

# CITY OF KINGSVILLE

## 2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS

CITY OF KINGSVILLE  
 ENGINEERING DEPARTMENT  
 400 West King  
 Kingsville, Texas 78363  
 Office 361.595.8007  
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Drawn by: M. MEDRANO  
 Date: 01/25/2021  
 Checked by: R. MORA  
 Job:  
 Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE  
AND DRAINAGE IMPROVEMENTS**  
  
**COVER SHEET**

SHEET  
1

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39	ALT. BID 1 - SAGE ROAD DRAINAGE TYPICAL SECTIONS

**PROJECT LOCATION**  
 N. 19TH ST. FROM E. HENRIETTA  
 AVE. TO E. KING AVE.

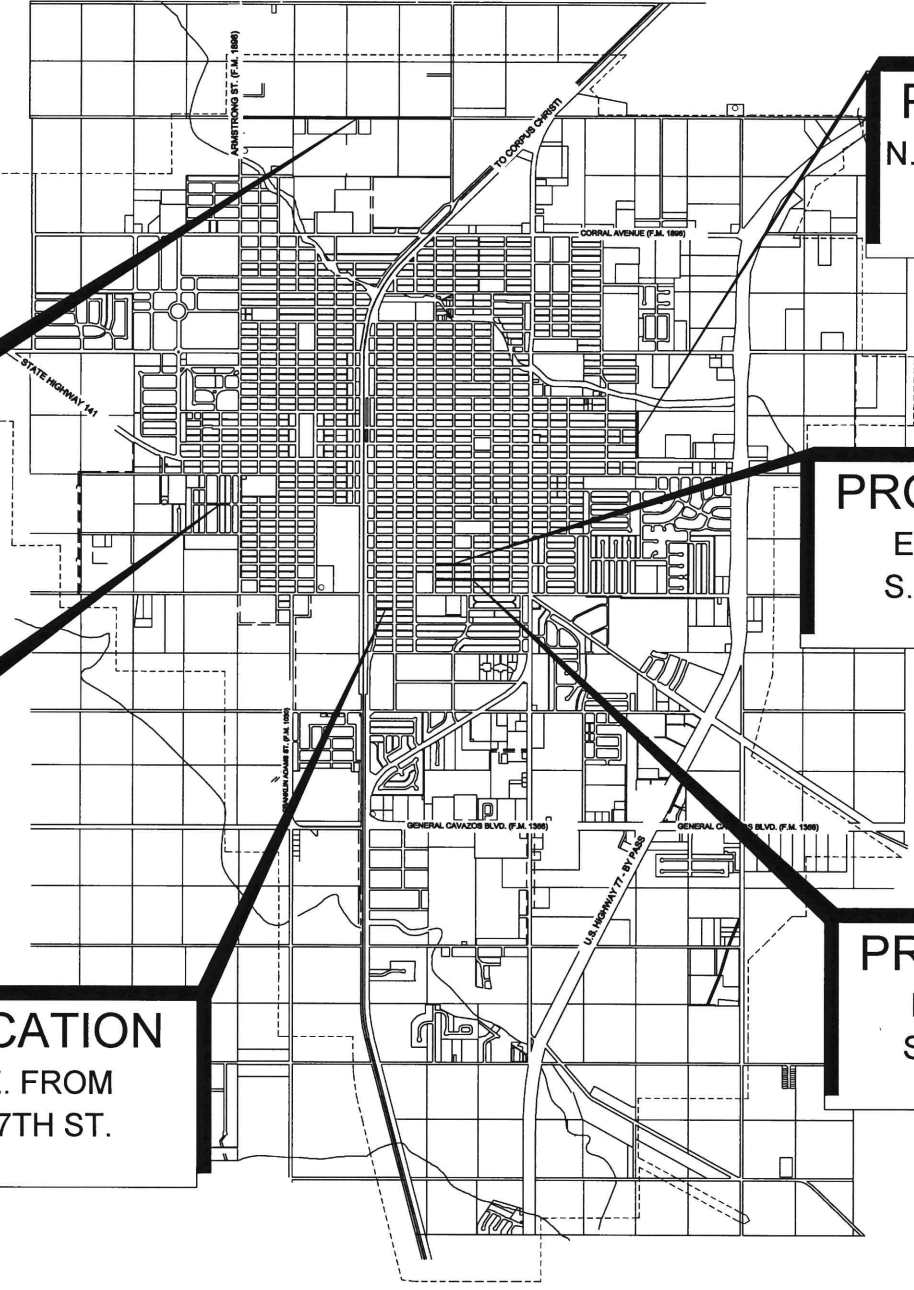
**PROJECT LOCATION**  
 E. WARREN AVE. FROM  
 S. 9TH ST. TO S. 11TH ST.

**PROJECT LOCATION**  
 E. RAGLAND AVE. FROM  
 S. 9TH ST. TO S. 13TH ST.

**PROJECT LOCATION -  
ALT. BID NO. 1**  
 W. SAGE ROAD FROM FM 1898 TO  
 5100 FEET EAST

**PROJECT LOCATION**  
 W. HUISACHE AVE. FROM S.  
 WILLIAMS ST. TO S. FRANCIS ST.

**PROJECT LOCATION**  
 E. HOFFMAN AVE. FROM  
 S. 6TH ST. TO S. 7TH ST.



MAYOR  
 SAM FUGATE  
  
 CITY MANAGER  
 MARK MCLAUGHLIN

CITY COMMISSIONERS  
 HECTOR M. HINOJOSA  
 NORMA NELDA ALVAREZ  
 ANN MARIE TORRES  
 EDNA LOPEZ



**LOCATION MAP**  
 NOT TO SCALE

JULY 2021

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*Rutilio P. Mora Jr.* 7/19/2021  
 RUTILIO P. MORA JR., P.E. NO. 111588

**GENERAL CONSTRUCTION NOTES:**

1. ALL IMPROVEMENTS TO BE IN ACCORDANCE WITH CITY OF KINGSVILLE CODES.
2. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING FACILITIES PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO PLAN AND PERFORM HIS WORK IN A MANNER THAT WILL PERMIT SAFE PUBLIC TRAFFIC MOVEMENT ON ALL STREETS.
4. TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO BE IN ACCORDANCE WITH SPECIFICATIONS.
5. CONTRACTOR SHALL PROVIDE PROTECTIVE DEVICES SUCH AS SIGNS, LIGHTS, AND SIGNALS FOR THE SAFETY OF THE PUBLIC AND WORKERS, AS REQUIRED, AND AS DIRECTED BY CITY INSPECTOR.
6. CONTRACTOR TO BE RESPONSIBLE FOR PROTECTION AND/OR SAFETY OF THE WORK SITE, WORKERS, SUBCONTRACTORS, MATERIALS AND/OR EQUIPMENT.
7. CONSTRUCTION STAKING SHALL BE PROVIDED BY THE CONTRACTOR AND AT CONTRACTOR'S EXPENSE. BASE LINES ARE STAKED AS SHOWN ON PLANS. ALL DIMENSIONS ARE TO BACK OF CURBS UNLESS SHOWN OTHERWISE.
8. MATERIAL TESTING SHALL BE PROVIDED BY THE CITY OF KINGSVILLE. RE-TEST DUE TO FAILURES TO BE AT CONTRACTOR'S EXPENSE.
9. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL BY THE CITY ENGINEERING OFFICE PRIOR TO CONSTRUCTION. CONTRACTOR MAY CLOSE STREETS TO THRU TRAFFIC IN 1000' INCREMENTS AS LONG AS ACCESS IS MAINTAINED TO ALL RESIDENCES, BUSINESSES, & ADJOINING STREETS. TRAFFIC CONTROL PLAN WILL BE IN ACCORDANCE WITH TXDOT'S B & C SHEETS 18 THROUGH 24 AND THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND AT CONTRACTOR'S EXPENSE.
11. ANY DAMAGE TO EXISTING PAVEMENT, DRAINAGE OR EXISTING STRUCTURES SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITION AT CONTRACTOR'S EXPENSE.
12. THESE PLANS, PREPARED BY THE CITY OF KINGSVILLE ENGINEERING DEPARTMENT DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF CITY OF KINGSVILLE'S REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED IN THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY THE HOUSE BILLS 662 AND 665 ENACTED BY THE TEXAS LEGISLATURE IN THE 70TH LEGISLATURE REGULAR SESSION."
13. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. NOTIFY TEXAS ONE CALL FOR UTILITY LOCATIONS PRIOR TO ANY & ALL EXCAVATIONS. COORDINATION OF ALL RELOCATION OF UTILITY POLES, ECT. TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
14. CONTRACTOR TO COORDINATE WITH THE CITY OF KINGSVILLE ON WORK SCHEDULES, TESTING, GENERAL INSPECTION, AND EXISTING LINES.
15. CONTRACTOR TO EXERCISE CAUTION WHEN WORKING NEAR EXISTING FACILITIES AND/OR UTILITIES. ALL DAMAGE TO BE REPAIRED AT CONTRACTOR'S EXPENSE. ALL COSTS FOR INTERRUPTION OF GAS, ELECTRICAL, COMMUNICATIONS AND/OR WATER SERVICE DUE TO CONTRACTOR'S WORK SHALL BE BORNE BY THE CONTRACTOR.
16. INFORMATION ON EXISTING UTILITIES IS FROM BEST AVAILABLE INFORMATION OF RECORD AND SPOT FIELD LOCATIONS. CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATION OF THESE UNDERGROUND UTILITIES AS REQUIRED AT NO SEPARATE PAY. CITY OF KINGSVILLE PERSONNEL WILL BE AVAILABLE FOR ASSISTANCE AND OPERATION OF VALVES AS REQUIRED. CONTRACTOR TO COORDINATE WITH OTHER UTILITY COMPANIES, INCLUDING AEP ON ELECTRICAL UTILITIES, CENTERPOINT ENERGY ON GAS UTILITIES AND AT&T ON TELEPHONE UTILITIES.
17. ALL SPOIL MATERIAL AND DEBRIS SHALL BE DISPOSED OF BY CONTRACTOR. FURNISHING AND TRANSPORTATION OF ALL OFFSITE MATERIAL TO BE AT CONTRACTOR'S EXPENSE. SOIL SHALL BE PROPERTY OF THE CITY AND WILL BE TRANSPORTED TO THE CITY LANDFILL BY THE CONTRACTOR. (NO SEPARATE PAY)
18. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL RETURN THE SITE TO ORIGINAL CONTOURS UNLESS DIFFERENT FINISHED ELEVATIONS ARE SHOWN ON PLANS. CONTRACTOR TO INSURE NO AREAS OF PONDING ARE PRESENT.
19. CONTRACTOR TO INSURE SAME DAY ACCESS TO SCHOOL, ALL RESIDENCES AND BUSINESSES ADJACENT TO CONSTRUCTION.
20. DEMOLITION, REMOVAL & DISPOSAL OF ALL EXCESS CONCRETE, CURBS, RUBBLE, ETC. TO BE AT CONTRACTOR'S EXPENSE.
21. CONCRETE NOTES:
  - a. ALL CONCRETE WORK TO BE FORMED, UNLESS OTHERWISE APPROVED.
  - b. ALL CONCRETE TO BE 3000 PSI MINIMUM AT 28 DAYS, UNLESS OTHERWISE SHOWN. STRENGTH TO BE DETERMINED BY CYLINDER BREAK TEST.
  - c. ALL REINFORCING STEEL TO BE ASTM A-615, GRADE 60, UNLESS OTHERWISE SHOWN.
  - d. ALL EXPOSED CONCRETE WORK TO BE CHAMFERED.
22. CONTRACTOR TO VERIFY THAT ALL CONCRETE SURFACES MEET THE FOLLOWING SLOPE CRITERIA PRIOR TO PLACEMENT OF CONCRETE.
  - a. RAMP SLOPE 12:1 (8.33%) (MAX.)
  - b. RUNNING SLOPE 20:1 (5%) (MAX.)
  - c. CROSS SLOPE 50:1 (2%) (MAX.)

(CROSS SLOPE IS SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
23. CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING SILT FENCE IN AREAS OF DISTURBED SOIL TO PREVENT EROSION FROM ENTERING DRIVEWAYS AND STORM DRAINAGE SYSTEMS.

**ABBREVIATIONS**

MAX.	MAXIMUM
MIN.	MINIMUM
O.C.E.W.	ON CENTER EACH WAY
LG.	LONG
TYP.	TYPICAL
DET.	DETAIL
SHT.	SHEET
SW.	SIDEWALK
DW.	DRIVEWAY
SF.	SQUARE FEET
SY.	SQUARE YARD
FL.	FLOWLINE
TC.	TOP OF CURB
BC.	BACK OF CURB
N&S	NORTH AND SOUTH
PROP.	PROPOSED
EX.	EXISTING
EOA	EDGE OF ASPHALT
CONC.	CONCRETE
VPI.	VERTICAL POINT OF INTERSECTION

EXISTING		LEGEND		PROPOSED	
	ROAD EOA		UTILITY POLE		CURB AND GUTTER
	FLOWLINE		GUY POLE		CONCRETE REPAIR
	ROW		POWER POLE		ASPHALT REPAIR
	OVERHEAD ELECTRIC		WATER METER		LIMESTONE FILL
	LIGHT POLE		WATER VALVE		STREET SIGN
	FIRE HYDRANT		DEMO		
	STREET SIGN		SAW CUT		
	CONCRETE		WASTEWATER MANHOLE		
	ASPHALT		PAVEMENT		
	GRAVEL				
	CALICHE				

**CALL BEFORE YOU DIG!**



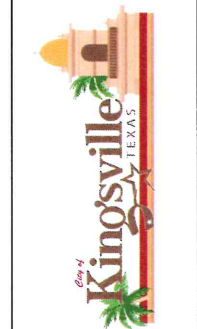
PARTICIPANTS REQUEST  
48 HOURS NOTICE BEFORE YOU DIG,  
DRILL OR BLAST - STOP AND CALL  
811

THE LONE STAR  
NOTIFICATION COMPANY  
AT 1-800-669-8344

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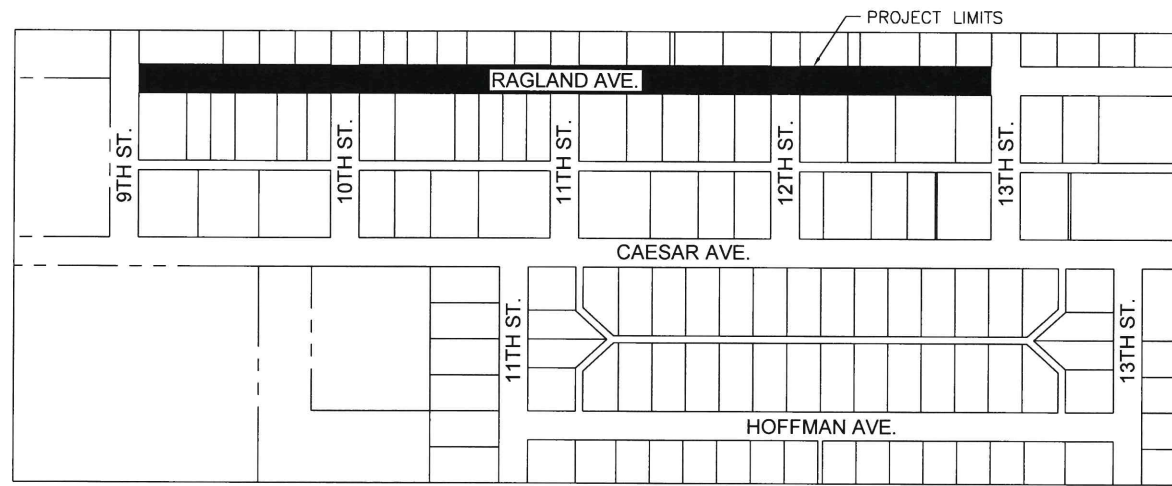
*Rutilio P. Mora Jr.* 7/19/2021  
RUTILIO P. MORA JR., P.E. NO. 111588



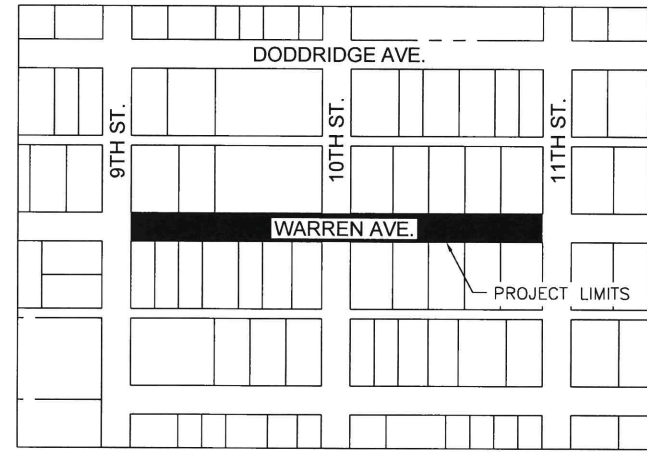
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Scale: AS NOTED

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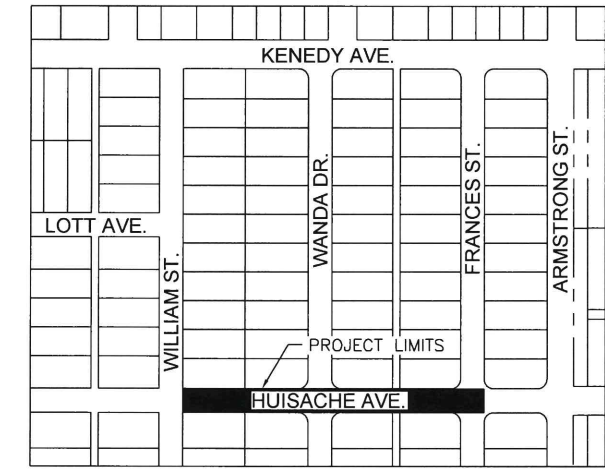
**GENERAL NOTES**



1 RAGLAND AVE. BETWEEN 9TH AND 13TH ST.  
3 SCALE: 1:200



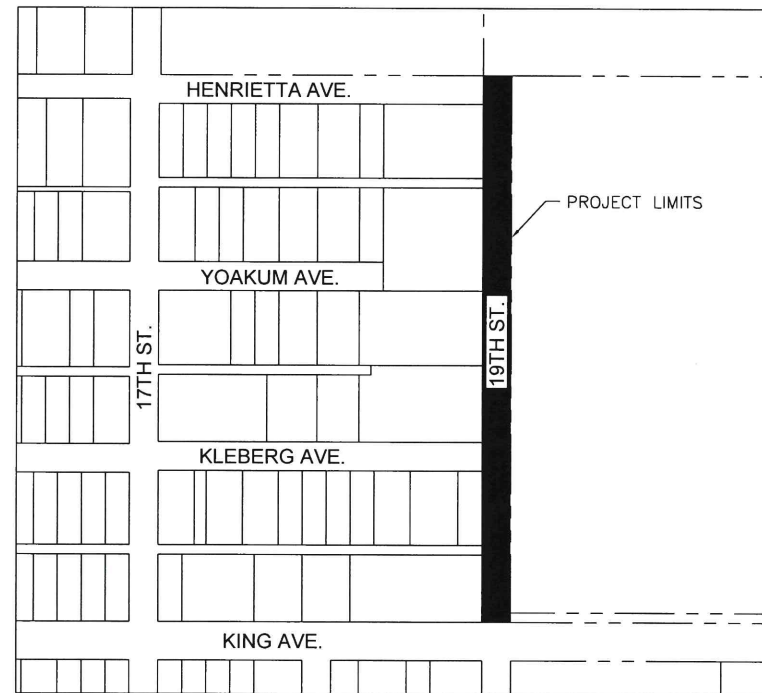
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3 SCALE: 1:200



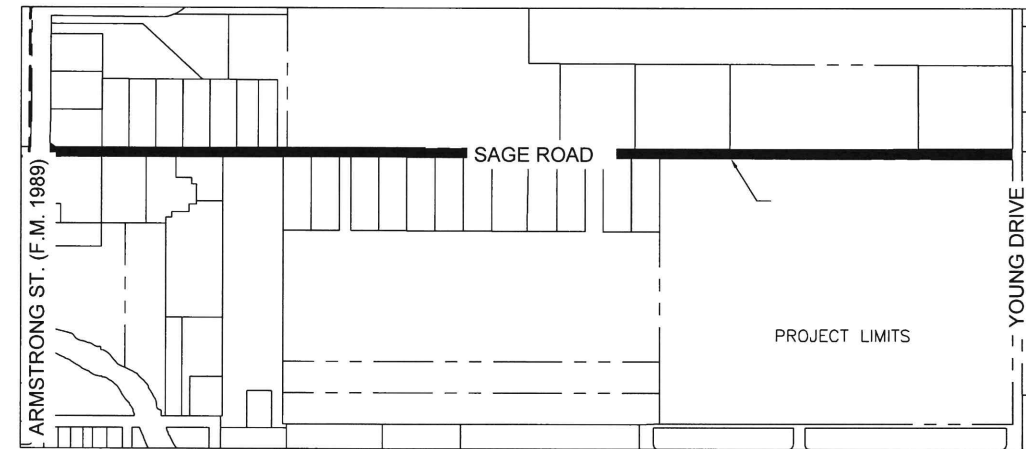
3 HUISACHE AVE. BETWEEN WILLIAMS ST. AND FRANCES ST.  
3 SCALE: 1:200



4 HOFFMAN AVE. BETWEEN 6TH ST. AND 7TH ST.  
3 SCALE: 1:200



5 19TH ST. BETWEEN KING AVE. AND HENRIETTA AVE.  
3 SCALE: 1:200



6 ALT. BID 1 - SAGE ROAD BETWEEN N. ARMSTRONG ST. AND YOUNG DRIVE  
3 SCALE: 1:500

PROJECT LIMITS

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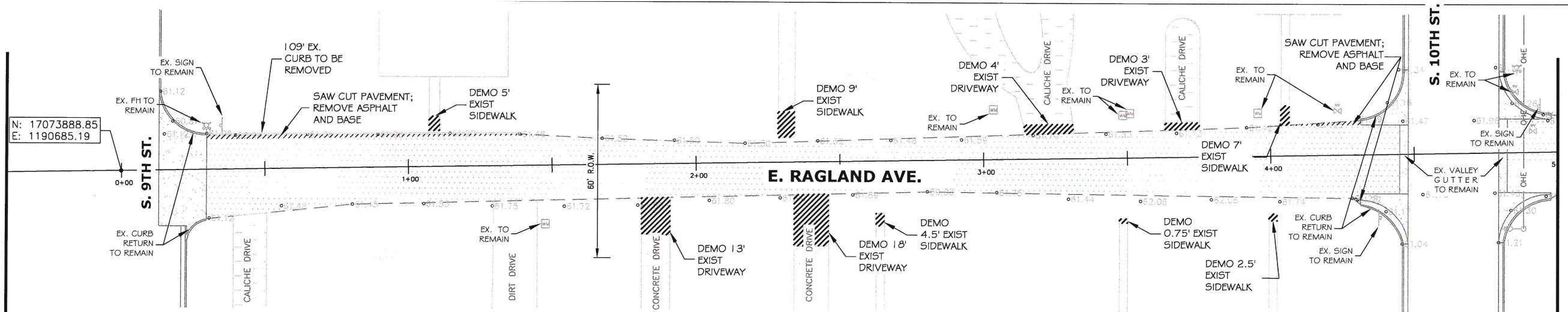
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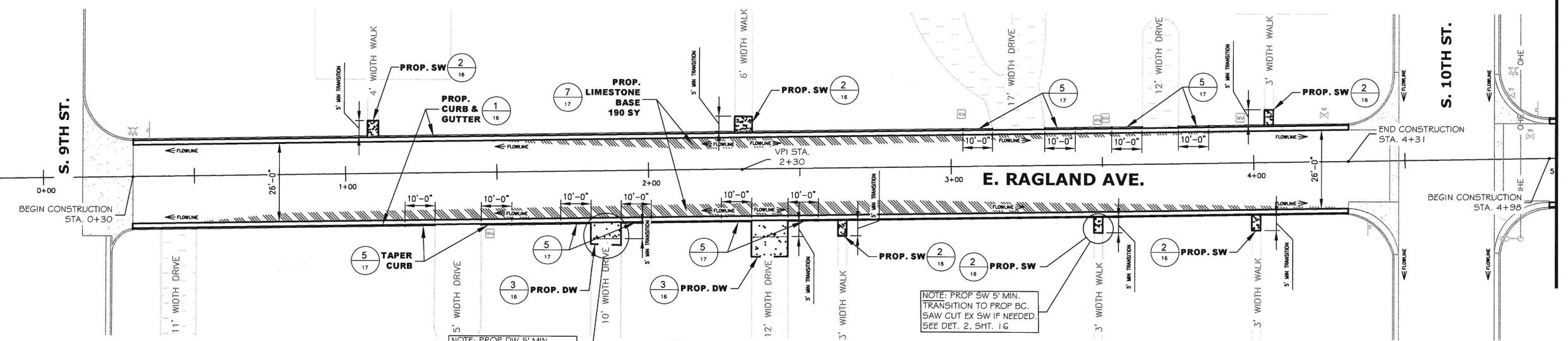
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2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS  
PROJECT LOCATIONS AND LIMITS

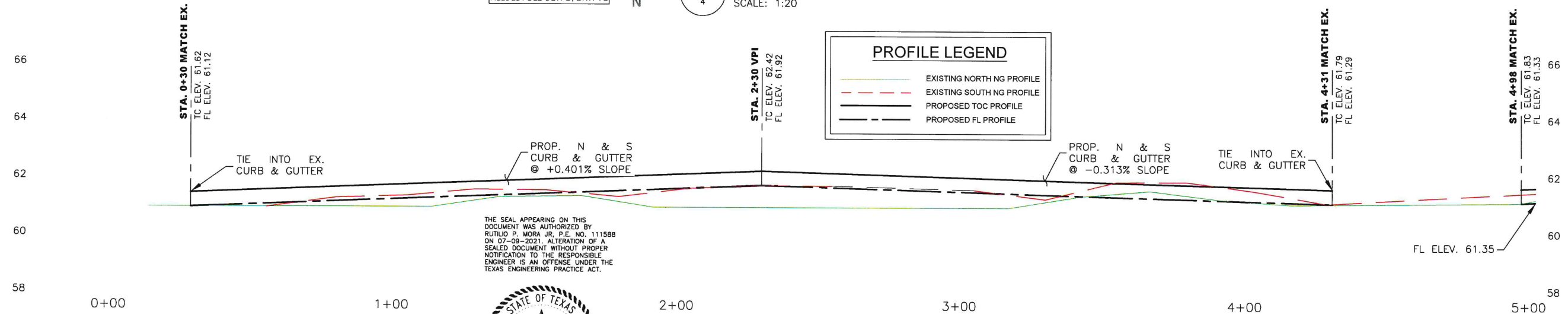
MATCHLINE STA. -0 + 20



**A PLAN VIEW STA. -0+20 TO STA. 5+00 (EXISTING)**  
SCALE: 1:20



**B PLAN VIEW STA. -0+20 TO STA. 5+00 (PROPOSED)**  
SCALE: 1:20



**C PROFILE VIEW STA. -0+20 TO STA. 5+00**  
HORIZONTAL SCALE: 1"=20'  
VERTICAL SCALE: 1"=2'

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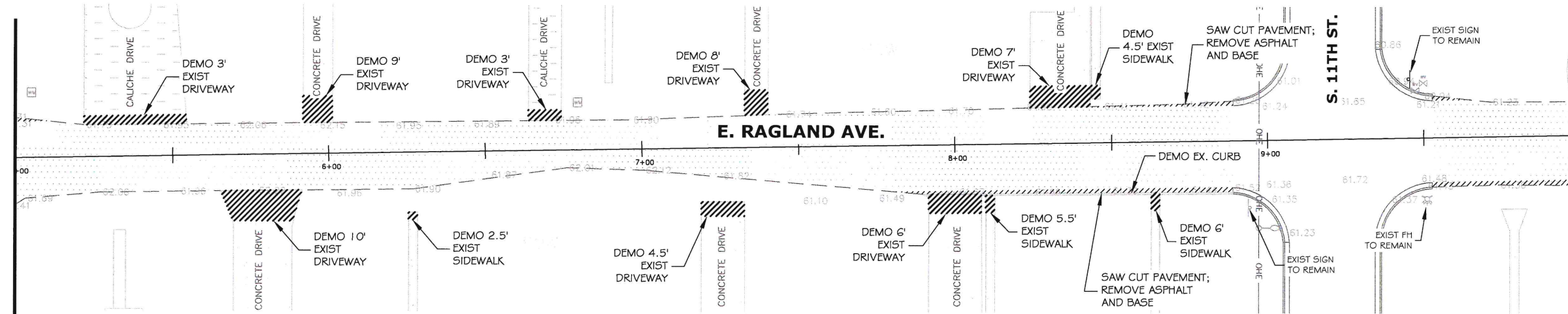


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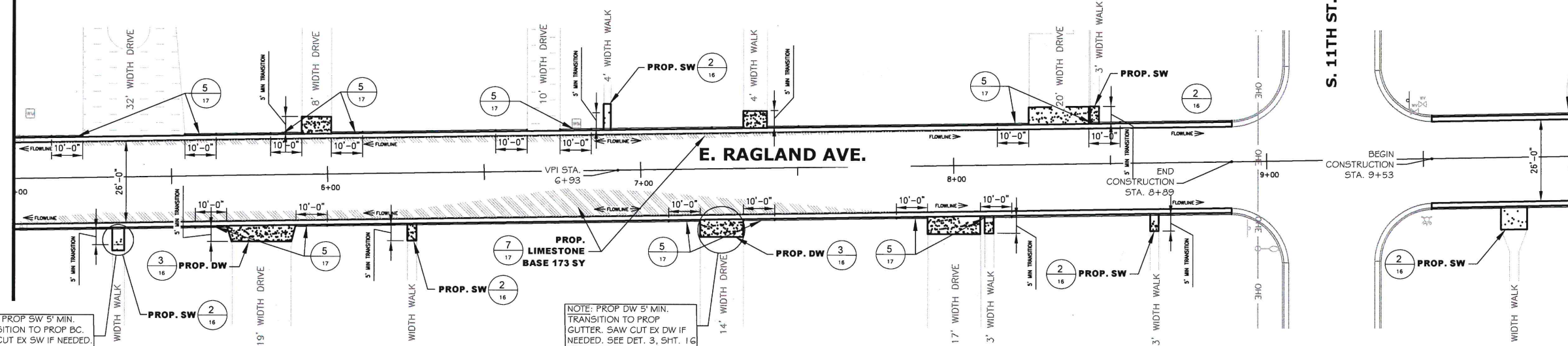
**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**E. RAGLAND AVE - 9TH ST. TO 13TH ST.**  
**PLAN AND PROFILE STA. -0+20 TO STA. 5+00**

