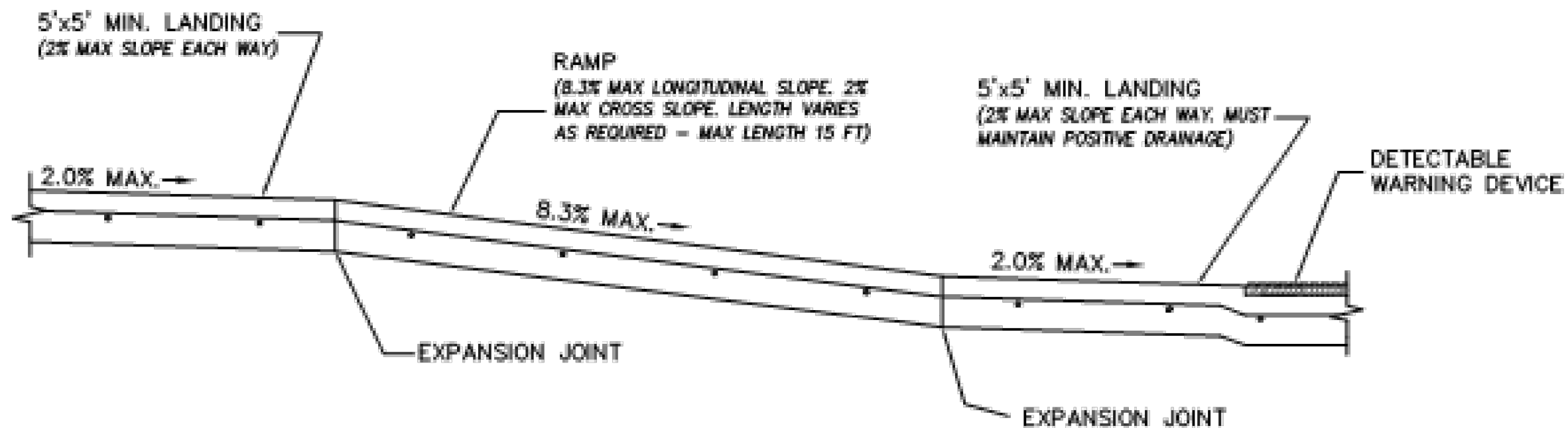
* See PROWAG special design considerations when street crossing has no stop or yield condition.

Page 270

D:\proj\15\150000\150000.dwg, C:\Users\jgallagher\AppData\Local\Temp\150000.dwg, Plot: 5/24/2021



**KEYWAY JOINT FOR NEW CONSTRUCTION. STREET CONNECTION SHALL BE LONGITUDINAL BUTT JOINT FOR CONNECTIONS TO EXISTING ROADWAYS.



NOTE: ALL SIDEWALK CURB RAMPS WILL BE 3,600 PSI (6.5 SACK/CY) CONCRETE.

RECORD DRAWING
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DATE: 04/25/2024

DIRECTIONAL CURB RAMP

CITY OF ROCKWALL



DATE
MAR. '17

DRAWING NO.
R-2125C

PEDESTRIAN ACCESSIBILITY (WITHIN PUBLIC R.O.W.)

All newly constructed sidewalks, curb ramps and crosswalks installed within City of Rockwall public rights-of-way shall be considered a pedestrian access route and shall conform to the most current Guidelines for Public Rights-of-Way created by the United States Access Board.

CURB RAMPS

1. 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.
2. Landings shall be 5'x 5' minimum with a maximum 2% slope in the transverse and longitudinal directions..
3. Clear space at the bottom of curb ramps shall be a minimum of 5'x 5' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
4. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
5. Additional information on curb ramp location, design, light reflective value and texture may be found in the most current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102. Federal guidelines shall supersede any conflicts.
6. 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 and accessible routes shall align with theoretical crosswalks unless otherwise directed.
7. Handrails are not required on curb ramps.
8. Provide a flush transition where the curb ramps connect to the street.
9. Accessible routes are considered "ramps" when longitudinal slopes are between 5% and 8.3% (maximum allowable). Sidewalks under 5% longitudinal slope are deemed accessible routes and must follow all applicable guidelines.

DETECTABLE WARNING DEVICE

10. 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. Furnish and install an approved cast-in-place dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
11. Detectable Warning Materials shall be truncated dome plates in the color approved by the City. Install products in accordance with manufacturer's specifications.
12. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
13. 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.
14. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. When placed on the ramp, align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Where detectable warning surfaces are provided on a surface with a slope that is less than 5 percent, dome orientation is less critical. Detectable warning surfaces may be curved along the corner radius.

SIDEWALKS

15. 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.
16. 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.
17. Street grades and cross slopes shall be as shown elsewhere in the plans.
18. Changes in level greater than 1/4 inch are not permitted (1/2 inch with bevel).
19. 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.
20. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.

DIRECTIONAL CURB RAMP

CITY OF ROCKWALL



DATE
MAR. '17

DRAWING NO.
R-2125D

NO.	DATE	COMMENT

CITY OF ROCKWALL, TEXAS
TURTLE COVE BLVD. (RIDGE RD. TO BRIAR OAK DR.)

DETAIL



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TASPE Firm Registration No. 100467
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Frisco, Texas 75034
972.335.3214 | fax 972.335.3202 | www.cobbhendley.com

DESIGN BY:
SLM

DRAWN BY:
AM

DATE:
May 2021

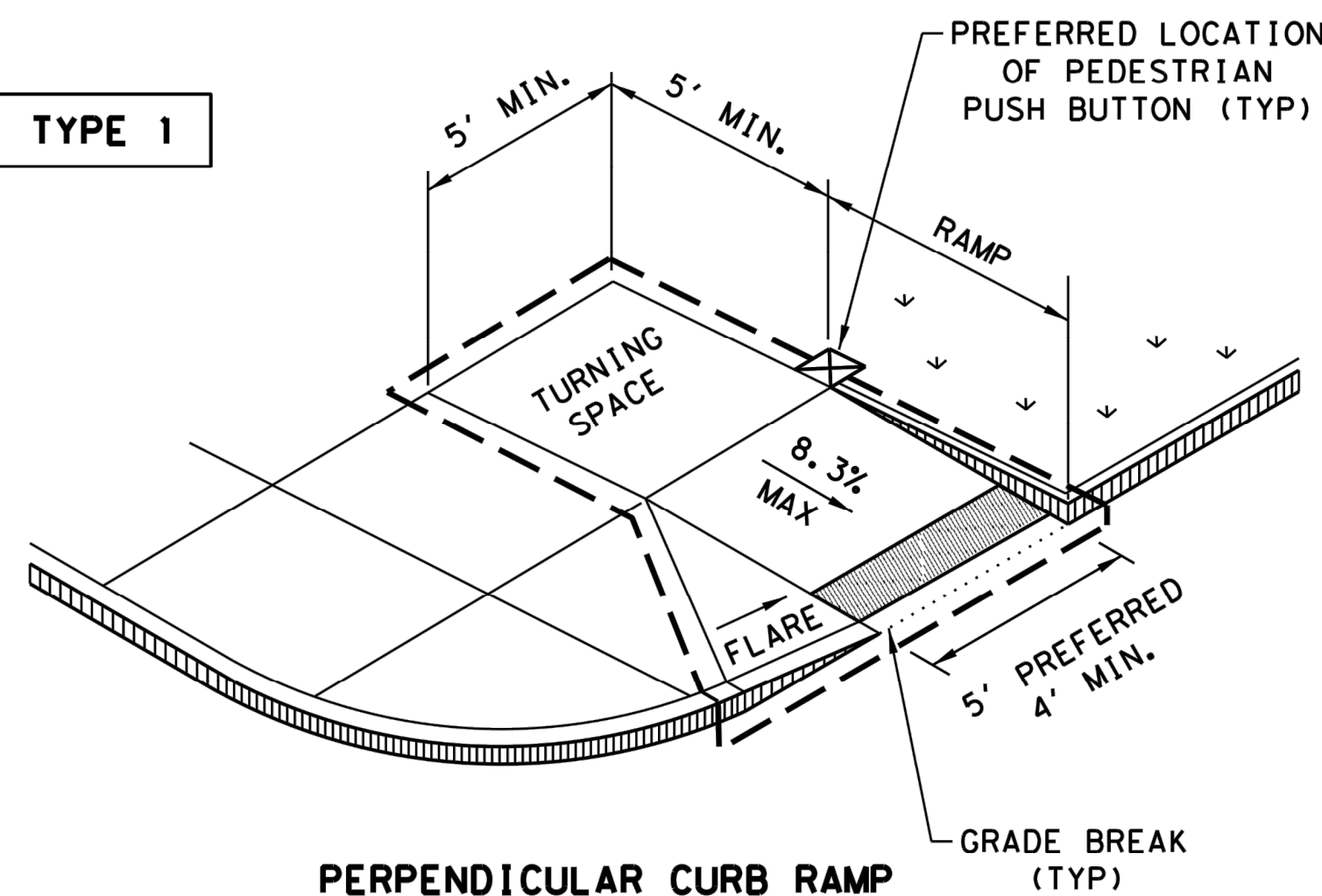
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SHEET

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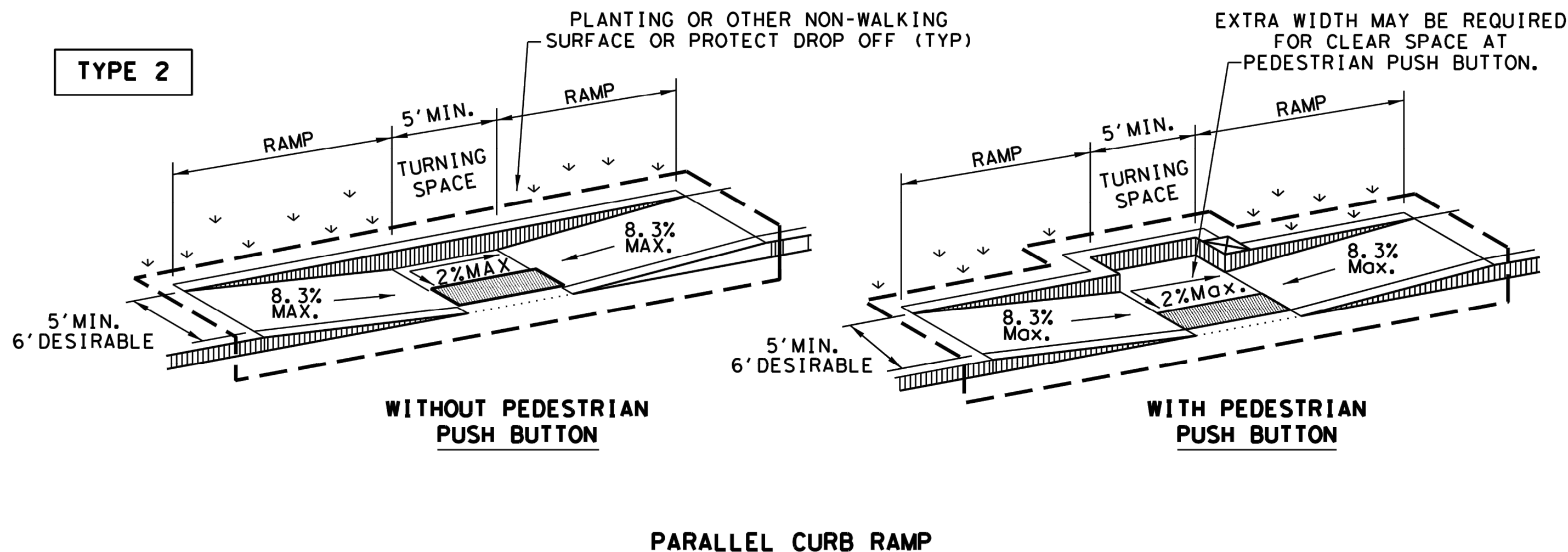
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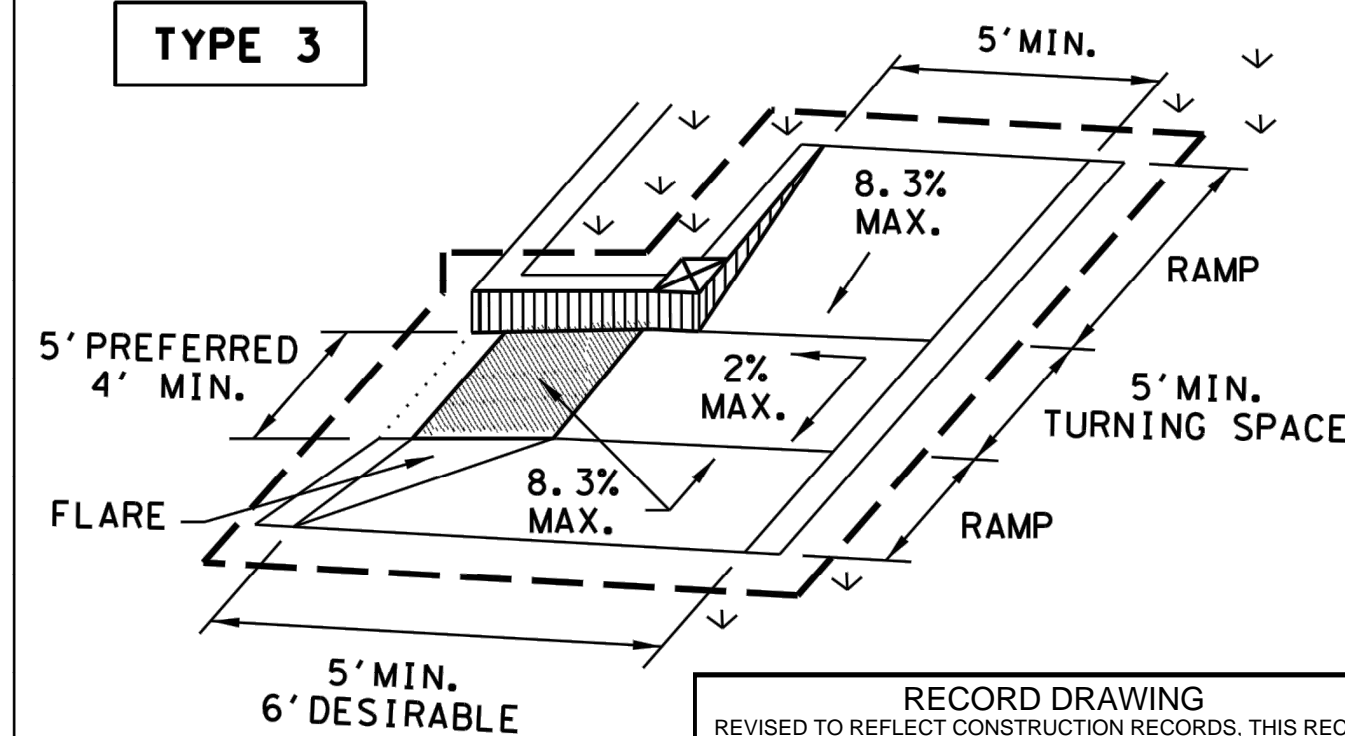
PERPENDICULAR CURB RAMP