MATCHLINE STA. 5+00

MATCHLINE STA. 10+00



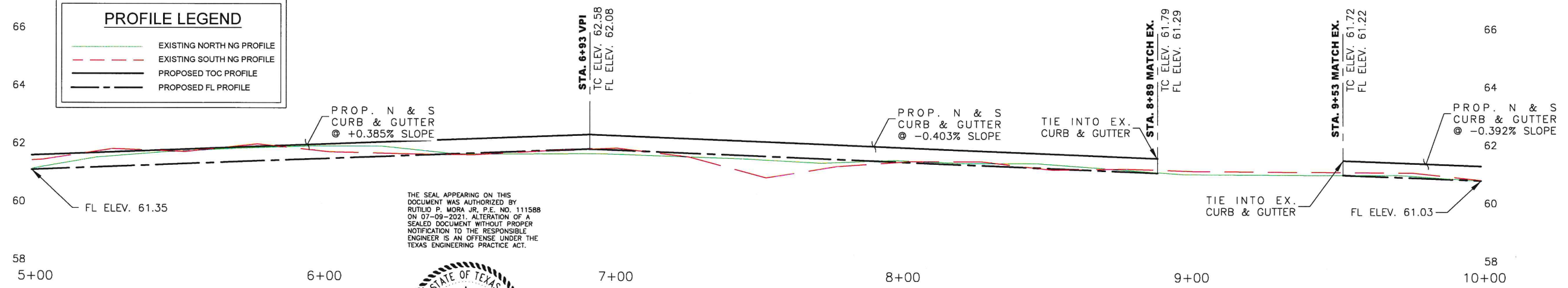
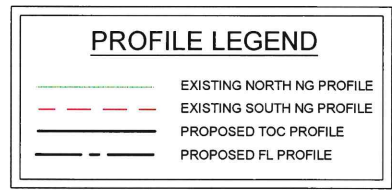
**A PLAN VIEW STA. 5+00 TO STA. 10+00 (EXISTING)**  
SCALE: 1:20



**B PLAN VIEW STA. 5+00 TO STA. 10+00 (PROPOSED)**  
SCALE: 1:20

NOTE: PROP SW 5' MIN. TRANSITION TO PROP DC. SAW CUT EX SW IF NEEDED. SEE DET. 2, SHT. 16

NOTE: PROP DW 5' MIN. TRANSITION TO PROP GUTTER. SAW CUT EX DW IF NEEDED. SEE DET. 3, SHT. 16



**C PROFILE VIEW STA. 5+00 TO STA. 10+00**  
HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

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RUTILIO P. MORA JR., P.E. NO. 111588  
PROFESSIONAL ENGINEER  
LICENSED  
STATE OF TEXAS

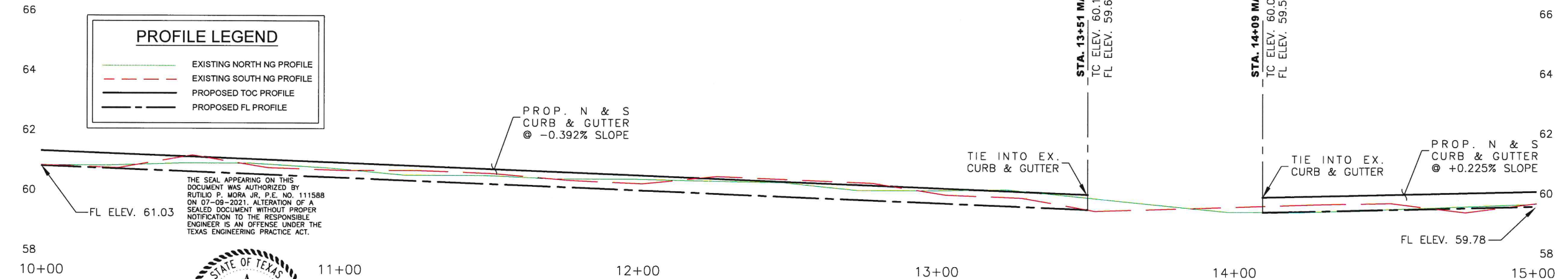
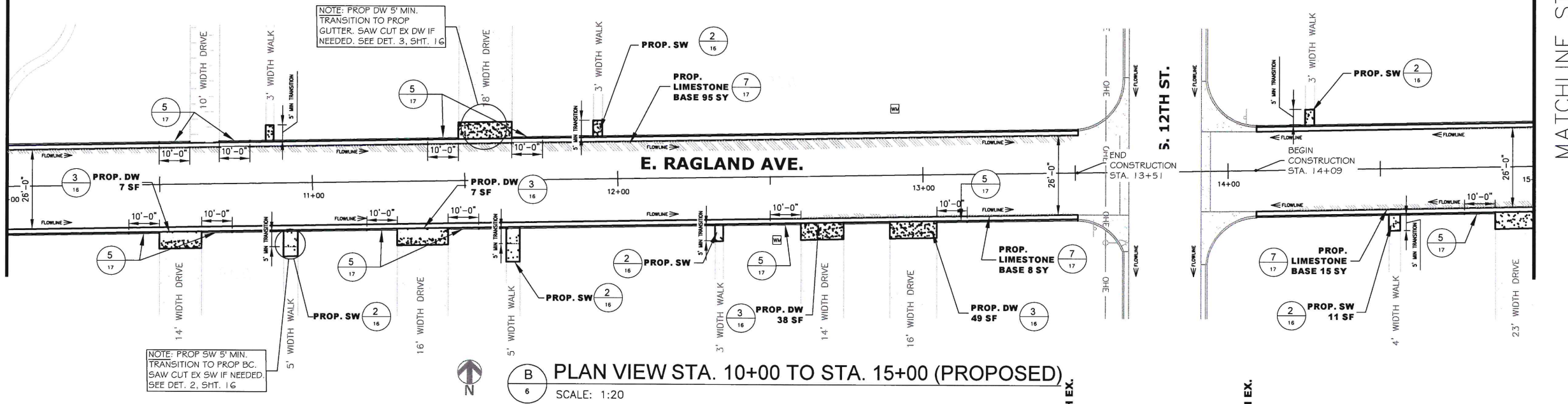
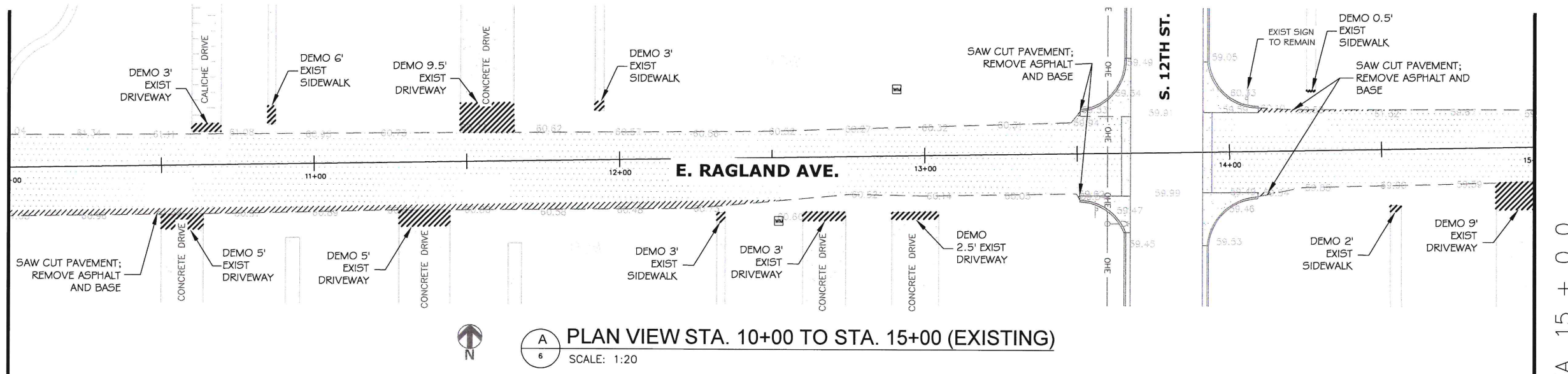
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**E. RAGLAND AVE - 9TH ST. TO 13TH ST.**  
**PLAN AND PROFILE STA. 5+00 TO STA. 10+00**

MATCHLINE STA. 10 + 0 0



**PROFILE LEGEND**

- EXISTING NORTH NG PROFILE
- EXISTING SOUTH NG PROFILE
- PROPOSED TOC PROFILE
- PROPOSED FL PROFILE

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111588  
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RUTILIO P. MORA JR., P.E. NO. 111588

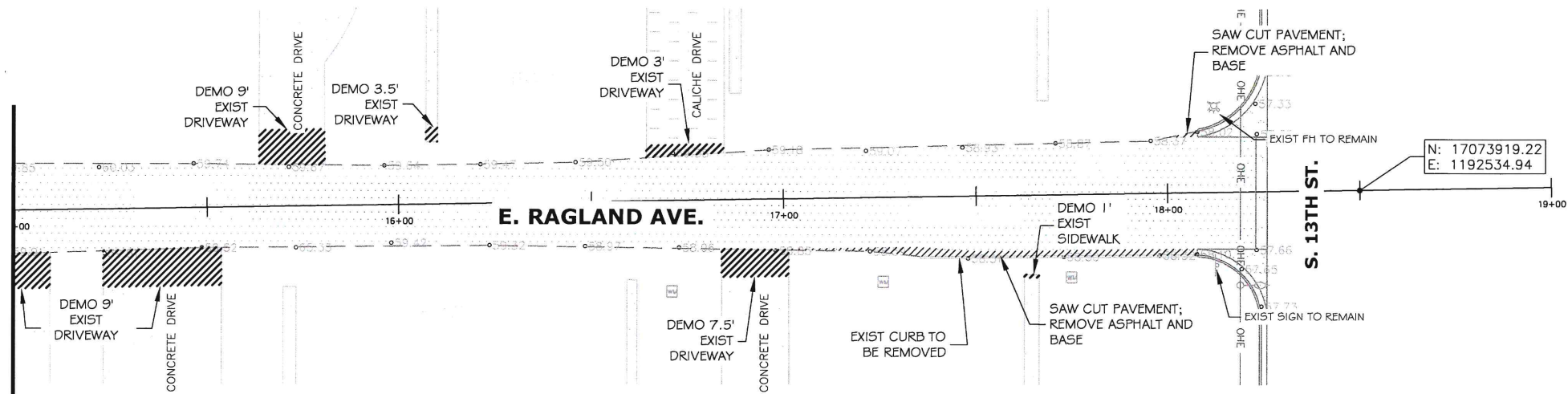
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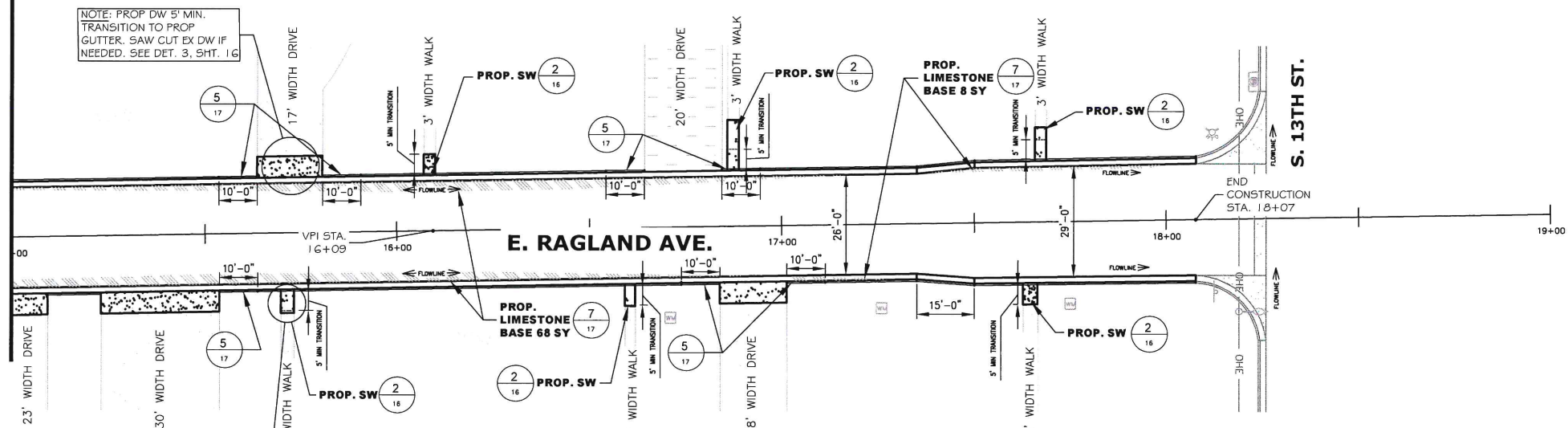
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**PLAN AND PROFILE STA. -0+20 TO STA. 5+00**

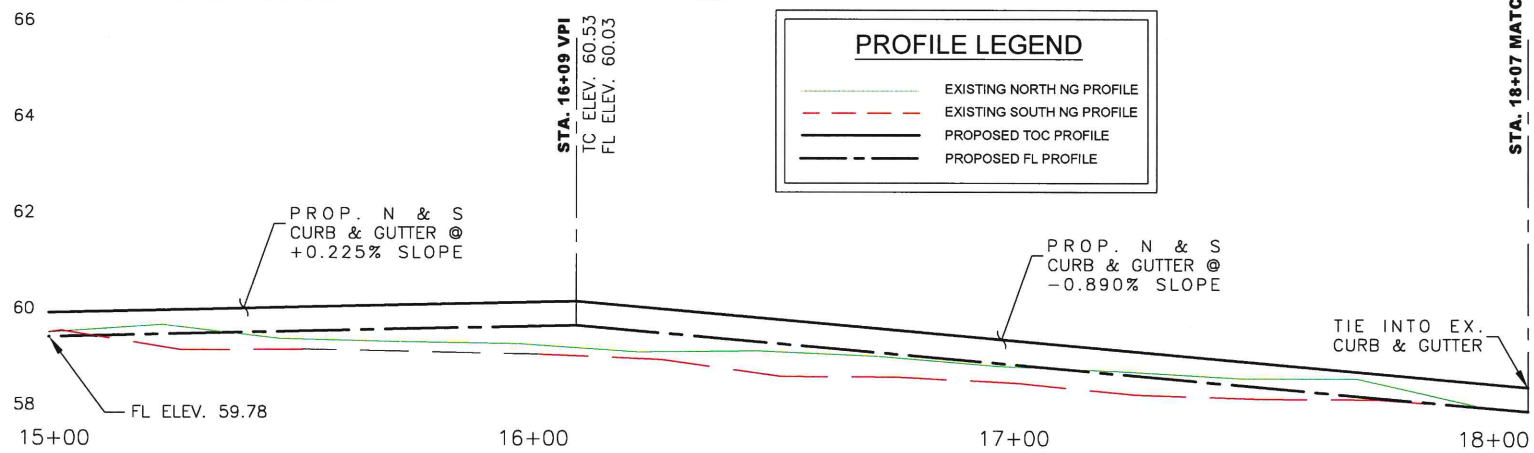
MATCHLINE STA. 15 + 0 0



**A PLAN VIEW STA. 15+00 TO END (EXISTING)**  
SCALE: 1:20



**B PLAN VIEW STA. 15+00 TO END (PROPOSED)**  
SCALE: 1:20



**C PLAN VIEW STA. 15+00 TO END (PROPOSED)**  
HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

MATCHLINE STA. END

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**RUTILIO P. MORA JR.**  
111588  
LICENSED PROFESSIONAL ENGINEER

*Rutilio P. Mora Jr.* 7/19/2021  
RUTILIO P. MORA JR., P.E. NO. 111588

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**E. RAGLAND AVE - 9TH ST. TO 13TH ST.**  
**PLAN AND PROFILE STA. 15+00 TO END**

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CITY OF KINGSVILLE  
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Kingsville, Texas 78363  
Office 361.595.8007  
Fax 361.595.8035

N: 17074246.23  
E: 1190680.13

MATCHLINE STA. -0 + 10

S. 9TH ST.

S. 10TH ST.

MATCHLINE STA. 5 + 00

S. 9TH ST.

S. 10TH ST.

**E. WARREN AVE.**

**A PLAN VIEW STA. -0+10 TO STA. 5+00 (EXISTING)**  
SCALE: 1:20

**E. WARREN AVE.**

**B PLAN VIEW STA. -0+10 TO STA. 5+00 (PROPOSED)**  
SCALE: 1:20

**PROFILE LEGEND**

- EXISTING NORTH NG PROFILE
- EXISTING SOUTH NG PROFILE
- PROPOSED TOC PROFILE
- PROPOSED FL PROFILE

**C PROFILE VIEW STA. -0+10 TO STA. 5+00**  
HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

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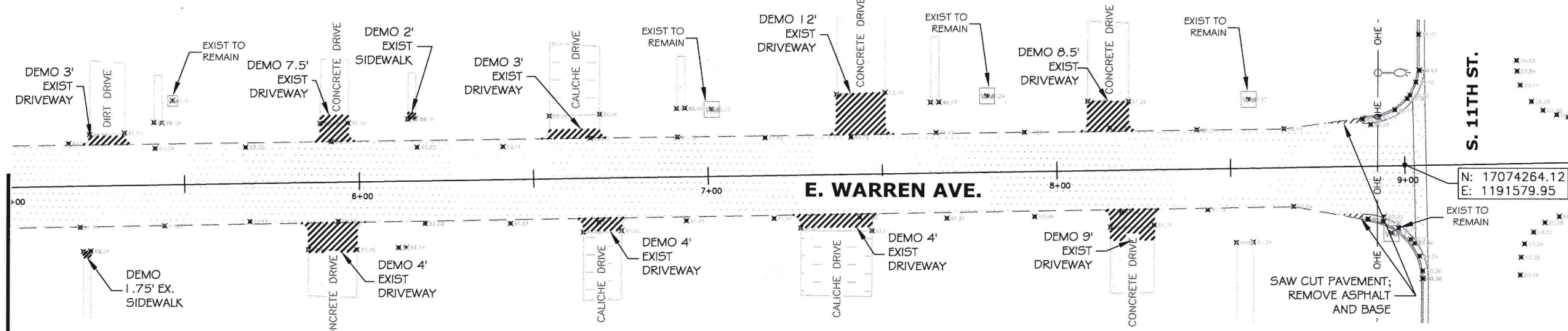


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Job:  
Scale: AS NOTED

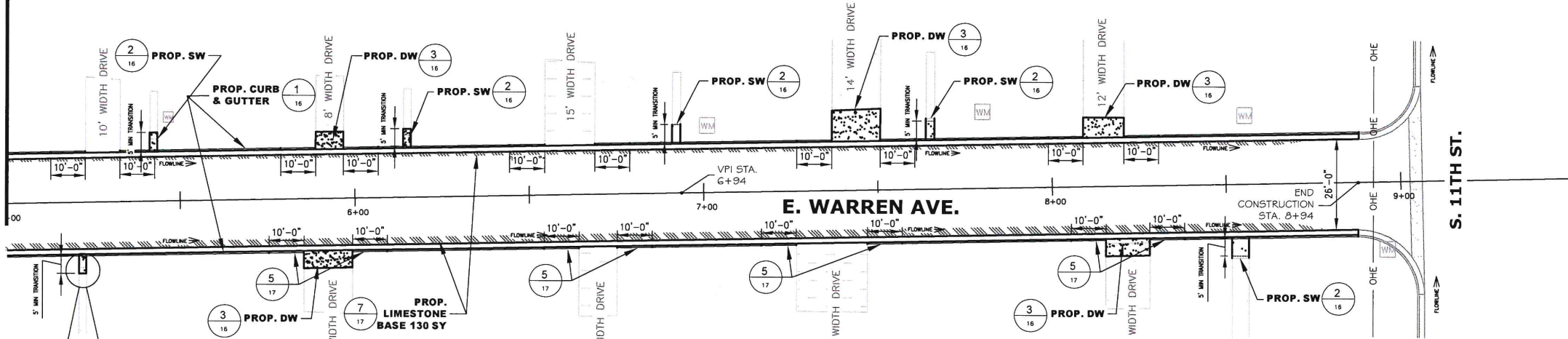
**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**WARREN AVE. - 9TH TO 11TH**  
**PLAN AND PROFILE STA. -0+10 TO STA. 5+00**



MATCHLINE STA. 5 + 0 0



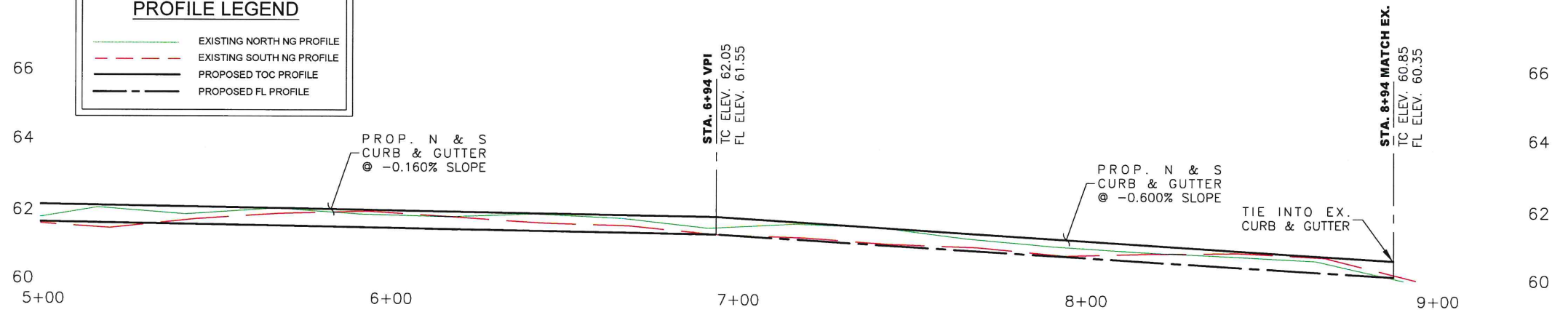
**A PLAN VIEW STA. 5+00 TO STA. END (EXISTING)**  
 SCALE: 1:20



**B PLAN VIEW STA. 5+00 TO STA. END (PROPOSED)**  
 SCALE: 1:20

NOTE: PROP SW 5' MIN. TRANSITION TO PROP BC. SAW CUT EX SW IF NEEDED. SEE DET. 2, SHT. 1G

PROFILE LEGEND	
	EXISTING NORTH NG PROFILE
	EXISTING SOUTH NG PROFILE
	PROPOSED TOC PROFILE
	PROPOSED FL PROFILE



**C PROFILE VIEW STA. 5+00 TO STA. END**  
 HORIZONTAL SCALE: 1":20'  
 VERTICAL SCALE: 1":2'

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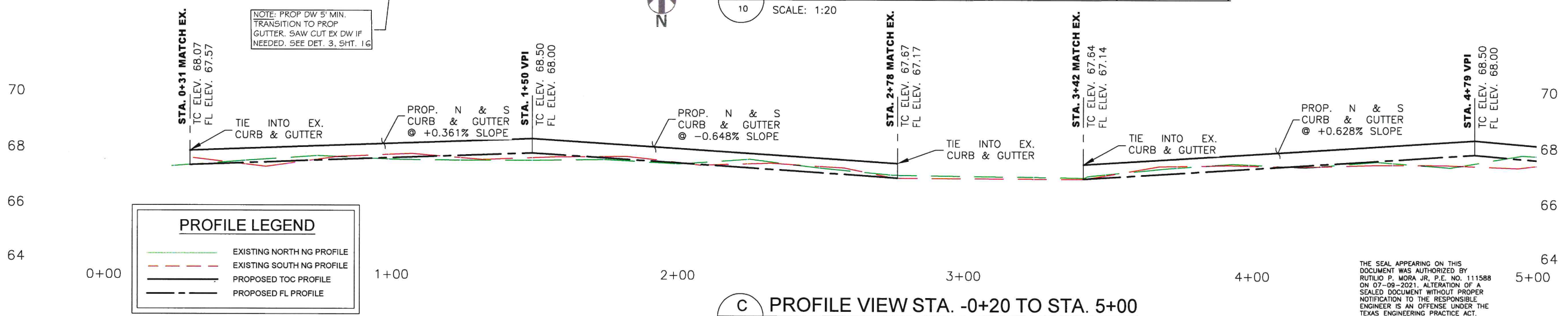
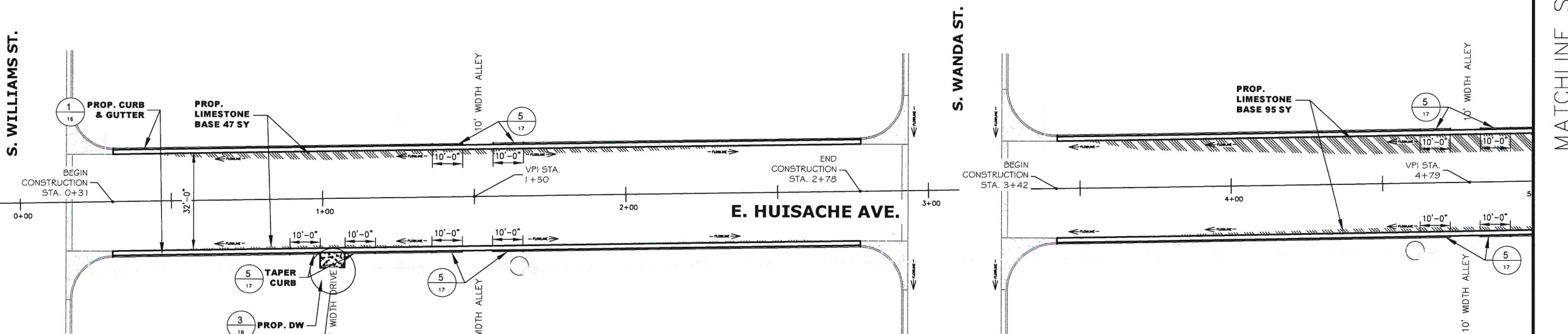
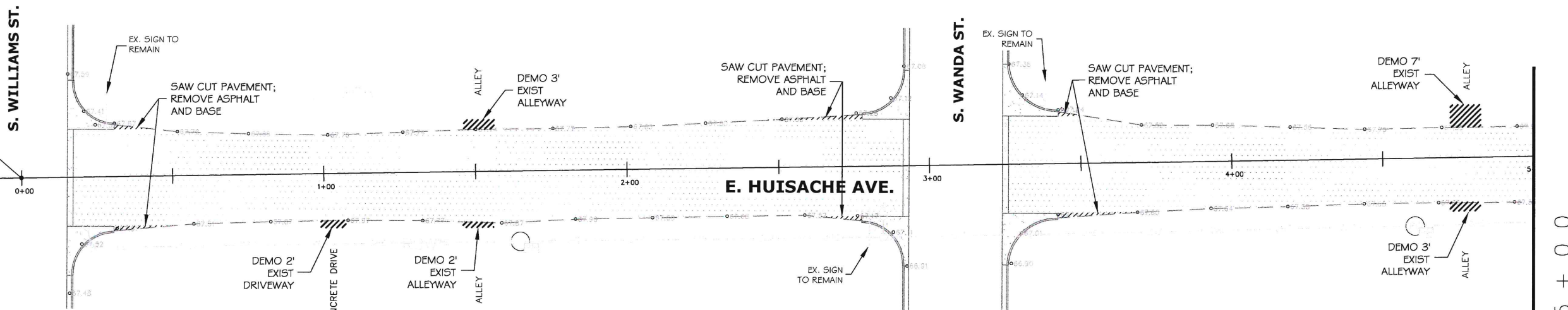


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**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**WARREN AVE. - 9TH TO 11TH**  
**PLAN AND PROFILE STA. 5+00 TO STA. END**

N: 17075588.06  
E: 1185148.87

MATCHLINE STA. -0 + 20



PROFILE LEGEND	
	EXISTING NORTH NG PROFILE
	EXISTING SOUTH NG PROFILE
	PROPOSED TOC PROFILE
	PROPOSED FL PROFILE

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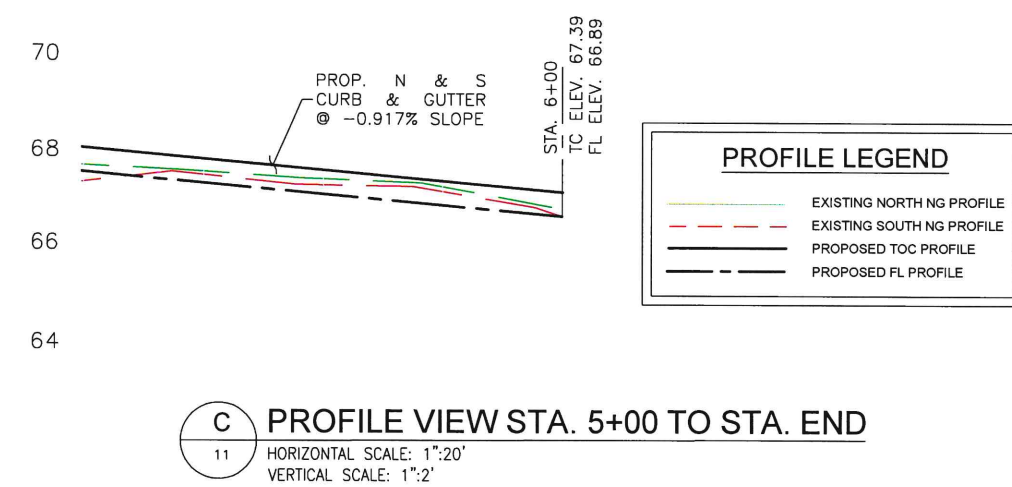
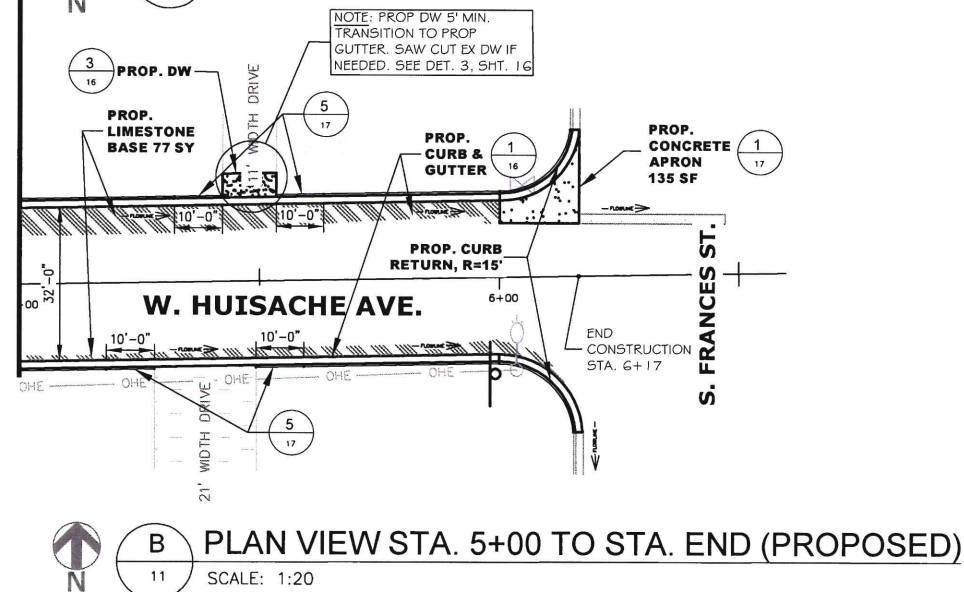
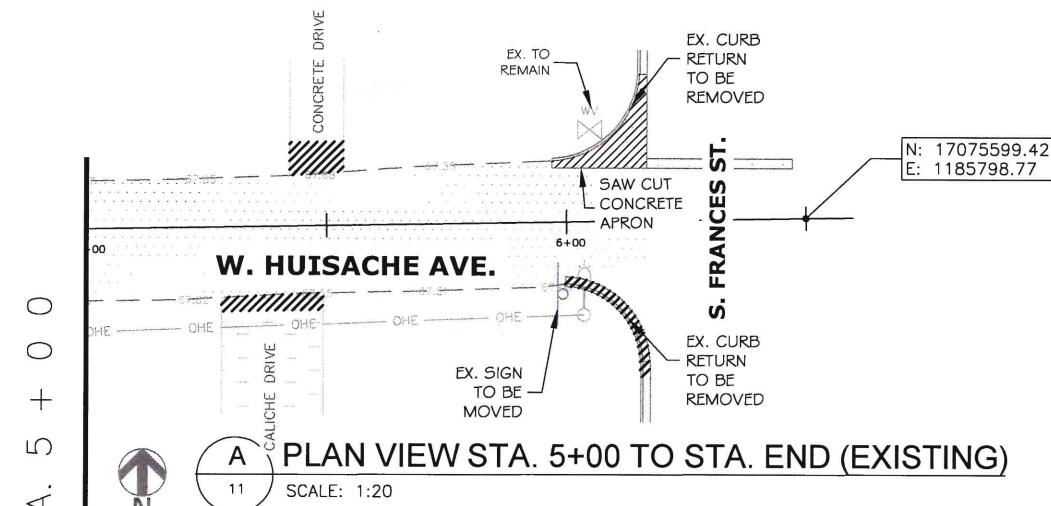
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**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**HUISACHE AVE. - WILLIAMS ST. TO FRANCES ST.**  
**PLAN AND PROFILE STA. -0+20 TO STA. 5+00**