TYPE 2



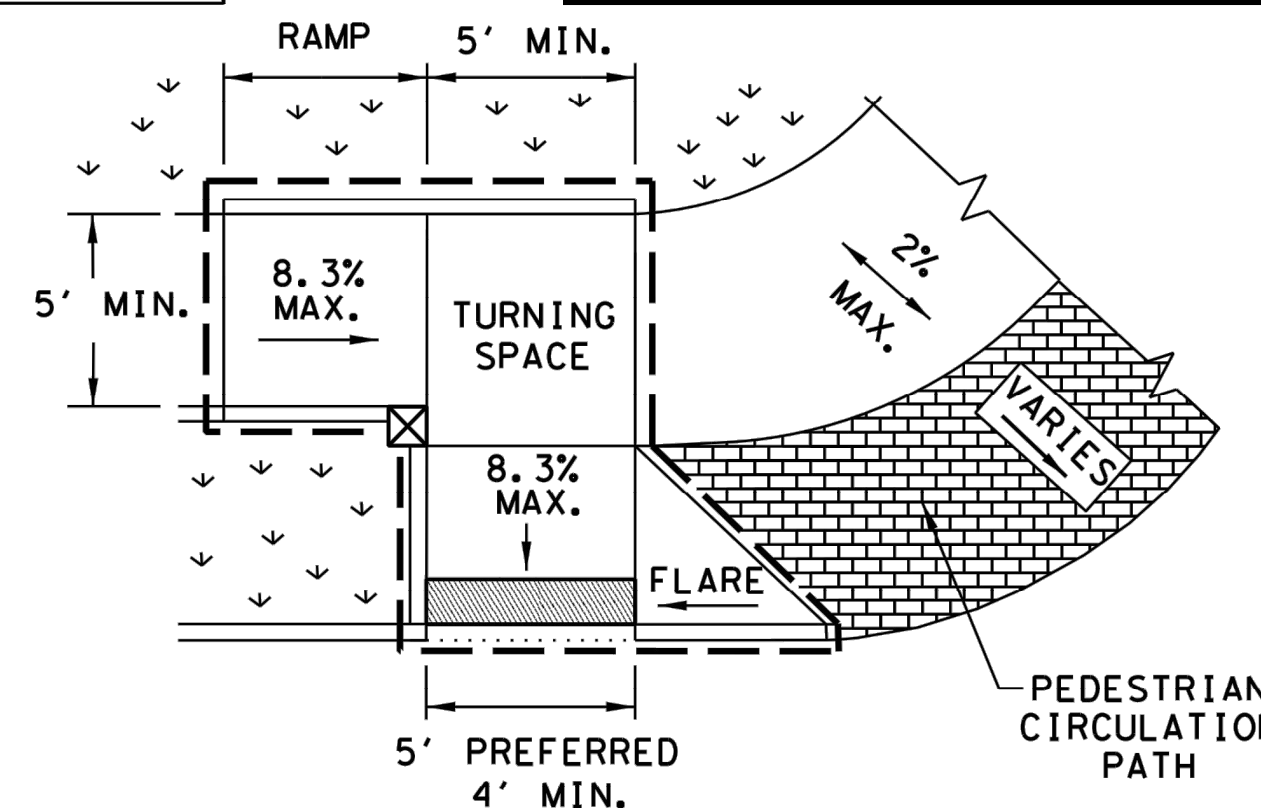
PARALLEL CURB RAMP

TYPE 3



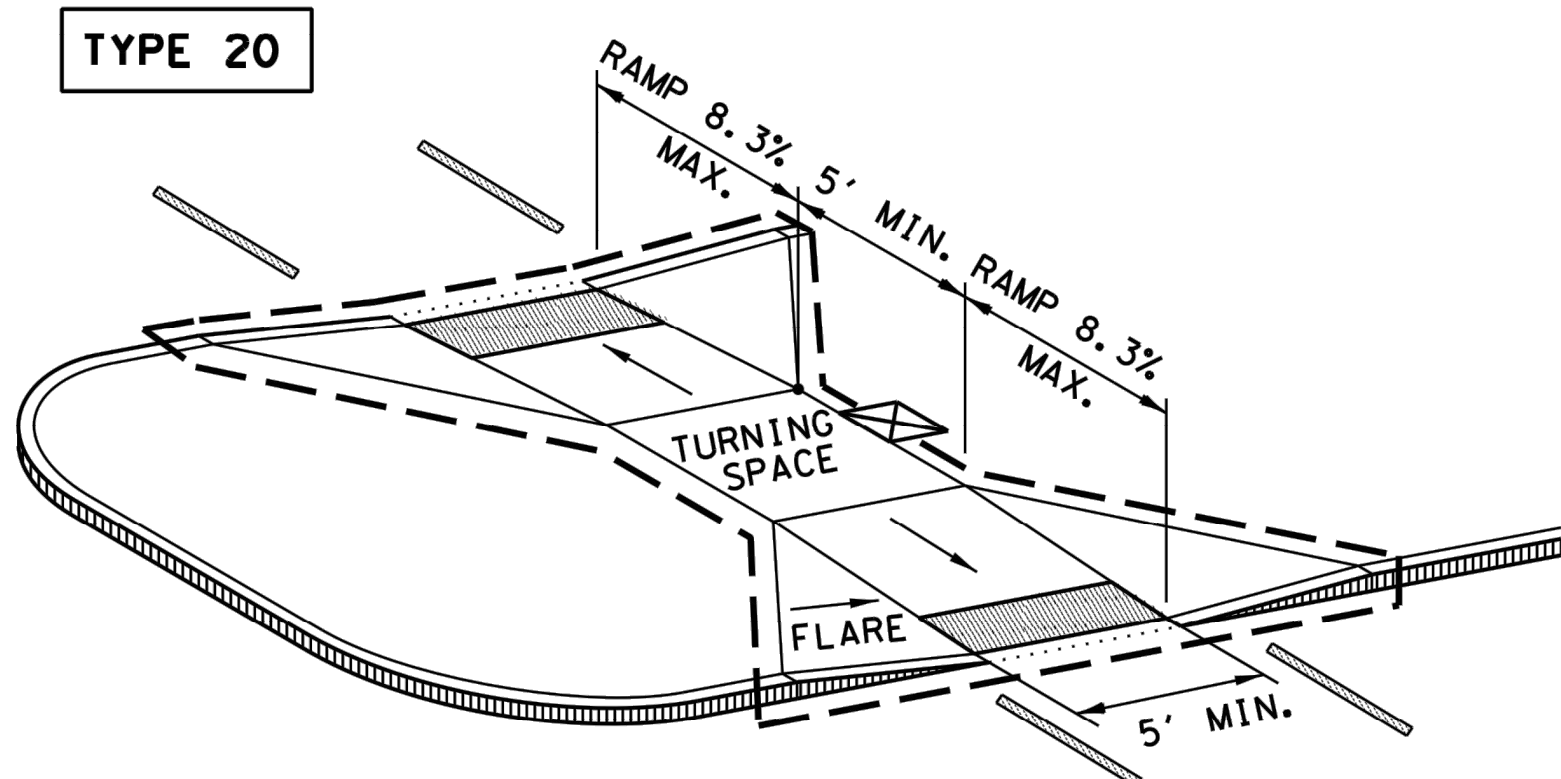
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DATE: 04/25/2024

TYPE 6



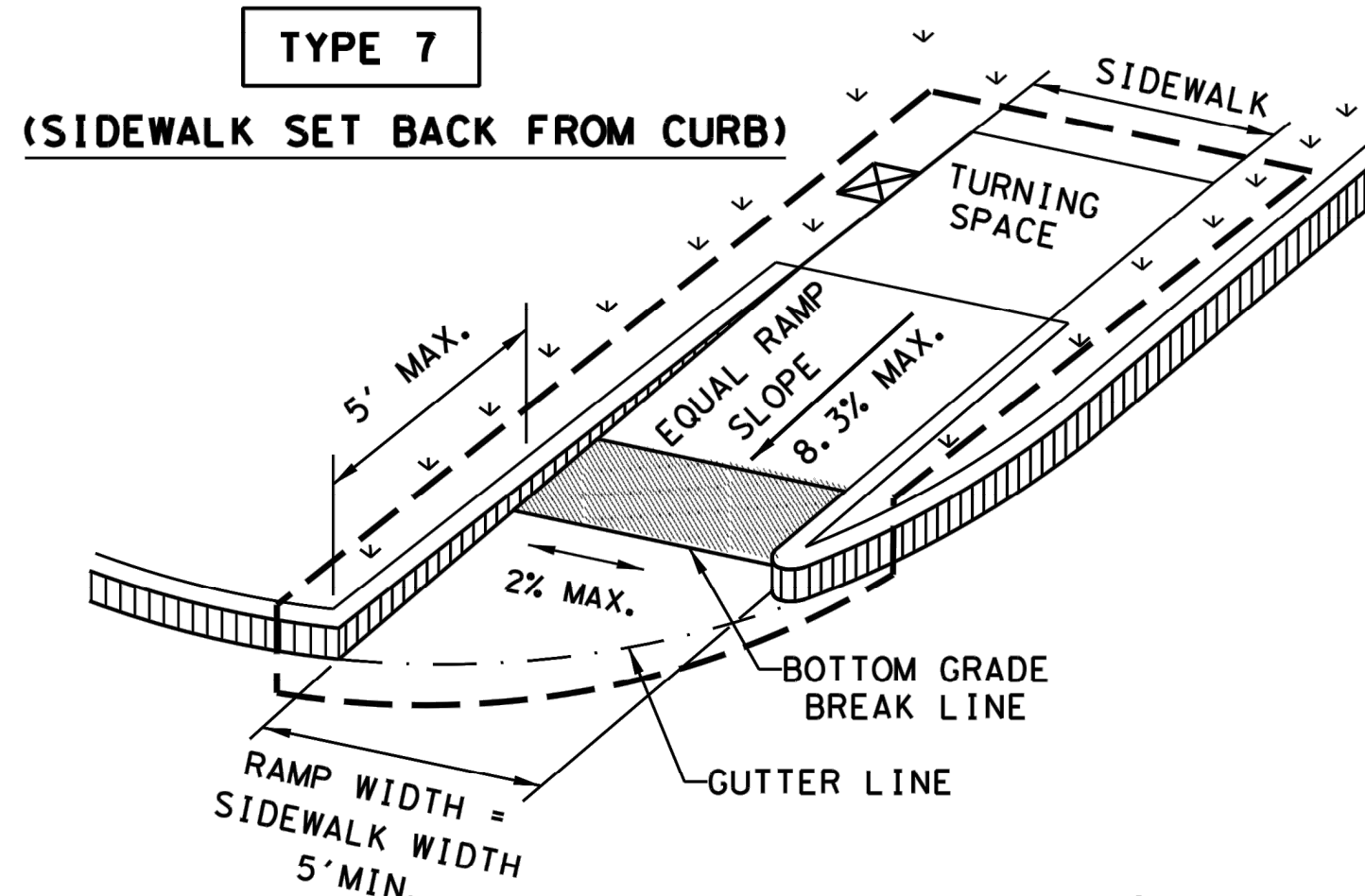
COMBINATION CURB RAMPS

TYPE 20

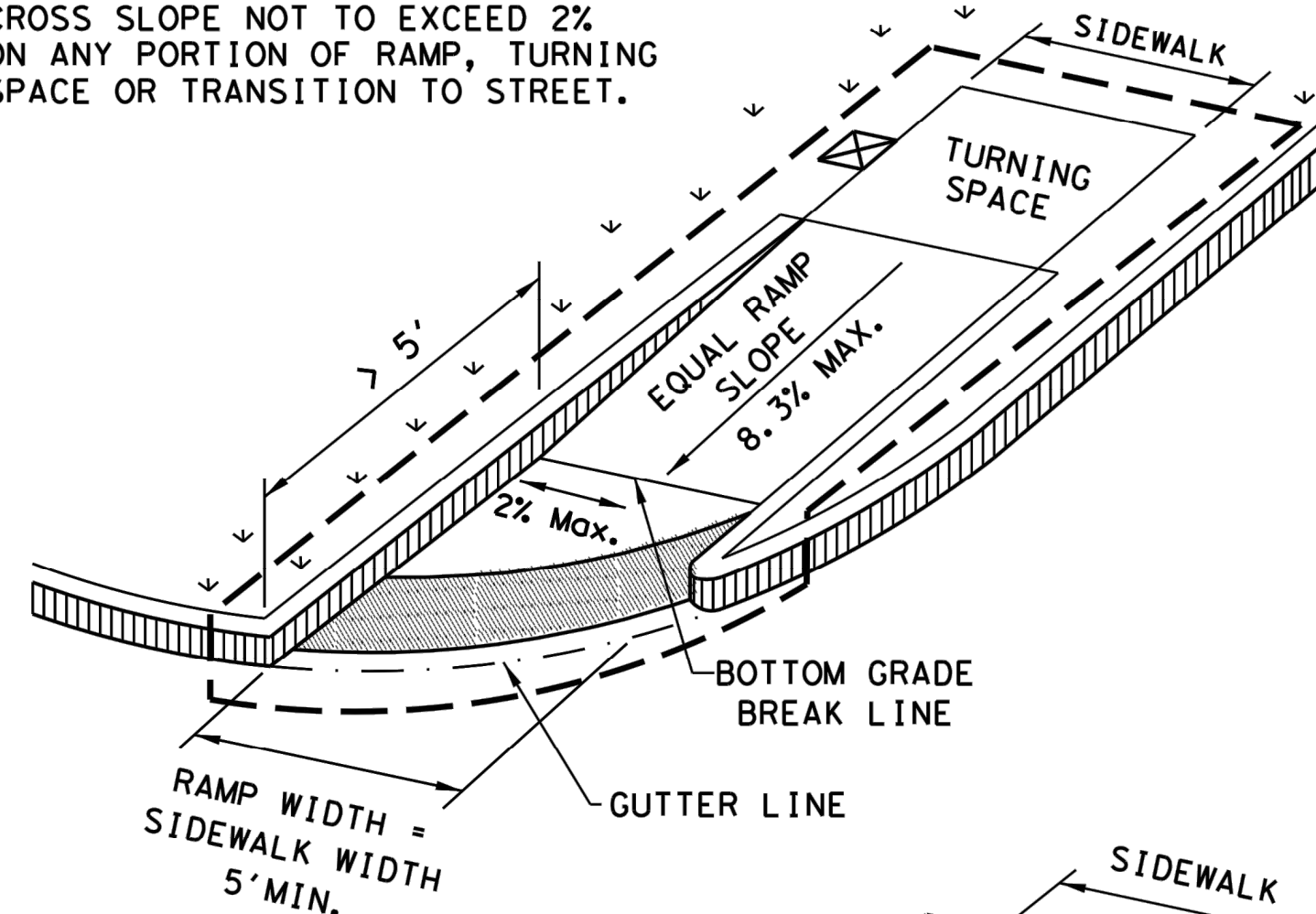


CURB RAMPS AT MEDIAN ISLANDS

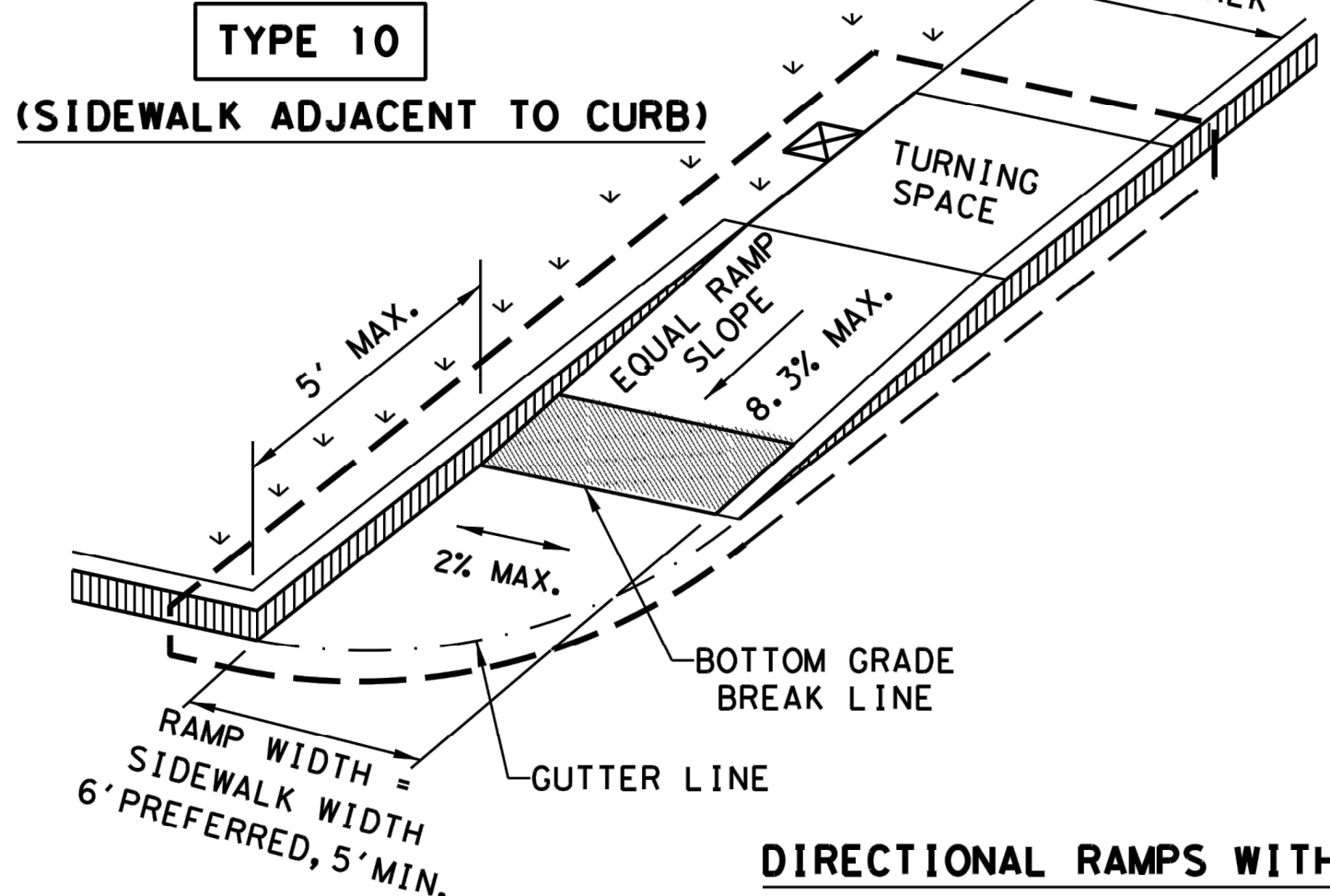
TYPE 7



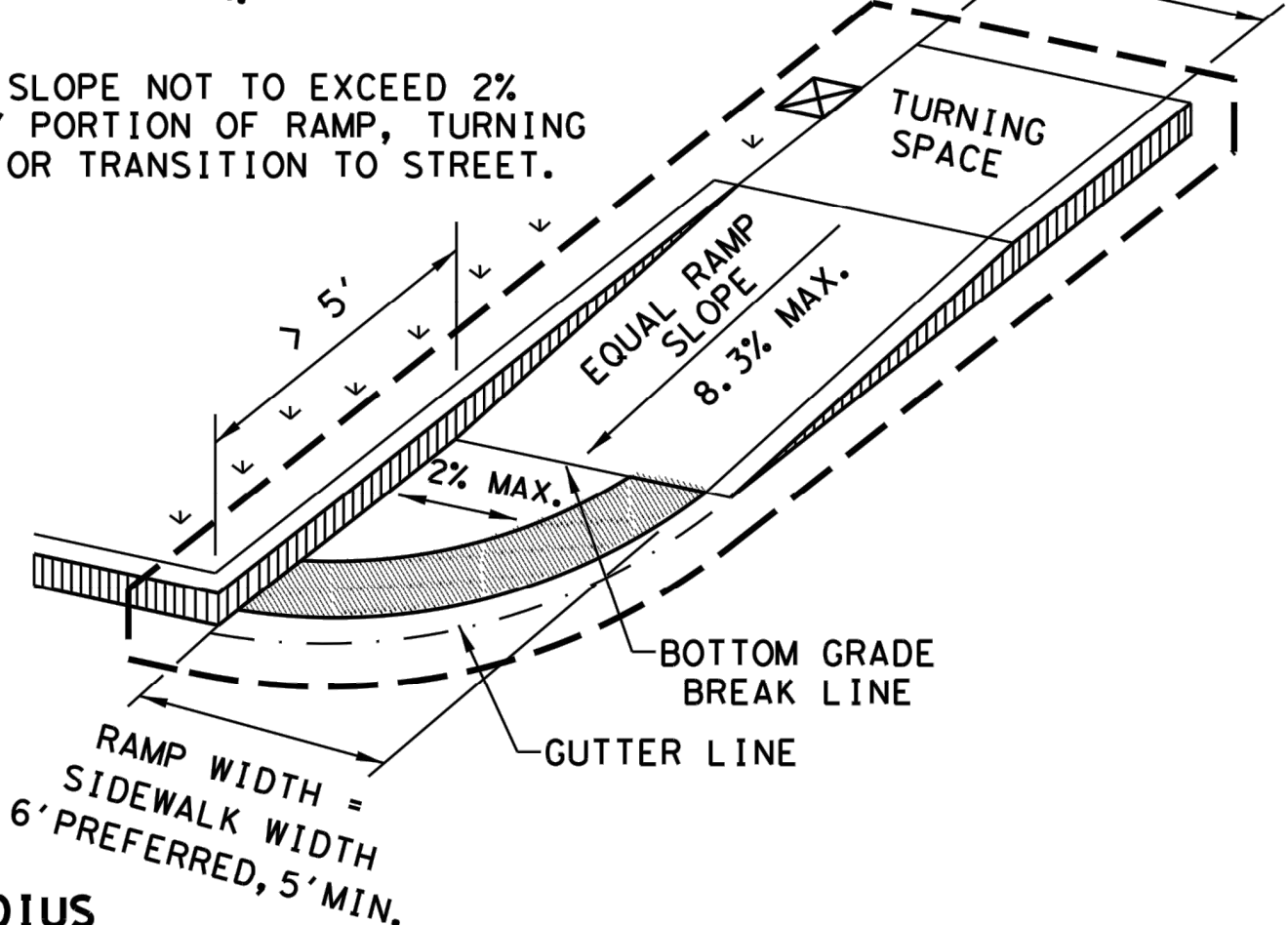
CROSS SLOPE NOT TO EXCEED 2% ON ANY PORTION OF RAMP, TURNING SPACE OR TRANSITION TO STREET.