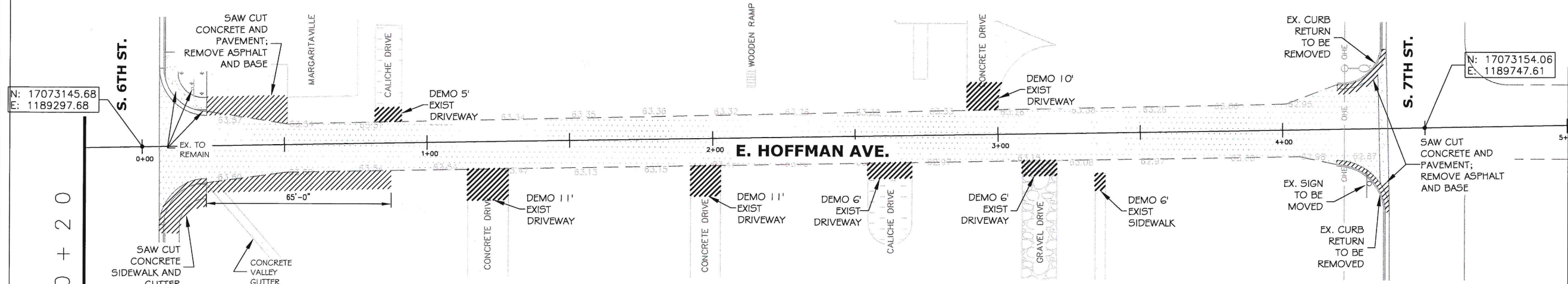


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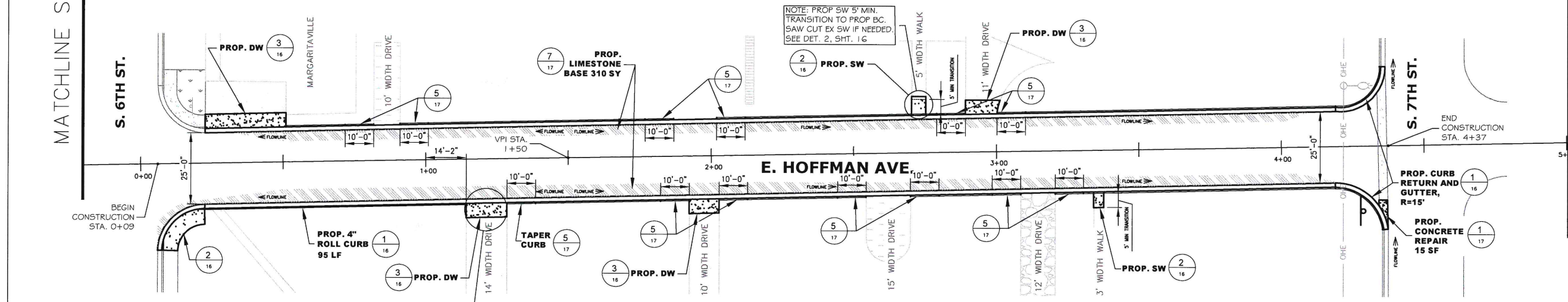


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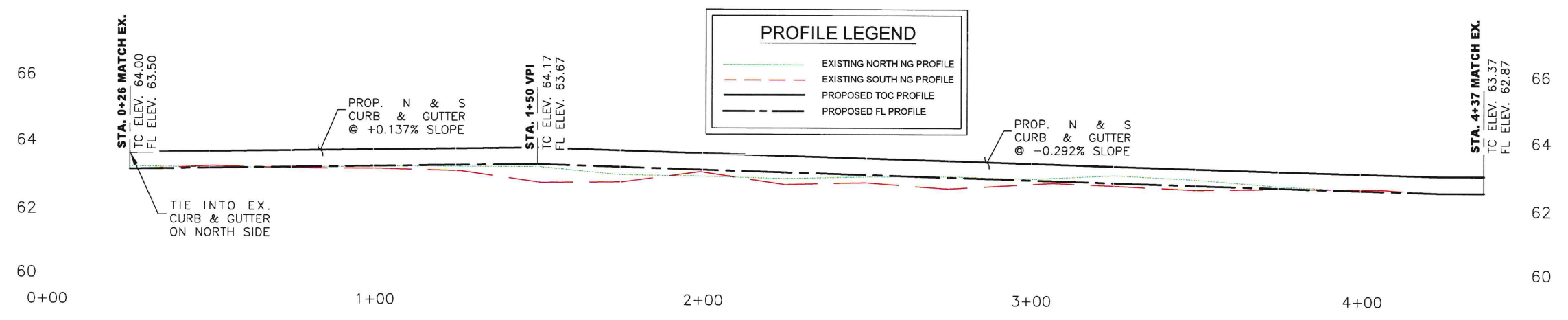
**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**HUISACHE AVE. - WILLIAMS ST. TO FRANCES ST.**  
**PLAN AND PROFILE STA. 5+00 TO STA. END**



**A PLAN VIEW STA. -0+20 TO STA. END (EXISTING)**  
SCALE: 1:20



**B PLAN VIEW STA. -0+20 TO STA. END (PROPOSED)**  
SCALE: 1:20



**C PROFILE VIEW STA. -0+20 TO STA. END**  
HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

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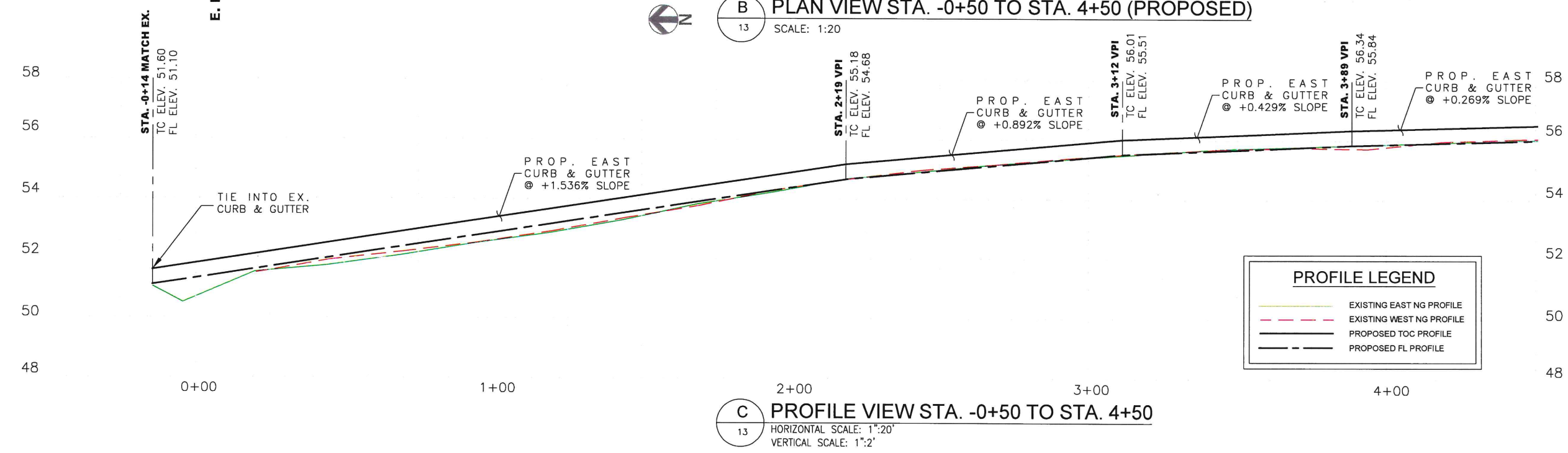
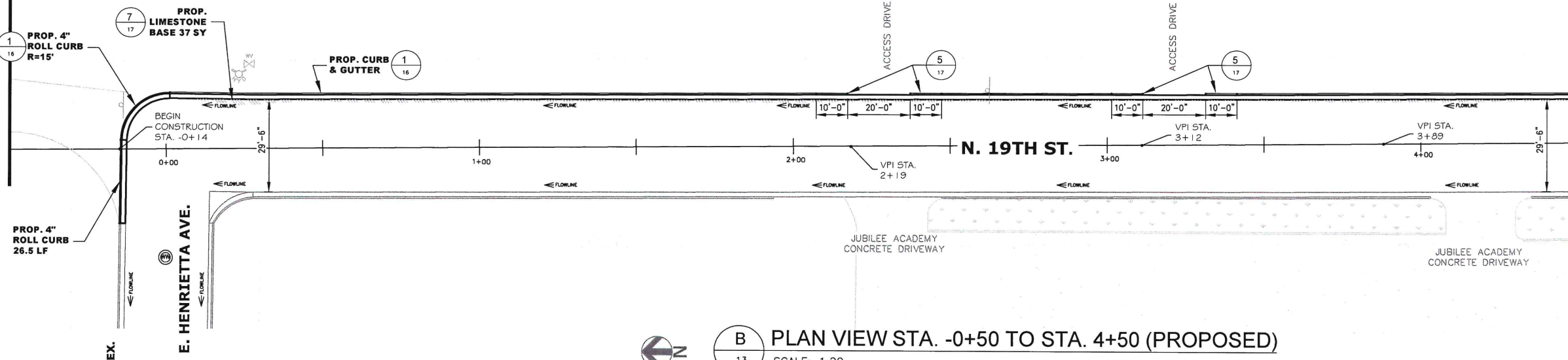
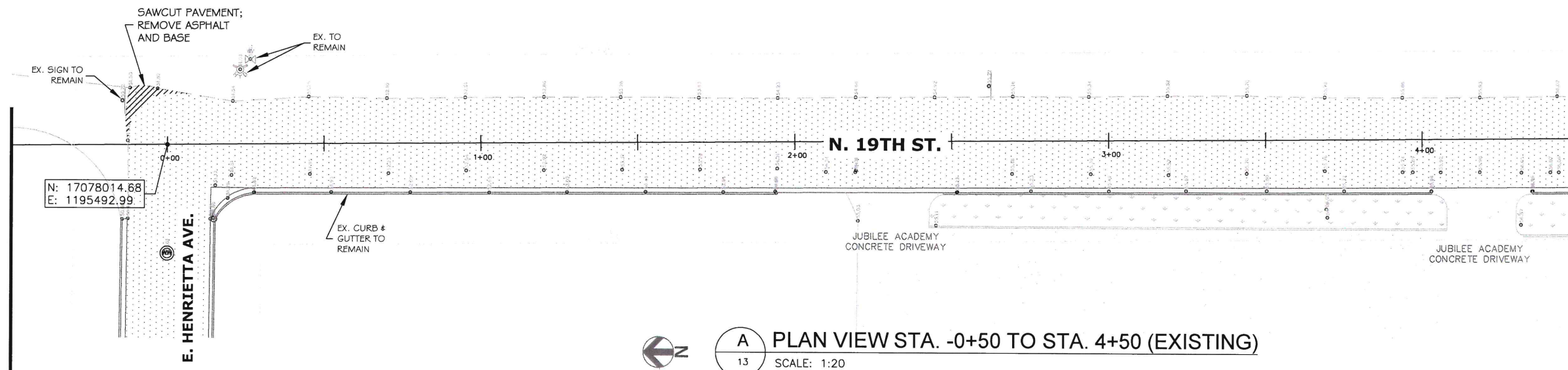
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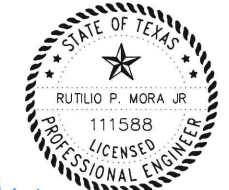
**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**E. HOFFMAN AVE - 6TH ST. TO 7TH ST.**  
**PLAN AND PROFILE STA. -0+20 TO STA. END**

MATCHLINE STA. -0 + 50

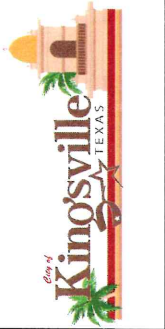


PROFILE LEGEND	
	EXISTING EAST NG PROFILE
	EXISTING WEST NG PROFILE
	PROPOSED TOC PROFILE
	PROPOSED FL PROFILE

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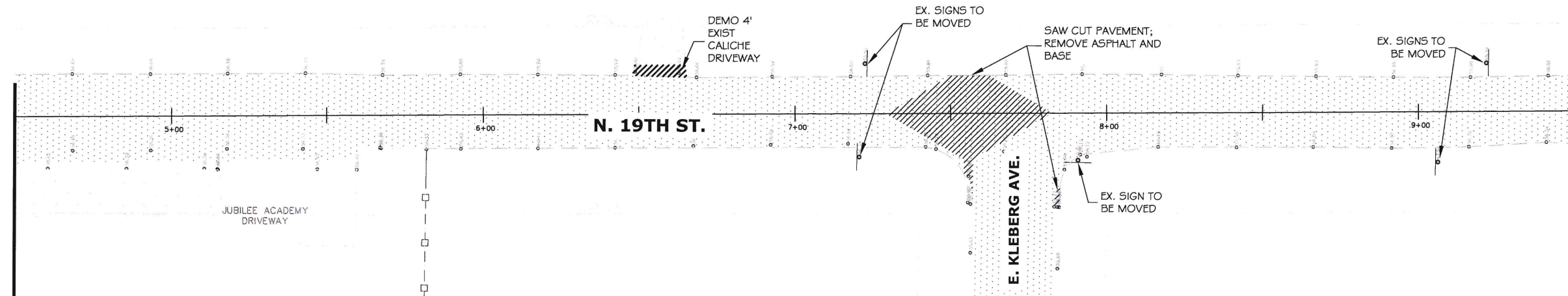
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RUTILIO P. MORA JR., P.E. NO. 111588



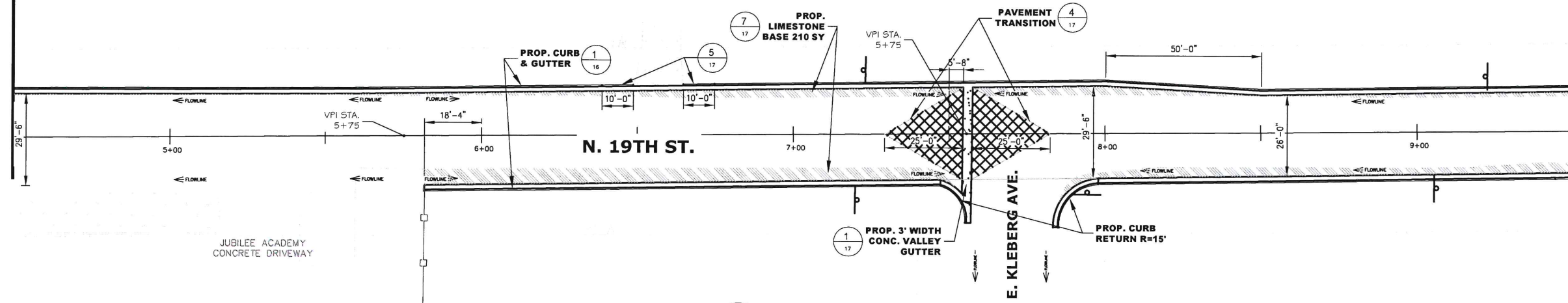
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Date: 01/25/2021  
Checked by: R. MORA  
Job:  
Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**19TH ST. - KING AVE. TO HENRIETTA AVE.**  
**PLAN AND PROFILE STA. 0+00 TO STA. 5+00**

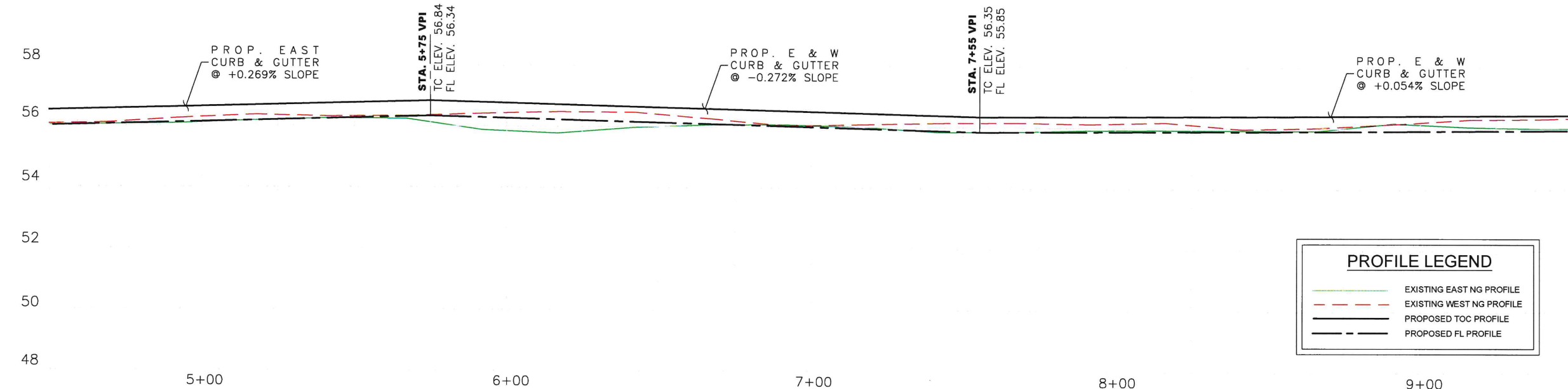
MATCHLINE STA. 4 + 50



**A PLAN VIEW STA. 4+50 TO STA. 9+50 (EXISTING)**  
 SCALE: 1:20



**B PLAN VIEW STA. 4+50 TO STA. 9+50 (PROPOSED)**  
 SCALE: 1:20



**PROFILE LEGEND**

	EXISTING EAST NG PROFILE
	EXISTING WEST NG PROFILE
	PROPOSED TOC PROFILE
	PROPOSED FL PROFILE

HORIZONTAL SCALE: 1":20'  
 VERTICAL SCALE: 1":2'

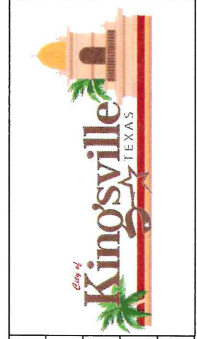
**C PROFILE VIEW STA. 4+50 TO STA. 9+50**  
 HORIZONTAL SCALE: 1":20'  
 VERTICAL SCALE: 1":2'

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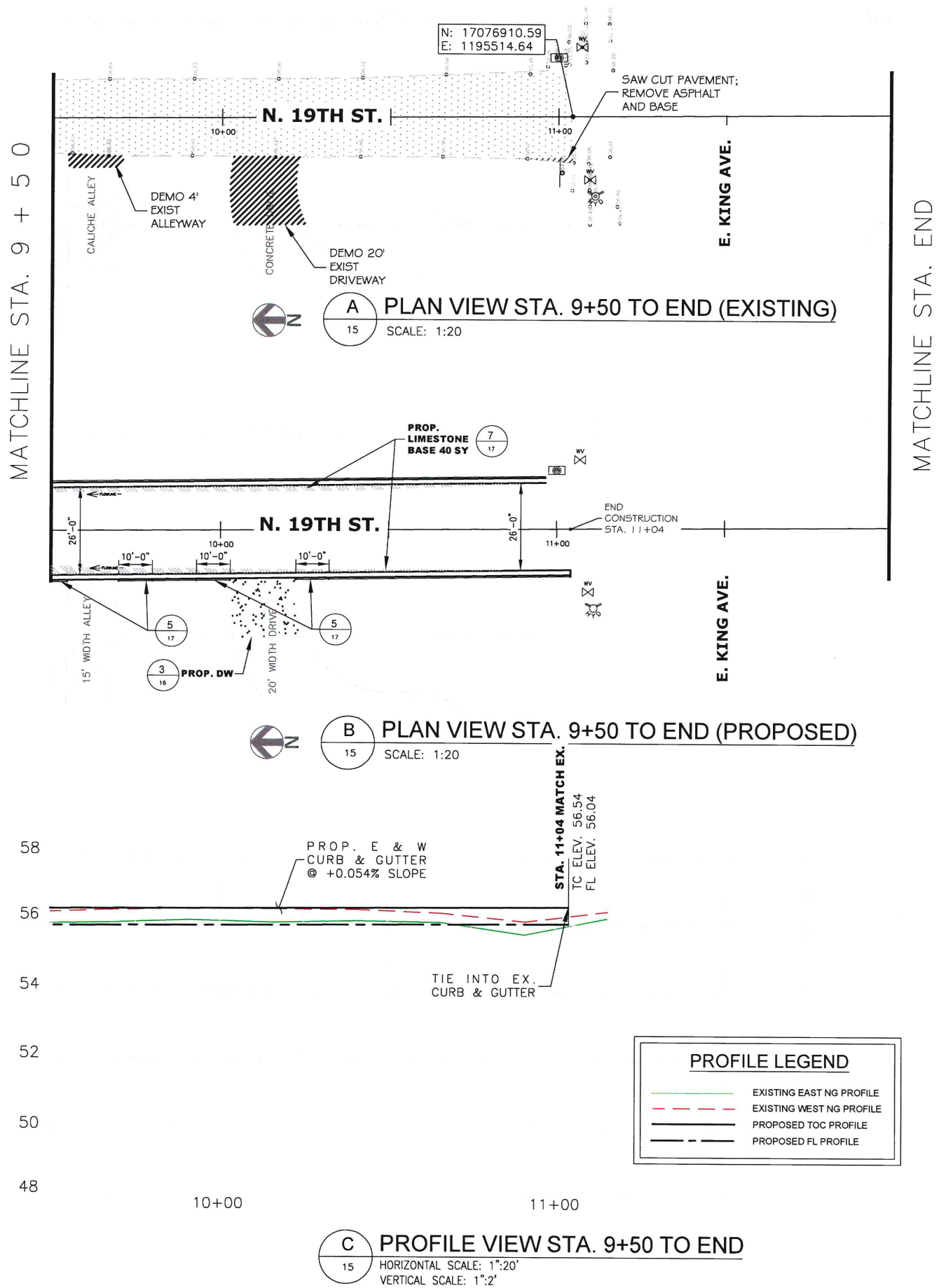
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**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**19TH ST. - KING AVE. TO HENRIETTA AVE.**  
**PLAN AND PROFILE STA. 4+50 TO STA. 9+50**

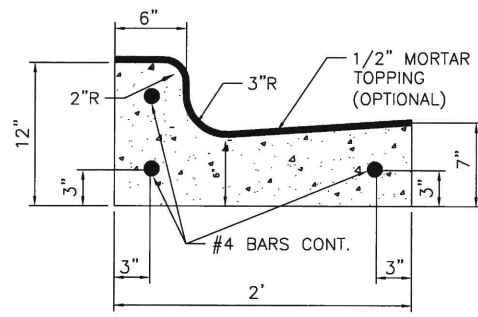


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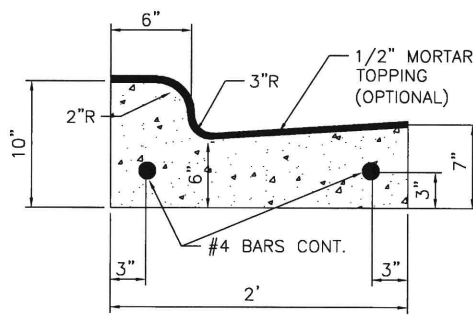
**2021 CITY-WIDE MISCELLANEOUS CONCRETE  
AND DRAINAGE IMPROVEMENTS**  
**19TH ST. - KING AVE. TO HENRIETTA AVE.**  
**PLAN AND PROFILE STA. 9+50 TO END**

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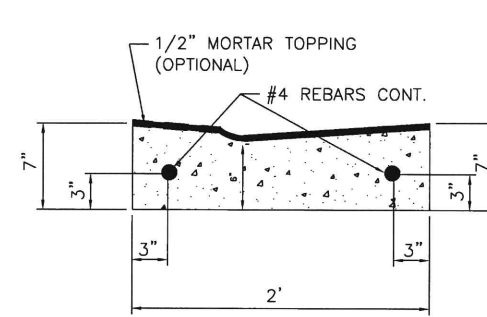
*Rutilio P. Mora Jr. 1/19/2021*  
RUTILIO P. MORA JR., P.E. NO. 111588



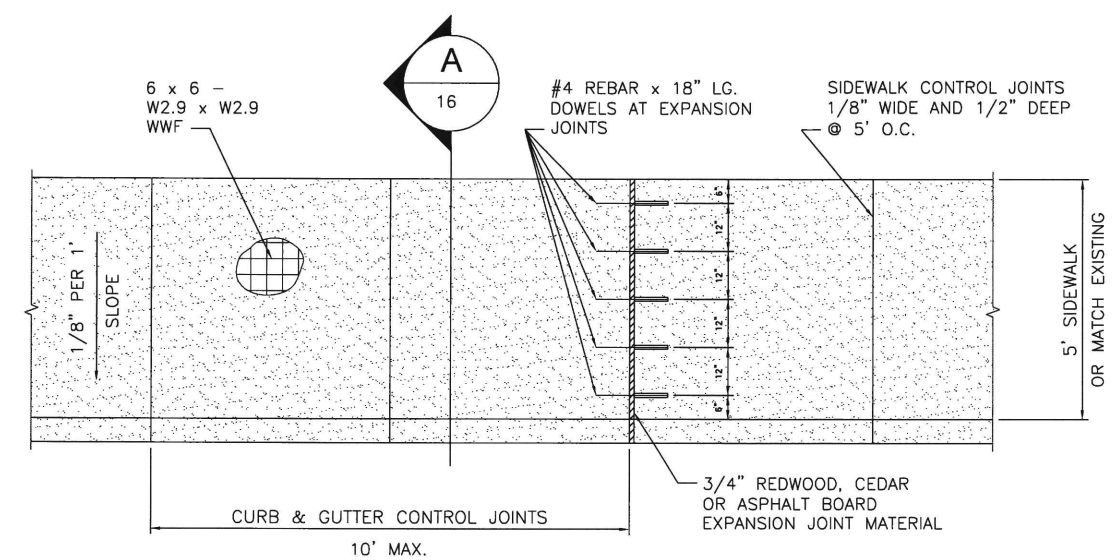
TYPICAL 6" TYPE "L" CURB AND GUTTER



TYPICAL 4" ROLL CURB

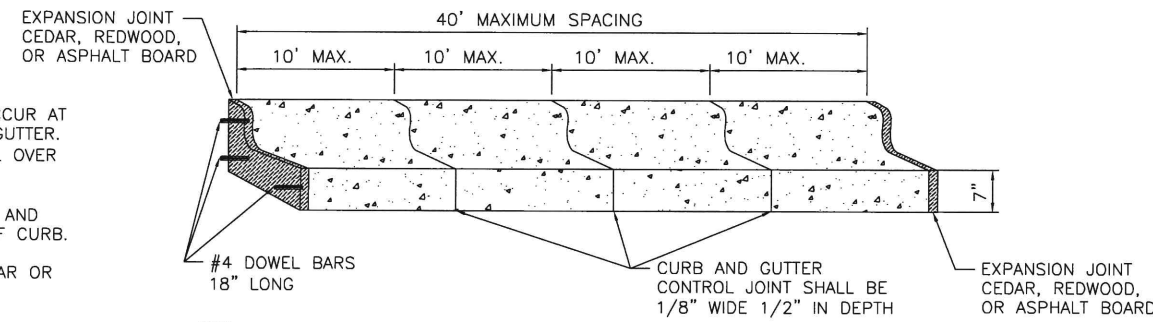


LAYDOWN CURB

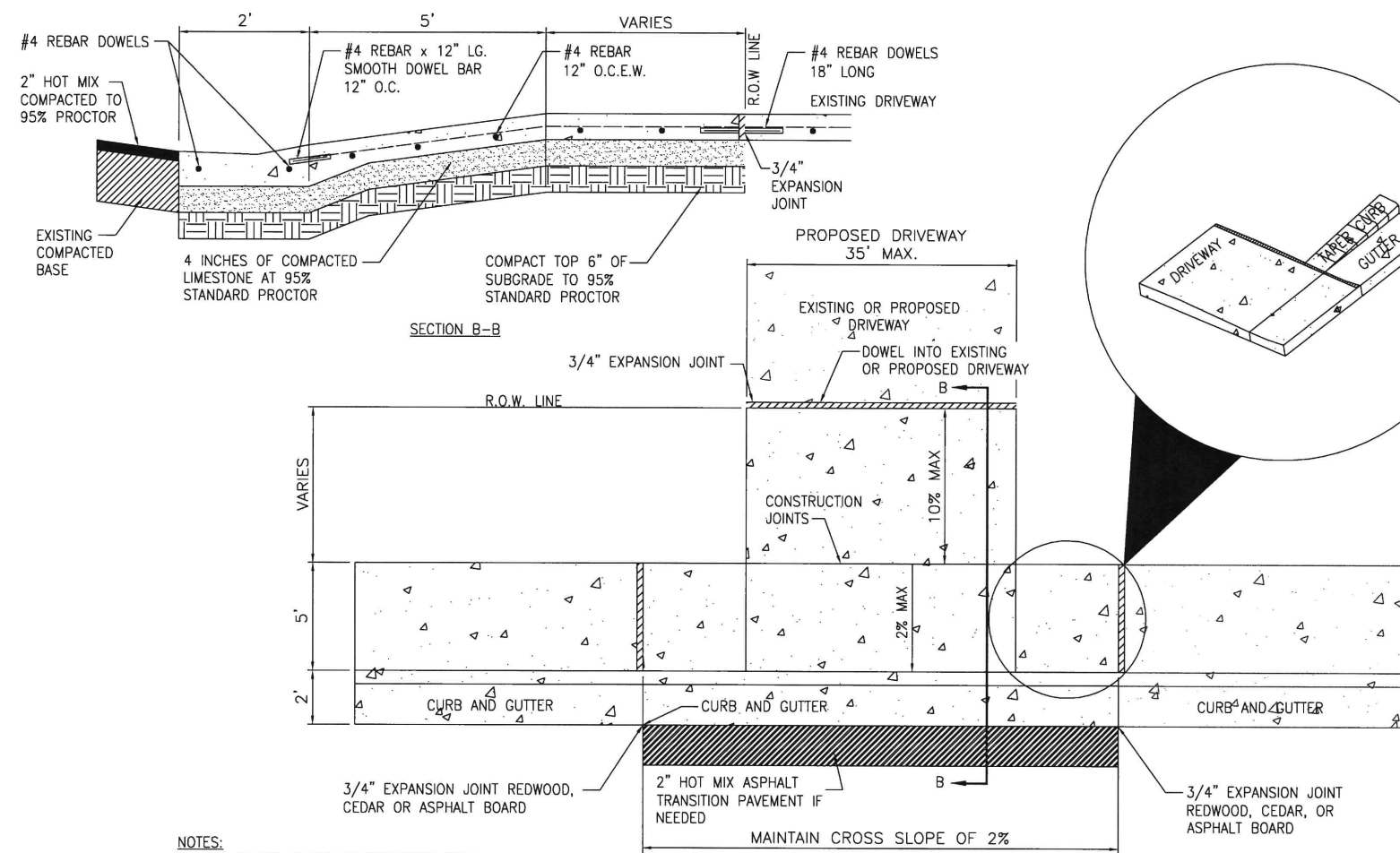


2 SIDEWALK DETAIL  
SCALE: N.T.S.

- NOTE:
1. EXPANSION JOINTS AND CONTROL JOINTS MUST OCCUR AT SAME LOCATION ON SIDEWALK AS ON CURB AND GUTTER. USE PAVING CAP SEAL #628 OR APPROVED EQUAL OVER EXPANSION JOINTS.
  2. ALL CONCRETE TO BE 3000 PSI MINIMUM.
  3. DOWELS ON CURB & GUTTER ARE TO BE #4 BAR AND PLACED 3 INCHES FROM THE FRONT AND BACK OF CURB.
  4. BACKFILL BACK OF CURB.
  5. REPAIR ALL HONEYCOMBING AND CRACKS IN MORTAR OR CONCRETE PRIOR TO BACKFILL AND PAVING.

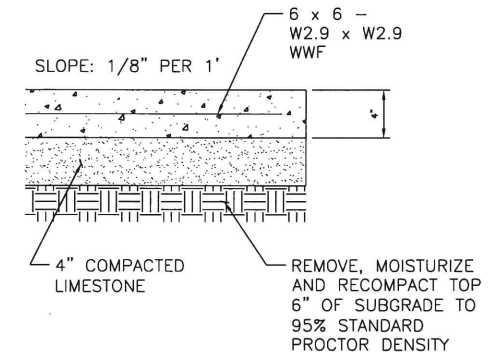


1 CURB & GUTTER DETAILS  
SCALE: 3/8" = 1'-0"

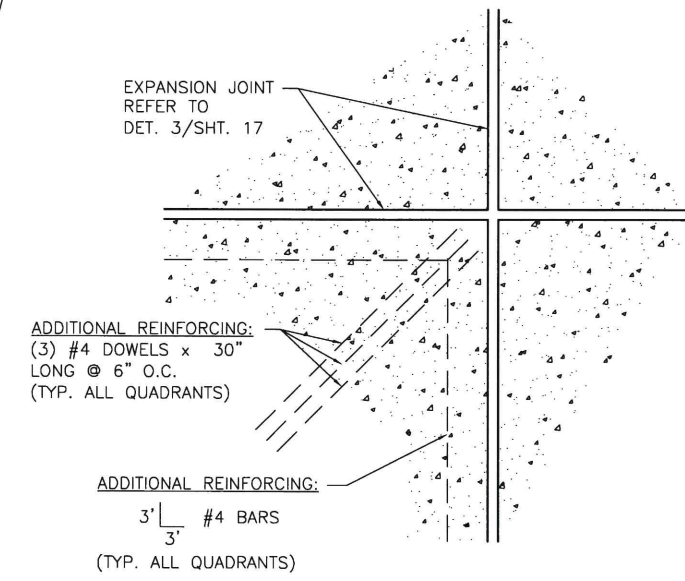


3 DRIVEWAY DETAIL  
SCALE: N.T.S.

- NOTES:
1. ALL CROSS SLOPE CONSTRUCTION SHALL BE IN COMPLIANCE W/ ADA REQUIREMENTS.
  2. 3,000 PSI CONCRETE MINIMUM.



A SECTION  
SCALE: N.T.S.

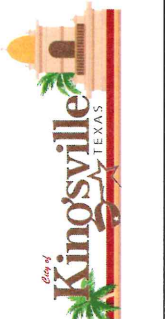


4 TYP. REINF. DETAIL AT PROP. CONCRETE PAVEMENT CORNER  
SCALE: N.T.S.

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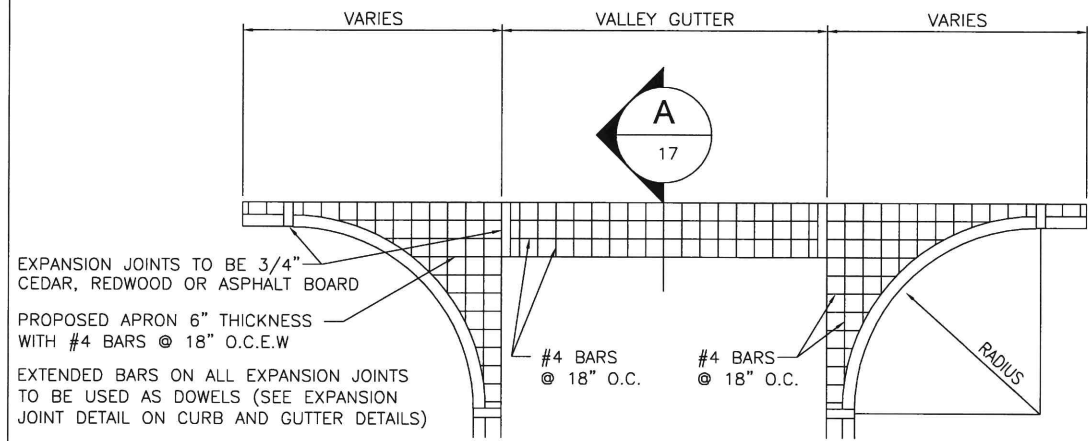


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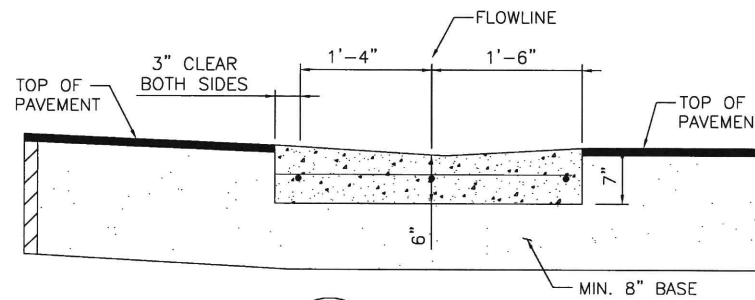
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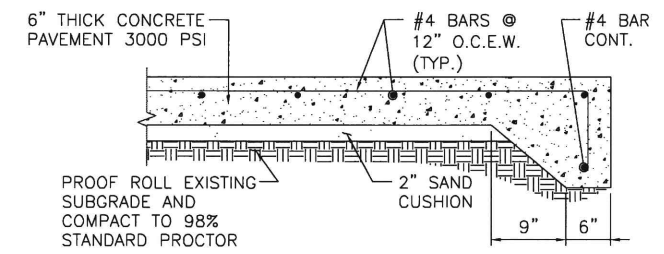


EXPANSION JOINTS TO BE 3/4" CEDAR, REDWOOD OR ASPHALT BOARD  
 PROPOSED APRON 6" THICKNESS WITH #4 BARS @ 18" O.C.E.W  
 EXTENDED BARS ON ALL EXPANSION JOINTS TO BE USED AS DOWELS (SEE EXPANSION JOINT DETAIL ON CURB AND GUTTER DETAILS)

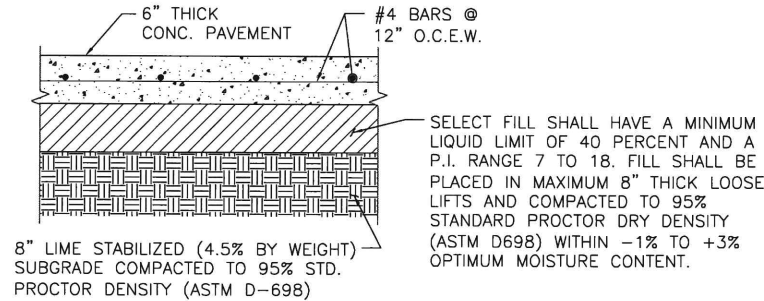
**1 VALLEY GUTTER DETAIL**  
 17 N.T.S.



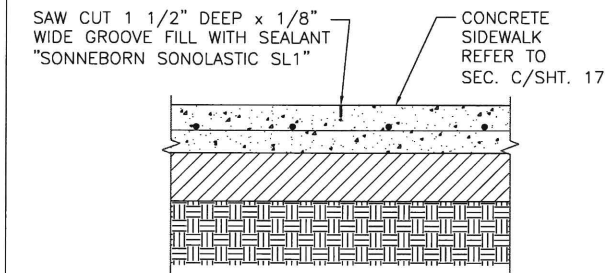
**A SECTION**  
 17 SCALE: 1" = 1'-0"



**B TYPICAL CONCRETE PAVEMENT EDGE SECTION**  
 17 SCALE: 1" = 1'-0"

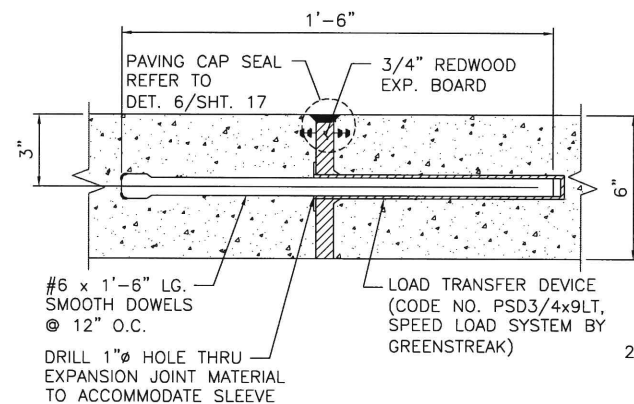


**C TYPICAL CONCRETE PAVEMENT SECTION**  
 17 SCALE: 1" = 1'-0"

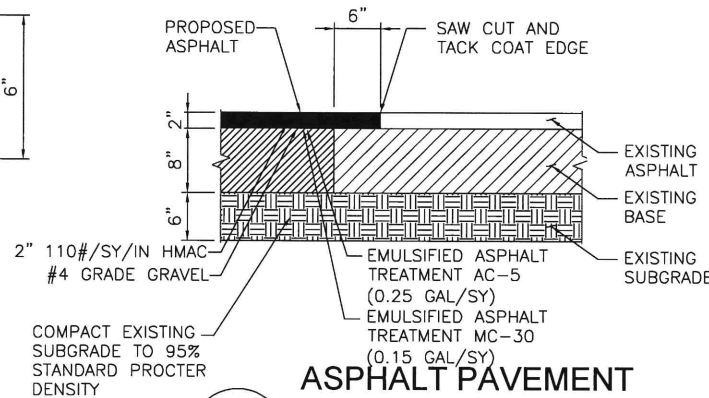


SAW CUT NOTE:  
 USE CONVENTIONAL SAW TO CUT JOINTS WITHIN 4 TO 12 HOURS AFTER FINISHING AND AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATES FROM BEING DISLODGED BY THE SAW.

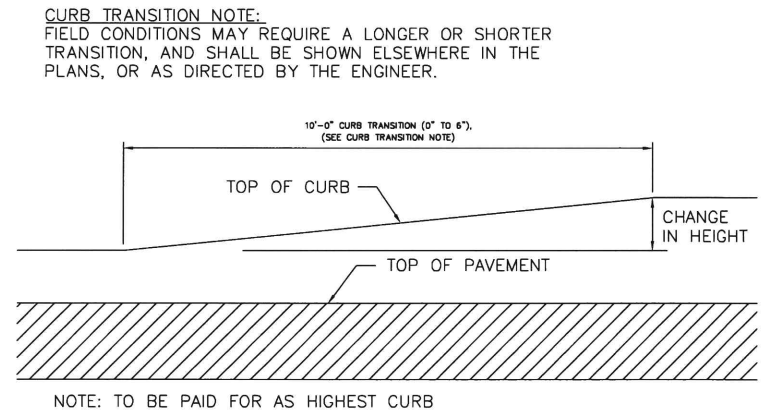
**2 TYP. CONCRETE PAVEMENT CONTROL JOINT DETAIL**  
 17 SCALE: 1" = 1'-0"



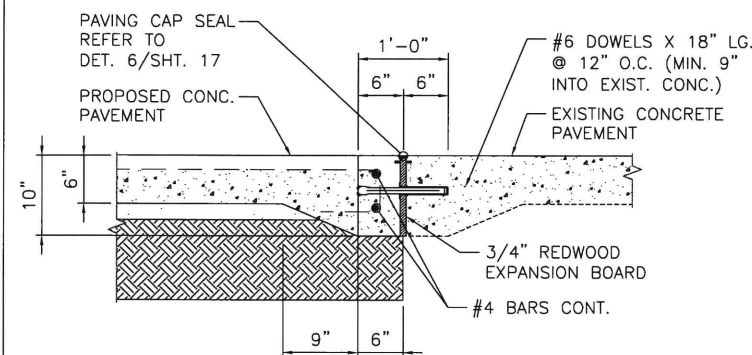
**3 TYP. CONCRETE PAVEMENT EXPANSION JOINT DETAIL**  
 17 SCALE: 3" = 1'-0"



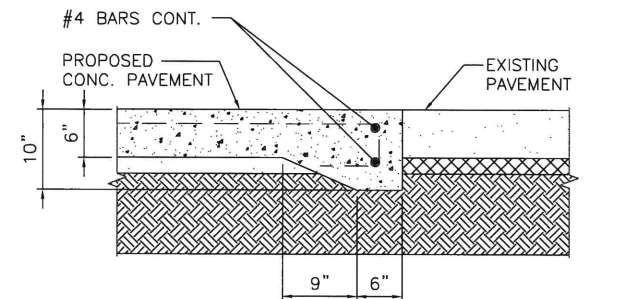
**4 ASPHALT PAVEMENT REPAIR DETAIL**  
 17 SCALE: 1" = 1'-0"



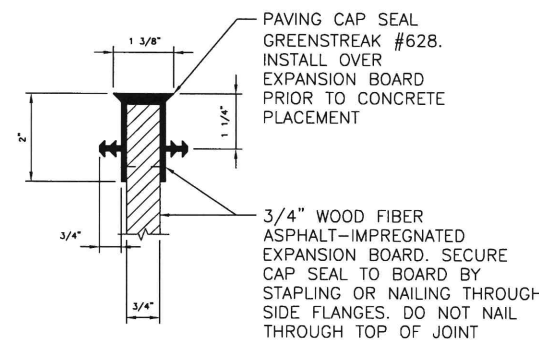
**5 CURB TRANSITION**  
 17 N.T.S.



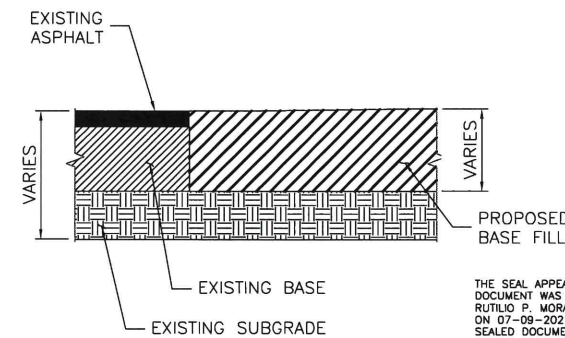
**D THICKENED CONCRETE PAVEMENT**  
 17 SCALE: 1" = 1'-0"



**E PROPOSED CONCRETE PAVEMENT TO EXISTING ASPHALT**  
 17 SCALE: 1" = 1'-0"



**F CAP SEAL DETAIL**  
 17 SCALE: NOT TO SCALE

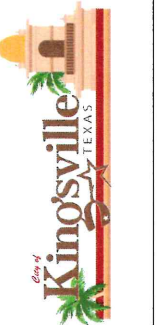


**G LIMESTONE BASE FILL DETAIL**  
 17 SCALE: 1" = 1'-0"

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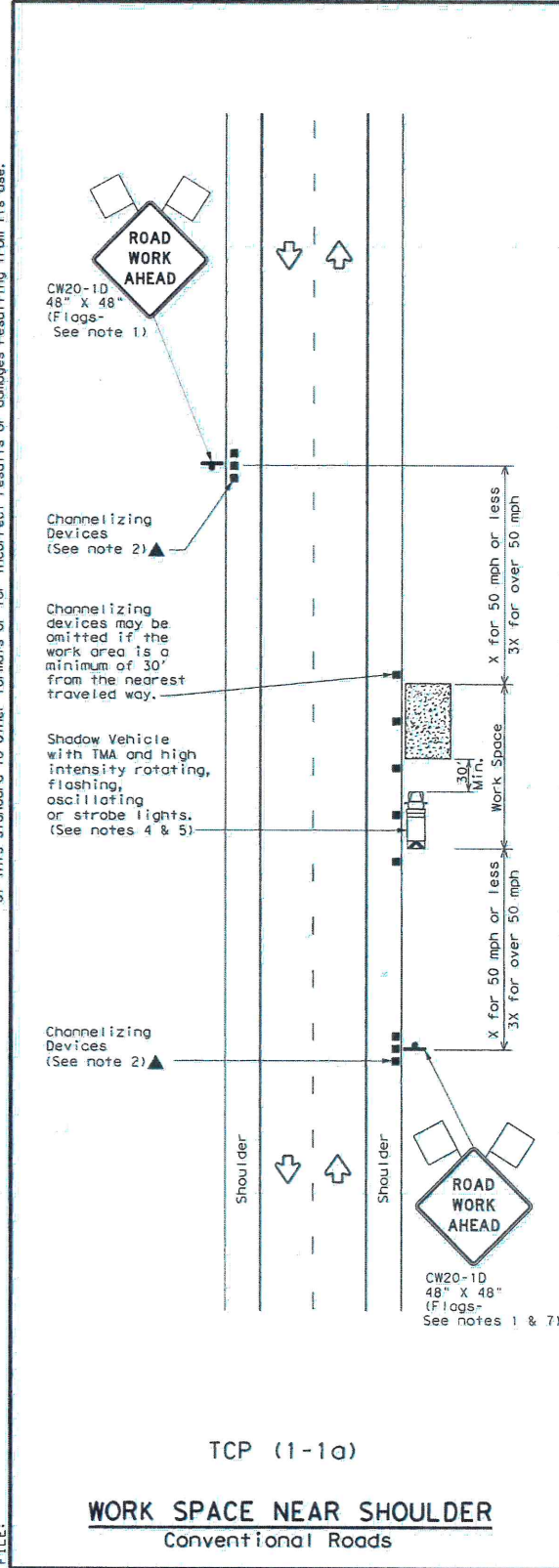
*Rutilio P. Mora Jr.*  
 RUTILIO P. MORA JR., P.E. NO. 111588



Drawn by: M. MEDRANO  
 Date: 01/25/2021  
 Checked by: R. MORA  
 Job:  
 Scale: AS NOTED

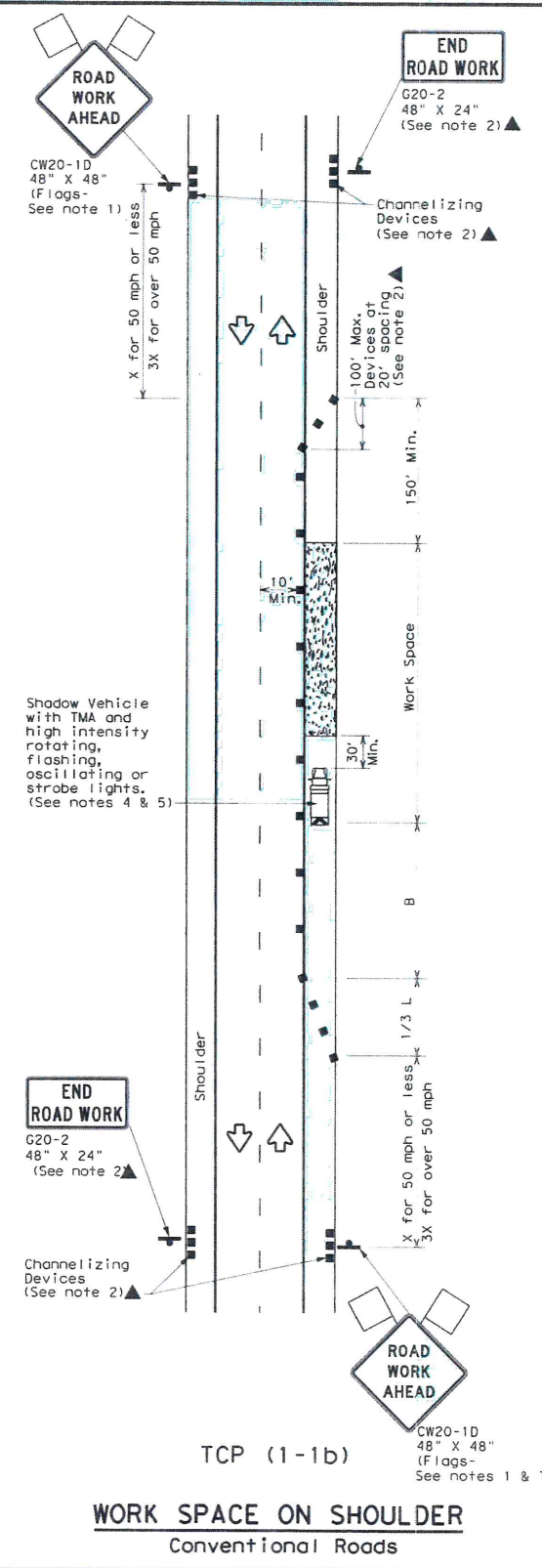
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DATE: FILE:



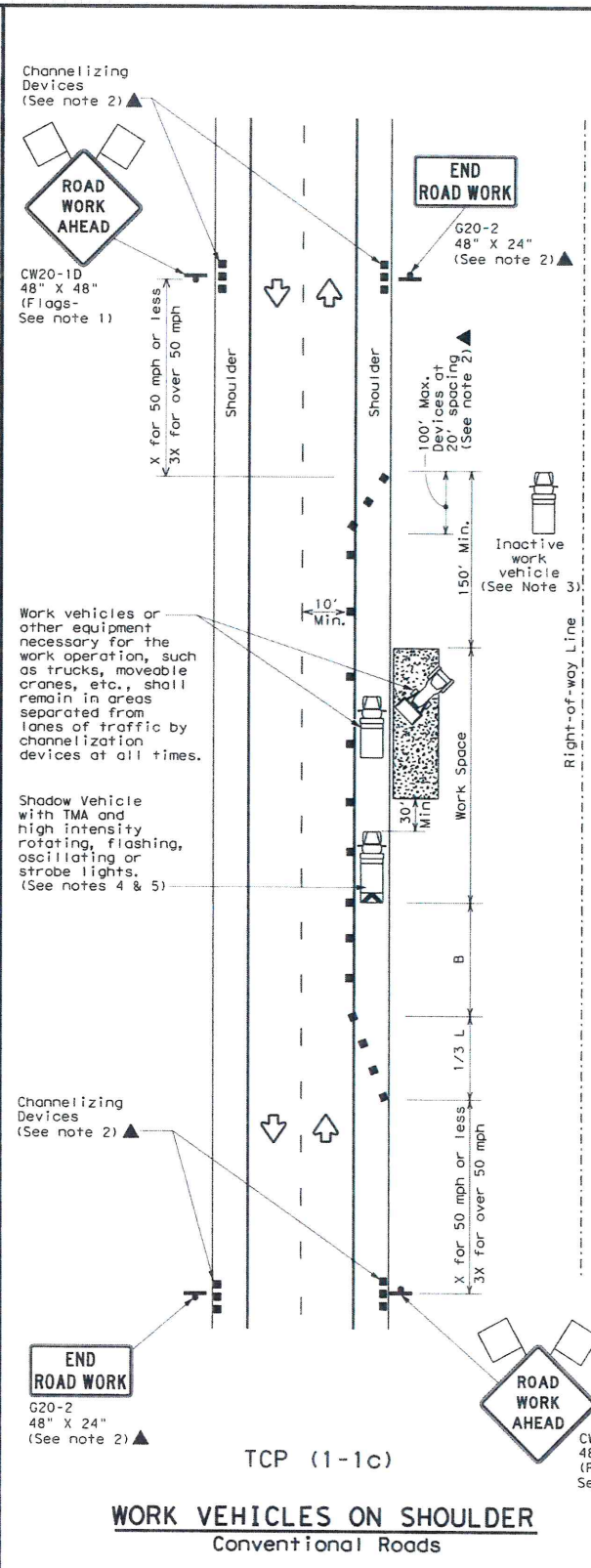
TCP (1-1a)

**WORK SPACE NEAR SHOULDER**  
Conventional Roads



TCP (1-1b)

**WORK SPACE ON SHOULDER**  
Conventional Roads



TCP (1-1c)

**WORK VEHICLES ON SHOULDER**  
Conventional Roads

**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 = WS <sup>2</sup> / 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	L = WS	600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75	L = WS	750'	825'	900'	75'	150'	900'	540'
80		800'	880'	960'	80'	160'	1000'	610'

\* 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
	✓		✓	

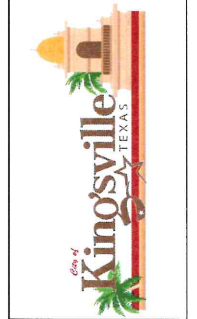
- GENERAL NOTES**
- Flags attached to signs where shown are REQUIRED.
  - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
  - Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
  - 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.
  - See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
  - CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

Texas Department of Transportation  
Traffic Operations Division Standard

**TRAFFIC CONTROL PLAN**  
**CONVENTIONAL ROAD**  
**SHOULDER WORK**

**TCP (1-1) - 18**

FILE: tcp1-1-18.dgn	DWG	CHK	DWG	CHK
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS				
2-94 4-99				
8-95 2-12				
1-97 2-18				
151				



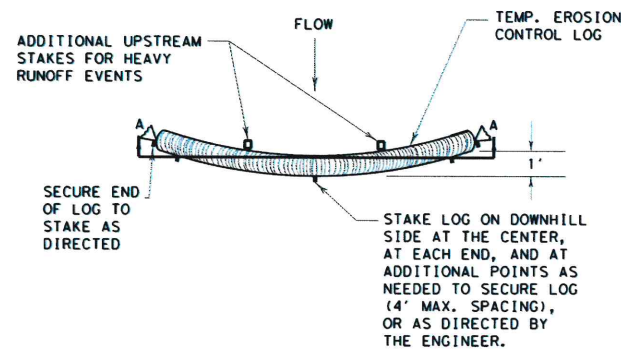
Drawn by: M. MEDRANO  
Date: 01/25/2021  
Checked by: R. MORA  
Job:  
Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**

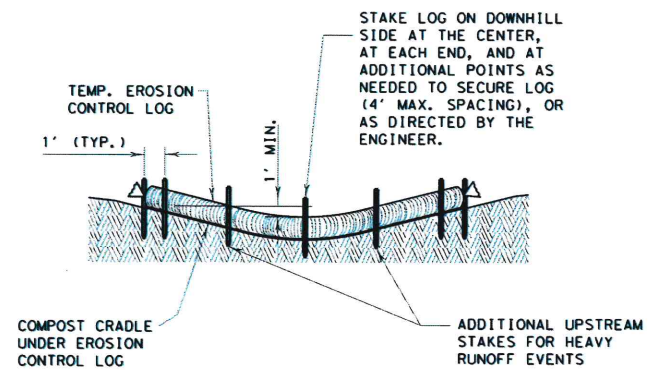
**TCP(1-1) - 18**

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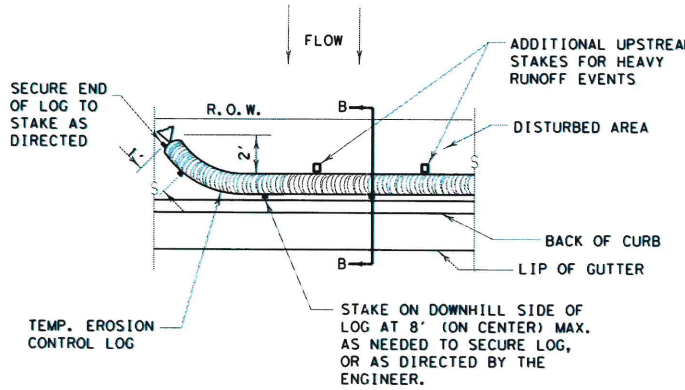
PLAN VIEW



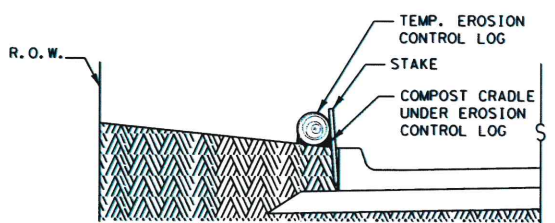
SECTION A-A

EROSION CONTROL LOG DAM

CL-D



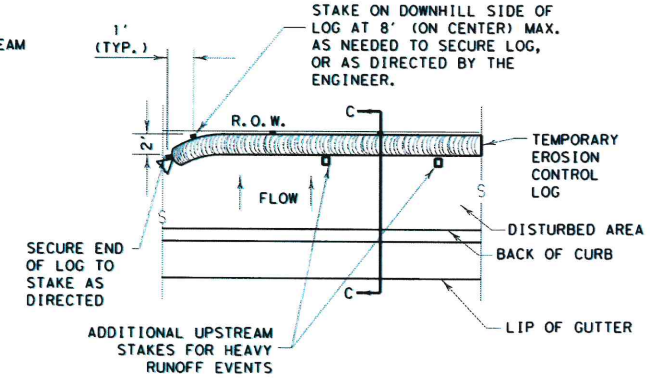
PLAN VIEW



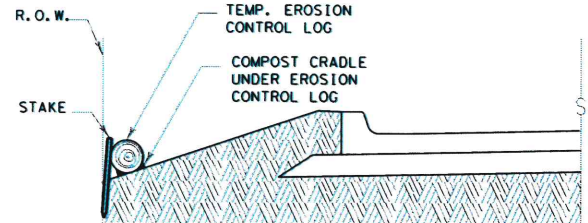
SECTION B-B

EROSION CONTROL LOG AT BACK OF CURB

CL-BOC



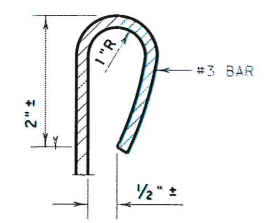
PLAN VIEW



SECTION C-C

EROSION CONTROL LOG AT EDGE OF RIGHT-OF-WAY

CL-ROW



REBAR STAKE DETAIL

**SEDIMENT BASIN & TRAP USAGE GUIDELINES**

An erosion control log sediment trap may be used to filter sediment out of runoff draining from an unstabilized area.

**Log Traps:** The drainage area for a sediment trap should not exceed 5 acres. The trap capacity should be 1800 CF/Acre (0.5" over the drainage area).

Control logs should be placed in the following locations:

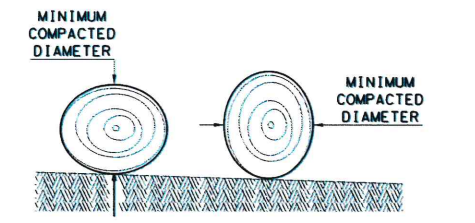
1. Within drainage ditches spaced as needed or min. 500' on center
2. Immediately preceding ditch inlets or drain inlets
3. Just before the drainage enters a water course
4. Just before the drainage leaves the right of way
5. Just before the drainage leaves the construction limits where drainage flows away from the project.

The logs should be cleaned when the sediment has accumulated to a depth of 1/2 the log diameter.

Cleaning and removal of accumulated sediment deposits is incidental and will not be paid for separately.

**GENERAL NOTES:**

1. EROSION CONTROL LOGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, OR AS DIRECTED BY THE ENGINEER.
2. LENGTHS OF EROSION CONTROL LOGS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED FOR THE PURPOSE INTENDED.
3. UNLESS OTHERWISE DIRECTED, USE BIODEGRADABLE OR PHOTODEGRADABLE CONTAINMENT MESH ONLY WHERE LOG WILL REMAIN IN PLACE AS PART OF A VEGETATIVE SYSTEM. FOR TEMPORARY INSTALLATIONS, USE RECYCLABLE CONTAINMENT MESH.
4. FILL LOGS WITH SUFFICIENT FILTER MATERIAL TO ACHIEVE THE MINIMUM COMPACTED DIAMETER SPECIFIED IN THE PLANS WITHOUT EXCESSIVE DEFORMATION.
5. STAKES SHALL BE 2" X 2" WOOD OR #3 REBAR, 2'-4' LONG, EMBEDDED SUCH THAT 2" PROTRUDES ABOVE LOG, OR AS DIRECTED BY THE ENGINEER.
6. DO NOT PLACE STAKES THROUGH CONTAINMENT MESH.
7. COMPOST CRADLE MATERIAL IS INCIDENTAL & WILL NOT BE PAID FOR SEPARATELY.
8. SANDBAGS USED AS ANCHORS SHALL BE PLACED ON TOP OF LOGS & SHALL BE OF SUFFICIENT SIZE TO HOLD LOGS IN PLACE.
9. TURN THE ENDS OF EACH ROW OF LOGS UPSLOPE TO PREVENT RUNOFF FROM FLOWING AROUND THE LOG.
10. FOR HEAVY RUNOFF EVENTS, ADDITIONAL UPSTREAM STAKES MAY BE NECESSARY TO KEEP LOG FROM FOLDING IN ON ITSELF.