TYPE 10

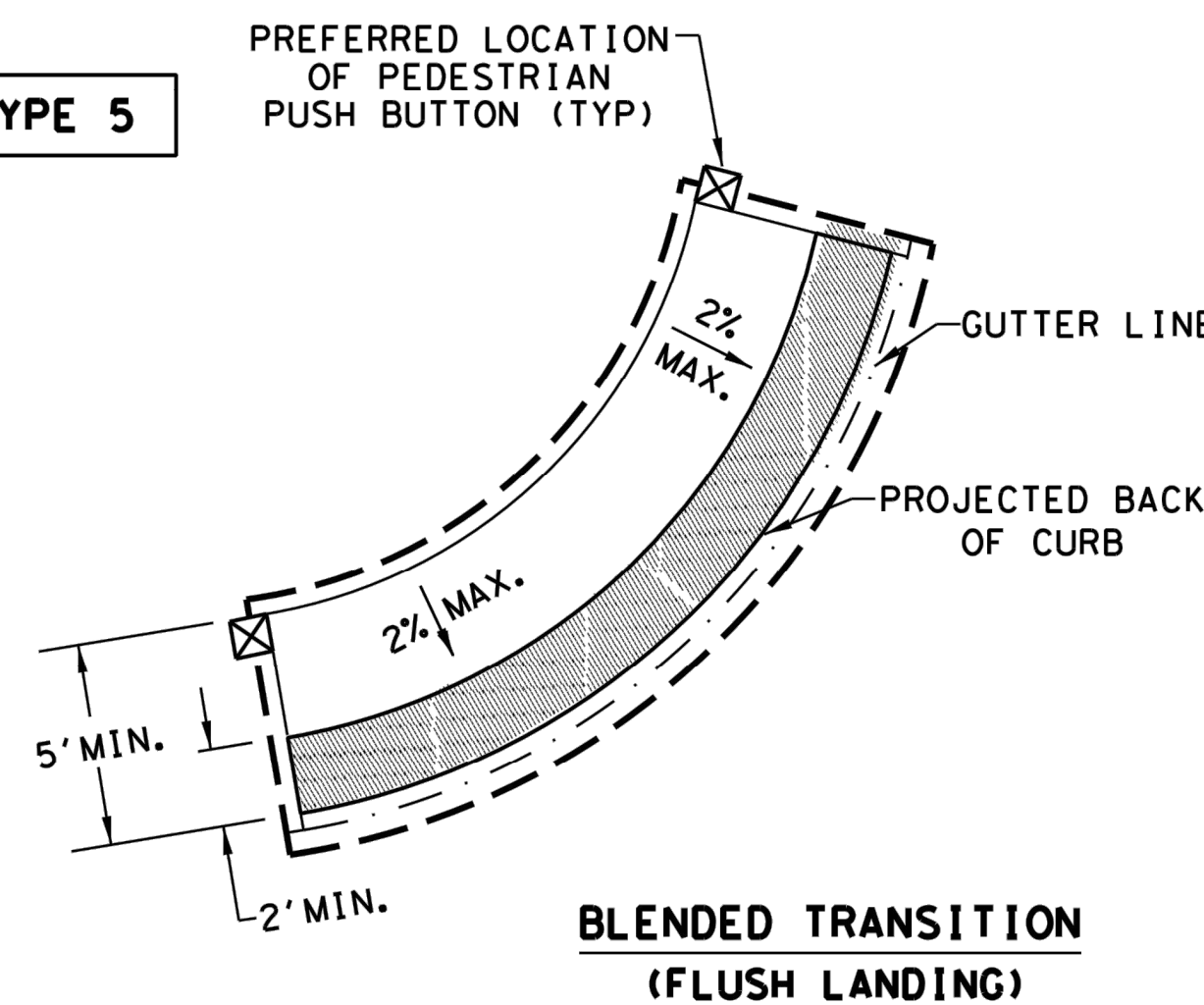


CROSS SLOPE NOT TO EXCEED 2% ON ANY PORTION OF RAMP, TURNING SPACE OR TRANSITION TO STREET.



DIRECTIONAL RAMPS WITHIN RADIUS

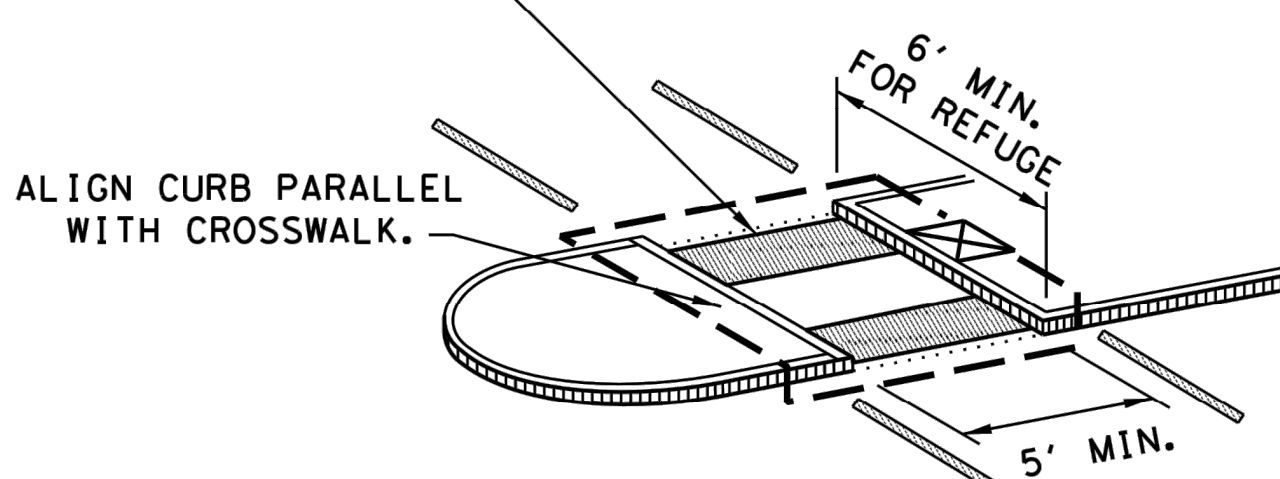
TYPE 5



BLENDED TRANSITION (FLUSH LANDING)

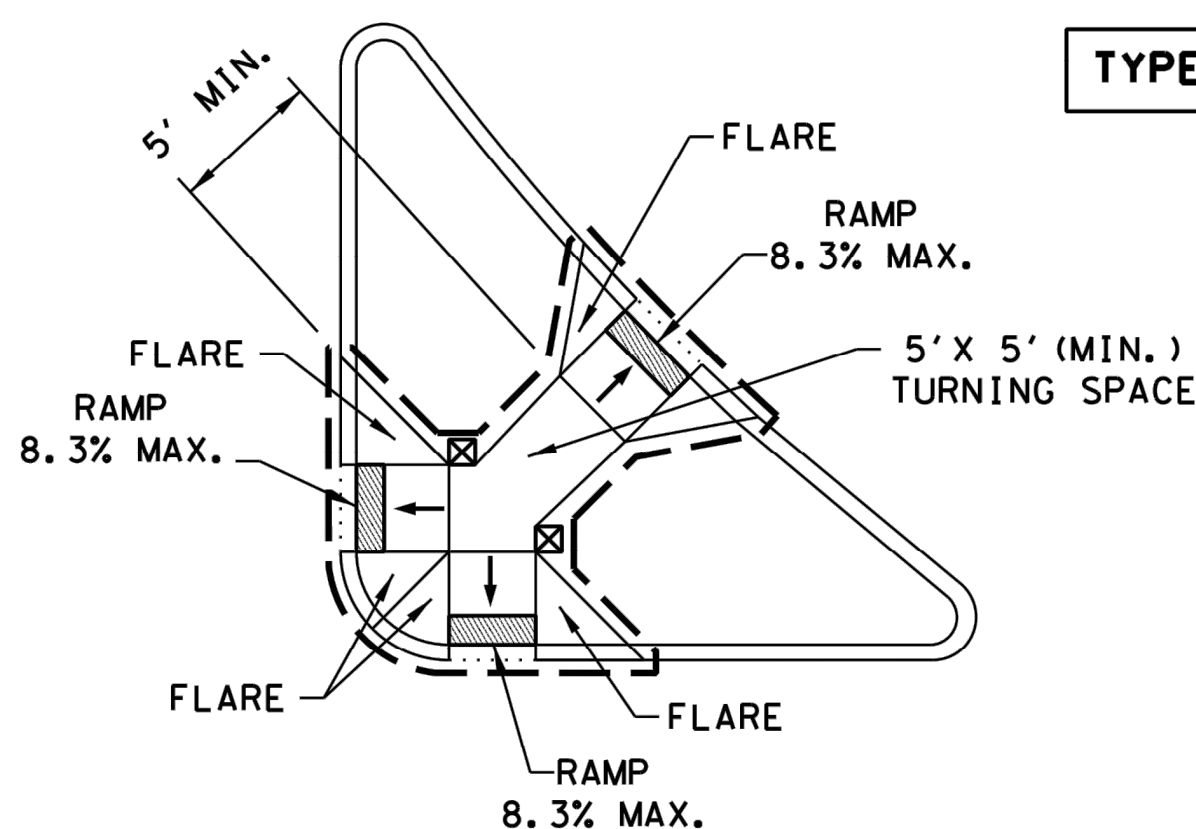
INSTALL DETECTABLE WARNING SURFACE AT EACH END OF THE CUT-THROUGH RAMP WITH A MINIMUM 2' USUAL SIDEWALK SURFACE BETWEEN. IF MEDIAN IS LESS THAN 6' WIDE, ELIMINATE DETECTABLE WARNING SURFACES.

TYPE 21



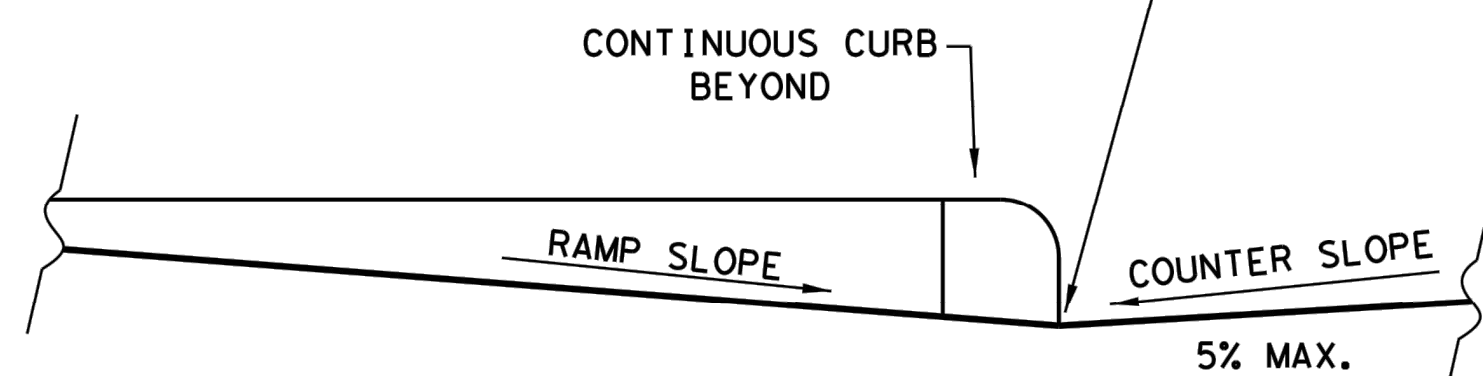
NOTE: CURB DETAILS ARE SHOWN ELSEWHERE IN THE PLANS.

TYPE 22



COMBINATION ISLAND RAMPS

BOTTOM GRADE BREAK OF CURB RAMP WILL NORMALLY BE AT GUTTER LINE. SURFACE SLOPES AT GRADE BREAKS SHALL BE FLUSH.



TYPICAL SECTION OF PERPENDICULAR CURB RAMP AT CONNECTION TO ROADWAY

NOTES / LEGEND:

SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.

DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH.



GUTTER LINE



DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON IF APPLICABLE.



RAMP LIMITS OF PAYMENT



SHEET 1 OF 4



Design Division Standard

PEDESTRIAN FACILITIES
CURB RAMPS

PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISED 08, 2006	REVISIONS			
REVISED 06, 2012				
REVISED 01, 2018				
	DIST	COUNTY		SHEET NO.
				44

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FILE:

GENERAL NOTES

CURB RAMPS

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Cross slopes of 1.5% and lesser running should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
4. 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.
5. Turning Spaces shall be 5'x 5' minimum. Cross slope shall be maximum 2%.
6. Clear 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.
7. 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.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the latest draft of the Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) as published by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).
9. 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.
10. 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.
11. 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.
12. Provide curb ramps to connect the pedestrian access route at each pedestrian street crossing. Handrails are not required on curb ramps.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Furnish and install No. 3 reinforcing steel bars at 18" o.c. both ways, unless otherwise directed.
16. Provide a smooth transition where the curb ramps connect to the street.
17. 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.
18. Existing features that comply with applicable standards may remain in place unless otherwise shown on the plans.

DETECTABLE WARNING MATERIAL

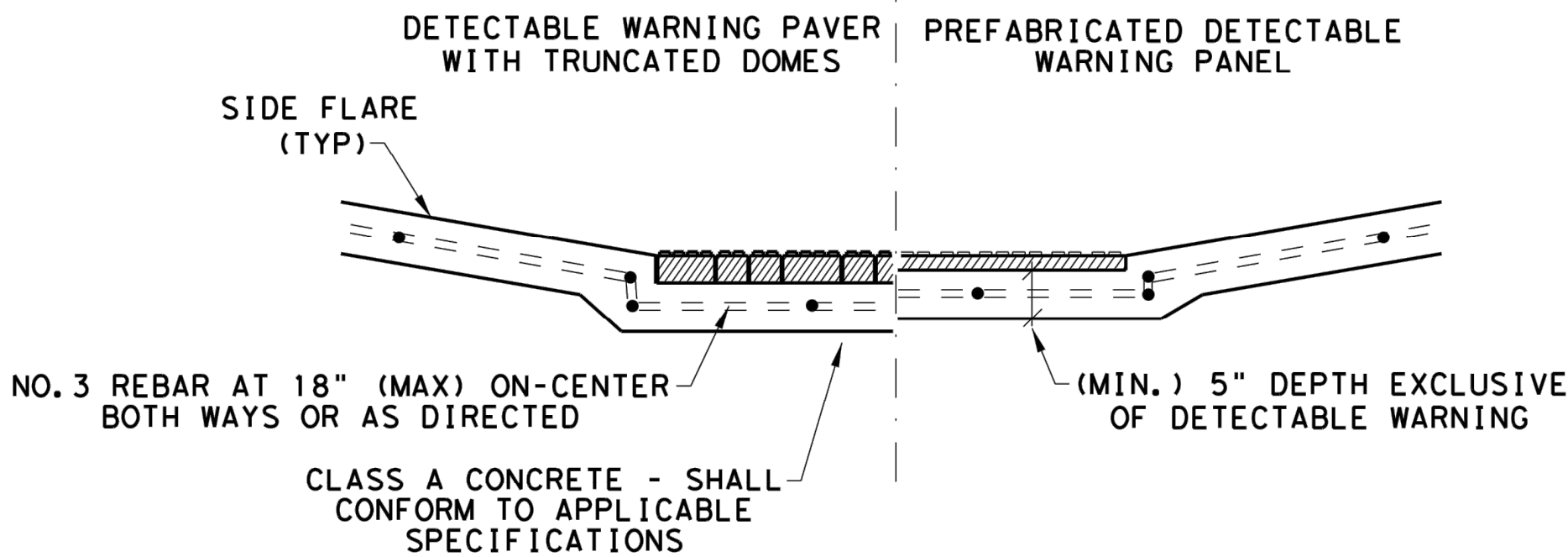
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
20. 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.
21. Detectable warning surfaces must be firm, stable and slip resistant.
22. Detectable warning surfaces shall be a minimum of 24 inches 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.
23. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb and neither end of that edge is greater than 5 feet from the back of curb. Detectable warning surfaces may be curved along the corner radius.
24. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

DETECTABLE WARNING PAVERS (IF USED)

25. 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.
26. Lay full-size units first followed by closure units consisting of at least 25 percent (25%) of a full unit. Cut detectable warning paver units using a power saw.