DIAMETER MEASUREMENTS OF EROSION CONTROL LOGS SPECIFIED IN PLANS

SHEET 1 OF 3

Texas Department of Transportation		Design Division Standard	
<b>TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES</b>			
<b>EROSION CONTROL LOG</b>			
<b>EC(9)-16</b>			
FILE: ec916	CHK: TxDOT	CHK: KM	CHK: LS/PT
© TxDOT: JULY 2016	COMP: SECT	JOB: HIGHWAY	
REVSTNS:	DIST:	COUNT:	SHEET NO.:

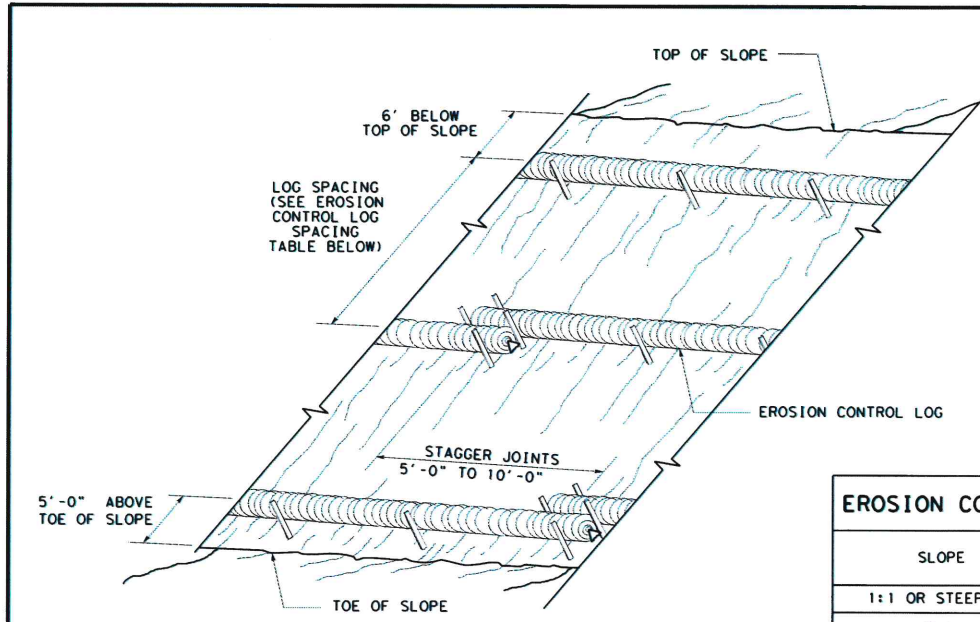


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Date: 01/25/2021  
Checked by: R. MORA  
Job:  
Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**EROSION CONTROL LOG EC(9)-16 (SHEET 1 OF 3)**

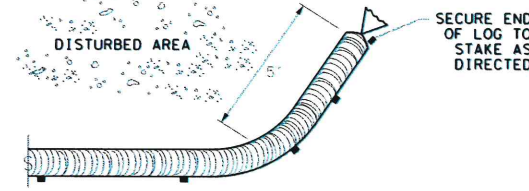
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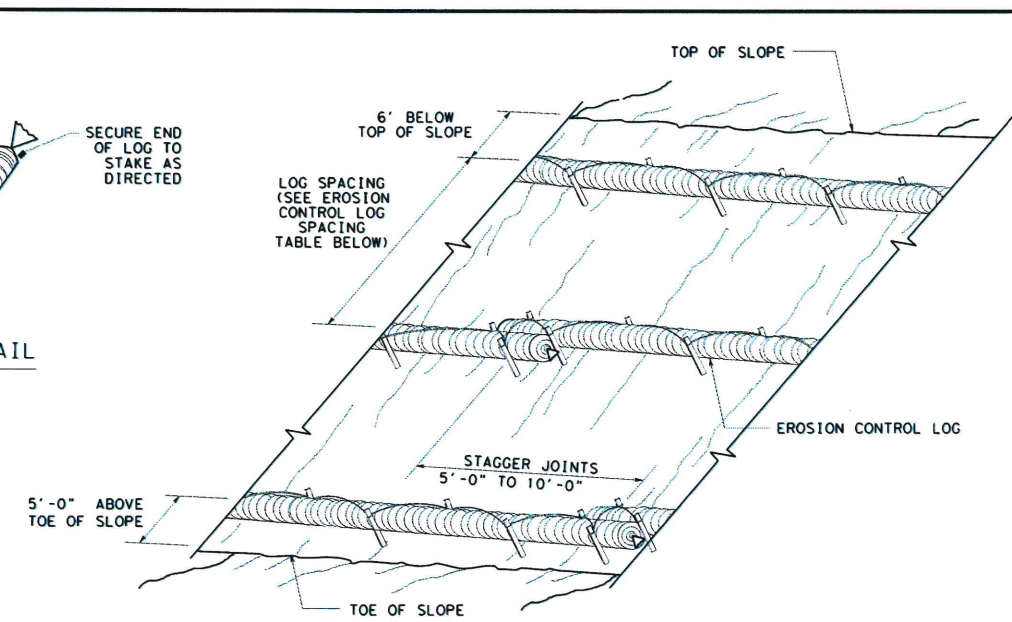


**EROSION CONTROL LOGS ON SLOPES  
STAKE AND TRENCHING ANCHORING**

CL-SST



**END SECTION RAP DETAIL**



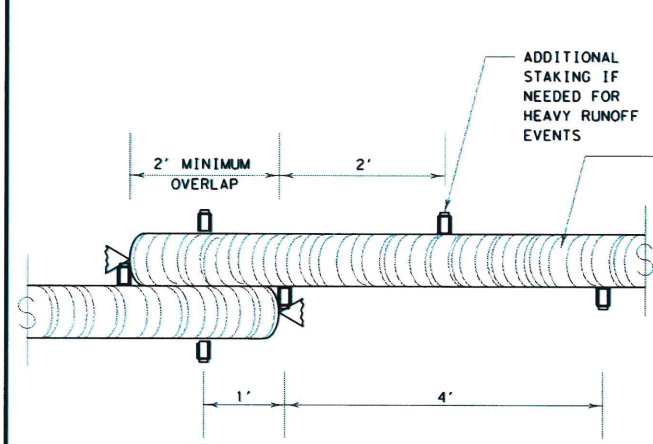
**EROSION CONTROL LOGS ON SLOPES  
STAKE AND LASHING ANCHORING**

CL-SSL

**EROSION CONTROL LOG SPACING TABLE**

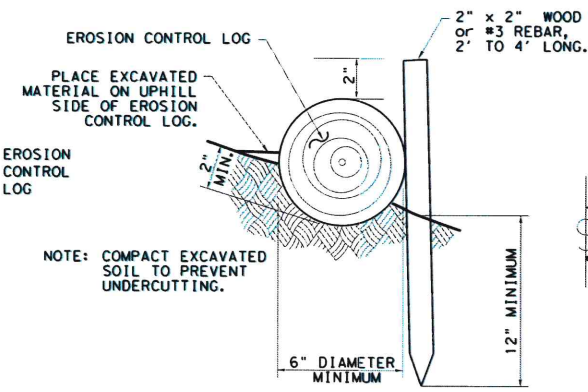
SLOPE	LOG DIAMETER			
	6"	8"	12"	18"
1:1 OR STEEPER	5'	10'	15'	20'
2:1	10'	20'	30'	40'
3:1	15'	30'	45'	60'
4:1 OR FLATTER	20'	40'	60'	80'

\* ADJUSTMENTS CAN BE MADE FOR SOIL TYPE:  
SOFT, LOAMY SOILS- ADJUST ROWS CLOSER TOGETHER;  
HARD, ROCKY SOILS- ADJUST ROWS FARTHER APART



**STAKE AND TRENCHING ANCHORING DETAIL**

CL-SST

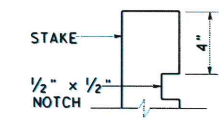
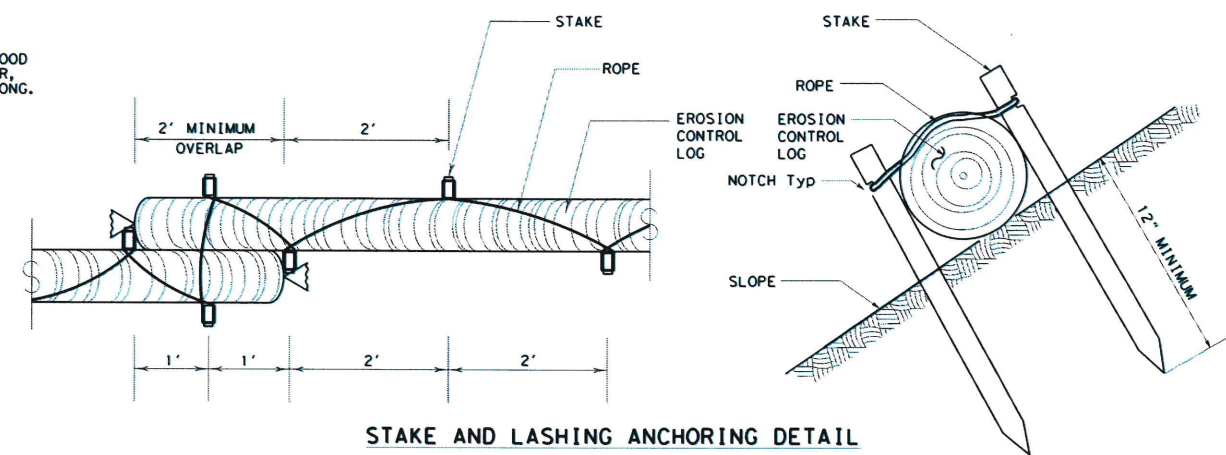


**STAKE AND LASHING ANCHORING DETAIL**

CL-SSL

**TRENCH DEPTH TABLE**

LOG DIAMETER	DEPTH
6"	2"
8"	3"
12"	4"
18"	5"



**STAKE NOTCH DETAIL**

SHEET 2 OF 3

Texas Department of Transportation  
Design Division Standard

**TEMPORARY EROSION,  
SEDIMENT AND WATER  
POLLUTION CONTROL MEASURES  
EROSION CONTROL LOG  
EC (9) - 16**

FILES: ec116	DN: TxDOT	DIS: KM	DS: LS/PT	DS: LS
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REVISIONS	DIST	COUNTY	SHEET NO.	

**2021 CITY-WIDE MISCELLANEOUS CONCRETE  
AND DRAINAGE IMPROVEMENTS**

**EROSION CONTROL LOG EC(9)-16 (SHEET 2 OF 3)**

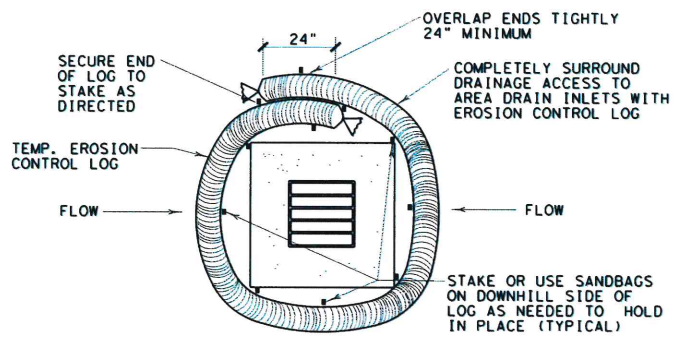
CITY OF KINGSVILLE  
ENGINEERING DEPARTMENT  
400 West King  
Kingsville, Texas 78363  
Office 361.595.8007  
Fax 361.595.8035



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Date: 01/25/2021  
Checked by: R. MORA  
Job:  
Scale: AS NOTED

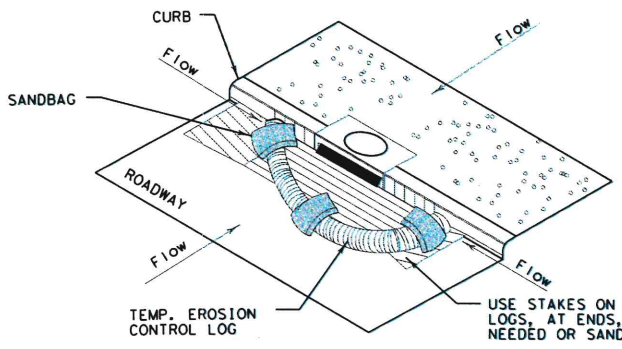
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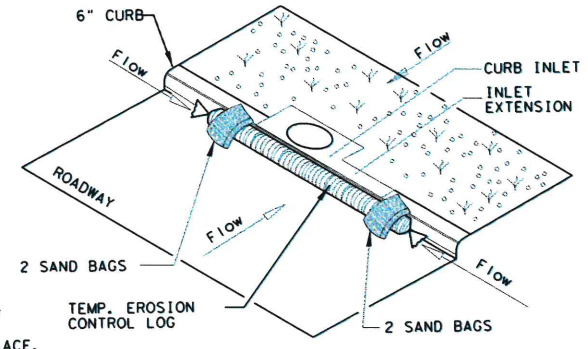
EROSION CONTROL LOG AT DROP INLET

CL-DI



EROSION CONTROL LOG AT CURB INLET

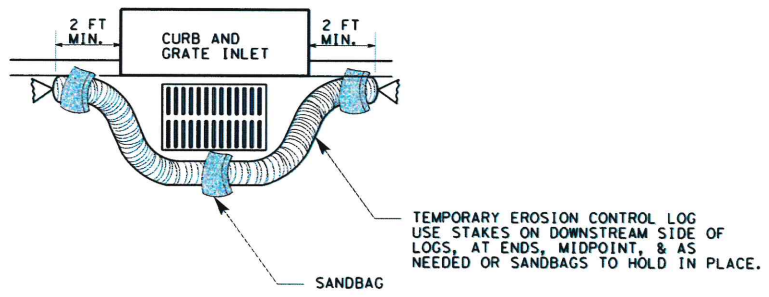
CL-CI



EROSION CONTROL LOG AT CURB INLET

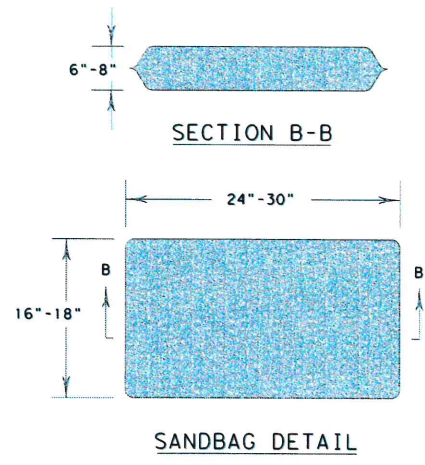
CL-CI

NOTE:  
EROSION CONTROL LOGS USED AT CURB INLETS SHOULD ONLY BE USED IF THEY WILL NOT IMPEDE TRAFFIC OR FLOOD THE ROADWAY OR WHEN THE STORM SEWER SYSTEM IS NOT FULLY FUNCTIONAL.



EROSION CONTROL LOG AT CURB & GRADE INLET

CL-GI



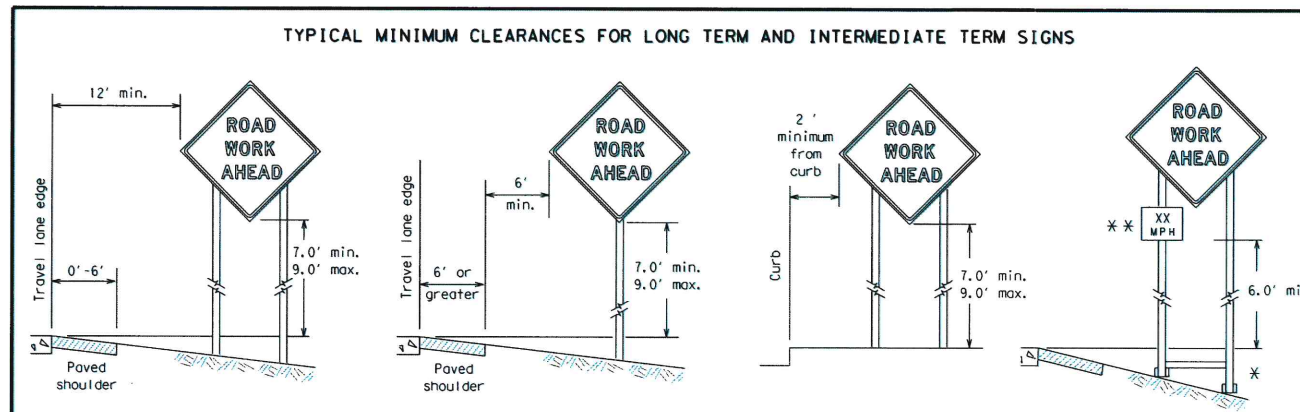
SHEET 3 OF 3

Texas Department of Transportation		Design Division Standard	
<b>TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES</b>			
<b>EROSION CONTROL LOG</b>			
<b>EC (9) - 16</b>			
FILE# 00916	DATE TxDOT	CHK: RM	DRW: LS/PT
© TxDOT: JULY 2016	CONT: SECT	JOB:	HIGHWAY:
REVISIONS		DIST:	COUNTY:
		SHEET NO.	



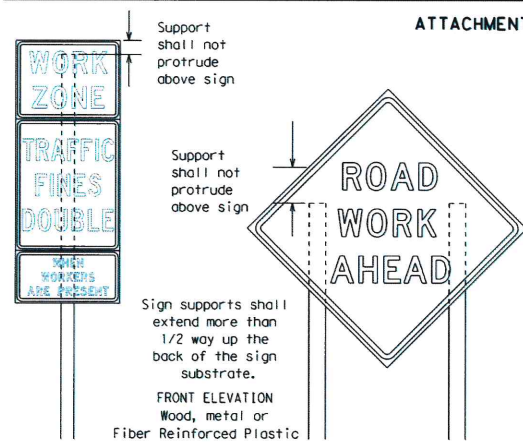
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Checked by: R. MORA  
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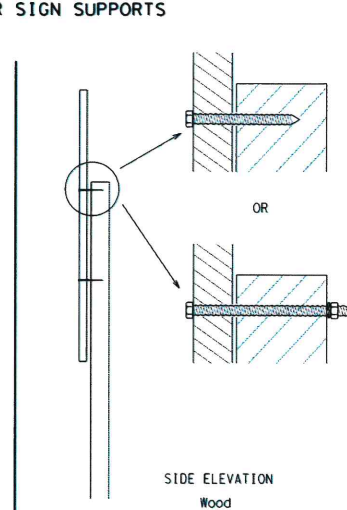


\* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

\*\* When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.



Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the splice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

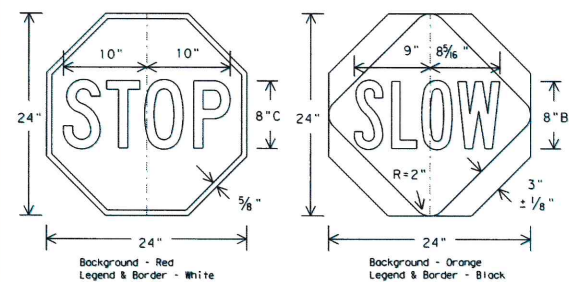


Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

**Nails shall NOT be allowed.**  
Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

#### STOP/SLOW PADDLES

- STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24" as detailed below.
- When used at night, the STOP/SLOW paddle shall be retroreflective.
- STOP/SLOW paddles may be attached to a staff with a minimum length of 6" to the bottom of the sign.
- Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



DATE: FILE:

#### CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

- Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
- When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition.
- When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
- If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
- If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC Sheets or the CWZTCD. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
- Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

#### GENERAL NOTES FOR WORK ZONE SIGNS

- Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
- Wooden sign posts shall be painted white.
- Barricades shall NOT be used as sign supports.
- All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
- The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
- The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD). The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
- The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
- Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
- The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

#### DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

- The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
  - Long-term stationary - work that occupies a location more than 3 days.
  - Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
  - Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
  - Short, duration - work that occupies a location up to 1 hour.
  - Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

#### SIGN MOUNTING HEIGHT

- The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
- The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
- Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
- Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate sign height.
- Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

#### SIZE OF SIGNS

- The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

#### SIGN SUBSTRATES

- The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
- "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
- All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

#### REFLECTIVE SHEETING

- All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
- White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
- Orange sheeting, meeting the requirements of DMS-8300 Type B<sub>FL</sub> or Type C<sub>FL</sub>, shall be used for rigid signs with orange backgrounds.

#### SIGN LETTERS

- All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

#### REMOVING OR COVERING

- When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
- Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
- Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
- When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
- Burlap shall NOT be used to cover signs.
- Duct tape or other adhesive material shall NOT be affixed to a sign face.
- Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

#### SIGN SUPPORT WEIGHTS

- Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
- The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
- Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
- Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
- Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
- Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
- Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
- Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

#### FLAGS ON SIGNS

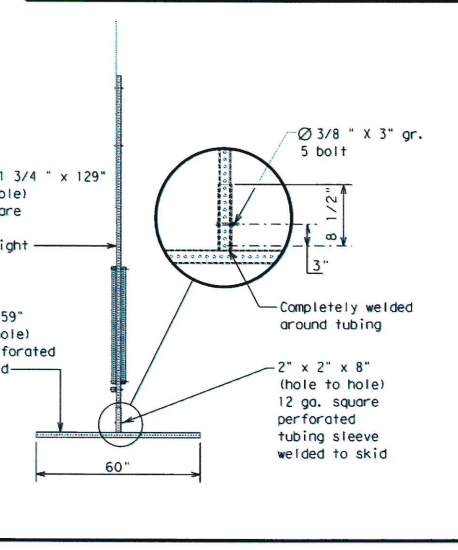
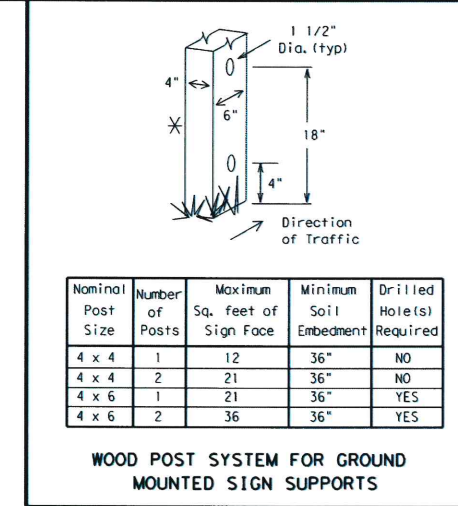
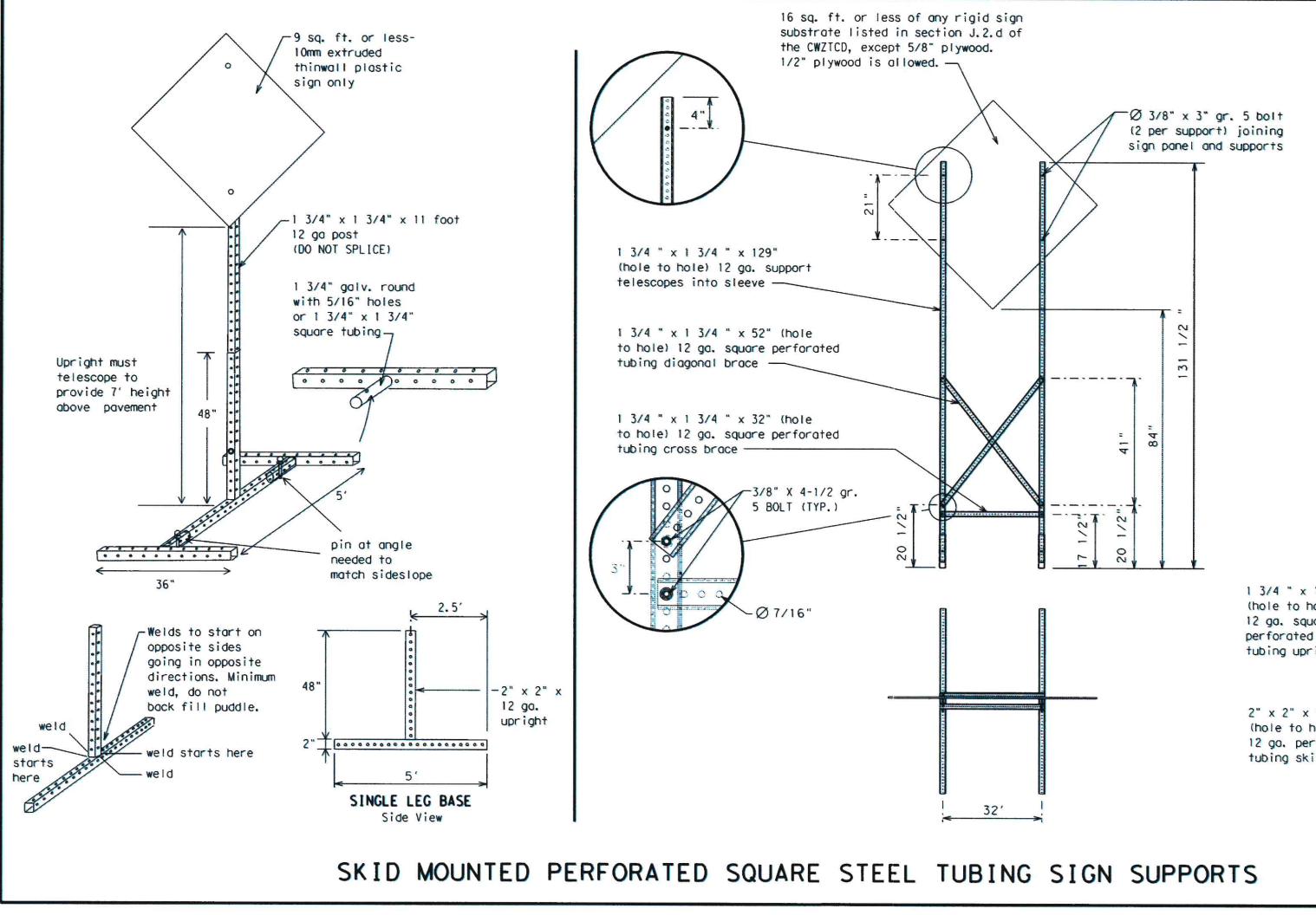
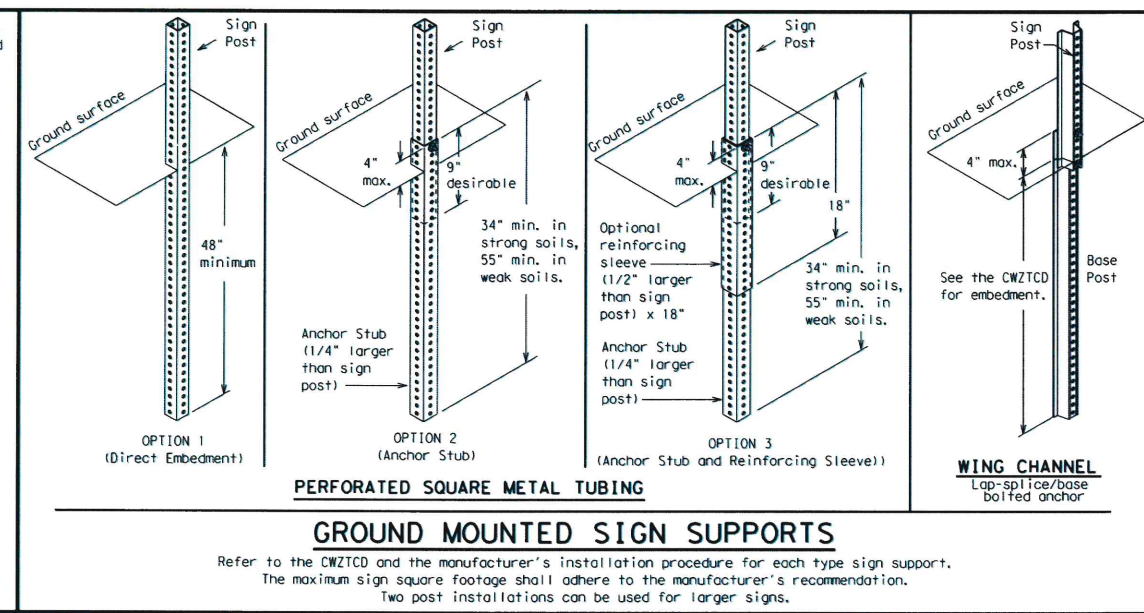
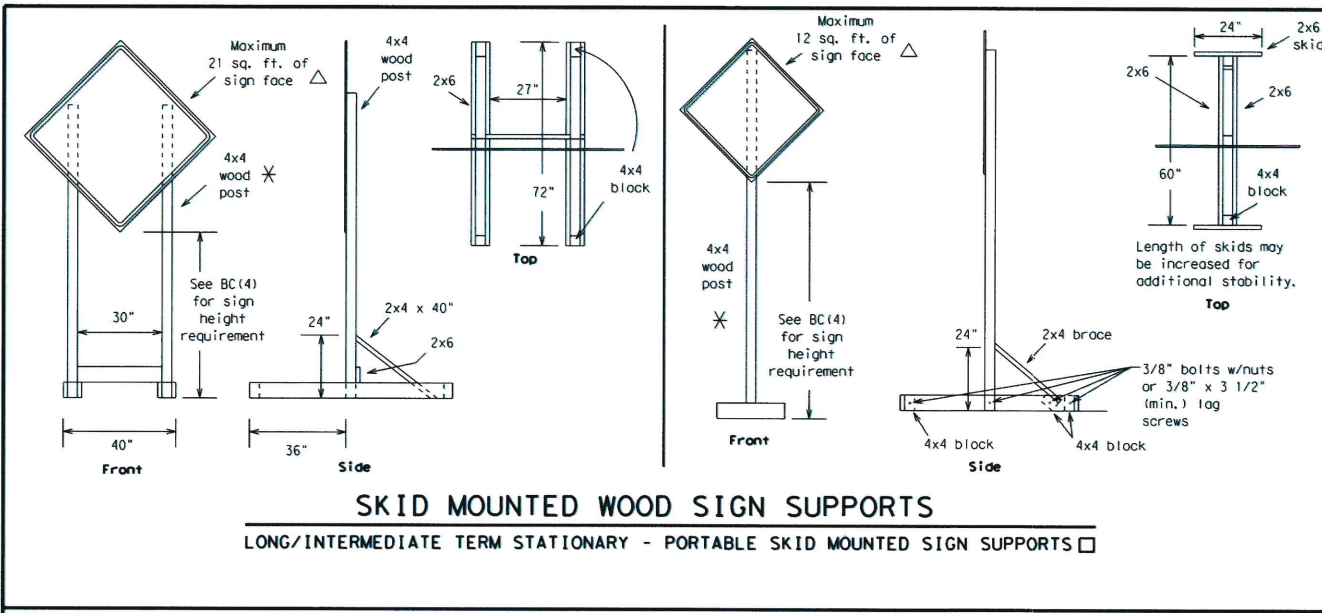
- Flags may be used to draw attention to warning signs. When used the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

SHEET 4 OF 12

Texas Department of Transportation		Traffic Operations Division Standard	
<b>BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES</b>			
<b>BC (4) - 14</b>			
FILES: bc-14.dgn	DATE: TxDOT	DATE: TxDOT	DATE: TxDOT
NOVEMBER 2002	CONT: 1001	SECT: 1001	JOB: HIGHWAY
REVISIONS:			
9-07	8-14	DESIGN	COUNTY
7-13			SHEET NO.

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DATE: FILE:



**TEXAS DEPARTMENT OF TRANSPORTATION**  
Traffic Operations Division Standard

**BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT**

**BC(5) - 14**

FILE: bc-14.dgn	DATE: 8-14	BY: TxDOT	CHK: TxDOT	APP: TxDOT	DES: TxDOT
9-07	8-14				
7-13					

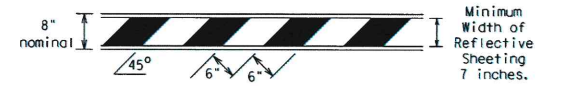
93

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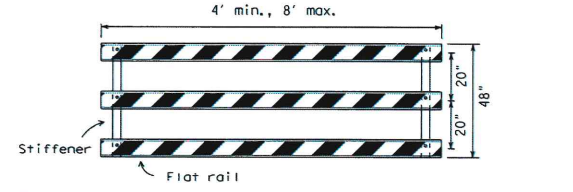
**TYPE 3 BARRICADES**

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stocked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as fire inner tubes) shall not be used for sandbags. Rubber shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.

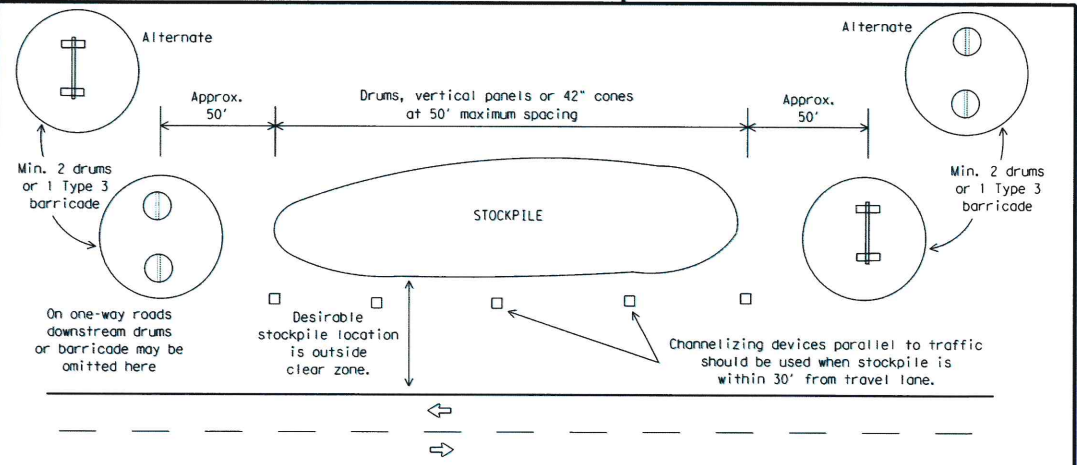


**TYPICAL STRIPING DETAIL FOR BARRICADE RAIL**



Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

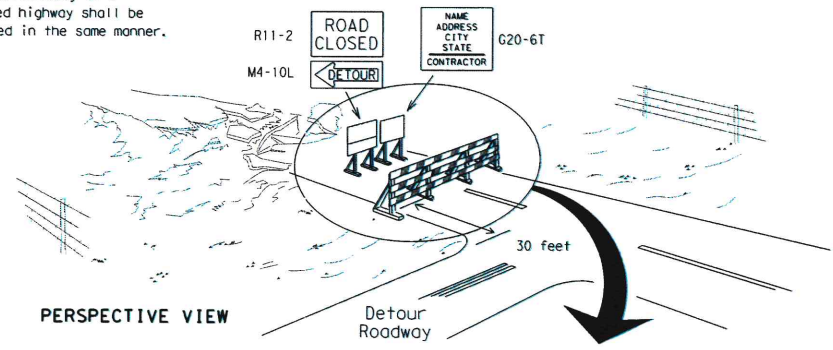
**TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES**



**TRAFFIC CONTROL FOR MATERIAL STOCKPILES**

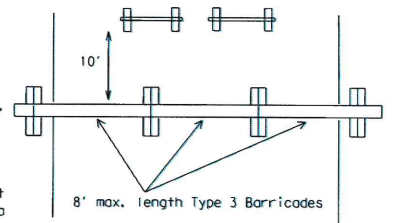
DATE: FILE:

Each roadway of a divided highway shall be barricaded in the same manner.



**PERSPECTIVE VIEW**

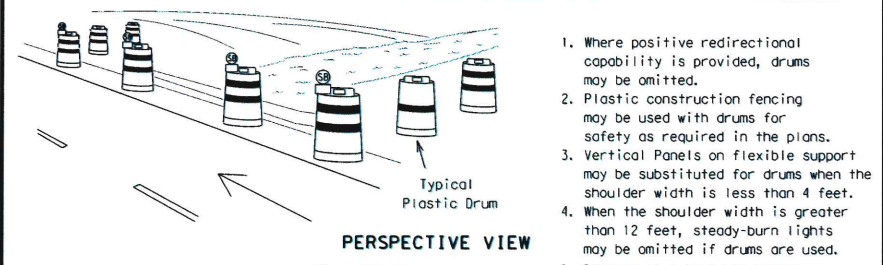
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic. Barricade striping should slant downward in the direction of detour.



**PLAN VIEW**

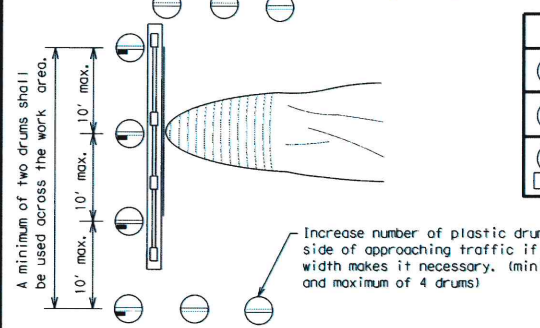
1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

**TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION**



**PERSPECTIVE VIEW**

These drums are not required on one-way roadway

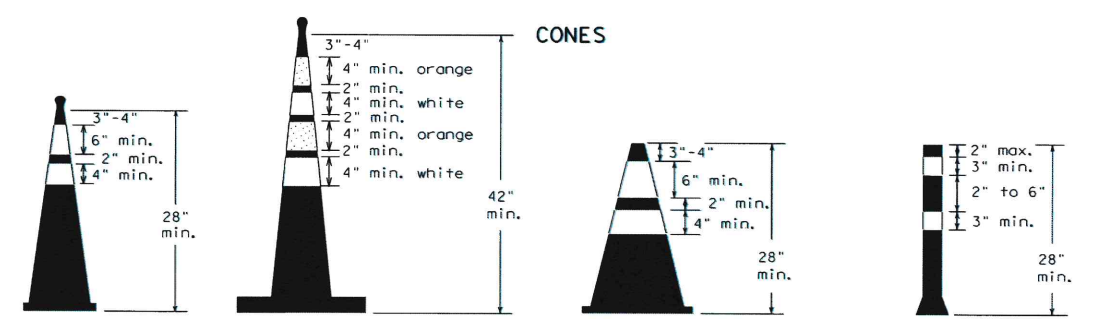


**PLAN VIEW**

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
	Steady burn warning light or yellow warning reflector

1. Where positive redirection capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.

**CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS**



**Two-Piece cones**

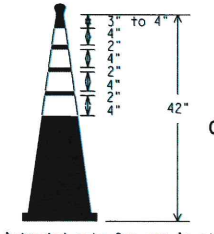
**One-Piece cones**

**Tubular Marker**

28" Cones shall have a minimum weight of 9 1/2 lbs.  
42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers used at night shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.

THIS DEVICE SHALL NOT BE USED ON PROJECTS LET AFTER MARCH 2014.



**EDGELINE CHANNELIZER**

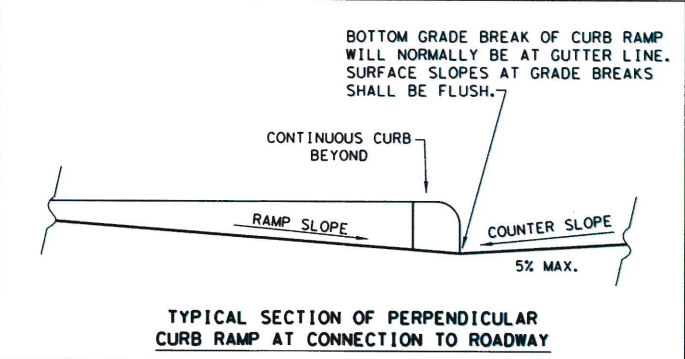
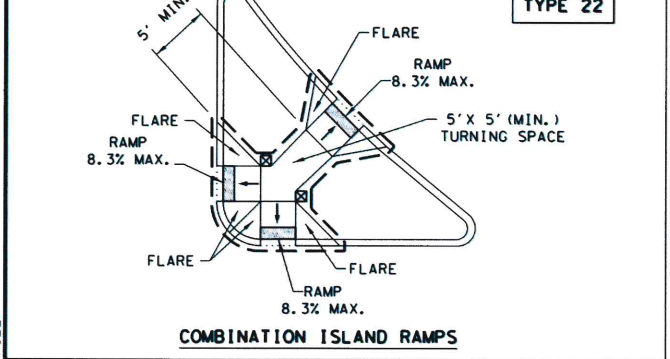
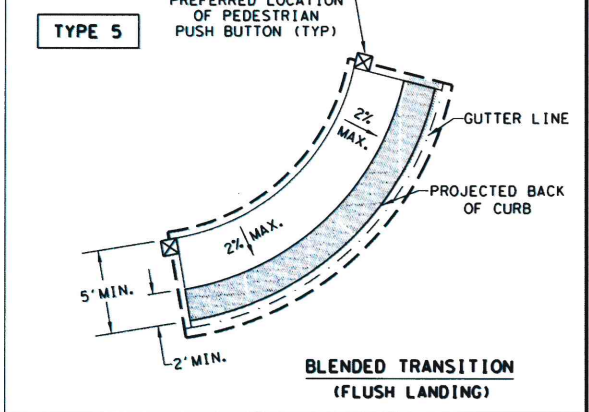
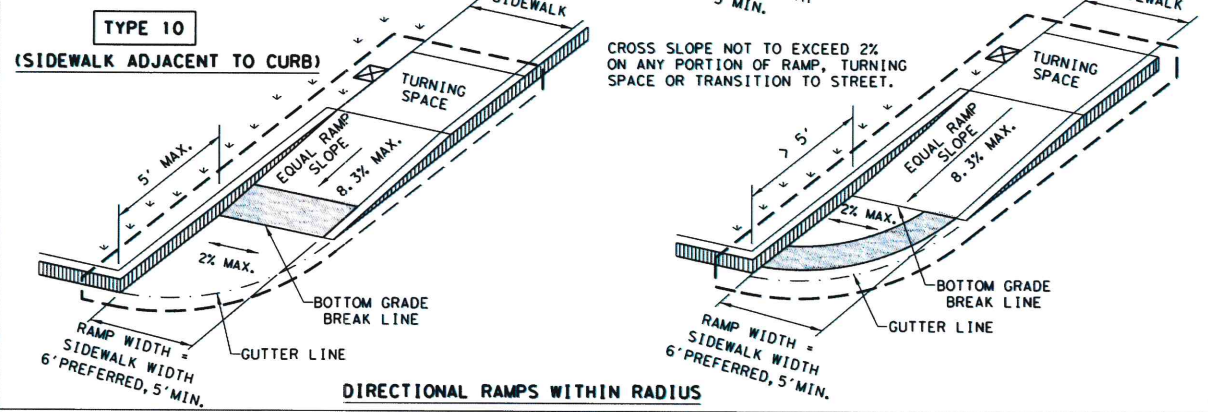
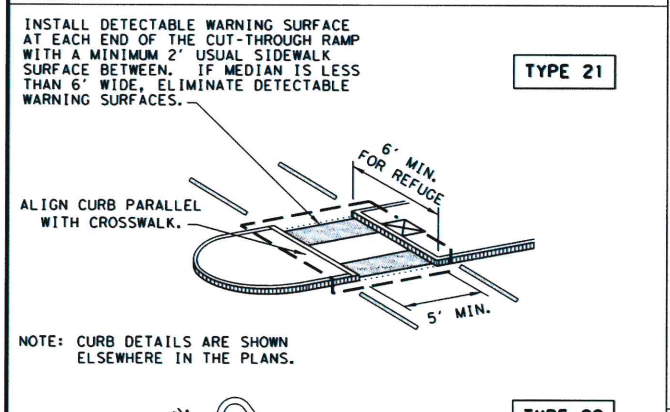
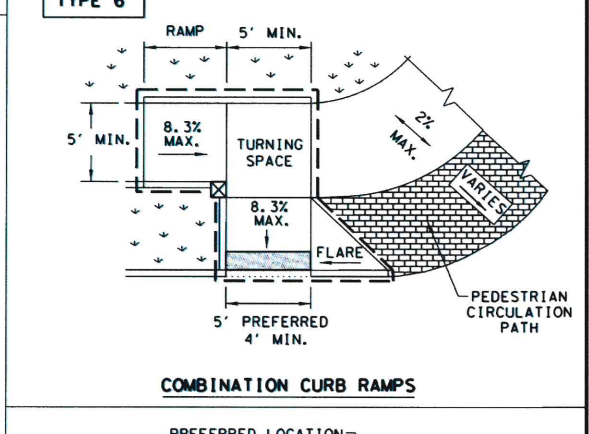
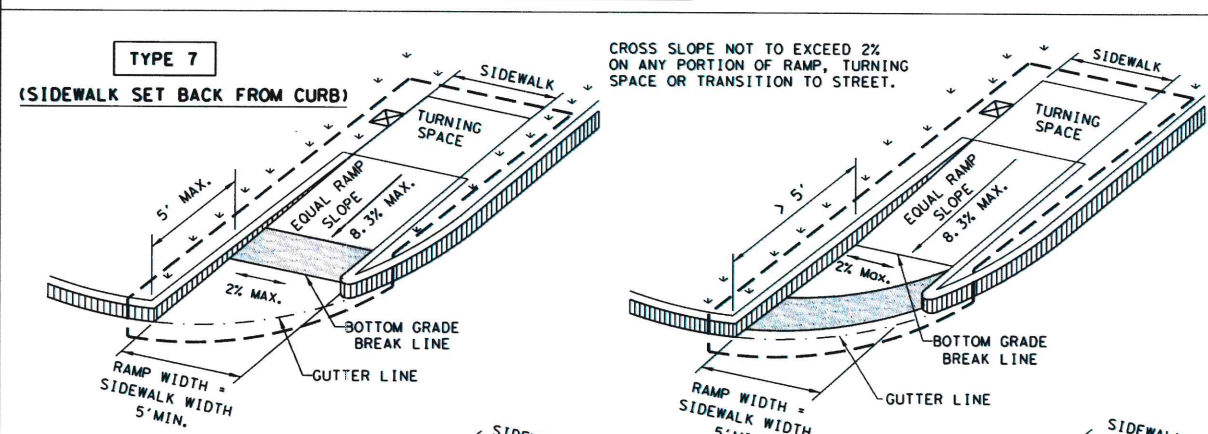
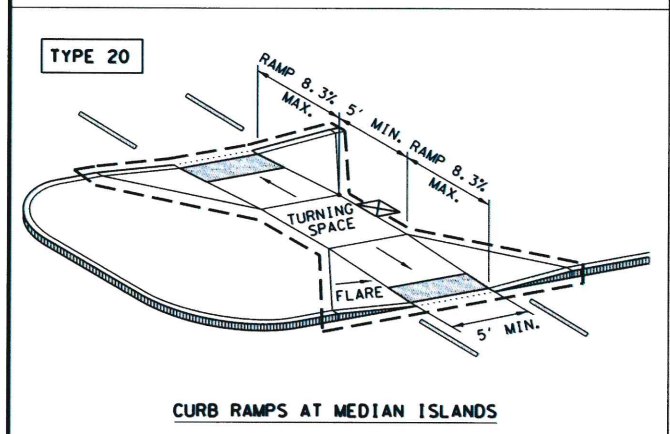
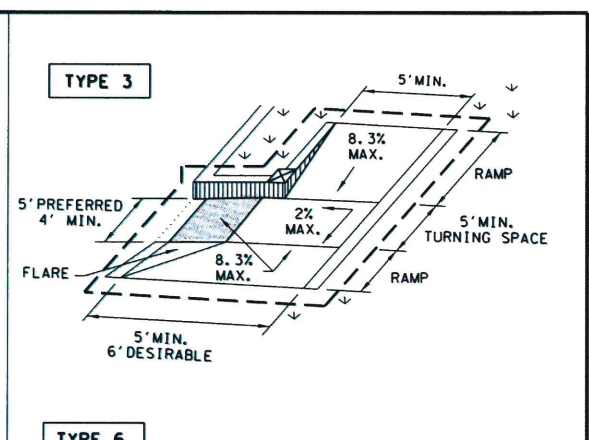
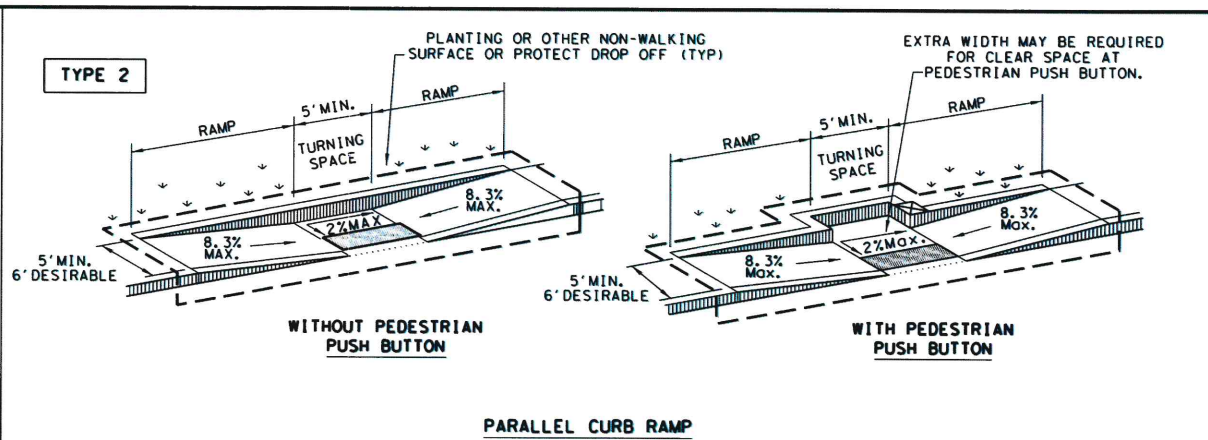
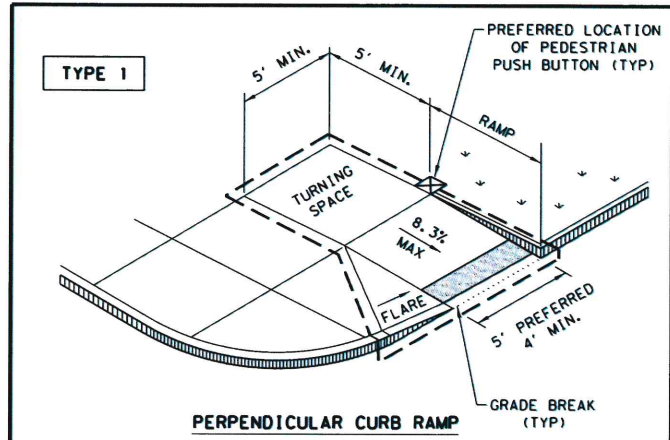
1. This device is intended only for use in place of a vertical panel to channelize traffic by indicating the edge of the travel lane. It is not intended to be used in transitions or tapers.
2. This device shall not be used to separate lanes of traffic (opposing or otherwise) or warn of objects.
3. This device is based on a 42 inch, two-piece cone with an alternate striping pattern: four 4 inch retroreflective bands, with an approximate 2 inch gap between bands. The color of the band should correspond to the color of the edgeline (yellow for left edgeline, white for right edgeline) for which the device is substituted or for which it supplements. The reflectorized bands shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless otherwise noted.
4. The base must weigh a minimum of 30 lbs.

SHEET 10 OF 12

Texas Department of Transportation		Traffic Operations Division Standard	
<b>BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES</b>			
<b>BC (10) - 14</b>			
FILE: bc-14.dgn	REV: TxDOT	CHK: TxDOT	DATE: TxDOT
TxDOT November 2002	CONF: SECT	JOB:	HIGHWAY:
9-07	8-14	DIST:	COUNTY:
7-13			SHEET NO.:



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**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   
 DETECTABLE WARNING SURFACE GRADE BREAK   
 DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON IF APPLICABLE. RAMP LIMITS OF PAYMENT

SHEET 1 OF 4

Texas Department of Transportation  
Design Division Standard

**PEDESTRIAN FACILITIES CURB RAMPS**  
**PED-18**

FILE: Ped18	DATE: MARCH, 2002	DESIGNER: DM:VP	CHECKER: CK:JKM	DATE: 08/2005
CONT: 18	SECT: 18	JOB: HIGHWAY	DIST: COUNTY:	SHEET NO.:
<small>REVISED 06, 2005 REVISED 06, 2012 REVISED 01, 2018</small>				

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DATE:  
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

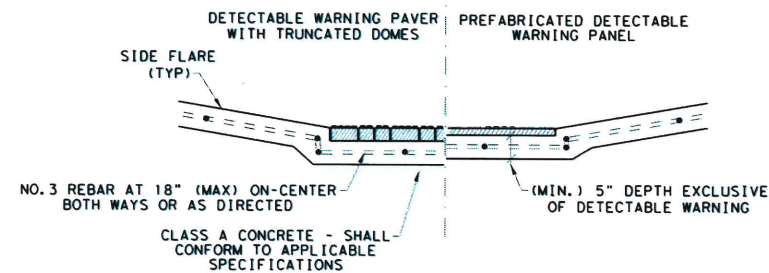
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material 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.

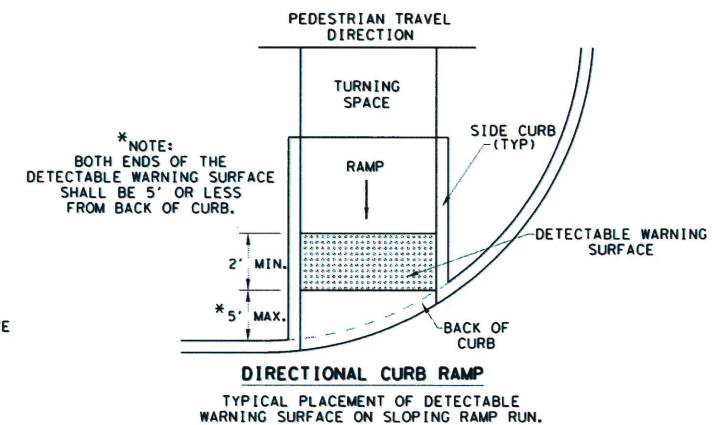
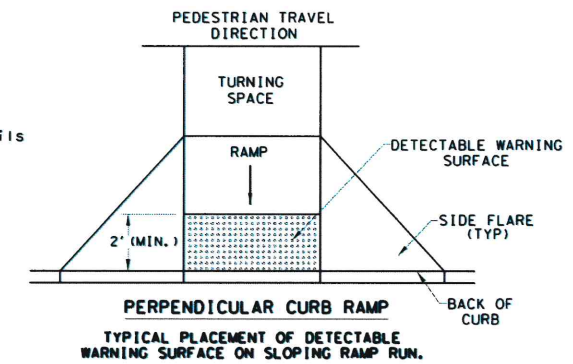
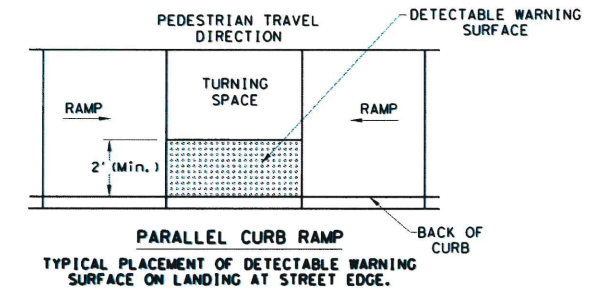
#### SIDEWALKS

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



SHEET 2 OF 4

Texas Department of Transportation		Design Division Standard	
<b>PEDESTRIAN FACILITIES CURB RAMPS</b>			
<b>PED-18</b>			
FILE: PED18	DATE: MARCH, 2002	DESIGNED BY: DNT	CHECKED BY: DNT
REVISED BY: DNT	REVISED BY: DNT	REVISED BY: DNT	REVISED BY: DNT
DIST	COUNTY	SHEET NO.	

CITY OF KINGSVILLE  
ENGINEERING DEPARTMENT  
400 West King  
Kingsville, Texas 78363  
Office 361.595.8007  
Fax 361.595.8035



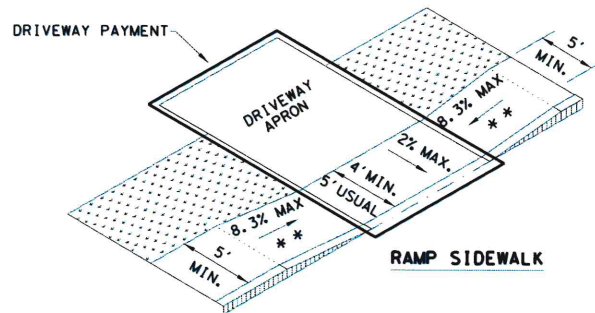
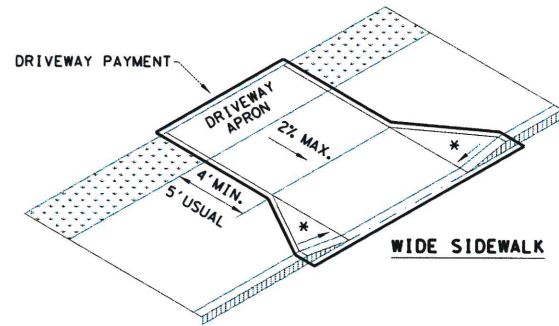
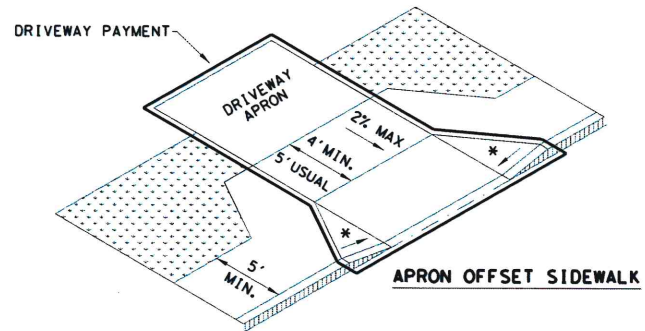
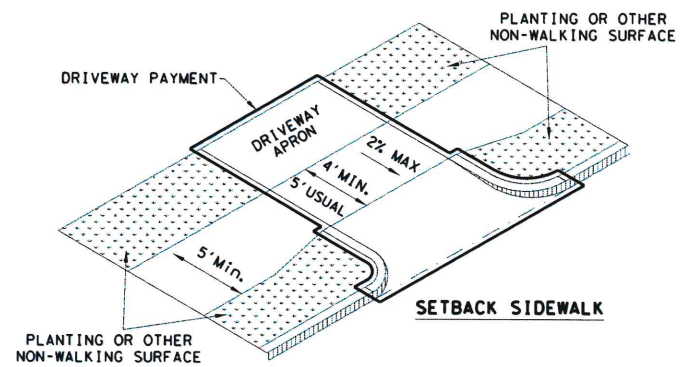
Drawn by: M. MEDRANO  
Date: 01/25/2021  
Checked by: R. MORA  
Job:  
Scale: AS NOTED

2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS  
PEDESTRIAN FACILITIES CURB RAMPS  
PED-18 (SHEET 2 OF 4)

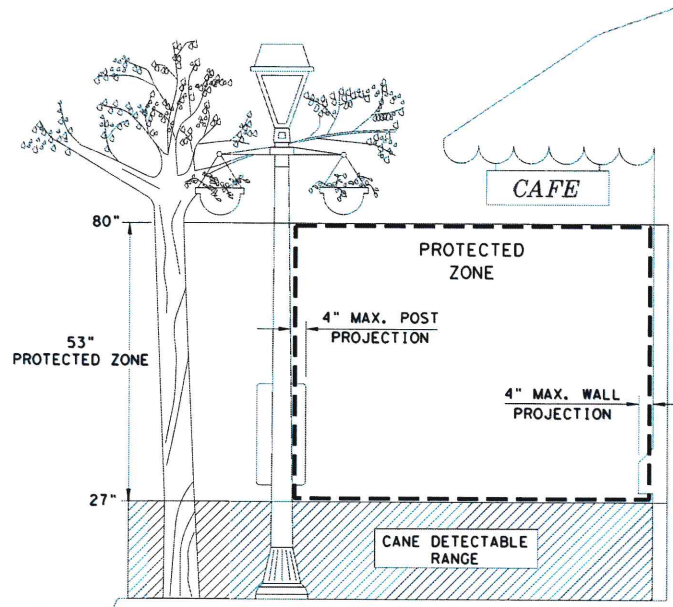
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DATE: FILE:

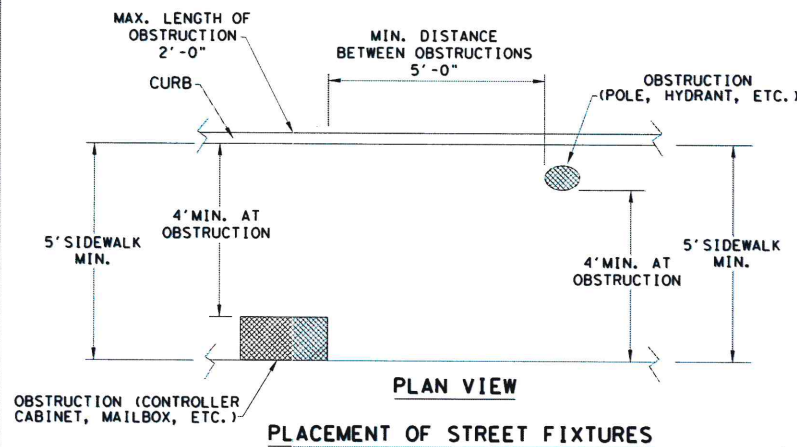
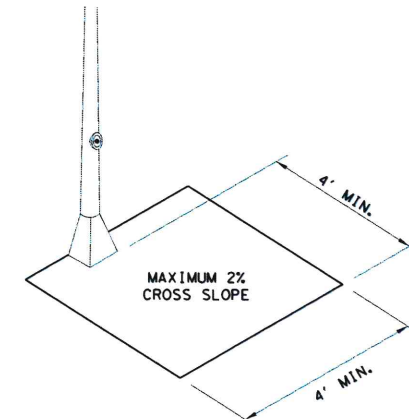
**SIDEWALK TREATMENT AT DRIVEWAYS**



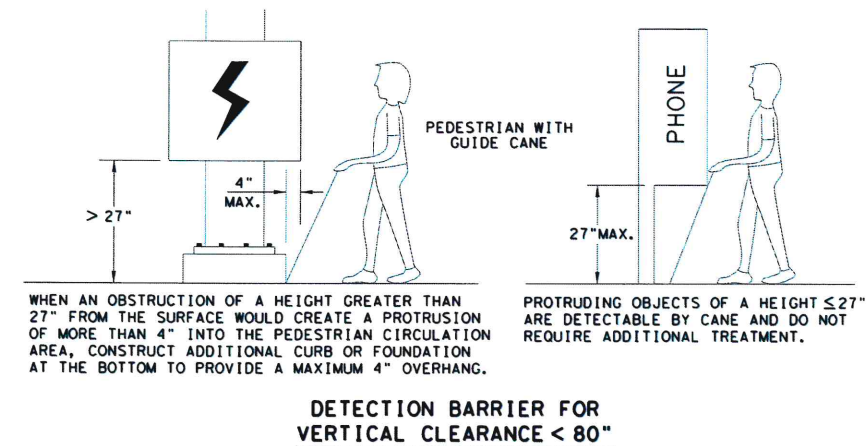
- NOTES:
- \* WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.
  - \* IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.