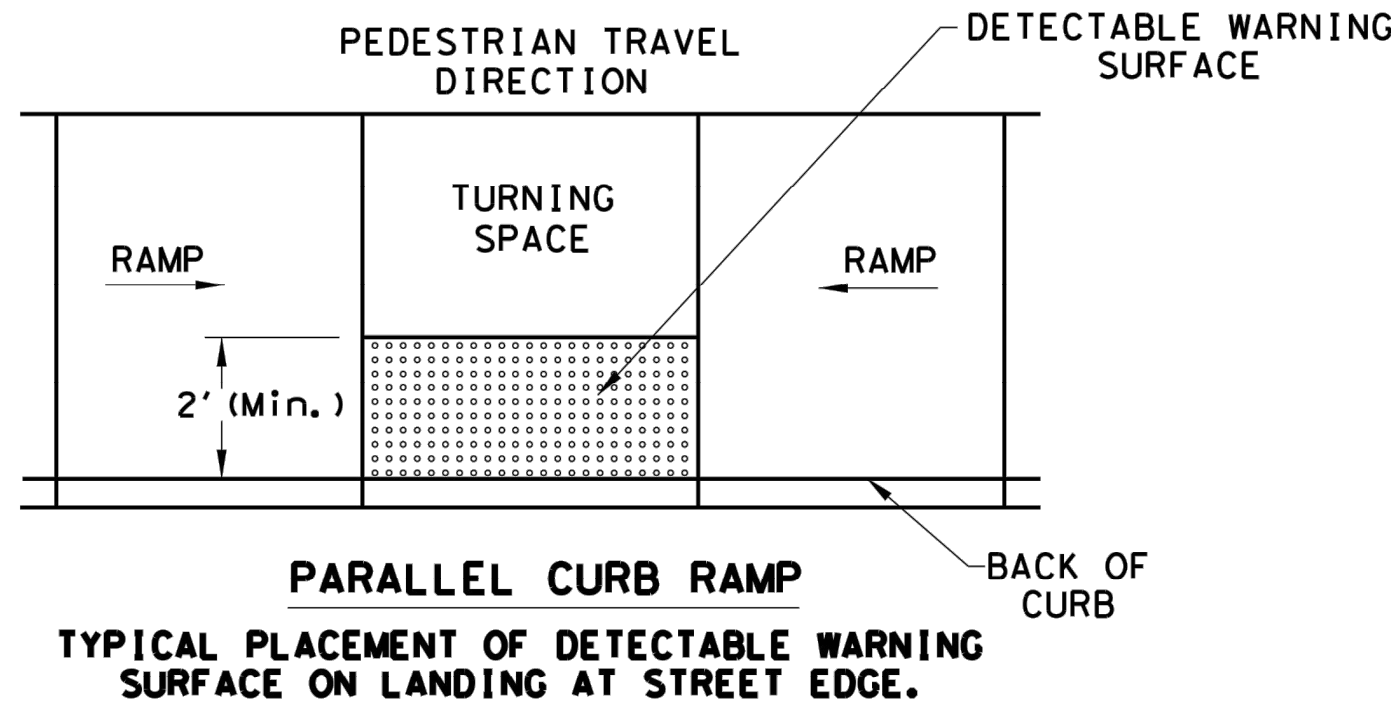
SIDEWALKS

27. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within unobstructed reach range specified in PROWAG section R406.
28. 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.
29. Street grades and cross slopes shall be as shown elsewhere in the plans.
30. Changes in level greater than 1/4 inch are not permitted.
31. 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 five percent (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 PROWAG R409.
32. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
33. 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".
34. Sidewalk details are shown elsewhere in the plans.

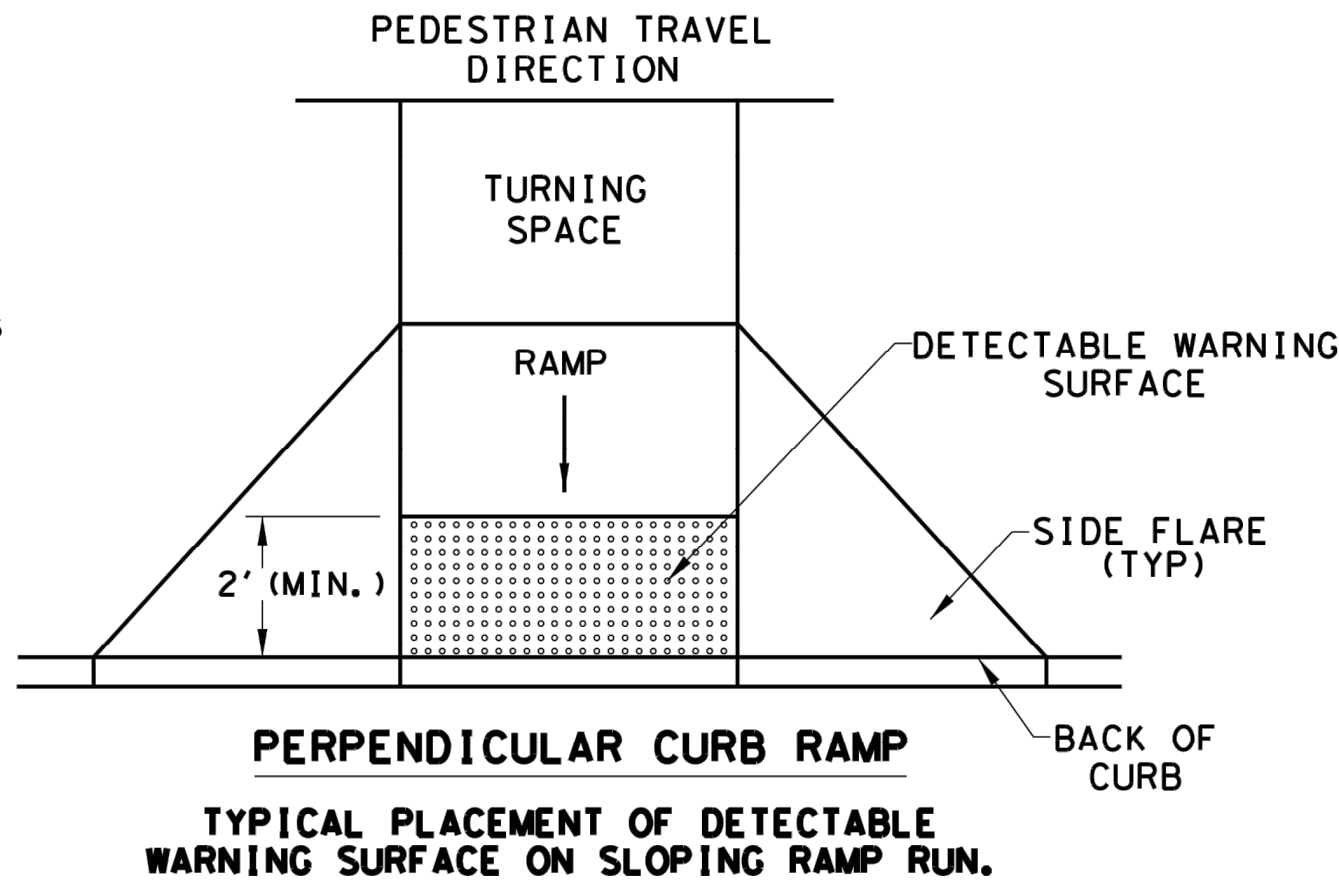


SECTION VIEW DETAIL
CURB RAMP AT DETECTIBLE WARNINGS

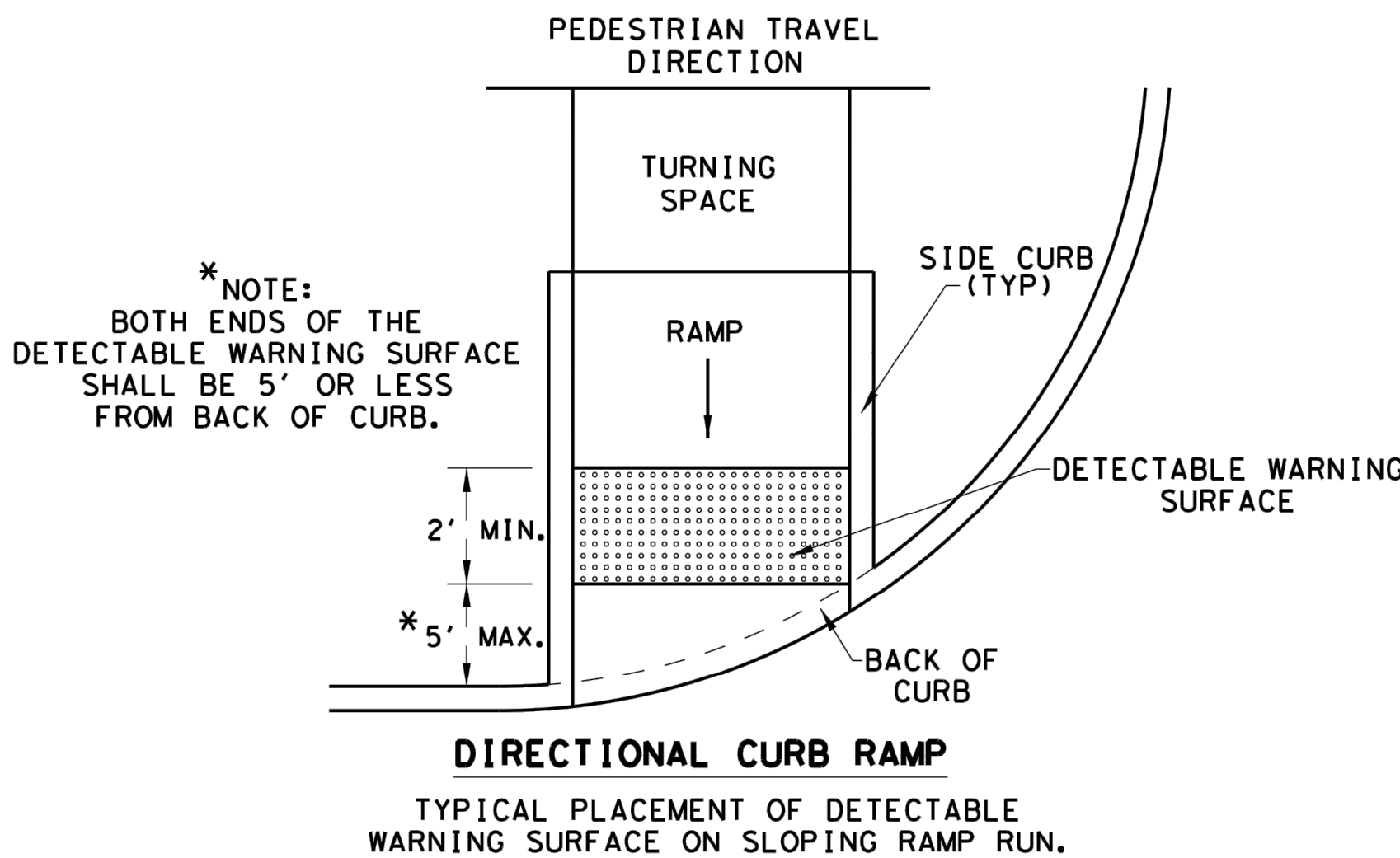
DETECTABLE WARNING SURFACE DETAILS



PARALLEL CURB RAMP
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE.



PERPENDICULAR CURB RAMP
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.



DIRECTIONAL CURB RAMP
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.

* NOTE:
BOTH ENDS OF THE
DETECTABLE WARNING SURFACE
SHALL BE 5' OR LESS
FROM BACK OF CURB.

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DATE: 04/25/2024

SHEET 2 OF 4



Texas Department of Transportation

Design
Division
Standard

PEDESTRIAN FACILITIES CURB RAMPS

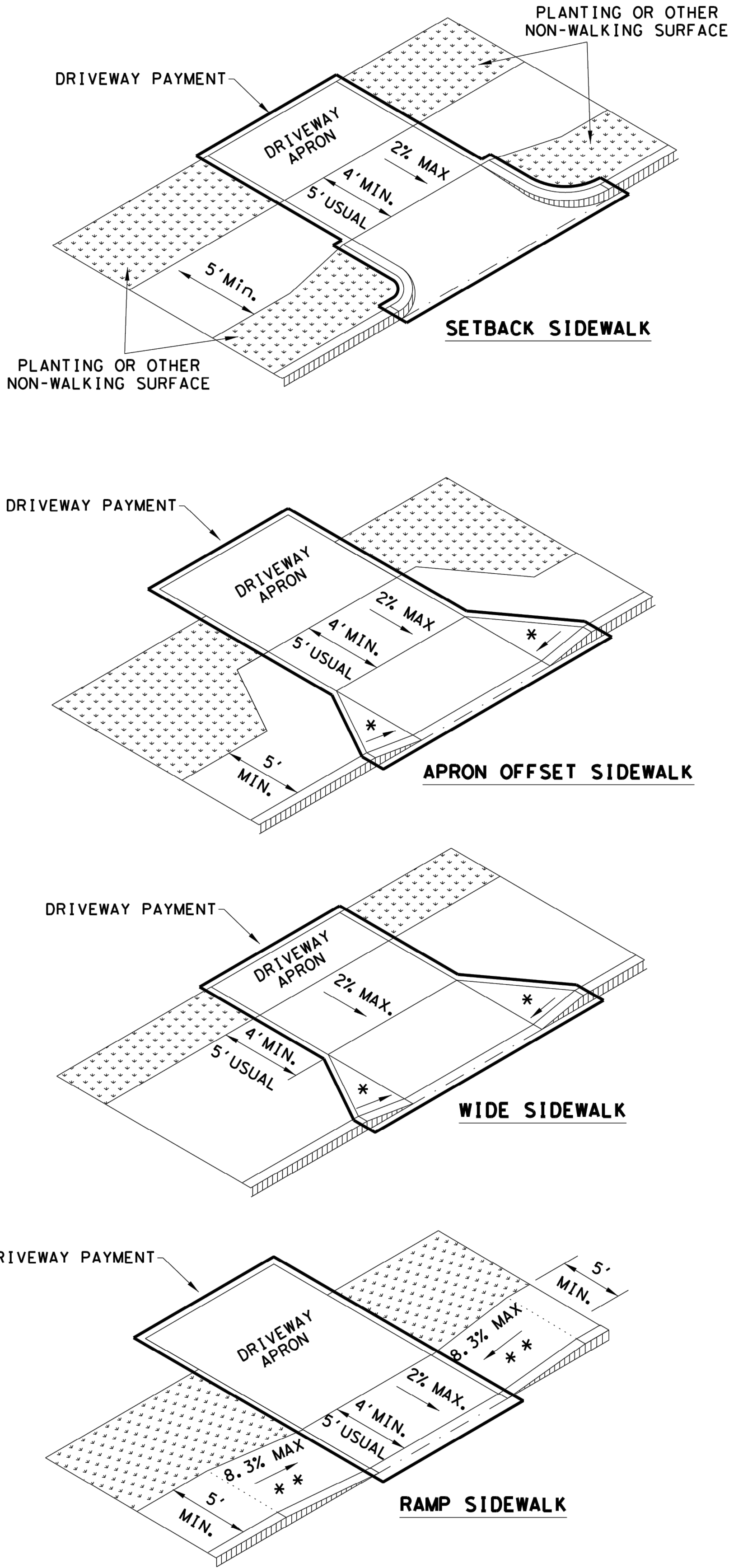
PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISED 08, 2005	REVISIONS			
REVISED 06, 2012	DIST	COUNTY		SHEET NO.
REVISED 01, 2018				45

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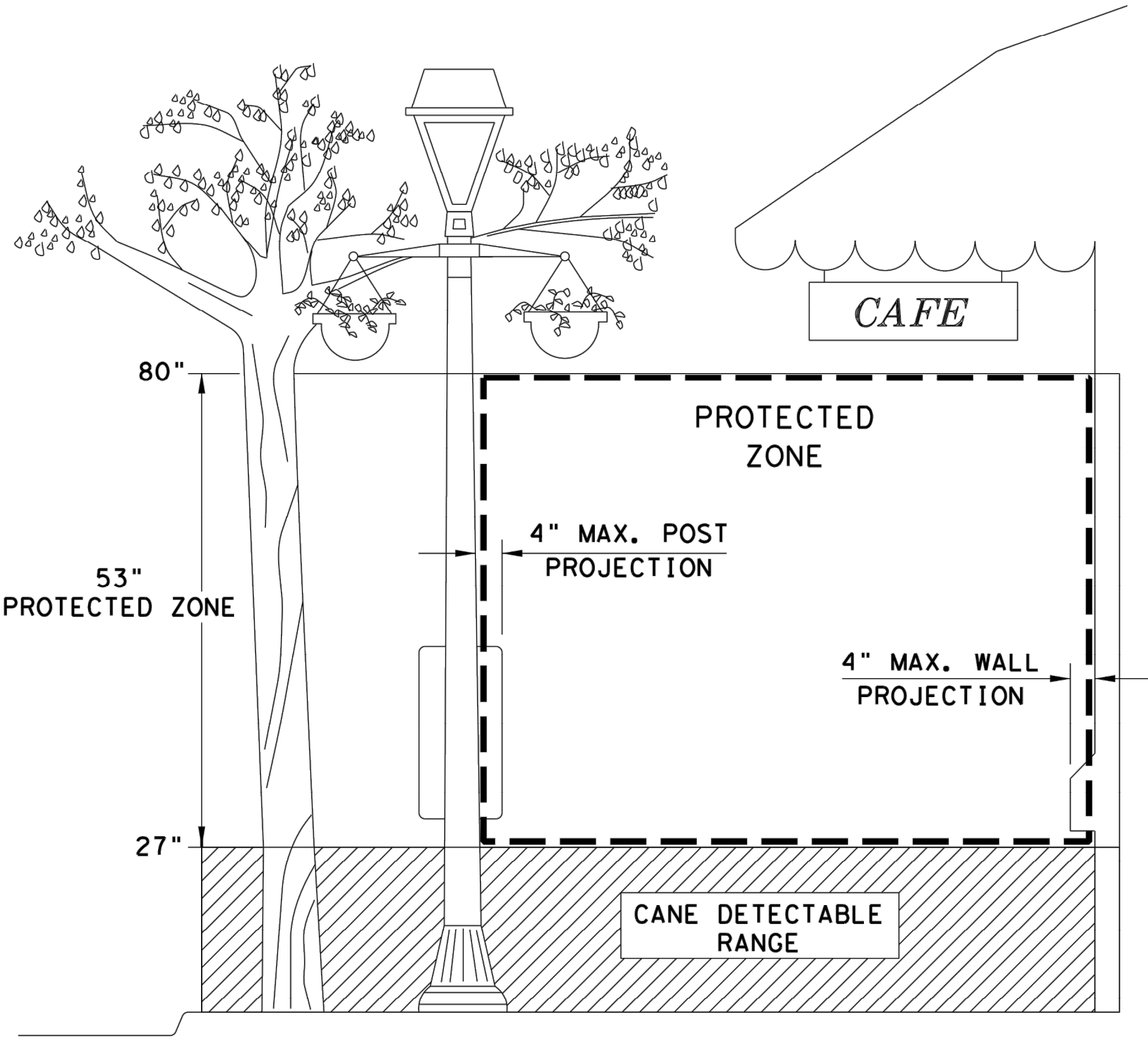
SIDEWALK TREATMENT AT DRIVEWAYS



NOTES:

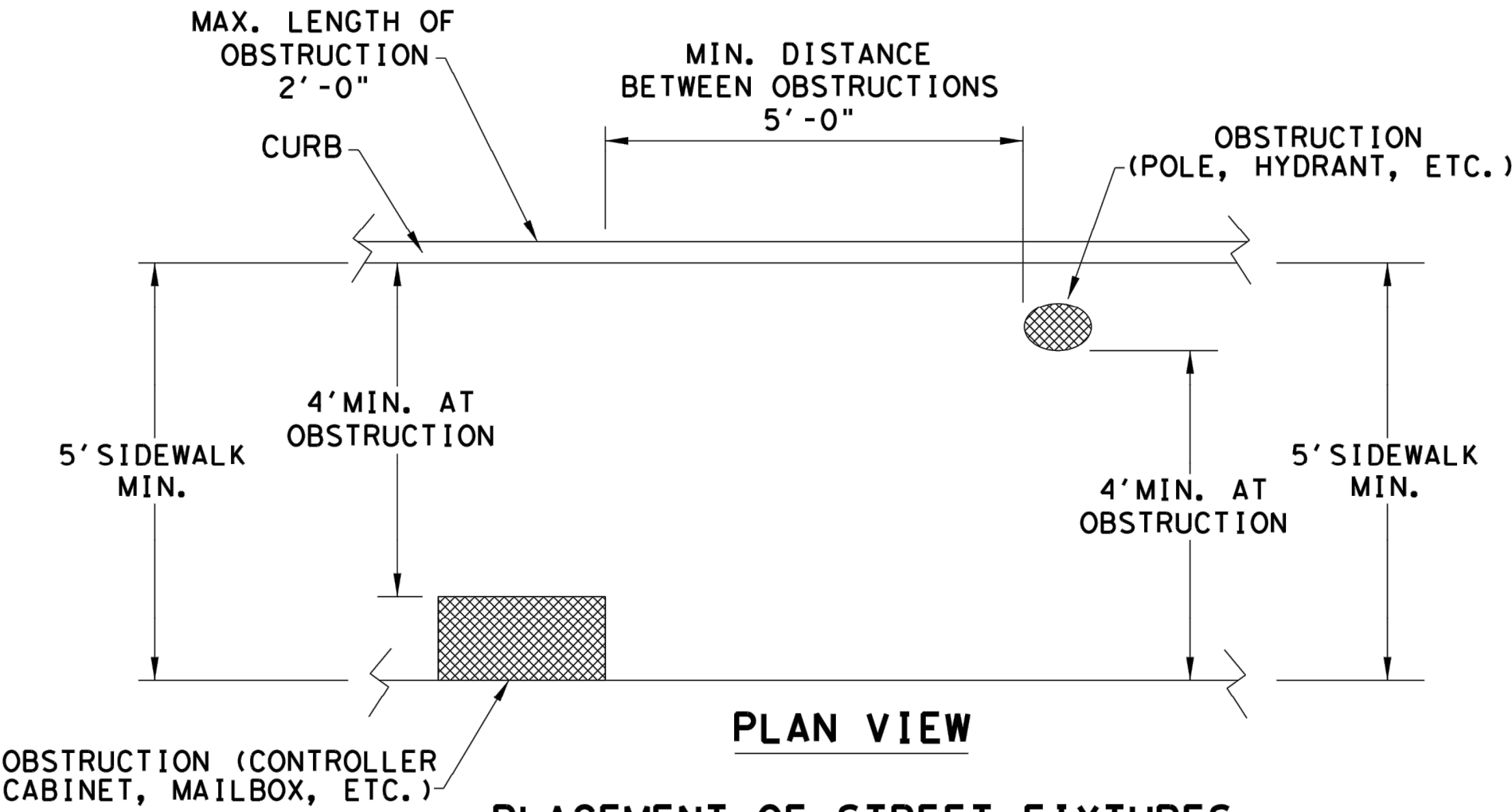
* WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.

* * IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.



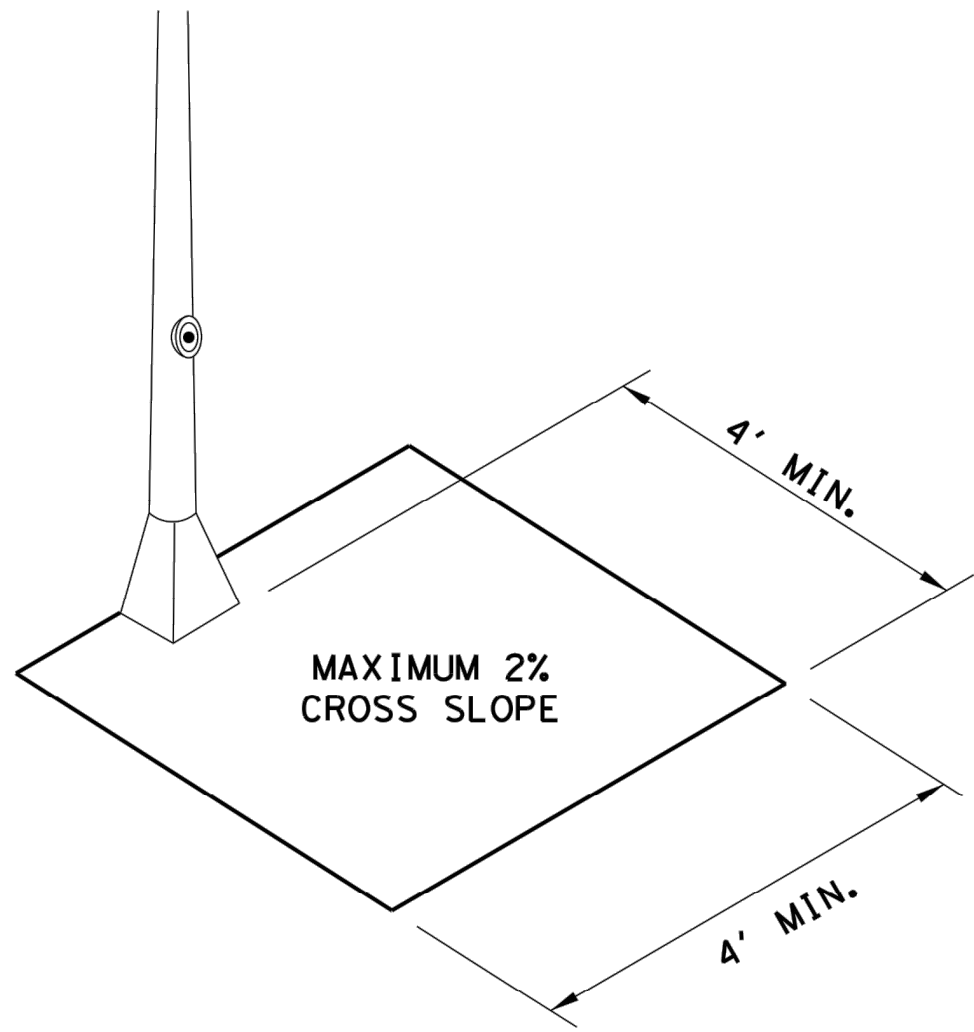
PROTECTED ZONE

NOTE: IN PEDESTRIAN CIRCULATION AREA, MAXIMUM 4" PROJECTION FOR POST OR WALL MOUNTED OBJECTS BETWEEN 27" AND 80" ABOVE THE SURFACE.

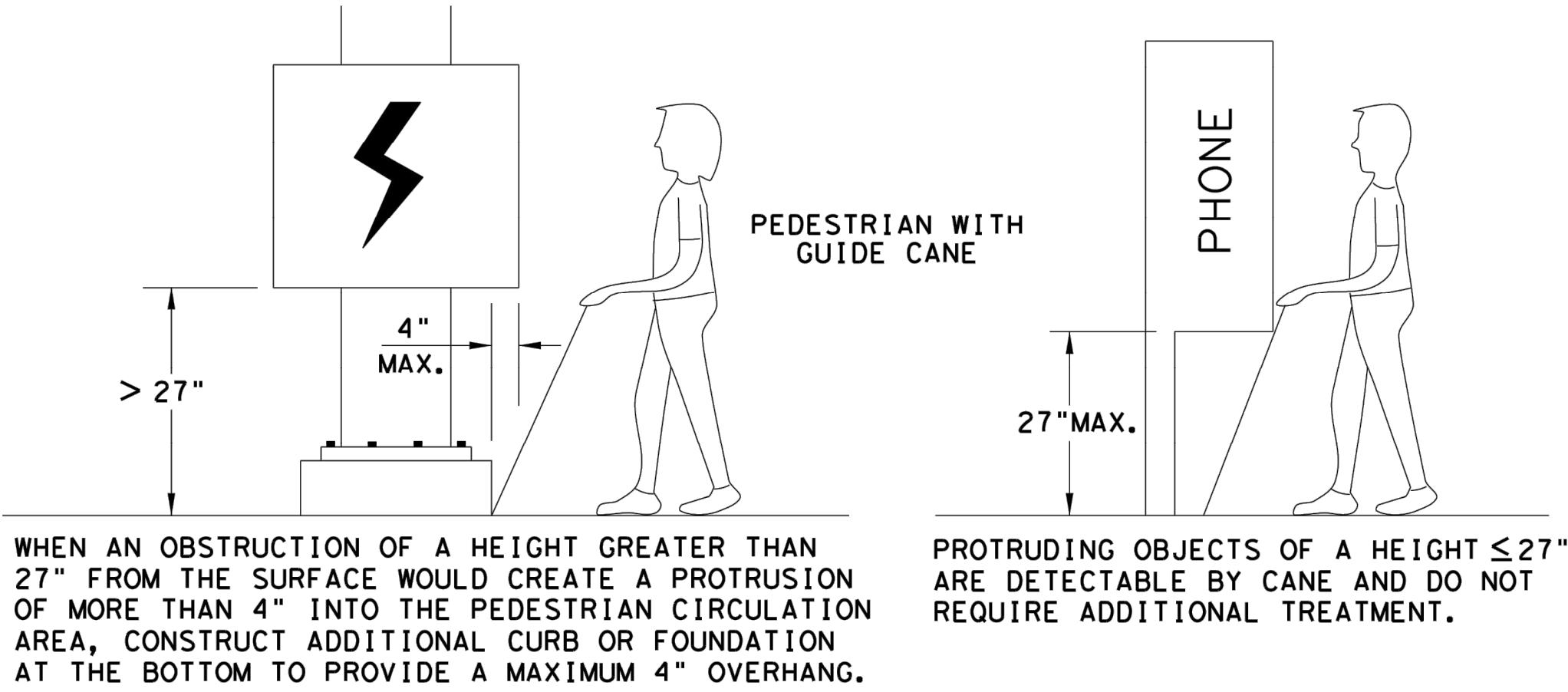


PLACEMENT OF STREET FIXTURES

NOTE: ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' X 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.