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



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



SHEET 3 OF 4

Texas Department of Transportation		Design Division Standard	
<b>PEDESTRIAN FACILITIES CURB RAMPS</b>			
<b>PED-18</b>			
FILE: ped18	DN: TxDOT	DN: VP	CK: KM
© TxDOT: MARCH, 2002	CONT	SECT	JOB
REVISED 08, 2005	REVISIONS		CK: PK & JD
REVISED 06, 2012	DIST	COUNTY	SHEET NO.
REVISED 01, 2014			



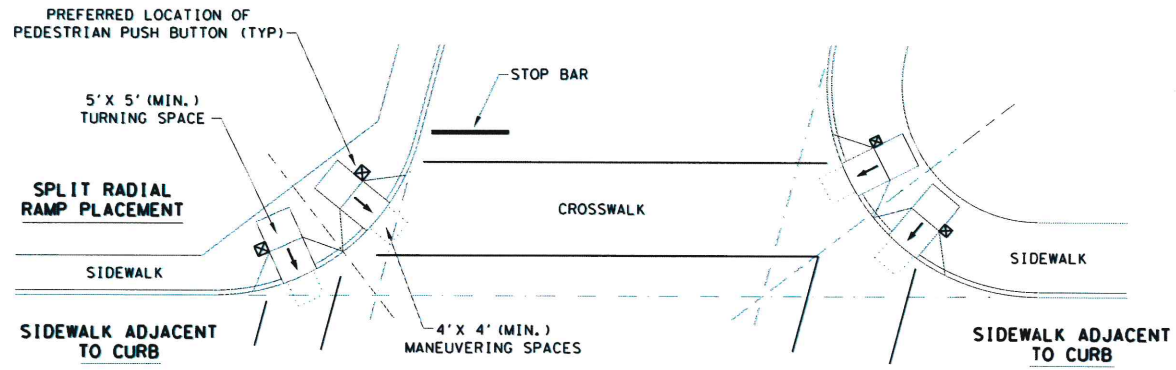
Drawn by: M. MEDRANO  
Date: 01/25/2021  
Checked by: R. MORA  
Job:  
Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**PEDESTRIAN FACILITIES CURB RAMPS**  
**PED-18 (SHEET 3 OF 4)**

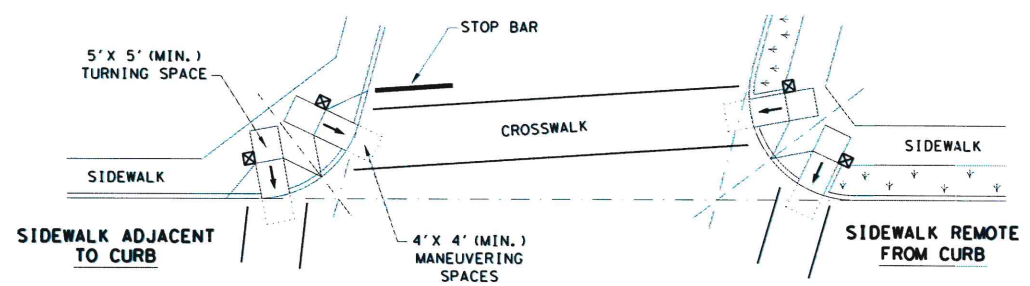
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DATE: FILE:

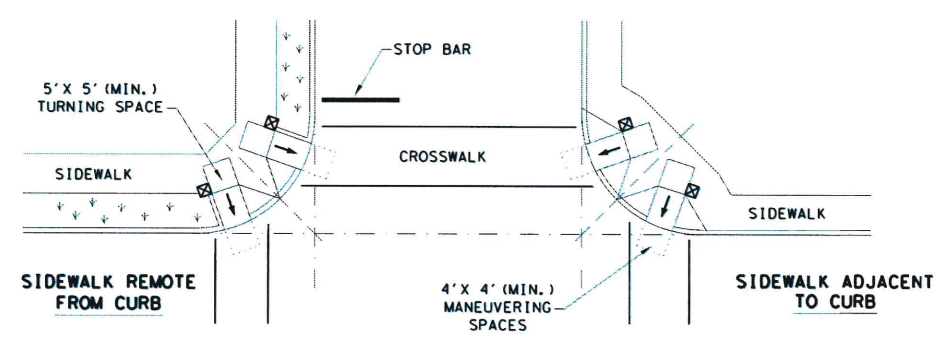
TYPICAL CROSSING LAYOUTS  
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS



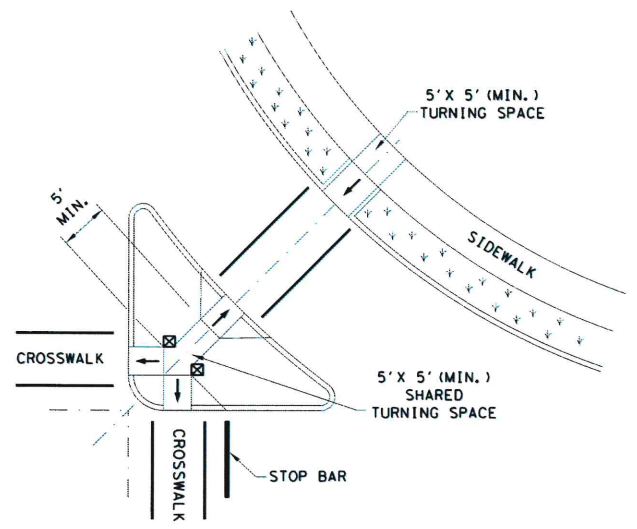
SKewed INTERSECTION WITH "LARGE" RADIUS



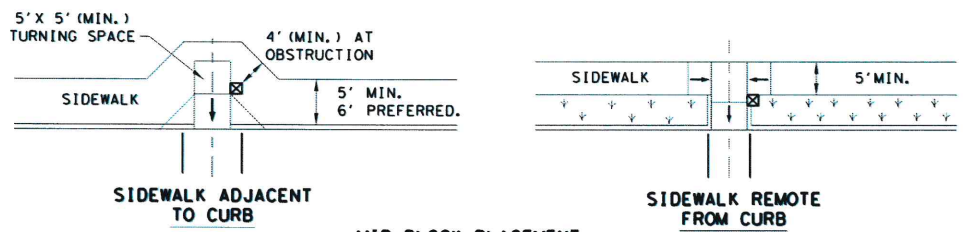
SKewed INTERSECTION WITH "SMALL" RADIUS



NORMAL INTERSECTION WITH "SMALL" RADIUS



AT INTERSECTION  
W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT  
PERPENDICULAR RAMPs

- 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. K K K

SHEET 4 OF 4

**Texas Department of Transportation**  
Design Division Standard

**PEDESTRIAN FACILITIES CURB RAMPS**

**PED-18**

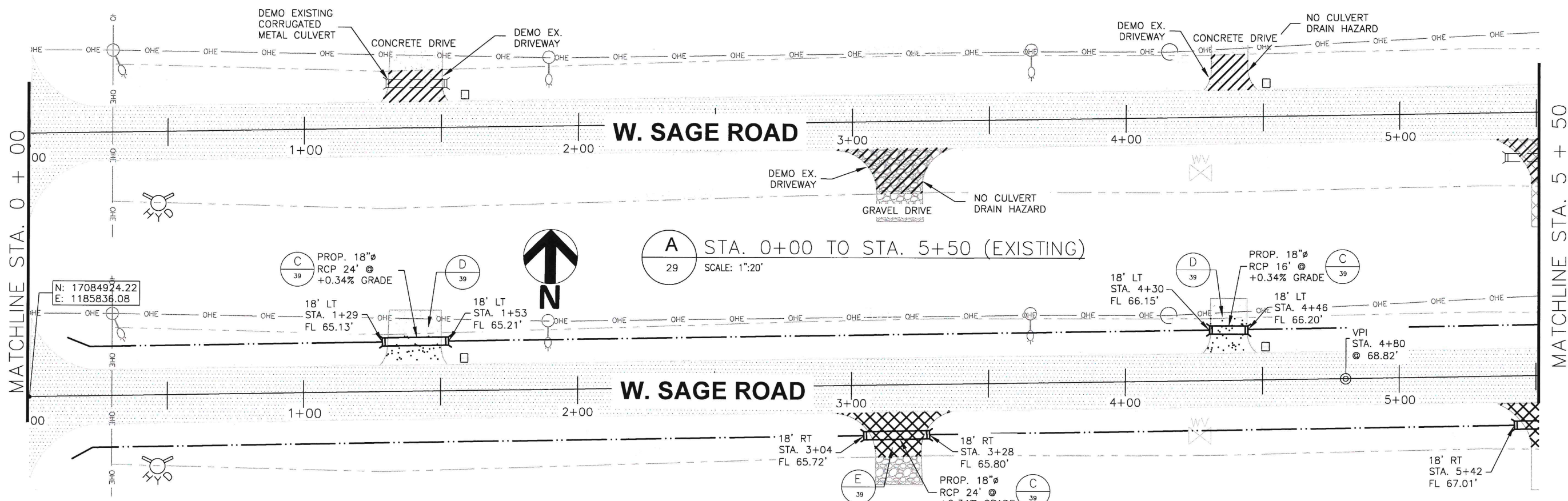
FILE: ped18	DN: TxDOT	DR: VP	CR: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT: SECT	JOB:	HIGHWAY:	
REVISED 09, 2005 REVISED 06, 2012 REVISED 01, 2018				
REVISED:		COUNTY:		SHEET NO.:

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Drawn by: M. MEDRANO  
Date: 01/25/2021  
Checked by: R. MORA  
Job:  
Scale: AS NOTED

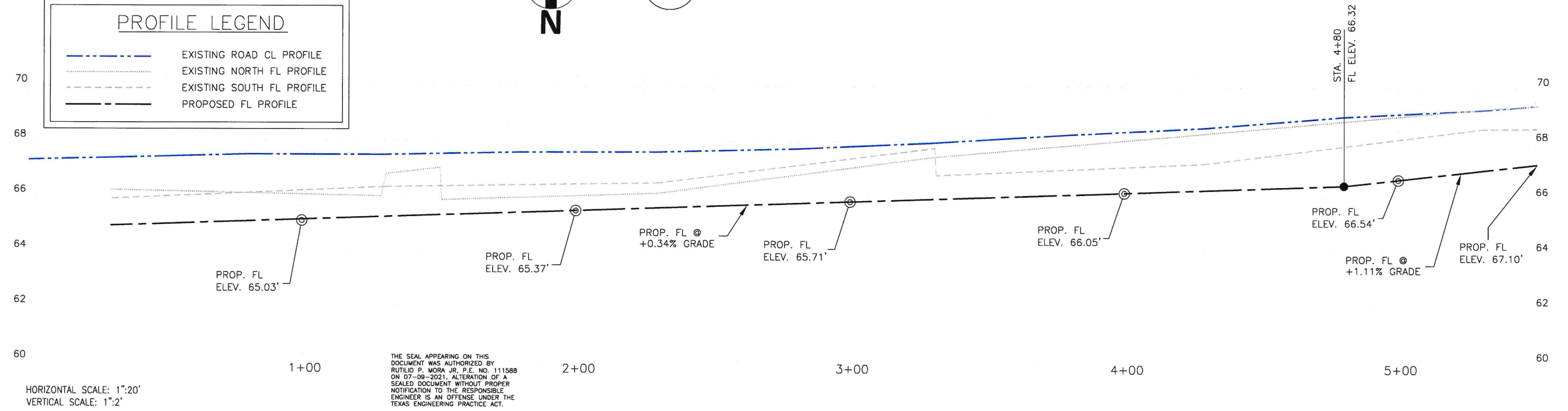
**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**PEDESTRIAN FACILITIES CURB RAMPS**  
**PED-18 (SHEET 4 OF 4)**



**A** STA. 0+00 TO STA. 5+50 (EXISTING)  
SCALE: 1":20'

**B** STA. 0+00 TO STA. 5+50 (PROPOSED)  
SCALE: 1":20'

PROFILE LEGEND	
	EXISTING ROAD CL PROFILE
	EXISTING NORTH FL PROFILE
	EXISTING SOUTH FL PROFILE
	PROPOSED FL PROFILE



HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

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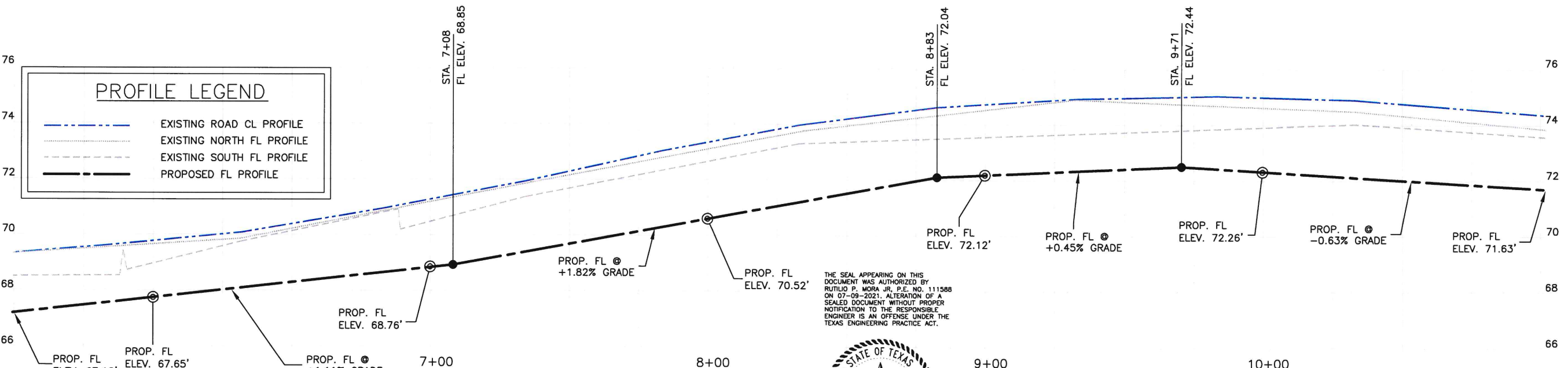
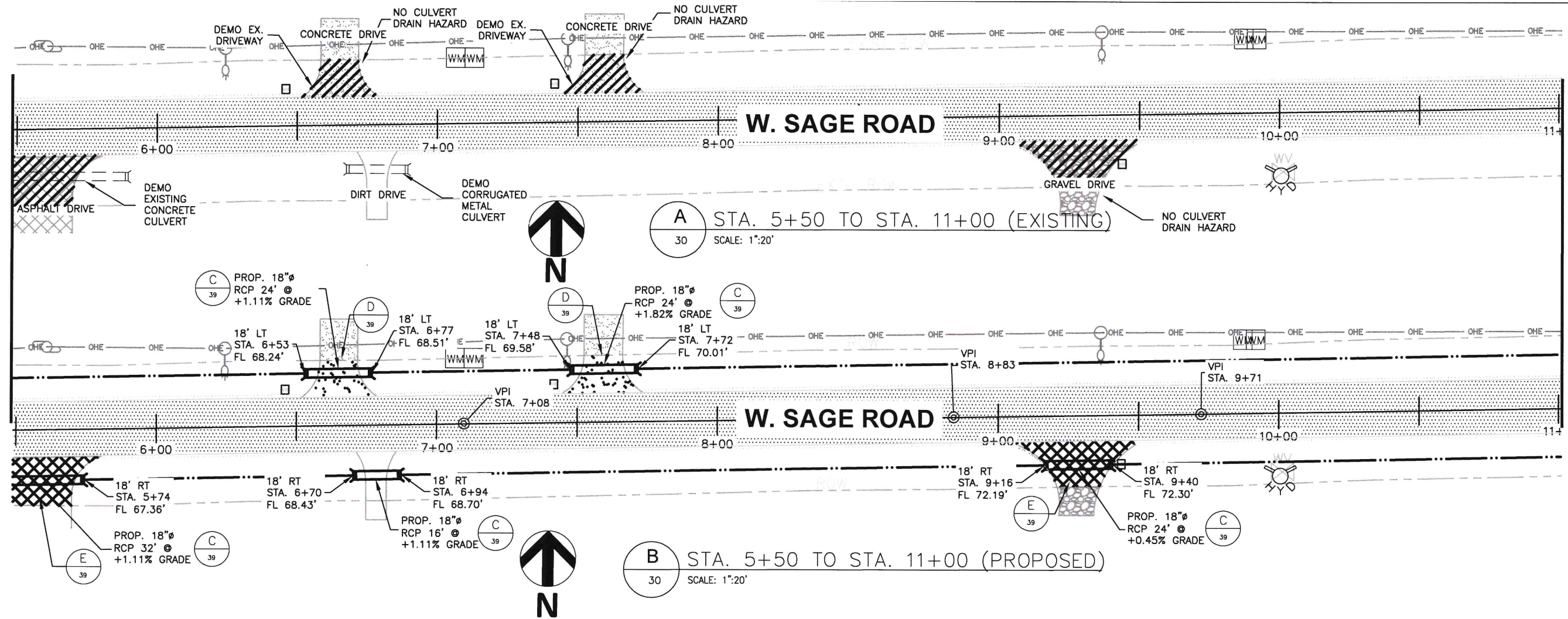


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**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE PLAN AND PROFILE VIEWS STA. 0+20 TO STA. 5+50**

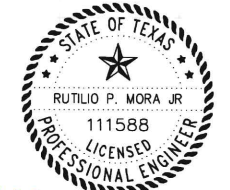
MATCHLINE STA. 5 + 50

MATCHLINE STA. 11 + 00



HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

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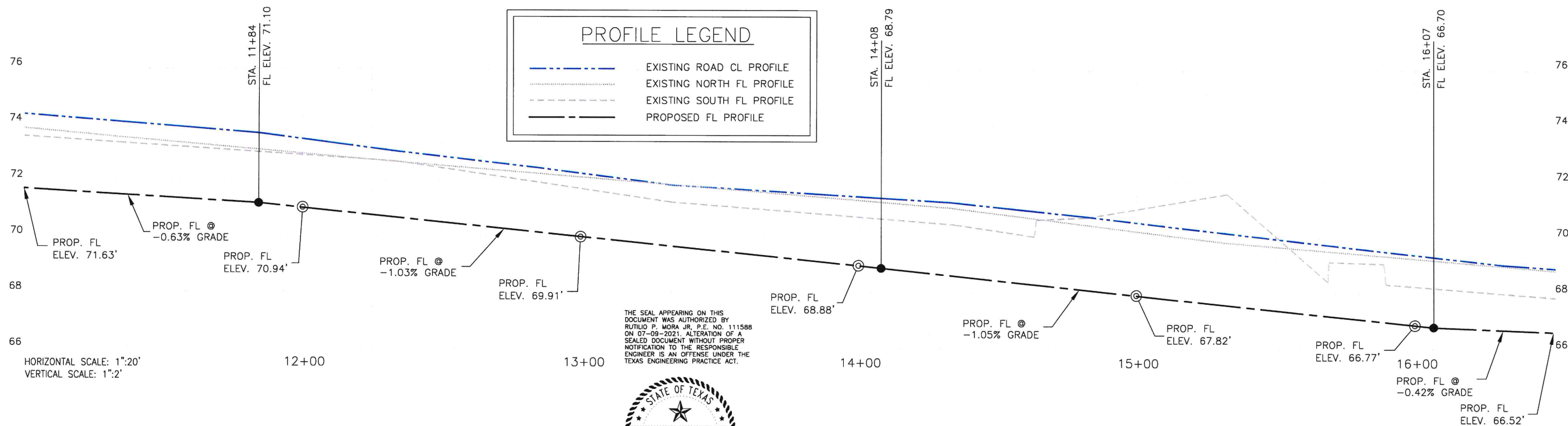
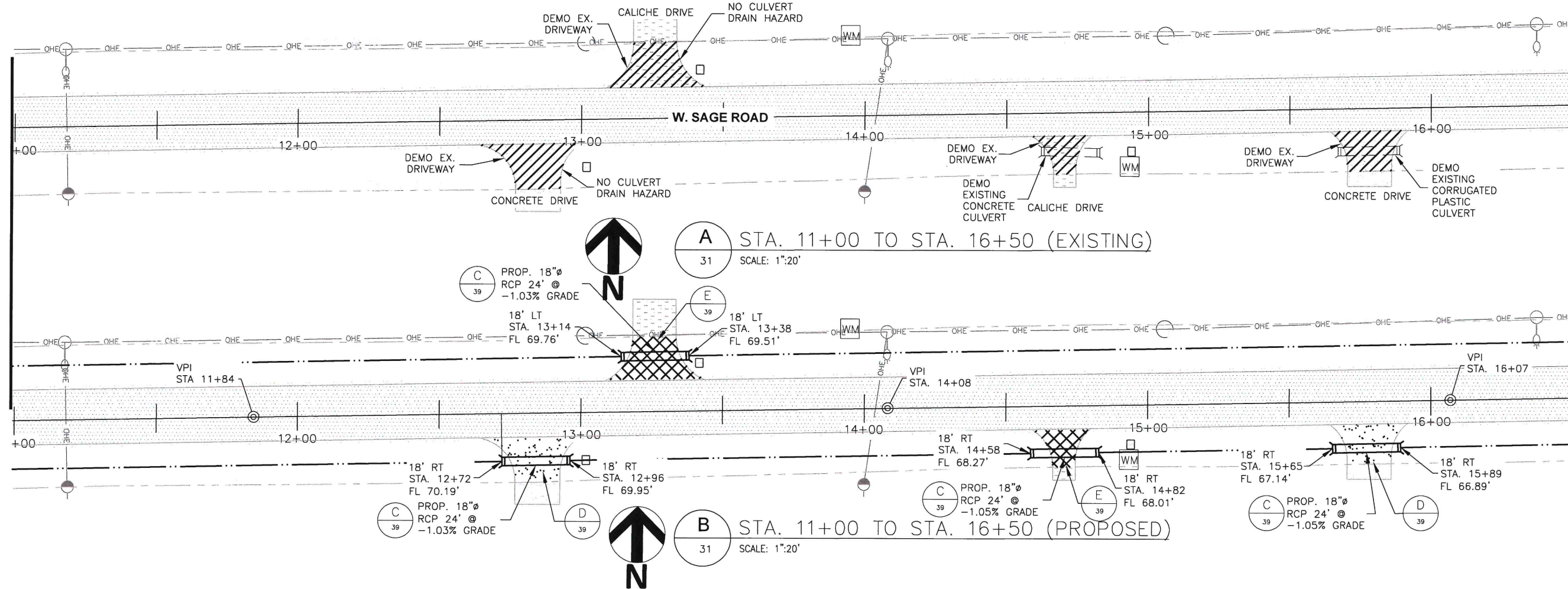
Drawn by: M. MEDRANO  
Date: 01/25/2021  
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Job:  
Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE**  
**PLAN AND PROFILE VIEWS STA. 5+50 TO STA. 11+00**

SHEET  
30

MATCHLINE STA. 11 + 00

MATCHLINE STA. 16 + 50



PROFILE LEGEND	
	EXISTING ROAD CL PROFILE
	EXISTING NORTH FL PROFILE
	EXISTING SOUTH FL PROFILE
	PROPOSED FL PROFILE

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HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

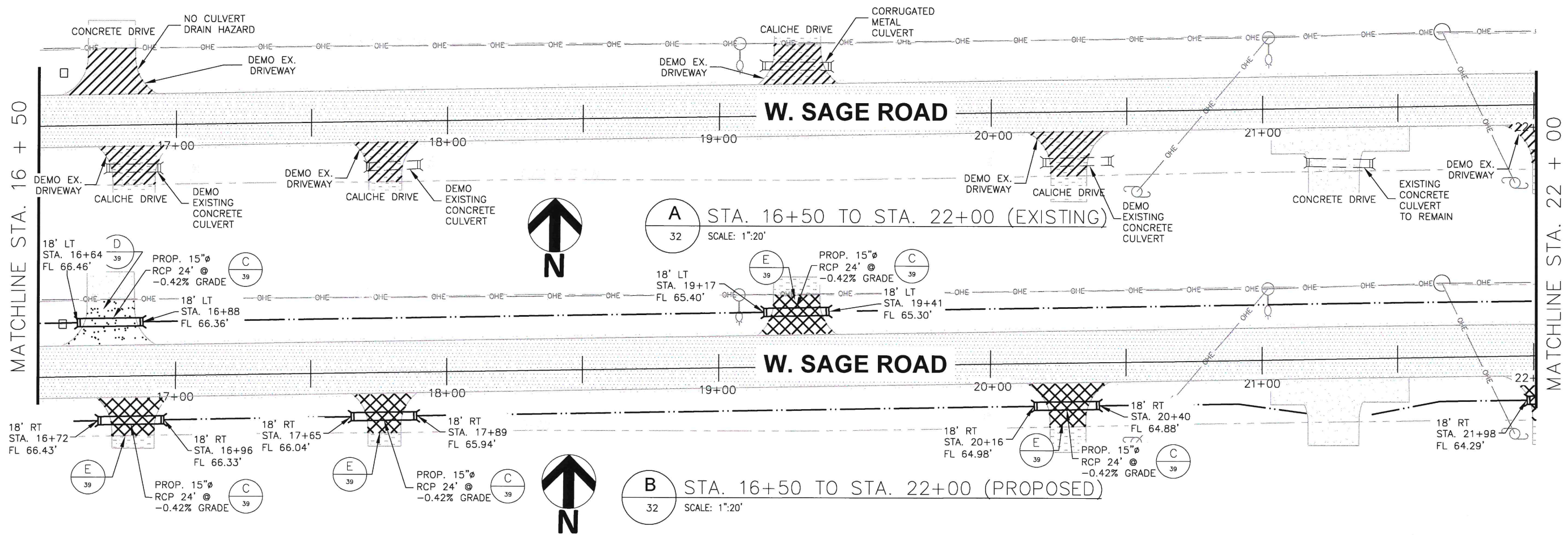
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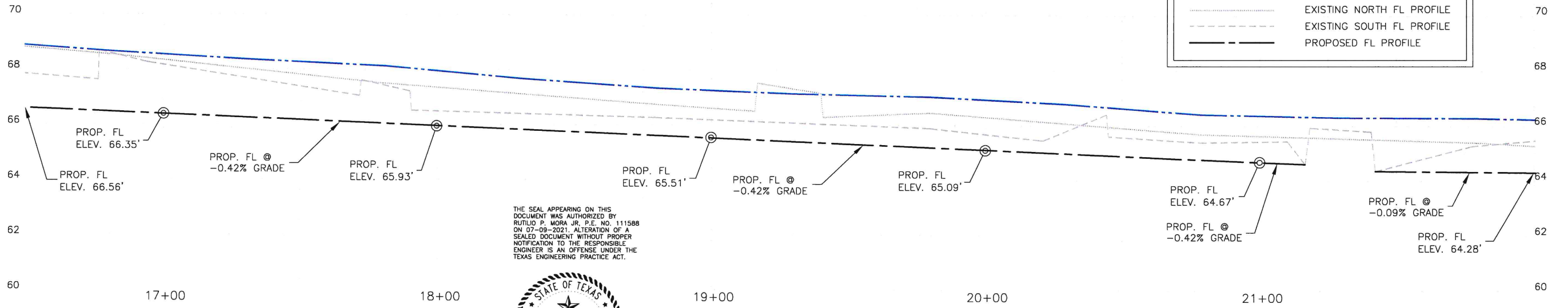
Drawn by: M. MEDRANO  
Date: 01/25/2021  
Checked by: R. MORA  
Job:  
Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE**  
**PLAN AND PROFILE VIEWS STA. 11+00 TO STA. 16+50**

SHEET  
31

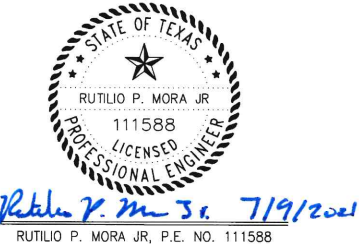


PROFILE LEGEND	
	EXISTING ROAD CL PROFILE
	EXISTING NORTH FL PROFILE
	EXISTING SOUTH FL PROFILE
	PROPOSED FL PROFILE



HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

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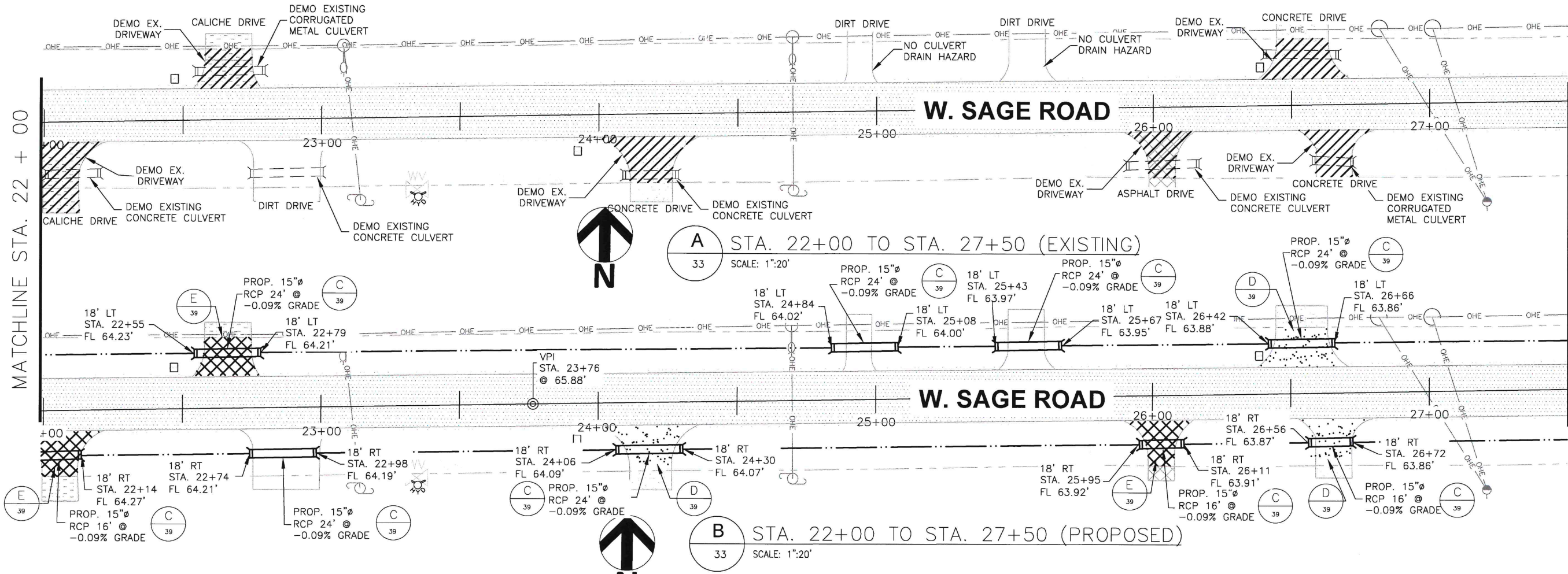
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Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE**  
**PLAN AND PROFILE VIEWS STA. 16+50 TO STA. 22+00**