CLEAR SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

SHEET 3 OF 4



Design
Division
Standard

PEDESTRIAN FACILITIES
CURB RAMPS

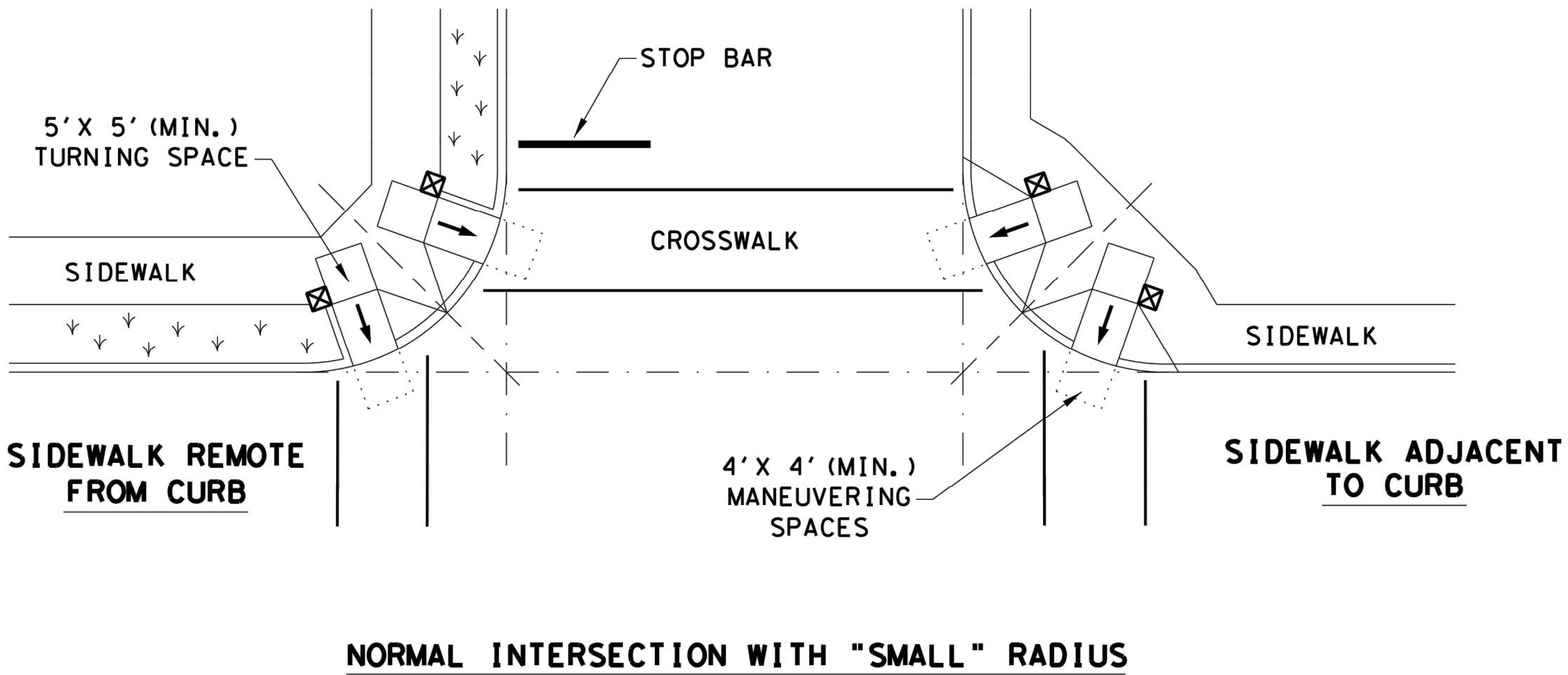
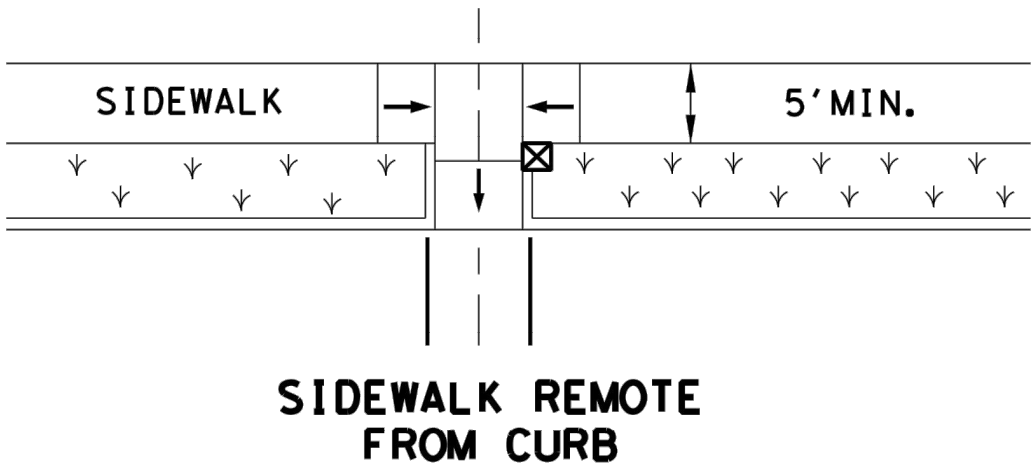
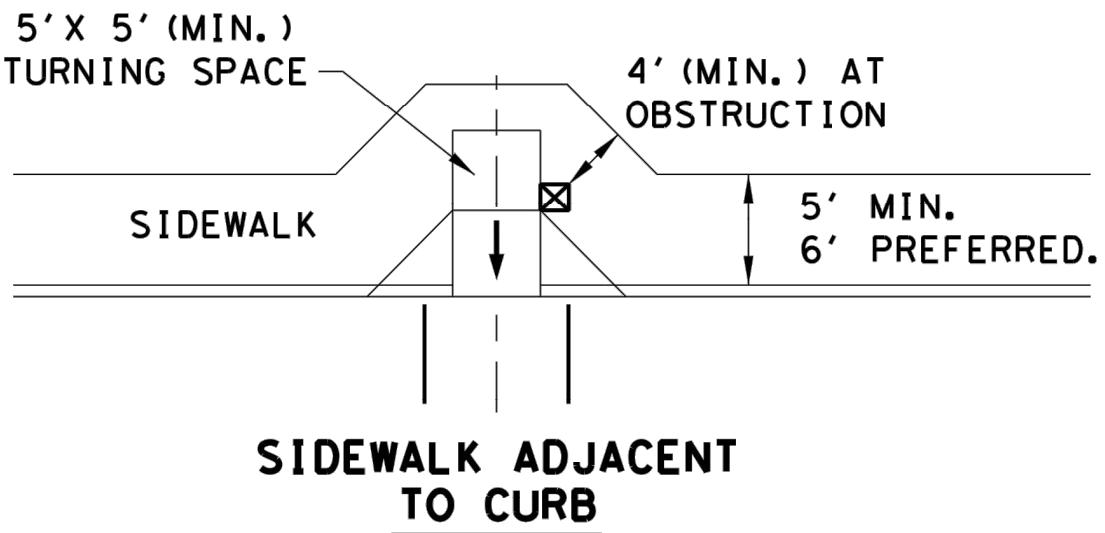
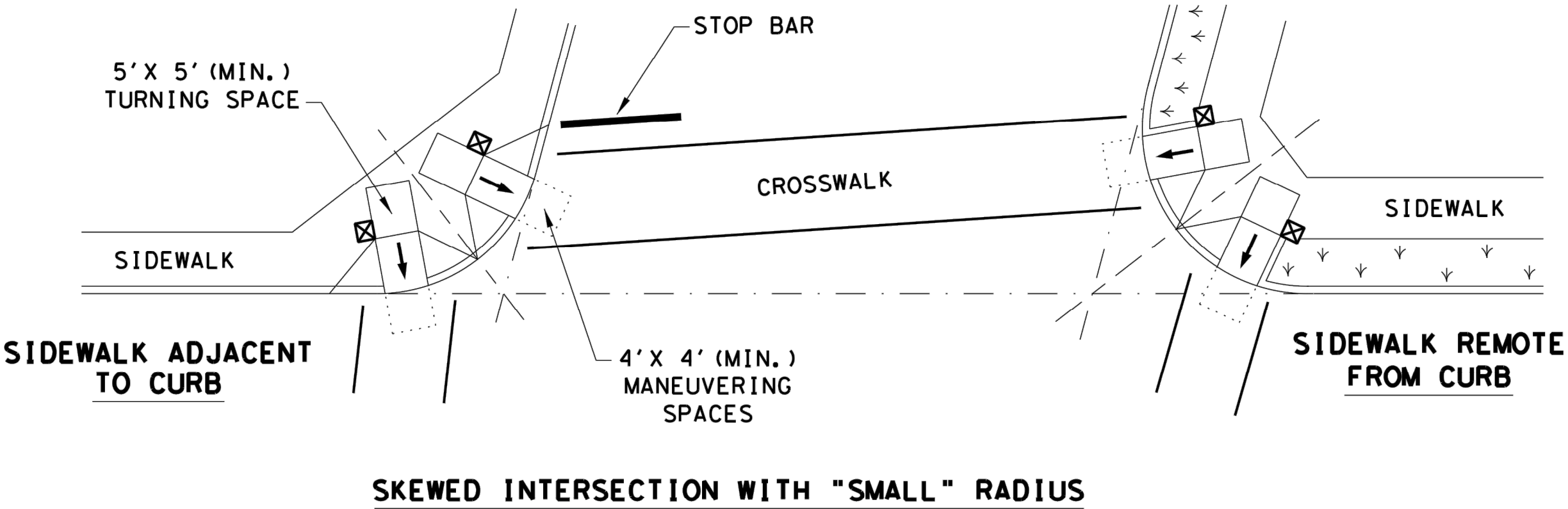
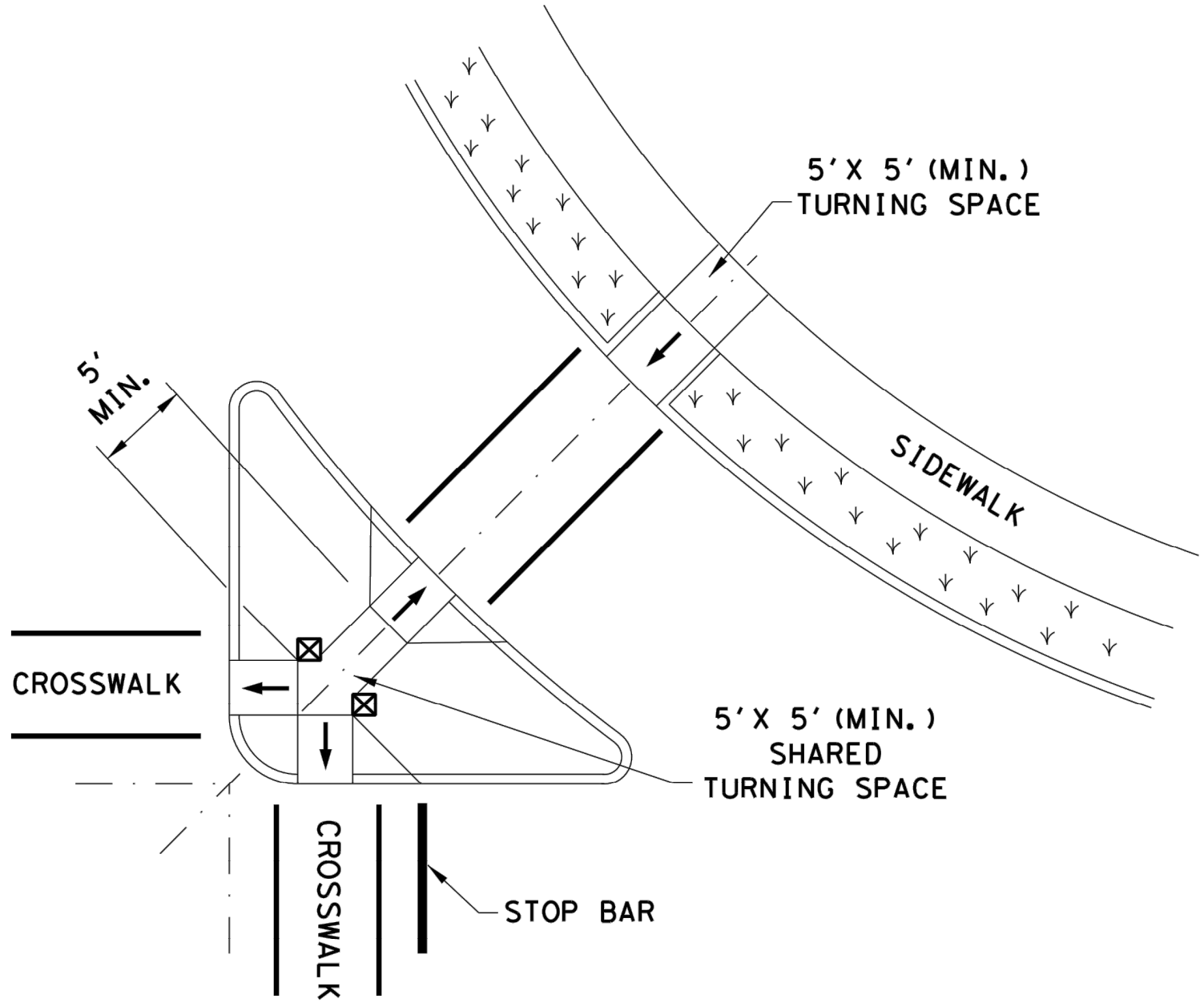
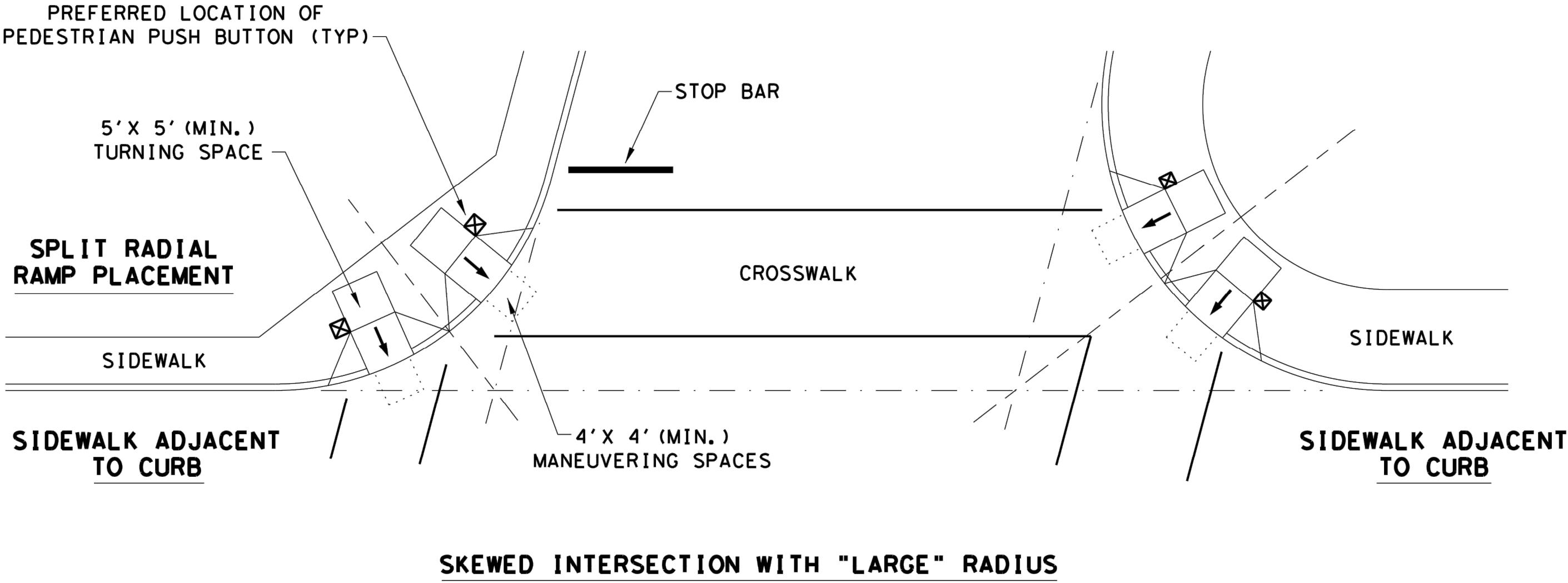
PED-18

FILE: ped18	DW:VP	CK:KM	CK:PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	HIGHWAY
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			46

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TYPICAL CROSSING LAYOUTS
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS

RECORD DRAWING
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DATE: 04/25/2024



LEGEND:

SHOWS DOWNWARD SLOPE.



DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON (IF APPLICABLE).



DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH.



SHEET 4 OF 4



Design
Division
Standard

PEDESTRIAN FACILITIES
CURB RAMPS

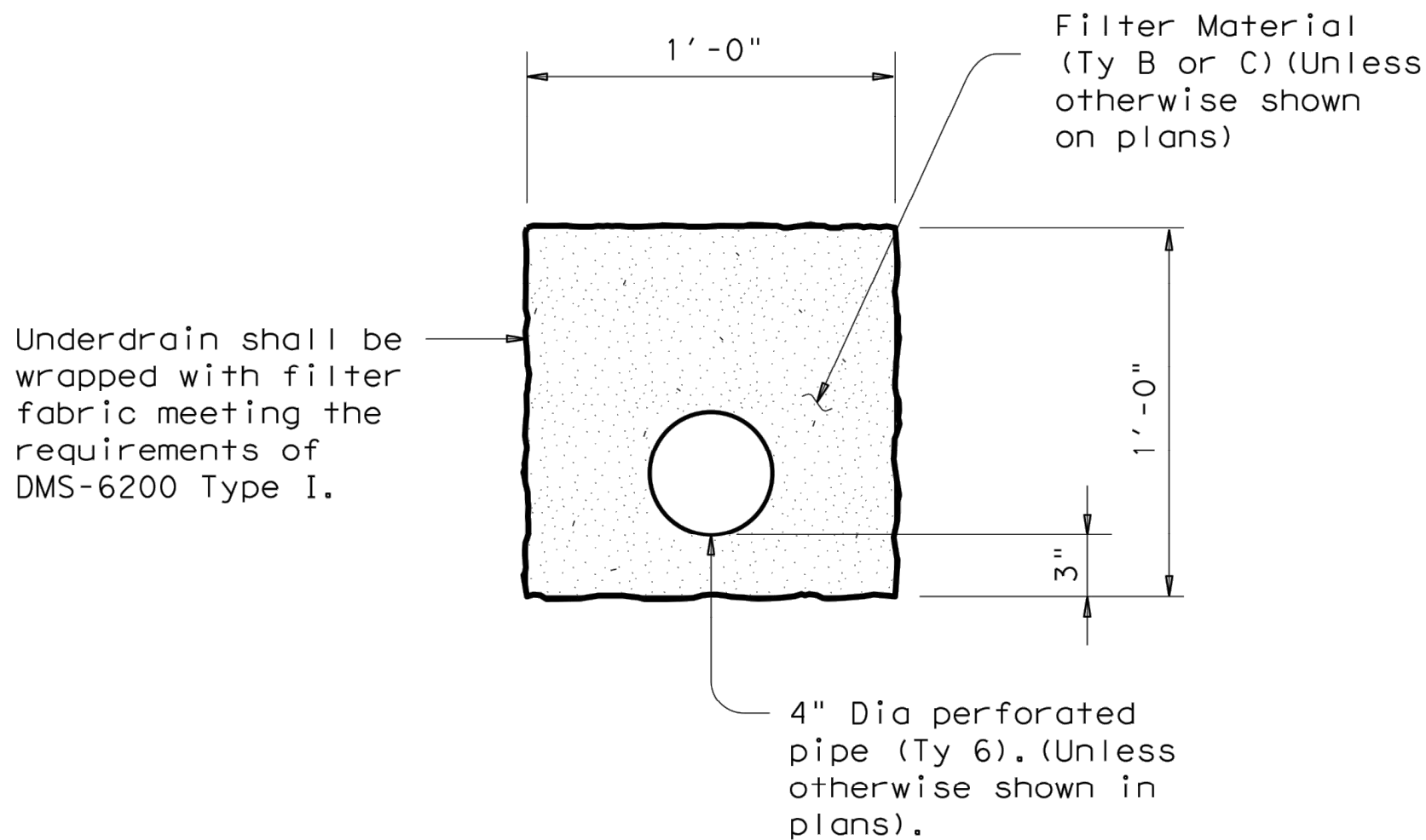
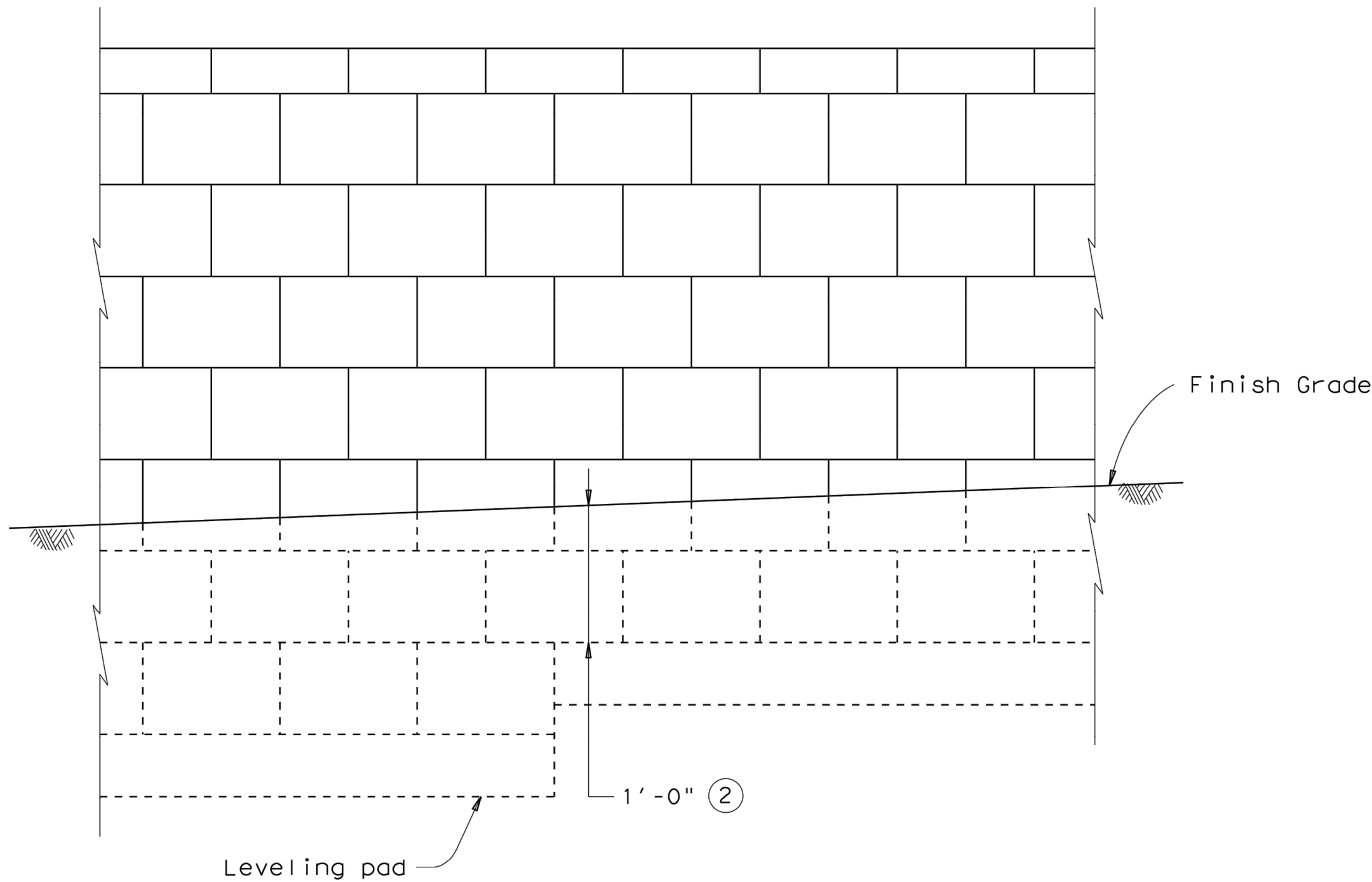
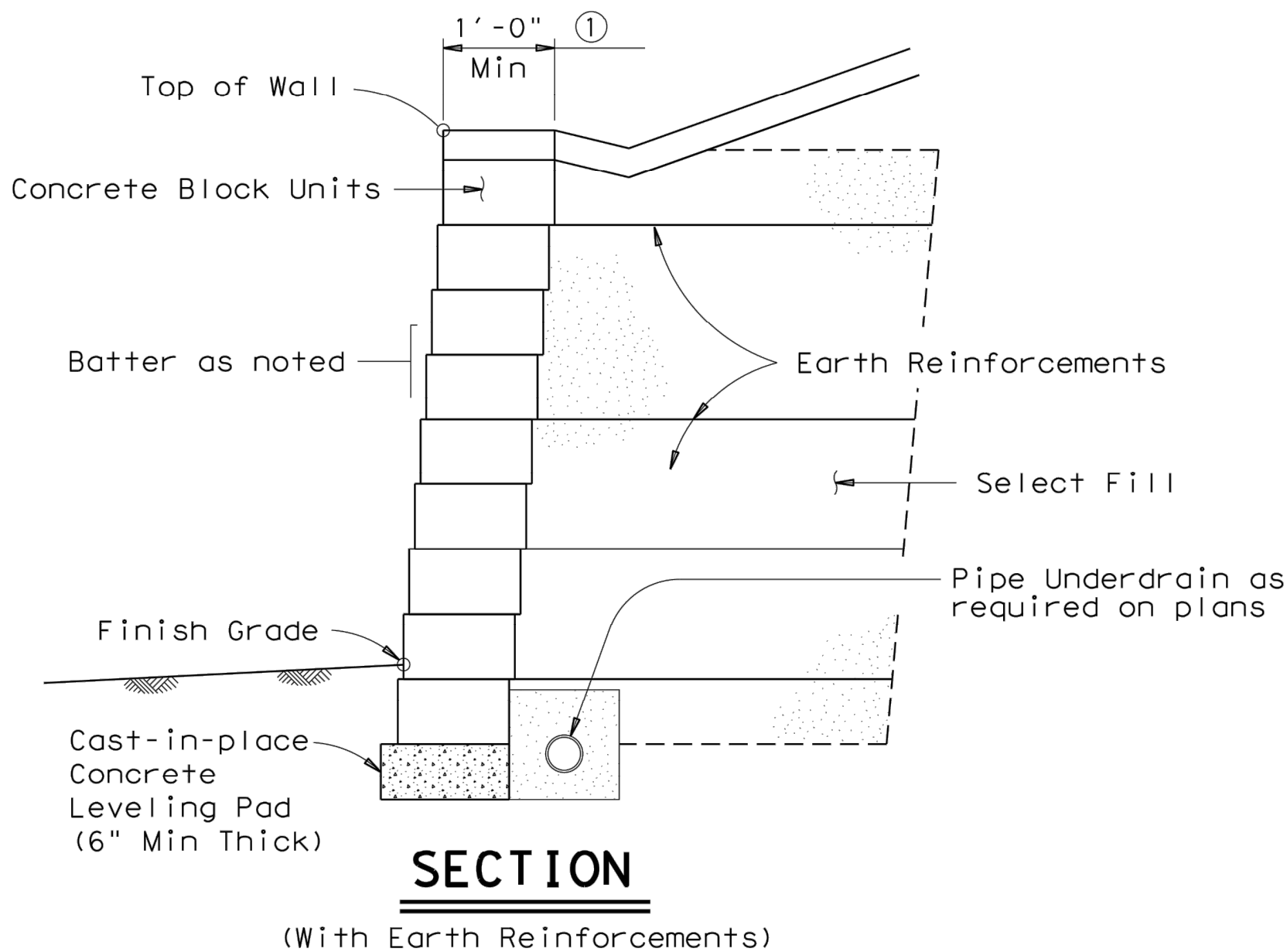
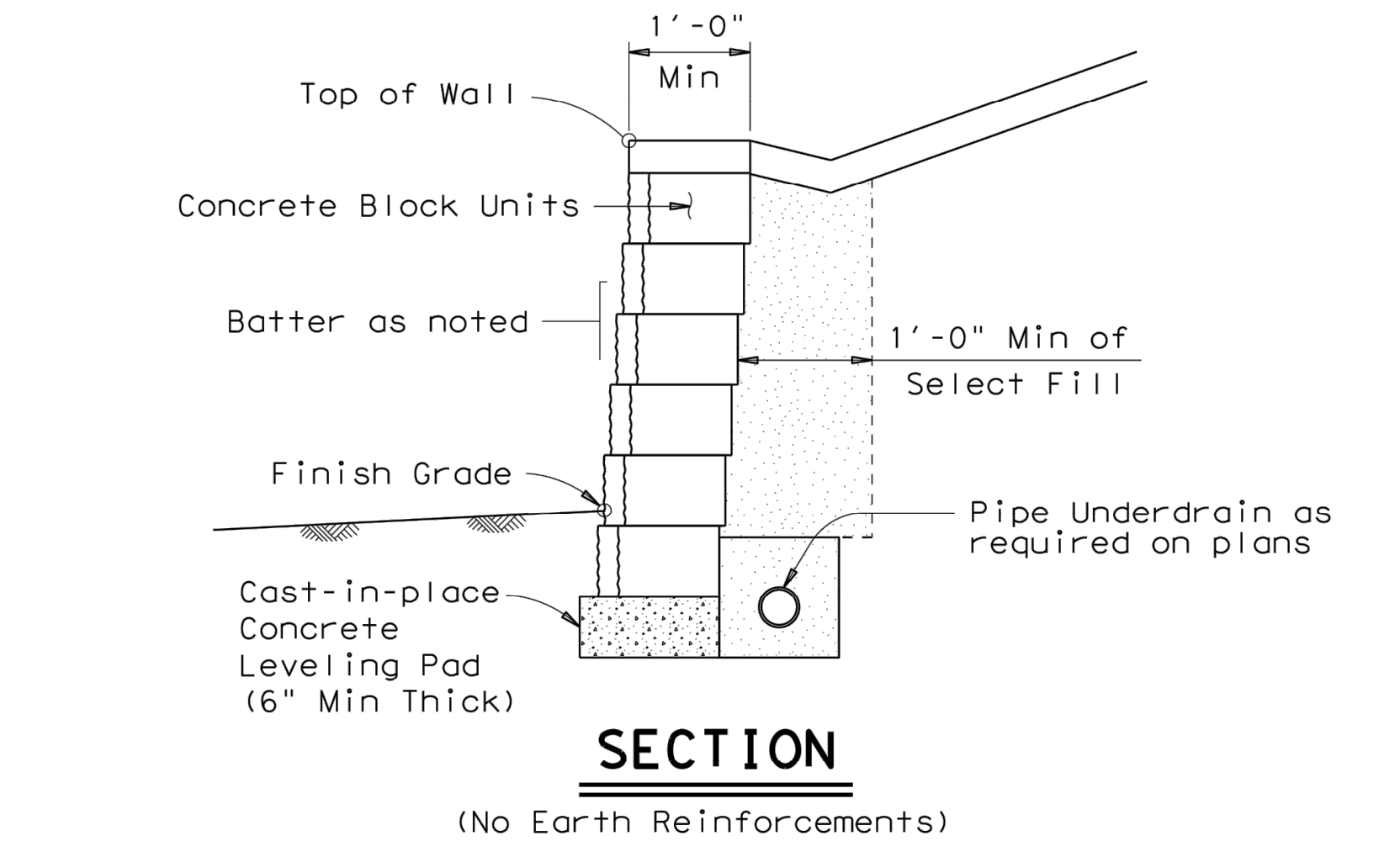
PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
REVISED 08, 2005				
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REVISED 01, 2018				
	DIST		COUNTY	SHEET NO.
				47