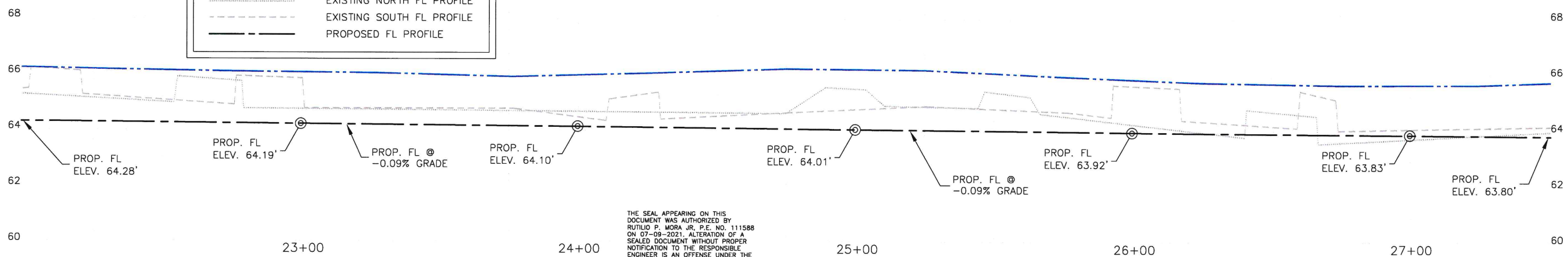
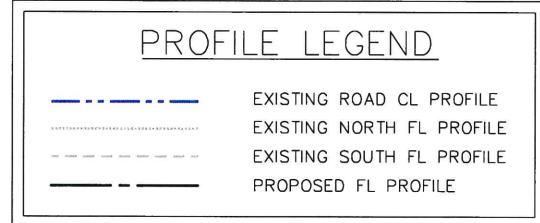
MATCHLINE STA. 22 + 00

MATCHLINE STA. 27 + 50



**A** STA. 22+00 TO STA. 27+50 (EXISTING)  
SCALE: 1":20'

**B** STA. 22+00 TO STA. 27+50 (PROPOSED)  
SCALE: 1":20'



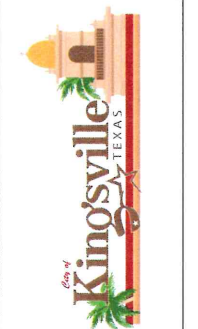
HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

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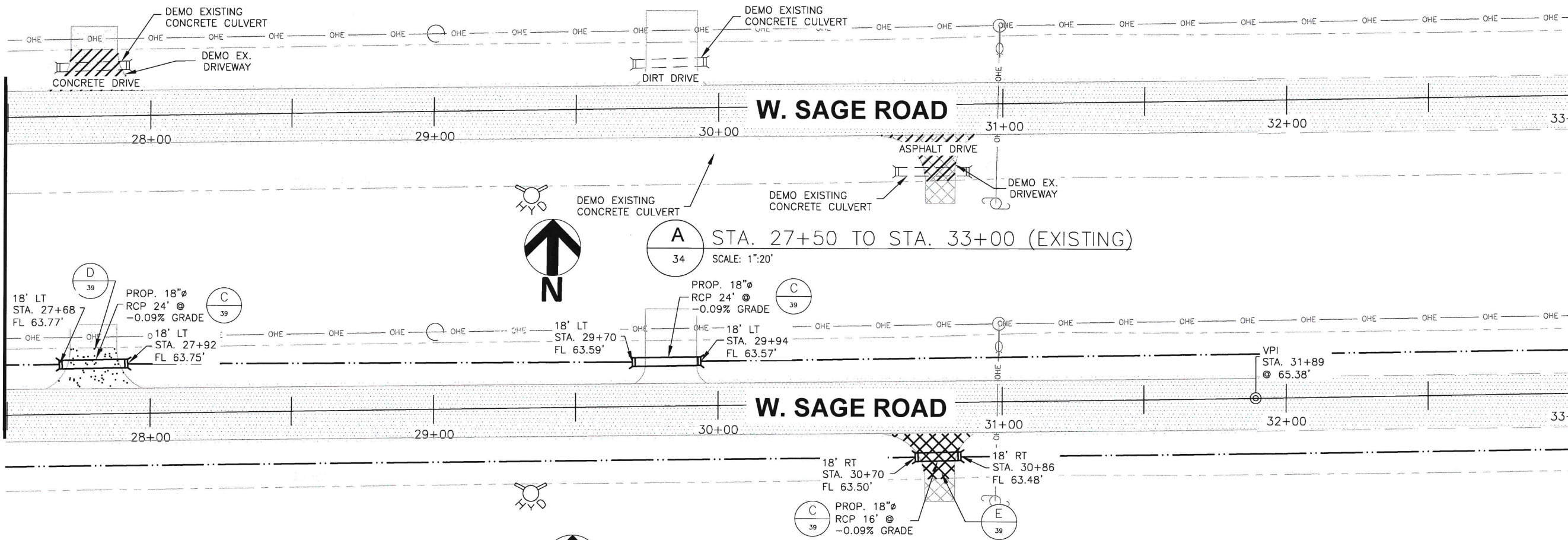
**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE**  
**PLAN AND PROFILE VIEWS STA. 22+00 TO STA. 27+50**

MATCHLINE STA. 27 + 50

MATCHLINE STA. 33 + 00

### W. SAGE ROAD

### W. SAGE ROAD

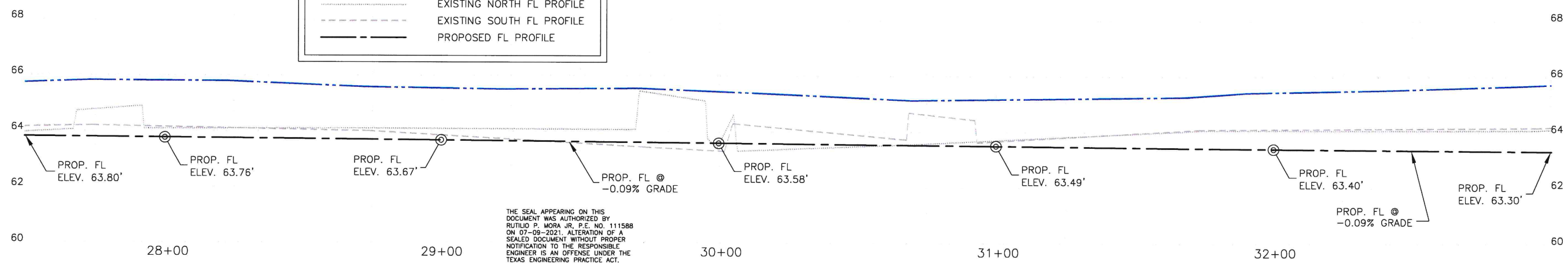


**A** STA. 27+50 TO STA. 33+00 (EXISTING)  
SCALE: 1"=20'

**B** STA. 27+50 TO STA. 33+00 (PROPOSED)  
SCALE: 1"=20'

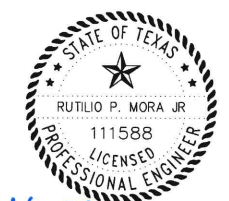
**PROFILE LEGEND**

- EXISTING ROAD CL PROFILE
- EXISTING NORTH FL PROFILE
- EXISTING SOUTH FL PROFILE
- PROPOSED FL PROFILE



HORIZONTAL SCALE: 1"=20'  
VERTICAL SCALE: 1"=2'

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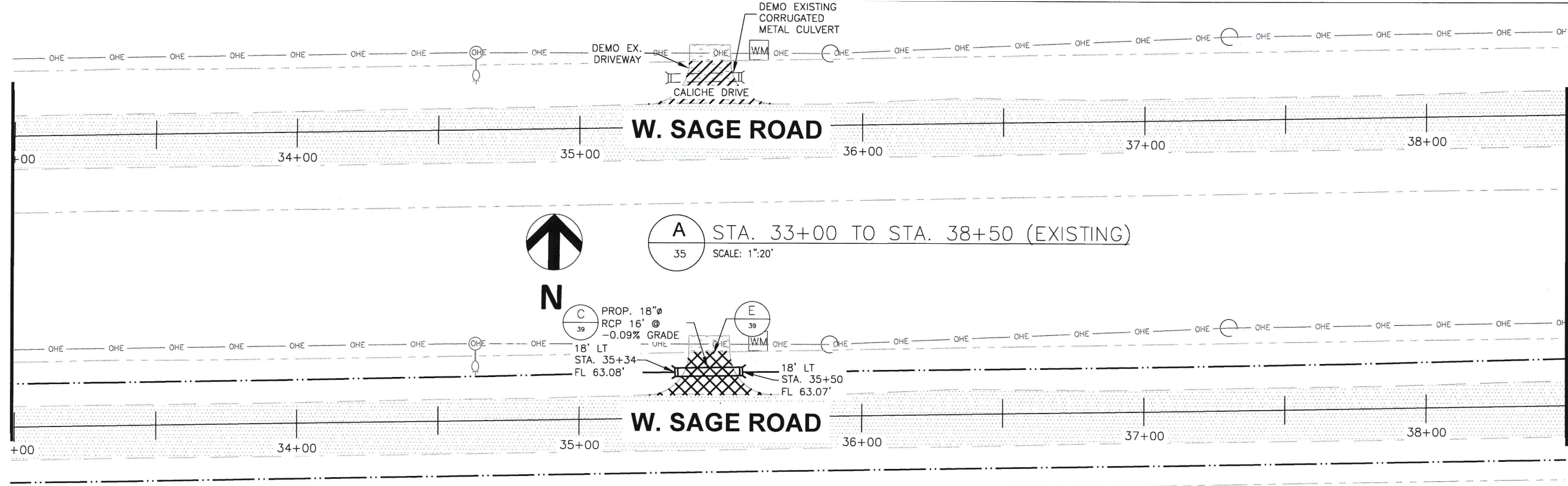
Drawn by: M. MEDRANO  
Date: 01/25/2021  
Checked by: R. MORA  
Job:  
Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE**  
**PLAN AND PROFILE VIEWS STA. 27+50 TO STA. 33+00**

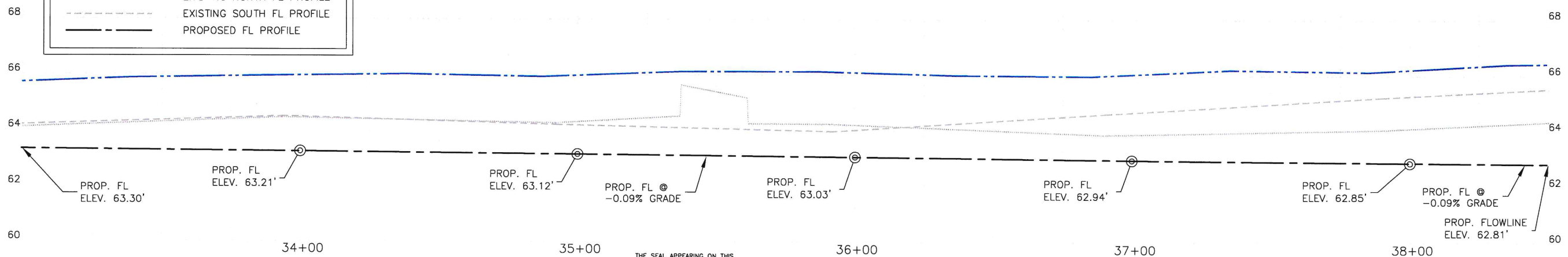
SHEET  
34

MATCHLINE STA. 33 + 00

MATCHLINE STA. 38 + 50



PROFILE LEGEND	
	EXISTING ROAD CL PROFILE
	EXISTING NORTH FL PROFILE
	EXISTING SOUTH FL PROFILE
	PROPOSED FL PROFILE



HORIZONTAL SCALE: 1"=20'  
VERTICAL SCALE: 1"=2'

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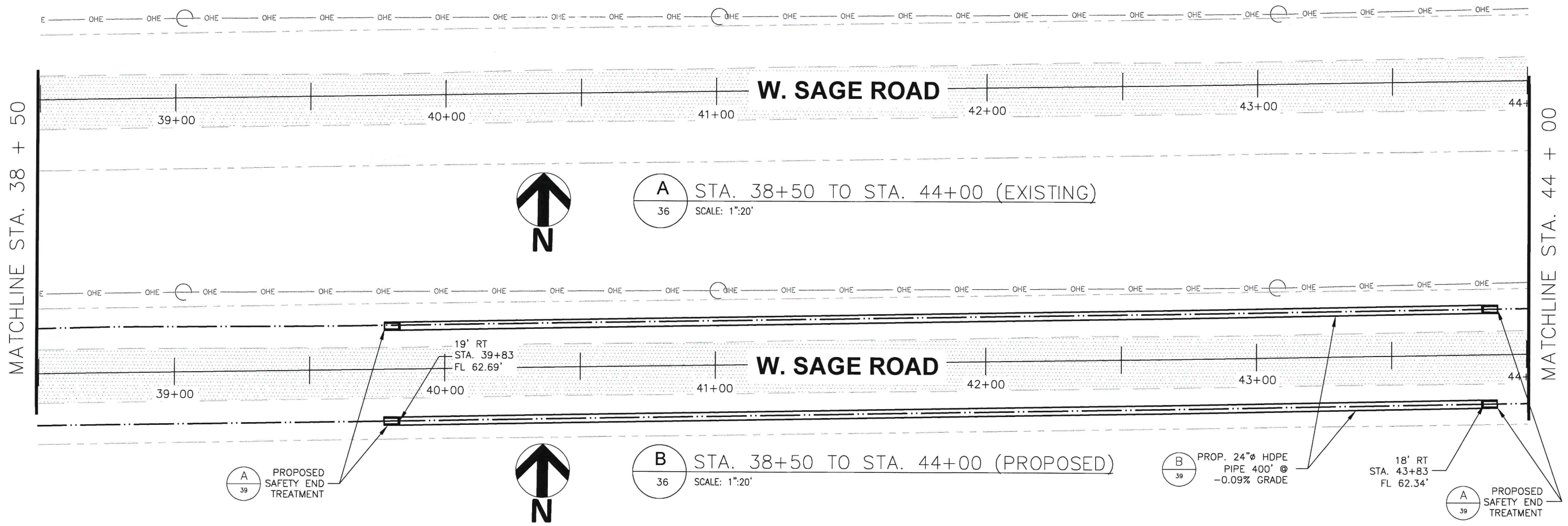
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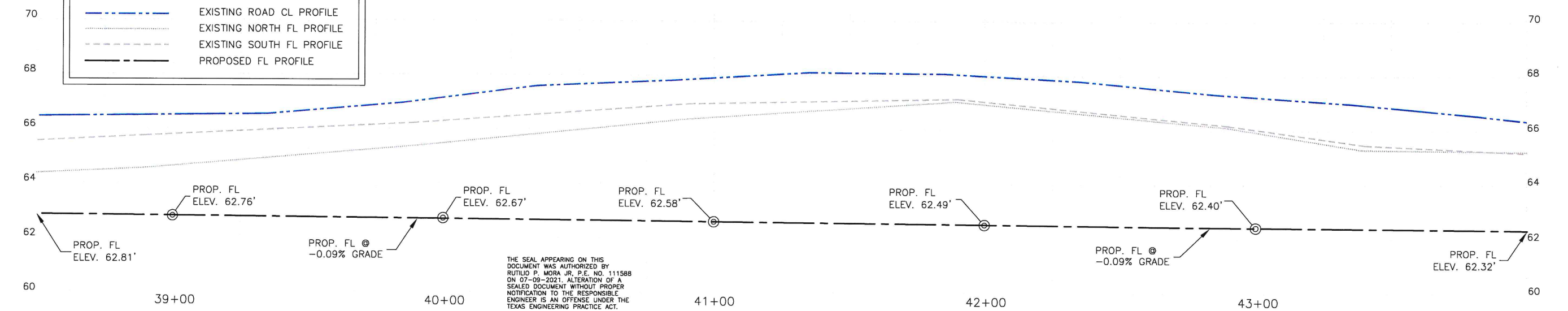


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Job:  
Scale: AS NOTED

**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE PLAN AND PROFILE VIEWS STA. 33+00 TO STA. 38+50**



PROFILE LEGEND	
	EXISTING ROAD CL PROFILE
	EXISTING NORTH FL PROFILE
	EXISTING SOUTH FL PROFILE
	PROPOSED FL PROFILE



HORIZONTAL SCALE: 1"=20'  
VERTICAL SCALE: 1"=2'

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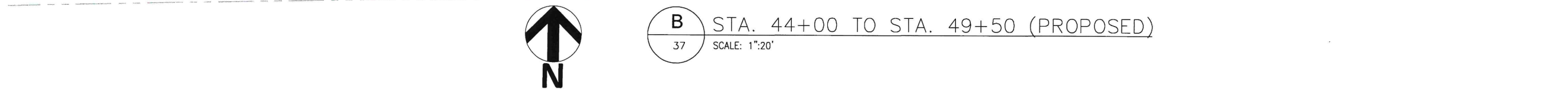
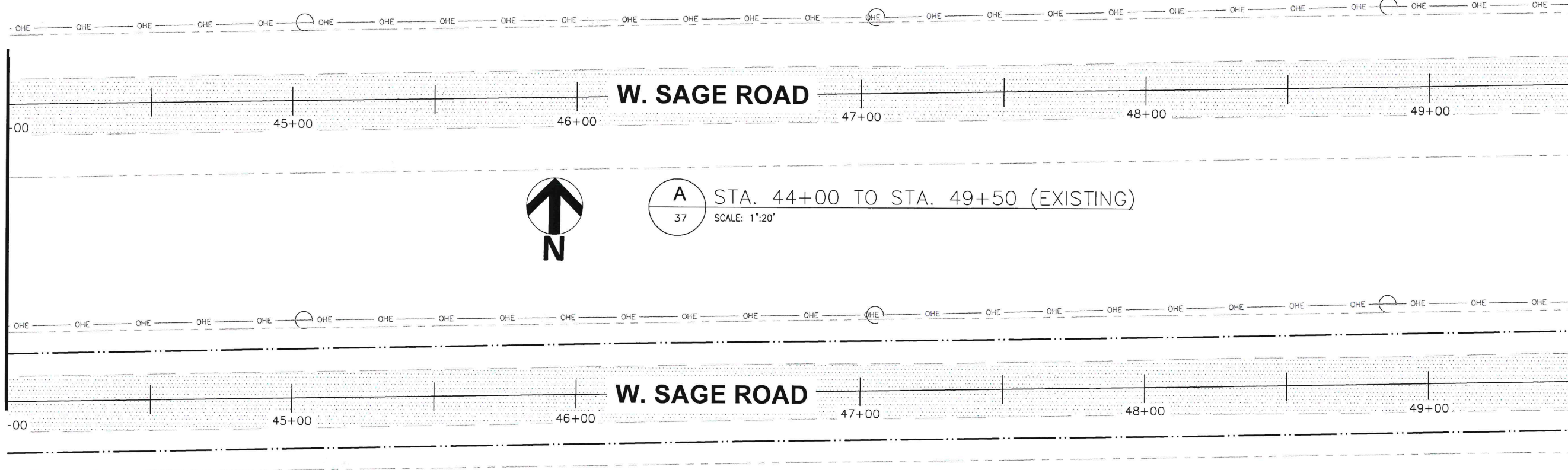
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**ALT. BID 1 - SAGE ROAD DRAINAGE**  
**PLAN AND PROFILE VIEW STA. 38+50 TO STA. 44+00**

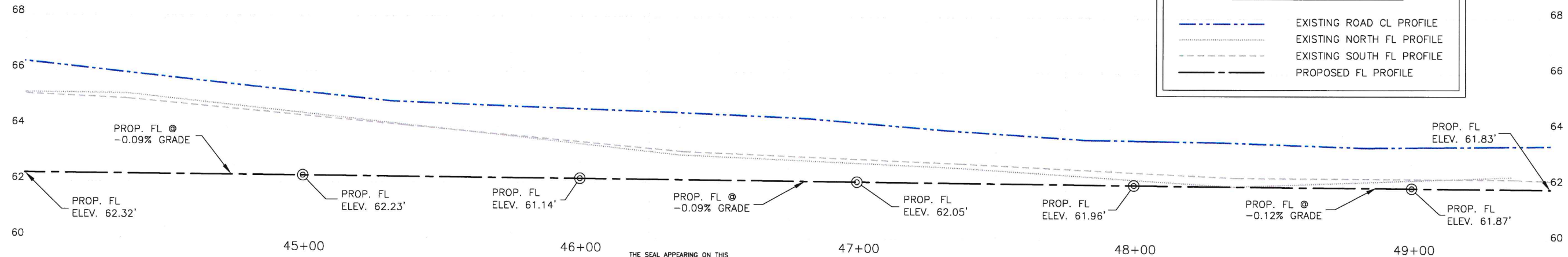
SHEET  
36

MATCHLINE STA. 44 + 00

MATCHLINE STA. 49 + 50



PROFILE LEGEND	
	EXISTING ROAD CL PROFILE
	EXISTING NORTH FL PROFILE
	EXISTING SOUTH FL PROFILE
	PROPOSED FL PROFILE



HORIZONTAL SCALE: 1":20'  
VERTICAL SCALE: 1":2'

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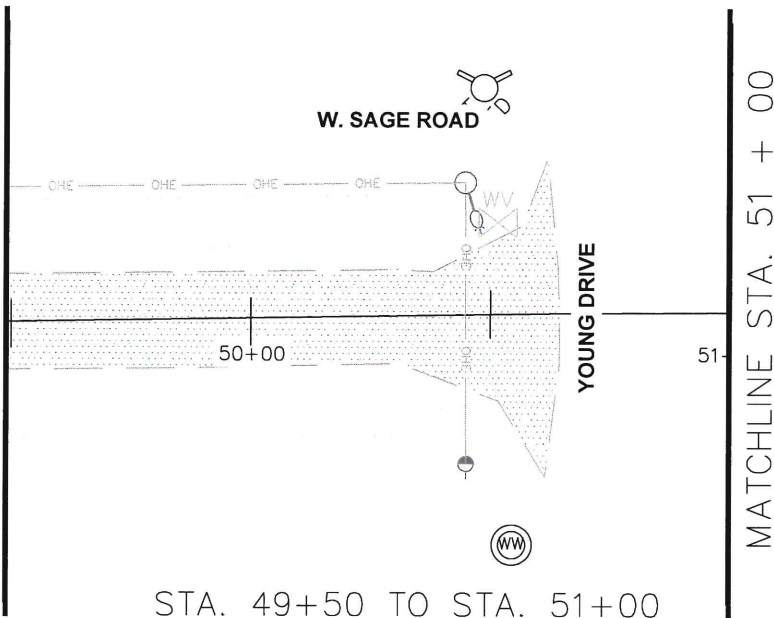


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**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE**  
**PLAN AND PROFILE VIEW STA. 44+00 TO STA. 49+50**



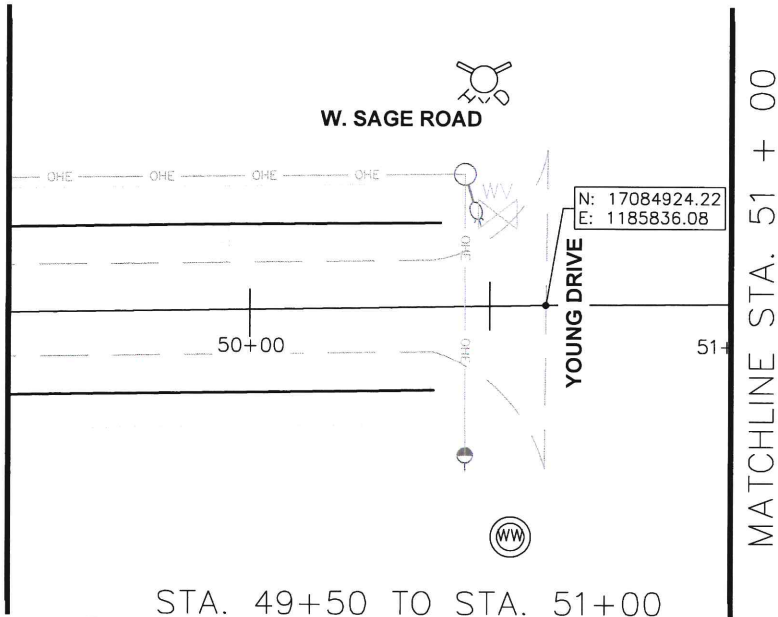
MATCHLINE STA. 49 + 50



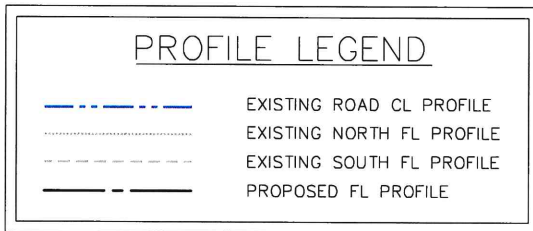
**A**  
38  
STA. 49+50 TO STA. 51+00  
(EXISTING)  
SCALE: 1":20'



MATCHLINE STA. 49 + 50



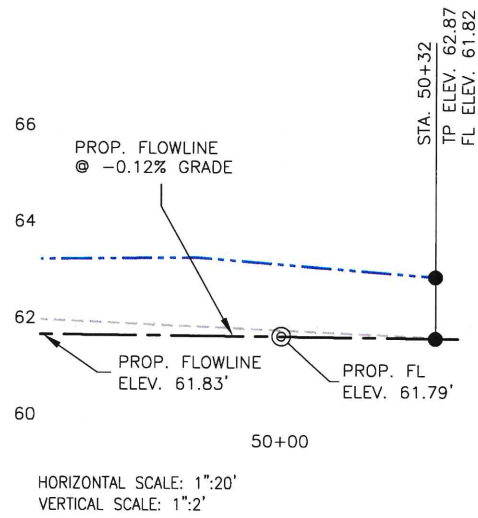
**B**  
38  
STA. 49+50 TO STA. 51+00  
(PROPOSED)  
SCALE: 1":20'



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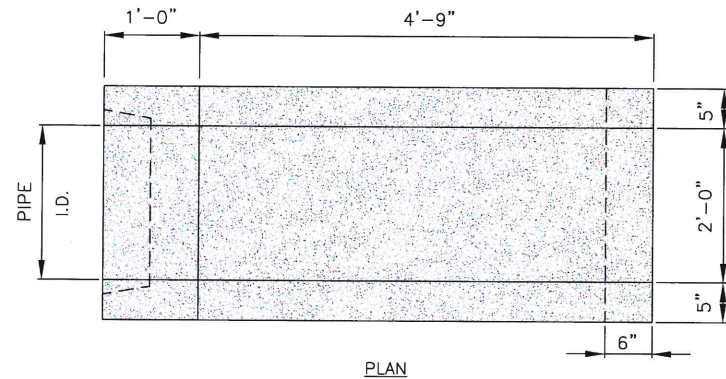
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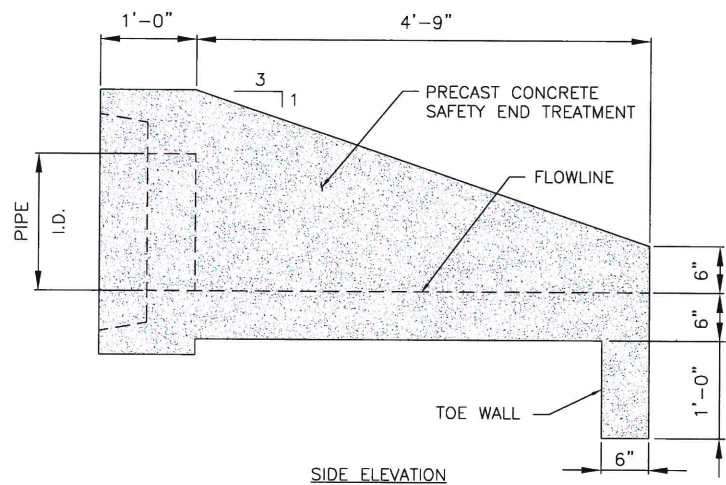
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**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE**  
**PLAN AND PROFILE VIEW STA. 49+50 TO STA. 51+00**



PLAN



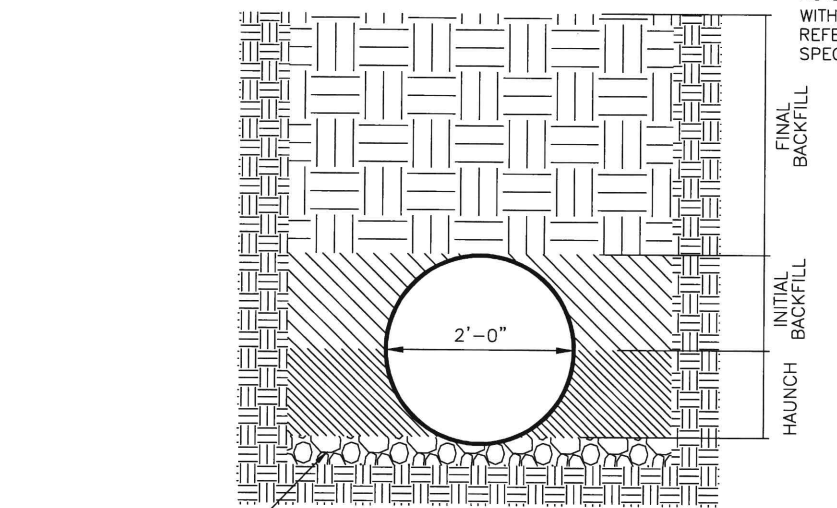
SIDE ELEVATION

**A** SAFETY END TREATMENT  
39 SCALE: N.T.S.

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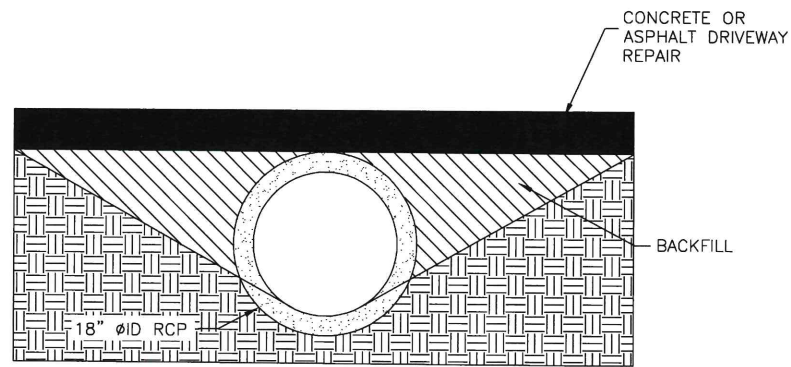
*Rutilio P. Mora Jr* 7/19/2021  
RUTILIO P. MORA JR, P.E. NO. 111588



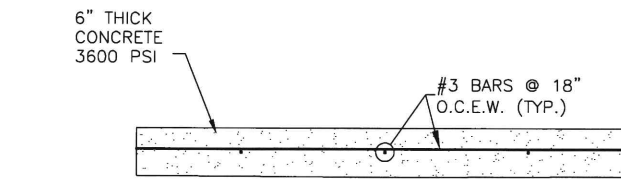
BEDDING 4" MIN. AT 95% COMPACTION OF CLASS 1 MATERIAL

**B** TYPICAL HP STORM PIPE  
39 SCALE: 1":1'-0"

NOTE: 48" MIN. TRENCH WIDTH WITH A 24" MIN. COVER. REFER TO TECHNICAL SPECIFICATION 330531.



**C** TYPICAL RCP  
39 SCALE: 1":1'-0"



**D** TYPICAL CONCRETE REPAIR DETAIL  
39 SCALE: 1":1'-0"



**E** TYPICAL ASPHALT REPAIR DETAIL  
39 SCALE: 1":1'-0"



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**2021 CITY-WIDE MISCELLANEOUS CONCRETE AND DRAINAGE IMPROVEMENTS**  
**ALT. BID 1 - SAGE ROAD DRAINAGE TYPICAL SECTIONS**