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- For systems utilizing continuous structural pins passing thru a minimum of 3 block layers, the minimum block depth shall be 8". The maximum vertical spacing of primary reinforcement on these systems shall be 24", and intermediate reinforcement will not be required.
- Unless noted elsewhere in the plans, 1'-0" minimum cover shall be provided from the top of leveling pad to finish grade.
- For walls which are designated as landscape walls and are less than 6' tall, the following modifications to the design criteria will be allowed:

Factor of safety in sliding > 1.2.
Factor of safety in overturning > 1.5.
Connection strength factor of safety of 1.0 at $\frac{3}{4}$ " strain.
Minimum earth reinforcement length of 4'.

The above modified criteria does not apply to walls over 6' tall regardless of designation.


EARTH REINFORCEMENTS:
Walls may be constructed without earth reinforcements if all stability criteria are met with the blocks alone. If all stability criteria are not satisfied, earth reinforcements shall be provided.
The long term design strength (LTDS) of earth reinforcement shall be calculated in accordance with current AASHTO Standard and Interim Specifications.
Soil-geogrid pullout coefficient values shall be determined in accordance with Geosynthetics Research Institute (GRI) Method GG-5, "Guidelines for Evaluating Geogrid Pullout".
For the combination of concrete block and geogrid chosen, connection strength data shall be provided. The allowable connection load shall be limited to the connection strength developed at $\frac{3}{4}$ " displacement, divided by a 1.5 safety factor. ③
For internal stability calculations, the failure plane will be assumed to originate at the back of the concrete blocks.
The factor of safety against pullout of the earth reinforcements shall be determined from test data evaluated at $\frac{3}{4}$ " strain.
The maximum vertical spacing of primary earth reinforcement layers shall be 40 inches. ①
The minimum length of primary earth reinforcements shall be 8 feet, measured from the front of the blocks. ③
A layer of intermediate reinforcement shall be provided between primary reinforcements when the spacing between primary layers exceeds twice the horizontal depth of the concrete block unit. Intermediate reinforcement shall have a minimum length of 4 feet, and shall provide local stability for the concrete block units. ①

STABILITY CRITERIA:
Factor of safety in sliding along the base of the structure shall be greater than or equal to 1.5. ③
Factor of safety in overturning shall be greater than or equal to 2.0. ③
The base pressure resultant shall fall within the middle third of the retaining wall.

DESIGN PARAMETERS:
Structure shall be based on the following design parameters:
Random Backfill: Unit weight = 120 pcf.
(Embankment or Existing Soils) $\phi = 30^\circ$ c = 0 psf
Select Backfill: Unit weight = 120 pcf
 $\phi = 34^\circ$ c = 0 psf

GENERAL NOTES:
Sections and Typical Elevation shown are for informational purposes only. Specific geometry is to be determined based on wall layouts and other plan information.
Unless otherwise shown in the plans, wall batter shall be a maximum of 3" per foot. Blocks shall be placed horizontally, and a positive means of obtaining batter such as pins, keyways, or concrete lips shall be provided.

RECORD DRAWING
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**Texas Department of Transportation**

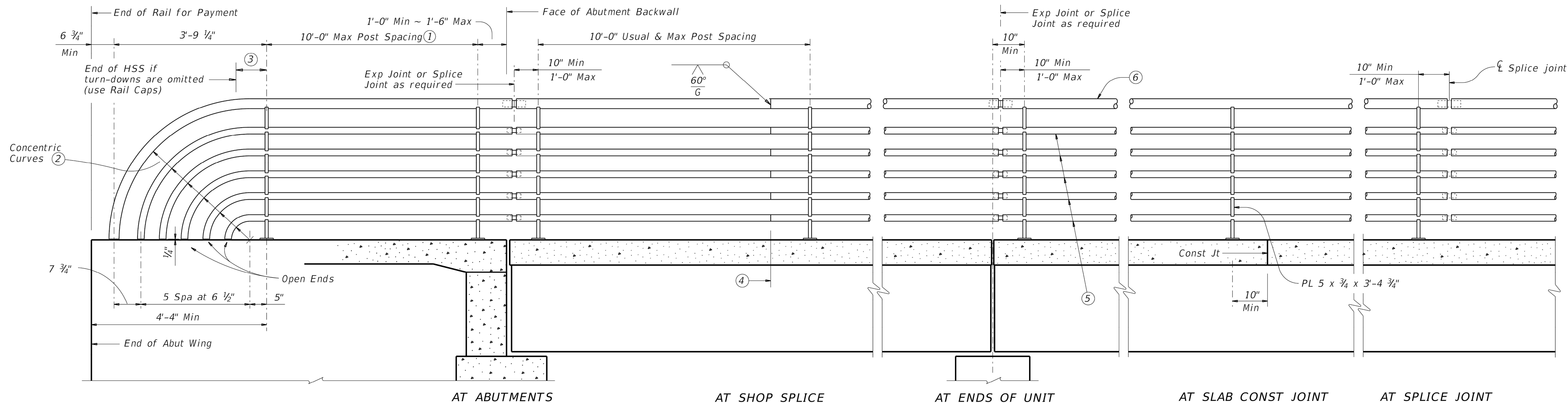
Bridge Division Standard

CONCRETE BLOCK RETAINING WALL

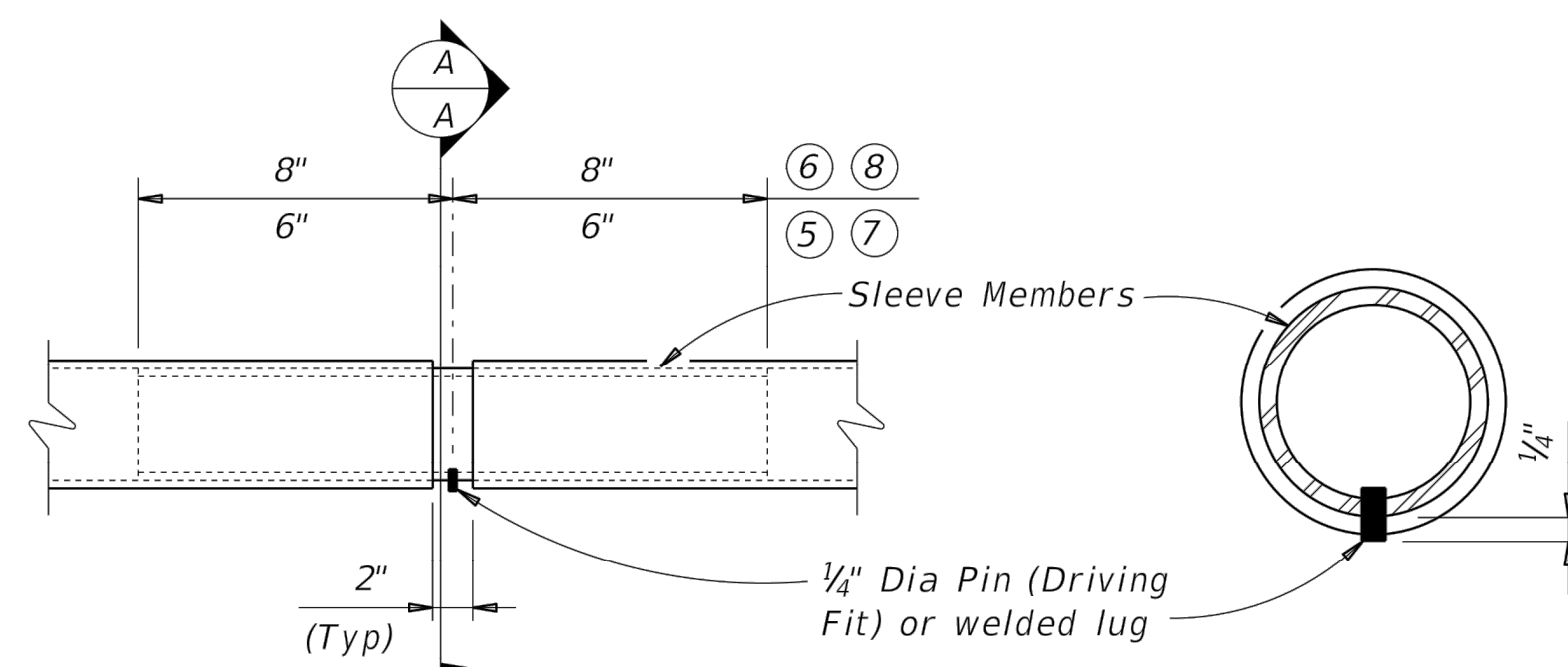
RW(CB)

FILE: rwstde02.dgn	DN: TxDOT	CK: TxDOT	DW: GH0	CK: MPM
©TxDOT March 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS				
DIST	COUNTY			SHEET NO.
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ROADWAY ELEVATION OF RAIL



AT SPLICE OR EXP JTS

SECTION A-A

CONSTRUCTION NOTES:

Panel lengths of railing must be attached to a minimum of three posts except at abutment wingwalls.

Face of rail and posts must be vertical transversely unless otherwise approved. Posts must be perpendicular to adjacent roadway grade. Use Type VIII epoxy mortar under post base plates if gaps larger than $\frac{1}{16}$ " exist.

For curved railing applications, fabricate the HSS rails to the radius when the radius is 600' or less. Submit shop drawings for approval when tubes are required to be fabricated to a radius. Shop drawings must be submitted to the Engineer for approval.

Round or chamfer exposed edges of HSS rail and HSS rail posts to approximately $\frac{1}{16}$ " by grinding.

MATERIAL NOTES:

Provide ASTM-A500 Grade B, A1085 or A53 Grade B for all HSS.

Provide ASTM-A36 for posts and plates.

Galvanize all steel components unless otherwise shown.

Anchor bolts must be $\frac{5}{8}$ " Dia ASTM A307 Grade A bolts (or A36 threaded rods with one tack welded hex nut each) with one hex nut and one hardened steel washer at each bolt. Threaded rods may be 0.557" minimum diameter with rolled threads. Nuts must conform to A563 requirements.

GENERAL NOTES:

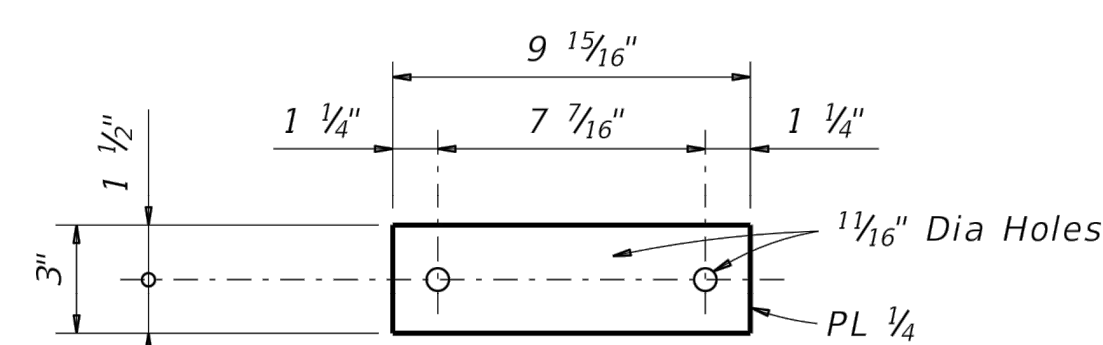
Designed according to AASHTO LRFD Specifications.

Rail anchorage details shown on this standard may require modification for select structure types. See appropriate details elsewhere in plans for these modifications.

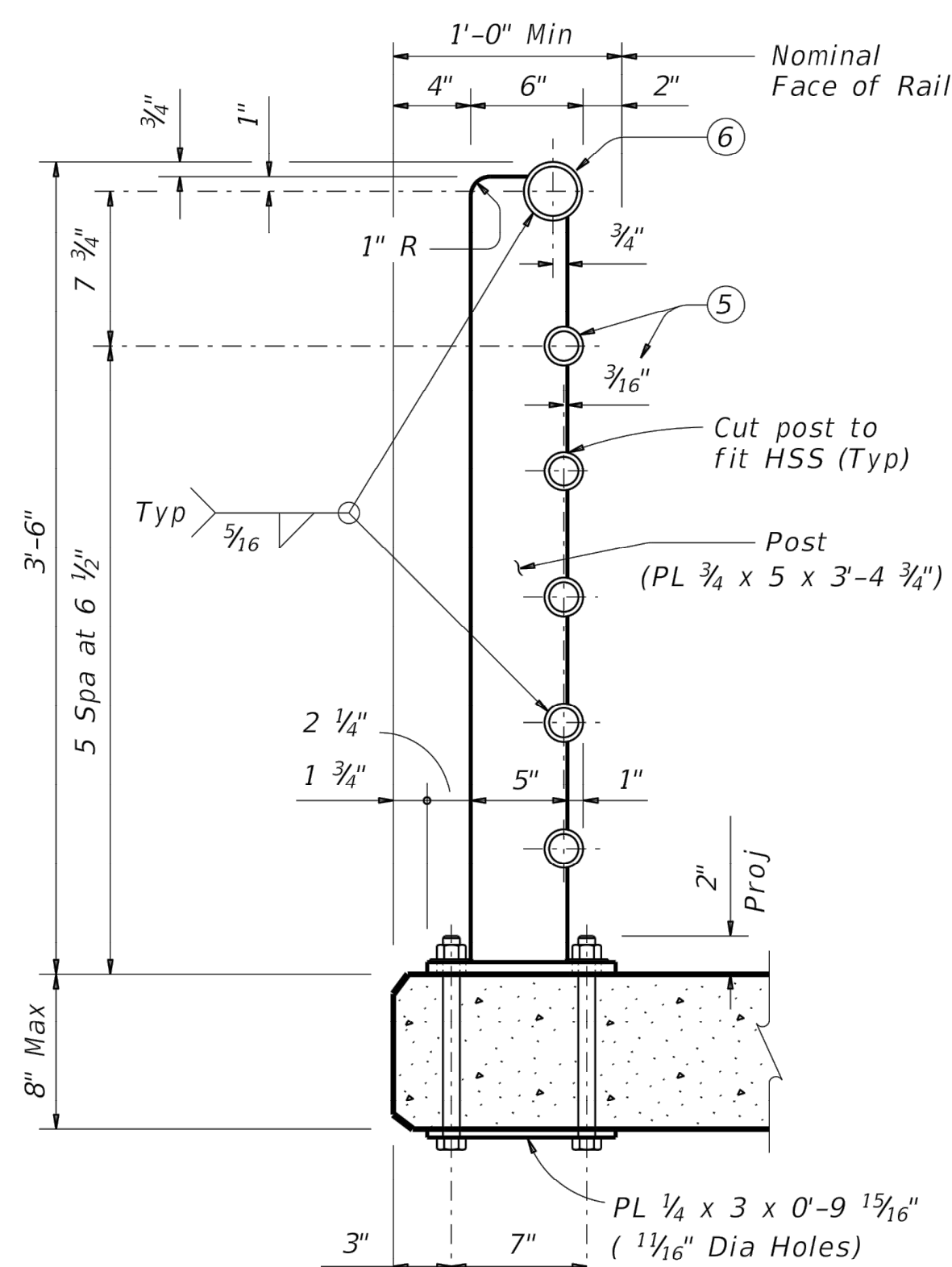
Do not use this railing on bridges with expansion joints providing more than 5" movement.

For all rails, submit erection drawings showing section lengths, splice locations, rail post spacing and anchor bolt setting for approval.

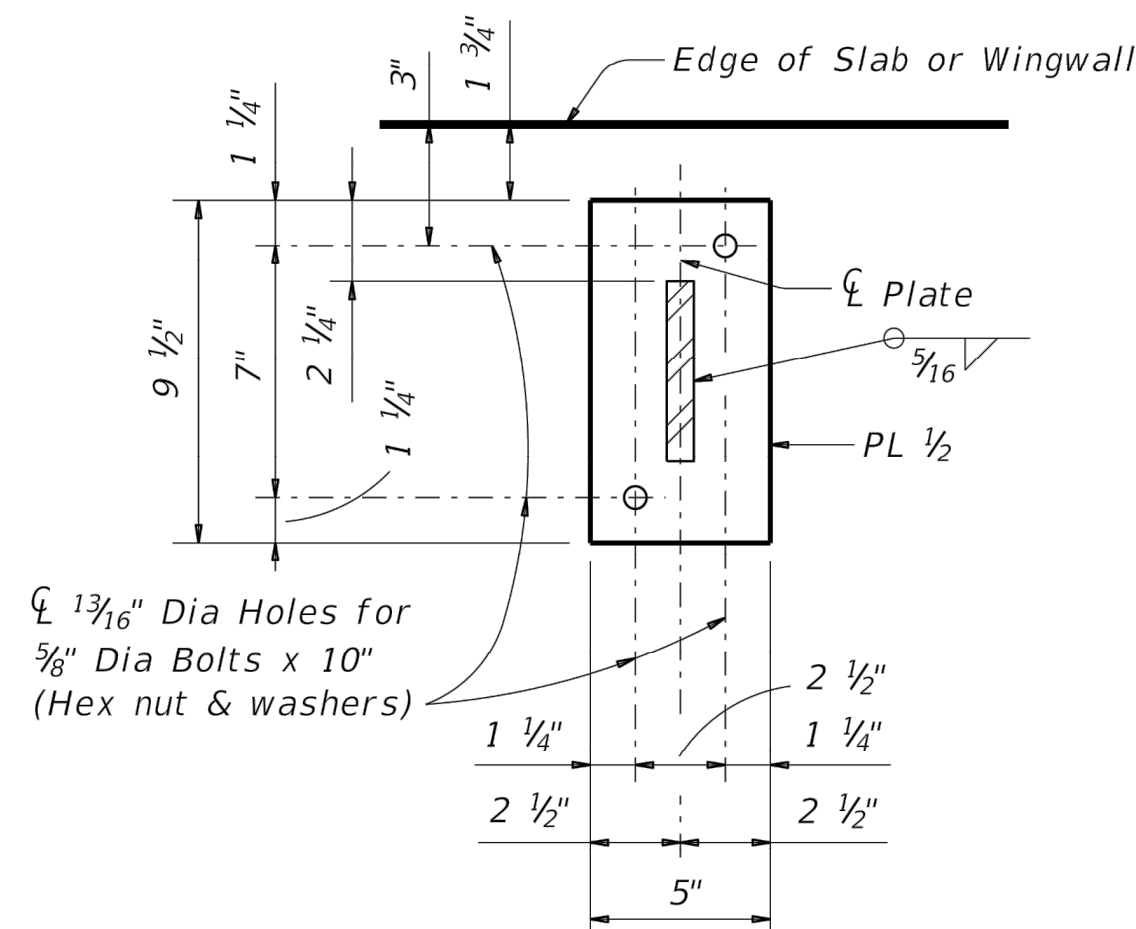
Average weight of railing is 30 plf.



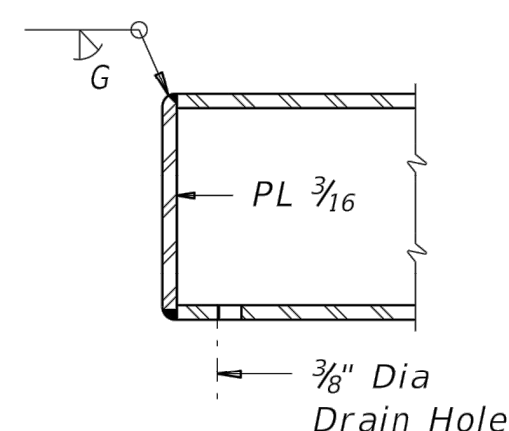
BOTTOM PLATE DETAIL



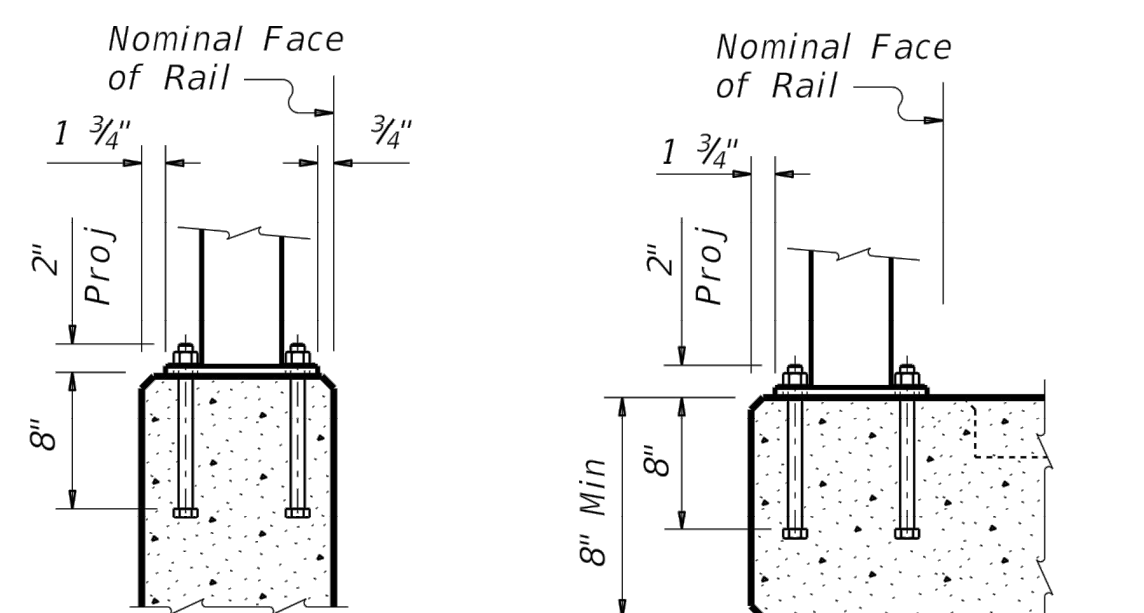
BASIC CONDITION



BASE PLATE DETAIL



RAIL CAP DETAIL



ON ABUT WING OR
CIP RETAINING WALL

ON CULVERTS OR
SLABS OVER 8" THICK

POST MOUNTING DETAILS

RECORD DRAWING

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**Bridge
Division
Standard**

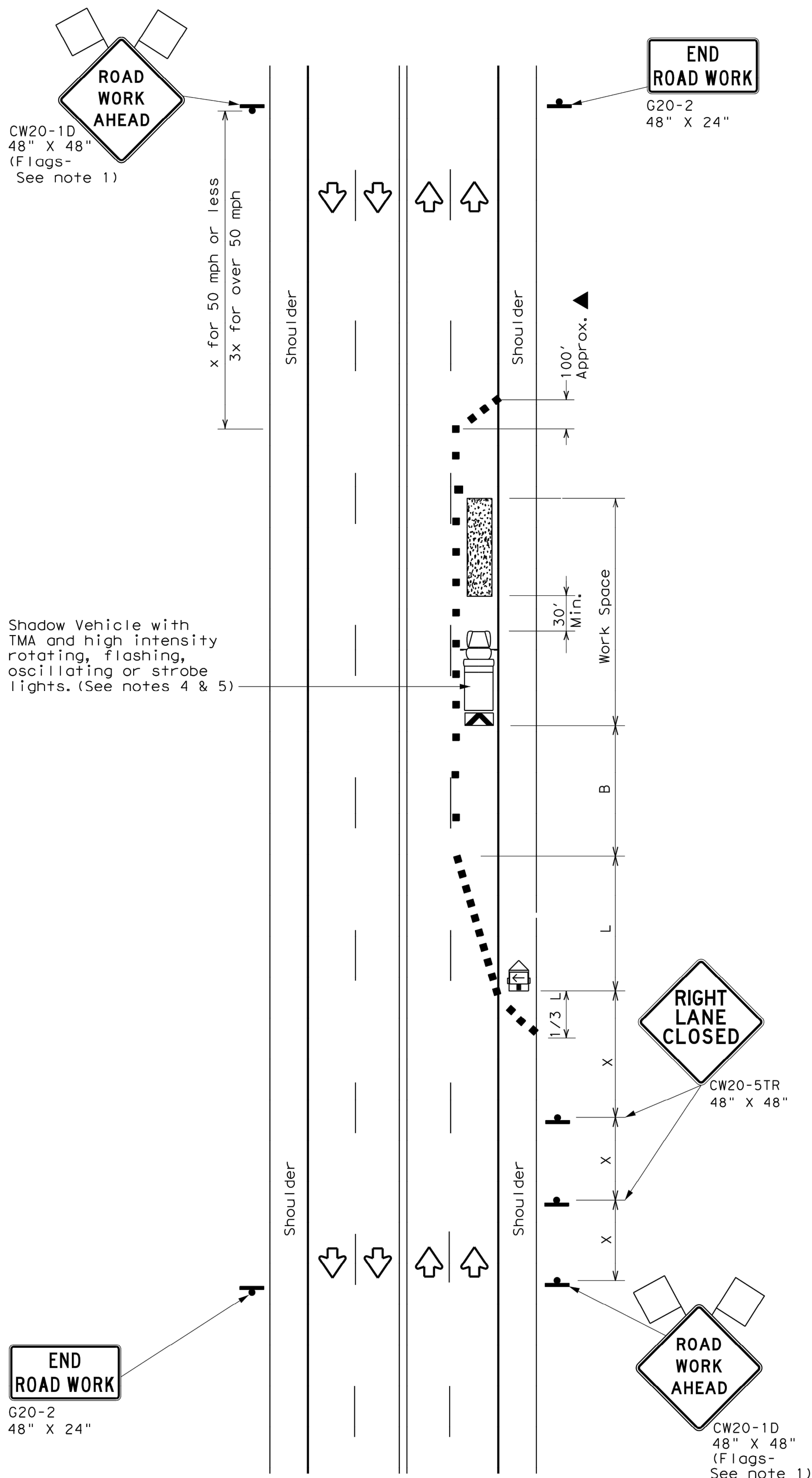
PEDESTRIAN RAIL

TYPE PR1

FILE: r1std028.dgn		DN: TxDOT		CK: TxDOT		DW: JTR		CK: TxDOT	
 TxDOT July 2014 REVISIONS		CONT SECT		JOB		HIGHWAY			
		DIST		COUNTY				SHEET NO.	
								49	

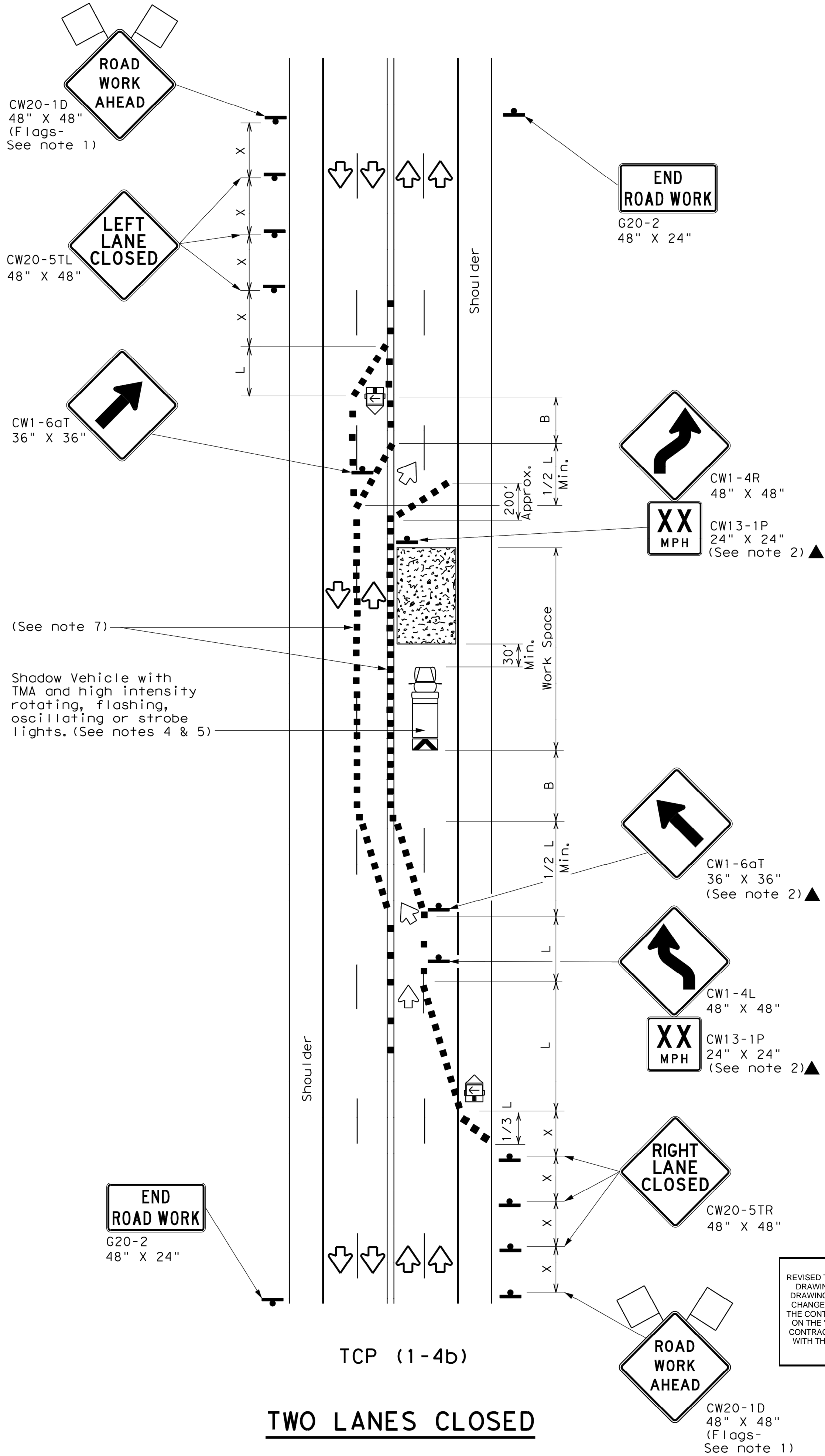
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DATE:
FILE:



TCP (1-4a)

ONE LANE CLOSED



TCP (1-4b)

TWO LANES CLOSED

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

- Flags attached to signs where shown are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- The CW20-1D "ROAD WORK AHEAD" sign may be repeated if the visibility of the work zone is less than 1500 feet.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.

TCP (1-4a)

- If this TCP is used for a left lane closure, CW20-5TL "LEFT LANE CLOSED" signs shall be used and channelizing devices shall be placed on the centerline where needed to protect the work space from opposing traffic with the arrow panel placed in the closed lane near the end of the merging taper.

TCP (1-4b)

- Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/2S where S is the speed in mph. This tighter device spacing is intended for the areas of conflicting markings, not the entire work zone.

RECORD DRAWING
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Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
LANE CLOSURES ON MULTILANE
CONVENTIONAL ROADS

TCP (1-4) - 18

FILE:	tcp1-4-18.dgn	DN:		CK:		DW:		CK:	
© TxDOT	December 1985	CONT	SECT	JOB		HIGHWAY			
REVISIONS		DIST		COUNTY		SHEET NO.			
2-94	4-98								
8-95	2-12								
1-97	2-18								